

Metropolitan **Transportation Authority** JETRO VIOVES

1993 - A Year in Transportation

MTA's Start-up Year in Review



Angelenos on the move! Until Jan. 30, 1993, this scene was not possible. The MTA is working hard to put smiles like these on the faces of L.A.'s transit riders.

s the new year begins, it's a good time to review the MTA's accomplishments so far. Since becoming Los Angeles County's principal transportation authority last Feb. 1 — with the merger of the former Los Angeles County Transportation Commission and the Southern California Rapid Transit District — the MTA has achieved much in a short time.

A Merger and a New CEO

Former New York State Transportation Commissioner Franklin White was named Chief Executive Officer at the MTA's first board meeting on Feb. 1, and he assumed his duties on April 1. "I pledge to give Los Angeles County my best effort in bringing it the highest quality public transportation," said White upon his selection as CEO. "A county this great deserves nothing less."

With a staff of more than 9,000 — made up of a diverse mix of expertise ranging from bus and rail operators to transportation planners, analysts, and construction engineers — and an annual budget of \$3.8 billion, it's a tough job.

White has tackled it with vigor, utilizing a management strategy that emphasizes efficiency. In creating the MTA, the State Legislature envisioned "a unified, comprehensive, institutional structure that ensures maximum accountability to the people," while at the same time more effectively performing the services of the two agencies it replaces. "Teamwork is especially important now, with two agencies coming together as one," said White in April. "It may seem difficult (in a merger situation), but it's the only way to go."

In 1993, the new MTA team worked together to:

- Adopt a new budget: Based on present economic realities, a fiscal crisis faced the agency; it was determined that the 30-Year Plan was overstated by \$20 billion .
- Complete a work force reduction plan that trimmed 250 positions.
- Resolve a long-standing dispute between two former agencies by selecting a single headquarters site near Union Station.
- Reduce the deficit by a \$30 million cost savings.
- Adopt a legislative program.
- Cancel the Electric Trolley Bus Project, with a potential savings of \$1.1 billion.
- Sign a full-funding agreement for Segment 3 of the Metro Red Line.
- Move forward with improvements in

quality and construction work on the Metro Red Line and Metro Green Line programs.

- Move forward with a limited program on the Metro Pasadena Line.
- Appoint a three-member panel of tunneling experts to determine the structural integrity of the Metro Red Line Segment 1 tunnel; and, hire a construction management firm to review the work of the Segment 1 construction management firm.

In addition, the MTA made major strides in 1993 toward accomplishing its vision

Continued on page 3

What's Ahead

Challenges and Milestones

s we put the trials and tribulations of the merger and reorganization behind us, the MTA will have a busy year as it continues in its commitment to improve mobility in Los Angeles County and the surrounding Southern California area. The following are some of our challenges

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New Construction Techniques Assure Tunnel Quality and Strength

Line tunnel now under construction between Alvarado and Wilshire/ Western Avenue has tunnel wall sections within design tolerances, the MTA's Rail Construction Corporation (RCC) has reported. Although some 42 feet of have wall sections less than 10 inches thick, these sections are reinforced with steel.

Extra steel reinforcement

"In every case where the Segment 2 tunnel walls are less than 10 inches thick MTA design engineers required contractors to use higher-strength concrete or extra steel reinforcement to achieve the necessary wall strength," said Edward McSpedon, president of the MTA's Rail Construction Corporation (RCC).

"MTA design engineers have performed analyses that determined that tunnel thicknesses of between 10 and 12 inches meet the design strength requirements without the need for additional reinforcement," McSpedon said. A total of 1,656.5 feet of Segment 2 tunnels have wall sections that are less than the contract-specified 12 inches thick but more than 10 inches.

McSpedon noted that, unlike some of the Segment 1 tunnels, all Segment 2 tunnels are encased in an 8-inch-thick steel-reinforced concrete outer lining. This liner is installed before the concrete for the final tunnels is poured. The added layer alone is strong enough to support the entire weight of the soil and rock above the tunnels.

"It is a combination of factors, including strength of the concrete and amount of steel reinforcement, not just wall thickness, that contributes to overall tunnel strength," said McSpedon.

