Grants Determination Sub-Committee 27th September 2018	
Report of: Ann Sutcliffe Corporate Director of Place	**Classification:** Unrestricted
A12 Acoustic Barrier **Part of the A12 Green Mile Initiative**	

Lead Member	**Councillor Rachel Blake, Deputy Mayor and Cabinet Member for Regeneration and Air Quality**
Originating Officer(s)	Abdul Khan, Service Manager for Energy & Sustainability
Wards affected	Bromley South
Key Decision?	No
Forward Plan Notice Published	4th September 2018
Reason for Key Decision	Grant
Community Plan Theme	**Great Place to Live**

Executive Summary

To design and install a new innovative acoustic barrier for a section of the A12 to mitigate noise and air pollution. This is a pilot scheme in partnership with Transport for London (TfL) and Poplar HARCA.

Poplar HARCA are the partners on the ground managing and delivering the project and therefore this report is seeking the approval to provide £100,000 to Poplar HARCA as a grant to deliver the project on the partnership's behalf.

Recommendations:

The Grants Determination Sub-Committee is recommended to:

1. Approve to provide £100,000 to Poplar HARCA as a grant to deliver the A12 acoustic barrier project.

1. REASONS FOR THE DECISIONS

1.1 Noise and air pollution is a major issue in the Borough especially along the A12. This is a new and innovative solution to mitigate these issues and the first project in the UK of its kind.

1.2 The project has already secured a grant of £67,500 from TfL. The remaining monies from the TfL grant, amounting to some £30,000, are likely to be lost and the project will not be progressed if the recommendations in this report are not approved.

2. ALTERNATIVE OPTIONS

2.1 The council can deliver this project in house without providing a grant to Poplar HARCA, however as Poplar HARCA are already on the ground delivering and managing this project it makes deliverability easier including the logistics and coordination with various bodies. Delivering the project in house will increase project management costs as we do not have the resources to deliver it within current staff resources.

3. DETAILS OF THE REPORT

3.1 The report is seeking approval to grant fund the implementation of the new style acoustic barrier along a section of the A12 Blackwall Tunnel Northern Approach; one of London's most trafficked vehicular routes passing through an increasingly densely populated residential area.

3.2 Through the innovative design, implementation, and monitoring of this acoustic barrier, the project aims to test its performance; particularly its ability to mitigate noise, reduce air pollution and to enhance the quality of the environment along this section of the A12.

3.3 In essence, the proposal will deliver a template for reducing the abovementioned effects, as well as improving the real and perceived quality of the street edge for pedestrians and cyclists.

3.4 The project is a pilot scheme to showcase a new and innovative design, and its potential ability to mitigate noise and air pollution. Following testing and refinement, appropriate versions of the barrier can be introduced in selected stretches along the rest of the A12 between the Bow Interchange and the northern entrance to the Blackwall Tunnel. These additional lengths of barrier form part of the A12 Green Mile Initiative for which additional funding will be sourced.

3.5 Transport for London (TfL) has already committed £67,500 towards the design, implementation and monitoring of this acoustic barrier. Section 106 monies have also been agreed in principle through the LBTH Pocket Park PID (£30,000) to support the acoustic barrier through the greening of the adjacent open space.

3.6 This report will define the A12 Acoustic Barrier project and bring together the key components needed to progress the project to completion. The required funding of £100,000 has been approved by the Infrastructure Delivery Steering Group (IDSG) from the S106 contribution LTGDCG A12 Road Corridor Commitments.

3.7 In 2014, the Roads Task Force (RTF) commissioned an exemplar study for the A12 between Bow Interchange and the northern entrance to the Blackwall Tunnel. The A12 Corridor Study (Final Report, March 2015) (the Study) by Jacobs with SKM aimed to tackle the environmental issues facing the A12 corridor and set out options for bold interventions to improve accessibility, (particularly by walking and cycling), overcome severance, mitigate noise and air quality issues, and support the planned regeneration of the area. The A12 Green Mile Report by LBTH and Poplar HARCA formed an appendix to this study and specifically identified short-term options for 'greening' the A12 before the more permanent options could be realised.

3.8 The A12 Acoustic Barrier is one of several 'greening' projects identified in the A12 Green Mile Report. The purpose of this project is to complete the design of a prototype acoustic barrier, incorporating a new noise absorbent material 'Silk Metal' (an innovative, self-coloured metal 'fabric'), to manufacture and install this barrier, and to test and monitor the efficiency how this innovative design solution can mitigate noise and air pollution and enhance the environment.

