

# Appendix J—Noise Technical Report

## Part 6

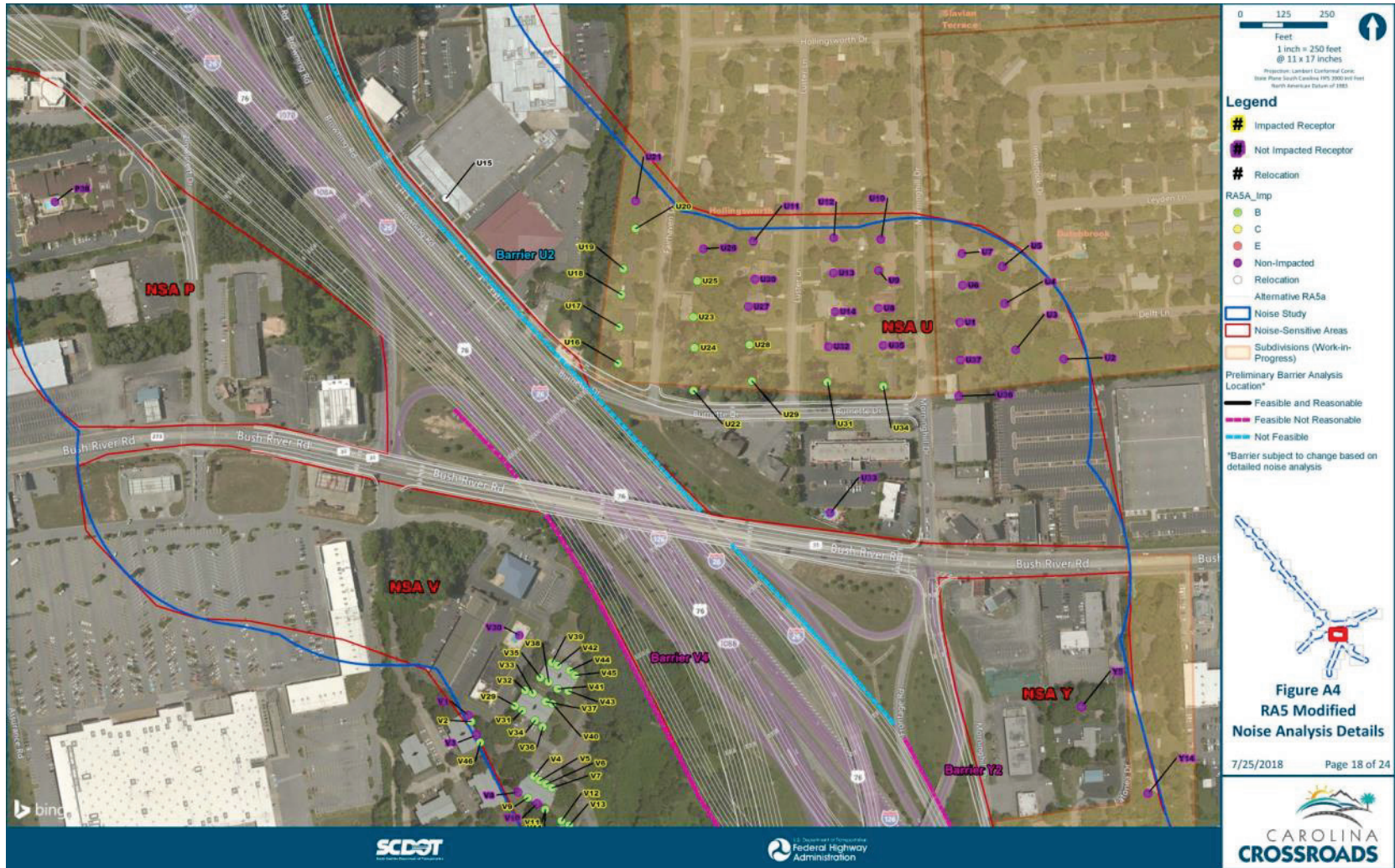
## Appendix I—DEIS Noise Technical Report

