

MARYLAND RAILROADS STATEWIDE HISTORIC CONTEXT

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MARYLAND RAILROADS STATEWIDE HISTORIC CONTEXT

PART I

RAILROADS IN MARYLAND

1827 - 1976

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INTRODUCTION: RAILROADS IN MARYLAND, 1827 - 1976

The history of railroad development in Maryland can be divided into four broad, overlapping eras. The first began with the chartering of the Baltimore & Ohio Railroad (B&O), the nation's first common carrier, in 1827. The Baltimore-headquartered B&O was the nation's pioneering long-distance railroad and Maryland's most important east-west route; its engineering standards – and failures – informed the construction of all succeeding long-distance railroads in the Mid-Atlantic Region. The era ends in ca. 1881 when Maryland's railroad map was largely, but not fully, completed. The second era, Railroad Dominance and Overbuilding in Maryland, begins ca. 1875 and ends ca. 1917 with the beginning of World War I. During this nearly half-century period, no other mode of transportation challenged railroads for local, regional, or national supremacy in the movement of people and goods. During the first two eras of Maryland railroad history, a railroad connection often was the difference between whether a town thrived or withered and whether industries were part of national distribution network or a strictly local affair. The era is also characterized by extensive overbuilding of railroad lines as carriers in Maryland sought to capture the same trade. The third period traces the decline of Maryland's railroads between ca. 1918 and 1976, as new forms of transportation challenged what had been the railroad industry's virtual monopoly on transportation. The result would be the birth of national and regional railroad carriers like Amtrak and Conrail, and a reordering of Maryland's railroad industry in the late 20th century, the fourth era of Maryland railroad transportation.

1 BUILDING MARYLAND'S RAILROAD MAP, 1827 TO CA. 1882

During the early National Period, the cities of Boston, New York, Philadelphia, Baltimore, and Charleston, South Carolina were the five most important ports on the east coast of the United States. Baltimore's neighbor to the south, the Washington, D.C./Alexandria/Georgetown area, formed a smaller rival port. All ports were vying for the lucrative trade with the growing Midwest, the Great Lakes, and interior industrial cities like Pittsburgh, Buffalo, Cleveland, Cincinnati, and Chicago. In 1825, New York City gained an advantage over its rivals by opening the Erie Canal, a direct, water-based route between the Great Lakes and New York City. The completion of the Erie Canal catapulted New York into the busiest port in the U.S. Seeking to recapture some of the traffic lost to New York, the other Mid-Atlantic ports - Baltimore, Philadelphia, and Washington D.C./Alexandria/Georgetown - also sought to improve their connections to the Midwest. In 1826, the Commonwealth of Pennsylvania chartered a series of canals and railroads to link Pittsburgh in the west with Philadelphia. Washington, D.C., also opted for a canal, the Chesapeake & Ohio (C&O), to link the headwaters of the Potomac River with the Ohio River, symbolically breaking ground on July 4, 1828. On that same day, the city of Baltimore also broke ground on *its* transportation route to the Ohio River. Baltimore's city fathers, however, placed its future in the hands of a new technology that had not yet been tested for long-distance transportation in the U.S. - a railroad to connect Baltimore with the Ohio River in Wheeling, (West) Virginia. The venture, chartered in 1827, was named the Baltimore & Ohio Railroad (B&O) after its starting and projected ending points. A decade or so later, Pennsylvania would also stake its future on a railroad, using existing railroads and new construction for an all-rail route between Philadelphia and Pittsburgh.

The development of the B&O railroad, and its rivalry with the Pennsylvania Railroad (PRR), would shape much of Maryland's transportation history in the 19th century. The B&O would dominate east-to-west traffic across the state, as well as railroad lines into the coal and timber reserves of Western Maryland. The PRR would dominate Maryland's Eastern Shore, and both would vie for control of the corridor between Washington, D.C., and New York City.

1.1 The B&O Railroad¹

1.1.1 The B&O Main Stem

Baltimore was the most inland of the east coast ports, situated almost at the head of the Chesapeake Bay. The founders of the B&O thought that, in light of its location, a high-speed, year-round transportation system would provide a clear advantage over its rival ports in securing the Midwest trade. Their only other option would be a canal, but Baltimore lacked a suitable eastward flowing river out of the city along which to build a canal. Eventually, the B&O might be able to follow the Potomac River in central and western Maryland, except that the C&O Canal also had plans to use the Potomac's west bank. The B&O's founders also recognized that the Allegheny Mountains in Western Maryland would impede the route of a canal and require expensive solutions to surmount the terrain. For these reasons, they opted for a new technology that had never been tried over the distance they were proposing or through the type of terrain they were to encounter. The B&O would also be a common carrier, accepting all freight and passenger service that could pay the fare, according to a published schedule.

¹ The history of the B&O in the 19th century has been covered extensively by many authors, most notably H.H. Harwood, Jr., *Impossible Challenge II: Baltimore to Washington and Harpers Ferry from 1828 to 1994*, Second Revised Edition (Baltimore: Barnard, Roberts and Company, Inc., 1994); J.D. Dilts, *The Great Road: The Building of the Baltimore & Ohio, the Nation's First Railroad, 1828-1853* (Redwood City, California: Stanford University Press, Redwood City, California, 1993); and J.F. Stover, *History of the Baltimore and Ohio Railroad* (West Lafayette, Indiana: Stanford University Press, 1987). This section presents a summary of the B&O's founding and development in the 19th century, taken primarily from these three authors.

The B&O broke ground for what it called its Main Stem on July 4, 1828, the same date as the C&O Canal, with the first stone laid by Charles Carroll of Carrollton, the last living signer of the Declaration of Independence. The first mile of American railroad, and the stone laid by Carroll, still exist at the B&O Railroad Museum in Baltimore. The route from Baltimore was to follow the Patapsco and Monocacy rivers and then the Potomac River.² The B&O estimated it would take five years to build the Main Stem to the Ohio River; instead, the ordeal was not completed for 25 years.

Initially, the B&O began to construct its Main Stem right-of-way using stone blocks known as “sleepers,” to which rails were affixed using a variety of methods. The most common on the B&O was to drill holes into the tops of the stones, into which an iron “chair” was placed. Wood rails topped by iron straps were placed into the chairs. Later the strap iron was replaced by iron rail. Both types of rail proved to be brittle and broke frequently. In relatively short order, the sleeper and strap iron system was replaced by the system we know today of iron and later steel rails affixed to wood ties.

The B&O Railroad Main Stem reached Elliott Mills (now Ellicott City), Howard County, a distance of 13 miles from the starting point, in May 1830. The B&O entered the City of Frederick, located in Maryland’s Piedmont and 60 miles from its starting point, on December 1, 1831.³ However, Frederick was not on the Main Stem, but on the B&O’s first branch line, a spur of approximately 4.5 miles. The Main Stem bypassed Frederick in favor of an easy valley grade before turning to the southwest to reach the Potomac River at Point of Rocks.⁴ While still building west, the B&O, in 1835, also constructed a branch south to Washington, D.C., a politically astute move that provided the first railroad route into the nation’s Capital and which could potentially put the B&O in a better position to receive federal funding for its endeavor. In 1837, the B&O Main Stem crossed over the Potomac River from Washington County, Maryland into Harpers Ferry, (West) Virginia, where it connected with the Winchester & Potomac Railroad, the first junction of two railroad companies in the United States.⁵ The B&O had crossed into (West) Virginia to avoid looping bends in the Potomac River west of Harpers Ferry. The Main Stem would not re-enter Maryland until it reached Cumberland in 1842, 14 years after construction had begun and nine years after its projected five-year construction time. The \$3.5 million effort to lay track through 97 miles of the rugged Appalachian foothills of (West) Virginia to reach Cumberland had left the B&O and work force financially and physically drained.

Reaching Cumberland saved the B&O from bankruptcy. Coal and iron from the Georges Creek and other valleys of Western Maryland began flowing east, providing the B&O with its first real revenue. The B&O had a virtual monopoly on the region’s coal and iron traffic for eight years; the C&O Canal would not reach Cumberland until 1850.⁶ The canal would progress no farther west, leaving a connection to the Ohio River and the Midwest to the B&O.

The arrival of the B&O had a profound effect on Cumberland. Products made in Cumberland and the surrounding valleys could now reach the Port of Baltimore or other places served by the B&O. Prior to 1842, raw materials like coal and finished products from the iron industry were transported via the National Road, which connected the Ohio River and Cumberland with Baltimore. With its arrival in Cumberland, the B&O started the coal boom in western Maryland. To connect to the B&O, several railroads were established to transport coal, iron, and other freight from the Georges Creek and

² Kalmbach Publishing Company, *The Historical Guide to North American Railroads: 160 Lines Abandoned or Merged Since 1930*. (Waukesha, Wisconsin: Kalmbach Publishing Company, 2000), 41-42.

³ J.D. Dilts, “The First Train Into Cumberland,” *The Baltimore Sun*, November 6, 1992, <https://www.baltimoresun.com/news/bs-xpm-1992-11-06-1992311212-story.html>.

⁴ Harwood, Jr., 66.

⁵ Kalmbach Publishing Company, 42-43.

⁶ Dilts 1992.

Jenning's Run valleys. Entire towns were founded in the valleys in the mid-19th century as company towns, including Pinto, Lonaconing, Vale Summit, Midland, and Barton.⁷

To trans-ship the coal from Baltimore to other parts of the east coast, the B&O in 1849 opened its Locust Point Yard in Baltimore, in the shadow of Fort McHenry. In the years after the Civil War, Locust Point became the B&O's primary overseas grain terminal and an immigration pier that processed thousands of people from Central and Eastern Europe.⁸ The Locust Point Yard and pier was the first of many steps taken by the B&O in the 19th century that would transform Baltimore Harbor into an industrial landscape. In Western Maryland, the coming of the Main Stem also created Cumberland's first boom period, with the population rising from 1,000 to 6,000 people in less than 10 years, and new hotels, mills, and warehouses built near the railroad depots and yards.⁹

From Cumberland, the B&O Main Stem followed the west bank of the Potomac River, crossing briefly back into (West) Virginia at Keyser, where it established a large shop complex and railroad yard, before re-entering Maryland. The Main Stem passed through Westernport and Luke, a boon to the paper and pulp mills of those towns, after which it again returned to (West) Virginia. Crossing into Garrett County, the Main Stem began a long, 17-mile-long ascent up Backbone Mountain, reaching the summit of the Allegheny Mountains at Altamont, Maryland, at 2,628 feet above sea level, the B&O's highest point in Maryland. The climb up the mountain was at 116 feet per mile, a ruling grade of 2.2 percent, the limit of railroad technology at that time. New towns were established along the line, including Altamont, Swanton, Deer Park, Loch Lynn, and Oakland.¹⁰ The Main Stem finally reached the Ohio River at Benwood, (West) Virginia in 1853. From there, B&O acquired and built railroad lines to connect to Chicago, making the B&O one of the three great railroad systems of the Mid-Atlantic and Midwest in the years after the Civil War, along with the PRR and the New York Central.

1.1.2 The B&O During the Civil War

Upon completing its Main Stem and advancing west, the B&O's financial footing improved, although it was still burdened by heavy construction debt and its revenue would never match that of its rivals in the Mid-Atlantic, the PRR or the New York Central. The railroad would soon be tested further, first by John Brown's raid on the armory at Harpers Ferry, which sat on the B&O's Main Stem, and then by the outbreak of the Civil War. No Maryland railroad was more strategically important in the Civil War than the B&O's Main Stem. It formed the main rail connection between Washington, D.C. and the Midwestern states that provided much of the Union's support, as well as with the western Virginia counties that were ambivalent to the Confederate cause (and which would form the State of West Virginia in 1863); the railroad was also an important transporter of Maryland and West Virginia coal, a major source of power for northern factories, ships, and homes. The Main Stem straddled the border of Maryland and Virginia for much of its route, placing it firmly on the battle line between Robert E. Lee's Army of Northern Virginia and the Union's Army of the Potomac. Every time Confederate forces crossed the Main Stem, whether advancing or retreating, they tore up the tracks. B&O President John Work Garrett, originally a southern sympathizer, became a Union supporter and a confidante of President Abraham Lincoln. During the third Confederate invasion of the North in 1864, which culminated in the Battle of the Monocacy and a threat to Washington, D.C., B&O station agents reported Confederate troop movements

⁷ J.H. Weaver, *Architecture in Allegany County: A History* (Cumberland, MD: Commercial Press Printing Company, 1989), 7-8.

⁸ H.H. Harwood, Jr., 77; D. Shackelford, *Images of America: The Baltimore & Ohio Railroad in Maryland* (Charleston, South Carolina: Arcadia Publishing Company, 2014), 46.

⁹ Dilts, "The First Train into Cumberland."

¹⁰ K. Grandine, Altamont Seventeen Mile Grade, Determination of Eligibility Form G-IV-B-175, 2005.

and the railroad provided critical Union troop transportation. At war's end, Garrett organized the funeral train that took Lincoln's body from Washington to Springfield, Illinois.¹¹

1.1.3 The B&O and the Telegraph

The telegraph's rise in the United States is inextricably tied to the B&O. On May 24, 1844, inventor Samuel Morse used telegraph lines installed in the B&O's right-of-way to send the nation's first telegraph communication from Washington, D.C., to the B&O's Mount Clare Depot. Telegraph technology continued to develop, and by 1851, the B&O was dispatching all of its trains by telegraph. The Western Union Company initiated its telegraph service in 1861, using the B&O's right-of-way to run part of its first transcontinental transmission line. Once the telegraph was established as a means of long-distance communication, new telegraph companies signed agreements with the B&O for use of its right-of-way to run their transmission lines. In exchange for its use, the B&O received telegraph service for its train operations.¹²

Because telegraph companies used the B&O's right-of-way, the railroad wielded tremendous power over the telegraph industry and its fledgling companies. The railroad conglomerate negotiated contracts with companies for use of its rights-of-way that included onerous clauses. For example, if a telegraph company suspended or ceased operations, either voluntarily or involuntarily, the B&O was authorized to take ownership and control of their telegraph lines and all associated equipment for its own purposes. Their contracts also stipulated that telegraph companies could not assign their lines to any other company.¹³

The telegraph was instrumental during the Civil War's Battle of Gettysburg to communicate front line activity to the public. After interviewing General George Gordon Meade at his headquarters near Taneytown, Maryland, on June 30, 1863, Civil War correspondent Whitelaw Reid dispatched stories about Meade's troops by telegraph to the *Cincinnati Gazette*. After traveling to Gettysburg, Reid reported on the battle from the front lines, submitting real time commentary on the fighting by telegraph as it unfolded each day.¹⁴

The next few decades saw stiff competition within the telegraph industry, including acquisitions and takeovers among rival companies, fueled by the B&O's control over its rights-of-way. Prior to 1876, the Western Union Company handled telegraphic communications for the B&O in Baltimore and several other cities, with offices and telegraph equipment housed at Camden Station. In May 1876, Western Union's license to use the B&O right-of-way expired, requiring the company to remove its lines.¹⁵ The B&O subsequently established its own telegraph service, the B&O Telegraph Company, and then leased its lines to Western Union's rival company, the American and Pacific Telegraph Company. The B&O Chicago Division already had been using the Atlantic and Pacific before the Baltimore division transferred its business to the company.¹⁶

Pricing wars occurred between the B&O Telegraph Company and smaller rivaling telegraph companies during the latter years of the 19th century, with undercuts that caused the collapse of the smaller companies. The pricing wars also harmed the parent B&O itself. In 1887, the B&O Railroad Company left the telegraph business when Western Union purchased the B&O Telegraph Company, including all

¹¹ F.P. Summers, *The Baltimore and Ohio in the Civil War* (Gettysburg, Pennsylvania: Stan Clark Military Books, 1939).

¹² "The Telegraph & Abbie Strubel Vaughn," B&O Railroad Museum TV Network, B&O Railroad Museum, May 2012, <https://www.youtube.com/watch?v=7Qh4F6xC6W0>.

¹³ "Telegraph: Baltimore & Ohio," 2023, Cybertelecom.org. <https://www.cybertelecom.org/notes/bot.htm>.

¹⁴ "Extra! Extra! 'Mount and Spur for Gettysburg'" (Baltimore: Maryland State Highway Administration).

¹⁵ "Telegraphic Affairs," *Baltimore Sun*, Sunday, May 19, 1876, Baltimore, Maryland.

¹⁶ *Baltimore Sun*, "Telegraphic Affairs."

of its telegraph property, rights, and franchises for \$5,000,000 of Western Union's stock and a payment of \$60,000 a year for the next 50 years. Besides selling its telegraph company, the B&O was forced to sell its sleeping cars and express system as well.¹⁷

1.1.4 The B&O in the Post-Civil War Years

1.1.4.1 The Metropolitan Branch and the Road to Pittsburgh

The end of the Civil War led to a massive increase in railroad miles in the United States, with roughly 35,000 miles of new track being laid from coast to coast between 1866 and 1873. Garrett and the B&O, like all railroads, were in an expansionist mood and undertook a number of new projects. The first was to build a rail line west from Washington, D.C. While Garrett was loathe to assist commercial interest in the nation's capital, a rival of Baltimore's, he also recognized that there were economic advantages to having direct rail connections west from the Washington. Since the C&O Canal route along the Potomac River precluded building there, the B&O constructed a 43-mile-long overland route known as the Metropolitan Branch through Montgomery and Frederick counties and the towns of Gaithersburg, Germantown, and Barnesville to Point of Rocks, where it joined the Main Stem. The Metropolitan Branch provided the shortest and most direct route between the nation's capital and the growing west. Following its construction, the Metropolitan Branch became the B&O's de facto main line west for passenger traffic, to the point that the former Main Stem from Baltimore through the Patapsco Valley was renamed the Old Main Line (it still handled the majority of the B&O's freight traffic out of Baltimore). The construction of the Metropolitan Branch spurred suburban development and commercial farming in Montgomery County and also gave the B&O the symbol that would grace its trains for 100 years, the U.S. Capitol dome. The Metropolitan Branch opened in 1873, after nearly seven years of construction. Although heavily-engineered, the Metropolitan Branch was built as a single-track line featuring wood trestles and obsolete Bollman Truss bridges. Construction included an ornate Italian Villa-style depot at Point of Rocks.¹⁸

Garrett's post-Civil War expansion plans included extending the B&O to the industrial city of Pittsburgh. In 1871, the Pennsylvania & Connellsville Railroad completed a line from Cumberland to Pittsburgh, which it leased to the B&O the following year. The railroad line gave the B&O access to the bituminous coal reserves of Western Pennsylvania as well as to the steel mills of Pittsburgh's Monongahela Valley. However, the PRR considered Pittsburgh to be its exclusive territory, and the B&O's incursion spurred the PRR to strike back at the B&O by acquiring the Philadelphia, Wilmington & Baltimore Railroad,¹⁹ a move that would have long-term financial implications for the B&O.

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¹⁷ Cybertelecom.org, "Telegraph: Baltimore & Ohio."

¹⁸ Shackelford, 39; Harwood, 163-167.

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1.2 The Pennsylvania Railroad in Maryland

The Commonwealth of Pennsylvania was not willing to concede trade from the Midwest, the Great Lakes, and Pittsburgh to the ports of New York and Baltimore. The first attempt to match New York's Erie Canal, Pennsylvania's own statewide system of canals, proved to be expensive to build and cumbersome to operate. Despite the money spent to construct the canal system, the state government and commercial interests determined that an all-weather transportation system between Philadelphia and Pittsburgh was necessary. In 1852, one year before the B&O reached the Ohio River, the PRR, chartered in 1846, opened a continuous railroad line between Pennsylvania's two largest cities, and then pushed farther west. The PRR also began forays into Maryland, generally by leasing or purchasing existing railroad lines, in a bid to direct traffic to its Main Line in Pennsylvania. From the mid-19th century onward, the PRR also began moving into Baltimore and expanding into Maryland's Eastern Shore. The PRR's dominance of the Delmarva Peninsula will be told in a Section 6.0. This section of the context will concentrate on the PRR's expansion into Maryland's Western Shore.

1.2.1 The PRR and Baltimore

The PRR's two most important railroad lines in Maryland west of the Chesapeake Bay were the Northern Central Railway and the Philadelphia, Wilmington & Baltimore.

1.2.1.1 Baltimore & Susquehanna Railroad/Northern Central Railway

The Baltimore & Susquehanna Railroad Company was formed in 1828 to build north from Baltimore to the Susquehanna River via York, Pennsylvania, with the hope of diverting the central Pennsylvania trade from Philadelphia to the port of Baltimore. It was the second railroad project in Baltimore and the State of Maryland, after the B&O, which had begun construction a few months earlier. Construction began on the Baltimore & Susquehanna in 1829.²⁰ The cornerstone for the Baltimore & Susquehanna Railroad was laid approximately 60 feet from the North Avenue Bridge in Baltimore.²¹ To minimize effort through the hilly terrain north of Baltimore, the Jones Falls Valley was chosen as the route northward, a benefit to its mills. Construction started along the west bank of Jones Falls. Bridges were to be of wood.²² Like the B&O, the Baltimore & Susquehanna originally used stone for its track bed – in this case, possibly from marble quarries located in Cockeysville. The company quickly found itself stymied by charter problems in Pennsylvania, which was unenthusiastic about channeling the state's trade to the south. By 1832, the new Baltimore & Susquehanna line extended only as far as Timonium, 11 miles north of Baltimore. At the same time a ten-mile branch to Owings Mills was also completed.²³

The company resumed building north from Timonium in January 1836, reaching York in 1838 and the Susquehanna River at Wrightsville, Pennsylvania, two years later, where it connected with the PRR's Main Line. The railroad reorganized as the Northern Central Railway in 1854. Bridge replacements, infrastructure investments, upgrading the right-of-way, and new facilities and equipment exhausted the Northern Central's coffers.²⁴ The hilly route along the falls necessitated the construction of many bridges and culverts. The PRR came to the rescue, taking control of the line in 1861 and providing the B&O's chief rival with access to Baltimore. The Northern Central would become one of the PRR's principal links between its east-west main line at Harrisburg and the Baltimore and Washington markets. During the Civil War, the Northern Central was a critical link between northern industries, southern battlefields, and Washington, D.C.

Between the 1850s and early 20th century, the construction of regularly spaced stations north of Baltimore fostered suburban development in Baltimore County. Often, the original simple frame depots would be replaced with more architecturally distinctive depots once the community was established. The years 1853 and 1854 saw the development of Lutherville and Mount Washington, two of the earliest developed Baltimore suburbs.

In 1882, the Northern Central acquired the 9.62-mile Union Railroad. The Union Railroad, opened by the Canton Company in 1873, connected the waterfront industries in Canton to Northern Central's Charles Street Station, also opened in 1873. In addition to the North Central and the Union Railroad, Charles Street Station served multiple PRR lines and the Western Maryland Railroad. The station building would be replaced in 1911 by the current Pennsylvania Station. The Union line also joined the Philadelphia, Wilmington, and Baltimore Railroad west of the city at Bay View Junction. The acquisition

²⁰ J.B. Edgington and J.H. Robinson, "MIHP No. BA-2805, Baltimore & Susquehanna Railroad Mable Track Bed, Padonia Section," *Maryland Historical Trust Internal NR-Eligibility Review Form* (Crownsville, Maryland: Maryland Historical Trust, 1998).

²¹ R.L. Gunnarsson, *The Story of the Northern Central Railway* (Sykesville, Maryland: Greenberg Publishing Company, 1991), 14; J.T. Scharf, *History of Baltimore City and County* (Philadelphia: Louis H. Everts, 1881), 343.

²² Gunnarsson, 15.

²³ J.B. Edgington and J.H. Robinson 1998.

²⁴ Gunnarsson, 43.

of the Union Railroad by the PRR-controlled Northern Central gave the PRR a critical link in through-train operation between Philadelphia and Washington, DC.

The Union Railroad's Canton connection not only served waterfront industry in the Canton area, but it encouraged the industrial development of Sparrows Point to the south. In 1887, the Pennsylvania Steel Company purchased several hundred acres at Sparrows Point, where it constructed The Baltimore and Sparrows Point Railroad (later the Patapsco and Back River Railroad) between Sparrows Point and the Union Railroad's southern terminus in Canton. By 1891, steel railway rails were in production at Sparrows Point. The Western Maryland, PRR, B&O, and the Patapsco & Back River Railroad all served the steel mill at Sparrows Point.

1.2.1.2 The Philadelphia, Wilmington & Baltimore²⁵

The Philadelphia, Wilmington & Baltimore Railroad (PW&B) was the product of the merger of four railroad companies. In the early 1830s, the Pennsylvania state legislature pursued transportation improvements between Philadelphia and points south, while the Delaware and Maryland legislatures sought to establish a link between Wilmington and Baltimore. In April 1831, the Philadelphia & Delaware County Railroad Company chartered a 17-mile line connecting Philadelphia to the Delaware state line. In January 1832, Delaware chartered the Wilmington & Susquehanna Railroad Company to build from Wilmington to the Maryland state line (including through the town of Elkton, Maryland), and in March of the same year, Maryland chartered the Baltimore & Port Deposit Railroad to build from Baltimore to the western bank of the Susquehanna River. The Delaware & Maryland Railroad Company was chartered for the purpose of building a railroad from some point on the Maryland and Delaware state line to Port Deposit, or some other point along the east bank of the Susquehanna River.

Construction on the independent rail projects was slow to start, and the companies soon realized it was too expensive to build a railroad bridge to span the Susquehanna River. Therefore, the Susquehanna River terminals were changed to Perryville in Cecil County to the north and Havre de Grace in Harford County to the south. The terminals were connected via ferry. By 1838, all four lines were complete, and with the ferry, were able to offer through service between Baltimore and Philadelphia. The railroads consolidated under the PW&B name. Due to engineering mistakes and poor economic decisions, in the late 1840s the line verged on bankruptcy. New management, however, engineered a dramatic turnaround, relaying the line with heavier T-rail, contracting for better locomotives and cars, building new depots and stations, and improving the quality of service.²⁶

In Baltimore, the PW&B terminus and business office were at President and Fleet streets. The line ran east along Fleet Street, turned southwest onto Boston Street, and ran along the Canton waterfront before leaving the city limits. In 1850, the PW&B erected a new depot on President Street, a building that partially stands today.

The PW&B continued expanding operations, acquiring operations of the New Castle & Wilmington Railroad in 1857 and using lines of the New Jersey Railroad to extend to New York Harbor. Throughout the Civil War, despite occasional interruptions, the PW&B steadily transported troops and war materiel from the Northeast to Baltimore, and to the troops to the South. By 1866, the PW&B had become a

²⁵ The history of the Philadelphia, Wilmington, and Baltimore Railroad presented in this section was taken from E. Diehl, "Elkton Train Station Determination of Eligibility Form" (Crownsville Maryland: Maryland Historical Trust, 2013) and H.H. Harwood, Jr., "Philadelphia, Wilmington & Baltimore Railroad," 2008, http://www.mdoe.org/phi_wil_balt_rr.html, except where noted.

²⁶ Lichtenstein Consulting Engineers, Inc. (Lichtenstein), *Delaware's Railroads, 1827-1996. Delaware's Historic Bridges: Survey and Evaluation of Historic Bridges with Historic Contexts for Highways and Railroads*. 2nd Edition, Revised (Paramus, New Jersey: Lichtenstein Consulting Engineers, Inc., 2000), 36-37.

strategic link in the chain of railroads handling the growing passenger travel along the Washington-Baltimore-Philadelphia-New York corridor.

Following the war, in November 1866, the PW&B finally bridged the Susquehanna River via a 3,269-foot-long wood truss bridge, thus eliminating the ferry and creating a continuous rail connection between Baltimore and Philadelphia. Between 1873 and 1878, the PW&B converted the superstructure to iron and constructed a pedestrian walkway beneath the tracks. The converted bridge would be replaced by a new bridge in 1909.

By the mid-1870s, the PW&B was the only remaining independent railroad in the Washington to New York corridor. Both the B&O and the PRR wanted control. In 1881, the B&O's John Work Garrett sought to quietly purchase the PW&B. The PRR, still angry about the B&O's 1872 acquisition of the Pennsylvania & Connellsville Railroad, which gave the B&O entry into Pittsburgh, learned of the attempt and moved to circumvent it. The PRR quietly bought up a majority share of the PW&B stock at a higher price, buying the railroad out from under the B&O.

After its 1881 acquisition, the PW&B became an integral part of the PRR's East Coast system, serving as the centerpiece of its Washington to New York main line. The PRR folded its existing Baltimore & Potomac Railroad branch between Bowie and Washington into the PW&B, giving it a continuous route between the nation's capital and New York City and ending the B&O's monopoly on rail transportation into the nation's capital. In order to connect the PW&B/Baltimore & Potomac to the Northern Central Railway, the other PRR railroad servicing Baltimore, the PRR constructed a system of cut-and-cover tunnels through Baltimore.²⁷ Opened in 1873, the tunnel system passed under the Baltimore neighborhoods of Bolton Hill, Madison Park, and Upton and consisted of three tunnels —Gilmore Street Tunnel, Wilson Street Tunnel, and John Street Tunnel - separated by two open-air cuts known as the Pennsylvania Avenue Opening and John Street Opening.

1.2.1.3 Columbia & Port Deposit Railway

The PW&B had one branch line in Maryland, the Columbia & Port Deposit Railroad, which followed the east bank of the Susquehanna River between Port Deposit and the PRR Main Line at Columbia, York County, Pennsylvania. The Columbia & Port Deposit Railway was chartered in 1858, but its construction was slowed due to the Civil War and difficulty raising funds and was not opened for business until 1877. It was sold at foreclosure in 1890 and purchased by the PW&B in 1893.²⁸ The Columbia & Port Deposit was part of a low-grade line through the Lower Susquehanna Valley, which was used to move freight.²⁹

1.2.2 The PRR's Maryland Railroads During the Civil War

In February 1861, President-elect Abraham Lincoln's plans to travel on the Northern Central to attend a dinner in Baltimore were thwarted by an assassination plot. The newly elected President was advised to change his travel to the PW&B, moving through Baltimore in secret late at night. A few months later, after war had been declared, the Northern Central and the PW&B were used to move up to 75,000 troops to secure the nation's capital following the attack on Fort Sumter in South Carolina. After two days of federal troops moving through the city, violence broke out between southern supporting Baltimoreans and the soldiers. In an attempt to quell the violence, Maryland Governor Thomas Hicks met with Baltimore Mayor George W. Brown and City Police Marshal George Kane and issued an order to destroy

²⁷ G. H. Burgess and M.C. Kennedy, *Centennial History of the Pennsylvania Railroad Company* (Philadelphia: The Pennsylvania Railroad Company, 1949), 275-276.

²⁸ W.B. Wilson, *History of the Pennsylvania Railroad Company: With Plan of Organization, Portraits of Officials, and Biographical Sketches* (Philadelphia: Henry T. Coates & Co, 1899), 193.

²⁹ Burgess and Kennedy, 375; E. Jenkins, *Columbia and Port Deposit Railroad*, Inventory Number CE-1558 (Crownsville, MD: Maryland Historical Trust, 2011).

railroad bridges and telegraph wires to prevent federal troops from entering the city. After a month of destruction, the railroads reopened despite the war.

The Northern Central and the PW&B moved troops and supplies as well as civilian traffic during the Civil War, with the Northern Central adding an additional track. No further damage was sustained to lines in Baltimore County; however, minor damage was done to lines in Carroll County. President Lincoln also used the Northern Central to travel to Gettysburg to deliver his famous address. The Northern Central was also one of the railroads used to transport his body back to Springfield, Illinois following his assassination in 1865.

1.2.3 Other PRR Railroad Lines West of the Chesapeake Bay

1.2.3.1 Frederick Division

Like the Columbia & Port Deposit Railroad, the PRR's Frederick Division began in Columbia, Pennsylvania. It took a rambling route to Maryland, entering near Piney Creek in Carroll County on its way to Frederick and the rich agricultural lands that surrounded the line. Originally named the Frederick & Pennsylvania Line Railroad, it opened in 1872,³⁰ giving the milling and market town a connection to both the B&O and the PRR. It operated as the PRR's Frederick Division until 1895, when it was renamed the York, Hanover & Frederick Railroad.

1.2.3.2 Cumberland Valley Railroad

Because the B&O had pushed south through Point of Rocks and into (West) Virginia, the railroad bypassed Hagerstown. The first railroad to enter Hagerstown was the Cumberland Valley Railroad (CVRR). Chartered in 1831, the CVRR was planned as a railroad that would connect the rich agricultural resources of the Cumberland Valley to Philadelphia by way of Harrisburg and Lancaster County. However, the railroad's backers could not obtain financing, and the charter expired in 1835. With newly obtained charters in 1835 and 1836, the railroad company began construction in Pennsylvania.³¹

Profitability eluded the CVRR until the late 1850s, when it expanded into Maryland. In 1857, the CVRR purchased the defunct Franklin Railroad, a 22-mile railroad built between 1836 to 1841. The railroad's plan was to reach Williamsport, Maryland, on the Potomac River, with the ultimate goal of connecting with the C&O Canal, where it hoped to acquire some of the canal's coal traffic. The line never extended beyond Hagerstown, however, and without a connection to the canal, the CVRR was doomed once again to fail. However, during its brief life, the CVRR improved its passenger service by offering sleeping cars, a new advancement in railroad travel.³²

In 1859, the PRR acquired a controlling interest in the CVRR, although the railroad continued to operate independently for the next 60 years, with its own management and operations. PRR guidance made the railroad mildly profitable. The PRR also began to acquire or control branch lines off of the CVRR.³³

³⁰ W.B. Wilson, 192-193.

³¹ L. Thursby, Cumberland Valley Railroad, Pennsylvania Historic Resource Survey Form, 2003, Pennsylvania Historical and Museum Commission, <https://share.phmc.pa.gov/pashare>; C. Richmond, "Cumberland Valley Railroad," Pennsylvania Historic Resource Survey Form, 2004, Pennsylvania Historical and Museum Commission, <https://share.phmc.pa.gov/pashare>; T.T. Taber, *Railroads of Pennsylvania Encyclopedia and Atlas* (Muncy, Pennsylvania: Thomas T. Taber III, 1987).

³² Ibid.

³³ Ibid.

The CVRR expanded in 1873, extending its tracks from Hagerstown to Martinsburg, West Virginia, where it connected with the B&O Railroad. The CVRR experienced a marked increase in freight traffic when the Shenandoah Valley Railroad, a regional line located in Maryland and Virginia and largely financed by the PRR, connected to the CVRR at Hagerstown in 1882.³⁴

The CVRR helped birth new industries in Washington County. Williamsport had a tannery and brick factory. Hagerstown began to develop industry in the late 19th century, including a silk ribbon, a glove, and a hosiery mill. Hagerstown was also the home of the Moller Organ Works, the largest pipe organ manufacturer in the world, which employed between 200 and 300 laborers.³⁵

In the beginning of the 20th century, major railroad companies competed to provide transport of bituminous coal from the Alleghenies to the Northeast. The CVRR was one of the connecting lines between the two regions. A typical route consisted of moving bituminous coal on the B&O Railroad from Cumberland, Maryland, to Martinsburg, West Virginia, where it was transferred to the CVRR and then carried to Shippensburg, Pennsylvania. From this point, the coal was either shipped to Reading where it continued to New York and other Northeast points, or to Philadelphia.³⁶ In 1919, the PRR gained control of the CVRR and merged it into its large system.

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³⁴ Ibid.

³⁵R.C. Chidester, *A Historic Context for the Archaeology of Industrial Labor in the State of Maryland* (Crownsville, MD: Maryland Historical Trust, 2004).

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1.3 Maryland Railroads and the Coal, Iron, and Timber Industries in Western Maryland

1.3.1 Coal and Iron in Western Maryland

Western Maryland includes the counties of Washington, Allegany, and Garrett. The iron and coal industries began in Western Maryland in the eighteenth century. The mountainous terrain of this portion of the state made extensive agriculture difficult; however, there were abundant coal, iron and clay deposits throughout the region, particularly in the Georges Creek and Jennings's Run valleys.³⁷ Allegany County, where the valleys are located, included portions of both the Pittsburgh Seam (also known as the "Big Vein" seam) and Upper Potomac coal field. In addition to coal mines, the Georges Creek Valley contained other industries that made use of the raw materials, including the iron-making and fire clay businesses.³⁸ The first iron furnace in the region was constructed in Lonaconing in 1839 by the Georges Creek Coal and Iron Company. This was the first American iron produced using coke and hot blast.³⁹ The Maryland and New York Iron and Coal Company followed this with the construction of several blast furnaces in Mount Savage beginning in 1838. The steam powered rolling mill at Mount Savage, constructed in 1843, employed 900 men by the 1850s. While both of these towns prospered with the success of the iron furnaces, Mt. Savage enjoyed greater fame by constructing the first rolling mill in the region and manufacturing the first iron rail in the United States in 1844. In 1845, the B&O ordered

³⁷ R.C. Chidester 2004.

³⁸ D.M. Ware, *Green Glades and Sooty Gob Piles: The Maryland Coal Region's Industrial and Architectural Past* (Crownsville, MD: Maryland Historical Trust, 1991), 211, 213, 217, and 229).

³⁹ Ware, 225.

15 tons of Mt. Savage rail to “upgrade the line between Harper’s Ferry and Baltimore. Before this purchase, the B&O was relying totally on imported British rail.”⁴⁰ Although the Mount Savage rolling mill and iron furnace was successful for many years, the mill closed in 1868 and was dismantled by 1875.⁴¹

1.3.1.1 Mount Savage Railroad

The Mount Savage Railroad was constructed by the Maryland and New York Iron and Coal Company to transport raw material and finished products from its iron furnaces and rolling mill in Mount Savage. It was completed in 1845, extending from Mount Savage to Cumberland. The route followed the path of Jennings Run to Wills Creek and through the Narrows to the B&O railhead at Cumberland. In April 1845, the Maryland and New York Iron and Coal Company contracted for the B&O to ship coal from Cumberland to Baltimore, one of the first agreements of its kind. Prior to this agreement, coal was seen as a speculative commodity, with wood or charcoal primarily used for both industry and home heating up to that time.⁴² The shipment of coal from Western Maryland and other places soon made coal the fuel of choice for both industry and home heating. The Mount Savage Railroad began passenger service in 1845, with connections to the B&O in Cumberland. Following the failure of the Maryland and New York Iron and Coal Company in 1848, the assets of the Mount Savage Railroad were sold to the Lulworth Iron Company, which reorganized into the Mount Savage Iron Company. The Mount Savage Iron Company helped construct a canal wharf, the Potomac Wharf, in Cumberland in 1850 and extended its rail line north to Borden Yard in 1851. The railroad was acquired by the Cumberland & Pennsylvania Railroad in 1854.

1.3.1.2 Georges Creek Railroad

The Georges Creek Railroad was constructed by the Georges Creek Coal and Iron Company to transport iron from the Lonaconing iron furnace. Although the furnace was successful, it was difficult and expensive to transport its finished products out of the mountainous region prior to the establishment of a railroad line. The company first built a horse powered tram road, but quickly decided that a rail line would be more successful. The rail line was completed from Lonaconing to Piedmont, (West) Virginia, where it connected with the B&O, in 1853. The furnace, however, was abandoned in 1855.⁴³ Following the closure of the Lonaconing furnace, the railroad transported coal. The line was extended northward to Frostburg in 1856 where it connected with the Cumberland & Pennsylvania Railroad. It was acquired by the C&P in 1863, and the shops and engine house in Lonaconing were used until 1867. Portions of the line were still in use in 2002 for “on-demand coal service.”⁴⁴

1.3.1.3 Eckhart Branch Railroad

In the mid-19th century, coal mining was the dominant industry in Allegany County, Maryland. Commercial mining began in 1815 with opening of the National Road, which enabled small amounts of coal to be transferred to commercial markets. However, transporting such a bulky and heavy commodity by wagon was long, difficult, and costly. The beginning of construction on both the C&O Canal and the B&O Railroad spurred the establishment of the first state-chartered mining corporation in Allegany County, the Maryland Mining Company, incorporated in 1829.⁴⁵ However, it would take the B&O almost 13 more years to reach Cumberland, the county seat of Allegany County

⁴⁰ P. Stakem, *Cumberland and Pennsylvania Railroad Revisited* (Laurel, MD: Pat’s Railroad Books, 2002), 12.

⁴¹ Ibid.

⁴² Ibid.

⁴³ Stakem, 14.

⁴⁴ Stakem, 15.

⁴⁵ D. Whetzel, *Underground Coal Mining in Western Maryland. Mountain Discoveries* (Fall/Winter) 2018, <http://www.mountaindiscoveries.com/images/fw2018/stories/Underground%20Coal%20Mining.pdf>.

One of the first acquisitions of the Maryland Mining Company was the Eckhart mine, a small mining operation and village that was established in the 1780's by George Eckhart. Situated 1.5 miles east of Frostburg, Maryland, the Eckhart mine sat on an outcrop of the Pittsburgh coal seam, known locally as the "big vein." The "big vein" was first opened by the Eckhart mine in 1820, following the opening of the National Road, which ran near to the site. In April 1845, the Maryland Mining Company began constructing a new branch with the goal of connecting to the Mount Savage Railroad and thus to the B&O railroad in Cumberland.

The Maryland Mining Company completed the Eckhart Branch Railroad from Eckhart Mines to Wills Creek in 1846. The Eckhart Branch followed Braddock Run and crossed Wills Creek at the west end of the Cumberland Narrows. It included two tunnels and reached a grade of three percent in some places. A large horseshoe curve was included at Clarysville, Maryland. Most of the remains of this railroad were demolished with the construction of Interstate 68. The Potomac Wharf Branch was constructed between 1846 and 1850 to extend the Eckhart Branch into Cumberland, where it connected with the Mount Savage line west of the Narrows. Passenger service began sometime before 1853. The Eckhart Branch was extended to the Hoffman mines in 1859. Consolidation Coal Company acquired the line in 1870, making the Eckhart Branch part of the Cumberland & Pennsylvania Railroad.⁴⁶

1.3.1.4 Cumberland & Pennsylvania Railroad

The Cumberland & Pennsylvania Railroad (C&P) was incorporated on March 4, 1850. The charter stated that the corporation was "for the construction, maintenance, and repair of a railroad from the Town of Cumberland to some suitable point on the dividing line between the states of Maryland and Pennsylvania."⁴⁷ The majority of the stock offered for sale was purchased by the Mount Savage Iron Company, paid with its existing railroad operations "stretching from the B&O depot in Cumberland and the Potomac Wharf to the mines near Frostburg."⁴⁸ In addition to the Mount Savage Railroad, the C&P acquired the Georges Creek Railroad in 1863 and the Eckhart Branch in 1870. The Consolidation Coal Company purchased the majority of the C&P stock from the Mount Savage Iron Company in 1864.

During the Civil War, the B&O was heavily damaged by Confederate forces and the C&O Canal "became the coal lifeline to the Nation's capital."⁴⁹ The counties of Western Maryland were not severely impacted by the war and the C&P was able to transport the much-needed coal to Cumberland from the Georges Creek Valley.

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1.4 Southern Maryland Railroads

Southern Maryland includes Anne Arundel, Prince George's, St. Mary's, Charles, and Calvert counties. The Chesapeake Bay and the Potomac River comprise the eastern and western boundaries of southern Maryland, and the peninsula is also sustained by a number of waterways that are navigable for several miles upstream from their confluence with the bay. These include the Patuxent, and St. Mary's rivers; Breton, St. Clement, and Chaptico bays; and St. Leonard, Island, and Battle creeks.

Throughout its history, Southern Maryland has been characterized by tobacco farms, fishing, and oystering. Travel and the transport of goods in this part of Maryland has historically been by water. Steamboat wharves were located along navigable streams throughout the five counties. Tobacco and other crops were transported by wagon to the steamboat wharves to be loaded on boats that moved the cargo to markets in Baltimore and Washington, D.C.⁵⁰ The predominance of steamboats and water-based transportation gave rise to industries such as shipyards, wharves and wharf maintenance, shipping, seafood and produce packing, and canning.⁵¹

Although efforts to bring railroads to Southern Maryland began in the 1830s, shortly after construction started on the B&O, the familiarity and dependability of water transportation hindered development. In the antebellum period, the majority of farmers and watermen did not require railroads to transport their freight to larger markets, and wealthy speculators were unable or unwilling to finance rail lines to the ports along Chesapeake Bay and the Potomac River. During the Civil War, much of Southern Maryland was devastated, leaving little money or appetite for speculative ventures. In the post-war years, many of the former plantations were occupied by tenant farmers, leading to a decline in land values and an absence of capital. The area remained poor and undeveloped, and all but Anne Arundel County lost population between 1880 and 1890. However, wealthier planters in Southern Maryland, during and after the Civil War, recognized that railroads could provide a fast way to move their crops to Baltimore and Washington, D.C., and from there to markets throughout the country.⁵² They established, or tried to establish, a number of railroads in Southern Maryland.

⁵⁰ J.T. Scharf, *The Natural and Industrial Resources and Advantages of Maryland, being a Complete Description of all the Counties of the State and the City of Baltimore* (Annapolis, MD. C.H. Baughman & Co., Annapolis, Maryland, 1892); C. Fleischauer and A. Cochran, "Tobacco Landscape," 2023, American Chestnut Land Trust, January 19, 2023, <https://www.acitweb.org/index.php/the-land/cultural-history/tobacco-landscape/>.

⁵¹ Chidester, 32.

⁵² Scharf 1892.

1.4.1 Railroads of Southern Maryland

1.4.1.1 Baltimore and Potomac Railroad (Pope's Creek Branch)

The most successful 19th century railroad in Southern Maryland was the Baltimore and Potomac Railroad (B&P), chartered in 1853. The main line of the railroad was to extend from Baltimore to Pope's Creek, approximately 73 miles to the south. Following the inevitable delays caused by the Civil War, the as-yet-unbuilt railroad was purchased by the PRR in 1866. A clause in the B&P's charter allowed the railroad to construct a branch up to 20 miles in length at any point and in any direction. By locating the B&P through what was then known as Huntington City, the PRR could run a branch into Washington, D.C., breaking the B&O's monopoly over travel into the nation's capital. The PRR finished the construction of the B&P and its "branch" to Washington in 1873.⁵³ In 1881, the PRR would roll the Washington Branch into the newly acquired PW&B, giving it direct service between Washington and New York. Huntington City was later renamed Bowie, after the founding family of the B&P.

Although the PRR built the B&P primarily as a means to gain access into Washington, the railroad revitalized "the practice of agriculture in southern Maryland."⁵⁴ The railroad traveled on a north-south route through the center of Prince George's and Charles counties, making markets accessible to inland farms. Prior to the B&P, access to ports was limited for farms located more than five miles inland from the rivers and farmers in the southern counties were "losing business to the large and productive farms of the Midwest."⁵⁵ The railroad enabled farmers to modernize by transporting modern equipment into Southern Maryland, increasing land values and profits. The B&P particularly benefitted the tobacco growers in Prince George's and Charles counties, and also dairy farmers who used the railroad to transport fresh milk to Washington, D.C. Accessibility of the markets in Baltimore and other large cities was also responsible for the growth of the canning industry in Southern Maryland. For example, in 1883, the A.T. Whiting Company opened a new canning plant in Rock Point in Charles County.

