



SMART RAIL & PATHWAY PROJECT *PROGRESS AND HIGHLIGHTS*

San Rafael City Schools

April 27, 2015



LAST PASSENGER RAIL SERVICE IN 1958

Downtown San Rafael



INITIAL OPERATING SEGMENT



- 43 mile first phase: Downtown San Rafael to Airport Blvd. (North of Santa Rosa)
- 10 stations
- 7 two-car train sets
- Operations & Maintenance Facility
- Serves 70-80% of estimated ridership for total system
- Service start-up: Late 2016

KEY OPERATING DETAILS

- Top Speed 79 mph
- 30 trains per day (15 in each direction)
- ½ hr. headways during peak periods
- 6 two car train sets in service
- Two-way operation on a single track railroad utilizing strategically located “passing sidings” (multiple main track segments)



PLATFORM LOCATIONS



- **Santa Rosa**
 - » Airport Boulevard
 - » Guerneville Road
 - » Railroad Square
- **Rohnert Park**
 - » Rohnert Park Expressway
- **Cotati**
 - » East Cotati Avenue
- **Petaluma**
 - » Downtown
- **Novato**
 - » Novato North (San Marin/Atherton)
 - » Novato South (Hamilton)
- **San Rafael**
 - » Marin County Civic Center
 - » Downtown

SMART CONNECTOR EXPRESS BUS



- Express bus service will connect future stations to Phase 1 service
 - » Between North Santa Rosa and Windsor, Healdsburg and Cloverdale
 - » Between Downtown San Rafael and Larkspur
- Service timed with train schedule for both commute and weekend service

SMART PILOT CARS



SMART pilot cars being tested at Transportation Test Center in Pueblo, CO –
pilot cars to arrive this spring

SMART PILOT CARS



SMART pilot cars arriving in Cotati

SMART PILOT CAR INTERIOR



CONSTRUCTION



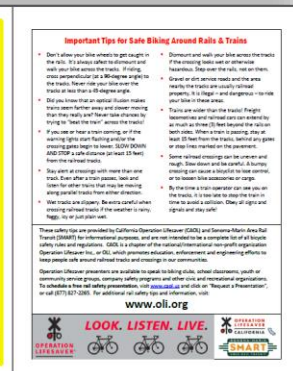
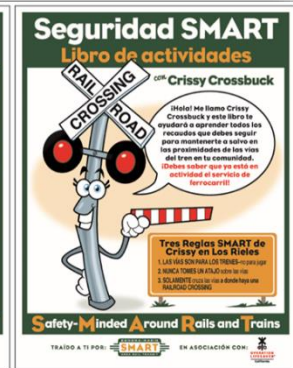
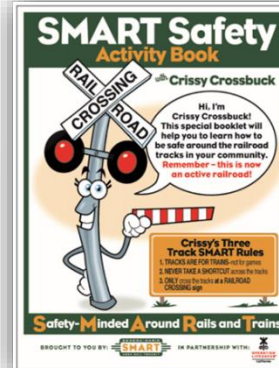
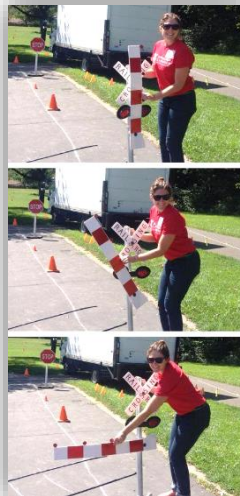
WHAT'S NEXT

- 2015
 - » Complete track reconstruction – Petaluma to San Rafael
 - » Bridge replacement (Haystack)
 - » Tunnel rehabilitation (Porto Suello)
 - » Operations and maintenance facility
 - » Station Platform construction
 - » Vehicle testing
 - » Signal installations
 - » Station finishes
- 2016
 - » Integrated testing
 - » Simulated revenue service
 - » Regulatory approvals
 - » Begin passenger service!



