

MEASURE RR BOND
OVERSIGHT COMMITTEE
ANNUAL REPORT

JUNE 2018




A close-up photograph of a train's mechanical components, showing a large wheel on the left and various metal parts, bolts, and a pulley on the right. The lighting is dramatic, with strong highlights and deep shadows.

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Dear Bay Area residents:

Thank you for supporting Measure RR and the effort to Build a Better BART. As chairperson of the Bond Oversight Committee, I encourage you to read this report and keep up to date on the progress of this long-term project that is so crucial to the future of the Bay Area.

This Bond Oversight Committee is made up of individuals with extensive experience in different disciplines, from finance to engineering to project management. We are committed to executing our responsibilities and ensuring that Measure RR funds are spent appropriately.

Our meetings are open to the public and will be listed on our website at bart.gov/board. We will also be publishing an annual report each year to inform you of our progress and activities.

Sincerely,

Anu Natarajan

Anu Natarajan
League of Women Voters Seat

Anu Natarajan is the legislative affairs manager at www.stopwaste.org, where she works at the local, regional and state levels on legislation that supports the mission of StopWaste.

OTHER COMMITTEE MEMBERS

Full biographies and photographs at www.bart.gov

MICHAEL R. MCGILL, Electrical Engineering Seat (Vice Chairman)

MARIAN BREITBART, Budgeting & Financial Management Seat

MICHAEL DAY, Accounting Seat

DAREN GEE, Civil Engineering Seat

CHRISTINE D. JOHNSON, League of Women Voters Seat

JOHN POST, Project Management Seat

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통역이 필요하신 분은, 510-464-6752 로 문의하십시오.

Kung kailangan mo ang tulong ng mga serbisyo ng wika, paki tawagan ang (510) 464-6752.

Nếu quý vị cần dịch vụ trợ giúp về ngôn ngữ, xin vui lòng gọi số (510) 464-6752.

This report contains links to webpages with more detailed information; links appear highlighted in [blue text](#).



EXECUTIVE SUMMARY

In its first year of operation, from July 2017 to June 2018, the Measure RR Bond Oversight Committee has laid the groundwork for transparency and accountability in the San Francisco Bay Area Rapid Transit District's implementation of a \$3.5 billion rebuilding program.

This report outlines how Measure RR came to be, what it will involve going forward, and the roles and responsibilities of the Bond Oversight Committee. You'll find a summary of investments, status reports on each major project area and a look at how Measure RR fits into the big picture of BART's reinvestment needs.

You'll also learn more about the Committee's activities over the past year and how to delve deeper into the details.

With the first year focused heavily on design and engineering, Measure RR is now ramping up to full speed with improvements that will be very visible—from new escalators to modernized stations—as well as much more work on behind-the-scenes infrastructure that will yield benefits for generations to come.

This Committee's mandate is to provide diligent oversight that all spending is authorized and that projects are completed in a timely, cost-effective and quality manner to serve you, the riders of BART and residents of the BART District. We encourage you to visit the website www.bart.gov/betterbart for in-depth information about Measure RR and its impacts on safety, reliability and relief of traffic congestion.

As of the end of April 2018, \$66.8 million, or 22 percent of the first tranche of Measure RR funds, had been spent on the projects outlined in this report. While most Measure RR-funded projects are still in the ramp-up phase, based on performance to date, the projects that are underway are on time and on budget. At this point, the Committee has every reason to believe the bond will be implemented as planned.

ABOUT US: YOUR BOND OVERSIGHT COMMITTEE

Measure RR required BART to establish an independent Bond Oversight Committee (BOC) to verify that BART spends the bond revenues as promised. The BOC is comprised of seven members who represent a diversity of expertise, geography and demographic characteristics. Members serve two-year terms and are eligible to serve up to six years total. They are appointed by the BART Board of Directors as follows:

- One member nominated by the American Society of Civil Engineers, or its successor organization, who has expertise in civil engineering management and oversight
- One member nominated by the American Institute of Electrical Engineers, or its successor organization, who has expertise in electrical engineering management and oversight

- One member nominated by the American Institute of Certified Public Accountants, or its successor organization, who has expertise in audit or financial oversight
- One member nominated by the Association for Budgeting & Financial Management section of the American Society for Public Administration, or its successor section or organization, who has expertise in municipal finance
- One member nominated by the Project Management Institute, or its successor organization, who has expertise in construction project management
- Two members nominated by the League of Women Voters, Bay Area, or its successor organization or chapter

The duties and responsibilities of the BOC are to:

- Provide diligent, independent and public oversight over the expenditure of funds from the sale of District general obligation bonds
- Assess how bond proceeds are spent to ensure that all spending is authorized by the ballot measure
- Assess whether projects funded by bond proceeds are completed in a timely, cost-effective and quality manner consistent with the best interests of BART riders and District residents
- Publish an annual report that includes a detailed account of the Committee’s activities including its expenditures

The full text of the duties and responsibilities of the BOC are found in Section 11 of the resolution that established the BOC, available in full at www.bart.gov

The current term of the Bond Oversight Committee is from July 1, 2017, until June 30, 2019.



Back row, L-R: John Post, Christine D. Johnson, Michael Day, Michael R. McGill; front row, L-R: Marian Breitbart, Daren Gee, Anu Natarajan

MEETING OUR MANDATE

SPENDING LEGALLY: In alignment with the California Constitution, this Committee must ensure that all Measure RR Bond funds have been expended legally, that is, toward the improvement of real property. These funds were expended legally to support project expenses in the following categories: preventing accidents, breakdowns, and delays; relieving overcrowding; reducing traffic congestion and pollution; improving earthquake safety; improving access for seniors and disabled persons; and replacing worn tracks, damaged tunnels, old train control systems and other deteriorating infrastructure.

MONITORING IMPACTS: Another part of the Committee's mandate is keeping the public apprised of consequences from construction. In calendar 2017, this included six weekends of scheduled interruption to service with bus bridges provided to mitigate the impact of work to rebuild the trackway between Fruitvale and Lake Merritt Stations in Oakland.

Measure RR work is expected to impact riders with five bus bridges scheduled in 2018 and 11 bus bridges scheduled in 2019. This includes work Memorial Day weekend 2018 between Concord and Pleasant Hill and for four weekends including Labor Day to complete work near West Oakland. Bus service will carry riders from stations where trains have been diverted. Another upcoming impact of construction is a reduced service plan due to the earthquake retrofit of the Transbay Tube, where service is expected to start one hour later systemwide on weekdays, at 5 am, beginning in early 2019.

Additionally, starting in early 2019, reduced frequency of trains is planned on Sundays until 6 pm through the downtown San Francisco stations to accommodate multiple Measure RR construction projects, such as cable replacement, tunnel lighting and water mitigation underground.