continued

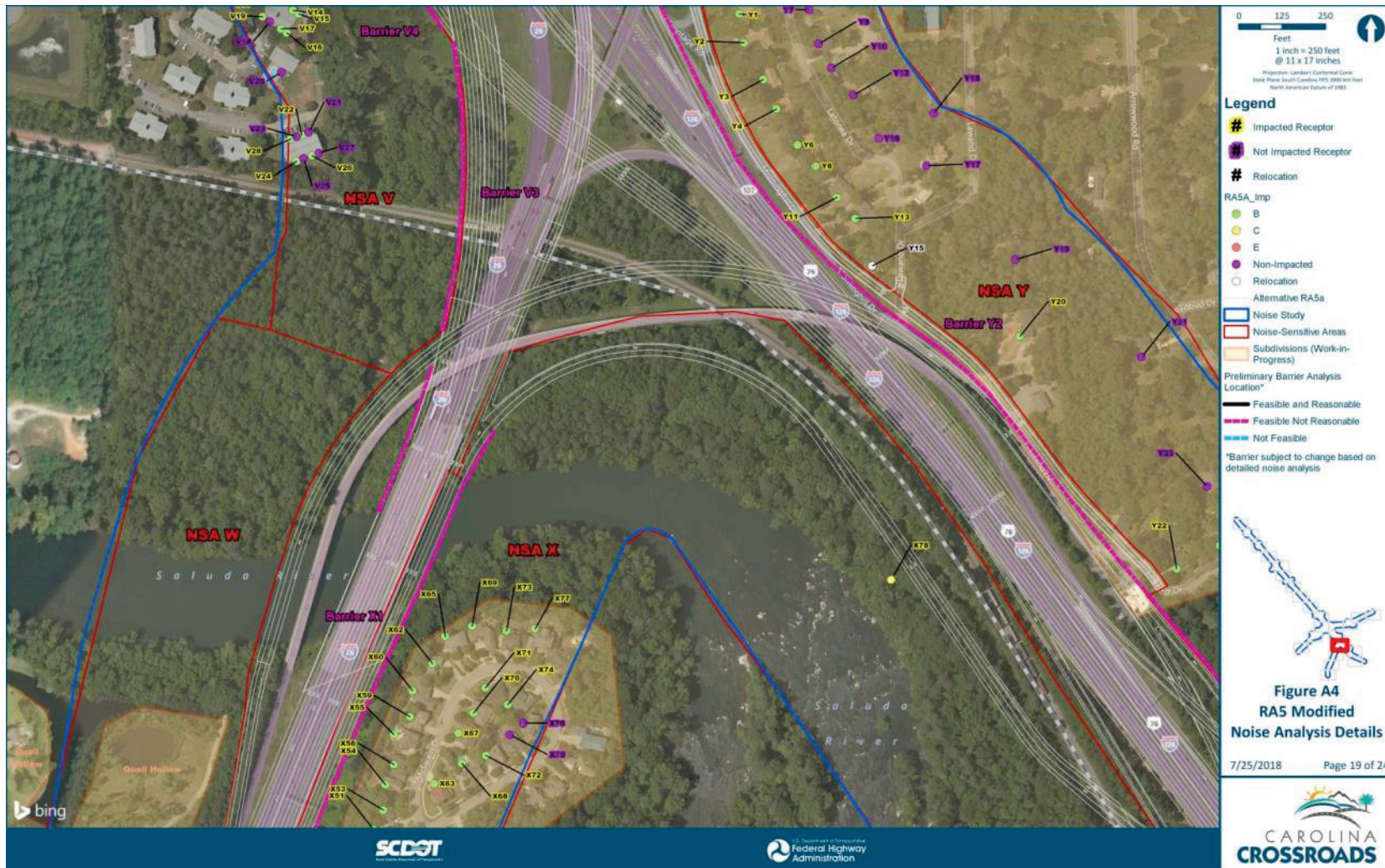
## Appendix A—Figures

continued

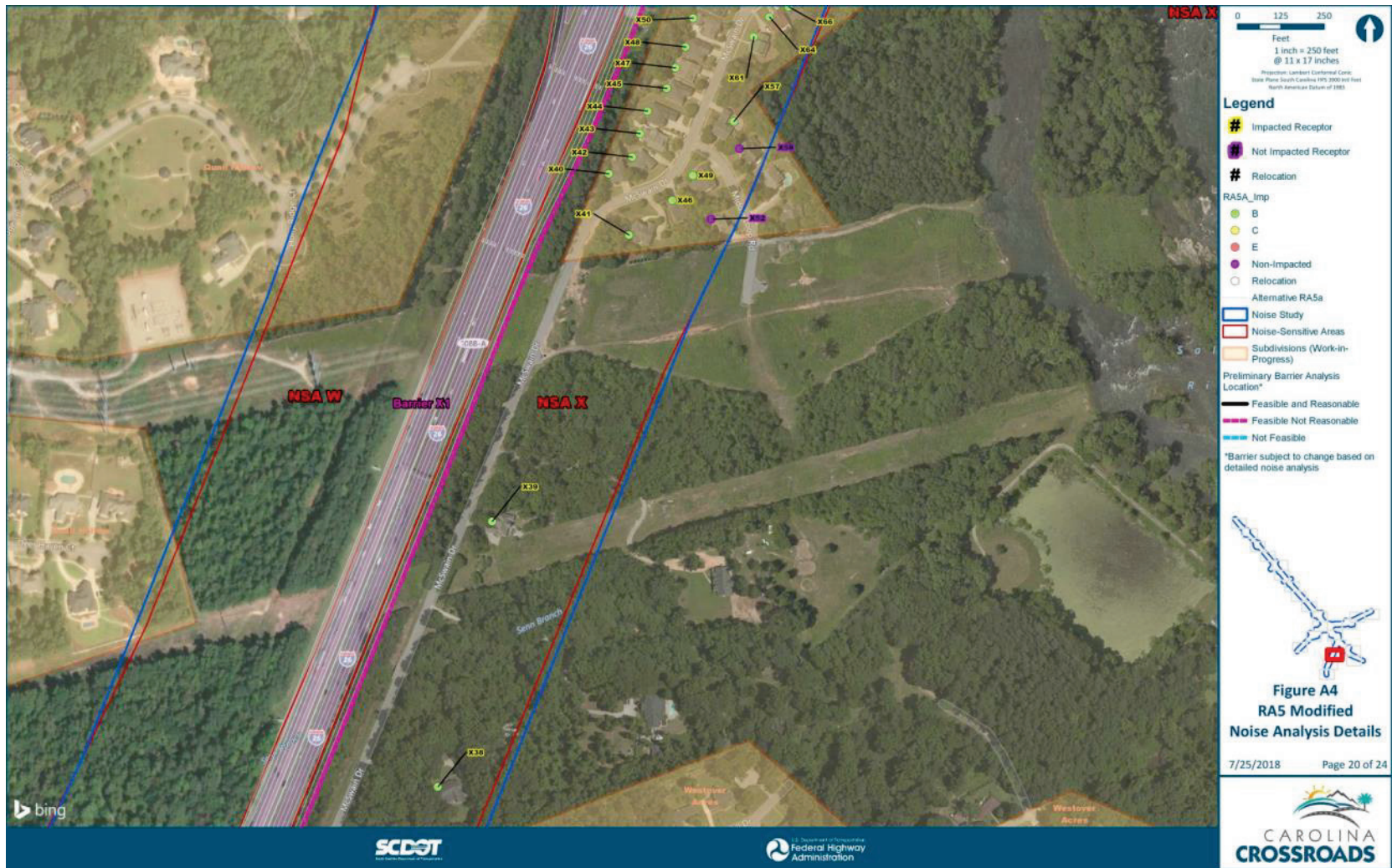
# Noise Technical Report



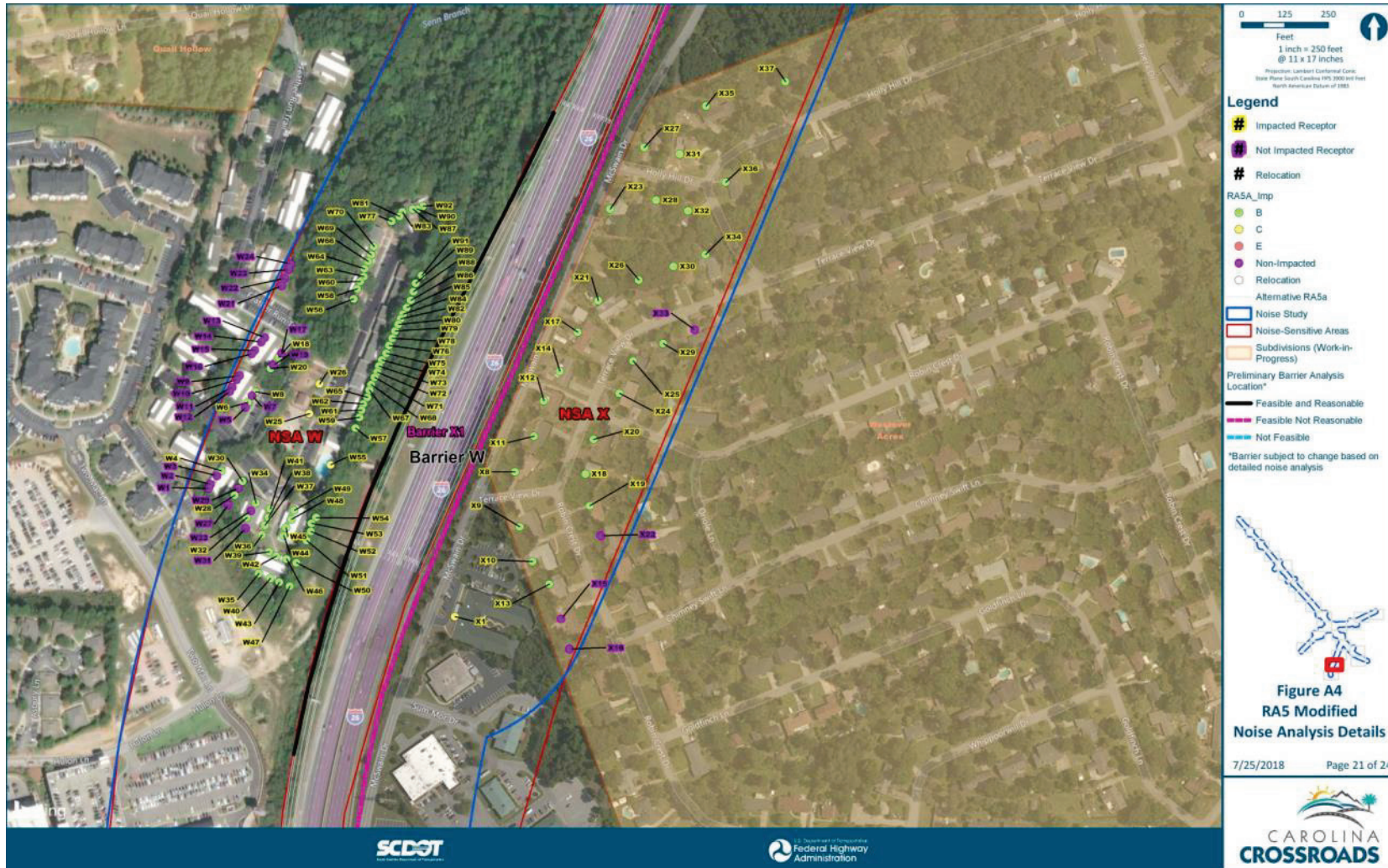
# Noise Technical Report



# Noise Technical Report



# Noise Technical Report

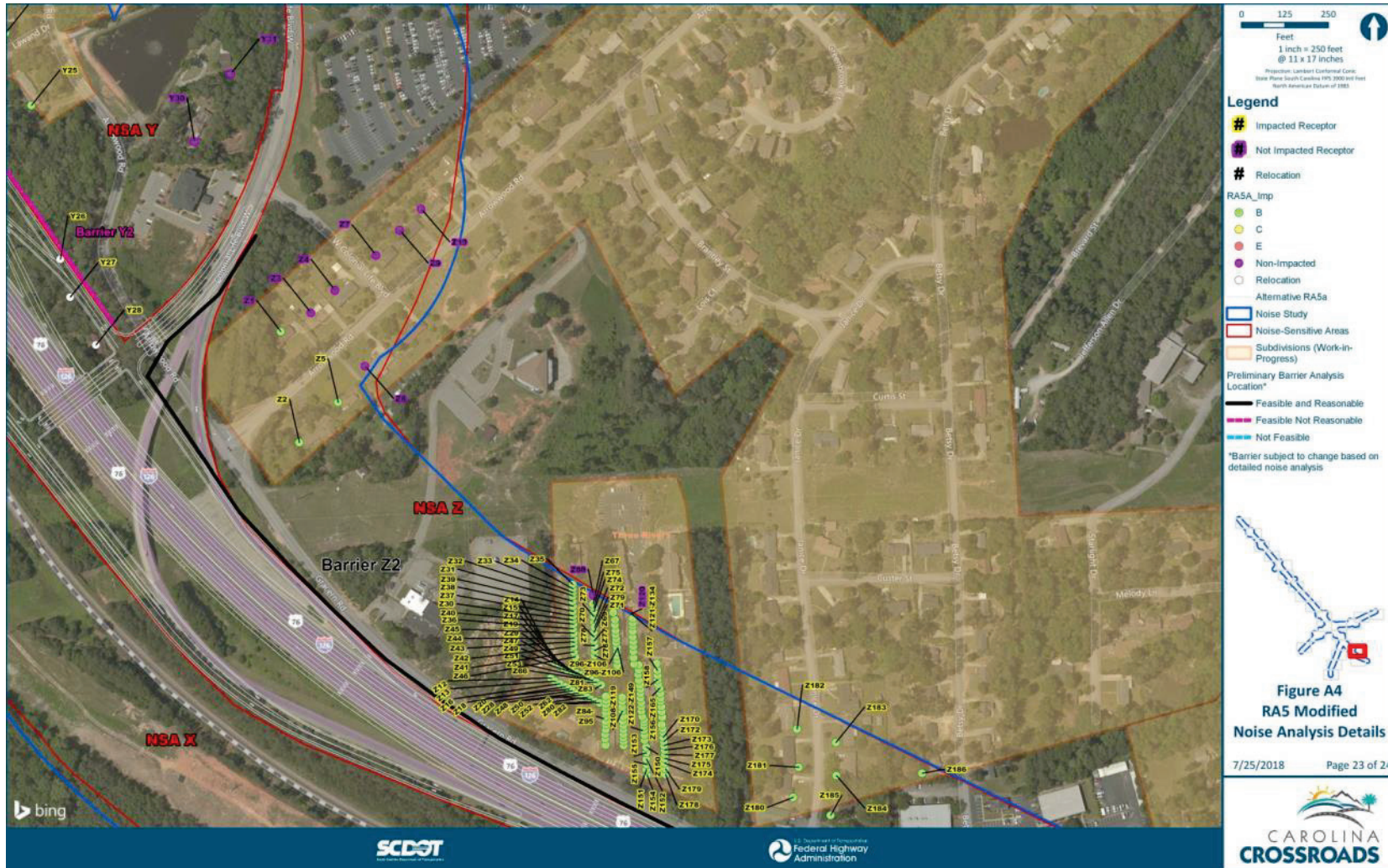


# Noise Technical Report

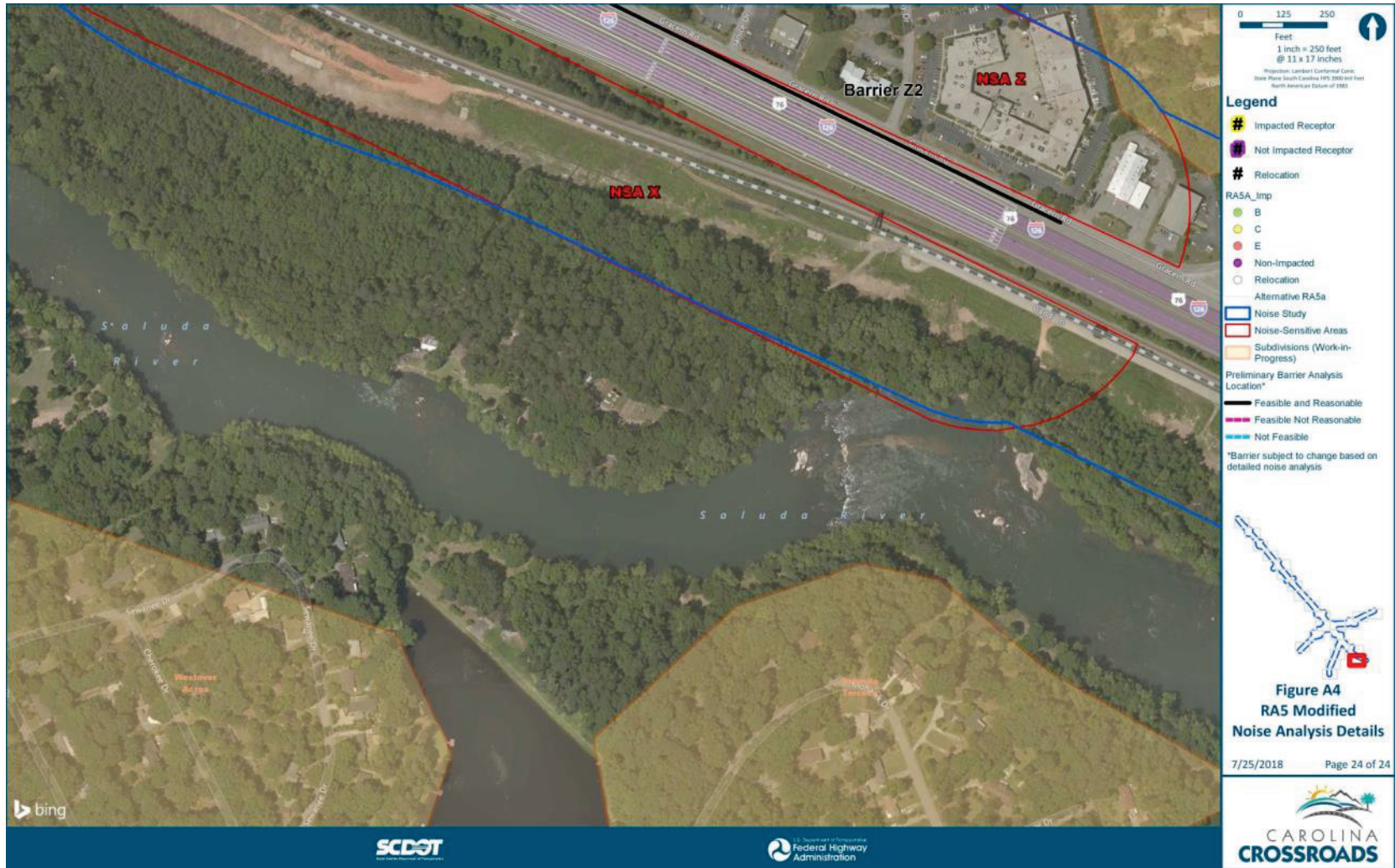




# Noise Technical Report



# Noise Technical Report



## Appendix B—Alternative 1 Noise Barrier Worksheets

# Noise Technical Report

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# Noise Technical Report

## SCDOT Feasibility and Reasonableness Worksheet

Date: Jul 3, 2018

Project Name

Highway Traffic Noise Abatement Measure

### Feasibility

Number of Impacted Receivers

Number of Benefited Receivers

Percentage of Impacted Receivers that would achieve a 5 dBA reduction from the proposed noise abatement measure

