



Special 50th Anniversary Historic Timeline

The Wilmington & Western's
Half-century of Operation

May 1966 ~ May 2016

Edited by: Robert E. Wilhelm, Jr.

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HISTORIC RED CLAY VALLEY, INCORPORATED

HISTORIC TIMELINE
OF THE
WILMINGTON & WESTERN

50 YEARS OF OPERATING THE
WILMINGTON & WESTERN RAILROAD
ALONG THE
BALTIMORE & OHIO RAILROAD'S
LANDENBERG BRANCH

MAY 1966 TO MAY 2016

A HALF CENTURY DEVOTED TO
PEOPLE, PRESERVATION & PROGRESS

EDITOR: ROBERT E. WILHELM, JR.

Facts of General Interest

HRCV is the 7th oldest, standard gauge, heritage railroad (May 1966) in North America and is the oldest tourist railroad operated entirely by volunteers! It is one of Delaware's top tourist attractions and is known as "Delaware's Operating Railroad Museum".

In 1975 the FRA proposed eliminating all steam motive power and vintage rolling stock operations because there were insufficient qualified inspectors. It was believed steam locomotives and vintage passenger and freight equipment had become inherently hazardous!

#98 is the oldest American-class 4-4-0 locomotive operating in routine passenger service and has been maintained essentially "as-built" in 1909. EMD SW1 diesel locomotive #8408 has spent most of its service life associated with the B&O's Landenberg Branch!

HRCV is the only heritage tourist railroad operating a pair of 1940 SW1 600-horsepower EMD diesel locomotives; former B&O #8408 and former Lehigh Valley #114. #114 is older (February 1940) than #8408 (August 1940). They are the oldest SW1s operating in scheduled service.

In 1983 HRCV had nine steam locomotives in its motive power stable not including a "fireless cooker", a Pennsylvania Railroad GG1 electric locomotive, and former B&O/Chessie #8408.

Over 50 years the following steam locomotives have spent extended time on W&WRR rails:

- #3 – US Navy Vulcan 0-6-0T (pulled W&WRR consists)
- #14 - Buffalo Creek & Gauley Railroad 2-8-0 (stored, never operational)
- #37 - Sugar Pine Lumber Company 2-8-2T (pulled W&WRR consists)
- **#58 - Atlanta, Birmingham & Atlantic Railroad 0-6-0 (current W&WRR steam power)**
- #60 - Pennsylvania Railroad 0-6-0 (stored, never operational)
- **#92 - Grand Trunk Railway 2-6-0 (currently stored, first engine to pull W&WRR consists)**
- **#98 - Mississippi Central Railroad 4-4-0 (current W&WRR steam power)**
- #113 - Central Railroad of New Jersey 0-6-0 (stored, never operational)
- #425 - Gulf, Mobile, & Northern Railroad 4-6-2 (fired up, never pulled W&WRR consists)
- #722 - Southern Railway 2-8-0 (pulled W&WRR consists)
- #2839 – Canadian Pacific Railway "Royal Hudson" 4-6-4 (pulled W&WRR excursions)
(locomotives in bold text are currently owned by Historic Red Clay Valley)

#8408 has provided motive power during many major HRCV celebration events including the 1966 ribbon-cutting ceremony, 100th and 125th anniversary celebrations of the construction of the line, the celebration of the purchase of the line in 1982, the celebration of the 25th anniversary of HRCV's founding, and the celebrations of 25-years and 50-years of HRCV passenger operations!

While the B&O discontinued scheduled steam passenger travel on the Landenberg Branch in September 1930, the B&O's last steam passenger trip on the Branch was in May 1949!

In 1922 the Landenberg Branch was host to the first test run of a prototype self-propelled passenger car constructed for the B&O, the precursor to "doodlebugs" and rail diesel cars (RDCs)!

The last steam freight operations occurred on the Branch in 1958, the same year that Thomas C. Marshall, Jr., HRCV's founder, began considering the possibility of returning steam passenger operations to the Landenberg Branch!

"Doodlebug" #4662 is officially named "The Paul Revere". When #4662 operated in routine service for the Pennsylvania Railroad, it was known as "The Ruxton Rocket".

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Editor's Introduction

In the 1800s Wilmington, Delaware was a major industrial town. Harlan & Hollingsworth was the nation's largest shipbuilder. Pusey & Jones was not only the 4th largest railcar builder in the early United States, but also a major industrial equipment supplier for the paper industry. Jackson & Sharp had gained the reputation as the nation's premier passenger railcar builder. Lobdell Car-Wheel had patented the cold-quenched hardening process for cast iron railroad wheels and had become a major supplier. There were also cotton milling operations, leather tanning plants, fertilizer factories, chemical operations, and numerous hardware and dry goods manufacturers in and around Wilmington.

It was only logical that owners of these companies, and others in northern Delaware would discuss the potential profits to be made from a railroad running northwest from Wilmington, DE into southeastern Chester County, Pennsylvania. After the Civil War in 1867, the Wilmington & Chester County railroad was chartered to do just that. In 1868 that charter was amended and the name changed to the Wilmington & Western Rail Road Company. The vision was to supply daily freight and passenger service connecting Wilmington, DE with Landenberg, PA and then expand trackage to Oxford, Lancaster, and perhaps Harrisburg, PA.

Nearly a century and a half ago those men that signed the incorporation paperwork forming the railroad possibly hoped it might last a half century, but perhaps didn't think about it lasting a century, or even a century and a half. Yet the route they chose has endured, has seen continuous use, and has been transformed from a "modern" railroad of the 1870s into a railroad museum nearly 1-½ centuries later that has grown to be one of Delaware's biggest tourist attractions operating along more than half of the originally chosen route.

The timeline you are about to read looks in detail at the last half century of the Wilmington & Western Railroad (W&WRR). To set the stage we start at the very beginning, February 5, 1867 and quickly move through the building of the line, its bankruptcy and subsequent sale for \$5,000. Highly profitable under new management, the Delaware Western Railroad becomes a pawn in an economic chess game between two railroad giants. When the Baltimore & Ohio Railroad (B&ORR) loses out to the Pennsylvania Railroad (PRR) in securing tracks across Delaware in the two great rivals' competition to connect Richmond, VA, Washington DC, Baltimore, MD, Wilmington, DE, Philadelphia, PA, New York City, NY, and Boston, MA, the B&ORR is locked out unless it can secure an alternate route across Delaware or Pennsylvania.

The Delaware Western Railroad (DWRR) becomes the keystone of the B&ORR's plan. The B&ORR forms a new company, Baltimore & Philadelphia Railway. Paying a premium price to obtain stock control in the DWRR, the B&O merges the two companies into the Baltimore & Philadelphia Railroad (B&PRC). The B&PRC completes tracks across Delaware and shortens the original 19.9-mile line to 14.3 miles turning it into a branch line. In 1886, with the first B&O trains crossing Delaware, the B&ORR buys out the remaining stock of the B&PRC and the line built fourteen years earlier is now retitled the Landenberg Branch.

By 1890 the Branch was turning a profit of \$35,510.27 (about \$950,000.00 in 2016 dollars) and had become the B&O's most profitable branch line. However, the Great Depression became the catalyst for passenger operations on the Branch to be eliminated in 1930. 1942 saw operations and track in Pennsylvania eliminated and by 1957 freight trips were down to three a week with the tracks shortened to Hockessin. By the early 1950s, diesel-electric locomotives had been replacing steam for over a decade but steam still moved freight on the Landenberg Branch (until sometime in 1953). Time was growing short for the steam era as it quickly faded to history.

In 1958, Thomas C. Marshall, Jr., a Yorklyn, DE business owner and visionary much like those who built the railroad, initially wondered if steam locomotives could continue to operate. He and several

other local businessmen made the vision a reality. By 1960 a non-profit corporation has been formed; Historic Red Clay Valley Incorporated (HRCV). Two early 1900's steam locomotives are purchased and restored along with four first generation all steel passenger coaches. Most importantly, a lease contract, the first of its kind anywhere in the nation, allowed the non-profit corporation, using its volunteer labor, to operate their privately owned steam locomotives and vintage coaches, on the right-of-way of a publicly-owned Class 1 freight railroad company, which employed a strong union workforce, and was regulated by the federal government through the Interstate Commerce Commission!

For those present at the 1966 official dedication and ribbon-cutting celebration recognizing the return of steam to the Landenberg Branch, #92 is damaged by a piece of steel that falls from the Kirkwood Highway (Route 2) overpass on the trip to Greenbank. The minor damage is repaired with wire to hold things together while the speeches are made and the Mogul configured steam locomotive makes the first trip to Mt. Cuba. The B&O quickly arranges for a diesel locomotive to take over as motive power for the remaining trips of the day. The locomotive sent by the B&O's Wilmere Yard was SW1 #8408. For those present, the trips to Mt Cuba with #8408 were simply as a "vintage" locomotive substituting for a temporarily sidelined iron horse to move a rustic passenger consist. No one surmised that sixteen years later #8408 would be owned by HRCV along with the right-of-way.

Initially, the operation seemed to work. However, fuel rationing and skyrocketing coal prices of the early 1970s coupled with high maintenance and operational costs associated with steam locomotives suddenly thrust the organization into near bankruptcy on more than one occasion. In the 1970s, adding insult to injury, the B&ORR actively considers abandoning the line as unprofitable. Soon after learning of the potential abandonment, the newly formed FRA informs operators of steam locomotives it is the intent of the federal government to do away with all steam operations.

In 1972 HRCV observes the 100-year anniversary of the building of the line in 1872 but the future was starting to look very uncertain. Intending to double head their steam locomotives for the event, both iron horses are unexpectedly out of service. The B&ORR provides support with the leasing of a Wilmere Yard diesel: #8408. In 2016, #8408, professionally restored after nearly 75 years of service, still provides faithful service on trackage it was originally purchased to service back in August 1940.

When the Interstate Commerce Commission turns down the B&O's request to abandon the line in the early 1970s, the B&O attempts to sell the line to NVF Company in Yorklyn, DE. After several failed attempts, in 1982, HRCV is able to put together a deal with the B&ORR to take over the Landenberg Branch. While the privilege of ownership was celebrated and future operations looked more secure with the resultant elimination of leasing fees, it wouldn't be long before the costs of track ownership and maintenance would again underscore the "non-profit" rating of the organization. The Wilmington & Western Railway Corporation, Incorporated becomes the for-profit, Federal Railroad Administration and Surface Transportation Board regulated, Class III switching and terminal railroad organization that provides freight movements on the Branch starting in 1984.

Jump ahead to September 15, 1999 when Hurricane Floyd takes out the first pair of rustic 1870s designed wooden trestles on the line west of Greenbank. Dedication and perseverance along with grants and donations allowed the organization to recover, but unknown at the time the exercise served as a precursor to events about to unfold. No sooner was the line back in shape when Tropical Storm Henri delivers over \$10-million in damages and losses when the creek easily exceeded the 100-year flood predictions. In June 2007 the line is once again fully operational to Hockessin after five arduous years of restoring every trestle on the line and 80% of the trackage. As reading the timeline will show, the Landenberg Branch has created excitement and despair, advancement and setback, building, ruin, and renewal.

As humans we live in the moment, the day, the month, and the year. We typically don't see the effects of what our individual daily lives and personal efforts contribute to the long term success of an

organization over decades or even centuries. As you read through the timeline you'll realize there's a tapestry of events unfolding in parallel throughout the history of the W&WRR. Some entries highlight singular successes while others affect multiyear setbacks. Some events unfold slowly taking months and even years to reach a conclusion. HRCV and the 50-year history of the W&WRR represent a heritage composed of determination, vision, success, and setback. The W&WRR is the story of one man's vision brought to success through the dedication and teamwork of a large cadre of volunteers dedicated to seeing steam railroading preserved for future generations to experience and understand.

The Wilmington & Western Railroad is the seventh oldest standard gauge tourist heritage railroad and the oldest all-volunteer operated tourist heritage railroad in the United States. The W&WRR is Delaware's only railroad museum and has consistently been one of Delaware's top tourist attractions hauling over 30,000 tourists during some operating seasons. 2016 represents nearly 150 years of operations on tracks originally laid down in 1871-2 including 50 years of HRCV operating the W&WRR. Our next milestone is 2022 when HRCV will celebrate 150 years of trains traveling the 1872-built line. While the team that composed this record of the first 50 years won't be composing the record of the first century of operation, we hope what we've started is built upon to become the legacy of future generations.

Robert E. Wilhelm, Jr, Editor



50th Anniversary logo featuring 1909 American class locomotive #98

50th Anniversary logo featuring 1907 saddleback switcher #58



25 Years at the Wilmington & Western Railroad, A Retrospective

David S. Ludlow, Executive Director

The timeline Robert Wilhelm has compiled commemorates a long history and reflective look of the last 50 years at the Wilmington & Western Railroad. It is an extraordinary accumulation of our accomplishments, triumphs, successes, and (yes) some failures. Thankfully the aforementioned outweigh the latter. Maybe that is a tribute to why we have persevered for so long.

Fifty Years, a half century, is a long time. It's hard to believe that much time has passed. What I find even harder to believe is that I've been here for half of it! So, while Bob has artfully covered the historical progression of the Railroad's most notable events, in a documentary setting, I thought I'd add a few of the lesser known anecdotes taken from my last 25 years, 23 of them as Executive Director.

I started here at WWRR as a volunteer on the track gang. Back then we would change ties by jacking up the track, pulling the decayed ties out with "tie dogs", digging the crib with short handled shovels (who came up with this tool anyway?) and then inserting the new tie, which was inserted with those tie dogs again. Terribly inefficient for 10 miles of track. On a summer weekday evening, the removal and replacement of 10 ties was a real accomplishment! On a Saturday, we could change 20...maybe, before we exhausted ourselves. I'll never forget those days and neither will my back. Bob W. can attest to the hard work. I learned a lot and the effort wasn't useless, but it was impractical for a long term success. There had to be a better way.

Eventually I found my way to the administration end of the WWRR. I won't elaborate on the path that took me here, way too much.... well, drama. That drama is fueled by egos and personalities, this seems somewhat common in the tourist railroad business, don't ask me why, but you see it time and time again in organizations like ours. I came to the WWRR to learn, to make a difference, to grow the organization and as part of that, sign my name to my accomplishments, and I endeavored to do just that. Always, I tried to improve our equipment, the infrastructure and the moral. You'd think number three would fall into place once you mastered number one and two, but that's not always the case. I think it has something to do with those egos again.

When I started we had an office. It was located at 1601 Railroad Avenue which is a "paper street" this means UPS and FedEx often couldn't find us because the actual street no longer existed. It's part of our grassy yard now. The word 'office' is somewhat misleading, think of it more as a converted, outdated house. It did however come equipped with a computer with a 286 processor and monochromatic 10-inch screen that glowed an eerie orange in the tiny bedroom I called an office. It ran a language called BASIC which to me was anything but. The internet was not a household term yet and email wasn't a word in most people's vocabulary. The basement flooded every time it rained heavily and a family.... no more actually a herd, of garter snakes took up residence down there. The basement was not the most joyful place to go and retrieve our printed schedules. Bob Spencer still recounts the time he opened a box of schedules at the Greenbank Station ticket window and a snake came crawling out. The customers waiting to buy their tickets were not amused. The structure however served us well as the world headquarters of the Wilmington & Western up until 2013 when we moved into our new office and education center, still located on that "paper street", which by the way eventually got donated to HRCV by DelDOT. The diminutive "little white house at the dead end" became the identifying landmark for customers trying to find Railroad Ave. to pay for their tickets. Thankfully it is scheduled to be razed this summer to make way for new storage facilities.

I had a lot of work to do. A lot more than I had prepared for or even expected. The WWRR was experiencing financial uncertainties and I felt compelled to do whatever I could do to set a more positive pathway forward. It was a challenge to put it mildly. I remember working with potential clients for a

chartered train to Mount Cuba or Hockessin, but our fee structures were inconsistent and the services provided didn't make good business sense. That often times led to the loss of that chartered event. It soon became obvious if we weren't running trains, we weren't going to be able to pay the bills. Early on I made sure every inquiry was handled carefully and pretty soon rentals and charters started to pick up. Basically I made a deal wherever I could. Thanks to the HRCV Board of Directors, the volunteers and our VERY lean approach to expenditures, we started on a path that turned things around.

The WWRR got busy. Ridership improved. Revenues got better and anyone who knows me knows I seek aid wherever I can. A lot can happen if you're willing to ask for help. Not surprising, many people have come forward and aided in our mission and brought the organization to where it is today. Through careful management of its finances and slow steady developed growth, WWRR has been able to make a lot of improvements over the years.

Kennedyville Station is still preserved in Hockessin, but a newer 3000 sq. ft. station complex takes its place at Greenbank. The new building accommodates a modern gift shop that develops a major portion of our operating income. The "Secret Room" and crew room are only a memory of cold winters past, now replaced with a heated Back Shop. We have rebuilt steam locomotives #98 and #58 and restored our flagship Diesel locomotive #8408. Its dedication on May 28th, 2016 commemorates four years of restoration. We've reconstructed almost all of the bridges and miles of tracks and we have mechanized our R-O-W maintenance efforts. Oh yes, we still have the tie dogs in the truck, but tie removal and replacement can now be done with the push of a few levers on the Tiemaster. The recent acquisition of ballast regulators and tie handlers have had a major impact on how we maintain our tracks.

Many, many volunteers have walked through our ranks. Total strangers routinely see the logo on my baseball cap and ask me if I know this person or that person; "He was a volunteer there. I think he drove the train." My guess is hundreds have come here at one time to help out or offer their services in some way. We've trained them and they have rewarded us with their help and as time went by many have sought out careers in the railroad industry. They have gone on to become locomotive engineers with Amtrak, conductors with NS and Director of Railroad Locomotive Management for UP.

We've had a profound impact on many people in many different ways. We've educated riders, trained volunteers and delighted countless children who've ridden the trains. We've preserved a time in history and we've protected objects that are long gone from the American landscape. It has been a rewarding excursion for all of us and a vision that has become a reality for many. It is with high expectations that I look forward to the future of the WWRR. There are new and exciting opportunities that are just now beginning to emerge. The potential for another 50 years is not only promising, but very much likely.

Thoughts from HRCV's Founder

Tom Marshall has been instrumental to the Historical Timeline's success especially in helping us understand and accurately document the earliest years of HRCV. Tom is one of few who have witnessed, as well as participated in, the entire 56-year lifespan of HRCV. Tom's involvement goes back before the creation of HRCV as he was born in Yorklyn, DE and lived less than a mile from the tracks laid down in 1871-72. He was the first and one of the longest serving Presidents of HRCV.

We asked Tom to reflect back on the times before October 1958 when he met with George Sargisson and Clayton Hoff to toss around the wild idea at that time of returning steam trains to the B&O's Landenberg Branch and to provide insight as to his thinking. We wanted to understand what motivated Tom, what his thoughts were at the time as HRCV was formed and began to grow as an organization, and perhaps his thoughts reflecting back on 50+ years. On the next few pages, Tom answers our request.

How an Idea Came to Be

Thomas C. Marshall, Jr.

When my father would take me to Wilmington Friends School at 4th & West Streets in Wilmington in the early 1930s, we would drive along a portion of the Landenberg Branch parallel to Route 82. He would relate stories of his train trips to the same school in the days just after 1900. His cousins from Woodside Farm, Henry and Ellen Mitchell, took the morning train from Mill Creek (Valley Road west of Hockessin), and my father and his sister Anna got on at Yorklyn. Following are some of the stories.

A wild engineer named Theodore Crossan was often running 4-4-0 Locomotive 638, Alfred Hughes was the conductor, and Hughes' son-in-law Charlie Ryan was the brakeman. Hughes was the senior conductor on the Line and had been in that capacity on the first special train to Landenberg in 1872. He had been offered the conductor's job on the Royal Blue, but declined in favor of the Branch trains, as he lived at Landenberg and could be home at night. The normal consist was three passenger coaches and there were about 12 station stops, including flag stops, on the 20-mile trip from Landenberg to the B & O station at Front and Market Streets in Wilmington. The train left Landenberg about 6:55 A.M., left Yorklyn at 7:20, and arrived in Wilmington at 8:00. It was a walk of six short blocks from the station to school.

Crossan would often exceed the speed limit (probably in the 35 to 40 m.p.h. range) and one morning he went through the cut at Mount Cuba so fast that one of the cars scraped the rocks of the cut. Hughes pulled the emergency cord, the train stopped, and the conductor walked ahead to the engine and dressed him down. He behaved himself for the rest of the day. Another time he was engineer on the westbound afternoon train and his rough handling of the throttle had caused one of the cylinder cocks to blow out. When the train got to Yorklyn, Crossan jumped off the locomotive, went to Ed Dennison's wood pile alongside the track, whittled a plug, and drove it into the opening, supposedly to cure the leak. As he was pulling away from the station on the upgrade to Hockessin, the home-made plug blew out, and the trip was made to Landenberg with a loud "whish" with every revolution of the engine.

Joshua Jefferis was a cantankerous farmer whose farm was somewhere along Newark Road near Broad Run Station, east of Landenberg. Up in years, his main recreation was to dress up in his best suit and hat with a gold-studded cane, and ride the train to Wilmington about once a week. He would parade through the coaches so everyone would see him, knocking ankles of those in aisle seats with his cane. If someone complained, he would introduce himself: "I am Joshua Jefferis, I live in New Garden Township, and I eat green apple pie 365 days each year!". Once in Wilmington, he would parade up and down lower Market Street, hoping to be noticed. Apparently, Joshua had two sons who lived at home and worked on the farm. One day he went in the house for dinner (in the middle of the day in those days) and his wife asked where the boys were. Joshua said they had not behaved, so he tied them up. She told him "Joshua, thee go out and release the boys and then thee can have thy dinner."

Election Day was a big time for country people to go to the city to get the returns and get drunk. A special westbound train would leave Wilmington about 10 P.M. One night, as the train approached Yorklyn, the conductor called out "Yorklyn next!", and one of the drunks jumped off about ¼ mile short of the station, landing in a swampy place near Red Clay Creek. Before he jumped, however, he kicked Trainman Charlie Ryan in his shin. The sore never healed, and Charlie lost part of his leg. A few years later my father sold Ryan a 1913 Stanley and had it equipped with hand controls. This car is pictured at the Landenberg station in Joe Lake's 1976 book "A Pictorial History of Hockessin".

Occasionally, my father and a friend were allowed to ride in the locomotive cab on the trip home from school. One day they were in the cab when the train stopped at Ashland. The agent there spotted them and reported it to authorities. No more cab rides were permitted. Al Hughes retired about 1910. In

the years that followed, he would frequently ride the train from his home in Landenberg to Yorklyn, look up my father in the fibre mill, and sit and “talk old times”. My dad always liked older people and I inherited this trait from him.

Through the 1950s when I would drive along Route 82 on my daily trip to the Travel Office in Wilmington, I would think how nice it would be if steam passenger trains could travel the Branch, as in the “old days”. Often I looked at the water tower east of Yorklyn, the truss bridge at Ashland, and the deep cut at Mount Cuba. I never said much to my father about these thoughts, but finally I “bit the bullet” and decided to ask others whether the idea had merit. 4-6-0 B&O steam locomotives were still used on daily freights up the Branch until 1953, but after that the water tower was abandoned (it was torn down about 1963). My thought of “steam passenger trains as they used to be” was a terrible idea. I envisioned that stops would be made at all the original stations along the line, with little thought of where people would come from, where they would park, how they would pay, etc.

Probably more than anything else that drove me, however, was my desire to run a steam locomotive. I had ridden the cab of B&O trains #35 and #36 from Wilmington to Washington and return in 1950, and the Norfolk & Western’s “Powhatan Arrow” from Roanoke, VA to Bluefield, WV and return in 1956. By having steam back on the Landenberg Branch, I might be able to realize my long-time dream (I was the fourth W & W engineer qualified in 1966). In any event, with my dad’s encouragement, I approached George Sargisson and Clayton Hoff in 1958 about the idea, and I think you have the story from there.



HRCV founder Thomas C. Marshall, Jr. at Greenbank Station on May 17, 2009 during Historic Red Clay Valley Incorporated’s celebration of #98 providing 100 years of steam service. American class 4-4-0 locomotive #98 is named “Thomas C. Marshall, Jr.” on this date in recognition of Marshall’s 50 years of generous support and dedication to the organization, recognition of his donation of #98 to HRCV in 1977, and for returning steam passenger service to the Landenberg Branch of the B&O railroad. Kurt Bell photo.

Guidelines to Reading the Timeline

Year – Month – Day

The timeline is chronologically ordered by year, month, and day. Some entries only have a year listed while others include both month and year. For these forms of entries consider that the event described occurred during that year or that year and month indicated. For any entry listed by year, month, and day, the date may represent the first day of a multi-day or week event or the actual date of an event. In other cases, the date represents the date of a News Letter, The Lantern, or Board minutes and thus the date posted shall be considered more of a placeholder describing an activity or event occurring in relative time period. Generally, the way the activity or event is described should provide indication if the date represents the day something happened, or represents a point within a time window when the discussed entry occurs.

Timeline entries do run across page breaks; from the bottom of one page to the top of the next page. Generally, all Year-Month-Day entries will be in **BOLD** text. Where the reader finds an *italicized* Year-Month-Day entry at the top of a page's year, month, and day columns, which is not in bold, it means the timeline entry being read is a continuation from the previous page. Some timeline entries are multiple page entries and leaving the date columns blank on those additional pages can lead to confusion. To aid the reader in these circumstances, the date information is provided three lines down from the top of the page in italics.

Historic Background Entries

At the start of the timeline, and for **occasional** entries after 1958, the “Event or Activity” cell background is a **green-cell background**. These cell entries signify an event or activity associated with the business history of the original Wilmington & Western Rail Road Company, Delaware Western Railroad, Baltimore & Philadelphia Railroad, Baltimore & Ohio Railroad, Chessie System, or CSX Corporation. These listings, generally associated with the Landenberg Branch, are included as they document significant transitions in the history of the right-of-way now owned by Historic Red Clay Valley, Incorporated. These entries represent the “backstory” unfolding behind the scenes that affected and occupied the time and efforts of HRCV volunteers.

We've also included some **violet-cell backgrounds** starting in the 1970s. These entries are specific to the Baltimore & Ohio Railroad and Chessie System deciding to abandon the Landenberg Branch, events related to the abandonment, and finally the actual purchase of the Landenberg Branch by HRCV.

Wilmington & Western Railway Corporation Entries

With the purchase of the Landenberg Branch by HRCV in 1982, the need to continue moving freight to customers on the line was a necessity. Initially the Octoraro Railway served this function until HRCV could set up the Wilmington & Western Railway Corporation. Entries in the timeline associated with the Wilmington & Western Railway Corporation (reporting mark WWRC) are denoted in cells with a **blue-cell background**.

Auburn Heights Preserve

The Marshall family has been prominent in the Red Clay Valley in two very significant ways. This timeline is about Historic Red Clay Valley's 50-year operation of the Wilmington & Western. Additionally, the family was responsible for the creation and early operation of a company that manufactured vulcanized fiber – often referred to as either first manmade laminated product or first composite plastic. With the closing of National Vulcanized Fibre (NVF) in Yorklyn the State of Delaware is turning the properties purchased by the Marshalls and NVF into a state park – Auburn Heights Preserve. With the creation of the park, and the formation of Friends of Auburn Heights Preserve (FAHP) as custodians of the Marshall Stanley steam car collection, HRCV, FAHP, and Delaware State Parks at the start of the 21st century are working together to preserve and tell the Marshall family legacy. Some entries towards

the end of this timeline are related to joint operations involving HRCV and FAHP or Delaware State Parks. These entries are denoted with a **yellow-cell background**.

Brown Text Entries

For some entries additional background information, or backstory is presented to assist the reader to have a clearer understanding related to the significance of the entered timeline material. This information is intended to provide additional clarity or explanation to the entry or to remind the reader of earlier related events, and is shown as **brown text**.

Railroad Abbreviations

In order to save space, the names of railroads have been abbreviated. Their commonly used reporting mark is used in this document (may not be the railroad's official Association of American Railroads (AAR) reporting mark). For example, the original Wilmington & Western Rail Road Company went by W&WRR. While the company went into receivership in late 1875 and no longer exists, W&WRR is still used by HRCV and railfans when referring to the line operated by HRCV. The Wilmington & Western Railway Corporation (WWRC) is the official AAR reporting mark for the line. Railfans still refer to the Baltimore & Ohio Railroad as B&O or B&ORR and both marks are used in this document as is CSX for CSX Transportation, who through a string of mergers, now owns former B&ORR assets. At the rear of this document is a listing of abbreviations used with this timeline.

Locomotive Numbers

Locomotives, over time, change owners along with other railroad designated modifications and thus their identifying reporting marks and numbers might change. A uniform number is used throughout this document representing a single locomotive for clarity.

For example, diesel locomotive #8408 started out with the B&O assigned number of #208. The number was later changed by the B&O to #8408 when they renumbered their locomotive fleet in a manner where the first two digits of a number indicated information about the locomotive model and power. When the B&O was bought by the Chesapeake & Ohio Railway the number remained B&O #8408 as the C&O did not change the B&O's livery to their own. When the Chessie System was formed, the locomotive became Chessie System #8408 as the livery for both the B&O and C&O were changed to Chessie System livery. The locomotive is now WWRC #8408. In 2016, after its \$400,000 restoration, #8408 has been returned to its original 1940s Baltimore & Ohio livery however it runs as "8408" instead of "208".

American class locomotive #98 started life with the Mississippi Central Railroad, was transferred to several other owners but kept its #98 number throughout. It is now WWRC #98. WWRC #58 has seen multiple owners and numbers in its career but throughout this document it will be referred to as #58 as that was the number used by the former owner which has been retained. At the rear of this document is a listing of engine identifications and for those used by HRCV/WWRC a brief history is included.

North, South, East, West Cardinal Directions

Railroads often use a cardinal direction system instead of an actual compass direction system. The Wilmington & Western Rail Road Company used the cardinal system when the line was constructed in 1871-2 and it has remained in use since that time. This Timeline will use cardinal directional references so it is important for the reader to understand the difference between a cardinal directional system and the more familiar compass directional system. The use of a cardinal directional system is also known as "railroad directions".

In the cardinal system a railroad has a starting point and an ending point regardless of the route taken. For the chartering of the Wilmington & Western Rail Road Company in 1869, the new railroad would connect Wilmington, Delaware with Landenberg, Pennsylvania. If you look at a website such as Google Maps and plot Landenberg, PA and Wilmington, DE you'll note that the east-west distance

between the two points is several times the north-south distance. Hence the name of the line was chosen as Wilmington (origin point) & Western (the line travels west more than it does north) Rail Road (was still two words back in the 1800s).

Thus the Wilmington & Western is referenced as going “west” regardless of the compass direction at any given point on the line. This may also be referred to as traveling “railroad west”. All trains leaving Greenbank go “westbound” to Wooddale, Mt Cuba, Ashland, and Yorklyn even though the compass direction is actually north. Only the stretch of track from Yorklyn to Hockessin is actually in a westerly compass direction. The former Wilmington & Northern Railroad used the “northern” reference because it left Wilmington and traveled a greater distance north than it did east or west.

Trains leaving Greenbank for Marshallton are heading “eastbound” while those going to Mt. Cuba, Hockessin, or any point in between are going “westbound”. The volunteers that maintain the track reference the rail that is on the engineer’s side of #98 or #58 (the right side of the engine) as the “north rail” while the rail on the left side of #98 or #58 is referenced as the “south rail”. The fact that the rails actually are laid in a north-south compass direction between Greenbank and Yorklyn does not matter, and the rails do not carry an east or west designation.

The front of #98 or #58 as they sit in Greenbank Station is the westbound end of the train while the caboose at the water tower represents the eastbound end of the train. Again, the fact that a train sitting at the station is about to travel compass north to reach Mt Cuba is of no importance in the railroad directional system.

One of the photographs on the Timeline shows “Boonton” coach #410 “backwards” from how we see it today. The baggage compartment is at the eastern (water tower) end of the car. The car was “turned” (turning involves using a turntable or Y tracks to rotate a car 180-degrees) after arriving at Marshallton so that the baggage compartment could be on the western end of the car. In a like manner, #98 initially arrived facing eastbound and was “turned” at Wilsmere Yard so that it faced westbound as we see it operate today.

Wilmington & Western Rail Road Company, Wilmington & Western Railroad, Wilmington & Western

In the timeline, all references to the railroad and its ownership will follow the following conventions;

- **Wilmington & Western Rail Road Company** – will reference the ownership and identity of the line from its organization in 1867 until 1877 when the line was reorganized as the Delaware Western Railroad. This is the original 19.92-mile line between Wilmington, DE and Landenberg, PA.
- **Wilmington & Western Railroad Company** – this reference is also found on railroad documents in the time period between 1869 and 1877. The official legislative charters and incorporations granted by Delaware and Pennsylvania document ‘rail road’ as two words in the incorporation and legislation although there are occurrences of ‘railroad’. This timeline will use the two-word ‘rail road’ name when referring to the line and its ownership between 1869 and 1877.
- **Delaware Western Railroad** – will reference the ownership and identity of the line from 1877 through 1886. Note that the B&O took control of the Delaware Western Railroad in 1883 but did not change the livery. In 1883 the B&O merged the Delaware Western Railroad into the Baltimore & Philadelphia Railroad (B&PRR) which was owned by the B&O. The line continued to operate under Delaware Western Railroad livery until 1886. During this period the line was shortened from 19.92 miles to 14.3 miles as the B&PRR (funded by the B&O) constructed tracks from Pennsylvania to Maryland parallel to the Pennsylvania line through northern Delaware.
- **Baltimore & Ohio Railroad (B&O, B&ORR)** – will reference the ownership and identity of the line from 1886 when the B&O changed the livery of all trains in Delaware (the Delaware Western trains operating on the Landenberg Branch primarily) to the B&O’s livery. In 1963 the Chesapeake & Ohio Railway (C&O) gains stock control of the B&O however B&O equipment keeps the B&O identity. In 1973 the C&O/B&O is merged into the “Chessie System” and all B&O liveries

changed to the new owner of the line, Chessie System. The timeline's use of 'Chessie System' will reference ownership and identity of the Landenberg Branch until it is purchased by HRCV in 1982. From 1982 until present, ownership of the line will reference HRCV.

- **Wilmington & Western Railroad (W&WRR)** – will reference the identity of the passenger trains that operate on the line from 1960 when Historic Red Clay Valley, Incorporated was formed until present. 'Wilmington & Western Railroad' is a tradename and is not a registered railroad. The trains that Historic Red Clay Valley operates on the line display the livery "Wilmington & Western Railroad". The Wilmington & Western Railway Corporation (Association of American Railroads, AAR, reporting mark WWRC), formed after the line was purchased by HRCV in 1982, is the FRA registered corporate freight railway for the line. It should be noted that the reporting mark WWRC is used interchangeably between the Wilmington & Western Railroad and the Wilmington & Western Railroad Corporation.
- **Wilmington & Western** – references the line generically without respect to time of ownership. An alternate generic reference used is "Landenberg Branch". Both references will be used interchangeably.
- **Wilmington & Western Railway Corporation (WWRC)** – the Federal Railroad Administration regulated corporate freight railroad responsible for freight operations on the Landenberg Branch.

Wilmington & Western Railway Corporation

Any railroad that meets certain criteria are automatically regulated by the Surface Transportation Board (former Interstate Commerce Commission) and the Federal Railroad Administration. Because the W&WRR transports the public using trackage crossing roads and highways, the right-of-way is required to be regulated. The route may be connected through switching and derrails with the national railway system which is yet another criterion for regulation among several others.

During its early history when HRCV operated the Wilmington & Western Railroad on tracks leased by the Baltimore & Ohio Railroad (B&ORR), the B&ORR was responsible for insuring that HRCV complied with regulations and the B&ORR handled all freight shipments. Once HRCV purchased the line in 1982 the Wilmington & Western Railway Corporation was formed for compliance to regulations, and to continue freight operations on the Landenberg Branch on an as-required basis.

Entries in the timeline on a **blue cell background** are related to the formation and operation of the Wilmington & Western Railway Corporation (WWRC), an independent for-profit corporation only contractually associated with HRCV.

Right-of-Way and Easements – What the Landenberg Branch really is

A railroad's route consists of a series of land ownerships, easements, and other legal rights of access which permit a railroad company to place railroad trackage across property, operate trains on those tracks, and to earn income from such activity. If the railroad owns the property, then the placement of trackage is straightforward. When the railroad has an easement or other legal contract with the land's owner, then there may be other legal requirements associated with the easement agreement.

When the Wilmington & Western Railroad Company was determining the route for the new railroad, property owners along the proposed route often gave their land for stock ownership in the company or sold their land to the railroad company for an agreed upon sum. Others simply chose to sign an easement allowing the railroad to cross their land for as long as the railroad operates and were compensated by stock ownership or a small sum for the easement agreement.

When the railroad approached Mr. DuPont at Ashland to cross his land, he provided the land to the railroad free with the agreement that anytime he or his immediate family were standing by the tracks, the Wilmington & Western Rail Road Company had to stop and take them to their destination along the line! Collectively these agreements make up the right-of-way for the railroad's route.

When HRCV purchased what is commonly referred to as the “Landenberg Branch” from Chessie System, which by the actual time of transfer was owned by CSX Corporation, what was transferred were the various documents and agreements for the right-of way real estate that is and remains the route of the Wilmington & Western as it was constructed in 1872. The legal paperwork is a lot more complex but for the purpose of simplicity, “HRCV owns the Baltimore & Ohio Railroad’s former Landenberg Branch, operating it as a railroad”.

A Comment Regarding Content

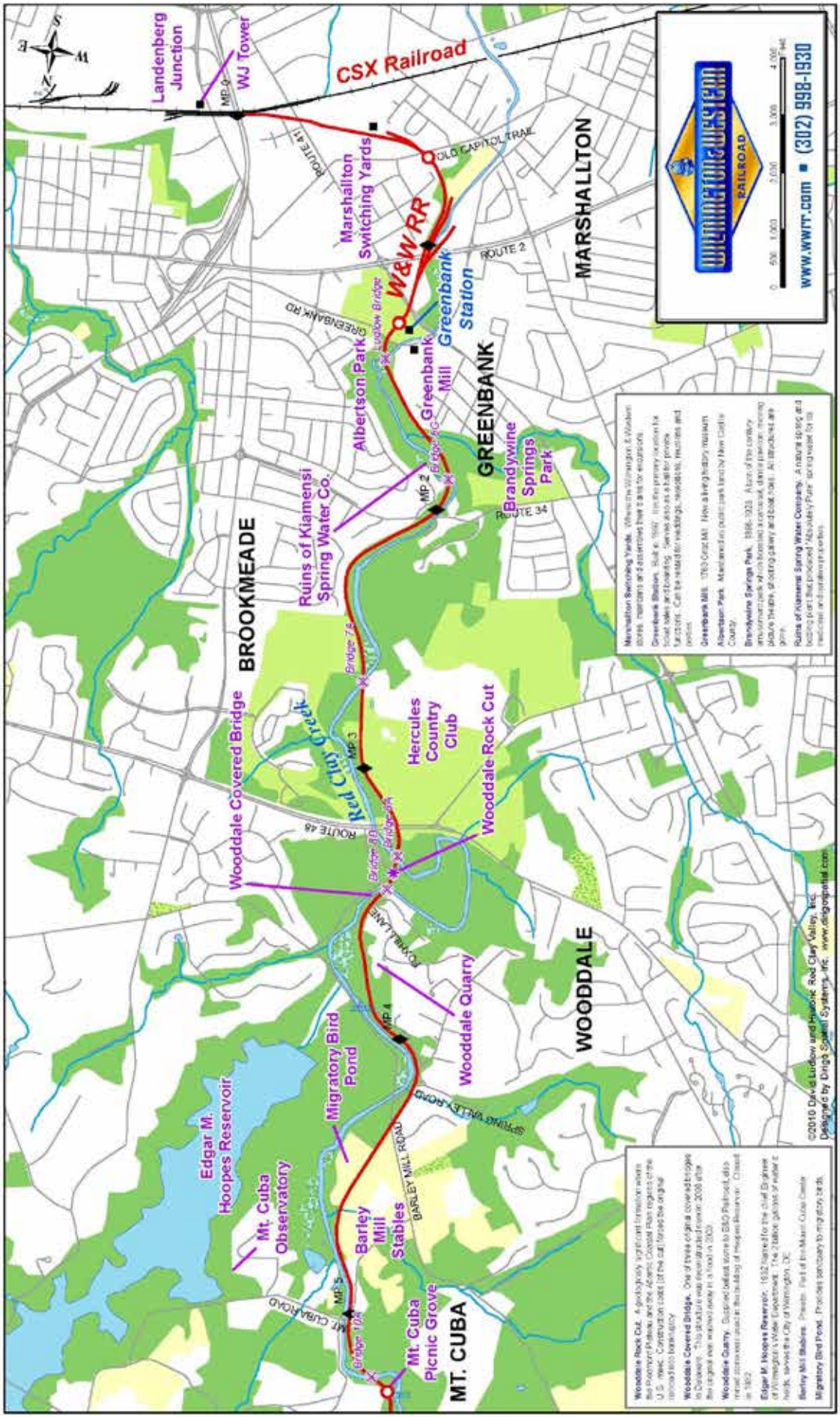
As a personal note, in creating this work I have strived to keep personalities and references to individuals at a minimum. In a like manner, don’t expect to read entries related to mishaps, disagreement, or arguments. This document is not about reinforcing urban legends or rehashing past drama. Any organization, around for nearly sixty years has at one time or another created “drama”. If a reader is hoping to find such documented in this work, you needn’t read further. My attempt has been to report what was going on at a given slice in time as historically accurate as research has allowed.

A reader needs to keep in mind the times and settings of the world, and railroading in particular, as related to when an entry appears in the timeline. For example, entries referencing poor Landenberg Branch track conditions need to be couched with the knowledge that in the late 1960s and early 1970s all American railroads were experiencing financial difficulties. What was occurring with the B&O was also true with the B&Os peer railroads in this country. Landenberg Branch abandonment wasn’t because the B&O didn’t want to do business with industry on the Branch, but because industry was evolving their business models and using rail transport less and trucking more which resulted in bringing long term Branch profitability into question.

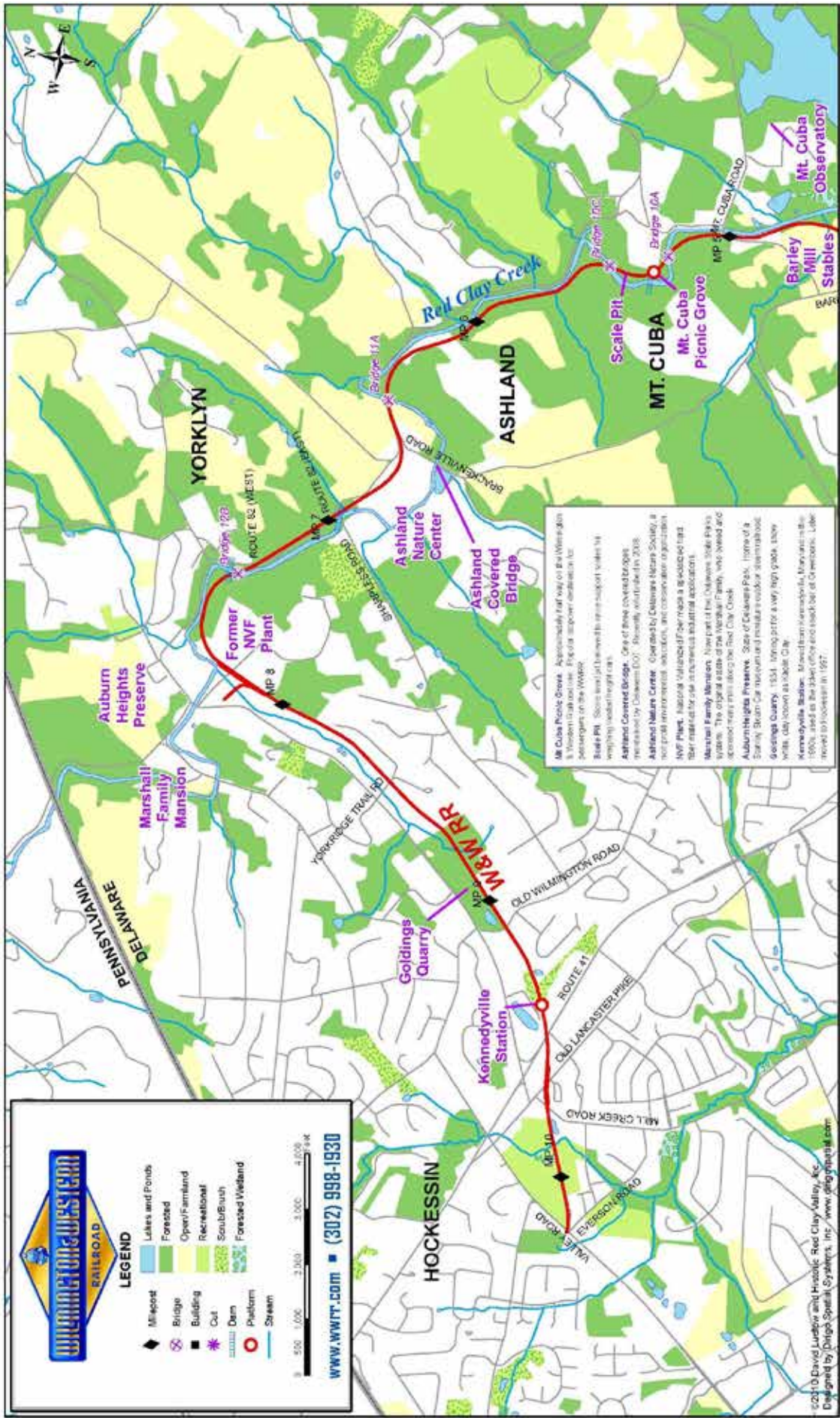
In a like manner, HRCV has never been an organization with generous bank account balances. Decisions are driven not only by financial resources but also with volunteer capabilities and willingness to help in mind. The resources available and an organization’s activity on other projects influence a given decision made at any moment in time. Did differences of opinion between the B&O and HRCV occur, probably, however it is more important to realize that those involved moved past any potential differences. Both organizations survived and moved forward. Together they were stronger. Hopefully as a reader you’ll concur that I’ve been successful in keeping the writings neutral, factual, and of interest to read.



Wilmington & Western #98: the iconic “American” reflects in Spring Valley’s pond on July 6, 2015.
Evan Schilling photo.



HRCV volunteers donated their time to prepare this publication. Please consider a donation to HRCV as a thanks for their efforts and to insure our future.



Wilmington & Western Rail Road Company
Original Letterheads

JOHN F. McLEAR, Treas.

J. T. KEALD, Pres't.

W. H. CONNELL, Sec'y.

OFFICE OF

Wilmington & Western Rail Road Company.

Wilmington, Del., 187

ENGINEER'S OFFICE

Wilmington & Western Rail Road,

Room No. 9 Exchange Building,

Wilmington, Del., 187

Wilmington & Western R. R. Co.

Wilmington, Del., 187

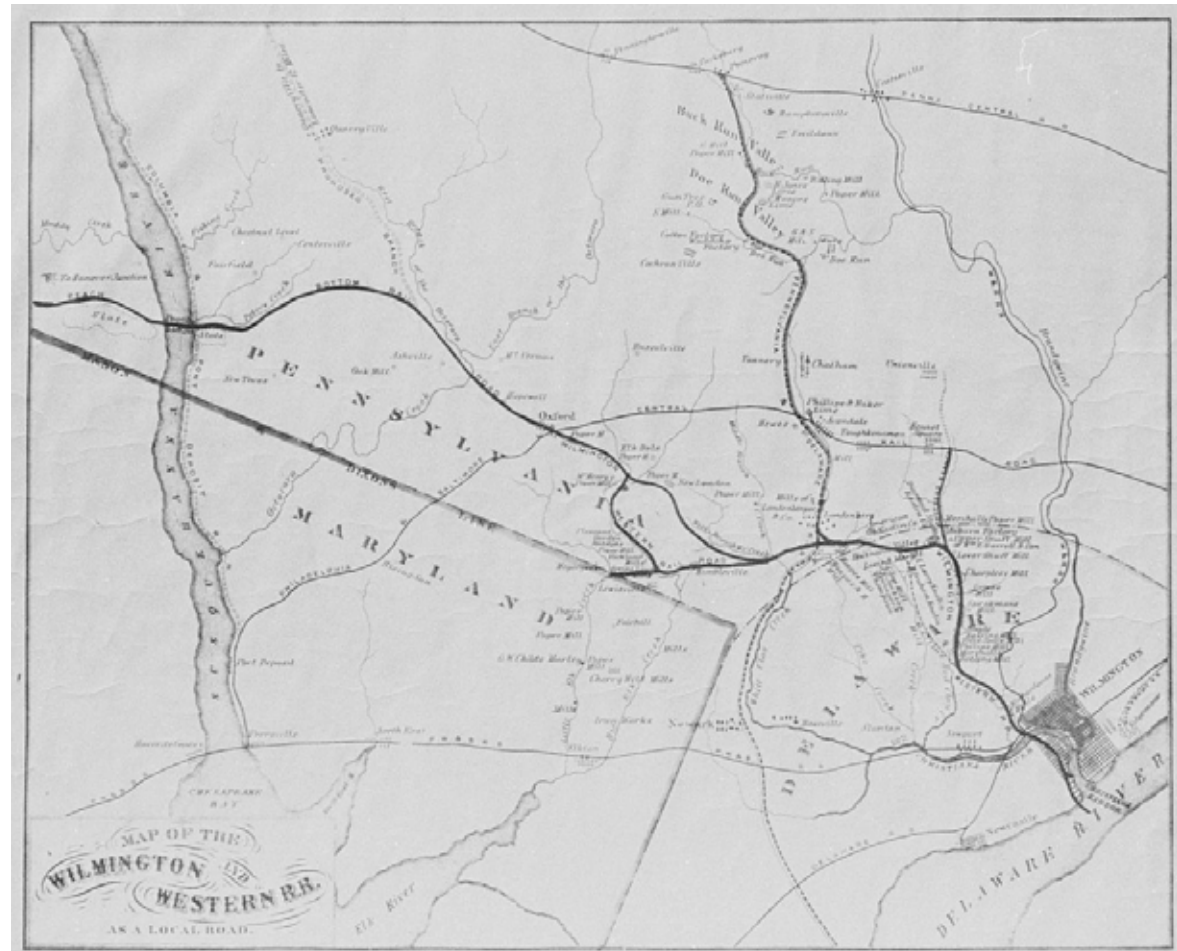
Courtesy of Hagley Museum Digital Archives

HISTORIC TIMELINE

50 YEARS OF OPERATIONS
OF THE
WILMINGTON & **W**ESTERN **R**AILROAD
ON THE
LANDENBERG **B**RANCH

MAY 1966 TO MAY 2016

50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1867	2	5	<p>Delaware & Chester County Railroad Company is formed for the purpose of connecting Wilmington, DE with Landenberg and Oxford, PA. The line is to originate in Wilmington, DE near the banks of the Delaware River, follow the Red Clay Creek or Mill Creek, pass through Landenberg, PA, and connect with the Peach Bottom Rail Road in Oxford. PA.</p>  <p style="text-align: center;">Map showing the proposed route for the Wilmington & Western Rail Road Company in 1867. Robert E. Wilhelm Jr. collection.</p>
1869	3	10	<p>Delaware & Chester County Railroad is foreclosed and is reincorporated and chartered as the Wilmington & Western Rail Road Company by the legislatures of DE and PA for the purpose of connecting Wilmington, DE with Landenberg, PA. The charter would be amended on March 24, 1871 and again on January 30, 1873.</p> <p>An 1870 revenue estimate determines the following freight opportunities exist along the Red Clay Creek; Rolling Mill traffic (John Marshall/Alan Wood iron & sheet): \$3,100; Milling traffic (Kiamensi woolen/Phillips woolen/Fell Spices/Speakman grist/Sharpless flour/Garrett snuff at 16,000 pounds per week average/Clark woolen/Marshall fine paper/Landenberger worsted woolen): \$9,400; Kaolin Works (Springer/Jackson/Golding/Trucks & Parker): \$9,600; Limestone & Marble: \$6,500; Wooddale stone quarry: \$6,000; Lumber: \$7,680; Lime: \$3,000; Coal: \$50,000; Miscellaneous/Agricultural freight: \$15,000; Passenger travel: \$53,000. The population at the time includes 37,000 in the city of Wilmington and another 41,000 individuals located in the Wilmington suburbs and rural parts of New Castle County to be served by the new railroad.</p>

50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1871	7	8	<p>A groundbreaking ceremony for the Wilmington & Western Rail Road Company is held at Fells Spice Mill a short distance from Brandywine Springs. The route chosen will head west from southern Wilmington, DE, turn northward at Kiamensi, DE and follow the Red Clay Creek to Yorklyn where the rails turn westward again towards Hockessin, DE. The railroad eventually leaves Delaware at Southwood and enters Pennsylvania at Eden then continues on to terminate at Landenberg, PA where the line shares a station with the Pomeroy & Newark Railroad.</p>
1871	10	7	<p>The Wilmington & Western Rail Road Company's right-of-way, roadbed, and track construction crews commenced work from Landenberg and Wilmington simultaneously with the intent to meet somewhere near the midpoint of the route. A lot of leveling and filling was required as was blasting of small rock outcrops. When one of the teams reached the Jonathan Mason farm at Cuba Hill (Mt. Cuba) as reported in the Reading Times on October 7, 1871, they encountered the second of two massive rock outcrops that would require extensive black powder blasting to cut through. The cut at Wooddale was higher and longer than that at Cuba Hill, and the rock at Wooddale was fractured and generally "softer" than the blue granite making up the smaller outcrop at Cuba Hill. Three workers were accidentally killed at Wooddale when a powder keg exploded during preparation for detonation.</p> <p>H.H. Crumlish was responsible for roadbed construction. A Mr. Darlington was contracted to construct the fifty bridges, trestles, and wood-box lined ditches that were required. George W. Stone won the contract to lay ties and rail. Cranston & Thompson constructed the only iron bridge on the line which was a draw bridge for crossing the Christina River. At the peak of construction there were 350 workers using 50 horses during construction.</p> <p>Ties were specified as chestnut or oak, 6" to 7" in diameter minimum, 8' long minimum. The track would be spaced at the standard gauge of 4' 8-1/2". 56-pound iron rail was to be used throughout. For the 14 bridges and trestles the line required, beams for the securing of ties on top were to be 14" deep by 12" wide. Trestles required ample stone pad foundations resting on the creek</p>



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CLASS.	SERVICE.	CYLINDER	DRIVERS.		TRUCK.	REMARKS.
			No.	Diameter.		
		inches.		inches.		
4-12 C	Switching	9 x 12	4	36	---	
4-16 C	Do.	11 x 16	4	36	---	
4-18 C	Do.	13 x 22	4	44	---	
4-22 C	Do.	14 x 22	4	48	---	
4-24 C	Do.	15 x 22	4	48	---	
4-26 C	Do.	16 x 22	4	48	---	
6-12 C	Do.	9 x 16	4	36	Two Wheeled	Balls with back on boiler or with separate tender.
6-16 C	Do.	11 x 16	4	36	Do.	
6-22 C	Do.	14 x 22	4	48	Do.	
6-24 C	Do.	15 x 22	4	48	Do.	
6-24 D	Do.	15 x 22	4	44	Do.	
6-26 D	Do.	15 x 22 or 24	4	48	---	
6-28 D	Do.	17 x 22 or 24	4	48	---	
8-12 C	Passenger or Freight	12 x 22	4	54 to 60	Four Wheel'd	Head Engine.
8-20 C	Do.	13 x 22 or 24	4	56 to 66	Do.	
8-22 C	Do.	14 x 22 or 24	4	56 to 66	Do.	
8-24 C	Do.	15 x 22 or 24	4	56 to 66	Do.	
8-26 C	Do.	16 x 22 or 24	4	56 to 66	Do.	
8-28 C	Do.	17 x 22 or 24	4	56 to 66	Do.	
8-30 D	Freight	16 x 22 or 24	4	48 to 54	Two Wheeled	"Mogul" Pattern.
8-24 D	Do.	17 x 22 or 24	4	48 to 54	Do.	
8-30 D	Do.	18 x 22 or 24	4	48 to 54	Do.	
8-32 D	Do.	19 x 22 or 24	4	48 to 54	Do.	
10-20 D	Do.	26 x 22 or 24	4	48 to 54	Four Wheel'd	Ten Wheeled Pattern.
10-26 D	Do.	27 x 22 or 24	4	48 to 54	Do.	
10-30 D	Do.	28 x 22 or 24	4	48 to 54	Do.	
10-32 D	Do.	29 x 22 or 24	4	48 to 54	Do.	
10-34 K	Do.	30 x 24	4	48 to 54	Two Wheeled	"Consolidation" Pat.


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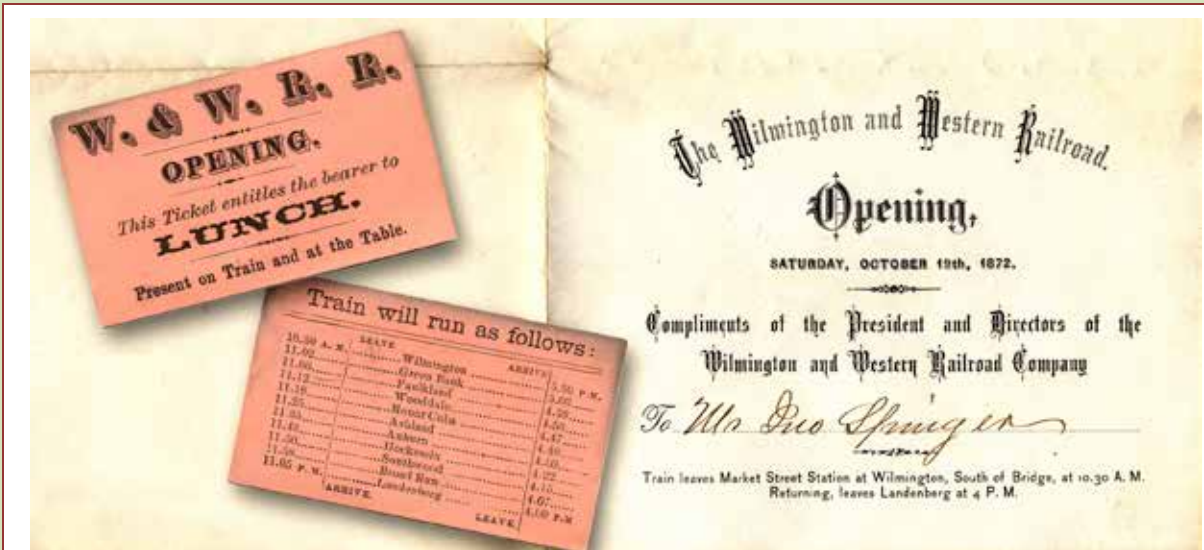
Geo BURNHAM, Wm. F. HENNEY, Burnham, Parry, Williams & Co., PHILADELPHIA, PA.
 Chas. T. FAREY, Edw. LEONOWITZ, }
 Rm. H. WILLIAMS, JOHN H. CONVERSE. }

Baldwin Locomotive Works advertisement from the Manual of the Railroads of the United States by Henry V. Poor, 1874. The 3 engines the Wilmington & Western Rail Road Company would have purchased based on photos is most likely the 8-24C. At the time of purchase in 1870-71 the company was known as M. Baird & Company. Robert E. Wilhelm, Jr. collection.

50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1871	10	7	<p>bottom. Each trestle bent (support between the creek bed and wooden beams under the railroad ties and track) was to be constructed with four 12"x12" vertical and angled posts resting on, and capped with, 14"x12" beams secured with cross-bracing.</p> <p>Of twelve stations planned, six were completed on opening day, along with poles and wire installed at the edge of the right-of-way connecting most stations with Western Union Telegraph service. Stations are located in Wilmington (station and enginehouse), Kiamensi/Marshallton (woolen and iron mills), Greenbank (Phillips Spoke & Carriage Factory, Kiamensi Spring Water), Faulkland (Brandywine Springs Hotel & Chalybeate Springs, Fells Spice Mill), Wooddale (Delaware Iron Works rolling mill, Biedermann's Spring Hill Brewery, Wooddale rock quarry), Mt. Cuba (picnic/park, religious retreat), Ashland (flour mill), Yorklyn (snuff, paper, woolen mills), Hockessin (general store); Southwood (depot - Kaolin quarries,), Broad Run (depot - limestone quarries), Landenberg (station - 2-bay enginehouse).</p> <p>There initially would be Post Offices in the stations at Faulkland, Wooddale, Yorklyn, Hockessin, and Landenberg. Water tanks were located in Wilmington, Yorklyn, and Landenberg (shared with Pomeroy & Newark Rail Road which later became part of the PRR). In 1870 the town of Chandlerville changed its name to Landenberg at the time of the railroad's planning, and Auburn changed to Yorklyn, both areas taking on the name the railroad designated for the local station.</p>
			<p style="text-align: center;">—The contractors of the Wilmington & Western Railroad are pushing forward the completion of the grading and putting some heavy blasts of powder in the rock cuts. Masses of rock, amounting to 200 tons, have been torn up at one blast, and a chunk weighing two tons was thrown half a mile. The heaviest work is at Cuba Hill, on Red Clay Creek, and a single stone, weighing forty tons, was lifted clear out of this cut, (50 feet deep,) the other day, and sent some 200 feet away from the edge ! It fortunately fell on nothing living</p> <p style="text-align: center;">June 3, 1872 <i>Reading Times</i> article on the rock pictured below. Tom Gears collection.</p>
1872	8	24	<div style="display: flex; align-items: center;">  <div style="flex-grow: 1;"> <p>According to the <i>Coatesville News</i> of June 27, 1872, an excursion for stockholders and invited guests would operate on the line on July 4, 1872. The excursion is scheduled to travel the 8½ miles of track that would be in place by that time.</p> <p>Departure from Wilmington would be in the morning with the day spent at the dam site at Cuba Hill (Cuba Hill was the former name for the Mt. Cuba area). No records have surfaced that this excursion ever took place. Perhaps there was a trackage issue and the excursion did not occur, or for some other reason, the trip was not recorded.</p> <p>On August 24, 1872, as documented in Wilmington newspapers after the fact, a 10½ mile excursion to Cuba Hill did occur. The papers document about fifty</p> </div> </div> <p>40-ton rock blasted out of Cuba Hill (Mt. Cuba rock cut) resting where it stopped rolling in 1872. The newspaper clipping above implies the rock was blasted through the air 200 feet distant. Other accounts detail the rock was blown out of the 50-foot deep cut to the peak of the rock formation being cut through. The rock then rolled 200-feet down the side of the rocky hillside to where it rests today. Tom Gears photo.</p>

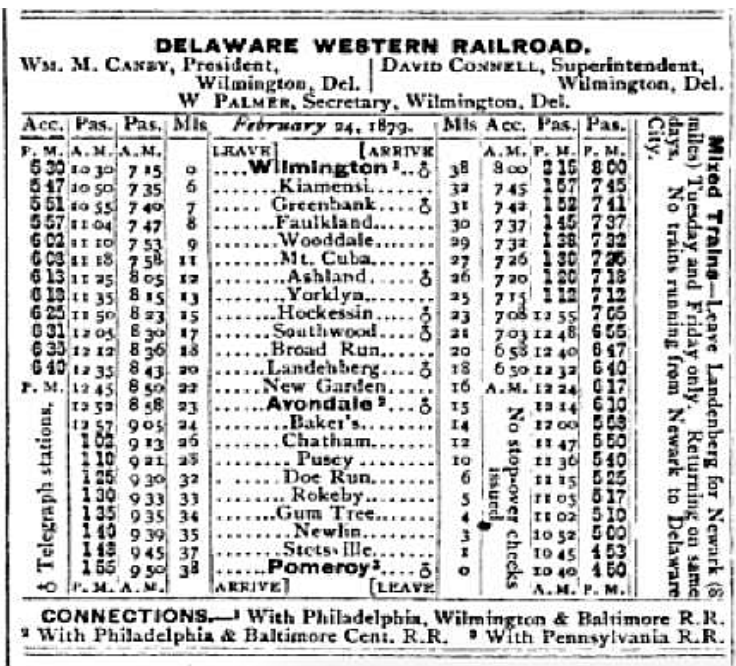
50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1872	8	24	<p>stock and bond holders and invited dignitaries left the Browntown area of Wilmington, DE around 5:30 PM for Cuba Hill. The consist was a M. Baird & Company engine (Baldwin Locomotive), Harlan & Hollingsworth passenger coach and open car. Greenbank Station was the first station completed on the line and the train stopped briefly to permit an inspection of the station. William C. Phillips, owner of the nearby mill and a railroad director, provided riders grapes and apples from his farm. The train left Greenbank for Cuba Hill, stopping at the huge rock cut that had recently been completed.</p>
1872	10	19	<p>Opening celebration of the completion of the Wilmington & Western Rail Road Company between Wilmington, DE and Landenberg, PA. Three mixed passenger/freight trips and a single freight run in each direction are scheduled daily starting October 21, 1872. The 19.91-mile-long line is built of 56-pound rail and uses three Baird & Company locomotives to move Harlan & Hollingsworth Company coaches. The railroad's freight rolling stock consists of two mail cars, ten box cars, ten gondolas, and ten flat cars. The first freight shipment is ten kegs of nails shipped from D.H. Kent & Company to Greenbank Station.</p> <div style="text-align: center;">  <p>The image shows three historical documents from the Wilmington & Western Railroad opening excursion. On the left is a pink lunch pass that reads 'W. & W. R. R. OPENING. This Ticket entitles the bearer to LUNCH. Present on Train and at the Table.' In the center is a pink timetable titled 'Train will run as follows:' with columns for 'LEAVE' and 'ARRIVE' times for various stations including Wilmington, Greenbank, Fossilford, Woodland, Royal Cula, Arvland, Acheson, Lockwood, Sandwood, Broom Run, and Landenberg. On the right is a white invitation card for 'The Wilmington and Western Railroad Opening, SATURDAY, OCTOBER 19th, 1872.' The card is addressed to 'Mr. George Springer' and includes the signature of 'Mr. Geo Springer' and the text 'Train leaves Market Street Station at Wilmington, South of Bridge, at 10.30 A. M. Returning, leaves Landenberg at 4 P. M.'</p> </div> <p>Invitations to Mr. George Springer, including a lunch pass with timetable printed on the back of the card, for the October 19, 1872 opening excursion. Springer was one of nine original directors for the corporation in 1869. The other directors included James Bradford, Joshua T. Heald (President), Job H. Jackson, John G. Jackson, John Jones, George G. Lobdell, William G. Phillips, and William H. Swift (Treasurer). Eventually William E. Garrett and Alan Wood would be elected to the Board of Directors by 1872. Mary Simons collection.</p>
1873			<p>The Financial Panic of 1873 results in the failure of fifty-five railroads in 1873 and another sixty railroads will fail in 1874. Runaway inflation and a trade deficit placed the country in what became referred to as the Long Depression. Over 18,000 businesses fail and unemployment in the century old nation hits 8.25%. The Wilmington & Western Rail Road Company moves 1,998 tons of freight during the last ten weeks of 1872, hauls 20,030 tons of freight in 1873, and moves 33,144 tons of freight in 1874.</p> <p>Unfortunately, revenues are barely covering expenses and the company is defaulting on payment of bond interest. Construction costs far exceeded the original estimates due to the difficulty blasting through rock along the route chosen and the need to move large amounts of fill to keep grades to less than one-percent. Construction costs were paid for by \$250,000 in stock subscriptions and an additional \$500,000 in bonds (\$14,275,000 in 2015).</p>

50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1875	12	7	<p>The Wilmington & Western Rail Road Company enters receivership due to bond and loan defaults associated with insufficient ridership and freight traffic to support interest payments and expenses.</p> <p>Operations for the year ending October 31, 1875 document that mixed passenger/freight trains ran 32,075 miles. The line carries 20,646 passengers and moves 59,981 tons of freight. Earnings for the year from passenger operations totaled \$11,094.08 and from freight operations totaled \$29,183.17. This totals to \$40,277.25 income. The Company spends \$11,026.17 on the maintenance of the right-of-way and \$24,517.46 maintaining equipment for a total of \$35,543.63. The earnings are \$4,733.62 before making payments related to interest on bonds and bank mortgages.</p>
1877	2	22	<p>The Delaware Western Railroad Company (DWR) is formed by the bondholders of the Wilmington & Western Rail Road Company who realize the line will be dissolved and sold to the highest bidder to pay creditors. Their only hope is to purchase the line when it is auctioned. With the construction debt wiped from the general ledger, including the need to pay dividends and interest on the stock and bonds, the investors hope to recover at least part of their losses over time if they are successful operating the railroad profitability.</p>
1877	2	25	<p>The Wilmington & Western Rail Road Company is sold for \$5,000 at auction to the bondholders of the corporation who had formed a new company by the name of the Delaware Western Railroad Company. Down to only two trips daily in each direction, and with only two locomotives operational, the line is barely operating and able to meet employee wages. In the office and showroom of the railroad's founder and first President, Joshua T. Heald, the court appointed trustee and those wishing to bid on the railroad met. Mr. Frank C. Stidham, auctioneer, started the bidding at \$500,000 but quickly dropped the price to \$5,000. Finally, a bid for \$1,000 was offered from the floor. Auctioneer Stidham worked the price offered higher in \$500 increments to \$5,000 and with no more bids offered, at the bang of Stidham's gavel, the trustee had obtained the new owners of the former Wilmington & Western.</p>
			
			<p>New Castle County cast iron historical marker at Greenbank recognizing the original Wilmington & Western Rail Road Company. The B&O stopped passenger service on the Landenberg Branch in September 1930 and owned it until HRCV purchased it in 1982. Steve Panopoulos photo.</p>
1877	5	31	<p>The bondholders reorganize the Wilmington & Western Rail Road Company as the Delaware Western Railroad in both DE and PA. Trains return to the line on June 1st while the new owners appoint corporation officials, organize the business, and incorporate as separate companies in DE and PA.</p>

50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity																																																																																																																																																																																																																																										
1877	7	31	<div style="display: flex; justify-content: space-between;"> <div style="width: 65%;">  <p style="font-size: small; margin-top: 5px;">DELaware WESTERN RAILROAD. Wm. M. CANBY, President, Wilmington, Del. DAVID CONNELL, Superintendent, Wilmington, Del. W PALMER, Secretary, Wilmington, Del.</p> <p style="text-align: center; font-weight: bold;">February 24, 1879.</p> <table border="1" style="width: 100%; font-size: x-small; border-collapse: collapse;"> <thead> <tr> <th>Acc.</th> <th>Pas.</th> <th>Pas.</th> <th>Mis</th> <th>February 24, 1879.</th> <th>Mis</th> <th>Acc.</th> <th>Pas.</th> <th>Pas.</th> </tr> </thead> <tbody> <tr> <td>P. M.</td> <td>A. M.</td> <td>A. M.</td> <td></td> <td>LEAVE [ARRIVE]</td> <td></td> <td>A. M.</td> <td>P. M.</td> <td>P. 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Before he can expand the line, McComb needs additional funding and he sought out John W. Garrett, President of the B&O. Garret agrees to commit up to 20% of the venture's cost if McComb develops viable a plan, obtains approvals and secures the rest of the financing necessary.</p> </div> </div>	Acc.	Pas.	Pas.	Mis	February 24, 1879.	Mis	Acc.	Pas.	Pas.	P. M.	A. M.	A. M.		LEAVE [ARRIVE]		A. M.	P. M.	P. M.	8 30	10 30	7 15	0	Wilmington ¹ ♂	38	8 00	12 15	8 00	8 47	10 50	7 35	6	Kiamensi.....	33	7 45	12 57	7 45	8 57	10 55	7 40	7	Greenbank.....	31	7 42	1 52	7 41	9 07	11 04	7 47	8	Faulkland.....	30	7 37	1 45	7 37	9 17	11 10	7 53	9	Wooddale.....	29	7 32	1 38	7 32	9 27	11 18	7 58	11	Mt. Cuba.....	27	7 26	1 30	7 26	9 37	11 25	8 05	12	Ashland.....	26	7 20	1 20	7 18	9 47	11 35	8 15	13	Yorklyn.....	25	7 15	1 12	7 15	9 57	11 50	8 23	15	Hockessin.....	23	7 08	1 55	7 05	10 07	12 05	8 30	17	Southwood.....	21	7 03	1 48	6 55	10 17	12 12	8 36	18	Broad Run.....	20	6 58	1 40	6 47	10 27	12 25	8 43	20	Landenberg.....	18	6 50	1 32	6 40	10 37	12 45	8 50	22	New Garden.....	16	A. M.	12 24	6 30	10 47	12 52	8 58	23	Avondale ² ♂	15	12 14	6 10	6 10	10 57	1 05	9 05	24	Baker's.....	14	12 00	5 58	6 00	11 07	1 05	9 13	25	Chatham.....	12	11 47	5 50	5 50	11 17	1 10	9 21	26	Pusey.....	10	11 36	5 40	5 40	11 27	1 25	9 30	32	Doc Run.....	6	11 25	5 25	5 25	11 37	1 30	9 33	31	Rokeby.....	5	11 05	5 17	5 17	11 47	1 35	9 35	34	Gum Tree.....	4	11 02	5 10	5 10	11 57	1 40	9 39	35	Newlin.....	3	10 52	5 00	5 00	12 07	1 48	9 45	37	Stets. Ill.....	1	10 45	4 53	4 53	12 17	1 55	9 50	38	Pomeroy ³ ♂	0	10 40	4 50	4 50		P. M.	A. M.		[ARRIVE]		A. M.	P. M.	
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1880	12	31	<p>Delaware Western Railroad operations for year ending December 31, 1880 document the following: train miles run: 40,152. Consists carry 36,836 passengers and move 21,798.9 tons of freight. Earnings are; passengers \$12,404.16, freight \$42,008.37, other \$4,532.10 for a total of \$58,944.63. Operating expenses are \$53,068.22 providing net earnings of \$5,876.41. There is no bond debt.</p> <p>The DWR's right-of-way from Wilmington, DE to Landenberg, PA is 19.92 miles (17 miles of which is included in Delaware's 279.25 miles of track within the State in 1880). The DWR has 4.55 miles of sidings and other track. Track gauge is 4'-8½". Constructed with 56-pound iron rail, a half-mile of 56-pound steel rail was also used. There are three new locomotives, 1 used locomotive, and rolling stock from Harlan & Hollingsworth Company: passenger cars: 3; mail, baggage: 2; freight cars: 30 (box: 10; platform: 10; gondola: 10).</p>																																																																																																																																																																																																																																										
1881	2	17	<p>The B&ORR agrees to pay \$70 per share for 120,000 shares of the Philadelphia, Wilmington, & Baltimore Railroad. When B&O President Garrett boasts about making the deal during a dinner in early March 1881, the PRR learns within days that the deal has not been finalized with the signing of sales agreements and contracts. There is only a verbal agreement and handshake in place. The PRR quickly and quietly offers \$78 per share for 218,000 of the 240,000 total shares of PW&BRR stock. The PW&BRR quickly accepts the PRR's increased stock offer and the deal is signed.</p>																																																																																																																																																																																																																																										
1881	3	23	<p>The B&ORR purchases controlling interest in the 45 employee Delaware Western Railroad after losing out on their bid to purchase the Philadelphia, Wilmington, & Baltimore Railroad which operates across northern Delaware. In 1882 the DWR's largest freight categories include: 13,536 tons of refined kaolin, 8,665 tons of anthracite coal, 5,236 tons of general merchandise, 4,786 tons of cast iron products, 3,089 tons of milled grains and 2,418 tons of mined limestone.</p>																																																																																																																																																																																																																																										


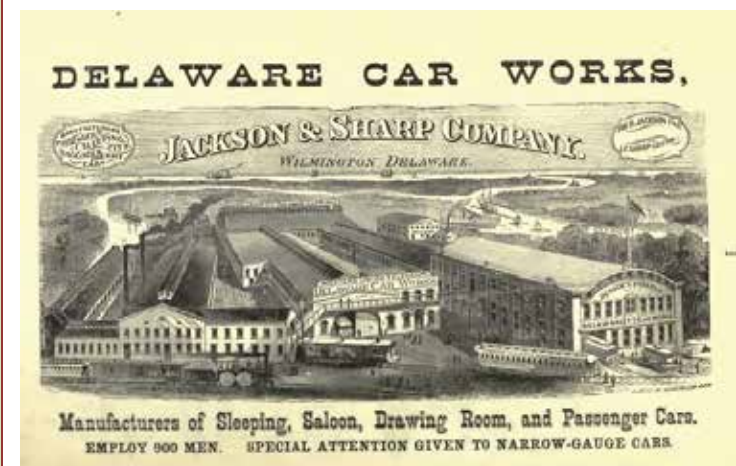
50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1881	3	23	<p>John W. Garrett had become the President of the Baltimore & Ohio Railroad (B&ORR) in 1858 and would lead the railroad until 1884. Garrett ruled with an iron hand and his Board of Directors soon learned to agree or be quiet.</p> <p>It would be during Garrett's rein that the B&O expands its footprint from its home base in Baltimore, MD and takes on the Pennsylvania Railroad as its major competitor. By 1875 the B&O has reached westward from Baltimore to Pittsburgh, PA; Chicago, IL; and St. Louis, MO. A southern route reached into NC.</p> <p>Garrett next wants a northeast route from Baltimore to Philadelphia, PA and on to New York City, NY and maybe even Boston, MA.</p> <p>By the 1880s the B&O is taking on the PRR as a direct competitor to reach New York City. The B&O has an agreement to run on the Philadelphia, Wilmington, & Baltimore Railroad from Baltimore across Delaware and to Philadelphia as did the PRR. With Colonel Henry S. McComb looking to expand the DWR, and enterprising Garrett having a financial interest, the Philadelphia, Wilmington, & Baltimore Railroad Board of Directors gets concerned about its future. As the PW&BRR hosted both B&O and PRR trains across Delaware, it made sense in light of the growing competition between the two giants that the PW&BRR might be sold to one of them.</p> <p>Initially Garrett is the successful bidder for the PW&BRR. Before Garrett could sign a contract, the PRR through backdoor channels, increases their offer significantly above the B&O's offer for the PW&BRR. The PRR's offer is quickly accepted by the PW&BRR and contracts are immediately signed so that Garrett never has an opportunity to counter the PRR's offer. Garrett is left without the PW&BRR to cross Delaware between Baltimore and Philadelphia. To make matters worse, as the B&O's direct competitor, the PRR will no doubt make the B&O's continued use of the PW&BRR highly expensive moving forward.</p> <p>Garrett's reaction to the PRR's purchase of the PW&BRR was swift. Two weeks after losing out on the PW&BRR purchase, the B&O buys a majority of the outstanding Delaware Western Railroad stock. Garrett offers existing stockholders willing to sell a handsome price insuring the B&O gains 50% financial and stock control of the company.</p>




The three new engines the Wilmington & Western Rail Road Company, purchased on February 14, 1872, were from M. Baird & Company. Two were Class 16½, #3 & #4, and the third was Class 22½, #2. Construction crews purchased PW&BRR #53 which was renumbered to W&WRR #1 to support track construction. The three new engines were similar to this shop photo engine from the Baldwin Locomotive Works, Illustrated Catalogue of Locomotives by M. Baird & Company of Philadelphia circa 1871. Advertised for passenger and freight service with cylinders 12"x22" and 14"x24" respectively the engines rode on 56¾" diameter drivers. The engines weighed 22 and 27.5 tons. Alexander Kaznica collection.

