



MT MESSENGER SH3 BYPASS
APPENDIX A GRAPHIC SUPPLEMENT
Landscape and Visual Assessment

Technical Report 8a

October 2017

Isthmus

LEGEND

- Viewpoint Locations
- Proposed Centreline
- Proposed Design
- Land Ownership
- Existing SH3
- Road
- 5m Contour



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E	Photosimulations	IGL	BM	GC	2/10/17		
A							
Rev	Revision Description	Drawn	Drawing Checked	Designed	Design Checked	Approved	Date

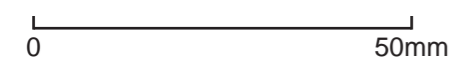
Tab MMA-ENV-LND-VIS	<p>Te Ara o Te Ata</p>
Scales NTS	
Original Size A3	

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MT MESSENGER BYPASS
LANDSCAPE PHOTOSIMULATION VIEWPOINT LOCATIONS

Approved	NOT FOR CONSTRUCTION
Status	FOR ISSUE
Drawing Number MMA-ENZ-LND-VIS-1297-Sims	Revision E

Drawing1.dwg PRINTED BY: ##### 14-Sep-17 9:44 AM



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Viewpoint 1 - Existing

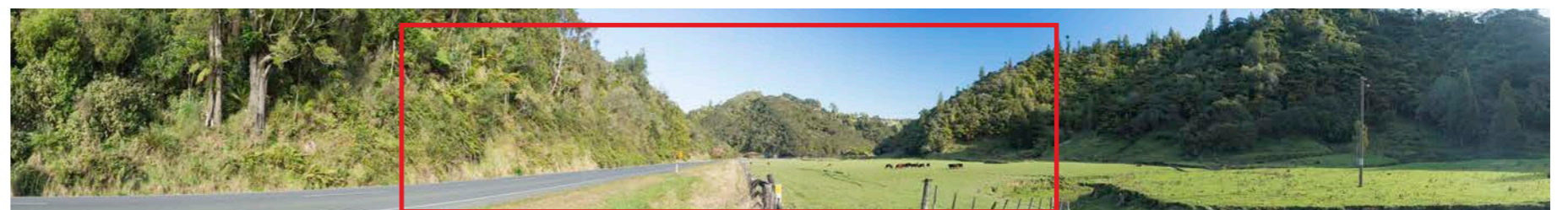
Northern approach looking south near 3133 Mokau Rd

Original Photo Alan England | 50mm | DSLR Nikon D800 | 1506hrs 3 August 2017 |
N 5696612 E 1738674 (NZTM)

Reading distance for correct scale: 400mm | Viewpoint Elevation: 11m

Field of View Approximately 110° horizontal (across 2 x A3 pages) & 34° vertical

P4 October 2017 • 3795





E	Photosimulations	IGL	BM	GC	2/10/17	Tab MMA-ENV-LND-VIS		MT MESSENGER BYPASS LANDSCAPE PHOTOSIMULATIONS	Approved NOT FOR CONSTRUCTION
						NTS			Status FOR ISSUE
A						Original Size A3			Drawing Number MMA-ENZ-LND-VIS-1297-Sims
Rev	Revision Description	Drawn	Drawing Checked	Designed	Design Checked	Approved	Date	<small>This drawing is not to be used for construction purposes unless signed approved and issued For Construction</small>	

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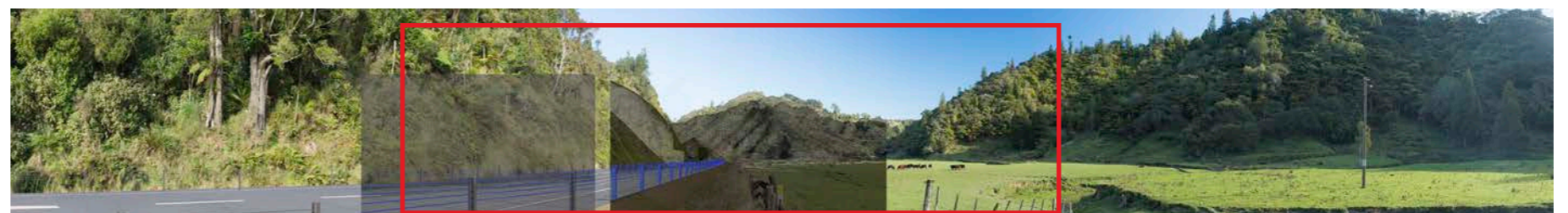