Unique engineering challenges

Subway tunnel construction presents unique engineering challenges, he added. It is common in the industry, for example, for the 400-ton tunneling machines to deviate from the track alignment for short distances. When that occurs, construction specifications — including wall thicknesses — are adjusted to accommodate optimum rail alignment. Maintaining the track alignment reduces vehicle maintenance and ensures ride quality.

To compensate for adjustments in wall thickness on Segment 2, engineering specifications were reviewed and modified to ensure that the tunnel strength required for structural integrity would be achieved. These modifications called for stronger concrete and/or additional steel reinforcements (rebar).

Before concrete was poured, inspectors



Red Line passengers wait for the train at the 7th Street/Metro Station to take them to MacArthur Park.

made careful measurements to determine the actual thickness of the tunnel walls.

"By measuring and analyzing the concrete to be poured," said McSpedon, "we were assured of receiving the amount and quality of concrete we paid for, while at the same time, making sure we maintained the tunnel strength required for safety."

Concrete samples analyzed

MTA engineers also required the contractors to set aside thousands of concrete samples, which were taken to laboratories for strength analysis. In every case, the samples have shown 4,000 pounds or more per square inch of strength, the requirement set by the tunnel designers.

"Two years ago we took a careful look at some of the things that were done in Segment 1, which runs between Union Station and Wilshire-Alvarado, to see if we could further improve the quality of our construction program," said McSpedon. "We are using state-of-the-art construction techniques, but we continually look for ways to improve."

Latest construction techniques

These new construction techniques include the use of a black-and-white high-density polyethylene membrane (HDPE) designed to help construction workers detect punctures. HDPE is "wrapped" around subway tunnels and stations to prevent water leaks.

Laminated to the HDPE, used to waterproof subway station roofs and other areas, is a bentonite clay surface that acts as a self-sealing coating. This material, when exposed to water, expands to stop leaks.

McSpedon also said that "water stops" — thick polyurethane strips designed to keep the stations water resistant — were placed at the top and bottom of station walls to help prevent water intrusion.

Construction of the twin tunnels beneath Wilshire Boulevard to Western Avenue began last January. Work continues on the subway segment beneath Vermont Avenue to Hollywood and Vine. The portion of the line to Western is scheduled to open in 1996, with the remainder of Segment 2 to open in 1998.

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"1993..." continued from page 1

for a greater Los Angeles by moving forward with a program to provide a safe, reliable, cost-effective and attractive modern public transportation system.

The MTA's 1993 milestones include progress in the rail, bus and highway programs, as follows:

Rail Program Highlights

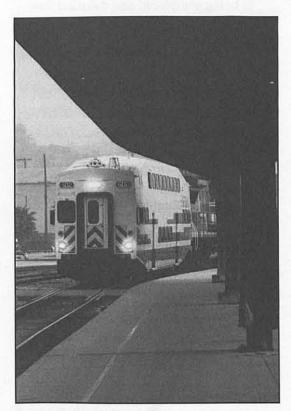
■ The Metro Red Line: L.A.'s First Subway Arrives



Opening Day of the Metro Red Line brought several thousand people out to ride the new subway.

Preceding the LACTC/SCRTD merger by two days, the successful grand opening of the city's first true subway occurred last Jan. 30. The MTA's rail building division, the Rail Construction Corporation (RCC), completed Segment 1 of the Metro Red Line eight months ahead of its revised schedule and within budget. Since then, the 4.4-mile, five-station line, running from Union Station to MacArthur Park, has safely and reliably carried several million riders.

■ The Metrolink Connection



A Metrolink train arrives at Union Station.

The Red Line is a vital piece of history in Los Angeles. By connecting with the Metro Blue Line, it ties together the first two lines of L.A.'s burgeoning rail system with its intercounty commuter rail network, Metrolink. The MTA also completed the track restoration at Union Station to support Metrolink's opening.

■ Progress on Future Rail Systems

The MTA's Rail Construction Corporation (RCC) has maintained steady progress on the Red Line's extensions and on the Metro Green Line. Both the Green Line and the Wilshire Extension of the Red Line passed the two-thirds completion points in 1993, and are heading toward on-schedule openings in 1995 and 1996, respectively.

