

Urban Design and Landscape Plan

Ring Road Completion
November 2025



Attachment 4: Urban Design Overshadowing and Overlooking Assessment



VICTORIA'S
BIG BUILD

Document Control – Revision History

Attachment 4: Urban Design Overshadowing and Overlooking Assessment

Plan Control and Amendment

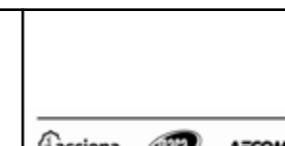
Rev. No.	Date	Description of Change	Prepared by
1	25/09/2023	Public Exhibition	AMA / M80-RRA
2	21/12/2023	UDLP Final Submission IEA	AMA / M80-RRA
3	29/01/2024	UDLP Final Submission for Review	AMA / M80-RRA
4	02/08/2024	UDLP Final Submission IEA	AMA / M80-RRA
5	21/08/2024	UDLP Final Submission	AMA / M80-RRA
6	06/09/2025	UDLP Amendment Review	AMA / M80-RRA
7	05/11/2025	UDLP Amendment Submission	AMA / M80-RRA

DESIGN SUBJECT TO RELEVANT CODES AND STANDARDS

© North East Link Program

North East Link Program					
7	UDLP FINAL AMENDMENT SUBMISSION	05.11.2025	NAME	DATE	
6	UDLP AMENDMENT	05.09.2025	DRAFTING CHECKED BY	C. DEWAGE	05.11.2025
5	UDLP FINAL SUBMISSION	21.08.2024	DESIGNED BY	L. ORJALO	05.11.2025
4	UDLP FINAL SUBMISSION IEA	02.08.2024	ENGINEERING CHECKED BY	R. LEWIS	05.11.2025
3	UDLP FINAL SUBMISSION FOR REVIEW	29.01.2024	VERIFIED BY	L.EVANS	05.11.2025
2	UDLP FINAL SUBMISSION IEA	21.12.2023	APPROVED BY	Z.CVITKOVIC	05.11.2025
1	PUBLIC EXHIBITION	25.09.2023			
REV.	DESCRIPTION	DATE	APPROVALS		
REVISIONS			APPROVALS		

Note: * Indicates signed documents as drawings will not have wet signa



CHECK PRINT		READY FOR ISSUE <input type="checkbox"/>
INITIAL		DATE
DISCIPLINE		
BACKDRAFTED/CORRECTED		
CONFIRMED		

Security Classification: **OFFICIAL: Sensitive**

NORTH EAST LINK PROGRAM
ATTACHMENT 4:
URBAN DESIGN OVERSHADOWING AND OVERLOOKING ASSESSMENT
DOCUMENT CONTROL

PROJECT CONTRACT: NELP DRAWING No.: NEL-NTH-NNA- 3900-EPU-DRG-OVS1 SUIT. CODE REVISION
NORTH **7**

Overview

Attachment 4 contains an urban design overshadowing and overlooking assessment associated with the Ring Road Completion.

The overshadowing assessment illustrates the expected overshadowing of the Project and is based on shadow modelling as measured on the 22 September (spring equinox).

The overlooking assessment provides an analysis of overlooking from elevated structures including from shared use path overpasses and ramps. The overlooking analysis is based on the current design which has been informed by consultation during the development of the UDLP. Ongoing consultation with all directly affected property owners and occupiers will continue throughout the design development phase in accordance with Environmental Performance Requirement (EPR) Land Use Planning 4 (LP4).

This assessment demonstrates how overshadowing and overlooking have been minimised to achieve compliance with the Urban Design Strategy (UDS) and relevant EPRs including:

Map R1: M80

- Requirement 3A: Minimise overlooking and overshadowing to residential properties adjacent to M80 Ring Road interchange in the south-west, including Gillingham Street
- Requirement 3G: Minimise overshadowing to residential properties to the south of the M80 Ring Road.

Map R2: M80 Interchange

- Requirement 3L: Minimise overlooking and overshadowing to residential properties adjacent to M80 Ring Road interchange in the south-west, including at Gillingham Street
- Requirement 3M: Minimise overshadowing to residential properties to the south of the Greensborough Bypass
- Requirement 3N: Minimise overlooking and overshadowing to residential properties to the east and west of Yando Street shared use overpass.

Map R4: Watsonia Neighbourhood Centre

- Requirement 3B: Minimise overlooking to residential properties from proposed walking and cycling bridges at Nell Street and Watsonia Station.

Detailed Requirements and Benchmarks

- 1.3 Multi-span bridges – Minimising impacts
- 2.5 Road bridges – Minimising impacts
- 9.6 Walls, fencing, barriers & screens – Visual connectivity and solar access
- 14.4 Walking & cycling bridges – Minimising impacts

EPR: LP4

- Minimise overshadowing from noise walls and elevated structures and overlooking from elevated structures.

EPR: LV1

- Design to be in accordance with the Urban Design Strategy (UDS).
 - Avoid or minimise landscape and visual, overlooking, and shading (with reference to EPR LP4) impacts in extent, duration and intensity
 - Identify residential areas with the potential for high visual impact and develop targeted design options to avoid or minimise amenity impacts on these areas, including as a result of the proposed noise walls
 - Detailed design to ensure landmark elements balance visual impact with minimal overshadowing.

DESIGN SUBJECT TO RELEVANT CODES AND STANDARDS

© North East Link Program

7	UDLP FINAL AMENDMENT SUBMISSION	05.11.2025	DRAFTING CHECKED BY	NAME C. DEWAGE	DATE 05.11.2025	NELP DISCLAIMER Conditions of Use. This Document has been developed for the purposes of the North East Link Project. Recipients of this document: - are subject to obligations of confidentiality in relation to this document; and - may not rely upon the information contained in this document, and must rely absolutely on their own opinion and professional advice.	 	CHECK PRINT READY FOR ISSUE INITIAL DATE
6	UDLP AMENDMENT	05.09.2025						
5	UDLP FINAL SUBMISSION	21.08.2024						
4	UDLP FINAL SUBMISSION IEA	02.08.2024						
3	UDLP FINAL SUBMISSION FOR REVIEW	29.01.2024	ENGINEERING CHECKED BY	R. LEWIS	05.11.2025			
2	UDLP FINAL SUBMISSION IEA	21.12.2023	VERIFIED BY	L. EVANS	05.11.2025			
1	PUBLIC EXHIBITION	25.09.2023	APPROVED BY	Z. CVITKOVIC	05.11.2025			
REV.	DESCRIPTION	DATE						
	REVISIONS			APPROVALS	DRAWN: -	SIZE: A3	SCALE: As indicated	CAD FILE: -

Note: * Indicates signed documents as drawings will not have wet signatures.

DOT No.:

NORTH EAST LINK PROGRAM		
ATTACHMENT 4:		
URBAN DESIGN OVERSHADOWING AND OVERLOOKING ASSESSMENT		
PROJECT CONTRACT: NORTH	NELP DRAWING No.: NEL-NTH-NNA-3900-EPU-DRG-OVS2	SUIT. CODE 7

Overshadowing and Overlooking Assessment

The purpose of the Urban Design Overshadowing and Overlooking Assessment is to identify and assess expected overshadowing and overlooking caused as a result of the Ring Road Completion infrastructure. Overshadowing refers to the shadow cast by a building or a structure onto nearby properties. Overlooking considers whether project works enable views into adjacent homes or gardens.

The overshadowing analysis is based on shadows cast by non-transparent structures during the September equinox, which occurs in the Southern Hemisphere between September 21 to 24 each year.

The assessment is prepared in accordance with the EPR LP4 as follows:

Minimise overshadowing from noise walls and elevated structures and overlooking from elevated structure.

Overshadowing from elevated structures and noise walls to residential properties (including existing solar panels), community facilities, open spaces, waterways and valuable natural habitats must be minimised through detailed design. Consultation must occur with directly affected property owners and occupiers to inform formulation of parameters for these structures including location, design and materials.

Unless with the consent of an affected landowner or in exceptional circumstances, the extent of additional overshadowing of residential properties from non-transparent structures:

- Should be no greater than the existing shadowing of secluded private open spaces associated with residential properties cast by existing structures including existing noise walls and other structures (e.g. elevated walkways) between the hours of 9:00 am to 3:00 pm as measured on September 22*
- If additional overshadowing occurs it must not be greater than 50% of the secluded private open space or 40 sqm, whichever is the greater, between the hours of 9:00 am to 3:00 pm as measured on September 22.*

Overlooking from elevated structures, especially within a distance of 15 metres to secluded open space and habitable room windows of residential properties, must be minimised through detailed design as far practicable. Consultation must occur with directly affected property owners and occupiers to inform formulation of parameters, designs and materials for these structures.

The assessment also considers the EPR, Landscape and Visual 1 (LV1): Design to be in accordance with the UDS. Specifically, the UDS seeks to 'avoid or minimise landscape and visual, overlooking, and shading... impacts in extent, duration and intensity' and 'detailed design to ensure landmark elements balance visual impact with minimal overshadowing'.

The UDLP has been designed to be in accordance with the UDS, including requirements to minimise overlooking and overshadowing.

Refer to *UDLP Attachment 1: Architecture and Urban Design* For design drawings relating to elevated structures, noise wall and screening details and finishes, and noise wall alignment.

1.1 UDLP Amendment

Design development based on detailed site surveys, updated noise assessments, and consultation has resulting in minor design changes throughout the Project. To facilitate delivery of these changes an Amendment to the UDLP has been undertaken. To ensure a consistent and rigorous approach to ongoing compliance with EPR LP4 this Overshadowing and Overlooking Assessment has been updated to identify and assess expected overshadowing and overlooking caused as a result of relevant design changes to noise walls and elevated structures. The approach and methodology used for this updated analysis is consistent with that use for the Approved UDLP.

1.2 Methodology

The following methodology has been employed for the assessment:

- Development of a 3D terrain model created using one metre contour data
- Development of a 3D model of the current design which is informed by ongoing consultation and design development
- Utilising modelling software to undertake overshadowing analysis on September 22nd
- Utilising modelling software to develop overlooking diagrams and analysis in line with design development.

Overshadowing diagrams are presented at the following scales to provide a comprehensive visual representation:

Area Wide: Provides a zoomed-out area wide assessment undertaken at 9am, 12pm, and 3pm to locate areas of overshadowing. This Project wide analysis is used to inform locations for focused analysis of directly affected properties (including existing solar panels), and other sensitive areas including community facilities, open spaces, waterways and valuable natural habitats (as required by LP4). Wall and screening heights are based on assumed 'worst case scenario' using max heights shown within the UDLP design and presented as solid non-transparent materials.

Focused Analysis: Provides a zoomed-in analysis of overshadowing on specific locations and depicts overshadowing for all relevant hours throughout the day at 1-hour intervals. Noise wall and screening heights in these areas have been reduced as far as practicable and include the use of tinted transparent acrylic to minimise overshadowing.

Detailed Analysis: Provides a closer detailed analysis of individual properties where the total percentage of SPOS directly affected by shadowing is more than 50% of the secluded private open space (SPOS). Analysis includes shadows cast by both existing and proposed structures to show the total extent of shadow. The detailed analysis is based on the 1-hour intervals captured in the Focused Analysis.

Overlooking analysis has been depicted to show direct effects from elevated structures undertaken at a standard eye height of 1.7-metres and at an angle of 45 degrees from eye level. Properties located within 15-metres of elevated structures have been used to guide the overlooking analysis with direct affects to surrounding properties also considered within the assessment.

1.3 Limitations

While every effort has been made to create an accurate model, the limited resolution of the contour data and the approximation of dwelling height and form means that the overshadowing and overlooking output should only be used as a guide to inform ongoing consultation and the application of mitigation measures to be used and finalised during design development.

In some cases, approximations were made off external data sources to determine the location and dimensions

of elements where data is not readily available, such as the use of high-resolution aerial imagery for determining the extent of SPOS, footprint of houses, and approximate height of residential buildings.

The output is conservative as it does not take into account existing vegetation, minor built forms such as trees, gantries, light poles, and low-height retaining walls, or proposed landscape treatments due to the potential for these items to alter over time. Where tinted transparent acrylic noise walls would assist with reducing the extent of overshadowing, this has been referenced in the analysis.

Where the use of tinted transparent acrylic noise walls have been applied, a typical noise wall Type C has been used which details two-thirds acrylic and one-third weathered steel (non-transparent). For noise wall design details refer *UDLP Attachment 1: Architecture and Urban Design*.

Where an overlooking screen Type C has been applied, the materials and extent of application are to be finalised during the design development phase in consultation with directly affected properties to achieve compliance with the requirements of EPR LP4.

Overshadowing and overlooking are progressively assessed throughout the design development subject to detailed site surveys and further noise assessments used to determine if the extent of overshadowing can be further reduced. Ongoing consultation with all directly affected property owners will be undertaken, informed and supported by this more detailed level of design information.

The design of elevated structures and noise walls will progress based on consultation outcomes used to inform the design of elevated structures and noise walls, including specific materials, heights and alignment and, where relevant, the detailed design application of mitigation measures which balance both overlooking and overshadowing impacts including screen types.

Agreement and consent to the proposed design will be obtained from directly affected landowners where the overshadowing conditions of EPR LP4 cannot, or will not, be achieved. The Project will make all reasonable endeavours to reach an acceptable design outcome and obtain land owner consent. If this cannot be achieved exceptional circumstance will apply.

DESIGN SUBJECT TO RELEVANT CODES AND STANDARDS

© North East Link Program

7	UDLP FINAL AMENDMENT SUBMISSION	05.11.2025	DRAFTING CHECKED BY	C. DEWAGE	NAME	DATE	05.11.2025	NELP DISCLAIMER	Conditions of Use. This Document has been developed for the purposes of the North East Link Project. Recipients of this document: - are subject to obligations of confidentiality in relation to this document; and - may not rely upon the information contained in this document, and must rely absolutely on their own opinion and professional advice.	 	CHECK PRINT	READY FOR ISSUE INITIAL DATE
6	UDLP AMENDMENT	05.09.2025	DRAFTING CHECKED BY									
5	UDLP FINAL SUBMISSION	21.08.2024	DRAFTING CHECKED BY	L. ORJALO	NAME	DATE	05.11.2025					
4	UDLP FINAL SUBMISSION IEA	02.08.2024	DRAFTING CHECKED BY									
3	UDLP FINAL SUBMISSION FOR REVIEW	29.01.2024	ENGINEERING CHECKED BY	R. LEWIS	NAME	DATE	05.11.2025					
2	UDLP FINAL SUBMISSION IEA	21.12.2023	VERIFIED BY	L. EVANS	NAME	DATE	05.11.2025					
1	PUBLIC EXHIBITION	25.09.2023	APPROVED BY	Z. CIVITKOVIC	NAME	DATE	05.11.2025					
REV.	DESCRIPTION	DATE		APPROVALS	DRAWN:	SIZE: A3			SCALE: As indicated	CAD FILE: -		
	REVISIONS											

Note: * Indicates signed documents as drawings will not have wet signatures.

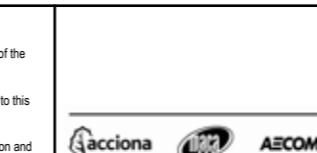
Overshadowing Assessment

DESIGN SUBJECT TO RELEVANT CODES AND STANDARDS

© North East Link Program

7	UDLP FINAL AMENDMENT SUBMISSION	05.11.2025	DRAFTING CHECKED BY	NAME	DATE	NELP DISCLAIMER	
6	UDLP AMENDMENT	05.09.2025		C. DEWAGE	05.11.2025	Conditions of Use. This Document has been developed for the purposes of the North East Link Project. Recipients of this document:	
5	UDLP FINAL SUBMISSION	21.08.2024		L. ORJALO	05.11.2025	- are subject to obligations of confidentiality in relation to this document; and	
4	UDLP FINAL SUBMISSION IEA	02.08.2024		R. LEWIS	05.11.2025	- may not rely upon the information contained in this document, and must rely absolutely on their own opinion and professional advice.	
3	UDLP FINAL SUBMISSION FOR REVIEW	29.01.2024	ENGINEERING CHECKED BY	L. EVANS	05.11.2025		
2	UDLP FINAL SUBMISSION IEA	21.12.2023	VERIFIED BY				
1	PUBLIC EXHIBITION	25.09.2023	APPROVED BY	Z. CVITKOVIC	05.11.2025		
REV.	DESCRIPTION	DATE					
	REVISIONS			APPROVALS	DRAWN: -	SIZE: A3	SCALE: As indicated

Note: * Indicates signed documents as drawings will not have wet signatures.



CHECK PRINT			READY FOR ISSUE	INITIAL	DATE
DISCIPLINE					
BACKDRAFTED/CORRECTED					
CONFIRMED					

Security Classification: OFFICIAL: Sensitive

CAD FILE: -

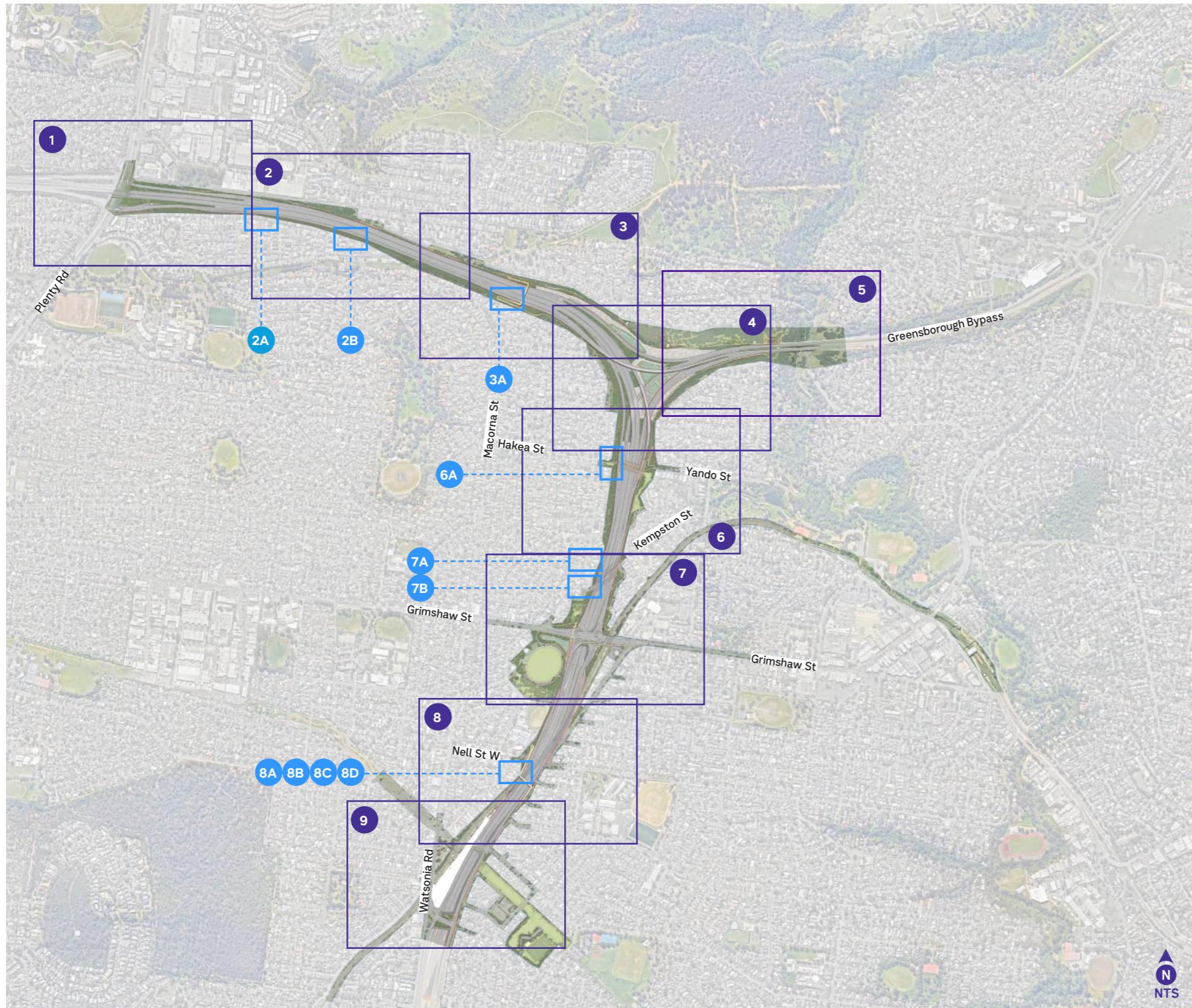
PROJECT CONTRACT: NORTH	NELP DRAWING No.: NEL-NTH-NNA-3900-EPU-DRG-4002	SUIT. CODE 7
----------------------------	--	-----------------

DOT No.:

NORTH EAST LINK PROGRAM

ATTACHMENT 4:

URBAN DESIGN OVERSHADOWING AND OVERLOOKING ASSESSMENT OVERSHADOWING ASSESSMENT



Attachment 4 - Overshadowing Assessment List

Drawing Number	Location
1	Area Wide: M80 Ring Road 1
2	Area Wide: M80 Ring Road 2
2A	Focused Analysis: Boylan Walk and Carroll Close
2B	Focused Analysis: Tevlin Court and Chappell Drive
3	Area Wide: M80 Interchange 1
3A	Focused Analysis: Macorna Street and Edmund Rice Parade
4	Area Wide: M80 Interchange 2
5	Area Wide: M80 Interchange 3
6	Area Wide: Greensborough Road 1
6A	Focused Analysis: Sellars Street Area 1
7	Area Wide: Greensborough Road 2
7A	Focused Analysis: Sellars Street Area 2
7B	Focused Analysis: Sellars Street Area 3
8	Area Wide: Greensborough Road 3
8A	Focused Analysis: Ibbottson Street and Nell Street West
8B	Detailed Analysis: 229 Nell Street West
8C	Detailed Analysis: 50 Ibbottson Street
8D	Detailed Analysis: 48 Ibbottson Street
9	Area Wide: Watsonia Precinct 1

Figure 1: Site Overall Plan - Overshadowing

DESIGN SUBJECT TO RELEVANT CODES AND STANDARDS

© North East Link Program

7	UDLP FINAL AMENDMENT SUBMISSION	05.11.2025	DRAFTING CHECKED BY	NAME	DATE	NELP DISCLAIMER Conditions of Use. This Document has been developed for the purposes of the North East Link Project. Recipients of this document: - are subject to obligations of confidentiality in relation to this document; and - may not rely upon the information contained in this document, and must rely absolutely on their own opinion and professional advice.
6	UDLP AMENDMENT	05.09.2025		C. DEWAGE	05.11.2025	
5	UDLP FINAL SUBMISSION	21.08.2024		L. ORJALO	05.11.2025	
4	UDLP FINAL SUBMISSION IEA	02.08.2024		R. LEWIS	05.11.2025	
3	UDLP FINAL SUBMISSION FOR REVIEW	29.01.2024	ENGINEERING CHECKED BY	L. EVANS	05.11.2025	
2	UDLP FINAL SUBMISSION IEA	21.12.2023	VERIFIED BY	Z. CIVITKOVIC	05.11.2025	
1	PUBLIC EXHIBITION	25.09.2023	APPROVED BY			
REV.	DESCRIPTION	DATE				
	REVISIONS			APPROVALS	DRAWN: -	SIZE: A3
					SCALE: As indicated	

Note: * Indicates signed documents as drawings will not have wet signatures.



CHECK PRINT			READY FOR ISSUE
DISCIPLINE	DISCIPLINE	DISCIPLINE	INITIAL DATE
BACKDRAFTED/CORRECTED			
CONFIRMED			

Security Classification: **OFFICIAL: Sensitive**
CAD FILE: -

NORTH EAST LINK PROGRAM		
ATTACHMENT 4: URBAN DESIGN OVERSHADOWING AND OVERLOOKING ASSESSMENT SITE OVERALL PLAN - OVERSHADOWING		
PROJECT CONTRACT: NORTH	NELP DRAWING No.: NEL-NTH-NNA-3900-EPU-DRG-4003	SUIT. CODE 7

1. Area Wide: M80 Ring Road 1

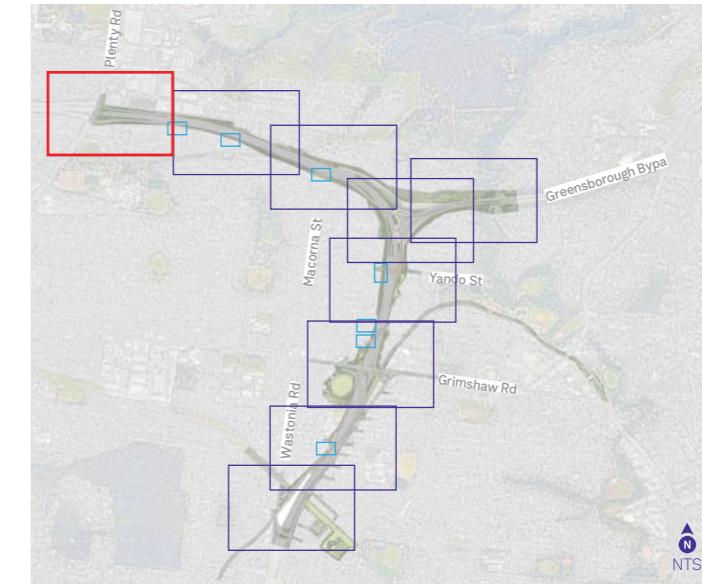
1.1 Overshadowing Analysis

Within M80 Ring Road 1, the noise walls are modelled as worst case scenario at a maximum height of 6-metres as shown in *UDLP Attachment 1: Architecture and Urban Design*.

There are no new shadows cast from elevated structures or noise walls into the SPOS of residential properties as shown in Figures 2, 3, and 4. This complies with the requirements of EPR LP4, as the total percentage of SPOS directly affected by shadowing is less than 50% of the SPOS.

1.2 Overlooking Analysis

There are no elevated structures within M80 Ring Road 1 that pose overlooking concerns.



22nd September 9am (AEST)



Figure 2: Area Wide: M80 Ring Road - 22nd September 9am (AEST)

22nd September 12pm (AEST)



Figure 3: Area Wide: M80 Ring Road - 22nd September 12pm (AEST)

22nd September 3pm (AEST)



Figure 4: Area Wide: M80 Ring Road - 22nd September 3pm (AEST)

LEGEND

EXTENT OF OVERSHADOWING
--- PROJECT BOUNDARY

Disclaimer Notes:

Overshadowing diagrams have been drafted for the purposes of depicting shadowing effects from non-transparent major built structures and therefore do not illustrate shadows cast from minor elements including trees, gantries, light poles and low height retaining walls.

This analysis is subject to site surveys which are to be undertaken during the design development phase of the Project. Surveys will be used to verify site information including the location of existing buildings and associated SPOS, heights of existing fences, site levels and habitable room windows. Following development of detailed surveys, additional overlooking assessments will be undertaken and will inform consultation with relevant directly affected properties.

Overshadowing analysis has been developed based on assumed 'worst case scenario' wall heights and the final design may vary pending ongoing engineering advice, acoustic noise wall modelling, design development and consultation.

Refer to *UDLP Attachment 1: Architecture and Urban Design* for current proposed noise wall and screen designs.

DESIGN SUBJECT TO RELEVANT CODES AND STANDARDS

© North East Link Program

7	UDLP FINAL AMENDMENT SUBMISSION	05.11.2025	DRAFTING CHECKED BY	NAME C. DEWAGE	DATE 05.11.2025	NELP DISCLAIMER Conditions of Use. This Document has been developed for the purposes of the North East Link Project. Recipients of this document: - are subject to obligations of confidentiality in relation to this document; and - may not rely upon the information contained in this document, and must rely absolutely on their own opinion and professional advice.	 	CHECK PRINT DISCIPLINE DISCIPLINE DISCIPLINE BACKDRAFTED/CORRECTED CONFIRMED	READY FOR ISSUE INITIAL DATE
6	UDLP AMENDMENT	05.09.2025							
5	UDLP FINAL SUBMISSION	21.08.2024							
4	UDLP FINAL SUBMISSION IEA	02.08.2024	ENGINEERING CHECKED BY	L. ORJALO	05.11.2025				
3	UDLP FINAL SUBMISSION FOR REVIEW	29.01.2024	VERIFIED BY	R. LEWIS	05.11.2025				
2	UDLP FINAL SUBMISSION IEA	21.12.2023	APPROVED BY	L. EVANS	05.11.2025				
1	PUBLIC EXHIBITION	25.09.2023		Z. CIVITKOVIC	05.11.2025				
REV.	DESCRIPTION	DATE	APPROVALS	DRAWN: -	SIZE: A3	SCALE: As indicated	CAD FILE: -		
	REVISIONS								

Note: * Indicates signed documents as drawings will not have wet signatures.

SCALE 1:7500 0 25 50 100 200m DOT No.:

NORTH EAST LINK PROGRAM
ATTACHMENT 4:
URBAN DESIGN OVERSHADOWING AND OVERLOOKING ASSESSMENT
AREA WIDE: M80 RING ROAD 1

PROJECT CONTRACT: NORTH	NELP DRAWING No.: NEL-NTH-NNA-3900-EPU-DRG-4004	SUIT. CODE: 7
-------------------------	---	---------------

2. Area Wide: M80 Ring Road 2

2.1 Overshadowing Analysis

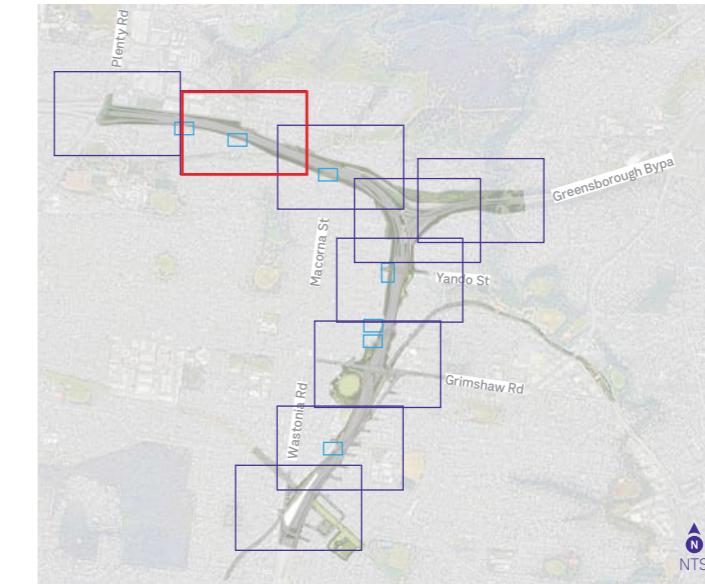
Within M80 Ring Road 2, the noise walls are modelled as worst case scenario at a maximum height and vary between 4-metres and 8-metres as shown in *UDLP Attachment 1: Architecture and Urban Design*.

Shadows cast within this area are predominantly located within the Project boundary, however overshadowing can be observed within the SPOS of residential properties along Tevlin Court and Chappell Drive between the hours of 9am and 12pm. This can be observed in Figures 5 and 6. There is no observed overshadowing to open space north of the M80 Ring Road.

Based on this Area Wide analysis, a focused analysis has been undertaken for these directly affected areas and includes the application of design solutions to mitigate overshadowing. Refer to section 2A.

2.2 Overlooking Analysis

There are no elevated structure within M80 Ring Road 2 that pose overlooking concerns.



22nd September 9am (AEST)



Figure 5: Area Wide: M80 Ring Road 2 - 22nd September 9am (AEST)

22nd September 12pm (AEST)



Figure 6: Area Wide: M80 Ring Road 2 - 22nd September 12pm (AEST)

22nd September 3pm (AEST)



Figure 7: Area Wide: M80 Ring Road 2 - 22nd September 3pm (AEST)

LEGEND

- EXTENT OF OVERSHADOWING
- PROJECT BOUNDARY

Disclaimer Notes:

Overshadowing diagrams have been drafted for the purposes of depicting shadowing effects from non-transparent major built structures and therefore do not illustrate shadows cast from minor elements including trees, gantries, light poles and low height retaining walls.

This analysis is subject to site surveys which are to be undertaken during the design development phase of the Project. Surveys will be used to verify site information including the location of existing buildings and associated SPOS, heights of existing fences, site levels and habitable room windows. Following development of detailed surveys, additional overlooking assessments will be undertaken and will inform consultation with relevant directly affected properties.

Overshadowing analysis has been developed based on assumed 'worst case scenario' wall heights and the final design may vary pending ongoing engineering advice, acoustic noise wall modelling, design development and consultation.

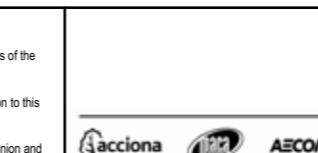
DESIGN SUBJECT TO RELEVANT CODES AND STANDARDS

Refer to *UDLP Attachment 1: Architecture and Urban Design* for current proposed noise wall and screen designs.

© North East Link Program

7	UDLP FINAL AMENDMENT SUBMISSION	05.11.2025	NAME	DATE	NELP DISCLAIMER	
6	UDLP AMENDMENT	05.09.2025	DRAFTING CHECKED BY	C. DEWAGE	Conditions of Use. This Document has been developed for the purposes of the North East Link Project. Recipients of this document: - are subject to obligations of confidentiality in relation to this document; and - may not rely upon the information contained in this document, and must rely absolutely on their own opinion and professional advice.	
5	UDLP FINAL SUBMISSION	21.08.2024	L. ORJALO	05.11.2025		
4	UDLP FINAL SUBMISSION IEA	02.08.2024	ENGINEERING CHECKED BY	R. LEWIS		
3	UDLP FINAL SUBMISSION FOR REVIEW	29.01.2024	VERIFIED BY	L. EVANS		
2	UDLP FINAL SUBMISSION IEA	21.12.2023	APPROVED BY	Z. CIVITKOVIC		
1	PUBLIC EXHIBITION	25.09.2023		05.11.2025		
REV.	DESCRIPTION	DATE	APPROVALS	DRAWN: -	SIZE: A3	SCALE: As indicated
	REVISIONS					

Note: * Indicates signed documents as drawings will not have wet signatures.



