



C&TS DISPATCH

VOLUME 37
SPRING

NO. 1
2024



The Annual Spring History Issue
featuring:

Water to Steam, Power to Motion!

*The Water Tanks and Standpipes
on the Cumbres & Toltec, Then and Now*

Running the Lava Pump House

by Dan Pyzel

Linda, Annie and Mo, "The Three Docenteers!"

Plus:

An Updated Work Session Schedule for 2024

Winter and Spring Progress on Express Car 163





C&TS DISPATCH

Friends of the Cumbres & Toltec
Scenic Railroad, Inc.

William Lock, Founder-1988

Vol. 37, No. 1 Spring, 2024

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C&TS DISPATCH

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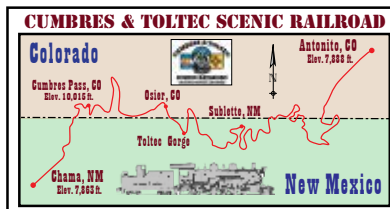
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The *C&TS Dispatch* is published four times each year by *The Friends of the Cumbres & Toltec Scenic Railroad Inc.*, a New Mexico nonprofit corporation. The Friends is the official museum arm for the Cumbres & Toltec Scenic Railroad, a sixty-four mile-long Railroad and museum of railroad history and technology, operating between Antonito, Colorado, and Chama, New Mexico. The Railroad is owned jointly by the States of 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 the *Heritage Rail Alliance (HRA)*. Family membership in the Friends is \$40.00 per year; outside the USA membership is \$50.00. All contributions are fully tax deductible and will be gratefully accepted. For information, please write us in Albuquerque at the **Friends of the Cumbres & Toltec Scenic Railroad, Inc., 4421 McLeod Rd. NE, Suite F, Albuquerque, NM, 87109**, or call us at (505) 880-1311.



Denver & Rio Grande Railway: 1880-1886
Denver & Rio Grande Railroad: 1886-1921
Denver & Rio Grande Western Railroad: 1921-1970
Cumbres & Toltec Scenic Railroad: 1970-today

**The Cumbres & Toltec Scenic Railroad is both a
National Historic Landmark and a
State Registered Historic Site.**

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President's FORUM



Wrapping Up Twenty Years: Part II

In the "Presidents Forum" in the previous issue of the *C&TS Dispatch*, I began looking back at my twenty-year tenure as CEO of the Friends. My first *Dispatch* column was back in the spring of 2005 and the time has sailed by ever since. There are so many wonderful people that were and still are associated with the Cumbres & Toltec Scenic Railroad family. Plus, there were so many amazing events over the last twenty years that it is difficult to give them all the attention they deserve. In my remaining columns, I will recount some of the stories and events of my journey from Wisconsin and our time in New Mexico.

When I came onboard in 2005, Jim Herron was Chairman of the Friends Board. Jim passed the gavel over to Bob Craine at the June Board Meeting in Chama. Bob, along with Bob Ross and Nan Clark, was instrumental in hiring me. When Judy and I flew to Albuquerque in October, 2004, for my interview, we were greeted warmly by the group over a nice dinner. We were also chauffeured to Chama by Les Clark to ride the C&TS and meet Kim Smith, General Manager of the Railroad at the time.

After the interviews, it didn't take long for the search committee to offer me the job.

Many of you can appreciate that when one is faced with a 1,500-mile move, there are a lot of details to address. My son Wes had just gotten married, and my daughter Kristen was getting married the following June. Kristen was living with Judy and me in Green Bay, so we were not selling our house immediately. Rather than buying in Albuquerque, I needed to find an apartment and I began that search from afar.

I was fortunate that I was going back to Albuquerque to spend time in the office for a week in December before my official start date. As busy as Judy and I were during this time, we still had to deal with an enormous number of emotions: we were leaving our children who lived in Wisconsin or Upper Michigan. My father, who was not in good health, and my mother both lived in Green Bay. We also owned a home that we had purchased only the previous May, a place we thought would become our retirement home.

Did we make the correct decision in accepting the position? There was the excitement of a new job and opportunity. Discovering a new state and metropolitan area can be both adventurous and daunting. Because we were not going to sell our Green Bay home until late spring, Judy and I would not be with each other during that transition, although we did see each other three times during that period. First we had to get my daughter married off and then go through the rigors of a cross-country move.

Fortunately, we were able to garner an offer on our home quickly, as it was a seller's market. Of course,



On the cover:

C&TS Locomotive 488 wraps up a long day traveling from Antonito in early October. What better way to finish the trip than to get a good long drink from the twin-spouted water tank in the Chama Yard. There are eight watering holes along the 64-mile line, though not all of them are visited on every trip. Still, they have been there since 1880, waiting quietly to refill the thirsty locomotives. Autumn days like this make the water stops even better.

Photo by Chris James, October 6, 2007

it was also was a seller's market here in Albuquerque. The task of finding a house fell on me; that was a chore. Between visits with our realtor and emails to Judy back in Green Bay that including photos and information about perspective homes, it took three attempts before we landed an accepted offer. Twenty years later, that home is still our residence in Rio Rancho.

Meanwhile, I survived my second Friends Board meeting in June, the May and June work sessions, my first Moonlight Train and a number of Commission meetings. By the time August rolled around, we had to ensure that everything was packed and ready for the movers. The trek from Wisconsin to New Mexico was upon us. As I look back today, it seems like that couple day journey is light-years away.

The movers arrived and began the unloading of our possessions. Luckily, we had purged enough "stuff" given we had no basement in Rio Rancho, a luxury you have with most homes in Wisconsin. We had a two-car garage and were able to fit both of our vehicles inside, which was the goal.

With the move out of the way, we started to settle into life in Rio Rancho. I continued to familiarize myself with the job and the Railroad. Bob Tully was excellent at getting me up to speed with the Projects Committee. He did it all with a notebook and a few scraps of paper; no FIDO back then. Bob also helped assemble the fall Board Meeting at Table Mountain Inn in Golden.

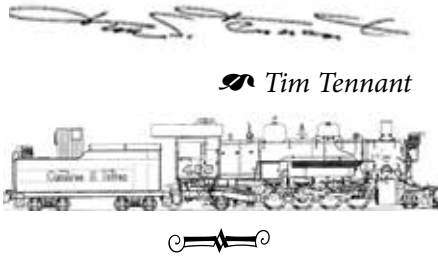
While I was busy with work, Judy quickly found an Administrative Assistant's position working for the Vice President of Purchasing at American Home Furnishings. The job certainly had benefits that came in handy when we went to buy new furniture!

It was wonderful being in our new home and having Judy with me. Of course, we were hard at it, painting rooms and making this house our own. Coming from the Midwest we were not familiar with "evaporative cooling." Back in Wisconsin we had

central air conditioning; the swamp cooler needed to go and was replaced with refrigerated air.

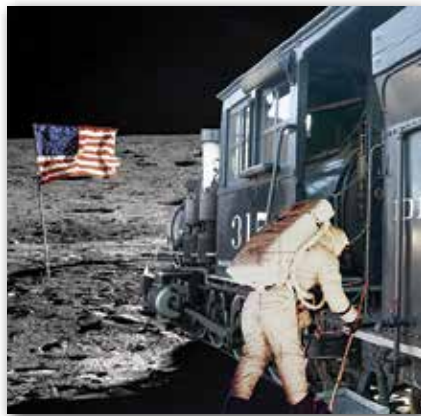
So, there's a little behind the scenes of our move to New Mexico. In the next *Dispatch*, I'll explain my first few years on the job, including some unexpected twists and turns.

As always, thank you for reading my columns and for the support you provide the Friends.



Tim Tennant

“One Small Step for Man, One Giant Leap for the Cumbres & Toltec!”



**Annual Moonlight and Wine Tasting Train
July 20, leaving Chama
at 3:00PM**

No additional details available at this time, but the event is also the 55th Anniversary of Neil Armstrong's Apollo 11 Moon Landing! Come celebrate the moon landing, the wine, the Railroad and the Friends!

Watch the *Dispatch Extra* newsletter for details soon!

DON'T WAIT! JOIN THE FRIENDS OF THE C&TS!



2024 is going to be a great year for the Railroad and the Friends!

If you love trains, history and volunteer activities, JOIN US as we help preserve the "Living History" of the Cumbres & Toltec Scenic Railroad.

For \$40 a year, you and your family can become Friends and receive the quarterly *C&TS Dispatch*, train ride discounts, invitations to special events and the opportunity to participate in restoration projects each summer, along with the satisfaction of supporting and investing in the historic cultural heritage that is the Cumbres & Toltec!

Only \$40 per year for a basic Family Membership! Foreign: \$50

To join, send us this application (or a facsimile):

Name _____

Address _____

City, State, Zip _____

My check for \$ _____ is enclosed,
or

Charge my Visa / MC / Discover
[circle one] for \$ _____

Card # _____

Exp. Date _____

Signature _____

Email _____

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Friends of the C&TSRR, Inc.
4421 McLeod Road NE, Suite F
Albuquerque, NM 87109
505-880-1311

www.friendsofcumbrestoltec.org

**Already a Member?
Give this to a friend!**

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Friends of the C&TS: TELEGRAPH AND NEWS

HELP REALLY NEEDED FOR RPO 54!

But first, big news!

If you are concerned about the cost of attending any of the work sessions or special sessions this summer, you're in luck: *beginning this year, as a two year trial, there will be:*

NO REGISTRATION FEE!

NO INSURANCE FEE!

NO COST FOR LUNCHESES FOR 2024!