ENSURING QUALITY AND SUSTAINABILITY: The Committee also is charged with ensuring that projects are progressing in accordance with the District's quality and sustainability standards. An RR Quality Management Plan has been published internally and training has begun for individuals assigned to RR projects. BART's Quality Assurance organization has hired a Manager of Design/Construction Quality as well as four of eight senior quality officers who will be performing audits.

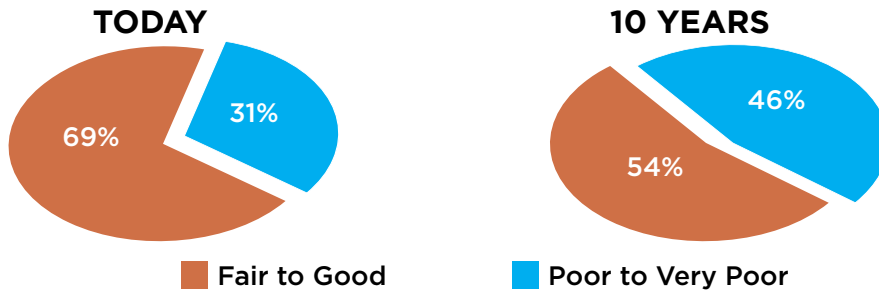
The Measure RR programs are committed to advancing sustainability. As one example, the Oakland track rebuilding utilized an innovative approach involving a prefabricated interlock of concrete ties and welded rail. In addition to using more sustainable materials, this method is also an example of a safer approach by being able to complete the construction in less time than traditional construction.

OVERSEEING PROJECT REPORTING STANDARDS: BART utilizes program and project reporting that is aligned with industry standard project lifecycle framework. The current framework is decentralized and every project goes through multilevel approval gates including compliance and financial reviews. Projects are also reviewed quarterly by next-level management for deviations in scope, budget or schedule. The BART team is committed to continuous improvement and is developing a customized RR reporting framework. This approach will enhance the team's ability to provide clear evidence of predetermined measurement of progress as well as the actual progress performance.



THE STORY OF MEASURE RR:

The elected Board of Directors voted unanimously to put forward a \$3.5 billion general obligation measure on the November 2016 ballot. Why? It's estimated that within 10 years nearly half of BART's assets (such as train control systems, tracks and power cables) would be at the end of their useful life if nothing were done to rebuild:



BART faces a huge financial shortfall over the coming decades to rebuild its aging system. Existing funds were not nearly enough. The Board decided the most responsible thing was to let voters decide whether to reinvest in BART. Measure RR is a key funding component of that plan. In the year before the Board's vote, BART held more than 230 community meetings with local stakeholders and civic groups to ensure widespread understanding of BART's needs and to hear the public's thoughts.

The public responded to the call for action, with nearly 70% of voters casting ballots to approve Measure RR in November 2016.

The bond is devoted solely to first fixing what we have—without earmarks, pet projects or frills. In addition, checks and balances are in place to ensure that the public's money is protected and spent wisely. This Bond Oversight Committee will examine spending and report to the public.

Complete details of what is in the bond and how it relates to safety, reliability, and relief of traffic congestion can be found at the Measure RR website, bart.gov/betterbart.

“WITHOUT BART, THE BAY AREA DOESN'T MOVE. IT IS THE BACKBONE OF THE BAY AREA ECONOMY.”

—Emily Loper, Bay Area Council





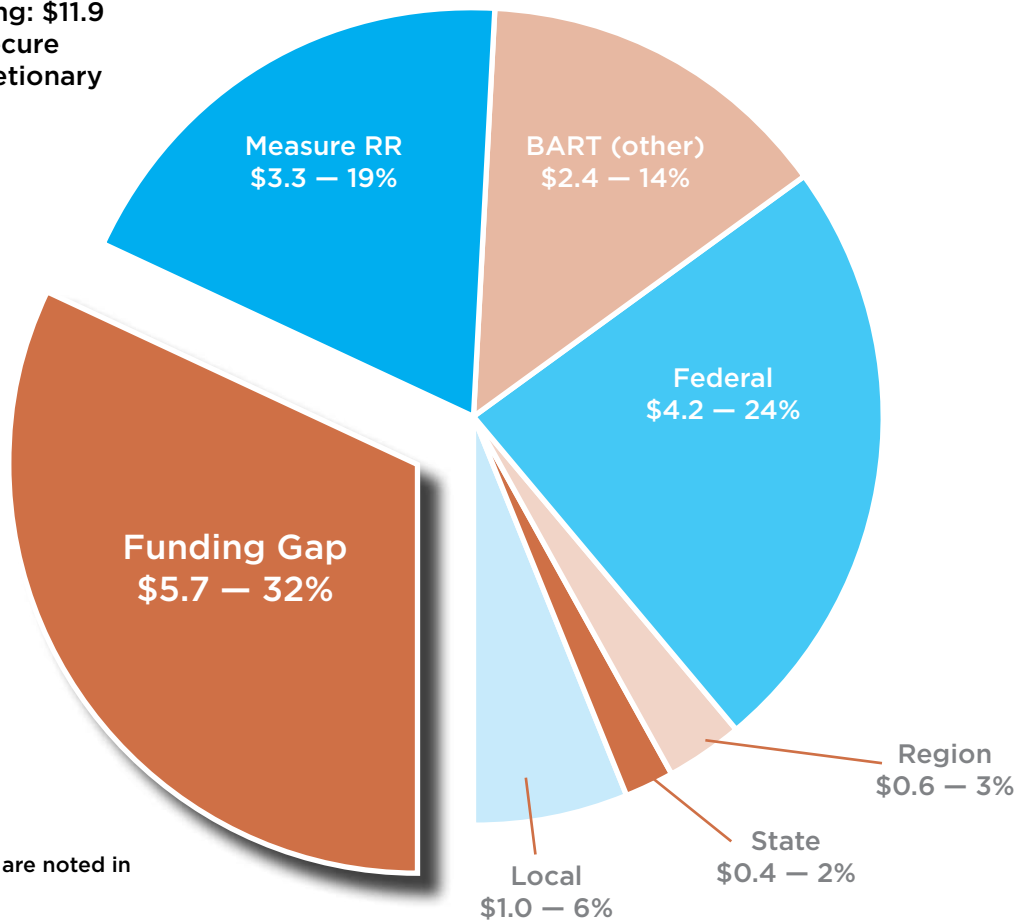
THE PATH FORWARD

The projects funded by Measure RR will allow BART to more quickly address the most critical safety sensitive projects, improve system performance and allow more frequent and reliable service. However, BART's overall **capital reinvestment needs** now exceed \$17.6 billion over the next 15 years. BART has identified approximately two-thirds of the funding to meet its needs, and about one-third of the funding issue remains unsolved. Coupled with BART's operating funds, Measure RR will contribute \$3.5 billion or 33% toward meeting the total reinvestment needs. The remaining funding will come from federal, state, regional and local sources.

