Authority
Title 23 Code of Federal Regulations Section 772
Ohio Revised Code (ORC) Section 5517.05
The latest revision of the Federal Highway Administration Highway Traffic Noise Analysis and Abatement Guidance
The Ohio Department of Transportation Policy 21-001 (P) Analysis and Abatement of Highway Traffic Noise (October 22, 2001)

References

Scope
All Districts, the Division of Production Management, Division of Contract Administration and the Division of Highway Operations.

Training
The Manual should be incorporated in all Environmental training modules by the Office of Environmental Services.

Fiscal Impact
The Office of Environmental Services is presently the program manager for the retrofit (Type II) noise barrier program which is state funded. This fiscally balanced program is in effect through FY 2015 and will be reevaluated at that time. Type I noise barriers are funded through the project construction program using State and/or Federal funds.
Appendix A - Flowchart for When a Noise Analysis is Needed
Flowchart for When a Noise Analysis is Needed

START

Are there noise sensitive areas within ~500' from the project area?

NO

YES

Project involves the construction of a highway on new location?

NO

YES

Project involves alteration of an existing highway which significantly changes either the horizontal (i.e. 50% closer to receptor) or vertical alignment?

NO

YES

Project increases the number of through-traffic lanes?

NO

YES

Prepare Noise Analysis

NO

YES

Project negatively affects the shielding of an existing roadway?

NO

YES

Project cause a major change in vehicle mix?

NO

YES

Project adds or substantially alters a weigh station, rest stop, rideshare lot, or toll plaza?

NO

YES

Project restripes existing pavement for an added thru lane or auxiliary lane?

NO

YES

Project adds an auxiliary lane?

NO

END
Appendix B - Noise Analysis Process Flowchart


**NO**

- Are NSAs within approx 500' of the project area?
  - **NO**
  - Prepare Preliminary Noise Analysis on the feasible alts or preferred alt
  - Are noise impacts predicted in the design year?
    - **NO**
    - END
  - Are noise impacts predicted from construction of the project?
    - **YES**
    - Evaluate noise abatement alternatives
    - Estimate cost of recommended noise abatement alternative
    - YES
    - Field review as needed
    - Is noise abatement acoustically feasible, conceptually feasible to construct, cost reasonable, and acoustically reasonable?
      - **YES**
      - Conduct Noise Public Involvement
      - Do 50% of the benefited receivers desire the noise barrier?
        - **YES**
        - Prepare Final Noise Analysis or Noise Barrier Design Table
        - **NO**
        - END
  - **NO**
  - Prepare Preliminary Noise Analysis on the feasible alts or preferred alt
  - Are noise impacts predicted in the design year?
    - **YES**
    - Evaluate noise abatement alternatives
    - Estimate cost of recommended noise abatement alternative
    - **YES**
    - Field review as needed
    - Is noise abatement acoustically feasible, conceptually feasible to construct, cost reasonable, and acoustically reasonable?
      - **YES**
      - Conduct Noise Public Involvement
      - Do 50% of the benefited receivers desire the noise barrier?
        - **YES**
        - Prepare Final Noise Analysis or Noise Barrier Design Table
        - **NO**
        - END
  - **NO**
  - Submit Stage 3 noise wall plans to OES and District for review, field review as needed
  - Is the proposed project either a Type 1 or Type II project?
    - **YES**
    - Submit Stage 3 noise wall plans to OES and District for review, field review as needed
    - **NO**
    - Submit Stage 2 noise wall plans to OES and District for review, field review as needed
    - **NO**
    - Submit Stage 1 noise wall plans to OES and District for review, field review as needed
    - Is vegetative screening desired by the benefitted receivers? If so, design and construct
  - END

**YES**

- Are noise impacts predicted from construction of the project?
  - **YES**
  - Evaluate noise abatement alternatives
  - Estimate cost of recommended noise abatement alternative
  - **YES**
  - Field review as needed
  - Is noise abatement acoustically feasible, conceptually feasible to construct, cost reasonable, and acoustically reasonable?
    - **YES**
    - Conduct Noise Public Involvement
    - Do 50% of the benefited receivers desire the noise barrier?
      - **YES**
      - Prepare Final Noise Analysis or Noise Barrier Design Table
      - **NO**
      - END
  - **NO**
  - Submit Stage 3 noise wall plans to OES and District for review, field review as needed
  - Is the proposed project either a Type 1 or Type II project?
    - **YES**
    - Submit Stage 3 noise wall plans to OES and District for review, field review as needed
    - **NO**
    - Submit Stage 2 noise wall plans to OES and District for review, field review as needed
    - **NO**
    - Submit Stage 1 noise wall plans to OES and District for review, field review as needed
    - Is vegetative screening desired by the benefitted receivers? If so, design and construct
  - END

