



City of Medina

501 Evergreen Point Road, Medina, WA 98039
Phone: (425) 233-6400 Fax: (425) 451-8197

STAFF ANALYSIS AND RECOMMENDATION KIEWIT/GENERAL/MANSON (KGM) TECHNICAL NOISE VARIANCE

Prepared by: Cristina Haworth, AICP, Planning Consultant

Date: June 8, 2016

Summary of Recommendations: No recommendation.

Part 1 – General Information

CASE NO: TECHNICAL-16-001

LOCATION: SR 520 State Highway West of Evergreen Point Road plus the Evergreen Point Bridge Park and Ride Lot

TAX PARCEL NUMBER: State Route 520 Right-of-Way, 2425049181, 2425049071, 2425049072, 2425049259, 2425049177

PROPERTY OWNER: Washington State Department of Transportation (WSDOT)

APPLICANT: John Gage of Kiewit/General/Manson (agent)

LEGAL DESCRIPTION:

HIGHWAY RIGHT-OF-WAY: SR 520 EAST APPROACH TO EVERGREEN POINT BRIDGE.

PARCEL 2425049072: BEG 492.85 FT S OF CENT OF SEC TH W 583.9 FT TO MEAN LN TH S 149.2 FT TH E TH E 583.9 FT TH N 149.2 FT TO BEG TGW SH LDS ADJ LESS CO RD & LESS ST HWY

PARCEL 2425049177: PAR 1 MEDINA SP#79-1 REC #7905040964 REVISED #8101220587 SD SP DAF SLY 1/2 OF FOLG – BAAP 194.45 FT S OF CTR OF SEC TH W TO CTOV MDR LN TH S ALG SD MDR LN 298.40 FT TH E 583.9 FT TAP 298.40 FT S OF POB TH N TO POB LESS CO RD.

PARCEL 2425049259: PAR 2 TGW SH LDS ADJ MEDINA SP#79-1 REC #7905040964 REVISED #8101220587 SD SP DAF SLY 1/2 OF FOLG – BAAP 194.45 FT S OF CTR OF SEC TH W TO CTOV MDR LN TH S ALG SD MDR LN 298.40 FT TH E 583.9 FT TAP 298.40 FT S OF POB TH N TO POB LESS CO RD

PARCEL 2425049181: PAR 3 MEDINA SP#79-1 REC #7905040964 REVISED #8101220587 SD SP DAF SLY 1/2 OF FOLG – BAAP 194.45 FT S OF CTR OF SEC TH W TO CTOV MDR LN TH S ALG SD MDR LN 298.40 FT TH E 583.9 FT TAP 298.40 FT S OF POB TH N TO POB LESS CO RD

PARCEL 2425049071: PAR 4 TGW SH LDS ADJ MEDINA SP#79-1 REC #7905040964 REVISED #8101220587 SD SP DAF SLY 1/2 OF FOLG – BAAP 194.45 FT S OF CTR OF SEC TH W TO CTOV MDR LN TH S ALG SD MDR LN 298.40 FT TH E 583.9 FT TAP 298.40 FT S OF POB TH N TO POB LESS CO RD

PROPOSAL: The technical noise variance is to exceed daytime and nighttime maximum permissible noise levels to complete construction work on the SR 520 Floating Bridge and Landings project. Work includes demolition of the existing bridge and east approach, construction of a noise wall, and completing the Evergreen Point Park and Ride facility.

ZONING: Primary State Highway (State ROW)

COMPREHENSIVE PLAN DESIGNATION: SR 520

SHORELINE DESIGNATION: Transportation Environment and Aquatic Environment

CRITICAL AREAS: Fish and Wildlife Habitat Conservation Area (Lake Washington), Geologically Hazardous Area (landslide hazard area)

ENVIRONMENTAL (SEPA) REVIEW: A joint National Environmental Policy Act-State Environmental Policy Act (NEPA-SEPA) Final Environmental Impact Statement (FEIS) was issued on June 7, 2011. Two Addenda were issued on October 8, 2011, and November 18, 2011. The FEIS is final.

