C&TS Dispatch
Vol. 20 No. 3 FALL 2007

Visit
the Friends
on the Web at
www.cumbrestoltec.org

HISTORIC PRESERVATION – 2007

The June Volunteer Work Sessions

ANTONITO PROJECT

Rebuild of Drop Bottom Gondola 859

Project Objective: Complete the rebuild of DBG 859 for return to service.
Session C
Team Leader: Bill Pratt

Following significant progress during the 2006 work sessions, all restoration work on drop bottom gondola 859 was completed during Session C. The team installed the end siding, the brake staff, adjusted the drop doors, installed the remaining safety equipment, and gave the car a coat of linseed oil. The car is finished except for painting and lettering.

Completed drop bottom gondola 859 in the Antonito CRF. (Bill Pratt)

SUBLETTE PROJECT

Sublette Section House Repairs

Project Objectives: Section house – support south external wall, replace notched fascia piece on southeast porch roof, finish painting upper exterior walls and trim on south and east sides. Speeder shed – replace mineral roofing. Log Bunkhouse – patch southeast wall, repaint exterior walls, trim paint fascia and soffits.
Sessions C and D
Team Leader Sessions C and D: Jim Herron

This year was a continuation of work begun in 2004 to install post jacks under the base sill supporting the south exterior wall. The plan was to install two more jacks this year, but there was only time to install one. The work was slow going because of the challenges of demolishing concrete in a 6 ft. high root cellar full of rats and mice. The root cellar was baited with rat poison on Monday of Session C, and again the following Thursday after more live rats were spotted. Also that Monday, the entire cellar floor was sprayed with 10% Clorox bleach, as well as the section of flagstone foundation that was being demolished.

The outer flagstones had very little mortar and could be removed quickly with a demolition bar. However, this exposed a packrat nest between the outer and inner layers of flagstones. Being cautious about possible rodent-borne infections, the work area was sprayed frequently with 10% Clorox. The fumes forced work to stop after each spraying, which also slowed the pace of the work.

See ***Preservation,*** *page 4*

Vol. 20 No. 3 Fall 2007

C&TS Dispatch

Friends of the Cumbres & Toltec Scenic Railroad
William Lock, Founder

Please write the editor at
e-mail: *leedavidg@msn.com*

The C&TS Dispatch is published four times each year by the Friends of the Cumbres & Toltec Scenic Railroad, Inc., 6005 Osuna Road NE, Albuquerque, NM 87109. The Friends of the Cumbres & Toltec Scenic Railroad, Inc., is a New Mexico nonprofit corporation.

The Friends is the official museum arm for the Cumbres & Toltec Scenic Railroad, a 64-mile-long operating railroad and museum of railroad history and technology between Antonito, Colorado, and Chama, New Mexico. The railroad is owned by Colorado and New Mexico. As the museum arm, the Friends is dedicated to the preservation and interpretation of the railroad. The Friends is an Affiliate Member of ARM (Association of Railway Museums) and a Member of TRAIN (Tourist Railway Association).

Family membership in the Friends is $30.00 per year; outside the USA membership is $40.00. All contributions are fully tax deductible and will be gratefully accepted. Please write us in Albuquerque or call us at (505) 880-1311 for information about the Friends. The Cumbres & Toltec Scenic Railroad is both a National and a State Registered Historic Site.

Cumbres & Toltec Scenic Railroad

Denver & Rio Grande Railway—1880 to 1886
Denver & Rio Grande Railroad—1886 to 1921
Denver & Rio Grande Western Railroad—1921 to 1970
Cumbres & Toltec Scenic Railroad—1970 to 2007

PRESIDENT'S COLUMN

From the INTERIM EXECUTIVE DIRECTOR

Late September is always an interesting time on the Cumbres & Toltec Scenic Railroad. It can be snowing or it can be bright sunshine and blue skies. It can be windy or it can be foggy and rainy and overcast. It was the latter when many of the Directors of the Friends came together to honor Bob Tully for his tremendous work and support of the Railroad and for the Friends of the Cumbres & Toltec Scenic Railroad.

Bob Tully took over as Chair of the Projects Committee following the untimely accidental death of Ralph Flowers. Bob has led the Projects Committee and our restoration work on the railroad to a whole new dimension. The leadership that Bob gave to coordinate the massive scale of undertaking that our summer projects involve has been impressive. He worked tirelessly year-round in order to coordinate the efforts of team leaders, to check their proposed projects and materials, and to make sure that everything happened according to the plan once volunteers were on the ground. It should not surprise anyone that Bob has also had time to work as a restoration leader at the Colorado Railroad Museum in Golden and to take time to be with his wonderful family.

On this cloudy, overcast, and rainy day, with the steam and smoke from the engines enveloping the train, we honored Bob and his family and thanked him for the tremendous work that he has done for all of us. What a joy it was to see the recently completed Caboose 05635. For four years volunteers have been working on this vehicle made for the people who ride the C&TSRR. Starting from a very decrepit stockcar caboose, it was Bob's vision to restore this caboose into not necessarily a historic looking caboose, but rather a caboose for families. With beautiful wooden tongue and groove accents on the walls and floor, even to a nice restroom, this caboose is now ready for people who ride the C&TS to charter and enjoy. But this first time — this was for Bob and his family to enjoy, and that they did.