We are hoping that these fee waivers will be just the incentive you need for this year's important projects. We are behind on painting because we had to cut back from four painting/lettering work sessions to two after we found Sessions E & F did not work well. With the monsoon rains getting the wood wet, the primer and paint would not properly adhere to the wood. The painting will begin early in **Special Session 1, June 10-14 (Project 720, just prior to Session C in Chama) and will continue throughout C and D (Project 720) in Chama and elsewhere along the line.** These projects will include:

D&RGW Reefer 157: Prep, prime & paint in Reefer Yellow colors.

D&RG Stock Car 5553: Currently painted for the 1916 period, paint in Stock Car Black to match a later period.

D&RGW Stock Car 5549: Paint black.

D&RGW Stock Car 6633: Paint black.

D&RGW Rider Box Car 3537: Paint car Boxcar Red.

Cumbres Pass: Car Inspector's House: Paint trim and porch.

Cumbres Pass Coal Bin: Paint after needed wood repairs.

Cumbres Spring House: Prime & paint.

Osier Station: Prep and repaint windows, sills, doors and trim.

But most importantly, Project 1390, Sessions A and B, Sessions C & D, Antonito CRF.

D&RGW RPO 54: Scrape and prime to prepare for future painting.

Built in 1880 for the Denver & Rio Grande at a cost of \$1,841 by the Billmeyer & Small Company, RPO 54 was part of the U.S. Government's Railway Mail Service (RMS). The D&RG contracted with the RMS to collect, sort and deliver mail for the isolated communities it

served. It was a profitable venture that ended with the discontinuation of the Southwest Extension's *San Juan* passenger train in 1951. The car was sold to the C&TS in 1970.

Restoration of RPO 54 began in 2007 and within a few years it was fully restored, inside and out, and primed and painted. And repainted. And repainted. The problem was that poor choice of the original restoration paint, followed by a cheap paint job by a Hollywood movie crew and then yet another post-movie coat by the Friends. The car looked great but the paint never lasted long. It's time to start over.



Work on RPO 54 (Proj. 1390) will begin during Sessions A and B, May 20-May 31, with Team Leader Jim Hickman scraping the car down to bare wood. The scraping needs to be completed by the end of Session B to prepare for the primer to be applied. Please consider joining us. **This is an important project on a tight schedule, and the Friends will need a lot of volunteers during Sessions A and B to complete it prior to Session C and D, June 17-June 28, (Proj. 0722) when a new primer coat will be applied.**

And if you are worried about your volunteer skill level, no worries: painting is a manual-labor sort of task that almost anyone can participate in. It's important and we'll need *you!*

Registration for any of these projects will begin in March, with the official announcement appearing in an upcoming edition of the *Dispatch Extra*.

In the meantime, please look through the 2024 FIDO schedule to the right. Along with the painting projects, you are sure to find something that is both interesting and within your skill set. Even if it's not in your skill set, you can always learn something new!

And remember: **NO registration fee, NO insurance fee, and FREE lunch and snacks this year!**

Whoever said, "There is no free lunch" isn't working with the Friends this summer!

Work Session Schedule, 2024 (as of March 26, 2024)

Listed below is the schedule for Sessions A-G, although remember that the project schedule is often quite fluid and may change throughout the season without notice. The most current schedule is posted on the Friends website at www.friendsofcumbrestoltec.org or through the QR code to the right. Go to the "Volunteer Registration" link.



Support Services Projects								
Proj Num	Project Description	Session A 5/20 - 5/24	Session B 5/27 - 5/31	Session C 6/17 - 6/21	Session D 6/24 - 6/28	Session E 7/29 - 8/2	Session F 8/5 - 8/9	Session G 9/23 - 9/27
	Registration Deadline	5/14	5/21	6/7	6/14	7/19	7/26	9/13
0200	Chama restoration session Site Leader.			C. McMullen + none	C. McMullen + none			
0201	Antonito CRF restoration session Site Leader.	J. Hickman + none	J. Hickman + none	D. Atkinson + none	D. Atkinson + none	D. Atkinson + none	D. Atkinson + none	I. Kelly + none
0202	Restoration Session Asst. Site Leader Chama			J. Kanocz + none	J. Kanocz + none			
0210	Work Session Check-In for Chama			TL NEEDED + none	TL NEEDED + none			
0211	Work Session Check-in Antonito CRF	M. J. Smith + none	M. J. Smith + none			M. J. Smith + none	M. J. Smith + none	M. J. Smith + none
0222	Friends merchandise sales - registration location.	M. J. Smith + none	M. J. Smith + none	TL NEEDED + none	TL NEEDED + none	M. J. Smith + none	M. J. Smith + none	M. J. Smith + none
0230	Food Preparation - Chama lunches and snacks.			C. Tower +3	J. Lauffer +2			
0231	Food Preparation - Antonito CRF Lunches.	M. Barlen (Asst: J. E. Mitchell) + 1	M. Barlen + 1	L. Aldrich + 1	L. Aldrich + 1	M. Barlen + 2	M. Barlen + 2	J. E. Mitchell + 1
0240	Tool Car Operation - Chama			C. McMullen + 1	C. McMullen + 1			
0241	Bolt Car Operation - Chama			R. Brigham + 1	R. Brigham + none			
0245	Tool & Bolt Operation - Antonito CRF.	M. Smith (Asst: D. Barlen) + none	M. Smith (Asst: D. Barlen) + none	G. Davies + none	G. Davies + none	M. Smith (Asst: D. Barlen) + none	M. Smith (Asst: D. Barlen) + none	M. Smith (Asst: G. Davies) + none
0246	Paint Car Operation - Chama			F. Higgins + 1	F. Higgins + none			TL NEEDED + none
0248	Lettering Coordinator - Stencil Car			S. Jorgensen + none	S. Jorgensen + none	S. Jorgensen + none	S. Jorgensen + none	
0250	Carpentry Shop Operation - Chama			J. Hickman + 2	J. Hickman + 2			
0280	Work Session Preparation at Chama		TL NEEDED + 2					
0282	Work Session Close at Chama				B. Reib + 2			
0284	Hauling & Vehicle Operation	R. Lira + 1	R. Lira + 1	B. Reib + 1	B. Reib + 1	B. Reib + 1	B. Reib + 1	B. Reib + 1
0310	Safety Coordinator for Chama yard			J. Engs + none	J. Engs + none			
0762	Project Chroniding - Chama			S. Stewart (Asst: M.Mee) + 1	S. Stewart (Asst: M.Mee) + 1			
0763	Project Chroniding - Antonito CRF	S. Stewart + 1	S. Stewart + 1	S. Stewart + 1	S. Stewart + 1	S. Stewart (Asst: M.Mee) + 1	S. Stewart + 2	S. Stewart + 1

Projects in Antonito, CO								
Proj Num	Project Description	Session A 5/20 - 5/24	Session B 5/27 - 5/31	Session C 6/17 - 6/21	Session D 6/24 - 6/28	Session E 7/29 - 8/2	Session F 8/5 - 8/9	Session G 9/23 - 9/27
0311	Safety Coordinator for Antonito CRF	J. Engs (Asst: D. Atkinson) + none	J. Engs (Asst: D. Atkinson) + none	D. Atkinson + none	D. Atkinson + none	J. Engs (Asst: D. Atkinson) + none	J. Engs (Asst: D. Atkinson) + none	J. Engs (Asst: I. Kelly) + none
0701	Landscaping Antonito Yard and Friends Ed Lowrance CRF / CSF complex	TL NEEDED + 1	TL NEEDED + 1			TL NEEDED + 2	TL NEEDED + 2	TL NEEDED + 2
0722	Car Painting Antonito CRF and AN based painting			D. Stewart (Asst: F. Higgins) + none	D. Stewart (Asst: F. Higgins) + none			
0732	Car Lettering Antonito CRF				S. Jorgensen + none	S. Jorgensen + 2	S. Jorgensen + 2	
0741	Caboose Annual Maintenance and Roof Repair	D. Atkinson + 1	D. Atkinson + none					
0779	Mechanical Maintenance - Antonito CRF	B. Kepner + 3	B. Kepner + 3			B. Kepner + 3	B. Kepner + 3	
1197	Construct Period Trucks for Passenger Coaches	I. Kelly + 1	I. Kelly + 1	I. Kelly + 1	I. Kelly + 1	I. Kelly + 1	I. Kelly + 1	I. Kelly + 1
1248	Restore UTLX Tank Car 11050 original GRAMPS car				C. Trunk (Asst: R. Worwag) + 1	C. Trunk (Asst: R. Worwag) + 1	C. Trunk (Asst: R. Worwag) + 1	C. Trunk (Asst: R. Worwag) + 1
1304	Restore Converted Stock Car 5774							D. Pyzel + 2
1332	Restore GRAMPS Tank Car 11056 to operational condition				C. Trunk (Asst: R. Worwag) + none	C. Trunk (Asst: R. Worwag) + none	C. Trunk (Asst: R. Worwag) + none	C. Trunk (Asst: R. Worwag) + none
1354	Maintain and Repair MW02 to operational condition	J. McGee + 1	J. McGee + 1				J. McGee + 1	J. McGee + 1
1360	Addition of a Covered Structure on west end of Antonito CRF.	B. Oltmanns + 2	B. Oltmanns + 2			B. Oltmanns + 2	B. Oltmanns + 2	
1369	SHPO - Repair Telephone booths, wood structures at key locations along the right-of-way.			D. Atkinson + 1	D. Atkinson + 1	D. Atkinson + 2	D. Atkinson + 2	