CHECK PRINT			READY FOR ISSUE
DISCIPLINE	DISCIPLINE	DISCIPLINE	INITIAL DATE
BACKDRAFTED/CORRECTED			
CONFIRMED			

Security Classification: OFFICIAL: Sensitive
CAD FILE: -

NORTH EAST LINK PROGRAM		
ATTACHMENT 4: URBAN DESIGN OVERSHADOWING AND OVERLOOKING ASSESSMENT AREA WIDE: M80 RING ROAD 2		
PROJECT CONTRACT: NORTH	NELP DRAWING No.: NEL-NTH-NNA-3900-EPU-DRG-4005	SUIT. CODE 7

2A. Focused Analysis: Boylan Walk and Carroll Close

22nd September 9am (AEST)

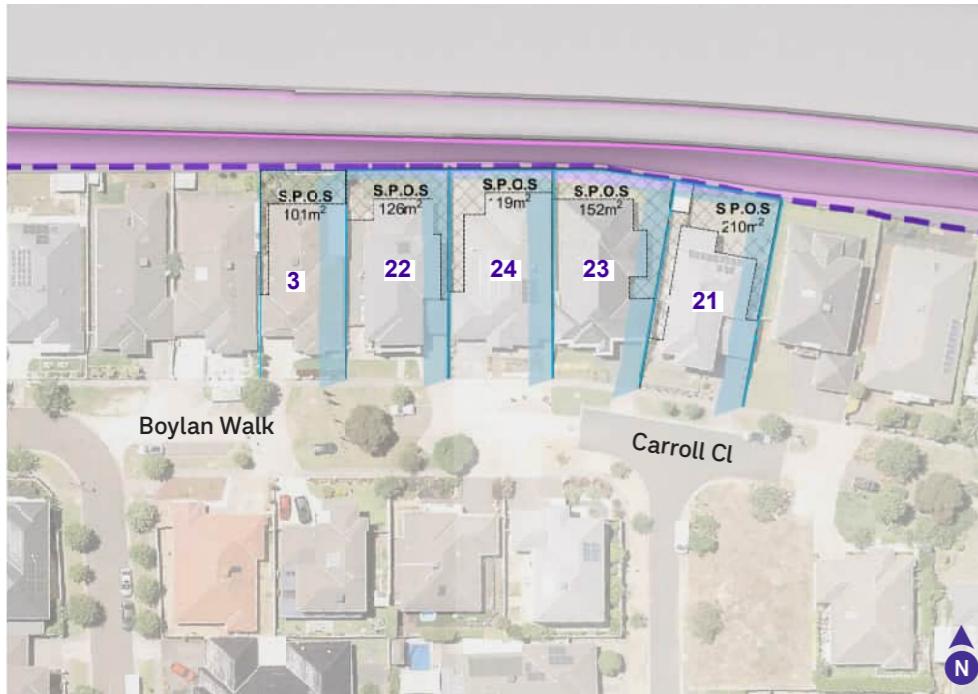


Figure 8: Focused Analysis: Boylan Walk and Carroll Close - 22nd September 9am (AEST)

22nd September 10am (AEST)

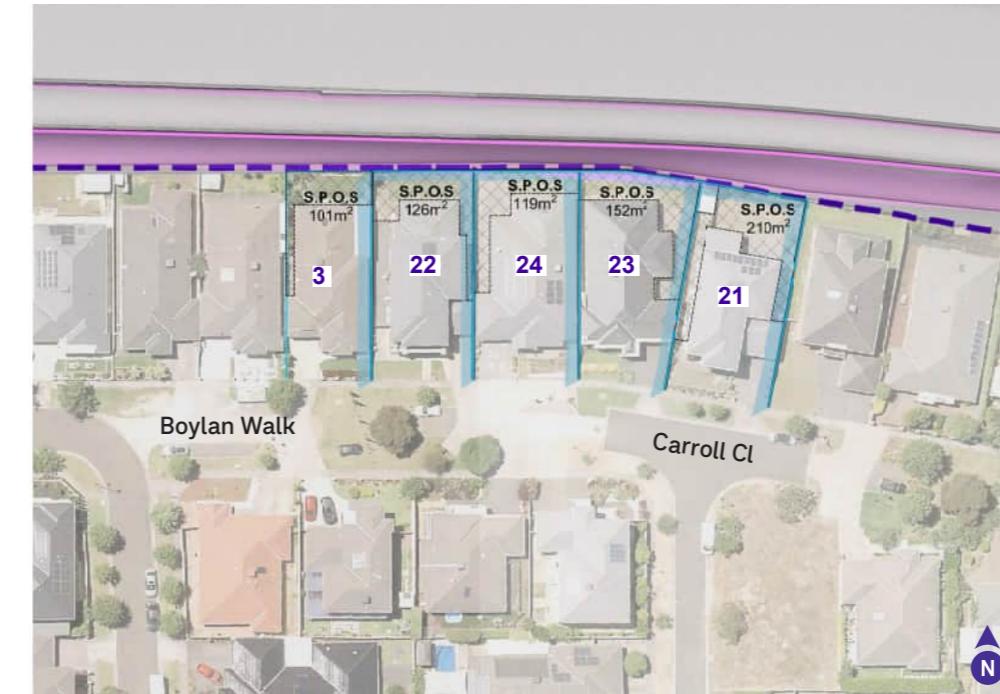


Figure 9: Focused Analysis: Boylan Walk and Carroll Close- 22nd September 10am (AEST)

22nd September 11am (AEST)

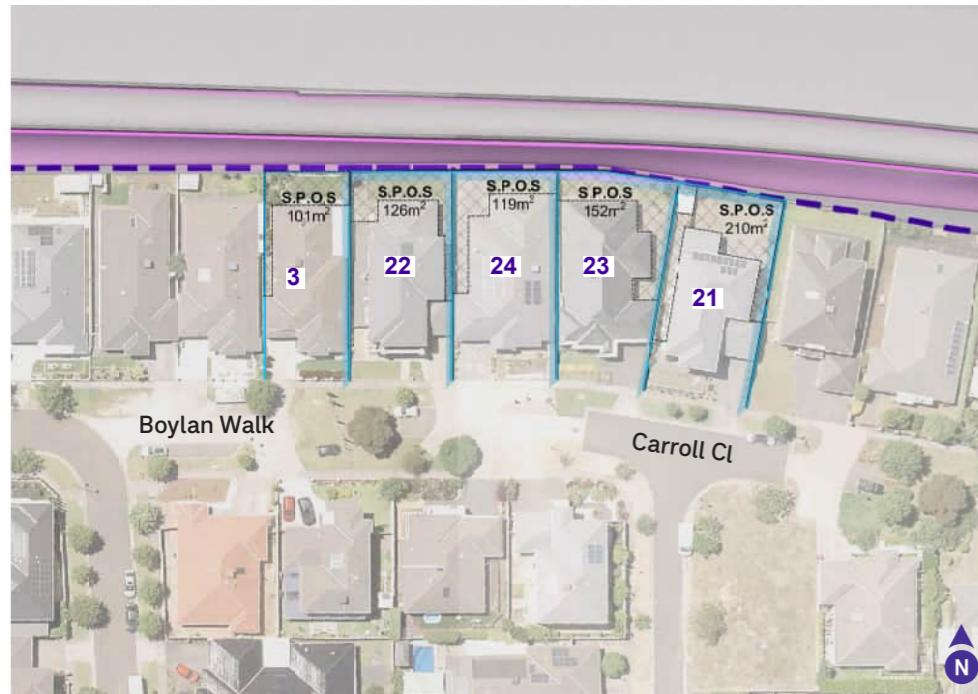


Figure 10: Focused Analysis: Boylan Walk and Carroll Close - 22nd September 11am (AEST)

Focused Overshadowing Analysis

The Focused Analysis of properties along Boylan Walk and Carroll Close revealed no overshadowing following the application of a partially acrylic noise wall Type C within the design. This can be seen in Figures 8, 9 and 10.

Although there are no shadows cast from elevated structures or noise walls, properties have been identified as directly affected by the use of acrylic panels casting tinted light into SPOS. Ongoing consultation will be undertaken with these properties.

This complies with the requirements of EPR LP4, as the total percentage of SPOS directly affected by shadowing is less than 50% of the SPOS.

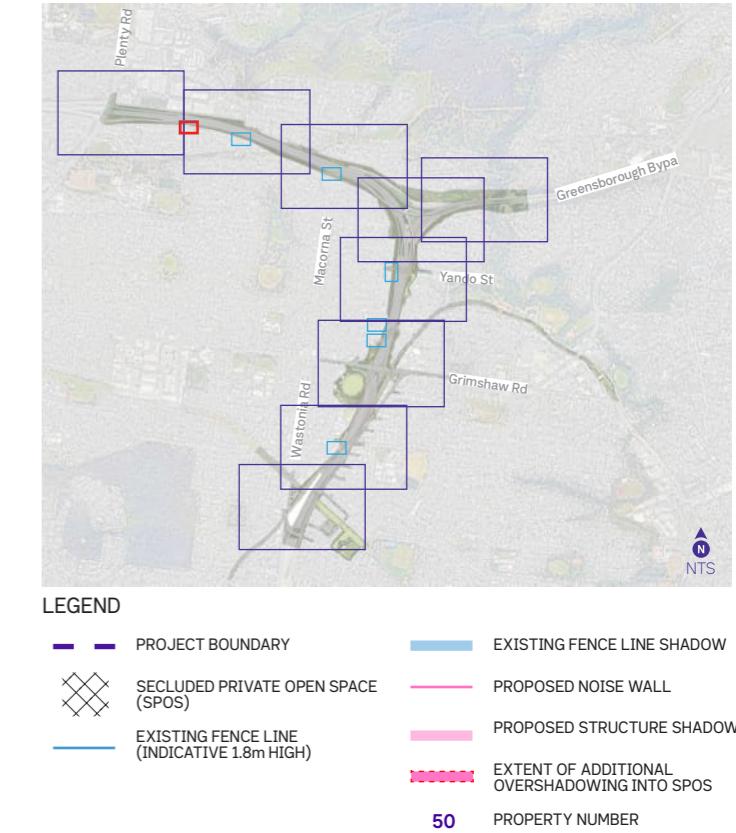
Disclaimer Notes:

Overshadowing diagrams have been drafted for the purposes of depicting shadowing effects from major built structures and therefore do not illustrate shadows cast from minor elements including trees, gantries, light poles and low height retaining walls.

This analysis is subject to site surveys which are to be undertaken during the design development phase of the Project. Surveys will be used to verify site information including the location of existing buildings and associated SPOS, heights of existing fences, site levels and habitable room windows. Following development of detailed surveys, additional overlooking assessments will be undertaken and will inform consultation with relevant directly affected properties.

Shadow analysis has been developed based on a reduction in overall noise wall and screen heights as far as practicable and include the use of tinted transparent acrylic to minimise overshadowing. The final design may vary pending ongoing engineering advice, acoustic noise wall modelling, design development and consultation.

Refer to UDLP Attachment 1: Architecture and Urban Design for current proposed noise wall and screen designs.



DESIGN SUBJECT TO RELEVANT CODES AND STANDARDS

© North East Link Program

7	UDLP FINAL AMENDMENT SUBMISSION	05.11.2025	DRAFTING CHECKED BY	NAME	DATE	NELP DISCLAIMER	
6	UDLP AMENDMENT	05.09.2025	Conditions of Use. This Document has been developed for the purposes of the North East Link Project.		05.11.2025	Discipline Discipline Discipline Backdrafted/Corrected Confirmed	
5	UDLP FINAL SUBMISSION	21.08.2024	Recipients of this document: - are subject to obligations of confidentiality in relation to this document; and		05.11.2025	Initial Date	
4	UDLP FINAL SUBMISSION IEA	02.08.2024	- may not rely upon the information contained in this document, and must rely absolutely on their own opinion and professional advice.		05.11.2025		
3	UDLP FINAL SUBMISSION FOR REVIEW	29.01.2024			05.11.2025		
2	UDLP FINAL SUBMISSION IEA	21.12.2023			05.11.2025		
1	PUBLIC EXHIBITION	25.09.2023			05.11.2025		
REV.	DESCRIPTION	DATE			APPROVED BY	Z.CVITKOVIC	SCALE: As indicated
	REVISIONS						CAD FILE: -
	APPROVALS		DRAWN:	-	SIZE: A3		

Note: * Indicates signed documents as drawings will not have wet signatures.

2B. Focused Analysis: Tevlin Court and Chappell Drive

22nd September 9am (AEST)

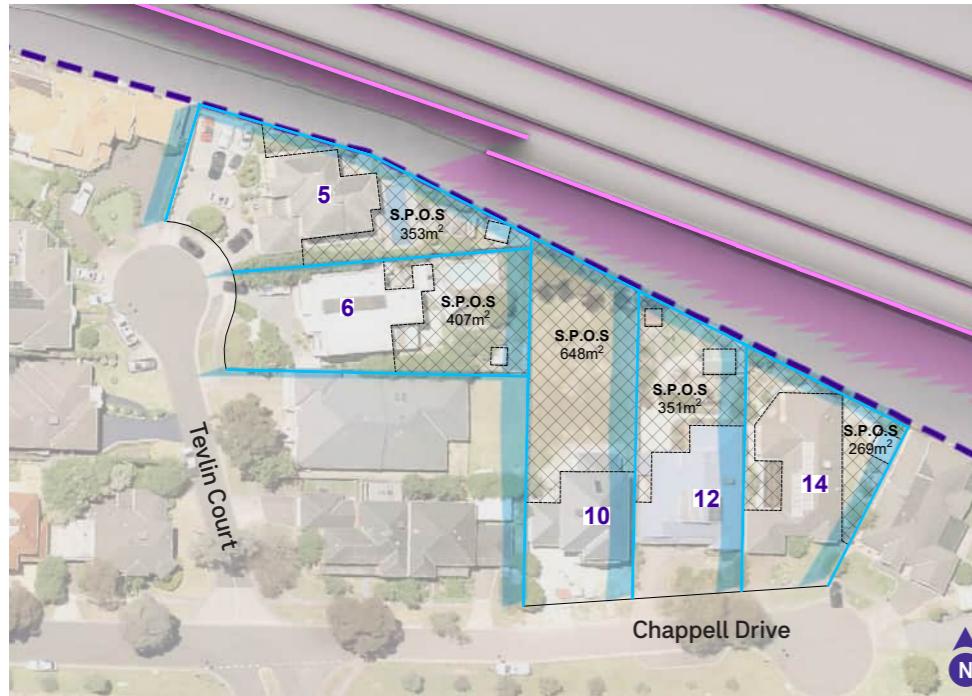


Figure 11: Focused Analysis: Tevlin Court and Chappell Drive - 22nd September 9am (AEST)

22nd September 10am (AEST)

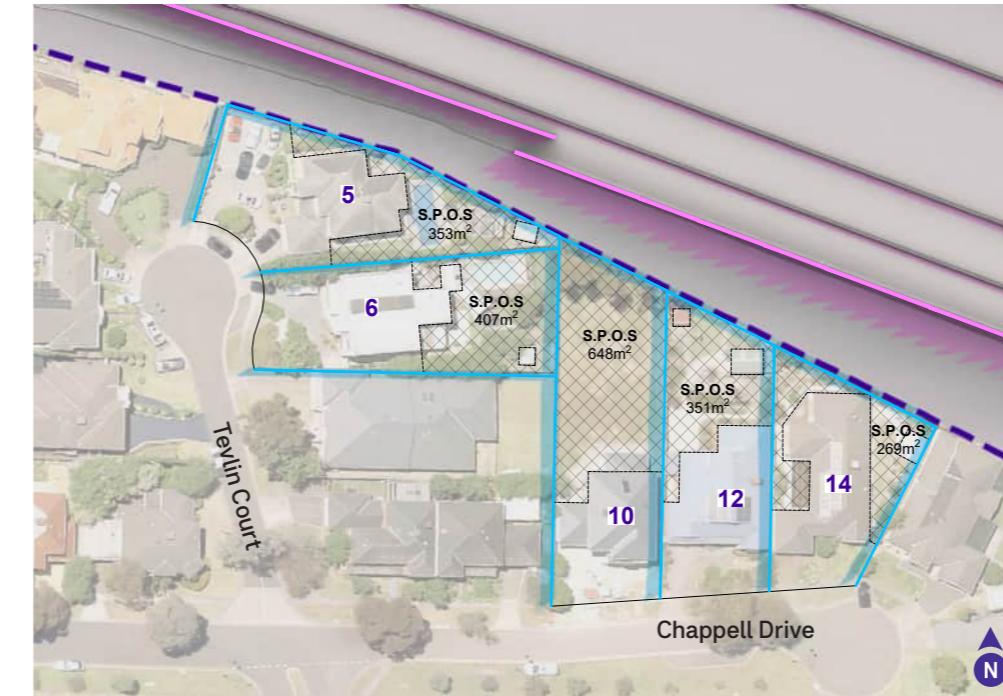


Figure 12: Focused Analysis: Tevlin Court and Chappell Drive - 22nd September 10am (AEST)

22nd September 11am (AEST)

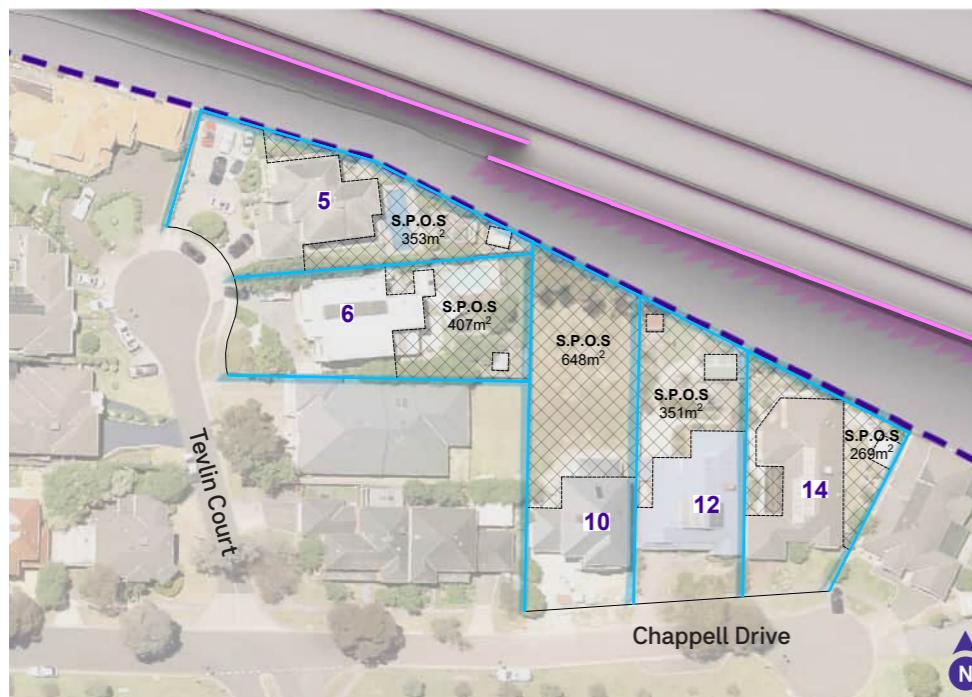


Figure 13: Focused Analysis: Tevlin Court and Chappell Drive - 22nd September 11am (AEST)

Focused Overshadowing Analysis

The Focused Analysis of properties along Tevlin Court and Chappell Drive revealed no overshadowing following the application of a partially acrylic noise wall Type C within the design. This can be seen in Figures 11, 12 and 13.

Although there are no shadows cast from elevated structures or noise walls, properties have been identified as directly affected by the use of acrylic panels casting tinted light into SPOS. Ongoing consultation will be undertaken with these properties.

This complies with the requirements of EPR LP4, as the total percentage of SPOS directly affected by shadowing is less than 50% of the SPOS.

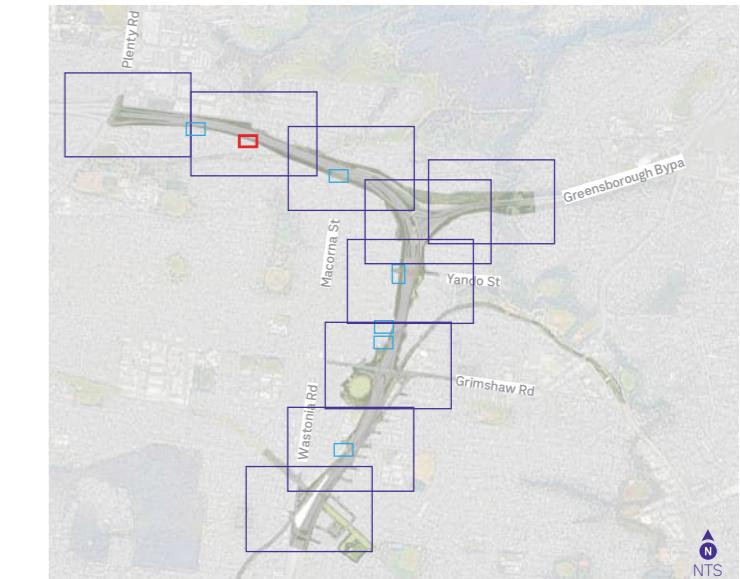
Disclaimer Notes:

Overshadowing diagrams have been drafted for the purposes of depicting shadowing effects from major built structures and therefore do not illustrate shadows cast from minor elements including trees, gantries, light poles and low height retaining walls.

This analysis is subject to site surveys which are to be undertaken during the design development phase of the Project. Surveys will be used to verify site information including the location of existing buildings and associated SPOS, heights of existing fences, site levels and habitable room windows. Following development of detailed surveys, additional overlooking assessments will be undertaken and will inform consultation with relevant directly affected properties.

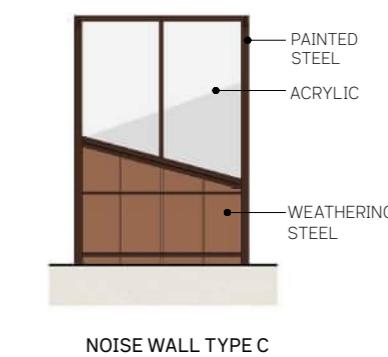
Shadow analysis has been developed based on a reduction in overall noise wall and screen heights as far as practicable and include the use of tinted transparent acrylic to minimise overshadowing. The final design may vary pending ongoing engineering advice, acoustic noise wall modelling, design development and consultation.

Refer to UDLP Attachment 1: Architecture and Urban Design for current proposed noise wall and screen designs.



LEGEND

PROJECT BOUNDARY	EXISTING FENCE LINE SHADOW
SECLUDED PRIVATE OPEN SPACE (SPOS)	PROPOSED NOISE WALL
EXISTING FENCE LINE (INDICATIVE 1.8m HIGH)	PROPOSED STRUCTURE SHADOW
██████████	EXTENT OF ADDITIONAL OVERSHADOWING INTO SPOS
50	PROPERTY NUMBER



DESIGN SUBJECT TO RELEVANT CODES AND STANDARDS

© North East Link Program

7	UDLP FINAL AMENDMENT SUBMISSION	05.11.2025	DRAFTING CHECKED BY	NAME	DATE	NELP DISCLAIMER	
6	UDLP AMENDMENT	05.09.2025		C. DEWAGE	05.11.2025	Conditions of Use. This Document has been developed for the purposes of the North East Link Project. Recipients of this document: - are subject to obligations of confidentiality in relation to this document; and - may not rely upon the information contained in this document, and must rely absolutely on their own opinion and professional advice.	
5	UDLP FINAL SUBMISSION	21.08.2024		L. ORJALO	05.11.2025		
4	UDLP FINAL SUBMISSION IEA	02.08.2024		R. LEWIS	05.11.2025		
3	UDLP FINAL SUBMISSION FOR REVIEW	29.01.2024	ENGINEERING CHECKED BY	L. EVANS	05.11.2025		
2	UDLP FINAL SUBMISSION IEA	21.12.2023	VERIFIED BY	Z. CVITKOVIC	05.11.2025		
1	PUBLIC EXHIBITION	25.09.2023	APPROVED BY				
REV.	DESCRIPTION	DATE					
	REVISIONS			APPROVALS	DRAWN: -	SIZE: A3	READY FOR ISSUE INITIAL DATE

Note: * Indicates signed documents as drawings will not have wet signatures.

NORTH EAST LINK PROGRAM	
ATTACHMENT 4:	
URBAN DESIGN OVERSHADOWING AND OVERLOOKING ASSESSMENT	
FOCUSED ANALYSIS: TEVLIN COURT AND CHAPPELL DRIVE	
PROJECT CONTRACT:	NELP DRAWING No.: NEL-NTH-NNA-3900-EPU-DRG-4006
NORTH	SUIT. CODE 7

3. Area Wide: M80 Interchange 1

3.1 Overshadowing Analysis

Within M80 Ring Interchange 1, the noise walls are modelled as worst case scenario at a maximum height and vary between 4-metres and 8-metres as shown in *UDLP Attachment 1: Architecture and Urban Design*.

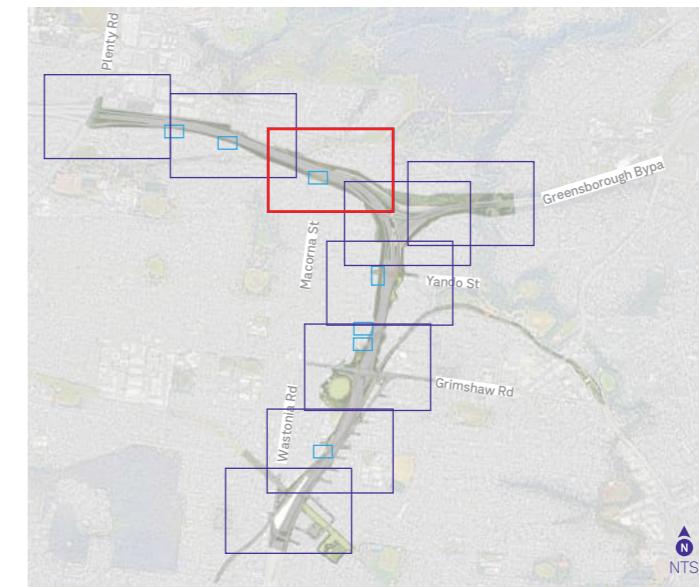
The new Macorna Street shared use path bridge has been offset from residential properties along Macorna Street to minimise overshadowing and overlooking, however the ramp screens produce overshadowing into the adjacent SPOS. This can be observed between the hours of 9am and 12pm as shown in Figures 14, 15 and 16. There is no observed overshadowing to open space north of the M80 Interchange.

Based on this Area Wide analysis, a focused analysis has been undertaken for these directly affected areas and includes the application of design solutions to mitigate overshadowing. Refer to section 3A.

3.2 Overlooking Analysis

Possible overlooking from the Macorna Street shared use path bridge have been identified for both the northern and southern ramps.

For detailed analysis of these directly affected areas including the application of design solutions to mitigate overlooking refer to sections 10 and 11.



22nd September 9am (AEST)

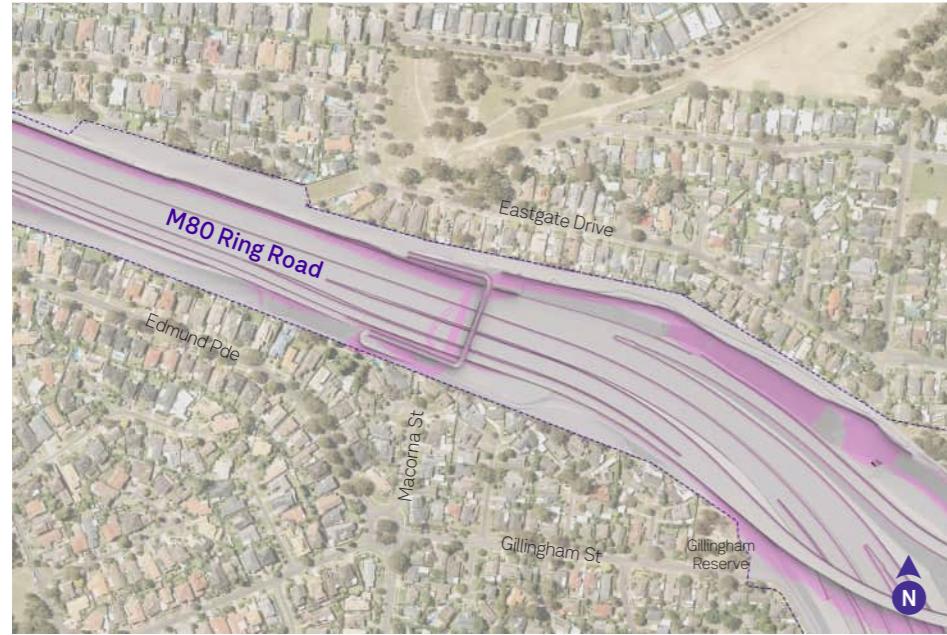


Figure 14: Area Wide: M80 Interchange 1 - 22nd September 9am (AEST)

22nd September 12pm (AEST)

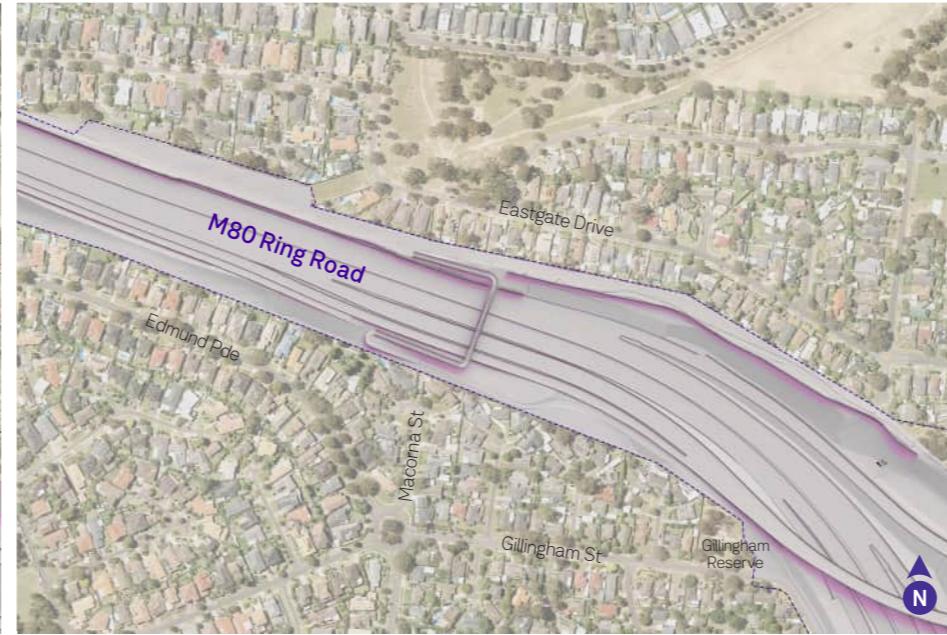


Figure 15: Area Wide: M80 Interchange 1 - 22nd September 12pm (AEST)

22nd September 3pm (AEST)

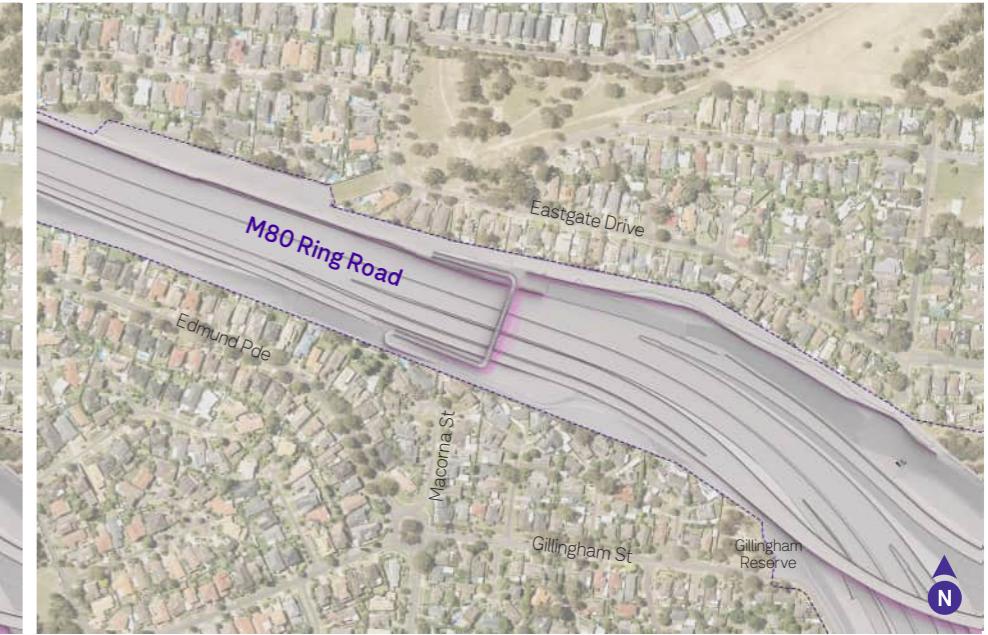


Figure 16: Area Wide: M80 Interchange 1 - 22nd September 3pm (AEST)

LEGEND

- EXTENT OF OVERSHADOWING
- PROJECT BOUNDARY

Disclaimer Notes:

Overshadowing diagrams have been drafted for the purposes of depicting shadowing effects from non-transparent major built structures and therefore do not illustrate shadows cast from minor elements including trees, gantries, light poles and low height retaining walls.

This analysis is subject to site surveys which are to be undertaken during the design development phase of the Project. Surveys will be used to verify site information including the location of existing buildings and associated SPOS, heights of existing fences, site levels and habitable room windows. Following development of detailed surveys, additional overlooking assessments will be undertaken and will inform consultation with relevant directly affected properties.

Overshadowing analysis has been developed based on assumed 'worst case scenario' wall heights and the final design may vary pending ongoing engineering advice, acoustic noise wall modelling, design development and consultation.

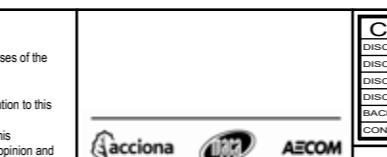
Refer to *UDLP Attachment 1: Architecture and Urban Design* for current proposed noise wall and screen designs.

DESIGN SUBJECT TO RELEVANT CODES AND STANDARDS

© North East Link Program

7	UDLP FINAL AMENDMENT SUBMISSION	05.11.2025	DRAFTING CHECKED BY	NAME	DATE	UDLP DISCLAIMER	
6	UDLP AMENDMENT	05.09.2025		C. DEWAGE	05.11.2025	Conditions of Use. This Document has been developed for the purposes of the North East Link Project. Recipients of this document: - are subject to obligations of confidentiality in relation to this document; and - may not rely upon the information contained in this document, and must rely absolutely on their own opinion and professional advice.	
5	UDLP FINAL SUBMISSION	21.08.2024		L. ORJALO	05.11.2025		
4	UDLP FINAL SUBMISSION IEA	02.08.2024	ENGINEERING CHECKED BY	R. LEWIS	05.11.2025		
3	UDLP FINAL SUBMISSION FOR REVIEW	29.01.2024	VERIFIED BY	L. EVANS	05.11.2025		
2	UDLP FINAL SUBMISSION IEA	21.12.2023	APPROVED BY	Z. CIVITKOVIC	05.11.2025		
1	PUBLIC EXHIBITION	25.09.2023					
REV.	DESCRIPTION	DATE	APPROVALS	DRAWN: -	SIZE: A3	SCALE: As indicated	CAD FILE: -
	REVISIONS						

Note: * Indicates signed documents as drawings will not have wet signatures.