3.9 While bench testing of the silk metal product is known to achieve good levels of noise reduction; the intention is to produce a live demonstration project with a strong research component where successful trials will result in the knowledge gained and skills learnt being used to extend the successful components into other appropriate locations along the A12 Green Mile project area from the Bow Flyover (A11) to the Blackwall Tunnel, and with the potential for these new ideas to be replicated in appropriate locations throughout the Borough, and indeed the UK.

3.10 The location selected for the implementation of the 25-metre-long acoustic barrier is at the roadside edge of the northbound carriageway of the A12, opposite the Sainsbury's Local Food Store and the currently vacant community building. The footpath is wider at this location (5 metres) and is adjacent to a small public space at Jefferson Plaza. The acoustic barrier implemented at this location will frame the connection for pedestrian and cyclists to Bromley-by-Bow station to the north (see Appendix B, Figure 1). As such, the trial's interventions will perfectly test what can be achieved in a very practical case scenario and in an area where people will both pass-by and dwell. To note, the design process involved an on-site community consultation and engagement session.

3.11 The issue of restricted views beyond the barrier from the roadside has been considered as part of the design process. The design proposes an appropriate length of barrier and for it to be located at the confluence of the public open space. This will ensure the barrier performs effectively while maintaining openness on the pedestrian side and within an area with a high

level of activity. The clear width of the pavement (excluding the public open space) remains in excess of the 5 metres. As such the barrier does not create a narrowing of the pedestrian route or any hiding areas along its length, nor does it impact the presence of the currently vacant community building to the footpath or the A12 road (see Appendix B, Figure 3).

3.12 The availability of lighting on the pavement side of the acoustic barrier was investigated as part of the design process. It was noted that there is lighting already in place within the public space opposite the barrier, and that this projects additional artificial light onto the pedestrian side of the barrier will also help avoid any shadows and dark areas on this side of the pavement.

3.13 As mentioned, the A12 Green Mile Report was developed in the context of the work that TfL commissioned along the A12, and which itself originated from the work of the Roads Task Force completed in 2013. One of the key projects within the Green Mile report is the development of the acoustic barrier. To date, TfL have contributed £67,500 to the development of the acoustic barrier. Work on the design of the acoustic barrier has progressed and is at an advanced stage the next stage will be to complete the design, manufacture the components, erect the wall on site and monitor its performance.

3.14 The A12 Green Mile report highlights the need to maintain the reliable and efficient movement of vehicles along the A12, highlighting it as an important arterial road with over 15 million vehicular movements each year. Yet, it is subsequently made clear in the report that the A12, particularly the part between the Bow Flyover (A11) and the entrance to the Blackwall Tunnel, is flanked by well-established residential communities. This is also the location where the Mayor and Council are focusing on the introduction of a very significant number of new homes (approximately 13,000 more), supported by the designation of the area as LBTH's 'Poplar Riverside Housing Zone'.

3.15 This project progresses the Roads Task Force's core aims and the objectives of the A12 Road Corridor Study. The project aims to transform the environment for the pedestrian and thus help create a more connected and safer place along the A12 and the nearby Bromley-By-Bow station. The project also aims to reduce air pollution as well as to reduce the actual and perceived noise along the A12 road at this location. This potential will be tested and reported by the University of East London, who are a partner in the development of the acoustic barrier.

3.16 The project will focus on an arterial road and will emphasise the need to maintain reliable and efficient movement of motor vehicles, whilst introducing and testing innovative solutions aimed at mitigating the roads impacts on communities that live alongside, in terms of noise and air pollution as well as severance. In summary, the project will create a better quality of life for those who will live in close proximity to the A12.

3.17 The project will deliver one of the key components of the A12 Green Mile Report. This being the introduction of a new, purpose built, acoustic barrier designed with the quality of an art-piece along the A12 and adjacent to

Jefferson Plaza. The wall will be constructed from an innovative noise absorbent material; 'silk metal' not previously used in the UK for this purpose.

3.18 The design lifespan of the Acoustic Barrier is 10 years, however, it is agreed with TfL that, as this is a bespoke project for the purposes of testing the affect and efficiency of the design to achieve noise and air quality benefits for the local population, it will be monitored closely over a period of two years. If during this time there are any significant negative impacts, for example; management and maintenance then there is the provision for the Acoustic Barrier to be removed, or relocated.