Award of the L.A. Car Contract

This project will not only give Los Angeles a standardized fleet of modern rapid transit cars for its surface lines, but will also serve as a catalyst for advancing the state of transit technology, for establishing Los Angeles as a transit manufacturing center and for promoting effective aerospace and defense conversion to non-military markets.

■ Construction Safety

Continued improvements in RCC's Construction Safety Program with the launching of many new initiatives, including training, the consummation of an Alcohol- and Drug-Free Workplace Agreement, and continued improvements in an already-commendable rate of lost-time accidents.

■ Total Quality Initiative

The Partnership for Excellence in Rail Construction (PERC) is RCC's total quality initiative. In 1993, the program blossomed into a comprehensive, all-inclusive program of continuous improvements. PERC's accomplishments are literally saving thousands of dollars and are improving the quality of our end products. PERC was highly praised by the federal government when, early in the year, U.S. General Accounting Office Investigator Huston Fuller reported that "the MTA's TQM program is one of the most effective and successful programs this office has ever seen."

Bus and Rail Operations

- Blue Line Numbers: The Metro Blue Line averaged more than 1 million passengers a month since last May, with a 97.95% on-time performance. Service frequency was increased to handle the steadily growing number of passengers between downtown Long Beach and downtown Los Angeles.
- More Buses for Busiest Lines: In September the MTA added 40 buses to its most heavily-traveled lines to relieve peak-hour overcrowding.
- *Graffiti Abatement:* The MTA launched a three-pronged, \$7-million program designed to halt the spread of



graffiti assault on its buses. The plan includes faster cleaning procedures, an innovative use of graffiti-resistant materials, plus beefed-up law enforcement and intensified community involvement. The public can call a toll-free number — 1(8ØØ)-STØP-TAG — to report acts of graffiti, which assists the MTA Transit Police in surveillance and tracking of graffiti vandals.



MTA CEO Franklin White takes part in graffiti removal program.

- ATTB 'Stealth Bus' Project Approved: On Oct. 27, President Clinton signed the Department of Transportation bill providing \$6.25 million in federal funds for the design validation phase of the Advanced Technology Transit Bus (ATTB) program. The lightweight, low-emission, low-floor transit bus is being designed by the MTA with Northrop Corporation. The project is (1) a step toward building a transportation manufacturing industry in California, helping to move the area from a defense-based economy, and (2) will enable transit agencies nation wide to meet the new requirements of the Clean Air Act and the Americans with Disabilities Act.
- Flash Cards for Blind Bus Patrons:

 To better serve blind bus riders, in

 November the MTA started free distribution of cards bearing line numbers that can be held out as a signal to bus operators.

Highway Programs

In conjunction with other agencies, the MTA is active in programs and plans to improve the county's highway systems.

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People Movers

News About the MTA's Rail and Bus Operations

Racing Against Trains: a Losing Proposition

t happens every day. Someone drives around lowered safety gates and tries to beat a Blue Line train across an intersection. Those who make it are lucky; those who don't, get their name in the paper as a train fatality.

The Sheriff's Department Transit Services Bureau reports that many drivers and pedestrians are still ignoring the flashing red lights, ringing bells, and lowered safety gates at Blue Line crossings. The Blue Line Sheriff's Department detail issued more than 10,000 citations from October 1992 through October 1993. These included citations for illegal turns around the tracks and going around lowered safety gates.

Deputies do their part

"We will continue our aggressive rail safety program as long as we have to respond to accident scenes where people get hurt," said Capt. Frank Vadurro of the Sheriff's Department.

Photo enforcement works

The MTA is using photo enforcement to cite motorists for grade crossing violations. So far, the program has resulted in an 84% reduction in violations. Almost 400 citations for crossing violations at two locations were issued between March and September of 1993. Photo enforcement equipment is scheduled to be installed at 22 Blue Line crossings by next September.

State rail safety laws also have recently been strengthened with the support of the MTA. The Rail Transit Safety Act, initiated by the MTA staff, was signed into law last October, and became effective on Jan. 1. The law increases the maximum fine for grade crossing violations from \$100 to \$200.