Is the proposed noise abatement measure acoustically feasible?  
 NOTE:SCDOT Policy indicates that 75% of the impacted receivers must achieve at least a 5 dBA reduction for it to be acoustically feasible.  Yes  No

Would any of the following issues limit the ability of the abatement measure to achieve the noise reduction goal?

- |                        |                              |  |
|------------------------|------------------------------|--|
| Topography             | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Safety                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Drainage               | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Utilities              | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Maintenance            | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Access                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Exposed Height of Wall | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

If "Yes" was marked for any of the questions above, please explain below.

Detailed Description

### Reasonableness

According to 23 CFR 772.13(d)(2)(iv) the abatement measure must collectively achieve each of these criteria to be reasonable. Therefore if any of the three mandatory reasonable factors are not achieved, then the abatement measure is determined NOT to be reasonable. When completing the form it is not necessary to detail each of the criteria if one was determined not to be reasonable.

# Noise Technical Report

**#1: Noise Reduction Design Goal**

Number of Benefited Receivers       Number of Benefited Receivers that achieve at least an 8 dBA reduction

Percentage of Benefited Receivers in the first two building rows that would achieve at least a 8 dBA reduction from the proposed noise abatement measure. NOTE: SCDOT Policy indicates that 80% of the benefited receivers in the first two building rows must achieve at least a 8 dBA reduction for it to be reasonable.

Does the proposed noise abatement measure meet the noise reduction design goal?  Yes     No

*If "Yes" is marked, continue to #2. If "No" is marked, then abatement is determined NOT to be reasonable.*

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**#2: Cost Effectiveness**

Estimated cost per square foot for noise abatement measure       Estimated construction cost for noise abatement measure

Estimated cost per Benefited Receiver

Based on the SCDOT policy of \$30,000 per Benefited Receiver, would the abatement measure be reasonable?  Yes     No  
NOTE: SCDOT Policy states that the preliminary noise analysis is based on \$35.00 per square foot and a more project-specific construction cost should be applied at a cost per square foot basis during the detailed noise abatement evaluation.

*If "Yes" is marked, continue to #3. If "No" is marked, then abatement is determined NOT to be reasonable.*

---

**#3: Viewpoints of the property owners and residents of the benefitted receivers**

Number of Benefited Receivers (same as above)	<input style="width: 100%;" type="text"/>	
Number of Benefited Receivers in <b>support</b> of noise abatement measure	<input style="width: 100%;" type="text"/>	Percentage of Benefited Receivers in <b>support</b> of noise abatement measure <input style="width: 100%;" type="text"/>
Number of Benefited Receivers <b>opposed</b> to noise abatement measure	<input style="width: 100%;" type="text"/>	Percentage of Benefited Receivers <b>opposed</b> to noise abatement measure <input style="width: 100%;" type="text"/>
Number of Benefited Receivers <b>that did not respond</b> to solicitation on noise abatement measure	<input style="width: 100%;" type="text"/>	Percentage of Benefited Receivers <b>that did not respond</b> to solicitation on noise abatement measure <input style="width: 100%;" type="text"/>

Based on the viewpoints of the property owners and residents of the Benefited Receivers, would the abatement measure be reasonable? NOTE: SCDOT Policy indicates that the noise abatement shall be constructed unless greater than 50% of the benefited receptors are opposed to noise abatement.  Yes     No

---

Barrier wall is 229 feet in width by 10 feet in height.  
 Based on the above results from the preliminary analysis, this abatement features is feasible, but not reasonable.

Additionally, this calculation was used as the sample mitigation model run for other similar conditions. These results apply to similar isolated receptor conditions for receptors B1, F, and N2.

# Noise Technical Report

## SCDOT Feasibility and Reasonableness Worksheet

Date: Jul 3, 2018

Project Name

Highway Traffic Noise Abatement Measure

### Feasibility

Number of Impacted Receivers

Number of Benefited Receivers

Percentage of Impacted Receivers that would achieve a 5 dBA reduction from the proposed noise abatement measure

Is the proposed noise abatement measure acoustically feasible?  
 NOTE:SCDOT Policy indicates that 75% of the impacted receivers must achieve at least a 5 dBA reduction for it to be acoustically feasible.  Yes  No

Would any of the following issues limit the ability of the abatement measure to achieve the noise reduction goal?

- |                        |                              |  |
|------------------------|------------------------------|--|
| Topography             | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Safety                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Drainage               | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Utilities              | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Maintenance            | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Access                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Exposed Height of Wall | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

If "Yes" was marked for any of the questions above, please explain below.

Detailed Description

### Reasonableness

According to 23 CFR 772.13(d)(2)(iv) the abatement measure must collectively achieve each of these criteria to be reasonable. Therefore if any of the three mandatory reasonable factors are not achieved, then the abatement measure is determined NOT to be reasonable. When completing the form it is not necessary to detail each of the criteria if one was determined not to be reasonable.

# Noise Technical Report

**#1: Noise Reduction Design Goal**

Number of Benefited Receivers       Number of Benefited Receivers that achieve at least an 8 dBA reduction

Percentage of Benefited Receivers in the first two building rows that would achieve at least a 8 dBA reduction from the proposed noise abatement measure. NOTE: SCDOT Policy indicates that 80% of the benefited receivers in the first two building rows must achieve at least a 8 dBA reduction for it to be reasonable.

Does the proposed noise abatement measure meet the noise reduction design goal?    Yes    No

*If "Yes" is marked, continue to #2. If "No" is marked, then abatement is determined NOT to be reasonable.*

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**#2: Cost Effectiveness**

Estimated cost per square foot for noise abatement measure

Estimated construction cost for noise abatement measure

Estimated cost per Benefited Receiver

Based on the SCDOT policy of \$30,000 per Benefited Receiver, would the abatement measure be reasonable?    Yes    No

NOTE: SCDOT Policy states that the preliminary noise analysis is based on \$35.00 per square foot and a more project-specific construction cost should be applied at a cost per square foot basis during the detailed noise abatement evaluation.

*If "Yes" is marked, continue to #3. If "No" is marked, then abatement is determined NOT to be reasonable.*

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**#3: Viewpoints of the property owners and residents of the benefitted receivers**

Number of Benefited Receivers (same as above)

Number of Benefited Receivers in **support** of noise abatement measure

Percentage of Benefited Receivers in **support** of noise abatement measure

Number of Benefited Receivers **opposed** to noise abatement measure

Percentage of Benefited Receivers **opposed** to noise abatement measure

Number of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Percentage of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Based on the viewpoints of the property owners and residents of the Benefited Receivers, would the abatement measure be reasonable? NOTE: SCDOT Policy indicates that the noise abatement shall be constructed unless greater than 50% of the benefited receptors are opposed to noise abatement.    Yes    No

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Barrier wall is 1,312 feet in width by 15 feet in height.

Based on the above results from preliminary analysis, this abatement feature is feasible but not reasonable.



# Noise Technical Report

## SCDOT Feasibility and Reasonableness Worksheet

Date: Jul 3, 2018

Project Name

Highway Traffic Noise Abatement Measure

### Feasibility

Number of Impacted Receivers  Number of Benefited Receivers

Percentage of Impacted Receivers that would achieve a 5 dBA reduction from the proposed noise abatement measure

Is the proposed noise abatement measure acoustically feasible?  
 NOTE:SCDOT Policy indicates that 75% of the impacted receivers must achieve at least a 5 dBA reduction for it to be acoustically feasible.  Yes  No

Would any of the following issues limit the ability of the abatement measure to achieve the noise reduction goal?

- |                        |                              |  |
|------------------------|------------------------------|--|
| Topography             | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Safety                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Drainage               | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Utilities              | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Maintenance            | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Access                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Exposed Height of Wall | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

If "Yes" was marked for any of the questions above, please explain below.

Detailed Description

### Reasonableness

According to 23 CFR 772.13(d)(2)(iv) the abatement measure must collectively achieve each of these criteria to be reasonable. Therefore if any of the three mandatory reasonable factors are not achieved, then the abatement measure is determined NOT to be reasonable. When completing the form it is not necessary to detail each of the criteria if one was determined not to be reasonable.

# Noise Technical Report

**#1: Noise Reduction Design Goal**

Number of Benefited Receivers       Number of Benefited Receivers that achieve at least an 8 dBA reduction

Percentage of Benefited Receivers in the first two building rows that would achieve at least a 8 dBA reduction from the proposed noise abatement measure. NOTE: SCDOT Policy indicates that 80% of the benefited receivers in the first two building rows must achieve at least a 8 dBA reduction for it to be reasonable.

Does the proposed noise abatement measure meet the noise reduction design goal?  Yes     No

*If "Yes" is marked, continue to #2. If "No" is marked, then abatement is determined NOT to be reasonable.*

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**#2: Cost Effectiveness**

Estimated cost per square foot for noise abatement measure       Estimated construction cost for noise abatement measure

Estimated cost per Benefited Receiver

Based on the SCDOT policy of \$30,000 per Benefited Receiver, would the abatement measure be reasonable?  Yes     No  
NOTE: SCDOT Policy states that the preliminary noise analysis is based on \$35.00 per square foot and a more project-specific construction cost should be applied at a cost per square foot basis during the detailed noise abatement evaluation.

