TO: HONORABLE CITY COUNCIL
FROM: CITY MANAGER DEPARTMENT: PLANNING AND COMMUNITY ENVIRONMENT
DATE: AUGUST 5, 2002 CMR:366:02
SUBJECT: UPDATE ON STAFF EFFORTS TO ADDRESS RESIDENTS’ CONCERNS REGARDING TRAIN HORN NOISE

This is an informational report. No Council action is required.

BACKGROUND
Noise from train whistles has been an issue for some Palo Alto residents for a long time. A number of residents living close to the railroad tracks have complained to the Council about the loudness of train whistles. On January 11, 1999, in response to a memo from Council Members Rosenbaum and Mossar, Council directed staff to investigate and report back on the process, cost, and likelihood of success should the City seek approval of supplemental safety measures as a means of reducing train whistle noise.

On November 22, 1999, the Council reviewed and discussed the train whistle noise issue and directed staff to prepare a Budget Amendment Ordinance (BAO) in the amount of $30,000 to conduct a study to determine the feasibility of installing supplemental safety measures at all four railroad grade crossings in Palo Alto (CMR:380:99, Attachment A). Council approved the BAO and the scope of work for the feasibility study in its meeting of May 8, 2000.

DISCUSSION
As discussed in CMR:380:99, the requirement to sound train horns is vested exclusively in the California Public Utilities Commission (CPUC) and the Federal Railway Administration (FRA). The CPUC preempts any local government from adopting an ordinance prohibiting the sounding of train whistles at street crossings. In response to a request by Senator Becky Morgan in 1986, the state Attorney General concluded that Section 7604 of the CPUC Code preempts a city from adopting an ordinance prohibiting the sounding of train horns at street crossings within the city.

In terms of federal law, the Swift Rail Development Act added Section 20153 to Title 49, of the United States Code. This section directs that the Secretary of Transportation (delegated...
to the FRA) prescribe regulations requiring a train horn be sounded while a train is approaching a street grade crossing. The FRA may provide an exemption from the requirement to sound the horn at crossings if: (1) the FRA determines there is no significant risk with respect to loss of life or serious personal injury; (2) the FRA determines the use of a horn as a warning measure is impractical; or (3) in the judgement of the FRA, “supplemental safety measures” fully compensate for the absence of the warning provided by the horn.

The term “supplemental safety measures” refers to a safety system or procedure provided by the community that is determined to be an effective substitute for the horn in the prevention of street-rail casualties. Such measures include four-quadrant gates, which prevent motorists from going around downed gates and thus diminish the need for sounding a horn. Where supplemental safety measures are implemented, the sounding of a horn would then become unnecessary and could cease. In 1999 staff understood that the FRA would soon issue a final Environment Impact Statement (EIS) and ruling regarding the sounding of horns. This ruling has not been issued because of repeated delays.

However, on January 13, 2000, the FRA issued a Notice of Proposed Rule Making (NPRM) to require locomotive engineers to sound the horn whenever a train was approaching a grade crossing. This ruling reinforces the regulations already in effect by the CPUC and the railroads’ own operating rules for sounding horns. The NPRM allows for a community to apply for a “quiet zone” if specific requirements are met; however, a final rule has not been published. Due in part to the large number of comments received, the FRA has indicated that there is no timetable for the issuance of a final rule. Without clear direction from the FRA, the responsibility for approving a quiet zone reverts to the CPUC.

A request for a waiver from the CPUC requirements to sound a whistle (CPUC Code Section 7678) can be made. However, for a quiet zone to be considered by the CPUC, the operating railroads, Amtrak, Caltrain and Union Pacific Railroad, and the property owner, Peninsula Commuter Joint Powers Board (JPB), must also concur. Due to concerns over safety, increased liability exposure, and property damage, the rail companies are reluctant to agree to quiet zones. The CPUC is extremely unlikely to grant a request for a quiet zone without the approval of the owning and operating railroads. Even with the approval of the rail companies, it is not certain that the CPUC would grant a waiver to Section 7678. Thus, until the FRA issues its final ruling, there appears to be no basis to apply for and implement a quiet zone.