Bob and Mona, two of their children and many of their grandchildren and friends shared the beauty of the railroad despite (or maybe because of) all of that fog and cloud. The double-headed engines going up Cumbres Pass were a reminder of how special this railroad is and why it is worth all of our effort to not only keep it restored, but also keep it running so that people can truly enjoy the whole experience of an operating

museum. While Bob has retired as Chair of the Projects Committee, no one has any doubt that he will continue to exercise a great influence on our work both through his knowledge and through his tremendous enthusiasm.

I am pleased to report that ridership on the railroad has been up this year and revenue even more so through the great leadership of the C&TS Management Corp. and our "loaned" president Tim Tennant. This should be a great year for the Railroad as well as the Friends.

It is with the greatest of thanks that I can report to you that our office is doing well because so many people have stepped up to the plate to help out during Tim's absence. I am truly proud to be a part of an organization that can have the kind of people like Bob and Mona Tully as a part of it. We all wish Bob the very best.

— Bill Lock
Interim Executive Director

Bob Tully symbolically (no bottle was actually broken) christens the new caboose as his wife, Mona, looks on. (Tom Cardin)

Bob and Mona Tully celebrate completion of the new caboose with Frank Turner, CEO of the C&TS Management Company; center, and Bob Craine, President of the Friends. (Tom Cardin)

TELEPHONE POLES DONATED

The Friends received a donation of 32 good quality telephone poles ranging from 40 to 45 feet in length from Boot-Jack Ranch, owned by Mr. David Brown of Pagosa Springs. The Friends will use some of the poles to strengthen the Snow Shed at Cumbres Pass, rebuild a demonstration telegraph line at Osier Colorado, and construct covered car storage on Friends' property in Antonito County.

Dave Kerns of the Pagosa Springs Rental Company donated the equipment to deliver the poles to the Friends stockpile in Chama. Three separate crews of Friends members participated in the recovery. Tim Bristow, and Ed Lowrance of Pagosa Springs, Don Bayer and Ron Horesji of Chama, Russ Hanscom of Farmington NM, Chris Trunk of Pennsylvania, and John Cole, and Nick, Eric and Chris Jensen, all from California.

Tim Bristow and Russ Hanscom load poles for shipment to Chama.

Preservation *(continued from page 1)*

As in years past, the inner layer of flagstones was cemented in place by concrete skirting (external to the flagstone foundation, apparently installed by the Rio Grande). A rented demolition hammer was used to create a space for the jack post. At the end of Session C, two large flagstones remained immediately below the base sill that were inaccessible to the jackhammer. They were removed the following week with a large sledgehammer and the post jack was installed.

Peeling finish paint was scraped from the west lower wall of the section house, followed by priming (alkyd) and painting (latex) with Abandonment White. All three porch floors were coated with a 50:50 mixture of linseed oil and mineral spirits. Painting of the upper exterior walls and replacement of the notched fascia piece on southeast porch roof were deferred because the team ran out of time.

The speeder shed was re-roofed in 2005, but suffered some wind damage (torn mineral roofing) during the winter of 2005-06. The torn roofing was sealed with roof cement in 2006. Replacement of the mineral roofing had been planned for 2007, but the seals were in good shape, so it was decided to defer this work.

Rotten wood in the base log of the south wall of the log bunkhouse and in a dove-tailed joint in the northwest corner of the building was patched. Several high tech polymeric products including Dow's Great Stuff insulating foam sealer and West System's epoxy resin, hardener and filler were used. Several breaks in the building's concrete skirting were sealed with a "flex" mortar product containing vinyl filler. Gaps between the building's base logs and the concrete skirting were thoroughly sealed with Dow's Great Stuff and latex and silicone caulking. The north, south, and west sides of the building were scraped, primed and finish and trim painted, and painting of the east side was started. Four of the window covers were repainted with black paint. The porch and steps were painted Rio Grande brown (which is used for wooden skirting at the Sublette site)

Although not an official objective for this year's project, it was discovered that three external floorboards in the front entryway of the shingle bunkhouse had rotted to the point of needing total replacement. They were replaced with nearly identical oak T&G flooring and also the concrete steps beneath the external flooring were repaired with the "flex" mortar mix used on the log bunkhouse. The new floorboards were painted with the brown alkyd floor coating used to paint the historic T&G flooring at the Cumbres section house. The gap between the external flooring and the concrete steps was caulked. The rear porch and steps were painted with Rio Grande brown.

