

BIG STEAM NEWS

NEW MEXICO STEAM LOCOMOTIVE & RAILROAD HISTORICAL SOCIETY

Quarterly Newsletter

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Apr—May—Jun 2017



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SANTA FE 2926 is
NEW MEXICO True



WRAP IT UP!

Installation Of Sheet Metal Jacket Will Mark End Of Restoration Work

The timeworn phrase, 'Wrap it up' has multiple meanings. The two most common are, '*finish this project,*' and '*enclose this object*'. Both relate to the current activity and work status at the Santa Fe 2926 restoration site.

First, volunteers, supporters, and rail fans at large are looking forward to completion of the restoration. They want to hear the expression, "IT'S A WRAP". Interest in, and questions about just when the 2926 'wrap' will occur has been steadily increasing on the Society website, Facebook, and other media. A feature article of the 2926 restoration in a current special issue of TRAINS magazine entitled "BIG STEAM IS BACK" will certainly increase that interest. Everyone wants to see New Mexico's flagship steam locomotive under steam again. A finished restoration more than 15 years after it began can finally be called 'A Wrap'.

The second 'Wrap it up' actually leads to the first, and has double meaning. It is a task that marks a final step in the restoration. That is when the iconic locomotive is 'wrapped' in a metal jacket even more shiny than when it was delivered to Atchison Topeka & Santa Fe Railway in 1944. That last task is slow and complicated (see pictures below). Most pieces of the original jacketing were saved when removed at the start of the restoration, but many were too deteriorated to be used as patterns.

The lack of original jacket pieces to be used as patterns called for meticulous 'design from scratch' work to reproduce accurate replacements. The design of each piece required a lot of measuring, marking and cutting—**just to create a pattern**. The patterns then are taken to a local sheet metal contractor for cutting and bending. Back at the restoration site, they are fitted to the proper location on the locomotive. Due to the many bolts, pipes, valves, and related appurtenances, additional trimming is often necessary for an exact fit. Each piece of jacket, once proven to fit, is set in storage to be sent to the paint contractor.

When all other tasks involving the previously mentioned appurtenances are complete, the locomotive will be ready for installation of lagging (insulation). The new jacketing will be installed over the lagging to finish restoration work.

Once the final piece of jacketing is secured in place, the Santa Fe 2926 restoration can be considered a WRAP!

Creating Patterns And Fitting:

Photo 1: Some jacket pieces suitable for use to produce patterns are quite large. With no work benches large enough to use for layout, a large space on concrete next to a storage was used.

Photos 2&3: This small piece of jacketing was marked for final cutting to fit (2). Before cutting, it was double checked in the exact location that it would eventually be installed (3).

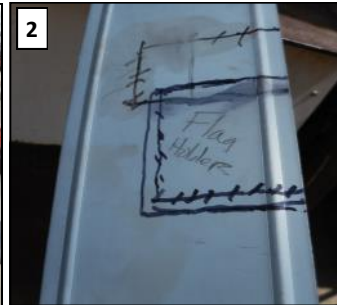


Photo 4: This shows the fit check of a large piece of jacketing that covers one of the locomotive pistons.

Photos 5 and 6: After the fit check and marking of any points that need additional cutting, each piece undergoes any necessary modification for a final accurate fit.

Photo 8: The large piece shown in Photo 4 is being held to demonstrate the complicated final shape of each piece of jacketing. Finally, once all fit checks and necessary trimming and cutting are done all pieces are placed in storage (Photo 9) to await a trip to the paint contractor.



TENDER RECEIVES FINAL PAINT AND LETTERING

Paint Better Than Original, And Accurate Lettering

Santa Fe 2926 arrived at the restoration site in May 2002. Work began on the locomotive's large tender before tackling the locomotive itself. Six years later, having been restored and reassembled, the tender received a coat of black paint for protection from the elements. For public display, to provide an as-original appearance for visitors and other rail fans, stick-on lettering was added. The lettering was not quite original in color shade and font. Those lettering features brought a few critical comments from some rail fan purists. However, it has been a significant visitor attraction, and with assistance of both Amtrak and BNSF, it has twice been moved downtown to the transportation center on national train day. Now it is time to put a high quality coat of paint and correct lettering on the tender. The painting is finished, and lettering is underway, all inside the engine house.

