

Historic Streetcar Systems of Colorado



APPLIED RESEARCH &
INNOVATION BRANCH

Nick VanderKwaak - AECOM
Jennifer Wahlers - ARCH Professionals
Dianna Litvak - Mead & Hunt
Ethan Raath - Mead & Hunt



COLORADO
Department of Transportation

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16. Abstract <p>Transportation impacts to historic streetcar lines in Denver and other communities in Colorado are often unforeseen given that many tracks lay underneath paved streets and are not well documented. This results in frequent unanticipated discoveries during construction of publicly assisted transportation improvement projects in Colorado. A historic context was developed to provide a consistent methodology for the evaluation of historic streetcar lines. A corresponding GIS component was developed to provide reliable and consistent mapping of the former streetcar line in Colorado along with pertinent information relative to each streetcar line, including ownership, technical information, dates of operation, and current condition, if known. Mead & Hunt, Inc. and ARCH Professionals, LLC conducted historical research at local archives to examine primary documents and maps, along with previous studies and mapping efforts, to develop the statewide historic context and evaluation methodology. AECOM Technical Services Inc. served as the project manager and completed the GIS component of the project.</p> <p>Implementation The GIS component will allow CDOT and other interested parties to easily identify the location of potentially buried historic streetcar lines and access information on the companies associated with the lines, the technologies utilized, the years the line was in operation, and other pertinent details. For CDOT, this information will allow project planners to identify the potential location of buried lines early in the project planning and review process, eliminating last minute discoveries that are costly both financially and to project schedules. The evaluation framework will further assist efforts by CDOT and its consultants, as well as local communities, to determine whether a specific surviving remnant of a streetcar line is historically significant. CDOT historians can utilize these findings to evaluate the NRHP eligibility of streetcar lines on the front end of project planning and streamline their Section 106 review process, as the GIS component provides valuable identification information for each line, and the context completes much of the background research historians would otherwise have to complete on a project by project basis.</p>					
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- Jason O’Brien – History Colorado Historian
- Bryan Roeder – CDOT Research/Project Manager
- Nathaniel Rogers – CDOT HQ GIS
- Jordan Rudel – CDOT Planning Manager
- Mitchell Schaefer- History Colorado Historian
- Lisa Schoch – CDOT HQ Senior Historian
- Jamie Shapiro – CDOT Region 1 Historian
- Barbara Stocklin-Steely – CDOT Region 1 Senior Historian/Project Manager
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- Greg Wolff – CDOT HQ Archaeologist

Cover photo is from Pikes Peak Library District, Digital Collection, Andrew J. Haralan Photographs, 402-83, Streetcar in Victor, Colorado, ca. 1902. For more information, see Figure 44.

EXECUTIVE SUMMARY

A. Why is Research Needed?

Transportation impacts to historic streetcar lines in Denver and other communities in Colorado are often unforeseen given that many tracks lay underneath paved streets and are not well documented. This results in frequent unanticipated discoveries during construction of publicly assisted transportation improvement projects in Colorado. Because there is no historic context, consistent mapping, or evaluation framework for historic streetcar resources in Colorado, it is often challenging for the Federal Highway Administration (FHWA), the Colorado Department of Transportation (CDOT), the Colorado State Historic Preservation Office (SHPO), local governments, and others to identify locations of these resources, assess potential significance, and determine the appropriate preservation strategy.

B. Cost Benefit

When complying with Section 106 of the National Historic Preservation Act of 1966, CDOT (acting on behalf of the FHWA) typically assumes all potential buried streetcar lines are historically significant, or eligible for listing in the National Register of Historic Places (NRHP). Given the lack of an overall context and evaluation framework, the FHWA, SHPO, and CDOT must evaluate each new discovery individually and execute individual Memoranda of Agreement (MOAs) for almost every federally assisted project with anticipated adverse impacts to buried streetcar resources, with the end result varying greatly from project to project. A more comprehensive and consistent approach to more accurately evaluate future transportation projects with potential to impact historic streetcar systems and related components in the City and County of Denver (Denver) and other communities in Colorado is warranted so mitigation efforts more closely match the historical significance and public interest in these systems. CDOT and local agencies will realize a cost benefit by utilizing the results of this study for future transportation projects that impact streetcar lines.

C. How was Research Completed?

Colorado is a large state, with at least 15 distinct communities that had a streetcar line or system at some point. To complete research across such a broad geographic expanse, CDOT assembled

a team of historians who meet the Secretary of the Interior Standards for history and architectural history to divide efforts. Mead & Hunt, Inc. researched streetcar systems in Aspen, Colorado Springs, Cripple Creek/Victor, Fort Collins, Greeley, Leadville, Manitou Springs, Pueblo, and Trinidad. ARCH Professionals, LLC conducted research relative to the streetcar systems in Boulder, Denver, Durango, Englewood, Littleton, Grand Junction, and the interurban lines that connected some of these communities. AECOM Technical Services Inc. served as the project manager and completed the GIS component of the project. The consultant team visited various local archives to examine primary documents and maps, and relied on previous studies of streetcar systems as well as digitized histories and mapping efforts to develop a context relative to streetcar development in each community.

D. Compare Results with Expectations

It was expected that various themes would emerge regarding the types, materials, design, workmanship, and technology utilized in various streetcar system types across the state and how those elements changed as technology evolved nationally. It was also anticipated that similar motivating purposes for the construction of various lines would be identified, such as construction in response to previous real estate development and growth, and construction designed to access or open new geographic areas for future development. Company competition and the resulting saturation of providers was another anticipated theme in the larger municipalities, in addition to the streetcar systems' relationship with urban growth and development, and the resulting 'streetcar suburbs.' Local government management and regulation of streetcar systems and services was anticipated to emerge as another theme. Finally, the growth of automobile ownership and the introduction of bus services were expected to play a major role in the decline of streetcar systems statewide. Research found that most of these themes were confirmed, while some communities offered surprisingly unique aspects in their streetcar development relative to technologies employed and company ownership.

E. How Can CDOT Use this Study?

The potential uses of the project's results are vast and are pertinent to not only CDOT but other state and local governmental agencies and the general public as well. The user-friendly nature of the GIS component will allow interested parties to easily identify the location of potentially

buried historic streetcar lines and visualize how the network functioned within the city landscape. The GIS component will also provide information on the companies associated with the lines, the technologies utilized, the years the line was in operation, and other pertinent details. For CDOT, this information will allow project planners to identify the potential location of buried tracks early in the project planning and review process, eliminating last minute discoveries that are costly both financially and to project schedules. The evaluation framework will further assist efforts by CDOT and its consultants, as well as local jurisdictions, to determine whether a specific surviving remnant of a streetcar line is historically significant. CDOT historians and local jurisdictions can utilize these findings to evaluate the NRHP eligibility of street car lines on the front end of project planning and streamline their Section 106 review process, as the GIS component provides valuable identification information for each line, and the context completes much of the background research historians would otherwise have to complete on a project by project basis.

F. Recommendations for Further Work

Additional studies and efforts can be completed that build upon this work. A stipulation will be added to the existing Section 106 Programmatic Agreement (PA) between CDOT, the FHWA, and the Colorado SHPO to facilitate a statewide approach toward the treatment of streetcar resources. The results of this study could be used to complete the survey and documentation of the streetcar lines in each community. While this would be a large task, efforts could be prioritized to complete documentation efforts of streetcar lines located beneath highways and major arterials first. This would provide official determinations of NRHP eligibility for these linear resources, further streamlining future Section 106 review efforts for individual projects. The identification process could be taken further by utilizing technologies such as metal detecting and ground-penetrating radar to determine those locations where streetcar lines still remain buried and those where they have been removed. Additionally, this study focused on the streetcar lines themselves, as those are the streetcar-related resources most often encountered by CDOT historians. However, a comprehensive study of built environment, streetcar-related resources has not been completed and would help paint a more complete picture of the overall streetcar networks in each city and of the extent to which those networks remain in place today.

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1. INTRODUCTION

Streetcar resources are not restricted solely to the tracks that are often buried under layers of asphalt and cement, but also include various other features including bridges, grade cuts, barns, powerhouses, and road configurations themselves. When addressed individually, these features may not seem unique or significant, but when understood in the context of an entire streetcar network, they are reflective of a transportation system that was often vital to the daily lives of many Colorado residents. During a time when a majority of private residents lacked their own means of transportation, streetcars opened up the opportunity for individuals to live further from their place of work. Entire neighborhoods owe their existence to the connection provided by streetcars. Residents were able to ride streetcars to visit friends and family in further parts of the city more easily, children had greater accessibility to schools, and people could spend their leisure time taking advantage of unique recreational facilities that were otherwise inaccessible. The nostalgia for streetcars and the freedom they provided to their users remains high, as people that relied on them recall their noisy, often bumpy rides with a sense of romanticism.

The remnants of the streetcar systems in Colorado are often buried or have been removed, but with an understanding of how the streetcar systems functioned, one can begin to discern small clues within the streetscape that indicate both the presence of the former transportation network and the origin of the current urban fabric.

The objectives set forth in the scope of work for this study call for three major components. The first objective is to develop a historic context to advance the knowledge and understanding of the historic streetcar systems throughout Colorado. The second is to identify the locations of Colorado's historic streetcar systems and to make this information readily accessible to historians and researchers via a GIS-based mapping system. The third is to establish an evaluation framework that builds on the historic context and GIS mapping to facilitate NRHP eligibility evaluations of streetcar-related resources performed by the Colorado SHPO, FHWA, CDOT, local jurisdictions, and other practitioners and interested parties in Colorado.

A. Project Purpose/Funding

The Colorado Department of Transportation (CDOT) Applied Research and Innovation Branch, along with the Federal Highway Administration (FHWA) and the City and County of Denver, funded the development of this study of Colorado's historic streetcar systems in order to provide CDOT staff and others with a context of streetcar development in the state along with a framework for the evaluation of these unique resources under Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (Section 106). The NHPA requires state and federal agencies to consider how their actions may affect cultural resources listed in or eligible for the National Register of Historic Places (NRHP). Streetcar tracks, as well as other associated streetcar resources, are cultural resources requiring review under Section 106. Cultural resource specialists are often faced with a difficult task when evaluating these complex resources as last-minute discoveries, uncovered during construction of a project. These late discoveries often stop construction during resource documentation and consultation, resulting in unfortunate time delays and additional expense. Historians handling the consultation then must complete consultation quickly. This can be difficult because streetcar networks themselves are complex resources with multiple iterations of technologies and route changes, but also because a clear framework for evaluating their significance in Colorado has not been established. It is the intent of this study to provide that framework.

B. Scope of Study

The study focuses on those communities with known streetcar systems, which include Aspen, Boulder, Colorado Springs, Cripple Creek/Victor, Denver, Durango, Englewood, Fort Collins, Grand Junction, Greeley, Leadville, Littleton, Manitou Springs, Pueblo, Trinidad, and the interurban lines that connected various metropolitan areas within the state. Initial information indicated that a system existed in Canon City/Florence; however, this system was found to have never been constructed and therefore is not included in the study. This study focuses on the streetcar lines themselves and is not intended to be a study of the rolling stock and equipment owned by the various companies. Numerous publications have been written regarding the rolling stock and technologies and configurations utilized by different companies. Similarly, the employees of streetcar companies played a valuable role in their history and success. Their stories are vast and recounted elsewhere, and are not the focus of this study. Additionally, the

GIS mapping comprises a large component of this project. The details of the GIS effort are outlined in Section 5. These mapping efforts focused on completing a robust database with detailed information regarding individual lines. The mapping component was completed with the intention of providing a user-friendly reference for researchers to easily and quickly locate specific details regarding streetcar lines. Research can be continued by referencing the historic context, which provides a broad understanding of streetcar history in each community.

C. Research Design and Methodology

As previously noted, the study area for the project includes all communities in Colorado that were known to historically operate streetcar lines. The consultants divided the locations somewhat geographically in an effort to divide labor equitably and to facilitate potential travel to various archival repositories. As travel, site visits, and field survey to each location was not feasible, only those locations where unique information, or information that was not otherwise available digitally or at other repositories, were visited. The locations researched by Mead and Hunt, Inc. (Mead & Hunt) were: Aspen, Colorado Springs, Cripple Creek/Victor, Fort Collins, Greeley, Manitou Springs, Leadville, Pueblo, and Trinidad. ARCH Professionals, LLC (ARCH Professionals) researched Denver and its associated interurbans, Boulder, Aurora, Littleton, Englewood, Durango, and Grand Junction with its connection to Fruita.

(1) Key Research Questions

Information regarding streetcar systems across the state is robust, with the potential to lead researchers in multiple directions. In order to stay within the established budget, timeframe, and goals of this project, research efforts were focused on the following questions:

- 1) Establishment: Why was the line started (e.g., development purposes, investment, to increase property values)? What places was it meant to connect?
- 2) Operations: Who founded the line and were they prominent in their community, state, or from out of state? How was the company financed? When did the line operate?

- 3) Technology: What technology was used for the line (e.g., standard gauge vs. narrow gauge; horse, cable, electric, etc.)? Is the line known for significant technology or for a major innovation in technology?
- 4) Changes: What major alterations occurred to the line (e.g., realignment, change in technology)?
- 5) Termination: How, when, and why did disposition of the line take place (e.g., merger, acquisitions, abandonment)?

Additional unique or rare information discovered during research, beyond those covered by the key research questions, was collected when applicable.

(2) *Project Consistency*

To promote consistency between the research and narratives ultimately completed by the consultant team, a context template was created for each community. This community template provided consistency in the level of effort and detail required for each community. The template also established placeholders for the number of figures to be included and their placement within sections.

Additionally, the data collected during research was utilized to populate a table associated with the GIS component of the project. The fields in this table were known to researchers before trips to archives and local repositories were made, ensuring that researchers gathered the appropriate information not only for the narrative, but for the GIS component as well. A technical editor reviewed the document to ensure discussions of the distinct communities maintained a level of consistency.

(3) *Literature Search*

The project team consulted maps, historic photographs, company and streetcar line records, newspapers, and local histories at various repositories to answer the above-mentioned research questions. Resources at the local, state, and national level were consulted. When scans or digital

copies were acquired as part of the research, copies were placed in a shared drive established for the project so CDOT historians would have them at their disposal for future research.

Additionally, the bibliography for this report is organized geographically so future researchers may easily find resources for further investigations. Finally, a spreadsheet of local contacts who provided information and/or may have an interest in the study was assembled so CDOT historians could reach out to them with the completed project.

Many secondary sources have already been produced regarding the streetcar systems nationally and in several Colorado communities. To limit the travel time spent researching in local archives, those secondary sources were utilized when available. These works provided incredibly valuable information to this study. For ease of reference, those works are listed below.

Cafky, Morris. *Steam Tramways of Denver*. Denver: Rocky Mountain Railroad Club, 1950.

Steam Tramways of Denver provided great information on the steam dummy lines that were found in Denver and in some cases, provided some of the only information found regarding those lines.

Cafky, Morris and John A. Haney. *Pikes Peak Trolleys: A History of the Colorado Springs Streetcar System*. Colorado Springs, Colo.: Century One Press, 1983.

This book contained great information and detail regarding the streetcar system in Colorado Springs and the history behind it.

Cafky, Morris and John A. Haney. *Pueblo's Street Town Trolleys*. Golden, Colo.: Colorado Railroad Historical Foundation, Inc., 1999.

The Pueblo streetcar system is well documented in this book and served as main source of information regarding the system in that town.

Fletcher, Ken. *Centennial State Trolleys*. Golden, Colo.: Colorado Railroad Historical Foundation, Inc., 1995.

This work served as a good starting point for the study by identifying which Colorado communities had streetcar systems and providing basic information regarding those systems.

Gensmer, Kristin and Eva Donkin. *The Tracks Beneath the Pavement: A Look at Changing Transportation Systems in Fort Collins, Colorado Through a Segment of the Fort Collins Municipal Railway*. Prepared by Centennial Archaeology LLC, 2018.

Completed in response to a compliance project, this report provided good historical information on the streetcar system in Fort Collins as well as archaeology details regarding the tracks remaining under the streets in Fort Collins and how those tracks were installed.

Glandon, Beth. *Streetcar Commercial Districts Reconnaissance Survey Final Report*. Prepared for Historic Denver and the Discover Denver Project, 2013.

Glandon's work presents information on the integrity of streetcar commercial districts and presented an example of how to divide the city, with its complex history of streetcar companies and lines, into manageable districts to better present information within the report.

Keeney, Ryan. "Denver's Streetcar Legacy and its Role in Neighborhood Walkability."

Accessed October 4, 2019.

<https://www.arcgis.com/apps/MapSeries/index.html?appid=00a2d498a2ac4c58ad140ac306110213>.

Keeney's work served as the basis for the GIS mapping efforts for Denver and provided valuable locational information as well as information on the duration of various streetcar routes.

McGuire, William L. and Charles Teed. *The Fruit Belt Route*. Grand Junction, Colo.: Rio Grande Chapter of the National Railway Historical Society, 1981.

The book provided exhaustive information regarding the streetcar system in Grand Junction and the interurban connection with Fruita. It also included a valuable

bibliography pointing researchers to the location of additional information regarding the system.

New South Associates. *Historic Streetcar Systems in Georgia*. Prepared for the Georgia Department of Transportation, January 31, 2012.

This resource served as an initial inspiration for this study and provided valuable contextual information.

Peyton, E.S., R.A. Moorman and Kenneth Jessen. *Trolley Cars of Fort Collins: Including "Last of the Birneys" and "Restoration of Car No. 21."* Loveland, Colo.: JV Publication, 1986.

This volume is a combination of two shorter works that extensively detail the history of street operations in Fort Collins, including the historic operations and the restoration efforts in the 1980s.

Robertson, Don, Morris Cafky, and E.J. Haley. *Denver's Street Railways, Volumes I and II*.

Denver: Sundance Publications, Ltd., 1999 and 2004.

These two volumes prove to be the exhaustive histories on Denver's streetcar history and contain a plethora of historic context as well as photographs, valuable maps, and details of when route changes occurred.

Robertson, Don and Kenton Forrest, *Denver's Street Railways, Volume III The Interurbans*.

Golden, Colo.: Colorado Railroad Historical Foundation, Inc., 2010.

This exhaustive work presents details on the interurban systems that extended from Denver and includes historic photographs, maps and information on route changes.

Wilkins, Tivis. *The Short line to Cripple Creek: Colorado Springs & Cripple Creek District Railway*. Golden, Colo.: The Colorado Railroad Museum, 1983.

This work presented details on the streetcar system in Cripple Creek and the role it played in the famed mining district there.

When these previously completed studies did not answer all of the key research questions developed for this project, research at local archives was completed. Historic newspapers, clipping files, historic photographs, archival collections of ledgers, minutes, reports and correspondence, and historic maps were all consulted, as well as multiple period journals.

Additionally, a number of streetcar resources were previously documented across the state according to Colorado Office of Archaeology and Historic Preservation (OAHP) standards. These previous documentations are inventoried in the OAHP COMPASS database, which was searched as a part of this project. COMPASS is the OAHP's cultural resource database and includes information on previously surveyed and evaluated historic properties throughout Colorado. As multiple terms can be used to refer to the same type of streetcar resource, and a standard lexicon is not utilized by historians across the state when documenting these resources, the consultant team worked with OAHP staff to conduct as comprehensive of a search as possible. The search of the COMPASS database included the following terms: streetcar, street car, trolley, horsecar, horse car, tram, tramway, grip car, cable car, interurban, transit, carbarn, car barn, and municipal railway.

Colorado SHPO staff and the consultant team then cleaned up the COMPASS results to remove any resources not related to streetcar systems, as several mining tramway and railroad resources were included in the results. Many of the resources included GIS mapping information, which was then integrated into the GIS portion of this report; however, the documentation of several resources lacked sufficient information to map the resource. As a result, those resources were not included in the GIS mapping component of this study. The COMPASS search results are provided in Section 6, Known Associated Resources.

(4) *Development of Database and GIS Fields*

The CDOT Historian provided the consultant team with the information that was to be included in the GIS database fields, which included items such as route names, years of operation, construction companies, operating companies, gauge, and technology employed. The consultant team then refined these fields based on the information found during the research efforts and to

optimize usability and filter options when used in the mapping component. A complete discussion of the GIS component is located in Section 5.

(5) *Document Organization*

The document is organized into multiple sections. Section 2 presents a historic context for streetcar systems on a national scale. Section 3 is a synthesis of how Colorado's streetcar systems intersect with the national trends. Section 4 presents a community by community discussion of streetcar systems that operated in Colorado. Section 5 presents the details regarding the ESRI ArcGIS database that was developed as part of this project. Section 6 lists the known extant resources associated with streetcar systems in Colorado, while Section 7 describes potential streetcar property types that researchers may encounter. Section 8 presents the registration requirements for evaluating streetcar systems and streetcar-related resources. Section 9 serves as a guide for future researchers intending to complete additional streetcar research in Colorado. The conclusion and recommendations and future research opportunities are presented in Sections 10 and 11, respectively. A bibliography is located at the end of the document.

D. Definitions

The terminology of streetcar systems can be confusing to those not familiar with these resources. Below is a list of definitions for terminology utilized in the report.

Cable car: A vehicle pulled by a continuous loop of wire, often located in a slot underground between the streetcar trackage.

Catenary: Overhead electrification system.

Double-truck streetcar: A longer streetcar comprised of four axles that operate independently of one another and do not remain fixed perpendicularly to the streetcar body or parallel to each other, as in a single-truck streetcar.¹

¹ Richard M'Culloch, "Comparative Earnings and Economy of Operation Between Single and Double Truck Cars for City Use," *Electricity, A Popular Electrical and Financial Journal* XV, no. 10 (September 14, 1898): 52.

Electric streetcar: A vehicle powered by electricity, supplied either overhead or via other means, and runs along rails set within street rights-of-way.

Horsecar: A horse- or mule-powered stagecoach running on railroad tracks located within street rights-of-way.

Jitney: An automobile carrying passengers along a flexible route with a flexible schedule.

Interurban: Most often electrified railroads that connected multiple municipalities and dealt primarily with passengers rather than freight. Interurbans traveled on city street rights-of-way until the edge of towns, where they then moved to private rights-of-way.²

Line: Used in this report to refer to a collection of different segments of track that together create a streetcar route (see also, *Track*).

Narrow gauge: Railway trackage spaced narrower than standard gauge between the rails.

Omnibus: Horse-drawn stagecoach following established routes operating on a schedule.

Pantograph: A collapsible and adjustable frame mounted atop a streetcar and used to obtain power from overhead power wires. Pantographs were commonly used in European cities whereas rooftop-mounted trolley poles were more common in the United States.³

Rails/tracks: The steel bars laid into the street that supported the wheels of streetcars. Streetcar rails were spaced at different intervals known as the gauge. Streetcar rails were also constructed at different weights to support different rolling stock. Generally, lighter

² Frank Rowsome, *Trolley Car Treasury* (New York: McGraw-Hill Book Company, Inc., 1956), 120–21.

³ “Streetcar | Facts, History, & Development,” *Encyclopedia Britannica*, accessed December 12, 2019, <https://www.britannica.com/technology/streetcar>.

weight rails were used for lighter, animal-powered streetcars, and heavier weight rails were used for heavier, electric-power streetcars.

Rolling stock: Individual streetcars (also see trolley, horsecar, cable car, tramway).

Single-truck streetcar: A streetcar with two axles that are perpendicular to the streetcar centerline and parallel to one another.⁴

Standard gauge: Railway trackage spaced at 4 feet, 8.5 inches between the rails.

Steam dummy: A small steam-powered locomotive enclosed in a wooden box to resemble a horsecar and used to pull streetcars.

Streetcar: A vehicle traveling on rails often located within street rights-of-way. Streetcars primarily carried passengers but also hauled freight.

Streetcar Suburbs: Residential areas, sometimes including commercial nodes, that were developed because of the presence of a streetcar line.

Streetcar vs. railroad: Streetcars operated primarily within established street rights-of-way and focused on passenger transportation, whereas railroads traversed expanses between cities and their routes were not predicated on street rights-of-way. Railroads were often powered by steam and then later larger electric locomotives and had a large freight component to their operations.

Track: Used in this report to refer to the actual steel trackage/ties in the ground (see also, *Line*).

Tramway: In this instance, a tramway is another word for a streetcar. This phrase was more frequently utilized in Great Britain when referring to streetcars.

⁴ M'Culloch, "Comparative Earnings and Economy of Operation Between Single and Double Truck Cars for City Use," 152.

Trolley: More broadly, a synonym for an electric streetcar. Precisely, however, it is the “device that carries electric current from an overhead wire to an electrically driven vehicle.”⁵

Trolleybus: An electrically powered bus that draws power from overhead electric wires but does not operate on a track.

Trolley coach: A synonym for trolleybus.

⁵ “Definition of Trolley,” *Merriam-Webster*, accessed October 13, 2019, <https://www.merriam-webster.com/dictionary/trolley>.

2. NATIONAL HISTORIC CONTEXT

The growth of American cities and the everyday lives of their residents was once centered in part around how far an individual could walk. Walking to work, to school, to church, to play, and back home was often the only means urban American citizens had to go about their daily routines in the seventeenth through nineteenth centuries. During a time today so heavily dominated by automobile transport, the restrictions that walking posed are difficult to fathom. Wealthy residents had the luxury of owning horse-drawn carriages to ease their movement around the city; however, lower- and middle-income residents were less fortunate and were forced to walk or ride horses, which could both be uncomfortable and messy in inclement weather. Additionally, keeping a horse in an urban setting posed another set of problems in terms of securing boarding locations and costs associated with feed and shelter for the animal. It was not until the development of streetcar routes—first horse-drawn, then evolving to cable and eventually electric—that larger groups of urban populations were able to work, recreate, shop, and go to school further from their residences. The introduction of streetcar systems had vast implications on urban growth. No longer were residential populations restricted to the city center. Residents could escape the noise and pollution of downtown areas and live in quieter spaces just outside the centers of commerce, known as “streetcar suburbs.” Eventually, this spread to separate communities that grew in response to the streetcar lines, and later, interurban lines that connected communities within a larger metropolis.

Residential “streetcar suburbs” are not the only elements of the urban landscape born as a byproduct of the streetcar systems. These residential areas often included their own small commercial strips. Many times, streetcars were responsible for not only transporting residents, but often served a secondary freight service as well, sometimes delivering mail or affixing freight cars to the back of a passenger car to haul agricultural and commercial goods. While these facets of streetcar systems are not often visible, tangible features of the streetcar system’s imprint on an urban landscape remain in communities throughout the United States.

A. National Streetcar Development

Streetcar systems in the United States are largely a product of the Industrial Revolution at the turn of the twentieth century. The Industrial Revolution not only led to new technologies that

made streetcars possible, but it also resulted in vast population growth in the nation's urban centers. From 1800 to 1850 New York City's population grew from 33,111 to 202,589, making it the largest city in the United States. These new urban residents needed places to live, and city centers could only accommodate so many. Transportation became necessary for middle-class workers to travel to the factories and jobs that drew them to the city in the first place. By 1820 New York, Boston, and Philadelphia had adopted an omnibus service, or a large carriage accommodating several passengers and kept to a route and schedule, in an attempt to fulfill those needs (see Figure 1).⁶ Omnibus service, however, was lacking in speed, regularity, and comfort. By the early 1830s traditional steam-operated railroads, often operating on a standard-gauge (4 feet, 8.5 inches in width), began to appear in the eastern United States.⁷ When steam locomotives eventually made it to the western United States, many railroad companies favored a narrow gauge (anything less than 4 feet, 8.5 inches in width) track placement because of the lower construction costs and ability to traverse tighter curves and steeper grades, although standard-gauge tracks could accommodate heavier weight limits.⁸

While the introduction of steam locomotives improved the long-distance transport of passengers and goods, residents of the nation's growing metropolises still lacked an expedient and reliable manner to move across their cities. In 1832 the New York and Harlem Railroad modified the omnibus service to operate on railroad tracks located on city streets, creating the first horsecar service operating on city streets in the country. This proved to be more efficient than basic omnibus service in keeping to planned schedules, and could carry more passengers.⁹ The New York and Harlem Railroad set an example followed in cities across the country, both in its financing and private ownership. The company was also the first example of real estate

⁶ New South Associates, *Historic Streetcar Systems in Georgia* (prepared for the Georgia Department of Transportation, January 31, 2012), 17–18.

⁷ "First U.S. Railway Chartered to Transport Freight and Passengers," accessed January 9, 2020, http://www.americaslibrary.gov/jb/nation/jb_nation_train_1.html.

⁸ "Gauge | Railroad Track," *Encyclopedia Britannica*, accessed January 9, 2020, <https://www.britannica.com/technology/gauge-railroad-track>.

⁹ William D. Middleton, *The Time of the Trolley, Volume I* (San Marino, Calif.: Golden West Books, 1987), 15.

developers creating a streetcar line to promote development within their holdings, a pattern copied for decades to follow.¹⁰

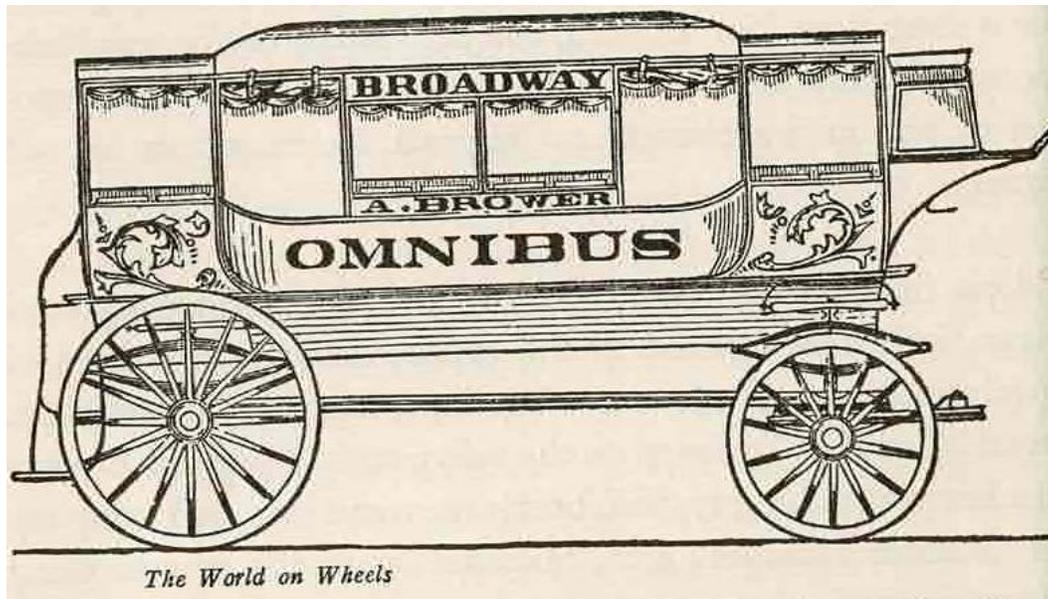


Figure 1. A drawing of New York’s first omnibus in 1831.¹¹

A private company in New Orleans soon followed the New York and Harlem Railroad’s example, establishing a nearly 2-mile route from the downtown area to a residential suburb along St. Charles Avenue. Although New York and New Orleans were quick to jump on the horsecar technology, the rest of the country was delayed for various reasons, including the financial and banking crisis that resulted in the Panic of 1837. By 1858 Boston boasted two competing horsecar companies, another glimpse of a pattern that would be repeated as streetcar usage spread to growing cities such as Chicago, Pittsburgh, Cincinnati, and Baltimore.¹²

Following the Civil War, streetcar service across the United States expanded rapidly. Much of the south, which lacked the population necessary to support streetcar systems prior to the Civil

¹⁰ New South Associates, *Historic Streetcar Systems in Georgia*, 18.

¹¹ John Anderson Miller, *Fares Please!* (New York: Dover Publications, Inc., 1960), 6.

¹² Middleton, *The Time of the Trolley, Volume I*, 15–16.

War, began industrializing to a greater degree. This industrialization led to population growth in urban communities in the south, and streetcar development soon followed.¹³ By 1881 a total of 415 companies operated across the country, accounting for “an annual business in the vicinity of 1 ½ billion dollars.”¹⁴

Horsecars used on these early systems had numerous drawbacks. The horses were often startled, resulting in accidents. Newspapers articles, like one appearing in the Philadelphia *Sunday Dispatch* in 1857, claimed that horsecars in New York City killed people at the rate of a person a week. Many considered them to be a safety hazard for horses, pedestrians, and other vehicles (see Figure 2).¹⁵ Horsecars were only viewed as a slight improvement to the prior omnibus service, and residents became eager for another alternative. Transit companies also sought alternatives. Housing, feeding, and maintaining the often-large fleets of animals required for a horsecar system was an expensive endeavor. A horse used for pulling streetcars cost around \$125, and large streetcar companies could require at least 1,000 horses in order to cover the shifts necessary and give the animals their needed breaks. The American Street Railway Association stated at one point that “about forty percent of the entire investment of the average company was in horses and stables.”¹⁶ Additionally, the horses were retired quickly, only serving horsecar companies between three and five years.¹⁷ Adding to the daily difficulties and expenses, an equine flu outbreak, referred to as the “Great Epizootic,” swept across North America, peaking in 1872. It killed as many as 200 horses a day in some places drastically impacting streetcar services in many cities.¹⁸

¹³ New South Associates, *Historic Streetcar Systems in Georgia*, 20.

¹⁴ Middleton, *The Time of the Trolley, Volume I*, 21.

¹⁵ Middleton, *The Time of the Trolley, Volume I*, 16.

¹⁶ Miller, *Fares Please!*, 23.

¹⁷ New South Associates, *Historic Streetcar Systems in Georgia*, 20.

¹⁸ New South Associates, *Historic Streetcar Systems in Georgia*, 28.



Figure 2. Woodcut image from an 1865 issue of Frank Leslie's *Illustrated Newspaper* showing the dangers often perceived from horsecars.¹⁹

B. Technology Advances

In an effort to improve the speed of service and cut out the expense of maintaining a fleet of animals, streetcar companies and enterprising individuals experimented with alternate modes of power. Several companies attempted to use steam dummies, which were merely shortened steam locomotives set within a body that resembled a streetcar and operated on rails set on city streets. San Francisco boasted a steam dummy streetcar system that began operating in 1860. This operation, however, only lasted seven years before it was replaced by horsecars. Residents often objected to steam dummies, and some local governments disallowed them, because of noise and pollution. Several companies attempted to design engines that were smokeless and noiseless, though most proved unsuccessful.²⁰

An alternative to horsecars and steam dummies finally arrived in 1873, when Andrew S. Hallidie installed the first cable car line in San Francisco (see Figure 3). Hallidie developed cable car

¹⁹ Middleton, *The Time of the Trolley, Volume I*, 18.

²⁰ Middleton, *The Time of the Trolley, Volume I*, 32–34.

technology from his own wire rope manufacturing business.²¹ Hallidie applied the rope to streetcars, enabling the streetcars to climb steep hills in San Francisco that were previously unmanageable by horsecars. Cable cars featured a grip system in the streetcar's undercarriage that attached to a loop of continuously moving underground cable wire spun from a central powerhouse, which pulled the streetcar along the route. Cable car systems utilized rails supported by cast-iron yokes that created a narrow conduit between the rails through which the cable was strung (see Figure 4). The cable moved through the conduit by way of a series of pulleys and sheaves, ending at a powerhouse. Cables entered the powerhouse at right angles and then wound around a wheel 10 to 25 feet in diameter. Before returning to the conduit, the cable passed through a counterweighted pulley that helped to provide tension on the cable. A reciprocating steam engine powered the wheel, and multiple cables often extended from one power plant.²²

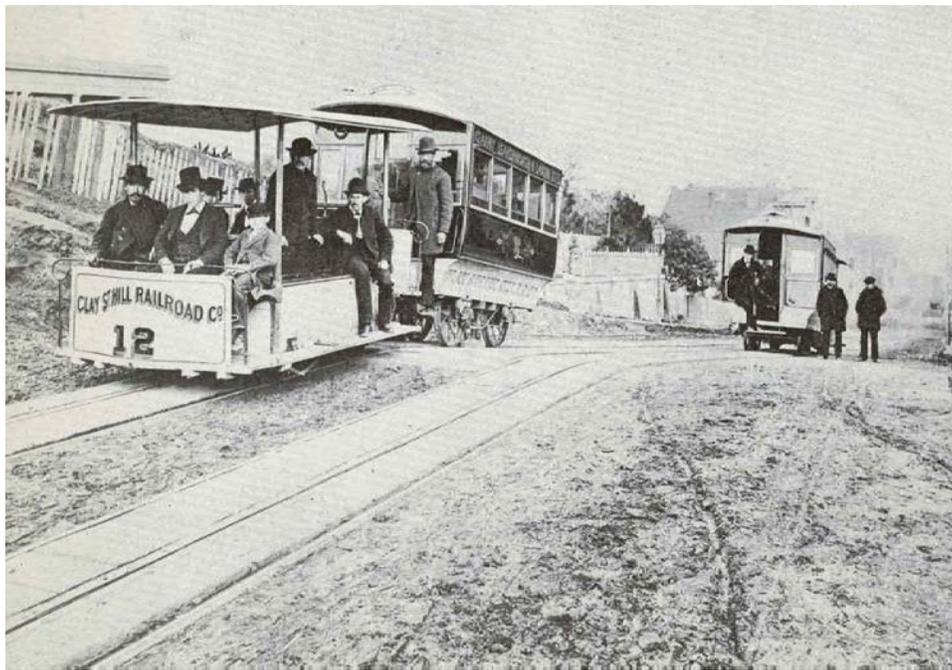


Figure 3. Hallidie's original cable streetcar on Clay Street in San Francisco in September 1873. Note the slot visible in the middle of the tracks where the grip from the cable car attached to the underground cable.²³

²¹ New South Associates, *Historic Streetcar Systems in Georgia*, 29.

²² Middleton, *The Time of the Trolley, Volume I*, 49.

²³ Rowsome, *Trolley Car Treasury*, 50.

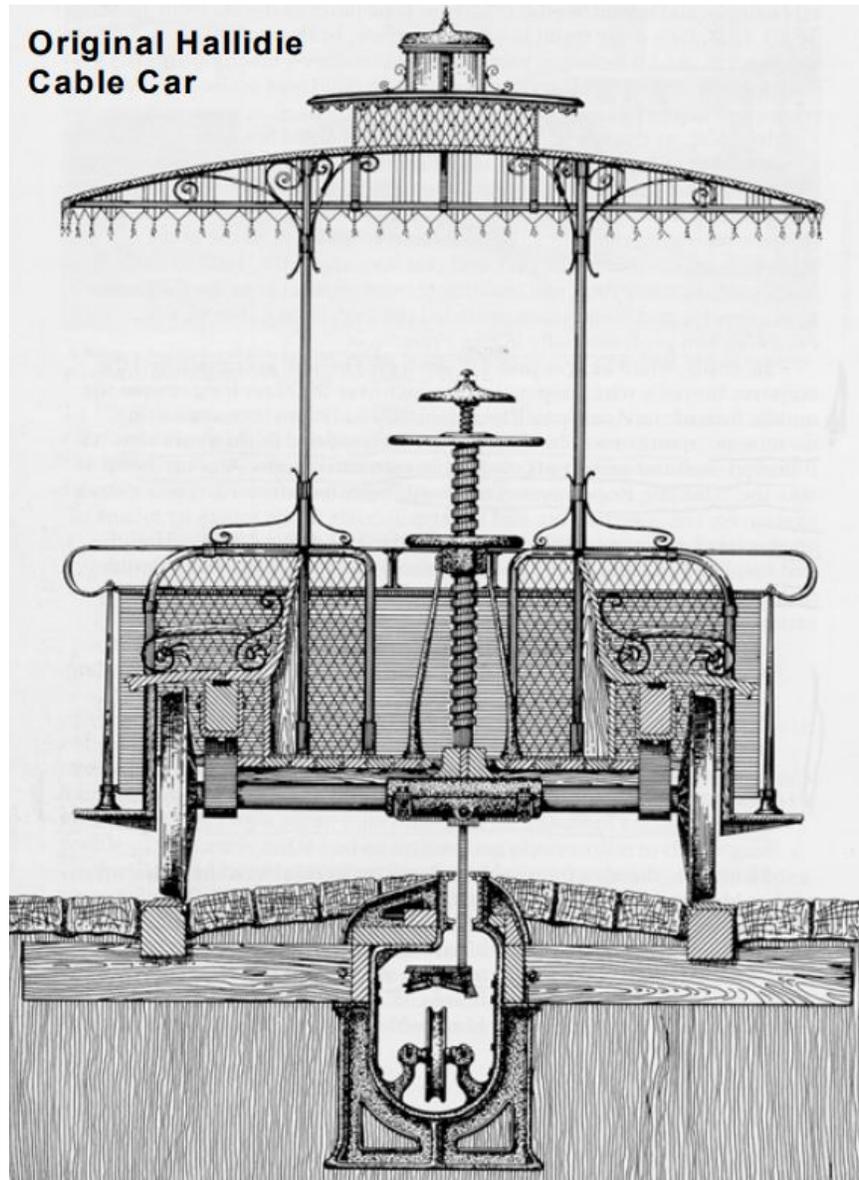


Figure 4. Cross-Section of Hallidie’s original cable-car design showing the central cable conduit and grip mechanism beneath the streetcar.²⁴

²⁴ Les M. Okreglak, “San Francisco Cable Car - Original Design and Current Operation” (Presented for the International OITAF Congress, San Francisco, Calif., 1999), 3, <https://mountainscholar.org/bitstream/handle/11124/70562/Okreglak.pdf?sequence=1>.

Hallidie's cable streetcars were hugely successful and at least 28 other cities adapted the technology by the early 1890s, including Denver.²⁵ Denver's cable network was particularly notable as two distinct companies operated two separate cable streetcar systems. The cable power house associated with the Denver City Cable Railway, which operated 34 miles of cable from its powerhouse, had the largest amount of cable running from a powerhouse than anywhere else in the country. The Denver City Cable Railway's Welton Street line also had the distinction of holding the longest known individual cable line at the time at nearly 7 miles.²⁶ By 1890 the United States had approximately 500 miles of cable railways in operation, carrying roughly 400 million passengers per year.²⁷ By 1894 mileage in the United States had reached a peak of 662 miles.²⁸ Cities like Chicago and San Francisco saw property values increase near the cable car routes. Citizens appreciated having access to consistent public transportation and the corresponding health benefits from removing the "voidings" of thousands of horses and associated noise that came with them.²⁹

Cable railways traveled nearly two times as fast as horsecars and did not require the expenses associated with maintaining a fleet of animals. Additionally, cable cars were quieter and cleaner than horsecars and steam dummies. Despite these improvements over horsecar service, cable railways had their own shortcomings. Depending on the number of curves in a line and the amount of traffic it saw, cables could wear out as quickly as three months.³⁰ Constructing cable routes was expensive, and replacing cables was a costly and disruptive activity.³¹ Operating a cable streetcar system was extremely costly as well, as it required great deal of power to move the heavy wire cables. Most of the power generated to operate a cable car system went not to moving the cars or passengers themselves, but instead to operating the wheels and pulleys

²⁵ New South Associates, *Historic Streetcar Systems in Georgia*, 29; Middleton, *The Time of the Trolley, Volume I*, 49.

²⁶ George W. Hilton, "Denver's Cable Railways," *The Colorado Magazine*, 1967, 43.

²⁷ Miller, *Fares Please!*, 49.

²⁸ Middleton, *The Time of the Trolley, Volume I*, 49.

²⁹ Miller, *Fares Please!*, 45.

³⁰ Middleton, *The Time of the Trolley, Volume I*, 49.

³¹ Hilton, "Denver's Cable Railways," 7.

needed to move the cable, as a San Francisco study from 1888 estimated 57 percent of the power used in the system was devoted to the latter.³² Breakdowns were common, as grip mechanisms on the cable cars were prone to breaking or becoming entangled in frayed wires on the cable, making it impossible for streetcars to stop. Colder climates, like Denver, also experienced difficulties with ice and snow accumulating in the cable tube. The gripman operating the cable car required a great deal of training and physical ability to work the grip and maintain a smooth and consistent speed.³³ Finally, the cable car era “proved to be one of the most litigious in the entire history of public transportation.” Individuals and municipalities frequently argued whether the technology employed in their systems was previously patented or whether the minor changes in grips, pulleys, and other workings precluded their system from hefty royalties on patented technology.³⁴ While cable streetcar systems were being constructed and operated across the country, inventors were hard at work for the next technological advancement in the public transport realm: electricity.

(1) *Frank Sprague and the Modern Electric Streetcar*

Early attempts at electrification of streetcar lines proved to have various drawbacks. Experimentations with batteries proved they lacked sufficient power and reliability to pull streetcars for a sufficient distance, while efforts to obtain power through a third rail, like that attempted in Denver in the mid-1880s, proved unreliable, dangerous to pedestrians and animals, and problematic in rain, snow, and ice.³⁵

This changed when Frank J. Sprague developed the world’s first modern electric streetcar system in Richmond, Virginia, in 1887-1888 (see Figure 5). Sprague became interested in electricity as an undergraduate in the United States Naval Academy. In 1883 he resigned from the Navy and

³² Middleton, *The Time of the Trolley, Volume I*, 50.

³³ Miller, *Fares Please!*, 48.

³⁴ Brian J. Cudahy, *Cash Tokens and Transfers: A History of Urban Mass Transit in North America* (New York: Fordham University Press, n.d.), 31.

³⁵ New South Associates, *Historic Streetcar Systems in Georgia*, 30.

began working for Thomas Edison in Menlo Park, New Jersey. The following year Sprague ventured out on his own and founded the Sprague Electric Railway and Motor Company.³⁶

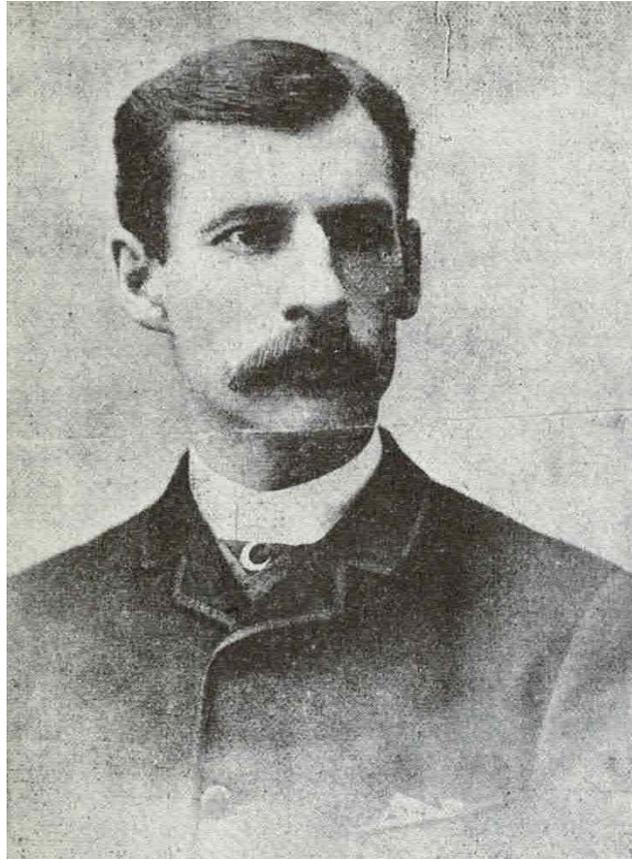


Figure 5. Undated photograph of Frank J. Sprague.³⁷

Sprague’s company secured a contract to electrify the streetcar network in Richmond. He used an overhead electrification system with a “swivel mounting that would permit the pole to swing freely to follow the trolley wire on curves or wherever it was not immediately above the center of the track.”³⁸ Richmond, with its steep hills and 12 miles of streetcar trackage, proved to be an important testing ground to determine whether or not Sprague’s new system could handle the

³⁶ New South Associates, *Historic Streetcar Systems in Georgia*, 32.

³⁷ Rowsome, *Trolley Car Treasury*, 82.

³⁸ Miller, *Fares Please!*, 65.

geographic rigors present across many cities in the United States (see Figure 6).³⁹ On February 2, 1888, Sprague proved his new configuration could handle the challenges when the fully electrified system in Richmond opened for operations.⁴⁰

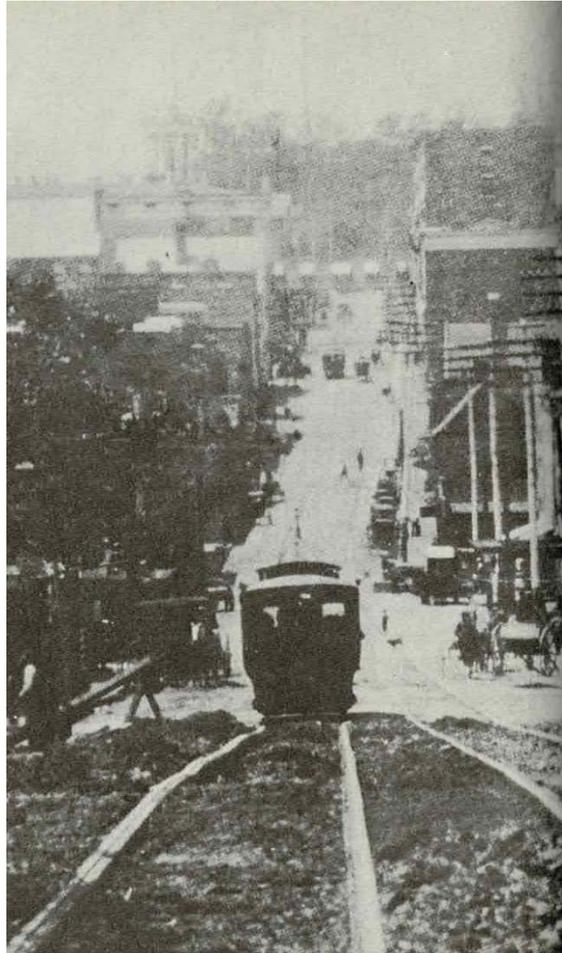


Figure 6. Sprague's electric streetcar successfully navigating the challenging geography in Richmond.⁴¹

³⁹ Rowsome, *Trolley Car Treasury*, 2.

⁴⁰ New South Associates, *Historic Streetcar Systems in Georgia*, 32.

⁴¹ Miller, *Fares Please!*, 64.

C. Electric Streetcars Roll Across the Country

Communities across the United States took notice and quickly abandoned the finicky and expensive cable operations in favor of electric power. By 1890 Cleveland, St. Louis, Pittsburgh, Tacoma, and Minneapolis had all adopted Sprague-designed electric streetcar systems. That same year a census of electrified trackage in the United States recounted that 1,260 miles of streetcar trackage had been electrified, just two years following Sprague's successful opening of the line in Richmond.⁴² By 1902 only a few cities retained cable operations and horsecar trackage had shrunk to roughly 250 miles in the entire country. In contrast, electric streetcar trackage had ballooned to 22,000 miles.⁴³ The adaptation of electric street railway technology spread like wildfire following the success in Richmond.

Companies could often utilize the tracks already in place from the horsecar systems; however, many companies elected to replace the rails with a heavier weight of steel to accommodate the greater weight of electric streetcars. In addition, more equipment and infrastructure were required to adopt electricity as the power source for running a streetcar system. The electricity was often supplied by the streetcar companies themselves. Most streetcars operated using direct current (DC) at between 500 and 600 volts. Power, however, was typically generated using higher-voltage alternating current (AC), which was favorable to the lower-voltage DC because it transmitted more efficiently over longer distances without losing power. In order to get the AC current disseminated from the power plants, which were often coal-fired, to the overhead lines and streetcars themselves, many times streetcar companies employed a series of substations. These substations, which were spaced at intervals depending on the traffic on various lines, utilized transformers and converters to drop the AC current to DC.⁴⁴ In order to maintain consistent power levels, companies often constructed their electric streetcar systems as a series of sections, which each obtained power from separate "high capacity feeder cables" that were then connected to the overhead wires.⁴⁵ The circuit from the overhead wires is then completed via the

⁴² Miller, *Fares Please!*, 69–101.

⁴³ Miller, *Fares Please!*, 101.

⁴⁴ Middleton, *The Time of the Trolley, Volume I*, 223.

⁴⁵ "Sources of Power," accessed January 15, 2020, <http://www.heritagetrolley.org/planPower.htm>.

metal streetcar wheels grounded through the steel tracks.⁴⁶ In addition to coal-fired power plants, some streetcar networks generated power using hydroelectric facilities, which utilized flowing water to rotate turbine and generate electricity. One known hydroelectric facility in Colorado was the Lake Moraine power plant west of Colorado Springs, which was constructed specifically to provide electricity for the streetcars in Cripple Creek.⁴⁷

Despite the initial investment required to construct the infrastructure necessary to support an electric streetcar system, the country's municipalities were fully behind the new technology, as were industry experts. The once popular *Street Railway Journal*, which began in 1884 as a spin-off of *The Journal of Railway Appliances* and recounted all things related to streetcar service in the country, changed its name to the *Electric Railway Journal*, reflecting the national trend.⁴⁸ From 1890 to 1902 investments in street railway systems grew from \$400 million to more than \$2 billion.⁴⁹ Investors were eager to make their money on streetcar systems and new companies appeared overnight in many cities, creating great competition and, in some cities, oversaturation of services.⁵⁰ Competition between streetcar companies was intense, with larger cities served by multiple companies, all operating in close proximity to one another. This oversaturation led many electric streetcar companies to find themselves in difficult financial standing, resulting in mergers and consolidations of streetcar companies across the country.

Streetcar companies were often required to obtain a franchise from municipalities in order to operate a system within street rights-of-way. Each city structured their franchises differently, but most required payment to the city that could be a lump sum or annual payment, either based on a percentage of revenues for that year or a set amount. These franchises often contained other requirements for the streetcar company to follow, which included track and street maintenance or

⁴⁶ "How A Streetcar Works," *Boston Streetcars*, accessed January 15, 2020, <http://www.bostonstreetcars.com/how-a-streetcar-works.html>.

⁴⁷ Tivis E. Wilkins, *Short Line to Cripple Creek: The Story of the Colorado Springs & Cripple Creek District Railway* (Golden, Colo.: The Colorado Railroad Museum, 1983), 10–13.

⁴⁸ Miller, *Fares Please!*, 109.

⁴⁹ Middleton, *The Time of the Trolley, Volume I*, 77.

⁵⁰ Rowsome, *Trolley Car Treasury*, 97.

paving, and occasionally fixed fare rates.⁵¹ The franchises with fixed fare rates proved to be difficult for streetcar companies to contend with in the future, as expenses and labor costs rose. With fares often set by their original franchise, the streetcar companies were generally left with little recourse to recuperate these costs in the form of fare changes. Many streetcar companies became embattled in legal arguments regarding the rights of franchises to fix fares and how to restructure franchises to allow for fare changes.

Residents fully embraced streetcar life as it became an indispensable aspect of daily travel routines. Less than 30 percent of the United States lived in urban environments in 1880, but by the beginning of World War I that number jumped to at least 50 percent as industrial jobs attracted both immigrant labor and the nation's rural population into the cities. Electric streetcars arrived on the scene just in time to serve this growing population. Beyond the practical use of streetcar transportation, patrons utilized electric streetcars for "pleasure travel" as well, which included social excursions, charter trips, sight-seeing tours, and even courtships. Streetcar companies were also keenly aware of the income potential associated with transporting patrons to and from parks and resorts, and the revenue was even better if those destinations were owned by streetcar companies themselves. A census completed in 1907 showed that streetcar companies operated "some 4,676 parks or pleasure resorts...with an annual patronage well in excess of 50 million visitors."⁵² Ownership and service to amusement parks provided continual operation of the streetcars, which were necessary during rush hours, but would have otherwise sat idle on the weekends.

Streetcars, which played such an important role in the day-to-day lives of metropolitan residents, often provided their final ride through funeral service transportation. Streetcar companies across the country had specially outfitted cars to transport coffins to cemeteries located on streetcar lines. In addition to providing funeral services, streetcar companies also serviced cemeteries as a means of recreation during a time when citizens across the country also utilized burial grounds as parks and picnic grounds.

⁵¹ Middleton, *The Time of the Trolley, Volume I*, 79.

⁵² Middleton, *The Time of the Trolley, Volume I*, 86.

To many communities, an electric streetcar system symbolized the value of their community, its potential for growth, and economic prospects.⁵³ Civic leaders encouraged future business investment by pointing to the investment streetcar promoters had already allocated as a reflection of their city's potential.

The ramifications of electric streetcar service to cities across the country are clear. Electric streetcars were able to travel further and faster than any previous mode of urban transport. Areas once considered outlying and sparsely populated were now expediently serviced by electric streetcars. Streetcar investors felt that future residents would provide paying fares in the future, creating a profitable business proposition not only for the streetcar investors, but real estate developers as well.⁵⁴ A direct correlation was found between streetcar construction and land values, as streetcar lines often increased land values and the population of adjacent areas.⁵⁵ Real estate developers were keenly aware of this trend and often built electric streetcar lines themselves, or helped finance their construction into their holdings. The result was the growth of “streetcar suburbs,” residential areas built along a streetcar line that sometimes included commercial nodes. Streetcar suburbs often included wider streets with sweeping curves, landscaped streets, and picturesque houses set on enlarged lots compared with their denser city-center residential counterparts.⁵⁶

D. Streetcar Alternate Uses

Streetcar lines were not only utilized to transport people from one place to another. Post offices employed streetcars to deliver mail more efficiently, with New York utilizing cable cars in its mail delivery services as early as 1895. By 1890 Saint Paul and Minneapolis became one of the first cities to utilize an electric streetcar to assist in mail delivery. Soon, most large American

⁵³ Rowsome, *Trolley Car Treasury*, 97.

⁵⁴ Miller, *Fares Please!*, 101–2.

⁵⁵ Middleton, *The Time of the Trolley, Volume I*, 77.

⁵⁶ Sam B. Warner, Jr., *Streetcar Suburbs* (Cambridge, Mass.: Harvard University Press and the M.I.T. Press, 1962), 20.

cities utilized trolley cars to expedite mail delivery.⁵⁷ Streetcars were also sometimes used to haul freight. In Colorado, the interurban systems in Denver, Cripple Creek, and Trinidad hauled coal, precious metal ores, and other goods on their electric lines.

E. Interurbans

Soon after Sprague's historic accomplishment in Richmond, investors recognized the potential for electric streetcar applications outside the city limits. If a connection could be made between towns using the same fast, efficient, and affordable electric railway technology utilized by streetcars within town, communities once separated by day-long carriage rides could become a quick trip apart. Steam railroads already connected some of these locations, but their schedules were often predicated around freight transport rather than passenger needs. Electric streetcar service provided more frequent, dedicated passenger service than their steam counterparts. Progress in alternating-current transmission technology made this possible.⁵⁸ The first interurban lines were constructed in Ohio, between Granville and Newark in 1889, and in Oregon, between Portland and Oregon City in 1893.⁵⁹ The trend, however, did not really take off until 1895, when the Akron Bedford and Cleveland Railroad began constructing interurbans that would eventually include more than 500 miles of interurbans trackage in systems in Michigan, Ohio and Canada.⁶⁰ Initially, interurbans did not fare as well, but as equipment and technology advanced, the lines connecting municipalities were embraced across the country, just as electric streetcars within towns were.⁶¹

⁵⁷ Middleton, *The Time of the Trolley, Volume I*, 50–96.

⁵⁸ William M. Moedinger, *The Trolley Triumph of Transportation* (Lebanon, Penn.: Applied Arts Publishers, 1987), 16.

⁵⁹ Cudahy, *Cash Tokens and Transfers: A History of Urban Mass Transit in North America*, 50; Raanan Geberer, "Trolleys' Time: When Streetcars Were Desired," *HistoryNet*, July 22, 2019, <https://www.historynet.com/trolleys-time-when-streetcars-were-desired.htm>.

⁶⁰ Geberer, "Trolleys' Time."

⁶¹ Rowsome, *Trolley Car Treasury*, 123.

Interurbans were less expensive, more frequent, and cleaner than steam railroads and proved to be successful for investors.⁶² Interurbans took on a variety of appearances from a simple streetcar line that extended beyond city limits into a more rural area, to “a highly developed grid of lines like those that were developing around Los Angeles during this period.”⁶³ The Los Angeles interurban network, established by the Pacific Electric Railway, was the largest interurban system in the country, boasting more than 1,000 miles of trackage, 2,700 daily train rides, and 109 million passengers annually during its peak. While other interurban systems were not as large as that surrounding Los Angeles, the area including Michigan, Indiana, Illinois, Wisconsin, Ohio, and New York saw the greatest concentrations of interurban trackage, accounting for almost half of the total interurban trackage in the country.⁶⁴ The flat topography of Midwestern states lent itself to easy interurban construction, while the proximity of manufacturing centers afforded additional income opportunities.⁶⁵

Interurban companies found that they could make money not only off of fares, but by offering freight operations as well. Many interurbans were constructed at standard gauge, which allowed for easy interchanges with steam-powered freight railroads that crisscrossed the country.⁶⁶ Despite the quick embrace of interurban lines, it became clear by the early decades of the twentieth century that automobile traffic, with its flexibility of schedule and destination, would prevail over interurbans. There was roughly 18,000 miles of interurban trackage across the country by 1917; however, the 1920s marked the beginning of abandonments that lasted through the depression. By 1939 the number of interurban trackage miles had dropped to 3,711 and it was clear that interurbans across the country had been replaced.⁶⁷

⁶² Moedinger, *The Trolley Triumph of Transportation*, 16.

⁶³ Don Robertson and Kenton Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, vol. 3 (Golden, Colo.: Colorado Railroad Historical Foundation, Inc., 2010), 36.

⁶⁴ Moedinger, *The Trolley Triumph of Transportation*, 16.

⁶⁵ Geberer, “Trolleys’ Time.”

⁶⁶ Moedinger, *The Trolley Triumph of Transportation*, 17.

⁶⁷ Geberer, “Trolleys’ Time.”

F. The Decline of Streetcars

Urban life in the United States continued to revolve around electric streetcars, and investment in and construction of streetcar lines across the country continued beyond the initial building boom. At the turn of the twentieth century, automobiles were a novelty only affordable to the wealthy. With Henry Ford's development of a moving assembly line for automobile production, which was in place by 1914, automobile ownership became more affordable and accessible to the masses. Prior to the efficient assembly line manufacturing process, a Model T sold for \$850. By 1924 one could be purchased for \$290, a price far more attainable to middle-class citizens.⁶⁸ Despite this uptick in automobiles, most Americans still relied on public transportation, but the writing was on the wall. Starting in 1914 there is evidence of the use of jitneys, or small bus-like vehicles, to transport riders between set destinations.⁶⁹ By 1915 it was estimated that anywhere between 6,000 and 10,000 jitneys were in operation in the United States.⁷⁰ Jitney drivers provided their service only during rush hours and were not required to keep to a schedule of any sort. Jitneys quickly faded from the scene; however, their early use foreshadowed what was to come.

By 1917 the country saw the peak of electric streetcar track mileage with approximately 26,000 miles of electric streetcar trackage across the country, while ridership peaked in 1923 at roughly 14 billion.⁷¹ In addition to the growing popularity of private automobile ownership that diminished ridership revenue, streetcar companies also found themselves constrained by their franchises granted to them by their respective cities, which often required a set fare. Additionally, streetcar companies were subject to taxes as well as additional fees charged by municipalities that went toward street maintenance and paving, infrastructure improvement, and other various projects aimed at improving the roads for automobiles.⁷² Original franchise terms and growing expenses left streetcar companies across the country in difficult financial standing.

⁶⁸ Associated Cultural Resource Experts, *Highways to the Sky: A Context and History of Colorado's Highway System* (Prepared for the Colorado Department of Transportation, 2002), 5–1.

⁶⁹ New South Associates, *Historic Streetcar Systems in Georgia*, 58.

⁷⁰ Middleton, *The Time of the Trolley, Volume I*, 156–57.

⁷¹ Middleton, *The Time of the Trolley, Volume I*, 103; Cudahy, *Cash Tokens and Transfers: A History of Urban Mass Transit in North America*, 56.

⁷² Miller, *Fares Please!*, 103.

After 1923 streetcar and transit companies across the country began turning to cheaper, trackless options such as motor buses and electric trolley buses to address the transit needs of their communities.⁷³ Between 1930 and the 1950s the number of trackless trolleys rose from approximately 173 to 7,000 vehicles across the United States.⁷⁴ Buses were cheaper to operate, did not require an expensive network of tracks to maintain, and had the freedom to change routes as desired should an impediment appear on the scheduled route. This, combined with the hardships of the Great Depression, saw ridership on streetcars suffer. Most streetcars had ceased operations in smaller cities by the early 1930s, while larger municipalities continued to hold on to the rails that carried their residents across town. Major cities, including Denver, Cincinnati, Cleveland, Minneapolis, Saint Paul, Detroit, Brooklyn, Kansas City, and Dallas, however, abandoned the streetcar in droves during the 1950s.⁷⁵ While some residents were glad to see the streetcar removed in the guise of progress, many were not. Across the nation, urban Americans sent the streetcars that had been such a crucial aspect of their daily lives into retirement with grand celebrations, noting their long relationship and appreciation for the role they played.

⁷³ Miller, *Fares Please!*, 116.

⁷⁴ Cudahy, *Cash Tokens and Transfers: A History of Urban Mass Transit in North America*, 112.

⁷⁵ Middleton, *The Time of the Trolley, Volume I*, 170.



Figure 7. Junked streetcars in Los Angeles.⁷⁶

⁷⁶ Middleton, *The Time of the Trolley, Volume I*, 166.

3. STREETCARS IN COLORADO

A. Colorado Community Development

Although Native Americans have inhabited Colorado for thousands of years, the first Spanish explorers arrived in approximately 1540 looking for the famed seven cities of gold. Fur trappers and traders did not begin to work the plains of eastern Colorado until the later 1600s. In the early 1800s explorers Zebulon Pike and later Stephen H. Long sent reports on the Arkansas and Platte River valleys back to interested parties on the east coast. Slowly, trappers, traders, and explorers established trails across the plains east of the Rocky Mountains. Early forts protected travelers along these routes. It was not until William Russell discovered gold on Dry Creek near present day Denver in 1858 that additional prospectors arrived and began establishing towns along the Front Range of the Rocky Mountains, which spans roughly from Fort Collins to the north to Colorado Springs to the south.⁷⁷

The United States Congress created the Colorado Territory in February 1861 to provide some sort of organization among the newly arriving prospectors. Towns east of the mountains were established, often near water sources, to serve as mining supply centers and agricultural activities were encouraged to support the miners and those living in the growing communities.⁷⁸ When the first railroad entered Colorado in 1867, it changed the way cities were established and their future prosperity. Those communities fortunate enough to be located along one of the many railroads that soon crisscrossed the Front Range had their futures solidified by the connection provided by the rail network, while entirely new communities were founded along the iron rails.⁷⁹

Town promoters and real estate speculators were busy at work creating new towns across the plains. Communities like Denver, founded in 1858 as a result of prospecting finds, ultimately

⁷⁷ Steven F. Mehls, *Colorado Plains Historic Context* (Denver: Prepared for the Colorado Historical Society, 1984), 1–20.

⁷⁸ Mehls, *Colorado Plains Historic Context*, 21.

⁷⁹ Mehls, *Colorado Plains Historic Context*, 41–62.

grew into major railroad hubs. Fort Collins, which originally developed because of the protection the nearby army post offered, also grew because of a later rail connection. Agricultural and ranching communities, like Greeley, utilized irrigation efforts to secure their future success and railroad connections to transport their goods. These Front Range communities also promoted themselves as tourist and health destinations where individuals could take in the beautiful mountain scenery and benefit from the thin, clear air, which aided those afflicted with respiratory problems. Communities like Colorado Springs successfully marketed themselves as health retreats easily accessible by train, and later by highway in the comfort of one's own automobile.⁸⁰

Mountain and western communities, however, grew differently than those along the Front Range. Mountain communities were often established in response to major mining claims and processing facilities. Towns grew around mines and mills, complete with the amenities needed by miners and mill employees including stores, schools, churches, union halls, doctors' offices, and newspapers. Mountain towns were often separated into residential areas reserved for mine management and a distinct area for workers. Though often geographically segregated by great distances, this pattern was duplicated in communities across the high country.⁸¹

Colorado's population grew to 39,864 by 1870. The federal government declared Colorado a state in 1876 and Denver was chosen as the capitol, cementing its importance within the state. Rail connections to other communities within Colorado and further to the east allowed the state's population to balloon to 413,249 in 1890, with a majority residing in the Front Range.⁸² The population of Colorado's mountain and western communities, which were often extremely isolated, fluctuated greatly depending upon the status of the mining industry.⁸³

⁸⁰ Mehls, *Colorado Plains Historic Context*, 41–96.

⁸¹ Steven F. Mehls, *Colorado Mountains Historic Context* (Denver: Prepared for the Colorado Historical Society, 1984), 31.

⁸² U.S. Census Bureau, "Resident Population and Apportionment of the U.S. House of Representatives-Colorado," n.d., <https://www.census.gov/dmd/www/resapport/states/colorado.pdf>.

⁸³ William Philpott, *Vacationland: Tourism and Environment in the Colorado High Country* (Seattle: University of Washington Press, 2013), 17.

Whether Colorado cities were located in the western part of the state or on the Front Range, their residents and promoters wanted them to be desirable. Beginning in the late 1870s this desirability was often linked to the presence of a streetcar system. Residents of the newly formed state, which much of the country viewed as the “Wild West,” wanted to be taken seriously and regarded as equally cosmopolitan to their eastern counterparts. Simultaneously, young communities within Colorado battled each other for status as local and regional hubs. The presence of a streetcar system was a status symbol for Colorado communities; it implied that certain cities were more prosperous than their neighboring towns, and just as sophisticated as the East Coast and Midwestern cities from which many settlers had relocated.

On the Front Range, the smaller communities and suburbs that emerged near larger cities offered quieter, cleaner residential areas removed from the city centers. Early on, most of these suburbs were short carriage rides away. With the advent of streetcar service in all of its forms, streetcar suburbs grew across the Front Range, allowing residents to live further from their places of employment.⁸⁴ The notion of living further from centers of commerce expanded with the development of the automobile and personal automobile ownership. As the population grew, the largest cities of the Front Range quickly became a web of connected communities, extending from Fort Collins to Pueblo.⁸⁵ Conversely, suburbs are not common in mountain communities because of the great distances and geographic features between cities in the western part of the state.

B. Streetcar Technologies in Colorado

Although the first horsecar service in the United States opened in 1832 in Harlem (New York), Colorado did not receive its first horsecar service until 1871, when tracks were laid in Denver’s

⁸⁴ R. Laurie Simmons and Thomas H. Simmons, “The Instant City- The Gold Rush and Early Settlement, 1858-1892,” n.d., 10, <https://www.discoverdenver.co/sites/discoverdenver.co/files/document/pdf/The%20Instant%20City%201858%20-%201892.pdf>.

⁸⁵ Bunyak Research Associates and Front Range Research Associates, Inc., *Denver Area Post-World War II Suburbs* (Prepared for the Colorado Department of Transportation Applied Research and Innovation Branch, April 2011), 4–6.

central business district.⁸⁶ Pueblo followed shortly thereafter, establishing horsecar service in 1878.⁸⁷ There does not appear to be a significant difference in the timing of horsecar lines in the Front Range communities and mountain communities. With the exception of Grand Junction, which did not end horsecar service until about 1903, and the Cherrelyn gravity horsecar tourist attraction in Englewood that continued service until 1910, most Colorado communities stopped their horsecar service by the turn of the century, either abandoning streetcar service altogether or upgrading horsecars in favor of newer technologies.⁸⁸ While all other streetcar companies in Colorado utilized either horsecars or electric power, Denver's streetcar companies experimented with various technologies. Among these technologies were steam dummies, which were employed by the Denver Circle Railroad, the Denver & Berkeley Park Rapid Transit Company, the Park Railway Company, and the Fairmount Railway Company. Steam dummies began operating in Denver in 1880 and appear to have ceased operations by 1898, when steam dummy lines were either abandoned or converted to electric power.⁸⁹

Other Denver streetcar companies, such as the Eastern Capitol Hill Electric Railroad and the Denver, Lakewood & Golden Railroad, also attempted to utilize alternate modes of power including storage batteries, which ultimately failed to meet speed and range expectations.⁹⁰ The Denver Tramway Company (Tramway), which started as an early rival to Denver's first horsecar company and would ultimately be the final streetcar company left operating in Denver, dominated public transportation in the city for over 60 years. It made the first attempt at operating an electric streetcar in Colorado in 1886 by utilizing a technology developed by

⁸⁶ Middleton, *The Time of the Trolley, Volume I*, 15; Beth Glandon, *Streetcar Commercial Districts Reconnaissance Survey Final Report* (Prepared for Historic Denver and the Discover Denver Project, 2013), 2.

⁸⁷ Ken Fletcher, *Centennial State Trolleys* (Golden, Colo.: Colorado Railroad Historical Foundation, Inc., 1995), 134.

⁸⁸ Englewood Historical Society, *A History of Englewood, Colorado and An Overview of Fort Logan Colorado* (Dallas: Curtis Media Corporation, 1993), 103; William L. McGuire and Charles Teed, *The Fruit Belt Route* (Grand Junction, Colo.: Rio Grande Chapter of the National Railway Historical Society, 1981), 10–13.

⁸⁹ Morris Cafky, *Steam Tramways of Denver* (Denver: Rocky Mountain Railroad Club, 1950), 6–19.

⁹⁰ Don Robertson, Morris Cafky, and E.J. Haley, *Denver's Street Railways, Volume I 1871-1900* (Denver: Sundance Publications, Limited, 1999), 187–216; Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:18–27.

University of Denver Professor Sidney H. Short, which employed a conduit electric system installed between the rails. Denver was one of multiple cities across the country concurrently experimenting with its own variations on an electric transit system.⁹¹ The Tramway's first efforts failed and the company turned its focus toward a different mode of transportation: cable.

Perhaps a reflection of the high cost needed to construct a cable route, only two companies in the state—the Tramway and the Denver City Cable Railway Company—employed cable railway technology for a period from 1888 to 1900. The adaptation of this costly technology coincided with Colorado's silver boom during the late 1800s. Denver boasted “one of the most complete coverages [by cable streetcars] of any city” in the country.⁹² Because of the inherent danger and cost associated with cable car transportation, and the development of the next great technology (electric streetcars), most American cities stopped running cable cars between 1895 and 1897. Denver converted its last cable lines to electric in 1900.⁹³

The next technology embraced by Colorado's streetcar companies was overhead electric transportation. While the country was watching the events unfolding in Richmond, Virginia, with Frank Sprague's successful development of an overhead electric streetcar system in 1887 (see Section 2.B.(1)), Colorado residents had their concerns. Over the years, as Colorado communities employed the new technology, newspapers carried stories of the dangers of electric streetcars, including stories of gruesome collisions, electrocution from falling wires, and accidents from startled horses. Newspapers, with stories that kept residents apprised of the latest happenings regarding streetcar service in the town, played an interesting role in streetcar history in the state, particularly in Denver, where different papers sided with different streetcar companies during contentious turf wars and labor disputes (see Figure 8).

⁹¹ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:181.

⁹² Hilton, “Denver's Cable Railways,” 35.

⁹³ Hilton, “Denver's Cable Railways,” 51.

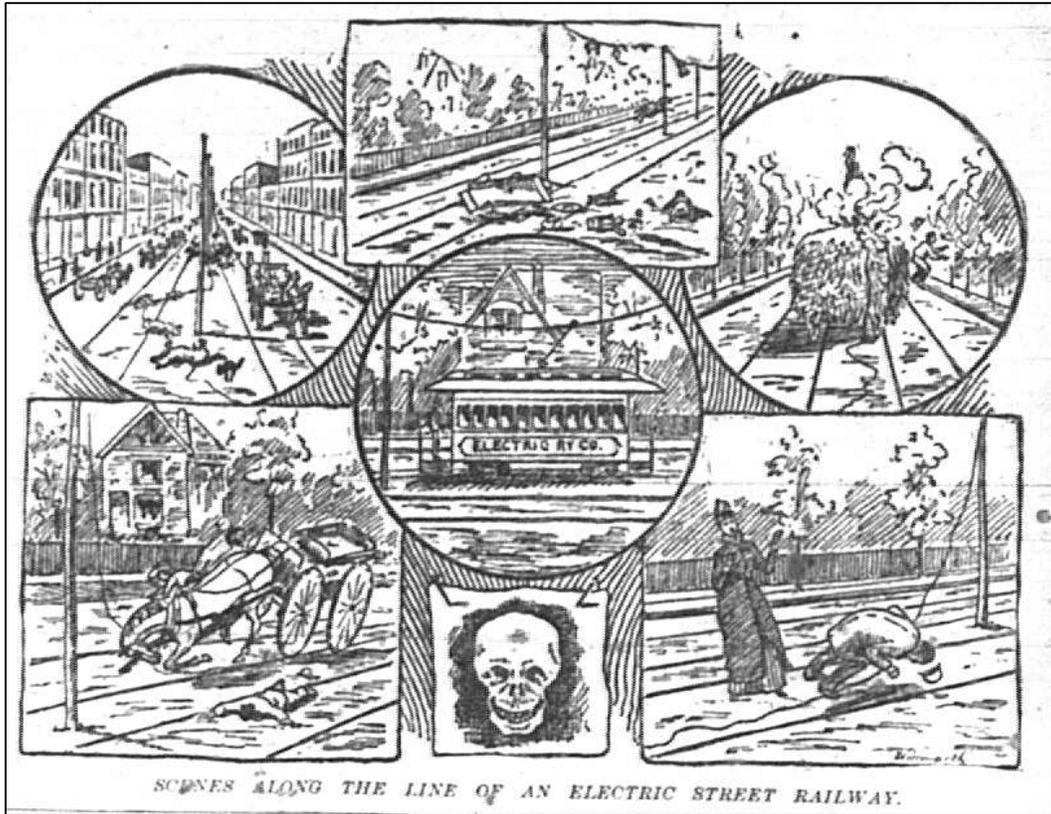


Figure 8. Cartoon from the *Denver Times* showing the perceived dangers of an electric streetcar.⁹⁴

Despite the plethora of concerns, the use of overhead electric power was inevitable. Electric streetcars could travel faster, required less investment to establish, and operated more efficiently than cable cars. Cities across the country were rapidly adopting the new technology, including nearby Salt Lake City, which established electric streetcar service just prior to Denver.⁹⁵

Colorado's first electric streetcar started operating down South Broadway in Denver at the end of 1889, roughly two years after Sprague's system in Virginia began operations.⁹⁶ Colorado Springs

⁹⁴ "Scenes Along the Line of an Electric Street Railway," *Denver Times*, November 16, 1889, 1.

⁹⁵ "History," *Trolley Square*, accessed December 5, 2019, <http://www.trolleysquare.com/history>.

⁹⁶ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:181.

and Pueblo were close behind, starting their electric streetcar service the following year, in 1890.⁹⁷ The last city to start an electric streetcar system was Greeley, which began in 1910.⁹⁸

C. Motives for Streetcar Development in Colorado

Like much of the country, streetcar routes in Colorado cities were constructed for varying reasons, including to establish public transportation, for private financial profit, as a reflection of civic pride, or as a way to spur real estate development and increase accessibility for established neighborhoods. Other motivating factors included providing access to educational institutions and recreational and tourism attractions. Additionally, streetcar routes were also built for industrial and commercial reasons, and occasionally agricultural purposes. Sometimes only one of these factors was the impetus for constructing a streetcar line, while other times several of these factors overlapped, resulting in a public transportation system that became heavily engrained in the everyday lives of Colorado residents.

Many early lines were built to connect already established areas with a form of public transportation. Streetcar service in Denver began in the central business district and provided a way to move people about the business downtown without cluttering it with additional carriages and horses. Business owners and hotels felt that offering easy access for the traveling public to their establishments via streetcar was imperative for their success. Denver's commercial district became crisscrossed with streetcar lines following lobbying efforts by various business owners on different streets, which also resulted in the growth of competing streetcar companies.⁹⁹ In Grand Junction, citizens raised concerns with the city when streetcars directed passengers to other establishments or failed to stop in front of theirs. An additional spur was constructed there specifically to provide access to a hotel not located on the main streetcar line.¹⁰⁰

⁹⁷ Morris Cafky and John A. Haney, *Pikes Peak Trolleys: A History of the Colorado Springs Streetcar System* (Colorado Springs, Colo.: Century One Press, 1983), 3; Morris Cafky and John A. Haney, *Pueblo's Steel Town Trolleys* (Golden, Colo.: Colorado Railroad Historical Foundation, Inc., 1999), 17.

⁹⁸ Leland Feitz, *Colorado Trolleys* (Denver: The Golden Bell Press, 1971), 37.

⁹⁹ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:72.

¹⁰⁰ McGuire and Teed, *The Fruit Belt Route*, 10.

Soon, the operation of a streetcar system became a matter of civic pride. Many communities felt the presence of a streetcar system assured their city's future permanence and success. This is indicated in editorials in *Grand Junction Sentinel*, projecting the effects that their new electric streetcar would have on the future development of the city.¹⁰¹ The western communities of Colorado were not only concerned about their status among their neighbors, but were also sensitive to how they were perceived by the large eastern cities. Colorado communities often compared themselves to their neighboring towns, touting the presence and condition of their streetcar system as an indication of their superiority. In an effort to boost their perception amongst their neighbors, the *Great Southwest* newspaper in Durango proclaimed upon the arrival of the city's new electric streetcars in 1893, stating: "Denver, Chicago, nor other cities [could] boast of finer service from track to trolleys."¹⁰² Long viewed as rugged cow towns in the Wild West, Colorado communities, and particularly Denver, were keen to be seen as sophisticated cities with the same amenities of other metropolises across the country. The *Rocky Mountain News* stated in 1891 that streetcar service in Denver was already "...unsurpassed in equipment and service by any in the world."¹⁰³

A major motivating factor for the construction of streetcar lines in Colorado was real estate speculation, with real estate developers attempting to ensure the success of their development by procuring streetcar transportation for future residents. Some of these routes successfully encouraged development, while others were ultimately abandoned when development failed to reach expectations. When established developments lacked streetcar service, residents themselves sometimes pooled their resources to help fund streetcar lines to their communities, which provided them with better access to the rest of the city. This was the case for several neighborhoods in Denver, including those in what was then the town of Harman. Residents of Harman, which is located in today's Cherry Creek neighborhood of Denver, raised their own funds to entice the streetcar company to construct a line to their neighborhood.¹⁰⁴

¹⁰¹ McGuire and Teed, *The Fruit Belt Route*, 18.

¹⁰² Robert W. McLeod, "Durango's Trolley, Ver. 2," July 21, 2004, 3, Streetcar folder, Subject Files, The Animas Museum.

¹⁰³ "Made the Transfer," *Rocky Mountain News*, June 25, 1891, 1.

¹⁰⁴ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:266.

Recreation and tourism were also frequent motivations for streetcar lines in Colorado. The companies capitalized on certain leisure time attractions by providing transport to amusement and recreational parks, sometimes directly affiliated with the streetcar company providing the service. In Durango, the streetcar company operated parks along its lines, making investments in amenities including rowboats and concession stands to attract visitors. The Durango company also owned the fair grounds.¹⁰⁵ The Denver Circle Railroad opened Jewell Park, which boosted ridership.¹⁰⁶ The Denver & South Platte Railway leased Bowles Picnic Grove, which became known as Tramway Park, as a picnic ground for streetcar riders.¹⁰⁷ Multiple other cities, including Denver, Fort Collins, Colorado Springs, and Pueblo, constructed lines to established parks as a way to ensure tourism and recreational riders. Lines were also constructed to local cemeteries, not only providing funeral transportation, but also for locals who often picnicked in the cemeteries.¹⁰⁸

On occasion, routes were built to provide access to educational facilities outside of city centers. The Loretto Heights Railway Company provided access for students of Loretto Heights Academy, which was located southwest of the Denver city center.¹⁰⁹ The Denver & Interurban constructed a spur off its route between Denver and Boulder so students could access Westminster College.¹¹⁰

While potential freight income was not often the original motivation for constructing a streetcar line in Colorado, streetcar and interurban companies, like their counterparts across the country, often built extensions and spurs to nearby industrial and sometimes agricultural areas to capitalize on hauling freight in addition to their passenger revenue. The interurban system in the

¹⁰⁵ “Street Railway Company,” *Durango Democrat*, April 27, 1906, 3; “Durango’s Electric Street Car History 1890’s |,” accessed April 4, 2019, <https://www.durangorvpark.com/durangos-electric-street-car-history-1890s/>.

¹⁰⁶ Cafky, *Steam Tramways of Denver*, 8.

¹⁰⁷ “Town Council Meeting,” *Littleton Independent*, June 16, 1911, 1.

¹⁰⁸ Robertson, Cafky, and Haley, *Denver’s Street Railways, Volume I 1871-1900*, I:280–98.

¹⁰⁹ Bonita Hutcheson and Thea Hutcheson, “Transportation in Sheridan,” July 29, 2018, http://www.shs-co.org/ha_transportation.htm.

¹¹⁰ Robertson and Forrest, *Denver’s Street Railways Vol. 3 The Interurbans*, 3:115.

Cripple Creek District hauled supplies, machinery, and ore to and from the nearby mines to make additional money.¹¹¹ The Trinidad Electric Railway Company built extensions to nearby coalfields. The Denver & Northwestern did the same; however, it also owned the Leyden coal mine through a sister company and used the material to power cars on its interurban line as well as streetcars on the associated Denver Tramway system.¹¹² Tapping into the agricultural side of the western slope's economy, the Grand Junction and Grand River Valley Railway built an extension to haul crops in the fertile valley. The Denver, Lakewood & Golden hauled clay and lumber.¹¹³ Many of these companies used the freight income to sustain their operations during difficult financial times. In addition to constructing extensions and lines to accommodate freight operations, many streetcar companies across the state had contracts to transport U.S. mail, offering an additional means of income, although transporting mail was not the motivation for constructing streetcar lines in Colorado.¹¹⁴

Freight was not the only motive for constructing streetcar lines to industrial areas. Factory workers provided a constant passenger base. In Pueblo, immigrant laborers rode the streetcar daily to and from their long shifts at the Colorado Fuel and Iron Company's steel mill. The streetcar provided a pivotal connection for a workforce that, besides walking several miles, otherwise may not have had other means to access the mill every day.¹¹⁵ A specific branch was built in Denver in 1923 solely to provide access for workers to the Chicago, Burlington & Quincy Railroad and the Colorado & Southern Railway's shop.¹¹⁶

¹¹¹ Colorado Springs & Cripple Creek District Railway, *Short Line Blue Book: A Handbook for Travelers* (Pueblo, Colo.: Blue Book Publishing Co., 1904), 26, <https://play.google.com/books/reader?id=npq1AQAAMAAJ&hl=en&pg=GBS.PP1>.

¹¹² Fletcher, *Centennial State Trolleys*, 156; Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:35–36.

¹¹³ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:71–74; “Notes on the Grand Junction & Grand River Valley Railway,” *Electric Railway Journal*, October 15, 1910, 832.

¹¹⁴ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:179–216.

¹¹⁵ “East Side Line,” *Colorado Daily Chieftain*, May 28, 1891.

¹¹⁶ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:310.

