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BEFORE THE HEARING EXAMINER  
FOR THE CITY OF MEDINA

CITY OF MEDINA

In the Matter of the Application of	)	No. PL-12-001
	)	
<b>Kiewit/General/Manson, A Joint</b>	)	
<b>Venture (KGM)</b>	)	
	)	FINDINGS, CONCLUSIONS, AND
<u>For a Technical Noise Variance</u>	)	DECISION

**SUMMARY OF DECISION**

The request for a technical noise variance from MMC 8.06.010, MMC 8.06.040, and Chapters 12.88 – 12.92 King County Code, as adopted by the City of Medina, for state highway construction in SR 520 WSDOT right-of-way, west of Evergreen Point Road, in Medina, Washington, is **APPROVED**. Conditions of approval are necessary to address specific impacts of the proposed project.

**SUMMARY OF RECORD**

Request:

Kiewit/General/Manson, A Joint Venture (KGM) requests a technical noise variance from MMC 8.06.010, MMC 8.06.040, and Chapters 12.88 – 12.92 King County Code, as adopted by the City of Medina, for state highway construction in the SR 520 right-of-way from the east shore of Lake Washington at milepost 3.98 to 108<sup>th</sup> Avenue NE at milepost 6.43.

Hearing Date:

The City of Medina Hearing Examiner held an open record hearing on the request on February 22, 2012. The City of Medina Hearing Examiner kept the record open until close of business on February 24, 2012 for City staff to submit a copy of King County noise regulations adopted by the City.

Testimony:

The following individuals presented testimony under oath at the open record hearing:

- Erik Nelson, Project Director, Kiewit, Applicant Representative
- Kate Snider, Permit Lead, Kiewit, Applicant Representative
- Christopher Ruiz, RothHill Project Coordinator
- Kristen Clem Kissinger, City Planning Consultant
- John Andrews

Exhibits:

The following exhibits were admitted into the record:

*Findings, Conclusions and Decision*  
*City of Medina Hearing Examiner*  
*Kiewit/General/Manson, A Joint Venture (KGM)*  
*Noise Variance, No. PL12-001*

1. Staff Report, dated February 15, 2012
2. Noise Variance Application, dated January 4, 2012, with Request for Consolidated Permit Review, dated January 5, 2012
3. Legal Notices
  - a. Notice of Complete Application, dated February 2, 2012
  - b. Notice of Application and Hearing, dated February 6, 2012
4. Supplemental Information/Project Narrative, undated
5. WSDOT ROW Plan, dated June 29, 2005
6. Construction Area and Offset Distances, dated December 30, 2011
7. Site Plan Detail, dated December 30, 2011
8. Equipment and Associated Noise Levels, Tables 6.1, 6.2 and 6.3, undated
9. Additional Correspondence with Applicant, dated February 2, 2012
10. Eastside Corridor Constructors (ECC) Noise Variance Hearing Examiner Decision, issued June 3, 2011
11. Final Environmental Impact Statement and Addendums (Web reference: <http://www.wsdot.wa.gov/Projects/SR520Bridge/EIS.htm> ), dated June 2011
12. Letter from George & Patricia Carpenter, dated February 21, 2012
13. PowerPoint presentation slides, KGM SR520 Floating Bridge and Landings Project, received February 22, 2012
14. PowerPoint presentation slides, SR520 Bridge Replacement and Maintenance Facility, Noise Variance (PL 2012-001)

The Hearing Examiner enters the following Findings and Conclusions based upon the testimony and exhibits admitted at the open record hearing:

## FINDINGS

### Application and Notice

1. Kiewit/General/Manson, A Joint Venture (KGM) (Applicant)<sup>1</sup> requests a technical noise variance from Medina Municipal Code (MMC) 8.06.010, MMC 8.06.040, and Chapters 12.88 – 12.92 King County Code, as adopted by the City of Medina (City), for state highway construction in the SR 520 right-of-way from the east shore of Lake Washington at milepost 3.98 to 108<sup>th</sup> Avenue NE at milepost 6.43. *Exhibit 2.*
2. The City determined that the application was complete on February 2, 2012.<sup>2</sup> *Exhibit 3.* The City posted notice of the applications and associated open record hearing at City

