

July 6, 2017

LTR. 2781

Via email

Mr. Nathan Torgelson, Director
Seattle Department of Construction and Inspections
700 5th Avenue, Suite 2000
Seattle, WA 98124-4019

Dear Mr. Torgelson,

WSDOT is submitting our revised Major Public Project Construction Noise Variance application for the SR 520 Montlake Phase. This letter and the included *Attachment 1* summarize WSDOT's responses to your April 2017 comment letter, including two specific issues: 1) why the project would be economically or functionally unreasonable without the noise variance, and 2) the specific mitigation requirements WSDOT will include in the contract documents. These measures are included in *Attachment 2*.

SR 520 is a vital highway and transit facility used to commute to work, school, and recreation, while businesses depend on a reliable cross-lake corridor to deliver and receive goods and services. Building the SR 520 Montlake Phase project without a nighttime noise variance would require closing this state route and city streets during the day. This would have significant impacts to the traveling public and Washington taxpayers, and would render the project economically and functionally unreasonable, as detailed below.

Impacts to the traveling public

Safety of the traveling public and our construction crews are paramount and the primary reason why nighttime work is necessary to construct the project. Examples of work necessary to be conducted with lane closures or full highway closures at night include:

- Demolishing structures next to or over the highway;
- Delivering large equipment or materials, such as lengthy bridge girders;
- Relocating utilities located within the highway right-of-way or local streets; and
- Working immediately adjacent to or over the existing highway.

Closing lanes on city streets and the highway during the daytime results in severe traffic congestion on other vital routes such as I-90, I-5, I-405, and SR 522. Daytime closures would affect an estimated 16,000 transit riders and an estimated 77,000 vehicles each weekday traveling on SR 520 and 67,000 traveling on Montlake Boulevard and Lake Washington Boulevard. If daytime lane closures on city streets to perform the above activities are proposed by the Seattle Department of Construction and Inspections (SDCI), WSDOT would assume that all other city of Seattle departments support this approach.

Impacts to taxpayers

Building the project during daytime hours only would add three years to the estimated five-year construction duration, resulting in an eight-year construction period. An additional three years would add between \$39 million and \$140 million to direct construction costs as well as lengthen the construction duration for the adjacent neighborhoods, and drivers and transit riders using SR 520 and Montlake Boulevard.

- Considerations for these increased costs include schedule, sequencing, and staging inefficiencies; additional contractor overhead and WSDOT project oversight costs; and impacts to the delivery of future SR 520 improvements which are unknown at this time.
- Contractor overhead cost is the biggest factor in the estimate of \$39 million to \$140 million additional construction costs. Contractor overhead costs and the number of working days per week would likely vary over the three year extended period of the contract. To account for this variation, WSDOT used a low and high range (between \$50K and \$150K per day overhead), with either five or six working days per week over the three-year extended contract to develop the cost estimate range.

Added economic costs to the region from daytime traffic impacts are estimated at approximately half a billion dollars. The estimated costs are based on liquidated damages calculations, which WSDOT would typically charge contractors for use of public roadways in order to incentivize finishing construction within an established schedule and to limit disruptions to the traveling public. These estimates are derived by estimating the number of ramp/lane closures on each of these facilities:

- SR 520 highway lane closures: \$374 M
- SR 520 ramp closures: \$60 M
- Lake Washington Boulevard lane closures: \$8 M
- Montlake Boulevard lane closures: \$75 M
- Loss of SR 520 toll revenue: \$25 M

SR 520 toll revenue funds are necessary for the repayment of outstanding triple pledge bonds (backed by toll revenues, motor vehicle fuel taxes, and ultimately the State's general obligation pledge), U.S. Department of Transportation loans, and deferred sales tax. An adjustment in WSDOT's bond repayment plan would require coordination with and approval from the Washington State Treasurer's office. Additionally, a loss in SR 520 toll revenue would also impact funding for future operations and maintenance of SR 520.

Next steps

We understand that constructing this project in a dense, urban environment has an effect on those who live, work, travel, and play in the Montlake neighborhood. This variance requires WSDOT to implement nighttime noise limits, requires our contractor to implement noise-control measures, and ensures appropriate monitoring and enforcement of our nighttime construction activities, while also ensuring the safety of the public and our crews.