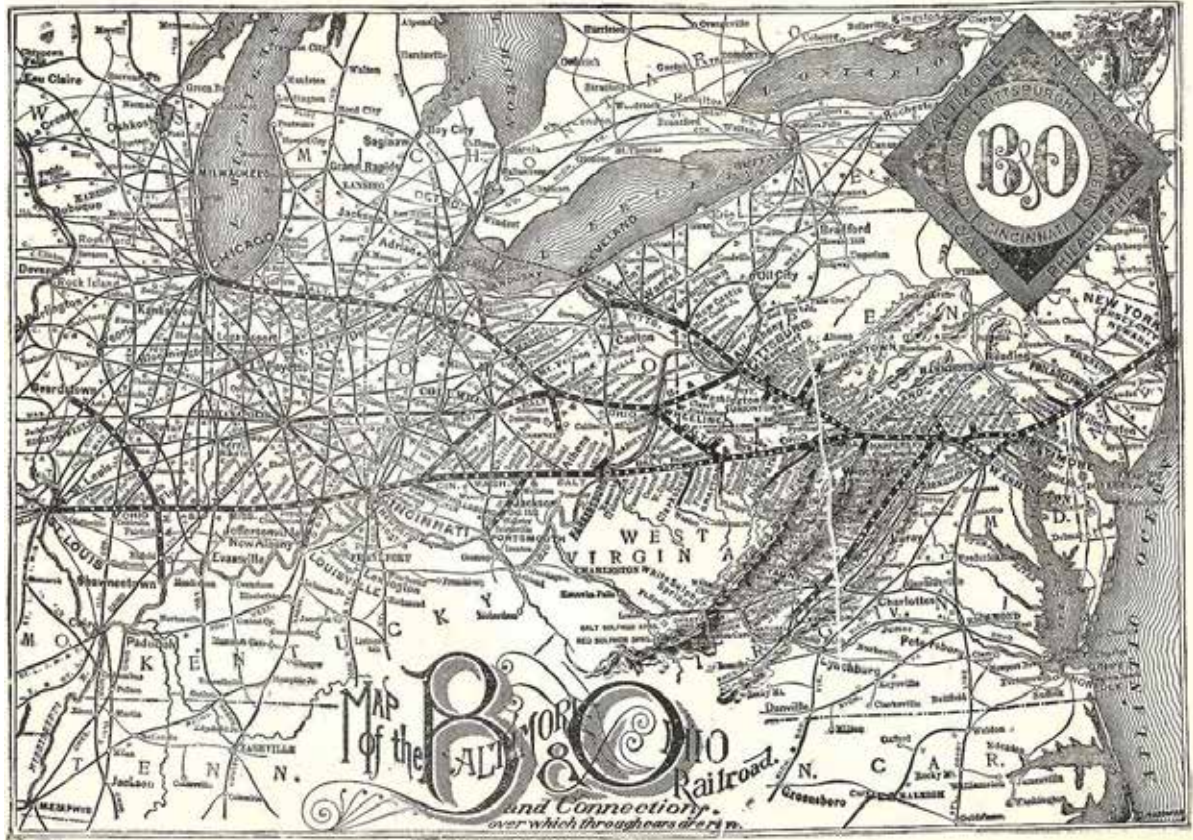
50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
			The DWR remains under McComb's direction for the time being. If the B&O cannot own the PW&BRR then it intends to build its own route across Delaware or Pennsylvania or both and compete with the PRR. How to do that still needs to be figured out.
1883	1	31	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">  <p style="text-align: center;">THE Harlan and Hollingsworth Co., MANUFACTURERS OF ALL KINDS OF Railroad Machinery AND PASSENGER CARS, OF THE FINEST FINISH. ALSO ALL KINDS OF City, Baggage, Mail, Sleeping, Freight, Dumping, and Coal Cars. WHEELS and AXLES, STEEL SPRINGS, etc. IN FACT, EVERY THING FOR THE FULL EQUIPMENT OF A ROAD. From our long experience in Car Building, and our facilities for doing work, we are enabled to give entire satisfaction in every particular. We are also extensively engaged in building Iron Vessels and Iron Steamboats, Steam Engines and Boilers, and Machine Work in general. For further particulars address THE HARLAN AND HOLLINGSWORTH CO., WILMINGTON, DEL.</p> </div> <div style="width: 50%;"> <p>The Baltimore & Ohio Railroad (chartered February 28, 1827 and opened on May 24, 1830) establishes the Baltimore & Philadelphia Railway Company as an independent corporation.</p> <p>Having been served notice by the PRR that in 1884 the B&ORR will lose rights to operate on PW&BRR track within Delaware, the B&O leverages its ownership in the Delaware Western Railroad and its right to build additional trackage in Delaware. The B&O forms the Baltimore & Philadelphia Railway Company for the purpose of constructing trackage between Philadelphia, PA and Baltimore, MD either through Pennsylvania or through Delaware. The Pennsylvania route is mountainous and will require tunnels, deep rock cuts, and trestles while Delaware law does not allow railroads to construct additional or new tracks within the State unless the railroad already owns railroad right-of-way within the State. Using the Delaware Western Railroad's charter to build additional tracks in Delaware makes the decision to choose a Delaware route the logical choice.</p> </div> </div> <p>Advertisement from the Manual of Railroads of the United States by Henry V. Poor, 1881.</p>
			<p>Railroad historians will later look at what the Pennsylvania Railroad paid for the PW&BRR, compared to what the B&O paid for the DWR and to build the trackage cross northern Delaware, along what it might have cost the B&O to build a route through Pennsylvania. Interestingly the costs of all three routes, connecting Baltimore with Philadelphia, turn out to be amazingly similar. While the PRR buying the PW&BRR might have seemed less expensive, the bidding war that occurred in 1881 between the B&O and PRR eliminated any cost advantage. The clear winners were those who owned shares of the Philadelphia, Wilmington, & Baltimore Railroad and Delaware Western Railroad.</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"></div> <div style="width: 50%;">  <p style="text-align: center;">DELAWARE CAR WORKS, JACKSON & SHARP COMPANY, WILMINGTON, DELAWARE. Manufacturers of Sleeping, Saloon, Drawing Room, and Passenger Cars. EMPLOY 900 MEN. SPECIAL ATTENTION GIVEN TO NARROW-GAUGE CARS.</p> <p>Advertisement from the Manual of Railroads of the United States by Henry V. Poor, 1881.</p> </div> </div>

50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1883	2	21	<p>The Baltimore & Philadelphia Railroad Company (B&PRC) is formed and incorporated with the merger of the three week old Baltimore & Philadelphia Railway and the Delaware Western Railroad. The Baltimore & Ohio Railroad maintains a controlling interest in the new corporation and the purchase of the DWR solves the problem of not owning right-of-way in Delaware which was required at the time in order to construct new tracks within the State.</p> <p>The new corporation will build a line through New Castle County, north and relatively parallel to the now PRR-owned PW&BRR right-of-way. The DWR continues operation under the Delaware Western Railroad livery between Wilmington, DE and Landenberg, PA. Once the B&PRC line is operational in 1886 between Baltimore, MD and Wilmington, DE, the Delaware Western Railroad livery is changed to the Baltimore & Ohio Railroad.</p>
1883	4	1	<p>The Baltimore & Ohio Railroad Company issues bonds to finance the construction of trackage between Baltimore and Philadelphia. The B&ORR secures the bonds with the Delaware Western's right-of-way and equipment and the B&O's first mortgage bonds for the B&PRC. The B&O issues £1,000,000 of bonds at 4½-percent annual interest rate (in the 1880s the British pound sterling was often used for large financial transactions as the United States economy was in recession (nicknamed "The Long Depression") and thus US currency rates were high). The 50-year bonds mature on October 1, 1933. Each bond is worth £1,000. The Measuring Worth website provides that £1,000,000 British Pound Sterling is equivalent to US \$4,850,000 in 1883 using an exchange rate of £1 is worth US \$4.85 in 1883(\$4,850,000 in 1883 is roughly equivalent to \$115, 477,000 in 2016).</p> <div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>The B&O already had approval from the state of Maryland to lay tracks within the state so the railroad began building their line from the east side of Baltimore's harbor northeast to the Maryland-Delaware state line connecting with the B&PRC. While the B&PRC was the name of the line through Delaware, the B&O also formed the Baltimore Belt Line railroad for the portion of the line from the B&O Camden Station in downtown Baltimore to the B&PRC on the east side of Baltimore Harbor.</p> <p>At the Delaware-Pennsylvania border the B&PRC will connect up with the Philadelphia & Reading Railroad which in turn connects to the Central Railroad of New Jersey providing access to the Staten Island Railway.</p> </div> </div> <p>It is unknown what the Wilmington & Western Railroad used as original livery on their locomotives and rolling stock. Caboose C2013 sports one such livery possibility in the early operating years of HRCV. Steve Panopoulos photo.</p>
1884	10	12	<p>The PRR informs the B&O in May 1884 that as of October 12, 1884 B&O passenger trains are no longer permitted to use the Philadelphia, Wilmington, & Baltimore Railroad's tracks in Delaware. Freight trains are still permitted however. The B&O sues the PRR for continued route access but in early November the court rules in favor of the PRR. The B&O will no longer operate passenger trains from Baltimore to Philadelphia until the B&PRC route is complete.</p>


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1886	5	11	The B&O operates on the nearly completed Baltimore & Philadelphia Railroad Company's tracks in New Castle County, Delaware with a special B&ORR charter from Baltimore's Camden Station to Philadelphia. The line is not entirely complete and the three-car consist ends the excursion in southeast Philadelphia.
1886	7	11	B&O freight traffic on the B&PRC between Baltimore, Maryland and Wilmington, Delaware began on May 25, 1886. Tracks into downtown Philadelphia, PA are complete by July 11, 1886 and freight operations between Baltimore, Maryland and Philadelphia, Pennsylvania commence. Freight traffic is no longer routed along the Pennsylvania Railroad's PW&BRR right-of-way through Delaware.
			<p>The first B&O passenger trains connecting Baltimore, MD and Wilmington, DE begin operation on the B&ORR (B&PRR) right-of-way across Delaware. Trains with Delaware Western Railroad livery are converted to Baltimore & Ohio Railroad livery. The original Wilmington & Western Rail Road Company stations still painted Barn Red while in service with the Delaware Western Railroad are repainted to the customary B&O station colors of butter yellow with dark brown windows, doors, and architectural highlights.</p> <p>The original Wilmington & Western Rail Road Company's right-of-way, now owned by the Baltimore & Philadelphia Railroad Company, remains the legally property of the B&PRR but under the control of the B&ORR and later Chessie System until HRCV purchases the right-of-way from Chessie System in 1982.</p>
1886	8	23	 <p>"Map of the Baltimore & Ohio Railroad and Connections over which cars are run". From the Manual of the Railroads of the United States by Henry V. Poor, 1891. The B&O's logo of the era highlights connections with the cities of New York, Philadelphia, Baltimore, Pittsburgh, Cleveland, Columbus, Cincinnati, and Chicago. Robert E. Wilhelm, Jr. collection.</p>


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1886	9	19	<p>The first B&ORR passenger traffic connecting Philadelphia, PA and Baltimore, MD travel through Delaware on 36.8 miles of trackage (there are a total of 93.39 miles in DE including secondary tracks and sidings). With both freight and passenger traffic operating on the B&PRC, the line is officially complete and open for traffic. The B&ORR and the PRR are now once again in direct passenger service competition using trackage each owns outright between Washington DC and New York City.</p> <p>The B&PRC remains the legal identity for the newly laid tracks in Delaware as well as the right-of way bought from the Delaware Western Railroad. The line is designated as the Philadelphia Division of the B&ORR. The former Wilmington & Western Rail Road Company tracks laid in 1871-2 have been shortened to 14.30 miles between West Junction, DE (Landenberg Junction) and Landenberg, PA. The former W&WRR tracks will be referred to as the Landenberg Branch of the B&ORR.</p>
1886	9	30	<p>The Landenberg Branch, for the year ending September 30, 1886, posts passenger earnings of \$21,978.57; freight earnings of \$49,186.61; mail earnings of \$1,404.89 for a total of \$72,570.07. The expenses associated with operating the railroad total \$60,701.80 leaving a profit of \$11,868.27. This is a 16.4% profit for the corporation.</p>
1886	12	15	<p>The Baltimore & Ohio Railroad operates the railroad's first scheduled passenger service between Baltimore, MD; Wilmington, DE; Philadelphia, PA; and New York City, NY. It has been two years since the Pennsylvania Railroad excluded the B&O from operating passenger trains on the Philadelphia, Wilmington & Baltimore Railroad across Delaware. In 3½ years the B&O will inaugurate their Royal Blue service between Baltimore and New York City. The service will gain the reputation as the benchmark of luxury rail travel in the United States to which all other RR US railroads will be compared.</p> <p>In 1886 the Brandywine Springs Amusement Park is established. The site grows to include a restaurant & toboggan slide (1890), carousel (1891), and the park opens one of the first movies houses in Delaware (1903). The B&O would serve the park until the Kennett Square Trolley arrived in 1901 and the People's Railway Trolley arrived in 1907, both reducing the ridership on the B&O.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p style="text-align: center;">BALTIMORE AND PHILADELPHIA RAILROAD.—Delaware-Maryland State Line to Junction Chester Branch of Philadelphia and Reading RR., 36.90 miles; <i>Landenberg Branch</i>: Wilmington, Del., to Landenberg, Pa., 19 miles—total, 55.90 miles. Gauge, 4 ft. 8½ in. Rail—iron, 56; steel (37.7 m.) 67 lbs. Consolidation in 1889 of the Delaware Western RR. Co. (organized February 22, 1877, as successor of the Wilmington and Western RR. Co., which built the road from Wilmington to Landenberg, and which was sold out February 25, 1877), and the Baltimore and Philadelphia Ry. Co., organized January 31, 1883, to build a road in the interest of the Baltimore and Ohio RR. Co. (to statement for which reference should be made) from Baltimore, Md., to Philadelphia, Pa. This road forms a part of the Baltimore and Ohio Co.'s Philadelphia Division, which was opened through September 19, 1886. <i>Rolling Stock</i>.—Locomotive engines, 4. Cars—passenger, 4; baggage, mail, etc., 2; freight (8-wheel), 20—total, 35. <i>Operations</i> for year ending September 30, 1886.—Earnings (passenger, \$21,978.57; freight, \$49,186.61; mail, \$1,404.89), \$72,570.07; expenses and taxes (83.6 per cent.), \$60,701.80. Net earnings, \$11,868.27. The earnings of the entire Philadelphia Division during the year were \$114,767.30; expenses, \$99,521.02; net earnings, \$15,246.28. Capital stock, \$5,000,000; funded debt, 1st mortgage 4½ per cent. 50-year bonds, due 1933, interest April and October, \$1,000,000. (See p. 101).</p> <p><i>Directors</i> (elected December 14, 1886).—William Canby, William M. Canby, Victor Du Pont, Wilmington, Del.; H. S. Burgess, Thomas M. King, James B. Washington, J. V. Patton, Pittsburgh, Pa.; Samuel Spencer, Baltimore, Md.; Theodore Frothingham, Philadelphia, Pa. JAMES B. WASHINGTON, <i>President</i>, Allegheny City, Pa.; Samuel Spencer, <i>Vice-President</i>, Baltimore, Md.; W. H. Ijams, <i>Treasurer</i>, Baltimore, Md.; J. C. Farra, <i>Secretary</i>, Wilmington, Del.; W. T. Thelin, <i>Auditor</i>, Baltimore, Md.; T. M. King, <i>Managing Director</i>, Pittsburgh, Pa. CORPORATE OFFICES, Philadelphia, Pa., and Wilmington, Del.; Transfer Office, Baltimore, Md.</p> </div> <p style="text-align: center;">Financial analysis of the Baltimore & Philadelphia Railroad from the Manual of Railroads of the United States by Henry V. Poor, 1887. Robert E. Wilhelm, Jr. collection.</p>


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1890	7	31	<p>The B&O inaugurates Royal Blue service between Baltimore, MD and New York City, NY using a B&O 4-6-0 ten-wheeler capable of 90 miles per hour. The luxury service represents the height of rail travel for the time. Passenger coaches not only offered seats upholstered in royal blue fabric, but the ceilings are royal blue fabric covered as well to reduce noise.</p> <p>Dining cars featured mahogany paneling to highlight the custom B&O Royal Blue China place settings. French-trained chefs prepare each meal. The cars are decorated with Hepplewhite chairs, Georgian leaded windows, and Sheraton sideboards. Many of the B&O's trains feature a barber, bath and valet services, en-route movies, the first telephone service on board a railroad coach, and the first and only railroad-operated dome cars in the East.</p> <p>The B&O provides the service for 68 years before ending it due to falling passenger counts. On April 26, 1958 the last of the Royal Blue trains travel the route as the B&O discontinues passenger service north of Baltimore. As the B&O discontinues passenger service, the PRR continues offering passenger service with their sleek stainless steel 'Congressional' trains. After merging with the New York Central Railroad to become the Penn Central Transportation Company (commonly referred to as the Penn Central Railroad), passenger service continues to decline. With the formation of Amtrak, the service is discontinued.</p>
			 <p style="text-align: center;">B&O Royal Blue dinner plate designed in 1927 to commemorate the railroad's 100th anniversary. The railroad's Royal Blue China depicted various scenes along the Baltimore & Ohio's right-of-way.</p>
1890	9	30	<p>The B&PRC owns 89.7 miles of track in Delaware which is part of a total of 1,948.13 miles of track in the B&ORR system. Landenberg Branch operations for the year ending September 30, 1890: Income from passenger, freight, and miscellaneous sources: \$705,442.36; expenses and taxes: \$666,932.09; Profit: \$35,510.27.</p> <p>The Landenberg Branch is 14.30 miles long (2.88 miles in PA) and includes 2.5 miles of sidings for a total of 16.8 miles (7.6 miles are steel rail with the remaining being original 56-pound iron rail). The Landenberg Branch is assigned 3 locomotives, 3 passenger coaches, and 23 freight cars which are part of the B&ORR's roster of 826 locomotives, 395 passenger coaches, and 26,244 freight cars.</p>
1922	6	26	<p>The Landenberg Branch is host to a test drive of the B&O's first self-propelled gasoline motor coach. Leaving Camden Station in Baltimore, MD the car travels to Landenberg in four hours. After fifteen minutes in Landenberg, the coach and trailer car return to Camden Station. An average speed of 29 miles per hour was recorded with a peak speed of 39 miles per hour. Speed on the Landenberg Branch was limited to 15 miles per hour. The excursion's expenses were estimated at 25 cents per mile including fuel, wages, cost of ownership, overhead, etc. A steam train making a similar trip costs the B&O about \$1 per mile to operate. The powered coach includes an unpowered trailing coach and carries a</p>

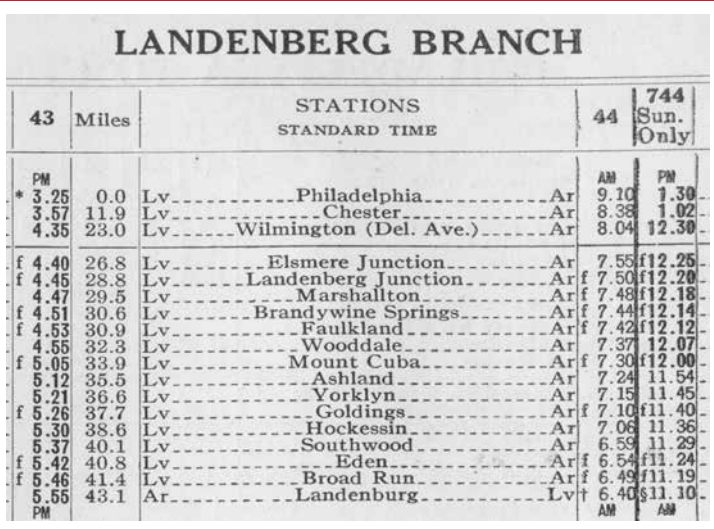
50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
			total of 56 passengers along with baggage. A four-cylinder, 60-horsepower engine powers the consist which is based on a Kelly-Springfield Motor Truck chassis. Electric lighting and hot air heating are part of the design.
			<p>The B&ORR eliminates passenger operations on the Landenberg Branch. Most flag stops and stations along the line have been closed and torn down. The automobile has made personal transportation affordable and Americans rely less on public transportation. Wilmington, DE, once home to the largest shipbuilding, railroad rolling stock, and industrial equipment manufacturers in the country, has become a business and corporate city as a result of Delaware's incorporation laws and statutes. The city no longer requires masses of workers traveling to and from rural areas.</p> <p>The kaolin and limestone mines of Southwood, DE and Eden, PA have or are nearly played out; the stone quarry at Wooddale is shutting down with the completion of the Hoopes Reservoir Dam. The Wooddale, Mt Cuba, and Faulkland milling operations are long gone. Kiamensi Spring Water and Brandywine Springs had closed in the mid-1920s and the picnic grove at Mt Cuba no longer drew visitors from Philadelphia and Baltimore.</p> <p>The Landenberg Branch's remaining freight customers include the mills in Marshallton, Greenbank, and Ashland, coal for the recently completed Hercules Research Center powerhouse, and lumber, coal, and other supplies for general store in Hockessin. The Upper Garrett Snuff Mills remain a freight customer until closing in 1954 while the Lower Garrett Snuff Mills, now owned by the Crowell Corporation, will ship by rail until being destroyed by fire in 1964. The line's biggest and only growing customer is National Vulcanized Fiber (becomes simply NVF on April 23, 1956) with boxcars of cotton rags, wood chips, tank cars of chemicals, and hoppers of powerhouse coal for delivery. National Vulcanized Fiber loads boxcars with vulcanized fibre rolls and sheets for shipment.</p>
1930	9	28	<div style="display: flex; align-items: flex-start;">  <div style="margin-left: 20px;"> <p>The Wilmington & Western Rail Road Company constructed three water towers on the line in 1871-2. Pictured at right is the Yorklyn Water Tower located along Creek Road, Route 82, and east of Yorklyn, DE. It is perhaps the best known of the water towers on the line as it survived the longest and was most visible along Creek Road. The other water towers were located at the railroad's enginehouses in Wilmington, DE and Landenberg, PA. Holding approximately 18,000 gallons of spring water, the sixteen-foot diameter Yorklyn water tank was the only tank on the line was gravity fed from springs. At the top of the hill east of the tank (to the right in the photo), a dam was erected above the height of the water tower. Spring water collecting behind the dam was piped to the tower, keeping it filled with the overflow running under the tracks and Creek Road in a culvert and draining into the Red Clay. The water tower was dismantled about 1960. William E. Grant photo.</p> </div> </div>


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1940	8		The B&ORR takes delivery of 16 General Motor's Electro Motive Division SW1 diesel-electric locomotives (delivery of 10 and then 6 engines). Numbered 200 through 215, these 600-horsepower, six-cylinder diesel locomotives provide 49,500 pounds of tractive effort (pulling power). Included in the shipment to Wilsmere Yard is #208, serial number 1106. B&O #208 will be renumbered to B&O #8408 in the 1950s. After being merged into the Chessie System, the engine becomes Chessie System #8408. Eventually the locomotive will become W&WRC #8408 after purchase by HRCV in 1982.
1942	8	9	The B&ORR abandons the western portion of the 14.3-mile-long Landenberg Branch from just east of Southwood, DE to Landenberg, PA. The Broad Run Trestle is dismantled and all right-of-way land reverts to the present owners of the property.
1943	7	15	<p>The Broad Run Trestle, spanning 885 feet and towering 60 feet above Broad Run Creek, a tributary of the White Clay Creek, is dismantled over a two-month period. The trestle became one of the railroad's signature features soon after construction along with the rock cuts at Mt. Cuba and Wooddale.</p> <p>Originally, there were nearly fifty wooden trestles, wooden stringer trestles, or overhead wooden automobile bridges along the original route of the Wilmington & Western Rail Road Company between Wilmington, DE and Landenberg, PA (There were 38 between Landenberg Junction and Valley Road originally). Today, only eight of the major trestles on the original right-of-way remain along with an iron bridge. Due to storms in 1999 and 2003, the all creosote wood trestle design sitting on the creek bed has been retired and replaced with self-weathering steel trestles anchored to the bedrock which astatically resemble the original wooden trestles.</p> <p>Some of the smaller wooden stringer trestles and wood box ditches were converted in 1895 to I-beam steel bridges with most of the remaining smaller wooden trestles converted to I-beam construction in either 1907 or 1917. B&O bridge records indicate that the railroad strengthened all of the major bridges and wooden trestles on the branch in 1895-6 as well as in 1907 and 1917 so that heavier locomotives and rolling stock could operate. The only iron bridge on the Landenberg Branch is at Ashland, replacing an original wooden trestle. Since the 1950s, a few of the I-beam steel bridges, all of the remaining wooden stringer trestles and any remaining wood box ditches under the track have been converted to concrete pipe or have been removed.</p> <div style="text-align: center;">  </div> <p>The Broad Run Trestle partially dismantled by B&O crews on July 29, 1943. This trestle became a landmark for the Landenberg Branch. Spanning 885 feet and towering 60 feet above the Broad Run Creek, it must have offered a breathtaking vista for passengers. William E. Grant photo.</p>

50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1949	5	1	<p>A special B&O fan trip, pulled by one of the B&O's 4-6-2 Pacific steam locomotives, departs Philadelphia's 24th & Chestnut Street station with stops in Chester, PA and Wilmington, DE to pick up additional passengers. At Wilmere Yard the Pacific is dropped off and B&O 10-wheelers #2061 and #2037, pointed in opposite directions, are put on each end of the consist of eight coaches. The consist then travels the Landenberg Branch to the end of line at Hockessin, DE. While the weather for the day was a light drizzle, passengers did leave the coaches for photographs of the steam locomotives and consist. Hockessin Station was still standing but had not been used in years.</p> <p>The train was returned to Wilmere Yard where the 10-wheelers were removed and the Pacific reconnected to take the group to Baltimore. In Baltimore a visit to Bailey's Roundhouse (at the time containing many of the artifacts now displayed in the B&O Railroad Museum in Baltimore, MD) was offered before reboarding the train for the trip to Camden Station. MU cars belonging to the Baltimore & Annapolis Railroad took the group to Annapolis for lunch. After lunch the trip retraced its steps to return to Baltimore, Wilmington, Chester, and Philadelphia.</p>
1951	10		<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;">  <p style="font-size: small;">B&O Timetable for the Landenberg Branch from March 1930; seven months before passenger operations would cease. Note that the travel time between Brandywine Springs and Hockessin is about forty minutes which is similar to the current Wilmington & Western schedule. The 'f' indicates a "flag stop".</p> </div> <div style="width: 35%;"> <p>Closed in late 1950, the Baltimore & Ohio's Hockessin Station is torn down. Last used in 1931 for passenger service, freight agent Leonard Sauers is transferred to the B&O's Yorklyn Station replacing W. L. Corey who retires from the railroad.</p> <p>The State of Delaware purchases the Brandywine Springs property with the intent the property will become a State Park. In 1954 the property, along with Fort Delaware and Trap Pond, are designated the first State Parks in Delaware. The Brandywine Springs property in 1970 will be transferred to New Castle County to become a New Castle County Park.</p> </div> </div>
1953			<p>The last steam-powered freight moves to Hockessin occur on the Landenberg Branch. The next steam locomotive operating to Hockessin on the Landenberg Branch will be in 1967 when the B&O grants permission to HRCV to operate Wilmington & Western trains past Mt. Cuba.</p>
1957	1	7	<p>The Landenberg Branch is abandoned from west of Valley Road in Hockessin, DE to the end of line at Southwood, DE. The land reverts to owners along the right-of-way. The Landenberg Branch is reduced to 10.2 miles in length. Approximately 70 coal hopper cars that are stored at the end of the Landenberg Branch are relocated to Wilmere Yard making for what was probably the longest consist to ever travel from Hockessin to Landenberg Junction.</p>


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1957	2		<p>The B&ORR rennumbers its fleet of SW1 locomotives from 200-series numbers to 8400-series numbers. SW1 #208 assigned to Wilsmere Yard in Delaware is renumbered #8408. The locomotive will see its first service to HRCV under lease from the B&ORR pulling passenger cars on October 14, 1972. #8408 is purchased by HRCV ten years later (1982) to become Wilmington & Western Railroad #8408. After a multi-year frame-up restoration completed in 2015, the engine is returned to heritage B&O livery of dark blue with gold highlights. It retains the #8408 number displayed when it first operated on the Landenberg Branch during its early life before being changed to the Chessie System livery.</p> <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 45%; text-align: center;">  </div> <div style="width: 50%;"> <p>B&O engineer William B. Dudkewitz, the editor's grandfather, in the early 1960s at Wilsmere Yard shortly before his retirement. Dudkewitz started with the B&O when he lived in Philadelphia as a fireman in 1917-18. He was eventually assigned to Wilsmere Yard in 1924 where he served the remainder of his railroading career as a B&O engineer until retirement in 1963. He frequently delivered freight to industries on the Landenberg Branch.</p> <p>Built in October 1944 for the B&O by the American Locomotive Company (ALCO) this second of an order of six Model S-1's was numbered #252 originally. In May 1950 the 660 horsepower switcher was reclassified as a DS-9a and renumbered #224 only to be changed again as part of the 1957 renumbering of all B&O motive power to #8012, Class SA-2. In 1965 engine #8012 became #9152 with the original S-1 classification returning. #9152 was sold in April 1976. Julia Dudkewitz McDowell photo.</p> </div> </div>
1958	4	26	<p>On April 26, 1958 the last of the Royal Blue trains traveled the Royal Blue Line between Washington, D.C, and New York City, NY as the B&O discontinued passenger service north of Baltimore. Initially launched in the 1890s after the Baltimore & Philadelphia Railroad tracks were complete through New Castle County, DE, the Royal Blue Line had become synonymous with an inspired blend of mystique, majesty, speed, elegance, luxury, and efficiency. While initially operating with all steam motive power, the use of electric locomotives beginning on June 27, 1895 for the Baltimore tunnel issued in the first use of electric motor powered locomotives for a North American railroad. In short, the Royal Blue Line became the benchmark by which all other US railroad services were measured.</p> <p>When the B&O discontinues its Royal Blue service, the PRR continues to offer passenger service with their 'Congressional' trains. After PRR's merger with the New York Central to become Penn Central, passenger service continues to decline as travelers move to using the automobile and commercial airline services. With the formation of Amtrak, Penn Central passenger service is discontinued.</p>


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1958	10		<p>Thomas C. Marshall, Jr. begins thinking about returning steam tourist railroad excursions to the Landenberg Branch of the B&ORR. Marshall meets with George T. Sargisson, Executive Director of Recreation Promotion & Service Incorporated and Clayton M. Hoff, Executive Director of the Brandywine Valley Association to pitch the idea. Both men join Marshall, Jr. walking the Landenberg Branch and discussing the idea's merits, drawbacks, and possibilities.</p> <p>Marshall, Jr. and Sargisson decide to meet over dinner with C. L. Kroll of the B&ORR in Baltimore, MD to propose permitting a non-profit organization to operate steam tourist trains along the Landenberg Branch on weekends when the B&O is not using the line for freight service. Marshall recalls that while a great meal and discussion resulted from the meeting, the B&ORR displayed a somewhat less than an enthusiastic interest and support in a group of volunteers proposing to operate their trains on a Class 1 railroad.</p>
1959	3		<p>Interested railroad fans, hearing of the endeavor, quickly step up to support the possibility of operating weekend steam trains on the Landenberg Branch. With the steam locomotive era coming to an end, hundreds of steam locomotives are being retired when it became time for their next major visit to the maintenance shop. Thomas C. Marshall, Jr. starts investigating leads on a growing stable of locomotives slated for scrapping that might be suitable for operation on the Landenberg Branch.</p> <p>His vision is for an American class (4-4-0) or Ten-wheeler (4-6-0) steam locomotive, similar to what the original Wilmington & Western Rail Road Company or the Baltimore & Ohio Railroad used on the line, pulling vintage “varnish” between Wilmington, DE and Landenberg, PA.</p> <p>“Varnish” is a term often used to describe passenger railroad cars. Towards the end of the 1800s wealthy individuals, as well as corporations, often had one or more railroad cars constructed for private use.</p> <p>These cars were richly appointed with tapestries and upholstery, finely crafted mahogany or oak interiors, and included meals served on fine china by servants. The cars became known as “private varnish” because of the high quality hand-rubbed varnish and lacquer finished applied to the woods used inside the cars. Windows were of etched glass and the cars lit with gas chandeliers.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;">  <p>One of only a few lengths of original Wilmington & Western Rail Road Company rail known to exist. The 56-pound iron rail was salvaged from a scrap pile of rail at Yorklyn Station by Israel Marshall, builder of Auburn Heights in 1897. When the mansion at Auburn Heights was constructed, travel by horse was common thus several hitching posts made constructed from the rail and were located on the property. Friends of Auburn Heights Preserve photo.</p> </div>

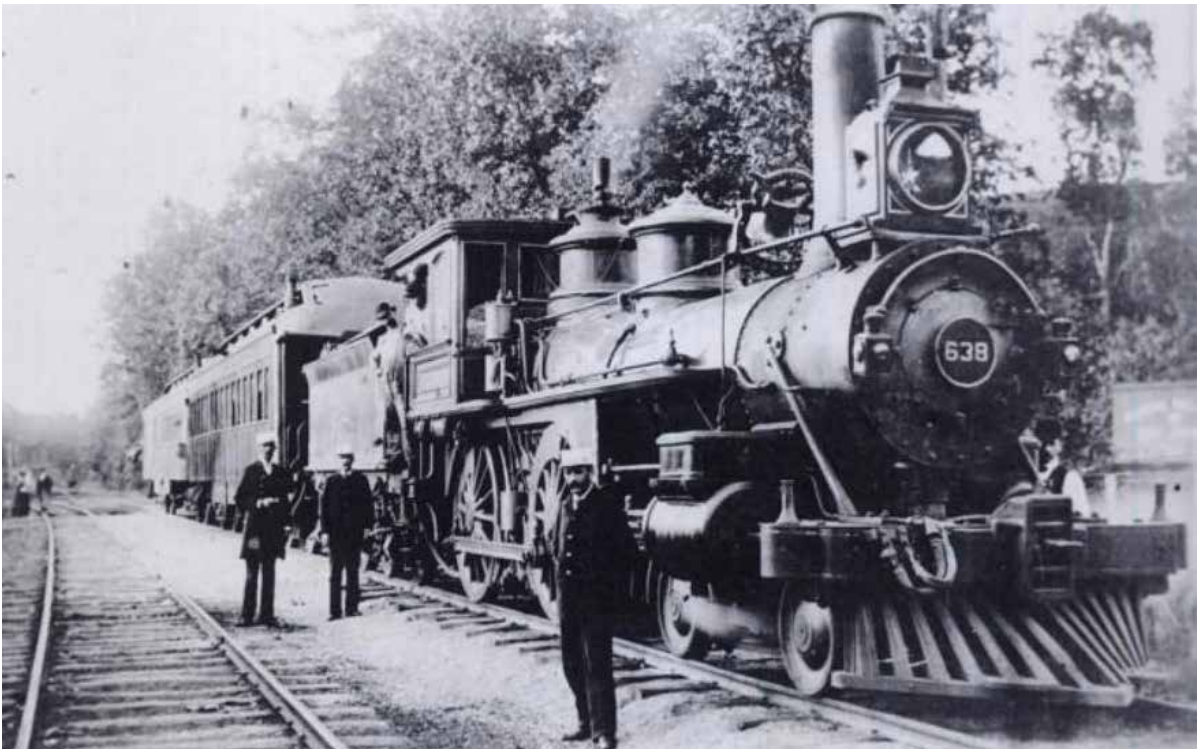
50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1959	3		<p>In the 1800s it was simple to have a private car or cars attached to trains traveling the US. Over the years the term has continued in use to reference to vintage passenger railroad cars in general. Today a few of these lavish cars, often referred to as “yachts on tracks”, survive and organizations such as the American Association of Private Railroad Car Owners and the Railroad Passenger Car Alliance promote the continued preservation, operation, ownership, and enjoyment of private passenger cars by arranging excursions on Amtrak routes crossing the US. Many of the cars are available for lease when their owners are not using them.</p>
1959	6		<p>Thomas C. Marshall, Jr. and Leroy Bengé, a superintendent for Marshall Brothers Paper Mill and highly knowledgeable of steam boilers, fly to London, Ontario, Canada to take a look at two Canadian National Railway (CN) 2-6-0 Mogul locomotives that might be available for purchase.</p> <div style="display: flex; align-items: center;"> <div style="flex: 1;"> <p>One of the locomotives was built in 1897, while the second was built in 1910 with a boiler that had been replaced in 1913. While the older one was aesthetically similar to the iron horses that roamed the rails in the Red Clay and Hockessin valleys at the turn of the 20th century, the 1910 locomotive, #92, had a much better boiler, firebox, had been upgraded to piston valves from the original slide valves, and used superheated steam for increased efficiency. The CN's #92 had a scrap value price tag of \$4,995. Marshall, Jr. and Bengé return to Yorklyn to work on the logistics of purchasing #92 and determining shipping, import customs duty, and other incidental expenses.</p> <p>George Sargisson offers Recreation Promotion & Service Incorporated to act as a non-profit buyer so that #92 may enter the U.S. without paying import taxes and duty (the Marshalls make a donation to Recreation Promotion & Services who in turn purchase #92). A Delaware corporation named Historic Red Clay Valley (HRCV) will be established and after the new company is incorporated, Recreation Promotion & Service is to transfer #92 and any additional HRCV assets and funding to the new corporation. Eventually HRCV files for non-profit status with the IRS. This transaction sequence starts the formation of HRCV and indirectly makes #92 the first of a number of significant financial and equipment donations that the Marshall's contribute to the organization in the decades that follow.</p> </div> <div style="flex: 1; text-align: center;">  <p>#92 on a Garrett Snuff Mill siding during the period the engine was being restored in Yorklyn at Worth Brothers. Richard Hall photo.</p> </div> </div>
1959	7		<p>A meeting consisting of approximately 25 prominent Wilmington area individuals is held at Yorklyn Gun Club to pitch the proposition of a steam tourist railroad leasing the Landenberg Branch from the B&ORR. The list of attendees (not complete), included C. A.</p>


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Y	M	D	Event or Activity
1959	7		<p>Weslager (a local historian), Paul J. Nowland (a Wilmington stockbroker), Edward H. Worth, Jr. (he and his brothers owned the former Garrett Snuff Mills and property), Charles A. Robinson (Senior V.P. of Delaware Trust Company), Anthony Higgins (a writer for the News Journal), John Yorkston (representing W. W. "Chick" Laird), Howard Street (a manager for NVF), T. Clarence Marshall, George T. Sargisson, Clayton M. Hoff, and C. L. Kroll of the B&ORR. The B&O's Kroll was diplomatic but non-committal regarding the B&O's interest and support. Higgins covered the meeting and the proposal to revive the W&WRR as a steam tourist railroad using the B&ORR's Landenberg Branch in a News Journal newspaper article.</p> <p>T. Clarence Marshall and Thomas C. Marshall, Jr. purchase CN locomotive #92 located in London, Ontario, Canada for potential use on a steam tourist railroad operation. The CN prepares #92 for shipment by removing the side rods and other articles that could be damaged during the engine's trip to Delaware. The iron horse cost \$4,994.65 to purchase from the Canadian National Railway.</p>
1959	11		<div style="display: flex; align-items: flex-start;"> <div style="flex: 1;"> <p>In November 1959 Mogul 2-6-0 locomotive #92 is shipped from London, Ontario, Canada by the Canadian National Railway to Delaware. Moving on its own wheels (side rods and linkages had been removed and installed in the tender), #92 arrives in Yorklyn, DE a few weeks later. Upon arrival, #92 is stored outdoors under tarps at the former Garrett Snuff Mill site, on an unused siding owned by Worth Brothers. The freight expenses to move the engine total \$1,086.90 plus \$129.16 in incidental charges.</p> </div> <div style="flex: 1;">  <p>#92 on its way to HRCV. Note the side rods and linkages are not installed on the engine. Note the "doghouse" installed on top of the tender. HRCV Archives photo.</p> </div> </div>
1959	11	9	<p>Thomas C. Marshall, Jr. learns from Lester C. Otto, ICC District Supervisor in Philadelphia that a former Mississippi Central Railroad 4-4-0 American-type locomotive, #98, constructed by the American Locomotive Works in Schenectady, New York in 1909, might be available for relocation or even scrapping. T. Clarence Marshall remembers B&O locomotives #622 and #638, both 4-4-0 American-type locomotives, pulling trains on the Landenberg Branch when he was a child and suggests retaining that image for the line. Otto saw an advertisement in TRAINS magazine that the Birmingham Rail & Locomotive Company was handling surplus and retired locomotives for resale. There was a 4-4-0 in the listing about to become available.</p> <p>Thomas Marshall writes to the company and is referred to Paulsen Spence at the Louisiana Eastern Railroad. When Marshall contacts Spence he learns that there were two 4-4-0s in active use and one of them might be available but needs work. Living out its final years moving gravel quarry cars on a private industrial railroad, the locomotive was not required to have ICC inspections or paperwork. Spence assures Marshall the paperwork and engine "could be put in good order" so that it might see a rebirth operating on a commercial, common carrier, government regulated, publically owned, Class 1 railroad such as the B&O.</p>

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Y	M	D	Event or Activity
1960	1		<p>Thomas C. Marshall, Jr., traveling from Memphis, TN to St. Petersburg FL on business, stops in Hammond, LA to investigate the condition of, and possible purchase of, locomotive #98 for its scrap steel value of \$4,750. Built as construction number 45921, #98 pulled passenger varnish on the Mississippi Central Railroad between Hattiesburg and Natchez, MS before being retired in December 1944. Paulsen Spence purchased #98 in 1947 for the Comite Southern Railroad, and later the Louisiana Eastern Railroad.</p> <p>During his visit, Marshall secures a ride in the cab of #98 for a five-mile round trip to one of Spence's gravel pits where #98 was now spending its remaining days assigned the undignified task of jockeying gravel pit hopper cars. The engine performs well and Marshall decides that the engine would be ideal for pulling consists on the Landenberg Branch.</p> <div style="text-align: center;">  </div> <p>B&O Class G-3 at Landenberg Station circa 1895. Most likely #638 is an M. Baird & Company locomotive purchased during the initial building of the Wilmington & Western Rail Road Company in 1872. Originally numbered 1, 2, or 3 according to Baldwin records, it was probably renumbered to #638 by the B & O in 1886. #638 appears nearly identical to the Division I Class 24½ C locomotive pictured in the Baldwin Locomotive Works, Illustrated Catalogue of Locomotives by the M. Baird & Company of Philadelphia (see March 23, 1881 entry for photo). Note the Pin & Link coupler in use and the steam line for coach heating along with the train brake system hose above the cow catcher. Photographer may have been Charles S. Philips.</p>
1960	2	24	<p>The Marshalls agree to purchase American Locomotive Company (ALCO) #98 and a formal intent to purchase letter is sent to Paulsen Spence. The purchase includes Spence contracting with the Illinois Central Railroad shops in McComb, MS to perform all work necessary to insure ICC compliance prior to shipment to Yorklyn, DE. The additional cost of making the engine ICC compliant is estimated at \$10,000. Spence will complete his use of the engine in the gravel pits over the next several weeks, and then he will prepare it and ship it for shopping at Illinois Central Railroad. Once the necessary shop work is completed, #98 is to be shipped on its own wheels to Delaware by mid-1961.</p>

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Y	M	D	Event or Activity
1960	3	3	<p>With the assistance of Recreation, Promotion & Services in Wilmington, DE the HRCV corporate paperwork is developed and the company's objectives and corporate structure defined. HRCV's initial mailing address will be designated as 1301 Orange Street, Wilmington, DE. Historic Red Clay Valley (HRCV) files the incorporation papers with the Office of the Secretary of the State of Delaware to become a Delaware corporation. A certified copy of the incorporation is officially recorded on March 7, 1960 in the Office of the Recorder of Deeds for New Castle County, Delaware.</p> <p>The Certificate of Incorporation lists certain objectives or purposes for HRCV that (in part) include; <i>"to promote interest in and engage in the operation of early transportation (particularly railroads); to preserve and restore historic sites and buildings; to establish and operate museums; and to issue such publications relating to the Red Clay Creek Valley as the members deem fitting and proper; all for the public welfare and for no other purpose."</i></p>
1960	5	31	<p>The first meeting of the incorporators of Historic Red Clay Valley, Incorporated is held at 7:00 PM at 1003 West Street, Wilmington, DE. Present are the organizations incorporators; Thomas C. Marshall, Jr. (President for the first 6 years), George T. Sargisson and Leroy J. Scheuerman (HRCV treasurer for the first 25 years) signing the Certificate of Incorporation. The three incorporators cast unanimous votes for Wendell C. Aldred, John W. Gotwals, Jr, Thomas C. Marshall, Jr, Emile Pragoff, Jr, Leroy J. Scheuerman, Howard H. Street, and Clinton A Weslager to all be named Directors of the Corporation. The first order of business is a section by section reading of the organization's by-laws followed by a unanimous vote to adopt them.</p>
1960	6	23	<p>HRCV holds its first public membership meeting at Yorklyn Gun Club, Yorklyn, DE with an attendance of over 50 members. Members are invited to inspect #92 in storage at Worth Brothers (former Garrett Snuff Mills). The meeting offers a presentation by C.A. Weslager of the history of the Red Clay Valley and the industry along the banks of the Red Clay Creek. John Gotwals presents a slide show on steam railroads in the US and Canada and discusses what is known about the builders of B&ORR's Landenberg Branch. Plans for the restoration of #92 are presented as is the vision and plans for eventually operating steam tourist service on the Landenberg Branch with B&O support.</p>
1960	7		<p>Worth Brothers, Incorporated lease to HRCV, free of charge, an unused building and permit HRCV to modify the building and extend the siding trackage so that #92 and its tender may be stored indoors, out of the weather.</p> <div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>As word of HRCV's ambitious plan spreads, volunteers continue stepping up and pledging support to the effort. Weldin V. Stumpf, an experienced boilermaker at Wilmington Shops accepts the challenge and responsibility for inspecting and preparing #92 for a firing-up at Worth Brothers.</p> </div> </div> <p>To move the locomotive from Canada to Yorklyn, all the side rods were placed in the tender.</p>

B&O SW1 #8406 at Worth Brothers in August 1963. #92 is having its tender removed in preparation for boiler inspection and retubing. Richard Hall photo.

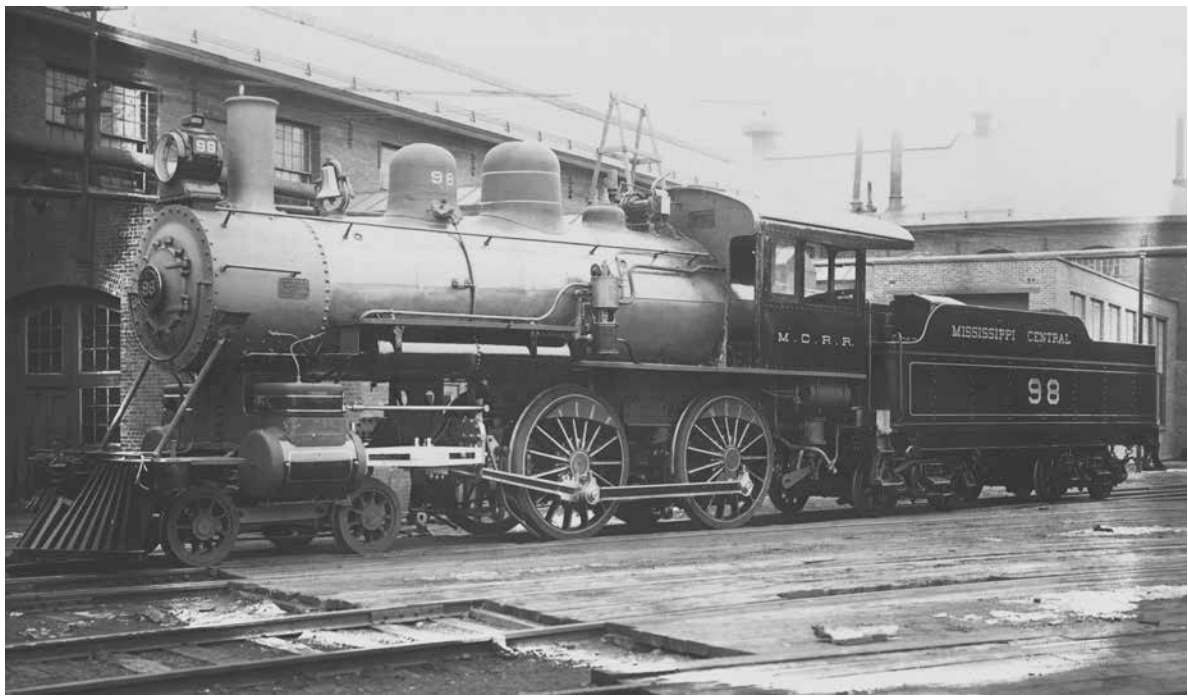
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Y	M	D	Event or Activity
1960	7		The main rod bronze bushings are "lost" en route and need to be remade. T. Clarence Marshall machines new bushings in his shop at Auburn Heights while Weldin hydrostatically tests, inspects, and prepares the locomotive for steam with volunteer help. When ready, #92 makes several trial runs on the 1,000-foot siding at the Snuff Mills (although legend speaks of a possible after-hours run on the Landenberg Branch during a weekend evening).
1960	8	5	T. Clarence Marshall's 75th birthday sees the first running of the 1½-inch scale (7½-inch track gauge) Auburn Valley Railroad's (AVRR) locomotive #401 at the Marshall's Auburn Heights home. The 4-8-4 Northern live steam locomotive required 7,500 hours to construct from plans and castings offered by Martin Lewis of Little Engines in California. The railroad carries birthday celebrants on a trip around Auburn Heights' mansion as well as the Marshall Steam Museum housing a collection of Stanley steam cars. A second identical 4-8-4 locomotive, #402, is under construction and will soon be ready for operation on the line.
1960	11	29	<p>The HRCV Directors hold a meeting where it is reported the organization's membership stood at 77 members. The treasurer reports a checking account balance of \$120.26 for the organization. One of the topics discussed at the meeting is related to NVF acquiring Yorklyn Station from the B&ORR and leasing it to HRCV. The possibility of NVF providing railroad coach storage on a private siding is discussed. In turn HRCV will insure continued freight operations with the B&O.</p> <div style="text-align: center;">  </div> <p style="text-align: center;">Yorklyn Station before relocation to Greenbank, DE. William E. Grant photo.</p>
1961	3	9	The first issue of the " <u>News Letter</u> " is published (eventually to be known as " <u>The Lantern</u> "). HRCV membership reaches 85 members. #92 is estimated to be two-thirds back to runnable condition after being out of service with CN and then partially disassembled to move on its own wheels from Canada to Delaware. HRCV forms an independent division titled the "Wilmington & Western Railroad" for volunteers wishing to eventually operate steam tourist trains on the Landenberg Branch of the B&ORR. HRCV publishes " <u>140 Years Along Old Public Road</u> " and authorizes " <u>The Old Hollingsworth Plantation in Mill Creek Hundred</u> " by Clinton Alfred Weslager. Arthur C.

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Y	M	D	Event or Activity
			Volkman agrees to write a history of the formation and construction of the Wilmington & Western Rail Road Company.
1961	3	23	<p>HRCV's first annual meeting, celebrating a year of operation, is held at Hercules Golf Course. The membership stands at 104 members and the treasurer reports \$219.75 in the checking account.</p> <p>The Board is investigating obtaining non-profit status for the organization and has proposed to the B&O that HRCV lease the right-of-way on weekends between Hockessin and Yorklyn or Ashland in order to start steam tourist operations. T. Clarence Marshall and Thomas C. Marshall, Jr. offer HRCV the use of their Auburn Valley Railroad (AVRR) at Auburn Heights the last Saturday and Sunday of each month, April through October, as a means to generate revenue for the organization.</p> <p>HRCV initiates the development of several historical publications related to the Red Clay Valley. Proposed publications include telling the history of the Wilmington & Western Rail Road and a history of the ironworks at Marshallton and Wooddale. Authors include Carroll W. Pursell, Arthur G. Volkman, and C.A. Weslager.</p> <p>E. B. Hollingsworth presents HRCV five paintings of scenes along the railroad right-of-way. These are: Lower Crowell Tape Mill (former snuff mill), Wooden Covered Bridge at Ashland, The Wooddale Bridge, Yorklyn Station, and the Upper Snuff Mills.</p>
			 <p>T. Clarence Marshall serves as engineer for the 1½-inch scale (7½" tuck gauge) Auburn Valley Railroad #401 stopped at West Yorklyn Station. Marshall built the locomotive in his shop at Auburn Heights in the late 1950s. Friends of Auburn Heights Preserve photo</p>
1961	3	28	<p>The HRCV Board solicits names for a future steam tourist railroad with "Wilmington & Western Railroad" being the preferred choice. The name will eventually need to be vetted by the B&O for approved use. In the interim HRCV uses "The Red Clay Valley Line" as the livery and title for the railroad although 'Wilmington & Western Railroad' and the shortened 'Wilmington & Western' are used interchangeably. HRCV membership climbs to 121 members.</p> <p>The original Wilmington & Western Rail Road Company fell into receivership to become the Delaware Western Railroad in reorganization. To compete with the Pennsylvania Railroad, the B&ORR formed the Baltimore & Philadelphia Railroad Company and purchased the Delaware Western. The purchase allowed the B&ORR to construct tracks in Delaware. Once the tracks were in regular use the B&ORR took full stock ownership of the B&PRC thus obtaining the right-of-way, equipment, and the legal name of the original Wilmington & Western Rail Road Company as well as that of the Delaware Western Railroad.</p> <p>The B&ORR had to insure the W&WRR reference/company wasn't still being legally used on any ICC and corporate documents before the B&O could grant HRCV exclusive use of</p>


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Y	M	D	Event or Activity
			the name. In 1886 the B&ORR changed ICC and corporate references for the right-of-way to the "Landenberg Branch" and made it part of their "Philadelphia Division". Verifying the name had been abandoned was needed before "Wilmington & Western Railroad" could appear on HRCV's motive power and rolling stock.
1961	4	29	<p>T. Clarence Marshall and Thomas C. Marshall, Jr. make the Auburn Valley Railroad (AVRR) available to HRCV for raising funds to return steam passenger service to the B&O's Landenberg Branch.</p> <p>The fares to ride the train are, adults - 40¢ and children under 12 - 20¢. Operating dates are the last Saturday & Sunday of April through October. The museum of Stanley steam cars is also open with admission prices of, adults - 50¢, and children under 12 - 25¢. Over 6,300 passengers will be carried during the summer and fall of 1961 raising \$3,513.76 over the fourteen days the trains operated. The AVRR eventually carries 33,000 passengers over five years of operation for HRCV and raises more than \$15,000 to fund the early organization's restoration of #92 and the "Boonton" coaches.</p>
1961	5	28	HRCV membership is now 144 members and volunteers. The checking account balance is \$1,022.15
1961	6	16	"The Old Hollingsworth Plantation in Mill Creek Hundred" by C.A. Weslager is printed and released to the membership.
1961	6	27	HRCV holds a members meeting for those interested in volunteering with the W&WRR at the Yorklyn Gun Club. Potential volunteers are permitted to visit the Worth Brothers warehouse where CN# 92 is stored. The warehouse is nicknamed the "Yorklyn Enginehouse".
1961	7	13	<div style="border: 1px solid black; padding: 10px;">  <p style="text-align: center;">Locomotive #98 builder's photograph at American Locomotive Company in Schenectady, New York in 1909. John Terranova collection.</p> </div> <p>Since it might be some time before locomotive #98 is needed by HRCV for passenger operations (#92 was deemed sufficient to handle passenger operations for the railroad</p>


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1961	7	13	<p>initially), a three-year lease between HRCV and Strasburg Rail Road is agreed to. #98 arrives at Strasburg Rail Road after being towed 1,500 miles from Amite, Louisiana on its own wheels. For the move to Delaware the piston connecting rods have been removed and stored in the tender. The side coupling rods remain connected to the driver wheels. A Strasburg Rail Road volunteer (Reading Company engineer Harry Grimes) rides in #98's cab to monitor the engine's wheel bearing temperatures and manually lubricate the engine and to insure the engine is kept secure during the trip from Mississippi to Pennsylvania.</p> <p>Even though #98 was overhauled and painted before shipment, a review of the engine's Interstate Commerce Commission (ICC) Form 4 paperwork at Strasburg by the ICC reveals compliance documentation of the boiler's construction is insufficient for licensing in steam passenger service. The engine is given Strasburg's livery and placed on outdoor display on an unused siding. The rumor mills subsequently begin churning out stories of #98's demise with a cutting torch as railfans reach the forgone conclusion the locomotive will never experience steam operations again. No one in 1961 foresees that in the 21st century, #98 will be the last operating example of a nearly original, coal-fired, American-type locomotive operating in routine steam passenger service!</p>
1961	7	29	<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>HRCV publishes the first four of a series of postcards selling at 5¢ each. The first postcards include a photo of the Auburn Valley Railroad's locomotive #401 and four passenger cars, a photo of Auburn Valley Railroad locomotives #401 & #402 at "Summit Junction", a photo of a 1908 Stanley Model EX steam car from the Marshall Steam Car Museum, and a photograph of the Ashland Covered Bridge. The success of the</p> </div> </div> <p style="text-align: center;">Auburn Valley Railroad locomotives #401 & #402 at "Summit Junction" on the AVRR. Tom Marshall is on #401 in the foreground and HRCV member Alto J. Smith is on #402. Smith's son Tom is conductor on this early HRCV postcard image. Robert E. Wilhelm, Jr. collection.</p> <p>postcard sales eventually leads to additional postcards being offered with photos of #92, #98, Kennedyville Station at Greenbank, and W&WRR trains.</p>
1961	9	8	<p>Four former Delaware, Lackawanna & Western Railroad (DL&WRR) "Boonton" coaches are delivered to the National Vulcanized Fiber (NVF) siding in Yorklyn from the Keyser Valley Yard in Scranton, PA. Coaches 410, 581, and 603 are purchased from the Erie-Lackawanna Railroad in June 1961 by HRCV member Chick Laird on HRCV's behalf (he would be reimbursed later). Coach 571 is purchased by HRCV member Alto J. Smith and offered to HRCV under an indefinite duration free lease. The "Boonton" coaches cost \$737.76 per coach without the lead acid batteries used for the coach lighting system. The transportation to Yorklyn added an additional \$214.16 per coach including taxes.</p>


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1961	9	8	<p>NVF grants permission to HRCV to store the four “Boonton” coaches on their private siding next to the vulcanized fibre plant. The B&O was soon billing NVF \$55 per day per car "per diem" even though the HRCV owned cars were parked on a siding NVF thought they owned. While the siding’s materials and installation had been paid for by NVF, the siding had been constructed was placed on the B&O’s right-of-way and thus subject to B&O billing. The cars were temporarily moved to a Worth Brothers siding in the Garrett Snuff Mill complex where #92 was undergoing restoration until alternate storage plans could be worked out.</p> <p>The term “Boonton” coach derives from the Delaware Lackawanna & Western Railroad’s commuter line that operated through Boonton, NJ. The following are the “Boonton” coaches that still exist, where they are located, and the car numbers.</p> <p><u>Delaware, Lackawanna, & Western “Boonton” coaches still in heritage service</u> Arcade & Attica Railroad ~ Combines: 414, 417, 424; Coaches: 552, 574, 600, 611, 616 Black River & Western Railroad ~ Coaches: 585, 605, 606, 608, 610 (now 302, 305, 304, 303, 301 respectively; 610/301 scrapped early 2000s, others out of service being restored) Illinois Railway Museum ~ Coaches: 556, 561, 567 Mid-Continent Railway Museum ~ Combines: 584, 593; Coaches: 425, 557, 563, 595 Middletown & Hummelstown Railroad ~ Combine 2501 Private Owner, Honesdale, PA ~ Coach: 548 Steamtown National Historical Site ~ Coaches: 550, 580, 589, 613 Valley Railroad Company ~ Coaches: 565, 577, 615 Virginia & Truckee Railroad ~ Coaches: 573, 583 Wanamaker, Kempton & Southern Railroad ~ Coach 582 Wilmington & Western Railroad ~ Combine 410; Coaches: 571, 581, 603</p> <p><u>Delaware, Lackawanna, & Western “Boonton” coaches scrapped from heritage operations</u> Valley Railroad ~ Coach 596 was scrapped in 1981 Wawa & Concordville Railroad ~ Coaches: 568, 570, 604, 684 scrapped between 1975-76 (Coach 604 was purchased for parts by HRCV and scrapped)</p> <p style="text-align: center;">Information courtesy of Kurt Bell – Pennsylvania Historical & Museum Commission Archives</p>
1961	9	30	<p>HRCV’s members make a trip to the Strasburg Rail Road for an excursion on the line. Tickets for adults are \$2.75 and for children under 12 the tickets are \$2 each. Twenty-six HRCV members participate. The S. Cooper Gregg Company of Yorklyn, DE supply one of their Flexible Clipper intercity motor coaches (The Flexible Company made the buses) to transport the group to Strasburg where they ride in "spare" wooden PRR coaches (which in 2016 are on display in the Railroad Museum of Pennsylvania). The motive power for the consist is Strasburg Rail Road’s engine #31.</p> <div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>Strasburg Rail Road had plans to run #98 for a few years as HRCV was focused on operating #92 initially. Strasburg volunteer Lynford “Bud” Swearer cast an aluminum #98 number plate in 1961. Swearer sold it in 2005. Kurt Bell collection.</p> </div> </div>


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1962	3	1	HRCV membership reaches 168 members and volunteers
1962	4		For the 1962 season the AVRR operates the last Saturday and Sunday of April through October, including Memorial Day and 4th of July. The live steam trains operated by HRCV volunteers would carry 7,197 passengers and generate \$3,864 in revenue
1962	9	6	HRCV receives its Certificate of Tax Exemption from the Internal Revenue Service to become a tax-exempt non-profit corporation falling under category 501c3 of the Internal Revenue Code.
1963	1	5	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">  <p style="text-align: center;">There is little doubt the preserving of an iconic scene like this one captured on January 29, 2011 at Mt. Cuba, Delaware was what Thomas C. Marshall, Jr. hoped to accomplish with the formation of Historic Red Clay Valley, Incorporated and the return of Wilmington & Western passenger trains to the Landenberg Branch. Steve Jensen Jr. photo</p> </div> <div style="width: 45%;"> <p>Alto Smith, Pete Steele, Leroy Scheuerman, George Sargisson, Thomas C. Marshall, Jr. visit Delaware Governor Elbert N. Carvel to review HRCV's plan to operate a tourist steam railroad on the Landenberg Branch.</p> <p>An objective is to secure Carvel's support to contact college roommate Douglas Turnbull now a B&O vice-president to see if he would meet with HRCV Directors. Governor Carvel also puts HRCV in contact with local railroad union management to secure their cooperation and support.</p> </div> </div> <p>Turnbull accepts a luncheon invitation at the DuPont Country Club with Thomas C. Marshall, Jr, Willard Crossan, John Gotwals, Alto Smith to review the HRCV proposal. At the luncheon meeting Turnbull suggests as a first step getting a steam train operational on the B&ORR branch line. He believes this will be educational for HRCV as an opportunity offering good publicity, providing actual training, and affording the opportunity to work out problems which will arise. Trumbull suggests a two-mile operation with no grade crossings which can help with obtaining required insurance policies. Trumbull believes the B&ORR can support operating locations involving either Greenbank to Hercules or Yorklyn to Hockessin.</p> <p>During this training period HRCV may only haul members. The B&ORR requires a guaranteed total contract of \$1,500.00 minimum at a daily rate of \$100 per day. Turnbull suggests HRCV propose obtaining a loan from US Commerce Department to construct a parallel track on the B&ORR right of way. This will require an expenditure of approximately \$7,000.00 for an initial project, expanding to \$100,000 ultimately.</p>
1963	1	16	Four Lackawanna "Boonton" coaches are stored at the former Marshall Iron Rolling Mill site, now Haveg Industries, in Marshallton. While stored on an unused coal unloading spur, coach windows become targets for vandals and are broken out, allowing entry and

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Y	M	D	Event or Activity
1963	1	16	<p>possible vandalism to the interiors. The consist of four coaches are relocated to indoor storage at Wilmington Industrial Park within a short time.</p> <p>Allied Surfaces now owns several buildings once belonging to the American Car & Foundry Company. One of the unused warehouses has unserviceable railroad tracks remaining within it that could be made serviceable for coach storage. The building also includes Preston Trucking Company, "The 151 Line" (founded in 1976, Preston went out of business in July 1999) and several other minor tenants. HRCV obtains a \$15 per coach/locomotive per month lease on the building and proceeds to rebuild the tracks so that the "Boonton" coaches, and eventually #98 may be stored indoors for protection. The building's tracks are accessible from the Pennsylvania Railroad.</p> <p>The W&WRR "Boonton" coaches were built between 1914 -15 by the Pullman Company. They were part of an order of seventy-seven cars built for the Delaware, Lackawanna & Western Railroad (DL&W). The cars were a familiar site along the DL&WRR's Boonton Branch through Boonton, N.J.</p> <div style="display: flex; align-items: center;"> <div style="flex: 1;"> <p>A unique feature is the I-beam platform roof supports at either end of the car. The unique design and use on the Boonton Branch earns them the nickname "Boonton Coach". Hundreds of thousands of commuters rode these cars to and from their places of employment for over four decades being "retired" to heritage railroad service.</p> <p>By the early 1960s, the cars were considered surplus by the Erie Lackawanna, the successor to the DL&WRR. The railroad began selling the cars to tourist railroads and museums. All W&WRR cars retain their original Hale & Kilburn walkover seats although the seats have been recovered in cane typical to their covering in passenger service.</p> <p>The cars do not retain the DC generators that were belt driven from the axles along with the banks of lead acid batteries in black cabinets under the cars. This arrangement lit the cars during operation at night (a modern 120 VAC generator on Combine 410 now supplies AC power for all coach lighting as needed).</p> <p>W&WRR cars 410 and 571 retain their original exterior roof ribs (which have been removed from many of the cars, including W&WRR's 581). W&WRR's Combine 410 weighs 110,900 lbs., has a seating capacity of 56 passengers. Coaches 603, 571, and 581 weigh 108,000 pounds each and have seating capacity for 72 passengers.</p> </div> <div style="flex: 1; text-align: center;">  <p>"Banga" and one of the "Boonton" coaches outside a Wilmington Industrial Park warehouse in 1963. Richard Hall photo.</p> </div> </div>
1963	2		<p>The Chesapeake & Ohio Railway gains stock control of the Baltimore & Ohio Railroad setting in motion another merger in a chain of railroad industry consolidations that</p>

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Y	M	D	Event or Activity
			ultimately result in a duopoly freight railroad structure for the US east coast (Norfolk Southern Railroad and CSX Transportation). In 1973 more consolidations and mergers lead to the formation of Chessie System which becomes CSX Transportation in 1980.
1963	2	25	The 24-page " <u>Ironworks on Red Clay Creek in the Nineteenth Century</u> " written by Carroll W. Pursell is published by HRCV and is mailed to members on March 1, 1963.
1963	4	25	<p>The "Boonton" coaches stored at Wilmington Industrial Park continue to be restored. Combine 410 is in the best condition with aluminum window sashes. The remaining cars still have original wooden window sashes which are rotted and generally not fit for future service and will need to be replaced. Coach 581 is perhaps the worst of the group as it requires both interior and exterior sandblasting to remove rust before steel repairs and painting may be done.</p> <p>The Pennsylvania Railroad's unused Kennedyville, Maryland 12' x 45' passenger and freight station is purchased by HRCV for \$1. Once documented and carefully disassembled it is relocated to Greenbank, DE in November 1963 where it will be reassembled to serve as the ticket office for the railroad.</p> <p>The Kennedyville Station serves the organization at Greenbank and is joined in April 1968 by the former W&WRR Yorklyn Station which is used as a gift shop. To consolidate passenger facilities at Greenbank in a single facility, the Kennedyville Station is relocated to Hockessin and becomes the East Hockessin Station in September 1997 having been replaced at Greenbank with a 3,000-plus square foot station complex. The Yorklyn Station gift shop is relocated to the larger quarters in the new Greenbank Station building and Yorklyn Station is repurposed as the Red Clay Valley Museum and Visitor Center in July 1998.</p>
1963	5	10	With the coaches stored at Wilmington Industrial Park, the HRCV Board considers a plan to operate trains on three-quarter mile of track around the site. Fort Christine Park's entrance is along the route as are the old Jackson & Sharp buildings where railroad coaches were once trimmed out. The intent is to provide HRCV volunteers with experience operating the steam locomotive and hosting passengers through a series of weekend operations. The operation would also demonstrate to B&O management and union members how HRCV will handle trains on the Landenberg Branch in 1964. An August through November 1963 operating period is proposed.
1963	7	30	
			HRCV's "Boonton" Coaches 581 and 603 at Strasburg Rail Road in 1963. Kurt Bell photo.


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Y	M	D	Event or Activity
1963	7	30	<p>Strasburg Rail Road, expecting a busy season, leases HRCV “Boonton” coaches 581 and 603 for a two-week period. The two coaches are shipped “as is, partly restored”, from Wilmington Industrial Park to Strasburg Rail Road where they are stored in East Strasburg on a siding adjacent to Route 741 (Strasburg Road) west of Bishop Road. The coaches are returned to Wilmington Industrial Park in mid-August 1963 having not been used by the Strasburg Rail Road.</p>
1963	9		<p>The H. Fletcher Brown Vocational High School's wood shop begins a construction effort custom manufacturing 120 Mahogany window sashes over the 1963 and 1964 school years for “Boonton” coaches 571, 581, and 603. As the window sashes are completed they are installed in the coaches by HRCV volunteers and refinished. The window sashes in Combine 410 were previously replaced and are cleaned up and new glass installed where necessary.</p> <p>At Wilmington Industrial Park a Plymouth 18-ton Model JLB industrial switching locomotive built in 1942 is available for moving the coaches. HRCV obtains permission to get the engine serviceable and begin using it. In mid-1965 HRCV purchases the engine which has now earned the affectionate name “Bangy” (because of noisy cab doors when running) and it is relocated to Marshallton, DE. “Bangy” originally had a 6-cylinder, 160-horsepower, Buda gasoline engine which would later be changed out in 1985 by HRCV volunteers in Marshallton.</p>
1963	9	11	<p>The Pennsylvania Rail Road offers HRCV six “ice air conditioned business-class coaches” on an “as-is” basis less batteries and steam connections. The cars, numbered 7505, 7508, 7509, 7511, 7515, and 7517, were constructed between December 1909 and April 1929 and are priced at \$7,500 each.</p>
1963	10	7	<p>The HRCV Board votes to offer family memberships. Current membership totals 228 members. The HRCV Board decides that #98 shall be moved from Strasburg to the Wilmington Industrial Park as soon as feasible to begin the arduous process of ICC compliant restoration for eventual return to steam passenger service.</p> <p>In Wilmington the DL&WRR coaches, now relocated from the former Garrett Snuff Mills to Wilmington, continue to be restored by a team of volunteers. The steel car exteriors as well as their interiors are sanded, repaired where necessary, primed and painted by HRCV volunteers. The air brake piping and hardware along with the</p>



Combine 410 undergoes restoration by founder Thomas C. Marshall, Jr. and charter member Pete Small in Yorklyn.
The “Lackawanna” livery above the windows is being removed at the Worth Brothers siding at the former Garrett Snuff Mills on May 12, 1962. The coaches are painted a blue with yellow window highlights recognizing both the B&O and the State of Delaware. “Wilmington & Western” will be lettered in yellow is across the top of the windows.
Delaware’s state colors are Colonial Blue and Buff and the B&O’s colors are Royal Blue and Gold. Richard Hall photo.