BUILDING RAIL-SAFE COMMUNITIES

Interactive & Bi-lingual



SAFETY PROGRAMS



Operation Lifesaver

- 6 trained staff
- over 35 presentations to date to Driver's Educ. classes, elementary schools and community groups

Kid Scoop News

- 3 Bi-Lingual Placements
- SMART Safety Activity Book
- Over 55,000 kids reached

Safe Routes to Schools


- Participated in 15 Events
- Over 900 students reached

Safety PALS

- Developed SMART's safety character "Crissy Crossbuck"
- Over 10 Shows performed
- Over 6,000 students reached

Community Events

- SMART and Operation Lifesaver safety giveaways
- SMART Safety Quiz to earn prize
- Over 35 events each year outreaching to all demographics (Kids/Families, Senior Citizens, Multicultural, Environmentally Conscious)
- *Flyer distribution project delivered key safety tips to students in over 90% of schools in areas where tracks are present*



**Crissy Crossbuck's
Track SMART Rules:**

- ✓ Tracks are for TRAINS not for games!
- ✓ NEVER take a shortcut across the tracks!
- ✓ Cross ONLY at a railroad crossing sign!

For more info and to take the Rail Safety Quiz, visit
www.BeTrackSMART.org

To request a FREE Rail Safety Presentation, visit
 California Operation Lifesaver at www.caol.us

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IMPORTANT RAIL SAFETY TIPS

Any time is train time -- always expect a train! Please remind your **entire family** to take note of these important safety reminders:



The only safe and legal place to cross a railroad is at a **designated crossing**, indicated by the “white X” **crossbuck sign**. A shortcut across the tracks could mean cutting your life short.



Tracks are for trains – not for games! Besides being subject to fines, trespassers endanger lives. It is illegal to walk, jog, play or bike on the tracks or in the railroad right-of-way.

Remember, kids take their cues from the adults in their lives, so set a good example by being safe!

IT HAPPENS EVERY DAY...

TRAIN PUSHES CAR
HALF MILE, THREE
PEOPLE DIE.

Person Struck
and Killed While
Walking On Tracks.

Train Collides with
Truck at Crossing with
Multiple Tracks.

ANY TIME IS TRAIN TIME

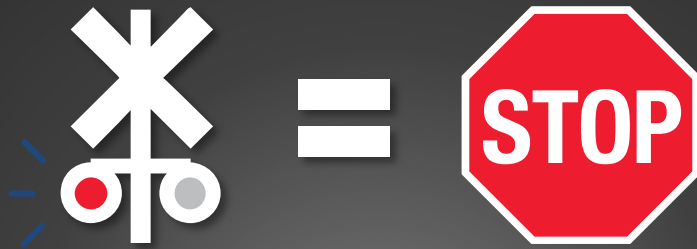


As you approach a railroad crossing, always expect a train.

Freight trains do not run on a schedule. Trains can run on any track, at any time, from either direction.



ACTIVE CROSSING – WARNING DEVICES



Flashing red lights warn of an approaching train and must be treated like a stop sign.

- At crossings with flashing lights and no gates, you must stop. Proceed only when it is safe to do so.
- Trains **always** have the **right-of-way**.



TRAINS CAN'T SWERVE



Trains don't have a steering wheel, so they can't go right or left.

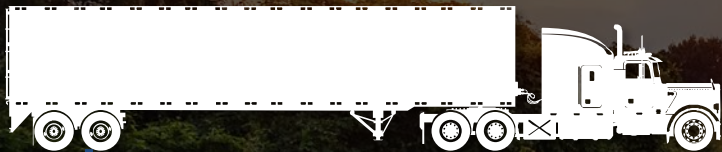
APPROXIMATE STOPPING DISTANCE



200 Ft.



230 Ft.



300 Ft.



600 Ft.



>5280 Ft.

Stopping distance of the average freight train is a mile or more. That's 18 football fields.

Trains can stop, but they can't stop quickly.



When traveling at
55MPH

SPEED MISPERCEPTION



Airplanes look like they are almost hanging in mid-air but their landing speed is **over 150 mph**. The effects of the optical illusion are the same with trains.