Shuttles Serve Commuters

As part of an experimental project to make it easier for commuters to reach employment centers in Chatsworth/Sylmar,
Monterey Park/East Los Angeles,
Westchester and West Hills, five new commuter shuttle lines were started this month and will run for 18 months.

The lines developed by the MTA's Corporate Transit Partnership Program, in association with workers and employers of the communities to be served, are designed to attract about 2,500 daily riders who now drive alone to work or school. Small buses with 22-passenger capacity and mini-vans will be used to provide the service.

Line 545 Chatsworth/Sylmar Express:

Will operate every 30 minutes and is designed to provide express service between the Sylmar Metrolink Station and the Chatsworth employment area. The 19.2-mile line will be operated by 22 passenger mini-buses. Service will begin Jan. 17, Monday through Friday during peak hours. One-way fare is \$1.50.

Line 621 Monterey Park Shuttle: Will operate every 30 minutes. Starting on

Jan. 24, the line will serve the California State University campus, the city's Corporate Center business area, East Los Angeles College, Atlantic Square and McCaslin Business Park. The shuttle will operate Monday through Friday from 5 a.m. to 7 p.m. The 14.5-mile line will be operated by 22-passenger mini-buses. One-way fare will be 50 cents.

Line 622 El Segundo - LAX: Will operate every 30 minutes. Starting on Jan. 10, the shuttle bus will travel between Lot C to the El Segundo employment area. The line will operate during peak hours Monday through Friday. The 8.5-mile line will be operated by 22-passenger mini-buses. One-way fare is \$1.10.

Line 623 Westchester - LAX: Will operate every 30 minutes. Beginning on Jan. 10, the shuttle bus will travel between Lot C and the Westchester employment area, Monday through Friday during peak hours. The 14.5-mile line will be operated by 22-passenger mini-buses. One-way fare is \$1.10.

Line 624 West Hills Shuttle: Will operate every 30 minutes and is designed to serve the West Hills Hospital, Platt Village and Fallbrook Mall. The 8.1-mile line will begin operations on Jan. 31, from 6 a.m. to 8 p.m. Monday through Friday. One-way fare is \$1.10. The service will be provided by mini-vans.

The lines are funded with federal dollars from the Intermodal Surface Transportation Efficiency Act, known as ISTEA, Proposition C and farebox revenues.

"What's ahead in '94..." continued from page 1

The Budget Hurdle

In any year-end review, it's important to look at the minuses as well as the pluses.

Along with the federal, state and local government budget problems, the recession and Southern California's loss of aerospace jobs has affected the MTA. Transit fares have not risen since 1988; a transit ride in L.A. is still \$1.10. In addition to fares, which cover less than half what a bus ride costs, the MTA receives sales tax revenues. These revenues have been affected by the recession.

In short, funding sources are getting scarce; our cash reserves are depleted. New regulatory requirements such as the Americans With Disabilities Act and Clean Air Act have increased expenses.

Based on bus and train service that's now available, there is a gap of \$126 million between what the MTA expects to receive from fares and sales taxes, and what it will cost to provide bus and train service

for the year beginning July 1. That's a huge amount, considering our entire operating budget for the current fiscal year is \$710 million.

Changes must be made

If the MTA does not address this projected funding gap, there will not be enough money to operate buses and trains by early 1995.

The MTA is looking at everything to make the required changes. "There are no sacred cows," said Franklin White, the MTA's CEO. "Fares, service levels, operating efficiencies, labor bargaining unit provisions, searches for new revenue sources — everything is up for consideration," he said. Already, for example, the MTA has:

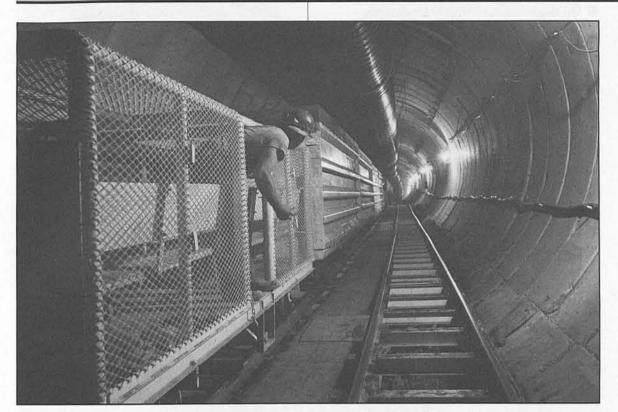
- Cut 250 jobs during 1993.
- Reduced lobbying and other consultant contracts.
- Cut advertising costs.
- Postponed needed improvements in physical facilities and equipment.