CHECK PRINT			READY FOR ISSUE
DISCIPLINE	DISCIPLINE	DISCIPLINE	INITIAL DATE
BACKDRAFTED/CORRECTED			
CONFIRMED			

Security Classification: OFFICIAL: Sensitive

NORTH EAST LINK PROGRAM		
ATTACHMENT 4: URBAN DESIGN OVERSHADOWING AND OVERLOOKING ASSESSMENT AREA WIDE: M80 INTERCHANGE 1		
PROJECT CONTRACT: NORTH	NEL DRAWING No.: NEL-NTH-NNA-3900-EPU-DRG-4007	SUIT. CODE 7

3A. Focused Analysis: Macorna Street and Edmund Rice Parade

22nd September 9am (AEST)

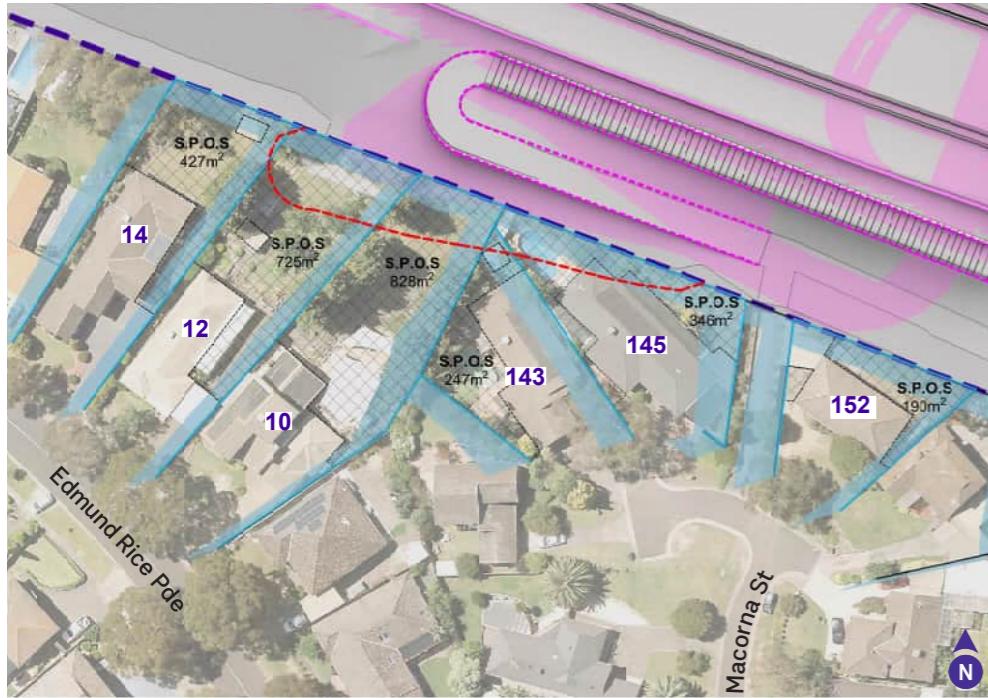


Figure 17: Focused Analysis: Macorna Street and Edmund Rice Parade - 22nd September 9am (AEST)

22nd September 10am (AEST)

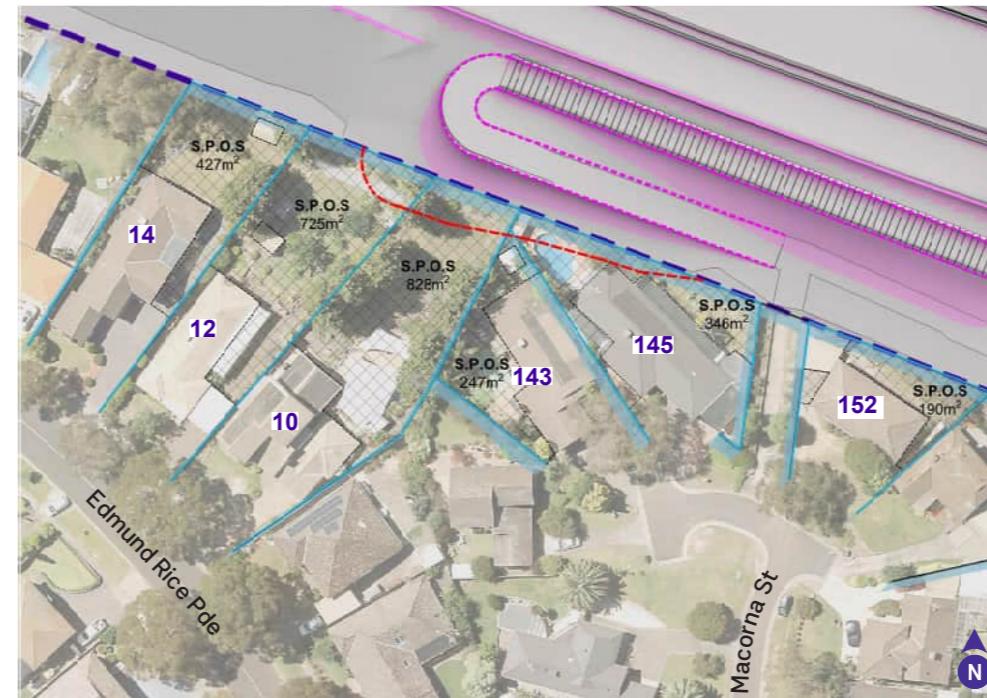


Figure 18: Focused Analysis: Macorna Street and Edmund Rice Parade - 22nd September 10am (AEST)

22nd September 11am (AEST)

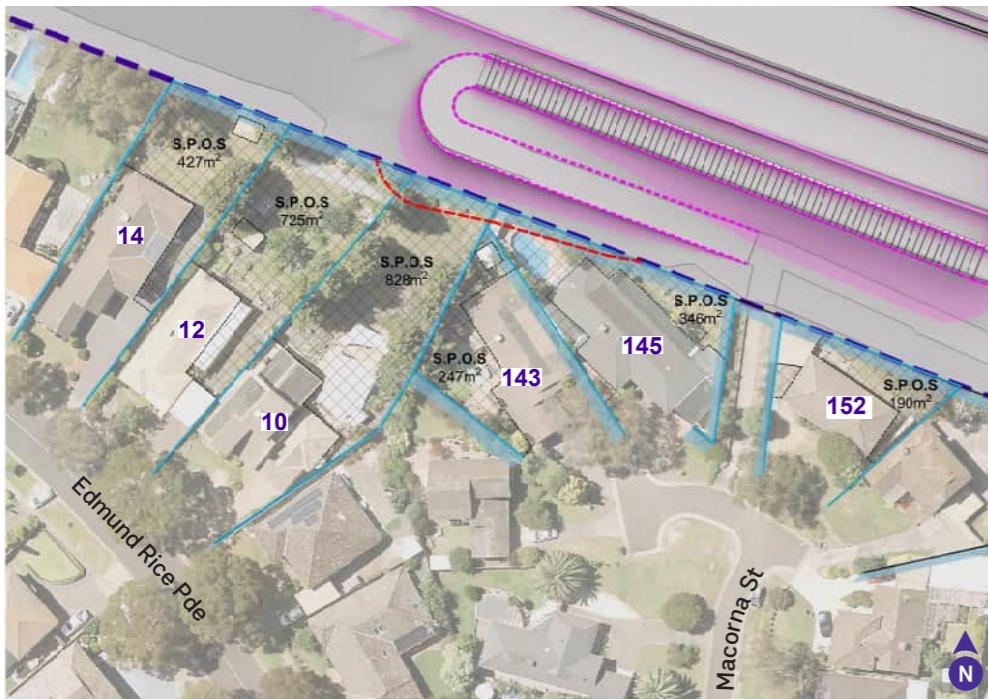


Figure 19: Focused Analysis: Macorna Street and Edmund Rice Parade - 22nd September 11am (AEST)

Focused Overshadowing Analysis

The Focused Analysis of properties along Macorna Street and Edmund Rice Parade revealed no overshadowing from noise walls following the application of a partially acrylic noise wall Type C.

Although there are no shadows cast from noise walls, properties have been identified as directly affected by the use of acrylic panels casting tinted light into SPOS. Ongoing consultation will be undertaken with these properties.

Indicative overshadowing has been identified with the use of overlooking screening Type C on bridge ramps. Ongoing consultation with directly affected properties will inform the screening type used in this location.

The use of anti-throw screen Type A or B would mitigate overshadowing in this location. This can be seen in Figures 17, 18 and 19.

This complies with the requirements of EPR LP4.

Disclaimer Notes:

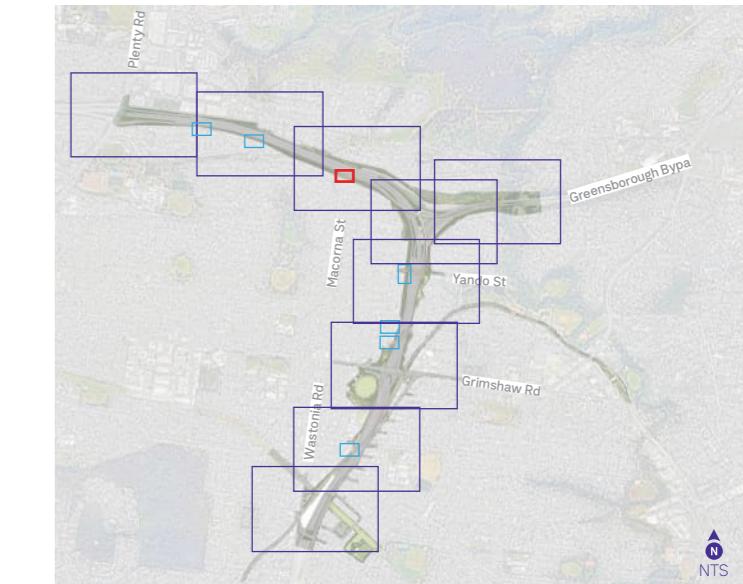
Overlooking screen Type C materials and extent of application are to be finalised in design development phase in consultation with directly affected properties to achieve compliance with the requirements of EPR LP4.

Overshadowing diagrams have been drafted for the purposes of depicting shadowing effects from major built structures and therefore do not illustrate shadows cast from minor elements including trees, gantries, light poles and low height retaining walls.

This analysis is subject to site surveys which are to be undertaken during the design development phase of the Project. Surveys will be used to verify site information including the location of existing buildings and associated SPOS, heights of existing fences, site levels and habitable room windows. Following development of detailed surveys, additional overlooking assessments will be undertaken and will inform consultation with relevant directly affected properties.

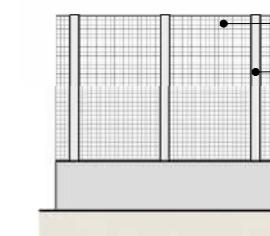
Shadow analysis has been developed based on a reduction in overall noise wall and screen heights as far as practicable and include the use of tinted transparent acrylic to minimise overshadowing. The final design may vary pending ongoing engineering advice, acoustic noise wall modelling, design development and consultation.

Refer to UDLP Attachment 1: Architecture and Urban Design for current proposed noise wall and screen designs.



LEGEND

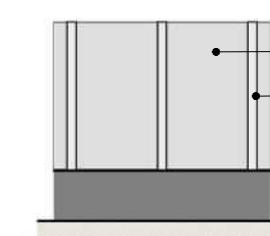
PROJECT BOUNDARY	EXISTING FENCE LINE SHADOW
SECLUDED PRIVATE OPEN SPACE (SPOS)	PROPOSED NOISE WALL
EXISTING FENCE LINE (INDICATIVE 1.8m HIGH)	PROPOSED STRUCTURE SHADOW
PROPOSED SCREEN	EXTENT OF ADDITIONAL OVERSHADOWING INTO SPOS
INDICATIVE EXTENT OF OVERLOOKING SCREENING SHADOW	PROPERTY NUMBER



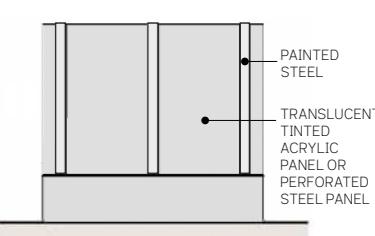
ANTI-THROW SCREEN TYPE A



NOISE WALL TYPE C MAX HEIGHT OF 6m



ANTI-THROW SCREEN TYPE B



OVERLOOKING SCREEN TYPE C

DESIGN SUBJECT TO RELEVANT CODES AND STANDARDS

© North East Link Program

7	UDLP FINAL AMENDMENT SUBMISSION	05.11.2025	DRAFTING CHECKED BY	C. DEWAGE	DATE	05.11.2025
6	UDLP AMENDMENT	05.09.2025	DESIGNED BY	L. ORJALO	05.11.2025	
5	UDLP FINAL SUBMISSION	21.08.2024	ENGINEERING CHECKED BY	R. LEWIS	05.11.2025	
4	UDLP FINAL SUBMISSION IEA	02.08.2024	VERIFIED BY	L. EVANS	05.11.2025	
3	UDLP FINAL SUBMISSION FOR REVIEW	29.01.2024	APPROVED BY	Z. CVITKOVIC	05.11.2025	
2	UDLP FINAL SUBMISSION IEA	21.12.2023				
1	PUBLIC EXHIBITION	25.09.2023				
REV.	DESCRIPTION	DATE	APPROVALS	DRAWN: -	SIZE: A3	SCALE: As indicated
	REVISONS					

Note: * Indicates signed documents as drawings will not have wet signatures.

NELP DISCLAIMER

Conditions of Use:
This Document has been developed for the purposes of the North East Link Project.
Recipients of this document:
- are subject to obligations of confidentiality in relation to this document; and
- may not rely upon the information contained in this document, and must rely absolutely on their own opinion and professional advice.



CHECK PRINT		READY FOR ISSUE
DISCIPLINE	DISCIPLINE	INITIAL DATE
BACKDRAFTED/CORRECTED	CONFIRMED	

Security Classification: OFFICIAL: Sensitive

CAD FILE: -

SCALE 1:1250

0 10 15 20 30 40 50m

DOT No.: 00000000

NORTH EAST LINK PROGRAM

ATTACHMENT 4:
URBAN DESIGN OVERSHADOWING AND OVERLOOKING ASSESSMENT
FOCUSED ANALYSIS: MACORNA STREET AND EDMUND RICE PARADE

PROJECT CONTRACT:
NORTH

NELP DRAWING No.:
NEL-NTH-NNA-3900-EPU-DRG-4008

SUIT. CODE
7

4. Area Wide: M80 Interchange 2

4.1 Overshadowing Analysis

Within M80 Interchange 2, the noise walls are modelled as worst case scenario at a maximum height and vary between 3-metres and 7-metres as shown in UDLP Attachment 1: Architecture and Urban Design.

Shadows cast by noise walls and elevated structures are predominantly located within the Project boundary as shown in Figures 20, 21 and 22, however minor shadow to Gillingham Reserve are visible between the hours of 9am and 10am. Overshadowing will be reduced by maximising setbacks for noise walls and the use of acrylic screening to allow solar penetration. This has minimised the overshadowing to the open space at Gillingham Reserve.

There are no new shadows cast from elevated structures or noise walls into the SPOS of residential properties. This complies with the requirements of EPR LP4, as the total percentage of SPOS directly affected by shadowing is less than 50% of the SPOS.

4.2 Overlooking Analysis

There are no elevated structures within M80 Interchange 2 that pose overlooking concerns.

22nd September 9am (AEST)

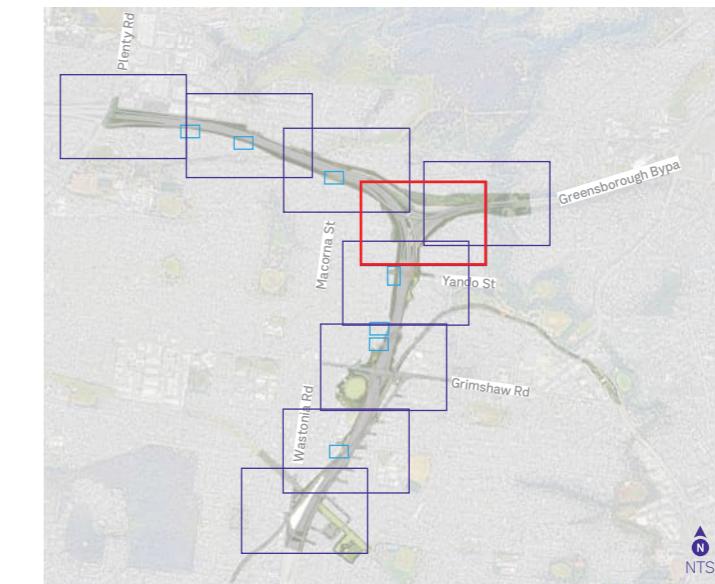


Figure 20: Area Wide: M80 Interchange 2 - 22nd September 9am (AEST)

22nd September 12pm (AEST)



Figure 21: Area Wide: M80 Interchange 2 - 22nd September 12pm (AEST)



22nd September 3pm (AEST)



Figure 22: Area Wide: M80 Interchange 2 - 22nd September 3pm (AEST)

LEGEND

- EXTENT OF OVERSHADOWING
- PROJECT BOUNDARY

Disclaimer Notes:

Overshadowing diagrams have been drafted for the purposes of depicting shadowing effects from non-transparent major built structures and therefore do not illustrate shadows cast from minor elements including trees, gantries, light poles and low height retaining walls.

This analysis is subject to site surveys which are to be undertaken during the design development phase of the Project. Surveys will be used to verify site information including the location of existing buildings and associated SPOS, heights of existing fences, site levels and habitable room windows. Following development of detailed surveys, additional overlooking assessments will be undertaken and will inform consultation with relevant directly affected properties.

Overshadowing analysis has been developed based on assumed 'worst case scenario' wall heights and the final design may vary pending ongoing engineering advice, acoustic noise wall modelling, design development and consultation.

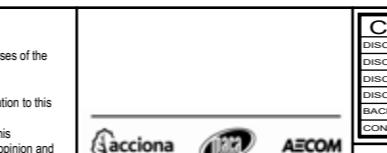
Refer to UDLP Attachment 1: Architecture and Urban Design for current proposed noise wall and screen designs.

DESIGN SUBJECT TO RELEVANT CODES AND STANDARDS

© North East Link Program

7	UDLP FINAL AMENDMENT SUBMISSION	05.11.2025	DRAFTING CHECKED BY	NAME	DATE	UDLP DISCLAIMER	
6	UDLP AMENDMENT	05.09.2025		C. DEWAGE	05.11.2025	Conditions of Use. This Document has been developed for the purposes of the North East Link Project. Recipients of this document: - are subject to obligations of confidentiality in relation to this document; and - may not rely upon the information contained in this document, and must rely absolutely on their own opinion and professional advice.	
5	UDLP FINAL SUBMISSION	21.08.2024		L. ORJALO	05.11.2025		
4	UDLP FINAL SUBMISSION IEA	02.08.2024	ENGINEERING CHECKED BY	R. LEWIS	05.11.2025		
3	UDLP FINAL SUBMISSION FOR REVIEW	29.01.2024	VERIFIED BY	L. EVANS	05.11.2025		
2	UDLP FINAL SUBMISSION IEA	21.12.2023	APPROVED BY	Z. CIVITKOVIC	05.11.2025		
1	PUBLIC EXHIBITION	25.09.2023					
REV.	DESCRIPTION	DATE	APPROVALS	DRAWN: -	SIZE: A3	SCALE: As indicated	CAD FILE: -
	REVISIONS						

Note: * Indicates signed documents as drawings will not have wet signatures.



CHECK	PRINT	READY FOR ISSUE	
DISCIPLINE		INITIAL	DATE
DISCIPLINE			
DISCIPLINE			
BACKDRAFTED/CORRECTED			
CONFIRMED			

Security Classification: OFFICIAL: Sensitive

SCALE 1:7500 0 25 50 100 200m DOT No.:

NORTH EAST LINK PROGRAM
ATTACHMENT 4:
URBAN DESIGN OVERSHADOWING AND OVERLOOKING ASSESSMENT
AREA WIDE: M80 INTERCHANGE 2

PROJECT CONTRACT: NORTH	NEL DRAWING No.: NEL-NTH-NNA-3900-EPU-DRG-4009	SUIT. CODE	REVISION
-------------------------	--	------------	----------

5. Area Wide: M80 Interchange 3

5.1 Overshadowing Analysis

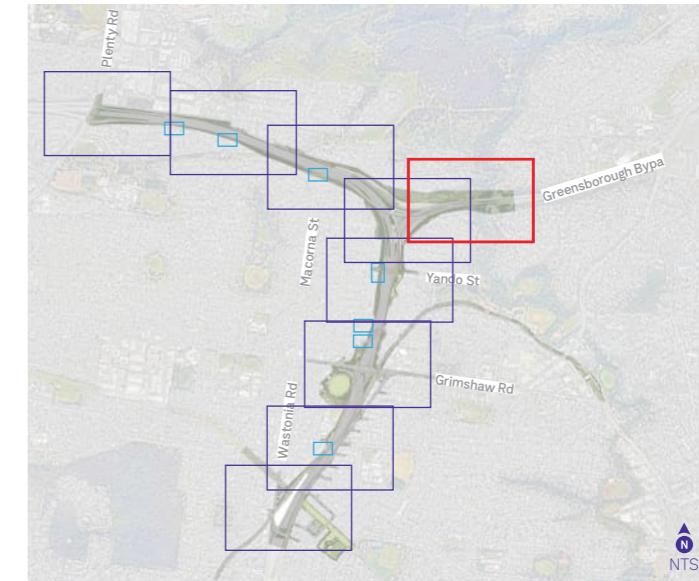
Within M80 Interchange 3, the noise walls are modelled as worst case scenario at a maximum height of 3-metres as shown in *UDLP Attachment 1: Architecture and Urban Design*.

Shadows cast by noise walls and associated road infrastructure are located within the Project boundary as shown in Figures 23, 24 and 25, with no observed overshadowing to residential properties or open space and associated natural habitat north of the M80 Interchange.

There are no new shadows cast from elevated structures or noise walls into the SPOS of residential properties as shown in Figures 23, 24 and 25. This complies with the requirements of EPR LP4, as the total percentage of SPOS directly affected by shadowing is less than 50% of the SPOS.

5.2 Overlooking Analysis

There are no elevated structures within M80 Interchange 3 that pose overlooking concerns.



22nd September 9am (AEST)

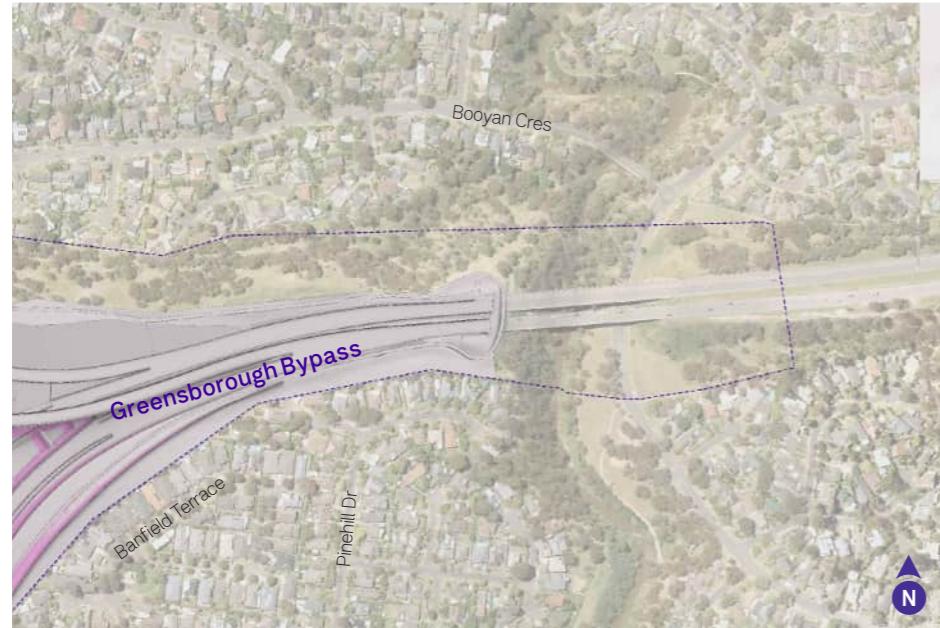


Figure 23: Area Wide: M80 Interchange 3 - 22nd September 9am (AEST)

22nd September 12pm (AEST)



Figure 24: Area Wide: M80 Interchange 3 - 22nd September 12pm (AEST)

22nd September 3pm (AEST)



Figure 25: Area Wide: M80 Interchange 2 - 22nd September 3pm (AEST)

LEGEND

- EXTENT OF OVERSHADOWING
- PROJECT BOUNDARY

Disclaimer Notes:

Overshadowing diagrams have been drafted for the purposes of depicting shadowing effects from non-transparent major built structures and therefore do not illustrate shadows cast from minor elements including trees, gantries, light poles and low height retaining walls.

This analysis is subject to site surveys which are to be undertaken during the design development phase of the Project. Surveys will be used to verify site information including the location of existing buildings and associated SPOS, heights of existing fences, site levels and habitable room windows. Following development of detailed surveys, additional overlooking assessments will be undertaken and will inform consultation with relevant directly affected properties.

Overshadowing analysis has been developed based on assumed 'worst case scenario' wall heights and the final design may vary pending ongoing engineering advice, acoustic noise wall modelling, design development and consultation.

Refer to *UDLP Attachment 1: Architecture and Urban Design* for current proposed noise wall and screen designs.

DESIGN SUBJECT TO RELEVANT CODES AND STANDARDS

© North East Link Program

7	UDLP FINAL AMENDMENT SUBMISSION	05.11.2025		NAME	DATE	UDLP DISCLAIMER	
6	UDLP AMENDMENT	05.09.2025	DRAFTING CHECKED BY	C. DEWAGE	05.11.2025	Conditions of Use: This Document has been developed for the purposes of the North East Link Project. Recipients of this document: - are subject to obligations of confidentiality in relation to this document; and - may not rely upon the information contained in this document, and must rely absolutely on their own opinion and professional advice.	
5	UDLP FINAL SUBMISSION	21.08.2024	DESIGNED BY	L. ORJALO	05.11.2025		
4	UDLP FINAL SUBMISSION IEA	02.08.2024	ENGINEERING CHECKED BY	R. LEWIS	05.11.2025		
3	UDLP FINAL SUBMISSION FOR REVIEW	29.01.2024	VERIFIED BY	L. EVANS	05.11.2025		
2	UDLP FINAL SUBMISSION IEA	21.12.2023	APPROVED BY	Z. CIVITKOVIC	05.11.2025		
1	PUBLIC EXHIBITION	25.09.2023					
REV.	DESCRIPTION	DATE	APPROVALS	DRAWN: -	SIZE: A3	SCALE: As indicated	CAD FILE: -
	REVISIONS						

Note: * Indicates signed documents as drawings will not have wet signatures.



CHECK PRINT			READY FOR ISSUE
DISCIPLINE	DISCIPLINE	DISCIPLINE	INITIAL DATE
BACKDRAFTED/CORRECTED			
CONFIRMED			

Security Classification: OFFICIAL: Sensitive

SCALE 1:7500	0 25 50 100 200m	DOT No.:
NORTH EAST LINK PROGRAM		
ATTACHMENT 4:		
URBAN DESIGN OVERSHADOWING AND OVERLOOKING ASSESSMENT		
AREA WIDE: M80 INTERCHANGE 3		
PROJECT CONTRACT: NORTH	NEL DRAWING No.: NEL-NTH-NNA-3900-EPU-DRG-4010	SUIT. CODE: 7

6. Area Wide: Greensborough Road 1

6.1 Overshadowing Analysis

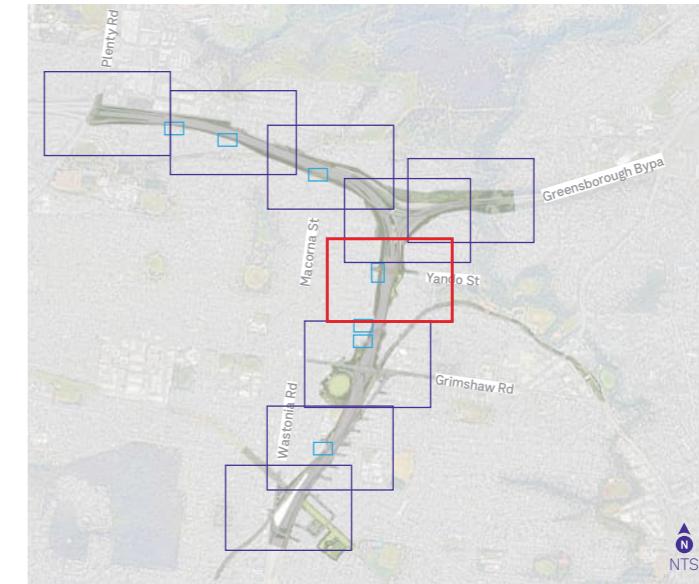
Within Greensborough Road 1, the noise walls are modelled as worst case scenario at a maximum height and vary between 4-metres and 9-metres as shown in *UDLP Attachment 1: Architecture and Urban Design*.

Shadows within this area are predominantly cast within the Project boundary, however overshadowing can be observed within the SPOS of residential properties along Sellars Street at 9am. This can be observed in Figures 26, 27 and 28.

Based on this Area Wide analysis, a focused analysis has been undertaken for these directly affected areas and includes the application of design solutions to mitigate overshadowing. Refer to section 6A.

6.2 Overlooking Analysis

There are no elevated structures within Greensborough Road 1 that pose overlooking concerns.



22nd September 9am (AEST)



Figure 26: Area Wide: Greensborough Road 1 - 22nd September 9am (AEST)

22nd September 12pm (AEST)



Figure 27: Area Wide: Greensborough Road 1 - 22nd September 12pm (AEST)

22nd September 3pm (AEST)



Figure 28: Area Wide: Greensborough Road 1 - 22nd September 3pm (AEST)

LEGEND

- EXTENT OF OVERSHADOWING
- PROJECT BOUNDARY

Disclaimer Notes:

Overshadowing diagrams have been drafted for the purposes of depicting shadowing effects from non-transparent major built structures and therefore do not illustrate shadows cast from minor elements including trees, gantries, light poles and low height retaining walls.

This analysis is subject to site surveys which are to be undertaken during the design development phase of the Project. Surveys will be used to verify site information including the location of existing buildings and associated SPOS, heights of existing fences, site levels and habitable room windows. Following development of detailed surveys, additional overlooking assessments will be undertaken and will inform consultation with relevant directly affected properties.

Overshadowing analysis has been developed based on assumed 'worst case scenario' wall heights and the final design may vary pending ongoing engineering advice, acoustic noise wall modelling, design development and consultation.

Refer to *UDLP Attachment 1: Architecture and Urban Design* for current proposed noise wall and screen designs.

DESIGN SUBJECT TO RELEVANT CODES AND STANDARDS

© North East Link Program

7	UDLP FINAL AMENDMENT SUBMISSION	05.11.2025		NAME	DATE	UDLP DISCLAIMER	
6	UDLP AMENDMENT	05.09.2025	DRAFTING CHECKED BY	C. DEWAGE	05.11.2025	Conditions of Use: This Document has been developed for the purposes of the North East Link Project. Recipients of this document: - are subject to obligations of confidentiality in relation to this document; and - may not rely upon the information contained in this document, and must rely absolutely on their own opinion and professional advice.	
5	UDLP FINAL SUBMISSION	21.08.2024		L. ORJALO	05.11.2025		
4	UDLP FINAL SUBMISSION IEA	02.08.2024	ENGINEERING CHECKED BY	R. LEWIS	05.11.2025		
3	UDLP FINAL SUBMISSION FOR REVIEW	29.01.2024	VERIFIED BY	L. EVANS	05.11.2025		
2	UDLP FINAL SUBMISSION IEA	21.12.2023	APPROVED BY	Z. CIVITKOVIC	05.11.2025		
1	PUBLIC EXHIBITION	25.09.2023					
REV.	DESCRIPTION	DATE	APPROVALS	DRAWN: -	SIZE: A3	SCALE: As indicated	CAD FILE: -
	REVISIONS						

Note: * Indicates signed documents as drawings will not have wet signatures.