OSIER PROJECTS

Paint Osier Dining Hall Exterior

Project Objective: Complete painting of the exterior of the Osier Dining Hall.
Session C
Team Leader: Scott Hardy

The entire north wall (kitchen end, nearest the water tank) was pressure washed, primed, and painted yellow/gold with brown trim. Likewise the portion of the opposite, south wall, that had not been painted in 2006 was washed, primed, and painted. Some trim on the east-facing upper story windows was painted or covered with a second coat. Roof trim around the entire building was painted brown or repainted as necessary. Touch up painting was done in a few areas around the building

This year a self-propelled man-lift with a 60-ft reach was rented for the work. This was a great improvement over the use of the railroad's scissor lift and the trailer lift used in 2006. In 2006 most of the team's time was spent moving and blocking the lifts. By using the self-propelled lift this year, most of the team's time was spent doing actual work on the building rather than moving the equipment. This lift also allowed easy access for two people to virtually every location on the building (see photo).

Clyde Putnam works from the self-propelled man-lift. With a 60-ft reach it allowed greatly improved access for painting the Osier Dining Hall. (Scott Hardy)

Osier Coal Dock and Loading Platform Construction

Project Objective: Restore Osier facilities including coal dock and loading platform, pump house, and station.
Sessions: C and D
Team Leader: Ted Norcross

No material from the original coal dock was salvageable. The new dock was laid out using photographs and historical data. Coal dock area was graded: 100' long, 20' wide at top, 30' wide at base, and raised 2' with rock fill. Native grass clumps were replanted on side of fill. The maximum depth of fill was 4 to 5 feet. Six Friends members loaded timbers for the coal dock on a flat car in Antonito. The flat car was delivered to Osier and timbers were unloaded and stacked for 2008 sessions.

The pumphouse across the tracks from the station was removed and rebuilt. It was reinstalled with new tar paper on the roof. The pumphouse was primed and shingled.

All walls and ceilings upstairs and downstairs in the station were stained and clear-coated. The upstairs floor and stairs were clear coated. A railing, 36" high with gate, to divide station downstairs from front to back wall was installed. Minor trim work was done upstairs and upstairs screens were installed.

The area was cleaned and secured for the season. The team was assisted by six Boy Scouts and two leaders who arrived on the train and worked with the team for two days. They did a fine job and were gentlemen.

Osier Drainage Improvement

Project Objective: Improve drainage in Osier facilities area.
Sessions: C and D
Team Leader: Ted Norcross

A total of 550 feet of drainage ditches were completed using the backhoe during the two sessions.

LOBATO PROJECT

Lobato Trestle Handrail and Walkway Repair

Project Objective: Repair Lobato Trestle handrail and walkway.
Sessions C and D
Team Leader Session C: Kent Wallis
Team Leader Session D: M. McGinley

The work on the Lobato Trestle in Session C focused on replacement of defective or damaged walkway timbers. The session work went very well. The team was able to replace approximately 30% of the 3"x12"x16' timbers. (Quite a handful). The team would like to thank Don Bayer for assembling the timbers and other materials and seeing that all made it to the Lobato siding. His efforts saved a day in preparation work which gave a full week to work on the trestle.

Work during Session D focused on repair of the handrail system. The handrail system consists of three longitudinal 2x6 members, the top element has a horizontal and vertical inverted "L" shape of two boards and the middle element is a single vertical 2x6. These boards are nailed to vertical 4x6 posts located on about 90-96" centers. These posts are secured by diagonal braces and both the posts and the braces are fastened to the walkway support beams (4x6) with ¾" square head bolts.

Most of the handrail boards were warped and about 25% were split or decayed. All sound but warped boards were forced into alignment with clamps and nailed into position, and defective boards were replaced with new ones. The process of drawing all handrails and posts into close contact and securely nailing them greatly reduced the flexibility and deflection in the walkway/handrail system.

The vertical posts and diagonal braces are susceptible to decay due to their design. Five of the 51 post/diagonal brace assemblies and one diagonal brace had to be replaced. Posts 1, 2, and 3 (posts are numbered from the Chama end of the trestle) could be reached by standing on the ground on the west end of the bridge and their replacement was straightforward. Posts that could not be reached from the ground were removed and replaced from the walkway as an assembly. The bolt between the diagonal and the post, at the bottom of the post, was too far for a person to reach while

Mickey Hallum and Bob Reib repairing the Lobato Trestle handrail. (Mike McGinley)

lying on the walkway, so the assembly had to be removed and replaced as a unit. This difficult operation required all four members of the team. The post/diagonal brace assemblies weighed between 110 and 130 pounds. Precautions were taken to secure clamps and wrenches with lines so that they could be recovered if dropped.

The repairs conducted in this session are not a complete rehabilitation of the bridge walkway/handrail, but merely a correction of immediate safety conditions. In order to plan future repair efforts, the team conducted a survey of all of the posts and diagonals. A few are recommended for replacement in 2008, and some of the others need to be replaced by 2009 or 2010.

In addition to the walkway repairs, the team also cut back a leaning tree that was a potential threat to the walkway. The team strongly recommends that this tree be completely removed because it remains a threat to the trestle structure.

CHAMA BASED PROJECTS

Freight Car Painting

Project Objective: Paint selected cars.
Session D
Team Leader: Don Stewart

Eight freight cars were painted: Boxcar 3605, Stock car 5674, Long Refrigerator car 169, Flatcar 6314, High Side Gondolas 1159, 1232, and 1456, and Gondola 9378 (this car is still in the 1900 to 1920 configuration).

