



# City of Norman, OK

Municipal Building  
Council Chambers  
201 West Gray  
Norman, OK 73069

## Master

**File Number: K-1415-136**

**File ID:** K-1415-136

**Type:** Contract

**Status:** Consent Item

**Version:** 1

**Reference:** Item 29

**In Control:** City Council

**Department:** Public Works  
Department

**Cost:** \$41,781.25

**File Created:** 05/15/2015

**File Name:** Contract with JWebb & Associates, LLC for  
Consultant Services for Railroad Quiet Zone between  
Post Oak Rd & Acres St

**Final Action:**

**Title:** CONTRACT K-1415-136: A CONTRACT BY AND BETWEEN THE CITY OF NORMAN, OKLAHOMA, AND JWEBB & ASSOCIATES, L.L.C. IN THE AMOUNT OF \$41,781.25 TO PROVIDE CONSULTING SERVICES TO COORDINATE AND ESTABLISH A RAILROAD QUIET ZONE BETWEEN POST OAK ROAD AND ACRES STREET.

**Notes:** ACTION NEEDED: Motion to approve or reject Contract K-1415-136 with JWebb & Associates, L.L.C., in the amount of \$41,781.25; and, if approved, authorize the execution thereof.

ACTION TAKEN: \_\_\_\_\_

**Agenda Date:** 05/26/2015

**Agenda Number:** 29

**Attachments:** Location Map RR.pdf, K-1415-136, Railroad Quiet  
Zone - Supplemental Safety Measures and Cost], PR  
JWebb.pdf

**Project Manager:** Angelo Lombardo, Transportation Engineer

**Entered by:** michelle.rudder@NormanOK.gov

**Effective Date:**

### History of Legislative File

Ver- sion:	Acting Body:	Date:	Action:	Sent To:	Due Date:	Return Date:	Result:
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### Text of Legislative File K-1415-136

Body

**BACKGROUND:** The Burlington Northern Santa Fe Railway Company owns and operates one of the busier rail lines in the State of Oklahoma. The line, which bisects the City of Norman with sixteen at-grade crossings and two grade separations, extends from Temple, Texas to Kansas City, Kansas. Along with an average of forty daily freight trains, the line is also used by Amtrak for daily passenger rail service between Oklahoma City and Fort Worth, Texas.

Historically, railroads have sounded locomotive horns or whistles in advance of grade crossings and under other circumstances as a universal safety precaution. Some States allowed local communities to create whistle bans where the train horn was not routinely sounded. In other states, communities created whistle bans through informal agreements with railroads.

In the late 1980's, the Federal Railroad Administration (FRA) observed a significant increase in nighttime train-vehicle collisions at certain gated highway-rail grade crossings on the Florida East Coast Railway (FEC) at which nighttime whistle bans had been established in accordance with State statute. In 1991, FRA issued Emergency Order #15 requiring trains on the FEC to sound their horns again. The number and rate of collisions at affected crossings returned to pre-whistle ban levels.

In 1994, Congress enacted a law that required FRA to issue a Federal regulation requiring the sounding of locomotive horns at public highway-rail grade crossings. It also gave FRA the ability to provide for exceptions to that requirement by allowing communities under some circumstances to establish "quiet zones."

The Train Horn Rule became effective on June 24, 2005. The rule set nationwide standards for the sounding of train horns at public highway-rail grade crossings. This rule changed the criteria for sounding the horn from distance-based to time-based. It also set limits on the volume of a train horn. The rule also established a process for communities to obtain relief from the routine sounding of train horns by providing criteria for the establishment of quiet zones. Locomotive horns may still be used in the case of an emergency and to comply with Federal regulations or certain railroad rules.

The City of Norman currently has sixteen at-grade railroad crossings. These crossings were modernized in the year 2001 as part of a \$2 million railroad corridor safety project jointly funded by the City of Norman, the Oklahoma Department of Transportation and the Burlington Northern Santa Fe Railway Company. The result of this effort is a state of the art system of crossings that features active warning devices, gates and constant warning track circuitry at every crossing in the City of Norman. Combined with the recent construction of a grade separation at Robinson Street, these improvements simplify the process and minimize the cost of establishing a quiet zone through Norman.

In August of 2008, City staff and the Federal Railroad Administration conducted a preliminary assessment of the Norman railroad corridor targeted for the establishment of a quiet zone. The assessment identified likely supplemental safety treatments and preliminary costs. A map of this corridor, depicting the location of the affected crossings, is presented in Attachment No. 1. Attachment No. 2 summarizes the preliminary recommendations.

**DISCUSSION:** Because the absence of routine horn sounding increases the risk of a crossing collision, a public authority that desires to establish a quiet zone usually will be required to mitigate this additional risk. At a minimum, each public highway-rail crossing within a quiet zone must be equipped with active warning devices: flashing lights, gates, constant warning time devices (except in rare circumstances) and power out indicators. Under the Train Horn Rule, public authorities are required to follow a clearly defined process.

