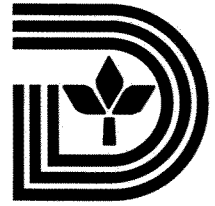


Memorandum



CITY OF DALLAS

DATE January 9, 2009

TO Members of the Transportation and Environment Committee:
Linda L. Koop (Chair), Sheffie Kadane (Vice Chair), Jerry R. Allen, Carolyn R. Davis, Vonciel Jones Hill, Angela Hunt, Pauline Medrano and Ron Natinsky

SUBJECT Update on Railroad Quiet Zones

Attached is the "Quiet Zones: Silencing Train Horns at Railroad Crossings" briefing that will be presented to you January 12, 2009.

Please contact me if you need additional information.

A handwritten signature in black ink, appearing to read 'Ramon F. Miguez'.

Ramon F. Miguez, P.E.
Assistant City Manager

c: The Honorable Mayor and Members of the City Council
Mary K. Suhm, City Manager
Thomas P. Perkins, Jr., City Attorney
Deborah Watkins, City Secretary
Craig Kinton, City Auditor
Judge C. Victor Lander, Administrative Judge
Ryan S. Evans, First Assistant City Manager
Ramon F. Miguez, P.E., Assistant City Manager
Jill A. Jordan, P.E., Assistant City Manager
A.C. Gonzalez, Assistant City Manager
Forest Turner, Interim Assistant City Manager
David Cook, Chief Financial Officer
Jeanne Chipperfield, Director, Budget and Management Services
Edward Scott, Director, Controller's Office
Helena Stevens-Thompson, Assistant to the City Manager – Council Office
Rick Galceran, P.E., Director, Public Works and Transportation

Quiet Zones: Silencing Train Horns at Railroad Crossings

Council Transportation and
Environment Committee

Prepared by
Public Works and Transportation
Transportation Programs - Planning
January 12 , 2009





Purpose of Briefing

- Transportation and Environment Committee originally briefed on RR Quiet Zones on February 26, 2007
- Overview of the Federal Railroad Administration (FRA) process for establishing “railroad quiet zones”
- Status report on Quiet Zone studies



What is the Train Horn Rule?

- The Federal Railroad Administration Train Horn Rule (49 CFR Part 222) requires the sounding of locomotive train horns on approach and entry of public highway-rail grade crossings
- It preempts state and local laws/ordinances governing the sounding of locomotive horns
- It includes provisions that allow communities to silence train horns at crossings by establishing “quiet zones” that meet certain requirements



Minimum Requirements

- Minimum length of a quiet zone is one-half mile along the length of a railroad right-of-way
- All crossings equipped with warning devices comprised of flashing lights, bell and gates that conform to current standards
- Advance warning signs at each crossing advising traffic that train horns are not sounded



Minimum Requirements

- In order for a quiet zone to be qualified under the rule, it must be shown that the lack of a train horn does not...
 - present a significant risk with respect to loss of life or serious personal injury, or that
 - the significant risk has been compensated for by other means



Supplementary Safety Measures

- Supplementary Safety Measures (SSMs) include five possible strategies:
 - Wayside horn system
 - Median barrier
 - Four-quadrant gate system
 - One-way street with gates
 - Temporary or permanent closure of a grade crossing