As part of our ongoing outreach, WSDOT will share project updates with neighbors including the status of this noise variance. During construction of the Montlake Phase, WSDOT will provide up-to-date information on construction activities and construction noise to neighbors and stakeholders.

WSDOT would like to thank SDCI for ongoing coordination throughout the application process for a Major Public Project Construction Noise Variance for SR 520 Montlake Phase construction. WSDOT plans to begin the contractor procurement process in summer 2017 and begin construction in 2018. Please let me know if you have any questions about our revised application.

Sincerely,



Julie Meredith, PE

Administrator

SR 520 Bridge Replacement and HOV Program
Washington State Department of Transportation

Nathan Torgelson, Seattle Department of Construction and Inspections
July 6, 2017
Page 3 of 3

Attachments:

1. WSDOT responses to Seattle Department of Construction and Inspections letter
2. WSDOT's proposed measures to reduce construction noise impacts during SR 520 Montlake Phase construction
3. Maps of public comment locations

Cc:

Dave Cordaro, Construction Inspections Manager, SDCI
Dan Goodman, Mechanical/Noise Control Manager, SDCI
James Dasher, Lead - Noise Control Specialist, SDCI
Kevin Shively, Sr. Policy Advisor, City of Seattle Mayor's Office
Kevin Dayton, Assistant Secretary, Regional and Mega Programs, WSDOT
Ron Judd, Director of Policy and Strategy Development, WSDOT
Denise Cieri, SR 520 Deputy Program Administrator, WSDOT
Dave Becher, SR 520 Director of Construction, WSDOT
Todd Harrison, SR 520 Program Deputy Engineering Manager, WSDOT

Attachment 1

WSDOT responses to Seattle Department of Construction and Inspections letter

The information below provides greater detail of how WSDOT has revised the March 6 noise variance application to address comments received from the Seattle Department of Construction and Inspections (SDCI):

- The column on the left side contains the full text of the April 26, 2017 SDCI letter to WSDOT, which is also available on the [SDCI land use and information bulletin](#) (project number 3027364).
- The column on the right side contains information on how WSDOT has addressed each corresponding SDCI comment, and references the page number within the revised application, submitted July 6, 2017, where the comment is reflected.

WSDOT also reviewed each public comment submitted to SDCI during the March 9 – April 20, 2017 noise variance application public comment period. As part of our comment analysis, we mapped the locations of all comments received by SDCI. These comment maps are included as an attachment to this document.

April 26, 2017 SDCI comment	WSDOT response to SDCI comment
<p><i>The Seattle Department of Construction and Inspections (SDCI) has finished our first review of WSDOT's MPPCNV (variance) application for Montlake Phase of the SR-520 1-5 to Medina Bridge Replacement and HOV Project ("the Project") and finds the application to be unacceptable and incomplete in its current form.</i></p>	<ul style="list-style-type: none"> ▪ In response to comments received from SDCI on April 26, 2017, and public comments submitted during the March 9 – April 20, 2017, WSDOT has revised the March 6, 2017 application. ▪ Prior to the submittal of the July 6 revised application, WSDOT met with SDCI staff to review WSDOT responses and to confirm the revised application meets SDCI requests for additional information.
<p><i>The first over-arching issue is the application does not substantively address how complying with applicable noise standards would "render the project economically or functionally unreasonable due to factors such as the financial cost of compliance or the impact of complying for the duration of the construction or reconstruction of the major public project." See SMC 25.08.655. A.2. It is inadequate, without analytic support, to state that "limiting construction to daytime hours would be unreasonable in light of public or worker safety and would render the Montlake Phase economically and functionally unreasonable."</i></p>	<ul style="list-style-type: none"> ▪ WSDOT has revised the application to include additional analytic support confirming that it would be unreasonable in light of public or worker safety and would render the Montlake Phase economically and functionally unreasonable. See section titled "Anticipated impacts of limiting construction to daytime hours" of the revised application. Subsections include work zone safety, emergency services, traffic operations, and economic considerations. (Pages 10 to 13)

April 26, 2017 SDCI comment

WSDOT response to SDCI comment

The application must fully analyze and explain how public or worker safety would be impaired and transportation impacted by limiting work to daytime hours. Likewise, the application must fully analyze and explain how complying with applicable noise standards renders the project economically and functionally unreasonable. The application must also identify what additional costs would be incurred with each phase of the Project if the Project complied with the noise standards. Further, there is no analysis or explanation of why applying the noise standards would make the project functionally unreasonable.