**END**
Appendix C - Noise Analysis Process
Flowchart for FHWA Categories C, D, and E
Noise Analysis Process Flow Chart for FHWA Categories C, D, and E Land Uses

START

Category C, D, or E land use

Is there a frequent human exterior use?

YES

Prepare exterior analysis

NO

Land use considered Category D?

YES

Prepare interior analysis

NO

Evaluate noise abatement alternatives

Noise level approaches or exceeds the FHWA NAC of 52 dBA?

YES

Prepare noise insulation inspection checklist

NO

Is a noise barrier feasible and reasonable?

YES

Prepare Final Noise Analysis

NO

Determine/compute equivalent number of receptors

Does the land use desire the noise barrier?

YES

Design and construct noise barrier

NO

Does the land use desire a vegetative screening?

YES

Design and construct vegetative screening

NO

Does the land use desire a vegetative screening?

END

YES

Prepare agreement to furnish insulation and include cost

NO

Is insulation as noise abatement feasible?

NO

Design and construct vegetative screening

YES

Determine the allowable cost for insulation and equivalent number of receptors

END

Does the land use desire the noise barrier?

NO

Noise level approaches or exceeds the FHWA NAC of 67 dBA?

YES

Prepare Final Noise Analysis

NO

Determine/compute equivalent number of receptors

YES

Design and construct noise barrier

NO

Does the land use desire a vegetative screening?

END

YES

Design and construct vegetative screening

NO

Prepare agreement to furnish insulation and include cost

NO

Is insulation as noise abatement feasible?
Agreement between the
State of Ohio, Ohio Department of Transportation
and
___________________, Franklin County, Ohio

to Furnish Acoustic Insulation

Whereas, This agreement is entered into pursuant to 23 CFR 772.13.

Whereas, 23 CFR 772.13 was promulgated pursuant to 23 USC 109. 23 USC 302 authorizes the Ohio Department of Transportation to administer the standards found at 23 USC 109(h) and its implementing regulations on behalf of the United States Department of Transportation.

Whereas, the State of Ohio, Ohio Department of Transportation (hereinafter referred to as “ODOT”) has determined that traffic noise impacts are predicted to occur at the __________ due to the County/Route/Section; PID_____; project to __________________________, and

Whereas, the ____________ is a FHWA Activity Category D and is eligible for acoustic insulation instead of noise mitigation by noise barrier as specified in 23 Code of Federal Regulations Part 772.13(c)(6), and

Whereas, in general, the window and door openings are the weakest components in a structure’s external façade allowing noise to infiltrate the building, and

Whereas, in 1999, the National Cooperative of Highway Research Programs (NCHRP) published NCHRP Synthesis 218, Mitigation of Nighttime Construction Noise, Vibrations, and other Nuisances, and the NCHRP study concluded that a treated window system capable of meeting a Sound Transmission Class (STC) of 39 or greater could provide an incremental 10 decibel sound reduction in a building, and

Whereas, a noise barrier constructed within the existing County/Route highway right-of-way would reduce exterior traffic noise levels at the ____________, but a noise barrier has been found not feasible and not reasonable, and

Whereas, any (description of work completed) would only reduce interior traffic noise levels and the exterior traffic noise levels would be unchanged, and

Whereas, the acoustic insulation noise abatement measure will negate any future exterior traffic noise abatement by ODOT at the ________________ as a result of the County/Route/Section; PID_____; project, now

Therefore, the ODOT and the ________________ agree as follows:
1. ODOT agrees to fund the (description of work completed) at the ______________ to fulfill the highway traffic noise mitigation requirements for the project, in part, as stated in the approved environmental document in accordance with the following stipulations:

2. ODOT shall only expend funds for (description of work completed) along the sides of the ______________ building that are affected by ______________ traffic noise as identified on Attachment 1 to this Agreement.