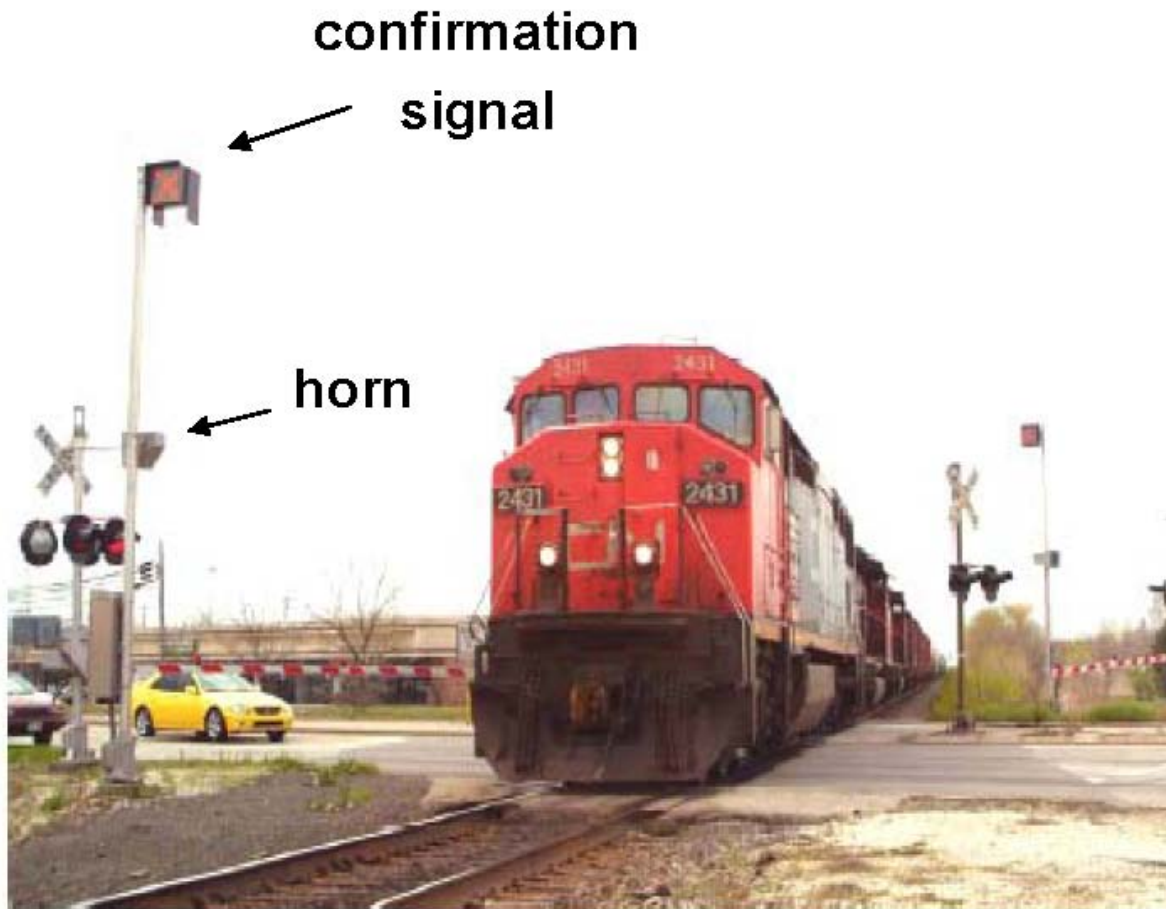


Wayside Horn System

- Horn permanently installed at a crossing that is directed toward approaching traffic
- Effectiveness Rate*: 1.00
- Cost: \$70,000

*The “effectiveness rate” indicates the ability of a particular safety measure to reduce risk at a railroad crossing. An effectiveness rate of 1.00 would mean that the risk index would be reduced to zero.

Wayside Horn System





Median Barrier

- Install a median barrier on both roadway approaches to a crossing so that a driver cannot drive around a lowered gate to cross the tracks
- Must extend 100 feet back from crossing or at least 60 feet if a street or driveway is nearby
- Effectiveness Rate: 0.75 to 0.80
- Cost: \$30,000 to \$100,000

Median Barrier



Median Barrier



Median Barrier





Four-Quadrant Gate System

- Gate system where all roadway approach and exit lanes are fully blocked
- Effectiveness Rate: 0.77 to 0.82
- Cost: \$150,000 to \$500,000

Four-Quadrant Gate System





One-Way Street with Gates

- Gate installed such that all approach lanes on roadway are completely blocked
- Effectiveness Rate: 0.82
- Cost: \$5,000 to \$60,000



Closure of a Grade Crossing

- Installation of a closure system that completely blocks pedestrian and vehicular traffic from entering the grade crossing
- Can be temporary (part of day) or permanent
- Effectiveness Rate: 1.00
- Cost: \$5,000 to \$250,000