D. Colorado Streetcar Company Ownership and Investment

Colorado streetcar companies were owned by a variety of individuals. Most frequently, the successful companies were established by well-respected local residents and businessmen. Occasionally, outside parties and investors saw an opportunity and began streetcar services within a community, although it was more often that outside investors would be brought in when additional funds were needed or reorganization efforts were required. Specific streetcar lines and extensions were occasionally paid for by local residents, who paid subscriptions to entice companies to build lines to service their neighborhoods. This practice was particularly common in Denver, where neighbors seeking greater connectivity would pool their funds to pay for all or portions of the construction costs for new lines.¹¹⁷

There is no evidence that any streetcar systems in Colorado were started by a municipality. However, some local municipalities took over ownership to maintain streetcar services, including Grand Junction, which owned its horsecar system from 1901 to 1903, and Fort Collins, which established the Fort Collins Municipal Railway to take over its electric streetcar operations from 1919 to 1952.¹¹⁸

Although it appears most Colorado streetcar companies were started by individuals or railway companies, there are instances of ownership by utility companies. Utility Company ownership, however, appears to have occurred later in the history of an established streetcar system. This was the case with the Pueblo Electric Street Railway, which was under the control of General Electric, and the Boulder Electric Light Company, which purchased the Boulder system in 1902.¹¹⁹ These utility companies were often more interested in the potential income from the electrical services that powered the streetcar lines than operating a streetcar system. One example is the Cities Service System, a utility company that took over ownership of the Grand River

¹¹⁷ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:260–83.

¹¹⁸ McGuire and Teed, *The Fruit Belt Route*, 7–9; Fletcher, *Centennial State Trolleys*, 106.

¹¹⁹ “Pueblo City Railway Sold,” *Pueblo Daily Chieftain*, September 1, 1895, 3; Hermsen Consultants, *Documentation of Boulder Streetcars Boulder, Colorado* (prepared for the Colorado Department of Transportation-Region 4, City of Boulder Public Works- Transportation, August 19, 2009), 8.

Valley Railway Company in Grand Junction in 1926 and promptly shut down service within the city to focus on the profitable electric utilities potential of the company.¹²⁰ The electric streetcar system in Trinidad was an exception to this trend, which was tied to the power and utility company since service began in 1904.¹²¹

Streetcar companies in Colorado were interested in the profitability of their lines, with the exception of the unique ownership and investment structure of the Colorado Springs and Interurban Railway Company, which was owned by philanthropist Winfield Scott Stratton. Stratton saw streetcar transportation as a public service and, upon his death, left the company to his estate, which operated the service not for profit, but rather as a part of his philanthropic legacy.¹²²

E. Uniquely Colorado

Colorado faced many challenges regarding streetcar operations. Most cities in Colorado with streetcar systems did not have to overcome particularly difficult topographical challenges. They did, however, have fairly unique weather and climate challenges to contend with. First and foremost, the extreme winter weather conditions experienced across the state could cripple streetcar operations. In 1913 Denver's complex system was shut down for days following a massive snow storm. Tracks were buried under feet of snow and streetcars were stranded.¹²³ The freeze-thaw cycle, which can be problematic for roads across the state, wreaked the same havoc on streetcar rails and ties. The system in Leadville lasted only one year, as the damage done to the streetcar infrastructure during winter at such a high elevation was so severe that the company

¹²⁰ W. L. McGuire, "Interurban Cars Were to Serve Entire Valley," n.d., Western Interludes Collection, Call Number 1980.132, Loyd Files Research Library, Museums of Western Colorado.

¹²¹ Fletcher, *Centennial State Trolleys*, 154; Feitz, *Colorado Trolleys*, 47; "State News Items," *The Turret Gold Belt*, September 30, 1908, 2.

¹²² *Pikes Peak Trolleys: A History of the Colorado Springs Streetcar System*, 25–26; P.R. Griswald, *Colorado Springs Streetcars: A History* (Aurora, Colo.: Double R Publishing, 2009), 15, 17.

¹²³ Don Robertson and Rev. W. Morris Cafky, *Denver's Street Railways, Volume II 1901-1950* (Denver: Sundance Publications, Ltd., 2004), 213–15.

could not afford to rebuild and continue operations.¹²⁴ Despite its location at just over 10,000 feet, the Cripple Creek District Railway managed to maintain operations at the high altitude and became the highest electric railroad in the world, although the extreme elevation and topography there required a number of switchbacks.¹²⁵

A particularly unique facet in the history of streetcar systems in Colorado is the Panic of 1893. Following the repeal of the Sherman Silver Purchase Act, the United States government was no longer required to purchase a set amount of silver each year and in turn sent the economy of Colorado, which was centered almost entirely on mining activities, into a tailspin. Many Coloradans suddenly found themselves unemployed. While other parts of the country were likely impacted by the repeal of the Sherman Silver Purchase Act, Colorado felt its economic ramifications deeply, and many streetcar systems across the state were either forced to cut costs, reorganize, or close as a result.¹²⁶ Aspen's economy was decimated by the Panic of 1893, and its streetcar company likely fell victim to the economic crash, as did Trinidad's horsecar system. Although Pueblo's streetcar did not fold as a result of the economics of the time, the company did reorganize in order to weather the hardships.¹²⁷ Similarly, the Denver, Lakewood & Golden steam line was forced into receivership in 1894, following the events of the year before.¹²⁸ In Denver, multiple smaller companies, like the Park Avenue Railway, either immediately folded during the Panic of 1893 or were forced to sell in the next few years.¹²⁹

Likely because of its size, Denver was the only city in Colorado that boasted multiple active, competing streetcar companies before the turn of the century (see Section 4.E.). Many of these companies succumbed to the economic difficulties facing the city as a result of the Panic of 1893, coupled with the oversaturation and duplicity of the streetcar market in Denver at the time.

¹²⁴ Fletcher, *Centennial State Trolleys*, 122.

¹²⁵ "Interurban Railroading at Cripple Creek," *Street Railway Journal* 14, no. 11 (November 1898): 703.

¹²⁶ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:281.

¹²⁷ "Pueblo City Railway Sold," 3.

¹²⁸ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:327–29.

¹²⁹ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:135–283.

This led to mass consolidations and takeovers around the turn of the century, resulting in one final company dominating the streetcar industry in the city: the Tramway.¹³⁰ Within the Cripple Creek mining district, a unique consolidation was arranged between the electric interurban line that carried passengers and freight and the steam freight railroads in the area due to the oversaturation of rail service in the small district following the turn of the century.¹³¹

Colorado, and the Front Range in particular, is prone to severe lightning events, which come on quickly with little warning. It was noted in *Electric Traction Weekly* that the Denver Tramway “probably suffers worse from lightning troubles than any [streetcar] company in the country” with strikes common at any time from May through September.¹³² A lightning strike to the streetcar system could damage the armature, the rotating portion of the motor that produces the torque needed to power the streetcars, often disabling multiple cars at once and resulting in costly repairs. The Tramway worked diligently to develop effective lightning arresters to combat the problem; however, when lightning storms set in, the company often halted the streetcar system to prevent potential damages.¹³³

F. Minority Involvement in Colorado Streetcars

The golden era of streetcars occurred during a time when segregation and the exclusion of minorities prevailed across much of the United States. African American residents were one such group limited in their employment options. The streetcar industry was no exception and there is limited documentation indicating that minorities participated in streetcar operations. For the most part, Colorado appears to have followed the trend of limited minority involvement in streetcar ownership and operations; however, Grand Junction appears to have bucked that trend during its early streetcar days when an African American man named John Newman was operating its horsecar line by 1893. Once the City of Grand Junction obtained ownership of the system in

¹³⁰ Glandon, *Streetcar Commercial Districts Reconnaissance Survey Final Report*, 2–3.

¹³¹ Wilkins, *Short Line to Cripple Creek: The Story of the Colorado Springs & Cripple Creek District Railway*, 78–79.

¹³² *Electric Traction Weekly* (Kenfield-Fairchild Publishing Company, 1909), 1012.

¹³³ *Electric Traction Weekly*, 1012.

1900, it was leased to another African American man by the name of John M. Price.¹³⁴ In 1905 the Denver Tramway hired George Eli, who is thought to be the first African American motorman in the country.¹³⁵ African Americans were not the only minority often excluded from streetcar company ownership and operations. There is very little evidence of female ownership or management of streetcars in Colorado; however, the Cherrelyn streetcar line appears to be an exception to that trend. The Cherrelyn horsecar line in Englewood was not only unique for its rare gravity-powered operation, but also because it was reportedly owned by Mrs. George H. Bogue in 1906, making it the only known female-owned streetcar service in the state.¹³⁶

G. Colorado Interurban Streetcar Systems

Most interurban streetcar systems across the country were constructed between 1901 and 1908, including those in Colorado. The Denver & Northwestern Railway Company opened its electric connection between Denver and Arvada in 1901 before continuing on to Golden. Just as they did across the country, Colorado's interurban systems helped establish growth patterns in rural areas. It is reported that when the interurban was built from Grand Junction to Fruita in 1902, there was "the damndest land boom in Fruita you ever saw," a testament to the impact an interurban had on land development.¹³⁷ People who otherwise may not have lived in Fruita were now choosing to because of the connectivity the interurban provided. While many companies in Colorado, particularly along the Front Range, had grand visions of connecting their surrounding communities with electric interurban service, few were successful. Greeley, Fort Collins, and Littleton never saw their dreams of vast interurban networks completed. Grand Junction, Golden, Boulder, and Denver had interurban connections, but not to the extent that was originally envisioned. Most interurbans across the country were associated with power companies. The Denver & Interurban Railroad, a subsidiary of the Colorado & Southern Railway that connected

¹³⁴ McGuire and Teed, *The Fruit Belt Route*, 7–9.

¹³⁵ Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:110.

¹³⁶ "Unique Street Railway," *Greeley Tribune*, May 10, 1906, Vol. 36, No. 27 edition, 10.

¹³⁷ McGuire and Teed, *The Fruit Belt Route*, 42.

Denver and Boulder beginning in 1904, was a rare example of an interurban owned and operated by a steam railroad.¹³⁸

H. Equipment

A variety of equipment was needed to operate a streetcar system, especially in Colorado, where the elements posed unique challenges for streetcar companies. Snow, rain, and the freeze-thaw cycle complicated streetcar operations and required special equipment. When it came to basic equipment, Colorado companies utilized much of the same equipment used by streetcar companies across the country. Early companies utilized horsecars, which were similar to their predecessor omnibuses but mounted on rails. Variations included open horsecars, operated during the warmer months, and closed horsecars, which featured removable windows to protect passengers from the elements. Horsecars also included prominent advertising signage for local businesses or attractions mounted atop and on the sides of the car body, and the route name was often painted on the side of the cars.¹³⁹ A rare variation of the standard horsecars were the gravity horsecars, utilized by the Cook's Addition line in Denver (see Section 4.E.(3)) and the Cherrelyn line in Englewood (see Section 4.G), which featured a platform at the rear of the horsecar where the horse rode downhill aboard the streetcar with the patrons.¹⁴⁰ Steam dummies were used on a few lines in Denver and were essentially smaller steam locomotives that were often proclaimed to be noiseless and smokeless, although that claim was highly debated.¹⁴¹ Two companies in Denver employed cable streetcars on their cable network. These cable cars were larger in size than a horsecar body and featured a platform in front with large brake and grip levers, which held the cable in the conduit between the rails below the car (see Figure 9).¹⁴²

¹³⁸ *Colorado State Register of Historic Places*, Broomfield Denver & Interurban Railroad/ Colorado and Southern Railway Depot, Broomfield, Broomfield County, Colorado, Colorado Office of Archaeology and Historic Preservation # 5BF.80.

¹³⁹ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:60.

¹⁴⁰ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:264–84.

¹⁴¹ Cafky, *Steam Tramways of Denver*, 6.

¹⁴² Henry Goeddert, "Early Public Transportation in Denver," *The Colorado Magazine*, April 1949, 126–27.

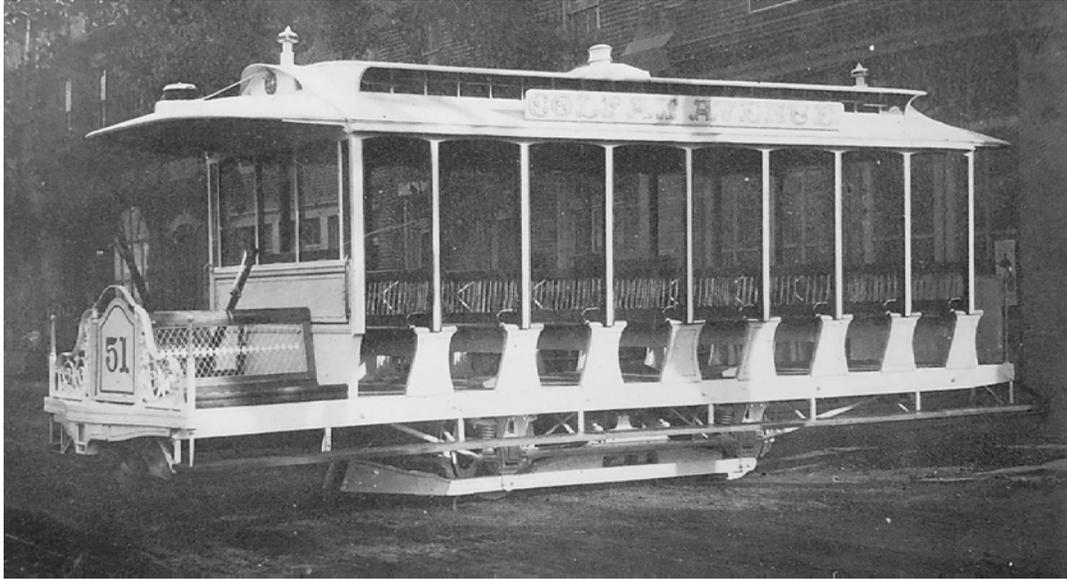


Figure 9. A Denver Tramway open cable car, which would have been used in good weather. Note the two large brake and grip levers on the motorman’s platform.¹⁴³

For a brief period the Tramway utilized a special streetcar outfitted for Professor Short’s electric streetcar system. This car resembled a smaller horsecar but had platforms on either end, and an electric pick-up arm extended beneath the car and made contact with a slot in the street between the rails, supplying power to the traction motor that was mounted beneath the center of the streetcar (see Figure 55). Otherwise, early electric streetcars across the state were similar to those used across the country. Most were single-truck units with open platforms and two motors that occasionally pulled trailers to accommodate additional passengers during heavy traffic periods. Some companies added double-truck cars, which were longer and carried a greater number of passengers. In 1898 the Tramway developed a unique style of car called the “Center Side Entrance Streetcar” or the “Denver Design Car,” which utilized the company’s existing single-truck streetcars by splicing them together to create a double-truck car that required a two-member crew to operate (see Figure 10).¹⁴⁴

¹⁴³ Robertson, Cafky, and Haley, *Denver’s Street Railways, Volume I 1871-1900*, I:114.

¹⁴⁴ Robertson, Cafky, and Haley, *Denver’s Street Railways, Volume I 1871-1900*, I:305–6.

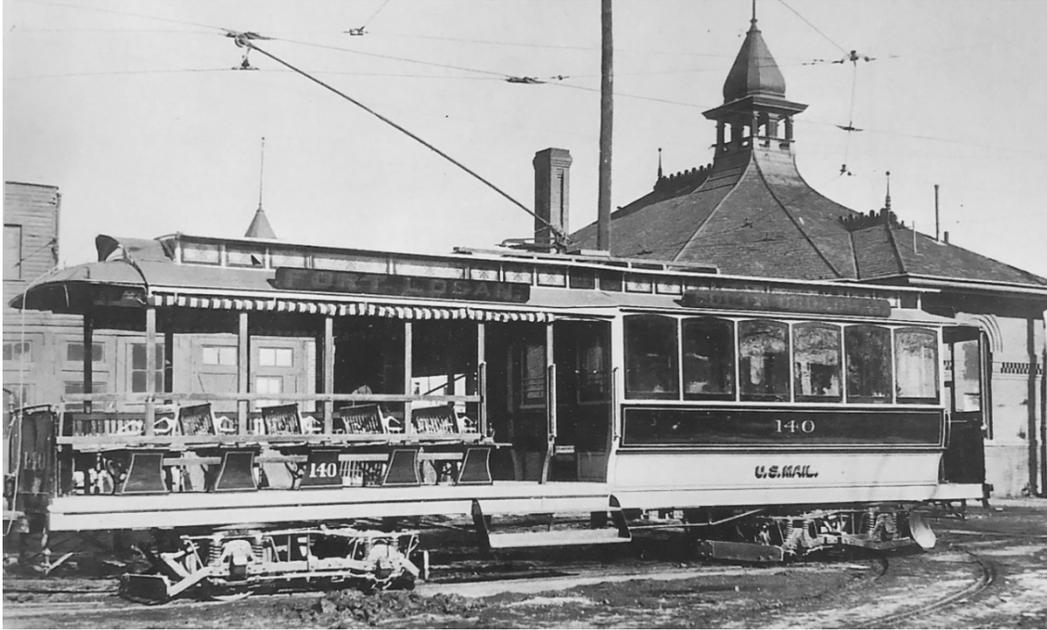


Figure 10. A “Center Side Entrance Streetcar” of the Denver Tramway formed by merging a single-truck closed car with a single-truck open car.¹⁴⁵

While the “Center Side Entrance Streetcar” made use of the Tramway’s existing rolling stock, it did have its faults. The constantly open center portion of the car led to a greater number of accidents for boarding and disembarking passengers than experienced in other cities across the country. As a result, the Tramway developed the “Safety Car” in 1921, which employed folding doors in the center and front of the car and repositioned cabs for the motorman and conductor (see Figure 11). Later modifications would make the car operable by a single motorman. The cars also featured a roll sign, which was a piece of fabric that could be rolled and unrolled to display the various route numbers printed on the fabric.¹⁴⁶

¹⁴⁵ Robertson, Cafky, and Haley, *Denver’s Street Railways, Volume I 1871-1900*, I:307.

¹⁴⁶ Robertson and Cafky, *Denver’s Street Railways, Volume II 1901-1950*, II:306–8.

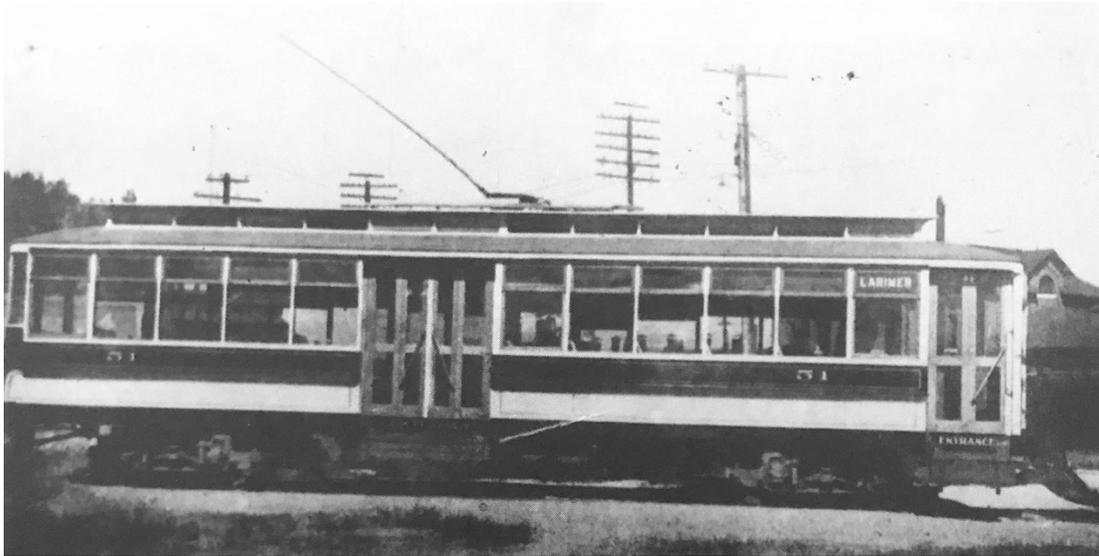


Figure 11. A Safety Car, in which passengers entered from the front and exited from the middle.¹⁴⁷

To save money, companies across the state often purchased other companies' discarded rolling stock for use on their own systems, modifying, splicing, and joining cars to fit their respective needs.¹⁴⁸ Interurban cars, as they traveled longer distances at faster speeds, were much heavier and larger than streetcars that were restricted solely to city streets. As seen in Denver and Boulder, these heavy interurban cars often damaged the streetcar rails within city streets as many of the rails were not built to withstand the heavier cars. The Denver & Interurban Railroad employed a unique electric system on its cars that used both a pantograph to draw alternating current on its mainline and a trolley pole for the direct current utilized within city streets.¹⁴⁹

A Denver-based company built many of the streetcars that rode along Colorado city streets and streets of other western cities. Bavarian immigrants Amandus and Gallus Woeber worked in the carriage building industry in Davenport, Iowa, before moving their business to Denver in 1867 and establishing A. Woeber & Company, which later became the Woeber Brothers Carriage Works. The company had a shop on 11th Street between Walnut and Wazee Streets and made

¹⁴⁷ Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:306.

¹⁴⁸ Cafky and Haney, *Pueblo's Steel Town Trolleys*, 48; Fletcher, *Centennial State Trolleys*, 14.

¹⁴⁹ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:112–15.

various commercial wagons and private carriages. When the Denver City Railway Company needed additional horsecars in 1884, it looked to the Woeber Brothers. The Woeber Brothers utilized wood that was already acclimated to the high altitude and dry climate in Denver, resulting in lower maintenance costs than cars manufactured out east, which often dried and warped upon arrival to Colorado (see Figure 12).¹⁵⁰ The cars were a hit, and soon streetcar companies across the West were placing orders. At some point the company's name changed to the Woeber Car and Manufacturing Company; it moved operations to a larger facility between 1889 and 1890 at South Bannock Street and West Colorado Avenue. The Woeber Company manufactured streetcars for multiple Denver streetcar companies and interurban lines, as well as the streetcar systems in Grand Junction, Pueblo, Trinidad, Fort Collins, and Colorado Springs. It is estimated the company was responsible for constructing as many as 900 streetcars, employing various modes of transportation, for Denver and the Front Range communities alone.¹⁵¹

¹⁵⁰ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:63.

¹⁵¹ "Denver Tramway Company Streetcar No. 77 1906-1946," n.d., 15, Colorado Railroad Museum.



Figure 12. Advertisement for the Woeber Bros. Carriage Co.¹⁵²

In the late 1910s and early 1920s a number of streetcar companies in Colorado invested in fleets of the new “Birney Safety Car.” The Birney car, as it was commonly known, was developed and patented by Charles Birney, of the holding company Stone and Webster, and J.M. Bosenbury, of the Illinois Traction System, between 1917 and 1919. The Birney car was the first mass-produced streetcar and was designed to address the issues faced by streetcar companies across the nation, including growing operating and maintenance costs compounded by the competition with automobile ownership. The Birney’s lightweight, compact design accommodated approximately 30 passengers, which made it ideal for smaller communities that no longer required larger streetcars (see Figure 13). Birney cars included a number a safety features that

¹⁵² “Denver and Its Street Railways,” *The Street Railway Journal* IX (March 1893): 33.

enabled single-man operation, including an interconnected system of doors, controls, and brakes, which prevented the doors from opening any time the car was in motion. Thousands of Birney cars were sold across the country. From the 1910s to the 1950s, Birney cars could be found across Colorado, riding the streets of Colorado Springs, Pueblo, and Fort Collins. Fort Collins is significant in the history of the Birney car. When the city ended its streetcar service in 1952, it was the last city in the nation to operate Birney cars. In the 1970s private citizens restored one of the city's Birney cars and began running it on a reconstructed section of track on Mountain Avenue in 1986.¹⁵³



Figure 13. A Birney Safety Car in Fort Collins, 1941.¹⁵⁴

Entire fleets of maintenance equipment were necessary to keep streetcar systems functioning. Concrete trains, air-powered jack hammers, and wire trains were needed to construct the lines. Snow sweepers, work cars, wreck cars, and snowplows, were necessary to ensure continued

¹⁵³ Cafky and Haney, *Pueblo's Steel Town Trolleys*, 41–42; E.S. Peton, R. A. Moorman, and Kenneth Jessen, *Trolley Cars of Fort Collins: Including "Last of the Birneys" and "Restoration of Car No. 21"*, Second Printing (Loveland, Colo.: JV Publication, 1986), 15; "Birney Safety Car," *American Rails*, n.d., <https://www.american-rails.com/birney.html>.

¹⁵⁴ R.H. Kindig, "Trolley Car #26," February 1, 1941, Al Kilminster Collection, H08995, Fort Collins History Connection.

operations. Specialty touring and sightseeing cars were commissioned for special occasions and featured roomier seats and large windows, which could often be entirely opened during good weather (see Figure 14). Some streetcar companies also had funeral cars, which were specially fitted to transport coffins. Denver and its interurbans provided streetcar access to at least four cemeteries around the city and its environs.¹⁵⁵



Figure 14. The interior of a specialty charter car that was also used for sightseeing tours and featured fancy rattan seats.¹⁵⁶

The Rocky Mountain Fender was developed by the Colorado Springs Rapid Transit Company to prevent pedestrians and bicyclists from falling beneath the front of the streetcar and being run over. The apparatus was made of curved hickory slats set in a frame suspended from the front of the streetcar (see Figure 15). The motorman could drop the fender to the rails when an obstacle appeared, scooping them up and avoiding catastrophe. The Rocky Mountain Fender, which earned the nickname “cowcatcher,” proved widely successfully. By 1899 a city ordinance required it on all Denver city streetcars.¹⁵⁷ The Rocky Mountain Fender appeared in multiple

¹⁵⁵ Robertson and Cafky, *Denver’s Street Railways, Volume II 1901-1950*, II:51–109.

¹⁵⁶ Robertson and Cafky, *Denver’s Street Railways, Volume II 1901-1950*, II:51.

¹⁵⁷ Robertson, Cafky, and Haley, *Denver’s Street Railways, Volume I 1871-1900*, I:320.

trade publications and was likely adapted by other cities across the country to improve the safety of their streetcar systems (see Figure 16).

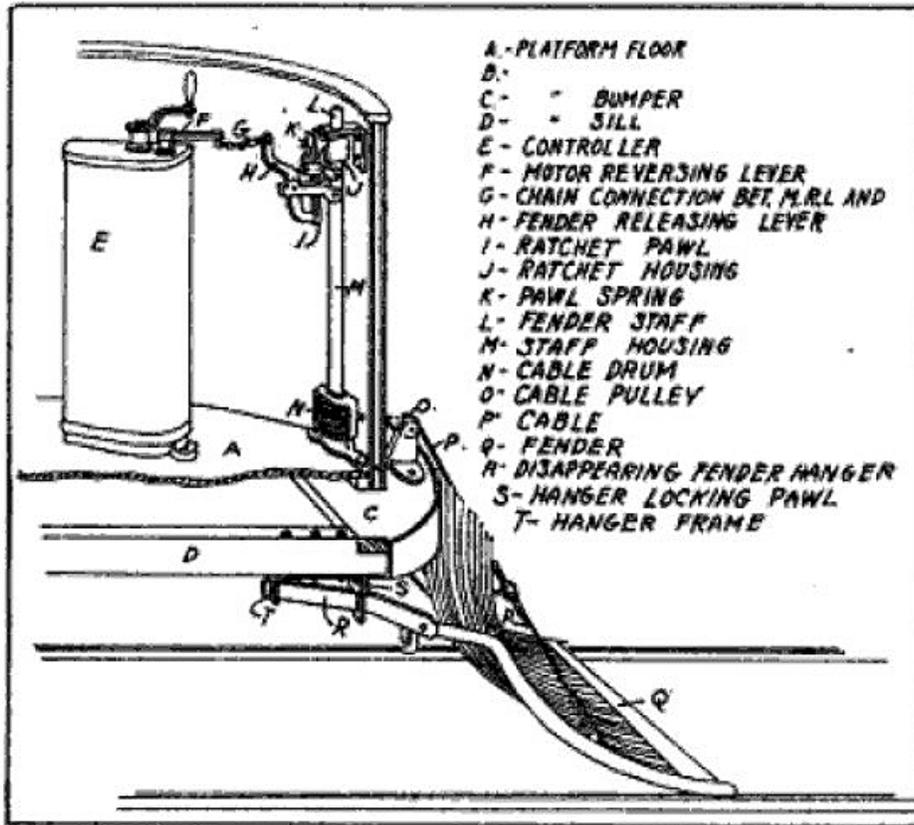


Figure 15. Diagram of a Rocky Mountain Fender from *Electric Traction Weekly*, 1909.¹⁵⁸

¹⁵⁸ *Electric Traction Weekly*, 1012.



Figure 16. Drawing of a bicyclist saved by a fender, *Grand Junction Daily Sentinel*, 1898.¹⁵⁹

During the late 1930s and into the 1940s transit companies across the country converted their streetcar routes to trolley coach operations (see Figure 17). Trolley coaches blended the technologies of streetcars and buses. They were powered by overhead lines but ran on rubber wheels and did not require a set of tracks. In 1935 only 578 trolley coaches were in operation across the country, but by 1945 that number jumped to 3,716.¹⁶⁰ Some communities in Colorado followed that trend by transferring their public transportation needs to trolley coaches while others chose buses or a combination thereof. Denver, for example, utilized trolley coaches and buses on their streets for several years before switching entirely to bus service.¹⁶¹

¹⁵⁹ “Fender Saved Him,” *Grand Junction Daily Sentinel*, August 22, 1898, 2.

¹⁶⁰ The Denver Tramway Corporation, “The Denver Tramway System... Its Past, Present, and Future” (Denver Tramway Corporation, c.1948), Available in Closed Stacks 2, #C388.4 D436de, Denver Public Library Western History Collection.

¹⁶¹ Robertson and Cafky, *Denver’s Street Railways, Volume II 1901-1950*, II:427–67.



Figure 17. An example of a Denver Tramway trolley coach.¹⁶²

I. The End of Colorado’s Streetcars

While streetcars were a popular part of everyday life in Colorado communities, individual automobile ownership was on the rise across the country, and Colorado was no exception. Early reports of automobile ownership in Colorado started around 1892. While automobile ownership was initially restricted to wealthy individuals, manufacturing technologies soon brought car ownership into the realm of middle-class citizens. Nationwide, automobile registration spiked to 8,131,522 in 1920.¹⁶³ These new automobile owners took to the roads in large numbers.

High country tourism in Colorado played a big role in the state’s economic development. Automobile drivers were able to access areas away from the set route of established steam railroads and explore the state over improved highways on their own time.¹⁶⁴ Initially, the state was crisscrossed by difficult, steep, rutted wagon and toll roads and later by railroads. As personal automobile ownership increased, the call for better roads began. Beginning in 1902 with

¹⁶² “Trolley Coach Route 4 Aurora,” n.d., Denver Public Library Western History Collection.

¹⁶³ Federal Highway Administration, “State Motor Vehicle Registrations, By Years, 1900-1995,” n.d., <https://www.fhwa.dot.gov/ohim/summary95/mv200.pdf>.

¹⁶⁴ Philpott, *Vacationland: Tourism and Environment in the Colorado High Country*, 80.

the founding of the Colorado Auto Club, various automobile associations in the state petitioned for better roads. It was not until 1910, however, that the first state highway commission was formed, although it had little funding. Auto clubs continued advocating for better roads, but marked progress was not seen until federal funds became available and the commission was reorganized in 1917 into the State Highway Department. As federal and state funds flowed into the coffers of the State Highway Department, roads across the state were improved for auto travel. At this point, automobile ownership and highway improvement took off. From 1915 to 1923 the number of automobile registrations in the state exploded from 27,000 to 188,000. Expenditures by the State Highway Department grew with the ownership levels, partially through measures voted upon by the state's residents, reflecting their desire for improved highways. In 1920, \$3.4 million was spent on highway construction, growing to \$5.7 million in 1922. Although the Great Depression stalled progress, Colorado Highway engineers utilized federal funds and work programs to continue making improvements to the state's highway system, and by 1937 were again investing more than \$18.8 million in funds for highway construction expenses.¹⁶⁵ The investment in State Highway construction is reflected in the total mileage of designated State Highways during the period. By the mid-1940s Colorado boasted 12,394 miles within the State Highway System, earning it the 11th highest number of designated highway mileage within all 48 states in the country.¹⁶⁶ With improved roads providing access to anywhere someone with an automobile wanted to go, the reliance on streetcars and interurban connections waned.

The Great Depression that crippled the country certainly had impacts on Colorado's remaining streetcar companies. They weathered the Depression with the same tactics as companies across the country: by trimming costs through cutting routes and service times. Pueblo's streetcar system switched its cars from two-man operations to single-man to cut costs.¹⁶⁷ Boulder's

¹⁶⁵ Marion C. Wiley, *The High Road* (State Highway Department of Colorado, 1976), 4–25.

¹⁶⁶ Associated Cultural Resource Experts, *Highways to the Sky: A Context and History of Colorado's Highway System*, 7–1.

¹⁶⁷ Cafky and Haney, *Pueblo's Steel Town Trolleys*, 48.

streetcar system, which was in a difficult financial situation before the Depression, could not withstand the additional blow and closed in 1931.¹⁶⁸

When World War II hit the nation, rationing measures that impacted personal automobile usage helped ensure the continued existence of several streetcar companies in Colorado, including those in Pueblo and Denver. These companies may have folded sooner if not for the increased ridership experienced during the war years. Streetcar companies themselves sought to help the war effort by promoting the sale of war bonds on patriotic banners strung from their streetcars and donating abandoned steel tracks and equipment to the war effort. The City of Grand Junction offered to remove its remaining rails for donation, but the War Production Board declined the offer.¹⁶⁹

Although the increased ridership experienced during World War II gave the remaining streetcar companies in Colorado a temporary lifeline, when the war ended individuals returned to their daily routines in their personal automobiles. Nationally, automobile registrations reached nearly 31 million by 1947.¹⁷⁰ Streetcar ridership and revenues in the state, like much of the country, again began to decline. The last communities in Colorado offering streetcar service were Pueblo, which ceased operations in 1947; Denver, ending in 1950; and Fort Collins, which held on until 1952 (see Figure 18).¹⁷¹ Today, Fort Collins seasonally operates a restored Birney streetcar, and a small streetcar runs along the Platte River in Denver on select weekends and during Denver Broncos home football games.

¹⁶⁸ “Rapid Transit,” *Public Works*, January 1985, Vertical File- Transportation- Street Railroads, Boulder Carnegie Library.

¹⁶⁹ McGuire and Teed, *The Fruit Belt Route*, 51.

¹⁷⁰ Federal Highway Administration, “State Motor Vehicle Registrations, By Years, 1900-1995.”

¹⁷¹ Fletcher, *Centennial State Trolleys*, 38–135; Feitz, *Colorado Trolleys*, 39.



Figure 18. A Denver Tramway car with a farewell message.¹⁷²

¹⁷² "Good-Bye...", n.d., Denver Tramway Manuscript Collection, Photo Box 1, Album 1, Denver Public Library Western History Collection.

4. COLORADO COMMUNITIES WITH STREETCAR LINES

The following section presents an overview of the history of streetcar operations in each of the 14 Colorado communities previously identified. While some communities only briefly provided streetcar service, others were among the last cities in the United States with active streetcars. As such, the level of detail and analysis varies from community to community. Each section attempts to address the establishment, operations, technologies, alterations, and termination of the various streetcar companies that operated in Colorado.

This section is organized alphabetically by community. Each section begins with a table of the known streetcar companies that operated in that community. Maps of the streetcar networks in each community can generally be found at the end of each section and depict all technologies employed in a given community throughout time, even if all technologies were not operational at the same time. The varying uses of technology are depicted in different colors. Communities with larger or more complex streetcar networks have multiple maps. All maps were created using the GIS data developed for this project and additional detail, such as overlapping lines, can more clearly be seen by utilizing the Colorado Historic Streetcar Viewer. Aside from Denver, each community is discussed in a single narrative, sometimes addressing multiple streetcar companies. Due the size and complexity of its streetcar network, the Denver section is further divided into geographic regions within the city and each company is discussed individually.

A. Aspen

Table 1. Streetcar companies operating in Aspen

Company Name	Years of Existence/ Operation	Mode of Transport
Aspen City Railway	1889-1893	Horse

Aspen was one of the most successful of the Colorado mining boom towns at the end of the nineteenth century. Initially settled by silver miners who crossed Independence Pass in 1879 to stake out their own claims, wealthy eastern investors soon arrived to purchase the claims and named the small mining camp Aspen in 1880. The surrounding mountains proved to be rich in

silver ore and the town quickly grew into a thriving community. The Denver & Rio Grande (D&RG) and Colorado Midland (CM) Railroads reached Aspen in 1887, significantly increasing the output from the Smuggler and Molly Gibson mines, among many others. In 1890 Congress passed the Sherman Silver Purchase Act, which obliged the federal government to purchase a set amount of silver every year, effectively fueling the entire silver industry. Prosperity continued into 1893, by which point Aspen was the leading silver producing region in the country and one of the largest cities in Colorado with more than 10,000 residents. That same year, however, Congress repealed the Sherman Silver Purchase Act. Without federal purchasing power the silver market crashed and several mines in Aspen closed overnight, leaving thousands of miners and suppliers out of work. Aspen's population steadily declined, and the town became a quiet backwater in the Colorado mountains until its reinvention as a tourist destination in the 1940s.¹⁷³

The short-lived Aspen City Railway (ACR) operated during Aspen's peak of growth and mining production. As a relatively large and wealthy community, a streetcar system was a sign of sophistication that separated Aspen from its rival mining towns. The ACR was organized in 1889 by local businessmen. An 1891 *Aspen Daily Chronicle* article indicates that Horace Tabor, the mining magnate and mayor of Leadville, was the president of the company. It is unknown how much involvement Tabor had in the small company, but his association with the ACR indicates that it appeared to be a promising investment at the outset. The City of Aspen (City) granted a franchise to the ACR in September 1889 and passed an ordinance setting out the route two months later. Although the ordinance called for the railway to be completed by December, the company faced difficulty securing rails and construction was not completed until June 1890. The gauge and weight of the original rails are unknown.¹⁷⁴

According to the 1889 city ordinance, the route of the ACR took an irregular path through town. It began at West End Street, continued through downtown along Cooper and Main Streets,

¹⁷³ "The Mining Boom: 1879 – 1893," *Aspen Historical Society*, July 19, 2015, <https://aspenhistory.org/aspen-history/the-mining-boom-1879-1893/>; Carl Abbot, Stephen J. Leonard, and Thomas J. Noel, *Colorado: A History of the Centennial State*, Fourth (Niwot, Colo.: University Press of Colorado, 2005), 98, 102.

¹⁷⁴ Fletcher, *Centennial State Trolleys*, 12; "The Street Railway," *Aspen Daily Chronical*, June 19, 1891, 4; "Letters to the Editor," *Aspen Daily Times*, January 7, 1954.

entered the affluent West Side neighborhood on 1st Street, and ended at 6th Street at the northern city limits (see Figure 19 and Figure 21). This description is also consistent with a 1954 account given in the *Aspen Daily Times* from a former streetcar driver who worked on the ACR as a teenager. The company owned five horses and operated two cars, which were pulled independently by one horse at a time (see Figure 20). The two cars met at regular intervals at the center of the route on Main Street. Heavy snowfall over the winter of 1890-1891 forced the ACR to cancel service. By the time the snow melted the following spring, the tracks were in such disrepair that they were unusable. Furthermore, the tracks made the unpaved streets of Aspen even more treacherous. After some conflict with the City, the ACR repaired most of the line.¹⁷⁵



Figure 19. View of an ACR horsecar on Main Street, looking west from Mill Street, 1892.¹⁷⁶

¹⁷⁵ Feitz, *Colorado Trolleys*, 56; “The Street Railway,” 4; “City Council Proceedings,” *Aspen Daily Chronical*, July 28, 1891, 4; “Letters to the Editor,” 3.

¹⁷⁶ “Aspen from Hotel Jerome, 1892-,” 1892, 1965.014.0002, Aspen Historical Society.



Figure 20. Photograph of the ACR’s two horsecars, c.1890.¹⁷⁷

There is no known record of when the ACR ended service. The repeal of the Sherman Act in 1893 decimated Aspen’s economy and it is doubtful the streetcars ran long afterward. A former driver indicated he worked for the company in 1893 and that service ended soon after his brief tenure with the railway. Limited existing records indicate the tracks were left in place in at least some sections and were later paved over. Work on a water main in 1941 uncovered tracks along Cooper Avenue. Another section was uncovered on Main Street near Mill Street in 1963. It is possible that further sections of the ACR network remain buried under the streets of Aspen.¹⁷⁸

¹⁷⁷ “Aspen Street Railway, 1890-,” c.1890, Shaw Collection, 1974.110.0013, Aspen Historical Society.

¹⁷⁸ “Dig up Street Car Rails,” *Aspen Daily Times*, July 3, 1941, 1; “Letters to the Editor,” 3; Mary Hayes, “Around Aspen,” *Aspen Daily Times*, July 19, 1963, 4.

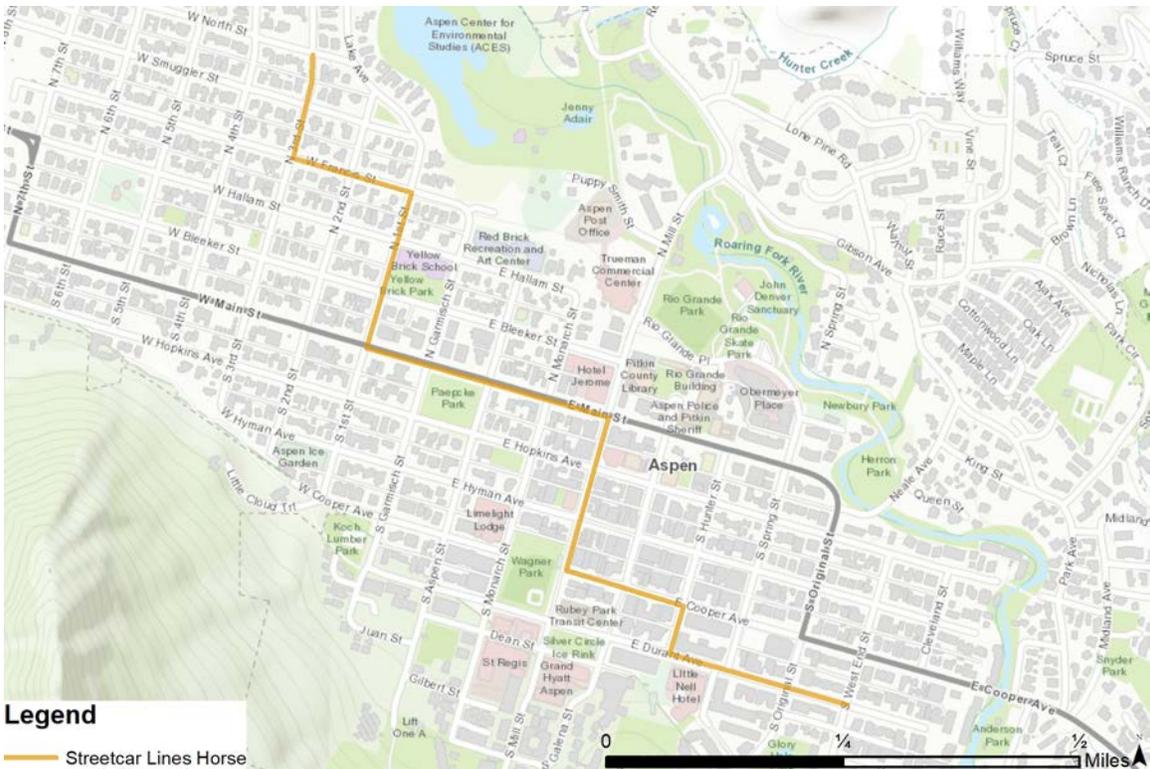


Figure 21. Map of Aspen streetcar lines.

B. Boulder

Table 2. Streetcar companies operating in Boulder

<u>Company Name</u>	<u>Years of Existence/Operation</u>	<u>Mode of Transport</u>
Boulder Railway and Improvement Company	1891-1892	Horsecar, Unknown Gauge
Boulder Railway and Utility Company	1899- 1902	Electric, Narrow Gauge
Boulder Electric Light Company	1902-1906	Electric, Narrow Gauge
Northern Colorado Power Company	1906-1914	Electric, Narrow Gauge
Western Light and Power Company	1914-1922	Electric, Narrow Gauge
Public Service Company of Colorado	1922-1931	Electric, Narrow Gauge

Early Anglo settlers began arriving in the Boulder Valley around 1858. The following year, the Boulder Town Company established Boulder with the intent of selling land and supplies to prospectors working the nearby Boulder Canyon. Boulder was awarded the county seat in 1862. It was officially incorporated in 1871 and experienced minor population increases following various silver and tellurium discoveries in the surrounding areas, which attracted not only prospectors but suppliers and farmers as well.¹⁷⁹

While farmers settled the valley, the city did not see major growth until the railroad arrived in 1873, which provided a direct connection between Denver and Boulder and cemented Boulder’s position as an economic hub for the area. The University of Colorado held its first classes in 1877, prior to which Boulder had a population of just 300. By 1880 the population had ballooned to 3,000. While the University attracted students and faculty to Boulder, others came to the area for relief from various respiratory ailments. The Colorado Sanitarium opened in Boulder in 1895 to serve these patients, many of whom decided to stay.¹⁸⁰ Three years later, Chautauqua Park

¹⁷⁹ Jennifer Bryant and Carrie Schomig, *Historic Context and Survey of Post World War II Residential Architecture Boulder, Colorado* (prepared for the City of Boulder, Colorado, April 2010), 78–80.

¹⁸⁰ Bryant and Schomig, *Historic Context and Survey of Post World War II Residential Architecture Boulder, Colorado*, 88–91.

opened at the base of the Flatirons, on the southern edge of Boulder, and became “the most significant educational retreat west of the Mississippi River.” Individuals visited Chautauqua Park to hear lectures and experience the beautiful natural setting.¹⁸¹

Boulder’s leaders recognized their community’s potential for tourism, largely due to Chautauqua Park’s popularity. Visitors to the park arrived in Boulder on the railroad and then took wagons or buggies, or walked, all the way to Chautauqua Park, which was a long and dirty trek. The City of Boulder (City) desired a streetcar to offer visitors bound for Chautauqua Park a good impression of Boulder, but also to ensure those visitors could easily patronize the downtown businesses.¹⁸²

While several attempts were made over the years to establish streetcar service in Boulder, it was not until 1891 that Boulder received its first horsecar service, when the Boulder Railway and Improvement Company (BR&I) built a line on Pearl Street. The BR&I incorporated on July 9, 1891. In addition to constructing a street railway in Boulder, the company had interests in real estate development, resorts, and utilities such as ditches, conduits, and telephone lines.¹⁸³ The company began grading Pearl Street from 8th Street to 20th Street in July 1891, and the line opened shortly thereafter. Many residents, however, opted to walk instead, and the company only made \$2.50 during its first month of operations.¹⁸⁴ The company’s rocky finances, coupled with the fact that residents were not willing to pay for the service, forced them to fold in February 1892. The line was sold at auction for \$1,335 and the tracks were quickly torn up following complaints of local bicyclists.¹⁸⁵

¹⁸¹ Jim Harrington, “Boulder, Colorado Trolley,” *Best Western Plus Boulder Inn*, February 3, 2017, <https://boulderinn.com/boulder-colorado-trolley/>.

¹⁸² “Boulder County History: Trolley Brought Visitors to Chautauqua - Boulder Daily Camera,” accessed November 9, 2018, http://www.dailycamera.com/news/ci_31003299/boulder-county-history-trolley-brought-visitors-chautauqua.

¹⁸³ “Boulder, Colo.,” *Street Railway Journal, Index to Volume VII*, 1891, 442.

¹⁸⁴ “Rapid Transit.”

¹⁸⁵ Phyllis Smith, *A History of Boulder’s Transportation, 1858-1984* (Boulder, Colo.: Prepared for the Transportation Division, City of Boulder, Colorado, n.d.), 6; Fletcher, *Centennial State Trolleys*, 14.

By 1899, following years with no streetcar service, Boulder residents were eager for an electric streetcar system for their own convenience, as well as for tourists to Chautauqua Park. An electric streetcar line to the southern city limits could also serve students at the University of Colorado, allowing them to live further from campus. The Boulder City Council passed an ordinance on September 19, 1898, allowing for an electric streetcar system, and investors incorporated the Boulder Railway & Utility Company (BR&U) on April 22, 1899.¹⁸⁶



Figure 22. Laying track on the BR&U route to Chautauqua Park in 1899.¹⁸⁷

The company purchased property at the southwest corner of Arapahoe Avenue and Broadway Street for a powerhouse.¹⁸⁸ It then built spur lines to the property to bring coal from the railroad. While the powerhouse was under construction, crews laid tracks down Broadway Street from Walnut Street to Chautauqua Park then back up 9th Street before traveling east on College Avenue and connecting back with the Broadway Street portion (see Figure 23 through Figure

¹⁸⁶ Sanford C. Gladden, “Boulder Citizens on the Move From Strolling to Streetcars,” *Boulder Daily Camera Focus Magazine*, January 21, 1979; “Boulder Railway and Utility Company Incorporation Records,” April 22, 1899, S500, Microfilm Page 615, Book 71, Book pg. 294, Colorado State Archives.

¹⁸⁷ J.B. Sturtevant, “Boulder Street Railway: Track Laying, Photo 2: First Track Laying to the Chautauqua,” 1899, A. A. Paddock collection: Transportation, Call # BHS 217-4-1, Boulder Carnegie Library.

¹⁸⁸ Gladden, “Boulder Citizens on the Move From Strolling to Streetcars.”

25).¹⁸⁹ The route, which spanned roughly 3 miles, opened for business on June 24, 1899.¹⁹⁰ Patrons were thrilled with the service, and the company collected 6,000 five-cent fares the first day, with trains running every 15 minutes between 7 a.m. and 11 p.m. The *Boulder Daily Camera* proclaimed, “The Electric Line Works Like a Charm from the Start.”¹⁹¹ The line was embraced by tourists, residents, and University students and hailed by the *Boulder Daily Camera* as:

a revelation, particularly in regard to extent and substantialness of the growth on University Hill, in University Place and other additions lying south toward the Chautauqua grounds. The car line circles the addition and will be a means of building up the territory embraced. The plateau has always been a desirable location for residences, but with rapid transit to the town itself its desirability is indefinitely increased.¹⁹²



Figure 23. Image of Chautauqua Park visitors at the station near the corner of West Baseline Road and 10th Street.¹⁹³

¹⁸⁹ “Silvia Pettem on Boulder History: Exposed Tracks Provide Glimpse into Past,” accessed December 11, 2018, http://www.coloradodaily.com/ci_13115250.

¹⁹⁰ Robertson, Cafky, and Haley, *Denver’s Street Railways, Volume I 1871-1900*, I:337.

¹⁹¹ “Boulder County History: Trolley Brought Visitors to Chautauqua - Boulder Daily Camera.”

¹⁹² *Broadway Reconstruction From Pine Street Through Iris Avenue Boulder, Colorado Historic Resources Survey Report*, ca 2008, City of Boulder Public Works Transportation Department.

¹⁹³ J.B. Sturtevant, “Boulder Street Railway: Chautauqua Station, Photo 2,” 1899, A. A. Paddock collection: Transportation, Call # BHS 217-4-4, Boulder Carnegie Library.

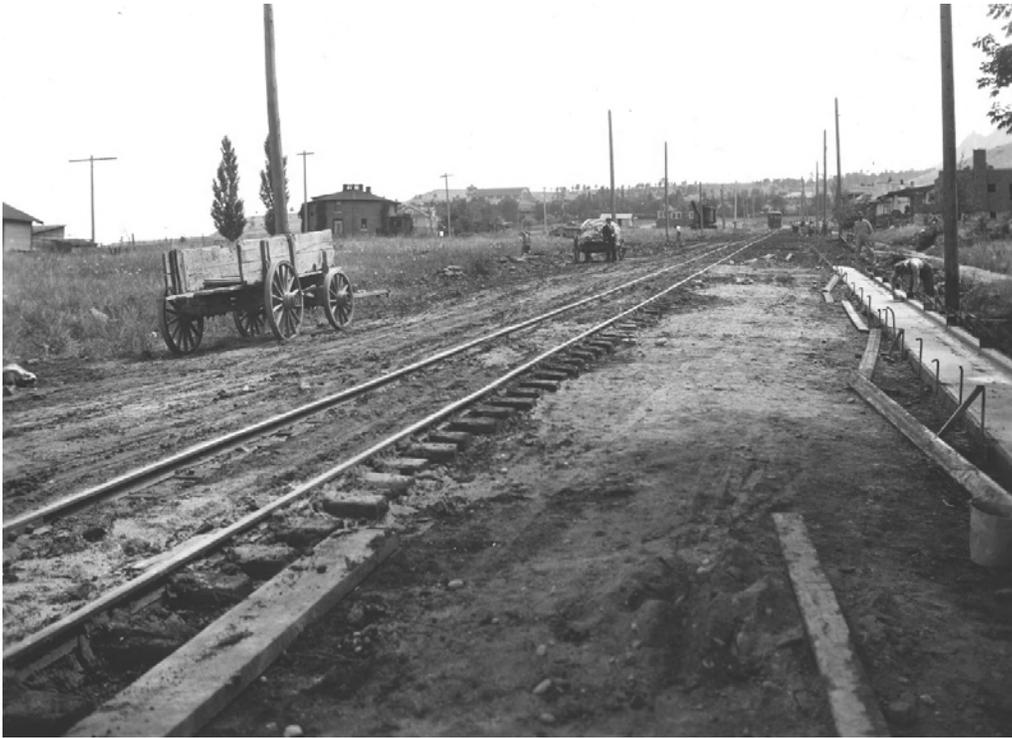


Figure 24. View of streetcar tracks on the 900 block of 9th Street, c.1920-1929.¹⁹⁴

¹⁹⁴ Hal Coulson, "900 Block of 9th Street Photographs, ca. 1920-1929," n.d., A. A. Paddock collection: Historic buildings, Call #: BHS 207-18-40, Boulder Carnegie Library.

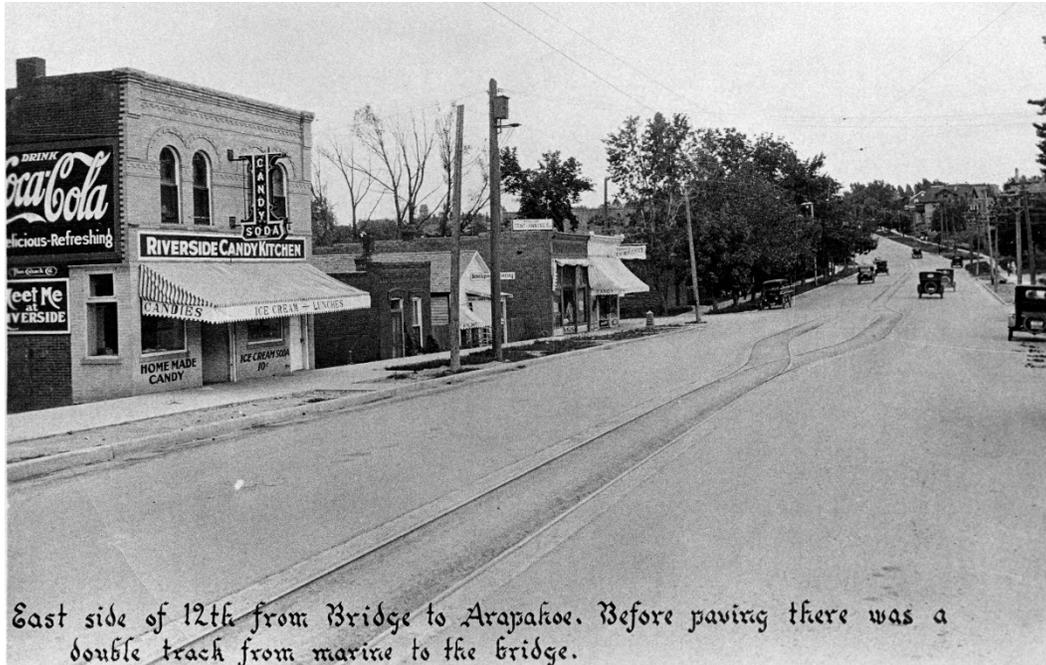


Figure 25. Streetcar tracks on the 1700 block of Broadway Street, with double trackage for passing.¹⁹⁵

Despite the line's initial popularity, the company fell into debt following the close of the Chautauqua season in 1899 and was placed in receivership. The company decided to expand its system to increase ridership and lessen dependence on seasonal Chautauqua travelers.¹⁹⁶ Warren C. Dyer, president of the New Home Realty Company, was named receiver of the streetcar company. Dyer had interests as a developer of Newland's addition, a neighborhood in the northern area of Boulder and sought to expand the line to that part of town. Other residents donated money for an extension into the area.¹⁹⁷ In 1901 a line was constructed from Walnut Street and 12th Street to 23rd Street and Pine Street. Cars turned around on a wye at 22nd Street (see Figure 28). The following year, the Boulder Electric Light Company signed a contract with the City, with the condition that the company operate the streetcar lines. The Boulder Electric

¹⁹⁵ "1700 Block of Broadway Street, Photo 1, ca. 1910-1950," n.d., A. A. Paddock collection: Historic buildings, Call #: BHS 207-3-42, Boulder Carnegie Library.

¹⁹⁶ Gladden, "Boulder Citizens on the Move From Strolling to Streetcars."

¹⁹⁷ "Silvia Pettem on Boulder History."

Light Company was then responsible for extending additional lines. In 1903 it built a new line north along Broadway to Maxwell Avenue, turning west to the Boulder Colorado Sanitarium.¹⁹⁸

In 1906 the Boulder Electric Light Company was absorbed by the Northern Colorado Power Company. Starting in 1908 the Denver & Interurban Company also operated its cars on the Northern Colorado Power Company's lines on Broadway and Pearl Streets (see Figure 26).¹⁹⁹ In 1912 the sanitarium loop was extended.²⁰⁰ Two years later, the Western Light and Power Company took over control of the Northern Colorado Power Company (see Figure 27).²⁰¹

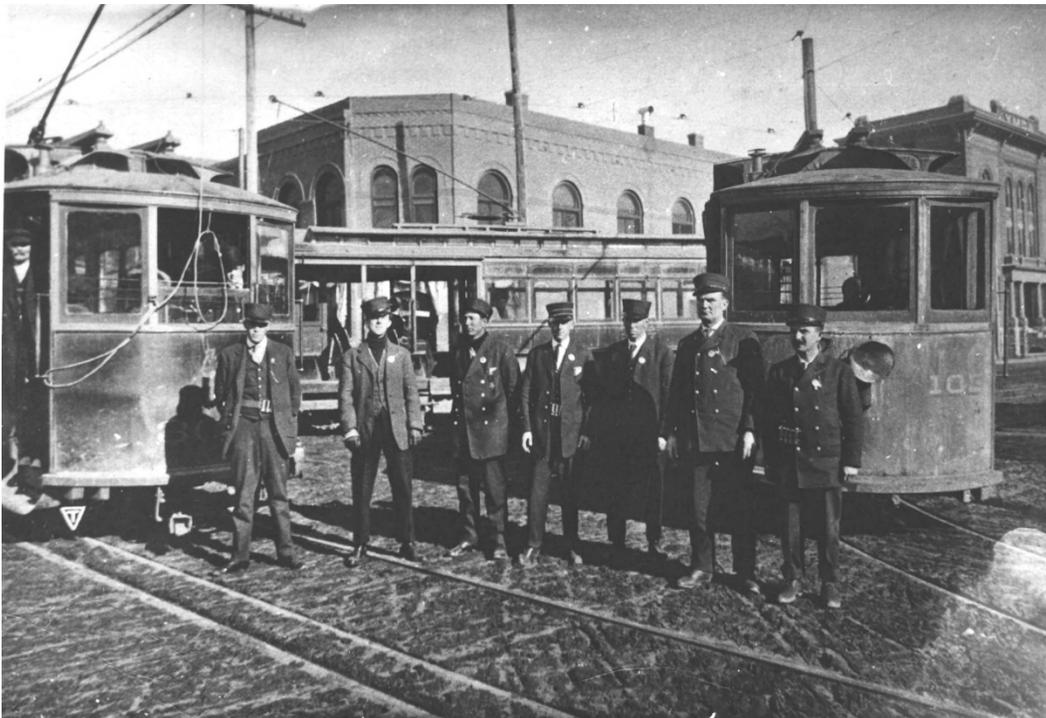


Figure 26. Streetcars at intersection of Walnut and Broadway. The dual gauge that the interurban shared with the streetcar is visible.²⁰²

¹⁹⁸ Hermsen Consultants, *Documentation of Boulder Streetcars Boulder, Colorado*, 8.

¹⁹⁹ Gladden, "Boulder Citizens on the Move From Strolling to Streetcars."

²⁰⁰ "Silvia Pettem on Boulder History."

²⁰¹ "Colorado State News," *Weekly Ignacio Chieftain*, March 24, 1922, 2.

²⁰² "Boulder Street Railway: Streetcars, Photo 3," n.d., A. A. Paddock collection: Transportation, Call # BHS 217-4-9, Boulder Carnegie Library.



Figure 27. An image of a Boulder streetcar, soliciting donations for the Red Cross, c.1910-1919.²⁰³

In 1923 the Public Service Company took over the Western Light and Power Company. The power companies that inherited the streetcar system discovered that it generally operated at a deficit. In 1925 the deficit was almost \$8,000, and by 1930 had grown to \$20,894.²⁰⁴ The Public Service Company was not interested in continuing operation of a streetcar service that failed to make money and the line ceased operations in 1931, with bus service taking over.²⁰⁵ The Public Service Company paid to pave over the tracks or remove them on unpaved streets.²⁰⁶ In 2001 the City used magnetic detection to locate buried tracks remaining under Boulder’s streets.²⁰⁷ Previously excavated tracks are on display at various bus stops along Broadway for interpretive

²⁰³ “Boulder Street Railway: Streetcars Photo 2- Postcard View of Chester A. Johnson (?) And His Streetcar with Woman Passenger on the Step, ca. 1910-1919,” n.d., A. A. Paddock collection: Transportation, Call # BHS 217-4-10, Boulder Carnegie Library.

²⁰⁴ Hermsen Consultants, *Documentation of Boulder Streetcars Boulder, Colorado*, 11.

²⁰⁵ “Rapid Transit.”

²⁰⁶ “Street Car Tracks to Be Removed Soon,” June 2, 1931, Vertical File- Transportation- Street Railroads, Boulder Carnegie Library.

²⁰⁷ “Silvia Pettem on Boulder History.”

purposes, and have been used by university students for a satellite imagery remote sensing project.²⁰⁸

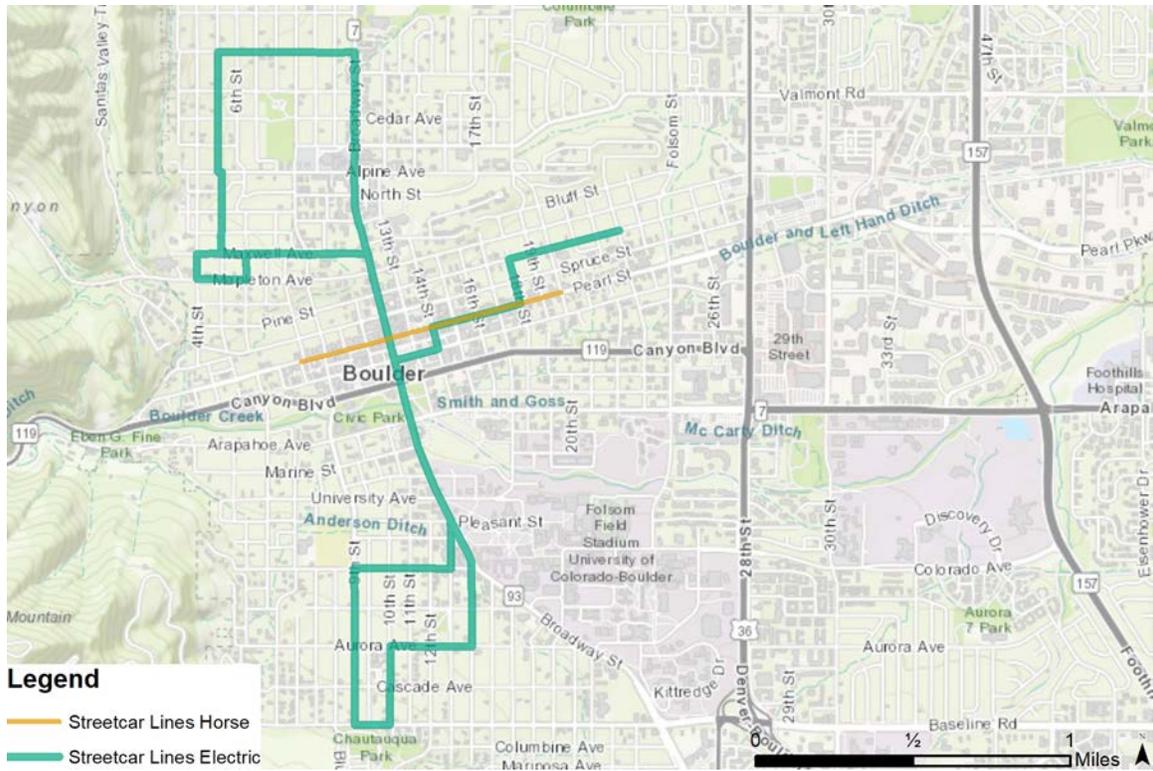


Figure 28. Map of Boulder streetcar lines.

²⁰⁸ Harrington, “Boulder, Colorado Trolley.”

C. Colorado Springs and Manitou Springs

Table 3. Streetcar companies operating in Colorado Springs and Manitou Springs

Company Name	Years of Existence/ Operation	Mode of Transport
Colorado Springs & Manitou Street Railway Company	1887-1890	Horsecar, Standard Gauge
Colorado Springs Rapid Transit Company	1890-1902	Electric, Standard Gauge
Manitou Electric Railway and Casino Company	1893-1895	Electric, Standard Gauge
Colorado Spring & Interurban Railway Company	1902-1932	Electric, Standard Gauge

Colorado Springs was founded in 1871 by William Jackson Palmer, owner of the Denver & Rio Grande (D&RG) Railroad, with the intention of building a sophisticated utopian community on the Colorado frontier. A year later Palmer founded the city of Manitou Springs at the base of Pike’s Peak and promoted the town as a health resort. More than other Colorado cities at the time, Colorado Springs and Manitou Springs were popular among the eastern elite and well-to-do English immigrants. “The Springs” developed a strong tourist economy around multiple resorts and outdoor attractions, avoiding industrial development that would spoil the natural setting. Colorado City, located between Colorado Springs and Manitou Springs, was originally founded as mining camp in 1859. Unlike its neighboring communities, Colorado City embraced industrial development after James Hagerman established the headquarters of the Colorado Midland (C&M) Railroad there in 1886, which attracted a large working working-class population to the region. In contrast to Colorado Springs’s upper-crust image, Colorado City developed a reputation for its numerous saloons, casinos, and brothels along Colorado Avenue.²⁰⁹

²⁰⁹ William Wyckoff, *Creating Colorado: The Making of a Western American Landscape, 1860-1940* (New Haven and London: Yale University Press, 1999), 134–38; Abbot, Leonard, and Noel, *Colorado: A History of the Centennial State*, 224; Cafky and Haney, *Pikes Peak Trolleys: A History of the Colorado Springs Streetcar System*, 1.

By the early 1880s the only public transit between Colorado Springs, Colorado City, and Manitou Springs was either irregular service on the Manitou branch of the D&RG or expensive horse-taxis and omnibuses. The sale of alcohol was prohibited in Colorado Springs and its residents frequented the saloons in Colorado City, which further taxed the limited transit options. There was clearly a need for regular and reliable transportation between the three communities. Palmer and Hagerman, owners of competing railroad companies, partnered with other leading businessmen in Colorado Springs to establish the Colorado Springs & Manitou Street Railway Company (CS&M) in 1887. The CS&M provided horsecar service within Colorado Springs and Colorado City, but did not last long enough to complete construction to Manitou Springs. Construction of the CS&M system began in 1887 through the main business corridor along Tejon Street in downtown Colorado Springs. Construction continued in 1888 north on Tejon Street and Nevada Avenue to Colorado College and the wealthy North Side neighborhood. Another line was constructed west to Colorado City along Colorado Avenue, terminating at 28th Street (see Figure 39). The CS&M operated 10 cars with 42 horses on 16-pound rails. The system primarily serviced the local communities of Colorado Springs and Colorado City, as it did not extend to major tourist destinations before investors began looking toward electrification of the system (see Figure 29).²¹⁰

²¹⁰ Cafky and Haney, *Pikes Peak Trolleys: A History of the Colorado Springs Streetcar System*, 2; Griswald, *Colorado Springs Streetcars: A History*, 2; “Index to Street Railway Franchises Granted by the Cities of Colorado Springs and Colorado City, Town of Manitou and the El Paso County Board of County Commissioners and Certain Ordinances Pertaining Thereto.,” n.d., W.S. Stratton Collection, The Colorado Springs & Interurban Railway Co., Ledger 5, Colorado Springs Pioneers Museum.



Figure 29. Horsecar operated by the CS&M, later repurposed for electric service, c.1900.²¹¹

By 1889 the advent of Sprague’s electric streetcar technology (see Section 2.B.(1)) convinced many in Colorado Springs of the need to overhaul and electrify their system, and extend service to Manitou Springs. However, the CS&M’s investors, particularly Palmer and Hagerman, were more concerned with their primary railroads. They were reluctant to sink more capital into a local streetcar system and instead convinced other local investors to take over their shares. In 1890 the Colorado Springs Rapid Transit Railway (CSRT) was incorporated and purchased the CS&M system (see Figure 30). The CSRT obtained a franchise to operate in Colorado Springs and Colorado City, but Manitou Springs denied the franchise, preferring to invest in a local streetcar system. Work began immediately to rebuild the CS&M system with standard-gauge, 30-pound rails and electrical overhead wires.²¹²

²¹¹ “Colorado Springs Streetcar,” c.1900, Margaretta M. Boas Photograph Collection, 001-2518, Pikes Peak Library District, Digital Collections.

²¹² Cafky and Haney, *Pikes Peak Trolleys: A History of the Colorado Springs Streetcar System*, 3; Griswald, *Colorado Springs Streetcars: A History*, 4; “Index to Street Railway Franchises Granted by the Cities of Colorado Springs and Colorado City, Town of Manitou and the El Paso County Board of County Commissioners and Certain Ordinances Pertaining Thereto.”

The CSRT also significantly expanded the streetcar system in all directions from downtown Colorado Springs. These expansions were tied largely to tourism and land speculation, constructing new lines to encourage development on the city's fringes. The connection to Manitou Springs was completed as far as the D&RG depot on Manitou Avenue near South Path Street, where it later met the main line of the Manitou Electric Railway and Casino Company (MER&CC). The CSRT began leasing operation of the MER&CC tracks between the D&RG depot and Ruxton Avenue in 1895. The Tejon Street line was also extended north into the Roswell neighborhood, necessitating a new bridge on Tejon Street north of Harrison Street to cross the Rock Island railroad cut. A major construction effort was made on a line east toward the Austin Bluffs subdivision, a development in which the owners of the CSRT were heavily invested. Both their speculation and the streetcar line proved to be a bust, and by 1892 the tracks north of Cache la Poudre Street were removed and used to double-track the Tejon Street line. Another large extension was built to the south into the Broadmoor subdivision. James Pourtales had purchased land to the southwest of the city with plans to build the Broadmoor Casino (known as the Broadmoor Hotel after 1918) and develop the surrounding area into a residential subdivision. Pourtales paid the CSRT \$20,000 to construct a streetcar line to his casino. The Broadmoor line required an underpass on Tejon Street south of Fountain Boulevard to avoid crossing the D&RG line. In addition to these new streetcar lines, the CSRT also erected a powerhouse and carbarn for the system along Moreno Avenue between Cascade Street and Tejon Street in downtown Colorado Springs.²¹³

²¹³ Cafky and Haney, *Pikes Peak Trolleys: A History of the Colorado Springs Streetcar System*, 3–5; Griswald, *Colorado Springs Streetcars: A History*, 6–7.

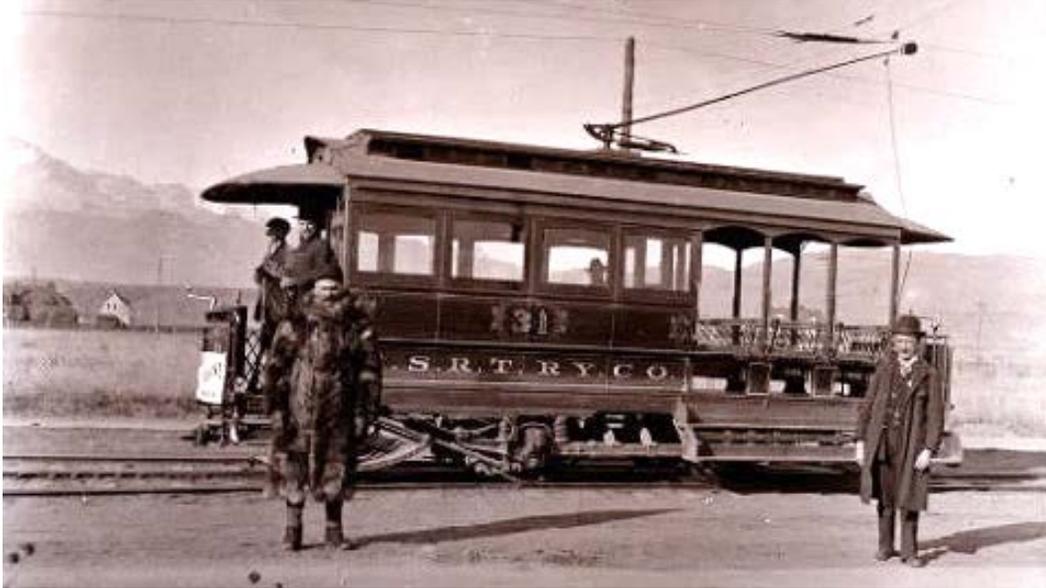


Figure 30. Single-truck streetcar operated by the Colorado Springs Rapid Transit, c.1898.²¹⁴

Throughout its operation the CSRT faced financial difficulties. Although passenger service was heavy on the central and western lines, speculation along the outlying service was slow to pay off, and the Broadmoor and Austin Bluffs lines were not profitable. Ridership declined severely after the Panic of 1893 (see Section 3.E.) but the CSRT continued operations. The Colorado Springs area recovered from the silver crash more quickly than other communities in Colorado as a tourist destination for wealthy easterners that had not suffered greatly during the recession. The Cripple Creek gold boom in the mid-1890s further boosted the region's economy. In spite of this, the CSRT never made a profit and was unable to maintain and update the system. By the late 1890s the fashionable population of Colorado Springs avoided the aging streetcar system and the CSRT was barely making interest payments on its initial investments by the turn of the century. The company was on track to bankruptcy when Winfield Scott Stratton, a wealthy philanthropist, purchased the company on behalf of the City of Colorado Springs.²¹⁵

²¹⁴ "Colorado Springs Streetcar," c.1898, Margaretta M. Boas Photograph Collection, 001-739, Pikes Peak Library District, Digital Collections.

²¹⁵ Cafky and Haney, *Pikes Peak Trolleys: A History of the Colorado Springs Streetcar System*, 6.

Stratton originally moved to Colorado Springs in 1872 at the age of 24 and worked as a carpenter and small-time prospector for nearly 20 years. In 1891 he was one of the first prospectors to find gold near Cripple Creek at the Independence Mine, which proved to be one of the richest mines in the district. Stratton ultimately sold the mine for \$10 million and became one of the richest men in Colorado. Unmarried, he spent vast sums of his own money on public projects in Colorado Springs, including a new city hall, county courthouse, and a “pleasure park” for the city’s citizens at the mouth of Cheyenne Canyon, named Stratton Park. Stratton purchased the CSRT in 1901 and incorporated the Colorado Springs and Suburban Railway Company (CS&S) to operate the system. Stratton paid \$500,000 for the CSRT, in addition to taking on the company’s \$500,000 in debt. His purchase was motivated in part to provide access to his projects, but also to ensure that the citizens would have access to reliable transportation in perpetuity. In 1902 he incorporated the Colorado Springs & Interurban Railway Company (CS&I) and consolidated the two previous companies under this new name, which remained in operation until service was ended in 1932.²¹⁶

In addition to benefitting the citizens of Colorado Springs, Stratton took measures to protect his employees. The CS&I was the first company in Colorado and first streetcar company in America to take out a \$250,000 group life insurance policy for its workers. Stratton also established an employee home financing program, and by 1910 eighty-five percent of the CS&I employees were homeowners. Additionally, operators were employed in the company’s shops, where they constructed new cars during the slow season to maintain full employment throughout the year. The company built 29 of its own cars between 1905 and 1911. When Stratton died in 1902, he left the CS&I under the ownership of his estate. Although the CS&I charged for all rides, the Stratton Estate incurred all construction and operating costs, and covered the financial deficits when the company was no longer profitable. During the CS&I’s operation Colorado Springs was unique in that their streetcar system was not operated for profit, but as part of the Stratton’s philanthropic legacy.²¹⁷

²¹⁶ Abbot, Leonard, and Noel, *Colorado: A History of the Centennial State*, 104–6; Cafky and Haney, *Pikes Peak Trolleys: A History of the Colorado Springs Streetcar System*, 15–17; Griswald, *Colorado Springs Streetcars: A History*, 9; *Street Railway Journal* 20, no. 11 (September 13, 1902): 377.

²¹⁷ *Pikes Peak Trolleys: A History of the Colorado Springs Streetcar System*, 25–26; Griswald, *Colorado Springs Streetcars: A History*, 15, 17.

When Stratton incorporated the CS&I the system was in dire need of repair and upgrading and Stratton spent \$2 million to rebuild the system and purchase new equipment (see Figure 31 and Figure 32). The existing rails were replaced with 65-pound rails to support a new fleet of double-truck cars. The older single-truck cars were refurbished and used on lighter service routes. Stratton also paid for the construction of a new car barn and maintenance shop adjacent to the CSRT facilities between Tejon Street and Cascade Avenue, in addition to a large new power station at Sierra Madre Street and Rio Grande Street that could generate 1,600 kilowatts of electricity (see Figure 33 and Figure 34).²¹⁸

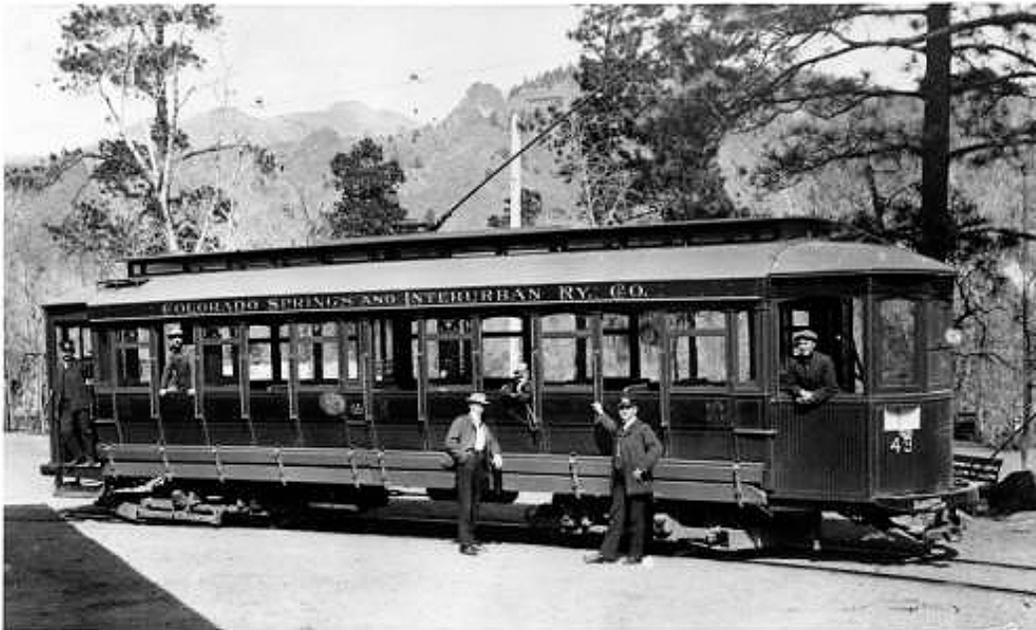


Figure 31. Double-truck streetcar operated by the Colorado Springs & Interurban, c.1901-1908.²¹⁹

²¹⁸ Cafky and Haney, *Pikes Peak Trolleys: A History of the Colorado Springs Streetcar System*, 17–19; “Improvements and Extensions of the Colorado Springs Rapid Transit System,” *Street Railway Journal* 20, no. 2 (July 12, 1902): 70.

²¹⁹ “Colorado Springs Interurban Railway,” c.1901-1908, James O. Hermansen Photographic Collection, 314-11551, Pikes Peak Library District, Digital Collections.

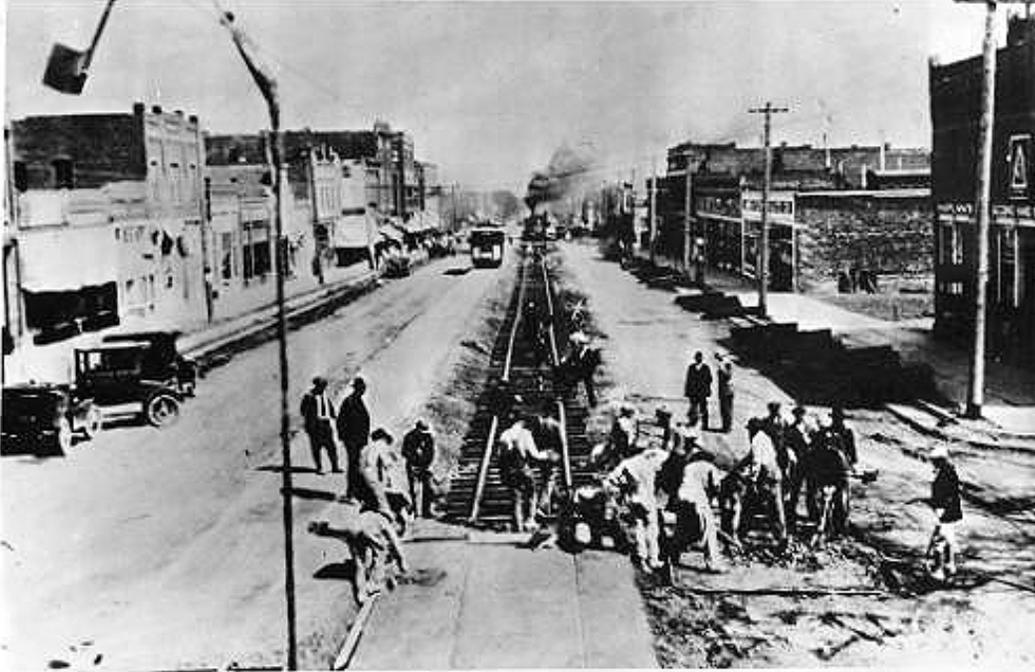


Figure 32. Construction of the streetcar tracks on Colorado Avenue in Colorado City, date unknown.²²⁰



Figure 33. Colorado Springs & Interurban car barn on Tejon Street, c.1903.²²¹

²²⁰ "Old Colorado City Street," n.d., Margaretta M. Boas Photograph Collection, 001-5633, Pikes Peak Library District, Digital Collections.

²²¹ "Streetcar Car Barn," c.1903, Carl Mathews Collection, 005-4193, Pikes Peak Library District, Digital Collections.

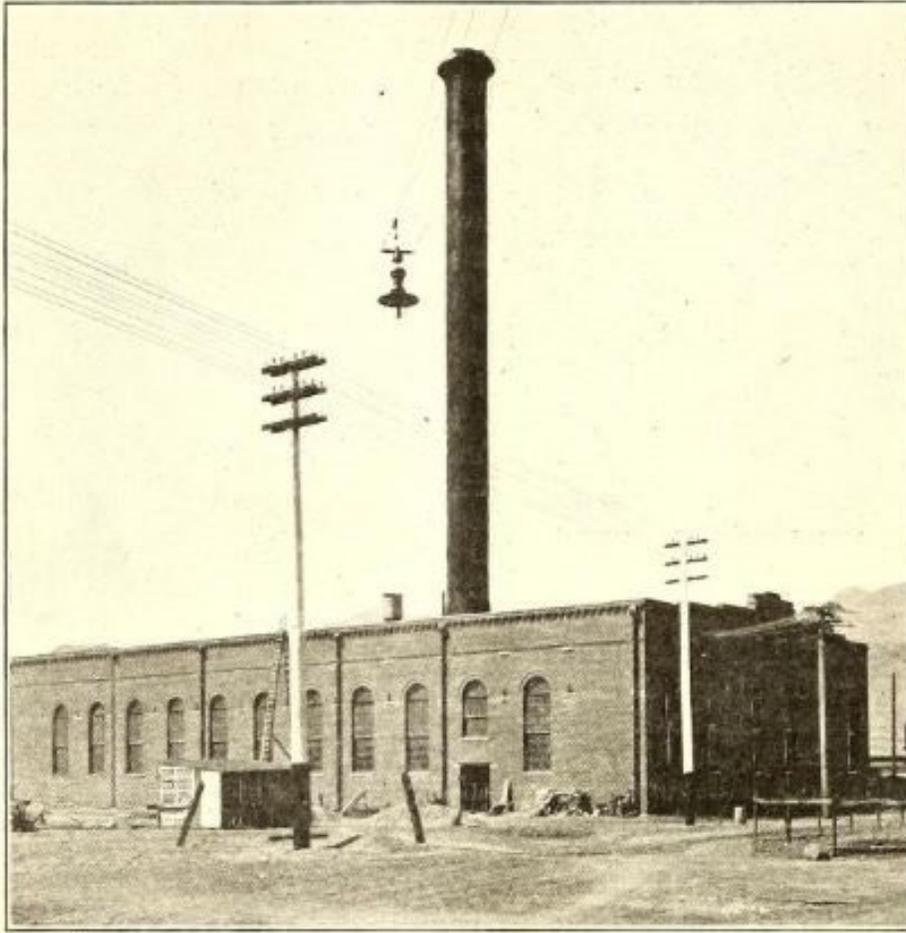


Figure 34. Power plant constructed by the CS&I at Sierra Madre Street and Rio Grande Street, 1902.²²²

The CS&I also expanded the reach of the system. One of Stratton's priorities was ensuring that the public could access his other philanthropic projects. The CS&I constructed a new line along Cheyenne Boulevard to Stratton Park, just north of the existing Broadmoor line (see Figure 35 and Figure 36). The *Street Railway Journal* described the line to Stratton Park as "one of the finest pieces of street railway construction in the country." In 1917 the system's last new line was constructed from the Broadmoor line to the Myron Stratton Home, named after Stratton's father and operated by his estate, which took in the elderly who could no longer afford housing. The CS&I also expanded into new neighborhoods that were developing throughout Colorado

²²² "Improvements and Extensions of the Colorado Springs Rapid Transit System," 70.