SCALE 1:7500		0 25 50 100 200m	DOT No.:
NORTH EAST LINK PROGRAM			
ATTACHMENT 4:			
URBAN DESIGN OVERSHADOWING AND OVERLOOKING ASSESSMENT			
AREA WIDE: GREENSBOROUGH ROAD 1			
PROJECT CONTRACT:	NELP DRAWING No.:	SUIT. CODE	REVISION
NORTH	NEL-NTH-NNA-3900-EPU-DRG-4011		7

6A. Focused Analysis: Sellars Street Area 1

22nd September 9am (AEST)

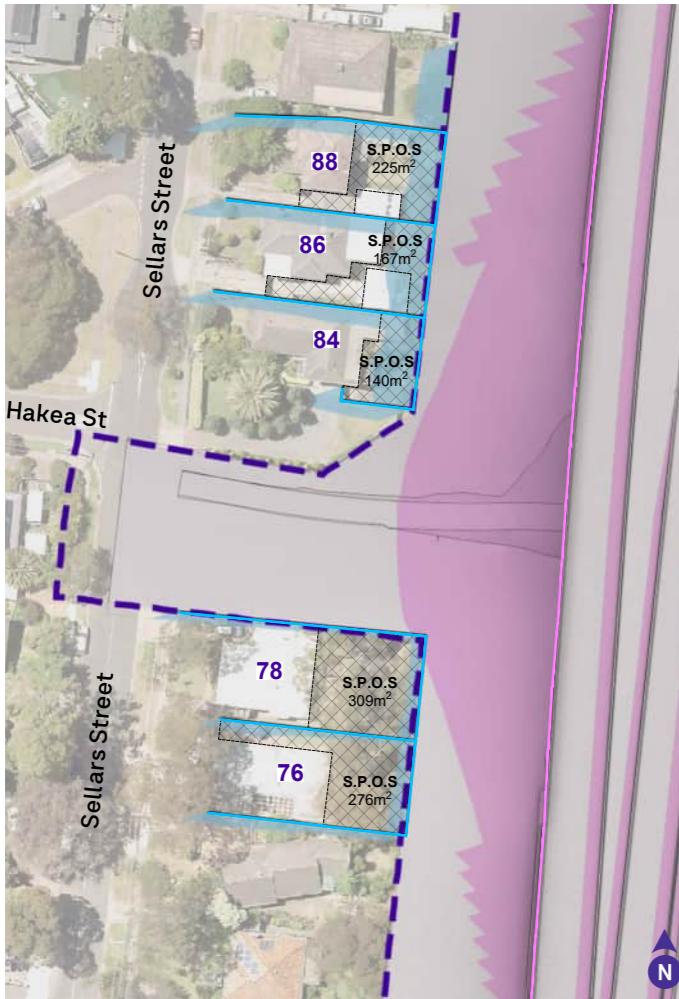


Figure 29: Focused Analysis: Sellars Street Area 1 - 22nd September 9am (AEST)

22nd September 10am (AEST)

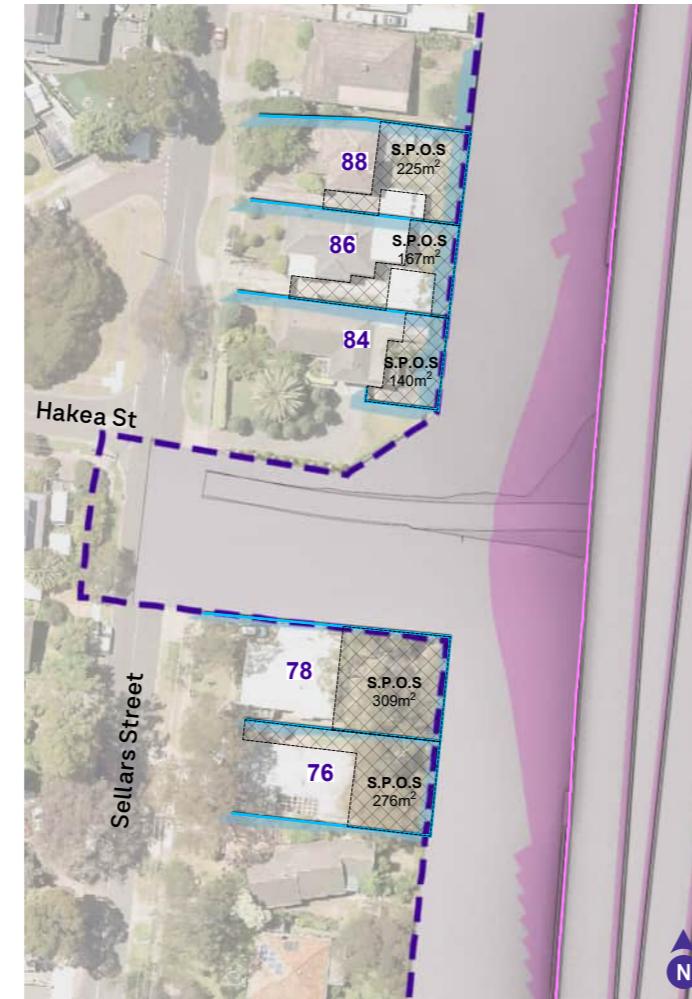


Figure 30: Focused Analysis: Sellars Street Area 1 - 22nd September 10am (AEST)

22nd September 11am (AEST)

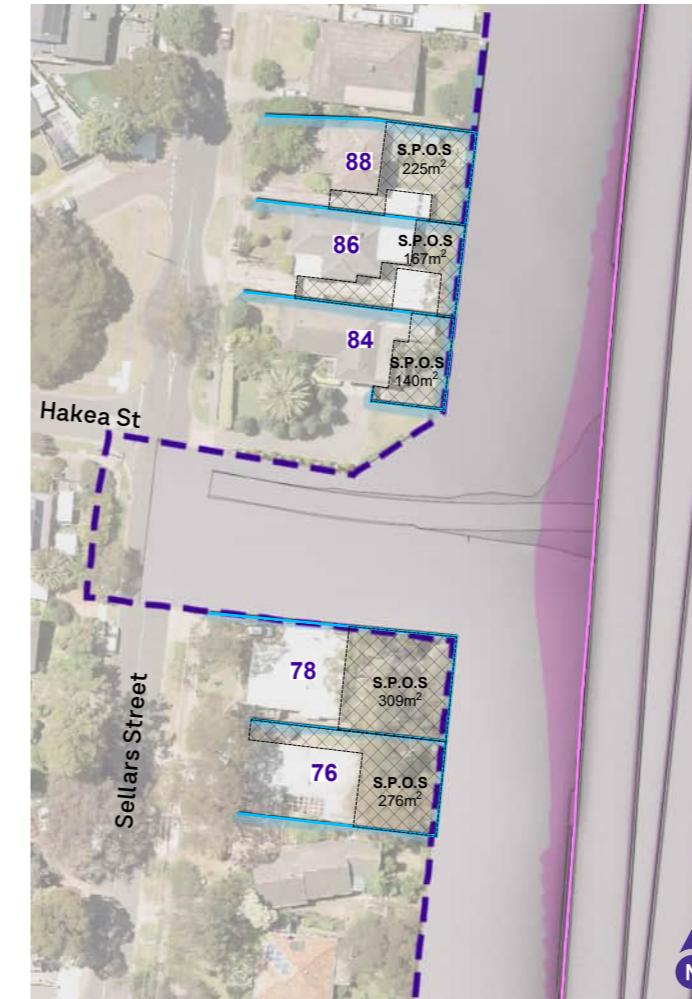
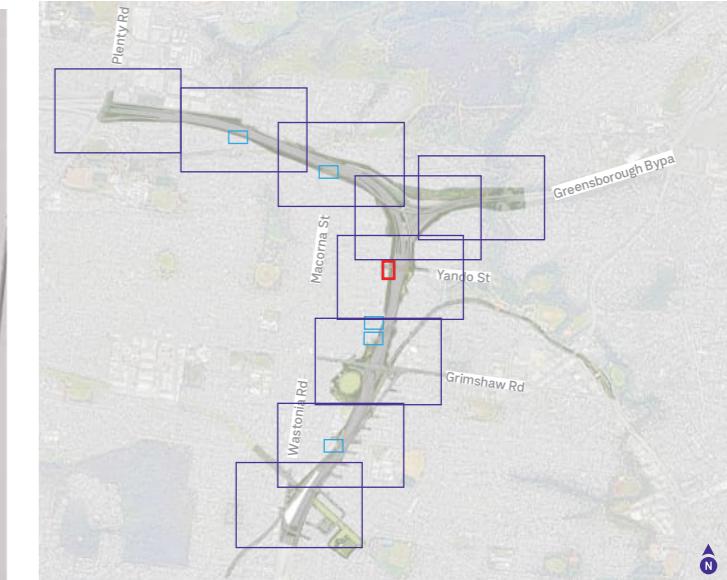


Figure 31: Focused Analysis: Sellars Street Area 1 - 22nd September 11am (AEST)



LEGEND

- PROJECT BOUNDARY
- EXISTING FENCE LINE SHADOW
- SECLUDED PRIVATE OPEN SPACE (SPOS)
- PROPOSED NOISE WALL
- PROPOSED STRUCTURE SHADOW
- EXISTING FENCE LINE (INDICATIVE 1.8m HIGH)
- EXTENT OF ADDITIONAL OVERSHADOWING INTO SPOS
- PROPERTY NUMBER

Focused Overshadowing Analysis

Although there are no shadows cast from elevated structures or noise walls, properties have been identified as directly affected by the use of acrylic panels casting tinted light into SPOS. Ongoing consultation will be undertaken with these properties.

This complies with the requirements of EPR LP4, as the total percentage of SPOS directly affected by shadowing is less than 50% of the SPOS.

Disclaimer Notes:

Overshadowing diagrams have been drafted for the purposes of depicting shadowing effects from non-transparent major built structures and therefore do not illustrate shadows cast from minor elements including trees, gantries, light poles and low height retaining walls.

This analysis is subject to site surveys which are to be undertaken during the design development phase of the Project. Surveys will be used to verify site information including the location of existing buildings and associated SPOS, heights of existing fences, site levels and habitable room windows. Following development of detailed surveys, additional overshadowing assessments will be undertaken and will inform consultation with relevant directly affected properties.

Shadow analysis has been developed based on a reduction in overall noise wall and screen heights as far as practicable and include the use of tinted transparent acrylic to minimise overshadowing. The final design may vary pending ongoing engineering advice, acoustic noise wall modelling, design development and consultation.

Refer to UDLP Attachment 1: Architecture and Urban Design for current proposed noise wall and screen designs.

UDLP Amendment

The Approved UDLP overshadowing analysis for Sellars Street Area 1 was based on an assumed 'worst case' scenario post design development.

Therefore changes to noise walls associated with the UDLP Amendment have resulted in no change to shadows cast in this location.

DESIGN SUBJECT TO RELEVANT CODES AND STANDARDS

© North East Link Program

7	UDLP FINAL AMENDMENT SUBMISSION	05.11.2025	DRAFTING CHECKED BY	NAME	DATE	NELP DISCLAIMER	CHECK PRINT	READY FOR ISSUE INITIAL	DATE
6	UDLP AMENDMENT	05.09.2025		C. DEWAGE	05.11.2025	Conditions of Use. This Document has been developed for the purposes of the North East Link Project. Recipients of this document: - are subject to obligations of confidentiality in relation to this document; and - may not rely upon the information contained in this document, and must rely absolutely on their own opinion and professional advice.			
5	UDLP FINAL SUBMISSION	21.08.2024	DRAFTING CHECKED BY	L. ORJALO	05.11.2025				
4	UDLP FINAL SUBMISSION IEA	02.08.2024	ENGINEERING CHECKED BY	R. LEWIS	05.11.2025				
3	UDLP FINAL SUBMISSION FOR REVIEW	29.01.2024	VERIFIED BY	L. EVANS	05.11.2025				
2	UDLP FINAL SUBMISSION IEA	21.12.2023	APPROVED BY	Z. CIVITKOVIC	05.11.2025				
1	PUBLIC EXHIBITION	25.09.2023	REVISIONS	APPROVALS	DRAWN: -	SIZE: A3	SCALE: As indicated	CAD FILE: -	

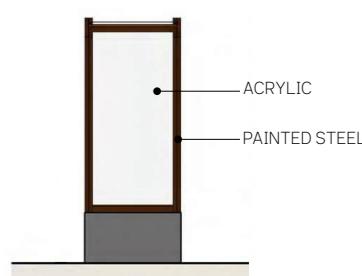
SCALE 1:1250 0 10 15 20 30 40 50m



Security Classification: OFFICIAL: Sensitive



NOISE WALL TYPE C
MAX HEIGHT OF 9m



NOISE WALL TYPE B3
MAX HEIGHT OF 4m

DOT No.:	
NORTH EAST LINK PROGRAM	
ATTACHMENT 4:	
URBAN DESIGN OVERSHADOWING AND OVERLOOKING ASSESSMENT	
FOCUSED ANALYSIS: SELLARS STREET AREA 1	
PROJECT CONTRACT:	NELP DRAWING No.:
NORTH	NEL-NTH-NNA-3900-EPU-DRG-4012
SUIT. CODE	REVISION
7	7

7. Area Wide: Greensborough Road 2

7.1 Overshadowing Analysis

Within Greensborough Road 2, the noise walls are modelled as worst case scenario at a maximum height and vary between 2-metres and 9-metres as shown in *UDLP Attachment 1: Architecture and Urban Design*.

Shadows cast within this area are predominantly located within the Project boundary, however overshadowing can be observed within the SPOS of residential properties along Sellars Street between the hours of 9am and 12pm. This can be observed in Figures 32, 33 and 34.

Overshadowing will be minimised through the application of partially acrylic noise wall types within the design. This has minimised the overshadowing to residential properties and the open spaces at AK Lines Reserve and Trist Street Reserve.

Based on this Area Wide analysis, a focused analysis has been undertaken for these directly affected areas and includes the application of design solutions to mitigate overshadowing. Refer to sections 7A and 7B.

7.2 Overlooking Analysis

Possible overlooking from the Kempston Street shared use path ramp to residential properties along Kempston Street and Hamlet Street has been identified.

For detailed analysis of these directly affected areas including the application of design solutions to mitigate overshadowing refer to section 12.



22nd September 9am (AEST)



Figure 32: Area Wide: Greensborough Road 2 - 22nd September 9am (AEST)

22nd September 12pm (AEST)



Figure 33: Area Wide: Greensborough Road 2 - 22nd September 12pm (AEST)

22nd September 3pm (AEST)



Figure 34: Area Wide: Greensborough Road 2 - 22nd September 3pm (AEST)

LEGEND

- EXTENT OF OVERSHADOWING
- PROJECT BOUNDARY

Disclaimer Notes:

Overshadowing diagrams have been drafted for the purposes of depicting shadowing effects from non-transparent major built structures and therefore do not illustrate shadows cast from minor elements including trees, gantries, light poles and low height retaining walls.

This analysis is subject to site surveys which are to be undertaken during the design development phase of the Project. Surveys will be used to verify site information including the location of existing buildings and associated SPOS, heights of existing fences, site levels and habitable room windows. Following development of detailed surveys, additional overlooking assessments will be undertaken and will inform consultation with relevant directly affected properties.

Overshadowing analysis has been developed based on assumed 'worst case scenario' wall heights and the final design may vary pending ongoing engineering advice, acoustic noise wall modelling, design development and consultation.

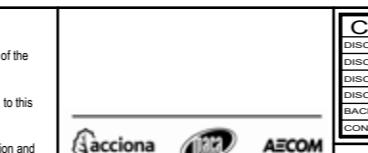
Refer to *UDLP Attachment 1: Architecture and Urban Design* for current proposed noise wall and screen designs.

DESIGN SUBJECT TO RELEVANT CODES AND STANDARDS

© North East Link Program

7	UDLP FINAL AMENDMENT SUBMISSION	05.11.2025	DRAFTING CHECKED BY	NAME	DATE	UDLP DISCLAIMER	
6	UDLP AMENDMENT	05.09.2025		C. DEWAGE	05.11.2025	Conditions of Use: This Document has been developed for the purposes of the North East Link Project. Recipients of this document: - are subject to obligations of confidentiality in relation to this document; and - may not rely upon the information contained in this document, and must rely absolutely on their own opinion and professional advice.	
5	UDLP FINAL SUBMISSION	21.08.2024	DESIGNED BY	L. ORJALO	05.11.2025		
4	UDLP FINAL SUBMISSION IEA	02.08.2024	ENGINEERING CHECKED BY	R. LEWIS	05.11.2025		
3	UDLP FINAL SUBMISSION FOR REVIEW	29.01.2024	VERIFIED BY	L. EVANS	05.11.2025		
2	UDLP FINAL SUBMISSION IEA	21.12.2023	APPROVED BY	Z. CVITKOVIC	05.11.2025		
1	PUBLIC EXHIBITION	25.09.2023					
REV.	DESCRIPTION	DATE	APPROVALS	DRAWN: -	SIZE: A3	SCALE: As indicated	CAD FILE: -
	REVISIONS						

Note: * Indicates signed documents as drawings will not have wet signatures.



CHECK PRINT			READY FOR ISSUE
DISCIPLINE	DISCIPLINE	DISCIPLINE	INITIAL DATE
BACKDRAFTED/CORRECTED			
CONFIRMED			

Security Classification: OFFICIAL: Sensitive

SCALE 1:7500	0 25 50 100 200m	DOT No.:
NORTH EAST LINK PROGRAM		
ATTACHMENT 4:		
URBAN DESIGN OVERSHADOWING AND OVERLOOKING ASSESSMENT		
AREA WIDE: GREENSBOROUGH ROAD 2		
PROJECT CONTRACT: NORTH	NEL DRAWING No.: NEL-NTH-NNA-3900-EPU-DRG-4013	SUIT. CODE 7

7A. Focused Analysis: Sellars Street Area 2

22nd September 9am (AEST)



Figure 35: Focused Analysis: Sellars Street Area 2 - 22nd September 9am (AEST)

22nd September 10am (AEST)



Figure 36: Focused Analysis: Sellars Street Area 2 - 22nd September 10am (AEST)

22nd September 11am (AEST)



Figure 37: Focused Analysis: Sellars Street Area 2 - 22nd September 11am (AEST)

Focused Overshadowing Analysis

The Focused Analysis of properties along Sellars Street (Area 2) revealed no overshadowing following the application of a partially acrylic noise wall Type C within the design. This can be seen in Figures 35, 36 and 37.

Although there are no shadows cast from elevated structures or noise walls, properties have been identified as directly affected by the use of acrylic panels casting tinted light into SPOS. Ongoing consultation will be undertaken with these properties.

This complies with the requirements of EPR LP4, as the total percentage of SPOS directly affected by shadowing is less than 50% of the SPOS.

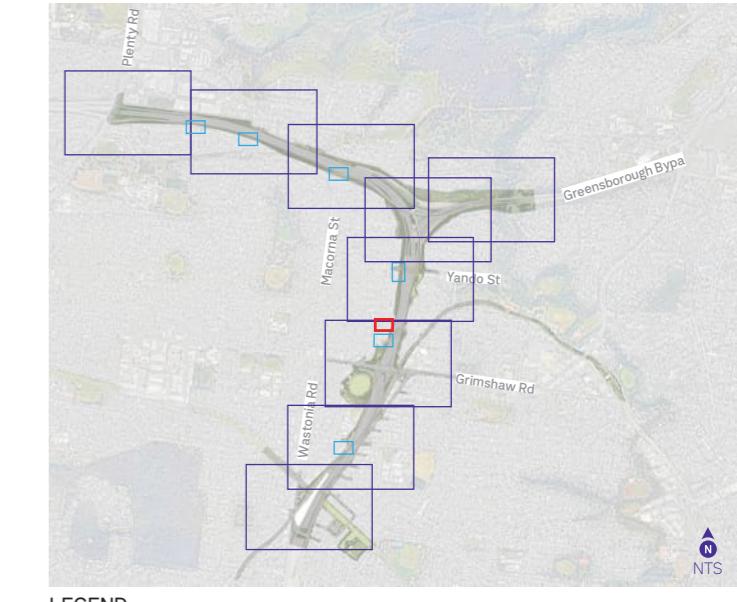
Disclaimer Notes:

Overshadowing diagrams have been drafted for the purposes of depicting shadowing effects from major built structures and therefore do not illustrate shadows cast from minor elements including trees, gantries, light poles and low height retaining walls.

This analysis is subject to site surveys which are to be undertaken during the design development phase of the Project. Surveys will be used to verify site information including the location of existing buildings and associated SPOS, heights of existing fences, site levels and habitable room windows. Following development of detailed surveys, additional overlooking assessments will be undertaken and will inform consultation with relevant directly affected properties.

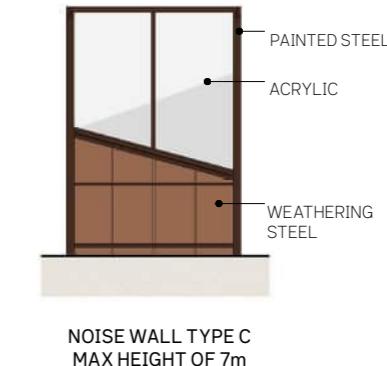
Shadow analysis has been developed based on a reduction in overall noise wall and screen heights as far as practicable and include the use of tinted transparent acrylic to minimise overshadowing. The final design may vary pending ongoing engineering advice, acoustic noise wall modelling, design development and consultation.

Refer to UDLP Attachment 1: Architecture and Urban Design for current proposed noise wall and screen designs.



LEGEND

—	PROJECT BOUNDARY
+	EXISTING FENCE LINE SHADOW
+	PROPOSED NOISE WALL
+	PROPOSED STRUCTURE SHADOW
—	EXISTING FENCE LINE (INDICATIVE 1.8m HIGH)
.....	EXTENT OF ADDITIONAL OVERSHADOWING INTO SPOS
50	PROPERTY NUMBER



DESIGN SUBJECT TO RELEVANT CODES AND STANDARDS

© North East Link Program

7	UDLP FINAL AMENDMENT SUBMISSION	05.11.2025	DRAFTING CHECKED BY	NAME	DATE	NELP DISCLAIMER	Acciona 	CHECK PRINT	READY FOR ISSUE INITIAL DATE
6	UDLP AMENDMENT	05.09.2025		C. DEWAGE	05.11.2025	Conditions of Use. This Document has been developed for the purposes of the North East Link Project. Recipients of this document: - are subject to obligations of confidentiality in relation to this document; and - may not rely upon the information contained in this document, and must rely absolutely on their own opinion and professional advice.			
5	UDLP FINAL SUBMISSION	21.08.2024		L. ORJALO	05.11.2025				
4	UDLP FINAL SUBMISSION IEA	02.08.2024	ENGINEERING CHECKED BY	R. LEWIS	05.11.2025				
3	UDLP FINAL SUBMISSION FOR REVIEW	29.01.2024	VERIFIED BY	L. EVANS	05.11.2025				
2	UDLP FINAL SUBMISSION IEA	21.12.2023	APPROVED BY	Z. CIVITKOVIC	05.11.2025				
1	PUBLIC EXHIBITION	25.09.2023	REVISIONS	APPROVALS	DRAWN: -	SIZE: A3	SCALE: As indicated	CAD FILE: -	

Note: * Indicates signed documents as drawings will not have wet signatures.

7B. Focused Analysis: Sellars Street Area 3

22nd September 9am (AEST)



Figure 38: Focused Analysis: Sellars Street Area 3 - 22nd September 9am (AEST)

22nd September 10am (AEST)



Figure 39: Focused Analysis: Sellars Street Area 3 - 22nd September 10am (AEST)

22nd September 11am (AEST)



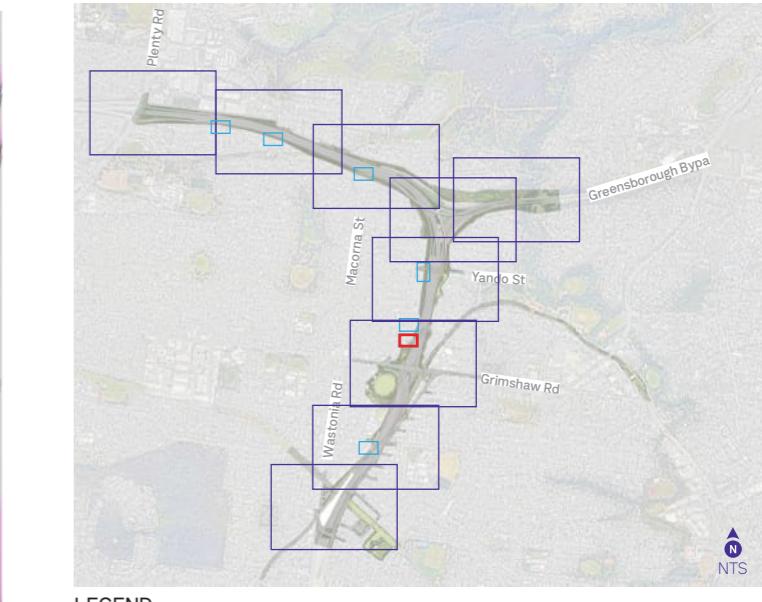
Figure 40: Focused Analysis: Sellars Street Area 3 - 22nd September 11am (AEST)

Focused Overshadowing Analysis

The Focused Analysis of properties along Sellars Street (Area 3) revealed no overshadowing following the application of a partially acrylic noise wall Type C and a full acrylic noise wall Type B3 within the design. This can be seen in Figures 38, 39 and 40.

Although there are no shadows cast from elevated structures or noise walls, properties have been identified as directly affected by the use of acrylic panels casting tinted light into SPOS. Ongoing consultation will be undertaken with these properties.

This complies with the requirements of EPR LP4, as the total percentage of SPOS directly affected by shadowing is less than 50% of the SPOS.

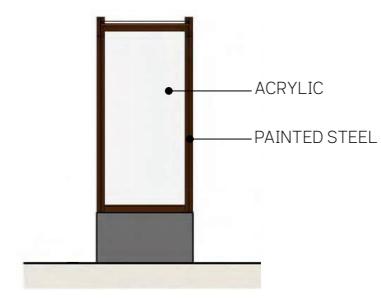


LEGEND

- PROJECT BOUNDARY
- EXISTING FENCE LINE SHADOW
- SECLUDED PRIVATE OPEN SPACE (SPOS)
- PROPOSED NOISE WALL
- PROPOSED STRUCTURE SHADOW
- EXISTING FENCE LINE (INDICATIVE 1.8m HIGH)
- EXTENT OF ADDITIONAL OVERSHADOWING INTO SPOS
- PROPERTY NUMBER



NOISE WALL TYPE C
MAX HEIGHT OF 7m



NOISE WALL TYPE B3
MAX HEIGHT OF 4m

Disclaimer Notes:

Overshadowing diagrams have been drafted for the purposes of depicting shadowing effects from major built structures and therefore do not illustrate shadows cast from minor elements including trees, gantries, light poles and low height retaining walls.

This analysis is subject to site surveys which are to be undertaken during the design development phase of the Project. Surveys will be used to verify site information including the location of existing buildings and associated SPOS, heights of existing fences, site levels and habitable room windows. Following development of detailed surveys, additional overlooking assessments will be undertaken and will inform consultation with relevant directly affected properties.

Shadow analysis has been developed based on a reduction in overall noise wall and screen heights as far as practicable and include the use of tinted transparent acrylic to minimise overshadowing. The final design may vary pending ongoing engineering advice, acoustic noise wall modelling, design development and consultation.

Refer to UDLP Attachment 1: Architecture and Urban Design for current proposed noise wall and screen designs.

DESIGN SUBJECT TO RELEVANT CODES AND STANDARDS

© North East Link Program

7	UDLP FINAL AMENDMENT SUBMISSION	05.11.2025	DRAFTING CHECKED BY	NAME	DATE	NELP DISCLAIMER
6	UDLP AMENDMENT	05.09.2025		C. DEWAGE	05.11.2025	Conditions of Use. This Document has been developed for the purposes of the North East Link Project. Recipients of this document: - are subject to obligations of confidentiality in relation to this document; and - may not rely upon the information contained in this document, and must rely absolutely on their own opinion and professional advice.
5	UDLP FINAL SUBMISSION	21.08.2024		L. ORJALO	05.11.2025	
4	UDLP FINAL SUBMISSION IEA	02.08.2024	ENGINEERING CHECKED BY	R. LEWIS	05.11.2025	
3	UDLP FINAL SUBMISSION FOR REVIEW	29.01.2024	VERIFIED BY	L. EVANS	05.11.2025	
2	UDLP FINAL SUBMISSION IEA	21.12.2023	APPROVED BY	Z. CIVITKOVIC	05.11.2025	
1	PUBLIC EXHIBITION	25.09.2023				
REV.	DESCRIPTION	DATE	APPROVALS	DRAWN: -	SIZE: A3	SCALE: As indicated
	REVISIONS					CAD FILE: -

Note: * Indicates signed documents as drawings will not have wet signatures.

SCALE 1:1250 0 10 15 20 30 40 50m DOT No.:

NORTH EAST LINK PROGRAM
ATTACHMENT 4:
URBAN DESIGN OVERSHADOWING AND OVERLOOKING ASSESSMENT
FOCUSSED ANALYSIS: SELLARS STREET AREA 3

PROJECT CONTRACT: NORTH	NELP DRAWING No.: NEL-NTH-NNA-3900-EPU-DRG-4015	SUIT. CODE	REVISION
-------------------------	---	------------	----------

8. Area Wide: Greensborough Road 3

8.1 Overshadowing Analysis

Within Greensborough Road 3, the noise walls are modelled as worst case scenario at a maximum height and vary between 4-metres and 9-metres as shown in *UDLP Attachment 1: Architecture and Urban Design*.

Shadows cast within this area are predominantly located within the Project boundary, however overshadowing can be observed within the SPOS of residential properties along Ibbottson Street and Nell Street West between the hours of 9am and 12pm. This can be observed in Figures 41, 42 and 43.

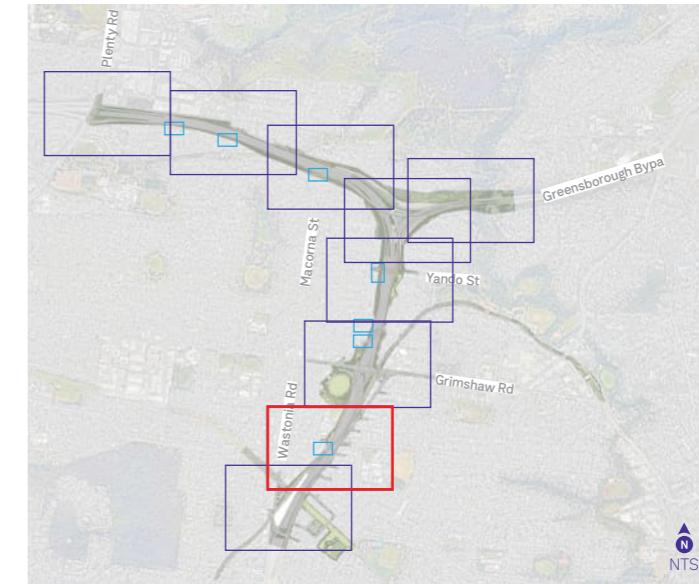
Overshadowing will be minimised through the application of partially acrylic noise wall types within the design. This has minimised the overshadowing to residential properties and the Watsonia Primary School oval.

Based on this Area Wide analysis, a focused analysis has been undertaken for these directly affected areas and includes the application of design solutions to mitigate overshadowing. Refer to sections 8A, 8B, 8C, and 8D.

8.2 Overlooking Analysis

Possible overlooking from the Nell Street shared use path bridge ramps have been identified to residential properties along Ibbottson Street, Nell Street West and Greensborough Road.

For detailed analysis of these directly affected areas including the application of design solutions to mitigate overlooking refer to section 14 and 15.



22nd September 9am (AEST)

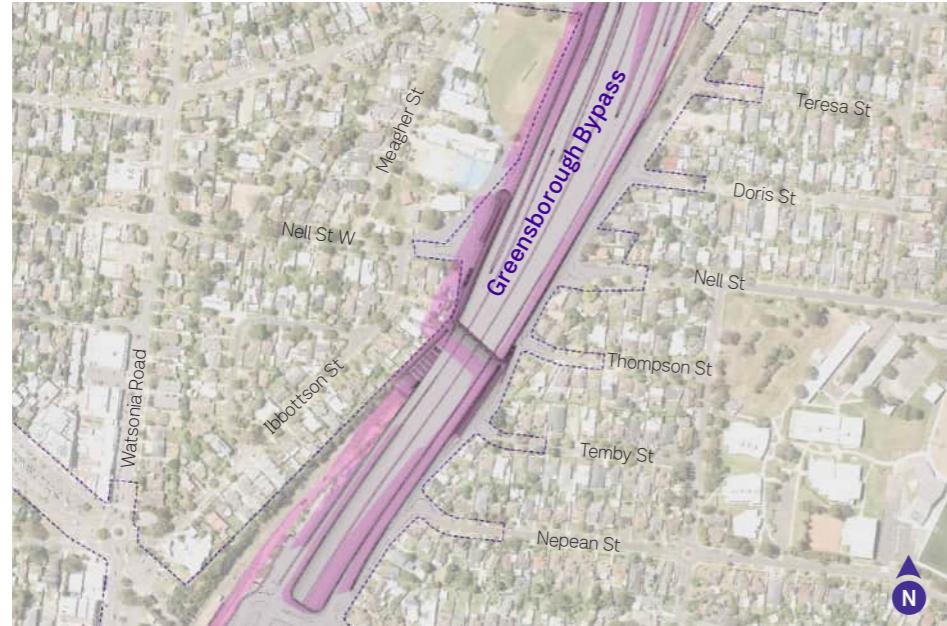


Figure 41: Area Wide: Greensborough Road 3 - 22nd September 9am (AEST)

22nd September 12pm (AEST)



Figure 42: Area Wide: Greensborough Road 3 - 22nd September 12pm (AEST)

22nd September 3pm (AEST)



Figure 43: Area Wide: Greensborough Road 3 - 22nd September 3pm (AEST)

LEGEND

- EXTENT OF OVERSHADOWING
- PROJECT BOUNDARY

Disclaimer Notes:

Overshadowing diagrams have been drafted for the purposes of depicting shadowing effects from non-transparent major built structures and therefore do not illustrate shadows cast from minor elements including trees, gantries, light poles and low height retaining walls.

This analysis is subject to site surveys which are to be undertaken during the design development phase of the Project. Surveys will be used to verify site information including the location of existing buildings and associated SPOS, heights of existing fences, site levels and habitable room windows. Following development of detailed surveys, additional overlooking assessments will be undertaken and will inform consultation with relevant directly affected properties.

Overshadowing analysis has been developed based on assumed 'worst case scenario' wall heights and the final design may vary pending ongoing engineering advice, acoustic noise wall modelling, design development and consultation.

Refer to *UDLP Attachment 1: Architecture and Urban Design* for current proposed noise wall and screen designs.

DESIGN SUBJECT TO RELEVANT CODES AND STANDARDS

© North East Link Program

7	UDLP FINAL AMENDMENT SUBMISSION	05.11.2025	DRAFTING CHECKED BY	NAME	DATE	UDLP DISCLAIMER	
6	UDLP AMENDMENT	05.09.2025		C. DEWAGE	05.11.2025	Conditions of Use. This Document has been developed for the purposes of the North East Link Project. Recipients of this document: - are subject to obligations of confidentiality in relation to this document; and - may not rely upon the information contained in this document, and must rely absolutely on their own opinion and professional advice.	
5	UDLP FINAL SUBMISSION	21.08.2024	DESIGNED BY	L. ORJALO	05.11.2025		
4	UDLP FINAL SUBMISSION IEA	02.08.2024	ENGINEERING CHECKED BY	R. LEWIS	05.11.2025		
3	UDLP FINAL SUBMISSION FOR REVIEW	29.01.2024	VERIFIED BY	L. EVANS	05.11.2025		
2	UDLP FINAL SUBMISSION IEA	21.12.2023	APPROVED BY	Z. CIVITKOVIC	05.11.2025		
1	PUBLIC EXHIBITION	25.09.2023					
REV.	DESCRIPTION	DATE	APPROVALS	DRAWN: -	SIZE: A3	SCALE: As indicated	CAD FILE: -
	REVISIONS						

Note: * Indicates signed documents as drawings will not have wet signatures.

