The following is a summary of fixed resources in the district by location:

Summary	Contributing				Noncontributing	
Location	**Buildings**	**Structures**	**Sites**	**Objects**	**Buildings**	**Structures**
1. Antonito, Colorado	1	1	0	0	6	1
2. Hangman's Trestle, Colorado	0	1	0	0	0	0
3. Lava, New Mexico	0	2	0	0	0	0
4. Big Horn Section House, CO	0	0	1	0	0	0
5. Big Horn, New Mexico	1	0	0	0	0	0
6. Sublette, New Mexico	3	1	1	0	0	0
7. Toltec, New Mexico	1	0	0	0	0	0
8. Tunnel No. 1, New Mexico	1	2	0	0	0	0
9. Toltec Section House, CO	0	0	1	0	0	0
10. Phantom Curve, Colorado	0	0	1	0	0	0
11. Tunnel No. 2, New Mexico	1	1	0	1	0	0
12. Osier, Colorado	2	3	2	0	1	0
13. Cascade Creek, Colorado	0	1	0	0	0	0
14. Los Pinos, Colorado	1	2	1	0	0	0
15. Apache Canyon, Colorado	1	0	0	0	0	0
16. Cumbres, Colorado	4	3	4	0	1	1
17. Coxo, Colorado	1	0	0	0	0	0
18. Cresco, Colorado	1	1	1	0	0	0
19. Lobato, New Mexico	0	2	0	0	1	0
20. Chama, New Mexico	10	8	2	0	2	0
Total	**28**	**28**	**14**	**1**	**11**	**2**

E. MOVABLE EQUIPMENT

Movable equipment includes the locomotives and rolling stock (boxcars, gondolas and other rail cars) that compose the trains that were used to move material, goods and passengers across the line. Rolling stock includes revenue equipment—those cars carrying paying goods; and non-revenue equipment—the cabooses and maintenance equipment. The vast majority of the equipment used is "native to the line, "that is, not used on another railroad.

1. Locomotives

Locomotives	Contributing	Noncontributing
a. K-27	1	
b. K-36	5	
c. K-37	4	
d. Diesel 19		1
e. Mechanical Diesel		1
Total	**10**	**2**

a. K-27 class

Constructed in Philadelphia by Baldwin Locomotive Works in 1903, locomotive 463 (serial number 21788) is both the oldest and smallest locomotive in the district as of this writing. This class of locomotive originally consisted of 15 locomotives, two of which remain today– No. 463 and No. 464 (locomotive No. 464 is preserved in Michigan). These locomotives measure 61-feet long over the face of the couplers and weigh 223,550 pounds in operating condition. K-27 locomotives were unloaded at Salida and initially used in Marshall Pass service. Over time, the locomotives roamed the entire narrow gauge system, with No. 463 being used on Marshall Pass, Cumbres Pass, the Silverton Branch, the Farmington Branch and even the Rio Grande Southern (Williams and O'Berry). Locomotive No. 463 is individually listed on the National Register and is a contributing resource. (See photo 74.)

b. K-36 class

Constructed by the Baldwin Locomotive Works in 1925, the K-36 class of 10 locomotives represents the pinnacle of steam power on the D&RG narrow gauge. These nicely-proportioned and well-designed locomotives were, and are the favorites of train crews and highly regarded for their performance. These locomotives measure 68-feet long over the face of the couplers and weigh 286,600 pounds in operating condition. Nine of the ten locomotives still exist today and five survive in the district: No. 483 (stored unserviceable, serial number 58584), No. 484 (SN 58585), No. 487 (SN 58588), No. 488 (SN 58589) and No. 489 (SN 58590). These locomotives were initially assigned to Marshall Pass and Monarch trains based in Salida, and later migrated to Cumbres Pass service once the K-37 locomotives were constructed (Williams and Grandt Vol. XI). All K-36 locomotives are contributing resources. (See photos 72 and 73.)

c. K-37 class

The ten K-37 class locomotives demonstrate the frugal response of the D&RG to a narrow gauge locomotive shortage of the late 1920s. The onset of the Great Depression somewhat reduced traffic levels and a growing fleet of smaller, older and increasingly worn-out locomotives resulted in pairing recycled standard gauge boilers dating from 1903 with new K-36 running gear ordered from Baldwin Locomotive Works in 1928. The components were assembled at the D&RG's Burnham Shops in Denver and were initially based at Salida for use in powering Marshall Pass and Monarch trains. When those lines were abandoned in the 1950s, the locomotives moved to Cumbres Pass service. These locomotives measure 65-feet long over the face of the couplers and weigh 307,250 pounds in operating condition. Of the ten original locomotives, nine exist today and four survive in the district: No. 492 (stored unserviceable, ex D&RG 1021, serial number 20749), No. 494 (on display, ex D&RG 1020, SN 20748), No. 495 (on display, ex D&RG 1004, SN 20522), and No. 497 (operable, ex D&RG 1003, SN 20521) (Williams and Grandt Vol. XI). All K-37 locomotives are contributing resources.

d. Diesels

The states own two non-steam locomotives. General Electric built Locomotive No. 19 in 1943 for the Oahu Railway & Land Company in Hawaii. No. 19 has a B+B wheel arrangement, weighs 47 tons, and has a tractive effort of 22,000 pounds. A previous operator purchased the locomotive from the OR&L in 1972. No. 19 is a noncontributing resource.

In 2005, the Friends purchased a mechanical diesel for shunting cars and locomotives during winter months. It is of unknown manufacture and is a noncontributing resource.