Springs at the turn of the century. The CS&I constructed lines into established residential neighborhoods to the northeast and southeast of downtown and did not engage in the speculative practices of the CSRT. Tourism remained a significant motivator for expansion. In addition to reaching Stratton Park, the Cheyenne Boulevard line provided access to the Zoo Park established in 1905 and additional service to the Broadmoor Hotel. A new line on Fontanero Street offered service to the Patty Jewett Golf Course on the northeast side of town. In Manitou Springs the CS&I obtained the operational lease along Manitou Avenue and secured a franchise with the City of Manitou Springs to rebuild that line as well, including a loop at the intersection of Ruxton Avenue and Manitou Avenue, completed in 1908 (see Figure 37 and Figure 40). From there the MER&CC offered passengers a short streetcar trip up Ruxton Avenue to board the cog railway operated by the Manitou and Pike’s Peak Railway to the top of Pike’s Peak.²²³



Figure 35. Postcard of the car pavilion at Stratton Park, date unknown.²²⁴

²²³ Cafky and Haney, *Pikes Peak Trolleys: A History of the Colorado Springs Streetcar System*, 17–19; Griswald, *Colorado Springs Streetcars: A History*, 12, 16.

²²⁴ “Stratton Park,” n.d., Postcard Collection, 208-9687, Pikes Peak Library District, Digital Collections.



Figure 36. Streetcar and car pavilion at Stratton Park, c.1901-1910.²²⁵

²²⁵ “Streetcar at Stratton Park,” c.1901-1910, Margareta M. Boas Photograph Collection, 001-2520, Pikes Peak Library District, Digital Collections.

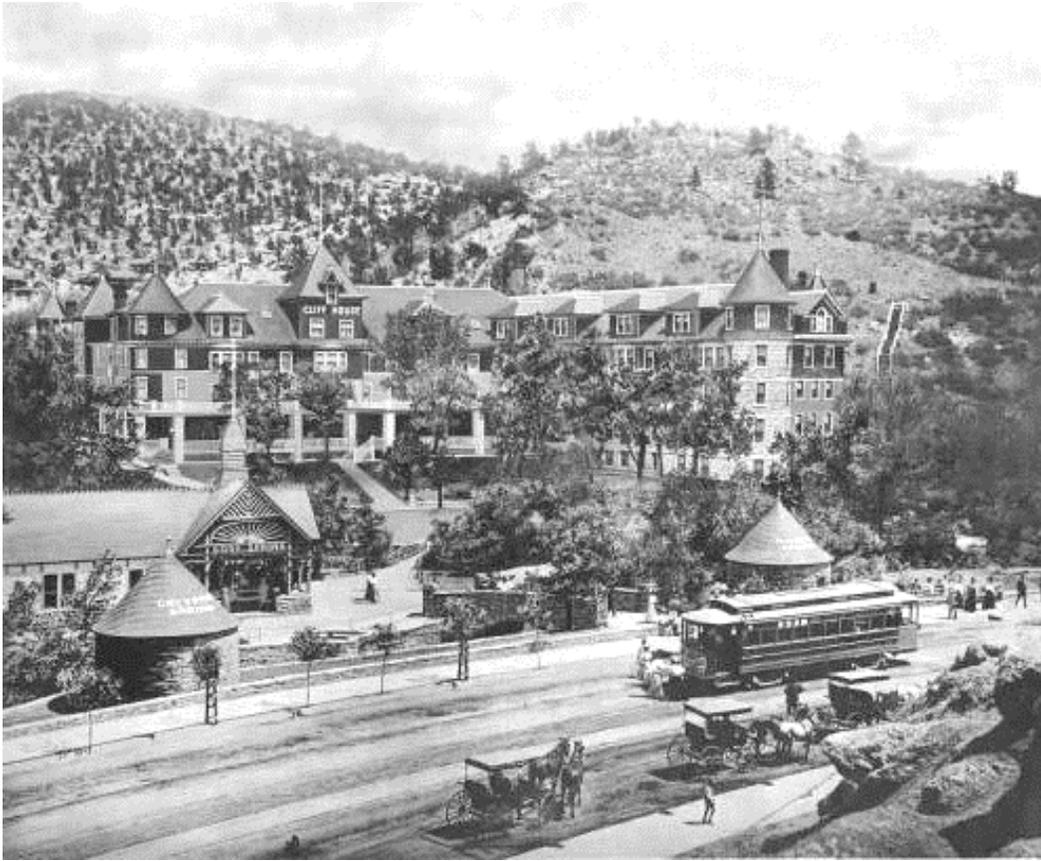


Figure 37. Streetcar on Manitou Avenue in Manitou Springs, c.1905.²²⁶

The CS&I continued profitable operation with increasing ridership before 1914. The summer tourist season provided nearly half of the company’s annual revenue during these years, although local ridership remained steady during the off-season (see Figure 38). Things began to change in 1914, the first year the company did not make a profit. Although deficits were modest initially, they continued to grow and the CS&I provided service at a loss for the remainder of its operation. As in many other cities, the growth of automobile ownership hit the streetcar company hard. Steadily more and more tourists arrived in Colorado Springs in their personal cars and did not require the public transit system to visit the parks and hotels serviced by the CS&I. The local population similarly turned to their personal vehicles for travel within the city rather than riding the streetcars. Street paving for automobiles also became an issue because the CS&I was bound

²²⁶ “Cliff House, Manitou Springs,” c.1905, Mayall Photograph Collection, 102-194, Pikes Peak Library District, Digital Collections.

to pay for half of all paving costs on the streets they utilized. In the 1920s the CS&I went as far as rerouting the line on Platte Street to Boulder Street, one block north, and temporarily ceasing service on Manitou Avenue to avoid its share of street-paving costs.²²⁷



Figure 38. View of streetcar tracks on South Tejon Street, 1914.²²⁸

The CS&I began to adjust its operations in 1916-1917 to accommodate for the decreased revenue. The Wasatch line in east Colorado Springs was rerouted to service the Patty Jewett Golf Course, allowing the company to cancel service and remove the tracks and overhead apparatus on the unprofitable Fontanero line. The company also replaced the outdated single-track cars from the CSRT era with new Birney cars that only required one operator for the neighborhood lines. Deeper deficits continued into the 1920s. The electric service was utilized to haul coal to the Broadmoor Hotel and the Myron Stratton Home in an attempt to raise more revenue. In 1925 the

²²⁷ Cafky and Haney, *Pikes Peak Trolleys: A History of the Colorado Springs Streetcar System*, 41–43; Griswald, *Colorado Springs Streetcars: A History*, 21.

²²⁸ “South Tejon Street,” 1914, Margaretta M. Boas Photograph Collection, 001-4222, Pikes Peak Library District, Digital Collections.

CS&I shut down its own power plant and paid \$45,000 for three additional generators in the city's new power plant, saving the company \$30,000 a year in operating expenses. In the mid-1920s the company also abandoned the Roswell and Wasatch lines, and this service was replaced with the first public buses in Colorado Springs. The MER&CC, which was now operating independently after the CS&I gave up their lease, dropped all off-season service in 1926 and ceased all operations in 1928. During this time there was a suggestion that the Colorado Springs municipal government take over operation of the streetcars, but no action on this front was ever taken.²²⁹

All the while, the Stratton Estate continued to cover the CS&I's deficits, which reached nearly \$100,000 by 1930. In a 1928 letter to the mayor of Colorado Springs, the president of the CS&I stated, "the only compensation derived by this Company from the operation of its street cars is the satisfaction, which is always present, of supplying a public need and furnishing employment to others."²³⁰ The directors of the estate were more interested in directing their funds toward the Myron Stratton Home than the struggling streetcar system with steadily decreasing ridership. In 1932 the decision was made to end streetcar operations in Colorado Springs. On April 30, 1932, the CS&I celebrated the final day of service with free rides throughout the day. The CS&I sold its remaining Birney cars to the City of Pueblo and the larger double-truck cars were sold and refurbished as "lunch wagons, chicken coops, summer houses, and the like."²³¹ Following the system's abandonment, the Colorado Springs Bus Company provided public transit within the city. The rails along the remaining unpaved streets were removed. They were also removed from much of the downtown business district. However, the rails along the remainder of the lines, including Colorado Avenue, were largely paved over and remain under the streets of Colorado Springs.²³²

²²⁹ Cafky and Haney, *Pikes Peak Trolleys: A History of the Colorado Springs Streetcar System*, 41–43; Griswald, *Colorado Springs Streetcars: A History*, 22.

²³⁰ "President of Colorado Springs & Interurban Railway Company to Hon. Victor W. Hungerford, Mayor, and Members of the City Council of the City of Colorado Springs," July 23, 1928, Winfield Scott Stratton Collection, The Colorado Springs & Interurban Railway Co., Box 51, Colorado Springs Pioneers Museum.

²³¹ Cafky and Haney, *Pikes Peak Trolleys: A History of the Colorado Springs Streetcar System*, 44.

²³² Cafky and Haney, *Pikes Peak Trolleys: A History of the Colorado Springs Streetcar System*, 44; Griswald, *Colorado Springs Streetcars: A History*, 23.

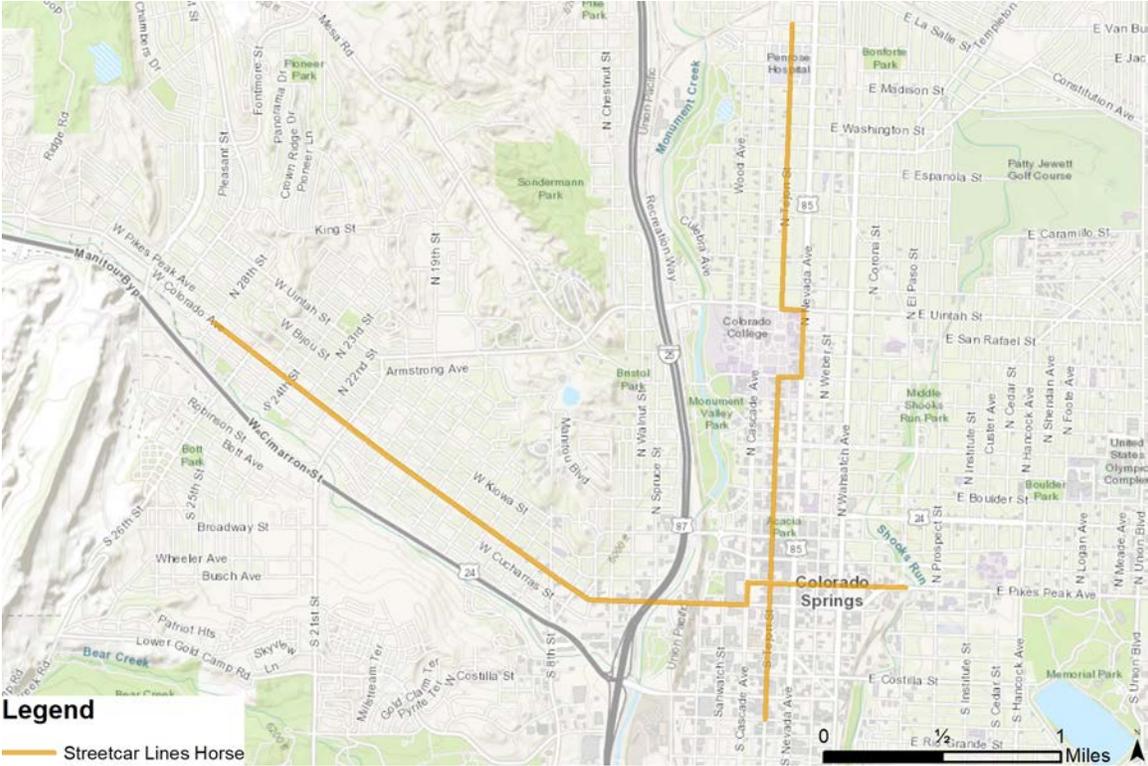


Figure 39. Map of Colorado Springs horse-powered streetcar lines.

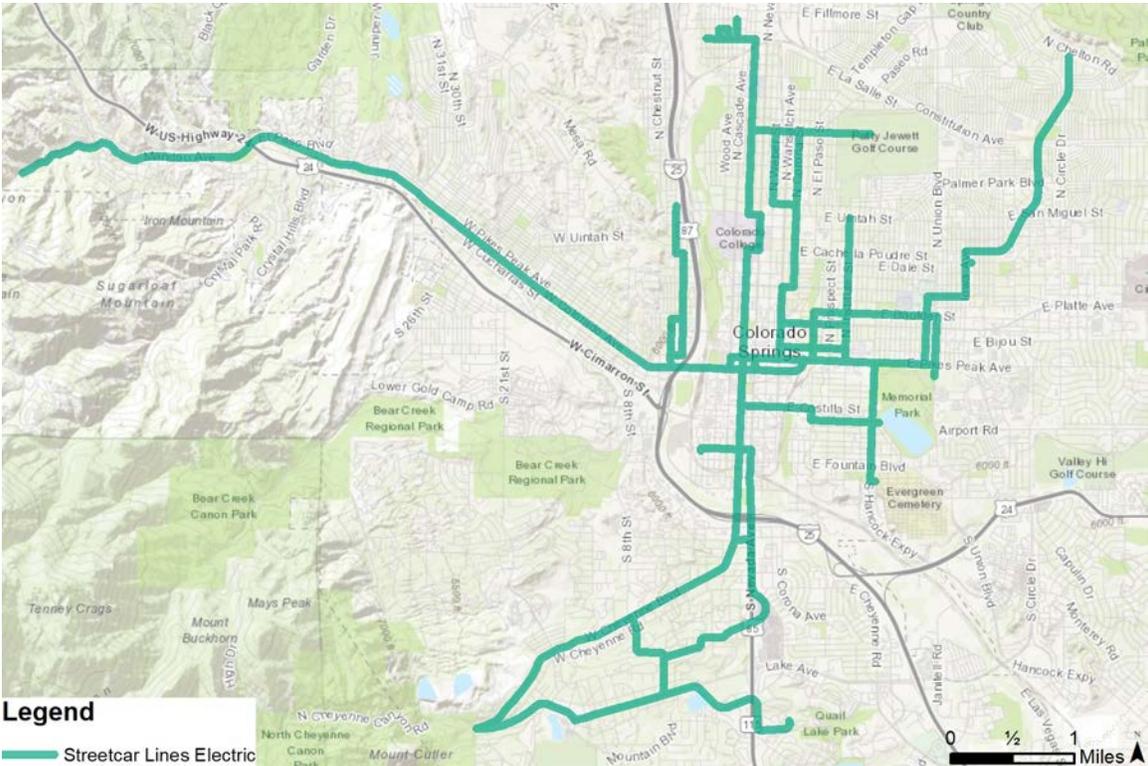


Figure 40. Map of Colorado Springs and Manitou Springs electric streetcar lines.

D. Cripple Creek

Table 4. Streetcar companies operating in Cripple Creek

Company Name	Years of Existence/ Operation	Mode of Transport
Cripple Creek District Railway	1897-1899	Electric
Colorado Springs & Cripple Creek District Railway	1899-1923	Electric/Steam

The Cripple Creek mining district was the site of Colorado’s last major mining boom. Following the initial gold strike in 1890, the hills west of Pikes Peak soon filled with prospectors. In 1892 there were 50 mines in the district that produced \$500,000 worth of gold. A year later 150 mines produced \$2 million worth. The town of Cripple Creek was established in 1892 near the site of the original claim and consolidated with the neighboring community of Fremont in 1893. Gold was discovered throughout the hills and soon other mining camps popped up near the mines, including Victor, Goldfield, Cameron, and Midway, among others. This entire region became known as the Cripple Creek mining district. Cripple Creek was the largest community, followed by Victor to the south. By 1896 there were 350 mines in the district along with 20,000 permanent residents. With millions of dollars flowing from the gold mines, transportation of both passengers and freight within and out of the district soon became a promising business opportunity.²³³

The first railroad into the district, the Florence & Cripple Creek Railroad (F&CC), was completed in 1894. The F&CC shipped most of the district’s gold ore south to the smelters in Florence through Phantom Canyon. The F&CC also established the Golden Circle Railroad (Golden Circle) to provide steam-powered suburban service between Victor and Cripple Creek. In 1893 a new railroad, the Midland Terminal (MT), built a line south from the Colorado Midland Railroad (CM) depot at Divide to Midway, located in the heart of the mining district. The F&CC and MT continued to expand their lines throughout the district in the 1890s. The

²³³ Tivis E. Wilkins, *Short Line to Cripple Creek: The Story of the Colorado Springs & Cripple Creek District Railway* (Golden, Colo.: The Colorado Railroad Museum, 1983), 10–11.

Denver, Cripple Creek & Southwestern Railroad also had plans that were never completed to connect the Cripple Creek district directly with Denver. Although Colorado Springs was the closest large city, by the mid-1890s there was still no direct rail link between it and Cripple Creek. Irving Howbert, a resident of Colorado Springs and one of the founders of both the CM and the Colorado Springs Rapid Transit Company, saw an opportunity to construct an electric rail line from Colorado Springs into the district. In 1897 Howbert incorporated the Colorado Springs, Cripple Creek & Western Railroad and secured the rights to build a hydroelectric power plant at Lake Moraine, approximately 10 miles northeast of Cripple Creek.²³⁴

While Howbert was making plans, another enterprising group of businessmen from El Paso County was developing its own electric railroad within the district. The Cripple Creek District Railway (CCD) was established in 1897, and construction began that year between Cripple Creek and Victor. The CCD laid 60-pound rails at standard gauge throughout the route. Sensing the opportunity, Howbert soon invested in the CCD and was elected president of the company. The CCD began regular service on January 3, 1898.²³⁵

The CCD built its line over higher elevations to avoid duplicate service with the Golden Circle and provide freight service to the heart of the mining district. The CCD route became known as the “High Line” within the district. From its terminus at Cripple Creek, the CCD High Line climbed the steep grade up Poverty Gulch and the north slope of Gold Hill to the camp of Midway (see Figure 41 and Figure 42). At Midway the route turned south towards Dyer and then made another steep descent to the Victor station at 5th Street and Diamond Avenue. The CCD car barn was located at the Cripple Creek terminus. The power plant at Lake Moraine was completed in July 1898. With a peak elevation just over 10,000 feet, the CCD High Line was the highest electric railroad operating anywhere in the world. The high elevation forced the CCD to wind the track along the district’s steep mountain slopes. As the *Street Railway Journal*

²³⁴ Wilkins, *Short Line to Cripple Creek: The Story of the Colorado Springs & Cripple Creek District Railway*, 10–13.

²³⁵ Wilkins, *Short Line to Cripple Creek: The Story of the Colorado Springs & Cripple Creek District Railway*, 15–16; Tivis E. Wilkins, *Colorado Railroads: Chronological Development* (N.p.: Tivis Wilkins, 1974), 114–15; Fletcher, *Centennial State Trolleys*, 32; “Interurban Railroading at Cripple Creek,” 701.

described the new railroad in 1898, “It may be said to be made up entirely of grades and curves.”²³⁶ Traveling the entire 6-mile route took approximately 1.5 hours.²³⁷



Figure 41. A CCD car climbs the hill up Poverty Gulch with Cripple Creek in the background, c.1897.²³⁸

²³⁶ “Interurban Railroading at Cripple Creek,” 703.

²³⁷ Wilkins, *Short Line to Cripple Creek: The Story of the Colorado Springs & Cripple Creek District Railway*, 17, 19, 23; Wilkins, *Colorado Railroads: Chronological Development*, 115; “Interurban Railroading at Cripple Creek,” 703–4.

²³⁸ E.A. Yelton, “Cripple Creek District Railway,” c.1897, Cripple Creek Photograph Collection, 174-3479, Pikes Peak Library District, Digital Collections.



Figure 42. CS&CCD cars passing the Anchoria Leland Mine on the north slope of Gold Hill above Cripple Creek, c.1898.²³⁹

By the end of 1898 the CCD had proved to be a successful venture and Howbert secured funds from English investors to complete his vision of a railroad between Colorado Springs and Cripple Creek. In 1899 he reincorporated the CCD as the Colorado Springs & Cripple Creek District Railway (CS&CCD). Conflicts over right-of-way with the F&CC and MT delayed new construction, but in 1900 the CS&CCD began laying track for steam-powered service along the south slope of Pikes Peak between the district and Colorado Springs. This route soon became known as the “Short Line to Cripple Creek.” (Short Line) Opened in 1901, the Short Line provided daily passenger and freight service over a trip that was significantly shorter than those offered by the F&CC or the MT.²⁴⁰

Howbert also sought to expand the CS&CCD’s electric service by constructing the Low Line between Cripple Creek and Victor. The Low Line extended from the intersection of 4th Street

²³⁹ Yelton, E.A., “Anchoria Leland Mine,” c.1898, Cripple Creek Photograph Collection, 174-3495, Pikes Peak Library District, Digital Collections.

²⁴⁰ Wilkins, *Short Line to Cripple Creek: The Story of the Colorado Springs & Cripple Creek District Railway*, 15; Wilkins, *Colorado Railroads: Chronological Development*, 115; Fletcher, *Centennial State Trolleys*, 32; Colorado Springs & Cripple Creek District Railway, *Short Line Blue Book: A Handbook for Travelers*, 26.

and Warren Avenue in Cripple Creek and made stops at Anaconda, Elkton, and Eclipse before reaching the end of the line at 4th Street and Victor Avenue in Victor. When completed in 1901, the Low Line offered separate service from the older High Line and the two lines did not connect. The Low Line directly competed with the F&CC, Golden Circle, and MT, crossing and running parallel to their tracks to the same mines and camps. The Golden Circle did not run streetcars but provided suburban service on steam-powered trains over the F&CC tracks. By 1905 the CS&CCD, F&CC, and MT had linked the various mines and camps within the Cripple Creek district with a complex web of railroad lines and sidings (see Figure 43).²⁴¹

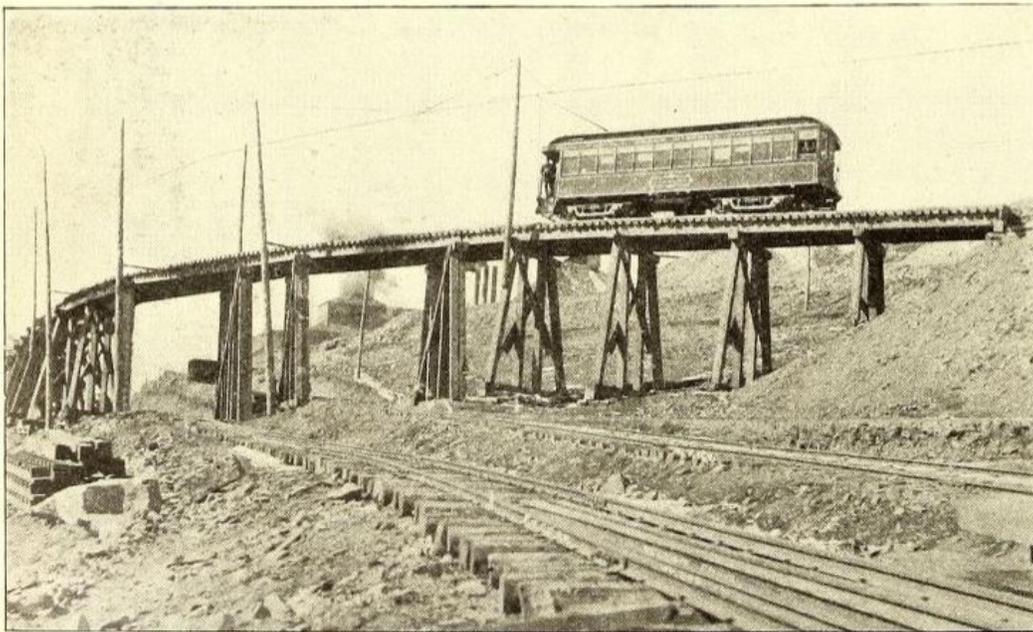


Figure 43. CCD trolley crossing a small trestle on the High Line, c.1898. The Cripple Creek mining district was linked with a web of railroad lines operated by the CS&CCD, F&CC, and the MT.²⁴²

Travelling west from Colorado Springs, the Short Line entered the Cripple Creek district at Cameron. In 1901 the CS&CCD continued its steam line west from Cameron over Hoosier Pass, around the south slope of Gold Hill, descending a longer but gentler grade towards Cripple

²⁴¹ Wilkins, *Short Line to Cripple Creek: The Story of the Colorado Springs & Cripple Creek District Railway*, 28, 35; Wilkins, *Colorado Railroads: Chronological Development*, 127.

²⁴² "Interurban Railroading at Cripple Creek," 702.

Creek, where it met the Low Line just south of town at Pisgah Junction. Another northern branch connected Hoosier Pass and Midway. The CS&CCD also constructed a steam line south from Cameron to Vindicator Junction, where it split again. One branch went west to Portland Junction near Dyer while the other continued south through Goldfield and into Victor (see Figure 44). By 1903 the new lines were electrified, combining the High Line and the Low Line into a single loop known as the “Electric Circle.” The steep and rather dangerous older sections of the CCD High Line between Cripple Creek and Midway, and Dyer and Victor, were steadily abandoned between 1902 and 1905. Although most of the loop was shared between electric and steam service, rail traffic on the streets of Cripple Creek and Victor was carried by electric service only (see Figure 48). A small loop through Cripple Creek was built in 1902 along Meyers Avenue, 2nd Street, Bennett Street, and 3rd Avenue (see Figure 45).²⁴³



Figure 44. CS&CCD streetcar travelling down the center of Victor Avenue in Victor, looking east from 4th Street, c.1902.²⁴⁴

²⁴³ Wilkins, *Short Line to Cripple Creek: The Story of the Colorado Springs & Cripple Creek District Railway*, 38, 40–41, 67–68; Wilkins, *Colorado Railroads: Chronological Development*, 143, 145, 151.

²⁴⁴ Andrew J. Harlan, “Streetcar in Victor Colorado,” c.1902, Andrew J. Harlan Photographs, 402-83, Pikes Peak Library District, Digital Collections.



Figure 45. CS&CCD streetcar rounding the corner onto Bennett Avenue in Cripple Creek, looking east, c.1908.²⁴⁵

The rapid arrival and expansion of the CS&CCD resulted in heated competition with its rival railroads that led to a series of mutual agreements and consolidations of rail service in the district. By 1901 both the F&CC and the MT were owned by the Denver & Southwestern Railroad (D&SW). The D&SW attempted to regain its status by undercutting the CS&CCD's rates. The CS&CCD responded in kind and a rate war ensued between 1901 and 1902. By the summer of 1902 passenger rates had dropped from \$2.75 to 25 cents, and freight rates had plummeted as low as 5 cents per ton. The situation was unmanageable for either side, and an agreement was arbitrated in July 1902 for both companies to pool and redistribute their earnings. In January 1905 the CS&CCD was purchased by the Colorado & Southern (C&S) but continued to operate independently for a few months. Later that year the operations, but not ownership, of the CS&CCD, F&CC, and MT were consolidated under the Allied Lines. The 1905 consolidation ended competition and duplicate service between the three railroads, with each receiving an equal

²⁴⁵ "Bennett Ave. Cripple Creek," c.1908, Margaretta M. Boas Photograph Collection, 001-285, Pikes Peak Library District, Digital Collections.

share of the profits. All three lines continued to provide freight service, but the CS&CCD provided the primary passenger service on the Short Line and the Electric Circle.²⁴⁶

Following the Allied Lines consolidation, the CS&CCD continued to operate profitably for the next 10 years. The Cripple Creek district was a popular destination for tourists in the early twentieth century and the ride along the Short Line and the Electric Circle was a highlight for many visitors (see Figure 46). The trip offered stunning views of the Colorado mountains and carried the riders “within speaking distance of the mines.”²⁴⁷ President Theodore Roosevelt described the journey in 1901 as “the trip that bankrupts the English language.”²⁴⁸ Locals also took advantage of the electric service for commuting and shopping. Due to the district’s rugged terrain and relatively small size, automobiles did not offer strong competition to the interurban rail lines. At its peak population there were 50,000 permanent residents patronizing the railroads. Freight service also provided consistent revenue. By 1911 more than \$200 million worth of gold had been shipped out of the district. However, as with most mining communities, the boom eventually faded and the World War I years took a hard toll on Cripple Creek and the surrounding communities.²⁴⁹

²⁴⁶ Wilkins, *Short Line to Cripple Creek: The Story of the Colorado Springs & Cripple Creek District Railway*, 59, 78–79; Fletcher, *Centennial State Trolleys*, 32; “Colorado Rate War Settled,” *Street Railway Journal* 20, no. 3 (July 19, 1902): 101–2.

²⁴⁷ Colorado Springs & Cripple Creek District Railway, *Short Line Blue Book: A Handbook for Travelers*, 22.

²⁴⁸ Wilkins, *Short Line to Cripple Creek: The Story of the Colorado Springs & Cripple Creek District Railway*, 52.

²⁴⁹ Wilkins, *Short Line to Cripple Creek: The Story of the Colorado Springs & Cripple Creek District Railway*, 91; Colorado Springs & Cripple Creek District Railway, *Short Line Blue Book: A Handbook for Travelers*, 21–24.



Figure 46. Steam train passing St. Peter’s Dome on the CS & CCD Short Line to Cripple Creek from a 1911 guidebook. While the Short Line was used exclusively by steam trains, many travelers also boarded the streetcars on the Electric Circle lines to tour the mining district. Both the Short Line and the Electric Circle lines were renowned for the spectacular views of the surrounding mountains.²⁵⁰

The profitability of gold mining sharply declined beginning in 1915. During the war years the price of gold was fixed at just over \$20 per ounce. While subject to this fixed price, mining enterprises also faced inflation from war spending, which resulted in increased expenses for labor, machinery, and supplies. In addition, the district’s most profitable mines had begun to play out. While larger companies survived the downturn, many smaller outfits went under. In 1915

²⁵⁰ Colorado Springs & Cripple Creek District Railway, *The Short Line Blue Book: A Handbook for Travelers* (Denver, 1911), 19, http://www.cripplecreekrailroads.com/04library/books/bluebook_1911-12/1911-12.php.

there were 70 active mines that produced \$13 million in gold. By 1920 the remaining 41 mines produced only \$4 million. Further complicating matters for the CS&CCD, Allied Lines purchased the CM in 1917 and diverted all freight shipments to the MT and CM lines, leaving the CS&CCD with passenger service only. Tourist traffic had also dropped off during the war years, and in 1918 the Short Line bridge over Bear Creek, near Colorado Springs, was destroyed by fire and Allied Lines chose not to invest funds in repairing the bridge. Over the course of a year the CS&CCD was reduced from full operation to relying entirely on the Electric Circle lines for revenue. With the Cripple Creek district's popularity rapidly declining, the company went into receivership in January 1919.²⁵¹

In the summer of 1919 George M. Taylor, president of the Portland Gold Mining Company, took over the receivership of the CS&CCD and rebuilt the Bear Creek Bridge. With the war over, Taylor saw an opportunity to resume the Short Line runs for summer tourists and operations restarted in July. Disaster struck again that fall, however, when on November 21, 1919, the carbarn in Cripple Creek burned to the ground while two workers were asleep inside. The fire claimed the employees' lives and two thirds of the company's equipment. The CS&CCD cut its regular service in half with its remaining three cars, but this was not enough to recoup the damage caused by the fire. Electric rail service in the Cripple Creek district was cancelled on May 16, 1920, and the remaining cars were shipped to Colorado Springs. The Short Line continued operation through the summer of 1920 but it too was shut down on September 1, 1920. The CS&CCD was later purchased in 1922 to build a toll road for tourists to the district. The tracks along the Short Line were torn up in 1923 and much of the track within the district was removed at the same time. Although the towns of Cripple Creek and Victor have survived,

²⁵¹ Wilkins, *Short Line to Cripple Creek: The Story of the Colorado Springs & Cripple Creek District Railway*, 126; Fletcher, *Centennial State Trolleys*, 32.

extensive pit mining in the former Cripple Creek mining district has obliterated much of the landscape formerly served by the Electric Circle lines.²⁵²



Figure 47. Map of the Streetcar Lines in the Cripple Creek Mining District.

²⁵² Wilkins, *Short Line to Cripple Creek: The Story of the Colorado Springs & Cripple Creek District Railway*, 130–37; Fletcher, *Centennial State Trolleys*, 32; Feitz, *Colorado Trolleys*, 33. Due to the heavy disturbance from recent mining within the Cripple Creek Mining District, it was not possible to accurately map the High Line and Low Line between Cripple Creek and Victor; these lines were not included in the GIS portion of this study. The map in Figure 47 identifies the lines within Cripple Creek and Victor that operated exclusively under electric traction, in addition to the route through Goldfield that was recognizable from historic maps.

E. Denver

Denver was first settled in 1858. The upstart town on the plains east of the Rocky Mountains developed as a trading and mining supply center, and by 1867 boasted a population of approximately 4,000 people.²⁵³ At that time, the city was bounded by Wynkoop, Curtis, and 18th Streets and Cherry Creek. Original residents were eager for the city to live up to its “Queen City” nickname, complete with the transit amenities of the larger cities on the east coast. By 1871 Denver was on its way toward that goal with its first horse-powered streetcar. The city’s population exploded over the next decade, jumping from 4,731 in 1870 to 35,628 in 1880.²⁵⁴ With the population growth came a proliferation of new streetcar companies and lines. Denver followed much of the nation in its technological progression of streetcar service, beginning with horsecars, followed by steam dummies, cable cars, and eventually electric streetcars.

Denver’s streetcar system was one of the most comprehensive in the country, with over 250 miles of trackage in the Denver metro area and 40 miles of interurban rails providing connection to communities beyond.²⁵⁵ The streetcar system, which branched out in many directions from the original city center, helped the city grow and allowed residents to live further from the city center. As a result, Denver avoided developing a “tenement district” present in many larger cities across the country. While the streetcar network facilitated the growth and settlement of many areas of the city, the proliferation of competing streetcar companies, coupled with the economic ramifications following the Panic of 1893 (see Section 3.E.), led to the consolidation of streetcar companies into one company, the Denver Tramway Company, commonly referred to as the Tramway. The Tramway provided a crucial daily service to Denver residents who rode streetcars to work, school, shop, worship, and recreate and remained an often-beloved aspect of life in Denver until the last streetcar ran in 1950 (see Figure 48). A recently restored electric streetcar runs along a short track adjacent to the Platte River on various weekends and during the Denver Broncos football games. Light rail routes have also been developed to connect Denver and surrounding communities; however, they are not based on the existing street grid like the original

²⁵³ Robertson, Cafky, and Haley, *Denver’s Street Railways, Volume I 1871-1900*, I:9.

²⁵⁴ Robertson, Cafky, and Haley, *Denver’s Street Railways, Volume I 1871-1900*, I:71.

²⁵⁵ David Forsyth, “Life Is a Roller Coaster: A History of Denver’s Lakeside Amusement Park,” n.d., 67; Kevin Pharris, *Riding Denver’s Rails: A Mile High Streetcar History* (Charleston, S.C.: The History Press, 2013), 11.

system was. Many buildings and features remain on the Denver landscape from the original streetcar era, though most of the tracks have been removed or lay buried underneath the asphalt, peeking through occasionally to serve as a reminder of the vast transportation network that once existed across the city.



Figure 48. Denver’s Mizpah Arch, which served as a welcome and farewell to visitors traveling through Union Station. A streetcar is shown, with tracks, in front of the arch and Union Station, c.1908-1913.²⁵⁶

²⁵⁶ Louis Charles McClure, “Mizpah Arch, Union Station, Denver,” n.d., Call # MCC-1658, Denver Public Library Western History Collection.

The streetcar history of Denver is notably complex. Since the first horsecar plodded the mile-high city's streets in 1871 until the last electric streetcar ran in 1950, almost three dozen distinct streetcar companies were established within the city.²⁵⁷ Some companies never got off the ground, some operated a single route just a few blocks long, and others were highly sophisticated. In an effort to clearly understand their role within Denver's streetcar system and the development of the city, each company that constructed trackage, operated trains, or played an important role in the advancement of streetcar service in the city is discussed separately below, organized by geographic region (see Figure 49).

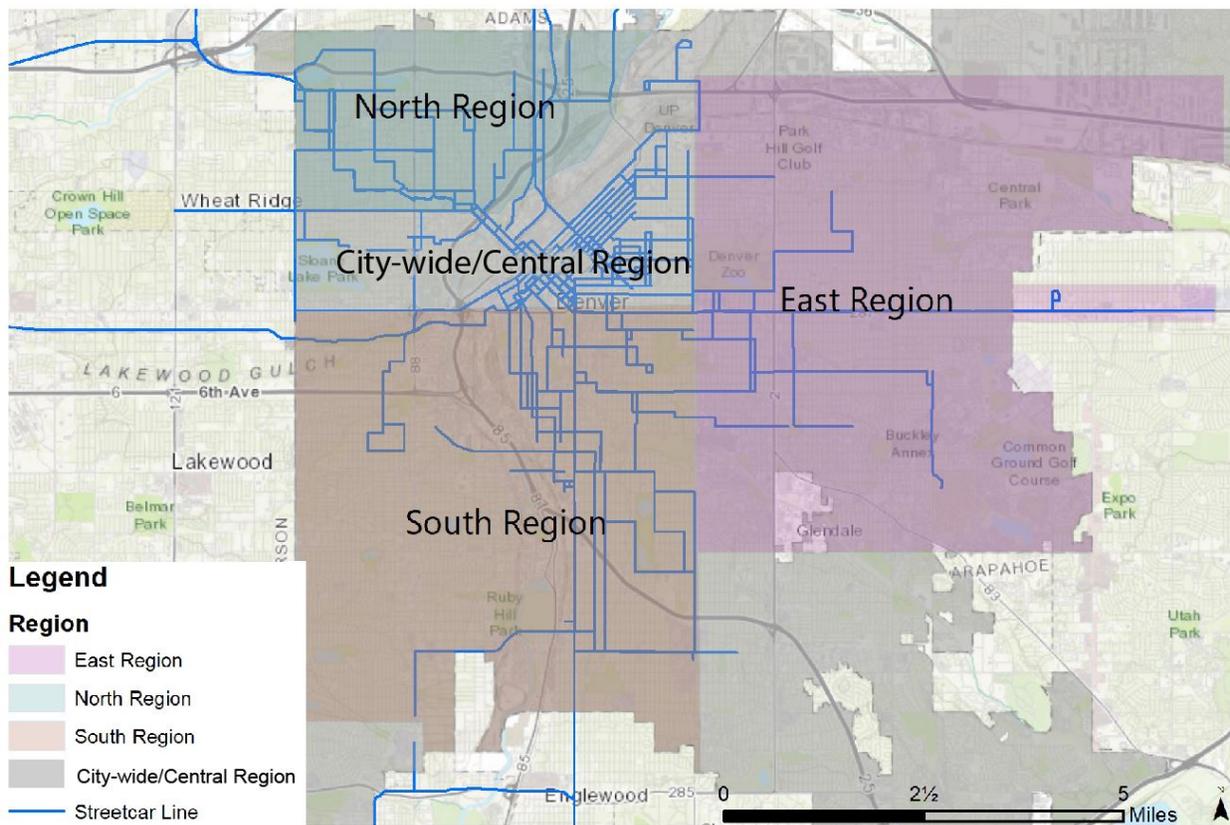


Figure 49. Map of Denver showing geographic regions used in this chapter and streetcar lines. Interurban lines outside of Denver are also shown.

²⁵⁷ Glandon, *Streetcar Commercial Districts Reconnaissance Survey Final Report, 2*.

Table 5. Streetcar companies operating in Denver’s City-wide/Central Region

Company Name	Years of Existence/Operation	Mode of Transport
Denver Horse Railway Company/Denver City Railway Company/Denver City Railroad Company/Denver City Traction Company	1867-1872: Denver Horse Railway Company, 1872-1896: Denver City Railway Company, 1896-1889: Denver City Railroad Company, 1898-1899: Denver City Traction Company	Narrow Gauge, Horsecar
Denver City Cable Railway/Denver City Railroad/Denver City Traction Company	1888-1895: Denver City Cable Railway Company; 1893-1898: Denver City Railroad, 1898-1899: Denver City Traction Company, 1899: Denver City Tramway Company	Narrow Gauge, Cable
Denver Electric & Cable Railway Company/Denver Tramway Company (senior)/Denver Tramway Company (junior)/Denver Consolidated Tramway Company/Denver City Tramway Company/Denver Tramway Corporation	1885-1886: Denver Electric & Cable Railway, 1886-1890: Denver Tramway Company (senior), 1890-1893: Denver Tramway Company (junior), 1893-1899: Denver Consolidated Tramway Company, 1899-1914: Denver City Tramway Company, 1914-1925: Denver Tramway Corporation, 1925-1971: Denver Tramway Corporation	Narrow Gauge, Cable, Electric
Denver & Suburban Railway Company	1889-1891	N/A
Denver Tramway Extension Company	1890-1890	Narrow Gauge, Electric
Metropolitan Railway	1891-1893	Narrow Gauge, Electric

(1) *City-wide/Central Region Companies**Denver Horse Railway Company/Denver City Railway Company/Denver City Railroad Company/Denver City Traction Company*

On January 10, 1867, a group of Denver men incorporated the Denver Horse Railway Company and obtained a charter that granted them the exclusive rights to operate a horse powered railroad in Denver.²⁵⁸ Being the first to arrive on the streetcar scene in Denver, the company was able to obtain this favorable franchise, which helped them ward off competitors. The company, which was quickly purchased by a group of Chicago investors including Lewis C. Ellsworth, intended to build a narrow-gauge horsecar system in the central Denver business district. Ellsworth, through his role as president and general manager of the company, played an important role in the evolution of early streetcar transportation in the city.²⁵⁹ The company operated the first horsecar line in Denver on the Champa Street line on December 17, 1871 (see Figure 50). Shortly thereafter, on January 10, 1872, the company reorganized and changed its name to the Denver City Railway Company (DCRC). The company's first line was successful, and it branched out across the Platte River into north Denver and the Sloan's Lake area. The company built a barn and carbarn at 16th and Curtis Streets to store its fleet of horsecars and horses. In the spring of 1874 it expanded further with lines along South Broadway and Park Avenue.²⁶⁰

²⁵⁸ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:10.

²⁵⁹ Pharris, *Riding Denver's Rails: A Mile High Streetcar History*, 16.

²⁶⁰ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:6–16.



Figure 50. DCRC horsecar operating on Champa Street, c.1880-1885.²⁶¹

The DCRC held a monopoly on streetcar service in the heart of Denver for several years. In 1874 it held off a potential competitor, the Denver & Swansea Railroad, who intended to operate steam dummies on downtown Denver streets, citing its franchise that gave it the sole rights to operate on Denver's streets.²⁶² During 1877, the service carried 392,420 passengers, each at a 10-cent fare, and boasted 32 horses, 12 cars, and 8 miles of track. The company ultimately dropped its fares to five cents in 1878 in an effort to boost ridership and continued building new lines and extending existing ones. Most of these routes were centered in the central Denver area and other populated neighborhoods. Ridership in 1881 reached 1.8 million people, which averaged 4,000 riders each day. The DCRC, however, faced operational challenges in the form of collisions, injuries to passengers and pedestrians, startled horses, and difficulties maintaining schedules. On August 1, 1883, the original Chicago investors sold the company to a group of investors from Providence, Rhode Island, headed by Colonel George E. Randolph. Randolph was appointed general manager of the company and came to be known as "the grand old man" of Denver's streetcar system.²⁶³

²⁶¹ "Champa Street Horsecar," n.d., Call Number X-27856, Denver Public Library Western History Collection.

²⁶² Cafky, *Steam Tramways of Denver*, 5.

²⁶³ Robertson, Cafky, and Haley, *Denver's Street Railways I (1871-1900)*, I:25-55.

With new financial backing and a vision for expansion, Randolph took on the construction of an impressive new carbarn and stables at 17th and Wynkoop Streets (see Figure 51).



Figure 51. Horsecar ready to leave carbarn at 17th and Wynkoop Streets.²⁶⁴

In October 1883 the Larimer Street line was extended and a new brick barn was constructed at the corner of 36th and Walnut Streets to store the equipment for this line. The company expanded to 20 miles of trackage, 38 cars, 240 horses, and roughly 100 employees by the end of 1884.²⁶⁵ The company had tracks on many of the downtown business streets; however, there was not yet a line serving upper 15th Street. Business and property owners along that portion of 15th Street petitioned the DCRC to construct a line there, but the company declined. This opened the door for what would become the DCRC's largest competitor: the Tramway.

²⁶⁴ "17th & Wynkoop," 1879, Denver Tramway Co. 1867 to Regional Transportation District (RTD), Maurice F. Craney scrapbook, Call Number: C Photo Album 250, Denver Public Library Western History Collection.

²⁶⁵ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:58–65.

Prior to this point, the DCRC managed to fend off competitors by using the language in its franchise that stated it had the sole rights to construct street railways on Denver's city streets. When the 15th Street business owners incorporated the Denver Electric & Cable Railway (DE&CR, which later became the Tramway) in late 1884 to build a line along 15th Street, they intended to use alternate modes of transport including either cable or electric, whereas the DCRC's franchise specified a horse system. In an effort to counteract the new competition, the DCRC rapidly began constructing additional lines into newly developed areas, including one originally called the South 13th Street Line, later renamed the 11th Avenue Line. Meanwhile, the DE&CR was attempting to construct lines along Cherokee Street. The DCRC took the DE&CR to court, claiming it had exclusive rights to Denver's city streets. The DCRC won the lawsuit, but it was the first of many arguments regarding rights to various city streets.²⁶⁶

The DCRC continued expanding and constructing new lines, often in an effort to beat the DE&CR into different areas. Double tracks were laid to keep any possible rights-of-way from the competition. This rush to expand the system resulted in multiple lines constructed in the same general vicinity of one another and redundancy in service by both companies. By June 1887 there were complaints of too many tracks on 15th Street, with two tracks belonging to the DCRC and two for the Tramway. So much trackage left little room on the street for carriages, horses, and pedestrians. In an effort to reduce the excessive tracks, the City of Denver (City) determined that companies would need to obtain a permit from the city engineer to lay any track moving forward. This created roadblocks for future line construction, such as on Pennsylvania Street when the DCRC could not obtain permission to cross the Tramway's conduit electric track it had previously installed. A judge ultimately ruled in the DCRC's favor; however, the start of service on the line was delayed. This is just one example of the many delays and roadblocks the competing streetcar companies placed on one another.²⁶⁷

Despite the competition with the Tramway, the DCRC continued expanding. By June 1887 it operated 11 horsecar lines with 30 miles of track in the city and boasted 80 horsecars, 425

²⁶⁶ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:72-73.

²⁶⁷ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:82-96.

horses, and 125 drivers (see Figure 52). With the planning for two additional lines underway, nearly all populated portions of the city were within a couple blocks of a horsecar line (see Figure 76 and Figure 91).²⁶⁸ On July 17, 1887, the 23rd Street viaduct, which provided access to the Argo Smelter, opened for traffic. In December of that year, the company began laying track on the extension of its line on East Colfax Avenue to York Street, where it met the Colfax Avenue Railway. The DCRC was hesitant at first to construct the extension, but was persuaded by the \$3,000 annual payment it would receive for three years in exchange for its construction. The company was doing well and had a profit of \$149,278.90 in 1888, but its stubbornness to adapt to changing technologies meant it would soon be passed by.²⁶⁹ As transportation technologies evolved rapidly, other competing companies attempted electric traction and cable lines. Conversely, the DCRC held fast to horse power for likely too long, which as previously noted (see Section 2.B) had limitations in both its operations and the distances it could cover.



Figure 52. DCRC cars on 17th Street in front of the original building of Union Station.²⁷⁰

²⁶⁸ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:94.

²⁶⁹ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:96–124.

²⁷⁰ “Denver City Railway Co- Cars- Horse,” n.d., Non-Digitized Photos, Denver, Transportation. Street Railways Folder, Denver Public Library Western History Collection.

By the spring of 1888 the company knew it needed to explore other technologies in order to access newly settled areas further from the city center and began focusing efforts on its sister company, the Denver City Cable Railway (DCCRC), headed by Colonel Randolph, to construct cable rail lines. The DCRC planned few new horsecar routes after that, instead focusing on modifying existing horsecar routes to accommodate proposed cable car routes of the DCCRC.²⁷¹

The DCRC still continued operating horsecar lines, several of which now served as connectors for the cable lines of the DCCRC. In 1889 it constructed a new horsecar barn at East 21st Avenue and Humboldt Street. With the new cable lines of the DCCRC and the Tramway within the central business district, there was little space left for horsecars. By the end of 1890 many of the horsecars tracks within downtown were abandoned or removed. The company attempted to convert the remaining horsecar lines to electric and incorporated the Denver City Electric Railway in the summer of 1890, but the plans never materialized. Finally recognizing that the future of streetcar transportation lay in electric propulsion, the company incorporated a subsidiary called the West End Street Railroad (WESR) on March 26, 1890, to construct electric streetcar lines in northwest Denver.²⁷²

Following the “streetcar wars” of June 1891, in which the Denver & Suburban, the DCRC, and the Tramway battled for downtown streetcar routes by sabotaging each other and working in the middle of the night to gain an edge over their competitors on prioritized locations, the DCRC conceded and abandoned additional horsecar tracks that were serviced by nearby electric lines. The re-routed Argo Line was the last remaining horsecar line operated by the DCRC, ceasing operations near the turn of the century. In the fall of 1893, with a debt of more than \$4 million, the DCRC and its subsidiary, the WESR, defaulted on loan payments and were sent to receivership. To emerge from receivership, the company was reorganized as the Denver City Railroad Company on February 29, 1896.²⁷³

²⁷¹ Robertson, Cafky, and Haley, *Denver’s Street Railways, Volume I 1871-1900*, I:127.

²⁷² Robertson, Cafky, and Haley, *Denver’s Street Railways, Volume I 1871-1900*, I:157–209.

²⁷³ Robertson, Cafky, and Haley, *Denver’s Street Railways, Volume I 1871-1900*, I:282–89.

The new company was still struggling financially and recognized it needed to electrify all of its lines to remain competitive with the Tramway. It applied for a new franchise from the city of Denver; however, the company owed the City \$29,117 for paving work completed around its streetcar tracks, a debt they could not pay. The company was placed in receivership on October 3, 1897. In December 1898 a group involved with the Tramway incorporated the Denver City Traction Company to operate the WESR and Denver City Railroad lines. The new Denver City Traction Company and Denver City Railroad Company were consolidated on March 2, 1899. On March 3, 1899, the Denver City Tramway Company was incorporated to operate the Denver Consolidated Tramway Company and Denver City Traction Company properties, and the former Denver City Railway Company became a part of its chief rival.²⁷⁴ The Tramway's ability to embrace new technology ultimately led to its perseverance over the DCRC.

Denver City Cable Railway/Denver City Railroad/ Denver City Traction Company/Denver City Tramway Company

When Colonel Randolph and his Providence, Rhode Island, backers reorganized the DCRC in 1883, they also incorporated a new company called the Denver City Cable Railroad Company (DCCRC). They did nothing with this new company until May 29, 1888, when they reincorporated it to change several horse-powered lines of the DCRC to cable traction. The company was aware of the limits of animal traction in expanding to new areas where the city was experiencing growth. It requested a franchise from the City on June 4, 1888, to convert some of the DCRC lines to cable traction, which was granted, but only on streets where the Tramway was not already operating cable car routes.²⁷⁵

The company decided to pay \$30,000 to utilize cable streetcar technology from the San Francisco patent trust, and employed a system of iron and concrete conduits typical in many cable car systems across the country.²⁷⁶ The company began exploring potential cable car routes and determined to construct a new viaduct to carry 16th Street over the South Platte River and

²⁷⁴ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:301.

²⁷⁵ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:128.

²⁷⁶ Hilton, "Denver's Cable Railways," 43.

avoid dangerous railroad crossings as a part of the proposed Goss Street or 16th Street cable car line. The costs for the structure were shared by the DCCRC, the City, and railroads, and the structure would give the DCCRC the edge over its competitors at the Tramway, whose cable line in the area had to cross the railroad tracks. The new 3,672-foot-long structure would transport not only the cable cars for the DCCRC but carriages, pedestrians, and wagons as well.²⁷⁷

In addition to the 16th Street viaduct, the company invested more than any other western city cable car company—\$2 million—for a powerhouse, trackage, and equipment. The powerhouse was located at 18th and Lawrence Streets and could hold 13 cable lines as well as repair shops, car storage, and general offices (see Figure 53).²⁷⁸ The extreme investment in the cable car system demonstrates the DCCRC's desire to have a superior cable car system than the Tramway's.



Figure 53. DCCRC powerhouse at 18th and Lawrence Streets, c.1890.²⁷⁹

²⁷⁷ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:129–53.

²⁷⁸ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:137–47.

²⁷⁹ “Denver City Cable Railway Power House,” n.d., Call # Z-8818, Denver Public Library Western History Collection.

On October 15, 1889, the Larimer Street cable line opened for business, with the Welton Street, 17th Avenue, and 16th Street lines opening shortly thereafter. The Welton Street Line employed the longest cable utilized anywhere in the world at the time, measuring 36,850 feet. It also had a series of right-angle turns, a difficult task for cable lines to navigate. The company built the 3,600-foot-long Larimer Street viaduct in 1889 to carry the Larimer Street Cable Line over streets, the South Platte River, and railroad tracks en route to West Colfax Avenue (see Figure 54).²⁸⁰ The DCCRC paid the entire \$125,000 for the structure, as it was to be used exclusively for cable cars. In June 1892, the company built its final cable line: the South 11th Street Line (see Figure 76 and Figure 93). The total cable car mileage for the DCCRC system reached 30 miles, with cars traveling at 10 miles per hour.²⁸¹



Figure 54. View of west end of Larimer Street Viaduct with a DCCRC car on it.²⁸²

The DCCRC's system was big for a cable car system and was considered the largest to operate from one powerhouse. The powerhouse had space for 13 cables, though only seven ended up

²⁸⁰ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:169–74.

²⁸¹ Hilton, "Denver's Cable Railways," 44.

²⁸² Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:168.

operating from it. The design also utilized a blind conduit on Arapahoe Street, making the stringing and repair of cables on this portion extremely difficult. With so much money and energy invested in their cable car system, the DCCRC and the DCRC were hesitant to embrace other technologies, including the newly developed electric, which their rival the Tramway was already adopting. The public's preference for electric streetcars and the high price of establishing and maintaining a cable car system, as well as the economic depression experienced as a result of the Panic in 1893 (see Section 3.E.), led to the downfall of the DCCR. It was sold at foreclosure on September 10, 1895, and reorganized as the Denver City Railroad. The new company was sold to individuals involved with the Tramway in December 1898, who in turn incorporated the Denver City Traction Company to operate its new holdings. The companies were merged on March 2, 1899, and brought under the newly incorporated Denver City Tramway Company the following day.²⁸³

The Tramway wanted to convert the lines to electric, but the City wanted to extract a fee for conversion. As a result, the Tramway failed to upkeep the lines and the cables wore out. In 1900 the company finally agreed to pay a \$102,000 fee over a period of 12 months, and the cable routes were quickly converted to electric service. Most of the slots between the tracks, the remnant of the old cable operations, were not removed until 1906. The cable car routes of the DCCRC proved to be a long-standing hold-out in cable car transportation, with the majority of American cities abandoning the technology by 1897.²⁸⁴

Denver Electric & Cable Railway Company/Denver Tramway Company (senior)/Denver Tramway Company (junior)/Denver Consolidated Tramway Company/Denver City Tramway Company/Denver Tramway Company/ Denver Tramway Corporation

After the DCRC failed to provide streetcar service along upper 15th Street, prominent Denver resident and businessman Rodney Curtis convinced his fellow 15th Street property owners to start their own company. Curtis, John Evans, and others wanted to assure their property values with

²⁸³ Hilton, "Denver's Cable Railways," 43–49.

²⁸⁴ Hilton, "Denver's Cable Railways," 37–51.

the presence of a streetcar line and incorporated the Denver Electric & Cable Railway (DE&CR) on February 5, 1885, with financing from corner lot property owners along upper 15th Street, which is considered the southeast end of 15th Street within the business district. Curtis assumed the role of president of the new company, which obtained a franchise from the City to use cable and electric power on Denver streets and charge five cents per fare.²⁸⁵

The company initially decided to adapt the burgeoning electric technologies of Professor Sidney H. Short, a professor of physics at the University of Denver. Short constructed a test track near the University of Denver campus at 14th and Arapahoe Streets. Rather than the overhead wire system utilized by Sprague in Richmond, Virginia (see Section 2.B.(1)), Short's system used an underground conduit, placed between the tracks to carry the electric current (see Figure 55). Meanwhile, the company constructed a small powerhouse at 15th and Tremont Streets and began laying tracks for its future routes.²⁸⁶

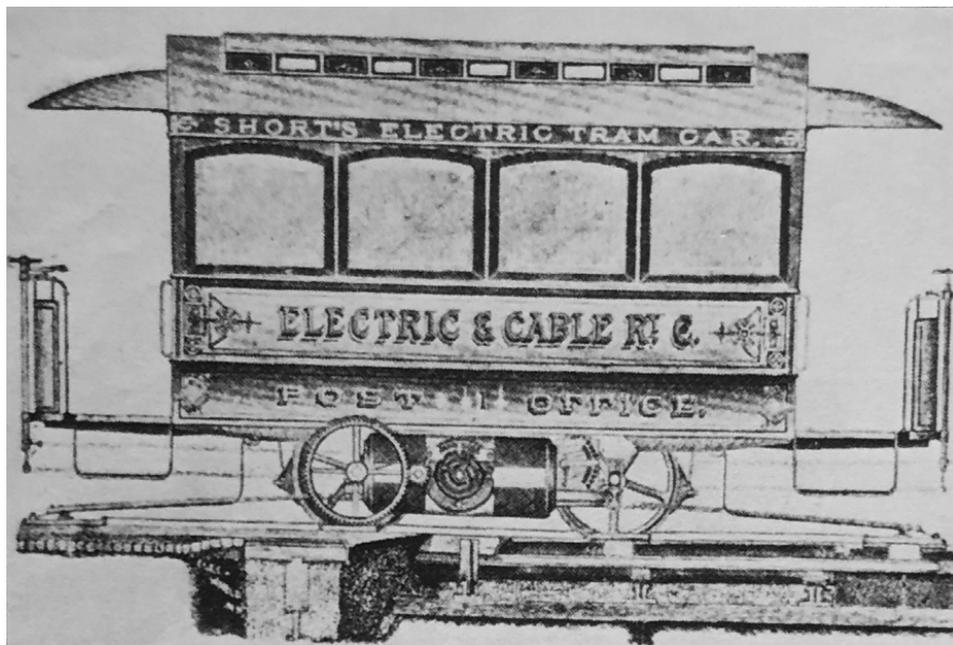


Figure 55. Graphic of Short's electric motor and conduit underneath the streetcar.²⁸⁷

²⁸⁵ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:72-73.

²⁸⁶ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:74-76.

²⁸⁷ William C. Jones et al., *Mile-High Trolleys* (Boulder, Colo.: Pruett Publishing Company, 1975), 16.

Short's system, however, proved unreliable and there were concerns regarding water entering the underground conduit. Realizing the risk of losing the franchise because of failure to meet deadlines, company officials incorporated the Denver Railway Association, which allowed animal traction under its franchise. The new company was merged with the DE&CR on May 4, 1886, to create the Denver Tramway Company, giving the Tramway, as it and its later iterations became known, the rights to use animal power while they waited for Short's system to be perfected.²⁸⁸

The Tramway tried operating mule-powered streetcars to get around the DCRC claims that it held the sole rights to operate horsecars in Denver. The Tramway's approach failed and it was required to cease operations. Short continued modifying his electric conduit system, and the first revenue cars employing his technology ran on July 31, 1886, along 15th Street. The Tramway's rival, the DCRC, objected to the new electric lines crossing its horsecar lines, and the companies vied for rights-of-way on key streets, often sending crews in the middle of the night to begin laying tracks before their rival could pose any obstacles.²⁸⁹

The Tramway continued operating Short's system, with more than 1,000 patrons a day riding in June 1887, but service was erratic. After years of trying and modifying, Short's system was still riddled with problems and the Tramway decided to walk away from the electric experiment. It turned its attention to cable in the end of 1887, planning to construct a cable line on Broadway using a subsidy from property owners. In addition to the Broadway cable line, cable lines on 15th Street and East Colfax Avenue, which were also subsidized by funds raised by property owners, were in the works.²⁹⁰

For its cable lines, the Tramway elected to use a system developed by Henry M. Lane of Cincinnati, rather than that developed by Hallidie in San Francisco (see Section 2.B.). The company erected a powerhouse at West Colfax Avenue and Broadway Street for the cable car

²⁸⁸ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:77–78.

²⁸⁹ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:79–88.

²⁹⁰ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:90–106.

network, feeding a 25,000-foot-long cable for the Broadway line, and a 22,400-foot-long cable for the East Colfax line (see Figure 56). The 22,600-foot-long 15th Street cable was operated at a slower speed than the others, as was required for cable cars within the downtown area. The first cable car in the Tramway system began operating on December 19, 1888, along 15th Street to North Denver. The rest of the planned cable car lines came into operation soon thereafter.²⁹¹



Figure 56. Powerhouse at Broadway and Colfax that served cable cars from 1888 to 1893.²⁹²

Following a failed attempt to gain access to Lawrence Street for its final cable car route, which was blocked by the DCRC, the company decided to construct its fourth and final cable car line on 18th Avenue, using a blind conduit leaving the powerhouse at 15th and Tremont Streets, meaning there was no open cable slot (see Figure 93).²⁹³ The line, which served the quickly growing North Capitol Hill and Uptown areas of the city, began operation on October 30, 1889. It ultimately proved unsuccessful as the 20 curves and several right angles of the route rendered

²⁹¹ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:110–15.

²⁹² Kenton Forrest, *Route 3 Englewood* (Denver: Tramway Press, Inc., 1990), 4.

²⁹³ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:159.

operation difficult.²⁹⁴ With its final cable car route operational, the company had invested approximately \$2 million into the cable car system and boasted just over 18.5 miles of cable car tracks.²⁹⁵

Meanwhile, Evans, Curtis, and others incorporated the South Denver Cable Railway Company (SDCRC) as a subsidiary of the Tramway to construct an extension of the South Broadway cable line. This subsidiary's focus, however, shifted to electric cars and the company began operations of the South Broadway electric line, located just outside the Denver city limits, in December 1889. The SDCRC was then absorbed by the Tramway on July 28, 1890. The success of the electric line, along with requests by the City to move its cable lines to the middle of the street, led the Tramway to convert most of its recently constructed cable lines to electric. All electric conversions of Tramway cable routes were completed by 1893.²⁹⁶

The company's adaptation to electric power was fairly quick, despite heated protests from citizens and strong opinions from local newspapers regarding the erection of poles to string the overhead wires. The first electric line to operate within the Denver city limits was the 34th Avenue and Water Street Line, or Lawrence Street Line, which began operations on June 3, 1890. The Tramway established a new subsidiary to construct additional electric lines. The Denver Tramway Company (senior company) then absorbed its two subsidiaries, the South Denver Cable Railway Company and the Denver Tramway Extension Company, on July 28, 1890, to form a new company: the Denver Tramway Company (junior company). The Tramway then extended the Lawrence street line to end at Williams Street and East 40th Avenue, where a depot would later be constructed.²⁹⁷

The Tramway needed facilities to accommodate its new fleet of electric streetcars and equipment. The company built a car barn on South Galapago Street and West Ellsworth Avenue

²⁹⁴ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:174–80.

²⁹⁵ Hilton, "Denver's Cable Railways," 42.

²⁹⁶ Hilton, "Denver's Cable Railways," 48.

²⁹⁷ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:179–203.

and a powerhouse at Colfax Avenue and West Tejon Street. It also constructed a South Division repair shop, carbarn, and a powerhouse at South Broadway and West Alaska Place, and another carbarn at Yates Street and West 28th Avenue.²⁹⁸ The Tramway, on its own or through its subsidiaries, built four power plants: the cable powerhouse at West Colfax Avenue and Broadway, and three electric facilities at 32nd and Blake Streets, South Broadway and West Alaska Place, and West Colfax Avenue and Tejon Street called the Grand Avenue Plant, which would later become the Tramway's North Division Car House. The company also built the Gilpin Street Car House at East 35th Avenue and Gilpin Street, which would later become the East Division Car House for the Tramway.²⁹⁹

On December 4, 1890, the Tramway took over the Denver & Berkeley Park Rapid Transit Company (D&BPRT) to obtain a foothold in the popular northwest Denver area over its competitor, the DCRC and its affiliated WESR. The Tramway quickly electrified the D&BPRT lines. Later that month, it also purchased the University Park Railway & Electric Company Line, agreeing to extend the line to East Evans Avenue.³⁰⁰

Over the next several years, the Tramway's network grew exponentially, building new lines and extensions, and continuing to convert cable routes to electric. The company's quick expansion and construction led to multiple confrontations with other streetcar companies over rights-of-way. The competition peaked in June 1891 with the "streetcar wars." Leaders from the Tramway, the DCRC, and the Denver & Suburban Railway Company (D&SR) met and adopted a more planned approach for building the streetcar system in Denver to reduce redundancies. As a result of this meeting, the Tramway purchased the D&SR.³⁰¹ The Tramway then incorporated the Metropolitan Railway on July 6, 1891, to take over the assets of the D&SR and construct new electric streetcar lines for the Tramway.³⁰²

²⁹⁸ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:188–203.

²⁹⁹ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:260–61.

³⁰⁰ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:217.

³⁰¹ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:231.

³⁰² Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:231–36.

The Tramway also set about electrifying horsecar routes abandoned by the DCRC, including the old North Denver Horsecar line in November of 1892. When the Tramway electrified the DCRC's former Driving Park horsecar line, residents of the nearby town of Harman raised funds for an extension to their community, which opened on March 17, 1892. Also, in 1892 the Tramway opened the Central Loop at 15th Street between Lawrence and Arapahoe Streets. The Central Loop, with its heated waiting room for patrons, became a major hub of the Tramway's network (see Figure 57 and Figure 58).³⁰³ The Broadway cable car route was converted to electric on May 1, 1893, making it possible to ride an electric streetcar from downtown Denver all the way to Englewood. On September 5, 1893, the officers of the Tramway and its associated Metropolitan Railway incorporated the Denver Consolidated Tramway Company, which merged the Denver Tramway Company (junior) with the Metropolitan Railway.³⁰⁴



Figure 57. The Central Loop, 15th and Arapahoe Streets, shown in 1900.³⁰⁵

³⁰³ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:266.

³⁰⁴ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:260–83.

³⁰⁵ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:266.

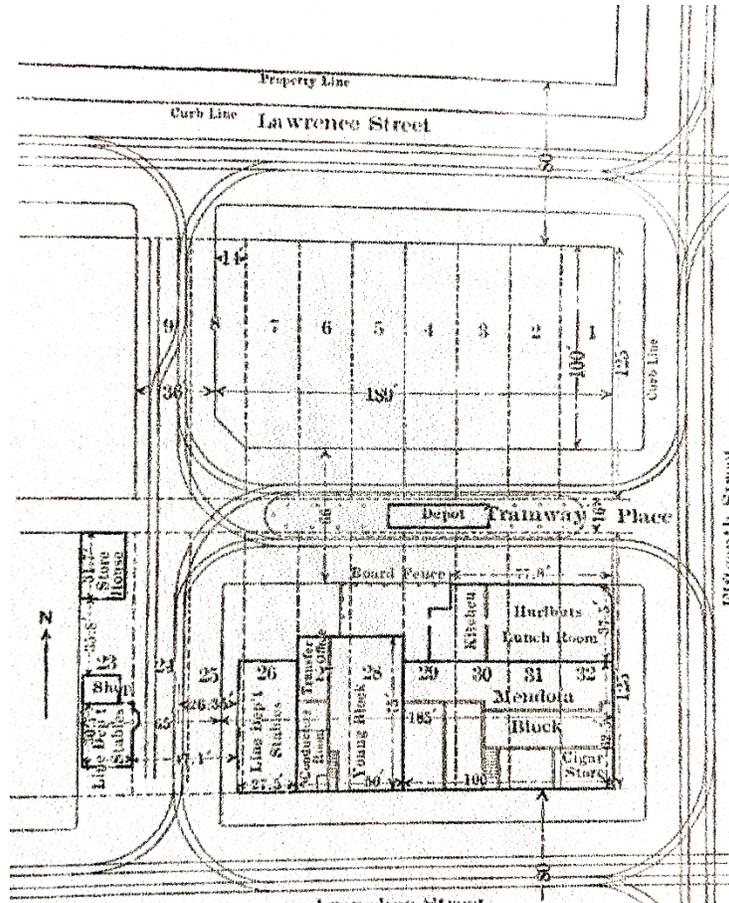


Figure 58. Map of Tramway’s central loop.³⁰⁶

It is fortuitous that the Tramway had already converted its streetcars to electric power, which was cheaper to operate than cable, as the recession from the Panic of 1893 impacted the city. The company was in a better position economically to fare the recession than many of its smaller competitors, which the Tramway ended up acquiring. The Tramway purchased the Park Railway Company on April 23, 1893, and the Colfax Electric Railway on May 17, 1898.

It was not until March 3, 1899, that the Tramway finally bested its biggest rival, the DCRC, which by this point had been reorganized as the Denver City Traction Company. Men from both companies incorporated the Denver City Tramway Company to merge the Denver City Traction Company with the Denver Consolidated Tramway Company. Rodney Curtis was retained as the

³⁰⁶ “Denver Tramway System,” *Street Railway Journal* Vol. XXII, No. 15 (October 10, 1903): 691.

president and John A. Beeler as the Chief Engineer. The new company started the drawn-out processes of updating the trackage of the Denver City Traction Company, including its cable routes, electrifying them and bringing the tracks to Tramway standards, which were able to handle the additional weight of electric streetcars. The specifications laid out by the Tramway required that “on paved streets, track would...consist of creosoted ties, to which would be spiked steel ‘T’ rail, 62 feet in length and weighing 72 pounds per yard. Asphalt would form the street surfacing and basalt block paving was to be placed on both sides of each rail. On unpaved streets, track standards were generally similar, except that 65 pound ‘T’ rail was to be used, with surfacing done with crushed basalt” (see Figure 59).³⁰⁷ The Tramway also set about electrifying routes, and used a horse-drawn pole-setting machine developed in-house to facilitate the erection of poles along the electric streetcar routes (see Figure 60).³⁰⁸

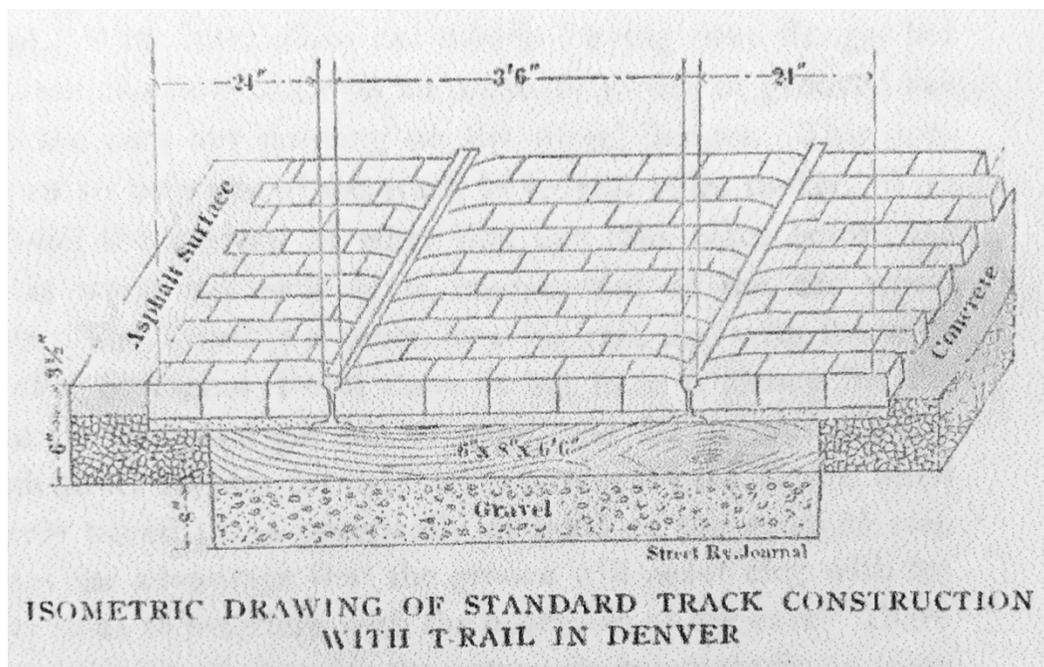


Figure 59. Drawing of Tramway track standards from 1903.³⁰⁹

³⁰⁷ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:301–5.

³⁰⁸ Jones et al., *Mile-High Trolleys*, 18.

³⁰⁹ “Denver City Tramway Company,” *Street Railway Journal* Vol. XXII, No. 9 (August 29, 1903): 333.



Figure 60. Erecting poles at the corner of 17th and Stout Streets for the conversion to electric traction.³¹⁰

Their improvement efforts were temporarily put on hold when anti-Tramway interests attempted to invalidate the Tramway’s franchise. A federal judge ultimately passed an injunction, stating that the company’s franchise was still valid. It was acknowledged, however, that the Tramway had the potential to make a great deal of money from operating electric streetcars on City rights-of-way, and the City should be paid a share of that. As a result, the company agreed to pay a fee of \$102,000 to the City to convert the lines of the former DCRC to electric.³¹¹ With a monopoly on streetcar service in Denver secured, the Tramway reported gross earnings of \$1,302,289.91 in 1900.³¹²

The new company divided itself into four divisions. The North Division used the car house at West 30th Avenue and Zuni Street and the South division used the car house at West Alaska Place and South Broadway. The West Division was based in the Ellsworth Avenue car house.

³¹⁰ Jones et al., *Mile-High Trolleys*, 18.

³¹¹ Robertson, Cafky, and Haley, *Denver’s Street Railways, Volume I 1871-1900*, I:313–19.

³¹² Robertson and Cafky, *Denver’s Street Railways, Volume II 1901-1950*, II:28.

The East Division worked out the Gilpin Street Car house. A rail supply yard was established at South Bannock Street between West Dakota Avenue and West Alaska Place.³¹³

The Tramway was also determined to construct one centralized powerhouse at 14th and Platte Street along the bank of the South Platte River, rather than to operate multiple small ones scattered about the city. To build the new power station, the Tramway incorporated a new subsidiary: the Denver Tramway Power Company. The power plant obtained coal from the company-owned Leyden Coal Company, which operated mines northwest of the city, that was shipped on the Tramway's Denver & Northwestern (D&NW) interurban trackage. The Tramway was able to save costs by procuring, shipping, and utilizing its own coal. The new powerplant was put online in the spring of 1902 (see Figure 61). The company built a substation at Clear Creek Station and converted the former Broadway powerhouse to a substation.³¹⁴ It later added another substation on Colorado Boulevard near East Colfax Avenue to provide current for lines in the eastern part of the city.³¹⁵

³¹³ Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:67–76.

³¹⁴ Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:31–36.

³¹⁵ Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:107.

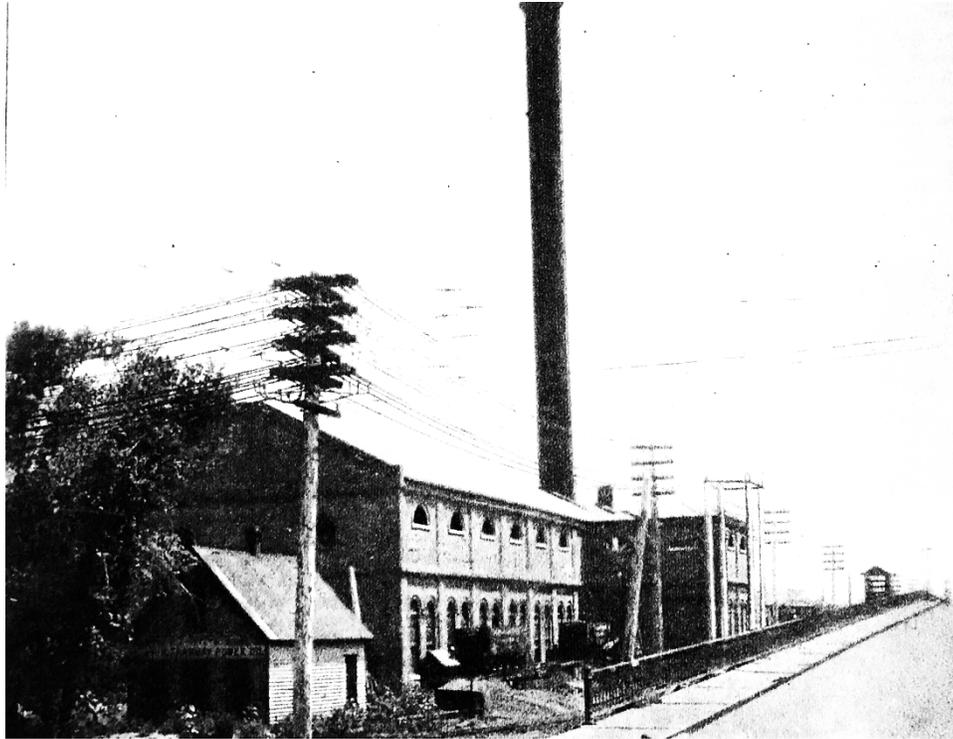


Figure 61. View showing new powerhouse at 14th and Platte Streets with feeder lines.³¹⁶

After seeing the Tramway through its birth, growth, and monopolization, Rodney Curtis, the long-time president of the company, resigned his position in 1902. He was replaced by William G. Evans.³¹⁷ Under Evans's leadership, the Tramway continued to thrive, moving its offices from the Mendota Block building at Arapahoe and 15th Streets to Broadway and 16th Streets in the Majestic Building in 1903. The company continued building new lines and modifying and expanding existing ones. They opened their new Washington Park Line in early 1904.³¹⁸

In 1897 businessman H.J. Mayham started taking prospective real estate buyers on chartered trolley rides to properties for sale. While he did not sell many properties, he did find a market for those wishing to take in the sights of the city, and as a result developed a unique sightseeing trolley tour called *Seeing Denver* that partnered with the Tramway to provide informative tours

³¹⁶ "Denver Tramway System," 688.

³¹⁷ Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:114.

³¹⁸ Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:66-77.

of the city. Tours departed from the Brown Palace and used special touring streetcars and by 1909, Mayham had expanded his tours to Philadelphia, Kansas City, Boston, Salt Lake City, Washington, D.C., Los Angeles, and New York City (see Figure 62).³¹⁹

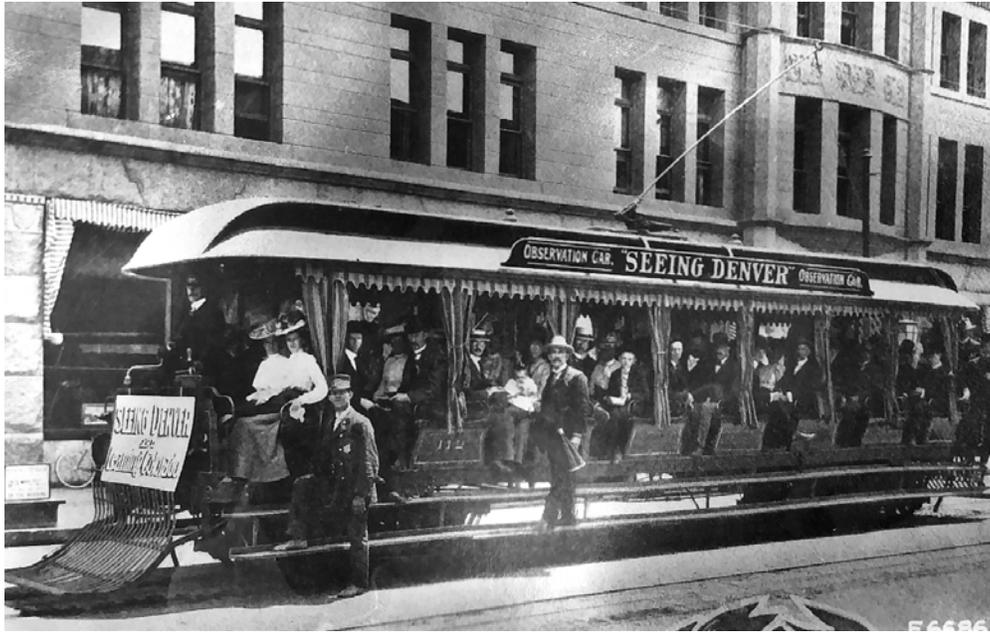


Figure 62. Seeing Denver tour car.³²⁰

The company was innovative in many regards, including its use of double-truck trailers during rush hour, a practice that was to be copied in cities across the country. In addition, a company blacksmith developed an easier and safer coupling system for joining streetcars that would end up being utilized across North America.³²¹ In 1905 the company hired its first African American motorman, who is believed to have been the first African American motorman employed in the country.³²²

³¹⁹ Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:51–53.

³²⁰ “American Sight-Seeing Car & Coach Co.,” n.d., Non-Digitized Photos, Denver, Transportation. Street Railways Folder- American Sight-seeing Car and Coach Co. Folder, Denver Public Library Western History Collection.

³²¹ Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:61.

³²² Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:110.

On May 16, 1906, Denver voters granted the Tramway a new franchise, which clarified the rights up to this point. It also stipulated that the company would pay the City \$5,000 a month, or a total of \$1,200,000, for the rights to operate on city streets as well as improve several viaducts. In addition, all remnants of the cable car rails were to be upgraded and slots removed, and multiple extensions of existing routes were to be built. Many of these improvements were funded by east coast financiers that purchased much of the \$20 million in bonds and stock issued.³²³

Per the specifications of the franchise, the Tramway built and extended multiple lines including the new 11th Avenue line, the 25th Avenue Line extension, and the new 6th Avenue and Madison Street Lines (see Figure 63).³²⁴ The Tramway opened a line to Globeville, which included a newly rebuilt 23rd Street viaduct that also served Denver & Interurban (D&I) cars, on May 15, 1908. This line was unique, as the Tramway built it using standard gauge to accommodate the D&I cars whereas the rest of the Tramway's network was narrow gauge.³²⁵



³²³ Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:117-20.

³²⁴ Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:126-33.

³²⁵ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:144.

Figure 63. Track laying on 11th Avenue line, 1907.³²⁶

With business going well, the Tramway took over the stock of the Denver Tramway Power Company and the D&NW Railway in March 1909.³²⁷ Denver played host to the American Street and Interurban Railway Association in September of that year, where the city showed off its extensive system that boasted 1 mile of track per every 1,000 residents. This was considered an impressive statistic compared to the 1 mile of track per every 2,500 residents viewed by the industry as providing adequate service.³²⁸ The following year, the Tramway purchased the Denver & Inter-Mountain Railroad Company, retaining it as a separate, standard-gauge interurban company. With the inclusion of the interurban trackage, the Tramway now had two standard-gauge lines within its system.³²⁹

The Tramway built the Argo substation at Inca Street and West 41st Avenue in 1909 to serve lines in the northern part of the city. The following year, they completed the Interurban Loop across from its Central Loop to provide a central location for all the heavy interurban cars to turn downtown and installed a dispatcher's office at the Central Loop to help control operations. The Tramway extended the 16th Street Viaduct in 1910, which not only fulfilled part of the terms of the 1906 franchise but also allowed for most of the streetcars to be removed from the dangerous railroad crossings on 15th Street.³³⁰

Growth in many western cities, including Denver, slowed in the following years, which was reflected in the minimal expansion of streetcar lines in the years following 1910. In 1910 Denver's population was 213,381. By 1920 the population only rose to 250,000. Although it was not building many new streetcar lines, the company opened its new Tramway Building at 14th and Arapahoe Streets in 1911, which consolidated operations that were previously inefficiently spread across the city (see Figure 64). The eight-story building was impressive, with offices for

³²⁶ Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:130.

³²⁷ Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:148.

³²⁸ "Streetcar Service and Growth in the City of Denver," *The Tramway Bulletin* I, no. 12 (September 1909): 24.

³²⁹ Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:162.

³³⁰ Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:164–71.

the company and an attached Central Division Car House. The car house also held amenities for the trainmen including a gymnasium, showers, a bowling alley, reading room, and barbershop.³³¹ Many of these trainmen consisted of both high school and college students, whom the Tramway began hiring in 1911 to work rush hour shifts on trailer cars and even serve as student conductors.³³²



Figure 64. New Tramway central office building at 14th and Arapahoe Streets with attached Central Division Car House, 1911.³³³

A crippling snowstorm hit Denver in December 1913, limiting service for 15 days. Some lines were out of service for a month while snow was cleared and damages were repaired (see Figure 65).³³⁴ That same year, the Tramway invested in a new Delaware Substation, located just south of the U.S. Mint building. October of that year brought about a huge change in the administration of the Tramway. Since the DE&CR was formed in 1885, a member of the Evans family had always been in a leadership role within the company. Henry M. Porter and Claude K. Boettcher,

³³¹ Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:173-95.

³³² C. Arthur Hochmuth, "Denver's Student Conductors," *The Colorado Magazine*, October 1963, 271-73.

³³³ Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:179.

³³⁴ "December 8, 1913," n.d., Denver Tramway Co. 1867 to Regional Transportation District (RTD), Maurice F. Craney scrapbook, Call Number: C Photo Album 250, Denver Public Library Western History Collection.

however, acquired a majority of the company's stock, giving them control and leading to the resignation of William G. Evans and marking the end of the Evans family's heavy involvement in the Tramway. The new controlling members of the company decided to reorganize it, merging smaller subsidiaries and changing the name to the Denver Tramway Company on March 30, 1914.³³⁵



Figure 65. A streetcar stranded in the 1913 snowstorm.³³⁶

Although this period did not include the massive expansion of lines that had occurred previously, several important changes and improvements did occur. In 1916, the company began assigning route numbers to all lines, no longer referring to them by the street or neighborhood they serviced.³³⁷ That same year, the new Colfax-Larimer Viaduct was completed, which was funded

³³⁵ Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:225–29.

³³⁶ “December 8, 1913.”

³³⁷ Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:14.

by the City, the Tramway, and the several railroads it crossed (see Figure 66 and Figure 67).³³⁸ In addition, the company opened a new loop at Union Station in 1918. From the Union Station Loop passengers could climb stairs to the 16th Street Viaduct (see Figure 68).³³⁹ During this time, patrons of the streetcar learned about city happenings and plans for various Tramway routes in a publication called Tram-O-Grams, which was available on streetcars twice monthly. During the 1930s and until the cessation of streetcar service, a different publication entitled As-U-Go was provided to streetcar riders (see Figure 69).³⁴⁰



Figure 66. The Colfax-Larimer Viaduct under construction.³⁴¹

³³⁸ “1st Car Off Of New Larimer St. Viaduct,” n.d., Denver Tramway Co. 1867 to Regional Transportation District (RTD), Maurice F. Craney scrapbook, Call Number: C Photo Album 250, Denver Public Library Western History Collection.

³³⁹ Robertson and Cafky, *Denver’s Street Railways, Volume II 1901-1950*, II:259.

³⁴⁰ Pharris, *Riding Denver’s Rails: A Mile High Streetcar History*, 71.

³⁴¹ “1st Car Off Of New Larimer St. Viaduct.”



Figure 67. Car on West Colfax Viaduct, 1943.³⁴²



Figure 68. The loop at Union Station.