3.19 An application for a wide number of enhancement projects along the length of the A12 Green Mile, including the retention of this acoustic barrier, will be submitted in October 2018 to the Mayor of London's New Liveable Neighbourhoods Programme. If successful it will include an upgrade of the acoustic barrier at the end of its design lifespan to ensure its permanent retention.

3.20 The project will also involve the testing and monitoring of noise levels and air pollution levels with a before and after comparison. The results will be published as a report by the University of East London (UEL).

3.21 Perception testing with sample groups of residents will be carried out by the UEL and Poplar HARCA. This will include before and after surveys to inform the visual and environmental perceived quality of the final installation.

3.22 Designers, manufacturers and highway contractors will be procured in line with the Council's and TfL's established procedures to deliver the infrastructure.

3.23 The project will be led by the A12: Green Mile Pilot Project Steering Group with representatives from LBTH, TfL, UEL, Echo Barrier and Poplar HARCA. The Project Steering Group will conform to the agreed Council Directorate project management and financial protocols.

3.24 A provisional sum of £10,000 has been accounted for within the TfL committed funding to cover the cost of any repairs and maintenance of the barrier.

3.25 Signage will be displayed signifying the use of S106 contributions on the hoarding and/or on street work frames.

3.26 Procurement imperative for maximising local benefits as agreed by Members will be integrated into the tendering documentation in consultation with the procurement team. Where we will be using TfL's current term contractors to carry out the associated works, we will be contacting the Employment and Enterprise Team (Place Directorate, LBTH) to discuss initiatives that can be provided such as work experience placements.

3.27 Transport for London (TfL) on whose road the project is situated and who will be responsible for steering the project through their final approvals process. TfL will also be a critical partner in selecting and managing the site contractor.

3.28 The London Borough of Tower Hamlets (LBTH) who will support the trial through their land ownership and experience in developing and implementing features adjacent to highways. Poplar HARCA, through their experience in project management, community liaison and consultation, and the maintenance of the public realm. Echo Barrier through their experience in the design and implementation of external acoustic barriers and the monitoring of noise reduction. The University of East London (UEL) who will record public perception and test potential reduction in pollution levels.

3.29 In addition to the Steering Group, the day to day management of the project will be led by David Black of Poplar HARCA (as project manager) with support from the Core Project Team comprising the Design Architects, Echo Barrier and UEL. A total project management fee of £7,000 has been identified.

3.30 Manufacturers and highway contractors will be procured in line with the Council's and TfL's established procedures to deliver the infrastructure.

4. EQUALITIES IMPLICATIONS

4.1 When making decisions, the Council must have due regard to the need to eliminate unlawful conduct under the Equality Act 2010, the need to advance equality of opportunity and the need to foster good relations between persons who share a protected characteristic and those who do not (the public sector equality duty). A proportionate level of equality analysis is required to discharge the duty.

4.2 An Equity Analysis Quality Assurance Checklist has been completed for this PID Project which confirms the equal benefit created through the introduction of the Acoustic Barrier. The project will positively enhance affect all pedestrians and users of the open space and will be an improvement on the current situation. There is no evidence that the project will have any adverse effects on people who share Protected Characteristics.

5. OTHER STATUTORY IMPLICATIONS

5.1 Best Value Implications,

Transport for London (TfL) has already committed £67,500 towards the design, implementation and monitoring of this acoustic barrier. Section 106 monies have also been agreed in principle through the LBTH Pocket Park PID (£30,000) to support the acoustic barrier through the greening of the adjacent open space.

Procurement will be carried out in line with LBTH procurement process and TfL procurement framework as this is a bespoke and specialist project. The project management cost has been kept to a minimum as its being managed by Poplar HARCA.

5.2 Consultations,
Key Project Stakeholders

The principal stakeholders are shown in Table below and will be engaged from the earliest stages of the project and through to project closure. The key stakeholders will be engaged as required, after delivery is completed.

Key Stakeholders	Role	Communication Method	Frequency
Existing and future residents, local business owners and visitors.	Residents, businesses and visitors benefiting from more useful open space, reduced traffic noise, lower pollution levels and a more pleasant and attractive environment in which to walk and dwell.	Meetings Exhibitions Events Emails	Ad-hoc as required
Elected Members	Being accountable for the successful delivery of strategic objectives (some of which this project will deliver against and contribute towards).	Public meetings Briefing sessions	Ad-hoc as required
LBTH	Increased open space and health improvements.	Public meetings Briefing sessions	Ad-hoc as required
TfL	Potential new materials and designs for reducing the impacts of major roads throughout London.	Guidance notes Meetings Presentations	Ad-hoc as required
LBTH Housing Zone	Improved environment for development of residential accommodation and workspace.	Project meetings Planning briefings Application advice	Ad-hoc as required
A12:Green Mile Pilot Project Steering Group	Making informed decisions on the project/programme including reporting outcomes and on-going viability/legacy.	Meetings Email Telephone	Financial year quarters and ad-hoc as required

5.3 Stakeholder Communications
Residents and local businesses will be notified by:

- Meetings and exhibitions
- Emails
- Publicity materials including leaflets, posters, articles and website updates.