The task started with removal of the stick-on letters. That proved to be no simple task. After almost a decade cooking in the New Mexico sun, they were very set in place. Removal meant some hard labor by volunteers. The scraping, and sanding is pictured at right.

Final preparation and paint application was done under contract by A Real Body Shop, LLC. The final coating is even deeper, shinier black than was available when 2926 was new. The new finish is Dupont Imron, a polyurethane enamel introduced by Dupont's Axalta Coating Systems Division thirty years after the locomotive was built.

Working with Imron can be both difficult and hazardous, but properly applied, it provides a very durable and attractive finish. The A Real crew did a great job. They carefully prepared the surface and then applied the finish. Their work and the result is shown in the pictures below and right.



Removing Stick-on Letters: Ernie and Chris removing those pesky, letters that were really stuck—and incorrect according to some purists.



These two photos show the A Real crew at work on the preparation. All work was done inside the engine shed.



The Santa Fe 2926 water and fuel tender now sports a finish that looks like a black mirror. The large picture of the rear of the tender (above right) shows the reflectivity of the new paint job. The new coat of paint reflects both the quality of the Dupont Imron and the talent of the A Real team in applying it. In the picture, the fuzzy images along the bottom of the mirror finish are the photographer and a reflected view of buildings across 8th St from the entrance to the restoration site.

Finally, (above left) Ernie Robart begins work on the new letters—and they **are not stick-on**. A lifelong rail photographer and one of the group that founded the Cumbres and Toltec narrow gauge line that operates between Chama New Mexico and Antonito Colorado, he could be considered one of those font critiquing purists. He can be expected to do a good lettering job.

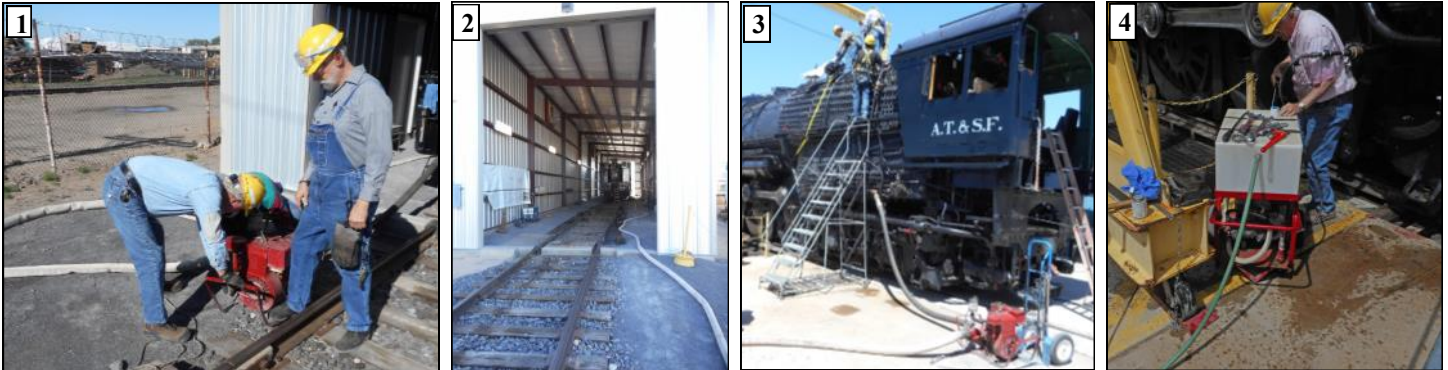
BOILER, BRAKES, AND MORE

Water Testing of the boiler, adjustment of brake shoes, electrical wiring, seat installation, and more small tasks kept the volunteer crew busy through some very hot work sessions.