*If "Yes" is marked, continue to #3. If "No" is marked, then abatement is determined NOT to be reasonable.*

---

**#3: Viewpoints of the property owners and residents of the benefitted receivers**

Number of Benefited Receivers (same as above)

Number of Benefited Receivers in **support** of noise abatement measure       Percentage of Benefited Receivers in **support** of noise abatement measure

Number of Benefited Receivers **opposed** to noise abatement measure       Percentage of Benefited Receivers **opposed** to noise abatement measure

Number of Benefited Receivers **that did not respond** to solicitation on noise abatement measure       Percentage of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Based on the viewpoints of the property owners and residents of the Benefited Receivers, would the abatement measure be reasonable? NOTE: SCDOT Policy indicates that the noise abatement shall be constructed unless greater than 50% of the benefited receptors are opposed to noise abatement.  Yes     No

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Barrier wall is 2,604 feet in width by 20 feet in height.

Based on the above results from the preliminary analysis, this abatement feature is feasible and reasonable.

Barrier subject to change based on the detailed noise analysis.

# Noise Technical Report

## SCDOT Feasibility and Reasonableness Worksheet

Date: Jun 3, 2018

Project Name

Highway Traffic Noise Abatement Measure

### Feasibility

Number of Impacted Receivers  Number of Benefited Receivers

Percentage of Impacted Receivers that would achieve a 5 dBA reduction from the proposed noise abatement measure

Is the proposed noise abatement measure acoustically feasible?  
 NOTE:SCDOT Policy indicates that 75% of the impacted receivers must achieve at least a 5 dBA reduction for it to be acoustically feasible.  Yes  No

Would any of the following issues limit the ability of the abatement measure to achieve the noise reduction goal?

- |                        |                              |  |
|------------------------|------------------------------|--|
| Topography             | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Safety                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Drainage               | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Utilities              | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Maintenance            | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Access                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Exposed Height of Wall | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

If "Yes" was marked for any of the questions above, please explain below.

Detailed Description

### Reasonableness

According to 23 CFR 772.13(d)(2)(iv) the abatement measure must collectively achieve each of these criteria to be reasonable. Therefore if any of the three mandatory reasonable factors are not achieved, then the abatement measure is determined NOT to be reasonable. When completing the form it is not necessary to detail each of the criteria if one was determined not to be reasonable.

# Noise Technical Report

**#1: Noise Reduction Design Goal**

Number of Benefited Receivers       Number of Benefited Receivers that achieve at least an 8 dBA reduction

Percentage of Benefited Receivers in the first two building rows that would achieve at least a 8 dBA reduction from the proposed noise abatement measure. NOTE: SCDOT Policy indicates that 80% of the benefited receivers in the first two building rows must achieve at least a 8 dBA reduction for it to be reasonable.

Does the proposed noise abatement measure meet the noise reduction design goal?  Yes     No

*If "Yes" is marked, continue to #2. If "No" is marked, then abatement is determined NOT to be reasonable.*

---

**#2: Cost Effectiveness**

Estimated cost per square foot for noise abatement measure       Estimated construction cost for noise abatement measure

Estimated cost per Benefited Receiver

Based on the SCDOT policy of \$30,000 per Benefited Receiver, would the abatement measure be reasonable?  Yes     No  
 NOTE: SCDOT Policy states that the preliminary noise analysis is based on \$35.00 per square foot and a more project-specific construction cost should be applied at a cost per square foot basis during the detailed noise abatement evaluation.

*If "Yes" is marked, continue to #3. If "No" is marked, then abatement is determined NOT to be reasonable.*

---

**#3: Viewpoints of the property owners and residents of the benefited receivers**

Number of Benefited Receivers (same as above) <input type="text"/>	
Number of Benefited Receivers in <b>support</b> of noise abatement measure <input type="text"/>	Percentage of Benefited Receivers in <b>support</b> of noise abatement measure <input type="text"/>
Number of Benefited Receivers <b>opposed</b> to noise abatement measure <input type="text"/>	Percentage of Benefited Receivers <b>opposed</b> to noise abatement measure <input type="text"/>
Number of Benefited Receivers <b>that did not respond</b> to solicitation on noise abatement measure <input type="text"/>	Percentage of Benefited Receivers <b>that did not respond</b> to solicitation on noise abatement measure <input type="text"/>

Based on the viewpoints of the property owners and residents of the Benefited Receivers, would the abatement measure be reasonable? NOTE: SCDOT Policy indicates that the noise abatement shall be constructed unless greater than 50% of the benefited receptors are opposed to noise abatement.  Yes     No

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Barrier wall is 4,085 feet in width by 20 feet in height.

Based on the above results from the preliminary analysis, this abatement feature is feasible but not reasonable.

# Noise Technical Report

## SCDOT Feasibility and Reasonableness Worksheet

Date: Jul 3, 2018

Project Name

Highway Traffic Noise Abatement Measure

### Feasibility

Number of Impacted Receivers  Number of Benefited Receivers

Percentage of Impacted Receivers that would achieve a 5 dBA reduction from the proposed noise abatement measure

Is the proposed noise abatement measure acoustically feasible?  Yes  No  
 NOTE:SCDOT Policy indicates that 75% of the impacted receivers must achieve at least a 5 dBA reduction for it to be acoustically feasible.

Would any of the following issues limit the ability of the abatement measure to achieve the noise reduction goal?

- |                        |                              |  |
|------------------------|------------------------------|--|
| Topography             | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Safety                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Drainage               | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Utilities              | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Maintenance            | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Access                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Exposed Height of Wall | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

If "Yes" was marked for any of the questions above, please explain below.

Detailed Description

### Reasonableness

According to 23 CFR 772.13(d)(2)(iv) the abatement measure must collectively achieve each of these criteria to be reasonable. Therefore if any of the three mandatory reasonable factors are not achieved, then the abatement measure is determined NOT to be reasonable. When completing the form it is not necessary to detail each of the criteria if one was determined not to be reasonable.

# Noise Technical Report

**#1: Noise Reduction Design Goal**

Number of Benefited Receivers       Number of Benefited Receivers that achieve at least an 8 dBA reduction

Percentage of Benefited Receivers in the first two building rows that would achieve at least a 8 dBA reduction from the proposed noise abatement measure. NOTE: SCDOT Policy indicates that 80% of the benefited receivers in the first two building rows must achieve at least a 8 dBA reduction for it to be reasonable.

Does the proposed noise abatement measure meet the noise reduction design goal?    Yes    No

*If "Yes" is marked, continue to #2. If "No" is marked, then abatement is determined NOT to be reasonable.*

---

**#2: Cost Effectiveness**

Estimated cost per square foot for noise abatement measure       Estimated construction cost for noise abatement measure

Estimated cost per Benefited Receiver

Based on the SCDOT policy of \$30,000 per Benefited Receiver, would the abatement measure be reasonable?    Yes    No  
NOTE: SCDOT Policy states that the preliminary noise analysis is based on \$35.00 per square foot and a more project-specific construction cost should be applied at a cost per square foot basis during the detailed noise abatement evaluation.

*If "Yes" is marked, continue to #3. If "No" is marked, then abatement is determined NOT to be reasonable.*

---

**#3: Viewpoints of the property owners and residents of the benefitted receivers**

Number of Benefited Receivers (same as above)

Number of Benefited Receivers in **support** of noise abatement measure       Percentage of Benefited Receivers in **support** of noise abatement measure

Number of Benefited Receivers **opposed** to noise abatement measure       Percentage of Benefited Receivers **opposed** to noise abatement measure

Number of Benefited Receivers **that did not respond** to solicitation on noise abatement measure       Percentage of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Based on the viewpoints of the property owners and residents of the Benefited Receivers, would the abatement measure be reasonable? NOTE: SCDOT Policy indicates that the noise abatement shall be constructed unless greater than 50% of the benefited receptors are opposed to noise abatement.    Yes    No

Barrier wall is 845 feet in width by 25 feet in height.

Based on the results above from the preliminary analysis, this abatement feature is not feasible or reasonable.

# Noise Technical Report

## SCDOT Feasibility and Reasonableness Worksheet

Date: Jul 3, 2018

Project Name

Highway Traffic Noise Abatement Measure

### Feasibility

Number of Impacted Receivers  Number of Benefited Receivers

Percentage of Impacted Receivers that would achieve a 5 dBA reduction from the proposed noise abatement measure

Is the proposed noise abatement measure acoustically feasible?  
 NOTE:SCDOT Policy indicates that 75% of the impacted receivers must achieve at least a 5 dBA reduction for it to be acoustically feasible.  Yes  No

Would any of the following issues limit the ability of the abatement measure to achieve the noise reduction goal?

- |                        |                              |  |
|------------------------|------------------------------|--|
| Topography             | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Safety                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Drainage               | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Utilities              | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Maintenance            | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Access                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Exposed Height of Wall | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

If "Yes" was marked for any of the questions above, please explain below.

Detailed Description

### Reasonableness

According to 23 CFR 772.13(d)(2)(iv) the abatement measure must collectively achieve each of these criteria to be reasonable. Therefore if any of the three mandatory reasonable factors are not achieved, then the abatement measure is determined NOT to be reasonable. When completing the form it is not necessary to detail each of the criteria if one was determined not to be reasonable.

# Noise Technical Report

**#1: Noise Reduction Design Goal**

Number of Benefited Receivers       Number of Benefited Receivers that achieve at least an 8 dBA reduction

Percentage of Benefited Receivers in the first two building rows that would achieve at least a 8 dBA reduction from the proposed noise abatement measure. NOTE: SCDOT Policy indicates that 80% of the benefited receivers in the first two building rows must achieve at least a 8 dBA reduction for it to be reasonable.

Does the proposed noise abatement measure meet the noise reduction design goal?  Yes     No

*If "Yes" is marked, continue to #2. If "No" is marked, then abatement is determined NOT to be reasonable.*

---

**#2: Cost Effectiveness**

Estimated cost per square foot for noise abatement measure       Estimated construction cost for noise abatement measure

Estimated cost per Benefited Receiver

Based on the SCDOT policy of \$30,000 per Benefited Receiver, would the abatement measure be reasonable?  Yes  No  
NOTE: SCDOT Policy states that the preliminary noise analysis is based on \$35.00 per square foot and a more project-specific construction cost should be applied at a cost per square foot basis during the detailed noise abatement evaluation.

*If "Yes" is marked, continue to #3. If "No" is marked, then abatement is determined NOT to be reasonable.*

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**#3: Viewpoints of the property owners and residents of the benefitted receivers**

Number of Benefited Receivers (same as above)	<input style="width: 100%;" type="text"/>	
Number of Benefited Receivers in <b>support</b> of noise abatement measure	<input style="width: 100%;" type="text"/>	Percentage of Benefited Receivers in <b>support</b> of noise abatement measure <input style="width: 100%;" type="text"/>
Number of Benefited Receivers <b>opposed</b> to noise abatement measure	<input style="width: 100%;" type="text"/>	Percentage of Benefited Receivers <b>opposed</b> to noise abatement measure <input style="width: 100%;" type="text"/>
Number of Benefited Receivers <b>that did not respond</b> to solicitation on noise abatement measure	<input style="width: 100%;" type="text"/>	Percentage of Benefited Receivers <b>that did not respond</b> to solicitation on noise abatement measure <input style="width: 100%;" type="text"/>

Based on the viewpoints of the property owners and residents of the Benefited Receivers, would the abatement measure be reasonable? NOTE: SCDOT Policy indicates that the noise abatement shall be constructed unless greater than 50% of the benefited receptors are opposed to noise abatement.  Yes     No

Barrier wall is 2,006 feet in width by 20 feet in height.