- WSDOT has revised the application to include additional analytic support proving that it would be unreasonable in light of public or worker safety and would render the Montlake Phase economically and functionally unreasonable. See section titled "Anticipated impacts of limiting construction to daytime hours" of the revised application. Subsections include work zone safety, emergency services, traffic operations, and economic considerations. (Pages 10 to 13)

The second over-arching issue is the initial application does not identify specific noise impact mitigation. Although this is a design / build project, SDCI must, in part, decide on this variance request based on the adequacy of specific mitigation measures to address noise impacts. This is consistent with MPPCNV applications SDCI has previously made decisions on.

- WSDOT and SDCI September 8, 2016 meeting minutes show that WSDOT's mitigation would be performance based and that the mitigation measures presented in the March 6 MPPCNV application would be sufficient.
- More minimum mitigation measures have been added to the revised MPPCNV application. (Page 31 and attached excerpt)
- WSDOT has removed request for an extension of hours for impact work noise levels per SMC.25.08.425.C throughout the revised application.

Zoning designations must be properly noted. A better zoning map for reference would be helpful. (p. 3) (page numbers refer to application pages)

- WSDOT has included the requested graphic in the revised application. (Page 5, Exhibit 2)

Designate if the activities are proposed to take place at nighttime, daytime, or both.

- WSDOT has included the expected nighttime activities in the revised application. (Page 7, Exhibits 3 and 4)

Language stating "equipment used are likely to be similar" is insufficient. WSDOT must define the equipment to be used by the designer/builder for expected highway construction activities. (p.5)

- WSDOT has revised the application to clarify that the list of equipment is expected and will be used during nighttime work. (Page 7)

Impact noise must be modeled if the variance is requesting to allow impact noise past 5:00 p.m. (p. 9)

- WSDOT has removed request for an extension of hours for impact work noise levels per SMC.25.08.425.C throughout the variance application. (Page 9)

April 26, 2017 SDCI comment**WSDOT response to SDCI comment**

The hourly LEQ and Lmax must be measured between 12:00 a.m. and 5:00 a.m. for each hour. Since this is the basis of the request for 6 dBA increase over ambient conditions, the actual date, and hourly measurement levels must be shown in a table. It must be noted whether WABN construction activities were running during each of the periods referenced in the ambient noise studies. (p. 11)

- WSDOT has amended the March 6 nighttime noise variance application to include a Noise Management and Mitigation Plan (NMMP) which includes the requested hourly Leq and Lmax measurements, see Attachment 1 of the application.
- WABN construction activities during noise measurements were sent to SDCI on November 22, 2016. No activities were found to affect baseline noise levels. Noise measurements taken after November 2016, at Site 7, were similar to the other noise measurements taken.

The L1s for the data collected must be shown because the variance application states it is more reliable than Lmaxs. (p. 11)

- As found in other SDCI approved NMMP's, such as the Denny Substation Program NMMP emailed by SDCI to WSDOT on November 22, 2016, the proposed L1 limit is based on a 10 dBA increase as compared to the Leq measurement, not based on measured L1. The Denny Substation Program NMMP did not include L1 measurements, only Leq and Lmax.
- The text in the variance application that states the L1 is more reliable than the Lmax has been revised to include a quote from the Denny Substation NMMP. (Page 17)

There must be a NMMP in the variance application. Although WSDOT does not have a designer/builder, there must be more detail as to how noise will be controlled at night, and any restrictions or limitations on noise or specific construction activities, which WSDOT might propose to avoid, reduce, or mitigate construction-related noise impacts. More specific evening and overnight mitigation methods for specific activities and equipment must be provided. (p. 13)

- WSDOT has amended the March 6 nighttime noise variance application to include a Noise Management and Mitigation Plan (NMMP) which includes the requested hourly Leq and Lmax measurements, see Attachment 1.
- WSDOT has removed request for an extension of hours for impact work noise levels per SMC.25.08.425.C throughout the revised variance application. (Page 9)
- WSDOT and SDCI September 8, 2017 meeting minutes show that our mitigation would be performance based and that the mitigation measures presented in the March 6 MPPCNV application would be sufficient.
- More minimum mitigation measures have been added to the revised MPPCNV application and WSDOT has removed request for an extension of hours for impact work noise levels per SMC.25.08.425.C throughout the document. (Page 31 and Attachment 2)