The chart below shows the breakdown of capital investment needs and funding sources through FY31, for a look at the big picture:

BART FY17-31 Capital Investment Needs and Funding Sources (Billions)

Total Need: \$17.6
Total Funding: \$11.9
\$8.08 secure
\$3.98 discretionary



NOTE: All numbers are noted in billions.

“IN THE BAY AREA, WE ARE DOING OUR PART TO ADDRESS CRITICAL DEFICIENCIES IN THE LOCAL INFRASTRUCTURE AND THE BACKLOG OF STATE-OF-GOOD-REPAIR NEEDS AFTER DECADES OF UNDERFUNDING.”

—Grace Crunican, BART General Manager

OFF AND RUNNING

BART is rolling up its sleeves to tackle major reinvestment projects to make the system safer and more reliable thanks to the \$3.5 billion Measure RR bond passed by voters. Already in the past year, BART has:

- Completed a [major section of track repair and upgrades in downtown Oakland](#)
- Established a Bond Oversight Committee charged with verifying that BART spends bond revenues as promised
- Issued \$300 million in bonds [certified as climate friendly green bonds](#)
- Awarded six General Engineering Service contracts totaling \$150 million
- Conducted [extensive outreach with the small business community](#) about upcoming RR opportunities

Much more work lies ahead. This report will give you a look into each of the major Measure RR-funded projects planned through FY19. BART is rebuilding and reinvesting, with projects spanning every part of the region. Before discussing each project in detail, read about two topics that are important to Bay Area communities: having green bonds that [promote environmental sustainability](#) and making sure small, local businesses get a chance to take part in the rebuilding effort.



GREEN BONDS

BART raised \$300 million with its first green bond issue as part of Measure RR; green bonds are bonds funding projects with positive environmental effects such as mass transit. Anyone can call their bonds “green,” but BART went a step further, obtaining green bond certification through the Climate Bonds Initiative’s Low Carbon Transport Standard. BART was the second transit issuer to obtain the CBI certification (after NYMTA) and the first on the West Coast.

In June 2017, BART became one of the first municipal bond issuers in the nation to provide priority status to investors who focus on lending to projects with certain environmental, social and governance (ESG) characteristics. During a negotiated bond sale, investors are invited to place orders for their desired amount of bonds being offered. Often, issuers like BART will set different priority levels for different types of investors. Most commonly, an issuer may give priority in certain maturities to retail investors to ensure the bonds are not purchased solely by large institutional investors.

As part of the June 2017 bond sale, BART offered certain maturities with preference for retail investors residing in the three counties of the BART District (who provided 64% of the more than 450 orders totaling \$378 million during the retail order period). The following day, BART sold the remaining maturities to institutional and retail investors prioritizing an ESG focus. This innovation in the municipal bond market enhanced the visibility of BART’s deal with ESG funds as well as with related non-ESG funds. Ultimately, bonds placed with one ESG investor received preference among the \$1.3 billion in institutional orders, and the resulting true interest cost was 140 basis points below BART’s 2016 projections, saving taxpayers millions.

“Given the overwhelming response of both retail and institutional investors, we’ve succeeded in broadening our investor base,” said Rose Poblete, BART’s Controller-Treasurer. Investors include a wide array from individuals (the starting threshold was \$5,000) up to large institutions. “Now that we know how to do it, and with our long-term sustainability goals, we will definitely do it in the future.”





“GIVEN THE OVERWHELMING RESPONSE OF BOTH RETAIL AND INSTITUTIONAL INVESTORS, WE’VE SUCCEEDED IN BROADENING OUR INVESTOR BASE.”

—Rose Poblete, BART’s Controller-Treasurer

SMALL BUSINESS OUTREACH

BART has held dozens of outreach meetings to help small, local businesses better compete for work on Measure RR projects. Typically, small businesses are subcontractors to larger prime contractors.

North American Fence & Railing Inc. of Oakland has installed fencing for different BART projects, including Measure RR-funded work. Its fencing was part of the work during Memorial Day weekend of 2017 when BART replaced track underground downtown Oakland.

“We appreciate that BART is trying to support businesses in local communities,” said Kira Comini, President and owner of North American Fence & Railing. “It matters; it really does.”

Comini, who has been in the fencing business for three decades, said pulling together the insurance, contract documentation and all the other details involved in bidding on infrastructure projects can be daunting to new and small businesses.

“BART does a lot to help small businesses,” she said. “This work is very close to us, and it’s a win-win when we can do a job right here in Oakland.”

“BART does a lot to help small businesses.”

—Kira Comini, President
North American Fence & Railing




Kira Comini, President
of North American Fence & Railing,
standing beside one of the fences her
company installed for BART





INVESTMENT SUMMARY

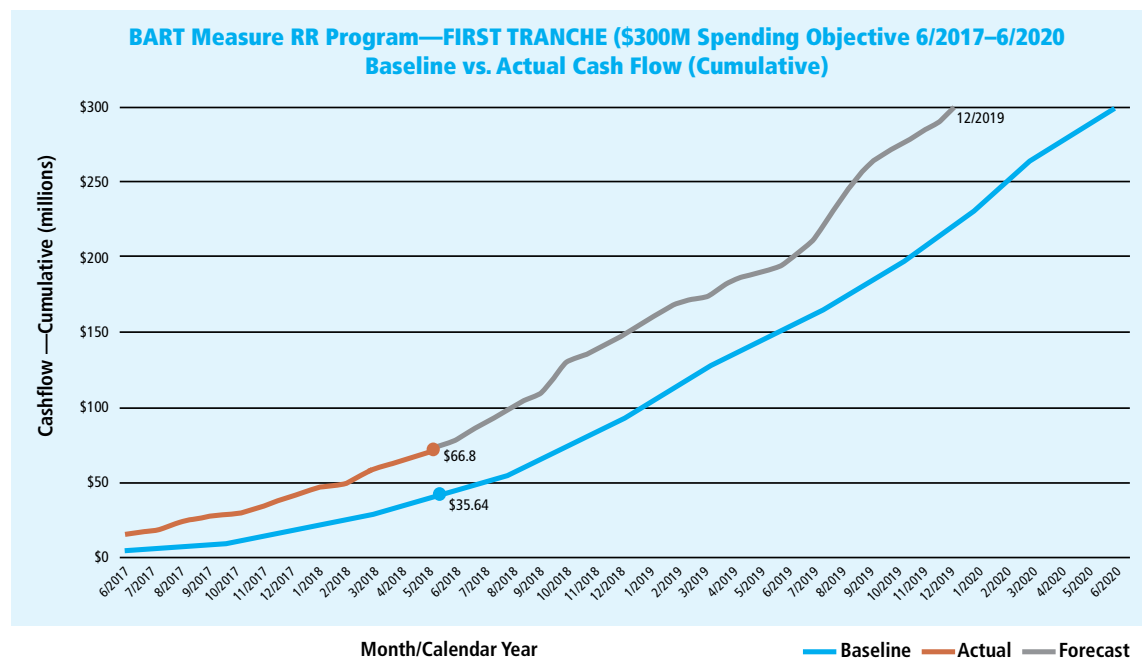
There's a tremendous amount of work underway, with much more to come. It's important to understand that these first stages represent a heavy investment in engineering. Once engineering has been completed, projects will start to roll out quickly and will become much more visible to the public. This chart gives you a quick glance at where the investments are going.