Proj Num	Project Description	Session A 5/20 - 5/24	Session B 5/27 - 5/31	Session C 6/17 - 6/21	Session D 6/24 - 6/28	Session E 7/29 - 8/2	Session F 8/5 - 8/9	Session G 9/23 - 9/27
1378	Add identifying number plates to all tank cars						TL NEEDED +1	
1389	Rebuild Box Car 3263 for use as Friends Stencil Car.					D. Myers (Asst: S. McCollough) +2	D. Myers (Asst: S. McCollough) +2	
1390	Railway Post Office Car 54 - Repair windows and windowsills then strip old paint and prime, repaint and re-letter	J. Hickman +10	J. Hickman +10		D. Stewart +none	D. Atkinson +2		
1391	Rebuild Flat Car 6649 to roadable condition for MOW service			B. Oltmanns (Asst: B. James) +2	B. Oltmanns (Asst: B. James) +2			B. Oltmanns +3

Projects in Sublette, NM

Proj Num	Project Description	Session A 5/20 - 5/24	Session B 5/27 - 5/31	Session C 6/17 - 6/21	Session D 6/24 - 6/28	Session E 7/29 - 8/2	Session F 8/5 - 8/9	Session G 9/23 - 9/27
1343	SHPO - Repair Shingle Bunk House (SSH) exterior					B. Conry +none	B. Conry +none	
1345	SHPO - Maintain and repair deteriorated Sublette Section House (SSH) structure and exterior. Please see NOTE for a health and safety recommendation.		B. Conry +2			B. Conry +4	B. Conry +4	

Projects in Cumbres, CO

Proj Num	Project Description	Session A 5/20 - 5/24	Session B 5/27 - 5/31	Session C 6/17 - 6/21	Session D 6/24 - 6/28	Session E 7/29 - 8/2	Session F 8/5 - 8/9	Session G 9/23 - 9/27
1005	SHPO - Reconstruction of Car Inspector's House			J. Pierce (Asst: V.Behr) +3	J. Pierce (Asst: V.Behr) +2	J. Pierce (Asst: V.Behr) +3	J. Pierce (Asst: V.Behr) +3	
1365	Construct Walking Trails - Cumbres Section Town and Historic signage, joint project with Scouts BSA.			J. Engs (Asst: T. Stewart) +none	J. Engs (Asst: T. Stewart) +none			
1388	Develop Master Plan for Cumbres Section Town MPC			R. Young (Asst: J. Engs) +none	R. Young (Asst: J. Engs) +none			
1401	Repair Cumbres Station Pump House			J. Pierce (Asst: V.Behr) +none	J. Pierce (Asst: V.Behr) +none			

Projects in Chama, NM

Proj Num	Project Description	Session A 5/20 - 5/24	Session B 5/27 - 5/31	Session C 6/17 - 6/21	Session D 6/24 - 6/28	Session E 7/29 - 8/2	Session F 8/5 - 8/9	Session G 9/23 - 9/27
0700	Landscaping Chama - Yard and Gardens			TL NEEDED +2	TL NEEDED +1			
0720	Car Painting - Chama Based			D. Stewart (Asst: F. Higgins) +10	D. Stewart (Asst: F. Higgins) +9			
0730	Car Lettering - Chama Based				S. Jorgensen +2			
0780	Mechanical Maintenance - Chama Based			M. Wissler +3	M. Wissler +3			
1017	SHPO - Stabilization and Repair of Coal Tipple (2024 - Advise contractor for installation of lightning protection system).			J. Sulkus (Asst: J. Soos) +none	J. Sulkus (Asst: J. Soos) +none			
1186	Cosmetic Restoration Engine 483 and Tender for Static Display			R. Schoen (Asst: B. Sargent) +6				
1286	Construction of Friends Storage Building.			C.Wander (Asst: F. Kuhns) +3	C.Wander (Asst: F. Kuhns) +2			
1307	Install Sign Garden in lower garden area below the stairs on the west embankment in the Chama Yard.			J. Ferrell +2				
1310	Remove and replace west side hand rail on stairway from Terrace Avenue			J. Lauffer +3				
1312	Reconstruct High Side Gondola 1000			M. Hagemann +5	M. Hagemann +4			
1372	Joint Project RR / Friends Excavate Material, Install Retaining Wall, Swell, Sump Drain and Stabilize Track Bed			J. Sulkus (Asst: J. Soos) +4	J. Sulkus (Asst: J. Soos) +4			
1376	Rebuild boxcar 3566 as a Hollywood Movie Boxcar (HMB) for public display			R. Young (Asst: D. Sowell) +4	R. Young (Asst: D. Sowell) +3			
1379	Rebuild double deck Stock Car 5600 to road-able condition.				B. Lock +5			
1404	PUBLIC INFORMATION SIGN - NORTH, RECONDITION. project signage will be removed and project deleted SIGNS BEING REMOVED NO LONGER NEEDED			J. Ferrell +none				
1405	PUBLIC INFORMATION SIGN - SOUTH SIGN BEING REMOVED			J. Ferrell +none				

Projects Along the Right-of-Way

Proj Num	Project Description	Session A 5/20 - 5/24	Session B 5/27 - 5/31	Session C 6/17 - 6/21	Session D 6/24 - 6/28	Session E 7/29 - 8/2	Session F 8/5 - 8/9	Session G 9/23 - 9/27
0710	Removal of plant material along the Right of Way (ROW) that may impair SAFE and efficient Railroad operations. The ROW extends from the Yard Limit in Chama to the Yard Limit in Antonio.				P. Davenport (Asst: A. Green) +5			
0740	Wood Preservative Treatment - Along the Line and Rail Yards				F. Higgins +1			
0750	Maintain All Railroad Signage Along the 64-Mile Long Track			M. Mahoney (Asst: P. Davenport) +4				L. Marquess (Asst: P. Davenport) +2

Projects in Chama		
Proj Num	Project Description	Session SS2 5/3 - 5/5
0200	Chama restoration session Site Leader.	B. Lock + none
0210	Work Session Check-In for Chama	B. Lock + none
0310	Safety Coordinator for Chama yard	B. Lock + none
1379	Rebuild double deck Stock Car 5600 to road-able condition.	B. Lock + 5
Proj Num	Project Description	Session SS1 6/10 - 6/14
	Registration Deadline	6/6
0200	Chama restoration session Site Leader.	D. Stewart + none
0210	Work Session Check-In for Chama	D. Stewart + none
0246	Paint Car Operation - Chama	F. Higgins + 1
0310	Safety Coordinator for Chama yard	D. Stewart + none
0720	Car Painting - Chama Based	D. Stewart (Asst: F. Higgins) + 10
0762	Project Chronoling - Chama	S. Stewart (Asst: M.Mee) + none
Projects in Chama - Antonito		
Proj Num	Project Description	Session I 5/11 - 10/23
0400	Docents Program on the C&TSRR	R. Muth + 40
Projects in Chama yard - Antonito yard		
Proj Num	Project Description	Session H 1/1 - 12/31
0208	Volunteering on the Railroad Outside Scheduled or Special Work Sessions	VOL NEEDED + 12
0246	Paint Car Operation - Chama	F. Higgins + none
0270	Equipment Preparation - Chama/Antonito	L. Beier + none
0294	Hauling & Vehicle Operation	B. Reib (Asst: L. Beier) + 4
0705	Historic Signage at Osier. Install May - Remove October	T. Stewart + 1
0790	Mowing of Grass (Rider Mower) Chama Yard and Stock Pens.	T. Stewart + 1
1005	SHPO - Reconstruction of Car Inspector's House	J. Pierce (Asst: V.Behr) + 10
1288	Construction of Friends Storage Building.	B. Conry + 10
1345	SHPO - Maintain and repair deteriorated Sublette Section House (SSH) structure and exterior. Please see NOTE for a health and safety recommendation.	B. Conry + 10
1379	Rebuild double deck Stock Car 5600 to road-able condition.	B. Lock + 5
1398	Develop Master Plan for Cumbres Section Town MPC	R. Young (Asst: J. Engls) + none
Projects in Colorado Springs		
Proj Num	Project Description	Session COS 1/1 - 12/31
0211	Work Session Check-In Antonito CRF	J. Engs + none
0311	Safety Coordinator for Antonito CRF	J. Engs + none
1101	Manufacture Molds for Door Parts and Cast for Box Cars.	R. Schaefer + none
1125	Maintain COS Site Facilities and Area	D. Atkinson (Asst: J. Engs) + 15
1373	Restoration of D&RG / D&RGW Express Baggage Car # 163	J. Engs + 15
Projects in any location		
Proj Num	Project Description	Session J 1/1 - 12/31
1394	Social Media Volunteer Assistance	K. Walser + 5
1395	Special Projects Committee - Education Programs	M. Sellers (Asst: K. Walser) + 25



Photo by Stan Rhine, July 2008. FCTS SR52-062

There are two essential ingredients necessary for railroad operation through the San Juan Mountains: **COAL** and **WATER**. Since 1880, the Denver & Rio Grande and its successors, including the Cumbres & Toltec, have needed both. While coal may be less essential for fuel as the C&TS converts its fleet of locomotives to oil, there will always be the need for...

Water to Steam, Power to Motion!

Despite their diminutive size compared to mainline standard gauge locomotives, the one-hundred-year-old narrow gauge engines on the C&TS still consume a phenomenal amount of water to operate, to the tune of 4,000 gallons, as they climb the continuous 1.5% grade from 7,888 foot Antonito to the next available water source at Sublette, twenty-six miles west and 1,338 feet higher at 9,276 feet. From there, it's another twenty-four-mile climb to 10,015-foot Cumbres. On the easy 4% descent to Chama, the locomotives aren't nearly as thirsty. That changes, of course, when they return to Antonito, climbing eastbound up the same fourteen-mile 4% grade to Cumbres; it's a 4,200 gallon trip.

