

Historical Background and Field Analysis

DENVER & RIO GRANDE RAILROAD CORRIDOR

Avon, Colorado



Completed by

Tatanka Historical Associates, Inc.

612 S. College Ave., Suite 21

Fort Collins, CO 80524

tatanka@verinet.com

970.221.1095

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Denver & Rio Grande Railroad Tracks and Associated Features Avon, Colorado

This report on the historic Denver & Rio Grande Railroad features in Avon is divided into three sections. The first section provides historical background regarding the development of the railroad through the Avon area. This information was extracted from a variety of published and unpublished sources that are detailed in the bibliography. The second section provides a description of the tracks and associated features that are currently found within the town boundaries. This information was gathered from field visits to the resource. Finally, analysis is provided in the third section regarding the surviving rail features and their potential historic significance.

Historical Background

The history of transportation in the Avon area is an interesting topic, no matter whether it involved travel by foot, horseback, wagon, train, automobile, or airplane. Looking back over more than 120 years of history, the Eagle River valley has presented each generation with transportation challenges and opportunities for achievement. In the end, the area's remote location and challenges of geography were overcome by those determined to travel into, through, and beyond the Avon area.

Native Americans traversed the Eagle River valley on foot for centuries before Spanish-Mexican, French-Canadian, and Anglo-Saxon explorers, frontiersmen, trappers, traders, miners and settlers visited the western mountains of what was to become the State of Colorado. By the early 1800s, indigenous peoples throughout the mountain West had acquired horses through trading with tribes to the south (who got them from the Spanish), greatly expanding their ability to travel long distances. Suddenly the challenges of hunting, the success of warfare, and travel from winter to summer camping grounds and back became less arduous with the assistance of the horse.

The frontiersmen and pioneers who first visited and then settled in the Avon area prior to the 1880s were also limited to travel by foot and horseback. By the late 1870s, a wagon road ran the length of the valley, following the course of the Eagle River. Stage service was initiated between Red Cliff and Dotsero in 1883, with the Avon area a likely stop along the route. These improvements allowed residents of Leadville and the mining camps of the Eagle River's upper reaches to travel and ship goods down-valley and back much more efficiently. For the pioneers of the emerging agricultural district around Avon, travel and trade both to the east and west was enhanced. The area's roads continued to be extended

and improved throughout the late 1800s and into the early 1900s. Construction and maintenance of roads was handled by the county after it was established. The state took over roadwork on highways after 1920.

Although wagon roads and stage service were needed improvements, by the early 1880s much of the nation was already being served by railroads. However the Rocky Mountains, with their high passes and substantial grades, were a significant challenge for the railroad companies. Yet it was not a challenge they could not overcome. The lure of completing successful lines to the west across the mountain barrier caused competition for routes to become fierce. Underlying the competition was each railroad's desire to be the first to reach newly emerging mining camps and other centers of trade to capture the transportation business found there.

For the pioneers of the Eagle River valley, rail service was especially needed to ship livestock, agricultural products, and loads of timber harvested from the area's mountainsides. Between 1872 and 1874, the Denver & Rio Grande railroad (D&RG) constructed a route from Denver to Pueblo and on to Canon City. Intense competition with the Santa Fe railroad to the south caused the D&RG to turn west and concentrate its efforts toward a mountain route to Salt Lake City. As early as 1880, the railroad's management was already discussing the goal of pushing the line from Pueblo up the Arkansas River and over Tennessee Pass into the upper Eagle River watershed.

During the late 1870s and early 1880s, the D&RG did in fact move westward through the Royal Gorge to Leadville, and then up over Tennessee Pass to Red Cliff. This narrow gauge line terminated at Rock Creek near Gilman in the steep canyon ten miles southeast of Avon. For several years afterward, it appeared that the railroad had no intention of continuing the line down the Eagle River valley. Residents of the valley from Avon to the west were left dependent upon their wagon road and unable to ship larger quantities of agricultural products, livestock and timber to market. However, they didn't have to wait very long for the situation to change.

Between the fall of 1881 and spring of 1882, the D&RG completed a preliminary survey of a route from Rock Creek down the Eagle River to the Colorado River and then on to Glenwood Springs and Aspen. Four years later, in late 1886, the final route of what was termed the Eagle River Extension was surveyed and mapped. Because numerous ranchers and farmers already held title to the land along the route, the railroad had to negotiate with each owner to create a right-of-way. The D&RG was in a high-stakes race to reach the booming mining town of Aspen via Glenwood Springs more quickly than its competitor, the Colorado Midland Railroad. The necessary property rights were secured and the D&RG extended its narrow gauge line down the Eagle River as rapidly as possible.