Revised Draft Summary of Investments	\$ Millions	% of Total Bond	Benefits		
			 Safety	 Reliability	 Crowding + Traffic Relief
REPAIR AND REPLACE CRITICAL SAFETY INFRASTRUCTURE	\$3,165	90%	✓	✓	✓
Renew track	\$625	18%	✓	✓	
Renew power infrastructure	\$1,225	35%	✓	✓	
Repair tunnels and structures	\$570	16%	✓	✓	
Renew mechanical infrastructure	\$135	4%	✓	✓	
Renew stations	\$210	6%	✓	✓	✓
Replace train control and other major system infrastructure to increase peak period capacity	\$400	12%	✓	✓	✓
RELIEVE CROWDING, REDUCE TRAFFIC CONGESTION AND EXPAND OPPORTUNITIES TO SAFELY ACCESS STATIONS	\$335	10%	✓	✓	✓
Design and engineer future projects to relieve crowding, increase system redundancy and reduce traffic congestion	\$200	6%		✓	✓
Expand opportunities to safely access stations	\$135	4%	✓	✓	✓
TOTAL	\$3,500	100%			

THE LIFETIME OF MEASURE RR

In the graphic below, you'll see what bonds will be issued over the life of Measure RR. A bond works like a type of loan—investors loan money to BART so it can invest in rebuilding the BART system and then BART must repay the investors back with interest on the amount borrowed. BART will raise the money to pay back the bonds through property taxes.

BART anticipates that each bond will be paid off within 30 years after it is issued, but BART won't issue all of the bonds at the same time. Instead, BART projects it will issue the \$3.5 billion in bonds in equal installments every two years for eighteen years as the funds are needed to rebuild the aging system. This means that, from start to finish, BART estimates property owners could be helping BART pay off the bonds for 48 years.



RR Program Overview - Expenditures (\$ Millions)	Expended (Through April 2018)	% Expended Out of 1st Tranche	1st Tranche Spending Objective (Through June 2020)	% 1st Tranche Out of Total Bond
Renew track	\$35.5	38%	\$93.2	15%
Renew power infrastructure	\$22.5	19%	\$120.6	10%
Repair tunnels and structures	\$3.2	14%	\$22.5	4%
Renew mechanical	\$2.4	32%	\$7.5	6%
Renew stations	\$1.4	15%	\$9.1	4%
Replace train control/increase capacity	\$0.5	3%	\$19.8	5%
Design/engineer to relieve crowding	\$0.7	6%	\$12.5	6%
Expand safe access to stations	\$0.6	4%	\$14.8	11%
TOTAL	\$66.8	22%	\$300	9%

MAJOR PROJECTS FUNDED BY MEASURE RR

Renew Track

Through FY19, riders will see the replacement of 10 miles of worn rail and trackway components in Oakland, [Pleasant Hill](#) and Concord to make the ride quieter, safer and more reliable. (\$93.2 million 1st tranche spending objective)

Track work is progressing ahead of schedule, with \$35.5 million spent and another \$19.2 million committed. This work is essential for safety and reliability and for reducing delays. In addition, BART has begun the work of [reshaping wheel profiles](#) and railheads, an important improvement that will bring customers a quieter ride.