Boiler Testing

The month of June marked the end of boiler pressure testing. The first non-pressurized water test was done in November 2016 when two truckloads of water (8000 gallons total) were purchased, treated, and used to fill the boiler. That revealed leaks in such places as staybolts, stud bolts, washout plugs, pipe fittings, etc. The treated water was drained and leak sealing was added to the already long task list. Meanwhile, a city water account was arranged to reduce the cost of additional boiler fills.

Like everything else in the restoration process, accessing the city water system wasn't as simple as connecting a hose to a handy tap. The closest available high volume water source is a fireplug on 8th St. The fireplug is a bit more than 100 feet from the end of the engine house where the tender is parked. It is more than 300 feet from where the pressure tests would be done with several obstructions to deal with. Fire hose was acquired, and the next test was done using city water from the fireplug. Rather than just draining the water after that test, it was pumped to the tender, and recovered for each future pressure test. The water in the tender can be replenished with a shorter hose run than fire plug all the way to the locomotive—and less grunt work for the volunteers.



The pictures above show the four steps to water handling for the pressure tests. In the first photo, two volunteers attend to a pump at the end of the tender closest to the fireplug. The second shows the fire hose running the length of the engine house from the rear of the tender toward the locomotive at the test location. The connection at the rear was added by Rick Kirby during the tender restoration to facilitate the use of a second tender or water tank. Photo 3 shows the connection to the locomotive to fill the boiler. In photo 4, Rick sets up the rented hydro machine.

From March until that final pressure test in June, numerous water pressure tests were done at increasing pressure levels using a portable fire pump, and finally the hydro machine. Each time more leaks were found, they were marked, the water was pumped back to the tender, and the work crew went to work sealing them. Most of the leaks related to staybolts, but there were also leaks at washout plugs and valves.

Finally, with the last water pressure test in late June, all leaks had been sealed, and the official Federal Railroad Administration hydrotest was scheduled for early July.

Brake Shoe Adjustment

Early June brought a red letter day for the Santa Fe 2926 brake crews. That was when two long running tasks came together. The task of upgrading the brake control system required a lot of work on air lines and electronic devices that did not exist when the locomotive was built. That task, led by Paul Baynes has been described in previous newsletters and on the 2926 web site. The other task addressing the mechanical part of the system—brake shoes and linkage—is the same as it was originally. But numerous parts required repair or replacement, and access to them was not always an easy task.

All the linkage was renewed and new cast brake shoes were produced by Horizon Metals, Inc. in Nephi, Utah. Reassembling the linkage, and installing the shoes called for a lot of physical work, often in tight spaces. The locomotive had to be repositioned over the pit often in order to gain access to various parts of the brake system. The last step in this task was adjustment of slack in the linkage.

When adjustment of brake linkage slack on all eight drive wheels was complete, it was time for a test. On Saturday, June 10, when Lurch the car mover was pushing 2926 back into the engine house, the brakes were tested. Lurch gave 2926 an extra quick push. Henry Roberts, sitting in the 2926 engineer's seat, applied the air brakes. That action brought the engine and Lurch to a smooth stop. Santa Fe 2926 had come to a stop with its own brake system—upgraded to current requirements—for the first time in more than 60 years.



5 **Cat Waterbed?** For some reason, the feral cats living on site like to sit on the fire hose. Several have been spotted on hoses, especially when the hoses are full of water while filling the boiler.



Above: The size of brake units is revealed by this brake shoe carrier.
Below: New brake shoe mounted and properly adjusted can quickly turn these peanuts into peanut butter.



Piping

If there was any task that seemed unending, it involved piping. Much of the original small piping on the locomotive and tender was deteriorated to the point that it had to be replaced. The upgrades, especially on the braking system, caused more piping to be added. Replacing and adding pipe might be considered a simple job for an ace plumber. Not in this case. The job was nowhere near what it was in the backshops when 2926 was operating. In those days, replacement meant calling the parts department in the shops. If it was not readily available, one could be bent to order by specialists in the backshops.