Once a ruling is issued by the FRA, considerable interest on the part of communities to apply for implementation of supplemental safety measures and the designation of quiet zones is anticipated. There could be a long waiting period for FRA approval of such applications. In a meeting with a representative of the FRA, staff was advised that the City should conduct a study to determine the feasibility of installing supplemental safety
measures at the street crossings in Palo Alto. This would help facilitate filing an application with the FRA for a quiet zone designation, as soon as the ruling was issued. Staff’s understanding is that such a study would be a pre-requisite for filing an application.

Staff retained Korve Engineering to conduct the feasibility study. Korve has completed the study and a copy of the study report is attached (Attachment B). The purpose of the study was to identify supplemental safety devices that could be installed in order to file an application with the FRA to create a “quiet zone” through the city. The consultant’s recommendations for the creation of a quiet zone are based on the three “E’s” for grade crossing safety, which are Education, Enforcement and Engineering. The goal of the education program is to inform the public of the quiet zone and increase its awareness of the safety issues associated with the railroad right-of-way. Regular and consistent enforcement is considered an essential part of minimizing the potential for motorists, bicyclists and pedestrians to trespass into the path of a train. Engineering efforts include installing four quadrant gates, raised medians, and related signing and striping (shown in Exhibits 1 through 4 of Attachment B) at the four railroad crossings along Alma Street, at Charleston, Meadow, Churchill and Palo Alto Avenue. The draft study report was discussed with a number of interested community members, both from the City of Palo Alto and City of Menlo Park. Public comments were mixed. Some members felt the City should pursue full grade separations to minimize noise levels and improve safety, especially in view of JPB plans to increase the number of trains and tracks in the area. Others believed that the City should consider supplemental safety measures and establishment of a quiet zone recognizing that grade separations may not be a reality. Some members suggested that the City should work with the JPB to encourage the train operators not to sound the horn too loudly, since the noise level seems to vary from train to train.

The current proposed rules for creation of a quiet zone include submitting a plan to designate a quiet zone to the FRA Associate Administrator for Safety in Washington, DC. The application should include: (1) proposed supplemental and alternative safety measures; (2) a study and supporting data that the proposed measures will enhance safety as per guidelines contained in the rule; (3) a study and supporting data showing that the overall reduction in predicted collision risk will compensate for the elimination of the engine horns; and (4) city commitment to provide on-going enforcement and education. Filing of the application would require support from the JPB, Amtrak, Union Pacific, CPUC, and administrative and legal help to prepare the application and engineering safety studies.

Experiences of Other Cities
The City of Covina experienced a significant increase in railroad traffic in 1992 and residents near the tracks urged the Council to implement a quiet zone. After a series of negotiations between the railroad operator, FRA, CPUC and Covina, a plan similar to what has been recommended in the Korve study, including four quadrant gates, medium islands, signage, closure of one grade crossing and the assumption of additional liability insurance,
was developed. However, the quiet zone was not pursued further because of the cost of closing one of the crossings and the additional liability.

The City of Placentia in Southern California is farther along in the creation of a quiet zone than any other location, but does not have final approval from any agency or railroad. The City has developed formal agreements on the improvements to be made, and agreed to acquire additional liability insurance. The additional liability insurance is expected to cost at least $130,000 per year, and could exceed $150,000. There will be additional costs for added law enforcement, public education and street maintenance. These costs are estimated to be at least $100,000 annually. The final agreement and request for a quiet zone is under consideration by the CPUC.

Placentia is ahead of other cities due to a historic “gentlemen’s agreement,” where the railroad (Burlington Northern/Santa Fe formerly the Atchison, Topeka and Santa Fe Railway Company) instructed locomotive engineers not to sound the horns within the city, except in an emergency. This agreement was permitted due to language in the CPUC code which says, “In a city, the ringing of the bell or the sound of the steam whistle, air siren, or air whistle shall be at the discretion of the operator of the locomotive engine” (CPUC Code Section 7604(a)(1).

The agreement between the railroad and the city was first formulated when the area was significantly less developed and contained long sight distances at most crossings. Recently, due in part to increased development and as a result of a series of incidents, the ban has been reduced to 10:00 pm to 7:30 am only.

