

# Sacramento Regional Transit Light Rail

## Fact Sheet

### **System**

The Sacramento Regional Transit District (RT) light rail system, which opened on March 12, 1987, is an integral part of the Sacramento region's transportation infrastructure. The 42.9-mile line, which links both the eastern and northeastern suburbs with downtown and south Sacramento, carries 35,000 passengers on a typical weekday. During Fiscal Year 2015, RT light rail vehicles carried 12.8 million passengers.

### **Operations**

Light rail trains traveled 4,083,653 passenger miles in Fiscal Year 2014. RT operates light rail trains seven days a week with 14 trains operating at 15-minute intervals during the day, and seven trains operating at 30-minute intervals during the evening and early weekend mornings. The end-to-end operating time on the Blue Line between the Watt/I-80 and the Cosumnes River College light rail stations is 63 minutes. The operating time on the Gold Line between the Historic Folsom and the Sacramento Valley light rail stations is 59 minutes. The Green Line operating time between the 13th Street and 7th & Richards/Township 9 light rail stations is 11 minutes. RT operates three and four-car trains during the peak hours and two-car trains during the off-peak hours. Two-car trains provide late evening and Sunday service. The light rail dispatch center is staffed 24 hours a day, with two controllers on duty during weekday peak hours.

Approximately 206 RT employees support light rail operations.

### **Track & Structures**

The light rail system includes 34.4 miles of double-track and 8.5 miles of single-track. Most ties are wood, although concrete ties have been used on all track laid since 1994. There are 72 mainline switches; 21 are spring-operated, 38 are power-operated and 12 are manually-operated. All 40 yard switches are operated manually.

### **Power**

The overhead contact system (OCS) uses a blend of trolley wire and catenary. Trolley wire, found downtown, is a single electrical contact wire used by both light rail and historic streetcars. Catenary, a more complex OCS that maintains the wire tension necessary for high speeds, is not currently compatible with the historic streetcars.

The light rail system includes 41 electrical substations that provide power to the trains. "Load sharing" between substations exists so that if a substation shuts down, those on either side continue to feed electricity to that section. When a fault occurs, a blue flashing light is activated and the control center is notified. In an emergency, the fire department can cut power to the entire downtown by using any one of 13 control boxes located throughout the area.

### **Signaling**

Most private right-of-way, including all single-track sections, includes three-aspect (red, yellow, green) automatic block signaling. When operating on city streets and in low speed double-track sections, light rail operators use lunar signals (white bar signals) where track circuits are available, "line of sight" and traffic preemption when no track circuits are available. Most grade crossings are protected by standard railroad crossing gates. Most signal and grade crossing cases display blue flashing lights if they lose power, although backup battery power ensures they will continue to function. Train-to-Wayside Communication (TWC) is used to route trains to their ultimate destination at the 7th & Richards/Township 9, Sacramento Valley, 13th Street, 16th Street, Meadowview, Cosumnes River College, Sunrise, Hazel and Folsom station interlockings.

### **Stations**

There are 53 passenger-boarding stations in the system. All stations, except the 12th & I inbound station, have senior/disabled platforms accessed by ramps or lifts. Twenty-six stations offer bus transfer services and 14 stations have free park-and-ride lots with a total of 10,114 parking spaces. Each station is equipped with at least one fare vending machine.

### **Light Rail Facilities**

RT's light rail facilities occupy a 12-acre site at 2700 Academy Way. They include administrative offices, two facilities for servicing of up to 97 light rail vehicles, two substations and parking.

### **Fares**

RT uses a proof-of-payment fare structure throughout the system, and Transit Fare Inspectors conduct random train and station checks to verify fare payment. Passengers found without proof of fare payment are issued a citation, which carries a fine between \$56 and \$250.

### **Future Extensions**

#### **The Green Line to the Airport Light Rail Extension Project**

The 1.1-mile Green Line to the River District, phase one of the Green Line to the Airport light rail extension project, opened on June 15, 2012, connecting downtown Sacramento to the River District. The project included two new light rail stations: 8th & H/County Center Station and 7th & Richards/Township 9 Station.