In this issue of the *C&TS Dispatch* we

will take a historical look at water along the Railroad; where it comes from, how it's delivered and how its infrastructure has changed since the late 19th century. This will certainly not be a complete history: unlike coal, water doesn't have to be mined and shipped to the Railroad from far away; with luck water is always close at hand and can almost be taken for granted. Thus, much of its historical importance gets lost or overlooked and information is often difficult to find. Many of the puzzle pieces are still missing but what remains paints a picture of how the Railroad worked, and continues to work, through changes in time, technology, politics and the sheer grit of the railroaders of the San Juans. *Chris James, Editor*

The late Herbert Taylor, Sr., of Alamosa, Colorado, was an employee of the Denver & Rio Grande Western Railroad for fifty years and eleven months, much of that time in the Water Supply Section on the line between Antonito and Chama. He was an expert on the subject of water resources along the entire D&RGW narrow gauge line. Mr. Taylor was interviewed in July 1971 by Joe C. (Swede) Johnson of Antonito which was printed in the *C&TS Dispatch*, Vol. 5 No. 5, November, 1992 by "Swede" Johnson and Herbert Taylor, Jr. We thank Herbert Jr.'s daughter, Kristy Stella, for giving us permission to reprint Mr. Taylor's interview.



Art Nichols, Editor, Steven Schroeder, Assistant Editor.
C&TS Dispatch, 1992

The information is from several sources: recollections of Mr. Taylor, Sr.; copies of the layouts from the 1905 individual water systems along the line; and D&RGW records from the early 1920s.

Note: An interview such as this is probably best viewed as an "oral history," based on the interviewee's "fifty years and eleven months" of recollections, not vetted by academic historians. Thus, there may be inaccuracies therein. That's OK. History is a slippery topic and "recollection memories" are better than none at all. In several places, I have modified the interview for clarity. Chris James, *C&TS Dispatch*, 2024

Water Resources Along the Narrow Gauge

An Interview with Herbert Taylor, Sr., 1971

Antonito, Colorado MP 280

The Denver & Rio Grande Railway began taking water at Antonito before 1893. Notice of water use was legally posted in 1893 and water rights were conveyed to the railway on March 31, 1893. The first water tank was built before 1893 and a new frame was made for it in 1897. In 1905 water was drawn from the San Antonio Creek, on railway land at a point about 350 feet from the main line. Water from this source was described as sufficient in quantity and good in quality, except for being in short supply during the month of irrigation. There was a 36-inch upright boiler and a No. 9 Chameron pump at the creek and a three-inch cast iron pipe (laid in 1887) leading to the tank.

Sometime in 1905 an additional water supply for the tank was secured from a nearby well, 232 feet deep. The well had a No. 1 pump with cylinders 5¼ x 36 inches. Power was supplied by a locomotive boiler. The well casing was 5½ inches in diameter. The pump was located in a pump house with a 36-foot derrick.

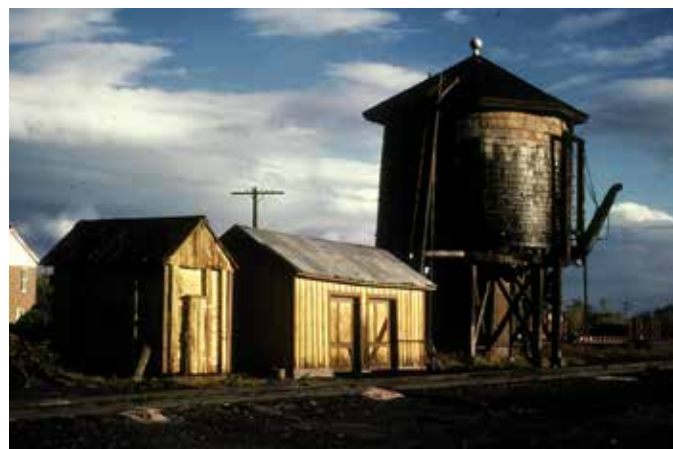
The pre-1883 tank was replaced in 1912. The tank was used until about 1968. Apparently little changed until 1971 when locomotives began getting water service from a standpipe and old Antonito tank was moved to Lava, replacing the water tank that had burned that July.

Update: According to Doris Osterwald, later "a much-needed water tank was built, a great improvement over filling engine tenders with a garden hose!"

The water tank you see today was constructed by the C&TS, but it is much smaller than the original Antonito tank and appears to be similar in design to the tank at Los Pinos, Colorado. Today, water comes from the town system.



Photo: W. D. Joyce, 1916.
Original Antonito Water Tank
FCTS RD085-029



Antonito water tank and service buildings. FCTS RDS001-053

Lava, New Mexico MP 290

The D&RG began taking water from Rio de los Pinos before 1883. The declaration of water rights (amount not stated) was recorded on June 30, 1883. The water rights were conveyed to the railway on June 21, 1883.

In the same year, several structures were built below the mesa, where the narrow gauge line was located, along the Rio de Los Pinos. They were a stone pump house and a pumper's residence. The residence was removed during the 1930s but the pump house still stands alongside the river.

In 1905 the railway used 12,000 gallons of water at Lava every twenty-four hours.

The pumping equipment consisted of a horizontal, brick-set boiler, 3x12 feet; a locomotive boiler, a Worthington pump; and a No. 9 Cameron



Original Lava Tank
Photo by Ernie Robart, June 1967.
FCTS ERNG19670606-0113

pump. Three-inch cast-iron pipe led from the river...up the mesa to the water tank.

The original Lava tank was built sometime before 1883 and a new frame was added in 1896. It was replaced in 1918.

Update: Along with evidence of several different foundations for the various tanks over the years at Lava, the site also once included a watchman's house, a section house and a bunk house. These structures were torn down in 1938.

The 1918 Lava Tank burned in 1970, probably caused by a railfan who had climbed to the top of the tank to photograph a passing C&TS train. He stuck a cigarette between two shingles to take a photo and the wind took it from there. According to Earl Knoob, the tank burned to its water level at the time, about 2/3's full.

The tank in Antonito was disassembled, minus the base, and brought to Lava as a replacement. Water was supplied through 840-foot of pipe from the 1883 Pump House, 500-feet below the tank, along the Los Pinos River through the mid-to late-70s. The Pump



Burned Tank at Lava.
Photo by Ernie Robart, October 1971
FCTS ERNG19711003-01407



Restored Lava Tank, moved from Antonito in 1971.
Photo by Thomas Gildersleeve, June 1995 FCTS THG01-188

House is no longer functional and the tank is currently dry, but is being rebuilt again for future use.

Since 2017, with the approval of the State Historical Preservation Office (SHPO), the Friends of the Cumbres & Toltec have been making progress restoring and stabilizing the Pump House, re-roofing the entire structure and re-pointing the mortar on the one hundred-year-old rock work. There has been considerable vandalism—spray paint, stolen metal parts—but the Friends have been working on an interpretive plan to both restore and protect this historic asset on the banks of the Rio de los Los Pinos.

One of the C&TS locations that few visitors—and few Friends volunteers—have visited is the Lava Pump House on the Rio de Los Pinos. It is far from the track, below the volcanic plateau traversed by the Railroad. but it was an important piece of the D&RG infrastructure, as important historically as anything in Cumbres or Chama. Fifty years ago, Friends member Dan Pyzel monitored the Lava Pump House and has a few stories to tell.

The Lava Pump House on Rio Los Pinos: Some Memories from Dan Pyzel

In 1970 the States of Colorado and New Mexico bought from the Denver and Rio Grande Western Railroad the portion of the narrow gauge from Antonito, Colorado to Chama, New Mexico. This segment of the Railroad was a part of the San Juan Extension, and ultimately became the Cumbres and Toltec Scenic Railroad. The purchase included 64 miles of track, sidings and yards; nine locomotives, 130 cars, and all of the lineside structures on the property. Seven water tanks were among these structures. The water tanks were located at Lava, Sublette, Osier, Los Pinos, Cumbres, Cresco and Chama. Sublette and Cumbres were eventually replaced by underground tanks. The Lava tank was the only one filled by a pump instead of gravity.



FCTS ERNG19700927-0210

I had volunteered for the “Save the Narrow Gauge” groups for several years, and after the Railroad was purchased I went to work for the Joint Executive Committee of the Colorado and New Mexico Railroad Authorities, who owned the Railroad. Since both states were prohibited by their constitutions from interacting on any project such as this, the Joint Executive Committee was created to interact and make things happen. I worked for them as a consultant, and was the boots on the ground person. There were many facets of this job, and one of the many was to operate the pump and fill the Lava water tank.

The tank was one of many similar ones around the Denver & Rio Grande system and was a wood tank, which until the fire, held 50,000 gallons of water. The Lava tank is on a high desert mesa near Mile Post

292, about 12 miles west of Antonito. The pump to fill it is in a stone building next to the Rio de Los Pinos.

The tank and the pump house are only about a quarter of a mile apart, but the tank is over four hundred feet higher than the pump house! This made necessary a really powerful pump to raise the water from the river high enough to fill the tank.



Lava Tank, 1969. Photo by Ernie Robart
FCTS ERNG19680423-1676

The pump itself was a high capacity positive displacement unit, no longer powered by steam, a Fairbanks Morse single cylinder diesel engine. An air compressor was attached to the engine, and the compressed air to start the engine went into a large air tank within the pump house. The engine had a large metal plug protruding from the cylinder head and extending into the combustion chamber.

To begin, I had to check that the end of the suction pipe extending from the pump house into the settling box in the river was below the water surface. There were times when I had to wade out into the river and roll rocks to raise the water level enough to cover the settling box.



