

**SOUND TRANSIT
STAFF REPORT**

MOTION NO. M2004-08

Link Noise Mitigation Policy

Meeting:	Date:	Type of Action:	Staff Contact:	Phone:
Executive Committee Board	2/5/04 2/12/04	Deferred Action	Ahmad Fazel, Link Director James Irish, Link Environmental Manager	(206) 398-5389 (206) 389-5140

OBJECTIVE OF ACTION

Establish Sound Transit policies for the assessment and mitigation of noise impacts associated with Link Light Rail project components.

ACTION

To adopt a Link Noise Mitigation Policy and authorize the Chief Executive Officer to implement the policy as defined.

KEY FEATURES

- Establishes Sound Transit policies for the assessment and mitigation of noise impacts associated with Link Light Rail project components.
- Defines four policy areas:
 - Assessment of Link Noise Impacts
 - General Mitigation
 - Noise Barriers
 - Residential Sound Insulation
- Recommends that assessment of Link noise impacts and mitigation occur early in project development in compliance with all applicable regulations.
- Provides that construction and operational noise mitigation shall be consistent with Sound Transit Scope Control Policy, adopted by the Sound Transit Board in Motion No. M2002-121.
- Provides for development of noise mitigation community outreach program and coordination with affected property owners.
- Provides implementation processes and criteria for noise barriers.
- Provides implementation processes and criteria for Residential Sound Insulation Program (RSIP) – including policies addressing the scope of required improvements and RSIP contracting approach.

BUDGET DISCUSSION

Project specific noise mitigation measures are included in the project budgets consistent with the Noise Mitigation Policy.

REVENUE, SUBAREA, AND FINANCIAL PLAN IMPACTS

Link Noise Mitigation Policy does not impact revenue, subarea, and financial plan.

BUDGET TABLE

Not applicable to this action.

M/W/DBE – SMALL BUSINESS PARTICIPATION

Not applicable to this action.

HISTORY OF PROJECT

The environmental documentation for the Central Link Project and the Initial Segment identifies potential noise impacts to 261 residential buildings and required measures to mitigate those impacts. Project final design substantially reduced the number of impacted receivers to 152 and refined the mitigation measures. Potential noise impacts from operation of the Initial Segment occur primarily along MLK Jr. Way S. and in Tukwila. Within Rainier Valley, there are projected to be 123 noise impacts. All of these include traffic noise impacts from widening MLK Jr. Way S. and 70 of them also include noise from the light rail vehicle. Of the 29 noise impacts in Tukwila, 24 are light rail generated and 5 are from buses at the station park-and-ride. Pursuant to the amended ROD for the Initial Segment, mitigation for these impacts shall consist of designing and operating the light rail vehicles and tracks to minimize noise, noise barrier installation and the implementation of a residential sound insulation program (RSIP).

As staff began to implement noise mitigation measures in Rainier Valley, it found a number of internal and external issues that needed clarification so that staff and the affected property owners understood the scope of required mitigation and implementation procedures. Primary issues encountered include the following: the need for defined criteria for the use and scope of noise barriers and RSIP improvements; approach to RSIP contracting; coordination within Link Light Rail and with other appropriate agency departments when communicating with affected property owners; and the effect of any property owner election to forego recommended improvements. Many of these issues also apply to noise mitigation for the Link Light Rail project in general. This staff-recommended Link Noise Mitigation Policy on noise mitigation responds to these issues and the staff desire for guidance on noise mitigation implementation. The Link Noise Mitigation policy would be implemented consistent with the Scope Control Policy (Motion No. M2002-121).

**Prior Board or Committee Actions
and Relevant Board Policies**

Motion or Resolution Number	Summary of Action	Date of Action
M2002-121	Adopting a Scope Control Policy to help guide Sound Transit staff in responding to partner's requests for enhancements to projects and authorize the Executive Director to take necessary steps to implement the policy.	11/14/02
R2001-16	Selected the initial segment of the Central Link Light Rail Project to be constructed and operated by 2009.	11/29/01

CONSEQUENCES OF DELAY

Design of noise mitigation is ongoing as the Initial Segment moves toward 100 percent design. One of the most important elements of the policy is to guide implementation of the RSIP in Rainier Valley. The RSIP contractor selection process begins spring of 2004 with construction in 2005. Delaying approval of the noise policy could defer its ability to guide noise mitigation and the RSIP.

REGIONAL PARTNERSHIP AND COOPERATION

Not applicable to this action

PUBLIC INVOLVEMENT

Not applicable to this action

DESCRIPTION OF POLICY

The Link Noise Mitigation Policy establishes Sound Transit policies for the assessment and mitigation of noise impacts associated with Link Light Rail project components. Noise impacts and mitigation shall be assessed and determined in compliance with applicable regulations early in project development (normally part of environmental review process). Final mitigation will be determined during final design.