All cars were scraped and wire brushed, then pressurized air was used to blow off any dust, soot, or loose paint chips. The surface was then painted with an oil-based primer to soak into the wood. This was followed in 12 to 30 hours by two coats of latex finish.

Additionally, the interior of the Telegraph office was painted to match the Chama Station interior and a 55-gallon trashcan was painted with boxcar red primer. Two High Side Gondolas were prepared for painting in Session F.

Milepost and Whistle Board upkeep

Project Objective: Paint all signage and replace as needed.
Sessions C and D
Team Leader Session C: Jim Gross
Team Leader Session D: Bob Ross

The following work was accomplished during Session C. All the work this year was completed by driving a car to the closest point on the line and then walking to the work locations.

Jim Milhein, John Mitchell and Bob Ross preparing signpost hole with Osier and train in background. (Jim Galli)

Station signs:
Los Pinos Station: Straighten.
Cresco Station: Re-set sign with new post and paint.
Lobato Station: Set new sign and post.
Note: The Old Lobato station sign was the last original D&RGW station sign on the C&TS. The sign was saved and sent to Albuquerque for display in the future museum.

Mileposts: installed two new posts, one of which was painted to 1890 style (D-318), painted out "M" on one post to restore it to1890 style (D-319), and painted or touched up six existing posts.

Whistle boards: touched up five existing boards.

The following work was accomplished during Session D:
Reset STATION ONE MILE sign west of Osier, new post for this sign.
Replaced two whistle boards, new boards fabricated.
Painted 16 whistle boards, 9 mile posts, 2 yard limit signs, 1 speed limit sign, 1 station sign (Los Pinos), 1 historic flanger sign, 1 STATION ONE MILE sign.

Analyze RPOs X054 and X065 for Restoration

Project Objective: Analyze cars for restoration needs and secure cars for movement to Antonito CRF for restoration.
Sessions C and D
Team Leader: Donald Bayer

Car X054
The team began removal of interior roof sheathing to inspect roof rafters. They found that the roof is leaking badly, but the rafters appear to be in good condition. A few rafters are broken due to lack of support from side frame, but can be repaired.

The team attempted to remove interior side sheathing to inspect car framing members and discovered that the side framing members were all rotted from the side sill up to about 24 inches above the side sill. With the sidesill itself rotted completely, the interior siding is all that is holding the car together. Any further removal was stopped.

A portion of the floor was removed to inspect main beam members and the following were discovered:

- A 6 ft diameter hole in floor and beams due to a previous fire. This fire destroyed the right sidesill and both intermediate sills and both center sills. The left sidesill is very badly rotted resulting in the car being very unstable. The fire also heat-damaged the steel centersill.
- A 1/8 inch thick asbestos sheet was located between the sub floor and finish floor.
- A 3 inch thick loose fill asbestos located between the beams under the sub floor.

The discovery of asbestos halted any further investigation of the car. The car was covered with a tarp to protect it from further damage.

Car X065
This car has been significantly altered by the D&RGW for work train service. Roof rafters are in good condition; however, roof sheathing interior and exterior will need to be replaced. Side framing members are rotted considerably in lower 24 inches of the frame. Both sidesills have rotted considerably and will need to be replaced. Intermediate and centersills appear to be in fair condition and could be saved. Asbestos sheet and loose fill was also found in this car, halting further investigation.

Floor castings and grabirons were removed from both cars and stored for safe keeping. Ten passenger seats were removed from both cars and secured for the winter. Due to the discovery of asbestos in Session C further work was cancelled and team members moved to another project.

Both cars are in a significantly deteriorated condition and would not survive a trip to Antonito by rail or truck. Any movement at all should be done cautiously. Car 054 is in most need of restoration soon. It is still in its original form for an RPO and would best be rebuilt into an RPO. Car 065 has been altered considerably by D&RGW into a work service car and would best be rebuilt into a work service car for storage either by the Friends or the railroad.

RPO X054 Passenger Trucks Fabrication

Project Objective: Fabricate correct trucks for RPO X054.
Session D
Team Leader: Art Randall

During Session D a D&RGW passenger truck was disassembled to obtain the parts that will be copied to fabricate new trucks for RPO X054.

Caboose 0503

Project Objective: Continue restoration of Caboose 0503.
Sessions C and D
Team Leader: Mike Thode

The woodwork on the cupola was finished. Drip strips and letterboard spacers were installed along the sides of the caboose. Plywood sub-roofing was laid over the original roof boards in preparation for installation of the covering. Parts were assembled to rebuild one of the trucks.

Still needed is reassembling the first rebuilt truck, rebuilding the second truck, painting the caboose, installing the roofing, and assessing/fixing the brake system as well as installing all grab irons and other accessories.

Jordan Spreader OU restoration

Project Objective: Complete Jordan Spreader OU Restoration.
Sessions: B and C
Team Leader: Terry Rider

During Session B the shop crew was needed to finish machining the new piston top. It needed the inside diameter bored to clear the center boss of the piston and a radius turned on the outside to fit inside the new piston cup seals. The shop crew was very accommodating and finished the work promptly. The team then finished installing the new seals and gaskets on the left side upper lifting cylinder. Next the angled cylinders that were attached to the upper swing arms were removed. They were disassembled, cleaned, greased, and reassembled with the new piston cup seals and gaskets. All bolts were tightened. The nailers for the decking were then fitted and installed.