Construction began at Rock Creek in January 1887 and reached Gypsum that August. Hundreds of men and numerous horse teams participated in the endeavor, working under the careful watch of contractors Carlile, Price & McGavock. The firm was awarded the project for a total fee of \$2 million, reported to be one of the largest issued by any western railroad. The new line followed the northwest course of the river along its north bank from Minturn to Avon, Edwards and Wolcott, where it curved toward the west and continued on toward Glenwood Springs. The entire route, more than 58 miles from Rock Creek to Glenwood Springs, was completed and opened for traffic on 6 October 1887.

While narrow gauge lines were cost-effective to place through mountainous terrain, reducing (but not totally eliminating) the need for tunnels and trestles, they also presented one primary problem. This involved the fact that trains designed for narrow gauge use could not move onto standard gauge tracks. Consequently, freight had to be moved by hand from one freight car to another wherever narrow gauge and standard gauge systems met. This increased shipping costs as the freight cars could not travel between systems using tracks of different widths. In 1890, the D&RG solved this problem by converting its Eagle River Extension track to standard gauge. This conversion completed a new transcontinental route through the mountains of Colorado, connecting with the Rio Grande Western Railroad in Ogden, Utah.

This topic was of great interest to the public and business world at the time, and the following editorial appeared in an 1890 edition of *The Eagle River Comet* (Red Cliff):

Although some people fear the D. & R. G. railroad may not make the Eagle river extension into a standard gauge this year, there is very little cause for serious apprehension. The D. & R. G. management have never been conspicuous for their disposition to compete for business with anybody who chose to enter the field. The Midland advertises to bring through cars from Chicago to Buena Vista, Leadville, Aspen and Glenwood – all of them competing points. Everybody knows that through freight from the east could be laid down nearly as cheap at these points as at Denver and Pueblo, and that the narrow gauge system breaking bulk at either of these points would be at a disadvantage in supplying the mountain trade. With a standard gauge competing with the Missouri Pacific at Pueblo, the D. & R. G. can offer a choice of markets – Chicago, St. Louis, Kansas City or New York, and the east in general, and can compete with anybody in the field, as it will have a short line with much better grades than any competitor. No one need for a moment suppose that the Rio Grande proposes to allow itself to get left to this competition. The roadbed is already pretty well prepared for the standard gauge, and it will not be long in getting here.

Suddenly the residents of the Eagle River valley were efficiently connected to the rest of the state and nation. Each day, numerous passenger and freight trains began to travel along what became a major transcontinental route. Trips to Eagle, Glenwood Springs, Aspen, Leadville, Pueblo, Denver and other regional

and national destinations became a thing of ease. The Avon area's farmers, ranchers and loggers took advantage of the convenient shipping access the rail line provided to get their products to market. Mail order catalogues became popular, with daily trains dropping packages off at Avon from all over the United States.

The earliest documented use of the name Avon dates to 1888, when it appeared on the first route map produced by the D&RG following its completion of the Eagle River Extension. The railroad listed Avon as a stop along the Eagle River, and a wood-frame depot was soon constructed there. During the late 1800s and early decades of the 1900s, the small village of Avon served as the center of the surrounding agricultural community. Above the north bank of the river were the Avon Depot, Avon Siding, and other features located along the railroad tracks.

A 1919 map of the D&RG right-of-way through Avon details the presence of a 22' x 42' depot, an 8' x 16' coal shed that included an outhouse, an 80' x 130' stockyard for cattle and sheep, a wooden mail crane, and two box car bodies used as a tool house and bunk house. Not shown on the map but also present in this area was the Section House, the residence of a railroad employee tasked with overseeing the depot and siding.

In addition to these features, large sheds were built adjacent to the Avon rail siding where produce could be stored prior to shipment. These were primarily used to hold lettuce, a crop that at its peak of production during the 1920s and 1930s swelled the population of Avon beyond its 200 year-round residents as hundreds of migrant workers moved in for the harvest season. Also of importance throughout these years were the potato crops planted by area farmers.