RT is currently developing preliminary engineering concepts and assessing the potential environmental impacts of the Locally Preferred Alternative, as amended; the Draft Environmental Impact Report/Environmental Impact Study (DEIR/EIS) is expected to be



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completed in late 2017. Following public review of the DEIR/EIS, RT will respond to comments and prepare a Final EIR/EIS. This environmental review process must be completed before RT and the Federal Transit Administration (FTA) can take action to approve the project and advance it to the next phase of project development, which is “Engineering.”

RT anticipates entering the Engineering phase in 2019/2020. During this phase, detailed plans for the system, including its construction, operations, costs and funding sources, will be finalized and prepare the project for a Full Funding Grant Agreement from the FTA. Completion of the Green Line to the Airport project is dependent on funding availability from local and federal sources.

### Downtown/Riverfront Streetcar Project-

The Downtown/Riverfront Streetcar project includes a looped 4.2-mile initial line that will extend from the West Sacramento Civic Center to the midtown entertainment and retail district in the city of Sacramento.

The project is in partnership with the Sacramento Area Council of

Governments (SACOG), the cities of Sacramento and West Sacramento, Sacramento Regional Transit District (RT) and Yolo County Transportation District (Yolobus).

The partner agencies have obtained environmental clearance for the future \$150 million streetcar project and its project partners anticipate receiving a Small Starts Grant Agreement by the end of December 2016. The effort to return streetcars to Sacramento advanced in April 2014 when the Federal Transit Administration (FTA) approved an application by SACOG to enter the Small Starts grant program. In February 2016, President Obama’s proposed Fiscal Year 2017 budget included \$75 million in Small Starts funding for this project. Revenue service is anticipated to start in 2020.

### Police Services

RT’s Police Services includes full-time contracted Sacramento police officers and county sheriff’s deputies, and RT Transit Fare Inspectors. RT also contracts with a private security firm to monitor activities at light rail park-and-ride stations and on trains operating at night.

## Light Rail Vehicle Specifications

	Siemens Transportation Systems	Construcciones y Auxiliar de Ferrocarriles (CAF)	UTDC (refurbished by Siemens)
<b>Model</b>	Single-articulated, Bi-directional	Single-articulated, Bi-directional	Single-articulated, Bi-directional
<b>Configuration</b>	High floor	High floor	High floor
<b>Doors</b>	Bifold	Sliding	Bifold
<b>Number in fleet</b>	36’	40’	21’ (however not all cars are operational yet, some are still being refurbished)
<b>Length</b>	79’6”	84’	88’6”
<b>Width</b>	8’9”	8’9”	8’8”
<b>Height over roof equipment</b>	12’5”	12’6”	12’5”
<b>Passenger load</b>	64 seated, 80 standing, 144 total	64 seated, 177 standing, 241 total	50 seated, 180 standing, 230 total
<b>Empty weight</b>	38.9 tons	47 tons	49.35 tons
<b>Braking system</b>	Dynamic/Friction/Magnetic Track	Dynamic Regenerative/Friction/Magnetic Track	Dynamic/Friction/Magnetic Track
<b>Friction braking system</b>	Single electro-mechanical controller	Independent, for each truck, micro processor controlled with active center truck braking	Pneumatic - spring applied, air release
<b>Maximum speed</b>	55 mph	55 mph	55 mph
<b>Maximum acceleration</b>	2.5 mph per second	3.0 mph per second	3.0 mph per second
<b>Maximum deceleration</b>	3.0 mph per second	3.0 mph per second	3.5 mph per second
<b>Emergency deceleration</b>	6.0 per second	6.0 per second	6.0 per second
<b>Delivered</b>	1987 / 1991	2002 / 2003	1998 (VTA), delivered 2004 (RT), in service 2015 - 2016 (RT)