Because of their size, trains **appear** to be much further away and traveling much slower than their actual speed.

DRIVING AROUND THE GATE

- Flashing lights with gates close the road temporarily when a train is approaching.
- Cross only when the gates are up completely and the lights have stopped flashing.
- Driving around lowered gates is dangerous and illegal.



DISTRACTIONS



Don't text while driving!



Multi-tasking behind the wheel can be dangerous and even deadly—this is especially true around train tracks.

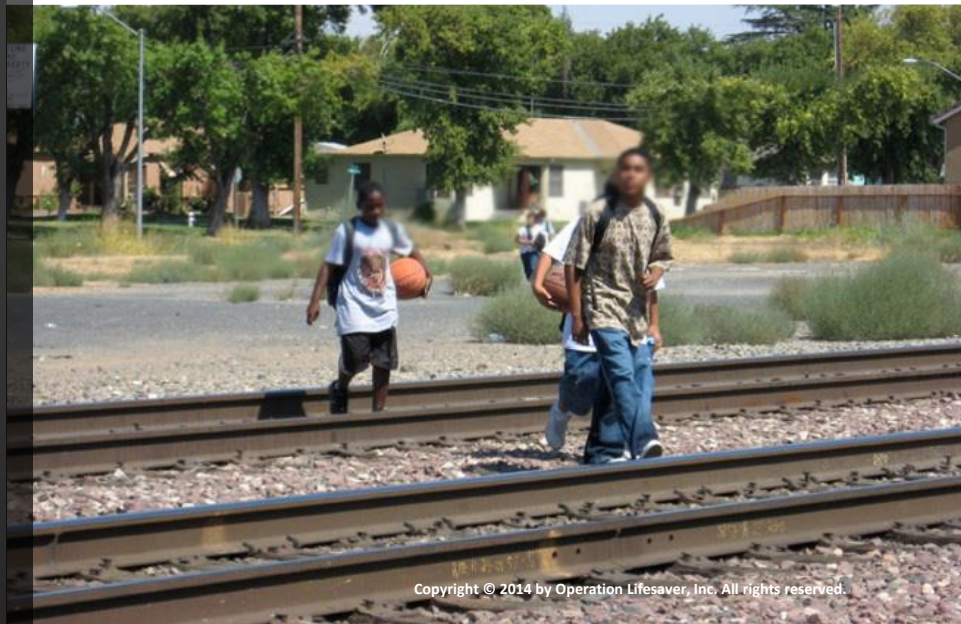
Avoid driving when tired or after drinking alcohol or taking medications (prescriptions or over the counter) that can blur your vision, cause drowsiness, and **impair reaction time.**

When approaching railroad tracks, keep your **full attention on the road** and your surroundings.



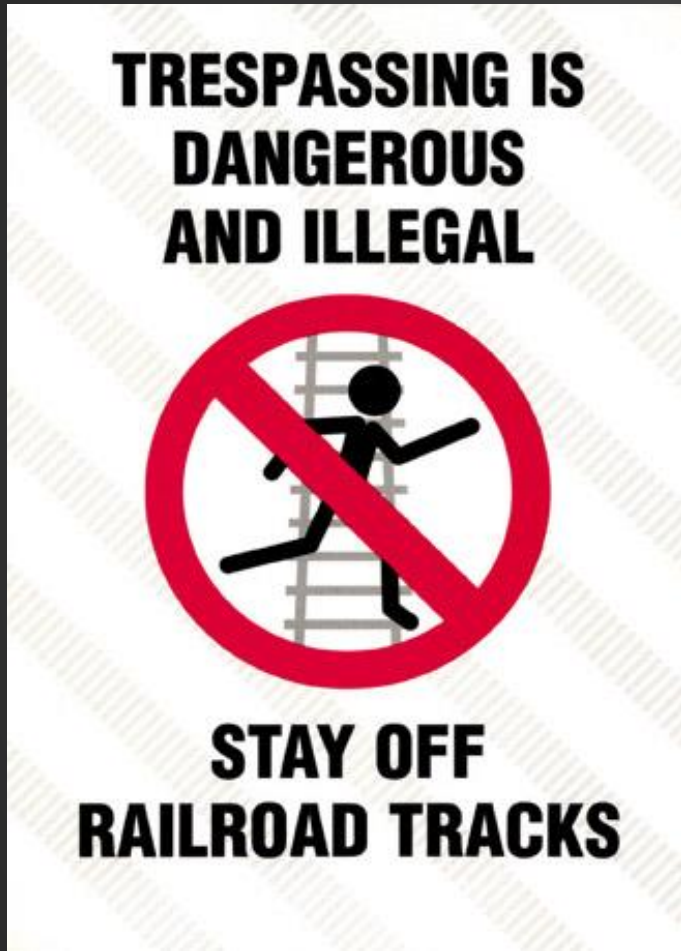
**Walking on railroad tracks
is dangerous and illegal.**