A solution in the works

- Current financial situation: A financial audit to identify the MTA's debt position and borrowing capacities is being completed and detailed forecasts are being developed.
- By working closely with the private sector, the cities and the county and municipal bus operators, the MTA is looking at its entire system of nearly 200 bus and train routes. Are there lines that could be more efficiently served by other transit providers? Can route efficiency be improved?
- Other operating efficiencies: The MTA continues to examine potential savings from the merger. Are there additional duplicative functions? Are rail operations being run in the most efficient manner?
- Labor strategies: In 1994, the labor union contracts with MTA drivers,
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Working on the Railroad

Rail Construction News



Metro Rail worker inside a Segment 2 Red Line Tunnel under construction.

FTA Report Gives MTA High Marks

The Federal Transit Administration (FTA) found that the MTA construction team has "continued to demonstrate that it is managing the (rail) project in a responsible and effective manner." These words are stated in the FTA's annual oversight report of federally funded projects, which was released last October.

"We set high standards for ourselves when the MTA directed us to assume the management of the rail construction program," said Robert Kruse, chairman of the MTA's railbuilding division, the Rail Construction Corporation (RCC). "We're pleased that the FTA has recognized our efforts."

Although citing areas where further improvements are recommended, the three federal reports — one for each of the federally-funded segments of the rail project — provide a uniformly positive view of the rail construction team's management of the subway program.

Ongoing project improvement

All three reports concluded that the MTA and the RCC are following their federally-approved management plans, and characterized the relationship between RCC and Federal Oversight Team as "professional." The RCC was commended for its willingness to consider and frequently implement project improvement suggestions from the Federal Oversight Team.

When it comes to managing construction change orders, the report found that the total cost of changes for the current subway work is significantly lower than that experienced on prior work accomplished in downtown Los Angeles. In short, the fed-

eral review team found RCC's documentation of change orders to be "extensive and thorough."

Further, RCC's management team was praised for an improved turnaround time on resolving field construction problems and for developing a computerized system for tracking and control of contractor documentation.

High design costs

The major problem that was cited in the report concerns a substantial increase in design costs and a potential schedule delay for the Hollywood leg of the subway project. This was primarily attributed to the extensive time and cost necessary to redesign six Hollywood/Vermont Avenue stations to reflect the policy changes implemented by the MTA board requiring larger stations with reoriented entrances.

Construction safety is a priority

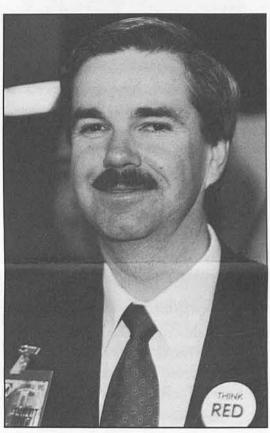
The report also gave RCC positive marks for its construction safety program. "We conclude," stated the report, "that RCC has made construction safety a priority issue, and the results to date are reflected in a lower than average rate of safety incidents. "

"It is most gratifying for us to receive this confirmation from the federal government," said Edward McSpedon, the MTA's executive officer for construction and RCC's president. "It shows that they're confident in what we're doing, and that we're effectively managing the taxpayer's investment. As always, where there's a need for improvement, we'll continue to aggressively pursue each and every issue to a satisfactory conclusion."

Wilshire Boulevard Restored

Early in December, weekend crews removed sections from the eastern end of the temporary wood decking built over the Metro Red Line at the Wilshire/Western Station construction site. The decking was replaced with four lanes of paved roadway and restriped for traffic. Removal of the remaining wood decking will be completed by mid-January.