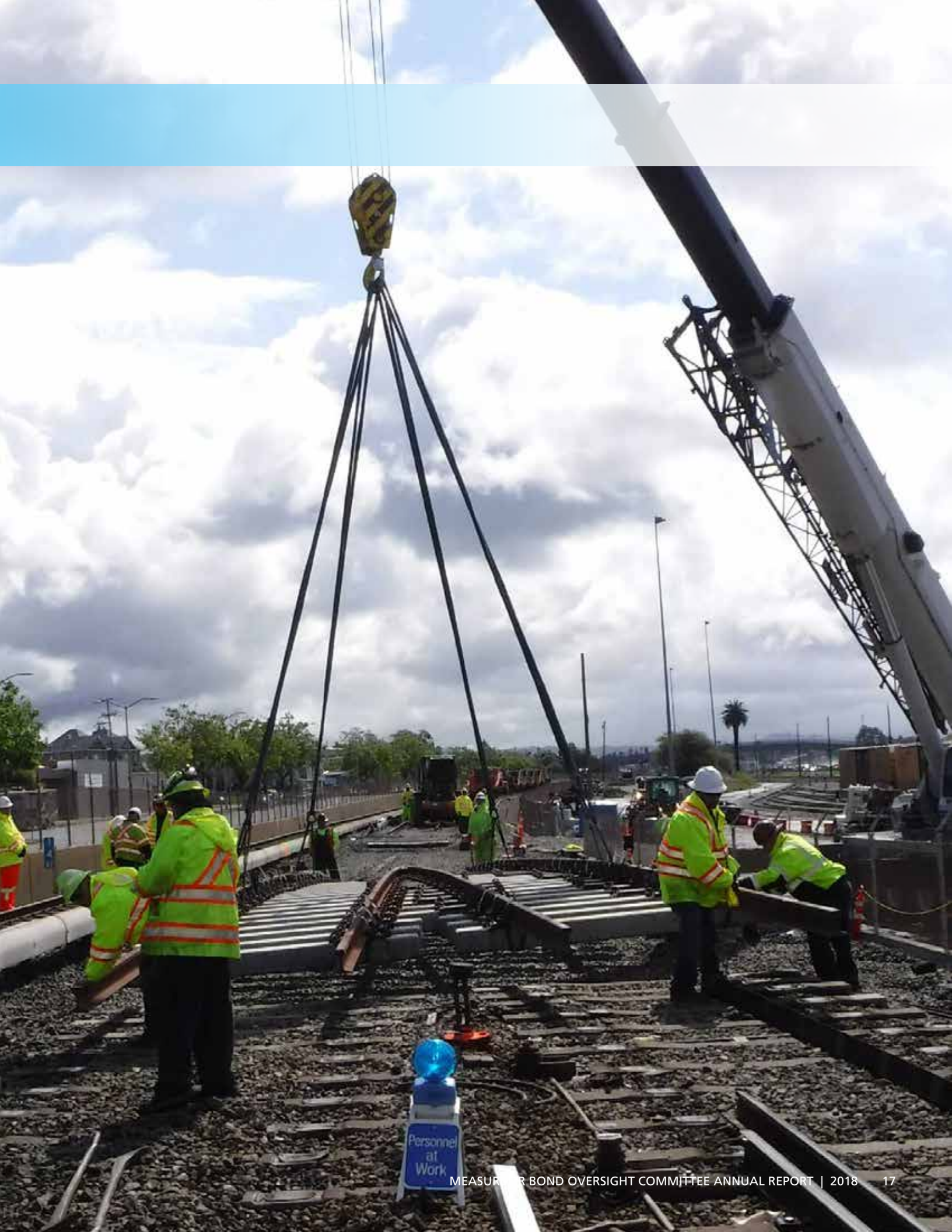


Cross-section of track that is worn, in background; and cross-section of new track.



From: @MrCoffeeBrains

BART is doing good here. Track replacement is inconvenient, but slowdowns and possible derailment due to worn tracks is even worse.



MAJOR PROJECTS FUNDED BY MEASURE RR

Renew Power Infrastructure

There'll be work on new traction power substations in downtown San Francisco. Traction power is critical to powering train cars. (\$7.6 million 1st tranche spending objective)

Much of the [cabling technology and substations](#) channeling the energy that runs BART trains is outdated and in a state of age-related disrepair. The 34.5 kV cables themselves don't even really resemble what the average person would imagine a cable to be: They're quite large and encased within nitrogen-filled pipes about the circumference of a grapefruit. The 34.5 kV cables run through these pipes—original hardware dating back to when the system was built.

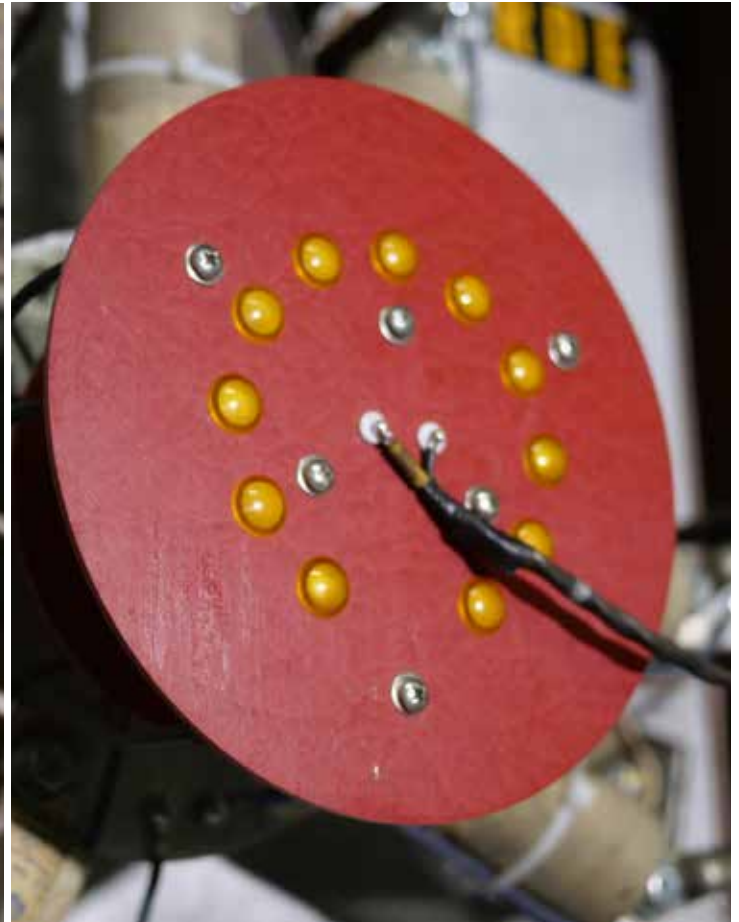
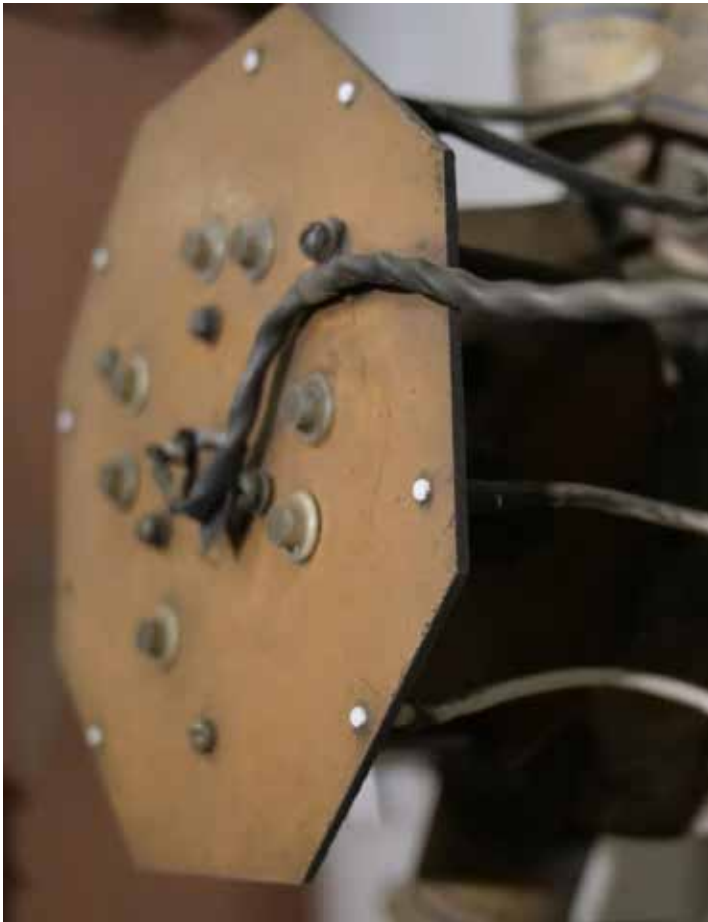
BART needs to replace these pipes, cables (34.5kV), and substations with modern shielded cabling and new distribution hardware so the power can be properly stepped down and fed into the 1,000-volt electrified third rail. The third rail is what brings power to the train cars via conductive metal collector shoes skimming along the third rail's surface.