³⁴² “DTC on West Colfax Viaduct,” 1943, Non-Digitized Photos, Denver, Transportation. Street Railways, Electric Exterior Folder, Denver Public Library Western History Collection.



Figure 69. This cover of a *Tram-O-Gram* issue from 1917 shows summer amusements accessible from Tramway routes.³⁴³

Inflation from World War I rendered the five-cent fare predicated by the Tramway's franchise inadequate to meet operating expenses, grant employees a needed raise, and complete improvement projects. The company sought to increase fares to six cents, but the City fought it, so fares remained at five cents. Meanwhile, the Tramway took its cause for a fare increase to the Public Utilities Commission which granted a small increase to a seven-cent fare which was implemented in December 1918. The increase would not last, as the Colorado Supreme Court determined on January 14, 1919, that the Public Utilities Commission lacked jurisdiction to grant

³⁴³ "Summer Amusements," *Tram-O-Grams*, June 23, 1917, Call # C388.460978 D437co/ D437as, Denver Public Library Western History Collection.

such an increase and those rights instead belonged to the City. Fares were returned to the original five-cent rate.³⁴⁴

Frustrated with their lack of salary raises, Tramway employees joined the Amalgamated Association of Street and Electric Railway Employees, a national union for streetcar workers. Tramway employees went on a brief four-day strike starting on July 8, 1919, which ended when the City allowed a temporary increase in fares until a special election for Denver residents could be held.³⁴⁵ The special election ultimately failed and the five-cent fare was restored briefly until the city council passed an increase to six cents in November 1919.³⁴⁶

In the spring of 1920 the Tramway sought a fare increase to seven cents, which the City denied. As a result, the Tramway informed employees their pay would be cut. Workers voted to strike on August 1, 1920, and approximately 1,100 employees walked off the job, bringing operations, and the citizens' ability to move about the city, to a halt. The Tramway brought in strikebreakers to operate streetcars, but things turned violent on August 5, 1920, with mobs overturning streetcars and swarming the Tramway Building (see Figure 70 and Figure 71). The strikebreakers were beaten and mobs attacked the *Denver Post*, which had sided with the Tramway during the strike. The National Guard was finally called in to restore order on August 7, 1920. When the violence ended, seven people had been killed and 53 were injured.³⁴⁷

³⁴⁴ Robert Michael Brown, "The Denver Tramway Strike of 1920" (University of Colorado, 1965), 23–31.

³⁴⁵ Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:273–74.

³⁴⁶ Brown, "The Denver Tramway Strike of 1920," 46–51.

³⁴⁷ Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:274–85.



Figure 70. Image of protected streetcar driven by strikebreakers on Arapahoe Street during the 1920 strike.³⁴⁸

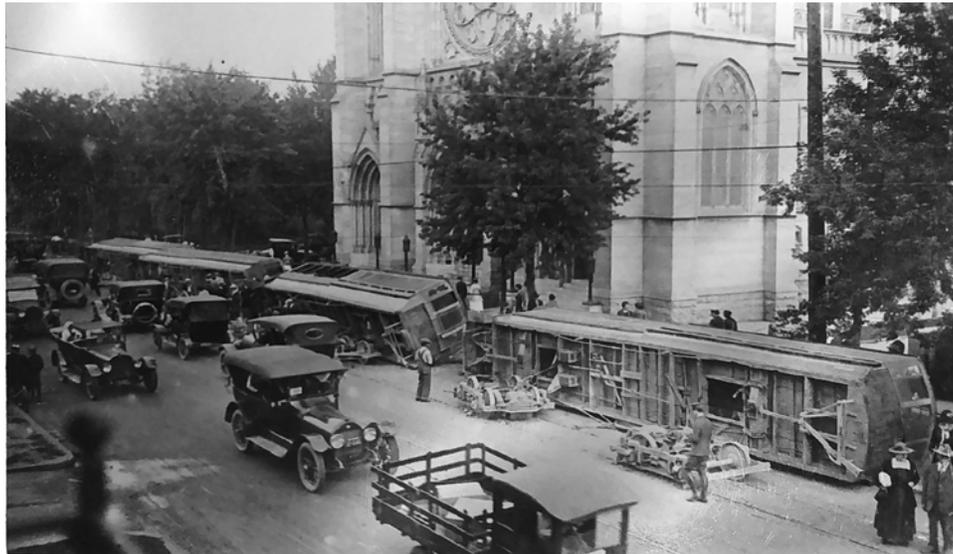


Figure 71. Mobs overturned streetcars on E. Colfax Avenue during the strike, 1920.³⁴⁹

³⁴⁸ "Car Being Escorted to Company Central Barns," 1920, Non-Digitized Photos, Denver, Transportation. Street Railways, Denver Tramway Company, Strike Folder, Denver Public Library Western History Collection.

³⁴⁹ "Overturned Streetcars," 1920, Non-Digitized Photos, Denver, Transportation. Street Railways, Denver Tramway Company. Strikes Folder, Denver Public Library Western History Collection.

In addition to the fractures the strike caused between the company, its employees, and city residents, the Tramway took a financial hit as a result and defaulted on several bonds. It entered receivership on December 24, 1920. As part of its efforts to emerge from receivership, the Tramway replaced antiquated rails and purchased new cars.³⁵⁰ The Tramway also petitioned the federal district court to increase fares to 10 cents, which the City opposed. The courts granted permission for a fare increase, but only to eight cents. The City appealed, but the increased fare was upheld.³⁵¹ Few additional improvements occurred from this point on. The company established a Material Yard in 1922 at the corner of South Santa Fe Drive and West Alameda Avenue. The following year, the Tramway opened its final new route, Route 73, which provided access to a newly constructed railroad locomotive shop west of Globeville (see Figure 76 and Figure 94).³⁵²

On September 11, 1925, the Tramway was sold under foreclosure to a reorganization committee including Claude K. Boettcher, George K. Clark, and Samuel M. Perry. The reorganization committee then established a new company, called the Denver Tramway Corporation, retaining the former board of directors from the Denver Tramway Company³⁵³

In 1926 the City claimed that the Tramway's franchise expired. The company fought the claim, elevating it all the way to the Eighth U.S. Circuit Court of Appeals, which sided in favor of the Tramway, and stated it had a perpetual franchise to operate in Denver and that the City did not have the ability to restrict fares.³⁵⁴ Two years later the Tramway decided not to incur the cost of rehabilitating the 23rd Street viaduct for streetcar service, instead opting to institute bus service on the route. This marked the first in a long series of lines that were slowly replaced by buses.³⁵⁵

³⁵⁰ Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:286–94.

³⁵¹ Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:349.

³⁵² Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:303–10.

³⁵³ Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:351.

³⁵⁴ Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:350–52.

³⁵⁵ Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:355.

In 1929 the Tramway finally got its major fare increase when the City passed a new ordinance granting the company a new franchise and increasing the adult fare to 10 cents.³⁵⁶

When the Great Depression crippled much of the country, the Tramway instituted several cost-saving measures to ride the financial storm. It stopped using trailers, which sped up service, and also converted many streetcars to a single-man operation. In addition, salaried and hourly employees took pay cuts in 1932 and 1933 to fund necessary improvement projects. Service on some lines was cut and replaced by the Tramway-owned subsidiary, the Fitzsimmons Bus & Taxi Company.³⁵⁷ The Tramway also abandoned and removed several portions of track in the 1930s, including the line to Fairmount Cemetery.

In 1933 the bus company was merged into the Denver Tramway Corporation.³⁵⁸ Exiting the Depression, the company decided to focus its future on the electric trolley coach, which was basically a rubber-tired bus powered from overhead power lines, therefore utilizing the investments the company already had in power plants and distribution centers (see Figure 72). Trolley coaches did not require the costly upkeep and maintenance of a rail network. The later part of the 1930s saw the conversion of several routes from streetcar to trolley coaches. The Tramway abandoned more and more lines or converted to them to trolley coaches.³⁵⁹ As tracks were no longer needed, the Tramway occasionally removed them, but more often, they were covered in asphalt as paving projects occurred throughout the years.

³⁵⁶ The Denver Tramway Corporation, "The Denver Tramway System... Its Past, Present, and Future."

³⁵⁷ Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:363-75.

³⁵⁸ Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:355.

³⁵⁹ Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:381-95.



Figure 72. Tramway Trolley coach with pantograph mounted to top of bus.³⁶⁰

World War II brought an increase in ridership because of rationing of gasoline and rubber, items crucial to personal automobile operation. The tramway donated spare metal machinery and parts to the war effort, removed some unused tracks from streets for donation, and advertised war bonds (see Figure 73).³⁶¹ In 1945 the Tramway boasted its highest number of riders, with 122 million fares purchased.³⁶² Although ridership during the war was up, nearly doubling the number of passengers from 1930 to 1948, costs for supplies, equipment, and labor more than doubled as well.³⁶³

³⁶⁰ “Trolley Bus,” n.d., Denver Tramway Co. 1867 to Regional Transportation District (RTD), Maurice F. Craney scrapbook, Call Number: C Photo Album 250, Denver Public Library Western History Collection.

³⁶¹ Robertson and Cafky, *Denver’s Street Railways, Volume II 1901-1950*, II:403.

³⁶² Stephen J. Leonard, “Bloody August The Denver Tramway Strike of 1920,” *Colorado Heritage*, Summer 1995, 30.

³⁶³ The Denver Tramway Corporation, “The Denver Tramway System... Its Past, Present, and Future.”



Figure 73. Tramway car during World War II.³⁶⁴

When the war ended in 1945 the company continued its conversion efforts to trolley coach and buses, aware of the greater flexibility a system not tied to rails offered the rapidly growing city. The new sleek trolley coaches were a point of pride and advancement for residents, who viewed them as part of the modern city. The end of the war also brought a decline in ridership, which was down 11 percent in 1947 from the year prior.³⁶⁵ In February 1948 the company reported a yearly net income of \$247,218, which marked a drastic decline from the year prior (\$827,129).³⁶⁶ Patronage continued to drop, dipping from 101,875,413 in 1948 to 94,477,041 in 1949.³⁶⁷ With automobile ownership in Denver reaching 176,737 vehicles in 1950, it was time to cease

³⁶⁴ “Buy War Bonds,” n.d., Denver Tramway Co. 1867 to Regional Transportation District (RTD), Maurice F. Craney scrapbook, Call Number: C Photo Album 250, Denver Public Library Western History Collection.

³⁶⁵ Robertson and Cafky, *Denver’s Street Railways, Volume II 1901-1950*, II:427–32.

³⁶⁶ Robertson and Cafky, *Denver’s Street Railways, Volume II 1901-1950*, II:462.

³⁶⁷ Robertson and Cafky, *Denver’s Street Railways, Volume II 1901-1950*, II:482.

streetcar operations.³⁶⁸ On July 2, 1950, the final streetcar ran on Denver's streets, replaced by sleek and modern buses and trolley coaches (see Figure 74).³⁶⁹



Figure 74. Tramway car on its last day of service.³⁷⁰

Denver & Suburban Railway Company

A group of Denver residents not previously involved in the streetcar business incorporated the Denver & Suburban Railway (D&SR) company on November 19, 1889 with the intention to build a line from the city center southwest to Fort Logan.³⁷¹ The City passed an ordinance on

³⁶⁸ Leonard, "Bloody August The Denver Tramway Strike of 1920," 30.

³⁶⁹ Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:530.

³⁷⁰ "Goodbye Old Friends," n.d., Denver Tramway Manuscript Collection, Photo Box 1, Album 2, Denver Public Library Western History Collection.

³⁷¹ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:203; Jerome C. Smiley, *History of Denver* (Denver: The Times-Sun Publishing Company, 1901), 864.

March 18, 1890, giving the company permission to construct an electric streetcar line, but the new company was met with a roadblock in the form of the Tramway and DCRC.³⁷²

The DCRC and the Tramway engaged in a turf war with the D&SR, removing competitors tracks, quickly installing new rails in the middle of the night and using streetcars themselves to block the progress of the others at crucial intersections in the downtown business district along Champa Street.³⁷³ Tired of the disruption to downtown traffic, the police chief took away all of the company's permits. Denver residents were also tired of the "streetcar wars" that resulted in hastily laid sections of track, with no attention to quality or planning regarding routes and ridership.³⁷⁴ The Tramway, DCRC, and the D&SR realized they were at an impasse and something needed to change. The leaders of the three companies sat down on June 24, 1891, to discuss how to move forward and create a future plan for streetcar routes in Denver that would hopefully limit oversaturation in certain parts of the city.³⁷⁵

Possibly discouraged by their experience, or cognizant of the barriers they faced building a route in downtown Denver, the D&SR sold to the Tramway on June 24, 1891. All of the D&SR assets were then transferred to the Metropolitan Railway, a subsidiary of the Tramway formed on July 6, 1891.³⁷⁶ Although the D&SR never operated any streetcars, it played an important role in Denver's streetcar history. The presence of the D&SR marked a high point in the streetcar competitions occurring across the city and foreshadowed the mass consolidations that were to come.

Denver Tramway Extension Company

On April 7, 1890, the Denver Tramway Company incorporated the Denver Tramway Extension Company to construct two new electric routes: the Ashland Avenue Line and the Agate Avenue Line. These lines began operation in July of that year. The Denver Tramway Company (senior)

³⁷² Smiley, *History of Denver*, 864.

³⁷³ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:227–28.

³⁷⁴ Smiley, *History of Denver*, 864.

³⁷⁵ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:229.

³⁷⁶ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:231–36.

then absorbed the Denver Tramway Extension Company as part of their new company, the Denver Tramway Company (junior).³⁷⁷

Metropolitan Railway

The Tramway was busy creating more subsidiaries on July 6, 1891, when it incorporated the Metropolitan Railway. This subsidiary was formed to take over the D&SR's assets. The D&SR had succumbed to the "streetcar wars" just a couple of weeks prior and the Metropolitan Railway acquired all of their stock, materials and powerhouse building, which was later sold. Through 1893 the Metropolitan Railway was the company in charge of building new lines for the Tramway. Although it never operated any streetcars under its purview, it was responsible for expanding the electric streetcar network in Denver along the 8th and 11th Avenue lines, the line down Elati and Galapago Streets, and portions of the 19th Avenue and Stout Street Lines, among others.³⁷⁸ Some of these routes were previously served by cable cars. Their conversion to electric by the Metropolitan Railway helped usher in a new phase of transportation in Denver.

The Metropolitan Railway and the Tramway constructed a carbarn in 1892 to house all the electric cars traveling on their newly constructed routes. The barn was located at East 35th Avenue and Gilpin Street and later became the East Division Car House for the Tramway (see Figure 75). The company also constructed a powerhouse at 32nd and Blake Streets that same year. Another major route that the Metropolitan Railway constructed was the electric line to the town of Elyria north of Denver that extended to Riverside Cemetery, which was subsidized by Elyria residents eager for better transportation into the city. Travelers on this line transferred to the Stout and Lawrence Street lines at a depot located at East 40th Avenue and Williams Street constructed by the Metropolitan Railway and the Tramway. The Metropolitan Railway constructed two final lines in 1893: the East 25th Avenue Line and the South Pearl Street Line (see Figure 76 and Figure 94. Local residents also subsidized the later line. The Metropolitan Railway consolidated with the Denver Tramway Company on September 6, 1893.³⁷⁹

³⁷⁷ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:198.

³⁷⁸ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:236–49.

³⁷⁹ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:260–83.



Figure 75. East Division car barn at East 35th Avenue and Gilpin Street, built by the Metropolitan Railway in 1892.³⁸⁰

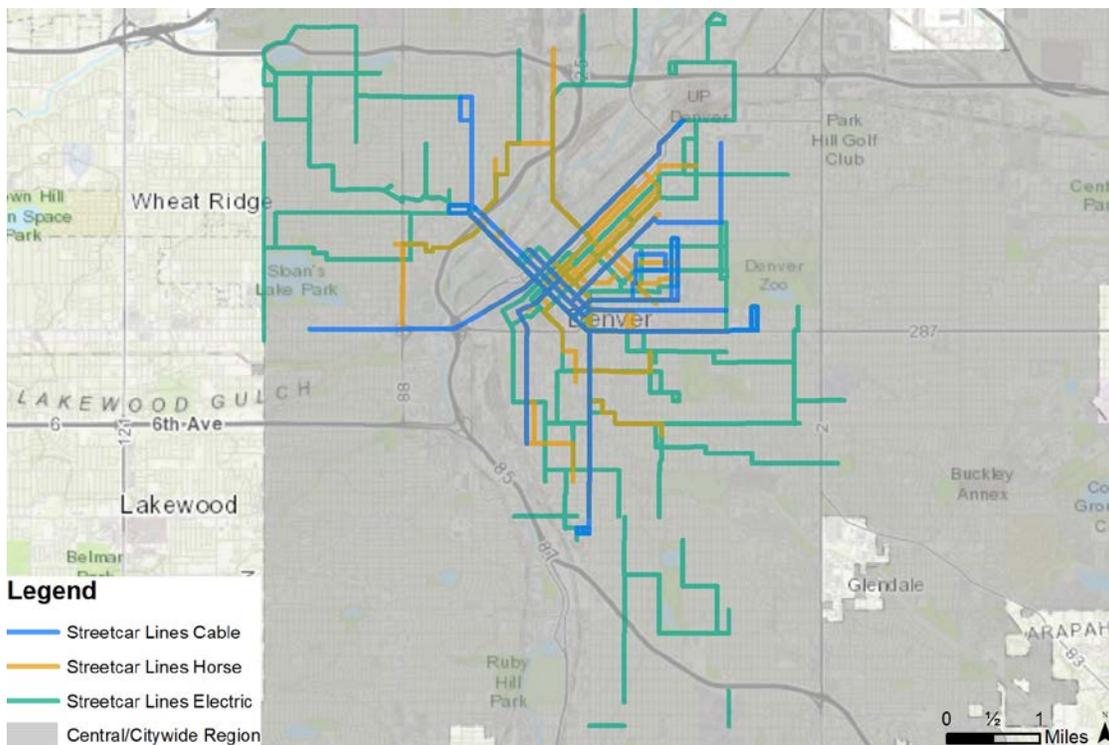


Figure 76. Map of streetcar lines constructed by companies in the City-wide/Central Region. Some of the lines shown appear outside of the central Denver area; however, they were constructed by companies described in the City-wide/Central Region.

³⁸⁰ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:262.

(2) *South Region Companies*

Table 6. Streetcar companies operating in Denver’s South Region

Company Name	Years of Existence/Operation	Mode of Transport
Denver Circle Railroad/Denver & Santa Fe Railway Company	1880-1887: Denver Circle Railroad, 1887-1898: Denver & Santa Fe Railway Company	Narrow Gauge, Steam Dummy
University Park Railway & Electric Company	1889-1890	Narrow Gauge, Electric
South Denver Cable Railway Company	1889-1890	Narrow Gauge, Electric

Denver Circle Railroad/Denver & Santa Fe Railway Company

On November 16, 1880, W.A.H. Loveland, along with other Denver businessmen, incorporated the Denver Circle Railroad (Circle) to build a steam operated narrow-gauge rail line that would encircle the city and provide a connection with narrow-gauge steam trains already connecting the city with the greater region, such as the Denver South Park & Pacific, the Colorado Central, and the Rio Grande (see Figure 77).³⁸¹ In addition to creating a railroad connection, the founders also hoped to profit off of real estate development in the areas the Circle serviced. Loveland, among others, incorporated the accompanying Denver Circle Real Estate Company just two years after starting the Circle to handle the real estate investment aspects. Loveland was keenly aware that steam power would allow for faster and further coverage than that provided by horsecar, making areas previously considered rural countryside accessible for development. The railroad possibly contributed to the viability of the entire area southwest of West Washington Park to Overland Park for development.³⁸²

³⁸¹ Cafky, *Steam Tramways of Denver*, 7.

³⁸² Robertson, Cafky, and Haley, *Denver’s Street Railways, Volume I 1871-1900*, I:43; “The Denver Circle Railroad 1882-1898,” *Across the Creek*, March 12, 2015, <https://lincolnparkhistory.com/2015/03/12/the-denver-circle-railroad-1882-1898/>.

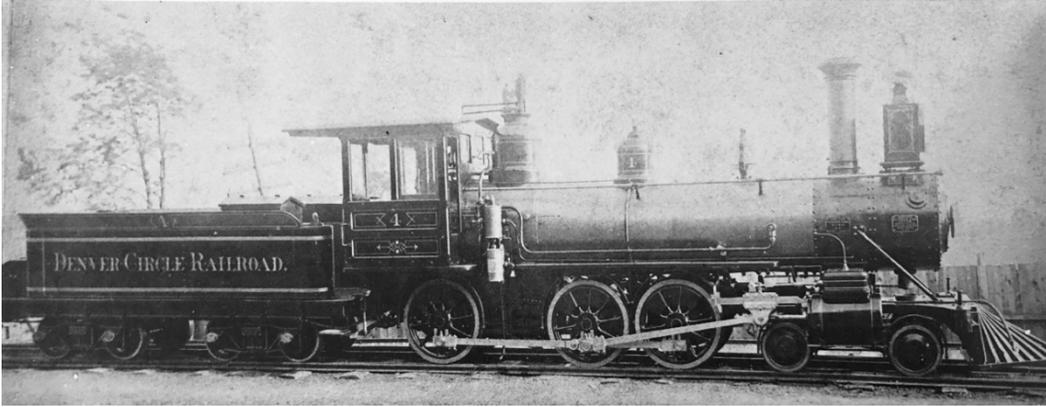


Figure 77. Steam engine for the Circle.³⁸³

After failing to secure property downtown for a depot, the Circle constructed a large timber trestle bridge over Cherry Creek and built a temporary depot near where Curtis Street abutted the creek. The company installed secondhand, 35-pound rail along the route. On January 16, 1882, the Circle opened for business and provided easy access to the exposition grounds. Initially, the line was very popular, with extra cars and locomotives borrowed from the Denver & Rio Grande (D&RG) and the Denver, South Park & Pacific Railroad to accommodate the heavy weekend demand.³⁸⁴ The line was constructed to be a rapid transit line for passengers. Additional income was obtained by hauling freight, an aspect the company relied on more heavily over the years. An 1885 report of the Colorado Railroad Commissioner notes that the company earned \$22,000 from passenger fares, whereas freight revenue only amounted to \$500. Looking to further increase passenger income, the company constructed an amusement resort at the current Overland Park that included a picnic ground, horse track, and hot rod track (see Figure 79 and Figure 92). The park was originally named Jewell Park after Circle board member Charles A. Jewell.³⁸⁵

The opening of Jewell Park provided a valuable influx of riders, but the company still had to contend with several roadblocks. Neighbors along the route thought the railroad took up too much space on the streets. Additionally, the route started earning a reputation as a nuisance, with

³⁸³ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:42.

³⁸⁴ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:43–45.

³⁸⁵ Cafky, *Steam Tramways of Denver*, 8.

undesirable, drunken people utilizing the line to access the San Souci Beer Garden. Slower growth than anticipated in the area to the south of the city meant there was not the sustained, daily ridership to support the Circle. Loveland retired from the line and the eventual demise of the line was evident.³⁸⁶

The company suffered from reports of “ramshackle depots and its inability to keep trains operating on schedule.”³⁸⁷ By 1885 the Circle reported a revenue of only \$500 and was placed into receivership in November of that year. The company was foreclosed upon in 1886 but was bailed out by the Denver & Santa Fe Railway (D&SF), which needed access into the city center and to secure a terminal. The D&SF helped improve the trackage infrastructure to accommodate its heavier train and hoped to add a third rail on the Circle’s track. The D&SF officially purchased the Circle on June 1, 1887, for \$149,125. By November it opened an extension to the new University of Denver campus. The D&SF had grand plans for the Circle that included developing subdivisions along the route. These plans were all for naught; however, as a judge determined on July 10, 1887, that the D&SF would have to condemn adjacent land owner’s property prior to laying a third rail, as it would create a burden. On top of this, the Denver City Council denied the D&SF the right to use the Circle’s former trackage to access a downtown terminal. Instead, the D&SF arranged with the Denver, Texas and Gulf Railroad to access downtown.³⁸⁸

Despite mounting financial hardships and issues with combative neighbors, the D&SF managed to construct another extension to Sheridan Heights, which opened on January 13, 1889, and featured a station built of rhyolite from quarries in Castle Rock. By this point the total trackage of the line reached 22 miles.³⁸⁹ Ultimately, however, the inability of the D&SF to utilize the route for access into the city, and the reputation the line obtained over the years, along with the influx of more reliable electric streetcar service entering south Denver area, led to the demise of

³⁸⁶ Robertson, Cafky, and Haley, *Denver’s Street Railways, Volume I 1871-1900*, I:47.

³⁸⁷ Robertson, Cafky, and Haley, *Denver’s Street Railways, Volume I 1871-1900*, I:78.

³⁸⁸ Robertson, Cafky, and Haley, *Denver’s Street Railways, Volume I 1871-1900*, I:98–99.

³⁸⁹ Robertson, Cafky, and Haley, *Denver’s Street Railways, Volume I 1871-1900*, I:137.

the route. The Circle helped entice individuals to in the South Denver area; however, this increase in population also drew the attention of competing companies that saw the area as a potentially lucrative market and ultimately helped contribute to the Circle's demise, which was abandoned in March 1898.³⁹⁰

University Park Railway & Electric Company

Milo Smith, along with several other partners, incorporated the University Park Railway & Electric Company (UPR&E) on February 12, 1889, with the intent to construct an electric streetcar to the University Park area and provide electricity to homes as well. Smith and his partners began buying land surrounding the future University of Denver location and planned provide better transportation to the area than the Denver Circle Railroad. The UPR&E determined to utilize the Sprague technology (see Section 2.B.(1)) with overhead wire power transmission that had been developed the prior year in Richmond, Virginia. The company's route provided a connection with the Tramway's cable line on South Broadway and then headed southeast through the East Washington Park neighborhood to the University of Denver campus and the University Park area (see Figure 79 and Figure 94). Area property owners along the proposed route quickly subscribed \$35,000 to begin construction of the line.³⁹¹ The municipality of South Denver passed an ordinance on March 5, 1889, giving the company permission to build its line (see Figure 78).³⁹²

³⁹⁰ Cafky, *Steam Tramways of Denver*, 10.

³⁹¹ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:146.

³⁹² Smiley, *History of Denver*, 864.



Figure 78. View looking north on South University Boulevard from East Exposition Avenue at the UPR&E trackage after its sale to the Tramway.³⁹³

The UPR&E constructed a car barn and powerhouse at the corner of East Alameda Avenue and South Pennsylvania Street. The 4-mile line utilized 30-pound rails and opened for business on February 4, 1890.³⁹⁴ Just 10 months later the Tramway purchased the UPR&E on December 10, 1890, for \$32,000.³⁹⁵ Residents were happy with the sale because they could travel all the way into downtown on a single fare. The Tramway quickly announced plans to extend the line deeper into University Park. Because of its original association with the University of Denver, and the tradition of hiring University students to serve as motormen, the University of Denver earned the nickname “Tramway Tech.”³⁹⁶

³⁹³ Robertson, Cafky, and Haley, *Denver’s Street Railways, Volume I 1871-1900*, I:184.

³⁹⁴ Robertson, Cafky, and Haley, *Denver’s Street Railways, Volume I 1871-1900*, I:185; *Whipple’s Electric, Gas, and Street Railway Financial Reference Directory Second Year* (Detroit, Mich.: The Fred H. Whipple Co., 1890), 156.

³⁹⁵ Robertson, Cafky, and Haley, *Denver’s Street Railways, Volume I 1871-1900*, I:217.

³⁹⁶ “University of Denver Past and Present,” 2007, https://www.du.edu/architect/media/documents/Ch_2.pdf.

South Denver Cable Railway Company

Rodney Curtis, John Evans, Henry Brown, and others incorporated the South Denver Cable Railway (SDCRC) as a subsidiary of the Tramway on January 2, 1889. The intent of the company was to construct an extension of the cable car line on Broadway from Alameda Avenue, through South Denver to Orchard Place (Englewood). Just a few months later, in March 1889, the Tramway was considering using the SDCRC to construct an electric streetcar line on South Broadway instead. Local residents raised a subsidy for the construction of the line and the company built a power plant near the Woeber Brothers Carriage Co. factory at South Bannock Street and West Colorado Avenue. The company used the Sprague system for electrification (see Section 2.B.(1)), despite arguments from residents along South Broadway who were not interested in unsightly overhead wires crowding their street. When an electric streetcar successfully traveled the route on December 25, 1889, it marked the first successful electric streetcar route in the Denver area, nearly two years after Sprague successfully piloted the technology in Richmond, Virginia (see Figure 79 and Figure 94). The SDCRC was absorbed by the Denver Tramway Company on July 28, 1890, along with the Denver Tramway Extension Company. The three entities together were reorganized as the Denver Tramway Company.³⁹⁷

³⁹⁷ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:145–98.

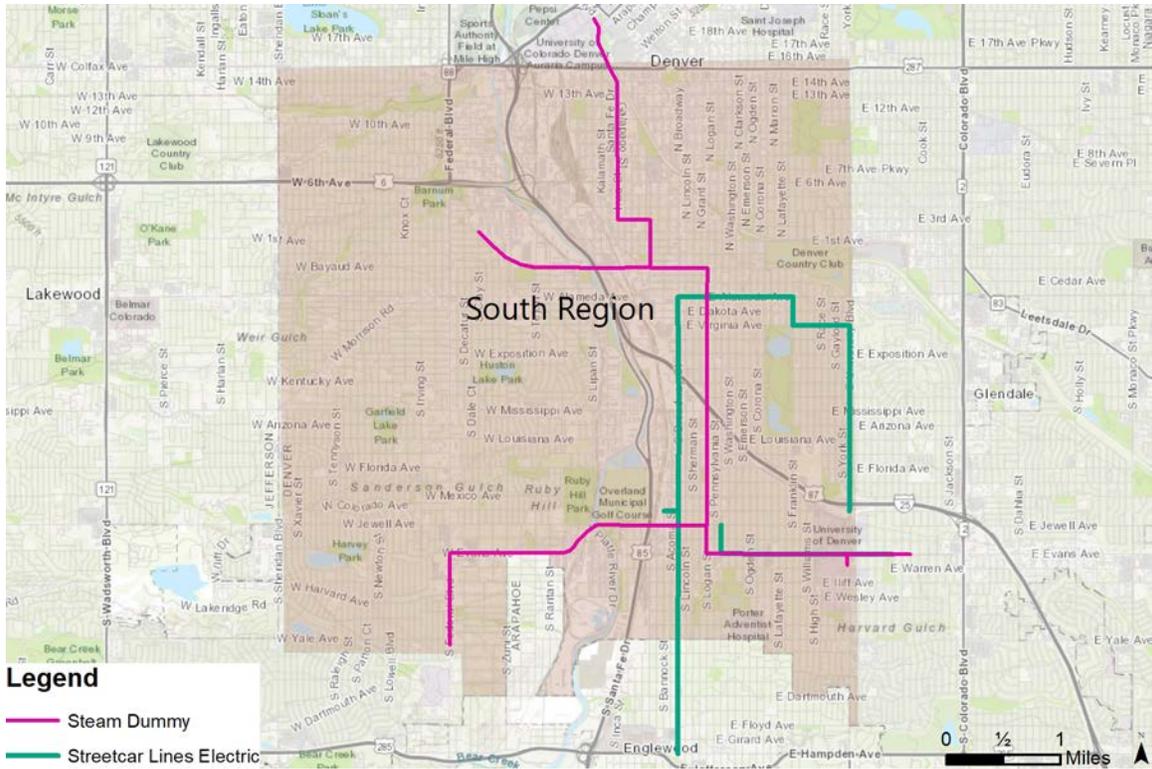


Figure 79. Map of streetcar lines constructed by companies in the South Region.

(3) East Region Companies

Table 7. Streetcar companies operating in Denver’s East Region

Company Name	Years of Existence/Operation	Mode of Transport
Colfax Avenue Railway/ Colfax Avenue Electric Railroad Company/ Colfax Avenue Electric Railway/ Colfax Electric Railway	1887-1889: Colfax Avenue Railway, 1889-1900: Colfax Avenue Electric Railroad Company, 1890-1891: Colfax Avenue Electric Railway, 1891-1898: Colfax Electric Railway	Standard Gauge, Standard Gauge, Horsecar, Steam Dummy, Electric
Park Railway Company	1888-1893	Unknown Gauge, Steam Dummy
Eastern Capitol Hill Electric Railroad	1889-1891	Narrow Gauge, Electric
Capitol Avenue Subdivision Line	1890-c.1899	Unknown Gauge, Horsecar

Company Name	Years of Existence/Operation	Mode of Transport
Montclair Railroad Company	1890-1891	Narrow Gauge, Electric
Cook's Addition Line	1892-c.1899	Unknown Gauge, Horsecar
Fairmount Railway Company	1893-1896	Narrow Gauge, Steam Dummy

Colfax Avenue Railway/ Colfax Avenue Electric Railroad Company/ Colfax Avenue Electric Railway/ Colfax Electric Railway

A group of real estate developers incorporated the Colfax Avenue Railway (CAR) in 1887 to provide streetcar service to the newly established Montclair development. The group included Baron von Richtofen, who was partly responsible for platting Montclair; Milo Smith, who was involved in various developments in Denver, including the Eastern Capitol Hill Subdivision; and Donald Fletcher, a founder of the town of Fletcher (now Aurora) and the Fairmount Cemetery. Samuel Marston Perry and Thomas S. Hayden, other founders of Fletcher, were officers on the CAR board as well. Perry served on the board and in leadership roles for most of the line’s tenure. Outside of his involvement in the CAR and its subsequent iterations, Perry was heavily involved in real estate development and eventually went on to become the vice president of the Tramway.³⁹⁸

The company quickly set about building a standard-gauge track on the south side of East Colfax Avenue to connect the Denver city boundary at York Street with the eastern boundary of Montclair at Quebec Street, a total distance of roughly 3 miles. The CAR hoped that the DCRC or the Tramway would provide a connection with their line; however, neither company was interested initially.³⁹⁹

³⁹⁸ Chris E. Geddes, “Fletcher and Her Trolley: A Suburb’s Link to the City, Our Link to the Past,” May 12, 1998, 1–3, https://www.auroragov.org/UserFiles/Servers/Server_1881137/File/Things%20to%20Do/Aurora%20History%20Museum/Historic%20Sites/Landmark/020187.pdf.

³⁹⁹ Robertson, Cafky, and Haley, *Denver’s Street Railways, Volume I 1871-1900*, I:101–2.

In April 1887 the company ordered two standard-gauge cars from the Woeber Carriage Company in Denver. It completed trackage to Quebec Street by July 9, 1897; however, it delayed opening the line as it awaited a decision from Arapahoe County commissioners on whether it could utilize a steam dummy instead of horse power.⁴⁰⁰ The company decided to begin operations under horsepower while the commissioners determined whether or not to permit steam dummy operation (see Figure 91).

Meanwhile, Smith worked with property owners along Colfax to create the Colfax Building & Improvement Association with the goal of persuading the DCRC or the Tramway to construct the needed connection with the start of the CAR line at York Street. The DCRC ultimately agreed to this.⁴⁰¹ Horsecar service continued, with free train rides offered by the company and local real estate developers for potential investors to see the area. By December 1888 it obtained permission from the county commissioners to convert the operations to steam dummy (see Figure 92). The increased speed afforded by the steam dummy cut the travel time required by horsepower in half to 40 minutes.⁴⁰²

The reign of the steam dummy on the CAR, which was reincorporated as the Colfax Avenue Electric Railroad (CAERR) on September 20, 1889, was short-lived. In October 1889 Smith petitioned the Arapahoe County commissioners for permission to convert the line to electric. At the same time he requested an extension eastward into the town of Fletcher, ending at Potomac Street, and changed the gauge from standard to the narrow gauge utilized on Denver's other streetcar lines (see Figure 86 and Figure 94).⁴⁰³

The first new electric car in the CAERR system sped along on May 17, 1890, utilizing Sprague technology (see Section 2.B.(1)). It traversed Colfax Avenue from the company's carbarn and

⁴⁰⁰ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:102.

⁴⁰¹ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:102-3.

⁴⁰² Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:132.

⁴⁰³ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:174-332.

powerplant on Ulster Street to York Street, where it met the Tramway or the DCRC (see Figure 80). Every 20 minutes riders caught the new electric train downtown, or eastbound to their homes.⁴⁰⁴ This also marked the beginning of service to Fletcher (Aurora), which lasted roughly 50 years and provided a connection for Fletcher’s residents with the larger city of Denver. Fletcher’s streetcar connection “was the heart of the town. It allowed for people to escape the dirtiness of the city and yet remain connected to the services it provided.”⁴⁰⁵

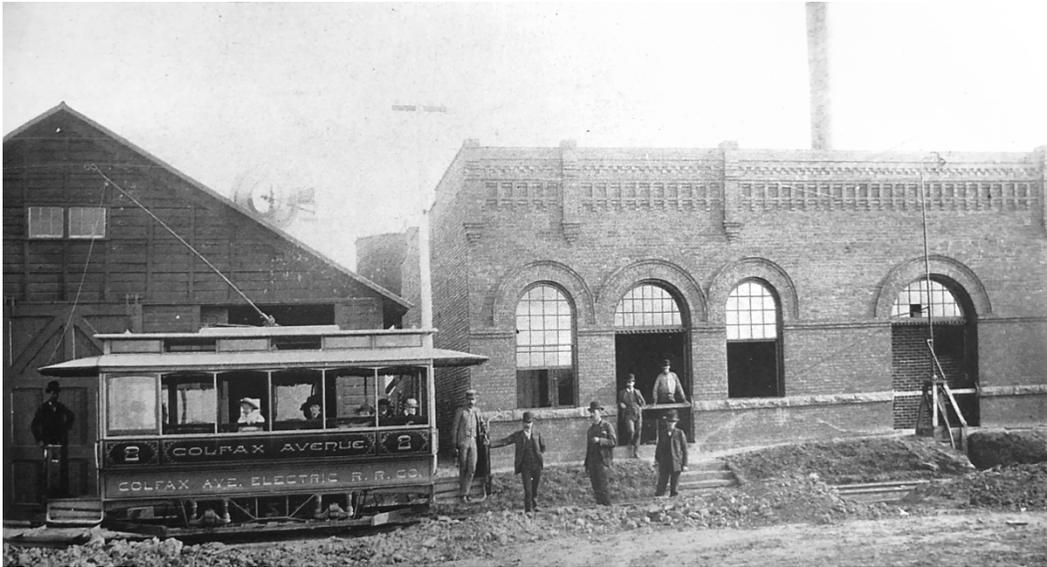


Figure 80. CAERR in front of their powerhouse at East Colfax Avenue and Ulster Street when it was under construction, c.1890.⁴⁰⁶

On October 2, 1890, Smith, von Richtofen, Henry Bohm, and others incorporated the Colfax Avenue Electric Railway (CAER) to take over and reorganize the CAERR. The new company worked out a deal with the DCCRC so that their trailers could be attached to the end of cable cars and continue on the DCCRC trackage through the city, paying a single fare. This partnership required the construction of a two-block segment on York Street between East 17th and East

⁴⁰⁴ Robertson, Cafky, and Haley, *Denver’s Street Railways, Volume I 1871-1900*, I:186.

⁴⁰⁵ Geddes, “Fletcher and Her Trolley: A Suburb’s Link to the City, Our Link to the Past,” 6.

⁴⁰⁶ Robertson, Cafky, and Haley, *Denver’s Street Railways, Volume I 1871-1900*, I:167.

Colfax Avenues in order to make the connection.⁴⁰⁷ In 1890, the CAER operated 6 miles of narrow-gauge tracks, using 45-pound rails.⁴⁰⁸

By December 3, 1890, the CAER controlled operations on the newly constructed Eastern Capitol Hill Electric Railroad. The CAER then expanded their powerhouse to also accommodate the nearby Montclair Railroad, which was controlled from its inception by the CAER, and took over operations on March 25, 1891. Shortly thereafter, the company purchased the Montclair Railroad, but defaulted on the loans used to purchase the line. The CAER found itself in financial difficulties in May of 1891. As a result, the developers of Fletcher purchased the line and reincorporated it again on May 4, 1891 as the Colfax Electric Railway (CER).⁴⁰⁹ This time, however, the franchise with the City required a \$100 payment, marking the first time the City set a price for a streetcar franchise.⁴¹⁰

In early 1896, the company partnered with the Fairmount Cemetery Association, co-founded by Donald Fletcher, to electrify their steam-dummy line. The CER continued its operations on Colfax Avenue, as well as the former Eastern Capitol Hill Electric, Montclair, and Fairmount Railroad's lines for a few years. After years of combating the slow growth in the Montclair and Aurora area and attempting to save money by trimming the schedule and eliminating evening service, the CER faced foreclosure in 1898. The Tramway purchased the CER and its associated lines and franchises on May 17, 1898 for \$5,000. The Tramway quickly abandoned and removed the eastern most portion of the line on East Colfax, bringing the end of service to Lima Street. They also stopped service on the Birch Street portion of the line.⁴¹¹ According to the Aurora History Museum, the Tramway's cost saving measure of cutting service to lower ridership areas

⁴⁰⁷ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:214–15.

⁴⁰⁸ *Whipple's Electric, Gas, and Street Railway Financial Reference Directory Second Year*, 156.

⁴⁰⁹ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:216–38.

⁴¹⁰ Smiley, *History of Denver*, 864.

⁴¹¹ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:198–300.

helped sustain and eventually increase ridership to Aurora, ensuring continued service to the community.⁴¹²

Park Railway Company

The Park Railway Company (PRC) operated in the current Park Hill area. Similar to the D&BPRT, the PRC was also started by real estate developers who were involved in the development of Park Hill. Few details are known regarding the company, which was incorporated on August 20, 1888, and utilized a steam dummy on its line. The company obtained a franchise from the City on August 31, which set a fare of five cents.⁴¹³ The line was likely completed around 1889 and started at 17th Avenue at York Street, zigzagging east and north until ending at East 31st Avenue and Forest Street (see Figure 86 and Figure 92).⁴¹⁴

Despite various advertising efforts extolling the superiority of the line and the surrounding neighborhoods, the Park Hill area was slower to develop than the bustling northwest Denver neighborhoods (see Figure 81). Development further stalled following the Panic of 1893 (see Section 3.E.) and, as a result, the Tramway purchased the PRC on April 23, 1893.⁴¹⁵ The Tramway left the line stagnant and unused for several years before abandoning the portion north of Holly Street and East 23rd Avenue and electrifying the remaining line in 1893.⁴¹⁶

⁴¹² Aurora History Museum, “Trolley Trailer No. 610,” May 5, 2016, [https://www.auroragov.org/UserFiles/Servers/Server_1881137/File/Things%20to%20Do/Aurora%20History%20Museum/History/Trolley%20Trailer%20No%20610%20History%20\(1\).pdf](https://www.auroragov.org/UserFiles/Servers/Server_1881137/File/Things%20to%20Do/Aurora%20History%20Museum/History/Trolley%20Trailer%20No%20610%20History%20(1).pdf).

⁴¹³ Robertson, Cafky, and Haley, *Denver’s Street Railways, Volume I 1871-1900*, I:135.

⁴¹⁴ Cafky, *Steam Tramways of Denver*, 17.

⁴¹⁵ Robertson, Cafky, and Haley, *Denver’s Street Railways, Volume I 1871-1900*, I:135–283.

⁴¹⁶ Smiley, *History of Denver*, 864.

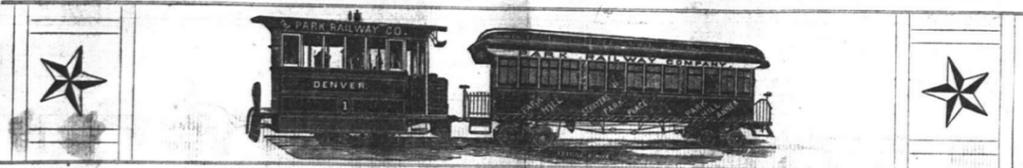
PART II. DENVER, COLORADO, SATURDAY, JANUARY 12, 1889.

Park Hill. ADJOINING CITY PARK.	STRAYER'S PARK PLACE. THE CENTER OF THESE ATTRACTIONS.	Park Hill Annex. The Future Capitol Hill.
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NONE can offer such INDUCEMENTS TO INVESTORS as we are now doing in these most beautiful additions. Every lot perfect; so full of charm and beauty, owing to the ELEVATION (250 feet above our office) and LOCATION, in full view of the PARK, CITY and the ENTIRE RANGE of the ROCKIES. They are simply UNEQUALED.

THE PARK RAILWAY RAPID TRANSIT LINE

The best built and most elegantly equipped line of our metropolis, passes directly THROUGH and AROUND these suburbs. FARE 5c
FARE FROM CENTER OF CITY TO ALL BUILDING OR LIVING IN THESE ADDITIONS.



NOTE: Denver has a great future before her, and now is the time to make some very desirable investments that will realize a QUICK and HANDSOME profit; we think from 800 to 500 per cent. on the cash invested in one year. However, to those that are STRANGERS and CONSERVATIVE we make this proposition, viz: To make an absolute guarantee of 8 per cent. and one-half of all the net profits, we to have, in consideration of said guarantee, the exclusive agency and authority of sale of said property. First class bank reference given when required. We are also prepared to make choice and in every sense desirable loans for capitalists from 7 to 9 per cent. net. Absolute safety guaranteed. Call on or address us and we can quickly convince you of the above facts.

Figure 81. Advertisement for Strayer's Park Place.⁴¹⁷

Eastern Capitol Hill Electric Railroad

Milo Smith, who was involved in the CER as well as the UPR&EC, incorporated the Eastern Capitol Hill Electric Railroad (ECHER) in 1889. Smith wanted the convenience of a streetcar right in front of his personal residence at 1360 Birch Street, so he established the ECHER to run on Birch Street from East Colfax Avenue to East 2nd Avenue (see Figure 86). Smith intended for this line to be unique and use a storage battery system, marking the first such use in Denver.⁴¹⁸

Smith's streetcars were to utilize large batteries mounted to the cars that would be charged by attaching it to an electric generator. The generator was to be located within a building on East 2nd Avenue. By utilizing a battery, the ECHER would avoid overhead trolley wires, likely of interest to Smith since the line was to pass in front of his house. Although there were high hopes for this battery-operated system, it never came to fruition and the ECHER began stringing overhead trolley wire in the summer of 1890. The company completed electrification efforts by July of that year, but elected not to operate any streetcars on the route, and Smith worked out an agreement

⁴¹⁷ "Strayer's Park Place," *Denver Times*, January 12, 1889, 10.

⁴¹⁸ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:186-87.

with the CAER, of which he was also involved, to run CAER cars on the route.⁴¹⁹ It was not until December 1890 that electric cars sped along the route, continuing on CAER trackage and into the city (see Figure 94). Just a month later, in January 1891, it was reported that the ECHER was transferred to the Montclair Railroad, which was controlled since its inception by the CAER.⁴²⁰

Capitol Avenue Subdivision Line (aka Monroe Street Horsecar Line)

Similar to other lines outside of the city center, the Capitol Avenue Subdivision line, also known as the Monroe Street Horsecar Line, was established and promoted by real estate developers. Very little is known regarding the details of the line, except that it was started by two men named Montgomery and Leonard to provide a connection between East Colfax Avenue and East 6th Avenue (see Figure 86 and Figure 94).⁴²¹ The line started operations in 1890 and there were plans to continue it all the way west on East 6th Avenue to Broadway, though that connection never transpired. It appears the line ceased operations by 1899.⁴²²

Montclair Railroad Company

On October 2, 1890, the CAER and its investors incorporated the Montclair Railroad Company to construct a connection along East 8th Avenue from the Eastern Capitol Hill subdivision, developed by Milo Smith, and the Montclair subdivision, developed by Baron von Richtofen. Both men were involved with the CAER. The route ran along East 8th Avenue from Quebec Street to Birch Street, where it met the ECHER line (see Figure 82, Figure 86, and Figure 94). It appears, however, that the Montclair Railroad never operated independently. The CAER took it

⁴¹⁹ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:187–216.

⁴²⁰ “Denver, Colo.,” *The Street Railway Journal* VII (1891): 42.

⁴²¹ “Denver, Colo.,” *Street Railway Journal* VI (June 1890): 305, https://books.google.com/books?id=X6xIAQAAMAAJ&pg=PA305&lpg=PA305&dq=horsecar+leonard+montgomery+denver&source=bl&ots=V9kUaQ7nbc&sig=ACfU3U0A1qt9UrzQ-rFKfwUvKd6C01qrIw&hl=en&sa=X&ved=2ahUKEwiX_pnVI_vhAhUewMQHXXBFCwQQ6AEwB3oECAgQAQ#v=onepage&q=horsecar%20leonard%20montgomery%20denver&f=false.

⁴²² Ryan Keeney, “Denver’s Streetcar Legacy and Its Role in Neighborhood Walkability,” accessed October 4, 2019, <https://www.arcgis.com/apps/MapSeries/index.html?appid=00a2d498a2ac4c58ad140ac306110213>.

over on March 25, 1891, and constructed an addition to the power plant to accommodate operations of the Montclair Railroad line.⁴²³



Figure 82. View of the Montclair Railroad Company line along East 8th Avenue, looking west from Quebec Street.⁴²⁴

Cook's Addition Line

The Cook's Addition line was another unique streetcar line operating in Denver. Information on the line is scarce. It appears the North Division of the Capitol Hill Land Company started the line in 1892. The company owned a large amount of land in the northeastern area of Denver and wanted to secure streetcar service to this development. It tried unsuccessfully to convince the Tramway to extend its tracks. Instead, the company built a horsecar track on its own.⁴²⁵ Another version of the line's origin revolves around J. Cook Jr., who was developing the J. Cook Jr.'s North Division of Capitol Hill subdivision, which is now within the Clayton neighborhood and is roughly bounded by Martin Luther King Boulevard, Steele Street, East 36th Avenue and Jackson Street.

The track ran on East 34th Avenue from Gaylord Street to at least Colorado Boulevard, but the full extent is unknown (see Figure 86 and Figure 91). The company started building the line on

⁴²³ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:216.

⁴²⁴ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:216.

⁴²⁵ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:264.

May 27, 1892, and service started shortly thereafter. The streetcar line was an unknown gauge; however, it operated a gravity-powered horsecar line in which the horse would pull the car uphill from Gaylord Street to the east end of the tracks. For the return trip, the horse pulled the car for a portion before boarding a platform on the back of the streetcar and ride downhill with the streetcar patrons (see Figure 83).⁴²⁶

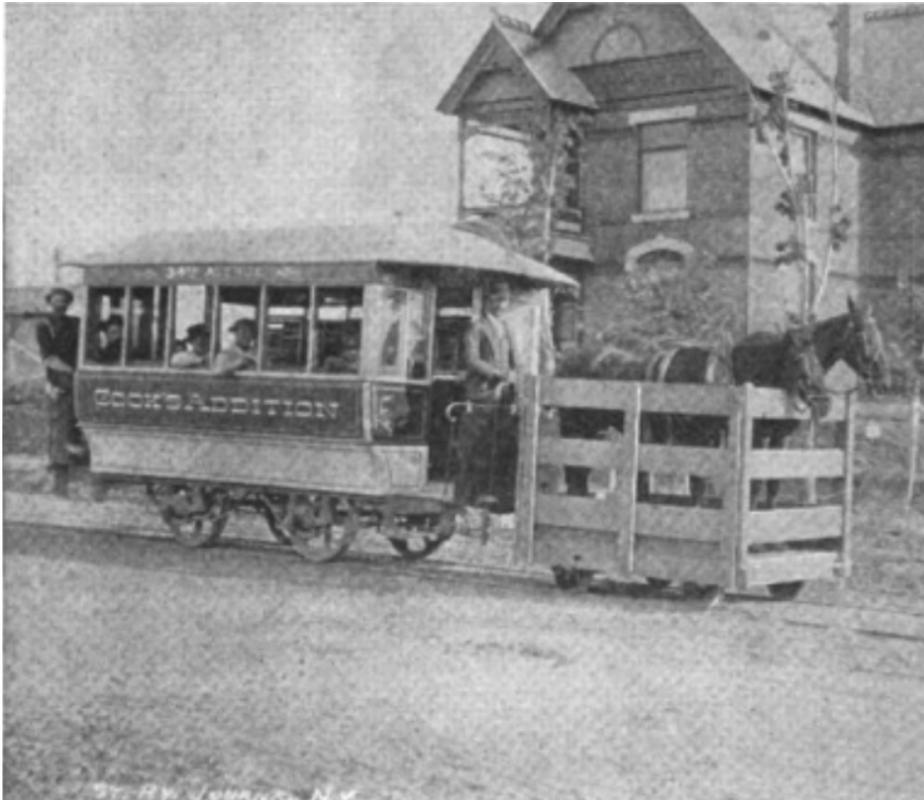


Figure 83. Cook's Addition horsecar showing horses riding downhill.⁴²⁷

⁴²⁶ "Horses as Passengers," *The Street Railway Journal* IX, no. 5 (May 1893): 286.

⁴²⁷ "Horses as Passengers," 286.

The 1.25-mile line just covered its operating expenses.⁴²⁸ It is unknown when this novel line ceased operating, though a reference to the line appears in a *Denver Times* article on August 9, 1899, which noted that J. Cook Jr. would be requested to make improvements to his horsecar line.⁴²⁹

Fairmount Railway Company

Reinhard Schuetze, known as the “father of Denver’s park system,” opened Fairmount Cemetery in east Denver in 1890. It quickly became a burial ground for “the who’s who of Colorado history.”⁴³⁰ The cemetery’s owners knew a streetcar connection would be a valuable asset to procure; however, they could not convince the CER, the closest streetcar line at the time, to extend trackage to the cemetery. As a result, they incorporated the Fairmount Railway Company on May 23, 1890, to construct a narrow-gauge steam dummy line that ran along Poplar Street to East 7th Avenue, and then south on Quebec Street to the cemetery (see Figure 84, Figure 85 and Figure 86).⁴³¹ The Fairmount Cemetery line connected with the end of the Montclair Railroad route at Birch Street, which was controlled by the CAER. The 6,800-foot long route, which utilized 30-pound rail, opened on Memorial Day in 1893 and provided a valuable service to not only those attending funeral services, but also to cemetery visitors, since it was popular as a picnic ground (see Figure 92). In 1896 the CER absorbed the line and electrified it (see Figure 94).⁴³²

⁴²⁸ “Thirty-Fourth Avenue Railway,” *Street Railway Supplement of the Commercial & Financial Chronicle*, Smi, LXVIII (February 25, 1899): 86.

⁴²⁹ “East End Improvements,” *Denver Times*, August 9, 1899, 6.

⁴³⁰ “Fairmount History,” *Fairmount Cemetery*, accessed April 2, 2019, <https://fairmount-cemetery.com/our-grounds/fairmount-history/>.

⁴³¹ Cafky, *Steam Tramways of Denver*, 18.

⁴³² Robertson, Cafky, and Haley, *Denver’s Street Railways, Volume I 1871-1900*, I:280–98.

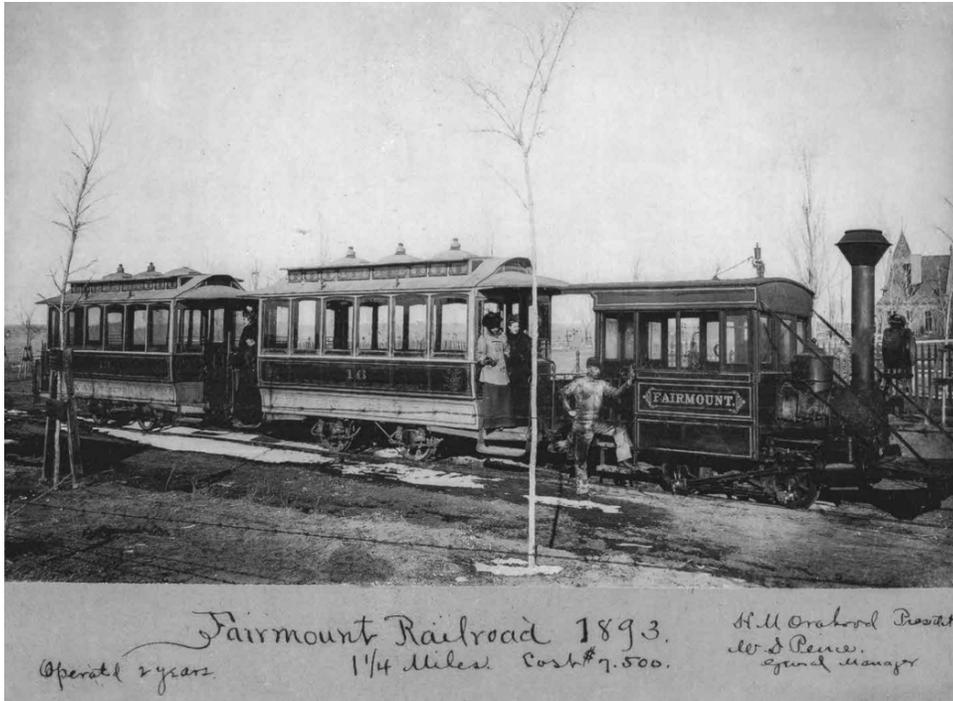


Figure 84. Fairmount steam dummy c.1893.⁴³³



Figure 85. Train station at Fairmount, located just southwest of the Ivy Chapel.⁴³⁴

⁴³³ "Fairmount Railroad, ca. 1893," n.d., Jim Cavoto Records, Fairmount Heritage Foundation.

⁴³⁴ "Train Station at the Fairmount," n.d., Jim Cavoto Records, Fairmount Heritage Foundation.

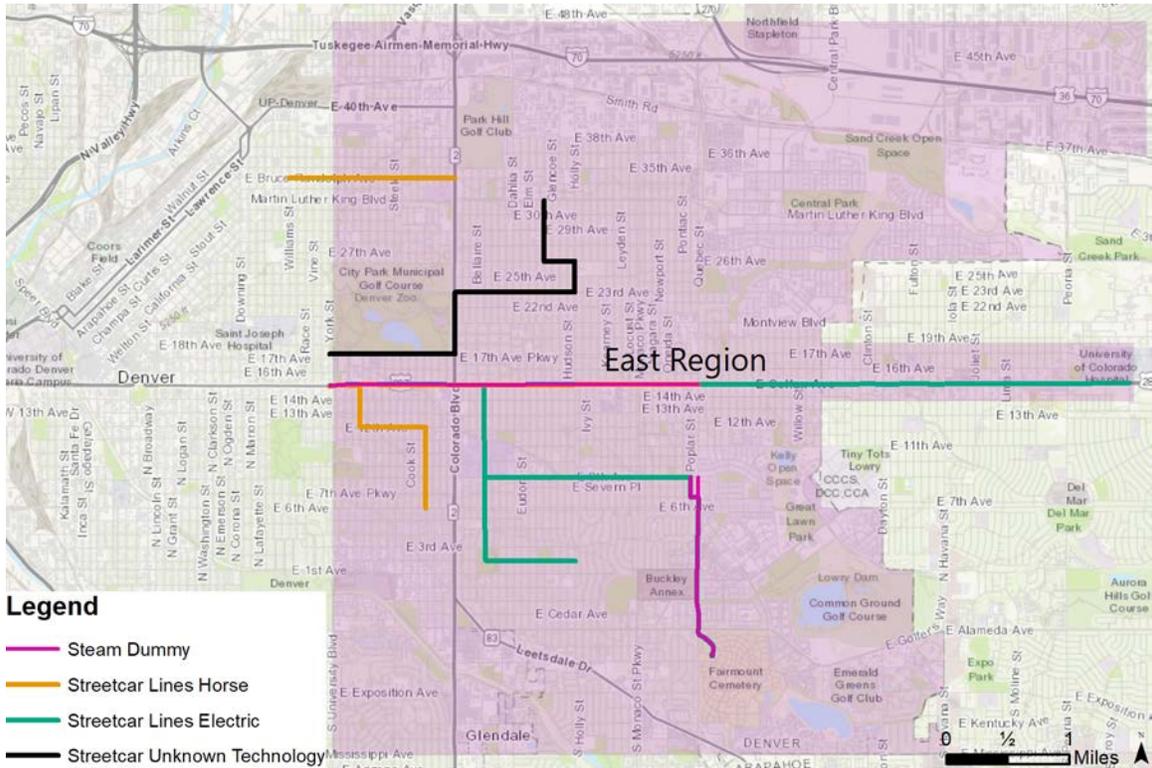


Figure 86. Map of streetcar routes constructed by companies in the East region.

(4) North Region Companies

Table 8. Streetcar companies operating in Denver’s North Region

Company Name	Years of Existence/Operation	Mode of Transport
Denver & Berkeley Park Rapid Transit Company	1888-1890	Narrow Gauge, Steam Dummy
Highlands Street Railroad	1888-1889	Narrow Gauge, Horsecar
West End Street Railroad/ West End Street Railway	1890-1893: West End Street Railroad, 1893-1898: Wes End Street Railway	Standard Gauge, Electric
Denver & Crown Hill Railway Company	1910-1928	Narrow Gauge, Electric

Denver & Berkeley Park Rapid Transit Company

In 1887 four investors from Kansas created the Denver Land & Security Company began buying land and laying out streets in northwest Denver. These Kansas investors formed the Denver & Berkeley Park Rapid Transit Company (D&BPRT) on May 15, 1888, to provide transportation to its new development, Berkeley Park, which featured a park and a lake.⁴³⁵ The company obtained a franchise on June 2, 1888, from the Highlands town board for a 3.25-mile steam dummy line from the Tramway's cable route at Zuni street to its new development (see Figure 90 and Figure 92).⁴³⁶ It appears that the steam dummy never lived up to its "noiseless" claims.⁴³⁷

The line, known as the 'Berkeley Motor,' opened on December 23, 1888, and provided access to the new development and the park. The company built a loop at the park's southwest corner to turn cars and eventually built a storage facility there. The Berkeley Motor also provided special cars to the Elitch Theatre, where an agent from the real estate company would pitch the development to streetcar riders. The line was especially popular in the summer months as it provided access to the popular Elitch Gardens, which opened in the spring of 1889 and included row boats, a steam launch, and a zoological garden, as well as multiple other parks in the area.⁴³⁸ The company partnered with the Tramway to offer riders a five-cent fare that transported patrons over the Tramway's cable line, onto the D&BPRT lines, and terminated at the two popular north Denver resorts: Elitch Gardens and Berkeley Park.⁴³⁹

In February 1889 an overcrowded weekend train had a fatal accident. Neighbors were still concerned about the fact that the steam dummies were not completely noiseless, despite initial promises from the company. In July 1889 the D&BPRT was allowed a change to its franchise that allowed for alternate modes of power, including cable, electric, or gas, although those

⁴³⁵ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:132; Andrew Morrison, ed., *The City of Denver and State of Colorado* (St. Louis: Geo. W. Englehardt, 1890), 23.

⁴³⁶ Morrison, *The City of Denver and State of Colorado*, 23.

⁴³⁷ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:216.

⁴³⁸ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:134.

⁴³⁹ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:153.

changes were not immediately instituted. The same year the company built an extension toward the Jesuit College (now Regis University) (see Figure 87).⁴⁴⁰ Later that year the D&BPRT obtained permission to operate its steam dummies on the failing Highlands Street Railroad's line. In order to do so, a short connecting track was built on Lowell Boulevard to join the two tracks and create a circular route.⁴⁴¹

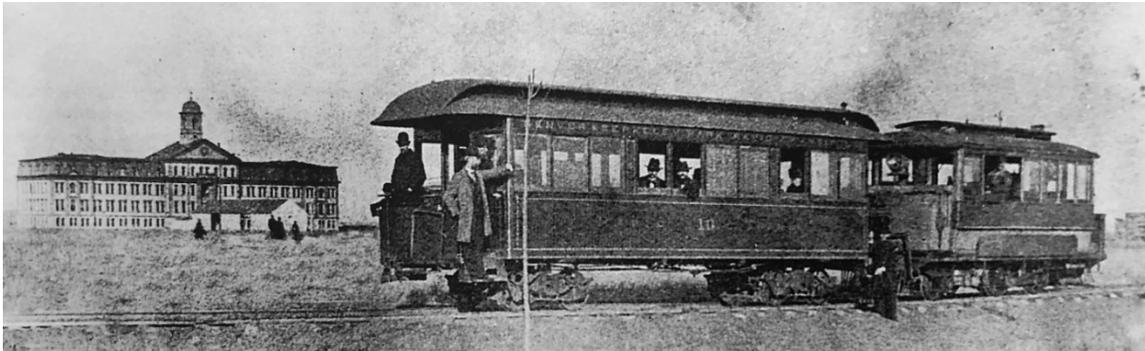


Figure 87. View of D&BPRT cars in front of the Jesuit College, 1890.⁴⁴²

By 1890 the company carried approximately 3,000 riders each day, but it struggled financially due to competition with the WESR, which opened earlier that year.⁴⁴³ The company received pushback from the town of Highlands regarding the not-so-noiseless steam dummies and the lack of planking at their intersections. The company persevered through the busy summer months but was ultimately taken over on December 4, 1890, by the Tramway, which saw an opportunity to compete with the DCCRC-controlled WESR. The Tramway purchased the D&BPRT, as well as the Highlands Street Railroad, for \$100,000, eventually converting them to electric (see Figure 94).⁴⁴⁴

⁴⁴⁰ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:140–59.

⁴⁴¹ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:180.

⁴⁴² Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:144.

⁴⁴³ Morrison, *The City of Denver and State of Colorado*, 23.

⁴⁴⁴ Smiley, *History of Denver*, 863.

Highlands Street Railroad

Real estate developers incorporated the Highlands Street Railroad (HSR) and obtained a franchise on July 18, 1888, which allowed them to utilize horse, cable, electric, steam dummy, or storage battery power. The company ultimately decided to utilize mules to pull its streetcars. The company provided a connection with the Tramway route through the Potter Highlands area that ended near Rocky Mountain Lake. It wanted to lay tracks on Zuni Street and West Caithness, but a “turf war” erupted with the D&BPRT, which was also utilizing those streets. The companies ended up in court. Details of the resolution are unknown; however, the companies may have had side-by-side tracks or the HSR may have used the D&BPRT’s trackage on Zuni and West Caithness Place.⁴⁴⁵

With the disagreement resolved, the HSR began operations at the end of December 1888.⁴⁴⁶ The following year, the company obtained permission to run a 60-day trial of a Ransom Steam Motor locomotive on the route, which claimed to be noiseless and smokeless. Many felt it was an improvement over horse service, but others preferred electric. Meanwhile, the company constructed a 2-mile-long extension, which provided more direct access to Rocky Mountain Lake. The extension was completed in April 1889 and the HSR obtained permission to utilize a steam dummy on this new portion of track (see Figure 90 and Figure 92). It is likely the original line ending at West 43rd Avenue and Federal Boulevard ceased operations that year, though some accounts claim it continued for a number of years as a horsecar route.⁴⁴⁷

Shortly after obtaining permission to operate a steam dummy on the new line, the company ceased operations altogether for unknown reasons. It is possible that the competition from the D&BPRT was too much to support the two lines. In December 1889 the town of Highlands gave the D&BPRT company permission to operate its steam dummy trains on the HSR tracks. The D&BPRT then built a connecting track on Lowell Boulevard to create a circle route utilizing

⁴⁴⁵ Robertson, Cafky, and Haley, *Denver’s Street Railways, Volume I 1871-1900*, I:134.

⁴⁴⁶ “The Highlands Street Railroad,” *The Street Railway Journal* V (1889): 45; Robertson, Cafky, and Haley, *Denver’s Street Railways, Volume I 1871-1900*, I:134.

⁴⁴⁷ Robertson, Cafky, and Haley, *Denver’s Street Railways, Volume I 1871-1900*, I:180.

both lines.⁴⁴⁸ The Tramway purchased the D&BPRT and the HSR in late 1890 for \$100,000 and eventually converted the HSR route to electric on July 2, 1891 (see Figure 94).⁴⁴⁹

West End Street Railroad/ West End Street Railway

Begun as a subsidiary to the DCCRC, D.F. Longstreet, among others, incorporated the West End Street Railroad (WESR) on March 26, 1890. Longstreet had previously converted the West End Street Railroad of Boston to electric power. Most of Denver’s street railways utilized a 42-inch, narrow-gauge alignment for their tracks. Longstreet, however, opted to construct the WESR in standard gauge with 50-pound rails.⁴⁵⁰ The town of Highlands adopted an ordinance on April 15, 1890, allowing the company to operate with any mode of power except steam.⁴⁵¹ The residents of the Highlands had clearly had their share of steam railroads and the controversy over the D&BPRT’s and HSR’s “noiseless” and “smokeless” engines.

The company intended to tap in to the growing Northwest Denver population and the recreational amenities located in that part of the city by constructing an electric streetcar line from the end of the DCCRC’s cable car at West 32nd Avenue and Tejon Street, then zigzagging along city streets in a northwesterly route until reaching Elich’s Zoological Gardens (see Figure 90 and Figure 94). The route then met with Sheridan Boulevard, where it headed south and passed the other attraction of Manhattan Beach, which was an amusement park on the northwest edge of Sloan’s Lake. The line terminated on West Colfax Avenue and Tennyson Street, where transfers could be made with the Larimer-Colfax Cable car line.⁴⁵² The company also constructed a branch line to Berkeley Park that ran from the company’s powerhouse at West 38th Avenue and Utica Street north to West 46th Avenue (see Figure 88).⁴⁵³ Just north of the powerhouse was a carbarn and repair shop that serviced the line.

⁴⁴⁸ Robertson, Cafky, and Haley, *Denver’s Street Railways, Volume I 1871-1900*, I:180.

⁴⁴⁹ Smiley, *History of Denver*, 863.

⁴⁵⁰ Robertson, Cafky, and Haley, *Denver’s Street Railways, Volume I 1871-1900*, I:204–9.

⁴⁵¹ Smiley, *History of Denver*, 861.

⁴⁵² Robertson, Cafky, and Haley, *Denver’s Street Railways, Volume I 1871-1900*, I:211.

⁴⁵³ Robertson, Cafky, and Haley, *Denver’s Street Railways, Volume I 1871-1900*, I:211.



Figure 88. WESR cars in front of their powerhouse and carbarn at West 38th Avenue and Utica Street.⁴⁵⁴

The company's intent, with its affiliation with the DCCR, was to siphon customers from the Tramway's North Denver cable car route and provide competition to the D&BPRT lines, which serviced a similar section of town. The line started operations on September 29, 1890, and was a huge success, forcing the steam-dummy powered D&BPRT to cease operations later that year. Despite the company's initial success, the Panic of 1893 set in and negatively impacted the company's finances. The WESR, along with the DCCRC, were placed into receivership on November 10, 1893.⁴⁵⁵ As part of its emergence from receivership, the WESR was reorganized as the West End Street Railway. The new company managed to stay afloat for a few more years before the newly formed Denver City Traction Company purchased it at foreclosure, along with its parent company the DCCRC (then reorganized as the Denver City Railroad Company), on December 15, 1898.⁴⁵⁶ The WESR's standard-gauge trackage was then converted to the narrow-gauge trackage used throughout the city by the Denver City Traction Company.

⁴⁵⁴ Jones et al., *Mile-High Trolleys*, 17.

⁴⁵⁵ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:211.

⁴⁵⁶ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:301.

Denver & Crown Hill Railway Company

Many details regarding the streetcar line that ran out to Crown Hill Cemetery are unknown. Individuals involved in the Crown Hill Cemetery incorporated the Denver & Crown Hill Railway Company on November 18, 1910.⁴⁵⁷ Crown Hill Cemetery opened in December 1907 on 180 acres west of Denver. The owners of the cemetery, including George W. Olinger, a prominent Denver resident and mortuary practitioner, recognized the need to provide a streetcar connection to their new cemetery and initiated the Denver & Crown Hill Railway Company in response.⁴⁵⁸ They entered into a partnership with the Tramway in which the Denver & Crown Hill Railway Company funded and constructed the 1.5-mile-long, single-track line. The company built the line to narrow gauge so it could connect with the Tramway's line on West 29th Avenue and Yates Street and travel west to the cemetery at Wadsworth Boulevard (see Figure 90 and Figure 94).⁴⁵⁹ The Tramway then operated, maintained, and supplied the power for the line (see Figure 89).⁴⁶⁰ It is believed operations started in 1911, and on May 30, 1928, the streetcar route was replaced by bus service.⁴⁶¹

⁴⁵⁷ "Denver & Crown Hill Railway Co. Incorporation Records," November 18, 1910, S500, Microfilm Page 4, Book Number 149, Book Page, 1, Colorado State Archives.

⁴⁵⁸ National Register of Historic Places, Crown Hill Burial Park, Wheat Ridge, Jefferson County, Colorado, National Register #08000708.

⁴⁵⁹ Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:170; Jones et al., *Mile-High Trolleys*, 22.

⁴⁶⁰ "Jefferson County, Colorado - Place Names Directory," accessed May 2, 2019, https://placenames.jeffco.us/search3.cfm?ps_oid=221623&search=.

⁴⁶¹ "Jefferson County, Colorado - Place Names Directory," accessed May 2, 2019, https://placenames.jeffco.us/search3.cfm?ps_oid=221585&search=.

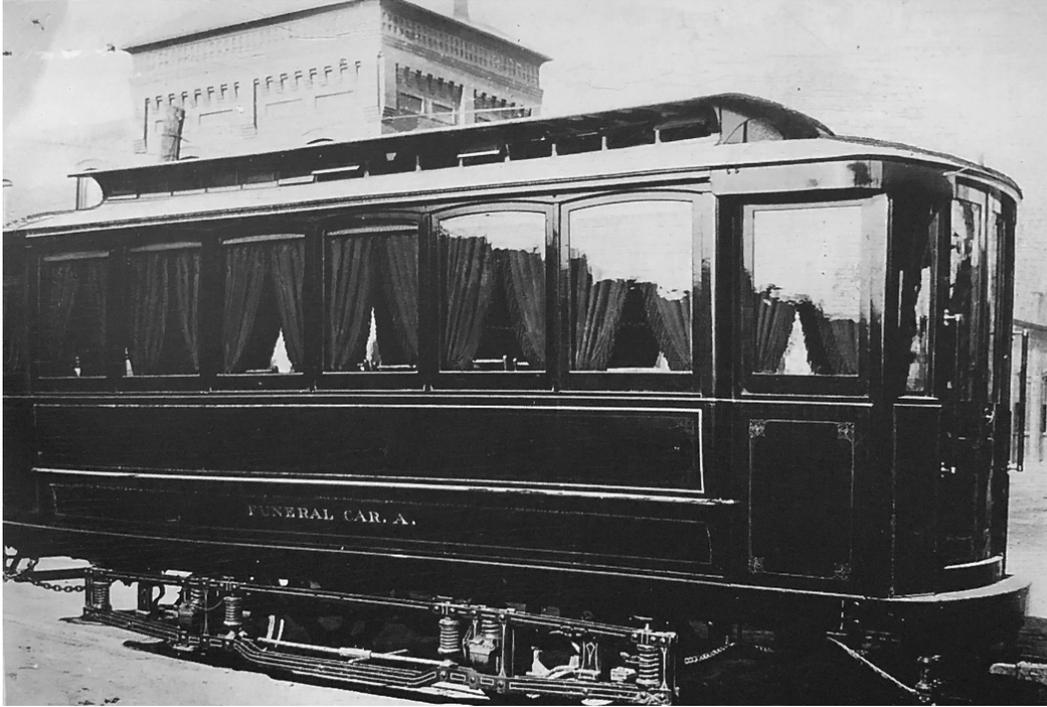


Figure 89. Funeral car in the Tramway's fleet, like one that would have operated on the Denver & Crown Hill Railway Company line.⁴⁶²

⁴⁶² Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:109.

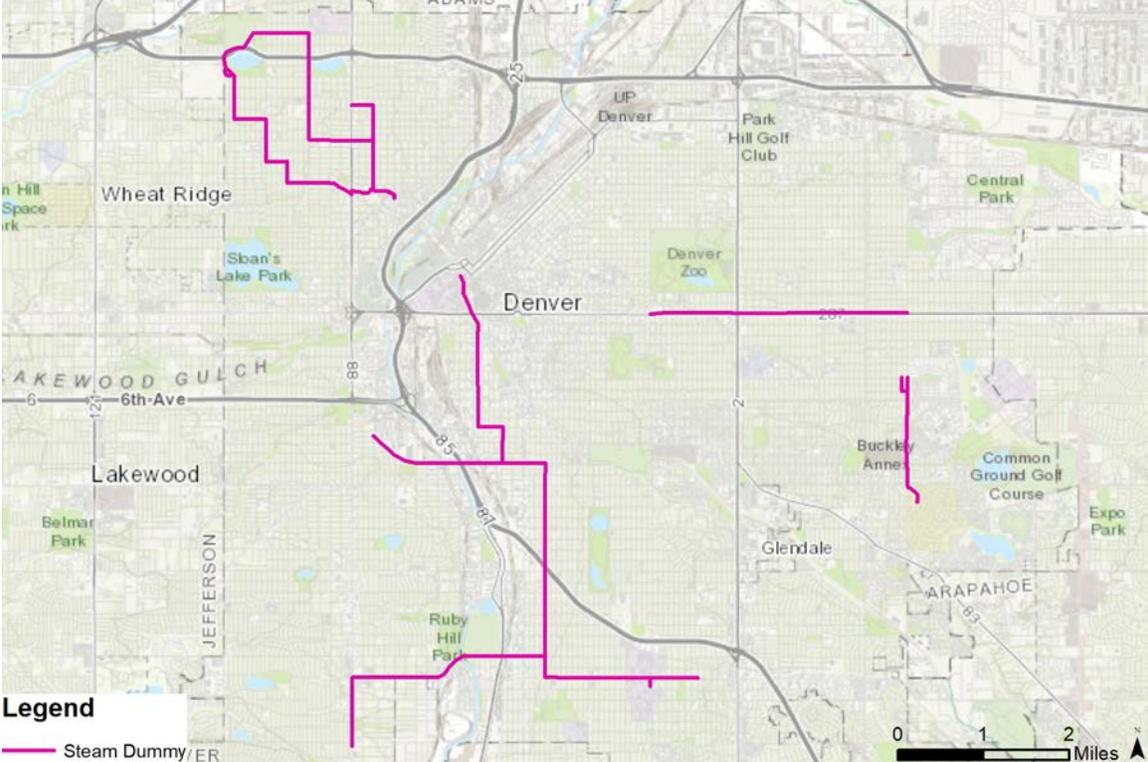


Figure 92. Map of steam dummy lines in Denver

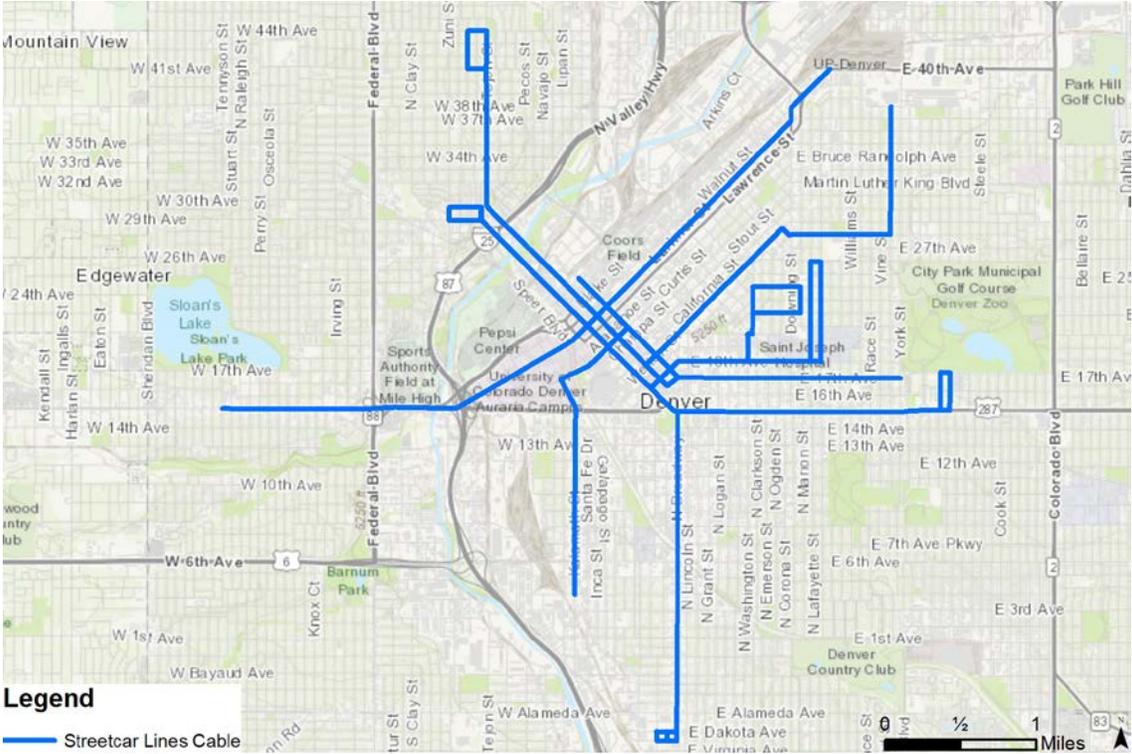


Figure 93. Map of cable lines in Denver.

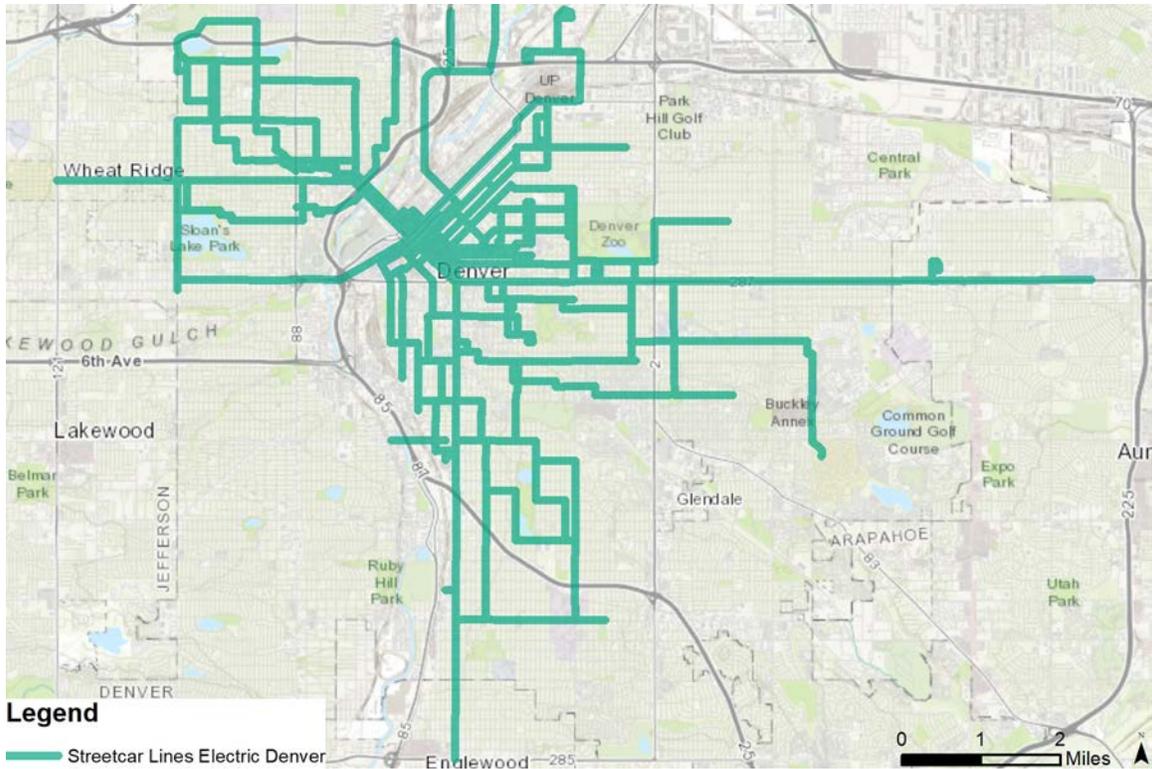


Figure 94. Map of electric lines in Denver

(5) *Interurbans*

Across the country, interurban streetcar lines provided an important connection between rural and urban areas. Interurban routes connected commercial centers and opened new areas for residential development. Denver and its surrounding environs were no different than the rest of the country. Three distinct companies constructed interurban routes that radiated from Denver to the surrounding environs.

Table 9. Companies operating interurban streetcar lines connecting Denver

Company Name	Years of Existence/Operation	Mode of Transport
<i>Denver to Golden via Lakewood</i>		
Denver, Lakewood & Golden Railroad	1890-1904	Standard Gauge, Steam
Denver & Inter-Mountain Railway Company	1904-1909	Standard Gauge, Steam

Company Name	Years of Existence/Operation	Mode of Transport
Intermountain Railway Company	1907-1909	Standard Gauge, Electric
Denver and Inter-Mountain Railroad Company	1909-1950 (passenger service)- 1953 (freight service)	Standard Gauge, Electric
<i>Denver to Golden via Leyden and Arvada</i>		
Denver & Northwestern Railway Company	1901-1950	Narrow Gauge, Electric
<i>Denver to Boulder</i>		
Denver & Interurban Railroad	1904- 1926	Standard Gauge, Electric

Denver to Golden via Lakewood: Denver, Lakewood & Golden Railroad/Denver & Inter-Mountain Railway Company/Intermountain Railway Company/Denver and Inter-Mountain Railroad Company

A group of investors, including William A.H. Loveland and Charles Welch, incorporated the Denver, Lakewood & Golden Railroad (DL&G) on July 11, 1890, to provide a fast, standard-gauge connection between Denver and Golden. The company also hoped to reach mining towns in the mountains beyond, although this dream never came to fruition.⁴⁶³ They purchased property on West Myrtle Place between West 13th and West 14th Avenues in Denver and constructed a shop, yards, and a station. West from the shops, the route traveled through the Villa Park area, along Dry Gulch, through Lakewood (which had been platted a year earlier by Welch and Loveland) and onward to Golden.⁴⁶⁴

⁴⁶³ Kevin Flynn, “The History of the West Corridor,” September 29, 2009, http://www.rtd-fastracks.com/media/uploads/wc/The_History_of_the_West_Corridor-Kevin_Flynn_09-29-09.pdf.

⁴⁶⁴ Robertson and Forrest, *Denver’s Street Railways Vol. 3 The Interurbans*, 3:12.