The B&P was completely absorbed into the Pennsylvania Railroad in 1902 when it was consolidated with the PW&B, forming the Philadelphia, Baltimore, and Washington Railroad.

1.4.1.2 Annapolis & Elkridge Steam Railroad

The Annapolis & Elkridge Steam Railroad was organized in 1837 and opened in 1840. The proposed line was to extend from Annapolis to Elkridge Landing, approximately 20 miles to the northwest. This would allow a connection with the B&O and ships on the Patapsco River. The finished railroad instead extended only eight miles from West Street in the City of Annapolis to Annapolis Junction, where it joined the B&O's line between Baltimore and Washington, D.C.

In the early days of the Civil War, "southern sympathizers among the railroad's own employees took up some track and pulled down portions of the line's telegraph wires. This was an attempt to frustrate the use of the line by Union authorities. The disruption did not last for long, however, and the line was first seized, and then operated by Federal officers."⁵⁶ When the PRR constructed the Baltimore & Potomac Railroad in 1873, its junction with the Annapolis & Elkridge Railroad in northwest Anne Arundel County became the town of Odenton. Odenton was named for Oden Bowie, the president of the Baltimore & Potomac and a former governor of Maryland.

⁵³ Harwood, Jr., 145.

⁵⁴ C. Hall, T. Tamburrino, and J. Darsie, "MIHP No. PG-79-72, Baltimore and Potomac Railroad Property," (Crownsville, MD: Maryland Historical Trust, 1998).

⁵⁵ Ibid.

⁵⁶ A. House, "Fort Meade Rail," *Sound Off!* July 25, 1974, Trainweb.org, January 19, 2023, <http://www.trainweb.org/oldmainline/wasaer1a.htm>.

The Annapolis & Elkridge Railroad was sold in 1884 for \$100,000. The company declared bankruptcy in 1886 and was reorganized into the Annapolis, Washington, and Baltimore Railroad (AW&B), with plans to expand throughout the state. The expansion never occurred, and the AW&B was purchased by the Washington, Baltimore, and Annapolis Electric Railway in 1903 (WB&A). The WB&A electrified the AW&B lines and reopened it as an interurban electric railway in 1908.

1.4.1.3 Baltimore & Drum Point Railroad

The need for a railroad line connecting Baltimore with the southern tip of Maryland was identified as early as 1856, although progress was halted by the Civil War. The Baltimore & Drum Point Railroad was chartered in 1868 with requirements to begin construction within six years and complete the project within four years after the start of construction. The proposed line would be 34 miles long and pass through the center of Prince Frederick, building expectations that the town would grow and prosper. Funding was secured from state and county sources as well as private investors. The public funding was to be paid in installments as sections of the line were completed, hampering the progress of construction. Preparations for construction began in 1873, but little progress was made. The company was reorganized in 1876, but progress remained slow. Ten miles of railbed were completed by August 1888 and following a payment agreement between the railroad company and Calvert County, 25 miles of railbed were completed by December 1888. Construction delays and legal problems continued to plague the company and in January 1891 it declared bankruptcy. The project was abandoned, and no tracks were ever laid. Due to the abandonment of the Baltimore & Drum Point Railroad project, Prince Frederick did not experience the development associated with successful industry.⁵⁷

1.4.2 Impact on Transportation, Agriculture, Fishing, and Industry in Southern Maryland

Although attempts to construct railroads in Southern Maryland were not wholly successful in the 19th century, they did lessen dependence on water transport and fostered increased development along the rail lines. A Southern Maryland town founded as the railroads prospered was Odenton. Located in Anne Arundel County at the junction of the B&P and the Annapolis & Elkridge railroads, it began as an agricultural stop and evolved into a community of railroad workers.⁵⁸ Jessup, a railroad stop in Anne Arundel County, was a center of the canning and packing industry, primarily tomatoes. La Plata, the county seat of Charles County, began as a stop on the B&P in 1873 and by 1887 had a grist and sawmill.⁵⁹ The county seat was moved from Port Tobacco to La Plata in 1895.

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⁵⁷ H. Cole, "MIHP No. CT-1295, Baltimore and Drum Point Railroad" (Crownsville, MD: Maryland Historical Trust, 2010).

⁵⁸ Chidester, 37.

⁵⁹ Chidester, 39.

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1.5 Railroads on the Eastern Shore⁶⁰

1.5.1 The New Castle & Frenchtown Railroad and the Philadelphia, Wilmington & Baltimore

From the time of Euro-American settlement until the mid-19th century, transportation on Maryland's Eastern Shore was primarily water-based. The Eastern Shore features numerous navigable rivers as well as access to the Chesapeake Bay to the west and the Atlantic Ocean to the east. Many roads led to inlets on the bay or shore points on the ocean, from where goods such as timber, tobacco, and produce crops could be transported to Baltimore as well as to other East Coast markets, first on sailing ships and then on steamers.

The first railroad operating on Maryland's Eastern Shore touched only a small portion of it. The New Castle & Frenchtown Railroad began constructing a railroad between Frenchtown, on the Elk River at the head of the Chesapeake Bay, and New Castle in Delaware in 1830. The railroad was built on or along the right-of-way of the existing New Castle and Frenchtown Turnpike, which had been chartered in 1811. The turnpike and the railroad connected the Chesapeake and Delaware bays and was meant to compete with the Chesapeake & Delaware Canal, a water connection farther to the railroad's south. Financing for the New Castle & Frenchtown Railroad came from Baltimore and Philadelphia financiers interested in improving transportation between their cities.⁶¹

Like the B&O and the Susquehanna & Potomac, the New Castle & Frenchtown was built on 10- or 12-inch square stone blocks known as "sleepers" that supported strap-iron rails. This system proved unsatisfactory, and by the middle of the 19th century had been abandoned in favor of wood ties and

⁶⁰ This context is taken primarily from J.C. Hayman, *Rails Along the Chesapeake: A History of Railroad on the Delmarva Peninsula, 1827-1978* (Salisbury, Maryland: Marvadel Publishers, 1979), except where noted.

⁶¹ Lichtenstein, 35.

iron rails. Stone sleepers from the New Castle & Frenchtown, salvaged by local residents, may be seen today in the foundations of buildings near the former right-of-way.⁶²

The New Castle & Frenchtown was an instant success, reducing the travel time between Baltimore and Philadelphia. However, the need to transfer freight from boats to railroad cars and the difficulty of navigating the Chesapeake and Delaware bays in the winter proved to be the line's undoing. In 1832, the Baltimore & Susquehanna Railroad was chartered north of the New Castle & Frenchtown on the Delmarva Peninsula. This would become part of one of the most important railroads in Maryland, the PW&B. By 1843, the New Castle & Frenchtown was relegated to branch line service; by 1857, most of the line was abandoned.⁶³

1.5.2 The Delaware Railroad

The success of the PW&B raised interest in constructing a railroad or railroads south from the PW&B to improve transportation on the Delmarva Peninsula and exploit its agricultural, timber, and seafood resources. In 1835 and again in 1840, a Maryland-based railroad was chartered, but construction never really began.⁶⁴ Similarly, railroads were chartered to link Wilmington with downstate Delaware in 1836 and 1849, but financial backing could not be found. In 1852, with another railroad charter company, the Delaware Railroad, floundering, the state of Delaware stepped in, subscribing 5,000 shares of stock to its construction. The following year, the PW&B and the du Pont family guaranteed the Delaware Railroad's bonds, ensuring its success. The PW&B formally leased the railroad in 1855 and from 1857 on operated the line as its Delaware Division.⁶⁵

With PW&B oversight in place, construction proceeded quickly. The Delaware Railroad chose a route through the western side of Delaware, bypassing established towns in favor of easier engineering and the prospect of drawing business from Maryland's Eastern Shore. In 1859, the Delaware Railroad reached Delaware's southern border and a connection with Maryland's Eastern Shore Railroad at the new town of Delmar.⁶⁶

The Delaware Railroad became the railroad line to which all Delmarva branch lines connected. With the line south complete, the Delaware Railroad turned its attention to building branches or gaining control of those that already existed on Maryland's Eastern Shore. Connections were made to those listed below.

1.5.2.1 Eastern Shore Railroad

The original 1835 charter of the Eastern Shore Railroad was revived in 1859 to build a branch line from the new railroad town of Delmar at Delaware's southern border to Crisfield on Tangier Sound of Chesapeake Bay by way of Salisbury. The railroad reached Crisfield in 1866. A nine-mile-long branch line, the Worcester & Somerset, was completed to Pocomoke City in 1871. Improvements at Crisfield included the construction of an expensive fill and trestle that extended the rail terminal to what was known as "the Old Island" in 1874. The Eastern Shore Railroad was foreclosed in 1879. Its importance would come later in the century, as a jumping off point for a railroad line down the length of the Delmarva Peninsula.⁶⁷

⁶² J.M. Kilvington, New Castle and Frenchtown Railroad Right-of-Way, National Register of Historic Places Inventory-Nomination Form, CE-794 (Crownsville, MD: Maryland Historical Trust, 1975), 8-1.

⁶³ Lichtenstein, 35.

⁶⁴ Hayman, 15-18.

⁶⁵ Lichtenstein, 37-38.

⁶⁶ Ibid, 38-39.

⁶⁷ Hayman, 65-70.

1.5.2.2 Maryland & Delaware/Delaware & Chesapeake Railroad

The Maryland & Delaware (1871), later the Delaware & Chesapeake (1878), served the upper Eastern Shore. It ran from Clayton, Delaware to Oxford, Maryland and promoted town building or brought new life to towns along its line, including Goldsborough, Hillsborough, Easton, and Oxford. It came under PW&B control in 1882.⁶⁸

1.5.2.3 Dorchester & Delaware Railroad

The Dorchester & Delaware, opened in 1868, linked Cambridge, Maryland to Seaford, Delaware. Like many railroads on the Eastern Shore, it shipped agricultural products, timber, and seafood. It came under PW&B control in 1883.⁶⁹

1.5.2.4 Wicomico & Pocomoke Railroad

Opened in 1868, the Wicomico & Pocomoke originally ran from Salisbury to Berlin. It was then extended to Snow Hill as the Worcester Rail Road in 1871 and to Ocean City in 1874. Steamboat connections were made at Salisbury to and from Baltimore.⁷⁰

1.5.2.5 Baltimore & Eastern Shore Railroad

The Wicomico & Pocomoke Railroad was purchased by the Baltimore & Eastern Shore Railroad (B&S) in 1888. The B&S shifted the ferry terminal to Claiborne, Talbot County and developed its line through St. Michaels, Easton, Preston, Vienna, and Salisbury, where it connected with the Wicomico & Pocomoke to Ocean City. It crossed both the Nanticoke and Choptank rivers on timber pile bridges. The line went bankrupt in 1890 due to high construction costs. Originally aligned with the B&O, it came under PW&B/PRR control in 1894.⁷¹

1.5.2.6 Baltimore, Chesapeake & Atlantic Railroad

The Baltimore, Chesapeake & Atlantic (BC&A), the corporate successor to the B&ES, was established in 1894 and closely aligned with the PRR. It was affectionately known by the nickname "Black Cinder & Ashes." It flourished under PRR ownership and served as an all-Maryland, west-east main line across the Eastern Shore, passing through prosperous farmland and linking with the popular resort town of Ocean City. Its headquarters, shops, and main yards were located in Salisbury.⁷²

1.5.2.7 Queen Anne's & Kent Railroad

The Queen Anne & Kent Railroad opened in 1868 and was entirely contained in Queen Anne's County. Lacking a connection with the Chesapeake Bay, it was dependent on the Delaware Railroad for traffic connections. It fell under the control of the PW&B in 1881.⁷³

1.5.2.8 Queen Anne's Railroad/Maryland, Delaware & Virginia

The Queen Anne's Railroad attempted to do on the Upper Eastern Shore what the BC&A did on the lower Shore: build a successful cross-peninsula line. It did not succeed. The line passed through a less

⁶⁸ Ibid, 41-45.

⁶⁹ Ibid, 47-50.

⁷⁰ Ibid, 87-89.

⁷¹ Ibid, 89-93.

⁷² Ibid, 94-99.

⁷³ Ibid, 51-52.

agriculturally productive, more sparsely populated area, with fewer towns. Chartered in 1894 to build a line from Queenstown, Maryland to Lewes, Delaware, the proposed line faced stiff opposition from the PRR, which feared that a planned ferry route between Lewes and Cape May, New Jersey would compete with its own service. In 1902, the western terminus was extended to Love Point on Kent Island, which provided a harbor that was better than at Queenstown and was closer to Baltimore. In 1902, a spur was built to Centreville. Due to financial difficulties, the Queen Anne's Railroad entered receivership in 1905 and was acquired by the PRR, which renamed the line the Maryland, Delaware & Virginia.⁷⁴

1.5.3 Impact of the Delaware Railroad on Maryland's Eastern Shore

The Delaware Railroad and its branches transformed the economy of Maryland's Eastern Shore, improving transportation and providing greater access to market for its products. Trade moved inland, away from tidewater ports, and tied the Eastern Shore more fully to eastern seaboard markets and the northeast. Eastern Shore timber could be exploited for hardwoods. Farmers could grow perishable crops such as melons, vegetables, and peaches, which could reach consumers as fresh produce in season, thanks to the rapid transportation provided by trains. Similarly, seafood could be packed in ice and shipped. Vegetables and seafood could also be canned and shipped across the country, leading to the evolution of canneries throughout the towns of the Eastern Shore. The Dorchester & Delaware, which carried agricultural products, timber, and seafood, was reputedly the most valuable freight route on the Delmarva Peninsula.⁷⁵

The increased access the Delaware Railroad and its branches brought to the Atlantic Ocean birthed another type of business in both Delaware and on Maryland's Eastern Shore: the seaside resort. The Wicomico & Pocomoke/Baltimore & Eastern Shore extended its railroad line to a point opposite Ocean City in 1874; in 1876, the railroad built a trestle into the town. This railroad trestle was the only transportation entrance directly into Ocean City until a highway bridge was opened in 1919.⁷⁶ Initially, vacationers could board a B&O train at Camden Station in Baltimore, travel to Annapolis via the Annapolis & Baltimore Shortline and the Bay Ridge & Annapolis Railroad, where they could board a ferry to Claiborne in Talbot County. From there, travelers boarded a Baltimore & Eastern Shore train to Ocean City. The entire trip took five hours. Later, the B&O would offer ferry service directly from Baltimore to Claiborne.⁷⁷

Railroad building on the Eastern Shore presented its own set of engineering challenges. There is little change in elevation within the Eastern Shore, and the area is crisscrossed with rivers like the Nanticoke, Pocomoke, Wicomico, Big Blackwater, and Choptank, as well as many smaller streams and inlets from the bay. This meant that railroads on the Eastern Shore needed to build many water crossings. The abundance of timber led to the construction of numerous timber pile bridges on smaller streams or just above swampy and water-saturated ground. Where rivers needed to remain navigable, iron and later steel swing or lift bridges were built.⁷⁸ Ferry docks, where the railroad lines ended at Chesapeake Bay, were also important pieces of infrastructure.

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⁷⁴ Ibid, 117-123.

⁷⁵ Lichtenstein, 39.

⁷⁶ Hayman, 1979.

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1.6 Completing Maryland's 19th Century Railroad Map

1.6.1 Western Maryland Railway

The Western Maryland Railway Company originated with a state charter in 1852 as the Baltimore, Carroll and Frederick Railroad Company. Much of the stock was held by the City of Baltimore. After initial financial difficulties, the first 10-mile segment of track from Relay House to Owings Mills, Maryland, was laid between 1857 and 1859. In 1873, the Western Maryland was extended west to the C&O Canal at Williamsport expecting to receive a major share of the canal's coal cargo for transport to Baltimore. However, the railroad lacked its own line into that city and instead faced the financial burden of having to pay to use competitors' trackage.⁷⁹

1.6.2 Shenandoah Valley Railroad/Railway

The Shenandoah Valley Railroad (SVRR), completed in 1882, extended from Hagerstown, Maryland through the West Virginia panhandle into Virginia and a connection with the Norfolk & Western Railway (N&W) at Roanoke, Virginia. The development of this railroad had considerable backing from the PRR, which was seeking a connection to southern railroads in which it had an interest, including the N&W. In September 1890, the SVRR went into bankruptcy and was reorganized as the Shenandoah Valley Railway. In December 1890, it became part of N&W.

In 1882, the N&W made a deal with PRR to swap the SVRR share capital for N&W common stock. The SVRR got a loan from N&W of \$600,000, plus up to \$200,000 per year for 3 years. Control of SVRR stock was now with the N&W. In early 1885, SVRR defaulted on its loan interest, taxes, payrolls, and bills and went into receivership. In 1890, the SVRR was reorganized as the Shenandoah Valley Railway, under N&W control.⁸⁰

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⁷⁹ Kalmbach, 455.

⁸⁰ Shenandoah Valley Railroad (1867-1890). [https://en.wikipedia.org/wiki/Shenandoah_Valley_Railroad_\(1867%E2%80%931890\)](https://en.wikipedia.org/wiki/Shenandoah_Valley_Railroad_(1867%E2%80%931890)).

2 RAILROAD DOMINANCE AND OVERBUILDING IN MARYLAND, CA. 1875 - CA. 1917

By the last quarter of the 19th century railroads were the most important transportation system in the United States and in Maryland. The Civil War had largely halted Maryland's railroad construction, as the war effort consumed both capital and men. But the Civil War also demonstrated the value of railroads for moving troops and shipping goods; railroad lines, more fully developed in the northern portion of the country, were one of many factors that accounted for the Union victory. The value of a robust national railroad system had never been more apparent.

President Abraham Lincoln and the Union Congress understood the importance of a unified, national railroad system. Despite being engulfed by the war effort, in 1862 Congress passed, and Lincoln signed, the Railroad Act of 1862, which put government support behind the construction of a transcontinental railroad. On May 10, 1869, the Union Pacific Railroad joined with the Central Pacific at Promontory, Utah, linking the continent by rail.

At the same time the transcontinental railroad was nearing completion, both the B&O and the PRR, Maryland's two most important railroad lines, were pushing west toward the industrial cities of Detroit, Chicago, and St. Louis, and connections with western railroads. In this period, the B&O and the PRR both became regional railroad systems stretching from the east coast to the Midwest. Much of the goods they shipped traveled at some points along their respective main lines in Maryland and Pennsylvania.

The expansive systems of the B&O and the PRR were part of a larger trend in railroad construction. Prior to 1871, approximately 45,000 miles of track had been laid throughout the country. Between 1871 and 1900, another 170,000 miles was added to the nation's growing railroad system.⁸¹ The expanding national railroad system meant that for nearly half a century, from ca. 1875 to 1917, no other mode of transportation challenged the dominance of railroads.

However, the railroad industry's unrivaled dominance over transportation also had one large negative consequence: the overbuilding of railroad lines. As railroad companies fought to attract business, rival companies often built competing lines within sight of one another. This resulted in cut-throat competition among rival railroads. The problems were particularly acute in mature, competitive railroad markets like Maryland, where the regionally important B&O and the PRR competed for dominance and smaller carriers fought for a share of the market. The overbuilding would be one of the factors that would ultimately lead to the decline of the railroad industry in Maryland.

2.1 Railroad Competition and Overbuilding in Maryland

2.1.1 Impact of the PW&B Acquisition on the B&O

Following the PRR's 1881 acquisition of the PW&B, the B&O lost its trackage rights over the PW&B (that is, the B&O lost its ability to use the tracks of the PW&B for a nominal fee) and with it access to the industrial cities and markets of Wilmington and Philadelphia. The B&O felt it had no choice but to construct its own railroad line to Philadelphia, a branch it named the Baltimore & Philadelphia Railroad. To reach New York City from Philadelphia, the B&O had to pay the PRR substantial fees to use its rails.

⁸¹ "Railroads in the Late 19th Century. Presentation: U.S. History Primary Source Timeline," Library of Congress, <https://www.loc.gov/classroom-materials/united-states-history-primary-source-timeline/rise-of-industrial-america-1876-1900/railroads-in-late-19th-century/>.

The B&O eventually gained trackage rights over the Reading Railroad's line from Philadelphia to Jersey City, across the Hudson River from New York, ending its dependence on its chief rival.⁸²

The B&O's construction of the Baltimore & Philadelphia Railroad exemplifies the overbuilding of railroad lines that plagued the railroad industry in Maryland and nationally in the late 19th century. The B&O built its new branch parallel to and a short distance to the northwest of the PW&B, including its own bridge over the Susquehanna River. Forced to build away from established population centers served by the PW&B, the B&O's Baltimore & Philadelphia had trouble attracting business. Connecting the Baltimore & Philadelphia to the B&O's existing lines in Baltimore also proved to be difficult and expensive. The Maryland Legislature granted the B&O the right to a surface alignment through Downtown Baltimore to connect with its new Philadelphia branch, but the B&O preferred to build a completely grade-separated route. To do so, the B&O obtained a charter for the Baltimore Belt Line, which required the construction of the Howard Street Tunnel, a long structure that ran from Camden Station north through Downtown Baltimore, plus two shorter tunnels to a junction with the Baltimore & Philadelphia at the Bay View Yard. The Baltimore Belt Line, an engineering milestone, was completed in 1895, but the expense of all the new construction drove to the B&O to bankruptcy in 1896.⁸³

2.1.2 Expansion of the Western Maryland

While the B&O and the PRR battled each other along the western shore of the Chesapeake Bay, the Western Maryland Railroad was challenging both the B&O and the PRR in Western Maryland. Between 1874 and 1902, the Western Maryland underwent major expansion under President John Mifflin Hood, rising from local to regional status. In 1892, the Western Maryland-controlled Potomac Valley Railroad extended its line from Williamsport west to Big Pool and across the Potomac to Cherry Run, West Virginia, through which the B&O also passed. This extended and well-engineering line made the Western Maryland an important and lucrative linking route between the B&O and the Reading Railroad, providing the B&O with a backdoor way into the Port of Philadelphia.⁸⁴

As noted previously, the city of Baltimore was the prime backer of the Western Maryland. In 1902, a group known as the Fuller Syndicate acquired Baltimore's major interest in the railroad. Among the Fuller Syndicate's principals was George Gould, son of notorious financier and railroad builder Jay Gould and inheritor of his father's railroad holdings, the Missouri Pacific and Wabash railroads. The younger Gould planned to use the Western Maryland as a link in a new transcontinental system operating from the Midwest to the East Coast. To that end the syndicate undertook a survey to extend the Western Maryland 60 miles west from Big Pool to Cumberland. Since the B&O already held the preferred alignment along the south bank of the Potomac River, the Western Maryland was forced to use the opposite bank and undertake sophisticated grade engineering to complete its line.

Construction on the Western Maryland's extension to Cumberland began on August 1, 1903. The engineers sought to minimize grades by closely following the Potomac River and the C&O Canal along its north bank, in places building retaining walls that rose directly from the canal bed to support tracks squeezed between the canal and mountainsides, on which the National Road was located. At the great Potomac River loops between Hancock, Maryland, and Paw Paw, West Virginia, however, the Western Maryland undertook a stupendous engineering feat. The railroad boldly cut across the river and through the mountainous intervening fingers of land with a series of three tunnels totaling one and one-half miles in length, along with six bridges totaling more than one mile in length. Western Maryland train traffic opened to Cumberland on this route on March 15, 1906, meaning that the B&O and the Western

⁸² H.H. Harwood, Jr. 1994.

⁸³ Ibid.

⁸⁴ B. Mackintosh, "MIHP No. WA-VI-047, Western Maryland Railway Right-of-Way, Milepost 126 to Milepost 160 (Abandoned)" (Crownsville, MD: Maryland Historical Trust, 1981).

Maryland had duplicative railroad lines within sight of one another, competing for the same business, a frequent occurrence in Maryland during the ca. 1875 to 1917 period.

At Cumberland, the Western Maryland connected with the West Virginia Central & Pittsburg, a West Virginia-based railroad system reaching southwest to Elkins, West Virginia and the rich surrounding coalfields. The Fuller Syndicate had acquired the West Virginia Central & Pittsburg in 1905, bringing yet another railroad line into Western Maryland's coal fields. To handle its increased coal traffic, the Western Maryland had opened its Port Covington terminal in Baltimore in 1904.

The final expansion of the Western Maryland came between 1910 and 1912, with construction of a line from Cumberland northwest to Connellsville, Pennsylvania, a route already served by the B&O. This construction, however, occurred under reorganized management. The Fuller syndicate and Gould had overextended itself and lost control of the Western Maryland in 1909. The line reorganized in 1910 as the Western Maryland Railway. With the reorganization, Gould's dream of a new Midwest to East Coast railroad system ended.

Although George Gould's dream of his own transcontinental system was dashed, his expansion of the Western Maryland and the subsequent connection to the B&O at Connellsville gave the Western Maryland the shortest route between Pittsburgh and Baltimore and one of the best engineered crossings of the Alleghenies, with a 0.80 percent ruling grade eastbound, the direction of most traffic. The predominant cargo was coal and other freight, inspiring the Western Maryland's sobriquet, "Fast Freight Line." However, it also meant that the Western Maryland and the B&O were competing for the same coal traffic in Western Pennsylvania and Western Maryland.

2.1.3 Georges Creek & Cumberland Railroad

The Western Maryland was not the only railroad trying to secure a greater share of Western Maryland's coal traffic in the last quarter of the 19th century. Although Consolidation Coal and the C&P were dominant in Western Maryland, mining companies wanted competitive rates for shipping coal to Cumberland, and financial backers of new railroads were more than willing to start new companies to attempt to gain a share of the market.

The Georges Creek & Cumberland Railroad is an example of one such company. Formed in 1876 by the Maryland Coal Company and the American Coal Company to compete with the C&P and Consolidation Coal, its route extended from Lonaconing to Cumberland, traveling through Clarysville, Vale Summit, and Midland. Passenger service consisted of two trains per day, except Sundays, from Cumberland to Lonaconing. The railroad operated between 1876 and 1917 when it merged with the Western Maryland Railroad.⁸⁵

2.1.4 The Consequence of Railroad Overbuilding in Maryland

The examples provided above are just three cases of overbuilding that occurred in Maryland during the period of railroad dominance. The increased competition among railroad lines was generally good for shippers; having more than one choice meant that railroad lines, large and small, would reduce rates to secure business. To combat what was quickly becoming ruthless, cut-throat rate wars, large railroad companies in Maryland and elsewhere, like the PRR, engaged in practices such as "pooling," or dividing traffic among the railroad companies under a fixed, unpublished formula, and "rebating," where shippers were charged a published rate and then "rebated" a portion of that rate as an inducement to use a particular carrier. Federal legislation, including the Interstate Commerce Act of 1887 and the Sherman

⁸⁵ B.F.G. Kline, Jr., *Tall Pines and Winding Rivers: The Logging Railroads of Maryland*. First Edition (Maryland: Benjamin Kline, 1976).

Antitrust Act of 1890, nominally put an end to such practices, but enforcement power was weak, and rebating continued. Ultimately, PRR President A.J. Cassatt largely engineered an end to the practice in the late 19th and early 20th centuries through the “Community of Interest” plan, where large, powerful railroads bought large blocks of competitors’ stock. Such interlocking ownership of companies effectively ended the ruinous competition and led to a more equitable distribution of traffic and greater profits, particularly for large carriers.⁸⁶

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2.2 B&O and PRR Improvements, ca. 1875 – 1917

Even before the Community of Interest Plan was in place, Maryland’s largest carriers, the B&O and the PRR, used the increased revenue associated with railroad dominance in transportation to make improvements to their lines. Both railroads double-tracked, triple-tracked, or four-tracked existing railroad rights-of-way, depending upon what traffic required, and re-laid rights-of-way with heavier steel rail. To control traffic movement on these multiple track lines, signal and switching towers were built. Early, long-span timber and iron bridges across streams and other features were replaced with heavier, more durable, and fire-proof steel girder and truss bridges. Both railroads, along with many smaller railroad carriers, built new or improved existing depots and stations during the period, creating architecturally distinctive terminals in the latest architectural styles.

2.2.1 B&O Improvements

For the B&O, upgrades to its Main Stem were imperative. The B&O was America’s pioneer railroad and, as such, it virtually invented how a long-distance railroad was built and run. Its early office buildings, early stations and depots, signals and switching towers, bridges, and other features of its physical plant reflect early experimentation and, eventually, standardization of its physical plant.

Being a pioneer, however, had a downside: the B&O had few, if any, precedents to use as guides. Experimentation was common and necessary, and early decisions frequently turned out to be mistakes that needed to be corrected at a later time. For example, when the B&O began constructing its Main Stem, the tracks were placed on stone blocks to which rails were affixed using a variety of methods.

⁸⁶ Burgess and Kennedy, 458-459.; Harwood, Jr. 243.

The most common on the B&O was to drill holes into the tops of the blocks, into which an iron "chair" was placed. Wood rails topped by iron straps were placed into the chairs. Later the strap iron was replaced by iron rail. Both types of rail proved to be brittle and broke frequently. In relatively short order, the sleeper and strap iron system was replaced by the system we know today of iron and then steel rails affixed to wood ties.

Another notable example of early experimentation on the B&O concerned right-of-way engineering. B&O engineers determined that keeping as level a grade as possible along the line was more important than the degree of curvature of the tracks.⁸⁷ This produced some notable early engineering achievements. Two miles west of Mt. Clare, the B&O excavated a large cut, dubbed the Deep Cut, through a high ridge separating the Gwynns Falls and Patapsco River drainage systems. The cut through hard, dense clay, 68 feet deep and 3,000 feet long, was excavated by hand and took 18 months to complete.⁸⁸ On the B&O's Washington Branch between Baltimore and Washington, D.C., the contractor on a particular section, Jonathan Jessup, was required to level a two-mile stretch of right-of-way. The excavation, which became known as Jessup's Cut, required the displacement of more than 270,000 cubic yards of earth, most of it done by hand using Irish immigrant labor and accompanied by much loss of life.⁸⁹ The engineering feat also gave rise to the name of the 19th century correctional facility built in Jessup, called The Cut.

The emphasis on a level grade over gentle curvature, however, proved to be an unforeseen and costly mistake for the B&O. Locomotive technology advanced quickly in the 19th century, and heavy grades over short distances became a manageable problem. For example, as early as 1851 the B&O constructed a 17-mile-long ascent of Backbone Mountain in Garrett County at 116 feet per mile, for a ruling grade of 2.2 percent. The ascent of 116 feet per mile was adopted as the not-to-exceed standard for the transcontinental railroads constructed later over the Rocky Mountains.⁹⁰ But the more powerful locomotives necessary to ascend these grades required larger and longer boilers and fuel boxes and larger driving wheels. This put a premium on rights-of-way with gentle, sweeping curves and fewer impediments, such as narrow tunnels. As a consequence of its early engineering decision on grade versus curvature, the always financially precarious B&O had to spend millions of dollars after the Civil War and into the early 20th century repairing not just damage from the war but also reengineering and rebuilding its Main Stem with gentler curves, wider tunnels (or an absence of tunnels), heavier bridges, and heavier steel rail.⁹¹ (Harwood 1994:113-117). Harwood⁹² lists 12 tunnels on the B&O between Baltimore and Harpers Ferry, one constructed in 1893 and the rest constructed or enlarged during the first five years of the 20th century. The longest is the Mt. Airy Tunnel (1902), at more than one-half mile in length. The construction of the B&O's Metropolitan Branch was spurred, in part, by a desire to have a better engineered starting point for the B&O's main route to the west.

The monumental upgrades undertaken by the B&O between ca. 1875 and 1917 literally paid dividends for the railroad. The re-engineered railroad carried increased traffic faster and with greater efficiency, increasing profits.⁹³

⁸⁷ Harwood Jr., 113.

⁸⁸ Ibid, 23.

⁸⁹ J.D. Dilts, 177-178.

⁹⁰ K. Grandine, "MIHP No. G-IV-B-175, Altamont Seventeen Mile Grade" (Crownsville, MD: Maryland Historical Trust, 2005).

⁹¹ Harwood Jr., 113-117.

⁹² Ibid, 374-375.

⁹³ Ibid, 243-244.

2.2.1.1 Rebuilding the Metropolitan Branch

The suburban housing boom and commercial farming business spurred by the B&O's completion of its Metropolitan Branch in 1873 soon had the single-track line carrying much more traffic than it could reasonably accommodate. As a consequence, the B&O was forced to rebuild the line a mere 15 years after it had been completed, double-tracking the line, rebuilding its obsolete bridges, and adding automatic block signals. Originally conceived as primarily a passenger line, the Metropolitan Branch's freight and milk business grew along with the suburbs it helped birth; by the end of the 19th century, the Metropolitan Branch had become one of Washington's main arteries for food, fuel, and building materials. To improve operations, the building process would continue into the early decades of the 20th century.⁹⁴

2.2.1.2 The Washington Branch

The B&O's Washington Branch assumed new importance in the 1880s following the PRR's acquisition of the PW&B. As the B&O and its rival the PRR battled for passenger service supremacy between Washington and New York, the Washington Branch became the fastest and busiest section on the B&O system. As suburbs grew at both the Washington and Baltimore ends, the B&O erected new depots and stations to service those communities.⁹⁵

2.2.1.3 Bridges on the B&O

Initially, B&O preferred stone for large river crossing bridges. Stone bridges had been constructed for centuries and was a readily understood building material available throughout Maryland's Western Shore. The B&O embraced the permanency and fireproof nature of stone and saw it as a statement of the grand enterprise it was undertaking. Early stone arch bridges include the Carrollton Viaduct in southwest Baltimore (1828), the Patterson Viaduct in Ilchester (1829), and the Oliver Viaduct near Ellicott City (1830). An unknown number of smaller stone bridges were also built on the Main Stem.⁹⁶

The B&O came to realize, however, that constructing bridges out of stone was expensive and time-consuming. For that reason, it began using other material, including first timber and then metal trusses and metal girder bridges. An example of an early, experimental truss bridge constructed by the B&O is the National Historic Landmark Bollman Truss bridge in Savage, Maryland, the first National Historic Civil Engineering Landmark recognized by the American Society of Civil Engineers. Wendell Bollman, the bridge's designer, later became the chief engineer of the B&O, where he helped develop a standardized metal, long-span truss bridge that was used with such frequency it was named for the railroad, the Baltimore Truss. A Baltimore truss, a variation of a Pratt truss, has level top chords like a Pratt truss and sub-struts and subties that divide the bridge panels. The substruts and subties are placed because as bridge vertical members get taller, they become more prone to buckling. On large crossings or when supporting heavy, moving loads like a railroad train, the bridge panels are subdivided to provide extra support.⁹⁷

2.2.1.4 Brunswick Yard

As late as 1886, the B&O had no freight storage or classification yards between Baltimore and Cumberland, Maryland's two largest and most industrial cities. To build one, the B&O chose a spot near the canal town of Berlin, located in the Potomac Valley six miles east of Harpers Ferry, 72 miles west of

⁹⁴ Ibid, 166-167.

⁹⁵ Ibid, 164-165.

⁹⁶ Ibid, 23-24.

⁹⁷ T. Wilson, personal communications with bridge historian and engineer, October 14, 2015.

Baltimore, and accessible to the B&O's Main Stem, Metropolitan Branch, and Washington County branch to Hagerstown. The B&O developed a town along with the yard, both of which it named Brunswick. Using the natural topography of the landscape, the B&O expanded its facilities along the Potomac River, constructed worker housing on the flat terrain adjacent to the new rail yard and larger housing for professionals in the hills to the north. The B&O also donated land for a public park and a public school; supported the introduction of electricity to the town; assisted with improving roadways; and ensured there were wells and other water sources for the residents. The construction of the yard and town sparked development of a commercial core around a pre-existing mill, warehouses, and lumber yards near Lock No. 30 of the C&O Canal.⁹⁸ The town's population jumped from 200 in 1890 to approximately 5,000 in 1910. In 1907 the railroad built a large YMCA building to feed and bed train crews. The yard, finished in 1907, stretched for 5.5 miles, with the town as its center. A brick roundhouse was added in 1910 and expanded in 1917.⁹⁹

2.2.1.5 Early Electrification on the B&O

When the B&O was forced to build its own line to Philadelphia in 1883, one of the most significant challenges it faced was how to connect the new line to its existing operations in Baltimore. Ultimately, the B&O built a 1.4-mile-long tunnel beneath Howard Street in downtown Baltimore, emerging at the railroad's Mt. Royal Station. The new railroad line then climbed up the hillside through Jones Falls, swung east through Baltimore's North Side to an "almost continuous series of short tunnels, cuts, and fills" which became known as the Baltimore Belt Line.¹⁰⁰

The Baltimore city government would not allow the B&O to place ventilating shafts up to the street for locomotive smoke and gases. Consequently, the B&O decided to power the trains on the Belt Line using electric power, the world's first heavy-duty mainline railroad electrification. The project garnered the B&O international publicity.¹⁰¹

2.2.1.6 B&O Shop Facilities in Maryland

In 1875, the B&O moved freight operations out of the Mt. Clare Shops in Southwest Baltimore to Riverside on its Locust Point Terminal. Camden Station near downtown Baltimore received a 600-foot-long freight shed and office, now the backdrop to the Oriole Park at Camden Yards baseball stadium.¹⁰²

As noted previously, in the years after the Civil War Locust Point became the B&O's primary overseas grain terminal and an immigration pier which processed thousands of immigrants from Central and Eastern Europe.¹⁰³ As a result, the B&O's ever-growing coal traffic was moved to larger quarters at Curtis Bay in 1884.¹⁰⁴ Subsequently all coal traffic was routed to the new terminal.

The B&O also expanded its facilities in Cumberland, constructing a large shop complex there in 1867. In 1906, the railroad purchased nine acres and constructed a terminus for three divisions. The complex included a huge roundhouse and yard to accommodate 3,000 cars. By 1906, the B&O complex in Cumberland employed more than 2,000 workers.¹⁰⁵

⁹⁸ P. Slovinac and S. Groesbeck, "MIHP No. F-2-9, Brunswick Historic District (Additional Documentation, Boundary Clarification)" (Crownsville, MD: Maryland Historical Trust, 2019).

⁹⁹ Harwood Jr., 187-188.

¹⁰⁰ Harwood Jr., 191.

¹⁰¹ Ibid

¹⁰² Ibid, 139.

¹⁰³ Ibid, pg. 77; Shackelford, 46.

¹⁰⁴ Harwood Jr., 77.

¹⁰⁵ H.I. Stegmaier Jr. et.al., *Allegheny County: A History* (Parsons, WV, McClain Printing Company, 1976). 211, 219-220.

2.2.2 PRR Improvements

The PRR-owned and -controlled railroad lines in Maryland did not require the same level of improvement as did the B&O's during the period from ca. 1875 to 1917. The PRR's rights-of-way were located primarily on Maryland's Eastern Shore, in the Washington, D.C. to Philadelphia corridor, and in the Susquehanna Valley. The PRR routes had not faced the kind of geographical challenges the B&O had in Western Maryland, and its lines had not suffered the same kind of catastrophic damage that the B&O had during the Civil War. The PRR made notable improvements to its physical plant in Maryland between ca. 1875 and 1917, multi-tracking its rights-of-way, adding switch and signal towers, and constructing new stations and depots.

The PRR replaced its earliest depots and stations on the Northern Central Railway in the 1870s. Lutherville received a substantial limestone depot (1876) and Mount Washington a picturesque Gothic Revival-inspired design (1877). New depots were erected at West Woodberry, Melvale, Riderwood, the Timonium fairgrounds, Padonia, Texas, and Cockeysville, and private depots were built at Cylburn and Brightside. In keeping with the PRR's sophisticated architectural aesthetic, a new Riderwood Station, which stands today north of Joppa Road on the light rail corridor, was designed by Philadelphia architect Frank Furness in 1903.¹⁰⁶ The Parkton Depot, now demolished, was built from the same plans. On the Northern Central's Green Spring Valley Branch, two depots remain - one of which is the former Brooklandville Railroad Station (1910), now a private residence.¹⁰⁷ Other 19th century Northern Central infrastructure projects included its Calvert Street Station Complex.¹⁰⁸

The PRR's most visible project in Baltimore during this period was the construction of its new Union Station in 1911. Now known as Pennsylvania Station, the building was designed by architect Kenneth M. Murchison in the Beaux Arts style and featured granite, terra cotta, and cast iron on the exterior, and an impressive interior of Sicilian marble walls, domed skylights of leaded glass, and Rookwood ceramic tiles.¹⁰⁹ The station served the PRR's two major lines into Baltimore, the Philadelphia, Baltimore & Washington (PB&W, the successor to the PW&B) and the Northern Central¹¹⁰, as well as two other railroads, the Elkton & Middletown Railroad of Cecil County and the Columbia & Port Deposit Railway.¹¹¹

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¹⁰⁶ R.L. Gunnarson, *The Story of the Northern Central Railway* (Sykesville, MD, Greenberg Publishing Company, 1991). 113.

¹⁰⁷ J.T. Wollton and D.F. Thomas, Brooklandville Railroad Station Maryland Inventory of Historic Places, BA-1187 (Crownsville, MD: Maryland Historical Trust, 1980).

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¹¹⁰ Burgess and Kennedy, 523.

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2.3 Railroad Resorts and Attractions in Maryland

In addition to improving their rights-of-way and facilities, Maryland railroads in the period between ca. 1875 and 1917 also built railroad hotels and resorts, passenger destinations for the travel public. The emergence of these resorts was partially due to the need for lodging at major junction points throughout the state.¹¹² The resorts would have such practical necessities of a railroad depot, such as a ticket master, post office, and trackside restaurant, while also providing luxury accommodation and modern conveniences. Railroad resorts gained prominence in the late 19th and early 20th centuries. Four of the

¹¹² Shackelford, 39.

best known in Maryland were Cumberland's Queen City Hotel, the Deer Park Hotel, the Viaduct Hotel, and Pen Mar Park.

2.3.1 Cumberland's Queen City Hotel

One of the earliest B&O-built luxury hotels was Cumberland's Queen City Hotel. Cumberland was a junction point for both the B&O's line to the Midwest as well as to Pittsburgh, and thus a convenient stopping point for overnight travelers. The Italianate-style resort structure was designed by Thomas Heskett and opened for business in the autumn of 1872 "for the accommodation and entertainment of passengers."¹¹³ The hotel, which cost \$350,000 to construct, included a dining room, ballroom, formal gardens, fountain, and 174 guest rooms. Although the B&O did not market the hotel as a tourist destination, it became a well-known location to escape the Baltimore summer heat.

2.3.2 Deer Park Hotel

The B&O constructed the Deer Park Hotel in Garrett County as a tourist destination. B&O president John Work Garrett proposed developing a summer resort in the mountains of Garrett County as early as 1860, but plans were put on hold due to the Civil War. Planning was reactivated in 1870 and the hotel opened to the public in 1873. Built on land originally owned by former B&O brakeman and then West Virginia Senator Henry Gassaway Davis, the "Swiss-Alpine" and Queen Anne-style hotel building and cottages were attributed to the Baldwin & Pennington architectural firm. A travel guide from 1882 noted:

The main building at the Deer Park has by the recent improvements been enlarged and the dining room increased to double its former capacity. Flanking either side of the hotel are the new annexes-- the architecture of the Queen Anne order—and their exterior adding greatly to the ornamental attractiveness of the place. They are connected by light and graceful passageways covered overhead, and so arranged so as to be closed on all sides in inclement weather. In the west annex is a ballroom—one of the most spacious and best arranged to be found at any summer resort.¹¹⁴

Once constructed, the hotel quickly developed a reputation as a meeting place for affluent clientele. It was known as the "Summer Capital" due to the number of presidents that stayed there, including Presidents Grant, Harrison, Cleveland, and McKinley. In the late 19th century, the B&O advertised the hotel's luxury accommodations, such an on-site spa, and modern technologies like electric lights and telephones.¹¹⁵ The B&O discontinued operating the resort in 1911, but it remained in business until the Great Depression.

2.3.3 Viaduct Hotel

The Viaduct Hotel began as the Relay House, a stopping point located between Baltimore and Ellicott City on the B&O's Main Stem. The Relay House was a depot, hotel, and tavern as early as 1830. After the Civil War the B&O deemed the depot as too small to handle the passenger traffic of the time. In 1873, the B&O demolished the Relay House and built in its place a station-hotel named the Viaduct Hotel. Designed by architect E. Francis Baldwin, the B&O spent \$50,000 to build the Gothic-style building, which included a ticket office, post office, guest rooms, barber shop, lunchroom, bar, porches, and gardens. From the second story verandas guests could look out over the Patapsco River Valley and

¹¹³B&O Railroad Queen City Hotel and Station, Cumberland Maryland, Historic Structures. October 13, 2017. https://www.historic-structures.com/md/cumberland/queen_city_hotel.php.

¹¹⁴R. L. Andrews, Historic Site Survey of the Deer Park Hotel site. May 26, 1975. <https://mht.maryland.gov/secure/medusa/PDF/Garrett/G-IV-B-007.pdf>

¹¹⁵Retro Baltimore, "Baltimoreans Boarded Trains to Western MD. Resorts". August 1, 2014. <https://retrobaltimore.tumblr.com/post/93510670594/baltimoreans-boarded-trains-to-western-md-resorts>

the Thomas Viaduct. The hotel became a rural attraction, and some guests would summer there. The Viaduct Hotel became noted for hosting Fourth of July festivities, which included mechanical rides, lawn games, and a fireworks display that could be seen as far away as Baltimore.¹¹⁶

By the late 19th century, the town of Relay was no longer a major interchange and business began to decline. The hotel remained in partial use as a boarding house for B&O crew and it later housed the B&O's Relief Department.

2.3.4 Pen Mar Park

The B&O was not the only Maryland railroad to construct resorts. Colonel John Mifflin Hood, President of the Western Maryland, believed that a resort in the Blue Ridge Mountains would boost traffic on his railroad. Rather than building a hotel, he and his team decided that a park would attract day trippers. Thus, in 1877, the Pen Mar Park was opened in Washington County. Initially, the park consisted of a pavilion and dining hall. In a few short years after opening, restaurants, boarding houses, and seven hotels had been established, including a hotel owned by the Western Maryland, the Mountain House. Opened in 1883, the Mountain House could accommodate 400 guests. In the summer, the park attracted up to 20,000 people a day. In 1898, twenty years after the park was first developed, more than half of the Western Maryland's 1.2 million passengers were en route to Pen Mar Park.¹¹⁷

By the early 20th century, the park had added amusement attractions such as a carousel, roller coaster, miniature train, and a penny arcade. The Baltimore Sun wrote, "Pen Mar boasts the best-known amusement park of the Blue Ridge Mountains and doubtless of the East. It is the 'Coney Island' of the heights to which pleasure-seekers from many miles distant come to escape from mid-summer heat and to find diversion in various pleasant forms."¹¹⁸

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¹¹⁶ Thomas Viaduct & Relay, Maryland Railroad History. June 20, 2014. Website at http://thomas-viaduct-relay-maryland.blogspot.com/2014/06/the-viaduct-hotel-train-station-in-relay_2423.html.