EXHIBITS:

1. Staff Report
2. Declaration of Agency
3. Legal Notices
 - a. E-mail string requesting additional information
 - b. Notice of Complete Application, dated March 7, 2016
 - c. Notice of Application, dated March 14, 2016
 - d. Notice of Hearing, dated May 5, 2016
 - e. Notice of Postponement, dated May 11, 2016
 - f. Notice of Hearing, dated May 26, 2016
4. Public comment, received May 5, 2016
5. Technical Noise Variance Application, received January 20, 2016 and revised on February 11, February 22, and March 4, 2016
6. Letter from Medina City Attorney, dated May 31, 2016
7. June 1, 2016, KGM response to follow-up questions
8. Applicable King County Noise Control Regulations (Formerly Chapters 12.86 through 12.100 of the King County Code)

Part 2 – Site Characteristics

EXISTING CONDITIONS: The new SR 520 Floating Bridge and Landings was opened in April 2016. The SR 520 Transit /HOV project east of milepost 3.98 was completed earlier with the exception of the park and ride facilities. The upland portion of the project is located between the east shoreline of Lake Washington and the adjacent upland areas. Ground surface elevations range from about Elevation 18 feet near the lake shore to Elevation 140 feet in the northeast portion of the project area.

SURROUNDING ZONING:

Direction	Zoning	Present Use
North	R-20 District	Residential
South	R-20 District	Residential
West	N/A	Lake Washington
East	State ROW	SR 520 Roadway

ACCESS: Access to the construction site is from Evergreen Point Road and SR 520.

Part 3 – Comprehensive Plan

The Medina Comprehensive Plan designates the SR 520 Corridor as a special planning area.

It is the basic policy of the City to retain and promote the high-quality residential setting that has become the hallmark of the Medina community.

The following comprehensive plan goals and policies apply to the proposed project:

LAND USE ELEMENT:

GOAL LU-G1: To maintain Medina’s high quality residential setting and character.

Policy LU-P7: The City shall work with WSDOT and City residents to development mitigation measures that it seeks to be implemented as part of regional facilities development or improvement projects, such as SR 520 and related structures and improvements.

UTILITY ELEMENT:

GOAL T-G4: To minimize impacts of regional transportation facilities on adjacent residential uses and the City as a whole.

Policy T-P8: The City shall work with WSDOT, city residents and other groups, stakeholders and agencies to develop mitigation measure that may be implemented as part of any SR 520 improvement/ expansion project. The City shall seek an overall reduction of impacts, including measures such as noise reduction.

Part 4 – Agency Review/ Public Comment

NOTICES: (Exhibit 3)

Application Received:	January 20, 2016
Determination of Completeness:	March 7, 2016
Notice of Application:	March 14, 2016
Notice of Hearing	May 26, 2016

The application was received on January 20, 2016, and was determined complete on March 7, 2016, pursuant to MMC 20.80.100. A Notice of Application was issued on March 14, 2016. The Notice of Application was mailed to property owners pursuant to MMC 20.80.140(B)(2) to property owners identified as being affected by the excessive noise, and posted on-site and

other public notices locations (City Hall, Medina Post Office, Park Board, and City of Medina website). A 30-day comment period was utilized pursuant to MMC 20.80.110(B)(7).

A Notice of Hearing was issued on May 26, 2016, consistent with MMC 8.06.010 and using the requirements set forth in MMC 20.80.120. The notice was mailed to property owners identified as being affected by the excessive noise and using the requirements in MMC 20.80.140(B)(2), published in *The Seattle Times* newspaper, and posted on the site and other public notices locations (City Hall, Medina Post Office, Medina Park Posting Board, and City of Medina website).

The hearing was originally scheduled for May 18, 2016, but was postponed for reasons discussed later in this staff report. The original notice was mailed May 3, 2016, and a notice of postponement was mailed May 11, 2016.