The D&RG route through the Colorado Rockies was quickly recognized as a tremendous tourist draw, and the railroad began to advertise itself as the "Scenic Line of the World." Promotional materials produced by the D&RG emphasized not only its excellent fares, but also the scenic beauty of its route through the rugged mountains of Colorado. A 1922 US Geological Survey travelogue along the D&RG route described the Avon area in the following terms: "The valley at Avon is nearly a mile wide, and in summer it presents a beautiful appearance, with field after field of grain rippling in the wind and here and there a well-kept farmhouse peeping from a grove of cottonwood trees. The farms extend about a mile below the village to a point where the bluff on the east side swings in against the river, cutting off the farming land and rendering the valley rough and broken."

In September 1909, the D&RG advertised "Colonist Rates to California and the Northwest" at a sale cost of \$25 per person for Pullman car accommodations from any stop along the Colorado line to the Pacific Coast. With improved highways crossing Eagle County starting in the 1920s, automobile, bus and truck service began to compete with the railroad. By 1922, an auto road ran parallel to

the D&RG tracks from Leadville to Grand Junction. Rail routes began to be abandoned around that same time, as mining was in the doldrums and the economic boom years of World War I passed. Yet passenger and freight service continued into the 1940s, as many relied upon the daily trains and their relatively affordable travel and freight costs through the Depression and into World War II. Special fares were extended by the railroad to attract passengers during holidays and for special events, such as Denver's Western Stock Show and Cheyenne Frontier Days.

The D&RG prospered through the 1920s, acquiring other lines and in 1921 changing its name to the Denver & Rio Grande Western (D&RGW). In 1924, the rail bed through the Avon area was improved with the addition of 8" of slag ballast. In 1930 the line started to experience financial difficulties due to the decline in business activity following the stock market crash the previous year. Completion of the Moffat Tunnel in 1928 by the Denver & Salt Lake Railway and City of Denver threatened to divert a significant volume of the rail traffic between Denver and Salt Lake City away from the D&RGW. This standard gauge route directly west from Denver through the mountains shortened the distance between Denver and Salt Lake City, causing further trouble for the struggling D&RGW. The D&RGW's management moved quickly to take over the Moffat Road and its famed tunnel route to Denver by purchasing a majority of its stock.

Acquisition of the Moffat Road eliminated the competition but caused the railroad to take on more debt than it gained in profits. It also reduced some of the need for train service on the Tennessee Pass route between Pueblo and Glenwood Springs. Even though it was suffering from tremendous financial losses, the D&RGW completed the Dotsero Cutoff in 1934, shortening the route from Denver to Salt Lake City by more than 170 miles. Improvements to the route from Leadville over Tennessee Pass and down the Eagle River valley were completed into the early 1940s. Included among these was replacement of the original rails in 1943 through the Avon area. World War II brought renewed profits, and in 1945 approximately fifty trains traveled through the valley daily, most of them hauling freight.

Following the end of World War II, Americans turned to the automobile and aircraft as their preferred forms of transportation. Rail travel went into decline in the Eagle River valley in line with trends throughout the nation. In addition, the federal government began pouring funding into interstate highway construction during the 1950s, contributing to the demise of long-distance travel by rail. While passenger traffic disappeared from the route over Tennessee Pass, freight traffic continued through the Eagle River valley into the decades following the war. In 1958 and 1959, the route through Avon was brought under the Centralized Traffic Control system based in Grand Junction. This eliminated the need for local personnel to control the switching of track between the main line and the Avon siding.

By the late 1960s, the amount of active railroad track mileage in Colorado was significantly reduced from its height decades earlier. While this was partly due to a natural reduction of track duplication, most abandonment resulted from the elimination of service to destinations that were no longer producing profits. Passengers just weren't taking to the rails anymore and freight traffic in the mountains was significantly less than it had been during the mining boom days. Since it was located along a main line, rail traffic through Avon continued for a while longer than in many mountain locations. In 1990, the D&RGW merged with the Southern Pacific railroad. In 1996 it was absorbed into the Union Pacific railroad, at which time rail traffic through the valley came to a virtual standstill.

Description of the Resource

Reconnaissance of the rail line through Avon was completed during several trips to the area in November 2007 and June 2008. Much of the line was walked and photographed, with particular emphasis upon recording general features as well as equipment associated with the rail line and its operation. The following characteristics were noted during these visits to the resource.