¹¹⁷ G. Wireman, Chapter 16: Pen Mar Park, *Gateway to the Mountains*, https://www.emmitsburg.net/history_t/archives/gateway/chapter16.htm.

¹¹⁸ F. A. Rasmussen, Summer Mountain Haven Resort. *The Baltimore Sun*, July 11, 1998. <https://www.baltimoresun.com/news/bs-xpm-1998-07-11-1998192005-story.html>

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2.4 Additions to the Maryland Railroad Map

Although the Maryland railroad map was largely developed by 1881, there were a few notable additions between 1881 and 1917.

2.4.1 The New York, Philadelphia & Norfolk Railroad

In February 1881, when the PRR bought the PW&B, the Delaware Railroad and its branches on Maryland's Eastern Shore became part of the PRR's vast system, which stretched north to New York and west to Michigan and Chicago.

The Delaware Railroad held particular value to the PRR. A.J. Cassatt, then the PRR's Vice President of Traffic and its future president, saw the road as a potential direct and relatively short conduit between southern agriculture and northern markets. To make his vision a reality, Cassatt built a "branch" from Kings Creek on the existing Eastern Shore Railroad line to Crisfield down the length of the Delmarva Peninsula to Cape Charles, Virginia, which was located across the mouth of the Chesapeake Bay from Norfolk. He named the new line the New York, Philadelphia & Norfolk (N.Y.P. & N.). By instituting a railroad car ferry service between Norfolk and Cape Charles, Cassatt created an alternative route to Philadelphia and New York for Southern produce, especially early vegetables, berries, peaches, and other fruit, as well as tobacco, cotton, and Chesapeake Bay oysters. The N.Y.P. & N. also opened new markets for products grown along its route on the Eastern Shore. These included peaches, melons, and especially strawberries, a product with which the N.Y.P. & N. would become identified. The emphasis on produce spurred the growth of canneries along the line. In the early 20th century, the Delmarva freight lines were among the PRR's most profitable. In 1901, the PRR reorganized its Delmarva holdings and the PW&B into a new company, the Philadelphia, Baltimore & Washington (PB&W), a wholly owned subsidiary.¹¹⁹

2.4.2 Southern Maryland Railroad/Washington, Brandywine & Point Lookout

With the exception of the Annapolis & Elk Ridge and Baltimore & Potomac railroads, which were located close to the population centers of Baltimore and Washington, D.C., other attempts to connect Southern Maryland to larger cities and markets in the north were not successful in the late 19th and early 20th centuries. The southern portions of Anne Arundel and Prince George's counties and all of Calvert and St. Mary's counties were very rural and not able to attract the interest of wealthy speculators or the

¹¹⁹ Lichtenstein Consulting Engineers, 43-44.; J.C. Hayman, *Rails along the Chesapeake: A History of Railroad on the Delmarva Peninsula, 1827-1978*. (Salisbury, MD, Marvadel Publishers, 1979).

government influence that allowed the construction of the Annapolis & Elk Ridge and Baltimore & Potomac railroads. These rural areas continued to depend on water transportation until state highway construction began following the formation of the State Highway Commission in 1908. By 1915 the state road system envisioned in 1908 was completed, with a system of 1,304 miles of hard surfaced roads that were passable twelve months of the year and connected all county seats.¹²⁰

The Southern Maryland Railroad Company and its successor corporations are emblematic of the difficulties of building a successful railroad in Southern Maryland. Incorporated in 1868, the Southern Maryland Railroad was a planned route from Point Lookout, a relatively ice-free, deep-water port on the Chesapeake Bay, to Washington, D.C., where it would connect with the PRR, the B&O, and the Chesapeake & Ohio Canal. The route of the 77-mile-long railroad was "designed to conform closely to the dividing line between the waters of the Potomac River and the Patuxent."¹²¹ By 1881, only 45.8 miles had been graded, at a cost of \$500,000. In 1882, the company defaulted after completing only the portion from Washington, D.C. to Mechanicsville, 40 miles short of the planned end at Point Lookout.

The company was purchased in 1886 for \$75,000 and reorganized as the Washington & Potomac Railroad Company. Successive failures and reorganizations followed, and the company was again purchased in 1889 for \$100,000. Little progress was made, and the company name changed again in 1901 to the Washington, Potomac, & Chesapeake Railroad Company.¹²² The railroad was eventually sold to a junk dealer, who planned to remove and sell the tracks. Citizens of St. Mary's and Charles counties obtained an injunction to save the railroad line.

In 1918, the railroad was reorganized as the Washington, Brandywine, & Point Lookout Railroad. The local venture operated as a not-for-profit public service. The railroad operated as combined passenger and freight service, with two round trips per week. The employees were local farmers and oystermen who only had to spend two days a week working for the railroad, leaving them time to tend to their farms or oyster boats.¹²³ Passenger service was discontinued in 1928 after years of falling business due to improvements in roads and increased use of the automobile.

Although not completed to the Chesapeake Bay, the Washington, Brandywine, & Point Lookout was an integral part of Southern Maryland's economic development, particularly the tobacco trade. Tobacco warehouses were constructed along the route to collect shipments prior to their transport to markets to the north. Towns along the completed portion of the route prospered with the arrival of the railroad, including Hughesville, Mechanicsville, and Brandywine. Businesses along the route included an oyster processing plant in St. Mary's County, an oyster packing plant in Wynne, and a tomato cannery in Mechanicsville, the southernmost stop on the railroad.

2.4.3 The Maryland & Pennsylvania Railroad¹²⁴

Like the Washington, Brandywine, & Point Lookout Railroad, the Maryland & Pennsylvania Railroad's origin predate 1881. However, its history is most closely tied to the era of railroad dominance, even though it was not a large or powerful railroad and it competed with almost no other railroad.

The Maryland & Pennsylvania Railroad, affectionately known as the Ma & Pa, was one of Maryland's most idiosyncratic railroads. The Ma & Pa connected Baltimore and York, Pennsylvania, over a circuitous 77-

¹²⁰ "Maryland Small Structures-A Brief History," Maryland State Highway Administration, https://roads.maryland.gov/oppen/ch_2.pdf. 2-11.

¹²¹ R. Hogaboom, "Chronicle of St. Mary's: The Southern Maryland Railroad," *Industrial America*, <http://www.carmichaeldigitalprojects.org/industrialamerica/items/show/138>. 285.

¹²² Hogaboom, 287.

¹²³ Ibid

¹²⁴ The following is taken from C. Sansonetti history of the Maryland & Pennsylvania Railroad (1997).

mile route. In 1878, businessmen from Harford County consolidated the charters of several failed railroad companies to form the Baltimore and Delta Railway (B&D), a narrow gauge line.¹²⁵ Their goal was to carry milk and other agricultural products to markets in Baltimore and serve slate quarries in Delta, Pennsylvania. In 1882, the B&D began operating from Baltimore to Towson. That same year, the B&D merged with the Maryland Central Railroad, which completed a line through Bel Air to Delta in 1884. Despite some financial difficulties, the Maryland Central in 1887 erected a substantial stone depot at Oak Street and North Avenue in Baltimore. Through service was initiated between Baltimore and York, Pennsylvania in 1889. Two years later the B&D and the Maryland Central merged to form the Baltimore & Lehigh Railroad, headquartered in Baltimore. The Baltimore & Lehigh was driven into bankruptcy by the depression of 1893. Following receivership, the railroad was reorganized in 1901 by Baltimore interests as the Maryland & Pennsylvania Railroad.

In the Ma & PA's early years, more than half the company's revenue came from passenger, mail, and express freight service, most of which originated in its Maryland District. From the beginning, the core passenger service was two northbound and two southbound mail trains that ran the length of the railroad's line. However, an early morning train from Delta also brought great quantities of milk into Baltimore, and many local trains operated between Bel Air and that city. At the peak of service, Bel Air had 16 trains a day providing commuter service and a late-night return for theater goers. Large quantities of express freight were handled, especially at Bel Air and Towson. The Ma & Pa also promoted the recreational possibilities along its route, and many city dwellers took their families on Sunday outings to Loch Raven or the Rocks of Deer Creek. Passenger traffic totaled about three million passenger miles annually, an impressive total for a railroad on which the average trip did not exceed 30 miles. The trains were a central feature of life for the agricultural communities all along the line.

Freight before World War I consisted primary of agricultural goods moving to market. From some stations, such as Fallston and Woodbine, full carloads of milk were moved daily. Wheat was shipped to market from local grain elevators such as those at Bel Air and Muddy Creek Forks, and canneries located near many stations, including Hyde, Bynum, and High Rock, were a substantial source of traffic. Despite the seasonal nature of the canning business, 12 percent of freight revenue in 1907 came from cannery shipments. The balance of freight originating on the line was slate from Delta and light manufactured goods from Red Lion and Dallastown, Pennsylvania. Incoming shipments were primarily coal, fertilizer, and less-than-carload shipments¹²⁶ of goods to merchants along the route.

Although the railroad was showing substantial operating surpluses in the early 20th century, the Ma & Pa paid no dividends, preferring to improve its facilities. Numerous locomotives and passenger cars were purchased to handle the booming business. All of the bridges and trestles were strengthened, heavier rail was installed, and the major wood trestles between Baltimore and Bel Air were replaced with steel viaducts. New stations were built at Fallston, Baldwin, Glenarm, and Forest Hill. Major track relocations were made between the Little Gunpowder River and Laurel Brook in Harford County to reduce excessive curvature. In 1907, the railroad began a major expansion of its Baltimore terminal facilities, building over the next few years a direct connection to the B&O, new yard tracks, extensive coal docks, a large

¹²⁵ Gauge refers to the distance between railroad tracks. Standard railroad gauge is 4 feet, 8 1/2 inches. In the early days of the American railroad industries, railroad companies used a variety of gauges, the largest of which was 6 feet. Railroads also built in gauges as narrow as 3 feet, particularly in areas with difficult topography like the lumber regions of Garrett and Allegany counties. Different gauge sizes required variations in the wheel bases of locomotives and railroad cars. In the post-Civil War years, regional and national carrier adopted 4 feet, 8 1/2 inches as the "standard gauge" in order to reduce the costs associated with rolling stock and to facilitate transferring freight between railroad companies. Certain railroad types, particularly logging railroads and interurbans, continued to used narrow guage.

¹²⁶ The unit of measure for railroad shipments was the boxcar (or other railroad car load). "Less-than-carload freight" refers to freight items that do not fill an entire boxcar. Instead, multiple types of freight are placed in the same boxcar or a boxcar is not completely filled.

stone roundhouse and shop that still stands along Falls Road, and a new freight depot. The Ma & Pa served almost no industrial shippers in Baltimore, its line running through residential areas, but the city was its center of operations. The railroad's general offices were in Baltimore, with all train dispatching and equipment maintenance located there.

2.4.4 West Virginia Central & Pittsburg Railway

The West Virginia Central & Pittsburg Railway was chartered in 1866 in West Virginia as the Potomac & Piedmont Coal and Railroad Company. The founder, Henry Gassaway Davis, wished to develop "the vast coal and timber resources in the Potomac headwaters region and the western slopes and valleys of the Allegheny mountains."¹²⁷ The railroad line opened in 1881 as the West Virginia Central & Pittsburg Railway, and it made accessible the massive coal and timber reserves of central West Virginia, much of which moved to Baltimore via the B&O Main Stem.¹²⁸ The West Virginia Central & Pittsburg followed the north bank of the North Branch Potomac River into McCoole, Allegany County, and from there to Cumberland. In 1905, the West Virginia Central & Pittsburg Railway became part of the newly created Western Maryland Railway.¹²⁹

2.4.5 Logging Railroads in Western Maryland¹³⁰

Logging has been a major industry in the United States since its founding, beginning with the supply of lumber for British ship building through to the expansion of the west. With the dawn of the industrial revolution, the United States began to regularly ship timber outside of North America. The greatest challenge in meeting the ever-increasing demand for timber was transporting people and equipment to remote and often steep work sites and shipping timber products from those areas.

Throughout the mid- to late 19th century, the movement of timber in Maryland and most other timbered regions of the United States relied heavily on the use of animals and waterways. The switch to railroads as the main means of shipping timber and lumber to market occurred following the invention of the Shay locomotive engine ca. 1880. Designed by enterprising lumberman Ephraim Shay, locomotive used reducing gears rather than side rods. The independent movement of each gear allowed the engine to traverse rough, hilly, and sharply curved tracks. The use of railroads in the timber industry was further aided by the development of narrow gauge moveable track. By the 1880's, logging operations in Garrett and Allegany counties were moving products by new railroad lines connected to major carriers.

A majority of Maryland logging railroads connected to mills in the neighboring states of West Virginia and Pennsylvania. Most Maryland logging operations were located along the major streams of Western Maryland, including the Youghiogheny, Casselman, and North Branch Potomac rivers. Western Maryland's major and minor timber railroads are listed below.

2.4.5.1 Preston Railroad

Maryland's longest lived and best-known logging railroad was the Preston Railroad. The Preston Lumber & Coal Company, named for a neighboring county in West Virginia, was formed in 1891 by Albert Lewis,

¹²⁷ L.W. Sheets, West Virginia Central and Pittsburg Railway. *The West Virginia Encyclopedia*, website at <https://www.wvencyclopedia.org/articles/1029>.

¹²⁸ W.R. Hicks, The West Virginia Central and Pittsburgh Railway (*The Railway and Locomotive Historical Society Bulletin*, No. 113, October 1965), 6-31.

¹²⁹ Cook and Zimmerman, *The Western Maryland Railway: Fireballs & Black Diamonds* (Laurys Station, PA: Garrigues House) 1987.

¹³⁰ All information comes from the publication *Tall Pines and Winding Rivers: The Logging Railroads of Maryland* (Kline 1976).

a resident of Luzerne County, Pennsylvania. The Preston Railroad began constructing a standard gauge railroad in 1891 to link the B&O at Hutton, Maryland, to mill sites in Larawsville, or modern day Crellin, Maryland. Simultaneously, a town was constructed to house employees. The company's mill site was located along Snowy Creek, approximately 2.5 miles from Hutton. The Preston Railroad then proceeded from the mill site westward into Preston County, West Virginia, and from there deeper into West Virginia.

In 1904, the Preston Railroad started construction south from Crellin through the Youghiogheny Valley, in order to reach the timberlands the Preston Lumber and Coal Company had acquired on the west slope of Backbone Mountain, West Virginia. The Preston Railroad delivered timber to Crellin for milling and then transported lumber and bark to the local Tioga Tanning Company in Hutton, Maryland. Passenger service was never formally offered by the railroad.

As the 20th century progressed, coal increasingly began to overtake timber products as the Preston Railroad's predominant commodity. During peak years, forty cars of coal a day were taken from the mines located along the railroad. The Crellin mill sawed its last log on November 13, 1925. The railroad continued to haul logs to smaller mills, but the track was allowed to deteriorate, and only essential maintenance was performed. By 1960, the mining operations along the railway were ceasing production and in February of that year, railroad operations were suspended.

2.4.5.2 Confluence & Oakland Railroad

Chartered in 1889, the Confluence & Oakland Railroad was established to reach the timber reserves along the Youghiogheny River in Garrett County, Maryland. The Confluence & Oakland Railroad serviced two major lumber operations, the A. Knabb Company and the Kendall Lumber Company. The twenty-eight-mile-long main line stretched from Confluence, Pennsylvania, through Friendsville to Kendall, Maryland. Kendall is a town constructed around the mill of the Kendall Lumber Company. All that remains of Kendall today is overgrown foundations. By 1912, following the closure of mills in Kendall and Friendsville, the Confluence & Oakland Railroad ceased operations.

2.4.5.3 Bear Creek Railroad

Operated out of Friendsville by the Meadow Mountain Lumber Company, the Bear Creek Railroad included 26 miles of track that ran along Bear Creek through the valley between Negro and Meadow Mountain. The railroad was used by several smaller timber operation until 1912, when all operations ceased.

2.4.5.4 Jennings Brothers Railroad

The Jennings Brothers Railroad operated in Garrett County between 1899 and 1918. The center of operations was in Jennings, Maryland. The main line extended more than thirty miles and followed the South Branch of the Casselman River southward, almost to its source at Meadow Mountain. Following the closure of the mill in Jennings, the railway was acquired by the Northern Maryland & Tidewater Railroad.

2.4.5.5 Green Ridge Railroad

The Green Ridge Railroad operated in Allegany County near the communities of Okonoko, Town Hill, and Fifteen Mile Creek. Owned by the Merten family, it operated twenty miles of track between 1882 and 1897.

2.4.5.6 Savage River Railroad

The Savage River Railroad was owned by the DuBois & Bond Brothers Lumber Company. Its fifteen miles of track serviced the company's mill in Bond, Maryland and operated between Crabtree and Bond. The railroad remained in operation between 1900 and 1910. The property encompassing the town was sold off and is now part of the Savage River Forest.

2.4.5.7 Other Lumber Railroads

Other 19th and early 20th century logging companies operated small-scale railroad lines in Maryland for shorter distances and lengths of time.

- Hench-Drumgold and Stull, which followed Lost Land Run in Garrett County, operated between 1891 and 1899.
- George W. Wilson, Wilson Lumber Company based out of Wilson Mills, West Virginia, operated near Fairfax, Garrett County, between 1888-1900. The length of the railroad is unknown.
- McMillan Lumber Company, based out of Wilson, West Virginia may have operated in Maryland beginning in 1900. The length of the railroad and its years of operation are unknown.
- William Whitmer and Sons Company of Emory, Mineral County, West Virginia are reported to have operated a railroad near Steyer, Maryland prior to 1900, exact dates unknown.
- Henry G. Davis operated 12 miles of rail located near Deer Park, Garrett County, Maryland between 1867 and 1892. The line did not use locomotives; rather, mules were hitched to train cars.
- Skipnish Railroad operated as a branch of the B&O near Skipnish, Garrett County, between 1887 and 1910.

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2.5 The Great Railroad Strike of 1877

The railroad prosperity during the period between ca. 1875 and 1917 was not shared equally by all. The Great Railroad Strike of 1877 highlighted the antagonism that existed in the country between workers and leaders of industry, including the railroad industry. The Panic of 1873, an economic depression, resulted in both losses of jobs and cuts in workers' pay. On July 14, 1877, the always financially precarious B&O cut employee wages for the third time in a year. Workers at the B&O Main Stem shops in Martinsburg, West Virginia walked off their jobs in protest. Workers at other places on the B&O spontaneously joined the protest, which then spread to other railroads. Within a week, 15,000 railroad workers were on strike. Eventually, more than 100,000 joined in the action.¹³¹

Although the strike had begun at the B&O shops in Martinsburg, the B&O was largely spared the massive destruction of facilities experienced by the PRR in Philadelphia and Pittsburgh. In Maryland, railroad workers at the B&O's major railroad hub of Cumberland stopped freight and passenger traffic. In Baltimore, Maryland Governor John Lee Carroll, at the request of B&O President John Work Garrett, called up the Maryland National Guard. The Guard's march from its armory to Camden Station erupted into bloodshed along Baltimore Street, the main downtown commercial thoroughfare, with 10 civilians killed and 25 wounded. The rioters injured several National Guard members, damaged B&O locomotives and train cars, and burned portions of the train station at South Howard and West Camden streets. The National Guard became trapped in the B&O's Camden Yards, besieged by armed rioters until July 21–22, when President Rutherford B. Hayes sent federal troops and the U.S. Marines to Baltimore to restore order.¹³²

The strike ended after 52 days, put down by militias, the National Guard, and federal troops.¹³³ However, the strike increased public awareness of railroad worker grievances and prompted some corporate action. On May 1, 1880, the B&O, which had the lowest wage rates of any major railroad, established the Baltimore & Ohio Employees' Relief Association, which provided coverage for sickness, injury from accidents, and a death benefit, the first such organization in American railroad history. In

¹³¹ P. Wilcox, *The Great Railroad Strike of 1877: A Militant Legacy of workers' struggle*, December 5, 2022, Liberation School, <https://www.liberationschool.org/the-great-railroad-strike-of-1877/>.

¹³² J.T. Scharf, *History of Baltimore City and County* (Philadelphia: Louis H. Evarts, 1881).

¹³³ E.W. Martin, *The History of the Great Riots. A Full History of the Mollie Maguires* (Philadelphia: National Publishing Company, 2005).

1884, the B&O also became the first major employer to offer a pension plan for retired workers (Gillett 1991:11-14).¹³⁴

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3 MARYLAND RAILROADS, 1917-1976

The prosperity of the first two decades of the 20th century masked structural problems with Maryland's, and the nation's, railroad industry. Railroads were businesses with high fixed costs tied up in essential physical plant such as rights-of-way, track, bridges and tunnels, buildings, and rolling stock. Railroads also owned vast quantities of land, most of which was taxed. Competition among railroads assured that bulk commodities like coal, the backbone of freight traffic on Maryland's Western Shore, were moved with little profit per carload. Moreover, an arcane, government-regulated freight-pricing structure established maximum and minimum acceptable freight rate levels, rather than letting carriers set rates based on competition, commodity, and distance. Most railroads could remain profitable as long as other costs and competition from alternative forms of transportation remained static, but the position of all but the strongest carriers remained precarious.¹³⁵

3.1 Increased Competition and World War I

As the end of the 1910s drew near, Maryland's railroads began facing competition it had not experienced before. Henry Ford had made the automobile affordable for all, and consumers bought cars in droves, drawn by the convenience they provided; those wishing to travel were no longer dependent on railroad schedules. In 1916, Congress passed the Federal Highway Act, which created a national template and funding source states could use for building roads. Scientifically constructed roads gave farmers and other businesses an alternative way to get products to market, in smaller batches and on their own schedules. This was especially appealing to farmers in places like Southern Maryland and Maryland's Eastern Shore, which were within easy driving distance of urban markets and distribution hubs like Wilmington, Philadelphia, Washington, and Baltimore.¹³⁶ At the same time that roads were improving and automobiles were becoming commonplace, the use of coal was declining as homes and industries shifted to fuel sources like oil and natural gas, which could be shipped by pipelines. Coal was the most important commodity on the B&O, Western Maryland, and PRR, and loss of coal shipments hurt revenues.

America's entry into World War I exacerbated the railroad industry's woes, particularly in the Mid-Atlantic, where the majority of war materiel was bound. Railroad car shortages and freight bottlenecks plagued East Coast ports and the carriers serving them, with the B&O especially hard hit. The increased rail traffic also punished tracks and rolling stock. Exasperated shippers increasingly turned to the trucking industry for relief. In response to the difficulties facing the railroad industry, the federal government briefly nationalized the nation's railroads beginning in December 1917.¹³⁷

The B&O did make one key improvement to its Baltimore operations just in time for the war, opening a new coal pier at Curtis Bay, which was equipped with mechanical twin rotary dumpers that fed a series of conveyor belts. These, in turn, carried the coal to a concrete pier, where it was dropped into four large movable steel loading towers.¹³⁸ The pier is no longer extant.

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¹³⁵ Lichtenstein, 47-48.

¹³⁶ Ibid, 48; Hayman, 142.

¹³⁷ Lichtenstein, 48.

¹³⁸ Harwood Jr., 249.

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1979 *Rails Along the Chesapeake: A History of Railroading on the Delmarva Peninsula, 1827-1978*. Marvadel Publishers.

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3.2 Maryland Railroads in the Interwar Years

Competition from cars, trucks, and pipelines only increased following the end of World War I. That competition, combined with the bottlenecks and rolling stock shortages that the war had brought to light, resulted in a two-pronged response from Maryland's major railroads. First, they sought to cut costs and streamline their operations wherever possible; and second, they explored consolidating into regional systems of multiple carriers, to further rationalize the movement of goods.

Following the end of government control of the railroad industry on March 1, 1920, the PRR reorganized ruthlessly across its system, consolidating shop operations, reducing employment, and rolling back wartime union gains in a bid to reduce its operating ratio (operating ratio equals total operating expenses vs. net revenue).¹³⁹ In Baltimore, one manifestation of this efficiency drive was the construction of a new grain elevator and yard in Canton. The elevator was the largest on the East Coast, with a capacity of four million bushels.¹⁴⁰ In 1930, the B&O improved its Locust Point freight line, placing the tracks that passed Hanover and Light streets in a cut and building a new bridge at Key Highway.¹⁴¹

In 1921, in the aftermath of federal government wartime control of the nation's railroads, the Interstate Commerce Commission (ICC), the federal agency charged with regulating the railroad industry, had put forward a regional consolidation plan for the nation's railroads.¹⁴² Following the return of the railroads to private ownership, the carriers voluntarily continued consolidation discussions, primarily as a way to subvert government action, but also due to a growing realization that cooperation represented a better system than all-out competition in an era of declining freight and passenger traffic. In a sense, the post-war cooperation represented a refinement of the Community of Interest Plan Cassatt and Morgan has sought to impose on Mid-Atlantic railroads in the 1890s.¹⁴³

The ICC's merger plan of 1921 grouped the Western Maryland with the B&O. Accordingly, the B&O began buying up Western Maryland stock, and by 1927 held a 43 percent stake in the company. When the ICC tried to force the B&O to divest its holdings (purchases that had been made in accordance with the ICC's proposed merger plan), the B&O instead retained its stake, placing its Western Maryland holdings in a nonvoting trust.¹⁴⁴

3.2.1 Maryland State Road Commission Grade Crossing Elimination Program

The State of Maryland established one of the nation's earliest State Roads Commissions (SRC), founding the governmental agency in 1908, nearly a decade before Congress passed the Federal Highway Act of

¹³⁹ Burgess and Kennedy, 593-598.

¹⁴⁰ G.M. Kuncio, "MIHP No. B-895, Canton Grain Elevator" (Crownsville, MD: Maryland Historical Trust, 2019). 3-4.

¹⁴¹ Harwood Jr., 250.

¹⁴² Kalmbach, 456.

¹⁴³ K.L. Bryant, Jr., editor, *Railroads in the Age of Regulation, 1900-1980*. Encyclopedia of American Business History and Biography. (New York, NY, 1988). 350.

¹⁴⁴ Kalmbach, 456.

1916. The SRC's main task was developing and constructing the Maryland State Road System, a network of existing roads that would be improved to connect the major towns and cities in the state. By 1909, a 1,300-mile system had been planned.¹⁴⁵ In developing the State Road System, the SRC initially chose to build narrow, 15-foot-wide concrete roads in order to extend the improved State Road System as far as possible in the shortest amount of time. These roads were widened shortly thereafter to 18 feet. According to the SRC's calculations, it would be no more expensive to build narrow roads and widen them at a later date than to build wide roads initially.¹⁴⁶ Adhering to that philosophy, in November 1915, the SRC reported that the main State Road System was about to be completed.¹⁴⁷ However, following World War I, the SRC reappraised Maryland's roads and found that most, as well as the bridges and small structures built on them, were too narrow and weak to carry increasing traffic resulting from the greater availability of personal vehicles. Accordingly, the SRC developed a long-range program of bridge replacement and road reconstruction, which it carried out.¹⁴⁸

Part of that program included constructing bridges that eliminated at-grade road crossings with railroads. The ever-increasing number of motorists on the new State Road System intersected with faster, heavier trains at grade crossings, leading to a climbing death toll. In response, in 1927, the Maryland State Legislature passed the Grade Crossing Elimination Act. Under the legislation, the SRC and the railroad company equally split the cost of grade-crossing elimination bridges. The SRC completed the plans where the road passed over the railroad line; where it passed under, the railroad company prepared the structure plans, and the SRC those of the approaches.¹⁴⁹ The program continued into the 1930s, despite the financial difficulties burdening Maryland's railroads.¹⁵⁰ During the New Deal, the federal government funded a significant portion of the grade-crossing elimination bridges. The program resulted in the construction of dozens of bridges throughout the state.

3.2.2 Restructuring: Consolidation and the Great Depression

Industry and governmental interest in consolidation only increased with the onset of the Great Depression, which devastated the American railroad industry. As businesses closed and unemployment climbed, freight and passenger traffic plunged. On the B&O, total freight tonnage in 1932 was half of what it had been in 1929, the last year of operation before the Depression fully hit. Systemwide, coal traffic fell 41 percent in the same period. Passenger traffic dropped 55 percent between 1929 and 1935, a victim of the Depression and increased automobile use. The B&O averted receivership through a combination of loans from the federal Reconstruction Finance Corporation, wage cuts, and relentless economizing.¹⁵¹

One of the casualties of declining passenger traffic were the railroad-built and -operated resorts of the late 19th century. The automobile had changed the traveling habits of the American public; no longer dependent on railroad schedules, travelers had little reason to patronize the railroad resorts. The decline

¹⁴⁵ Maryland State Road Commission, *First, Second, Third and Fourth Annual Reports of the State Roads Commission for the years 1908, 1909, 1910, and 1911 to the General Assembly of Maryland* (Baltimore, MD, SRC, 1912). 23.

¹⁴⁶ W.C. Hopkins, *Seventeenth, Eighteenth and Nineteenth Annual Reports of the State Roads Commission for the Years 1924, 1925, and 1926 to the General Assembly of Maryland* (Baltimore, MD, SRC, 1927). 10.

¹⁴⁷ Maryland State Roads Commission, *Fifth, Sixth, Seventh and Eighth Annual Reports of the State Roads Commission for the Years 1912, 1913, 1914, and 1915 to the General Assembly of Maryland* (Baltimore, MD, SRC, 1916). 47.

¹⁴⁸ M. Slater et al., "Historic Context Report, Small Structures on Maryland's Roadways" (Baltimore, MD: Maryland State Highway Administration, 1997). 2-11, 2-12.

¹⁴⁹ Maryland State Roads Commission, *Report of the State Roads Commission of Maryland for the Years 1927, 1928, 1929 and 1930*. (Baltimore, MD, SRC, 1930). 64.

¹⁵⁰ Maryland State Roads Commission, *Report of the State Roads Commission of Maryland. Operating Report for the Years 1931, 1932, 1933 and 1934. Financial Report for the Years 1933-1934*. (Baltimore, MD, SRC, 1934).

¹⁵¹ Harwood Jr., 265.

of the resorts was also due, counter-intuitively, to improvements in railroad technology.¹⁵² Passenger trains could now travel a greater distance in less time, and the junction stops where resorts were often located became less necessary and, for passengers, less of an event that warranted an overnight stop. Railroad resorts also saw competition from the new and more accessible ocean-front destinations such as Atlantic City and Ocean City, which could be reached on Maryland's improved road system. By the 1920s, the Queen City Hotel in Cumberland had a dwindling number of guests; lodging facilities were shuttered following World War II. The hotel's ticket office remained open until 1971, and the building was demolished the following year.¹⁵³ Due to dwindling popularity, the Deer Park in Garrett County closed after the Great Depression began. Much of the property was consumed by fire in 1944 but several of the cottages remain. The Viaduct Hotel officially closed in 1935 and was demolished in 1950. The Western Maryland's Pen Mar Park was failing to turn a profit by the late 1920s. A decline in patrons during the Depression and World War II gasoline rationing dealt the final blow; Pen Mar Park closed in 1942. It would be re-opened as a Washington County Park in 1977, but without any of the resort attractions of the 19th and early 20th centuries.¹⁵⁴

The Depression also hammered Maryland's coal industry. The decline had begun in the 1920s, as coal reserves in Western Maryland became depleted and more difficult to reach. The Western Maryland, seeking to expand its trackage, began acquiring financially distressed railroads that serviced Maryland's coal regions. In 1923, the Western Maryland purchased the Georges Creek & Cumberland Railroad, perhaps in order to obtain its right-of-way through the Cumberland Narrows and an easier grade through the mountains. However, in 1939, the Western Maryland abandoned the track from Georges Creek to Midland.¹⁵⁵ The decline of coal shipments and industrial activity in Western Maryland, combined with the growing prevalence of automobile ownership and the use of trucks to ship freight, nearly ended the Cumberland & Pennsylvania's (C&P's) coal and freight business. The Western Maryland would purchase the C&P in 1944, after America's entry into World War II had somewhat revived Maryland's business.¹⁵⁶

Most lumber railroads in Western Maryland were out of business before or during the Great Depression, as the forests of Allegany and Garrett counties began to be overcut. There were a few exceptions. Jennings Brothers Railroad serviced four lumber companies and fifteen small independent coal operators until 1923. In 1925, William A. Morgard purchased the railway and renamed it the Casselman Valley Railroad. In 1928, the railroad again changed hands and was renamed the Casselman River Railroad. The Casselman River Railroad continued operations until 1959, with only fourteen miles of its original line remaining. A second lumber railroad to survive the Great Depression was the Chaffee Railroad Company, established in 1918 and centered out of Vindex, Garrett County. Sold to the Western Maryland in 1921, it operated as their Chaffee branch until 1950.¹⁵⁷

By contrast, the powerful PRR weathered the Depression better than most railroads, although certain areas suffered, including the Delaware Railroad and its Eastern Shore branches. The perishable agricultural and seafood commodities that formed the backbone of the peninsula's business suffered along with the rest of the nation's economy; additionally, reduced shipments could easily be shipped by trucks.¹⁵⁸ But the PRR also continued a massive improvement program it had begun in the 1910s, one

¹⁵² D. Whetzel. Steam-Cumberland's Heritage, *Mountain Discoveries*, Spring 2005, <http://www.mountaindiscoveries.com/stories/pdf/ss2005/trains.pdf>.

¹⁵³ B&O Railroad Queen City Hotel and Station, Cumberland Maryland, Historic Structures. October 13, 2017. https://www.historic-structures.com/md/cumberland/queen_city_hotel.php.

¹⁵⁴ F.A. Rasmussen, Summer Mountain Haven Resort (*The Baltimore Sun*, July 11, 1998. <https://www.baltimoresun.com/news/bs-xpm-1998-07-11-1998192005-story.html>).

¹⁵⁵ K. Miller, "MIHP No. AL-IV-A-027. Western Maryland Railway Station" (Crownsville, MD: Maryland Historical Trust, 1973).

¹⁵⁶ Kalmbach, 456.

¹⁵⁷ Kline Jr. 1976.

¹⁵⁸ Lichtenstein, 49.

of the most notable railroad engineering projects of the 20th century: the electrification of many of its lines in the Northeast.

3.2.3 The PRR Electrifies the PB&W

The PRR's electrification program began in 1910, when the railroad constructed electrified tunnels under the Hudson and East rivers in New York, providing the railroad with direct access into New York City for the first time. Pleased with the results, the PRR made a bold decision to electrify its entire line between New York and Washington, the nation's busiest transportation corridor; this included the PB&W line through Maryland. The PRR reasoned that the unprecedented project, while expensive in the short-term, would provide long-term economies of scale.¹⁵⁹

The PRR electrification project started in 1915 in New Jersey and along commuter branches in Philadelphia, and then extended in stages southward to Washington, D.C.¹⁶⁰ The Maryland to D.C. portion was begun in 1932, during the depths of the Great Depression, after the PRR had secured, first, a \$27 million loan from the Reconstruction Finance Corporation, and then a \$45 million loan from the New Deal's Public Works Administration. The latter was called the most productive loan ever made by the PWA.¹⁶¹

The mammoth undertaking required erecting 325 route miles and 1,300 track miles of catenary; re-laying all four tracks with heavier, high-speed rail; rebuilding bridges for heavier, faster loads; reconstructing signal bridges; and erecting fences at grade-crossing underpasses to keep the public from throwing debris on the track and catenary. Railroad and highway bridges crossing over the line were raised as needed to provide sufficient clearance for electric wires.¹⁶² Through electric passenger service between Washington and New York began in February 1935. Electrified freight service north of Baltimore did not begin until three months later. Freight service through Baltimore and to Washington had to await electrification of the line from Washington to Potomac Yards just over the Potomac River in Virginia, and of numerous other yards and connecting freight lines.¹⁶³ One of those freight lines was the Columbia & Port Deposit Railroad in Cecil County, which connected the PB&W with the PRR main line in Pennsylvania, which was electrified in 1938. Prior to the electrification, Columbia & Port Deposit added two tunnels to the line, the Wildcat Tunnel and the Frazier Tunnel. Both tunnels part of a relocation of a part to the line, were constructed in 1926 by blasting through rock.¹⁶⁴

The PRR's electrification project also required the carrier to undertake a number of improvement projects in Baltimore, most in the vicinity of Union (Pennsylvania) Station. The double-tracked Union Tunnel, which provided access to Union Station from the east, was too small to accommodate two tracks for electrified operations. Therefore, the PRR excavated a new tunnel just south of and adjacent to the Union Tunnel, as well as a new tunnel some distance north of, but parallel to, the old B&P Tunnel. The center section of the new Union Tunnel was built using what was known as the shield method, commonly employed for subaqueous tubes. The section was lined with cast iron rings. The entrance to the station from the east also required widening existing bridges and building new overhead bridges to carry city streets that had been previously crossed at grade. Platforms at the station had to be lengthened to accommodate new, longer electric trains.¹⁶⁵

¹⁵⁹ Lichtenstein, 45.

¹⁶⁰ Ibid

¹⁶¹ Burgess and Kennedy, 614.

¹⁶² Lichtenstein, 45.

¹⁶³ Burgess and Kennedy 1949.

¹⁶⁴ Jenkins, 2.

¹⁶⁵ Burgess and Kennedy, 617-618.

The PRR's electrification of its Washington to New York service was a stupendous engineering feat. It changed the complexion of railroading in the Washington to New York City corridor and dramatically altered the physical environment in ways that still remain today, including the construction of new bridges, switch and signal towers, and electrical generating facilities. High-speed trains expanded passenger travel in the corridor, which generated more passenger miles than any other main line of comparable length. The improvements would keep what became known as the Northeast Corridor viable long after passenger service had declined or disappeared in other parts of Maryland and the country.¹⁶⁶

3.2.4 The Ma & Pa and the Birth of the Railfan Excursion

The Ma & Pa, a railroad that relied heavily on passenger traffic and a small stable of freight products, including fluid milk, faced a profound shift in business after World War I. With improved roads and more automobiles, passenger traffic on the Ma & Pa dropped rapidly. By 1936, passenger train operations, once the mainstay of business, had fallen to 10 percent of the railroad's revenues. The Ma & PA saw its services reduced almost exclusively to the mail trains. The little passenger business that remained was mostly in Pennsylvania, where no roads paralleled the railroad through the Muddy Creek Valley. Milk and less-than-carload freight (that is, freight loads that do not fill an entire boxcar) were lost to trucks, and coal revenues decreased as fewer homes used coal for heating. Manufactured goods from Red Lion and York and slate from Delta and Whiteford became the mainstay of the railroad. With these changes the historically dominant position of the Ma & Pa's Maryland District began to fade.¹⁶⁷

In 1935, the Ma & Pa became a pioneer in a new type of railroad operation that was never a significant source of revenue, but which brought the railroad national and international fame.¹⁶⁸ The Ma & Pa ran its first railfan excursion with a trip to its shops in York, Pennsylvania (the starting point could not be ascertained from newspaper accounts). The excursion included 60 people from the Baltimore Society of Model Engineers and the Smithsonian Institution.¹⁶⁹ On the trip, the employees of the Ma & Pa, including its president, catered to the whims of the railfans with photo stops and rides in the cab of the steam locomotive. Many other railfan excursions followed over the next dozen years, including circle trips from Philadelphia over the PRR and the Ma & Pa. As a result of these excursions and the press coverage they received, the Ma & Pa became one of the best-known short lines in the United States, famous for its beautiful scenery and its antique equipment.¹⁷⁰

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¹⁶⁶ Lichtenstein, 45.

¹⁶⁷ C. Sansonetti, A History of the Ma & Pa Railroad, *Ma and Pa Railroad.*
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¹⁶⁸ Ibid

¹⁶⁹ York Gazette and Daily, Model Engineers of Tour of York, *York Gazette and Daily*, November 11, 1935.

¹⁷⁰ Sansonetti 1997.

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3.3 World War II and its Aftermath: Maryland Railroads, 1941 and 1976

3.3.1 Maryland Railroads During World War II

With America's declaration of war following the attack on Pearl Harbor, the lean years of the Depression became a distant memory for Maryland's railroad industry. Decreased ship movements along America's East Coast and gasoline rationing, which limited automobile use, thrust most of the transportation of war materiel, freight, and troops back onto the railroads. Coal, needed for ships, industries, and power, became an even more valuable commodity, a boon to the B&O, Western Maryland, and coal region railroads like the C&P. Coal traffic was so great on the B&O that in 1944 it constructed a new 200-ton coaling station west of Ilchester. Signal and switching towers closed during the Depression re-opened, and automatic block signals were installed to regulate traffic on what the B&Os now referred to as its Old Main (formerly the Main Stem) and Metropolitan Branch.¹⁷¹

In addition to increased freight traffic, passenger traffic into and out of Washington and Baltimore on the B&O reached all-time highs, thanks to the presence of the federal government and military installations like Fort Meade. The situation was similar on the PRR. Throughout World War II, the PRR's freight traffic doubled and passenger traffic quadrupled due to the movement of merchandise, military supplies, and troops through Atlantic port cities.¹⁷² The electrification of the line allowed the PRR to accommodate the increased rail traffic on its Washington to New York line in a manner it had not been able to during World War I.¹⁷³ In 1944, the PRR had a record year for revenue, topping \$1 billion.¹⁷⁴

In Southern Maryland, the U.S. Navy constructed an Air Test Center at Cedar Point on the Patuxent River. To facilitate the air center's construction and move equipment and men into the area quickly, the Navy purchased the Washington, Brandywine, & Point Lookout Railroad and took over operations on June 1, 1942. The railroad line's name was changed to U.S. Government Railroad, Brandywine to Patuxent River Naval Air Station, and the existing line was improved and extended to Cedar Point. The navy would abandon the line in 1965.¹⁷⁵

¹⁷¹ Harwood Jr., 275.

¹⁷² Kalmbach, 334.

¹⁷³ E. Diehl, "MIHP No. CE-1322, Elkton Train Station" (Crownsville, MD: Maryland Historical Trust, 2013).

¹⁷⁴ Burgess and Kennedy 1949.

¹⁷⁵ K.E. Ranzetta, "MIHP No. SM-719, Point Lookout Railroad Cut" (Crownsville, MD: Maryland Historical Trust, 2000). 8-11.

3.3.2 Post-World War II Decline and Consolidation

The performance of Maryland's and the nation's railroads during World War II were lauded nationwide, but the glory would be short-lived. Physically, most Maryland railroads were in sorry shape at the end of the war. Increased war-time traffic loads and a lack of replacement parts had punished track and equipment already suffering from the deferred maintenance of the Depression years. Carriers dependent on coal for much of its business, like the B&O, Western Maryland, and PRR, saw their traffic decline as wartime use of coal ended, mines became depleted, coal reserves became more difficult to reach, and the shift to alternative fuels continued. Outside competition was accelerating, with the trucking industry taking a growing percentage of the short and medium distance, high-volume business that Maryland railroads counted on to subsidize bulky, higher weight but less profitable goods like coal. When railroad companies, including the PRR and the B&O, attempted to set up their own trucking subsidiaries, the ICC ruled that these violated anti-trust laws requiring disinvestment.¹⁷⁶

The ever-improving road system, combined with post-war prosperity, further undercut the business of Maryland's railroads. Explosive growth in car ownership and its progeny, the automobile suburb, shifted passengers and businesses away from railroad corridors. In 1952, the Chesapeake Bay Bridge opened, making the tourist resorts of Maryland and Delaware, a staple of railroad business in the first half of the 20th century, easier to reach by automobile. The bridge also made it easier to ship Eastern Shore products via trucks. In 1956, the federal government committed to constructing the Interstate Highway System, which would aid long-distance automobile and truck traffic and further harm the railroad industry. The nation's airline industry experienced dramatic postwar growth, decimated long-distance railroad passenger traffic and making slow but steady inroads into railroad freight business.¹⁷⁷

Beset by declining revenues, railroad companies found it more and more difficult to meet debt load payments associated with its high-fixed costs. In 1949, the mighty PRR reported the first operating loss in its 100-year history. Weaker railroads like the B&O were teetering on the brink of insolvency. Maryland's, and the nation's, railroads began a painful restructuring program designed to increase efficiency and lower costs. Where two- or four-track lines were no longer needed the excess trackage was removed, as happened on the Delaware Railroad in 1956. The B&O, PRR, and Western Maryland all gradually introduced diesel locomotives into their operations, beginning with areas farthest from the coal fields they served. A diesel locomotive has a longer range and required less maintenance than a steam locomotive. A diesel could also operate 28-30 days a month, compared to 15-18 days for steam-powered engines. The railroad industry also introduced a number of innovations to make moving freight faster and less expensive. These included piggyback trains, where truck trailers were placed on flatcars; containers on flatcars, where metal boxes were placed on flatcars; and unit trains, where trains were switched and routed as a unit, which eliminated switching of box cars. As a result of these innovations, all major railroads in Maryland closed or consolidated shop facilities and yards and reduced employment.¹⁷⁸

In the post-World War II years, railroad passenger traffic was in even worse shape than freight traffic. Passenger traffic had always been an expensive, publicity generating sidelight for the nation's, and Maryland's, railroads, who made their money hauling freight. The PRR ended passenger service on the Eastern Shore between 1949 and 1965, although passenger traffic remained strong in its electrified Northeast Corridor. The B&O, unable to compete with the PRR's electrified line between Washington and New York, ended its passenger runs through the corridor in 1958.¹⁷⁹ By the 1950s, passenger traffic on the Ma & Pa had dwindled to about 12 per train, and it was clear that only the government contract

¹⁷⁶ Lichtenstein, 49.

¹⁷⁷ Ibid.

¹⁷⁸ Ibid, 49-50.

¹⁷⁹ Ibid, 50

for operating the Railway Post Office cars was keeping the passenger trains going. In 1954, the postal contract was lost to a trucking company, and passenger service ended. Freight traffic in the Ma & Pa's Maryland District had declined to such an extent that through freight trains were no longer run. Daily service between York and Delta was supplemented by trains as needed from Baltimore that ran only as far north as the traffic required. In 1958, the Maryland District was abandoned, and the Ma & Pa moved its offices to York.¹⁸⁰

The innovations and restructuring slowed but did not halt the loss of revenue faced by Maryland's railroad industry. The railroad industry began to explore consolidation, an idea that had been around since World War I, as a potential solution to its financial woes.