April 26, 2017 SDCI comment**WSDOT response to SDCI comment**

It is not clear where to find the construction activities and schedule referenced on page 13, first sentence, second paragraph. Clarification must be provided. (p. 13)

- The revised nighttime noise variance application includes construction activities and schedule. (Page 6, Exhibit 3)

This equipment list must show if the equipment will be used for daytime, evening, or overnight work. (p. 17)

- The revised nighttime noise variance application includes an updated and amended equipment list which notes which are anticipated for nighttime use. (Page 23, Exhibit 11)

If impact equipment noise is requested past 5:00 p. m., the noise levels must be modeled with all equipment used during that time. Impact limit requirements of SMC 25.08.425.C shall apply unless clear justification based on modeling is provided. (p. 23)

- WSDOT has removed the request for an extension of hours for impact work noise levels per SMC.25.08.425.C throughout the revised noise variance application. (Page 22)

The listed "minimum mitigation measures" must be more fully developed. For example, lined- haul-truck beds, no compression brake use, no equipment left to idle for longer than 5 minutes, and shields or barriers for light plants or generators. It cannot be left for the designer/builder to decide whether specific mitigation measures will be implemented. (p. 27)

- Per September 8, 2016 SDCI and WSDOT meeting minutes, the required mitigation was to be performance based.
- The revised nighttime noise variance application includes an updated and amended noise mitigation measures which WSDOT will also include in the Montlake Phase contract documents. (Page 31 and Attachment 2)

Auger shaking is impact noise and can only take place during 8 a.m. to 5 p.m. weekdays, and from 9 a.m. to 5 p.m. weekends and within the limits of SMC 25.08.425.C. If a variance for auger shaking is being requested, the variance application should reflect this and specific noise impact mitigation identified. (p. 27)

- The revised nighttime noise variance application includes auger shaking as one of the impact activities that the contractor will conduct within current City of Seattle noise code. (Page 31)

Most if not all "additional noise-control measures" must be added to "minimum noise-control measures." (p. 27)

- The revised nighttime noise variance application includes an updated and amended noise mitigation measures which WSDOT will also include in the Montlake Phase contract documents. (Page 31 and Attachment 2)

Noise monitoring must be online and accessible in real-time by SDCI. The variance application must reflect this. (p. 30)

- The revised nighttime noise variance application includes additional information on remote access to real-time noise monitoring data by SDCI, WSDOT, and the Montlake Phase contractor. (Page 32)

April 26, 2017 SDCI comment**WSDOT response to SDCI comment**

Since there were seven locations identified as representing nighttime noise-sensitive receivers, will there be seven monitors? Will the current WABN monitoring station be left in place? Information related to these questions must be included in the variance application. (p. 30)

- The revised nighttime noise variance application includes a description of the four noise monitor locations proposed by WSDOT. (Pages 32 to 33)

Use of construction staging and laydown areas by WSDOT or its contractors during evening and overnight hours must be identified in the variance application and modeled, even if the use is contingent.

- The revised nighttime noise variance application includes the construction and staging areas. Additionally, these sites have been included in the Montlake Phase noise modeling conducted for the nighttime noise variance application. (Pages 24 to 30)

Consider adding an Appendix tabulating or plotting the measured hourly sound levels. (p. 11)

- WSDOT has amended the March 6 nighttime noise variance application to include a Noise Management and Mitigation Plan (NMMP) which includes the requested hourly Leq and Lmax measurements, see Attachment 1.

The methodology by which the hourly L1 sound levels from construction activities were calculated must be specified. (p. 18, 20, 22, and 24)

- The revised nighttime noise variance application includes updated information on the methodology used to model L1 noise levels. (Page 21)

Verify the reported calculated hourly L1. The mitigated and unmitigated results may have been reversed at Sites 2 and 5. (p. 22)

- WSDOT reviewed and updated the L1 calculations included in the revised nighttime noise variance application. (Pages 21 to 29)

WSDOT requests impact work be allowed between 5 p.m. and 10 p.m., almost certainly exceeding the noise limits of SMC 25.08.410. These activities must be added to the scope of the variance application and modeling provided. (p. 9)

- WSDOT has removed request for an extension of hours for impact work noise levels per SMC.25.08.425.C throughout the document.