Closure of a Grade Crossing





Process for Establishing a Quiet Zone – Qualifying Conditions

One of four conditions must be met:

- One or more SSMs installed at each crossing
- **Safety measures taken at crossings such that the level of risk is the same or lower than would exist if the horns were sounded**
- The level of risk is the same or lower than the nationwide risk threshold without additional safety measures
- The level of risk is the same or lower than the nationwide risk threshold with additional safety measures implemented at selected crossings

Process for Establishing a Quiet Zone – Outline of Basic Steps



- Update railroad crossing inventory data and develop quiet zone plan of action
- Assemble Diagnostic Team (City, FRA, RR, TxDOT)
- Conduct community meeting to present plan and establish consensus
- Council action to authorize notices of Quiet Zone
- Prepare design plan and secure funding
- Issue Notice of Intent (NOI) with 60 day comment period
- Implement safety measurements
- Issue Notice of Establishment (NOE)
- Place quiet zone into service



Quiet Zone Project Funding

- City bond programs
- Regional Transportation Council
Railroad Crossing Reliability
Partnership Program
- Other federal and state grant
programs
- Private sector sources



Results of 2007 TEC Briefing

- Initiate quiet zone project development for railroad segments identified through community input
- Utilize safety measures that allow the City to designate a quiet zone without FRA approval and monitoring – utilize median treatments wherever possible
- Strictly follow procedures within the Federal Railroad Administration Train Horn Rule
- Include 100-foot long median barrier in new roadway designs at railroad crossings



Location & Status

- **North Dallas – Cotton Belt (DGNO)**
 - Dallas Parkway (DNT Service Roads), Knoll Trail, Davenport (E-W), Campbell, Davenport (N-S), Hillcrest, McCallum, Meandering Way, Dickerson, and Coit
 - Diagnostic Team inspection completed
 - Community meeting 9/18/2008
 - Funding \$1.244 federal / \$311,000 - 2003 bonds
 - Consultant preparing preliminary design for ten crossings
 - Council authorized Notice of Intent on 7/2/2008



Location & Status

- **Southeast Dallas – Union Pacific RR**
 - Urbandale -Jim Miller, Urban, Buckner Blvd
 - Diagnostic Team inspection completed
 - Council authorized funding for UPRR preliminary engineering 9/10/2008
 - Future bond funding estimate \$500,000
 - Council authorized Notice of Intent on 9/10/2008
 - Joppa - Lindfield Road
 - Diagnostic Team inspection completed
 - Community meeting 12/15/2007
 - Request withdrawn



Location & Status

- **Northwest Dallas – Union Pacific RR, DART**
 - Hawes, Empire Central, Anson, Gilford, Burbank, Wyman – several other crossings being closed as a part of DART's Northwest LRT project
 - Freight line adjacent to DART transit route
 - Length of crossings between freight and DART lines poses unique concern for vehicle and pedestrian entrapment safety
 - Diagnostic Team inspection will be scheduled in Spring 2009



Location & Status

- **North Central Dallas – Trinity Railway**
 - Market Center Blvd
 - Diagnostic Team inspection completed
 - Second Trinity Railway track under construction
 - Council authorized Notice of Intent 9/24/2008
 - Council will consider authorizing Notice of Establishment on 1/14/2009
 - Quiet Zone will be implemented once rail construction is completed and signs are installed



Location & Status

- **Northeast Dallas – Kansas City Southern RR**
 - Highland, St. Francis, Lakeland, Mariposa, Peavy, Easton, Centerville, Barnes Bridge, and Santa Anna
 - Funding \$1.8M federal available / local funds needed to access federal funds – future bond funding estimate \$450,000
 - Diagnostic Team inspection will be scheduled in Spring 2009



Location & Status

- **Far North Dallas – Kansas City Southern RR**
 - Dallas Parkway (DNT Service Roads), Horizon
 - Diagnostic Team inspection scheduled for January 16, 2009
 - Minimal implementation cost anticipated