3.3.2.1 The Chessie System

In 1961, the B&O hit a financial low point with a \$31 million deficit. The B&O sought a partner that would complement its service and found it in the coal-rich but struggling Chesapeake & Ohio (C&O) Railroad. The C&O Railroad acquired a controlling interest in the B&O in 1963. Although the B&O retained its own property, equipment, and employees, management functions were gradually consolidated in Baltimore.¹⁸¹ In 1967, the B&O-C&O railroads also built a large unloading and preparation terminal near Jessup for, ironically, automobiles. In 1971, the consortium expanded the yard to service a large General Electric manufacturing plant that had opened nearby. The Jessup location for the yard was chosen because of its proximity to both Baltimore and Washington.¹⁸²

In 1968, the C&O-B&O railroad consortium took over the Western Maryland. The B&O had owned a controlling interest in the Western Maryland since the consolidation movement of the 1920s, but the Western Maryland had kept a separate corporate identity. By 1973, the combined B&O and C&O owned 90 percent of the Western Maryland's stock. In 1973, the B&O, C&O and Western Maryland became subsidiaries of a newly created corporate entity, the Chessie System, which used the C&O Railroad's sleeping cat logo as its symbol.¹⁸³

Following the creation of the Chessie System, much of the Western Maryland tracks were abandoned or sold, including its 125-mile-long line between Hancock, Maryland and Connellsville, Pennsylvania, which had been constructed during the overbuilding period of the early 20th century, and much of its holdings in what had been Maryland's coal regions. A 34-mile stretch of Western Maryland right-of-way between Woodmont and North Branch, which closely paralleled the historic C&O Canal, was acquired by the National Park Service in 1980. The B&O's Curtis Point Yard absorbed the traffic from the Western Maryland Port Covington terminal, with Port Covington turned into a piggyback train/truck trailer-on-flatcar terminal. The B&O closed its historic Mt. Clare shops except for the buildings that were part of the B&O Railroad Museum. Warehouse and consumer product manufacturing plants sprung up in places serviced by the Chessie System, including at Halethorpe on the B&O's former Old Main Line, Dorsey on the Washington Branch, and Derwood on the Metropolitan Branch.¹⁸⁴

3.3.2.2 The Penn Central Merger and Conrail

In November 1957, the PRR and the New York Central Railroad, the most powerful railroads in the Middle Atlantic and fierce rivals since the mid-19th century, announced plans to merge. Stockholders approved the merger in 1962, and the union became official on February 1, 1968, with the creation of the Penn Central Transportation Company (Penn Central).

¹⁸⁰ Sansonetti 1997.

¹⁸¹ Harwood Jr., 299-300.; Kalmbach, 80.

¹⁸² Harwood Jr., 305-306.

¹⁸³ Harwood Jr., 299-300.; Kalmbach, 80.

¹⁸⁴ Harwood Jr., 300,302.; Kalmbach, 457.

The Penn Central merger became one of the most spectacular failures in business history. The two companies had vastly different managerial styles, excess, duplicative capacity, and a declining industrial business base. Both the PRR and the New York Central came into the merger in the black, but by 1970 – just two years after the merger had been completed – the company was running a \$325 million deficit. In June 1970, the Penn Central declared bankruptcy.

The Penn Central and other railroads in Maryland soon discovered that Mother Nature would add to their woes. Between June 21 and June 23, 1972, the remnants of Tropical Storm Agnes veered inland, dumping heavy rain into the already water-logged drainage systems of Central Maryland. In the Patapsco Valley, the river crested at more than 41 feet, decimating the B&O's Old Main Line, leaving much of the right-of-way east of Sykesville undercut, and poles, signal and communication lines, and Central Traffic Control equipment destroyed. It would be nearly two years before a train would run between Point of Rocks and Baltimore on the Old Main Line.¹⁸⁵ In response to the storm, the Conowingo Dam in the Susquehanna River in Cecil County opened all 53 of its floodgates and came within inches of being overtopped,¹⁸⁶ devastating the railroad lines of the Susquehanna Valley. On the former Northern Central Railway, then a part of the Penn Central, the storm washed out major sections of the line between Cockeysville, Maryland and York, Pennsylvania. The portion in Maryland north of Cockeysville was subsequently abandoned and converted to a hiking-biking trail, leaving only a lightly used freight spur between Baltimore and Cockeysville.¹⁸⁷ The bankrupt Penn Central system sustained nearly \$200 million dollars in damage.

On April 1, 1976, the Penn Central and six other bankrupt Mid-Atlantic railroads suffering failing business revenues and facing massive physical plant damage from Tropical Storm Agnes were folded into a government-owned company, the Consolidated Rail Corporation (Conrail). Conrail's network reached into Maryland, Pennsylvania, New York, New Jersey, Delaware, Connecticut, West Virginia, Indiana, Ohio and Illinois,¹⁸⁸ the kind of consolidated railroad system that had been discussed since the 1920s. Conrail also operated the passenger trains on the former PW&B/PRR electrified line between Washington, D.C. and New York City.¹⁸⁹

Even before the collapse of the Penn Central, the railroad lines of the Delmarva Peninsula had not fared well under the new corporation. The former Delaware Railroad, the main line through the Delmarva Peninsula, "was viewed more as an insignificant feeder than an important main line".¹⁹⁰ The Delmarva Peninsula had relatively few heavy industries, and the perishable agricultural and seafood commodities that formed the backbone of the peninsula's business had been shifting to truck competition for decades. Additionally, much of the intensive, weather-sensitive crops historically grown on and shipped from the peninsula had shifted to other parts of the country with longer growing seasons, like the southern and western U.S. Newer post-war Delmarva industries, such as broiler chickens, shipped primarily by trucks, not railroads.¹⁹¹ All this meant that freight business coming from Maryland's Eastern Shore was limited and not very profitable. With the Penn Central's bankruptcy, the carrier paid even less attention to the Eastern Shore. Track conditions and quality of service fell amid efforts to trim excess physical plant and eliminate unprofitable service.¹⁹²

¹⁸⁵ Harwood Jr., 303-304.

¹⁸⁶ L. Melser and T. Clark, "Forecasting our Future: Hurricane Agnes' Devastating Impact on Maryland," WBALTV, <https://www.wbalv.com/article/forecasting-our-future-hurricane-agnes-maryland-50-years-later/40361318#>.

¹⁸⁷ J.B. Edington and J.H. Robinson, "MIHP No. BA-2805, Baltimore and Susquehanna Railroad Mable Track Bed, Padonia Section" (Crownsville, MD: Maryland Historical Trust, 1998). 4-8.

¹⁸⁸ Kalmbach, 326-327.

¹⁸⁹ M. Van Hattem, "Maryland Rail Commuter (MARC)" 2006. Trains, <https://www.trains.com/trn/railroads/maryland-rail-commuter-marc/>.

¹⁹⁰ Hayman, 150.

¹⁹¹ Lichtenstein, 49.

¹⁹² Hayman, 150.

Elsewhere in Maryland, the situation was much the same as it was on the Delmarva Peninsula. Conrail's formation would lead to the elimination of smaller and unprofitable branch lines, duplicative routes, and excess tracks and physical plant.

3.3.2.3 Amtrak

Following the collapse of the Penn Central, Congress passed the Rail Passenger Service Act of 1970. The legislation established the National Railroad Passenger Corporation, better known as Amtrak, to take over the intercity passenger rail service that had been operated by private railroads. Amtrak began service on May 1, 1971 in 43 states with a total of 21 routes.¹⁹³ Amtrak acquired rights-of-way on the Northeast Corridor between Washington, D.C. and Boston, which was at that time owned by Conrail.¹⁹⁴

3.3.2.4 State Subsidies for Maryland Railroads

In 1975, the Maryland Department of Transportation (MDOT) began subsidizing Washington, D.C. commuter trains formerly operated by the B&O. In 1976, MDOT began funding Baltimore-Washington commuter trains on the Northeast Corridor operated by Conrail. In the same year, Maryland established a State Railroad Administration, with the goals of managing commuter rail subsidies funded by the state and federal government, purchasing new commuter rail equipment, and subsidizing short lines in the state that Conrail found unprofitable and sought to abandon.¹⁹⁵

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¹⁹⁴ "America's Northeast Corridor," *Railway Technology* 2016. <https://www.railwaytechnology.com/projects/amtraksnortheastcorridor/#:~:text=The%20NEC%20was%20built%20between,upgrade%20and%20modernise%20the%20line>.

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4 MARYLAND RAILROADS SINCE 1976: REGIONAL AND NATIONAL SYSTEMS

4.1 CSX Corporation

In November 1980, the CSX Corporation was formed. A holding company, CSX controlled the Chessie System railroads (the B&O, C&O, and Western Maryland) as well as the Family Line Systems, southern and eastern seaboard railroads that included the Seaboard Coast Line; Louisville & Nashville; Clinchfield; Georgia, Atlanta & West Point; and Western of Alabama. Initially, the railroad lines were not formally merged, and each railroad kept its own identity. However, the Chessie and Family Line systems gradually began integrating their traffic patterns, equipment, and management.¹⁹⁶ In 1983, the B&O formally took over the Western Maryland's operations, ending the Western Maryland's corporate existence.¹⁹⁷ In 1987, the B&O was merged into the C&O Railroad, ending the history of the nation's first common carrier after 160 years. Later that same year, CSX Transportation (CSXT) was formed to manage all of CSX's transportation operations, including its railroads. As a result of the merger, Harwood writes that "the physical landscape changed dramatically as marginal lines and redundant structures were discarded."¹⁹⁸ In Maryland, this included eliminating all surviving interlocking towers in the Baltimore-Washington area as CSXT switched to centralized traffic control. The only one that remained, the brick HX Tower in Halethorpe, was still standing as of 2018.¹⁹⁹

Increasingly, over the decades since the formation of CSXT, container-on-flatcar business has grown to be a large part the carrier's business, although trailer on flatcar operations still remain. In response to CSX's greater use of containers on flatcars, the Maryland Port Authority built a series of new container terminals in Baltimore Harbor, with the 1988 Seagirt Terminal serving as CSXT's major trailer on flatcar/container on flatcar terminal.²⁰⁰

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4.2 The End of Conrail

Conrail operated from 1976 until 1999. Between 1997 and 1999, CSX and the Norfolk Southern (NS) both set their sights on acquiring Conrail's operations. Ultimately, CSX and NS agreed to partner on the acquisition, splitting Conrail's operations and resources. NS acquired 58 percent and CSXT 42 percent

¹⁹⁶ Harwood Jr., 317.

¹⁹⁷ Kalmbach, 80.

¹⁹⁸ Harwood Jr., 317.

¹⁹⁹ Harwood Jr., 318.; "HX Tower," 2018. Interstate Concepts Inc., <http://www.trainweb.org/oldmainline/hxtower1.htm>.

²⁰⁰ Harwood Jr., 319.

of the company. The purchase added 3,200 miles of track to CSXT, its last major addition to its network.²⁰¹ The former Delaware Railroad became property of the NS, although the line extends only as far as Pocomoke City, Maryland, where it connects to the Bay Coast Railroad.²⁰²

4.2.1 The Maryland and Delaware Railroad²⁰³

With the collapse of the Penn Central and the formation of Conrail in 1976, several small branch lines that serviced some of the most rural areas of the Delmarva Peninsula needed only minimal rail service. These branches generally had poor track in a continually deteriorating condition, and because of this the branches were slated to be abandoned by Conrail. However, Maryland and Delaware politicians contracted with Conrail to operate these struggling branches for one year as the “designated operator.” After one year of operation the expense of subsidizing these lines at Conrail’s high cost led the state governments to seek a lower cost short-line as the “designated operator.” Out of this was born the Maryland and Delaware Railroad (MDDE) in 1977.

Soon after its organization, the state governments of Maryland and Delaware selected the MDDE as the “designated operator” of three branches in their states under contract with the Maryland Department of Transportation and authority of the ICC. These branches were MDDE’s current Centreville, Chestertown and Seaford lines, as well as a now abandoned route between Clayton, Delaware, and Easton, Maryland. The Seaford Line runs between Seaford, Delaware and Cambridge, Maryland. The Centreville Line runs between Townsend, Delaware and Centreville, Maryland. The Chestertown Line runs between Massey and Worton, Maryland.

Another branch, operating between Frankford, Delaware and Snow Hill, Maryland, was purchased by the Snow Hill Shippers Association in 1982 and was operated by the MDDE. In 2000, the MDDE took ownership.

In 2008, MDDE signed a 15-year extension with the State of Maryland to continue operating the Centreville, Chestertown, and Seaford lines. The agreement calls for MDDE to be designated operator of the lines through the year 2023. Currently, the MDDE operates 92 miles of track in the states of Maryland and Delaware (The Maryland and Delaware Railroad Company 2021).

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²⁰¹ “History and Evolution,” CSX, Inc., <https://www.csx.com/index.cfm/about-us/history-evolution/>.

²⁰² “Norfolk Southern Railway Company System Map,” Norfolk Southern Corporation, <http://www.nscorp.com/content/dam/nscorp/maps/2016-system-map-print.pdf>.

²⁰³ This history comes from The Maryland and Delaware Railroad Company. Our History, *Maryland & Delaware Railroad: Celebrating 40 Years of Service*, website at http://mdde.com/About_History.html.

4.3 Amtrak's Northeast Corridor

Amtrak began the Northeast Corridor Improvement Project in 1976 to upgrade and modernize the route between Washington and Boston through safety improvements, upgraded signaling systems, installing new centralized electrification and traffic control (CETC) centers, and introducing new locomotives.

The Northeast High Speed Rail Improvement Program was implemented on the line in the 1990s. High-speed *Acela* Express trains were introduced to decrease travel times between the major cities in the corridor, remaining grade crossings were eliminated, bridges were rebuilt, curves were modified, and tracks north of New York City were electrified to make them compatible with *Acela* trains.

The *Acela* Express train service on the Northeast Corridor line started in December 2000. Marginal reductions in travel time between the cities allowed Amtrak to compete with airline services.²⁰⁴ Following the success of the new *Acela* service, the *Metroliner Service*, which had begun in 1979, concluded operation in 2006 after 37 years.²⁰⁵

In 2010, Amtrak released the *Northeast Corridor Infrastructure Master Plan* and *A Vision for High-Speed Rail in the Northeast Corridor*. In the reports, Amtrak proposed a new high-speed corridor along the entire line, including a new inland route through Connecticut. The new high-speed corridor will reduce travel times between Boston and Washington to approximately 3.5 hours, with trains running at 140 mph, nearly doubling the current speed of 75 mph. All intermediate stations will be bypassed by means of tunnels and new stations. Amtrak expects the line to produce an annual profit of \$1 billion and increase the annual ridership to 38 million by 2050.²⁰⁶

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4.4 Maryland Rail Commuter (MARC)

In 1981, the Maryland State Railroad Administration voted to continue financing the commuter rail services it had begun funding in 1976, as long as passenger fares paid for 50 percent of the trains' revenue. In response, Maryland DOT upgraded service on the former B&O routes with refurbished locomotives and cars.

A 1984 marketing study resulted in the branding of the state-supported commuter rail services under the name MARC.²⁰⁷ In 1986, the agency purchased new locomotives and rolling stock for its trains running on the Northeast Corridor. The State Railroad Administration became part of Maryland's Mass Transit Administration (MTA) in 1992, which is itself part of the Maryland DOT. MARC trains are operated

²⁰⁴ "Amtrak's Northeast Corridor," *Railway Technology*, <https://www.railway-technology.com/projects/amtraksnortheastcorridor/#:~:text=The%20NEC%20was%20built%20between,upgrade%20and%20modernise%20the%20line>.

²⁰⁵ Amtrak 2023.

²⁰⁶ Railway Technology 2016.

²⁰⁷ Van Hattem 2006.

under contract by Amtrak and CSXT. In 2000, more than 22,000 rail passengers a day rode MARC, with a total of 5.5 million trips recorded in 2000.

Rush-hour trains operate both ways on two separate routes between Baltimore and Washington: on Amtrak's electrified Northeast Corridor via New Carrollton (the Penn Line) and on CSX's Capital Subdivision (the former B&O Washington Branch) via Jessup and College Park. A third line, the Brunswick Line, provides commuter service on CSX's Cumberland and Metropolitan subdivisions between Martinsburg, West Virginia, and Washington, D.C., with limited service from Frederick on a branch off of the B&O's former Old Main Line. The service to Frederick began in 2001, following the rebuilding of CSX's 3-mile-long Frederick Industrial Track, a connection at Point of Rocks, and between the former B&O Old Main Line and its Metropolitan Branch, as well as the construction of two new stations. MARC trains operate into two Baltimore stations: the Penn Line trains at Amtrak's (the former PRR) Pennsylvania Station, and the Camden Line trains at the B&O's former Camden Station.

MARC operates the fastest commuter trains in North America, using electric locomotives that race along the Penn Line at speeds of up to 125 miles per hour – the maximum allowable track speed on the Northeast Corridor. MARC's electric motors are maintained by Amtrak at its Ivy City engine terminal in Washington. CSX services and repairs MARC's diesel fleet at the Riverside Shop in Baltimore.²⁰⁸

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²⁰⁸ Ibid

5 MARYLAND RAILROADS AND MARGINZALIZED GROUPS: IRISH, AFRICAN AMERICANS, AND WOMEN

5.1 Introduction

Maryland, located south of the Mason-Dixon line, had a remarkably diverse population in the antebellum years of the 19th century, including native-born whites, white immigrants, enslaved persons, and free African Americans. The railroad industry meant something different to each of these communities. For native-born whites, the railroads meant opportunity. The early history of Maryland railroads is replete with stories of men who rose from rodmen on the surveying and construction crews to high-level executive jobs. This was particularly true on large carriers like the B&O and the PRR. English and Western European immigrants also received the opportunity to move up in the railroad industry. But two populations groups in Maryland faced a much different reality, Irish immigrants and African Americans. Irish immigrants in the early and mid-19th century did the dirtiest, hardest, most back-breaking and dangerous railroad jobs – constructing and/or maintaining the line. Facing discrimination and prejudice, Irish workers would find that rising above those jobs and the economic hardships they created was not possible until much later in the 19th century, when Southern and Eastern Europeans filled many of the “unskilled” positions previously held by the Irish.

Free and enslaved African Americans also performed the railroads’ most dangerous jobs, but advancement for the former was limited and for the latter was nonexistent. In the deep South, enslaved African Americans often ran trains out of necessity, but there is no evidence of this practice in Maryland. However, a train also represented a means to escape from slavery in Maryland, which was situated enticingly close to the free states of the North. After the Civil War, a job on the railroad offered Maryland’s African Americans a chance to escape sharecropping and domestic work, although opportunities remained limited until the labor shortages of World War I and World War II.

Women of any color had a very limited role on Maryland railroads until well into the 20th century, beginning with temporary gains made during the male labor shortages during World Wars I and II. Despite this, a few were able to make a lasting impact, including the B&O’s remarkable Olive Dennis.

5.2 The Irish American Experience of Maryland Railroads

Irish immigration to the United States began during colonial times and increased during the early 19th century. As early as the late 1820s, Irish began arriving in Maryland in great numbers, attracted by the prospect of building the new canal and railroad systems. Irish immigrants settling in Maryland found a very different land from the one they left. Many coming to Baltimore left a rural lifestyle and a nation that was without modern industry for an industrialized, crowded, urban port city.²⁰⁹ The impoverished immigrants brought very little with them, and what little money they had was used to pay for passage. For those reasons, most immigrants ended up settling in the port cities where they disembarked, including Baltimore. Irish immigrants to Maryland congregated predominantly in West Baltimore, near the B&O’s Mount Clare shops, which would go on to employ thousands of Irish immigrants. The immigrants lived in subdivided, single-family houses of fellow countrymen holding vastly more people than was intended, or they found lodging in cramped alleys, attics, and basements, in neighborhoods overflowing with sewage and lacking fresh water. Illness ran rampant, and the Irish became scapegoats for spreading diseases and uncleanness. Because of these negative stereotypes, Irish immigrants were

²⁰⁹ J.D. Dilts, *The Great Road: The Building of the Baltimore and Ohio, the Nation’s First Railroad, 1828-1853* (The Stanford University Press, Stanford California, 1993), 132.

often pigeonholed for unskilled labor and the most dangerous or least desirable jobs. Two of the earliest employers of the Irish in Maryland were the C&O Canal and the B&O, both in need of abundant unskilled labor.²¹⁰ During the height of the canal construction period in the 1830s, 91 percent of those doing the labor were Irish men, who were paid just \$10.00 per month to complete the most dangerous, backbreaking jobs, digging the canals.²¹¹

The B&O paid better wages than did the canal, however, \$12.00 to \$14.00 per month. B&O contractors would travel along the C&O Canal line, passing out handbills and promising higher wages on the railroad. As a result, Irish canal workers left in droves to work on the B&O and other Maryland railroads. Irish railroad workers predominantly became part of section gangs building the B&O, in conditions as bleak as those they faced on the C&O Canal.²¹² Conditions were so precarious and unsafe that the phrase “there is an Irishman buried under every tie” became commonplace.²¹³ In present-day Cumberland, Maryland, a Celtic cross commemorates the lives lost during construction of the B&O and the C&O Canal.²¹⁴

While constructing the B&O and other southern railroads outside Maryland, Irish immigrants often worked alongside African American workers. Railroad managers viewed the Irish as the lowest class of white immigrants, while free and enslaved African Americans faced even more intensive, wide-spread discrimination and segregation. Their mutual low-class status and competition for the same jobs led to frequent clashes between the groups.²¹⁵ For example, in 1831, Irish immigrants and African American railroad workers fought for two days in New Market, Maryland, where they were working together on the B&O’s Fourth Division. After twenty men, white and African American, were arrested, a group of 400 Irish workers threatened to release the imprisoned and destroy the town. Only the arrival of a Catholic priest and the Frederick militia calmed the situation.²¹⁶

Irish immigrants continued to provide the railroads and, to a lesser extent, the canal industry,²¹⁷ with a low-paid work force up to the Civil War. Between 1845 and 1853, the Irish Potato Famine, also known as the Great Hunger, brought scores of Irish to this country. An estimated 600,000 Irish immigrants came to the United States during this period.²¹⁸ Of that 600,000, an estimated 70,000 settled in Baltimore in the 1850s and 1860s.²¹⁹ Only following service in the Civil War or after multiple generations in this country were Irish laborers able to move up within the railroad industry.

As railroad construction continued west, Irish workmen followed the jobs. Over time, Irish immigrants were able to save money and better their situations, with access to better educational and career opportunities. A new wave of immigrants from southern and eastern Europe and China entered the country, filling the lowest-paying and hardest jobs as railroad construction moved out west. Irish immigrants became respected Irish Americans, and their occupational and social standing in Maryland and in the greater United States improved.²²⁰

²¹⁰ L. McCusker, *Speaking the Irish in Baltimore: Then and Now*, <https://www.irishshrine.org/big-pivot-posts/speaking-the-irish-in-baltimore-then-and-now>.

²¹¹ “Immigration and Relocation in U.S. History: Irish. Adaptation and Assimilation,” The Library of Congress, <https://www.loc.gov/classroom-materials/immigration/irish/adaptation-and-assimilation>.

²¹² Dilts, 134.

²¹³ *Immigration and Relocation in U.S. History: Irish. Adaptation and Assimilation*.

²¹⁴ N. Madigan, *Standing Strong for Those Long Gone*, *The Baltimore Sun*, July 13, 2008.

²¹⁵ *Immigration and Relocation in U.S. History: Irish. Joining the workforce*, the Library of Congress, <https://www.loc.gov/classroom-materials/immigration/irish/joining-the-workforce>.

²¹⁶ Dilts, 139.

²¹⁷ Less to the canal industry because it was being made obsolete by railroad construction.

²¹⁸ Dilts, 132.

²¹⁹ McCusker 2023.

²²⁰ “Immigration and Relocation in U.S. History: Irish. Racial Tensions”, the Library of Congress, <https://www.loc.gov/classroom-materials/immigration/irish/racial-tensions/>.

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5.3 The African American Experience on Maryland Railroads**5.3.1 Travel Prior to the Civil War**

Prior to the Civil War, segregation on rail transportation was isolated to the North. In the American South, enslaved African Americans were viewed as property and prohibited from engaging in solo travel. If travel was necessary, the enslaved would be accompanied by their enslavers.²²¹ Free African American passengers in the South, noted Austrian civil engineer F.A. Ritter Von Gerstner as he traveled in the United States between 1838-1840, could pay half the fare to sit in the baggage car or the entire amount to sit in coaches with the white passengers. However, when traveling in the North, separate cars were the rule.²²²

²²¹ D. Bogen, Precursors of Rosa Parks: Maryland Transportation Cases Between the Civil War and the Beginning of World War I (Maryland, University of Maryland, School of Law Faculty, 2004), 723.

²²² T. Kornweibel, Jr., "Railroads, Race, and Reparations," *Souls, A Critical Journal of Black Politics, Culture, and Society* (Publication Volume 5, 2003-Issue 3).
<https://www.tandfonline.com/doi/abs/10.1080/713905998?journalCode=usou20>, 237.

Baltimore and Maryland as a whole had a diverse array of residents in the mid-19th century, including one of the largest free African American communities in the United States.²²³ Free African Americans could travel by rail, but it was not without danger. In 1851, for example, free African American woman Rachel Parker was abducted by notorious slave catcher and kidnapper Thomas McCreary. She was taken to Perrysville by train, where she had to wait in prison until 1853, when her case was heard.²²⁴

Because free African Americans with the proper paperwork could travel by train, escape from slavery in Maryland was possible via a relatively short, albeit dangerous, train ride. In fact, attempting to use the railroad to flee bondage was so common in Maryland that a newspaper advertisement from 1858 sponsored by the PW&B noted that a person of color who wished to board its Baltimore to Philadelphia line needed to be escorted by a white person to attest that they were not a runaway.²²⁵ The PW&B further requested that African American people who wished to travel on the railroad appear at the station at 8 a.m., to provide sufficient time to examine their free papers.²²⁶ Famously, in 1838, Frederick Douglass, dressed as a sailor, boarded a PW&B passenger car at Baltimore's Presidents Street Station with forged seaman's papers, but no free papers.²²⁷ When the conductor requested proof that Douglass was indeed a freeman he said, "No sir; I never carry my free papers to sea with me" while instead providing the conductor with the falsified seaman's document.²²⁸ His attempt at escape was successful. Douglass traveled on the PW&B to Havre de Grace, then by steamboat and another PW&B train to the free city of Philadelphia.²²⁹ His story is one of many of previously enslaved people escaping bondage using the PW&B's 93-mile-long route between Baltimore and Philadelphia.²³⁰

Despite the significant risk African Americans faced when traveling by rail in Maryland and the steps taken by the railroads to stop the practice, runaway enslaved persons and the abolitionists who supported them continued to attempt to use the PW&B and the Delaware Railroad and its branches as a way to reach Philadelphia. The B&O Main Stem served as the first part of a route west to Ohio, or to Pittsburgh, where the escapees could then travel to Erie, Pennsylvania, and on to Canada.²³¹

5.3.2 Post-Civil War Laws and Court Cases Affecting Segregation in Travel

In the years after the Civil War and the abolition of slavery, widespread segregation laws were passed, particularly following the end of Reconstruction and the beginning of the "Jim Crow" era.²³² To fight race-based discrimination in travel, African Americans filed legal challenges against unequal treatment in transportation. Several of these lawsuits were significant steps in the Civil Rights journey and had a lasting impact on the Maryland legal and transportation systems.

On April 9th, 1866, Congress passed the nation's first civil rights law, the Civil Rights Act of 1866, which declared that all persons born in the United States were to become citizens "without distinction of race

²²³ "A Lasting Legacy: Baltimore's African American History," The Baltimore National Heritage Area, <https://www.explorebaltimore.org/city-history/a-brief-overview-of-baltimores-african-american-history>.

²²⁴ M. Diggins, "National Park Service National Underground Railroad Network to Freedom," National Park Service, http://www.mdiggins.com/uploads/3/4/8/4/34844981/perryville_rr_ferry_and_station.pdf. 5.

²²⁵ Kornweibel Jr., 15.

²²⁶ Ibid, 170.

²²⁷ F. Douglass, *My Bondage and My Freedom*. Part I-Life as a Slave. Part II-Life as a Freeman (Auburn, NY, Miller, Orton & Co., 1857), 326.

²²⁸ Kornweibel Jr., 170.

²²⁹ "Today in African-American Transportation History-1818: Frederick Douglass Begins His Journey Into History," American Association of State Highway and Transportation Officials, <https://transportationhistory.org/2018/02/14/today-in-african-american-transportation-history-1818-frederick-douglass-begins-his-journey-into-history/>.

²³⁰ Diggins, 1.

²³¹ Kornweibel, 170.

²³² Bogen, 724.

or color, or previous condition of slavery or involuntary servitude."²³³ Although a massive step forward for Maryland's, and the nation's, African American population, an ensuing backlash claimed that the law applied only to segregation on a governmental level and not to private matters, including transportation by rail. In 1868, the Fourteenth Amendment made the citizenship provisions of the Civil Rights Act a constitutional requirement. However, it did not directly affect segregation by private entities like railroads, applying equal protection only on a governmental level.²³⁴ As noted by law professor David S. Bogen, "with the reluctance of the courts to apply the Civil Rights Act to alter the racially discriminatory practices of a private carrier the most attractive remaining basis for any [law]suit was the common law principle that common carriers must accept all passengers who paid the fare and did not misbehave."²³⁵

A number of lawsuits were filed in Maryland or against Maryland railroads to test whether rail-based carriers could restrict African Americans from riding. In October 1869, Alexander Thompson, an African American from New York, filed a suit in the federal district court to recover damages on the grounds that he was ejected from a Baltimore City Passenger Railway car, a streetcar line, based on his race, a claim that the railway company rejected. The railway company's lawyer noted that railways were free to choose whom they would carry and further stated that when the railway was chartered in 1859, African Americans were not citizens according to the Dred Scott decision; therefore, their action against Thompson was grandfathered. The judge denied the streetcar company's argument, stating that the Fourteenth Amendment clearly made African Americans citizens and that the carrier could not refuse to carry African American passengers.²³⁶ The judge further noted that separate seating was possible, but that the streetcar company could not justify making one section of seats less desirable to a patron that paid the same fare. The Baltimore City Passenger Railway responded by creating separate cars for African American passengers and allowing white passengers to sit in any location on the train.²³⁷

The case that integrated municipal transit in Baltimore occurred in 1871, when barber John W. Fields was ejected from a railcar. The judge informed the jury that if the company refused transportation to Fields based on his race that he should be awarded damages. This case brought to a close segregation on Baltimore's municipal transit, as companies found it too expensive to create separate railcars.²³⁸ The ruling, however, did not apply to Maryland common carrier railroads like the B&O, PW&B, or Delaware Railroad.

In 1875, Congress approved a second Civil Rights Act, which stated that "all persons within the jurisdiction of the United States shall be entitled to the full and equal enjoyment of the accommodations of public conveyances on land or water subject only to the conditions and limitations established by law, and applicable alike to citizens of every race and color."²³⁹

The legislation's impact on Maryland's railroads was tested in 1876, when Harriet E. Cully sued the B&O on behalf of herself and 17 other passengers, who claimed they were not given equal accommodation due to race, a violation of the Civil Rights Act of 1875 and the Fourteenth Amendment.²⁴⁰ B&O representatives argued that riding in a railway car was not a civil right and questioned the legitimacy of the 1875 Act. The judge sided with the B&O, ruling that traveling on a railway car was not a guaranteed right under the 1875 Act or the Fourteenth Amendment, and adding that the issue of who a railroad

²³³ "The Civil Rights Act of 1866. Law, April 09, 1866," United States Congress, <https://teachingamericanhistory.org/document/the-civil-rights-act-of-1866/>.

²³⁴ Bogen, 721.

²³⁵ Ibid.

²³⁶ Ibid, 732.

²³⁷ Ibid, 733.

²³⁸ Ibid.

²³⁹ Ibid, 734.

²⁴⁰ "Maryland Transportation Cases: End of the Civil War-Plessy v. Ferguson," Johns Hopkins University, <https://sites.google.com/view/transportationcases/home>.

would carry should instead be debated on the state level. A *Baltimore Sun* article about the decision made the remarkable claim that, "It may be stated further, as a matter known to everybody who has occasion to travel in Maryland, that not only upon the Baltimore and Ohio railroad, but upon all railroads in the State, colored people are treated precisely the same as white people and have no reason to complain of any discourtesy, unjust discrimination or ill treatment."²⁴¹ The claim indicates the level of institutional racism faced by African Americans seeking to ride railroads in Maryland.

In 1887, Congress enacted the Interstate Commerce Act. Although the law was aimed at discriminatory rate practices, the act included a provision making it illegal for railroads to subject any person "to any unreasonable or undue prejudice or disadvantage in any respect whatsoever." The newly created ICC held that the provision applied to treatment of passengers as well. Early decisions by the ICC held that separation of the races was permissible on railroads but indicated that "substantial inequality" in treatment would violate the Act. The ruling effectively extended the law of common carriers to the federal level for interstate railroads.²⁴²

The law of common carriers and the ICC's interpretation of it would be put to the test in 1896, when the U.S. Supreme Court heard the famous *Plessy v. Ferguson* case. The court held that racial segregation laws did not violate the U.S. Constitution as long as each race had access to equal facilities. This "separate but equal" doctrine institutionalized segregation in many if not most sectors of American life, including transportation, particularly in the American South. Railroads, including Maryland's, were now free to establish nominally equal railroad accommodations for African Americans and Whites, although they were anything but equal.

In response to *Plessy v. Ferguson*, in 1902, Maryland Democratic legislators introduced a bill that made segregation in transportation a requirement. Backlash was swift, with the African American community organizing protests. African American attorney Warner T. McGuinn presented a petition against the legislation signed by both white and African American Baltimore citizens. Railroad companies also joined the protest, although less for the altruistic purposes and more so they could operate their companies in the most economically efficient way possible. The bill was ultimately defeated. However, two years later, legislators introduced a similar bill, which was ratified into law. The law mandated that steam-powered railroads operating passenger service in Maryland establish segregated railroad cars.²⁴³ In response, the B&O installed partitions in "old smoking cars," one section of which was for the white smoking passengers and another for African American passengers where smoking was prohibited.²⁴⁴ Other railroads made similar arrangements for local traffic. Long-distance travel outside of Maryland to the north and west, however, was exempt from the law. In 1908, the segregation law was extended to include separate toilets on railcars, and to extend the provisions to electric railways operating more than twenty miles beyond an incorporated town. The ICC heard complaints concerning discrimination, but it was indifferent to the mistreatment.

One of the first people to protest Maryland's new law was an unnamed African American woman from Pittsburgh, who was visiting relatives in Frederick. She and her husband boarded a B&O local train in Ijamsville, Maryland, enroute to Mt. Airy. They took seats in one of the "whites only" coaches, where a conductor ordered them to vacate. According to a local newspaper, "when the conductor attempted to use force she hit him in the face with her fist, and then drawing a hatpin from her hat, attempted to stick him with it."²⁴⁵ When the case was brought to trial the woman contended that there were no Jim

²⁴¹ Bogen, 739-740

²⁴² Ibid.

²⁴³ Ibid, 743.

²⁴⁴ Kornweibel Jr., 247.

²⁴⁵ Kornweibel Jr., 249.

Crow laws in Pennsylvania and she was unaware that that type of law existed in Maryland. The outcome of the case could not be determined.

To fight the 1904 discrimination law on a larger scale, the Maryland Suffrage League and the famed Baltimore African American newspaper the *Afro-American Ledger* planned a boycott of Maryland railroads, which ultimately collapsed eight months later.²⁴⁶ There is evidence that at least the B&O was hesitant to enforce the law. The same newspaper that reported the Pittsburgh woman's plight detailed that the B&O had been advising African American passengers traveling from Philadelphia or Washington D.C. into Maryland that they could occupy white coaches if they did not wish to sit in Jim Crow cars.²⁴⁷

In 1910, Maryland established a Public Service Commission (PSC). The PSC's main role was to regulate rates on common carriers, including railroads; however, it could also hear complaints about service. In December 1910, W. Ashbie Hawkins filed a complaint against the Baltimore, Chesapeake, & Atlantic Railway (BC&A) for discrimination on two of their steamboats, the *Avalon* and *Joppa*, which ultimately failed.²⁴⁸ However, Hawkins would later represent Thomas Turner, a Baltimore school teacher, who complained about the poor and dirty conditions for African Americans on the BC&A, noting that the only area available for African Americans was the smoking coach for white men. Ultimately the PSC dismissed the dirty condition complaint; however, it did order the BC&A to provide seating in nonsmoking as well as in smoking cars for African Americans.²⁴⁹

As Bogen notes, many cases brought by African Americans against Jim Crow railroad laws during the early-to-mid 20th century largely were focused not on abolishing segregation, but rather, on acquiring dignity and equal treatment for African Americans. Decades of small court cases and litigation would chip away at discriminatory laws and practices. In the mid-1930s NAACP and Marylander Thurgood Marshall worked to defend African Americans who faced unequal treatment in the education sector. This was years before the famed *Brown vs. the Board of Education*, but it was smaller court cases like these that were building blocks that helped in the large anti-segregation battles of the 1950s and 1960s. An equality win occurred in 1950 when the United States Supreme Court agreed with plaintiff and Marylander Elmer W. Henderson that Southern Railway had violated the Interstate Commerce Act by not giving Henderson equal seating with white passengers in a dining car.²⁵⁰ The "separate but equal" doctrine persisted until the landmark *Brown vs. the Board of Education* decision in 1954. Ultimately, the Civil Rights Act of 1964 abolished segregation in public places on a national level and ended more than a century of transportation segregation in Maryland.

5.3.3 African Americans and Railroad Labor

In the antebellum period, enslaved labor was widely used to construct railroads in the Deep South. Railroad companies would lease enslaved people from their enslavers or purchase their own workforce to construct and maintain the railroad.²⁵¹ By 1860, it was estimated that southern railroads had 15,000 enslaved people working for them.²⁵² Historian Kornweibel wrote "Railroads meant progress to white southerners. But railroad construction, operation, and maintenance depended upon the slaves. Thus, advancement rested upon exploitation. For nearly four decades from 1829 to the last gasp of the Confederacy, slavery deprived well over 100,000 African American railroaders of wages, family life,

²⁴⁶ Bogen, 743.

²⁴⁷ Kornweibel Jr., 249.

²⁴⁸ Bogen, 747.

²⁴⁹ Ibid, 749.

²⁵⁰ "Civil Rights Tour: Employment-Elmer Henderson, Fighter for Equality," D.C. Historic Preservation Office, <https://historicsites.dcpreservation.org/items/show/1008>.

²⁵¹ "Union History," A. Philip Randolph Museum, <https://aprpullmanportermuseum.org/about-museum/union-history/2/>.

²⁵² Kornweibel Jr., 11.

personal health and safety.”²⁵³ No evidence was uncovered that railroads in Maryland used enslaved labor. However, as noted earlier, one Maryland railroad, the B&O, used free African Americans to construct or maintain its railroad lines.

The use of African American labor increased in both the North and South during the Civil War. With many white laborers fighting in the armies, African American railroad workers, both enslaved and free, were pressed into service to repair railroad tracks and associated infrastructure destroyed by the warring factions. Enslaved people that were able to flee to the North and free African Americans were put to work as members of track gangs by the Union army. Their jobs were to rebuild the destroyed rail lines to aid in the transportation of Federal troops and supplies.²⁵⁴

In the post-Civil War years, African Americans continued to work in railroad construction, reconstruction, and maintenance of way. Constructing and maintaining railroads in the second half of the 19th century was labor intensive, low-paying, and dangerous.²⁵⁵ The railroad reconstruction projects of the late 19th and early 20th centuries undertaken by Maryland railroads like the B&O and the Western Maryland often involved blasting through rock ledges and otherwise reengineering to shorten routes or improve grades. Work of this type typically fell to those perceived to be the lowest and most expendable members of American society – newly arrived immigrants from southern and eastern Europe and China (the last in the west) and African Americans. Minorities were restricted from other types of railroad jobs, such as employment in Maryland railroad shops or in train operations (engineer, fireman, conductor, or brakeman).

African American employment on Maryland’s railroads increased with the onset of World War I. With immigration virtually halted from Europe, and white railroad workers lured away by factory jobs or, eventually, drafted into military service, Maryland’s railroads faced a labor shortage. At the same time, the boll weevil infestation in the South, combined with a desire to escape repressive Jim Crow laws and the sharecropping system, pushed southern African Americans to begin “The Great Migration” to northern cities. In the summer of 1916, four of the nation’s largest railroads, the B&O and PRR among them, sent agents to the South offering free transportation to men who would work on section gangs maintaining railroad right-of-way. All told, the B&O, PRR, Erie, and New York Central railroads brought north 40,000 African American laborers from 1916 to 1917.²⁵⁶ They were deployed in temporary boxcar and tent camps and distributed throughout the railroad lines. The B&O brought 10,000 African American workers to Baltimore and dispersed them to maintenance of way camps across their rail system. The B&O was notorious for paying a lower wage than other industries and, as such, retention rates for maintenance of way jobs was poor among white workers. Despite the low pay and the difficulty and danger associated with the job, maintenance of way positions on the B&O and other railroads gave African Americans migrating from the South an opportunity to put down roots in the north and offered an improved standard of living and pay. However, maintenance of way gangs working on railroad lines in the North were rarely all-African American. Instead, African Americans worked alongside native and immigrant whites.²⁵⁷

5.3.4 African Americans and the Railroad Brotherhoods

Writing in his 1931 book *The African American Worker*, public administration authority Dr. Sterling D. Spero noted, “Pullman porters and dining car waiters are almost invariably African American, while railroad conductors, locomotive engineers, subway guards, motormen, salespersons in stores, clerks

²⁵³ Ibid, 28.

²⁵⁴ Ibid, 40.

²⁵⁵ “The Legend of John Henry: Talcott, WV,” National Park Service, <https://www.nps.gov/neri/planyourvisit/the-legend-of-john-henry-talcott-wv.htm>.

²⁵⁶ Kornweibel Jr., 52.

²⁵⁷ Ibid, 54.

and white-collar employees of every sort are almost without exception white."²⁵⁸ Concerning railroad work, Spero noted the flawed reason behind restricting African Americans to certain low-paying railroad jobs: "The Negro cannot be a locomotive engineer because he is unfit to be entrusted with lives or property to such an extent. Yet as a slave he ran locomotives in the South and even carried Confederate troops to the front to fight for his enslavement. The Negro cannot be a mechanic because he is naturally incapable of doing skilled work although he followed skilled trades when they required much higher degree of artisanship and skill than they do in this mechanical age."²⁵⁹

Railroad unions in Maryland often made it difficult, if not impossible, for African Americans to secure certain jobs on the railroads operating in the state. This was particularly true of the unions representing the elite of railroad workers, those in train service: the Brotherhood of Locomotive Engineers; the Brotherhood of Locomotive Firemen and Enginemen; the Order of Railroad Conductors; and the Brotherhood of Railroad Trainmen (who represented brakemen). Founded in the mid-19th century, the brotherhoods barred minorities (and women) from joining the unions, effectively precluding them from working those jobs. The exclusions remained well into the 20th century. For example, the 1922 bylaws of the Brotherhood of Locomotive Fireman and Enginemen stated that "He [wishing to join] shall be white born, of good moral character, sober and industrious, not less than eighteen years of age, and be able to read and write the English language and understand our constitution; provided that no applicant whose bodily or physical condition is such as, in the opinion of the General Secretary and Treasurer, will render him a poor risk."²⁶⁰ Even the Brotherhood of Maintenance of Way Employees barred African American membership until 1917, despite the high number of African Americans who worked in those jobs. After 1917, African Americans could join lodges, but they had no real voice in the union.²⁶¹

The exclusion included the position of brakeman, one of the most dangerous and least well-paid job on the railroad. Prior to the invention of the automatic car coupler in the late 19th century, brakeman worked either between railroad cars, combining them using a link-and-pin system, or from the tops of railroad cars, applying the brakes by hand when necessary. In Maryland and the North, the railroad industry had so much cheap white labor to choose from that African American men were rarely hired as brakemen. The few who were hired following the Civil War soon found that the white engineers and brakemen would not work with them. "African American brakemen in the North and West were so rare after 1900 as to be almost a novelty."²⁶²

Racism remained a constant in the brotherhoods until after World War II. Even the labor shortages tied to that war failed to convince railroad companies and the brotherhoods to shed their discriminatory hiring practices in train service. Despite its need for employees, the B&O admitted that it was "not even considering the hiring of colored men for fireman and brakeman jobs."²⁶³ The first African American man was not admitted to the Brotherhood of Railroad Trainmen until 1953.²⁶⁴

5.3.5 Pullman Porters

African Americans who worked in train service were cooks, waiters, custodians, and Pullman Porters. The latter were the elite of African American railroad workers. In 1859, Chicago businessman George M. Pullman convinced the Chicago, Alton, and St. Louis Railroad to allow him to convert two passenger

²⁵⁸ S.D. Spero, *The African American Worker; The Negro and the Labor Movement* (New York, NY, Columbia University Press, 1931), 180.

²⁵⁹ *Ibid.*

²⁶⁰ *Brotherhood of Locomotive Firemen and Enginemen, Constitution of the Brotherhood of Locomotive Firemen and Enginemen* (Ann Arbor, MI, The University of Michigan, 1922), 147.

²⁶¹ Kornweibel Jr., 54.

²⁶² *Ibid.*, 93.

²⁶³ *Ibid.*, 75.

²⁶⁴ *Ibid.*, 101.

cars into sleeping cars. These new sleepers, owned and operated by the Pullman Palace Car Company, became very popular and changed the way middle- and upper-class passengers traveled. Pullman began hiring recently freed enslaved men as porters for his sleeping cars. Pullman recognized that these newly freed men, many of whom did not own property and could not read or write, could be hired cheaply. He also reasoned that hiring formerly enslaved men who had spent a lifetime in servitude would provide exemplary customer service. Larry Tye, author of *Rising from the Rails: Pullman Porters and the Making of the African American Middle Class*, noted that Pullman “was looking for people who had been trained to be the perfect servant.... He knew they would come cheap, and he paid them next to nothing. And he knew there was never a question off the train that [white customers] would be embarrassed by running into one of these Pullman porters.”²⁶⁵ Porters were responsible for a multitude of tasks, including moving luggage, cleaning, arranging berths, shining shoes, and generally serving passengers. At the height of Pullman car service, 12,000 African American men were employed as Pullman Porters.²⁶⁶

The role of the Pullman Porter was a subservient one dependent on tips from white passengers to supplement low pay, and porters endured decades of discrimination, abuse, and institutional racism. For example, in the late 19th century, the American Railway Union had been founded to organize railroad porters, but African American Pullman Porters were excluded. Still, employment as sleeping car porters provided African Americans with a steady income and an ability to purchase property.

In 1925, social activist A. Phillip Randolph was hired to organize the Brotherhood of Sleeping Car Porters, which became the first labor organization led by African Americans to receive a charter in the American Federation of Labor.²⁶⁷ The union’s first major win came in 1937, when it achieved the first-ever agreement between a union of African American workers and a major United States conglomerate.²⁶⁸ This resulted in a large wage hike and a 240-hour work month.²⁶⁹ The end of the Pullman Porters came in 1969 when the Pullman Company ended its sleeping car service due to the decline of patrons using passenger rail service.