Noise mitigation shall comply with the Scope Control Policy (Motion No. M2002-121) for both construction-related and operational mitigation.

Operational noise impacts shall be mitigated through the following hierarchy of measures:

- 1) Source treatment measures, which serve to prevent noise impacts at the source, is preferred
- 2) The use of path measures (between the source and receiver, typically noise barriers). Noise barriers may be considered when a noise impact cannot be mitigated through source reduction measures and only where the use of such barriers is reasonable and feasible in consideration of the following: noise reduction; limits to effectiveness (e.g., the existence of a multi-story building); potential safety, visual, or other impacts; cost-effectiveness; or other factors as appropriate.

- 3) Residential sound insulation program (RSIP) will be used only where path measures are ineffective, unreasonable and/or infeasible forms of mitigation.

RSIP will use the Housing and Urban Development (HUD) interior 45 dBA Ldn as the reference value for interior noise level reduction of light rail impacts and WSDOT's 51 dBA peak hour Leq criteria as the reference value for traffic noise impacts. If impacts are identified from both, the interior noise levels will meet whichever criterion achieves the greatest level of noise reduction.

RSIP improvements will be limited to those necessary to install the required sound insulation measures. Potential measures may include: the installation of replacement windows and doors and, if required, added insulation. Required improvements shall not include major structural improvements/modifications, property upgrades or any other improvements not required to meet applicable noise reduction levels.

Sound Transit shall provide for the installation of required RSIP in affected buildings through the use of qualified contractors and subcontractors in a manner that minimizes inconvenience to affected property owners and tenants during the installation process.

Appropriate documentation shall be developed that includes the following: the use of written access agreements for testing and installation; RSIP installation agreements with property owners; written documentation from the contractor installing the mitigation and the property owners indicating the completion of RSIP measures; and liability releases as appropriate.

The decision to permit Sound Transit's installation of RSIP is within the discretion of affected property owners. Property owners may, accordingly, elect to forego recommended improvements. However, Sound Transit shall not provide monetary or other forms of compensation to property owners as an alternative to providing recommended noise mitigation measures.

Sound Transit decisions to use and locate noise barriers, and the scope of RSIP improvements will be made in consultation with affected property owners, as appropriate. Final decisions relating to the use or location of noise barriers, and/or scope of RSIP measures will be made under direction of the Link Director, or designee.

Noise mitigation will be addressed in the community outreach plan for relevant Link Light Rail projects or project segments prior to the start of construction. The plan shall provide for regular communication between Sound Transit's Link Community Outreach staff and affected property owners, business owners, and tenants regarding the implementation of the Link Noise Mitigation Policy.

IMPLICATIONS OF POLICY

The implication and affects of this policy are to define for the agency, the staff and the public, Link's approach and process to implementing noise mitigation. The Link noise mitigation policy provides guidance for staff and the public on the criteria for determining when it is reasonable to use noise barriers and residential sound insulation (RSIP); the scope, limits and approach for implementing RSIP improvements; and provides for coordination with the affected property owners.

FACTORS TO CONSIDER

No other factors to consider.

ALTERNATIVES

Alternatives to adopting the policy as written are to amend or not adopt the policy. Modifications can be made to further clarify or address policy issues.

LEGAL REVIEW

MB 7/10/03

SOUND TRANSIT

MOTION NO. M2004-08

A motion of the Board of the Central Puget Sound Regional Transit Authority adopting a Link Noise Mitigation Policy and authorizing the Chief Executive Officer to implement the policy as defined.

Background:

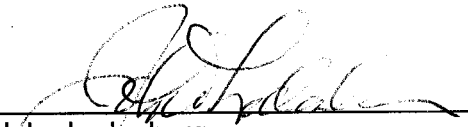
The environmental documentation for the Central Link Project and the Initial Segment identifies potential noise impacts to 261 residential buildings and required measures to mitigate those impacts. Project final design substantially reduced the number of impacted receivers to 152 and refined the mitigation measures. Potential noise impacts from operation of the Initial Segment occur primarily along MLK Jr. Way S. and in Tukwila. Within Rainier Valley, there are projected to be 123 noise impacts. All of these include traffic noise impacts from widening MLK Jr. Way S. and 70 of them also include noise from the light rail vehicle. Of the 29 noise impacts in Tukwila, 24 are light rail generated and 5 are from buses at the station park-and-ride. Pursuant to the amended ROD for the Initial Segment, mitigation for these impacts shall consist of designing and operating the light rail vehicles and tracks to minimize noise, noise barrier installation and the implementation of a residential sound insulation program (RSIP).