Based on the above results from the preliminary analysis, this abatement feature is feasible but not reasonable.



# Noise Technical Report

## SCDOT Feasibility and Reasonableness Worksheet

Date: Jul 12, 2018

Project Name

Highway Traffic Noise Abatement Measure

### Feasibility

Number of Impacted Receivers  Number of Benefited Receivers

Percentage of Impacted Receivers that would achieve a 5 dBA reduction from the proposed noise abatement measure

Is the proposed noise abatement measure acoustically feasible?  
 NOTE:SCDOT Policy indicates that 75% of the impacted receivers must achieve at least a 5 dBA reduction for it to be acoustically feasible.  Yes  No

Would any of the following issues limit the ability of the abatement measure to achieve the noise reduction goal?

- |                        |                              |  |
|------------------------|------------------------------|--|
| Topography             | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Safety                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Drainage               | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Utilities              | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Maintenance            | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Access                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Exposed Height of Wall | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

If "Yes" was marked for any of the questions above, please explain below.

Detailed Description

### Reasonableness

According to 23 CFR 772.13(d)(2)(iv) the abatement measure must collectively achieve each of these criteria to be reasonable. Therefore if any of the three mandatory reasonable factors are not achieved, then the abatement measure is determined NOT to be reasonable. When completing the form it is not necessary to detail each of the criteria if one was determined not to be reasonable.

# Noise Technical Report

**#1: Noise Reduction Design Goal**

Number of Benefited Receivers       Number of Benefited Receivers that achieve at least an 8 dBA reduction

Percentage of Benefited Receivers in the first two building rows that would achieve at least a 8 dBA reduction from the proposed noise abatement measure. NOTE: SCDOT Policy indicates that 80% of the benefited receivers in the first two building rows must achieve at least a 8 dBA reduction for it to be reasonable.

Does the proposed noise abatement measure meet the noise reduction design goal?    Yes    No

*If "Yes" is marked, continue to #2. If "No" is marked, then abatement is determined NOT to be reasonable.*

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**#2: Cost Effectiveness**

Estimated cost per square foot for noise abatement measure       Estimated construction cost for noise abatement measure

Estimated cost per Benefited Receiver

Based on the SCDOT policy of \$30,000 per Benefited Receiver, would the abatement measure be reasonable?    Yes    No  
 NOTE: SCDOT Policy states that the preliminary noise analysis is based on \$35.00 per square foot and a more project-specific construction cost should be applied at a cost per square foot basis during the detailed noise abatement evaluation.

*If "Yes" is marked, continue to #3. If "No" is marked, then abatement is determined NOT to be reasonable.*

---

**#3: Viewpoints of the property owners and residents of the benefitted receivers**

Number of Benefited Receivers (same as above)

Number of Benefited Receivers in **support** of noise abatement measure       Percentage of Benefited Receivers in **support** of noise abatement measure

Number of Benefited Receivers **opposed** to noise abatement measure       Percentage of Benefited Receivers **opposed** to noise abatement measure

Number of Benefited Receivers **that did not respond** to solicitation on noise abatement measure       Percentage of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Based on the viewpoints of the property owners and residents of the Benefited Receivers, would the abatement measure be reasonable? NOTE: SCDOT Policy indicates that the noise abatement shall be constructed unless greater than 50% of the benefited receptors are opposed to noise abatement.    Yes    No

---

Barrier wall is 2,404 feet in width by 25 feet in height.

Based on the above results from the preliminary analysis, this abatement feature is feasible but not reasonable.

# Noise Technical Report

## SCDOT Feasibility and Reasonableness Worksheet

Date: Jul 12, 2018

Project Name

Highway Traffic Noise Abatement Measure

### Feasibility

Number of Impacted Receivers  Number of Benefited Receivers

Percentage of Impacted Receivers that would achieve a 5 dBA reduction from the proposed noise abatement measure

Is the proposed noise abatement measure acoustically feasible?  
 NOTE:SCDOT Policy indicates that 75% of the impacted receivers must achieve at least a 5 dBA reduction for it to be acoustically feasible.  Yes  No

Would any of the following issues limit the ability of the abatement measure to achieve the noise reduction goal?

- |                        |                              |  |
|------------------------|------------------------------|--|
| Topography             | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Safety                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Drainage               | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Utilities              | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Maintenance            | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Access                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Exposed Height of Wall | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

If "Yes" was marked for any of the questions above, please explain below.

Detailed Description

### Reasonableness

According to 23 CFR 772.13(d)(2)(iv) the abatement measure must collectively achieve each of these criteria to be reasonable. Therefore if any of the three mandatory reasonable factors are not achieved, then the abatement measure is determined NOT to be reasonable. When completing the form it is not necessary to detail each of the criteria if one was determined not to be reasonable.

# Noise Technical Report

**#1: Noise Reduction Design Goal**

Number of Benefited Receivers       Number of Benefited Receivers that achieve at least an 8 dBA reduction

Percentage of Benefited Receivers in the first two building rows that would achieve at least a 8 dBA reduction from the proposed noise abatement measure. NOTE: SCDOT Policy indicates that 80% of the benefited receivers in the first two building rows must achieve at least a 8 dBA reduction for it to be reasonable.

Does the proposed noise abatement measure meet the noise reduction design goal?  Yes     No

*If "Yes" is marked, continue to #2. If "No" is marked, then abatement is determined NOT to be reasonable.*

---

**#2: Cost Effectiveness**

Estimated cost per square foot for noise abatement measure       Estimated construction cost for noise abatement measure

Estimated cost per Benefited Receiver

Based on the SCDOT policy of \$30,000 per Benefited Receiver, would the abatement measure be reasonable?  Yes     No  
 NOTE: SCDOT Policy states that the preliminary noise analysis is based on \$35.00 per square foot and a more project-specific construction cost should be applied at a cost per square foot basis during the detailed noise abatement evaluation.

*If "Yes" is marked, continue to #3. If "No" is marked, then abatement is determined NOT to be reasonable.*

---

**#3: Viewpoints of the property owners and residents of the benefitted receivers**

Number of Benefited Receivers (same as above)

Number of Benefited Receivers in **support** of noise abatement measure       Percentage of Benefited Receivers in **support** of noise abatement measure

Number of Benefited Receivers **opposed** to noise abatement measure       Percentage of Benefited Receivers **opposed** to noise abatement measure

Number of Benefited Receivers **that did not respond** to solicitation on noise abatement measure       Percentage of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Based on the viewpoints of the property owners and residents of the Benefited Receivers, would the abatement measure be reasonable? NOTE: SCDOT Policy indicates that the noise abatement shall be constructed unless greater than 50% of the benefited receptors are opposed to noise abatement.  Yes     No

---

Barrier wall is 4,003 feet in width by 20 feet in height.

Based on the above results from the preliminary analysis, this abatement feature is feasible and reasonable.

Barrier subject to change based on the detailed noise analysis.

# Noise Technical Report

## SCDOT Feasibility and Reasonableness Worksheet

Date: Jul 3, 2018

Project Name

Highway Traffic Noise Abatement Measure

### Feasibility

Number of Impacted Receivers  Number of Benefited Receivers

Percentage of Impacted Receivers that would achieve a 5 dBA reduction from the proposed noise abatement measure

Is the proposed noise abatement measure acoustically feasible?  
 NOTE:SCDOT Policy indicates that 75% of the impacted receivers must achieve at least a 5 dBA reduction for it to be acoustically feasible.  Yes  No

Would any of the following issues limit the ability of the abatement measure to achieve the noise reduction goal?

- |                        |                              |  |
|------------------------|------------------------------|--|
| Topography             | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Safety                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Drainage               | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Utilities              | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Maintenance            | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Access                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Exposed Height of Wall | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

If "Yes" was marked for any of the questions above, please explain below.

Detailed Description

### Reasonableness

According to 23 CFR 772.13(d)(2)(iv) the abatement measure must collectively achieve each of these criteria to be reasonable. Therefore if any of the three mandatory reasonable factors are not achieved, then the abatement measure is determined NOT to be reasonable. When completing the form it is not necessary to detail each of the criteria if one was determined not to be reasonable.

# Noise Technical Report

**#1: Noise Reduction Design Goal**

Number of Benefited Receivers       Number of Benefited Receivers that achieve at least an 8 dBA reduction

Percentage of Benefited Receivers in the first two building rows that would achieve at least a 8 dBA reduction from the proposed noise abatement measure. NOTE: SCDOT Policy indicates that 80% of the benefited receivers in the first two building rows must achieve at least a 8 dBA reduction for it to be reasonable.

Does the proposed noise abatement measure meet the noise reduction design goal?  Yes     No

*If "Yes" is marked, continue to #2. If "No" is marked, then abatement is determined NOT to be reasonable.*

---

**#2: Cost Effectiveness**

Estimated cost per square foot for noise abatement measure       Estimated construction cost for noise abatement measure

Estimated cost per Benefited Receiver

Based on the SCDOT policy of \$30,000 per Benefited Receiver, would the abatement measure be reasonable?  Yes     No  
NOTE: SCDOT Policy states that the preliminary noise analysis is based on \$35.00 per square foot and a more project-specific construction cost should be applied at a cost per square foot basis during the detailed noise abatement evaluation.

*If "Yes" is marked, continue to #3. If "No" is marked, then abatement is determined NOT to be reasonable.*

---

**#3: Viewpoints of the property owners and residents of the benefitted receivers**

Number of Benefited Receivers (same as above)

Number of Benefited Receivers in **support** of noise abatement measure       Percentage of Benefited Receivers in **support** of noise abatement measure

Number of Benefited Receivers **opposed** to noise abatement measure       Percentage of Benefited Receivers **opposed** to noise abatement measure

Number of Benefited Receivers **that did not respond** to solicitation on noise abatement measure       Percentage of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Based on the viewpoints of the property owners and residents of the Benefited Receivers, would the abatement measure be reasonable? NOTE: SCDOT Policy indicates that the noise abatement shall be constructed unless greater than 50% of the benefited receptors are opposed to noise abatement.  Yes     No

---

Barrier wall is 3,210 feet in width by 15 feet in height.

Based on the above results from the preliminary analysis, this abatement feature is feasible and reasonable.

Barrier subject to change based on the detailed noise analysis.

# Noise Technical Report

## SCDOT Feasibility and Reasonableness Worksheet

Date: Jul 3, 2018

Project Name

Highway Traffic Noise Abatement Measure

### Feasibility

Number of Impacted Receivers  Number of Benefited Receivers

Percentage of Impacted Receivers that would achieve a 5 dBA reduction from the proposed noise abatement measure

Is the proposed noise abatement measure acoustically feasible?  
 NOTE:SCDOT Policy indicates that 75% of the impacted receivers must achieve at least a 5 dBA reduction for it to be acoustically feasible.  Yes  No

Would any of the following issues limit the ability of the abatement measure to achieve the noise reduction goal?