GENERAL PUBLIC COMMENTS (EXHIBIT 4): Received as of June 8, 2016:

Who	Summary of Comments
Kathryn Akita 8024 NE 28 th Street Hunts Point	<ul style="list-style-type: none"> • Objection to noise variance • Noise complaint hotline not adequate • Lack of consideration by KGM in performing work • Request denial of the variance

AGENCY COMMENTS: No agency comments were received.

Part 5 – Staff Analysis

BACKGROUND:

1. The SR 520 Bridge Replacement and HOV Program is a state safety enhancement project replacing the aging floating bridge and constructing transit and roadway improvements along a 12.8-mile corridor between I-5 in Seattle and SR-202 in Redmond. The SR-520 highway is designated as an “essential public facility” pursuant to Washington Administrative Code (WAC) 365-196-550(1)(d)(iii) and the Medina Comprehensive Plan. Pursuant to WAC 365-196-550(3)(b) the City is prohibited from including criteria which would allow an “essential public facility” to be denied. Additionally, WAC 365-196-550(6)(d) states that the combination of existing development regulations and any new conditions may not render impossible or impracticable the siting, development, or operation of the essential public facility. The City does, however, have authority to impose reasonable permitting requirements.
2. Kiewit/General/Manson, A Joint Venture (KGM) was selected as the contractor to replace the SR 520 floating bridge, and was tasked by the Washington State Department of Transportation (WSDOT) with responsibility for requesting relief from maximum permissible noise levels associated with construction and demolition activities. Technical noise variance No. PL-12-001 was approved by the Medina Hearing Examiner on March 7, 2012 for construction of the new bridge and demolition of the old bridge. This variance allowed noise in excess of maximum noise standards adopted under Chapter 8.06 MMC. The variance was granted until July 13, 2012 with six-month periods of automatic renewal until July 1, 2016. The variance expires on July 12, 2016. The applicant is seeking a new technical noise variance to replace the expiring technical noise variance in order to complete construction and demolition work on the SR 520 bridge replacement and landings project estimated to be finished by December 2016 (Exhibit 5).

3. Technical Noise Variance No. PL-12-001 granted relief from excessive construction noise levels west of Evergreen Point Road. Kiewit/General/Manson subsequently incorporated completion of the Evergreen Point Park & Ride Facilities, which is east of Evergreen Point Road, into its contracted scope of work in order to leave open the temporary construction ramps used to mitigate construction traffic impacts to local streets. The prior contractor on this project, Eastside Corridor Constructors, obtained a technical noise variance (File No. VAR-1193) in June 2011. Per Condition 3 of Eastside Corridor Constructors decision, the technical noise variance associated with work on the Park & Ride facility expired July 1, 2014.
4. After the City issued the May 26 notice for the public hearing, KGM entered into a settlement agreement with the City of Kenmore regarding the plan to rubblize selected materials from the SR 520 demolition for truck transport. The agreement indicated this work will be accomplished on barges on Lake Washington, which the City confirmed would be performed within the City of Medina boundaries. As a result the City requested additional information to evaluate the effects of this change on the technical noise variance application and determined that the rubblization operations were consistent with the materials presented in Exhibit 5 (Exhibits 5 and 7).
5. The Floating Bridge Replacement and Landings project has been underway since 2012, and is currently estimated for completion in December 2016 according to the following schedule:

Activity	Est. Start	Est. Completion
Grading and landscaping	Prior to July 1, 2016	December 15, 2016
Bridge demolition	Prior to July 1, 2016	November 15, 2016
Approach demolition	Prior to July 1, 2016	December 1, 2016
Underwater sidelaying	August 1, 2016	December 31, 2016
Noise wall construction	Prior to July 1, 2016	October 10, 2016

APPLICABLE NOISE CONTROL REGULATIONS:

