United States Department of the Interior
National Park Service

National Register of Historic Places Multiple Property Documentation Form

This form is used for documenting property groups relating to one or several historic contexts. See instructions in National Register Bulletin *How to Complete the Multiple Property Documentation Form* (formerly 16B). Complete each item by entering the requested information.

___x___ New Submission _____ Amended Submission

A. Name of Multiple Property Listing

Fire Stations of Nevada

B. Associated Historic Contexts

(Name each associated historic context, identifying theme, geographical area, and chronological period for each.)

I. Fire Fighting in Nevada
II. Fire Station Architecture in Nevada

C. Form Prepared by:

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D. Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this documentation form meets the National Register documentation standards and sets forth requirements for the listing of related properties consistent with the National Register criteria. This submission meets the procedural and professional requirements set forth in 36 CFR 60 and the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation.

Rebecca Palmer Nevada SHPO 12/19/17
Signature of certifying official Title Date

Nevada State Historic Preservation Office
State or Federal Agency or Tribal government

I hereby certify that this multiple property documentation form has been approved by the National Register as a basis for evaluating related properties for listing in the National Register.

_____ _____
Signature of the Keeper Date of Action

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E. Statement of Historic Contexts

Fire has long been both an important tool and a significant threat in human environments. Agriculturalists throughout the world used fire to clear brush and forest land and to release carbon into the soil for agricultural use. Native peoples in North America used fire to manage grazing land for game animals as well as for warfare. Many Euro-American ranchers who arrived in the Great Basin region by the mid-nineteenth century, referred to these practices as "Paiute forestry." However, fires caused by lightning, heat, or those started accidentally by humans resulted in unexpected threats as conflagrations flared where people did not expect them. As Euro-Americans settled the Great Basin (the high desert area east of the Sierra Nevada with no sea outlet), they dramatically transformed the human relationship with fire in the region. Whereas the seasonal transition in land use by most native peoples allowed the liberal use of fire as a land management tool, the permanent and sedentary settlement by Euro-Americans in the Great Basin, along with the European conception of land ownership being held by private individuals, meant that fire had to be controlled more closely. In the Sierra Nevada area and the Great Basin, some ranchers and foresters who were unattached to specific areas still advocated for the so-called "Paiute forestry" as good forest management, using "light burning," or the practice of periodic burning while fuels were limited, to maintain grasslands and forests, thus reducing the intensity of fires both accidental and intentional. However, professional foresters preferred the suppression of fire in all cases, viewing "light burning" as an attempt by timber and rancher barons to avoid responsibility in maintaining public grazing and forest lands. The use of fire established by the native Washoe, Numu, and Newe peoples of Nevada that had previously removed undergrowth, released carbon into the soil, and improved forage for game animals, was now perceived by Euro-Americans as a critical threat. The Euro-American concept of commodities meant that fire endangered private property such as timber stands, livestock feed, homes, barns, businesses, and even scenery.[1]

The practice of firefighting, and the construction of fire stations that emerged as a result, became a standard presence in every Euro-American community in Nevada by the late-nineteenth century. These buildings are significant local resources, representing an investment in safety and community institutions since the inception of organized firefighting in the United States. From professional fire stations in urban environments such as Las Vegas and Reno, to rural volunteer fire departments in communities like Pioche and Winnemucca, firefighting is among the most essential, and the most venerated, fields of public service at the local level. Despite this importance, the historiography regarding firefighting in the United States is relatively limited, with little scholarly attention paid to the long-term trends in firefighting in America, from the organization of firefighting agencies to the methods firefighters used to combat blazes. This context attempts to fill that gap in Nevada by outlining the significance of the firefighting profession and its built environment to the history of the state, and create a path for the recognition of significant historic firehouses and stations in the National Register of Historic Places.[2]

Firefighting in the United States: A Brief Overview

Organized firefighting has been a practice in western civilization since the Classical Age under the civic administration of the Greek and Roman empires. Many of the technologies used in the earliest American firefighting companies had been developed in European cities during the Renaissance, and refined during the Enlightenment. Firefighting in its current form emerged in the United States in the mid-nineteenth century in response to a combination of increasing urbanization and fire-related tragedies across the country. With the

[1] Landscape preservation advocates such as John Muir viewed the use of fire by livestock herders to be destructive and indiscriminate; see Stephen J. Pyne, *Fire in America: A Cultural Hisory of Wildland and Rural Fire*, (Seattle: University of Washington Press, 1997 [reprint]), 100-102; 105.
[2] Mark Tebeau, *Eating Smoke: Fire in Urban America, 1800-1950*, (Baltimore: Johns Hopkins University Press, 2003), 6-7.

predominance of wood frame construction, the storage of large quantities of flammable hay, and the use of oil, kerosene, and other open flames for heating and lighting meant that most communities dealt with fire on a regular basis. Prior to the 1800s, firefighting was largely a community effort, as all residents actively extinguishing fires with ad-hoc bucket brigades. However, as urban areas grew amid the market and industrial revolutions of the late-eighteenth and early-nineteenth centuries, the risk of large-scale fires grew with it. Fires in cities from St. Louis to New York and Chicago precipitated not only a shift in the built environment in the United States toward more fire-resistant designs and materials, but propelled the development of an increasingly professionalized fire-fighting force. Leaders in the urbanized areas of the United States including Philadelphia, New York, and Boston organized volunteer firefighting brigades to coordinate firefighting efforts, often coinciding with the implementation of municipal fire codes that focused on preventative measures such as chimney sweeping. The city of Portsmouth, New Hampshire went so far as to require the construction of new, larger buildings out of brick after several devastating fires destroyed much of the city's closely-packed, wooden buildings. In Philadelphia, Benjamin Franklin is credited with developing the organizational philosophy that would define volunteer companies for much of the nation's subsequent firefighting history. Franklin advocated for trained teams of thirty to forty members, a standard which remained though the nineteenth century. The development of hoses and water pumps allowed for increased efficiency and not only reduced the labor required but increased the technical skill required to extinguish a fire. The Philadelphia Hose Company pioneered this transition over the 1800s. Many citizens expressed apprehension about placing what was considered a general civic duty in the hands of a small number of practitioners. However, over the course of the first half of the century, most communities in the United States began adopting fire hoses and engines as key equipment. As a result, these towns and cities began relying on more professionalized volunteer companies, who were trained to operate their company's mechanical equipment, and understand the basics of fire behavior.[3]

The introduction of equipment led to a transition in the labor structure around fire-fighting, as well as the infrastructure that supported it. Where previously the entire community had gathered people and buckets from their homes and businesses, specialized fire brigades meant the need for carriage houses or garages to store the new equipment when not in use, and pressurized water systems with hydrants to provide a water supply for firefighters. Although some American fire brigades, or companies as they would increasingly be known, utilized horse-drawn engines and hose carts, pulling with manpower was most common in smaller communities due to the high value of draft horses and the cost of maintaining horse teams full-time, although some fire companies kept their equipment and horses at nearby livery stables. Many fire companies included a "hook and ladder" contingent, responsible for limiting the spread of fire by tearing down (and sometimes moving) structures near an enflamed building. For much of the nineteenth and early twentieth centuries, engine companies with accompanying hose companies remained the mainstay of local firefighting entities. The general density of American towns and cities made human-drawn equipment feasible and allowed faster responses, as harnessing a draft horse team could waste precious minutes. It was not until the late-nineteenth century that "quick hitch" systems that suspended quickly-fastened harnesses from the ceiling of a firehouse garage enabled the broader use of horse-drawn teams. Much like the nation's early militias, the leaders of local firefighting companies exercised significant authority over firefighting operations, but were elected on short terms by all members of the company. Many of the earliest volunteer fire companies persistently experienced problems with discipline as firefighters either did not respond to the alarm, or engaged in physical violence while on duty– an issue that would not be effectively resolved in most cases until the rise of the civil servant firefighter by the beginning of the twentieth century. The need to acquire improved equipment meant that volunteer companies began requesting subscriptions from area residents, or holding balls or other social events to fundraise for new

[3] Tebeau, 3-6, 18-19; Steven R. Frady, *Red Shirts and Leather Helmets: Volunteer Fire Fighting on the Comstock Lode*, (Reno: University of Nevada Press, 1984), viii-ix; Gerry & Janet Souter, *The American Fire Station*, Osceola, Wisc.: MBI Publishing, 1998), 31; E. Green-Hughes, *A History of Firefighting*, (Ashbourne, Derbyshire, United Kingdom: Moorland Publishing, 1979), 17-31.

engines, hoses, other gear, or the construction of firehouses. It was not uncommon for larger municipalities to use tax revenue to help support fire companies as well, a precursor to the all-professional firefighting departments of the nation's twentieth century cities. City governments designed much of their water infrastructure during the early 1800s to aid in firefighting, including the construction of water towers and cisterns. As civil engineers refined the practice of supplying water to cities by the middle of the nineteenth century, they began constructing pressurized (usually gravity-fed) water systems to aid firefighters, which provided pressurized fire hydrants, or "plugs." This transition compelled fire companies to update their equipment, including the creation of leather hoses that could withstand the increased water pressure. Although increasing urbanization demanded increasing organization, and thus the proliferation of fire companies, firefighting in the nineteenth century remained a largely volunteer effort.[4]

The culmination of these trends during the Victorian era in the United States resulted in the establishment of firefighting as a reflection of both civic and cultural institutions. As fire companies established firefighting as a professional, public, and physically-demanding vocation, firefighting lent itself to Victorian ideals that viewed white, middle-class men as the progenitors of the republic and of civic life, making firefighting a prominent expression of American male virtue. Firefighters combined their physical prowess and daring with ever-improving equipment, intertwining technological innovation with the firefighting profession from its earliest days. Engine companies, either hand or steam, worked in tandem with attached hose companies that connected to a cistern or hydrant to the engine, as well as putting water onto the fire itself to extinguish it. Hook and ladder companies, where formed, worked on adjacent buildings and structures to remove flammable material and keep the fire from spreading. Where, before, bucket brigades had been comprised of anyone able to work the bucket line, fire companies were now almost exclusively white and male, and would remain so until the mid-twentieth century. Attempts on the part of African American communities to establish their own companies were often met with resistance, either legal or social, limiting the accessibility of the profession to non-whites until the 1970s, as civil rights legislation forced the opening of civil service opportunities. Although some companies attempted further limitations on specific ethnicities such as Irish or Italians, most other attempts at ethnic segregation failed. Embodying the dangers, and the technical and physical prowess of firefighting, firefighters became a revered cadre of men in most communities where they operated.[5]

Firefighters and community members in America's urbanizing cities used this developing system to press for further innovation in public safety, including firefighting, and subsequently pressured their municipal governments for greater professionalization. The late-nineteenth century saw the transition in most of the nation's major cities from volunteer firefighters to professional, salaried fire departments at the behest of the firefighters themselves and the communities they served. Urban density, increased manufacturing (and thus fire hazards), and population growth spurred demand for improvements across all municipal services from firefighting to sanitation. Furthermore, middle-class men, reflecting the social and class anxieties of American culture in the latter half of the nineteenth century, which viewed the increasingly industrial working classes of the cities, which comprised the majority of most firefighting companies, with disdain. They sought a means by which to control what they saw as the excesses of the working class volunteer firefighting companies, citing the dangers of informal competition, the possible gang collusion, and other concerns. Historian Mark Tebeau argues that rather than a top-down approach from city leaders, it was firefighters and public safety-oriented reformers together in the late Victorian and early Progressive eras (1870s to 1920s) who drove the trend towards increasing organization, professionalization, and specialization. While firefighting remained a primarily volunteer service in most communities into the early twentieth century, local fire companies in urban areas

[4] Tebeau, 20-22, 30, 37, 50-51; Green-Hughes, 40-41.
[5] Tebeau, 25, 31; Amy S. Greenberg, *Cause for Alarm: The Volunteer Fire Department in the Nineteenth-Century City*, (Princeton: Princeton University Press, 1998), 44-52; Frady, 118-119.

increasingly operated under a centralized municipal administration, and most major cities professionalized their firefighters entirely by 1900, with technical skill in equipment becoming the primary marker of a fireman's status. However, it is important to note that most small or rural fire departments continue to be primarily volunteer organizations. In 2017, over seventy percent of all American fire departments are all or mostly volunteers.[6]

However, firefighters also joined with fire insurance companies to compel transformations in the built environment of American cities, not only toward more fire-resistant or "fire-proof" construction, but also in reaction to buildings that were much taller and possessed more complex floorplans than previous decades. The advent of the second industrial revolution in the early twentieth century and the adoption of new building materials such as reinforced concrete, steel, and masonry allowed buildings to grow in height and complexity, requiring new rescue techniques for higher floors, and higher-pressure water pumps and systems that could reach the top floors of taller buildings. The common use of steam fire engines to fight fires into the early 1900s also meant that municipal water supplies had to be clean, as high alkali content or dirty water would clog a steam pumper and result in an explosion. Hand-powered engines gave way to steam engines, which, due to their weight, required either larger hand-drawing teams or the use of quickly-harnessed draft horse teams to move the equipment to the fire. Larger cities, concerned about the frequency of injury to firefighters while pulling equipment, began experimenting with self-propelled steam engines but their slow speed delayed their adoption until the advent of gasoline-powered automobiles in the 1900s. The need for professional, salaried firefighters in the nation's urban environments became more pronounced as the nineteenth century progressed, propelled by the need for skilled firefighters to navigate the more complex environment of urban fire. This resulted in the formation of the National Association of Fire Engineers (NAFE) in 1872, which began not only advocating on behalf of firefighters nation-wide, but pressing for professional training standards for firefighters to ensure safety and effectiveness. Among the goals of the NAFE were to press for centralized organization of local fire companies, to standardize the practice of firefighting, ground that practice in current science, and advocate the adoption of a national building code.[7]

In most cases, the tradition of innovation within firefighting companies, coupled with the increasing professionalization of firefighting across the country by the turn of the twentieth century, propelled a transition in the infrastructure that supported fire fighting. By the end of the Progressive Era in the 1920s, most large cities had fully transitioned to civil service firefighting agencies in response to public demands for more professional public servants, and had adopted a national standard of training, organization, and discipline for their firefighters. Although the vast majority of fire departments that served smaller towns and rural areas, remained volunteer-operated, by this period most urban firefighters were career civil servants, and drilled daily in the latest techniques for rescue, hose work, and other critical firefighting skills. By the early twentieth century, some departments began switching their firefighting apparatuses from hand- or horse-drawn engines and hose carts to gasoline-powered fire engines. The same proliferation of gasoline engines spurred innovations to combat the increasing number of gasoline fires, with H.H. Lake and A.G. Laurent inventing the first foam-based extinguishing liquid using licorice extract in 1906. Larger municipal fire departments experimented with turntable ladders that could rotate and telescope up and down to reach the ever-increasing number of floors in most urban downtowns. Smaller carriage houses gave way to larger firehouses with large garage space, offices, and sleeping quarters. The professionalization of the firefighting service meant that in addition to storing equipment, fire stations now included offices, and frequently overnight accommodations for firefighters while they were on duty. These patterns in building form and function have remained fairly consistent since the early

[6] Tebeau, 126-128; 134-141; 162.
[7] Tebeau, 200-201; 204-207; Souter, 59, 61, 65.

twentieth century, although the appearance of firehouses has continued to evolve to reflect contemporary architectural trends. However, the technology used in firefighting has changed drastically as fire departments are tasked with increased integration and consequently, the responsibility of responding to highly variable situations including automobile and aircraft incidents, high-rise fires, industrial fires, and wildland conflagrations.[8]

Local farmers, ranchers, and community leaders applied the same principles of firefighting organization to what became long-standing practices of dealing with, and harnessing, wildland fire in rural areas. By the mid-nineteenth century, the use of fire to clear farmland was common from the American South westward into California. Farmers typically coordinated field-burning, establishing fire breaks and watching fires to ensure control. Even when dealing with unintentional fires in surrounding forests or grasslands, plow lines, roads, and felled trees all served to reduce the threat to property, crops, and livestock that these fires posed. Many of these techniques became formalized in wildland firefighting as ranchers and timber companies formed protective associations to combat fire in the 1890s and 1900s. By the 1910s, their methods became formally adopted by the Grazing Service, the U.S. Forest Service, and the military, all of which began battling blazes on public land in the early-twentieth century. Local ranchers and ranch hands, farmers, and railroad teams that were regularly trained in firefighting, continued to assist these agencies. The development of rural and wildland firefighting methods in the nineteenth and early twentieth centuries differed from urban firefighting significantly, not only retaining a strong role for rural volunteer companies, but relying heavily on the provision of public firefighters from federal and state agencies.[9]

The increasing coordination of urban and rural firefighting resulted from large-scale suburban development in the mid- and late-twentieth century. The advent of low-density suburbs in the years following the Second World War, and more specifically, what historian Lincoln Bramwell terms the “wilderburbs” even farther outside of towns, has precipitated challenges in the traditional divide between urban and rural/wildland firefighting. Especially in the western United States, fire departments must cross train, learning techniques designed for dense, urban environments as well as those for managing wildland fire, placing unique pressures on western fire departments.[10]

Firefighting in Nevada

Nevada’s firefighting history followed that of national trends with the unique distinction that the state, and thus its firefighting, remained predominantly rural with the exceptions of its two metropolitan centers, Reno and Las Vegas. There were no organized Euro-American settlements in Nevada until the 1850s, well after the development of organized fire companies and departments was underway in America’s larger cities. Consequently, fire companies appeared early in the development of Nevada’s towns and cities, and were frequently among the first and most central social and civic institutions established. Taking advantage of technological developments elsewhere in the United States, Nevada’s communities frequently purchased steam fire engines and hose carts from the outset in the 1860s, although handcarts continued as a mainstay in the smaller fire companies into the early 1900s.