The company decided on a steam locomotive to power its interurban line until it could operate an electric system. Residents along the route allegedly donated the right-of-way for the trackage in exchange for lifetime tickets on the interurban line.⁴⁶⁵ The DL&G began laying track with 75-pound rails on August 2, 1891. By the end of the month the track was in place from the shops at Myrtle Place to the Golden city limits. A route in Golden was procured after a right-of way dispute with the Denver, Apex & Western Railroad was resolved in court. The DL&G terminal was constructed on the northeast side of 13th Street between Jackson and Washington, with offices located in a building just to the north.⁴⁶⁶ Operations began in September 1891 with the trip to Golden taking approximately 35 minutes (see Figure 95). The company shuttled passengers by day and hauled freight cars at night.⁴⁶⁷

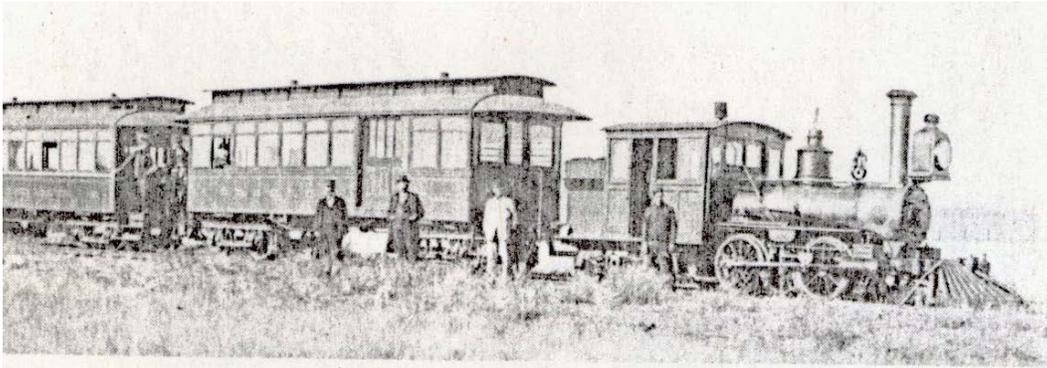


Figure 95. DL&G Railroad car near 12th Avenue and Carr Street in Lakewood.⁴⁶⁸

The route into downtown Denver proved more challenging. From the shops and yards on Myrtle Place, the route was to travel east into Denver on tracks shared with the Tramway, which were to be dual gauge. The franchise also required that the cars only operate on city streets by gas,

⁴⁶⁵ Stephen Millard, “Lakewood’s Only Train- a Glimpse of the Past,” *The Lakewood Sentinel*, May 25, 1972, 5.

⁴⁶⁶ Robertson and Forrest, *Denver’s Street Railways Vol. 3 The Interurbans*, 3:12–15.

⁴⁶⁷ Robertson and Forrest, *Denver’s Street Railways Vol. 3 The Interurbans*, 3:12–15.

⁴⁶⁸ “Interurbans to Golden from Denver- A Pictorial History,” n.d., Interurban McGuire Collection, 1980.58#3, Loyd Files Research Library, Museums of Western Colorado.

compressed air, or electricity. As the company had not secured electric power, it was unable to access downtown Denver using its own trains.⁴⁶⁹

Although the company planned to electrify the route, it lacked the funds to complete a costly electrification conversion. The City of Golden granted a grace period to complete the conversion, but Denver was not as lenient.⁴⁷⁰ Without access to downtown Denver, the company instead constructed a depot near Decatur and Eliot Streets, called the Gibson Street Depot. This depot was more accessible for patrons than the original property on Myrtle Street. From the new depot passengers could walk or ride in a Denver Omnibus and Cab Company vehicle to West Colfax and catch the DCCRC's cable car.⁴⁷¹ This arrangement was changed shortly thereafter and another depot was built on West Colfax Avenue with a boardwalk connecting to the Gibson Street depot so passengers no longer needed to walk the long distance in the muddy, unpaved streets.⁴⁷²

Helen Barnum Buchtel, daughter of circus owner, P.T. Barnum, approached the company in the fall of 1891 to obtain a streetcar connection with her Barnum subdivision. She had previously talked with the DCRC, but ultimately came to a deal with the DL&G to construct a branch line from the main line to Golden near Federal Boulevard at a point called Barnum Junction (see Figure 98). In turn, she would contribute \$25,000 toward its construction, but she required that the line be electric, open by April 1, 1892, and provide service every half hour. The company decided to combine the Barnum line with the line into Denver, thereby electrifying the route and procuring its access into downtown. This way, all passengers could originate in downtown Denver and then transfer to a steam train at the Gibson Station for the remaining journey to Golden.⁴⁷³

⁴⁶⁹ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:14.

⁴⁷⁰ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:16.

⁴⁷¹ Kenton Forrest and Charles Albi, *Denver's Railroads* (Golden, Colo.: Colorado Railroad Museum, 1986), 224.

⁴⁷² Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:16.

⁴⁷³ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:20.

Hoping to avoid the expense of installing overhead wires and poles, the company ordered electric motors. These hopes were dashed when their order was delayed and the motors ultimately failed to handle the steeper grades of the Barnum branch. With the electric motor failing its test, the DL&G was forced to utilize the more expensive overhead wire method. The company obtained an extension of their franchise with the City of Golden, to January 1, 1893. The DL&G formed the Lakewood Electric & Investment Company to construct a powerhouse on property it acquired from Loveland and Welch between Harlan Street and West 13th Avenue. The building was completed in December 1892.⁴⁷⁴

Meanwhile, the company debated the best route into Denver from its shops on West Myrtle Place, ultimately deciding on a route that shared the Tramway's West Denver Line before heading to Arapahoe Street and ending at 5th and Arapahoe Streets. The line was completed on January 1, 1893, and the company opened a terminal at 1453 Arapahoe Street, across from the Tramway's Central Loop.⁴⁷⁵ The DL&G used this as the end of its line until the Interurban Loop was completed in 1910.⁴⁷⁶

The Panic of 1893 took its toll on the line. Despite economic difficulties, Newhouse completed the line to the Tindall coal mine, located roughly 7 miles north of Golden in Ralston Creek, in 1894. The company was hopeful that the freight income from the mine would help its struggling finances. These plans, however, were short-lived. A storm on July 24, 1896, washed the branch out and the company had no funds to rebuild the line. The DL&G was placed in receivership on July 31, 1896. The company hobbled along, hauling freight including clay from the pits near Golden, as well as coal and lumber, and cutting passenger service schedules. Helen Buchtel sued the company in 1901 for \$5,000 for failing to provide service every half hour as were the terms of their original agreement. The following year the federal courts ordered that the company be sold to pay off creditors. At the time, no interested purchasers came forward.⁴⁷⁷

⁴⁷⁴ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:25.

⁴⁷⁵ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:18–27.

⁴⁷⁶ Forrest and Albi, *Denver's Railroads*, 224.

⁴⁷⁷ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:327–29.

Finally, on May 19, 1904, the company's stockholders purchased the company at foreclosure for \$175,000. The stockholders formed the new Denver and Inter-Mountain Railway Company on May 20, 1904, with ambitious plans to extend the line westward to Idaho Springs, north to Boulder, and on to Fort Collins and eventually Wyoming. The company soon realized it was in financial trouble again as the Barnum line was deteriorating and began looking for investors or interested purchasers. Thomas B. Doan, T.J. Milner, and C.H. Chase created the Intermountain Railway Company (IRC) on October 29, 1907, to purchase the company for \$450,000. The sale agreement came with several stipulations, however, including that the line was to be fully electrified by April 1, 1908, for the sale to be finalized.⁴⁷⁸

The new IRC hit a bump in its proposal when it failed to meet the electrification deadline. It received an extension as well as an investment from the president of the McGuire-Cummings Manufacturing Company, John J. Cummings, who purchased \$100,000 worth of stock, which allowed the company to electrify the line to Golden and purchase new equipment for the powerhouse. Electric operations on the complete line began on February 22, 1909 (see Figure 96).⁴⁷⁹

⁴⁷⁸ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:83–86.

⁴⁷⁹ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:87.

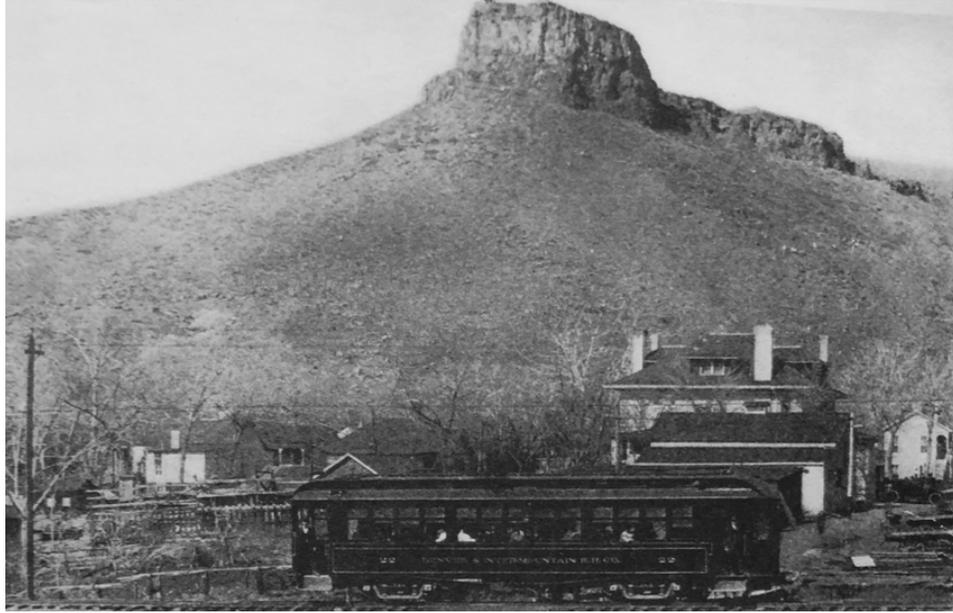


Figure 96. Intermountain cars leaving Golden on newly electrified lines, 1909.⁴⁸⁰

The IRC met the terms of the sale agreement and the new electric interurban provided service to Golden every hour and the Barnum service was returned to the agreed upon half-hour schedule. The 25-cent trip to Golden took 45 minutes. A round trip fare was 40 cents and passengers took advantage of the access the line provided to the Colorado Golf Club at Lakewood, the Colorado State School of Mines, the Colorado State Industrial School, and Camp George West. Additionally, tourists rode the line to experience the popular “Touring the Foothills” sightseeing tour, which was an extension of the “Seeing Denver” tour company that provided informative tour guides on sightseeing excursions (see Figure 97).⁴⁸¹

⁴⁸⁰ Jones et al., *Mile-High Trolleys*, 63.

⁴⁸¹ Robertson and Forrest, *Denver’s Street Railways Vol. 3 The Interurbans*, 3:87–94.

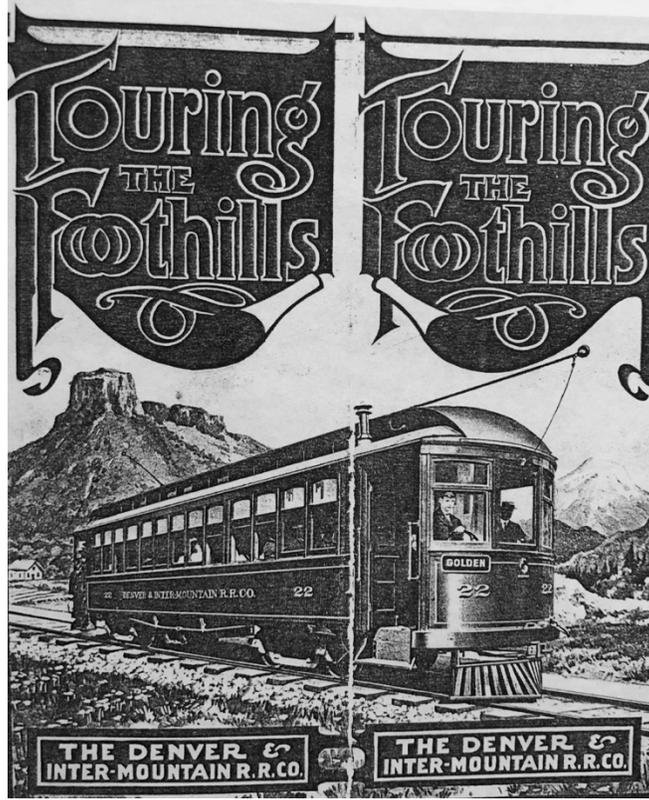


Figure 97. Brochure of *Touring the Foothills* featuring the Denver & Inter-Mountain Railroad.⁴⁸²

In March 1909 Cummings purchased the rest of the controlling stock in the Intermountain Railway and changed its name to the Denver and Inter-Mountain Railroad Company (D&I-MRR). Later that year the company suffered several accidents and residents were calling for safer service.⁴⁸³ Despite claims that he had no desire to sell the D&I-MRR, by June of that year Cummings sold the stock to the Denver City Realty Company, a subsidiary of the Tramway, and over the years the company was referred to as the Denver & Intermountain Railroad.⁴⁸⁴

The rail network itself and equipment needed to be incorporated into the Denver City Tramway's operations. It was determined to continue operations on the standard-gauge tracks rather than the

⁴⁸² Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:91.

⁴⁸³ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:94–95.

⁴⁸⁴ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:125–26.

Tramway's narrow gauge, as conversion would be costly. Electric feeder lines were replaced so that the Barnum line received its power from the main Tramway powerhouse at Platte and 14th Streets. Connections were also installed between the D&I-MRR and the Denver & Northwestern Railroad (D&NW), and the approach into downtown Denver was improved to reduce sharp curves.⁴⁸⁵ Within Denver itself, the terminus of the Barnum line and the D&I-MRR was changed to the newly created Interurban Loop. The Tramway created the Interurban Loop between Arapahoe and Curtis Streets and 14th and 15th Streets on May 1, 1910, to provide a single stopping place for the Denver & Interurban/Globeville and the D&I-MRR lines, which were standard gauge, as well as the Denver & Northwestern (D&NW) and Tramway narrow-gauge tracks (see Figure 98). The new loop was adjacent to the D&I-MRR depot property. The Tramway then purchased the D&I-MRR Depot, which was utilized as the new interurban depot for the multiple lines.⁴⁸⁶

⁴⁸⁵ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:140.

⁴⁸⁶ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:124.

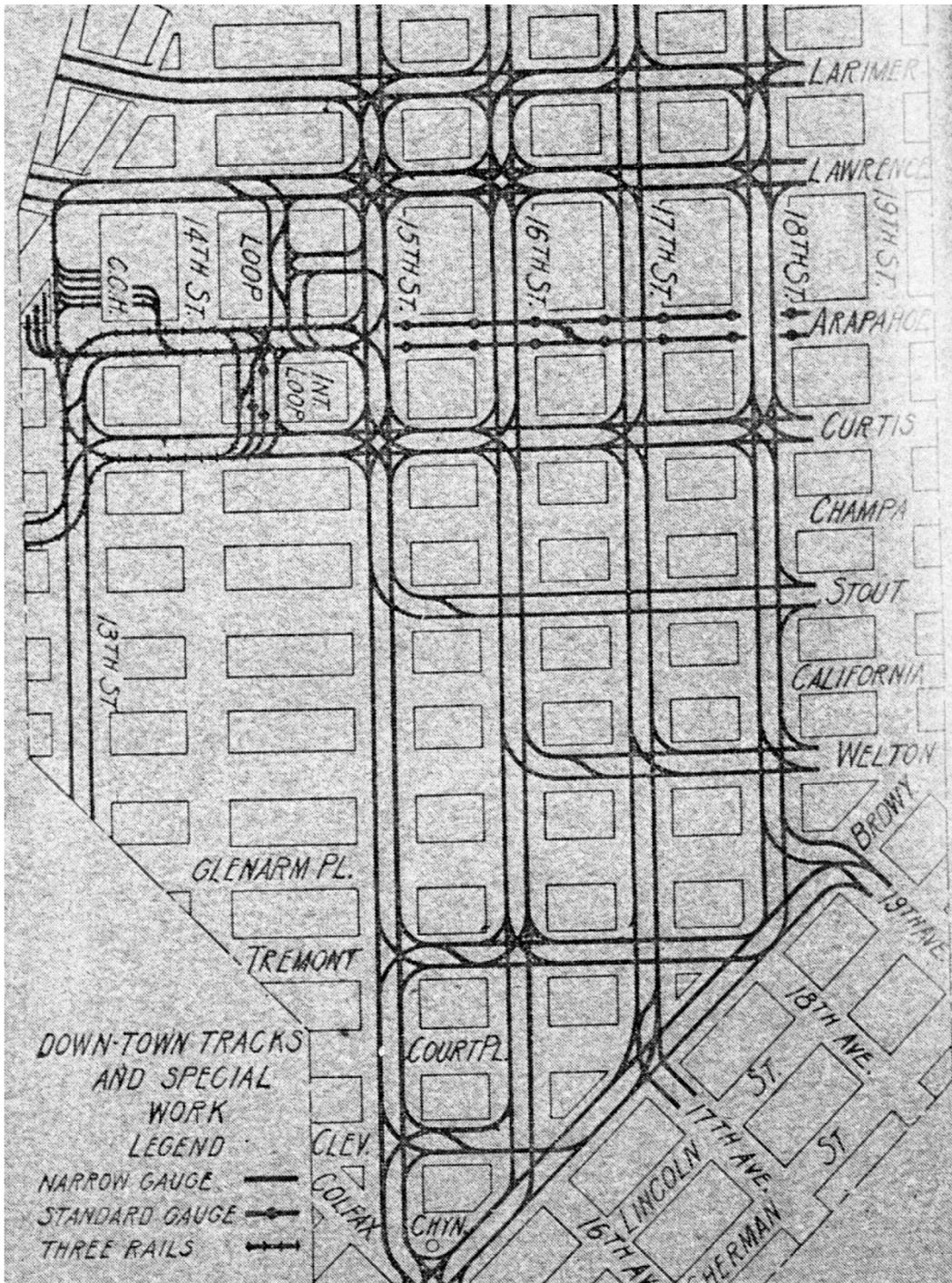


Figure 98. Map showing downtown lines and Interurban Loop location.⁴⁸⁷

⁴⁸⁷ Forrest and Albi, *Denver's Railroads*, 224.

In 1912 the Tramway decided to consolidate the freight operations of the D&I-MRR with those of their other interurban line to Golden, the D&NW, for more efficient operations in and around Golden.⁴⁸⁸ Freight operations on the line were important as the line transported groceries, dental supplies, automotive parts, newspapers and U.S. Mail.⁴⁸⁹

Shortly after the Tramway acquired the D&I-MRR, construction of a branch to the clay pits south of Morrison began. John Brisben Walker, a Denver pioneer, had long wanted to establish a railroad connection between Golden and Morrison and established the Denver, Golden & Morrison Railway to accomplish this. The Denver, Golden & Morrison Railway built the line while the D&I-MRR operated it. It had intended for the line to reach all the way to Morrison, but it never made it that far south and instead stopped near today's Interstate 70. In 1916 the line was extended to the south and stopped north of Red Rocks Amphitheater (see Figure 101). In 1920 the D&I-MRR ended up purchasing the line.⁴⁹⁰ During the Great Depression, Works Progress Administration workers would be transported on this line to their worksite at Red Rocks Amphitheater.⁴⁹¹

The Barnum branch needed an overhaul in 1915. The line was originally built with 40-pound rail that could not withstand the heavy streetcars. It was replaced with a stronger 60-pound rail in 1915 (see Figure 99). In addition, shelters located along the track to Golden were nearly all moved to the south side of the track, rather than the inconsistent placement that existed prior to 1915.⁴⁹²

⁴⁸⁸ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:140.

⁴⁸⁹ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:179–216.

⁴⁹⁰ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:126.

⁴⁹¹ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:198.

⁴⁹² Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:152.



Figure 99. View of trackage at Barnum Junction looking east.⁴⁹³

In 1916, another change was in the works for the D&I-MRR. The line dangerously crossed three steam railroad tracks en route to downtown Denver. It was decided that the D&I-MRR should utilize the new Colfax-Larimer viaduct for its approach into the city to avoid these dangerous crossings. Along West Colfax Avenue, the Tramway installed dual gauge tracks that continued to the Interurban Loop. The following year the new Summit substation was put into operation. With both the D&NW and the D&I-MRR operating into Golden, the Tramway decided to reconfigure the terminus in Golden. The new configuration consisted of a dual gauge loop on 12th, Washington, 13th, and Jackson Streets with the original D&I-MRR depot at 13th and Washington Streets used by both operations.⁴⁹⁴

⁴⁹³ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:148.

⁴⁹⁴ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:146–90.

The Barnum line was eventually converted to narrow-gauge in September 1922 to match the rest of the Tramway's network. The tracks were converted by taking out the spikes, digging the dirt street around the rails and moving the rails over, and re-spiking them in place at their new width. At this point, the terminus for the Barnum line was changed from the Interurban Loop to the Central Loop, like the majority of the other Tramway streetcar routes.⁴⁹⁵

The D&I-MRR built a final spur in 1941 from the main line south toward the Remington Arms Plant that was being constructed by the United States government in Lakewood (now the Denver Federal Center). The line was operated under a trackage rights agreement between the D&I-MRR, the Colorado & Southern (C&S), the Atchison, Topeka & Santa Fe, the Chicago Burlington & Quincy, the Denver & Rio Grande Western and the Chicago, and the Rock Island & Pacific, which allowed them to haul freight on the line that was constructed by the Remington Arms Company.⁴⁹⁶ The railroads, which together were called the Associated Railroads, took turns operating on the Remaco Spur, as it was called, and eventually took over the line completely in 1953, when freight service was stopped on the D&I-MRR.⁴⁹⁷

By 1948 the City of Golden was tired of the tracks clogging its streets as the use of automobiles increased and it asked the Tramway to stop operations on the tracks within Golden on Washington Street between 12th and 13th Streets; the company complied. From this point forward interurban cars backed out of the Golden Loop and the abandoned trackage was covered over.⁴⁹⁸

The last train on the D&I-MRR ran on June 3, 1950, coinciding with the end of streetcar service in Denver. Buses replaced the electric interurban service while freight service continued for roughly three years.⁴⁹⁹ After freight service stopped, the tracks sat vacant and sections may have been removed. Today, much of the grade is still evident; however, most shelters were removed

⁴⁹⁵ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:159–92.

⁴⁹⁶ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:213.

⁴⁹⁷ Richard Gardner, "Mile Markers in the History of the West Rail Line," n.d., 3.

⁴⁹⁸ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:214.

⁴⁹⁹ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:283.

and the grade has been repurposed as the RTD West (or W) Light Rail Line. One shelter from along the interurban electric route to Golden, similar to that at Smith's Station which was located east of Kipling Street and shown in Figure 99, remains preserved at Lakewood's Belmar Historic Park.⁵⁰⁰ Additionally, Car #25, built by the Woeber Carriage Company in 1911 and operated by the D&I-MRR until operations ceased in 1950, is owned by the city of Lakewood and operates occasionally on the Remington Arms Plant spur.⁵⁰¹



Figure 100. Car waiting at Smiths Station. This shows a typical station located along the route.⁵⁰²

⁵⁰⁰ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:180.

⁵⁰¹ "National Register of Historic Places Official Website--Part of the National Park Service," accessed January 9, 2020, https://www.nps.gov/nr/feature/weekly_features/12_01_20_interurban25.htm.

⁵⁰² Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:131.

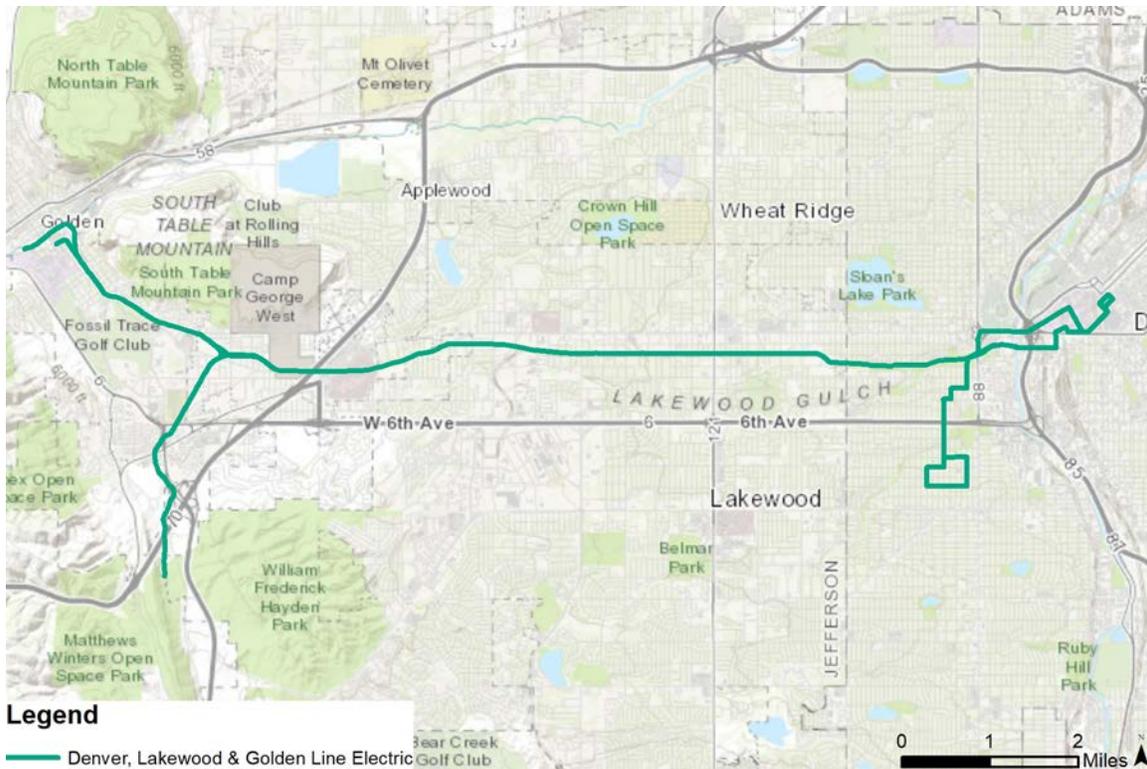


Figure 101. Map of Denver, Lakewood & Golden Line.

Denver to Golden via Arvada: Denver & Northwestern Railway Company

The Denver City Tramway Company’s majority investor at the turn of the century, David Moffat, had grand dreams of connecting Denver and Salt Lake City by way of an electric railway. Moffat had plans to connect a vast amount of the Front Range by electric streetcars as well, accessing the valuable coal fields northwest of Denver. Shipments from the coal fields could furnish a profitable freight component to the lines. The first step in achieving this vision was the incorporation of the Denver & Northwestern Railway Company (D&NW) as a subsidiary of the Tramway on June 6, 1901 with a goal to connect Front Range communities with a new rail connection. The D&NW was to utilize the same 3-foot, 6-inch narrow-gauge rails utilized by Tramway cars across the city of Denver.⁵⁰³

Although William G. Evans, the secretary of the Denver City Tramway Company, was aware of the market for tourist travelers, the company turned its initial focus to the construction of lines to

⁵⁰³ Robertson and Forrest, *Denver’s Street Railways Vol. 3 The Interurbans*, 3:36.

the coal mining areas. To this end, Tramway officials incorporated the 1,000-acre Leyden Coal Mine near the intersection of State Highway 83 and West 82nd Avenue in Arvada in 1901 to supply its powerhouses with its own coal and transport the coal on its own rail lines (see Figure 102). The company even advocated for an additional business of making coal deliveries around the city on its streetcar lines; however, the idea of freight shipments moving along the city streets was ultimately frowned upon and abandoned. The Tramway incorporated the Denver Tramway Power Company on March 26, 1901, to construct a new powerhouse at Platte and 14th Streets.⁵⁰⁴



Figure 102. Cars full of coal from the Leyden mine parked north of the Tramway’s North Division barns near West Caithness Place and Zuni Street, c.1900-1905.⁵⁰⁵

The line to Arvada and on to Leyden originated in downtown Denver at the Central Loop on Tramway trackage to the Berkeley Loop, situated at Yates and Tennyson Streets and West 46th and West 41st Avenues (see Figure 103). From there, the route traveled northwest beyond the Denver city limits. The company quickly began laying 60-pound T-rails set to the Tramway’s 3-

⁵⁰⁴ Robertson and Forrest, *Denver’s Street Railways Vol. 3 The Interurbans*, 3:35–36.

⁵⁰⁵ “Coal Cars from Leyden Mine Parked North of North Division Barns,” n.d., Call # X-18328, Denver Public Library Western History Collection.

foot, 6-inch narrow-gauge standard. Moffat, however, wanted to keep the possibility of dual gauging the track, so 8-foot ties were utilized so it would be easy to lay a third rail in the future.



Figure 103. View of two cars at West 32nd Avenue and Zuni Street. The car on the left is returning to downtown Denver, the car on the right is headed to Leyden.⁵⁰⁶

The company ran into a delay after construction reached Arvada. The D&NW wanted to go under the C&S Railroad tracks there, and the dispute ultimately went to court (see Figure 104). While this delay was occurring, the Tramway continued stringing overhead wire on the route it had in place and began operating what was called the “Arvada Flyer” from Denver to the Arvada Station, near the intersection of the present-day Wadsworth Bypass and Grandview Avenue in December 1901 (see Figure 105).⁵⁰⁷ The ready access to the commerce of Denver and eventually Golden afforded by the interurban connection caused Arvada’s population to grow and the interurban served as Arvada’s primary transportation for many years.⁵⁰⁸

⁵⁰⁶ Robertson and Forrest, *Denver’s Street Railways Vol. 3 The Interurbans*, 3:64.

⁵⁰⁷ Robertson and Forrest, *Denver’s Street Railways Vol. 3 The Interurbans*, 3:37–38.

⁵⁰⁸ SWCA Environmental Consultants, *Arvada” From Farming Community to Atomic Age Suburb, Historic Building Survey of Olde Town Arvada and the Allendale and Alta Vista Neighborhoods* (prepared for City of Arvada, May 2015), 25.



Figure 104. Site of D&NW crossing with the C&S, under construction, 1902.⁵⁰⁹



Figure 105. Interurban Depot in Arvada near the intersection of the present-day Wadsworth Bypass and Grandview Avenue, c.1902.⁵¹⁰

⁵⁰⁹ Jones et al., *Mile-High Trolleys*, 54.

⁵¹⁰ “Denver City Tramway Company Trolley at Arvada Depot,” n.d., Call Number X-18457, Denver Public Library Western History Collection.

The company constructed a substation between Arvada and Clear Creek east of the intersection of West 52nd Avenue and Wadsworth Boulevard, called the Clear Creek Substation, and was ultimately victorious in the dispute with the C&S (see Figure 106). Construction continued to a point called Leyden Junction, which was situated southeast of today's Indiana Street and 86th Parkway. The line to Leyden Junction began operations in November 1902, utilizing the 600-volt direct current system employed in the rest of the Tramway network. Freight traffic on the 1.5-mile interurban line, which did not begin until May 1903 when the mine was ready to ship coal, was restricted to the nighttime. In a move intended to give the D&NW rights on Denver city streets through the Tramway's franchises, the D&NW became the Tramway's holding company on May 6, 1902.⁵¹¹



Figure 106. Clear Creek Substation east of West 52nd Avenue and Wadsworth Boulevard.⁵¹²

The coal shipments from Leyden to the various tramway stations across the city were a huge financial success for the company and helped procure financing for a branch called the Mt. Olivet extension that would run to Golden. The D&NW selected a route to Golden that extended

⁵¹¹ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:36–58.

⁵¹² Sam Lusky, *101 Years Young: The Tramway Saga* (Denver: Denver Tramway Corporation, 1968), 55.

9.65 miles from the Clear Creek Substation southwest to Golden, obtaining a franchise from the City of Golden on June 2, 1903 (see Figure 107).⁵¹³ The D&NW had originally unsuccessfully approached the struggling DL&G about purchasing its line, but now the steam route found themselves facing competition in the form of a faster electric interurban.⁵¹⁴



Figure 107. Crews erecting poles to support the catenary wire on the route to Golden.⁵¹⁵ It was common practice during the first part of the twentieth century for the poles to be painted white.⁵¹⁶

Interurban service to Golden on the D&NW began on April 9, 1904. Cars ran to Golden every hour from 5:30 in the morning to 11:30 in the evening. The 55-minute, 35-cent trip from the central loop to Golden made Golden entirely accessible for those living in Denver and vice-

⁵¹³ Forrest and Albi, *Denver's Railroads*, 226.

⁵¹⁴ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:62–63.

⁵¹⁵ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:63.

⁵¹⁶ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:76.

versa. Originally, passengers in Golden got out at 12th and Washington Streets until a brick depot was constructed one block over, at the corner of Washington and 13th Streets (see Figure 108). This station featured a ticket office, waiting room, and baggage and freight storage sections.⁵¹⁷



Figure 108. Interurban car in front of the D&NW Depot at 13th and Washington Streets in Golden.⁵¹⁸

Taking cues from its coal operation, the D&NW decided to operate a basalt quarry just east of Golden, utilizing the stone as cobblestone and loose aggregate in the construction and maintenance of Tramway streetcar lines, as a city ordinance required the Tramway to pave the space between the tracks as well as a buffer of 24 inches on either side of the track with paving blocks.⁵¹⁹ Other freight operations, including hauling clay from nearby clay pits, also supplemented the line's income.⁵²⁰

⁵¹⁷ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:63–71.

⁵¹⁸ "Station at Golden, Colo.," 1890, Call # X-10072, Denver Public Library Western History Collection.

⁵¹⁹ "Notes on the Denver City Tramway System," *Street Railway Journal* Vol. XXII, No. 6 (August 8, 1903): 196.

⁵²⁰ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:71–74.

The D&NW's route along the Ralston Valley to Leyden and then on to Golden via the Clear Creek Valley was popular. On a map, the route appeared to resemble a "V" and as a result, gained the nickname the "Wishbone Route" (see Figure 109). Tourists comprised a large number of the line's patrons, including those utilizing the *Seeing the Foothills* touring service. Three hour guided tours on the D&NW's "Wishbone Route" began operating by July 1907.⁵²¹ Special trains were also added on holidays, including Memorial Day when additional patrons rode the interurban to Mount Olivet Cemetery⁵²²

⁵²¹ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:74.

⁵²² Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:211.

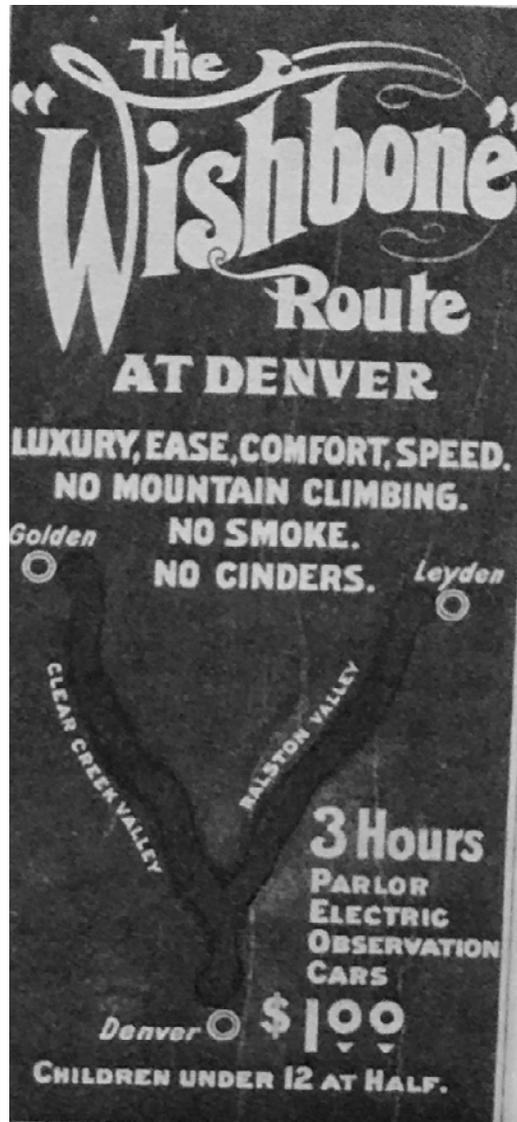


Figure 109. Advertising for the D&NW. Note the jab at their competitors still operating a steam dummy by proclaiming “No Smoke. No Cinders.”⁵²³

In addition to organized tours, many people utilized the D&NW to access the recreational areas near Berkeley Lake as well as Elitch Gardens, which was located south of the Berkeley Loop. In 1908 the White City Amusement Park, later renamed Lakeside Amusement Park, opened to the west of the Berkeley Loop (see Figure 110).⁵²⁴ In 1913 a new funicular railway opened on South

⁵²³ Jones et al., *Mile-High Trolleys*, 56.

⁵²⁴ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:39.

Table Mountain in Golden. The funicular and Lakeside were additional attractions accessible to patrons of the D&NW lines.⁵²⁵



Figure 110. Interurban car from D&NW route passing Lakeside Amusement Park at West 48th Avenue and Sheridan Boulevard.⁵²⁶

The year 1910 was a busy one for the D&NW. First, the Interurban Loop between 14th and 15th Streets and Curtis and Arapahoe Streets opened on May 1, 1910 (see Figure 111). This dual-gauge loop gave all interurban traffic in the city a single terminus and became a hub of downtown activity. Passengers purchased tickets and waited for trains at the depot building, originally built by the D&I-MRR, or transferred to other Tramway trains at the central loop, just a block away.⁵²⁷

⁵²⁵ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:142.

⁵²⁶ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:233.

⁵²⁷ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:123–25.



Figure 111. A view of the interurban loop.⁵²⁸

Later in 1910 a subsidiary of the Tramway purchased the D&I-MRR, bringing it under the control of the D&NW. This acquisition did not affect the D&NW's operations much, although freight shipments were consolidated between the two lines. Several years later, in 1919, the Golden terminus was reconfigured to create a dual gauge loop on 12th, Washington, 13th, and Jackson Streets with the original D&I-MRR depot at 13th and Washington Streets used by both operations (see Figure 113).⁵²⁹

The D&NW suffered a major blow in December 1910, when a fire broke out in the Leyden Mine, killing 10 men and destroying the mine. It took 17 months to establish a new shaft, rebuild the mine, and begin shipping coal again. The following year Leyden miners went on strike for three weeks. The strike, combined with the cost of rebuilding the mine, created a great deal of debt for the company to overcome.⁵³⁰ A reorganization of the Denver Tramway Power Company, the D&NW, and the Tramway was arranged on June 4, 1913. The distinct companies

⁵²⁸ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:125.

⁵²⁹ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:190.

⁵³⁰ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:127.

would now exist as one: the Denver Tramway Company.⁵³¹ The D&I-MRR, however, remained autonomous. Although the interurban to Leyden and Golden was now part of the Tramway, people still referred to the “Wishbone Route” as the D&NW.⁵³²

The company built a new substation at Leyden Junction in 1920 to provide additional power to the lines heading to Leyden so it could handle increased coal shipments. The Leyden Substation obtained its power from the Clear Creek Junction substation.⁵³³

By 1932 the company had cut service frequency in an effort to save money.⁵³⁴ Eight years later, the West 38th Avenue rails were abandoned and the interurban traffic was rerouted, another sign that finances were strained as changes and abandonments occurred.⁵³⁵ In 1948 the D&NW lines transported 785,340 passengers. The following year, that number dropped to 689,138. By 1950 all streetcar service, including interurbans, was coming to an end, despite ardent protestations from people who still relied on the line for consistent, fast transportation to and from Denver. In addition, the Leyden Mine closed on February 28, 1950. While the former DL&G route stopped service on June 3, 1950, regular service on the D&NW line continued until July 1, 1950 (see Figure 112). Buses and trolley coaches replaced operations on the route and much of the rights-of-way and associated parcels were sold.⁵³⁶

⁵³¹ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:146.

⁵³² Forrest and Albi, *Denver's Railroads*, 227.

⁵³³ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:156.

⁵³⁴ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:198.

⁵³⁵ Forrest and Albi, *Denver's Railroads*, 227.

⁵³⁶ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:239–87.

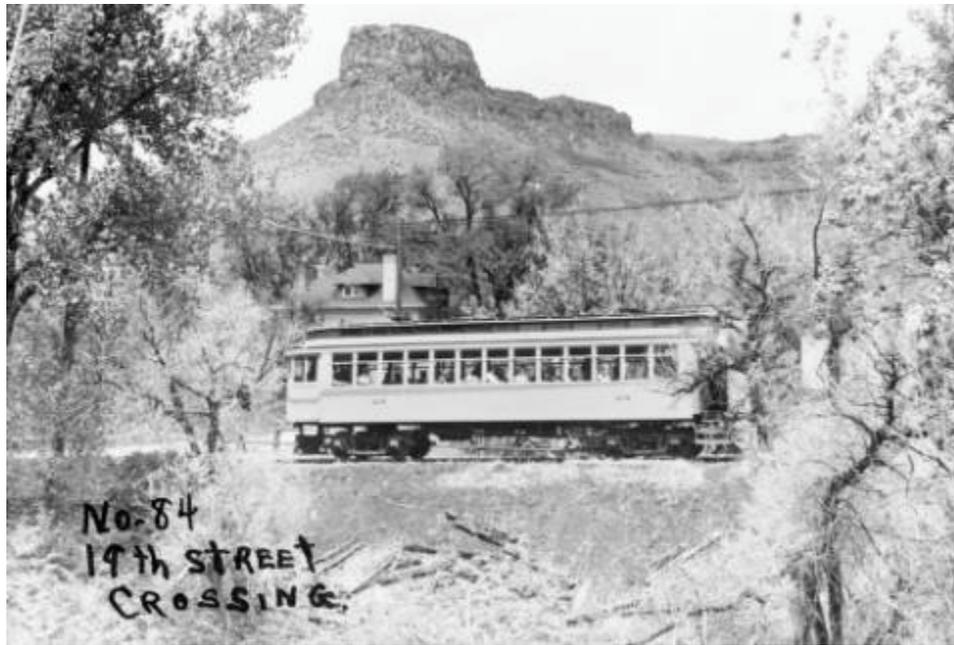


Figure 112. Interurban car on D&NW trackage approaching Golden.⁵³⁷

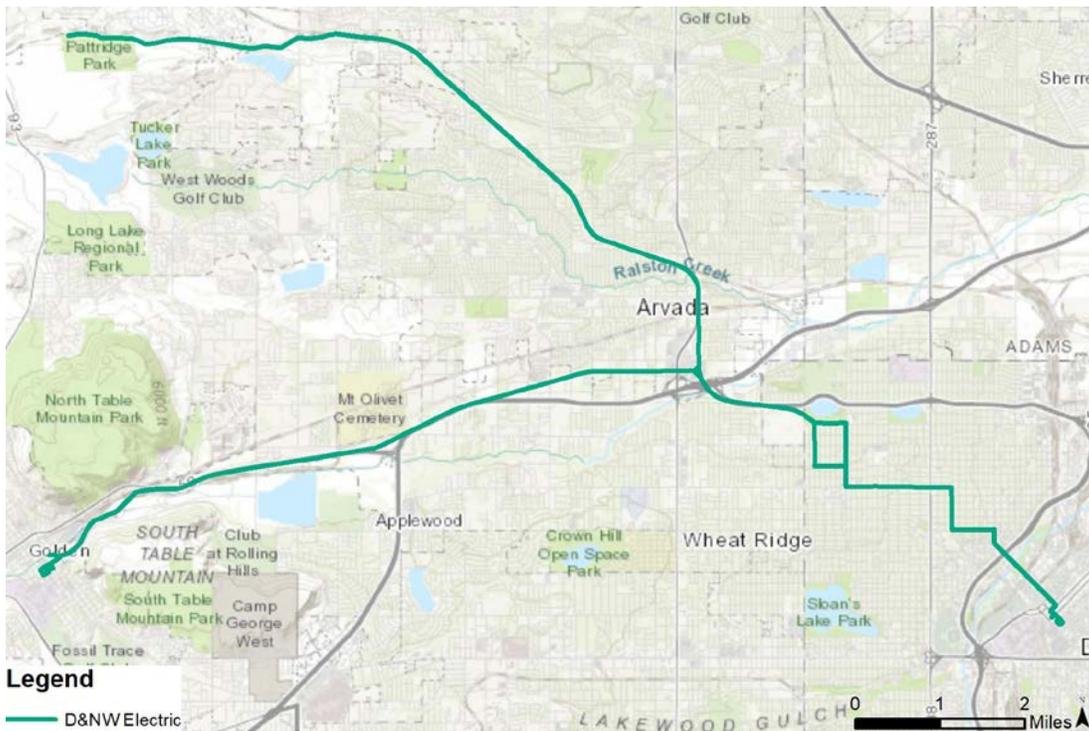


Figure 113. Map of D&NW

⁵³⁷ "No. 84, 19th Street Crossing," n.d., Call # X-10115, Denver Public Library Western History Collection.

Denver to Boulder: Denver & Interurban Railroad

The “Kite Route,” as the diamond shaped tracks of the Denver & Interurban Railroad (D&I) came to be known, began on September 10, 1904, when the Colorado & Southern Railway (C&S) incorporated the new company as a subsidiary.⁵³⁸ The C&S already had a standard-gauge rail network connecting Denver to Boulder and beyond and sought to contain the market on electric interurban transportation between those communities (see Figure 113). The company intended to electrify the C&S’s trackage already in place and provide service that extended from Denver to Boulder via Westminster, Broomfield, Louisville, and Marshall, and then on to Fort Collins, although the connection to Fort Collins would never materialize.⁵³⁹ The company would erect a streetcar system within Fort Collins, but the connection with Boulder was never constructed. Colorado was experiencing a population boom during the time, increasing by 29 percent from 1890 to 1900 and then by another 48 percent from 1900 to 1910. The company wanted to take advantage of the potential business these new residents could provide on a fast, frequent interurban line connecting much of the Front Range.⁵⁴⁰ An interurban line owned and operated by a steam railroad and utilizing their trackage was fairly rare for interurbans across the country.⁵⁴¹

⁵³⁸ William C. Jones and Noel T. Holley, *The Kite Route* (Boulder, Colo.: Pruett Publishing Company, 1986), 11.

⁵³⁹ Robertson and Forrest, *Denver’s Street Railways Vol. 3 The Interurbans*, 3:99.

⁵⁴⁰ Jones and Holley, *The Kite Route*, 9.

⁵⁴¹ *Colorado State Register of Historic Places*, 8.



Figure 114. D&I car outside of the Broomfield Depot, originally located at West 120th Avenue and the C&S tracks. Note the diamond-shaped pantograph atop the car.⁵⁴²

To gain access onto Denver city streets, the D&I entered into an agreement with the Tramway on April 17, 1906. The agreement stipulated that the Tramway would build standard-gauge tracks that would operate D&I cars within Denver city limits, starting in Globeville. Since the Tramway's system was exclusively narrow-gauge, with the exception of the shared portions with the standard-gauge D&I-M, this line to Globeville was unique. Construction of the Globeville route began in the spring of 1908 and utilized the 23rd Street wood viaduct.⁵⁴³

On February 2, 1907, the route from Globeville to Boulder was electrified. The Northern Colorado Power Company ran overhead power lines and supplied the power for the interurban route (see Figure 115).⁵⁴⁴ The D&I obtained a franchise to operate on Boulder's streets on December 5, 1907.⁵⁴⁵ The franchise in Boulder stipulated that the company pay an annual

⁵⁴² *Colorado State Register of Historic Places*, 29.

⁵⁴³ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:100–102.

⁵⁴⁴ Jones and Holley, *The Kite Route*, 91.

⁵⁴⁵ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:102.

franchise tax that was based on Boulder's population and pay to pave the streets on which the interurban would run.⁵⁴⁶

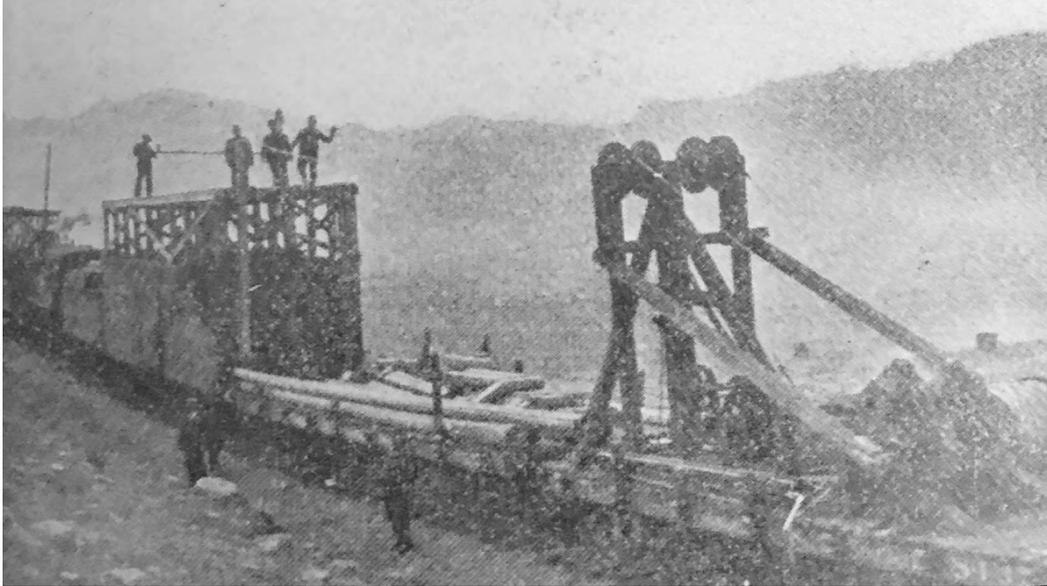


Figure 115. Crews stringing wire during the construction of the D&I.⁵⁴⁷

Part of the route between Denver and Boulder was a dual-gauge track that accommodated narrow-gauge cars of the Colorado & Northwestern. Other railroads also held agreements to operate on the trackage between Denver and Louisville. In an effort to minimize the already congested tracks in this area, the C&S determined to construct a separate standard-gauge track for the D&I, parallel to its existing trackage, between Modern Junction and Webb, approximately 2 miles south of Louisville. From Webb on to Boulder, the existing C&S trackage was electrified. At a point called Louisville Junction, the line to Boulder split. The southern approach to Boulder went through Marshall and the northern approach went through Louisville. From Louisville, the C&S built a separate extension to Lafayette where the Northern Colorado Power Company power plant was located.⁵⁴⁸

⁵⁴⁶ Jones and Holley, *The Kite Route*, 98.

⁵⁴⁷ Jones and Holley, *The Kite Route*, 13.

⁵⁴⁸ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:103.

The northern approach to Boulder passed through Boulder Junction, which was later named Ara and into downtown Boulder via Pearl Street. The D&I had a waiting room and ticket office at the rear of the First National Bank Building, although it would stop for waiting passengers at any Pearl Street corner.⁵⁴⁹ From here, the line utilized dual trackage with the street railway in Boulder and connected with the C&S's southern access to Boulder that traveled past the University of Colorado campus.⁵⁵⁰

The D&I selected the Westinghouse Electric proposal for electrification, which relied on the use of a single-phase alternating current, a new technology for interurban streetcars. Most electric streetcar companies felt this arrangement was unreliable, but the D&I determined alternating current was preferable on the long expanses between the cities because it required fewer boosting locations along the line and therefore cost less to construct.⁵⁵¹ Within the cities, however, it used the direct current (DC) voltage already utilized by those street railway companies. The line was rare in that it utilized both alternating current (AC) and DC. In order to transfer the current from alternating to direct in Boulder, a substation was built near the C&S crossing at 12th Street where voltage was converted from 11,000 volts AC to 600 volts DC (see Figure 116).⁵⁵² D&I cars were equipped with both a trolley pole that collected the DC current in Denver and Boulder and a pantograph that collected the AC current along the main line between the two cities.⁵⁵³ Williams H. Edmunds was the representative selected by Westinghouse to install the system. He ultimately stayed and became the general foreman for the D&I and worked his way up to electrical engineer, trainmaster, and general manger before ultimately being appointed as receiver of the company twice when future financial problems would arise.⁵⁵⁴

⁵⁴⁹ Silvia Pettem, *Tracking Down Boulder, Colorado's Railroads* (prepared for the Boulder Historic Context Project, 1996), 45.

⁵⁵⁰ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:103.

⁵⁵¹ Jones and Holley, *The Kite Route*, 90.

⁵⁵² Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:106.

⁵⁵³ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:109.

⁵⁵⁴ Jones and Holley, *The Kite Route*, 58.

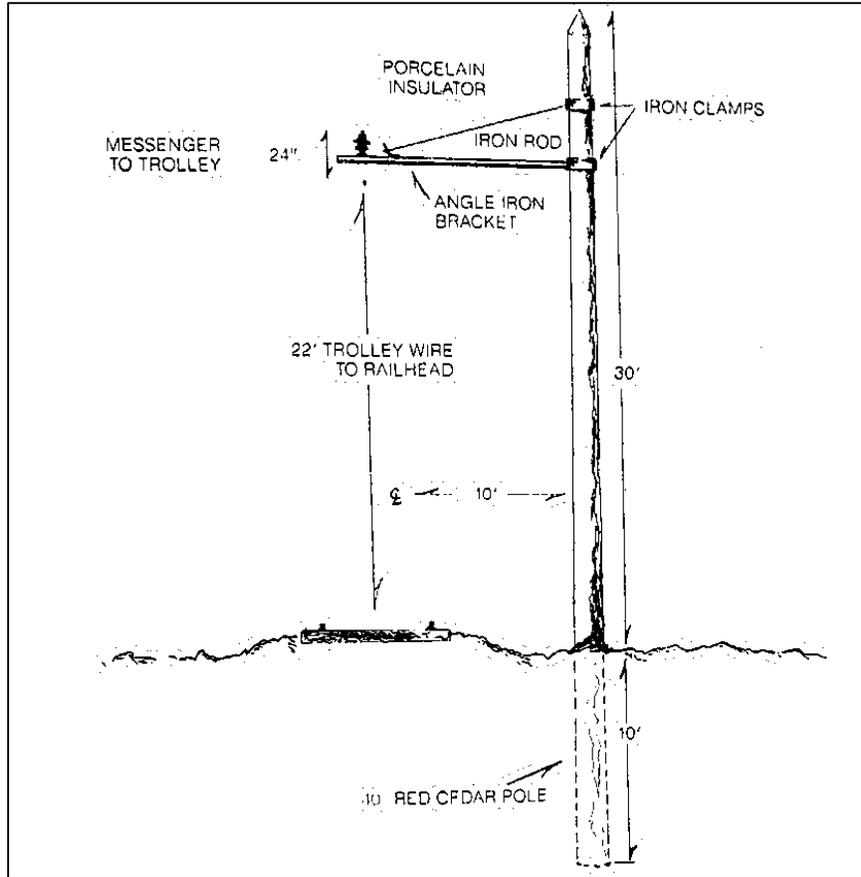


Figure 116. Catenary and pole line construction for alternating current portions of D&I.⁵⁵⁵

Within Denver, D&I cars were piloted by Tramway crews and did not stop for passengers except at the beginning of the route, which commenced at 16th and Arapahoe Streets, with a stop located at 23rd and Market Streets. The company utilized a rented house at 5126 North Washington Street in Globeville to serve as a ticket office and station of sorts where cars switched from direct to alternating current and D&I crews took over for the rest of the trip to Boulder.

Tramway crews began operating cars on the route from downtown Denver to Globeville on May 14, 1908. It was not until June 23, 1908, however, that full service on the interurban line from Denver to Boulder started (see Figure 117) . When service to Boulder began, the *Denver Post* noted that Boulder could now be considered a suburb of Denver.⁵⁵⁶ In 1910 the Denver terminus

⁵⁵⁵ Jones and Holley, *The Kite Route*, 77.

⁵⁵⁶ *Colorado State Register of Historic Places*, 10.

would change from 16th and Arapahoe Streets to the newly completed Interurban Loop at Arapahoe, 13th, Curtis, and 15th Streets. A trip took one hour, eleven minutes and cars alternated entrances to Boulder from the northern and southern routes. Patrons could travel the length from Denver to Boulder for 70 cents or \$1.25 for a round trip ticket. Discounted round trip fares of \$1 were available on Sundays.⁵⁵⁷ In addition to carrying passengers, the D&I carried four mail shipments each day.⁵⁵⁸ Most freight shipments, however, were left to the C&S operations.

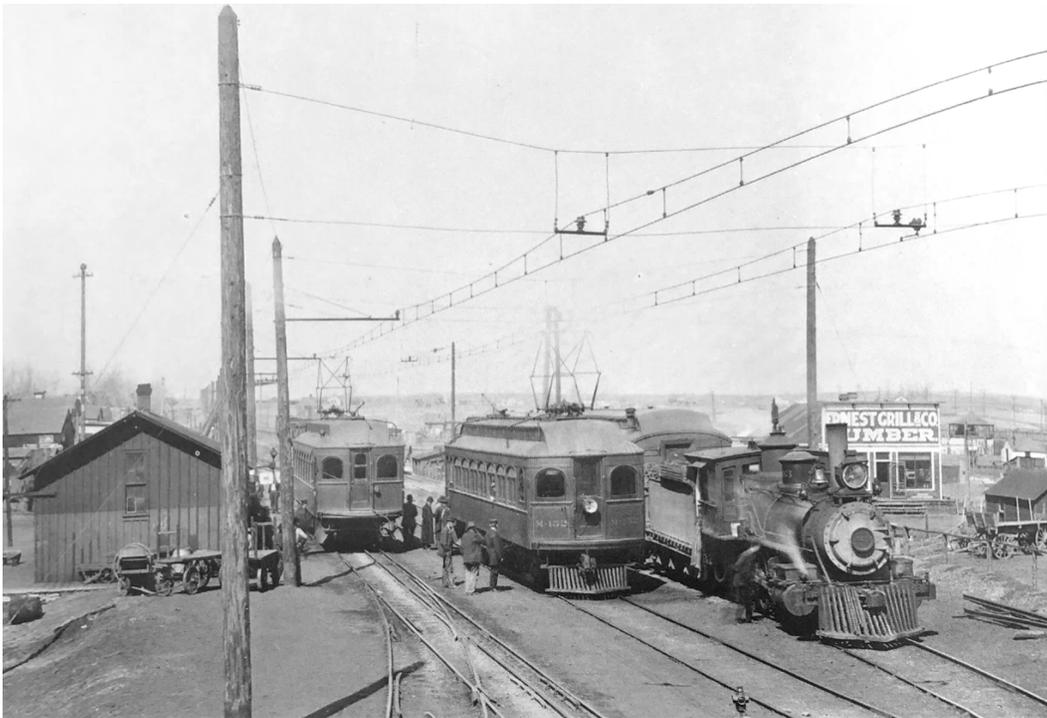


Figure 117. View in Louisville showing a Boulder-bound interurban on the left, a Denver-bound interurban in the middle, and a C&S steam locomotive on the right.⁵⁵⁹

In 1904, the popular resort community of Moffat Lakes, later renamed Eldorado Springs, was started around a hot spring swimming pool. Recognizing the potential connection with the D&I, a group of investors established the Eldorado Springs Railway and constructed a standard-gauge

⁵⁵⁷ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:106–9.

⁵⁵⁸ Pettem, *Tracking Down Boulder, Colorado's Railroads*, 43–44.

⁵⁵⁹ Jones and Holley, *The Kite Route*, 40.

track from Marshall to the resort community in 1906. The company used two automobiles retrofitted with railroad wheels to move passengers along the small route (see Figure 118). Aware of the business the little line brought in and the potential to capitalize on pleasure travelers, the D&I purchased the line and electrified it in 1908.⁵⁶⁰ The investment in the line to Eldorado Springs proved wise. As many as two thousand people rode the interurban on summer weekends to the resort (see Figure 119 and Figure 120).⁵⁶¹

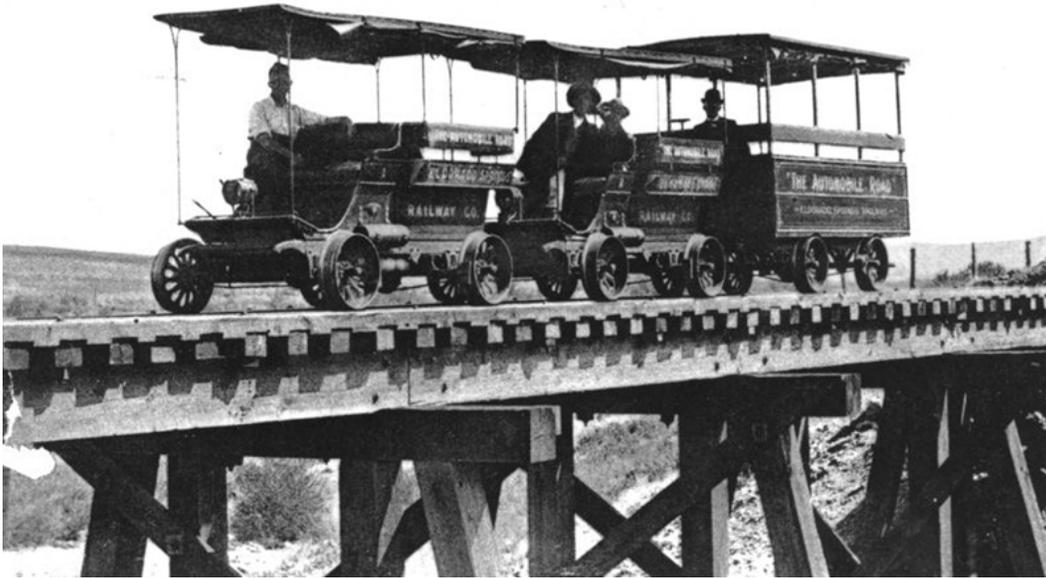


Figure 118. Eldorado Springs Railway Company car on route between Marshall and C&S line, c.1906.⁵⁶²

⁵⁶⁰ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:112.

⁵⁶¹ Jones and Holley, *The Kite Route*, 30.

⁵⁶² "Eldorado Springs: Railroad: Photo- 1," 1916 1906, Eldorado Springs Historical Society photograph collection, Call Number 701-1-1, Boulder Carnegie Library.

ELDORADO SPRINGS

How to Get There

The trip to Eldorado Springs—short as it is—is a delight in itself. Modern, large, well-ventilated electric coaches are operated via The Denver & Interurban Railroad, over well-balasted roadbed without the dirt of smoke or cinders. The run is made from Denver in sixty-five minutes and from Boulder in forty-five minutes.

FROM DENVER

Trains leave Denver Union Station.

Daily—9:00 a. m., 11:00 a. m., 3:00 p. m., 5:00 p. m., and 9:20 p. m.

Special through trains operated on Saturdays and Sundays. For particulars, inquire at ticket office.

Fares—Daily round trip fare, week days, \$1.58.

Sundays only, \$1.45.

Family 25-ride commutation ticket, limit 90 days, \$15.40. Fifty-ride, \$27.30.

MAP OF THE DENVER & INTERURBAN R.R.

THE "KITE ROUTE"

ELDORADO SPRINGS

The D.-I. Electric line makes Eldorado Springs the only resort where the business man can reside in summer and commute with Denver.

FROM BOULDER

Trains leave Union Station.

Daily—9:30 a. m., 1:30 p. m., 3:30 p. m., 5:30 p. m., 7:30 p. m. and 9:50 p. m.

Fares—Daily round trip fare, 54c; limit 15 days from date of sale.

Family 25-ride commutation ticket, limit 90 days, \$5.16. Fifty-ride, \$9.03.

Boulder Ticket Office
Union Station
J. W. Wright, Ticket Agent

H. A. JOHNSON, Traffic Manager
Denver, Colorado

ELDORADO SPRINGS

Figure 119. Image from Eldorado Springs advertising brochure⁵⁶³



Figure 120. D&I car beside the Eldorado Springs depot, c.1916.⁵⁶⁴

⁵⁶³ “Eldorado Springs Advertising: Photo 9,” 1916 1906, Eldorado Springs Historical Society photograph collection, Call Number 701-1-20, Boulder Carnegie Library.

⁵⁶⁴ “Eldorado Springs: Railroad Photo- 4,” n.d., Eldorado Springs Historical Society photograph collection, Call Number 701-1-1, Boulder Carnegie Library.

The Chicago, Burlington & Quincy Railroad purchased the C&S in 1908 and had no interest in constructing interurban lines. This marked the end of the vision to connect Boulder to Fort Collins by way of an electric interurban. Little growth or expansion of the line occurred from this point forward. A 1.8-mile-long, short-lived branch line was built to Westminster College in 1910, but was only operated for three years when school was in session.⁵⁶⁵

In the summer of 1917 the City of Denver condemned the 23rd Street viaduct because of safety concerns. While the structure was being rebuilt, the D&I terminated at Union Station via C&S steam locomotives that towed the D&I cars.⁵⁶⁶ After the new viaduct was completed, D&I cars again returned to Denver via Globeville. By 1917 the company's finances were not doing well, and they were no longer interested in running on Boulder's city streets as the heavy interurban cars were damaging the rails. Each time the rails were damaged, the company had to pay to have the rails replaced and the street repaved. The company also felt they could save costs by no longer paying the franchise fee to Boulder and instead moved their terminus to the C&S Boulder Depot (see Figure 121 and Figure 123).⁵⁶⁷ From then on, C&S steam locomotives towed D&I cars within Boulder and the D&I turned their operation over to Boulder's street railway system.⁵⁶⁸

⁵⁶⁵ Jones and Holley, *The Kite Route*, 10–35.

⁵⁶⁶ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:115.

⁵⁶⁷ Jones and Holley, *The Kite Route*, 99.

⁵⁶⁸ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:116.

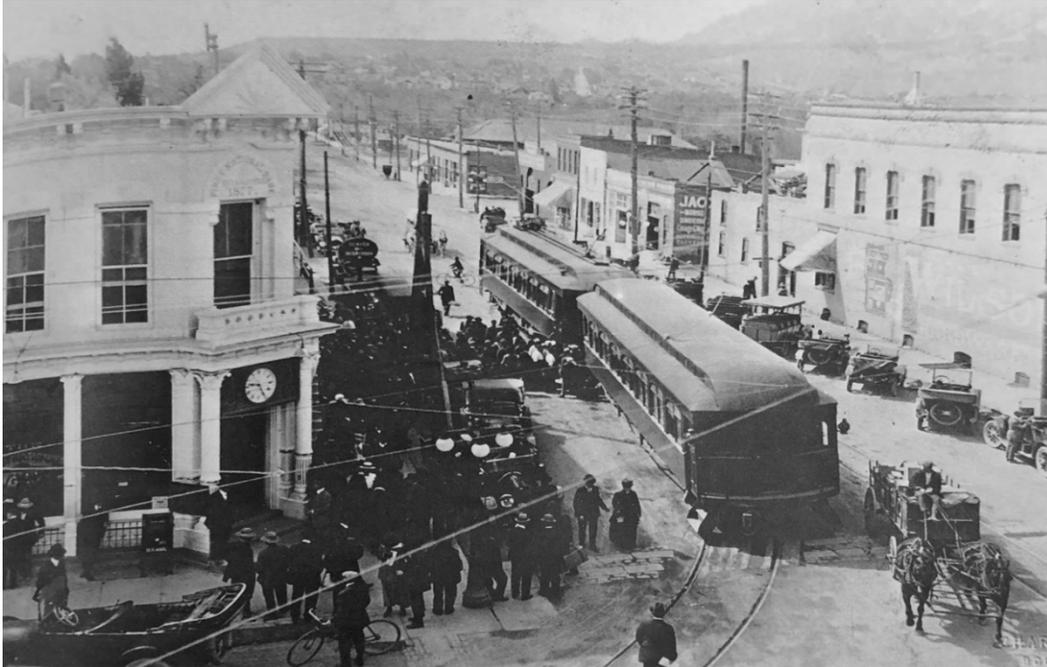


Figure 121. View of D&I car on Pearl Street in Boulder, before moving their terminus to the C&S station.⁵⁶⁹

Despite promises for large returns by local real estate investors along the route, the development grew slowly between Denver and Boulder.⁵⁷⁰ The sparsely populated area offered fewer paying riders than anticipated, although trips to Eldorado Springs were very popular.⁵⁷¹ In addition, the D&I was determined a non-essential railroad by the United States Railroad Administration during World War I, and as a result, lacked the financial support of its parent company. The company had borrowed money from its parent company, the C&S, for years, and it owed the C&S a reported \$820,828. The D&I also owed money to a list of other creditors.⁵⁷² In its 10 years of operation, the company had never generated a profit, and in June 1918 it was placed in receivership. It abandoned the isolated Fort Collins system, which was ultimately sold to the City. The D&I trimmed the number of round trips from Denver to Boulder from 16 to 13 in 1920

⁵⁶⁹ Jones and Holley, *The Kite Route*, 99.

⁵⁷⁰ Jones and Holley, *The Kite Route*, 20.

⁵⁷¹ Forrest and Albi, *Denver's Railroads*, 229.

⁵⁷² Jones and Holley, *The Kite Route*, 145.

in an effort to cut costs and got creative in its attempts to generate additional riders.⁵⁷³ The D&I ran special trains to Boulder for football games, and partnered with local automobile drivers to offer extended tours beyond the limits of the interurban rails. Drivers extended the passenger tours out to the mountain communities of Estes Park and Nederland and beyond.⁵⁷⁴

The company's troubles worsened in the early 1920s. On September 6, 1920, when two D&I cars crowded with Labor Day weekend travelers collided outside of Globeville, resulting in "the worst accident in the history of electric railroads in Colorado" (see Figure 122).⁵⁷⁵ The wreck, caused by crew miscommunication, killed 13 people, injured more than 100, and worsened the company's financial standing. The company had seen its peak number of fares in 1910 with 666,287 riders. By 1921 and 1922 that number had dropped to a half million riders annually.⁵⁷⁶ The company decided it could save money by abandoning the Globeville entrance and operating solely on C&S trackage into Union Station, like it did during the 23rd Street viaduct closure previously. In order to do this, the D&I constructed a new shop on Fox Street. It also removed the now unnecessary direct current equipment from its cars. On September 24, 1922, D&I cars began operating on the new permanent route in and out of Union Station. By January 1923 the Tramway converted the standard-gauge tracks to Globeville to the narrow gauge used in the rest of the system.⁵⁷⁷

⁵⁷³ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:116.

⁵⁷⁴ Pettem, *Tracking Down Boulder, Colorado's Railroads*, 46; Smith, *A History of Boulder's Transportation, 1858-1984*, 8.

⁵⁷⁵ "Interurban Railroad Crash in 1920," September 6, 1964, The Denver & Interurban Railroad, Clippings, 1907-1980, Call # BHS 528 B196 F27, Boulder Carnegie Library.

⁵⁷⁶ *Colorado State Register of Historic Places*, 10.

⁵⁷⁷ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:108-59.



Figure 122. Mangled interurban cars after the Globeville wreck.⁵⁷⁸

The company was beginning to operate at a profit; however, automobile ownership and bus ridership was increasing. The C&S decided to start its own Denver & Interurban Motor Company to operate a bus line between Denver and Boulder. In August 1926 the D&I was again placed in receivership and ultimately ceased operations on December 15, 1926. The Denver & Interurban Motor Company took over the role of transporting riders between Denver and Boulder.⁵⁷⁹ All of the D&I's equipment, materials, and property were sold for \$88,850.⁵⁸⁰

⁵⁷⁸ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:117.

⁵⁷⁹ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:120.

⁵⁸⁰ "Interurban (Railroads)," n.d., *The Denver & Interurban Railroad, Clippings, 1907-1980*, Call # BHS 528 B196 F27, Boulder Carnegie Library.

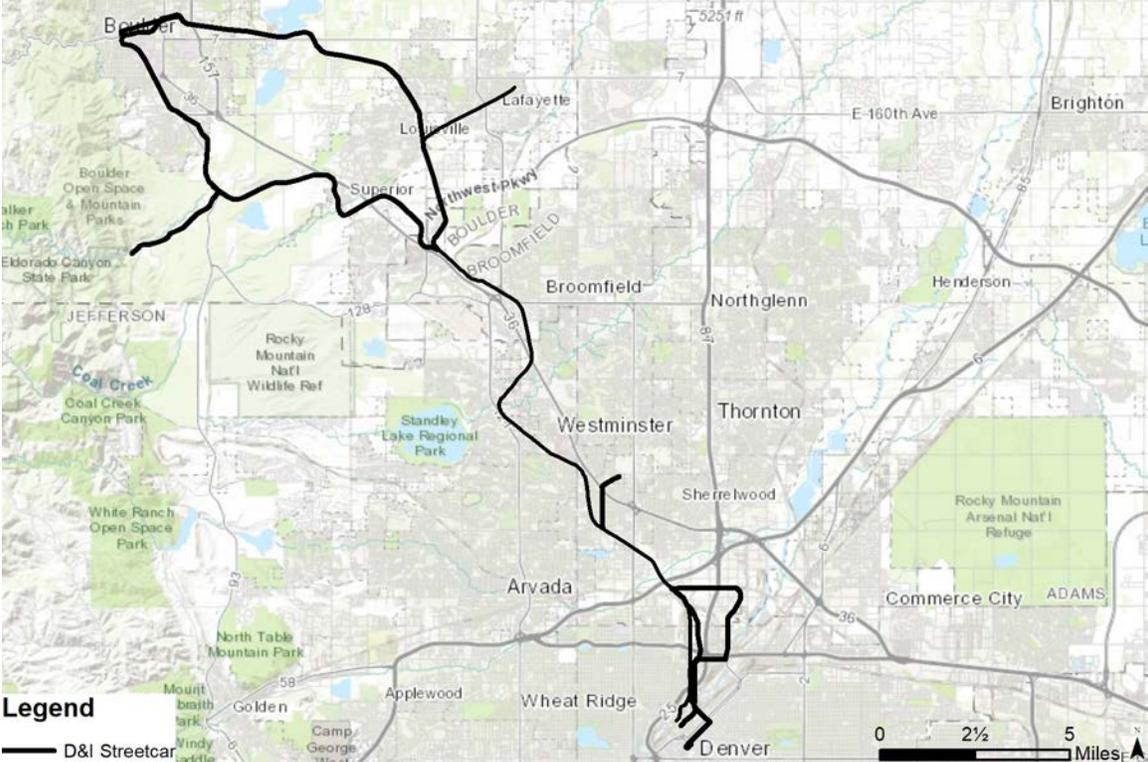


Figure 123. Map of D&I route.

F. Durango

Table 10. Streetcar companies operating in Durango

Company Name	Years of Existence/Operation	Mode of Transport
Durango City & Suburban Railway Co.	1891-1892	Horsecar, Narrow Gauge
Durango Railway & Realty Company	1893-1920	Electric, Standard Gauge

In 1878 the community of Animas City was incorporated near the Animas River in southwest Colorado. In 1879-1880 the potential for future growth seemed assured when the Denver & Rio Grande (D&RG) Railroad announced plans to build a line along the Animas Valley en route to Silverton. However, the D&RG ultimately bypassed Animas City in favor of establishing a new town of Durango to the south of the existing community.⁵⁸¹

By the end of 1879 several individuals associated with the D&RG, including the railroad’s patriarch William Jackson Palmer, organized the Durango Trust. The trust quickly set about purchasing land, and by September 1880 had started surveying the new town. The railroad arrived in 1881 and the community grew rapidly. The town soon expanded to the north, into an area known as the Fassbinder Addition, which was not owned by the trust. In 1884 the Durango Trust transferred the property to a new entity, the Durango Land and Coal Company, and later opened another addition near the Fassbinder Addition called Sunnyside.⁵⁸²

Early attempts at streetcar service in Durango failed. In 1891 a group of locals established the Durango City & Suburban Railway Company (DC&S). This company provided horsecar service along Main Avenue from the railroad depot north to the Animas River. The DC&S started operations by August 1891.⁵⁸³ The horsecars ran on 30-pound T-rails set at a 3-foot-gauge.⁵⁸⁴

⁵⁸¹ Duane A. Smith, *Rocky Mountain Boom Town A History of Durango* (Albuquerque, NM: University of New Mexico Press, 1980), 7.

⁵⁸² Smith, *Rocky Mountain Boom Town A History of Durango*, 8–26.

⁵⁸³ Smith, *Rocky Mountain Boom Town A History of Durango*, 26; McLeod, “Durango’s Trolley, Ver. 2.”

⁵⁸⁴ McLeod, “Durango’s Trolley, Ver. 2.”

The company was short lived, however, and the Durango Railway and Realty Company (DR&R) took it over the following year (see Figure 124).



Figure 124. Horsecar shown traveling down Main Avenue in Durango near the Strater Hotel.⁵⁸⁵

A group of real estate investors interested in developing an electric streetcar system incorporated the DR&R on July 13, 1892.⁵⁸⁶ The DR&R intended to provide the convenience of streetcars to prospective buyers of the company's land between Durango and Animas City. The Durango Land and Coal Company, which also had an interest in the extension of streetcar service to its own additions, purchased 330 shares in the DR&R.⁵⁸⁷ The DR&R obtained a franchise from the City of Durango and took over operations of the failed DC&S in 1892.

⁵⁸⁵ Fletcher, *Centennial State Trolleys*, 99.

⁵⁸⁶ McLeod, "Durango's Trolley, Ver. 2."

⁵⁸⁷ Smith, *Rocky Mountain Boom Town A History of Durango*, 26–75.

The DR&R saw an opportunity to extend service to its real estate holdings in an area north of the city known as Brookside.⁵⁸⁸ During the first year of ownership the company quickly set about electrifying and extending the line, and it appears the line was changed to standard gauge at this time as well. The company eventually acquired power from a new powerhouse constructed along the river at 14th Street.⁵⁸⁹ The streetcars operated every 20 minutes and riders could traverse the length of the entire line, from the railroad depot, across the Animas River, and on to approximately 24th Street and Main Avenue for five cents (see Figure 125).⁵⁹⁰ With visions to expand the line further, the company worked to get an ordinance passed in Animas City; however, a franchise agreement with Animas City was not drafted until 1895.⁵⁹¹

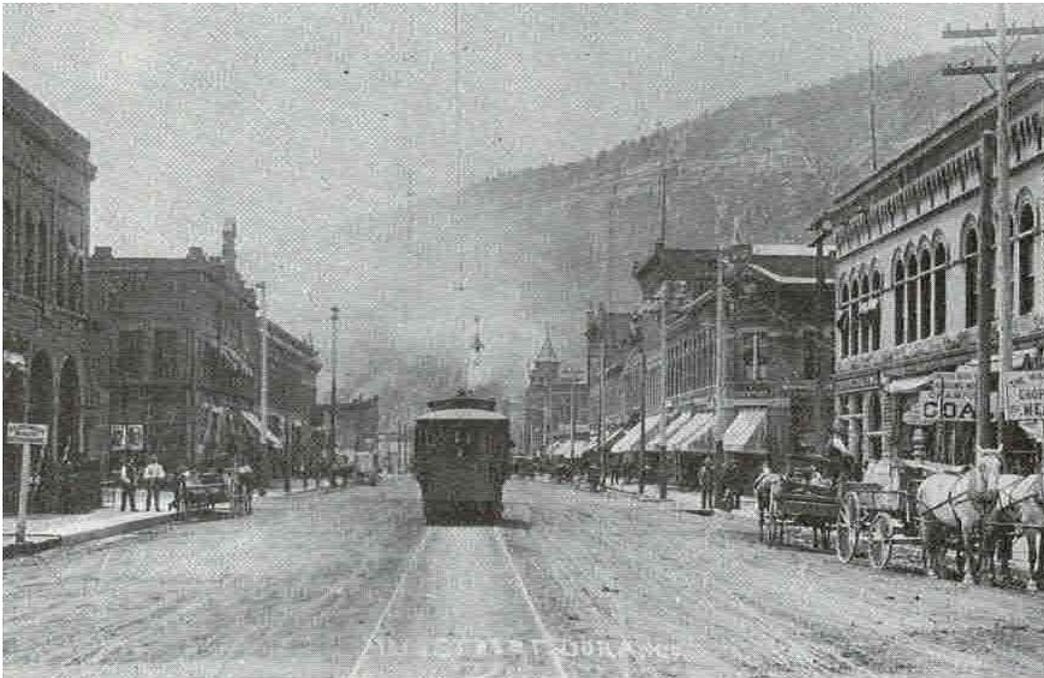


Figure 125. Electric streetcar on Main Avenue in Durango.⁵⁹²

⁵⁸⁸ McGraw Publishing Company, “Durango,” *American Street Railway Investments*, 1909, 30.

⁵⁸⁹ McLeod, “Durango’s Trolley, Ver. 2.”

⁵⁹⁰ Feitz, *Colorado Trolleys*, 54; “Durango’s Electric Street Car History 1890’s |.”

⁵⁹¹ McLeod, “Durango’s Trolley, Ver. 2.”

⁵⁹² Feitz, *Colorado Trolleys*, 54.

The DR&R also provided access to the company-owned fairgrounds, as well as Brookside Park and Animas Park.⁵⁹³ Residents frequently rode the streetcar on weekend excursions. The D&RR was one of many streetcar companies across the county that invested in amusement parks and recreational activities in the outlying city areas. Streetcar patrons were encouraged to visit Brookside Park to watch free movies, and the company purchased steel rowboats for use at Animas Park.⁵⁹⁴ The company made other substantial investments to the park, including refreshment stands, boat houses, and summer houses, all completed with the goal of increasing revenue by enticing more visitors to the park.⁵⁹⁵

The company finally approved the extension into Animas City in 1904, almost 10 years after the initial ordinance was granted by Animas City (see Figure 126).⁵⁹⁶ With the extension the entire length of the streetcar system was approximately 2.5 miles, allegedly one of the smallest electric street railways in the country (see Figure 127).⁵⁹⁷

In 1906 the DR&R posted a net income of \$1,509, growing marginally to \$2,159 in 1908.⁵⁹⁸ Significant financial trouble was on the horizon, and in 1916 the company was forced to sell the county a 40-acre parcel which included the private fair grounds and which then became the La Plata County Fairgrounds. One account of the company notes that stockholders were asked to contribute \$5 per share to help buoy the struggling line.⁵⁹⁹

Despite the various efforts to keep the line profitable, and predictions that the streetcar service would be “one of the best paying enterprises in the city,” it never produced major profits.⁶⁰⁰ After attempts to sell the line to the city and multiple applications to the Public Utilities

⁵⁹³ McGraw Publishing Company, “Durango,” 30.

⁵⁹⁴ “Street Railway Company,” 3; “Durango’s Electric Street Car History 1890’s |.”

⁵⁹⁵ “Durango’s Electric Street Car History 1890’s |.”

⁵⁹⁶ McLeod, “Durango’s Trolley, Ver. 2.”

⁵⁹⁷ “Durango’s Electric Street Car History 1890’s |.”

⁵⁹⁸ McGraw Publishing Company, “Durango,” 30.

⁵⁹⁹ McLeod, “Durango’s Trolley, Ver. 2.”

⁶⁰⁰ McLeod, “Durango’s Trolley, Ver. 2.”

Commission of Colorado to cease operations, Durango's streetcars stopped running in October 1920.⁶⁰¹ The line operated at a deficit of \$2,972.42 in its final year.⁶⁰² The Durango City Attorney requested that the company remove the tracks along Main Street. The company complied and tracks were removed in April 1921.⁶⁰³



Figure 126. Streetcar shown on Main Avenue in Durango, in front of the Newman Building at 8th Street.⁶⁰⁴

⁶⁰¹ McLeod, "Durango's Trolley, Ver. 2."

⁶⁰² State of Colorado, *Eighth and Ninth Annual Reports of the Public Utilities Commission of the State of Colorado* (Denver: Hames Brothers Printers, 1923), 114.

⁶⁰³ McLeod, "Durango's Trolley, Ver. 2."

⁶⁰⁴ "Electric Streetcar in Front of Newman Building," n.d., Historic Photographs, 5502PH, City of Durango Records Management.

G. Englewood

Table 11. Streetcar companies operating in Englewood

Company Name	Years of Existence/Operation	Mode of Transport
Cherrelyn Gravity & Bronco Railroad	c.1892-1910	Horsecar, Narrow Gauge
Loretto Heights Railway Company/ Fort Logan Street Railway	1898-1901	Horsecar, Unknown Gauge

In 1864 Thomas Skerrit, the “Father of Englewood,” claimed a 640-acre homestead south of Denver. Much of Skerrit’s land was eventually sold off to land speculators and settlers. A few hamlets emerged on Skerrit’s former claim, including Petersburg, Cherrelyn, and Orchard Place; Cherrelyn and Orchard Place later merged into the city of Englewood in 1903. The residents of these small communities traveled to the larger city of Denver to the north on a steam rail line that served multiple railroad companies. They also utilized the old Santa Fe Trail until Broadway, now the major north-south thoroughfare in the area, was established. At this same time Denver was growing and expanding to the south. At the end of 1889 electric streetcar service on South Broadway reached Alameda Avenue and then Orchard Place (Hampden Avenue). The Denver Tramway eventually developed a loop at the southeast corner of Broadway and Hampden Avenue and sought to extend the line with a direct connection to Cherrelyn.⁶⁰⁵

The history of the famous Cherrelyn horsecar line that spanned eight blocks down Broadway in Englewood is cloudy. Some accounts claim that tracks for the line were laid in 1883 by the Southside Investment Company. However, that company abandoned its efforts to build a streetcar line in 1892, at which point M.C. Bogue took over ownership and operations.⁶⁰⁶ No information on the Southside Investment Company could be found in the historical record. One source states that a man named Kountze, a banker from Denver involved with the Broadway Investment

⁶⁰⁵ Englewood Historical Society, *A History of Englewood, Colorado and An Overview of Fort Logan Colorado*, 106.

⁶⁰⁶ “The Cherrelyn Gravity and Bronco Street Railway,” accessed June 5, 2019, <http://www.rrstuff.net/cherrelynpage1.htm>.

Company, identified the need for a streetcar system to link to its new potential development south of Denver.⁶⁰⁷ The authors of *Denver's Street Railways, Vol. I* state that Bogue took over a South Denver Cable Railway franchise for the portion south of Hampden Avenue to Cherrelyn and established a horsecar service; however, the franchise for the South Denver Cable Railway Company from Arapahoe County extended on Broadway to Hampden, which would have stopped north of the Cherrelyn route.⁶⁰⁸ Other sources claim it was John Bogue, who may have been related to M.C. Bogue, who controlled the line and that it opened in 1894 (see Figure 128).⁶⁰⁹

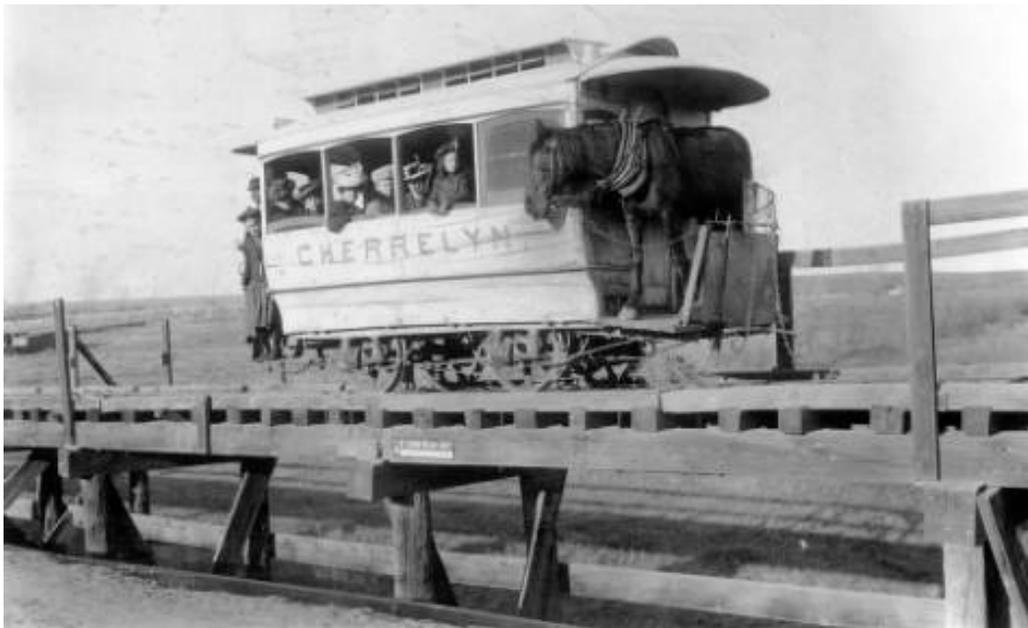


Figure 128. The Cherrelyn horsecar seen with the horse traveling on the rear platform, c.1905.⁶¹⁰

⁶⁰⁷ Doug Cohn, “The Cherrelyn Gravity and Bronco Railroad,” *Englewood Historic Preservation Society Newsletter Vol. 7 No. 1*, September 2018, <http://www.historicenglewood.com/wp-content/uploads/2013/01/Englewood-Newsletter-v7no1.pdf>.

