

Automated Horn System

During the summer of 2003, the City of Roseville installed an automated horn system (AHS) at the Tiger Way and Yosemite railroad crossings. The AHS project installed stationary loud speakers at the railroad crossings that provide simulated train horn sounds when a train is approaching the crossings. These horn sounds are more directional and localized than the traditional train mounted horns currently being used. By installing these stationary horn warning devices, the trains will no longer be required to blow their horns when approaching the railroad crossings. This localization of the horn warnings, by eliminating the train mounted horns, will significantly reduce the noise pollution and irritation experienced by residents living along the railroad tracks near the crossings.

The AHS stationary horns will sound in conjunction with the detection of an approaching train by the railroad crossing arm equipment and will continue to sound until the train is actively crossing the public roadway. As soon as a train is detected, a large orange "X" will be illuminated facing the oncoming train to inform the railroad engineer that the AHS is working properly. The AHS is designed with built in self-checks and diagnostics. If at anytime the AHS system detects a problem, the "X" will either not illuminate or it will extinguish itself thereby letting the railroad engineer know that the AHS is not operating and they should sound the train mounted horn while approaching the crossing. The rules of operation for the railroad engineer will be that if you see the "X" you should not sound your train mounted horn, but if you do not see the "X" you should sound your train mounted horn.

The total cost of the AHS for both intersections was \$170,000. The Federal Rail Administration (FRA) provided the City \$15,000 of that total. The remaining funds are from the City's general fund.

The AHS is a City Council directed project in response to requests of citizens living in the vicinity of the railroad crossings. City staff worked with the California Public Utilities Commission (CPUC), the FRA, Union Pacific Railroad (UPRR), the Brotherhood of Locomotive Engineers (BLE), the United Transportation Union (UTU), and our AHS supplier, Railroad Controls Limited (RCL), for 2 years in an effort to bring the project to Roseville. The AHS is a relatively new system and is currently in use in only a few locations within the United States. The City of Roseville is the first AHS crossings in the State of California. The CPUC and the FRA will be studying our installations for further inclusion as a standard railroad crossing device in California and the remaining United States. The City has been granted a two year test period to install and monitor the AHS. Should the warning device prove reliable, the installation will remain permanently.

Since this is a test project for California and the nation, careful monitoring of the crossing must occur both before and following the installation of the AHS. Pre-AHS monitoring was conducted beginning in April 2003. City staff installed video cameras at both intersections to monitor the operation of the railroad crossings. This data was compared to video monitoring completed after the installation and activation of the AHS in mid-August 2003.

Any questions or comments regarding the AHS can be directed to Jason Shykowski of the City's Public Works Department/Engineering Division at (916) 746-1300.