3. ODOT shall expend up to a maximum of $________, for (description of work completed) performed at the ______________ building as depicted on Attachment 1.

4. The ______________ and their contractor are responsible for obtaining any required building permits, licenses and meeting any other requirements to perform the work covered under this agreement, including testing, sealing or removal and disposal of asbestos-containing materials or other hazardous or toxic substances.

5. For properties on or eligible for inclusion on the National Register of Historic Places, the ______________ shall abide by all applicable requirements of any Memorandum of Agreement with the State Historic Preservation Officer, Advisory Council on Historic Preservation and other signatories, pursuant to the National Historic Preservation Act.

6. The door replacement system shall meet a Sound Transmission Class (STC) of 39 or greater. Acoustical drape shall meet a STC of 26 or greater.

7. The (description of work completed) shall be performed by the ______________ or under a contract with the ______________.

8. The ______________ shall select the company/contractor to supply and install the (description of work completed), and other improvements under the same contract, if desired, and thereby hold all warrantees and guarantees for the work, (description of work completed) and associated materials.

9. The ______________ shall submit invoice(s) for reimbursement of the (description of work completed) at the ______________ building, as stipulated in this Agreement, to ODOT on a periodic basis during this contractual work, as determined appropriate by the ______________, however not to exceed six (6) invoices.

10. ODOT shall reimburse ______________ for the door replacement/acoustical drape installation invoice(s) received for the ______________ building as stipulated in this Agreement.

11. A receipt for the door replacements/acoustical drape installation shall be submitted by the ______________ to ODOT as documentation for completion of the reimbursement transaction.

12. Within 15 working days upon receipt of the final window/door replacement invoice from the ______________, ODOT shall inspect the ______________ building to
ensured that the acoustic insulation along the eligible sides of the ______________ building is complete prior to reimbursement of the final (description of work completed) invoice to the ______________________ as stipulated in this Agreement.

13. No remedy herein conferred upon or reserved by ODOT is intended to be exclusive of any other available remedy, but each and every such remedy shall be cumulative and shall be in addition to every other remedy given under this Agreement or now or hereafter existing at law or in equity. No delay or omission to exercise any right or option accruing to ODOT upon any default by the __________________ shall impair any such right or option or shall be construed to be a waiver thereof, but any such right or option may be exercised from time to time and as often as may be deemed expedient by ODOT.

14. __________________ has three months after the completion of the project to submit a final invoice to ODOT. No invoices shall be accepted or paid by ODOT after the 3 month date.

15. In the event of any refund from the company/contractor for the window/door replacements, __________________shall, in turn, refund to ODOT the money that has been paid by ODOT.

16. It is expressly understood by the parties that none of the rights, duties, and obligations described in this Agreement shall be binding on either party on and after __________, 20__, until all statutory provisions under the Ohio Revised Code, including but not limited to Section 126.07, have been complied with and until such time as all necessary funds are made available and forthcoming from the General Assembly or, in the event that federal funds are used, until such time that ODOT gives the ______________ written notice that such funds have been made available to ODOT, by ODOT's funding source.

17. ______________, with the intention of binding itself and its successors in interest and assigns, does hereby release, hold harmless from any liability, and forever discharge ODOT, and their agents, servants, employees, and officers, personally and in any other capacity, from all claims, actions, causes of actions, demands costs, loss of services, expenses and any and all other damages which the undersigned ever had, now has, may have, or claim to have, against ODOT, or their agents, servants, employees, or officers, on account of or in any way arising out of the installation of the acoustic insulation and other matters related to the noise from ____________ impacting __________________.

18. In the event a dispute arises regarding any payment terms and conditions contained in this Agreement, notification of such dispute shall be sent to the contact for the Ohio Department of Transportation and the contact for the ________________, in writing, within thirty (30) days of discovery of such dispute. In such notification, the disputing party shall present such evidence as may support its position. Within a reasonable time, the Director of Transportation and a designated representative of the ______________ shall review the facts and circumstances surrounding the dispute for the purpose of determination. Said dispute shall be resolved within a reasonable period of time.
19. This Agreement constitutes the entire and integrated agreement between the parties. Any change to the provisions of this Agreement shall be made by written amendment executed by all of the parties.