Mining propelled the establishment of the Nevada Territory in 1861, followed by statehood in 1864. The resulting economy and land-use patterns in Nevada precipitated a unique integration of urban and wildland firefighting more common in western environments where the rural and urban blend together. Nevada’s

[8] Tebeau, 286-287, 335-337; Green-Hughes, 69, 73, 78; Jon C. Teaford, *The Unheralded Triumph: City Government in America, 1870-1900*, (Baltimore: The Johns Hopkins University Press, 1984), 172-173.
[9] Pyne, *Fire in America*, 219-225, 233.
[10] Lincoln Bramwell, *Wilderburbs: Communities on Nature’s Edge*, (Seattle, University of Washington Press, 2014), 3.

economy in the nineteenth and early-twentieth centuries relied heavily on access to public land, being dominated by mining and ranching, requiring Nevada's firefighting organizations to balance structural, mine, and wildland firefighting skills in the training of their firefighters. As a result, small, community fire departments continue to remain dependent on well-trained volunteer members. Nevada reflects this trend with approximately fifty-five percent of the state's current fire departments being completely volunteer, another third having a combination of career and volunteer firefighters, and twelve percent being all career employees. Revealing the complex nature of Nevada's firefighting landscape, urban fire departments in communities such as Las Vegas, Henderson, and Reno, train their staff in wildland firefighting techniques and regularly deploy them on wildfires due to the proximity of their suburban areas to open sagebrush steppe and desert grasslands on abutting, undeveloped federal land. In this milieu, coordination with federal and state firefighting entities is common, including the Nevada Division of Forestry (NDF), the Bureau of Land Management (BLM), and the U.S. Forest Service (USFS).[11]

Nevada's earliest mining communities, such as Virginia City, Austin, and Pioche also possessed some of the first organized fire companies. The rapid urbanization of these communities, with milling, agriculture, and railroad towns developing throughout the region, compounded by the need to mitigate for high risk of fire in Nevada's arid environment, compelled local leaders to establish the same urban fire companies to which they had become accustomed in the cities from which they emigrated. For much of the late-nineteenth century, Virginia City led the state's development in professional firefighting, with a relatively large-scale, organized, and largely career fire department. Reno, founded in 1868, established the Reno Hook and Ladder Company in 1873 to suppress fire in the railroad-oriented community. Many fire companies also maintained cemetery plots for firefighters, similar to insurance companies or fraternal organizations of the period. Newspapers reference such cemetery plots in both Virginia City and Pioche. Much of Nevada's early firefighting organization remained confined to its settled communities, with fire companies expanded and adapting to new techniques and technologies. Wildfires were fought if they threatened specific communities, but in most cases after 1900, the USFS or BLM coordinated those efforts.[12]

Framing the Firefighting Landscape: Firefighting in Nevada's Early Towns, 1860 to 1924

The early history of firefighting in Nevada's mining and ranching communities is scant and not consistently documented. In most of the state's larger mining and ranching towns, some combination of hose and engine companies existed by the end of the nineteenth century. Because of the boom-and-bust nature of Nevada's mining towns, if the towns even developed fire companies, most communities did not survive beyond their first decade or two from establishment, and as a result, little is known of their fire companies. From Nevada's earliest mining settlements in the 1860s and 1870s, very few survived long-term. Those communities that survived to the present include Austin, Eureka, Belmont, Pioche, Caliente, and Hawthorne, many of which still have volunteer fire departments. Other surviving communities were predominantly ranching and railroad towns in northern Nevada, such as Winnemucca, Battle Mountain, Elko, Wells, Lovelock, and Carlin. The best recorded of Nevada's early fire departments are those in Virginia City, Reno, and Carson City, but newspaper records, local archives, and Sanborn Fire Insurance maps provide some details of fire departments in other communities.

[11] National Fire Protection Association, *U.S. Fire Department Profile – 2015*, by Hylton J.G. Haynes and Gary P. Stein, (April 2017), v, http://www.nfpa.org/news-and-research/fire-statistics-and-reports/fire-statistics/the-fire-service/administration/us-fire-department-profile, accessed August 17, 2017; Federal Emergency Management Agency, U.S. Fire Administration, "Nevada fire loss/fire department profile," https://www.usfa.fema.gov/data/statistics/states/nevada.html, accessed August 17, 2017.
[12] William D. Rowley, *Reno: Hub of the Washoe Country*, (Woodland Hills, Cali.: Windsor Publications, Inc., 1984), 25-26; Frady 195.

The ever-present threat of fire meant that firefighting was a critical aspect of municipal government in early Nevada towns. in the first decades of Nevada's settlement, the predominance of cheap, frame buildings, the use of fire to heat most homes and businesses, and the lack of municipal water systems early on meant that fire could be a serious threat to any town in the first decades of Nevada's settlement. Combustible materials, shared walls, general density, rubbish piles, sagebrush, and arid conditions all contributed to a higher than normal fire risk. Stories of catastrophic fires fill the pages of the state's early newspapers from these years, with major fires in Washoe City in 1865, Pioche in 1872 and 1876, Wells in 1877, and Eureka, Reno, and Tuscarora in 1879. Perhaps best known is the notorious "Great Fire" of 1875, which destroyed most of Virginia City, the state's hub of mining activity. In most cases, volunteer fire companies had already been established in these towns and coordinated the communities' firefighting efforts. This organization included a close relationship between the recruitment and training of firefighters and development of pressurized water systems they needed to fight fires. It also meant that the Virginia City area led the state in terms of the organization and refinement of firefighting practice, becoming both the most renowned and the best-documented fire department in Nevada.[13]

Typical of many fire companies throughout the country, the membership of Nevada's early companies varied substantially even if the tasks in the fire companies and their support were fairly regimented. Business owners and stockbrokers served alongside miners and general laborers. However, companies initially based their membership on elections by the membership, maintaining a level of exclusivity. Company officers directed firefighting efforts during blazes, and company foremen became responsible for the regular training and drilling of company members as well as maintenance of the company's apparatus. Most of these positions remained elected into the twentieth century. Firefighting involved its own social life as well, with regular balls or other festivities scheduled to celebrate or benefit firefighters, and fundraising balls frequently held to finance the purchase of new equipment. Work among these early firefighting companies brought with it dangers unique to a state dominated by the mining industry. While all firefighters faced the dangers of flames, smoke, and injury while racing to a fire, fighting the fire, or while operating equipment, mining towns in Nevada also contained powder houses and magazine of gunpowder and nitro-glycerin that raised the threat of explosion. Quicksilver and other processing chemicals added the threat of dangerous fumes that often incapacitated firefighters on the job. After Philipp Deidesheimer developed square-set timber framing for mines in Virginia City in 1860, the amount of combustible materials within the mines themselves increased dramatically, causing some mine fires to burn for months or even years. Even the simple act of manning the brakes (the pump) on a fire engine could become dangerous once exhaustion set in, as limbs could be crushed by pumping equipment without attention and care.[14]

Water systems, being primarily gravity-fed, required constant vigilance and became a critical shortcoming in the firefighting responses of many Nevada communities. The development of a municipal water supply became a critically important step for the state's towns and cities, and frequently became the impetus for hiring a city's first employee: an engineer. Typically, cisterns collected and stored water uphill from a town to serve fire hydrants in the town, but in the interests of conservation, early water systems remained empty until needed, with watchmen opening the cistern gates and charging the system in the event of a fire. Absent watchmen, drought years, or simply lack of water pressure often hampered firefighting efforts, propelling a push toward constantly pressurized systems.[15]

[13] Frady, viii.
[14] Frady, 8-11, 25-27; 29, 33, 40.
[15] Green-Hughes, 44-45.

One of the best-recorded fire departments in Nevada is that in the Comstock Lode, due to efforts to document its history and establish the Comstock Fire Museum in 1976. The Comstock Lode refers to the collection of mining claims and mining communities that sprung up in the Virginia Mountain Range of northwest Nevada after the "Rush to Washoe" in 1859. Despite the fact that these communities were remote mining boom towns, their citizens included former residents of eastern communities who brought with them metropolitan ideas about city planning and urbanism, among them, the concept of organized fire departments. As a result, the communities of the Comstock benefited from fire companies almost immediately after the foundation of the mining towns of Virginia City, Gold Hill, Silver City, and Dayton. Between 1861 and 1866, volunteers in Virginia City formed six fire companies that became the centralized Virginia Fire Department. The first organizations to form among these were the Virginia Engine Company No. 1 and Nevada Hook and Ladder Company No. 1, both established in Virginia City in 1861. However, it was not until1864 that the Nevada Territorial Legislature passed a law governing how the Fire Department would operate. The act created a Board of Delegates to oversee the Department, and established the positions of Chief Engineer, two Assistant Engineers, a President, a Secretary, and a Treasurer. It further stipulated that engine and hook and ladder companies could have no more than eighty men but not less than twenty-five and hose companies must have between fifteen and twenty-five men. Additional sections of the act authorized the Board of Aldermen in Virginia City to construct cisterns, firehouses, and other infrastructure to support the Fire Department. The role of Chief Engineer proved to be a popular political position, with twelve men elected to the duty between 1861 and 1876. By 1875, the year of Virginia City's most infamous fire, the city boasted seven engine companies, most with accompanying hose companies, along with the Nevada Hook & Ladder Company No. 1.[16]

Virginia City Fire Companies, 1870s		
Engine Company	**Hose Company (if attached)**	**Location**
Virginia Engine Company No. 1	Rooster Hose Company No. 1	B Street
Young America Engine Company No. 2	Good Will Hose Company No. 2	C Street
Eagle Engine Company No. 3	(none attached)	B Street
Washoe Engine Company No. 4	Invincible Hose Company No. 4	B Street
Knickerbocker Engine Company No. 5	Our Own/Neptune Hose Company No. 5	D Street
Monumental Engine Company No. 6	(unknown)	On the Divide

Gold Hill, Virginia City's neighbor to the south, established an engine company and three hose companies over the mid-1860s, ultimately becoming the Gold Hill Fire Department by 1868. The Department experienced turnover in its fire chiefs equal to Virginia City, with almost annual turnover in the position. Gold Hill's two engine companies had initially formed as hose companies, and maintained their hose crews throughout their existence, including the Liberty Hose Company No. 1, with a youth hose company called the Junior Hose Company No. 1.[17]

By the 1870s, most of the fire companies on the Comstock had disposed of their hand-pump engines in favor of steam engines. The Young America Engine Company No. 2 appears to be the first engine company in Nevada to adopt a steam engine in 1872, leading to the swift replacement of handcarts with steam engines on the

[16] Frady, viii, 5, 8-11; *An Act to regulate the Fire Department of the City of Virginia*, Chapter XXXVI, Third Nevada Territory Legislative Assembly, (February 20, 1864), 41-45, https://play.google.com/books/reader?id=YXhNAAAAYAAJ&printsec=frontcover&output=reader&hl=en&pg=GBS.PR1, accessed August 2, 2017.
[17] Frady, viii, 5, 61, 94, 115, 136-137, 190.

Comstock. With the Comstock leading the technological advancement of firefighting in northwest Nevada, its fire companies sold much of its older equipment to other nearby fire companies that were just being established, including Reno in the 1870s and Gardnerville in 1896. After the "Great Fire" in 1875 destroyed much of Virginia City, the city formed a paid fire department. Actions by the State Legislature authorized the creation of a paid fire department in the city in the hopes of mitigating future disasters. Although many volunteer companies resisted or disbanded in protest, some eventually cooperated, including the Young America Engine Company, which offered to respond to fires until the new department was in place, and the Knickerbocker Engine Company, which sold its equipment to the city for $8,500. Below Virginia City in Dayton, fire insurance records began late in 1890, after mining and milling had declined. By that time, the town had a hand engine but no hose carts, with 600 feet of carbolized hose to access two cisterns for the town. By 1895, the hand engine was no longer in operation, and Dayton would be without fire service until the creation of the Central Lyon County Fire Protection District in the mid-twentieth century.[18]

The development of fire protection in Carson City has received some attention from researchers via the Carson City Fire Museum, run by the volunteer organization Warren Engine Company No. 1. The territorial legislature designated Carson City the territorial capital in 1861, and remained the state capital after Nevada achieved statehood in 1864. This status as the seat of state government ensured the long-term presence of Carson City, thus making the development of a fire department a worthwhile endeavor. In June 1863, the Warren Engine Company No. 1 formed with twenty members. The Curry Engine Company No. 2 assembled in May of 1864, followed by the short-lived S. T. Swift Company No. 3 in 1873. Warren Engine Company No. 1 acquired its Hunneman hand engine for $1,000 from a company of the same name in Marysville, California. In 1864, the Curry Engine Company purchased a hand engine from the City of San Francisco and had a new sandstone firehouse built for it on the northeast corner of Musser and Curry Streets, which remains standing today as an office building. Carson City purchased a third Silsby steam engine in 1873, propelling the establishment of the Swift Company that year, which was housed in the rear (north) end of the Curry firehouse. In its first two decades, the Warren Engine Company housed itself in various makeshift firehouses throughout the city, renting a private residence for a brief time, and later moving into the Kitzmeyer furniture building at Telegraph and Carson Streets where it spent most of the late-nineteenth century. Two water companies, the Stuart and Sweeney companies, developed in the town and provided not only pressurized drinking water to the city, but ensured that cisterns throughout the city were kept stocked with water to fight fires. Although for a brief time the water system was kept turned off to conserve water, relying on a night watchman to turn on water when needed, a fire in which the watchman failed to turn water on in time compelled the City to keep the water running through the system at all times. With the state's population dwindling due to drastic reductions in mining activity, both the Swift and Curry fire companies folded by 1908, leaving only the Warren Company to oversee operations in the city.[19]

Records of other early fire departments in Nevada are spotty, however, it appears as though most of the larger mining and ranching communities recruited volunteer companies. Either local newspapers or Sanborn Insurance Company maps provide the best records for piecing together some of these histories. Aurora, one of Nevada's earlier mining cities established by 1862, likely retained a fire company for some time, but by 1890, when mapped by the Sanborn Company, it contained no hose cart or hose, with all water provided from private wells. Austin, another silver town established in 1862, and its neighbor to the east, Eureka, founded in 1864, are two

[18] Frady, viii, 5, 61, 94, 115, 136-137, 190; Sanborn Maps, "Dayton, Nevada," 1890, 1895, 1907, University Archives and Special Collections, University of Nevada, Reno, https://contentdm.library.unr.edu/cdm/ref/collection/hmaps/id/4881, accessed October 24, 2017.
[19] Carson City, "Carson City Fire Department History," 1-7, http://www.carson.org/government/departments-a-f/fire-department/information/history/history-1, accessed October 11, 2017.

central Nevada communities that remain today. Both established fire companies early. By 1886, after the peak of mining activity in Austin, the town retained a hose and hook and ladder company with a cart and 550 feet of rubber-lined cotton hose. The company housed themselves in a stone fire station with a brick front on the north side of Main Street just east of Cedar Street, which remains in modified form today. The town also had a system of reservoirs providing 400,000 gallons of water capacity, and pressurizing 6" water mains throughout town, with 4" branches for secondary areas. Despite slow returns from the mines, by 1890 the town had added a second hose cart to its department apparatuses. By 1911, the volunteer-run Eagle Hose Company was considering the acquisition of a chemical engine to use in winter months when cold temperatures often froze the water lines. By 1917, they had purchased it, continuing to house their equipment at the same sandstone building. By 1886, the town of Eureka to the east of Austin boasted four hose carts and a hook and ladder cart. These various companies were based at a brick firehouse at the southeast corner of Clark and Spring Streets, as well as another hose cart at Richmond Furnace, all with 500 feet of hose each. Several reservoirs around the city filled pipes throughout the community, providing ninety-two pounds of pressure. By 1907, the various volunteers had organized into two hose companies and a hook and ladder company, spreading their equipment out to different locations, with one frame hose cart at the southwest corner of O'Neil and Clark Streets (known as the Nob Hill firehouse), another brick house on Monroe north of Bateman, and the remaining hose and hook and ladder carts at a central brick house on Main Street on the south side of the County Courthouse (likely the Rescue Hose Company). The earlier hose house appears to have been demolished, and as a sign of declining mining activity, most of the buildings on the 1907 Sanborn map are listed as vacant. Pioche remained the only other recorded instance of an early mining town from Nevada's first mining boom that developed an organized fire department, established in 1872 as the Lightner Hook and Ladder Company in response to a serious fire the year prior. By that fall, the Pioche Hose Company No. 1 joined them, followed by the Protection Hose Company No. 2 in 1876. It appears that the hose house for the Hose Company No. 2 was on LaCour Street, several hundred feet north of Main Street. It was a simple frame building with horizontal board siding and a false front, dominated by a short bell tower, and a garage opening on its south façade for the hose cart, with a decorative divided transom above the opening. The hose house appears to have remained in service through at least 1924, but was demolished by 1929.[20]

[20] Sanborn-Perris Map Company, "Aurora, Nevada," 1890, University of Nevada, Reno, https://contentdm.library.unr.edu/cdm/ref/collection/hmaps/id/4844, and "Austin, Nevada," 1886, 1890, 1907, 1917, https://contentdm.library.unr.edu/cdm/ref/collection/hmaps/id/4845, and "Eureka, Nevada," 1886, 1890, 1907, accessed October 11, 2017; Eagle Hose Company No. 3 scrapbook, p24, MS-NC 283, Nevada Historical Society, Reno, Nevada (hereafter NHS); Robert C. Sidford, "Pioche Fire Department: A Brief History of Firefighting in Pioche," in *I Dig Pioche*, Corinne Fullerton Shumway and Peggy Draper Hone, eds, (Pioche, Nev.: Pioche Historical Society, 2007), 161-162.

Left: Nob Hill fire station in Eureka at O'Neill and Clark Streets (Courtesy of Eureka Sentinel Museum); Right: Austin Fire Department along Main Street just east of Cedar Street (HABS, LC-USF34-029922-D, 1940).

Other mining communities throughout Nevada also created fire service companies, but their development came later, in the late-nineteenth and early-twentieth centuries. Among the earliest of these was Tuscarora in Elko County. Tuscarora developed slowly between 1867 and the 1890s, with Chinese prospectors doing particularly well in silver operations there. However, the inconsistent returns from the ore kept the community's size to a minimum, thus delaying its creation of a fire service. As late as 1886, no fire services were present, but by 1890, two volunteer hose companies with houses and alarm bells recruited 30 men to serve. Ely, founded as a local post office location in 1879, did not have serious development until the 1900s, when low-grade copper mining became profitable. The town created a volunteer fire department with a firehouse attached to City Hall built in 1909, where the department remained until 1929. The department included sixty members, operating three hose carts with no fire engine. By 1912, that had expanded to six hose carts, a hook and ladder truck, and a sixty-gallon chemical cart. By 1923, the department had downsized to thirty members operating one hose cart, a hose and chemical wagon, and a set of chemical extinguishers, indicating enhancements in the communications and fire hydrants that allowed for better fire service from fewer men. Ely was not the only community to expand as a result of mining booms in the early-twentieth century. Goldfield, Tonopah, and Rhyolite were all founded between 1900 and 1905. In Rhyolite, by 1909, a volunteer fire company with a hose cart, supported by a youth company, provided protection from a frame shed facing Golden Street south of Esmeralda. The company remained in operation until at least 1912, but the town of Rhyolite was eventually abandoned due to lack of sufficient ore.[21]

To the north, Tonopah and Goldfield experienced more long-term success in mining, allowing for the establishment of more expansive city services like firefighting. Tonopah, on the border between northern Nye and Esmeralda Counties, was founded in 1900 as a result of silver discoveries by James L. Butler. By 1905, a small group of unorganized volunteers operated two chemical engines and a hook and ladder truck. A company organized by the following year, with thirty volunteers, a thirty-gallon Stemple chemical engine, a hook and ladder truck, and three hose carts. One hose cart was at the railroad depot and the other two were stored at the Fire Department headquarters, although the location of this early headquarters is unclear. By 1909, the town had appointed a fire chief, who oversaw three paid men and 350 volunteers who ran the chemical engine, a horse-

[21] Sanborn maps, "Tuscarora, Nevada," 1886, 1890, https://contentdm.library.unr.edu/cdm/ref/collection/hmaps/id/5314, and "Ely, Nevada," 1907, 1912, 1923, https://contentdm.library.unr.edu/cdm/ref/collection/hmaps/id/4926, and "Rhyolite, Nevada," 1909, 1912, https://contentdm.library.unr.edu/explore/NVMapsExplore/nvmaps/sanborns/inventory.html, accessed October 24, 2017.

drawn hook-and-ladder cart, and five hose carts. The increased size of the department compelled the town to locate the department headquarters in a frame building at the eastern end of Brougher Avenue along Mineral Street, which included a two-story firehouse with an attached gymnasium for fitness training. By 1917, the department had organized its sizeable volunteer corps into four companies, based at the main firehouse, with the five hose carts distributed in hose houses throughout town, including one at Bryan Avenue and St. Patrick Street, and another near the Court House building (NRIS 82003238). South of Tonopah in Esmeralda County, prospectors founded the town of Goldfield by 1903. By 1905, a volunteer fire company of fifteen members had been formed, using a 120-gallon Holloway chemical engine as its main apparatus. By the following year, the department had four paid members and 120 volunteers, with two hose carts, and the chemical engine. By 1909, the department had expanded to eight paid men with seven horses, supported by sixty volunteers. The team operated four hose carts and a larger hose wagon with 1200 feet of hose, all supporting the chemical engine based in the Fire Department's new stone building at the southeast corner of Euclid Avenue and Crook Street. Also by 1909, the Goldfield Consolidated Water Company provided a pressurized water system to the town, allowing for the use of forty-one hydrants by this year, receiving 110 pounds of pressure. The Department remained active at this level through 1917, upgrading to a motorized chemical and hose truck by that year, but still supported by a team of two reserve horses who could pull any of the three hose carts or the hose wagon if needed.[22]

To the north, along the Central Pacific Railroad corridor, other permanent towns and cities developed as commercial hubs for shipping livestock from surrounding ranching areas to markets throughout the country. As with many railroad-oriented towns, these communities developed slowly after the railroad established them as depots or sidings. When these towns or cities experienced enough success to boast a commercial center, business leaders typically formed volunteer fire companies to protect their property. Prior to that, and for much of the nineteenth century, either citizen bucket brigades or hose and engine companies from railroad company facilities worked to suppress fire. Lovelock, Winnemucca, Carlin, and Elko emerged by 1868, Wells the following year, and Battle Mountain by 1870. Winnemucca and Elko appear to be among the earliest communities to adopt formal fire service.