<sup>1</sup> Kiewit/General/Manson, A Joint Venture (KGM) was selected as the contractor for construction of the bridge replacement and HOV segment of the SR 520, I-5 to Medina: Bridge Replacement and HOV Project, and tasked with the responsibility for requesting relief from maximum permissible noise levels under City of Medina code associated with project construction. *Technical Noise Variance, Exhibit 1, Staff Report, page 4.*

<sup>2</sup> The Applicant also submitted a related and concurrent request for approval of a Construction Mitigation Plan (CMP) for the SR 520, I-5 to Medina: Bridge Replacement and HOV Project. The Applicant requested consolidated review of the technical noise variance request and the request for approval of a CMP by the Hearing Examiner under

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posting locations and within state highway right-of-way on Evergreen Point Road, NE 24<sup>th</sup> Street, and 80<sup>th</sup> Avenue NE; published notice in *The Seattle Times*; and mailed notice to owners of property within 1,000 feet of the subject property on February 6, 2012. *Exhibit 1, Staff Report, page 4; Exhibit 3.b.*

#### Environmental Review

3. John Andrews testified to inquire whether the impacts of a large, in-water platform have been considered. *Testimony of Mr. Andrews.* The City staff report states the variance request is exempt from review under the State Environmental Policy Act (SEPA), Ch. 43.21C RCW, in accord with Washington Administration Code (WAC) 197-11-800(6)(b).<sup>3</sup> *Exhibit 1, Staff Report, page 9.*

#### Comprehensive Plan, Zoning, and Surrounding Property

4. The property proposed for development is designated SR 520 and Single Family Residential under the City Comprehensive Plan. *City Comprehensive Plan, Land Use Element, Figure 2: Land Use Plan, page 19 (May 19, 1994, as amended).*
5. The Comprehensive Plan recognizes SR 520 as an Essential Public Facility that may not be prohibited by the Comprehensive Plan or development regulations. The Comprehensive Plan also designates the SR 520 ROW within the City, including the existing SR 520 bridge to mid-span, as the SR 520 Corridor Special Planning Area. The Comprehensive Plan Land Use Element states that development of Special Planning Areas is guided by the need to limit or mitigate the impact of such development on surrounding areas and the City as a whole, seeking a balance between needs of a growing population, environmental preservation, and maintaining a high standard of living. *Comprehensive Plan, Land Use Element, page 13.*
6. The subject property is located within the City's Single Family Residential (R-20) zoning district and within SR 520 ROW. WSDOT purchased five residential lots on the Lake Washington shoreline adjacent to the north of the existing SR 520 roadway and converted them to state highway ROW to provide for construction of the proposed SR520 east approach.<sup>4</sup> According to the City staff report, the five lots are located in the City's Single Family Residential (R-20) zoning district, but Washington Administrative Code (WAC)

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Medina Municipal Code (MMC) 20.80.090. *Exhibit 2.* Both requests were heard by the Hearing Examiner at a consolidated open record hearing on February 22, 2012.

<sup>3</sup> WAC 197-11-800(6)(b) provides land use decisions that "[grant] variances based on special circumstances, not including economic hardship, applicable to the subject property, such as size, shape, topography, location or surroundings and not resulting in any change in land use or density" shall be exempt from SEPA review. *WAC 197-11-800(6)(b).*

<sup>4</sup> WSDOT purchased five parcels identified by Tax Assessor Parcel Nos.: 2425049181; 2425049071; 2425049072; 2425049259; and 2425049177. *Exhibit 1, Staff Report, page 1.*