There are 28 active cabling projects, with 92% in design, 4% in planning and 4% in construction, including the recently completed section between Valencia and 24th St./Mission in San Francisco. Final design review is underway for a \$45 million project from the Transbay Tube to 24th St., with a contract expected to be awarded this fall. (\$59.1 million 1st tranche spending objective)

Another element of the traction power program is the replacement of 28 substations. Currently, 100% of these are in the design phase. It's anticipated that three contracts will be advertised starting in 2019 with a plan to spend \$35 million for the engineering effort. In addition to replacing existing substations, two new substations will be added in downtown San Francisco to support capacity expansion that will come with new train cars and implementation of a new train control system. (\$21.1 million 1st tranche spending objective)

There will be additional work in this category of \$32.8 million to reach the total first tranche spending objective of \$120.6 million.





Measure RR is funding critical upgrades of electrical equipment, like these before-and-after rectifiers. BART trains need 1,000 volts DC to power their motors, and an electrical device called a rectifier helps them get it. Like a phone charger, rectifiers convert the alternating current provided by the electric company to the direct current that our trains use. In April 2018 at Orinda Station, traction power workers swapped out dozens of components to ensure an uninterrupted flow of electricity from massive 34,500-volts AC cables to the electric third rail in our tracks. Our trains, and our customers, never skipped a beat.



Decayed old cable, left, and modern insulated cable, right

MAJOR PROJECTS FUNDED BY MEASURE RR

Repair Tunnels and Structures

- **Earthquake Safety:** Begin retrofitting the Transbay Tube (\$4.3 million 1st tranche spending objective), preliminary engineering to strengthen the track between the Lake Merritt and Coliseum stations (\$2.4 million 1st tranche spending objective) and replacing cross-passage doors in the Transbay Tube, which are critical in the event of an emergency evacuation (\$5.4 million 1st tranche spending objective)
- **Caldecott Tunnel Repair:** Begin realignment of the Caldecott BART Tunnel, which has moved over several decades because of Hayward Fault creep (\$4 million 1st tranche spending objective)
- **Waterproofing:** Upgrade waterproofing in tunnels and structures —water seepage has been damaging vital systems and has caused major delays (\$2.7 million 1st tranche spending objective)

There will be additional work in this category of \$3.7 million to reach the total first tranche spending objective of \$22.5 million.

Tunnel and structure work is extremely important for safety. These are items such as replacing the door in the Transbay Tube that would be used for passengers to exit in an emergency and the catwalks on aerial structures, on which passengers would walk to safety if an evacuation from an aerial structure were necessary.

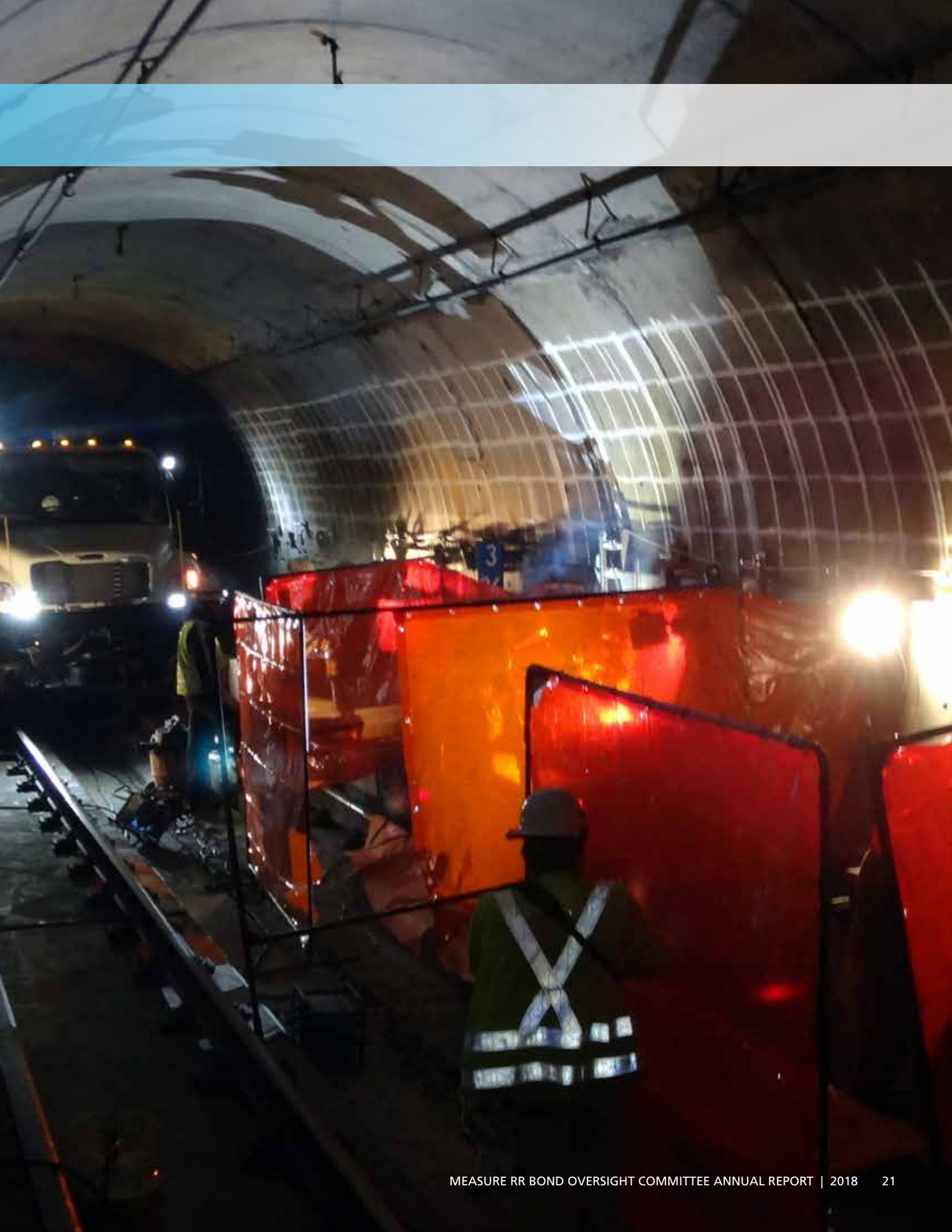
Status of work is as follows:

- Tunnel waterproofing for the line underground downtown San Francisco is 90% design complete
- Richmond line tunnel waterproofing is in preliminary design
- Substation and train control hut roof waterproofing is progressing on schedule
- Fall protection design is 25% complete
- Platform edge replacement is scheduled at MacArthur for 2018
- In addition, there will be a full retrofit of seven additional sections of the Transbay Tube at an estimated cost of \$53.75 million



From: @SF_Transit_News

In other news, @SFBART bond passes! Improving transit is essential to the health of the Bay Area economy.