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Y	M	D	Event or Activity
1963	10	7	<p>mechanical brake rigging on each wheel truck of each car is inspected, rebuilt where required, tested, and prepared for eventual service.</p> <p>In Yorklyn, at Worth Brothers Warehouse #92 has all boiler tubes removed and the boiler is needle-scaled inside and out by volunteers. Once needle-scaled an inspection for boiler steel weaknesses is performed before new boiler tubes are installed. A hydrostatic pressure test is performed and witnessed by the ICC before the locomotive is issued documentation allowing it to operate on a Class 1 railroad in passenger and freight service.</p> <p style="color: #C08040;">Needle-scaling involves the use of a needle gun which houses a compact bundle of hundreds of pencil-lead size chisel point wires or “needles”. Generally operated on compressed air the bundle of needles is repeatedly hammered against a steel surface at high speed by the gun’s design. The needles remove rust, scale, and other built up material leaving a cleaned steel surface. Needle scaling is performed before detailed inspections of the boiler’s steel can occur as part of an ICC compliant service inspection.</p>
1963	10	27	<div style="text-align: center;">  </div> <p>The Auburn Valley Railroad leaves West Yorklyn Station with Thomas C. Marshall, Jr at the throttle of Northern #401. To the left is a 1908 Model EX 10-horsepower Stanley steam car. Behind that is a steam traction engine which was displayed at Auburn Heights in the 1960s. The Marshall Museum of Stanley steam cars is to the left, and in the background is the Auburn Heights’ Carriage House which served as a T. Clarence Marshall’s Stanley dealership and repair garage during the period of 1910 until 1920. Delaware Economic Development Office photo.</p>

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Y	M	D	Event or Activity
1963	10	27	The AVRR live-steam railroad, featuring two 4-8-4 Northern locomotives, carries 1,159 passengers setting a single-day ridership record. From 1961 through 1965 Thomas C. Marshall, Jr. and his father T. Clarence Marshall operate the miniature line on weekends with HRCV volunteers. All proceeds are turned over to HRCV for funding ongoing and eventual steam tourist operations on the former Landenberg Branch of the B&ORR.
1963	11		Over a November weekend the former Pennsylvania Railroad's Kennedyville, MD station is carefully disassembled by eight HRCV volunteers keeping walls and roof panels as complete as possible. The panels are stacked onsite in preparation for transport to Greenbank, DE. The panels are brought to Greenbank by low-boy truck and stored at Greenbank until the station is assembled in January 1966.
1963	11	23	The PRR grants HRCV permission to collect discarded railroad ties along the mainline route between Claymont and Bellevue which are stockpiled at Wilmington Industrial Park for future use by HRCV. HRCV volunteers carefully select the best ties and load them into a rental truck for transport. The ties will eventually be relocated to the Marshallton Enginehouse once it is constructed and used for the two storage tracks within the enginehouse. Many still support the enginehouse rails in 2016.
1963	12	5	After 3 years of operation, the AVRR has carried 20,467 passengers with revenue benefitting HRCV.
1963	12	26	William Schmidt from the B&O corporate office visits, tours the Landenberg Branch in the Marshall 1913 Model 76 Stanley steam car with Thomas C. Marshall, Jr. to review HRCV's proposal for operating steam tourist service on weekends and holidays. The results of the meeting are gloomy with the prognosis reported to the Board of Directors on January 6, 1964 as "unfortunately it looks like we are right back where we were in 1959".
1964	1	30	The " <u>History of the Wilmington & Western Rail Road</u> " by Arthur G. Volkman is released to HRCV members. The booklet is 86 pages and contains 20 illustrations and details the entire early history of the founding, building, early operation, and bankruptcy of the Wilmington & Western Rail Road Company. The publication provides detailed information on the formation of the Delaware Western Railroad and how the line became part of the Baltimore & Ohio Railroad system. 750 copies are printed for distribution to members and for sale.
1964	3	2	<p>HRCV initiates an option to purchase Greenbank Mill and 1.7 acres of mill property, including water rights, from Saul Cohen for \$10,000. The option expires in June and Roy Magargal continues as miller. HRCV eventually purchases an additional 6+ acres for \$1,500 from Cohen to settle water rights issues.</p> <p>Greenbank Mill, in 1967, two years before the arson fire. In the foreground is Greenbank Road which ran immediately next to the mill. The wooden panels next to the stone portion of the mill allow access to the millrace for servicing of the water turbine. Ralph Murry photo.</p>



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Y	M	D	Event or Activity
1964	4	11	#98 is prepared and moved from the Strasburg Rail Road to the former American Car & Foundry Yard in Wilmington, DE. HRCV volunteers refer to the location as East 7th Street as well as Wilmington Industrial Park or "WIP". The "Boonton" coaches are being restored at WIP. The move of #98 is closely tracked and monitored for damage during its four-day journey from Strasburg to Wilmington.
1964	5		<div style="display: flex; justify-content: space-around;">   </div> <p>Sixty years at Greenbank Mill. The 4"x5" glass plate negative on the left was exposed by Charles S. Philips on December 25, 1895 while the digitized 35mm slide on the right was taken by HRCV member Tim Cronin during the winter of 1965. Both were taken from the railroad right-of-way and show Greenbank Mill, Greenbank Road and bridge, the mansion and barn. As part of celebrating 50 years of Wilmington & Western Railroad operations, the Charles S. Philips Collection of four dozen 4x5 glass plate negatives were digitized through a grant secured by HRCV. The images are printed on 30"x38" panels and hang in the HRCV Office and Training Center in Marshallton. The photographic series document the Landenberg Branch twenty-three years after opening. Chester County Historical Society glass plate negative (left) & Tim Cronin slide (right).</p> <p>HRCV holds an open house event at Greenbank Mill attracting over 300 visitors. The mill is in a run-down condition and HRCV begin a fundraising campaign hoping to raise more than \$10,000 for the purpose of funding the many needed repairs to the facility.</p> <p>HRCV's long term goal is to halt the decay and neglect, and transform the Greenbank Mill facility into a complementary attraction to the proposed railroad. The operating mill would display life as a miller living in the 1700s and 1800s. A secondary objective is to display and highlight Newport, DE's Oliver Evans' patented milling inventions which revolutionized the milling industry. Evans' inventions are considered as representing the first example of automated industrialization in the world. His prototype flour mill equipment was first installed at Evans' mill at Faulkland, DE and within a few years Greenbank Mill had been equipped with improved milling equipment of Evans' design. <i>(See the April 13, 1976 Timeline entry for photographs of Evans' patented milling equipment still in operation in Greenbank Mill before the 1969 arson fire destroyed the mill and the milling equipment.)</i></p>
1964	8	3	The Worth Brothers request that #92 be moved from Yorklyn by the end of the year. HRCV initiates a task force to identify and investigate the leasing or purchase of property along the right-of-way suitable for the construction of a railroad yard and enginehouse.
1964	10	22	Negotiations with B&O and union management target early 1965 as a potential date to offer steam tourist passenger operations on the Landenberg Branch. The unions that are negotiated with include The Brotherhood of Locomotive Engineers (BLE), Brotherhood of Locomotive Firemen & Enginemen (BLF&E), Order of Railway Conductors of America


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Y	M	D	Event or Activity
1964	10	22	<p>(ORC), and the Brotherhood of Railway Trainmen (BRT). Permission is finally obtained after one of the union officers retires. B&O management proposes that HRCV will be billed a fee of \$3.50 per train mile plus 60% of the cost of all maintenance and/or right-of-way improvements or changes (such as the addition of switches and sidings) required for a tourist operation.</p> <p>A major point of contention in obtaining agreements with the various unions, and even the B&ORR, is how to legally permit an unpaid, non-union membership of volunteers representing a non-profit organization, to operate the non-profit corporation's owned steam locomotives and passenger equipment in what is effectively revenue passenger service, on tracks and right-of-ways belonging to a stockholder accountable, publically owned, Class 1 Interstate Commerce Commission regulated railroad that employs unionized labor. Several other railroads had initiated steam tourist operations, however they were in some manner aligned and/or owned through commercial or private railroad relationships that may or may not have had union workforces and even ICC regulation. HRCV was exploring new ground with the B&O and its unions. Once the agreements were worked through and in place, similar issues and concerns arose with insurance agencies trying to develop reasonable insurance policies to cover HRCV's public tourist railroad operations and equipment.</p>
1964	10	31	<p>HRCV hosts an open house at Wilmington Industrial Park, East 7th Street, Wilmington, Delaware to display #98 and three of the four mostly restored Delaware & Lackawanna Railroad "Boonton" coaches (410, 603, 571) purchased from the Erie-Lackawanna Railroad.</p> <p>A week before the event, #98 and three coaches are posed for publicity pictures and for a postcard HRCV eventually offers for sale. To simulate #98 fired up, a bucket of burning oily rags was lowered down the stack to sit in the smokebox. It was unsuccessful in generating a realistic amount of stack smoke however when the bucket was later pulled from the stack volumes of smoke resulted.</p> <div style="text-align: center;">  </div> <p>Former Mississippi Central Railroad locomotive #98 in Louisiana Eastern Railroad livery in 1960 shuttling hopper cars of gravel in Paulsen Spence's gravel mine. C.W. Witbeck photo.</p>



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Y	M	D	Event or Activity
1965	1	28	<p style="text-align: center;"><u>THE RED CLAY VALLEY LINE</u> Thomas C. Marshall, Jr. 1/28/65</p> <p>WILMINGTON & WESTERN, WILMINGTON & WESTERN, the Red Clay Valley Line. Gonna Ride out to Hockessin, on the Red Clay Valley Line.</p> <p style="text-align: center;">We take off from old Greenbank on a bright and sunny day, Magargal's Mill is on the left, and here we'd like to stay; But Ninety-two is puffin' hard, her whistle starts to whine, She's ready for the journey, on the Red Clay Valley Line.</p> <p>WILMINGTON & WESTERN, WILMINGTON & WESTERN, the Red Clay Valley Line. Gonna Ride out to Hockessin, on the Red Clay Valley Line.</p> <p style="text-align: center;">It seems that in this Valley were great historic things; Ground for this Line was broken next to Brandywine Springs, And then came Fell's old Spice Mill, of little Faulkland town And the Mill of Oliver Evans, inventor of renown.</p> <p>WILMINGTON & WESTERN, WILMINGTON & WESTERN, the Red Clay Valley Line. Gonna Ride out to Hockessin, on the Red Clay Valley Line.</p> <p style="text-align: center;">The Covered Bridge at Wooddale, we're happy to acclaim, The Quarry walls up to our left stand high above the train; Mount Cuba's Cut is straight ahead, the scenery's mighty fine. They're all part of the splendors, of the Red Clay Valley Line.</p> <p>WILMINGTON & WESTERN, WILMINGTON & WESTERN, the Red Clay Valley Line. Gonna Ride out to Hockessin, on the Red Clay Valley Line.</p> <p style="text-align: center;">Around the bend at Ashland, a thriving town once stood: George Pusey's Mill, like most of them, entirely built with wood. The Railroad w s tank was up the Line to keep the water in, And then we come to Auburn, which for years has been Yorklyn.</p> <p>WILMINGTON & WESTERN, WILMINGTON & WESTERN, the Red Clay Valley Line. Gonna Ride out to Hockessin, on the Red Clay Valley Line.</p> <p style="text-align: center;">The "Red Clay Valley Line" written by HRCV founder Thomas C. Marshall, Jr.</p>
1965	2	15	<p>The B&ORR estimates the upgrading of Landenberg Branch track for passenger operations to cost \$25,000 for five miles of track to Mt. Cuba Rock Cut. The additional switches, yard derail, and trackage for Marshallton yard, restoring the Greenbank siding, and other improvements on the line, are estimated to add \$35,000 (\$60,000 total). Cash only payments are specified in \$20,000 increments before the B&O will start work. The B&O indicates they would consider upgrading shorter lengths of the line at roughly \$8,000 per mile with HRCV paying 60% of the cost.</p>
1965	3	1	<p>HRCV decides that a station complex at Greenbank makes more sense than one in Hockessin which had been part of Thomas C. Marshall Jr.'s initial vision. Before the</p>


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Y	M	D	Event or Activity
1965	3	1	<p>Kennedyville Station is erected at Greenbank two leases were required to be negotiated; one with the B&ORR and the other with the State of Delaware's Department of Corrections. The B&ORR leases HRCV a portion of their right-of-way land at Greenbank without much difficulty. HRCV starts negotiating with the Delaware Division of Corrections to lease the floodplain land between the B&ORR's right-of-way and the Red Clay Creek. The area had been a World War II "Victory Garden" and now makes an ideal parking area for a station complex. Negotiations with the Department of Corrections continue at a slow pace.</p> <p style="color: #A52A2A;">Greenbank offered the perfect location for a station for the W&WRR if the space could be procured at a reasonable cost or lease arrangement. While a Greenbank or a Hockessin location offers access to the busy Newport-Gap Pike (Route 41), the area around Greenbank is growing faster than the area around Hockessin where Hockessin Station was once located. Greenbank already had an abandoned siding that could be rehabilitated for passenger operations and offered more parking area with potential land available for additional parking. In June 1964 HRCV had purchased the Greenbank Mill and was starting its renovation thus being close to the mill which was also desirable. Greenbank is roughly a mile from property the B&O is leasing HRCV for construction of the Marshallton Enginehouse making train access easier.</p>
1965	3	15	<p>The B&ORR leases HRCV property off Old Capital Trail in Marshallton sufficient to construct a "Pole Barn" to store locomotives and rolling stock. Poles are set at \$30/pole by Moore Brothers, and carpentry assistance from Paul Wollaston and Jack Tweedy are performed on a time and material basis.</p> <div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>HRCV members are encouraged to assist when and where possible to keep expenses down. Neighbor company Material Transit (a concrete company) offers their tracked loader for grading when it wasn't in use at their ready-mix concrete plant.</p> <p>Ties which had been salvaged from the PRR's track between Claymont and Bellevue along with discarded rail from Wilmington Industrial Park are used within the enginehouse and for yard tracks.</p> <p>Total construction cost amounted to approximately \$17,000 for the enginehouse. New Castle County assesses the structure's tax value at \$85,000 which was negotiated lower once HRCV presented actual construction costs to County officials.</p> </div> </div> <p style="text-align: center;">Marshallton Enginehouse under construction on April 24, 1965. Richard Hall photo.</p>
1965	4	5	<p>A preliminary draft of a lease is submitted to HRCV by the B&ORR. The lease calls for HRCV to pay \$3.50 per train mile between Marshallton and the 5.5-mile point on the Landenberg Branch for operation only on Saturdays, Sundays, and holidays. The lease proposal includes HRCV paying \$15,000 for track upgrades from Greenbank to Lancaster Pike (Route 48) expenses of \$12,500 for installation of a pair of switches off the B&O Main Line at Marshallton. The B&ORR must inspect all motive power and coaches before they use the line for each day's operation. HRCV is required to keep their rolling stock and</p>


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Y	M	D	Event or Activity
			motive power in compliance with all ICC & B&ORR rules, regulations, and requirements at HRCV's expense.
1965	5	3	HRCV publishes " Two Mills on Red Clay Creek in the Nineteenth Century " by Carroll W. Pursell, Jr. that documents the Fells Spice Mill at Faulkland, Delaware and Greenbank Mill at Greenbank, Delaware. Common to both mills is the installation of automated milling equipment invented by Oliver Evans of Newport, DE.
1965	6	8	<p>Lease negotiations continue between HRCV and B&ORR management. The B&O agrees to defer a \$25,000 payment for one year related to track upgrading. The B&O also agrees that only one switch and derail shall be installed at Marshallton Yard at a cost of \$7,000 to HRCV.</p> <p>The lease is signed by all parties at the end of July 1965 after HRCV's lawyers and Board have reviewed the document. HRCV's tentative plan is to complete the enginehouse at Marshallton and relocate all rolling stock and motive power from Wilmington Industrial Park and Yorklyn to Marshallton once the B&ORR installs the necessary turnouts. A target to operate trains starting Labor Day Weekend 1965 is proposed assuming HRCV obtains operating liability insurance policies satisfactory to B&O management and insurance agencies.</p>
			<div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">"Bangy" at Wilmington Industrial Park Note coupler adapter on front. A "Boonton" Coach is at right. July 6, 1963 – Richard Hall photo</p>
1965	7	9	<div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">"Bangy" is unloaded from a flatbed trailer at Greenbank. Thomas Jarrell photo.</p> <p>The B&ORR installs a switch and derail close to Old Capitol Trail so that HRCV can connect yard tracks that they have been constructing with the B&O's Landenberg Branch tracks.</p> <p>With the coaches about to be relocated to Marshallton, it becomes apparent that an easy means of moving the coaches at Marshallton when a steam locomotive isn't fired up is needed. HRCV investigates purchasing the Plymouth 18-ton industrial locomotive nicknamed "Bangy" that they had returned to operation at Wilmington Industrial Park. A \$500 price is negotiated and HRCV has the engine moved by flatbed trailer to Marshallton Yard in the coming months.</p>


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Y	M	D	Event or Activity
1965	7	9	<p>Built by the Plymouth Locomotive Works in 1942, Plymouth locomotives were constructed similar to an automobile or truck as the design was based on a clutch and transmission. The patented 1917 design (Patent 1,283,665) of the continuously variable transmission was unique at the time. By 1925 Plymouth had changed to a four-speed with reverse geared transmission configuration. Building over 7,500 industrial locomotives, they finally ceased production in the early 2000s.</p> <p>“Bangy” gets its name from the noises the cab doors make when the doors are latched open in their keepers. As the engine moves the rocking of the engine on the rails and the noise produced inspires HRCV volunteers to come up with the name “Bangy”. Bangy’s engine number was #1 when it was owned by HRCV.</p>
1965	7	25	<p>The final day of Auburn Valley Railroad operations at the home of HRCV founder Thomas C. Marshall Jr. Efforts now focus on preparing for Landenberg Branch operation in 1966 including having Mogul locomotive #92 ICC approved for passenger service.</p> <div style="display: flex; align-items: center;"> <div style="flex: 1;"> <p style="text-align: center;">Herbert and Pixie Shriner buy tickets from Thomas C. Marshall, Jr. while T. Clarence Marshall tends to AVRR #402 in 1964. Friends of Auburn Heights Preserve photo.</p> </div> <div style="flex: 1;">  </div> </div>
1965	8	4	<p>The B&O supplies a carload of steel mill slag for the ballasting of the ties and rails. The B&O used two sizes of the slag, a larger size for mainline tracks and a smaller size for yards. As extra yard slag was available, the B&O donated HRCV a carload. The ballast car is moved with a truck and unloaded along the tracks.</p> <p>The B&O also provided a ballast spreading and leveling pan for dragging the ballast after it was dumped along the track. The pan was not an easy device to set up and use but it made for a nice job when complete. Volunteers hand tamped the ballast around ties to finish the job.</p> <p>The enginehouse's well for filling locomotive cisterns was drilled, a pump installed, and a water distribution system installed within the building. This will allow for the washing of locomotives and a means to fill locomotive tenders at the Marshallton Enginehouse should the Greenbank water tower not be accessible for any reason.</p> <p>The “Boonton” coaches are relocated by the B&ORR from Wilmington Industrial Park to the B&O’s Wilsmere Yard. The coaches are stored at Wilsmere Yard for a few days until tracks are ready at Marshallton Yard.</p>
1965	8	15	<p>With the completion of Marshallton Enginehouse and Yard trackage, #92 is relocated from Yorklyn to Marshallton. “Boonton” coaches 571, 581, and 603 are moved from the B&O’s Wilsmere Yard to Marshallton Enginehouse. #98 and coach 410 will be moved to Marshallton in March 1966 along with remaining supplies and equipment at Wilmington Industrial Park once the second enginehouse track (#3 track) was ballasted.</p>



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Y	M	D	Event or Activity
1965	8	15	 <p style="text-align: center;">HRCV volunteers align and level the Marshallton Yard #2 track which extends into the enginehouse during the summer of 1965. Once in place and level stone ballast will be spread and tamped around the ties. Note the rail directly spiked to the ties similar to what would have been done in 1872. Because the Wilmington & Western's locomotives and rolling stock are simply stored on this track, it has never needed to be changed out! Steve Jensen photo.</p> <p>In the coming weeks “Bangy” is brought from Wilmington Industrial Park to Greenbank by flatbed trailer and unloaded. “Bangy then is run under its own power to Marshallton for storage in the recently completed enginehouse.</p>
1965	9	11	<p>Locomotive #92 is test fired for the first time at Marshallton Enginehouse after having undergone an extensive maintenance program. Additional firings occur on October 3, 1965 and October 18, 1965. On October 18th #92 moves under steam for the first time on enginehouse tracks.</p> <p>Steam tourist passenger operations cannot commence, as liability insurance policies for the actual operation of trains have yet to be signed. HRCV has insurance policies in place since the organization's founding for its railroad equipment, property and buildings, and in the event a volunteer is injured. Obtaining a policy for passenger operations proves to be more difficult.</p> <p>HRCV is the only organization of its kind where a non-profit organization is preparing to offer steam tourist railroad travel with privately owned equipment maintained and operated with volunteer labor on a leased right-of-way belonging to a public railroad subject to ICC public carrier regulations and employing union labor. The problem obtaining insurance boils down to underwriters not having sufficient experience and data with operations similar to what HRCV is planning to determine HRCV's insurable risk. At this point in time only a half-dozen or so steam tourist railroad organizations exist so there's no historical data related to the risks involved should an insurance company have to indemnify HRCV in the event of a claim. In later years HRCV's business operation becomes a template for other tourist railroad organizations to follow.</p>


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Y	M	D	Event or Activity
1965	10	23	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">  <p style="text-align: center;">HRCV volunteers spread ballast at Marshallton Yard with “Bangy”. March 13, 1966 – Richard Hall photo.</p> </div> <div style="width: 50%;"> <p>The Marshallton Enginehouse is declared complete with a two-day (October 23, 24, 1965) open house event that is free to the public. 1,500 people visit and ride coaches 603 and 571 pulled by #92 under steam in yard limits (a 300' distance was available) over the two days. Tours of the enginehouse are provided.</p> <p>HRCV also opens Greenbank Mill to the public on October 23-24, 1965 so that visitors may tour the mill and observe how HRCV has been restoring the mill as a historical landmark. They are also shown the original Oliver Evans automated</p> </div> </div> <p>milling conveyors and equipment within the mill that HRCV intends to restore and demonstrate milling in the 1800s.</p>
1965	11	12	<p>The B&O begins Landenberg Branch right-of-way ballasting and rail improvements in support of HRCV's passenger operations which are scheduled to commence in early 1966. A lease between HRCV and the B&ORR, signed in July, allows HRCV to operate steam powered trains to milepost 5.5 (trestle 10C by B&O track maps; Mt. Cuba) on Saturdays and Sundays only (operating school trains during the week will be approved in the future).</p> <p>The B&ORR commits to having all upgrades of the Landenberg Branch completed by the end of February 1966. The B&ORR upgrades to the line and two switches at Marshallton Enginehouse eventually costing HRCV more than \$40,000.</p>
1966	1	5	<p>The last B&ORR Landenberg Branch station agent, John Eskridge who is assigned to Yorklyn Station, shuts down the station and moves B&O freight operations to a rented room in the NVF's #1 Fibre Mill across the tracks from the former station. Eskridge's job is scheduling all freight shipments on the Landenberg Branch.</p> <p>Three freight trains per week operate on the Landenberg Branch from Wilsmere Yard to Yorklyn and occasionally Hockessin. The trains move rail freight for NVF, coal deliveries to the Hercules Research Center's power house south of Wooddale, and an occasional mushroom compost movement to Hockessin.</p> <p>The B&O's deeds for the land around Yorklyn Station are transferred to NVF along with the original all wooden station building for \$1. The B&O maintains right-of-way ownership for their track and sidings at NVF. NVF eventually donates the station building, the only one on the line that was constructed with a basement, to HRCV for transfer to Greenbank. The station building is moved in 1968 at HRCV's expense and the basement backfilled with dirt.</p>


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Y	M	D	Event or Activity
1966	1	5	<div style="text-align: center;">  <p style="text-align: center;">No. 1173 B. & O. and Penna. R. R. Station, Landenberg, Pa.</p> </div> <p>Postcard postmarked “Hockessin 1909” of Landenberg Station. The card was made by United View Company of Newark, Delaware. United View Company was in business from 1907 until 1930 publishing postcards of landscapes and scenes from the mid-Atlantic region of the US.</p>
1966	1	14	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>HRCV continues negotiations with the Delaware Department of Corrections for use of 2.5 acres of land at Greenbank. The land borders the Red Clay Creek and once served as a World War II Victory Garden.</p> <p>Discussions are held up when transfer of the Greenbank Workhouse and Prison facility from State operation to New Castle County operation is decided upon. Once New Castle County owns the land, a lease is quickly negotiated. With B&ORR and New Castle County leases signed, the property at Greenbank is transformed into a railroad station area.</p> </div> <div style="width: 45%; text-align: center;">  <p>#92 is “blow down” following a day’s operation. Blowing down a locomotive involves opening valves at the bottom of the boiler to allow minerals and sediment to be removed from the boiler water. Failure to blow down regularly allows sediment and mineral content to accumulate in the boiler and will eventually cause foaming (a condition where the water bubbles violently becoming foamy not unlike the head that forms on beer when poured). Tom Gears collection.</p> </div> </div>



50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1966	1	14	<p>Reconstruction of the Kennedyville Station at Greenbank is started and plans for a water tower to fill steam locomotive tenders quickly are drawn up.</p> <p>The water tank at Greenbank was constructed by the Hall-Woolford Wood Tank Company which was established in 1854 in Philadelphia, PA. They furnished the 12' high tower, the 9,000 gallon, 12' diameter, Alaskan White Cedar tank and conical roof, steel access ladder, 8" tapered spout and counterweight system, flapper dump-valve in the tank's bottom, and fill valve mechanism.</p> <p>In May 1994 the tank is replaced with a slightly smaller 6,700-gallon tank (same diameter but two feet shorter in height) sitting on the same tower. In May 2007 the tank is lifted from the wooden platform so that the tower may be replaced. The tank is kept wet inside while a new tower is erected and the tank returned to the tower.</p>
1966	1	19	<p>B&O Conductor Paul Fortin begins training HRCV volunteers wishing to become brakemen or trainmen. HRCV's lease with the B&O for operations on the Landenberg Branch require all operating crews learn the B&ORR Rule Book and achieving passing grades on rulebook exams.</p>
1966	1	28	<div style="display: flex; align-items: flex-start;"> <div style="flex: 1;">  <p>American class locomotive #98 arrived at Marshallton in March 1966 (stored at Wilmington Industrial Park from April 1964 to March 1966). The B&O Class I-5 wooden caboose C2013 behind #98 was acquired by four HRCV members in February 1967 and it later acquired by HRCV. Yorklyn Station. Purchased for \$1, was moved to Greenbank in April 1968 the year this photo was taken. HRCV would occasionally display #98 and C2013 at Greenbank while ICC Form 4 calculations were being prepared for #98's return to service. Note that #98 is facing eastbound, has no cow-catcher, and long footboards. Richard Hall photo</p> </div> <div style="flex: 1; padding-left: 10px;"> <p>Negotiations with H. Emerson Eastburn, owner of the "Bayard Taylor" picnic grove at Mt. Cuba, continue for use of the property as a railroad destination. While Eastburn had verbally agreed to allow HRCV use of the property, he sold the land to Lamot duPont Copeland before HRCV could begin using of the property.</p> <p>Copeland is aware of the verbal agreement and agrees to allow the use of the property providing HRCV maintains the former picnic grove property on the opposite bank of the Red Clay Creek from where the Copeland mansion is located. Copeland continues to</p> </div> </div> <p>allow HRCV to use the property on a year-to-year basis.</p> <p>Lamot DuPont Copeland was the DuPont Company's 11th President and CEO from 1962 until 1967 and became the company's chairman in 1971. Copeland and his wife Pamela purchased the property at Mt. Cuba in the mid-1930s and built a Colonial Revival home on the property.</p>


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1966	1	28	<p>Following DuPont family tradition, the Copelands took an interest in lavish gardens and terraces as well as botanical research and education. Their interest in Appalachian Piedmont botany inspired a diverse native plant collection to be developed on the property and the start of educational and research activities.</p> <p>With the passing of Mrs. Copeland in 2001 the property becomes The Mt. Cuba Center. The Center now hosts visitors and a Copeland trust supports conservation, education, and research for the non-profit organization.</p>
1966	1	28	<p>HRCV produces "<u>Seeing the Red Clay Valley from the Wilmington and Western Railroad</u>", a promotional 16mm color film. The film includes an accompanying audio tape that is carefully synchronized to the film by the projectionist. Thomas C. Marshall, Jr. made the film and edited it into the finished work. Elbert Chance, with the University of Delaware, provides the narration on the audio tape. Over the next two years the film is viewed on 36 occasions between 1965 and 1966 to help promote the railroad.</p> <p>HRCV continues fundraising and restoration activities related to securing Greenbank Mill in hopes of providing public access to historical milling operations in the future. Roy Margargal continues milling in the facility using original Oliver Evans milling equipment while HRCV's restoration activities are ongoing to the exterior of the building as well as the mill race and building's interior.</p> <div style="text-align: right;">  <p>The Kennedyville Station is reassembled at Greenbank following the signing of leases for use of the property with the B&O and State of Delaware. HRCV archives photo.</p> </div>
1966	2	15	<p>B&O union engineers train HRCV volunteers wishing to become qualified steam locomotive firemen and engineers. All HRCV motive power volunteers are required to pass current B&ORR engineer operating rules exams and maintain their operating experience and education once volunteer operations commence on the Landenberg Branch.</p>
1966	3		<p>#98 and coach 410 are moved from Wilmington Industrial Park to the Marshallton Enginehouse by March 1966 along with remaining supplies and equipment used at Wilmington Industrial Park. All HRCV motive power and rolling stock is now consolidated in one location.</p> <p>"Bangy" is the first locomotive HRCV officially operates on the Landenberg Branch. "Bangy's" first trip beyond Marshallton Yard takes the industrial engine to milepost 5.5 to check rock and tree clearances for the coaches and steam locomotive.</p> <p>The 4-wheel, gasoline engine powered industrial switching locomotive affectionately known as "Bangy" was moved by flatbed truck from Wilmington Industrial Park to Greenbank for unloading. It was then run to the Marshallton Enginehouse for use in</p>


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1966	3		moving rolling stock around Marshallton Yard. "Bangy" will serve HRCV and the railroad for many years when either #92 or #98 was not under steam. With the purchase of the Landenberg Branch by HRCV in 1982 including SW1 diesel locomotive #8408, "Bangy" is no longer needed. "Bangy" currently resides with the Walkersville Southern Railroad on static display.
1966	3	7	Thomas C. Marshall, Jr. donates the funding necessary to construct sanitary facilities at Greenbank Station. Robert Peoples Construction is hired to grade and level crushed stone for a Greenbank parking area to accommodate a minimum of 65 vehicles.
1966	4	30	<p>Water tank construction, parking lot grading, restroom construction and other general improvements at Greenbank are underway. #92 undergoes final work prior to ICC inspection and hydrostatic testing of the boiler. A seniority system is established for railroad operating crews.</p> <p>The B&ORR unions are completing the training and exams necessary to qualify HRCV volunteer engineers, fireman, conductors, brakemen, and trainmen for passenger service on the Landenberg Branch. The B&ORR has approved HRCV's insurance policies for operation on the Landenberg Branch.</p>
			 <p style="text-align: center;">Kennedyville Station at Greenbank in the summer of 1966. Thomas Jarrell photo.</p>
1966	5	15	<div style="display: flex; align-items: flex-start;"> <div style="flex: 1;">  <p style="text-align: center;">Bangy & "Boonton" coach 410 at Marshallton. Note that coach 410 has not been "turned" in this photo. The baggage compartment is at the "east" end of the car. Richard Hall photo.</p> </div> <div style="flex: 1; padding-left: 10px;"> <p>#92 pulls coaches 410, 603, and 571 to the end-of-lease milepost (Mt Cuba trestle 10C) in a trial run that confirms engine and coach clearances. The excursion provides locomotive engineers an opportunity to experience how #92 pulls and pushes the "Boonton" coaches between Marshallton and the end-of-lease milepost 5.5. which is trestle 10C at Mt. Cuba.</p> <p>During the trial trip running brake tests were performed to insure all coach brakes applied and released properly and to provide experience in determining train handling characteristics and braking application points and amounts, and stopping distances. The trip also provides the engine fireman with experience firing the Mogul engine and provides an indication of water and coal use for a trip.</p> </div> </div>


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1966	5	15	 <p>#92 waits in Marshallton Yard for the remaining HRCV volunteers to arrive. A small dedicated taskforce of volunteers has worked for the past seven-plus years to bring Tom Marshall's dream of returning steam passenger trains to the B&O's Landenberg Branch. They will be the first passengers on the "Red Clay Valley Line" as #92 and coaches travel to just past Mt. Cuba Rock Cut and return to Marshallton. In a couple of weeks, the first public passenger trains will return to the Branch. Note that there is no tender livery painted yet. May 15, 1966; Richard Hall photo.</p> <p>Controlling hundreds and even thousands of tons of railroad equipment on the Landenberg Branch takes experience and training. Railroad braking systems are effective, but operate significantly different than the braking systems in automobiles for example. Train brakes must be applied evenly and there is no provision for a partial release (lifting your foot slightly on a car's brake pedal to reduce the stopping effort). Once an engineer releases the train brake, it is a full release by design and it takes tens of seconds for the system to "recycle" before another application can be made (unless emergency is used).</p> <p>Perhaps the best way to describe train brake operation is to relate it to only using a car's parking brake to drive a car (not using the foot pedal brake at all). A car's parking brake can be applied only; the more one activates it the more braking power applied. Releasing the parking brake is a full release; there is no partially reducing the applied parking braking action. Add in an added requirement that if you release the parking brake you cannot reapply it for 10 or 15 or even 20 seconds (train length dependent) and you have an idea of what it is like to use train brakes. The test trip on the Landenberg Branch was to give engineers a feel for how much train brake to apply and where so that passengers experience a smooth trip.</p>

50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1966	5	15	<p>An FRA requirement is that both a “terminal brake test” and a “running brake test” be performed on passenger equipment before going into a day’s service. A terminal brake test occurs once a consist of passenger cars is assembled and the brake system is pneumatically charged with air. The conductor calls for a brake application by the engineer.</p> <p>With a standard brake application applied the conductor and brakeman walk the train to insure all the brake shoes are engaged on each train wheel. While the traincrew walks the length of the train the engineer monitors brake system air pressures insuring any leakage is within acceptable specifications. Once the conductor and brakeman are satisfied all brakes are mechanically applied, a brake release is given and the conductor and brakeman again walk the train to insure brakes are not mechanically stuck on, etc. At the completion of the test both the conductor and engineer sign reports related to the test.</p> <p>When a passenger consist leaves Marshallton Yard for Greenbank a running brake test is performed. A partial application of the brakes is made while the train is in motion. The engineer should feel the cars slowing if the braking is effective. The engineer will often apply some locomotive power to insure that the brakes are working and effective. Satisfied that the brakes are capable of stopping the train, the engineer will release the train brakes and as the consist picks up speed the locomotive power will be reduced to maintain a proper track speed.</p> <div style="text-align: center;">  </div> <p>HRCV train at Ashland between Iron Bridge 11A and Overhead Pony Truss road bridge 11B. The photographer is standing about where the Ashland Station would have been located. Delaware State Archive photo.</p>

50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
			<p>Regularly scheduled steam passenger service returns to the Landenberg Branch of the Baltimore & Ohio Railroad!! Having not been present on the Branch for exactly 35 years and 8 months, #92's whistle and bell is heard at grade crossings. Four former Delaware, Lackawanna & Western Railroad "Boonton" coaches and a wooden caboose behind #92 signify the return of scheduled steam passenger operations to tracks laid down in 1871-2 by the original Wilmington & Western Rail Road Company. Trips are scheduled for 1, 2, 3, and 4 PM to the "Bayard Taylor Picnic Grove" at Mt. Cuba. The 5 PM train operates to the picnic grove and then to the end of B&O-HRCV lease point near the DuPont driveway, before returning to Greenbank Station. Trains operate each day during the Decoration Day holiday weekend.</p>
1966	5	28	<div style="text-align: center;">  </div> <p style="text-align: center;">Is it 1909, 1911, 1913, or another year? A 1909 American class 4-4-0 locomotive and a 1911 Stanley Model 62 steam car meet at Mt. Cuba Road grade crossing. Perhaps the signals are a clue however the first flashing red light signals with cross-bucks were installed in 1913 in New Jersey. The photo is century after the years indicated; April 30, 2011. Steve Jensen photo.</p> <p>Initial trains display "The Red Clay Valley Line" livery, along with "Wilmington & Western Rail Road" along the border of the diamond shaped logo. The use of "Wilmington & Western Rail Road" or "Wilmington & Western Railroad" as the official livery was still being investigated by B&O lawyers for legal use. As both "The Red Clay Valley Line" and "Wilmington & Western Railroad" were used interchangeably at the time, John Rowe painted both names on a diamond shape on #92's tender in the weeks before opening.</p> <p>If the Wilmington & Western name had been retired legally back in 1877, the B&O would grant HRCV formal approval to use the name as the official livery of the operation. The B&O would eventually determine the name retired and consent to HRCV using the Wilmington & Western Railroad livery. The original line used "Rail Road" in their 1867 corporate identity and B&ORR lawyers suggested using the more modern "Railroad" to insure no conflict might exist. "Wilmington & Western Railroad" is a tradename and not an FRA recognized railroad (Wilmington & Western Railway Corporation, formed in 1984, is however an official FRA recognized freight railroad).</p>


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1966	5	28	<p>Delaware has been known by several unofficial nicknames including “The Diamond State” (legend reveals that Thomas Jefferson referred to Delaware as a “diamond” due to Delaware’s strategic port locations along the Eastern Seaboard); “The Blue Hen State” (Delaware Revolutionary War Soldiers carried Blue Hen Cocks with them for Cockfight entertainment and betting); and “Small Wonder” (used for a while in reference to Delaware’s importance in contributing to the success of the country). “The First State” is the State’s official nickname (as of May 23, 2002) in recognition of being the first of the 13 colonies to ratify the US Constitution on December 7, 1787. The use of the diamond shape for the line’s early logo acknowledged the frequent reference to “The Diamond State” nickname that was and is still often used when referring to Delaware.</p> <div style="text-align: center;">  </div> <p>Wilmington & Western timetable board from Kennedyville Station. The timetable now hangs at the HRCV Office and Education Center in Marshallton. Cristian Sanchez photo.</p> <p>As an historical note, Decoration Day, May 30, 1966 (a Monday in 1966), was the official name for what we now refer to as Memorial Day. In 1971 the Uniform Monday Holiday Act became effective and Decoration Day was renamed Memorial Day. Memorial Day was now designated for celebration on the last Monday of May vs the traditional May 30th date.</p> <p>As Greenbank Station is about a mile from Landenberg Junction it was realized that there would not be any passenger service on this section of the line. The B&ORR grants permission to HRCV to operate trains past trestle 10C (the contracted 5.5 milepost) by about a mile with the DuPont estate driveway being the revised end of operations milepost (milepost 6.1). This change allows operations within the original 5.5-mile contractual requirement. 36,000 tickets are sold during 1966’s operating season.</p>
1966	6	6	<p>The first 30 operating trips of the Red Clay Valley Line carry more than 5,000 passengers.</p> <p>The Marshallton Enginehouse inspection pit is dug and the concrete floor and walls poured. Track within the enginehouse is extended over the pit to allow for engine and coach servicing.</p>


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1966	7		<p>A combination Pullman diner-lounge-parlor car, #7014, the "Defender", is purchased from the PRR by HRCV member Alto Smith for railroad use. Built in 1912 but modernized in 1933 it is the only W&WRR car to have a valid liquor license on the Landenberg Branch. (it came with the car and was only valid until the end of 1966).</p>  <p style="text-align: center;">The Defender in Wilmington & Western livery in the 1970s pulled by #98 at the Barley Mill Road grade crossing. Richard Hall photo.</p>
1966	7	23	<p>Historic Red Clay Valley, Incorporated's steam passenger service on the Landenberg Branch is declared operational with a ribbon-cutting and the driving of a ceremonial golden spike. The "Governor's Day" celebration includes the following speakers; Governor Charles L. Terry, Jr, Paul H. Reistrup - B&O/C&O Passenger Service Director, R. H. Minser B&O Division Superintendent, and founder Thomas C. Marshall, Jr. Former governor Elbert N. Carvel, who had played a pivotal role providing support to HRCV, was scheduled to participate but was not able to attend.</p>  <p style="text-align: center;">T. Clarence Marshall takes a few swings with a spike hammer during the Golden Spike driving ceremony. Note #98 with the abbreviated "cow-catcher" at the front. Photo from the front of #92 at Greenbank. Richard Hall photo.</p> <p>HRCV notes that for the first 18 operating days the railroad carries 13,800 passengers!</p> <p>On the way to Greenbank Station, when passing under Kirkwood Highway overpass (Route 2), a piece of steel drops from repairs being done underneath the bridge and impacts the front of #92. The impact shock shakes the engine and the consist is emergency stopped.</p> <p>An inspection reveals the steel has broken a minor casting under the pilot supporting the bolster for the front truck. The damage is not terminal and the broken casting is wired together with the hope that it will last for one round-trip to Mt. Cuba. Weldin Stumpf</p>


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Y	M	D	Event or Activity
1966	7	23	<p>rides the front of #92 for the trip to Mt. Cuba and back making sure the temporary repair holds. The temporary repair does hold, with the passengers unaware that anything had happened.</p> <p>With B&O railroad managers present at the celebration the quick lease of a Wilsmere Yard diesel is arranged. B&O SW1 diesel #8408 is at Greenbank in time for the second trip of the day to Mt. Cuba and #8408 handles the remainder of the day's operations while #92 is returned to Marshallton enginehouse for a welded repair to the broken casting. #92 is fully repaired and operational the following day.</p> <p style="color: #A52A2A;">In what some may cite as an interesting omen of the future, B&O SW1 diesel locomotive #8408 is leased from the B&O's Wilsmere Yard by HRCV quite unexpectedly for the day's celebratory operations! The event becomes #8408's first use by HRCV performing as a W&WRR passenger locomotive on the Landenberg Branch. This is sixteen years before HRCV purchases SW1 diesel #8408 from Chessie (B&O railroad successor) to support freight operations and the occasional passenger train on the Landenberg Branch!</p> <p style="color: #A52A2A;">Ironically #8408 will also come to HRCV's rescue as a leased locomotive pulling Wilmington & Western passenger trains during the 100th Anniversary celebration of the initial Wilmington & Western Rail Road Company's trains operating on the line 1872. In October 1972 both #92 and #98 are scheduled to double-head the celebration consist however mechanical issues with both engines within weeks of the event prevented either from being available and HRCV is forced to lease Chessie #8408.</p>
			
			<p>#92 has its tender topped off after the day's runs on August 7, 1966. Note the "Boonton" coaches staged at the far side of the Newport-Gap Pike (Route 41) awaiting #92's cistern filling and return to the coaches to shove the consist back to Marshallton Yard & Enginehouse. Placement of the water tank was driven by where an ample supply of public water was located and a desire for increased visibility. The image was taken in the vicinity of where Yorklyn Station would be located in a little over a year's time. Heywood Massara photo.</p>
1966	8	1	<p>The HRCV Board authorizes a 151-foot extension to the north end of the Marshallton Enginehouse. The addition is completed in November 1966.</p> <p>The railroad's first "operations committee" is formed and charged with developing an HRCV-W&WRR specific operating rulebook. The B&ORR provides HRCV with its latest rulebook and a request that it be used as the basis for the development of the organization's rulebook. The B&ORR must approve the new rulebook and HRCV shall insure all volunteers comply.</p> <p>Thomas C. Marshall, Jr. does not seek re-election as the organization's President, but remains the General Manager. Alto J. Smith becomes HRCV's 2nd President.</p>



50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
			Contractor John Tweedy is authorized by HRCV to initiate additional repairs to Greenbank Mill. The improvements will cost \$7,180.
1966	9		<p>HRCV is offered a 1904 industrial track car once used at the Garrett Snuff Mills transporting hogsheads of tobacco leaves between buildings. The car runs on standard railroad track and is moved by manpower or horses. The car is restored and placed on display at Greenbank Station.</p> <p>A concrete pad is poured at the south end of the Marshallton Enginehouse for a shop area and a heated crew room is constructed.</p>
1966	9	25	<p>Approximately 25,000 passengers (to date) have ridden the 4-foot 8½-inch standard gauge W&WRR between Greenbank and Mt. Cuba since beginning operations on Decoration Day Weekend, May 28-30, 1966.</p> <div style="text-align: center;">  </div> <p>American class 4-4-0 locomotive #98 and Pullman diner-lounge-parlor car #7014, "Defender", on display at Greenbank Station in August 1966. In September, #98 is confined to the Marshallton Enginehouse while it is disassembled so that the required calculations and documentation may be completed for ICC Form 4 certification. Car #7014 is painted blue and yellow matching the "Boonton" coaches and used on selected Landenberg Branch excursions. Kurt Bell collection.</p> <p>When HRCV began operation on the Landenberg Branch with the Red Clay Valley Line – Wilmington & Western Railroad (officially becoming simple the W&WRR in October 1966) the operation joins an elite group of tourist railroads, most operating with steam motive power. These tourist steam railroads include the Black Hills Central Railroad (1957), Strasburg Rail Road (1959), Arcade & Attica Railroad (1962), Cass Scenic Railroad (1963), Wanamaker, Kempton & Southern Railroad (1963) and Black River & Western Railroad (1965). HRCV's Wilmington & Western Railroad is the seventh oldest standard gauge tourist heritage railroad (May 1966) in the United States. New Hope & Ivyland Railroad becomes the eighth oldest when they start operations in June 1966 and Illinois Railway Museum is ninth oldest when they first operate in July 1966 (steam in December 1967). The Tweetsie Railroad (1957 - former East Tennessee and Western North Carolina Railroad) is actually the oldest tourist heritage railroad. However, it is a 3-foot narrow</p>



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Y	M	D	Event or Activity
1966	9	25	<p>gauge line. The East Broad Top Railroad (1960) in PA would be the second oldest narrow gauge tourist heritage railroad if it were still in operation (in reorganization in 2016).</p> <p>White Mountain Central Railroad is a purpose-built (1958) steam tourist railroad operating on 1-1/4 miles of track and not considered a heritage railroad operation. In 1946-7 Ellis D. Atwood purchased a portion of Maine's 2-foot narrow gauge railroad equipment from various locations within the state and shipped it to Carver, MA where he constructed the 5½ mile long Edaville Railroad as part of the Edaville Amusement Park on his 1,800-acre cranberry plantation. It is without a doubt the oldest, totally private, purpose-built, steam operating narrow gauge railroad in the US even predating Disneyland's (1951) railroad. It continues to operate in 2016.</p>
1966	9	26	<p>ICC Form 4 documentation, measurements, design work and calculations begin on #98's boiler for an eventual return to service.</p> <p>Greenbank Mill is opened to the public after HRCV performs roof and other repairs to make the facility safe for public tours. Water-powered milling done with stone burrs is demonstrated during public visitation days. HRCV forms a Mill Committee to oversee mill operation and a formal restoration of the mill.</p>
1966	10		<p>W&WRR Operating Rules (a subset of the B&O Rulebook that is specific to HRCV railroad operations) are approved by the B&O Rules Committee and adopted by the HRCV Board. HRCV establishes W&WRR operating committees per the rulebook. The W&WRR Rulebook is subject to periodic B&ORR review and volunteers must abide by the rulebook.</p> <p>The use of "Wilmington & Western Railroad" is approved by B&ORR legal and management departments as the livery name for the railroad service that HRCV offers. As an all-volunteer operated operation, under lease on B&ORR right-of-way, the name HRCV adopts is considered a livery only. The name does not conflict with the original Wilmington & Western Rail Road Company's legal status, and the name is not required to be ICC registered. The HRCV operation legally falls under B&ORR responsibility for railroad compliance to federal regulations.</p> <div style="text-align: center;">  </div> <p>In 2016, locomotive #8408, crosses Faulkland Road with a school train on a rainy May 3rd. The SW1, wearing its original Baltimore & Ohio color and livery, returns to passenger operations on the Landenberg Branch after a multi-year, frame-up restoration. Steve Jensen, Jr. photo.</p>


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Y	M	D	Event or Activity
1966	12	5	<p>The Elsmere Junction Station and Tower are declared surplus and offered to HRCV. HRCV investigates moving the structures at a cost of \$12,000-\$15,000. HRCV ultimately decides not to acquire the structures due to cost as well as being unable to provide suitable locations to utilize them.</p> <p>The Union Switch & Signal company originally supplied the electric interlocking system which replaced the previous all mechanical system installed at Elsmere Junction. When finished in 1906, Elsmere Tower becomes one of five fully electric interchanges on the Baltimore & Ohio Railroad and allows the B&O to interchange with the Philadelphia & Reading Railroad. The switching machine that Union Switch & Signal installed included 36 total working levers as follows: 19 levers controlling 16 switches and 20 derails; 17 levers for the operation and control of 48 signals; and 11 spaces for future functions.</p> <p>The power house was located 150-feet from the tower. Inside the power house was a four horsepower Fairbanks-Morse gas engine driving a 2,000-watt DC generator. In a separate room where two banks of 55-size 'E' "Chloride Accumulator" lead-acid storage batteries capable of supplying 120 amperes continuously for one hour. System operating voltage was a nominal 110 volts DC. Switching motors located alongside each of the track switches in the interchange were operated on 110 VDC. Each switch motor was 1½ horsepower and it operated the switch through a gear reduction drive.</p> <div style="display: flex; justify-content: space-around;"> <div style="width: 45%;">  <p style="text-align: center;">Sepia photo of Elsmere Station and Junction Tower in 1905.</p> </div> <div style="width: 45%;">  <p style="text-align: center;">Elsmere Station and Junction Tower in 1961. Richard Hall photo.</p> </div> </div>
1967	1	23	<p>HRCV acquires PRR "gas car" #4662 from the National Capital Trolley Museum for \$1,000. The car is heavily vandalized having been stored outside on an abandoned track. HRCV volunteers secure the car and begin arranging for its relocation to Marshallton Yard. The car, after extensive reconditioning and rebuilding will return to revenue passenger service on the W&WRR on March 23, 1980.</p>


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Y	M	D	Event or Activity
1967	2	15	<p>A B&O Class I-5 wooden caboose, #C2013, becomes available however limited HRCV treasury resources allow for its purchase. The Board accepts a proposal that John A. Darling, George Laird, H.C. "Woody" Massara, and John F. Rowe purchase the caboose through their proposed Red Clay Valley Railroad Equipment & Leasing Company (Delaware incorporated April 25, 1968) for eventual lease to HRCV. The caboose is moved to Marshallton Enginehouse for eventual lease to HRCV. The caboose would be purchased by HRCV in early 1976. In 2015 caboose C2013 is extensively restored including new lighting, better restroom equipment, repainting, and returned to original B&O livery.</p>
1967	3	22	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>HRCV volunteers begin converting one of the two ex-Navy gondola cars (originally called a "chicken car" because the cars were once used to transport live chickens and other fowl prior to World War II) into an open-air observation car. Purchased for \$500 (HRCV purchased one for \$500 and the second was donated) from the Dravo Company's scrap yard in Wilmington, DE, the cars originally carried the LPTX reporting mark which was assigned to the Live Poultry Transit Company. Both cars would be cleaned up and turned into open cars and see service into the mid-1970s before being retired from service.</p> <p>Also known as "Cackle Cars" the cars purchased from Dravo were a patented design to move ducks, geese, pigeons, turkeys, and of course chickens. In 1881 William P. Jenkins and James L. Streeter designed and patented a railroad car specifically designed to move fowl from farm to market. Jenkins formed the Live Poultry Transportation Company and by the start of the 20th Century had hundreds of the patented cars in use on North American rails. A variation in the design included an ice block refrigerated section for transporting crates of eggs in addition to the birds. "Chicken Trains" and "Turkey Trains" were as well known in the early decades of the 20th Century as CSXt's Tropicana Juice Train is known today by railfans.</p> </div> <div style="width: 45%; text-align: center;">  <p>First livery for the railroad. Kurt Bell photo.</p> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="width: 45%;">  </div> <div style="width: 45%;"> <p>In April through May 1979 Historic Red Clay Valley leased Southern Railway 2-8-0 Consolidation locomotive #722 for Landenberg Branch trips as #98 was out-of-service due to dry-pipe repairs. Behind #722, facing eastbound at Greenbank Station is open car 17107 which was not one of the former "Chicken Cars". Car #17107 now serves volunteer track workers carrying rail, ties, and track supplies to worksites along the line. Steve Jensen slide.</p> </div> </div> <p>There were 2,071 of the 35-foot 10-inch long by 10-foot wide cars registered in 1926. A car was set low on the trucks to provide an additional two feet of height over a standard box</p>


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Y	M	D	Event or Activity
1967	3	22	<p>or live stock car. The design of the car was focused on the comfort of the fowl being transported. At the center of a consist of Cackle Cars was an attendant's car (similar to a caboose) that traveled with the shipment. The attendant was responsible for watering the birds from reservoirs onboard each car as well as keeping the birds fed with corn supplied from a fifty-bushel hopper on the attendant's car. After World War II the use of highway trucking and the commercialization of rapid freezing of foods meant less birds were shipped live.</p>
1967	4	1	<p>Federal Railroad Administration (FRA) is formed as an agency of the US Department of Transportation. The agency was created by the Department of Transportation Act of 1966. The purpose of the FRA is to enforce railroad safety regulations and to conduct research to improve the national rail system.</p> <p>The Interstate Commerce Commission (ICC) has been responsible for the regulation of railroads since 1887. With the creation of the FRA in 1966 and the passage of the Staggers Rail Act of 1980, the regulatory powers of the ICC are passed to the FRA. The FRA maintained the ICC rules and regulations in effect initially. Over time the former ICC rules, regulations, forms, and other requirements transitioned to FRA equivalent documents as they were reviewed, revised, and reissued.</p> <p>The ICC remained a federal organization until dissolved in 1995 when its powers were transferred to the Surface Transportation Board. For consistency, all government regulatory railroad references from this point forward on the timeline will be the FRA.</p>
1967	4	15	<p>HRCV begins the second season of W&WRR operations. In the second operating season the W&WRR carries 23,000 passengers and membership in HRCV reaches 447 individuals by the end of 1967.</p> <p>Greenbank Mill hosts 5,800 individuals in 1967. Visitors experience milling operations being performed as they were two centuries earlier with water power and witness Oliver Evans' patented milling equipment in operation.</p>
			 <p>B&O caboose C2042 in Wilsmere Yard prior to delivery to Marshallton Yard. Brian Woodcock photo.</p>
1967	5	17	<p>HRCV volunteers make multiple trips to Baltimore to prepare #4662 for movement back to Marshallton (the car is not runnable). #4662 is located on a short length of abandoned siding, once part of the PRR's Green Spring Branch, and has served as an occasional home to man and beast. Trees and undergrowth between #4662 and a set of nearby serviceable railroad tracks are removed. When the car is ready for moving, PRR track crews cut the nearby Northern Central line tracks (a line that connects Baltimore, MD with Harrisburg, PA) and move them to connect to the tracks #4662 is on (the switch had long been removed). #4662 is pulled out and the Northern Central tracks moved back in place and reconnected. The PRR then moves the car south on the Northern Central line to turn the car over to the B&ORR near Baltimore. The B&O moves the car to Wilsmere Yard delivers</p>



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Y	M	D	Event or Activity
1967	5	17	<p>it to Marshallton Yard. On the trip from Baltimore to Marshallton, the lead coupler becomes damaged and the car literally arrives at Marshallton Yard being pulled by chains!</p> <div style="text-align: center;">  </div> <p style="text-align: center;">Former PRR #4662 as it was found in March 1967 on the former Green Spring Branch of the Pennsylvania Railroad north of Baltimore, MD. Richard Hall photo.</p> <p>The HRCV Board approves the leasing of a caboose, C2042, from HRCV members Henry Schreiber, Melvyn Small, Jr, Robert Bodan. C2042 was constructed by the B&O shops in Washington, Indiana in August 1926 as a B&O Class I-5 series caboose similar to C2013. C2013 was modified by the B&O to Class I-5D when additional steel supports and concrete were added to the undercarriage to keep a caboose from being crushed at the rear of coal trains. Helper engines added to the rear of coal trains as they crawled over the Allegheny Mountains caused the original wooden designs to creak and crack loudly so reinforced steel and concrete underframes provided additional structural strength. In 1977 the HRCV Board purchases the caboose.</p>
1967	5	20	<p>The Hercules Country Club charts #92 and caboose to be part of the grand opening dedication ceremony of the club's "Southern Course" of nine holes of play. Opened in 1937 and designed by Alfred Tull, the Southern Course's nine holes were an addition to the 18-holes of the "Northern Course". #92's steam whistle is sounded as the official "play golf" starting signal for the various foursomes located at each of the newly completed golf course's tees.</p>



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Y	M	D	Event or Activity
1967	5	20	<p>With the opening of Hercules Golf Course's Southern Course, the Landenberg Branch gained another crossing – a golf cart crossing. While its unknown for sure if there are other railroad golf cart crossings in North America, W&WRR engineers treated the golf cart crossing as road grade crossing due to the constant flow of powered golf carts and sounded the locomotive's whistle and horn early for the road crossing to warn golf cart drivers of the train's presence.</p> <p>With the downsizing of the Hercules Company in the 1990s and eventual purchase of the company by the Ashland Corporation in 2008 the country club took on new ownership and was renamed the Delaware National Country Club. The "Southern Course" of nine holes was eventually closed down and the land acquired by Toll Brothers for residential development. In October 2010 the Delaware National Country Club closed and the remaining 18-hole golf course property is under development as residential properties by Pettinaro Construction.</p> <div style="text-align: center;">  </div> <p>Leased B&O SW1 locomotive 8406 pulls the W&WRR consist westbound in this late September 1978 photo. The golf cart crossing lies between 8406 and Combine 410 as the consist heads towards the Lancaster Pike, Route 48 grade crossing. #98 had suffered a dry-pipe leak and had been removed from service. To fill in HRCV leased SW1 locomotives from Wilmere Yard for passenger train service through the end of 1978. Steve Jensen slide.</p>
1967	5	21	<p>W&WRR hosts their first group charter with 505 visitors from the National Capital Trolley Museum. B&ORR supplied seven RDC cars for transportation between Washington/Baltimore and Marshallton Yard. One of the partially restored "chicken cars" is used as an open-air car for the charter.</p>
1967	7	8	<p>HRCV hosts "New Castle County Day" to dedicate the new footbridge constructed by HRCV contractor John Tweedy. The footbridge provides passage over the Red Clay Creek at Greenbank between the Greenbank Station complex and Greenbank Mill complex. New Castle County's first Executive, William J. Conner dedicated the bridge which was constructed on the Greenbank Mill side of the creek and then moved into position across the creek by a boom truck. In addition to W&WRR rides being offered, visitors can tour Greenbank Mill and observe water-powered flour milling.</p>


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Y	M	D	Event or Activity
1967	7	8	 <p style="text-align: center;">The HRCV foot bridge on August 18, 1974 prior to its removal to make way for a new DelDOT bridge for Greenbank Road. The foot bridge served as a means to cross the Red Clay Creek between Greenbank Mill and the railroad's Greenbank station. Tim Cronin photo.</p>
1967	8	19	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>HRCV volunteers convert a Pennsylvania Railroad "MU" coach, #675, into a mobile gift and book shop for use at Greenbank Station. The car serves as the gift shop for several months while arrangements for jacking up and transporting the Yorklyn Station from Yorklyn to Greenbank can be completed. Once Yorklyn Station is relocated to Greenbank and has been restored, it becomes the organization's gift shop. Richard Hall photo.</p> </div> <div style="width: 45%;">  </div> </div>
1967	9	9	<p>After several successful seasons of operation, the B&O permits HRCV to extend the western milepost of operation from the DuPont estate driveway to the end of the line in Hockessin at Valley Road. Mogul locomotive #92 makes the first W&WRR trip to Hockessin with four "Boonton" coaches and a caboose. The trip features a stop at each location where an original W&WRR station or waiting shed was located. Passengers are permitted free ridership between any of the stations. It is the first time a steam passenger train arrives in Hockessin since the B&O excursion in May 1949.</p> <p>The trip marks the first time in 36 years that a timetable scheduled steam passenger train stops in Hockessin (only 18 years since the special B&O May 1949 steam excursion was in Hockessin). The B&ORR discontinued timetable passenger service on the line in 1931. In 1942 the B&O abandoned the track from Southwood, DE to Landenberg, PA. In May 1949 the B&O operated an eight coach passenger excursion with Ten-wheelers (4-6-0 wheel configuration) at either end of the consist as far as Hockessin marking the last time a steam passenger consist travels the Landenberg Branch (the track from Hockessin to Southwood was used for excess railroad freight car storage so going past Hockessin was not possible). The last steam powered freight service on the Landenberg Branch occurs in</p>



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Y	M	D	Event or Activity
1967	9	9	<div style="display: flex; align-items: flex-start;">  <div style="margin-left: 10px;"> <p>1953. The Landenberg Branch was further shortened to Mill Creek just west of Valley Road in 1957 after the stored freight cars were removed.</p> <p>By 1954 only B&O 8400-numbered SW1 diesel-electric locomotives assigned to Wilsmere Yard were allowed to travel the line to Hockessin delivering occasional carload(s) of freight along the line. The B&O's 8406, 8408, and 8413 are documented in photographs as having made frequent trips on the Landenberg Branch as they were lighter weight locomotives that met the wooden trestle weight restrictions for the line. It won't be until HRCV purchased the Landenberg Branch in 1982 that B&ORR #208, originally purchased by the B&O for use at Wilsmere Yard and now displaying Chessie System #8408, would again be seen in Hockessin on a routine basis. #8408 and its sister diesel Wilsmere Yard locomotives were leased by HRCV on occasional weekend contracts to operate between Greenbank and Mt Cuba or Hockessin when the available Wilmington & Western steam locomotives were temporarily out of service.</p> </div> </div> <p>Taken from Kennedyville Station looking eastbound, #92 is on the east side of the unsignaled Route 41 grade crossing. The 9,000-gallon water tower was constructed in 1966 for filling #92's tender. Yorklyn Station has yet to be relocated to Greenbank to serve as the gift shop and museum. Richard Hall photo.</p>
1967	11	3	<p>HRCV volunteers begin converting the second ex-navy gondola car (Cackle Car) into an open-air observation car for use in 1968. Both cars will be retired by the mid-1970s.</p>
1968			<div style="display: flex; align-items: flex-start;"> <div style="flex: 1;"> <p>HRCV diverts the Red Clay Creek at Mt. Cuba's Bayard Taylor Picnic Grove to the former mill race that once served the grist and saw mills at Mt. Cuba. HRCV returns the dam to its original form across the creek so that a more picturesque and tranquil setting is presented to railroad visitors enjoying the picnic area.</p> <p style="text-align: center;">Yorklyn Supper Special guests inspect the dam rebuilding progress at the Bayard Taylor Picnic Grove on the way to Yorklyn. August 3, 1968, Richard Hall photo.</p> </div>  </div>
1968	1		<p>Red Clay Valley Railway Equipment & Leasing Company (who also owned caboose #2013 on lease to HRCV) acquires a PRR air-brake instruction and training school car #492445 and stores it at Marshallton Yard. Starting railroad service as a Railway Post Office (RPO) baggage car, the car has been converted to a theater interior with a raised speaker's</p>


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Y	M	D	Event or Activity
1968	1		<p>platform. The car is occasionally opened at Marshallton Yard for public tours and demonstrations. In 1977 the car is sold to the Railroad Museum of Pennsylvania, where after being restored in 2002, is now on permanent display.</p> <p>The double tenement house at Greenbank is burned as a fireman's practice structure after HRCV purchases the half-acre property for \$6,500 in June 1967. The property provides an HRCV owned location for Yorklyn Station which will be relocated to Greenbank</p>
1968	2	20	<p>Yorklyn Station, having been transferred by the B&ORR to NVF after the railroad ceased using the Station in 1966, is purchased from NVF by HRCV for one dollar.</p> <p>Originally painted Barn Red by the Wilmington & Western Rail Road Company when they were built, all Landenberg Branch railroad stations, waiting sheds, and maintenance of way structures are repainted yellow with brown windows and highlights in 1886 to match the colors used by the B&O for all their stations. The Baltimore & Philadelphia Railroad, under the control of the B&O, purchased the Delaware Western Railroad so that the B&O could build trackage in Delaware. With the start of routine B&O liveried trains traveling in Delaware, change in paint scheme reflects the B&ORR's full ownership of the B&PRC and inclusion of Landenberg Branch passenger trains in the B&O passenger service timetables.</p>
1968	4	4	<p>The 32' by 52' Yorklyn Station, the only one constructed over a shallow basement, is jacked up and moved to Greenbank to become a museum and gift shop. The moving contract, awarded to Andrew Mitchell Contracting, cost HRCV \$4,000.</p> <p>The station's relocation requires coordination between the moving contractor, the Delaware Department of Transportation who removes and reinstalls traffic lights along Newport-Gap Pike (Route 41), and Delaware State Police who reroute traffic during the move. The rustic station safely makes Greenbank by late afternoon.</p>
			 <p>The Wilmington & Western Rail Road Company's original Yorklyn Station, constructed in 1872, the only original station now remaining on the line, is momentarily stopped at Newport-Gap Pike (Route 41) and Milltown Road during the relocation from Yorklyn to Greenbank. DelDOT signal crews temporarily remove traffic signal arms and lights as the station is too tall on the low-boy trailer to clear the hanging stop lights and their support arms. Delaware State Police reroute traffic around the obstruction as it was moved from Yorklyn as the structure requires the full road width. Richard Hall slide.</p>
1968	5	14	<p>HRCV negotiates a contract addendum with the B&ORR allowing Tuesday and Thursday daytime trains for school students to Mt Cuba. HRCV must clear the use of the line with the B&O at Wilsmere Yard before occupying the branch for any Tuesday and/or Thursday the trains operate.</p>


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1968	5	19	W&WRR hosts the National Capital Trolley Museum (from whom #4662 was purchased) for an excursion. The B&ORR supplies the "Silverliner" consisting of RDC cars for transportation between Washington/Baltimore and Marshallton Yard.
1968	8	31	<p>The National Railway Historical Society charts the W&WRR for a steam trip to Mt Cuba for over five hundred members. Mogul locomotive #92 works hard to drag the consist to Mt. Cuba with half of the charter's attendees while the remaining society members tour the enginehouse and yard. When the first trip returns to Marshallton, the two groups exchange activities.</p> <div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>At Marshallton Yard, B&O Class DP-6, E-unit locomotive #1452, built by EMD as B&O #32 on order 2061A as a Model E8A in November 1953, serial number 18681, was later renumbered to B&O #1452. The engine, one of 450 built between 1949 and 1954, became Amtrak #208 in 1971 and was later scrapped by Amtrak in 1976. Richard Hall photo.</p> </div> </div>
1969	7	4	#92 provides special 4th of July passenger service to Hockessin.
1969	7	13	A small enclosed freight depot at Greenville Station is relocated from Greenville, Delaware to Mt. Cuba, Delaware where it is to serve as a weather shelter and snack bar. Within two years, and partly because it is located in a remote area, vandals destroy the historic building at Mt. Cuba.
1969	8	18	<p>Three juvenile arsonists burn Greenbank Mill. Their excuse is they were drunk and didn't know what they were doing (they would be acquitted via directed verdict).</p> <p>The "Madison Wool Factory" is totally gutted and 30 percent to 50 percent of the original mill destroyed. All milling activities cease after 179 years of continuous operation since 1790.</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">Greenbank Mill after the arson fire. Mike Ciosek collection.</p>



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Y	M	D	Event or Activity
1969	8	18	<p>As the mill had once used Newport, DE's Oliver Evans' patented milling elevators and grain handling equipment, examples which were still in use in the building, were lost. Evans' patents and his development of a fully automated grist mill a short distance up the Red Clay Creek from Greenbank at Faulkland are considered the prototype for industrial automation as we know it today.</p>
1970	1	23	<p>Hockessin Fire Department offers Engine 191 to HRCV. Built in 1941 by Autocar Truck Company and costing \$8,000, the 6-cylinder gasoline engine pumper was HFC's first new piece of apparatus since the firehouse was established on October 15, 1936. With a 300-gallon tank, the 750 gallon-per-minute pumper was the largest pumper in New Castle County at the time of purchase. The vehicle had a four-speed unsynchronized transmission, vacuum brakes, and a dual magneto ignition system. HRCV uses the pumper, nicknamed "Queenie", for fund raising by adding seats for 20 people.</p> <div style="text-align: center;">  </div> <p style="text-align: center;">Former Hockessin Fire Company Autocar pumper "Queenie" in the 1970s. HRCV archive photo.</p>
1970	2	2	<p>HRCV Directors Thomas C. Marshall, Jr. and John Iwasyk meet with B&ORR officials in Baltimore, MD to discuss renewing the lease on the Landenberg Branch. A five-year lease with five-year extension, \$2.00 per train mile charge for a light engine (no paying passengers such as from Marshallton Yard to Greenbank Station), Tuesday and Thursday operation with Wilsmere Yard permission, eliminating the B&O's right to cancel the lease on ten days' notice, and operation to the end of line in Hockessin were the major items</p>


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1970	2	2	reviewed (some items already had B&O permission however they were not part of the 1965 contract so it was important to add them). The \$3.50 per train mile rate, B&ORR inspections of the consist before running on the line, operation according to B&ORR and W&WRR rulebooks, would remain the same. HRCV agrees to supply the B&ORR 1,500 new ties at HRCV's expense that the B&O maintenance-of-way crews would install free of charge.
1970	3	3	Restoration work continues on Greenbank Mill cleaning up the debris resulting from the arson fire. Efforts are underway to stabilize the building with the hope of eventually restoring the mill to operation. An HRCV insurance policy on the property pays for securing the premises, thus limiting further damage. Unfortunately, the historical aspects of the mill which operated continuously since 1790, including the examples on Oliver Evans' automated milling equipment, cannot be recovered or restored.
1970	5	7	<p>HRCV operates four weekday school trips for children during May, one weekday school train in June, and a single school trip in September 1970 under a proposed lease (signed June 1970) with the Baltimore & Ohio Railroad.</p> <p>The first weekday student train brings in 1,150 student and teacher passengers with the second weekday of operation recording 1, 222 children and teachers. Trips on the first Sunday of each month during 1970 run to Hockessin.</p> <p>School and summer camp trains prove to be successful and their operation continues in the 21st century!</p>
			 <p style="text-align: center;">Southeastern Pennsylvania Transportation Authority coaches, still in their original SEPTA livery, are added at the rear of a 1983 consist to handle a busy schedule. Roger Cole photo.</p>
1970	9	14	HRCV Directors investigate the feasibility and construction costs of building an estimated \$34,000 passenger station in Hockessin on a triangular piece of property adjacent to the railroad tracks between Old Lancaster Pike and Mill Creek Road provided funding can be raised, permits granted, etc. The station is intended to provide an opportunity for HRCV to operate W&WRR trains from both Greenbank and Hockessin to the Bayard Taylor Picnic Grove at Mt. Cuba. The idea will eventually be abandoned due to cost and lack of local interest.
1970	10	6	The original Wilmington & Western Rail Road Company operated for 1,591 days (4 years, 4 months, 7 days) before being sold on February 25, 1877 for \$5,000 as part of reorganization under bankruptcy. As of October 6, 1970 Historic Red Clay Valley, Incorporated is operating Wilmington & Western Railroad liveried passenger trains on the line longer than the original Wilmington & Western Rail Road Company!


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Y	M	D	Event or Activity
1970	12		<p>Activities continue with securing Greenbank Mill and cleaning up after the arson fire. Insurance payments allow HRCV to hire Aaron Lapp, an Amish contractor from Christiana, PA to rebuild the burned-out roof rafters and supporting structure and lay down a shingle roof to protect what remains of the mill's interior from the elements. As Lapp and his workers did not have automobiles, HRCV volunteers transported them each day between Christiana, PA and Greenbank, DE.</p> <div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>Greenbank Mill circa mid-1970s undergoing reconstruction. The stone Madison Factory has been torn down as the fire's intense heat ruined the mortar holding the field stones together. The Madison Factory and mill race are rebuilt by 1999. The grist mill roof is replaced and the flooring repaired. In this photo traffic uses the new Greenbank Road bridge constructed in 1972-3. The former bridge (behind the mill is a pedestrian walkway. Mike Ciosek collection.</p> </div> </div>
1971	3	24	<p>A status report to HRCV membership from President Melvyn Small indicates that #92 has undergone major maintenance including driver journal box work; #98 continues restoration with boiler work nearly completed; #4662's diesel engines and DC generators have been restored and are functional, the DC traction motors rebuilt; "Boonton" coach restoration continues; and Greenbank Mill is now 90% closed in from the weather.</p>
1971	6	14	<p>HRCV and the B&ORR sign the final version of a new lease. Trains will operate at \$4.50 per train mile. The Doodlebug or a light engine is \$2.50 per train mile. Weekday operations shall be cleared with the Wilsmere Yard Master instead of through the B&O's offices in Baltimore, MD. Permission to operate two trains independently on the same are permissible with approval of the Divisional Superintendent. All HRCV Landenberg Branch maintenance is at HRCV's expense after approval of the B&O's cost estimate.</p> <p>Locomotive #92, heading westbound, enters Mt. Cuba Rock Cut in 1967. This rock cut is smaller than Wooddale Rock Cut. History indicates Mt. Cuba's cut more difficult to blast open in 1872 and delayed the start of operations. The rock outcrop at Mt. Cuba is mostly massive, dark amphibolite gneisses. Amphibolites originate as volcanic ash or basalt flows. The presence of amphibolites, interlayered with metamorphosed sediments, suggests the rock formed in a marine basin close to a volcanic area. Brian Woodcock photo.</p> <div style="display: flex; align-items: center;">  </div>


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Y	M	D	Event or Activity
1971	7	14	<p>Rumors persist that the current Landenberg Branch's owner, Chessie System (former B&ORR, Chesapeake & Ohio Railway, and Western Maryland Railway), intends to file for abandonment of the Landenberg Branch with the ICC. B&O carload data for the Landenberg Branch indicated 550 cars moved in 1967 but only 480 being moved during 1970 with a continued downtrend projected. The Chessie System's move follows the Penn Central Railroad ceasing operations on the Octoraro Branch which moved rail traffic to the Landenberg Branch with 15-20 car freight trains ending up in Hockessin for unloading/loading. HRCV begins investigating options to continue operations should abandonment be granted.</p> <p>The Chesapeake & Ohio Railway had gained controlling interest of the stock of the Baltimore & Ohio Railroad in February 1963. By 1967 the C&O/B&O had gained controlling interest of the Western Maryland Railroad (WM). Even though a corporate entity named "Chessie System" did not exist at this time, the term had become synonymous with the C&O since the 1930s. After the C&ORR acquired stock control of the B&ORR and then acquired stock control of the WM, these acquired railroads began to be referred to as "Chessie System Railroads".</p> <p>When rumors began surfacing related to the abandonment of the Landenberg Branch, the rumors were often referenced as the "Chessie System" seeking the abandonment even though the Landenberg Branch was still legally owned by the Baltimore & Philadelphia Railroad which had acquired the branch in 1886 (but now was a subsidiary of the B&ORR which itself was now a subsidiary of the C&ORR). In 1973 the Chessie System was formed as a holding corporation and the C&ORR and the railroads the C&O had stock control of became corporations held by Chessie System Incorporated.</p> <p>In 1980 with the forming of CSX Transportation the various railroad corporations held by Chessie System Incorporated transitioned from being held by Chessie System Incorporated to being subsidiaries of CSX Transportation. In 1987 CSX Transportation legally acquires all assets of each of the former railroads and these former railroad corporations, reporting marks, and other legal entities are legally retired.</p>
1971	10		<p>Riley Stoker Corporation's drop-center flat car, RSUX 200, 85' in total length with a capacity of 250,000 pounds, is parked at Greenbank Station during a weekday by the B&ORR. The car is loaded with two oversized boilers slated for the NVF boiler house in Yorklyn. The car is still sitting at Greenbank during the weekend thus blocking the W&WRR's access to the line. Locomotive #92 is called upon to shift RSUX 200 to Marshallton Yard before moving the day's passenger consist into the station. With the boilers too tall to pass under the Barley Mill Road overpass (trestle 11B) at Ashland,</p> <div style="text-align: right;">  </div> <p>Riley Stoker Corporation's 125-ton drop-center flat car, RSUX 200, being returned to Greenbank Station. Richard Hall photo.</p>


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Y	M	D	Event or Activity
1971	10		and too wide to fit through the line's rock cuts, the boilers would be transferred to flatbed trucks for the final trip to NVF. After the day's passenger operations, RSUX 200 is returned to Greenbank by #92. The event marks perhaps the last time a steam locomotive moves freight on the B&ORR owned Landenberg Branch as the line will soon be under the ownership of Chessie System.
1971	12	1	<p>The B&ORR's Landenberg Branch, after suffering several freight derailments, is placed out-of-service for an indefinite time period. The line remains out-of-service with no freight deliveries to customers until early January 1972 while B&O maintenance crews replace decayed ties, broken rail, and rail joint bars. Crews also make other improvements.</p> <div style="text-align: center;">  </div> <p>#92 steams past the #1 Fiber Mill building at National Vulcanized Fiber in June 1970. Yorklyn Station which would have been located in the foreground space, has been relocated to Greenbank to serve as the HRCV gift shop. In October 1966 the B&O had granted HRCV permission to use "Wilmington & Western Railroad" as the livery and #92 as well as the "Boonton" coaches proudly displays the line's name. John LaCosta photo.</p>
1972	2	8	<p>Four B&ORR managers meet in private with three HRCV Directors to detail plans to abandon the Landenberg Branch. HRCV proposes acquiring the Branch from the B&ORR and setting up a Short Line Railroad for the purpose of continuing freight operations on the Branch along with the present steam passenger operations.</p> <p>The B&ORR councils HRCV that; (1) the line will have to be disposed of in a manner acceptable to their stockholders at fair present market value; (2) that HRCV would need to become an FRA recognized common carrier to operate revenue trains, freight, passenger, or otherwise on the Branch; (3) that as HRCV is a non-profit organized corporation (which would be the first in the railroad industry in North America) a number of "for profit corporation" issues need to be resolved; (4) railroad right-of-way agreements in place since the 1870s might force the property to revert back to original owners; (5) that abandonment paperwork is being prepared and will be submitted to the FRA within a</p>


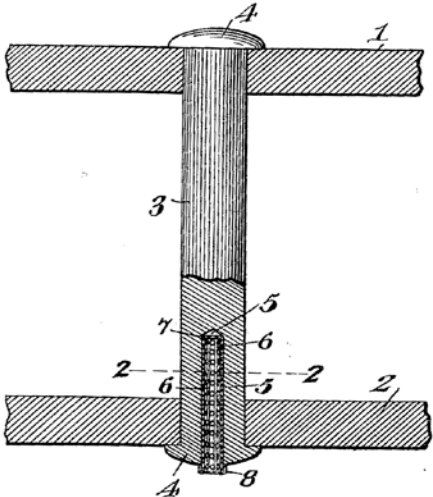
50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1972	2	8	<p>couple of months. The B&O noted that should the FRA reject their filing for abandonment, the B&O would have to wait at least five years before filing again.</p> <p>In a follow-up letter to HRCV dated February 18, 1972 summing up the topics discussed at the meeting, the B&ORR places a salvage value on the Landenberg Branch of \$90,698 and that B&O lawyers have indicated the underlying real estate may be subject to reversion to current landowners if not used for "railroad purposes".</p>
1972	3	25	<p>HRCV holds a public meeting at Hockessin Fire Hall to report on the B&ORR's intent to file for abandonment of the Landenberg Branch. HRCV is authorized by the B&O to operate in 1972 per the existing lease arrangement on the condition that HRCV and its members and supporters do not oppose the B&O's abandonment process.</p> <p>The B&ORR approves HRCV operating a fixed, published schedule for school trains on Thursdays (1:00PM, 2:15PM, 3:30PM), the first Sunday of each month to Hockessin, and the standard Saturday/Sunday operating schedule including holidays. HRCV sets pricing at \$1.50 for adults and \$0.75 for children for Mt Cuba trips.</p>
1972	4	28	<div style="display: flex; align-items: flex-start;"> <div style="flex: 1;">  </div> <div style="flex: 2; padding-left: 10px;"> <p>As the largest rail shipper on the Landenberg Branch, and the organization with the most to lose should the B&O be successful in obtaining abandonment of the Landenberg Branch, NVF convenes a meeting at their Yorklyn Management Center to develop a strategy with the other shippers to challenge the B&O's plans. The group decides to hire the firm of Morris, James, Hitchens & Williams to represent NVF and the other Landenberg Branch shippers. NVF commits to the other Landenberg Branch railroad customers that NVF will assume all legal expenses involved with fighting the abandonment.</p> <p>NVF and the other shippers' position on the abandonment is that they would prefer the Landenberg Branch to continue to be operated by a Class 1 railroad. While the freight customers of the Landenberg Branch were sympathetic to Historic Red Clay Valley's desire to continue to operate passenger trains on the line, the shippers also viewed HRCV's interest in moving freight on the Landenberg Branch as not in their best interests.</p> </div> </div> <p>Chessie System SW1 #8407 stationed at Wilsmere Yard crosses Wooddale trestle 8A on March 21, 1977 with a consist of wood pulp and cotton rags to be delivered to NVF at Yorklyn. Tim Cronin photo.</p>

50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
			The shippers did not want to see a private Class III shortline railroad take over operations for much the same reason. In challenging the abandonment, the Landenberg Branch shippers were going to push for continued B&O operation of the Branch based on it being profitable to operate which was contrary to what the B&O's justification to abandon was.
1972	6	22	<p>Hurricane Agnes began as a tropical depression in the Atlantic Ocean on June 15, 1972 and increased in strength to become a Category 1 hurricane by June 18th. It reached the coast off Delaware by June 21st and had been downgraded to a tropical storm. Before dissipating on June 23rd Hurricane Agnes would enter the history books as the costliest hurricane to hit the United States in recorded history (as of 1972) killing 128 people and causing over \$3 billion in damage at the time.</p> <p>Agnes caused the Red Clay Creek to rise above flood stage and several of the wooden B&O trestles across the creek were severely damaged. There were numerous track washouts were the creek undermined Landenberg Branch tracks on the banks of the creek. The freight siding trestle (12C) that crossed the Red Clay Creek to serve the former Garrett Snuff Mills was wash away entirely and was not replaced. The B&O quickly repaired the damage done to the Landenberg Branch and freight shipments quickly returned.</p>
1972	7	1	<p>HRCV announces plans to commemorate the 100th anniversary of the Wilmington & Western in the Fall. A limited run of coins, one 99% silver, one bronze, one aluminum, along with sets of all three coins in a plastic case are offered. The proof strike of commemorative coins, produced by the Penny Hill Coin Company and the Lombardy Mint, feature #98 on the front and Greenbank Station on the rear.</p> <div style="text-align: center;">  </div> <p>Front (left) and back (right) images of the Centennial Celebration Proof Set of Commemorative Coins; silver (top each image), bronze and aluminum (lower). Robert E. Wilhelm, Jr. collection</p>
1972	9	15	<p>#92's operating status is changed to out-of-service due to staybolt weeping which requires an extended stay in the shop to correct. As fate will have it, #92 will have made its last trip on the Landenberg Branch on September 10, 1972 until sometime in the distant future. Several staybolts, more than allowed by FCC regulations, have started weeping and thus the engine may not be operated until the weeping is stopped. In addition, #92's flues are reaching the end of their service life and will require replacement before the engine goes back in service.</p> <p>HRCV volunteers and boiler engineers examine the cause of the weeping and determine that stress cracks are forming at the staybolt holes. The only solution and which is unfortunately the most time consuming and expensive will be to replace the firebox sheets</p>

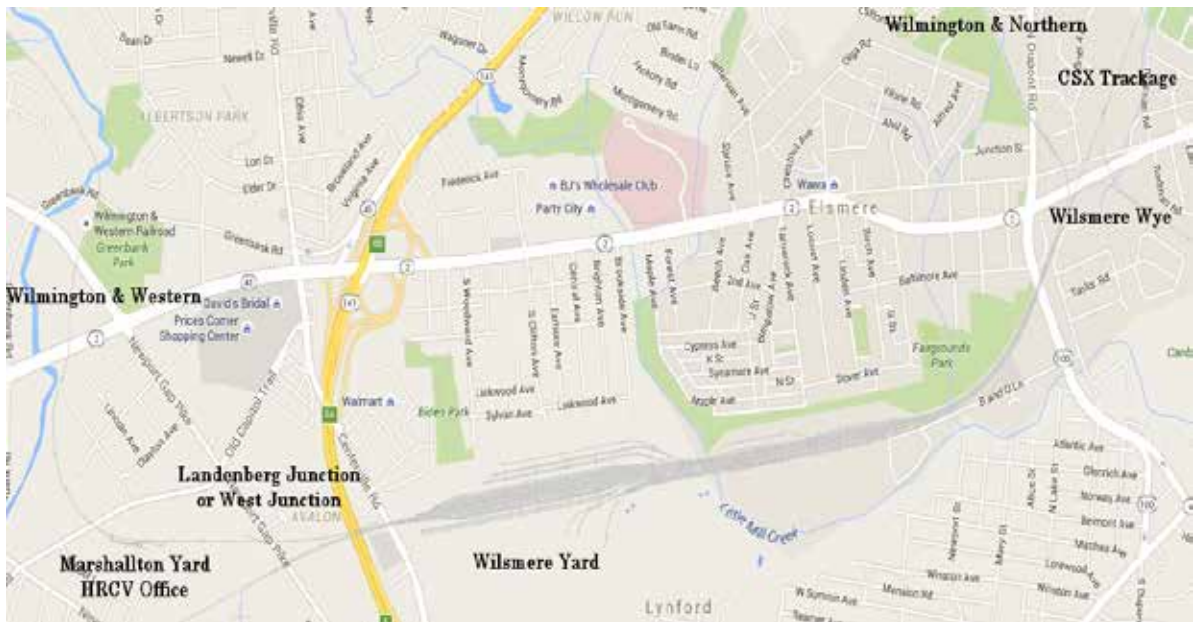
50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1972	9	15	<p>with new steel. This extensive undertaking is started however the need to keep #98 operational, the purchase of the Landenberg Branch in 1982, and the routine requirements of operating a steam tourist railroad translate into little time, funding, and volunteer resources being available to address the major boiler work required for Mogul #92. Eventually #92 was placed in extended storage where it remains today.</p> <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 45%; padding: 5px;"> <p>Typical locomotive firebox (black area). The flues are at the left of the image and the staybolts are the rods between the top of the firebox and the top of the boiler. At the right is where coal would be fed to the boiler (in this case the boiler was designed for a stoker which is seen attached to the firebox at right). The grates where the coal is deposited for burning are at the bottom of the image. The water level is maintained to half the length of the staybolts between the top of the firebox and the top of the boiler. The round "dots" on the wall of the firebox are staybolt heads to the far outer boiler wall.</p> </div> <div style="width: 50%; text-align: center;">  </div> </div> <p>#92's sister engine, #89 is operational on the Strasburg Rail Road. It is interesting to note that Strasburg Rail Road's #89, purchased by Strasburg in 1972, suffered a similar firebox weakness as #92 which required Strasburg to perform the same repairs that HRCV started. After nearly a decade of being out of service, in 1989 #89 returned to service with the Strasburg Rail Road and remains in service in 2016 while #92 waits patiently for resources to return it to the Landenberg Branch.</p> <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 45%; padding: 5px;">  <p>Unthreaded locomotive boiler staybolt (3) holding boiler plates (1) and (2) a fixed distance apart.</p> </div> <div style="width: 50%; padding: 5px;"> <p>A staybolt is a rod, sometimes threaded, and of different lengths and designs, that hold sheets of steel in a boiler in place against the pressures of the steam generated within the boiler. Pictured is an unthreaded staybolt (3) holding two pieces of boiler steel (1 and 2 in the drawing) in a rigid relationship. The space between the pieces of steel is under boiler pressure and thus the staybolt keeps the two sheets of steel from moving away from each other. Staybolts are inserted and have their heads riveted with a pneumatic hammer to keep the staybolt in place.</p> <p>The riveted heads keep the bolts from leaking. However, heating/cooling cycles will, over time, cause staybolts to weep. FRA rules require staybolts to remain tight or the locomotive shall be placed out-of-service.</p> </div> </div>

50-year Timeline of the Wilmington & Western

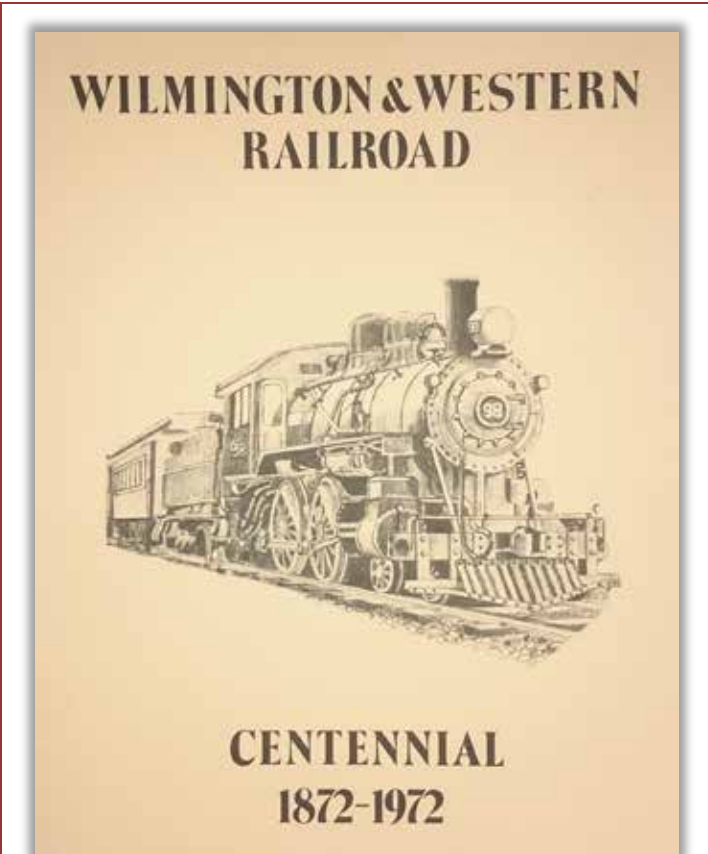
Y	M	D	Event or Activity
1972	10	5	<p>#98 achieves FRA Form 4 certification which means the boiler design as well as the physical construction and condition of the boiler meets or exceeds minimum requirements for a steam locomotive. With the boiler now compliant, new flues are installed and the boiler is subjected to and passes a required hydrostatic test proving its pressure retaining capability with no leakage anywhere. The engine is ready to do what some thought wouldn't be possible – travel ribbons of steel doing what it was designed to do, pulling passenger trains.</p> <p>A DuPont Company engineer qualified to calculate boiler stresses on flue sheets, crown sheets, the boiler barrel, and other metal surfaces under pressure worked with HRCV volunteers to generate a set of drawings for #98's boiler. Based on the drawings, stress calculations were generated to determine if the boiler met applicable regulations. In the end, calculations unveiled that the gusset braces (rods that structurally support the flue sheets to the boiler's barrel) needed to be changed from 1-1/4" to 1-1/2" diameter.</p> <p>This milestone represents that the engine meets all applicable design and construction requirements associated with steam locomotive operation. The boiler design and construction has been verified as exceeding minimal safety requirements.</p> <p>The documentation provided with #98 at the time of transfer to HRCV was found to have errors by the ICC inspectors while the engine was at Strasburg Rail Road in 1961. It has been twelve years since #98 last saw steam. Many thought #98 would meet the fate of a scrapper's torch. Purchased by the Marshalls in February 1960, the engine was delivered to Strasburg Rail Road as part of a 3-year lease arrangement in July 1961 after a \$10,000 overhaul by the Illinois Central Railroad shops in McComb, MS.</p> <p>Upon delivery to Strasburg Rail Road, an ICC review determined the engine's paperwork unsatisfactory and incomplete. Based on the ICC's findings, the engine would need to be reverse-engineered to determine compliance. The ICC suggests that the work involved is so extensive that #98 would most likely never run again. HRCV volunteers understand the massive amount of work that will be necessary but as there are only a couple 4-4-0 locomotives in operating condition, #98 is literally among the last of what was once the most popular locomotive design in America.</p> <div style="text-align: center;">  </div> <p>#98's running gear, snow-covered in Marshallton Yard, in the early months of 2002. While #98 had its boiler extensively documented for returning to service in 1972, an additional 26-years of service with the Wilmington & Western, after 50 years of service in Mississippi and Louisiana, require the firebox steel and flue sheets be replaced as they have become thin due to corrosion and rusting. The boiler is removed from the running gear so that better access is available. The firebox steel to be replaced is removed from the boiler so that exact duplicates may be manufactured. The boiler's steel replacement takes from January 1998 to September 2004 to remove, fabricate, reinstall, and recertify. Steve Jensen, Jr. photo.</p>

50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1972	10	5	<p>#98 was shipped from Strasburg to the Wilmington Industrial Park in Wilmington, DE for storage in April 1964. With the completion of HRCV's Marshallton Enginehouse in September 1965, #98 joined the "Boonton" coaches relocating into their permanent home. When weekend operations on the Landenberg Branch commenced in May 1966 with #92 in operation, #98 and a caboose are often taken to Greenbank to be placed on display for special events.</p> <p>When HRCV volunteers were not maintaining #92 or the rolling stock, they took on the arduous task of correcting deficiencies related to #98's FRA's (the ICC had become the FRA in 1969) Form 4 paperwork. Essentially every aspect of the engine's boiler needed to be documented so that the required stress and fatigue calculations might be performed and documented by a pressure vessel certified mechanical engineer. Once the calculations were complete the Form 4 and documentation were submitted to the FRA for review and their subsequent approval allowed #98 to join #92 traveling the Landenberg Branch.</p>
1972	10	7	<p>With #92 out of service due to boiler concerns, Marshallton Enginehouse activities focused on getting #98 under steam as quickly as possible and into passenger service. #98, facing eastbound, is fired up and operated to Route 48 at Hercules to check out the running gear, firing characteristics, and other engine operating parameters. For the trip #98 is on the east end of a two "Boonton" coach consist (thus shoving the cars ahead of the engine). The trip goes without incident and the engine appears ready for tourist service on the Landenberg Branch although the crew decides to inquire with the B&ORR if they might take the engine to the Wilsmere Yard Wye and change it from eastbound facing to westbound facing.</p> <div style="text-align: center;">  </div> <p>The former Baltimore & Ohio Railroad's Wilsmere Yard was the B&O's largest classification yard between Baltimore, MD and Philadelphia, PA. Now operated by CSX Transportation, the map highlights the junctions of the Wilmington & Western (left) and Wilmington & Northern (right) railroads. The Wilsmere Yard Wye was used to reverse the direction of #98 and coach 410 (center, right). A major use of the yard was the handling of rail shipments to the adjacent General Motors Boxwood Road assembly plant that operated between 1947 and 2009. GM assembled Chevrolet, Pontiac, Saturn, Open and Daewoo brands at the site. The GM plant, unoccupied in 2016, is located in the open area at center bottom of the map. Google Maps image.</p>


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1972	10	8	<p>#98, having been fired up the previous day, was brought to operating steam pressure quickly for the day's passenger service to Mt. Cuba Picnic Grove on the Landenberg Branch. After a successful test trip on the Branch on the 7th, permission is granted by the B&O for HRCV to take #98 to the Wye at the eastern end of Wilsmere Yard to be turned 180-degrees. Turning #98 allows it to face westbound on the Branch in the same way that #92 faces.</p> <p>In a prelude of the day the engine crew was about to have, #98 derails on the Wye. Rerailing the engine and getting it back to Marshallton results in the first scheduled trip of the day, from Greenbank to Mt. Cuba, being cancelled. Finally arriving back at Marshallton Yard in the early-afternoon, crews couple #98 to the consist, perform a terminal brake test, and head to Greenbank to run at least a few of the scheduled trips for the day.</p> <p>With the engine facing westbound, #98 now leaves Greenbank Station with the locomotive on the west end of the consist pulling coaches in the same manner that #92 has been doing. The trip westbound to the Bayard Taylor Picnic Grove goes fine with #98 at the west end of the consist pulling the string of "Boonton" coaches. However, the eastbound return to Greenbank doesn't get far before #98 derails. Passengers are bused back to Greenbank and the remaining day's trips are cancelled.</p> <p>The crew stays with #98 and nurses the train back to Marshallton Yard experiencing multiple derailments with #98. The crew "walks" #98 back to Marshallton Yard arriving after well after dark. A five-mile trip routinely requiring 30 minutes or so took more than seven hours to return to Marshallton. As a result, #98 is removed from service until wider tires are machined and installed on the locomotive's rear drivers.</p> <p>With the lack of a trailing truck to guide the engine, especially around small radius curves when running in reverse (eastbound), #98 derails easier as a result of the B&ORR's neglected track conditions. The Landenberg Branch's elevation rises traveling westbound but most of that rise occurs from Ashland to Hockessin; Greenbank to Mt. Cuba is fairly flat. Over 60% of the line is curving sections of track as the line winds along the banks of the Red Clay Creek.</p> <p>As a result, W&WRR locomotives must "shove" coaches for much of an eastbound trip from the picnic grove back to Greenbank, especially where the track curves tightly. This</p>




100-year Centennial Celebration folder of photos and memorabilia. Robert E. Wilhelm, Jr. collection.