Between Sessions B and C, additional welding was finished and additional gussets were welded in. The whole piece of equipment was sandblasted and primed.

During Session C the team reinstalled the new arm assembly on the right side. The upper angled cylinders that were removed in Session B were reinstalled, and the chains and plumbing were reattached. The brake staff and wheel and chain were then reinstalled. The long process of fitting each piece of decking was started from both ends. The dump valve for the air brake reservoir was installed and the appropriate levers that reach out to each side were installed. The valve tree was reattached and most all of the plumbing reattached. The new cab sides as well as some additional decking were primed. The front gable end for the cab was reconstructed as well as the new roof joists. The winches on the back deck were sandblasted and primed and then installed on the rear deck.

Paint UTLX Tank Cars 12918 and 13168

Project Objective: Prepare surface and paint UTLX Tank Cars 12918 and 13168.
Session D
Team Leader: Dave Collins

The cars were completely sandblasted to achieve an acceptable surface for painting. The cars were then primed and finish coated.

Gary Collins, Keith Lemons, Clark Bradley, Dave Collins and Andy Graham proudly stand beside freshly-painted UTLX tank car 12961. (Sandy Hogan)

Clark Bradley is sandblasting the B end of UTLX tank car 12961. (Sandy Hogan)

Refurbish Interior of Hinman Coach and Repair Roof and Windows

Project Objective: Refurbish interior of Hinman coach. Repair roof and windows.
Session D
Team Leader: Phil Nissen

Work on the interior of the Hinman coach was deferred due to possible use of the car in a movie. The movie company would be likely to reconfigure the interior of the car and might refinish or appoint the interior and exterior of the coach for their purposes. As part of the rental contract, the Hinman would be returned to the railroad in a condition specified by the railroad. Thus it made sense not to significantly refinish the car interior at this time.

Therefore, work focused on repair of the roof, which had been leaking. Chama recently had experienced very strong wind and the Hinman car had part of its canvas roofing blown loose. It was apparent that the roof needed more extensive repairs than initially thought; in fact, it needed to be replaced to prevent further damage. After much research it was decided that replacing the roofing with the same canvas material made little sense. It would need to be re-treated with waterproofing annually or every other year at best. After thorough review of the benefits, it was decided that a neoprene underlayment known as EPBM would be the best roofing to use on the Hinman. Materials were ordered prior to the work session. The Hinman was moved to a location in the Chama yard where scaffolding would not interfere with daily movement of locomotives and cars on or near the main line. Scaffolding was erected along one side of the car. Four of our crew unloaded the roll of EPBM, contact adhesive, and heat reflective paint and placed it on a flat car near the Hinman, while part of the team began stripping off what was left of the canvas roofing. This exposed many areas of rusted metal that had been leaking water into both the interior of the coach as well as down through the sides of the car. It was determined that this leakage was what had been causing the lower body of the car to rust. Once the roof surface was scraped and wire brushed clean of tar, old canvas residue, and flaky rust, the larger rust holes were patched with caulking and Bondo.

Scraping and patching holes occupied the rest of the session's first day and much of the second. Meanwhile, one of the crew made a template and replaced the missing section of ceiling paneling with hardwood veneer plywood. The source of the leakage that had destroyed the original panel was determined to be an exposed roof vent. After the paneling was completed, replacement vent covers were made from galvanized sheet steel and mounted on the roof. By the end of Tuesday afternoon, the first section of EPBM was cut and made ready to apply to one end of the upper-

most roof. Contact adhesive was applied to both the metal roof and the 52" wide and 60" long sheet of EPBM. Four team members attempted to install this piece but found it too large to handle. Once it made contact with the adhesive it could not be pulled loose and repositioned. It had to be torn off.

The team began Wednesday by cutting EPBM in three smaller and more manageable sections. Adhesive was applied and the three sections were applied successfully to the end. Since work was now on a flat rather than rounded end surface, sheets of EPBM 52 inches wide and 48 inches long were cut and team members began installing them. The metal roof of the car was blistering hot as was the EPBM itself, such that by noon each day it was very uncomfortable work. The adhesive became tacky very quickly and while it had been hoped to apply EPBM in longer sections, it was not possible to do so. The application of the roofing required at least three people to properly align each panel before making contact with the adhesive. Extra help arrived on Thursday when four crew members from another project became available. With the additional help, laying EPBM was started on the roof side of the car where scaffolding was in place. By the end of Thursday, this side and most of the top were completed and one team member had finished over half of the scraping and brushing on the side of the car that did not have scaffolding.

On Friday, again thanks to the additional crew assistance, a single section of scaffolding was erected on the second side of the car and laying of EPBM began along that side of the car while two other members of the team began applying the gray heat reflective coating to the EPBM that was in place. Three members of the additional crew continued to paint and by 4:30 pm the last brush and roller stroke was completed.