Viewpoint 1 - Proposed - (6 Months after handover)

Northern approach looking south near 3133 Mokau Rd

Reading distance for correct scale: 400mm | Viewpoint Elevation: 11m

Field of View Approximately 110° horizontal (across 2 x A3 pages) & 34° vertical



Wireframe of model over photo



ECPHOTOSIMULATIONS		IGL	BMc	GC	2/10/17	Tab MMA-ENV-LND-VIS MMA-ENV-LND-VIS		MT MESSENGER BYPASS LANDSCAPE PHOTOSIMULATIONS	Approved NOT FOR CONSTRUCTION
						Scales NTS NTS Original Size A3 A3			Status FOR ISSUE
Rev	Revision Description	Drawn	Drawing Checked	Designed	Design Checked	Approved	Date	Drawing Number MMA-ENZ-LND-VIS-1297-Sims	

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0 50mm



Viewpoint 2 - Existing

Northern approach looking east near 3133 Mokau Rd, looking towards Pascoe's property

Original Photo Alan England | 50mm | DSLR Nikon D800 | 1527hrs 3 August 2017 | N 5696202 E 1738554 (NZTM)

Reading distance for correct scale: 400mm | Viewpoint Elevation: 12m

Field of View Approximately 110° horizontal (across 2 x A3 pages) & 34° vertical





E Photosimulations		IGL	BM	GC	2/10/17	Tab MMA-ENV-LND-VIS		MT MESSENGER BYPASS LANDSCAPE PHOTOSIMULATIONS	Approved NOT FOR CONSTRUCTION
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						Original Size A3			Drawing Number MMA-ENZ-LND-VIS-1297-Sims
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Viewpoint 2 - Proposed - (6 Months after handover)

Northern approach looking east near 3133 Mokau Rd, looking towards Pascoe's property

Reading distance for correct scale: 400mm | Viewpoint Elevation: 12m

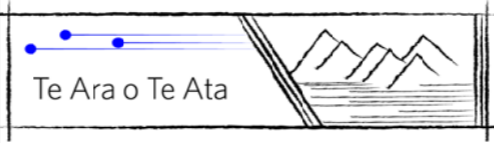
Field of View Approximately 110° horizontal (across 2 x A3 pages) & 34° vertical



Wireframe of model over photo

Possible swamp forest mitigation planting
(refer to Mitigation Plan)



E	Photosimulations	IGL	BM	GC	2/10/17	Tab MMA-ENV-LND-VIS	 <p>Te Ara o Te Ata</p>	<p>MT MESSENGER BYPASS</p> <p>LANDSCAPE PHOTOSIMULATIONS</p>	Approved	NOT FOR CONSTRUCTION	
						NTS			Status	FOR ISSUE	
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Rev	Revision Description	Drawn	Drawing Checked	Designed	Design Checked	Approved	Date	This drawing is not to be used for construction purposes unless signed approved and issued For Construction			