⁶⁰⁸ Denver City Tramway Company, *Ordinances of the City of Denver and Adjoining Towns and Cities, Granting Franchises for and Affecting the Operation of the Street Railways Owned by the Denver City Tramway Company* (Denver, 1899); Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:183.

⁶⁰⁹ Englewood Historical Society, *A History of Englewood, Colorado and An Overview of Fort Logan Colorado*, 103.

⁶¹⁰ “Cherrelyn Horse Car,” c.1900 -1905, Call # X-6873, Denver Public Library Western History Collection.

Regardless of its impetus, the Cherrelyn Gravity & Bronco Railroad became a popular tourist attraction in Englewood. The unique horsecar line used a gravity system in which a horse pulled the streetcar uphill from Hampden Avenue to a small business district on Quincy Avenue. The horse then used a dirt ramp at Quincy Avenue to board a platform affixed to the end of the modified streetcar and rode along with the patrons for the downhill trip back down to Hampden Avenue (see Figure 129 and Figure 132). The uphill ride took approximately 15 minutes while the speedy trip downhill took just three.⁶¹¹



Figure 129. Mr. John Bogue poses with the horse that is standing on the platform of the Cherrelyn horsecar.⁶¹²

Visitors from Denver and the surrounding area often took the Tramway electric line south to experience the famed Cherrelyn line. The tramway even offered reduced tickets for tramway

⁶¹¹ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:287.

⁶¹² "Mrs. Bogue and Markus," 1903, Call # X-6891, Denver Public Library Western History Collection.

passengers to ride the Cherrelyn line. While the horsecar line itself, with its five-cent fare, was not all that profitable, souvenir photographs provided supplemental income.⁶¹³ Some sources claim that James O'Brien, a longtime driver for the line, became the owner of the line starting in 1903. However, a newspaper article from 1906 states that a Mrs. George H. Bogue of Denver owned the line.⁶¹⁴ In addition to the gravity-powered nature of the line, its female ownership was also a rare occurrence at the time, if true.

The line was sold in 1908 to the Colorado Land Company. The year prior, in 1907, the Denver & South Platte Railway constructed an electric line along South Broadway from Englewood to Littleton. The electric service, which ran parallel to the Cherrelyn trackage, may have deterred business from the horsecar line and contributed to its decline. The Colorado Land Company retained ownership for only a couple years before it refused to make repairs to the line and Arapahoe County declined to renew the franchise. The tracks were subsequently removed.⁶¹⁵ When the line ceased operations in 1910, it held the distinction of being the last operating horsecar in the Denver metropolitan area.⁶¹⁶

Another street railway operated in the Englewood area at the same time. When the Denver & Santa Fe Railway ceased operations of the former Circle Railroad that provided access to south Denver, there was no longer a means for students and faculty of the Loretto Heights Academy, located at West Dartmouth Avenue and South Federal Boulevard, to reach school. Loretto Heights Academy was founded by the Sisters of Loretto as a girls' boarding school. Reverend Thomas H. Malone, an influential member of the Archdiocese of Denver, set out to create his own streetcar line to ensure continued access to the school.

Malone, among others, incorporated the Loretto Heights Railway Co. (LHR) on July 22, 1897, with \$15,000. The company's purpose was to provide transportation to the Loretto Heights

⁶¹³ Englewood Historical Society, *A History of Englewood, Colorado and An Overview of Fort Logan Colorado*, 103.

⁶¹⁴ "Unique Street Railway," 10.

⁶¹⁵ Robertson, Cafky, and Haley, *Denver's Street Railways, Volume I 1871-1900*, I:288.

⁶¹⁶ Englewood Historical Society, *A History of Englewood, Colorado and An Overview of Fort Logan Colorado*, 103.

Academy along West Hampden Avenue, but the line also garnered business from its connection with Fort Logan, which ran from West Hampden Avenue south along south Lowell Boulevard to the military outpost (see Figure 130 and Figure 133). Initial plans showed that the line was intended to be electrified; however, those never came to fruition.⁶¹⁷



Figure 130. The horsecar of the LHR with “Fort Logan” labeled on the side of the car.⁶¹⁸

The company ran into delays negotiating a crossing with the Atchison, Topeka & Santa Fe and the Denver & Rio Grande Railroad tracks.⁶¹⁹ Eventually, the Loretto Heights Street Railway decided to leave a break in the tracks on either side of the major rail lines. At the crossing, patrons disembarked the streetcar, walked across the tracks, and boarded another streetcar waiting at the other side. The track was completed with a total distance of approximately 3.6

⁶¹⁷ Hutcheson and Hutcheson, “Transportation in Sheridan.”

⁶¹⁸ “Fort Logan, Colorado,” c.1910, Call # X-8479, Denver Public Library Western History Collection.

⁶¹⁹ “Guarding the Crossing,” *Littleton Independent*, September 30, 1898, 1.

miles (see Figure 131).⁶²⁰ Its tenure, however, was short-lived. In 1901 the county attempted to tax the line for \$7,500, a sum Father Malone did not have. The line was subsequently abandoned and the tracks removed.⁶²¹



Figure 131. LHR tracks visible traveling through the trees on the right.⁶²² (Image from the Collection of the Littleton Museum. May not be reproduced in any form without permission of the Littleton Museum.)

⁶²⁰ Smiley, *History of Denver*, 870.

⁶²¹ Hutcheson and Hutcheson, "Transportation in Sheridan."

⁶²² "Tracks at Right Are Part of the 'Fort Logan Street Railway,'" n.d., Call # PHOT.00644, Littleton Museum.



Figure 132. Map of the Cherrelyn Gravity & Bronco horsecar line.



Figure 133. Map of the Loretto Heights Railway Co. streetcar line.

H. Fort Collins

Table 12. Streetcar companies operating in Fort Collins

Company Name	Years of Existence/Operation	Mode of Transport
Denver & Interurban Railroad Company	1906-1918	Electric
Fort Collins Municipal Railway	1918-1952	Electric

Fort Collins was one of many agricultural colonies established in northern Colorado in the late nineteenth century. The townsite was originally the location of Camp Collins, a small and short-lived army outpost established in 1864 to protect settlers and mail routes that was abandoned in 1866. Inspired by the success of the nearby communal Union Colony at Greeley, the Fort Collins Agricultural Colony purchased the land surrounding the Camp Collins site and established the town of Fort Collins in 1872. More an attempt at land speculation than a communal colony, the Fort Collins Agricultural Colony sold lots within and outside of the town limits and built an irrigation network to attract settlers. In 1877 the Colorado Central Railroad (CC) built a line through Fort Collins that connected local farmers with markets in Denver and Cheyenne and the state legislature established the Colorado Agricultural College, currently Colorado State University, south of town in 1879. Local agriculture consisted of grain production and limited ranching through the 1880s and 1890s. At the turn of the century sugar beets became the primary cash crop throughout northern Colorado. A sugar beet factory was constructed on the northeastern outskirts of Fort Collins in 1903, which was purchased by the conglomerate Great Western Sugar Company in 1904. Fort Collins grew quickly in response to the rise in sugar beet production, including an influx of German-Russian and Mexican immigrants who lived near the Great Western factory, with its population increasing from 3,000 to 8,000 residents between 1900 and 1910.⁶²³

⁶²³ Abbot, Leonard, and Noel, *Colorado: A History of the Centennial State*, 76, 124, 159; Carl Ubbelohde, Maxin Benson, and Duane A. Smith, *A Colorado History*, Seventh (Boulder, Colo.: Pruett Publishing Company, 1995), 120, 259; Wyckoff, *Creating Colorado: The Making of a Western American Landscape, 1860-1940*, 129, 166; Jason Marmor, *Historical Contexts for the Old Fort Site, Fort Collins, Colorado, 1864-2002* (Prepared for The City of Fort Collins Advance Planning Department, June 2002), 13, 17, 25, 35.

During this period of growth the Denver & Interurban Railroad Company (D&I) built Fort Collins's first streetcar system. The Colorado & Southern Railroad (C&S) launched the D&I in 1904 with hopes of establishing an electric interurban system in northern Colorado connecting the small towns between Denver and Fort Collins, including Boulder, Longmont, and Loveland, among others. In addition to the interurban line, the D&I intended to complement the C&S main line, originally constructed by the CC, with local electric systems.⁶²⁴ The D&I began construction in Fort Collins because it was the largest town in the proposed system after Denver and Boulder, which already had their own local streetcars. The D&I secured a franchise from the City of Fort Collins (City) in 1906 and began construction in 1907 (see Figure 134).⁶²⁵

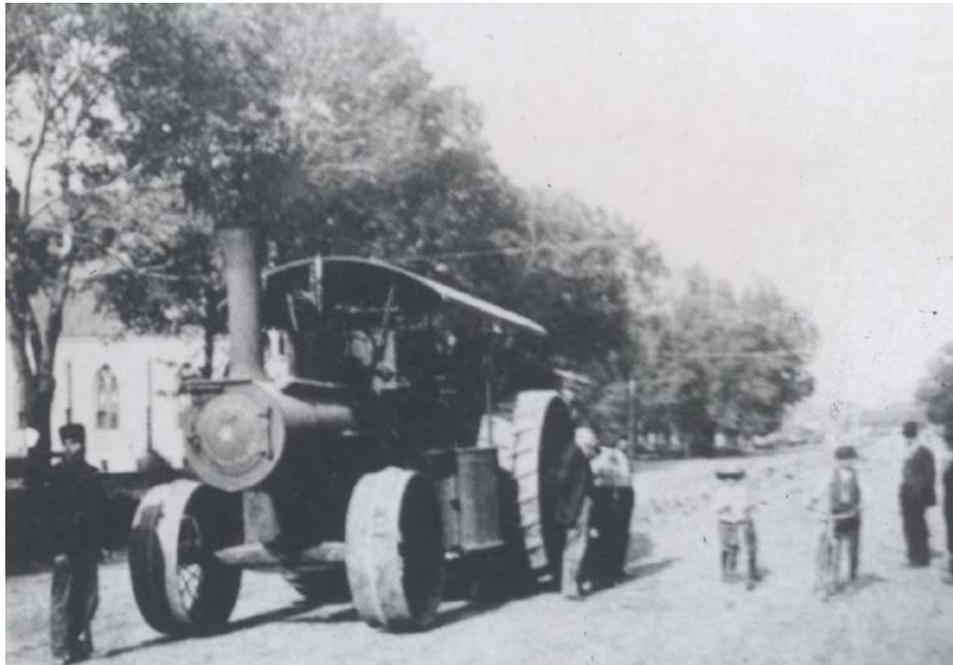


Figure 134. Grading the roadway for construction of the D&I streetcar lines, 1907.⁶²⁶

⁶²⁴ For more information on the Denver & Interurban Railroad Company, see Section 2.E.(5).

⁶²⁵ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:99–100; Kristin Gensmer and Eva Donkin, *The Tracks Beneath the Pavement: A Look at Changing Transportation Systems in Fort Collins, Colorado Through a Segment of the Fort Collins Municipal Railway* (Prepared by Centennial Archaeology LLC, 2018), 4; Peton, Moorman, and Jessen, *Trolley Cars of Fort Collins: Including "Last of the Birneys" and "Restoration of Car No. 21"*, Second Printing, 235.

⁶²⁶ "Building Trolley Car Line," 1907, Historic Photographs, H06239, Fort Collins History Connection.

The D&I initially built two main lines in town, centered at the intersection of College Avenue and Mountain Avenue, with single-tracked, standard-gauge rails (see Figure 135). A small loop on College Avenue, Jefferson Street, and Linden Street serviced the downtown core. This line was extended south along College Avenue to the Colorado Agricultural College campus, looping at Pitkin, Remington, and Elizabeth Streets. Another line followed Mountain Avenue between Peterson Street and Grandview Cemetery. The D&I built a large brick car barn and electrical substation at the corner of Howes Street and Cherry Street, and electricity was provided by the Northern Colorado Power Company (see Figure 136). Regular service in Fort Collins began on New Year's Day in 1908, and construction continued for the next two years. In 1908 a new line opened with service to the resort at Lindenmeier Lake, 2.5 miles northeast of downtown, where locals enjoyed picnics, boating, and other recreational activities (see Figure 137). In 1909 the company built an extension south from the east end of the Mountain Avenue line into the residential neighborhoods along Peterson Street and Whedbee Street, ending at Elizabeth Street.⁶²⁷



Figure 135. Two D&I streetcars entering the intersection of College Avenue and Mountain Avenue, c.1910.⁶²⁸

⁶²⁷ Fletcher, *Centennial State Trolleys*, 104; Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:100; Peton, Moorman, and Jessen, *Trolley Cars of Fort Collins: Including "Last of the Birneys" and "Restoration of Car No. 21"*, Second Printing, 204.

⁶²⁸ "Streetcars in Ft. Collins," c.1910, Historic Photographs, H06159, Fort Collins History Connection.



Figure 136. Car barn, originally constructed in 1907 by the D&I, at the intersection of Howes and Cherry Streets, c.1950.⁶²⁹



Figure 137. D&I streetcar on the Lindenmeier Lake line, 1911.⁶³⁰

In 1908 the Chicago, Burlington & Quincy Railroad (CB&Q) purchased the C&S, including a majority ownership of the D&I. The CB&Q continued operation of the D&I along the existing

⁶²⁹ "Ft. Collins Muni Rwy - Garage," 1951 1947, Digital Collections, X-10992, Denver Public Library.

⁶³⁰ "Jesse Beeler in Front of Streetcar, 1911," 1911, Historic Photographs, H01744, Fort Collins History Connection.

lines between Denver and Boulder and in Fort Collins. However, the CB&Q had no interest in expanding electric service and discontinued construction on the D&I network between Boulder and Fort Collins. The D&I failed to turn a profit, and the Fort Collins system continually operated at loss. Nonetheless, operations in Fort Collins continued. As automobiles became more popular across the country in the 1910s, streetcar ridership in Fort Collins, as in the rest of the state, dramatically declined. The D&I chose to modify its streetcars from two-man to one-man operations to save costs. In 1917 the Whedbee line was extended south to Edwards Street and east to join the College Avenue line, allowing one operator to serve the large loop on the south side of town.⁶³¹

In 1917 the D&I's financial situation dramatically worsened. That year the United States Railroad Administration took control over major railroads across the country, including the CB&Q, to support the war effort during World War I. The federal government determined the D&I to be nonessential and left the small company to operate on its own. Without support from the larger parent company, the D&I quickly ran out of funds and was forced into receivership in June 1918. The situation did not improve and streetcar service in Fort Collins was abruptly halted on July 10, 1918.⁶³²

Although the system had not been profitable, the local citizens who had become accustomed to the streetcars soon began calling for the City to take ownership of the defunct railway. In January 1919 voters approved a \$100,000 bond measure allowing the City to purchase and repair the D&I system. The City ultimately paid \$75,000 for the system, \$20,000 less than its value for parts alone. The City did not entirely rebuild the D&I's network but did replace rails where necessary and provide new overhead wires throughout the system. The Western Light & Power

⁶³¹ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:115–16; Peton, Moorman, and Jessen, *Trolley Cars of Fort Collins: Including "Last of the Birneys" and "Restoration of Car No. 21"*, *Second Printing*, 11, 242; Gensmer and Donkin, *The Tracks Beneath the Pavement: A Look at Changing Transportation Systems in Fort Collins, Colorado Through a Segment of the Fort Collins Municipal Railway*, 5.

⁶³² Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*, 3:116; Peton, Moorman, and Jessen, *Trolley Cars of Fort Collins: Including "Last of the Birneys" and "Restoration of Car No. 21"*, *Second Printing*, 245, 247; Gensmer and Donkin, *The Tracks Beneath the Pavement: A Look at Changing Transportation Systems in Fort Collins, Colorado Through a Segment of the Fort Collins Municipal Railway*, 5.

Company was contracted to provide electrical power. The D&I's streetcars were sold to an Oklahoma company and replaced with a fleet of four new Birney cars. With new equipment and refurbished tracks, the City established the Fort Collins Municipal Railway (FCMR) and streetcar service resumed throughout Fort Collins in the summer of 1919.⁶³³

The FCMR replicated the D&I service, but with a few minor alterations. The new company developed an effective solution to maintain regular service on the single-tracked network with no passing sections. Every 20 minutes three cars met at the wye at College Avenue and Mountain Avenue to load passengers before departing simultaneously in separate directions (see Figure 138). Soon after the FCMR resumed service, it dismantled the least profitable line out to Lindenmeier Lake and used the tracks to construct a loop through City Park at the end of the Mountain Avenue line (see Figure 139). In 1920 tracks were removed from Vine Street between the Great Western factory and Anderson Corner (North Lemay Avenue and East Vine Street), which had served the small immigrant neighborhoods of Andersonville and Alta Vista. A new spur was constructed from Linden Street to the entrance of the sugar beet factory, but this too was abandoned in 1923 (see Figure 140 and Figure 144). The final change to the system occurred in 1925, when the City paved Pitkin Street at the southern end of the system. To improve timing, the tracks on Pitkin Street and Whedbee Street were extended and joined, and the old loop on Remington Street was abandoned.⁶³⁴

⁶³³ Robertson and Forrest, *Denver's Street Railways Vol. 3 The Interurbans*; Peton, Moorman, and Jessen, *Trolley Cars of Fort Collins: Including "Last of the Birneys" and "Restoration of Car No. 21"*, Second Printing, 251–52; Gensmer and Donkin, *The Tracks Beneath the Pavement: A Look at Changing Transportation Systems in Fort Collins, Colorado Through a Segment of the Fort Collins Municipal Railway*, 6; Fletcher, *Centennial State Trolleys*, 106; Feitz, *Colorado Trolleys*, 39.

⁶³⁴ Feitz, *Colorado Trolleys*, 39; Gensmer and Donkin, *The Tracks Beneath the Pavement: A Look at Changing Transportation Systems in Fort Collins, Colorado Through a Segment of the Fort Collins Municipal Railway*, 6; Peton, Moorman, and Jessen, *Trolley Cars of Fort Collins: Including "Last of the Birneys" and "Restoration of Car No. 21"*, Second Printing, 16–17, 255.



Figure 138. Three FCMR Birney cars meeting at the intersection of College Avenue and Mountain Avenue, 1948.⁶³⁵



Figure 139. FCMR Car 21 picks up passengers on the City Park loop, 1948.⁶³⁶

⁶³⁵ Foster M. Palmer, "Three Trolley Cars," June 16, 1948, Historic Photographs, H15494, Fort Collins History Connection.

⁶³⁶ "Fort Collins Trolley Car #21," 1948, Historic Photographs, H01840, Fort Collins History Connection.



Figure 140. FCMR streetcar in front of the Great Western Sugar Company factory, c.1920.⁶³⁷

The FCMR continued to provide regular service between 1920 and 1950 (see Figure 141). During this time automobile ownership continued to increase, but the residents of Fort Collins remained committed to their streetcars and voted to continue operation of the FCMR four times. Some citizens feared replacing the municipally owned streetcars with an independent bus company because the bus service might go under and leave the city without public transportation. The municipal system even managed to turn a profit in some years. As described in the *Saturday Evening Post* in 1947, “The municipally-owned Fort Collins system holds two impressive records. It has the lowest trolley fares in the nation, five cents a ride, six tokens for a quarter, and a dollar for an unlimited monthly pass—and it makes money.”⁶³⁸ However, by the time that article was written, the city’s landscape was quickly changing. Following World War II new housing developments went up on the edges of town beyond the reach of the streetcars. The Bussard Bus Company, based in Englewood, Colorado, was granted a franchise in the late 1940s

⁶³⁷ “Great Western Sugar Factory,” c.1920, Historic Photographs, S01246, Fort Collins History Connection.

⁶³⁸ Peter Kocan, “Some of My Best Friends Are Streetcars,” *The Saturday Evening Post*, December 6, 1947, <https://www.saturdayeveningpost.com/2012/06/friendly-streetcars/>.

to operate in these new neighborhoods and was soon competing with the streetcars in downtown.⁶³⁹



Figure 141. FCMR Car 20 on Mountain Avenue, c.1950.⁶⁴⁰

By 1950 it was no longer feasible to maintain, let alone extend, the aging streetcar system. The FCMR's deficits increased rapidly as its ridership declined, doubling from \$6,500 in 1949 to \$13,000 in 1950. The primary difficulty was maintenance of the 30-year-old Birney cars, for which replacement parts were nearly impossible to find. The FCMR purchased two junked cars for spare parts, but this proved to be only a temporary solution and the cost of that purchase was never recouped. By 1951 the FCMR determined that the cars could not be repaired and they were retired, one by one, as they broke down. On June 30, 1951, the last car made its final rounds through the city. In 1952 the residents of Fort Collins finally voted to officially close the FCMR. Some of the tracks were taken up throughout the city, but others were paved over and remain in place to this day. The original carbarn still stands at Howes Street and Cherry Street and is used

⁶³⁹ Peton, Moorman, and Jessen, *Trolley Cars of Fort Collins: Including "Last of the Birneys" and "Restoration of Car No. 21"*, Second Printing, 261, 263; Fletcher, *Centennial State Trolleys*, 106; Gensmer and Donkin, *The Tracks Beneath the Pavement: A Look at Changing Transportation Systems in Fort Collins, Colorado Through a Segment of the Fort Collins Municipal Railway*, 7.

⁶⁴⁰ "Ft. Collins Muni Rwy," 1951 1947, Digital Collections, X-10993, Denver Public Library.

by the City for storage. In contrast to other Colorado cities, such as Pueblo, there were no celebrations to mark the end of the streetcars in Fort Collins, even though the FCMR had outlasted every other streetcar operation in Colorado. However, this was not the end of the story for the streetcars of Fort Collins.⁶⁴¹

Fort Collins is currently one of two cities in Colorado, along with Denver, currently operating a streetcar. In 1976 the Junior Women's Club began a project to restore Birney Car 21, which had been deteriorating while on display outside the Pioneer Museum in Library Park. A crew of volunteers completed the restoration over several years and by the time it was finished, a new idea had surfaced to rebuild part of the old tracks for the newly refurbished car. In 1980 the Fort Collins Municipal Railway Society was established, and the City approved a plan to rebuild the Mountain Avenue line out to City Park. The construction work was completed entirely by volunteers working weekends over the next five years (see Figure 142). Historic rails were salvaged from another defunct railroad in Cripple Creek. By 1983 a new small carbarn had been constructed in City Park near Grandview Cemetery. One of the original streetcar bridges from the City Park loop was also salvaged and repurposed to cross the Bryant Avenue irrigation ditch. In 1986 the restoration was completed and opened to the public. The Fort Collins Municipal Railway Society currently operates Car 21 every summer along Mountain Avenue between Roosevelt Street and Howes Street (see Figure 143). A plan to extend the line to College Avenue was considered, but was deemed too expensive to construct a crossing over the active train line on Mason Street. However, the original tracks remain exposed on Mountain Avenue between Remington Street and Peterson Street, east of College Avenue.⁶⁴²

⁶⁴¹ Fletcher, *Centennial State Trolleys*, 106; Feitz, *Colorado Trolleys*, 39; Peton, Moorman, and Jessen, *Trolley Cars of Fort Collins: Including "Last of the Birneys" and "Restoration of Car No. 21"*, Second Printing, 263, 266.

⁶⁴² Peton, Moorman, and Jessen, *Trolley Cars of Fort Collins: Including "Last of the Birneys" and "Restoration of Car No. 21"*, Second Printing, 273–76; Gensmer and Donkin, *The Tracks Beneath the Pavement: A Look at Changing Transportation Systems in Fort Collins, Colorado Through a Segment of the Fort Collins Municipal Railway*, 8.



Figure 142. Volunteers complete the reconstruction of the Mountain Avenue line, 1986.⁶⁴³



Figure 143. Car 21 running on Mountain Avenue, 2004.⁶⁴⁴

⁶⁴³ Jessen, Kenneth, "Last Section of Trolley Track Installed," August 9, 1986, Historic Photographs, H26158, Fort Collins History Connection.

⁶⁴⁴ Kenneth Jessen, "Trolley Car 21 Crossing Mountain Street," May 6, 2004, Historic Photographs, H26104, Fort Collins History Connection.

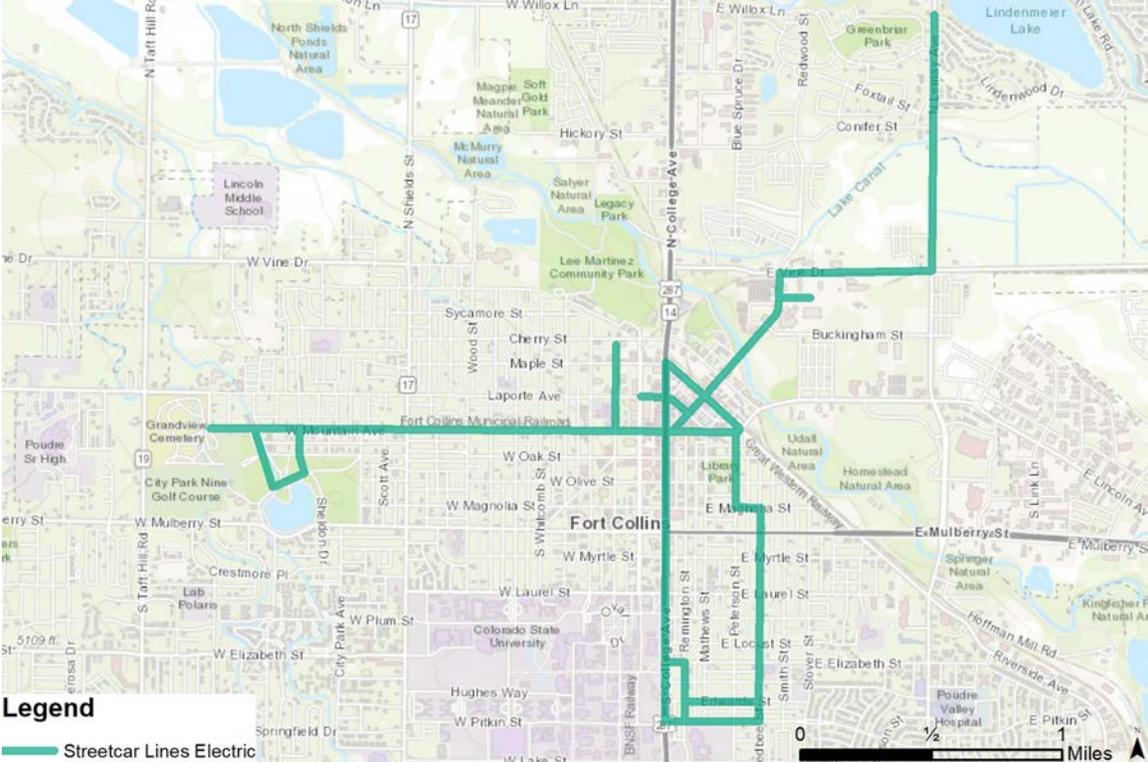


Figure 144. Map of Fort Collins streetcar lines.

I. Grand Junction

Table 13. Streetcar companies operating in Grand Junction

Company Name	Years of Existence/Operation	Mode of Transport
Grand Junction Street Car Company	1890-1891	Horsecar, Narrow Gauge
Grand Junction Street Railway Co.	1891- c.1901	Horsecar, Narrow Gauge
City of Grand Junction	1901-1903	Horsecar, Narrow Gauge
Grand Junction & Grand River Valley Railway Company	1909-1914	Electric, Standard Gauge
Grand River Valley Railway Company	1914-1926	Electric, Standard Gauge
Grand River Valley Railroad	1926-1928 (passenger and freight), 1928-1935 (freight only)	Electric, Standard Gauge

Incorporated in 1882, the community of Grand Junction attracted settlers with its location at the confluence of the Grand (currently the Colorado) and Gunnison Rivers as well as its railroad connection with the Denver & Rio Grande Western Railroad (D&RGW). The valley was an ideal location for agriculture, particularly fruit orchards. By 1885 Grand Junction's population reached 378 people and ballooned to 2,030 just five years later.⁶⁴⁵ The growing community was eager to attract new residents and boast the same amenities of the larger cities to the east.

In 1890 Grand Junction obtained its first streetcar, a horsecar that ran approximately five blocks along Main Street. Local resident Barney Kennedy incorporated the Grand Junction Street Car Company on August 2, 1890, and obtained a franchise from the City of Grand Junction (City) (see Figure 145). The company repurposed two streetcars from the Pueblo Street Railway Company for its new line, which cost \$10,000 to build and used a 22-pound rail system. The route opened in September 1890. The company also built a small connection with the Little Book Cliff Railroad line that extended to the fairgrounds.⁶⁴⁶

⁶⁴⁵ "Grand Junction History • MWC," *Museums of Western Colorado*, accessed June 21, 2019, <https://museumofwesternco.com/learn/history-of-grand-valley/grand-junction-history/>.

⁶⁴⁶ McGuire and Teed, *The Fruit Belt Route*, 6–7.



Figure 145. Image of the horsecar in Grand Junction.

The town was proud of its new amenity, with a local paper boasting that ““the establishment of a street car line in this city marks still another step in her inevitable destiny...[as] the leading city on the Western Slope.””⁶⁴⁷ The company reorganized in July 1891 as the Grand Junction Street Railway Company.⁶⁴⁸

By 1893 John Newman, an African American resident of the town, took over the line following Kennedy’s departure. After multiple complaints regarding the timeliness of the cars, as well as accusations of cruelty to the animals, the city council revoked the company’s permit in July 1899. In November 1900 the company offered to sell the system to the City. The City awarded another African American man, John M. Price, the lease to operate the streetcar line. Price was

⁶⁴⁷ McGuire and Teed, *The Fruit Belt Route*, 6.

⁶⁴⁸ McGuire and Teed, *The Fruit Belt Route*, 7.

responsible for completing an extension of the line to the Grand Hotel on 4th Street (see Figure 152).⁶⁴⁹

The line was reportedly abandoned by August 1902 due to the extreme heat and the toll it took on the horses. In 1904 the City removed and sold the rails and auctioned the equipment. The City saved money by keeping the horses at the City corral, rather than continuing to lease the barn on 5th Street. As a result, the City covered the rails on 5th Street with dirt and the turntable at 5th and Main Streets was no longer utilized.⁶⁵⁰

After the horsecar ceased operations, Grand Junction was left with no streetcar transportation. Grand Valley continued to prosper with fruit production, but transportation was a concern for farmers, ranchers, and residents. Several attempts to connect Grand Junction and nearby communities in the valley via electric streetcars failed, but in the spring of 1908 the Fruit Belt Power and Irrigation Company gained momentum. The new company contracted Charles E. Noble, an attorney and former treasurer for the Colorado Midland (CM) Railroad, to assist with right-of-way and legal concerns. He quickly switched the focus from constructing a power plant toward developing an electric streetcar system in the Grand Valley.⁶⁵¹

Noble successfully negotiated a franchise with the City on July 17, 1908. As a term of the franchise, the company was to pay \$1,000 payments for 25 years for the rights to operate in Grand Junction, beginning in 12 years, 6 months.⁶⁵² Several of the Fruit Belt Power and Irrigation Company's investors, along with new investors from Colorado Springs, incorporated the Grand Junction Electric Railway Company (GJE) on November 20, 1908.⁶⁵³ One year prior, Orson Adams, a founder of the Fruit Belt Power and Irrigation Company, incorporated the Grand

⁶⁴⁹ McGuire and Teed, *The Fruit Belt Route*, 7–9.

⁶⁵⁰ McGuire and Teed, *The Fruit Belt Route*, 10–13.

⁶⁵¹ McGuire and Teed, *The Fruit Belt Route*, 13.

⁶⁵² McGuire and Teed, *The Fruit Belt Route*, 14.

⁶⁵³ Interstate Commerce Commission, *Interstate Commerce Commission Reports, Volume 135, Decisions of the Interstate Commerce Commission of the United States (Valuation Reports) November, 1927-March, 1928* (Washington, D.C.: prepared for United States Interstate Commerce Commission, 1928), 379.

Junction, Gas & Manufacturing Company along with two others. On January 1, 1909, the GJE signed a contract with the Grand Junction Electric, Gas & Manufacturing Company, securing a power source for the streetcars.⁶⁵⁴ The Grand Junction and Grand River Valley Railway Company would then purchase the Grand Junction Electric, Gas and Manufacturing Company, which provided the 600-volt direct current to the city streetcar lines, and later the interurban line.⁶⁵⁵

At the same time, the GJE studied a potential interurban route. This interurban line would be run by a new company, the Grand Junction and Grand River Valley Railway Company (GJ&GRV), incorporated on February 27, 1909. The GJ&GRV purchased the GJE in April 1909.⁶⁵⁶

The GJ&GRV completed the system started by the previous company and began operations on May 22, 1909. The streetcars ran along a figure-eight through downtown Grand Junction (see Figure 146 and Figure 153). Patrons traveled the entire loop in about 20 minutes for five cents.⁶⁵⁷

⁶⁵⁴ McGuire and Teed, *The Fruit Belt Route*, 14–54.

⁶⁵⁵ “Notes on the Grand Junction & Grand River Valley Railway,” 832.

⁶⁵⁶ Interstate Commerce Commission, *Interstate Commerce Commission Reports, Volume 135, Decisions of the Interstate Commerce Commission of the United States (Valuation Reports) November, 1927-March, 1928*, 380.

⁶⁵⁷ Marie (Johns) Nowlan, Interview with Esther Faussone, June 2, 1977, Mesa County Oral History Project Collection, Museums of Western Colorado.



Figure 146. A GJ&GRV streetcar at Main and 4th Streets in Grand Junction.⁶⁵⁸

Success in the first year led to the construction of a car barn at 12th Street and South Avenue, which later provided a convenient connection for the interurban line with the D&RGW tracks to the south.⁶⁵⁹

Meanwhile, the company planned the interurban routes. The assumption from the beginning was that the interurban route would first connect Grand Junction with Palisade, eventually joining with Fruita and beyond. However, residents in Bethel, a small community between Fruita and Grand Junction, offered 2 miles of right-of-way for free, convincing the company to construct the line to Fruita first. A survey was completed and the company selected a “zig-zag” route through established farmlands to Fruita (see Figure 154). As initially designed, the interurban route connecting Grand Junction with Fruita spanned approximately 16 miles. The company

⁶⁵⁸ Frank Dean E., “Main and 4th St., Grand Junction, Co.,” 1910, Call # X-8680, Denver Public Library Western History Collection.

⁶⁵⁹ McGuire and Teed, *The Fruit Belt Route*, 38.

employed 300 men in the construction of the line, which included three passing tracks, and ordered new cars from the Woeber Carriage Company in Denver. The interurban streetcars left Grand Junction and Fruita once an hour, with increased frequency when necessary.⁶⁶⁰ In addition to transporting passengers, the line also picked up local freight from loading platforms located approximately every mile down the length of the route. Crops were then transferred to the D&RGW adjacent to the car barn at 12th Street and South Avenue.⁶⁶¹

The company also built a \$70,000 headquarters building in Grand Junction at 3rd and Main Street, which housed the company offices as well as those of the associated Grand Junction Electric, Gas, and Manufacturing Company. The headquarters building also served as a depot for the interurban and local Grand Junction lines (see Figure 147). The building was completed by November 28, 1910. Around the same time, the company also built a yellow brick depot and substation in Fruita at Pabor and Mesa Streets.⁶⁶²



⁶⁶⁰ McGuire and Teed, *The Fruit Belt Route*, 16–21.

⁶⁶¹ “Notes on the Grand Junction & Grand River Valley Railway,” 832.

⁶⁶² McGuire and Teed, *The Fruit Belt Route*, 21–38.

Figure 147. Interurban station and GJ&GRV office building with an interurban car in the right of the image, c.1910-1920.⁶⁶³

The construction of the interurban line, known as the “Fruit Belt Loop,” progressed with minimal interruption through March 1910. By April the cedar poles for the power lines were in place within the city limits of Grand Junction. Beyond Grand Junction, power lines were hung from single poles, set 5 feet, 6 inches apart and cemented in the ground, with arms extending over the tracks. These poles also carried high-tension wires, phone lines, and the feeder line.⁶⁶⁴ Because the line ran through heavily cultivated and irrigated lands, the company also built at least 800 feet worth of pipe-and-timber culverts, as well as pile-and-frame trestles to carry the tracks over the various irrigation and drainage features along the route (see Figure 148 and Figure 149).⁶⁶⁵



Figure 148. A corrugated culvert on the GJ&GRV interurban line to Fruita.⁶⁶⁶

⁶⁶³ “Interurban Car in Grand Junction,” c.1910-1920, Call # CHS.X5201, Denver Public Library Western History Collection.

⁶⁶⁴ “Notes on the Grand Junction & Grand River Valley Railway,” 832.

⁶⁶⁵ Interstate Commerce Commission, *Interstate Commerce Commission Reports, Volume 135, Decisions of the Interstate Commerce Commission of the United States (Valuation Reports) November, 1927-March, 1928*, 366.

⁶⁶⁶ “Notes on the Grand Junction & Grand River Valley Railway,” 833.

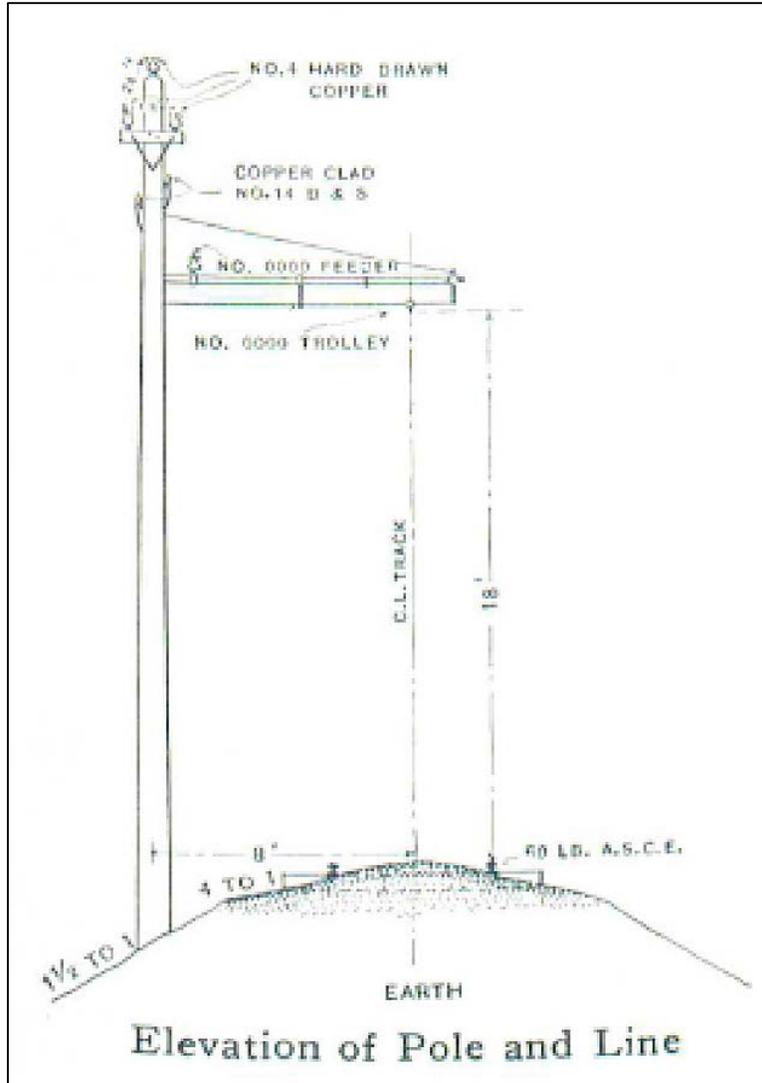


Figure 149. Typical plans for poles and lines along the GJ&GRVR.⁶⁶⁷

On July 14, 1910, the Fruit Belt Route opened with crowds estimated at 7,000 people joining in the festivities. A round-trip ticket cost 50 cents (see Figure 150).⁶⁶⁸ The 16.2-mile route cost \$22,000 per mile to build.⁶⁶⁹ The local and interurban lines provided a valuable service to residents of Grand Junction and Fruita for many years, although talk of expanding the interurban network to Palisade had ceased (see Figure 151). Beginning in 1912, however, there were rumblings that the

⁶⁶⁷ “Notes on the Grand Junction & Grand River Valley Railway,” 833.

⁶⁶⁸ McGuire and Teed, *The Fruit Belt Route*, 25.

⁶⁶⁹ “Town Has Big Time,” *Palisade Tribune*, July 16, 1910, Vol. 8, Number 7 edition, 1.

line might be sold to the City. Although the sale never happened, rumors of a potential municipal sale made financing potential expansions difficult to secure. Without these expansions the company's financial burden steadily increased because "the local system had to carry the overhead expense which could have been distributed over a larger system" had the expansions become reality.⁶⁷⁰ The company was foreclosed on August 1, 1914, and a new company, called the Grand River Valley Railway Company (GRV), was formed to take over operations.⁶⁷¹



Figure 150. Men picking fruit adjacent to the interurban trackage.⁶⁷²

⁶⁷⁰ McGuire and Teed, *The Fruit Belt Route*, 34.

⁶⁷¹ McGuire and Teed, *The Fruit Belt Route*, 34.

⁶⁷² F. E. Dean, "Gathering Apples on the Interurban," c.1910, Digital ID 3a26245/hdl.loc.gov/loc.pnp/cph.3a26245, Library of Congress Prints and Photographs Division Washington, D. C. 20540 USA, <https://www.loc.gov/resource/cph.3a26245/>.



Figure 151. Travelers using the GJ&GRV to travel to the Grand Junction fair.⁶⁷³

The new company was making money, but by 1919, due to increased costs, it registered a total loss of \$783. Additionally, the company was soon required to begin paying the \$1,000 annual fee set forth in its franchise. Despite financial concerns, the company remained steadfast in its desire to continue service. Ridership in 1921 was at 245,000; however, the nickel rate per fare equated to just \$30 per day. On November 4, 1924, a 5.5-mile freight extension toward the Enterprise School north of Fruita was operational. This freight line was the only extension ever built.⁶⁷⁴

In March 1926 the Colorado Springs investors that had purchased the CM Railroad in 1917, including Spencer Penrose, Charles M. McNeil and A.E. Carlton, sold their interests in the

⁶⁷³ "Interurban Car, GJ & GRV Railway," n.d., McGuire Collection, Call # 1980.210, Loyd Files Research Library, Museums of Western Colorado.

⁶⁷⁴ McGuire and Teed, *The Fruit Belt Route*, 35–41.

railway to the Cities Service System. The Cities Service System, which held the Public Service Company of Colorado as a subsidiary at the time, was mostly interested in the lucrative utilities services and had no interest in operating a streetcar line. It promptly requested to cease city streetcar service.⁶⁷⁵ The city council approved the request and the final streetcar ran within Grand Junction on October 29, 1926. On paved streets, most of the rails were simply covered over, whereas rails on the remaining unpaved streets were removed.

Although the streetcar service in Grand Junction ceased operating in 1926, the interurban service continued under a new company named the Grand River Valley Railroad. From November 1, 1914, through June 30, 1919, the company had operating expenses amounting to 124.7 percent of its revenue. The investments the company held in the Grand Junction Electric, Gas and Manufacturing Company helped cover the deficit.⁶⁷⁶ After struggling along financially for years, the last passenger run on the interurban line was completed on October 31, 1928, and was immediately replaced with bus service. Freight service on the interurban line continued until January 1, 1935. Interurban rails between the two communities were removed, but some of the tracks in Fruita remain buried under the pavement.⁶⁷⁷

⁶⁷⁵ McGuire, "Interurban Cars Were to Serve Entire Valley."

⁶⁷⁶ Interstate Commerce Commission, *Interstate Commerce Commission Reports, Volume 135, Decisions of the Interstate Commerce Commission of the United States (Valuation Reports) November, 1927-March, 1928*, 364.

⁶⁷⁷ McGuire and Teed, *The Fruit Belt Route*, 49–51.

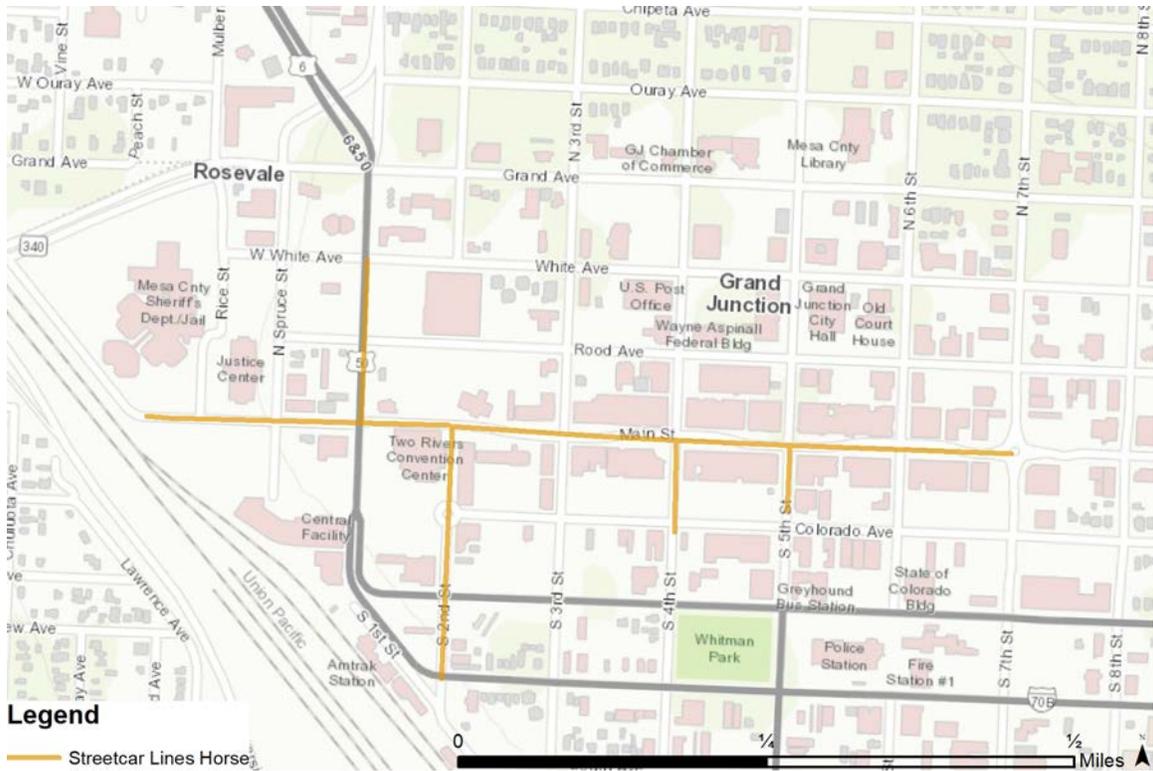


Figure 152. Map of the Grand Junction horsecar line.

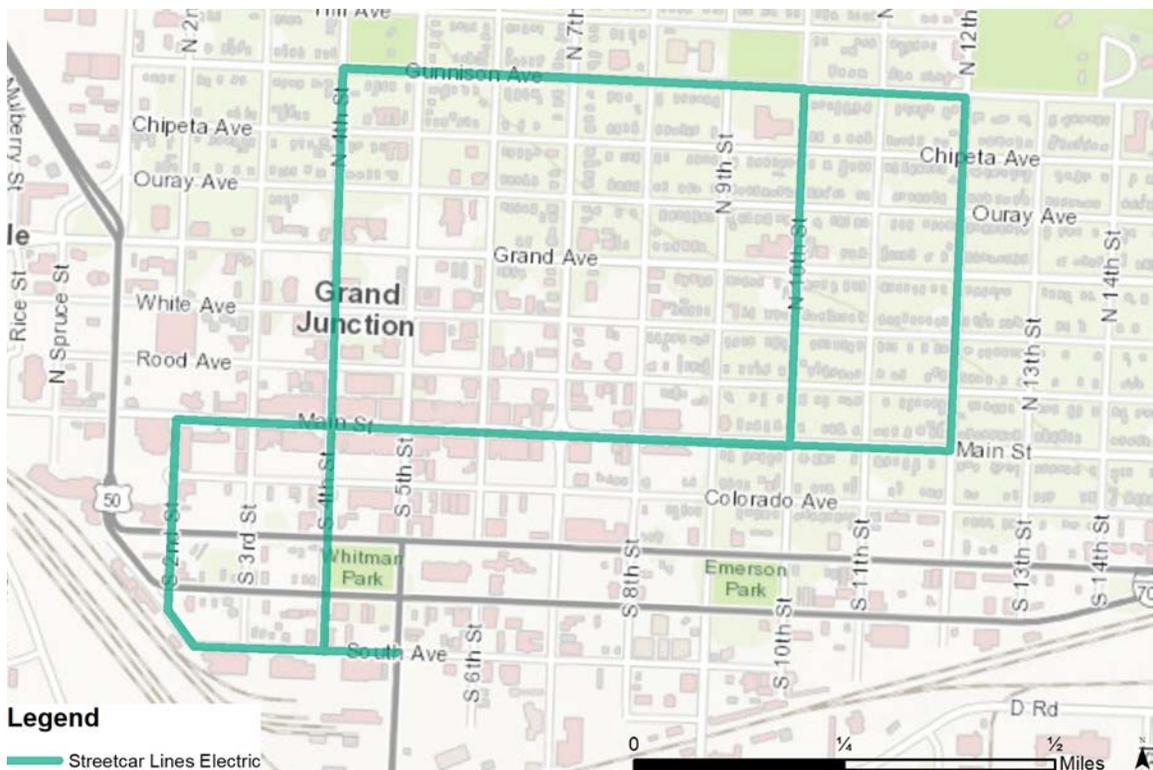


Figure 153. Map of the Grand Junction electric streetcar system.

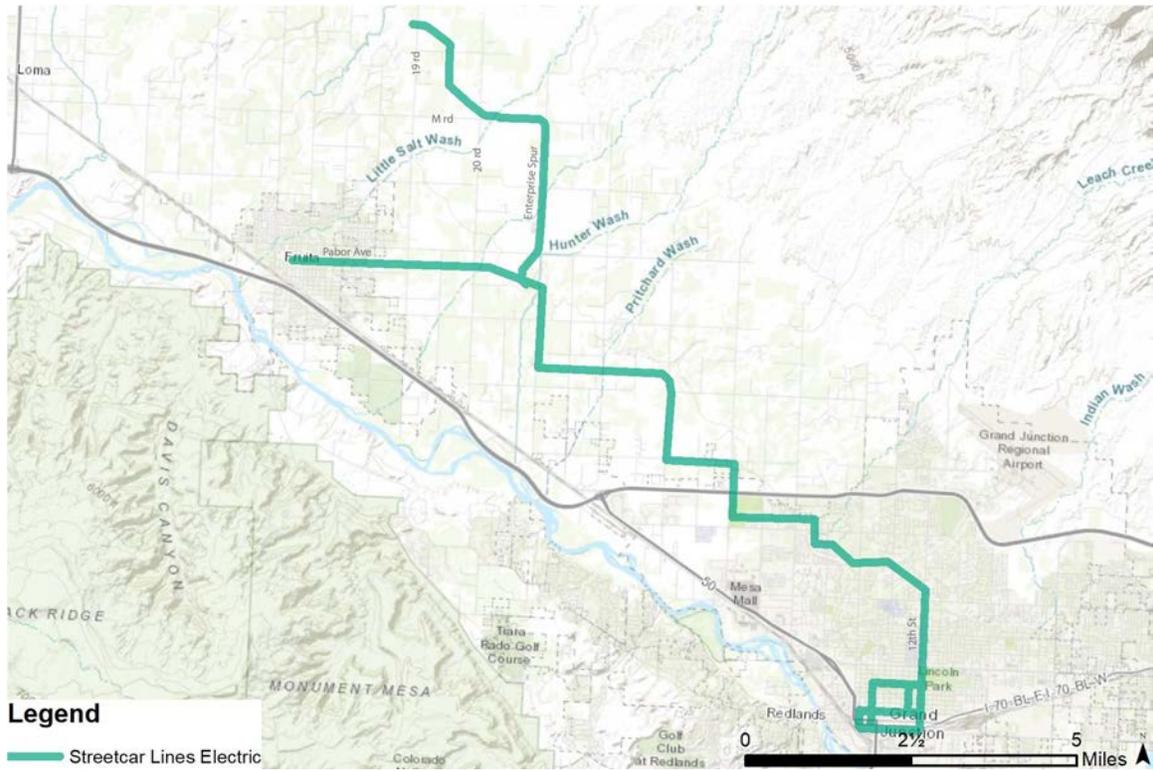


Figure 154. Map of the interurban route between Grand Junction and Fruita.

J. Greeley

Table 14. Streetcar companies operating in Greeley

Company Name	Years of Existence/Operation	Mode of Transport
Greeley & Denver Railroad	1910-1922	Electric

The city of Greeley was founded in 1870 by Nathaniel Meeker as the home of the Union Colony. Meeker had established the Union Colony in 1869 with designs to build a communally owned agricultural settlement in Colorado. He selected a townsite location near the confluence of the South Platte River and Cache la Poudre River and organized the construction of irrigation networks to attract settlers. Located on the Denver Pacific Railroad between Cheyenne and Denver, by 1875 Greeley was an important agricultural center with a significant population of farmers and professionals. The city also became one of Colorado's educational centers in 1890, when the State Normal School, now the University of Northern Colorado, was established on the south side of town. In the years after 1900 sugar beet production overtook the northern Colorado agricultural region and Greeley's population, along with several other small farm towns, expanded quickly.⁶⁷⁸

The early 1900s was also a time of expansion for streetcar companies in Colorado. Operations across the state were actively rebuilding their local systems and extending their service with interurban routes. With the explosion of sugar beet production and the rapid growth of small farming communities, investors in northern Colorado saw potential for a vast network of interurban electric railroads in the region with Greeley as the central hub. As early as 1904 multiple prospective companies developed plans to construct more than 100 miles of rails to provide passenger and freight service for northern Colorado farmers.⁶⁷⁹ Although there was plenty of planning and speculation, no rails were laid for several years. The *Greeley Tribune*

⁶⁷⁸ Abbot, Leonard, and Noel, *Colorado: A History of the Centennial State*, 124; Ubbelohde, Benson, and Smith, *A Colorado History*, 259; Wyckoff, *Creating Colorado: The Making of a Western American Landscape, 1860-1940*, 126–27, 133.

⁶⁷⁹ "Greeley & Denver Electric Railroad May Soon Be Built," *Silver Cliff Rustler*, March 2, 1904, 2.

described the situation in 1907: “Three different companies are now competing for the construction of an electric railway between Greeley and Denver. More correctly, perhaps, three companies are trying to raise the wind upon which to build the line.”⁶⁸⁰

One of those companies was the Greeley & Denver Railroad Company (G&D), incorporated by local Greeley businessmen in June 1907. The G&D designed a system connecting Greeley, Longmont, Loveland, Johnstown, Hillsborough, Fort Collins, Windsor, Severance, and Easton, with the ultimate goal of connecting the northern farming region with Denver. The G&D was granted a franchise to operate in Greeley in 1908 and began construction in 1909. The G&D purchased used cars from Spokane, Washington, for the new railway, which arrived in January 1910. The company equipped each car with a guard rail lubricator developed by W.L. Day of Greeley. Day’s lubricator allowed the operator to grease the rails with a foot pedal while the car was running, replacing a job that was usually done by a track inspector.⁶⁸¹ The Greeley streetcar rails were constructed by Greek and Italian laborers. Work was delayed in 1910 when these workers went on strike for better pay and many went to work for the Union Pacific, which offered higher wages. During construction, local citizens petitioned the company during construction for a branch line to the Great Western Sugar Company factory on the east edge of town, but this line was never built.⁶⁸²

The G&D completed construction of a loop around Greeley in May 1910. Service began on May 30, 1910, and more than 7,000 citizens rode the streetcars for free that day. The original route of the G&D was a 3.5-mile standard-gauge loop connecting downtown Greeley with the Colorado Normal School campus and the residential neighborhoods in between along 7th Avenue, 20th Street, 12th Avenue, and 7th Street. The route was relocated in the fall of 1910 to 8th Avenue,

⁶⁸⁰ “Which Is Sincere?,” *Greeley Tribune*, July 11, 1907, 4.

⁶⁸¹ “Street Car Lubricator Is Success,” *Greeley Daily Tribune*, October 27, 1910, 1.

⁶⁸² Lauren Schaffer, *Sunrise Neighborhood Historical & Architectural Context Report* (Greeley, Colo.: Prepared for the City of Greeley, Colorado, December 2011), 46; Peggy Ford Waldo and Greeley History Museum, *Greeley, Images of America* (Charleston, S.C.: Arcadia Publishing, n.d.), 119; Feitz, *Colorado Trolleys*, 37; “Want Cars to Run to Factory,” *Greeley Tribune*, April 2, 1910, 3; “First Street Cars Are Operated in Greeley,” *Greeley Tribune*, January 13, 1910, 1.

between 7th Street and 11th Street, due to a dispute with the Union Pacific over right-of-way ownership (see Figure 155). The company also constructed a 2-mile line to Island Grove Park between 1910 and 1911 (see Figure 159). The car barn and powerhouse were built at the corner of 3rd Street and 14th Avenue. The G&D operated four cars through the city with regular service at stops every 15 minutes (see Figure 156).⁶⁸³



Figure 155. The streetcar tracks on 8th Avenue are visible in this postcard, 1910.⁶⁸⁴

⁶⁸³ Lauren Schaffer, *Sunrise Neighborhood Historical & Architectural Context Report*, 46; Waldo and Greeley History Museum, *Greeley*, 119; Feitz, *Colorado Trolleys*, 37; “The ‘Little Transit That Could’ Couldn’t after All,” *Greeley Tribune*, October 6, 2011, <https://www.greeleytribune.com/news/local/the-little-transit-that-could-couldnt-after-all/>; “Great Deal of Expense Attached to the Work,” *Greeley Tribune*, August 18, 1910, 4.

⁶⁸⁴ “8th Avenue, Greeley Looking North,” n.d., Weld County Images Collection, AI-0068, Greeley History Museum.



Figure 156. Two D&G streetcars passing through intersection of 7th Street and 12th Avenue, 1913.⁶⁸⁵

Greeley was the last city in Colorado to build a streetcar system. Opening in 1910, the G&D sought to provide a modern transportation service at the same time streetcar companies began to decline across the state. The streetcars in Greeley were busy for the first few years of service, but the growth of automobile ownership soon drew riders away from the streetcars. The company's grand scheme to connect northern Colorado and Denver never came to fruition. The streetcars also developed a poor reputation from numerous accidents, which exacerbated the decline in ridership. In 1912 a two-year-old child was killed in Greeley by a streetcar, followed by further incidents involving mules and wagons on the city's public streets. In 1909, before the system was even built, the *Greeley Tribune* predicted the prevalence of streetcar accidents in Greeley (see Figure 157).⁶⁸⁶

⁶⁸⁵ "Seventh Street and Twelfth Avenue," October 20, 1913, Weld County Images Collection, 1994.43.0072A, Greeley History Museum.

⁶⁸⁶ "The 'Little Transit That Could' Couldn't after All."

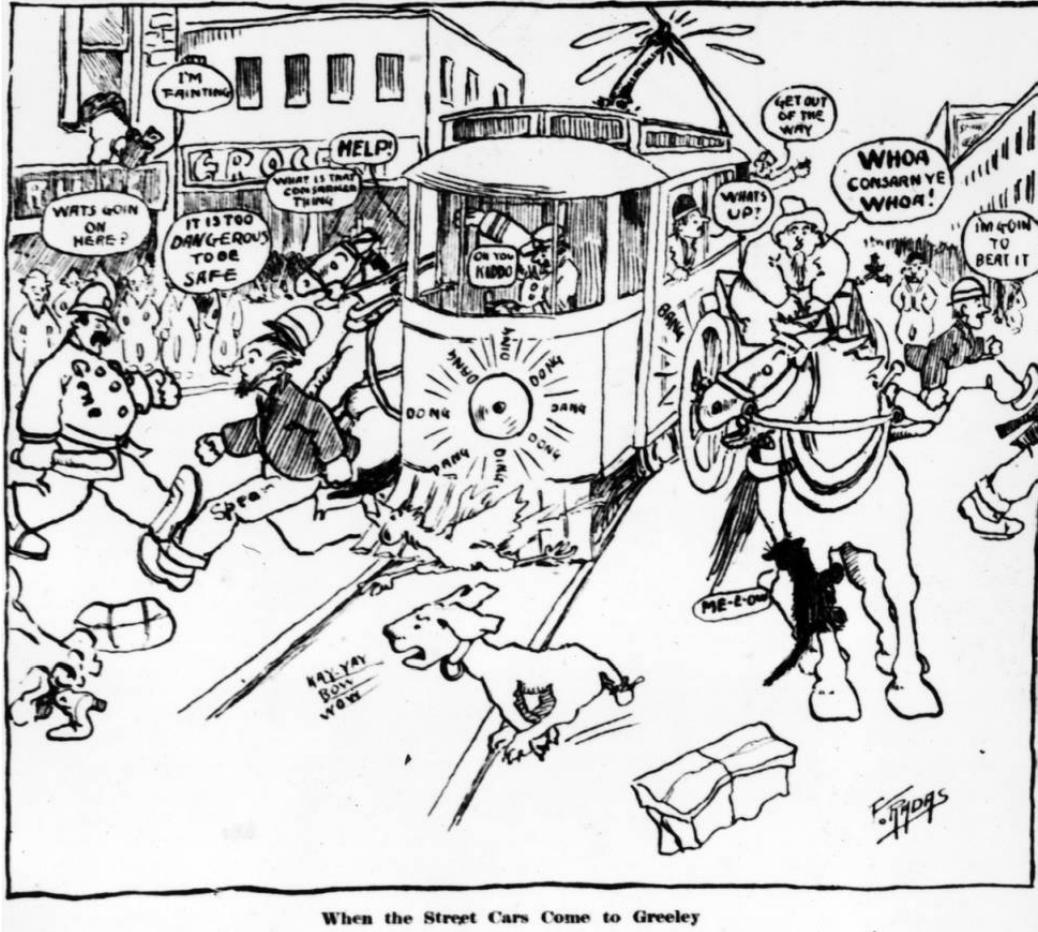


Figure 157. Cartoon from the *Greeley Tribune* predicting the accidents and confusion brought about by the streetcars, 1909.⁶⁸⁷

Throughout these difficulties the D&G continued service and even purchased new Birney cars to maintain its modern image in 1915 (see Figure 158). Disaster struck on November 23, 1917, however, when the car barn and power station caught fire. The fire department attempted to respond but its fire engine broke down blocks from the fire and both buildings were destroyed. The D&G lost the car barn and power station, as well as three cars, resulting in \$35,000 worth of damage. The company never recovered from the loss and service was cut intermittently over the next few years. By the 1920s the three remaining operators were no longer paid by the company. Instead, they pocketed fares in exchange for maintaining the equipment. The City of Greeley (City) considered purchasing the D&G's system as part of a 10-year plan, but this scheme never

⁶⁸⁷ "Cartoon in Greeley Daily Tribune," 1909, Digital Collections, X-9040, Denver Public Library.

materialized. On December 26, 1922, the last car broke down and streetcar service in Greeley ended. The tracks were removed from the city streets in 1923. The D&G briefly attempted to operate bus service without a franchise from the City. The Greeley Transportation Company took control of bus service in Greeley in the 1920s.⁶⁸⁸



Figure 158. One of the Birney cars purchased by the D&G in 1915.⁶⁸⁹

⁶⁸⁸ Fletcher, *Centennial State Trolleys*, 119; Feitz, *Colorado Trolleys*, 37; “The ‘Little Transit That Could’ Couldn’t after All”; “Greely Car Barn Destroyed by Fire,” *Loveland Reporter*, November 26, 1917, 1; “Greeley Has Bus War,” *Bus Transportation* 2, no. 3 (March 1923): 155.

⁶⁸⁹ “Greeley, Colo. Birney St. Car (Factory Photo),” 1914, Digital Collections, X-9044, Denver Public Library.

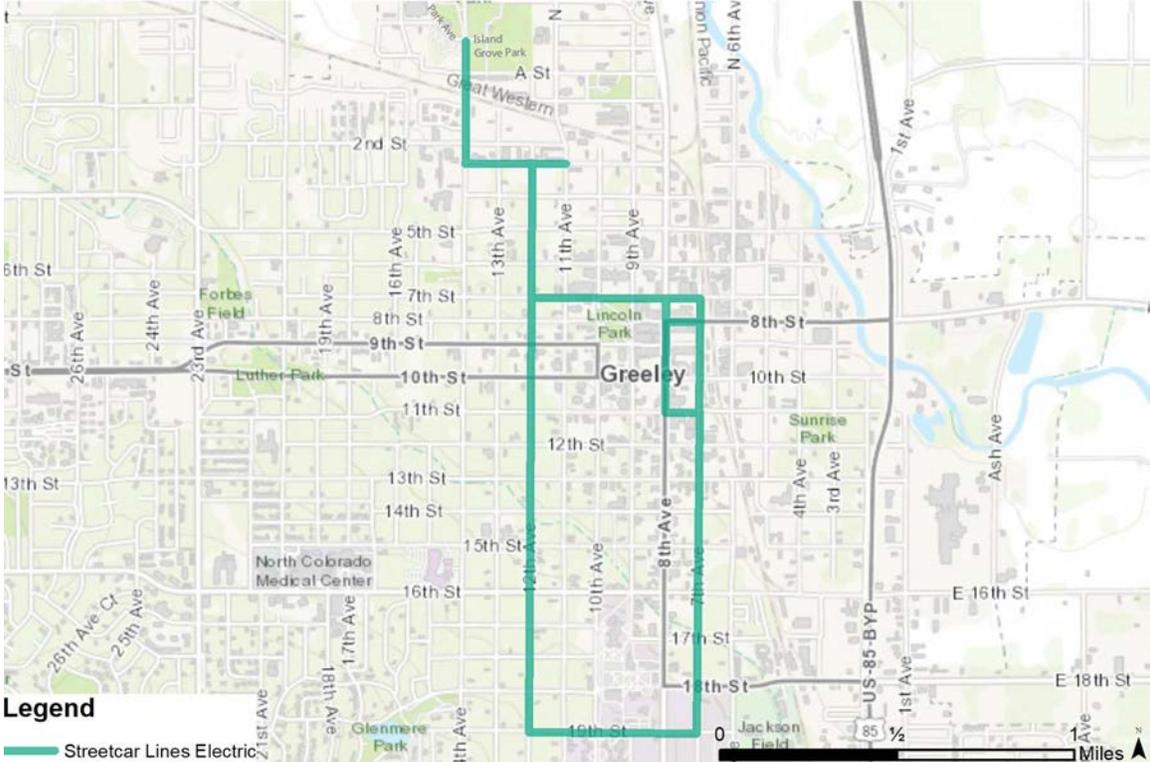


Figure 159. Map of Greeley streetcar lines.

K. Leadville

Table 15. Streetcar companies operating in Leadville

Company Name	Years of Existence/Operation	Mode of Transport
Leadville Street Railroad Company	1881-1882	Horse

A silver boom in Lake County in the late 1870s spurred Leadville’s rapid growth. Leadville, nicknamed Cloud City due to its high elevation of 10,152 feet, was founded in 1877 and incorporated in 1878. By 1879 the surrounding mines produced more than \$9 million worth of silver ore. The mining success lured other entrepreneurs who profited from supplying prospectors, and soon families arrived in Leadville as well. Fortunes were quickly made, and Leadville’s population exploded to more than 25,000 by 1880, making it the second largest city in Colorado after Denver (see Figure 160). For all its success, Leadville remained relatively isolated from the state’s transportation networks until the Denver & Rio Grande Railroad (D&RG) arrived late in 1880. Following the D&RG’s arrival, the town’s settlers and merchants were eager to build a respectable city out of the raucous mining town in the heart of the Rocky Mountains.⁶⁹⁰ As historian Carl Ubbelohde described Leadville in 1881, “All the ingredients of civilized life were wanting, and men and women were not hesitant about trying their hand at making dollars - one way or another - by catering to the needs of the new Cloud City.”⁶⁹¹

⁶⁹⁰ Ubbelohde, Benson, and Smith, *A Colorado History*, 154–55, 158, 160; Wyckoff, *Creating Colorado: The Making of a Western American Landscape, 1860-1940*, 48–49.

⁶⁹¹ Ubbelohde, Benson, and Smith, *A Colorado History*, 155.



Figure 160. Harrison Avenue in Leadville, c.1879.⁶⁹²

Leadville's streetcar system was one of the many schemes aimed at profiting from Leadville's rapid growth and aspirations of respectability. No fewer than seven streetcar companies were incorporated in Leadville between 1878 and 1879. These enterprises proposed to provide horse-powered service in town and steam-powered service to the surrounding mines. Granting the rights-of-way on the city's streets occupied much debate within the city council for months. The leading contenders were the Lake County Steam and Horse Railway Company (LCS&H), founded in October 1879, and the Leadville Street Railroad Company (LS), incorporated in December 1879. The City of Leadville (City) initially granted a franchise to the LCS&H with the condition that construction begin by April 1880. Due to the long winter, the LCS&H failed to meet this deadline and continued to postpone construction for the rest of the year. In March 1881 L.M. Dorr, one of the directors of the LS, offered to construct the system with his own funds. The City promptly granted a franchise to the LS with the condition that the company construct at least 1 mile of track by August 1 of that year.⁶⁹³

⁶⁹² George D. Wakely, "Harrison Street, Leadville," 1879, Digital Collections, X-471, Denver Public Library.

⁶⁹³ Sherrill Warford, "The Rise and Fall of the Street Railway," n.d., 1-3, 5, <https://issuu.com/lakecountyp1/docs/streetrailway/6>; Fletcher, *Centennial State Trolleys*, 122.

The LS began operating service on July 31, 1881. The company's single line extended from the D&RG depot on Poplar Street to 8th Street, where it turned west to Harrison Avenue, and then south along Harrison Avenue through Leadville's business district, terminating at Chestnut Street (see Figure 161). The LS purchased large 40-passenger cars pulled by mule teams. The mule stables were located near the center of the route at 704 Harrison Avenue. The LS faced difficulties from the outset because the cars were too heavy for the mules and service was notoriously slow. However, many of Leadville's citizens chose to ride the streetcars above the muddy streets, and the company remained successful through the fall of 1881.⁶⁹⁴

Difficulties arose during the winter of 1881-1882. The LS had attempted to prepare for the deep snows that were common for a town situated at 10,000 feet elevation. "Wire brooms" were installed in front of the cars' wheels to clear snow from the tracks. The company also purchased sleighs to continue service when the rails could not be cleared. However, the mules' struggle with the large cars only worsened in the winter and the new sleighs, also built to carry up to 40 passengers, offered the animals little relief, nor did they improve the speed of service. The situation actually worsened when the snow could be cleared because the rails were continuously encased in ice and the sleighs were unworkable. The long mountain winter proved to be the downfall of the LS. The company made plans to replace the mules with horses and to purchase smaller cars the following summer, but the damage to the company's reputation had been done. The LS soon ran out of funds and was given over to one of its creditors, John Livesey, Jr., in May 1882. Livesey reduced the fair from 10 cents to 5 cents and attempted to continue providing regular service that summer, but he too was unsuccessful. By July 1882 the company folded and the rails were pulled up along the entire route. Despite Leadville's continued success as a mining town in the nineteenth century, no other streetcar companies were formed after the LS's brief operation.⁶⁹⁵

⁶⁹⁴ Warford, "The Rise and Fall of the Street Railway," 5-7; Feitz, *Colorado Trolleys*, 55; Fletcher, *Centennial State Trolleys*, 122.

⁶⁹⁵ Warford, "The Rise and Fall of the Street Railway," 7; Feitz, *Colorado Trolleys*, 55; Fletcher, *Centennial State Trolleys*, 122.

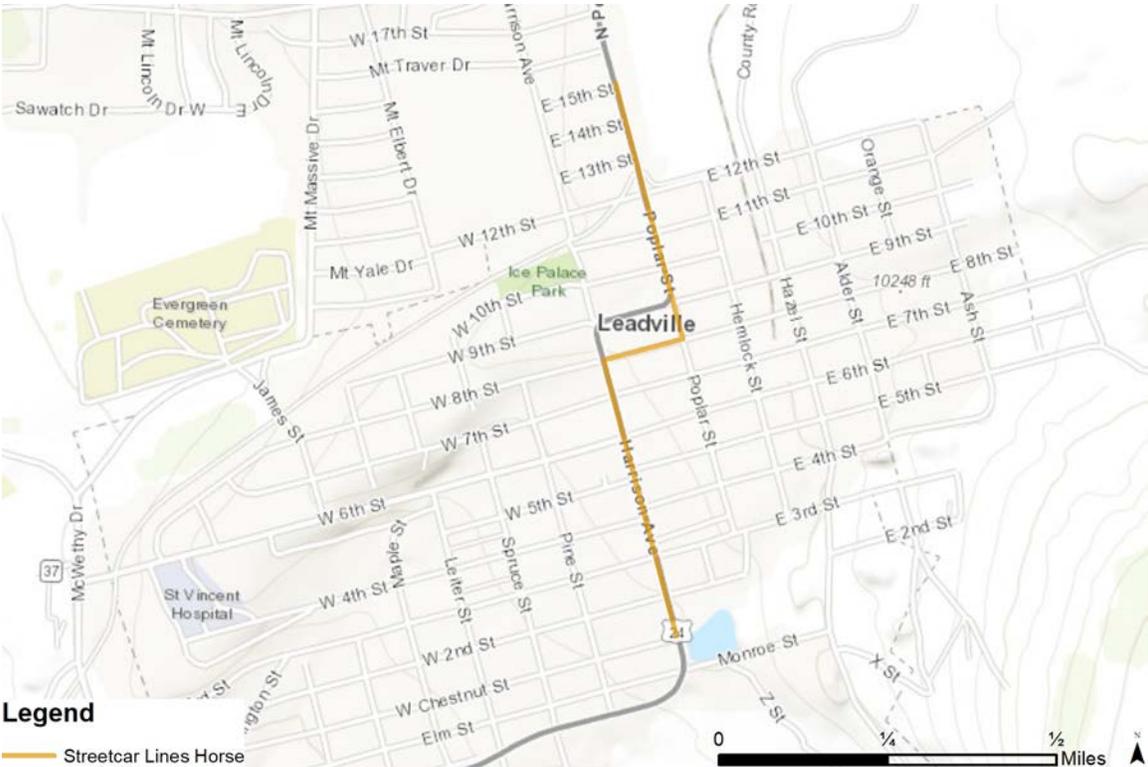


Figure 161. Map of Leadville streetcar lines.

L. Littleton

Table 16. Streetcar companies operating in Littleton

Company Name	Years of Existence/Operation	Mode of Transport
Denver & South Platte Railway	1907-1926	Electric, Narrow Gauge

Like many Front Range communities, Littleton began with the discovery of gold at the confluence of Dry Creek and the South Platte River. Many settlers drawn to the area did not make their living mining, but rather in supplying the miners working in the mountains to the west. In 1860 Richard S. Little arrived in Denver, where he worked on the engineering and construction of the City Ditch. He and his wife then homesteaded land in present-day Littleton. The Rough and Ready Flour Mill, constructed in 1867, provided a central focus of the future city. The mill drew the Denver & Rio Grande Railroad (D&RG) to the area, which built a depot at Littleton, cementing the location as a service and supply center for surrounding agricultural lands. The railroad was completed through Littleton in 1871, with service beginning the following year. Easy access to Denver and beyond ensured Littleton’s future growth.⁶⁹⁶

In 1872 Little platted the Littleton townsite, although it was several years before the community saw major growth. The town was officially incorporated in 1890, and by 1900 had a population of 738 residents. By 1904 Littleton was chosen over Englewood to the north as the county seat of Arapahoe County.⁶⁹⁷

The community, which recognized its potential as an early Denver suburb, grew steadily. The D&RG operated the successful “Uncle Sam” special excursion train that provided Littleton residents with direct access to Denver and Fort Logan as often as six times daily. Service on the steam train began in 1888 and ceased in 1924.⁶⁹⁸ The D&RG received competition in 1907,

⁶⁹⁶ Front Range Research Associates, Inc., *Historic Buildings Survey Littleton, Colorado 1997* (prepared for the City of Littleton, June 1998), 20–21.

⁶⁹⁷ Front Range Research Associates, Inc., *Historic Buildings Survey Littleton, Colorado 1997*, 22–28.

⁶⁹⁸ “History of Transportation | Littleton CO,” accessed June 11, 2019, <https://www.littletongov.org/my-littleton/littleton-history/other-topics/history-of-transportation>.

when the Denver & South Platte Railway (D&SP) connected Englewood and Littleton with the southern Denver City Tramway Company (Tramway) terminus on South Broadway by electric streetcar service.

Investors incorporated the D&SP on November 12, 1907, with a capital stock of \$1,000,000.⁶⁹⁹ H.W. Hartman proposed the line after his previous involvement with the Terminal Railway Company, which had planned to construct an interurban line to Denver, Boulder, and beyond. However, that company was denied a franchise and the rights to the proposed line were ultimately purchased by the Colorado & Southern. Hartman left his failed Terminal Railway Company and moved on to the D&SP, which initially planned to provide a connection between not just Denver and Littleton, but on to Roxborough Park and eventually Colorado Springs.⁷⁰⁰ Those ambitious plans, however, were never realized.

The town of Englewood granted the D&SP a franchise on December 28, 1906. The company agreed to run early morning cars, departing Littleton at 5:30 a.m., as well as a late night “theater car” to accommodate those attending evening shows in Denver.⁷⁰¹ Eager for an electric connection with downtown Denver, Littleton community members expressed their support for the line, imploring fellow residents through the *Littleton Independent* to “grant this franchise by all means- so instruct your councilman.”⁷⁰² In February 1907 the franchise through Littleton was granted and construction of the line began.⁷⁰³

Hartman negotiated an agreement to obtain power and lease streetcars from the Tramway. In addition, the D&SP line connected directly with the Tramway’s line via a switch at the

⁶⁹⁹ “Denver & South Platte Railway Co. Incorporation Records,” November 12, 1907, Archive Location: S500, Microfilm pg. 4, Book 117, Page 294, Colorado State Archives; “Denver & South Platte Ry.,” *Moody’s Manual of Railroads and Corporation Securities* 11 (1910): 1617.

⁷⁰⁰ Robertson and Cafky, *Denver’s Street Railways, Volume II 1901-1950*, II:137.

⁷⁰¹ “New Tramway Co. Orders Building Material and Grants New Time Schedule,” *Littleton Independent*, January 18, 1907, 1.

⁷⁰² “As to a Tramway,” *Littleton Independent*, January 4, 1907, 4.

⁷⁰³ Robertson and Cafky, *Denver’s Street Railways, Volume II 1901-1950*, II:137.

Tramway's loop on South Broadway and Hampden Avenue. The company quickly set to work constructing its narrow-gauge line using 60- and 70-pound rails. Service on the line from Hampden Avenue and on to Englewood started the morning of September 24, 1907.⁷⁰⁴ Meanwhile, construction toward Littleton continued and reached the corner of West Main and Rapp Streets by November 1907 (see Figure 162 through Figure 164). At that point construction was paused for the year. The first several months of operation were successful, with 3,000 passengers paying fares at 5 cents on a given Sunday in October 1907.⁷⁰⁵ Likely during 1908, when the loop in Littleton was built, the company erected a carbarn in Littleton west of Prince Street, in the alley between West Main Street and West Alamo Avenue.⁷⁰⁶ Many viewed these investments in the streetcar system as investments in the community of Littleton itself, with the local newspaper proclaiming "Littleton to Become the Ideal Suburban Town."⁷⁰⁷

⁷⁰⁴ Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:139.

⁷⁰⁵ Edward Dooks, "Denver & South Platte Railway Company Birney Safety Car, Number 1 An Exhibit of the Seashore Trolley Museum," n.d., Vertical File- Transportation: Streetcars, Littleton Museum.

⁷⁰⁶ Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:140.

⁷⁰⁷ "Town Council Grants More Street Privilege to Electric Street Car Company," *Littleton Independent*, April 24, 1908, 1.



**Figure 162. A D&SP streetcar at the corner of Main & Prince Streets in Littleton.⁷⁰⁸
(Image from the Collection of the Littleton Museum. May not be reproduced in any form
without permission of the Littleton Museum.)**

⁷⁰⁸ "Corner of Main & Prince Streets," n.d., Call # PHOT.00179, Littleton Museum.

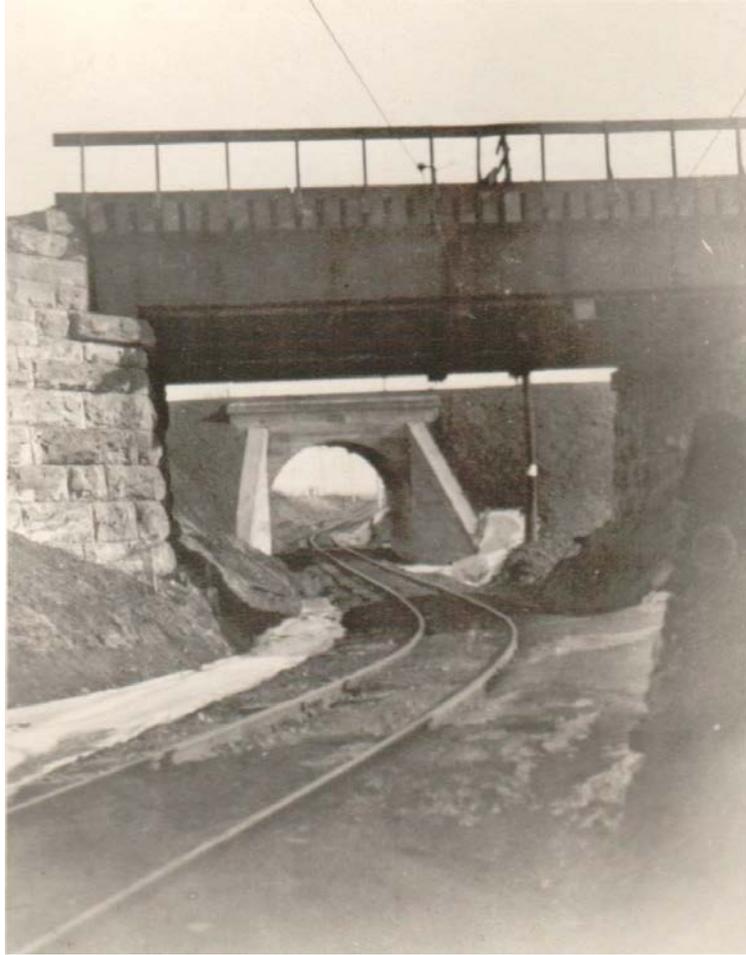


Figure 163. D&SP trackage in Slaughterhouse Gulch, north of downtown Littleton, c.1908.⁷⁰⁹ (Image from the Collection of the Littleton Museum. May not be reproduced in any form without permission of the Littleton Museum.)

⁷⁰⁹ “Looking East under Bridges of Slaughter House Gulch,” c.1908, Call # PHOT.00723, Littleton Museum.



Figure 164. D&SP streetcar in Slaughterhouse Gulch, c.1910. Note the poles carrying the electric lines installed at an angle outward to keep the electric lines taut.⁷¹⁰ (Image from the Collection of the Littleton Museum. May not be reproduced in any form without permission of the Littleton Museum.)

In 1909 the company extended the Littleton line west over the South Platte River to Bowles Picnic Grove, also known as Tramway Park (see Figure 165 and Figure 166). The company apparently leased the park and utilized it for special occasions and as another amenity to attract streetcar patrons.⁷¹¹ After this, right-of-way was graded to Roxborough Park. However, the

⁷¹⁰ "Littleton-Englewood Streetcar Line at Slaughterhouse Gulch," 1910, Call # PHOT.00486, Littleton Museum.

⁷¹¹ "Town Council Meeting," 1.

tracks were never laid and Bowles Picnic Grove was the furthest the line ever extended. The line to Bowles Picnic Grove provided service until 1917, at which point the tracks were removed.⁷¹²



Figure 165. A D&SP streetcar traveling over the Platte River on Bowles Avenue on the extension to Bowles Picnic Grove.⁷¹³ (Image from the Collection of the Littleton Museum. May not be reproduced in any form without permission of the Littleton Museum.)

The D&SP provided valuable service to the residents of Littleton and Englewood, although problems with the franchise and fares began to show early on in its tenure. There were complaints of too many individuals riding without pay, but more importantly, there were issues with the contract and franchise between the D&SP and the City of Englewood. Beginning in the summer of 1915 the company petitioned Englewood for relief from the terms of the contract, which dictated that the company charge five cents for passengers to travel all the way from

⁷¹² Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:144.

⁷¹³ "Platte River Bridges at Bowles Avenue, Littleton," n.d., Call # PHOT.01231, Littleton Museum.

Denver's central loop to Cherrelyn, one mile south of Englewood. When the company initially entered into the contract, it expected that the Tramway would give them a discounted rate for the passengers traveling the portion of the trip on D&SP tracks, and therefore divide the revenue. The Tramway refused to offer any sort of discount. The entire five-cent fare charged to patrons went to the Tramway, in effect providing a free ride for passengers from the end of the Tramway line at Hampden Avenue to Cherrelyn. The D&SP only retained fares from the section between Littleton and Cherrelyn. Patrons knew this and walked out of their way to board trains in Cherrelyn in an effort to avoid paying higher fares.⁷¹⁴

Feeling the financial strain, the D&SP petitioned the Colorado Utilities Commission to intervene. The Colorado Utilities Commission sided with the D&SP and required that fare be collected for the one mile stretch that was previously considered a "free ride." The City of Englewood adamantly disagreed and brought suit against the D&SP in the district court. The district court determined that the utilities commission had no right to interfere in the existing contract. The case was elevated to the Colorado Supreme Court, which on July 3, 1916, reversed the decision of the lower court in a finding that essentially helped to define utility commissions' authority, stating that "rates and regulations fixed by contract are specifically included within the powers of the commission."⁷¹⁵ In 1918 the case was elevated to the U.S. Supreme Court, which sided with the Colorado Supreme Court in early 1919.⁷¹⁶

The D&SP invested in two new streetcars of its own in 1919, terminating car leases from the Tramway.⁷¹⁷ Although the company purchased new cars, it was on rocky financial ground. From January 1 to June 30, 1920, the company showed a loss of \$1,869.89.⁷¹⁸ By April 1926 the tense relationship between Englewood and the D&SP came to the forefront again. This time, the City

⁷¹⁴ "Street Car Co. Pleads for Relief," *Littleton Independent*, August 6, 1915, 1.

⁷¹⁵ Charles B. Wells, "Denver & South Platte Railway Saved," *Electric Railway Journal* XLVIII, no. 8 (July 15, 1916): 96.

⁷¹⁶ Wells, "Denver & South Platte Railway Saved," 96.

⁷¹⁷ Robertson and Cafky, *Denver's Street Railways, Volume II 1901-1950*, II:268.