2. **Revenue-Freight** (listed in equipment roster number sequence)

Revenue-Freight	**Contributing**	**Noncontributing**
a. Refrigerators	5	
b. Drop-bottom Gondolas	17	
c. Flatcars	22	
d. High-side Gondolas	20	
e. Boxcars	40	
f. Stock Cars	11	
g. Tank Cars	8	
h. Pipe Gondolas	9	
Total	**132**	**0**

a. Refrigerators

Refrigerator car No. 55 is the sole example in the district of 50 refrigerator cars constructed in 1908 (Sloan). These cars—known as short refrigerator cars—are of 40,000-pound capacity and 30-feet long. They are constructed of wood frames held in tension by steel truss rods spanning two queen posts on needle beams. The car sides conceal wood trusses spanning between the body bolsters. Concealed space between the interior and exterior sheathing is filled with sawdust for insulation. Ice bunkers are located on the ends of the cars. Ice was loaded via hatches on the roof and rested on grilles over metal pans that collected melted water. Cars in this series were rebuilt in 1926 in Alamosa, Colorado. These refrigerator cars were used over the entire narrow gauge system, including the Rio Grande Southern and the three railroads serving Silverton. Refrigerator cars transported perishable items including milk, meats, fruits and vegetables to towns along the line, along with other locally-grown products being taken to market. When the Friends acquired this car for the railroad, it had no trucks and was in poor condition. The Friends restored the structure, trucks and braking system. It is in good condition and is a contributing resource. (See photo 56.)

The D&RG ordered twenty 40-foot long refrigerator cars in 1924 and 1926 (Sloan). These cars, of 50,000-pound capacity, were constructed specifically to better correspond with the

size and volume of contemporary standard gauge cars. They are constructed much like the shorter cars and were also used over the entire narrow gauge system. Four cars survive in the district, numbers 157, 163, 166 and 169. Cars No. 157 and No. 163 are in good condition; car No. 166 is in fair condition; and car No. 169 is in poor condition. These cars are contributing resources. (See photo 52.)

b. Drop-bottom Gondolas

The 700- and 800-series gondolas were constructed in 1904 by the National Car Company (later American Car and Foundry) in St. Louis, Missouri (Sloan). These unusual cars—31-feet long and of 50,000-pound capacity—were designed to transport coal, coke and ballast. They are unique among gondolas on the D&RG in having composite construction, which features wood beams that span longitudinally between the trucks and cross members of steel. The cars' floors have doors—six to a side—on either side of the center of the car. The doors are hinged along the center beam and are held in place by a chain-and-ratchet arrangement and take advantage of gravity to dump the load. The initial ratchet arrangement was not successful, and the cars were reconstructed at least once to their current configuration. In later years, the cars transported coal, cinders and ballast across the system. Seventeen cars survive in the district: Numbers 700, 724, 727, 728, 731, 756, 769, 774, 783, 787, 790, 791, 798, 801, 811, 848 and 859. Cars Numbers 727, 791, 811 and 859 are in good condition; cars 728,731,756,769, 774,783,787, 798 and 801 are in fair condition; cars 700, 724, 790 and 848 are in poor condition. All these cars are contributing resources. (See photo 48.)

c. Flatcars

Flatcars are among the most abused of rolling stock due to the lack of a superstructure above the frame to help distribute the loads induced on the car during transit. Consequently, these cars have the shortest lifespan of most cars on the narrow gauge. Also, the surviving cars are a varied bunch, many of which were modified to this car type.

With the discovery of abundant gas fields in Farmington, New Mexico, during the 1950s, the D&RG transported pipe between Alamosa and Farmington. Pipe lengths were frequently longer than the existing gondolas, so the car ends were removed and idler cars were used between the modified gondolas. The railroad used Idler flatcars between Farmington and Alamosa and they rarely if ever carried anything themselves—they just served as spacers between open-ended gondolas carrying long lengths of pipe. These idler cars were modified first from high-side gondolas and later stock cars and some boxcars (Sloan). They were often reinforced with lengths of rail above or below the side sills to compensate for the loss of the superstructure. All of these cars had wood frames with steel truss rods. In spite of the reinforcement, these cars often split in two under normal service. Ten of these cars survive in the district: Nos. 1001, 1033, 1515, and 1567 (former gondolas); 6708, 6746, and 6755 (former stock or boxcars); and 9533, 9557 and 9569 (former gondolas). Cars No. 6708 and No. 6755 are in good condition; No. 6714 and No. 9557 are in fair condition; and Nos. 1001,

1033, 1515, 1567, 9533 and 9569 are in poor condition. All these cars are contributing resources. (See photo 48.)

In 1918, the D&RG ordered 20 flatcars of composite construction. These cars have a composite frame of steel and wood with truss rods spanning two queen posts on needle beams. The cars have wood decks. These flat cars were rebuilt in 1937 with standard gauge components (Sloan). These cars were used across the entire narrow gauge system and transported machinery and freight that would not fit inside a boxcar. Three cars survive in the district: Nos. 6200, 6205, and 6214. Cars 6200 and 6214 are in good condition and the third car is in poor condition. All these cars are contributing resources.

The D&RG constructed the last new wood flatcars in 1926. These cars have a composite frame of steel and wood with truss rods spanning two queen posts on needle beams. The cars have wood decks and were reinforced using surplus rail in 1937 (Sloan). One car, No. 6314, survives in the district. This car is in good condition and is a contributing resource. (See photo 57.)

Prior to World War II, the lack of flat cars impacted D&RG operations, and the railroad's manager commissioned new all-steel flatcars in 1939 in the 6500-series. These 80,000-pound capacity cars were modified from standard gauge gondolas constructed in 1907 (Sloan). These cars had wood decks and were used to transport machinery and large freight goods including automobiles. They were used across the entire narrow gauge system. Fourteen cars came to the C&TS upon its formation: however all have been used as frames for new passenger cars and are described elsewhere. Two other cars from the series were purchased from the Durango and Silverton Narrow Gauge Railroad in 2003–Nos. 6509 and 6544. These last two cars are in fair condition and are contributing resources.