In 1879, Winnemucca constructed a wooden false-front firehouse with a tall bell tower along Bridge Street south of downtown. By 1885, Sanborn insurance maps reference dozens of fire plugs throughout the town, serviced by a five-inch main water line fed by a reservoir above town to the south in Water Canyon. In 1891, the wooden firehouse burned. The town replaced it the following year with a stone building at the same location. By 1897, three volunteer hose companies serviced the town, with support from a small hook and ladder truck. The hose carts were located around town, one in a frame shed on the north side of 2nd Street between Melarkey and Bridge, one in a frame shed attached to the Freight House on Railroad Street at the terminus of Melarkey, and the third at an unidentified location. It is possible that the third hose cart was stationed with the handcart in the stone firehouse, which included an office for the fire chief. By 1904, an R.R. Switch Engine joined the department, which by then boasted thirty volunteers. By 1907, the companies had been consolidated into Fire Station No. 1, headquartered at the stone building, although it appears that that the city maintained hose houses around Winnemucca as late as 1912.[23]

[22] Sanborn maps, "Goldfield, Nevada," 1905, 1906, 1909, 1917, https://contentdm.library.unr.edu/cdm/ref/collection/hmaps/id/5016, and "Tonopah, Nevada," 1905, 1906, 1909, 1917, https://contentdm.library.unr.edu/cdm/ref/collection/hmaps/id/5276, accessed October 24, 2017.
[23] Sanborn-Perris Map Company, "Winnemucca, Nevada," 1885, 1890, 1897, 1904, 1907, 1912, http://contentdm.library.unr.edu/cdm/ref/collection/hmaps/id/5388, accessed October 18, 2017.

Winnemucca's fire stations, with the 1879 station (left), and the 1892 station constructed on its former location (right), (Courtesy of the Humboldt Museum).

Elko, a major hub for cattle and sheep ranching, followed a similar pattern as Winnemucca. As late as 1890, the town had no hose company, with 1897 being the first year a volunteer company appeared in the report on the city's Sanborn map. The company operated a hand engine, hose cart, and hook-and-ladder truck out of a small frame garage in an alley on Fourth Street between Railroad and Silver Streets. By 1904, the volunteer department had expanded to two firehouses with two hose cart and engine companies and the hook-and-ladder company. Fire Station No. 1 was a frame building that faced Idaho Street, adjacent to the jail building to the south and including a belfry for an alarm bell and drying hose. Fire Station No. 2 was also a frame building that faced Commercial Street just north of the intersection with Fourth Street. By 1912, a third hose and engine company had been added, with four hose carts total. Hose House No. 1 was a frame building that faced the north side of Idaho Street, containing a fire bell, a hook and ladder truck, a hand engine, and a hose cart. The city located supporting frame hose cart houses at the southwest corner of 6th and Railroad Streets, at the southeast corner of 2nd and Juniper Streets, and on 9th Street between Idaho and Commercial Streets.[24]

[24] Sanborn Maps, "Elko, Nevada," 1885, 1890, 1897, 1904, 1907, 1912, https://contentdm.library.unr.edu/cdm/ref/collection/hmaps/id/4886, accessed October 18, 2017.

Elko Fire Department, c. 1910s and 1920s at an undetermined location (left) and the 1948 replacement in downtown (both Courtesy of the Northeastern Nevada Museum).

The Sanborn-Perris Company does not appear to have recorded any fire companies in most other communities along the eastern extent of the Humboldt River, until after the passage of the Clarke-McNary Act of 1924. The Act provided federal funding to support rural fire protection districts, spurring the development of fire companies in areas where they did not exist previously. The insurance group recorded no fire companies in Carlin as late as 1890, none in Battle Mountain as late as 1907, and none in Wells as late as 1914. To the west of Winnemucca, Lovelock remained the only major community along the Humboldt River to develop volunteer fire service predating the Clarke-McNary Act. Lovelock was a slow-developing agricultural community at the lower end of the Humboldt River. The community experienced significant growth in the first two decades of the twentieth century. The town had no fire company recorded until 1907, when two twenty-five-member hose companies formed, led by a paid fire chief and located in two frame buildings along the Southern Pacific Railroad just north of the railroad's pump house. The fire chief oversaw use of the town's only pump, although it is unclear what sort of pump was used. The Sanborn Company notes a lack of a hand engine, and notes that the water mains and fire plugs were kept pressurized by a gasoline engine that diverted water off irrigation channels, maintaining approximately eighty pounds of pressure in the town mains. By 1914, Lovelock's two fire companies had added two additional hose carts and a hand chemical cart as a result of expansion and growth in the town over the following decade. One company kept its equipment in a frame garage on C Street just north of 5th Street. The other company housed its equipment in a frame garage on B Street near its intersection with 4th Street, at the location of the town's gasoline pump for the water mains. The companies housed an extra hose cart in a frame shed on the west side of Railroad Street north of 4th Street. By 1923, the Lovelock volunteers began to mechanize, having a Ford truck with hose and chemical tanks attached, kept at the Lovelock Garage. The volunteers kept additional hose carts at a garage on Cornell Avenue, and at the Main Pump House.[25]

[25] Sanborn Maps, "Battle Mountain, Nevada," 1885, 1890, 1897, 1907, and "Palisade, Nevada," 1885, http://contentdm.library.unr.edu/cdm/ref/collection/hmaps/id/4848, and "Carlin, Nevada," 1885, 1897, 1890, http://contentdm.library.unr.edu/cdm/ref/collection/hmaps/id/4854, and "Wells, Nevada," 1914, http://contentdm.library.unr.edu/cdm/ref/collection/hmaps/id/5319, and "Lovelock, Nevada," 1904, 1907, 1914, 1923, https://contentdm.library.unr.edu/cdm/ref/collection/hmaps/id/5060, accessed October 18, 2017.

Along the Truckee River watershed south and west of Lovelock, communities like Sparks, Wadsworth, and Verdi sprung up along the Central Pacific Railroad line during the late nineteenth century. Wadsworth, established as a railroad town in 1868, becoming an important supply and maintenance station by the 1880s. A severe fire destroyed most of the town in 1884, but the town recovered, maintaining railroad facilities until 1904. Wadsworth sustained itself on small-scale agricultural operations along the lower Truckee River, much of which later became part of the Pyramid Lake Paiute Indian Reservation. In 1885, the Central Pacific Railroad provided fire service to the small town with an organized fire brigade of shop employees who maintained a hose cart and a steam engine. By 1897, the town had taken over fire service and maintained two volunteer companies with hand and hose carts, who benefited from fourteen fire hydrants watered by a dedicated cast iron main pipe used only for fire protection. One company stored its cart in a frame garage at 1st and Main Streets, and the other in a frame shed on the northwest corner of Nevada and Forney Streets next to the public school. In 1904, the Southern Pacific Railroad moved its facilities from Wadsworth to Sparks, beginning a similar development in town services there. By 1907, Sparks had four volunteer fire companies, each with ten members and overseen by three fire chiefs, although records suggest that Henry W. Fiege may have served as an overseeing chief from 1905 to 1917. The companies retained four hose carts, including sheds to store equipment on Hayes Street north of Marsh Avenue, on the southeast corner of 2nd Avenue and Elder Street, and at 10 Adams Avenue, but had support from the railroad crews when needed. By 1912 there were six volunteer companies of six members each under three fire chiefs, running six hose carts and a hook and ladder truck. The town boasted forty-one pressurized hydrants that maintained about fifty pounds of pressure for home and fire service use. The volunteer firefighters stored their equipment at sheds on 6th Street north of Marsh Avenue, on the south side of C Street west of Van Buren, and other locations. From 1917 to 1939, the volunteers served under William R. Shaber, who became the City of Sparks' first paid fire chief and helped organized the Nevada State Firemen's Association. In 1917, he also oversaw the construction of a small Italianate-front building at 12th and C Streets to serve as the headquarters for the department , and purchased a motorized LaFrance fire engine for the new building. The City of Sparks developed a career fire department by the 1930s, adding motorized equipment as well. Verdi, west of Reno, appears not to have had fire service as late as 1912.[26]

Ranching communities throughout the state developed fire companies as well, frequently established once a community became large enough to sustain a commercial center. Emerging by the 1880s, farming towns like Gardnerville and Yerington in northwest Nevada sustained small commercial and warehousing districts in their downtowns. Gardnerville was founded by 1879 as an alternative to Genoa for commercial and shipping services in Carson Valley. As late as 1899, the town had no fire services, but by 1907, a sizeable volunteer hose company had formed with ninety members, a single hose cart, and a hand engine, operating out of a frame shed on the south side of Eddy Street east of Main Street. By 1912, this group had been refined to a volunteer company of forty-four men, with a hand engine and hose cart stationed in a frame building adjacent to the jail, northeast of the East Fork Hotel, and supported by a system of cisterns throughout the city. By that year, Gardnerville's neighbor to the northwest, Minden, had acquired a hose cart but had no organized fire department. By 1923, Gardnerville's fire department had expanded to 100 members, operating a motorized combination hose and hook-and-ladder truck with a 750 gallon-per-minute (GPM) pump, supported by a motorized chemical truck with two forty-gallon tanks, as well as an old hand cart in the former firehouse named above. By this year, the Gardnerville Fire Department had moved its primary facilities to a brick firehouse on Main Street just northwest of School Street. Minden had developed its volunteer department by this time as well, operating an American LaFrance fire engine, as well as a Ford tank truck with two thirty-gallon tanks. The

[26] http://www.onlinenevada.org/articles/wadsworth; Sanborn Maps, "Wadsworth, Nevada," 1885, 1890, 1897, https://contentdm.library.unr.edu/cdm/ref/collection/hmaps/id/5347, and "Sparks, Nevada," 1904, 1907, 1912, https://contentdm.library.unr.edu/cdm/ref/collection/hmaps/id/5250, accessed October 24, 2017; Sparks Fire Department, *Proud to Serve: Sparks Fire Department, 1905-1996*, (Sparks, Nev.: Sparks Fire Department, 1996), 1-12, 36.

department kept these apparatuses at a brick firehouse facing Railroad Avenue across from and south of the Farmers Co-operative Mercantile Company, a frame railroad warehouse south of the Minden Flour Mill (NRIS 78001721).[27]

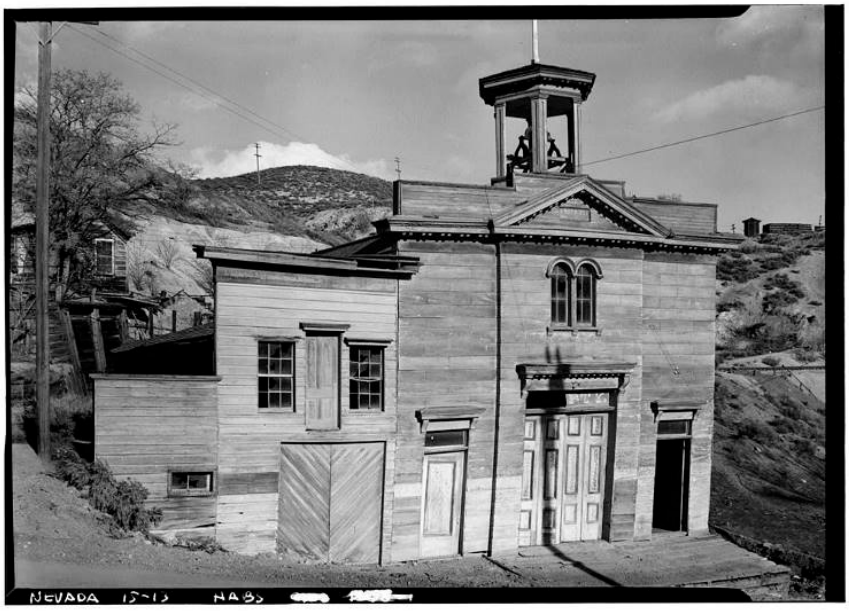
Organizing the Urban Fire Departments: Northwest and Southern Nevada Since 1875

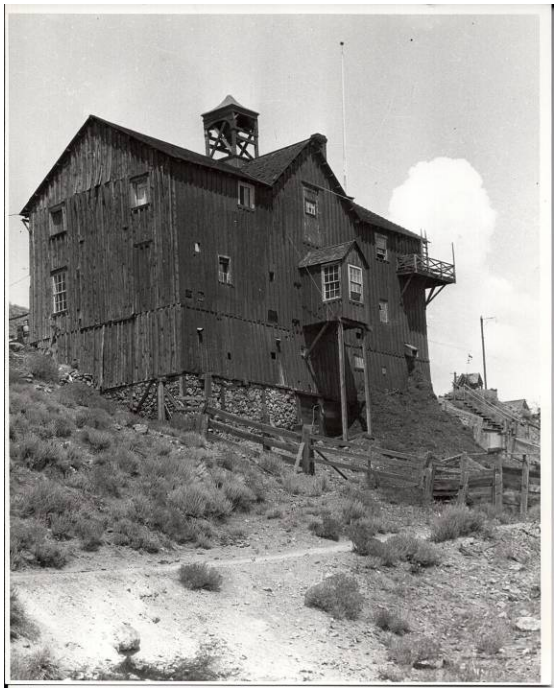
Because of the nature of Nevada's development, most of its fire departments, were comprised primarily of volunteers. However, the few municipalities and counties that developed an urban character established professional, paid fire departments that remain today. As of 2017, Nevada has over ninety separate fire departments or fire protection districts, most of which are rural agencies that are entirely or mostly volunteer. In the context below, urban fire departments are considered to be agencies that are predominantly paid staff, and serve an urban area in excess of 10,000 people, including Carson City, Clark County, Boulder City, City of Elko, City of Henderson, City of Las Vegas, City of Mesquite, City of North Las Vegas, City of Reno, and City of Sparks. Although Virginia City was the first fire department to become career (indicating the dominance of paid professionals on staff), its rapid population loss by the 1890s returned Virginia City to a mostly volunteer force by the twentieth century, as it remains today. Reno became the second career fire department, and is the oldest remaining career department in the state, setting the tone for much of Nevada's twentieth century fire department development.[28]

Virginia City's status as one of the larger cities of Nevada in the 1870s, as well as responses to its "Great Fire" of 1875, propelled it, if briefly, into the category of an urban fire department. In 1877, the city purchased the former engine house of Virginia Engine Company No. 1 at Sutton and B Streets to serve as a temporary headquarters, with the hose carts stored at other locations throughout the city. By August of that year, the city finalized plans for a new headquarters to store all of the equipment, titled the Corporation Firehouse and located on the Divide, which it completed in October. The station was two stories, with a storeroom, a hose rack, and garage space for the apparatuses on the first floor, and apartments for firefighters on the second. It remained in service until 1934. The city remodeled the B Street station to serve as a rapid-response station, horse-drawn hose cart, with a quick-snapping harness system to drastically reduce hitching time once an alarm was sounded. The city also installed hose houses throughout the city to provide easy access to hose in the event of a fire. To the south, Gold Hill still relied on volunteers, although most of its volunteer companies had disbanded by 1883. Formed in 1885, the Divide Hose Company No. 2 salvaged most of the Yellow Jackets Engine Company equipment, housing them in a short, front-gabled building with a short bell and hose tower. They often worked in concert with the Virginia City Fire Department. However, by the 1890s, dwindling profits from the Comstock mines forced Storey County to begin consolidating public services and reducing pay of public employees, including firefighters. By 1901, the paid service in Virginia City had been reduced to the fire chief, Michael E. Nevin (who doubled as the police chief), and four additional firefighters. Over the 1900s, more reductions saw much of the fire equipment on the Comstock sold to other fire departments. By 1938, both the Liberty Engine Company and Divide Hose Company had disbanded, leaving firefighting in Storey County to volunteer service only. A group of volunteers tried to continue fire service, building a modified motorized fire engine from a 1929 Chevrolet cab and chassis that year, and responding to fires in turn, including an extremely destructive fire in 1942 that pulled firefighters from nearly all the regional departments including Reno, Sparks, and Carson City. The Virginia Fire Department moved into the former American Saloon on C Street by this time, now the location of the Comstock Firemen's Museum, abandoning the Corporation House, which the city

[27] The Mercantile Company building was demolished in 2016 for development; Sanborn maps, "Gardnerville, Nevada," 1899, 1907, 1912, 1923, https://contentdm.library.unr.edu/cdm/ref/collection/hmaps/id/4984, and "Yerington, Nevada," 1909, 1923, https://contentdm.library.unr.edu/cdm/ref/collection/hmaps/id/5380, accessed October 24, 2017.
[28] Federal Emergency Management Agency, U.S. Fire Administration, "National Fire Department Registry," https://apps.usfa.fema.gov/registry/, accessed September 30, 2017.

razed in 1948. The Gold Hill hall of the Liberty Engine Company collapsed under heavy snows in 1952. Much of the equipment was salvaged by a group of local volunteers who would eventually create the Comstock Firemen's Museum under the name Liberty Engine Company No. 1.[29]





Left: Liberty Firehouse in Gold Hill (HABS NV-15-13 c.1933); Right: Corporation Firehouse from the rear, date unknown (Courtesy of Joe Curtis [private collection]).

Left: C Street Fire Station in former American Saloon (HABS NV-15-87, c.1933); Right: C Street Fire Station as the Comstock Firemen's Museum (NVSHPO, October 18, 2014).

Reno's fire fighting history began with the town's foundation in 1868, although it appears this was little more than citizen bucket brigades. A history of the fire department published in 1908 elaborated on what was known of the organization's early years, which is limited due to the loss of records in a fire in 1879. A serious fire on October 29, 1873 that destroyed over a hundred buildings in downtown propelled a move toward an organized fire service. On November 10, 1875, a collection of Reno citizens purchased an old hand engine from the Virginia City Fire Department, formerly of the Washoe City volunteer fire company, and formally established

[29] Frady, 115, 190-193, 200, 210, 217-218.