5.4 Women and Maryland Railroads

Railroads may have employed white women as early as 1838, as attendants to assist female passengers²⁷⁰, but the first such women known to be hired by a railroad were Susan Morningstar and Catherine Shirley, who joined the B&O in 1855 as “charwomen.” (women employed as cleaners). The B&O hired another unnamed woman as a restaurant keeper at one of its Baltimore stations that same year.²⁷¹ In the antebellum years, a few railroads used enslaved African American women as “janitresses” (matrons), station cleaners, and crossing guards.²⁷² After the Civil War, the Pullman Palace Car Company relied on African American women to clean its famous sleeping cars. These women, known as

²⁶⁵ “Pullman Porters Helped African American Build African American Middle Class,” National Public Radio. <https://www.npr.org/templates/story/story.php?storyId=103880184>.

²⁶⁶ L. Tye, “Pullman Porter and the Making of the African American Middle Class,” C-Span. <https://www.youtube.com/watch?v=ijotpQQ9H1k>.

²⁶⁷ Ibid.

²⁶⁸ “Union History”

²⁶⁹ S. Park, “Robert C. Hayden Interviews the “Knights of the Rail”: An Oral History of African American American Railroad Workers in Boston,” April 8, 2020, Open Archives, <https://blogs.umb.edu/archives/2020/04/08/robert-c-hayden-interviews-the-knights-of-the-rail-an-oral-history-of-africanamerican-american-railroad-workers-in-boston/>.

²⁷⁰ T.C. Jepsen, “A Look to the Future: Women Railroad Telegraphers and Station Agents in Pennsylvania 1855-1960,” *Pennsylvania History: A Journal of Mid-Atlantic Studies*, Vol. 76, No. 2. Spring 2009. 112.

²⁷¹ Kornweibel Jr., 212.

²⁷² L.A. Blouin et al., “African American Women and the Railroad,” National Railroad Hall of Fame, <https://www.nrrhof.org/african-american-women-and-the-rr>.

"Pullman Maids," were also responsible for tending to children on board, and bathing, dressing, and doing women's hair.²⁷³

In the 19th century, most railroads employed white women in jobs seen as an extension of domestic work. However, a few women achieved greater status, such as civil engineer Olive Dennis, who was first hired by the B&O to design bridges in rural Ohio. Dennis had been educated at Goucher College in Maryland and then received a master's degree in mathematics at Columbia University. After teaching mathematics at a high school in Washington D.C. for ten years, Dennis went back to school in 1919 to further her education, becoming the second woman in the United States to graduate with a civil engineering degree from Cornell University.²⁷⁴ After her graduation the B&O hired Dennis as a draftsman at the B&O, where she designed a railroad bridge in Painesville, Ohio.

In the second decade of the 20th century, the B&O was finding it difficult to retain its passengers, due to increasing automobile use. Thus, the railroad targeted a different demographic, women, and used Dennis to appeal to female passengers. She noted "I was told to get ideas that would make women want to travel on our line."²⁷⁵ Dennis was the first person at the B&O to be given the title "Engineer of Service," and she was responsible for many of B&O's modern conveniences, such as air conditioned coaches, dimmable overhead lights, and stain-resistant upholstery.²⁷⁶ Dennis also created reclining seats and individual window vents that allowed fresh air in while trapping dust, maximizing passengers' comfort.²⁷⁷ Dennis's ideas were wide ranging, from the ideal size of a railroad car's dressing rooms to removing heavy meals from club car menus. The *New York Times* noted that Dennis "would rather puzzle over the arrangement of doors and cabinets to avoid blocked passages or detect flaws in the construction of a Pullman berth than compose a color scheme for a new club car."²⁷⁸ Dennis also is credited with designing the luxury passenger train the *Cincinnatian* for the B&O, which was put into service in 1947. This particular locomotive had a streamlined "shroud" which covered the front, reducing wind resistance and making it easier for mechanics to repair the engine.²⁷⁹ Dennis was the first woman to receive admittance to the American Railway Engineering Association.²⁸⁰ Her contribution to the railroad added comfort, luxury, and practicality to passenger trains, with innovations that continue to be used into present day.

The labor shortages associated with World War I opened up the railroad industry to women of all races. White women took on a majority of the white-collar, secretarial, and clerical jobs. African American women were predominantly employed in jobs that required heavy labor, often working in machine shops, cleaning engines, working to maintain railroad beds, or cleaning cars.²⁸¹ The return of soldiers after World War I and the Great Depression ended most employment for women in the railroad industry.²⁸² However, World War II produced another employment boom for women. By September 1942, 40,000 women were employed by railroads nationwide. By the end of 1943, that number had jumped to 100,000.²⁸³ About two-thirds of this number worked in secretarial and clerical roles. A smaller number

²⁷³ M. King, "A Different View: Windows Into African American History on the Railroad," 2020, B&O Railroad Museum blog, <http://borailroad.blogspot.com/>.

²⁷⁴ C. Giaimo, "The 'Lady Engineer' Who Took the Pain Out of the Train," 2018, *Atlas Obscura*. <https://www.atlasobscura.com/articles/olive-dennis-train-comfort-engineer>.

²⁷⁵ "Back-Seat Engineer," *The Baltimore Sun*, November 2, 1947.149.

²⁷⁶ "Olive Dennis, Trailblazer," National Academy of Engineering, <https://engineergirl.org/125278/Olive-Dennis>.

²⁷⁷ "She took the pain out of the train Innovator: One of the first women to earn a Cornell engineering degree, Olive Dennis helped make rail travel less complicated and more comfortable," *The Baltimore Sun*, September 9, 2018.

²⁷⁸ "Olive Dennis, Trailblazer."

²⁷⁹ Giaimo 2018.

²⁸⁰ "Olive Dennis, Trailblazer."

²⁸¹ Kornweibel Jr., 215.

²⁸² *Ibid*, 223.

²⁸³ *Ibid*, 224.

of white women joined in railroad shops or joined the ranks of brakemen and assistant passenger conductors. African American women worked as train car cleaners, Pullman Maid workers, and unskilled shop laborers. All female section gangs were also created.²⁸⁴

The PRR, the nation's largest railroad by number of employees, had nearly 18,000 African American employees by mid-1943, one quarter of whom were women. African American women worked as coach cleaners, shop and roundhouse laborers, and "section & extra gang men."²⁸⁵ Some even managed to break into male-dominated roles such as cooks, freight-house truckers, and loaders. However, no African American women held clerical positions, nor were they journeymen or apprentice mechanics until the late 20th century. They also performed labor-heavy work, like track repairs, which the PRR felt were inappropriate for white women. Marylander Maggie Hudson, became one of the first female Pullman Porters, known as Porterettes, in 1943. Hudson had the same duties as her male counterparts and worked the B&O's Washington, D.C. to Cumberland route.²⁸⁶ She joined the Brotherhood of Sleeping Car Porters Union and transferred to the B&O's Central office where she cleaned offices, retiring in 1979.

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²⁸⁴ Ibid.

²⁸⁵ Ibid.

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6 MARYLAND INTERURBAN RAILWAYS

Interurban railways are defined as railways that ran within and between cities and towns, generally on narrow gauge tracks. Most were electric-powered, although a few may have been coal-powered. Interurban railways served primarily as passenger carriers using heavier, faster equipment than urban streetcars but much lighter equipment than railroads. Interurban railways operated on tracks laid on streets in cities and on roadside tracks in rural areas. The electricity powering the interurban railways was provided through overhead catenary lines or third rails. Although their primary purpose was passenger transport, some interurban lines provided freight service as well. In an era before reliable roadways, interurban lines provided transportation between towns and cities with inexpensive fares and convenient schedules.

The evolution of interurban railways began in 1870 with the invention in Germany of the first electric generator for commercial use. The first electric locomotive was built and exhibited in Berlin in 1879. In the United States, Frank Sprague developed an electric motorcar in 1886. Although it was built for the New York Elevated Railway, Sprague put it into operation in 1888 for the Richmond Union Passenger Railway.²⁸⁷

Interurban railways grew in popularity throughout the late 19th century and into the first decades of the 20th century. While interurban lines were popular throughout the United States, they were more prevalent in areas of flat land, such as Ohio, where “almost every town with a population greater than 5,000 had an interurban connection”.²⁸⁸ By 1916, there were 15,580 miles of interurban tracks in the United States. By the 1920s, however, the interurban railways began to decline. This was due to the popularity of the automobile and increased funding for road construction. Better roads made automobile travel easier and more convenient for many in the United States. Bus service, often subsidized by municipal or state governments, began taking the passenger service formerly offered by the interurbans. The Great Depression caused many interurban lines to fail and following a brief resurgence during World War II, just 1,519 miles of railways remained in 1950. By 1959, the mileage had dropped to 209 miles.²⁸⁹

In eastern Maryland, interurban railways were constructed between Baltimore, Annapolis, and Washington, D.C. In western Maryland, they operated between Cumberland, Frederick, Hagerstown, and smaller towns in the region.

The first interurban railway in Maryland was the Annapolis Short Line, built in 1887. Officially known as the Annapolis and Baltimore Short Line, it served the Annapolis area near Baltimore. In 1907, the short line was purchased by the Maryland Electric Railway Company. The United Railways and Electric Company formed the Maryland Electric Railway Company in 1907 as a separate company to increase funds needed for required improvements.²⁹⁰ The United Railways and Electrical Company operated street railways in the greater Baltimore area between 1899 and 1935.

²⁸⁷ A. Burns, *Interurbans, Classic American Streetcars*, article on the American-Rails.com website at <https://www.american-rails.com/interurbans.html>, 2023.

²⁸⁸ V. Guerrieri, *Before Interstates, America Got Around on Interurbans*, article at <https://www.bloomberg.com/news/features/2021-10-06/long-gone-interurban-trains-could-signal-a-rail-revival>, 2021.

²⁸⁹ Burns 2023.

²⁹⁰ *The Relations of the United Railways and Electric Company and the Maryland Electric Railway Company*, *Street Railway Journal* (McGraw Publishing Company, Volume 29, April 13, 1907), 669.

The Annapolis and Baltimore Short Line was electrified in 1908. The line changed owners several times throughout the 20th century. In 1921, it was purchased by the Washington, Annapolis & Baltimore Electric Railroad. In 1935, the short line became part of the Baltimore and Annapolis Railroad. Passenger service for the railroad was discontinued in 1958, while freight service continued until 1968.

Four electric railways operated in western Maryland. The first line in operation was the Cumberland Electric Railway, which began operations in 1891. The railway connected North Centre Street to Narrows Park in Cumberland and was discontinued in 1932.²⁹¹

The Frederick and Middletown Railway opened in 1896 in the Frederick area. The line was planned in order to “provide faster transportation of farm produce to markets and to make money through passenger transport”.²⁹² As part of the plan to gain passengers, the company bought and developed an area on the ridge of Catoctin Mountain into a summer resort village. The area was named Braddock Heights and began receiving visitors by rail in August 1896. Passenger service was extended to Middletown by October 1896. In 1898, the line was extended to Myersville. This line was originally a separate business venture but was leased to the Frederick and Middletown Railway. Through service between Frederick and Hagerstown became possible in 1904 when the Hagerstown Railway constructed a line from Boonsboro to Myersville.

The Hagerstown and Frederick Railway Company was formed in 1913 with the consolidation of several smaller lines. The 76-mile line connected Hagerstown, Frederick, Boonsboro, Myersville, Middletown, Jefferson, Braddock Heights, Thurmont, and Williamsport in Maryland and Shady Grove in Pennsylvania. The Hagerstown and Frederick continued passenger service until February 20, 1954, the last interurban east of the Mississippi to do so. The Hagerstown and Frederick also maintained a profitable freight business through its connections with the Western Maryland Railway. Freight service was discontinued in 1958.²⁹³

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²⁹¹ Burns 2023.

²⁹² A. Luthern, The Electric Railway in Western Maryland, website at <https://mdhistoricaltrust.wordpress.com/tag/frederick-and-middletown-railway/>.

²⁹³ Burns 2023.

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7 NOTABLE MARYLAND RAILROAD ARCHITECTS AND ENGINEERS

7.1 Ephraim Francis Baldwin (1837-1916)

E. Francis Baldwin was born in Troy, New York, in 1873 but spent most of his life in Baltimore. He briefly attended Loyola Blakefield from 1850 to 1852 and then Mount St. Mary's University from 1854 to 1855. Baldwin began his career as a draftsman and apprentice in the Baltimore office of Niernsee & Neilson. During this period, he and the firm designed 10 East Chase Street in Baltimore and the Mt. Hope Retreat in Baltimore. He left the firm in 1867 and worked alone for two years before entering a partnership with Bruce Price, who is credited with creating residences in Tuxedo Park, New York. The Baldwin & Price partnership was short-lived and lasted from 1870-1873, at which point Baldwin began a solo career. In 1872 Baldwin was appointed the chief architect for the B&O Railroad. As the chief architect, Baldwin was responsible for designing B&O depots throughout Maryland, including Rockville, Mount Airy, Mountain Lake Park, Gaithersburg, Sykesville, Oakland, Kensington, Frostburg, and Brunswick. Additionally, he designed the B&O warehouses, the company offices in Baltimore, and the B&O's passenger car roundhouse at the Mt. Clare shops, today the main building of the B&O Railroad Museum. In 1883, Baldwin and Josias Pennington formed the firm Baldwin & Pennington and continued to turn out a number of railroad buildings.²⁹⁴ Throughout Baldwin's fifty-year career, he designed over more than buildings, many of which were for the railroad, others were civic and religious, buildings. An estimated 80 percent of these buildings are in Maryland.²⁹⁵ In addition to designing buildings for the B&O in Maryland and the surrounding states, he also designed several Roman Catholic Churches. Baldwin was awarded a gold medal "Bene Merenti" by Pope Leo XII for his design work in the buildings at the Catholic University.²⁹⁶

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n.d. *Brief Biographies of American Architects Who Died Between 1897 and 1947*. Transcribed from the American Art Annual by Earle G. Shettleworth, Jr., Director, Maine Historic Preservation Commission. Website at https://www.sah.org/docs/misc-resources/brief-biographies-of-american-architects-who-died-between-1897-and-1947.pdf?sfvrsn=21b3e817_2. Accessed April 10, 2023.

7.2 Wendel Bollman (1814-1818)

A native of Baltimore, Wendel Bollman began his career as a carpenter for the B&O in 1828. He left shortly thereafter to build houses but returned to the B&O in 1837, again as a carpenter. He was promoted to Foreman of Bridges by Benjamin H. Latrobe, II, under whom he spent time studying. Self-taught in civil engineering, Bollman began designing bridges for the B&O using scientifically correct,

²⁹⁴ Shettleworth, E.G. *Brief Biographies of American Architects Who Died Between 1897 and 1947*, https://www.sah.org/docs/misc-resources/brief-biographies-of-american-architects-who-died-between-1897-and-1947.pdf?sfvrsn=21b3e817_2

²⁹⁵ "E. Francis Baldwin 1837-1916." Baltimore Architecture Foundation, <http://baltimorearchitecture.org/biographies/e-ephraim-francis-baldwin/>.

²⁹⁶ Ibid.

analytical methods, in contrast to most engineers of the time, who used intuitive design methods based primarily on instincts and past knowledge.²⁹⁷ In 1848, Bollman was appointed the B&O's Master of Roads, with the responsibility for right-of-ways and structures. By 1850 he had constructed his first iron truss bridge.

Bollman adapted the technique of "trussing" from the practice of strengthening wooden beams using tension rods.²⁹⁸ In 1852, Bollman patented the first successful all-metal truss bridge, the Bollman Truss. The Bollman Truss design is distinctive for diagonals that span varying lengths from the top to the bottom chord. Most diagonals originate from the endposts.²⁹⁹ The design was an improvement over other truss bridges in which one diagonal failure would cause the entire span to collapse. The B&O used the bridge as part of the construction of the Main Stem. The design was so successful that Bollman formed two companies in Baltimore to market the bridge in North and South America. the W. Bollman and Company and the Patapsco Bridge Companies.

The largest Bollman Truss bridge was built over the Potomac River at Harpers Ferry, West Virginia. Constructed in 1865, the bridge survived until a 1936 flood. A section was salvaged and is currently on display at the National Park Service visitor center in Harpers Ferry. The only remaining Bollman Truss bridge is located in Savage, Maryland. Built in 1869 on the Main Stem, the bridge was moved in 1887 to its present location on an industrial spur spanning the Little Patuxent River. The bridge remained in operation until 1947, when the mill it served closed. The two-span, 160-foot long bridge rests on granite abutments and a granite pier. In 1966, the American Society of Civil Engineers introduced its National Historic Civil Engineering Landmark program and designated the bridge as its first landmark. The bridge has also been added to the National Register of Historic Places and designated as a National Historic Landmark.

By 1876, Bollman's Truss bridges were being replaced with newer and more advanced designs that would use less metal and thus be more economical to construct.

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²⁹⁷ "The Bollman Truss Bridge, Savage," ASCE National Capital Section, <https://asce-ncs.org/index.php/committees/history-heritage/238-the-bollman-truss-bridge-savage-md-asce-nhcel>.

²⁹⁸ "Bollman Truss Bridge," ASCE, <https://www.asce.org/about-civil-engineering/history-and-heritage/historic-landmarks/bollman-truss-bridge>.

²⁹⁹ "Bollman Truss Railroad Bridge," Historic Bridges, <https://historicbridges.org/bridges/browser/?bridgebrowser=maryland/bollman/>.

7.3 William Holmes Cookman (1867-1950)

William Holmes Cookman worked for the PRR as an architect and engineer from 1894 to the early 1930s. Cookman, a 1887 University of Pennsylvania graduate, was responsible for the construction of many railroad depots and stations in the mid-Atlantic. Prior to his work on the railroad, Cookman was listed in the Philadelphia city directory from 1887-1890 as a salesman and from 1891-1893 as an artist and a draftsman.³⁰⁰ A notable example of his design work in Maryland is the Pennsylvania Railroad's Edmondson Avenue Station in Baltimore.

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7.4 William Sisler Culp and Alwyn Melvin Culp (also known as W.S & A.M Culp Co.) (W.S. Culp 1834-1911; A.M. Culp 1870-1932)

W.S. and A.M Culp were local contractors who built the Chestertown Railroad Station for the Delaware Railroad/PRR between 1902 and 1903 for \$4,000. W.S. Culp then became the first station master and telegraph operator.³⁰¹ It is not known if the Culp Co. constructed any other railroad related buildings in Maryland. However, they are known throughout Kent County for constructing commercial buildings and a grammar school.³⁰²

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7.5 Frank Furness (1839-1912)

Frank Furness was born in Philadelphia in 1839 to abolitionist and Unitarian minister Horace Howard Furness. In the 1850s, he trained in architecture in the office of John Fraser in Philadelphia. He then spent time in the studio of Richard Morris Hunt from 1859-1861 and again in 1865, after he had paused his studies for military service. While in the military, he was the Captain of the Sixth Pennsylvania Cavalry in the Civil War and received a Congressional medal for courage.³⁰³ Furness's first projects were churches and synagogues in Philadelphia. In 1871, Furness moved to Washington D.C., and

³⁰⁰ "Biography of Cookman, William Holmes," The Athenaeum of Philadelphia, https://www.philadelphiabuildings.org/pab/app/ar_display.cfm/23034.

³⁰¹ Hoon, A. NRHP Inventory Form for the Chestertown Railroad Station, K-346. January 19, 1992.

³⁰² F. Usilton, *History of Kent County, Maryland, 1630-1916*, 1916:107.

³⁰³ E.G. Shettleworth, 51.

established the company Furness & Hewitt with George Hewitt, which lasted until 1876. Furness then partnered with his chief draftsman Allen Evans, and the firm became known as Furness and Evans. Throughout the 1880s and 1890s, the firm was hired by both the Reading Railroad and PRR to design structures, mostly depots, in the Mid-Atlantic states. In Maryland, they were responsible for the Aberdeen B&O Station, Frenchtown Station, and the Sherwood Station in Riderwood.³⁰⁴ In terms of Maryland projects outside of the railroad sector, they constructed a hotel at Eager Street near Charles Street in Baltimore, Maryland. In addition to railroad work, Furness designed numerous mansions, churches, schools, and civic buildings.³⁰⁵

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2023a Biography of Furness, Frank. The Athenaeum of Philadelphia: Philadelphia Architects and Buildings. Website at https://www.philadelphiabuildings.org/pab/app/co_display_overview/cfm/483472. Accessed March 23, 2023.

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7.6 Thomas N. Heskett (1821-Unknown)

Thomas Heskett worked on the B&O's road department as a surveyor. He constructed the Italianate-style Queen City Hotel in the early 1870s for \$350,000. The building was demolished in 1972.³⁰⁶

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7.7 Jonathan Knight (1787-1858)

Jonathan Knight was a native of Bucks County, Pennsylvania, but lived a majority of his life in Washington County, Pennsylvania. He attended common schools, and at the age of 21, he began working as a teacher and a surveyor. In 1816, he was appointed by the state of Pennsylvania to survey and map Washington County. Soon after, he was elected county commissioner, serving three years. He was then elected to the Pennsylvania Senate where he served for six years from 1822 to 1828. During that time, he conducted surveys for the C&O Canal and the National Road between Cumberland, Maryland and Wheeling, (West) Virginia.

³⁰⁴ "Frank Furness," The Athenaeum of Philadelphia: Frank Furness.

³⁰⁵ Ibid.

³⁰⁶ B&O Railroad Queen City Hotel and Station, Cumberland Maryland," Historic Structures. October 13, 2017. https://www.historic-structures.com/md/cumberland/queen_city_hotel.php

In 1828, the newly formed B&O Railroad hired Knight to help them form their engineering department. That same year, the B&O sent him to England to study railroad engineering. In 1830, he was appointed the B&O's chief engineer, a position he held until 1842. He led the engineering of the Main Stem, primarily determining the location of the line between Baltimore and Harper's Ferry. Knight also oversaw the construction of the structures and machinery located along the line. In addition to his work on the Main Stem, Knight oversaw the engineering of the B&O's Washington Branch.

As chief engineer, Knight also became involved in worker disputes, most notably establishing a policy that empowered resident engineers to mediate any disputes between contractors and workmen. This policy was necessitated following an event known as the Sykesville Riots, when protests by Irish railroad workers protesting a contractor's failure to pay them turned violent. The riot resulted in \$6,000 in damages to tracks under construction near Sykesville.

After leaving the company in 1842, Knight continued his work as a consulting engineer. Notably, he cooperated with the city of Wheeling in advocating for a preferred route for the B&O to take in completing their line to the city.³⁰⁷

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2023 Knight, Jonathan 1787-1858. Website at <https://bioguide.congress.gov/search/bio/K000285>. Accessed March 24, 2023.

7.8 Benjamin Henry Latrobe, Jr. (1806-1878)

Benjamin Henry Latrobe, Jr. was born in Philadelphia, Pennsylvania. His father, Benjamin Latrobe, Sr. was a well-known architect who was often called the "Second Architect of the Capitol." Latrobe Sr. earned this moniker after he was hired by President Thomas Jefferson to construct the south wing of the Capitol and work on the President's House and Navy Yard. President James Madison then hired Latrobe to rebuild the Capitol after the British Army burned it in 1814.³⁰⁸ Benjamin Latrobe, Jr. joined his famous father and his brother in constructing a water supply system in New Orleans in 1820. In that same year Latrobe Sr. and his son Henry were both lost to yellow fever.³⁰⁹

Following his father's death, Latrobe, Jr. moved to Baltimore to attend St. Mary's College. He later studied law at Georgetown College in Washington, D.C. His older brother John was a practicing lawyer

³⁰⁷ Feirson, J. "Baltimore & Ohio Ellicott City Station Museum," Facebook, 2023. <https://www.facebook.com/ecborail/photos/a.176630782394734/4267912436599861/?type=3>; Prabook, Jonathan Knight: engineer, politician. Website at <https://prabook.com/web/jonathan.knight/1050161>, 2023; United States Congress, Knight, Jonathan 1787-1858. Website at <https://bioguide.congress.gov/search/bio/K000285>, 2023.

³⁰⁸ "Benjamin Henry Latrobe, Architect of the Capitol, <https://www.aoc.gov/about-us/history/architects-of-the-capitol/benjamin-henry-latrobe>.

³⁰⁹ "Benjamin Latrobe 1806-1878," Culture Landscape Foundation, <https://www.tclf.org/pioneer/benjamin-henry-latrobe-jr>.

in Baltimore who would eventually become a lawyer for the B&O. Benjamin Latrobe, Jr. did not practice law long; like his father before him he decided instead to pursue civil engineering. He began his career with the B&O as part of a surveying crew in the summer of 1830.³¹⁰

In 1832, the B&O promoted Latrobe, Jr. to assistant engineer. During this time, he planned the route for the Washington Branch and the branch's stone arch Thomas Viaduct, which spanned the Patapsco River and which became the largest bridge in the United States upon its completion in 1835.³¹¹ The feat was particularly impressive given Latrobe, Jr.'s lack of formal engineering training. Latrobe, Jr. relied heavily for guidance on Jean-Rodolphe Perronet's works on bridge structure and was largely self-taught on bridge construction.³¹² During the construction of the Thomas Viaduct, Latrobe, Jr. accepted a position as the chief engineer for the Baltimore & Port Deposit Railroad Company, where he helped build the first rail link between Baltimore and Philadelphia.

Benjamin Latrobe, Jr. returned to the B&O in 1836. The following year, he designed the first B&O bridge to span the Potomac. Constructed at Harper's Ferry, (West) Virginia, the bridge was an 830-foot covered wood truss bridge.³¹³ In 1842, he succeeded Jonathan Knight as Chief Engineer for the B&O. In 1847, he became the B&O's General Superintendent. He would later be named President of the Pittsburgh & Connellsville Railroad, part of the B&O's Pittsburgh District.

In addition to railroad and bridge engineering, Latrobe, Jr. is also remembered as the designer of Green Mount Cemetery, a rural burial ground noted for its rolling grasslands, scattered trees, and meandering cobblestone paths. Latrobe, Jr. is buried at Green Mount.

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Harwood, H.H. Jr.

1994 *Impossible Challenge II: Baltimore to Washington and Harpers Ferry from 1828 to 1994*. Published by Barnard, Roberts & Co., Baltimore.

7.9 Gamble Latrobe (1866-1922)

Gamble Latrobe was born in Baltimore in 1866. He was the son of Charles H. Latrobe, Sr., an engineer responsible for building the Charles Street and St. Paul Street bridges over Jones Falls. His grandfather was Benjamin H. Latrobe, Jr., engineer-in-chief of the B&O. Gamble Latrobe was educated at St. James College in Hagerstown, Maryland.

Latrobe was employed by the PRR for more 33 years, beginning in 1889, as the engineer of maintenance-of-way. Latrobe was promoted to assistant engineer and eventually general agent and

³¹⁰ Ibid.

³¹¹ Harwood, Jr., 47-50.

³¹² Culture Landscape Foundation, 2023.

³¹³ Harwood, 1994.

superintendent at Baltimore. He was influential in ensuring the construction of Baltimore's Union Station and improvements to the Calvert Street Station.³¹⁴

Reference:

JHBL Family Genealogy

2023 Gamble Latrobe. Website at <https://latrobefamily.com/getperson.php?personID=I134&tree=mytree>. Accessed April 3, 2023.

7.10 Raymond Loewy (1893-1986)

Raymond Loewy, born in Paris, France, was the most influential industrial designer of the twentieth century. He graduated from the University of Paris in 1910 and went on to study advanced engineering at the Ecole Duvignau de Lanneau in Paris, graduating in 1918 after World War I. He immigrated to New York and worked as a successful fashion illustrator through the late 1920s when he transitioned into product design. Loewy's designs focused on streamlining or "cleanlining" which reduced a product to its essential components without unnecessary details or embellishments. His clients included Sears, Greyhound, International Harvester, American Tobacco, and Coca-Cola, but he was best known as the main designer for Studebaker Automobile Company, particularly the Starliner coupe in the 1950s and the 1963 Avanti.

Loewy's first work for the PRR in 1934 included a new art deco design for refuse receptacles at Pennsylvania Station in Manhattan and the GG-1 electric locomotive. Loewy's work on the GG-1 design was exterior only: adding rounding edges, painted pinstripes suggesting smoke, and using welding instead of rivets. Loewy's streamlined designs won him a contract with Pennsylvania Railroad that lasted two decades and resulted in some of the most iconic rail designs of the twentieth century, particularly the S-1 locomotive. Although only one S-1 was ever produced, it was displayed at the 1939 World's Fair and attracted thousands of visitors a day. Loewy's approach to locomotive design was to "convey the sense of speed through styling, so that a locomotive would look fast even when it was standing still."³¹⁵ The firm completed interior design work for train cars and stations, created exhibit designs, redesigned hotel bars and newsstands, and standardized color schemes and fixtures for the PRR to replace the railroad's grimy, dirty image with a modern, clean look.³¹⁶

Loewy's firm's work also included architectural design, which was completed by Lester C. Tichy (see below) between 1940-1944. Though Loewy's name was included on every design that came out of his firm, he was not personally involved in many of these projects.³¹⁷ Work included railroad depot remodeling; the design of four depots on the Philadelphia-Washington, DC, line; a new annex to Baltimore's Pennsylvania Station, housing the Pennsylvania Canteen and Lounge for service men and women; a service women's lounge in the Philadelphia Broad Street station; and passenger train employees' dormitories in Harrisburg and Enola, Pennsylvania. At the end of the war, Tichy resigned and started his own firm after the Pennsylvania Railroad requested to employ him directly.³¹⁸ The PRR's financial difficulties resulted in Loewy's work being scaled back by the end of 1949 and terminated in 1952.³¹⁹

³¹⁴ JHBL Family Genealogy, Gamble Latrobe, website at <https://latrobefamily.com/getperson.php?personID=I134&tree=mytree>, 2023.

³¹⁵ Porter, Glenn. "Troubled Marriage: Raymond Loewy and The Pennsylvania Railroad." *Invention and Technology* (Spring 1996). <https://www.inventionandtech.com/content/troubled-marriage-raymond-loewy-and-pennsylvania-railroad-1> (accessed July 5, 2022).

³¹⁶ Ibid.

³¹⁷ White, Roger B. "Stations By Tichy: Modern Architecture for the Pennsylvania Railroad, 1940-1957." *The Keystone*. Vol. 26, No. 3 (Autumn 1993), 10.

³¹⁸ White, 18-19.

³¹⁹ Porter, "Troubled Marriage: Raymond Loewy and The Pennsylvania Railroad."

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7.11 Kenneth MacKenzie Murchison (1872-1938)

Kenneth MacKenzie Murchison was born in Brooklyn, New York, and educated at Columbia University and l'École des Beaux-Arts in Paris. Murchison was a well-known Gothic Revival and American Beaux-Arts style architect. After graduating from the l'École des Beaux-Arts, he opened an office in New York and received major commissions from the PRR. His most notable work in Maryland is Pennsylvania Station in Baltimore, which he designed in 1911. Other railroad depots and terminals he designed outside of Maryland included Pennsylvania Station in Johnstown, Pennsylvania; Union Station in Jacksonville, Florida; Havana Central Railway Station in Cuba; and the Delaware, Lackawanna & Western Railroad Station in Scranton, Pennsylvania.³²⁰

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7.12 James Crawford Neilson (1816-1900)

James Neilson was born in Baltimore in 1816 before his family moved first to England and then to Belgium. In 1833, Neilson returned to Baltimore and worked on the Baltimore & Port Deposit Railroad. While surveying for the railroad he met John Rudolph Niernsee, and together they established the architecture firm Niernsee & Neilson in 1848. The firm designed numerous buildings in Baltimore, including the Calvert Street and Camden stations in Baltimore, as well as several churches. The partnership disbanded from 1856 to 1865 before dissolving for good in 1875. Maryland projects outside of the railroad sector included the design of the Churchville Presbyterian Church.³²¹

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n.d. J. Crawford Neilson 1816-1900. The Baltimore Architecture Foundation. Website at <http://baltimorearchitecture.org/biographies/j-crawford-neilson/>. Accessed April 6, 2023.

³²⁰ C.W. Bishir, Murchison, Kenneth M., Jr. (1872-1938), *North Carolina Architects & Builders, A Biographical Dictionary*, <https://ncarchitects.lib.ncsu.edu/people/P000344>.

³²¹ "James Crawford Neilson," The Baltimore Architecture Foundation, <http://baltimorearchitecture.org/biographies/j-crawford-neilson/>.

7.13 John Rudolph Niernsee (1814-1885)

John Rudolph Niernsee was born in Vienna, present-day Austria, and immigrated to the United States when he was 22. He acted as an apprentice to Benjamin Henry Latrobe, Jr. of the B&O. While in this position, he met James Crawford Neilson and they established the architecture firm Niernsee & Neilson in 1848. The firm designed numerous buildings in Baltimore, including the Calvert Street and Camden stations in Baltimore, as well as several churches. The partnership disbanded from 1856 to 1865 before dissolving for good in 1875. In terms of Maryland projects outside of the railroad sector the firm constructed the Churchville Presbyterian Church.³²² Niernsee was a founding member of the American Institute of Architects in 1854. His projects outside of the railroad sector included the Chapel of Green Mount Cemetery and Mount Vernon Place United Methodist Church.³²³

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7.14 J. Harleston Parker (1873-1930)

J. Harleston Parker was born in Boston in 1873. He was educated first at Harvard University, where he graduated in 1893, and then attended the Massachusetts Institute of Technology. He then went abroad and studied at the l'École des Beaux-Arts in Paris. In 1900, he established the firm Parker & Thomas, which became Parker, Thomas & Rice. Parker is responsible for designing numerous buildings in Baltimore, such as the Belvedere Hotel, Rosenfeld Building, the Maryland Casualty Building, and the World Relief Headquarters. Parker also designed the B&O Railroad Building at 2 North Charles Street in Baltimore.³²⁴

Reference:

Shettleworth, E.G.

- n.d. *Brief Biographies of American Architects Who Died Between 1897 and 1947*. Transcribed from the American Art Annual by Earle G. Shettleworth, Jr., Director, Maine Historic Preservation Commission. Website at https://www.sah.org/docs/misc-resources/brief-biographies-of-american-architects-who-died-between-1897-and-1947.pdf?sfvrsn=21b3e817_2. Accessed April 10, 2023.

³²² "James Crawford Neilson," The Baltimore Architecture Foundation, <http://baltimorearchitecture.org/biographies/j-crawford-neilson/>

³²³ John Niernsee: Architect, Engineer and Surveyor. Maryland Center for History and Culture, <https://www.mdhistory.org/john-niernsee-surveyor-civil-engineer-and-architect/>; Baltimore Architecture Foundation, John Rudolph Niernsee 1814-1855. Website at <https://aiabaltimore.org/baltimore-architecture-foundation/resources/architect-biographies/john-rudolph-niernsee/>, n.d.

³²⁴ E.G. Shettleworth, 98.

7.15 Bruce Price (1845-1903)

Price, born in Cumberland, Maryland, is best known for his work outside of the railroad industry, designing the homes in Tuxedo Park, New York. He was a lead innovator in Shingle-style architecture. After he studied at Princeton University, he worked in the Baltimore office of architects Niernsee & Neilson before joining E. Francis Baldwin as a partner from 1869-1873.³²⁵ Price built and patented parlor bay-window cars for the PRR.³²⁶ He also designed several railroad depots outside of Maryland such, as the Erie Railroad Tuxedo Park Station, and the Windsor Station in Montreal, Quebec.³²⁷

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7.16 Jacob Small, Jr. (1772-1851)

Jacob Small, Jr., was a wealthy builder and lumber dealer in Baltimore. His father, Jacob Small, Sr., had designed many local buildings and structures in the Baltimore area. Jacob Small, Jr., followed in his father's footsteps as an architect, though neither man had any formal training. Jacob Small, Jr.'s most notable design is the B&O Ellicott City Station, which was finished in 1831. It currently stands as the oldest surviving railroad station in the United States. Its construction began after Small served six years as the Mayor of Baltimore.³²⁸

References:

Alexander, R.L.

1961 William F. Small, 'Architect of the City'. *Journal of the Society of Architectural Historians*. Vol. 20, No. 2 (May 1961), 63-77. University of California Press. Berkeley.

³²⁵ Biography of Price, Bruce. The Athenaeum of Philadelphia: Philadelphia Architects and Buildings, https://www.philadelphiabuildings.org/pab/app/ar_display.cfm/137986.

³²⁶ "Handsome Cars for the New York and Bostin Line," *Railroad Gazette*, Volume 19 1887:530.

³²⁷ E.G. Shettleworth, 105.

³²⁸ Find a Grave, Jacob Small, Jr. Website at <https://www.findagrave.com/memorial/14759101/jacob-small>, 2023; R.L. Alexander, William F. Small, 'Architect of the City', *Journal of the Society of Architectural Historians*. Vol. 20, No. 2 (Berkeley, California: University of California Press, May 1961), 63-77.

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7.17 Lester Daniel Claude Tichy (1905-1981)

Lester Daniel Claude Tichy, most often referred to as Lester C. Tichy, was born in New York, New York in 1905. Tichy earned a degree in architecture from Columbia University and worked for several architects in New York on primarily residential projects. Most notably, he was employed by John Russell Pope from 1926-27. In 1939 Tichy began to work for the firm of Raymond Loewy (see above). Loewy's firm's work for the PRR also included architectural design, including PRR depot remodeling, and design of the four depots (Edgewood, Odenton, Aberdeen, and Ridley Park) on the Philadelphia-Washington, DC, line. Between 1940-1944, this work was completed by Lester C. Tichy. Though Loewy's name was included on every design that came out of his firm, he was not personally involved in many of these projects.³²⁹

Tichy's designs for the depots on the Philadelphia-Washington, DC, line were almost immediately hailed by major architectural magazines as examples of good design, the antithesis of outdated older train stations.³³⁰ Additional PRR work completed during World War II included: a new annex to Baltimore's Pennsylvania Station, housing the PRR Canteen and Lounge for service men and women; a service women's lounge in the Philadelphia Broad Street station; and passenger train employees' dormitories in Harrisburg and Enola, Pennsylvania.

At the end of the war, Tichy resigned from Loewy's firm. The success of his work for PRR and their request to employ him directly allowed Tichy to start his own architectural firm.³³¹ He continued to work for the PRR, including the design of the controversial ticketing facility at Pennsylvania Station in the late 1950s. Tichy was also one of the architects, along with I.M. Pei, to work on the "Palace of Progress" to be built on the air rights of Pennsylvania Station (which would be moved completely underground). Designed to be one of the largest buildings in the world at 154 million cubic feet, the building would have housed a permanent world's fair on its lowest level, an international merchandise market above, and offices on its upper floors.³³² Other commissions were transportation related, such as a ferry terminal in Kiptopeke Beach, Virginia,³³³ and a Flight Bar at LaGuardia Airport.³³⁴ Additional public and commercial commissions included banks, schools, post offices, nurseries, office buildings, and stores. He also completed residential commissions.³³⁵ He appears to have retired from practice in 1975, when he resigned his AIA membership.³³⁶

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n.d. "Tichy, Lester D. Claude," (ahd1044989),
<https://aiahistoricaldirectory.atlassian.net/wiki/spaces/AHDAA>. Accessed May 31, 2022.

³²⁹ White, Roger B. "Stations By Tichy: Modern Architecture for the Pennsylvania Railroad, 1940-1957." *The Keystone*. Vol. 26, No. 3 (Autumn 1993), 10,

³³⁰ Time. "Art: New Stations." March 2, 1942.

<https://content.time.com/time/subscriber/article/0,33009,773109,00.html> (accessed May 31, 2022). *Architectural Forum*. "Two Stations for the Pennsylvania R.R." March 1943, 83-88.

³³¹ White, 18-19.

³³² *Architectural Record*. "Perspectives." July 1957, 9.

³³³ *Architectural Forum*. "Triple-Purpose Terminal." April 1952, 145-147.

³³⁴ *Architectural Record*. "A Snack Between Landing and Take-off." July 1948, 140-142.

³³⁵ White, 21.

³³⁶ AIA Historical Directory of American Architects. "Tichy, Lester D. Claude," (ahd1044989), <https://aiahistoricaldirectory.atlassian.net/wiki/spaces/AHDAA> (accessed May 31, 2022).

White, Roger B.

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MARYLAND RAILROADS STATEWIDE HISTORIC CONTEXT

PART II

**T TYPOLOGY AND GLOSSARY
OF RAILROAD RESOURCES**

Introduction

This section of the Maryland Railroad Historic Context presents a glossary of railroad resource types, subtypes, and terminology related to Maryland's historic railroads. The terms are used in the following sections and may assist investigators in identifying railroad components that they may encounter during survey work in the field.

Preceding the glossary is a typology of the railroad resources that are expected to be found on Maryland's historic railroads. Understanding railroad resource types and how they relate to each other is necessary to evaluate them for their eligibility for listing in the National Register of Historic Places (NRHP). Seven broad categories of resource types have been identified. This glossary and typology include terms and material from the comprehensive works of researchers and historians, integrating existing definitions and information to create a typology of railroad resource types that are relevant for the state of Maryland.¹

Typology

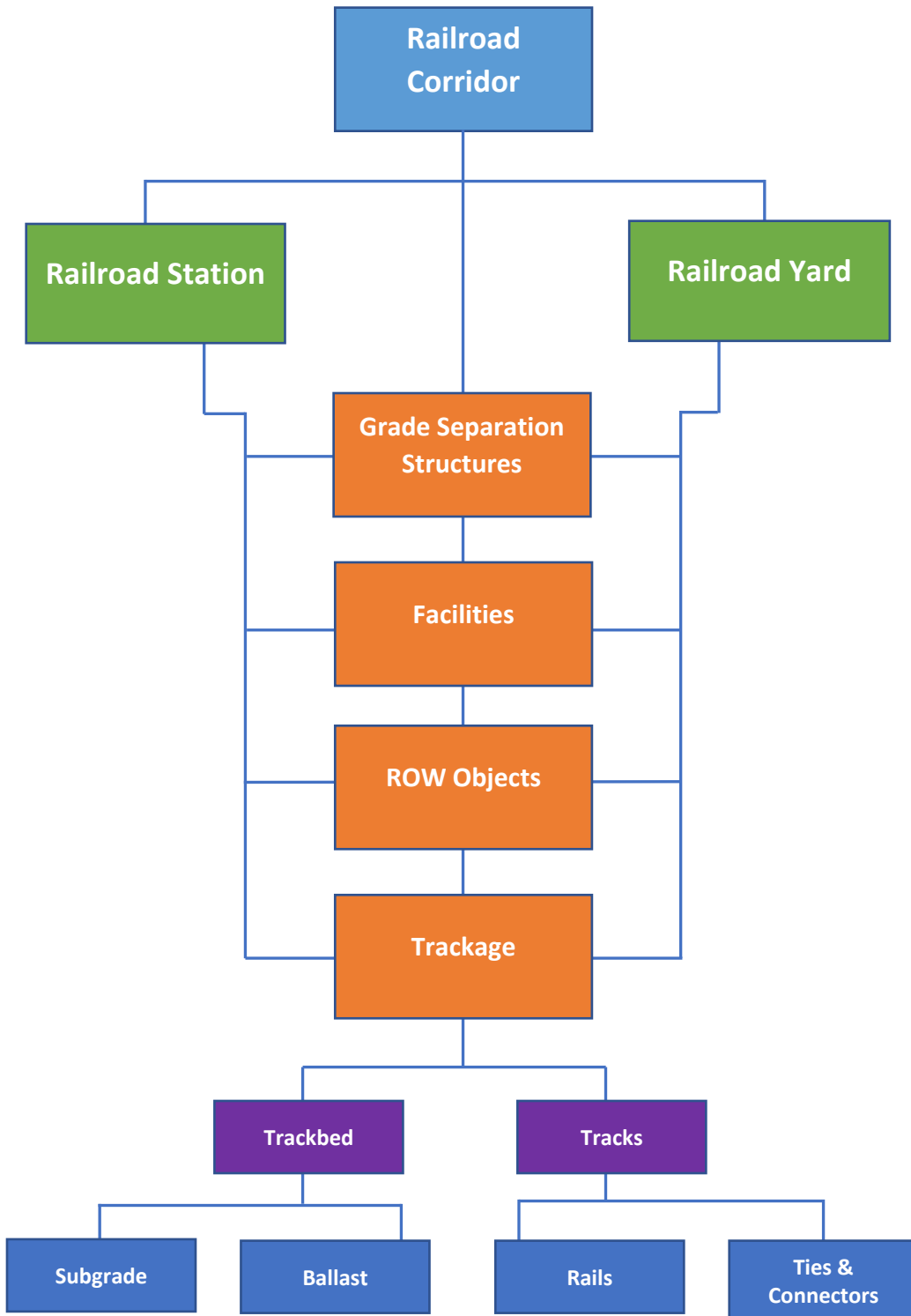
There are seven broad resource types that represent railroad related categories of buildings, structures, and objects, according to their function or physical attributes. Some of the resource types have several subtypes of buildings, structures or objects within the resource type. The resource types are presented below and defined in the glossary. Significance and integrity guidelines, along with eligibility requirements and character-defining features, are presented later in Chapter 4.

- **Trackage:** the graded alignment and tracks used to move freight and passengers.
- **Grade Separation Structures:** bridges, tunnels, etc., that maintain grades over or through obstructions.
- **ROW Objects:** railroad equipment installed along the trackage.
- **Facilities:** buildings and structures that support the functioning of the railroad.
- **Railroad Stations:** railroad stops, including the depot and other facilities.
- **Railroad Yards:** areas for train maintenance and repair.
- **Railroad Corridors:** all the elements within the alignment used to operate trains.

These resource types have been organized into the following hierarchical chart. The smallest components are presented at the bottom of the chart: the elements of the trackbed and tracks that combine to form a railroad's trackage. Trackage, Right-of-way objects, facilities, and grade separation structures, make up the basic railroad resource types. Railroad stations and railroad yards comprise a

¹ The material for this glossary has been synthesized from the information in the following Multiple Property Documentation Forms and Historic Contexts: C.B. Fraser and J.H. Strand, "Railroads in Colorado: 1858-1948; National Register of Historic Places Form," 1997, Website at <https://www.historycolorado.org/sites/default/files/media/document/2017/625.pdf>; M. Hufstetler and M. Bedeau, "South Dakota's Railroads: An Historic Context," 2007, Website at <https://history.sd.gov/preservation/docs/SDRailroad.pdf>; M.S. McDaniel et al., *Historic Railroads of Georgia: A Historic Context Study and Evaluation of Georgia's Historic Railroads*, 2018, Website at https://g92018.eos-intl.net/eLibSQL14_G92018_Documents/13-03.pdf; C. Nagle, "The Pennsylvania State Historic Preservation Office's Researchers' Guide for Documenting and Evaluating Railroads," 2015, Website at <https://www.penndot.pa.gov/ProjectAndPrograms/Cultural%20Resources/Documents/phmc-bhp-researcher%27s-guide-to-historic-railroads-revised-october-2015.pdf>; A.J. Schmidt, D.R. Pratt, et.al, "Railroads in Minnesota, 1862-1956. National Register of Historic Places Form," (St. Paul, Minnesota: Minnesota State Historic Preservation Office, 2007). Walter Berg's seminal treatise on *Buildings and Structures of American Railroads*, published in 1893, also has been used to prepare this section.

mix of these base types. Railroad corridors, the largest resource type, may include any combination of base types plus railroad stations and railroad yards, if present.