The Pump House diesel engine at a roadside display at La Jara, north of Antonito, 2018. Photo by John Cole

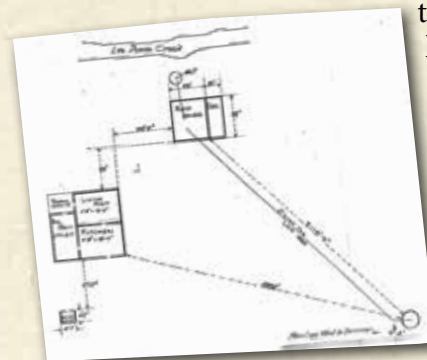
The procedure for starting the engine was to heat the metal plug in the cylinder head with an old fashioned blow torch. Once the plug reached the proper temperature, the compression release was opened and the engine was turned by opening the valve on the air tank. When the compression release was closed the engine would begin to run and

operate the pump and refill the air tank. Since it was a positive displacement pump, it would draw water up from the settling box in the river and push the water up to the tank far above. All of this was very noisy and dramatic.



View of the Pump House below the tank, April 1968.
Note the old foundation of the "Pumper's Dwelling."
Photo by Ernie Robart FCTS ERNG19680423-1676

The steel tank inside held compressed air to start the engine. In the event that the air in the air tank had leaked away, the procedure followed was the same, except that the engine had



Pump House and Tank Layout, 1920
Courtesy John Eng

to be spun by hand: grab the flywheel and turn it as fast as you can! This involved a lot of effort and bad language. Lesson learned: Don't leave without

making sure the air valve is shut tight!

Lava Tank was used only rarely as the K-36's could easily make it from Antonito to Sublette without a water stop. Lava was also used to refill the Rotary plows when they turned at the Lava Balloon Loop.

The times I did this are mostly good memories, but one bad one is impossible to forget. Usually when I figured it had run long enough, I would drive from the pump house around and up to the tank to see if water was coming out of the overflow pipe. This was inside the tank and open at the top, and would drain off the excess water when it became high enough, meaning that the tank was full. It was a long way from the pump house to the highway, then to Antonito, and then to the water tank at Lava over an awful dirt road. This time when I got to the tank, the water was shooting across the track from the discharge pipe where the spout was. Boy, did I scamper up that rickety ladder and down into the tank to shut the valve letting the water go to the spout!

All part of the job, they say but I wouldn't trade a single day of it for anything. ~ Dan Pyzel

While the Lava Tank and Pump House are currently non-functional, there is still an occasional need for water availability at Lava, particularly when westbound C&TS charter trains with Locomotives 168 or 463 is on point. On



Topping off 315 at the Lava Loop. Photo by Don Atkinson

these charters, additional water for photo run-bys is often needed. For those excursions a Rotary plow water tender car is filled in Antonito and spotted at the Lava Balloon Loop as a temporary watering hole. Lava Tank (though not the Pump House) may soon be operational again, requiring only a five-minute water stop at the tank instead of a twenty-five minute fill-up from the water tender car.

Sublette, New Mexico MP306

As with Antonito and Lava, the D&RG began taking water at this location before 1883. F. P. King posted notice on November 7, 1884, claiming 10 inches of water [See sidebar, right] from an unnamed stream about 1,500 feet from the main line. Declaration was recorded January 12, 1885 and water rights were conveyed to the railway at an unspecified date in 1895.

A water tank was built before 1883, and a new frame was added to it in 1897. A 1,600-foot line of 3-inch cast iron pipe was laid from the source stream to the tank in 1887. About 1900 the pipeline was extended to a spring 2,700 feet from the tank. When the track through Sublette was realigned in 1937, another small spring was added to the water supply.

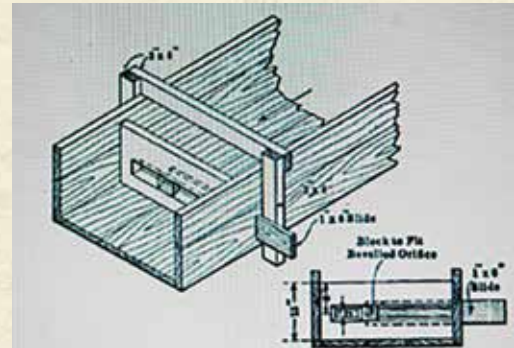
In 1905 the railway used 12,000 gallons of water daily at this site. The present underground reservoir on the north side of the tracks has a 34,000-gallon capacity and was installed in 1939. When the water tank across the track from the newer reservoir and standpipe was torn down, it was discovered that the tank was made of pine instead of the normal redwood.



Filling C&TS 487 at the Sublette Standpipe FCTS RDS006-018

A "Miner's Inch?"

"... claiming 10-inches of water..." A "Miner's Inch" is the amount of water that would flow through a 1 inch square hole under a predetermined amount of head pressure. As a unit of measure, it varies from state to state. In Colorado, 100 Miners Inches is 2.6 cfs. Thus, "10 Inches of water" at Sublette would be approximately .26 cfs or about 117 gallons/minute. (Kevin Boyle, Colorado Division of Water Resources.)



A view of a Miner's Inch measuring device, with an adjustable orifice. Source: *Irrigation Practice and Engineering, Volume 3*, by B.A. Etcheverry, University of California.

The term "Miner's Inch" seems to be an oxymoron when measuring water flow in rivers, canals and ditches. Nevertheless, during the early settlement of western America this method of measuring water used for mining operations was adopted by early engineers and farmers to measure non-mining waters. However, this method of measuring water was short-lived, but it can be found in old documents, lawsuits and decrees. LeRoy W. Hooten, Jr. www.slcdocs.com

Update: The original water tank at Sublette was on the south side of the tracks, across from the current water standpipe.

Of late, the water sources at Sublette have become unreliable. This is one of the reasons, aside from the water capacity limitations of Locomotives 168 and 315, that the restoration and utilization of the water tank at Lava has become an important project for the Railroad.



Sublette Standpipe, June 1967. Photo by Ernie Robart FCTS ENG1970606-0163

Toltec, New Mexico MP310

F. P. King posted notice on November 8, 1884, for the use of 10 inches of water from an unnamed stream about 42 feet from the main line. Declaration of water use was recorded on December 3, 1884, and water rights conveyed on December were conveyed to the D&RG on December 1, 1884. The railway began taking water from this source and had built a water tank at Toltec before 1883. A new frame was added in 1894. In 1886 a 680-foot 3-inch cast iron pipe was laid to carry water by gravity from the unnamed spring to the water tank.



One of the few photos of the tank at Toltec. FCTS RDS006-020

In the early 1920s, the water supply was used only for the section crews and for the rotary snowplows or trains “bucking snow.” The tank was dismantled in the mid-1920s.

Osier, Colorado MP315

Water was secured from a small stream on the land of William Jenkins about 700 feet from the main tank. The water was often frozen solid in the winter; at such times the ice had to be chopped from the stream with axes and melted for boiler use.



Osier Tank, July 1970.

Photo by Ernie Robart FCTS ENG19700927-0210 Osier Tank

The railway began using the stream at Osier before 1883, abandoned it in 1885, and began using it again in 1891. Notice claiming 10 inches of water was posted by F. P. King in November 1884. Declaration of water use was recorded on December 17, 1884 and the rights were conveyed to the D&RG on January 2, 1885.

The wooden tank was built before 1883 and a new frame was installed in 1897.

In 1891 a verbal agreement was made between E. B. Hubbard and Division Superintendent Lydon of the railway and William Jenkins, providing that the company would furnish Jenkin’s house with a hydrant...with occasional trip passes in return for use of water from his property for a water pipeline. This agreement was later understood by Jenkins to include also a coal supply for him. The winter 1905 report stated that since 1897 the company had supplied Mr. Jenkins with coal at the rate of one ton per month, but that no passes had been issued to him by the bridge and building department of the railway.

Also in 1891, 700-feet of 2-inch wrought iron pipe was laid from the stream to the tank. In 1917, 3,000 feet of old boiler flue (2-inch) was laid to aid in bringing water to the tank.



FCTS RD014-056

Because the stream froze, there was no water at Osier between the following dates:

December 25, 1900, to March 10, 1901

December 26, 1901, to May 1902

December 20, 1902, to April 1904

In 1905 the D&RG used 7,000 gallons of water daily at Osier; the average monthly cost of maintaining the Osier water was \$253.99. In 1921, a new redwood tank, with a 10-inch flow pipe, was erected at Osier.

Update: It is the present water tank that was rebuilt by the Railroad in the early 1980s from standardized D&RGW plans.

Los Pinos, Colorado MP324

Notice of water use was posted by F. P. King on November 21, 1884, and water rights were conveyed on November 29, 1884. The railway had been taking water here since before 1883.

In 1884, 1,000 feet of 1½ and 2-inch wrought iron pipe were laid for gravity flow from a spring about 1,000 feet



Los Pinos Tank, May 1971.

Photo by Ernie Robart FCTS ERNG19680528-1096

from the main line to a standard wooden tank with a 6-inch flow pipe, which was built in 1884 for a cost of \$600. The present water tank replaced the original sometime in 1930 or 1931.



Photo by Don Atkinson, 2016

Update: Even from a distance one can see that the Los Pinos Tank is smaller than most of other tanks along the Railroad. According to Doris Osterwald, "The (original) water tank was built in 1880 (probably a standard D&RG 50,000 gallon capacity) for a cost of \$600." Records show the 1891 Los Pinos facilities also included a watchman's house, a section house and a bunk house. These

structures were down in 1938. The original 1880 tank was torn down in 1930 or 1931 and replaced with a smaller, 30,000 gallon tank. In 1986 the tank was rebuilt again as a smaller 10x16 (15,000 gallon) size in a non-historical, "off-the-shelf" design. All of these modifications were probably due to a combination of aging materials, locomotives' larger tender tanks and, by 1986, shorter non-freight trains. It is still occasionally used if the Cumbres tank is out of commission.