20. Neither this Agreement nor any rights, duties, or obligations described in it may be assigned by a party without the prior express written consent of the other party.

21. Nothing contained in this Agreement shall be deemed or construed by the parties or by any third person to create the relationship of principal and agent or of partnership or joint venture.

22. This Agreement will be construed and interpreted and the rights of the parties determined under the laws of the State of Ohio.

23. Any person executing this Agreement in a representative capacity warrants that he or she has been duly authorized by his or her party to execute this Agreement on such party's behalf.

24. All notices, consents, and communications hereunder shall be given in writing, shall be deemed to be given upon receipt thereof, and shall be sent to the addresses below:

For ________________: For ODOT:
Name: Name:  
Title: District Environmental Coordinator:  
Address: ODOT – District ___  
City, State ZIP Code: Address:  
Phone: City, State ZIP Code:  
e-mail: Phone:  

IN WITNESS WHEREOF, the parties have entered into this Agreement as of the last date written below:

__________________________  Ohio Department of Transportation

__________________________  ________________________
Name Date
Title:  

__________________________  ________________________
Name Date
Title: Director
Appendix E - Noise Insulation Inspection Checklist
<table>
<thead>
<tr>
<th>Building Description:</th>
</tr>
</thead>
</table>

### Windows

<table>
<thead>
<tr>
<th>Question</th>
<th>Y</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the building have exterior windows facing the roadway?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If yes, proceed, if no, stop this section</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are the windows in a noise sensitive location?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If yes, proceed, if no, stop this section</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Windows are single, double or triple paned glass? (circle one)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Doors

<table>
<thead>
<tr>
<th>Question</th>
<th>Y</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the building have exterior doors facing the roadway?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If yes, proceed, if no, stop this section</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are exterior doors in a noise sensitive location?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If yes, proceed, if no, stop this section</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The door has a solid - hollow core (circle one).</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Air Conditioning

<table>
<thead>
<tr>
<th>Question</th>
<th>Y</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the building have central air conditioning?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If no, proceed, if yes, stop this section</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Can exterior windows facing the roadway open?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If yes, proceed, if no, stop this section</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are the windows in a noise sensitive location?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Inventory

<table>
<thead>
<tr>
<th>Room #</th>
<th>Description (class, patient room, etc.)</th>
<th># Windows</th>
<th># Doors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTES:**

---

---
Appendix F - Noise Analysis Report Checklist
ODOT Noise Analysis Report Prep/Review Checklist

NOTE: This checklist is intended to provide a detailed guide to the contents of a noise analysis report and to help the reviewer ensure the report complies with 23CFR772 and ODOT’s Standard Procedure for Analysis and Abatement of Highway Traffic Noise. Simply completing the checklist should not serve as a substitute for reading and understanding the noise analysis report. While this checklist is comprehensive, each project is unique. The report may address areas that are not in this checklist.

1. Table of Contents
2. Executive Summary
3. Introduction - Project description and overview of alternatives included
4. Project location map included
5. Noise Analysis Overview - Regulatory overview, objectives, FHWA Noise Abatement Criteria (NAC), noise descriptors discussion included
6. All NSAs described/discussed
7. Project traffic data included/discussed (Existing and Design Year Build (DYB) ADT, truck %, VPH- A/B/C vehicle volumes)
8. Noise Measurements discussion included - All noise reading locations must have a corresponding address or specific location
9. 15- minute traffic counts for each conducted noise measurement included
10. Atmospheric conditions such as temperature, average wind, maximum wind, and wind direction recorded for each noise measurement included
11. Noise modeling methodology discussion included
12. Impact Assessment - Noise impacts discussion by location of noise sensitive area (NSA) included. Feasibility and reasonableness addressed for each NSA. Tables showing existing level, DYB level, DYB with wall level, noise reduction for each modeled receptor are included. Impacted and benefited receptors are highlighted.
13. Equivalent number of receptors computed for FHWA Category C land uses, if applicable
14. Noise Abatement Measures - Discussion of the evaluation of noise abatement alternatives under 23CFR772.15c included
15. If it is required to model a noise barrier, a minimum of two noise barrier scenarios were modeled and documented with the optimum barrier being recommended. Also, noise walls were modeled on and off existing structures. It is typically necessary to model different wall heights and wall locations.
16. If a noise wall is feasible and reasonable, a constructability discussion is included (i.e. Do existing overhead or underground utilities pose a concern relative to constructability?).
17. Undeveloped lands - Noise impacts of undeveloped lands discussed. At a minimum, distance to the exterior noise abatement criteria in 23CFR772 Table 1 provided.
18. Construction noise in accordance with 23 CFR 772.19 discussed
19. Conclusion and Recommendations included
Appendices/Figures