The following steps are necessary:

1. Determine which crossing will be included in the quiet zone. All public highway-rail crossings in the quiet zone must have, at a minimum, an automatic warning system consisting of flashing lights and gates. The warning systems must be equipped with constant warning time devices (except in rare circumstances) and power out indicators. The length of the quiet zone must be at least one-half mile in length.
2. Identify any private highway-rail grade crossings within the proposed quiet zone. If they allow access to the public or provide access to active industrial or commercial sites, a diagnostic review must be conducted and the crossing(s) treated in accordance with the recommendations of the diagnostic team.
3. Identify any pedestrian crossings within the proposed quiet zone and conduct a diagnostic review of those crossings too. They also must be treated in accordance with the diagnostic team's recommendations.
4. Update the U.S. DOT Crossing Inventory Form to reflect current physical and operating conditions at each public, private, and pedestrian crossing located within a proposed quiet zone.
5. Provide a Notice of Intent (NOI) to all of the railroads that operate over crossings in the proposed quiet zone, the State agency responsible for highway safety and the State agency responsible for crossing safety. The NOI must list all of the crossings in the proposed quiet zone and give a brief explanation of the tentative plans for implementing improvements within the quiet zone. The railroads and State agencies have 60 days in which to provide comments to the public authority on the proposed plan.

6. Alternative Safety Measures (ASM) - If ASMs are going to be used to reduce risk, an application to FRA must be made. The application must include all of the elements provided in the federal rule and copies of the application must be sent to the entities listed in the appropriate section of the rule. They will have 60 days to provide comments to FRA on the application. FRA will provide a written decision on the application typically within three to four months after it is received.
7. Determine how the quiet zone will be established using one of the following criteria:
  - a. Every public highway-rail crossing in the proposed quiet zone is equipped with one or more Supplemental Safety Measures (SSMs).
  - b. The Quiet Zone Risk Index (QZRI) of the proposed quiet zone is less than or equal to the Nationwide Significant Risk Threshold (NSRT) without installing SSMs or ASMs.
  - c. The QZRI of the proposed quiet zone is less than or equal to the Nationwide Significant Risk Threshold (NSRT) after the installation of SSMs or ASMs.
  - d. The QZRI of the proposed quiet zone is less than or equal to the Risk Index with Horns (RIWH) after the installation of SSMs or ASMs.
8. Complete the installation of SSMs and ASMs and any other required improvements determined by the diagnostic team at all public, private, and pedestrian crossings within the proposed quiet zone.
9. Ensure that the required signage at each public, private, and pedestrian crossing is installed in accordance with the federal rule, and the standards outlined in the Manual on Uniform Traffic Control Devices.
10. Establish the quiet zone by providing a Notice of Quiet Zone Establishment to all of the parties that are listed in federal rule.

To assist the City with the railroad quiet zone establishment process, staff proposes to use the services of JWebb & Associates, LLC. The company offers technical assistance and expertise in the highway-rail safety arena and specializes in railroad grade crossing safety assessment and design.

The company's Senior Principal, Dr. Jack Webb, P.E., has extensive experience in Oklahoma and is thoroughly familiar with the Train Horn Federal Rule requirements and Quiet Zone establishment process. He works regularly with the Burlington Northern Santa Fe Railway Company, the Federal Railroad Administration, the Oklahoma Corporation Commission and the Oklahoma Department of Transportation. Staff met with representatives of JWebb & Associates LLC to develop a detailed scope of services and negotiated a fee of \$41,781.25. A \$12,250 option, which requires future authorization and appropriation of funds, is included in the proposed contract should the Council decide to extend the length of the quiet zone to the northern City limit. A copy of the proposed contract is included in Attachment No. 3 (Contract K-1415-136).

Funding in the amount of \$50,000 is currently available in Railroad Quiet Zone - Design (account No. 050-9161-431.62-01; project TR0066). If approved by Council, JWebb & Associates, LLC will begin work immediately on the design of the railway quiet zone alterations and improvements. Construction of the improvements will be done by BNSF through a future contractual arrangement with the City of Norman. The City will pay BNSF for the cost of constructing the improvements, which is currently estimated at \$1,240,000 (proposed for allocation in the fiscal year 2015-2016 Capital Fund budget). JWebb will also conduct construction oversight and inspection services on behalf of the City of Norman as a part of Contract 1415-136, with an estimated completion and Quiet Zone implementation date of April 1, 2017.

**RECOMMENDATION:** Staff recommends approval of Contract K-1415-136 with JWebb & Associates, LLC in the amount of \$41,781.25, for the design and coordination of railroad crossing improvements associated with the establishment of a quiet zone in Norman, between Post Oak Road and Acres Street.