The roofing was entirely replaced and coated and should last indefinitely. No subsequent maintenance should be required, although the roof should be inspected at a future date to make sure no sections are coming loose and that no water or ice is getting underneath. Some caulking around the roof jacks and tank hangers would be beneficial along with a bead of caulk applied to the seam where the roofing butts the clerestory windows as extra prevention. There are also at least three cracked clerestory windows for which replacement glass had already been cut. However this project had to focus on the roofing and did not have time to address windows. They are not leaking and are not a glaring defect in the appearance of the car at this time.

Evaluate all Historic Cars in the Railroad Collection

Project Objective: Survey historic rolling stock in preparation of establishing a long term car restoration and preservation project plan as required by the Friends Strategic Plan Objective.
Session C
Team Leader: Art Randall

This project completed the survey of all of the historic cars that was initiated in 2006. The cars are being surveyed to accomplish two major objectives. First, as custodian of the historic fleet, the Friends are taking an inventory of the cars that are considered the historic fleet. The second objective is to

Hinman coach team photo, George Berkstresser, Phil Nissen, Dick Bauman, Mike Kennedy, Larry Jennings. (Chronicler photo)

Hinman coach with new roof. (Phil Nissen)

develop a long term plan for the restoration of cars. The survey will provide an inventory of what the Friends have in terms of good material in the form of journals, wheels, etc. Also, the missing parts of various cars are being identified.

A total of 125 cars were surveyed in 2006. The remaining cars, about 25 cars, were surveyed during Session C. The information that was gathered during Session C will be added to the car data base on the Friends' web site.

Restore Baggage Carts

Project Objective: Restore baggage carts to operational condition.
Session C
Team Leader: Parker Fowler

For the second year, a 100-year-old baggage cart that Parker Fowler rescued from a salvage yard in Denver some forty years ago was restored. He had purchased six of them for $25 each from a salvage dealer who had bought several dozen from the UP when they went out of the passenger business.

This year's project was especially fun because a half-dozen Adventure Scouts from New Jersey participated. Few of the scouts knew much about tools, but the scout leaders were especially helpful in this area. All the old wood had to be removed, so there was a chance to teach the boys how to make mortise and tenon joints, separate old nuts from their bolts, etc., as we restored the cart to "original" condition. Three coats of acrylic varnish on the decking completed the job, which included new bolsters and wagon tongues.

Standing behing a completed baggage cart are Parker Fowler and a group of Boy Scouts from Maryland who have been working on restoring another baggage cart. From left to right are Parker Fowler, Jeff Powers, Bo Hayward, Henry Voss, Nick Hahn, Brendan Byran, Jerry Voss, and Matt Bauer. Not pictured is Jonathan Eu Clair.

Teaching young people about our railroad and old stuff as well as about how to name and use hand tools and the like turns out to be a hoot for teachers and learners alike.

INTERPRETATION

Significant progress was made on the Friends' interpretative projects during Sessions C and D. The first two of six panels were installed on the Kiosk at Cumbres. The Kiosk will provide visitors with historical information on the railroad, the activities that were required at Cumbres Pass, and the life of the people who lived and worked there. Progress was also made on the telegraph office display in the Chama Depot. It will illustrate the technology used by the railroad to communicate in the early 20th century and explain the work of the telegrapher.

The telegraph office display in the Chama Depot as it appeared in late August, 2007. The mannequin illustrates dress typical of a telegrapher in the early 20th century. (David Lee)

Terri Shaw led the effort to design the Cumbres Pass Kiosk. This photograph shows Terri at the Kiosk after installation of the first two panels. (Frank Yockey)

Carl Turner Honored by the C&TS Railroad and the Village of Chama

On August 28, 2007 the Cumbres & Toltec Scenic Railroad and the Village of Chama honored Carl M. Turner for helping to preserve and promote the railroad, the town, and rural New Mexico economies.

Turner, a well-known, influential figure in New Mexico politics and a former state representative, was among the first to see the importance of saving the remnants of the last steam-powered, narrow gauge railroad in the United States. He worked tirelessly on the arrangements that allowed the states of New Mexico and Colorado to buy the railroad in 1970 and has played a vital role ever since. He served three terms on the bi-state commission that governs the railroad and donated his own time year after year to lobby for much needed funds.

"It is because of Carl Turner that the Cumbres & Toltec is the success it is today," said General Manager Tim Tennant. "He has always seen the value of the train as a living history that belongs to the people of New Mexico and Colorado. He has been here in difficult times to keep the train running. Today the Cumbres & Toltec is known all over the world as the most authentic steam train ride in North America and ridership is increasing. We have Carl Turner to thank for that."

Turner's significant contributions were recognized by having a parlor car named for him, which will bear a plaque in his honor. The Village of Chama also honored Turner, both for his contributions to the railroad and for his role in promoting electric co-ops in rural New Mexico, declaring August 28 Carl M. Turner Day. There was also a letter of commendation from New Mexico Governor Bill Richardson, a long-standing friend of Commissioner Turner.