The oil and gas pipe shipped to Farmington beginning in the 1950s required more flatcars than were on hand. The D&RG modified 62000-series standard gauge steel boxcars dating from 1909 to 6600-series narrow gauge flat cars in 1955. These were all-steel cars 37'-4" long (Sloan). Twenty-four cars were modified in this manner and three survive in the district: Nos. 6601, 6613 and 6618. No. 6618 is in poor condition. These cars are contributing resources.

Similarly, 370000-series standard gauge stock cars were modified into 79 flatcars also in the 6600-series beginning in 1956. The newer cars are longer, measuring 37'-9" (Sloan). Three of these cars survive in the district: Nos. 6627, 6636 and 6649. All three cars are in good condition and are contributing resources. (See photo 55.)

d. <u>High-side Gondolas</u>

The American Car and Foundry in St. Louis fabricated the 1000-series high-side gondolas in 1902 (Sloan). These cars—30-feet long and of 50,000-pound capacity—are constructed of

wood frames held in tension by steel truss rods spanning two queen posts on needle beams. Some cars were rebuilt during the 1920s with steel draft gear, and the capacity was increased by adding another board along the sides and ends. These gondolas were used over the entire narrow gauge system, including the Rio Grande Southern and railroads serving Silverton. Gondolas transported a variety of bulk commodities including coal, low-grade ore, limestone and lumber. In Salida, the cars were emptied into standard gauge cars in a lift that rotated the car about its axis. This service resulted in damage to the car including broken top boards and stakes. Repairs were made with short stake extensions and new top boards. Twenty cars survive in the district: Nos. 1000, 1039, 1059, 1082, 1149, 1159, 1232, 1268, 1343, 1357, 1456, 1534, 1610, 1667, 1733, 1746, 9214, 9249 and 9378, plus one additional car. The high-side gondolas are in poor condition, except for Nos. 1357, 1667, 9249 and 9378, which are in fair condition. All these cars are contributing resources.

e. Boxcars

The American Car and Foundry in St. Louis built the 3000-series boxcars in 1904 (Sloan). These cars—each 30-feet long and of 50,000-pound capacity—are constructed of wood frames held in tension by steel truss rods spanning two queen posts on needle beams. The car sides conceal wood trusses spanning between the body bolsters. These boxcars were used over the entire narrow gauge system, including the Rio Grande Southern and railroads serving Silverton. The D&RG rebuilt all of the boxcars beginning in 1926 in Alamosa due to a loophole in the tax law favoring used equipment (Sloan). This was well-documented in contemporary publications and consisted of stripping each car of its metal parts and replacing all wood parts. As re-built, the cars served through abandonment. Rebuilt cars featured several varieties of wood and metal roofing , at least two variants of side doors, and may- or may not have included end doors. Boxcars were typically used for dry commodities including, high-grade ore, bullion, beans, sand, “drilling mud” and less-than-car-load-lot (LCL) freight. Eighteen cars survive in the district: Nos. 3014, 3016, 3073, 3090, 3125, 3231, 3254, 3331, 3422, 3484, 3524, 3570, 3585, 3592 and 3669, plus three additional cars. All these cars are in good condition and are contributing resources.

Another 22 cars were modified for passenger service in 1971-73 by removing the siding from the top half of the car, providing operable windows made of Plexiglas and installing seats and end doors. Nine of them have been returned to the original configuration by the Friends. The 13 remaining in passenger car configuration are Nos. 205/3475 (new number/ original number), 206/3278, 207/3414, 208/3064, 210/3156, 211/3469, 212/3316, 213/3476, 214/3161, 248/3071, 249/3244, 250/3527 and 251/3405. These cars are in poor condition but retain sufficient integrity to convey their historic design and use to be contributing resources.

The nine boxcars modified for passenger service in 1971-73 which have been returned to the original configuration are Nos. 3537, 3339, 3533, 3591, 3605, 3643, 3686, 3719 and 3742. These cars are all in good condition and are contributing resources. (See photo 54.)

f. Stock Cars

The American Car and Foundry built the 5000-series stock cars in 1904 (Sloan). These cars—each 30-feet long and of 50,000-pound capacity—are constructed of wood frames held in tension by steel truss rods spanning two queen posts on needle beams. The car sides conceal wood trusses spanning between the body bolsters. Stock cars are essentially boxcars with exposed structural framing. These stock cars were used over the entire narrow gauge system, including the Rio Grande Southern. Beginning in 1926 these cars were re-built similar to the boxcars. Cars with no intermediate deck were used for cattle and horses, cars with an intermediate floor were used for sheep and pigs, and are known as "double-deck" cars. Five cattle cars, Nos. 5510, 5691, 5706, 5747 and one additional car, and six sheep cars, Nos. 5549, 5553, 5600, 5633, 5674 and 5841, survive in the district. All cars are in good condition except for 5747 which is in fair condition and 5510 which is in poor condition. All these cars are contributing resources. (See photo 53.)

g. Tank Cars

Narrow gauge tank cars were owned by several leasing companies, not the railroads. Those surviving examples of tank cars in the district were all owned by the Union Tank Car Company (known by the report mark abbreviation UTLX). These are all examples of 29-foot long/ 60,000-pound capacity tank cars which were rebuilt from older standard gauge cars constructed in the early twentieth century. Two types of tank cars survive–narrow framed and frameless–and all were used to haul crude oil.

Narrow framed tank cars were modified for narrow gauge service between 1924 and 1930 (Sloan). These are of all-steel construction and consist of a tank vessel on a frame spanning between bolsters. It is unknown how many of these cars were in service over the years. They were used to transport petroleum products initially from Farmington, New Mexico, to Montrose, Colorado, via the Rio Grande Southern Railroad, and later via Cumbres, Poncha and Marshall passes between the same points. When oil fields were developed in the vicinity of Chama in the late 1930s, these cars were used between Chama and Alamosa. After this service ceased in the mid-1960s, many tank cars were sold and moved to the White Pass & Yukon Railroad in Alaska. The Friends located six cars there and, with financial support from Union Tank Car Company, returned them to the C&TS in 1992. These include car Nos. 12739, 12757, 12918, 12962, 13084 and 13168. All have been restored by the Friends, are in good condition, and are contributing resources. (See photo 51.)