The agency overseeing the proposed quiet zone in Placentia is the CPUC, as no federal guidelines are in existence at this time, and thus the FRA has a strong advisory role only. Once the drawings are completed and the plan submitted, the process is expected to take at least two years to gain conditional approval. A four-month baseline period of data is required, followed by a four-month study of the success of the improvements after they are installed. This is then followed by a four-month review period of the data. (Due to the long-standing efforts of the city to implement a quiet zone, it is hopeful that it can receive a conditional approval.)

Conclusions
1. The most prudent course of action appears to be to wait for the Federal Railroad Administration to publish a final rule on the establishment of quiet zones.
2. Staff advises against proceeding with any design work or improvements for installation of the supplementary safety devices, because there is no guarantee that the final ruling will reflect the information and requirements in the Notice of Proposed Rule Making by the FRA.
3. Given the extremely limited sight distances on the west side of the Churchill, Meadow and Charleston grade crossings, which prevent a railroad engineer from viewing oncoming street traffic, it is not feasible to attempt a Placentia-type agreement in Palo Alto.

4. Due to concerns over safety, increased liability exposure, and property damage, railroads are reluctant to agree to quiet zones. The CPUC is extremely unlikely to grant a request for a quiet zone without the approval of the owning and operating railroads. Even with the approval of the railroad users, it is not certain that the CPUC would grant a waiver to Section 7678.

5. In addition to the one-time cost, any quiet zone will require additional liability coverage to be acquired by the City for the railroad operators, and additional law enforcement and education on an on-going basis. These costs are estimated to be at least $250,000 per year.

6. Developing a consensus between the railroads, regulators and community will be a multi-year project. Both the cities of Covina and Placentia have been working for more than 10 years attempting to establish quiet zones.

Several residents have mentioned completely grade separating the tracks and the intersecting streets as a long-term solution to help address the noise, safety and congestion issues related to the railroad operations. This is a contentious issue, at best. However, such a project is complicated due to the proximity of Alma Street immediately to the east of the tracks, and the adjoining residential land uses. Obtaining the funding for the grade separations (over $30,000,000 each) and developing a construction plan that is acceptable to the community at large and residents of the surrounding single residential homes will be a major undertaking requiring direction from Council, and additional staff and resources. The City (both staff and residents), the JPB, Union Pacific Railroad, FRA and CPUC all need to be involved in the creation of a fully-grade separated corridor through Palo Alto.

In view of the above staff will:

1. Continue to work with JPB and Amtrak to limit installation of new train horn equipment to minimum sound levels.
2. Continue to work with JPB and Amtrak to replace louder train horns with quieter horns consistent with minimum sound levels.
3. Work with the JPB to establish procedures to test any new train horn equipment, to make sure that it operates close to the minimum sound level, before putting it in service.
4. Work with the JPB to train staff not to use the horns excessively.
5. Return to Council for direction when the FRA has issued a final ruling.

**RESOURCE IMPACT**
Currently no funds are available to do any further work. Should the City decide to file a waiver to section 7678 of the CPUC code or file an application with FRA to establish a quiet zone, if and when the FRA makes a final ruling, it is anticipated that approximately $3
million would be required in today’s dollars to cover the cost of a safety study ($100,000), legal help to file the application ($60,000), and designing ($300,000) and installing supplemental safety devices ($2.5 million). Additionally, the City will need to commit approximately $250,000 per year in on-going costs to provide enforcement, education and additional railroad liability coverage.

ATTACHMENTS
A. CMR:380:99, Train Whistle Noise
B. Feasibility Study for Supplemental Safety Measures at Railroad Crossings in Palo Alto

PREPARED BY: __________________________
ASHOK AGGARWAL
City Traffic Engineer

DEPARTMENT HEAD: __________________________
STEVE EMSLIE
Director of Planning and Community Environment

CITY MANAGER APPROVAL: __________________________
EMILY HARRISON
Assistant City Manager

cc: Planning and Transportation Commission
    Harry Makler
    Chet DiLauro