Engine Company No. 1. Those joining the incorporation elected William Duck as president and J.L. McFarlin as the foreman. The following year, the team raised money via subscription to purchase a LaFrance steam engine from the noted fire engine producer in Syracuse, New York. However, the two apparatuses proved insufficient to stem a fire that broke out on March 2, 1879, destroying 350 buildings and most of the business area of downtown, despite efforts by the fire company and various town residents, including Chinese laborers, who were pressed into service. By 1882, the city established a second fire engine company and constructed six new cisterns located on the plaza in front of the courthouse, at Second and West Streets, at Fourth and Chestnut Streets, at Fourth and Ralston Streets, at Fifth and Virginia Streets, and at Fifth and Lake Streets.[30]

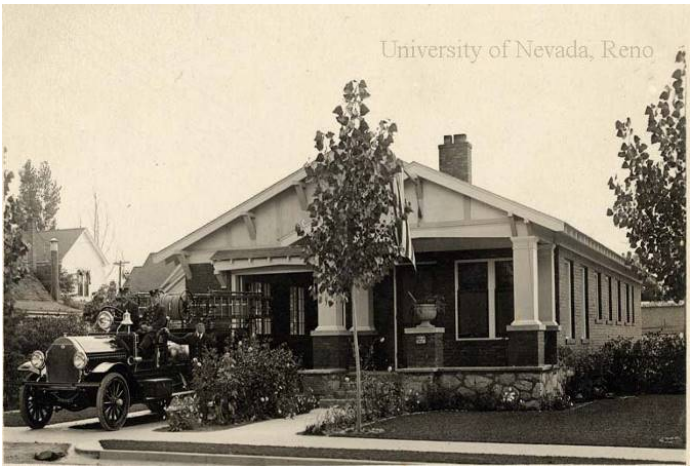
By 1886, Reno's growth and the regularity of fires pressed its fire companies to shift from hand-powered engines to steam pumpers. That year, the fire department voted to sell their hand equipment, purchasing a steam engine and hose cart from the Virginia City Fire Department. The "Old Monumental," as it was called, was rumored to be one of the oldest steam engines in the West, having been shipped to San Francisco around Cape Horn in the 1850s and sold to Virginia City's "Independents" fire company in 1860. A serious fire on April 5, 1888 propelled further development in Reno's fire fighting, with city residents calling for the organization of a paid fire department similar to that of Virginia City. With the Reorganized Engine Company No. 1 serving as the only fire company remaining in the city, newspapers began to author editorials in favor of an improved firefighting organization. Two weeks after the fire, Reno Engine Company No. 2 formed, established the paid positions of engineer and steward, and on May 10, the Town Board, under authority vested by the Washoe County Commission, passed an ordinance creating the Reno Fire Department. The ordinance authorized two or more companies of "not less than seven nor more than fifteen members each, and such Hook and Ladder Companies and Hose Companies as may be deemed necessary by the Board of Trustees; one Chief and one Assistant Chief Engineer." In August, the Reno Board of Trustees, a body appointed by the Washoe County Commission, authorized the payment of $20 a month to both organized fire companies for the purposes of fire protection. The remainder of the year brought the erection of a hose house south of the Truckee River, the addition of a sleeping room on the engine house on the city's plaza, and the acquisition of horses to haul the steam engine.[31]

Another serious fire on May 26, 1889, aggravated by the lack of volunteers to serve on the engine and hose carts, prompted the creation of Reno's paid, career fire department. After the disastrous fire, Reno's Engine Company No. 1 disbanded due to lack of volunteers, publicly underscoring the lack of support from their community. Engine Company No. 2 followed suit, leaving only the Monumental Company No. 6, which had only been formed in May of that year, to serve the needs of the city. By 1891, a new Engine Company No. 1 had been formed under the ordinance allowing for a paid department, boasting a LaFrance engine, a Clapp & Jones engine, two large hose carts, one small iron cart, one fuel cart, several ladders, and an unused hand engine. For the next decade, volunteer departments remained but received public funding for some positions and equipment from the Town of Reno. With the new fire department soon came a new firehouse, with construction beginning in October of 1899 at Commercial and West Streets, and complete in January of 1900. The new firehouse was of Romanesque style (typical of the time), and boasted two stories, with garage and stable space below and quarters and offices above. A watchtower and a hose tower added another three stories to the building. The collection of subsidized volunteer companies remained until Reno incorporated as a City in

[30] *History of the Reno Fire Department*, (Reno: Firemen's Pension and Relief Fund, reprinted by Reno Fire Department, 1908 [rep. 1976]), 35-39, 54-56, 60-61.
[31] *History of the Reno Fire Department*, 62, 65-66; 68.

1903. By 1904, the City Council disbanded all volunteer companies, replacing them with full-time, paid firefighters.[32]

Left: Reno's Central Station at Commercial and West Streets, no date but after the 1904 addition, as the training tower is visible; Right: South Side Station at Ryland and Center Streets, operated between 1908 and 1917. Both of these stations were eventually demolished (Courtesy of University of Nevada, Reno Special Collections).



Left: Midtown fire station added in 1917 (Courtesy of the University of Nevada, Reno); Right: North Side Fire Station, the other "bungalow-style" station built in 1917. The South Virginia Street (now known as Midtown) station was demolished in the 1990s, and the North Side station has been heavily modified, likely in the 1950s, to serve as an office building (NVSHPO, October 4, 2017).

Reno's Department remained based in the Central Station building, with periodic additions for ancillary stations at other locations. In 1904, a two-story addition onto Central Station added a training tower and a third bay for a new aerial ladder track. In 1908, the department added the South Side Fire Station at the corner of Center and Ryland streets, which operated until 1917. In that year, with Reno extending south and east, the department added two new bungalow-style stations, one on South Virginia Street in the Craftsman style to provide service to the burgeoning development area, presently known as Midtown, and one on East Fourth Street in a Classical Revival style to serve growing industrial development there. The same year, Reno added its first motorized apparatuses, two Seagrave chemical engines. Up to this point, fire engines from the Central and the South Side

[32] *History of the Reno Fire Department*, 70-73, 83; Photo UNRS-P1995-10-03, Archives and Special Collections, University of Nevada, Reno (hereafter UNR).

stations had been drawn by horse teams housed in the stations. In 1947, Reno added a new Fire Station #2 at 495 Morrill Avenue north of East Fourth Street, designed by renowned Reno architect Russell Mills, which eventually replaced the former North Side Station. As Reno grew quickly in the post-World War II era, it began adding stations near suburban areas, including additional stations at 1500 Mayberry Drive (1950), 3050 Skyline Boulevard (1965), and 3600 Kings Row (1968). Many of its older fire stations were abandoned or demolished, with new fire stations taking their place throughout the city. [33]


Left: Reno FD Station No. 2 at 495 Morrill, built in 1947 and designed by Russell Mills, replacing the North Side Station; Right: Reno FD Station No. 5 at 1500 Mayberry Drive, built in approximately 1950 and one of the few stations in northern Nevada with an attached training tower (both NVSHPO, October 4, 2017).


Left: Reno FD Station No. 8, still in use at 3600 Kings Row, built in 1968; Right: Reno FD Station No. 7 at 3050 Skyline Boulevard, built in 1965. Both stations were designed by significant Reno architect Edward Parsons (NVSHPO, October 4, 2017).

Neighboring Sparks experienced a similar professionalization of its fire service, albeit on a smaller scale than Reno. In 1924, the City's fire department added a second LaFrance pumper truck to its equipment, and by 1927, a central alarm system had been established throughout the city. By the 1930s, the department had partially professionalized, although it would rely on volunteers until 1977. In 1942, the department added a third LaFrance engine under an agreement with Washoe County through which Sparks provided rural fire service to

[33] Regional Transportation Commission of Washoe County, *Midtown History Project*, by Alicia Barber, (Reno, Nev.: May 2016), 20-21; Jon Wagner, "Early Reno Fire Stations," *Footprints* 11, No. 4 (Historic Reno Preservation Society, Fall 2008), 7-8.

unincorporated areas. This agreement remained in place until 1974, when the Truckee Meadows Fire Protection District was created. Throughout its post-World War II history, the Sparks Fire Department regularly responded to grass and brush fires alongside Grazing Service and other federal crews. In 1953, the department added a fourth pumper truck, and the following year built a second fire station, the Hobson Station, at Frazer Avenue and 21st Street to serve the city areas south of the railroad tracks. The station still stands, but is now used by the City's public works department. In 1959, the department replaced their first motorized engine with a new LaFrance pumper, and in that year boasted nineteen firefighters, five pumper trucks, two ambulances, a tanker truck, and a system of 198 hydrants throughout the city. In 1966, the construction of the Rock Boulevard underpass reduced the need for the Hobson Station. After a major rehabilitation of the 12th & C Street department headquarters in 1970 made the second station irrelevant, the City transferred the Hobson Station to its Public Works division in 1975. By 1970, Sparks began receiving spillover development from Reno, with the height of buildings like casino hotels increasing downtown., In response, in 1971, the department purchased its first Pierce aerial ladder truck. By 1975, Sparks had expanded to the point that the department again needed a second station, so it built Station No. 2 at 2900 N. Truckee Lane. In 1982, the department completed a new headquarters at 16th and B Streets. In 1988, it added a third station at 1750 E. Gregg Street, and a fourth in 1996 at Disc Drive and Vista.[34]

Left: City of Sparks Hobson Station, built in 1954 and now a maintenance facility for the City; Right: Sparks Fire Station No. 2 at 2900 Truckee Lane, built in 1975 (both NVSHPO, October 4, 2017).

Despite its status as Nevada's capital, Carson City's urban fire department development came somewhat late, and did not hire its first paid staff until 1964. In 1908, the City moved the Warren Company to the former Curry Company house at Curry and Musser. In 1913, the Company replaced its steam and hand carts with the state's first motorized fire truck, a 1913-model Seagrave Engine. The company remained at the former Curry station until 1954, when it moved across the street to the south into a two-story, three-bay building that served as a headquarters for the City, designated Station 1 until the construction of a new headquarters in 1993. By the late-1950s, Carson City's population was expanding as the state's population grew dramatically, increasing demands on the City for expanded and improved state services. In 1964, the City converted to a mix of paid staff and volunteer firefighters under the leadership of the City's first paid fire chief, Les Groth. Through the late-1960s, the paid staff of the fire department expanded, and the apparatus inventory grew to include two hose trucks, two brush trucks, and a snorkel (aerial ladder) truck to provide easier access to the larger buildings in city limits, including the Blasdell office building constructed in 1954. Further propelling the centralization and professionalization of the fire department was the consolidation of all of Orsmby County into Carson City as an

[34] Sparks Fire Department, 37-38, 40, 44-47, 51-60, 66, 69, 82.

independent city in 1969. In 1974, the department added stations 2 and 3, on College Parkway and Snyder Avenue, respectively, which remain in operation. In 1993, the City constructed the Les Groth Memorial Station on south Stewart Street to serve as the new Station 1, and renumbered the new station No. 51. The former Station 1 on the southeast corner of Curry and Musser remained until 2006 when it was demolished to provide additional parking for state buildings. Carson City continues to rely on volunteer support to run its fire department, although the majority of its members are paid staff.[35]


Left: Curry/Warren Engine Company No. 1, 202 N. Carson St.; Right: Les Groth Memorial Station No. 51, 777 S. Stewart St., (Both NVSHPO, October 22, 2017).

With the exception of Pioche and Caliente, southern Nevada experienced a comparatively late establishment of organized fire departments. Most other communities were little more than single ranches or smaller mining towns such as Ivanpah and Potosi, where permanent firefighting companies do not appear to have been established. It was not until 1905 that the San Pedro, Los Angeles, and Salt Lake Railroad founded the community of Las Vegas on the former Stewart Ranch to serve as a siding and refueling station at the halfway point between Los Angeles and Salt Lake City. Records indicate a volunteer firefighting force existed here by that time, known as the "hook and ladder company of Las Vegas," with H.M. Lillis elected as the fire chief. However, Las Vegas' first engine company, known as the Bremner Engine Company No. 1, formed in early 1906, and eventually adopted a constitution that allowed no more than forty members to be selected by founding or existing members. In August 1907, after Lincoln County created the town of Las Vegas, a town ordinance formally established a fire department. However, like many communities where a railroad company had a strong presence, the railroad retained its own hose and engine company and assisted the Bremner Company in local fires. Records indicate that regular service charges to area businesses and residents helped finance the volunteer crew. Among the first tests of this early two-hose cart fire company were conflagrations at the ice plant in 1907 and at the Overland Hotel in 1911, both fought with no pressurized water system. By the early 1920s, the company boasted a fire station in the alley between First and Second Streets, just north of Fremont on the present site of the Horseshoe Hotel and Casino parking lot. Two men typically slept there overnight, with calls coming in to the police station next door.[36]

[35] Carson City, "Carson City Fire Department History," 1-7, http://www.carson.org/government/departments-a-f/fire-department/information/history/history-1, accessed October 11, 2017; Google Earth imager, 2004 and 2006, accessed October 11, 2007; Carson City Fire Museum, "A Brief History of Warren Engine Co. No. 1," http://www.carsoncityfiremuseum.com/membership.html, accessed October 11, 2011; Frady, 214.

[36] *Citizen Heroes: Volunteer Firefighters of Las Vegas*, brochure, 1988; Scrapbook and Ledger entry, June 30, 1925, and "Constitution of the Las Vegas Volunteer Fire Department," Folder 6, MS-012 Records of the Las Vegas Volunteer Fire Department (hereafter MS-012), Nevada State Museum, Las Vegas (hereafter NSM-LV).

As early as 1931, the prospect of a paid fire department arose in Las Vegas city elections, mostly in response to the growth of the city due to the nearby Boulder Canyon Dam (Hoover Dam) project. However, tense resistance to paid firefighters by residents and volunteer firefighters temporarily pushed the issue out of public discussion. The volunteer company remained, responding to both urban, suburban, and brush fires throughout the Las Vegas area. By 1936, the Department boasted two motorized engines, a LaFrance and a Seagrave, which allowed for faster response times. In 1939, the two engines responded to a total of seventy-nine calls, including nineteen business fires, twenty-one residence fires, and ten brush or grass fires. Eleven of those fires required the use of foamite or pyrene, early foam liquids used to extinguish oil and gasoline fires. In the 1940s, with the growth of "the Strip" outside of City limits, a county fire department formed and the necessity of an urban fire department for Las Vegas became apparent.[37]

In December 1942, the City of Las Vegas established a paid fire department with a fire chief and twelve firefighters. With Las Vegas growing quickly, the City increased the number of firefighters to twenty-one by the following year, with twenty-five volunteers remaining in reserve. The department retained the two fire engines acquired from the volunteers, had an additional General Motors pick-up truck for grassfire assistance, and had an additional Seagrave engine on order to arrive in the year. City ordinances prohibited wooden shingles within city limits. By 1945, they had a new fire station at 303 N. 2nd Street, just northwest of the federal Post Office and Courthouse (NRIS# 83001108). In 1961, the Sanborn Insurance Company noted a fully paid crew with a total of eighty-nine firefighters at five stations, with seven combination trucks (with hoses and pumps), an aerial ladder, three tanker trucks, and two reserve pumper trucks. Just two years later, the department had 123 full-time members at six stations, with a maintenance shop at Industrial Road and Utah Avenue which housed fourteen engines, the Seagrave aerial ladder truck, and other supporting vehicles. The department included administrative services as well, including dispatch and a home inspection program for fire prevention, initiated in 1960. Underscoring the growth since the late 1930s, the department responded to a total of 2259 alarms in the 1962-1963 fiscal year alone, more than doubling the 909 alarms in 1954-1955. In its 1963 annual report, the department hoped to add a training and drill center, three new stations, and a second aerial ladder truck to deal with the increasing number of calls, additional development, and increasing height of buildings in the downtown. Just four years later in the fall of 1967, the Department's annual report noted a response to 2554 alarms, including 363 building fires, 178 brush/grass fires, and 317 vehicle fires.[38]

[37] *Citizen Heroes*; 1936-1937 Record book, and 1939 Fire Report, Folder 2, MS-012, NSM-LV.
[38] *Citizen Heroes*;"New Report, June 1961," 1961 updated Sanborn Insurance Map, and "1962-1963 Annual Report, Fire Department, Las Vegas, Nevada," and "Las Vegas Fire Department, Annual Report, Fiscal Year 1966-1967," MS-013, Records of the Las Vegas Fire Department (hereafter MS-013), NSM-LV.

Left: Former Station 6, LVFD (now vacant), 190 S. Upland Blvd (NVSHPO, October 20, 2017); Right: Former Station 3, LVFD, now an office building with garage space infilled, 2300 W. Bonanza Road (NVSHPO, October 21, 2017).

Growth continued in Nevada and Las Vegas at extreme rates throughout the late-twentieth century, with the state, and the Las Vegas metropolitan area, being among the fastest-growing regions in the country. This forced further development of fire stations, although by this time the City of Las Vegas was not the only department available. Clark County, the City of Henderson, and the City of North Las Vegas all boasted professional fire departments. The volunteers continued to assist on major fires through 1982 at the request of the Fire Chief. Although the Las Vegas metropolitan area was not well-known for its diversity initiatives, by the 1970s, the volunteer company included its first female members. In 1999, the Las Vegas City Council renamed the department Las Vegas Fire & Rescue, and as of 2017, the department boasted twenty stations around the city, all of which have been built or remodeled since 1980.[39]

Historic Age Las Vegas Fire Stations			
Name/No.	Address	Built	Extant?
HQ/Station 1	330 N. Casino Center (2nd Street)	1945	Demolished (1990s)
2	28th Street & Charleston Blvd	1950-1963 circa	Demolished (2007)
3	W. Bonanza Road and Dyke Lane	1957	Present (modified)
4	1501 Industrial Road (now 331 W. Utah Ave) (included Maintenance Shop in 1963)	1955	Present (intact & used as garage)
5	900 Hinson Street (now 1020 Hinson)	1950-1963 circa	Demolished and rebuilt (2001)
6	190 S. Upland Blvd	1963	Present (intact and vacant)
8	1201 Miller Ave	1963	Present (intact except hose/alarm tower)
Training	633 Mojave Road	1966	Present (with

[39] *Citizen Heroes*;" , NSM-LV.

