

Executive Summary

A new performing arts building is proposed in the northcentral area of the school property adjacent to the Gavin Early Learning Center in what is now a parking area. A service area would be located at the northeast corner of the new performing arts building for the intermittent drop off of various supplies. Vehicles accessing the service area would be light-duty vehicles (for example, pick-up trucks and delivery vans) and not heavy-trucks (for example, multi-axle trucks) that would be louder noise sources. The service door access would be about 40 feet south of E. Stanford Drive. There will be no outdoor events or gatherings associated with the new performing arts center. There are no residences or other potentially noise-sensitive land uses near this location.

A new parking area would be developed on the west side of the school property in a grassy area just east of 37th Place and adjacent to two maintenance buildings. The new parking area would be accessed through the existing parking lot by an existing drive and used for daily staff parking and overflow event parking, if needed. There are three residences on 37th Place about 120 feet to 140 feet west of what would be the new parking area.

Noise Considerations

Noise from traffic is generally characterized by three factors:

- (1). The volume of traffic on the road – 2,000 vehicles per hour sounds twice as loud as 200 vehicles per hour.
- (2). The speed of the traffic – traffic at 65 miles per hour sounds twice as loud as traffic at 30 miles per hour.
- (3). The number of trucks in the flow of traffic – one truck at 55 miles per hour sounds as loud as 28 cars at 55 miles per hour (<http://www.fhwa.dot.gov/environment/noise/index.cfm>)

When noise is a relatively continuous source such as traffic on E. Stanford Drive, noise from that passing traffic decreases by about 3 dBA (A-weighted decibels) for every doubling of distance away from that source. For example, if traffic noise 100 feet from E. Stanford Drive is measured at 60 dBA, that noise would attenuate (that is, decrease) to 57 dBA at 200 feet from E. Stanford Drive and 54 dBA at 400 feet from E. Stanford Drive.

In understanding acoustics it's important to note that people generally cannot detect a 1- to 2-dBA difference in noise levels. Under controlled, laboratory conditions, differences of 2 or 3 dBA can be detected by some people with normal hearing. In the example above, under normal conditions in an outside environment an individual would not be able to distinguish between a noise level of 57 dBA and one of 54 dBA. A 5 dBA change would probably be perceived by most people under normal listening conditions.

Observations

- Existing noise in the area is likely due to pass by traffic on E. Stanford Drive and intermittent noise from ongoing school activities (student drop off and pickup, recreational activities on the school campus, etc.). E. Stanford Drive looks to be a relatively low volume arterial with relatively few heavy trucks (there do not look to be any obvious nearby industrial land uses that would attract a large volume of heavy trucks to the area).
- The posted speed limit on E. Stanford Drive is 25 mile per hour resulting in lower noise levels in the vicinity of the school due to the lower speeds. Ingress and egress to the new parking area would be at low speeds and would not increase noise levels at nearby residences on 37th Place.
- Intermittent deliveries at the service area associated with the new performing arts center would be by light-duty vehicles (not multi-axle heavy-duty trucks) at slow speeds and well away from any potential noise-sensitive receiver such as a residence.

Conclusion

The performing arts building project will be increasing parking spaces and minor additional vehicle pass-bys. This would only increase noise levels at surrounding residential homes by approximately 1-2 dBA. In addition, standard pick-ups trucks or vans will be delivering stage supplies to the service door area which would not result in a perceivable increase in noise levels or noise impacts. The project would not result in noise impacts at nearby residences or other noise-sensitive land uses.

Sincerely,



Angela Newton
Principal/Project Manager