McSpedon Named as APTA's Chairman of Construction



Edward McSpedon, P.E., MTA Executive Officer, Construction, and President, Rail Construction Corporation.

Edward McSpedon, the MTA's executive officer of construction, and president of the Rail Construction Corporation, was recently named as the 1994 Chairman of the Construction Committee for American Public Transit Association (APTA). APTA, the leading U.S. advocacy organization for the transit industry, is based in Washington, D.C., and the MTA is a member organization. The mission of APTA's Construction Committee is to "advance the state of the art of transit industry through the active involvement of all industry segments.

McSpedon replaces Richard K. Sandaas, the recently retired executive director of the Seattle Metro. "I know Ed will do an outstanding job," said Sandaas, "because of his interest in our industry and because of his background and experience."

"What's ahead in '94..." continued from page 4

mechanics, clerks and other employees are due to expire. Proposals will be as fair to employees as possible. Costeffective collective bargaining agreements to enhance operating efficiency and provide safe, reliable service will be negotiated. It's the MTA's goal to resolve the collective bargaining process without interruption of service.

- Other Cost-Saving Measures: A review of all overhead, administrative support, construction costs and rail planning costs will be undertaken.
- Fare Restructuring: MTA staff will be proposing a variety of fare alternatives to the MTA Board. All fare categories could be affected.
- New Revenues: The MTA is working hard to make transit's needs heard at all levels of government. New funds are necessary to help operate the MTA's new and improved systems.

An overall positive picture

Yes, there are some problems to work out; but, overall the Los Angeles transportation picture is better than ever. An integrated transportation system is bringing better mobility and cleaner air to improve our quality of life.

The MTA is taking immediate steps to resolve its budget challenges. In the meantime, suggestions are welcome — from transit riders, government officials and the public.

Other Challenges and Milestones

- Maintain Congressional Funding Levels: The Clinton Administration has proposed drastic cuts or the elimination of federal subsidies for public transportation.
- Resolve Alternative Fuel and Technology Issues
- Continue Aggressive Anti-Graffiti Program
- Restructure 30-Year Plan
- Resolve Security Services Issue
- Paratransit Plan: 1994's issues include scheduled service implementation in the Westside, Southeastern Cities, South Bay, San Fernando Valley and North County areas, as well as service policy changes relating to eligibility classifications and certification.

Proceed With the Metro Rail Program

The MTA wants to ensure that current rail projects under construction are built safely and on schedule. The MTA will implement any recommendations proposed by the Panel of Tunnel Safety Experts and the construction management performance auditors who are reviewing the Red Line Segment 1 tunnel construction.

Some of RCC's key challenges and milestones for 1994 include: ■ Continue its construction safety education program.

METRO RED LINE

- Complete restoration of MacArthur Park Lake and return it to the community.
- On Segment 2, complete trackwork installation; initiate trackwork on the Wilshire Corridor; complete tunnel excavation at Vermont/ Hollywood Corridor.
- Award Segments 2 and 3 rail car contract.
- On Segment 3, begin tunnel construction between Universal City and North Hollywood stations; complete design phase of Hollywood/ Highland station.
- Initiate and complete preliminary engineering for the Eastside Extension.

METRO GREEN LINE

■ Complete El Segundo guideway structure and the Hawthorne Maintenance



Coming in 1995! Simulated photo of the Metro Green Line.

Yard and Shops; complete transit stations, and complete track work installation on entire alignment.

Begin test train operations.

METRO PASADENA LINE

■ Award final design line segments and station contracts, and advertise construction contract for the L.A. River Bridge.

The Final Touch

News about the MTA's Art Program

"Ordinary' People Make Their Mark

n Nov. 18, the first of 850 not-sofamous people signed their names and cemented their hand and foot prints in cement tiles at the future site of the Metro Green Line's Lakewood Boulevard Station.

Imprinting famous feet and hands, according to Hollywood lore, began when Sid Grauman accidentally stepped into wet concrete while visiting the construction site of what is now the landmark Hollywood Boulevard theater.

The Green Line's cement prints are not by accident. As part of the MTA's public art program, Los Angeles artist Erika Rothenberg designed the Wall of Unfame for the Metro Green Line station under construction on the I-105 Freeway. The 26" squared, colored concrete tiles will form the stations gateways and be mounted on station walls.