50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
			"pushing" of the consist increases the likelihood of derailments for locomotives with large diameter driving wheels and no trailing trucks such as 4-4-0 American-class locomotive like #98.
1972	10	14	<div style="text-align: center;">  </div> <p style="text-align: center;">HRCV celebrates the 100th Anniversary of the Wilmington & Western Rail Road Company (October 19, 1872) with a 1 PM trip to Hockessin. B&O #8408 is uncoupled at Yorklyn and run from the westbound end to the eastbound end of the train and coupled to the cabooses for the return trip to Greenbank. Tim Cronin slide.</p> <p>The original plans for the celebration of the construction and start of operations of the original Wilmington & Western Rail Road Company called for #92 on the west end of the train with #98 on the east end for the trip to Hockessin and return which would also allow passengers to enjoy the fall foliage. However, #92 is out of service for boiler repairs and #98 does not take kindly to backing up on the Landenberg Branch due to track conditions making the planned steam doubleheader excursion impossible.</p> <p>HRCV is forced to lease a B&O Wilsmere Yard SW1 diesel locomotive as motive power for the day's celebratory passenger trains. While there are multiple SW1 locomotives assigned to Wilsmere Yard for motive power, SW1 #8408 is the locomotive the Wilsmere Yard yardmaster provides HRCV.</p> <p>In what some may cite as an interesting omen of the future, B&O SW1 diesel locomotive #8408 was first leased by HRCV on July 23, 1966 when #92 was unexpectedly damaged on the trip from Marshallton Yard to Greenbank Station for the celebration of the return of steam passenger service to the Landenberg Branch. This was sixteen years before HRCV purchases the SW1 diesel from Chessie to support freight operations and the occasional passenger train on the Landenberg Branch!</p> <p>Ironically #8408 now comes to HRCV's rescue at another milestone in the organization's history as a leased locomotive pulling Wilmington & Western passenger trains for the 100th Anniversary celebration of the initial Wilmington & Western Rail Road Company's trains operating on the line 1872. While there are several SW1 locomotives assigned to Wilsmere Yard, #8408 seems destined for Landenberg Branch operations.</p>

50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1972	11	25	<p>Without steam motive power for the season's holiday trains, Chessie System diesel switchers from Wilsmere Yard (there were several, #8406, #8407, #8408, #8413, and any of them might be leased to HRCV) are leased to pull Santa Claus Special trains to Hockessin on November 25th and 26th.</p> <div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>In an effort to warm the coaches at Marshallton Yard, #98 was fired for steam to preheat the coaches before the leaving for Greenbank. During the train's brief stop in Hockessin, Thomas C. Marshall, Jr. connects one of the family's Stanley Steamers to the train's coach steam heat line in an effort to rewarm the cars.</p> </div> </div> <p>B&O #8406 standing in for #92 in 1978. Steve Jensen slide.</p> <p>Unfortunately, the 30 boiler horsepower rating of the Stanley 600 PSIG boiler was not enough to make much difference in the cold steel coaches.</p>
1972	12		<p>National Vulcanized Fibre Company works out an interim agreement with the B&O to defer the railroad's filing for Landenberg Branch abandonment for at least the first six months of 1973. NVF hires L. B. Foster Company, an engineering firm, to totally review the Landenberg Branch, meet with each of the railroad's Landenberg Branch customers, and to estimate the expenses, income, and profit realized by the B&O from Landenberg Branch operations as well as to estimate the cost to rehabilitate the Branch back to Class II freight railroad track standards.</p> <p>When NVF reviewed their findings with B&O management, there was a large discrepancy in what B&O accountants had filed on the ICC submission as compared to the documentation (with supporting proof) that the Foster Company had uncovered and was going to report should any abandonment hearings occur. The Foster report projected at least 550 cars for the branch annually with 400 cars being a break-even point to operate the branch.</p> <p>The Foster report wasn't challenged by the B&O and a delay to June or July 1973 was agreed to by the B&O. The B&O further agreed that if the Branch were profitable after the first six months of 1973, the petition to abandon the branch would be withdrawn completely and would not be investigated further for several years.</p> <p>The six-month period turned out not as profitable as the L. B. Foster Company had projected but neither was the level of B&O's losses experienced as claimed on the ICC abandonment submission. In addition, the United States Railway Association (USRA) had been formed as a government-owned corporation for the purpose of acquiring and operating multiple bankrupt and failing freight railroads. While the B&O was not included in USRA's jurisdiction and the formation of the Consolidated Rail Corporation (Conrail), it might have been possible to include the Landenberg Branch which the B&O chose not to do.</p>





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Y	M	D	Event or Activity
1972	12		<p>One of the observations made during this period was that current ICC regulations supported and favored the trucking industry over the railroad industry. As a result, many felt that the nation's railroad management had adopted a "head-in-the-sand" attitude. They simply maintained current business at a break even level and did whatever necessary to rid themselves of anything that created problems, wasn't profitable, or otherwise required too much attention and resources. There were no aggressive marketing and sales approaches applied to improving existing railroad business models, to opening up new markets, or simply educating customers about how much more economical rail shipment might be than trucking.</p> <p>NVF was already starting to recognize that if they had to move to trucking (which they eventually did), the costs would be far more than what they were paying for rail transportation and they weren't going to be able to pass that additional expense onto customers in the form of price increases. While there were many things that contributed to the eventual faltering of NVF as a viable company, the turmoil and increased shipping expenses related to the B&O's abandonment of the Landenberg Branch is considered to have been, over time, a contributor.</p> <p>By early 1976 the abandonment process would be moving forward. NVF estimated they would require fifteen to twenty tractor trailer loads of wood pulp and rags a day in order to keep the Yorklyn facility operating at mid-1970s capacity. NVF was producing around 18,000,000 pounds of assorted fiber materials a year in the mid-1970s. This many trucks and more would be needed to ship product from the plant and to supply the shipping materials, chemicals, and other commodities required.</p> <p>With abandonment looking more likely, NVF investigated the logistics and expense associated with all shipments made to and from the rail facilities at their Newark plant. The plan called for materials transferred by trucks between Newark and Yorklyn.</p>




National Fibre & Insulation Company's #1 Fibre Mill shortly after construction in 1906. Israel & Elwood Marshall developed the continuous vulcanized fibre process in the Insulite Mill across from the Marshall Brothers paper mill. The brothers then purchased the Thomas Waters Ferree property adjacent to the Red Clay Creek and across from the Garrett Snuff Mills for the construction of their first fibre mill. In 1922 National Fibre & Insulation Company merged with American Vulcanized Fibre Company to become the National Vulcanized Fibre Company. National Vulcanized Fiber, later simplified to "NVF", was the world's largest producer of vulcanized fibre materials well into the early 1990s. FAHP photo.

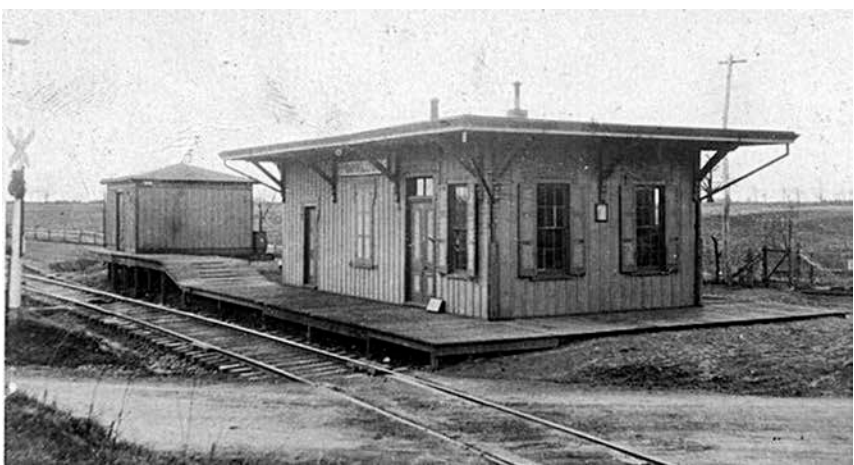

50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1973	2	26	<div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%; text-align: center;">  </div> <div style="width: 50%; text-align: center;">  </div> <div style="width: 50%; text-align: center;">  </div> <div style="width: 50%; text-align: center;">  </div> </div> <p>Without question, SW1 serial number 1106 has been a prominent locomotive on the Landenberg Branch since being one of 16 delivered to the B&O in August 1940. Manufactured at the General Motor's ElectroMotive Division in Chicago, and carrying Baltimore & Ohio road number 208 (upper left), this six-cylinder, 600-horsepower, two-cycle locomotive is rated at 49,500 pounds of tractive effort. In February 1957 the switcher's number changed to B&O #8408 (upper right) when all 200-series numbers were changed to 8400-series numbers by the B&O. When Chessie System took over ownership of the B&O the locomotive became Chessie System #8408 (lower left). The engine and its mates #8406, #8407, and #8413 worked out of Wilsmere Yard including the Landenberg Branch until HRCV purchased the Branch and the engine for freight service use. With HRCV's ownership the livery returned to blue and yellow and it displayed Wilmington & Western #8408 (lower right, Mike Ciosek photo) until it was returned to B&O livery in 2016.</p> <p>Chessie System Incorporated is formed as a holding company by Chesapeake & Ohio Railway management. The C&O is often referred to as the Chessie System and thus the name is chosen for the holding company that is formed. Within a few months the assets of the Baltimore & Ohio Railroad, Chesapeake & Ohio Railway, and Western Maryland Railway will be held by Chessie System Incorporated. The B&O, C&O, and WM motive power and rolling stock liveries will slowly be retired and replaced with the black and yellow Chessie System livery.</p>
1973	4	11	<p>HRCV, along with local authorities and historians, secure the listings of Ashland Covered and Wooddale Covered Bridges with the National Register of Historic Places (Listing 73000552). These are the only Town Truss covered bridges remaining in Delaware. The Smith Covered Bridge, over the Brandywine Creek, is a Burr Truss design.</p> <p>Records show that the number of covered bridges in the state approached two dozen maximum before the conversion to concrete and iron bridges began in the late 1800s. All of Delaware's covered bridges were constructed in New Castle County as the creeks and</p>


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Y	M	D	Event or Activity
1973	4	11	streams of Kent and Sussex Counties are small in both quantity and breath. Wooden stringer bridges spanned the smaller streams of the lower two Delaware counties quite well. For the few larger creeks and wetland areas in lower Delaware, a pile and timber trestle was constructed. Today, in addition to the three historic covered bridges a few modern replica covered bridges have been built as part of housing and commercial property development in New Castle County.
1973	5	3	<p>After replacing #98's rear driving wheel tires with tires approximately 5/8" wider in tread width, the January 1909 ALCO is able to operate an excursion to Hockessin and return to Greenbank without derailing. The westbound facing steamer begins routine service.</p> <div style="text-align: center;">  </div> <p>Landenberg Station in the 1940s before being torn down. New Garden Historical Commission.</p> <p>A locomotive pilot truck helps steer a locomotive into curves as it moves while a trailing truck under a cab provides guidance into curves when the engine is reversing. Any locomotive without a trailing truck under the cab, such as a 4-4-0 American class locomotive like #98, must rely on the driver wheels navigating the curve without assistance. Where track conditions are marginal and large diameter driving wheels are part of a locomotive's design (for speed, particularly in passenger service) derailments can become a concern particularly when the locomotive is called upon to push a string of cars vs. pulling them. This combination came together for #98 (with 69" drivers) operating on the Landenberg Branch (note that #92, a 2-6-0 Mogul with 63" drivers, could navigate Landenberg Branch rail in reverse shoving a consist without derailing).</p> <p>When #98 derailed on the 'Y' at the east end of Wilsmere Yard and when returning from Mt. Cuba on October 8, 1972 the driver wheel tires were a little over 5" wide. Worn rail on curves can allow the drivers to drop between the rails and thus a derailment occurs. HRCV contracted Edgemont Steel Company in Latrobe, PA to make a pair of replacement driver tires for #98 that are now 6" wide over the flange. A heating ring, acquired from the Reading Company's Essington Engine House, is fired with kerosene to heat the existing tires on #98's rear axle wheel castings for removal. The heating ring is then used to heat the replacement wider tires for installation on the rear wheel castings. Once in place the tire extends past the outside of the wheel by a slight amount. If one compares the rear driver wheels of #98 to the front driver wheels, the slight difference can be observed.</p>

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Y	M	D	Event or Activity
1973	5	8	<p>Historic Red Clay Valley, working with local authorities and historians, secures the nomination of Greenbank Mill and the adjacent farmhouse and properties with the National Register of Historic Places (Listing 73000513). The Greenbank Historic Area was listed on July 2, 1973.</p>
1973	6	15	<p>Chessie System becomes the parent holding company for the former Baltimore & Ohio Railroad, Chesapeake & Ohio Railway, and Western Maryland Railway. While the liveries of three railroads are retired, the individual railroad companies continue to exist as independent privately owned corporate subsidiaries to Chessie System Incorporated.</p> <p>Going forward in this Timeline, references will be to “Chessie System” as Chessie System is the parent holding company for the Baltimore & Ohio Railroad. While legal documents for the Landenberg Branch right of way remain in the name of the Baltimore & Philadelphia Railroad, operational control of the Landenberg Branch is with Chessie System.</p> <p>Where references are to events and dates before the B&ORR became part of Chessie System, the B&ORR reference is maintained. From this point on, B&O and Chessie System should be regarded as the same entity with respect to this timeline.</p> <p>Later in this timeline, when events reference ownership of the Landenberg Branch by CSX Transportation, we will use the CSX Transportation reference. Once the line is under the ownership of Historic Red Clay Valley, Incorporated, and the Wilmington & Western Railway Corporation is responsible for all freight movements and FRA compliance, we will use the HRCV, Wilmington & Western, W&WRR, WWRC, or Landenberg Branch references depending on the topic being discussed.</p> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="width: 45%;">  <p style="text-align: center;">The Wilmington & Western Railroad’s Kiamensi Station which was later renamed Marshallton Station when the Baltimore & Ohio Railroad took over operation in 1886. Robert. E. Wilhelm collection.</p> </div> <div style="width: 45%;"> <p>The National Railroad Historical Society (NRHS) charts six Rail Diesel Cars (RDC) for an excursion from Silver Spring, MD to Marshallton, DE. The group boards a W&WRR train powered by #98 for a trip to Hockessin, DE. This trip marks the last time RDC cars are hosted by the W&WRR.</p> <p>Rail Diesel Cars or RDCs are self-propelled passenger coaches that were manufactured by the Budd Company in Philadelphia, PA. Used for passenger</p> </div> </div>
1973	10	13	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="width: 45%;">  <p style="text-align: center;">National Railroad Historical Society RDC cars and #98 at Marshallton. Tim Cronin photo.</p> </div> <div style="width: 45%;"> <p>The National Railroad Historical Society (NRHS) charts six Rail Diesel Cars (RDC) for an excursion from Silver Spring, MD to Marshallton, DE. The group boards a W&WRR train powered by #98 for a trip to Hockessin, DE. This trip marks the last time RDC cars are hosted by the W&WRR.</p> <p>Rail Diesel Cars or RDCs are self-propelled passenger coaches that were manufactured by the Budd Company in Philadelphia, PA. Used for passenger</p> </div> </div>

50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1973	10	13	<p>service in low population rural areas they were cheaper to operate than a locomotive pulling one or more passenger coaches. RDC cars could be coupled together into trainsets and the consist controlled by either RDC car at the end of a consist. Built with or without a baggage section, the capacity of an RDC car was between 48 and 94 passengers depending on configuration. 398 were constructed between 1949 and 1962. #4662 represents a very early form of "Interurban" self-powered passenger car which eventually led to the development of RDC and similar self-propelled passenger cars. They are often referred to as "Doodlebugs".</p>
1974			<p>The oil embargo and gasoline rationing affects HRCV as the organization loses money for the year due partially to the lowest annual ridership numbers in the organization's short history. Coal, at the mine, is already costing the organization \$47/ton (mine cost, delivery expense must be added). The cost of coal is projected to rise 50% at the mine (not including increasing transportation costs due to fuel cost escalation) during 1975. (In 2016 coal is running roughly equal to the 1974 mined price however transportation for HRCV raises the cost per ton to roughly \$250 per ton delivered in Marshallton.) The operating schedule is reduced to Sunday's only for 1974 to reduce coal consumption and because many Saturday trips do not pay the basic costs of operation.</p> <p>HRCV begins hosting a once-monthly (second Saturday) flea market of local vendors at Greenbank as a means to generate additional income. The operation is managed by HRCV volunteer Ruth Baum who is assisted by State Senator Margaret Manning, Ruth Bracken, and other HRCV volunteers.</p>
1974	3	11	<p>Governor Sherman Tribbitt, Senator Joseph Biden, and five HRCV representatives (HRCV President Henry Dickinson made HRCV's presentation) attend a US Department of Transportation hearing at the US Customs House in Philadelphia, PA to oppose the B&ORR's abandonment of the Landenberg Branch. Facts presented by HRCV included; 7,000 to 8,000 children travel the W&WRR school trains in 1973 to learn about railroads and railroading; people from 34 states traveled to northern Delaware in 1973 to ride one of the W&WRR trains; a number of workers are directly or indirectly employed as a result of the line; the freight business from NVF, Hercules, Haveg, etc. is making money for the Chessie System (it once enjoyed the reputation of being the B&O's most profitable branch line and remains one of the more profitable).</p>
1974	6	8	<div style="display: flex; align-items: center;">  <div style="margin-left: 20px;"> <p>HRCV's lease with the B&O allowed for daytime operation only, but there was no objection by the B&O if HRCV held the branch overnight. In the 1970s, #98 would be left fired up overnight Saturday into Sunday if there was somebody available to tend the fire and monitor the water. For such all-nighters the caboose with its long flat seats made an ideal place for a nap.</p> </div> </div> <p>#98 releases a few pounds of steam while simmering overnight in Marshallton yard on the Landenberg Branch. Tim Cronin photo.</p>


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1974	6	8	With several years of experience operating #98 on the Landenberg Branch, HRCV learns that #92 has the tractive effort (pulling power) and track adhesion to generally move two additional coaches up Hockessin Hill before slipping than what #98 can handle (especially in wet weather). Operating #92 is also less expensive in terms of water and coal use than #98. Combined, #92's greater pulling power and less use of coal and water than #98 makes #92 a more cost effective locomotive for HRCV Landenberg Branch operations.
1974	8	31	The State of Delaware's transfer of the prison property to New Castle County is completed with the County having demolished the prison buildings. Now that the County has possession of the property, HRCV initiates investigations into the purchase of the property under lease. The County develops plans to turn the former prison property into Greenbank Park.
1975	1	14	<p>A letter is sent to HRCV by the Federal Railroad Administration (FRA) indicates they are planning to eliminate ALL steam railroads. The FRA's reasoning for the elimination includes that there are insufficient qualified inspectors and that steam locomotives are inherently not safe for continued operation. HRCV contacts Senators William Roth and Joseph Biden along with Representative Pierre DuPont to alert them to the situation and gain their support in opposing the FRA's plans. The Tourist Railroad Association is to take the industry lead in opposing the FRA's plans.</p> <p>Brian Woodcock purchases Atlanta, Birmingham & Atlantic Railroad #58, a 0-6-0 switcher built by Baldwin Locomotive Works in Chester, PA at Marshallton Yard. The engine is occasionally moved to Greenbank on weekends for static display and is eventually moved to Avondale, PA on 12/10/1988 having never been operated on the Landenberg Branch. Woodcock will eventually donate #58 to HRCV in December 1997.</p>
1975	2	11	HRCV leases Greenbank Mill to the New Castle County Parks and Recreation Department for a period of eight years. The county will undertake operation of the mill including all insurance, maintenance, and security. The county considers a plan to construct tracks parallel to the W&WRR tracks between Greenbank Mill and Brandywine Springs Park for the purpose of constructing a tram that can move visitors between the two county parks.
1975	4		<p>The Greenbank flea market is expanded to bimonthly events (2nd & 4th Saturdays). Train ticket prices are raised to \$2.25 for adults. HRCV regular membership is \$5 and families \$7.50. On several HRCV operating days in 1975, due to marginal track conditions or derailments, the B&ORR limited HRCV trains to Faulkland, Wooddale, or otherwise limit operations until proper track repairs could be implemented by the B&ORR.</p>

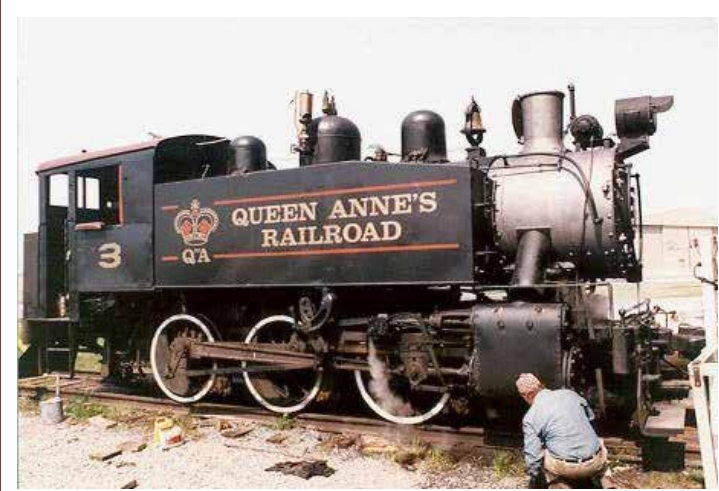



Flea market at Greenbank on a Saturday. HRCV archive photo.


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1975	6		<p>HRCV volunteer members Brian Woodcock, Skip Reiter, Skip Small, and Malcolm Ottinger acquire a 1928 Baldwin built, Gulf, Mobile, and Northern Railroad engine #425, a 4-6-2 Pacific, from Valley Forge Scenic Railroad. It is moved to Marshallton Yard in December 1975 for storage and is intended to be displayed on occasion.</p> <p>The long-term future of the Landenberg Branch is in question and definitely on the minds of HRCV Directors. Chessie System is working a request through FRA channels requesting the abandonment of the Landenberg Branch. It had not gone unnoticed by the few remaining freight customers and HRCV that maintenance on the Landenberg Branch might best be classified as “minimum needed to keep the inspectors happy”. The fact that in December 1971 and January 1972 the Chessie System had taken the Landenberg Branch out of service because they were having right-of-way issues with the track (derailments) further signaled HRCV Directors that they needed to diversify their income options if the organization was to remain viable. Landenberg Branch freight customers were experiencing more frequent shipping delays and problems as well.</p> <div style="text-align: center;">  </div> <p>Vulcan Locomotive Works 0-6-0T arrives in Marshallton in September 1980. Owner Brian Woodcock donates the engine to HRCV in February 1981 where #3 sees service on the W&WRR until 1986-7 when it served as the sole operating steam engine on the Landenberg Branch while American class #98 was out of service. Kurt Bell photo.</p> <p>Because worldwide oil reserves in the ground in the early 1970s were believed to be very limited (by some official estimates only 25-years supply left), conservation of the non-renewable remaining oil supplies became commonplace resulting in the Arab nations embargoing oil to the US, who was the biggest consumer. Poor US economic policy with respect to inflation and unemployment meant it was a very tough time for business, and the nation’s railroads suffered tremendously. Freight traffic on the Landenberg Branch, as well as ridership on the W&WRR all suffered in ways not previously experienced. In fact, all commercial railroads were doing whatever possible to limit expense with some filing for Chapter 11 protection.</p> <p>As a result, HRCV cuts all unnecessary expense and explores multiple alternate strategies to keep the organization viable. Prudent management guided HRCV through the turbulent financial and business conditions of the 1970s. The cooperation and support that HRCV management and volunteers both extended to, and received from, Chessie System management during the late 1970s and early 1980s in no small way facilitated and expedited the eventual transfer of the Landenberg Branch to Historic Red Clay Valley, Incorporated.</p> <p>One of the decisions reached by the HRCV Board was to acquire "interesting static display" items for Marshallton Yard and perhaps Greenbank. If it might not possible to operate trains on the Branch for an extended period of time due to track, trestle, or</p>


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1975	6		<p>business conditions, HRCV wanted the opportunity to use Marshallton Enginehouse and Yard as an alternate destination for short hops from Greenbank. Acquiring Gulf, Mobile, and Northern Railroad #425 represented the first step in executing this effort.</p> <p>By the mid-1980s the small collection of motive power at Marshallton Yard would not be needed for static display purposes as HRCV now owns the Landenberg Branch. Now, HRCV's destiny will be determined by organizational management prowess entirely. If HRCV cannot operate trains, it will be because the organization failed as a business. As HRCV begins ownership of the Landenberg Branch after late 1982, the organization owns or indirectly controls nine vintage steam locomotives (#3, #37, #58, #60, #92, #98, #113, #425, #722), a fireless cooker steam engine (DP&L #1), a former PRR GG1 (#4934), leases storage space for Royal Hudson #2839, and as collected a number of special railcars and equipment.</p> <p>In the coming years the maintenance expense of owning a right-of-way will present HRCV management with new business headaches. FRA track inspectors began reviewing previous B&O and Chessie System track inspection reports and begin adding previously cited "observations" to the HRCV inspection reports but changing their status to "must be corrected by the next inspection". Years of B&O and Chessie System deferred maintenance, the result of the generally poor financial state of all US railroads in the 1970s, is being cautiously addressed by FRA inspectors during their inspections of the now HRCV-owned Landenberg Branch! HRCV is required to correct a select subset of prior "observations" by the next inspection or HRCV risks the potential for the observations being elevated to violations and which possibly close the Branch until the condition is remedied.</p> <p>The stash of collected equipment at Marshallton</p>
			<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">  <p>In 1991 the 1949-built 0-6-0T engine is sold to the Queen Anne's Railroad in lower Delaware with a pair of MP-54 coaches. The former Navy switcher operated for few years before the railroad closed down. #3 now resides outdoors waiting another opportunity to power a steam tourist passenger railroad. William Harris photo.</p> </div> <div style="width: 45%;">  <p>AB&A #58 on Reading Company tracks in Bridgeport, PA. The 0-6-0 slope-back switcher is on its way to storage at Marshallton Yard in February 1975. Brian Woodcock photo.</p> </div> </div>


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1975	6		<p>provide the means to raise capital to buy ties and track supplies for correcting FRA's inspector report concerns. The first to leave, in 1984, was Pacific #425. The engine leaves Marshallton Yard for the Blue Mountain & Reading Railroad where a full restoration is performed before returning to service. Now named the Reading & Northern Railroad, #425 routinely pulls tourist passenger trains on sections of the regional railroad's 300+ miles of track in the Lehigh Valley of Pennsylvania.</p> <p>Central Railroad of New Jersey #113 is sold and again sees service after a lengthy restoration pulling passenger trains in Schuylkill County, Pennsylvania. Three of the operable engines, #3, #37, and #722, see limited use after leaving Marshallton Yard but now (in 2016) await restoration in various homes before hopefully they will return to service.</p>
1975	8	12	<div style="display: flex; align-items: flex-start;">  <div style="margin-left: 10px;"> <p>Former Baltimore & Ohio Railroad 600-horsepower Wilsmere Yard assigned SW1 locomotive #8408 and caboose C2013 together in Marshallton Enginehouse in April 2016. Both have been returned to their original B&O heritage colors and livery in preparation for celebrating Historic Red Clay Valley having operated Wilmington & Western trains on the B&O's former Landenberg Branch for fifty years. In the mid-1970s HRCV seriously considered curtailing operations due to the nation's poor economy. Cristian Sanchez photo.</p> </div> </div> <p>Of all the tourist heritage railroads created since the 1950s, HRCV is the only one that has continuously operated their trains utilizing volunteer labor. This distinction makes HRCV the oldest steam tourist heritage railroad in the US operated solely by volunteers.</p>
1975	9	9	<p>HRCV seriously considers halting all W&WRR trains for the remainder of the 1975 operating season as W&WRR income is not meeting basic expenses associated with operation. Without the personal financial support members contributed over the recent year it would not have been possible to cover locomotive and rolling stock maintenance expenses. Without the substantial donations HRCV received, the organization would be in greater financial difficulty, possibly bankrupt. The bank account monthly average balance is running \$750-\$1,000. It is very difficult to make major purchases (such as a load of coal and even pay the water bill to fill a tender) due to low ridership numbers as people stay at home to conserve gas.</p> <p>Ultimately HRCV cuts and maintains costs at a minimum, seeks out additional free advertising to boost ridership, and continues to operate. Scrap metal and rail are salvaged from HRCV operations and sold. Any other material of value no longer needed is sold for scrap value. The donation of 500 tons of unused coal from the Penn Central as well as a large unused coal pile at NVF further reduces expenses. The Boeing-Vertol plant in Eddystone, PA (now known as the Mobility Division of Boeing Military Aircraft, a division</p>


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
			of Boeing Defense, Space & Security) donates several tons of coal which HRCV volunteers move to Marshallton Yard.
1975	9		" <u>Hockessin - A Pictorial History</u> " is published by HRCV member and volunteer Joseph Lake of Hockessin. The book is well received and eventually sees a second printing.
1975	11	4	<div style="text-align: center;">  </div> <p>Open car #17107 in June 1977. Car #17107 was originally used by Bethlehem Steel for plant tours before its open car service on the W&WRR for a number of years. In the future when an MU car is converted to an open car, the hard riding #17107 will have the roof and sides removed is turned into a more common steel deck flat car. #17107 now provides service to the W&WRR track maintenance volunteers hauling materials to maintain the track. Pete Steele photo.</p> <p>New Castle County Council holds a workshop to investigate alternate options, ideas, and uses related to the Baltimore & Ohio Railroad's proposed abandonment of the Landenberg Branch. The purpose of the workshop is to discuss ideas for the County to consider if they were to purchase and designate the right-of-way as a walking trail during weekdays.</p> <p>New Castle County might be willing to install a several feet wide gravel or asphalt pathway alongside the railroad tracks within the railroad right-of-way. It is the County's intention that HRCV would continue operating steam passenger trains but only on weekend afternoons. An alternate suggestion is to construct a "boardwalk" between the rails which would serve the same purpose as a paved pathway and would solve the problem of walkers getting safely across the various trestles on the line. This idea meets quick opposition from NVF who will not allow people walking through their plant in Yorklyn. HRCV opposes anything that affects the tracks such as the installation of a "boardwalk". Use of the right-of-way as a trail generates more questions than providing a viable solution and is ultimately rejected for logistics, cost, and safety reasons.</p> <p>The County also examines the feasibility of HRCV or New Castle County (Delaware Authority for Regional Transit, DART, was not founded until 1994) restoring several RDC railcars for operation on the Landenberg Branch on weekdays to transport workers from parking lots at Hockessin, Greenbank, and other locations to Wilmington. This idea is intended to reduce gasoline consumption and road congestion in Wilmington, DE.</p>



50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1976	4	13	<div style="display: flex; justify-content: space-around;">   </div>  <p>19th century Oliver Evans milling equipment inside Greenbank Mill that was lost in the 1969 arson fire. Burr stones (upper left) grind grain into flour and bran. Falling off the edges of the mill stone, the flour and bran is funneled to Evans' elevator conveyor (above right). Evans' elevator conveyor consists of tin buckets affixed to a canvas belt traveling in a vertical wooden box. The flour and bran is raised to an upper floor where a drill conveyor (left) distributed the flour and bran on the floor for drying to reduce moisture content. The material is then collected and using Evans' conveyors is moved to sifting and bagging equipment in the mill. Evans' continuous milling process is considered the prototype for all automated continuous-production processes used in industry today. Evans' automated milling process equipment is US Patent #3. Photos from the Historic American Buildings Survey, National Park Service.</p> <p>The County approves \$65,000 for the restoration of Greenbank Mill's structure. HRCV applies for matching federal grants (\$27,250 from Federal funding is eventually raised). This funding is in addition to the insurance payments already paid.</p>


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
			W&WRR operates 3 scheduled trains during Saturdays & Sundays for the operating year in tribute to the Nation's 200th birthday.
1976	7	3	<p>To celebrate the Nation's 200th Birthday, HRCV operates Wilmington & Western trains from Hockessin to Mt. Cuba Picnic Grove instead of between Greenbank to Mt. Cuba on July 3, 4, and 5. In addition to #98 providing motive power for the trains, former Atlanta, Birmingham & Atlantic Railroad #58 is moved from Marshallton Yard to Hockessin to be displayed across from the Hockessin Fire Hall.</p> <p>For passengers choosing to purchase the one of the "bottomless commemorative mugs", there is plenty of free beer mug refills. For those wishing a bird's eye view of the Landenberg Branch, Hockessin Valley, and the Red Clay Valley, helicopter rides are provided. The W&WRR carries 3,000 passengers for the three-day event.</p>
			 <p>Brian Woodcock's 0-6-0 slopeback switcher #58 on display in Hockessin. The engine is stored at Marshallton from January 1975 until December 1988. After displaying the engine in Avondale, PA from January 1989 until December 1997, #58 is donated by Woodcock to HRCV. Brian Woodcock photo</p>
1976	7	16	New Castle County Parks Division holds a planning meeting to prepare a plan to acquire the B&O's Landenberg Branch for use as a bicycle pathway should the B&O be successful in having the Interstate Commerce Commission approve the abandonment of the line. NVF attends the meeting to oppose the plan as the right-of-way would route the general public through the center of their facility. NVF's legal team questions if the easements granted to the original Wilmington & Western Rail Road Company and transferred to the Baltimore & Philadelphia Railroad Company, now owned by the B&O, can even be transferred to New Castle County ownership for non-railroad use. The idea is recognized as creating operational problems for HRCV and is eventually discarded due to logistics, expense, and other considerations.
1976	7	23	The Tri-County Conservancy of the Brandywine, Incorporated proposes to HRCV a feasibility analysis for the operation of W&WRR trains on the Wilmington & Northern Branch of the former Reading Railroad. The analysis eventually determines such operations could be successful and generate income for both organizations. The trips become a reality operating from Greenville, DE to points along the Wilmington & Northern Railroad and Octoraro Railway.
1976	9	7	Chessie System's request to abandon the Landenberg Branch is challenged by NVF and HRCV during a two day FRA hearing in Wilmington, DE. NVF presents data to show the line is making money for the Chessie System. The State and County make presentations on the jobs which will be lost due to abandonment. HRCV makes a presentation on the second day of the hearings. It is costing the Chessie System \$11,000 annually to keep the



50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1976	9	7	<p>trackage at Class II rail conditions. The FRA is slated to make their ruling within 90 days (the abandonment petition ultimately is turned down and cannot be re-opened for 3 years and then only if there's a significant change in the business conditions from when the last ruling took place).</p> <p>The Chessie System informs HRCV that if they wanted to purchase the line on a lease-to-own arrangement and take over all shipping and responsibility the cost that would need to be raised and/or financed would be \$149,059. During the ten years HRCV leased the branch HRCV has spent \$40,000 (\$17,500 for the train/mile cost, \$17,000 for upgrades, and \$5,500 for switches at Marshallton).</p>
1976	11	8	The Interstate Commerce Commission sets November 8, 1976 as the deadline for all legal filings to be presented in opposition to the Chessie System's filing for abandonment of the Landenberg Branch. The tentative schedule is for a written decision to be issued in late April or early May 1977. Appeals will then be accepted and considered after which a final ruling will be made in October 1977.
1976	12	14	The Interstate Commerce Commission informs Chessie System that they intend to deny the request to abandon the Landenberg Branch. The Chessie System files an appeal on January 3, 1977.
1977			<p>Coal prices have climbed to \$70/ton at the mine. A typical monthly coal bill runs over \$3,000 for HRCV.</p> <p>Ex-New York Central wooden caboose originally used by the Wawa & Concordville Railroad and stored at Marshallton Yard is burned by vandals.</p>
1977	2	23	<p>Chessie System personnel visit Marshallton Enginehouse to inspect the W&WRR "Boonton" coaches to determine if they might be suitable for mainline operation. Chessie has an interest in using the coaches for the B&O's 150th Anniversary trains. While Chessie chooses not to use the "Boonton" coaches, they do secure 19 coaches to pull behind former Reading 4-8-4 #2101 as the Chessie Steam Special. Over a 5-month period Chessie operates 46 excursions with nearly 20,000 passengers riding the sesquicentennial specials. Excursions occur on the former "Royal Blue Line" through Delaware passing Landenberg Junction.</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <p>The two faces of a commemorative mug offered by Historic Red Clay Valley celebrating 150 years of commercial railroading; 105 years of Landenberg Branch operations; and 41 years of service to the community by the Hockessin Fire Company. In 1827 the Baltimore & Ohio Railroad was chartered, as the first public railroad in the United States. Chartered and constructed in 1868-72 the Landenberg Branch has operated since 1872 for over a century. The Hockessin Volunteer Fire Department, Station 19, was established in 1936 as the result of a huge building fire in the residential community. Robert E. Wilhelm, Jr. collection.</p>


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1977	5	28	The W&WRR operates trains on the Wilmington & Northern Branch of the Reading Line (Montchanin to Chadds Ford) during the Memorial Day Weekend (May 28-30, 1977).
1977	6		<div style="display: flex; align-items: flex-start;">  <div style="margin-left: 10px;"> <p>The exterior of Yorklyn Station at Greenbank is sanded and repaired as necessary before being repainted of cream yellow and dark brown. Originally painted Barn Red by the Wilmington & Western Rail Road Company in 1872, the yellow and dark brown colors were implemented once the B&O returned passenger service from Baltimore to Philadelphia in 1886.</p> </div> </div> <p>During March and April 1968, the only remaining Wilmington & Western Rail Road Company station at Yorklyn is jacked up and trucked to Greenbank. Shown here, the station is awaiting placement on the foundation (foreground). Note that the station is sitting “backwards” from how it will eventually be placed on the foundations. Richard Hall photo</p>
1977	6	21	<p>The Interstate Commerce Commission (ICC) renders a final decision regarding Chessie System’s request to abandon the Landenberg Branch. The ICC’s 3rd Division denies Chessie System’s request to abandon the Landenberg Branch based on the hardships such abandonment would impose on existing freight customers that rely on the line to receive and ship products.</p> <p>Chessie System is further directed by the ICC that Chessie may not reapply to abandon the Landenberg Branch as long as the business conditions upon which the ICC’s decision was reached do not appreciably change. The Chessie System challenges the ICC decision but loses their appeal. Chessie System’s only options are to either continue operating the line and hope to make a small profit or to find a buyer.</p> <p>As a result of the ICC’s decision, Chessie System decides to quietly begin marketing the Landenberg Branch for sale. They prepare a brochure and other railroad related freight shipment information regarding the Landenberg Branch for prospective clients. Chessie System begins meeting with individuals who may be interested in owning the Landenberg Branch including NVF, HRCV, Delaware Department of Transportation, New Castle County, and several shortline railroads.</p>
1977	7	4	<p>The W&WRR operates passenger trains from Hockessin to Ashland. 864 passengers ride the trains over the July 4th holiday weekend.</p> <p>HRCV loans passenger coach 603, the Chicken Car, and caboose C-2013 to the newly organized Octoraro Railway in Kennett Square. The Octoraro is celebrating the start of operations for the railroad and the return of freight services to the branch line.</p>
1977	7	5	Wilmington & Western #98 makes a private excursion on the Wilmington & Northern Railroad in preparation for passenger operations that will be occurring at the end of July.


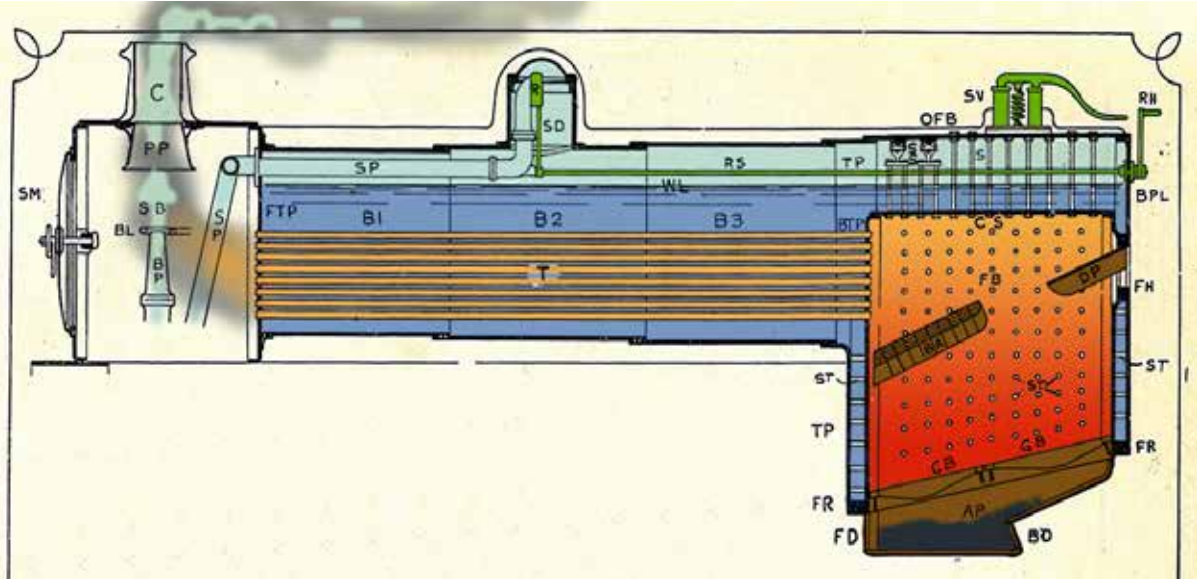
50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
			The trip provides HRCV with a means to return to Marshallton the equipment that had been loaned to the Octoraro Railway,
1977	7	30	<p>HRCV in conjunction with the Brandywine River Conservancy, Incorporated operates a W&WRR train from Greenville (9AM departure) to Northbrook, PA on the Wilmington & Northern Branch of the Reading Company line. Tickets for the 6-hour trip are \$15.</p> <div style="display: flex; justify-content: space-around;">   </div> <p style="text-align: right;">#98 at Elsmere (left) and Northbrook (above). Note the use of two tenders to insure a sufficient supply of water for #98's operation during the extended off-site trip. Steve Jensen slides</p>
1977	9	10	HRCV operates trains between Chadds Ford and Lenape as part of a Battle of the Brandywine reenactment on September 10-11, 1977.
1977	10	3	<p>#4662 moves a short distance on a Marshallton Yard siding under its own power. Both diesel engines and their coupled DC generators, along with the traction motors on the trucks are fully functional. The air compressor and braking system is still undergoing restoration. Interior restoration, car electrical systems restoration, and other work remain to be completed before the Doodlebug is serviceable.</p> <p>Chessie System management and lawyers meet with NVF lawyers and offer NVF Company the Landenberg Branch with the suggestion that the Octoraro Railway might be an excellent choice as an NVF subcontractor handling all freight moves for the branch line. If NVF is interested in the arrangement the next step will be for Chessie System to obtain FRA approval to transfer right-of-way ownership to NVF with the Octoraro Railway as the FRA freight railroad operating on the branch.</p> <p>Chessie System lawyers note that the Baltimore & Philadelphia Railroad's 99-year charter to operate along the original Wilmington & Western Rail Road Company right-of-way in Delaware, signed in 1869 has expired. The present Delaware charter for railroad operation on the Landenberg Branch right-of-way is in question with the State of Delaware. The Chessie System is mounting a project to review all right-of-way documents for the B&PRC as well as any the B&ORR generated within Delaware and to "clean up" legal documentation and paperwork as necessary.</p>
1977	12	30	Thomas C. Marshall, Jr. donates former Mississippi Central Railroad (MCRR) 4-4-0 locomotive #98 to HRCV, along with a generous cash donation to help with its ongoing maintenance.


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1978			HRCV issues the first ever W&WRR Calendar composed of 12 months of black & white photos of the railroad.
1978	1		The HRCV " News Letter " is reformatted to become " The Lantern ". Editor Edward Fagen is supported by associate editors Hugh Gibb, Thomas C. Marshall, Jr, and Brian R. Woodcock. Features of the new format are the inclusion of black & white photography, a booklet form instead of several stapled pages, and professional printing.
1978	1	16	Chessie System puts the Landenberg Branch out-of-service until February 11, 1978 due to trestle 8B being damaged during a storm.
1978	3	22	<div style="border: 1px solid black; padding: 5px; text-align: center;">  <p style="margin: 0;">B&O 10-wheeler #2037 drags a freight eastbound off trestle 12B, the S-trestle, on April 22, 1941. Note the "wagon-top" box car behind the tender. William E. Grant photo.</p> </div> <p>The Landenberg Branch is out-of-service until April 1, 1978 due to Red Clay Creek flooding washing out ballast from the rails. Chessie System has to order ballast stone from West Virginia as the local supplies have been used up for main line storm related repairs.</p>
1978	7		Boilermakers from Sun Shipbuilding & Drydock Company of Chester, PA donate time to remove fatigue-cracked firebox side sheets in #92 in preparation for their replacement.
1978	8	28	Another severe storm in the Red Clay Valley causes the Red Clay Creek to again overflow its banks and wash out sections of the Landenberg Branch. Chessie System takes the Landenberg Branch out-of-service until September 7, 1978. NVF, who relies on Chessie System to supply the Yorklyn facility with one million pounds of cotton rags and about a half million pounds of wood pulp a month is forced to truck materials between the Yorklyn and Wilsmere Yard.
1978	10		Chessie System formally offers the Landenberg Branch for sale. Chessie System offers interested parties a prepared packet of information to review before placing an offer. Chessie System will work with the ICC to hold open hearings on the sale.



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Y	M	D	Event or Activity
			Historic Red Clay Valley informs NVF that they intend to bid and will be open to working with NVF to make an offer for the line. Chessie System ultimately finds only HRCV interested and efforts to formally sell the line are abandoned.
1978	9	16	<p>HRCV operates a "Rail Ramble" on the Wilmington & Northern Branch of the Reading Company (Greenville, DE to Modena, PA) on September 16-17, 1978. Departure for the 7-hour trip is 9:30 AM and tickets are \$15 for adults and \$8 for children. #98 provides motive power for the 270 railfans participating each day (sold out both days).</p> <div style="display: flex; align-items: center;">  </div> <p>#98 with an extra water cistern, four "Boonton" coaches, MU #675, open air car #17107, and C2013 at Chadds Ford. Tim Cronin photo.</p>
1978	10		<p>Buffalo Creek & Gauley Railroad #14, a 2-8-0 locomotive is donated to HRCV by the Paul S. Hersh family of Hellertown, PA. The locomotive was in service until 1965 and moved to Quakertown by Mr. Hersh for restoration and eventual return to service.</p> <p>#98 is taken out of service in late September requiring repairs to the dry pipe and flue sheet. Chessie System yard diesels #8406, #8407, #8408, and #8413 from Wilsmere Yard are leased to HRCV to finish out the operating season.</p> <div style="display: flex; align-items: center;">  </div> <p>On the top of a locomotive boiler (see image above) is a dome (SD) along with the safety valves (SV) and steam taps to supply steam to heat the coaches, run the air compressor, etc. This dome is known as a steam dome and provides a space significantly above the water line in the boiler to collect steam and convey it to the cylinders. Inside the dome is the throttle valve (R) which controls how much steam is sent to the cylinders. From the throttle valve in the steam dome a large pipe (SP) travels inside the boiler (B1, B2, B3) to</p>

50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1978	10		<p>the front of the boiler where it exits through the flue sheet (FTP) and into the smokebox (SM) which also contains the steam exhaust blast pipe from the cylinders (BP).</p> <p>Once inside the smokebox the dry pipe ends in a tee that distributes the steam to each cylinder of the engine. A leak in the dry pipe where it runs within the boiler above the flue tubes means steam is sent directly and uncontrolled to the cylinders. The steam going to the cylinders bypasses the throttle valve. A rupture or leak in the dry pipe within the boiler creates conditions for a runaway engine. If the dry pipe leaks steam where it is within the smokebox (24), then steam leaking into the smokebox pressurizes the smokebox and effectively blows steam and combustion gasses from the smokebox backwards through the boiler flues and into the firebox and unbalancing the combustion process and fire that is needed to make steam.</p> <p>#98 experiences a dry pipe leak within the boiler in April 1986 and actually starts moving in Marshallton Yard until it encounters a safety device called a derail. Another steam supply pipe related leak within the smokebox in November 2015 sees the locomotive temporarily out of service while repairs are made.</p>
1978	11	3	HRCV hosts the Tourist Railway Association's nationwide conference of tourist railroad operators and businesses at the Holiday Inn, Newark, DE. (November 3-5, 1978). 175 attended the conference.
1978	12		<p>With locomotive #98 out of service, the season's Santa Claus Special coaches require warming up after spending a week in a cold, unheated car barn. Former Gulf, Mobile, and Northern Railroad #425 is fired to boil water and provide steam to heating the "Boonton" coaches. #425 is a 1928 Baldwin built 4-6-2 Pacific. Purchased by two HRCV volunteers in 1975 and fired up occasionally, it was too heavy for the Landenberg Branch trestles. #425 leaves Marshallton Yard for the former Blue Mountain & Reading Railroad in 1984.</p>
			 <p style="text-align: center;">#425 provides low pressure steam heat to the "Boonton" coaches prior to the Santa Claus Express train leaving for Greenbank. Brian Woodcock photo.</p>
1979	1		According to official Chessie System Operations Reports, HRCV has logged 19,932 miles from May 1966 through December 1978. With HRCV leasing the Landenberg Branch since beginning operations on Memorial Day weekend 1966, the distance Wilmington & Western has traveled is equivalent to 4/5th the circumference of the Earth. The passenger operation has netted the B&ORR and Chessie System nearly \$20,000 for inspecting W&WRR motive power and coaches before they leave Marshallton Yard as well as per car per rail-mile leasing payments.
1979	2	2	Canadian Pacific 4-6-4 #2839 spends the night in Marshallton where it picked up 28-tons of coal and 22,000 gallons of water. Known as The Royal Hudson (4-6-4 with 75" drivers), it spends the night as part of its transfer from Northampton, PA to the Southern Railway's Alexandria, VA facilities to start excursion service. The engine underwent restoration by the Atlantic Central Steam Company in Bath, PA beginning in the early



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Y	M	D	Event or Activity
			1970s. Use of the Royal Hudson #2839 was under consideration by HRCV as a substitute while #98 was out of service. However, Atlantic Central accepted a multiyear excursion lease with the Southern Railway over HRCV's offer for a short term lease.
1979	4	13	<p>Southern Railway's #722 arrives at Marshallton Yard. A 1904 Baldwin 2-8-0 Consolidation class coal-fired locomotive, #722 is leased for a 3-month period for \$2,000 so that steam trains can continue carrying passengers along the Red Clay Valley. #98 is out of service due to dry pipe leakage and continues to undergo repairs. #722 provides motive power for the W&WRR trains starting on April 28-29, 1979.</p>  <p style="text-align: center;">#722 and W&WRR "Boonton" coaches at Marshallton, PA on May 27, 1979. Tim Cronin photo.</p>
1979	5	26	<p>HRCV operates a pair of "Iron Horse Ramble" excursions in conjunction with the Brandywine Valley Association on the Wilmington & Northern Branch of the Reading Railroad (Greenville, DE to Modena, PA) on May 26-27, 1979. Southern Railway #722 provides the steam motive power for the excursion.</p>  <p style="text-align: center;">Former Gulf, Mobile, and Northern Railroad Pacific 4-6-2 #425 (left); Atlanta, Birmingham, & Atlantic Railroad Slope-back Switcher 0-6-0 # 58 (center), Southern Railway Consolidation #722, 2-8-0 (right) pose in front of Marshallton Enginehouse on July 22, 1979. Two of the three locomotives continue in active service in 2016: #425 with the Reading & Northern Railroad, and #58 with the Wilmington & Western Railroad. Southern Railway #722 is in storage with the Great Smoky Mountains Railroad waiting extensive funding for restoration. Tim Cronin photo.</p>


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Y	M	D	Event or Activity
1979	5	28	<p>HRCV operates a "Brandywine Museums by Rail" tour with collaboration of the Brandywine River Museum, Winterthur Gardens, and the Hagley Museum. Southern Railway #722 leaves the Brandywine River Museum for Winterthur Station where passengers board buses for tours of Winterthur and Hagley.</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">  </div> <div style="width: 45%;">  </div> </div> <p style="margin-top: 10px;">Above: Southern #722 and its tender and water tender pull the HRCV "Boontons" along the Wilmington & Northern Railroad as part of the "Brandywine Museums by Rail" tour.</p> <p>Left: Southern #722's tender and water car are refilled. Roger Cole, both photos.</p>
1979	6	3	<p>HRCV is forced to suspend passenger service on Chessie System's Landenberg Branch due to track conditions falling below FRA Class 1 minimal standards. B&O track maintenance crews remove and reinstall nearly 1,200 aged ties, relevel and grade track and ballast over much of the branch line's length, and crews perform rail and splice-bar replacements.</p>
1979	7	14	<p>HRCV resumes passenger service on the Landenberg Branch after a 10-man Chessie System track crew spends five weeks correcting deficiencies. The Landenberg Branch is again compliant with FRA Class 1 requirements.</p> <p>With the 3-month lease of Southern Railway #722 complete and #98 out-of-service with dry-pipe and flue replacement ongoing, HRCV leases Octoraro Railway General Electric diesel-electric locomotive #9 as alternate motive power. #9 is a 65-ton, 380 horsepower switcher built in 1941 for the Picatinny Arsenal. According to W&WRR engine crews, #9 is a breeze to fire and doesn't leave behind iron horse droppings between the rails that have to be cleaned up later. The limited</p> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="width: 45%;">  </div> <div style="width: 45%;"> <p>Octoraro Railway General Electric industrial locomotive #9 with the HRCV "Boonton" coaches on May 28, 1979 on the Wilmington & Northern Railroad. HRCV leased #9 for use at Marshallton when #98 was out-of-service due to mechanical issues. Roger Cole photo.</p> </div> </div>



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Y	M	D	Event or Activity
			tractive effort (pulling power) of the engine limits the number of coaches that may be hauled past Mt. Cuba.
1979	12		<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;">  <p style="text-align: center;">Interior of #4662 in April 1979 undergoing restoration of the interior wood surfaces and floor by HRCV volunteers. Steve Jensen slide.</p> </div> <div style="width: 35%;"> <p>HRCV declares former PRR "Doodlebug" #4662 operational with all FRA paperwork and compliances complete. With restoration complete, the car is operated on the line for testing and to educate engineers and brakemen in its operation. The braking system for the car is a different configuration than found on freight trains and thus HRCV volunteers must learn how to properly operate the throttle and brakes for the car.</p> </div> </div> <p>HRCV begins advertising the car is available for charter service on the Chessie System's Landenberg Branch.</p>
1979	12	5	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>#98 is fired up for the first time following repairs to the dry pipe, replacement of boiler flue pipes, and other mechanical work. Much of the dry pipe repair labor and materials were donated by Sun Shipbuilding & Drydock Company in Chester, PA (established by Sun Oil Company in 1916 to build tankers, the site became Pennsylvania Shipbuilding in 1982 and closed in 1989). The locomotive is fired again on 12/7/1979 for FRA inspectors who sign off the 71 years young, #98 as approved for passenger service. Boiler insulation, jacketing, and other work must be completed before #98 re-enters passenger service.</p> </div> <div style="width: 50%;">  <p style="text-align: center;">Chessie System #8408 in Chadds Ford, PA moving freight on the Octoraro in 1984. Between June 1982 and September 1984 the Octoraro Railway made all Landenberg Branch freight moves and occasionally borrowed #8408 for Octoraro Branch freight moves. Don Richard photo.</p> </div> </div>
1980			ex-NYC class T-3a B-B+B-B electric motor #278 is stored at Marshallton Yard briefly in the early 1980s. It is eventually moved to New York by the Mohawk & Hudson Chapter of the National Railroad Historical Society. A total of thirty-six T-motors were built by a joint venture of the American Locomotive Company and General Electric between 1913 and 1926 of which ten were class T-3a. The T-Motors operated on 660-volts direct current through a third rail and weighed 285,000 pounds.


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Y	M	D	Event or Activity
1980	1		 <p>B&O Ten-wheeler #2037 moving freight across Garrett Snuff Mill siding trestle 12C on April 25, 1941. On June 22, 1972 hurricane Agnes will cause the Red Clay Creek to become a raging river that severely damages trestle 12C and other trestles on the line. While the B&O quickly put the main line trestles back in order, as the Garrett Snuff Mill siding was no longer in use, the trestle was dismantled for materials to repair other trestles on the line. William E. Grant photo.</p> <p>HRCV President Brian R. Woodcock announces a quarter million-dollar real estate fund drive to purchase the leased enginehouse property, right-of-way, and other prime parcels of land leased from Chessie System. The objective is the replacement of multiple, rolling 30-day Chessie System lease agreements with either outright ownership or mortgaged ownership of the properties in question.</p> <p>Delaware Lackawanna & Western Railroad (DL&WRR) all-steel, open-vestibule Pullman coach #604 is purchased from the Wawa & Concordville Railroad by a group of HRCV members. The members donate the car to HRCV. The overall quality of the car is poor and #604 is seen as more valuable to the organization stripped of parts (seats, trucks, draft gear, brake rigging, etc.) to support the four “Boonton” coaches used by HRCV weekly. The car is stripped of useable components and the remainder scrapped in Concordville, PA.</p>
1980	3	8	#98 is used for an excursion along the Wilmington & Northern to Pocopson, PA. A second trip is made to South Modena on March 29, 1980.
1980	3	23	Former PRR "Doodlebug" #4662 makes its first revenue passenger trip along the Landenberg Branch. By 2016, #4662 also referred to as ‘The Paul Revere’, will be the only routinely operated example of a PRR “Doodlebug” remaining in service.
1980	4	2	<p>As of April 2, 1980, Historic Red Clay Valley, Incorporated is operating Wilmington & Western Railroad passenger trains on the Landenberg Branch longer than the combined Wilmington & Western Rail Road Company and Delaware Western Railroad!</p> <p>All trains traveling the line between its opening in 1872 and the start of B&O timetable passenger operations in 1886 displayed either the original Wilmington & Western Rail</p>


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Y	M	D	Event or Activity
1980	4	2	<p>Road Company or Delaware Western Railroad livery. After 5,057 days (13 years, 10 months, 5 days) days of original WWR and DWR livery, trains began displaying the Baltimore & Ohio Railroad livery (August 23, 1886). B&O trains offered passenger service between Baltimore, MD and Wilmington, DE after more than two years of suspended service after losing access to the Pennsylvania Railroad controlled Philadelphia, Wilmington, & Baltimore Railroad through Delaware.</p> <p>As part of the B&O taking over the Delaware Western and constructing new tracks through the state, the trackage east of Kiamensi Station (renamed Marshallton Station by the B&O) would now become part of the B&O's main line between Baltimore and Philadelphia. In time the B&O would use this long, straight, and very level stretch of land as a switching and sorting yard that becomes known as Wilsmere Yard.</p>  <p style="text-align: center;">Section of an 1881 New Castle County map published by G. M. Hopkins & Company.</p>
1980	4	8	The HRCV Board votes unanimously to make HRCV founder Thomas C. Marshall, Jr. an Honorary Vice President for Life.
1980	5		#98 returns to passenger service for the 1980 operating season after a leaking dry-pipe and other repairs are completed. The 71-year-old American-class locomotive returns to service after missing all of the 1979 operating season.
1980	5	17	#4662 returns to former "home tracks" with the National Railway Historical Society's 22-mile charter on the Wawa-Colora branch of the former PRR where it spent some of its youth. The last passenger train on the Wawa-Colora branch was on April 30, 1948. #4662 last operated between Calvert Station, Baltimore and Parkton Station, MD in mid-1959 where it was known as the "Ruxton Rocket".
1980	7	4	 <p>#98 and three "Boonton" coaches arrive at Kennett Square Station for Kennett's celebration of its founding 125 years prior. Hourly trips between Kennett Square and Mendenhall on Octoraro Railroad trackage. While #98 and the coaches were off running on neighboring rails, #4662 represented HRCV and the W&WRR in Hockessin.</p> <p style="text-align: right;">Steve Jensen slide.</p>



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Y	M	D	Event or Activity
1980	9	8	<p>The right-of-way for the 10.2 mile long Landenberg Branch of the Chessie System (former Wilmington & Western Rail Road Company, Delaware Western Railroad, Baltimore & Philadelphia Railroad, and Baltimore & Ohio Railroad), Yorklyn Station (now located at Greenbank, DE), locomotives #92 and #98, and the Delaware & Lackawanna Railroad open-vestibule Pullman coaches 410, 571, 581, 603 are listed with the National Register of Historic Places. The route becomes the first standard-gauge (4 foot, 8½ inch rail gauge) railroad right-of-way, equipment, and structures awarded this distinction. (Listing 80000932).</p> <p>The East Broad Top Railroad (currently not operating) was listed on April 24, 1979 making it the first narrow-gauge as well as the first railroad right-of-way and equipment to be listed with the National Register of Historic Places. (Listing 66000666).</p>
1980	10	14	<p>The Staggers Rail Act is signed by President Jimmy Carter. Railroads are now competing without government regulation of shipping contracts and pricing, resulting in reduced prices and increased use of rail for freight transportation. The Act forces freight railroads to share trackage with competitors where bottlenecks and exclusivity can be proven. The FRA maintains responsibility for the safe regulation and operation of all railroads.</p> <p>In the 1970s more than twenty-one percent of the nation's railroad trackage was owned by railroad that were in bankruptcy. In the 1920s rail had carried seventy-five percent of the nation's intercity freight but by the late 1970s that had fallen to less than thirty-five percent due to the laws providing shippers incentives to ship by truck. In 1976 47,000 miles of track were being operated at levels less than they were originally designed for simply because they could not be maintained.</p> <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 45%;">  </div> <div style="width: 45%;"> <p>Trestle 19A south of Landenberg, PA on the Landenberg Branch of the B&O. The tracks to the right belong to the former Pomeroy & Newark Railroad which the Pennsylvania Railroad eventually purchased. The trestle is 255' long making it 50' longer than trestle 7A (Hercules at 196') but shorter than trestle 12B (S-trestle at 385'). The trestle is in London Britain Township at the border with New Garden Township.</p> </div> </div> <p>The Act triggered a series of railroad industry mergers and acquisitions ultimately leading to the Union Pacific, Burlington Northern-Santa Fe, Norfolk Southern, CSX Transportation, and Kansas City Southern becoming the country's major Class I railroads. Canadian National Railway and Canadian Pacific become the two dominant Canadian freight lines with both owning Class I railroad subsidiaries that operate in the US. Several dozen regional and shortline railroad companies emerged as well. As the railroads consolidated and concentrated on freight operations, their passenger operations were</p>


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Y	M	D	Event or Activity
1980	10	14	<p>syphoned off by the US Government to form Amtrak which becomes the United States' primary rail passenger transportation company.</p> <p>Since the Staggers Act, forty percent of intercity freight is moved by rail returning rail to the number one spot for volume or tonnage of freight moved. Railroad productivity has more than doubled and costs to ship one ton of freight one mile by rail is forty-five percent less in 2016 than it was just before the Staggers Act was signed (in 2016 dollars). Railroad accidents are twenty-two percent of the accident rate that was occurring in the late 1970s. Since the Act was signed, the rail industry of the United States has spent over \$600-billion of their own funds from operations to make the US railroad network one of the most efficient and economical shipping means on the planet.</p>
1980	11	1	<p>CSX Corporation is formed. A subsidiary of the corporation, CSX Transportation, is formed from the merging of Seaboard System Railroad and Chessie System which is the holding company for the Baltimore & Ohio Railroad, Chesapeake & Ohio Railway, and Western Maryland Railway. With the formation of CSX Transportation, the legal corporate entities associated with Chessie System; Baltimore & Ohio Railroad, Chesapeake & Ohio Railway, Western Maryland Railway, Seaboard System Railroad, Baltimore & Philadelphia Railroad, are now subsidiaries of CSX Transportation.</p> <p>Chessie System Incorporated, a former holding company, is eventually dissolved (1987) once it no longer "holds" any railroads. As new equipment is purchased and existing equipment refurbished, the livery of these former railroads is changed to CSX Transportation's livery (reporting mark CSX). In 1987 all the former railroad names associated with Chessie System are legally retired although commercial uses of the identities still reside with CSX Transportation.</p>
1980	12	6	<div style="display: flex;"> <div style="flex: 1;"> <p>98-ton, former Sugar Pine Lumber Company #4 and Pacific Lumber Company #37, a 2-8-2T oil-fired "Minarets Class" locomotive (2-8-2 wheel configuration is also known as a Mikado) manufactured in 1924 by the American Locomotive Works is purchased by HRCV General Manager, Skip Small. Having pulled passenger trains for the former Wawa & Concordville Railroad on the Octoraro Branch of the PRR, #37 is moved from Concordville, PA to Marshallton, DE via 100-ton lowboy trailer. HRCV owns or indirectly controls eight vintage steam locomotives (#3, #37, #58, #92, #98, #113, #425, #722).</p> </div> <div style="flex: 1;">  <p>While #98's clean lines and 4-4-0 wheel arrangement make it the iconic "American" locomotive, the editor's favorite remains logging locomotive #37 seen steamed up for a snowy, nighttime trip. Perhaps it is because oil is easier to fire than coal; perhaps it is because it is the first steam engine the editor learned to fire; but no matter the reason(s), #37's size and tractive effort (pulling power) were considered by many to be ideally suited for the Landenberg Branch with its twisting path along the Red Clay in spite of its saddle-tank-engine look. Steve Panopoulos collection.</p> </div> </div>


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Y	M	D	Event or Activity
1981	2	19	<p>HRCV President Brian R. Woodcock purchases 0-6-0T #3 (steam) switcher in September 1980 and stores the tank engine at Marshallton, DE. Built by the Vulcan Locomotive Works in Wilkes-Barre in 1942 for the Philadelphia Navy Yard, the locomotive operated during 1967-68 on the Wawa & Concordville Railroad pulling passenger consists along five miles of the Octoraro Branch of the PRR. Sitting since late 1968 the engine is moved to Delaware for restoration. Woodcock donates the engine to HRCV on February 19, 1981. Once restored, the engine pulls W&WRR consists before being sold to the Delaware Coast Line Railroad for operation on the Queen Anne's Railroad. The Queen Anne's Railroad is now defunct, and #3 rusts outdoors.</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">  <p style="text-align: center;">Arriving in the Fall of 1980, 0-6-0T #3 is offloaded from the lowboy trailer at Greenbank. W.E. Stees photo.</p> </div> <div style="width: 45%;"> <p>Works in Wilkes-Barre in 1942 for the Philadelphia Navy Yard, the locomotive operated during 1967-68 on the Wawa & Concordville Railroad pulling passenger consists along five miles of the Octoraro Branch of the PRR. Sitting since late 1968 the engine is moved to Delaware for restoration. Woodcock donates the engine to HRCV on February 19, 1981. Once restored, the engine pulls W&WRR consists before being sold to the Delaware Coast Line Railroad for operation on the Queen Anne's Railroad. The Queen Anne's Railroad is now defunct, and #3 rusts outdoors.</p> </div> </div>
1981	4		<p>The Chessie System (now part of CSX Transportation) undertakes extensive trestle and track upgrades to the Landenberg Branch. All W&WRR trains traveling west of Greenbank are suspended by Chessie. HRCV secures operating permission from Greenbank eastbound to the Landenberg Junction Interchange at the western end of Wilsmere Yard. Visits to the Marshallton Enginehouse and Yard are part of the trip for those wishing to tour the yard and enginehouse and examine the eight steam locomotives under HRCV stewardship (#3, #14, #37, #58, #92, #98, #113, #425).</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>South Branch Valley Railroad (SBVR) of West Virginia provides HRCV with a 65-ton General Electric diesel switcher, formerly #7349 constructed for the US Army. Now displaying number #34, the locomotive will be used in an HRCV conducted educational program involving the maintenance, overhaul, modernization, and operation of diesel-electric locomotives. Once the program's objectives have been met, #34 is to be repainted and returned to SBVR.</p> </div> <div style="width: 45%;">  <p style="text-align: center;">February 6, 1983 was a snowy day when former US Army switcher #34 visited Hockessin with C2013. Tim Cronin photo.</p> </div> </div>
1981	7		<p>HRCV completes exterior restoration of Greenbank Mill. The HRCV Real Estate Fund's donations reach \$16,000 of the \$250,000 goal. HRCV's current membership is 320 individuals and families which is the highest number reached during the first 20 years of the organization.</p>


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Y	M	D	Event or Activity
1981	7		<p>Historic Red Clay Valley directors approach officials at CSX Transportation, now the parent company and owners of Chessie System, about purchasing the Landenberg Branch and other associated properties along the branch line. With NVF having turned down in October 1977 Chessie System's offer to sell the line to NVF, HRCV re-explores with Chessie Systems' new owners HRCV's previous offer to purchase the Landenberg Branch.</p> <p>While Chessie System management tended not to take HRCV's interest in purchasing the Landenberg Branch seriously, the hope is that CSX Transportation will take a more favorable view. HRCV proposes to purchase the right-of-way and contract freight operations to a local freight railroad (hopefully the Octoraro Railway) or possibly create an FRA compliant freight railroad independent of HRCV. In 1984 HRCV creates the Wilmington & Western Railway Corporation to handle all freight operations on the former Landenberg Branch.</p>
1981	7	4	#98 and W&WRR's "Boonton" coaches are part of Kennett Square's 4th of July celebrations. Hourly trips between Kennett Square and Avondale are provided on the Octoraro Branch.
1981	9	6	0-6-0T #3 (steam), an oil-fired locomotive, is tested and checked using donated used automotive motor and transmission oils in preparation for eventual use on the Landenberg Branch. Engine #3 will pull W&WRR consists in 1986 and 1987 after #98 is confined to the enginehouse. The Vulcan saddle-tanker serves the W&WRR until former Sugar Pine Lumber #37, a 2-8-2 oil-burning logging engine, is operational. #98 will remain be out of service for an extended period of time, undergoing a major repair and rebuild including dry pipe replacement, pilot truck rebuilding, running gear rebuild, and other major heavy maintenance.
1981	10		<p>Delmarva Power & Light Company donates their 0-4-0 H.K. Porter Company "fireless cooker" to HRCV. Built in May 1950 for DP&L, #1 (S/N 8237) was retired in 1971 when the Edge Moor power plant's boilers were rebuilt and converted for burning oil to meet stricter environmental regulations. Over its lifetime DP&L estimated that the "bottle engine" shunted 10 million tons of coal for the power plant. It was the last daily operated steam locomotive dedicated to industrial use in Delaware and one of only 14 of the size and type Porter built.</p> <div style="display: flex; align-items: center;"> <div style="flex: 1;">  </div> <div style="flex: 2; padding-left: 10px;"> <p>DP&L #1 is moved by #8408 from Hercules Siding back to Marshallton Yard on March 10, 1990 for long-term storage alongside the enginehouse. Robert E. Wilhelm, Jr. photo.</p> </div> </div> <p>The engine does not burn fuel such as wood, oil, or coal, and does not have a firebox. Sometimes called a "fireless cooker" the engine is basically a high pressure storage tank on a locomotive frame. Such industrial engines were constructed for use where the burning of fuel was not possible (such as in mines) or there was an ample supply of steam already present (such as with a power generating plant). The power plant generated 600-psi steam for powering the electrical generator turbines which also was used for #1.</p>


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Y	M	D	Event or Activity
1981	10		<p>The engine is driven to a “charging station” where a high-pressure flexible connection is made to the engine. The “pressure tank”, the equivalent of a boiler and firebox on a steam locomotive, is then “charged” with hot water from the power plant’s boilers. The 489° Fahrenheit steam from the pressure tank would then power the engine’s steam cylinders. The engine was charged at the start and the midpoint of a shift. It then moves full hopper cars of coal to the power house coal pit for dumping and returned the empty hoppers to the sidings that were part of Delmarva Power & Light’s Edge Moor Power Station.</p>
1981	10	13	<p>At a meeting in Baltimore, MD between Chessie System managers and HRCV President Brian Woodcock, Chessie spokesman Barry Holt Blank proposes to sell the Landenberg Branch, from Landenberg Junction to the west end of the Yorklyn passing siding at NVF for \$56,300. An SW1 locomotive can be made available for \$25,000.</p> <p>HRCV counters that they want the complete line through to the end-of-line at Valley Road. The Chessie System then offers the complete Landenberg Branch, Landenberg Junction to end-of-line at Valley Road, and an SW1 locomotive, for \$90,000.</p> <p>It is noted during the discussions that Chessie System recently spent \$200,000 making upgrades to the Branch and that the wooden trestles are insured for \$50,000 each. Chessie System and CSX Transportation agree to notify all utilities and other organizations and companies with easement leases related to the Landenberg Branch that payments shall now be made to HRCV once the sale is complete. CSX Transportation and Chessie System agree to provide HRCV with all lease agreements and contracts still in force for the Landenberg Branch at time of sale.</p> <p>The proposal is accepted by HRCV President Brian Woodcock. Terms of a loan or mortgage and timing of the transfer are discussed and left to be worked out in future meetings. Chessie System will provide a formal letter of intent to sell and the terms to which HRCV will be required to provide a formal letter of intent to purchase.</p> <p>Before the Landenberg Branch sale occurs, the Octoraro Railway (OCTR) must become the listed freight railroad for the Landenberg Branch, Landenberg Branch freight customers must agree to the proposed ownership and freight railroad change and associated billing changes, insurance policies must be in place through HRCV and the Octoraro Railway, a lease of a locomotive between HRCV and the Octoraro Railway will need to be in place, and the filing of documents with the FRA is required.</p>
1982	1	13	<div style="display: flex; align-items: flex-start;"> <div style="flex: 1;">  <p style="text-align: center;">GG1 #4934 in storage. Steve Panopoulos photo.</p> </div> <div style="flex: 2; padding-left: 10px;"> <p>HRCV purchases (through a loan from an HRCV Director) for \$5,000 Amtrak #4934, a former PRR GG1 for display. Built in PRR shops in June 1942 and originally numbered #4917, it is a 2-C+C-2 type electric locomotive rated at 4,620 horsepower. It was acquired by the Penn Central and subsequently Conrail who changed the number to #4934 before being finally acquired by Amtrak in 1979. Amtrak changed its paint scheme from Brunswick Green to Sooty Black.</p> </div> </div>


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1982	1	13	<p>The locomotive remains at HRCV for about eight years, periodically being displayed, until private sale to the Leatherstocking Railway Museum in Cooperstown Junction, NY. #4934 still has the main power transformers but had the PCB (Poly Chlorinated Bisphenols) oil removed. PCB based transformer oils were declared as hazardous and carcinogenic by the Environmental Protection Agency. Other retired GG1 locomotives had their transformers removed and scrapped for the copper or the transformer oil was removed and backfilled with cement. #4934 is one of two GG1 locomotives that might be able to be restored to service.</p>
1982	3	15	<div style="border: 1px solid black; padding: 10px; margin-bottom: 10px;">  <p>A casual glance might place the train “railroad east” of the S-trestle (12B) as #3 provides helper service at the rear. It is easy to assume that Creek Road (Route 82) is in the foreground and signals are yet to be installed. The location is actually Harvey’s Bridge on the Wilmington & Northern Railroad about one-mile north of Embreeville, PA. The S2 belongs to the Octoraro Railway and is not the W&WRR’s ALCO S2 both of which displayed road number “3”. W&WRR’s diesel locomotive #3 won’t arrive until 1985 from a Rohm-Haas Company donation. A seasoned railroad fan will note combine #410 is turned “backwards” if this were the Landenberg Branch.</p> <p>The baggage compartment, with the side sliding doors, is on the west end of the car for Landenberg Branch operation and not the east end of the car as shown. In the late 1970s and early 1980s W&WRR coaches traveled the Wilmington & Northern Railroad pulled either by W&WRR or Octoraro motive power. In this April 1982 image the Octoraro is operating an excursion with their motive power and W&WRR’s “Boonton” coaches. Steve Jensen slide.</p> </div> <p>With the passing of the Staggers Rail Act in 1980 the need for the FRA to hold hearings to review any railroad right-of-way transfers was eliminated. CSX Transportation could shed rights-of way that they did not wish to keep by simply finding a buyer agreeing to purchase the right-of way for a mutually agreed upon price with the promise to operate it as the current owner had operated it so as to insure no decrease in the service provided to the railroad’s customers. The FRA would insure, going forward, that the new owner met the responsibility to maintain or improve freight service on the right-of-way.</p> <p>As CSX Transportation did not want the sale of the Landenberg Branch to possibly end up in the courts, and in light of the fact that HRCV had a viable plan to continue freight operations on the Landenberg Branch by a Class III railroad (Octoraro Railway), CSX Transportation notified Landenberg Branch freight customers that if there were any opposition to the sale, CSX Transportation would refile for abandonment under the Staggers Rail Act and impose close to a \$300 per car surcharge as permitted by the Act.</p>

50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1982	3	15	<p>The \$300 charge would be at least three times the rate that the new Branch freight operator had filed approval to charge.</p> <p>NVF would initially not agree to CSX Transportation's request for a letter supporting the sale of the Landenberg Branch to HRCV. NVF was seen as dragging their feet on the legal reviews of the contracts proposed for shipping on the Landenberg Branch with the new operator. Unfortunately for NVF their fibre business was also booming making their need for timely receipt of rail shipments of cotton waste and rags along with wood pulp critical. NVF began to experience an increase in railroad shipping problems and the higher tariff was assessed by CSX Transportation on every railroad car. Contracts were quickly signed and much of the railroad related problems disappeared shortly afterwards.</p>
1982	6	24	<p>HRCV completes a purchase agreement with CSX Transportation and Chessie System, shutting out at least one hostile bidder, for the 10.2-mile former B&ORR's Landenberg Branch. As there are multiple freight customers serviced by the line, Chessie System SW1 diesel locomotive #8408 (originally B&O #208 and #8408), Serial Number 1106, is purchased by HRCV.</p> <p>The total cost of the transaction is \$90,000 of which one-third is paid at time of sale with the balance secured with a 20-year mortgage.</p> <p>The collateral for the Landenberg Branch mortgage is the Marshallton Enginehouse property and other owned real estate. The mortgage rate is the prime interest rate plus one percent.</p> <p>HRCV also obtains a line of credit using the SW1 locomotive #8408, the PRR GG1 locomotive, and "Doodlebug" #4662 as collateral. The line of credit rate is the prime interest rate plus two percent.</p> <p>Purchase of the Marshallton Yard property is negotiated in a separate sale agreement. 72.34 acres of land and 10.36 acres of additional parcels (enginehouse, Greenbank, sidings, etc.) are transferred for the 10.2 miles of the Landenberg Branch of which 9.97 miles will be directly owned by HRCV, the rest with easements and similar right-of-way instruments.</p> <div style="text-align: center;">  <p>HRCV President Brian Woodcock shakes hands with Barry Holt Blank of Chessie System at Wilsmere Yard. Brian holds the Bill of Sale for the Landenberg Branch and Chessie System #8408. Brian Woodcock photo.</p> </div>

50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1982	6	24	An additional agreement between HRCV and the Octoraro Railway is penned for the Octoraro Railway, a common-carrier FRA regulated freight railroad, to supply crews to operate #8408 thus continuing freight operations on the Landenberg Branch. Compliance responsibility for the Landenberg Branch transfers from Chessie System to the Octoraro Railway for HRCV's W&WRR as well as freight operations.
1982	6	30	<p>After a lengthy review, the Interstate Commerce Commission approves CSX Transportation and Chessie System's sale of the Landenberg Branch to HRCV under Finance Docket #29921. The FRA approves freight operations on the Branch which shall be carried out by the Octoraro Railroad, a common-carrier railroad, under contract with HRCV. In the recent past, Landenberg Branch operations average 500 freight car moves annually.</p> <div style="display: flex; align-items: center;">  </div> <p style="text-align: center;">Since 1957 the "end of the line" for the Landenberg Branch has been at Valley and Evanson Roads in Hockessin. With the sale of the Landenberg Branch to HRCV, the end of the B&O era occurs. The Baltimore & Philadelphia Railroad, created by the B&O in 1883, owned the line for 101 years, 3 months! Tex Varney photo.</p>
1982	8	13	<p>The last scheduled day of Chessie System operations on the former B&ORR's 10.2-mile-long Landenberg Branch. Freight customers of the Chessie System include Delaware Brick Company, Haveg Corporation, Hercules Research Lab Power House, and National Vulcanized Fiber Company. Effective August 14, 1982 these companies are serviced by the Octoraro Railway under contract with HRCV.</p> <p>Eventually the Wilmington & Western Railway Corporation Incorporated (WWRC) is formed as a for-profit, common-carrier corporate Class III railroad for the purpose of freight moves on the Landenberg Branch. This arrangement places the responsibility for insuring FRA compliance and tariff rules are adhered to with the Wilmington & Western Railway Corporation.</p>
1982	8	26	<p>HRCV completes the purchase of the 2.94-acre Marshallton Yard property for \$118,000 from CSX Transportation and Chessie System.</p> <p>Mrs. Robert B. Walker donates Hockessin area property in October 1982 (1.1 acres) and Mrs. Rebecca D. McVaugh donates an additional 2.8 acres of property in 1984 (which includes a former kaolin pit pond) to HRCV. The proceeds from the sale of these two properties (\$37, 884.38 sale price) allow HRCV to pay off the mortgage for the Marshallton Yard purchase from Chessie in late 1987.</p>
1982	9	19	HRCV celebrates the purchase of the 72.34 acres that comprise the former B&ORR's Landenberg Branch, 7.42 acres of sidings and other right-of-way properties, and the 2.94-acre Marshallton Yard property. With #98 leading and #8408 still in its Chessie System


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
			“wardrobe” pushing at the rear, a celebration consist travels to Hockessin to celebrate the purchase at Hockessin Fire Hall. Lieutenant Governor Mike Castle is the featured speaker and HRCV President Brian Woodcock is designated an honorary Delaware Lieutenant Governor.
1982	10		#98 and several “Boonton” coaches operate between Lincoln and Oxford, PA to celebrate Lincoln University's "Energy Fair".
1982	11	9	<p>Central Railroad of New Jersey (CNJ) #113, an American Locomotive Company (ALCO) Schenectady Works 0-6-0 switcher built in June 1923, is donated to HRCV by the Reading Anthracite Coal Company of Pottsville, PA (former Philadelphia & Reading Coal & Iron Company). The coal company last used the locomotive in January 1960. At that time #113 was the last CNJ steam locomotive in routine use. The engine sat abandoned on a siding for two decades before it moved to Marshallton Yard in December 1981. Eventually #113 is sold to Robert E. Kimmel of Minersville, PA in 1987.</p> <p>Also donated by Anthracite Coal Company are nine coal cars, three side-dump cars, and twenty-five tons of railroad and mine car spare parts and scrap.</p> <p>Robert E. Kimmel's non-profit organization, Railway Restoration Project 113 Incorporated, raised funds and restored the locomotive beginning in 1999. Approximately \$600,000 and 60,000 volunteer hours were expended before #113 made its public debut under steam.</p> <p>On September 28, 2013 #113 pulled a passenger consist traveling between Minersville and Schuylkill Haven, PA. The engine occasionally runs on the Lehigh Gorge Scenic Railway traveling Reading, Blue Mountain & Northern Railroad.</p>
1982	12		Paul & Carol Vassallo of Glenmoore, PA donate a sixty-five-foot-long, wooden-sided, private observation car to HRCV. Built in 1895 for the Canadian Northern Railroad, it was a President's or Division Superintendent's car used to travel the line on business. Originally displaying number #41 and named "Sea Falls", the car saw service on the Black River & Western Railroad from 1960 through 1978 as coach #105. Purchased by the Paul Vassallo family and intended for restoration, it was stored in Ringoes, NJ before being donated to HRCV.