a) Record of equipment used for noise measurements and calibration certificates
b) Certified traffic plates included, if available
c) PI notification letters for field work included
d) Noise measurement output data printouts and field sheets included
e) TNM input—traffic, receivers, roadways, barriers, building rows, terrain lines, etc included. Depending on volume of data, info can be placed on a CD.
f) TNM output tables—TNM plan views, sound level results, noise barrier design (if applicable), barrier segment descriptions included. Depending on volume of data, info can be placed on a CD.
g) Aerial mapping in color showing all noise reading locations included
h) Project mapping—Report graphics illustrate feasible alts and/or preferred alt, modeled receptors, impacted and non-impacted receptors, benefited receptors, modeled noise barriers recommended and/or not recommended, Design Year Build noise level/Design Year Build noise level with noise abatement on aerial mapping.
i) All TNM receivers shown on aerial mapping
j) Addresses of all benefited receptors (>5 dBA) (occupants and/or owners) for each noise wall determined to be feasible and reasonable included
k) Project roadway plan sheets included, if available
l) CDROM includes TNM files (existing, validation, DYB), dxf import files, noise analysis report in MS Word and appendices in PDF format included
m) Noise Barrier Design Table (NBDT) included (if applicable and scoped for)
Appendix G - Flowchart for Noise Wall Placement in the Modeling Phase
Flowchart for Noise Wall Placement in the Modeling Phase

START

Noise Impact Identified in Preliminary Noise Analysis phase

NO

NO

YES

NO

YES

Feasible and Reasonable?

YES

NO

Feasible and Reasonable?

YES

NO

Feasible and Reasonable?

YES

NO

Place/model noise wall along the shoulder

YES

Provide ODOT with Noise Wall Preliminary Placement Plan (NWPPP) for expedited review and approval

Finalize Preliminary Noise Analysis and submit to ODOT for review and approval

STOP

NO

Consider noise barrier material resistant to deterioration from salt spray
Appendix H - Flowchart for Noise Analysis Public Involvement Process
Flowchart for Noise Analysis Public Involvement Process

Noise Analysis Public Involvement

Abatement not Feasible and Reasonable

What does the noise report recommend?

Abatement is Feasible and Reasonable

Notify benefited residents, local officials and property owners

Is noise abatement desired by the benefited?

NO

Is a vegetative screening desired by

YES

- Each neighborhood determines aesthetics of residential side of barrier
- ODOT determines aesthetics of roadway side of barrier with input from local officials

Design the vegetative screening and prepare construction contract drawings or prepare design build package

END OF PROCESS

NO

Design the noise barriers and prepare construction contract drawings or prepare design build package

CONSTRUCTION
Appendix I - Post-Noise Analysis
Process Flowchart
A noise wall is determined to be feasible and reasonable in the analysis phase.

If not yet completed, consultant prepares Noise Barrier Design Table or Final Noise Analysis.

District scopes consultant to prepare noise PI materials and conduct noise PI.

Consultant initiates a conference call with ODOT to discuss noise PI strategy.

Consultant submits noise PI materials to ODOT for review and approval.

Consultant conducts noise PI and resurveys as needed.

Do 50% of the benefited receptors (owners & occupants) desire the noise barrier?

District determines if a vegetative screening is desired by the benefited receptors and feasible to construct.

District provides Noise Barrier Design Table to the noise wall designer.

Consultant initiates a conference call with ODOT to discuss design expectations. District provides Noise Wall Construction Plan Preparation Checklist to designer.

Consultant submits noise PI materials to ODOT for review and approval.

District provides post noise PI letters and mails to the benefited receptors.

Consultant finalizes Noise Public Involvement Summary (NPIS) and submits to ODOT for review and approval.

District prepares post noise PI letters and mails to the benefited receptors.