Proposed noise limits for evening use of impact equipment must be identified. For example, WSDOT may propose noise limits equal to the limits of SMC 25.08.425.C, which normally apply only until 5 p.m. (p. 11)

Calculations of sound levels from evening use of impact equipment, demonstrating that they meet the proposed variance evening noise limits must be provided. Otherwise, noise mitigation measures for these activities must be provided. (p. 18, 20, 22, and 24)

April 26, 2017 SDCI comment

WSDOT response to SDCI comment

The exhibits show resulting sound levels with the addition of temporary noise barriers. The model assumptions regarding heights, locations, extent in plan, surface mass, thickness, and sound-absorptive characteristics of the barriers must be provided. (p. 18, 20, and 22)

The specifics of temporary barriers as minimum mitigation measures, with the option for the designer / builder to advance alternative mitigation methods providing equivalent sound attenuation must be listed. (p. 27)

A detailed plan for monitoring performance, and enforcement of WSDOT /contractor compliance with the noise limits of the noise code and potential variance conditions must be provided. This topic was forwarded to WSDOT in the April 14 , 2017 (11:09 a.m.) email from Dave Cordaro to Julie Meredith, Dave Becher, and Denise Cieri.

Public comments received identified World Health Organization standards on the harmful health effects of sustained sound levels above 55 dB..Scientific-literature-based substantiation that the project will not have adverse health impacts , as proposed in the variance application, must be provided.

Public comments have consistently referred to the proposed construction activity as generating 80 dBA 24 hours a day, 7 days a week for 7 years. A schedule must be provided that clarifies the most likely durations of high dBA levels and includes approximate time frames, construction activities, and the equipment likely to be used.

- WSDOT and SDCI September 8, 2016 meeting minutes show that our required minimum mitigation measures would be performance based and that the mitigation measures presented in the March 6 MPPCNV application would be sufficient.
- The revised nighttime noise variance application includes refined noise modeling which does not include temporary noise barriers.
- The revised nighttime noise variance application includes updated and amended noise mitigation measures which WSDOT will also include in the Montlake Phase contract documents. (Page 31 and Attachment 2)

- The revised nighttime noise variance application includes additional information on construction noise monitoring and enforcement of compliance with the variance. (Pages 32 and 33)

- The revised nighttime noise variance contains a public health and safety section which includes scientific-literature-based substantiation consistent with prior noise variances granted by SDCI. (Pages 16 to 17)

- The revised application includes information on the:
 - Anticipated construction phases and durations.
 - Anticipated schedule of nighttime construction activities.
 - Expected nighttime construction equipment.

(Pages 5 to 7)

April 26, 2017 SDCI comment

WSDOT response to SDCI comment

WSDOT's application review started on April 6, 2017, the public comment meeting date. As provided for in Director's Rule 3-2009, Section F.I.C, the Administrator will issue a decision within 60 days of the public meeting. **This timeframe may be extended for the period of days when an applicant is responding to a request from the Administrator, and any period of days requested by an applicant to supplement or revise an application.**

By this letter, the 60-day period is extended 7 days for WSDOT to respond to the above comments. WSDOT may, at its discretion, request additional time to be added to this 67-day period.

As WSDOT prepares responses to these comments please contact SDCI Noise Abatement if there are questions. Finally, please let SDCI know how and in what timeframe WSDOT intends to proceed in response to this letter.

The SDCI Noise Abatement Team can be contacted through James Dasher, Noise Control Program
118 Specialist, at 206-615-1190 or james.dasher@seattle.gov.

Sincerely,
Nathan Torgelson
Director

cc: Dave Cordaro, Construction Inspections
Manager, SDCI
Kevin Shively, Sr. Policy Advisor, Mayor's
Office

- WSDOT has continued to closely coordinate with SDCI throughout the application process and requests SDCI review of WSDOT's revised application and supplemental materials within the current review period.