⁷¹⁸ "Denver & South Platte Asking Increase in Commutation Fares," *Littleton Independent*, August 20, 1920, 1.

of Englewood proposed a tax of \$200 on each streetcar, which was considered high among industry members.⁷¹⁹ In addition, the City wanted to pave South Broadway and required the D&SP to bear partial cost for paving. The company determined the costs were too high and decided to abandon the line, ending service on May 7, 1926. Buses took over the route the following day.⁷²⁰

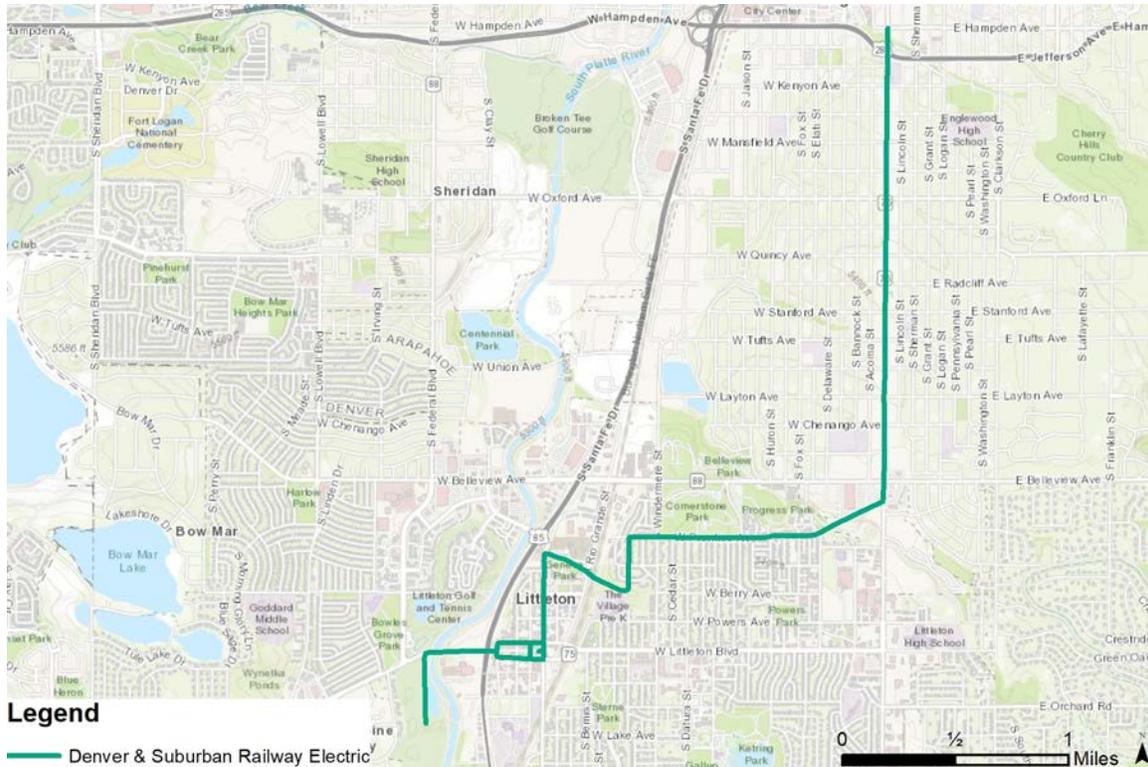


Figure 166. Map of Denver & Suburban Railway.

⁷¹⁹ Dooks, “Denver & South Platte Railway Company Birney Safety Car, Number 1 An Exhibit of the Seashore Trolley Museum.”

⁷²⁰ Robertson and Cafky, *Denver’s Street Railways, Volume II 1901-1950*, II:351.

M. Pueblo

Table 17. Streetcar companies operating in Pueblo

Company Name	Years of Existence/Operation	Mode of Transport
Pueblo Street Railroad	1878-1889	Horsecar, Narrow Gauge
Pueblo City Railway Company	1889-1895	Electric, 48-inch Gauge
Pueblo Electric Street Railway	1895-1899	Electric, 48-inch Gauge
Pueblo Suburban Traction & Lighting Company	1899-1911	Electric, 48-inch Gauge
Arkansas Valley Railway, Light & Power Company	1911-1921	Electric, 48-inch Gauge
Southern Colorado Power Company	1921-1947	Electric, 48-inch Gauge

Pueblo was originally established by fur trappers and settlers from New Mexico in the 1840s and is one of the earliest Anglo settlements in Colorado. In 1872 William Jackson Palmer extended the Denver & Rio Grande Railroad (D&RG) to Pueblo and founded South Pueblo on the south banks of the Arkansas River. Following the arrival of the D&RG, Pueblo became the major railroad hub in southern Colorado. Palmer also founded the town of Bessemer on the southeast side of Pueblo and constructed the Minnequa Steel Works (steel works).⁷²¹ By 1896 Pueblo, South Pueblo, and Bessemer had consolidated into the current city of Pueblo.⁷²²

The massive steel works and smelters earned the city its nickname as the “Pittsburgh of the West” and spurred Pueblo’s rapid growth. First operated by Palmer’s Colorado Coal and Iron Company, the Minnequa Steel Works was taken over by the Colorado Fuel and Iron Company (CF&I), which also owned a vast network of coal mines in the state, in 1892. The CF&I was Pueblo’s largest employer by 1900, and by 1910 it employed nearly 10 percent of Colorado’s workforce. In addition to providing jobs, the CF&I worked to develop the neighborhood of

⁷²¹ The steel works operated under multiple company names during the nineteenth and twentieth centuries including the Colorado Fuel Company and Colorado Fuel and Iron Company. The facility itself was commonly known as the Minnequa Steel Works during the period of streetcar operation.

⁷²² Wyckoff, *Creating Colorado: The Making of a Western American Landscape, 1860-1940*, 143–45, 148.

Bessemer through a subsidiary land company by building homes, a hospital, and a YMCA building for its workers. Although the CF&I went through various peaks and slumps over the twentieth century, it remained at the heart of Pueblo's economy into the 1980s.⁷²³

Between 1880 and 1890 Pueblo's population increased from approximately 3,000 to nearly 25,000 as industrial jobs attracted immigrant workers from southern and eastern Europe including Italians, Greeks, Slavs, Slovenians, Serbians, Russians, and Czechoslovakians. In addition to European immigrants, Chinese and Japanese immigrants also established their own small communities in Pueblo. In the twentieth century a substantial Mexican-American community established itself in the city. While these various immigrant groups first settled in discrete pockets within the Bessemer neighborhood adjacent to the steel works, they steadily branched out into the wider city. East Pueblo in particular grew as a working-class neighborhood in the early twentieth century.⁷²⁴

The first calls for a streetcar system in Pueblo began as early as 1874. In 1878 a group of local businessmen incorporated the Pueblo Street Railroad (PSR) and began construction on the city's horsecar system. The company's president, James B. Orman, owned a prominent railroad construction firm and had previously worked with the D&RG and Atchison, Topeka, & Santa Fe Railroads. Orman later served as the Governor of Colorado from 1901 to 1903. The PSR designed a narrow-gauge system and the first mile along Union Street and Santa Fe was completed by the end of 1878. The horse stables were located at 212 South Union Street. Construction of the PSR continued throughout the 1880s, creating a large system that provided cross-town service connecting neighborhoods in north and south Pueblo and passing through the

⁷²³ Jeffery DeHerrera, Cheri Yost, and Adam Thomas, *Pueblo: Forged Together in the Bessemer Neighborhood* (Prepared for the City of Pueblo, Colorado, August 2012), 19–20; Jonathan H. Rees, "Colorado Fuel & Iron," *Colorado Encyclopedia*, n.d., <https://coloradoencyclopedia.org/article/colorado-fuel-iron>; "Minnequa Steelworks Office," *Colorado Encyclopedia*, n.d., <https://coloradoencyclopedia.org/article/minnequa-steelworks-office>; Wyckoff, *Creating Colorado: The Making of a Western American Landscape, 1860-1940*, 147, 150.

⁷²⁴ Adam Guyon, "The Stable of the Iron Horse," *Historical Studies Journal* 33 (Spring 2016): 16; Rees, "Colorado Fuel & Iron"; "Minnequa Steelworks Office"; Wyckoff, *Creating Colorado: The Making of a Western American Landscape, 1860-1940*, 150.

downtown commercial core.⁷²⁵ Service was first extended to the steel works in 1882. The horsecars crossed the Arkansas River from downtown over the Union Avenue bridge and ascended the bluff to Abriendo Avenue, where the line branched to the east and west. The junction at South Union Avenue and Abriendo Avenue became known as Mesa Junction. A small but significant business district steadily developed at Mesa Junction and became the commercial center of South Pueblo (see Figure 167). While the South Pueblo lines transported workers to and from the smelters and steel works, the North Pueblo lines connected the wealthy residents on Grand Street with the downtown business district on the north side of the Arkansas River. Converging on Union Avenue, these early lines provided an important cross-town link for all of Pueblo's citizens. By 1889 the PSR represented one of the larger horse-powered streetcar systems in the state, with 100 horses pulling 36 cars over 13 miles of track (see Figure 174).⁷²⁶



Figure 167. Mesa Junction, looking north from Colorado Avenue towards Union Avenue, 1938.⁷²⁷

⁷²⁵ Cafky and Haney, *Pueblo's Steel Town Trolleys*, 11–12; Feitz, *Colorado Trolleys*, 21; Fletcher, *Centennial State Trolleys*, 134.

⁷²⁶ Cafky and Haney, *Pueblo's Steel Town Trolleys*, 11–12; Feitz, *Colorado Trolleys*, 21; Fletcher, *Centennial State Trolleys*, 134.

⁷²⁷ Works Progress Administration, "South Union and West Abriendo Avenues, 1938," October 28, 1938, PCCLD Special Collections, W-564, Pueblo City County Library District.

The horse-powered streetcar service in Pueblo transitioned to electric service in 1889 (see Figure 168). Orman reorganized the PSR into the Pueblo City Railway Company (PCR) under the same directors as the previous company. The PCR chose a unique 48-inch gauge for the system, which was slightly narrower than the standard gauge, and the entire system was reconstructed with 35-pound rails. The company also constructed a large new car barn and power station at Victoria Avenue and D Street (see Figure 169). The horse-powered cars continued to operate throughout the city during the reconstruction. The first electric streetcars began running between Mesa Junction and Lake Minnequa on June 12, 1890. The PCR ultimately constructed 20 miles of track in 1890 and 1891, in addition to the 13 miles established by the PSR (see Figure 175). The new construction extended further out from the city and had a significant impact on Pueblo's growth. Excepting minor alterations and extensions in later years, the system constructed by the PCR was utilized by every successive streetcar company in Pueblo.⁷²⁸



Figure 168. Streetcar parked in front of the 1890 car barn constructed by the PCR, c.1920

⁷²⁸ Cafky and Haney, *Pueblo's Steel Town Trolleys*, 17.



Figure 169. An electric streetcar travels down Main Street, c.1890.⁷²⁹

As the PCR built lines into new neighborhoods, land values and residential construction boomed along the streetcar lines. As the *Colorado Daily Chieftain* wrote in 1890:

Even talk of running an electric line to any new addition causes a regular boom in that locality, and the actual beginning of the work of extending the lines causes now [sic] houses to rise like magic. East, west, north and south of the city, flourishing suburbs, well built up with cozy little homes, bear witness to what rapid transit has done for Pueblo.⁷³⁰

The most significant early expansion occurred in East Pueblo, which had never enjoyed service from the PSR. Following the construction of the 4th Street viaduct over Fountain Creek in 1891, tracks were laid along East 4th Street, Glendale Avenue, and East 8th Avenue. East Pueblo was home to a working immigrant population that rode the Bessemer-East Pueblo line daily to and from the steel mill on the south side of town. The PCR also extended service on the north side of

⁷²⁹ "Main Street," c.1890, PCCLD Special Collections, PH-P-662-03-002, Pueblo City County Library District.

⁷³⁰ "Rapid Transit, Growth and Progress of the Street Railway in Pueblo," *Colorado Daily Chieftain*, November 2, 1890.

town, extending into the Irving Place neighborhood near the Colorado State Hospital and up to 24th Street on Grand Avenue.⁷³¹

The PCR also provided service to recreational attractions for Pueblo's citizens and tourists. Lake Minnequa was a popular resort and amusement park in South Pueblo, and a new line was constructed to directly serve the park along Colorado Avenue and Berkley Avenue. A branch of the Lake Minnequa line also serviced the state fairgrounds. Closer to downtown, a loop line on Main Street and Santa Fe Avenue carried passengers to Mineral Palace Park. Over the years Main Street eclipsed Santa Fe Avenue as the primary commercial street in downtown Pueblo and the Mineral Palace loop ceased operation in 1913. However, the tracks on Santa Fe Avenue were left in place for heavy service days. Each of the PCR's routes provided crosstown service through downtown and across the Arkansas River via Union Avenue.⁷³² The PCR operated successfully for the next couple of years, but a combination of economic and natural disasters led to a series of reincorporations of the streetcar system.

The Panic of 1893 (see Section 3.E.) was especially difficult for Pueblo. As the mines in the mountains shut their doors overnight, Pueblo's smelters and steel furnaces suddenly went cold and thousands were left unemployed. The loss of the city's leading industries caused other supporting businesses to fail throughout the city. The PCR faced a sharp decline in revenue as residents that once commuted every day stayed home. Even those who kept their jobs had less money to spend on pleasure rides to the city's parks and resorts. Compounding these difficulties, the Arkansas River flooded in May 1894, with flood levels reaching 3 feet in downtown Pueblo. The flood caused significant damage to the Union Avenue bridge, as well as the carbarn and power plant, which forced the company to shut down service for several days. The cost of repairs from the flood, combined with decline in ridership, forced the company into receivership and bankruptcy in 1895. The General Electric company, the primary holder of the PCR's debt, purchased the PCR in 1895 and reorganized it as the Pueblo Electric Street Railway (PESR) under its own management. Although no longer president, Orman remained influential to the

⁷³¹ Cafky and Haney, *Pueblo's Steel Town Trolleys*, 17, 73–75; “East Side Line.”

⁷³² Cafky and Haney, *Pueblo's Steel Town Trolleys*, 76–79, 83–84.

system's operation. For the rest of its history electric power companies, not individual streetcar companies, operated the Pueblo streetcar system.⁷³³

The PESR maintained and operated the existing system without major changes. Pueblo's economy recovered in the late 1890s in response to the mining boom in Cripple Creek, and it appears the streetcar system returned to profitability. In 1898 the Thatcher brothers, who had worked their way from general merchants in the 1860s to owners of the First National Bank of Pueblo, purchased the PESR and consolidated it with their interests in the Pueblo Light & Power Company to form the Pueblo Traction & Electric Company. The Thatchers soon consolidated again with the rival Pikes Peak Power Company and incorporated the Pueblo Suburban Traction & Lighting Company (PST&LC) in 1899. The PST&LC made several improvements to the system, including replacing the tracks with new 75-pound rails and investing in double-truck cars for the main routes (see Figure 170). Throughout this period the company operated the same 1890 routes with no major alterations aside from an extension of the Grand Avenue line into the Fairmount Park neighborhood.⁷³⁴ The PST&LC planned to extend an interurban line between Canon City and La Junta, with Pueblo at the center, but never began construction on the project.⁷³⁵

⁷³³ Cafky and Haney, *Pueblo's Steel Town Trolleys*, 18; "Pueblo City Railway Sold," *Pueblo Daily Chieftain*, September 1, 1895, 3.

⁷³⁴ Cafky and Haney, *Pueblo's Steel Town Trolleys*, 19–21, 78–79.

⁷³⁵ *Street Railway Journal* 21, no. 9 (February 28, 1903): 340.



Figure 170. View of Main Street with a PST&LC streetcar, c.1903.⁷³⁶

In 1911 the Chicago-based holding company H.M. Byllesby & Company purchased control of the PST&LC along with several other power companies in Southern Colorado and formed the Arkansas Valley Railway Light & Power Company (AVLR&P). The AVLR&P constructed the last new lines in the Pueblo streetcar system in 1913. The City Park line followed Victoria Avenue before crossing a new bridge to a private right-of-way connecting to Goodnight Avenue, which it followed to the park. The company also built a new line along Beulah Avenue to the State Fairgrounds.⁷³⁷ The growth of automobile ownership in the 1910s significantly affected streetcar ridership in Pueblo, much as it did in other cities throughout the country, and 1916 was the last profitable year for the streetcars. Profits from power generation, however, were enough to keep the company afloat while continuing to provide transportation service.⁷³⁸

⁷³⁶ “Main Street,” June 1903, PCCLD Special Collections, PH-P-662-09-010, Pueblo City County Library District.

⁷³⁷ Cafky and Haney, *Pueblo’s Steel Town Trolleys*, 85–86.

⁷³⁸ Cafky and Haney, *Pueblo’s Steel Town Trolleys*, 24.

Disaster struck again in 1921 with the largest flood in Pueblo's history. On June 3, 1921, heavy spring rains to the west caused the Arkansas River and Fountain Creek to rise at an unprecedented rate, at one point rising 8 feet in 1.5 hours. The river finally crested at 13 feet above street level in downtown. The flood directly hit the carbarn and power plant on Victoria Avenue, and the system's central line on Union Avenue, which were all located in the river's floodplain. The buildings and machinery in the power plant were heavily damaged and filled with mud. Power lines and tracks were uprooted from the streets. During the flood the entire city lost power and electric service was not restored to the streetcars until the hospitals, public buildings, and private homes were guaranteed power. Streetcar service was finally restored on June 27, 1921. Following the flood, the river was realigned into its current concrete-lined channel south of B Street. During the months of construction on the new Union Avenue viaduct, traffic was rerouted to the Main Street viaduct and the streetcars ran over a temporary trestle adjacent to the bridge. The AVRL&P was committed to assisting the city's recovery, spending \$1 million rebuilding the streetcar system to its former condition and paying for a share of the river channel improvement.⁷³⁹

Although the city's infrastructure was repaired relatively quickly, it took years for Pueblo to fully recover from the flood's economic impacts. Downtown business owners were left deeply in debt and the city's population ceased its 50-year growth pattern, plateauing around 50,000 residents for the next few decades. In 1923 Byllesby's company reorganized its Pueblo division as the Southern Colorado Power Company (SCP). The company's new name is significant in that there is no reference to a railway or other transportation system, indicating that by the 1920s the streetcar system was ancillary to the more profitable business of generating electricity for homes, businesses, and industry. In the 1920s the SCP fought its rising costs and competition from automobiles not by cutting services, but by maintaining consistent and reliable service every 10 minutes throughout the city. The company reduced payroll by investing in a fleet of single-operator Birney cars and rebuilding the double-truck cars for use by a single operator, following the example of the Denver Tramway Company. In addition to cutting costs, the fare for a single trip was increased from five cents to 25 cents.⁷⁴⁰ The Great Depression was a difficult time for Pueblo,

⁷³⁹ Cafky and Haney, *Pueblo's Steel Town Trolleys*, 29, 34–38.

⁷⁴⁰ Cafky and Haney, *Pueblo's Steel Town Trolleys*, 41.

as for the rest of the nation. The city faced large-scale unemployment and ridership on the streetcars plummeted. In 1932 the SCP purchased 32 Birney cars from the Colorado Springs & Interurban Railway and retired the remaining double-truck cars. Many of the double-truck cars were sold and repurposed as storage sheds and lunchrooms. Despite the difficulties of the Depression the streetcars continued to run, and by 1940 Pueblo was one of only a handful of American cities relying entirely on streetcars for public transit (see Figure 171 and Figure 172).⁷⁴¹



Figure 171. Streetcar tracks on Main Street looking north from 5th Street, 1938.⁷⁴²

⁷⁴¹ Cafky and Haney, *Pueblo's Steel Town Trolleys*, 48.

⁷⁴² Works Progress Administration, "Main and Fifth Streets, 1938," June 30, 1938, PCCLD Special Collections, P-456, Pueblo City County Library District.



Figure 172. Streetcar tracks on Union Avenue looking north from D Street, 1938.⁷⁴³

World War II provided a much-needed boost to Pueblo and the streetcar service. The sudden need for steel and other industrial production brought jobs and residents back to the city (see Figure 173). Rationing of materials such as rubber and gasoline limited automobile traffic, which meant citizens once again turned to the streetcars to commute across town for work and shopping. While this upturn in ridership was significant, it ended as quickly as it arrived when the war ended. In 1947 the SCP steadily replaced its streetcars with new General Motors buses throughout the city. The final car ran on the Bessemer-Park Hill line on November 29, 1947. In 1949 the SCP sold its transportation division to the Pueblo Transportation Company. Most of the streetcar tracks in Pueblo were simply paved over and remain under the pavement. The last visual reminders of streetcar era, the large carbarn and power plant on Victoria Avenue, were demolished in 1983.⁷⁴⁴ The Pueblo system was unique in Colorado as one of the earliest and longest running in the state and for maintaining consistent service on all its routes throughout multiple changes in ownership.

⁷⁴³ Works Progress Administration, “South Union Avenue and D Street, 1938,” October 12, 1938, PCCLD Special Collections, W-250, Pueblo City County Library District.

⁷⁴⁴ Cafky and Haney, *Pueblo’s Steel Town Trolleys*, 54; Glen Huss, “Buses to Again Give Pueblo Transportation Leadership,” *Colorado Daily Chieftain*, July 1947; Curt Chandler, “Pueblo’s History Disappearing with Streetcar Barns,” *Colorado Daily Chieftain*, September 8, 1983.



Figure 173. SCP streetcar turning onto Indiana Avenue with the smokestacks of the Minnequa Steel Works in the background. World War II brought jobs back to the steel factory and temporarily revived the streetcar system in Pueblo.⁷⁴⁵

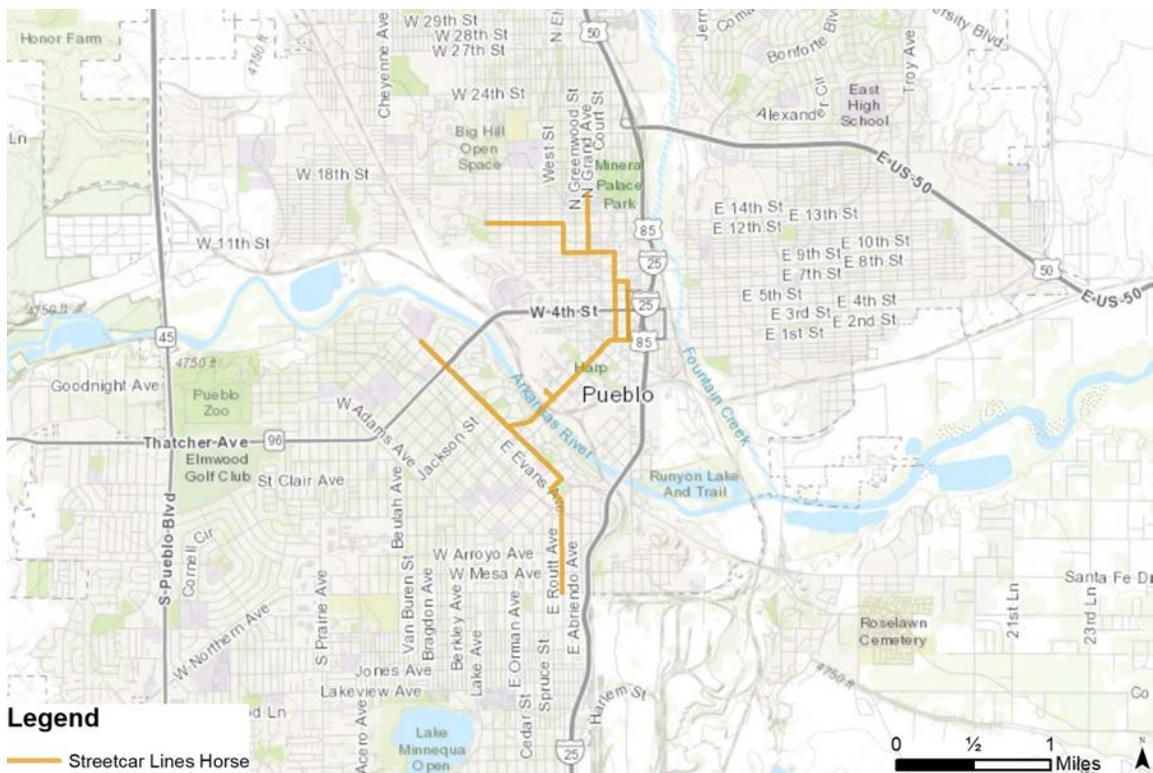


Figure 174. Map of the horse-powered streetcar lines in Pueblo

⁷⁴⁵ Robert W. Richardson, "Southern Colorado Power Co.," September 20, 1946, Digital Collections, RR-1628, Denver Public Library.

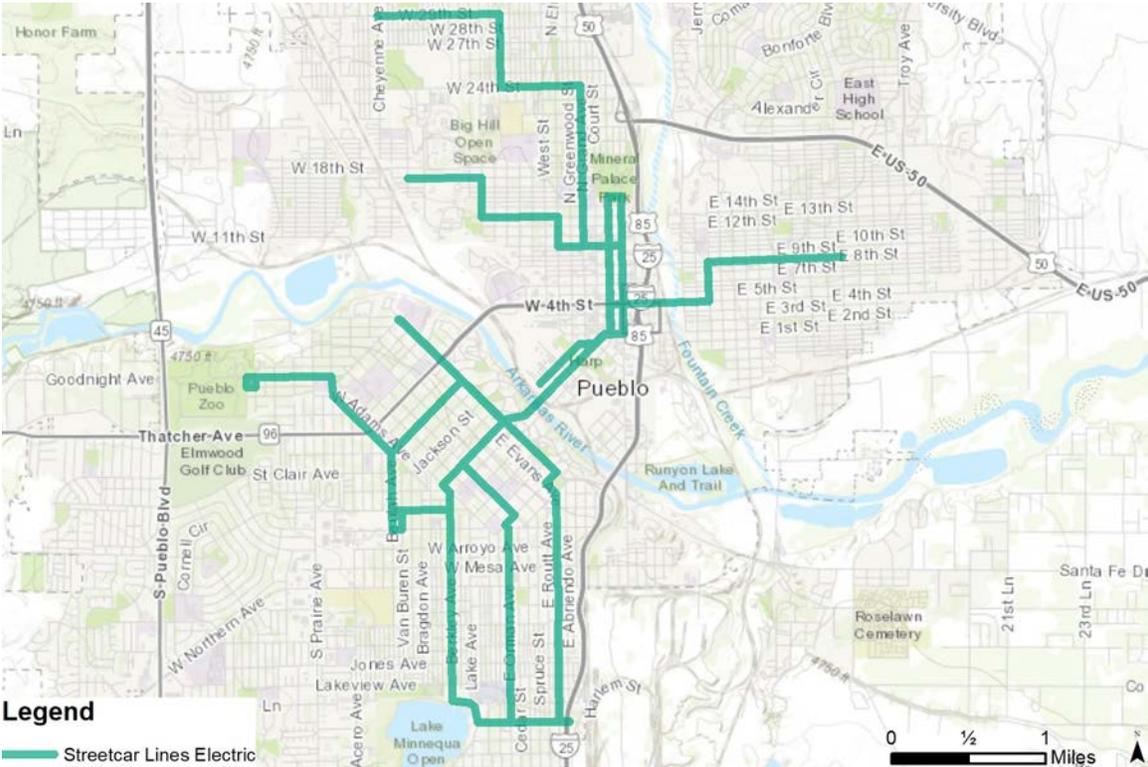


Figure 175. Map of the electric streetcar lines in Pueblo

N. Trinidad

Table 18. Streetcar companies operating in Trinidad

Company Name	Years of Existence/Operation	Mode of Transport
Trinidad Street Railway	1882-c.1892	Horse
Trinidad Electric Railway Company	1903-1923	Electric

Trinidad was the epicenter of southern Colorado’s coal mining region. The city of Trinidad grew out of a small plaza built by Felipe Baca, a farmer from New Mexico, in the early 1860s. Located near Raton Pass, it became an important crossroads for multiple travel routes between Pueblo and Santa Fe. In 1866 Trinidad was named the county seat of Las Animas County. The region surrounding the town was settled by sheep ranchers and grain farmers during the 1860s. In the 1870s incredibly rich and accessible coal deposits were found in the hills to the south and west of Trinidad. Coal soon became the primary export from the region, fueling the steel mills, smelters, and locomotives across Colorado. In 1876 the Denver & Rio Grande Railroad (D&RG) built a line as far as El Moro, 5 miles north of Trinidad. A year later the Atchison, Topeka & Santa Fe Railroad (AT&SF) built its line into the heart of Trinidad, cementing the city’s position as a major urban center in southern Colorado. Both railroads, along with their affiliated mining and land companies, established small company towns throughout the coal region, including Sopris, Starkville, and Cokedale. Coal mining at the time required armies of laborers. By 1910 approximately 20,000 miners lived in Trinidad and the surrounding communities.⁷⁴⁶

As a rapidly growing regional urban center, Trinidad was an ideal location for a streetcar system. The presence of a streetcar added prestige to the city’s image and was undoubtedly seen as a promising business opportunity. C.P. Treat opened the Trinidad Street Railway (TSR), Trinidad’s earliest streetcar company, in 1882. There is little documentation regarding the TSR. In 1886 Treat sold the railway to "a syndicate composed of ten of Trinidad's most enterprising citizens."⁷⁴⁷ By 1889 the system consisted of 1.5 miles of track with two cars and eight mules.

⁷⁴⁶ Abbot, Leonard, and Noel, *Colorado: A History of the Centennial State*, 37–39; Wyckoff, *Creating Colorado: The Making of a Western American Landscape, 1860-1940*, 205–10.

⁷⁴⁷ *Pueblo Daily Chieftain*, February 26, 1886.

The TSR was upgraded in 1891 to 3 miles of track with six horsecars and 35 horses. The TSR's exact route is unknown, although photographs indicate that there were lines on Main Street and Commercial Street, and that the service crossed the Purgatoire River via two bridges on Commercial Street (see Figure 176 and Figure 177). An 1892 article in the *Aspen Weekly Times* indicated that a group of "Chicago capitalists" intended to purchase the TSR and electrify the system. However, there is no record in historic directories, newspapers, or maps of any streetcar companies operating in Trinidad between 1893 and 1903. It is possible that the Panic of 1893 interrupted the development plans and caused the TSR to terminate service.⁷⁴⁸

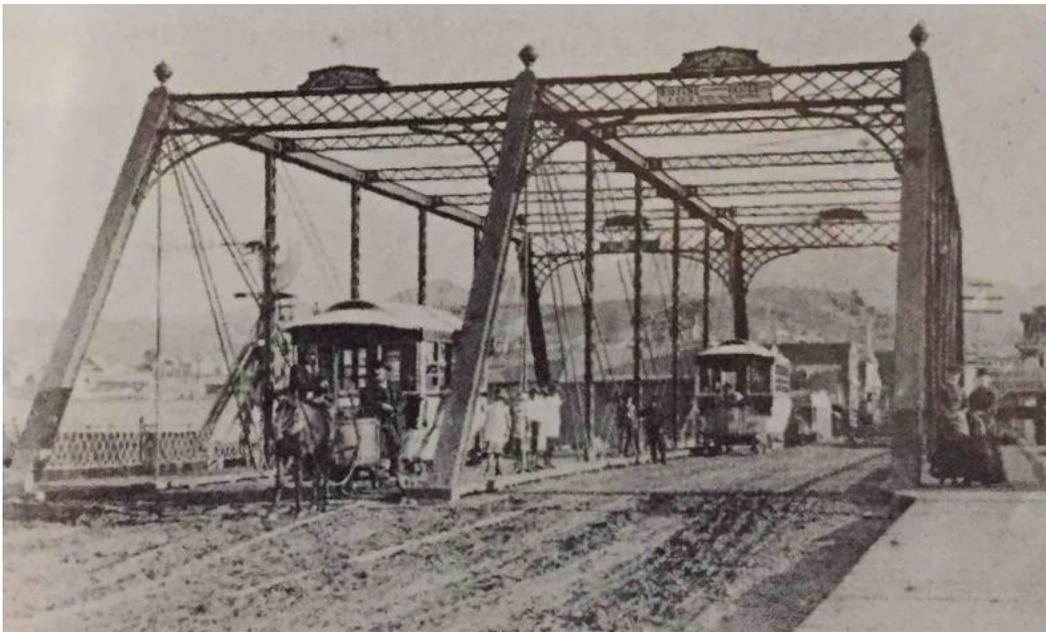


Figure 176. Two TSR streetcars crossing the Purgatoire River bridge on Commercial Street, 1883.⁷⁴⁹

⁷⁴⁸ Fletcher, *Centennial State Trolleys*, 154; Feitz, *Colorado Trolleys*, 47; "The State at Large," *The Daily News*, June 13, 1882; "A Rare Chance for Investment, Trinidad Street Railway at Auction," *Pueblo Daily Chieftain*, February 7, 1886, 3; "After a Street Railway," *Aspen Weekly Times*, July 2, 1892, 2.

⁷⁴⁹ Feitz, *Colorado Trolleys*, 47.



Figure 177. Photo of streetcar tracks on Commercial Street, looking north from Main Street, c.1890-1900.⁷⁵⁰

Plans for a new electric streetcar system emerged in 1902. By that time Colorado had fully recovered from the 1893 panic and resulting depression and the mining economy was thriving again with large quantities of gold ore flowing from the Cripple Creek district. That year the *Denver Daily Times* noted a wave of new commercial and residential construction in Trinidad, in part fueled by the plans for a new electric railroad: “Everyone seems to want to secure some land that is easily accessible to the rapid transit line.”⁷⁵¹ The City of Trinidad (City) granted local developer Seth Hartley a streetcar franchise in June 1902, but Hartley did not fulfill his franchise and construction never began.⁷⁵²

⁷⁵⁰ Oliver E. Aultman, “Looking North down Commercial Street from Main St.,” 1900 1890, History Colorado, Aultman Collection, CHS.A631, Denver Public Library.

⁷⁵¹ “Renewed Activity in Trinidad: Coming of the Street Railway Awakens Citizens,” *Denver Daily Times*, July 20, 1902, 11.

⁷⁵² “Trinidad Street Car Franchise Granted,” *Denver Daily Times*, June 4, 1902, 11; “Renewed Activity in Trinidad: Coming of the Street Railway Awakens Citizens,” 11.

A year later the City granted another franchise with the same terms to Frank P. Read, the president of the Trinidad Electric Light & Power Company. With solid backing from the power company, Read established the Trinidad Electric Railway (TER) in June 1903 and promptly began construction that August. W.C. Whitescarber was contracted to construct the lines. Regular service on the TER began on April 28, 1904.⁷⁵³ South of the Purgatoire River, the TSR had lines on Animas Street and Main Street, heading north across the river on Commercial Street (see Figure 178). North of the river the company built a large loop along Pine Street, San Juan Street, Baca Avenue, and Arizona Avenue. It also extended a line further north to the county fairgrounds (see Figure 180). South of the loop, the TSR constructed a carbarn and powerhouse on the southwest side of town near the intersection of San Juan Street and Robinson Avenue (see Figure 179). Beyond the carbarn, the streetcars ventured outside Trinidad to the nearby coal mining towns.⁷⁵⁴ The gauge and weight of the rails is unknown.

⁷⁵³ Fletcher, *Centennial State Trolleys*, 154; Wilkins, *Colorado Railroads: Chronological Development*, 151; “Colorado Briefs,” *Lafayette News*, July 25, 1903, 4; “Trinidad Will Have Electric Street Railway,” *Denver Daily Times*, June 9, 1903, 12; “Work in Commenced on Trinidad Electric Line,” *Denver Daily Times*, August 21, 1903, 11.

⁷⁵⁴ Fletcher, *Centennial State Trolleys*, 154; “Map of Trinidad, Colorado” (Denver: Clason Map Company, 1909), Map Collection, 97005682, History Colorado; “Insurance Maps of Trinidad, Las Animas Co., Colorado” (New York: Sanborn Map Company, 1907).



Figure 178. TER streetcar on Commercial Street, c.1905.⁷⁵⁵



Figure 179. Powerhouse and car barn constructed by the TER, c.1905.⁷⁵⁶

⁷⁵⁵ Otis A. Aultman, "Trinidad Street Scene Commercial Street," c.1905, History Colorado, Aultman Collection, CHS.A802, Denver Public Library.

⁷⁵⁶ Aultman, Oliver E., "Power House and Street Car Barns, Trinidad, Colorado," 1908 1904, History Colorado, Aultman Collection, CHS.A854, Denver Public Library.

Although the local routes within Trinidad provided an important service, freight service on the interurban lines was the TSR's primary source of revenue. Coal was the lifeblood of Trinidad's economy. Not to be left out, Read extended the electric company's resources to profit from the surrounding mines. In 1903 the company predicted hauling 25,000 tons of coal a day from the mines to the central rail depots in Trinidad. The interurban line to Sopris and Starkville, located just southwest of Trinidad, was constructed along with the local system in 1904. This line ran southwest from the city along the north bank of the Purgatoire River, crossing the river near Jensen, and then branching towards the two coal towns. Freight service was so successful that plans were quickly developed to extend the TSR's interurban service west to Cokedale and as far north as Walsenburg, approximately 35 miles north of Trinidad, passing through the coal company towns of Hastings and Aguilar. In 1908 a spur from the Sopris and Starkville line was constructed into Cokedale.⁷⁵⁷ The northern route never came to fruition and the Cokedale spur was the last construction completed by the TSR.⁷⁵⁸

In contrast to some other streetcar companies in Colorado, the TSR was always associated with the local power company and was never strictly a transportation enterprise. The TSR operated under the ownership of multiple utilities as the result of various mergers and acquisitions, including the Trinidad Electric Railway & Gas Company (1904), Southern Colorado Power & Railway Co. (1908), Colorado Railway Light and Power Co. (1909), and Trinidad Electric Transmission Railway & Gas Co. (1911). The interurban lines collectively operated under the name Trinidad, Sopris and Starkville. There is little documentation related to the company between 1910 and 1920. The TSR's profits were closely tied to the coal mining industry and the fluctuations within that industry from major labor strikes and World War I certainly affected the company's bottom line. The rise in automobile ownership reduced ridership on the streetcars,

⁷⁵⁷ The interurban lines between Trinidad and Sopris, Starkville, and Cokedale did not follow city streets and portions were likely constructed through the current location of Lake Trinidad. Accurate maps of the locations of these lines have not been found. These line were therefore not included in the GIS portion of this study.

⁷⁵⁸ Fletcher, *Centennial State Trolleys*, 154; Feitz, *Colorado Trolleys*, 47; "Pushing Work on Trinidad Trolley," *Denver Daily Times*, September 23, 1903; "Trolley Will Tap Coal Lands," *Denver Daily Times*, September 24, 1903; "Electric Railway for Carrying Coal," *The Herald Democrat*, September 25, 1903, 1; "Colorado News Items," *Las Animas Leader*, May 6, 1904, 3; *The Walsenburg World*, May 13, 1904, 1; "Begin Gigantic Project: Definite Move to Build Network of Electric Railroads in Vicinity of Trinidad," *Aspen Daily Times*, May 10, 1907.

much as it did across the state. Although the exact reasons are unclear, by 1920 the TSR was petitioning for abandonment of its lines. Local passenger service was cancelled in 1922. The interurban service continued for another year, but it too was cancelled in 1923. While it appears the interurban lines were removed, it is possible that some rails may remain beneath the streets of Trinidad.⁷⁵⁹

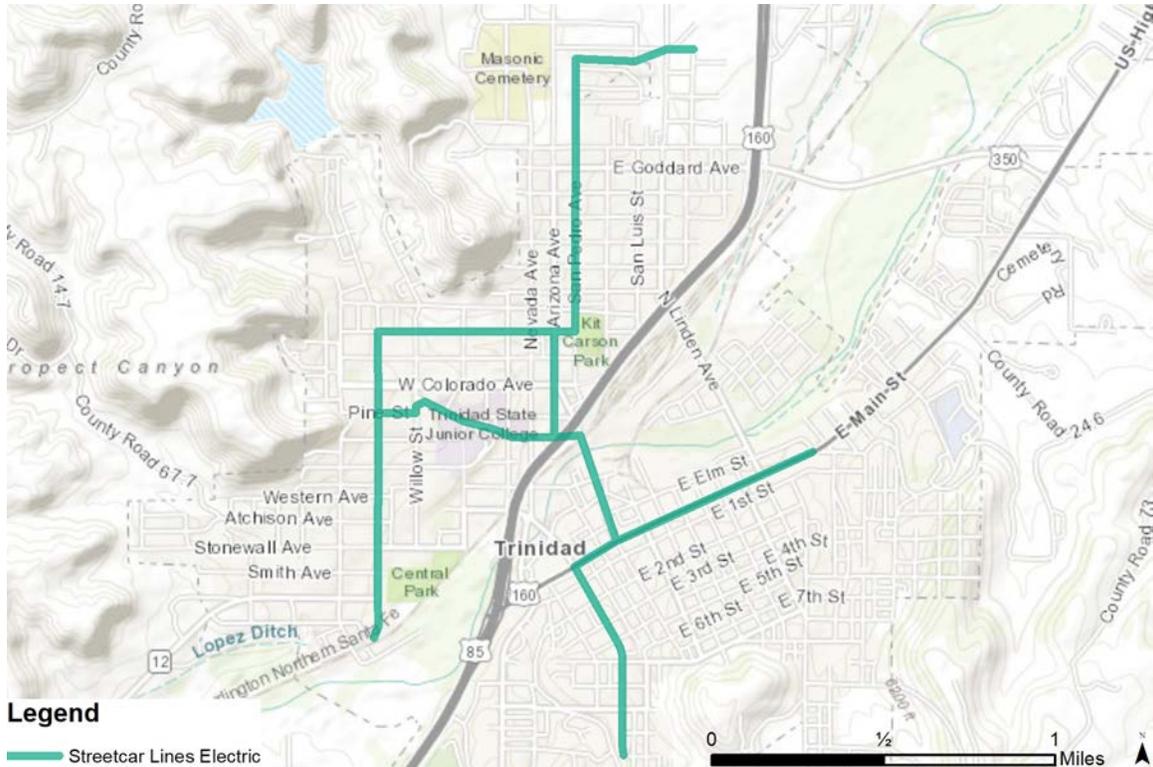


Figure 180. Map of Trinidad streetcar lines.

⁷⁵⁹ Fletcher, *Centennial State Trolleys*, 154; Feitz, *Colorado Trolleys*; “State News Items,” 2.

5. ARCGIS GEODATABASE

The purpose of this GIS mapping guide section is to provide background on the research process for the statewide historic streetcar GIS dataset. The guide outlines how to use the data and the necessary steps for data administrators to update the dataset as needed.

A. Database Framework and Research Process

An ESRI ArcGIS geodatabase was developed with data to geographically represent the historic streetcar lines that operated in Colorado (geodatabase is projected in the NAD_1983_UTM_Zone_13N coordinate system). ESRI is the software provider of the GIS software that was used to build, manage, and display the geodatabase. The intent of this statewide dataset is to display the geographic locations of Colorado's streetcar lines and track relevant details discovered during the research process. This geodatabase consists of a line layer to catalogue the locations of streetcar lines throughout Colorado and a point layer to catalogue other property types.

Locations of streetcar lines in Colorado were identified from historic research and were not field verified. The following method was used to approximate the locations of historic streetcar resources:

- Data was generated from digitized hard copy maps, tabular data, or historical descriptions.
- For lines that ran along city streets, existing street centerlines were used as representation unless the lines were recently field verified (and documented in past studies), in which case the field verified locations were used.
- For interurban or other lines that did not run along city streets, an approximate representation was digitized using the best available information gathered as part of the research.

Each streetcar line was recorded as a line feature with breakpoints at significant changes in the route over time, breakpoints where the technology changed over time, breakpoints as the line expanded or retreated, and breakpoints where lines spanned municipal boundaries. In some instances line segments overlap, but each streetcar line segment has an individual attribution field that is populated to the extent feasible. In cases where the historical research could not verify the location of a streetcar line, the streetcar line was not mapped.

Other property types associated with historic streetcar systems, such as buildings (car barns, power houses, etc.) and structures (wyes, turntable, etc.) were catalogued in a separate point layer using the same attribution structure as the line layer. This layer is not comprehensive but was used to represent locational data found during the research process. The data in this feature class are readily available points accessed from History Colorado’s COMPASS database or other local government GIS databases and various research sources.

Attribute tables for both feature classes are populated with the following fields; some of the fields may not apply to point data. The table below lists the GIS Field Name, an alias that is used in the web based application, a short description, and a listing of potential values.

Table 19. GIS attribute table fields

<u>Field Name</u>	<u>Alias</u>	<u>Description</u>	<u>Values</u>
SEG_ID	None	Unique identifier for segments in the database.	Sequential number
LINE_ID	None (Title of Box)	Unique identifier for streetcar line. Multiple segments may share the same line ID.	Sequential number
LINE_NM	Line Name	Text field containing the name of the line which is not a unique identifier. Notate multiple names if name changed over time. If line is broken into multiple segments this field will be the same for each.	Text

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<u>Field Name</u>	<u>Alias</u>	<u>Description</u>	<u>Values</u>
COUNTY	County	County where line is located. If located in multiple counties the line will be split into multiple segments.	Text
CITY	City	City where line is located. If located in multiple cities, the line will be split into multiple segments.	Text
TECH_DESCRIPTION	Technology	Description of Rail Technology (if known).	Text description of technology which could include one or more of the following: Standard Gauge, Narrow Gauge, Horse, Cable Electric, Other, Unknown
TECH_GAUGE	Track gauge	Keeps track of the gauge of track.	Narrow, Standard, Other, Unknown
TECH_HORSE	Horsecar line	Binary listing if horse technology was used. Used for mapping purposes.	Yes/No/Unknown
TECH_CBL	Cable line	Binary listing of if cable technology was used. Used for mapping purposes.	Yes/No/Unknown
TECH_ELEC	Electric line	Binary listing if electric technology was used.	Yes/No/Unknown
CNSTRCTN_CO	Company at construction	Name of company or companies that constructed the line.	Text (or turned in a discrete list depending on number of companies)
CNSTRCTN_DT	Construction date	Earliest date the construction could have been completed for the project.	Date (year)
OPERATING_CO	Operating companies	Name of companies that operated the line. If multiple companies, listed in order from first to last.	Text (or turned in a discrete list depending on number of companies)
OPS_START	Service start date	Date that revenue service started.	Date (year)

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<u>Field Name</u>	<u>Alias</u>	<u>Description</u>	<u>Values</u>
OPS_END	Service end date	Date that revenue service ended.	Date (year)
PROP_TYPE	Property type	Property type of resource.	Text
HIST_SIG	Historical significance	Short description of historical significance, including eligibility or listing on the National Register of Historic Places or State Register of Historic Properties.	Dropdown items including officially eligible, not eligible, field eligible, field not eligible, unknown
EXIS_COND	Existing condition	Current condition of the tracks (if known). Contains notes for instances where track was encountered as part of another project.	Text
TRACK_STATUS	Tracks remain / removed	Used to denote if streetcar track has been removed or if it still remains. Default value is unknown.	Removed, Remains, Unknown
ACCURACY	Data accuracy	Category of data accuracy based on if line was field verified, estimated from historic maps, etc.	Field Verified, Estimated from Historic Map, Estimated to Roadway Centerline, Other
OTHER_NOTE	Notes	Any other relevant note not captured in other fields.	Text
SOURCE	Source of data	Source of previously collected data or name of historian that did the data collection.	Text
VERI_HIST	None	Name of historian verifying location and project data.	Text
COMPASS_NO	Compass Site number	Smithsonian number if recorded in Compass, History Colorado's database of previously recorded historic sites.	Number
VERI_DATE	Date last updated	Date the historian performed verification.	Date

<u>Field Name</u>	<u>Alias</u>	<u>Description</u>	<u>Values</u>
DATA_STATUS	Data status	Field used by project team to indicate if any data fields have not been completely collected as part of the initial project. This does not indicate that the data is not available.	Text

The order of the field names in this table does not imply importance of data but is organized logically to be referenced in the GIS database. Some attributes may not apply to point data.

B. Data Usage Guide and Online GIS Viewer

This database is intended to be the single statewide historic streetcar dataset and will be updated by CDOT upon future streetcar system discoveries and removals to extent feasible. The hosting of the layer will facilitate efforts to locate, research, and evaluate historic streetcar systems and extant property types. A mapping viewer was developed based on the desired attribute tables and locations of associated streetcar lines and associated property types. The data may be hosted in a different location and made available to the public in a different format in the future, as determined by CDOT staff. This usage guide demonstrates how users may currently access the data. Symbology of streetcar lines and points and addition of historical basemaps are subject to change based on future application updates.

GIS data, including streetcar lines and associated features can be accessed in two ways: the data can be viewed online through the GIS viewer and the data can be downloaded as shapefiles (.shp) by request. The GIS viewer is hosted by CDOT, and can be accessed from C-PLAN, an interactive online mapping platform where you can find CDOT maps, data, and visualizations, via <https://cdot.maps.arcgis.com/home/index.html>. The location of the GIS viewer on CDOT’s website may change over time. To request GIS data in the form of shapefiles, please email: dot_generalmailbox_dtd@state.co.us.

The data contains attributes that allow users to view the data in a variety of different ways including year of construction, years of operation, streetcar technology, track gauge, and other

details. The GIS Viewer allows users to navigate to communities of interest using tabs at the top of the page, or to explore the state manually. Features of the map are interactive; clicking on a streetcar line or point feature displays the attributes described in Table 19.

The GIS viewer includes a variety of ways to display data. As described above, and shown in Figures 181 through 183, streetcar lines may be viewed by technology, status (whether the lines have been removed or remain), date of active use, or by construction/operating company name. The GIS viewer also allows users to select a time range to show only streetcar lines that operated during a specified time range (see Figure 183). An automatic time period advancement can create an animation that displays where streetcar lines operated, the technologies employed, and when operations were discontinued.

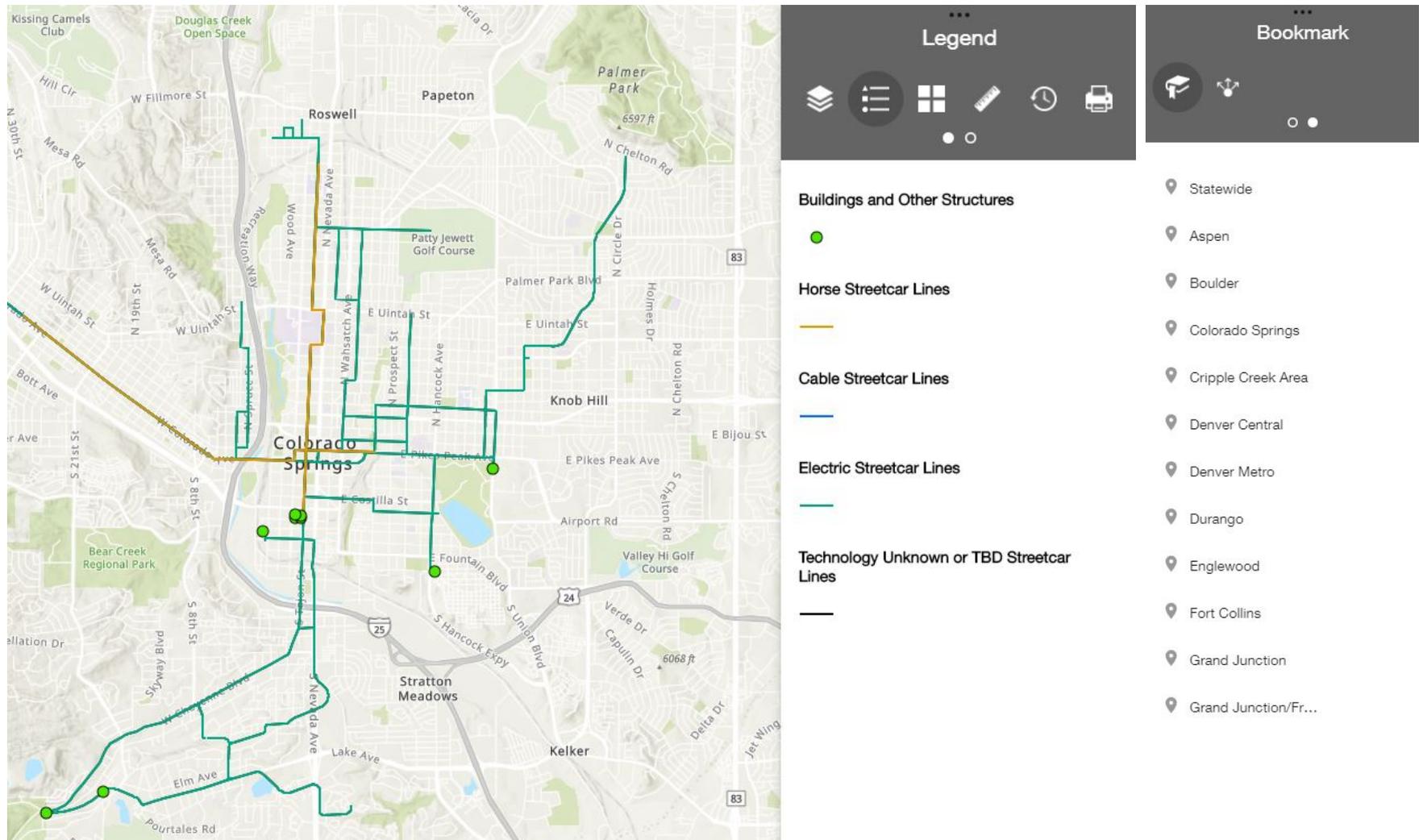


Figure 181. Mapping by streetcar technology: horse, cable, electric, or unknown.

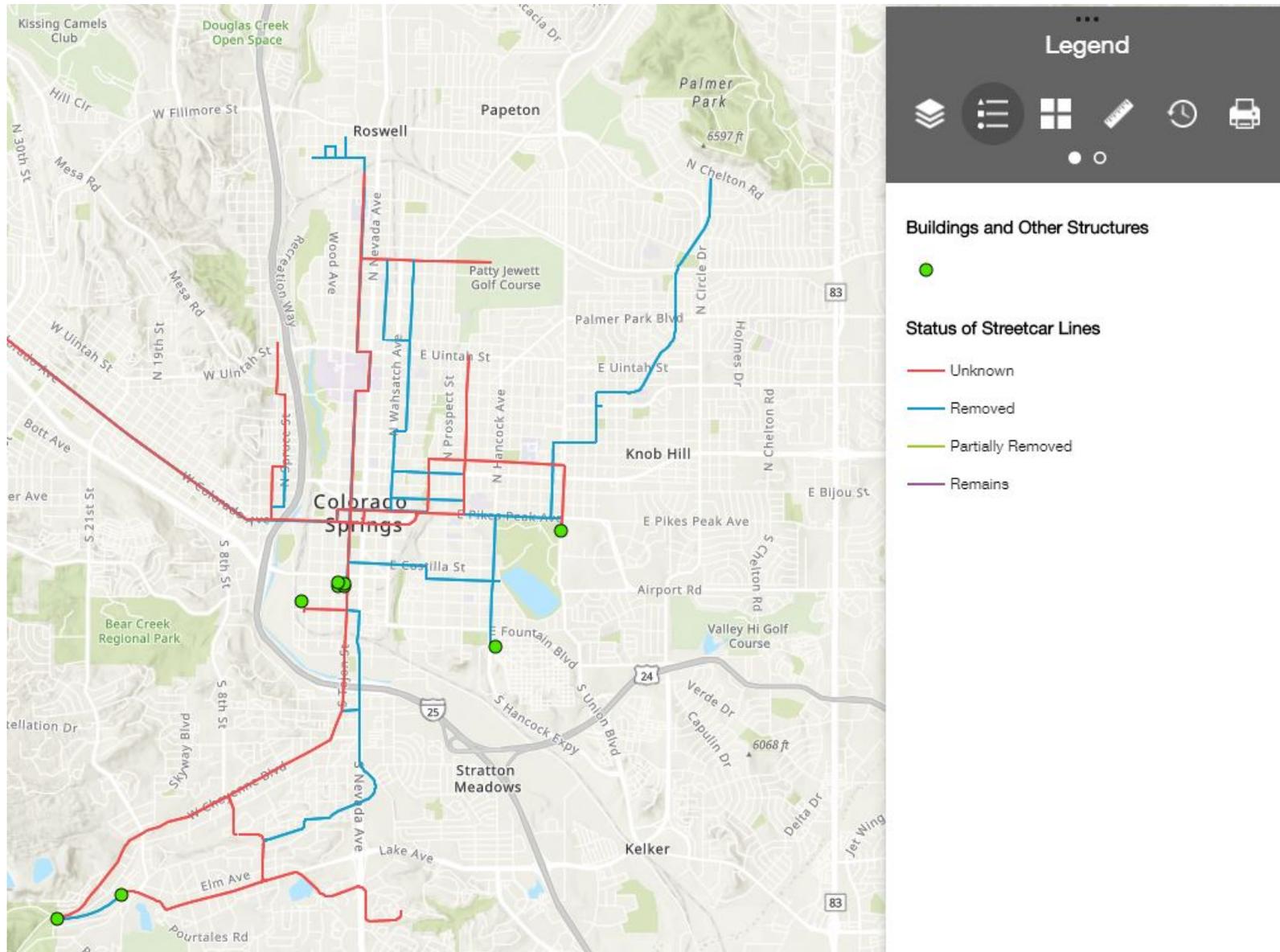


Figure 182. Mapping by status: partially removed, removed, remains, or unknown.

To see all attribute details for a particular streetcar line, users can click on a feature to show a popup that displays detailed attribute information (see Figure 184).

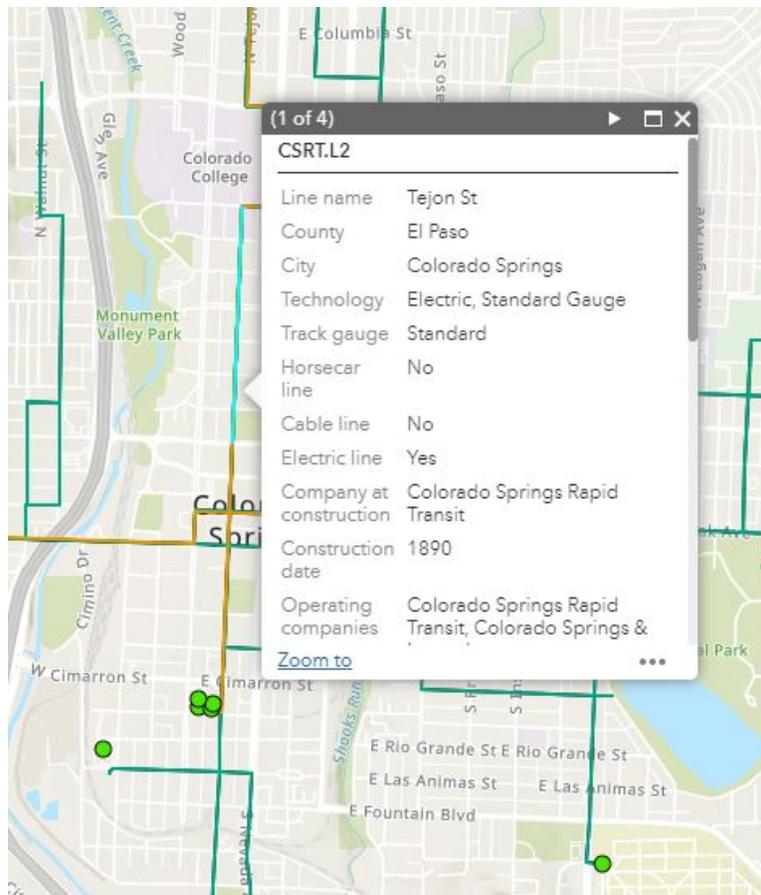


Figure 184. Example of detailed attribute information.

The symbology used to display features in the GIS viewer may change (e.g. green dots showing structures). Furthermore, as technology evolves, this GIS viewer, which currently uses the ArcGIS StoryMap framework, may come to be housed in a different platform or evolve in other ways.

C. Administrator Guide

The assembly of the GIS database was an iterative and collaborative process between project consultants involving a back-and-forth process of research and assembling the geodatabase. The final GIS database was assembled by AECOM and provided to CDOT as a geodatabase that is

now hosted by CDOT. As noted above, at the time of this report's completion, the GIS viewer is publicly available through ArcGIS Online and hosted by C-PLAN, CDOT's interactive online mapping platform as noted in Section B above. Up to date information about accessing the GIS application and data can be obtained by contacting CDOT GIS department through the email provided in Section B.

For future updates, CDOT historians will coordinate the update process. During the development of the dataset, consultants coordinated attributes in an Excel spreadsheet that was joined to the line layer to update attribute information, which allowed researchers to update this information without GIS software. This process could be used for future updates.

When updating records, the following fields should also be filled out to track who completed the update and when it was done.

- VERI_DATE – update to date of latest update
- VERI_HIST – update to include the name of the person providing the updated data

For access to the data, to provide additional data, comments or corrections to existing data, or for questions, contact a CDOT Historian or CDOT GIS at [dot_generalmailbox_dtd@state.co.us](mailto:dtd@state.co.us).

The following levels of data access are recommended to control access to the data.

Table 20. Levels of data access

<u>Access Level</u>	<u>Description</u>
CDOT Admin	Read/write access to identified CDOT employees. This group will update attributes and add new features as identified in future research or field exploration.
CDOT General	Read-only map service provided to all CDOT employees with access to all features. Also will have access to download data as shapefiles.
Public Access	Read-only map service with more limited access. Also will have access to download data as shapefiles.

6. KNOWN ASSOCIATED RESOURCES

Multiple streetcar resources were previously documented across the state. The results of a Colorado Office of Archaeology and Historic Preservation (OAHP) COMPASS database search completed with the assistance of OAHP staff is included below. In an effort to capture as many streetcar-related resources across the state as possible, the search included the following terms:

- Streetcar
- Street car
- Trolley
- Horsecar
- Horse car
- Tram
- Tramway
- Grip car
- Cable car
- Interurban
- Transit
- Car barn
- Car barn
- Municipal railway

State Historic Preservation Office (SHPO) staff and the consultant team reviewed the results to remove any resources not related to streetcar systems. Many of the resources included Geographic Information System (GIS) mapping information. However, the documentation of several other resources lacked sufficient information for mapping purposes. As a result, these resources were not included in the GIS mapping component of the study. Additionally, those resources included in the GIS mapping component were extant at the time of their recordation; however, their current condition is unknown and was not verified as a part of this project. Table 21 and Table 22 represent the COMPASS search results, which were received on April 10 and April 11, 2019, and include the site number, name, address, National Register of Historic Places (NRHP)/State Register of Historic Places (SRHP) assessment and date, and property type. Table 21 and Table 22 include a column reflecting the NRHP/ SRHP Assessment/ Local Landmark Status of different resources. “Officially Eligible”/ “Officially Not Eligible” resources represent those resources with an official eligibility determination from the Colorado SHPO. Assessments of “Field Eligible” or “Field Not Eligible” represent resources that were previously surveyed, but lack an official determination from the Colorado SHPO. Resources noted as “No Determination” or “Needs Data” were recorded but lacked sufficient information to warrant an eligibility

determination. Resources noted as “Supports the Eligibility of the Entire Linear Resource” were surveyed as a segment of a larger linear resource and were found to retain enough integrity to support the previously determined eligibility of the entire linear resource, whereas those noted as “Does Not Support Eligibility of Entire Linear Resource” do not. These notations reflect that the resources were documented as linear resources per the approach currently utilized by the Colorado SHPO. The COMPASS data also often tracks whether resources have been designated as local landmarks, which is reflected in the table.

Table 21. COMPASS Search Results

(*) indicates the resource has not been mapped

Site No.	Resource Name	Address	NRHP/SRHP Assessment/ Local Landmark Status	Date of Last Assessment	Property Type
5AM.1322	Denver Tramway Company Streetcar #.04; Denver & Interurban Railroad Car No. 11	5881 Tennyson St., Arvada, CO	Listed in SRHP	6/14/2000	Rolling Stock
5BL.361.12*	Streetcar Shelter – Bus Shelter	Baseline Rd., Boulder, CO	Within NRHP District/Field Eligible	11/1995	Waiting Station
5BL.8937*	Boulder Streetcar Tracks	N/A	Officially Eligible	No Date	Streetcar Line

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Site No.	Resource Name	Address	NRHP/SRHP Assessment/ Local Landmark Status	Date of Last Assessment	Property Type
5BL.8937.1*	Boulder Streetcar Tracks (Segment)	Broadway Between University Ave. And Pine St., Boulder, CO	Officially Eligible	11/27/2001	Streetcar Line
5BL.8937.2	Boulder Streetcar Tracks (Segment)	N/A	Officially Eligible	5/14/2008	Streetcar Line
5DV.117	Denver City Cable Rail Way Building – Tramway Cable Building – Spaghetti Factory	1801 Lawrence St., Denver, CO	Listed in NRHP/Local Landmark	7/2/1979	Power Plant/Carbarn
5DV.140	Tramway Building – University Of Colorado At Denver – Teatro Hotel	1100 14 th St., Denver, CO	Listed in NRHP	12/16/2004	Administrative Building

Historic Streetcar Systems of Colorado

Site No.	Resource Name	Address	NRHP/SRHP Assessment/ Local Landmark Status	Date of Last Assessment	Property Type
5DV.541	Denver Tramway Powerhouse – Forney Historic Transportation Museum – Recreational Equipment Inc./REI Flagship Store	1416 Platte St., Denver, CO	Listed in NRHP/Local Landmark	9/8/2001	Power Plant
5DV.1298	Delaware Street Tramway Station – Denver Mint Tramway Press Room	320 W. Colfax Ave., Denver, CO	Officially Eligible	1/13/1983	Substation
5DV.5337	Motor Coach Division Building, Denver Tramway Company – East Side Car barn – Gilpin Street Car barn	3500 Gilpin St., Denver, CO	Listed in NRHP/Local Landmark	3/22/2004	Car barn
5DV.9217*	Street Car/Tramway	N/A	No Determination	No Date	Streetcar Line
5DV.9217.1	Denver Street Car Tramway (Segment)	N/A	Supports Eligibility of Entire Linear Resource	3/7/2014	Streetcar Line

Historic Streetcar Systems of Colorado

Site No.	Resource Name	Address	NRHP/SRHP Assessment/ Local Landmark Status	Date of Last Assessment	Property Type
5DV.9217.2	Denver Street Car Tramway (Segment)	N/A	Field Eligible	5/25/2005	Streetcar Line
5DV.9217.3	Denver Tramway Trolley Line (Segment)	N/A	Officially Eligible	10/4/2007	Streetcar Line
5DV.9217.4	Denver Street Car Tramway (Segment) – Denver Tramway Trolley Line	S. Broadway, Denver, CO	Officially Eligible	6/5/2007	Streetcar Line
5DV.9217.5*	Denver Street Car Tramway (Segment)	N/A	No Determination	No Date	Streetcar Line
5DV.9217.6	Denver Tramway Trolley Line Route 72 – Segment	Tremont & Glenarm, Denver, CO	Officially Eligible	8/27/2008	Streetcar Line
5DV.9217.7	Denver Tramway Trolley Line	N/A	Supports Eligibility of Entire Linear Resource	10/23/2009	Streetcar Line
5DV.9217.8	Denver Tramway – Segment	N/A	Supports Eligibility of Entire Linear Resource	3/22/2010	Streetcar Line

Historic Streetcar Systems of Colorado

Site No.	Resource Name	Address	NRHP/SRHP Assessment/ Local Landmark Status	Date of Last Assessment	Property Type
5DV.9217.10	Denver Tramway Company Streetcar Lines – Segment	N/A	Supports Eligibility of Entire Linear Resource	3/7/2014	Streetcar Line
5DV.9217.11*	Denver Tramway Trolley – Segment	N/A	Supports Eligibility of Entire Linear Resource	5/28/2014	Streetcar Line
5DV.9217.12*	Street Car/Tramway – Segment	N/A	No Determination	5/28/2014	Streetcar Line
5DV.11241*	Trolley Track	N/A	Officially Not Eligible	11/4/2011	Streetcar Line
5DV.11241.1	Trolley Track-Segment	N/A	Officially Not Eligible	11/4/2011	Streetcar Line
5EP.739	Colorado Springs Rapid Transit Rwy. Car barn – Co Spgs Interurban – Winfield Scott Block	508-528 S. Tejon St., Colorado Springs, CO	Officially Not Eligible	3/2004	Car barn
5EP.2179*	Chicago, Rock Island & Pacific Railroad Roundhouse	2333 Steel Dr., Colorado Springs, CO	Field Not Eligible	3/1/2002	Streetcar Line

Historic Streetcar Systems of Colorado

Site No.	Resource Name	Address	NRHP/SRHP Assessment/ Local Landmark Status	Date of Last Assessment	Property Type
5EP.2179.1	Colorado Springs & Interurban Railway Car #59 – Interurban Trolley Car #59-Colorado Springs	2333 Steel Dr., Colorado Springs, CO	Listed in SRHP	11/9/1994	Rolling Stock
5EP.6739	Los Angeles Railway Streetcar #3101 – Los Angeles Railway Streetcar No. 3101	2333 Steele Dr., Colorado Springs, CO	Listed in SRHP	2/24/2011	Rolling Stock
5EP.6740	Colorado Springs & Interurban Railway Streetcar No. 48	2333 Steel Dr., Colorado Springs, CO	Listed in SRHP	2/24/2011	Rolling Stock
5EP.6933	Denver Tramway Company Box Motor Car No. 724	2333 Steel Dr., Colorado Springs, CO	Not Eligible	10/2011	Rolling Stock
5EP.6934	Denver Tramway Company Box Motor Car No. 770	2333 Steel Dr., Colorado Springs, CO	Officially Not Eligible for SRHP	10/2011	Rolling Stock

Historic Streetcar Systems of Colorado

Site No.	Resource Name	Address	NRHP/SRHP Assessment/ Local Landmark Status	Date of Last Assessment	Property Type
5GL.2104*	Spur - Gilpin County Tramway	N/A	No Determination	No Date	Streetcar Line
5GL.2104.1*	Spur - Gilpin County Tramway - Segment (Not Within The Historic District)	N/A	No Determination	No Date	Streetcar Line
5GL.2104.2	Spur - Gilpin County Tramway - Segment (Not Within The Historic District)	N/A	Does Not Support Eligibility of Entire Linear Resource	11/17/2016	Streetcar Line
5GL.2104.3*	Gilpin County Tramway (Martin Mill Extension) - Segment	N/A	No Determination	No Date	Streetcar Line
5GL.7.508*	Gilpin County Tramway	Central City - Black Hawk Vicinity, CO	Contributes to NRHP District	10/15/66	Streetcar Line

Historic Streetcar Systems of Colorado

Site No.	Resource Name	Address	NRHP/SRHP Assessment/ Local Landmark Status	Date of Last Assessment	Property Type
5JF.3930*	Leyden Gulch Railroad Grade – Denver & Northwestern Coal Railroad and Electric Interurban Street Car Line	N/A	No Determination	No Date	Embankment/ Grade
5JF.3930.1	Interurban Grade	N/A	Officially Not Eligible	No Date	Embankment/ Grade
5JF.4452*	Denver Tramway	N/A	No Determination	No Date	Streetcar Line
5JF.4452.1	Denver and Northwestern, Denver City Tramway Grade-Segment	N/A	Officially Eligible	No Date	Streetcar Line
5LR.495	Fort Collins Municipal Railway Birney Safety Streetcar #21	1801 W. Mountain Ave., Fort Collins, CO	Listed in NRHP	1/5/1984	Rolling Stock
5LR.739*	Ft Collins Railway	Fort Collins, CO	Field Needs Data	8/1/82	Streetcar Line

Historic Streetcar Systems of Colorado

Site No.	Resource Name	Address	NRHP/SRHP Assessment/ Local Landmark Status	Date of Last Assessment	Property Type
5LR.4443	Fort Collins Municipal Railway Streetcar Barn – Old Trolley Barn	330 N. Howes St., Fort Collins, CO	Officially Eligible	6/3/2003	Carbarn
5LR.11515.1	Fort Collins Trolley Line - Mountain Avenue Line (Segment)	N/A	Officially Eligible	3/16/2007	Streetcar Line
5PE.4430*	Pueblo Trolley	N/A	No Determination	No Date	Streetcar Line
5PE.4430.1	Pueblo Trolley - Segment – Pueblo Trolley System-Segment	At N. Union Ave. And Victoria Ave., Pueblo, CO	Officially Eligible	2/24/2004	Streetcar Line
5PE.4430.2*	Pueblo Trolley - Segment	N/A	Supports Eligibility of Entire Linear Resource	4/3/17	Streetcar Line
5PE.4430.3*	Pueblo Trolley - Segment	N/A	Supports Eligibility of Entire Linear Resource	2/21/18	Streetcar Line
5PE.8370*	Trolley Track	N/A	No Determination	No Date	Streetcar Line
5PE.8370.1*	Trolley Track - Segment	N/A	No Determination	No Date	Streetcar Line

Table 22. COMPASS Level II Search Results

Level II Report Name	Reference No.
Denver Tramway Route No. 72 (Cherokee Line) Segment City and County of Denver, Colorado Level II Documentation	DV.CH.R61
Documentation of Boulder Streetcars, Boulder County, Colorado	BL.CH.R43

The locations of additional built environment streetcar-related resources, including but not limited to carbarns, power plants, offices, and depots, were uncovered while completing research for this project. The approximate locations of these resources, based on historic maps and descriptions, were included in the GIS mapping component of this project when possible. The current location and condition of these resources was not verified as a part of this project. Some of these resources were previously recorded and included in the OAHP COMPASS database but were not included in the COMPASS search results as requested for unknown reasons. If a site number was identified for one of these resources during the research process, it is included in Table 23. In addition, all of the property types represented in Table 21 and Table 23 are described in Chapter 7: Associated Property Types of this report.

Table 23. Associated Streetcar Resources Identified During Research

Resource Name	City	Site No.	Determination or NRHP/ SRHP Assessment	Property Type
Boulder- Wye	Boulder	N/A	Unknown	Streetcar Line
Boulder- Powerhouse/Office/ Carbarn	Boulder	5BL.875	Listed in NHRP	Power Plant/Carbarn/ Administrative Building
Chautauqua Shelter	Boulder	N/A	Unknown	Waiting Station
Broadmoor Loop	Colorado Springs	N/A	Unknown	Streetcar Line
CS&I Maintenance Shops	Colorado Springs	N/A	Unknown	Maintenance Shop

Historic Streetcar Systems of Colorado

Resource Name	City	Site No.	Determination or NRHP/ SRHP Assessment	Property Type
CS&I Power Plant	Colorado Springs	5EP.740	Officially Not Eligible	Power Plant
CSRT Power Plant	Colorado Springs	N/A	Unknown	Power Plant
Evergreen Cemetery Loop	Colorado Springs	N/A	Unknown	Streetcar Line
Stratton Park Loop	Colorado Springs	N/A	Unknown	Streetcar Line
Union Printer's Home Loop	Colorado Springs	N/A	Unknown	Streetcar Line
16 th St. Viaduct	Denver	N/A	Unknown	Viaduct
23 rd St. Viaduct	Denver	N/A	Unknown	Viaduct
5126 Washington St.- D&I Rented Station	Denver	N/A	Unknown	Waiting Station
Argo Substation	Denver	N/A	Unknown	Substation
Arvada D&NW station	Denver	N/A	Unknown	Waiting Station
Berkeley Wye	Denver	N/A	Unknown	Streetcar Line
Boulder Junction/ARA	Denver	N/A	Unknown	Streetcar Line
C&S Station	Denver	N/A	Unknown	Depot
Carbarn	Denver	N/A	Unknown	Carbarn
Clear Creek Junction Substation D&NW	Denver	N/A	Unknown	Substation
Colfax Larimer Viaduct	Denver	N/A	Unknown	Viaduct
Colorado Blvd Substation	Denver	N/A	Unknown	Substation
D&BPRT Coal Shed	Denver	N/A	Unknown	Coal Shed
D&I second shop	Denver	N/A	Unknown	Maintenance Shop
D&I Station Boulder	Denver	N/A	Unknown	Depot
D&I Westminster Depot	Denver	N/A	Unknown	Depot

Historic Streetcar Systems of Colorado

Resource Name	City	Site No.	Determination or NRHP/ SRHP Assessment	Property Type
D&NW Freight house	Denver	N/A	Unknown	Carbarn
D&NW Golden Station	Denver	N/A	Unknown	Depot
D&SF Circle RR Depot	Denver	N/A	Unknown	Depot
DCRC Car Bar- 17 th St.	Denver	N/A	Unknown	Carbarn
DCRC Carbarn 33 rd St.	Denver	N/A	Unknown	Carbarn
DCRC Carbarn- Walnut	Denver	N/A	Unknown	Carbarn
DCRC Carbarn/Stable	Denver	N/A	Unknown	Carbarn
DCRC Iron Turntable	Denver	N/A	Unknown	Streetcar Line
DCRC Stable Carbarn	Denver	N/A	Unknown	Carbarn
DCRR Depot	Denver	N/A	Unknown	Depot
DCRR Depot Jewell Ave	Denver	N/A	Unknown	Depot
DCRR Depot S. Broadway	Denver	N/A	Unknown	Depot
DCRR Shops	Denver	N/A	Unknown	Maintenance Shop
DCRR Turntable	Denver	N/A	Unknown	Streetcar Line
DCRR Valverde Station	Denver	N/A	Unknown	Depot
DE&CR Power House and Carbarn	Denver	N/A	Unknown	Power Plant/Carbarn
Denver and Crown Hill Railway Wye	Denver	N/A	Unknown	Streetcar Line
Denver Tramway Co Storage Yard	Denver	N/A	Unknown	Maintenance Shop/Yard
Depot- Irving & 46 th	Denver	N/A	Unknown	Depot
DL&G Arapahoe St. Terminal	Denver	N/A	Unknown	Depot
DL&G Station	Denver	N/A	Unknown	Depot
DL&G's yard, shop, terminal at West Myrtle	Denver	N/A	Unknown	Maintenance Shop/Yard

Historic Streetcar Systems of Colorado

Resource Name	City	Site No.	Determination or NRHP/ SRHP Assessment	Property Type
DTC Blake St. Powerhouse	Denver	N/A	Unknown	Power Plant
DTC Cable Car Power House	Denver	N/A	Unknown	Power Plant
DTC Cable Turntable	Denver	N/A	Unknown	Streetcar Line
DTC Central Loop	Denver	N/A	Unknown	Streetcar Line
DTC Depot Williams & 40th	Denver	N/A	Unknown	Depot
DTC Material Storage yard	Denver	N/A	Unknown	Maintenance Shop/Yard
DTC North Division Car House	Denver	N/A	Unknown	Carbarn
DTC South Division	Denver	N/A	Unknown	Carbarn
DTC Substation- 4 th & Corona	Denver	N/A	Unknown	Substation
DTC Substation E. 35 th Ave.	Denver	N/A	Unknown	Substation
Gibson St. Station	Denver	N/A	Unknown	Depot
Grand Avenue Power Station	Denver	N/A	Unknown	Power Plant
HSRR Turntable	Denver	N/A	Unknown	Streetcar Line
Interurban Loop	Denver	N/A	Unknown	Streetcar Line
Larimer Viaduct	Denver	N/A	Unknown	Viaduct
Leyden Junction	Denver	N/A	Unknown	Streetcar Line
Leyden Loop	Denver	N/A	Unknown	Streetcar Line
Loop- Birch St. & Colfax	Denver	N/A	Unknown	Streetcar Line
Majestic Building	Denver	N/A	Unknown	Administrative Building
Mendota Block	Denver	N/A	Unknown	Administrative Building

Historic Streetcar Systems of Colorado

Resource Name	City	Site No.	Determination or NRHP/ SRHP Assessment	Property Type
Montclair Carhouse	Denver	N/A	Unknown	Carbarn
Original D&I Shop	Denver	N/A	Unknown	Maintenance Shop
S. 11 th St. Car House	Denver	N/A	Unknown	Carbarn
Sheridan Station	Denver	N/A	Unknown	Waiting Station
South Denver Cable Railway Company Power Plant	Denver	N/A	Unknown	Power Plant
Stella St. Car House/Yates St. Carhouse	Denver	N/A	Unknown	Carbarn
Streetcar Waiting Station	Denver	N/A	Unknown	Waiting Station
Turntable	Denver	N/A	Unknown	Streetcar Line
Union Station Loop	Denver	N/A	Unknown	Streetcar Line
W. 41 st Ave. Carhouse	Denver	N/A	Unknown	Carbarn
West Alameda Subway	Denver	N/A	Unknown	Subway
West Division	Denver	N/A	Unknown	Carbarn
West End Car House	Denver	N/A	Unknown	Carbarn
Woeber Carriage Company	Denver	N/A	Unknown	Administrative Buildings
Woeber Carriage Company Workshops	Denver	N/A	Unknown	Maintenance Shop
Wye- 23 rd & Perry	Denver	N/A	Unknown	Streetcar Line
WYE 40 th & Williams	Denver	N/A	Unknown	Streetcar Line
Wye- 48 th & Lipan	Denver	N/A	Unknown	Streetcar Line
Wye- 8 th & Madison	Denver	N/A	Unknown	Streetcar Line
Wye- Bellaire & 2 nd	Denver	N/A	Unknown	Streetcar Line
Wye- Byron Pl & Sheridan	Denver	N/A	Unknown	Streetcar Line
WYE- Cherokee & W 6th	Denver	N/A	Unknown	Streetcar Line

Historic Streetcar Systems of Colorado

Resource Name	City	Site No.	Determination or NRHP/ SRHP Assessment	Property Type
Wye- Colfax & Josephine	Denver	N/A	Unknown	Streetcar Line
Wye- Detroit & 3 rd	Denver	N/A	Unknown	Streetcar Line
Wye- E. 17th Ave. and York St.	Denver	N/A	Unknown	Streetcar Line
Wye- E. Alameda Ave & S Lipan	Denver	N/A	Unknown	Streetcar Line
Wye- E. Virginia & S. Franklin St.	Denver	N/A	Unknown	Streetcar Line
Wye- Evans & S. Milwaukee	Denver	N/A	Unknown	Streetcar Line
Wye- Geneva St. & Colfax	Denver	N/A	Unknown	Streetcar Line
Wye- Harrison & 2 nd	Denver	N/A	Unknown	Streetcar Line
Wye- Hudson & 24 th	Denver	N/A	Unknown	Streetcar Line
Wye- Madison & E. 12 th Ave.	Denver	N/A	Unknown	Streetcar Line
Wye- Madison St & 6 th Ave.	Denver	N/A	Unknown	Streetcar Line
Wye- S. Downing & E. Alameda	Denver	N/A	Unknown	Streetcar Line
Wye- S Galapago & W. 1 st	Denver	N/A	Unknown	Streetcar Line
Wye- S. Gaylord St & E. Louisiana	Denver	N/A	Unknown	Streetcar Line
Wye- Sheridan & W. 38 th Ave.	Denver	N/A	Unknown	Streetcar Line
Wye- Steele St. & E. 12 th Ave.	Denver	N/A	Unknown	Streetcar Line

Historic Streetcar Systems of Colorado

Resource Name	City	Site No.	Determination or NRHP/ SRHP Assessment	Property Type
Wye- W. Alameda & S. Bannock	Denver	N/A	Unknown	Streetcar Line
Cemetery Loop	Fort Collins	N/A	Unknown	Streetcar Line
College/Mountain Wye	Fort Collins	N/A	Unknown	Streetcar Line
Lindenmeier Lake Loop	Fort Collins	N/A	Unknown	Streetcar Line
GJ&GRV Rwy Co- 2nd Car barn	Grand Junction	N/A	Unknown	Car barn
GJ&GRV Rwy Co- Fruita Depot	Grand Junction	N/A	Unknown	Depot
GJ&GRV Rwy Co- Office and Interurban Depot	Grand Junction	N/A	Unknown	Depot
GJ&GRV Rwy Co- Original Car barn	Grand Junction	N/A	Unknown	Car barn
GJSCCo Car barn	Grand Junction	N/A	Unknown	Car barn
GJSCCo- Turntable	Grand Junction	N/A	Unknown	Streetcar Line
Car barn and Power House	Greeley	N/A	Unknown	Power Plant/Car barn
Island Grove Park Loop	Greeley	N/A	Unknown	Streetcar Line
LSR Stable	Leadville	N/A	Unknown	Horse Stable
D&SP Car barn	Littleton	N/A	Unknown	Car barn
Manitou Loop	Manitou Springs	N/A	Unknown	Streetcar Line
Indiana Gate Loop	Pueblo	N/A	Unknown	Streetcar Line
Lake Minnequa Loop	Pueblo	N/A	Unknown	Streetcar Line

Historic Streetcar Systems of Colorado

Resource Name	City	Site No.	Determination or NRHP/ SRHP Assessment	Property Type
PCR Car barn	Pueblo	5PE.583	Unknown	Car barn
PCR Power Plant	Pueblo	5PE.583	Unknown	Power Plant
PSR Horse Stable, Car barn	Pueblo	N/A	Unknown	Horse Stable/Car barn
W. 17 th /Hooper Loop	Pueblo	N/A	Unknown	Streetcar Line
W. 24 th /Grand Wye	Pueblo	N/A	Unknown	Streetcar Line
W. 29 th /Cheyenne Loop	Pueblo	N/A	Unknown	Streetcar Line
W. 8 th /Portland Wye	Pueblo	N/A	Unknown	Streetcar Line
W. Abriendo/Arthur Loop	Pueblo	N/A	Unknown	Streetcar Line
W. Abriendo/Cleveland Loop	Pueblo	N/A	Unknown	Streetcar Line
TER Car barn	Trinidad	N/A	Unknown	Car barn
TER Power Plant	Trinidad	N/A	Unknown	Power Plant

7. ASSOCIATED PROPERTY TYPES

Streetcar systems developed as complex urban transportation networks represented by a variety of interrelated property types. Streetcar networks are primarily represented by linear corridors defined by the location of former streetcar lines that connect various other associated property types. This section provides guidance for identifying associated property types of streetcar systems based on the National Register of Historic Places (NRHP) Criteria for Evaluation. Refer to NRHP Bulletin 15: *How to Apply the National Register Criteria for Evaluation* as the guiding document for this chapter and Chapter 8, Registration Requirements.

The section is divided into subsections, organized by property types, providing a brief discussion of each property type's association with streetcar development and the character-defining features necessary to convey that association. Character-defining features are prominent or distinctive aspects, qualities, or characteristics of a historic property that contribute significantly to its physical character. Features may include materials, architecture, engineering, design, and structural and decorative details. Because buildings and structures vary throughout Colorado, character-defining features provided in this document are considered a starting point. A specific property identified in the future may lack some of the character-defining features listed but still be significant. This study provides guidance for future researchers and surveyors to apply to the identification and evaluation of streetcar systems.