A

- **Alignment.** A railroad alignment is the precise, physical location of a railroad's trackage.
- **At-grade crossings.** When they were first constructed, railroads crossed a large number of roads, streets, and highways at grade, or at the same level. At-grade crossings also included driveways to carry roads over the tracks, cattle guards to protect against stray livestock, and crossing warning devices. Grade crossing signs ranged from simple crossed bar signs to lighted signals with retractable gates. Although many at-grade crossings were eliminated in urban areas in the first decades of the twentieth century, many still exist in urban, suburban, and rural locations.

B

- **Ballast.** Ballast describes the stones on the rail bed on which railroad tracks are placed. Ballast consists of hard particles that are easily handled in tamping. They distribute the tracks' load, drain moisture away from the ties, and resist plant growth. Ballast may consist of granite, trap rock, quartzite, dolomite or limestone. Most railroads used 6 to 24-inch ballast beds.
- **Bridges.** Early railroad bridges consisted of iron or steel trusses, stone arches, steel plate girders, or concrete bridges. See separate definitions for each.

C

- **Car house.** The Ellicott Mills Station House, originally built in 1829-30, originally included a car house, produce house and superintendent's office. The car house, at the southern end of the building and equipped with large doors to accommodate the entrance into the building of locomotives and cars. Track notches on the floor show how the trains were pulled into the upper level and that the floor was open which permitted the underneath to be worked on from the lower level. Two large copper funnels in the overhead area of the upper level to align with the boiler engines. The Ellicott Mills Station House is the only known building of its type in existence which was designed to accommodate the servicing of engines in this manner. Its use as such became impractical because of the rapid growth of the size of steam engines and it appears that early in the 1840's the doors were closed off and the building was no longer used in this manner.

- **Catenary lines.** Catenary lines are a system of overhead wires used to supply electricity to a locomotive, streetcar, or light rail vehicle. A pantograph (an apparatus mounted on the roof of the train) makes contact with the suspended wires, feeding electricity to the train. Catenary lines (or systems) are primarily used in urban and local transportation environments, but were also used on the Philadelphia, Baltimore & Washington electrified railroad line between Washington, D.C. and New York City.



Figure 1. Catenary lines in use on the Silver Star at Seabrook, MD

- **Classification yard.** Classification yards are located within a railroad yard and comprise a system of tracks used for arranging, or classifying, freight cars according to their contents or destination; the assembly of cars for the movement of the train; the assembly of cars and locomotives; or the repair of rolling stock. The cars are moved from track to track with a switcher locomotive or by a hump, a built-up rise that assists in sorting the cars. Classification yards were sometimes expanded with additional services to become railroad yards.
- **Coaling station.** Coaling stations received, stored, and delivered coal to steam locomotives. They were located within railroad yards at all major depots' junction points, division and section yards, and where engines were stored, maintained, or changed. Coaling stations included coal houses, tipples, tracks, chutes, elevated trestles, cranes, platforms, bins, sorters, coaling elevators, terminal piers, and stocking and transfer systems. Elevated coaling trestles were widely used and included an inclined trestle approach to a platform where the coal was dumped through chutes to stationary tenders below.
- **Combination depots.** Combination depots often were built in sparsely settled areas where only one building was necessary to serve passenger and freight traffic. The all-purpose depots combined passenger service, freight shipping, and train management under one roof. The buildings often had a single, central office space where an agent processed passenger tickets and freight bills; a passenger waiting area at one end of the building; and a freight room at the other end; sometimes the freight room had a separate office, particularly if it housed an express shipping service. Architecturally, combination depots were similar to passenger depots and could include a second story, a watchtower, and wings for baggage and freight. Combination depots were usually built using standardized plans and sometimes prefabricated components.

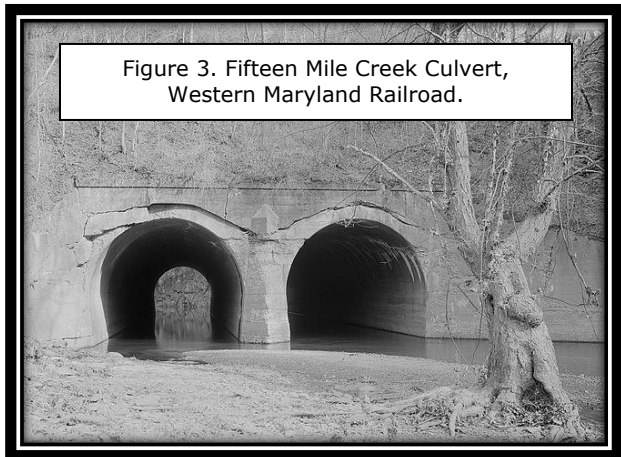
- **Concrete Bridges.** Concrete railroad bridges typically consist of two types or a combination of the bridge types: cast-in-place reinforced concrete slabs and concrete I-beam. Concrete slab bridges are the simplest type of reinforced concrete bridge, dating to the first decade of the 20th century. Concrete I-beam bridges were increasingly used in the mid-20th century for wide span bridges of up to 130 feet.²

Figure 2. Western Maryland Railway Concrete Bridge.



- **Culvert.** Culverts are grade separation structures that provide drainage for water by forming a passageway through earth or a fill material. The simplest forms of culverts are boxes constructed of stone or concrete slabs; 20th century culverts were often cast iron or prefabricated reinforced concrete pipes, with dimensions ranging from 12 inches to 72 inches in diameter. Railbeds typically have culverts at intervals running laterally beneath the bed for drainage.

Figure 3. Fifteen Mile Creek Culvert, Western Maryland Railroad.



D

- **Depot.** Depots are buildings usually positioned parallel to the tracks used to receive, sort, and load any combination of passengers and freight. Depots varied depending on size, layout, services offered, and architectural detail. Common variations include flag depots, freight depots, passenger depots, combination depots, and union depots (see separate definitions for each). Rooms in the largest depots might include the ticket office, men's and women's waiting rooms, bathrooms, baggage rooms, telegraph or telephone rooms, express office, news stand, restaurant or lunch counter, railroad company business offices, and facilities for the station master, trainmaster, and telegraph clerk. Early American railroads initially focused on transporting goods, and "depot," from the French word meaning deposit, was an appropriate term for the buildings used for depositing, accepting, storing, and distributing goods, similar to a warehouse. As passenger service grew, these earlier depots often served a purpose as ticketing and waiting areas. Over time, passenger service became the primary function of some

² P. Brinckerhoff and Engineering and Industrial Heritage [EIH], "A Context for Common Historic Bridge Types," NCHRP Project 25-25, 2005, Transportation Research Board, [https://onlinepubs.trb.org/onlinepubs/archive/notesdocs/25-25\(15\)](https://onlinepubs.trb.org/onlinepubs/archive/notesdocs/25-25(15)).

railroad stations, and the terms "station" and "depot" were often used interchangeably. In this document, "depot" refers to the individual building(s) used for loading passengers and/or freight within a railroad station. In urban areas, a depot may be integrated with the overall station. See *headhouse*.

E

- **Engine house.** Engine houses were designed to shelter railroad locomotives when they were not in use. They also housed activities related to their cleaning, repair, and service. They were located at terminal or division yards, junction stations, or at points where engines were housed and changed. Engine houses were usually combined with other structures such as coaling stations, water stations, tanks, oil and sand houses, and storage and maintenance sheds. Engine houses were either square, round, or semi-circular; the latter two are known as roundhouses. Square engine

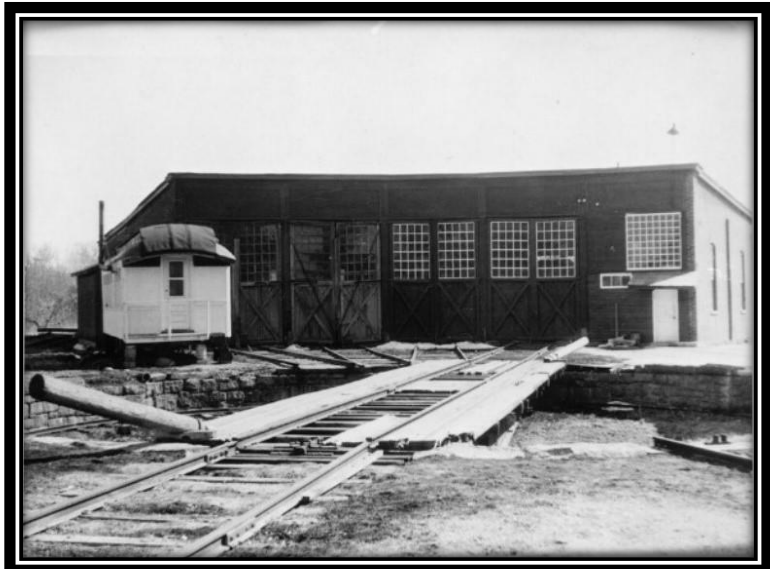


Figure 4. Chesapeake Beach Railroad Engine House, 21 Yost Place, Seat Pleasant, Prince George's County.

houses performed functions similar to those of roundhouses, but on a smaller scale. Most square engine houses were relatively small, wood-framed buildings containing only one or two bays. They usually had parallel pairs of tracks inside, and the building length accommodated one or two engines in each bay. An arrangement of track switches, rather than a turntable, enabled engines to access the engine house tracks. Railroad companies commonly used engine houses on short-line railroads or branch lines of larger railroads where the level of traffic did not justify a full-fledged roundhouse.

F

Facilities. *Resource Type*

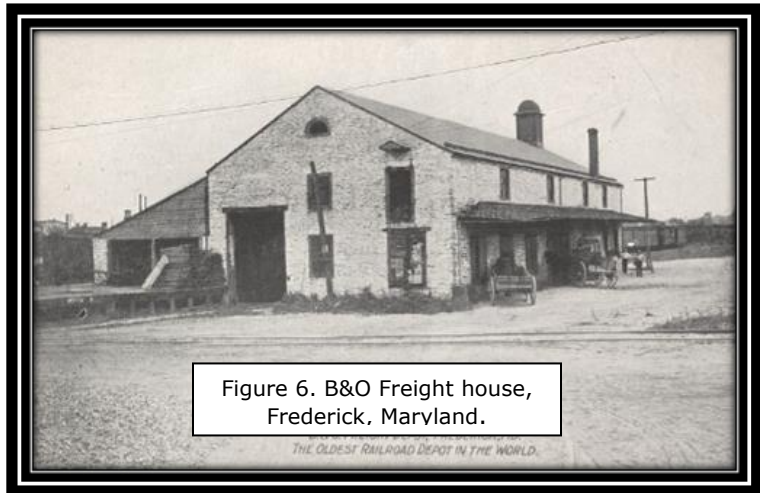
- Railroad facilities include the buildings and structures that are found along railroad corridors, in railroad yards, and at railroad stations. Aside from prominent passenger depots, most railroad facilities were utilitarian, non-descript buildings designed by a railroad's engineering department using standardized plans.

- Flag depot.** Flag depots are open-air or enclosed, gable or shed-roofed buildings with simple platforms. They were located in areas where traffic was sparse, restricted to the occasional passenger who would flag down passing trains. If passenger traffic at a flag depot increased, the railroad company upgraded the depot to include a building with a railroad agent's office and a passenger waiting room. The flag depot was a generally a small, single pen building of wood frame construction built to a standard plan.



Figure 5. Flag Depot in Lothair, Maryland.

- Flag stop.** A flag stop is a type of station stop where the train only stops if passengers get on or off. If no passenger gets on or off, the train will likely not stop. These stops can be either a platform or an unstaffed passenger depot.
- Freight depot.** Railroad companies built their freight houses as part of a larger depot in populated communities with higher freight traffic volumes. The freight house was a stand-alone building separated from the passenger depot. The freight house served as a transfer point for freight being loaded on or off the railroad cars. Freight depots are also known as freight houses.



- **Frog.** A railroad frog is an object at the intersection of two running sets of tracks that provide support for train wheels. A frog enables a train to cross from one track to another, allowing it to make a smooth transition without disrupting traffic.

Figure 7. A railroad frog.



G

- **Gauge.** The distance between two rails is known as the gauge. The gauge is measured between the inside surfaces of the two load-bearing rails of a track. Standard gauge and narrow gauge are two gauges that have been used for railroads in the United States (see definitions).

Grade separation structures. *Resource Type*

- Grade separation structures maintain the railroad grade and separate the trackage from other railroads, vehicular roadways, waterways, or other obstructions and include tunnels, culverts, bridges, and viaducts. In the 19th century, many railroads were initially constructed on the same grade as other transportation routes, but concerns over safety and efficiency prompted many railroad companies to separate the grades. See separate definitions for each type of structure.
- **Ground modifications.** Cuts, fills, and other changes to the soil structure that form the subgrade, the basis for the trackage.

H

- **Hardware.** Hardware used on trackage may include spikes, anchors and special nails and bolts for railroad applications.
- **Headhouse or head-house.** A large, enclosed building at a railroad station providing accommodations for persons waiting for trains. It connects to multiple rows of tracks on which trains arrive and depart and the platforms by which the passengers access the trains. The tracks and platforms might be covered by a roof or shed, but they're still open to the air. Operations such as ticketing, baggage, and business offices are found within the headhouse. A headhouse may include a concourse or large open space for waiting passengers.

I

- **Ice house.** Prior to electrical refrigeration, railroad companies used ice for insulating refrigeration cars. Supplies were kept in ice houses located at major division points and other sites where the cars were serviced. Ice houses allowed railroads to have control of its ice supply and not depend on local ice companies. Ice houses were often two-story buildings with a large freight door on the first floor and an ice hatch or loading door on the second floor. Smaller examples tended to be rectangular, wood-frame buildings with a gable roof and a prominent roof ventilator. Larger facilities were often built in stone or brick.
- **Interlocking.** Interlocking means an arrangement of signals and switches that are interconnected in such a way that one must succeed another in a predetermined order so that a “clear” indication could not be given simultaneously to conflicting routes. An interlocking is required when tracks interconnect and prevents conflicting routes from being set up when trains are switched from one track to another, protecting trains from collisions with other trains and intersecting vehicles. Interlockings were found at a crossing of two railroads, a drawbridge, single-track bridges or tunnels, a junction, or entering or leaving a terminal or railroad yard. Interlockings also can occur prior to station approaches to allow non-stopping trains to pass through in the center track away from stations and vice versa.³
- **Interlocking Tower.** An interlocking, or signal, tower is part of an interlocking system that controls the movement of all rail traffic through heavily trafficked railroad yards. There is usually a tower on each end of the yard. Usually an elevated building, the interlocking tower contains the equipment that regulates the train movement.

Figure 8. Union Junction
Interlocking Tower, Baltimore City,
Maryland.



M

- **Maintenance shop.** A railroad maintenance shop is a general term used for a shop that is involved in the maintenance of locomotive and rolling stock. Maintenance shops were established at junction and division points within a railroad corridor and could be combined with engine houses and other buildings to form a shop complex. Shop complexes also include machine shops, oil houses, blacksmith shops, carpentry shops, wheel foundries, and mill rooms. Passenger and freight car maintenance shops are located where paint, cabinet, upholstery, planning, electrical, pattern, and special purpose work would be done. Maintenance shop buildings are most often constructed of brick or brick veneer on wood frames and have large bay doors and multi-light windows. Blacksmith shops included multiple chimneys to vent the

³ C. Chasteen, “Determination of Eligibility Form No. AA-1097, Baltimore & Potomac Railroad” (Crownsville, Maryland: Maryland Historical Trust, 2012).

forges inside.

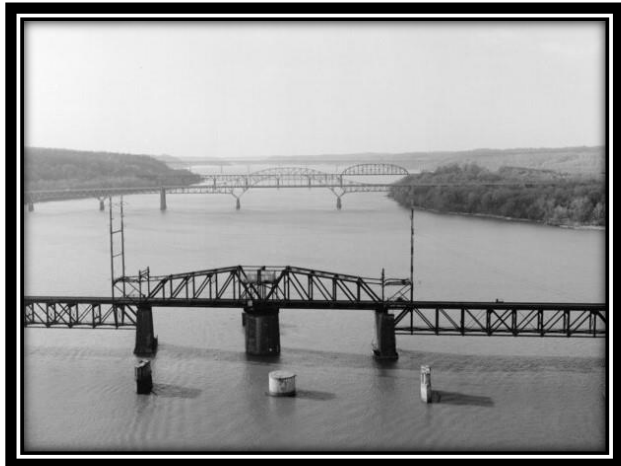
- Mile posts.** Placed within the ROW next to a track, mile posts allowed train crews to determine their exact location along a railroad line. They also were used to reference bridges and define the limits of speed restrictions. Each railroad had its own way of numbering mile posts. Historic mile posts are usually composed of concrete or a single block of quarried stone in the shape of a headstone or smaller, although some companies (the PRR, for example) used cast metal mile posts. Some concrete or stone mile posts were left unpainted, with a letter or letters for the origin point and the mileage etched in the concrete or stone. Others were painted white with black letters and numbers.



Figure 9. Concrete mile post along Southern Maryland Railroad in Charles County.

- Movable bridges.** Movable bridges are designed to keep navigable waterways free of obstruction when the construction of a non-movable bridge of sufficient clearance is uneconomical or physically difficult. They are most common on railroads on Maryland's Eastern Shore. The main types of movable bridges encountered in Maryland are swing and bascule bridges.

Figure 10. Susquehanna River Bridge swing span.



Most swing bridges are center pivot design, where the span turns on a central pin or pivot that bears the entire dead load and most of the live load of the span. The motive power of a swing bridge is usually supplied by electric or hydraulic motors, although older, smaller bridges are sometimes turned by manual power. Bascule bridges can be single- or double-leaf. The simplest type of bascule bridge is the single trunnion, in which the truss or girder rotates vertically on a single fixed (or nearly fixed) axis, which is a horizontal shaft or pivot at or near the center of gravity of the rotating leaf.

N


- Narrow gauge.** A narrow gauge railroad has rails that are closer in distance than standard gauge. Narrow gauge rails can measure anywhere between 1 foot and 11 5/8 inches between rails and 4 feet and 8 3/8 inches. Narrow gauge rails could be laid more quickly and economically than standard gauge and were often used by railroads for industrial or resort access. Narrow

gauge railroads also were used in rough or mountainous landscapes because the tracks could go around tighter curves.

O

- **Oil storage house.** Various grades of oil were used by steam-era railroads for lubrication and, prior to electrical service, illumination of engine headlights, signal lamps, switch lamps or for lighting cars, buildings, and yards. Separate structures were built to store the oil due to the product's flammable nature. Oil houses were usually small, utilitarian, one-story buildings. In larger railroad yards, they were sometimes of masonry construction. Most of the time, however, they were standardized, rectangular, wood-frame structures with a gable roof. Most oil houses have exterior cladding of corrugated metal rather than wood for fire protection.

P

- **Passenger depots.** Passenger depots were built when there were enough passengers to justify separate passenger and freight facilities. They are distinguished from combination depots by their larger size and lack of freight handling facilities, in addition to the inclusion of additional office space. Passenger depots varied in appearance and form depending on their location and the railroad company they served; however, they usually were built of stone masonry. The smallest passenger depots were single-story buildings with a waiting room, ticket office, and baggage room. Small passenger depots expressed nationally popular architectural styles through standardized plans developed by railroad architects and engineers. Large first-class passenger depots were designed individually and could be two-story buildings with a large waiting room, restroom, smoking room, dining room, baggage room, an office for mail, telegraph and wire service, newsstand, supply room, lounges for conductors and trainmen, and administrative offices.
- 
- Figure 11. Western Maryland passenger depot, unknown location.
- **Platforms.** Platforms enable the movement of passengers and freight between depots and railroad cars. To facilitate this process, an assortment of ground-level and elevated platforms were used. Passenger platforms were at or near ground level, requiring the passenger to board a train by climbing a set of steps onto the passenger car. Freight platforms were higher to enable the loading of freight onto the train. Low platforms at smaller depots were mostly constructed of wood boards, while larger depots featured brick or concrete platforms. Freestanding freight platforms were common at larger depots. These were of wood or concrete construction, elevated to the height of a freight car door and terminated in a ramp to accommodate hand trucks and other freight-moving devices. Similar freight platforms were integrated into freight houses, warehouses, and many line-side industries. Platform types include one-side platforms, two-side platforms, one or more island platforms, and in terminal

configurations, side and/or island platforms,

- **Power house.** A railroad power house provided steam-generated electricity to the shops and engine houses and distributed steam for heat. A power house could consist of a small wood frame buildings located near the engine house, or it could be a more substantial masonry building of fireproof construction with a single large room housing the boilers.

R

- **Rail fastening system.** The rail fastening system is a term used for the system that fixes the rails to railroad ties. The system includes rail anchors, tie plates, chairs, and track fasteners.
- **Rails.** Rails are linear, rolled steel members, with an asymmetrical I-beam or T-beam cross section and are usually 39 feet in length. They are laid horizontally across the tops of ties in a perpendicular fashion and affixed to the ties using rail joints or splices. The rails are laid across the ties end to end to form a continuous track along which trains travel. They are central to the construction, operation, and maintenance of the railroad. Rails on active railroad lines are changed frequently.

Railroad corridor. *Resource Category*

- A railroad corridor includes the historical ROW that was or is owned by a railroad company, as well as all the associated elements within the ROW that were or are used together for the purposes of operating trains to transport passengers and freight. The railroad corridor will include within its boundaries some or all of the following resources: Trackage, , Right-of-Way Objects, Facilities, Grade Separation Structures, Railroad Depots, Railroad Yards, Railroad Stations.
- **Railroad resort hotel.** A railroad resort hotel was constructed and operated by a railroad company to promote its passenger service and increase profit margins. Railroad companies often hired well-known architects to design and construct the buildings, which were located adjacent to or in the vicinity of a railroad ROW in a mountain, seaside, or rural locale. The resort hotel often operated under the aegis of a subsidiary company established to appear independent of the parent railroad company. Railroad companies promoted the resorts through colorfully illustrated timetables and travel literature.

Figure 12. The garden, hotel, and passengers at the Relay Station
- **Railroad right-of-way (ROW).** The railroad ROW is the total land area that was acquired by a railroad, usually through an easement over public or private lands, to build its railroad and associated features. ROW can widen in some areas to include the land taken up by railroad yards and stations. Railroad ROW is generally used as a real estate and legal term, whereas a graded ROW, or trackage, denotes the physical corridor and can be defined by the elements in its cross section. The trackage lies within the railroad ROW.

Railroad station. *Resource Type*

- A railroad station is the entire area within a ROW that operated as a railroad stop, including the depot and other facilities used for loading freight or minor maintenance of engines and rolling stock. Railroad stations are designated by name in railroad timetables. As commercial centers along a railroad corridor, railroad stations are separate from railroad yards, which provided the major maintenance, repair, sorting, and classification of railroad equipment (motive power and rolling stock). Although railroad stations and railroad yards were often located near each other, they operated as separate facilities.

Railroad yard. *Resource Type*

- A railroad yard lies within the railroad's ROW and includes a system of tracks, devices, and support buildings and structures that are associated with sorting, classifying, switching, disassembling, and assembling trains, as well as the construction, maintenance, service, and repair of a railroad's rolling stock. Railroad yards were located at certain points along a railroad corridor, such as large railroad stations, junctions, and other division points. The service facilities and complex trackage present within railroad yards were critical to the safe, efficient, and continual operation of a railroad and its network.

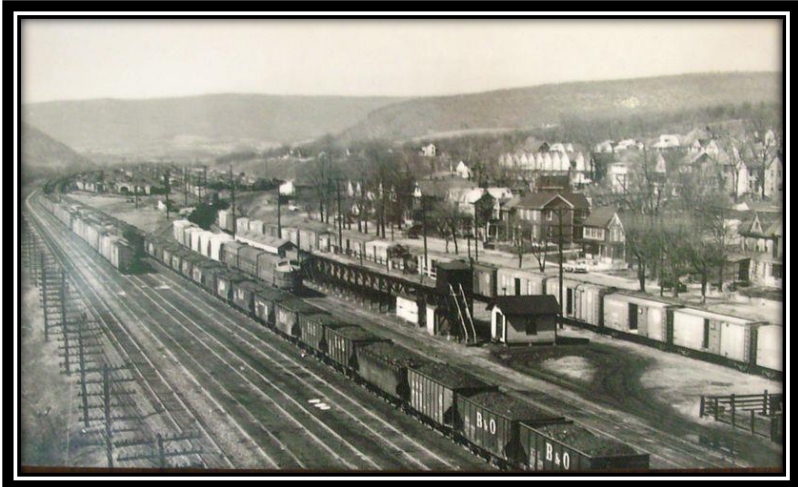


Figure 13. Brunswick West End and freight yard.

- **Railroad yard office.** Railroad yard offices housed employees responsible for operating incoming and outgoing traffic; classifying passenger and freight cars and assembling the trains; and scheduling the servicing, repair, and preparation of locomotives. Railroad yard offices are typically architecturally plain buildings of masonry or frame construction, often using standardized plans.

Right-of-way (ROW) objects. *Resource Type*

- ROW objects include small- and medium-scale equipment that aid in the safe and efficient operation of the railroad and are installed within or directly adjacent to the trackage.

- **Roundhouses.** A roundhouse is a large arc-shaped/semi-circular building (segmental roundhouse) or circular building (a full-circle roundhouse). They were typically located in large railroad stations and at division points. The building has evenly spaced stalls or bays arranged in a fan-like configuration. A turntable located at the center of the building directed engines to each stall. Roundhouse stalls accommodated the length of an engine, with firewalls sometimes separating each stall.

Figure 14. Mount Clare passenger car shop, B&O.



S

- **Sand house.** Sand houses were a standard feature at railroad yards. They were located at all points where engines were changed or supplied with essentials (such as coal) before starting on a run. Each running locomotive carried sand and used it when needed for improved traction on slippery rails or steep grades. Prior to starting a trip, sand was placed in the locomotive's sandbox. When necessary the sand was transported through pipes from the sandbox and poured onto the rails in front of the train's wheels. Because sand is typically moist to begin with, a sand house was necessary to dry the sand that it stored. Sand went through a drying process through the use of steam coils around the sides of the house and above the sand pile. The typical sand house was a small, one-story frame building with a rectangular plan and a gable roof and no decorative detailing. Like other buildings, they often were built using standardized plans developed by the railroad company.
- **Section house or dwelling house.** A section house was a dwelling located in a railroad yard for watchmen, flagmen, and signal maintainers. Worker shelters were simple, wood-frame buildings with a standard plan, hipped or gable roofs, board-and-batten or clapboard siding, and large windows.
- **Sidings.** A siding is a length of track, or side track, which connects to the through track at one or both of its ends. Sidings can be either passing sidings, derail sidings, or spurs. Constructed using industry standard designs, sidings depart from the main track for a certain length using a turnout and switching equipment. Railroad companies built passing sidings along single track railroad lines to allow for the passage of faster moving cars or additional rolling stock. Derail sidings were used to derail runaway cars.
- **Signaling system.** A signaling system is a component of the interlocking. It automated the process through which a railroad company directed its trains onto different tracks and verified that no other trains moving in the opposite direction were on the track.⁴ The signaling systems

⁴ Chasteen, 2012.

were created upon the electrification of railroads and may include components such as signal bridges and a signal arm, signal equipment cases (also called Central Instrument Houses [CIH] or bungalows), relay cases (small metal cabinets that house mechanical equipment that moves the tracks in the interlocking), and a pneumatic air switching box. Signal bridges were located on both ends of an interlocking and consist of a pair of approximately 40-foot-tall cast steel poles, typically co-located with catenary poles, flanking both sides of the tracks and connected by a cross beam. Many historic railroad corridors in Maryland still contain interlockings, signaling systems, and switching devices. One component of a signal system that predates a signal bridge and electrification is a free-standing arm, which can still be found in railroad ROWs in Maryland⁵.

- **Spurs.** Spurs (sometimes called feeders) are dead-end sidings connected to a through track by a turnout at one end. They are used to provide rail access to manufacturing, storage, and other facilities located in a railroad yard or near the railroad.
- **Standard gauge.** Standard gauge is 4 feet and 8 1/2 inches in width. It became the dominant gauge in the United States in the mid-to-late 19th century and is used in a majority of countries throughout the world, including North America, most of western Europe, North Africa, the Middle East, and China.
- **Standardized plans.** Developed by the railroad company's engineering department, sets of standardized drawings were used repeatedly to build facilities in different locations owned by a railroad company, such as railroad yards and stations. Utilitarian in nature, the buildings were often one-story, square or rectangular buildings of frame construction, non-descript and devoid of any ornamentation.
- **Station.** See *Railroad Station*.
- **Station house.** Generally archaic term for a building at a railroad station. The two-story Ellicott City Station, originally the Ellicott Mills Station, was built in 1828-30 as a car house, produce house, and superintendent's office; it was sometimes called the station house.
- **Steel plate girder bridges.** Steel plate girder bridges can be either deck or through designs. Built-up, riveted plate girder bridges were used by railroads beginning in the 1850s and are the most common type of short and mid-span railroad bridges. By the middle of the 20th century, welded girders replaced riveted built-up girders. A common type of girder bridge is the two-girder bridge, where web stiffeners are inserted between the two girders. Deck girder bridges also were popular in Maryland.⁶

Figure 15. B&O Railroad Bridge over the B&P Railroad.



⁵ Ibid.

⁶ Brinckerhoff and EIH, 2005.

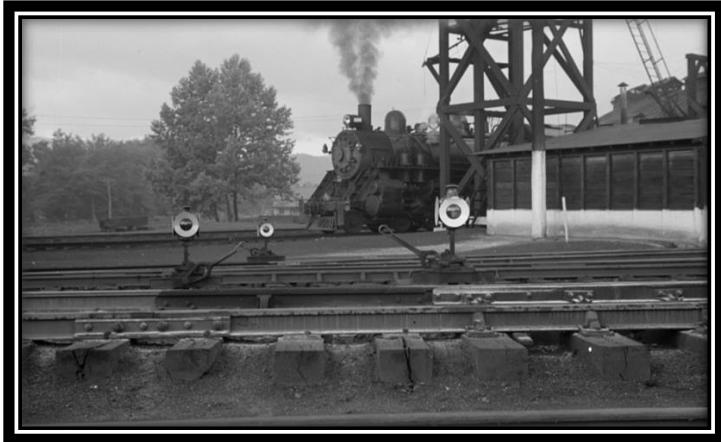
- **Stone arch bridges.** Stone arch are the oldest railroad bridge type in the state. They can range in length from a small culvert to a large viaduct, which spans multiple features. Stone arch railroad bridges used hyperbolic, segmental, or semi-circular arches to form the bridge and were constructed of ashlar masonry seated on large stone masonry piers. The B&O Railroad pioneered the design and construction of many important stone arch bridges throughout the state.⁷

Figure 16. West side of Carrollton Viaduct.



- **Subgrade.** The subgrade consists of a smooth ground surface and forms the foundation for the rails, ballast, ties, and connectors. Ground modifications (cuts, fills, and other changes to the soil structure) form the subgrade.
- **Switching devices.** Associated with the interlocking is a system of switching devices that were used together to guide the trains onto different sets of tracks. Switching devices were used at junctions between main lines and branch lines and at turnouts for spurs and sidings. Components of switching devices are switches, switch stands, switching machines, frog points, and signals on signal bridges.
- **Switch.** A switch is a type of railroad turnout that allows trains to move between parallel sets of tracks. It is different than a crossing, which allows trains to cross from one track to another. The fixed end of the switch is called the heel, and the movable end is called the toe. The length of a switch is the dimension from the toe to the heel.

Figure 17. Railroad switches, Elkins, West Virginia.



- **Switching machines.** Switching machines guided trains onto different sets of tracks. Switching was first accomplished through manual means, with levers on a switch stand adjacent to the track. Pneumatically powered switch levers soon replaced manual switches, followed by hydraulic and hydro-pneumatic levers. A switching machine with miniature levers was developed in the 1930 and installed in interlocking towers. Currently railroads utilize

⁷ P.A.C. Spero and Co. and Louis Berger and Assoc, "Historic Highway Bridges in Maryland 1631-1960: Historic Context Report," State Highway Administration, <http://roads.maryland.gov>.

computerized, centralized traffic control to switch trains.

- **Switch stand.** A switch stand was a lever on a stand that was used to manually operate a switch (see *switching machines*).

T

- **Telephone boxes.** Once the telephone became a standard fixture along a railroad line, companies installed telephone boxes at frequent intervals. Approximately the size of a telephone booth, they closely resemble the earlier watchman's shanty and were often located near junctions, railroad yards, depots, and other important points.
- **Terminal.** A station at the end of a line.
- **Ties.** Traditionally, ties have been made of wood soaked with creosote, with oak the prevalent species due to its hardness. Manufacturers fashioned ties of mixed hardwoods and sometimes soft woods such as cedar or pine. Standard main line wood ties are 8 feet and 6 inches long or 9 feet long. They are typically 6 to 7 inches in thickness and 6 to 12 inches in width.
- **Through station.** A railroad station whose tracks do not terminate at the station building but extend past it. A terminal station is the opposite of a through station.
- **Tool house.** The maintenance of railroad trackage and equipment required a wide variety of specialized tools, many of unusual design or oversized scale. Most railroad companies designated special sheds for their tool storage. As with other small utilitarian railroad structures, tool houses were standardized, one-story rectangular buildings usually of wood-frame construction with a gable roof and no decorative detailing. Some brick examples also exist.
- **Track.** A track is formed by a continuous line of rails that are laid end to end on railroad ties. The rails are connected to the ties with a rail fastening system (see *rail fastening system*). Two parallel rails, along with ties and connectors, form a set of tracks.

Trackage *Resource Type*

- Trackage is the improved area of graded right-of-way used by a railroad company to move freight and passengers. It encompasses a subset of elements that includes the trackbed (subgrade and ballast) and tracks (rails, ties and connectors), which historically integrated to form the functioning railroad that stretched along the grade. These elements are central to the construction, maintenance, and operation of any railroad. The trackage may vary in width, and its design and material will vary depending on topographic and environmental conditions.

Figure 18. Bethlehem-Fairfield shipyards, Baltimore, Maryland.



- **Trackbed.** For land in smooth, dry terrain, minimum modification was necessary. The trackbed is the graded surface, including the subgrade and ballast, that supports the track. The alignment of the trackbed was very important for the smooth-running operation of the railroad. Trackbeds incorporated single, double, or multiple sets of tracks. On single and some double-tracked beds, passing sidings were placed approximately every five miles to allow opposing trains to pass each other or to allow express trains to pass slower trains.
- **Track signs.** Numerous track signs are located along a railroad to alert train engineers, maintenance crews, passengers, and the public to different railroad functions. Signs were typically fixed and were built of concrete, metal, and wood with concrete foundations, and all messages were painted or printed. Each railroad company maintained its own set of metal standards (posts) to hold the signs. Common ROW signs include mile posts (described above), elevation posts, whistling posts, stop and slow posts, and track signs such as bridge and culvert number signs, railroad crossing and highway signs, station signs, yard limit signs, derail signs, speed limit signs, and other notification signs.
- **Train shed.** A train shed is a large permanent structure located at a railroad station that is adjacent to a depot. The train shed covers the tracks and platforms of the depot or railroad station.

Figure 19. Mount Royal Train Shed, Baltimore, Maryland.



- **Transfer table.** A transfer table consists of a rectangular platform that aided in maneuvering locomotives onto the perpendicular spur tracks leading into square engine houses.

- **Trestle bridges.** Trestles are braced framework structures designed to cross either deep river valleys or minor streams and gullies. They can consist of a combination of timber pile elements that form the bridge's substructure. Railroad trestles were used starting in 1840 and were common in regions where wood was plentiful, such as Maryland's Eastern Shore. Many wood trestles have been replaced by metal bridges.⁸

Figure 20. B&O Bridge over Antietam Creek, Long Bridge.



- **Truss bridges.** Truss bridges built of either iron or steel constitute a large number of Maryland's known historic railroad bridges. Designed and constructed in a wide variety of types during the 19th and 20th centuries, truss bridges are among the most familiar and widely recognized historic bridges in the state. Truss bridges typically have vertical and diagonal members between upper and lower components called chords. Both wooden and metal truss bridges are categorized by their specific design, which varies considerably according to the shape of the members and whether they are placed in compression or tension.⁹



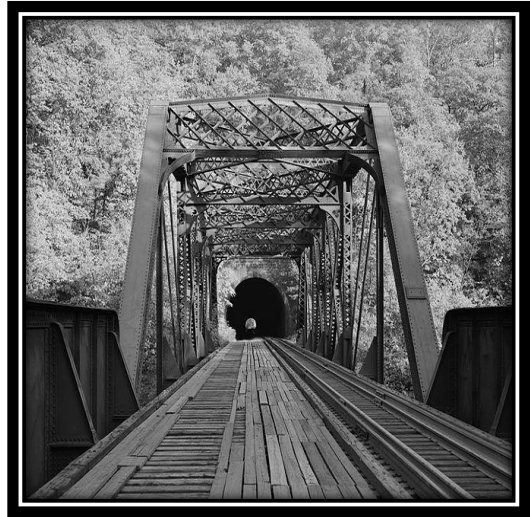
Figure 21. B&O, Bollman Truss Bridge, Savage, MD.

⁸ Brinckerhoff and EIH, 2005.

⁹ Spero and Berger, 2005.

- **Tunnels.** A tunnel is a grade separation structure that shortens the railroad route length by allowing rail lines to pass through natural and man-made obstacles, such as mountains or city streets. Railroad companies built two types of railroad tunnels in Maryland. The first type, referred to as a cut-and-cover tunnel, was constructed by creating a cut and then covering it with a load-bearing lid. The second was created by tunnelling below the ground surface. Railroad companies created tunnels of natural rock, stone block, brick, concrete, or a combination of materials.

Figure 22. Ilchester Tunnel



- **Turnout.** A turnout is a movable piece of track that allows for a train to change directions without stopping. There are different configurations of turnouts, with the switch and crossing being the most common type of turnout.
- **Turntables.** Railroad companies used railroad turntables to maneuver locomotive engines and freight cars onto the sidings leading into roundhouses or repair shops. They consist of circular platforms supported by steel truss or girder frameworks.

Figure 23. Chesapeake Beach Railroad Engine House and Turntable.



U

- **Union depots.** A type of shared depot in which multiple railroad lines use all of the facilities.
- **Utility lines.** Telegraph, electric, and telephone lines were built within railroad ROWs and used by the railroad company and surrounding area. The lines ran in a linear alignment along the route of the trackage at a distance above the railbed. Timber and metal posts supported the lines, and they were attached to glass resistors.

V

- **Viaduct.** A type of bridge supporting a long, elevated railway or road which maintains a grade over valleys and other low-lying areas. May be supported by piers or columns but most often consists of a series of masonry arches in brick or stone. Examples in Maryland include the Thomas Viaduct over the Patapsco River and Patapsco Valley near Relay and the Carrollton Viaduct over Gwynns Falls in Baltimore.

W

- **Watchman's or flagman's shanty.** Watchmen or flagmen were sometimes positioned at points on a railroad, necessitating the construction of small sheds for temporary to shelter them. They usually were small, single-story, single-bay, wood-frame structures built using standardized plans designed by railroad engineers.

- **Water station.** Water stations were stand-alone water sources used to refill locomotive steam boilers. They were located within railroad yards or along the railroad ROW from 5 to 20 miles apart, often near a station. Water supply also was necessary for feeding stationary boilers, washing cars and floors, cleaning out boilers, cooling ashes, and for fire protection at shops, engine houses, depots, and other buildings. Water was either drawn by gravity from a naturally occurring source near the railroad or pumped to the proper height. A water tank included connections to the water source through uptake pipes (standpipes), a wood or metal water tank or tower, a delivery-spout or discharge pipe, and a small masonry or wood frame pump house.



Figure 25. Railroad tracks with water tower, Waldorf, Maryland.

Y

- **Yard.** See *Railroad Yard*.

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MARYLAND RAILROADS STATEWIDE HISTORIC CONTEXT

PART III

SURVEY METHODOLOGY

AND

**NRHP EVALUATION OF RAILROAD
RESOURCES**

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1 OVERVIEW

The Maryland Department of Transportation State Highway Administration has developed the following guidelines to assist historians and transportation professionals in evaluating Maryland railroads for National Register of Historic Places (NRHP) eligibility under Section 106 of the National Historic Preservation Act of 1966 (as amended) (NHPA) (54 United States Code [USC] § 300308).¹ The guidelines and can be applied to both large and small railroad survey projects. They will be useful in identifying, naming, and classifying railroad resources and they are intended to be used in conjunction with National Park Service Guidelines, *How to Apply the National Register Criteria for Evaluation*,² and *How to Complete the National Register Registration Form*,³ as well as the Maryland Historical Trust's (MHT's) 2019 *Standards and Guidelines for Architectural and Historical Investigations in Maryland*.⁴

The term "historic property" has a specific definition and use in Section 106 compliance work. It is defined as a "prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the NRHP, including artifacts, records, and material remains related to such a property or resource."⁵ Because this document covers numerous types of railroad resources, some of which may be NRHP-eligible and others which may not be, the railroad resources will be referred to throughout this document as resources instead of properties.

¹Advisory Council on Historic Preservation [ACHP], *The National Historic Preservation Act As amended through December 16, 2016, and Codified in Title 54 of the United States Code*, 2023, Website at <https://www.achp.gov/sites/default/files/2018-06/nhpa.pdf>.

² U.S. Department of the Interior [DOI], *How to Apply the National Register Criteria for Evaluation*, 1995, Website at https://www.nps.gov/subjects/nationalregister/upload/NRB-15_web508.pdf.

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⁴ The document can be found at https://mht.maryland.gov/documents/PDF/research/Survey_standards_architecture_web.pdf.

⁵ 36 *Code of Federal Regulations* [CFR] Section 800.16, Definitions, 2023, Website at <https://www.achp.gov/sites/default/files/regulations/2017-02/regs-rev04.pdf>.

2 SURVEY METHODOLOGY

2.1 Background Information

All previously completed MIHP survey forms, Determination of Eligibility (DOE) forms, survey reports, and other associated documentation are on file at MHT's Crownsville, Maryland, office. MHT also administers Maryland's Cultural Resource Information System, a map-based digital database with the inventory of the state's architectural and archaeological sites and surveys. Known as Medusa, the database can be found at <https://mht.maryland.gov/secure/Medusa/> and is used to conduct searches of Maryland Inventory of Historic Properties (MIHP) forms and survey reports completed throughout the state. All MIHP forms, DOEs, survey reports, and other associated documentation completed to date have been digitized and can be found on Medusa, including many assessing the NRHP eligibility of railroad resources.

2.2 Fieldwork

Fieldwork will be necessary to document a railroad resource and evaluate its eligibility, unless the resource is a type excluded by this context. Fieldwork for railroad resources should only be conducted from public rights-of-way (ROW) for safety and legal reasons.

2.3 Preparing the DOE Form for Railroad Resources⁶

When assigning a "Property Name" to a railroad resource, the investigator should enter the name of the railroad as it has been known throughout most of its history.⁷ In naming a railroad resource, the methodology includes standards that provide for consistency across different railroad companies and among different Maryland locations.⁸ The naming conventions also will lend consistency among investigators and allow researchers using Medusa to complete searches of resources associated with a certain railroad, certain resource types, or resources in a specific location in Maryland.

An investigator should use the railroad name, followed by the type of resource, and then the location of the resource. For example, a railroad depot built by the Baltimore & Ohio Railroad in Cumberland, Maryland, would be called, "Baltimore & Ohio Railroad: Passenger Depot (Cumberland)." When completing a DOE, the researcher should first present the full name of the railroad at the beginning of the document, then use the railroad company's established abbreviated name throughout the rest of the form (i.e., Baltimore & Ohio Railroad will become B&O Railroad). The list below presents standards that should be followed:

- Spell out the word railroad instead of using abbreviations (RR for example).
- Spell out full names. Do not use abbreviations.
- Use "&" instead of "And" in the railroad name.

⁶ While the MIHP form is used to document a resource and enter it onto MHT's inventory, the DOE form is used to both document and assess the NRHP eligibility of a railroad resource.

⁷ See the accompanying table on Maryland's Historic Railroads.

⁸C. Nagle, The Pennsylvania State Historic Preservation Office's Researchers' Guide for Documenting and Evaluating Railroads, 2015, website at <https://www.penn.dot.pa.gov/ProjectAndPrograms/Cultural%20Resources/Documents/phmc-bhp-researcher%27s-guide-to-historic-railroads-revised-october-2015.pdf>.

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- State the name of the railroad first, then use a colon followed by the resource type or branch name.
- Use parentheses when stating locations.
- Do not use hyphens, unless it is in the official name of the railroad, for example: Erie-Lackawanna Railroad.
- Do not use commas to separate the railroad name from the branch name.
- For railroad segments, include stations or other logical termini (municipalities, mileposts, streets, rivers, etc.). For example: "Baltimore, Chesapeake, & Atlantic Railway: McDaniel Station to St. Michaels Station." This is especially important when portions of a corridor may be abandoned or no longer extant, and the termini can clarify the extent of the survey area.

When evaluating a railroad corridor or component of a corridor for which portions of the railroad have been previously identified or evaluated, note these other resources at the beginning of the description and justification narrative.

2.3.1 Developing the History and Justification Sections

The history component of this historic context, *Railroads in Maryland, 1827-1976*, provides the framework to assess the significance of railroad resources under each of the National Register Criteria.

2.3.2 Preparing Attachments for the DOE

All railroad resource locations must be mapped and keyed on a United States Geological Survey (USGS) map (7.5-minute series). For railroad corridors, multiple maps may be necessary to illustrate, first, the overall location of the corridor and second, the locations of resources within the corridor. The DOE form also should include copies of historic mapping to show locations of railroad resources. Historic maps and atlases for relevant time periods of the railroad's history should be attached. Railroad Atlas Maps, published every ten years between 1871 and 1961, are particularly useful for illustrating railroad histories.

If an investigator is preparing a DOE for a railroad building or structure, the investigator should attempt to locate original or copies of the original as-built architectural or construction drawings. If they are found, the investigator should acquire scans of the drawings, or if that is not permitted, then photographs should be taken of them to include with the DOE.

2.3.3 Aerial Photography

Aerial photography, both historic and current, may be especially useful in illustrating the original and current locations of railroad corridors.