6. In November 1991, MMC 8.06.010 adopted by reference portions of the King County Code relating to noise control. Ordinance No. 547 adopted by reference King County Code Chapters 12.86 through 12.100 and all future amendments thereto. Kiewit/General/Manson’s Technical Noise Variance No. PL-12-001 was approved under these provisions. Subsequently, the City recently became aware that the King County Council and Executive had approved King County Ordinance No. 18000 amending Chapters 12.86 through 12.100 by substantially modifying some of the noise standards, adding nuisance control provisions, repealing several sections (including Chapters 12.87 through 12.100), and consolidating all of the noise provisions within Chapter 12.86 of the King County Code.
7. The result of King County Ordinance No. 18000 upon the City is a lack of clarity in applicable noise regulations and decision-making authority. Upon review of the old King County Code, the new King County Code, the state’s noise regulations in WAC 173-60, and applicable case law, the City Attorney concluded that the King County noise control regulations in effect prior to Ordinance No. 18000 still applied (Exhibit 7).

STATE ENVIRONMENTAL POLICY ACT:

8. A joint National Environmental Policy Act-State Environmental Policy Act (NEPA-SEPA) Final Environmental Impact Statement (FEIS) was issued on June 7, 2011. Two Addenda were issued on October 8, 2011, and November 18, 2011. The FEIS is final. Further environmental review is not required.

GENERAL:

9. MMC 2.78.070 sets forth the duties of the Medina Hearing Examiner and provides the hearing examiner authority to conduct public hearings and make decisions when authorized to do so under the Medina Municipal Code. MMC 8.06.010(B)(5) amended Section 12.96.020(B) to authorize the hearing examiner to grant technical noise variances. A technical noise variance may be granted on the grounds that there is no practical means known or available for the adequate prevention, abatement, or control of the noise involved.
10. The applicant has indicated that elevated noise levels will be the result of construction activities associated with the new floating bridge and the demolition of the existing bridge and landings. Work will occur from the Evergreen Point Park & Ride facility to within Lake Washington. A summary of the scope of work remaining includes (Exhibit 5):
 - Demolition of the old SR 520 bridge and approaches;
 - Re-grading and landscaping the hillside under the old SR 520 bridge;
 - Constructing noise walls on the south side of SR 520; and
 - Completing the Evergreen Point Park and Ride area.
11. The applicant has stated that all reasonable and feasible means to minimize noise have been and will continue to be implemented (see Analysis 25). No other practical means are known or available. After implementing the noise minimization measures, the applicant anticipates that construction noise will exceed the maximum allowable environmental noise levels set forth in MMC 8.06 and Chapter 12.88 KCC (Exhibit 5).
12. While construction noise will continue to originate from the SR 520 corridor throughout the project, the City's authority extends only to the City limits. The technical noise variance will apply only to noise originating within the City limits of Medina, and which exceeds the City's maximum permissible noise levels. Noise originating outside of Medina's city limits is the responsibility of the jurisdiction where the noise originates. The City's jurisdiction over Lake Washington extends to the middle of Lake Washington pursuant to RCW 34A.21.090 and RCW 35.21.160. The work zone area is located overwater within Lake Washington and approximately 1,500 linear feet of land within City limits, including the eastern SR 520 bridge landing and the Evergreen Point Park and Ride facility.
13. Construction and demolition work is planned to avoid daytime lane and road closures wherever possible to minimize impact to local residents, businesses, transit, and school activities and are restricted by WSDOT due to the high impact on the traveling public. When closures are required for construction or demolition work, they will occur at night to reduce impact to the traveling public. It is estimated that up to 20 occurrences of night work associated with lane closures remain. Additionally, 1-2 weekend closures are required throughout the duration of the project (Exhibit 7). The construction work during these times may exceed nighttime noise standards.
14. The applicant indicated that nighttime work includes both planned work and critical path items for bridge completion. Due to lane closure issues, noise wall and park and ride

construction, as well as demolition staging operations are currently planned for nighttime, but no nighttime demolition activity is planned. If required to meet construction schedule, potential night work could include bridge demolition, underwater sidecasting, and noise wall construction. Equipment needed for these activities includes cranes, excavators, loaders, hoe rams, tug boats, generators, forklifts, and dozers.