"The Wall of Unfame is a celebration of ordinary people who happen to live in a celebrity-crazed world," explained Rothenberg. "I wanted to create a landmark for the area in the tradition of some of Southern California's most interesting spots — a place people would go out of their way to see," she said.

Bellflower, Downey and Paramount residents were recruited to sign-up for the foot-stomping, hand-slamming project. Rothenberg sought volunteers by schools. She received over 2,000 names of willing subjects, and selected the 850 people by random drawing. The project will reflect the area's diverse population.

The art program is funded from one-half of one percent of the Metro construction



Artist Sandra Rowe reacts to the inner city children who were on hand for the unveiling of their joint art project at the San Pedro Street Metro Blue Line Station.

costs. Construction of the Metro Green Line is about 70% complete. The 20-mile light rail system will open in 1995.

Schoolchildren Contribute to Blue Line Station Art

Children from San Pedro Elementary
School in downtown Los Angeles joined
artist Sandra Rowe on Dec. 17 to unveil a
bronze and steel art project at the San
Pedro Street Metro Blue Line Station. The
artwork, created in part by using drawings made by children, represents the
struggle to succeed experienced by the
many immigrant groups that have lived in
the station's neighborhood. The children,
who were excited and thrilled when a television news crew showed up to document
the occasion, spontaneously started
singing for the cameras.

Bits and Pieces

An Assortment of News and Information

■ RCC Recommends Re-Assessment of Red Line Mid-City Rail Alignment Due to Toxic Levels of Hydrogen Sulfide

The MTA's Rail Construction Corporation has recommended to the MTA Board a nine-month study of the proposed Red Line Mid-City Extension to determine how toxic concentrations and flows of hydrogen sulfide recently found in subsurface soils might affect design and construction of the proposed 2.3-mile subway alignment.

The study also will analyze the cost of various alternatives, the impact on public safety, and possible mitigation programs. Noting that Red Line tunnels have been safely constructed in gaseous areas, Edward McSpedon, RCC's president, said that hydrogen sulfide is considered toxic and requires special safety precautions.

"Our first concern is for the safety of the public and of the men and women who will build and operate the subway," said McSpedon. "We will reassess the proposed Mid-City alignment and look at alternatives, including different technologies and construction methods that will allow us to recommend a course of action to avoid or mitigate tunneling through the hydrogen sulfide."

Borings and subsurface probes conducted along the proposed alignment in August, 1993, found naturally occurring hydrogen sulfide concentrations as high as 10,000 parts per million (ppm) at locations near Pico and San Vicente and Crenshaw and Olympic Boulevards.

■ Highway Happenings — HOV Lane opens on Foothill Freeway:

On Dec. 16, Caltrans opened a 17-mile High Occupancy Vehicle (HOV) lane on the westbound Foothill (210) Freeway between Sunflower Avenue in Glendora and Lake Avenue in Pasadena. Providing the latest link in the Los Angeles County's growing network of carpool lanes, the westbound lane joins the eastbound HOV lane that opened in two stages. The segment from Buena Vista and Sunflower Avenue opened on Nov. 18, and the stretch from Hill Avenue to Buena Vista opened on Dec. 10.

In addition to the benefits to those who rideshare, the new lanes will benefit commuters who ride Foothill Transit Zone buses, which make express runs down the Foothill Freeway.

1993 was a banner year for Caltrans' ambitious HOV lane program. Lanes opened on the Gardena-Artesia Freeway (91), the San Diego Freeway (405), and the new Glenn Anderson Freeway (105). The goal is to have more than 300 miles of

HOV lanes in place by the year 2000. Funding, which is administrated by the MTA, is made possible by local sales taxes that were previously approved by county voters.

■ Congestion Management Program (CMP):

The MTA's updated CMP, one of the most ambitious cooperative traffic management plans ever attempted in the U.S., was approved by the MTA Board late in November. Born out of Proposition 111 (the 1990 gas tax initiative) requirements, the updated CMP includes a Countywide Deficiency Plan. The plan provides a way for cities to address or avoid future "deficiencies," or traffic problems.