Attachment 2

WSDOT's proposed measures to reduce construction noise impacts during SR 520 Montlake Phase construction

Required Minimum Mitigation Measures

The following is an excerpt from the July 6, 2017 Montlake Phase revised nighttime noise application, *Required Minimum Mitigation Measures*, page 31:

The contractor will perform the following minimum noise mitigation measures to minimize construction noise, except in the case of emergency, as defined by the Seattle Noise Control Ordinance (SMC 25.08.110), whenever the contractors work between 10 p.m. and 7 a.m. Monday through Friday, or between 10 p.m. and 9 a.m. Saturday through Sunday and legal holidays, and exceeds the local ordinance noise levels:

- The contractor will meet the noise levels limits established in the noise variance.
- The contractor will use broadband or strobe backup warning devices, or use backup observers in lieu of backup warning devices for all equipment, in compliance with Washington Administration Code, Sections 296-155-610 and 296-155-615. For dump trucks, if the surrounding noise level is so loud that broadband or strobe backup warning devices are not effective, then an observer must be used (WAC 296-155-610). This condition will apply to activity conducted between 10 p.m. and 7 a.m., Monday through Friday, and between 10 p.m. and 9 a.m. on Saturday, Sunday, and legal holidays. No pure-tone backup warning devices will be used after 10 p.m. and before 7 a.m. weekdays or 9 a.m. weekends and legal holidays.
- The contractor will not conduct impact work, such as auger shaking, jack hammering and impact pile driving, during nighttime hours from 10 p.m. to 7 a.m. on weekdays and 10 p.m. to 9 a.m. on weekends and legal holidays.
- The contractor will use compressors with a measured noise levels of 71 dBA at 50 feet or less for areas where modeling showed mitigation for compressors was needed to reduce noise levels below the noise level limit. The contractor will have an option to propose alternative mitigation methods providing equivalent sound attenuation, such as surrounding the compressor with a temporary noise wall or baffle system to meet the noise level limits.
- The contractor will pave construction access roads and haul routes near residences where possible to reduce dust and noise.
- The contractor will securely fasten truck tailgates.
- The contractor will use sand, rubber or plastic lined truck beds for all haul-trucks to reduce noise, unless an exception is approved by WSDOT.
- The contractor will not use compression brakes.
- The contractor will not leave equipment to idle for longer than five minutes,
- The contractor will use temporary noise mitigation shields, enclose, or use low noise-generating stationary equipment, such as light plants, generators, pumps, and air compressors near residences where practical.

Additional noise-control measures, such as temporary mobile noise barriers and noise shielding equipment, and/or hotel accommodation for frontline neighbors, may be implemented by the contractor to meet the nighttime noise level limits established in the variance. SDCI and WSDOT will review the contractor's selected noise mitigation measures to verify compliance with the limits set in the variance.

Other measures to reduce construction noise impacts to frontline neighbors

The following is an excerpt from the July 6, 2017 Montlake Phase revised nighttime noise application, *Frontline resident outreach*, page 37:

WSDOT coordinated with frontline neighbors to identify and implement the following measures in an effort to minimize construction effects from **West Approach Bridge North** construction:

- Offered air conditioning in July 2015 resulting in the installation of units in a frontline neighbor's home in August 2015 and issuance of stipends for electricity reimbursement. Also installed air conditioning units in a second neighbor's home in May 2017.
- Installed a temporary noise monitor onsite, adjacent to neighbors, in June 2016.
- In September 2016, offered neighbors the installation of Connex storage boxes along the construction site perimeter to further shield the neighborhood from construction activity noise prior to construction work moving closer to the area. The neighborhood declined this option in November 2016.
- Installed an air purifier in a frontline neighbor's home in May 2017.
- Responded to and investigated hotline calls and email comments addressed to WSDOT.

WSDOT has continued outreach efforts with frontline neighbors as we prepare for Montlake Phase construction. Generally frontline and second row neighbors nearest the construction will be most directly affected by nighttime noise.

Our recent outreach with neighbors living adjacent to the SR 520 highway has resulted in the following, key best management practices that WSDOT will employ in the **Montlake Phase** construction to minimize noise impacts:

- Installing construction screening and vegetation to help shield neighbors from construction. WSDOT plans to install the screening along the WSDOT right-of-way adjacent to the Shelby/Hamlin neighborhood, as well as south of the eastbound SR 520 on-and off-ramp in Montlake. Some of the vegetation will be planted later this year.
- Requiring the contractor to develop and adhere to a construction area management plan which will include the procedures and policies for staging site operations. Included topics could include: delivery procedures, guidelines for lighting, dust control, site cleanliness, contractor employee parking, and methods to limit "nuisance noise" such as paving access roads where possible.