- 15. Noise originating from sources other than construction or demolition work is not included in this variance request.

NOISE CONTROL:

- 16. MMC 8.06.010(B) establishes the city manager or designee as the administrator of the noise control regulations. The Director of Development Services has been designated as the city manager’s designee for administering the noise control regulations. Under this authority, the Director had to interpret the application of districts to the land zoned Primary State Highway. The director had previously made the determination under Technical Noise Variance No. PL-12-001 that the area between the centerlines of Evergreen Point Road and 80th Avenue NE was a “commercial” district for purposes of applying the noise standards in Chapter 12.88. This is consistent with the non-residential Public zoning designation adjacent to this portion of the state highway right-of-way. The remaining state highway areas west of the center point of Evergreen Point Road and east of the center point of 80th Avenue NE have been interpreted by the Director to be “residential” districts consistent with the residential zoning adjacent to these portions of the state highway right-of-way.

- 17. The maximum permissible environmental sound levels are set forth in Chapter 12.88. The maximum permissible sound levels for sounds originating and being received in commercial and residential districts is set forth in Section 12.88.020 and summarized as it applies to this proposal as follows:

District of Sound Source	District of Receiving Property	
	Residential	Commercial
Residential	55 dB(A)	57 dB(A)
Commercial	57 dB(A)	60 dB(A)

Under Section 12.88.030, the maximum permissible sound levels are modified during nighttime hours between 10:00 pm and 7:00 am on weekdays; and 10:00 pm and 9:00 am on weekends as follows:

District of Sound Source	District of Receiving Property	
	Residential	Commercial
Residential	45 dB(A)	57 dB(A)
Commercial	47 dB(A)	60 dB(A)

- 18. In addition to the maximum permissible sound levels set forth above, Section 12.88.040(A) grants exemptions to increase the maximum permissible sound levels for noise generated by construction activity between 7:00 am and 10:00 pm weekdays and 9:00 am and 10:00 pm on weekends as follows:

Originator of Construction Noise	Maximum Permissible Noise Level Receiving Property	
	Residential	Commercial
Equipment such as crawlers, tractors, bulldozers, rotary drills and augers, loaders, power shovels, cranes, derricks, graders, off-highway trucks, ditchers, trenchers, compactors, compressors, and pneumatic-power equipment	80 dB(A)	82 dB(A)
Portable power equipment such as chainsaws, log chippers, lawn and garden maintenance equipment and powered hand tools	75 dB(A)	77 dB(A)
Power equipment for maintenance such as lawnmowers, powered hand tools, snow-removal equipment and composters	70 dB(A)	72 dB(A)

19. Section 12.88.040(B) grants exemptions for sounds created by impact types of construction equipment such pavement breakers, jackhammers, and similar impulse or impact noises may exceed maximum permissible sound levels between 8:00 am and 5:00 pm weekdays, and 9:00 am and 10:00 pm on weekends as follows:

- Leq 90 dB(A) continuously; or
- Leq 93 dB(A) for thirty minutes; or
- Leq 96 dB(A) for fifteen minutes; or
- Leq 99 dB(A) for seven and one-half minutes.

Note: the Leq is measured for one-hour periods. Leq indicates equivalent continuous sound level.

20. The applicant stated in their application that they will exceed the maximum sound levels outside of the exemptions set forth in Chapter 12.88. The application indicated that noise levels at 50 feet from the source will range from 74 to 90 dB(A) during daytime construction activities, and from 74 to 85 dB(A) during nighttime construction activities. The highest noise levels will occur during demolition of the East Approach structure due to the use of a hoe ram during the day and from noise wall construction and the use of a dozer at night.