Elected Members will be notified through:

- Members Bulletin
- Emails

Steering Group will be notified through:

- Emails
- Meetings
- Reports

5.4 Local residents will be involved from the start by comprising a sample group to assess the value of the trial. The local Neighbourhood Forum will also be presented with the scheme.

5.5 Risk Management,

The key risks to this project are set out in the Table below:

Risk No.	Risk	Triggers	Consequences	Existing Internal Controls – to be confirmed	Likelihood	Impact	Total
1	Works not delivered on time.	Alteration to scope of work. Unidentified additional work required e.g. underground services	Lose time, pressure on restricted funding. Additional funding required to carry out work.	Tightly defined plan and agreed delivery programme.	2	3	6
2	Potential costs exceed budgets.	Alteration to scope of work.	Project elements are omitted. Additional funds are sourced.	Regular project/finance meetings with contractors to manage costs. Ensure proper financial management in place. Agree costings and budgets for works with contractors.	2	4	8
3	Work not of satisfactory quality.	Visual inspection of works at manufacture stage	Additional costs in rectifying.	Check quality of work at regular intervals. Set out criteria for quality of work in the specification for contractors.	1	2	2

Risk No.	Risk	Triggers	Consequences	Existing Internal Controls – to be confirmed	Likelihood	Impact	Total
4	Residents unhappy with the work.	Monitoring programme with residents	Design alterations	Consult with residents prior to implementation	1	2	2
5	Difficulty in finding suitable manufacturer.	Missed tender dates	Delays in completing the delivery of the barrier	Working closely with manufactures to clarify design and test their suitability to deliver	2	4	6

5.6 Crime Reduction

There are no crime reduction implications

5.7 Safeguarding

There are no safeguarding implications

6. COMMENTS OF THE CHIEF FINANCE OFFICER

6.1 A project to design and install an acoustic barrier on a section of the A12 was approved under authority delegated to the Infrastructure Delivery Steering Group in accordance with the terms of the Council's Infrastructure Delivery Framework. Section 106 resources totalling £100,000 were allocated as a contribution towards the initiative.

6.2 The project will be undertaken by Poplar HARCA but delivered in partnership with TfL and the Council at a total cost of £197,500. Although the project and financing has been agreed, because an external partner is leading the scheme the allocation of funding to the works also requires the approval of the Grants Determination Sub-Committee.

6.3 The project is being undertaken in conjunction with an adjacent Pocket Parks scheme for which a £30,000 contribution to Poplar HARCA was approved by the Commissioners on 17th January 2017. The balance of £67,500 will be financed by TfL, with this element being dependent on the approval of the full Council funding.

6.4 Commitments to fund schemes are only made following the receipt of the relevant developer contributions. The specific planning contributions associated with the Section 106 funding of the Acoustic Barrier project are detailed in section 2 of the Project Initiation Document that is included as an appendix to this report.

7. COMMENTS OF LEGAL SERVICES

7.1 The Council has the legal power to make the grant referred to in this report.

7.2 Poplar Harca and TFL are under the same legal duty as the Council to submit expenditure to a competitive exercise. This means that provided Poplar Harca and or TFL award contracts to the Most Economically Advantageous Tender this should also demonstrate that the grant funds will be spent in line with the Council's Best Value duty.

7.3 The expenditure of the grant will be subject to contract terms with Poplar Harca and or TFL as appropriate. The report demonstrates that the Council has a significant influence in the management of those contracts and therefore the Council will be able to determine that the grant is used for the purposes it is intended also demonstrating Best Value. The grant to Poplar Harca will also be subject to a separate grant agreement further strengthening the Council's ability to comply with its Best Value duty.

7.4 The Council has undertaken an appropriate equalities assessments which indicates that the Council properly understands the impact that the barrier may have of persons with a protected characteristic and therefore further equalities consultation is not necessary.