Railway Restoration's former Central Railroad of New Jersey #113 pulls an Easter Bunny Express passenger consist through the freight cars in the Reading, Blue Mountain and Northern Railroad's Cressona Yard on March 28, 2015. Stephen Lane photo.

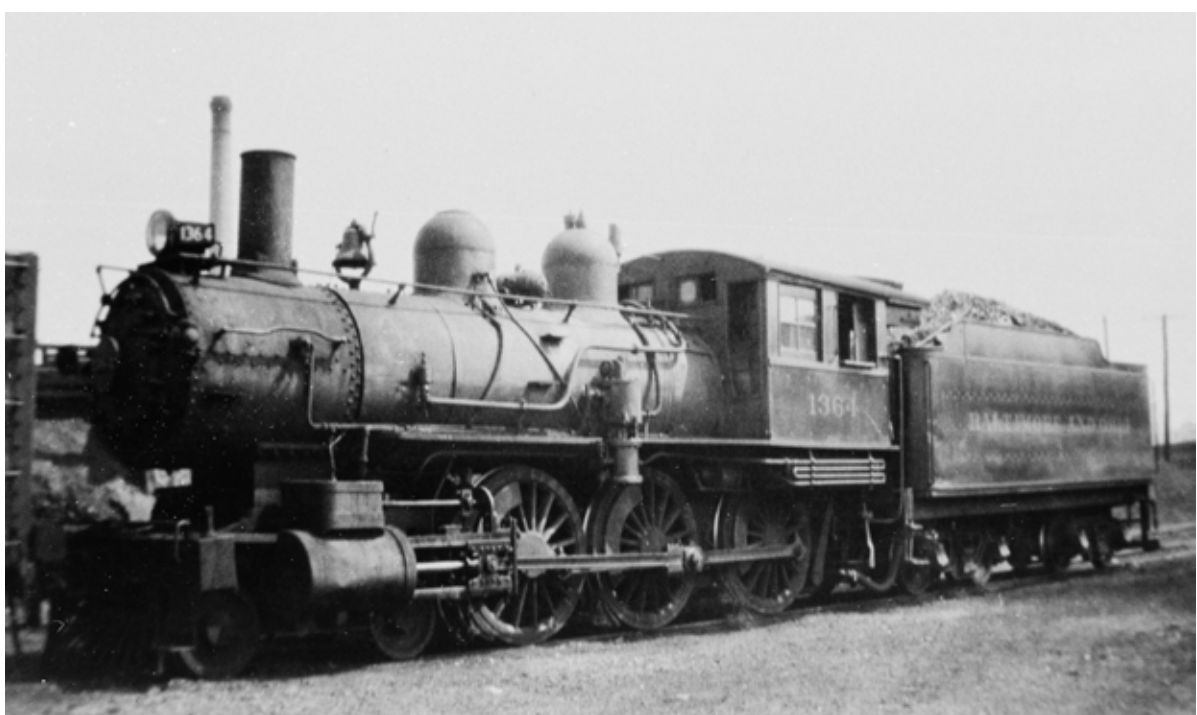
50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
			HRCV investigates moving the car from Ringoes, NJ to Marshallton and due to its age find that Conrail and CSXt will not accept the car for movement. The estimate for trucking the car to Marshallton is quoted at exceeding \$10,000. The car is eventually sold by HRCV to a railroad coach preservationist.
1982	12	11	<p>Royal Hudson locomotive #2839, owned and maintained by Atlantic Central Steam, but leased to HRCV, makes a Wilmington & Northern excursion with HRCV coaches from Greenville, DE to Coatesville, PA. Too heavy for the Landenberg Branch trestles, the engine was only fired up three times with the Wilmington & Western; when it arrived under its own power, a test firing, and the “Brandywine Rail Ramble” trip on December 11th. #2839 stayed at Marshallton until October 1984 when it and #425 left for the Blue Mountain & Reading Railroad, a newly formed 15-mile shortline between Reading and Hamburg, PA.</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">  <p style="text-align: center;">W&WRR #3 (steam) powers a consist past trestle 6A at Greenbank for a National Model Railroad Association (NMRA) charter. GE 65-ton #34 at the rear provides pullback to Greenbank. April 23, 1983, Tim Cronin photo.</p> </div> <div style="width: 45%;"> <p>Built in 1937-38 for the Canadian Pacific Railway, the streamlined 4-6-4 Hudsons saw service until 1960 in Canada. The term “Royal Hudson” was used for all 44 engines of the class after #2850 transported King George VI on a tour of Canada in 1939.</p> <p>Between 1979 and 1980 the engine, known as “Southern #2839”, was used for their steam excursion programs. Found not powerful enough for their trains, the Hudson saw occasional uses and owners. Finally purchased by the Nethercutt Collection in Sylmar, CA, the Royal Hudson was cosmetically restored for display. #2839 appeared in the 1980 movie, “Coal Miner’s Daughter”.</p> </div> </div> <p>Atlantic Central Steam leased storage space for ex-PRR and PRSL class P70/P70fbr coaches #1682, #9887, and #9935 during the early 1980s.</p>
1983	1		<p>Former PRR 0-6-0 #60 begins a tortuous journey from Cheswick, PA to Marshallton, DE. #60 is a Class B6sa switching locomotive built in the Juniata Shops in December 1913 as the 27th in a group of 55 ordered. It is retired from service on September 12, 1952.</p> <p>The move to Marshallton, DE would eventually cost HRCV \$35,000 in haulage, fines, and legal fees in moving it. Once at Marshallton the roster of locomotives under the HRCV umbrella totals nine (#3, #14, #37, #58, #60, #92, #98, #113, #425).</p>
1983	4		HRCV acquires three Southeastern Pennsylvania Transportation Authority (SEPTA) and two Amtrak Washington Terminal Division P-54 MU (multi-unit) cars to serve for off-property excursions. The intent is to remove traction motors, pantographs, and other high-voltage equipment and return their livery to PRR Tuscan Red with gold highlights and lettering for use with the Wilmington & Western.


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1983	5		#98 and two coaches are staged on Wilmington & Northern Railroad tracks at Irénée du Pont's home, Granogue, by photographer Kevin Fleming for a National Geographic Magazine feature article titled "Delight-sized Delaware: Who Needs to Be Big?". The locomotive, fired for the trip to Granogue, is kept under steam all night for morning aerial photographs of a "chateau country sunrise". #98 is intended as foreground interest. The article and photos appear in the August 1983 National Geographic Magazine.
1983	5	25	#3 (steam) coupled to a "Boonton" coach and wooden caboose travel to Front & Market Streets in Wilmington, DE to meet the "Real People's Express", a 10-car special excursion that is part of the filming of the NBC television program "Real People" (aired from 1979 through 1984). The program aired on November 14, 21, & 28, 1983. The last time a train with W&WRR livery was seen alongside the B&O's Wilmington Station would have been the final days of operation of the original Wilmington & Western Rail Road Company just before becoming the Delaware Western Railroad. The station served as a B&O passenger station until 1902.
1983	5	27	#3 (steam) and a coach and caboose participate in the rededication of the Coast Guard Cutter "Mohawk" (WPG-78) moored on the Christina River. Originally built in 1934 at former Wilmington shipbuilder Pusey & Jones (a former railroad car builder as well) at a cost of \$499,800 the ship was commissioned on January 19, 1935. Known as the "Mighty MO" the Coast Guard decommissioned her in 1948. The ship served as a pilot vessel for the Delaware Bay & River Pilots' Association until the late 1980s. Instead of being cut up for scrap, it is eventually towed to Florida and sunk to become part of the first Veteran's Memorial artificial reef off Captiva Island, FL on July 2, 2012.
1983	6	1	<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>#98 along with the "Boonton" combine, three freight cars (flatcar, two box), and a caboose form a "mixed daily" consist typical of original Wilmington & Western Rail Road Company trains in the 1870s. Guggenheim Productions' documentary on rural shortline railroading in the early 20th century. "Water, the Source of Life", was filmed in 3D along the Landenberg Branch. The 30-minute widescreen film would be shown in the US Pavilion of the 1984 World Exposition in New Orleans, LA.</p> </div> </div> <p style="text-align: center;">#37 makes its last run on the Landenberg Branch for a National Railroad Historical Society charter. Seen here, #37 crosses Mt. Cuba West Trestle 10C for the "Hockessin Mixed" photographer's charter on November 17, 1990, one week before a boiler crack puts the engine out of service. Steve Panopoulos photo.</p>
1983	8	13	HRCV returns South Branch Valley Railroad's (SBVR) 65-ton General Electric diesel switcher #34 to the organization having completed the educational program and using it for some W&WRR operations.


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1983	11	8	<p>With a new owner for the Landenberg Branch, FRA inspectors now document observations related to track conditions gone uncorrected since their initial documenting on previous B&O and Chessie System inspections as “must be corrected before the next inspection”. HRCV is forced to redirect funds to purchase supplies for volunteers to make the necessary repairs. Years of B&ORR and Chessie System deferred track maintenance which occurred as a result of fragile business conditions for railroads in general in the US, is becoming HRCV’s responsibility to correct for the Landenberg Branch if the Wilmington & Western is to remain operational.</p>
1984	1	1	<p>Donald W. Callender becomes HRCV's first Executive Director (a paid position). Callender remains HRCV's Executive Director through June 30, 1989. As part of the organization’s evolution, charter member and HRCV Secretary Peter VanR. Steele leases two rooms in a home he owns at 2310 Jefferson Street, Wilmington, DE to HRCV free of charge. HRCV relocates office equipment and files from Recreation Promotion & Service, Incorporated to the new office location. This location serves as the HRCV Office until the home at 1601 Railroad Avenue in Marshallton, DE is purchased in October 1985.</p> <div style="text-align: center;">  </div> <p>B&O Ten-wheeler 4-6-0 #1364 was assigned to Wilsmere Yard and the Landenberg Branch in May 1933 when this photo was taken. The Baldwin built Class B-8 locomotives had 20” by 26” cylinders and 60” drivers. Operating at 175 pounds of steam pressure the 127,500-pound engine was capable of 25,046 pounds of tractive effort. Built in 1892, an inclined firebox was part of the 1896 rebuild of the engine along with a classification change to B-8tob. William E. Grant photo.</p>
1984	2	1	<p>HRCV’s Board reviews the insurance policy for the Landenberg Branch’s twenty-two bridges and trestles which are required as part of the mortgage obligation. Trestle 12B, the S-trestle which is the longest and most complex on the line, is valued at \$400,000 to replace. There is a \$5,000 deductible applied for the major trestles. The Board votes to continue insurance coverage.</p>
1984	3	29	<p>HRCV initiates the formation of the Wilmington & Western Railway Corporation for the purpose of handling freight on the former B&O Landenberg Branch. The corporation is formed to meet FRA requirements for setting tariffs and moving freight on the HRCV</p>


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1984	3	29	<p>owned Landenberg Branch. The Association of American Railroads assigns the Wilmington & Western Railway Corporation the reporting mark “WWRC”. The Wilmington & Western Railroad does not have a designated reporting mark as the name is viewed as the “product name” or livery that is associated with the volunteer operated passenger service that HRCV operates.</p> <p>The last routine freight moves on the Landenberg Branch to NVF at Yorklyn occur in 1984. NVF has purchased several tractor-trailer trucks and converts all shipping to commercial motor freight. The only remaining freight customer is Delaware Brick Company near Landenberg Junction.</p>
1984	4	13	<p>The Wilmington & Western Railway Corporation (WWRC) is incorporated as a for-profit, common-carrier railroad for the purpose of moving freight on the former Landenberg Branch. The Wilmington & Western Railway Corporation is structured as a “closed corporation” with an independent Board of Directors. HRCV is the only common stockholder with preferred shares allocated to the Directors.</p> <p>The initial Board of Directors includes Thomas C. Marshall Jr., Lewis Pardee, R. Spencer Wood, Peter Steele, Hugh Gibb, and John Iwasyk. In the two years since HRCV purchased the Branch, NVF's rail shipments have decreased as clients move to commercial trucking companies instead of rail.</p>
1984	5	15	<p>The Delaware Department of Transportation (DelDOT) notifies HRCV of their intention to have the grade crossings at Newport-Gap Pike (Route 62), Old Capitol Trail in Marshallton as well as the Newport-Gap Pike (Route 41) grade crossing at Greenbank replaced. HRCV is to serve as the prime contractor for the estimated \$270,000 effort. Each crossing's design, as well as the signal system specifications for the warnings that will be installed will be designed by DelDOT. All expenses associated with the work will be reimbursed by DelDOT. DelDOT will support HRCV in preparing the bid notices and the selection of a qualified contractor to complete the project.</p> <div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>On May 1, 1949 the B&O operates a fan trip to Annapolis, MD including a run to Hockessin on the Landenberg Branch. A 4-6-2 Pacific brings the 8-coach consist to Wilmere Yard from Philadelphia where Ten-wheelers #2037 and #2061 are put on either end leaving the Pacific behind as it was too heavy for Landenberg Branch trestles. The excursion travels slowly to Hockessin where passengers take photos. Returning to Wilmere Yard, the Pacific replaces the Ten-wheelers and the trip continued on to Baltimore and Annapolis, MD. William Grant photo.</p> </div> </div>
1984	6	8	<p>#98 and two “Boonton” coaches travel to Wilmington Train Station (assigned International Air Transport Association identifier ‘ZWI’) to take part in the rededication of the station after Amtrak completes a 3-year, \$8-million renovation. Built in 1907 for the Pennsylvania Railroad to replace a former station for the Philadelphia, Wilmington, & Baltimore Railroad (PW&BRR) it was designed by architect Frank Furness.</p>


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1984	6	8	The station will be renamed on March 19, 2011 for Vice President and former US Senator Joseph R. Biden, Jr. who booked over 14,000 trips on Amtrak between Wilmington and Washington DC during his senate career. Biden, a strong advocate for passenger rail travel, was instrumental in seeing Amtrak's Consolidated National Operations Center established in Delaware in 1998. A year later Amtrak's High-Speed Rail Training Facility opened in Delaware. In 2012 Amtrak's Centralized Electrification & Traffic Control Center was moved to Delaware. Delaware is also home to two of Amtrak's major maintenance and repair facilities with a third facility under planning.
1984	7		HRCV leases two stainless steel Budd RDC cars from the city of Philadelphia for \$1 per year per car with a purchase option. Originally numbered 9151 & 9152, they are powered by twin 257-horsepower, 6-cylinder, Detroit Diesel engines transferring power through an Allison hydraulic torque-converter. Seating 104 passengers, they were built for the Reading Railroad in 1962 for service on the Bethlehem & Pottsville branches. They next found service on Southeastern Pennsylvania Transit Authority's (SEPTA) Fox Chase/Newtown branch.
1984	7	24	<p>Purchased by Thomas C. Marshall, Jr., and donated to HRCV, the Louis David property at 1601 Railroad Avenue in Marshallton includes a one-story ranch-style home and detached garage. The house will become the official office for HRCV, giving the organization a permanent home base for all business functions as well as a central point for volunteer activities. The home, built decades after the Landenberg Branch was in operation, was adjacent to Marshallton Enginehouse and Yard as well as the Material Transit Cement yard. As a result the owner often complained of noise and dust from both operations. The purchase of the property eliminates any possibility for future complaints and the property offers sufficient acreage that an office complex may be added at some future date. The purchase provides immediately allows a parking area for Marshallton Enginehouse workers closer to the enginehouse.</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 60%;">  <p>National Railroad Historical Society FP7 units at Greenbank on June 1, 2003. They are 1,500 horsepower, 16-cylinder, locomotives built between 1949 and 1953 by General Motors' Electro-Motive Division. The Reading Company purchased 8 of the 381 total units produced (numbers #900 to #907). Edward Hoffmeister photo.</p> </div> <div style="width: 35%; font-size: small;"> <p>The purchase of the property eliminates any possibility for future complaints and the property offers sufficient acreage that an office complex may be added at some future date. The purchase provides immediately allows a parking area for Marshallton Enginehouse workers closer to the enginehouse.</p> </div> </div>
1984	7	24	The FRA, on Docket #30470, grants permission for the transfer of Landenberg Branch freight traffic operations from the Octoraro Railway, Incorporated to the Wilmington & Western Railway Corporation, Incorporated (WWRC). WWRC establishes and files with the FRA both tariff and American Association of Railroads (AAR) Shipment Surcharge schedules associated with freight movements along the Landenberg Branch. WWRC directors establish a long-term contract with HRCV to lease HRCV owned motive power


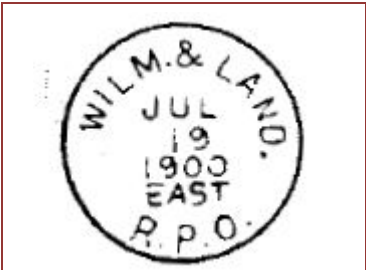
50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1984	7	24	<p>which will be operated by HRCV volunteers for moving freight along the Landenberg Branch. HRCV will have exclusive right to perform all WWRC freight switching operations on the Branch. The Railroad Retirement Board reviews the Wilmington & Western Railway Corporation's freight operation and affirms that since volunteers make the freight switching moves there is no compensation of employees involved. The Railroad Retirement Board further determines that WWRC will not be subject to retirement tax payments.</p>
1984	9	5	<p>The Wilmington & Western Railway Corporation (WWRC) begins handling all freight operations on the Landenberg Branch. Compliance for FRA rules and regulations for passenger and freight operations and equipment on the right-of-way are transferred from the Octoraro Railway to WWRC for the former Landenberg Branch of the B&ORR.</p>
1984	9	11	<p>Once the purchase of the Landenberg Branch from Chessie System was complete, FRA track inspectors began reviewing previous B&O and Chessie System track inspection reports and including previously cited “observations” as part of HRCV inspections. An “observation” is a note that something is in need of attention before conditions worsen which could lead to a “violation” being issued and cause a possible shutdown of the line by the FRA.</p> <p>For HRCV it was either correct the noted observations by the next inspection or be shut down. The items typically noted were loose track joints, ties the FRA inspector thought needed replacing, worn rail needing replacement, and similar observations. Years of deferred maintenance by the B&O and Chessie System as a result of the generally poor financial state of US railroads in the 1970s was now being addressed with the new Landenberg Branch owners by FRA inspectors.</p> <div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>FRA track inspectors work with HRCV to insure the continued safe operation of the railroad as years of neglect were methodically addressed using HRCV’s available resources. In the two years since the purchase of the Landenberg Branch, HRCV has addressed multiple FRA track inspector concerns and observations in a timely manner.</p> </div> </div> <p style="text-align: center;">The W&WRR’s Nordco Ballast Regulator works between Mill Creek Road and Valley Road in late 2015. Andrew Schiebel photo.</p>
1984	10		<p>1928 Baldwin built, Gulf, Mobile, and Northern Railroad engine #425, a 4-6-2 Pacific leaves the HRCV locomotive inventory for the Blue Mountain & Reading Railroad, a newly formed 15-mile shortline between Reading and Hamburg, PA.</p> <p>Leaving with #425 is Royal Hudson locomotive #2839, owned and maintained by Atlantic Central Steam. #2839 provided motive power for a “Brandywine Rail Ramble” excursion on the Wilmington & Northern Railroad to Coatesville, PA in December 1982.</p>


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1984	12	28	HRCV operates the first “Christmas Lights Specials” on the Landenberg Branch. Trips are scheduled for December 28 th , 29 th , and 30 th . The trips will be made with #4662 and begin an annual tradition of providing trips between Christmas and New Year’s.
1985			<p>Rohm & Haas Corporation donates their American Locomotive Company S-2 1,000-horsepower locomotive #3 (diesel) to HRCV. Originally built for the B&ORR as #9115 in November 1949, it was one of 1,502 produced between August 1940 and June 1950. #3 (diesel) needed to be inspected as it had been stored outdoors and might have had its coolant system freeze (anti-freeze could not be used in early locomotive engines). After the HRCV inspection finds no engine issues, the S2 is reviewed by CSXt and determined acceptable for rail shipping on its own wheels. HRCV volunteers prepare the locomotive for movement to Marshallton Yard. The engine will serve as a reserve diesel for Landenberg Branch operations until it is traded in the mid-1990s. The locomotive is currently in out-of-service storage with the West Chester Railroad Heritage Association.</p> <p>#3 (diesel) was one of 1,502 units produced between August 1940 and June 1950 by the American Locomotive Company (ALCO). Called a Model S-2, it differed from ALCO’s S-4 only in the trucks used under each locomotive. While the S-4 used standard Association of American Railroads (AAR) type A switching locomotive trucks, the S-2 used ALCO’s in-house designed “Blunt” trucks. Both locomotives have their exterior look styled in an Art Deco fashion by ALCO industrial designer Ray Patten, and the S-2’s Blunt trucks were designed to negotiate uneven track without derailing.</p> <p>Unfortunately, in situations where light rail was minimally secured to rotting crossties, the Blunt truck design would twist rail spreading it such that the engine drops between the rails resulting in a derailment. The W&WRR’s S-2 was no exception and will eventually earn the nickname “The Ground Hog” during its stay on the Landenberg Branch for its tendency to derail frequently.</p>
			
			<p>American Locomotive Company (ALCO) S2 #3 (diesel) resting, out of service, on a West Chester Railroad Heritage Association siding on December 20, 2015. Christian Currao photo.</p>
1985	3		“Bangy”, when purchased from Wilmington Industrial Park, has a “tired” 6-cylinder, 160-horsepower, Buda gasoline engine. HRCV volunteers obtain a used Detroit Diesel Series 71 inline six-cylinder two-stroke diesel engine (6-71 RA) rated at 190 horsepower in good condition and change out the Buda gasoline engine for the Detroit Diesel engine.
1985	6		Pennsylvania Railroad “Coast to Coast” M1 “Mountain” tender (Class 210F75a) is stored at Marshallton for approximately a year. It originally carried 21,000 gallons of water and 31 tons of coal for the PRR’s “Mountain” class locomotives. The tender rides on two 4-axle trucks and is one of only a few remaining in existence. The tender was later modified,


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Y	M	D	Event or Activity
1985	6		including the removal of the stoker mechanism, for the carrying of diesel fuel and dry sand by the PRR in Hagerstown, MD. HRCV purchased the tender with the intent to store used oil for the oil-fired locomotives in HRCV's stable. An old tank car was ultimately used for this purpose. Now owned by the Western New York Historical Society, HRCV sold the tender for \$5,000 and it resides in Buffalo, NY.
1985	10	11	<p>A fire is started in the firebox of oil-fired #37 for the first time in 17 years after an extensive restoration by HRCV volunteers. Lacking the saddle water tank, steam pressure is raised to 200 PSIG for the safety valves to lift to check settings and to check for steam leaks before the oil fire is extinguished. The intent is for the engine to see full-time service for the 1986 operating season.</p> <p style="text-align: center;">  </p> <p style="text-align: center;"> 98-ton, former Sugar Pine Lumber Company #4 and Pacific Lumber Company #37, a 2-8-2T oil-fired "Minarets Class" engine manufactured in 1924 by the American Locomotive Works undergoing a steam test at Marshallton before being insulated and painted. Kurt Bell photo. </p> <p>During October 1985 #37 undergoes multiple firings and shakedown trips along the Landenberg Branch following the engine's complete rebuild. Much remained to be done including completing FRA paperwork which proved more difficult than initially imagined. Once the FRA required inspections and testing was completed, the boiler and running gear was painted black and the saddle tank put in place. The locomotive is placed under a 10-year lease contract between HRCV and primary locomotive owner Melvyn E. Small, Jr.</p>
1985	11	16	<p>As part of HRCV's 25th Anniversary (HRCV was incorporated on March 7, 1960), an Express Mail pack is carried from the Yorklyn Station at Greenbank to the Hockessin Post Office recreating the Railway Post Office (RPO) delivery of mail by train. Done in cooperation with the Wilmington Post Office, mail loaded on the train at Greenbank consisting of "special covers" are cancelled en route by US Postal Service employees prior to transfer to the Hockessin Post Office for final pickup or delivery.</p> <p style="text-align: center;">  </p> <p style="text-align: center;"> Railroad Post Office (RPO) cancellation stamp used on the B&O Landenberg Branch in 1900. </p> <p>Mail addressed to families living along the route of the Landenberg Branch would be routed from Wilmington on a B&O train where it would be postmarked in the train's mail car. In the early 1860s, baggage cars were converted to Railway Post Offices (RPO), and</p>

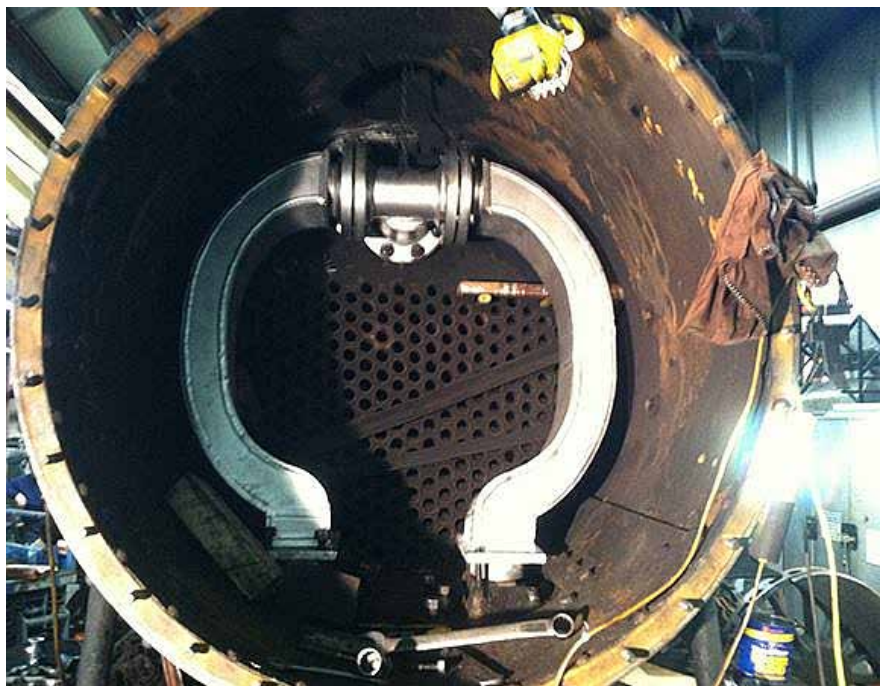
50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1985	11	16	<p>mail was sorted and postmarked on the train as it traveled from station to station. Postal agents working the trains had to know the junctions and stations along their assigned routes along with details relating to how mail was delivered from those stations and junctions. Routine testing required an accuracy rating of better than 96% to maintain postal service employment.</p> <p>Each RPO had a dedicated stamp indicating the origin and destination of the route. As the B&O's Landenberg Branch originated in Wilmington, DE, and terminated in Landenberg, PA, the "Wilm & Land R.P.O." indicates this information. At the center of the postmark was the month, day, and year along with a train's number or identifier.</p> <p>For the postmark shown on the previous page dated July 19, 1900, the piece of mail was canceled on the eastbound trip (mail picked up at Landenberg or a station and canceled in the mail car as the train ran towards Wilmington).</p> <p>Chandlerville's post office opened in 1848 long before the</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;">  <p style="text-align: center;">Early morning dew along the Red Clay Valley obscures the distant Landenberg Branch tracks. Before passenger trains operate on the W&WRR a track inspection occurs. Trained HRCV volunteers perform the inspection in a pickup fitted with extendable railroad wheels, front and rear. Known as Hi-rail gear, the pickup is driven to a grade crossing and onto the rails. The Hi-rail gear is lowered and the truck rides the rails so the inspection may be performed. Andrew Schiebel photo.</p> </div> <p>Wilmington & Western Rail Road Company arrived. When the railroad did arrive in 1872, the town's name had been changed to Landenberg in 1869, the year the railroad was incorporated. The Landenberg post office was never in the railroad station (actually a station shared with the Pomeroy & Newark Railroad -- later Pennsylvania Railroad) but instead was at a local Landenberg store. RPO service on the B&O (which had been started with the opening of the Wilmington & Western Rail Road Company on August 3, 1872) was discontinued on April 27, 1917.</p> <p>Hockessin (12/16/1863 – to present) would have been the next post office for eastbound trains on the W&WRR. Yorklyn (6/13/1873 – to present), Ashland (11/8/1872 – 7/15/1927), Mt. Cuba (3/12/1877 – 7/15/1933), Wooddale (11/27/1872 – 5/31/1911), Faulkland (11/27/1872 – 12/31/1914), and Marshallton (2/11/1878 – to present) were all established in the stations constructed by the Wilmington & Western Rail Road Company. Today only the Marshallton, Yorklyn, Hockessin, and Landenberg (11/30/1848 – to present) post offices remain.</p>

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Y	M	D	Event or Activity
1986	1	22	<p>Executive Director Don Callender and volunteer Peter Steele commence a review of all HRCV right-of-way real estate leases. These leases were negotiated by the B&O over the years they owned the Landenberg Branch and cover items such as outdoor advertising signs on HRCV property, utility use of the right-of-way, NVF use of property for parking, and similar agreements. It is estimated that these income sources should be generating HRCV between \$12,000 and \$15,000 annually. The project turns out to be more involved than initially anticipated and takes until late 1989 before it is completed and revised leases are in place.</p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;">  <p style="text-align: center;">Built for the Chesapeake & Ohio Railroad's Chesapeake Division, #3 was one of 58 S2 locomotives delivered between May 1949 and March 1950. The 115-ton locomotive initially displayed road number #5015. Later the C&O renumbered it as #9115. Sold in 1963 to the B&O, Chessie System sold the engine to Rohm & Haas in Philadelphia, PA in 1985. As Rohm & Haas #6731 it performed factory switching until donation to HRCV in 1985. The S2 has an Art Deco inspired design by ALCO industrial designer Ray Patten. Exchanged with the owners of SW1 #114, the engine resides with the West Chester Railroad. Steve Panopoulos photo.</p> </div> <p>As part of the leasing activity, all leases are computerized for ease in tracking payments, determining important renewal dates, etc. Calender and Steele uncover that there are leases uncollected since 1932 while others are still being paid to the B&O or Chessie System instead of HRCV. Additionally, the rate structures for many of the leases are based on obsolete B&O rates set in the early 1900s and not the latest rate structures and conditions in current use by Chessie System. HRCV develops new leasing rates based on current commercial railroad practices. HRCV provides CSXt with documentation for lease payments made to Chessie System that should have been made to HRCV in order to recover payments.</p>

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Y	M	D	Event or Activity
1986	4	6	<p>#98 suffers an unexpected major dry pipe rupture during firing up for a functional checkout as a prelude to a formal FRA inspection in the coming days. At full boiler pressure, no air brakes set, and with the valve gear defaulting to full forward direction, the vintage iron horse bolts from its stable just inside the Marshallton Enginehouse and heads towards Old Capital Trail.</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">  </div> <div style="width: 45%;"> <p>While urban legends told since the event have the engine making it to the picnic grove and even Hockessin, eye witnesses confirm that the engine only got as far as the derailer at the western end of Marshallton Yard before it is stopped (but yes, without the derail set it could have gone a distance along the line). All eight wheels of the locomotive and the first four of the tender are on the ground stopping any further progress.</p> <p>The crew boards the engine and dumps the fire into the ash pan. A damage assessment reveals the pony truck casting has failed and there is damage to the pilot.</p> <p>#98 is rerailed and</p> </div> </div> <p>The smokebox of #98 showing the replacement steam distribution snake-pipes being fitted. After 109 years of faithful service, and well past the design lifetime, things eventually wore out. The steam distribution tee at the top of the firebox, originally a cast part, developed a leak at the end of the 2015 operating season that could not be repaired. Replacement was the only option. In early 2016, HRCV volunteers removed the original tee which bolts to the dry-pipe and directs steam to the snake-pipes delivering the steam to the cylinders. The dry-pipe is behind the flue sheet (steel plate with all the holes in this image) and supplies steam from the boiler throttle valve to the tee. The custom crafted pair of snake-pipes matches the originals cast by ALCO in 1909. The smokebox's steel barrel was replaced during the 1997-2004 rebuild when the boiler was removed from #98's running gear and frame. A smokebox is a corrosive location on a steam locomotive with combustion gasses and steam mixing before being exhausted up the stack with steam cylinder exhaust. Tom Gears photo.</p> <p>returned to Marshallton Enginehouse using #8408. Placed out of service, it will require nearly six years for repairs and restoration to be effected (replacement of the dry pipe and other mechanical work on the engine are all accomplished while it is out-of-service).</p> <p>As a result of the incident HRCV institutes a policy whereby any steam locomotive being fired up is to be coupled to a diesel with the diesel's brakes locked down until such time as the steam locomotive is at operating pressure and the steamer's brakes have been tested as functional. In addition, #98's power reverse gear is reworked to allow the engine to be left with the valve gear set to "neutral", effectively rendering the engine unable to move should a similar incident happen in the future.</p>



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Y	M	D	Event or Activity
			#3 (steam) is pressed into steam motive power service pulling “Boonton” coaches for the 1986 operating season to Mt. Cuba. Enginehouse efforts are focused on keeping #3 (steam) operating and completing restoration of #37 so that #37 may pull W&WRR consists while #98 undergoes an extended mechanical shop maintenance and restorative effort.
1986	7	9	A proposal is presented to the HRCV Board by HRCV volunteers working primarily with Greenbank Mill that a separation of the mill operation from HRCV should be investigated and considered. A justification for proposing the separation is related to fund raising and grant applications. Another justification is that HRCV is an organization with two historic operations, one a railroad and the other a mill. There is no real link between the two operations except by a common non-profit owner and an adjacent physical location. There are little shared resources between the two operations except at an upper management and board level. It is suggested that two independent organizations might focus on their specific area of historic preservation more efficiently if they were not managed by a common organizational structure.
1986	9		<p>In 1984 Hercules made changes on their property which affected how the Red Clay Creek flows between Lancaster Pike (Route 48) to a near right-angle turn upstream from trestle 7A. The stream flow change created a sandbar after the right-angle turn and upstream of the trestle. Essentially the water flow was slowed at this part of the Red Clay Creek due to the Hercules modifications. The slower moving water allowed suspended sand to precipitate out of the flowing creek water after the right-angle turn due to the slower water velocity and less turbulence. The formation of a sandbar resulted.</p> <p>The growing sandbar then changed water flow patterns downstream and specifically around the footers for the bents (vertical supports) supporting the trestle 7A tracks crossing the creek. The water flow change eroded the creek bed from under the footers and in 1985 caused one of the trestle bents was noted as tilting the track slightly. HRCV corrected the problem with the trestle thinking it was an isolated incident. The growing sandbar and what was causing it to grow was not recognized as the root cause of the trestle tilting problem at that time.</p>





The editor's Sheffield No. 1 Velocipede at Wooddale in September 1992. After the Wilmington & Western Rail Road Company started using the line in 1872, velocipedes would have seen use after 1877 by workers for inspections and maintenance activities. A one-person velocipede was designed to carry a maximum load of 300 pounds. The No. 1 featured machine-cut gearing, ball bearing axles, and concave tread on the two large wheels to “practically eliminate the tendency to leave a wet or frosty rail”. Operating a velocipede is similar to sculling were the rider pushes pedals with their feet while pulling the vertical handle with their hands. The two handle positions serve as a “transmission”. The upper handles allow maximum leverage to get moving and then the operator uses the lower handles to keep moving and thus limit the rocking necessary for their upper body. Robert. E. Wilhelm, Jr. photo.


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Y	M	D	Event or Activity
1986	9		<p>Since the initial leveling and action taken by HRCV on trestle 7A, the sand bar has substantially grown in size over time. As a result of the larger sandbar more extensive creek bed erosion is occurring at multiple trestle 7A bent footers. Now recognizing the growing sandbar as the root cause of the problem, HRCV has the necessary engineering performed to understand the extent of the problem and determine corrective action. Correction of the stream flow ahead of the sandbar, removal of the sandbar that has been created, as well as making proper repairs to multiple trestle footers in the creek to level trestle 7A is estimated in excess of \$271,000. The problem is corrected in coming months through Hercules and HRCV insurance coverage.</p>
1986	12	10	<p>An SW1 diesel locomotive (#114) is purchased by two HRCV Board members for \$6,500. It is located in Snow Hill, MD and might be used as a back-up for #8408 which has been suffering from electrical issues due to “tired wiring”. The intent is to either restore #114 to full operation for Landenberg Branch freight and passenger service or use #114 for parts to maintain and rebuild #8408.</p> <p>HRCV has ALCO #3 (diesel) runs well however it is rated at 1,000 horsepower which is more than is required for the Landenberg Branch. Additionally, #3 was built with “transition” which is an electrical feature that changes how the traction motors are connected to the main generator.</p> <p>Unfortunately for Landenberg Branch use, the transition switches in-and-out at the W&WRR’s nominal operating speed. The locomotive would really find better use pulling more rolling stock and at higher speeds.</p> <p>A second vintage SW1 locomotive is better suited to the service requirements which routinely occur on the branch and it is felt that once #114 is rebuilt and restored it will provide a better complement to #8408. Once #114 is operational, #3 (diesel) might be traded to the HRCV members for #114 or HRCV might sell #3 to a railroad where its power and weight is more appropriate for the operating conditions and the revenue used to purchase #114.</p> <div style="display: flex; justify-content: space-around;"> <div style="width: 45%;">  <p style="text-align: center;">#114 in Ocean City Western Railroad livery where it served a tourist railroad. NRHS photo.</p> </div> <div style="width: 45%;">  <p style="text-align: center;">Sanded down, and in brown primer, #114 is ready for its top coat of paint. David Ludlow photo.</p> </div> </div>


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Y	M	D	Event or Activity
1987			<p>After reviewing the motive power stored by HRCV, the decision is made to offer the following locomotives for sale;</p> <ul style="list-style-type: none"> • #3 (steam) ex-Navy.0-6-0T Vulcan Locomotive Works built in 1942 (sold to Black Hills Central Railroad, Hill City, South Dakota who subsequently sell it for use in southern Delaware for use on the Queen Anne's Railroad) • #60, B6sa. ex-PRR 0-6-0, Juniata Shops built in 1913 (initially going to the Eastern Shore Railway Museum in Parksley, VA it ends up as a static display at former HRCV Director Matthew Minker's Stone Mill Office Building in Hockessin, DE) • #4934, ex-PRR then Amtrak GG1, 2-C+C-2, built in 1942 at the PRR Shops (sold to the Leatherstocking Railway Historical Society, Oneonta, New York) • #113, ex-Jersey Central, 0-6-0, ALCO, 1923 (sold to Lycoming & Reading Railway Company, Minersville, PA where it has been restored and is an operational locomotive) • #14, ex-Buffalo Creek & Gauley Railroad, ALCO 2-8-0 built in 1918 (sold to City of Gaithersburg, MD for static display alongside the restored former B&ORR station) <p>Also to be disposed of is a live steam locomotive and passenger cars, ex-Auburn Springs Railroad, 1/4-foot scale 4-6-4 Hudson #218, 15-inch gauge, Sandley Light Locomotive Works, Jonesville, Wisconsin built in 1946.</p> <p>HRCV will divest its 1/3rd interest in #6894, an ex-New York City, 0-6-0, Cooke Locomotive Works built in 1912 (HRCV's 1/3rd interest is sold to 2/3rds owner Charles Smith of Stratford, Pennsylvania).</p> <p>The sidings in Marshallton Yard contain multiple pieces of rolling stock that are owned by other parties leasing storage space from HRCV. It is HRCV's intent to not provide future leasing space so the owners are notified that they must find other homes for their railroad equipment. Excess HRCV-owned rolling stock will also be disposed of.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>WILMINGTON & WESTERN RAILROAD</p> <p><small>A DIVISION OF H.R.C.V. INC.</small></p> </div> <div style="text-align: center;">  <p>Graphic Designer Connie McKinney creates a stylized logo (left) for the W&WRR in early 1987. In 1996 HRCV member Emerson Urion designs the color logo (above) that is currently used.</p> </div> </div>
1987	1	19	<p>The Delaware Department of Transportation (DelDOT) is beginning a project to widen Newport-Gap Pike (Route 41) at Greenbank, DE. The project will require purchasing 0.58 acres of land owned by HRCV at Greenbank Station for approximately \$9,500.00. DelDOT proposes that in lieu of the payment HRCV donate the needed Greenbank land to DelDOT. As a result, DelDOT agrees to take ownership and maintenance responsibility for the Old Wilmington Road overpass (14A) near Hockessin and the Barley Mill Road overpass (11B) near Ashland. DelDOT wants to initiate improvements to Old Wilmington</p>


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Y	M	D	Event or Activity
1987	1	19	Road necessitating HRCV may be forced to replace the Old Wilmington Road overpass. Additionally, DelDOT would like to remove the Barley Mill Road overpass bridge and road approaches which have been closed off for some time. The proposal would eliminate HRCV from having to continue the maintenance and possibly replace these overpasses at HRCV expense at some future date. HRCV agrees to the proposal at their March 31, 1987 Board of Directors meeting.
1987	4	30	The Baltimore & Ohio Railroad, the nation's first and oldest common-carrier railroad at 160 years old, is merged into the Chesapeake & Ohio Railway by Chessie System in preparation for both railroads to be transferred to and become absorbed into CSX Transportation.
1987	6	14	<p>Former Sugar Pine Lumber Company #4, which became Pacific Lumber Company #37, leaves Marshallton Enginehouse & Yard with three “Boonton” coaches and a caboose for the locomotive's first steam operations on the Landenberg Branch. HRCV's lease to operate the locomotive will expire October 1995.</p> <div style="display: flex; align-items: center;"> <div style="flex: 1;">  </div> <div style="flex: 1; padding-left: 10px;"> <p>#37 is a 2-8-2T designated locomotive. The 2-8-2 wheel configuration is referred to as a Mikado and the “T” designates the engine is a “tank” engine meaning that it doesn’t require a tender for water but instead has a water supply located in “saddle tanks” siting over and to either side of the boiler. In logging operation, long distances are not</p> </div> </div> <p>Former Sugar Pine Lumber #4 at Marshallton in May 1988. Note the cover on the smokestack but the steam escaping above the cylinder. The engine is awaiting coupling to #8408 to be returned to the engine house after a day's operation. Kurt Bell photograph.</p> <p>usually encountered and water is generally plentiful so dragging the added weight of a tender along generally isn't required. American Locomotive Company (ALCO) the builder of the engine, referred to this special logging configuration as a “Minarets” class.</p> <p>On the Landenberg Branch the volume of water in the saddle tank of #37 was insufficient for a day's operation so a tender was added. Some may ask why not just fill the saddle tank between trips? The answer is due to the Greenbank Station water tower being on the east end of the station complex. An engine taking on water requires a train to move eastbound across Route 41 where the locomotive is disconnected from the cars. #37 then moves westbound across Route 41 to take on water at the tower. Another trip eastbound for the light engine across Route 41 allows the engine to recouple with the train. A brake test is then performed before pulling the train westbound back to the station or returning to Marshallton Yard. This takes too long to accomplish during an operating day so the use of a tender allowing a full day's operation is the best solution. Chesapeake & Ohio Railway tender #T215 was available and was put into service for this purpose.</p>


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Y	M	D	Event or Activity
1987	6	14	<p>#37 is an oil fired engine. A 1,500-gallon fuel tank is mounted across the back of the cab area for storage of fuel to fire the engine. In logging service, a coal or wood fired engine has the potential to shoot flaming embers from the stack into dead underbrush near the tracks. It is not a good idea to burn down what a lumber company is trying to cut down and the use of oil almost eliminates the flying sparks and embers concern. Logging engines often used Bunker C fuel oil as fuel. HRCV found that local automotive and truck repair facilities were swimming in waste oils and were looking for a means to dispose of them. Crankcase and similar oils burned well in #37's firebox which meant #37 offered an inexpensive (via donation) manner for local garages to safely and properly dispose of their used oils.</p>
1987	7	15	<p>A program of grade crossing signal system improvements is started. The work, estimated in excess of \$750,000.00, is being accomplished through the Wilmington & Western Railway Corporation and is funded through both State and Federal grade crossing improvement programs. It is estimated that the project will start in August 1987 and take nearly a year to complete.</p> <p>Currently signal systems are in operation on the Landenberg Branch at the following locations; Newport-Gap Pike (Route 62), Old Capitol Trail, Newport-Gap Pike (Route 41) – Greenbank, Faulkland Road, Lancaster Pike (Route 48), Mt. Cuba Road, Newport-Gap Pike (Route 41) – Hockessin). Signals will be added at Greenbank Road, Barley Mill Road (Route 82), Sharpless Road, Creek Road (Route 82) – East, Creek Road (Route 82) – West, Old Lancaster Pike, and Millcreek Road. In addition, radio control of the signal system will be added the systems at Old Capitol Trail, Newport-Gap Pike (Route 41) – Greenbank, Greenbank Road, Old Lancaster Pike, and Millcreek Road.</p> <div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>The crew of #98 waits in West Yard for clearance to proceed on May 9, 1992. American class #98, combine #410, a caboose, and #4662 (not yet restored or named "The Paul Revere") participate in the annual Transportation Day celebration held at Wilmington's Amtrak Station. Robert E. Wilhelm, Jr. photo.</p> </div> </div>
1987	9	2	<p>The Chesapeake & Ohio Railway, which now includes the former Baltimore & Ohio Railroad, legally becomes CSX Transportation. All former railroad names, along with the Chessie System name are permanently retired. With the formation of CSX Transportation, the legal corporate entities associated with the Chessie System, Baltimore & Ohio Railroad, Chesapeake & Ohio Railway, Western Maryland Railway, Seaboard System Railroad, Baltimore & Philadelphia Railroad and others are all legally retired. All legal documents, reporting marks, FRA documents, etc., associated with these former railroads are changed to reflect the new owner, CSX Transportation, a division of CSX Corporation.</p>
1987	9	19	<p>HRCV celebrates 115 years of continuous railroad operations in the Red Clay Valley.</p>


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Y	M	D	Event or Activity
1987	10	9	<div style="display: flex; align-items: flex-start;">  <div style="margin-left: 10px;"> <p>#4662 is used for a demonstration commuter rail run from New Castle to Georgetown. Co-sponsored by the Delaware Department of Transportation, Delaware Society of Architects, and the Delaware Rail Passenger Association, the route operates over CSXt, Conrail, and Delaware Coast Line trackage. A bus is also operated between the starting and engine points as a comparison for trip times and expenses.</p> <p>The Buckingham Valley Trolley Museum currently operating at Penn's Landing in Philadelphia, PA proposes to acquire trackage rights on the Landenberg Branch. They propose that they would</p> </div> </div> <p>HRCV Volunteers tackle a classic problem west of Mt Cuba Rock Cut on April 11, 2003. It is not uncommon for winds, rain and even ice storms to topple trees along the right-of-way blocking the track. Each fallen tree presents its own hazards and challenges. Some removals need a crane to lift the limbs and logs once the tree is cut into smaller pieces. Others, such as the one pictured here, have to be carefully cut so that when the logs drop to the ground no one is injured. Note the ice from the natural springs in the rock cut have created a dramatic ice fall. Ed Hoffmeister photo.</p> <p>operate from Hockessin to Mt. Cuba and be responsible for all track maintenance between Hockessin and Mt. Cuba. HRCV will continue to have rights to run trains to Hockessin. The Museum wishes to lease property adjacent to the Landenberg Branch and to construct a building to house their equipment. Electrification of the Landenberg Branch would need to be done at the Museum's expense and in a manner that does not conflict with the operation of steam locomotives and the HRCV passenger operation.</p>
1987	10	31	<p>Live steam 4-6-4 Hudson locomotive #218 and eight passenger cars, donated to HRCV by Thomas C. Marshall, Jr, are sold to David Sclavi of the Mercer Locomotive Works in Trenton, NJ. The 1/4-foot scale engine and cars, 15-inch gauge, was made by Sandley Light Locomotive Works of Jonesville, WI in 1946 and will be used at the Mercer Museum. Once part of the Auburn Springs Railroad, the proceeds of the sale will be used to pay off several HRCV loans.</p>
1987	11	1	<p>HRCV hosts a State Legislators Excursion to Hockessin. All members of Delaware's General Assembly including their immediate families are invited. Lunch and beverages are provided by HRCV. The trip is intended to familiarize Delaware legislators with the operation and history of the Wilmington & Western should future legislation be introduced which might affect HRCV. The excursion also highlights how previous funding was put to use. At the end of the trip one of the senators was heard to comment that "This is the most unique and effective ways to lobby I've ever been witness to!"</p>
1987	12	29	<p>HRCV makes the final mortgage payment on the Marshallton Enginehouse and Yard property. The HRCV real estate account is now mortgage and debt free.</p> <p>Mrs. Robert B. Walker donates property in October 1982 (1.1 acres) and Mrs. Rebecca D. McVaugh donates property (2.8 acres) in 1984 to HRCV. In 1985 HRCV explores the sale of the properties. The proceeds from the sale of these two residential properties (\$37,884.38) allow HRCV to pay off the balance of the Marshallton Yard mortgage.</p>


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Y	M	D	Event or Activity
1988	1	1	 <p style="text-align: center;">Greenbank Mill in 1958 the same year that Thomas C. Marshall, Jr. began thinking about returning steam passenger trains to the B&O's Landenberg Branch. Greenbank Road is the paved area in the foreground. Historic American Buildings Survey, National Park Service photo.</p> <p>Greenbank Mill Associates is formed as a 501(c)(3) non-profit organization. With the formation of the independent group, the Greenbank Mill property and mill are transferred from HRCV ownership to Greenbank Mill Associates, Incorporated.</p>
1988	3		Crossing signals are installed at the Sharpless Road grade crossing and both of the Route 82 grade crossings west of Sharpless Road. All Landenberg Branch grade crossings between Landenberg Junction in Marshallton and the end of line in Hockessin are protected with signal lights.
1988	5	11	<p>Donald W. Callender, HRCV's first Executive Director, informs the Board of Directors of his intention to step down as Executive Director at the end of the 1988 operating season or as soon as his replacement can be named. Callender agreed to be HRCV's Executive Director for approximately five years when he accepted the position in 1983.</p> <p>HRCV puts in place an Executive Director Selection Committee to identify and interview potential candidates with an interest in becoming HRCV's second Executive Director. Ads, placed in local newspapers and "Trainline", generate nearly 100 applications before the end of 1988. The Committee screens the applications for the top-ten candidates and contacts each with additional information and to schedule an interview by April 1989. A slate of four finalists is presented to the HRCV Board of Directors on June 6, 1989 for final selection.</p>
1988	6	4	A Brandywine Rail Ramble operates on the Octoraro Railway. Passengers board at Greenville, DE for the 33-mile trip to Northbrook, PA. Motive power is #3 (diesel) and #8408 with "Boonton" coaches and a caboos. Repeat trips would be held on September 24th and October 1st.

50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity	
1988	11	5	The North American Railcar Owners Association (NARCOA) holds a regional meet on the Landenberg Branch bringing steam, gasoline, and human powered track cars to the line.	
1988	12	29	The Railroad Retirement Board audits the Wilmington & Western Railway's freight operation and affirms that railroad retirement taxes are not applicable.	
1989			#98 remains out of service. The front flue sheet is undergoing replacement along with the complete dry pipe for the locomotive. Major restorative work to the front pilot truck, spring rigging, and running gear is in progress. The expected return to service is 1990.	
1989	2	5	#4662 operates the "Farewell to the Doodlebug" excursion on the former Wilmington & Northern Branch of the Reading Railroad. The trip is the last for the Doodlebug before the self-propelled car is professionally restored. The excursion leaves Greenville, DE and travels to South Modena, PA and then returns.	
1989	2	15	<p>Mobil Oil Corporation investigates working with the Wilmington & Western Railway Corporation to ship molten Sulphur by tank car. The operation would involve truckloads of Sulphur arriving at a WWRC rail unloading siding and having the Sulphur transferred to MNLX (AAR reporting mark for Mobil Oil) heated tank cars. Sulphur is shipped in a heated liquid state (250° to 350° Fahrenheit) and presents numerous personal safety and environmental concerns related to its handling. Mobil Oil would operate the facility and WWRC would be responsible for moving empty tank cars to and full cars from the facility.</p> <p>Ultimately New Castle County and Federal regulations and permitting make the operation too costly for Mobil to consider developing and operating for the limited volume of commodity they would need to ship. Mobil Oil decides that an existing facility associated with Conrail can be expanded to meet their requirements.</p>	
1989	2	16	<p>A pair of grants totaling \$130,000 from the Revere Copper & Brass Foundation funds the restoration of self-powered passenger coach #4662. A pair of replacement 250 horsepower Cummins diesel engines, replaced electrical system wiring, rebuilt DC fan motors, improved restroom amenities, and cosmetic restoration are planned. The Doodlebug will be named "The Paul Revere" after restoration and retains the #4662 number. The professional restoration is performed by the Delaware Car Company in Wilmington, DE.</p>	 <p>#4662 outside Delaware Car Company on March 17, 1990 undergoing restoration. Robert E. Wilhelm, Jr photo.</p>
1989	4	15	#37, three "Boonton" coaches, a cabooses, and Chessie System #8408 operate a steam charter for the Bayard Taylor Memorial Library of Kennett Square, PA. The charter operates between Kennett Square and Lenape on the Octoraro Railway.	
1989	5	13	#37, two "Boonton" coaches and a cabooses travel to Wilmington Train Station as part of an Amtrak transportation exposition.	

50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
			A Brandywine Rail Ramble operates on the Octoraro Railway. Passengers board at Greenville, DE for the 33-mile trip to Northbrook, PA and return. Motive power is #3 (diesel) and Chessie System #8408 with "Boonton" coaches and a caboose. The Ramble is repeated on June 10th with the same consist
1989	6	14	Maurice Cannon is selected to become HRCV's second Executive Director by the Board of Directors. Cannon remains HRCV's Executive Director until July 10, 1992. Cannon is selected from a field of nearly 100 applicants for the position.
1989	7	5	A record-breaking rainfall deluges the area with up to 8-inches inches of rain in a short time period curtailing W&WRR operations due to multiple track washouts. No trestles are damaged and once the washout areas are reballasted and the trackage realigned, operations resume on July 16, 1989.
1989	10	7	The Brandywine Rail Ramble schedule for this date is postponed to November 4, 1989 as washouts on the Octoraro Railway temporarily close the railroad. A derailment on the Octoraro Railway at Elsmere Junction on November 3, 1989 results in the Ramble being cancelled due to track damage which will take an extended time to repair.
1989	11	4	<div style="display: flex; align-items: flex-start;"> <div style="flex: 1;">  <p style="text-align: center;">HRVC's Sheffield No. 1 hand pump car at Greenbank Station. Andrew Schiebel photo.</p> </div> <div style="flex: 2; padding-left: 10px;"> <p>The North American Railcar Owners Association (NARCOA) holds a handcar meet on the Landenberg Branch. The first-ever handcars-only meet of its kind in the world, handcars include human-powered velocipedes, rail bikes, and pump cars. On November 5th, NARCOA holds a motorized railcar meet on the line.</p> <p>George S. Sheffield invented the three-wheel velocipede around 1877. His design was awarded patent number 213,254 in 1879 and Sheffield soon formed the George S. Sheffield & Company in Three Rivers, Michigan to</p> <p>manufacture the design. Eventually becoming the Sheffield Velocipede Company, the product line expanded to include various track and rail cars including the W&WRR pump car. In 1888 the Fairbanks, Morse & Company bought controlling interest in the company. By 1896 cars were offered with Fairbanks-Morse gasoline engines for power. Sheffield offered velocipedes with sails, seats for two persons, trailer cars, odometer cars, inspection cars, weed cutting cars, among their product line.</p> </div> </div>
1989	11	18	The Hagley Museum charters #37, for their "Steam & Steel Special". Operating between Greenville, DE and taking on water at Lenape Forge, PA, the consist travels to Coatesville, PA to tour Lukens Steel Company. The charter then returns to Greenville.
1990	1	10	HRCV Board members meet with members of the City Council of Wilmington to form a 9-member task force (3 HRCV, 3 City Council, 3 Wilmington Mayor appointed) with the


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Y	M	D	Event or Activity
			purpose of investigating the acquisition and preservation of the former Baltimore & Ohio Railroad's Market Street Branch (now owned by CSX Transportation). The B&O's Wilmington Water Street Station, designed by noted architect Frank Furness and built in 1887, served as both a passenger and freight station on the Market Street Branch.
1990	2	14	The Wilmington & Western Railway Corporation investigates establishing a public freight loading and unloading facility under the Kirkwood Highway (Route 2) overpass using the former sidings for Marshall Rolling Mill (now Ametek – Haveg Division) which are no longer seeing routine use. While there appears to be sufficient space for a small freight warehouse and access driveways to Newport-Gap Pike (Route 41), obtaining New Castle County building permits and securing the necessary funding for construction may prove difficult. A question to be answered is if the facility should be configured for the loading/unloading of box cars, non-hazardous tank cars, or hopper cars.
1990	3	19	<p>The grade crossing at Barley Mill Road (Route 82) and the pair of dual track crossings at Old Lancaster Pike and Mill Creek Road (both in Hockessin across from the fire department) are upgraded. American Systems Technologies (purchased by ABC Rail Products Corporation in 1996) is supplying the warning lights and control systems which include overhead cantilevers at Barley Mill Road and gates at the two Hockessin grade crossings. Guardian Construction Company is responsible for the crossing improvements including the installation of welded rail. The cost to the State of Delaware is estimated at \$300,000. The work isn't completed until October 1990 which is significantly longer than the originally estimated six weeks. The Barley Mill Road crossing is completed first and then work is completed on the two Hockessin Crossings.</p> <p>The track crossing Barley Mill Road is part of the second longest length of tangent track on the remaining right-of-way of the Landenberg Branch. This length of track is straight, or tangent in railroad terms, for nearly four-tenths of a mile. The difference in length between the straight track at Barley Mill and the track climbing Hockessin Hill, which is the longest tangent track on the line, is only 61 feet with Hockessin Hill measuring 2,087 feet in length. The shortest straight length of track is 12.4 feet in length. It is located in the middle of Bridge 12B, the 'S' trestle, between the two curves making up the trestle.</p> <p>Barley Mill Tangent is the most nearly level section of track on the line between Marshallton and Hockessin. The track rises a little over a foot along the four-tenths of a mile length. Hockessin Hill is the railroad's steepest section of railroad track. The railroad grade climbs Hockessin Hill at an average incline of eighteen inches per every one hundred feet of length.</p>




W&WRR Shiffeld #1 Handcar being operated at the annual Volunteer's Picnic at Greenbank Station on September 17, 2011. Operators are Steve Jensen, Jr (foreground), Mike Ciosek (rear), and Patrick Dunn (background). Mike Ciosek collection.


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Y	M	D	Event or Activity
1990	3	19	<p>To follow the Red Clay Creek and serve the many mills, it was necessary for the original Wilmington & Western surveyors to include many curves along the line. Of the 10.2 miles of track that remain today, only 4.2 miles of the line is straight or tangent track. The remaining 6 miles are composed of right-hand and left-hand curved track that has radii ranging from 5,730 feet (1 degree of railroad curvature) to 613 feet (9.30 degrees of railroad curvature). A rider traveling between Greenbank Station and Mt. Cuba effectively travels the circumference of a circle two and one half times. Between Greenbank and Hockessin the route of the Wilmington & Western takes a rider four times around the circumference of a circle.</p>
1990	4		<p>In early April 1990 Buffalo Creek & Gauley Railroad #14 is moved from storage on the Hercules siding back to Marshallton Yard. #14, an American Locomotive Company engine was donated to HRCV by Paul S. Hersh of Hellertown, PA.</p> <div style="display: flex; align-items: center;"> <div style="flex: 1;"> <p>The 2-6-0 locomotive saw service until 1965 when Mr. Hersh purchased and moved it to Quakertown intending to restoration and possibly return it to service. The engine was sold by HRCV to City of Gaithersburg, MD for use as a static display at the Gaithersburg Community Museum located in the 1884-built B&O Railroad Station complex.</p> </div> <div style="flex: 1; text-align: center;">  <p>Donated in 1978, Buffalo Creek & Gauley Railroad locomotive #14 at the Hercules siding in the early 1990s. Steve Panopoulos photo.</p> </div> </div>
1990	4	7	<p>Four Easter Bunny Express trains are operated over April 7th and 8th. All four trains (two each day) are sold out and increase revenue 24% over the previous year. The Easter Egg Hunt is moved from Ashland Nature Center to the Greenbank Mill. The arrangement is safer as people are not required to walk along the road (and through the Ashland Covered Bridge) to reach the location of the hunt.</p> <p>With the HRCV office staffed during business hours (full-time Executive Director and part-time office staff) reservations for trains are now being handled directly at the HRCV Office. Previously an HRCV volunteer handled train reservations from a dedicated phone line in their home.</p>
1990	4	11	<p>The Delaware Department of Transportation (DelDOT) notifies HRCV of their intent to make major improvements to Valley Road between Newport-Gap Pike (Route 41) and Limestone Road (Route 7). Currently the Landenberg Branch ends on the northwest shoulder of Valley Road with rails still embedded in the asphalt road surface and both shoulders of the road. HRCV agrees that the section of track within the right-of-way of Valley Road does not need to be replaced and can be removed. DelDOT will support HRCV in expediting the improvements of other grade crossings on the Landenberg Branch as a result along with the possible installation of a turntable at the end of the line.</p>


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Y	M	D	Event or Activity
1990	5		<div style="display: flex; align-items: flex-start;">  <div style="margin-left: 10px;"> <p>HRCV volunteer Kurt R. Bell submits “The First State is Steaming” to <i>Locomotive & Railway Preservation</i> magazine (now www.rypn.org on the internet). Bell’s article is featured in the May-June 1990 issue. A full color photograph of locomotive #37 crossing trestle 8B in the fall is on the magazine’s cover.</p> <p>A magazine dedicated to historic railway preservation, Bell’s article runs from page 14 through 31 and from 52 through 54. The article details the history of the Landenberg Branch as well as HRCV’s operation of the Wilmington & Western Railroad. It also reviewed the motive power</p> </div> </div> <p>#4662 on May 17, 1980 in Oxford, PA on a twenty-two-mile National Railway Historical Society charter. The trip traveled the Wawa Colora Branch of the former Pennsylvania Railroad. #4662 visited the communities of Kennett Square, Toughkenamon, Avondale, West Grove, Kelton, Elkview, and Oxford then returned to Kennett Square. Steve Jensen slide.</p> <p>and rolling stock that the Wilmington & Western Railroad operates.</p>
1990	5	12	<p>The Northeast Corridor's overhead power catenary lines receive an unexpected “steam cleaning” from the exhaust stack of #37 as it pulls “Boonton” coaches #410 & #603 and caboose #C2042 to Wilmington's Amtrak Station for the Delaware Department of Transportation's Transportation Day. The consist is joined by Doodlebug #4662 brought from Delaware Car Company after having finished an extensive restoration.</p>
1990	6	7	<p>Former PRR Doodlebug #4662 is dedicated as "The Paul Revere" in honor of Revere Copper & Brass Foundation's grant to restore the historic railcar. New Castle County Executive Dennis Greenhouse declares "Paul Revere Day" for NCC and Governor Mike Castle proclaims "Paul Revere Day" for the State of Delaware. The event is covered by both the local press and Philadelphia TV (CBS).</p>
1990	6	19	<p>The Wilmington & Western Railway Corporation and HRCV undergo a rigorous two-day operating practices and procedures inspection by the Federal Railroad Administration. The FRA inspector rides a school train as part of the inspection process. With the exception of a couple of suggested changes to record keeping procedures, no violations were uncovered or reported. HRCV and WWRC are given a “in full compliance” rating. The inspector’s report emphasized that his inspection of operating practices and procedures reveals that Wilmington & Western trains are being operated according to applicable FRA regulations. It is also highlighted that even though it’s a volunteer operation with no paid railroad operating employees, with respect to the FRA, the volunteers all are subject to FRA regulations and applicable penalties for violations. The inspector returns on September 28, 1990 for a follow-up inspection with no observations or violations noted.</p>


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Y	M	D	Event or Activity
1990	7	7	The North American Owners Railcar Association (NARCOA) spends the day traveling the length of the Landenberg Branch on gasoline powered A-3, M-9, M-14AA, M-19, M-19H and M-19AA railcars along with hand-pumped handcars and velocipedes.
1990	9	12	<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;">  <p>#98 crosses Pratt Truss bridge with a night freight consist. Bridge 11A is the only iron truss bridge on the Landenberg Branch. It is a secondhand bridge relocated here in 1907. The B&O's bridge records document this bridge was one of the spans of Bridge #124 from the B&O's Wheeling Division. The bridge spans 104 feet, is nearly 18 feet wide, and is about 22 feet high. Note the bell at the front of #98, the smokebox door centered headlight, shield number plate, and the Mississippi Central livery on the tender! HRCV Archives photo.</p> </div> <div style="width: 35%; padding-left: 10px;"> <p>The Delaware Department of Transportation (DelDOT) is considering a major improvement, including widening to four lanes, to Lancaster Pike (Route 48). DelDOT wants to eliminate the railroad grade crossing and replace it with a railroad overpass allowing at least 20 feet of clearance with the new roadbed.</p> <p>DelDOT is looking at having two lanes in each direction along with a left-hand turning lane and right-hand acceleration lane with Hercules Road in the vicinity of a railroad crossing. A gated crossing is required by federal guidelines, however, gates with extended arms are required and DelDOT doesn't want the road blocked if there is a failure of the signal system.</p> <p>DelDOT is also concerned about a 4-lane grade crossing at the bottom of a road valley where vehicles might have trouble stopping in inclement weather. Elevating the railroad tracks and returning them to grade with the Wooddale Rock Cut and Red Clay Creek close to the road's route also presents a difficult engineering challenge.</p> <p>Ultimately the costs involved with elevating the length of railroad track on either side of Lancaster Pike, as well as constructing a bridge over Lancaster Pike, make the idea cost prohibitive to implement. A waiver for the gates is obtained by DelDOT as the crossing is not a high-speed grade crossing and is used mostly on weekends when traffic density is lower.</p> </div> </div>
1990	10	15	<p>The W&WRR is listed as Delaware's 18th most popular tourist attraction by the Delaware Bureau of Tourism.</p> <p>As of the start of 2016, the Wilmington & Western Railroad is ranked 5th of 65 activities to do or places to visit in northern Delaware according to the travel website TripAdvisor.com. The Wilmington & Western Railroad has been a consistent recipient of TripAdvisor's Certificate of Excellence for several years.</p>

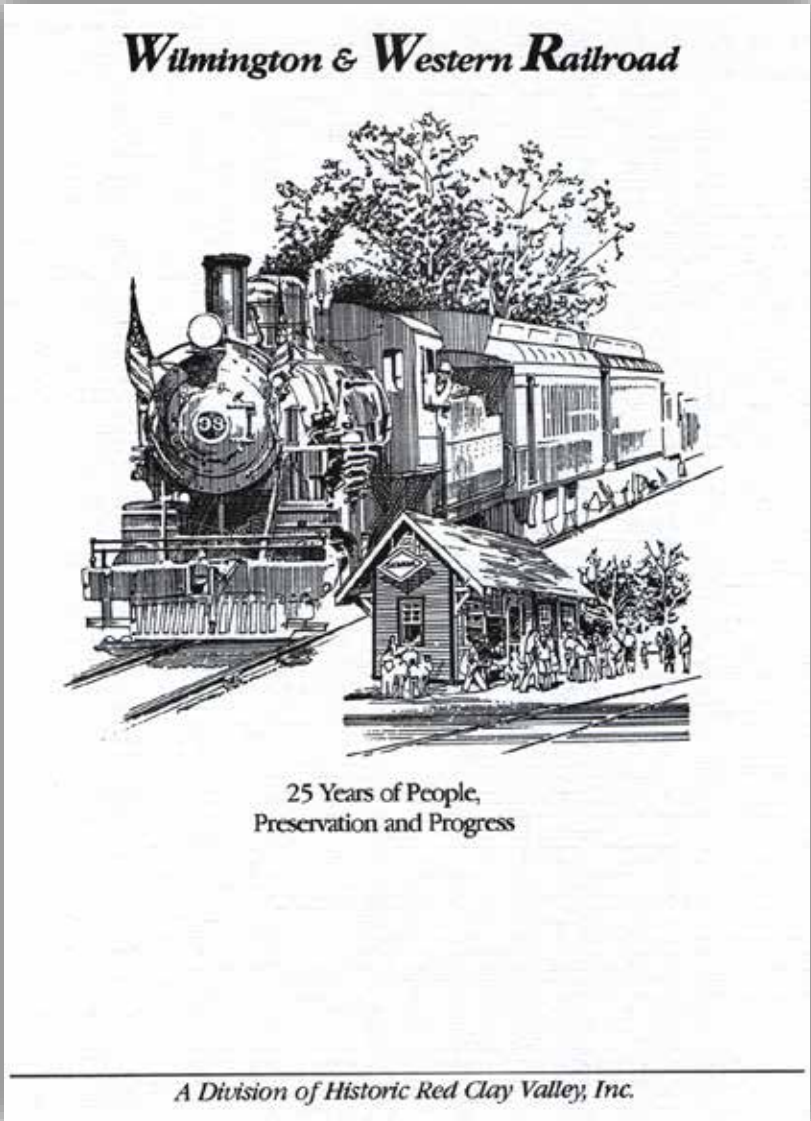
50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1990	11	3	The North American Railcar Owners Association (NARCOA) enthusiasts return for a second weekend traveling the length of the Landenberg Branch on gasoline powered railcars along with hand-pumped handcars and velocipedes.
1990	11	10	<p>HRCV operates a Brandywine Rail Ramble on the Octoraro Railway. Scheduled motive power was scheduled as #37 and #3 (diesel). In attempting to fire up #37 at the enginehouse, a bad load of used motor oil (high water content) prevented the engine from firing properly. As a result, #37 is left behind and #3 (diesel) is moved to the front of the train. #8408 is put at the rear of the consist of four "Boonton" coaches. Passengers board at Greenville, DE for the thirty-three-mile roundtrip excursion to Northbrook, PA and return.</p>
			 <p>#98 (left) and #37 (right) in the back of the Marshallton Enginehouse both out of service. Steve Panopoulos photo.</p>
1990	11	17	The National Railroad Historical Society's Wilmington Chapter charts #37, two boxcars, a flatcar, "Boonton" combine, and caboose for a "Hockessin Mixed" photographer's charter.
1990	11	24	<p>Minarets-class #37 is fired up for the day's trips on the Landenberg Branch. With perhaps 15 pounds of steam pressure showing on the boiler's steam gauge, a small trickle of hot water is discovered running out from under the boiler insulation jacket in front of the firebox. The oil fire is shut down and boiler steam pressure released through the whistle.</p> <p>The source is discovered the following week to be a fatigue crack in the boiler barrel at a boiler support just in front of the firebox. The locomotive never returns to service on the Landenberg Branch and now sits outdoors at Strasburg Rail Road. It won't be until the 1992 operating season that steam powered trains return to the Landenberg Branch when #98 is returned to service.</p> <p>#98 is still undergoing major repairs forcing the W&WRR to operate without steam motive power. Work on #92 has stopped with little chance to get it operational in a reasonable amount of time. #3 (steam), the 0-6-0T Vulcan switcher that has been available in the past, is sold to the Queen Anne's Railroad and is not available. #3 (diesel), an ALCO S2 is in winter storage (drained of liquids that might freeze in the unheated enginehouse) for the winter, but can be returned to operation if required. #114 has 80% of its restoration work complete but it too is not quite ready for hauling trains. HRCV again relies on #8408 for motive power. #8408 has just returned to service after completing a major engine power assembly rebuild in July 1990.</p>
1990	12		The seasonal Santa Claus Special trains were operated at capacity and four additional "extra" trains are all sold out.