Estimated peak noise levels fall as the distance from the activity source increases:

Distance from Site in feet	50	100	200	400	600	800	1,000
7:00/ 9:00 am to 10:00 pm daytime range in dB(A)	74-90	67-83	59-75	52-71	44-64	37-56	29-49
10:00 pm to 7:00/ 9:00 am nighttime range in dB(A)	74-85	67-78	59-75	52-71	44-60	37-56	29-50

**Reductions due to sound attenuation devices such as sound walls have been applied to generate these estimates.*

***The noise calculations provided are based on the Federal Highway Administration Construction Noise Handbook, 2006. A standard 6 dB(A) reduction per doubling of distance was applied, and an additional reduction of 1.5 dB(A) was applied to account for sound dampening effects of topography, vegetation, and structures. Residences located behind existing noise walls can anticipate a 10-12 dB(A) reduction in noise.*

21. Actual noise levels experienced by nearby property owners may be lower than the peak numbers indicated in the table above. Some mitigating factors that will reduce noise levels include existing topography, vegetation, and structures, and residents' location inside of buildings.
22. Typical daytime construction will include the use of louder equipment, including excavators, dozers, loaders, and hoe rams. The applicant estimates that the highest anticipated noise level from this type of activity at 50 feet from the limits of construction is approximately 90 dB(A). The loudest anticipated activities are associated with approach demolition, and will have associated noise levels in excess of 80 dB(A) up to 100 feet from the limits of construction. The applicant anticipates that this type of work will be completed during daytime hours only, but wants to retain the option for night work if it is determined necessary to meet the construction schedule and approved in-water work window.
23. Per Analysis 13 and 14, nighttime work may be required to meet WSDOT's construction schedule and approved in-water work windows associated with state and Federal permit approvals. If nighttime work is determined to be necessary to meet construction schedule or in-water work windows, the loudest bridge demolition and noise wall construction activities (anticipated for completion in mid-October and November) and underwater sidecasting (completed by the end of December) are anticipated to exceed nighttime noise standards, up to 85 dB(A) experienced at 50 feet from the noise wall construction on the south side of SR 520 and at the Evergreen Point Park and Ride.

In response to the City's request for more information following the settlement agreement with the City of Kenmore, the applicant has indicated that no demolition activities are planned to take place at night other than material hauling within road closures and equipment staging. One of the concerns expressed is the National Marine Fisheries Service window when underwater demolition work is not allowed. This prohibition is from April 15th to August 16th on the west approach and from May 15th to July 1st on the east approach. As a result, the applicant has indicated that some demolition activities may need to be performed at night in order to complete the required work within the allowable NMFS window (staging equipment, moving barges, hauling materials).

24. The remaining project work is expected to occur 50 feet or more from residences. The primary exceptions to this are the properties located immediately adjacent to the limits of construction along the north and south sides of the SR 520 right-of-way. Currently, some sound attenuation measures, including sound walls, have been installed to mitigate noise impacts. The unmitigated noise from the remaining work is anticipated to peak at 90 dB(A) during the day (associated with hoe ram use during approach demolition) and 85 dB(A) during the night (associated with dozer use during noise wall construction) at 50 feet from the construction site.
25. The applicant has proposed a number of noise minimization and mitigation measures, including requiring mufflers on all engine-powered equipment; prevention of equipment idling; minimizing the use of standard back-up alarms; prohibition of truck tailgate banging; use of electric tools and equipment where possible; notification of noisy and/or nighttime work for nearby impacted residents; and maintenance of a 24-hour construction hotline to investigate noise complaints.
26. Noise level estimates include the proposed noise minimization and mitigation measures, and exceed the maximum permissible day and nighttime noise level requirements; a technical noise variance is therefore required. Previously, the City has granted Temporary

Noise Variances for work related to the SR 520 improvements, including the installation of electronic signs (File No. AV 1186), core sampling on the east approach bridge (File No. AV 1189), and trench work associated with installation of tolling equipment (File No. AV 1190). Additionally, technical noise variances were approved for nighttime work associated with the SR 520 Medina to SR 202 project in 2011 (File No. VAR 1193) and for the SR 520 bridge replacement project in 2011 (File No. PL-12-001, refer to Analysis 3, above). The proposed mitigation and minimization measures are considered the best available practical mitigation measures that can be provided for this type of project.