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0 50mm



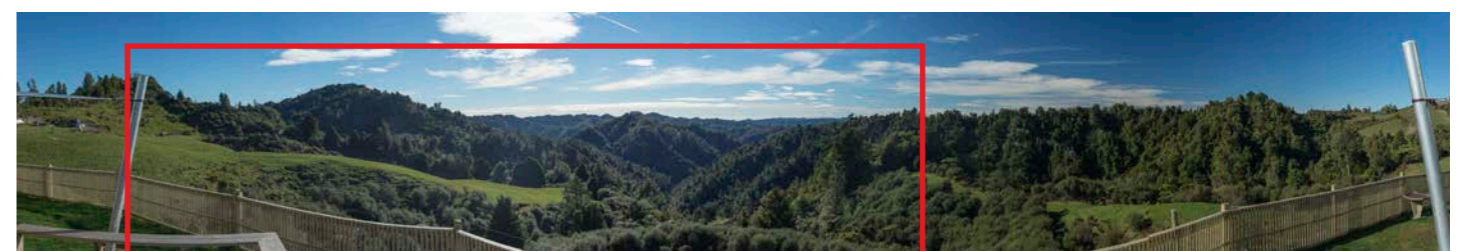
Viewpoint 3 - Existing

View from Beards property at 2528 Mokau Rd, looking north

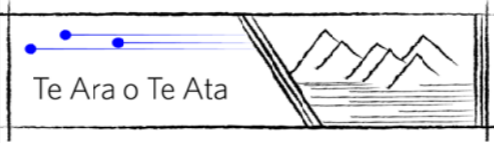
Original Photo Alan England | 50mm | DSLR Nikon D800 | 1435hrs 3 August 2017 | N 5693422 E 1739151 (NZTM)

Reading distance for correct scale: 400mm | Viewpoint Elevation: 214m

Field of View Approximately 110° horizontal (across 2 x A3 pages) & 34° vertical





E	Photosimulations	IGL	BM	GC	2/10/17	Tab MMA-ENV-LND-VIS	 <p>Te Ara o Te Ata</p>	<p>MT MESSENGER BYPASS</p> <p>LANDSCAPE PHOTOSIMULATIONS</p>	Approved NOT FOR CONSTRUCTION
						NTS			Status FOR ISSUE
A						Original Size A3			Drawing Number MMA-ENZ-LND-VIS-1297-Sims
Rev	Revision Description	Drawn	Drawing Checked	Designed	Design Checked	Approved	Date	<p><small>This drawing is not to be used for construction purposes unless signed approved and issued For Construction</small></p> <p><small>DO NOT SCALE FROM THIS DRAWING - Document copyright of Mount Messenger Alliance and its project consultants and may only be used for its intended purpose.</small></p>	

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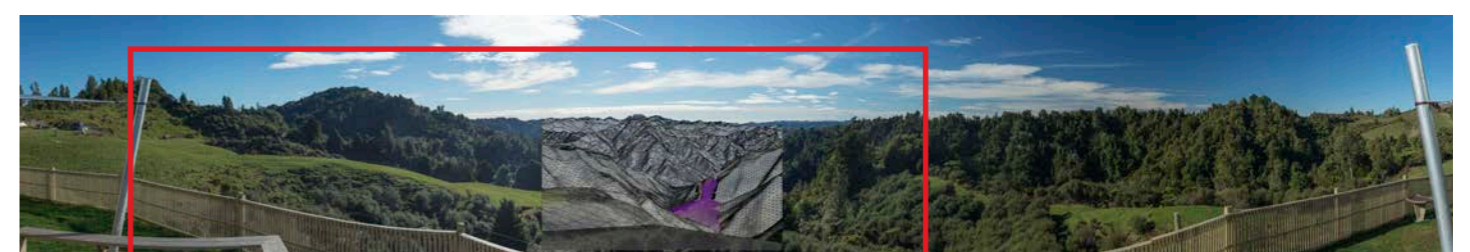


Viewpoint 3 - Proposed - (6 Months after handover)

View from Beards property at 2528 Mokau Rd, looking north

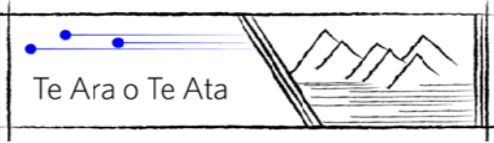
Reading distance for correct scale: 400mm | Viewpoint Elevation: 214m