Center			additions)
Active Las Vegas Fire Stations, 2017[40]			
Station #	Address	Year Constructed[41]	
1	500 N. Casino Center Blvd	1984 (originally 1954, then rebuilt)	
2	900 S. Durango Drive	1989	
3	2645 W. Washington Ave.	1980	
4	421 S. 15th St.	1990	
5	1020 Hinson St.	2001	
6	1680 S. Torrey Pines Dr.	1988	
7	10101 Banburry Cross Dr.	1995	
8	805 N. Mojave Rd.	Unknown	
9	4747 N. Rainbow Blvd	1995	
10	1501 S. Martin L. King Blvd.	2002	
41	6989 N. Buffalo Dr.	2000	
42	7331 W. Cheyenne Ave.	1990	
43	6420 Smoke Ranch Rd.	2003	
44	7701 W. Washington Ave.	2003	
45	3821 N. Fort Apache Rd	2003	
47	91 Pine Ridge St	2007	
48	9133 W. Elkhorn Rd	2007	
106	1888 Stella Lake St	2012	
107	9398 Sundial Dr	2012	
108	4551 E. Bonanza Rd	2011	

Clark County, in which Las Vegas is located, also manages a large fire department as a result of the presence of multiple towns and urban environments within its jurisdiction, including the urban/suburban townships of Paradise (location of the Las Vegas Strip), Winchester, Summerlin, and Enterprise, and the rural communities of Goodsprings, Blue Diamond, Sandy Valley, Bunkerville, and Searchlight. Since its creation out of sections of Lincoln County in 1905, Clark County's development has been closely tied to that of Las Vegas. Since the 1930s, federal projects such as the Hoover Dam, the development of Nellis Air Force Base, and processing of magnesium for defense industries in Basic (now Henderson) spurred development alongside the growth of the casino industry in Las Vegas following Nevada's legalization of gambling in 1931. Many casino operators chose to locate themselves outside of Las Vegas city limits to avoid regulation and taxation, initiating what has continued as a close relationship between the development of the City of Las Vegas and the urban townships of Clark County to the south. In 1940, the entire county had only 16,414 residents. Just ten years later, the county's population had nearly tripled to 48,289. By 1960, there were 127,016 estimated residents in the county, with 64,400 of them in the City of Las Vegas. That growth continued into the 2010s, with over two million people now inhabiting the metropolitan area, around half of whom live outside of municipal jurisdictions. As a result, Clark County has had unique obligations to provide fire protection from an early period.[42]

[40] City of Las Vegas Fire & Rescue, "Fire & Rescue Facts," https://www.lasvegasnevada.gov/cs/groups/public/documents/document/dhn0/mdax/~edisp/tst001880.pdf, accessed October 18, 2017.
[41] Based on Clark County Assessor records for each parcel.
[42] U.S. Census Bureau, "Population of State and Counties of the United States: 1790 to 1990," Part III spreadsheet, https://www.census.gov/population/www/censusdata/pop1790-1990.html, , accessed October 18, 2017; City of Las Vegas, *City of Las Vegas Demographics*, 2014, https://www.census.gov/history/pdf/vegas_demographics.pdf, accessed October 18, 2017.

By 1953, Clark County organized its first fire company of eight men. They operated out of the Las Vegas Fire Department's Station No. 2 at the southwest corner of Maryland and Charleston (demolished) until their first station (Station 11, equipped with two apparatus bays) could be completed at 88 E. Flamingo Road. Led by Chief William H. Trelease, a former Las Vegas Fire Department engineer, the two four-man crews operated a 1953 Seagrave engine and a 750 GPM pumper truck, augmented by a 500-gallon tanker truck purchased later that year. The station remained in operation by the Department until December of 1990, when it was decommissioned and later demolished to provide parking for the Flamingo Hilton. With Clark County's population booming in the 1950s and 1960s, expansion beyond the single fire station was critical. In 1956, the County added Stations 12 (the Stardust Station) and 13 (McCarran Field Station), the latter of which is still in use at its location at 3050 Industrial Road in Winchester township. Station 12 included three bays for equipment and housed the fire chief and fire marshal. Station 13 was a small 18x24 foot one-room building that had both a fire truck and an aircraft crash truck. In 1959, the County added Station 16 at 1100 North Nellis Boulevard in Sunrise Manor township, equipped with a 1000-gallon water tanker (now demolished).[43]

In the 1960s, with the proliferation of hotels and motels along Las Vegas Boulevard, the need to respond to fires quickly grew. In 1961, the County constructed a new Station 13 at the airport with two crash trucks, a 1,000 gallon tanker truck, and a crash rescue jeep. In 1962, the County built two more stations, the Vegas Heights Station at 1201 Miller Avenue, and Station 17, adapting an existing building at 5702 Missouri Street in East Las Vegas for the purpose, which also housed the Sheriff for a time. The Vegas Heights station remains as the Vegas Heights Community Center, but Station 17 was demolished in the summer of 2004 to provide parking for the Whitney Park and Community Center. Further growth and the need for coordination among the fourteen fire departments existing at the time led to some administrative changes in the 1970s. In July of 1973, the alarm offices of the Clark County, Las Vegas, and North Las Vegas fire departments merged into a centralized dispatch center run by the County. Soon thereafter, Clark County Fire Chief Leroy Hawks also took responsibility to administer the eleven volunteer departments in the County. Clark County also added two stations in 1975, including Station 19, a two-bay facility at 5710 Spencer Street, and Station 20, another two-bay station at 5710 Judson Avenue, dedicated to Captain Frank Testa and Fireman Colin Hanley, respectively, both employees of the Department killed on duty. Station 19 remains as an aviation garage for Clark County northeast of McCarran International Airport. Station 20 remains as part of a small community park in Miekle Manor.[44]

[43] Clark County Fire Department, "Our History," http://www.clarkcountynv.gov/fire/Pages/History.aspx, accessed October 18, 2017.
[44] Clark County Fire Department.


Left: Former Fire Station 50, NLVFD, 1957 and now vacant; Right: CCFD Station 12 (the Stardust Station), built in 1956 at 3050 Industrial (now Sammy Davis, Jr. Drive, showing some modifications, including a possible refinish in stucco (both NVSHPO, October 19, 2017).

From the 1980s through the 2000s, Clark County became one of the fastest growing areas in the country, which spurred transitions in fire code and law in response to major fires under the purview of the Clark County Fire Department. On November 21, 1980, the MGM Grand Hotel burst into flames in an event that, by day's end, killed eighty-five people and injured over 700, becoming the second most deadly hotel fire in American history. Three months later on February 10, an arsonist set fire to the Las Vegas Hilton while it was in the process of being retrofitted with modern fire safety equipment. With the MGM experience fresh in their minds, evacuation procedures had been updated, resulting in fewer deaths, although the fire still killed eight and injured over 200. The result of these two events in concert was a retrofit law for high-rise hotels that made sprinkler systems a requirement. Growth continued at a rapid rate through the 1990s and 2000s, with the County constructing stations 23 and 24, new buildings for the existing stations 14 and 17, a remodel and expansion of the Training Center, and a new Station 18. Station 18 became the centerpiece of the Department, boasting two engines, a truck, two paramedic units, and the offices for the Fire Investigation and Prevention divisions. At present, the Department retains nearly 600 firefighters, and operates thirty-seven stations throughout the county, including twenty-four career stations, and thirteen volunteer stations in rural areas.[45]

[45] Clark County Fire Department.

Bunkerville Fire Department Building, facing N. First West Street north of Virgin Street, construction date unknown but likely 1910s or 1920s (NVSHPO, April 17, 2017).

Remaining Volunteer: Nevada's Rural Fire Departments After 1924

Like most of the United States, the vast majority of Nevada's fire departments are small, rural, and mostly or exclusively volunteer agencies. Most of Nevada's communities remain small, with nine of the state's nineteen municipalities and with all but thirteen of its unincorporated communities having less than 10,000 residents as of 2010. As a result, rural fire service remains the norm, supported by the federal support for rural fire protection afforded under the 1924 Clarke-McNary Act, which provided pass-through funding to states who began managing rural fire protection services. There are a small number of agencies that are mostly career but rural, including the North and Central Lyon County Fire Protection Districts, the North Lake Tahoe Fire Protection District in Incline Village, Pahrump Valley Fire and Rescue Service in Nye County, the Pershing County Fire Department, and the Tahoe-Douglas Fire Protection District in Zephyr Cove. In these cases, higher densities of development and population have allowed for the employment of full-time firefighters. However, most communities in Nevada rely on volunteer fire departments covering large rural areas under county supervision. A small number of Nevada's nineteen incorporated municipalities also rely on all or mostly volunteer fire departments, including the City of Fallon (using a consolidated Churchill County volunteer service), City of Winnemucca, City of West Wendover, City of Ely, City of Yerington (under the consolidated Mason Valley Fire Protection District), City of Carlin, City of Wells, and City of Caliente.[46]

[46] U.S. Fire Administration, National Fire Department Registry, https://apps.usfa.fema.gov/registry/, accessed October 10, 2017.

Despite its beginnings as the first career fire department in the state, the Virginia City area's various fire departments consolidated into a largely volunteer county-wide service by 1938. A group of volunteers built a modified motorized fire engine from a 1929 Chevrolet cab and chassis that year, and responded to fires in turn, including an extremely destructive fire in 1942 that pulled firefighters from nearly all the regional departments including Reno, Sparks, and Carson City. The Virginia City Fire Department had moved into the former American Saloon on C Street--by this time, now the location of the Comstock Firemen's Museum--abandoning the Corporation House, which the city razed in 1948. The Gold Hill hall of the Liberty Engine Company collapsed under heavy snows in 1952. A group of local volunteers who would eventually create the Comstock Firemen's Museum under the name Liberty Engine Company No. 1 salvaged much of the equipment. Fire protection became consolidated under Storey County's direction and the American Saloon location was deemed inadequate for modern response. In 1962, the County constructed a new Fire Station 1 at 145 N. C Street to house larger motorized apparatuses. As Virginia City's surrounding communities grew, several volunteer stations arose, including in Lockwood in 1976 and Virginia Highlands in 1980. In 2001, these were transferred to Storey County as well.[47]

The development of other rural fire departments in Nevada's smaller towns and cities largely correlated both with the passage of the Clarke-McNary Act in 1924, and state-wide growth in the decades following the Second World War. The reasons for that rural growth varied depending on the community, with consolidation, defense spending, tourism, and interstate travel and commerce all playing a significant factor beginning in the 1930s. Nevada's liberal gambling and divorce laws also sustained a steady market for casinos and overnight accommodations, even outside the centers of Reno, Lake Tahoe, and Las Vegas. The 1924 Clarke-McNary Act made additional funding available to local fire departments to cooperate in wildland firefighting, a process accelerated after the Nevada legislature authorized regional fire protection districts in 1937. Because most individual rural communities could not finance the development of a fire department, however small, on their own, they did not develop fire departments until the 1930s. Many took advantage of New Deal era programs, receiving architectural and construction support from the Works Progress Administration during the 1930s, or receiving federal financial assistance through the State Surveyor General (later the State Forester Fire Warden).

The actual construction of rural fire stations largely responded not only to the milieu of federal funding available for rural fire protection by the 1930s, but the authorization of fire protection districts in Nevada in 1937. Alongside the influx of subsidized federal labor during the Great Depression via the Works Progress Administration, many small towns and rural areas sought to construct their own small fire stations. In Pioche, the seat of Lincoln County, the construction of a small firehouse in 1929 predates the results of most of these developments. However, most rural areas either expanded or replaced existing facilities after 1937, or built new facilities where none existed. In 1939, the City of Winnemucca demolished its stone firehouse and replaced it with a stucco Art Deco station on the same location, which remained the City fire station until 2015. The City of Elko constructed a new brick fire station in its downtown in 1948, which served as the City's main station into the late-twentieth century. Pioche built a larger fire station in 1954 to accommodate its expanded set of apparatuses, abandoning the 1929 station for all but ceremonial purposes. Ely constructed an addition onto its 1929 City Hall and Fire Station to include an expanded garage for apparatuses. Fernley, a small farming community south of Wadsworth created as a result of the federal Newlands Irrigation Project (NRIS [MPDF] 64000529), established a Volunteer Fire Department in 1951 and broke ground on a three-door block building, completing it in 1953. During that time, in 1952, the department became part of the newly formed North Lyon County Fire Protection District. The Fernley department's first equipment was a used 1937 Ford with a 500

[47] Frady, 115, 190-193, 200, 210, 217-218; Storey County Fire Protection District, "History," https://www.storeycounty.org/203/History, accessed October 11, 2017.

GPM pump, although that expanded into several apparatuses by the 1980s. Although the Fernley station remains, it has been significantly remodeled and expanded. Minden and Gardnerville, both older and quite successful farming and ranching towns, have very little left of their early fire stations. Among the youngest is the 1976 East Fork Fire Station at 1255 Douglas Avenue in Gardnerville, a facility expressing a thoroughly Modern design, exemplifying a late use of the International style. More typical of smaller rural areas without the budget for large fire stations were those in Bunkerville and Caliente, which were small, plain brick or concrete block buildings sufficient to house a single motorized fire truck and some equipment.[48]


Left: 1976 East Fork Fire Department station in Gardnerville (NVSHPO, September 29, 2017); Right: Caliente Fire Station (1962), no longer in use, but remaining at 288 Lincoln Street in Caliente (NVSHPO, June 13, 2017).

The history of these rural local fire departments remains relatively unstudied aside from a handful of cases such as Pioche, Ely, and Virginia City. Field observations and preliminary research suggest that many rural fire protection districts and fire departments developed fire stations after the Second World War, providing some kind of protection by the end of the 1950s. Advancements in both urban and rural firefighting equipment have increased the size of apparatuses and often required the abandonment, demolition, or modification of earlier firehouses to provide expanded garage space. In many rural areas, such as the Lincoln County Fire Protection District, most historic fire stations, such as the 1929 and 1951 buildings in Pioche, have been abandoned for modern, low-cost facilities that are usually corrugated metal garage buildings housing both urban fire trucks and brush fire tenders.


Left: Panaca Volunteer Fire & Rescue located at the east end of Edwards Street, built in 2008 (NVSHPO, June 13, 2017); Right: Eagle Valley Fire Station in Lincoln County, established after a private property donation in 2014 (NVSHPO, August 15, 2017).

[48] Humboldt Museum, "The Fire Department," informational release, 2017; North Lyon County Fire Protection District, "History," http://northlyonfire.com/history/, accessed September 30, 2017.

Wildland Firefighting in Nevada: The Role of State and Federal Governments

Nevada's rural landscape meant that firefighting, by definition, involved managing fire in both urban and rural environments, and using federal, state, and local resources. Since its inception as an organized practice, wildland firefighting in the United States has been heavily guided by the U.S. Forest Service, albeit with significant assistance and influence from other agencies. Shifting over time between the use of fire as a land management tool and the wholesale suppression of fire as a threat to commodities on the commons like timber, wildland fire policy in the United States is often fraught with controversy and contradiction. The native peoples of the Eastern Sierra and Great Basin, including the Washoe, Paiute, Shoshone, and Goshute, used fire as a critical tool to maintain their pool of natural resources, including grazing land for game animals and piñon forests for fall harvests. Early Euro-American strategies in the Great Basin were similar, using fire to clear brush for farmland, rejuvenate pasture, and clear weeds from irrigation channels. However, by the late-nineteenth century, the permanent settlement of communities for mining, ranching, and transportation began shifting the model of fire management toward suppression. As farms, towns, and cities replaced itinerant stock-raisers and overland travelers, the cultural association of fire changed dramatically from a tool to a threat. The combination of new grazing animals, the introduction of more combustible invasive plants such as cheatgrass (*Bromus tectorum*), Russian thistle (*Salsola kali*), and Medusahead (*Taeniatherum caput-medusae*), and the build-up of fuels due to fire suppression created a volatile landscape of wildland fire through the twenty-first century. Continued grazing disrupted the grassland recovery within the Great Basin, leading to the dominance of the more flammable sagebrush, increasing fire intensities and leading to a critical depletion of native grasses by the 1930s. The increasing intensity of fires over the mid-twentieth century compelled decision makers to decentralize the firefighting network of the country, shifting the federal role to one of coordinator, while local and state firefighting organizations took on a stronger role in providing firefighting resources.[49]

Wildland firefighting tools began as simple axes and hoes brought from home. The first specialized equipment came with the McLeod rake, developed by Sierra National Forest Ranger Malcolm McLeod in 1905. Nevertheless, shovels, mattocks (later refined into the Pulaski), and axes remained popular. Throughout the history of organized wildland firefighting since 1905, innovations in technology have altered the types of equipment used, although the task still relies on human labor. The refinement of radio technology by the 1910s meant that forest firefighting teams began incorporating radio towers and field sets into their equipment lists, using radios to better coordinating attacks on active fires. The Central and Southern Pacific Railroads both experimented with fire trains that could suppress fires along their rail routes. By the 1930s, grading tractors were regularly used to help build fire lines, and "mountain fire trucks" with water tanks began aiding wildfire suppression. By the 1950s, the use of air tankers and helicopters to help combat blazes with aerial fire retardant and water drops became a standard feature of western firefighting.[50]

In nearly every case, state and federal agencies with firefighting responsibilities benefited greatly in the 1930s from the presence of crews from the Works Progress Administration (WPA) and the Civilian Conservation Corps (CCC), two federal programs established to help meet the massive unemployment of the Great Depression. In Nevada, the program assigned CCC and WPA crews to the U.S. Forest and Grazing Services, and regularly deployed these teams on the fire line during wildland conflagrations. However, by the 1950s, the

[49] Stephen J. Pyne, *Tending Fire: Coping with America's Wildland Fires*, (Washington, D.C.: Island Press, 2004), 49; Stephen J. Pyne, Patricia L. Andrews, and Richard D. Laven, *Introduction to Wildland Fire*, 2nd ed., (New York: John Wiley & Sons, Inc., 1996), 236-244, 292-293; also see Samuel P. Hays, *Conservation and the Gospel of Efficiency: The Progressive Conservation Movement, 1890-1920*, (Pittsburgh: University of Pittsburgh Press, 1999).
[50] Pyne, *Fire in America*, 424-426, 428; 437.

national infrastructure of firefighting changed dramatically, with public expectations of fire suppression remaining high, even while fewer and fewer resources were available for firefighting. By the 1970s, the nation had decentralized its wildland firefighting landscape, and although national resources remained to coordinate response, the firefighters themselves were an increasingly diverse mixture of federal, state, and local crews.