27. According to the information provided by the applicant, the noise generated from the construction work is anticipated to impact properties to varying degrees up to 1,000 feet from the source. This means approximately 206 properties are potentially impacted by excessive noise. The models used to calculate impacts used conservative estimates and did not originally take into account noise mitigation provided by existing topography, vegetation, building types, or proposed mitigation measures. The estimated noise levels provided with the revised application materials do reflect a decrease in anticipated noise levels due to existing topography, vegetation, structures, and proposed mitigation measures.
28. The applicant has identified potential daytime construction noise levels associated with hoe ram use during approach demolition up to approximately 90 dB(A) at 50 feet from the demolition site. The proposed work, including the use of specific construction equipment, will not occur over a continuous 8-hour period. Sound levels are not anticipated to be a risk to the public that would exceed workplace standards established by Labor & Industries.

Part 6 – Conclusions

1. Pursuant to MMC 2.78.070 and MMC 8.06.010(B)(5), the hearing examiner has authority to hold a public hearing and decide technical noise variances. The applicant has requested a technical noise variance due to noise from construction activity anticipated to exceed maximum permissible sound levels. The City Attorney has provided a legal analysis determining that the King County Noise Control regulations in Chapters 12.86 through 12.100 of the King County Code prior to the adoption of King County Ordinance No. 18000 apply.
2. Proper notice for the public hearing has been provided. Notice was posted on the property, mailed to property owners within 300 feet and published in the *Seattle Times* newspaper on May 26, 2016, more than 15 days prior to the date of the hearing (Exhibit 3).
3. The application meets the criterion that there are no practical means known or available for the adequate prevention, abatement, or control of the construction noise levels that will be generated by the activity. The applicant is currently employing best available practices to reduce noise impacts by requiring the use and regular inspection/maintenance of mufflers, use of electric tools, minimization of idling, use of ambient backup alarms, and prohibition of truck tailgate banging. Despite employment of these measures, construction noise levels are anticipated to exceed both daytime and nighttime standards.
4. The Applicant has requested a noise variance to allow for the remaining construction and demolition work to be completed associated with the SR 520 floating bridge replacement project and the Evergreen Point Park & Ride Facility. Pursuant to MMC 8.06.010(4) and (5), a technical noise variance shall be granted only when the proposal meets the criteria set forth in Chapter 12.96 KCC:

- a. *The noise occurring or proposed to occur does not endanger the public health or safety.*

CONCLUSION: Washington State Department of Labor and Industries (L&I) maximum permissible noise standards for workers are not anticipated to be exceeded during this project. Extended exposure to noise above 85 dB(A) (TWA₈) can result in permanent hearing loss, but the proposed work, including the use of specific construction equipment, will not occur over a continuous 8-hour period. Sound levels are not anticipated to be a risk to the public that would exceed workplace standards established by L&I.

The applicant is requesting relief from noise standards to the extent required according to the projections and measurements of noise emissions from the specific types of equipment used for the remainder of the project. This is the minimum necessary to grant relief to the applicant.

The noise levels will occur over the construction timeframe, to be completed by December 31, 2016. All proposed mitigation will be in use where feasible, and the applicant will communicate with the City and its residents. As conditioned, this criterion is satisfied.

- b. *There is no practical means known or available for adequate prevention, abatement, or control of the noise involved.*

CONCLUSION: The proposed noise minimization and mitigation measures are the best means available for the prevention, abatement, and control of construction-related noise. After application of the proposed noise minimization and mitigation measures, noise levels are still anticipated to exceed daytime and nighttime noise requirements. There are no other practical means known or available for adequate prevention, abatement, or control of the noise involved.