Consultant submits Stage 1 noise wall plans to OES and District for review.

Consultant submits Stage 2 noise wall plans to OES and District for review.

Consultant submits Stage 3 noise wall plans to OES and District for review.

District holds noise wall preconstruction meeting. Invite CO staff as needed.

District prepares pre construction noise PI letters and mails to the benefited receptors.

District provides "Unacceptable Noise Wall images" PowerPoint to project engineers and inspectors for reference during construction.

Yes

NO

District determines if a vegetative screening is desired by the benefited receptors and feasible to construct.

END
Appendix J - Noise Public Involvement Summary (NPIS) Document Checklist
Noise Public Involvement Summary (NPIS) Document Checklist

- Introduction
- Noise barrier location descriptions
- Noise PI methodology
- Total number of possible votes
- Voting results
- Conclusions/recommendations
- Project location mapping
- Project mapping showing noise walls, benefited receptors, and addresses or reference to addresses
- Benefited receptor addresses in excel spreadsheet format
- Noise PI letter and comment/survey form
- Project mapping showing voting results
- Voting results in spreadsheet format (desire, color, texture)
- Copies of returned comment/survey forms, emails, etc.
Appendix K - Noise PI Standard Colors and Textures Templates
Dear Resident:

The Ohio Department of Transportation is soliciting preferences of affected residents in regard to the potential construction of a new noise barrier in your area. The proposed noise barrier is to be located ______________ to your property. See attached mapping showing the noise wall locations.

Name: __________________________ Signature: __________________________
Printed: __________________________

Mailing Address: ___________________________________________________________________

E-mail address (optional) __________________________ Telephone # (optional) __________

Please return the completed questionnaire by mail to the address on the reverse side. The deadline for comment is [date].

If we do not receive a response from you by the deadline, we will count that as having no opinion regarding construction of the noise barrier. A low response rate from the community is considered to demonstrate a lack of interest in getting a noise barrier and may result in no noise mitigation for this location.

I support the barrier being built
I do NOT support the barrier being built
I don’t support the barrier, I support vegetative screening
I don’t support a barrier or vegetative screening
I have no opinion on a noise barrier or vegetative screening

Please circle a texture and color from the choices below. Vegetative screening in lieu of a barrier will NOT reduce noise. If you indicated that you do not desire a noise barrier or do not have an opinion, you may still vote on the design in case the overall results indicate a desire for the noise barrier to be built.

### Textures/Material

- Concrete – Ashlar Stone
- Concrete - Drystack
- Concrete – Brick
- Concrete - Fieldstone
- Fiberglass – (Horizontal Groove)
- Vegetative Screening (will NOT reduce noise)

### Colors:

- Beige
- Gray
- Light Gray
- Red (fiberglass only)
- Tan
- Taupe

Additional Comments:

_________________________________________________________________________

_________________________________________________________________________
Dear Resident:

The Ohio Department of Transportation is soliciting preferences of affected residents in regard to the potential construction of a new noise barrier in your area. The proposed noise barrier is to be located _______________ to your property. See attached mapping showing the noise wall locations.

Name: __________________________ Signature: ____________________________
Printed: _______________________________

Mailing Address: ____________________________________________________________
E-mail address (optional) ______________________________ Telephone # (optional) __________________

Please return the completed questionnaire by mail to the address on the reverse side. The deadline for comment is [date].

If we do not receive a response from you by the deadline, we will count that as having no opinion regarding construction of the noise barrier. A low response rate from the community is considered to demonstrate a lack of interest in getting a noise barrier and may result in no noise mitigation for this location.

I support the barrier being built
I do NOT support the barrier being built
I don’t support the barrier, I support vegetative screening
I don’t support a barrier or vegetative screening
I have no opinion on a noise barrier or vegetative screening

Please circle a texture and color from the choices below. Vegetative screening in lieu of a barrier will NOT reduce noise. If you indicated that you do not desire a noise barrier or do not have an opinion, you may still vote on the design in case the overall results indicate a desire for the noise barrier to be built.