Examples have been provided for each property type from across the state, along with illustrative photos of historic properties, to assist in the identification process. Examples are noted as extant, nonextant, or current condition unknown based on current research; however, because field survey was not conducted as part of this study, the exact location, physical presence, or current condition of these example properties have not been confirmed. Researchers should refer to Chapter 6, Known Associated Resources, to determine if properties they are researching have already been recorded. Researchers should also check the COMPASS database or request file searches from the Office of Archaeology and Historic Preservation (OAHP) to get updated records for surveyed streetcar system properties. While the overall NRHP property types will not change (i.e., buildings, structures, objects, sites, districts), the list of associated property types identified for this specific

context on streetcar systems (stable, waiting station, track, embankment, bridge, electrical pole/power line) may not be exhaustive. Chapter 8 discusses registration requirements including application of NRHP criteria, areas of significance, levels of significance, and guidance for assessing the seven aspects of integrity and determining NRHP eligibility.

The NRHP classifies properties into categories of buildings, structures, objects, sites, and districts. Buildings are defined by the NRHP as sheltering any form of human activity. Structures are functional constructions usually designed for purposes other than human shelter. Structures include buried streetcar tracks, which are the most common property type associated with streetcar systems. Objects represent properties that are primarily artistic in nature and tend to be smaller in scale. Individual streetcars, also known as rolling stock, trollies, horsecars, cable cars, grip cars, or trams, are considered objects for the purposes of NRHP nomination; however, they were not the focus of this study and are not discussed in this section. Sites include locations of historic significance where important events may have occurred, and potential archaeological sites of abandoned or demolished properties. Districts represent cohesive collections of multiple property types representing a strong association with streetcar development. Each of these categories is elaborated on below with specific property types related to streetcar development in Colorado. Although an effort has been made to present a complete list of potential property types, the list provided is not exhaustive and researchers may encounter additional property types in the field. This section also briefly addresses properties that do not have a direct association with streetcar systems but were important features or destinations connected by the streetcars.

A. Buildings

(1) *Stable*

Stables were an integral aspect of streetcar operations during the era of horse traction. These buildings housed the horses and mules that pulled streetcars on rails. Multiple horses or mules were necessary to pull a single car, and companies required large facilities to feed and care for the animal stock. Stables varied greatly in size throughout the state depending on the size of the operation. For example, the Denver City Railway Company in Denver was by far the largest horse-powered system in Colorado and housed as many as 240 horses and mules at one time. In contrast, the Aspen City Railway had one of the smallest operations in the state and owned only

five horses for its two cars. The construction and design of stables also varied from city to city. Stables were generally open-plan, one-story buildings with large windows and skylights to provide natural light and ventilation. Early stables were generally frame structures. As horsecar systems grew larger, companies such as the Colorado Springs & Manitou Street Railway Company and Denver City Railway Company constructed large brick buildings for their animals. During the horse-powered era, stables and carbarns were often combined in a single building (see Figure 185). In Colorado, stables were usually located at a central point or hub within a streetcar system in the community’s central business district. The horsecar stables in Colorado Springs, Denver, Leadville, and Pueblo were examples of this trend.

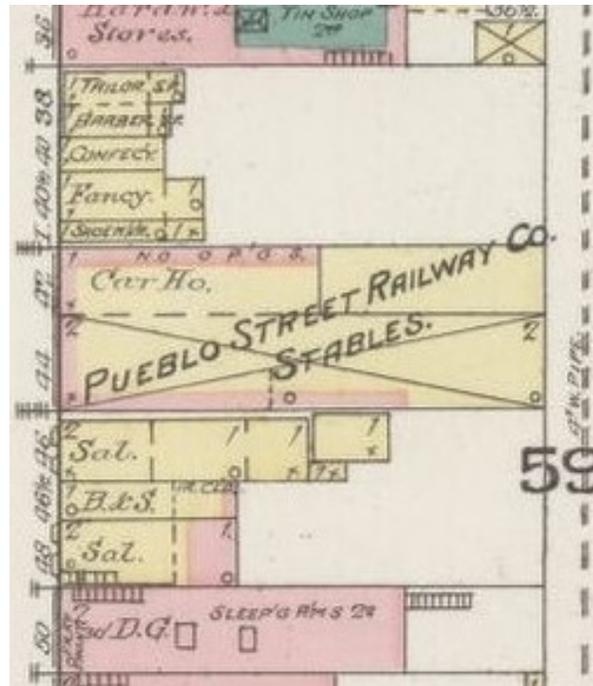


Figure 185. Location of the Pueblo Street Railway Company Stables at 212 S. Union Street on the 1886 Sanborn Fire Insurance Company map (current condition unknown). The map indicates that the carbarn, labeled “Car Ho.,” was a smaller section of the stable building.

The pink outline indicates a brick facade around a frame structure, representing the building materials associated with streetcar stables.⁷⁶⁰

⁷⁶⁰ Sanborn Map Company, “Pueblo, Colorado, 1886,” 1:600 (New York: Sanborn Map & Publishing Company, October 1886), Sheet 9, Library of Congress, <https://www.loc.gov/resource/g4314pm.g010651886/?sp=1>.

Due to their early construction dates and comparatively brief era of horse-powered streetcars in Colorado, few stables remain intact. While some were repurposed as carbarns during the era of electric traction, many were demolished after the company converted to electric power or went out of business. One of the few remaining streetcar stables in the state, the Denver City Railway Building at 1660 17th Street (extant), was an unusually large stable with three-and-one-half stories (see Figure 186). The first floor operated as the carbarn, and the second and third floors housed the horse stalls. This building also features brick construction and a distinctive Romanesque architectural style.

The character-defining features of stables include:

- Rectangular plan oriented towards the street
- Decorative features at roofline and windows such as arches or detailed brickwork
- Tall and wide doors or door openings at street level where horses entered/exited
- Multiple large windows, skylights, and open bays
- Frame or brick construction



Figure 186. The extant Denver City Railway stable and carbarn, at right, across from the original Union Station, at 17th Street and Wynkoop Street, 1884.⁷⁶¹

⁷⁶¹ “Union Depot and Street Car Stables,” 1884, Digital Collections, X-22225, Denver Public Library.

(2) *Carbarn*

Carbarns were essential and common features of streetcar systems throughout the streetcar era. Regardless of the size of the operation, every streetcar company required a carbarn to store its rolling stock. Carbarns were generally larger one- or two-story buildings with open floorplans and wide facades comprised of multiple bays, horizontally oriented to the street. The most important feature of carbarns is the series of bays across the facade. Carbarns were often centrally located within the system along the main route, or on a dedicated line, with multiple tracks leading into each of the bays. Similar to stables, carbarns featured rectangular plans but could vary in size and design. The companies in Pueblo, Colorado Springs, and Denver built large, architecturally ornate, brick buildings to house their large fleets of cars (see Figure 187). In contrast, the Trinidad Electric Railway & Gas Company constructed a small utilitarian frame shed adjacent to the powerhouse that is no longer extant.

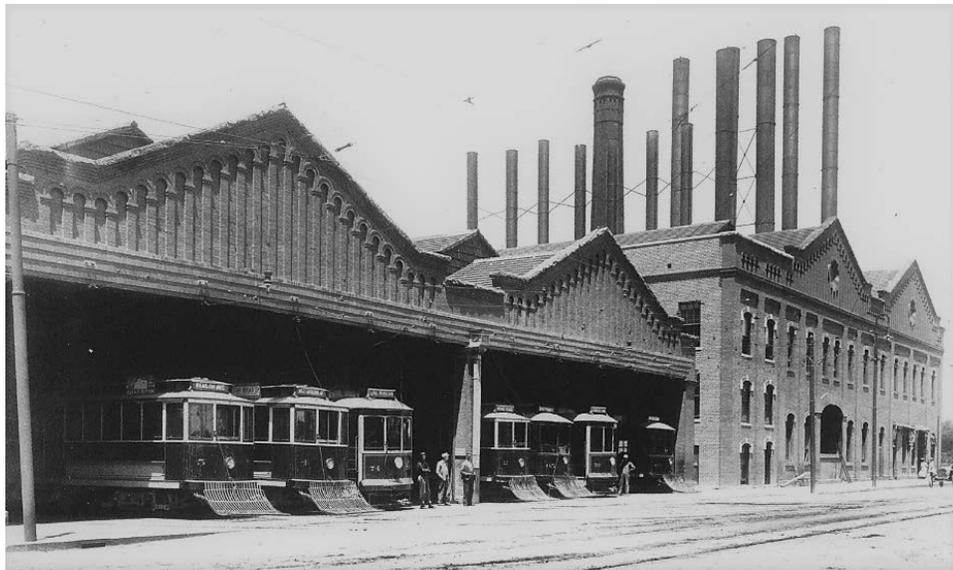


Figure 187. The nonextant Pueblo City Railway carbarn (at left) and power plant (at right) on Victoria Avenue, 1913. The grand design and ornate architecture of these buildings was characteristic for Colorado’s larger streetcar companies.⁷⁶²

⁷⁶² Cafky and Haney, *Pueblo’s Steel Town Trolleys*, 27.

Due to their large, open floorplan, carbarns lend themselves well to rehabilitation and adaptive reuse. While important to their preservation, recent rehabilitations may at times make these buildings difficult to identify. One example is the former Colorado Springs & Interurban carbarn at 508 S. Tejon Street in Colorado Springs, which has been remodeled into commercial space. Although the individual bays are no longer perceptible, the wide facade that once featured multiple bay doors is a clue to its association with the former streetcar system. One of the best preserved carbarns in Colorado is the extant Fort Collins Municipal Railway Building at 350 N. Howes Street in Fort Collins. This brick building has a large footprint, taking up multiple lots on the block. The form is a simple rectangular brick building, but the Renaissance-inspired pediment offers architectural flair. Although the tracks have been removed, the restored wooden doors clearly define the individual bays.

The character-defining features of carbarns include:

- Rectangular plan oriented towards the street
- Decorative features at roofline and windows such as arches or detailed brickwork.
- Open bays, typically without doors, repetitive, and extra wide to accommodate entry/exit of multiple streetcars
- Extra-height first story to accommodate streetcars
- Clerestory
- Limited windows
- Brick or stone construction

(3) *Maintenance Shop/Yard*

Carbarns sometimes included sections dedicated to the repair and upkeep of the company's cars, known as maintenance shops. Maintenance shops usually occupied either an additional section of the carbarn or a separate building close to the carbarn but were occasionally isolated from the company's carbarn. The design of maintenance shops was similar to carbarns in that they were utilitarian, had rectangular floorplans, featured one or more bays, and had multiple sections of track for cars to enter and exit the shops. Maintenance shops sometimes included outdoor areas and may also be referred to as maintenance yards where surplus equipment and materials, such as track and ties, were stored.

The character-defining features of maintenance shops/yards include:

- Rectangular plan oriented towards the street
- Utilitarian with little to no ornamentation
- Open bays, typically without doors
- Connected to outdoor yard to store surplus equipment and materials
- Brick construction

(4) *Power Plant*

Power plants became an essential part of streetcar systems during the era of electric traction. The vast majority of power plants in Colorado were coal-powered, steam-generating facilities. These plants were large, multi-story buildings constructed to house multiple electrical generators and other equipment. They were generally constructed of brick and sometimes displayed notable stylistic features. Power plants are recognizable by their monumental size, smokestacks, and multi-story windows. Power plants may also have had dedicated coal sheds, which could be attached to the main structure or in a separate building. Some streetcar companies in Colorado constructed their own power plants. These include the extant Tramway Power Plant at 1416 Platte Street in Denver (see Figure 188) and the extant Colorado Springs & Interurban power plant at 706 S. Sierra Madre Street in Colorado Springs. Other companies, such as those in Fort Collins and Greeley, did not build their own plants and purchased electricity from regional or municipal power companies.

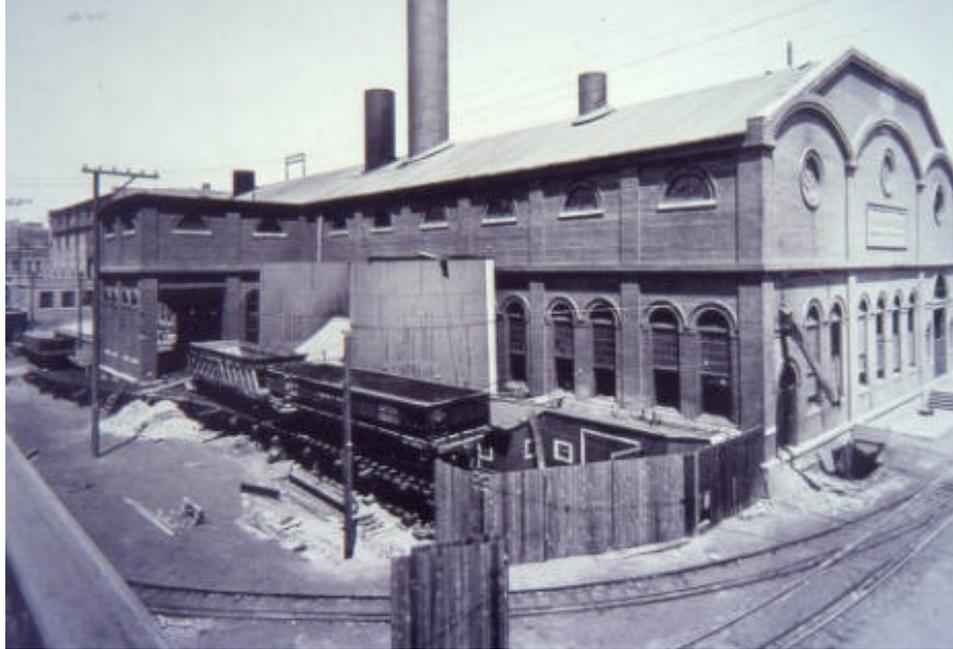


Figure 188. The extant Denver Tramway Power Company power plant, 1911.⁷⁶³

The character-defining features of power plants include:

- Rectangular plan at monumental scale
- Two stories or more in height
- Elongated/over-height floor to ceiling height to accommodate equipment
- Decorative features at roofline and windows such as arches or detailed brickwork
- Large expanses of windows
- Multi-story windows and smokestacks (smaller plants may not have multi-story windows); often segmental arch windows
- Large door opening to accommodate large equipment
- Brick construction

⁷⁶³ History Colorado. Office of Archaeology and Historic Preservation, "Denver Tramway Company Powerhouse," 1911, Digital Collections, 5DV541OAHP, Denver Public Library.

(5) *Substation*

Substations were necessary to convert the direct current (DC) power generated by power plants to alternating current (AC) power for use by the streetcars.⁷⁶⁴ On some smaller systems, such as in Fort Collins, the substation was attached to or very near the carbarn. Other systems required multiple substations spaced throughout the system. Substations were designed to be just large enough to contain the electrical transformers located within them and had much smaller footprints than power plants. Common design features include one or two stories, brick construction, and minimal fenestration or architectural features. The extant former substation at 1590 Broadway in Boulder is a good example of a standard substation, with a rectangular plan, brick walls, and a flat roof.

The character-defining features of substations include:

- Rectangular plan
- Limited windows and doors
- Two stories or more in height
- Elongated/over-height floor to ceiling height to accommodate equipment
- Large door opening to accommodate large equipment
- Brick construction

(6) *Cable Building*

Cable cars only operated for a few years in Denver during the transition from the horse-powered era to the electric era. Similar to electric systems, cable car systems required large power plants. However, they did not house electric generators, but a large steam-powered apparatus that pulled the cables throughout the system. These buildings were similar in appearance to electric power plants, with a massive scale, open floorplan, and attached smokestack. The extant Denver City Cable Railway building at 1801 Lawrence Street in Denver is an example of a cable building in Colorado (see Figure 189).

⁷⁶⁴ See Chapter 2.C. for a discussion of power conversion as related to streetcar technologies.

The character-defining features of cable buildings include:

- Rectangular plan at monumental scale
- Decorative features at roofline and windows such as arches or detailed brickwork
- Two stories or more in height
- Elongated/over-height floor to ceiling height to accommodate equipment
- Large expanses of windows
- Multi-story windows and smokestacks (smaller plants may not have multi-story windows); often segmental arch windows
- Large door opening to accommodate large equipment
- Brick construction



Figure 189. The extant Denver City Cable Railway Company power plant, 1906.⁷⁶⁵

(7) *Hydroelectric Facility*

Hydroelectric power was generated in Colorado during the streetcar era, although it was generally more common in mountain communities, where it was more feasible due to rapid water

⁷⁶⁵ “Denver City Cable Railway Power House.”

flow and reservoirs. The Lake Moraine power plant, located west of Colorado Springs on Pikes Peak, was constructed specifically to power the Cripple Creek District Railway. Although this is the only example found during this study to be directly associated with a streetcar operation, other companies may have had an association with hydroelectric facilities during their operation. The current condition of the Lake Moraine Power Plant is unknown.

The character-defining features of hydroelectric facilities include:

- Located adjacent to rivers or reservoirs and dams
- Two stories or more in height
- Elongated/over-height floor to ceiling height to accommodate equipment
- Large expanses of windows
- Multi-story windows and smokestacks (smaller plants may not have multi-story windows); often segmental arch windows
- Large door opening to accommodate large equipment
- Brick or concrete construction

(8) *Depot*

Depots were relatively large buildings designed as a central hub location for one or more streetcar lines. The design of depots featured an enclosed waiting area as well as an open-air canopy where passengers boarded the streetcars. The enclosed area could be the central building surrounded by a covered area, or there could be multiple buildings connected by a large covered platform (see Figure 190). Depots represented the primary building that most passengers associated with a streetcar company and often featured architectural details including ornate brick and woodwork and hipped or gabled roofs. Depots were intended to be substantial and permanent buildings. The enclosed buildings were often constructed from brick, and the attached canopies featured wood platforms, supports, and peaked roofs; some platforms are uncovered or partially uncovered. Depots were also located adjacent to the streetcar tracks so cars could pull up directly to the waiting areas. While once common in Colorado, particularly in the Denver area, very few streetcar depots remain in the state.



Figure 190. Denver City Tramway depot in Golden, 1906 (current condition unknown).⁷⁶⁶

The character-defining features of depots include:

- Rectangular plan oriented towards streetcar tracks (long side parallel to tracks) often with enclosed area, open-air canopy, and an additional attached, uncovered platform
- Decorative architectural features including hipped or gabled roof (most often hipped)
- Broad, overhanging eaves (typically flared)
- Often contain ornamental features, such as towers, demarcating it as a station
- Windows on enclosed areas
- Brick and frame construction

(9) *Administrative Building*

Most streetcar operations had their main company offices in existing office buildings. As such, it is difficult to ascribe defining physical features that directly indicate association with the streetcar companies. Identification of these buildings will rely on research from city directories and company records. Office buildings were sometimes located in close proximity to other buildings such as carbarns or power plants. Some companies combined their carbarns or depots and office space into a single building, such as the extant Denver Tramway Building at 1100 14th Street in Denver (see Figure 191), and the Grand Junction and Grand River Valley Railway building at 101 S. 3rd Street in Grand Junction.

⁷⁶⁶ “Denver City Tramway Co., Golden Depot, Golden, Colorado,” 1906, Digital Collections, X-10073, Denver Public Library.



Figure 191. The extant Denver Tramway Building, c.1920. Carbarns are located behind the multi-story office building.⁷⁶⁷

The character-defining features of administrative buildings include:

- Rectangular plan with multiple stories
- Typically designed to an architecture style, with details related to that style
- Recessed or flush windows and entrances
- Brick construction, often with ornamental details, sometimes executed in terra cotta or cast stone
- Entry at human scale compared to other building types (e.g., stables, carbarns, etc.)
- If carbarn located on first floor, refer to Section 7.A.(2) for additional character-defining features for the first floor

⁷⁶⁷ Louis Charles McClure, “Denver Tramway Company Building,” n.d., Call Number MCC-3963, Denver Public Library Western History Collection.

B. Structures

(1) *Waiting Station*

Waiting stations were small, semi-covered structures located throughout a streetcar system and designed to provide shelter to passengers waiting for the streetcars. Waiting stations differ from depots in that they were generally not fully enclosed, were much smaller, and were located at stops along the route as opposed to a central hub location. Some waiting stations had entirely frame construction, while others included a mix of stone, brick, and frame materials.

Distinguishing features include compact design, an overhead covering, and an open side or large entryway oriented to the tracks. Although most waiting stations have been demolished, a few remain throughout the state. Extant stations that have been moved include one located at the intersection of S. Downing Street and S. Marion Parkway in Denver, and one at the Lakewood Heritage Center in Lakewood.

Waiting stations were also designed as open structures, particularly near public facilities, such as parks, where larger crowds could be expected. One example is the extant Sopris Gate to City Park in Denver, located near Fillmore Street and E. 17th Avenue (see Figure 192). This semi-circular sandstone station is larger than most and does not have a roof, but the long benches on either side of the park entrance, along with its proximity to the street, indicate its association with streetcar service. These stations were generally located adjacent to the street at designated streetcar stops, and route maps or schedules could be used to identify the locations of waiting stations.



Figure 192. The extant Sopor Gate to City Park in Denver, 1918.⁷⁶⁸

The character-defining features of waiting stations include:

- Open plan oriented towards streetcar tracks
- Decorative architectural features
- Sheltered platforms with seating
- No windows or doors

(2) *Track*

Buried streetcar tracks are the primary property type associated with streetcar systems in Colorado. The physical tracks of a historic streetcar line define the extent of the linear transportation corridors known as streetcar systems by connecting all other associated properties. Tracks are also the most difficult resource to identify because they are often buried beneath pavement or have been removed. The GIS component of this report maps the location of nearly all historic streetcar lines in Colorado, along with a collection of known research sources, to aid in locating the potential presence of buried tracks. Further research into specific lines may be required to determine if tracks are extant or buried, and to identify specific materials and engineering specifications. This information may be available from documentary resources (see Chapter 9 for a guide to researching streetcar tracks). In other cases, limited testing, excavation, or other subsurface investigations may be required for proper identification.

⁷⁶⁸ “Give While You Live,” *Municipal Facts* 1, no. 8 (October 8, 1918): 6.

As a distinct property type, streetcar tracks represent a property type composed of multiple subtypes or parts, including bedding materials, ties, rails, and historic pavement or substrate (see Figure 193). Of these component parts, rails represent the most important defining physical feature of a section of tracks. Rails defined the path of a streetcar route and are also the most significant indicator of the period of construction. Rail technology changed consistently throughout the streetcar era as stronger materials and manufacturing processes were developed to improve the longevity of the rails and support larger and heavier rolling stock. The following discussion describes three common rail types that researchers may encounter in Colorado: stringer rails, T-rails, and girder rails. This discussion and the included illustrations represent a general guide to identification and do not represent a comprehensive list of the rail types or configurations used in Colorado. Following the discussion of the rail types is a description of the remaining components and construction practices associated with historic streetcar track design.

The character-defining features of tracks include:

- Rails
- Rail ties
- Substrates (materials may consist of cobbles, bricks, burnt clay, gravel, earth, oil, sand, etc.)
- Paving materials
- Ballasts (where applicable)
- Embankment and cut and fill (in cases where tracks remain and are in an embankment)
- Alignment
- Wyes and turntables

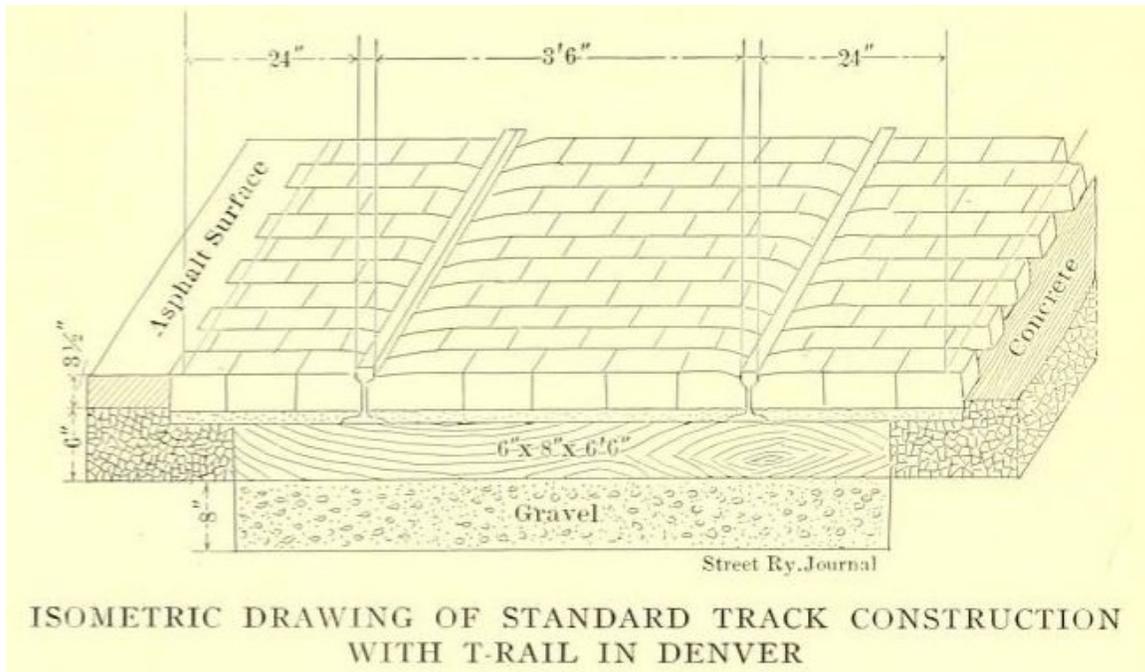


Figure 193. Diagram of a paved section of a Denver streetcar line showing gravel substrate, wooden rail tie stabilized with concrete, and T-rails flanked by brick pavers.⁷⁶⁹

Rail

The rails or tracks associated with streetcar lines generally followed similar technological trends as rails associated with steam railroads, although they were usually lighter weight, especially in the era of animal traction. The earliest rail type used for streetcars in the United States was stringer rail, also known as strap rail, and are the most likely to be associated with the era of horse-traction in Colorado. Stringer rails were lightweight, cast-iron rails nailed to wooden stringers that were laid perpendicular above the rail ties (see Figure 194). Stringer rails were cheap to produce, but generally wore down quickly. Stringer rails were largely discontinued prior to the Civil War in northeastern cities but were still used in western cities into the late nineteenth century. Stringer rails were designed with side bearing, center bearing, and grooved configurations. Although unlikely, some stringer rails may remain buried under pavement from the earliest systems.

⁷⁶⁹ "Standard Practice in City Track Construction," *Street Railway Journal* XXII, no. 9 (August 29, 1903): 333.

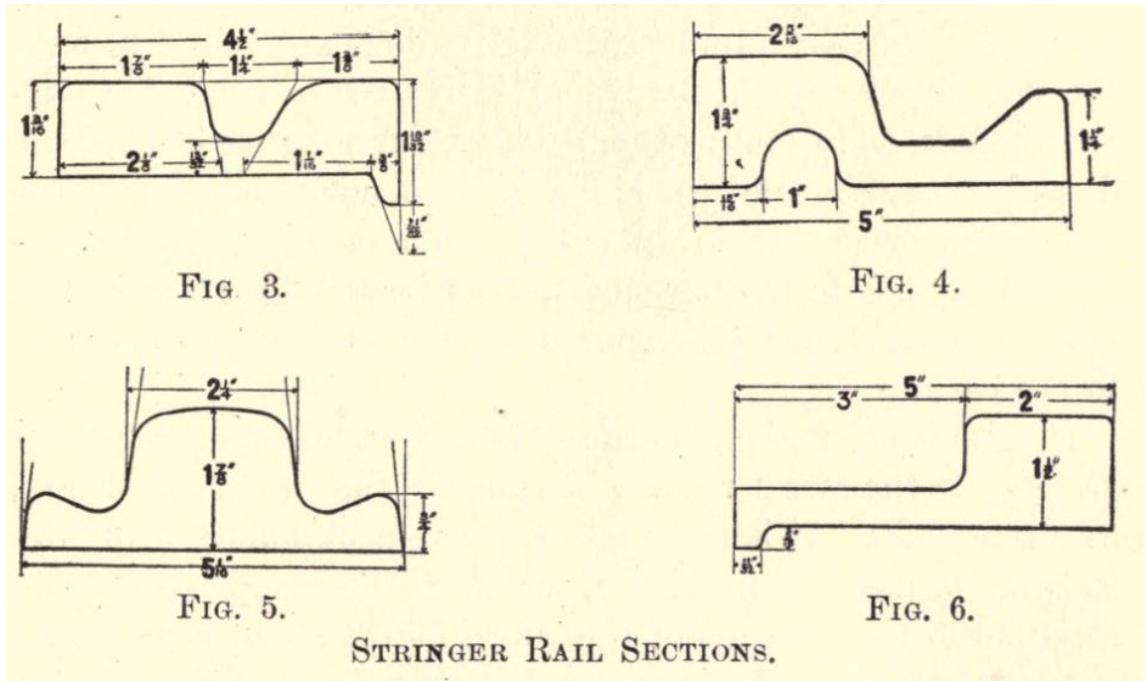


Figure 194. Examples of four configurations of stringer rails. “Fig 3” and “Fig 4” represent two versions of a grooved configuration, “Fig 5” is a center bearing configuration, and “Fig 6” is a side bearing configuration.⁷⁷⁰

T-rails, or flange rails, were developed in the early nineteenth century and proved to be both an economical and durable option to stringer rails. T-rails are associated with both the horse-traction and electric-traction eras in Colorado. T-rails have a characteristic T-shaped, center bearing design and were also fastened to wooden stringers (see Figure 195). The earliest T-rails were constructed with cast and wrought iron but were more often made from rolled steel after the Civil War. T-rails were popular throughout Colorado from the nineteenth century into the twentieth century and are known to have been utilized by companies in Denver, Durango, Fort Collins, and the Cripple Creek District.

⁷⁷⁰ Mason D. Pratt and C.A. Alden, *Street-Railway Roadbed* (New York: Street Railway Publishing Company, 1898), 3, <https://babel.hathitrust.org/cgi/pt?id=uc2.ark:/13960/t0rr1qb2q&view=1up&seq=22>.

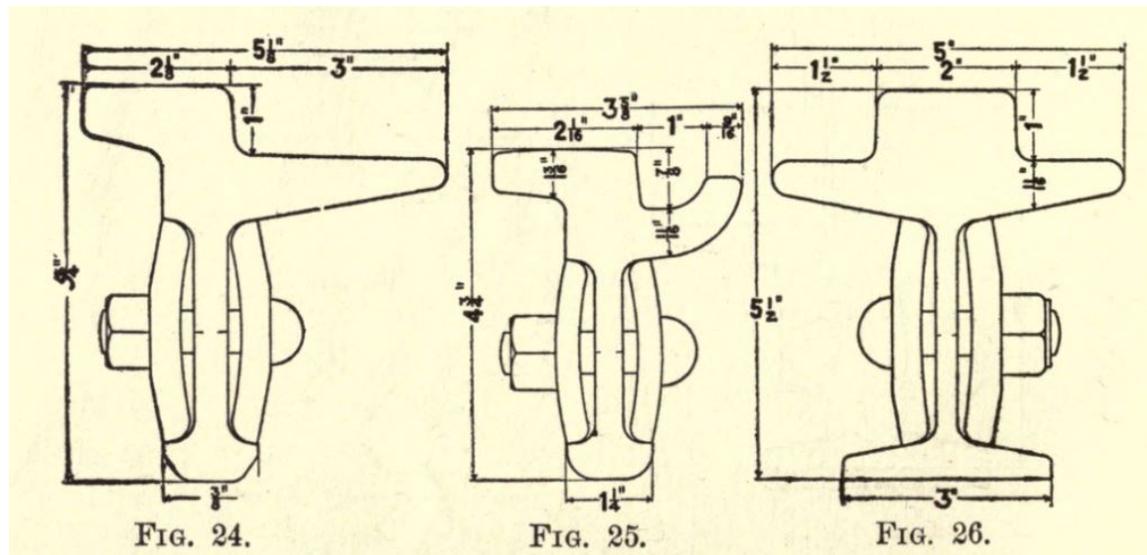


Figure 196. Examples of three configurations of girder rails. From left to right: side bearing, grooved, and center bearing.⁷⁷²

Construction Methods, Gauges, and Paving Materials

Early track construction in Colorado consisted of a simple process of digging a shallow trench, laying ties and rails, and filling the trench with earth to match the grade of the street. Early rails may not have been exactly flush with the street surface. This simple method of construction often resulted in an uneven rail surface, as seen in Leadville and Aspen. Substrates such as earth, oil sand, or gravel, along with cobble stabilizers, were later used to support the rails. Historic photographs indicate that the majority of Colorado's streets remained unpaved until 1950.

The gauge of a rail line is defined as the distance between the rails on a section of track. Streetcar companies in Colorado utilized a variety of gauges on their local lines, from 3-foot narrow-gauge lines to 4-foot, 8.5-inch standard-gauge lines. Narrow gauge and standard gauge lines were common throughout Colorado. However, some communities utilized a unique gauge, such as the 4-foot gauge in Pueblo.

In the early twentieth century brick paved streets became more common. Some streetcar companies installed brick paved sections between and adjacent to the rails to stabilize the lines,

⁷⁷² Pratt and Alden, *Street-Railway Roadbed*, 10.

while the remainder of the street remained unpaved or were paved with a different material. Stringer rails and T-rails required a stringer layer between the rail ties and the rails. In T-rail construction, brick pavers included a curved indentation to accommodate the flange of the streetcar, allowing for the rails to be flush with the top of the pavers. In some instances, the wooden stringers were replaced with a layer of concrete when these sections of track were repaired or updated. With girder rails, pavers fit directly into the vertical section of the rail.

Two other notable subtypes associated with streetcar tracks include wyes and turntables. Wyes are points where three sections of track came together, resulting in a triangular arrangement of tracks. Wyes are located at the junction of two or more lines or at the end of a line where they were used to turn the car around. Turntables were small sections of track built on a rotating platform that were utilized at the intersection of two or more lines to transfer cars from one line to the other.

(3) *Embankment/Grade*

An embankment, also known as a grade, is another feature related to track construction represented by a raised earthen structure that includes cuts and fills designed to support a transportation corridor. Embankments may remain on the current landscape even when all evidence of the tracks has been removed. In terms of streetcar properties, embankments are most often associated with interurban lines. The private rights-of-way necessary for interurban service did not rely on public streets and therefore required the construction of a complete railbed. Historic maps are a key resource for identifying the location of an embankment along a former streetcar line. Although they are most common among interurban lines, some urban lines constructed relatively short private rights-of-way over streams or between developed areas, which may have an associated embankment. Embankments may also feature cut-and-fill sections constructed through uneven topography to provide an even grade and stabilize the resulting berms (see Figure 197). Again, these sections are most commonly associated with interurban lines in Colorado but may also be associated with urban lines.



Figure 197. Cut-and-fill embankment on the Denver & Interurban Railroad between Denver and Boulder, c.1920 (current condition unknown).⁷⁷³

The character-defining features of embankments include:

- Built-up railbed
- Cut-and-fill sections

(4) *Bridge, Viaduct, Subway, and Culvert*

CDOT typically evaluates vehicular bridges, viaducts, subways, and culverts as stand-alone resources as part of transportation projects or in statewide bridge inventories with evaluations of individual significance and integrity. This section provides more information on crossing structures that may be associated with a streetcar system, but these structures can also be evaluated individually.

Streetcars generally ran on public streets with pedestrian, horse-drawn, and vehicular traffic, and shared the same crossings over water or other features as the general traffic. Historic crossings

⁷⁷³ Louis Charles McClure, "Denver & Interban [Sic] Ry.," 1926-1908, Digital Collections, MCC-967, Denver Public Library.

that carried streetcar lines retain association with the historic streetcar systems. In addition, companies sometimes built their own private crossings over streams, railroad tracks, and other obstacles when the line diverged from public streets. Private crossings were particularly common along interurban lines, which ran primarily on private rights-of-way. In the decades following the abandonment and removal of streetcar lines throughout the state, many of these private crossings were demolished and very few remain in Colorado. Both public and private crossings are represented by historic bridges, viaducts, subways, and culverts. The following section provides a brief description of each of these property types, which researchers may encounter in relation to a streetcar system. These historic crossings will likely have multiple historic associations, including association with streetcars.

Bridge types associated with the streetcar era in Colorado include wooden trestles, metal truss bridges, arch bridges, and concrete stringer and girder bridges. Trestles and timber stringer bridges are the earliest bridge types constructed in Colorado and were by far the most common type in the state in the nineteenth and early twentieth centuries. These structures were constructed from frame or pile bents and were used to cross short spans over rivers and creeks to long spans over low-lying areas such as floodplains. While once common in Colorado, very few timber bridges remain. Metal truss bridges of various configurations followed timber bridges. Although they were also once very common, very few metal truss bridges remain extant in Colorado. Arch bridges, constructed of either concrete or metal, remain throughout Colorado. Concrete stringer and girder bridges are the most common bridges remaining from the streetcar era in Colorado.

Viaducts are metal or concrete structures designed as long grade separations over city streets and large rail yards, in addition to waterways. In Denver, the extant Colfax Avenue Viaduct and nonextant Larimer Street and 16th Street Viaducts all carried streetcar traffic between downtown Denver and the outer neighborhoods north and west of the South Platte River. The only remaining viaduct in Denver is on Colfax Avenue. The extant Union Avenue Viaduct in Pueblo, constructed after the 1921 flood, is an example of an intact viaduct associated with streetcar operations.

Subways are another grade-separation feature that lowers the street level beneath another feature rather than crossing above it. Subways are common within Colorado cities and a handful are directly associated with streetcar operations. The extant Tejon Street subway under the current Southern Pacific Railroad was constructed specifically to provide access for streetcars on the new Broadmoor line in Colorado Springs. Similarly, the extant Alameda Avenue subway in Denver may have been constructed to provide access for the streetcars underneath the Denver & Rio Grande Railroad lines (see Figure 198). Because subways are a common feature of urban design, further research on the location of streetcar lines and the construction date of the subway is necessary to determine a significant association with a particular streetcar line.



Figure 198. The extant Alameda subway beneath the Denver & Rio Grande Railroad, 1911.⁷⁷⁴

Culverts are structures that allow water to pass underneath a transportation corridor. Unlike bridges, which span over a water source, culverts are built into the embankment of the roadbed or private rights-of-way associated with the historic streetcar line and direct the flow of water. Culverts are also generally smaller than bridges and can have a timber, concrete or stone headwall and/or wingwall to support the embankment and prevent erosion, and usually feature a round (piped) design. Concrete box culverts, however, are larger and feature a rectangular

⁷⁷⁴ Charles S. Lillybridge, “Completed RR Bridge and Underpass at the 400 Block of West Alameda,” 1910, Digital Collections, CHS-L1792, Denver Public Library.

design. Historic culverts associated with streetcar systems can be constructed from wood, stone, metal, or concrete.

The character-defining features of these crossing types include:

- Timber, concrete, stone, or steel superstructures and substructures
- Concrete, stone, or timber piers and abutments
- Retaining walls for subways/underpasses
- Grade separation (depending on property type)

(5) *Electrical Pole and Power Line*

Electrical poles were a necessary feature of electric streetcar systems. These poles were required to support the electric cables above the street that powered the streetcars. Generally, these power poles were nondescript wooden poles that may have also supported municipal power lines or telephone lines. As such, those that may have survived may be difficult to successfully identify. In larger urban settings, such as Colorado Springs and Denver, these poles were sometimes decorative metal structures that were combined with electric streetlamps (see Figure 199). Although none were identified during this study, such poles may exist along former streetcar lines throughout the state. Although unlikely, researchers may also encounter extant electric lines associated with streetcar operations.



Figure 199. Nonextant decorative lamp posts with electric streetcar lines on the Larimer Street Viaduct in Denver, c.1930.⁷⁷⁵

The character-defining features of electrical poles and power lines include:

- Wood or steel poles
- Electrical connections

C. Objects

There are few historic objects related to streetcar operations in Colorado. One known example is an extant plaque commemorating the Denver streetcar lines, erected in 1950 in Civic Center Park in Denver (see Figure 200). This marker is mounted to one of the pillars of the stone balustrade just west of the intersection of Broadway and Colfax Avenue. Other monuments, boundary markers, plaques, or statuary directly associated with or constructed by streetcar companies may exist in other communities but were not identified during this study. As such, character-defining features of objects are not provided.

⁷⁷⁵ “Colfax - Larimer Viaduct,” 1940 1930, Digital Collections, X-20740, Denver Public Library.



Figure 200. The extant memorial plaque dedicated to Denver's streetcars in 1950, located in Civic Center Park.⁷⁷⁶

D. Sites

Historic streetcar lines are structures, but can also be regarded as archaeological sites in cases where the streetcar lines are encountered in a buried archaeological context. This would particularly be the case if a specific streetcar line is known to be in a fragmentary condition due to prior removals of portions of the streetcar line and/or disturbances such as road construction or utility work. These sites may help further understand the history of streetcar systems and address specific research questions by providing information regarding the specific design, engineering, and technology associated with specific streetcar lines or companies that is not available in the written record. Sites can also refer to the location of significant events associated with streetcar systems. The location of the 1920 streetcar operators' strike in Denver is an example of one such

⁷⁷⁶ Pharris, *Riding Denver's Rails: A Mile High Streetcar History*, n.p.

significant historic event. The identification of archaeological streetcar system sites would be unusual and character-defining features for sites are not provided.

E. Districts

Collections of streetcar properties have potential for consideration as historic districts. Historic districts are collections of properties unified by a shared historic association, with the ability to collectively convey that association through their interrelationships. Districts provide a visual sense of the historic period represented by the associated properties. They may include individually significant properties as well as properties that derive their significance as a cohesive entity. Streetcar properties are likely to form linear historic districts, in which the various properties are connected by and derive their significance from a linear corridor defined by a former streetcar line. This may include a cohesive collection of properties such as a carbarns, power stations, bridges, embankments, and other extant properties connected by former tracks. Streetcar districts can also be discontinuous. Discontinuous districts represent properties that are spatially discrete, separated by unrelated elements, or do not require visual continuity for significance. An intact collection of properties such as isolated segments of track and other supporting properties, all with direct association to a specific streetcar line or company and sufficient integrity to convey the association, may potentially be considered as a district.

One example of a potential streetcar district in Colorado is the Mountain Avenue line in Fort Collins, which currently operates during the summer months. This line was reconstructed on W. Mountain Avenue between Howes Street and Frey Avenue in the 1980s using historic materials from Cripple Creek, and one of the Birney cars that historically operated in Fort Collins was restored at the same time. The line follows the original alignment through the median of W. Mountain Avenue. Three blocks east of the reconstructed line, the historic rails are extant and visible on E. Mountain Avenue between College Avenue and Peterson Street. The system's carbarn and substation on Howes Street has also been restored and is located three blocks north of the reconstructed tracks. Taken together, the original tracks, reconstructed tracks, restored carbarn, and restored streetcar represent a cohesive, albeit discontinuous, collection of streetcar properties that convey the historic streetcar operations in Fort Collins.

F. Related Properties

This section focuses on the property types that have potential to be directly associated with streetcar systems in Colorado. Various other historic property types within Colorado's urban communities have potential for indirect association with streetcar networks. These properties generally represent popular destinations on streetcar routes but were not directly associated with the construction of the streetcar lines. These include, but are not limited to, parks, tourist attractions, schools, cemeteries, and hospitals. Each of these represent potential historic districts in which extant streetcar properties may be contributing resources. Similarly, historic streetcar suburbs or commercial nodes represent potential historic districts in which streetcar properties may be contributing resources. However, because these related properties are not directly related to the development of streetcar systems in Colorado, their potential significance is not addressed in this context. Any evaluation of these properties for NRHP eligibility would require assessment within their own context and area of significance in addition to consideration of association with a streetcar system.

G. Summary

As active transportation networks, historic streetcar systems were represented by complex networks of structures and buildings, including tracks, embankments, crossings, power plants, and carbarns, to name only a handful of their elements. As such, researchers investigating historic streetcar properties will potentially encounter a wide variety of property types. Although there are many potential property types, the most common and important are streetcar tracks. These historic tracks defined the streetcar systems and connected all other associated property types. Miles of streetcar track likely remain buried within roadbeds throughout Colorado. For this reason, they are also the most difficult to identify and evaluate, and an understanding of the other associated property types is essential to that process. However, identifying the other property types may also be challenging because they no longer serve their historic functions. Extant properties may be abandoned or rehabilitated for other purposes. Knowledge of the locations of former streetcar lines is invaluable to identifying these resources. Therefore, a complete understanding of an entire streetcar system is essential to identifying and evaluating any of its constituent parts. This section presents a complete list of the property types associated with streetcar networks that were identified through intensive research of Colorado's streetcar systems. However, it is not a comprehensive list of potential property types, and researchers may encounter additional property types as part of field investigations.

8. REGISTRATION REQUIREMENTS

Streetcar systems represent complicated and extensive networks of historic properties. The streetcar systems of Colorado have been evaluated within a statewide context because multiple communities in the state had historic streetcar systems. As discussed in the previous section, a wide variety of property types can have associations with streetcar systems in Colorado. This section follows the property types discussion as a guide to recommend potential ways a property may be evaluated within the streetcar systems historic context and be evaluated under the National Register of Historic Places (NRHP) criteria. Researchers should also refer to the relevant sections of this *Historic Streetcar Systems of Colorado* document, including Section 9, Guide to Research, Identification, and Evaluation, to better understand the historic development of the property they are evaluating, as well as guidance for field survey and archival research.

Streetcar properties can be evaluated individually or as historic districts with contributing resources. This section provides guidance on the importance of defining boundaries for individual properties and districts that encompass the historic property and its contributing features. Properties must also possess significance in least one of four established NRHP criteria related to specific areas of significance. Additionally, properties must be evaluated for having significance on the national, state, or local level, and must have a clearly defined period of significance. Properties that possess significance must be assessed to determine if they retain sufficient integrity to convey their significance to qualify for listing in the NRHP. Integrity is measured by seven aspects: location, design, setting, materials, workmanship, feeling, and association. Properties with significance that retain integrity are eligible for listing in the NRHP.

Additionally, the evaluation of linear resources for NRHP eligibility is slightly different than architectural properties. Streetcar tracks are considered linear resources and are usually buried underground, which makes them difficult to evaluate. The Office of Archaeology and Historic Preservation (OAHP) has established guidelines to follow when recording linear resources, which can be evaluated as individual properties or as contributing structures within historic districts. If an entire linear resource (e.g., streetcar tracks) has not been surveyed, surveyors typically assume the resource is eligible to the National Register and evaluate whether the

segment that is being surveyed can either support, or not support, the eligibility of the resource. If an entire resource can be surveyed, surveyors will evaluate it in its entirety.

When addressing streetcar tracks as linear properties, significance can be determined for a line, or city-wide system. As with other properties, the significance is evaluated within a defined area, level, and period of significance. Short segments of streetcar tracks are often encountered or uncovered in a localized area, and it is generally not possible to determine the significance and integrity of the entire property. For this reason, the entire resource may be assumed eligible for listing in the NRHP. In these instances, boundaries are assigned to define the segment, which is evaluated as an individual linear resource. If the segment retains integrity, it is evaluated as supporting the eligibility of the entire property and is considered eligible for the NRHP. If the segment does not retain integrity, it is evaluated as not supporting the eligibility of the entire property and is considered not eligible for the NRHP.

A. Determining Boundaries

Establishing boundaries is an important step in determining the eligibility of any historic property, including streetcar properties. The boundaries for individual properties and districts should follow the NRHP guidelines and *Defining Boundaries for National Register Properties (revised 1997)*.

For individual properties, the boundary should encompass all contributing features associated with the property. This is often determined by the legal property boundaries. In some instances, a boundary may be extended beyond the legal boundary to include an associated object or structure. For example, the boundary of a building could be defined by its legal boundary but may be extended to the sidewalk and street within the right-of-way to include contributing features such as landscaping or objects dating to the period of significance.

The boundary for the width of a segment of buried track should be limited to the area defined by the track, including any underlayment, embankment, and other physical features associated with that resource. In other words, the boundary of a streetcar track should not be delineated as the right-of-way of the street. A street has separate utility beyond its association with a streetcar

system and usually existed before a streetcar track was added. The right-of-way of a street may have changed over the years to accommodate changes in traffic patterns, which would mean the street right-of-way is wider than the streetcar track... An exception to this would be in a location where multiple tracks run in one street, but the boundary should reflect the street pavement width or total width of the track, and not include the entire right-of-way width of the street or road.

District boundaries should encompass the entire area where contributing properties have been identified. A streetcar system that possesses significance under one or more of the criteria may be evaluated as a potential linear district and may connect associated properties of a streetcar line. The boundary of a linear district should follow the route of streetcar tracks that are known to be extant and may be extended to include legal boundaries of any connected buildings, structures, or objects directly associated with operation and maintenance of a streetcar system within the district. Where tracks are no longer extant, streets, bridges, buildings, embankments, and other landscape elements may be sufficient to establish a linear corridor if they retain very strong integrity to convey their association with a historic streetcar corridor. In most cases, when a property is evaluated for NRHP eligibility the focus is on a specific resource—a building, streetcar track, or other property—and the evaluation of a district may be outside of the scope of work for most evaluations. This would apply to evaluating both historic districts and linear districts.

A linear district may also take the form of a discontinuous district if there is a sufficient collection of extant properties. As many remaining streetcar tracks have been removed and only isolated segments remain, a collection of documented segments that are known to be extant and can be tied to a shared significant association with a specific line may potentially be evaluated as a discontinuous district. Streetcar buildings and structures are most likely to be evaluated as individual properties. However, if a collection of properties represents a cohesive collection of historic buildings, structures, and objects, and has sufficient integrity to clearly convey a shared association under one of the NRHP criteria, there may be potential for a discontinuous district.

B. Determining Significance

The NRHP evaluation criteria requires that properties must possess historic significance in at least one of four criteria, described below. To have significance within one of these criteria, a property must have associative value, design and construction value, or information value and represent an important historic theme, which is described as the area of significance. The areas of significance most commonly related to streetcar properties are described within the discussion of the NRHP criteria. Streetcar properties can and often will have significance in multiple areas of significance and/or criteria. The significance of a historic property will also reflect its association with historic trends on the local, state, or national level within a specific time period, known as the period of significance. This context focuses largely on statewide significance, but a property may also be significant under a local context.

Criterion A: Association with events that have made a significant contribution to the broad patterns of our history.

Streetcar properties may have significant association with a single event, patterns of events, and broad historical trends in Colorado's development. Properties associated with the development of Colorado's streetcar systems are most likely to have significance in the areas of Transportation, Industry, Commerce, and Community Planning and Development. These areas of significance reflect the wide range of associations from their essential function of designed public transportation networks to their broader significance in the historic development of local communities. In order to be considered significant under *Criterion A*, a property must demonstrate an important association to the streetcar context and area of significance. A streetcar company or line, or their associated properties, must have been established and active during the period of significance to claim significance. Furthermore, a property must be proven to have made a substantial impact on the development of the local community or neighborhood. This criterion may apply to major routes as well as arterial lines, but it is important that researchers understand the history of a specific line or segment including the years of operation, company associations, and function within the larger streetcar system.

For example, properties associated with Denver's interurban lines have potential significance in the area of Transportation because those lines provided an essential early link between Denver

and its surrounding communities and helped create patterns of transportation within the larger metropolitan area. The Pueblo streetcar lines could have significance under Industry and Commerce, as they provided transportation for working-class employees to and from the steel works, an important industry that defined the historic development of Pueblo. The extension of Grand Junction's interurban system to the farms and ranches of Fruita resulted in a boom of land sales and development, resulting in potential significance under Community Planning and Development.

While some streetcar lines and associated properties will have significance under *Criterion A*, there are some notable exceptions. Later realignments or spur lines added to an established system that did not contribute to community development and have no other historical association would not be considered significant under *Criterion A*. Similarly, lines that were generally non-operational, such as those constructed in downtown Denver only to block other companies' construction efforts, would not be considered significant under *Criterion A*.

Criterion B: Association with the lives of persons significant in our past.

Streetcar properties may also be evaluated for association with persons significant to the history of Colorado and individual communities. This criterion refers to persons who have a strong and historically significant association with a historic property as well as a broadly significant impact on history and are individually significant within a historic context. However, mere association with a streetcar property does not satisfy the requirement for significance under *Criterion B*. Many civic and business leaders with potential significance invested in streetcar companies throughout Colorado. Researchers must determine the extent of those persons' involvement in a streetcar company and the relationship of that association to their broader historical significance when evaluating a property under *Criterion B*. In addition, persons whose only association is with the design, engineering, or operation of a specific streetcar company are evaluated under *Criterion C*.

The Colorado Springs & Interurban is an example of a streetcar system with potential significance to an individual under *Criterion B*. This system was funded by the wealthy philanthropist Winfield Scott Stratton, who purchased and rebuilt the existing streetcar network

in Colorado Springs to improve the city's public transportation. In addition to his association with the streetcar system, Stratton also funded the construction of the city hall, county courthouse, and a public park as gifts to the city. As a leading and influential citizen of Colorado Springs, Stratton's significance to that city's history includes, but also extends beyond, his association with the Colorado Springs & Interurban. In contrast, Horace Tabor's association with the Aspen City Railway as a minor investment does not reflect his historic significance related to mining in Leadville.

Criterion C: Embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.

Streetcar properties may be considered significant for their physical design or construction under *Criterion C* in the areas of Architecture and Engineering. Properties may be evaluated for distinctive design, technological innovation, or as an outstanding example of an architectural style associated with the historic context of a streetcar system. Properties that embody or convey features that represent important types or periods in streetcar history, or that convey the evolution of technology throughout the history of streetcar service are also potentially eligible under this criterion.

Buildings and structures such as depots and waiting stations associated with streetcars may be architecturally significant as notable examples of an architectural style as applied to their function within the streetcar system. For example, many stables, car barns, and power plants represent Romanesque or Renaissance Revival features that accent their character-defining rows of bays, large entrances, and tall windows. Association with a rare technology or era of streetcar development, such as the horse-car era or cable-car technology, that is conveyed in the building's design may also contribute to architectural significance.

Regarding streetcar lines and other structures, Colorado's streetcar systems represent a range of technological engineering phases including the development of horse traction, cable railways, steam dummies, and electric traction. Each of these technologies required a unique engineering

approach that may be embodied in the character-defining features for the various property types associated with streetcar systems, as described in Section 7. Significant engineering may be conveyed within a single property, such as the construction of a line that represents the first time a particular technology such as a rail type or mode of traction was used, or the layout of a power plant or car barn constructed in response to an innovative technology. Multiple resources within a district may also reflect engineering significance through the specific design and materials utilized in the construction of an entire system. In addition, notable persons such as architects, engineers, or businessmen associated with a specific streetcar company may be evaluated under *Criterion C* as those responsible for the design, construction, and founding of the streetcar lines that represent the work of a master.

Most extant streetcar lines in Colorado embody technologies and design principles that were common throughout the state. These standard and common designs are generally not significant under *Criterion C*. To be significant under *Criterion C*, properties must retain the character-defining features that embody a specific and unique or innovative technology, the evolution of a technology, or the historic transition from one technology to another. For example, a unique rail gauge utilized in one community for a specific engineering purpose may have engineering significance, whereas standard gauge rails would not. Similarly, the mere presence of a specific design element does not convey significance. Streetcar lines were regularly updated with a wide variety of materials to meet industry standards and support new rolling stock. The presence of a specific rail design or rail weight, for example, would not necessarily be significant unless it can be demonstrated to be part of a complete and innovative technological design that had a significant impact on the evolution of streetcar technologies.

In addition, the rarity of certain properties is an important consideration that may affect significance under *Criterion C*. Properties associated with technologies that are sufficiently rare are likely to be significant. For example, in the areas of engineering and invention any physical remains of the Short electric system, which was developed in Colorado and only used for a short time period, would be significant. In contrast, features that represent the Sprague electric system, which was widespread within Colorado and the nation, would not likely be eligible under *Criterion C*, unless they represent the first instance of Sprague technology or can convey the

transition to that widespread technology. Similarly, any surviving properties that embody the design and engineering of horse-powered traction, which have been generally removed or altered for electric service, would be potentially eligible due to the lack of extant properties that represent this technology.

Criterion D: Ability to yield information important in history or prehistory.

Properties that have potential to add to the body of knowledge related to streetcars in Colorado may be significant under *Criterion D*. Properties that may be significant under this criterion include buried segments of track or the locations of former streetcar buildings or sites. In order to be significant under *Criterion D*, properties must be assessed to determine if specific research questions can be addressed and if the resource has the potential to yield important information. In Trinidad, for example, the technical information such as track gauge and rail weight have not been well documented in the written record. Excavated resources in Trinidad may provide new information in this area and would be potentially significant on the local level. In contrast, buried tracks encountered in cities such as Pueblo, Colorado Springs, or Denver are less likely to be eligible under this criterion as those companies and the physical features associated with the streetcar systems have been previously well researched and documented.

Level of Significance

Streetcar-associated properties may be evaluated as having significance at the local, state, and national level. Locally significant properties are specific to a city, county, or region within the state. This is likely the most common level of significance for streetcar properties, as these systems provided a transportation network in a limited area where they often had a significant impact on local historical development. Streetcar systems directly associated with major developments in a community, such as the gold mines in the Cripple Creek District or the fruit farms surrounding Grand Junction, have significance at the local level. Properties significant at the state level must represent aspects of streetcar history that are important to the state of Colorado as a whole. For example, the earliest example of a specific technological advancement in a local community may have significance at the state level as an important innovation if that streetcar technology eventually spread to other communities. Properties with national significance require an important association with national historic trends in streetcar operation.

For example, the African American ownership and management of the streetcar companies in Grand Junction may be nationally significant as a potentially rare example of this trend in the United States.

Period of Significance

The overall period of historical development for streetcar properties in Colorado is 1871 to 1952, which reflects the first horsecar service in Denver and the last electric service in Fort Collins. However, the period of significance for each community and property type will vary within this range depending on the dates of the local streetcar operation and the trends or physical features that contribute to its significance. The individual contexts for each community include the dates of operation for each company and will inform local periods of significance. Some streetcar systems in Colorado present complicated histories, which include multiple companies and technologies that changed over the span of several decades. As such, a streetcar property may have multiple periods of significance based on changes in ownership, technology, or other alterations to the system.

Criteria Considerations

The National Register includes Criteria Considerations, which are special requirements that must be applied to certain properties that are not usually considered for listing. These include religious properties, moved properties, birthplaces and graves, cemeteries, reconstructed properties, commemorative properties, and properties achieving significance within the last fifty years. If one of these properties meets a Criteria Consideration, in addition to meeting the regular requirements of significance and integrity, it can be considered for eligibility. For streetcar systems, this would include moved or reconstructed properties. The National Register guidance explains: “Criteria Considerations need to be applied only to *individual* properties. Components of eligible districts do not have to meet the special requirements unless they make up the majority of the district or are the focal point of the district.”⁷⁷⁷

For streetcar system properties, the following Criteria Considerations may be applied, as follows:

⁷⁷⁷ National Park Service, *How to Apply the National Register Criteria for Evaluation*, n.d., 25.

- **Criteria Consideration B:** Moved buildings, structures, or objects that are no longer in their original location, but are considered significant primarily for architectural value, or as the surviving example associated with a historic person or event. As noted under the Integrity of Location, streetcar properties often were moved and repurposed in other locations. Examples include realigning, relocating, or repurposing streetcar tracks or moving smaller buildings such as waiting stations or shelters. Relocated properties that remained in use during the established period of significance may retain integrity.
- **Criteria Consideration E:** Reconstructed buildings or structures when built in a suitable environment or location, represent a significant historic association when no other building or structure with the same association has survived. Due to the rarity of streetcar properties, a reconstructed building may be considered significant if the reconstruction was done according to the Secretary of the Interior's guidelines and it is one of a few remaining examples with this association.

C. Integrity

Integrity refers to the ability of individual properties to convey their historical significance. Integrity is measured according to seven aspects: location, setting, design, material, workmanship, feeling, and association. Properties must retain most of these aspects to be considered to retain integrity. However, the weight given to each aspect as part of the evaluation varies depending on the type of property and its significance. The character-defining features (essential physical features) of a property must be present and evident for a property to represent its significance. The features are largely identified in Chapter 7 according to property type, although the lists of character-defining features are not exhaustive and other features may be significant depending on the property being evaluated. This section provides guidance for assessing integrity and identifying the associative qualities that must be evident for a streetcar property to be considered eligible to the NRHP. An evaluation of integrity must be applied to both individual properties and districts.

Specific integrity aspects will be more or less important depending on the property type. Properties associated with streetcar systems that are significant under *Criterion A* will rely less heavily on materials or workmanship to convey their significance. Properties found to be significant under *Criterion C* may rely less on feeling or setting. For example a line that was the first built into a new neighborhood and subsequently updated, possibly several times, during the period of significance may retain significance under *Criterion A* if it retains integrity of location, setting, and association, but would no longer convey significance under *Criterion C* due to loss of integrity of materials, workmanship, and engineering design. The property should be evaluated according to its associative qualities with the single event, patterns of events, or broad historical trends that have been identified. To retain good integrity, the line must be able to demonstrate and convey its association with a substantial period of growth or development in the neighborhood, as well as its original location, overall design, and setting. Generally, if a property can only convey the aspects of feeling and association without any of the other five aspects, it is unlikely to have good integrity.

When assessing integrity of materials, it can be difficult to assess part of a line depending on the amount of track present in the segment that is being surveyed. When a short segment of track is encountered during field survey, surveyors should research or locate through field survey the relationship of the segment to a longer line to be able to fully evaluate its association with the streetcar system. If only a small segment of track is extant and the rest of the track has been removed, that would result in poor integrity given that the majority of the resource has been destroyed.

Property types must retain their most important features for the property to demonstrate its associative qualities. For example, the most important feature of a car barn is the series of bays across the facade that allowed for rolling stock to be moved in and out of the building. If the car barn bays are still present, and the open floor plan and wide façade is still intact, the property can convey its significance and demonstrate excellent integrity of materials, design, and workmanship. A property type that is rare, such as a cable building, should retain its monumental scale, large expanses of windows, including multi-story windows and smokestacks and large door opening to accommodate large machinery. However, given the rarity of cable buildings in

Colorado, changes to the materials, design, and workmanship are less critical if the building still retains integrity of location, setting, feeling, and association.

As functional transportation networks, streetcar systems and their associated properties were consistently updated and improved during their periods of significance. Buildings may have been relocated, lines may have been rerouted, and individual materials may have been relocated, repurposed, or updated as technology advanced. In general, if a relocated or altered property remained in use during the established period of significance, it may retain integrity. In addition, because historic streetcar systems are no longer active, most associated buildings do not serve their original function. This should not be considered to have a negative impact on integrity, given that the building can convey its historic function through its character-defining features. A property should also be evaluated for integrity based on each potential period of significance. For example, a streetcar line originally laid out for horse-powered traction that was later updated for electric traction may fail to convey significance related to the horsecar era due to diminished integrity, but continue to convey significance representing electric traction as an innovative example with excellent integrity of materials, workmanship, and specialized design. Each aspect of integrity is discussed with examples for application below.

Location

Location refers to the place where a historic property was built or an event took place. A property's location is usually essential to understanding why it was built and its association with larger trends. Strong integrity of location for buildings, structures, and objects requires that the property retain its original location. However, the nature of streetcar properties requires that other factors be researched in the evaluation of properties that have been moved. Streetcar tracks were often realigned, relocated, or repurposed from abandoned lines. Such alterations do not necessarily result in a negative impact to integrity. Smaller buildings such as waiting stations may also have been relocated from their original location. Although this study does not focus on individual streetcars and rolling stock, it should be noted that these properties were mobile by design, and location should not be a strong consideration when assessing their integrity.

Design

Design refers to the combination of components that reflect the intended purpose of a specific property, including the form, plan, and aesthetic style. Design reflects the precise decisions that were made during the planning and construction process. For buildings, design reflects the form and plan of the building. Stables, carbarns, and power plants were designed with specific spaces and floorplans to accommodate their intended use. The ability to convey the building's original use is essential to retain strong integrity of design. For example, the separation of bays is an essential feature of a carbarn, while the broad footprint, multi-story design, and smokestack are defining features of a power plant. In addition to the form and function, the architectural style and decorative details indicating its function, as well as the method and period of construction, are important aspects of design. If a building is significant under *Criterion C* for Architecture, its ability to convey a style and reflect the designer's original intent is also important.

Streetcar-related structures are generally utilitarian in nature but may reflect significant aesthetic or stylistic elements. The layout of their component elements is essential to integrity of design. For example, the design of an entire streetcar system or an individual line could be reflected in the route taken through the city or between cities. An isolated segment of streetcar tracks eligible under *Criterion C* would convey integrity of design through the gauge of the rails and the presence of component features, including paving materials, ties, and substrates such as bricks, sand, burnt clay, or crushed stone, which secure the rail ties from shifting in the ground. Embankments, cut and fill, and berms associated with interurban lines may also retain integrity of design if the physical characteristics of the features are still present. The design of bridges associated with streetcar systems may retain integrity through the width, span, rails, and other elements reflecting their original purpose.

Setting

Setting refers to the character of the built and natural environment surrounding a historic property. This aspect of integrity focuses on the relationship between the property and other aspects of its environment, beyond its physical location. Aspects of the built environment that affect the setting include the surrounding buildings, structures, and objects that may or may not date to the same period of significance. Examples of physical features within the urban landscape

include historic residential areas or commercial nodes that convey the period of significance, even if they may not be directly related to the property. Natural environmental factors related to integrity of setting may include local topography, bodies of water, or other features that influenced the design of the historic property. However, streetcar properties are most often located in urban settings. Due to continuing urban development and growth, the setting of streetcar properties has often been drastically altered. In such cases, design elements of the streetscape may be interpreted as historic setting. It is common for streetcar resources to lack integrity of setting, and some allowance should be made for this when determining NRHP eligibility.

Materials

Materials represent the physical elements used in the construction of a historic property. Integrity of materials generally requires the retention of original historic fabric. In the case of streetcar lines and interurban lines, this would include the rails, ties, bedding, and other elements that are associated with the tracks and embankment. Original materials are essential to conveying the evolution and transition of various streetcar technology and engineering practices. However, due to the complexity of streetcar resources as functioning transportation corridors over several decades, a greater allowance should be made for replacement of materials that were part of the general upkeep and adaptation to new technologies. For example, if an electric line was updated with new materials to adapt to the changes in rolling stock, the updated materials retain integrity if they continue to convey the period of significance defined by electric traction on that line.

Buildings associated with streetcars should also retain their original building materials. A stable that was converted into an electric car barn retains strong integrity if it can convey significance of the later use of the building. However, alterations such as changes in cladding, doors, or windows result in diminished integrity of materials.

Workmanship

Workmanship reflects the physical expression of the crafts and technology employed in the construction and design of a historic property. This aspect of integrity can be applied equally to an entire property and its constituent parts. It can reflect highly skilled techniques and less-

skilled methods of construction. Integrity of workmanship must reflect the crafts and practices of the time period in which the property was built. Workmanship can reflect aesthetic choices and technologies associated with local, state, or national trends. Streetcar structures should primarily convey the original technology and engineering employed in their construction or within their period of significance. Streetcar buildings and structures such as bridges may also reflect aesthetic choices of their era.

Feeling

Integrity of feeling reflects the overall ability of a historic property to reflect its period of significance. The combination of physical characteristics and aesthetic design combines into a sense of historic character specific to the property type. Similar to integrity of setting, feeling can be difficult to assess in many situations. Buried streetcar tracks are not visible and, as such, would appear to lack integrity of feeling. Urban development can at first appear to detract from integrity of feeling, but attention to the subtle details and relationships of streetcar properties can reveal a sufficient retention of integrity. The width and layout of city streets, if unaltered, can contribute to integrity of feeling for a streetcar network or segment. The character-defining features of a car barn or power station, such as size or fenestration arrangement, contribute to the historic feeling of streetcar buildings and, potentially, the feeling of a former streetcar line.

Association

Association is the direct link between the property and a historic event, trend, or person. Similar to feeling, strong integrity of association is a culmination of other aspects of integrity. In order to convey its historical association, a property must sufficiently retain most of the aspects of integrity. As discussed above, which aspects carry more weight depends on the criteria of significance. For streetcar properties, historical associations can include the relationship of a property to a specific company, person, urban development, or technological shift. These associations can be reflected in the physical components of a property and the setting and relationship to other properties.

D. Summary

Historic streetcar systems can be represented by a variety of properties that still exist on the current urban landscape. As historic properties, they have potential to be eligible for the NRHP as individual properties or historic districts. The guidelines presented in this section are intended to assist researchers in evaluating these unique resources. While these guidelines largely follow the NRHP nomination process, there are unique aspects of streetcar properties that should be considered. Streetcar tracks are linear resources that can be evaluated as individual segments of a line, or as a system. Streetcar properties often have more complicated histories than other historic properties because they were functioning transportation networks that were commonly altered. Streetcar resources may also not be visible and, if visible, are unlikely to continue to serve their historic functions. As such, a broader latitude should be applied when determining the integrity of these resources. In addition, intensive research will be required for the evaluation of resources that are extant, but no longer visible. Although researchers may encounter circumstances in the field that are not covered within these guidelines, they offer a methodology for the evaluation of most property types associated with streetcar development.

9. GUIDE TO RESEARCH, IDENTIFICATION AND EVALUATION

While a great deal of research relative to Colorado's streetcar systems has already been completed as a part of the historic context and Geographic Information System (GIS) components of this project, additional field work is imperative to fully understand the significance of properties associated with streetcar systems in Colorado. Identifying streetcar related resources in the field through the multiple layers of transportation and community development history can be a confusing task. Nearly all streetcar systems in Colorado were abandoned in the decades following World War II. Since then, streetcar resources have been subject to demolition and alterations for several decades. The following steps, based on those identified in *Historic Streetcar Systems in Georgia* by New South Associates, provide a framework for identifying and researching potential streetcar resources.

A. Background Research

1) Consult Streetcar GIS Tool, the Colorado Historic Streetcar Viewer

Historians preparing site forms for intensive-level field survey, and those interested in streetcar history in general, should first reference the GIS component of this project—the Colorado Historic Streetcar Viewer—to identify whether a streetcar line or noted associated streetcar feature is located in their subject area of interest. The GIS data includes information related to what companies operated lines in that area, the mode of transportation, and the dates the line operated.

2) Consult OAHP COMPASS Database

The GIS data also include Colorado Office of Archaeology and Historic Preservation (OAHP) COMPASS database results; however, additional resources may have been documented in COMPASS since those results were integrated into the GIS data. As a result, the COMPASS database should additionally be consulted to determine whether any previously documented streetcar resources exist in the subject area.

3) Review Current Aerial Maps

Additionally, recent aerial photography can be referenced to look for clues as to whether a streetcar line once passed through an area. Clues relative to potential historic streetcar resources included in aerial photography are wide roadways with medians, diagonal roadways with or without triangular shaped buildings conforming to former streetcar routes, and uniquely shaped lot lines that may have been drawn to conform to streetcar rights-of-way. Taken individually, these features may not mean much; however, when viewed together as a system, they may be indicative of the presence of a former streetcar system.⁷⁷⁸

4) Review Historic Context from This Report

The context presented in Section 4 of this report, Colorado Communities with Streetcar Lines provides valuable information relative to the streetcar companies operating in the various Colorado communities across the state and should be referenced for general information. From this point, more detailed research can be completed using the general information gathered from the GIS component and the historic context.

B. Detailed Historical Research

5) Consult the Bibliography of This Report

The bibliography of this report is divided by section and includes the repository where each resource is located at the end of the citation so future researchers may identify the location of additional information.

6) Complete Historic Map Research

If the background research completed above indicates the potential for a historic streetcar route, historic maps should be referenced. The following locations contain historic maps indicating the location of streetcar lines: Denver Public Library Western History Department, Carnegie Library for Local History in Boulder, Pioneers Museum in Colorado Springs, Fort Collins Museum of Discovery, Pueblo City-County Library District Main Branch, and History Colorado. Some of

⁷⁷⁸ New South Associates, *Historic Streetcar Systems in Georgia*, 139.

these maps were generated by the streetcar companies themselves, while others are general maps of the respective cities that happen to include streetcar routes. While U.S. Geological Survey (USGS) topographic maps do not typically include streetcar routes within cities, interurban lines often do appear. Similarly, Sanborn Fire Insurance Maps of communities across the state, available digitally through the Denver Public Library and the Library of Congress, do not appear to include streetcar trackage; however, the buildings and some associated features may be identified on the maps. Maps also appear in secondary sources dedicated to specific streetcar lines. In some communities, such as Aspen, Leadville, and Grand Junction, these are the only maps found during research indicating the location of the streetcar lines. Several secondary sources also contain maps of streetcar routes in various communities. These resources were utilized to inform the GIS mapping component for this project; however, historic maps may include valuable information when additional research is necessary.

7) Consult Historic Aerial Photography

Historic aerial photography may also include valuable information relative to the location of and changes to streetcar and interurban systems. The University of Colorado has an extensive digital collection of Historic Aerial Photographs dating from 1938 to 1947.⁷⁷⁹ At this time, aerial photographs of Boulder, Colorado Springs, and Pueblo have been digitized while printed versions of the aerial photographs of other communities may be available for viewing in person. The Arthur Lakes Library at the Colorado School of Mines also has a collection of aerial photographs of most of Colorado dating from the mid-1930s to the early 2000s. A 1930s aerial map of Denver is available at

<https://www.arcgis.com/home/item.html?id=a9d5564d22da4bffaadf6b2bb2ec3960>.

8) Visit Local Archives/ Libraries

Repositories across the state may hold valuable detailed information regarding the streetcar systems in the respective community or region. These repositories include local, regional, and state archives and libraries, historical societies, museums, and university libraries. Many

⁷⁷⁹ “Historical Aerial Photographs of Colorado,” *University of Colorado Boulder, University Libraries*, accessed March 3, 2020, <https://www.colorado.edu/libraries/libraries/earth-sciences-map-library/map-library-collection/historical-aerial-photographs-colorado>.

secondary sources have been written relative to the history of streetcars in various communities that provide valuable and oftentimes exhaustive information. Some local archives hold detailed company collections, like the Tramway collection at the Denver Public Library, while the records of other companies no longer exist. Local archives and online resources also contain historic newspaper clippings relative to streetcar happenings that may provide valuable information relative to route changes, dissolutions, and/or company structures. In addition, some oral histories include information on how residents utilized streetcars in their daily lives.

9) Contact Local Government Offices

Local government offices, particularly those of the public works and planning departments, may contain information relative to previous encounters with buried streetcar resources or known associated resources such as waiting shelters and wire support poles.

10) Consult Period Journals

Journals and period manuals include a plethora of information regarding Colorado's streetcar systems, as well as other systems across the country, and provide a good comparison of how Colorado companies fit into national trends and how they were different. The *Street Railway Journal*, and later the *Electric Railway Journal*, are accessible online from the Smithsonian Libraries.⁷⁸⁰ These resources include articles with specific details relative to the functioning and technologies employed at various streetcar companies. The *McGraw Electric Railway Manual*, available online from Hathi Trust, often lists details of streetcar companies including financial information and statistics relative to their equipment and system.⁷⁸¹ *Moody's Manual of Railroads and Corporation Securities* provides similar information.⁷⁸² Figure 201 provides a research checklist.

⁷⁸⁰ "The Street Railway Journal," *Smithsonian Libraries*, accessed March 3, 2020, <https://library.si.edu/digital-library/book/street-railway-journal>; "Electric Railway Journal," *Smithsonian Libraries*, accessed March 3, 2020, <https://library.si.edu/digital-library/book/electric-railway-journal>.

⁷⁸¹ "McGraw Electric Railway Manual: The Red Book of American Street Railway Investment," *Hathi Trust Digital Library*, accessed March 3, 2020, <https://catalog.hathitrust.org/Record/008955939>.

⁷⁸² New South Associates, *Historic Streetcar Systems in Georgia*, 147.

Have a project that might impact a streetcar line? Want to learn more about streetcar systems in your community? Follow this checklist to guide your research!

Streetcar Research Checklist

Background Information

- 1) Consult Streetcar GIS tool, the Colorado Historic Streetcar Viewer, to identify company, mode of transport, years of operation, extent of line
- 2) Consult OAHP COMPASS database
- 3) Review current aerial maps
- 4) Review historic context from this report, *Historic Streetcar Systems of Colorado*

Want to know even more? Then complete detailed historical Research!

Detailed Historical Research

- 5) Consult the Bibliography of this report
- 6) Complete Historic Map Research
 - Streetcar Company and/or Railroad Maps
 - Local Maps
 - Sanborn Fire Insurance Company Maps
 - USGS Maps
 - Maps in secondary sources
- 7) Consult Historic Aerial Photography
- 8) Visit Local Archives/ Libraries
 - Secondary Sources
 - Streetcar Company Collections
 - Newspaper Clippings
 - Oral Histories
- 9) Contact Local Government Offices (Public Works, Preservation)
- 10) Consult Period Journals (Street Railway Journal, Electric Railway Journal)

Figure 201. Streetcar research checklist.

C. Fieldwork

With the proper background research completed, including the company that built and operated a route, the dates it operated, and the mode of power utilized for the streetcar during its history, fieldwork to identify potentially associated resources can begin. Armed with this information, the property types presented in Section 7: Property Type Descriptions can then be identified and their spatial relationship to one another can be ascertained. The property types to look for in the field include, but are not limited to, the following: carbarns, stables, offices, electrical substations, waiting stations, commercial building clusters, triangular-shaped buildings, exposed tracks and rails, cuts and grades, and unique street layouts. The spatial relationship between these features will help to develop an understanding of the urban landscape as a whole and how the streetcar system influenced its development.⁷⁸³

Surveying streetcar systems and their associated resources, however, may require the specialization of multiple disciplines including history, architectural history, archaeology, and GIS. These specialists can complete a landscape analysis, architectural survey, GIS mapping and archaeological survey, excavation, metal detectors and ground penetrating radar (GPR) to confirm the presence of buried tracks if necessary.⁷⁸⁴

GIS work is extremely helpful when surveying historic streetcar routes. Surveyors can evaluate a segment of streetcar trackage within a project area while viewing its relationship to the line or system as a whole, and help to ascertain the role a segment of track played in the streetcar system of a city. While a great deal of GIS work has already been completed as a part of this study, those findings can be added to and refined as additional information is gathered. Currently, the GIS work related to streetcar tracks is based on the roadway centerline. As fieldwork is completed and the location of buried tracks is more accurately known, these attributes can be updated to reflect to the true location of any buried tracks or, conversely, the absence of any

⁷⁸³ New South Associates, *Historic Streetcar Systems in Georgia*, 148.

⁷⁸⁴ New South Associates, *Historic Streetcar Systems in Georgia*, 148.

previously removed tracks. This ability to update the GIS component with accurate information from the field is valuable in the future streamlining efforts of transportation-related projects.⁷⁸⁵

Survey fieldwork should follow the protocols set forth by the Colorado OAHP.⁷⁸⁶ Associated streetcar buildings should be documented on the appropriate Architectural Inventory Forms while streetcar rails themselves should be documented as linear resources using Management Data and Linear Component Forms. Many of these tracks remain buried under the surface of roadways and may have the potential to provide information relative to the operation and design of the streetcar system and its rail, bedding, and paving. As technology and systems evolved, the configuration, size of the rail, and other track components may have changed, including potential double tracking in areas. Various road projects conducted while the lines were in operation, and after they were paved over, are likely to have impacted the condition of buried tracks. Despite the various states of preservation, modified buried tracks may still hold the potential to provide valuable information. Local public works departments may provide valuable information relative to whether the potential for intact buried streetcar tracks remains, or if previous projects in the area resulted in their removal. Cracks in a road's surface as well as undulations may be indicative of buried streetcar rails. GPR can help to verify if tracks are indeed buried beneath the surface of the roadway.⁷⁸⁷

D. Summary

Identifying and evaluating streetcar resources requires the researcher to look at an entire system of associated resources, not just a singular resource in a vacuum, and utilize various clues remaining in the landscape. Much of the basic information regarding streetcar systems is included in the GIS component of this project, the Colorado Historic Streetcar Viewer. However, the checklist included in this section (see Figure 201) provides a roadmap for future researchers looking to dig deeper into a specific streetcar line or company in the state.

⁷⁸⁵ New South Associates, *Historic Streetcar Systems in Georgia*, 149.

⁷⁸⁶ "Survey & Inventory," *History Colorado*, accessed March 3, 2020, <https://www.historycolorado.org/survey-inventory>.

⁷⁸⁷ New South Associates, *Historic Streetcar Systems in Georgia*, 149–50.

10. CONCLUSION AND RECOMMENDATIONS

Colorado's former streetcar systems are profoundly significant to the history of transportation, settlement, and community development in the Centennial State. For decades the streetcars were a fixture of daily life for Coloradans, providing crucial and reliable public transportation to work, commercial centers, recreational destinations and cemeteries. Denver's interurban system, which connected that city with the nearby communities of Aurora, Littleton, Lakewood, Golden, Arvada, and Boulder, helped guide the development of the massive metropolitan area. The interurban systems beyond Denver were integral to developing the economic potential of communities across the state, including Grand Junction's fruit farms, Cripple Creek's gold mines, and the coal fields of Trinidad. Streetcars not only transported people, but also hauled mining ore and other freight. Colorado's streetcars were also a symbol of civic pride and local identity, and residents were proud of the modernity that streetcars represented within the communities where they operated. The boom towns of Leadville, Aspen, and Cripple Creek built systems to flaunt their sudden prosperity from gold and silver, just as Fort Collins and Greeley did following their own sugar beet-fueled population explosions. As Colorado and its cities competed economically with the rest of the nation, the streetcars were a rolling symbol of the state's success. Ultimately, Colorado's former streetcar systems help to define an era of transition when Colorado's communities grew from frontier outposts to modern cities. Although the remains of these systems have largely been torn down, ripped up, and paved over, their legacy remains imprinted on the urban fabric of Colorado.

This context details the history of streetcar development across the state and recommends methods to evaluate the wide variety of remaining properties that continue to showcase the legacy of streetcars in Colorado. The broad trends of streetcar development within Colorado are discussed in comparison to those seen across the nation. While many Colorado cities may have developed their systems later than East Coast or Midwestern cities, they were at times quicker to implement and adapt to the most recent technological advancements. In addition to the statewide context, the development of streetcar operations is detailed for each of Colorado's major cities. Taken together, these histories narrate the founding and ownership, dates of operation,

technological advances, and physical construction associated with every company that operated a streetcar system in Colorado between 1867 and 1952.

The evaluation sections provide guidance for historians determining whether extant streetcar properties are eligible for listing in the National Register of Historic Places (NRHP). They include detailed descriptions of a wide variety of property types associated with streetcar systems, such as buried streetcar tracks, bridges, carbarns, and other properties, that practitioners are likely to encounter and identify in the field. The context further describes the potential for NRHP eligibility for streetcar properties in general based on each of the four evaluation criteria and seven aspects of integrity. Together these sections present a consistent methodology for the assessment of properties associated with streetcar development within the state of Colorado.

This context is intended to be utilized in conjunction with the Colorado Historic Streetcar Viewer. For each community, the individual streetcar lines were located, mapped, and compiled with essential historical information into a comprehensive database representing all known streetcar properties in Colorado. The database serves as the basis for the GIS component. This GIS component provides a user-friendly tool to locate streetcar properties in the state and easily access a wealth of information specific to that property. Most importantly, it allows researchers to quickly locate potential buried streetcar tracks throughout the state. Buried tracks are the most prevalent of Colorado's remaining streetcar properties, and the most difficult to locate in the field. Once a property is located, researchers may reference this context for a more complete historical narrative.

Taken together, this context and the GIS component provide a valuable resource for both professionals and the general public. Historians and environmental planners can use the GIS component and historic context to anticipate the locations of potential streetcar system properties that may be impacted by transportation projects. Information contained within the context will also be useful for understanding the significance streetcar systems had to a specific community. The compiled information has potential to assist with local histories, landmark designations, interpretive projects, and academic research. The GIS component provides an easy method for researchers to locate and track the development of streetcar lines and other properties within a

specific community. Members of the public interested in Colorado's streetcar history will also find these tools extremely valuable. The context provides an accessible compilation of knowledge from a wide variety of sources. It stands as an authoritative starting point for further research into specific localities, companies, or lines. Those interested in conducting additional research should start with the list of major secondary sources in Section 1 and the bibliography, which is organized by section with notations of specific repositories where additional resources are located, as well as Section 9: Guide to Research, Identification, and Evaluation.

By referencing the research and implementing the guidelines included in this context, future researchers will be able to evaluate these properties by conducting research within the bibliographic references and speed along the evaluation process. This comprehensive research study and GIS mapping tool have greatly enhanced the understanding of streetcar systems across the state.

11. FUTURE RESEARCH AND CONTEXTS

This context provides a detailed statewide history of streetcar development in Colorado, as well as for each local community that operated streetcars within Colorado. However, there are remaining questions that present opportunities for future researchers to increase the knowledge of streetcar systems in Colorado.

Research should be done to determine the extent of underrepresented and minority group ownership and participation in the development and operation of streetcars in Colorado. For example, African American individuals helped run early horsecars in Grand Junction, but very little is known about the extent of this involvement and how it relates to the settlement of this minority group in Grand Junction. Research also revealed that minorities worked in streetcar operations in Englewood and Denver. Additional research should be done to determine the significance of the trend and whether it is repeated in other communities and should be compared with minority participation in other states to determine whether these instances in Colorado were unique in the national context of streetcar history.

Potential future contexts relating to streetcars in Colorado that were outside of the scope of work for this project include an examination of streetcar suburbs and streetcar commercial districts as potential historic districts. These neighborhoods represent significant additions to the urban development of cities throughout Colorado and are among the most likely potential districts to include streetcar resources. Similarly, a context evaluating the significance of commercial streetcar districts would assist in determining historic districts that feature significant concentrations of streetcar system properties. Beth Glandon conducted a study of streetcar commercial districts in Denver (including GIS mapping), and *Denver Urbanism* published an extensive series by Ryan Keeney with interactive GIS maps on the history of Denver's historic streetcar routes and the livability of Denver's streetcar suburbs; these same types of studies can be repeated in other communities across the state. Local contexts on commerce, entertainment, and recreation may also shed light on significance and influence of streetcar systems on the broader community development beyond residential and commercial districts.

Even though rolling stock was not considered a property type for this research project, research into the numbers and type of former streetcar rolling stock present in Colorado would be a valuable addition to the body of knowledge regarding streetcars in Colorado. A few individual streetcars have been restored for operation in Denver and Fort Collins, while others have been preserved in museums. Abandoned streetcars have been sold and repurposed as small homes, lunch counters, and other uses. It is possible that former streetcars remain across the state, and may require a unique research and evaluation approach as well as opportunities to preserve and restore this property type.

The Colorado Historic Streetcar Viewer will also require continual updating. As a working document, multiple tasks can be undertaken to maintain its accuracy as properties are encountered or field surveyed. To improve the current data, future researchers can verify the location and condition of associated resources and points that are currently included. These resources were identified from research and COMPASS data but were not field verified as part of this project. Additionally, the attribute data is not complete for all lines, for example, streetcar companies are not included for all Colorado Springs lines. Future researchers could improve the data by including this information. To add to the current data, the locations of buried streetcar tracks may also be updated as a result of remote-sensing technology or as they are encountered. The locations of most tracks were assumed to be located within the street center line for this study. The accuracy of this information can be improved to reflect the specific location in the street where the tracks are located and updated to denote double-tracked segments, or other unusual designs such as multiple tracks leading to a carbarn. The database can also be updated to verify and denote the presence of known tracks, as well as segments that are known to have been removed.

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