Photo by Don Atkinson, 2016

Cumbres, Colorado MP330

The first and only water tank on top of the pass was built in 1883. It had a 6-inch flow pipe. Eight hundred feet of 2-inch pipe brought water to the tank from the natural lake at the end of the Cumbres wye. A new frame was added to the tank in 1894.



FCTS RD013-050

Five years later, to aid bringing water from the lake, a 10-foot diameter Decrorah Steel Windmill was erected on a 40-foot tower to power a 4x12 Curtis pump. By 1905, 3,000 gallons were used daily, but considerably more water was used in the winter when the locomotives were 'bucking snow.'



Photo by Donald Rogers, May 1939

FCTS RD013-137

The water was reported to be "sufficient in quality and good." Herbert Taylor, Sr. said in the 1971 interview

that this was only half true—the water contained some unknown substance that made it foam in the boilers.

In 1918 the water source was changed to a spring above the lake. Six thousand feet of old 2-inch boiler flues were laid from the spring to the tank. In 1937 this gravity line was replaced 6,600 feet of galvanized pipe.

The original 1883 water tank was dismantled in 1940, when a concrete underground reservoir was built, and a standpipe installed on the site of the tank.

Update: With the installation of the gravity line, the windmill was no longer needed and was dismantled around 1939 or 1940.



The standpipe at Cumbres. Photo by Chris James, 2013

Cresco, Colorado MP335

A standard wooden tank was built in 1883; it is still at the original site. Two years later, a 370-foot pipeline was laid with 3 and 2½ inch pipe. The water came from a stream fed by a shallow lake of 16 acres about three miles from the main track. In order to have sufficient water available and to regulate the flow, 800 feet of 2-and 2½-inch casing was laid in 1900 from the lake to a gulch leading to the right of way. The supply was insufficient due to the freezing from December 1901 to February 1902 and from December 1903 to February 1904.



Cresco Tank, May 1994.
Photo by John Guth FCTS JG94-147



Photo by Chris James, 2012

Because of aging, the capacity of the Cresco tank had been reduced from about 40,000 to 18,000 gallons by 1971. Today it is rarely used to service locomotives.

Update: Like many others on the C&TS, the tank was rebuilt by the Railroad in the early 1980s. Despite its limited use, it is a favorite location for photographers.



Cresco Tank, October 2003.
Photo by Gordon Glattenberg FCTS JG94-147

Chama, New Mexico MP334



D&RGW #473 getting ready to continue from Chama to Durango with the last westbound freight of the D&RGW narrow gauge line, Chama, NM. Photo by Ernie Robart December 6, 1968 FCTS ERNG19681206

The D&RG began using water from the Chama river before 1883. Water from the river came from a sump near the roundhouse through 2,000 feet of vitrified tile.

In 1885 a 780-foot-long line of 3-inch iron pipe was laid from the roundhouse to the tank. From the sump the water was pumped to the tank with a No. 9 Cameron pump located in the roundhouse. The original pump was still in the roundhouse in 1971, although an electric centrifugal pump does the work today.

The tank at Chama was built in 1897.

[Thus ends Herbert Taylor's 1971 interview. As mentioned in the "Update" notes with each water stop, there was a lot of preservation, restoration and reconstruction done in the 1980s, pre-Friends. But there was still more to come!

Information that follows comes from Dispatch articles: Earl Knoob's "Water Tanks and Stand Pipes Along the C&TS" in the November 1992 issue, and "Water Tank Restored" in the Winter 1995 Dispatch, as well as comments on the Narrow Gauge Discussion Forum.]



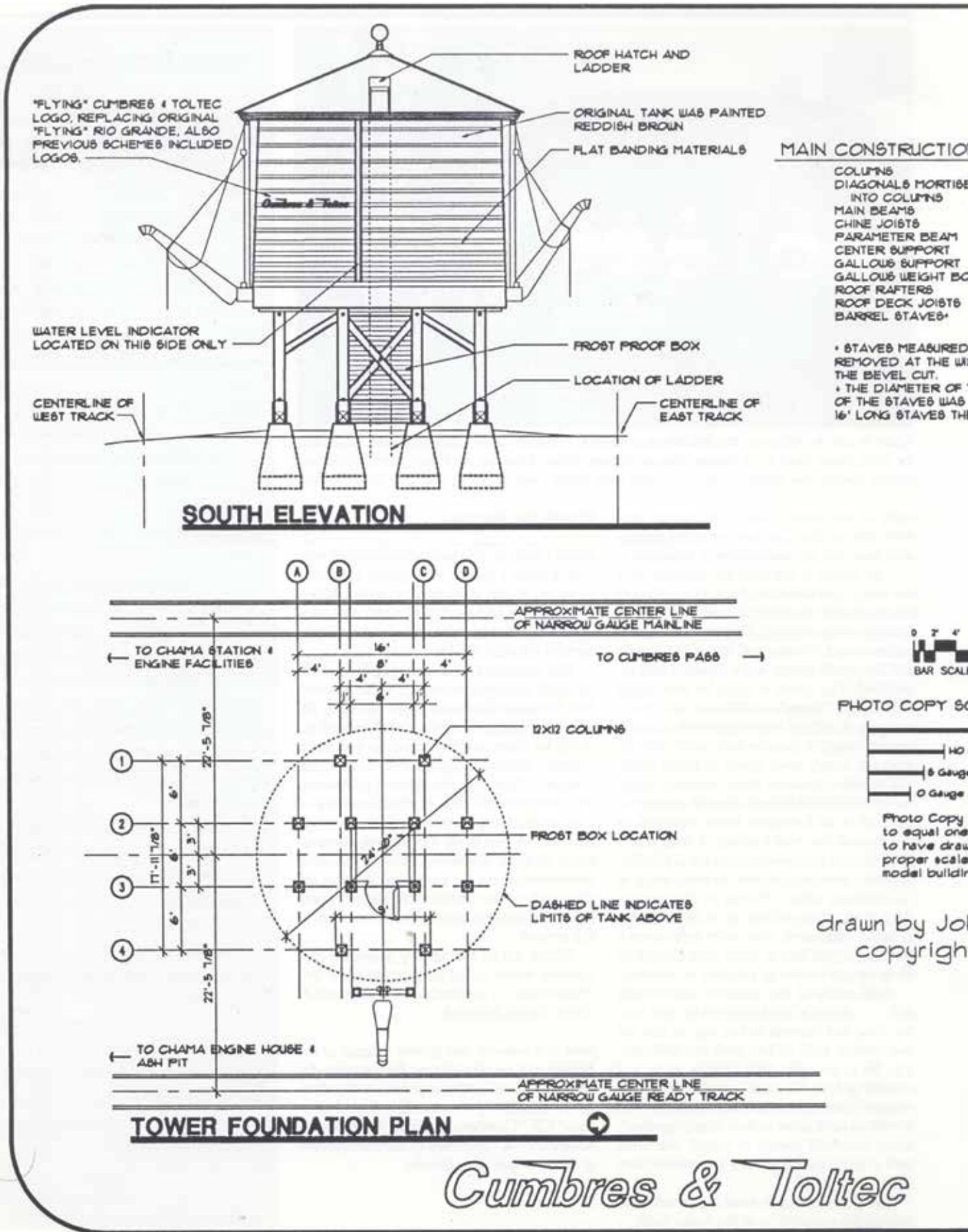
There are two iconic structures on the C&TS: the **Chama Coal Tipple** and **Chama's Twin-Spout Water Tank**. The *Dispatch* plans to document the Chama tipple in a future issue. This article will focus on the water tank in the Chama Yard.

The Chama Tank was one of two double-spout tanks found on the D&RGW, the other being in Cimarron, Colorado, along the Gunnison River. (The Railroad had a tank with two spouts built for the 1951 film, *Denver & Rio Grande* but it was simply a movie prop and never functional.)

Built in 1897, the Chama Tank was modified from the standard D&RG design and was slightly lower to accommodate the height of a narrow gauge tender. According to restoration architect John D. Rupley (see pp. 12 and 13), when the 50,000 gallon tank is filled to capacity, "it