■ Vendor Relations Made Easy:

The MTA's Vendor Relations Department has several programs designed to make it easy to do business with the MTA. A monthly newsletter is published that describes these programs, as well as provide upcoming projects, contracts and procurements available for bid. Contact Metro Business Outlook's editor, David Hershenson, at (213) 244-6561.

■ Bus/Rail Passes Offered Semi-Monthly:

Semi-monthly MTA bus/train pass monthly passes for \$23 will be available to the public through June. The program, designed and implemented in January, 1993, was developed largely in response to concerns raised by bus riders who have indicated the regular \$42 monthly pass is often a hardship to purchase at the beginning of each month. The \$23 cost includes an extra two dollars to offset the price of additional printing and distribution costs.

■ Metrolink Reminds Motorists to "Look, Listen and Live":

Since December and January are considered the highest vehicle-train crash

months, Metrolink wants motorists to be careful at rail crossings. According to the Federal Railroad Administration, a vehicle and a train collide every 90 minutes somewhere in the United States. In 1992, 579 people were killed and 1,975 were injured in 4,910 highway-rail grade-crossing crashes.

"Motor vehicle-train crashes are notably different than vehicle-vehicle crashes in that they are 30 times more likely to result in a fatality," said Thomas Simpson, president of Operation Lifesaver, Inc., a non-profit, public education program dedicated to reducing crashes, injuries and fatalities at highway-rail grade crossings.

Metrolink urges motorists to follow these safety tips to prevent crashes:

- Never attempt to beat an approaching train through a crossing.
- Expect a train on any track at any time.
- Be aware that trains cannot stop quickly. The locomotive engineer may see you, but it can take a Metrolink train up to one mile to stop once the brakes are applied.
- Never drive around lowered crossing gates. Driving through a crossing when the gates are activated is both illegal and deadly.
- Get out of your vehicle if it stalls on a crossing, and call 911. Only attempt to restart your vehicle if you are able to post lookouts to watch for approaching trains.
- Don't get trapped on a crossing. Only proceed through a crossing if you are sure you can clear the entire track area.
- Look for a second train when crossing multiple tracks.

For more information about Operation Lifesaver, call 1-800-537-6224.



Metrolink Mock Disaster Drill Staged: This is NOT a real disaster scene, but it depicts the teamwork involved if one were to occur involving a Metrolink train. The drill is a graphic reminder of what can happen if motorists fail to use extreme caution at railroad crossings. Los Angeles City Fire Department and Metrolink personnel, along with participants from Holy Cross Medical Center, emergency personnel and officers from the Los Angeles Police Department, Los Angeles County Sheriff's Department, AMTRAK, the Los Angeles County Coroner's Office, and other city, county, state and federal agencies assisted in simulating this emergency exercise.

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- Call boxes on I-105: The 250 state-ofthe-art call boxes installed this year on the new Glenn Anderson (I-105) brought the total number of call boxes in Los Angeles County to 4,300 — making it the largest system in the nation.
- by Caltrans, the CHP and the MTA,
 144 tow trucks now cover 381.3 freeway
 miles during peak commuter hours providing quick emergency assistance to
 motorists. Six additional trucks patrol
 the downtown Los Angeles freeway loop
 between peak weekday traffic hours. A

satellite-based automatic vehicle locator system — called a Global Positioning System (GPS) — is being designed, and the major incident-response program was recently enhanced.

Paratransit

Some of the 1993 accomplishments of the L.A. County Coordinated Paratransit Plan, also known as Metro Access, include:

■ The Consolidated Transportation Services Agency (CTSA), a state mandated subsidiary of the MTA, certified about 7,000 more people to use the paratransit network, bringing the total number of certified users to more than 10,000.

- System ridership nearly quadrupled from about 230 a day to more than 800 by year's end.
- Paratransit service was expanded from the San Gabriel Valley area to the following areas: East Los Angeles, Montecito Heights, Boyle Heights, Echo Park, Eagle Rock, Mt. Washington, Chinatown, Atwater Village, Glassell Park, Lincoln Heights, and downtown Los Angeles.



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FIRST CLASS

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