NORTH EAST LINK PROGRAM		
ATTACHMENT 4: URBAN DESIGN OVERSHADOWING AND OVERLOOKING ASSESSMENT AREA WIDE: GREENSBOROUGH ROAD 3		
SCALE 1:7500	0 25 50 100 200m	DOT No.:
NORTH EAST LINK PROGRAM		
ATTACHMENT 4: URBAN DESIGN OVERSHADOWING AND OVERLOOKING ASSESSMENT AREA WIDE: GREENSBOROUGH ROAD 3		
PROJECT CONTRACT: NORTH	NEL DRAWING No.: NEL-NTH-NNA-3900-EPU-DRG-4016	SUIT. CODE 7

8A. Focused Analysis: Ibbottson Street and Nell Street West

22nd September 9am (AEST)

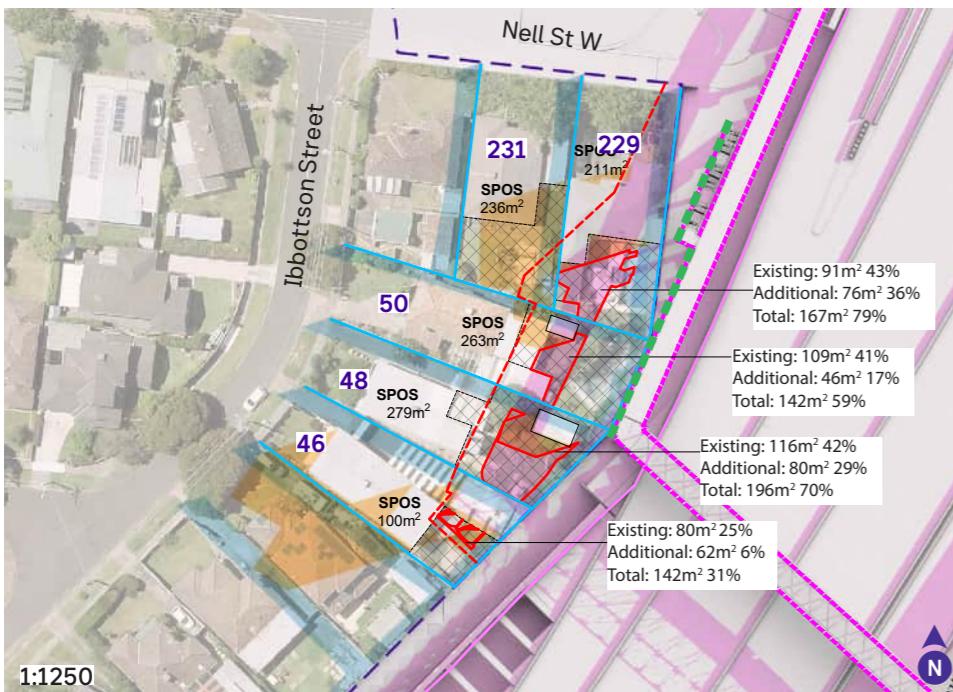


Figure 44: Focused Analysis: Ibbottson Street and Nell Street West - 22nd September 9:00am (AEST)

22nd September 10am (AEST)

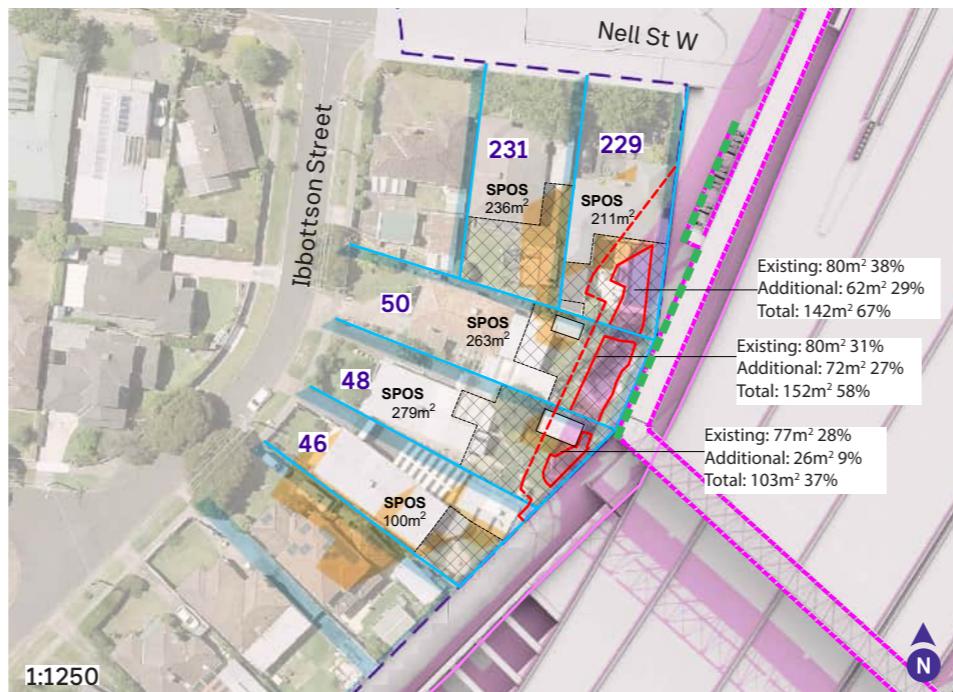


Figure 45: Focused Analysis: Ibbottson Street and Nell Street West - 22nd September 10:00am (AEST)

22nd September 11am (AEST)

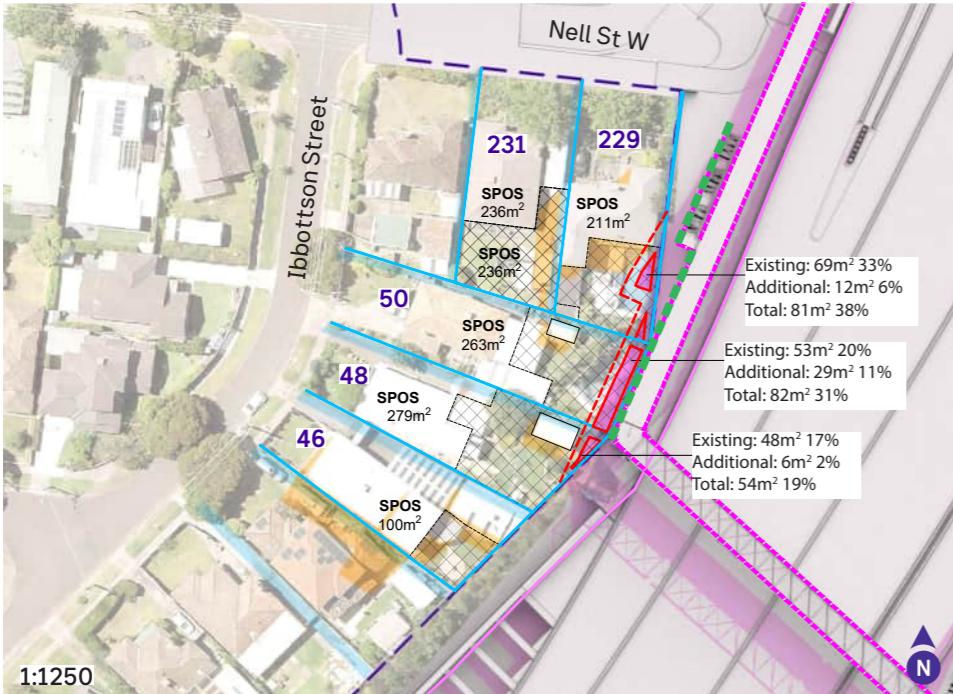


Figure 46: Focused Analysis: Ibbottson Street and Nell Street West - 22nd September 11:00am (AEST)

Focused Overshadowing Analysis

Focused analysis of properties along Ibbottson Street and Nell Street West revealed overshadowing from the bridge structure into the SPOS of properties at 229 Nell Street West and 48 and 50 Ibbottson Street following the application of a partially acrylic noise wall Type C. Properties have also been identified as directly affected by the use of acrylic panels casting tinted light into SPOS.

Indicative overshadowing has been identified with the use of overlooking screening Type C on bridge ramps. Ongoing consultation with directly affected properties will inform the screening type used in this location. The use of anti-throw screen Type A or B would reduce overshadowing in this location. This can be seen in Figures 44, 45 and 46. Overshadowing as follows:

229 Nell Street West - Maximum shadow assessed at 9am - Total SPOS 211m²

The existing shadows are 91m², and new shadows cast from elevated structures and noise walls are 76m². Therefore, there is additional overshadowing within the SPOS. The combined shadows result in a total of 167m², equivalent to 79% overshadowing to the SPOS. This requires further consultation and consent to be obtained from the affected landowner unless exceptional circumstances apply in accordance with the requirements of EPR LP4, as the total percentage of SPOS directly affected by shadowing is more than 50% of SPOS.

50 Ibbottson Street - Maximum shadow assessed at 9am - Total SPOS 263m²

The existing shadows are 109m², and new shadows cast from elevated structures and noise walls are 46m². Therefore, there is additional overshadowing within the SPOS. The combined shadows result in a total of 142m², equivalent to 59% overshadowing to the SPOS. This requires further consultation and consent to be obtained from the affected landowner unless exceptional circumstances apply in accordance with the requirements of EPR LP4, as the total percentage of SPOS directly affected by shadowing is more than 50% of SPOS.

48 Ibbottson Street - Maximum shadow assessed at 9am - Total SPOS 279m²

The existing shadows are 116m², and new shadows cast from elevated structures and noise walls are 80m². Therefore, there is additional overshadowing within the SPOS. The combined shadows result in a total of 196m², equivalent to 70% overshadowing to the SPOS. This requires further consultation and consent to be obtained from the affected landowner unless exceptional circumstances apply in accordance with the requirements of EPR LP4, as the total percentage of SPOS directly affected by shadowing is more than 50% of SPOS.

46 Ibbottson Street - Maximum shadow assessed at 9am - Total SPOS 100m²

The existing shadows are 80m², and new shadows cast from elevated structures and noise walls are 62m². Therefore, there is additional overshadowing within the SPOS. The combined shadows result in a total of 142m², equivalent to 31% overshadowing to the SPOS. This complies with the requirements of EPR LP4, as the total percentage of SPOS directly affected by shadowing is less than 50% of SPOS.

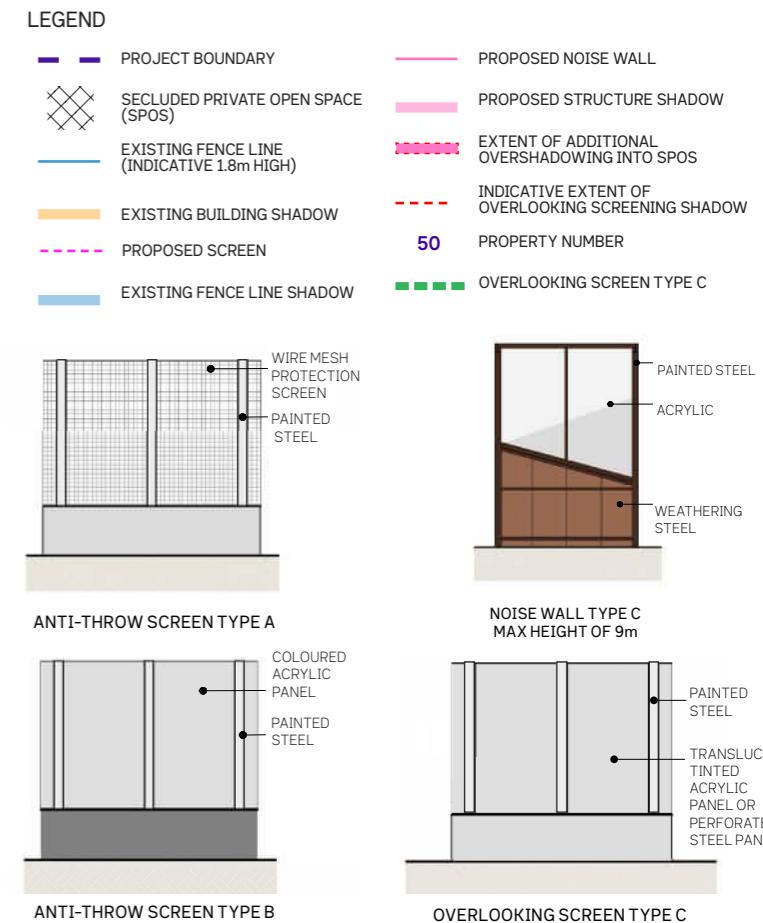
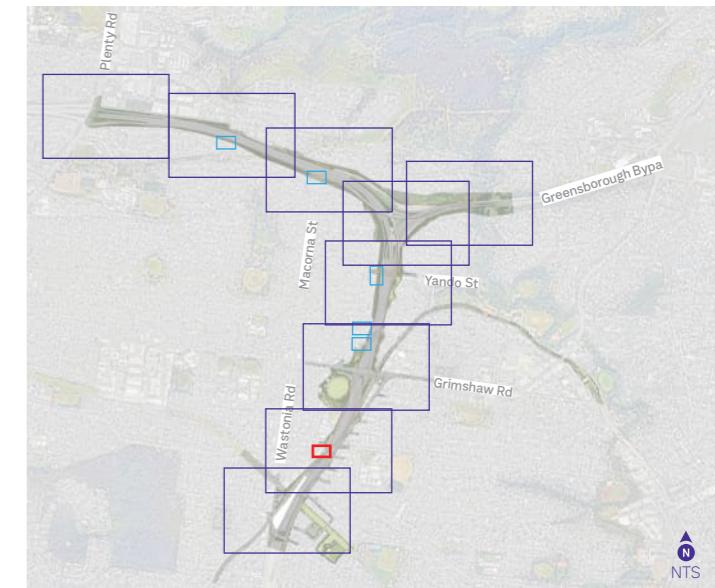
Overshadowing to properties can be seen in Figures 44, 45 and 46. Further detailed analysis of properties directly affected by more than 50% of SPOS can be seen in 8B for Detailed Analysis of 229 Nell Street West, 8C for Detailed Analysis of 50 Ibbottson Street, and 8D for Detailed Analysis of 48 Ibbottson Street.

Disclaimer Notes:

Overlooking screen Type C materials and extent of application are to be finalised in design development phase in consultation with directly affected properties to achieve compliance with the requirements of EPR LP4.

Overshadowing diagrams have been drafted for the purposes of depicting shadowing effects from major built structures and therefore do not illustrate shadows cast from minor elements including trees, gantries, light poles and low height retaining walls.

This analysis is subject to site surveys which are to be undertaken during the design development phase of the Project. Surveys will be used to verify site information including the location of existing buildings and associated SPOS, heights of existing fences, site levels and habitable room windows. Following development of detailed surveys, additional overlooking assessments will be undertaken and will inform consultation with relevant directly affected properties.



Shadow analysis has been developed based on a reduction in overall noise wall and screen heights as far as practicable and include the use of tinted transparent acrylic to minimise overshadowing. The final design may vary pending ongoing engineering advice, acoustic noise wall modelling, design development and consultation.

Refer to UDLR Attachment 1: Architecture and Urban Design for current proposed noise wall and screen designs.

DESIGN SUBJECT TO RELEVANT CODES AND STANDARDS

© North East Link Program

7	UDLP FINAL AMENDMENT SUBMISSION	05.11.2025	DRAFTING CHECKED BY	C. DEWAGE	NAME	DATE	NELP DISCLAIMER
6	UDLP AMENDMENT	05.09.2025	DESIGNED BY	L. ORJALO	DISCIPLINE	05.11.2025	Conditions of Use: This Document has been developed for the purposes of the North East Link Project. Recipients of this document: - are subject to obligations of confidentiality in relation to this document; and - may not rely upon the information contained in this document, and must rely absolutely on their own opinion and professional advice.
5	UDLP FINAL SUBMISSION	21.08.2024	ENGINEERING CHECKED BY	R. LEWIS	DISCIPLINE	05.11.2025	
4	UDLP FINAL SUBMISSION IEA	02.08.2024	VERIFIED BY	L. EVANS	DISCIPLINE	05.11.2025	
3	UDLP FINAL SUBMISSION FOR REVIEW	29.01.2024	APPROVED BY	Z. CIVITKOVIC	DISCIPLINE	05.11.2025	
2	UDLP FINAL SUBMISSION IEA	21.12.2023			BACKDRAFTED/CORRECTED		
1	PUBLIC EXHIBITION	25.09.2023			CONFIRMED		
REV.	DESCRIPTION	DATE	APPROVALS	DRAWN: -	READY FOR ISSUE INITIAL	DATE	
	REVISED			SIZE: A3	CHECK PRINT		
	REVISED			SCALE: As indicated			
	REVISED			CAD FILE: -			

Note: * Indicates signed documents as drawings will not have wet signatures.

8B. Detailed Analysis: 229 Nell Street West

229 Nell Street West

The Detailed Analysis of 229 Nell Street West revealed that the total percentage of SPOS directly affected by shadowing is greater than 50% of the secluded private open space.

This requires further consultation and consent to be obtained from the affected landowner unless exceptional circumstances apply in accordance with the requirements of EPR LP4.

Indicative overshadowing has been identified with the use of overlooking screening Type C on bridge ramps. Ongoing consultation will inform the screening type used in this location. The use of anti-throw screen Type A or B would reduce overshadowing in this location.

Disclaimer Notes:

Overlooking screen Type C materials and extent of application are to be finalised in design development phase in consultation with directly affected properties to achieve compliance with the requirements of EPR LP4.

Overshadowing diagrams have been drafted for the purposes of depicting shadowing effects from major built structures and therefore do not illustrate shadows cast from minor elements including trees, gantries, light poles and low height retaining walls.

This analysis is subject to site surveys which are to be undertaken during the design development phase of the Project. Surveys will be used to verify site information including the location of existing buildings and associated SPOS, heights of existing fences, site levels and habitable room windows. Following development of detailed surveys, additional overlooking assessments will be undertaken and will inform consultation with relevant directly affected properties.

Shadow analysis has been developed based on a reduction in overall noise wall and screen heights as far as practicable and include the use of tinted transparent acrylic to minimise overshadowing. The final design may vary pending ongoing engineering advice, acoustic noise wall modelling, design development and consultation.

Refer to UDLP Attachment 1: Architecture and Urban Design for current proposed noise wall and screen designs.

LEGEND

— — PROJECT BOUNDARY	EXISTING BUILDING SHADOW	PROPOSED STRUCTURE SHADOW
❖ SECLUDED PRIVATE OPEN SPACE (SPOS)	EXISTING FENCE LINE SHADOW	PROPOSED NOISE WALL
— EXISTING FENCE LINE (INDICATIVE 1.8m HIGH)	— PROPOSED NOISE WALL	50 PROPERTY NUMBER
— — PROPOSED SCREEN	— — INDICATIVE EXTENT OF OVERLOOKING SCREENING SHADOW	

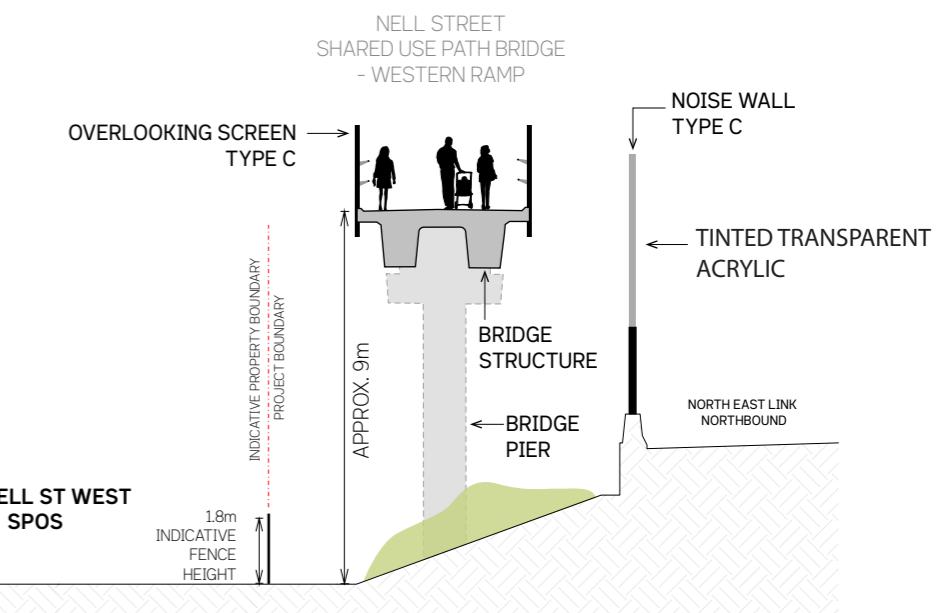


Figure 47: Detailed Analysis: Section A - Proposed architectural and structural elements adjacent to 229 Nell Street West

22nd September 9am (AEST)

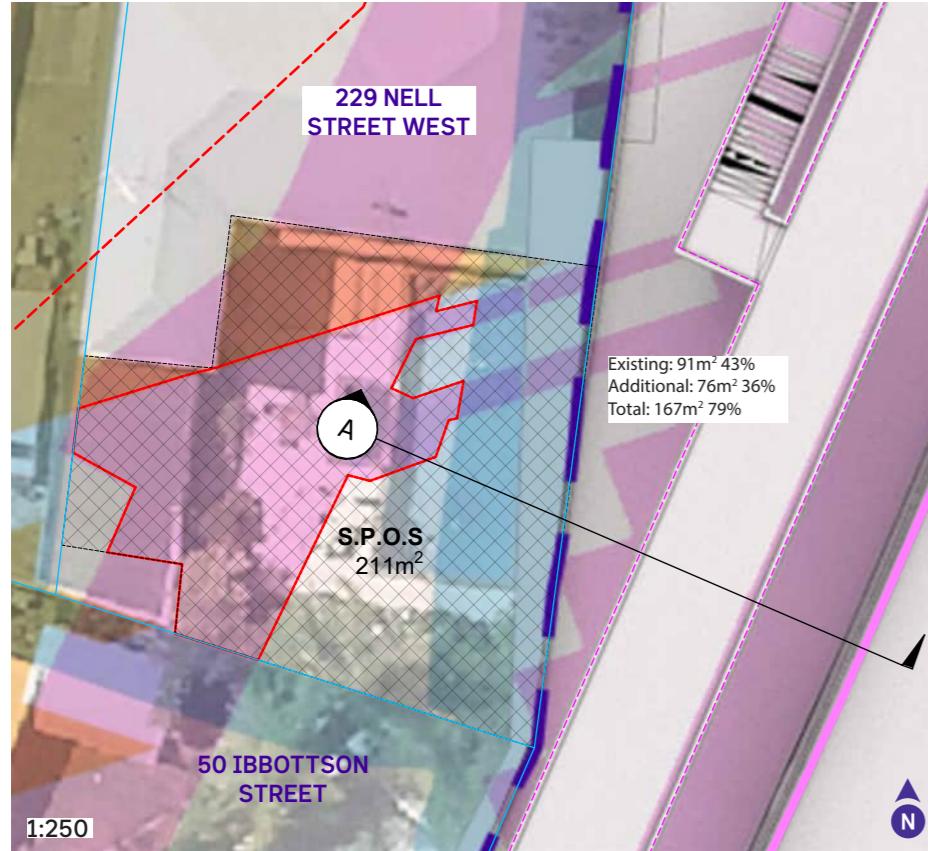


Figure 48: Detailed Analysis: 229 Nell Street West - 22nd September 9am (AEST)

22nd September 10am (AEST)

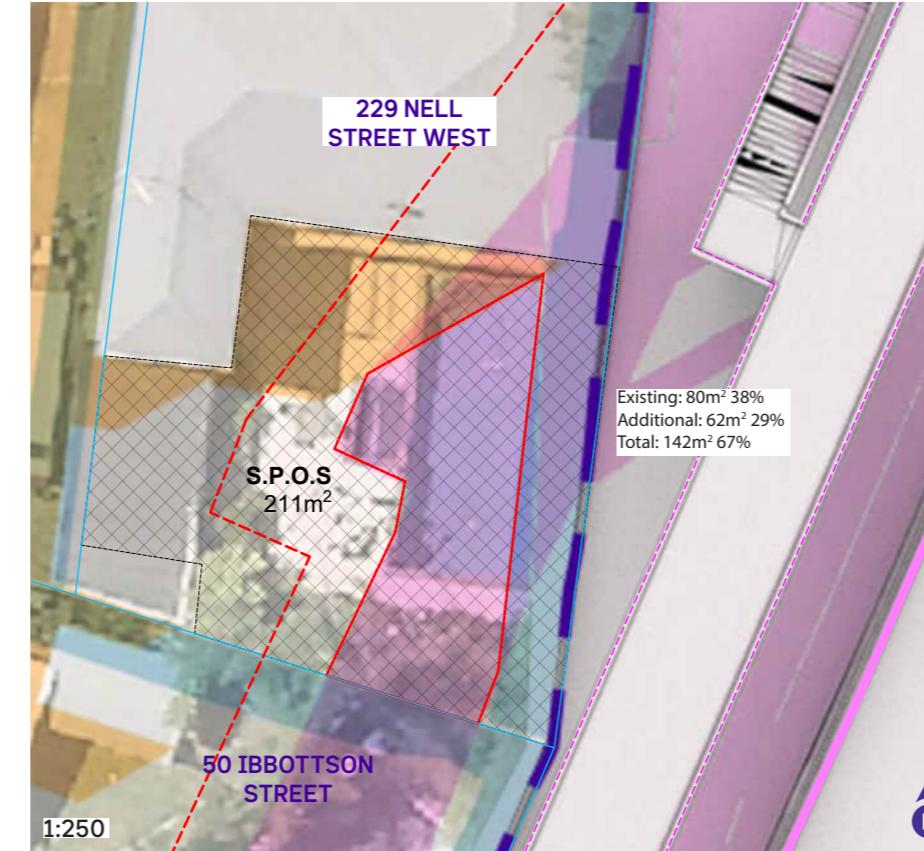


Figure 49: Detailed Analysis: 229 Nell Street West - 22nd September 10am (AEST)

22nd September 11am (AEST)

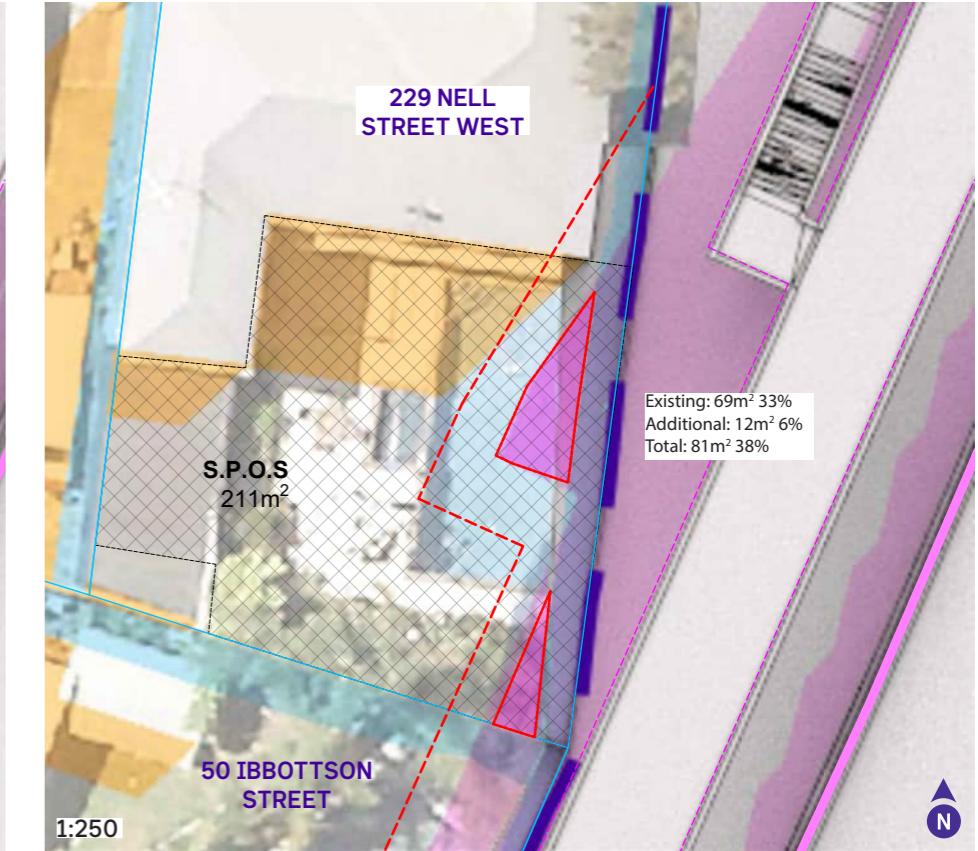


Figure 50: Detailed Analysis: 229 Nell Street West - 22nd September 11am (AEST)

DESIGN SUBJECT TO RELEVANT CODES AND STANDARDS

© North East Link Program

7	UDLP FINAL AMENDMENT SUBMISSION	05.11.2025	DRAFTING CHECKED BY	NAME	DATE	UDLP DISCLAIMER	CHECK PRINT	READY FOR ISSUE INITIAL DATE
6	UDLP AMENDMENT	05.09.2025		C. DEWAGE	05.11.2025	Conditions of Use. This Document has been developed for the purposes of the North East Link Project. Recipients of this document: - are subject to obligations of confidentiality in relation to this document; and - may not rely upon the information contained in this document, and must rely absolutely on their own opinion and professional advice.		
5	UDLP FINAL SUBMISSION	21.08.2024	DESIGNED BY	L. ORJALO	05.11.2025			
4	UDLP FINAL SUBMISSION IEA	02.08.2024	ENGINEERING CHECKED BY	R. LEWIS	05.11.2025			
3	UDLP FINAL SUBMISSION FOR REVIEW	29.01.2024	VERIFIED BY	L. EVANS	05.11.2025			
2	UDLP FINAL SUBMISSION IEA	21.12.2023	APPROVED BY	Z. CIVITKOVIC	05.11.2025			
1	PUBLIC EXHIBITION	25.09.2023						
REV.	DESCRIPTION	DATE		APPROVALS	DRAWN: -	SIZE: A3	SCALE: As indicated	CAD FILE: -
	REVISIONS							

Note: * Indicates signed documents as drawings will not have wet signatures.

DOT No.:

NORTH EAST LINK PROGRAM								
ATTACHMENT 4: URBAN DESIGN OVERSHADOWING AND OVERLOOKING ASSESSMENT DETAILED ANALYSIS: 229 NELL STREET WEST								
PROJECT CONTRACT: NORTH	NELP DRAWING No.: NEL-NTH-NNA-3900-EPU-DRG-4018	SUIT. CODE 7						

8C. Detailed Analysis: 50 Ibbottson Street

50 Ibbottson Street

The Detailed Analysis of 50 Ibbottson Street revealed that the total percentage of SPOS directly affected by shadowing is greater than 50% of the secluded private open space.

This requires further consultation and consent to be obtained from the affected landowner unless exceptional circumstances apply in accordance with the requirements of EPR LP4.

Indicative overshadowing has been identified with the use of overlooking screening Type C on bridge ramps. Ongoing consultation will inform the screening type used in this location. The use of anti-throw screen Type A or B would reduce overshadowing in this location.

Disclaimer Notes:

Overlooking screen Type C materials and extent of application are to be finalised in design development phase in consultation with directly affected properties to achieve compliance with the requirements of EPR LP4.

Overshadowing diagrams have been drafted for the purposes of depicting shadowing effects from major built structures and therefore do not illustrate shadows cast from minor elements including trees, gantries, light poles and low height retaining walls.

This analysis is subject to site surveys which are to be undertaken during the design development phase of the Project. Surveys will be used to verify site information including the location of existing buildings and associated SPOS, heights of existing fences, site levels and habitable room windows. Following development of detailed surveys, additional overlooking assessments will be undertaken and will inform consultation with relevant directly affected properties.

Shadow analysis has been developed based on a reduction in overall noise wall and screen heights as far as practicable and include the use of tinted transparent acrylic to minimise overshadowing. The final design may vary pending ongoing engineering advice, acoustic noise wall modelling, design development and consultation.

Refer to UDLP Attachment 1: Architecture and Urban Design for current proposed noise wall and screen designs.