Frameless cars, also known as a Van Dyke tank car, use the tube of the tank to span between the truck bolsters. The lower portion of the ends of the cars are reinforced for couplers (Sloan). Twenty-five cars were modified for service on the D&RG. These were notable, as many were painted with a distinctive "GRAMPS" logo. Gramps was the nickname for Lafayette Hughes, a Chama resident who owned an oil field northwest of Chama. Multiple sources indicate that Hughes had "GRAMPS" painted on the cars so his

grandchildren would know which car carried his oil. The oil was piped to Chama for loading on the tank cars for shipment to the refinery in Alamosa. This traffic sustained the railroad through the post-war years until abandonment. Two cars were donated to the Friends from a La Jara businessman. Their numbers are not known and they lack hardware and trucks. They are in poor condition. These cars are considered contributing resources due to their extreme rarity and close association to the district.

h. Pipe Gondolas

When abundant gas fields were discovered in Farmington in the 1950s and pipe needed to be transported between Alamosa and Farmington, the D&RG modified high-side gondolas for this service (Sloan). Pipe lengths were frequently longer than the gondolas, so the ends were removed and idler cars were used between the modified gondolas. As with the idler cars, these cars frequently succumbed to the rigors of this service. Pipe gondolas carried various sizes and lengths of drilling and oil field pipe. Seven of these cars survive in the district: Nos. 1145, 1246, 1557, 1648, 1839, 9213, and 9558 (modified 1000- and 9000-series gondolas). Cars No. 1557 and No. 1648 are in good condition; No. 1154 and No. 1246 are in fair condition; and cars No. 1839, 9213 and 9558 are in poor condition. All these cars are contributing resources. (See photos 49 and 50.)

When more sturdy cars were needed for pipe service, the D&RG modified older steel frame standard gauge cars for this service. In 1953, the railroad modified 20 outside Z-braced boxcars originally built in 1916 at the Burnham Shops in Denver. Modifications consisted of cutting the sides down to approximately 3'-3" above the floor and mounting the cars on narrow gauge trucks. Some of these cars were subsequently modified in 1963 for Silverton passenger service (Sloan). Two cars survive in the district, No. 9613 and No. 9615. These cars are in good condition and are contributing resources.

3. **Revenue-Passenger**

Revenue-Passenger	Contributing	Noncontributing
a. 1982 Conversion Cars		7
b. 1987 Conversion Cars		7
c. 1993 & 97 Conversion Cars		5
Total	**0**	**19**

When the Denver & Rio Grande sold its Antonito-Chama line to the states of Colorado and New Mexico in 1970, all available passenger cars were being used in service on the Silverton line. In fact, many passenger cars assigned to non-revenue service received newly-fabricated trucks so their passenger trucks could be used under new passenger cars constructed at D&RG's Burnham Shops in Denver during the 1960s. Surviving passenger equipment includes ex-mail and baggage cars Nos. 053, X54 and X65, former chair car 0452, former tourist sleeper No. 0252 and ex-coach No. 292. These are all described under non-revenue equipment.

Lacking passenger cars, the C&TSR initially converted boxcars for passenger use by removing siding from the top half of the cars, then installing plastic window material and seating. The result looked more like a freight train from a distance—popular with railfans—but they had limited head clearance inside. The 22 so converted cars are listed under 'boxcars' above.

a. 1982 Conversion Cars

In 1982-3, seven 6500-series steel flatcars were modified to passenger cars by constructing car bodies with paired windows, roofs, and end platforms similar in appearance to the earliest D&RG historic coaches. These are 6521/ 500/ *Alamosa* (old number/ new number/ name); 6510/ 501/ *Antonito*; 6542/ 502/ *Monte Vista*; 6516/ 503/ *Del Norte*; 6540/ 504/ *San Luis*; 6537/ 505/ *La Jara* and 6533/ 506/ *Conejos* (Danneman). These cars are in good condition but are noncontributing resources due to their conversion after the period of significance.

b. 1987 Conversion Cars

In 1987, construction of seven more cars commenced using center sills from 6500-series steel flatcars. The design was refined, and the newer cars feature larger windows and a clerestory roof similar to the later period historic passenger cars used by the D&RG. These are 6500/ 510/ *Tres Piedra* (old number/ new number/ name); 6501/ 511/ *Santa Fe*; 6512/ 512/ *Chama*; 6518/ 513/ *Taos*; 6538/ 514/ *Ojo Caliente*; 6541/ 515/ *Espanola* and 6543/ 516/ *Dulce* (Danneman). These cars are in good condition but are noncontributing resources due to their conversion after the period of significance.

c. 1993 and 1997 Conversion Cars

In 1993 and 1997, five more passenger cars were constructed using standard-gauge flat car with steel underframes. These cars are AX4629/ 517/ *Big Horn* (old number/ new number/ name); AX4609/ 520/ *Cumbres*; unknown number/ 521/ *Osier*; AX4606/ 522/ *Sublette* and unknown number/ 523/ *Los Pinos* (Danneman). These cars are in good condition but are noncontributing resources due to their conversion after the period of significance. (See photo 46.)
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4. **Non-revenue: Cabooses**