2.3.4 Establishing Boundaries for Railroad Resources

The boundary of a railroad resource should be established and documented on the DOE form. The objective is to include all resources in the survey area that were built by the railroad. Railroad ROW vary in width and may range from 50' wide (25' on each side of the centerline of the track) to more than 200' wide (100' on each side of the track centerline). Railroad resources can be many miles long and may include buildings and structures that are not associated with the railroad. If those resources cannot easily be excluded from the boundary, then they should be included in the delineation but counted in the resource count as a noncontributing resource of the corridor. The boundary should be shown on a USGS map and verbally described in paragraph form in the DOE form.

The NRHP boundaries of a railroad resource will nearly always be contiguous, as opposed to

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discontiguous, or geographically separated from other areas that are associated with it.⁹ Discontiguous boundaries for a railroad corridor would be unusual because, by its nature, a corridor's linear continuity is a major character-defining feature. The only times a rail resource might have discontiguous NRHP boundaries is if a corridor is composed of multiple segments, and the segments are evaluated individually. Segmentation of railroads is discussed more fully in Section 3.4 below.

⁹According to the National Park Service (NPS), a historic district may be "composed of two or more definable significant areas separated by nonsignificant areas," DOI, 1995.

3 NRHP CRITERIA FOR EVALUATION

When assessing Maryland's railroad resources for NRHP eligibility, the investigator shall apply the NRHP Criteria for Evaluation—significance criteria, criteria considerations, and integrity aspects, all of which are codified in *CFR Title 36, Part 60*, and outlined and defined in *How to Apply the National Register Criteria for Evaluation* (Bulletin 15), available at https://www.nps.gov/subjects/nationalregister/upload/NRB-15_web508.pdf.¹⁰ There are additional things to consider when evaluating railroad resources, all of which are presented below.

3.1 Areas of Significance

A railroad resource's area of significance describes the category in which the resource attained its importance.¹¹ When investigators are evaluating a railroad resource under NRHP Criteria A through C (railroad resources are not eligible under Criterion D), they are evaluating it in one or more areas of significance under one or more of the criteria. An area of significance is not the same as the railroad resource's historic function. A railroad's historic function involves its practical and routine uses, while an area of significance relates to the contribution that the railroad made to the broader patterns of American history, Maryland history, regional history, or to architecture, engineering, and culture. Below are the four NRHP significance criteria as they relate to Maryland's railroad history and the areas of significance that should be used when evaluating a resource under the criterion.

3.1.1 Evaluating a Railroad Resource Under NRHP Criterion A¹²

A railroad resource is significant under NRHP Criterion A if it is associated with events or patterns that have made a significant contribution to the broad historical patterns of the country, the state, or the region. Most railroads significant under NRHP Criterion A will be significant in the area of transportation. Other potential areas of significance include industry and economic and community development. When considering transportation as an area of significance, the investigator should look at the trends for which a railroad might be significant. Examples of such transportation-related trends are:

- The first common carrier in the state or nation.
- A railroad that played an influential role in establishing the coal or timber trade in Western Maryland.
- A railroad that opened the Eastern Shore to new markets in Baltimore, Philadelphia, or New York.
- A railroad used by African Americans to migrate north after the Civil War.
- A railroad which employed an unusually large number of a certain ethnic group to construct it.

¹⁰ DOI, 1995.

¹¹ Areas of significance are discussed more fully in *How to Complete the National Register Registration Form*, which can be accessed at <https://www.nps.gov/subjects/nationalregister/upload/NRB16A-Complete.pdf>.

¹² C. Nagle, 2015.

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Community Planning and Development may be considered as an area of significance for railroads which played particularly prominent roles in the growth and development of agricultural areas or neighborhoods outside of cities.

3.1.2 Evaluating a Railroad Resource Under NRHP Criterion B¹³

Railroad resources are rarely NRHP-eligible Under Criterion B. Railroads were corporate undertakings and not significantly associated with the life of an individual person. Some may reflect the skill of a railroad's engineer, but NRHP guidelines state that such resources should be evaluated under NRHP Criterion C. Additionally, some resources, such as passenger depots, may have been designed by a notable architect. Again, NRHP guidelines state that such properties should be evaluated under Criterion C.

3.1.3 Evaluating a Railroad Resource Under NRHP Criterion C

A railroad resource may be eligible for listing in the NRHP under Criterion C for its design, engineering, or construction. Some Maryland railroad projects were influential civil engineering undertakings. Others used common technologies and designs characteristic of their period. In the latter case, while the technologies were representative, they were not significant.

When evaluating a railroad for its engineering significance, examples of distinctive engineering include:

- A railroad corridor that represents the evolving technology of railroad transportation in its use of a new type of signaling and interlocking system.
- A railroad corridor that was the first to be electrified.
- A unique type of railroad bridge construction that enabled railroads to traverse a certain landscape feature.
- A railroad built and used for logging that had distinctive construction and structural requirements.
- A mountain railroad that had unusual vertical and horizontal alignments.
- A railroad bridge designed or engineered by a well-known railroad engineer of his time.
- A railroad bridge designed to handle a certain locomotive used by a railroad.

When evaluating a railroad resource for its architectural significance, the investigator might look for the following characteristics:

- A building with a distinctive architectural style (or features or colors) that the railroad company used on many of its buildings.
- A depot designed by a prominent outside firm that the railroad company hired.
- A union depot that contains artwork or features designed by a famous artist.

¹³ C. Nagle, 2015.

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When evaluating a railroad resource for its architectural or engineering significance, the investigator should investigate the builder, architect, architectural firm, engineer, or engineering firm that designed the resource. If the resource was designed by any person(s) listed in Section G of Part I, *Railroads in Maryland, 1827-1926*, which describes notable Maryland railroad architects and engineers, the resource may be NRHP-eligible under Criterion C.

If an investigator is evaluating a resource under Criterion C for its architectural significance, the investigator should attempt to locate original or copies of as-built architectural or construction drawings. Original drawings will be useful in discerning if the building was constructed using standardized drawings or if it was an original design (see the glossary for a definition of standardized drawings). Drawings can be helpful in describing the building and also can be used to see what alterations were made to the building in subsequent years. Reviewing drawings will assist the investigator in assessing the building's integrity of design, materials, workmanship, and, therefore, feeling. Images or scans of the drawings will be important parts of the building's record and can be attached to the DOE. §

3.1.4 Evaluating a Railroad Resource Under NRHP Criterion D

Railroad resources are unlikely to yield information important in history in the context of architecture or archaeology. Railroad resources were thoroughly documented from the time of a line's incorporation; companies provided extensive reports on management and operations for the benefit of investors and shareholders, and planning and engineering records demonstrate the design and construction methods for trackage, grade separation structures, facilities, and other resources. These methods did not vary by railroad and remained standardized over long periods of time; components were often mass produced. Common railroad resources that may be encountered during archaeological survey include portions of trackage such as ground modifications and subgrade, rails, ties, or other connectors; ROW objects or their components; and the remains of grade separated structures. These types of resources will not have significance under NRHP Criterion D. Other railroad resource types, limited to facilities, railroad stations, and railroad yards, may be considered under Criterion D only in those rare cases in which the physical material of the resource can provide important historical information not available otherwise. These could include intact archaeological deposits (privies, refuse deposits, etc) related to workers or other users of the facility, station or yard, that may inform aspects of daily life, labor practices, or other information not readily available through existing documents.

3.2 Period of Significance

Every historic property has a period of significance. The period of significance is defined as the time that the resource was associated with important events, activities, or persons, or when the property attained the characteristics that qualify it for NRHP eligibility. It can be defined as the dates when significant activities or events began and ended.¹⁴

Since railroads and their resources often were constructed over a period of time or at different times, the beginning of the period of significance is generally when construction of the resource began, provided that there are contributing resources or character-defining features from the original construction date. In many railroad history accounts, importance is given to the date that the new railroad company received its charter. While it is an important date within the history of the railroad company, this does not usually signal the beginning of the railroad's period of significance since there was sometimes a time lag between the charter date and the actual start of construction by the railroad company. Additionally, sometimes railroads were chartered but never constructed due to inadequate funding, or the charter

¹⁴ DOI, 1997.

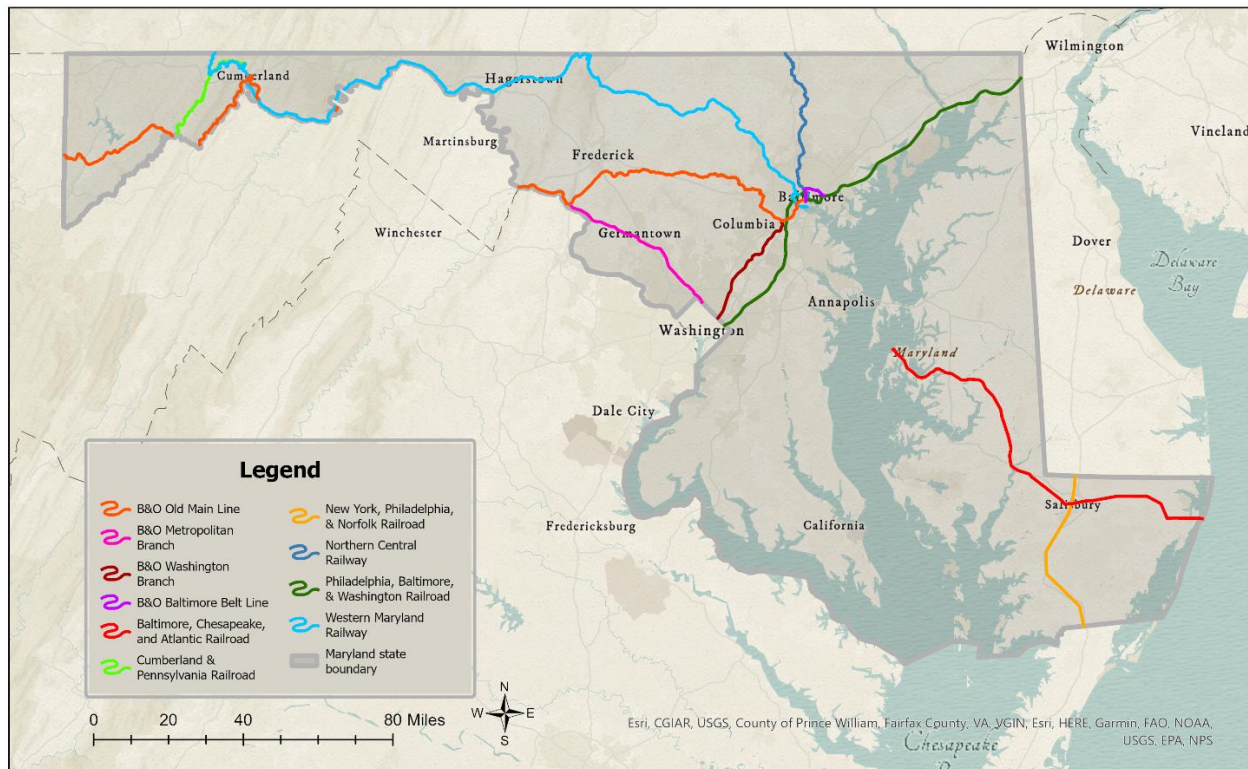
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expired before the construction was completed.

The end of the period of significance is often tied to the year that the specific railroad company ceased operation or the year that it was assumed by another, separate, railroad company under the name of the new company. On the other hand, a railroad’s period of significance might extend to include the period of time that a successor company operated the railroad, even if it was under a different name. The latest end date for a Maryland railroad resource’s period of significance will be 1976. This is the year during which the Penn Central, a successor to the Pennsylvania Railroad and six other bankrupt Mid-Atlantic railroads, were folded into a government-owned railroad company, Conrail. As explained in the historical background, *Railroads in Maryland, 1827-1976*, the formation of Conrail marked a new chapter in Maryland’s railroad history.

3.3 Foundational Maryland Railroads

Based on Part I of this context, *Railroads in Maryland, 1827-1976*, which presented the history of Maryland’s major and minor railroads, there are ten Maryland railroad lines that are the state’s most historically important. Historically, the main line of a railroad was its most significant feature. Other lines, ultimately, were constructed to serve one function: to funnel materials and goods to a railroad main line for distribution locally, regionally, or nationally. These ten Foundational Maryland Railroads formed the framework upon which almost all other rail activity in the state relied and are those most likely to be NRHP eligible.



Maryland’s ten “foundational” railroads. The corridor extents shown provide a guide for locating and identifying the rail lines, but not specific endpoints for NRHP eligibility. See Appendix 3 for a larger version of the map.

Each summary below includes a description of the railroad’s importance, applicable Criteria for Evaluation, and a date range that encompasses a possible Period of Significance. These aspects of

significance, and specific details such as contributing resources, will be addressed more fully at the time these railroads are formally evaluated. Some Foundational Maryland Railroads have previously been evaluated in whole or in part, and those instances are noted in the summaries.

Although other significant railroad corridors may be identified in the future, such cases will be rare. An investigator may encounter a line or branch line other than those presented here that was very lucrative, opened an entirely new territory, or provided transport for a new commodity, but this will be uncommon with Maryland railroads.

If a railroad resource retains integrity and has important associations with a Foundational Maryland Railroad, the resource should be carefully considered for NRHP listing. If a resource was determined not eligible during a previous evaluation, and it is associated with a Foundational Maryland Railroad, it should be reevaluated using the guidelines in this context.

Baltimore & Ohio (B&O) Railroad Main Stem/Old Main Line: Baltimore City to Maryland/West Virginia State Line in Garrett County. The B&O Railroad was the nation's first common carrier and its pioneering railroad, as well as one of the three major national railroad systems in the Mid-Atlantic. Its Main Stem was its original main line, which connected Baltimore with the Ohio River. The entire Main Stem may have significance under NRHP Criterion A for transportation and Criterion C for engineering. Its period of significance is estimated to begin in 1827, when the railroad was chartered, and may extend as late as 1962, when the B&O became part of the Chessie System. The resource includes the intact segments that were bypassed by engineering re-alignments after the B&O's Metropolitan Branch was completed in 1873.

B&O Metropolitan Branch: Washington, D.C., to Point of Rocks, Maryland. Completed in 1873, the Metropolitan Branch between Washington, D.C., and Point of Rocks, Frederick County became the B&O's *de facto* Main Line west, particularly for passenger trains, to the point that the former Main Stem from Baltimore through the Patapsco Valley was renamed the Old Main Line. The construction of the Metropolitan Branch marked the beginning of suburban development and large-scale agriculture in Montgomery County and gave the B&O the symbol that would grace its trains for 100 years, the U.S. Capitol dome. The Metropolitan Branch was determined eligible for the NRHP in 2019 (M: 37-16 and F-1-230) and is significant under Criterion A for transportation and community development and Criterion C for engineering. The period of significance begins in 1867, when construction of the portion between Baltimore and Point of Rocks began. The period of significance ends in 1945, with the decline in railroad use and increased automobile travel following World War II.

B&O Washington Branch: Baltimore City to Washington, D.C. The B&O's first branch line was completed between Baltimore and Washington, D.C. in 1835. A part of the B&O's Washington, D.C., to Philadelphia service, the Washington Branch assumed new importance in the 1880s as the B&O and its rival the Pennsylvania Railroad (PRR) battled for passenger service between Washington, D.C., and New York. The Washington Branch also assisted suburban development between Baltimore and Washington. The branch would be significant under NRHP Criterion A for transportation and community development. Its period of significance would begin in 1835, when the branch was completed, and likely ends in 1945, with the decline in railroad use and increased automobile travel following World War II. The railroad corridor within Prince George's County was determined eligible for the NRHP in 2018 (PG:LAU-29).

B&O Baltimore Belt Line: Baltimore City. Built to connect the B&O's new Philadelphia Branch with its Metropolitan Branch, the Belt Line was constructed under existing city streets through tunnels, cuts, and fills. Because the Baltimore City government would not allow ventilating shafts up to the street, the B&O used electric powered helper engines to move trains along the Belt Line, the world's first heavy-duty railroad electrification. The line is assumed to have significance under NRHP Criterion A for

transportation and Criterion C for engineering. The period of significance would begin in 1881, when construction began, and continue to 1952, when electrification was removed. The Baltimore Beltline was determined eligible for the NRHP in 2015 (B-5287).

Baltimore, Chesapeake & Atlantic Railway (BC&A): Claiborne to Ocean City. *Also Wicomico & Pocomoke Railroad and Baltimore & Eastern Shore Railroad.* The BC&A was a successful, cross-peninsula, all-Maryland railroad route on Maryland's Eastern Shore. The Wicomico and Pocomoke Railroad connected Salisbury to Ocean City in 1874, and the Baltimore & Eastern Shore Railroad joined the Wicomico & Pocomoke to Caliborne on the Chesapeake Bay in 1886. The two railroads were consolidated in 1888 and reorganized as the BC&A in 1894. The line served prosperous farmland and played a key role in developing Ocean City as a resort town, providing the only transportation route into Ocean City until a highway bridge was built in 1919. The railroad is assumed to have significance under NRHP Criterion A for transportation. The period of significance would begin with the construction of the Wicomico & Pocomoke in 1874 and end with the opening of the highway bridge in 1919. By that time, the produce transported by the line was being moved by trucks using Maryland's state highway system.

Cumberland & Pennsylvania (C&P): Westernport to Mount Savage Junction. One of the goals shared by the backers of both the B&O Railroad and the C&O Canal was to reach the lucrative coal reserves of Allegany and Garrett counties. Access to those reserves in 1842 saved the B&O from bankruptcy and allowed the railroad to continue its quest to reach the Ohio River. The coal needed to be transported from the coal fields to the B&O terminal (and eventually the terminal of other railroads) in Cumberland. The Cumberland & Pennsylvania was the most important and successful of Maryland's coal railroads. The railroad is assumed to have significance under Criterion A for commerce. Its period of significance would run from its chartering in 1850 to 1944, when it was purchased by the Western Maryland Railway. The railroad includes the Georges Creek Railroad, which the C&P acquired in 1863.

New York, Philadelphia & Norfolk (NYP&N): Maryland-Delaware State Line at Delmar to the Maryland-Virginia State Line in Worcester County, Maryland. An extension of the PRR's Delaware Railroad, the New York, Philadelphia & Norfolk provided the PRR with an alternative route to transport southern produce, as well as tobacco, cotton, and Chesapeake Bay oysters, to Philadelphia and New York. The NYP&N is assumed to have significance under NRHP Criterion A for both transportation and commerce. Its period of significance would begin with its construction in 1882. Although it officially merged into the PRR ca. 1920, the suggested end for the period of significance would be 1930, the first full year of the Great Depression. By that time, the railroad line rarely met revenue projections and much of the freight traffic previously generated in Maryland was being handled by trucks using Maryland's state highway system.

Northern Central Railway (NCR): Baltimore City to the Pennsylvania State Line. The Northern Central connected Baltimore City with the PRR Main Line in Pennsylvania. It provided the PRR, the B&O's chief rival, with entry into Maryland and Baltimore and a means to divert traffic from Baltimore to Philadelphia. The Northern Central also helped develop the suburbs north of Baltimore and played an important role moving troops and goods during the Civil War. The line is assumed to have significance for transportation under NRHP Criterion A. Its period of significance would begin in 1829, with the beginning of the construction of the Northern Central's predecessor company, the Baltimore & Susquehanna Railroad, and end in 1945, with the decline in railroad use and increased automobile travel following World War II. The Northern Central has only been recorded (BA-2874) as an eligible district of engineering structures south of Warren Road in Baltimore County. North of Warren Road, the line has been converted to a recreational trail and is recorded as part of Gunpowder Falls State Park (BA-3004).

Philadelphia, Baltimore & Washington Railroad (PB&W): Washington, D.C. to the Maryland-Delaware Line in Cecil County, Maryland. *Also Philadelphia, Wilmington & Baltimore (PW&B).* The

PW&B was a major route between Baltimore and Philadelphia and later, after the PRR gained control of the line (the PB&W), between Washington, D.C., and New York City. Its electrification during the Great Depression was an engineering achievement that keeps the railroad line important as a passenger corridor to this day under Amtrak. The railroad line is assumed to have significance under NRHP Criterion A for transportation and Criterion C for engineering. Its period of significance may start in 1838, when four predecessor railroads were consolidated under the PW&B name, and would continue at least through 1935, when the line was electrified. The line became part of Amtrak in 1976.

Western Maryland Railway (WM): Maryland-Pennsylvania State Line in Allegany County and Westernport to Baltimore City. Also *Western Maryland Rail Road*. The Western Maryland's significance is tied to its historic function as a "bridge route," that is, a railroad line that links two important regional carriers, in this case, the B&O and the Reading. Engineering improvements made between 1874 and 1912 gave the Western Maryland the shortest route between Pittsburgh and Baltimore and one of the best engineered crossings of the Alleghenies. The Western Maryland is likely to have significance under NRHP Criterion A for transportation and Criterion C for engineering. The period of significance may run from 1874, when transportation improvements increased its significance as a regional carrier, to as late as 1968, when it came under the control of the B&O and the C&O railroads.

3.4 Process for Evaluating Maryland Railroads

If an unevaluated railroad resource is encountered during survey work, the investigator will follow the process below:

The investigator will first determine whether the railroad resource is associated with one of the Foundational Maryland Railroads identified in Section 3.3. A railroad resource associated with a railroad corridor on the list of Foundational Maryland Railroads may contribute to the larger corridor, and the area(s) of significance and period of significance would match that of the corridor. Although it is preferable to evaluate a Foundational Maryland Railroad in its entirety, it may alternatively be evaluated segmentally if only a small area is encountered during survey. An appropriate segmental approach would be to survey a portion of the corridor using logical termini, such as station to station. Although it may be recorded over time, a railroad segment or components of a Foundational Maryland Railroad are not considered as individual resources but as a portion of the entire railroad corridor that extends throughout the state. A segment or other component of a Foundational Maryland Railroad will be eligible if it retains integrity and dates to the period of significance.

If a railroad resource is not associated with one of the Foundational Maryland Railroads, the investigator will need to determine if there are buildings, structures, or objects other than trackage components present. Identified resources constructed prior to 1976, the maximum extent of the period of significance for any railroad evaluated using this context, may need to be individually evaluated for NRHP eligibility. If only trackage components are present, and they are not associated with engineering achievements, no further action is required, as trackage is not otherwise individually NRHP-eligible. An eligibility determination should be made if significant associations with engineering achievements are suspected. Similarly, bridges with spans of less than 20 feet will generally not be NRHP-eligible. Eligibility requirements for individual railroad resources are further explained by type in Section 4.0.

The flowchart included as Appendix A summarizes the evaluation process.

Note that if a railroad resource appears to have significant associations with historical values other than those described in the context, the context will not apply, and the resource should be evaluated independently.

Evaluating a railroad segment individually for NRHP eligibility. A railroad segment will only be individually NRHP-eligible if it is significant under Criterion C for its distinctive design or engineering. An example would be a segment that contains a long tunnel through difficult terrain, while the remainder of the railroad is an insignificant branch line with typical terrain. In this case only the segment containing the tunnel would be eligible for its significance under Criterion C for its engineering. Although part of the B&O Railroad, the Altamont Seventeen-Mile Grade (G-IV-B-175) is one such example documented in the MIHP.

Evaluating railroads in a historic district. Railroad resources evaluated outside this context as part of a historic district may be contributing to the district regardless of whether they are associated with a Foundational Maryland Railroad or with a railroad corridor that has been determined not NRHP-eligible. A railroad resource's contributing status will depend on the NRHP Criteria and period of significance associated with the individual district.

Previously evaluated segments. If a railroad segment was evaluated previously and it is being re-evaluated due to the age of the original survey or updated with new information, this historic context will apply.

3.5 Integrity

To be eligible for listing in the NRHP, a resource should not only be shown to be significant under the NRHP Criteria for Evaluation, but it must also have historic integrity. Integrity is the ability of the property to convey its significance through physical features and context. The integrity assessment must always be based on an understanding of a resource's physical features and how they relate to its significance. The NRHP Criteria recognize seven aspects or qualities that, in various combinations, define integrity: location, design, setting, materials, workmanship, feeling, and association. To retain historic integrity, a railroad resource should possess a majority of the aspects.

Although all aspects are used when evaluating a resource for NRHP-eligibility, the aspects may be weighed differently depending on the resource. This is especially true with railroad resources because of the numerous alterations that sometimes occurred to keep a railroad functioning safely and efficiently throughout its many years of operation. Determining which of these aspects are most important to a particular resource requires knowing why, where, and when the property is significant.

4 NRHP EVALUATION OF RAILROAD RESOURCE TYPES¹⁵

This section provides guidelines for NRHP evaluations of the seven broad railroad resource types that previously were presented in the Railroad Typology and Glossary: Trackage, ROW Objects, Facilities, Grade Separation Structures, Railroad Yards, Railroad Stations, and Railroad Corridors. Each resource type is discussed individually, with a restatement of its definition, descriptive information about its importance relative to a railroad and railroad operations, character-defining features, and recommendations for evaluating the NRHP eligibility of the resource type. The evaluation recommendations include guidance on evaluating the significance of the resource, determining the period and area(s) of significance, assessing historic integrity, and weighing the integrity aspects.

4.1 Trackage

Definition. Trackage is the improved area of graded right-of-way used by a railroad company to move freight and passengers. It encompasses a subset of elements that includes the trackbed (subgrade and ballast) and tracks (rails, ties and connectors), which historically integrated to form the functioning railroad that stretched along the grade. These elements are central to the construction, maintenance, and operation of any railroad. The trackage may vary in width, and its design and material will vary depending on topographic and environmental conditions.

Resource Description. Trackage forms the linear feature along which all associated railroad resources are aligned. Its components are primary to the construction, maintenance, and operation of the railroad. It is the principal feature of a railroad corridor and was of utmost importance to a railroad company; changes in grade, elevations, or curvature along the route all affected a railroad's operating costs. For this reason, maintaining steady grades and gentle curves were essential goals of railroad surveying and construction. Trackage also includes any sidings and spurs within the ROW if they were built by the railroad. If they were built by a non-railroad company to provide a connection between the railroad and the company, they are not included in the resource.

Character-Defining Features. The character-defining features of trackage are its continuous linear appearance and its physical shape: the subgrade and sometimes trackbed that form the base for the more standardized tracks and connectors. Character-defining features of trackage significant for a unique or innovative track design will include the trackbed (subgrade and ballast) and track (rails, ties and connectors) and all the components of those elements. Since components are systematically maintained, repaired, or replaced over time to keep the railroad in good working condition, replacement components of the same materials might still be character-defining features if they are attached to original components or if they are in the same location as the original components and function in the same way. An example of this would be replaced ties or replaced rail sections in the same location that function in the same ways as the original rail section.

Eligibility Requirements

Significance. Trackage may be NRHP-eligible as a contributing resource to a railroad corridor, station, or yard. Trackage will not be individually NRHP-eligible due to industry-wide standardization of design

¹⁵ Except where noted, the evaluation guidelines are a synthesis of C.B. Fraser and J.H. Strand, "Railroads in Colorado: 1858-1948; National Register of Historic Places Form," 1997, Website at <https://www.historycolorado.org/sites/default/files/media/document/2017/625.pdf>, and A.J. Schmidt et al., "Railroads in Minnesota, 1862-1956. National Register of Historic Places Form," (St. Paul, Minnesota: Minnesota State Historic Preservation Office, 2007).

and materials and frequent repair and replacement. A segment of trackage may be eligible under Criterion C if the segment demonstrates a particular engineering achievement or innovative or rare track design, including the rails, ties, sleepers, or connectors. Trackage and its components, standardized and thoroughly documented, are unlikely to yield information important in history and lack significance under Criterion D.

The period of significance for a railroad's trackage is usually tied to the date of construction. For trackage to contribute to a railroad corridor, station, or railyard, it must retain integrity and have been built during the period of significance.

Integrity. It would be rare to find a railroad whose trackage has not been altered during routine maintenance or periodic repair of materials, such as tie or rail replacement. Such work is necessary to maintain the smooth, efficient, and safe operation of any railroad. If a railroad company made substantial alterations to the trackage during its period of significance, the alterations may be considered part of its historic fabric, if they do not diminish the resource's historical association or its technological or engineering significance. For abandoned railroads in which the tracks have been removed, it is possible for trackage significant for an engineering achievement, such as overcoming a steep grade, to retain integrity if the subgrade remains. For the trackage to have integrity, the following conditions should apply:

- The character-defining features directly associated with its significance should be present and should be intact and identifiable.
- It will retain integrity of location if it remains in its original location as constructed by the original railroad company or a successor railroad company that operated the railroad during its period of significance.
- It will not need to retain integrity of material and workmanship if contributing to a railroad corridor, station, or yard. Both are typically diminished with trackage resources due to the periodic replacement of trackage components that occurs over time during maintenance and upgrade projects, particularly rails and ties. Some trackage components, however, such as subgrade or trackbeds that are visible and still intact, often retain integrity of materials. Alterations to these aspects of trackage must have been made during its period of significance.

Weight of Integrity Aspects for Trackage: Retention of integrity will be less important for trackage than for any other railroad resource. In most cases, if not all, a railroad's trackage will have been more heavily altered than other resources. Railroad companies completed numerous maintenance, repair, and upgrade projects over time to maintain a safe and efficient railroad operation. The alterations often diminish the integrity of materials and workmanship of trackage and its components if the replacements are not materially and functionally in-kind. If the alignment of the railroad's trackage has been altered outside the period of significance, its integrity of design is also diminished. Integrity of setting for trackage will not be as important as for other resources because the railroads were built in the 19th or early 20th centuries and few places retain their setting from that time. Because trackage, and specifically grading, is instrumental in understanding the appearance and layout of a railroad, feeling and association will figure more prominently than for other railroad resources.

4.2 ROW Objects

Definition. ROW objects are small- and medium-scale objects that are placed within or directly adjacent to the trackage that aid in the safe and efficient operation of the railroad. They include, but are not limited to, switches, switching devices, track signs, utility lines, catenary lines, watchman's or

flagman's shanties, mile post markers, and telephone boxes.

Resource Description. ROW objects were located at intervals along every railroad in Maryland and were important for the functioning of each railroad. Most were small in scale and were built using standardized plans or prefabricated components.

Character-Defining Features. The character-defining features of ROW objects would be the materials and distinctive stylistic or functional elements of the object or assemblages of objects installed by the railroad company for the operation of the railroad.

Eligibility Requirements

Significance. ROW objects with sufficient integrity and built or placed within the period of significance may contribute to significant railroad corridors, stations or yards. ROW objects will generally not meet significance criteria on their own and are rarely considered individually eligible. They are ubiquitous along railroad corridors and common to many railroads throughout the state. Some types, however, such as milestones, signage, or other non-standardized equipment that is unique to the function or identity of a specific railroad may be individually eligible.

Individual ROW objects will rarely be significant under Criterion A. Significant historic events and trends are more appropriately represented by larger railroad corridors, stations, or yards, which played a greater role in historical patterns. A ROW object will rarely be significant under Criterion B. The structures were built and operated by large corporations that represented the work of many people, instead of just individual persons. ROW objects may have individual significance under Criterion C if they possess high artistic value or represent a design unique and important to the associated railroad. Standardized ROW objects or equipment will not be eligible under Criterion C since such components are common across railroad lines and are ubiquitous. As discussed in Section 3.1.4, a ROW object will generally not be significant under Criterion D. These resources were typically standardized and mass produced, and the individual objects lack information potential.

Integrity. ROW objects were frequently replaced, altered, or upgraded on an expanding line. Railroad-related alterations made to ROW objects during the period of significance may be considered part of a resource's historic fabric, as long as the alterations do not diminish the object's historic association with the railroad. ROW objects were frequently allowed to deteriorate after railroads were abandoned or else they were removed for salvage. As a result, the number of existing original ROW objects is low, and most lack integrity. The objects that remain and that do possess integrity would be contributing features of a railroad yard, station or corridor. For a ROW object to have integrity, the following is required:

- The character-defining features must be present and should be relatively intact and identifiable.
- The object should retain integrity of location. It should be in its original location and be discernible as constructed by the original railroad company or a successor railroad company that operated the railroad during its period of significance. If a ROW object was relocated, it must have been done by the railroad during its period of significance and as part of the continued functioning of the railroad (as opposed to the purposes of display mentioned below).
- It should be intact and retain integrity of design, materials, and workmanship. It should retain the physical materials of its character-defining features from its period of significance.
- Objects that have been moved for the purposes of display in a park or museum or to a location separated from the railroad will not possess integrity. Their move results in a loss of integrity of

location, setting, association, and feeling.

Weight of Integrity Aspects for ROW Objects: The loss of integrity of a ROW object as a contributing resource is less important if the object represents a unique design or function characteristic of the railroad. Common or standardized ROW objects should retain a high level of all aspects of integrity to be considered contributing. In assessing its integrity, integrity of setting and feeling will be given less weight than integrity of location, design, materials, workmanship and association. Because railroads were constructed as parts of a locale's infrastructure, the resulting physical changes in a railroad's environment over time are not unusual and were expected as a result of the railroad coming to an area.

4.3 Grade Separation Structures

Definition. Grade separation structures maintain the railroad grade and separate the trackage from other railroads, vehicular roadways, waterways, or other obstructions and include tunnels, culverts, bridges, and viaducts.

Resource Description. In the nineteenth century, railroads were generally constructed on the same grade as other transportation routes, but concerns over safety and efficiency prompted many railroad companies to build overpass and underpass bridges to separate railroad ROW from roads and highways that crossed them. Tunnels carried railroads underground and through mountains. Culverts crossed over ditches and minor drainages, bridges extended over drainages, streams, and rivers, and viaducts crossed entire valleys to maintain a grade.

Tunnels, culverts, bridges, and viaducts are located along every railroad in Maryland and are essential features to the operation of the railroads. Railroad companies spent large amounts of money for their construction and maintenance, and their locations were carefully considered. The need for bridges that were structurally adequate yet economically built spurred bridge engineers to invent new bridge types and forms in the nineteenth and early twentieth centuries. Bridges are the most common grade separation structures found in Maryland, including iron or steel trusses, stone arches, steel plate girders, concrete girders, concrete slabs, and movable bridges.

The components of bridges are the substructure, or the foundation of the bridge, consisting of the load-bearing abutments, wingwalls, piers, or piles; and the superstructure, the component that spans between the substructure elements and may include trusses, beams, arches, slabs, floor systems, decks, parapets or railings.

Character-Defining Features

Tunnels: The character-defining features of a tunnel will include its width and height along with the methods and materials used for reinforcement and stabilization. Physical evidence of the tools used in construction may also be a consideration. Tunnels often have ornamented portals which may include additional character-defining features.

Bridges and Viaducts: The character-defining features for a bridge differ depending on the type of bridge. Detailed descriptions of common bridge types, including character-defining features, are found in the "Historic Highway Bridges in Maryland: 1631-1960: Historic Context Report" published by the Maryland State Highway Administration.¹⁶ Since viaducts can be constructed using various methods and materials,

¹⁶ Appendix C, Section C (C-29). P.A.C. Spero & Company and Louis Berger & Associates, "Historic Highway Bridges in Maryland: 1631-1960: Historic Context Report," October 1995, Maryland State Highway Administration,

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the character-defining features of viaducts include the features of the respective bridge type.

Eligibility Requirements

Significance. Under Criterion A, grade separation structures will not be individually eligible for the NRHP. They may, however, be contributing features of a larger railroad corridor, station, or yard.

A grade separation structure will almost never be NRHP-eligible under Criterion B. The structures were built and operated by large corporations that represented the work of many people, instead of just individual persons. If the grade separation structure was associated with an important engineer or designer, that eligibility is best evaluated under NRHP Criterion C and the engineering area of significance.

Under Criterion C, a bridge, tunnel, or viaduct may be individually NRHP-eligible if it embodies a distinctive engineering design or construction method; if it is a rare example of its type; if it represents the early work of a historically important railroad engineer, architect, contractor, or fabricator; if it employed experimental or innovative designs to meet unusual or extreme site conditions; or if it used important contemporary construction methods.¹⁷ If the resource was designed by any person(s) listed in Section G of Part I, *Railroads in Maryland, 1827-1926*, which describes notable Maryland railroad architects and engineers, the resource may be NRHP-eligible under Criterion C.

Most culverts and small bridges (under 20-foot spans) will generally not be individually eligible under Criterion C. They are typically common structures with simple, often standardized designs that lack engineering significance. However, early, or uniquely designed structures such as stone arches may be individually NRHP-eligible. They may also be contributing features of a larger railroad corridor, station, or yard.

Similarly, bridges that were built using a railroad company's standard designs, such as the B&O's Baltimore truss, will not be eligible under Criterion C for engineering significance due to its common use, unless they represent rare or exceptional surviving examples of a type.

Because they were well documented, and the physical remains have little potential information value, a grade separation structure will generally not be NRHP-eligible under Criterion D.

The period of significance for a grade separation structure eligible under Criterion C is usually tied to the date the structure was built.

Integrity. Besides meeting significance criteria, a grade separation structure also must retain integrity. Railroad-related alterations made during the period of significance may be considered part of the structure's historic fabric, as long as the alterations do not diminish the structure's historic association with the railroad or its architectural or engineering distinction. To retain integrity, a grade separation

<https://roads.maryland.gov/OPPEN/Historic%20Highway%20Bridges%20in%20Maryland%20-%201631-1960,%20Historic%20Context%20Report.pdf>.

¹⁷ These registration requirements for grade separation structures were developed by Robert M. Frame, "Reinforced Concrete Highway Bridges in Minnesota, National Register of Historic Places, Multiple Property Documentation Form," 1988, website at https://npgallery.nps.gov/NRHP/GetAsset/NRHP/64500291_text; Jeffrey A. Hess, "Minnesota Masonry-Arch Highway Bridges, National Register of Historic Places, Multiple Property Documentation Form," 1988, website at https://mn.gov/admin/assets/Minnesota%20Masonry-Arch%20Highway%20Bridges%20MPDF_tcm36-445042.pdf; Fredric L. Quivik and Dale L. Martin, "Iron and Steel Bridges in Minnesota, National Register of Historic Places, Multiple Property Documentation Form" 1988, website at https://mn.gov/admin/assets/Iron%20and%20Steel%20Bridges%20in%20Minnesota%20MPDF_tcm36-445040.pdf.

structure should meet the following requirements:

- It should retain the character-defining features directly associated with its significance. Because decking was periodically replaced to maintain the safety and operation of the bridge, its presence is not required.
- It will retain integrity of location by remaining in the original location where it was constructed. An exception to this is if it was relocated by the railroad company during its period of significance. An example is the Bollman Truss Bridge in Savage, Maryland, which was relocated to its current location in 1887 by the B&O Railroad. A relocated bridge would need to meet Criterion Consideration B.
- It will retain integrity of design by retaining sufficient original character-defining features to clearly illustrate its engineering and design. Minor repair of individual components of a structure might not affect its integrity of design, but large-scale alterations or complete replacement of a character-defining feature compromises the structure's integrity of design.
- Like integrity of design, the structure will retain integrity of material and workmanship by retaining its character-defining features. Minor repair of individual components of a bridge or viaduct might not affect its integrity, but large-scale alterations or complete replacement of one or more character-defining features will compromise its integrity of material and workmanship.
- To retain integrity of feeling, any modern alterations to the historical design or the addition of modern material to the structure should not be of such a scale or provide such visual contrast that it dominates the structure's overall appearance. A structure that retains integrity of design, materials, and workmanship also will retain integrity of feeling.
- To retain integrity of association, there should be a direct link between the structure and the significant engineering embodied in its design. A grade separation structure will retain its integrity of association if it retains integrity of location, materials, and design.

Weight of Integrity Aspects for Grade Separation Structures: The loss of integrity of a grade separation structure is very important and will figure heavily in its evaluation for NRHP-eligibility. The most important aspects of integrity for a structure are integrity of location, design, materials, workmanship, and association. Less important aspects are integrity of setting and feeling.

4.4 Facilities

Definition. Facilities include the wide variety of buildings and structures that are found in railroad yards, railroad stations, and railroad corridors (described below).

Resource Description. The majority of railroad facilities were critical to the operation of the railroad and were instrumental in the continued functioning and maintenance of the railroad engines, rolling stock, and ROW, all of which required constant and extensive upkeep. Most facilities were utilitarian, non-descript buildings designed by a railroad's engineering department using standardized plans. Others, such as depots, may have been designed by an engineer or architect hired by the railroad company. Facilities might include but are not limited to: depots, engine houses (including square and roundhouses), transfer tables and turntables, maintenance shops, car shop buildings, car sheds, power houses, water tanks, coaling facilities, ash pits, railroad yard offices, worker shelters, interlocking towers, oil houses, ice houses, tool houses, telephone boxes (booths), coal and wood sheds, privies, sand houses, section houses, oil houses, paint shops, blacksmith shops, pump houses, water stations, ice houses, and storage buildings. coaling stations, ice houses, maintenance shops, oil storage houses,

power houses, railroad yard offices, sand houses, section houses, tool houses, and water stations.

Character-Defining Features. The character-defining features of a railroad facility are the distinguishing characteristics, both structural and stylistic, of the original building constructed by the railroad company. Additions may be present, but the original building and all its distinguishing components must still be standing.

Eligibility Requirements

Significance. Where possible, individual facilities should be evaluated as components of larger railroad yards or railroad stations. Under Criterion A, most facilities, especially small utilitarian support buildings, will not be individually NRHP-eligible but may contribute to these larger resources. Substantial facilities such as depots or engine houses, due to their central importance, may be individually considered under Criterion A when these larger resources lack cohesiveness or have otherwise lost integrity.

A facility, either a small utilitarian structure or a larger one such as an engine house, will not typically be NRHP-eligible under Criterion B. Facilities were built and operated by large corporations that represent the work of many persons, instead of an individual. If a facility is associated with a significant architect, that significance is best addressed under NRHP Criterion C.

Under Criterion C, a facility may be NRHP-eligible if it embodies a distinctive architectural design, engineering achievement, or construction method or if it embodies the work of a significant architect, engineer, or builder. If the resource was designed by any person(s) listed in Section G of Part I, *Railroads in Maryland, 1827-1926*, which describes notable Maryland railroad architects and engineers, the resource may be NRHP-eligible under Criterion C. In rare cases, a facility may offer information about railroad activities not otherwise documented and may be considered under Criterion D.

The period of significance for a facility would be tied to its construction date and historically significant use.

Integrity. Facilities were sometimes altered and/or moved to serve changing functions, allow for upgrades, or for retrenching on a struggling railroad. Although a moved facility has lost some of its integrity, a facility might still be NRHP-eligible as a contributing component of a larger resource, such as a railroad yard, station, or corridor, for its strong historical association or its architectural, engineering, or technological significance. Alterations made during a facility's period of significance may be considered part of its historic fabric. To retain integrity, a facility should meet the following requirements:

- It will retain sufficient identifying character-defining features associated with its significance.
- It will retain integrity of location if it remains on its historical building site. For an engine house to retain integrity it must remain in its original location within its former railroad yard, station or corridor. Although all of the railroad yard, station, or corridor need not be present, there should be visible evidence of it to convey the engine house's historical location.
- A facility will retain integrity of design if it retains its original architectural, structural, and stylistic character-defining features.
- Like integrity of design, the facility will retain integrity of material and workmanship by retaining the character-defining features that were installed during the period of significance. If it has received modern materials or has had modern repairs, alterations, or additions, materials should be in-kind.

- It will retain integrity of workmanship, and the craftsmanship used to construct the building will still be visible, unless the facility is utilitarian in nature.
- To retain integrity of setting, it must remain physically and visually associated with a railroad yard, station, or corridor.
- It will retain integrity of feeling by retaining integrity of design, materials, and workmanship.
- It will retain integrity of association if it retains its original design and appearance.

Weight of Integrity Aspects for Facilities: The most important aspects of integrity of a facility will be its setting, materials, and association because these convey the facility's association with a railroad yard, station, or corridor. Location may also be important for facilities whose function is tied to their placement along the tracks, such as interlocking towers or water stations. Because facilities were sometimes altered and/or moved to serve changing functions, allow for upgrades, or for removal, numerous facilities may have lost integrity of location, design, workmanship, and materials. Relocated facilities that maintain their relationship to other features may retain integrity of setting.

4.5 Railroad Yards

Definition. A railroad yard lies within the railroad's ROW and includes a system of tracks, devices, and support buildings and structures that are associated with sorting, classifying, switching, disassembling, and assembling trains, as well as the construction, maintenance, service, and repair of a railroad's rolling stock. Railroad yards were located at certain points along a railroad corridor, such as large railroad stations, junctions, and other division points. The service facilities and complex trackage present within railroad yards were critical to the safe, efficient, and continual operation of a railroad and its network.

Resource Description. At a railroad yard, railroad corridors typically widen, and the trackage comprises a complex system that is critical to the efficient operation of the rail network. In a railroad yard, many tracks are laid down parallel to the through line, on one or both sides of the through tracks, or between sets of double tracks. Groupings of parallel tracks provide for the switching and storage of cars. Railroad yards also contain classification yards and repair and maintenance areas.

Historically, the most common buildings and structures in railroad yards included engine houses, shop buildings, turntables and transfer tables, yard offices, worker shelters, power houses, coaling stations, ash pits, water stations, ice houses, storage buildings, and interlocking towers. Railroad yards also contain ROW objects such as interlocking and signaling system, switching devices, track signs, utility lines, watchman's or flagman's cabin, mile posts, telephone boxes, transfer tables, and turntables.

Railroad yards also contain a variety of facilities that include buildings and structures associated with assembling and repairing of trains, such as an engine house, transfer table, turntable, maintenance shop, car shop buildings, car shed, power house, water tanks, coaling facilities, ash pit, railroad yard offices, worker shelter, interlocking towers, oil house, ice house, tool house, handcar house, telephone boxes, platform, platform house and shelters, coal and wood shed, privies, sand house, oil house, paint shop, blacksmith shop, pump house, water stations, ice houses, and storage buildings.

Character-Defining Features. The character-defining features of railroad yards are the presence of trackage in the original location, and devices, support buildings, and structures associated with sorting, classifying, switching, disassembling, and assembling trains. If a railroad yard historically featured an engine house and buildings to maintain and repair rolling stock, these should be present also.

Eligibility Requirements

Significance. A railroad yard may be individually eligible under Criterion A for transportation if it played an important role in the development of new railroad technology or the yard was the first or only one used to service important and influential types of rolling stock.

Railroad yards will generally not be NRHP-eligible under Criterion B. They were built and operated by large corporations that represented the work of many people, not individuals.

A railroad yard may be significant under Criterion C if it is an important example of a cohesively designed railroad yard system associated with innovative engineering and advances in classification. Documentation must exist that shows the railroad yard's significant contributions to the development of classification systems or repair and maintenance facilities. Railroad yards will generally not have significance under Criterion D. In rare circumstances, information about workers or railroad activities not otherwise understood may be identifiable from the physical elements of a yard, or associated archaeological deposits. The period of significance for a railroad yard would begin at the date that the railroad yard began its initial operation. If a railroad yard began as a classification yard but was later expanded with construction and maintenance facilities to become a railroad yard, its significance as a railroad yard would begin on the date when the additional services started.