365-196-550(3)(a)<sup>5</sup> supersedes local zoning codes such that the SR 520 Essential Public Facility (EPF) may be located on these lots. Property to the north and south of the five purchased lots contains residential development and is also located in the City's Single Family Residential (R-20) zoning district. SR520 lies adjacent to the east, and Lake Washington adjacent to the west. *Exhibit 1, Staff Report, pages 1 to 3; Exhibit 7.*

#### Technical Noise Variance Review

7. Proposed state highway construction in the SR 520 right-of-way from the east shore of Lake Washington at milepost 3.98 to 108<sup>th</sup> Avenue NE at milepost 6.43 is a part of the SR 520, I-5 to Medina: Bridge Replacement and HOV Project. The SR 520, I-5 to Medina: Bridge Replacement and HOV Project is a part of the SR 520 Bridge Replacement and HOV Program, a state safety enhancement project to replace the SR 520 floating bridge and make transit and roadway improvements along a 12.8-mile long corridor between I-5 in Seattle and SR 202 in Redmond. The Program includes four major components: Bridge Replacement and HOV Project; Eastside Transit and HOV Project; Pontoon Construction Project; and Variable Tolling Project. The City of Medina Hearing Examiner previously approved a technical noise variance request for construction work associated with the Eastside Transit and HOV Project and the Variable Tolling Project. *Exhibit 1, Staff Report, page 3; Exhibit 10.*
  
8. Proposed construction associated with the technical variance request would occur between April 2012 and approximately late 2015. Proposed construction associated with the noise variance request would include the following activities, occurring in an area stretching from Evergreen Point Road to Lake Washington:
  - Construction of the floating bridge structure, a fixed east approach, and transition structures between the fixed structures and the floating bridge;
  - Towing, storage, and outfitting 33 pontoons constructed offsite for incorporation into the new floating bridge;
  - Construction, storage, and outfitting of 44 supplemental stability pontoons, 58 anchors, and anchor cables for incorporation into the new floating bridge;
  - Construction of a temporary construction work bridge and walkway to provide access to a temporary floating eastside staging area located approximately 100 feet north of the proposed bridge and 450 feet from the Lake Washington east shoreline;
  - Construction of the final connection between the new bridge and the new, lidded roadway section at Evergreen Point Road;

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<sup>5</sup> Washington Administrative Code (WAC) 365-196-550(3)(a) provides "Cities and counties may not use their comprehensive plan or development regulations to preclude the siting of essential public facilities. Comprehensive plan provisions or development regulations preclude the siting of an essential public facility if their combined effects would make the siting of an essential public facility impossible or impracticable."

- Construction of a new bridge maintenance facility and dock located underneath the new east approach structure;
- Paving, striping, and installation of tolling gantries east of Evergreen Point Road after the new bridge and approach are constructed; and
- Demolition of the existing bridge after the new bridge is open for vehicle traffic.

*Exhibit 1, Staff Report, pages 4 to 5; Exhibit 2.*

9. Proposed construction would exceed daytime and nighttime noise levels set forth within City code. Ch. 8.06 MMC adopts King County Code (KCC) Chapters 12.86 – 12.100 to regulate noise within the City.<sup>6</sup> *See Ch. 8.06 MMC. Ch. 12.88 KCC establishes maximum permissible sound levels per Sound District Designation. The Districts identified within Ch. 12.88 KCC are the Rural, Residential, Commercial, and Industrial Districts. KCC 12.88.020.A. The City Director of Development, as City Manager's designee, interpreted and applied the District Designation section of the KCC to the subject property.<sup>7</sup> The Director applied the Commercial District to the subject property between the center lines of Evergreen Point Road and 80<sup>th</sup> Avenue NE, for the reason that the designation is consistent with the non-residential City zoning designation of property (Parks and Public Places) adjacent to that segment of state highway ROW. The Director applied the Residential District to remaining state highway area west of the center point of Evergreen Point Road and east of the center point of 80<sup>th</sup> Avenue NE, for the reason that the designation is consistent with the residential City zoning designation of property adjacent to those segments of the state highway ROW. Exhibit 1, Staff Report, page 6.*
10. The maximum permissible sound level<sup>8</sup> for sounds originating from Commercial Districts and affecting property within R-16, R-20, and SR-30 zones is 57 decibels, and the