Without that handy parts source, acquiring piping for the 2926 restoration was only the first step. Lengths of stock pipe of the desired diameter were purchased. The new pipe was cut to proper length for the intended use. It was then bent to proper shape, fittings were added, and it was painted. (Photo at right) Installing the pipe usually meant producing new brackets, and welding them into place on the locomotive and tender. Most of the piping tasks were not as difficult as they were time consuming. They included appliance air piping in the cab, as well as conduit for the MU (Multiple Unit) equipment between the locomotive and tender.

Electrical Work

Upgrading Santa Fe 2926 to current requirements means more than just replacing the original wiring. The upgrade of the brake system created a significant need for increased electrical power. That, improved lighting, and other new electrical appliances required the addition of a second dynamo. That, in turn, required new brackets for mounting it next to the original. Both dynamos are shown in the picture at right.

Replacing old wiring and upgrading lighting fixtures was pretty straight forward electrical work. Upgrade of the MU system was a different task. In addition to adding brackets for the conduit on the tender, a lot of wiring was necessary on each end of the cable. For the MU installation, 85 feet of 27-wire cable was ordered. It is shown in Photo 1 below, with an inset showing an end of the 27 wire bundle.

The cable will reach from the locomotive cab to the rear of the tender. In Photo 2, George is working on wiring an MU plug for one end of the cable.



Almost There: The piece of pipe being painted has been bent to fit the place it will be installed, fittings have been added. With such a crooked pipe, the final step, installation, may require a bit of manipulation.



Other Tasks

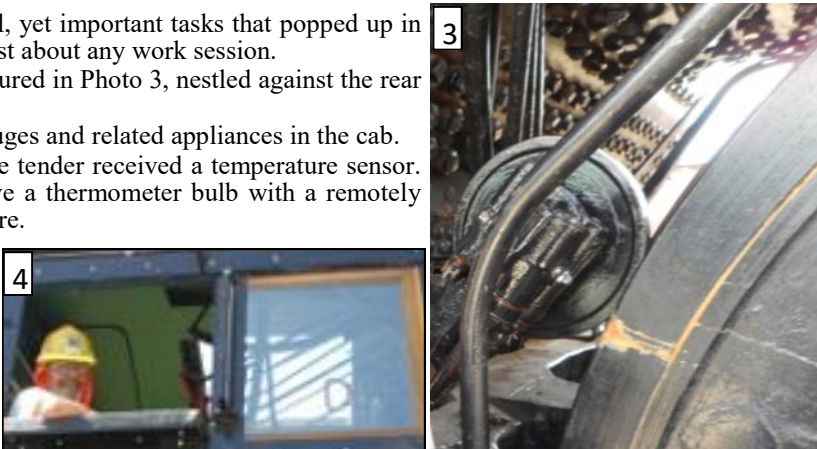
It would take several pages to list all the many small, yet important tasks that popped up in the second quarter. The following are typical tasks for just about any work session.

Speedometer: The speedometer pickup wheel is pictured in Photo 3, nestled against the rear drive wheel on the engineer's side of the locomotive.

Gauges: There were a number of tasks involving gauges and related appliances in the cab.

Fuel Temperature Sensor: The fuel oil bunker in the tender received a temperature sensor. The bunker was tapped for a thermowell. It will receive a thermometer bulb with a remotely mounted temperature gauge to monitor fuel oil temperature.

Creature Comforts: Crew members operating Santa Fe 2926 will experience some comforts that were certainly not a part of the original cab accoutrements. Those items include donated seats that would be the envy of any long haul truck driver. There are also padded arm rests on the window ledges for engineer and fireman. In Photo 4 Bob DeGroff tests the engineer's arm rest he built.



LOOKING DOWN THE TRACK

Our last newsletter, announced upcoming activities at which NMSLRHS would be represented. They were a tourism meeting in Albuquerque, and two rail history events in Las Cruces, and were attended by tourism and rail history representatives. The events provided an opportunity to alert the statewide attendees that New Mexico's flagship steam locomotive will soon be returned to action..