The applicant will be required to conduct ongoing noise monitoring during nighttime construction activities and make regular reports to the City regarding findings and what measures were employed to reduce noise impacts. As conditioned, this criterion is satisfied.

- c. *The duration shall be until such practical means for prevention, abatement, or control become known or available.*

CONCLUSION: The noise levels will occur over the construction timeframe, estimated to be completed by December 31, 2016. All proposed mitigation will be in use where feasible, and the applicant will communicate with the City, residents, and WSDOT. As conditioned, this criterion is satisfied.

- d. *The holder of a technical noise variance, as required by the administrator, shall make reports to the administrator detailing actions taken to develop a means of noise control or to reduce the noise involved and must relate these actions to pertinent current technology.*

CONCLUSION: The applicant will be required to continue conducting ongoing noise monitoring during nighttime construction activity and make regular reports to the City regarding findings and what noise mitigation measures were in use. As conditioned, this criterion is satisfied.

Part 7 – Staff Recommendation

Staff does not make a recommendation on the application for a technical noise variance. If the request for a technical noise variance is granted, staff recommends the following conditions be included to safeguard the public health, safety and welfare:

1. The technical noise variance is limited to the excessive sound levels associated with the construction and demolition activity identified in Exhibit 5. The technical noise variance shall not apply to uses or activities not included in Exhibit 5.
2. The Applicant shall continue providing updated construction and demolition schedules to the City on a monthly basis, which shall identify and highlight construction activity outside of the work hours set forth in MMC 8.06.030.
3. The Applicant shall continue to conduct testing and monitoring of sound levels associated with construction activity. Quarterly reports on the results of the testing and monitoring shall be submitted to the City on the first day of July, October, January and April for the duration of the construction activity associated with the project.
4. Approval of the variance is granted until December 31, 2017. On January 1, 2018, the technical noise variance shall expire.
5. If construction activity sound levels exceed the sound levels set forth in Exhibit 5, the City may require the applicant to provide additional mitigation for those residences that are affected by noise levels exceeding those levels approved by this variance.
6. Best management practices identified in the application shall be adhered to for the life of the project. This includes but is not limited to:
 - a. Construction and stationary equipment shall be strategically located as much as possible so that residents do not have direct line of sight. Equipment such as light plants, generators, compressors, jackhammers, saw cutters, and rollers shall utilize WSDOT-approved noise mitigation shields, noise blankets, skirts, concrete barriers, or other means available to reduce noise.
 - b. Vehicles shall be equipped with ambient sensitive back-up warning devices. Back-up observers may be used in lieu of back-up warning devices for all equipment except dump trucks, in compliance with WAC 296-155-610 and WAC 296-155-615, which shall use back-up observers and back-up warning devices in compliance with WAC 296-155-610.
 - c. Trucks performing export haul shall have well-maintained bed liners that shall be inspected and approved by the Applicant's engineer.
 - d. Truck tailgate banging is prohibited. Tailgates shall be secured to prevent banging.
 - e. As available, the use of electrically-powered tools and equipment is preferred.
 - f. Whenever possible, the noisiest activities will be completed before midnight.

7. The Applicant shall provide and be responsible for written notification to all residences within the radius of a proposed construction or demolition activity affected by noise exceeding the maximum permissible sound levels. Notice shall be provided at least seven calendar days before the particular construction or demolition activity occurs. If a period of more than six months should elapse between the notice and the construction activities, a new written notice shall be provided.
8. Content of the written notification and a list of the households being notified shall be submitted to the City prior to it being mailed to residences. The notification shall include a phone complaint number and designated contact for residents to call.
9. A copy of the decision on this application shall be kept on the project site at all times. Supervisors on site shall ensure noise mitigation measures are complied with at all times.

Report prepared by:



Cristina Haworth, AICP
City Planning Consultant

6/8/2016

Date