<sup>6</sup> The project will produce construction noise along large segments of the SR520 corridor; but the City's authority to regulate noise extends only to the City limits. The technical noise variance will apply only to noise originating within the City limits that exceeds the City's maximum permissible noise levels. Noise originating outside the City limits is the responsibility of the jurisdiction from which the noise originates. The proposed construction zone to which the noise variance request applies is located over water within Lake Washington and on land within the City limits. Limits of construction for the new SR 520 east approach structure and maintenance facility extend inland from the Lake Washington shoreline approximately 800 lineal feet. The east approach and maintenance facility construction area is approximately 800 feet long by 510 feet wide, at its widest point. *Exhibit 1, Staff Report, page 5; Exhibit 6.*

<sup>7</sup> King County Code (KCC) 12.98.010 provides: "The administrator and sheriff are authorized to administer and enforce K.C.C. chapters 12.86 through 12.100 of this code." *KCC 12.98.010.*

<sup>8</sup> "Sound level" means the weighted sound pressure level measured by the use of a metering characteristic and weighted as specified in American National Standards Institute Specifications, Section 1.4. The sound pressure level of a sound expressed in decibels is twenty times the logarithm to the base ten of the ratio of the pressure of the sound to the reference sound pressure of twenty micropascals. In the absence of any specific modifier, the level is understood to be that of a root-mean-square pressure. *KCC 12.87.300.*

maximum permissible sound level for sounds originating from Residential Districts and affecting property within R-16, R-20, and SR-30 zones is 55 decibels. All standards are reduced by 10 decibels during nighttime hours between 10:00 pm and 7:00 am on weekdays and 10:00 pm and 9:00 am on weekends. KCC 12.88.020, KCC 12.88.040 provides a permissible noise level of 80 decibels for construction activities. KCC 12.88.040 also requires that noise level measurements be taken at the real property of another person or at 50 feet from noise-producing equipment, whichever is greater in distance from the noise source. Acceptable noise levels for impact equipment range from 90 to 99 decibels, as the KCC allows higher noise levels for impact equipment if impact is limited to one period of 7.5 to 30 minutes between 8:00 a.m. and 5:00 p.m. weekdays and between 9:00 a.m. and 10:00 p.m. on weekends.<sup>9</sup> KCC 12.88.040, KCC 12.88.030 establishes a maximum permissible noise level of 45 decibels between 10:00 p.m. and 7:00 a.m. weekdays and between 10:00 p.m. and 9:00 a.m. on weekends. Under MMC 8.06.030, allowable hours of construction are between 7:00 a.m. to 7:00 p.m. weekdays and 8:00 a.m. to 5:00 p.m. on Saturdays.

11. The Applicant's preliminary Site Plan Detail depicts portions of properties identified by Tax Assessor Nos. 2425049217, 2425049099, and 2425049210 located within approximately 50 feet of the north boundary of the proposed construction area. Portions of properties identified by Tax Assessor Nos. 2425049217, 2425049099, 2425049249, and 2425049100 as located within approximately 100 feet of the north boundary. The Site Plan Detail also depicts portions of properties identified by Tax Assessor Nos. 2425049074, 2425049075, and 2425049180 located within approximately 50 feet of the south boundary of the proposed construction area. Portions of properties identified by Tax Assessor Nos. 2425049074, 2425049075, 2425049180, and 2425049258 are located within approximately 100 feet of the south boundary. *Exhibit 7.*
  