LEGEND

— — PROJECT BOUNDARY	EXISTING BUILDING SHADOW	PROPOSED STRUCTURE SHADOW
❖ SECLUDED PRIVATE OPEN SPACE (SPOS)	EXISTING FENCE LINE SHADOW	EXTENT OF ADDITIONAL OVERSHADING INTO SPOS
— EXISTING FENCE LINE (INDICATIVE 1.8m HIGH)	PROPOSED NOISE WALL	50 PROPERTY NUMBER
— — PROPOSED SCREEN	INDICATIVE EXTENT OF OVERLOOKING SCREENING SHADOW	

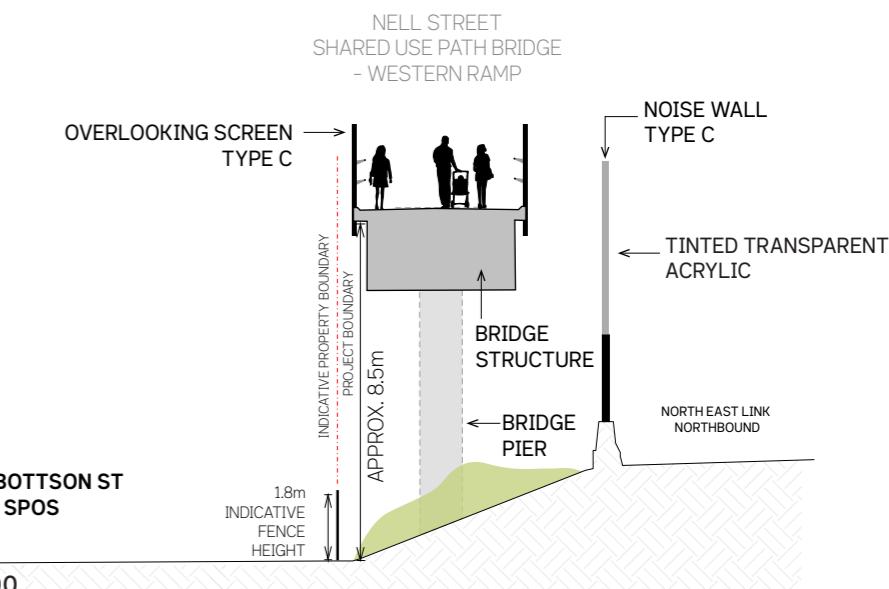


Figure 51: Detailed Analysis: Section B - Proposed architectural and structural elements adjacent to 50 Ibbottson Street

22nd September 9am (AEST)



Figure 52: Detailed Analysis: 50 Ibbottson Street - 22nd September 9am (AEST)

22nd September 10am (AEST)

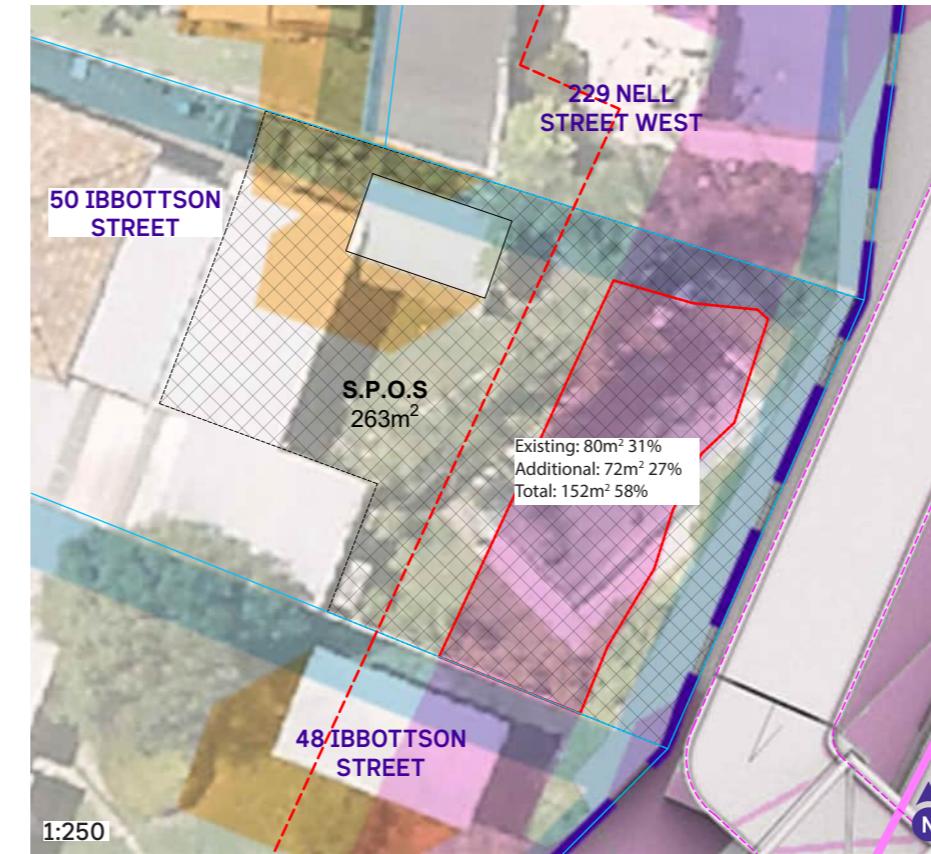


Figure 53: Detailed Analysis: 50 Ibbottson Street - 22nd September 10am (AEST)

22nd September 11am (AEST)

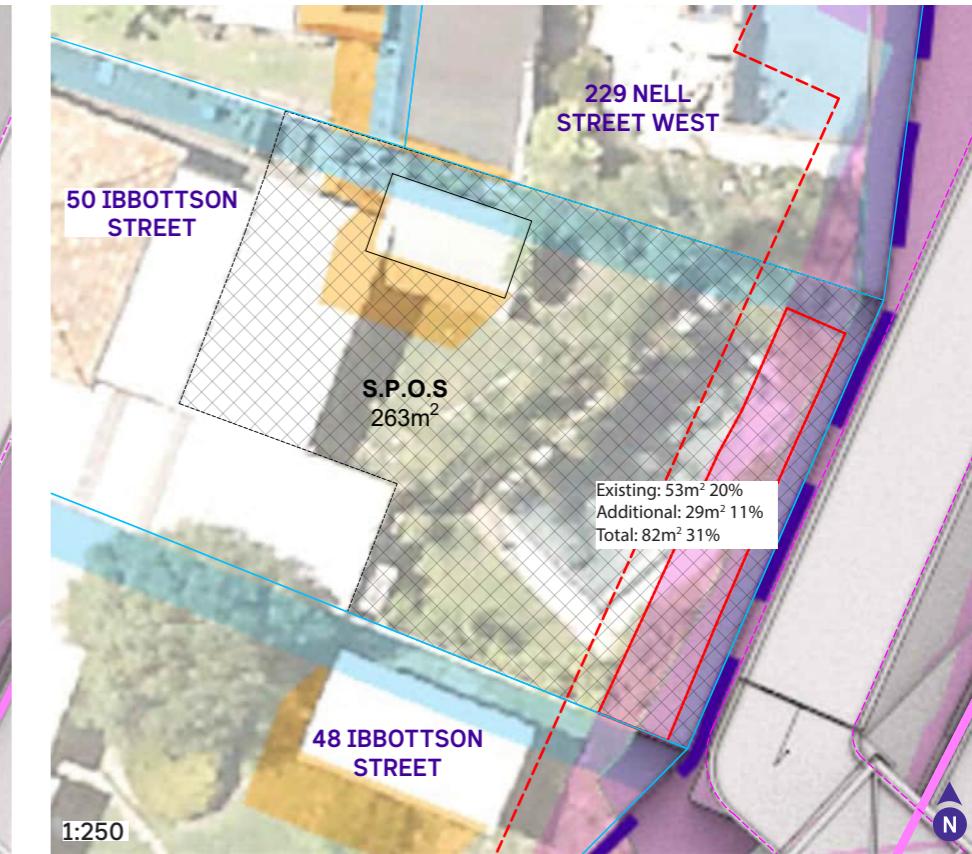


Figure 54: Detailed Analysis: 50 Ibbottson Street - 22nd September 11am (AEST)

DESIGN SUBJECT TO RELEVANT CODES AND STANDARDS

© North East Link Program

7	UDLP FINAL AMENDMENT SUBMISSION	05.11.2025	DRAFTING CHECKED BY	NAME	DATE	NELP DISCLAIMER	CHECK PRINT	READY FOR ISSUE INITIAL DATE
6	UDLP AMENDMENT	05.09.2025	C. DEWAGE	05.11.2025		Conditions of Use. This Document has been developed for the purposes of the North East Link Project. Recipients of this document: - are subject to obligations of confidentiality in relation to this document; and - may not rely upon the information contained in this document, and must rely absolutely on their own opinion and professional advice.		
5	UDLP FINAL SUBMISSION	21.08.2024	L. ORJALO	05.11.2025				
4	UDLP FINAL SUBMISSION IEA	02.08.2024	R. LEWIS	05.11.2025				
3	UDLP FINAL SUBMISSION FOR REVIEW	29.01.2024	L. EVANS	05.11.2025				
2	UDLP FINAL SUBMISSION IEA	21.12.2023	Z. CIVITKOVIC	05.11.2025				
1	PUBLIC EXHIBITION	25.09.2023						
REV.	DESCRIPTION	DATE	APPROVALS	DRAWN: -	SIZE: A3	SCALE: As indicated	CAD FILE: -	
	REVISIONS							

Note: * Indicates signed documents as drawings will not have wet signatures.

8D. Detailed Analysis: 48 Ibbottson Street

48 Ibbottson Street

The Detailed Analysis of 48 Ibbottson Street revealed that the total percentage of SPOS directly affected by shadowing is greater than 50% of the secluded private open space.

This requires further consultation and consent to be obtained from the affected landowner unless exceptional circumstances apply in accordance with the requirements of EPR LP4.

Indicative overshadowing has been identified with the use of overlooking screening Type C on bridge ramps. Ongoing consultation will inform the screening type used in this location. The use of anti-throw screen Type A or B would reduce overshadowing in this location.

Disclaimer Notes:

Overlooking screen Type C materials and extent of application are to be finalised in design development phase in consultation with directly affected properties to achieve compliance with the requirements of EPR LP4.

Overshadowing diagrams have been drafted for the purposes of depicting shadowing effects from major built structures and therefore do not illustrate shadows cast from minor elements including trees, gantries, light poles and low height retaining walls.

This analysis is subject to site surveys which are to be undertaken during the design development phase of the Project. Surveys will be used to verify site information including the location of existing buildings and associated SPOS, heights of existing fences, site levels and habitable room windows. Following development of detailed surveys, additional overlooking assessments will be undertaken and will inform consultation with relevant directly affected properties.

Shadow analysis has been developed based on a reduction in overall noise wall and screen heights as far as practicable and include the use of tinted transparent acrylic to minimise overshadowing. The final design may vary pending ongoing engineering advice, acoustic noise wall modelling, design development and consultation.

Refer to UDLP Attachment 1: Architecture and Urban Design for current proposed noise wall and screen designs.

LEGEND

— — PROJECT BOUNDARY	EXISTING BUILDING SHADOW	PROPOSED STRUCTURE SHADOW
████████ SECLUDED PRIVATE OPEN SPACE (SPOS)	████████ EXISTING FENCE LINE SHADOW	████████ PROPOSED NOISE WALL
— — EXISTING FENCE LINE (INDICATIVE 1.8m HIGH)	— — PROPOSED NOISE WALL	████████ EXTENT OF ADDITIONAL OVERSHADOWING INTO SPOS
— — PROPOSED SCREEN	— — INDICATIVE EXTENT OF OVERLOOKING SCREENING SHADOW	50 PROPERTY NUMBER

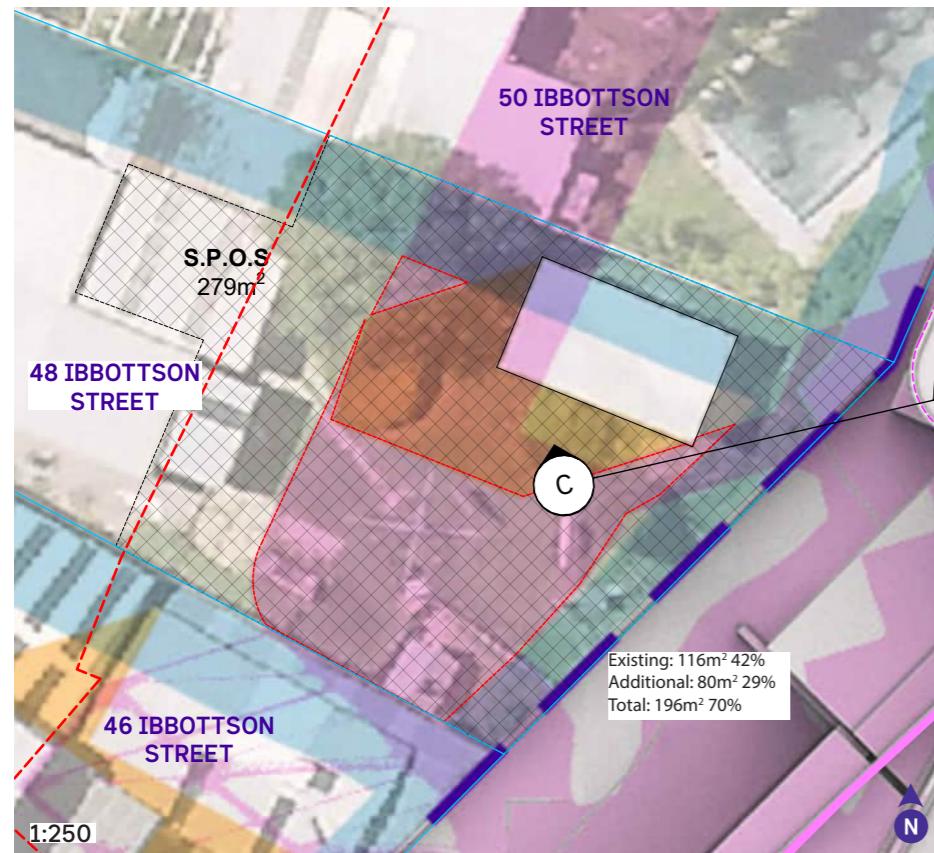


Figure 56: Detailed Analysis: 48 Ibbottson Street - 22nd September 9:00am (AEST)

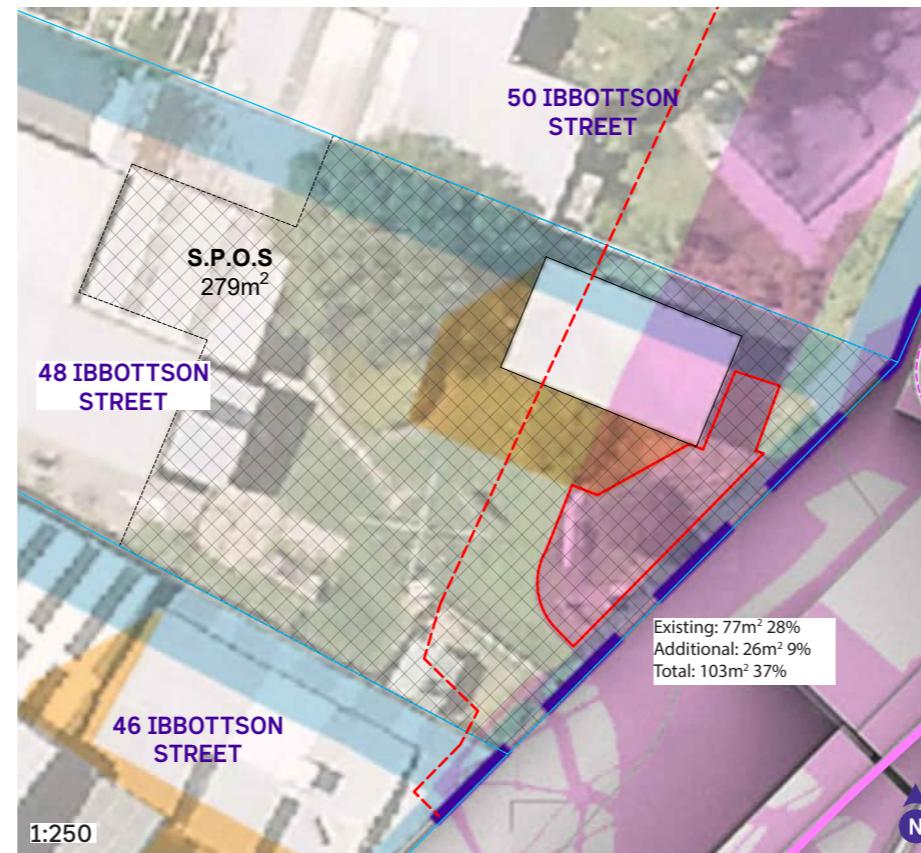


Figure 57: Detailed Analysis: 48 Ibbottson Street - 22nd September 10:00am (AEST)

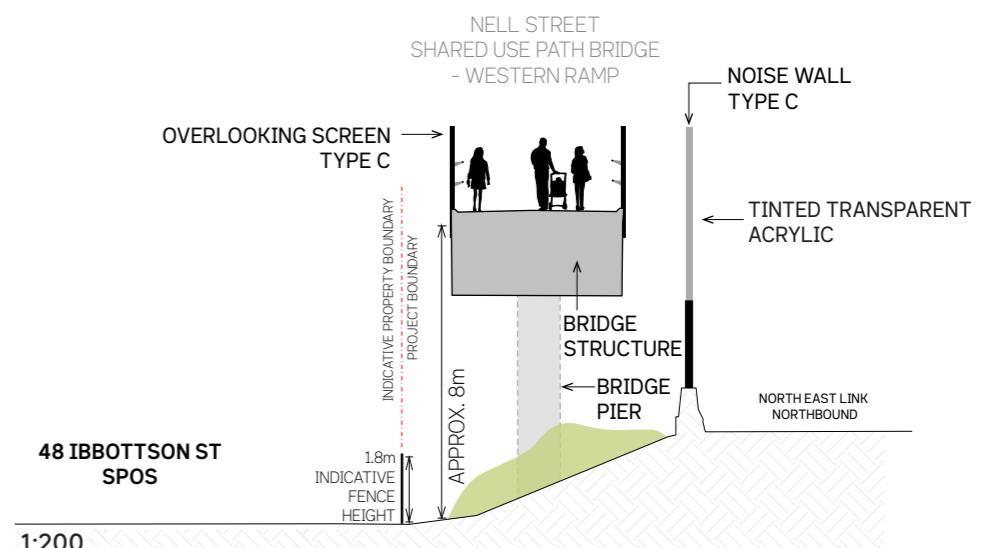


Figure 55: Detailed Analysis: Section C -Proposed architectural and structural elements adjacent to 48 Ibbottson Street

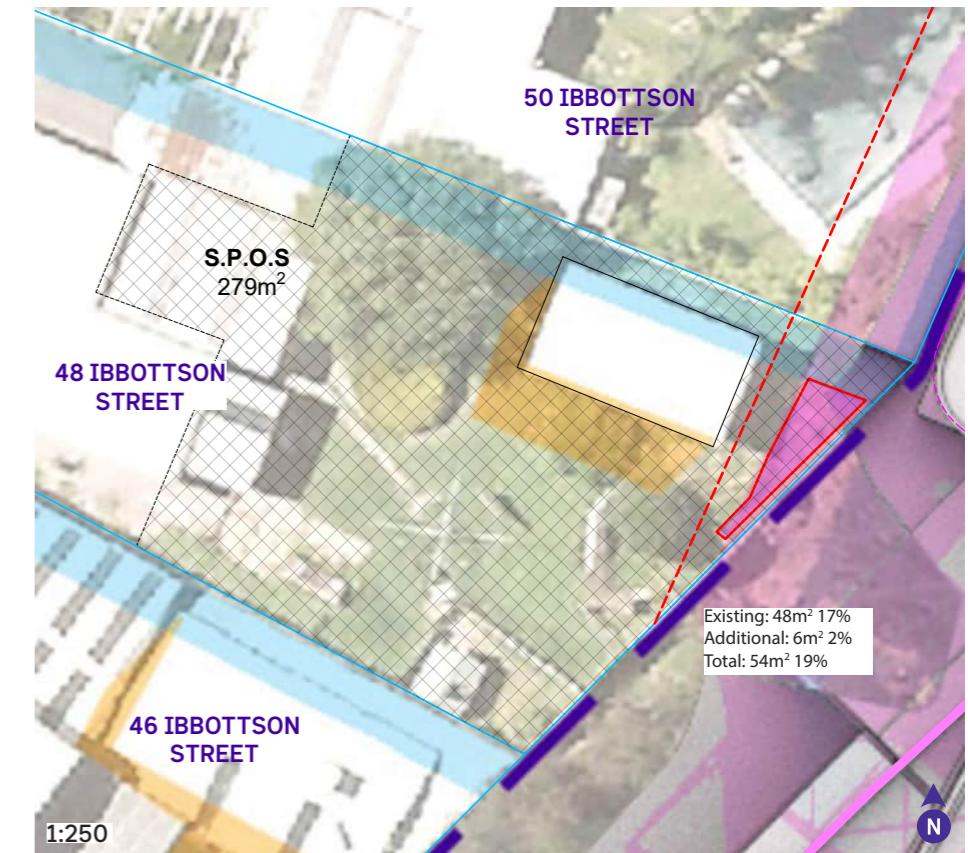


Figure 58: Detailed Analysis: 48 Ibbottson Street - 22nd September 11:00am (AEST)

DESIGN SUBJECT TO RELEVANT CODES AND STANDARDS

© North East Link Program

7	UDLP FINAL AMENDMENT SUBMISSION	05.11.2025	DRAFTING CHECKED BY	NAME	DATE	NELP DISCLAIMER		
6	UDLP AMENDMENT	05.09.2025	Conditions of Use. This Document has been developed for the purposes of the North East Link Project.		C. DEWAGE	05.11.2025	Recipients of this document: - are subject to obligations of confidentiality in relation to this document; and - may not rely upon the information contained in this document, and must rely absolutely on their own opinion and professional advice.	
5	UDLP FINAL SUBMISSION	21.08.2024	DESIGNED BY		L. ORJALO	05.11.2025	CONFIRMED	
4	UDLP FINAL SUBMISSION IEA	02.08.2024	ENGINEERING CHECKED BY		R. LEWIS	05.11.2025	BACKDRAFTED/CORRECTED	
3	UDLP FINAL SUBMISSION FOR REVIEW	29.01.2024	VERIFIED BY		L. EVANS	05.11.2025	CONFIRMED	
2	UDLP FINAL SUBMISSION IEA	21.12.2023	APPROVED BY		Z. CIVITKOVIC	05.11.2025	Acciona  AECOM 	
1	PUBLIC EXHIBITION	25.09.2023	APPROVALS		DRAWN: -	SIZE: A3	Security Classification: OFFICIAL: Sensitive	
REV.	DESCRIPTION	DATE	DRAWN: -		SCALE: As indicated	CAD FILE: -	PROJECT CONTRACT: NORTH	
	REVISIONS						NELP DRAWING No.: NEL-NTH-NNA-3900-EPU-DRG-4020	

Note: * Indicates signed documents as drawings will not have wet signatures.

DOT No.:

NORTH EAST LINK PROGRAM			
ATTACHMENT 4: URBAN DESIGN OVERSHADOWING AND OVERLOOKING ASSESSMENT DETAILED ANALYSIS: 48 IBBOTTSON STREET			
PROJECT CONTRACT: NORTH	NELP DRAWING No.: NEL-NTH-NNA-3900-EPU-DRG-4020	SUIT. CODE	REVISION 7

9. Area Wide: Watsonia Precinct 1

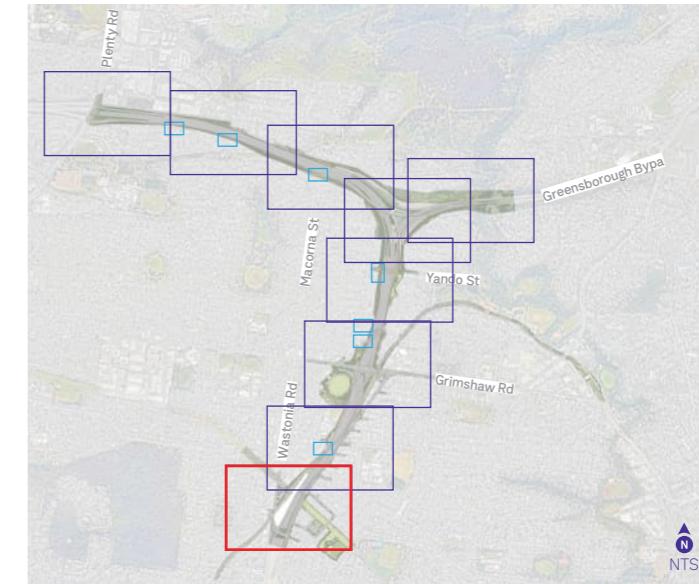
9.1 Overshadowing Analysis

Within Watsonia Precinct 1, the noise walls vary between 2-metres and 6-metres in height.

There are no new shadows cast from elevated structures or noise walls into the SPOS of residential properties as shown in figures 59, 60, and 61. This complies with the requirements of EPR LP4, as the total percentage of SPOS directly affected by shadowing is less than 50% of the SPOS.

9.2 Overlooking Analysis

There are no elevated structures within Watsonia Precinct 1 that pose overlooking concerns.



22nd September 9am (AEST)

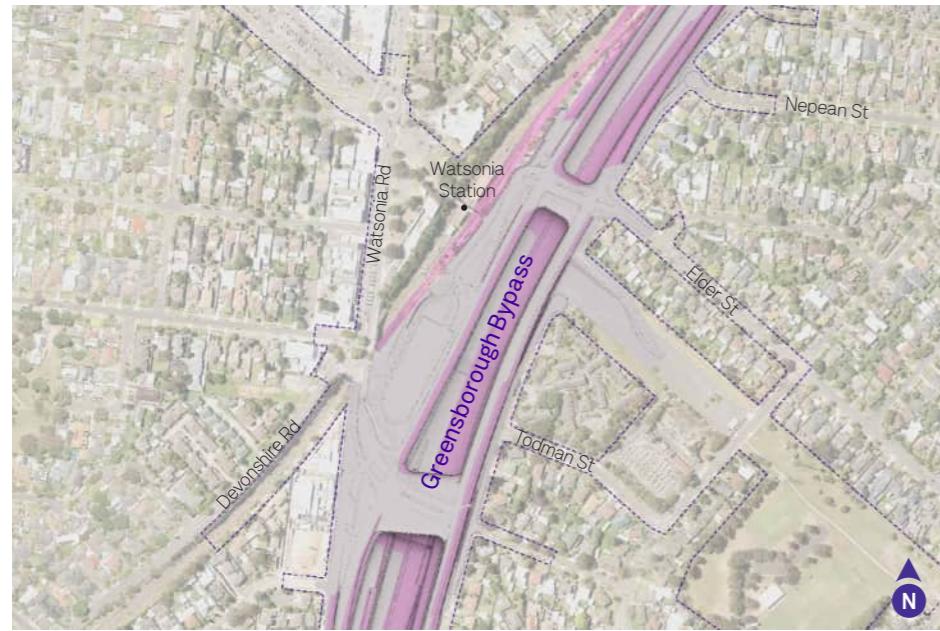


Figure 59: Area Wide: Watsonia Precinct 1 - 22nd September 9am (AEST)

22nd September 12pm (AEST)

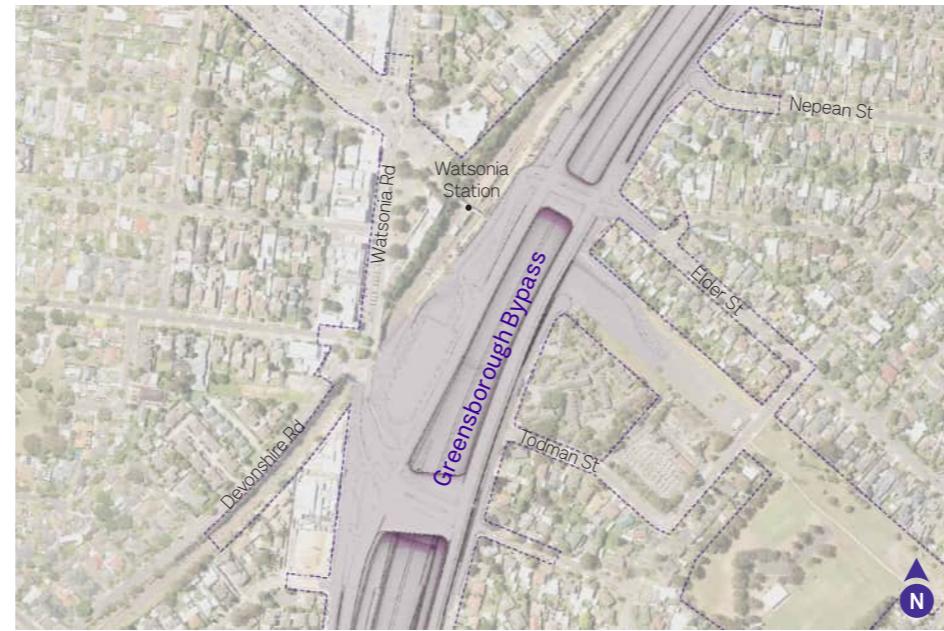


Figure 60: Area Wide: Watsonia Precinct 1 - 22nd September 12pm (AEST)

22nd September 3pm (AEST)

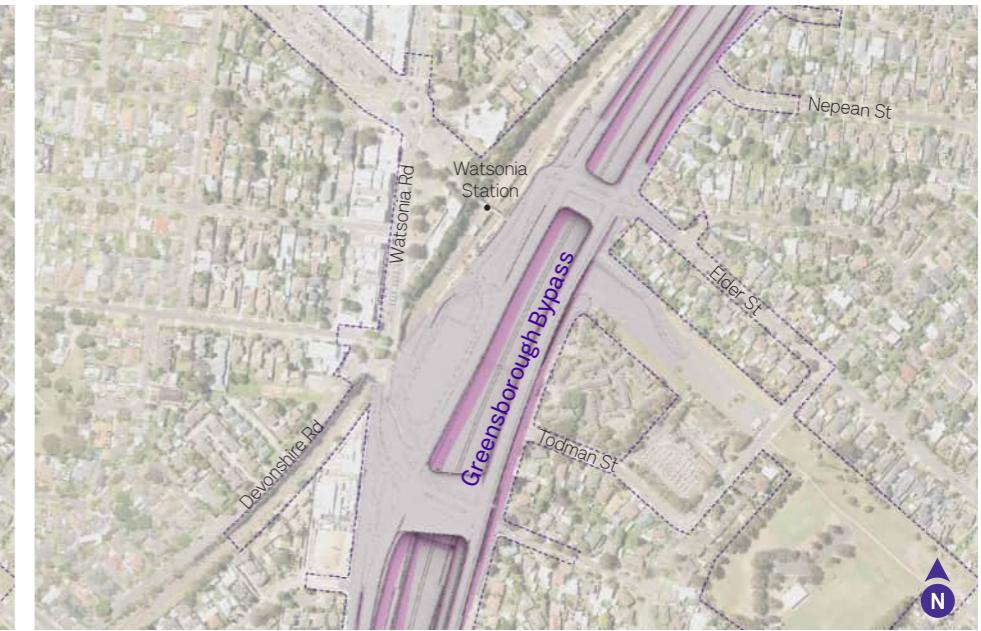


Figure 61: Area Wide: Watsonia Precinct 1 - 22nd September 3pm (AEST)

LEGEND

- EXTENT OF OVERSHADOWING
- PROJECT BOUNDARY

Disclaimer Notes:

Overshadowing diagrams have been drafted for the purposes of depicting shadowing effects from non-transparent major built structures and therefore do not illustrate shadows cast from minor elements including trees, gantries, light poles and low height retaining walls.

This analysis is subject to site surveys which are to be undertaken during the design development phase of the Project. Surveys will be used to verify site information including the location of existing buildings and associated SPOS, heights of existing fences, site levels and habitable room windows. Following development of detailed surveys, additional overlooking assessments will be undertaken and will inform consultation with relevant directly affected properties.

Overshadowing analysis has been developed based on assumed 'worst case scenario' wall heights and the final design may vary pending ongoing engineering advice, acoustic noise wall modelling, design development and consultation.

Refer to UDLP Attachment 1: Architecture and Urban Design for current proposed noise wall and screen designs.

DESIGN SUBJECT TO RELEVANT CODES AND STANDARDS

© North East Link Program

7	UDLP FINAL AMENDMENT SUBMISSION	05.11.2025		NAME	DATE	UDLP DISCLAIMER	
6	UDLP AMENDMENT	05.09.2025	DRAFTING CHECKED BY	C. DEWAGE	05.11.2025	Conditions of Use. This Document has been developed for the purposes of the North East Link Project. Recipients of this document: - are subject to obligations of confidentiality in relation to this document; and - may not rely upon the information contained in this document, and must rely absolutely on their own opinion and professional advice.	
5	UDLP FINAL SUBMISSION	21.08.2024	DESIGNED BY	L. ORJALO	05.11.2025		
4	UDLP FINAL SUBMISSION IEA	02.08.2024	ENGINEERING CHECKED BY	R. LEWIS	05.11.2025		
3	UDLP FINAL SUBMISSION FOR REVIEW	29.01.2024	VERIFIED BY	L. EVANS	05.11.2025		
2	UDLP FINAL SUBMISSION IEA	21.12.2023	APPROVED BY	Z. CIVITKOVIC	05.11.2025		
1	PUBLIC EXHIBITION	25.09.2023					
REV.	DESCRIPTION	DATE	APPROVALS	DRAWN: -	SIZE: A3	SCALE: As indicated	CAD FILE: -
	REVISIONS						

Note: * Indicates signed documents as drawings will not have wet signatures.

CHECK PRINT		READY FOR ISSUE	
DISCIPLINE	DISCIPLINE	INITIAL	DATE
BACKDRAFTED/CORRECTED		CONFIRMED	

Acciona **AECOM**

Security Classification: OFFICIAL: Sensitive

SCALE 1:7500 0 25 50 100 200m DOT No.:

NORTH EAST LINK PROGRAM
ATTACHMENT 4:
URBAN DESIGN OVERSHADOWING AND OVERLOOKING ASSESSMENT
AREA WIDE: WATSONIA PRECINCT 1

PROJECT CONTRACT: NORTH	UDLP DRAWING No.: NEL-NTH-NNA-3900-EPU-DRG-4021	SUIT. CODE	REVISION
-------------------------	---	------------	----------

Overlooking Assessment

DESIGN SUBJECT TO RELEVANT CODES AND STANDARDS

© North East Link Program

7	UDLP FINAL AMENDMENT SUBMISSION	05.11.2025	DRAFTING CHECKED BY	NAME	DATE	NELP DISCLAIMER	
6	UDLP AMENDMENT	05.09.2025		C. DEWAGE	05.11.2025	Conditions of Use. This Document has been developed for the purposes of the North East Link Project. Recipients of this document: - are subject to obligations of confidentiality in relation to this document; and - may not rely upon the information contained in this document, and must rely absolutely on their own opinion and professional advice.	
5	UDLP FINAL SUBMISSION	21.08.2024		L. ORJALO	05.11.2025		
4	UDLP FINAL SUBMISSION IEA	02.08.2024		R. LEWIS	05.11.2025		
3	UDLP FINAL SUBMISSION FOR REVIEW	29.01.2024	ENGINEERING CHECKED BY	L. EVANS	05.11.2025		
2	UDLP FINAL SUBMISSION IEA	21.12.2023	VERIFIED BY				
1	PUBLIC EXHIBITION	25.09.2023	APPROVED BY	Z. CVITKOVIC	05.11.2025		
REV.	DESCRIPTION	DATE					
	REVISIONS			APPROVALS	DRAWN: -	SIZE: A3	SCALE: As indicated

Note: * Indicates signed documents as drawings will not have wet signatures.



CHECK PRINT			READY FOR ISSUE
DISCIPLINE	DISCIPLINE	DISCIPLINE	INITIAL DATE
BACKDRAFTED/CORRECTED			
CONFIRMED			

Security Classification: OFFICIAL: Sensitive

CAD FILE: -

PROJECT CONTRACT: NORTH	NELP DRAWING No.: NEL-NTH-NNA-3900-EPU-DRG-4022	SUIT. CODE 7
----------------------------	--	-----------------

DOT No.:

NORTH EAST LINK PROGRAM

ATTACHMENT 4:

URBAN DESIGN OVERSHADING AND OVERLOOKING ASSESSMENT OVERLOOKING ASSESSMENT



Figure 62: Site Overall Plan - Overlooking

Attachment 4 - Overlooking Assessment List

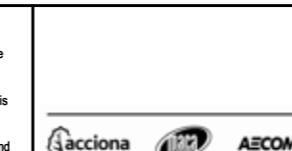
Drawing Number	Location
10	Focused Analysis: Macorna Street Shared Use Path Bridge - Northern Ramp Overlooking Analysis
11	Focused Analysis: Macorna Street Shared Use Path Bridge - Southern Ramp Overlooking Analysis
12	Focused Analysis: Kempston Street Shared Use Path Bridge - Overlooking Analysis
13	Focused Analysis: Nell Street Shared Use Path Bridge - North Western Ramp Overlooking Analysis
14	Focused Analysis: Nell Street Shared Use Path Bridge - Western Ramp Overlooking Analysis
15	Focused Analysis: Nell Street Shared Use Path Bridge - Eastern Ramp Overlooking Analysis

DESIGN SUBJECT TO RELEVANT CODES AND STANDARDS

© North East Link Program

7	UDLP FINAL AMENDMENT SUBMISSION	05.11.2025	DRAFTING CHECKED BY	NAME	DATE	NELP DISCLAIMER	
6	UDLP AMENDMENT	05.09.2025		C. DEWAGE	05.11.2025	Conditions of Use. This Document has been developed for the purposes of the North East Link Project. Recipients of this document: - are subject to obligations of confidentiality in relation to this document; and - may not rely upon the information contained in this document, and must rely absolutely on their own opinion and professional advice.	
5	UDLP FINAL SUBMISSION	21.08.2024	DESIGNED BY	L. ORJALO	05.11.2025		
4	UDLP FINAL SUBMISSION IEA	02.08.2024	ENGINEERING CHECKED BY	R. LEWIS	05.11.2025		
3	UDLP FINAL SUBMISSION FOR REVIEW	29.01.2024	VERIFIED BY	L. EVANS	05.11.2025		
2	UDLP FINAL SUBMISSION IEA	21.12.2023	APPROVED BY	Z. CIVITKOVIC	05.11.2025		
1	PUBLIC EXHIBITION	25.09.2023					
REV.	DESCRIPTION	DATE		APPROVALS	DRAWN: -	SIZE: A3	SCALE: As indicated
	REVISIONS						

Note: * Indicates signed documents as drawings will not have wet signatures.