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Y	M	D	Event or Activity
1991			<p>#3 (steam), the ex-Navy 0-6-0T saddle tank switcher, is sold to the Queen Anne's Railroad along with two MP-54 coaches. All are trucked to southern Delaware. The engine and cars are used for several years for a steam tourist railroad which eventually ceases operation. The engine and cars remain in outdoor storage.</p> <p>Formed in 1894, the Queen Anne's Railroad ran from Lewes, DE to Queenstown, MD initially (the Love Point, MD extension was in operation in 1902).</p> <div style="text-align: right;">  <p>#3 (steam) 0-6-0T pulls a "Boonton" consist into Greenbank Station during the 1986 operating season while #98 undergoes repairs. Steve Panopoulos collection.</p> </div>
1991	1	14	<p>HRCV purchases coach 6795 for \$16,000 which has been restored inside and has new running gear. Built as an electric multiple-unit car with traction motors and controls in 1930 for the DL&WRR, the car was initially numbered 2548. The car is renumbered 3548 when the DL&WRR and the Erie Railroad merge and become the Erie-Lackawanna Railroad. When the Erie-Lackawanna declares the car excess it is purchased by Philadelphia radio personality Tom Moran, who stores the car on a siding in Woodstown, N.J. Moran's interest in the Pennsylvania-Reading Seashore Line (PRSL), inspires him to paint the car in that road's paint scheme. Moran renumbers the car to 6795, which is one digit higher than the last PRSL coach built. 6795 after purchase by the HRCV, remains in storage until early 2006, when it is moved inside Marshallton Enginehouse for restoration and conversion to a parlor car.</p>
1991	1	19	<p>The Smithsonian Institution charters #4662, "The Paul Revere", for a photo charter. The group stops at several locations on the Landenberg Branch for photo opportunities before reaching Hockessin for a meal at The Back Burner restaurant.</p>
1991	2		<p>The Wilmington & Western Railroad Operating Rulebook is converted from a typewritten document to a computer word processing document and edited to incorporate additions and changes that have been made over time through the use of General Bulletins and Supplements to the rulebook.</p> <p>HRCV begins advertising Dinner Train charters to The Back Burner Restaurant in Hockessin. The restaurant entertains groups of up to 50 people. The Back Burner also welcomes passengers for lunch on the W&WRR's first weekend of the month trips to Hockessin. Passengers ride the first train to Hockessin and while it returns to Greenbank, and then makes its second run to Hockessin they may eat at the restaurant. Diners return to Greenbank on the second train of the day.</p> <p>The Ashland Nature Center proposes a joint fund raising effort to HRCV to construct a pedestrian bridge across the Red Clay Creek at Ashland. A waiting shed is included so trains may bring passengers to the nature center for educational programs and tours.</p>



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Y	M	D	Event or Activity	
1991	4	15	Lumiere Productions uses #4662 and the former Yorklyn Station at Greenbank to film several segments of "Lincoln and Seward" a program documenting some of President Lincoln's time in office during the Civil War. The Public Broadcasting documentary would air in February 1992	
1991	5	11	#3 (diesel), two "Boonton" coaches and a caboose travel to Wilmington Train Station to participate in Delaware's Transportation Day celebrations.	
1991	5	25	<p>HRCV celebrates the start of their 25th year operating tourist passenger trains displaying the Wilmington & Western Railroad livery.</p> <p><i>The Wilmington & Western Rail Road Company constructed the original 19.92-mile railroad in 1871-2. Under Baltimore & Ohio Railroad ownership the route was eventually shortened to its present 10.2 miles and became known as the B&O's Landenberg Branch. HRCV's first trains operated Decoration Day weekend (now designated Memorial Day) May 28, 29, 30, 1966.</i></p> <p>HRCV poster recognizing the 25th year of operating Wilmington & Western passenger trains on the B&O railroad's former Landenberg Branch. Robert E. Wilhelm, Jr. collection.</p>	
1991	6		<p>David Ludlow, future Executive Director for HRCV, joins the "W&WRR Health Club"; the name given to the group of volunteers spending evenings and weekends replacing wooden ties and fixing loose track joint-bars on the Landenberg Branch. On Ludlow's first Saturday as an HRCV volunteer, twenty ties would be replaced and the day would be considered a "good day" by the track superintendent.</p> <p><i>Ludlow's volunteering with HRCV begins during the 25th anniversary year of HRCV operated W&WRR steam powered trains returning to the B&ORR's former Landenberg Branch. Becoming HRCV's third Executive Director in 1993, David acquires powered</i></p>	


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Y	M	D	Event or Activity
1991	6		<p>track maintenance equipment insuring trackwork is more productive and less back-breaking for volunteers.</p> <p>Other noteworthy HRCV accomplishments under Ludlow's tenure through 2016 include Greenbank Station replacement; construction of the Marshallton Yard's "Back Shop"; and a new corporate office building and training center. Ludlow's management skills are tested as he guides the organization through the recovery of two devastating storms threatening HRCV's very existence. Ludlow, the longest serving Executive Director for HRCV and has 25 years' of HRCV volunteer and compensated service. Ludlow continues to serve the organization in 2016, the 50th year of operating Wilmington & Western Railroad liveried trains on the Landenberg Branch of the former B&O.</p>
1991	9	21	HRCV participates in the annual Harrington, DE Heritage Day by operating #4662 from Marshallton to Harrington, DE using former PRR tracks through central Delaware to reach Harrington railroad station. For the trip, #4662 would be clocked at 45 miles per hour, the fastest it has traveled since its days with the PRR.
1991	11	2	The North American Railcar Owners Association (NARCOA) spends the day traveling the length of the Landenberg Branch on gasoline powered railcars along with hand-pumped handcars and velocipedes.
1991	12		<p>Overhead wooden pony truss bridge 11B, carrying Barley Mill Road traffic over the tracks of the railroad and intersecting with Creek Road (Route 82), is removed by the Delaware Department of Transportation. The bridge is located a short distance north of the Ashland Covered Bridge and only had a 5-ton load rating when it was removed from service several years earlier. Traffic is routed to a grade crossing east of the bridge.</p>
			 <p style="text-align: center;">Overhead automobile traffic bridge 11B at Ashland. March 25, 1990 before eventual removal, Robert E. Wilhelm, Jr. photo.</p>
1991	12	28	HRCV operates the first of 4 days of "Holiday Light Specials" using #4662 for trips to Mt. Cuba Picnic Grove and Ashland.
1992			Wilmington & Western Railway Corporation completes seven years of freight operations on the Baltimore & Ohio's former Landenberg Branch. Annual freight car movements by WWRC are; 1985 - 51 cars, 1986 - 104 cars, 1987 - 191 cars, 1988 - 187 cars, 1989 - 151 cars, 1990 - 144 cars; 1991 - 100 cars.
1992	1		HRCV offers Choo-Choo 101, a 6-class course highlighting the requirements of operating a steam tourist railroad. Held at Greenbank Mill, the course is repeated in subsequent years and includes an opportunity to operate an SW1 locomotive within Marshallton Enginehouse & Yard limits. With the construction of a new station complex at Greenbank, the course is moved to the new station. When attendance falters, the course is placed on hiatus. HRCV offers the eight class, January through March, Rail Road 101 beginning in


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Y	M	D	Event or Activity
			2015 conducted at the Marshallton Office and Educational Center. Operating an SW1 locomotive within Marshallton Yard limits is retained as one of the perks of the class.
1992	1	18	<p>#98 has a fire returned to the firebox after an extensive seven year rebuild of the boiler and running gear. The boiler safety valves are tested when they lift to release pressure at 190 PSIG as per calibration. The engine is operated within Marshallton Yard limits. During yard operations the running gear and other fundamental aspects of the engine are monitored. Cylinder valve timing is verified and the engine generally checked out to insure no problems exist. With the successful completion of the first steam-up, the weeks that follow see boiler insulation jacketing installed and remaining jobs completed in preparation for the engine returning to passenger service on the Landenberg Branch.</p>
			<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">  <p style="text-align: center;">The first Easter Bunny train passes Spring Valley on April 4, 1992. Steve Jensen photo</p> </div> <div style="width: 50%;"> <p>#98 is ready to return to service for the W&WRR. However, additional running time is required for the steamer before serving as headend motive power for Easter Bunny Express trains. A diesel locomotive will pull trains before #98 will return as primary motive power for an Easter Bunny Express. Unfortunately, #8408 is out of service since March 31st when the air compressor crankshaft broke. As a result, HRCV leases the Octoraro Railway's SW1 #55 for the first weekend of Easter Bunny Express.</p> </div> </div>
1992	4	4	<p>After an extensive rebuilding, wants to have #98 put in service cautiously so that it can be monitored closely should a mechanical problem develop during operation. For the Saturday April 4th trains, lead motive power is leased Octoraro Railway #55. #98 is coupled to the rear (east end) of the train and will be carefully monitored for side linkage bearing overheating, wheel bearing overheating, and other ailments.</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>For Sunday, April 5th, #55 again supplies primary motive power for the 95% sold-out weekend of trips. #98 continues helper-service at the rear of the Easter Bunny Express trains. After the day's operations are complete, #98 and #55 are switched back at Marshallton Yard and an empty consist is run to Ashland with #98 in the lead to insure the just restored engine is in top condition.</p> </div> <div style="width: 50%;">  <p style="text-align: center;">The Octoraro Railway's SW1 #55 takes the lead for one of the April 4th or 5th 1992 Easter Bunny trains. Steve Panopoulos photo.</p> </div> </div> <p>The following weekend, April 11th & 12th, #98 performs solo for two days of sold-out trips. After no concerns were raised during the previous weekend's operation, #98 is ready to operate unaided by a diesel helper.</p>

50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1992	5	9	#98, combine 410, a caboose, and #4662 participates in the annual Transportation Day event at Wilmington's Amtrak Station.
1992	6	10	Robert E. Wilhelm, Jr. publishes " Red Clay Valley Rails ". The 64-page booklet discusses historical points of interest along the Landenberg Branch of the former Baltimore & Ohio Railroad. The many businesses, mines, and mills served by the original Wilmington & Western Rail Road Company and its successors are detailed. The text examines how the mills and businesses along the Red Clay Creek evolved as the original tracks became the route of the Delaware Western Railroad and finally Baltimore & Ohio Railroad.
1992	7	4	HRCV celebrates the return to service of #98 with special trains to Hockessin for the Hockessin Parade.
1992	7	10	David Ludlow is appointed HRCV Acting-Administrator on a part-time basis after Maurice Cannon steps down. Due to HRCV's limited operating budget as a result of the nation's poor economy, Ludlow will be limited to a maximum 20-hour paid work week for the foreseeable future. Ludlow will become the organization's Executive Director in 1993.
1992	7	14	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">  <p>Trestle 6C just west of Greenbank. During 1895-'96, Charles S. Philips, a draftsman for Pusey & Jones Company in Wilmington, DE, took a series of 4" by 5" glass plate negatives of the Landenberg Branch. Philips lived in Wilmington and traveled the Landenberg Branch on his bicycle carrying his tripod, camera, and glass negatives in order to take his images. Note the use of truss rods between the spans of trestle 6C as it crosses the creek. Taken on August 24, 1895, B&O engineering records indicate this trestle was rebuilt and strengthened in 1896. Charles S. Philips photo.</p> </div> <div style="width: 50%;"> <p>A Tuesday Summer Camp Train returning to Greenbank Station is forced to stop short of trestle 6C (Greenbank Trestle) due to a fire at the east end of the trestle.</p> <p>When the steam locomotives operate the brakeman at the rear of a train is on alert for any fires that might be started from hot coals dropping through the grates and bouncing out of the ash pan onto dry leaves. As the trip was diesel powered, it was unlikely that the train started the fire.</p> <p>Two juveniles seen on the trestle later admit to starting the fire which caused \$10,000 damage to trestle stringers supporting the tracks. Trains board passengers west of the trestle for three weeks while repairs are made.</p> </div> </div>
1992	9	19	Doodlebug #4662 averages 41 miles per hour for most of a Harrington, DE trip after passing over the Chesapeake & Delaware Canal Railroad bridge. Running with just the engine and train crew, HRCV takes #4662 to the 14th annual Harrington Heritage Day. The trip routes the Doodlebug down tracks once belonging to the Philadelphia, Wilmington, & Baltimore Railroad (now owned by the Norfolk Southern Railway Corporation's Delmarva Secondary in 2016) to reach Harrington, DE.



50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity	
1992	10	28	<p>HRCV submits an Engineer Licensing Plan to the FRA which is approved. The plan details the requirements for becoming, as well as maintaining, a Locomotive Engineer rating for operating either a steam or diesel locomotive on the Landenberg Branch.</p> <p>As a result of a fatal accident between Conrail and Amtrak in Chase, Maryland occurring on January 4, 1987, all HRCV locomotive engineers are required to hold valid operating licenses and must meet minimum Federal Railroad Administration training requirements including annual testing and requalification. The National Transportation Safety Board accident investigation uncovered the use of drugs by the Conrail crew which prompted the FRA to institute a zero-tolerance policy with respect to drug and alcohol use for all operating railroads; tourist operations included. The US Congress took even broader action by extending power to the Department of Transportation to perform random drug screening for all employees in “safety-sensitive” occupations including trucking and other public carrier operations.</p>	
1992	11	21	<p>HRCV celebrates the ten-year anniversary of the purchase of the Landenberg Branch from Chessie System (former B&ORR) with a golden spike ceremony at Greenbank Station. A special passenger excursion, powered by American class #98 at 3:00 PM travels to Hockessin and returns to Greenbank. After the excursion a buffet dinner is hosted by HRCV Directors at Greenbank Mill.</p> <p style="text-align: right;">Right: Commemorative 10th anniversary mugs. Robert E. Wilhelm, Jr. collection.</p>	
1992	12	26	<p>W&WRR operates Holiday Lights Express Trains between Christmas and New Year's. With 5, 6, 7, and 8 PM departures from Greenbank, the run to Ashland in the heated car allows riders to enjoy the many holiday displays set out by neighbors along the railroad's right-of-way.</p>	
1993	1	1	<p>During 1993 W&WRR transports 31,346 passengers as reported on FRA documentation. Initially the highest number of passengers carried in a calendar year, 1993's ridership is currently the 3rd highest in the history of HRCV through 2015.</p>	
1993	1	1	<p>Members of the North American Railcar Owners Association (NARCOA) make their traditional New Year's Day run on the Landenberg Branch.</p>	
1993	3		<p>The Wilmington & Western Railway Corporation's investigation to establish a public freight loading and unloading facility under the Kirkwood Highway (Route 2) overpass using the former sidings for Marshall Rolling Mill (now Ametek – Haveg Division) seems to only generate limited interest with no real commitments to use such a facility should it be constructed. Funding for such an operation is also well beyond either HRCV or the WWRC's financial grasp. The idea is shelved pending acceptable financing to proceed with the development of a formal plan.</p>	
1993	3	25	<p>#98 is brought up to operating steam pressure and thoroughly checked over at Marshallton Yard in preparation for the start of #98's second season of operation after an</p>	


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
			extensive seven year rebuild of the boiler and running gear. The boiler safety valves are tested and the engine operates within Marshallton Yard limits testing braking systems and other aspects of operation. #98 is declared ready to pull the twelve scheduled Easter Bunny trains of which all but a couple are sold out.
1993	5	13	 <p style="text-align: center;">W&WRR #98, combine #410, caboose C2013, and 'The Paul Revere' #4662 travel on Amtrak's Northeast Corridor to Wilmington's Amtrak Station for Delaware's annual Transportation Day on May 13, 1993. Steve Jensen photo.</p>
1993	6	9	<p>Former PRR 0-6-0 #60 that has been in storage at HRCV since 1983, and was originally scheduled to be relocated to Eastern Shore Railway Museum in Parksley, VA, is sold to Matt Minker for relocation to a new siding to be installed alongside his Minker Construction Office at the Stone Mill Office Park in Hockessin. #60 is a Class B6sa switching locomotive built in the Juniata Shops in December 1913 as the 27th in a group of 55 that were ordered. It was retired from routine service on September 12, 1952.</p>  <p style="text-align: center;">#60 displayed in Hockessin, DE. Tom Gears photo.</p>
1993	9	18	HRCV participates in the annual Harrington, DE Heritage Day by operating #4662 from Marshallton to Harrington, DE using former PRR (Philadelphia, Wilmington, & Baltimore Railroad) tracks through central Delaware to reach Harrington Station. During the trip it is learned that #4662 was nicknamed "The Bullet" during its days of operation on the Delmarva Peninsula. Running quieter than a steam locomotive but equally as fast, #4662 occasionally rounded a curve to hit an unsuspecting stray animal on the tracks.


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1993	9	26	<p>Designated "Antique Diesel Day" #114 enters W&WRR service providing head-end motive power while #8408 provides helper service for three round trips to Mt Cuba Picnic Grove. Purchased by two HRCV members in 1989, former Lehigh Valley Railroad SW1 #114 has completed a restoration by volunteers. In 1992 HRCV traded ALCO S-2 #3 (diesel), for #114 to provide the Wilmington & Western with a pair of vintage SW1 diesel locomotives. #3 (diesel) now resides with the West Chester Railroad.</p>  <p style="text-align: center;">#114 undergoes body restoration and priming in preparation for painting. HRCV archives photo.</p>
1994			The W&WRR will transport 34,395 passengers during 1994 as reported on FRA documentation. It is the highest passenger ridership in the history of HRCV through 2015.
1994	5	4	<p>Hall-Woolford Tank Company replaces the wooden water tank at Greenbank Station. The new tank is constructed of Alaskan White Cedar as was the original. The replacement tank is slightly smaller (6,700 gallons, vs 9,000 gallons originally) in height and sits on the original 1966 tower.</p> <p style="color: #A52A2A;">The water tank at Greenbank was originally constructed by the Hall-Woolford Wood Tank Company in January 1966. They furnished the 12' high tower, the 9,000 gallon, 12' diameter, Alaskan White Cedar tank and conical roof, steel access ladder, 8" tapered spout and counterweight system, flapper dump-valve in the tank's bottom, and fill valve mechanism. In May 2007 the tank is lifted from the platform and the tower is replaced.</p>
1994	11	13	<p>Tom and Ruth Marshall open Auburn Heights to HRCV, holding "Auburn Valley Railroad Day" as a nostalgic remembrance of the early 1960s when the 1½-inch scale AVRR operated on weekends with HRCV volunteers to raise funds for HRCV's eventual operation on the Landenberg Branch.</p>  <p style="text-align: center;">AVRR's West Yorklyn Station circa early 1960s. FAHP photo.</p>
1995			During 1995 the W&WRR transports 30,269 passengers as reported on FRA documentation. It is the seventh highest passenger ridership in the history of HRCV through 2015.
1995	3	18	The Greenbank Station Committee unveils plans for a new 3,000-plus square foot station at Greenbank during HRCV's 35th Anniversary Annual Meeting.



50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity	
1995	5	19	Thomas C. Marshall, Jr. and his wife Ruth host "Auburn Valley Days" as a two-day fundraiser for the new Greenbank Station. Hosted at Auburn Heights, visitors enjoy rides on the live steam AVRR and on a 1915 Stanley Mountain Wagon powered by steam. Approximately \$12,000 is raised for the Greenbank Station fund. 88% of the funding for the new station has been raised to date and First State Contractors and Builders are under contract to begin construction.	
1995	6	28	National Railroad Historical Society visits the W&WRR for a chartered excursion as part of the organization's annual convention activities. A number of photo opportunities on the Landenberg Branch are included as part of the Hockessin Extra train.	
1995	11	8	Carole Abrams Sohlman (Wells) joins the HRCV staff as Administrative Assistant to Executive Director David Ludlow.	
1996			During 1996 the W&WRR transports 30,785 passengers as reported on FRA documentation. 1996 is the fifth highest passenger ridership year in the history of HRCV operating trains on the Landenberg Branch through 2015.	
1996	2	21	<p>The HRCV Board develops an extensive list of capital improvement projects, assigns each a priority order to the listing, and codes each as to its reason for being on the listing (regulatory compliance, safety improvement, cost reduction, etc.). The listing is intended to provide a focus for HRCV's directors and employees in allocating funding for projects, and setting priorities for use of volunteer labor, etc.</p> <p>Kennedyville Station dismantled and on a WWRC flatcar #17107 in early 1997 before moving to Hockessin. Steve Jensen photo.</p>	
1996	4		HRCV purchases Delaware Lackawanna & Western Railroad "Boonton" coach 571 from Thomas Smith as part of an effort to close out all remaining equipment leases. Car 571 has been on long-term lease.	
1996	8	26	A Federal Railroad Administration inspector performs a track inspection including the current track maintenance and improvement plan and documents no violations. An inspection of grade crossing signal systems will be performed in the October timeframe.	
1997	1	15	HRCV receives Planning Commission approval for a new station at Greenbank. Initially the county requested a paved parking area. During a review it is pointed out that the area is a flood plain and by not paving the area floodwaters will dissipate quicker. HRCV wishes to insure that Greenbank stays historically true to the era of the railroad and mill. Heritage railroads would not have paved parking in the late 1800s. The commission agrees to a variance. Fire Marshall approvals are in process as is a "demolition permit" for Kennedyville Station at Greenbank and a "building permit" to reassemble the station in Hockessin.	
1997	2	1	Grubb Lumber's contract for delivery and unloading of boxcars of lumber has expired with CSX Transportation and rate increases on a new contract are a concern for the company.	


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Y	M	D	Event or Activity
1997	2	1	Grubb Lumber and Wilmington & Western Railway Corporation investigate the potential for shipping lumber with WWRC where Grubb can truck it to their Wilmington facility. In recent months there has also been interest in WWRC providing unloading facilities for up to 200 cars annually of feed grains. A request from Colonial Chemical Corporation to provide an off-loading station for hydrochloric acid tank cars was declined for New Castle County, State of Delaware, and governmental hazardous substance permitting concerns.
1997	2	15	Locomotive #98 receives an extension on its boiler service from the Federal Railroad Administration due to the excellent condition of the flue tubes and other components. As #98 will not be available for operation for most of 1998 and perhaps longer, the HRCV Board forms a Steam Locomotive Advisory Committee to examine alternate options for providing steam service on the Landenberg Branch. The committee finds that a second steam locomotive would insure near continuous steam availability for the Landenberg Branch as their operating schedules could be staggered such that only one engine is out-of-service for an extended time while undergoing heavy maintenance. Options suggested are returning #92 to service, purchasing a 4-6-0 or 2-8-0 steam locomotive if any are available, or the purchase of a new Chinese locomotive.
1997	5	21	<p>Groundbreaking Ceremonies are held for the new 3,000 square feet Greenbank Station. The Greenbank Station Committee headed by Thomas C. Marshall, Jr. and George Mendenhall raise 106% of the originally estimated construction costs. All surveys and permits are either completed or nearing completion.</p> <p>Minker Construction, under the supervision of Executive Director David Ludlow serving as HRCV liaison for the Greenbank Station project, oversees the preparation and relocation of Kennedyville Station, using a W&WRR flatcar, to a new site just east of Route 41 in Hockessin at Stone Mill Office Park where it will be known as "East Hockessin Station".</p> <p>First State Contractors and Builders excavate for and begin pouring the building's concrete foundations once the Kennedyville Station has been cleared from the site. Construction is estimated to be completed by Fall 1997. The former Yorklyn Station serves as the temporary ticket station until New Castle County completes the final inspections and grants occupancy for the new Greenbank Station.</p>
			
			<p>Minker Construction adds the cupola to Greenbank Station during the summer of 1997. HRCV archive photo.</p>
1997	9	16	Audi Motors charts a series of trains between September 16 th and 26 th for an event involving steam trains to Hockessin each morning with a return to Hockessin each evening with #4662 – The Paul Revere – to return the program participants to Greenbank Station. The two-week event is a hit with Audi Motors and their program participants.

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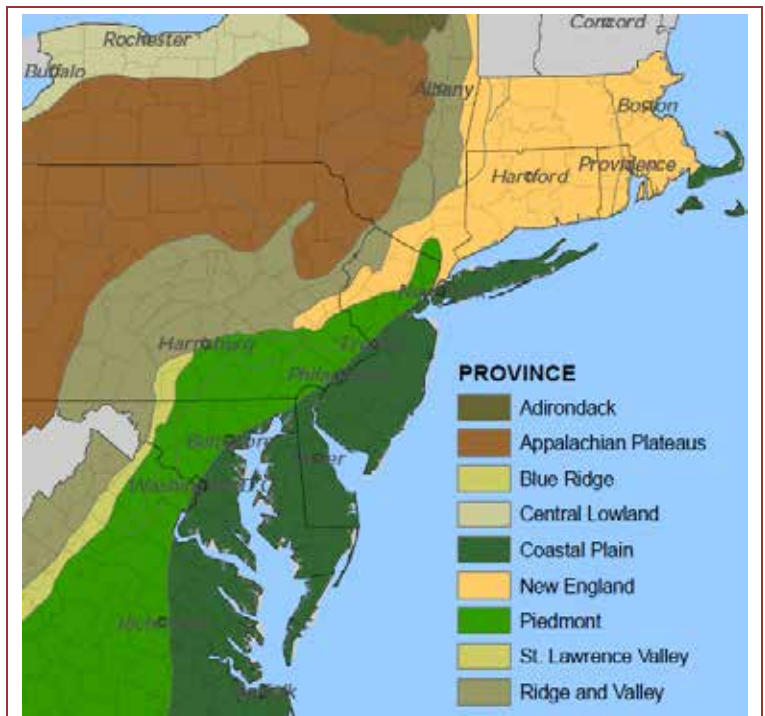
Y	M	D	Event or Activity
1997	9	19	<p>The former Pennsylvania Railroad's Kennedyville Station is dedicated at its new location adjacent to Stone Mill Office Park east of Route 41 in Hockessin, DE. The station will now be known as "East Hockessin Station". Having served as HRCV's primary station at Greenbank for more than thirty years the station will see less use in Hockessin.</p> <p>In addition, ex-PRR 0-6-0 class B6sa switching engine built in 1913 at the Juniata Shops is placed on static display. Juniata Shops was part of the PRR's Altoona Works. Today Norfolk Southern operates the former Juniata Shops facility where locomotive work is performed.</p>
			 <p>The disassembled panels and pieces for the Kennedyville Station are unloaded from flat car #17107 in preparation for reassembly. In the distance is #60. HRCV archives photo.</p>
1997	10	15	<p>Upon hearing of HRCV forming the Steam Locomotive Advisory Committee to examine alternate options for providing steam service on the Landenberg Branch, Brian R. Woodcock (HRCV President 1977-1983) suggests that he might be open to a conversation with HRCV representatives relating to the possible transfer of his 0-6-0 Slopeback Switcher to HRCV with the intent that HRCV fully restore and operate the engine routinely on the Landenberg Branch.</p>
1997	10	17	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">  <p>Amtrak "Genesis" P42DC #109 and W&WRR 4-4-0 #98 at Greenbank Station. Steve Jensen photo.</p> </div> <div style="width: 50%;"> <p>HRCV holds a combined two-day Greenbank Station Grand Opening and 125th Anniversary Celebration of the original Wilmington & Western Rail Road Company's founding. As part of the celebrations, Amtrak "loans" HRCV a General Electric 133-ton, 4,250 horsepower, \$2.2-million, 2-month old P42DC "Genesis" passenger locomotive (#109) for display at Greenbank Station for the event. Visitors are invited to inspect the Amtrak engine</p> </div> </div>
1997	11	1	<p>Members of the North American Rail Car Owners Association (NARCOA) conduct a "speeder" (gasoline powered rail car) outing along the Landenberg Branch.</p>

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Y	M	D	Event or Activity
1997	11	22	With a section of track in Wooddale in need of 125 ties replaced, a “125 Tie Day” is held with volunteers working to best the all-time record of 64 ties replaced in a single day. The line is out-of-service past the Ashland Iron Bridge while the Delaware Department of Transportation works to replace the grade crossing where Barley Mill Road intersects with Creek Road (Route 82).
1997	12	1	<p>Brian R. Woodcock and his wife Linda, donate former Atlanta Birmingham & Atlantic Railroad 0-6-0 Slopeback Switcher #58 to HRCV. Built in 1907, the engine is a saturated steam locomotive. The Woodcocks request that HRCV consider naming the locomotive "The Veterans Locomotive". The Woodcocks also donate four of their six former Pennsylvania Railroad MP-54 cars to HRCV. One of the MP-54 coaches will be converted to an open car by HRCV volunteers while the remaining coaches are placed in storage until their use can be determined. The engine undergoes immediate restoration and a fire is returned to the firebox on November 6, 1998. The last time the engine had a coal fire was in the 1950s.</p>
			
			<p>#4662, “The Paul Revere”, on the Octoraro Branch in 1997. This is the last off-line excursion made by HRCV on the Octoraro (as of 2015). In the distance, to the right of the house, is former AB&A #58 which is sitting in front of a string of six MP-54 coaches. Steve Jensen photo.</p>
1997	12	15	<p>#98 is removed from service after the final Santa Claus Specials. With new FRA Steam Locomotive Operating Rules pending the decision is made to place the locomotive in a multi-year, approximately one-million dollars, restoration program.</p> <p>All volunteer enginehouse activity focuses on #58's restoration which should require less time than what is estimated for #98's major overhaul. Before activities on #58 can commence, #58 must be relocated from Avondale, PA to the enginehouse at Marshallton. Once the required overhaul and inspections are complete, the required FRA tests and reviews are performed. When certified operational, #58 will be approved for up to 15 years of operating service before another major overhaul and inspection cycle is required. Once #58 enters routine passenger operations, all volunteer and paid mechanical crew activities will turn to #98 which must undergo a major boiler-off-the-frame restoration.</p>
1998	1	24	#58 is moved from Avondale, PA to the Marshallton Enginehouse so that restoration of the locomotive may begin. A new FRA Form 4 is generated requiring a complete ultrasound examination of the boiler and firebox. The running gear and side linkages require disassembly for bearing restoration. The air compressor and brake system receive a complete rebuilding. Finally, the FRA inspects the iron horse and witness various tests required to return the engine to passenger steam service after not having been in service since the late 1960s.


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1998	5	16	With no steam engines available, W&WRR participates in the 15th Annual Delaware Transportation Day celebration at Wilmington, DE's Amtrak Station with #114, "Boonton" coach 571, and caboose C2013.
1998	7	25	After an extensive restoration and repainting, the original Wilmington & Western Rail Road Company's Yorklyn Station at Greenbank is rededicated as the Red Clay Valley Museum & Visitor's Center. Listed in 1980 on the National Register of Historic Places, and constructed in 1872 in Yorklyn, DE, the station now provides tourist information and historical displays of nearby attractions in the Red Clay Valley. It is to be operated as a joint effort by HRCV and Friends of Brandywine Springs.
1998	9		<p>William S. Schenck, Delaware Geological Survey (DGS) geologist, along with DGS volunteer geologist Margaret O. Plank, publish DGS Special Publication #20 - "<u>Delaware Piedmont Geology -- Including a guide to the rocks of Red Clay Valley</u>". The publication details the geological processes taking place over billions of years that formed New Castle County, DE. The text highlights the mineralogy and geology of the rocks found along the Landenberg Branch as it winds alongside the Red Clay Creek. The publication becomes the keystone documentation used for future educational trips on the line to study Delaware's geological history uncovered during the building of the railroad in 1870-72.</p> <p>According to current plate tectonics theory, two plates of the earth's crust, an eastern plate carrying the string of volcanos and volcanic rock and a western plate carrying the ancient North American continent and a deep ocean basin immediately off-shore, collided about 440 million years ago to begin the process that produced the Appalachian Mountains. This process continued for some 200 million years as tectonic activity continued to thrust the two plates into each other along what is essentially the eastern coast of North America. As the two plates continued to collide, the Appalachians were pushed up into a vast towering mountain range of current Alpine Mountain proportions. During the collision between the plates, the sediments from the deep ocean plate were metamorphosed, crumpled, and folded as the volcanic rocks were thrust westward.</p> <p>Geologists divide the Delaware Piedmont into two major geologic belts, both elongated in a northeast direction. The rocks of the eastern belt, which underlie the gently rolling hills, consist of igneous and metamorphosed igneous rocks called the Wilmington Complex. These rocks most likely originated as volcanic rock from the string of volcanos off the</p>




Physiographic Provinces of the Middle Atlantic States.
 Courtesy of US Geological Survey, 2002


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Y	M	D	Event or Activity
1999	9		<p>eastern coast of North America in the early Paleozoic era about 450 to 500 million years ago. The rocks of the western belt, which underlie the rugged continental terrain, consist of a series of metamorphic sedimentary rocks called the Wissahickon Formation. These sediments of sand, clay, and volcanic ash were deposited in a deep ocean basin existing between the North American Continent and a string of volcanos east of the continent. With the coming of the ice ages the southern moving glaciers ground down the tops of the mountain we now call the Appalachian Mountains and those sediments were deposited as what we now call the Delmarva Peninsula. Greenbank Station lies on the “fall line” marking an imaginary line dividing the foothills of the Appalachian Mountains from the sedimentary runoff of the melting glaciers which formed the southern portions of Delaware, Maryland, and New Jersey.</p> <p>Today, after several hundred million years of erosion, the contact line between volcanic rock and basin sediments runs through the railroad cut at Wooddale. While the walls of Wooddale rock cut have darkened since the rock was blasted in 1871, chipping to expose a fresh surface shows the rocks are the light colored igneous rocks of the Wilmington Complex. Immediately west of the cut are garnet-bearing metamorphosed sedimentary rocks (gneisses) of the Wissahickon Formation.</p> <div style="text-align: center;">  </div> <p>To love steam doesn't mean one has to restrict themselves to working only iron horses. HRCV Mechanical Superintendent Steven Jensen, driving his 1911 Stanley Model 62, waits for #58 to clear the Wooddale Covered Bridge crossing on July 24, 2011. Walter Scriptunas II photo.</p> <p>The Mt. Cuba rock cut is smaller than the one at Wooddale, but railroad history shows the Mt. Cuba cut was more difficult to blast open. The rocks at Mt. Cuba and Wooddale are the same age, are similar in hardness, and have been subjected to the same tectonic forces. The rocks of Mt. Cuba rock cut are mostly massive, dark amphibolite gneisses. Most amphibolites originate as ash flows or basalt flows from a volcano. The presence of massive amphibolites, interlayered with metamorphosed sediments, suggests that the rock at Mt. Cuba cut formed in a marine basin close to a volcanic area.</p>
1998	10	17	<p>HRCV Founder, Thomas C. Marshall, Jr opens the Auburn Heights Railroad for HRCV members and friends on October 17th and 18th. Operation of the railroad's two 4-8-4</p>


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1998	10	17	Northern locomotives will be by Marshall's Steam Team, a group of individuals Marshall has assembled and is instructing on the maintenance, operation, and driving of his Stanley Steam Car collection. The two days are a nostalgic remembrance of the early 1960s when the 1½-inch scale AVRR operated on weekends with HRCV volunteers to raise funds for HRCV's eventual operation on the Landenberg Branch.
1998	11	6	A fire is ignited in #58's firebox for the 0-6-0 switcher's first steam-up since the 1950s. Having served the US in World War I, World War II, and the Korean conflict, #58 begins shake-down testing and final adjustments before being placed in steam passenger service. The locomotive's FRA Form 4 documentation certifies the locomotive meets all current regulations and requirements for 15-years of service before the next "heavy servicing and recertification" is required.
1998	11	7	Members of the North American Railcar Owners Association (NARCOA) hold their 10th Track Car Day on the Landenberg Branch.
1998	11	28	#58 returns to steam passenger service providing steam motive power for the annual Santa Claus Special trains during the 1998 holiday season.
1999			Wilmington & Western Railway Corporation completes 12 years of freight operations on the Landenberg Branch. Freight cars moved are; 1996 - 39 cars, 1997 - 103 cars, 1998 - 104. The 1997 movements are either brick (65 cars) or lumber (38 cars) shipments.
1999	4		<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;">  <p style="text-align: center;">The ticket counter at Greenbank Station with the windows shuttered. Center right is the entrance to the gift shop. The tables for the snack bar are to the back of the photographer. Andrew Schiebel photo.</p> </div> <div style="width: 35%;"> <p>HRCV develops "Phase III" of the Greenbank Station plan. The plan calls for improved access along with parking enhancements to Greenbank Station and Yorklyn Station (now the Red Clay Valley Museum and Visitor's Center).</p> <p>The currently unused former siding will have the rail and ties replaced and track elevation signature and memorial brick pavers will provide a</p> </div> </div> <p>passenger platform at the proper elevation to the coach steps. Period lighting fixtures for night operations will be installed. Yorklyn Station (now the Red Clay Valley Museum & Visitor's Center) will also have platform improvements and the parking area will be upgraded with islands and leveling.</p> <p>The HRCV Board of Directors approves plans for the construction of a 30' x 90' heated enginehouse at Marshallton Yard. The new maintenance facility provides better working conditions for volunteers and paid staff working on motive power and rolling stock.</p>

50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
1999	5	23	<p>Locomotive #58 is dedicated as the "Veterans Locomotive" in the memory of all American and allied veterans who served to preserve peace around the world.</p> <p>MP-54 coach #442, named "Kiamensi Springs" after the natural mineral water spring once located a short distance from Greenbank, enters open-air car service on the W&WRR.</p> <p>HRCV acquired former Pennsylvania Railroad MP-54 coaches 442 and 450 in 1988. Built in 1912 by the Pennsylvania's Altoona Shops, the cars were reclassified as MP-54E6 class cars in 1950/51 when the remaining original cars were renovated and converted to multiple-unit (MU) overhead electrical catenary, self-powered cars. Seating 72 passengers originally and weighing 139,390 pounds, they ran independent of a locomotive at speeds better than 90 miles per hour on their four General Electric 630 traction motors. Only three MP-54 coaches are known to have survived into tourist service. MP-54 coach 450 remains in storage awaiting restoration for a return to service.</p>
1999	6	1	<p>Conrail's assets are split into two limited liability companies as subsidiaries of Conrail so that CSX Transportation and Norfolk Southern Railroad may lease approximately 40+% and 50+% respectively of Conrail (remaining 10% which is located primarily in New Jersey and New York, stays under Conrail management and operation as a switching railroad).</p> <p>Effectively the deal gives CSX Transportation the former New York Central Railroad and Norfolk Southern Railway gets the former Pennsylvania Railroad. The two major east coast railroads both have trackage through northern Delaware much the same as the Baltimore & Ohio and Pennsylvania railroads had in the late 1880s more than 100 years prior.</p> <p>The federal government created "Conrail" in 1976 after the privately held railroads serving Illinois, Indiana, Michigan, Ohio, Pennsylvania, West Virginia, Maryland, Delaware, New Jersey, Massachusetts, Connecticut and Rhode Island fell on hard times. Between 1967 and 1972 six major Class 1 railroads serving the Great Lakes and Mid-Atlantic states were in bankruptcy. In 1974 Congress passed the Regional Rail Reorganization Act which provided interim funding to keep the railroads solvent. Under government oversight, unprofitable operations were identified for elimination and infrastructure and equipment upgrades were planned. The Railroad Revitalization and</p> <div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>Kiamensi Springs postcard. Built in 1907 the spring water reservoir (center) held 15,000 gallons. The pump house (behind, up the hill) contained a 2-horsepower gasoline pump which delivered water from the spring reservoir to a wooden process tank in the plant which was located at the top of the hill (top of photo). The bottling plant prepared water in 8-ounce, and half, one, two, and five-gallon sizes at a daily capacity of 10,000 gallons of bottled spring water. Cases of filled water bottles were transported by overhead wire conveyor to the warehouse alongside the B&O railroad tracks (from where the image was taken). In 1914 the National Table Waters Company of Philadelphia, PA purchased the company. National Table Waters produced aerated waters, root beer, and ginger ale. National kept the Kiamensi name as it had become a well-known brand name. Their plant at Kiamensi operated until about 1925. University of Delaware postcard collection.</p> </div> </div>

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Y	M	D	Event or Activity
1999	6	1	<p>Regulatory Reform Act of 1976 approved the final plan and created the Consolidated Rail Corporation to carry out the plan. The Staggers Rail Act signed into law in 1980 deregulated the nation's railroads and allowed them to compete more effectively against truck and air freight shipping. In 1981 Conrail began making a small profit. By the fall of 1986 Conrail was the fourth largest freight hauler in the US. The government turned over the corporation to private investors in 1987 and as a public company it was valued at \$1.9-billion and the operation continued to show a profit.</p> <p>In 1997 the two major commercial Class 1 railroads in the eastern US, Norfolk Southern Railway Corporation (NS) and CSX Transportation (CSX), agreed to take over Conrail assets. On June 1, 1999 the two railroads each became responsible for operations on their portion of Conrail. Conrail is now a jointly-owned subsidiary of both NS and CSX. Conrail is still directly responsible for 1,200 miles of track in three regions: Northern New Jersey and Staten Island, NY; Southern New Jersey and eastern Philadelphia-Camden; and Detroit, Michigan. Conrail is now considered a Switching & Terminal Railroad operating jointly for NS and CSX.</p>
1999	9	16	<p>Remnants of hurricane Floyd passing over the Red Clay Valley unleash 9.2 inches of rain driven by winds gusting to 80+ MPH. The Red Clay Creek rises to an all-time flood level record of 13.93 feet at Wooddale (previous record had been 10.32 feet from 7/21/1975).</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">  </div> <div style="width: 45%;"> <p>Floyd leaves its mark as the worst flooding to date since HRCV began operating trains along the Landenberg Branch. By May 2016 when HRCV celebrates 50-years of Wilmington & Western operations on the Landenberg Branch, Floyd will have been reduced to the 4th worst Red Clay Creek storm flooding event in HRCV's 50-year history.</p> <p>With a once-in-50-years probability, Floyd's flooding caused the Red Clay Creek to flow at 7,650 cubic feet of water per second at Wooddale where the Delaware Geological Survey</p> </div> </div> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>Example of the trestle construction used on the Landenberg Branch after hurricane Floyd. HRCV's replacement trestle design employs "weathering" finish steel. The design, mimics the original wooden trestles installed by the Wilmington & Western Rail Road Company in 1871-1872. David Ludlow photo.</p> </div> <p>maintains a creek monitoring station (Henri in 2003 will top 16,000 cubic feet per second – a once in 500-years storm event!).</p> <p>The rising waters lift trestle 6C just west of Greenbank Station off its wooden support bents and sweep the bents and most of the wooden beams and ties away by 6:02 PM. Brandywine Springs Trestle 6G suffers the same destructive forces and is washed away at 7:30 PM.</p>

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Y	M	D	Event or Activity
1999	9	16	<p>The Hercules Research Complex Trestle 7A remains mostly intact but becomes kinked badly as trees impeding the water flow push the wooden trestle sideways. Other wooden trestles on the line are relatively intact but shifted, some with missing bents (the support structures which stand in the creek). Trestle 8B (west of Wooddale Rock Cut), trestle 10A (east of Mt Cuba Picnic Grove), and trestle 12B (Yorklyn S-trestle) are damaged but repairable.</p> <p>Where the creek turns with W&WRR tracks along the banks, washouts are common with rail and ties left suspended above washed out areas. Initial estimates placed the repair costs at \$2.6 million. Both the Federal Emergency Management Agency and the State of Delaware make funding available, along with considerable support through public donations, to allow HRCV to undo what hurricane Floyd had accomplished in a few hours.</p>
			<p>Baltimore & Ohio engineering drawing for Hercules Trestle 7A as it crosses the Red Clay Creek between the Brookmeade developments at Faulkland, DE and the former Hercules Research Center property. The drawing details the general construction that was used for all the trestles on the Landenberg Branch. Note the area on either end, adjacent to the stone abutment walls, indicating a "cattle pass". When the railroad was constructed in 1872 there were no housing developments. Most of New Castle County was rural farmland. Robert E. Wilhelm, Jr. collection.</p>
			<p>The railroads expanded quickly during the 1800s. Between 1825 and 1850 a little over 9,000 miles of main line track had been laid. A quarter century later the amount of track in place had risen to 55,000 miles and it reached 130,000 miles. At the turn of the century, 1900, more than 170,000 miles of main line track were in use. The miles of main line track in use peaked in 1916 at 254,000 miles and would decline to the present 140,000 miles of main line track in use today. To lay track quickly and for trains to operate efficiently a level route is preferred. Running along a creek or river often offers the ideal location for the routing of a railroad's trackage.</p>


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Y	M	D	Event or Activity
1999	9	16	<p>In selecting the route for a railroad, engineers attempt to eliminate grades. Railroad cars carry tons of freight and the power needed to move a string of cars along a level track is less than the power required in moving an equivalent weight by truck on a level paved road at equivalent speed. Adding changes in track elevation requires drastic power increases even for slight changes in track elevation. The freight load in each car now must be “raised” by the change in elevation in addition to being moved along the rails.</p> <p>Additional power is required from the locomotive to “lift” the cars and their contents to match the elevation increase. To cross mountains a railroad has the choice of either removing cars (weight) or adding motive power (more powerful or multiple locomotives). As a result, railroad Civil Engineers attempt to route railroad tracks as level as possible.</p> <p>Engineers often select routes alongside streams, creeks, and rivers because they are naturally flatter areas. These flowing water pathways offer relatively level areas on either bank of the creek or river and thus make excellent locations for placing railroad tracks.</p> <p>During the initial planning of the Wilmington & Western Rail Road Company a route along either Mill Creek or Red Clay Creek was in debate. As more mills were located on Red Clay Creek, and thus more income potential, the railroad’s organizers chose to run between Wilmington to Landenberg by following the Red Clay Creek for a substantial portion of the route even though the Mill Creek Route under consideration was three miles shorter in length.</p> <p>If one reviews photos from the late 1800s they will notice much of the landscape in the Red Clay Valley is barren of trees. Lumber was used for construction and a source of heat and hence there were few trees to fall into the Red Clay. A century later the landscape is covered with trees, and any strong storm brings branches and even whole trees down which float in the Red Clay Creek. These trees quickly pile up against the bents standing in the creek supporting the track. The building collection of tree debris resists water flow, but in turn, pushes against the bents. With enough water pushing on a large enough collection of debris the bents can be pushed off their foundations kinking and even collapsing the trestle. Effectively the failure of a trestle is due to the height of the water</p>




The replacement trestles 6C (Greenbank) and 6G (Brandywine Springs) are designed with 36" concrete and steel piles drilled down to bedrock beneath the Red Clay Creek which support and anchor the concrete islands constructed on the creek bed. With fewer supports (bents) in the creek, there is less opportunity for trees, branches, and other debris to build against the bents and damage the trestle during severe tropical storms and hurricanes occasionally visiting the Red Clay Valley. David Ludlow photo.


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Y	M	D	Event or Activity
1999	9	16	<p>lifting (floating) the trestle off its supports and the speed of the moving water applying tons of side force to the trestle and supports to wash it downstream.</p> <p>This unfortunately means during heavy downpours a tranquil and peaceful creek or river can transform into a raging torrent of rushing water. From the time of its construction in 1872 until the turn of the 20th century it is unlikely the Red Clay Creek overflowed its banks. It is unlikely the creek came close to reaching the elevation of the tracks crossing the Red Clay as there were no paved areas that channeled runoff towards the creek.</p> <p>At the turn of the 21st Century, with 100 years of land development, less rainfall soaks into the ground and more is routed to the Red Clay and the creek overflows its banks more frequently. Add in water from more and larger roof areas, paved street and parking areas, and similar impenetrable surfaces that have water falling on them diverted to storm sewers which drain to the Red Clay and it is easy to understand how a storm like hurricane Floyd can shatter previous flood records for the Red Clay.</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">  </div> <div style="width: 45%;"> <p>For hurricane Floyd, trees and other debris collected at the wooden bents of the trestles from the wind blowing trees, limbs, and branches into the creek. As the water level of the creek continued to rise, it eventually reached the beams and railroad ties for the tracks crossing the creek. Wood floats even though it is saturated with creosote. The rising water level of the creek soon floats the ties which in turn remove their weight from the bents standing in the stream. With a few trees up against a bent resisting attempting to push the bent downstream, and the weight of the track, beams, and ties being reduced because they are floating on the high water level, the bent is pushed away and the trestle is destroyed. The rush of the raging creek during Floyd was sufficient to wash out the bents on wooden trestles 6C and 6G while moving bents on trestle 7A.</p> </div> </div> <p>The replacement trestles have been designed with concrete piers drilled into the creek bed and anchored in the bedrock below. Replacement steel bents, fabricated to look like the original wooden bents, are anchored to the concrete piers. Instead of wooden beams between bents, steel beams now take their place adding strength to the design. Anchored to the steel beams are the wood ties supporting the rails. The design, believed to be “hurricane proof” when it was implemented in 1999, proved in fact to be well executed.</p>


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
			On September 15, 2003 the creek once again ravaged the railroad exceeding 100-year flood limit predictions. The storm removed all remaining wooden trestles on the railroad. The two steel trestles, 6C and 6G, remained in place only requiring minor restorative work proving the design and construction techniques are sound.
1999	9	25	Even though nine days earlier, hurricane Floyd had devastated the Landenberg Branch and taken two wooden trestles from the line, HRCV volunteers were at Amtrak Train Station in Wilmington, DE for the annual Transportation Day event. #114, combine 410, and caboose C2013 traveled to the train station for the event.
1999	10		W&WRR trains operate east of Greenbank Station to the W&WRR-CSX Transportation, Landenberg Junction interchange. A stop at Marshallton Enginehouse and Yard allows passengers to review the restoration of #98, the maintenance of #58, and the two SW1 diesel locomotives. The Paul Revere, and the shop facilities are also put on display.
1999	11	11	The Railroad Retirement Board audits the Wilmington & Western Railway's freight operation and affirms that payment of railroad retirement taxes is not applicable.
2000	1	17	<p>Edwards & Kelsey Incorporated (now part of Jacobs Engineering Group, Incorporated) of West Chester, PA is awarded a contract to design and supervise the replacement of trestles 6C (Greenbank) and 6G (Brandywine Springs).</p> <p>The construction firm will lead a team of structural engineering, surveyors, and inspectors, that design and monitor the construction of both of the new bridges to insure they will withstand a future 500-year storm event. Edwards and Kelsey will also oversee all permitting, physical construction, bridge approach track work, hydrology and hydraulics testing, and any geotechnical aspects of the reconstruction effort. Little does anyone realize that in three years the design implemented and constructed will be tested in a 500-year storm event!</p>
			 <p>Delaware Department of Transportation (DelDOT) replaces the Newport-Gap Pike (Route 41) grade crossing at Greenbank in September 1978. Note the road was two lanes wide in 1978; only half the width it will be in the 21st century. Steve Jensen slide.</p>
2000	3		Twenty-foot deep test borings into the creek bed are completed at the east and west ends of trestles 6C (Greenbank) and 6G (Brandywine Springs) to determine bedrock depth. Permits to perform all work have been submitted to the agencies which approve them: New Castle County-Wetlands Delineation, Floodplain, Sediment and Erosion Control; State of Delaware Subaqueous Land, Notification of Work to be Performed, State Historic Preservation Office for trestle design and repairs; and US Army Corps of Engineers-Navigable Waters Permit.


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Y	M	D	Event or Activity
2000	3		More than 700 tons of ballast rock and stone are hauled and deposited along the right-of-way. The material is then placed by HRCV volunteers by hand. Large rocks and stones are used to fill in washed-out right-of-way sections along the banks of the Red Clay Creek that undermined sections of track. The heavy rock and stone are installed to limit future erosion from occurring along the creek banks in the event of flooding.
2000	4	15	Easter Bunny trains begin the Wilmington & Western's 2000 season with trips east to Landenberg Junction. Until at least the fall, all trains will operate east of Greenbank Station with stops at the enginehouse to witness the progress restoring steam locomotive #98 along with other routine maintenance work.
2000	4	30	<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>Thomas C. Marshall, Jr. and his wife Ruth, in conjunction with the volunteers of the "Marshall Stanley Steam Team" reopen the 7-1/2" gauge, live steam, Auburn Valley Railroad to raise funds for HRCV. This is reminiscent of the five years the live steam railroad was used between 1961 and 1965 carrying 33,000 passengers and raising \$13,000 for the young organization. Operated by HRCV and Steam</p> </div> </div> <p style="text-align: center;">Thomas C. Marshall, Jr pilots Auburn Valley Railroad #401 at Auburn Heights in 1961. Friends of Auburn Heights Preserve photo.</p> <p>Team volunteers the last Sunday of the month from April through August, the operation raises \$15,500 for HRCV during the five days of operation.</p>
2000	6		<p>The Delaware Historic Preservation Office approves HRCV's replacement trestle designs using steel with a "weathering" finish. The new design, mimicking the design and aesthetics of the original wooden trestles installed in 1871-1872, is used for trestles 6C (Greenbank) and 6G (Brandywine Springs). The new design features increased distance between each creek support (bent) which allows for less foreign matter to be collected during storms.</p> <p>For the remaining five damaged trestles, the removal and replacement of each trestle's wooden superstructure is underway (rails and ties). so that the support bents can be realigned as necessary. Damaged beams and posts are replaced before the superstructure is replaced. Once the tracks and ties are bolted to the trestle's steel beams of the superstructure, the trestle's approaches are realigned, leveled, and ballasted.</p> <p style="color: #8B4513;">Weathering steel (known as self-painting steel) is high strength, low alloy, steel originally developed in the 1930s to resist corrosion and abrasion. It was given the trade name "Cor-ten" by developer United States Steel. When exposed to the elements, weathering steel forms a tough protective rust "patina" that inhibits further corrosion. The slow corrosion rate allows structures built of the steel to achieve 120-year design lifetimes with only nominal maintenance.</p>



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Y	M	D	Event or Activity
2000	6		<p>HRCV chose the environmentally friendly steel to eliminate having to sandblast and paint the steel along a natural watershed, and because the trestles take on the dark brown “creosoted wooden timber” appearance of the former trestles. The 120-year design lifetime is an added benefit meaning a long life for the steel before it must be replaced.</p> <p>Normal steel oxidizes or “rusts” when exposed to oxygen and pollution in the atmosphere. The rate of rusting, and hence deterioration of the steel, is dependent on the oxygen and acid content of the air, moisture cycles, types of pollution present, and other factors. The rust formed on non-weathering steel is coarse in texture and falls away exposing fresh metal to repeat the process which slowly “dissolves” the steel over time. Weathering steel includes alloys that create rust formation that is both very fine and tightly adhered to the base metal. The rust effectively forms a protective barrier impeding further oxygen, atmospheric acid and moisture access to the metal. The result is a corrosion barrier with a natural dark brown patina that protects the underlying steel.</p>
2000	9	30	<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>HRCV participates in the annual Riverfront Transportation Festival at Amtrak’s Wilmington Station.</p> <p>1907 Baldwin 0-6-0 #58 leads the procession to Amtrak’s Wilmington Station. The consist includes Combine 410, and Caboose 2013. A Norfolk Southern pilot locomotive, and former Reading FP-7 units #902 and #903 are at the end of the consist. Steve Jensen photo.</p> </div> </div>
2000	11	25	<p>W&WRR operates its first revenue train west of Greenbank Station after a fourteen-month hiatus due to the effects of hurricane Floyd which washed out trestles 6C and 6G on September 16, 1999. Veteran's Locomotive #58, pulling four “Boonton” coaches and three cabooses, kicks off the Santa Claus Special trains. The consist is greeted along the line by neighbors and supporters happy to see a coal burning, steam puffing locomotive once again wind its way along the Red Clay Creek Valley. The Landenberg Branch is not completely open to Hockessin due to continuing work on trestle 12B (Yorklyn S-trestle).</p>
2001	3		<p>W&WRR operates a dinner consist to Hockessin as part of the annual meeting for HRCV. The Landenberg Branch is now considered open to the end-of-line after the damages inflicted by hurricane Floyd on September 16, 1999. A formal reopening celebration is in planning.</p> <p>HRCV signs a contract with First State Contractors, Incorporated of Wilmington, DE for the construction of a 36' wide x 96' long by 21½-foot high heated maintenance building at Marshallton Enginehouse and Yard. The prefabricated American Buildings Company structure features a power-operated 16' wide x 18' high overhead door on yard track #5 in addition to high bay lighting and 4,000 cfm exhaust fan.</p>
2001	5	19	<p>HRCV stages a 3-day Celebration recognizing the return to service of the W&WRR after the construction of steel trestles at trestles 6C (Greenbank) and 6G (Brandywine Springs),</p>


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Y	M	D	Event or Activity
			the repair of the remaining wooden trestles on the line, and the repair of numerous washout locations along the right-of-way. Trestle 6C at Greenbank is renamed "Ludlow Trestle" in recognition of Executive Director David Ludlow's efforts in leading the restoration of the Landenberg Branch after hurricane Floyd's damage.
2001	8		<div style="text-align: center;">  </div> <p style="text-align: center;">By late June 2001 a backhoe is digging the footers for the new "Back Shop" at Marshallton. The Landenberg Branch main line is to the left. Steve Jensen photo.</p> <p>HRCV initiates contract negotiations with Historic Machinery Services Corporation of Springville, AL for the replacement of #98's firebox and flue sheet and other restorative work. The work will involve removing large sections of the firebox and fabricating exact replacements for the complex shapes. The work required on #98 will require the boiler being removed from the engine's running gear. It will be the most extensive restoration with respect to expense, manpower, and technical complexity the HRCV staff and volunteers have taken to date.</p>
2001	10	4	Preservation Delaware, a statewide nonprofit organization dedicated to the preservation of Delaware's architectural heritage and history, honors HRCV for the restoration of the Landenberg Branch after damage from hurricane Floyd.
2001	10	7	" Hurricane Floyd ", a book documenting hurricane Floyd's \$2.6-million destruction of the Landenberg Branch and its subsequent restoration by HRCV volunteers and contractors is issued. Compiled by Paul Harris, Mike Ciosek, Ron Bailey, Phil Toman, Mark Lawlor, and Richard Hall, the book is dedicated to HRCV Executive Assistant Carole Abrams Sohlman (Wells) in recognition of her efforts, hard work, and dedication during the reconstruction effort.


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Y	M	D	Event or Activity
2001	11		<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">  <p>“Boonton” coach 571 is lifted in the air so that its trucks may be rolled out from under the car for spring replacement and brake rigging maintenance. Four identical electric jacks are designed such that when they are electrically interconnected they operate together to evenly lift a coach or diesel locomotive from its trucks. The electric jacks are also used with the steam locomotives to lift them so that the pony truck or a drive wheel, axle, and bearing assembly may be dropped from the locomotive frame for servicing. HRCV archive photo.</p> </div> <div style="width: 50%;"> <p>Construction is complete on the "Back Shop", a maintenance facility at Marshallton. The first project done in the Back Shop is the replacement of leaf springs on both trucks of “Boonton” coach 571. The coaches have springs to cushion the ride and over time wear and fatigue necessitate the removal of the trucks for inspection of the brake rigging and replacement of spring components.</p> <p>Following the coach work locomotive #58 will enter the Back Shop for to have shims adjusted on the tires.</p> </div> </div>
2002	2	23	<p>The Hockessin Arts Festival is revived at Hockessin Fire Company's Memorial Hall as a fundraising event for HRCV. Coordinated by Larry Anderson, David Cooper, Ginny Conaway, and Carole Abrams Sohlman (Wells) the two-day event draws twenty-seven local artists displaying original works, prints, and paintings for nearly 2,000 area guests.</p>
2002	3	5	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Historic Machinery Services Corporation of Springville, AL begins smokebox, boiler, and firebox restoration work on #98. The boiler is detached and raised from the running gear using the shop’s electric jacks so that the flue sheets and smokebox may be removed and replacement steel equivalent pieces fabricated. While the boiler is off the running gear, HRCV volunteers address the mechanical repairs needed to the frame, spring linkages, steam cylinders, side rods, and other major components.</p> </div> <div style="width: 50%;">  <p>#98’s running gear, cylinders, and frame (foreground) sit in front of the boiler and smokebox supported by electrically operated railroad car jacks in 2002. Steve Jensen photo.</p> </div> </div>
2002	4		<p>Sidelined after hurricane Floyd, the Greenbank Phase III Improvements project is restarted. The Greenbank Team Track, formerly used to spot hopper cars of coal destined for the New Castle County Workhouse, undergoes restoration to a Loop Siding for use in</p>

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Y	M	D	Event or Activity
2002	4		<p>loading and unloading of passengers. Once track restoration is complete, a paved station platform constructed of memorial pavers, period lighting, and other improvements will commence. Yorklyn Station (now the Red Clay Valley Museum & Visitor's Center), relocated to Greenbank and now serving as the Red Clay Valley Visitor's Center, receives a new roof along with other improvements.</p> <p>A siding is any branch off a main track used to park railroad cars for loading and/or unloading. A siding may also be referred to as a "team track" as teams of horses pulling wagons were how freight was moved to and from railroad sidings in the 1800s. A "Loop Siding" describes a siding that is connected at both ends and runs parallel to a main track. The siding is often built of lighter weight rail. For sidings which are only connected at one end the freight cars must be shoved into the siding and pulled back out by a locomotive. For a loop siding, a locomotive can pull onto the siding, disconnect from the cars, and continue on and return to the main track.</p> <p>When the Wilmington & Western Rail Road Company was constructed in 1871-2 several of the company stations had loop sidings making it easier to exchange freight cars. For the Marshallton Iron Works, Wooddale Rolling Mills, and Garrett Snuff Mills, team tracks (single end access sidings) were used. National Fibre & Insulation (forerunner to NVF) and Wooddale Quarry used Loop Sidings (access at either end of the siding). Marshallton Yard has examples of both loop and single ended sidings. Greenbank Station, Auburn Heights Preserve (former NVF site) and Hockessin are the locations of loop sidings.</p>
2002	4	27	HRCV hosts an "Open Shop Party" at the recently completed Marshallton Enginehouse & Yard Back Shop complex.
2002	6		The Summer 2002 edition of The Lantern is the first offering color photographs and improved printing and layout process.
2002	6	24	HRCV celebrates 20 years of Landenberg Branch ownership with a small celebration at Greenbank Station.
2002	7	24	<p>City Lights Productions of New York City, NY transforms Greenbank Station, #58, a "Boonton" coach, and caboose into an 1863 era train for President Lincoln on his way to his inauguration in Washington.</p> <p>With a working title "Time Elevator", the production company takes over Marshallton Enginehouse and Yard with support equipment and facilities for the two-day filming session. With an extended deck behind the cab, #114 becomes a mobile camera platform for moving shots.</p>
			
			<p>The Veteran's Locomotive #58 sports a somewhat oversized cow catcher prior to the start of filming City Lights Productions' "Time Elevator. Steve Jensen photo.</p>
2002	9	21	The last of the "Boonton" coaches to undergo exterior restoration and painting, coach 603, is complete and returned to service. All W&WRR coaches are now sporting a dark B&O


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Y	M	D	Event or Activity
			"Bando Blue" ("B and O" – with the word "and" instead of the ampersand) color with gold stripe and lettering and handrails giving a uniform look to the four-coach train-set.
2002	9	28	#58, "Boonton" coach 410, and caboose C2013 travel to the Wilmington Train Station for the Riverfront Transportation Festival; formerly known as Delaware Transportation Day
2002	10	27	Greenbank Phase III improvements continue with a new multi-color W&WRR business sign and three flag poles along Route 41 at Greenbank. Joining the United States and Delaware flags is a new W&WRR flag designed by artist Larry Anderson and David Cooper.
2003	12	30	<p>The vulcanized fibre industry in Yorklyn, DE was established by the Marshall family starting in the 1890s with the renovation of Auburn Factory into a rag paper mill. HRCV founder Thomas C. Marshall, Jr. is the third generation Marshall to reside at Auburn Heights, the family's estate in Yorklyn. The NVF Company, successor to the early Marshall rag paper and vulcanized fibre companies, provides vital support and donations to HRCV since the organization's founding in 1960. At the start of the 21st century however, the company is in danger of going out of business. What will become of one of the largest tracts of property along the Landenberg Branch is of concern to HRCV Directors and could affect future operations of the Wilmington & Western past Ashland, DE.</p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p style="text-align: center; color: green; font-weight: bold;">Master Plan</p>  <p style="text-align: center; color: green; font-weight: bold;">Auburn Valley Master Plan</p> <p style="text-align: center;">Delaware Department of Natural Resources and Environmental Control, Division of Parks and Recreation's April 2016 Master Plan map for the former NVF property. DNREC report image.</p> </div> <p>After a mid-1990's bankruptcy and reorganization, the NVF Company decides in 2000 to sell parcels of land around Yorklyn that it doesn't see the need to retain. The sales provide a means to raise cash to continue operation of the fragile business. Local residents object to the selling of the properties to a developer and seek State of Delaware assistance to preserve the properties as open space. After sale to a developer fails (primarily due to the fact that much of the property may be contaminated), the Delaware Division of Parks and</p>


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Y	M	D	Event or Activity
2002	12	30	<p>Recreation purchases 104.156 acres of NVF property for \$3,110,000.00 and an additional parcel of 64.589 acres for \$2,290,000.00. The State of Delaware has the means to clean up the purchased properties and will maintain them as open space.</p> <p>In 1889 Israel and Elwood Marshall from Kennett Township, PA purchase Auburn Factory and convert it to the manufacture of rag paper which is then sold to multiple companies in Wilmington, Newport, and Newark, DE for conversion into vulcanized fibre. Around 1902 Israel Marshall starts developing and subsequently patents in 1906 a process to manufacture vulcanized fibre continuously (fibre had been made in single sheets up until Israel's invention).</p> <div style="text-align: center;">  </div> <p>B&O #2037 shifting box cars at National Vulcanized Fibre Company in Yorklyn, DE on April 25, 1941. The Gun Club Road grade crossing is a private lane to company owned homes for mill supervisors and the Marshall's Yorklyn Gun Club off to the right, out of view in this photo. In the background is the #1 Fibre Mill which is the first building constructed on the site in 1906 after Israel and Elwood Marshall developed and patented the continuous vulcanized fibre manufacturing process. The #1 Fibre Mill's product was finished vulcanized fibre so box cars would arrive empty to be filled with pallets of fibre being shipped out. William E. Grant photo.</p> <p>Desiring to expand into continuous vulcanized fibre manufacture, Israel and Elwood Marshall purchase the 122-acre T. W. Ferree property along the Red Clay Creek opposite the Garrett Snuff Mills in what is now known as Yorklyn (name of the area changed from Auburn to Yorklyn after the Wilmington & Western Rail Road Company placed one of their stations near the snuff mills in 1872). The National Fibre and Insulation Company is formed (December 1904) by the Marshalls to make continuous vulcanized fibre and a fibre mill is constructed across from the B&O's Yorklyn Station in 1906.</p> <p>The National Fibre and Insulation Company expands with additional vulcanized fibre and rag paper lines at Yorklyn and operates a rag paper manufacturing mill (named Marshall and Mitchell Company) at Wooddale (1889 until 1918) where the former Delaware Rolling Mills had been located. National Fibre and Insulation Company buys competitor</p>

50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
2002	12	30	<p>vulcanized fibre companies to further enhance production. In the same time period, with the patented continuous fibre process more efficient and producing a superior product to the batch processes used by competitors, consolidation takes place in the industry. Vulcanized fibre companies in Wilmington, Newport, and Newark consolidate and merge eventually becoming the American Vulcanized Fibre Company of Wilmington, DE.</p> <div style="text-align: center;">  </div> <p>Marshall Brothers Paper Mill in 1958. At lower center is the original Auburn Factory that was expanded multiple times as Marshall Brothers Paper Mill. Across Bengé Road is the original office building for Marshall Brothers and to the right (at right center) is the Insulite Mill where Israel and Elwood Marshall experimented with and later developed the continuous vulcanized fibre process before relocating the equipment to the #1 Fibre Mill. At the top right is Israel Marshall's home, Auburn Heights constructed in 1897. To the left of the mansion is the Carriage House which once served as a Stanley steam car dealership and further right is the Marshall Steam Museum featuring the largest operating collection of Stanley steam Cars. NVF photo.</p> <p>After Israel Marshall's death, his oldest son J. Warren Marshall becomes President of National Fibre & Insulation Company while Israel's youngest son T. Clarence Marshall becomes President of Marshall Brothers Paper Mill. In 1922 the American Vulcanized Fibre Company and National Fibre and Insulation Company merge to form the National Vulcanized Fiber Company. J. Warren Marshall is President until his death in 1953 and during his Presidency National Vulcanized Fibre becomes the premier producer worldwide of vulcanized fibre materials with more than three-quarters market share. In 1965 the company's name is changed to NVF Company.</p> <p>While vulcanized fibre is often cited as the first manmade plastic (Celluloid is the other material) the invention of Bakelite, nylon, polyester, and other manmade plastics strike a blow to the vulcanized fibre industry. In the 1960s corporate leveraged buyout raider</p>

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Y	M	D	Event or Activity
2002	12	30	<p>Victor Posner takes over control of the company and the company's general decline accelerates. In August 1993 after defaulting on \$48 million in bond payments NVF enters bankruptcy. Posner, by the time of NVF bankruptcy, is barred by the Securities and Exchange Commission from ever being an officer or director of a public company. NVF is reorganized however tropical storm Henri's 500-year flood water (which will occur in September 2003) is too much for the fragile company to overcome. A final bankruptcy occurs in 2009 and the company is dissolved.</p> <p>The State of Delaware, in the coming decade, purchases of the remaining NVF Company properties. The Delaware Division of Parks and Recreation, in 2008, designate the area as a Delaware State Park designated as Auburn Heights Preserve. HRCV founder, Thomas C. Marshall, Jr. donates the family's estate, Auburn Heights, to the State of Delaware for inclusion in the park (2008). The original Marshall Brothers Mill office building will serve as the park office and the rag paper mill will be turned into a museum. Thomas C. Marshall, Jr. organizes The Friends of Auburn Heights Preserve, a non-profit organization responsible for the family's unique collection of Stanley steam cars and as a means to tell Marshall family history, vulcanized fibre history, and Yorklyn area history to future generations.</p>
2003	2	22	<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>The Hockessin Arts Festival returns to Hockessin Memorial Hall for a two-day event. Proceeds generated from 27 artists' works support HRCV's continued operation of the Wilmington & Western.</p> <p>A popular activity is the "Festival Express". "The Paul Revere", provides hourly Hockessin to Ashland excursions. Mike Ciosek photo.</p> </div> </div>
2003	3	24	HRCV launches a redesigned website including new graphics, updated organizational and equipment information, along with a new "For Volunteers Only" communications section.
2003	6		Based on B&ORR plans dated 1906, a Section Tool Shed is erected by HRCV volunteers at Greenbank Station for the storage of W&WRR's historic track maintenance hand-pumped track car and a mobile lift for use by disabled persons in boarding a "Boonton" coach.
2003	6	22	The North American Railroad Foundation (NARF) agrees to fund replacement of the Marshallton Enginehouse's 40-year old corrugated iron roof. Heavy snows during the 2002-03 winter have caused further damage to the existing aging roof. After the engineering and bidding process, DP Contracting of Wilmington, DE is awarded the contract to replace the roof. Unfortunately, before the roof is replaced in January 2004


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Y	M	D	Event or Activity
			additional damage occurs as a result of an unusually active 2003 hurricane season. In September 2003 hurricane Henri will pause over the Red Clay Valley and not only wreak havoc with the right-of-way but it will flood Marshallton Yard and inflict wind and water damage on Marshallton Enginehouse.
2003	7	1	<p>The National Railway Historical Society and the Railway & Locomotive Historical Society, celebrating the 175th anniversary of the founding of the Baltimore & Ohio Railroad, visit the W&WRR for a trip to Hockessin. #4662, along with #58's consist of two "Boonton" coaches and a caboose, provide the varnish to Hockessin. A pair of former Reading Railroad FP7 locomotives is on display at Greenbank for the special occasion.</p> <div style="border: 1px solid black; padding: 5px; text-align: center;">  <p>"Boonton" coach 601 reconfigured for dining service. August 10, 2015, Barry P. Broyles photo.</p> </div>
2003	9		A fire protection system installed at the former Yorklyn Station, now the Red Clay Valley Museum & Visitor's Center at Greenbank, is functional. The building contains displays related to the Red Clay Valley, Brandywine Springs Park, and the railroad and is a joint effort of the Friends of Brandywine Springs and HRCV.
2003	9	15	Hurricane Henri, now a tropical storm when it reaches Chester County, PA and New Castle County, DE, stalls for hours over northern Delaware and Southeastern Pennsylvania before moving on. Tropical storm Henri, as it will become known in the area, delivers 500-year plus floods to the Red Clay Valley at a magnitude twice greater than what hurricane Floyd mustered in 1999. The US Geological Survey station on the Red Clay Creek at Wooddale records the creek cresting at 17.61 feet (hurricane Floyd's crest was 13.93 feet). Henri caused the Red Clay Creek to flow at more than 16,000 cubic feet of water per second at Wooddale! Henri would leave its mark as the worst flooding of the Red Clay Creek in the 50-years that HRCV would operate trains along the Landenberg Branch.