Field of View Approximately 110° horizontal (across 2 x A3 pages) & 34° vertical



Wireframe of model over photo



E	Photosimulations	IGL	BM	GC		2/10/17	Tab MMA-ENV-LND-VIS	 <p>Te Ara o Te Ata</p>	<p>MT MESSENGER BYPASS</p> <p>LANDSCAPE PHOTOSIMULATIONS</p>	Approved	NOT FOR CONSTRUCTION		
							NTS			Status	FOR ISSUE	Revision	E
A							Original Size			A3	Drawing Number	MMA-ENZ-LND-VIS-1297-Sims	
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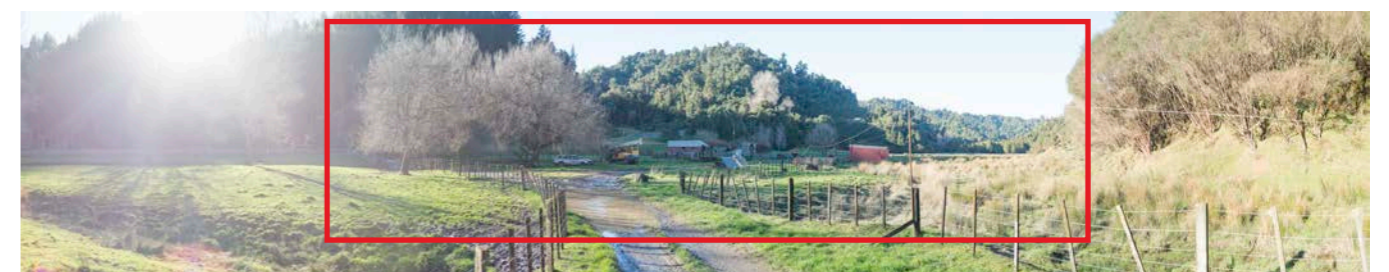
Viewpoint 4 - Existing

View from Thompson property at 2397 Mokau Rd, looking east

Original Photo Alan England | 50mm | DSLR Nikon D800 | 1540hrs 3 August 2017 | N 5692615 E 1737659 (NZTM)

Reading distance for correct scale: 400mm | Viewpoint Elevation: 51m

Field of View Approximately 110° horizontal (across 2 x A3 pages) & 34° vertical





E	Photosimulations	IGL	BM	GC		2/10/17	Tab MMA-ENV-LND-VIS	<p>Te Ara o Te Ata</p>	<p>MT MESSENGER BYPASS</p> <p>LANDSCAPE PHOTOSIMULATIONS</p>	Approved	NOT FOR CONSTRUCTION
							Scales			Status	FOR ISSUE
A							NTS			Drawing Number	MMA-ENZ-LND-VIS-1297-Sims
Rev	Revision Description	Drawn	Drawing Checked	Designed	Design Checked	Approved	Date	Original Size	A3	This drawing is not to be used for construction purposes unless signed approved and issued For Construction	

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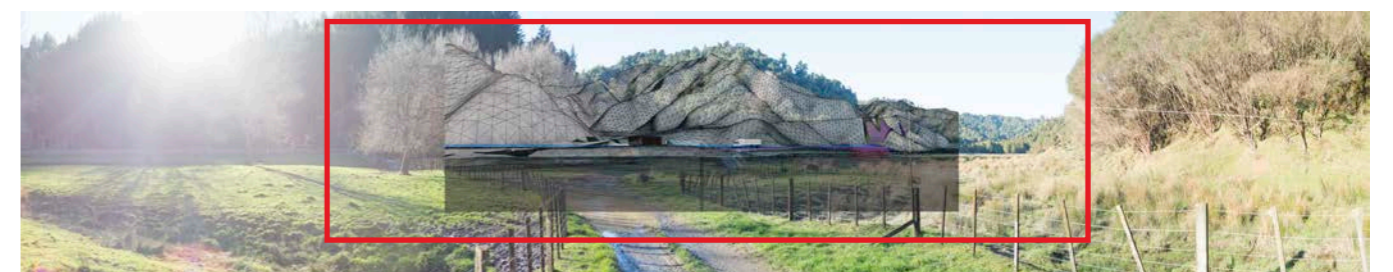


Viewpoint 4 - Proposed - (6 Months after handover)

View from Thompson property at 2397 Mokau Rd, looking east

Reading distance for correct scale: 400mm | Viewpoint Elevation: 51m

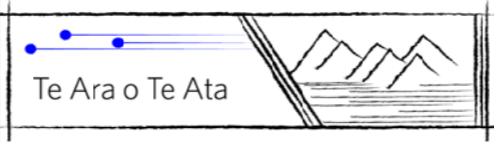
Field of View Approximately 110° horizontal (across 2 x A3 pages) & 34° vertical