Governors Conference on Hospitality and Tourism

This annual conference addresses issues of interest to people involved in tourism, hospitality, and entertainment. There were more than 400 attendees from the state and region. The 2926 restoration project was represented by several NMSLRHS members, including Albert Leffler one of the key speakers at the conference. Albert grew up near Albuquerque's Coronado park where 2926 rested for half a century. A graduate of UNM, Albert was cofounder of Ticketmaster while in graduate school in Arizona, and is still with Ticketmaster. He had a twofold message for the attendees. He described the 2926 project and how it would soon be operating to the benefit of New Mexico hospitality and tourism. Preceding that, he had a business related message. Speaking from his experience with Ticketmaster, he addressed the subject of business startup, development and growth. A message that the many small business representatives in attendance would find useful, it was well received, and resulted in questions and visits to the 2926 site.

Las Cruces Train Day

A leading annual rail event, Train Day had a special attraction this year. For the first time in ten years, New Mexico Rail Runner came down from Albuquerque for the show. The 2926 team, New Mexicans involved in tourism, and rail fans everywhere, want to see Santa Fe 2926 do the same some day. Currently, a complete north-to-south statewide excursion is only a dream. The first 2926 trips will be north from Albuquerque to Las Vegas, and the famous La Castenada Harvey House. And there are still many planning steps just to reach that objective. Rail fans, and the 2926 crew can dream of a Raton to Las Cruces border-to-border trip. It would be a world class rail tourism event. With strong support from around the state, maybe someday 2926 can go to Las Cruces Train Day.

A few weeks after Train Day, NMSLRHS President Mike Hartshorne traveled to Las Cruces to make a follow-up presentation at the Las Cruces Railroad Museum. For both events, credit goes to Las Cruces Railroad Museum Curator of Education, Joanne Beer. She and the museum staff not only put together a good event, they made sure it represented statewide rail interests. Such broad emphasis and support will be absolutely necessary to get Santa Fe 2926 on the rail line to Las Cruces.

Rail History & More Enroute To Train Day: by Doyle Caton

What do Conquistadors, Geronimo, Billy The Kid, Pat Garrett, Wyatt Earp, Gen. Douglas MacArthur, and a New Mexico aviation legend have in common, and **how does that relate to railroads?**

ANSWER: ***Their paths crossed at Radium Springs NM.***

First named Selden Springs, the site is a short walk from Fort Selden, a 19th century fort that housed Buffalo Soldiers between 1865 to 1891. Now a state historical site, the fort was once commanded by Col. Arthur MacArthur II, father of Douglas MacArthur, when the future general was a youngster.

The springs from which the name is derived are said by geologists to have the highest radium content of hot springs anywhere. Thought by many to have healing effects, the springs were considered sacred by the Apaches and other early tribes.

Located next to a bend of the Rio Grande, the springs were also used by Spanish explorers traveling Camino Real. They were later used by Ft. Selden soldiers and the young future general who once said he learned to ride and shoot at Ft. Selden. The springs were also a stopping point for many, including lawmen and outlaws, traveling up and down the river and Camino Real. The railroad, the aviation legend, and many tourists followed.

On June 11, 1881, a branch Santa Fe rail line from Rincon, (on the Albuquerque-Deming main line) to El Paso Texas was completed. Later, Harry Bailey, a friend of both Sheriff Garrett and Billy The Kid, built a bath facility across the tracks from the current hotel and bathhouse. He named it "Bailey's Bathhouse". With the adjacent rail line, his business grew. Business flourished, and in 1912, the Ft. Selden National Spa and Improvement Co. was formed to further develop the springs. Cabins were added, and an access road built to provide easier access to the springs. Meanwhile, a Harvey House restaurant had been built at the nearby Rincon railroad junction. The restaurant and the nearby hot springs became a favorite stop for travelers on the Santa Fe railway.