Non-revenue: Cabooses	**Contributing**	**Noncontributing**
a. Caboose—Sshort	1	
b. Caboose—Long	1	
c. Caboose—Conversion		2
Total	**2**	**2**

a. Caboose—Short

Caboose No. 0579 is an example of eleven 17'-0" long (short) cabooses built by the D&RG in 1886 (Sloan). These cabooses are constructed similar to a boxcar with a wood frame held in tension by steel truss rods spanning two queen posts on needle beams. The car sides conceal wood trusses spanning between the body bolsters. These cars ride on two trucks, similar to those used on freight cars but with leaf springs, instead of coil springs, for a smoother ride. The short cabooses had less space than their longer counterparts, with bunks for three, along with a desk for the conductor, a stove, a sink and a small folding table for dining, paperwork and cards. There were also storage lockers for train crew supplies. A cupola extends above the roof at the center of the car with seats for four but room only for two crew members whose job was to observe the train for "hot boxes" (when axle journal bearings were not wearing properly and running "hot" they set aflame the oil-soaked cotton waste lubricating the wheel bearings). Although all short cabooses have similar construction, each vehicle is an individual. The cars vary according to their assignments and the individuals assigned to them. After World War I with the construction of more- and larger cabooses, short cabooses were used primarily for day-long runs on the branch lines. Caboose No. 0579 appears to have been assigned to Montrose for use on the Ouray branch during the 1930s and '40s, and later was moved to Durango (Grandt). This caboose was used for the movie, "Denver & Rio Grande" filmed north of Durango in 1951. It was sold shortly thereafter and subsequently moved to Antonito. The Friends restored caboose No. 0579 to operating condition. This caboose is in good condition and is a contributing resource. (See photo 6.)

b. Caboose—Long

Caboose No. 0503 is an example of a D&RG long caboose. Several varieties of these cabooses exist, but all are 25'-26' in length with a cupola offset to the end of the car. These cabooses are constructed similar to a boxcar with a wood frame held in tension by steel truss rods, each spanning two queen posts on needle beams. The car sides conceal wood trusses spanning between the body bolsters. These cars ride on two trucks, similar to those used on freight cars but with leaf springs for a smoother ride. The long cabooses have more space than their shorter counterparts, with bunks for five, along with a desk for the conductor, a stove, a sink, and a small folding table for dining, paperwork, and cards. There were also storage lockers for train crew supplies. Caboose No. 0503 was constructed by the D&RG in 1923 from parts of a previous, shorter caboose of the same number that was built by the D&RG in 1886. Longer cabooses appear to have been assigned to Salida and Alamosa for service on longer-distance trains (Sloan). No. 0503 was assigned to Alamosa after World War II and was sold to the C&TS in 1970 (Grandt). This caboose is in fair condition and is a contributing resource.

c. Caboose—Conversion

Two cabooses in the district are reconstructions of long-caboose design. Caboose No. 0306 was built from boxcar No. 3060 in 1982. Caboose No. 05635 was similarly constructed from stock car No. 5635 in 1976 (Osterwald) and further modified by the Friends in 2004-06. These cabooses are constructed similar to a boxcar with a wood frame held in tension by steel truss rods spanning two queen posts on needle beams. The car sides conceal wood trusses spanning between the body bolsters. There is a precedent for this modification, as the D&RG converted 2-3 boxcars to cabooses, several of which survive. Both C&TS cars are used in excursion service and are noncontributing resources. (See photos 58 and 59.)

5. **Non-revenue: Maintenance-of-Way (MOW) Equipment**

The Cumbres & Toltec Scenic Railroad has an unparalleled collection of track-mounted maintenance-of-way equipment typical of any early-twentieth-century railroad. MOW equipment is used to maintain the track and right-of-way year-round and the machinery is also used to clear the line of snow in the winter. The D&RG maintained an extensive fleet of narrow gauge MOW equipment until abandonment in 1968, and much of this was sold to the states of Colorado and New Mexico in 1970. This equipment was numbered in two sequences. Cars built for this service were given letter numbers with the letter prefix 'O.' For example rotary snow plow OM, is pronounced "ō-em." Cars modified from box cars or passenger cars for MOW service continued with their original number and the numeral prefix '0' or zero. The boom car for pile driver OB is 06008, for example. Letter prefix cars are described first, along with auxiliary equipment, with number prefix cars following.

Non-revenue: MOW	**Contributing**	**Noncontributing**
a. Pile Driver Car and Boom	2	
b. Flangers	3	
c. Rotary Snowplows and Tenders	6	
d. Derrick Car and Support Train	8	
e. Ditcher-Spreader	1	
f. Modified Freight Cars	6	
g. Modified Passenger Cars	5	
h. Hoppers		8
i. Motor Cars	17	
Total	**48**	**8**

a. Pile Driver Car

The D&RG constructed Pile Driver OB in 1891 by the D&RG with machinery from Kendall and Roberts Co. (Day). This car consists of a long frame with a machinery enclosure and folding boom, all of-which rotates 180° on a large gear which is mounted on a 30-foot long flatcar. Although D&RG records list the flatcar frame being of composite construction, it appears similar to other flatcars constructed of wood frames held in tension by steel truss rods spanning two queen posts on needle beams. The hoist machinery uses steam from the locomotive boiler to operate the pile. The operating weight of OB is listed as 68,400 pounds. The pile driver was in a wreck in 1920 and was rebuilt soon thereafter. Due to the length of the folded boom, OB required an idler (boom) flat in order to be moved across the railroad. Flatcar No. 06008, dating from 1887 was assigned to OB in 1923. OB and 06008 were assigned to Alamosa. OB is currently undergoing restoration and 06008 has been restored and is in good condition. Both cars are contributing resources.