The U.S. Forest Service

The U.S. Forest Service's (USFS) history as a federal agency is interwoven with the history of wildland firefighting in the United States. Since the agency's inception in 1905, the USFS has typically taken the lead in national wildland firefighting efforts, both in terms of resources devoted to fighting fires, and in the development of new methods and technologies for wildland firefighting. Established as an advisory bureau in 1898, and a full agency in the Department of Agriculture by 1905, the agency's mission included the conservation of timber and grazing lands, necessitating the careful management--usually suppression--of fire. Forest guards typically handled fire detection and reporting alongside their other duties. This is especially true in Nevada, where identifying a unique firefighting landscape in the USFS administration within the state is difficult. Construction of fire lookouts outside of the Sierra Nevada Mountains was rare, and the agency based most fire crews out of existing ranger stations and complexes, like Paradise Valley and Baker.[51]

Nevada's cattle ranchers were among the key advocates of the Timber Reserve Act of 1876 that eventually led to the creation of the agency, making the agency a critical one in the state's firefighting landscape for most of the twentieth century. During most of the agency's first decade, the USFS emphasized building firefighting models, and an organized fire suppression system within its various forests. Even if the firefighting methods themselves were born out of over a century of informal folk practice, the new agency, spurred by the horrific experiences of fires in the northern Rockies in 1910, sought to create an efficient and effective bureaucracy around those practices to ensure consistency throughout the Service. The 1910 fire season burned some five million acres in National Forests alone, nearly ruining the young agency financially and killing seventy-eight firefighters. By the following year, Congress passed the Weeks Act, which authorized the USFS to acquire watershed areas and to enter cooperative agreements with state entities for fire protection. As a result of these new responsibilities, and with the memory of 1910 firmly in mind, USFS administrators pushed to become the leader in national wildfire and forestry management, embracing the contemporary Progressive philosophy that promoted the careful and efficient management of resources by well-educated technocrats. In 1921, the USFS held its first service-wide conference in California, primarily discussing fire, and with the goal of consolidating a national fire protection program under the leadership of the agency. By the 1930s, a "10 a.m." policy had been adopted, in which lead officials encouraged forest rangers to extinguish wildfires by 10 a.m. the day following their first observation.[52]

New Deal programs such as the Civilian Conservation Corps (CCC), established in 1933, gave the Forest USFS both advantages and disadvantages. The Service acquired tax delinquent and marginal lands, giving them more control over the lands within their forest boundaries, but this also expanded the mission of the USFS to include the fighting of fires in the backcountry. The massive influx of manpower and resources through the Works Progress Administration (WPA) and CCC programs meant that forest firefighting no longer had to be as economical as it had in the past. At the height of the New Deal, with abundant available labor, this posed no problem. However, by the late-1940s, it became clear that while the public still expected the USFS to fight fires in the backcountry, the agency no longer had the resources or funding to actually do so. Through the 1950s, the

[51] U.S. Department of Agriculture, Forest Service, *Privies, Pastures, and Portables: Administrative Facilities of the Humboldt-Toiyabe National Forest, 1891-1950 – Vol. One, Historic Context Statement*, by Richa Wilson, (Ogden, Utah: Intermountain Region Facilities Group, December 2001), 45.
[52] Pyne, *Fire in America*, 260-264; Pyne, Andrews, and Laven, 251-253.

USFS increasingly worked cooperatively with other federal and state partners on combating major fires, and while maintaining a strong firefighting force, found partnerships with the Bureau of Land Management, the military, and state forestry bureaus to be increasingly critical to achieving success in fire prevention and fighting efforts. In most cases in the Humboldt-Toiyabe National Forest, the various ranger stations functioned as logistical and administrative posts, with hand tools stored at fire caches for seasonal laborers.[53]

By the 1970s, amid the institutionalization of new ecological understandings that argued against wholesale fire suppression, the USFS saw its role as the chief fire-fighting agency diminished. The Leopold Report of 1963 and Wilderness Act of 1964 pressed for ecological management, not merely fire suppression, as protection of grazing and timber commodities. In 1974, Congress created the U.S. Fire Administration, one of a series of measures designed to decentralize fire management in the United States. Since that time, although the USFS remains a strong presence in wildland firefighting throughout the country, other agencies that entered into the firefighting fold in the mid-twentieth century began to play a stronger role.[54]

The Bureau of Land Management

Despite its beginnings as a land title office, the Bureau of Land Management (BLM) now stands as the chief fire-fighting agency within the Department of the Interior. The BLM is a conglomeration of several former federal agencies, the first of which was the General Land Office (GLO), an agency chiefly interested in the transfer of lands held by the United States to private owners or other federal agencies. After the passage of the 1934 Taylor Grazing Act, the Grazing Service, another antecedent to the BLM, began managing a national grazing program on public land, specifically those not held by the USFS, and allowing the GLO to begin classifying land for particular uses. By the end of the Second World War, most public lands remaining in the GLO's inventory were not suitable for private settlement, precipitating the combination of the GLO and the Grazing Service into the BLM via an executive order in 1946. Prior to that time, the GLO's commitment to fire fighting was incidental, but present, mostly in forested parcels owned by the GLO in the Pacific Northwest. In most cases, both the Grazing Service and the GLO relied on the USFS, the military, and wildland firefighting agencies at the state and local level to suppress fires on its managed land.[55]

The summer of 1955 marked the first year that the BLM took on its first major fire, and it was not until 1957 when a total of five million acres burned during the fire season that the BLM entered its role as a firefighting agency, predominantly in Alaska. By 1959, the BLM established a smokejumper base in Fairbanks, Alaska, but the agency struggled with large fire management in the lower forty-eight states. Serious fires in Nevada in the 1960s compelled the BLM to develop a more effective fire-fighting structure that could be applied in the lower forty-eight, especially the Great Basin and Intermountain West. First came a large fire at Wheeler Pass in Nevada in 1961, leading to the development of a rudimentary framework for resources in the region. However, a collection of serious fires in Nevada in 1964 tested that framework, involving around forty lightning-caused fires near Elko that combined into six major fires and burned over 300,000 acres. That June, the Elko BLM office at the center of this "firestorm" (a term applied to intense and destructive fires that draws air inward, increasing the fire's power) included one fire control officer with a crew of twenty-seven men and a small standby crew, all recruited locally from communities or nearby Indian reservations. A wet spring followed by active thunderstorms through July meant the crew fought 78 fires in their first month, more than the previous year's entire fire season. Excessively strong thunderstorms in mid-August resulted in a series of large fires, termed a "firestorm," that threatened most of northeast Nevada, killed thousands of cattle, and prompted a

[53] Pyne, *Fire in America*, 274-275; Pyne, Andrews, and Laven, 254.
[54] Pyne, Andrews, and Laven, 261.
[55] Pyne, *Fire in America*, 307, 309-310.

massive response from both public agencies and local ranchers. Activating cooperative agreements with the State of Nevada and the USFS, the BLM district officer activated a team drawn from ten western states, totaling 2,500 men, sixty-four aircraft, and 280 apparatuses. Aircraft were generally uncoordinated, firefighters were generally inexperienced with the faster-burning sagebrush and cheatgrass fuels, and fires elsewhere in the region pulled resources away from Nevada, revealing weaknesses in the overall system. In response, the BLM developed a central fire dispatch to properly allocate resources. The passage of the Clarification and Multiple Use Act of 1964 provided the BLM with better footing as a permanent land manager and allowed it to strengthen its firefighting procedures. By 1965, the Boise Interagency Fire Center (BIFC) began to coordinate major fire response between the various federal and state agencies in the Great Basin. Although in the eastern United States, and increasingly in Alaska due to land sales, the BLM's role in firefighting diminished, in the Rocky Mountain West and the Great Basin it remained the lead agency within the Department of the Interior, committing large amounts of resources to firefighting every year.[56]

In Nevada, the key test of this system came in July 1999. Bumper years for cheatgrass growth in 1997 and 1998 were followed by thunderstorms in July 1999 that ignited over a hundred separate wildfires that combined into a 1.6 million acre wildfire in northern Nevada. Although more coordinated suppression, including airplanes and helicopters, made the firefighting effort easier, fire-prone invasive vegetation on public lands continues to be a challenge in controlling wildfire.[57]

The Nevada Division of Forestry

By the late-1800s, many states had begun developing state forestry boards or bureaus to administer state forestry programs, usually with fire suppression as a premier concern. Chief among these was New York's, mainly because the state had established a state forest reserve in the Adirondack Mountains, and thus had a land base and resource management obligation. By 1910, twenty-nine states had established some form of state forestry agency to regulate and manage a state forestry program. In most cases, states modeled these programs on the national forest reserve system, acquiring lands that were critical to commercial forestry conservation, and managing the stands accordingly, with a strong role for fire prevention and suppression. Section 2 of the Weeks Act of 1911 established provisions for cooperation between federal and state firefighting entities for the purposes of conserving timber stands both for commercial use and watershed management, including a grant program to support state bureaus. In response, most states created state forestry agencies that had political authority to acquire land and regulate timber stands. Strengthened by the Clarke-McNary Act of 1924, state and federal cooperation became solidified as part of the nation's forestry and wildland firefighting programs. Even in non-federal agreements among states, fire protection remained a premier concern. In 1931, the Nevada Legislature authorized the Surveyor General to begin negotiations with the USFS under Clarke-McNary specifically for fire protection, and in 1937, the Legislature authorized fire protection districts.[58]

Using Clarke-McNary funding, and authorized in 1945 by statute, Nevada's Surveyor General employed a State Forester Fire Warden and established a State Board of Fire Control, supervising fire protection on 8.7 million acres of state and private forest and watershed. The Board at the time included the Governor, the Director of the

[56] Pyne, *Fire in America*, 310-314; Pyne, Andrews, and Laven, 296; James A Young and B. Abbot Sparks, *Cattle in the Cold Desert* (exp. ed.), (Reno & Las Vegas: University of Nevada Press, 2002), 2-7.
[57] Young and Sparks, 257-259.
[58] Pyne, *Fire in America*, 347-353, 358-359; Forest History Society, "The Weeks Act," http://foresthistory.org/research-explore/us-forest-service-history/policy-and-law/the-weeks-act/, accessed October 10, 2017; Nevada State Library and Archives (hereafter NSLA), "Division of Forestry," finding aid, http://nsla.nv.gov/uploadedFiles/nslanvgov/content/Records/State/Conservation_and_Natural_Resources/Forestry.PDF, accessed October 10, 2017.

University of Nevada Agricultural Extension, and the State Forester Fire Warden who served as the secretary. Initially meant to establish policy and outlay funding, by 1955 the legislature renamed the body the Board of Forestry and Fire Control, with six members appointed from the agriculture, ranching, and timber industries as well as water users (amended in 1959 to represent sportsmen), and a member of the public. During this time, the legislature steadily expanded the power of the State Forester Fire Warden, authorizing the appointment of local fire wardens in established fire protection districts and establishing penalties for violations. In 1957, the legislature created the Department of Conservation and Natural Resources, and a Nevada Division of Forestry (NDF) within it that would be administered by the State Forester Fire Warden. By 1959, the legislature approved the use of prison inmates to serve on fire crews, a practice that continues to this day. Also in the 1950s, NDF, like its counterpart in California, began utilizing aircraft for reconnaissance and fire suppression. Initially, private air crews used small aircraft for suppression and reconnaissance, including agricultural planes used for crop-dusting due to their built-in tanks. In 1960, the creation of a Flight Operations section in NDF meant the formal addition of aircraft to the state's wildland firefighting arm. Like many of the earliest cargo planes used by firefighting agencies, NDF's first aircraft converted a World War II-era C-45 for use as an air tanker. In the early 1970s, NDF acquired three Bell TH-13T helicopters (small reconnaissance aircraft) to help with advanced warning and light transportation of equipment and personnel to remote areas, which remained in use until 1991. To support the small fleet, NDF also established aircraft facilities at Minden Tahoe Airport in Douglas County, Stead Airport in Washoe County, and Battle Mountain Airport in Lander County. [59]

Over the 1960s and 1970s, NDF began developing facilities throughout the state, including conservation camps and equipment and training facilities, including one on Eastlake Boulevard in Washoe Valley, built in 1972, and others in Elko, Carlin, Pioche, and Ely. In 1977, the legislature replaced the public member of the Board of Forestry and Fire Control with a representative of the fire services supported under the program, and maintained that organization until it was disbanded in 1993. Since that time, NDF has served an administrative, training, and funding role for many of the state's rural fire departments. In 1993, after dispensing of its aging helicopter fleet, NDF acquired its first UH-1 Huey from surplus military stores. The larger Huey allowed for deployment of six-person "helitack" fire crews into remote areas, but also use of large, 240-gallon buckets to support air suppression efforts. There are now three NDF Hueys based at the Minden Tanker Base, maintained for deployment along the Sierra Front. Between this coordination, and supplying a significant number of fire crews during each season, NDF continues to be a primary responder to wildland fires throughout Nevada, and regularly contributes crews in mutual aid to other wildfires in the American West.[60]

Military Firefighting: Military Bases and the Nevada National Guard

The U.S. military's early firefighting history did not include formal firefighting personnel. Throughout the nineteenth century, most military posts responded to fires using means similar to those employed by eighteenth century cities, with soldiers deploying bucket brigades. It was not until the First World War that the military began establishing specific detachments for the purposes of firefighting under the supervision of the Quartermaster General. During the war, most major military installations included "Fire Truck and Hose Companies" deployed specifically to fight fires. Smaller bases tended to have "Guard and Fire Companies" that covered both security and firefighting needs. Most of these companies, either remaining state-side or deploying to Europe, had motorized equipment, with hoses and pumps on the back of early trucks. The firehouses out of which most of these companies operated were rudimentary wooden buildings and structures, mostly garages.[61]

[59] NSLA, "Division of Forestry"; Nevada Division of Forestry, "Aviation," http://forestry.nv.gov/fire-program/aviation/, accessed October 18, 2017; Skip Robinson, "High Sierra Savior," *Vertical Magazine*, (January 2017), 37, https://assets.verticalmag.com/digital/2016/v15i6/V15I6-low.pdf, accessed October 18, 2017.
[60] NSLA, "Division of Forestry"; Robinson, 38-39.
[61] Leroy Allen Ward, *Army Fire Fighting: A Historical Perspective*, (Bloomington, Ind.: AuthorHouse, 2013), 35, 41.

In 1941, the Army transferred firefighting functions to the Corps of Engineers, which brought to bear the role of firefighters in combat. As Army installations increasingly cooperated with the new Army Air Corps, the role of military firefighters expanded to include dealing with aircraft crashes, damage from enemy air attacks (frequently during combat), and fuel fires. Late in the war, due to concerns about Japanese balloon bombs and their potential to light fires in the backcountry of the Pacific Northwest, the military assigned some support and National Guard units to wildland firefighting duty, a role that the National Guard fills to this day. Among the most noteworthy of these wildland military firefighters in the West was the 555th Parachute Infantry Battalion or "Triple Nickels," established in 1945. The 555th was an all-black parachute battalion trained by the U.S. Forest Service that became the first military "smokejumper" team in the United States. It would not be until the early 1950s that firefighting units like the 555th integrated along with the rest of the military in response to President Harry Truman's Executive Order 9981, issued in 1948 and ending racial discrimination in the Armed Forces. Nevertheless, the role of the 555th in establishing the wildland firefighting role of state-side military units, especially the National Guard, is significant. Most military bases in Nevada, including Stead and Nellis Air Force Bases, Naval Air Station-Fallon, and Hawthorne Army Ammunition Depot, retained their own fire suppression detachments to attend to fires on base. The need for fire response to consider hazardous materials, including chemicals and explosive munitions required fire crews with specialized training and equipment.[62]

The Nevada National Guard's role in wildland firefighting is relatively recent. Most Guard units deployed as logistical support for other fire crews from the BLM, USFS, and NDF, but mentions of guard units directly supporting firefighting appear in newspaper accounts and biennial reports to the state legislature. In 1955, Battery D, 422nd AAA Battalion, stationed at a new facility in downtown Ely, aided in the suppression of a downtown structure fire there. In 1957, thirty-five men and eight trucks worked a range fire near Winnemucca for two days. In July 1958, 125 men, forty Air Guardsmen, and thirty trucks deployed to a fire near Carson City for two days. In one of the larger deployments of the period, 325 men, sixty-four vehicles, and additional logistical support assisted with the suppression of a forest fire near Donner Summit on the California-Nevada border. Most deployments throughout the 1950s through the 1970s were small range fires, where several dozen men and a few trucks would deploy for several days to knock down the fire. However, Guardsmen regularly deployed on some of Nevada's largest and best-known fires, including those near Battle Mountain and Elko in 1966 and 1967. While support was mostly logistical, including providing meals, medical treatment, and evacuation support, it was not uncommon to find Guardsmen working fire lines.[63]

The Guard's direct firefighting role expanded as a result of the creation of the Army National Guard's 1-113th Aviation Battalion in 1986. Although the use of aircraft to provide fire suppression and reconnaissance support was not new to firefighting, the National Guard brought with it more advanced technology and ease of deployment. Since that time, use of helicopters to provide aerial fire suppression became regular, including the CH-54 "Skycrane" until 1993, when it was replaced with the larger CH-47 "Chinook," and later augmented by the use of UH-60 "Blackhawks." By 1997, several C-130 cargo airplanes of the 152nd Airlift Wing at Reno upgraded their onboard equipment to include hot-spot detection, allowing for improved aerial reconnaissance and detection. In 2016, the Nevada Air National Guard's 152nd Airlift Wing replaced the 145th Airlift Wing of North Carolina in the USFS's new MAFFS (Modular Airborne Fire Fighting System). This mission, which coordinates eight C-130 aircraft held by four Air National Guard units throughout the west, in Port Hueneme, California (146th Airlift Wing), Cheyenne, Wyoming (153rd Airlift Wing), Peterson Air Force Base, Colorado (302nd Airlift Wing), and Reno, Nevada (152nd Airlift Wing). The MAFFS system enables the aircraft to hold a

[62] Ward, 44-45, 56-57.
[63] Nevada National Guard, "History: Nevada National Guard's Wildland Fire Response," by TSgt Emerson Marcus, draft report, 2017, 2nd page.

3,000-gallon tank of retardant in its cargo bay that can be dropped with precision along fire lines or routes of advancement for wildfires.[64]

Fire Stations in Nevada Since 1861: Design and Function

For the most part, Nevada's fire stations have followed national trends in design based on the factors outlined above. The architecture of fire stations in the United States has generally progressed as a combination of contemporary architectural preferences and the functional need to house firefighters and their equipment. Architectural historian Rebecca Zurier described the development of fire station architecture as a result of both social history and functional needs. As a central civic institution, fire company halls and firehouses tended to incorporate popular architectural styles employed for other important civic buildings such as city halls, county courthouses, schools, and churches. However, the need to store fire engines, hose carts, and other equipment meant that garage space became the principal architectural component of most firehouses. As a result, the forms and divisions of space within fire stations has remained fairly constant over the last two centuries, despite periodic changes in the stylistic envelope of these buildings. By the time Nevada began organizing a firefighting response in the mid-1800s, community leaders across the nation placed an emphasis on formal volunteer companies, which meant having separate fire stations that reflected the civic pride in having such institutions in a community.

Nevada's earliest firehouses were mostly makeshift structures, frequently existing facilities pressed into service to house equipment at a time when companies often moved from building to building on a regular basis. However, in cities where residents expected their community to be permanent, firehouses became a civic statement. Virginia City included some of the state's best examples of firehouse architecture, although few have survived into the present. By the mid-1860s, most of Virginia City's fire companies started constructing permanent firehouses. Completed in 1869, Liberty Engine Company No. 1's firehouse, completed in Gold Hill, opened with fanfare. The building included a meeting room and hall downstairs, and sleeping quarters upstairs. There was also a hose-storage and drying building adjacent to the firehouse, and a cistern under the ramp. Most firehouses included styling and decorative features unique to the tastes of the fire company, whether it was a hose, hook and ladder, or engine company. In central Virginia City, the Young America Engine Company No. 2 had a two-story brick hall illuminated by gas fixtures on C Street opposite the Presbyterian church. Upstairs was a reading room and offices for the company secretary and foreman. Most were well-maintained, and often included decorative exterior paint as well as a prominent bell tower.[65]

The critical transition in fire station architecture came with the transition from private, volunteer fire service to public, professional service. Although most of Nevada's fire departments remained predominantly or exclusively reliant on volunteers, the shift in expectations and methods in firefighting that occurred by the late-nineteenth and early-twentieth centuries meant that these architectural trends remained reflective of the state's station architecture. As Zurier elaborates, fire stations became unique balances of architectural tension, "combining aspects of a garage, a barracks, and a home," and having to be "public and private, institutional and domestic, ceremonial and functional all at once." As a result, while they have always been designed with some degree of aesthetic consideration, fire stations have inclined toward the functional, with their stylistic elements restrained and subordinate to the functional purpose of the building. With public fire service emphasizing more on-duty fire fighters, the inclusion of sleeping quarters to accommodate around-the-clock duty schedules became a standard component of most fire station floor plans by the twentieth century. Stations that began as small garages and sheds became two-story stations with quarters, kitchens, and office space on the second floor.