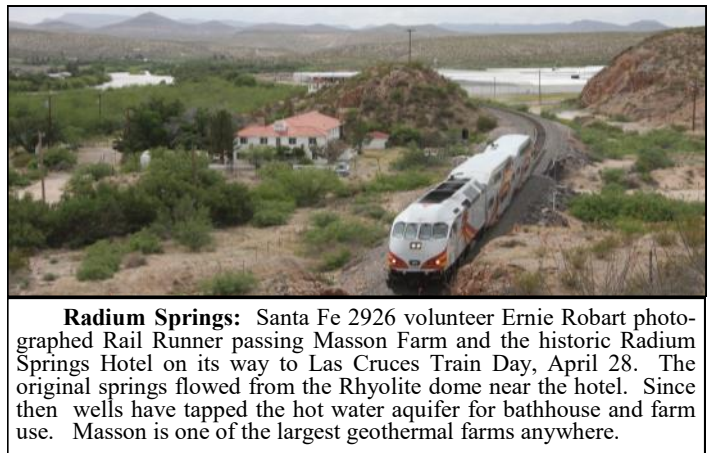
By 1928, the springs had become so popular that AT&SF Railway decided to expand and improve the site as a destination for tourists from El Paso and more distant places. Harry Bailey was still around to build the Santa Fe Railroad hotel that is pictured above.

Finished in 1931, the new hotel and bath facility was named Radium Springs Inn. It was connected to U.S. Hwy 85 by a bridge across the Rio Grande. Promoted by the adjacent AT&SF railway, and with additional auto traffic, the Radium Springs Inn became a well known retreat, not just in New Mexico, but throughout the nation. Though built by AT&SF, it was often referred to as a Harvey House, probably because of its close association with the Harvey House restaurant in Rincon.

The Radium Springs Inn continued to thrive, and by the mid 1950's, it had a golf driving range, archery range, and horseback rides. In addition to the hot baths, it had a swimming pool with a dues paying swim club that filled the pool on weekends and holidays. It was then owned by Thomas Fortune Ryan III, founder of Mid-Continent Airline, and cofounder of Lockheed Aircraft. Ryan's home was a ranch he owned near Three Rivers, New Mexico. With other hotel and aviation interests around the world, he traveled a lot. Still, when back at the ranch, Tom liked to come and spend time at one of his favorite places—Radium Springs.

Tom was at Radium Springs on a Saturday morning in September, 1958 when local arroyos and the Rio Grande joined forces to flood the hotel, bathhouse, pool, and related facilities. Radium Springs Inn has never been the same since. There have been several owners and occupants, including for a time New Mexico prison inmates. There have been attempts at restoration, and one is currently underway. Perhaps some day, it will again be a resting spot on the railroad that promoted it nationwide. Do rail fans and tourists dare dream that some day Santa Fe 2926 pulling classic coaches might traverse the space in which Rail Runner is pictured above?

Small World Note: Later, two people mentioned above, met far from Radium Springs in the western Pacific. Tom Ryan, a U.S. Army Colonel was decorated in WWII for coordinating commercial airline operations with military operations. He was assigned that duty by Gen. Douglas MacArthur.—Editor



Radium Springs: Santa Fe 2926 volunteer Ernie Robart photographed Rail Runner passing Masson Farm and the historic Radium Springs Hotel on its way to Las Cruces Train Day, April 28. The original springs flowed from the Rhyolite dome near the hotel. Since then wells have tapped the hot water aquifer for bathhouse and farm use. Masson is one of the largest geothermal farms anywhere.

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 President Michael Hartshorne
 Vice President Dave Van de Valde
 Secretary Gail Kirby
 Treasurer John Gibbons
 Chief Mech. Officer Rick Kirby
 Chief Safety Officer John Spargo
 Webmaster Rich Bugge
 Facebook Editor Julie Tiedemann
 Newsletter Editor Doyle Caton

MAILING ADDRESS: NMSLRHS, P. O. BOX 27270
 Albuquerque, NM 87125-7270

Restoration Site: 1833 8th St. NW
Telephone: (505) 246-2926
Web: www.nmslrhs.org

VISITORS WELCOME
 9:00 AM to 2:00 PM Wednesday and Saturday

CARLOS OSUNA RETIRES Skilled Welder Came On Board Just When His Skills Were Badly Needed

Seven years ago this summer, CMO Rick Kirby realized that as his crew began reassembling 2926, he needed welding help—a lot of help, and not just anyone, he needed *highly skilled welders*, and he knew just where to go.