Textures/Material:

- Concrete – Ashlar Stone
- Concrete - Drystack
- Concrete – Brick
- Concrete - Fieldstone
- Fiberglass – (Horizontal Groove)
- Vegetative Screening (will NOT reduce noise)

Colors:

- Beige
- Gray
- Light Gray
- Red (fiberglass only)
- Tan
- Taupe

Additional Comments:
_____, District Environmental Coordinator
ODOT District __
________
_______, Ohio _____
NOISE BARRIER COMMENT SHEET
[project title]

Responses to this questionnaire will be used in the decision-making process to determine whether a noise barrier should be built and, if so, what it should look like.

Name: Signature: _____________________________________________________
Printed: _______________________________________________________
Mailing Address: ______________________________________________________
E-mail address (optional) _____________________________________________ Telephone # (optional) ______________________

Please return the completed questionnaire by mail to the address on the reverse side. The deadline for comment is [date].

If we do not receive a response from you by the deadline, we will count that as having no opinion regarding construction of the noise barrier. A low response rate from the community is considered to demonstrate a lack of interest in getting a noise barrier and may result in no noise mitigation for this location.

A noise barrier SHOULD be built
A noise barrier SHOULD NOT be built
A noise barrier SHOULD NOT be built, vegetative screening should be installed
A noise barrier or vegetative screening SHOULD NOT be built
No Opinion on whether a noise barrier wall or vegetative screening should be built

Please indicate your first, second, and third preference from the available designs below. If you indicated that you do not desire a noise barrier or do not have an opinion, you may still vote on the design in case the overall results indicate a desire for the noise barrier to be built.

1 2 3
Concrete Noise Barrier
Dry Stack Texture - Grey
Fieldstone Texture - Tan Color

1 2 3
Concrete Noise Barrier
Dry Stack Texture - Beige

1
Concrete Noise Barrier

Fiberglass Noise Barrier
Cocoa Color

1 2 3
Vegetative Screening
Tan Color
(Will NOT Reduce Noise)

Tricia Bishop
ODOT District 7
1001 St. Marys Avenue
PO Box 969
Sidney, Ohio 45365

Additional Comments:
Appendix L - Flowchart for Type II Noise Wall Process
Flowchart for Type II Noise Wall Process

START

Community contacts District about their desire for a noise wall

Does the community qualify as a Type II community in accordance with 23CFR772 (District/OES)?

NO

YES

Is the community adjacent to a future Type I project (District)?

NO

YES

OES Reviews and approves the application and petition forms from the community

District sends the Type II Noise Mitigation application and petition forms to the requestor and checks for Type II communities opposite the freeway

YES

District (or OES as requested by District) Prepares combined Preliminary/Final Noise Analysis for the Type II community

NO

Noise wall is confirmed to be feasible and reasonable to construct?

YES

OES prioritizes the Type II Noise Wall project (bi-annual basis [March & Sept] based on noise levels, cost/benefited receptor, and the FHWA Highway Traffic Noise: Analysis and Abatement Guidance

Inform Community within 3 weeks

OES advises the District to program the project and inform the community of status

District (or OES as requested by District) conducts public involvement, as needed

District contracts required geotech work and noise wall construction plan preparation for OES and District review

END

END - Inform Community within 3 weeks
Appendix M - Application for Type II Noise Barrier Mitigation
Ohio Department
Of Transportation

Application for Type II Noise Mitigation

What is the name of entity/community completing the application?

What is the location of the community? What is the freeway adjacent to area for which application is being made?

What side of the freeway is the community on? (N S E W Both)

What is the Beginning Point of the area of application? (Crossroads, etc.)

What is the Ending Point of the area of application?

What is the number of dwelling units in area of application within 100’, 100’-200’, and 200’-400’ feet of the freeway?

What is the number of above dwelling units built prior to the freeway?

What is the number of years the area/community making the application has been exposed to the highway traffic noise?

I certify all of the above information is correct.

______________________________________________________________________________
Signature and Title of Community Leader Date

______________________________________________________________________________
Print name and Title of Community Leader Date

Attach petition from residents of community desiring noise mitigation and mail to:

Ohio Department of Transportation
Attention: Office of Environmental Services, Policy Section, Noise Unit
1980 West Broad Street
Columbus, OH 43223
INSTRUCTIONS FOR COMPLETING
APPLICATION FOR TYPE II NOISE MITIGATION

What is the name of entity/community completing the application?
This is the name of the community that is making application for a noise mitigation project.

What is the location of the community?
State the city and county the community is in.