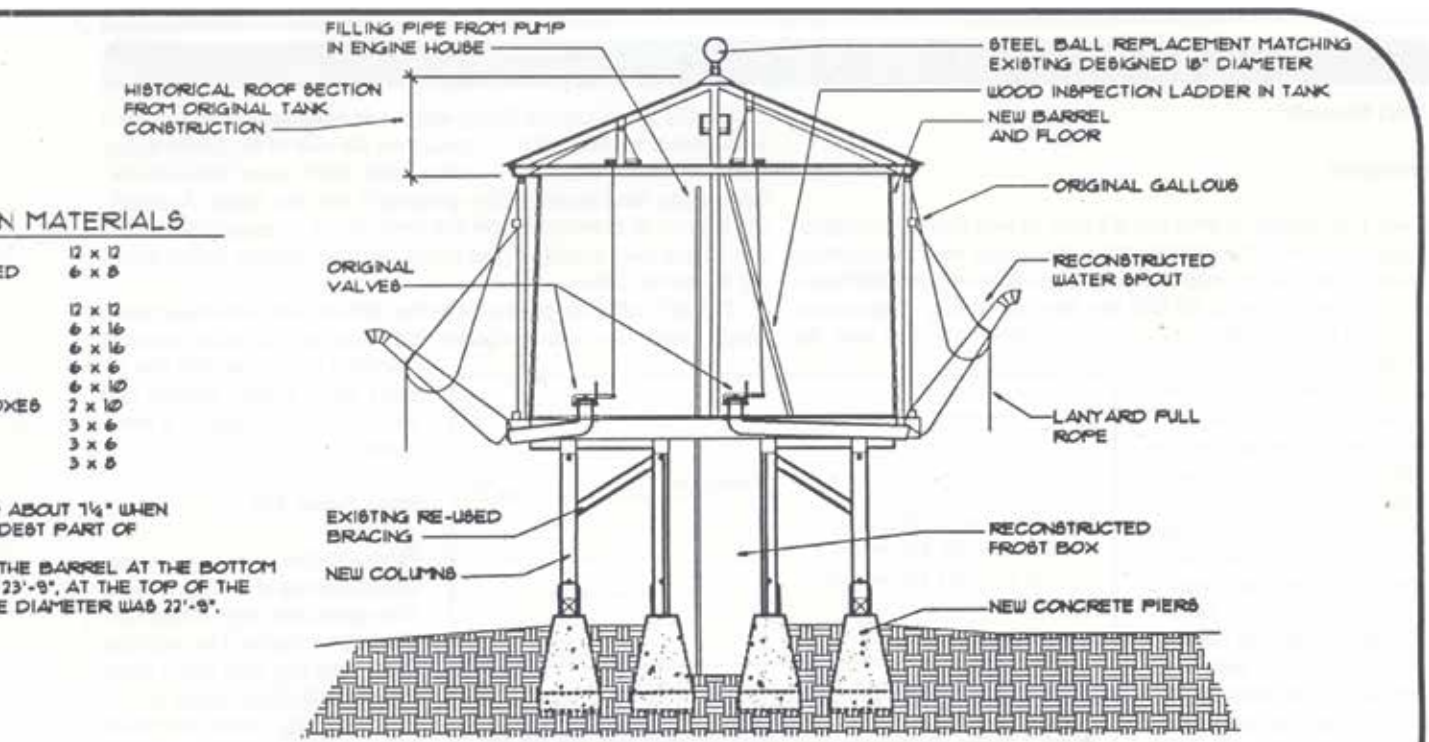
[Continued on Page 18]

These drawings of the construction and interior of the Chama Double-Spouted Water Tank were created by John D. Rupley in 1994-1995, the restoration architect for the project. These originally appeared in the Winter 1995 *C&TS Dispatch*, Vol. 8, No. 4.

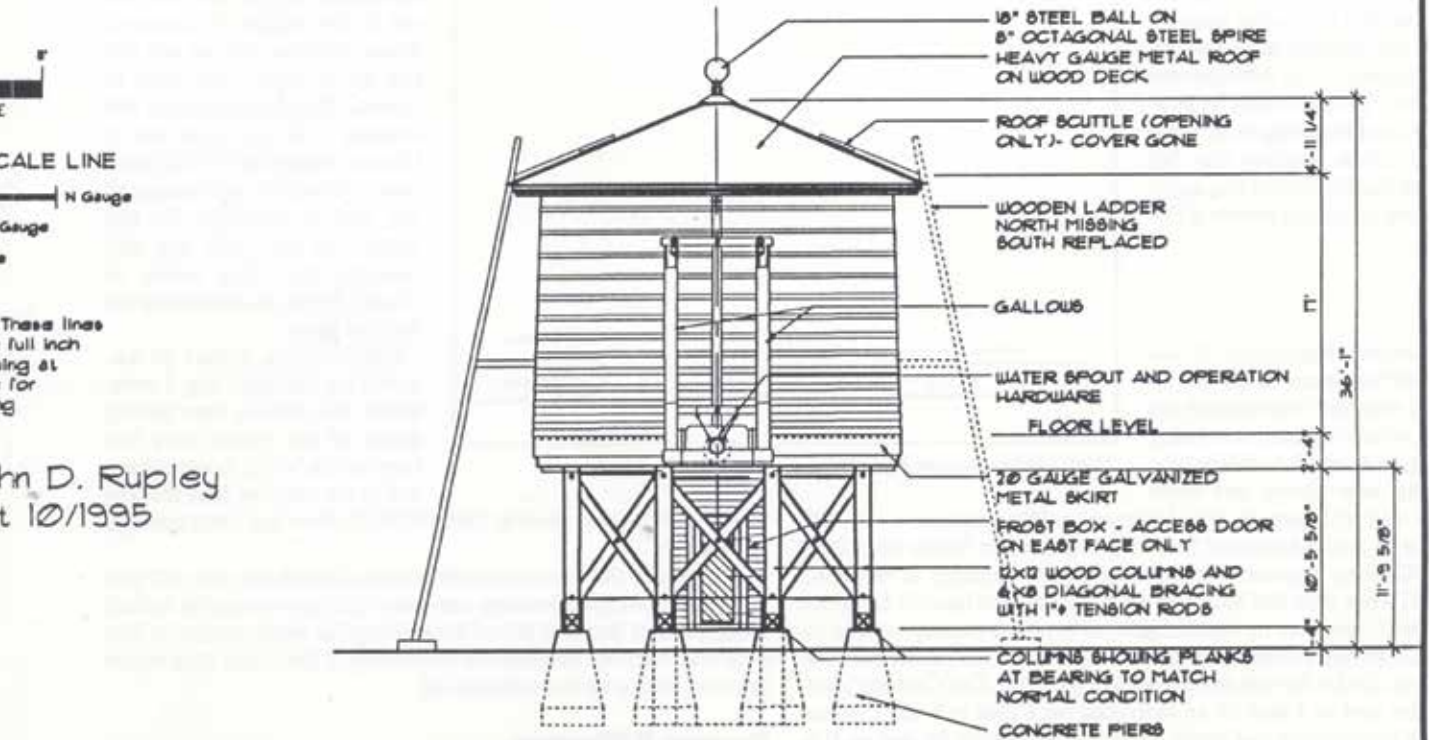


These renderings are reproduced here with Rupley's kind permission. Photos and a complete article about the restoration can also be found in that issue of the *Dispatch* on the Friends Forum:

<https://tinyurl.com/chamatank>



EAST - WEST SECTION



EAST ELEVATION WEST ELEVATION SIMILAR

DOUBLE SPOUTED WATER TANK

[Continued from Page 15]

is nearly the combined weight of two K-36 engines and their tenders...Each of the twelve columns carries the weight equivalent to one of the new passenger cars.”

By the 1960s, the tank was over sixty years old and beginning to lean, and deterioration and leaking was setting in. According to Earl Knoob, a liner was installed in the tank, lowering its capacity (and the accompanying weight) to 20,000 gallons. That reduced the leakage but time and the elements were still taking their toll. As Rupley stated, “It’s amazing that the tank lasted thirteen years between 1968 and 1981” when some stabilization work was done.



“The Leaning (Water) Tower of Chama.” FCSTS RD010-112

As time went on, the rot and leaning continued and it was clear something needed to be done to save this historic asset. Restoration funding was secured from both the States of New Mexico and Colorado, each contributing \$32,870 and the C&TS Railroad commission contributed an addition \$85,695, bringing the total to \$151,436. (That would be \$306,466 in today’s dollars.)

As with any historic C&TS restoration project, the State Historical Preservation Office (SHPO) was involved with every step of the planning, from accurate measurements down to paint samples.



Chama Tank, upright again. 2016. Photo by Don Atkinson

Inside, the original valve was returned along with the gallows that is used to raise and lower the spout. A rope goes to the top of the tank and connects to a long rod that descends through the water to the valve. With the spout in place over the tender, pulling the rope opens the valve a couple of inches. It doesn’t need to open much to fill the tender quickly.

“The Chama tank is one of the very few that retained the original flat banding on the barrel with bolted buckles. John Bush uncovered a 1920s memo...that stated that round banding should replace the flat type because of extensive rusting...The bands on the Chama tank were in serviceable condition and we replaced them exactly as we found them.”

John D. Rupley

It’s interesting to note that while the tank looks perfectly cylindrical, it actually has a slight taper from bottom to top. See the note on the plans on pp. 16 and 17 that, “The diameter of the barrel at the bottom of the staves was 23’-9”. At the the top of the 16-foot staves, the diameter is 22’-5”. The staves are individually milled redwood, a wood that swells slightly when in water. It may leak at first when it’s assembled and filled but seals itself after several weeks.



On the restored tank, you can clearly see the original banding and brackets on the bottom portion of the tank.

Photo by Chris James

The restored tank was dedicated on June 23, 1995, with more than fifty people in attendance! John Rupley summed it up well when he said, “When I first saw the tank with the shiny new coat of paint it looked like a plastic kit on an old model railroad. But passing trains have already removed the ‘new’ and once again the water tank proudly stands ready to service the next tender.”



Antonito Tank: An “Insiders” View!

Annual maintenance on a water tank on the C&TS takes you deep into the interior of a water tank, similar to others along the line.

Photos by Carlos Llamas

Back in the mid-2000s, C&TS employee Carlos Llamas had a website, C&TS Shops, that featured locomotive shop work, Railroad news, goings-on around Chama and Antonito, work along the Right of Way and anything else that caught his photographic interest.

In an April 2005 web posting, Llamas described climbing into the Antonito Water Tank for some pre-season maintenance. While inside, Carlos shot some photos of the interior of the structure, something few of us have ever seen!



Photo by Chris James

(Above) C&TS 463 pulls up to the Antonito tank before leaving Antonito on Opening Day, May 2017.

(Below left) The tank is drained each winter. The wooden staves dry out and shrink and must be caulked in the spring to hold water until the wood swells again. This image also gives you an idea of the size of the interior and the composition of the floor.

(Below right) The framing of the roof structure is an amazing piece of both geometry and woodworking.



(Above) A composite of two photos showing the lanyard rope leading to the spout valve. Note the high-water level on the wall of the tank.