Rick placed a call to Tom Montano, at Local Union 412, of the United Association of Plumbers and Pipefitters. Local 412 was then celebrating the 100th anniversary of its creation. Rick knew Local 412 had a history of supporting such ventures as the 2926 project

Montano responded favorably, and a number of welders came to the site. Those welders have been more than just helpful. They have been major contributors to the restoration.

One was Albuquerque native Carlos Osuna. Thanks to his grandfather, one of the city's first doctors, a major street carries the Osuna name.

Switching from his original plan to become a doctor, Carlos became a welder. His experience ranges from welding on milk plants in eastern New Mexico to the nuclear facility at Three Mile Island in Pennsylvania.

Carlos has been with the 2926 project since 2010, welding just about anything he was asked to do. But the work he is best known for is all the welding on the 2926 superheater tubes.

Though retiring from the 2926 project, Carlos will drop by occasionally to visit with the crew, and to tell a few interesting stories. It is rumored that he is looking for a 2926 cab ride.



Party Time: Carlos Osuna prepares to cut the cake that was baked for his retirement party. The Opuntia cactus (prickly pear) shown in the inset provided flowers for the occasion. Carlos is a superb welder, and a great guy. But like the cactus, Carlos is tough, and can be prickly, but he tells great stories.

VISITOR INFORMATION UPDATE

**An Increasing Number Of Visitors Want To See 2926
 Up Close, And Some Have Missed The Opportunity**

Recently, some visitors wanting to see 2926 up close have dropped by only to discover that the site is closed. Others have come on a workday only to learn that 2926 has already returned to its house. The neighborhood and the site itself can be a bit confusing. We want everyone to see New Mexico's rail heritage icon. Here is an update on when to visit, and what you will see as you approach the site.

The 2926 site is 1833 8th St NW, 3.5 blocks south of I-40, at the 8th St rail crossing. Parking is between the 2926 site and the rail spur, or along 8th St. Visitor access is on the track side of the site, about 200 feet west of 8th St.

Workdays at the 2926 site are Wednesday and Saturday. Regular visitor hours are 9:00AM—2:00PM. The locomotive is moved from the shed about 7:30AM, and returned at 2:30 to 3:00. Depending on the situation, visitors wanting to see it move might have to watch through the fence from the parking lot.

Entering the visitor gate, the first thing you will see is the cactus hedge. Pictured Here, it will be on your left. On your right is an old freight car that serves as an office, meeting room, and computer center.

Proceed forward a few yards to the rail track with red and yellow ties. The surface is uneven, so **watch your step**. At this point, the engine house with the locomotive tender is at right, and the locomotive itself can be seen past the gate to your left. Proceed to the small building just inside the gate. There you can sign in, get a hard hat, and someone will answer questions and escort you on a site tour.

It is possible the site may close early or not open at all due to heat or other weather conditions. It is recommended that you call (505) 246-2926 on the day you plan to visit to insure we are in operation when you arrive.

Please also note that sandals, opened-toe shoes and high-heels are NOT recommended for footwear while visiting the site due to the many uneven walking surfaces and other hazards in our area.

Another option is our annual Open House described below.



Site Entrance: Before moving 2926 into the site, a large hedge of cactus on the lot was removed. Part of it was transplanted at the entrance. It has come to represent the tough prickly crew working on a tough machine. Annually, it brightens the site with dozens of large yellow blooms.



Restoration Site: Visitors register and receive a hard hat at building marked by the arrow.

SANTA FE 2926 OPEN HOUSE 2017

9AM-5PM SATURDAY SEPT 23

AT THE RESTORATION SITE

1833 8TH ST. NW

LIVE MUSIC ALL DAY

ADMISSION FREE

Free Hot Dogs
 Free Soft Drinks
 Free Popcorn

Bring The Kids
 Bring Your Friends
 Bring Your Camera

See New Mexico's Flagship Steam Locomotive
 See Model Railroad Layouts In Operation
 Hear Live Train Songs And Other Music
 Feel The Excitement Of Seeing 2926 Returning To Action