- |                        |                              |  |
|------------------------|------------------------------|--|
| Topography             | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Safety                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Drainage               | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Utilities              | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Maintenance            | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Access                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Exposed Height of Wall | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

If "Yes" was marked for any of the questions above, please explain below.

Detailed Description

### Reasonableness

According to 23 CFR 772.13(d)(2)(iv) the abatement measure must collectively achieve each of these criteria to be reasonable. Therefore if any of the three mandatory reasonable factors are not achieved, then the abatement measure is determined NOT to be reasonable. When completing the form it is not necessary to detail each of the criteria if one was determined not to be reasonable.

# Noise Technical Report

**#1: Noise Reduction Design Goal**

Number of Benefited Receivers       Number of Benefited Receivers that achieve at least an 8 dBA reduction

Percentage of Benefited Receivers in the first two building rows that would achieve at least a 8 dBA reduction from the proposed noise abatement measure. NOTE: SCDOT Policy indicates that 80% of the benefited receivers in the first two building rows must achieve at least a 8 dBA reduction for it to be reasonable.

Does the proposed noise abatement measure meet the noise reduction design goal?  Yes     No

*If "Yes" is marked, continue to #2. If "No" is marked, then abatement is determined NOT to be reasonable.*

---

**#2: Cost Effectiveness**

Estimated cost per square foot for noise abatement measure       Estimated construction cost for noise abatement measure

Estimated cost per Benefited Receiver

Based on the SCDOT policy of \$30,000 per Benefited Receiver, would the abatement measure be reasonable?  Yes     No  
 NOTE: SCDOT Policy states that the preliminary noise analysis is based on \$35.00 per square foot and a more project-specific construction cost should be applied at a cost per square foot basis during the detailed noise abatement evaluation.

*If "Yes" is marked, continue to #3. If "No" is marked, then abatement is determined NOT to be reasonable.*

---

**#3: Viewpoints of the property owners and residents of the benefitted receivers**

Number of Benefited Receivers (same as above)

Number of Benefited Receivers in **support** of noise abatement measure       Percentage of Benefited Receivers in **support** of noise abatement measure

Number of Benefited Receivers **opposed** to noise abatement measure       Percentage of Benefited Receivers **opposed** to noise abatement measure

Number of Benefited Receivers **that did not respond** to solicitation on noise abatement measure       Percentage of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Based on the viewpoints of the property owners and residents of the Benefited Receivers, would the abatement measure be reasonable? NOTE: SCDOT Policy indicates that the noise abatement shall be constructed unless greater than 50% of the benefited receptors are opposed to noise abatement.  Yes     No

---

Barrier wall is 4,742 feet in width by 25 feet in height.

Based on the above results from the preliminary analysis, this abatement feature is feasible and reasonable.

Barrier subject to change based on the detailed noise analysis.



# Noise Technical Report

## SCDOT Feasibility and Reasonableness Worksheet

Date: Jul 3, 2018

Project Name

Highway Traffic Noise Abatement Measure

### Feasibility

Number of Impacted Receivers  Number of Benefited Receivers

Percentage of Impacted Receivers that would achieve a 5 dBA reduction from the proposed noise abatement measure

Is the proposed noise abatement measure acoustically feasible?  
 NOTE:SCDOT Policy indicates that 75% of the impacted receivers must achieve at least a 5 dBA reduction for it to be acoustically feasible.  Yes  No

Would any of the following issues limit the ability of the abatement measure to achieve the noise reduction goal?

- |                        |                              |  |
|------------------------|------------------------------|--|
| Topography             | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Safety                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Drainage               | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Utilities              | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Maintenance            | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Access                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Exposed Height of Wall | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

If "Yes" was marked for any of the questions above, please explain below.

Detailed Description

### Reasonableness

According to 23 CFR 772.13(d)(2)(iv) the abatement measure must collectively achieve each of these criteria to be reasonable. Therefore if any of the three mandatory reasonable factors are not achieved, then the abatement measure is determined NOT to be reasonable. When completing the form it is not necessary to detail each of the criteria if one was determined not to be reasonable.

# Noise Technical Report

**#1: Noise Reduction Design Goal**

Number of Benefited Receivers       Number of Benefited Receivers that achieve at least an 8 dBA reduction

Percentage of Benefited Receivers in the first two building rows that would achieve at least a 8 dBA reduction from the proposed noise abatement measure. NOTE: SCDOT Policy indicates that 80% of the benefited receivers in the first two building rows must achieve at least a 8 dBA reduction for it to be reasonable.

Does the proposed noise abatement measure meet the noise reduction design goal?  Yes     No

*If "Yes" is marked, continue to #2. If "No" is marked, then abatement is determined NOT to be reasonable.*

---

**#2: Cost Effectiveness**

Estimated cost per square foot for noise abatement measure       Estimated construction cost for noise abatement measure

Estimated cost per Benefited Receiver

Based on the SCDOT policy of \$30,000 per Benefited Receiver, would the abatement measure be reasonable?  Yes     No  
 NOTE: SCDOT Policy states that the preliminary noise analysis is based on \$35.00 per square foot and a more project-specific construction cost should be applied at a cost per square foot basis during the detailed noise abatement evaluation.

*If "Yes" is marked, continue to #3. If "No" is marked, then abatement is determined NOT to be reasonable.*

---

**#3: Viewpoints of the property owners and residents of the benefitted receivers**

Number of Benefited Receivers (same as above)

Number of Benefited Receivers in **support** of noise abatement measure       Percentage of Benefited Receivers in **support** of noise abatement measure

Number of Benefited Receivers **opposed** to noise abatement measure       Percentage of Benefited Receivers **opposed** to noise abatement measure

Number of Benefited Receivers **that did not respond** to solicitation on noise abatement measure       Percentage of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Based on the viewpoints of the property owners and residents of the Benefited Receivers, would the abatement measure be reasonable? NOTE: SCDOT Policy indicates that the noise abatement shall be constructed unless greater than 50% of the benefited receptors are opposed to noise abatement.  Yes     No

---

Barrier wall is 4,742 feet in width by 25 feet in height.

Based on the above results from the preliminary analysis, this abatement feature is feasible and reasonable.

Barrier subject to change based on the detailed noise analysis.

# Noise Technical Report

## SCDOT Feasibility and Reasonableness Worksheet

Date: Jul 3, 2018

Project Name

Highway Traffic Noise Abatement Measure

### Feasibility

Number of Impacted Receivers  Number of Benefited Receivers

Percentage of Impacted Receivers that would achieve a 5 dBA reduction from the proposed noise abatement measure

Is the proposed noise abatement measure acoustically feasible?  Yes  No  
 NOTE:SCDOT Policy indicates that 75% of the impacted receivers must achieve at least a 5 dBA reduction for it to be acoustically feasible.

Would any of the following issues limit the ability of the abatement measure to achieve the noise reduction goal?

- |                        |                              |  |
|------------------------|------------------------------|--|
| Topography             | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Safety                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Drainage               | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Utilities              | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Maintenance            | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Access                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Exposed Height of Wall | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

If "Yes" was marked for any of the questions above, please explain below.

Detailed Description

### Reasonableness

According to 23 CFR 772.13(d)(2)(iv) the abatement measure must collectively achieve each of these criteria to be reasonable. Therefore if any of the three mandatory reasonable factors are not achieved, then the abatement measure is determined NOT to be reasonable. When completing the form it is not necessary to detail each of the criteria if one was determined not to be reasonable.

# Noise Technical Report

**#1: Noise Reduction Design Goal**

Number of Benefited Receivers       Number of Benefited Receivers that achieve at least an 8 dBA reduction

Percentage of Benefited Receivers in the first two building rows that would achieve at least a 8 dBA reduction from the proposed noise abatement measure. NOTE: SCDOT Policy indicates that 80% of the benefited receivers in the first two building rows must achieve at least a 8 dBA reduction for it to be reasonable.

Does the proposed noise abatement measure meet the noise reduction design goal?    Yes    No

*If "Yes" is marked, continue to #2. If "No" is marked, then abatement is determined NOT to be reasonable.*

---

**#2: Cost Effectiveness**

Estimated cost per square foot for noise abatement measure       Estimated construction cost for noise abatement measure

Estimated cost per Benefited Receiver

Based on the SCDOT policy of \$30,000 per Benefited Receiver, would the abatement measure be reasonable?    Yes    No  
NOTE: SCDOT Policy states that the preliminary noise analysis is based on \$35.00 per square foot and a more project-specific construction cost should be applied at a cost per square foot basis during the detailed noise abatement evaluation.

*If "Yes" is marked, continue to #3. If "No" is marked, then abatement is determined NOT to be reasonable.*

---

**#3: Viewpoints of the property owners and residents of the benefitted receivers**

Number of Benefited Receivers (same as above)

Number of Benefited Receivers in **support** of noise abatement measure       Percentage of Benefited Receivers in **support** of noise abatement measure

Number of Benefited Receivers **opposed** to noise abatement measure       Percentage of Benefited Receivers **opposed** to noise abatement measure

Number of Benefited Receivers **that did not respond** to solicitation on noise abatement measure       Percentage of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Based on the viewpoints of the property owners and residents of the Benefited Receivers, would the abatement measure be reasonable? NOTE: SCDOT Policy indicates that the noise abatement shall be constructed unless greater than 50% of the benefited receptors are opposed to noise abatement.    Yes    No

Barrier wall is 2,054 feet in width by 25 feet in height.

Based on the above results from the preliminary analysis, this abatement feature is not feasible.

# Noise Technical Report

## SCDOT Feasibility and Reasonableness Worksheet

Date: Jul 3, 2018

Project Name

Highway Traffic Noise Abatement Measure

### Feasibility

Number of Impacted Receivers  Number of Benefited Receivers

Percentage of Impacted Receivers that would achieve a 5 dBA reduction from the proposed noise abatement measure

Is the proposed noise abatement measure acoustically feasible?  
 NOTE:SCDOT Policy indicates that 75% of the impacted receivers must achieve at least a 5 dBA reduction for it to be acoustically feasible.  Yes  No

Would any of the following issues limit the ability of the abatement measure to achieve the noise reduction goal?

- |                        |                              |  |
|------------------------|------------------------------|--|
| Topography             | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Safety                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Drainage               | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Utilities              | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Maintenance            | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Access                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Exposed Height of Wall | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

If "Yes" was marked for any of the questions above, please explain below.

Detailed Description

### Reasonableness

According to 23 CFR 772.13(d)(2)(iv) the abatement measure must collectively achieve each of these criteria to be reasonable. Therefore if any of the three mandatory reasonable factors are not achieved, then the abatement measure is determined NOT to be reasonable. When completing the form it is not necessary to detail each of the criteria if one was determined not to be reasonable.

# Noise Technical Report

**#1: Noise Reduction Design Goal**

Number of Benefited Receivers       Number of Benefited Receivers that achieve at least an 8 dBA reduction

Percentage of Benefited Receivers in the first two building rows that would achieve at least a 8 dBA reduction from the proposed noise abatement measure. NOTE: SCDOT Policy indicates that 80% of the benefited receivers in the first two building rows must achieve at least a 8 dBA reduction for it to be reasonable.