Adding a touch of humor, Turner, who did not know that he would be the focus of the ceremony, presented his longtime friend and fellow former railroad Commissioner Spencer Wilson with a commemorative rocking chair, matching his own. Officials of the railroad and the village, family members, and members of the Friends of the Cumbres & Toltec were on hand to say "thanks" to a loyal friend.

After the ceremony, Turner and friends relaxed in the comfort of the new parlor car and inspected the extensive track work improvements to the line.

Carl Turner and Spencer Wilson recall their many years of involvement with the Cumbres and Toltec Scenic Railroad. (David Lee)

Carl Turner at the parlor car named in his honor. (Tom Cardin)

UTLX NARROW GAUGE FRAMELESS TANK CARS

by Chris Trunk

The Friends of the C&TS have acquired two frameless tank car bodies, formerly UTLX #11036 & #11037. These tanks were donated in 2004 by Mr. Fred Gibson, and are stored outside the CRF at Antonito awaiting restoration. The two cars spent their final years on the D&RGW as narrow gauge "Gramps" oil tank cars. They were leased from the Union Tank Car Company and used to haul crude oil from the Chama oil depot to the Lafayette Hughes refinery in Alamosa. These frameless tank cars have a very interesting history.

Tank Car Development

The first railroad tank car was built in 1869. It consisted of a riveted cylindrical iron tank, strapped to a flat car. The early cars typically held 100 barrels of oil (4200 gal). Oil companies wanted railroads to add tank cars to their freight car inventory, but the railroads weren't interested. Oil companies then developed their own fleet of cars. By 1878, J.D. Rockefeller's Standard Oil had acquired 3000 of the 3200 oil tank cars that existed. By 1880 this fleet was incorporated as the Union Tank Line, the "UTLX" marks that are still used today.

In 1901, Union Tank Car designer John Van Dyke came up with a radical new idea. He designed a special riveted steel tank that was strong enough to hold a load of oil and withstand the stopping and starting force of the train. The new tank car design had no underframe. The trucks and couplers were attached to two large V-shaped cast iron saddles riveted to the underside at either end of the tank. The underside of the tank was strengthened using a thicker curved plate that runs the full length of the car. This curved plate also extended out past each end of the tank to help reinforce the coupler pocket. The new cars were nicknamed "V-cars" for the distinctive V-shaped saddles.

The frameless cars were a bonus for the oil company. Since the empty frameless cars were lighter than tanks fastened to flat cars, they were able to carry more oil (up to 6500 gal's) without exceeding the load ratings of the arch-bar trucks. The railroads were very skeptical that these cars would hold up, and only about 100 frameless V-cars were ever built. The revolutionary frameless design was way ahead of its time as was proven out many years later.

To satisfy the railroad's safety concerns, Van Dyke designed another type of tank car in 1902. It used a separate narrow steel center-sill that would withstand the pulling forces of the longest trains and largest locomotives. It also supported the weight of the oil tank and provided attachment for the trucks. These narrow frame cars were known as X-cars, or narrow frame tank cars, and they became the standard UTLX tank car design. The X-cars were built in large numbers and used throughout the U.S. Meanwhile, the frameless V-cars saw very little service in their original standard gauge configuration. The breakthrough design was deemed too fragile by the railroads.

Tank Cars on the D&RGW Narrow Gauge

The nation's demand for oil started to increase with the coming of the automobile. In the early 1920's, oil was discovered near Farmington in northern New Mexico. The oil was transported by rail over the D&RGW to Denver and also over the Rio Grande Southern to refineries in Utah. Rather than build a new fleet of narrow gauge tank cars, the oil companies opted to utilize surplus standard gauge cars. Tank cars were easily converted to narrow gauge by replacing the trucks and making minor changes. Some of the old style tank cars built on standard gauge flats were converted to steel frame cars by the D&RGW when they were converted to narrow gauge. The new fabricated steel frames enabled the car to fit through tight clearances and around sharp curves.

Many of the UTLX cars converted to narrow gauge during the 1920s were the old narrow frame models. Another source of surplus tank cars for the narrow gauge was the original batch of frameless "V-cars" dating from the turn of the century. The design of these cars actually predates the cars having the narrow steel frames, however the frameless style still hadn't caught on with the railroads.

Gramps tank car, UTLX 11037, one of the frameless tank car bodies donated to the Friends. The photograph is from the ***Richard L. Dorman Collection of Narrow Gauge Railroad Photographs*** *at the Friends of the Cumbres & Toltec Scenic Railroad. By John Maxwell, 3 July 1959, at Alamosa, Colorado.*

Oil is Discovered Near Chama

In 1935 a significant oil discovery was made about 12 miles north of Chama, New Mexico, on the Colorado ranch of Lafayette Hughes. During 1936, a pipeline was built to carry the oil from wells on the ranch to storage tanks and a loading terminal in the Chama rail yard. In 1937 Hughes built an oil refinery in Alamosa to convert the crude oil into usable products. The crude oil would be shipped by narrow gauge rail from Chama, over the Cumbres Pass to Antonito and then over the dual gauge track to Alamosa.