Linked Reports, Appendices and Background Documents

Linked Reports

- Project Initiation Document (PID) 2018
- A12 Green Mile study (2015) by LBTH and Poplar HARCA
- A12 Corridor Study (Final Report, March 2015) by Jacobs with SKM [can be accessed online]

Appendices

- Appendix A: LTGDCG A12 Road Corridor Commitments
- Appendix B: Figure 1, 2 and 3

Background Documents – Local Authorities (Executive Arrangements)(Access to Information)(England) Regulations 2012

- NONE.

Officer contact details for documents:
N/A

Appendix A: LTGDCG A12 Road Corridor Commitments

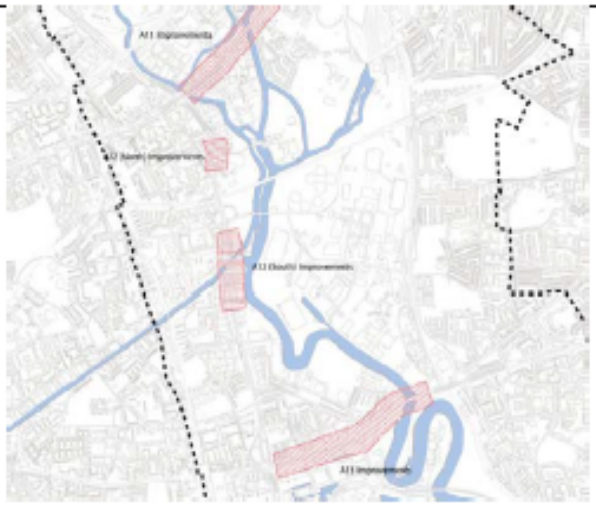
LTGDC: Road Corridor Improvements

Overview

The Lower Lea Valley is currently dissected by a number of strategic road corridors which run both east-west through the Valley and north-south along its edges. These corridors provide the initial view of the Valley and as such are crucial in relation to raising aspirations and demonstrating the quality environment that is being proposed for the Valley into the future.

Environmental improvements works will be required along the key A11, A12 and A13 corridors to :

- Improve the visual environment for vehicular traffic, pedestrians and cyclists using the transport corridors;
- Improve the streetscape through works to paving, street furniture, signage;
- Implement selective landscaping improvements to introduce additional green buffers to improve visual appearance as well as reduce noise impacts along the transport corridors



Barriers & Approach to Delivery

A comprehensive approach is required because:

- The current low quality environment along the corridors does little to raise aspirations or stimulate investment;;
- The corridors are flanked by multiple land owners and established activities, some of which are coming forward as individual development projects that are not guided by one overarching strategy for consistent environmental works along the roads;

The approach to delivery would remove these barriers by:

- Establishing a consistent and comprehensive strategy to improve the environment along the corridors;
- Provide certainty of investment in implementing improvement works;

Outputs

Direct Outputs:

Component	*Outputs*
A11 Corridor (Stratford High St)	1.24km of improved carriageway and footway;
A12 Corridor (BTNA):	
• Northern section	0.25km of improved carriageway and footway;
• Southern section	0.43km of improved carriageway and footway;
A13 Corridor, East India Dock Rd	1.22km of improved carriageway and footway;
Total	*3.14km of improved carriageway and footway;*

Additional outputs:

- 150 new housing units
- 565 permanent jobs
- Circa 7,000 sq m commercial floorspace
- Improved pedestrian crossings
- Removal & replacement of signage, street furniture, & lighting

(Indirect benefits would accrue along the corridors as development is implemented over time.)

Partners/ Roles

Organisation	*Role*
LTGDC	Design Lead, Project Management, Capital Funding
LBN / LBTH	Local Authority
TfL	Transport planning
Private Sector	Developer contributions

Costs & Viability

Component	*Capital Cost*	*Fees*
Masterplanning & design works	-	
• A11 Corridor, Stratford High St	£5.95m	£1.25m
• A12 Corridor, Blackwall Tunnel Northern Approach	£3.3m	£1.0m
• A13 Corridor, East India Dock Rd	£4.38m	£1.13m
Professional fees		
Total (v Fees)	£13.63m	£3.38m
Total all		**£17.0 m**

(Totals may not add up due to rounding)