What is the freeway adjacent to area for which application is being made?
This is the number designation for the limited access freeway(s) which is believed to be the source of the noise. Type II mitigation is only available for limited access freeways.

What side of the freeway is the community on?
Please show the side of the freeway along which noise mitigation is proposed. This would be the same side of the freeway as the residents who are seeking protection. If there are qualifying residents on both sides of the freeway enter “Both”. Provide a map showing the location of the community that is making the application.

What is the Beginning Point of the area of application?
This is a landmark, such as a cross road, marking the beginning point of the area to be protected by the proposed mitigation.

What is the Ending Point of the area of application?
This is also a landmark, such as a cross road, marking the ending of the area to be protected by the proposed mitigation.

What is the number of dwelling units in area of application within 100’, 100’-200’, and 200’-400’ feet of the freeway?
This is the number of dwelling units between the point of beginning and ending within 100’, 100’-200’, 200’-400’ feet from the edge of the nearest thru travel lane. If an apartment building is in this area, each apartment is to be considered as a separate dwelling unit.

What is the number of dwelling units built before the freeway:
This is the number of dwelling units within the area of application that were built or platted before the date of public knowledge of the freeway, or the date of public knowledge of the last pre 1976 capacity improvement of the freeway.

What is the number of years the area/community making the application has been exposed to the highway traffic noise:
This is the number of years the area/community making the application has been exposed to the highway traffic noise.

Signature and Title of local official and Date:
This is the official who is certifying that all information is correct. Attach petition from residents of community desiring noise mitigation (required) to the application.

Questions: Please contact the Ohio Department of Transportation’s Noise Unit at 614-466-5222.
Appendix N - Noise Wall Construction Plan Preparation-Review Checklist
Noise Wall Construction Plan Preparation/Review Checklist

☐ The bottom panel of a ground mounted noise wall is buried a minimum of 6”, in accordance with our noise barrier specs. There is no gap between the bottom of wall and the finished ground surface. Barrier elevation sheets adhere to this requirement when giving bottom of wall elevation and finished ground elevation. Noise wall cross sections sheets and profile sheets adhere to this requirement as well.

☐ 2’ step downs for end of the wall transitions are used, per ODOT’s June 2011 Noise Standard Procedure.

☐ When barriers must be placed behind existing guardrail, the proposed noise wall is placed as close to the guardrail as possible in order to maximize wall height and acoustic protection.

☐ ODOT prefers not to have large strips of ROW between the noise wall and L/A that ODOT would have to maintain. Where possible, proposed noise walls are placed as close as possible to the L/A fenceline and the existing L/A fence removed. The need for a concrete parapet wall or guard rail in front of a proposed noise wall is eliminated, where possible, since this is a potentially significant added cost.

☐ Smooth top of wall profile is created as much as possible. The "valleys" in the TOW profile that follow the existing topography are eliminated, where possible. Relative to the top of wall profile, changes in the top of wall elevation (from bay to bay) are limited to increments of 1'-0”.

☐ Unnecessary tree clearing to construct a noise wall and, in general, for that matter, is avoided.

☐ For aesthetic reasons, 8’-10’ post spacings are placed at or near the ends of the wall where possible.

☐ All Noise Wall Construction Plans (conventional or design build) are reviewed by District and OES staff and comments addressed.

☐ Overhead and underground utilities are fully evaluated during plan preparation to ensure the wall can be constructed as designed and to avoid running into a utility issue during construction.

☐ The noise wall is absorptive or reflective per ODOT’s Noise Standard Procedure.

☐ The color and texture on either side of the noise wall are what was voted on by the public and local officials and/or decided by ODOT.

☐ Post spacings are preferably 24’, where possible.

☐ Noise walls on existing structures/bridges is discouraged by ODOT. It will be rare for ODOT to construct a noise wall on an existing bridge/structure, hence, if the design calls for a noise wall on an existing bridge/structure, this must confirmed with ODOT to be required.

☐ The noise wall limits match the Final Noise Analysis. Noise wall heights equal or exceed the acoustic profile.

☐ Any roadway vertical or horizontal changes that occur after the approval of a noise analysis report are critical changes and could significantly affect the noise wall design. These changes are brought to the attention of the ODOT project manager immediately because the noise analysis would need to be redone and the noise wall redesigned.