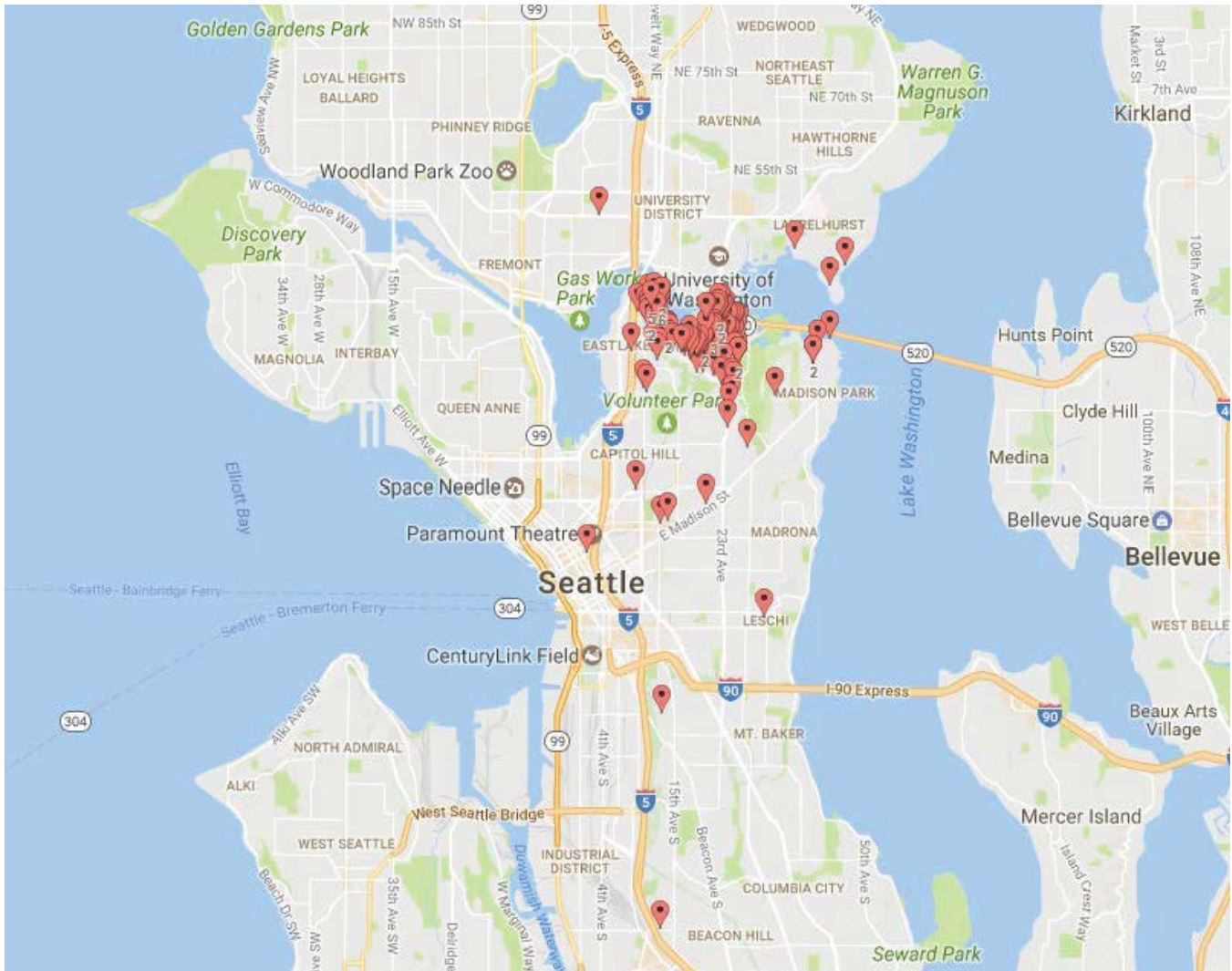
SR 520 BRIDGE REPLACEMENT AND HOV PROGRAM