Appendix B: Figure 1, 2 and 3

Figure 1: Location of A12 Acoustic Barrier

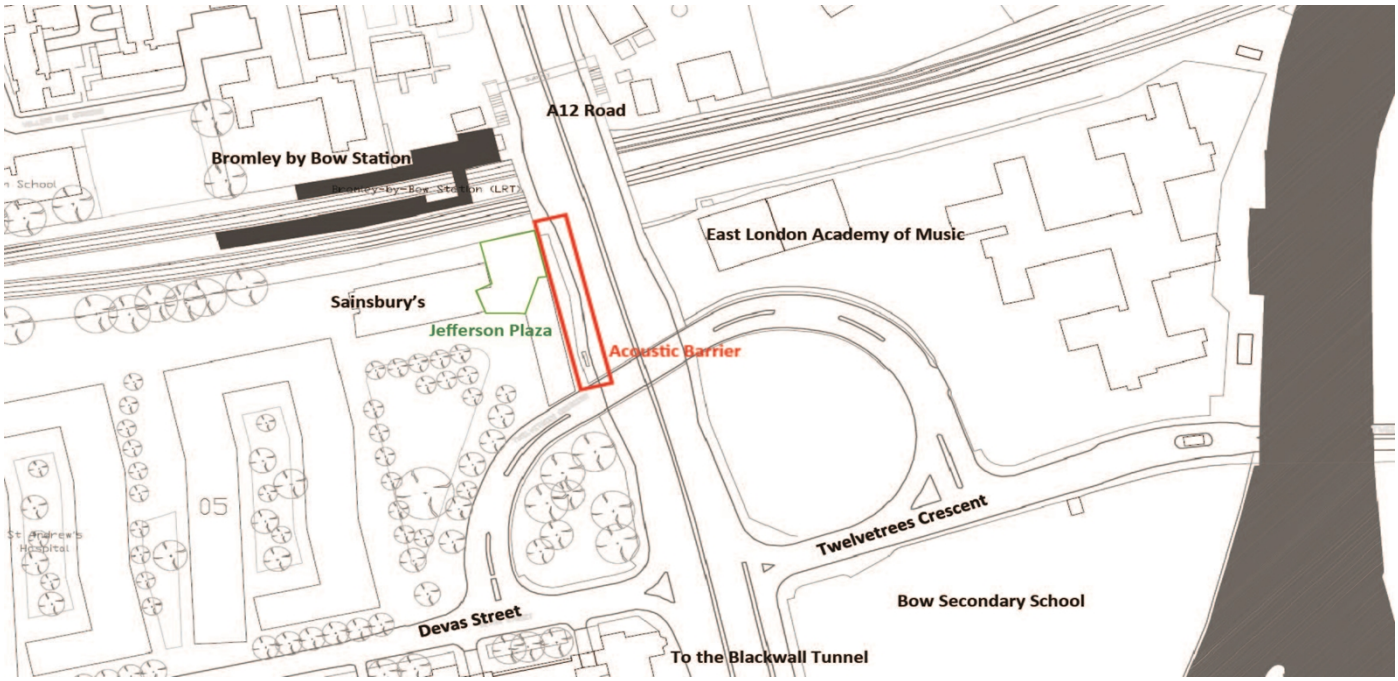
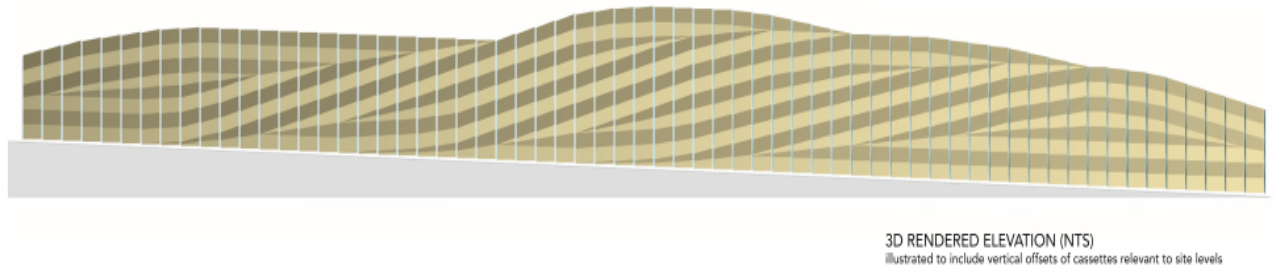


Figure 2: Visual Interpretation of the A12 Acoustic Barrier



3D RENDERED ELEVATION (NTS)
illustrated to include vertical offsets of cassettes relevant to site levels

Figure 3: Proposed layout of the A12 acoustic barrier in relation to the community building, A12 and Jefferson Plaza