12. The Applicant's Equipment and Associated Noise Levels List<sup>10</sup> estimates the nearest three properties to the north and south of the proposed construction site may experience daytime noise levels associated with typical construction work that exceed 80 decibels. The nearest three properties to the north and south of the proposed construction site may also experience daytime noise levels associated with typical pile driving that exceed the threshold of 80 decibels. The highest anticipated noise level at 50 feet from pile driving equipment is 88 decibels, and 82 decibels at 100 feet from equipment. For proposed demolition of the existing bridge, the highest anticipated noise level at 50 feet from the demolition equipment is 90 decibels. The four properties nearest to the south side of the

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<sup>9</sup> An email message from Kate Snider, Applicant Representative, states pile driving would be conducted on consecutive days until completed. *Exhibit 9.*

<sup>10</sup> Noise levels are modeled data based on published equipment information and measured monitoring results for equipment and activities used in Eastside Corridor Constructors work similar to those that would be conducted by the Applicant. *Exhibit 8.*

bridge may experience daytime noise levels associated with typical demolition work exceeding the allowable threshold of 80 decibels. *Exhibit 4; Exhibit 8.*

13. An email from Kate Snider, Applicant Representative, states that Applicant noise estimates for distances within 500 feet of proposed construction activity are conservative, in that estimates do not account for noise reduction associated with vegetation, topography, or other structures. According to the email, there is significant vegetation and topography in the vicinity of the proposed construction site, and the actual noise levels experienced by properties within 500 feet of the construction site are expected to be less than the levels estimated by the Applicant. *Exhibit 9.*
14. Supplemental Information submitted with the variance application states a portion of project construction must occur during nighttime hours, because work cannot occur without closing highway lanes to vehicles. The Information states that lane closures must occur at night between the hours of 9:00 p.m. and 5:00 a.m. to protect the travelling public and reduce traffic congestion. Examples of work that would require lane closures include traffic barrier installation; tolling gantries construction; and temporary work walkway construction on the existing bridge. The Applicant estimates that there would be approximately 50 nights of work associated with lane closures. Construction of the new east approach also requires night work, as the segmental cast-in-place method that would be used in construction requires swing shift work between the hours of 4:00 p.m. and 12:00 a.m. This work would be quieter work such as concrete pour completion and rebar installation. Night work would also be required when traffic is shifted to the new bridge, with 24-hour operations for the duration of each closure. The Applicant estimates that shifting traffic to the new bridge would include up to six complete weekend closures. *Exhibit 4.*
15. Approximately 122 residences within 1,000 feet of the project site may experience noise levels exceeding the nighttime noise threshold of 45 decibels. According to the FEIS and FEIS Addenda, background noise levels in the project area already exceed the maximum permissible sound levels under City code, with highest existing peak hour noise levels on residential property in the City in the project vicinity at 68 decibels and 73 decibels on the north and south sides of the project site, respectively. The Applicant would take the following measures when night work is required: send notice to all affected residences at least seven days before work is scheduled or as soon as possible when otherwise unscheduled work is necessary; send notice including an explanation why night work is required; complete the noisiest work before 12:00 a.m., if possible; and avoid work on Saturday or Sunday nights, except during scheduled weekend road closures. *Exhibit 4.*
16. City code provides:

It is a violation of this chapter to engage in any commercial construction and development activity or to operate any heavy equipment before the hours of 7:00 a.m. and after 7:00 p.m. Monday through Friday and before the hours of 8:00

a.m. and after 5:00 p.m. on Saturday. No construction and development activity or use of heavy equipment may occur on Sundays or holidays that are holidays observed by the city.