b. Flanger

Flangers are shorter cars, 19-feet long with snowplows mounted beneath their steel frames that spread the snow away from the track. These cars also had two “knives” that scraped the inside face of the rail, or flange, hence the name. The blades and knives are raised and lowered via air pressure from the locomotive–a target atop the flanger similar to that on a switch stand indicates the blade location, up or down. Flangers are operated immediately behind a locomotive, either in a special train with the flanger alone, as part of a rotary snow plow train, or in a normal train, directly behind the locomotive. The unique design was patented by the D&RG in 1885 (Day). Flangers initially had a wood frame similar to other freight cars, with truss rods spanning one needle beam; subsequently they were rebuilt with steel frames (Sloan). All available voids in the deck frame are filled with scrap metal to increase the weight of the car. Operating weights of C&TS flangers vary from 32,200 pounds to 33,900 pounds. Each flanger is unique, and the blade shapes on each flanger differ from all of the others. Of the eleven flangers listed on rosters, eight survive and three exist in the district: OJ, OK and OL. The D&RG built these three flangers in 1888 at its Burnham Shops in Denver. Each was rebuilt circa 1913 in Salida, and again in 1937 or 1940 in Alamosa to the current configuration. Flangers OJ and OK were assigned to Gunnison for use on the Black Canon line, Baldwin and Crested Butte branches and transferred to Alamosa in 1956. Flanger OL was assigned to Salida for use on Marshall Pass, Poncha Pass and the Monarch branch, and was transferred to Alamosa in 1956 (Day). These cars are all in good condition and are contributing resources. (See photo 61.)

c. Rotary Snow Plows

After operating the San Juan and Marshall Pass lines for almost a decade, the D&RG determined that snow plows mounted on locomotives were not sufficient for clearing winter snows on these lines. Fortunately, a machine had been developed to aid in clearing snow–

the rotary snow plow. This machine, essentially a snow blower, was first developed by a fellow named Jull from Ontario, Canada, who later sold the idea to the Leslie brothers. The Leslies established the Leslie Brothers Manufacturing Co. to market the plow and licensed the Cooke Locomotive & Machine Works of Patterson, New Jersey (later the American Locomotive Company or ALCO) to actually construct the machines (Hereford).

The D&RG ordered Rotary No. 1 (Leslie construction number 24) in 1889. The machine was delivered to Denver in February and stationed in Alamosa for use on Cumbres soon thereafter (Day). A companion plow, Rotary No. 2 (Leslie 25) was ordered at the same time and sent to Salida for use on the Marshall Pass line (Day). Rotary snowplows move snow via a fan-like blade powered by steam. The machine is constructed on a steel underframe with a wood body surrounding the boiler. Rotary snow plows are unable to move by themselves, so photos of snow trains always show multiple locomotives pushing the plow through the snow. Rotary 1 was renumbered OM in 1907 (Rotary No. 2 became ON and was requisitioned by the Army in World War II for use in Alaska; it was scrapped in 1968) (Day). OM was rebuilt at least twice, in 1909 and 1916. After delivery of Rotary OY in 1923, OM was stationed in Chama, and it was last used by the D&RG in 1957. Although it was used west of Alamosa to Silverton, and reportedly on some standard gauge lines (on standard gauge trucks), OM rarely strayed far from Cumbres Pass. Hereford provides a detailed account of OM's use since 1970. Rotaries were delivered without tenders for coal and water, and old locomotive tenders were drafted for this use. In 1963, the original tender was replaced with one which formerly belonged to Uintah Railway locomotive 30. OM was also assigned a modified UTLX narrow frame tank car (the dome was removed) as Water Car No. 0471 (Day). OM is on display in Chama pending body and boiler repairs. Rotary OM is in fair condition; the two tenders are in good condition, and all are contributing resources. (See photo 63.)

In 1923 the D&RG ordered its fourth and final narrow gauge rotary from American Locomotive Company's (ALCO) Cooke works. This machine carries construction number 65053 (Day) and was designated OY by the D&RG. OY was quickly assigned to Alamosa to supplement OM in Cumbres Pass service. Shipped from the manufacturer without a tender, the D&RG modified a standard gauge tender for this use. In 1958, a UTLX narrow frame tank car was modified for use as an auxiliary water car and assigned the number 0472 (Day). OY was overhauled in 1998 by the C&TS and is operable. Rotary OY and the two tenders are in good condition and are contributing resources. (See photo 64.)

d. Derrick Car and Support Train

Derrick OP was constructed by the D&RG in 1911 using the frame of gondola No. 9562. Originally, the boom was of wood construction, and was revised to a steel boom in 1920. The boom of OP is constructed such that it can move up and down, but not side to side. An enclosure constructed similar to a small boxcar covers the two-drum hoist that raises the boom and the hook line. The hoist is powered by steam from an adjacent locomotive (Day

and Sloan). As with the pile driver, an idler car was necessary to transport OP across the railroad. Flatcar No. 06063, built in 1887 was assigned as a boom car in 1923. In addition, several support cars were also assigned to OP, and many of these survive on the C&TS today. These include: No. 0452, a coach-kitchen-diner-bunk car converted from a passenger car built in 1879 by Billmeyer & Small as a chair car (Danneman); No. 06051, a rail and tie car converted from an 1887 flatcar; 06092, a wheel and tie car modified from an 1887 flat car; No. 04426, a cable car modified from an 1895 boxcar; No. 04444, a block car converted from an 1895 boxcar; and No. 04549, a tool car modified from an 1895 boxcar. OP and its support train were based in Alamosa and were used over the entire narrow gauge system. Nos. 06063, 06051, 06092, 04426, 04444, and 04549 are in good condition; OP is in fair condition; and No. 0452 is in poor condition. Derrick OP, the boom car and six associated work cars are all contributing resources. (See photos 60, 62, 66, 67, 69 and 71.)

