



CITY OF FORT BRAGG
416 N. FRANKLIN, FORT BRAGG, CA 95437
PHONE (707)961-2823 FAX (707)961-2802

MEMORANDUM

DATE: November 14, 2014
TO: Brandon Larsen, Senior Environmental Planner, Caltrans Office of Local Assistance
FROM: Sean O'Rourke, Associate Planner
SUBJECT: Chestnut Street Multi-Use Facility Noise Memorandum

This memorandum discusses temporary construction noise impacts related to the implementation of the Chestnut Street Multi-Use Facility project located in the City of Fort Bragg.

Project Description

This Federally and State funded project will improve pedestrian and bicycle access and safety, vehicle safety, and add traffic calming facilities along Chestnut Street from Franklin Street to Ebbing Way and include the following components:

- New curbs and gutters and a new 8 foot wide multi-use path replacing the existing narrow walkways along the north side of Chestnut Street.
- Shift permitted on-street parking from the south side of Chestnut Street to the north side.
- Americans with Disabilities Act (ADA) compliant ramps and intersections.
- Relocate joint service utility poles, street signs, and drainage inlets.
- Traffic calming bulb-outs and bump outs, electronic speed advisor sign, and high visibility and raised crosswalks.

Noise Setting

In accordance with the Caltrans Environmental Handbook guidelines and the City's General Plan, noise is defined as unwanted sound. Sound levels usually are measured and expressed in decibels (dB) with 0 dB corresponding roughly to the threshold of hearing. Decibel levels range from 0 to 140. A 50 dB for light traffic is considered a low decibel level, whereas 120 dB for a jet takeoff at 200 feet is considered a high decibel level.

Under the Caltrans Traffic Noise Analysis Protocol (CaTNAP) 1998, projects that are not Type 1 only require an evaluation of predicted construction noise. The project is not a Type 1 project as defined in 23 CFR 772.5(h); "construction on new location or the physical alteration of an existing highway, which significantly changes either the horizontal or vertical alignment or increases the number of through-traffic lanes." The proposed project is to construct a multi-use trail for pedestrian and bicycle use, install traffic calming measures, and relocate parking from the south side of the street to the north side. No new travel lanes will be installed as part of the project. The project is not a new facility, the uses will not generate substantial noise and, therefore, only construction noise impacts are discussed in this memorandum.

The project will occur within the City right-of-way adjacent to areas zoned residential, commercial, and public facilities and services. Noise sources that contribute to ambient noise levels in and adjacent to the project site include noise traffic from local roadways, distant industrial activities, and noise from neighborhood activities.

As identified by the City’s General Plan, sensitive noise receptors including Redwood School, Dana Gray School, and Fort Bragg High School are located adjacent to Chestnut Street. Private residences are also located along Chestnut Street. The vicinity of the project area is most similar to that of “noisy residential” setting with an expected typical traffic noise level of 61 dBA for the Chestnut Street as depicted in the City’s General Plan in Table N-3 below.

**Table N-3
2022 Traffic Noise (Ldn) Contour Distances**

Roadway	Noise Level 50 ft. from Centerline	Contour Distances (in feet from Centerline)		
		70 Ldn	65 Ldn	60 Ldn
	(Ldn)			
Chestnut St. (East of Hwy. One)	60	—	—	60
Chestnut St. (East of Franklin St.)	61	—	—	60

Source: Illingworth & Rodkin, Inc., February, 2002

Environmental Consequences

Generally, noise levels at construction sites can vary from 55 dBA to a maximum of nearly 80 dBA when heavy equipment is used. During construction of the project, noise from construction activities may intermittently dominate the noise environment in the immediate area of the construction work. Construction noise is regulated by Caltrans Standard Specifications Sections 7-1.01I “Sound Control Requirements,” and 14-8.02 “Noise Control,” which state that noise levels generated during construction shall comply with applicable local, state, and federal regulations, and that all equipment shall be fitted with adequate mufflers according to the manufacturers’ specifications.

Construction noise related to the implementation of this project would be intermittent, and noise levels would vary depending on the type of construction activity employed. The loudest construction activities are likely to be engine noise from construction vehicles and heavy equipment. The lowest construction equipment-related noise levels would be 55 dBA at a distance of 50 feet for sound from use of a pick-up truck. The highest noise levels could be up to 80 dBA (at a distance of 50 feet) for jackhammering and any major earth work activities or demolition. However, when considering the type of construction necessary to complete this type of work, the majority of construction activities will be on the lower side of the estimate as the activities necessary to install the multi-use trail should not require large amounts of heavy (and noisy) equipment.

No adverse noise impacts from construction are anticipated because construction would be conducted in accordance with Caltrans Standard Specifications Sections 7-1.01I and 14-8.02, as well as the City’s applicable local noise standards. Construction noise would be short term and intermittent. Construction is expected to take approximately 6 to 8 months. Implementation of the measures below would help minimize the temporary noise impacts from construction.

Construction Noise Control/Minimization Measures

The City of Fort Bragg General Plan identifies the following goal and policy to reduce the potential for impacts associated with construction or maintenance operations.

- **Goal N-1 Protect City residents from harmful and annoying effects of exposure to excessive noise.**

- Policy N-1.6 Mitigate Noise Impacts: Mitigate noise impacts to the maximum feasible extent.

In order to comply with these policy goals, the project will follow the standard construction noise requirements regulated by Caltrans Sections 7-1.01I and 14-8.02 of the Standard Specifications which states the following:

- Do not exceed 86 dBA at 50 feet from the job site activities from 9 p.m. to 6 a.m.; and
- Equip an internal combustion engine with the manufacturer-recommended muffler. Do not operate an internal combustion engine on the job site without the appropriate muffler.

Summary

From the above analysis, it is clear that construction noise impacts due to the project would not be substantial based on 1) the project is not a Type 1 project; 2) proposed construction duration is temporary and intermittent; and 3) construction of the project would use proposed minimization methods. Temporary construction-related noise impacts will be minimized by implementation of Caltrans standard noise control requirements. No adverse noise impacts from construction are anticipated because construction would be consistent with local policies, and would be short term and intermittent.