- Many people believe they will always hear a train coming, but some trains are silent and difficult to hear.
- Engaging in conversation, speaking on a cell phone, and listening to music are all potentially deadly distractions.
- Trains can run on any track, at any time, from either direction.
- Walking, lying, or sitting on the tracks can cause injuries and even death.
- **Tracks are for trains, not for people—Stay Off! Stay Away! Stay Alive!**



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STAY OFF! STAY AWAY! STAY ALIVE!®



Railroad property is private property.

Being on railroad tracks or property without permission is trespassing, even if a sign is not posted.

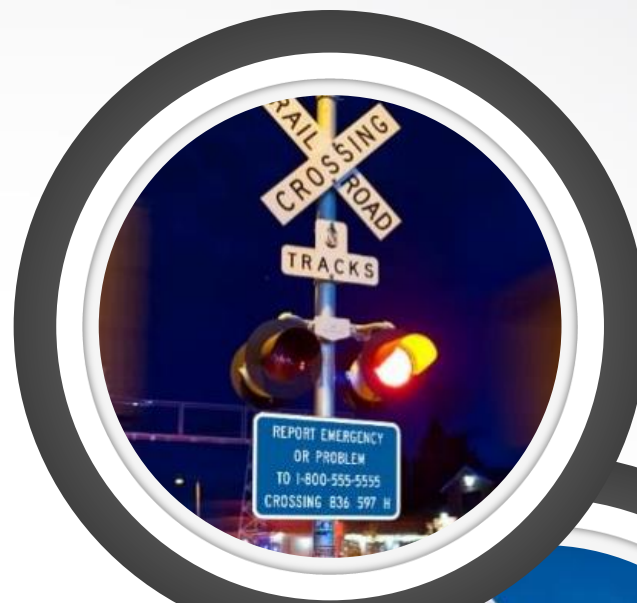
Taking a shortcut across the tracks can get you seriously injured or killed.

EMERGENCY NOTIFICATION SYSTEM (ENS)

REPORT EMERGENCY
OR PROBLEM
TO 1-800-555-5555
CROSSING 836 597 H

In case of emergency, look for this blue sign that shows an emergency phone number.

- Call the number and give the Department of Transportation (DOT) crossing number found on the sign to identify your location.
- This sign may be located on **the crossbuck post or signal post.**
- If you cannot locate the ENS sign, call 911 or the local police.



SEE TRACKS? THINK TRAIN!



★ ★ **THE MATCHUP** ★ ★
THAT DOESN'T ADD UP.

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

CAR	VS	TRAIN
1½ TONS OF STEEL, PLASTIC, RUBBER & GLASS		6,000 TONS OF SOLID BUILT AMERICAN STEEL



IT'S NO CONTEST.

Every day, people are injured or killed trying to beat a train.

See Tracks? **THINK TRAIN**

See TracksThinkTrain.org

OPERATION LIFESAVER
Look, Listen & Live

ASSOCIATION OF AMERICAN RAILROADS

★ ★ ★ ★ ★ ★ ★ ★



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