e. Ditcher-Spreader

Ditcher-Spreader OU was ordered by the D&RG in 1924 from the C. F. Jordan Co. of East Chicago, Indiana. This is the only narrow gauge version of this type of car constructed by Jordan. OU is constructed entirely of steel (unique among MOW equipment) and has a series of blades suspended along the side of the car and from arms that can be rotated away from the car and down along the road bed using compressed air supplied by the locomotive. In operation, the spreader is operated behind a locomotive with the blades extended to move snow, ballast, or earth. OU was used along the C&TS to clear shrubs from the right-of-way in 2001 with great success. Originally shipped without an operator's cabin, and with a horizontal air tank, a cabin was added in 1940 and the tank was shifted to a vertical position. The cabin was subsequently modified in 1953 (Day; Sloan). OU was based in Alamosa and used in ballast service across the entire narrow gauge system, but in snow service exclusively on Cumbres Pass. OU is in good condition and is a contributing resource. (See photo 70.)

f. Modified Freight Cars

With wear and tear, older cars were often shifted from revenue to non-revenue service as maintenance-of-way cars. Cars received varying degrees of modification depending upon the new service assignment. A number of these cars survive in the district. Boxcars dating to 1885 include No. 04258, a section men bunk car assigned to OY, and No. 04407, a sleeper. Both these cars are modified with added windows and doors. Boxcars dating to 1896 include No. 04904, a water service car (used by crews who maintained the water tanks and water sources along the line) and 04982, an office car. This last car was also used as a caboose on the Santa Fe branch (Sloan). W462 is a water car constructed from the tender of locomotive 462, now scrapped. Coal outfit car No. 09410 appears to be a former locomotive tender tank mounted on a high-side gondola frame. While less glamorous, each of the above pieces fulfilled needed functions on the railroad and represent the resourcefulness of the company to adapt the various car types to new uses. Cars 04258,

04407, 04904 and 04982 are in good condition; W462 and No. 09410 are in poor condition. All of these cars are contributing resources.

g. Modified Passenger Cars

Car No. 053 is a cook car that was assigned to Rotary OY. This car is a former short (38'-6" long) 1884 mail car that was formerly used on the Santa Fe branch. Enginemen outfit cars X54 and X65 were former long (46'-0") mail cars used in "San Juan Express" service between Alamosa and Durango; X54 was later assigned to Rotary OM and X65 was then assigned to Rotary OY (according to Sloan, the X-prefix indicated the car was to be attached to the end of the train). Two passenger cars survive in maintenance service: No. 0252 (ex-Pullman) and No. 292. Car No. 0252 was constructed by the Pullman Company as a 12-section tourist sleeping car in 1889 and was one of a series of four cars numbered 467-470. Three of these cars were sold to the Colorado & Northwestern Railroad in 1909 and subsequently renumbered. Western Union eventually purchased one of the cars, converted it to a coach-outfit car and used it along the Rio Grande to service its communications lines. After Western Union abandoned the car in 1933, the D&RG assumed ownership and renumbered the car No. 0252. 0252 was retired in 1953; it was acquired by the C&TS in 1994 (Danneman). Car No. 292 was built by Jackson & Sharp in 1881 as a coach and used in passenger service until 1928 when it was transferred to MOW service (Danneman). Cars No. 053 and No. 292 are in fair condition; X54, X65 and No. 0252 are in poor condition. All of these cars are contributing resources.

h. Hoppers

To aide in ballast spreading activities, the modern tourist line C&TS purchased a number of steel hopper cars built for other railroads. Prior to 1999, three former standard-gauge Butte Anaconda & Pacific hoppers Nos. 1307, 1309 and 1311 were purchased and placed on narrow gauge trucks. In 2000, five steel narrow gauge hoppers were purchased from the East Broad Top in Pennsylvania. These were formerly EBT numbers 978, 1044 and 1054 (the numbers of the last two have not been identified) and are numbered on the C&TS as EBT-1-5. All eight cars are of steel construction with doors at the bottom of the car to facilitate unloading. Cars 1307, 1309 and 1311 are in good condition; EBT 1-5 are in poor condition: all are noncontributing resources. (See photo 65.)

i. Motor Car

Motor Cars, colloquially known as speeders or "pop cars" for the "popping" sound of their reciprocal engines, were used by track maintenance or section crews to monitor the right-of-way and travel to remote work locations. These are the motorized equivalent of hand-cars. The C&TS has a particularly fine collection of various models of narrow gauge motor cars, many produced by the Fairmont Company. Nos. 04 and 013 are examples of model ST2; Nos. 101, 102 and 103 are examples of model A6; Nos. 104 and 107 are examples of model

A3; Nos. 105 and 108 are model MT 14; and No. 106 is a homemade car. In addition, five non-powered trailers provide the ability to tow additional personnel, tools and materials. Trailers are constructed of cast- and pressed steel frames and wheels with wood decks. These are Nos. 126-130 and 208 and 209. All motor cars and trailers are in good condition and are contributing resources.

6. **Standard Gauge**

Standard Gauge	**Contributing**	**Noncontributing**
Standard Gauge Idler Car	1	
Standard Gauge Boxcars	0	2
Total	**1**	**2**

a. Idler Car

Palmer originally conceived the Denver & Rio Grande as a narrow gauge railroad for economic reasons–he was influenced by British industrial railroads and noted the smaller equipment weighed less, required less material for track work and roadbed, and could negotiate sharper curves and steeper grades. In short it cost less to build and operate. The 3'-0" track gauge contrasts with the 4'-8½" gauge adopted as "standard gauge" in the United States in the mid-nineteenth century. All Rio Grande track was narrow gauge until the late 1880s, when their standard gauge lines began to build west into the mountains. At first a third rail was installed (both gauges sharing one common rail), and gradually as the D&RG converted to the wider gauge, the narrow gauge third rail was removed. Three-rail track extended to Antonito, and the trackage between Alamosa and Antonito was operated as dual gauge until narrow gauge service ended. Trains with both standard and narrow gauge cars were operated as one unit using idler cars with multiple couplers on each end to join the cars of different gauges. The C&TS has one steel-framed idler car, No. 010793, constructed by the D&RG. This car is in good condition and is a contributing resource. (See photo 8.)

b. Boxcars

For the purposes of comparison, the Friends renovated two standard gauge boxcars of composite construction donated by the D&RG in the later 1980s. These are Nos. 66306 and 66977, both boxcars with a steel frame, ends and roof, and wood side sheathing. These are displayed by the Friends in Antonito with the idler car to illustrate the difference in size between standard gauge and narrow gauge rolling stock. Both cars are in good condition but are noncontributing resources due to their lack of direct association with the district during the period of significance.