(Above) A closer look at the spout valve. The valve only has to open a few inches to fill the tender. Is the Pepsi bottle there to indicate scale or is it part of Carlos' lunch?

The Three Docenteers



During the 2023 operating season, there were always a number of Friends volunteer docents riding the trains, overseeing the depots and yards, answering questions about railroading, the scenery and safety. Each year they provide the background knowledge of the history, operation and countryside surrounding the Cumbres & Toltec Scenic Railroad. To many, they are the passengers' first exposure to historic narrow gauge steam railroading as they travel and learn from docents such as Pat Maufrais, Joe Hansen, Tom Henderschott, Linda King, Annie Harper, Maureen "Mo" Higgins and...

by Chris James
and
Hank Morris

Photos by
Hank Morris

Wait...What? Not all the docents are guys?

There have been lady docents on the C&TS in the past, but 2023 was the first year there were three knowledgeable women working among the ranks of the knowledgeable men, answering questions about rolling stock, trees and flowers, important locations along the right-of-way and more. "Why is it called Phantom Curve? "Is it true that some of the trains actually carry a 'doghouse?'" "Have you ever seen Bigfoot?" These and a hundred other questions and comments might arise on any given journey as the docents orient the passengers to the narrow gauge

environment in the open gondola car and throughout the coaches. The docents—including Linda, Annie and Mo—have the answers to those questions (well, maybe not Bigfoot), and more. The C&TS may represent a 19th and 20th century railroad but that doesn't mean the Friends still have a 19th or 20th century attitude. Just as women volunteers play important roles in many of the Friends' work session projects, so too can women become skilled docents, ambassadors of the C&TS, riding each train as an encyclopædia of knowledge and lore to educate and entertain the passengers along the way, as well as watching out for their safety and welfare.

All Friends volunteers, regardless of gender, are welcome to join the docents' ranks. They go through a rigorous training course, followed by mentoring with other seasoned docents before they can "fly solo."

The Friends have always welcomed female docents; the problem has been getting them to sign up. The Friends would like to change that.

Just who are these trail-blazing women of 2023?

Linda is no stranger to the docent life. While her career was in the medical diagnostics fields, she also served as a volunteer docent at the San Diego



Natural History Museum, leading public hikes covering history, botany, geology and fauna, not unlike traveling through the San Juan Mountains. Upon retiring, Linda moved to Kingston, in southern New Mexico, and joined the Friends. She participated

in work sessions for a number of years, all the while watching the docents and thinking, "I want to do that." She completed the Friends docent

"I am still having as much fun as I did at the beginning; our visitors are always interesting and there is always something new or different to be seen and experienced on every ride."

training in 2008 and has served annually as a docent ever since.

Annie Harper

"I was just three years old in the 1940s when I took my first train ride. When I was fifteen, my gram bought me a ticket on the *El Capitan*...A



whole day-and-a-half train trip by myself!" A retired Cost Flow Analyst for a major insurance carrier, she discovered Chama in February 2005 while on a day trip from Santa Fe and never looked back. "I visited this little bit of paradise, bought

property in Brazos, south of the village and

"I love trains. I love to see them. I love to hear them. And I love to ride them. I've ridden the C&TS at least one hundred times and now I just get to ride about as often as I like and meet amazing people."

moved there full time in 2015. "Before Covid," she says, "I was a fearless outdoor warrior, but finally slowed down out of respect to my 80 years."

Maureen "Mo" Higgins

After many years in customer relations and direct marketing in Dallas as well as volunteering with several



non-profit organizations, Mo, her sister, and daughter moved to Chama. They had visited Pagosa Springs but decided it was "crowded and the traffic was awful." Deciding to look at smaller towns along the New Mexico/Colorado border, they drove up to check out the area. "Chama was exactly what we had in mind. I fell in love with

the train, joined the Friends and bought a season pass." To prepare for her docent training, she read *Ticket to*

"Each ride I learn something new and that knowledge may be from another docent, a member of the crew or a passenger."

Toltec, "front to back and back to front," but figured she only knew about 1/5 of what was needed and the remaining 4/5's would come over time. "The docents I trained with were wonderful! They shared their experiences and I learned that each docent brings something different to the passengers."



It's a common misconception by folks who are considering docent training is that, like Annie and Mo, you have to live nearby and stay to volunteer all summer. But like most of the Friends volunteers, most docents visit for a week or two and may only work the trains a few times each week, perhaps assisting on other projects in the interim. It all depends on your availability and the docent schedule needs.

Interested in becoming a docent? The rewards are tremendous. Not only do you get to share your knowledge of the C&TSRR and its surroundings and enhance the ride for all the passengers, but you also are able to meet all sorts of people from around the world. Your training will last about a week, learning the details about the history and functioning of the C&TS. Then, like Linda, Annie and Mo, you begin riding with other experienced docents, learning more from their facts and patter and watching how to best interact with all kinds of riders, big and small. Upon successful completion of training, you earn the title of docent and receive your coveted yellow docent badge.

So would you like to be a docent? Check it out! Contact the docent team at docentch@yahoo.com to learn more and get set up to start your docent training!



HISTORICAL INTERPRETATION COMMITTEE

Imagine being invited to someone's home, people you had never visited before but always wanted to meet. Your visit begins when your hosts welcome you at the front door and lead you into the foyer...then they simply walk away, saying nothing, leaving you alone to explore their home with no guidance or explanation of all the fascinating objects that tell stories of their lives. What do these objects represent? What's their history? Why are they important?

If a visitor is new to Cumbres & Toltec, their journey might illicit the same response: they are experiencing a 140-year-old Railroad with a history that they may not know or understand. Understanding that history will help make their journey a learning experience as well a scenic one.

Offering some understanding is the mission of the **Friends of the C&TS Historical Interpretation Committee**.



The Chama "Sign Garden," 2023

Like interpreting a foreign language to a non-native speaker, the Historical Interpretation Committee is seeking people who understand the Railroad's history and can then "interpret" that history into a language that a layman can understand and appreciate by way of exhibits that explain, in simple terms, the sometimes-mysterious world of narrow gauge railroading in the Rocky Mountains.

The Historical Interpretation Committee is looking for people who can join our mission so that others, our visitors and passengers, can better understand an era of railroading that is long gone. The *Historical Interpretation Committee* facilitates this through the creation and upkeep of interpretive exhibits that give historical context to the present-day Railroad. If you would like to be a part of this ongoing project, contact John Ferrell at jwferrell@gmail.com.



D&RG EXPRESS CAR 163 RESTORATION AT THE COLORADO SPRINGS CRF

Text and photos by **Don Atkinson** from the January, February and March Work Sessions at the Colorado Springs Car Restoration Facility

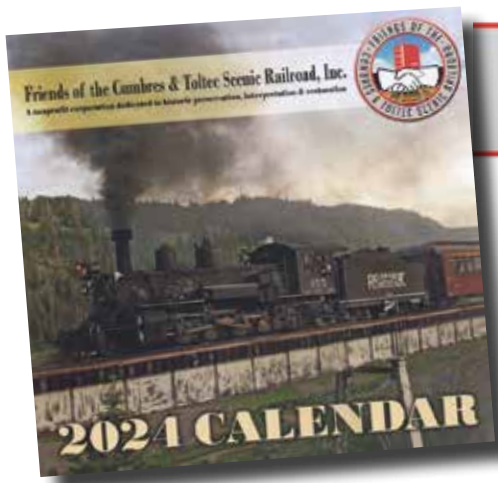
Winter weather hasn't been the most cooperative in Colorado Springs. Our first January work session was cancelled and our second, on January 20th started late due to cold weather that morning. With time cut short, the primary task was leveling the car. The new outside sill for the north end is now sitting on the bolster but is not attached.



On February 24th we held a make-up work session as we lost several work days due to weather. Work consisted of epoxying the north side outside sill splices together, and aligning the upright structural walls and their tenons to the outside sill's mortises. We were able to align the west end by jacking the walls and using come-alongs to pull the car's structure to line up to the sill.



On March 2nd we worked on the Baggage Car 163's north side. We were able to raise the roof sufficiently to align all of the wall's tenons to the outside sill's mortises and lower them into position. We did have to splice one additional replacement piece to a vertical post.



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2024 Friends of the Cumbres & Toltec Calendar!

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505-880-1311 www.FriendsofCumbresToltec.org

You can also order your calendars directly from the Friends website at

https://bit.ly/CTS_Calendar



**MIXED TRAIN PHOTO CHARTER
SATURDAY, AUGUST 3, 2024**

Circle your calendar for Saturday August 3, 2024 as the Friends will be offering a mixed train photo charter departing Antonito on a roundtrip to Osier and return. The consist will entail a mixed train theme with **Locomotive 463** with the Flying Rio Grande herald with the emphasis of **re-creating a "Chili Line" train**. Plenty of photo run-bys en route.

Date: Saturday August 3, 2024

Departure: 7:00 am, Cumbres & Toltec Depot, Antonito, CO

Return: 6:30 pm

Night Photo Shoot: 7:30 pm - 9:30 pm

Fare: \$315 / person - Friends Member
\$370 / person - Non-member

A box lunch, water and snacks are included in the fare price. We're looking forward to a fun day and will be limiting the capacity to 60 passengers. This ensures we can accomplish enough photo run-bys.



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Call the Friends Office in Albuquerque at 505-880-1311 for reservations or any questions. You may also purchase on-line at <https://friendsofcumbrestoltec.org/>



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*A C&TS Rotary Snow Plow passes the Chama Tank as it departs from the Chama Yard, February 15, 1976
Photo by Stan Rhine, FCTS SR52-112*

Endnotes



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