*MMC 8.06.030.* The City Staff Report states that some construction work would occur beyond hours permitted under City ordinances, extending into later evening and early morning hours and into weekends. According to Supplemental Information submitted by the Applicant, work during early mornings would be required to prepare equipment and materials necessary for work; conduct preparatory work to other work that would require much or all of a day shift; start work that must finish within the day, but work is projected to take longer than a typical work day; conduct large concrete pours over shifts lasting more than 12 hours; and complete large work projects requiring more than one shift to complete. Supplemental Information submitted with the variance application states that workers would typically arrive on the construction site at 5:00 a.m. at the earliest on weekdays, and work would begin at 6:00 a.m. The earliest arrival on Saturdays would be 6:00 a.m., with work occurring between 7:00 a.m. and 5:00 p.m. *Exhibit 1, Staff Report, page 5; Exhibit 4.*

17. A letter from George and Patricia Carpenter, residents of 2414 80<sup>th</sup> Avenue NE located north and northeast of the existing SR 520, expresses concern about noise impacts of current and proposed SR520 construction. The letter states ongoing construction is noisy and takes place at night, which inhibits sleep, and that a great deal of continuous noise comes from the SR520 corridor between 80<sup>th</sup> and 92<sup>nd</sup> Avenue NE. The letter requests monetary compensation for depressed land value as a result of noise impacts, and construction of a permanent noise wall along the south side of SR520 from the lid over Evergreen Point Road at least as far as 92<sup>nd</sup> Avenue NE. *Exhibit 12.*
18. The Applicant would employ the following measures to minimize and mitigate noise impacts of proposed construction:
  1. Require mufflers on all engine-powered equipment;
  2. Inspect equipment regularly to replace parts not meeting manufacturers' specifications;
  3. Limit high-noise activities to daytime hours when feasible;
  4. Limit pile driving to between 7:00 a.m. and 5:00 p.m. and use pile cushion pads when feasible;
  5. Locate stationary construction equipment as far as possible from noise-sensitive properties;
  6. Prohibit unnecessary equipment idling;
  7. Minimize the use of standard back-up alarms, and investigate the possibility of using ambient alarms;
  8. Prohibit truck tailgate banging;
  9. Use electric tools and equipment when possible;

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10. Maintain a construction log to better address noise issues and exceedances, and notify nearby residents when pile driving or other noisy work would occur;
11. Notify all impacted households at least seven days in advance of scheduled nighttime work, or as soon as possible in the case of unscheduled work; and
12. Establish a 24-hour construction hotline to investigate noise complaints.

*Exhibit 4.*

19. Kate Snider, Applicant Representative, responded that proposed construction would also minimize noise impacts by maximizing the use of pre-cast components, the use of water-borne equipment delivery, and the use of segmental cantilevered construction techniques rather than scaffolding to lessen pile driving noise. Ms. Kissinger testified for the City that proposed construction would include screening to provide a barrier between the project site and adjacent properties, and that neighborhood meetings are being scheduled for input on screening. Ms. Kissinger added that monitoring must be performed on a continuous and regular basis and weekly reports must be submitted to the City. Ms. Kissinger also testified that it is her opinion as a professional planner that besides proposed mitigation, there are no additional means to bring noise that would result from proposed construction under permissible thresholds in City code. Ms. Kissinger added that the City will receive construction schedules, and the schedules can be accessed by the public through the City's e-government website links. Erik Nelson, Applicant Representative, testified the Applicant would notify the City of all complaints received on the noise complaint hotline. *Testimony of Ms. Snider; Testimony of Ms. Kissinger; Testimony of Mr. Nelson.*

Staff Recommendation

20. Ms. Kissinger testified that City staff recommends approval of the variance request with nine proposed conditions of approval. Proposed conditions of variance approval concern providing construction schedules to the City; performing sound level testing and monitoring with quarterly reports to the City; complying with variance start and end dates; performing additional mitigation if construction activity sound levels exceed modeled sound levels; implementing construction best management practices; notifying neighbors of noise exceeding maximum permissible sound levels; providing a phone complaint number and designated contact person; and placing a copy of the noise variance decision on site to ensure compliance with noise mitigation measures at all times. Ms. Snider testified to request an additional condition that ambient back-up alarms be used or standard back-up alarms disabled and spotters used to limit vehicle noise. *Exhibit 1, Staff Report, pages 11 to 12; Testimony of Ms. Kissinger; Testimony of Ms. Snider.*