Attachment 3

Maps of public comment locations

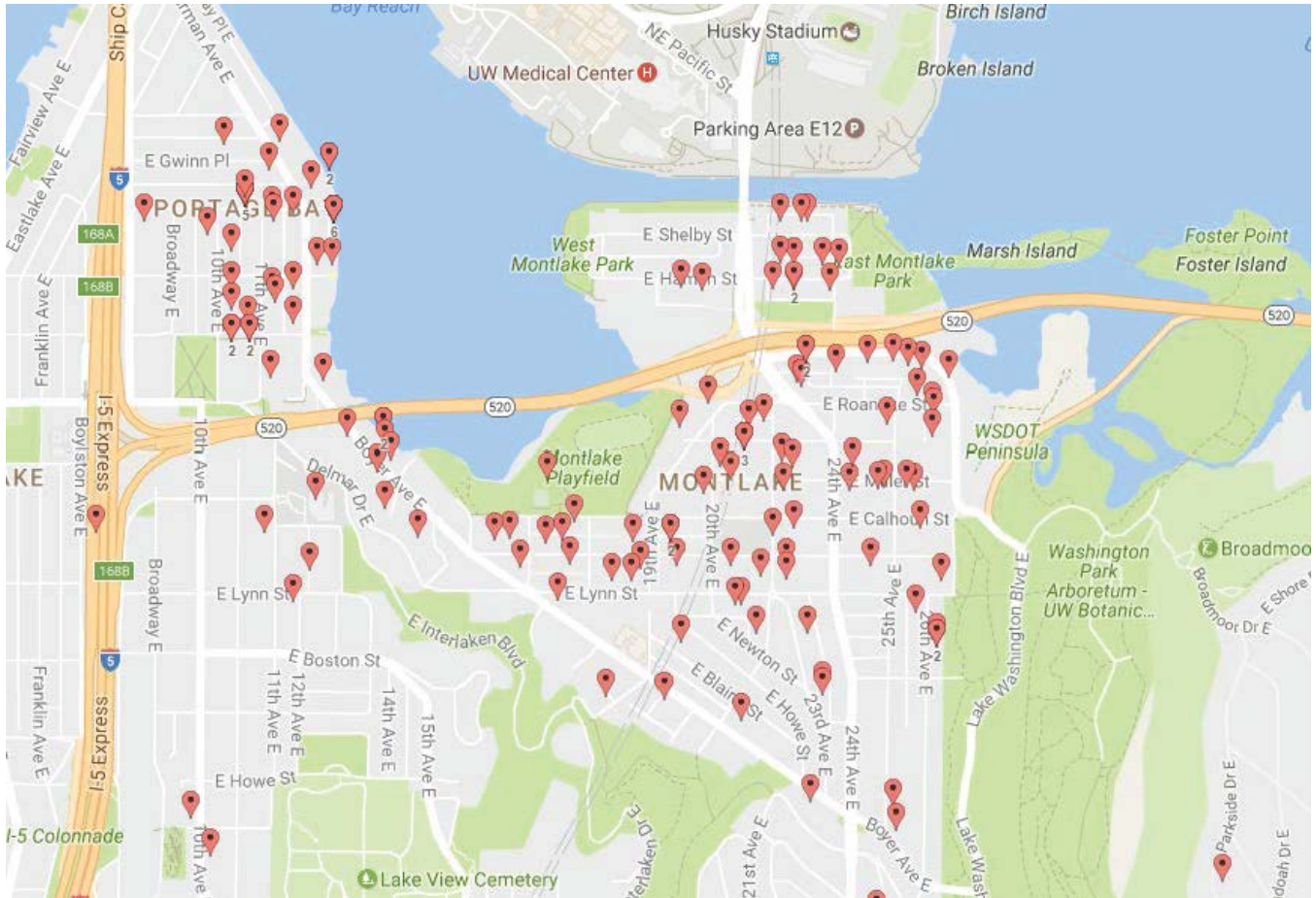
WSDOT reviewed each public comment submitted to the Seattle Department of Construction and Inspections (SDCI) during the March 9 – April 20, 2017 noise variance application public comment period. These maps show the locations of each public comment, with a known address, submitted to SDCI during the comment period.

Mapped locations, with known addresses, of comments received by SDCI



Google Maps, 2017

Mapped locations, with known addresses, of comments received by SDCI from the general vicinity of SR 520



Google Maps, 2017