CHECK PRINT			READY FOR ISSUE INITIAL	DATE
DISCIPLINE				
BACKDRAFTED/CORRECTED				
CONFIRMED				

Security Classification: **OFFICIAL: Sensitive**

PROJECT CONTRACT: NORTH	NELP DRAWING No.: NEL-NTH-NNA-3900-EPU-DRG-4023	SUIT. CODE	REVISION
----------------------------	--	------------	----------

DOT No.:

NORTH EAST LINK PROGRAM

ATTACHMENT 4:

URBAN DESIGN OVERSHADING AND OVERLOOKING ASSESSMENT
SITE OVERALL PLAN - OVERLOOKING

10. Focused Analysis: Macorna Street Shared Use Path Bridge - Northern Ramp Overlooking Analysis

10.1 Overlooking Analysis

Focused analysis of the Macorna Street shared use path northern ramp shows properties on Killarney Ridge and Eastgate Drive may be directly affected by overlooking into SPOS as shown in Figures 63 and 64.

Properties require overlooking mitigation from the proposed shared use path ramp to be undertaken in consultation with property owners.

10.2 Mitigation Measures

The following mitigation measures will be applied to minimise possible overlooking into SPOS and habitable room windows at Macorna Street shared use path bridge northern ramp:

- Maximising bridge setback from adjacent properties
- Consultation with directly affected properties to inform the detailed design of screening types, materials, and level of visually permeability.

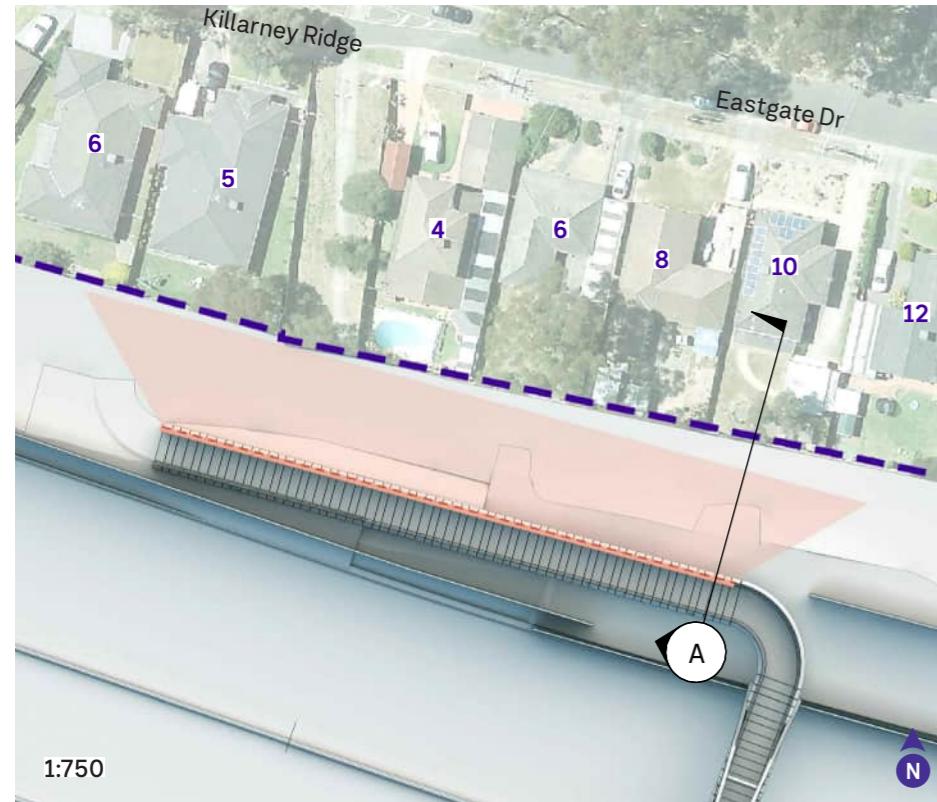


Figure 63: Focus Analysis: Macorna Street Shared Use Path Bridge - Northern Ramp Overlooking Analysis Plan

LEGEND

15m OVERLOOKING REQUIREMENT FOR EPR 50 PROPERTY NUMBER - - - PROJECT BOUNDARY

DESIGN SUBJECT TO RELEVANT CODES AND STANDARDS

© North East Link Program

7	UDLP FINAL AMENDMENT SUBMISSION	05.11.2025	DRAFTING	NAME	DATE	NELP DISCLAIMER		CHECK PRINT	READY FOR ISSUE
6	UDLP AMENDMENT	05.09.2025	CHECKED BY	C. DEWAGE	05.11.2025	Conditions of Use. This Document has been developed for the purposes of the North East Link Project. Recipients of this document: - are subject to obligations of confidentiality in relation to this document; and - may not rely upon the information contained in this document, and must rely absolutely on their own opinion and professional advice.		INITIAL	DATE
5	UDLP FINAL SUBMISSION	21.08.2024	DESIGNED BY	L. ORJALO	05.11.2025				
4	UDLP FINAL SUBMISSION IEA	02.08.2024	ENGINEERING	R. LEWIS	05.11.2025				
3	UDLP FINAL SUBMISSION FOR REVIEW	29.01.2024	CHECKED BY						
2	UDLP FINAL SUBMISSION IEA	21.12.2023	VERIFIED BY	L. EVANS	05.11.2025				
1	PUBLIC EXHIBITION	25.09.2023	APPROVED BY	Z. CIVITKOVIC	05.11.2025				
REV.	DESCRIPTION	DATE	APPROVALS	DRAWN:	SIZE: A3	SCALE: As indicated	CAD FILE:	-	
	REVISIONS								

Note: * Indicates signed documents as drawings will not have wet signatures.

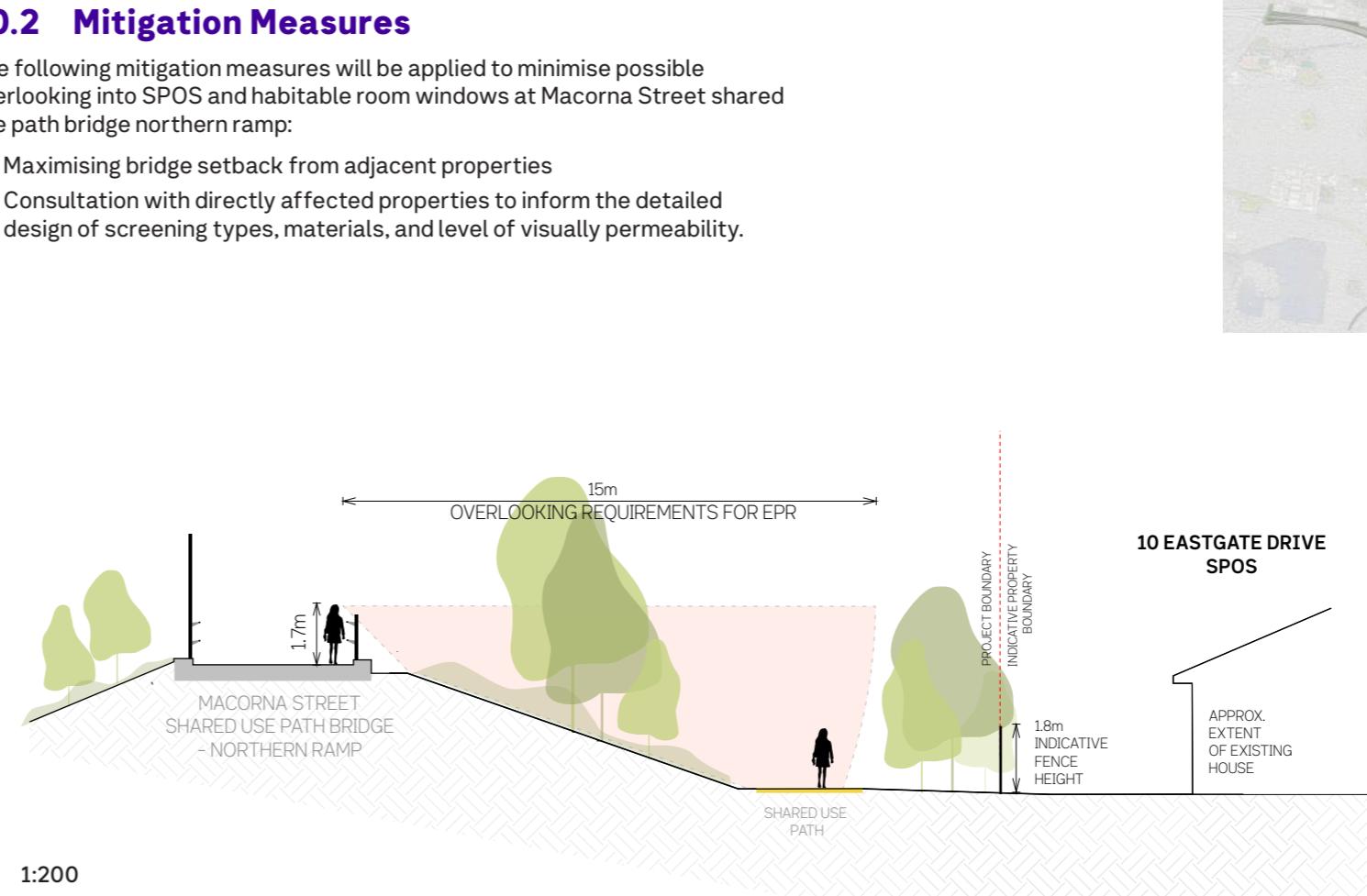


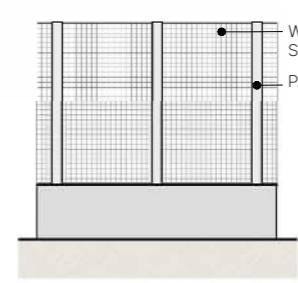
Figure 64: Focus Analysis: Macorna Street Shared Use Path Bridge - Northern Ramp Overlooking Analysis Section

Disclaimer Notes:

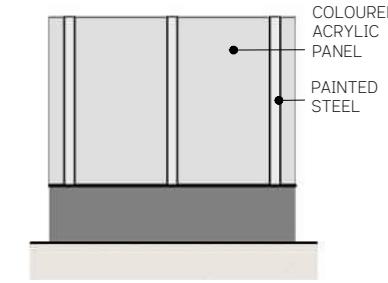
Overlooking diagrams have been drafted for the purposes of depicting overlooking effects from elevated structures, in particular those within a distance of 15 metres of SPOS and habitable room windows of residential properties. Therefore, these do not illustrate overlooking from minor elements including gantries and low height retaining walls.

This analysis is subject to site surveys which are to be undertaken during the design development phase of the Project. Surveys will be used to verify site information including the location of existing buildings and associated SPOS, heights of existing fences, site levels and habitable room windows. Following development of detailed surveys, additional overlooking assessments will be undertaken and will inform consultation with relevant directly affected properties. The final design may vary pending ongoing engineering advice, acoustic noise wall modelling, design development and consultation.

Refer to UDLP Attachment 1: Architecture and Urban Design for current proposed noise wall and screen designs.



ANTI-THROW SCREEN TYPE A



ANTI-THROW SCREEN TYPE B

NORTH EAST LINK PROGRAM									
ATTACHMENT 4: URBAN DESIGN OVERSHADING AND OVERLOOKING ASSESSMENT									
FOCUS ANALYSIS: MACORNA STREET SHARED USE PATH BRIDGE - NORTHERN RAMP OVERLOOKING ANALYSIS									
© North East Link Program	DOT No.:								
7	UDLP FINAL AMENDMENT SUBMISSION	05.11.2025	DRAFTING	NAME	DATE	NELP DISCLAIMER	CHECK PRINT	READY FOR ISSUE	
6	UDLP AMENDMENT	05.09.2025	CHECKED BY	C. DEWAGE	05.11.2025	Conditions of Use. This Document has been developed for the purposes of the North East Link Project. Recipients of this document: - are subject to obligations of confidentiality in relation to this document; and - may not rely upon the information contained in this document, and must rely absolutely on their own opinion and professional advice.	DISCIPLINE	INITIAL	DATE
5	UDLP FINAL SUBMISSION	21.08.2024	DESIGNED BY	L. ORJALO	05.11.2025		DISCIPLINE		
4	UDLP FINAL SUBMISSION IEA	02.08.2024	ENGINEERING	R. LEWIS	05.11.2025		DISCIPLINE		
3	UDLP FINAL SUBMISSION FOR REVIEW	29.01.2024	CHECKED BY				BACKDRAFTED/CORRECTED		
2	UDLP FINAL SUBMISSION IEA	21.12.2023	VERIFIED BY	L. EVANS	05.11.2025		CONFIRMED		
1	PUBLIC EXHIBITION	25.09.2023	APPROVED BY	Z. CIVITKOVIC	05.11.2025				
REV.	DESCRIPTION	DATE	APPROVALS	DRAWN:	SIZE: A3	SCALE: As indicated	CAD FILE:	-	
	REVISIONS								
PROJECT CONTRACT: NORTH									
NELP DRAWING No.: NEL-NTH-NNA-3900-EPU-DRG-4024									
SUIT. CODE 7									

11. Focused Analysis: Macorna Street Shared Use Path Bridge - Southern Ramp Overlooking Analysis

11.1 Overlooking Analysis

Focused analysis of Macorna Street shared use path southern ramp, shows overlooking to the SPOS of properties located at 143 and 145 Macorna Street following the application of throw screen Type A or B as shown in Figures 65 and 66.

Properties require overlooking mitigation from the proposed shared use path ramp to be undertaken in consultation with property owners.

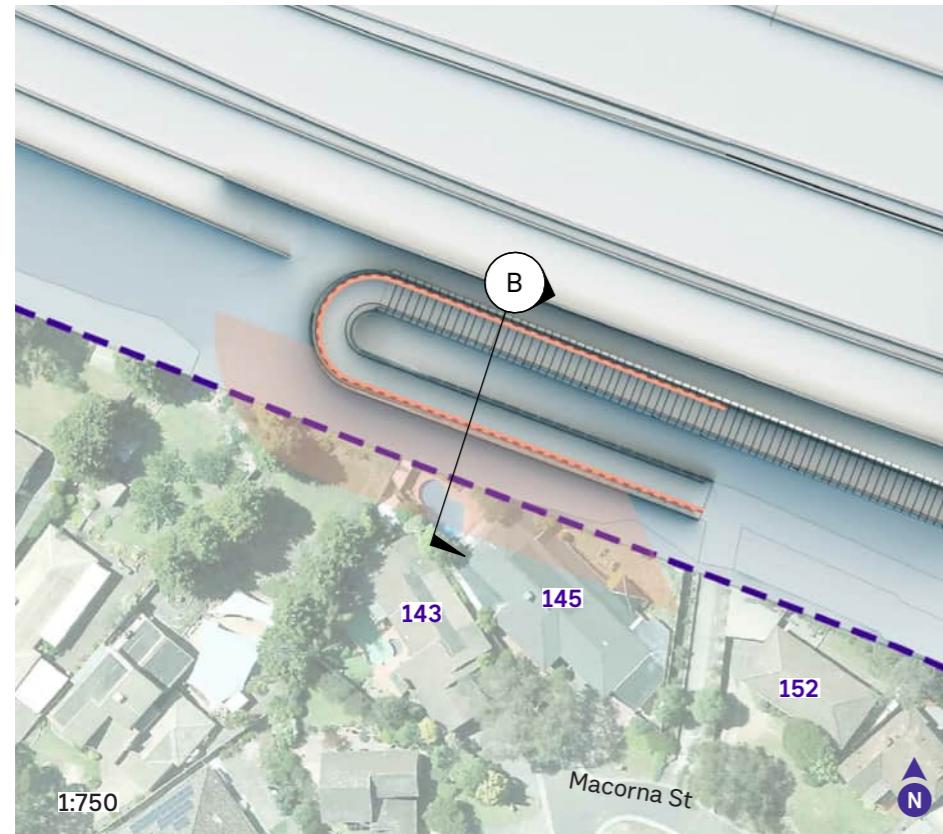


Figure 65: Focus Analysis: Macorna Street Shared Use Path Bridge - Southern Ramp Overlooking Analysis Plan - throw Screen Type A or B application (no overlooking mitigation)

LEGEND
 15m OVERLOOKING REQUIREMENT FOR EPR
50 PROPERTY NUMBER
----- PROJECT BOUNDARY

11.2 Mitigation Measures

Proposed mitigation measures at Macorna Street shared use path bridge southern ramp include:

- Maximising bridge setback from adjacent properties
- Application of overlooking screen Type C as shown in Figure 67
- Consultation with directly affected properties as required to inform the detailed design of screening types, materials, and level of visually permeability.

Based on the analysis undertaken, this focused area is compliant with the overlooking requirements of EPR LP4.

Disclaimer Notes:

Overlooking screen Type C materials and extent of application are to be finalised in design development phase in consultation with directly affected properties to achieve compliance with the requirements of EPR LP4.

Overlooking diagrams have been drafted for the purposes of depicting overlooking effects from elevated structures, in particular those within a distance of 15 metres of SPOS and habitable room windows of residential properties. Therefore, these do not illustrate overlooking from minor elements including gantries and low height retaining walls.

This analysis is subject to site surveys which are to be undertaken during the design development phase of the Project. Surveys will be used to verify site information including the location of existing buildings and associated SPOS, heights of existing fences, site levels and habitable room windows. Following development of detailed surveys, additional overlooking assessments will be undertaken and will inform consultation with relevant directly affected properties. The final design may vary pending ongoing engineering advice, acoustic noise wall modelling, design development and consultation.

Refer to UDLP Attachment 1: Architecture and Urban Design for current proposed noise wall and screen designs.

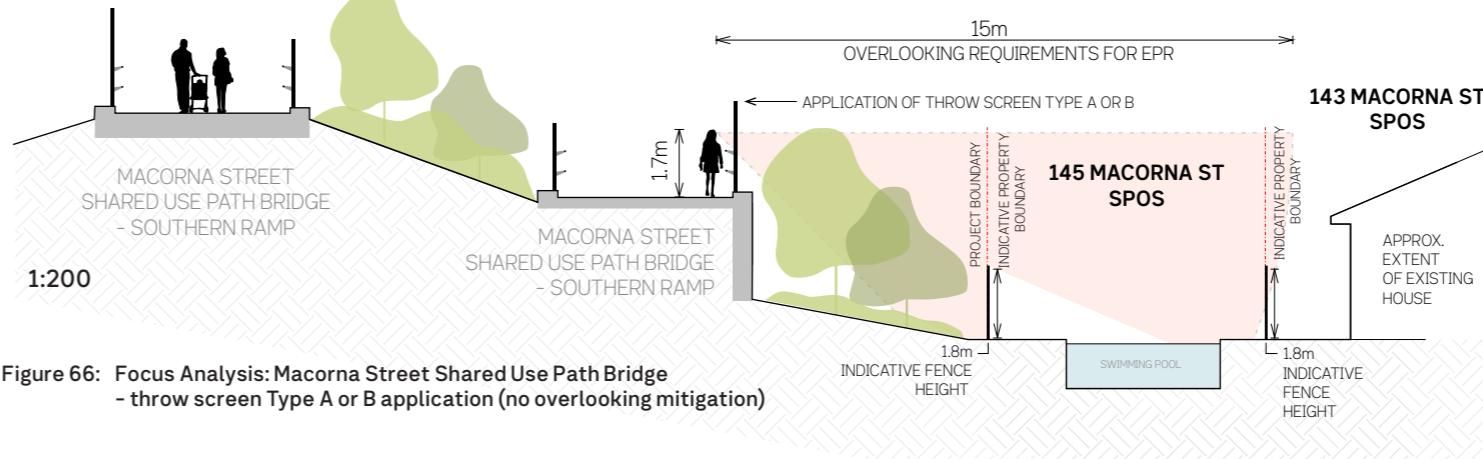


Figure 66: Focus Analysis: Macorna Street Shared Use Path Bridge - throw screen Type A or B application (no overlooking mitigation)

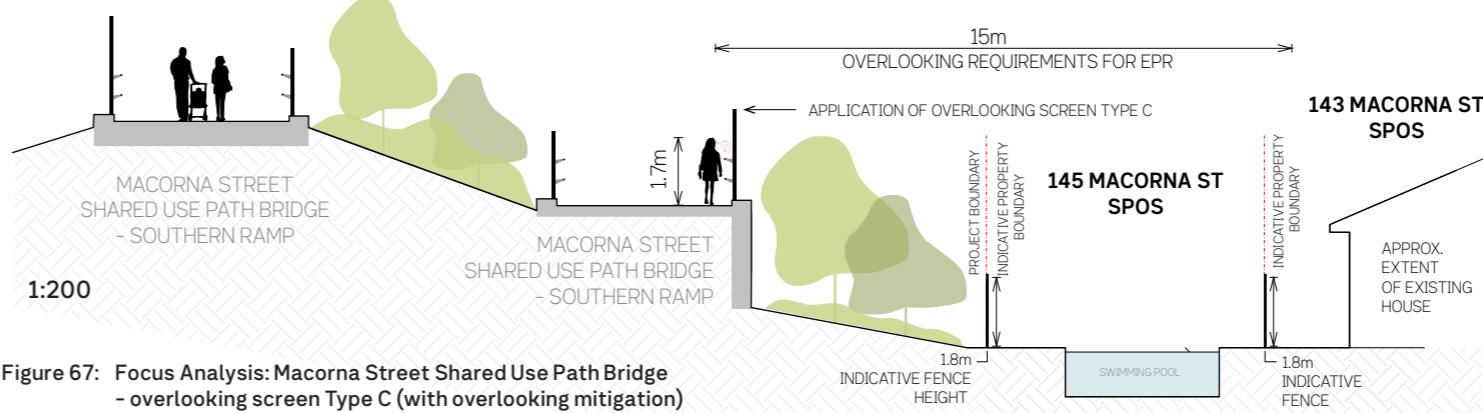
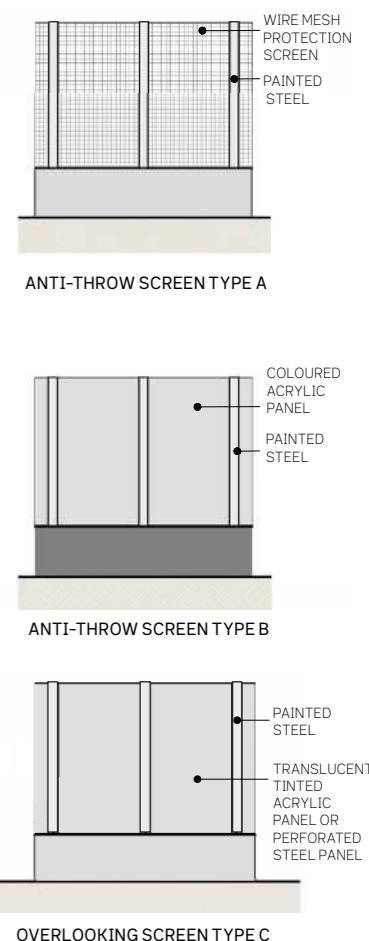


Figure 67: Focus Analysis: Macorna Street Shared Use Path Bridge - overlooking screen Type C (with overlooking mitigation)



DESIGN SUBJECT TO RELEVANT CODES AND STANDARDS

© North East Link Program

7	UDLP FINAL AMENDMENT SUBMISSION	05.11.2025	DRAFTING CHECKED BY	NAME	DATE	NELP DISCLAIMER		Acciona 	CHECK PRINT	READY FOR ISSUE INITIAL DATE
6	UDLP AMENDMENT	05.09.2025		C. DEWAGE	05.11.2025	Conditions of Use. This Document has been developed for the purposes of the North East Link Project. Recipients of this document: - are subject to obligations of confidentiality in relation to this document; and - may not rely upon the information contained in this document, and must rely absolutely on their own opinion and professional advice.				
5	UDLP FINAL SUBMISSION	21.08.2024	DRAFTING CHECKED BY	L. ORJALO	05.11.2025					
4	UDLP FINAL SUBMISSION IEA	02.08.2024	ENGINEERING CHECKED BY	R. LEWIS	05.11.2025					
3	UDLP FINAL SUBMISSION FOR REVIEW	29.01.2024	VERIFIED BY	L. EVANS	05.11.2025					
2	UDLP FINAL SUBMISSION IEA	21.12.2023	APPROVED BY	Z. CVITKOVIC	05.11.2025					
1	PUBLIC EXHIBITION	25.09.2023								
REV.	DESCRIPTION	DATE		APPROVALS	DRAWN: -	SIZE: A3	SCALE: As indicated			
	REVISIONS									

Note: * Indicates signed documents as drawings will not have wet signatures.

12. Focused Analysis: Kempston Street Shared Use Path Bridge - Overlooking Analysis

12.1 Overlooking Analysis

Focused analysis of the Kempston Street shared use path, shows overlooking to the SPOS of properties located at 1 Hamlet Street and 23 and 25 Kempston Street following the application of throw screen Type A or B as shown in Figures 68, 69 and 70.

Properties require overlooking mitigation from the proposed shared use path ramp to be undertaken in consultation with property owners.

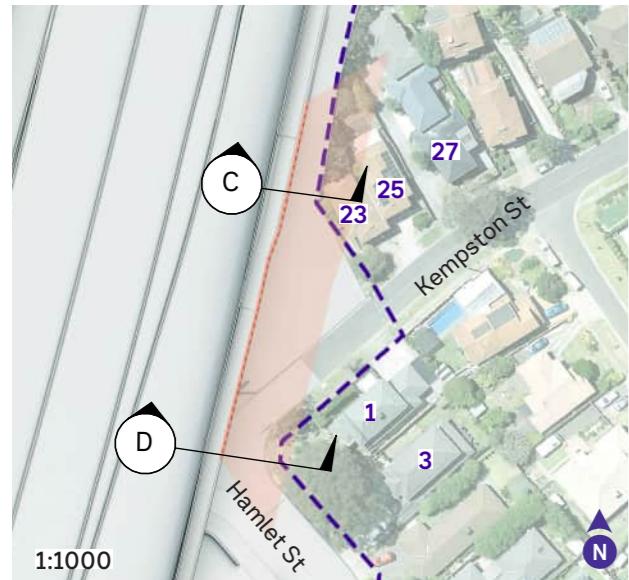


Figure 68: Focus Analysis: Kempston Street Shared Use Path Bridge - Overlooking Analysis Plan - throw screen Type A or B application (no overlooking mitigation)

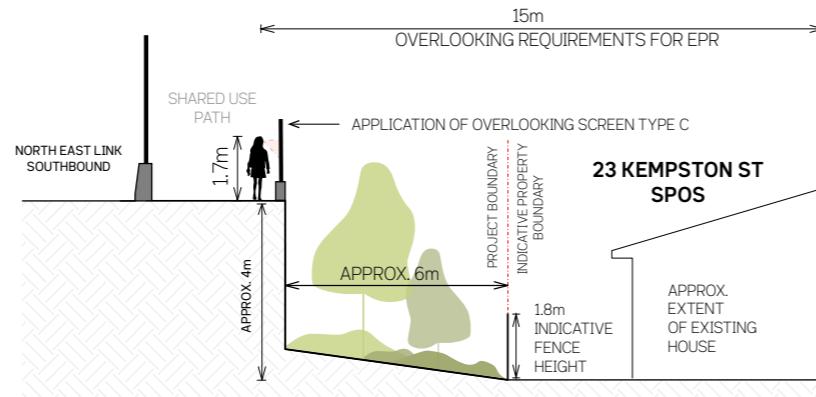
LEGEND
 15m OVERLOOKING REQUIREMENT FOR EPR
50 PROPERTY NUMBER
----- PROJECT BOUNDARY

DESIGN SUBJECT TO RELEVANT CODES AND STANDARDS

© North East Link Program

7	UDLP FINAL AMENDMENT SUBMISSION	05.11.2025	DRAFTING CHECKED BY	NAME	DATE	NELP DISCLAIMER	
6	UDLP AMENDMENT	05.09.2025		C. DEWAGE	05.11.2025	Conditions of Use. This Document has been developed for the purposes of the North East Link Project. Recipients of this document: - are subject to obligations of confidentiality in relation to this document; and - may not rely upon the information contained in this document, and must rely absolutely on their own opinion and professional advice.	
5	UDLP FINAL SUBMISSION	21.08.2024	DESIGNED BY	L. ORJALO	05.11.2025		
4	UDLP FINAL SUBMISSION IEA	02.08.2024	ENGINEERING CHECKED BY	R. LEWIS	05.11.2025		
3	UDLP FINAL SUBMISSION FOR REVIEW	29.01.2024	VERIFIED BY	L. EVANS	05.11.2025		
2	UDLP FINAL SUBMISSION IEA	21.12.2023	APPROVED BY	Z. CIVITKOVIC	05.11.2025		
1	PUBLIC EXHIBITION	25.09.2023					
REV.	DESCRIPTION	DATE		APPROVALS	DRAWN: -	SIZE: A3	SCALE: As indicated
	REVISIONS						

Figure 71: Focus Analysis: Kempston Street Shared Use Path Bridge - Overlooking Analysis Section C - overlooking screen Type C application (with overlooking mitigation)



1:200

12.2 Mitigation Measures

Proposed mitigation measures at the Kempston Street shared use path bridge include:

- Maximising bridge setback from adjacent properties
- Application of overlooking screen Type C as shown in Figure 71 and 71
- Consultation with properties as required to inform the detailed design of screening types, materials, and level of visually permeability.

Based on the analysis undertaken, this focused area is compliant with the overlooking requirements of EPR LP4.

Disclaimer Notes:

Overlooking screen Type C materials and extent of application are to be finalised in design development phase in consultation with directly affected properties to achieve compliance with the requirements of EPR LP4.

Overlooking diagrams have been drafted for the purposes of depicting overlooking effects from elevated structures, in particular those within a distance of 15 metres of SPOS and habitable room windows of residential properties. Therefore, these do not illustrate overlooking from minor elements including gantries and low height retaining walls.

This analysis is subject to site surveys which are to be undertaken during the design development phase of the Project. Surveys will be used to verify site information including the location of existing buildings and associated SPOS, heights of existing fences, site levels and habitable room windows. Following development of detailed surveys, additional overlooking assessments will be undertaken and will inform consultation with relevant directly affected properties. The final design may vary pending ongoing engineering advice, acoustic noise wall modelling, design development and consultation.

Refer to UDLP Attachment 1: Architecture and Urban Design for current proposed noise wall and screen designs.

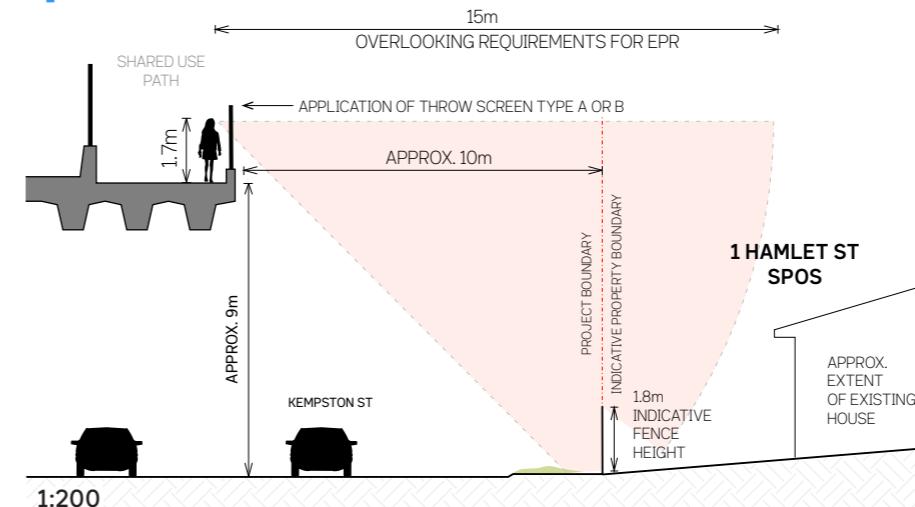


Figure 70: Focus Analysis: Kempston Street Shared Use Path Bridge - Overlooking Analysis Section D - throw screen Type A or B application (no overlooking mitigation)

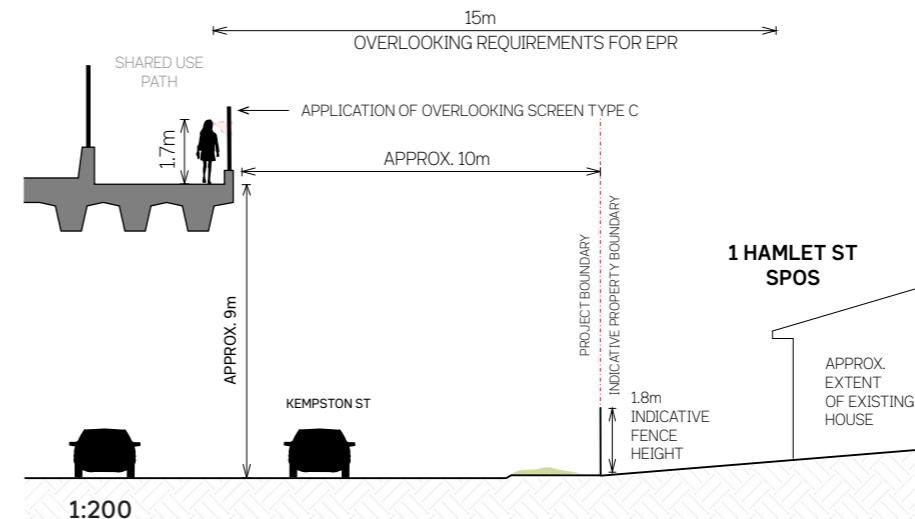
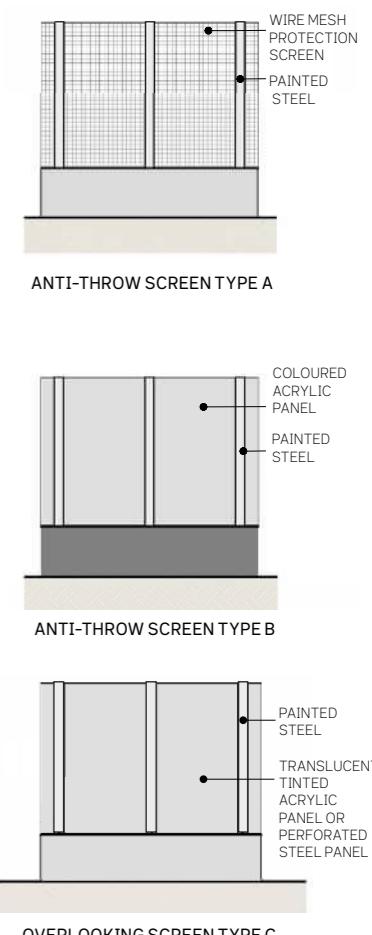


Figure 72: Focus Analysis: Kempston Street Shared Use Path Bridge - Overlooking Analysis Section D - overlooking screen Type C application (with overlooking mitigation)



CHECK PRINT			READY FOR ISSUE	DATE
DISCIPLINE	DISCIPLINE	DISCIPLINE	INITIAL	DATE
BACKDRAFTED/CORRECTED				
CONFIRMED				

Security Classification: OFFICIAL: Sensitive
CAD FILE: -

NORTH EAST LINK PROGRAM			
ATTACHMENT 4: URBAN DESIGN OVERSHADING AND OVERLOOKING ASSESSMENT			
FOCUS ANALYSIS: KEMPSTON STREET SHARED USE PATH BRIDGE - OVERLOOKING ANALYSIS			
PROJECT CONTRACT: NORTH	NELP DRAWING No.: NEL-NTH-NNA-3900-EPU-DRG-4026	SUIT. CODE	REVISION 7

13. Focused Analysis: Nell Street Shared Use Path Bridge - North Western Ramp Overlooking Analysis

13.1 Overlooking Analysis

Focused analysis of Nell Street shared use path bridge north-western ramp shows overlooking to the Watsonia Primary School following the application of throw screen Type A or B as shown in Figures 73 and 74.