General Characteristics: The Denver & Rio Grande railroad runs from east to west through the Town of Avon. While much of this length consists of a single standard gauge track, the central length consists of both the main track and a standard gauge siding that is 8,350' in length. The steel rails are laid upon wooden ties, which are secured to the rail bed with slag ballast. While much of the rail bed is raised, some sections (particularly at road crossings) are not. The entire length of the rail line runs along the north bank of the Eagle River.

Eastern Town Limit to Avon Rd.: The rail line enters the eastern town limit along a generally inaccessible stretch north of Eagle-Vail. It is inaccessible because a steep undeveloped hillside to the north and the river to the south border the tracks, with no roads entering this area. This length runs a short distance along the north side of the Eagle River to a point just east of the Interstate 70 bridges. The rail line here had to be viewed from across the river to the south, but was observed to include the bed, ties and single set of tracks.

This area was also noted to include the railroad's communication lines, strung along wood poles with wood crossbars. As of mid-June 2008, these lines remained in place and included their historic glass, ceramic and rubber insulators. The communication lines were intact from the eastern town limits westward to a point just east of the church located at the east end of Nottingham Ranch Rd. From that point toward the west, the historic communication lines had recently been removed. They were still standing in November 2007, but were clearly cut down by the railroad during the spring or early summer of 2008 in an effort to clean up the corridor through the central length of Avon. A number of these poles were noted to be lying on the ground from Avon Rd. toward the east.

From just east of the Interstate 70 bridges, the rail line travels to the west along a narrow stretch of land that is outside of the town limits. It enters the town again along Nottingham Ranch Rd. just south of the Wal-Mart store. The tracks cross over Post Blvd. on a modern bridge that has no historic features and then again exits the town. This next length of the rail line curves toward the northwest and follows a narrow stretch of land, essentially the width of the right-of-way, running along the north side of Eaglebend Dr. and Hurd Ln.

Just northeast of the intersection of Eaglebend Dr. and Stonebridge Dr., the single track reaches the beginning of the East Avon Siding. Markings on the rails in this area show that Colorado Fuel & Iron of Pueblo manufactured them in 1990. A collection of equipment associated with the siding and its operation is found in this area. This includes a metal shed along the north side of the tracks that holds electronic boards for the switches and signals. Next to the shed is a double signal that faces toward the east. An electrical transformer box is across the tracks to the south. These are all mounted on concrete foundations.

On the ground next to the double signal is the switching machine, mounted across two wood ties with steel plate braces. This machine moved the switching rails that determined whether an oncoming train traveled along the main line or onto and off of the siding. While it was typically operated electronically, it also includes a manual hand throw. About 100 yards to the west, on the south side of the tracks, is a single signal that faces toward the west. Directly north of this is a Type SA searchlight signal that also faces west. The General Railway Signal Company of Rochester, New York manufactured all of the equipment present at the East Avon Siding.

As the rail line continues toward the northwest, its two sets of tracks follow a straight line to the intersection of Avon Rd. A few blocks southeast of Avon Rd., near the east end of the Avon Crossing residential development, the rail line re-enters the town limits.

Avon Rd. to Western Town Limit: The rail line crosses Avon Rd. over a modern bridge with no historic features. From there, the main line and siding continue on to the northwest, still in a straight line. This entire stretch of the rail corridor also has had its communication lines recently cut down, and the poles are lying along the tracks. After the tracks pass Nottingham Lake and approach W. Beaver Creek Blvd., the line begins to curve toward the west. At the intersection of W. Beaver Creek Blvd. is a no trespassing sign placed there by the D&RGW railroad, indicating that it predates the 1990 merger of this line with the Southern Pacific.

Near the west end of The Aspens mobile home park, the two sets of tracks converge as the line reaches the West Avon Siding. A few hundred yards east of the siding end, located in the space between the two sets of tracks, is a single signal that faces east. Northwest of this, along the north side of the tracks, is a

Type SA searchlight signal that also faces east. About fifty yards west of the searchlight signal is a metal sign marking the location of mile marker 309. At the actual end of the siding is a metal shed along the north side of the tracks that holds electronic boards for the switches and signals. Next to the shed is an electrical transformer box. Across the tracks to the south is a double signal that faces to the west. These are all mounted on concrete foundations.