[64] Marcus, 1st page.
[65] Frady, 57-59, 63-65.

This trend became embodied in the Romanesque-style red brick firehouses of many of America's downtowns. Smaller communities with less funding sought to combine civic functions, incorporating firehouse space into the floorplans of public buildings that also served as local courthouses, jails, and city halls.[66]

Simply due to the timing of Nevada's settlement by Euro-Americans, the architectural history of the state's firehouses begins with Zurier's so-called "store-front" stations, the standard form for most American firehouses between the 1850s and the 1940s. However, it should be noted that the state's earliest firehouses resembled the simpler hose houses of eastern volunteer fire brigades in the antebellum period. These were simple structures meant simply to house the community's equipment, including ladders, buckets, and the earlier forms of hand-drawn pumps. As organized volunteer fire companies became more common by the mid-nineteenth century, fire stations built in Nevada frequently adopted the "store-front" design, trading the large picture windows of a typical commercial building for garage bays to accommodate fire engines and hose carts. In many cases, such as Goldfield and Tonopah, a central fire station served as a headquarters, while simple garages might house a hose cart or set of equipment. Because community's frequently organized their firefighters into volunteer companies, most firehouses expanded to serve both as equipment storage and as social halls clubs. Fire company members often spent their free time at firehouses, playing sports such as baseball, or engaging in other social activities. Some historians have even termed firefighting as the nation's first "team sport," due to the friendly competitions between companies on firefighting skills such as scaling ladders, pumping water, and other physical feats. The fire station as social and civic institution became another opportunity for communities to display their civic pride through architecture. Much like courthouses, city halls, and schools, firehouses of the late-nineteenth and early-twentieth centuries used contemporary architectural styles such as Greek Revival--fast becoming the first truly national style in the United States--the Italianate style, or the Victorian-era red brick Romanesque, as fire stations blended into commercial downtowns using storefront-type architecture. In Nevada, few of its communities lasted long enough and remained large enough to justify that expense, but larger and more stable communities like Reno, Carson City, and Virginia City did, all of which adopted Romanesque or Italianate styles. The use of these "storefront" style firehouses that emulated contemporary commercial buildings continued through the 1940s, until fire departments began needing larger buildings that could store more than just one or two fire trucks.[67]

The practical considerations of equipment used in firefighting had its own influence on the form of firehouses, if not the architectural design of the building itself. In Nevada, horse-drawn fire engines were used more sparingly, meaning that typically, only larger departments such as those in Virginia City and Reno maintained horse-drawn equipment. As a result, many of the state's firehouses tended to have smaller openings, sufficient only for a fire crew to pull a hand-drawn cart or engine out into the street quickly. Aside from the garage area, these houses may have included an office for the fire chief, if the town paid to retain one beyond a volunteer basis. The introduction of steam fire engines in the late-nineteenth century placed additional demands on the typical company firehouse. The larger equipment required a larger garage, and the use of steam boilers to power the pump meant a crew member had to remain at the firehouse to attend to the fire. It also meant that the firehouse now contained its own fire risk. As a result, firehouses expanded, transitioned into masonry buildings, and in the larger fire departments of Nevada, added stables for a draft team of horses that could be harnessed quickly to pull the apparatus to the fire. Many fire departments using horse-drawn engines and hose-carts adopted a quick-hitch system that suspended harnesses from the ceiling and snapped them into place once a horse was in position in front of the cart or engine, shaving an impressive three minutes off response times. Most firehouses throughout this period retained towers, which may have served as a lookout for on-duty

[66] Rebecca Zurier, *The American Firehouse: An Architectural and Social History*, (New York: Abbeville Press, 1982), 13, 90, 93.
[67] Zurier, 13, 37, 44-45, 82-87, 89; Souter, 46, 59.

firefighters, but also served as a place to dry hoses in between fires. Where a tower could not be accommodated, firefighters resorted to laying out houses on the floor of the garage, or on a nearby slope. Over the course of the state's firefighting history, equipment generally grew larger, as crews switched from hand- and steam-operated engines and hose carts to gasoline-powered fire trucks with ladders and internal pumps. As a result, firehouses grew larger as well to accommodate the larger apparatus, and to house more administrative space and overnight quarters for firefighters on shift.[68]

The rise of gasoline-powered fire engines in the early-twentieth century meant the modernization of fire stations around the new technology. Between the 1910s and 1930s, the aforementioned trend toward neighborhood firehouses also led to the adoption of the popular neighborhood architecture of the time inspired by the Arts and Crafts movement. Smaller "bungalow-type" firehouses accommodated one or two gasoline-powered fire engines, blended well into neighborhoods, and allowed for more firehouses in more places, which decreased response times. Many of these bungalows included a single garage space for the fire engine, around which architects centered the rest of the station. Much like earlier firehouses, these bungalows included a dormitory for firefighters on shift, and a living room that served as a lounge area. In many ways, the floorplan of these fire stations adapted to both the demands of the typical fire station and the architectural trends of the Craftsman bungalow. With suburban development beginning in earnest by the 1910s, and accelerating by the 1940s, aesthetically-sympathetic neighborhood firehouses lent themselves to new urban zoning laws that regulated the size and scale of particular buildings in certain areas. Furthermore, the shift to more salaried firefighters in urban and suburban fire departments drove a transition away from high-style, ornate firehouses to more simplistic design, as more money in city budgets went to salaries and equipment than to firehouse construction. Many cities purchased and rehabilitated their older volunteer firehouses, or constructed new ones if greater firefighting volume was needed. Architects generally abandoned the "store-front" styles of the previous decades and began experimenting with an array of different architectural styles depending on their tastes and the community in which their new commission would be constructed. Firehouses that appeared to be normal residences blended with the massing and scale of neighboring buildings and became a way to provide a service without disrupting the character of the landscape. Nevada had relatively few of these "bungalow" type stations. The Southside Station in Reno, at 532 South Virginia Street, was among the best examples of the state's former collection. Built in 1917, the station housed a motorized fire engine, and continued service in the department into the 1980s before being abandoned and demolished later for development. Smaller rural fire stations established at this time frequently resembled the earliest firehouses, consisting of simple garage buildings, perhaps with an office space attached, and built of contemporary materials such as brick or concrete block.[69]

The interior spaces of these firehouses tended to transition based on whether or not municipal fire companies remained volunteers or became paid professionals. For volunteer firefighters, the firehouse of the nineteenth century was an equipment storage facility and a social club, meaning that interior spaces tended to have more refined architectural detailing and furnishings, with lounge space and sleeping quarters incorporated. As larger fire departments became professional, their funding source for supplies went from private donorship to public tax funding, resulting in a swift reduction in the quality and cost of interior furnishings. Lounges became unnecessary as firefighters in professional environments no longer spent their off-duty hours at the firehouse. By the twentieth century, the interior architecture and function of space revolved more around the basic functions of firefighting and less around the social use.[70]

[68] Green-Hughes, 42-43; Souter, 29; Zurier, 13, 87, 102.
[69] Souter, 115-118; 147-148; Zurier, 132, 157-159; Regional Transportation Commission of Washoe County, 20.
[70] Zurier, 80-81.

Larger communities often retained larger firehouses near downtown areas, and built them in contemporary architectural styles. From the 1920s through the 1940s, Moderne and Art Deco styles for downtown firehouses were common, engendering an image of fire stations, and firefighters, as technicians of the modern age, using skill and precise training to address the problem of urban fire. Utilizing modern and fire-resistant materials like concrete and steel, and embracing the motorized fire engine, most of these firehouses retained the common spaces typical of older firehouses, but often in simpler versions. Often constructed by the Works Progress Administration (WPA) after 1934, fire stations with WPA architects and builders adopted Modern styles like Moderne or Art Deco, but the interior finishes were much more subdued than previously. Streamline Moderne became popular, not only to remove the stylistic embellishments of the Moderne, but to evoke the speed and motion of new, motorized fire engines that could travel farther and faster and carry more equipment with fewer firefighters. The Streamline style also matched the cultural climate of civil service in the mid-twentieth century that sought to emphasize efficiency and organization. The Romanesque and Italianate fire stations of the previous century became considered quaint or wasteful. Some architects took Modern concepts even further, designing fire stations with no perceivable style and evoking an image of the firefighter as a faceless city employee rather than as a hero or skilled technician. The WPA financed many of the stations constructed in the 1930s and early 1940s, but exercised very little stylistic control. As a result, these Depression-era firehouses and the architectural style utilized in each, spoke to the role of the firefighter in individual communities. In Nevada, the City of Winnemucca's 1938 Art Deco fire station stands as a rare reflection of this style of station.[71]

The post-World War II era also brought with it the advent of the modern fire station. While these stations represent the pinnacle of technological advancement in the firefighting field, the focus on skills and tasks has left the architecture of the buildings largely mute. Similar to a changing view toward other public buildings throughout the country, most modern fire stations do not convey the same civic pride through their design as earlier structures, with some exceptions. Many Americans began to expect more frugality from their local governments, and municipal administrators found their budgets increasingly reduced as suburban development hampered their ability to match infrastructural maintenance with tax revenue. As a result, the quality of fire station design fell along with the general decline in the quality of American public architecture. Although Modern architectural styles such as Contemporary, International, and Ranch were frequently used for fire stations, they rarely represent the best versions of that style in their communities. There are occasional exceptions to this rule, especially in cases where an elected official or city manager may have pressed for something more refined. Nevertheless, as historian Zurier discusses, the relationship between Modern architecture and fire stations remains troubled. Some of the complaints from firefighters about Modern architectural styles as used in firehouses centered on the unfortunate failure by many project architects to communicate with firefighters about the functionality of design. Disagreements persist about what Zurier describes as "what a building ought to mean," leading to a general confusion in public architecture, especially as applied to fire stations. Despite the lack of stylistic advancement, most firehouses experienced significant interior shifts. While the garage space for the fire apparatus remained the central focus, the emphasis on single-story fire stations meant that floor plans adapted, typically organizing office, dormitory, kitchen, and gym space around the garage. Hallways were generally gone, with all traffic traveling through the garage, and with doors to the central space connecting from almost every room on the floorplan.[72]

Since 1980, many fire departments in Nevada have continued the national trend of adopting contemporary architectural styles in their firehouses. Forms remain simple, alluding to the Modern era of firehouses outlined

[71] Zurier, 173, 181-183; 188-192, 200, 202.
[72] Zurier, 207, 216-219.

in the preceding paragraph. However, exterior materials changed to stucco, concrete block, or, in rural areas, corrugated steel. For some urban departments, their headquarters became an opportunity to demonstrate late Modern, or Post-Modern architecture, most notably with the City of Las Vegas Fire & Rescue headquarters at 500 N. Casino Center, which incorporates tile texture, smooth curved building planes, and decorative columns with desert colors and xeriscaping in an attempt to reflect the contemporary architectural character of the metropolitan area. Carson City's Les Groth Memorial Station No. 51 on S. Stewart Street combines red brick, concrete, and decorative building planes to evoke its now-demolished 1954 station that was located at Musser and Curry Streets. Less striking examples of newer fire stations follow contemporary design trends, incorporating curves, geometric shapes, but overall simple floorplans and designs.

F. Property Types

Property Type: Fire Station

The information below has largely been adapted from the 2008 Multiple Property Documentation Form (MPDF), Fire Stations of Vermont, produced by the University of Vermont Historic Preservation Program.[73]

Fire stations have been a critically important public utility in Nevada communities since the mid-nineteenth century. As discussed above, firehouse design has been influenced by the ways in which they have been utilized. Initially the function of the structures was to protect equipment, but over time, they began to assume a number of social functions by providing meeting space for the departments, as well as sleeping and living quarters for on-duty firefighters, and in some towns, stations provided town meeting spaces. Although the purpose of construction was consistent from town to town and company to company, designs varied. Today, examples survive from the earliest days of firehouse construction, continuing on to modern examples of firehouse design. As towns grew, and fire continued to threaten that growth, public awareness of volunteer companies increased, and support manifested itself in towns themselves constructing new buildings and purchasing equipment. The following are brief descriptions of fire stations types identified by Vermont's 2008 state-wide effort under the same topic, and adapted based on selective field survey of Nevada fire stations in 2017. Further research and study may reveal additional types or more extensive information on the types listed below. It is important to note, however, that the period during which communities adopted various firefighting technology or building designs varied across the state. Community size, town budgets and other factors account for overlapping elements of building types.

Sheds (1860 to 1950)
In Nevada, sheds became the first and easiest way to shelter equipment for local hose and engine companies. The simple shed fell out of use by the mid-nineteenth century in many urbanized communities in other states, but the type remained part of Nevada's local firefighting scene well into the twentieth century. These buildings often housed auxiliary hose carts or extra equipment. Sanborn insurance maps reveal that for most fire departments, small frame sheds remained a mainstay for volunteer fire companies long after more elaborate firehouses came into use in more urbanized areas of the state. However, the type appears to have been out of use by the end of the 1940s, as nearly all fire departments, both urban and rural, in Nevada transitioned to motorized equipment.

Early Box (1860-1920)
A traditional form of construction emerged when towns began to provide public support for volunteer firefighters by erecting buildings for the protection of the apparatus. From 1860, when towns in Nevada first began forming municipal systems, until as late as 1920, firehouses frequently used a simple box shape, usually one or two stories high. These buildings were predominantly designed to house the steam or hand engines, hooks and ladders, and leather hoses common to most fire companies. Some stations had bell towers attached, usually in the front, which housed an alarm bell. This subtype remained popular in Nevada's smaller communities that continued to rely on volunteer service into the twentieth century.

These firehouses were usually wood frame, sheathed in clapboards with stone or concrete perimeter foundations. The earliest were simple buildings with little ornamentation, a result of the modest funds given to fire companies. In larger communities, and in later years, others were built in high style designs such as Queen

[73] National Register of Historic Places, *Fire Stations of Vermont*, by Sara Jamison, Liisa Reimann, James Duggan, and Douglas Royalty, Vermont, National Register #64500967.

Anne, Italianate, and Richardson Romanesque styles. Most early forms were rectangular in shape with a gable or false front, and were one or two stories high, often with a prominent bell tower. Early designs usually incorporated one or two large entrance bays at the ground floor on the front of the building, and an entrance door on the side of the building.

In the interior, plans varied somewhat. The first floor was usually a large open space used to store the fire equipment, with storage for smaller equipment sometimes located at the rear of the building. Most buildings also contained an internal hose-drying shaft that extended up through the second floor. Nevada's fire halls do not appear to have facilitated the same broad social functions as some other regions, where a gathering space or assembly hall might be common. The state's fire stations usually provided office, sleeping, and storage quarters, but other social institutions such as halls for fraternal organizations provided event space for social functions.

Among the few surviving examples of this type is the false-front firehouse in Silver City, below (south of) Virginia City, listed in the National Register via the Virginia City Historic District (NRIS# 66000458). The Silver City station, (pictured below), is a simple front-gabled station with a false front and a short, centered bell tower on its west façade.

Silver City Fire Station, Silver City, Storey County (NVSHPO, August 15, 2017).

Steam Engine and Hose Tower Style (c.1860-1920)

In tandem with the implementation of community-wide water and reservoir systems came a new type of fire station as a result of improvements in hose-design and construction. Originally made of leather and running forty to fifty feet in length, hoses weighed more than eighty-four pounds each. The development of vulcanized rubber led to the manufacture of rubber-lined cotton or linen hose. Both types required great care to prevent rot or cracking. The emergence of hand-drawn hose wagons during this time now provided for the transport of triple the amount of hose as before, and required the construction of towers for drying hose segments.

Many fire stations built in Nevada between 1860 and 1920 included prominent hose towers to provide storage and drainage for these newer, longer hoses. Towers often reached at least fifty feet in height--the average length of hose during this period. Aside from this development, firehouses remained traditional in form. In rural communities, vernacular forms appeared, though others were built in the styles of the period. Usually, stations were two stories high with gable roofs. Many of these stations had a raised basement that housed mechanical systems. Most stations were rectangular in shape with a gable or eaves on the facade. Most were balloon framed with clapboard siding, although others were brick. Central bays were often arched, with windows on the second story often also arched and hooded to match. Towers were incorporated on the rear, sides, and fronts of buildings, sometimes engaging the central entrance into the tower design, creating a vestibule within the first story of the tower. Some stations had an additional tower for the alarm bell, while others housed an alarm bell within the tower, giving it a dual function as bell and hose tower. The top of the tower often had a large arch-shaped opening on each of its four sides and was frequently crowned with an architectural embellishment.

With expanded hydrant networks, heavier steam pumpers and chemical engines, and increased ladder lengths, there was a marked transition from hand-drawn to horse-drawn engines. Initially, companies constructed barns outside firehouses to house draft animals to pull the engines, but the delay in time in fetching the horses from the barn proved too costly. Eventually, space was made to house the horses inside the firehouse.

In the 1890s, many fire companies began to utilize brick and other fireproof materials in firehouse construction, although Nevada companies tended to use frame well into the twentieth century. Typical stations continued to be rectangular and one or two stories high, with two bays on the façade. The hose tower remained a popular element in the design of firehouses during this period for the drying of hoses. Roof types varied; a gabled roof was often used, but other buildings began incorporating a flat roof. In rural areas, fire stations lacked the same embellishments found in more populated communities. Cornices were often heavily profiled. Some stations incorporated High Victorian features such as paneled and beveled doors, multi-pane transoms, segmental and rounded arch window openings, lancet windows, and brick corbelled cornices. The second floors were utilized even more at this time and housed dormitories, kitchens, and recreation rooms for firefighters on duty. The brass sliding-pole was introduced and enabled firefighters to quickly move down from the second floor to the lower floor when the alarm was sounded. Surviving examples of these fire stations are extremely rare, with many contemporary examples succumbing to demolition or fire. The City of Reno's headquarters station built in 1900 at the corner of West and Commercial Streets was perhaps the best example of this era of firehouse development. However, the City demolished the station in 1976, and the lot is now parking space for nearby hotels.

Based on preliminary survey, the oldest surviving firehouse in Nevada is of this type and is in Carson City. It was built in 1864 for the Curry Engine Company No. 2, and later taken over by the Warren Engine Company No. 1 (below right). It is a two-story Romanesque sandstone building with a gable roof and a short tower on its southwest corner. The gable façade facing Musser Street to the south had large swinging panel doors in front of two garage bays. Since its construction, the building has received extensive modifications, including upgrades

to serve as a fire station until 1954, and then subsequent modification into an office building. The garage area has been enclosed with black channel metal windows, with decorative planters installed in front. Another early example of this type, which stands on Main Street in Austin, includes a brick front with a tall frame hose tower. The building is now used for office space, with a modified panel-board and stone veneer over the brick (below left). The town of Austin is listed in the National Register as an Historic District (NRIS# 71000489).

Left: Austin Volunteer Fire Department (now a youth center), (FCC, Justin Castells, March 2015); Right: Warren/Curry Engine Company Fire Station (NVSHPO, October 22, 2017).