Does the proposed noise abatement measure meet the noise reduction design goal?  Yes     No

*If "Yes" is marked, continue to #2. If "No" is marked, then abatement is determined NOT to be reasonable.*

---

**#2: Cost Effectiveness**

Estimated cost per square foot for noise abatement measure       Estimated construction cost for noise abatement measure

Estimated cost per Benefited Receiver

Based on the SCDOT policy of \$30,000 per Benefited Receiver, would the abatement measure be reasonable?  Yes     No  
NOTE: SCDOT Policy states that the preliminary noise analysis is based on \$35.00 per square foot and a more project-specific construction cost should be applied at a cost per square foot basis during the detailed noise abatement evaluation.

*If "Yes" is marked, continue to #3. If "No" is marked, then abatement is determined NOT to be reasonable.*

---

**#3: Viewpoints of the property owners and residents of the benefitted receivers**

Number of Benefited Receivers (same as above)

Number of Benefited Receivers in **support** of noise abatement measure       Percentage of Benefited Receivers in **support** of noise abatement measure

Number of Benefited Receivers **opposed** to noise abatement measure       Percentage of Benefited Receivers **opposed** to noise abatement measure

Number of Benefited Receivers **that did not respond** to solicitation on noise abatement measure       Percentage of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Based on the viewpoints of the property owners and residents of the Benefited Receivers, would the abatement measure be reasonable? NOTE: SCDOT Policy indicates that the noise abatement shall be constructed unless greater than 50% of the benefited receptors are opposed to noise abatement.  Yes     No

---

Barrier wall is 5,327 feet in width by 20 feet in height.

Based on the above results from the preliminary analysis, this abatement feature is feasible and reasonable.

Barrier subject to change based on the detailed noise analysis.

# Noise Technical Report

## SCDOT Feasibility and Reasonableness Worksheet

Date: Jul 3, 2018

Project Name

Highway Traffic Noise Abatement Measure

### Feasibility

Number of Impacted Receivers

Number of Benefited Receivers

Percentage of Impacted Receivers that would achieve a 5 dBA reduction from the proposed noise abatement measure

Is the proposed noise abatement measure acoustically feasible?  
 NOTE:SCDOT Policy indicates that 75% of the impacted receivers must achieve at least a 5 dBA reduction for it to be acoustically feasible.  Yes  No

Would any of the following issues limit the ability of the abatement measure to achieve the noise reduction goal?

- |                        |                              |  |
|------------------------|------------------------------|--|
| Topography             | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Safety                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Drainage               | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Utilities              | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Maintenance            | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Access                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Exposed Height of Wall | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

If "Yes" was marked for any of the questions above, please explain below.

Detailed Description

### Reasonableness

According to 23 CFR 772.13(d)(2)(iv) the abatement measure must collectively achieve each of these criteria to be reasonable. Therefore if any of the three mandatory reasonable factors are not achieved, then the abatement measure is determined NOT to be reasonable. When completing the form it is not necessary to detail each of the criteria if one was determined not to be reasonable.

# Noise Technical Report

**#1: Noise Reduction Design Goal**

Number of Benefited Receivers       Number of Benefited Receivers that achieve at least an 8 dBA reduction

Percentage of Benefited Receivers in the first two building rows that would achieve at least a 8 dBA reduction from the proposed noise abatement measure. NOTE: SCDOT Policy indicates that 80% of the benefited receivers in the first two building rows must achieve at least a 8 dBA reduction for it to be reasonable.

Does the proposed noise abatement measure meet the noise reduction design goal?  Yes     No

*If "Yes" is marked, continue to #2. If "No" is marked, then abatement is determined NOT to be reasonable.*

---

**#2: Cost Effectiveness**

Estimated cost per square foot for noise abatement measure       Estimated construction cost for noise abatement measure

Estimated cost per Benefited Receiver

Based on the SCDOT policy of \$30,000 per Benefited Receiver, would the abatement measure be reasonable?  Yes     No

NOTE: SCDOT Policy states that the preliminary noise analysis is based on \$35.00 per square foot and a more project-specific construction cost should be applied at a cost per square foot basis during the detailed noise abatement evaluation.

*If "Yes" is marked, continue to #3. If "No" is marked, then abatement is determined NOT to be reasonable.*

---

**#3: Viewpoints of the property owners and residents of the benefitted receivers**

Number of Benefited Receivers (same as above)

Number of Benefited Receivers in **support** of noise abatement measure       Percentage of Benefited Receivers in **support** of noise abatement measure

Number of Benefited Receivers **opposed** to noise abatement measure       Percentage of Benefited Receivers **opposed** to noise abatement measure

Number of Benefited Receivers **that did not respond** to solicitation on noise abatement measure       Percentage of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Based on the viewpoints of the property owners and residents of the Benefited Receivers, would the abatement measure be reasonable? NOTE: SCDOT Policy indicates that the noise abatement shall be constructed unless greater than 50% of the benefited receptors are opposed to noise abatement.  Yes     No

---

Barrier wall is 4,569 feet in width by 25 feet in height.

Based on the above results from the preliminary analysis, this abatement feature is feasible but not reasonable.



# Noise Technical Report

## SCDOT Feasibility and Reasonableness Worksheet

Date: Jul 3, 2018

Project Name

Highway Traffic Noise Abatement Measure

### Feasibility

Number of Impacted Receivers

Number of Benefited Receivers

Percentage of Impacted Receivers that would achieve a 5 dBA reduction from the proposed noise abatement measure

Is the proposed noise abatement measure acoustically feasible?  Yes  No  
 NOTE:SCDOT Policy indicates that 75% of the impacted receivers must achieve at least a 5 dBA reduction for it to be acoustically feasible.

Would any of the following issues limit the ability of the abatement measure to achieve the noise reduction goal?

- |                        |                              |  |
|------------------------|------------------------------|--|
| Topography             | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Safety                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Drainage               | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Utilities              | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Maintenance            | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Access                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Exposed Height of Wall | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

If "Yes" was marked for any of the questions above, please explain below.

Detailed Description

### Reasonableness

According to 23 CFR 772.13(d)(2)(iv) the abatement measure must collectively achieve each of these criteria to be reasonable. Therefore if any of the three mandatory reasonable factors are not achieved, then the abatement measure is determined NOT to be reasonable. When completing the form it is not necessary to detail each of the criteria if one was determined not to be reasonable.

# Noise Technical Report

**#1: Noise Reduction Design Goal**

Number of Benefited Receivers       Number of Benefited Receivers that achieve at least an 8 dBA reduction

Percentage of Benefited Receivers in the first two building rows that would achieve at least a 8 dBA reduction from the proposed noise abatement measure. NOTE: SCDOT Policy indicates that 80% of the benefited receivers in the first two building rows must achieve at least a 8 dBA reduction for it to be reasonable.

Does the proposed noise abatement measure meet the noise reduction design goal?    Yes    No

*If "Yes" is marked, continue to #2. If "No" is marked, then abatement is determined NOT to be reasonable.*

---

**#2: Cost Effectiveness**

Estimated cost per square foot for noise abatement measure       Estimated construction cost for noise abatement measure

Estimated cost per Benefited Receiver

Based on the SCDOT policy of \$30,000 per Benefited Receiver, would the abatement measure be reasonable?    Yes    No  
NOTE: SCDOT Policy states that the preliminary noise analysis is based on \$35.00 per square foot and a more project-specific construction cost should be applied at a cost per square foot basis during the detailed noise abatement evaluation.

*If "Yes" is marked, continue to #3. If "No" is marked, then abatement is determined NOT to be reasonable.*

---

**#3: Viewpoints of the property owners and residents of the benefitted receivers**

Number of Benefited Receivers (same as above)

Number of Benefited Receivers in **support** of noise abatement measure       Percentage of Benefited Receivers in **support** of noise abatement measure

Number of Benefited Receivers **opposed** to noise abatement measure       Percentage of Benefited Receivers **opposed** to noise abatement measure

Number of Benefited Receivers **that did not respond** to solicitation on noise abatement measure       Percentage of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Based on the viewpoints of the property owners and residents of the Benefited Receivers, would the abatement measure be reasonable? NOTE: SCDOT Policy indicates that the noise abatement shall be constructed unless greater than 50% of the benefited receptors are opposed to noise abatement.    Yes    No

Barrier wall is 2,833 feet in width by 25 feet in height.

Based on the above results from the preliminary analysis, this abatement feature is not feasible.

# Noise Technical Report

## SCDOT Feasibility and Reasonableness Worksheet

Date: Jul 3, 2018

Project Name

Highway Traffic Noise Abatement Measure

### Feasibility

Number of Impacted Receivers

Number of Benefited Receivers

Percentage of Impacted Receivers that would achieve a 5 dBA reduction from the proposed noise abatement measure

Is the proposed noise abatement measure acoustically feasible?  
 NOTE:SCDOT Policy indicates that 75% of the impacted receivers must achieve at least a 5 dBA reduction for it to be acoustically feasible.  Yes  No

Would any of the following issues limit the ability of the abatement measure to achieve the noise reduction goal?

- |                        |                              |  |
|------------------------|------------------------------|--|
| Topography             | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Safety                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Drainage               | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Utilities              | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Maintenance            | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Access                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Exposed Height of Wall | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

If "Yes" was marked for any of the questions above, please explain below.

Detailed Description

### Reasonableness

According to 23 CFR 772.13(d)(2)(iv) the abatement measure must collectively achieve each of these criteria to be reasonable. Therefore if any of the three mandatory reasonable factors are not achieved, then the abatement measure is determined NOT to be reasonable. When completing the form it is not necessary to detail each of the criteria if one was determined not to be reasonable.

# Noise Technical Report

**#1: Noise Reduction Design Goal**

Number of Benefited Receivers       Number of Benefited Receivers that achieve at least an 8 dBA reduction

Percentage of Benefited Receivers in the first two building rows that would achieve at least a 8 dBA reduction from the proposed noise abatement measure. NOTE: SCDOT Policy indicates that 80% of the benefited receivers in the first two building rows must achieve at least a 8 dBA reduction for it to be reasonable.

Does the proposed noise abatement measure meet the noise reduction design goal?    Yes    No

*If "Yes" is marked, continue to #2. If "No" is marked, then abatement is determined NOT to be reasonable.*

---

**#2: Cost Effectiveness**

Estimated cost per square foot for noise abatement measure       Estimated construction cost for noise abatement measure

Estimated cost per Benefited Receiver

Based on the SCDOT policy of \$30,000 per Benefited Receiver, would the abatement measure be reasonable?    Yes    No  
NOTE: SCDOT Policy states that the preliminary noise analysis is based on \$35.00 per square foot and a more project-specific construction cost should be applied at a cost per square foot basis during the detailed noise abatement evaluation.