Watsonia Primary School is considered a sensitive receptor, and mitigation measures are proposed for the shared-use path ramp. These measures will be informed through consultation with the school.

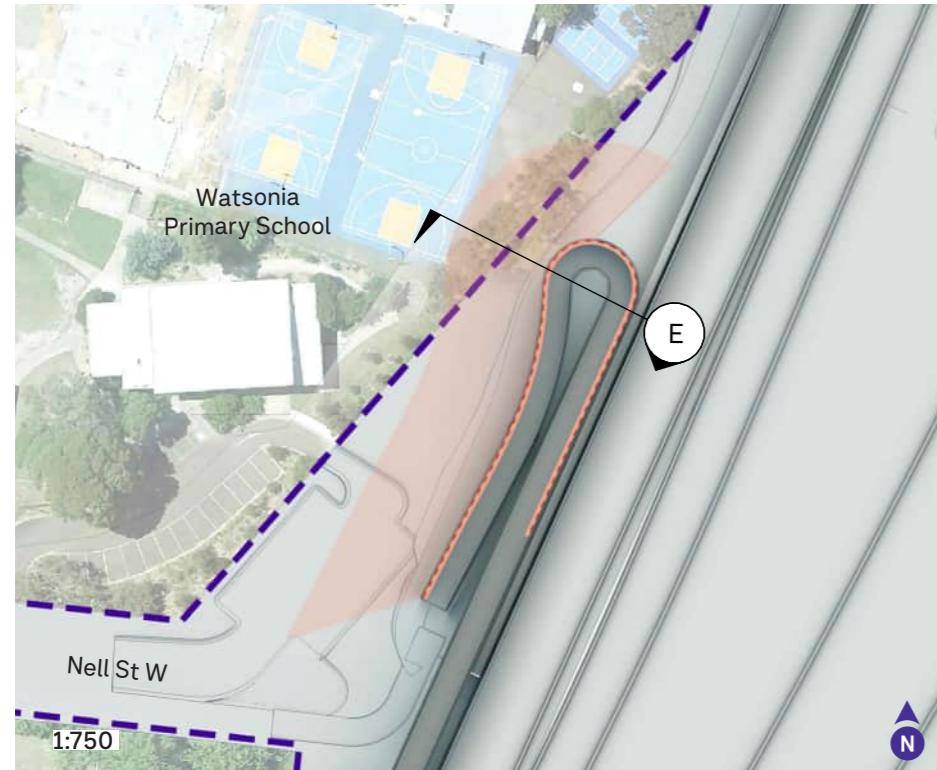


Figure 73: Focus Analysis: Nell Street Shared Use Path Bridge - North Western Ramp Overlooking Analysis Plan
- throw screen Type A or B application (no overlooking mitigation)

LEGEND

15m OVERLOOKING REQUIREMENT FOR EPR 50 PROPERTY NUMBER — PROJECT BOUNDARY

DESIGN SUBJECT TO RELEVANT CODES AND STANDARDS

© North East Link Program

7	UDLP FINAL AMENDMENT SUBMISSION	05.11.2025	NAME	DATE	NELP DISCLAIMER	
6	UDLP AMENDMENT	05.09.2025	DRAFTING CHECKED BY	C. DEWAGE	Conditions of Use: This Document has been developed for the purposes of the North East Link Project. Recipients of this document: - are subject to obligations of confidentiality in relation to this document; and - may not rely upon the information contained in this document, and must rely absolutely on their own opinion and professional advice.	
5	UDLP FINAL SUBMISSION	21.08.2024	DESIGNED BY	L. ORJALO	REVISIONS	
4	UDLP FINAL SUBMISSION IEA	02.08.2024	ENGINEERING CHECKED BY	R. LEWIS	DATE	
3	UDLP FINAL SUBMISSION FOR REVIEW	29.01.2024	VERIFIED BY	L. EVANS	APPROVED BY	
2	UDLP FINAL SUBMISSION IEA	21.12.2023		Z. CIVITKOVIC	Z. CIVITKOVIC	
1	PUBLIC EXHIBITION	25.09.2023			DATE	
					APPROVALS	
					DRAWN: -	SIZE: A3
					SCALE: As indicated	CAD FILE: -

13.2 Mitigation Measures

Proposed mitigation measures at the Nell Street shared use path bridge north-western ramp include:

- Maximising bridge setback from adjacent properties
- Application of overlooking screen Type C as shown in Figure 75
- Consultation with directly affected properties as required to inform the detailed design of screening types, materials, and level of visually permeability.

Based on the analysis undertaken, this focused area is compliant with the overlooking requirements of EPR LP4.

Disclaimer Notes:

Overlooking screen Type C materials and extent of application are to be finalised in design development phase in consultation with directly affected properties to achieve compliance with the requirements of EPR LP4.

Overlooking diagrams have been drafted for the purposes of depicting overlooking effects from elevated structures, in particular those within a distance of 15 metres of SPOS and habitable room windows of residential properties. Therefore, these do not illustrate overlooking from minor elements including gantries and low height retaining walls.

This analysis is subject to site surveys which are to be undertaken during the design development phase of the Project. Surveys will be used to verify site information including the location of existing buildings and associated SPOS, heights of existing fences, site levels and habitable room windows. Following development of detailed surveys, additional overlooking assessments will be undertaken and will inform consultation with relevant directly affected properties. The final design may vary pending ongoing engineering advice, acoustic noise wall modelling, design development and consultation.

Refer to UDLP Attachment 1: Architecture and Urban Design for current proposed noise wall and screen designs.

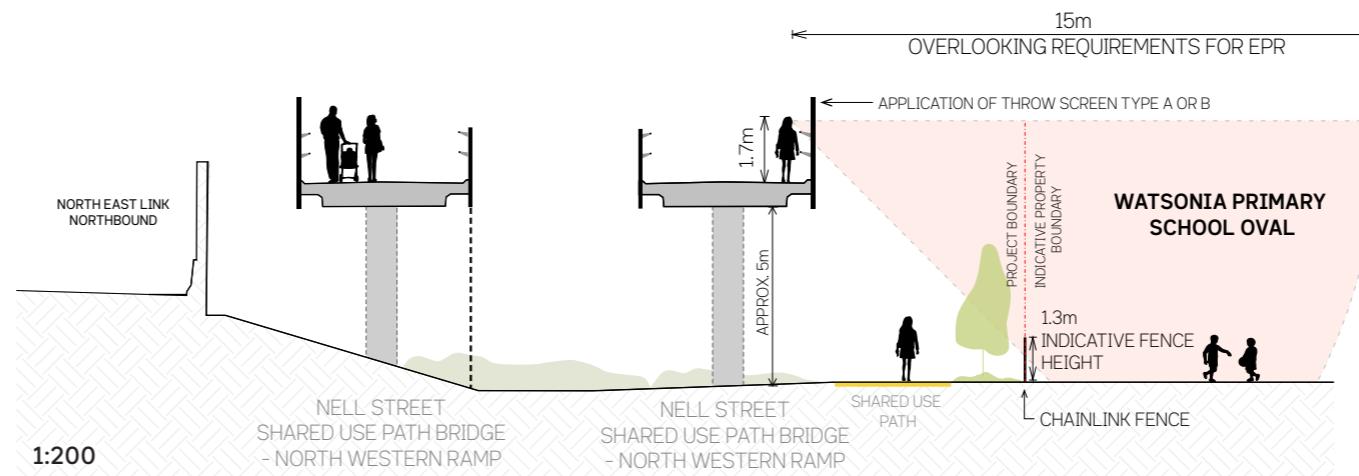


Figure 74: Focus Analysis: Macorna Street Shared Use Path Bridge - North Western Ramp Overlooking Analysis Section E - throw screen Type A or B application (no overlooking mitigation)

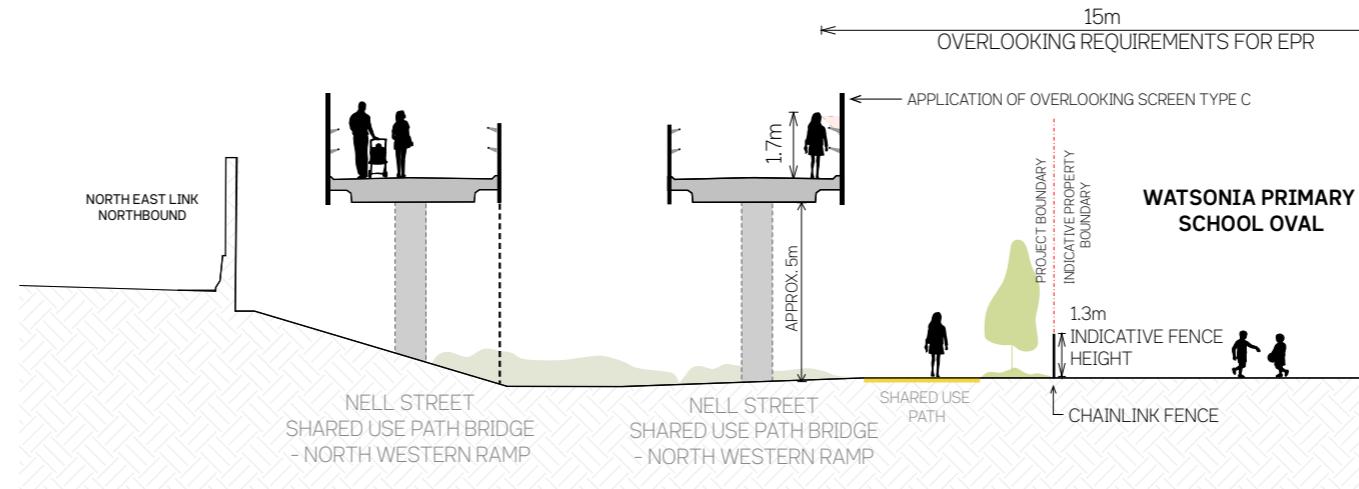


Figure 75: Focus Analysis: Macorna Street Shared Use Path Bridge - North Western Ramp Overlooking Analysis Section E - overlooking screen Type C application (with overlooking mitigation)

CHECK PRINT		READY FOR ISSUE
DISCIPLINE	DISCIPLINE	INITIAL DATE
BACKDRAFTED/CORRECTED		
CONFIRMED		

Security Classification: OFFICIAL: Sensitive

© Acciona

© AECOM

NORTH EAST LINK PROGRAM	
ATTACHMENT 4:	
URBAN DESIGN OVERSHADING AND OVERLOOKING ASSESSMENT	
FOCUS ANALYSIS: NELL STREET SHARED USE PATH BRIDGE - NORTH WESTERN RAMP OVERLOOKING ANALYSIS	PROJECT CONTRACT: NORTH
NELP DRAWING No.: NEL-NTH-NNA-3900-EPU-DRG-4027	SUIT. CODE 7

14. Focused Analysis: Nell Street Shared Use Path Bridge - Western Ramp Overlooking Analysis

14.1 Overlooking Analysis

Focused analysis of the Nell Street shared use path bridge western ramp shows overlooking to the SPOS of properties located at 229 Nell Street West and 50 and 48 Ibbottson Street following the application of throw screen Type A or B as shown in Figures 76 and 77.

Properties require overlooking mitigation from the proposed shared use path ramp to be undertaken in consultation with property owners.

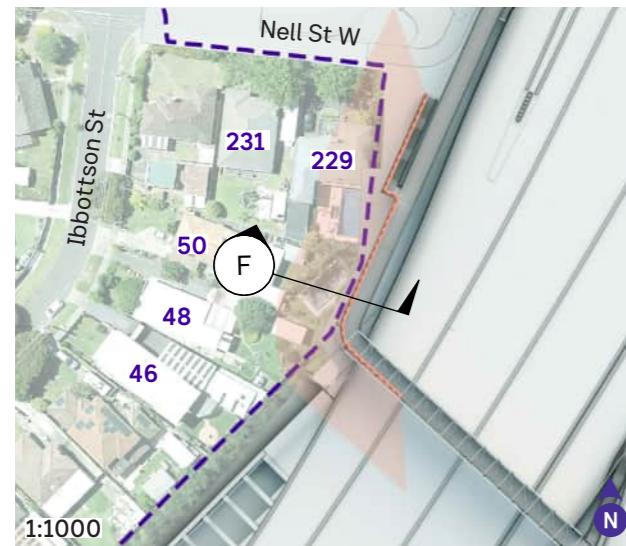


Figure 76: Focus Analysis: Nell Street Shared Use Path Bridge - Western Ramp Overlooking Analysis Plan - throw screen Type A or B application (no overlooking mitigation)

14.2 Mitigation Measures

Proposed mitigation measures at the Nell Street shared use path bridge western ramp includes:

- Application of overlooking screen Type C as shown in Figure 78
- Consultation with properties as required to inform the detailed design of screening types, materials, and level of visually permeability.

Based on the analysis undertaken, this focused area is compliant with the overlooking requirements of EPR LP4.

Disclaimer Notes:

Overlooking screen Type C materials and extent of application are to be finalised in design development phase in consultation with directly affected properties to achieve compliance with the requirements of EPR LP4.

Overlooking diagrams have been drafted for the purposes of depicting overlooking effects from elevated structures, in particular those within a distance of 15 metres of SPOS and habitable room windows of residential properties. Therefore, these do not illustrate overlooking from minor elements including gantries and low height retaining walls.

This analysis is subject to site surveys which are to be undertaken during the design development phase of the Project. Surveys will be used to verify site information including the location of existing buildings and associated SPOS, heights of existing fences, site levels and habitable room windows. Following development of detailed surveys, additional overlooking assessments will be undertaken and will inform consultation with relevant directly affected properties. The final design may vary pending ongoing engineering advice, acoustic noise wall modelling, design development and consultation.

Refer to UDLP Attachment 1: Architecture and Urban Design for current proposed noise wall and screen designs.

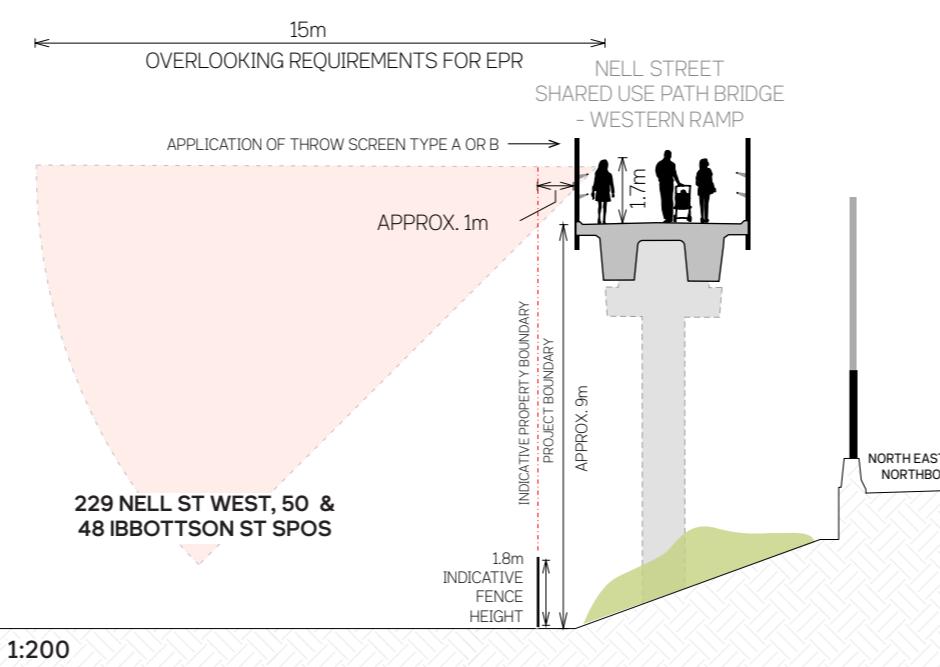


Figure 77: Focus Analysis: Nell Street Shared Use Path Bridge - Western Ramp Overlooking Analysis Section F - throw screen Type A or B application (no overlooking mitigation)

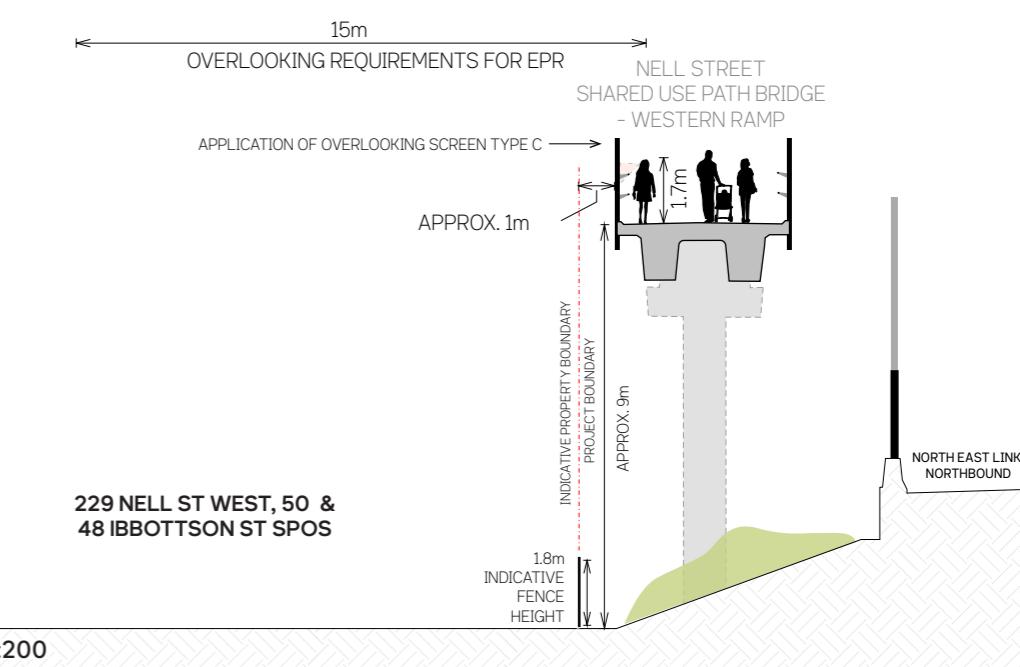


Figure 78: Focus Analysis: Nell Street Shared Use Path Bridge - Western Ramp Overlooking Analysis Section F - overlooking screen Type C application (with overlooking mitigation)

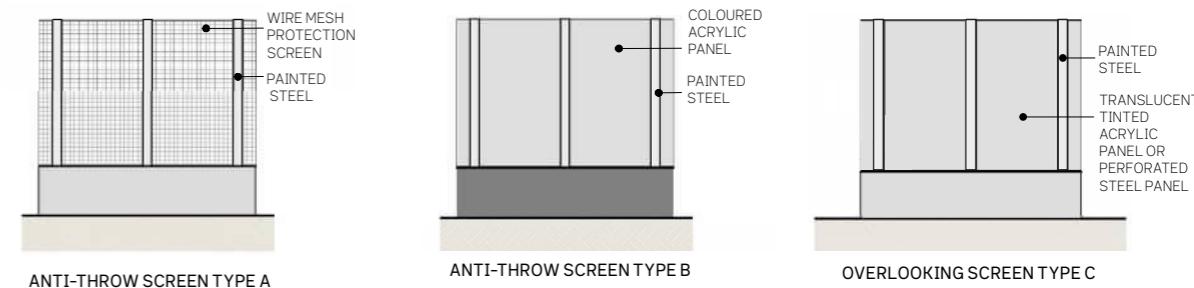
LEGEND
 15m OVERLOOKING REQUIREMENT FOR EPR
 PROPERTY NUMBER
 PROJECT BOUNDARY

DESIGN SUBJECT TO RELEVANT CODES AND STANDARDS

© North East Link Program

7	UDLP FINAL AMENDMENT SUBMISSION	05.11.2025	DRAFTING CHECKED BY	NAME	DATE	NELP DISCLAIMER	
6	UDLP AMENDMENT	05.09.2025		C. DEWAGE	05.11.2025	Conditions of Use. This Document has been developed for the purposes of the North East Link Project. Recipients of this document: - are subject to obligations of confidentiality in relation to this document; and - may not rely upon the information contained in this document, and must rely absolutely on their own opinion and professional advice.	
5	UDLP FINAL SUBMISSION	21.08.2024	DESIGNED BY	L. ORJALO	05.11.2025		
4	UDLP FINAL SUBMISSION IEA	02.08.2024	ENGINEERING CHECKED BY	R. LEWIS	05.11.2025		
3	UDLP FINAL SUBMISSION FOR REVIEW	29.01.2024	VERIFIED BY	L. EVANS	05.11.2025		
2	UDLP FINAL SUBMISSION IEA	21.12.2023	APPROVED BY	Z. CIVITKOVIC	05.11.2025		
1	PUBLIC EXHIBITION	25.09.2023					
REV.	DESCRIPTION	DATE	APPROVALS	DRAWN: -	SIZE: A3	SCALE: As indicated	CAD FILE: -
	REVISIONS						

Note: * Indicates signed documents as drawings will not have wet signatures.



CHECK PRINT			READY FOR ISSUE
DISCIPLINE	DISCIPLINE	DISCIPLINE	INITIAL DATE
BACKDRAFTED/CORRECTED			
CONFIRMED			

Security Classification: OFFICIAL: Sensitive

CAD FILE: -

NORTH EAST LINK PROGRAM		
ATTACHMENT 4:		
URBAN DESIGN OVERSHADING AND OVERLOOKING ASSESSMENT		
FOCUS ANALYSIS: NELL STREET SHARED USE PATH BRIDGE - WESTERN RAMP OVERLOOKING ANALYSIS	PROJECT CONTRACT: NORTH	NELP DRAWING No.: NEL-NTH-NNA-3900-EPU-DRG-4028

15. Focused Analysis: Nell Street Shared Use Path Bridge - Eastern Ramp Overlooking Analysis

15.1 Overlooking Analysis

Focused analysis of the Nell Street shared use path bridge eastern ramp shows overlooking to properties at 460 and 462 Greensborough Road following the application of throw screen Type A or B as shown in Figures 79 and 80.

Properties require overlooking mitigation from the proposed shared use path ramp to be undertaken in consultation with property owners.

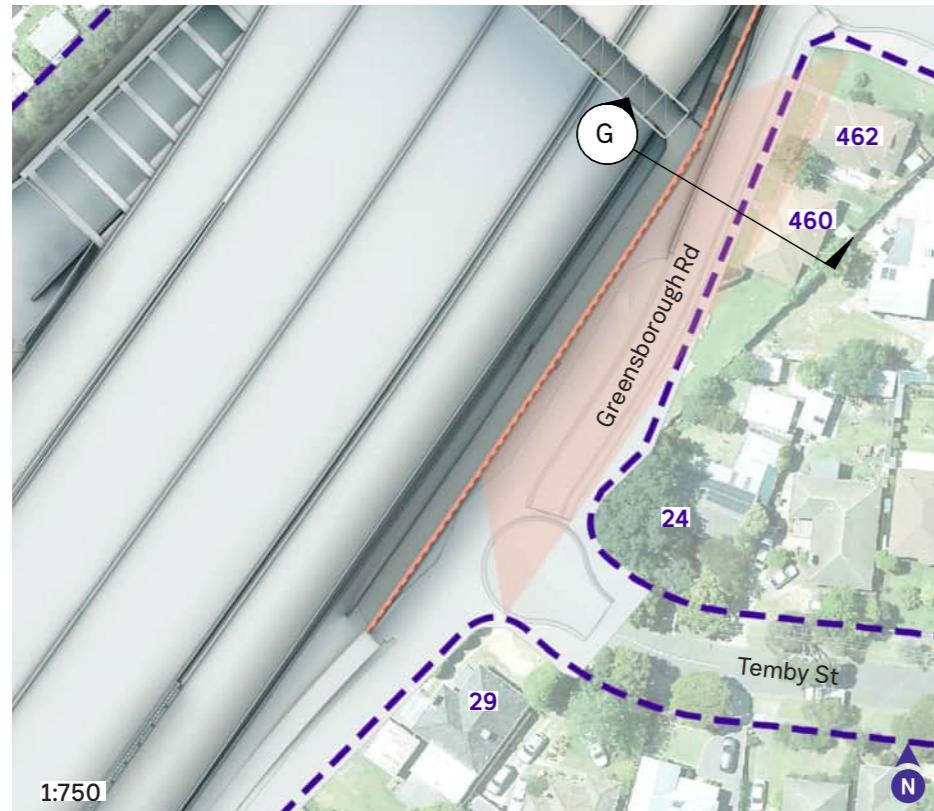


Figure 79: Focus Analysis: Nell Street Shared Use Path Bridge - Eastern Ramp Overlooking Analysis Plan - throw screen Type A or B application (no overlooking mitigation)

LEGEND

15m OVERLOOKING REQUIREMENT FOR EPR 50 PROPERTY NUMBER - - - PROJECT BOUNDARY

15.2 Mitigation Measures

Proposed mitigation measures at the Nell Street shared use path bridge eastern ramp include:

- Maximising bridge setback from adjacent properties
- Application of overlooking screen Type C as shown in Figure 81.
- Consultation with directly affected properties as required to inform the detailed design of screening types, materials, and level of visually permeability.

Based on the analysis undertaken, this focused area is compliant with the overlooking requirements of EPR LP4.

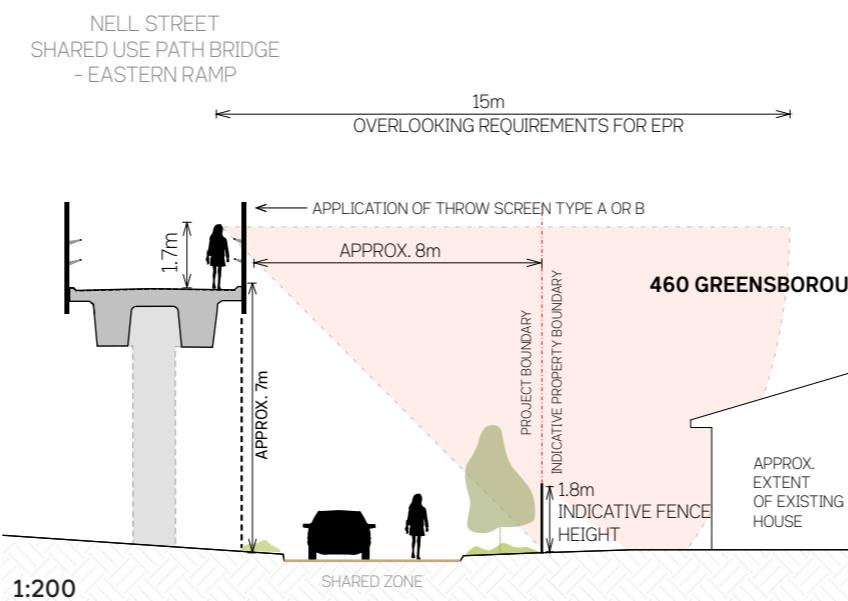


Figure 80: Focus Analysis: Nell Street Shared Use Path Bridge - Eastern Ramp Overlooking Analysis Section G - throw screen Type A or B application (no overlooking mitigation)

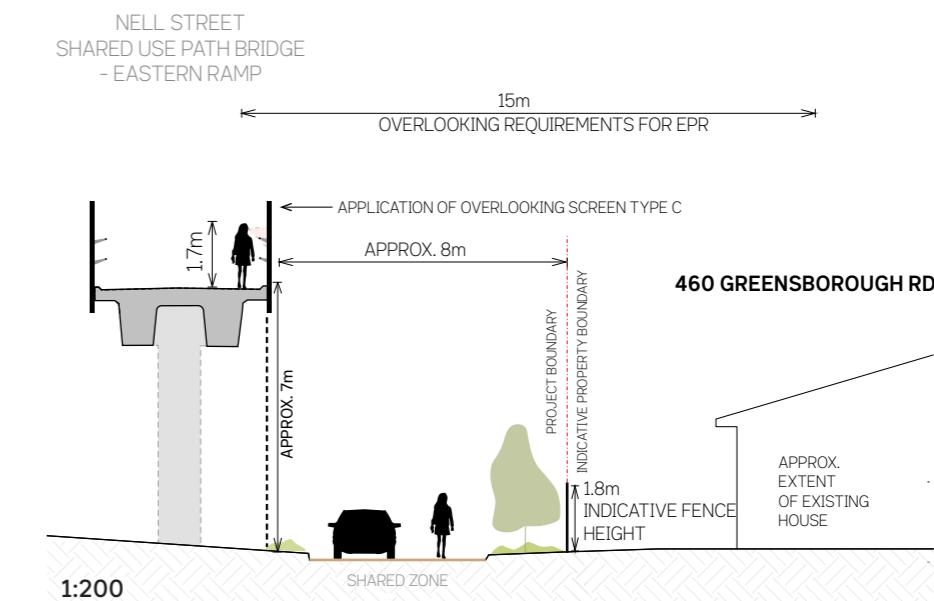
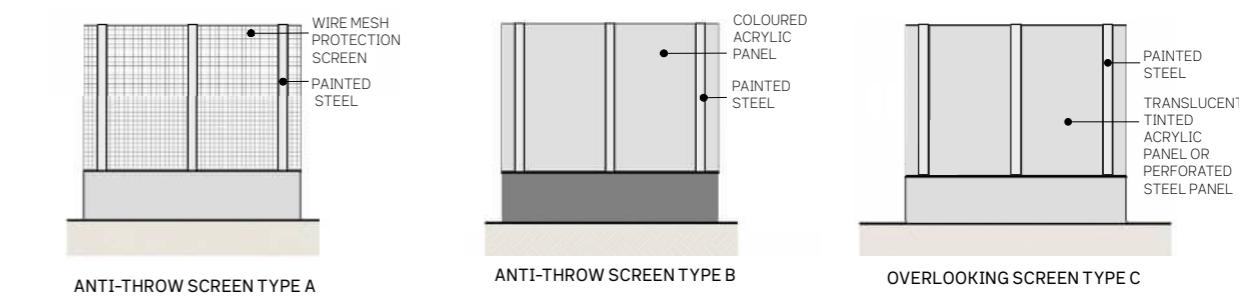


Figure 81: Focus Analysis: Nell Street Shared Use Path Bridge - Eastern Ramp Overlooking Analysis Section G - overlooking screen Type C application (with overlooking mitigation)

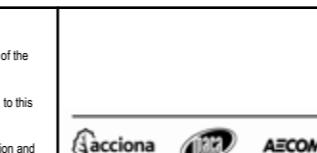


DESIGN SUBJECT TO RELEVANT CODES AND STANDARDS

© North East Link Program

7	UDLP FINAL AMENDMENT SUBMISSION	05.11.2025	NAME	DATE	UDLP DISCLAIMER	
6	UDLP AMENDMENT	05.09.2025	DRAFTING CHECKED BY	C. DEWAGE	05.11.2025	Conditions of Use. This Document has been developed for the purposes of the North East Link Project. Recipients of this document: - are subject to obligations of confidentiality in relation to this document; and - may not rely upon the information contained in this document, and must rely absolutely on their own opinion and professional advice.
5	UDLP FINAL SUBMISSION	21.08.2024	DESIGNED BY	L. ORJALO	05.11.2025	
4	UDLP FINAL SUBMISSION IEA	02.08.2024	ENGINEERING CHECKED BY	R. LEWIS	05.11.2025	
3	UDLP FINAL SUBMISSION FOR REVIEW	29.01.2024	VERIFIED BY	L. EVANS	05.11.2025	
2	UDLP FINAL SUBMISSION IEA	21.12.2023	APPROVED BY	Z. CVITKOVIC	05.11.2025	
1	PUBLIC EXHIBITION	25.09.2023				
REV.	DESCRIPTION	DATE	APPROVALS	DRAWN: -	SIZE: A3	SCALE: As indicated
	REVISIONS					

Note: * Indicates signed documents as drawings will not have wet signatures.



CHECK PRINT			READY FOR ISSUE
DISCIPLINE	DISCIPLINE	DISCIPLINE	INITIAL DATE
BACKDRAFTED/CORRECTED			
CONFIRMED			

Security Classification: OFFICIAL: Sensitive
CAD FILE: -

NORTH EAST LINK PROGRAM		
ATTACHMENT 4: URBAN DESIGN OVERSHADING AND OVERLOOKING ASSESSMENT		
FOCUS ANALYSIS: NELL STREET SHARED USE PATH BRIDGE - EAST RAMP OVERLOOKING ANALYSIS		
PROJECT CONTRACT: NORTH	NELP DRAWING NO.: NEL-NTH-NNA-3900-EPU-DRG-4029	SUIT. CODE 7

northeastlink.vic.gov.au

 For languages other than English please call 9209 0147

Please contact us if you would like this information in an accessible format.
If you need assistance due to a hearing or speech impairment, visit relayservice.gov.au

1800 105 105 (call anytime)

community@northeastlink.vic.gov.au

 @nelpvic



Australian Government