MAJOR PROJECTS FUNDED BY MEASURE RR

Renew Mechanical Infrastructure

Measure RR will fund \$135 million of [Mechanical Systems Program improvements](#), and 100% of these projects are currently in the engineering stage.

These include storm water treatment facilities, fire services in the train maintenance yards, replacement of HVAC systems, fire suppression work at the Lake Merritt Administration Building, and replacement of computer room cooling units.

Most parts of these systems are not immediately visible to riders; however, they're essential for safety and for preventing delays.

Many mechanical systems are outdated, and thanks to Measure RR, BART will be able to replace them with new, more efficient and more reliable systems.



Measure RR will allow BART to renew and replace outdated mechanical infrastructure assets that are very important to safety—things like ventilation fans, fire service and suppression systems, and sewage pumps.

**\$135
Million**

**4%
of Bond**



 From: @sfcta

@SFBART has broken ground on its first of 22 escalator canopies. Hat tip to Measure RR—a \$3.5B voter-approved bond measure—for helping make this happen.

Renew Stations

Another \$210 million of Measure RR funds will go toward very visible improvements to many of our aging stations. Three stations will undergo major modernizations, including El Cerrito del Norte, Powell Street and 19th Street/Oakland. Conceptual planning will be done for modernizations at seven other stations: Concord, Downtown Berkeley, Coliseum, Embarcadero, Montgomery, Civic Center and Balboa Park.



Rendering of Balboa Park modernization

Renovate & Replace Escalators

Renovation or replacement of platform and street escalators in downtown San Francisco stations, along with canopies on street escalators to prevent damage from the elements, is another part of station renewal that is of high importance to riders. The Measure RR Escalator Replacement Program will replace or truss up 40 escalators between Embarcadero and Civic Center stations, including 22 street escalators and 18 platform escalators. It's anticipated BART can complete work on six to nine escalators per year. Also, 22 canopies are planned in these same areas.



MAJOR PROJECTS FUNDED BY MEASURE RR

Train Control and Other Major System Infrastructure

One of the big-ticket items from Measure RR is the Train Control Modernization Program, which will allow BART to increase capacity, running all 10-car trains, and more of them, through the Transbay Tube during peak hours. (\$17.3 million 1st tranche spending objective)

In order to maintain the new and expanded Fleet of the Future, Measure RR provides funds to begin expansion of BART's [Hayward Maintenance Complex](#), where the trains will be serviced. (\$2.2 million 1st tranche spending objective)

There will be additional work in this category of \$0.3 million to reach the total first tranche spending objective of \$19.8 million.

Up to 40% Increase in Train Capacity

Fixed-Block Signaling System: Existing Train Control Technology



Communications-Based Train Control: Needed to Increase Capacity and Assure Reliability



... along with an expanded 1,081-car Fleet of the Future and Enhanced Traction Power



"I want to say thank you very much for the track work from Fruitvale to Lake Merritt. The ride is already smoother. I appreciate your work."
—Evelyn M.





MAJOR PROJECTS FUNDED BY MEASURE RR

Design and Engineer Projects to Relieve Crowding, Increase Redundancy and Reduce Traffic Congestion

While still in the very early stages, Measure RR has set aside \$200 million to study ways in which BART can relieve crowding and create greater system redundancy to help mitigate the impact of delays. One of these is the possibility of a [second Transbay crossing](#); another, a pilot program for platform screen doors at 12th Street/Oakland Station, which would allow more riders to stand safely on the platforms.

Easing congestion is important for the health and vitality of all our Bay Area communities, and BART is committed to working toward that goal.

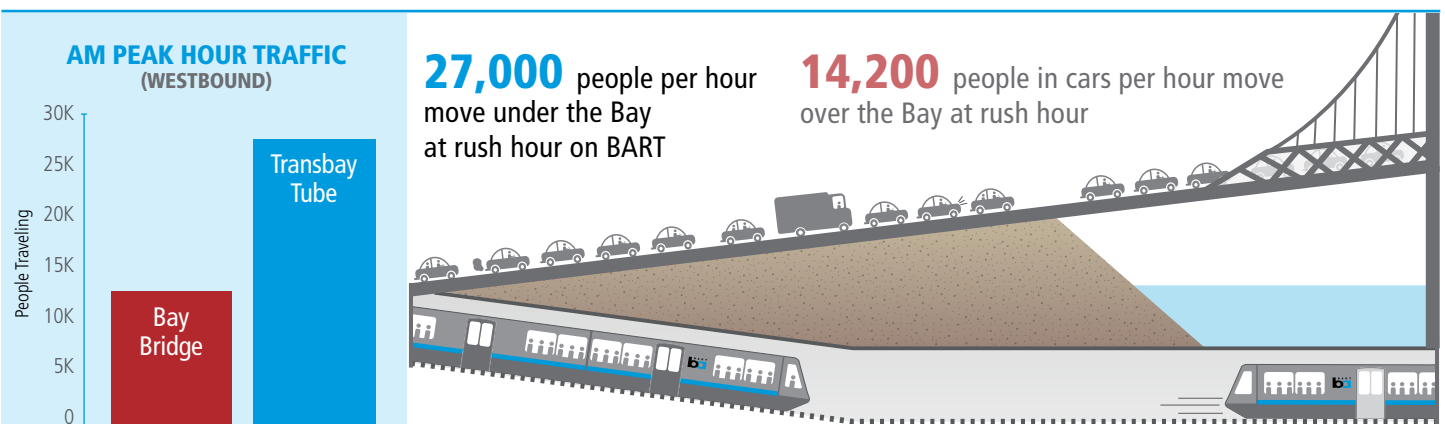
A second underwater crossing for train cars would accommodate far more growth than a bridge; consider the graphic below that shows how many riders BART carries through the current Transbay Tube compared with what the Bay Bridge can accommodate.



From: @alsaldich

Took @SFBART to SF this morning and for the first time in years there was no deafening screaming sound coming from the wheels, just like a real train! Amazing!