*If "Yes" is marked, continue to #3. If "No" is marked, then abatement is determined NOT to be reasonable.*

---

**#3: Viewpoints of the property owners and residents of the benefitted receivers**

Number of Benefited Receivers (same as above)

Number of Benefited Receivers in **support** of noise abatement measure       Percentage of Benefited Receivers in **support** of noise abatement measure

Number of Benefited Receivers **opposed** to noise abatement measure       Percentage of Benefited Receivers **opposed** to noise abatement measure

Number of Benefited Receivers **that did not respond** to solicitation on noise abatement measure       Percentage of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Based on the viewpoints of the property owners and residents of the Benefited Receivers, would the abatement measure be reasonable? NOTE: SCDOT Policy indicates that the noise abatement shall be constructed unless greater than 50% of the benefited receptors are opposed to noise abatement.    Yes    No

Barrier wall is 2,916 feet in width by 25 feet in height.

Based on the above results from the preliminary analysis, this abatement feature is feasible but not reasonable.

# Noise Technical Report

## SCDOT Feasibility and Reasonableness Worksheet

Date: Jul 3, 2018

Project Name

Highway Traffic Noise Abatement Measure

### Feasibility

Number of Impacted Receivers

Number of Benefited Receivers

Percentage of Impacted Receivers that would achieve a 5 dBA reduction from the proposed noise abatement measure

Is the proposed noise abatement measure acoustically feasible?  
 NOTE:SCDOT Policy indicates that 75% of the impacted receivers must achieve at least a 5 dBA reduction for it to be acoustically feasible.  Yes  No

Would any of the following issues limit the ability of the abatement measure to achieve the noise reduction goal?

- |                        |                              |  |
|------------------------|------------------------------|--|
| Topography             | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Safety                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Drainage               | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Utilities              | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Maintenance            | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Access                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Exposed Height of Wall | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

If "Yes" was marked for any of the questions above, please explain below.

Detailed Description

### Reasonableness

According to 23 CFR 772.13(d)(2)(iv) the abatement measure must collectively achieve each of these criteria to be reasonable. Therefore if any of the three mandatory reasonable factors are not achieved, then the abatement measure is determined NOT to be reasonable. When completing the form it is not necessary to detail each of the criteria if one was determined not to be reasonable.

# Noise Technical Report

**#1: Noise Reduction Design Goal**

Number of Benefited Receivers       Number of Benefited Receivers that achieve at least an 8 dBA reduction

Percentage of Benefited Receivers in the first two building rows that would achieve at least a 8 dBA reduction from the proposed noise abatement measure. NOTE: SCDOT Policy indicates that 80% of the benefited receivers in the first two building rows must achieve at least a 8 dBA reduction for it to be reasonable.

Does the proposed noise abatement measure meet the noise reduction design goal?  Yes     No

*If "Yes" is marked, continue to #2. If "No" is marked, then abatement is determined NOT to be reasonable.*

---

**#2: Cost Effectiveness**

Estimated cost per square foot for noise abatement measure       Estimated construction cost for noise abatement measure

Estimated cost per Benefited Receiver

Based on the SCDOT policy of \$30,000 per Benefited Receiver, would the abatement measure be reasonable?  Yes  No  
NOTE: SCDOT Policy states that the preliminary noise analysis is based on \$35.00 per square foot and a more project-specific construction cost should be applied at a cost per square foot basis during the detailed noise abatement evaluation.

*If "Yes" is marked, continue to #3. If "No" is marked, then abatement is determined NOT to be reasonable.*

---

**#3: Viewpoints of the property owners and residents of the benefitted receivers**

Number of Benefited Receivers (same as above)

Number of Benefited Receivers in **support** of noise abatement measure       Percentage of Benefited Receivers in **support** of noise abatement measure

Number of Benefited Receivers **opposed** to noise abatement measure       Percentage of Benefited Receivers **opposed** to noise abatement measure

Number of Benefited Receivers **that did not respond** to solicitation on noise abatement measure       Percentage of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Based on the viewpoints of the property owners and residents of the Benefited Receivers, would the abatement measure be reasonable? NOTE: SCDOT Policy indicates that the noise abatement shall be constructed unless greater than 50% of the benefited receptors are opposed to noise abatement.  Yes     No

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Barrier wall is 6,851 feet in width and by 20 feet in height.

Based on the above results from the preliminary analysis, this abatement feature is feasible but not reasonable.

# Noise Technical Report

## SCDOT Feasibility and Reasonableness Worksheet

Date: Jul 3, 2018

Project Name

Highway Traffic Noise Abatement Measure

### Feasibility

Number of Impacted Receivers

Number of Benefited Receivers

Percentage of Impacted Receivers that would achieve a 5 dBA reduction from the proposed noise abatement measure

Is the proposed noise abatement measure acoustically feasible?  
 NOTE:SCDOT Policy indicates that 75% of the impacted receivers must achieve at least a 5 dBA reduction for it to be acoustically feasible.  Yes  No

Would any of the following issues limit the ability of the abatement measure to achieve the noise reduction goal?

- |                        |                              |  |
|------------------------|------------------------------|--|
| Topography             | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Safety                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Drainage               | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Utilities              | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Maintenance            | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Access                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Exposed Height of Wall | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

If "Yes" was marked for any of the questions above, please explain below.

Detailed Description

### Reasonableness

According to 23 CFR 772.13(d)(2)(iv) the abatement measure must collectively achieve each of these criteria to be reasonable. Therefore if any of the three mandatory reasonable factors are not achieved, then the abatement measure is determined NOT to be reasonable. When completing the form it is not necessary to detail each of the criteria if one was determined not to be reasonable.

# Noise Technical Report

**#1: Noise Reduction Design Goal**

Number of Benefited Receivers       Number of Benefited Receivers that achieve at least an 8 dBA reduction

Percentage of Benefited Receivers in the first two building rows that would achieve at least a 8 dBA reduction from the proposed noise abatement measure. NOTE: SCDOT Policy indicates that 80% of the benefited receivers in the first two building rows must achieve at least a 8 dBA reduction for it to be reasonable.

Does the proposed noise abatement measure meet the noise reduction design goal?  Yes  No

*If "Yes" is marked, continue to #2. If "No" is marked, then abatement is determined NOT to be reasonable.*

---

**#2: Cost Effectiveness**

Estimated cost per square foot for noise abatement measure

Estimated construction cost for noise abatement measure

Estimated cost per Benefited Receiver

Based on the SCDOT policy of \$30,000 per Benefited Receiver, would the abatement measure be reasonable?  Yes  No  
 NOTE: SCDOT Policy states that the preliminary noise analysis is based on \$35.00 per square foot and a more project-specific construction cost should be applied at a cost per square foot basis during the detailed noise abatement evaluation.

*If "Yes" is marked, continue to #3. If "No" is marked, then abatement is determined NOT to be reasonable.*

---

**#3: Viewpoints of the property owners and residents of the benefitted receivers**

Number of Benefited Receivers (same as above)

Number of Benefited Receivers in **support** of noise abatement measure

Number of Benefited Receivers **opposed** to noise abatement measure

Number of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Percentage of Benefited Receivers in **support** of noise abatement measure

Percentage of Benefited Receivers **opposed** to noise abatement measure

Percentage of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Based on the viewpoints of the property owners and residents of the Benefited Receivers, would the abatement measure be reasonable? NOTE: SCDOT Policy indicates that the noise abatement shall be constructed unless greater than 50% of the benefited receptors are opposed to noise abatement.  Yes  No

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Barrier wall is 3,508 feet in width by 25 feet in height.

Based on the above results from the preliminary analysis, this abatement feature is feasible but not reasonable.



# Noise Technical Report

## SCDOT Feasibility and Reasonableness Worksheet

Date: Jul 3, 2018

Project Name

Highway Traffic Noise Abatement Measure

### Feasibility

Number of Impacted Receivers  Number of Benefited Receivers

Percentage of Impacted Receivers that would achieve a 5 dBA reduction from the proposed noise abatement measure

Is the proposed noise abatement measure acoustically feasible?  
 NOTE:SCDOT Policy indicates that 75% of the impacted receivers must achieve at least a 5 dBA reduction for it to be acoustically feasible.  Yes  No

Would any of the following issues limit the ability of the abatement measure to achieve the noise reduction goal?

- |                        |                              |  |
|------------------------|------------------------------|--|
| Topography             | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Safety                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Drainage               | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Utilities              | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Maintenance            | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Access                 | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Exposed Height of Wall | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

If "Yes" was marked for any of the questions above, please explain below.

Detailed Description

### Reasonableness

According to 23 CFR 772.13(d)(2)(iv) the abatement measure must collectively achieve each of these criteria to be reasonable. Therefore if any of the three mandatory reasonable factors are not achieved, then the abatement measure is determined NOT to be reasonable. When completing the form it is not necessary to detail each of the criteria if one was determined not to be reasonable.

# Noise Technical Report

**#1: Noise Reduction Design Goal**

Number of Benefited Receivers       Number of Benefited Receivers that achieve at least an 8 dBA reduction

Percentage of Benefited Receivers in the first two building rows that would achieve at least a 8 dBA reduction from the proposed noise abatement measure. NOTE: SCDOT Policy indicates that 80% of the benefited receivers in the first two building rows must achieve at least a 8 dBA reduction for it to be reasonable.

Does the proposed noise abatement measure meet the noise reduction design goal?  Yes     No

*If "Yes" is marked, continue to #2. If "No" is marked, then abatement is determined NOT to be reasonable.*

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**#2: Cost Effectiveness**

Estimated cost per square foot for noise abatement measure       Estimated construction cost for noise abatement measure

Estimated cost per Benefited Receiver

Based on the SCDOT policy of \$30,000 per Benefited Receiver, would the abatement measure be reasonable? NOTE: SCDOT Policy states that the preliminary noise analysis is based on \$35.00 per square foot and a more project-specific construction cost should be applied at a cost per square foot basis during the detailed noise abatement evaluation.  Yes     No

*If "Yes" is marked, continue to #3. If "No" is marked, then abatement is determined NOT to be reasonable.*

---

**#3: Viewpoints of the property owners and residents of the benefited receivers**

Number of Benefited Receivers (same as above) <input type="text"/>	
Number of Benefited Receivers in <b>support</b> of noise abatement measure <input type="text"/>	Percentage of Benefited Receivers in <b>support</b> of noise abatement measure <input type="text"/>
Number of Benefited Receivers <b>opposed</b> to noise abatement measure <input type="text"/>	Percentage of Benefited Receivers <b>opposed</b> to noise abatement measure <input type="text"/>
Number of Benefited Receivers <b>that did not respond</b> to solicitation on noise abatement measure <input type="text"/>	Percentage of Benefited Receivers <b>that did not respond</b> to solicitation on noise abatement measure <input type="text"/>

Based on the viewpoints of the property owners and residents of the Benefited Receivers, would the abatement measure be reasonable? NOTE: SCDOT Policy indicates that the noise abatement shall be constructed unless greater than 50% of the benefited receptors are opposed to noise abatement.  Yes     No

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Barrier wall is 3,535 feet in width by 20 feet in height.

Based on the above results from the preliminary analysis, this abatement feature is feasible and reasonable.

Barrier subject to change based on the detailed noise analysis.