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Y	M	D	Event or Activity
2003	9	15	<p>Hurricane Floyd in 1999 had forced the replacement of the trestles at Greenbank (6C) and Brandywine Springs (6G) and their redesign and construction withstands Henri's wrath and survive reasonably unscathed. Quite the opposite is the case for the remaining portion of the railroad.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p style="text-align: center;">USGS Streamflow data for the Red Clay Creek. USGS plot.</p> </div> <p>Eight miles of 10.2 miles of the Landenberg Branch experience moderate to severe washouts leaving track in some areas twisted and contorted on the ground or suspended over the new banks of the Red Clay Creek. The six remaining timber trestles are either destroyed or damaged beyond reasonable repair. In addition to the railroad's damages, Wooddale Covered Bridge is destroyed and Ashland Covered Bridge is severely damaged.</p> <p>While water covered the rails at Greenbank and was 4" over the floor of the station, neither Greenbank Station nor the former Yorklyn Station (now the Red Clay Valley Museum & Visitor's Center) are damaged. Even the 279-foot right-of-way climb out of the Red Clay Valley along Hockessin Hill saw damage as torrents of rain water from roadways and saturated residential yards raced down the right-of-way where the line leaves the Red Clay Valley and climbs over a knoll into the Hockessin Valley.</p> <p>Initial estimates place the damage at \$5.9-million to repair; higher if all trestles must be replaced with a design similar to 6C/6G. Assessing the</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>Trestle 7A, known as the Hercules Trestle, is twenty feet from where it is supposed to be after tropical storm Henri's flood waters receded. 195 feet long, it is the second longest remaining trestle on the railroad. David Ludlow photo.</p> </div>

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Y	M	D	Event or Activity
2003	9	15	damage in the hours after the storm has left the valley, HRCV Directors and volunteers wonder if the line is even repairable. If the ruined line can be repaired, they wonder where the funding might come from. The costs to put the line back in operation are well over the corporate asset value of HRCV even if the organization leverages its tangible assets.
2003	10	2	The Federal Railroad Administration (FRA) witnesses and passes a 200 PSIG hydrostatic pressure test of #98's fully rebuilt boiler. Restoration of the firebox includes a new inside door sheet, new right and left firebox sheets up to the crown sheet, replacement of approximately 25% of the crown sheet (removed to provide access for replacing backhead braces), mud ring repairs, and the replacement of 1118 stay bolts. Boiler work includes new front and rear tube sheets, patching several areas of the boiler shell, as well as installing 258 new flue tubes. A new smoke box is fabricated and riveted in place at the front of the boiler (<i>please see the October 1978 entry for a cross-section drawing of a steam locomotive boiler</i>). Running gear and brake rigging repairs require completion before an initial firing up and testing can commence.
2003	10	18	HRCV begins limited W&WRR operations with trains running between Brandywine Springs and the Landenberg Junction interchange with CSX Transportation. Stops for guided tours at Marshallton Enginehouse and Yard along with Brandywine Springs are offered.
2003	10	22	<div style="text-align: center;">  </div> <p style="text-align: center;">Trestle 12B, the S-trestle near Yorklyn, a couple of days after being washed downstream by tropical storm Henri's flood waters. University of Delaware Water Resources photo.</p> <p>The HRCV Board of Directors meet and assess tropical storm Henri damage reports and rebuilding estimates. They screen responses from individuals and corporations pledging</p>

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Y	M	D	Event or Activity
2003	10	22	<p>support related to the rebuilding of the Landenberg Branch and the desire to return steam passenger service to the Red Clay Valley.</p> <p>The Board votes unanimously to rebuild the railroad based on financial support pledged by the Federal Emergency Management Agency (FEMA), the Delaware Emergency Management Agency, the Delaware Department of Transportation, Delaware Historic Preservation Office, New Castle County Parks Department, and numerous foundations, businesses, and individuals. An 18-month window is defined for completion of the restoration and to have the full length of the Landenberg Branch available for routine railroad operations.</p>
2004	1	1	<p>A new roof is applied to Marshallton Enginehouse reversing the damage inflicted by tropical storm Henri and the heavy snows during the winter of 2002-03.</p>
2004	6		<p>Edwards & Kelsey Incorporated (now part of Jacobs Engineering Group, Incorporated) of West Chester, PA is awarded a contract to design and supervise the cleanup of all track and trestle debris resulting from the September 15, 2003 damage done by tropical storm Henri. Funding from the Delaware Department of Emergency Management are applied towards Edwards & Kelsey's contract while Adel Construction is awarded a contract to clean up storm debris and other materials left behind after Henri.</p> <p>Estimates to remove destroyed trestles, collect and properly dispose of twisted and broken timbers, decking, and ties, along with removing general trash deposited by Henri are estimated in excess of \$1-million.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;">  </div> <p>The upstream face of the Iron Truss bridge (11A) at Ashland is left loaded with tree limbs and debris after the flood waters receded. Eyewitness accounts detail that at maximum flooding, raging waters submerged the road bridge at left except for an inch or two of the top of two concrete columns at the west end of the bridge. University of Delaware Water Resources photo.</p>

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Y	M	D	Event or Activity
2004	6	24	New Castle County Council presents HRCV with a \$300,000 grant for reconstruction of trestles and right-of-way destroyed by tropical storm Henri. Both #98 and #58 are displayed at Greenbank Station for the ceremony; the first time both engines have been at Greenbank in over two years.
2004	9	28	<p>Tropical storm Jeanne creates localized flooding in the Cedars and Brandywine Springs area forcing Hyde Run, a tributary of Red Clay Creek, to overflow its banks and wash out several hundred feet of track to either side of Hyde Run Crossing (bridge 6E). Already saddled with continuing cleanup and repair efforts from tropical storm Henri, HRCV volunteers make the necessary repairs to keep the line operating.</p> <p>Jeanne leaves its mark as the 2nd worst flooding of the Red Clay Creek in the 50-years that HRCV operates trains along the Landenberg Branch. With a once in 50 to 75-year probability, Jeanne caused the Red Clay Creek to flow at 8,280 cubic feet of water per second at Wooddale where the Delaware Geological Survey maintains a monitoring station (Henri had topped 16,000 cubic feet per second – a once in 500-years storm event)!</p>
2004	10	16	<p>The "Steam Meets Steam" celebration over four operating days (10/16, 10/17, 10/30, 10/31) celebrates the return of 95-year old #98 to steam passenger service on the W&WRR after a half-million-dollar restoration effort. With the line west of Brandywine Springs out of service due to tropical storm Henri, W&WRR trains operate from Greenbank to Landenberg Junction interchange and to Brandywine Springs every half hour for each of the four operating days. Both #98 and #58 operate on October 30th when a ceremony is held at Greenbank Station to recognize New Castle County Council for their support and partial funding of #98's restoration.</p> <p style="text-align: center;">A very popular excursion on the Wilmington & Western is the July 4th evening trip to enjoy Hockessin's Fireworks Display in Swift Park. Trains leave Greenbank for the trip to Hockessin and arrive just before fireworks begin. At the end of the thirty-minute display the train returns to Greenbank on occasion simply lit with antique kerosene railroad lanterns. For several years after Henri and Floyd washed out parts of the line west of Greenbank, the annual trip wasn't possible. Pictured on June 30, 2015 is #98 all decked out in preparation for the upcoming July 4th holiday excursions. Cristian Sanchez photo.</p>




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Y	M	D	Event or Activity
2004	11	6	The Tourist Railway Association Incorporated (TRAIN) recognizes HRCV at their annual convention for the preservation and restoration of #98.
2005	2	21	The two-day Third Annual Hockessin Arts Festival benefiting HRCV is held at Hockessin Fire Hall. 1,500 supporters visit the art show and support HRCV through purchasing works from 25 artists. Artwork presented by local and regional artisans include collages, abstractions, wildlife, equestrian, nostalgia, sports, folk, sculpture, art tiles and mosaics, fine jewelry, glass, birdhouses, contemporary, kinetic sculpture, and a lot more.
2005	8		<p>The Delaware Department of Transportation (DelDOT) issues an archaeological and geomorphological investigative report on Wooddale Covered Bridge (Road Bridge 1-127). The bridge, initially constructed around 1850, was washed away during tropical storm Henri. The Towne Truss constructed wooden bridge is one of two examples which remain in Delaware (the other being Ashland Covered Bridge) of the design used for most of the wooden bridges in New Castle County</p> <p>While it had numerous repairs since its original construction and was substantially rebuilt in 1939, it will now need replacement. To support heavier traffic, steel beams had been added under the deck in 1981. HRCV was instrumental in having the bridge listed on the National Register of Historic Places, along with the Ashland Covered Bridge on April 11, 1973.</p> <p>After being washed away shortly after 10 AM on September 15, 2003, a temporary steel Acrow bridge was installed by the Delaware Department of Transportation allowing Wooddale families access over the Red Clay Creek. The temporary bridge allows DelDOT time to decide how to proceed with both historic covered bridges. DelDOT will ultimately decide to repair Ashland Covered Bridge and replace the washed away Wooddale Covered Bridge.</p> <div style="text-align: center;">  </div> <p>Wooddale Covered Bridge on October 19, 1895 when amateur photographer Charles S. Philips rode his bicycle along the Landenberg Branch of the B&O Railroad and captured images of the line 23 years after it was constructed. Chester County Historical Society glass negative.</p>


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Y	M	D	Event or Activity
2005	9	11	Members of NARCOA demonstrate maintenance of way track cars at Greenbank Station including inviting visitors to take a turn at pumping the W&WRR hand car.
2005	9	17	#98, combine #410, and a caboose travel to Wilmington's Amtrak Station for Delaware's annual "River Fest" (formerly "Transportation Day").
2005	9	22	HRCV holds what is intended to be an annual event; a Volunteer Picnic at Greenbank Station. Hosted by HRCV Directors, the event seeks to thank all active volunteers and their families for their yeoman dedication throughout the year. The event's emphasis this year is thanking volunteers who pitched in and helped the organization recover from tropical storm Henri along with operating W&WRR's trains.
2005	12	1	<div style="border: 1px solid black; padding: 10px; margin-bottom: 10px;">  <p>On September 17, 2003, two days after tropical storm Henri subjected the Red Clay Valley to a 500-year probability storm, damage to the Landenberg Branch is becoming more evident as the Red Clay Creek returns to more peaceful levels. Trestle 10A east of Mt Cuba Picnic Grove is typical of the devastation caused to the railroad. The ties and track, still a rigid unit hanging across the creek, is now displaced twenty feet from where it once crossed over the creek supported on the stone foundations resting on the creek bed. Along the bank of the creek are the pair of four-ply beams that supported the track and ties over the creek. The bents are crushed masses under the beams. As part of the restoration effort those materials that can be salvaged and reused in the rebuilding effort are removed from the creek. What cannot be reused is removed along with all tree limbs and other debris to a landfill. David Ludlow photo.</p> </div> <p>HRCV opens and reviews multiple bids for the reconstruction of trestles 7A, 8A, 8B, 10A, 10C, and 12B as well as a repair to trestle 6G. URS Engineers, Incorporated (now part of Aecom of San Francisco, CA) designs each replacement steel trestle similar in appearance to the original timber trestles. Matching the steel trestle design used at Greenbank (6C) and Brandywine Springs (6G), the replacements will be anchored to the bedrock below the</p>


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Y	M	D	Event or Activity
2005	12	1	creek using pilings and concrete slabs on the creek bottom. R.E. Pierson of Woodstown, NJ is contracted to construct and install the replacement steel trestles using the same "weathering steel" selected for trestles 6C and 6G which survived tropical storm Henri's wrath. Railroad Constructors Corporation is awarded the contract to realign the track on the entire line while securing the ballast under the track.
2006	2	25	The two-day Fifth Annual Hockessin Arts Festival benefiting HRCV is held at Hockessin Fire Station.
2006	4		Coach 6795 is pulled from storage, and prepared for restoration by HRCV volunteers. The car is to enter dining service so some of the car's original seating is removed to allow space for tables. Once completed the car will allow HRCV to offer dining service for charters and special events.
2006	4	30	The restoration of Brandywine Springs Trestle (6G) abutment walls is complete. While the steel trestle and railroad deck structure across the creek survived tropical storm Henri's wrath without damage, rushing water scoured the dirt bank from behind the concrete and stone abutment walls. Once repaired, trains are able to cross steel trestle 6G and travel through Brookmeade II & III to Hercules Trestle (7A). The wooden trestle 7A washed away during Henri and is the first trestle undergoing reconstruction with concrete piers resting on bedrock and steel supports and beams similar to trestles 6C and 6G.
2006	5	29	HRCV celebrates 40 years of operation of the W&WRR on the B&O's former Landenberg Branch with a ceremony at Greenbank Station.
2006	6	28	<div style="display: flex; align-items: flex-start;"> <div style="flex: 1;">  <p style="text-align: center;">Under construction, Hercules trestle 7A withstands the flooding from the June 24-28, 2006 storms. With tropic storm Henri having destroyed all of the remaining wooden trestles on the line including 7A, any creek debris upstream found an unobstructed path to trestle 7A under construction across the creek. The accumulation was cleared and the undamaged trestle was completed and in use by early September. Tom Gears photo</p> </div> <div style="flex: 2; padding-left: 10px;"> <p>June had been a rainy month and it ended with the 5th worst flooding of the Red Clay Creek in the 50-years that HRCV operates trains along the Landenberg Branch through 2015.</p> <p>Heavy rains began on June 24, 2006 and continued into June 25th, 26th, and 27th saturating the ground in the Delaware River Basin. A minimum of 5-inches of rain fell throughout the area with some isolated areas getting as much as 15-inches. On June 28th the deluge continued with over 6-inches of rain in 24-hours.</p> <p>With the ground well saturated, streams, creeks, and rivers already overflowing their banks, some well into flood stage, the June 28th high rainfall event caused widespread flash flooding. With a once every 25 years probability, the Red Clay Creek flows at 5,490 cubic feet of water per second (Henri had topped 16,000 cubic feet per second – a once in 500-years storm event)!</p> </div> </div>

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Y	M	D	Event or Activity
2006	9	3	W&WRR trains operate across replacement Hercules Trestle 7A after it was totally washed out by tropical storm Henri. Use of trestle 7A allows trains to travel further west to Route 48 - Lancaster Pike (milepost 3.2) while the pair of trestles at Wooddale (trestles 8A & 8B) are undergoing reconstruction. The remaining trestle needed to reach Mt. Cuba Picnic Grove, Mt. Cuba East Trestle (10A) is expected to be completed by the end of the current year.
2006	9	21	HRCV holds the 2nd annual HRCV Volunteers Picnic at Greenbank Station to thank W&WRR volunteers for their hours of service and dedication. Hosted by the HRCV Directors, the event includes special train rides and activities.
2006	11	25	<p>W&WRR Santa Claus trains operate across replacement trestle Wooddale East Trestle 8A and Wooddale West Trestle 8B. Completion of these two trestles and realignment of the track allows consists to reach Mt. Cuba Road. Mt. Cuba East Trestle 10A is expected to be completed by the end of the year. The Mt. Cuba West Trestle 10C and Yorklyn S-trestle 12B are slated to be completed in early 2007 allowing access to Hockessin.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;">  <p style="text-align: center;">At 10AM on September 15, 2003 Wooddale trestle 8A between Lancaster Pike (Route 48) and Wooddale Rock Cut is intact as flood waters rise. Once the ties are submerged the wood's buoyancy lifts the weight off the bents and the trestle is washed away. David Ludlow photo.</p> </div>
2007			During 2007 the W&WRR transports 31,861 passengers as reported on FRA documentation. It is the 2nd highest passenger ridership in the history of HRCV through 2015.
2007	2		The HRCV Board of Directors holds a Strategic Planning Session to determine major projects and objectives the Board desired to accomplish going forward. The top three objectives identified are;

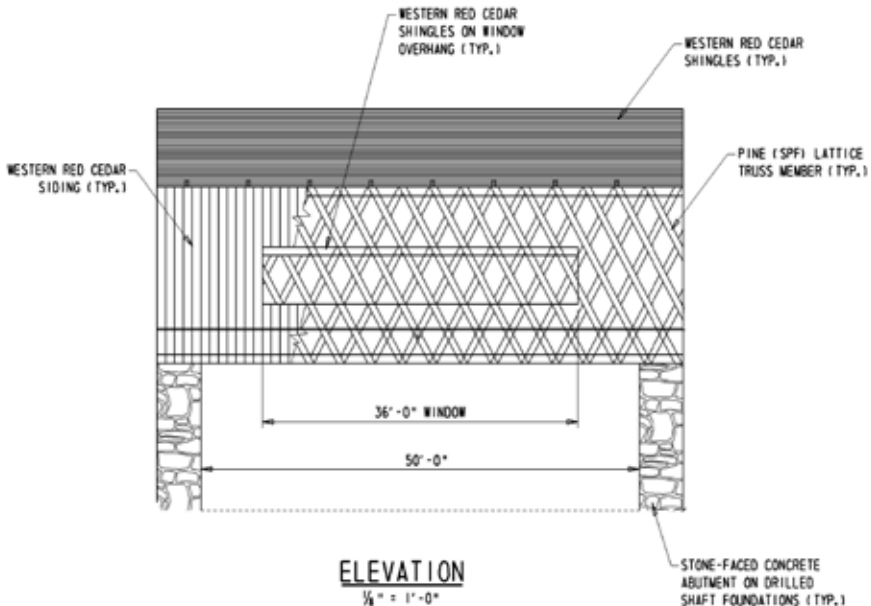
50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
2007	2		<ol style="list-style-type: none"> 1. Supplement, repair, or replace the aging SW1 diesel motive power fleet, in particular #8408 2. Installation of fire suppression systems at Marshallton Enginehouse and Back Shop 3. Create a new office and educational complex at Marshallton
2007	2	24	<p>The two-day Sixth Annual Hockessin Arts Festival benefiting HRCV is held at Hockessin Fire Company's Memorial Hall. Due to ongoing track and trestle restoration, and in particular trestle 12B, the S-trestle still being restored, the Doodlebug excursions to Mt. Cuba are not offered.</p> <p>Items for sale include paintings in all sorts of media, clay and metal sculpture, jewelry, glassware, along with items made from wood, plastics and other materials.</p> <div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>September 19, 2003 in the aftermath of tropical storm Henri, trestle 12B, lies mutilated downstream of the piers that originally supported it crossing the Red Clay Creek at Yorklyn. Trestle 12B, often referred to as the 'S-trestle' due to the 'S' path it takes crossing the creek, has the rails under the ties which are now under the multi-ply beams. Thanks to tropical storm Henri, the term 'S-trestle' sadly takes on a whole new meaning as the wreckage lies in the creek. HRCV archive photo.</p> </div> </div>
2007	2	26	<p>HRCV founder Thomas C. Marshall, Jr. is awarded the state's inaugural Delaware Historic Preservation Award for his efforts related to the formation of Historic Red Clay Valley, Incorporated and the saving of the Landenberg Branch as well as his donation of Auburn Heights to the State of Delaware and for forming The Friends of Auburn Heights Preserve to protect the historical significance Marshall Museum of Stanley Steamers, the largest operating collection of steam cars anywhere.</p>
2007	5		<p>The wood water tank (replaced in 1994) at Greenbank is lifted off its aging timber support deck and placed on the ground. A pump and spray system is set up inside the wooden tank to keep the wooden walls wet so that they do not dry out and shrink. A replacement timber support structure and deck is constructed similar to what had been put in place in 1966. The tank, returned to a new tower and deck, was once again filling Wilmington & Western locomotive cisterns in June.</p> <p>The water tank at Greenbank was constructed by the Hall-Woolford Wood Tank Company of Philadelphia, PA. In January 1966 Hall-Woolford constructed the 12' high tower, the 9,000 gallon, 12' diameter, Alaskan White Cedar tank with conical roof and supplied the steel access ladder, 8" tapered spout and counterweight system, flapper dump-valve in the tank's bottom, and fill valve mechanism. In May 1994 the tank was replaced with a</p>


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Y	M	D	Event or Activity
			slightly smaller 6,700-gallon tank (same diameter but two feet shorter in height) sitting on the original tower.
2007	5	6	With two steam locomotives available, "Pufferbelly Day" celebrates both #98 and #58 operating together on the line for the first time.
2007	5	30	<p>Yorklyn S-trestle 12B is completed by bridge contractor R.E. Pierson of Woodbury, NJ. All Landenberg Branch trestle activity is now complete between Greenbank and Hockessin. With the washed out track sections along the banks now ballasted as well, trains are able to travel the full length of the railroad.</p> <p>All Landenberg Branch trestles are now constructed of "weathering steel" and architecturally represent the wooden trestles employed by the original railroad and maintained by the B&O. The use of weathering steel means there is no future need to have to paint the steel and thus protect the creek's ecosystems from damage during the painting process.</p> <p>Instead of large timber flats resting on the creek bed, 36" concrete and steel piles drilled down to bedrock support new concrete islands on the creek bed. With fewer supports (bents) in the creek, there is less opportunity for trees, branches, and other debris to build against the supports and damage the structure during severe tropical storms (known as nor'easter storms because of the direction of the winds during the storm) and hurricanes occasionally visiting the Red Clay Valley.</p>
2007	6	27	HRCV privately celebrates the reopening of the Landenberg Branch with a special on-board dinner train traveling to the end of the branch. HRCV guests, directors, staff, and volunteers marked the event with a photograph of HRCV's Directors in period dress at Mt. Cuba Rock Cut reprising an 1873 photograph taken shortly after the original railroad began operations.
2007	6	28	A HRCV celebratory dinner excursion operates to the Back Burner Restaurant in Hockessin marking the first time since September 15, 2003 (tropical storm Henri's visit) that any Wilmington & Western trains could operate from Greenbank Station to the end of line in Hockessin.
2007	6	30	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">  <p>HRCV Executive Director David Ludlow drives a golden spike to celebrate completion of the 3 year, 9-½ month rebuilding of the Landenberg Branch and its reopening between Greenbank and Hockessin. Edward Feathers photo.</p> </div> <div style="width: 50%;"> <p>HRCV celebrates the completion of 3 years, 9 months, 15 days (198 weeks or 1,385 days) of intensive rebuilding of the W&WRR after the effects of tropical storm Henri. Costing \$7.9-million, the official reopening of W&WRR steam passenger service is celebrated with a golden spike ceremony, driven by Executive Director David Ludlow, in Hockessin.</p> <p>A double-headed W&WRR consist takes HRCV dignitaries to the celebration</p> </div> </div>


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Y	M	D	Event or Activity
2007	6	30	<p>site in Hockessin. As part of the celebration, the Delaware House of Representatives of the 144th General Assembly passed House Resolution 31 sponsored by Representative Deborah Hudson that designates the W&WRR as "Delaware's Operating Railroad Museum".</p> <p>Funding for rebuilding the railroad was provided by the Federal Emergency Management Agency (\$5.6 million), the Delaware Emergency Management Agency, the Delaware Department of Transportation (\$2-million) and New Castle County (\$300,000) along with numerous corporate, foundation, and individual financial support.</p>
2007	7	3	<p>The Delaware Department of Transportation completes all archaeological, engineering and environmental studies and releases the bid package for the rebuilding of Wooddale Covered Bridge on Foxhill Lane. HRCV members were active in campaigning to keep the replacement bridge of covered design and supporting the community during the rebuilding project.</p> <div style="display: flex; align-items: center;"> <div style="flex: 1;">  </div> <div style="flex: 1; padding-left: 10px;"> <p style="text-align: center;">Delaware Department of Transportation drawing for the reconstruction of Wooddale Covered Bridge. DelDOT image.</p> </div> </div>
2007	8	13	HRCV celebrates the 25th Anniversary of the purchase of the Landenberg Branch from the Chessie System (formerly the B&ORR).
2007	9	4	Mumford & Miller of Middletown, DE begin reconstruction of the Wooddale Covered Bridge which is estimated to cost \$3.5 million. The new bridge is to be raised five feet higher than the former bridge to reduce the likelihood of being washed out in a future flood. It will be constructed in the Town Truss design typical of the original, however Bongossi Wood will be used for the road deck as it is a much stronger African timber than would have been used originally. The project will also include new foundations to support the bridge and extended loose stone retaining walls to reduce the constant erosion occurring along Rolling Mill Road.
2007	9	16	NARCOA hosts "Speeder Day" providing rides on track maintenance rail cars. Nicknamed "speeders", members invite interested passengers who have taken the W&WRR train to Mt Cuba Picnic Grove to join them for a trip to Hockessin and back.
2007	10	3	HRCV hosts the annual volunteer picnic at Greenbank Station. As part of the event, a "Train to Nowhere" provides passage west to Hockessin for the fall sunset with an after dark return to Greenbank.
2007	11	7	W&WRR hosts the Tourist Railway Association (T.R.A.I.N.) for a double-headed steam trip to Hockessin as part of the organization's convention activities.



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Y	M	D	Event or Activity
2007	11	11	HRCV celebrates the 100th anniversary of the construction of locomotive #58 by the Baldwin Locomotive Works in October 1907. As construction number 31899 for the Atlanta, Birmingham & Atlantic (AB&A) Railroad, the locomotive served during both World Wars and the Korean Conflict. Donated to HRCV by Brian & Linda Woodcock in December 1997, the locomotive is known as "The Veterans Locomotive".
2008			<p>HRCV petitions the Delaware Department of Transportation to transfer to Historic Red Clay Valley a 40-foot by 400-foot stretch of property that was once part of "Railroad Avenue" between the former Marshallton Consolidated School (built in 1932, the school is now the James H. Groves Adult High School which is part of the New Castle County Vo-Tech School District) and HRCV's Marshallton Enginehouse and Yard. In obtaining the property from DelDOT, more planning flexibility is provided for the design of a proposed new office building and education complex.</p> <div style="text-align: center;">  </div> <p>While Autumn Leaf Specials in October are very popular for the railroad, it is the Thanksgiving to New Years' time period when the majority of trains are scheduled. Santa Claus steam trains followed by the Holiday Express Lights "Doodlebug" trips are often sold out. When "Doodlebug" #4662 operated in Maryland at the end of its career of suburban service, it had earned the nickname "The Ruxton Rocket". Operating between Parkton and Baltimore it was known to cruise at lightning speeds. When mechanical difficulties arose it was retired from service in April or May of 1959. That nickname comes to mind in the thirty-second exposure of #4662, decorated for the 2012 holiday season, as it gently glides across the Barley Mill Road grade crossing with all seats occupied on the last run of the evening of December 30, 2012. Lukas Fols photo.</p>
2008	2	23	The two-day seventh annual Hockessin Arts Festival benefiting HRCV draws 1,217 visitors with proceeds benefiting HRCV. With the railroad now rebuilt between Greenbank and Hockessin the "Festival Express" operates during the Art Festival for the first time in several years. Hourly trips operating between Hockessin and Mt. Cuba Picnic Grove are available for festival attendees.



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Y	M	D	Event or Activity
2008	6		<div style="text-align: center;">  </div> <p>The Wilmington & Western Railroad may be the only steam railroad where steam locomotives are met at grade crossings by steam cars. Pictured is editor Robert E. Wilhelm, Jr's 1918 Model 735 Stanley 7-passenger touring steam car. Rated at 20-horsepower, the Stanley meets #98 at Barley Mill Road on June 30, 2007. HRCV founder Thomas C. Marshall, Jr. and Wilmington & Western Mechanical Superintendent Steve Jensen both drive Stanleys so it is not uncommon for #98 or #58 to be photographed alongside a Stanley steamer. Mitch Goldman photo.</p> <p>A dry-pipe fire suppression system is added to the Marshallton Enginehouse and Back Shop buildings.</p> <p>While the Marshallton Back Shop is heated, the Marshallton Enginehouse is not. Additionally, the Back Shop building's heat is significantly lowered during weekends when the railroad mechanical crew is not working. With the large overhead door open, the interior of the building can cool rapidly when "artic winter blasts" visit northern Delaware.</p> <p>A dry-pipe fire suppression system has the distribution piping to the sprinkler heads pressurized with air. There is no water in the system to freeze. In the event of a fire, when a sprinkler head senses a temperature rise, the sprinkler head valve opens quickly releasing the air-pressure in the piping system and allowing water to flow to the sprinkler head and douse the fire.</p>

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Y	M	D	Event or Activity
2008	6	1	Gisela Vazquez publishes " <u>The Wilmington & Western Railroad</u> ", a book in the "Images of Rail" series by Arcadia Publishing. The book's 128 pages are a photographic history of the Landenberg Branch through images which include a detailed description. Many of the 219 images included in the book have never been published before. The book covers the time period of the railroad's opening in 1872 through its reopening in 2007 after tropical storm Henri devastated the line in late 2003.
2008	6	7	Public Broadcasting Station television crews associated with the "Tracks Ahead" program spend two days filming the W&WRR for the magazine-series. The segment is planned for release during the 7th season of the series in late 2008 or early 2009. The show, hosted by Spencer Christian, examines many aspects of railroads, trains and their infrastructure.
2008	8	31	<div style="display: flex; align-items: flex-start;"> <div style="flex: 1;"> <p>#58 returns to service for a "Pufferbelly Day" joining #98 for the day's trips on the Landenberg Branch. #58, having just undergone replacement of 250 flue tubes (due to age), and other routine steam locomotive maintenance and examinations, is now mechanically fit to operate until November 2013. The FRA requires all steam locomotives have their boilers ultrasound tested and other required inspections performed every 1,472 operating days.</p> </div> <div style="flex: 1;">  <p>#98 and #58 heading up the Landenberg Branch at Faulkland on May 6, 2012 for Pufferbelly Day. Steve Panopoulos photo.</p> </div> </div>
2008	9	13	<div style="display: flex; align-items: flex-start;"> <div style="flex: 1;">  <p>Leased SW-900 #915 at Greenbank Station during its evaluation period. Steve Panopoulos photo.</p> </div> <div style="flex: 1;"> <p>HRCV takes delivery of a leased EMD SW-900 switching locomotive, #915, for a evaluation period. Leased from Everett Railroad of Blair & Bedford Counties, PA, #915 will be evaluated for use on the Landenberg Branch. Built in January 1956 and rated at 900 horsepower, HRCV will repaint the engine from green and gray to light and dark blue. After an extended evaluation, HRCV ultimately decides that #915 was not cost-effective for Landenberg Branch and W&WRR use.</p> </div> </div>
2008	10		Planning and design continues for the construction of a new office and educational complex at Marshallton. Financial support from several foundations is received for the project as fundraising continues.

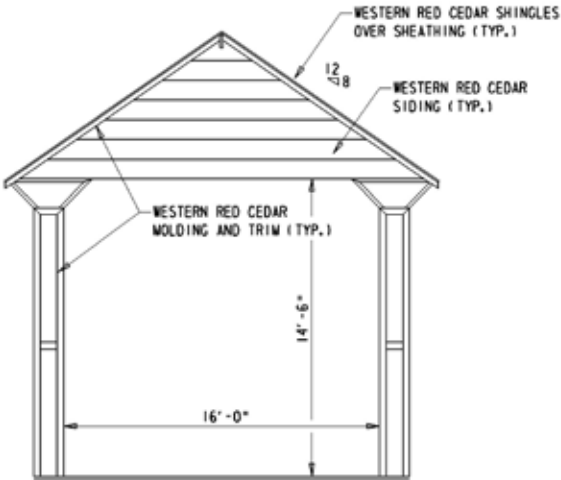
50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
2008	10	23	<div style="display: flex; justify-content: space-between;"> <div style="width: 65%;">  <p>Wooddale Covered Bridge under construction after the truss framework is placed on the stone abutments. October 24, 2008, DeIDOT photo.</p> </div> <div style="width: 30%; padding-left: 10px;"> <p>The Wooddale Covered Bridge's truss framework, constructed of pine lattice with Bongossi Wood deck, is lowered onto the new bridge abutments. The framework, resembling a square box 60+ feet long will have wooden roof trusses installed along with western red cedar shake roofing and the sides covered with western red cedar barn planking to finish the project.</p> </div> </div> <p>Covered bridge design is based on the use of wooden trusses. The Wooddale Covered Bridge (as well as the Ashland Covered Bridge) employs a truss design known as a 'Town Truss'. The Town Truss was invented in 1820 by Ithiel Town. Town truss bridges are characterized by their cross-hatched wooden sides secured with wooden pins at each 'X' joint. Ithiel's design is known for its rigidity and strength in supporting very large loads relative to the size of the bridge.</p> <p>Inexpensive and simple to build, this truss design was used on spans reaching up to 200 feet in length. The Wooddale bridge spans approximately 60 feet as it crosses the Red Clay Creek at Wooddale.</p> <p>There are often misconceptions why a bridge was covered. Some suggest that they were covered to benefit water-shy horses. Others suggest the covering provided refuge during a quick</p> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="width: 65%;">  <p>Interior of the reconstructed Wooddale Covered Bridge showing the Towne Truss design of pine lattice truss members. DeIDOT photo.</p> </div> </div>

50-year Timeline of the Wilmington & Western

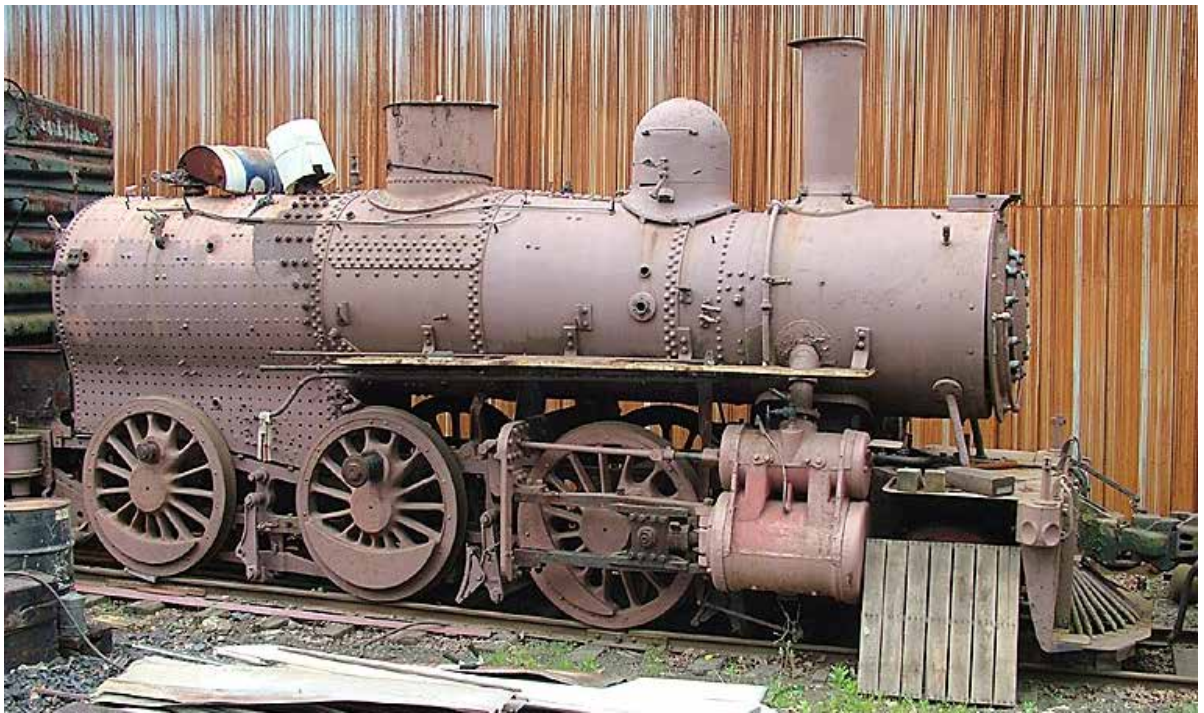
Y	M	D	Event or Activity
2008	10	23	<p>spring shower or keeps the snow from freezing to the deck. Because truss bridges were covered they provided an ideal location for advertising. The reason for covering the bridge is related to the design of the bridges.</p> <p>At each joint in a bridge's truss, the wooden truss members are joined using wooden trunnels (tree nails). In later bridges, the trunnels were replaced with iron bolts. If these joints are exposed to the weather, water may enter the joint. The water not only causes the wood to swell and later shrink as it dries out, in winter the freezing water can actually split the wood. With the constant expansion and contraction of the wood, the truss joints become weakened over time.</p> <p>Under load the trunnels work loose due to the vibration of passing loads. In about ten to fifteen years, depending on weather, load, length of the span, type of truss design, and the lumber used, an uncovered bridge's joints begin to fail. With a sufficient quantity of joint failures, the bridge will collapse when supporting a heaving load crossing it. By covering the sides and tops of a wooden bridge, water is kept from the joints and the life of the bridge greatly extended. Even chemical preservation of the wood with materials such as creosote does not extend the life of a wooden bridge. There are wooden bridges that were constructed in the mid-1800's that survive today to carry modern traffic, because they were covered.</p>
2008	10	26	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">  <p>An out of service Lackawanna "Phoebe Snow" boxcar on a siding at Steamtown National Historic Site near Scranton, PA on September 1, 2013. Lukas Fols photo.</p> </div> <div style="width: 50%;"> <p>As part of the annual Halloween Express trains, the Delaware, Lackawanna, and Western Railroad's Phoebe Snow character is recreated by an HRCV volunteer in period dress. The character has not been seen for 40+ years.</p> <p>HRCV's Phoebe also put in an appearance at the Veterans Day trains on November 9, 2008 and the Santa Claus Express trains in late November and early December.</p> <p>The appearance is in recognition of the fact that the Wilmington & Western's "Boonton" coaches</p> </div> </div> <p>were originally purchased by the DL&WRR. Careful examination of the trucks under the coaches will reveal the DL&WRR embossing on the truck castings.</p> <p>The DL&WRR, known as "The Road of Anthracite", burned anthracite coal instead of the bituminous coal most railroads used. Anthracite burns hotter and cleaner but requires a different firebox and boiler design, called a Wootten Firebox, for the efficient burning of anthracite coals. Wootten Firebox design is wider than that employed with bituminous coal burning locomotive boilers (boilers with Belpaire Fireboxes) as an anthracite coal bed needs to be kept thin and spread over a wider area than a bituminous coal bed for equivalent heating. The DL&WRR developed an advertising campaign around a Victorian</p>

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Y	M	D	Event or Activity	
			dressed "Miss Phoebe Snow", a young lady in flowing white dress to punctuate the cleanliness of anthracite. The W&WRR uses a coal blend to keep down stack smoke as the train travels the Red Clay Valley.	
2008	11	25	<p>HRCV founder Thomas C. Marshall, Jr. and his wife Ruth Pierson Marshall commit to donating Auburn Heights' mansion and the surrounding 4-acres to the State for inclusion in Auburn Heights Preserve. The Marshall's will remain residents of Auburn Heights for several more years. Included in the donation is an agreement with the State of Delaware for the Friends of Auburn Heights Preserve, which own the Marshall collection of Stanley steam cars and the Auburn Valley Railroad, to continue to use the Marshall Steam Museum building to house the steam car collection as well as continued use of the Carriage House for the organization's office and maintenance facility to support car collection.</p> <p>Since the initial land purchases in 2002, the State of Delaware has added to the Auburn Heights Preserve property. An easement with The Nature Conservancy (2003) and eventually an agreement to purchase the nearby Oversee Farm property (donated by Eleanor Marshall Reynolds, aunt of Thomas C. Marshall, Jr. to The Nature Conservancy in 2003 and purchased by the State of Delaware in December 2006) add an additional 125 acres to the Preserve. Several NVF Company factory buildings will be repurposed by Auburn Village, LLC with the land around them providing additional easements and acreage for the Preserve bringing the total to approximately 380 acres of open space.</p>	
2008	12	15	<p>DelDOT officially reopens Wooddale Covered Bridge on Foxhill Lane (traffic has been using the bridge since the end of November 2008). Originally constructed across the Red Clay Creek in 1850, the Town Lattice Truss bridge was washed from its footings shortly after 10AM on September 15, 2003 from flooding associated with tropical storm Henri. \$3.374 million was spent to construct the replica replacement bridge of the same character as the original. To guard against future flooding, the replacement bridge is elevated 5-feet higher than the original, the road deck is constructed of Bongossi Wood, and the bridge's abutments are better anchored and protected by stone blankets formed along the creek's banks.</p>	
2008	12	31	2008 marks the end to scheduled shipments handled by WWRC on the Landenberg Branch. Delaware Brick Company, feeling the effects of the recession on the housing and construction industries, changes to on-demand rail shipments for very large orders. With limited brick and block sales due to the housing recession, smaller shipments are moved by motor freight more economically than by rail. By 2012 Delaware Brick Company will eliminate all shipments by railcar.	
2009	2	20	The three-day Eighth Annual Hockessin Arts Festival benefiting HRCV/W&WRR is held. 28 regional artists provide displays for over 1,000 who attend. #4662 provides round-trip excursions to Ashland.	

Wooddale Covered Bridge end detail. DelDOT image.

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Y	M	D	Event or Activity
2009	5	17	HRCV celebrates #98 providing 100 years of steam service. Built by the American Locomotive Company of Schenectady, NY, in January 1909 (construction #45921). #98 pulled passenger coaches on the Mississippi Central Railroad between Hattiesburg and Natchez MS before being retired in December 1944. Paulsen Spence purchased #98 in 1947 for the Comite Southern, and later the Louisiana Eastern. T. Clarence Marshall and Thomas C. Marshall, Jr. purchased locomotive #98 at the scrap value price. Donated to HRCV in December 1977 by Thomas C. Marshall, Jr., #98 is named for him in honor of his 50-years of support and financial generosity to HRCV. The event was marked with the Pufferbelly Express, #98 taking the lead, to Hockessin.
2009	8	16	HRCV operates Pufferbelly Express trains with both #98 and #58 sharing motive power duties together for the day.
			<p>HRCV volunteers visit the National Archives in Washington, DC to review Interstate Commerce Commission documents and photographs related to the B&O's Landenberg Branch valuation. A second trip in October 2009 would reveal much new information about the early years of the railroad, its operation, and physical state.</p> <p>In the early 1900s the Interstate Commerce Commission (ICC) working with Congress had put in place a number of acts of legislation which controlled how railroads operated. One of the areas the ICC regulated was the setting of tariffs and rates. The Valuation Act of 1913 empowered the Commission to undertake a valuation of all property belonging to each of the nation's railroads. Once a railroad's valuation was completed, the ICC's Bureau of Valuation determined appropriate passenger and freight rates and tariffs that the railroad could charge.</p>
2009	9	21	<div style="text-align: center;">  </div> <p>#92 sits patiently on May 16, 2005 for a future opportunity to return to pulling the "Boonton" coaches it once served on another Landenberg Branch excursion. Andrew Blaszyk photo.</p>
			<p>The ICC directed the railroads to produce detailed maps for all of their tracks, sidings, and such along with detailed information on the construction of trestles, bridges, and other structures on their right-of-ways. Railroads were also required to inventory</p>


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			everything in their possession and they were required to provide financial records as well. Much of this information is retained in the National Archives and in reports issued by the ICC and the individual railroads.
2009	10		<p>A group of HRCV volunteers begin work on designing a replica B&ORR "Flag Stop" waiting shed. The shed is to be constructed at the western end of Greenbank Station's parking area and will cover the Garrett Snuff Mill rail car.</p> <p>In addition to the major station buildings along the branch, the original W&WRR included flag stops at Brandywine Springs, Route 82 west crossing, and Valley Road crossing in Delaware. In Pennsylvania the flag stops were at Eden just over the DE/PA state line and at Broad Run. These flag stops would have served Wilmington & Western, Delaware Western, and B&O passengers until September 28, 1930.</p>
2009	10	23	<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>HRCV volunteers and authors Gisela Vasquez (right) and Mary Simons (left) become the first all-female, scheduled, engine crew for a W&WRR train. Serving as engineer and diesel brakeman (the diesel brakeman is the equivalent of the fireman for a steam locomotive) respectively, both ladies operated #114 for the Hayride Express train. Both are published authors of books related to the W&WRR.</p> </div> </div> <p>Volunteers Mary Simons (left) and Giesla Vasquez (right) in the cab of #114 before the evening's Hayride Express train. Mike Ciosek photo.</p>
2009	11	5	<p>Delaware Department of Natural Resources & Environmental Control (DNREC) issues a press release that 315 acres surrounding and including the Marshall Estate (built in 1896 by Israel Way Marshall, HRCV founder Thomas C. Marshall, Jr's grandfather) and including the former NVF Company property will be designated as Auburn Heights Preserve, a new Delaware State Park.</p> <p>Most of the buildings of the former NVF Company will be razed as part of a massive environmental cleanup in preparation for a series of trails and other recreational facilities. Some buildings remain in serviceable condition will be repurposed by a commercial developer. A series of trails throughout the Preserve is planned eventually connecting with trails belonging to the Land Conservancy for Southern Chester County and to trails around Ashland Nature Center and Oversee Farm.</p> <p>As part of a long term vision, a potential W&WRR railroad station with turntable is depicted on prospectus maps suggesting HRCV might wish to develop a station complex and operate trains eastbound to Mt. Cuba or Greenbank as well as westward to Hockessin.</p>


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Y	M	D	Event or Activity
2010	1	23	<p>#37 is moved from the sidings at NVF to Marshallton for transfer to the Strasburg Rail Road where it will undergo boiler restoration before being moved to the Timber Heritage Association in Eureka, CA. Locomotive #37 worked in the Sierras hauling sugar pine from 1925 to 1935 for the Sugar Pine Lumber Company before being sold to Pacific Lumber Company where it hauled redwood until 1956.</p>  <p style="text-align: center;">Former Sugar Pine Lumber Company #4 and Pacific Lumber Company #37 on a Strasburg Rail Road siding awaiting major boiler repairs and overall restoration on October 31, 2015. Steve Panopoulos.</p>
2010	2	13	<p>In a rare occurrence reminiscent of its service on the Lehigh Valley Railroad, #114 performs the duty of a snow plow to clear the line from Marshallton to Hockessin so that the annual Valentine's Day Dinner Train can operate.</p> <p>On February 5th & 6th "Snowmageddon" was a Category 3 nor'easter delivering 26.5 inches of snow on New Castle County. On February 9th & 10th a second Category 2 snow event termed an "Alberta Clipper" deposited an additional 12.8 inches of snow in New Castle County. #114 was carefully run up the line with a make-shift snow plow attached to the front of the locomotive to clear the grade crossings and the line of snow. The operation of #114 light (no attached coaches) also permitted the inspection of the line for downed trees or other obstacles and hazards in preparation for the dinner train later in the day.</p>
2010	2	26	<p>The three-day ninth annual Hockessin Arts Festival benefiting HRCV is held at Hockessin Memorial Hall.</p>
2010	5	12	<p>The HRCV Board agrees to fund a new HRCV Office & Education Building in Marshallton.</p> <p>Meetings with McHugh Locomotive & Equipment Company review a project that will totally restore B&O/Chessie System #8408, the W&WRR's workhorse vintage EMD SW1 locomotive purchased with the branch line in 1982. When completed the engine is painted to match early B&O livery of "B&O Blue" and Golden Yellow in the same font style that the B&O employed and will retain its "8408" numerical designation.</p> <p>The multi-year restoration is anticipated to begin in the Fall 2010 and will include the replacement of the EMD 567 engine block with an EMD 567C block. The block upgrade allows the use of antifreeze in the cooling system among other enhancements (like #114, #8408 will still have a circulating coolant heating system for winter operation, as it makes the diesel engine easier to start on frigid mornings in the unheated enginehouse). The</p>


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2010	5	12	<p>main and auxiliary generators are to be rebuilt, wiring throughout the locomotive replaced, traction motors rebuilt, rusted body and frame structural supports and steel body panels restored or replaced, air compressor rebuilt, brake stand rebuilt, brake rigging rebuilt, among other much needed restorative activities.</p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;">  <p>Upper photo: The Baltimore & Ohio Railroad's first delivery of SW1 locomotives from General Motors' Electro-Motive Division stopped at Wilsmere Yard. Future Wilmington & Western #8408 is the second engine from the right in the consist. With exception of the road number, the 2016 rebuild of #208 was done with this original delivery appearance in mind. Lower photo: Mikado #4610 in Baltimore Yard with its SW1 string of locomotives. John Dubas B&O Magazine</p> </div> <p>HRCV's restoration intention with #8408 is to return the locomotive to the general appearance that it would have had in the late 1950s through the 1960s as a B&O switching engine in Wilsmere Yard. Similar to restoring an automobile, the engine is to be disassembled as much as logically makes sense so that a restoration might return the engine to near-new condition. As with an automobile, there are things that just do not make sense to change back to "original".</p> <p>An example might be the axle bearings in the trucks which were bronze friction bearings when EMD built the engine but are now modern roller bearings. Returning the bearings to original friction bearings, especially if the engine might operate on the national rail transportation network, does not make sense. A friction bearing's extended journal box may be fabricated to cover the roller bearing thus giving the look of the friction bearing while employing a modern roller bearing behind the faux journal box.</p> <p>While what is behind closed doors and panels and can't be seen is generally of less interest to avid railfans, the colors and livery of a locomotive can stir discussion. For the B&O the enamel paints used were a dark blue and yellow from DuPont Industrial Finished (now Axalta Coating Systems). Paint colors can be problematic to match perfectly. If one had</p>


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Y	M	D	Event or Activity
2010	5	12	<p>the ability to go back to the 1960s and examine a switching yard of B&O rolling stock and motive power, they would see an array of shades and hues of blues and yellows.</p> <p>Paints are mixed in batches from a recipe of pigments and chemicals. No two batches are ever identical especially considering the technology of that era. Add in how a paint is applied, its exposure to the UV rays of the sun, surface preparation and undercoating, and other factors, it becomes easy to understand why variances in color exist even though all are painted “dark blue and yellow”. As paints cure in the weeks after application they may shift in color which further affects what one sees at any given moment in time.</p> <p>Some railfans will use a photo as “proof” that a color is not quite right however one needs to consider the accuracy with which the film negative captured the original color as well as the accuracy of the developing and printing of the negative’s image. “Kodak color” is not going to match “DuPont enamel color” unless a lot of calibrated equipment is used.</p>
2010	8	9	<p>HRCV holds a groundbreaking ceremony for the new Marshallton Office & Education Center. Participating in the ceremony are County Executive Christopher Coons, HRCV President Peter Lane, HRCV Executive Director David Ludow, HRCV past-President Horace Wahl, and Directors Scott Tollefson, Robert Taylor, and John Hentkowski. The anticipated completion date is the fall of 2011. When finished the adjacent home serving as the current HRCV office is to be torn down and replaced with a storage facility for HRCV track equipment and assets.</p> <div style="display: flex; align-items: center;"> <div style="flex: 1;">  </div> <div style="flex: 1; padding-left: 10px;"> <p>The Office and Education Center under construction with a paving machine waiting on a truckload of asphalt. David Ludlow photo.</p> </div> </div> <p>New Castle County Executive Christopher A. Coons presents HRCV with a tribute recognizing 50 years of service to the community and state. The tribute states in part:</p> <p style="padding-left: 40px;">“ . . . Historic Red Clay Valley is the non-profit parent organization of the Wilmington & Western Railroad. The railroad is operated by volunteers who dedicate themselves to the preservation of Delaware’s only steam tourist railroad museum.”</p>
2010	10	22	<p>B&ORR Historical Society members visit the Landenberg Branch including the Yorklyn Station Visitor's Center, Greenbank Station, and Marshallton Yard & Enginehouse. #58,</p>

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Y	M	D	Event or Activity
			several “Boonton” coaches, and the B&O Caboose provide transport for the round trip to Hockessin.
2010	11	12	<p>HRCV holds the 6th annual Veterans Day commemoration. #58, "The Veterans Locomotive" provided motive power for the day's trains. The Call to Colors was played by DMA bugler Donald Wiegner with colors presented by Delaware Military Academy students. Guest speakers included Major General Francis Vavala of the Delaware National Guard, Brian Woodcock, donor of #58, and W&WRR Volunteer Kevin Henker, with keynote speaker State Senator Karen Peterson sharing a poem by Marine Chaplain Father Dennis O'Brien entitled, “The Soldier”.</p> <p>During the Veteran's Day observance, the replica B&O Waiting Shed with restored Snuff Mill Car is dedicated as a memorial to those who have served HRCV over the past 50 years.</p>
2011	3	19	<p>Wilmington’s Amtrak Station is renamed Joseph R. Biden Jr. Railroad Station in honor of the Vice President and former Delaware senator. Wilmington’s Amtrak station is the 12th busiest of all Amtrak stations.</p> <p>Completing a \$37.7-million renovation that started in May 2009 the ceremonies honor Biden’s lifelong support of rail travel. With Biden’s support, Amtrak established their corporate, training, and maintenance facilities in Delaware leading to employment of over 1,100 Delawareans.</p> <p>Biden’s support of HRCV and the Wilmington & Western was instrumental in obtaining federal and state funding in 1999 and 2003 after Red Clay Creek flooding did multi-million dollars of damage to the Landenberg Branch.</p>
			 <p>#915 pulls caboose C146 at Ashland, DE on a brisk January 27, 2013 for a caboose birthday party charter. The EMD SW900, built in January 1956, was delivered painted white with green highlights. By 2010 #915 had been repainted all white, the color it would remain until 2012 when it was painted two shades of blue as shown in this image. The engine leaves HRCV in 2014 for service in Virginia. Lukas Fols photo.</p>
2011	3	25	The three-day Tenth Annual Hockessin Arts Festival benefiting HRCV draws 28 artists to display and sell their work at Hockessin Memorial Hall. While the majority of the artists participating are painters, the show includes a variety of sculptures in different mediums, as well as unique art objects made from uncommon materials. The show includes hourly trips with #4662 to Mt. Cuba from Hockessin.
2011	6	10	The award-winning public television show "Great Scenic Railway Journal" profiles the W&WRR in a 3-day filming event. Trips with #4662 along with #98 and #58 doing Pufferbelly service are featured. The program is scheduled to air in September 2012 on various PBS stations.

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Y	M	D	Event or Activity
2011	8	3	#8408, with cab windows boarded up and all exterior appliances removed, is shipped by the Wilmington & Western Railway Corporation (WWRC) to Norfolk Southern's Morrisville, PA yard via East Penn Railroad. The SW1 is to be moved on its own trucks through Wilsmere Yard to the East Penn Railroad where it is moved over the former Reading Company's Wilmington & Northern tracks to Coatesville, PA. In Coatesville the engine is transferred to Norfolk Southern for delivery to McHugh Locomotive & Equipment Company. Upon delivery McHugh begins a multi-year, frame-up, restoration and rebuilding program estimated to cost at least \$300,000 including a rebuilt diesel engine and all new electrical wiring.
2011	8	14	HRCV holds the second annual SummerFest event at Greenbank Station.
2011	8	27	<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;">  <p>HRCV Executive Director David Ludlow operates the RCC Tie-master track machine replacing ties along a section of track railroad east of Lancaster Pike (Route 48). In the background, the tie crane and tie car place fresh ties alongside the track. The removed ties are reloaded on the tie car for eventual disposal. HRCV archives photo.</p> </div> <div style="width: 35%;"> <p>A Category 2 hurricane, nicknamed "Mean Irene" was forecast to deluge New Castle County with 10-15 inches of rain and wind gusts reaching 80 miles per hour. While the two trestles at Greenbank and Brandywine Springs had withstood more severe storms since they were replaced in 1999-2000 after hurricane Floyd, the remaining steel trestles on the line, replaced in 2003-2006 after tropical storm Henri, only trestle 7A had been subjected to a flash flood situation on June 28, 2006 and none of the new trestles had yet been subjected to a prolonged exposure to Mother Nature's wrath. Irene will leave its mark as the 3rd worst flooding storm of the Red Clay Creek in the 50-years that HRCV would operate trains along the Landenberg Branch.</p> <p>With a once every fifty-years probability, Irene raised the Red Clay Creek to a peak of 12.96 feet above flood stage. At its peak, the Red Clay Creek is flowing at 7,680 cubic feet of water per second (Henri had topped 16,000 cubic feet per second – a once in 500-years storm event!). There would be numerous fallen trees across the tracks but no damage occurred to any trestle. Repair of a few minor washouts and the clearing of fallen trees from the line and against a several trestles was all that was required after Irene left the area. The combination of steel construction (since wood floats, the old trestles were literally floated off their foundations in earlier storms) and fewer bents (vertical supports) in the creek results in less debris collected, which allows the Red Clay to flow unimpeded at the peak of a storm.</p> </div> </div>


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
2011	8	28	HRCV Director and volunteer Mary H. Simons researches and publishes a 72-page paperback titled " Landenberg's Forgotten Railroad: A View of the Past and Present ". The book looks back at the history, past and present, of the Wilmington & Western with a special emphasis on the western terminus of the line at Landenberg, PA.
2011	10	5	#98 provides motive power for a "Boonton" coach excursion carrying Delaware dignitaries to the former NVF (National Vulcanized Fibre) plant at Yorklyn. The Delaware Department of Natural Resources & Environmental Control (DNREC) conducts a press conference to formally announce Auburn Heights Preserve as the newest Delaware State Park. The former NVF site forms the core of the roughly 380-acre Preserve which includes the nearby 125-acre Oversee Farm. HRCV founder Thomas C. Marshall, Jr. and his wife Ruth Pierson Marshall committed to donate Auburn Heights' mansion and the surrounding 4-acres to the State in 2008 for inclusion in Auburn Heights Preserve.
2011	11	11	HRCV holds the 7th annual Veterans Day commemoration. #58, "The Veterans Locomotive" provided motive power for the day's trains. Participating in this years' celebration is the 509th Infantry Battalion of WWII, The Delaware Militia Fife and Drum Corps and Color Guard from the Delaware Military Academy. The keynote speech is provided by New Castle County Councilman Timothy Sheldon.
2012	2	24	The three-day eleventh annual Hockessin Arts Festival benefiting HRCV is held at Hockessin Fire Company's Memorial Hall. #4662 provided "Festival Express" service between Hockessin and Mt. Cuba on an hourly schedule during the Festival.
2012	5	6	HRCV operates "Pufferbelly Day" with #98 leading #58 on the day's trips to Mt Cuba Picnic Grove.
2012	5	6	<p>A former B&ORR semaphore Model 2A signal, manufactured by General Railway Signal Company, from the B&O's Market Street Branch and in storage since its donation to HRCV, is restored through donations and over 500 hours of volunteer labor under the direction of HRCV Director and volunteer Mark Sylvester. A control box at the Greenbank Station ticket counter allows the semaphore to provide demonstration signal service to trains departing from Greenbank Station.</p> <p>The signal provides the following indications;</p> <ul style="list-style-type: none"> • Not illuminated, flag in any position: no ticket agent is on duty • Red illuminated, flag is horizontal: Train is to hold at station awaiting passengers • Yellow illuminated, flag is at 45°: 5-minutes before scheduled departure; passengers should be in their seats • Green illuminated, flag is vertical: Train may depart on Conductor's signal



Greenbank Stations' semaphore signal is typical of over 25,000 units installed on American railroads. Dating from 1917 to 1919 the Greenbank example operated into the 1980s before being removed. August 30, 2015, Cristian Sanchez photo.



50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
			Semaphore signals were developed in England in the 1840s and found extensive use on American railroads from the 1890s until the 1930s. The position and shape of the flag or “marker” (vertical, 45-degrees, horizontal) along with the color (green, yellow, red) of the “roundel” or colored lens over the lamp represents a track condition.
2012	8		Chain-link security fencing is installed around the perimeter of Marshallton Yard & Enginehouse to provide increased protection and security for HRCV property including the Office & Educational building.
2012	8	11	HRCV holds the third annual Summerfest at Greenbank Station.
2012	8	15	#98's tender water cistern and coal bunker is removed from the frame for replacement by Mellingers Machine Shop of Willow Street, PA. After 103 years of service including many patches and repairs in recent years, replacement is necessary. A replacement water cistern and coal bunker matching the 1909 ALCO original (but with imitation rivet heads) is returned in December and placed on restored trucks and tender frame. The replacement cistern and coal bunker allows #98 to return to steam passenger service in April 2013.
2012	10		<p>#8408 continues restoration at McHugh Locomotive & Equipment Company in Fairless Hills, PA. While HRCV might have selected a “B” configuration 567 six-cylinder diesel engine to replace #8408’s original, a rebuilt 567-C engine configuration was selected for longer service life.</p> <p>Additionally, McHugh obtains a ten years younger Pennsylvania Railroad SW1 as a parts locomotive (#9404, serial number: 11198, later ConRail #8564, built August 1950). McHugh harvested #9564 for components in better condition than those on #8408 before scrapping #9564 and donating the proceeds to the #8408 restoration fund. #8408’s restoration is considered the equivalent of a “frame off” automotive restoration and is believed to be the most extensive historic restoration of active service SW1 heritage motive power performed to date.</p>
			
			<p>Rebuilt main generator, two-stroke 567-C prime mover (engine), and 3-cylinder air compressor restored in #8408’s sandblasted frame still in industrial paint primer. October 12, 2013, J.C. McHugh photo.</p>
2012	12	12	<p>The HRCV Board meets in the HRCV Office & Education Building for the first time after occupancy is granted by New Castle County. A spring dedication is planned.</p> <p>Built with energy efficiency and conservation in mind, the building is geothermal heat pump heated and cooled. All rain water drains to a cistern for slow absorption into the ground. The basement includes the HRCV Archives vault and artifact storage. The first floor includes the 30-person education room, kitchenette, and a small display area for</p>



50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
			historical artifacts. Charles S. Philips collection photos are on the walls. The second floor is divided up into several offices and business records storage.
2013	2	1	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">  <p style="text-align: center;">On May 18, 2012 the HRCV Office & Education Center building appears finished in this image with most of the landscaping complete. Much still remains incomplete inside the building (see stickers on windows). Contractors were busy with drywall and painting, trim and moldings, the kitchenette, and bathrooms. Seven months after this photo was taken the HRCV Board would be the first to use the facility. David Ludlow photo.</p> </div> <div style="width: 45%;"> <p>HRCV staff moves from the former one-story ranch house that served as the office and crew quarters since October 1985 into the new HRCV Office & Educational Center. The new building is much more energy efficient with a geothermal heating system, LED lighting, and a rainwater recovery system eliminating any parking area water run-off from going to local streams or storm water drains.</p> <p>Over the next several months HRCV volunteers remove boxes of business documents, photographs, and other archival materials from the house to a new archives room in the Office and Education Center. An area in the basement of the new building</p> </div> </div> <p>has been set up to serve as the HRCV Archives with another room on the first floor to be designated a display museum of HRCV artifacts. Once the former ranch house is empty, all utilities are turned off and the building is prepared for eventual demolition to make room for a storage building complex for the railroad's hy-rail truck and other equipment.</p>
2013	2	22	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>936 visitors attend the twelfth annual Hockessin Art Festival benefiting HRCV and the continued operation of the Wilmington & Western Railroad. The event, held the last weekend in February at Hockessin Fire Company's Memorial Hall raises funds from the sale of artwork, sculpture, and pottery. It is HRCV's largest fund raising event. "The Paul Revere" provides hourly "Festival Express" service between Hockessin and the Ashland - Mt. Cuba area.</p> </div> <div style="width: 45%;">  <p style="text-align: center;">The annual Hockessin Arts Festival is the largest fundraising event for HRCV. 30% of the sales for the three-day event benefit the operation of the railroad. David Ludlow photo.</p> </div> </div>


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
2013	4		<div style="display: flex; align-items: flex-start;">  <div style="margin-left: 10px;"> <p>Restoration activities continue at McHugh Locomotive and Equipment on #8408. Built in 1940, the locomotive was one of 22 purchased by the B&O and it was assigned to the B&O's Wilsmere Yard. Originally designated #208, the B&O renumbered all locomotives in 1956 to a system that identified builder, service, and horsepower making assignments easier. The '8' designates the locomotive as less than 900-horsepower switching, while the '4' indicates an early EMD product. The final two digits '08' were the sequence number from the original order (thus 208 was the 9th engine of the order starting with #200).</p> </div> </div> <p style="text-align: center; margin-top: 10px;"> The four rebuilt DC traction motors for #8408 await installation at McHugh. Each engine truck (one of the two for #8408 sits behind the motors) includes two traction motors. January 13, 2014, J.C. McHugh photo. </p>
2013	6		<p>New Jersey Transit Corporation donates 1,600-plus used railroad ties from their Red River Line in Florence, NJ to HRCV. The ties are used to rebuild the line between mileposts 9.7 and 10.2. Last used in 1987, the half-mile segment of track skirts Hockessin's Swift Memorial Park.</p>
2013	6	9	<div style="display: flex; align-items: flex-start;">  </div> <p>HRCV operates the final "Pufferbelly Day" for several years with 4-4-0 #98 leading 0-6-0 #58 to Mt. Cuba Picnic Grove. #98 is crossing Ludlow Trestle which highlights the open-design steel trestles now used along the Landenberg Branch after hurricane Floyd and tropical storm Henri washed out the original wooden trestles. Locomotive #58 is nearing its 1,472-day FRA heavy maintenance and inspection deadline and will be scheduled out of service for a year or more. Steve Panopoulos photo.</p>

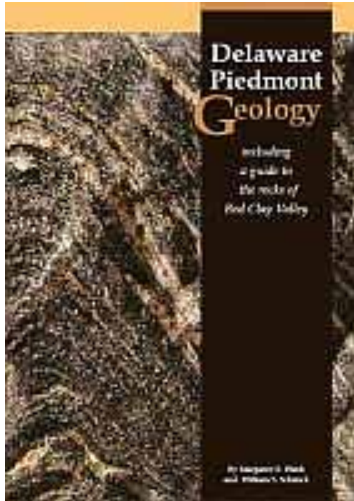
50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
2013	8	10	HRCV holds the fourth annual Summerfest. Festivities include the Delaware Knights of Magic, Lulu the monkey with Joyce and Paul Harris, several Stanley steam and antique cars, a balloon lady and a visit by the Mill Creek Fire Company.
2013	11	9	<p>HRCV holds the 9th annual Veterans Day commemoration. #58, "The Veterans Locomotive" provided motive power for the day's trains. Invited guests at Greenbank Station include New Castle County Executive Thomas Gordon, State Senator Karen Peterson, State Representative Michael Ramone, Veterans Locomotive #58 donors Brian and Linda Woodcock, and General James Begley of the Delaware national Guard. The Chesapeake Silver Cornet Brass Band provides stirring music for the occasion.</p> <div style="border: 1px solid black; padding: 10px; text-align: center;">  <p>NEWS LETTER HISTORIC RED CLAY VALLEY, INC. P. O. BOX 1374 WILMINGTON, DELAWARE 19899</p> <p>A NON-PROFIT ORGANIZATION ENGAGED IN PROMOTING THE SOCIAL AND ECONOMIC HISTORY OF THE RED CLAY CREEK VALLEY</p> <p><small>Artist's Sketch of Wilmington & Western train on Broad Run Trestle, 1875</small></p> </div> <p>HRCV newsletter letterhead used from March 1961 through December 1977. The organization's quarterly member communication was renamed "The Lantern" for the first issue of 1978 when the publication changed from stapled sheets of letter paper printed with a copy machine to a letter-sized professionally printed booklet format with images. HRCV Archive image.</p>
2013	11	11	<div style="display: flex; align-items: flex-start;">  <div style="margin-left: 20px;"> <p>#58 is removed from service for its FRA required 1,472 service day (15-year) heavy maintenance. The inspection will require several years to complete as the engine is fully disassembled so that thousands of ultrasonic readings can be taken of the boiler, all gauges can be cleaned, inspected, and calibrated, all pneumatic systems inspected and pressure tested, rebuilding and inspection of the running gear, replacement of main driver tires, and other restorative and safety related activities.</p> <p>HRCV Mechanical Superintendent Steve Jensen gives a few hammer blows to a rear driver tire on #58 to check to see if it's loose from the wheel. The fire ring has warmed and expanded the tire allowing for removal from the cast wheel on September 1, 2015. As part of #58's 1,472-day heavy maintenance and inspection all six driver tires are being replaced. Steve Jensen, Jr. photo.</p> </div> </div>


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
2014			<p>During 2014 the Wilmington & Western transports 30,626 passengers as reported on Federal Railroad Administration documentation. 2014 marks the sixth highest passenger ridership in the history of HRCV through 2015. December, always the best operating month for the railroad due to Santa Claus trains, carries over a quarter of the year's passenger traffic with October, typically the second best month of the year due to Autumn Leaf trains, carrying more than fourteen percent of the annual ridership. Between April and August 2014 nearly 3,000 school and summer camp children ride the Wilmington & Western. For many it is their first experience riding a train and learning about railroads firsthand.</p> <p>As of January 3, 2014, Historic Red Clay Valley now provides passenger service on the Landenberg Branch longer than the B&O did! Passenger service was offered under the B&O's ownership for 17,386 days (47 years, 7 months, 8 days).</p> <p>On February 21, 1883 the Baltimore & Ohio Railroad bought controlling interest in the Delaware Western Railroad. Trains continued to operate under Delaware Western Railroad livery until August 23, 1886 when the B&O changed the livery as they began passenger service between Baltimore, MD and Wilmington, DE. B&O timetable-scheduled passenger service is offered on the Landenberg Branch until September 28, 1930 when passenger service is discontinued by the B&O (freight service continues).</p> <p>On the future date of May 7, 2024, Historic Red Clay Valley will provide passenger service on the Landenberg Branch for a day longer than service was provided during the time span of 1872 and 1930. The Wilmington & Western Rail Road Company's first passenger trip occurs on October 19, 1872 and passenger service on the line continues until the B&O's final passenger trip occurs on September 28, 1930 (57 years, 11 months, 11 days).</p>
			
			<p>Delivered in late 1940, #8408 spent the first forty-two years outside at Wilsmere Yard exposed to rain and snow in service with the B&O and Chessie System. The steel cab and body rusted over time as moisture became trapped between steel panels and structural steel. For the next thirty years the engine saw occasional rain and snow in service with the W&WRR even though the engine would be stored out of the weather in HRCV's unheated enginehouse. The rust damage to the engine's body could not be determined until exterior panels were removed. Rust and deterioration of the traction sand reservoirs, battery boxes, and cab required HRCV to raise additional donations insuring a professional restoration HRCV and McHugh would be proud of. J.C. McHugh photo.</p>
2014	2	27	<p>The three-day thirteenth annual Hockessin Arts Festival benefiting HRCV is held at Hockessin Fire Company's Memorial Hall. Unfortunately for the show, Mother Nature dished up a weekend of arctic cold on Saturday with freezing rain and snow on Sunday which drastically cut attendance to this critical HRCV fund raising event. 30% of the</p>



50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
			proceeds of art sales goes to HRCV to cover the costs of hosting the show as well as provide for the upkeep and maintenance of the heritage railroad fleet.
2014	4	4	The Route 41 grade crossing at Greenbank is replaced with new precast concrete sections after the crossing is structurally degraded, after multiple harsh winters. Originally planned to take two consecutive weekends, the work was compressed into a little more than a week due to pending W&WRR schedules.
2014	4	27	<p>The Delaware Geological Society hosts a #4662 trip on the Landenberg Branch to educate tour participants about Delaware's piedmont geology. The railroad's rock cuts at Brandywine Springs, Wooddale, Mt. Cuba, Ashland, and Yorklyn provide windows into the Earth's distant geological past and how plate tectonics shaped the rolling terrain of northern Delaware over millions of years.</p> <p>HRCV and the University of Delaware co-sponsor a Museum Curatorship & Collections Management Studies course at the HRCV Office and Educational Center in Marshallton. Seven UD graduate students along with members of the HRCV Museum Committee participate in the thirteen-week course. Basic methods of collecting, storage, care, and preserving artifacts are discussed using objects retrieved from various HRCV storage locations. Good-practice procedure discussions reviewed proper environmental monitoring, understanding agents that destroy artifacts and collections, along with good museum and display practices.</p>
			 <p><i>Delaware Piedmont Geology</i> available from the Delaware Geological Survey's website (free) describes Red Clay geology in detail. DGS photo</p>
2014	5	10	W&WRR participates in National Train Day at Philadelphia's 30th Street Station with a display of antique railroading equipment and literature for attendees.
2014	5	20	W&WRR wins www.TripAdvisor.com's Certificate of Excellence for 2014. The award, in its 4th year, recognizes establishments on the TripAdvisor.com website that consistently receives outstanding traveler reviews.
2014	8	9	HRCV hosts Summerfest 2014 at Greenbank. Participating this year is Operation Lifesaver, Mill Creek Fire Company, Friends of Auburn Heights Preserve with Stanley steam cars on display, and other food and entertainment attractions.
2014	8	14	HRCV holds its first "College of Railroad Knowledge", a Day Camp for 9 to 12 year olds with an interest in railroading. The students receive hands-on experience making light track repairs, witness welding and cutting with acetylene torches, and review progress on the restoration of #58. Each is invited to the cab of #114 to learn the operation of a diesel locomotive. As a treat, lunch is held at Mt. Cuba Picnic Grove and the students get to ride maintenance-of-way speeders owned by HRCV members.
2014	11	9	HRCV holds the 10th annual Veterans Day commemoration with the largest crowd to date for the event. While #58, "The Veterans Locomotive" is undergoing its 1,472-day FRA inspection process, #98 is called upon to provide motive power for the day's trains. Invited guests at Greenbank Station include New Castle County Executive Thomas Gordon, Veterans Locomotive #58 donors Brian and Linda Woodcock, General James Begley of the Delaware National Guard.

50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
2015	1	5	HRCV hosts the first of three Red Clay Valley History Talks at the HRCV Office and Education Center in Marshallton. Planned for the first Monday of January, February, and March, the initial lecture focuses on the former New Castle County Workhouse at Greenbank. The Mt Cuba area and Mt Cuba Center is the topic for the February 2nd talk with the last of the 2015 talks held on March 2nd when the history of the Wooddale area is presented. The series is an educational and community outreach project intended to be held annually.
2015	1	15	The course, "Rail Road 101", begins for thirty students (sold out). Rail Road 101 is a resurrection of the former "Choo-Choo 101" first offered in 1992. The seven class course highlights the requirements of operating a steam tourist railroad. Held at the HRCV Education Center in Marshallton, the course includes an opportunity to operate SW1 locomotive #114 within Marshallton Enginehouse & Yard limits.
2015	3		<p>Built in the 1940s, SW1 #8408 continues restoration at McHugh Locomotive & Equipment Company. The 2-cycle diesel engine and main and auxiliary generators are installed and work continues on the air compressor and cooling system components. The major operating components have been reinstalled in the cab and control system wiring and pneumatic piping is being completed. A target date of "around Labor Day" is a goal for starting the diesel for the first time and starting the extensive checkout of the engine.</p>  <p>Restoration of #8408 continues at McHugh Locomotive & Equipment Company with the completion of the 600-horsepower SW1's cab. By the switch configurations and the gages showing pressures, the engine is running (early October 2015). In the foreground is the Type 6 brakestand controlling engine (upper handle) and train brakes (lower handle). To the left is the electrical cabinet with restored electromechanical relays and controls inside. An antique railroad lantern, donated by McHugh, sits atop the electrical control cabinet. Gages for engine status (left) and train air brake status (right) are mounted on the front wall of the cab. As part of the restoration, all electrical wiring is replaced along with the majority of the pneumatic piping and tubing. The two black boxes of red tipped switches (center and right) control electrical functions throughout the locomotive. The vertical lever at the far right activates the wheel sanders to dispense sand at each wheel of the locomotive for wet rail. J.C. McHugh photo.</p>





50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
2015	5	19	<p>W&WRR wins www.TripAdvisor.com's Certificate of Excellence for 2015. This is the second consecutive year W&WRR has won the award which recognizes outstanding traveler reviews. As of late 2015, the Wilmington & Western Railroad is ranked 5th of 65 activities to do in northern Delaware according to the website TripAdvisor.com.</p>
2015	8	26	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>HRCV invites members only to witness #58 having the driver tires removed from the wheels of one axle. The activity involves having the engine lifted up so that an axle and wheels can be moved to the front and placed on a pedestal.</p> <p>A "fire ring" is then placed over the tire and a propane gas fire heats the steel tire to expand it from the wheel casting. Sledge hammers are used to drive the tire from the casting. The process is then repeated for the second tire and wheel of the axle and then the remaining tires on the other axles. All six tires will be replaced.</p> <p>New tires for #58's wheels will be machined from uncut GG1 locomotive tires that HRCV has in storage. The tires came with Pennsylvania Railroad GG1 #4934 when it was owned by HRCV. The GG1 was designed and built during the era steam engines were still manufactured. The GG1's wheels were designed with change-out tires which was the technology of the time.</p> </div> <div style="width: 45%; text-align: center;">  <p>A former GG1 locomotive tire, machined to fit one of #58's driver wheels (#6 is marked on the wheel), has been installed to verify that it fits properly. On the wheel is marked 49.812" which is the diameter of this particular wheel (spoked casting). The GG1's tire was machined slightly smaller than the wheel's diameter. At the top of the tire a nut is welded to the wheel for an eyebolt to hold the tire in place while it is heated with the fire-ring (see November 11, 2013 image). Once heated the tire slides onto the wheel and when cool the tire shrinks tight on the wheel. The nut is ground off and the surface ground back to arc and the job is complete. Cristian Sanchez photo.</p> </div> </div>
2015	9	28	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%; text-align: center;">  </div> <div style="width: 45%;"> <p>50th Anniversary commemorative coins, #98 (left) and #58 (right). The rear of the coins features a golden representation of each locomotive's driver wheels. HRCV Gift Shop photo.</p> <p>The custom designed logos for the W&WRR's 50th Anniversary Celebration are approved by the anniversary committee. Similar in appearance, one logo features #98 while the second features #58. The logos will be used on advertising and displays throughout the 2016 operating season.</p> </div> </div>


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
2015	10	3	<p>Steven Jensen, Jr. becomes the first 3rd-generation steam locomotive engineer to operate #98 for the W&WRR. Steve's grandfather served on #98 in its early days on the W&WRR. Steve's father serves as W&WRR Chief Mechanical Officer responsible for #98's (and all other W&WRR motive power and rolling stock) mechanical operation and is one of HRCV's senior volunteer instructing engineers. Steve's first steam engine assignment, a wedding charter!</p> <div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>Steven Jensen Jr (left) and his father, HRCV Mechanical Superintendent Steve Jensen (right) during #8408's rededication on May 28, 2016. Mike Ciosek photo.</p> </div> </div>
2015	11	12	<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>McHugh Locomotive & Equipment Company completes the restoration of #8408. The 1940-built locomotive is ready for HRCV's final inspection and testing in the McHugh yard before being secured and transferred to Marshallton Yard.</p> <p>#8408 awaiting pick-up by Norfolk Southern in the NS Morrisville Yard on January 12, 2016. J.C. McHugh photo.</p> </div> </div>
2015	11	28	<p>#98 is unable to provide motive power for the Santa Claus Express trains. Minor leaks in the steam distribution piping to the cylinders as well as the exhaust nozzle located in the smokebox are interfering with firing the locomotive. As an extended repair would put #98 out of service entirely, and without #98 there is no way to heat the coaches, #98 is fired up and taken to the station to provide steam heat to the coaches. With #8408 is still at McHugh Locomotive & Equipment Company and nearly ready to return to Marshallton, #114 will serve the as motive power for the holiday season.</p> <div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>#98 at Greenbank waiting the return of a Santa Claus Express on November 29, 2015. Placing #98 at the front of a train pushed by #114 at the rear, risks derailments. #98's steam piping is configured to supply steam from the tender's rear and not from the front of the engine so pulling #98 behind isn't practical. Russell Fox photo.</p> </div> </div>

50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
2015	12		<div style="display: flex; justify-content: space-around;">   </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;">   </div> <p>Souvenirs commemorating 50 years of operating the Wilmington & Western Railroad are produced. A pair of 12-ounce clear beverage glasses and a pair of coins display the 50th Anniversary logos on them. Other items feature a railroad themed ceramic oval printed in B&O Royal Blue. A magnetic (lower left) and hanging (lower right) ceramic disc, along with a mug (upper left) and cup (upper right) each display the ceramic logo.</p>
2015	12	12	<p>A night photographer's session is staged at Marshallton Yard and Enginehouse, the first since the 1990s. Various railroad scenes are depicted using W&WRR motive power and rolling stock supported by actors dressed in period attire. Caboose C2013, having just completed a volunteer restoration is publically displayed for the first time. The restoration includes upgrading the interior lighting and restroom facility, repairs and repainting, and returning C2013 to its original Baltimore & Ohio Railroad livery.</p>
2015	12	30	 <p>Each year the Holiday Lights Express trains offer railfans a unique opportunity to enjoy the holiday season. Landenberg Branch neighbors decorate their back yards along the railroad's right-of-way while HRCV volunteers insure a healthy quantity of lights inside and out of The Paul Revere keep the onboard generator working at capacity. December 20, 2015, Mitch Goldman photo.</p>


50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
2015	12	31	<p>The W&WRR transports 30,844 passengers as reported on FRA documentation for 2015. This is the 4th busiest operating season through 2015 in HRCV's operating history! 2016 is the 50th anniversary year of W&WRR operations on the Landenberg Branch with numerous special events planned.</p> <p>HRCV is well prepared to exceed the all-time annual passenger count of 34,395 passengers set in 1994. Each year the W&WRR hosts an average of 2,000 school students on weekday School Trains. Santa Claus trains are the most popular trains averaging over 4,000 passengers over a few weekends. Easter Bunny trains are also very popular averaging 2,000 passengers per season. On a typical month in any given year during the past quarter century of operation, the W&WRR carries an average of more than 2,200 passengers. The Wilmington & Western Railroad is recognized as one of Delaware's more popular tourist attractions.</p>
			 <p>W&WRR #8408 just past the Granogue, Delaware DuPont Farm Crossing on its way to McHugh Locomotive and Equipment Company for restoration. August 2, 2011, Steve Jensen, Jr photo.</p>
2016	1	4	<p>The annual three-lecture series of Red Clay Valley History Talks at the HRCV Office and Education Center presents the first lecture of the series. In 2016 the three lectures are:</p> <ul style="list-style-type: none"> • "Murder, Mystery, and Mayhem in the Red Clay Valley" (January 4th) which looks at several of the valley's more unsavory people, local mysteries, and even some murders back at the start of the 20th century. • "Quenching Thirsty Souls in the Red Clay Valley and Beyond" (February 1st) covering the Kiamensi Spring Water Company at Greenbank, Biedermann's Spring Hill Brewery in Wooddale, and the Hartmann & Fehrenbach Brewery in Wilmington. The event includes a beer tasting. • "Delcastle Farm & Edgar M. Hoopes Reservoir" (March 7th) telling the stories of Delcastle Farm that was associated with the New Castle County Workhouse at Greenbank. The story of the construction and operation of Hoopes Reservoir at Wooddale is covered. <p>The series is an annual educational and community outreach project with lectures offered the first Monday of January, February, and March,</p>
2016	1	14	Rail Road 101 begins its second offering. Expanded to eight classes, the course format follows the former "Choo-Choo 101" offering of the 1990s.
2016	1	27	In late December locomotive #8408 was ready to be returned to HRCV. McHugh Locomotive & Equipment disconnects the traction motors under the engine and lifts it onto one of their flatbed truck trailers for transport to the nearby Norfolk-Southern yard. At NS's Morrisville, PA yard the locomotive's trucks are spotted on a siding and the


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Y	M	D	Event or Activity
2016	1	27	<p>locomotive is transferred from the trailer to the trucks. Inspections by NS then clear the locomotive for transport over NS trackage.</p> <p>A nor'easter snow storms dumps twelve to eighteen inches of snow on the area on January 22, 2016. On January 27, 2016 NS diesels connect to #8408 for its move to Landenberg Junction. The extended trip back to Marshallton Yard is well documented and followed on multiple social media websites by Wilmington & Western railfans and volunteers.</p> <div style="text-align: right;">  <p>On January 27, 2016 a NS freight engine picks up #8408 to begin what turns into an extended journey back to Marshallton Yard. J.C. McHugh photo.</p> </div>
2016	2	8	<p>#8408 arrives back at Marshallton Yard after an unplanned extended sightseeing trip through southeastern Pennsylvania. The 1940s era General Motors Electromotive Division SW1 locomotive is moved from Landenberg Junction back inside Marshallton Enginehouse with former Leigh Valley SW1 #114 after 8408's \$400,000.00 frame-up restoration requiring #8408 to be away for 4-1/2 years.</p> <div style="text-align: center;">  <p>On February 8, 2016, SW1 locomotives #114 (left) and #8408 (right) are again side-by-side in the Marshallton Enginehouse after five years of being in different states. Steve Jensen, Jr. photo.</p> </div> <p>The movement itinerary calls for the SW1 locomotive to be turned over to Norfolk Southern Railway by restorer McHugh Locomotive & Equipment Company for shipment to the Wilmington & Western Railway Corporation. #8408 is scheduled to move from Norfolk Southern's Morrisville, PA yard to their Abrams, PA yard outside of King of Prussia, PA. At Abrams it is to be set out for the East Penn Railroad (BRVY) to transfer the engine from Abrams Yard to the freight yard in Coatesville, PA. At Coatesville the East Penn Railroad (ESPN) will move #8408 south on former Wilmington & Northern</p>


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2016	2	8	<p>Railroad tracks as part of a series of freight deliveries. #8408 will be delivered by ESPN to Wilsmere Junction, DE where #8408 is moved by WWRC #114 on the home tracks of the Landenberg Branch to the Marshallton Enginehouse.</p> <p>What occurred almost saw the engine arrive in Pittsburgh! #8408 is picked up by NS on January 27, 2016 at Morrisville to return to Marshallton. Unfortunately, #8408 is not set out at Abrams as intended and it routed west towards Enola, PA as part of NS consist 17G. When the mistake is discovered by the electronic routing ID tags attached to the engine, #8408 is set out at the next available yard (Enola northwest of Harrisburg). NS now has to schedule #8408 on an eastbound train from Enola back to Abrams. After a few days of delay, #8408 is rescheduled eastbound to NS's Abrams Yard (on NS consist 14G).</p> <p>Back at Abrams Yard the original shipping itinerary can resume. The Brandywine Valley Railroad (BVRV) then moves the engine as planned from Abrams to Coatesville where the East Penn Railroad (ESPN) picks up the locomotive at Coatesville and moves it south to Wilsmere Junction. The extra routing no doubt exposes the engine to some of the highest speeds it has ever operated when it was part of the westbound NS freight consist. What should have been a couple day movement ends up taking nearly two weeks.</p>
2016	2	26	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">  <p style="text-align: center;">The Paul Revere, former Pennsylvania Railroad #4662, crosses the millrace bridge for the former Sharpless flour milling operations Ashland on February 28, 2016 as part of the 2016 Hockessin Art Festival activities. Gregory D. Pawelski photo.</p> </div> <div style="width: 50%;"> <p>HRCV hosts the 15th annual Hockessin Art Festival. The three-day event is a fundraising effort that benefits the railroad. Thirty percent of the sales of artwork go to support the operation of the Wilmington & Western Railroad.</p> <p>Twenty-eight local artisans display and sell their original and limited edition prints of their watercolor, oil, acrylic, and pastel framed and unframed pictures. Other artists have their one-of-a kind sculpture, fine jewelry, mosaics, and kinetic art available for purchase.</p> </div> </div> <p>The "Festival Express" featuring the Wilmington & Western's "Doodlebug" #4662 makes hourly round-trip excursions from the festival taking place at the Hockessin Memorial Hall in Hockessin, DE to the Mt. Cuba picnic grove. The Hockessin Art Festival "Festival Express" trips are one of the few opportunities available to ride trains departing Hockessin and running to Mt. Cuba during the operating year.</p>
2016	4	2	<p>HRCV conducts the annual volunteer safety meeting for HRCV railroad volunteers. Attendance is required as part of a minimum number of hours of safety and operations education classes. In addition, those holding Brakemen, Conductor, Firemen, and</p>


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			<p>Engineer qualifications are required to maintain continued proficiency of their knowledge of W&WRR equipment, the Operating Rules book, and all General Bulletins. Federal Railroad Administration (FRA) requirements include routine proficiency exams and physicals for some railroad positions.</p>
2016	4	18	<div style="text-align: center;">  </div> <p>The McIntyre Bowstring Bridge from Millgrove Access Wildlife Area, Poweshiek, IA. Erected in 1883 by the King Iron Bridge & Manufacturing Company of Cleveland, OH, the design is known as a Pin-connected Bowstring Through Truss Bridge. It is 120-feet long and 15-feet wide with a deck width of 13-feet and crossed the North Skunk River. Historically significant and placed on the National Register of Historic Places, it was unaltered except for occasional wooden deck replacements. A flood in 2009 weakened the truss structure by twisting the bridge on its foundations. Secured from further damage, a subsequent flood tore the bridge from its piers and toppled it into the river. When the flooding subsided, the remains were pulled from the river by Workin' Bridges in hopes of repurposing it. Being made of wrought iron, the damage, while significant, was repairable. DNREC took an interest in using the bridge and negotiated for its inclusion within the Auburn Heights Preserve trail system. When restoration is complete later in 2016, it will be located alongside the Marshall Brothers Paper Mill where the West Chester, Kennett & Wilmington Electric Railway (better known as the Kennett Trolley) tracks cross the Red Clay Creek. The bridge will be part of the Preserve trail system. Workin' Bridges photo.</p> <p>Delaware Department of Natural Resources & Environmental Control (DNREC) holds a public open house at the Center for the Creative Arts to update and solicit feedback on their latest plans to develop the former NVF site at Yorklyn. Presented are images of the former industrial site and how it is being cleaned up. Now designated Auburn Heights Preserve the 315-acre area includes the former NVF Company's property along with the Marshall Estate (built in 1896 by Israel Way Marshall, HRCV founder Thomas C. Marshall, Jr's grandfather) and Oversee Farm property. Most of the buildings of the former NVF Company have been razed as part of a massive environmental.</p> <p>As part of the planned use of the area, a number of miles of trails will be constructed, some allowing the Marshall Stanley Steamers to operate on them. The former #6 mill</p>