As staff began to implement noise mitigation measures in Rainier Valley, it found a number of internal and external issues that needed clarification so that staff and the affected property owners understood the scope of required mitigation and implementation procedures. Primary issues encountered include the following: the need for defined criteria for the use and scope of noise barriers and RSIP improvements; approach to RSIP contracting; coordination within Link Light Rail and with other appropriate agency departments when communicating with affected property owners; and the effect of any property owner election to forego recommended improvements. Many of these issues also apply to noise mitigation for the Link Light Rail project in general. This staff-recommended Link Noise Mitigation Policy on noise mitigation responds to these issues and the staff desire for guidance on noise mitigation implementation. The Link Noise Mitigation policy would be implemented consistent with the Scope Control Policy (Motion No. M2002-121).

Motion:


It is hereby moved by the Board of the Central Puget Sound Regional Transit Authority adopting a Link Noise Mitigation Policy and authorizing the Chief Executive Officer to implement the policy as defined.

APPROVED by the Board of the Central Puget Sound Regional Transit Authority at a regular meeting thereof held on February 12, 2004.



John Ladenburg
Board Chair

ATTEST:



Marcia Walker
Board Administrator

Link Noise Mitigation Policy

This Link Noise Mitigation Policy (“Policy”) establishes Sound Transit policies intended to guide both the assessment and mitigation, as appropriate, of noise impacts associated with Link Light Rail project components.

I. ASSESSMENT OF LINK NOISE IMPACTS

As a general matter, the assessment of potential Link noise impacts will occur as part of the environmental review process. The following policies shall guide Sound Transit’s assessment and control of potential Link noise impacts:

- A. Sound Transit shall comply with applicable federal, state, and local noise requirements in evaluating noise impacts, determining appropriate mitigation measures, and implementing Link projects;
- B. Sound Transit will seek to identify potential noise impacts and potential mitigation measures early in the project development process, as practicable;
- C. Sound Transit will seek to reduce expected noise impacts, as practicable, through reductions in source emissions and project design;
- D. Sound Transit will seek to work with local jurisdictions to provide that development occurs which is compatible with expected or existing project operational noise.

II. GENERAL MITIGATION POLICIES

A. Consistency with Sound Transit Scope Control Policy

In implementing noise mitigation for each Link project, Sound Transit shall comply with the Scope Control Policy (Board Motion M2002-121) for both construction-related and operational mitigation.

B. Construction Noise Mitigation

Sound Transit will seek to limit construction noise impacts associated with the development of the Link projects. To this end, Sound Transit will meet applicable federal, state, and local construction noise regulations and requirements, including any requirement to obtain required noise variances. Project-specific efforts to minimize construction noise impacts may include: the use of noise barriers between major construction sites and nearby noise-sensitive uses; restricting the use of noise generating equipment during nighttime hours unless appropriate mitigation is in place; the use of truck haul routes that will serve to minimize potential noise impacts; and temporary relocation of sensitive receptors, where appropriate.

C. Operational Noise Mitigation

Sound Transit will assess whether a Link project will result in operational noise impacts in accordance with applicable federal, state, and/or local law, and relevant guidance. Source treatment measures, which serve to prevent noise impacts, shall be the preferred means of mitigation. After the implementation of source treatment operational measures, the use of path measures (between the source and receiver) shall be the preferred method of mitigating noise impacts. This will primarily consist of noise barriers, alignment modifications, acquisitions or buffer zones. Sound insulation of buildings will be used to mitigate noise impacts only where path measures are ineffective, unreasonable and/or infeasible forms of mitigation.

D. Final Identification of Project Noise Impacts

Sound Transit shall continue to reevaluate project noise impacts associated with Link projects, as appropriate, during project design. The final identification and design of noise mitigation measures will occur preferably between the 60% to 90% design level, taking into account the implementation of source treatment operational measures and other means of noise reduction, as appropriate. This will ensure that noise impacts associated with Link are accurately characterized and mitigated as appropriate.

E. Community Outreach

A noise mitigation community outreach program, that addresses both construction and operational noise impacts, will be included in the community outreach plan for relevant Link projects or project segments prior to the start of construction. Each plan shall identify effective means of raising public awareness and providing information regarding Sound Transit's Link Noise Mitigation Policy, expected noise impacts, and associated mitigation efforts. The plan shall further provide for regular communication between Sound Transit's Link Community Outreach staff and affected property owners, business owners, and tenants regarding the implementation of the Link Noise Mitigation Policy. Sound Transit's Link Community Outreach program shall develop these noise mitigation community outreach plans, including all written materials, under the direction of the Link Director, or designee, and in coordination with Link Project Development, Real Estate, and Legal. The plans shall reflect applicable Sound Transit policies, as well as any ROD and/or other project requirements.