Hughes decided to lease a small fleet of narrow gauge tank cars from UTLX to move the oil. The UTLX still had the old frameless standard gauge V-cars available. About thirty of these cars were converted to narrow gauge; about 20 of those were reserved exclusively for the Hughes Chama to Alamosa service. The original standard gauge arch bar trucks were replaced with modern cast steel Andrews style narrow gauge trucks built by American Steel Foundries. Since the stopping and starting train forces on the narrow gauge were lower than the standard gauge, the D&RGW had no objection to using the frameless tank cars in narrow gauge service. The refurbished frameless cars carried the normal stenciled UTLX reporting marks in yellow, and the Hughes cars also had the word "Gramps" in large white letters on either side. The Gramps oil field and Gramps tank cars were named after William Hughes, Lafayette's father and grandfather of Annie Hughes.

Approximately 38,000 carloads of Gramps oil were hauled on the D&RGW narrow gauge from Chama to Alamosa over the 30 years the refinery operated. The small fleet of Gramps cars accumulated thousands of miles shuttling back and forth over the same route that is still used today by the Cumbres & Toltec. Van Dyke's original frameless V-cars finally were put to good use; they proved to be reliable and safe. The output of the oil field gradually diminished. By 1963 the refinery was closed, and in 1965 most of the frameless Gramps cars were sold off or scrapped.

Standard Gauge Tank Car Design Comes Full Circle

During WWII most of the available standard gauge tank cars in the US were pressed into service hauling oil to support the war effort. At one point there were as many as 60 different government-run unit trains of oil cars roaming the standard gauge rails each day. Some of the remaining standard gauge frameless V-cars were refurbished and used for standard gauge service during this time. After the war, oil demand slackened and many of the older style standard gauge oil cars were scrapped.

In 1954 a UTLX engineering task force created the next new tank car design. The new car was known as the HD-car because it resembled a hot dog. It had no underframe like the Van Dyke V-car, and it also eliminated the expansion dome on the top and the running boards along the sides. The streamlined cars had smooth welded tanks as opposed to the older style riveted tanks.

Brake end of UTLX 11036 showing the frameless construction. This is one of the frameless tank car bodies donated to the Friends. The photograph is from ***Richard L. Dorman Collection of Narrow Gauge Railroad Photographs*** *at the Friends of the Cumbres & Toltec Scenic Railroad. By R. S. Polkinghorn, August 1964, at Alamosa, Colorado.*

This time around, the frameless design was accepted by the railroads (perhaps due to the longevity of the old V-cars); however there was debate about removing the running boards. The ICC finally upheld the design change without the running boards in 1961, and the modern tank car that we see today, finally came into being. Modern frameless tank cars have greater liquid capacity due to their lower tare weight, and quickly replaced the older frame style tank cars. The frameless tank car is the only type seen on today's standard gauge trains.

So What Really is a "Gramps" Tank Car?

In a way, the modern tank car owes its frameless design to John Van Dyke's revolutionary V-car, having skipped a generation of frame cars in between. Our old "Gramps" cars are Grandpas in more ways than one!

The Gramps cars are the only major style of freight car not represented in our current collection of rolling stock. These cars played an important role in the history of the line that remains today from Chama to Antonito, and were part of the reason that the D&RGW narrow gauge survived as long as it did. The Gramps frameless oil cars were the last tank cars used in regular service on the D&RGW narrow gauge, the other types having been sold or scrapped several years before.

The Friends are very fortunate to have acquired these two ancestors of the modern tank car. Perhaps our two Gramps cars will ride the rails again.

An excellent source of information and photos on the history of standard gauge tank cars can be found at the UTLX web site: *www.utlx.com*. Click on the "History in Photos" section. Another good source of information is an article "Colorado Narrow Gauge Tank Cars" by Robert Sloan from the July/August 1978 issue of the *Narrow Gauge Gazette*. Doris Osterwald's book *Ticket to Toltec* also has some interesting information on narrow gauge tank cars used on the D&RGW, including the Friends' major effort in 1991 to obtain six original D&RGW narrow frame UTLX tank cars from Alaska.

Schedule of Friends' Events

Colorado Banquet and Fall Board of Directors' Meeting
October 26 - 27, 2007

New Mexico Banquet and Spring Board of Directors' Meeting
March 14 -15, 2008

2008 Volunteer Work Sessions
May 12-16, Session A
May 19-23, Session B
June 16-20, Session C
June 23-27, Session D
August 4-8, Session E
August 11-15, Session F

Railroad Opening Day
May 24, 2008

Annual Meeting and Annual Board of Directors' Meeting
June 20 - 21, 2008

Moonlight Train
July 19, 2008

Train No. 115, the westbound San Juan, September 9, 1946. Photographer Bob Richardson. From the ***Richard L. Dorman Collection of Narrow Gauge Railroad Photographs****. For a detailed analysis of the activity in this photograph see "What's Happening Here" on page 14.*

Friends of the Cumbres & Toltec Scenic Railroad, Inc.
6005 Osuna Road NE
Albuquerque, New Mexico 87109

RETURN SERVICE REQUESTED

Non-Profit
Organization
U.S. Postage
PAID
Albuquerque, NM
Permit No.1710