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Y	M	D	Event or Activity
2016	4	18	<p>that was slated to be turned into apartments has too much structural damage from years of zinc chloride exposure and will be razed and replaced with a townhome environment with an industrial age architectural look. Several combination wetlands and flood mitigation areas will be constructed. An amphitheater and equestrian facility are planned.</p> <p>Workin' Bridges is in the process of restoring an 1890 Penn Bridge Company Iron Pony Truss Bridge from Crawford County, PA, an 1883 King Iron Company Bowstring Bridge from Poweshiek, IA, and an 1885 Mt. Vernon Bridge Company iron Pratt Through Truss bridge from Shiawassee County, MI. The bridges will span the Red Clay Creek in several locations allowing continuous paths throughout the Preserve.</p>
2016	4	21	<p>Rail Explorers USA evolve the 19th century concept of the three-wheeled railroad velocipede bringing human-powered railroad travel into the 21st century with a custom designed four-wheel "railbike". Rail Explorers USA of Saranac Lake, NY offer two or four seat excursions between Auburn Heights Preserve at Yorklyn and the Mt. Cuba Picnic Grove. HRCV, along with Delaware State Parks' Auburn Heights Preserve host the two-hour trips on Thursdays through Sundays as part of an eight week trial period.</p> <p>Rail Explorers' trial period of 32 operating days carried 3,217 passengers. Two- and four-seat railbikes offered a maximum of 160 seats per day. An average of 100 seats per day were sold used during the trial stay. Receiving most votes as the biggest negative for the experience was the weather as it was a rainy Spring forcing cancellation of multiple trips, some of which were sold out.</p> <p>For Rail Explorers USA to return as a permanent attraction a permanent business office and and railbike storage and maintenance facility is needed along with restroom facilities and other support infrastructure. Expenses and the ability to eventually operate such a unique railroad experience at a profit will be considered along with how supportive local residents and landowners along the railroad will be to a permanent railbike operation.</p> <p>In 1877 George S. Sheffield wanted to travel between his farm and the town of Three Rivers, Michigan. By horse and wagon it was a lengthy trip however he realized the railroad crossing his property offerd a much quicker solution. He developed a "velocipede" to permit him to make the trip using the tracks of the Michigan Central Railroad crossing his property. One night on at trip to town, he found a broken rail and was able to flag down the train he knew was coming thus avoiding disaster. The railroad was so impressed with his invention they ordered a quantity of velocipedes from him for their workers to perform inspections and light track maintenance activities.</p> <div style="text-align: right;">  <p>Delaware Governor Jack Markell (right) and Rail Explorers USA managing director Alex Catchpoole (left) cross Creek Road (Route 82) heading back to Yorklyn on April 24, 2016. A "railbike" is pedal-powered by all riders similar to a bicycle and stops using hydraulic disc brakes. Two and four seat versions are available. Rail Explorers USA photo.</p> </div>


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Y	M	D	Event or Activity
2016	4	21	<p>Sheffield patented his vehicle in 1879 (Patent 213,254) and the George S. Sheffield & Company were soon cranking out hundreds of units annually. The company was so successful it expanded and became the Sheffield Velocipede Car Company in 1881 offering additional rail travel products. In addition to Sheffield, Kalamazoo Railroad Velocipede Company and Buda Foundry & Manufacturing Company were cranking out various versions of velocipedes and the more commonly known "hand pump cars".</p> <p>A one person Sheffield velocipede was designed to carry a maximum load of 300 pounds and up to two people (hand pump cars could carry more people and pull trailing cars of supplies and equipment). The Sheffield No. 1 Velocipede featured machine-cut gearing, ball bearing axles, and concave tread on the two large wheels to "practically eliminate the tendency to leave a wet or frosty rail". Sheffield produced various variations of his original No. 1 Velocipede along with hand pump cars and trailer cars.</p> <p>The North American Rail Car Operators Association (NARCOA) is an 1,800 member non-profit organization that preserves railcars (including gasoline powered versions) and promotes their safe operation on Class III and privately owned railroads. Their antique vehicles have traversed the Wilmington & Western rails numerous times in the past.</p>
2016	5	1	<p>Locomotive #8408 pulls its first Wilmington & Western passenger consist after its \$400,000 multi-year restoration effort. The engineer is Keith Anzilotti and diesel brakeman is Steve Jensen, Jr. #8408's return to service on the Landenberg Branch, where it's spent its entire service life, will be celebrated on May 28, 2016 with a special celebration at Greenbank Station.</p> <div style="text-align: center;">  </div> <p style="text-align: center;">On a rainy Sunday afternoon SW1 #8408, purchased by HRCV when the Landenberg Branch was purchased from CSX Transportation (still under Chessie System livery) in 1982 pulls the 12:30 pm train along Barley Mill tangent. Cristian Sanchez photo.</p> <p>In late 2015 McHugh Locomotive & Equipment Company has completed the restoration of #8408 and it is inspected by HRCV and accepted as ready to ship to Marshallton. The locomotive was run at McHugh and performed as intended. McHugh then craned the engine onto a low-boy trailer for a short transport to the Norfolk Southern Railway's Morrisville Yard where the engine was placed on a siding ready for NS to move as freight.</p>


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Y	M	D	Event or Activity
2016	5	1	<p>For the return, #8408 is moved by Norfolk Southern Railway to the Abrams Yard in Coatesville, PA. At Abrams it is to be set out for the East Penn Railroad to bring to Landenberg Junction. Unfortunately, #8408 stayed with the Norfolk Southern consist at Abrams Yard and made it to Enola Yard northwest of Harrisburg, PA! Norfolk-Southern moved #8408 back to Abrams where East Penn Railroad delivered it to the Wilmington & Western Railway Corporation at Landenberg Junction.</p> <p>Unfortunately, when the engine was fueled and prepared for operation at Marshallton, as the throttle was increased to move the engine, a “wheel-slip” condition was registered. Wheel-slip is a condition detected by the locomotive’s electrical system that one or more of the driving axles of the engine are spinning on the rails. The locomotive was barely moving and not connected to anything so wheel-slip is not a condition that should exist.</p> <p>McHugh troubleshooted the problem and found one of the traction motors as causing the fault due to an internal electrical problem. Correction would require the locomotive lifted off the truck with the faulty traction motor, and the traction motor returned to the company that rebuilt the motor for McHugh. This work wasn’t completed until late April making May 1st the first opportunity that the 76-year-old SW1 could be placed at the head end of a scheduled W&WRR passenger train. For the day’s operations, #114 was now at the caboose end of the train for returning the consist to Greenbank Station.</p> <div style="text-align: center;">  </div> <p>In early 2015 the William K. Walther's Company produced a limited-edition release of Chessee System #8408 in HO model railroading scale. Starting life with the livery “Baltimore & Ohio #208” in late 1940, the 600-horsepower diesel-electric engine was assigned to the B&O’s Wilmers Yard where it assisted a stable of ten-wheeler steam locomotives shifting freight in the B&O’s only switching railroad yard between Philadelphia, PA and Baltimore, MD. The B&O renumbered the engine in 1957 to “B&O #8408” as part of a system-wide renumbering of motive power. After the Chesapeake & Ohio Railroad bought controlling interest in the B&O in 1963 the engine retained its B&O #8408 livery. Once the Chessee System was formed in 1973, the “B&O #8408” identification, along with the “Chessee System” livery and colors, were used. While CSX Corporation was formed in 1980 and absorbed all Chessee System railroads, the engine maintained its Chessee System look until it was sold to HRCV in 1982. Within a year or two of purchase HRCV changed the engine’s livery to “Wilmington & Western #8408”. After several variations of the engine’s “Wilmington & Western #8408” look under HRCV’s ownership, the locomotive now displays a heritage “Baltimore & Ohio” livery and paint colors along with its #8408 road number done as part of a \$400,000 restoration. William K. Walther's Company photo.</p>


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Y	M	D	Event or Activity
2016	5	11	<p>The demolition process for the Louis David house begins with the removal of all hazardous materials. Built in the mid-1900s when the use of asbestos and lead bearing building materials was acceptable (asbestos flooring, asbestos pipe insulation, lead paint, etc.), the house must first have those materials properly removed and disposed of before actual demolition of the house begins. With the hazardous materials removed, the house is scheduled to be demolished and the materials it is constructed of properly disposed of. The basement is to be backfilled with clean fill and the area graded.</p> <div style="text-align: center;">  </div> <p>A hazardous substance removal crew works on the former business “home” of HRCV to remove hazardous materials before the building can be demolished. The area will be used for additional parking along with new garage storage space for HRCV equipment. Robert E. Wilhelm, Jr. photo</p> <p>When HRCV began leasing land from the B&O in 1966 and constructed the enginehouse, Louis David was the owner of the home at 1601 Railroad Avenue that adjoined the enginehouse property. While Mr. David occasionally complained about the coal smoke coming from a locomotive being fired up when the winds shifted to the direction of the house. Unknown to HRCV was the fact that David gave instructions that when he passes away, HRCV was to be offered first right of refusal to purchase the property. In 1984 with Mr. David’s passing, Thomas C. Marshall, Jr purchased the house and property and donated it to HRCV.</p> <p>The ranch-style home with a detached garage would serve as the HRCV office from late 1984 until early 2013 when the HRCV staff moved into the new Office and Education Building. With all business records and archive materials removed from the David house, the utilities were disconnected and the house secured from further use so that demolition plans, permits, and other activities could commence allowing the structures to be removed.</p> <p>As parking can be in short supply when the Office and Education Building’s lecture room is used for public activities like the Rail Road 101 course and the Red Clay Valley History Talks, some additional parking spaces are planned. A new multiple bay garage will be constructed permitting the storing of the maintenance-of-way hyrail pick-up truck and other equipment out of the weather. With the Davis house removed, additional parking, and new garage storage, the New HRCV Office Complex project begun in 2010 is complete.</p>



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Y	M	D	Event or Activity
2016	5	22	 <p>In the 1980s there were 9 steam locomotives stored at Marshallton Yard. For a short time in 1992 there were 3 SW1 locomotives at Marshallton Yard. Seen here on April 11, 1992, Octoraro Railway #55 moves both #8408 (second) and #114 (third) so that #98 can be pulled from the enginehouse's service pit and fired up outside the building in preparation for the day's Easter Bunny Express trips. #55 was leased to HRCV as #8408 had a broken air compressor crankshaft. #55 provided motive power for Wilmington & Western Railway Corporation freight moves and the first weekend of Easter Bunny Express operations. #114 is still in its red Ocean City Western Railroad's #114 livery having recently arrived at Marshallton, is undergoing return to service restoration by HRCV volunteers and is not yet operational. Robert E. Wilhelm, Jr photo.</p> <p>HRCV and the Wilmington & Western observe Armed Forces Day with an "Armed Forces Day Salute" dedicated to active and retired service men and women. "General MacArthur", portrayed by former HRCV president Brian Woodcock who also donated "The Veteran's Locomotive" #58 to HRCV, along with his staff, ride the 2:30 p.m. train re-enacting his "1940s Trans-Continental Train Excursion" from California to Washington DC. "MacArthur" makes a brief speech at Greenbank Station before boarding the train where he and staff pass through the coaches acknowledging the service personnel onboard along with passengers who diligently supported the war effort at home working in plants and performing other activities to support America's troops fighting in foreign lands.</p>
2016	5	19	<p>HRCV's iconic "American" locomotive #98 returns to passenger service on the Landenberg Branch after a 4-month campaign to replace steam piping within the engine's smokebox. After 106-years of service, the steam distribution piping required replacement. The repair involved opening up the smokebox and boiler to remove the existing piping which was used as a template for the custom fabricated replacement pipes.</p> <p>#98 was forced to sit out the 2015 Santa Claus Express trains due to a leak in the high-pressure steam distribution system located within the locomotive's smokebox. As heat for the coaches would be needed for the December excursions and any repairs would have</p>






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Y	M	D	Event or Activity
			<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">  <p>“Bangy”, the first locomotive operated on the Landenberg Branch by HRCV engineers. In March 1966 the Plymouth Locomotive Works industrial switching engine pulled a “Boonton” coach to Mt. Cuba to insure the stairs cleared rock cuts and that there were no low hanging tree branches to either side of the car that might smack a passenger through an open window. The nickname “Bangy” arose from the noise made by the engine when running as the cab doors vibrated in their latches. Today the engine resides out-of-service at the Walkersville Southern Railroad in Maryland where it also served as their first operating engine pulling passenger trains. Purchased in the early 1990s from HRCV, the 1941, 18-ton locomotive is now permanently displayed alongside tracks the Pennsylvania Railroad placed in 1872. Simon Miller photo.</p> </div> <div style="width: 50%; padding-left: 20px;"> <p>prevented #98 from being able to provide steam heat to the “Boonton” coaches, #98 was only used as a “steam boiler” and remained at Greenbank Station during December.</p> <p>In early January, work began in earnest on removing #98’s dry pipe within the boiler proper and the steam distribution piping in the smokebox (<i>please see the October 1978 entry for a cross-section drawing of a steam locomotive boiler</i>). Custom piping was fabricated to match the original piping fabricated by American Locomotive Company in 1909 for the engine. Once the replacement pipes were installed back in the locomotive everything that had been disassembled to allow for the repair had to be reinstalled and reassembled.</p> </div> </div> <p>As the repair was associated with the boiler, pressure testing is required to insure the replacement parts are not only properly installed but also meet FRA regulations. The locomotive is then steamed up multiple times for testing, leak checks, and similar inspections.</p> <p>On May 9, 2016 locomotive #98 ran behind SW1 #114 for a charter marking the first time #98 is part of a Wilmington & Western excursion. The operation with #114 as the lead locomotive allowed additional fine tuning and checkout of #98 and provided steam heat for a private charter. #98 will return to full service during the 50th Anniversary Weekend celebration when it serves the sole lead-end motive power pulling a W&WRR consist on May 29, 2016. #98 will be joined by #8408 marking the first time in many years that the two locomotives have worked together.</p>
2016	5	20	<p>For years the Wilmington & Western Railroad sign at Greenbank has been a couple of large wooden panels on posts. As wood deteriorates over time the HRCV Board authorized the replacement of the sign with something more aesthetic to the setting. The new sign required numerous permits and design approvals before it could actually be fabricated and installed. The goal of having it in place by the 50th Anniversary Weekend Celebration is met with the sign contractor installing the sign over several days during the past few days.</p>



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Y	M	D	Event or Activity
2016	5	20	 <p style="text-align: center;">New Wilmington & Western electronic signboard at Greenbank. Mike Ciosek photo.</p>
2016	5	24	 <p>On Tuesday and Thursday evenings a taskforce of volunteers work in the Marhallton Yard Back Shop and Enginehouse on any number of maintenance and restoration activities associated with HRCV's rolling stock and motive power. In the past year leading up to the 50th Anniversary Celebration, two of the vintage cabooses were painted, modern mobile home bathrooms were installed, and other improvements were undertaken. Work progressed on #58's list of 1,472-day heavy maintenance tasks with the boiler totally ultrasounded, driver tires undergoing replacement, and other return-to-service tasks being worked on. Pictured above, #8408 and #98 receive soapy Celebration baths by HRCV volunteer in Marshallton Yard. Tom Gears photo.</p>


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Y	M	D	Event or Activity
2016	5	25	<p>For the third year in a row the Wilmington & Western wins the Certificate of Excellence from TripAdvisor.com! The Wilmington & Western is rated on TripAdvisor as one of the top ten attractions in Delaware.</p> <p>The Certificate of Excellence honors businesses that deliver consistently great service. This designation is given to establishments that have consistently achieved great traveler reviews on TripAdvisor over the past year. Establishments earning the Certificate of Excellence are located all over the world and have continually delivered superior customer experience.</p> <div style="float: right; border: 1px solid black; padding: 5px; text-align: center;"> <p>Certificate of Excellence 2016</p>  <p>Wilmington and Western Railroad</p> </div>
2016	5	28	<p>HRCV members and W&WRR volunteers begin celebrating the 50th Anniversary Weekend with the return of former Baltimore & Ohio diesel locomotive #8408 to routine service on the Landenberg Branch. After a multi-year restoration, the SW1 diesel-electric locomotive is rededicated in a ceremony at Greenbank Station. The 12:30 p.m. departure takes celebrants to Mt. Cuba Picnic Grove and includes a ½-hour layover at the grove. On the 2:30 p.m. departure, #8408 will conquer “Hockessin Hill” (the 1.5 percent ruling grade climb out of the Red Clay Valley and into the Hockessin Valley on its way to Hockessin for the first time in eight years!</p> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;">  <p>Executive Director David Ludlow welcomes the #8408 dedication crowd. Mike Ciosek photo.</p> </div> <div style="width: 50%;">  <p>HRCV founder Thomas C. Marshall, Jr speaks to the celebrants. Robert E. Wilhelm, Jr photo.</p> </div> <div style="width: 50%;">  <p>A tree fell overnight and had to be removed before the first train. Andrew Schiebel photo.</p> </div> <div style="width: 50%;">  <p>Ann McHugh and David Ludlow attach #8408's B&O Capital herald plate. J.C. McHugh photo.</p> </div> </div>

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Y	M	D	Event or Activity
2016	5	29	<p>HRCV members and volunteers continue celebrating the 50th year of operating heritage passenger trains displaying the Wilmington & Western Railroad livery with a Past & Present Members' Day. All past and present HRCV volunteers ride free on either the 12:30 p.m. or 2:30 pm trips to Mt. Cuba Picnic Grove. Motive power for the day are the organization's two iconic locomotives; American-class #98 and restored SW1 #8408.</p>  <p>What would an HRCV celebration be without a little excitement? 50 years ago, celebrating the return of steam service to the Landenberg Branch, #92 is attacked by falling steel from the Route 2 overpass. #92 makes the first trip of the day but #8408 steps in to finish the day's runs as #92 returns to the shop for repairs. 50 years later, #8408 is rounding a Landenberg Branch curve when a tree is spotted and the train emergency stopped. Mike Ciosek photo.</p>
		 <p>For the first trip of the day to Mt. Cuba Picnic Grove, #8408 leads the consist. After returning to Greenbank Station, the engines switch places with #98 taking the lead. Mike Ciosek photo.</p>	

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Y	M	D	Event or Activity
			<p>The Wilmington & Western Rail Road Company constructed the original 19.92-mile railroad in 1871-2. Under Baltimore & Ohio Railroad ownership the route was eventually shortened to its present 10.2 miles. The line became known as the B&O's Landenberg Branch and was the most profitable branch line for a number of years. The B&O would eventually be merged with other railroads and become Chessie System. After more consolidation in the railroad industry, Chessie System is absorbed into CSX Transportation.</p> <p>HRCV, formed in 1960 with the intent of returning steam passenger tourist trains to the Landenberg Branch, has provided steam and diesel passenger trains for 50 years on this day ~ May 28, 1966 to May 28, 1916. Working with the support of Baltimore & Ohio Railroad management, the first HRCV operated passenger train occurred on Decoration Day weekend (now designated Memorial Day) May 28, 29, 30, 1966.</p> <p>18,264 days or 50 years later, HRCV continues to offer passenger service along the Red Clay Valley with trains displaying Wilmington & Western Railroad livery. Wilmington & Western Railroad passenger trains have operated on the line longer than original Wilmington & Western Rail Road Company and Delaware Western Railroad passenger trains (13 years, 10 months, 5 days). Wilmington & Western Railroad passenger trains now have traveled the line longer than original Baltimore & Ohio Railroad passenger trains operated (47 years, 7 months, 8 days).</p>
2016	5	30	<div style="text-align: center;">  </div> <p>HRCV members and volunteers completed their celebration of fifty years of heritage passenger railroading with Mt. Cuba Meteor excursions on Memorial Day featuring the only currently functioning (only one other exists, #4666, which is undergoing restoration) Pennsylvania Railroad "Doodlebug", #4662. Sold out trips at 12:30 p.m. and 2:30 p.m. take celebrants to Mt. Cuba Picnic Grove and include a ½-hour layover. As one wag was heard to comment when #4662 was seen running with the engine room double-doors open, Paul Revere is running with the 30/10 air conditioning running full strength (open 30 windows and all doors and run along at 10 miles per hour!). The day was forecast to have heavy rains which never materialized, however, riders were offered an early dose of Delaware's "muggy" August weather. Don Richard photo.</p>

50-year Timeline of the Wilmington & Western

Y	M	D	Event or Activity
2024	5	7	<p><i>On the future date of May 7, 2024, Historic Red Clay Valley expects to capture another milestone in passenger service for the former Wilmington & Western Rail Road Company line – longest continuous passenger operations.</i></p> <p><i>The Wilmington & Western Rail Road Company's first passenger trip occurred on October 19, 1872 and passenger service on the line continued until the B&O's final passenger trip occurs on September 28, 1930 (57 years, 11 months, 11 days).</i></p>
			<p>Wilmington & Western Railway Corporation, Incorporated continues to provide on-demand freight service on the Landenberg Branch upon request.</p>



On May 28, 2016, recently restored SW1 locomotive #8408 runs around recently restored B&O caboose C2013. The restorations returned the engine and caboose to their heritage Baltimore & Ohio livery. They appear as they would have when the B&O owned and moved passengers and freight on the Landenberg Branch. Simon Miller photograph.

“Sadie” at Marshallton Yard on June 10, 2016.

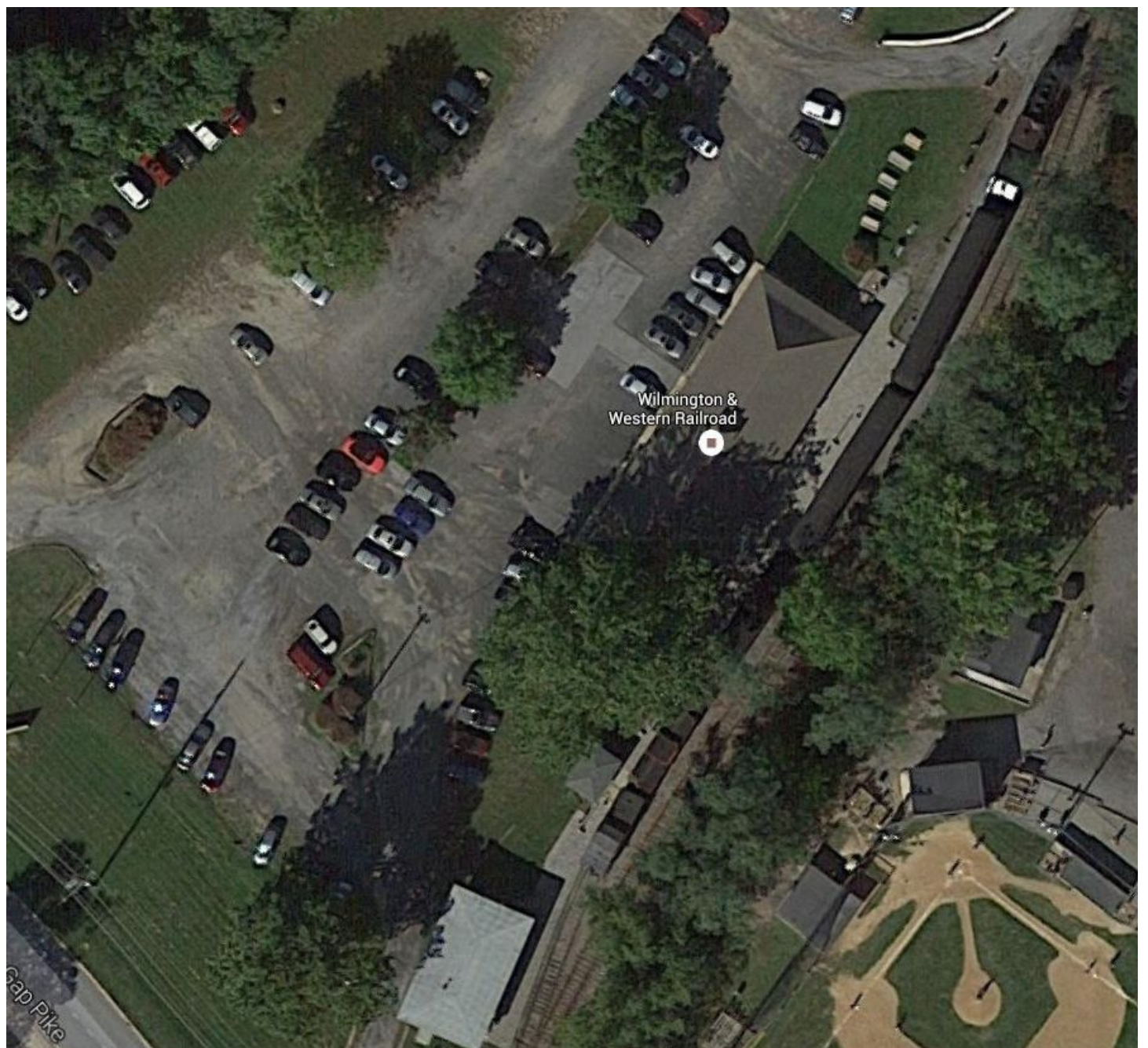
As part of the year-long 50th Anniversary celebration, Gramling Locomotive Work's #126 is invited to supply motive power for W&WRR trains for the weekends of June 11 & 12 and 18 & 19. Built by Vulcan Locomotive Works in 1931 for Leigh Valley Coal Company, the 0-6-0T provides 19,200 pounds of tractive effort and operates on 180 PSIG steam pressure. The locomotive was sold to Heidelberg Coal Company in 1954 and later retired to a round house. About to be scrapped, John and Barney

Gramling purchased “Sadie” in 1993 and returned the locomotive to Ashley, Indiana for a total restoration. #126 now makes guest appearances around the country and is one of three Gramling touring engines featured on the program “Have Locomotive Will Travel”!



50-year Timeline of the Wilmington & Western Do You Have New Information, an Update, or Correction?

If you have new information, an update to the information already included in this publication, or have found an error or other item needing correction, please email us at *timeline* "at" *wvrr* "dot" *com*. If you have historical materials that relate to the Landenberg Branch or Delaware railroads that you'd like to donate to Historic Red Clay Valley, please contact the office.



150 years ago, envisioning a railroad connecting Wilmington, DE with Oxford, PA, Joshua T. Heald would never have imagined an imaging satellite hundreds of miles overhead might accidentally have the precise orbital timing necessary snap a photograph of the railroad line his team was planning. The photo would include a 1909 American-class 4-4-0 locomotive under steam sitting near a station built by the organization he was now president of. The above photo was taken on October 7, 2011 for Google Maps and Google Earth. It is of HRCV's Greenbank Station complex with locomotive #98 and several "Boonton" coaches, a caboose, and SW1 #114 at the rear. The probability of an imaging satellite capturing the 12:30 pm Wilmington & Western Autumn Leaf Special waiting for departure, on a clear sunny day, is mind-boggling. For Google to select the image for Google Maps/Earth is even more amazing.

50-year Timeline of the Wilmington & Western B&O Landenberg Branch Track Profile Map

History

The Railroad Valuation Act of 1913 required the Interstate Commerce Commission (ICC) to assess the value of every railroad in the United States. To do this the ICC formed the Bureau of Valuation which oversaw the total documentation (down to the desks, tools, machinery, and fixtures) of every railroad operating within the US. The intent of the legislation was to determine a railroad's "value" which could then be used by the ICC in determining the fair shipping charges (tariffs) that a railroad could charge based on its value and costs to operate. For detailed information on how the valuation was done, "The Federal Valuation of the Railroads in the United States" published in October 1922 by the Committee on Railroad Securities for the Investment Bankers Association of America may be downloaded as a Google digitized document.

The valuations were conducted between 1914 and 1922. The records from the valuation are housed in the National Archives in Washington DC. There are over 125,000 maps detailing the right-of-ways of the nation's railroads of that era. The B&O valuation map set contains over 2,350 maps including the 8 Landenberg Branch maps (6 maps for Delaware and 2 additional maps for Pennsylvania). The scale of the maps is 1-inch equals 200-feet. The total B&O valuation map set contains over 2,350 maps. The maps were completed on June 30, 1918 by the Baltimore & Philadelphia Railroad Company which was owned by the Baltimore & Ohio Railroad. They are drawn on linen in ink and the latest revisions are in the late 1950s, about the time steam motive power was being replaced by diesel power on the Landenberg Branch.

The basic information on the Track Profile Map was compiled from the B&O valuation data provided to Historic Red Clay Valley, Incorporated when the branch line was purchased in 1982 from CSX Transportation (B&O/Chessie System owner by 1982). Additional information was provided by a B&O elevation drawing. This data has been updated where necessary to reflect more recent major changes and the current state of the line. The Track Profile Map should be considered "informational only" as no attempt has been made to precisely verify the accuracy of the data presented with respect to the present condition and state of the B&O's former Landenberg Branch.

Rail Weight

This line designates the weight of rail installed in pounds per lineal yard. The majority of the line is either 85 or 100 pound per yard rail with road crossings having heavier 131 pound per yard rail. When originally installed the line used 56-pound iron rail. This was later upgraded by the B&O to heavier weights of steel rail in the late 1800s and eventually to 85-pound steel rail in the early 1900s. In the 1960's and 1970's sections were upgraded to 100-pound rail. All new rail installed by the WWRR is a minimum 100-pound rail.

Elevation

Track elevations (designated in feet above mean sea level) are designated at specific spots along the right-of-way. Review of the map will indicate that the line drops 21 feet from Landenberg Junction (the current interchange with CSX Transportation) to Greenbank Road, a track distance of 1.4 miles. Greenbank is the lowest elevation of the line, just 62.3 feet above sea level. Between Greenbank Road and the Route 82 West crossing the track gradually rises a little over 100 feet in 6 miles of track length as the line winds along the Red Clay Creek. After crossing trestle 12B, the "S-trestle", the track again rises just over 100 feet, but it does so in only 1.8 miles of track length. The highest elevation of the line is reached at Old Wilmington Road, an elevation of 279 feet above sea level. For the next mile the track loses 22 feet of elevation as the line arrives in Hockessin. Leaving Hockessin, a rise of almost 6 feet occurs to the end of the branch line at Valley Road.

Ruling Grades

The maximum rate of track rise or fall is indicated for specific sections of track. The ruling grade is either less than or equal to the average grade for the indicated section of track. Where the ruling grade arrow

50-year Timeline of the Wilmington & Western B&O Landenberg Branch Track Profile Map

points to the right it indicates a rising ruling grade. A ruling grade arrow pointing to the left designates a falling ruling grade. All ruling grades are indicated as a percentage. A 1% grade has a rise of 1 foot in 100 feet of length. The steepest ruling grade for the Wilmington & Western is at Hockessin Hill where the ruling grade is 1.5% or a rise of 18 inches per 100 feet of track.

Mileposts

The mileposts line provides a scale of distance for the map as well as provides a reference marker. The line divisions are tenths of a mile. Both full-mile and half-mile points and are labelled.

Ruling Curves

Railroad track is either referred to as “tangent track” or “curved track”. Tangent track is a straight section while curved is just that, it curves to the right or left.

The ruling curves section of the map provides three pieces of information;

- the curve radius (rate of curvature of the track)
- the right or left direction of track curvature
- the change in track direction (number of degrees of a circle occupied by the curved portion of the track from the start of the curve to the end of the curve)

The track line is composed of both heavy and light lines. Where the track line is heavy a straight section of track is indicated. Thin lengths of the track line indicate that the track is curving in the direction indicated by the arrow. Arrows pointing left of the track line indicate that the track curves to the left while arrows pointing right indicate that the track curves to the right.

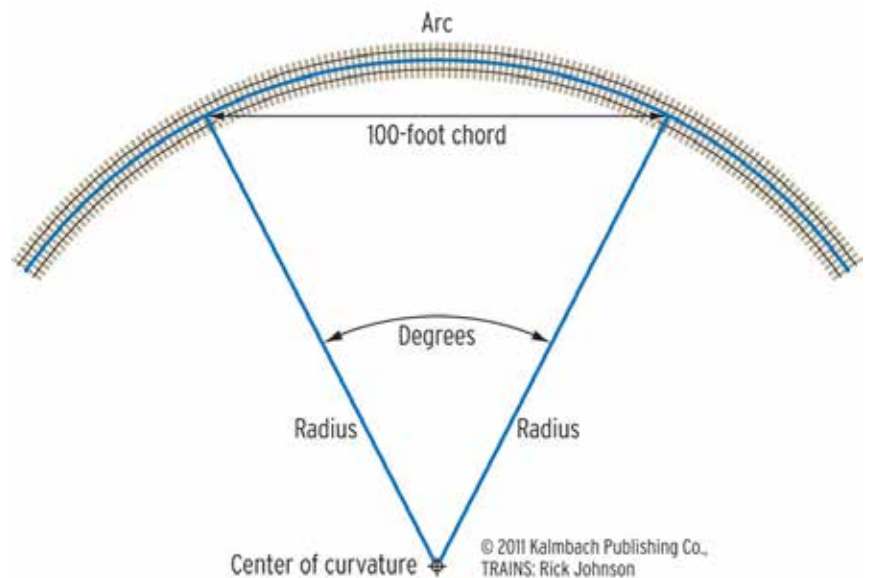
The pair of numbers pointed to by the curve direction arrow indicate the curve’s radius (upper number) and the degree change of track direction (lower number in parentheses). Civil engineers designate railroad track curves by degrees (using the sign “o” for degrees, and “/” for minutes, where there are 60 minutes in 1 degree).

A railroad curve is best visualized as a portion of a circle (an arc) and the angle formed by a 100-foot chord on that arc. Curvature is basically the number of degrees of a circle that are traversed by going a straight-line distance of 100-feet between two points of the curve.

The ‘sharpness’ of a curve is determined by the "degree of curve", or the number of degrees of the central angle subtended by a chord (a chord is a line from one point on a circle to a second point on the same circle) of 100 feet. If two lines start from at point at a circle’s center, and those lines are

extended to form a "V" with a 100-foot distance between the ends of the lines as shown in the image at right, the angle formed by these lines is a "one-degree curve".

The length of the circle's radius that is formed for the one-degree curve will is found to be 5,730 feet (precisely 5,729.65 feet). In practice the formula $R=5730/D$ is used for calculation purposes where R is the



50-year Timeline of the Wilmington & Western B&O Landenberg Branch Track Profile Map

circle's radius in feet and D is the degree of curvature. For the WWRR the sharpest radius curve is 9°30' (9 degrees and 30 minutes) which is a curve on a circle with a radius of 603 feet.

On the Track Profile Map, the degree change in track direction from the start of a curve to the end of the curve is indicated by the number in parenthesis under curve radius number (using the sign ° for degrees and ' for minutes). This number is the number of degrees of a circle occupied by the curve from its start to its end. Note that for identical curve radii the change in direction may be different.

For example, at Foxhill Lane there is a 6° curve right followed by an 8° curve right. This is followed by a 6° curve left and an 8° curve left. Examination of the two 6° curves shows that the right hand curve changes the track direction by almost 46° while the left hand curve changes the track direction by only a little over 16°. This is due to the right hand 6° curve being 3 times longer in length than the left hand 6° curve. The two 8° curves are nearly the same length and therefore there is not much difference in the change in track direction that these two curves each make. For compound curves (multiple curves that are back to back) the change of track direction is the sum total of the individual changes in track direction of each curve.

Note that for many railroads, the track does not go from a tangent length to a curving length at a designated point along the track (known as a "simple curve"). There is a transition section of track, called a spiral, that runs between the straight track and where the track changes at a constant rate of curvature. This is to "ease" the trucks of the cars into the curve so that passengers (and freight in freight cars) are gradually introduced to the change of direction. The transition or spiral is a continuous change of radius from straight to the designated curve radius. A transition or spiral is often placed at the exit of a curve as it transitions back to straight track. Not all curves have to have transitions and when the Landenberg Branch was constructed, transitions were not used for the majority of the curves due to the slower speeds and that the curves were only a few degrees of curvature. Most of the curves on the Landenberg Branch are simple curves without transitions.

There are more complex curves on the Landenberg Branch. Compound curves are defined as curves with no tangent track between the curving sections. Those curving sections may be "reverse curves" (think in the shape of an "S" like the S-trestle), or may be a continuous curve either right or left but where part of the curve occurs at one rate immediately followed by a curve section in the same direction at a curving rate more or less than the one adjacent.

Crossings

The locations of all bridges, crossings, and sidings are indicated along with their designations. The main track is indicated by a continuous line which runs the length of the page. Sidings are indicated by lines to either side of the main track line. The length of the siding lines are drawn in proportion to the map scale, however, all sidings are not parallel to the main line as the map indicates.

Public and private paved roads crossing the tracks at grade crossings are indicated by orange, solid filled, wide lines perpendicular to the main track line. Any road which crosses over the tracks by means of an overhead bridge is indicated by an orange, not filled, line across the main track line. A thin orange line perpendicular to the main track represents a dirt road or other minor crossing of the railroad tracks. The designation of the crossing is provided to the right. While all public and private road crossings are shown as crossing perpendicular to the main track this is not so in most cases.

Two small red dots to either side of a road as it crosses the track indicate that the grade crossing has automatic signal protection. All of the grade crossing signals are overhead cantilever except both Route 82 crossings, and the Sharpless Road and Mt. Cuba Road crossings. The Old Lancaster Pike and Mill Creek

50-year Timeline of the Wilmington & Western B&O Landenberg Branch Track Profile Map

Road crossings do not have cantilevered lights but because of the dual track have gates which are operated by the signal system.

Bridges & Trestles

A bridge is defined as a crossing over a stream or road where the structure is totally supported at the ends of the structure. The Iron Bridge (11A) is a bridge because it has two concrete and stone abutments and the iron bridge is totally supported on the abutments. A trestle by comparison is a series of what might be considered bridge segments connected together. Trestles include abutments similar to bridges however there are also supports between the abutments called "bents". As the Landenberg Branch crosses the Red Clay Creek, trestles are used as there are supports between the creek bed and the track structure.

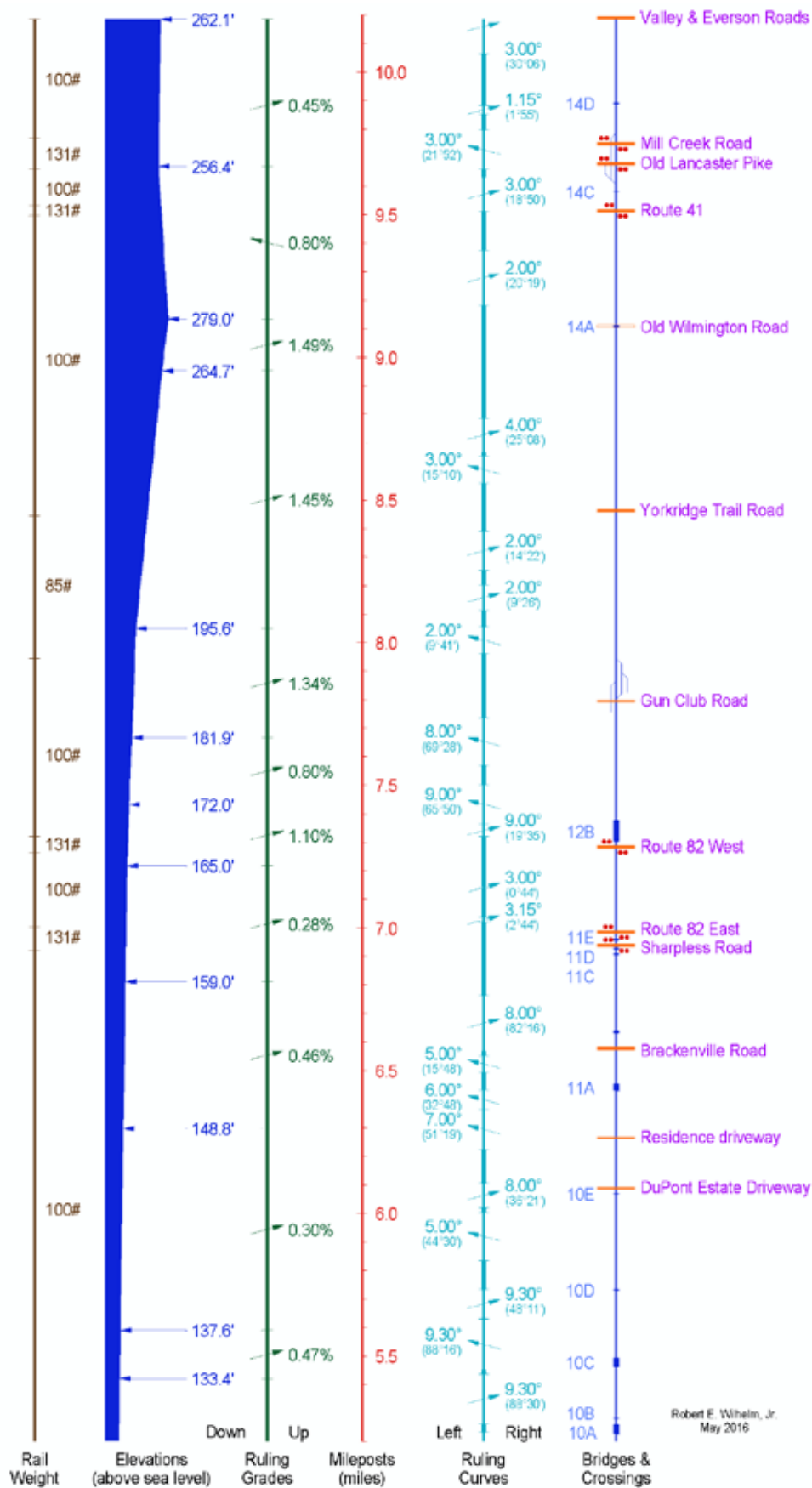
For maintenance purposes a railroad would subdivide a longer section of track into subdivisions. Each was given a number. Within a subdivision major bridges and trestles were identified by the numerical subdivision and a letter. As the original Wilmington & Western Rail Road Company line originated in Wilmington, DE and ran to Landenberg, PA, the zero point was the railroad's enginehouse in Wilmington.

Landenberg Junction is approximately four track-miles from the original enginehouse in Wilmington and thus for the current line the first bridge designation is 5A which was actually for a trestle on a siding crossing the Red Clay Creek at the former Marshall Rolling Mills (in the vicinity where the Robert Kirkwood Highway (Route 2) overpass is located; remember Kirkwood Highway did not exist in 1872 and thus there was no overpass to identify!).

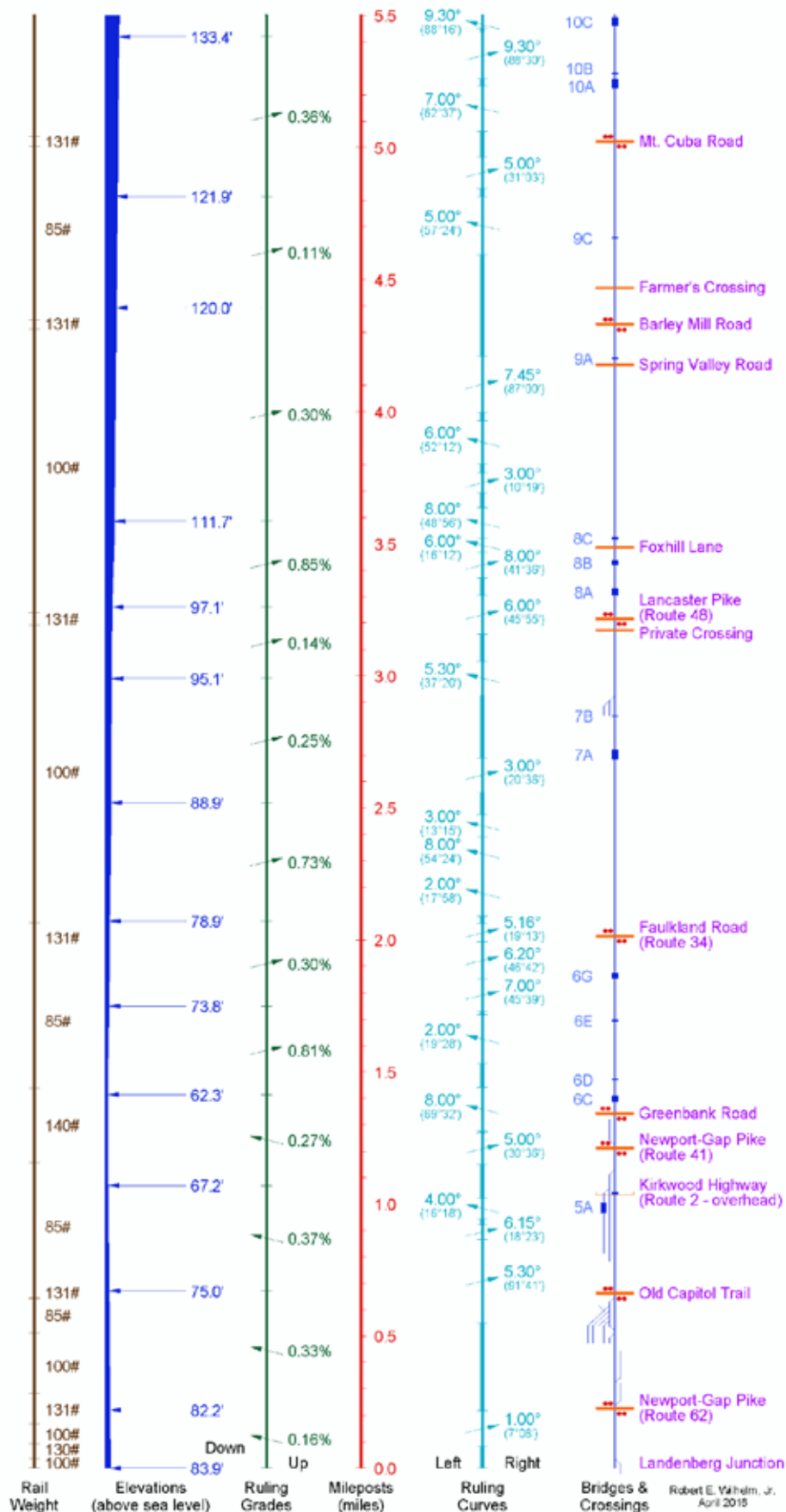
The first railroad trestle carrying Landenberg Branch tracks across the Red Clay Creek is just railroad west of Greenbank Station and is designated 6A (now known as Ludlow Bridge). Trestle 6A was approximately six miles from the original Wilmington & Western enginehouse in Wilmington, DE. There were fifteen right-of-way subdivisions in Delaware and four in Pennsylvania. The last bridge on the line carried the railroad over Landenberg Road at Landenberg, PA and was designated bridge 19B. The Broad Run trestle was designated 17B, the S-trestle is 12B (there was a short bridge at the water tower location along Creek Road (Route 82) designated 12A).

Readers will note there isn't a 6A and 6B shown on the map. These once existed and were removed prior to the 1918 valuation as they were replaced by concrete pipes. In some cases, the 1918 valuation materials indicate where they probably were as they didn't exist for the valuation there is no historical information available. Bridge 6F was replaced by the B&O after the 1918 valuation with a 48" cast iron pipe thus there's a note indicating that historical information. Bridge 9B was replaced by the B&O with a stone box ditch. Pony truss bridge 11B carried Barley Mill Road over the railroad tracks in Ashland and was removed in the early 1990s by the Delaware Department of Transportation. There were originally two I-beam bridges between NVF Company and Yorkridge Trail Road labeled 13A and 13B. These were replaced with 48" concrete pipes by the B&O. Bridge 14B was for a short iron I-beam bridge over a drainage ditch between Old Wilmington Road and Newport-Gap Turnpike what the B&O replaced with a 48" pipe

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HRCV volunteers donated their time to prepare this publication. Please consider a donation to HRCV as a thanks for their efforts and to insure our future.

50-year Timeline of the Wilmington & Western Symbols, Abbreviations & Definitions

Symbol	Definition or Description
#114	<p>SW1 #114 was built in 1940 by the Electro-Motive Corporation (EMC) of General Motors for the Lehigh Valley Railroad (LV). After many years on the LV, it was sold to the Maryland Port Authority and worked as a dock switcher for a number of years in Pocomoke City, Md. In 1974, #114 was moved to the Ocean City Western Railroad in Ocean City, Md., where it worked briefly in tourist service, until the railroad closed in the late 1970s.</p> <p>In the early 1980s, the HRCV volunteers searched for another diesel locomotive and found #114 in storage on a siding in Snow Hill, Md. HRCV's American Locomotive Company #3 (diesel) had more motive power and weight on the wooden trestles then needed at the time on the Wilmington & Western and the locomotive's "The Ground Hog" nickname meant it was not a favored locomotive to operate on the undulating curves of the Landenberg Branch. Funds were not available at the time to purchase the locomotive, but two HRCV members offered to purchase #114 and lease it to HRCV. A lease agreement was negotiated that included the option to trade #3 (diesel) for #114 once #114 was operational on the Landenberg Branch.</p> <p>As #114 had truck issues, HRCV volunteers transported replacement rebuilt roller bearing trucks with traction motors to the engine's storage location, jacked the engine off the original friction bearing trucks, and set it down on replacement roller bearing trucks. The engine was moved by Conrail and CSXt to Marshallton and began a long restoration. Restoration activities included the installation of a new cab floor and windows, extensive body work, and a complete overhaul of the auxiliary generator and electrical cabinet. The diesel engine and air compressor and brake rigging were also serviced as necessary.</p> <p>In the spring of 1992, the HRCV Board of Directors approved a plan to officially acquire #114 in trade for locomotive #3 (diesel), an Alco S2. #114 entered revenue passenger service on Sunday, September 26, 1993, and has worked in the Red Clay Valley ever since. Removed from service in 2013 to have new wheelsets installed at Amtrak's Wilmington Shops, #114 returned to HRCV in mid-2014. #114 produces 600 horsepower and has a fuel tank capacity of 600 gallons.</p>
#3 (Diesel)	<p>Rohm-Haas donated American Locomotive Company S2, 1,000 horsepower, diesel switcher to HRCV. Built for the Chesapeake & Ohio's Chesapeake Division, #3 was one of 58 Model S2 locomotives delivered to the C&O between May 1949 and March 1950. The 115-ton locomotive carried the number 5015. Later the C&O renumbered the engine 9115. In 1963 it was sold to the B&O. In 1985 the Chessie System sold the engine to Rohm & Haas in Philadelphia, PA where it was numbered RH-6731. Rohm & Haas donated it to HRCV in 1985. The S2 (and ALCO's S4 as well) had the exterior look styled in an Art Deco fashion by ALCO industrial designer Ray Patten. Eventually exchanged with the owners of #114, #3 (diesel) now resides at the West Chester Railroad.</p> <p>#3 (diesel) was one of 1,502 total units produced between August 1940 and June 1950. The design included dynamic braking and multiple unit capability. ALCO's Model S2 differed from their S4 in the trucks used under each locomotive. While the S4 used standard Association of American Railroads (AAR) type A switching locomotive trucks, the S2 used ALCO's in-house designed "Blunt" trucks. The S2's Blunt trucks were designed to negotiate uneven track without derailing. Unfortunately, in situations</p>

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	where light rail was minimally secured to rotting crossties, the Blunt truck design would twist rail spreading it such that the engine drops between the rails resulting in a derailment. The W&WRR's S2 was no exception and earned the nickname "The Ground Hog" during its stay on the Landenberg Branch for its ability to derail.
#3 (Steam)	Ex-Navy 0-6-0T Vulcan Locomotive Works saddle tank switcher. The locomotive, originally designated as WD-4417, was one of 123 constructed in 1942 by the Vulcan Locomotive Works, Wilkes-Barre, PA. It burns bunker C oil and carries water in "side-tanks" mounted on either side of the boiler. #3 was built originally for the United States Army Transportation Corps (USATC) as a S100 Class engine for switching operations. The design was also manufactured by the H.K. Porter Company (150 locomotives) and the Davenport Locomotive Works (109 locomotives). Last used at the Philadelphia Naval Yard, #3 worked the Wawa & Concordville Railroad briefly then migrated to the Wilmington & Western for operation in the 1980s. It was then purchased by the Delaware Coast Line for operation on the Queen Anne's Railroad operation near Lewis, DE. The latter is now defunct, and #3 now rusts in storage there.
#37	See Sugar Pine Lumber Company (SPLC) below.
#4662	<p>The car is self-propelled, and features both passenger seating and baggage storage. "Doodlebugs" saw service on lightly-used branch lines where it was not economical to operate a full-length train.</p> <p>Out-shopped on April 29, 1929 by the Pullman and Standard Car Company of Chicago, it was sent to the J.G. Brill Company of Philadelphia for outfitting after which #4662 served the Pennsylvania Railroad until 1959. Its original six-cylinder Winton 175 horsepower gasoline engines were replaced with Cummins HBIS-6 175 horsepower diesel engines during the winter of 1942/43. This changed the car's classification from GEG-350 to OEG-350. Retired from PRR service in April 1959, #4662 was sold to the National Capital Trolley Museum with hopes that the diesel generators might power for trolley trackage at the museum. #4662 was stored outside in North Baltimore where it became heavily vandalized.</p> <p>The car attracted the attention of HRCV volunteers in 1967 as a derelict on the Green Springs Branch of the Pennsylvania Railroad's Northern Central Line near Lake Roland, Maryland. HRCV purchased the car in March 1967 and with help from the PRR and B&O had it towed (by a chain for the last part of the trip when the coupler broke!) to Marshallton. By March 1979 an extensive 13-year restoration project was completed consuming an estimated 11,000 volunteer hours. #4662 entered charter service on the Wilmington & Western with its first charter in March 1980.</p> <p>In 1989 a donation by the Revere Copper and Brass Foundation permitted a second restoration project to occur. This restoration involved the replacement of the diesel engines, painting inside and outside, and new seat cushions and coverings. #4662 was named "The Paul Revere" and is used for charters between Greenbank, Mt. Cuba, Yorklyn, and Hockessin.</p>
#58	Built by the Baldwin Locomotive Works as construction number 31899 in October 1907, the locomotive was shipped to the Atlanta, Birmingham & Atlantic Railroad (AB&A) displaying #58. Later transferred to AB&A's subsidiary, Atlanta, Birmingham & Coast Railroad (AB&C), its number was changed to #27. In 1945, the Atlantic Coast

50-year Timeline of the Wilmington & Western Symbols, Abbreviations & Definitions

Symbol	Definition or Description
#58	<p>Line merged the AB&C and near the end of WWII, No. 27 was sold to the U.S. Army who changed the number to 6369. Leaving the US Army for the Virginia Blue Ridge Railroad it became #4. Purchased by the Mead Corporation of Lynchburg, VA the number changed to #300 while it operated in switching service until the late 1950s. Purchased by the Ottinger Machine Works of Phoenixville, PA for eventual use on the Valley Forge Scenic Railroad the locomotive ended up being sold to Brian R. Woodcock in 1973 having never seen steam since the late 1950s. Woodcock (HRCV President 1977-1983) donated #58 to HRCV. Built in 1907, the engine is not superheated. The engine has been named "The Veterans Locomotive" and displays its original number with the AB&A - #58.</p>
#8408	<p>Without question #8408 has been the workhorse locomotive on the Landenberg Branch since HRCV purchased the line in 1982. As serial number 1106 this SW1 switcher was one of 16 delivered to the B&O during August 1940. Manufactured at the General Motor's ElectroMotive Division in Chicago, and carrying the number 208, this six-cylinder, two-cycle locomotive delivers 49,500 pounds of tractive force. In February 1957 the number changed to 8408 when all 200-series numbers were changed to 8400-series numbers by the B&O. #8408 worked the Landenberg Branch for the B&O (along with several other SW1 locomotives assigned to the B&O's Wilsmere Yard, and HRCV purchased the engine for freight service use.</p> <p>#8408 has solid ties to the Landenberg Branch since its delivery to the B&O's Wilsmere Yard in late 1940. It is the only locomotive to provide motive power for HRCV trains during the celebration of significant railroad events!</p> <ul style="list-style-type: none"> · Baltimore & Ohio #8408 was present and used for the 1966 ribbon-cutting ceremony marking the return of steam passenger service on the Landenberg Branch after former Canadian National Mogul #92 suffered pilot damage on the way to Greenbank Station for the celebration. #8408 took over as motive power after #92 made the initial trip to Mt. Cuba with dignitaries. · When both #92 and #98 were out of service due to mechanical issues in late 1972, B&O #8408 again provided motive power for HRCV's October 14, 1972 celebration of the 100th anniversary of the construction of the railroad by the Wilmington & Western Rail Road Company. · Still in its Chessie System livery, #8408 was pusher-service motive power for #98 when HRCV celebrated the purchase of the Landenberg Branch from the B&O/Chessie System in September 1982 · HRCV celebrates the start of their 25th year operating tourist passenger trains displaying the Wilmington & Western Railroad livery on May 25, 1991. With no steam engines available due to major repairs that are ongoing with #98, #8408 is left (along with 1,000 horsepower ALCO S-2, #3) to power all trains in the Red Clay Valley. · After an extensive \$400,000 restoration, #8408 participates in opening-day ceremonies recognizing HRCV's 50-years of operating Wilmington & Western Railroad trains on the B&O's former Landenberg Branch. With #98 not "officially" returned to passenger service, #8408 opens the 3-day 50th Anniversary Celebration weekend as the Wilmington & Western's lead motive power for the day's celebration trains to Mt Cuba and Hockessin. On May 29th, #98 is officially returns to passenger service with #8408 making it the first time these two workhouse HRCV locomotives have teamed up since 2010!

50-year Timeline of the Wilmington & Western Symbols, Abbreviations & Definitions

Symbol	Definition or Description
#8408	#8408 also holds a special personal significance for timeline editor Robert E. Wilhelm, Jr. as his grandfather, William B. Dudkewitz, a B&O steam and diesel engineer, ran this locomotive on the Landenberg Branch delivering freight until his retirement in the late 1960s. As Dudkewitz's grandson, Wilhelm operated Wilmington & Western #8408 in the 1990s on the Landenberg Branch as an HRCV volunteer.
#92	Built for the Grand Trunk Railway Company of Canada by the Canadian Locomotive Company of Kingston, Ontario in 1910 the 2-6-0 Mogul locomotive was given number 1017. Originally Grand Trunk Railroad class E-8, #1017 was rebuilt with superheaters and piston valves in 1913 and reclassified as class E-12. Six years later, in September 1919, #1017 was renumbered to #919. Grand Trunk merged with the Canadian National Railway in January 1923 and locomotive #919's class was changed to E-10a to fit the CN classification structure. In 1951 it was renumbered again to become #92. Purchased by Thomas C. Marshall, Jr. and donated to Historic Red Clay Valley Inc. in 1959, the coal-fired steamer has the distinction of being HRCV's first steam locomotive. Built with 63-inch drivers and an operating boiler pressure of 170 psi, #92 weighs in at nearly 142,000 pounds. #92 currently sits in Marshallton Yard awaiting a significant donation so that it can be restored to active service. Two of #92's sisters are in operation, though, not far from the Wilmington & Western; #89 is at the Strasburg Rail Road and #91 is at the Middletown & Hummelstown Railroad.
#98	<p>The first locomotives with a 4-4-0 wheel arrangement were built in 1837 and the design lasted for nearly a century. By the end of the 1920s, over 25,000 such locomotives had been built. The 4-4-0 was a popular choice for nearly every American railroad, so much so that the wheel arrangement soon earned the name "American".</p> <p>#98 was built by the American Locomotive Company (ALCO) of Schenectady, NY, in January 1909 (construction #45921). #98 worked in passenger service on the Mississippi Central Railroad before being retired in December 1944. Paulsen Spence purchased #98 in 1947 for the Comite Southern Railroad, and later the Louisiana Eastern Railroad. Thomas C. Marshall, Jr. and T. Clarence Marshall purchased the locomotive in January 1960 with the intent of operating it (and several other engines) on a proposed weekend steam tourist railroad in Wilmington, DE.</p> <p>#98 was moved to the Strasburg Rail Road as Strasburg wished to lease the engine for their tourist operations. Upon arrival at Strasburg, the ICC inspector found #98's Form 4 documentation inadequate and would not permit the engine to be placed in service. #98 was placed in storage until facilities and arrangements could be made to return the engine to Wilmington.</p> <p>In April 1964, #98 was moved off Strasburg property and shipped to Delaware. After hundreds of man hours of work, HRCV volunteers were able to document #98's design and complete the FRA Form 4 documentation. #98 returned to service in October 1972. Thomas C. Marshall, Jr. officially donated the locomotive to HRCV in December 1977. #98 operated regularly until the end of 1998 when it was removed from service to undergo a major rehabilitation project. #98 returned to Landenberg Branch rails on Saturday, October 16, 2004.</p>
AB&A	Atlanta Birmingham & Atlantic Railroad - the railroad that originally purchased #58

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Symbol	Definition or Description
Auburn Heights Preserve	Auburn Heights Preserve – a 360-acre Delaware State Park that has been created starting in 2002 from former property belonging to the National Vulcanized Fibre Company (NVF) and added to with donations of the Marshall family estate in Yorklyn, DE and Oversee Farm property belonging to a relative of the Marshalls. The area is listed on the National Register of Historic Places (1980) as the Auburn Mills Historic District.
AVRR	Auburn Valley Railroad - T. Clarence Marshall and Thomas C. Marshall Jr's live-steam railroad located at Auburn Heights in Yorklyn, DE (now part of Auburn Heights Preserve, a Delaware State Park). In the early 1960s the 1½-inch scale (7½" gauge) AVRR operated on weekends and was run by HRCV volunteers to raise funds that were used for the restoration of the "Boonton" coaches and other equipment HRCV was assembling for eventual use on the B&O's Landenberg Branch. The AVRR live-steam railroad features two 4-8-4 Northern locomotives and eventually carries 33,000 passengers over the five years of operation raising \$13,000 to fund the early organization.
B&O or B&ORR	Baltimore & Ohio Railroad - later fully owned by the Chesapeake & Ohio Railroad and then part of Chessie System (a holding company of several railroads at the time). Finally, through additional railroad consolidations and mergers in the 1970s, Chessie System becomes CSX Transportation (CSXt) which is a subsidiary of CSX Corporation.
B&PRC	Baltimore & Philadelphia Railroad Company – After the Baltimore & Ohio Railroad (B&O) had just lost a bid to purchase the Philadelphia, Wilmington, & Baltimore Railroad (PW&BRR) they immediately purchased the Delaware Western Railroad. Purchase of the PW&BRR would have provided the rails necessary to begin freight and passenger service between Washington, Baltimore, Philadelphia, and New York. After the Delaware Western purchase, the B&O's management formed the B&PRC to connect Baltimore with Philadelphia. The B&O transferred controlling interest in the Delaware Western to the B&PRC in February 1883. Over the next several years, main line tracks were constructed between Baltimore and Philadelphia across New Castle County Delaware and parallel to the BW&BRR now owned by the PRR. After the tracks were in service between the two cities, the line became part of the B&ORR system in 1886.
"Boonton" Coach	The term "Boonton" coach derives from the Delaware Lackawanna & Western Railroad's commuter line that operated through Boonton, NJ. A "Boonton" coach is characterized by their unique I-beam platform roof supports at either end of the car. In service for more than 40 years with the DL&WRR, they are first-generation all-steel clerestory roof cars with concrete floors. Seating 72 passengers (#410, the Combine seats 56 passengers) they weigh approximately 54 tons without passengers. The Wilmington & Western "Boonton" coaches retain their original Kilburn walkover seats which have been maintained with reproduction cane covering matching the original.
C&O or C&ORR	Chesapeake & Ohio Railway – The Chesapeake & Ohio Railway was formed in 1869 from the merger of several railroads in Virginia. Becoming known as "Chessie" the railroad owned trackage in West Virginia, Ohio, Kentucky, Indiana, and Michigan. In February 1963 the C&O gained stock ownership of the Baltimore & Ohio Railroad and by 1967 and stock ownership of the Western Maryland Railway. In 1973 Chessie System was formed as a holding company for the C&O, B&O, WM, and other railroads. With the formation of CSX Transportation in 1987, Chessie System and several other

50-year Timeline of the Wilmington & Western Symbols, Abbreviations & Definitions

Symbol	Definition or Description
	railroads were all merged to become CSX Transportation (reporting mark CSX) and the Chessie System livery was retired.
Chessie System	Chessie System – A holding company formed in 1973 as the parent company of the Chesapeake & Ohio Railroad, Baltimore & Ohio Railroad, and Western Maryland Railway. Chessie System did not have its own reporting mark and instead used the reporting marks of the three railroads it owned; BO (Baltimore & Ohio Railroad), CO (Chesapeake & Ohio Railway), WM (Western Maryland Railway). In 1980 Chessie System and Seaboard Coast Line Industries (a railroad) merged into CSX Corporation. In 1986 CSX Transportation was formed as the railroad division of CSX Corporation.
CN or CNR	Canadian National Railways – formed in 1919 from several railroads that had gone bankrupt, Canadian National Railways was a Canadian government operated railroad until 1995 when the company was privatized. It is the railroad that locomotive #92 was purchased from by the Marshalls.
CSXt or CSX	CSX Transportation Corporation – formed from the merger of Chessie System (former Baltimore & Ohio Railroad Chesapeake & Ohio Railway, Western Maryland Railway) and Seaboard System Railroad (a merger of multiple railroads). CSX Transportation is a subsidiary of CSX Corporation which is a real estate and railroad holding company and includes CSX Transportation, CSX Intermodal Terminals, CSX Technology and other subsidiaries. CSX Corporation also owns Conrail along with Norfolk Southern Railway. CSX Transportation’s railroad reporting mark is CSX however CSXt is often used in literature to distinguish the rail transportation subsidiary from the other subsidiaries.
DelDOT	Delaware Department of Transportation – a state of Delaware agency governing the operation and use of the state’s transportation infrastructure.
DL&W or DL&WRR	Delaware, Lackawanna & Western Railroad – A Class 1 railroad incorporated in 1853 and connecting Hoboken, NJ with Buffalo, NY. The line merged with the Erie Railroad in 1960 to become the Erie Lackawanna Railroad. HRCV’s “Boonton” coaches were built for the DL&W and used on their line running through Boonton, NJ.
DNREC	Delaware Department of Natural Resources & Environmental Control – a state of Delaware agency that governs the use of the state’s natural resources and provides environmental regulation. The agency is responsible for the operation of all Delaware State Parks including Auburn Heights Preserve on the former National Vulcanized Fibre property.
DWR	Delaware Western Railroad –Wilmington & Western Rail Road Company successor
EMD	General Motors Electromotive Division – manufacturer of SW1 600-horsepower switching locomotives used by HRCV on the Landenberg Branch
ESPN	East Penn Railroad – a 114-mile long regional freight railroad now operating on the Octoraro Branch of the former Pennsylvania Railroad and the Wilmington & Northern Branch of the Reading Company along with other routes in Pennsylvania. It was formed in 2007 by the merger of East Penn Railways (reporting mark EPRY) and Penn Eastern Rail Lines (reporting mark PRL). East Penn Railroad is one of three short-line railroads owed by Regional Rail, LLC.
FAHP	Friends of Auburn Heights Preserve – a non-profit educational organization founded by Thomas C. Marshall, Jr to preserve and operate the Marshall Collection of Stanley

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Symbol	Definition or Description
	steam cars, preserve and operate the Auburn Valley Railroad, and to support Delaware State Parks in preserving Auburn Heights and telling the Marshall family story.
FRA	Federal Railroad Administration – a federal agency responsible for the safe operation of all US public railroads that are not classified as industrial or private.
HRCV	Historic Red Clay Valley Incorporated – a non-profit corporation formed by Thomas C. Marshall, Jr for the purpose of returning and operating steam passenger trains to the B&O's Landenberg Branch.
ICC	Interstate Commerce Commission – predecessor to the FRA
LV or LVRR	Lehigh Valley Railroad – the railroad that purchased SW1 #114 originally.
MCRR	Mississippi Central Railroad – chartered by the Mississippi Legislature in 1852 to operate between Canton, Mississippi and Grand Junction, Tennessee, the line was absorbed into the Illinois Central Railroad starting in 1872.
NARCOA	North American Rail Car Operators Association – a non-profit organization that preserves and operates railroad equipment historically used for railroad maintenance of way activities. The group is primarily interested in “speeders” which is the nickname for gasoline powered rail motorcars which evolved from one and two man velocipedes and multi-man hand pump cars.
NCC	New Castle County – the uppermost of the three counties of Delaware and the county which the B&O and HRCV operates.
OCTR	Octoraro Railway – a shortline that moved freight on the Octoraro Branch of the Pennsylvania Railroad between 1977 and 1994. The Octoraro also operated on the former Wilmington & Northern Railroad, a former branch of the Reading Company. The operation was sold to Delaware Valley Railway on July 1, 1994. After several owners the tracks are now owned by the East Penn Railroad.
P&NRR	Pomeroy & Newark Railroad – A railroad that constructed a route from Pomeroy, PA to Newark, DE starting in the 1860s that was in operation by 1873 just after the Wilmington & Western Rail Road Company began operations on their new line from Wilmington, DE to Landenberg, PA which intersected with the P&NRR. After several sales and mergers, the line was absorbed by the Pennsylvania Railroad in 1917. The route started to be broken up after 1936 and now only parts of it remain as rail trails.
PRR	Pennsylvania Railroad – the nation's largest railroad at the start of the 20 th century with respect to traffic and revenue. Founded in 1846 it became the largest publically traded company in the world with an annual budget larger than the US government for several years. With the decline of the US rail industry in the 1960s and 1970s the Pennsylvania Railroad merged with the struggling New York Central Railroad in 1968 to become the Penn Central Transportation System. In 1970 the Penn Central became the largest bankruptcy filing in US history. In 1976 Congress took over the Penn Central and five other northeastern railroads to form the Consolidated Rail Corporation (Conrail).
PW&B or PW&BRR	Philadelphia, Wilmington, & Baltimore Railroad – A railroad which operated in New Castle County, Delaware between the Maryland and Pennsylvania state lines. Founded in 1836 the railroad ran through Delaware and leased trackage rights to both the B&O and PRR. The line was bought by the PRR in a bidding war with the B&O.

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Symbol	Definition or Description
SPLC or PLC	Sugar Pine Lumber Company or Pacific Lumber Company – American Locomotive Works 2-8-2T #37 was a logging locomotive burning bunker-c oil. The locomotive was built for the Sugar Pine Lumber Company and later served the Pacific Lumber Company. It was transported east for use on the Wawa & Concordville Railroad, a tourist railroad. When that railroad ceased operations the locomotive was purchased by an HRCV volunteer and returned to service with the W&WRR under a lease arrangement. The locomotive eventually developed a boiler problem and use was discontinued. It currently resides at Strasburg Rail Road awaiting a full rebuild before returning to the west coast for steam tourist railroad service.
Wilsmere Yard	B&O switching yard between Baltimore, MD and Philadelphia, PA with 27 tracks.
W&WRR	Wilmington & Western Railroad or Wilmington & Western Rail Road Company – was the original 1869 chartered company and uses the livery mark WWRR or W&WRR. Since 1966 the Wilmington & Western Railroad is the livery name for the heritage passenger railroad service operated by Historic Red Clay Valley Incorporated on the B&O's former Landenberg Branch.
WWRC	Wilmington & Western Railway Corporation – the FRA regulated freight operator for the Landenberg Branch.



Canadian National Railway Mogul #92 working in the 1950s before retirement. Steve Jensen Jr. collection.

Acknowledgments

Special Thanks

This publication began with the vision to create a simple listing, in timeline fashion, of the major events that not only shaped Historic Red Clay Valley over fifty years operating Wilmington & Western trains, but to also document the evolution and growth of the organization. Feedback from those who have read the work as part of multiple reviews comment that the timeline weaves multiple independent story threads related to HRCV, the W&WRR, as well as the B&O railroad into a single tapestry detailing the dedicated efforts of a volunteer organization focused on operating early 20th century railroad equipment in the latter part of the 20th and early part of the 21st centuries.

The information was to be gleaned from the membership newsletters; The “News Letter” and later “The Lantern”, the HRCV Board minutes, and the recollections of members who wished to offer their memories. Initially the publication was proposed as a simple special edition of The Lantern. As the project progressed it has evolved to its present form, a freely available electronic document available through the www.WWRR.com website and a high quality limited run color printed version.

This document would not be possible without the team of HRCV members who assisted in its creation. Information for much of the earliest history of HRCV was provided by HRCV founder Thomas C. Marshall, Jr. Tim Cronin, John LaCosta and John Iwasyk provided valuable memories and clarifications for the early years of operation. Kurt Bell, Tom Gears, Steve Jensen, Steve Panopoulos, Robert Spencer, and Evan Stauffer provided support for much of what happened in the 1970s through 1990s along with the editor’s memories. Texts published by HRCV members including “History of the Wilmington & Western Rail Road”, “Hockessin - A Pictorial History”, “Red Clay Valley Rails”, “Hurricane Floyd”, “The Wilmington & Western Railroad”, and “Landenberg’s Forgotten Railroad: A View of the Past and Present” provided additional historical information and detail. The whole project would not have gotten off the ground had not John Iwasyk and Dan Nichols of the HRCV Archives Committee produced digital copies of every “News Letter” and “The Lantern” ever published along with the HRCV Board of Directors minutes.

Initially planned as a text-only document, the adage of “in for a penny, in for a pound” became true for the included imagery. The inclusion of a “couple” iconic photos gave way to more and more photographs being used to tell the 50-year history of the Wilmington & Western. HRCV members Kurt Bell, Mike Ciosek, Tim Cronin, Tom Gears, Steve Jensen, John LaCosta, David Ludlow, Steve Panopoulos, and the editor freely shared their film and slide photographic collections. These images were either scanned by the owner or the editor so that they could be included in this document. Many of the shared photos have not been widely seen until this publication since they were not in digital format until now. Acknowledgement is extended to Barry P. Broyles, Christian Currao, Lukas Fols, Mitch Goldman, Steve Jensen, Jr, Stephen Lane, J.C. McHugh, Mary Simons, and Cristian Sanchez have supported this work by allowing their digital photography to be included. Finally, acknowledgement of William E. Grant, Richard Hall, and Thomas C. Marshall, Jr. must be made as their photographs were available through their generous sharing of prints of their work with individuals listed above.

The initial text only version of the Timeline was reviewed followed by a final review after the photography was added. Thanks are extended to the reviewers who included Kurt Bell, Mike Ciosek, Tim Cronin, John Iwasyk, Steve Jensen, John LaCosta, David Ludlow, J.C. McHugh, Steve Panopoulos, Mary Simons, Robert Spencer, and Carole Wells.

This document required hundreds of hours to compile, review, and publish. It was all done with volunteer labor. This document is being provided to you through the courtesy of Historic Red Clay Valley Incorporated. If you find the information contained in this document of value, we ask that you consider making a tax-deductible donation to HRCV. Include a note with your donation indicating that you found the W&WRR Timeline an educational and worthwhile read. On behalf of the team that produced this document, **THANK YOU!!**



Summer night's crossing at Greenbank Road. Cristian J. Sanchez photograph.



Greenbank Station in the fog and snow on February 5, 2016. Andrew Schiebel photograph.

HRCV volunteers donated their time to prepare this publication. Please consider a donation to HRCV as a thanks for their efforts and to insure our future.

About the Editor



Editor Robert E. Wilhelm, Jr. with 3-time Indianapolis 500 winner Johnny Rutherford in Wilhelm's 1918 Stanley at Concours d'Elegance, Amelia Island, FL in March 2006. Robert E. Wilhelm, Jr. photo.

Bob graduated with a Bachelor of Electrical Engineering degree (and a minor in physics) from the University of Delaware. He worked for E I DuPont in their corporate engineering and then in their medical products divisions. When the former DuPont medical division was sold in 2000, Bob had sufficient service and age to elect semi-retirement taking a small pension. Bob continued part-time work as a product safety and EMC compliance consultant until 2010 when he fully retired.

From 1978 until 2006 Bob was an adjunct professor at Delaware Technical & Community College teaching in the electronics and mechanical engineering departments. Bob's other accomplishments include two books; *The Programmable Controller Handbook* (published 1985) and *Red Clay Valley Rails* (published 1992) along with numerous other articles for various publications. He has a patent (robotic sampler – patent 4,816,730), held a Professional Engineer's license for the State of Delaware, and was a Technical Associate at the Mt. Cuba Astronomical Observatory. He has been active with theater pipe organ work and has consulted on several large theater organ installations around the country.

Bob's lifelong passion has been steam; steam railroads, stationary steam engines, and steam cars. His special interest are Stanley Steam cars. Wilhelm owns a 1918 Model 735B 7-passenger Touring Stanley Steamer. In 2006 the car was featured at the Amelia Island Concours d'Elegance where the steamer was awarded a Blue Ribbon in the condensing steam car class. Bob maintains a Stanley Steamer website related to the restoration of his car and the general operation of a steam cars called www.StanleyMotorCarriage.com.

Bob is a charter member and volunteer with the Friends of Auburn Heights Preserve which includes the Marshall Collection of Stanley steam cars. He has been a member of Historic Red Clay Valley Incorporated since the mid-1980s. Until 2002 Bob maintained a diesel engineer's certificate, steam locomotive fireman's certificate, and conductor's certificate with the Wilmington & Western Railroad. Bob now serves both organizations researching historical topics of interest, writing articles for both organization's publications, and participating in various educational activities and efforts.

About The 50-year Historical Timeline

At the start of 1953, Baltimore & Ohio 4-6-0 Ten-wheelers #2037 or #2061 shifted freight on the Landenberg Branch. In prior decades the Branch is recognized as the B&O's most profitable. Within a year, a fleet of 1940-vintage B&O 600-horsepower SW1 diesel locomotives are the only motive power making freight moves three days a week. The last steam passenger trains operated on the Branch in September 1930.

Five years later Thomas C. Marshall, Jr., George T. Sargisson, and Clayton M. Hoff, have dinner with the B&O's C. L. Kroll to propose returning steam passenger trains to the Branch. They recall the B&O manager being intrigued by the idea but not encouraging their plans.

In July 1959, a public meeting at Marshall's Yorklyn Gun Club pitches the idea and receives strong support. Before the year is out a retired Canadian National Railway 2-6-0 locomotive is purchased, a former Mississippi Central Railroad 4-4-0 locomotive operating in a gravel pit is under consideration, and negotiations continue with the B&O. In early 1960 Historic Red Clay Valley is incorporated for the purpose; "to promote interest in and engage in the operation of early transportation (particularly railroads); to preserve and restore historic sites and buildings; to establish and operate museums; and to issue such publications relating to the Red Clay Creek Valley as the members deem fitting and proper; all for the public welfare and for no other purpose."

On May 28, 1966 the all-volunteer organization returns steam passenger service to the Landenberg Branch. Since then the Wilmington & Western Railroad has become the nation's seventh oldest, standard gauge, heritage railroad and the oldest operated by volunteer crews. The organization's business model pioneered the concept of leasing a publically owned, Class 1, federally regulated, union labor force, freight railroad's right-of-way for a non-profit corporation's volunteers to operate their privately owned and maintained steam motive power and vintage passenger rolling stock.

In the 1970s the organization faced the Federal Railroad Administration's proposal to regulate out of operation all steam motive power and vintage passenger rolling stock. The B&O filed to abandon the Branch as unprofitable while the oil embargo and gasoline rationing nearly forced HRCV into insolvency. Brighter times were ahead in the 1980s as HRCV risked everything they owned to purchase the Landenberg Branch. The 1990s brought improvements to the line, an expansion of excursions offered, and additions to a diverse roster of vintage equipment. By the start of the 21st century HRCV was again focused on survival after flooding destroys two trestles only to rebuild and have the remaining trestles destroyed by another raging Red Clay flood three years later. As the organization achieves the 50-year anniversary of rail service, HRCV has a new station, modern office and education center, two operable steam locomotives, two vintage diesel locomotives, and the only operating former PRR "doodlebug".

The 220-plus page, chronologically ordered, Historic Timeline tells the history of the Landenberg Branch beginning with the end of the Civil War and the visions of Wilmington businessmen exploring the idea of constructing a railroad from the Delaware River at Wilmington, DE, through Landenberg, PA and ending at Oxford, PA. The formation of the original Wilmington & Western Rail Road Company is revealed along with how the line, beginning operation in October 1872, eventually ended up owned by the Baltimore & Philadelphia Railroad which was a company fully owned and run by the B&O.

The Historic Timeline tells a narrative through recounting multiple activities, all unfolding at the same time over weeks, months, and years. The Historic Timeline maps not only HRCV as an organization, but it accurately details the rich historical heritage of the Wilmington & Western and the dedication of many volunteers over fifty years of operations. More than 225 member's photographs document many of the events and activities which have occurred with "Delaware's Operating Railroad Museum".