On the ground along the north side of the tracks is the switching machine, mounted across two wood ties with steel plate braces. This machine moved the switching rails that determined whether an oncoming train traveled along the main line or onto and off of the siding. While it was typically operated electronically, it also includes a manual hand throw. The General Railway Signal Company of Rochester, New York manufactured all of the equipment present at the West Avon Siding. Also noted along much of the rail siding was the presence of more recent rails and metalwork along the southern main line (CF&I, 1990) and older rails and metalwork along the northern siding (dated 1937 and 1943). In the woods along the river below the West Avon Siding are piles of old wood ties that have been discarded. Old metal stakes are also periodically seen along the entire length of the rail corridor.

From the end of the siding, the single set of tracks continues on toward the west and then northwest to the western town limit. At the west end of the mobile home park, the line exits the town limits before re-entering the town again after a few hundred yards. This short stretch runs along a length of ground that is wedged between a steep eroding hillside to the north and the river's wooded floodplain to the south. Halfway through this length, the communication lines were still standing as of mid-June 2008. The standing wood poles and their wood crossbars still hold a variety of historic glass, ceramic and rubber insulators. The communication lines were noted to remain standing all the way to the western town limit.

In addition to the tracks and communication lines, the remaining right-of-way within the town also holds fence lines marking its northern and southern boundaries. This length of the railroad, from The Aspens mobile home park to the western town boundary, is the most intact length of the historic rail corridor within the Town of Avon.

Preservation Analysis

Based upon the history and resources discussed above, the following conclusions are made regarding the Denver & Rio Grande railroad and its associated features in the Avon area:

- Completion of the D&RG route from Denver to Pueblo to Leadville, over Tennessee Pass, through Avon, and on to Glenwood Springs,

Grand Junction and Salt Lake City, was one of the great stories of transportation achievement in the early history of the state. Of course the race to Aspen was the original impetus for this achievement and needs to be told as part of this story. When completed, the rail line through Avon became the first transcontinental route completed through the Rocky Mountains west of Denver and its continued presence (although no longer operational) should be recognized and promoted as an important element of the history of Avon and the entire Eagle Valley.

- Operational railroads continually upgraded their lines and equipment to reduce the possibility of accidents and to keep the lines up to date with technological changes. Consequently, the D&RG line through Avon is expected to consist of tracks and associated equipment of varying ages. Changes that were made at least fifty years ago are considered to be historically significant in and of themselves, and do not necessarily detract from the overall significance of the rail corridor. The loss of some features may be mitigated by the presence of others that allow the route to continue to exhibit other elements of integrity. In other words, the answer to this is found in the question, “Does the rail corridor (or segments of it) retain something of its historic appearance, design, workmanship, materials, feeling and association?”
- The rail corridor’s routing through the Avon area appears to be intact from the original construction of the line in 1887, with no evidence of re-routing or abandonment. This indicates that the rail bed is original, although it was improved in 1924 with the installation of slag ballast.
- The original 1887 tracks along this line were narrow gauge and were converted to standard gauge in 1890. The tracks along the line today appear to date from two different time periods. The main line tracks were replaced during or shortly after 1990 with rail manufactured in Pueblo by CF&I. The siding tracks are older, with tie plates dated 1937 and 1943. As the wooden ties deteriorated, they were replaced with new ones.
- The switching and signaling equipment associated with the Avon Siding was all manufactured by the General Railway Signal Company, which was founded in 1904. Clearly, none of this equipment can predate that year. While the equipment appears to be at least fifty years old, it is possible that some or all of it could have been installed as late as the 1960s. None of the equipment appears to be more recent than that, and all of it appears to date from the period between the 1920s and 1950s. The switching machines appear to have been adapted to electronic control when the entire system in the Avon area was brought under Centralized Traffic Control in the late 1950s.

- A portion of the D&RG rail line, as it exists today in the Town of Windsor, may be eligible for local, State or National Register listing. Much of the Avon area has changed considerably since the line was first installed in 1887, as it shifted from an agricultural district to a developed resort community in the decades following World War II. However, the rail route, tracks, remaining communications lines, and the siding's switching and signaling equipment appear to retain a sufficient degree of integrity to be representative of the railroad's operation during the period from around 1920 to 1960. In particular, the length of the route toward the western town limits is the most historically intact in terms of both setting and resources. National Register eligibility may be associated with Criteria A for the line's association with its role in the agricultural development and transportation history of the Avon area.
- Continued removal of the communications lines from the rail corridor will further degrade its integrity. Removal of the remainder of the poles within the town limits should be halted if possible. While they are no longer needed by the railroad, their presence is important to the overall integrity of the historic rail corridor.

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