- \$200 Million
- 6% of Bond
- Reliability
- Crowding Traffic



*Assumes average of 1.7 persons per vehicle (Caltrans)

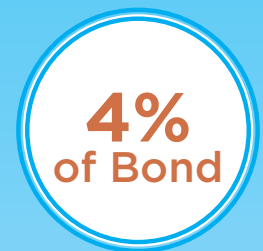


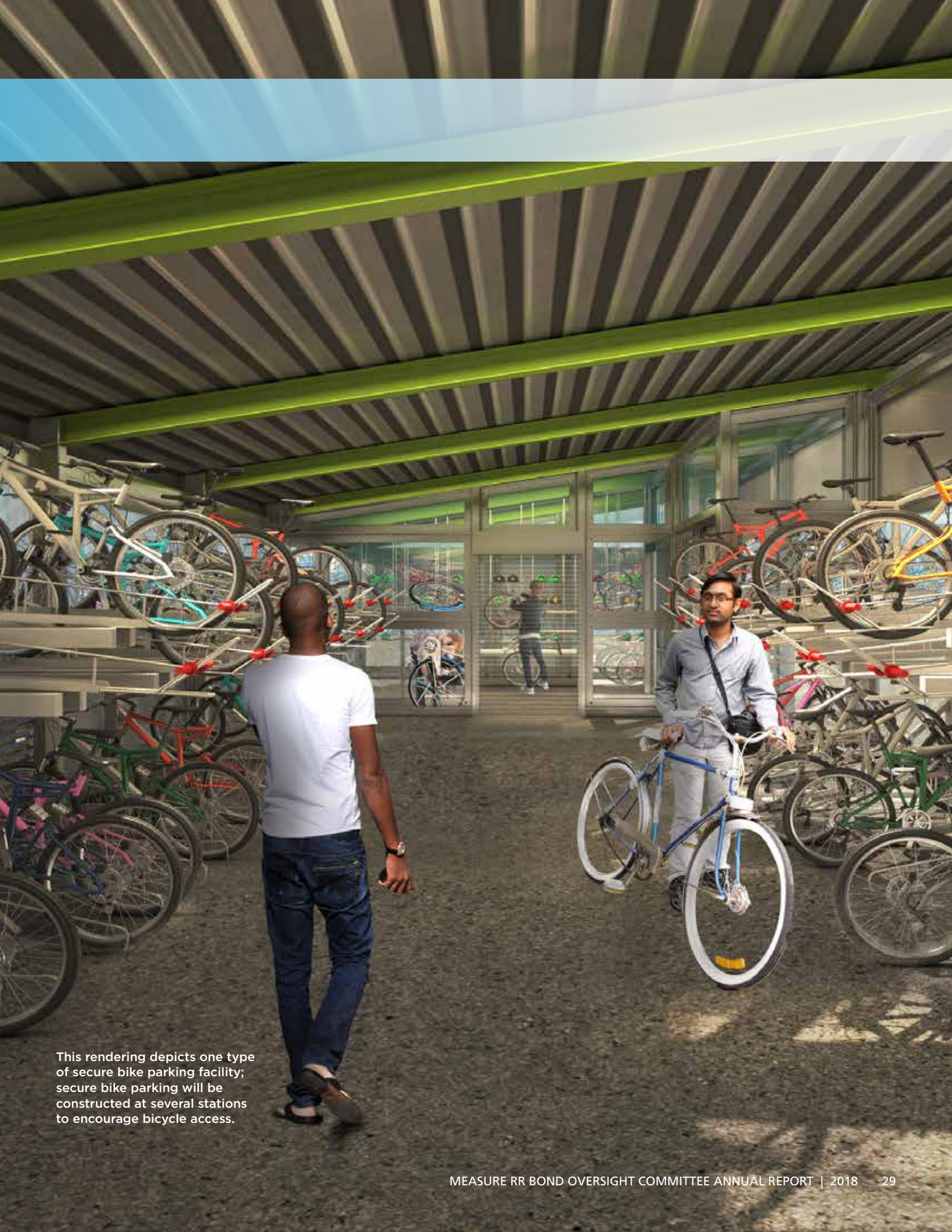
MAJOR PROJECTS FUNDED BY MEASURE RR

Access Improvements

Another \$135 million will be spent to expand opportunities to safely access stations, such as for improvements to bicycle and pedestrian access.

PROJECT
EXPAND SAFE ACCESS TO STATIONS
Pittsburg/Bay Point Shared Mobility—Drop-off & Bike Lanes
El Cerrito del Norte—Ohlone Greenway & Bus Shelter
Fremont Station Active Access—Secure Bike Parking
Fremont Station Active Access—Pedestrian Connection
Dublin/Pleasanton Station Active Access—Secure Bike Parking, Iron Horse Trail
San Leandro Station Active Access—Secure Bike Parking
North Berkeley Station Active Access—Secure Bike Parking, Ohlone
Downtown SF Active Access—Embarcadero Bike Station
19th Street Station Active Access—Bike Station
Bicycle Stair Channels
Lake Merritt Station Active Access—Plaza (including Bike Station)
MacArthur Station Active Access—40th Street Pedestrian Lighting
Accessible Fare Gates





This rendering depicts one type of secure bike parking facility; secure bike parking will be constructed at several stations to encourage bicycle access.

Committee Activities and Expenditures

As part of this report, the Bond Oversight Committee also presents a summary of its activities and expenditures.

- **July 26, 2017 — Orientation Meeting**

BART General Manager Grace Crunican welcomed the Committee members and thanked them for their willingness to serve. Ms. Crunican also gave members an overview of the complex nature of BART's infrastructure and funding needs. She concluded by explaining the critical role of the Committee in providing independent oversight of the Measure RR program and inviting members to contact her with their questions or concerns. Staff then walked members through a binder of background information about BART. No members of the public attended.

- **Jan. 31, 2018 — Regular Meeting**

The Committee elected Anu Natarajan as its chair and Michael McGill as its vice chair. Following the election, the Committee approved the minutes of the July 26, 2017, inaugural meeting. BART Board President Robert Raburn, who attended the meeting as a member of the public, thanked the members for their service. Staff gave an asset management presentation that explained the process BART used to develop the list of Measure RR-funded projects. Staff also presented the status of Measure RR-funded projects including expenditures to date. No members of the public attended.

- **April 18, 2018 — Regular Meeting**

The Committee met to discuss protocols governing communication between BART staff and Committee members. Then the Committee discussed edits to the first draft of its Annual Report. Finally, staff gave the Committee a presentation about how BART communicates news about Measure RR to the public. General Manager Grace Crunican attended, along with BART Board President Robert Raburn and Board Member Debora Allen, as members of the public. No members of the public attended.

- **June 1, 2018 — Regular Meeting**

The Committee approved the minutes from its January and April meetings along with protocols governing communication with BART staff. Then it discussed and approved its 2018 Annual Report. In addition, the Committee agreed upon a regular schedule to meet quarterly on the third Friday of the month starting in September. No members of the public attended.

Expenditures: As of this report, the Committee has spent \$45.

You are welcome to give public input on this Board's activities. Our meetings are open to the public and will be listed on the BART website at www.bart.gov/board. We will also be publishing an annual report each year to inform you of our progress and activities. You can sign up for email notices of BART News, which will include major milestones in Measure RR work at www.bart.gov/alerts.

The public can view meeting minutes at www.bart.gov/bondoversight.