III. NOISE BARRIERS

The following policies shall govern Sound Transit's implementation of permanent noise barriers as a form of operational noise mitigation for Link projects. This section does not apply to the use of temporary noise barriers used during construction.

A. Criteria for Noise Barrier Use

Noise barriers may be considered as a form of noise mitigation for Link projects when justified by the scope of an identified noise impact that cannot be reduced or eliminated through operational or other source reduction measures. Noise barriers will be used only along elevated and at-grade trackway and only where the use of such barriers is reasonable and feasible. Whether the use and location of such barriers is reasonable and feasible will be determined in consideration of the following: noise reduction; limits to effectiveness (e.g., the existence of a multi-story building); whether the use of a noise barrier would result in potential safety, visual, or other impacts; cost-effectiveness; or other factors as appropriate.

B. Coordination with Affected Property Owners

Sound Transit decisions to use noise barriers, as well as barrier locations and designs, will be made in consultation with affected property owners, as appropriate. This coordination will be implemented under the direction of the Link Director, or designee, jointly by Link Project Development and Link Community Outreach, in consultation with Real Estate and Legal. Final decisions on noise barrier use and location in consideration of property owner interests and the criteria described in Policy IIIA, Criteria for Noise Barrier Use will be made under the direction of the Link Director, or designee.

IV. RESIDENTIAL SOUND INSULATION

The following policies shall guide Sound Transit's implementation of residential sound insulation program (RSIP) as a form of noise mitigation for Link projects. The RSIP manager, responsible for managing the RSIP contracts, shall be the designee of the Link Director.

A. Criteria for Residential Sound Insulation Use

Sound Transit shall implement residential sound insulation as a noise mitigation measure when justified by the scope of an identified impact that cannot be reduced or eliminated through source control or other operational measures. Residential sound insulation shall be used only when the use of source or path treatments, such as noise barriers is ineffective, unreasonable, and/or infeasible.

B. Noise Reduction Levels

Unless otherwise required, sound insulation will use the Housing and Urban Development (HUD) interior 45 dBA Ldn as the reference value for interior noise level reduction of light rail impacts and WSDOT's 51 dBA peak hour Leq criteria as the reference value for traffic noise impacts. For those locations where both light rail and traffic noise impacts are identified, the interior noise levels will meet whichever criterion achieves the greatest level of noise reduction.

C. Scope of Required Improvement

The scope of required residential sound insulation improvements will be determined on a case-by-case basis. Improvements will be based on the need to meet the noise reduction levels in policy IV.B. Improvements will be limited to those necessary to install the required sound insulation measures and that are consistent with the Scope Control Policy (Board Motion M2002-121). Potential measures may include, as appropriate: the installation of replacement windows and doors and, if required, added insulation. Required improvements shall not include major structural improvements/modifications, property upgrades or any other improvements not required to meet applicable noise reduction levels.

D. RSIP Contracting

Sound Transit shall provide for the installation of required residential sound insulation and related work in affected buildings through the use of qualified contractors and subcontractors. In addition to providing for the completion of the residential sound installation in accordance with stated requirements, the contractual documents shall provide for the following:

1. Appropriate coordination of installation of required improvements with affected property owner/tenants, in consultation and coordination with Sound Transit;
2. The implementation of practicable measures to minimize inconvenience to affected property owners and tenants during the installation process, such as the use of dust-proofing measures and limiting work to daytime hours only; and
3. Reference of inquiries regarding the scope of required residential insulation measures to the RSIP manager.

E. Coordination with Affected Property Owners/Tenants

Sound Transit shall coordinate testing associated with the residential sound insulation, the identification of appropriate residential sound insulation measures, and the installation of sound insulation measures with affected property owners. This coordination will be implemented under the direction of the Link Director, or designee, and jointly by the RSIP manager and Link Community Outreach manager. Final decisions relating to the scope of required residential sound insulation measures for all affected properties in consideration of property owner interests and the criteria described in Policy IV.A, Criteria for Residential Sound Insulation Use will be made under direction of the Link Director, or designee.

F. Documentation

The Link RSIP manager, in consultation with Legal and in coordination with Link Community Outreach and Real Estate shall provide for the development of appropriate documentation associated with installation of residential sound insulation as a form of Link noise mitigation. Such documentation should include the following: the use of

written access agreements for testing and installation with property owners; written agreements with property owners providing for the installation of required insulation measures; written documentation from the contractor installing the mitigation and the property owners indicating the completion of required insulation measures; and liability releases as appropriate.

G. Homeowner Elections to Forego Improvements

The decision to permit Sound Transit's installation of residential insulation measures designed to mitigate noise impacts is within the discretion of affected property owners. Property owners may, accordingly, elect to forego recommended improvements. However, Sound Transit shall not provide monetary or other forms of compensation to property owners as an alternative to providing recommended noise mitigation measures.