## CONCLUSIONS

### Jurisdiction

The Hearing Examiner has jurisdiction to hear and decide requests for technical noise variances from the Medina Municipal Code (MMC). *MMC 8.06.010.B.4.*

### Criteria for Review

The MMC adopts portions of King County Code (KCC) Chapters 12.86 through 12.100 governing excessive noise and noise control by reference, with amendments set forth within MMC 8.06.010. Under MMC 8.06.010, KCC 12.96.010 is amended to read "no variance shall be granted pursuant to this section until the administrator or the hearing examiner has considered the relative interests of the applicant, other owners or possessors of property likely to be affected by the noise, and the general public. A technical or economic variance may be granted only after a public hearing on due notice. The administrator or hearing examiner may grant a variance, if she finds that:

- A. The noise occurring or proposed to occur does not endanger public health or safety; and
- B. The Applicant demonstrates the criteria required for temporary, technical or economic variance under Section 12.96.020."

*MMC 8.06.010.B.4.*

MMC 8.06.010.B.5 amends KCC 12.96.020(B) to read as follows:

A technical variance may be granted by the hearing examiner on the grounds that there is no practical means known or available for the adequate prevention, abatement or control of the noise involved. Any technical variance shall be subject to the holder's taking of any alternative measures that the hearing examiner may prescribe. The duration of each technical variance shall be until such practical means for prevention, abatement or control become known or available. The holder of a technical variance as required by the hearing examiner, 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.

*MMC 8.06.010.B.5.*

The criteria for review adopted by the Medina City Council are designed to implement the requirement of Chapter 36.70B RCW to enact the Growth Management Act. In particular, RCW 36.70B.040 mandates that local jurisdictions review proposed development to ensure consistency with City development regulations considering the type of land use, the level of development, infrastructure, and the characteristics of development. *RCW 36.70B.040.*

### Conclusions Based on Findings

1. **With conditions, the noise occurring or proposed to occur does not endanger public health or safety.** The King County Code, adopted by the City, sets maximum permissible sound levels for activities originating within a specific District and affecting specific environments. Ch. 12.96, King County Code, allows an applicant to apply for

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relief from maximum permissible noise standards. The Applicant would employ the following mitigation measures to limit noise impacts: require mufflers on all engine-powered equipment; inspect equipment regularly to replace parts not meeting manufacturers' specifications; limit high-noise activities to daytime hours when feasible; limit pile driving to between 7:00 a.m. and 5:00 p.m. and use pile cushion pads when feasible; locate stationary construction equipment as far as possible from noise-sensitive properties; prohibit unnecessary equipment idling; minimize the use of standard back-up alarms, and investigate the possibility of using ambient alarms; prohibit truck tailgate banking; use electric tools and equipment when possible; maintain a construction log to better address noise issues and exceedances, and notify nearby residents when pile driving or other noisy work would occur; notify all impacted households at least seven days in advance of scheduled nighttime work, or as soon as possible in the case of unscheduled work; and establish a 24-hour construction hotline to investigate noise complaints. Construction schedules provided to the City would be available for public review, and the City would be notified of all complaints received on the noise complaint hotline. Significant vegetation and topography in the vicinity of the proposed construction site would lessen noise levels experienced by properties within 500 feet of the construction site from noise levels estimated by the Applicant. The Applicant would conduct quieter work during swing shifts. The Applicant would also complete noisiest work before 12:00 a.m. and avoid work on weekends except during scheduled weekend road closures. With implementation of mitigation and conditions of approval, public health and safety would not be endangered. Conditions are necessary to ensure City residents may register complaints about noise levels to spur prompt action by the Applicant and City, that affected residences receive adequate notice of noise-generating construction activities; and that ambient back-up alarms be used or standard back-up alarms disabled and spotters used to limit vehicle noise. *Findings 1, 8, 10 – 20.*