The period of significance for a railroad yard is tied to its dates of operation and historically significant use.

Railroad yards generally will include both contributing and noncontributing resources. At a minimum, a railroad yard will contain a system of tracks, an engine house, and a support facility such as a yard office or maintenance and repair shop buildings. Unless the railroad yard is significant for its classification services, the classification tracks need not all be present, but there must be some trackage remaining within the yard. The percentage of required remaining trackage will differ between resources and must be assessed on an individual basis. The noncontributing resources should not visually overwhelm the contributing resources. For example, the noncontributing resources must not be a majority of the facilities in the railroad yard, and their height, massing, and materials should be compatible with the contributing resources in the district.

Integrity. In addition to meeting significance criteria, a railroad yard must retain integrity. To retain integrity, it must meet the following requirements:

- A railroad yard must retain sufficient character-defining features to be identifiable as a railroad yard.
- A railroad yard will retain integrity of location if it occupies its original site. Contributing resources should remain in their original locations so that the relationships between the resources and how they functioned are clearly illustrated.
- A railroad yard will retain integrity of design if it retains its overall layout from its period of significance. It also should have extant trackage, buildings and structures, and ROW objects, all of which should be in the locations that they occupied during the period of significance. The relationship between the resources should be clearly visible and illustrative of how the railroad yard functioned. The trackage, engine house, and extant support facility must retain integrity of design as well.
- A railroad yard will retain integrity of materials. The contributing facilities must retain a significant amount of original materials to convey the character and appearance of the yard during its period

of significance. If a railroad yard has a high degree of integrity of location, design, and materials, it does not have to have integrity of setting, provided that the scale, massing, height, and size of new construction or alterations to adjacent properties do not interfere with the district's ability to convey its historic character.

- If a railroad yard retains its integrity of location, design, and materials, it will retain integrity of feeling and association.
- A railroad yard will not have to retain integrity of workmanship due to its utilitarian nature and the standardized design of many of its components. Some buildings, however, might exhibit workmanship in their construction, such as those built of stone or brick masonry. The craftsmanship used to build the buildings should still be apparent.

Weight of Integrity Aspects for Railroad Yards: The most important aspects of integrity of a railroad yard will be its location, design, materials, feeling, and association because these aspects convey the facility's relationship to and association with a railroad corridor. Less important aspects are integrity of setting and workmanship.

4.6 Railroad Stations

Definition. A railroad station lies within the railroad ROW as a commercial center or passenger. Its location was designated historically by name in railroad timetables. A railroad station consists of buildings, structures, and objects used for loading and unloading passengers and freight and for operational needs. It differs from a depot in that a depot refers to the specific building used for loading passengers and freight within a railroad station. A station includes not only the depot but numerous other buildings, structures, and objects.

Description. Where railroad yards provided for the maintenance, repair, sorting, and classification of railroad engines and rolling stock, railroad stations were the commercial nodes of a railroad corridor. The most common resources contained in a railroad station are trackage, depots (passenger, freight, or combination), support facilities, as well as commercial buildings and structures in the ROW (that may or may not be owned by the railroad company).

Character-Defining Features. The character-defining features of railroad stations are the presence of trackage, ROW objects, support facilities, and a depot, all of which would have been constructed by the railroad company during its period of significance.

Eligibility Requirements

Significance. A railroad station generally will include both contributing and noncontributing resources. A railroad station may share facilities with a railroad yard; however, a railroad station will not include the following resources because these are found only in railroad yards: classification yards, yard offices, worker shelters, and engine shops. Some of the original trackage should be present in a railroad station to convey the railroad station's association with a railroad.

A railroad station may be eligible under Criterion A for transportation if it was a significant contributor to the economic growth of surrounding commercial or industrial operations; if it served as a significant regional distribution center of commercial or industrial products; or if it served as a significant regional transportation center for passengers. Railroad stations will rarely be eligible under Criterion B. They were built and operated by large corporations that represented the work of many people, not individuals. Most railroad stations are collections of many service and maintenance buildings that were gradually

added to accommodate increases in local passenger and freight traffic. Although they generally are not the result of a single design, engineering, or construction event, a railroad station may comprise multiple architecturally significant buildings and structures or demonstrate a significant design achievement as a whole, and railroad stations may be NRHP-eligible under Criterion C for engineering and architectural significance. If the station has buildings or structures designed by any person(s) listed in Section G of Part I, *Railroads in Maryland, 1827-1926*, which describes notable Maryland railroad architects and engineers, it may be NRHP-eligible under Criterion C. Railroad stations will generally not have significance under Criterion D. In rare circumstances, information about workers or railroad activities not otherwise understood may be identifiable from the physical or archaeological elements of a station.

A railroad station's period of significance is tied to the dates of its construction and operation and historically significant use.

Integrity. To retain integrity, a railroad station must meet these requirements:

- A railroad station must retain sufficient character-defining features to be identifiable as a railroad station.
- To retain integrity of location, a majority of the contributing resources will be in their original locations.
- Buildings and structures within a railroad station were usually not designed as a single entity, but they were added to the station over time as needed. Therefore, overall integrity of design for the layout of a railroad station is not critical unless the station is significant under Criterion C.
- To retain integrity of materials, a majority of the contributing resources will retain their original building materials. Alterations made to them during the period of significance may be considered part of their historic fabric as long as the alterations do not diminish the building or the station's historic association with the railroad.
- Integrity of setting is not necessary, as long as the railroad station retains integrity of location, design, and materials.
- To retain integrity of feeling and association, a railroad station will retain integrity of location, design, and materials.
- Integrity of workmanship is not necessary for a railroad station due to the utilitarian nature of the facilities and their standardized designs. Some contributing resources within the railroad station might have a high degree of workmanship, however, such as brick or stone masonry buildings. The craftsmanship used on those buildings should be apparent.

Weight of Integrity Aspects for Railroad Stations: Like a railroad yard, the most important aspects of integrity of a railroad station are its location, design, materials, feeling, and association because these aspects convey the facility's relationship to and association with a railroad corridor. Less important aspects are integrity of setting and workmanship. Physical changes in a railroad's environment over time are not unusual and were expected as a result of the railroad's construction. Lastly, a railroad station generally will not exhibit integrity of workmanship due to the utilitarian design of many of its buildings and structures.

4.7 Railroad Corridors

Definition. A railroad corridor includes the railroad ROW owned by a railroad company, as well as all the associated elements within the ROW that were used together for the dedicated purpose of operating trains to transport passengers and freight.

Description. A railroad corridor will include within its boundaries some or all of the railroad resource types described above: Trackage, ROW Objects, Facilities, Grade Separation Structures, Railroad Yards, and Railroad Stations. The locations of the elements historically varied according to local geography, the existence of other railroad corridors and vehicular roads, the markets that the railroad served, and population. The linear nature of a railroad corridor is an important characteristic that conveys the sense of a train traveling to a destination. Significant railroad corridors can be characterized by the important connections they made or by the types and volumes of traffic they carried. Active railroad corridors will retain trackage, including the trackbed, subgrade, ballast, tracks, rails, and ties and connectors. Abandoned railroad corridors usually do not contain the complete trackage but often retain the trackbed or subgrade. A discussion of abandoned railroad corridors is presented below in Section 4.8.

Character-Defining Features. The railroad corridor's character-defining features generally include: the trackage alignment, ROW objects, grade separation structures, facilities, and any included railroad yards, and railroad stations. At a minimum, a railroad corridor should have most of its trackage in its original location and an assemblage of ROW objects from the railroad's period of significance. Most grade separation structures, facilities, railroad yards, and railroad stations will still be present in a railroad corridor.

Eligibility Requirements

Significance. This context identifies ten Foundational Maryland Railroads that are the most likely railroad resources in the state for which the entire railroad corridor may be historically significant. This section of the context provides eligibility requirements for formally evaluating these ten corridors. If additional corridors are identified as significant in the future, these requirements will also be applicable.

For NRHP-eligibility under Criterion A, a railroad corridor's area of significance will most commonly be transportation. The significant associations with Maryland's railroad history can be any of those that are described in Part I of this context. For a railroad corridor to be eligible under Criterion A for its association with transportation, it should meet at least one of the following significance requirements:

- The railroad corridor provided transportation between an area containing a significant resource category or a significant manufacturing or commercial activity and an important transfer point or terminal market for commodities, products, or services. Furthermore, the railroad corridor either established a railroad connection that did not exist previously, or it served as a primary transportation corridor for a connection, and the establishment of the connection was followed by a significant expansion of an industrial, commercial, or agricultural practice.
- The railroad corridor was an influential component of Maryland's railroad network, or it made important early connections within the network or with other modes of transportation.
- The railroad corridor provided a critical link or junction between two or more important railroad corridors, and the connection led to significant expansion of operations in the transportation network or in commerce and industry. The corridor directly contributed to the development of the commercial or industrial operations, or it influenced transportation patterns in an area of heavy railroad traffic.

Most railroad corridors will not be eligible under Criterion B. Railroad corridors and their components were built and operated by large corporations that represented the work of many people, not individuals. Railroad corridors characterized by significant architectural or engineering achievements may be NRHP-eligible under Criterion C. Railroad corridors will rarely have significance under Criterion D. Corridors as a whole have been thoroughly documented, and the majority of a corridor consists of trackage joining destinations such as stations and yards. Individual locations with specific information potential are more appropriate candidates for consideration under Criterion D.

Criteria Considerations will not apply to railroad corridors.

A railroad corridor's period of significance would begin with its initial construction date or the establishment of significant operations, and it will end when the railroad's significant operations ended. Railroad corridors may have relatively long periods of significance, depending on the area of significance and the contexts with which they are associated. When a railroad corridor is associated with broad historic patterns in Maryland or a region of the state, its period of significance will be the time when the corridor provided the significant transportation connection to a region or to specific commercial, industrial, or tourist operations. If the railroad corridor is significant for its association with the opening of a resource procurement area or for connecting significant commercial or industrial operations, the end date of the period of significance should coincide with the end date of the significance of the resource or the commerce/industry to which it pertains. It is important to distinguish between the time when a corridor played a significant transportation role and the time when it only provided a useful service. Just because a railroad corridor continues to be used does not necessarily mean that the period of significance should be continued. A railroad corridor will have a single period of significance even if there were multiple construction episodes; the period should include all episodes. Railroad-related alterations made to the corridor and its resources during the period of significance may be considered part of a corridor's historic fabric as long as the alterations do not diminish its historic association with the railroad or its architectural or engineering distinction.

Integrity. In addition to meeting NRHP significance criteria, a railroad corridor must retain historic integrity. Because railroad corridors are so long, the terrain and regions through which they travel and the populations and functions they serve can vary widely within one corridor. Consequently, it is possible for a railroad corridor to be composed of both contributing and noncontributing segments. One segment of the corridor might have been altered to such a degree that it lacks integrity and is therefore a noncontributing segment of the railroad corridor, while other segments retain integrity due to a minimum of alterations. In cases of mostly or entirely abandoned railroad corridors, see Section 4.8.

A railroad corridor retains historic integrity when intact contributing segments are able to convey the historically significant linear railroad corridor. Theoretically, the contributing segments should comprise the majority of the railroad corridor. This, however, is not always the case. The percentage of contributing segments to a railroad corridor will vary and should be considered on an individual basis.

To retain historic integrity the following requirements must be met:

- A railroad corridor will retain sufficient character-defining features to be identifiable as a railroad corridor. Although some of these components may be missing, a majority of them should be present. This cannot be quantified in this historic context but will be assessed on a case-by-case basis. Note that not all character-defining features will contribute to a railroad corridor's significance. Character-defining features may fall outside the period of significance, lack integrity, or lack associations with the corridor's historical significance.

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- A railroad corridor will retain integrity of location. Location is the area where the components of a railroad corridor were constructed. To retain integrity of location, the corridor must be located within the horizontal and vertical alignment that was present during the period of significance. If changes in the alignment were made during the period of significance, it will not compromise the corridor's integrity. These alterations reflect historic trends or operational changes for a railroad and are part of the history of the railroad corridor. A majority of the components of the railroad corridor also should remain where they were constructed. Again, this cannot be quantified in this historic context but will be assessed on a case-by-case basis.
- A railroad corridor will retain integrity of design. Design is the assembly of planned, developed, and constructed components within a railroad corridor that created its form, layout, and structure and are its character-defining features. The components comprise the contributing and noncontributing resources of the corridor. A majority of contributing resources must retain integrity of design to effectively illustrate the district's historic appearance. Aside from the alignment, entire railroad corridors were rarely designed and built in a single episode. Sections of the railroad were constructed or reconstructed as financial conditions allowed and as needed for operating requirements. Although the design of a railroad evolved over time, this integrity aspect is important because it conveys a corridor's function as a railroad. For a railroad corridor to retain integrity of design, the corridor must retain integrity of location. In addition, the elements of the trackage should remain to convey the corridor's function. If changes were made to the trackage after the end of the period of significance, this will affect integrity of design.
- A railroad corridor will retain integrity of materials. To retain this aspect, the railroad corridor will retain some of the physical materials of its character-defining features from its period of significance. Not all of them need to be present, due to the large number of elements that form a railroad corridor, but a majority of the original materials of the character-defining features should remain.
- A railroad corridor does not need to retain integrity of setting. The setting of a railroad corridor will have changed over time, due in part to the influence of the railroad.
- A railroad corridor will retain integrity of feeling. Feeling is conveyed by a railroad corridor's ability to illustrate its historic function during its period of significance. For a railroad corridor to retain integrity of feeling, a majority of other resources within the district should remain, such as the trackage, facilities, ROW objects, grade separation structures, depots, facilities, railroad stations, and railroad yards. The more resources that remain, the greater the integrity of feeling will be.
- A railroad corridor will retain integrity of association if it retains integrity of location, materials, design, and feeling.
- Workmanship is not necessary when evaluating the integrity of a railroad corridor due to the utilitarian nature of the resource and standardized designs of many of the corridor's components. Some individual components however, such as depots or bridges, may exhibit a high degree of workmanship. In such cases, evidence of the craftsmanship used to build the building or structure should be clear.

Boundaries. In evaluating the NRHP-eligibility of a railroad corridor, the boundaries are generally the historical ROW in which the railroad company built and operated the railroad. If the current ROW is different than the historic ROW, then the historic ROW will determine the boundaries of the railroad corridor. If there are portions of the historic ROW that are no longer in the current ROW, and they no longer illustrate their association with the railroad, then the railroad corridor's boundaries may be the boundaries of the current ROW.

Weight of Integrity Aspects for Railroad Corridors: Much like a district, a railroad corridor may be an assemblage of components that lack individual distinction but achieve significance as a whole. For railroad corridors, greater importance will be placed on integrity of location, design, feeling, and association. It is important that the alignment conveys the linear connectivity among resources along the line and that individual resources that make up the corridor remain in their original location and generally retain their designed layout and appearance.

4.8 Evaluating Abandoned Railroad Corridors for NRHP Eligibility¹⁸

Abandoned or decommissioned railroad corridors, those which are no longer in operation and have had their tracks removed, will generally not be NRHP-eligible. These former rail lines are present throughout Maryland, often located along the highways that supplanted them. Where ground modifications have been obscured by vegetation or interrupted by regrading or new development, these unmaintained segments of railroad have lost an important character-defining feature of the trackage: the visual continuity of its alignment. Such alterations result in the loss of integrity of design, material, workmanship, feeling, and association, and the corridor is not eligible. Although segments of subgrade, ROW objects, some facilities, and grade separation structures might still exist in the corridor, without continuous trackage, the railroad has lost integrity and is not eligible.

Abandoned railroad segments can be eligible for NRHP listing as contributing resources to significant railroad stations or railroad yards or for associations with significant engineering achievements provided they retain sufficient integrity to convey those associations.

Abandoned railroad corridors are frequently reused for rail trail projects which repurpose the existing subgrade or trackbed for recreation. Rail trail projects that reuse the established railroad grade may not affect the eligibility of a railroad resource if the subgrade retains integrity and the visual continuity of the alignment remains intact.

¹⁸ C. Fraser and J. Strand, 1997.

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Part III

Survey Methodology and NRHP Evaluation of Railroad Resources

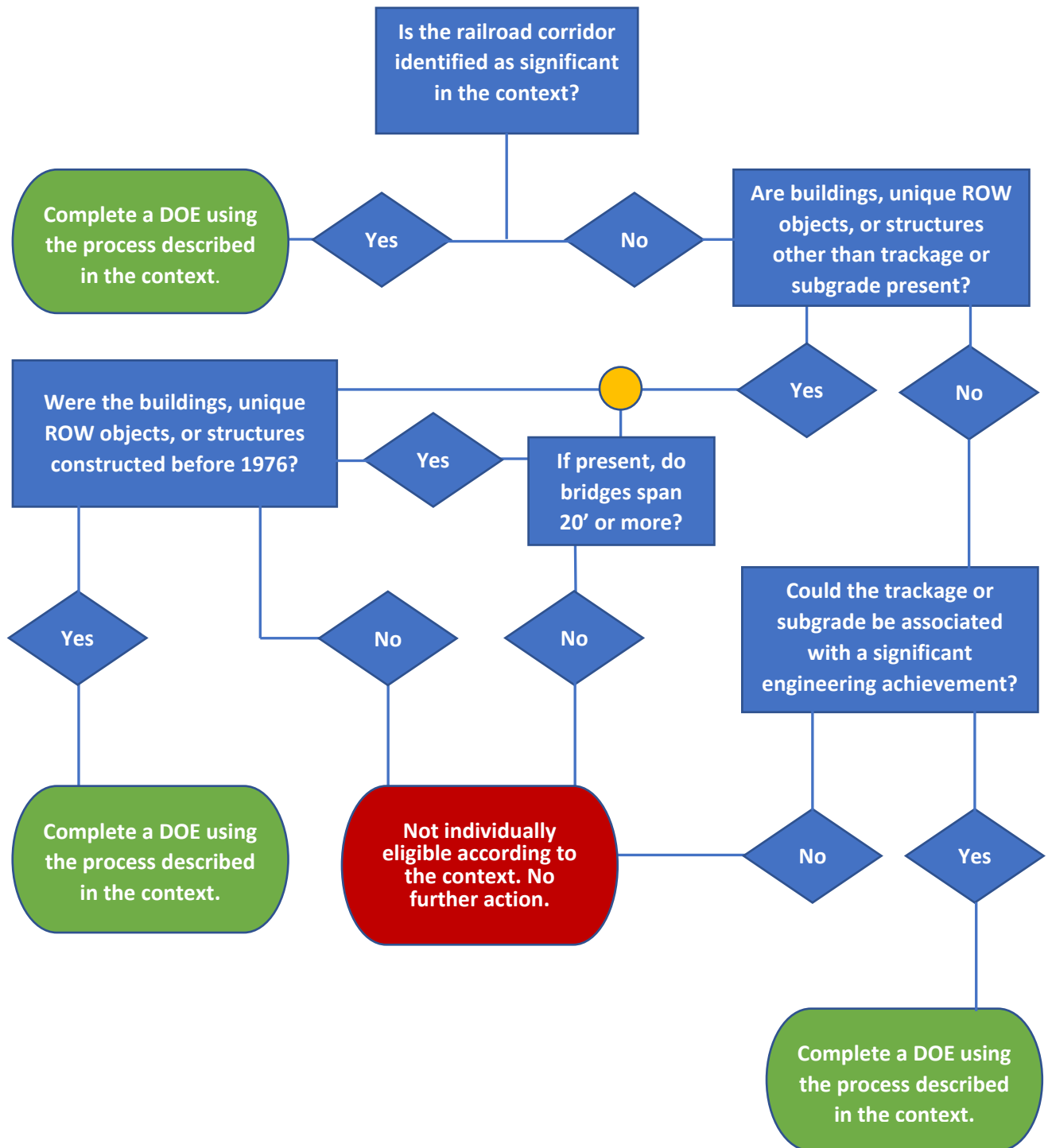
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MARYLAND RAILROADS STATEWIDE HISTORIC CONTEXT

APPENDIX A

EVALUATION FLOWCHART

PROCESS FOR EVALUATING MARYLAND'S RAILROAD RESOURCES



MARYLAND RAILROADS STATEWIDE HISTORIC CONTEXT

APPENDIX B

**LIST OF RAILROADS IN
MARYLAND
1827 - 1976**

1.0 Introduction

The following list of railroads in Maryland was collected using a combination of railroad maps, existing research, and other available information. Emphasis was placed on railroad lines that were in operation for period of at least twenty years and those major national, regional, or county-specific railroads rather than smaller private branches or sidings. However, where information was available, some lines of shorter duration or alternate purposes are included here. Each line is listed by its historical name, with alternate names and associations also provided. Counties of operation and the approximate route limits are included for each, along with the line's status (active, abandoned, etc.), important dates, and associated people. Because the MIHP and NRHP status of these lines is subject to change over time, this information is not included in the table.

This list is not intended to be comprehensive of all Maryland railroads, but it will provide a starting point for identification and subsequent research for rail lines encountered during survey.

Maryland Railroads Statewide Historic Context – List of Railroads in Maryland 1827 - 1976

| Historical Name | Mark or Acronym | Counties of Operation | Route Limits | Status as of 2023 | Important Dates | Associated Architects, Engineers, or Presidents | Other Names, Associations, and Preceding or Succeeding Railroad Lines and Companies |
|---|-----------------|--|---|-------------------|---|--|--|
| A.G. Miller & Company | | Garrett | 3-4 Miles along Steyer Run | Abandoned | 1900 | Unknown | Unknown. |
| Annapolis & Elk Ridge Railroad | A&ER | Anne Arundel, Baltimore | Elk Ridge Landing to Annapolis Junction where it joined the B&O | Abandoned | Chartered 1837 with construction starting in 1838. Service inaugurated 1840. Active from 1840-1935. | Unknown | Washington, Baltimore, and Annapolis Electric Railway (1902). 1906--merged with Maryland Electric Railways. Became the W.B. & A. in 1921. The W.B. & A. was dissolved in 1935. B & A Railroad turned to freight in the 1950s. Other names and lines include the Annapolis, Washington, and Baltimore Railroad; Baltimore and Annapolis Short Line; Annapolis Short Line. |
| Amtrak | | Prince Georges, Howard, Baltimore City, Baltimore County, Harford, Cecil | Washington, D.C. to the Maryland-Delaware state line at Elkton | Active | Founded in 1971 | Unknown | In Maryland, Amtrak owns and operates the former Pennsylvania Railroad/Philadelphia, Baltimore & Washington Railroad line between Washington, D.C., Baltimore, and the Maryland-Delaware state line in Cecil County. |
| Bachman Valley | | Carroll County | Valley Junction PA to Ebbvale, Maryland 13 miles. | Abandoned | Chartered in 1871. Active from 1873-1917. Abandoned in 1922. | Unknown | In 1886 Buchman Valley merged with Baltimore and Hanover Railroad and the Hanover Junction, Hanover, and Gettysburg Railroad to form the Baltimore and Harrisburg Railway. It became part of Western Maryland in 1917. |
| Baltimore & Drum Point | | Baltimore, Anne Arundel, Calvert (never built) | 34 miles linking Eastern Maryland, Baltimore, and Drum Point. The RR was never completed. | Unfinished | Chartered in 1868. Construction began in 1888 | Fredrick Barreda (early private investor); Geo. W. Hughes (chief engineer) | Unknown. |
| Baltimore & Eastern Shore | B&ES | Worcester, Wicomico, Dorchester, Talbot | Clairborne to Ocean City | Absorbed | Chartered in 1876. Active from 1894-1928. | Unknown | Predecessor of the Baltimore & Eastern Shore Railroad. Also known as Baltimore, Chesapeake & Atlantic (1894), Nicknamed the Black Cinders & Ashes Wicomico and Pocomoke Railroad Controlling interest sold to PRR in 1899. |
| Baltimore & Ohio Main Stem/Old Main Line | B&O | Baltimore City, Baltimore County, Howard, Carroll, Frederick, Allegany, Garrett, | Baltimore City to Maryland-West Virginia state-line near Oakland | Partially active | Chartered 1827, opened 1830; reached Cumberland in 1842, Ohio River in 1856 | Jonathan Knight (chief engineer), Benjamin Latrobe (bridge engineer) Ephraim Francis Baldwin (Chief Architect), Thomas Heskett (Surveyor), John Niernsee (Apprentice to Benjamin Henry Latrobe II), Wendel Bollman (Carpenter, Foreman of Bridges, Master of Roads); President John Work Garrett | Foundational Maryland Railroad. Succeeded by Chessie System (1973) and CSX (1980); corporate existence ended 1987. |

Maryland Railroads Statewide Historic Context – List of Railroads in Maryland 1827 - 1976

| Historical Name | Mark or Acronym | Counties of Operation | Route Limits | Status as of 2023 | Important Dates | Associated Architects, Engineers, or Presidents | Other Names, Associations, and Preceding or Succeeding Railroad Lines and Companies |
|---|-----------------|---|---|---------------------|--|---|--|
| Baltimore & Ohio Metropolitan Branch | B&O | Frederick and Montgomery | Washington, D.C. to Point of Rocks, Frederick County | Active | Construction begun 1867; completed 1873 | John Work Garrett, President | Foundational Maryland Railroad. Succeeded by Chessie System (1973) and CSX (1980); corporate existence ended 1987 |
| Baltimore & Ohio Washington Branch | B&O | Howard and Prince Georges | Howard County line to Washington, D.C. | Active | Completed 1835 | John Work Garrett, President | Foundational Maryland Railroad. The B&O's first branch line was completed between the Main Stem and Washington, D.C. in 1835. |
| Baltimore & Ohio Baltimore Belt Line | B&O | Baltimore | Connect B&O Main Line with its Philadelphia Branch | Active and absorbed | Electrified line opened 1895; tunnels non-electrified '952 | Unknown | Foundational Maryland Railroad. B&O/Chessie System/CSX |
| Baltimore & Potomac | B&P | Baltimore, Prince Georges, Charles | Baltimore to Washington, D.C. | Absorbed | Founded in 1853. Active from 1872-1902. | Founded by Oden Bowie, Walter Bowie, and Thomas Fielder Bowie | Subsidiary of Philadelphia, Washington & Baltimore Railroad (PRR subsidiary in 1881). Controlling interest sold to PRR in 1899. For a time known as the Baltimore & Aquia; Popes Creek Branch PRR. |
| Baltimore & Philadelphia | | Baltimore City, Baltimore County, Harwood Cecil | Baltimore to Maryland-Delaware State Line in Cecil County | Active | Active from 1886-1989 | Unknown | Constructed after the B&O lost the stock battle for control of the Philadelphia, Wilmington & Baltimore to the Pennsylvania Railroad. Later became a part of the Chessie System and CSX. |
| Baltimore & Port Deposit | | Cecil, Harford, Baltimore | Havre de Garce to Baltimore. | Absorbed | Founded in 1831; part of PW&B in 1836 | Unknown | Merged with other railroads to form the Philadelphia, Wilmington & Baltimore (PW&B) in 1836. |
| Baltimore, Chesapeake & Atlantic | BC&A | Talbot, Dorchester, Wicomico, Worcester | Saint Michaels to Ocean City | Absorbed | Chartered in 1876. Active from 1894-1928. | Unknown | Foundational Maryland Railroad. Subsidiary of Baltimore & Eastern Railroad. Later became a part of the PRR. Also known as Black Cinders and Ashes. |
| Baltimore, Hampden & Towsontown | | Baltimore County | Baltimore to Towson | Absorbed | Active from 1874-1878. | Unknown | Formed the Baltimore and Delta Railway in 1878. |
| Bear Creek Railroad | | Garrett | Friendsville, MD 26 mi. to an unspecified location | Abandoned | Timber railroad; starting date unknown. Active until 1912 | Unknown | Unknown. |
| Blue Jay Lumber Company | | Garrett | Pocahontas, WV - Garrett County | Abandoned | Timber railroad active from 1898-1902. | Unknown | Unknown. |
| Chesapeake Beach Railway | CBR | Calvert | Washington, D.C. to Chesapeake City | Converted | Active From 1896-1935. | Otto Mears | Successor to the East Washington Railway. |
| Chessie System | | | | Absorbed | Founded 1973; became part of CSX in 1980. | Hays T. Watkins | Corporate successor to the B&O, Chesapeake & Ohio Railway, and Western Maryland |

Maryland Railroads Statewide Historic Context – List of Railroads in Maryland 1827 - 1976

| Historical Name | Mark or Acronym | Counties of Operation | Route Limits | Status as of 2023 | Important Dates | Associated Architects, Engineers, or Presidents | Other Names, Associations, and Preceding or Succeeding Railroad Lines and Companies |
|--------------------------------------|-----------------|--|--|--|--|---|--|
| Columbia & Port Deposit | C&PD | Cecil | Columbia PA to Port Deposit MD | Absorbed | Chartered in 1858. Construction began in 1866. Active from 1868-1916. | Unknown | Became the Columbia and Port Deposit Railway in 1890. Was purchased and merged into the Philadelphia, Wilmington, and Baltimore Railroad by 1916. Electrified in 1938; electrification removed 1981. Known as the Washington and Maryland Line Railroad and the Columbia and Maryland Line Railroad. |
| Confluence & Oakland | CO | Garrett | Confluence, PA through Friendsville to Kendall, MD. 19.7 miles. | Absorbed | Active from 1889-1917. | Unknown | Operated by the B&O beginning in 1917. |
| Cumberland & Pennsylvania | C&P | Allegany | Cumberland through Georges Creek and Jenning Run Valleys to Piedmont WV; 195 miles. South Penn Branch Line was an additional 26 miles. | Absorbed | Active from 1850-1944. | Unknown | Foundational Maryland Railroad. Consolidation Coal 1860; Western Maryland (WM) acquired in 1944. Also known as the Mount Savage Railroad. |
| Cumberland Valley | CVRR | Washington | Chambersburg, PA to Hagerstown (1859); to Martinsburg, WV (1873) to Winchester, VA (1889) - connection with Norfolk & Western (N&W) and WV coal and timber | Partially active and partially abandoned | Active from 1837-1919. | Unknown | Subsidiary of The South Penn Branch connected the CVRR main line to an iron furnace near Cowans Gap. PRR control by 1889; merged into It became the PRR 1919. |
| Delaware Railroad | | Kent, Queen Anne's Talbot, Caroline, Dorchester, | 95.2 miles from Northern Delaware to Delmar on the Delaware-Maryland state line. | Absorbed | Active from 1867-1976. | John M. Clayton | Subsidiary of the PRR; absorbed into Conrail in 1976. |
| Dorchester & Delaware | | Dorchester and Caroline | 27 miles in Maryland. Cambridge, Dorchester County, to Seaford, Delaware | Absorbed | Chartered 1866. Construction began in 1868 and was completed in 1869. Active until 1883. | Unknown | Acquired by the PW&B/Delaware Railroad in 1882; became known as the Cambridge and Seaford Railroad. Was included in the Delaware Railroad Corporation in 1899. Also known as the Cambridge and Seaford, Delaware RRs, Cambridge RR, Delaware Division. |
| Eastern Shore | ESHR | Worcester | 96 miles from Pocomoke City, Maryland, and Norfolk, Virginia | Active | Active from 1981-2006. | Unknown | Chartered in 1833. Predecessor was Virginia and Maryland Railroad. Successor is the Bay Coast Railroad. |
| Eckhart Branch | C&P | Cumberland | 14 miles from Eckhart to Potomac Wharf Branch. | Abandoned | Active from 1846-1870. | Unknown | Maryland Mining Company of Eckhart Mines, Maryland. Acquired by the Cumberland & Pennsylvania Railroad in 1870. |

Maryland Railroads Statewide Historic Context – List of Railroads in Maryland 1827 - 1976

| Historical Name | Mark or Acronym | Counties of Operation | Route Limits | Status as of 2023 | Important Dates | Associated Architects, Engineers, or Presidents | Other Names, Associations, and Preceding or Succeeding Railroad Lines and Companies |
|---------------------------------------|-----------------|-----------------------|--|-------------------|--|---|--|
| Emmitsburg | | Frederick | Rocky Ridge to Emmitsburg | Abandoned | Incorporated in 1868. | Unknown | Unknown. |
| F.H. Whaley | | Garrett | 4-mile track in Garrett County | Abandoned | Active from 1908-1911 | Unknown | Unknown. |
| Franklin | | Washington | Hagerstown to the Cumberland Valley Railroad which ran from Chambersburg to Harrisburg, PA | Absorbed | Incorporated 1832. Active 1841-1849. | Unknown | Became the Cumberland Valley Railroad in 1849. |
| Frederick & Pennsylvania Line | F&PL | Frederick and Carroll | 28 miles from Frederick to Kingsdale, PA | Absorbed | Active from 1872-1982. | Unknown | PRR Frederick Division until 1895; renamed the York, Hanover & Frederick, a PRR subsidiary |
| Georges Creek | C&P | Allegany | Piedmont, WV to Lonaconing to Frostburg | Active | Began operation 1853; acquired by the Cumberland & Potomac in 1863 | Unknown | Built by Georges Creek Coal and Iron Company. Acquired by the Cumberland & Potomac in 1863. |
| Georges Creek & Cumberland | | Allegany | Cumberland to Lonaconing | Abandoned | Active from 1876-1917. | Unknown | Acquired branch bet. Cumberland & PA State Line in 1888. The Western Maryland merged from 1913-1917. |
| George D. Browning | | Garrett | Oakland, MD | Abandoned | Active from 1915-1925. | Unknown | Unknown. |
| Green Ridge | | Allegany | Okonoko, WV, Town Hill, and Fifteen Mile Creek | Abandoned | Active from 1883-1891. | The line belonged to the Mertens family. | Unknown. |
| Hench-Drumgold and Stull | | Garrett | Dill/ Potomac Manor to Lost Land Run | Abandoned | Active from 1894-1897. | Unknown | Unknown. |
| Henry G. Davis | | Garrett | Deer Park, MD | Absorbed | Active from 1867-1892. | Unknown | Unknown. |
| Jennings Brothers | | Garrett | Casselman Valley to Jennings. Connected to the B&O system via Worth Junction and the Salisbury Branch Railroad in Pennsylvania | Abandoned | Active from 1902-1959. | Jenning Brothers | Northern Maryland & Tidewater, Casselman River Railroad. |
| J.L. Rumbarger Parsons Pulp and Paper | | Garrett | Unknown | Abandoned | Active from 1901-1917. | Unknown | Unknown. |
| Juniata Lumber Company | | Allegany | Midlothian-12 miles of track | Abandoned | Active from 1908-1912. | Unknown | Unknown. |
| Kulp Lumber Company | | Allegany | Oldtown, MD-north 24 miles | Abandoned | Active from 1906-1912. | Unknown | Unknown. |
| Maryland & Delaware (1857) | | Talbot, Queen Anne's | 120 miles | Absorbed | Active from 1857-1880. | Unknown | PWB (1882); Delaware RR/PRR 1899. Also known as the Delaware and Chesapeake (1880-1882). |

Maryland Railroads Statewide Historic Context – List of Railroads in Maryland 1827 - 1976

| Historical Name | Mark or Acronym | Counties of Operation | Route Limits | Status as of 2023 | Important Dates | Associated Architects, Engineers, or Presidents | Other Names, Associations, and Preceding or Succeeding Railroad Lines and Companies |
|---|-----------------|--|---|---|--|---|--|
| Maryland & Delaware (1977) | MDDE | Dorchester, Caroline, Queen Anne's | 120 miles- Centreville, Chestertown, and Seaford Lines, as well as the now abandoned route between Clayton, DE, and Easton, MD. The Seaford Line runs between Seaford, DE, and Cambridge, MD. The Centreville Line runs between Townsend, DE, and Centreville, MD. The Chestertown Line runs between Massey and Worton, MD. | Active | Active from 1977-present. | Unknown | Successor of the Delaware & Chesapeake Railway. |
| Maryland, Delaware & Virginia | MDV | Kent, Queen Anne's, Caroline | Queenstown, MD (later Love's Point) to Lewes, DE | Partially absorbed and partially abandoned. | Chartered 1894; Active from 1905-1923. | Unknown | Successor to the Queen Anne's Railroad |
| Maryland & Pennsylvania | Ma & Pa | Baltimore, Harford | Baltimore and York, PA | Abandoned | Active from 1901-1999 | Unknown | Baltimore & Delta 1878-1884; Central Maryland 1884-1889; Baltimore & Lehigh 1891-1893; Maryland & Pennsylvania (Ma and Pa) 1901 to 1980s |
| McKelvey Forest Products | | Garrett | Shaw, WV to unknown | Abandoned | Active from 1928-1934. | Unknown | Unknown. |
| Morrison-Gross and Company | | Garrett | 14 miles in Garrett | Abandoned | Active from 1924-1935. | Unknown | Unknown. |
| Mount Savage | | Allegany | 14.9 miles from Frostburg to Cumberland | Active | Active from 1845-1854. | Unknown | Built by the Maryland and New York Iron and Coal Company; absorbed into the Cumberland & Pennsylvania in 1854 |
| Maryland Rail Commuter (MARC) | | Prince George's, Howard, Baltimore County, Baltimore City, Montgomery, Frederick | Baltimore-Washington, D.C., Washington D.C - Martinsburg, W.V, also Frederick, M.D.-several stops in between each route. | Active | Active from 1970-current. | Unknown | Formerly commuter trains operated by the B&O and PRR; operator using CSX and Amtrak railroad tracks. |
| New Castle & Frenchtown | NC&F | Cecil | Porter, Delaware, to Frenchtown, Maryland | Active | Active from 1831-1877. | Unknown | Unknown. |
| New Castle & Wilmington | | Baltimore | New Castle to Wilmington Delaware | Abandoned | Active from 1852-1856. | Unknown | Merged with other railroads into the Philadelphia, Wilmington, and Baltimore Railroad |
| New York, Philadelphia & Norfolk | NYP&N | Wicomico, Somerset, Worcester | Extension of Delaware RR from Delmar, DE to Cape Charles, VA | Abandoned | Active from 1884-1921. | William Lawrence Scott | Foundational Maryland Railroad. Subsidiary of PRR; formally merged into the PRR/Delaware RR in 1921; part of Conrail in 1976. |
| Norfolk & Western | NW | Washington | | Absorbed | Active from 1870-1982. | Unknown | See Shenandoah Railroad |

Maryland Railroads Statewide Historic Context – List of Railroads in Maryland 1827 - 1976

| Historical Name | Mark or Acronym | Counties of Operation | Route Limits | Status as of 2023 | Important Dates | Associated Architects, Engineers, or Presidents | Other Names, Associations, and Preceding or Succeeding Railroad Lines and Companies |
|---------------------------------|-----------------|--|---|---------------------------------------|---|--|---|
| Northern Central Railway | NCRY, NCR | Baltimore | Baltimore to Sunbury, PA | Partially active, partially abandoned | Active from 1854–1976. | Unknown | Foundational Maryland Railroad. Founded as the Baltimore & Susquehanna in 1829; reorganized as the Northern Central in 1854; PRR control in 1861. |
| Northern Maryland & Tidewater | | Garrett | Along the Casselman valley into Maryland from 1900 to 1902. In 1902, work was completed on an eight-mile standard gauge line that ran to the company mill at Jennings. The railroad linked the upper river valley to the Baltimore & Ohio system via Worth Junction and the Salisbury Branch Railroad in Pennsylvania | Absorbed | Active from 1902-1959. | Jenning Brothers | Also known as the Jennings Brothers Railroad, Casselman River Railroad. |
| Parkton & Manchester | | Baltimore | 14 miles but unfinished | Abandoned | Active from 1876-1877. | Unknown | Unknown. |
| Patapsco & Back Rivers Railroad | PBR | Baltimore | Sparrows Point area | Active | Active 1889-present | Unknown | Founded by the Bethlehem Steel Corporation as the Baltimore and Sparrows Point Railroad Company (1889-1916); served Sparrows Point Terminal area as a switching and terminal railroad. Also known as the Baltimore Industrial Railroad (2012-2014) and Tradeport Rail (2014-present). |
| Pennsylvania | PRR | See Delaware Railroad, Northern Central, and Philadelphia, Baltimore | In Maryland, Baltimore County as the Northern Central; Washington, D.C. to MD-DE state line in Cecil County as the PB&W and Wicomico, Somerset, and Worcester as the New York, Philadelphia & Norfolk | Partially Active | Active from 1854-1968; 1881, when the PRR acquired the PW&B | J. Edgar Thomson, William Cookman (Architect and Engineer), Gamble Latrobe (Engineer, General Agent, Superintendent) | Penn Central Transportation Company (1968-1970); Conrail (1976-;1999); remaining operating lines in MD Norfolk Southern 1999-present. Also known as the Pennsy; PRR. Owned up to 800 different RR companies. |

Maryland Railroads Statewide Historic Context – List of Railroads in Maryland 1827 - 1976

| Historical Name | Mark or Acronym | Counties of Operation | Route Limits | Status as of 2023 | Important Dates | Associated Architects, Engineers, or Presidents | Other Names, Associations, and Preceding or Succeeding Railroad Lines and Companies |
|---|-----------------|--|---|--|---|---|---|
| Philadelphia, Baltimore & Washington | PB&W | Cecil, Harford, Baltimore, Anne Arundel, Prince George's | 131-mile (211 km) main line ran between Philadelphia and Washington. In MD, MD-DE state line in Cecil County to Washington, D.C. | Absorbed | Active from 1902–1976. | Unknown | Foundational Maryland Railroad. Predecessor is Philadelphia, Wilmington & Baltimore Railroad, Baltimore and Potomac Railroad. Successors are Amtrak (passengers), Conrail and Norfolk Southern system (freight). |
| Philadelphia, Wilmington, & Baltimore | PW&B | Cecil, Harford, Baltimore, Anne Arundel, Prince George's | Washington, D.C. to New York City. In MD, MD-DE state line in Cecil County to Washington, D.C. | Absorbed | Active from 1838–1902. | Unknown | The PW&B merged with the Baltimore and Potomac in 1902 to become the Philadelphia, Baltimore & Washington Railroad. |
| Preston | | Garrett | 6.8 miles | Abandoned | Active from 1891-1960. | Albert Lewis | Unknown. |
| Queen Anne's | | Caroline, Queen Anne's | Love Point, Maryland, and Lewes, Delaware | Partially active, partially abandoned | Active from 1894-1905. | Unknown | Successor: Maryland, Delaware & Virginia. |
| Queen Anne's & Kent | | Queen Anne's | Love Point Maryland, to Lewes Delaware. | Partially abandoned, partially converted | Active from 1856-1899. | Unknown | PW&B/Delaware Railroad/PRR control after 1881. |
| Savage River | | Montgomery | Bond, MD | Abandoned | Active from 1900-1910 | Unknown | Unknown. |
| Shenandoah Valley Railroad | SVRR | Washington | Hagerstown to Front Royal and Roanoke, VA | Active | 1882-ca. 1963 | Unknown | In 1890, under Norfolk & Western control. |
| Skipnish Railroad | | Garrett | Skipnish | Abandoned | Active from 1887-1910. | Unknown | B&O. |
| Southern Maryland Railroad | SMR | Prince George's, Charles, St. Mary's | Washington, D.C. to Point Lookout (St. Mary's County); built to Mechanicsville 1882 | Unfinished and abandoned | Active from 1886 (as Southern Maryland); 1886-1889 (as Washington & Potomac). | Unknown | Southern Maryland RR, 1868-1886; Washington & Potomac, 1886-1901; Washington, Potomac & Chesapeake, 1901-1918; Washington, Brandywine & Point Lookout, 1918-1949; only built as far as Mechanicsville, St. Mary's County. |
| Three Forks Lumber Company | | Garrett | 4 miles along Three Forks Run | Abandoned | Active in 1925. | Unknown | |
| Union Railroad | | Baltimore | North Portal of the Baltimore & Potomac Tunnel to South terminus of Northern Central Railway near Pulaski Skyway and I-895; 9.62 mi | Absorbed | Active from 1866-1882. | Unknown | Connection between the PB&W and the Northern Central; subsidiary of the PRR. |

Maryland Railroads Statewide Historic Context – List of Railroads in Maryland 1827 - 1976

| Historical Name | Mark or Acronym | Counties of Operation | Route Limits | Status as of 2023 | Important Dates | Associated Architects, Engineers, or Presidents | Other Names, Associations, and Preceding or Succeeding Railroad Lines and Companies |
|--|-----------------|--|---|--|--|---|--|
| Washington, Brandywine & Point Lookout | WB&PL | Prince George's, Charles, and St. Mary's | Two lines, Washington D.C. to Seat Pleasant MD. Brandywine to Patuxent River. | Abandoned | Active from. 1918-1941; US Navy control 1942 to extend to Patuxent River Naval Air Station. Scraped in 1949. | Unknown | Southern MD (1868-1882); Washington City and Point Lookout RR (1872-1886); Washington & Potomac (1886-1900); Washington, Potomac & Chesapeake (1901-1917); Brandywine and Cedar Point (1942-1954). |
| Washington County | | Washington | Unknown | Absorbed | Active in 1864. | Unknown | Predecessor of the B&O. |
| West Virginia Central & Pittsburg | WVC&P | Allegany | Elkins, WV to Cumberland, MD | Abandoned | Active from 1882-1905. | Henry G. Davis | Chartered as the Potomac & Piedmont Coal and Railroad Company. 1866; Became part of the Western Maryland Railway in 1905. |
| Western Maryland Railway | WM | Garrett, Allegany, Washington, Frederick, Carroll, Baltimore | The main line went from Baltimore to Hagerstown. Extensions in Maryland and into Pennsylvania. Totaled 835 miles. | Absorbed | Chartered in 1852, first line opened in 1862; Merged into Chessie System in 1973. | John Mifflin Hood | Foundational Maryland Railroad. Also known as the Baltimore, Carroll & Frederick Rail Road. |
| Wicomico & Pocomoke | | Wicomico, Worcester | Salisbury and Ocean City | Absorbed | Active from 1868-1888. | Unknown | Became the Baltimore & Eastern Shore in 1888. |
| William Whitmer and Sons Co. | | Garrett | Steyer, MD | Abandoned | Active prior to 1900. | Unknown | Unknown |
| Wilson Lumber Company | | Garrett | Fairfax, MD | Abandoned | Active from 1888-1900. | George W. Wilson | Unknown |
| Worcester | | Worcester | Snow Hill to Chincoteague Bay | Absorbed | Active from 1853-1883. | Unknown | Became part of the Delaware RR/PRR. Also known as the Wicomico and Pocomoke. |
| York, Hanover & Frederick Railroad | YH&F | Frederick and Carroll | Frederick to PA State Line | Partially absorbed and partially abandoned | Active from 1897-1914. | Unknown | Became part of the PRR. Also known as Frederick and Pennsylvania Line RR; PRR Frederick Division. |

MARYLAND RAILROADS STATEWIDE HISTORIC CONTEXT

APPENDIX C

**MAP OF FOUNDATIONAL
MARYLAND RAILROADS**