Other, later examples include Tonopah and Goldfield. Tonopah's Volunteer Firehouse and Gymnasium is a two-story fire department, with garage storage below, and office and quarters above, and with an attached gymnasium to the north (left). With over 300 volunteers on the Tonopah Department rolls, fitness became an important factor in maintaining the responsiveness of the fire service. With the demolition of the Reno headquarters station, the Tonopah Station appears to be the only remaining station with such a facility in Nevada. The building was listed in the National Register in 1982 (NRIS 82003253). Goldfield's Fire Department is a Romanesque stone building of two stories, with an office and overnight accommodations upstairs, and storage for the city's main fire equipment on the first floor. It was listed in the National Register in 1982 as part of the Goldfield Historic District (NRIS 82003213).

Left: Tonopah Volunteer Firehouse and Gymnasium (NVSHPO, May 5, 2016); Right: Goldfield Fire Station No. 1 (NVSHPO, May 6, 2016).

Modern Fire Stations (1920-1980)

With the development of the automobile, self-propelled pumpers began to replace the horse-drawn steamers of the preceding era, and most departments in Nevada had at least one motorized truck by the 1920s. The mechanized vehicles had a number of advantages over the animal-powered versions, such as greater speed and control, and the ability to wield more equipment with fewer men. This, in part, propelled the shift to career personnel in departments that had the budget to do so, with many Nevada departments becoming paid career staff by the 1930s. By the 1950s, larger cities like Reno, Sparks, Las Vegas, and Paradise township in Clark County had higher numbers of high-rise hotels and office buildings, compelling them to acquire motorized aerial trucks. Firehouses continued to be in a rectangular shape of masonry or frame construction, usually two stories high. The once ubiquitous hose tower was usually replaced by horizontal drying racks in the basement or first floor, and sometimes attached sheds. However, several firehouses constructed in Nevada between 1940 and 1965, particularly those in southern Nevada, retained hose towers for drying, possibly due to the extended use of older equipment.


Left: Former Clark County, and later Las Vegas, fire station at 1201 Miller Ave, built in 1963, missing its former hose tower (NVSHPO, October 19, 2017); Right: Former Henderson Fire Station at 134 W. Atlantic, built in 1962 (NVSHPO, October 19, 2017).

The architectural style of Nevada's mid-twentieth century stations inclined toward the Modern styles, usually as either an un-styled garage space, or with Art Deco, International, or Contemporary features. Later examples in the late-1960s and 1970s incorporated Neo-Mansard detailing as well. The trend in post-1980 firehouses has been a move toward streamlined, functional buildings that often either use standard plans, or attempt to blend with the environmental aesthetic of their surrounding community. The newer desert-themed fire stations of the City of Las Vegas Fire & Rescue and Clark County Fire Department are most indicative of this trend. With the acquisition of motor-driven apparatuses, the interior of these new firehouses were streamlined, with the first floor space opened up to accommodate larger trucks, and with minimal space in the garage area for equipment beyond the apparatuses themselves. Reinforced flooring was essential as the weight of apparatuses greatly increased, and basements became utilized space to house workshops, stockrooms, coal pockets, and boiler rooms. Also in the interior, office space was standard, along with changing rooms and overnight quarters to accommodate longer shifts, representing the growing professionalization of the firefighting trade.

Contemporary Fire Stations (1980 to the Present)

Fire stations in this subtype will likely not be eligible for the National Register unless they can meet Criteria Consideration G for properties achieving significance within the last fifty years. Their architectural trends are covered in the previous section. Trends in Nevada have shown a marked proliferation of new firehouse construction since 1980, both in urban and rural fire departments. In urban areas, facing pressure from modernization and from suburban expansion, new firehouses have been built to service new neighborhoods and commercial areas, and to house new and larger apparatuses. These newer urban fire stations follow contemporary architectural trends. In rural areas, to reduce maintenance needs related to firehouses, many older buildings have been abandoned in favor of simple, corrugated metal garages with attached office space.


Left: Las Vegas FD Station No. 4 (now privately owned), constructed in 1955 at Industrial Road and Utah Ave., Las Vegas (Google Streetview, 2017); Right: North Las Vegas Station 51 at 2626 E. Carey Ave (NVSHPO, October 19, 2017).

Converted Buildings

Throughout the history of firefighting, towns and cities in Nevada occasionally converted buildings from previous uses into firehouses. Barns and garages represented the simplest opportunities for building conversion, although storefronts often served the purpose as well. One of the few known examples of a converted firehouse in Nevada is the Virginia City fire station on C Street, converted from the American Saloon for the purpose by 1942 and serving in that role until 1962, when Storey County constructed a new main station at 145 N. C Street.

Left: Converted American Saloon fire station, now housing the Comstock Firemen's Museum (NVSHPO, October 18, 2014); Right: 1962 Storey County Fire Station at 145 N. C Street. The 1962 construction is at the center with the alarm bell tower, with modern additions made to its north and south side elevations (NVSHPO, May 12, 2015).

Municipal/Shared Buildings (1860-Present)

Throughout the history of firefighting in Nevada, some fire companies have shared buildings with other municipal offices. This combined usage continues today in some cases, depending on the history and resources of the community in question. Examples of this subtype include the City of Sparks, the City of Fallon, and the City of Ely. Ely's fire department has been attached to the City Hall building since the construction of the first City Hall in 1907. The City of Fallon commissioned renowned Nevada architect Frederic J. DeLongchamps to design their municipal building, which included a fire station and hose tower. The building, completed in 1931, was listed in the National Register in 2004 (NRIS# 04001197). Once completed, the fire station section included automatic garage doors that opened upon receiving an alarm, allowing the volunteer firefighters easier access as they responded to the station.[74]


Left: Ely City Hall and Fire Station, including a 1951 expansion (photo right) to house additional fire apparatuses to the south, (NVSHPO, August 20, 2015); Right: Fallon City Hall, with fire station tower. The garages for apparatuses are on the opposite (east) elevation, opening to the alley (NVSHPO, June 29, 2016).

Changes Over Time

In most cases, changes to fire stations were almost inevitable as improvements in firefighting technology necessitated the acquisition of new equipment, and the modification of the fire station itself. In most cases, heating and lighting systems and restrooms have been modernized. Garage door openings may have been expanded for larger equipment, and hose towers may have been demolished as drying equipment replaced simple air drying. To accommodate some of these changes, dropped ceilings may have been added. Firehouses still in use today that were once heated by woodstoves may now have a furnace or boiler located in the cellar. Historic lighting fixtures may have been replaced by fluorescent lights. Larger spaces may have been subdivided into smaller rooms. In these cases, where modifications occurred during the period of significance and were for the purpose of supporting firefighting operations, they will likely be historic additions and will not adversely affect the integrity of the building.

Many surviving firehouses are no longer in use for firefighting purposes. Some have been converted to other uses, including as other municipal departments, such as Winnemucca's 1938 station, Sparks' 1953 station, or Elko's 1948 station. Some have been converted into commercial buildings, such as Reno's Station No. 2 at 495 Morrill, which is a mixed use redevelopment providing lofts and space for small businesses. As a result,

[74] National Register of Historic Places, "Fallon City Hall," Fallon, Churchill County, Nevada, NRIS# 04001197, Sec. 8, 6.

fenestration patterns may have been altered to accommodate new uses, code requirements, or circulation patterns. In most cases, if the building's overall massing, scale, materials, garage openings, and interior garage space are still apparent, the fire station will retain integrity (see registration requirements below).

Property Type: Wildland Fire Station

Because of the strong presence of state and federal firefighting services in Nevada, there are many fire stations throughout the state that are used primarily for combating wildland fires. Many of these are simple garage spaces, often attached to larger administrative facilities for agencies such as the U.S. Forest Service, U.S. Bureau of Land Management, or Nevada State Division of Forestry. The Forest Service completed an extensive survey of its facilities in the Humboldt-Toiyabe National Forest in 2001, identifying resources such as fire caches, lookout towers, and fire prevention offices as potential fire-related facilities within the agency's real estate inventory. In the Humboldt-Toiyabe forest, it appears that only fire caches remain, used to store firefighting equipment in between fires, especially important for wildland firefighting agencies that relied on temporary or seasonal crews. In Nevada, identified fire caches include the Dog Valley (Carson District), Pole Creek (Jarbridge District), and Mountain City (Mountain City District) administrative sites, with only the Mountain City Compound having sufficient historic integrity to be eligible for the National Register.[75]

The Bureau of Land Management's firefighting program in Nevada is the second-largest in the agency behind Alaska, with stations throughout the state attached to district and field offices. As of 2017, resources included seven single engine air tankers, three helicopters (which can expand to six during fire season), two air attack craft for detection and traffic control, two hotshot crews (the Silver State Hot Shots in Carson City, and the Ruby Mountain Hot Shots in Elko), a Type 2 initial attack crew (a twenty person crew typically sent as a rapid response force), a total of fifty-one fire engines (mostly off-road capable fire trucks on heavier chassis than a pickup truck, but much lighter than a traditional fire engine), and six bulldozers for the creation of fire lines. Versions of these equipment and crews have been in operation in Nevada since the 1950s, when the BLM began engaging firefighting as a primary component of its mission in western states with high percentages of public land, such as Nevada. At present, no comprehensive inventory of the state's BLM firefighting facilities has been undertaken, and remaining historic resources are unknown. For facilities that hosted firefighting aircraft, there may also be a hangar present, as well as an airstrip or helicopter pad. In many cases, wildland fire stations may be nominated as individual buildings, although it is likely that ancillary sites and structures may be associated with a primary station building. In cases where a larger complex is present, a small historic district may be appropriate.[76]

[75] U.S. Department of Agriculture, Forest Service, Humboldt-Toiyabe National Forest, *Privies, Pastures, and Portables: Administrative Facilities of the Humboldt-Toiyabe National Forest, 1891-1950 – Vol. 2, Evaluation*, by Richa Wilson, (Ogden, Utah: Intermountain Region Facilities Group, December 2001), 32, 40, 46.
[76] https://www.blm.gov/programs/public-safety-and-fire/fire-and-aviation/state-information/nevada


Left: Nevada Division of Forestry facility in Washoe Valley north of Eastlake, built in 1972 (NVSHPO, December 3, 2017); Right: NDF helicopter filling its fire bucket during the Pedlar Fire (Nevada Division of Forestry, June 30, 2013).

Property Type: Ancillary Firefighting Feature

In most cases, although not well documented, fire departments also benefited from, or helped create, ancillary features within the firefighting infrastructure. Most of these features were used to facilitate the provision of pressurized water to fight fires, and included hose houses, wells, cisterns, and other features. In many cases, cisterns provided the earliest means of water storage for firefighting efforts, storing water above or below ground in various locations throughout the city, and from which hose companies would run hose to a fire engine. After the development of gravity-fed or artificially pressurized water main systems by the early-twentieth century, most departments switched to using fire hydrants, or "plugs," to provide water for their engine hoses. In most cases, cisterns or wells will have been redeveloped as part of the frequent re-engineering of municipal utility systems. Furthermore, Ancillary Firefighting Features will have more difficulty than Fire Stations in demonstrating sufficient significance to be individually eligible for the National Register. In some cases, significant elements of those systems may still be present, and potentially eligible for the National Register as structures or objects. For example, an individual hose box may be eligible for the National Register individually if it is a significant reflection of a major development in a community's firefighting history, especially if other elements of the community's historic firefighting infrastructure are no longer present. It may also be eligible if sufficient comparative study can be conducted to determine it is a rare preserved example of a hose box in a local or state context.

Left: Cistern in upper Gold Hill near the Divide (NVSHPO, August 15, 2017); Right: Hose box above (west of) the Storey County Courthouse off A Street (NVSHPO, August 15, 2017)

Significance

In most cases, fire stations will be individually eligible for the National Register under Criterion A at the local level of significance for their association with the broad patterns of firefighting history in their communities. Federal and state facilities, or local facilities with exceptional significance, may be eligible for nomination at the state level of significance, if importance beyond their local area can be demonstrated. Under Criterion A, the area of Politics/Government will generally be the best area of significance under which to nominate a firehouse, although Community Planning and Development may also be appropriate, depending on the historic context of the firehouse.

Many well-preserved stations may be eligible under Criterion C in the area of Architecture for displaying the distinctive characteristics of their period and property type. In these cases, the station need not be an example of high-style architecture, but should be a strong or important example of the Fire Station property type, and should retain the primary features that display the historic function of the firehouse as constructed, such as a bell or hose tower, and interior garage space for storing apparatuses. It is also possible that a fire station may be eligible under Criterion C in the area of Architecture as a significant work of a master builder or architect. Examples include the 1947 Reno FD Station No. 2 at 495 Morrill, designed by well-known Reno architect Russell Mills, or the 1931 Fallon City Hall and Fire Station, designed by Nevada's premier architect, Frederic J. DeLongchamps.

Further research may show that some firehouses may be eligible under Criteria B and D. Fire stations may be eligible under Criterion B in the area of Politics/Government if they are strongly associated with an important local figure, such as an influential local fire chief who oversaw reforms in local government or firefighting practices, or as a significant accomplishment of a local political or business leader, etc. Nominations under Criterion D for information potential are highly unlikely, although the possibility of information potential from current and former fire station sites should not be discounted. The social history and day-to-day activities of firefighters are generally well-documented, so it is unlikely that an archaeological site related to firefighting would be able to substantively answer significant research questions. Potential for Criterion D eligibility may be stronger for an Ancillary Firefighting Feature, such as a cistern, or an intact example of a community's early water utility system.

Some Fire Stations may have achieved significance within the last fifty years and will need to meet Criteria Consideration G in order to be eligible for the National Register. To meet Criteria Consideration G, a Fire Station of this type should reflect a rare or exceptional example of its property type. This may be due to reflection of a particularly significant development in local or state firefighting practices or technology. It may also be as a reflection of an outstanding advancement in Fire Station architecture in which the building design was carefully crafted around particular firefighting practices.

Firehouses will often be contributing resources in National Register-eligible historic districts, whether the fire stations are individually eligible for the National Register or not. To be contributing to a larger historic district, fire stations should retain sufficient integrity of design, materials, and association, as shown with already listed examples in Nevada in Virginia City, Silver City, and Goldfield.

Registration Requirements

A Fire Station or Ancillary Firefighting Feature with demonstrated significance to its local community, region, or the state under the outline above is likely eligible for the National Register of Historic Places if the resource retains sufficient integrity to its significant historic period. To retain sufficient integrity, the fire station or ancillary feature should retain its character-defining features measured under the seven aspects of integrity for the National Register: location, setting, feeling, association, design, materials, and workmanship.

Although all seven are important in measuring integrity, the critical aspects of integrity for the purposes of historic fire stations in Nevada are location, association, design, materials, and workmanship. Firehouses should retain the form and materials that reflect their historic use, the period of construction, as well as any significant changes over time. It is important that historic firehouses remain in their original locations in order to demonstrate integrity of location and association, as their location was often deliberately chosen by a community or fire company for purposes of speedy response or prominence in the community. However, if a fire station has been moved since its historic period, it may remain eligible if a strong case can be made that its new location reflects the historic use, setting, and feeling, allowing the fire station to retain its association with the historic community it served.

Many buildings will have been altered and reconstructed to accommodate changes in firefighting practices and technologies, especially if they remained in use up to, or near to, the present. To remain eligible, a fire station or ancillary feature should retain strong integrity of design, materials, workmanship, feeling, and association. Critical features such as the overall massing, scale, roof form, and exterior wall materials should be present. The garage doors should still be extant on the exterior envelope of the building, and the garage space for storing firefighting apparatuses should also be present on the interior, although minor subdivisions of space for new use may be acceptable if the open area is still clearly visible. Recent changes made to the interiors of historic firehouses may also be acceptable, including modifications made to the interiors of historic firehouse buildings after they are no longer in use as firehouses. The extent of such acceptable changes depends on the size and character of the building under consideration and the purpose of these changes. The partitioning of spaces into smaller areas for restrooms, storage closets, mechanical systems, and/or offices is acceptable provided that the sense of the historic openness of a garage or other open space remains. For stations still in use by fire departments, the remodeling of the interiors of sheds or garages is acceptable if this remodeling was necessary to provide additional space for fire-fighting related activities. For firehouses whose exteriors have significant architectural character, their exterior qualities may outweigh significant interior modifications.

Fire stations that were constructed, or became significant as fire stations, less than fifty years from the present, must meet Criteria Consideration G, by demonstrating that they are a rare or exceptional example of the type and/or historic theme within a local or state context of firefighting.

G. Geographical Data
The State of Nevada

H. Summary of Identification and Evaluation Methods
The Nevada SHPO developed this project as a response to requests from the public for National Register nominations for historic fire stations in Pioche and Ely. It is meant as a state overview of historic-age fire stations, and those stations that may reach historic age over the next two decades. Research included consulting the major repositories in the state, including the Nevada Historical Society, the Nevada State Museums in Carson City and Las Vegas, the University of Nevada, Reno, and local history museums including the Northeastern Nevada Museum (Elko), Humboldt Museum (Winnemucca), Eureka Sentinel Museum (Eureka), Central Nevada Museum (Tonopah), Douglas County Historical Society (Gardnerville), Churchill County Museum (Fallon), and Comstock Firemen's Museum (Virginia City). Critical primary sources included Sanborn Fire Insurance Maps available at the University of Nevada, Reno and the Nevada Historical Society (Reno). In most cases, recent photographs of fire stations were taken by staff during site visits to communities over the last three years. Survey for this project included research visits to Virginia City, as well as selective survey of known fire stations in Reno, Sparks, and Clark County (including Las Vegas, North Las Vegas, Henderson, Paradise, Winchester, and Boulder City) to document the evolution of fire station architecture.

As a statewide context, emphasis was placed on establishing the key trends of fire station development and architecture. Chief among these was delineating the trajectories between those communities that developed larger, career fire departments, such as Reno, Las Vegas, Clark County, and Henderson, and those that remained largely rural and volunteer, such as Ely, Winnemucca, Elko, and Lincoln County. Unfortunately, in the case of those that remained rural, the absence of Sanborn maps for the mid-twentieth century, when many of these departments first emerged, complicated the research process. It is expected that individual nominations for local firehouses will fill any gaps regarding the local context of firefighting in particular areas. Because of the nature of Nevada's firefighting history, the SHPO included state and federal involvement in wildland and rural firefighting. The results of the Clarke-McNary Act of 1924, the establishment of fire protection districts in Nevada after 1937, and general economic expansion in the state from the 1950s onward have resulted in a great proliferation of smaller fire departments in rural areas that regularly cooperate on wildland firefighting missions.

Property types above were largely based on those established by a similar state-wide project in Vermont approved for use in 2008. However, because most of Nevada's firefighting companies developed in the late-nineteenth or early-twentieth centuries, the distinctions between early handcart stations and later steam engine stations is less pronounced in Nevada, often with the same facilities serving for both needs. As a result, the property types have been simplified for this project, although they still rely on changes in technology regarding firefighting apparatuses for the key distinctions in subtype.

Requirements for integrity are based on the knowledge that there are very few municipalities in Nevada, and very few surviving firehouses of historic age within those municipalities. As a result, attempts have been made to structure the registration and integrity requirements to allow some flexibility for continued use as a fire station or adaptive reuse for other purposes, while still requiring eligible resources to clearly reflect the character of their historic firefighting period.

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