2. **There are no practical means known or available for the adequate prevention, abatement or control of the noise involved.** Proposed construction requires SR520 lane closures during nighttime hours to prevent endangerment of public health or safety by construction activities and to reduce traffic congestion. City ordinances otherwise prohibit construction activity during nighttime hours. City ordinances cannot prohibit siting of the Essential Public Facility under the Washington Administrative Code, but the City can require conditions to mitigate adverse effects of operation of the Facility, including elevated noise levels. *Findings 1, 5, 6, 8 – 10, 12, 14 – 16, 20.*
3. **Noise duration would be until such practical means for prevention, abatement, or control becomes known or is available.** Conditions of approval are necessary to ensure the duration of the variance would extend until July 13, 2012, with renewals of the variance granted for six month periods automatically except as provided in Condition 5. No renewal of the variance shall be granted after July 1, 2016, in step with WSDOT intent to complete construction by late 2015. *Findings 1, 8, 20.*

4. **With conditions, the holder of the technical variance would make reports to the City Director of Development Services detailing actions taken to develop a means of noise control or to reduce the noise involved and would relate these actions to pertinent current technology.** Conditions are necessary to ensure the Applicant tests and monitors sound levels and send reports to the City, and that the Applicant provide additional mitigation if sound levels exceed those estimates at this time. *Findings 1, 8, 20.*

#### DECISION

Based on the preceding Findings and Conclusions, the request for a technical noise variance from MMC 8.06.010, MMC 8.06.040, and Chapters 12.88 – 12.92 King County Code, as adopted by the City of Medina, for state highway construction in the SR 520 right-of-way from the east shore of Lake Washington at milepost 3.98 to 108<sup>th</sup> Avenue NE at milepost 6.43 is **APPROVED**, with the following conditions:<sup>11</sup>

1. The Applicant shall provide updated construction schedules to the City on a monthly basis, which identify work being performed outside of the work hours set forth in MMC 8.06.030 (Limitations on construction and development activity).
2. The Applicant shall conduct testing and monitoring of sound levels associated with construction activity. A quarterly report 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 construction activity associated with the project.
3. Approval of the variance is granted until July 13, 2012. Renewals of the variance are granted for six month periods and shall be automatic except as provided in Condition 5. No renewal of the variance shall be granted after July 1, 2016.
4. If construction activity sound levels exceed the sound levels set forth in the Exhibit 8, the City may require that the Applicant to provide additional mitigation for those residences that are affected by noise levels exceeding those levels approved by this variance.
5. A renewal of the noise variance may be subject to Hearing Examiner approval after a public hearing, if the Applicant fails to comply with the conditions set forth in this decision, or if significant revisions to the project are made that increase noise levels from construction activity, or if monitoring reports indicate construction noise levels exceed the sound levels set forth in Exhibit 8 and additional mitigation or alternative accommodations fail to reduce the elevated sound levels to within the approved range.
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 site. Equipment such as light plants, generators, compressors, jackhammers, saw cutters, and rollers shall utilize WSDOT

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<sup>11</sup> Conditions of approval are required to mitigate specific impacts of the proposal and comply with City Code.

approved noise mitigation shields, noise blankets, skirts, concrete barriers or other means available to reduce noise.

- b. Vehicles shall be equipped with ambient sensitive backup 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 with tailgates 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 with the radius of a proposed construction activity affected by noise exceeding the maximum permissible sound levels. Notice shall be provided at least seven calendar days before the particular construction activity occurs. If a period of more than six months should elapse between construction activities occurring, a new written notification shall be sent.
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 with issues.
9. A copy of the decision on the noise variance shall be kept on the project site at all times. Supervisors on site shall ensure noise mitigation measures are complied with at all times.

Decided this 1<sup>st</sup> day of March 2012.



KIMBERLY A. ALLEN  
Hearing Examiner  
Sound Law Center