The following is a summary of all the moveable equipment in the district:

Moveable Equipment District Summary		
Structures	**Contributing**	**Noncontributing**
1. Locomotives	11	2
2. Revenue Freight	132	0
3. Revenue Passenger	0	19
4. Non-Revenue	2	2
5. Maintenance of Way	48	8
6. Standard Gauge	1	2
Total	**194**	**33**

District Resource Summary

The original 1972 National Register district listing specifically called out numerous resources along the 64-mile railroad corridor. When these resources were later entered into the National Register Information System database, 13 contributing buildings, 11 contributing structures and 1 noncontributing building were recorded. Recent consultation between the National Register staff in Washington, DC, and the Office of Archaeology and Historic Preservation in Colorado yielded the following table of previously listed resources in the existing historic district:

1972 District Resource Summary			
Location	**Contributing**		**Noncontributing**
Resource	**Buildings**	**Structures**	**Buildings**
Antonito			
Depot (new)			1
Lava			
Telephone shed	1		
Water tank		1	
Big Horn			
Telephone shed	1		
Sublette			
Section houses	2		
Handcar shed	1		
Water tank and standpipe		1	
Toltec			
Telephone shed	1		
Osier			
Section house	1		
Handcar shed	1		

Water tank		1	
Los Pinos			
Water tank		1	
Cumbres			
Section house	1		
Handcar shed	1		
Water tank and standpipe		1	
Snowshed		1	
Coxo			
Telephone shed	1		
Cresco			
Telephone shed	1		
Water tank		1	
Lobato			
Stock loading pens		1	
Chama			
Water tank		1	
Coaling tower		1	
Stock loading pens		1	
Depot	1		
Total	**13**	**11**	**1**

In addition to the above resources, Denver & Rio Grande Western Railroad Engine 463 was individually listed in the National Register in 1975.

The table below summarizes all the contributing and noncontributing resources in the expanded district.

Total District Resource Summary

	Contributing			Noncontributing		
Resource Types	**Original Listing**	**Add. Doc.**	**Total**	**Original Listing**	**Add. Doc.**	**Total**
Buildings						
Depots & Section Houses	5	1	6	1		
Sheds & Telegraphone Booths	8		8		3	4
Other Buildings		14	14			
Subtotal	***13***	***15***	***28***	***1***	***3***	***4***
Structures						
Trackage & Railbed		2	2		1	1
Bridges & Tunnels		8	8			
Water Tanks & Stand Pipes	7	1	8			
Stock Loading Pens	2	1	3			
Misc. Fixed Structures	2	5	7		7	7
Steam Locomotives	1	9	10			
Other Locomotives					2	2
Rolling Stock & Motor Cars		183	183		32	32
Subtotal	***12***	***209***	***221***		***42***	***42***
Sites						
Building & Natural Sites		15	15			
Subtotal		***15***	***15***			
Objects						
Garfield Monument		1	1			
Subtotal		***1***	***1***			
District Total	***25***	***240***	***265***	***1***	***45***	***46***

Architects/ Builders (continued)

Leslie Brothers Manufacturing Company
American Locomotive Company
C.F. Jordan Company
Pullman Palace Car Company
Jackson & Sharp Company
Fairmont Company

NARRATIVE STATEMENT OF SIGNIFICANCE

The 64-mile long Antonito, Colorado, to Chama, New Mexico, portion of the Denver & Rio Grande Railroad San Juan Extension (D&RG-SJE) was listed in the National Register on January 16, 1973, as the *Cumbres and Toltec Scenic Railroad* (C&TS). As with many of the early National Register listings, the exact areas and periods of significance are somewhat unclear. Though the railroad's role in the westward expansion of the nation was briefly mentioned, the property was listed at a *local* level of significance. The additional documentation that follows places the San Juan Extension in a national context and demonstrates that the Antonito to Chama segment is significant at the *national* level under Criterion A in the area of *transportation* and Criterion C in the area of *engineering*. Though *commerce* was not an area of significance specifically marked on the original nomination form, this area was included in the National Register Information System database, apparently in recognition of the railroad's key role as an agent of commercial activity along its transportation corridor.

The period of significance begins in 1880 with the completion of the rail line from Antonito to Chama and ends in 1967, the year in which the Denver & Rio Grande Railroad (D&RG) ceased operations. In July 1970, the D&RG sold the line along with its buildings, fixed structures and significant amounts of operating equipment to the states of Colorado and New Mexico. Though the period of significance extends ten years past the traditional fifty-year ending point for National Register nominations, the district need not meet the Criteria Consideration G requirements for several reasons. First, the ten-year period constitutes only a small portion of the full 127-year period of significance. Second, the 1967 closing date marks an important point in the operation and significance of the district–the end of rail operations over the route by the D&RG. The railroad continued to operate effectively as a steam locomotive-powered, narrow gauge segment of a Class-I U.S. railroad during this final ten-year interval. The railroad continued to provide important freight rail service and occasional passenger excursions for its customers during the last decade of operation. Finally, no new resources were added to the district during the period from 1957 to 1967. The D&RG's ongoing use and continued, though limited, maintenance of the segment helped insure the high degree of physical integrity that is a critical factor in the property's current ability to convey its national significance.

The *national* level of significance is best realized by comparing the Antonito to Chama segment of the D&RG-SJE to the Durango & Silverton Narrow Gauge Railroad (D&SNG), a branch line at the end of the extension. The later was formally recognized as a National Historic Landmark, and thus a