Wireframe of model over photo

Trees removed for clarity
(not physically removed)



E	Photosimulations	IGL	BM	GC	2/10/17	Tab MMA-ENV-LND-VIS		MT MESSENGER BYPASS LANDSCAPE PHOTOSIMULATIONS	Approved NOT FOR CONSTRUCTION
						Scales NTS			Status FOR ISSUE
A						Original Size A3			Drawing Number MMA-ENZ-LND-VIS-1297-Sims
Rev	Revision Description	Drawn	Drawing Checked	Designed	Design Checked	Approved	Date	<small>This drawing is not to be used for construction purposes unless signed approved and issued For Construction</small>	

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Viewpoint 5 - Existing

Southern approach looking east near 2397 Mokau Rd

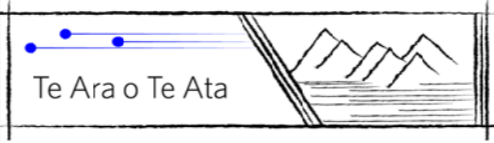
Original Photo Alan England | 50mm | DSLR Nikon D800 | 14:18hrs 3 August 2017 | N 5692465 E 1737305 (NZTM)

Reading distance for correct scale: 400mm | Viewpoint Elevation: 51m

Field of View Approximately 110° horizontal (across 2 x A3 pages) & 34° vertical





E	Photosimulations	IGL	BM	GC		2/10/17	Tab MMA-ENV-LND-VIS	 Te Ara o Te Ata	This drawing is not to be used for construction purposes unless signed approved and issued For Construction	MT MESSENGER BYPASS LANDSCAPE PHOTOSIMULATIONS	Approved	NOT FOR CONSTRUCTION
						Scales	Status				FOR ISSUE	Revision
A						Original Size	MMA-ENZ-LND-VIS-1297-Sims				E	
Rev	Revision Description	Drawn	Drawing Checked	Designed	Design Checked	Approved	Date	A3				

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0 50mm



Trees removed for clarity
(not physically removed)

Viewpoint 6 - Proposed - (6 Months after handover)

Southern approach looking east near 2397 Mokau Rd

Reading distance for correct scale: 400mm | Viewpoint Elevation: 51m

Field of View Approximately 110° horizontal (across 2 x A3 pages) & 34° vertical

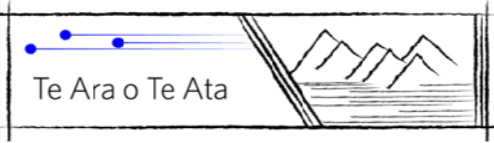


Wireframe of model over photo



E	Photosimulations	IGL	BM	GC		2/10/17	
A							
Rev	Revision Description	Drawn	Drawing Checked	Designed	Design Checked	Approved	Date

Tab	MMA-ENV-LND-VIS
Scales	NTS
Original Size	A3



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MT MESSENGER BYPASS
LANDSCAPE PHOTOSIMULATIONS

Approved	NOT FOR CONSTRUCTION
Status	FOR ISSUE
Drawing Number	MMA-ENZ-LND-VIS-1297-Sims
Revision	E

Drawing1.dwg PRINTED BY: ##### 14-Sep-17 9:44 AM
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Photosimulation Methodology Statement

- Photos were taken with a fixed lens on DSLR camera. Locations were fixed using a handheld GPS unit with accuracy of 5m. Reference points in the landscape were also located to assist referencing of photo to digital terrain model.
- A sequence of photos was taken from each viewpoint and stitched to form panoramas. Photos were overlapped by approximately 30% and edges cropped prior to stitching to eliminate edge distortion.
- A digital model was created incorporating 3D models of the proposed development. Computer images were generated within the digital model from the same locations as the photos. The image was overlaid and aligned with the photo using reference points and visual matching. (Photos were imported in RAW format to avoid degradation of the image, requiring resizing to match the computer image).
- The wire-frame was then switched off leaving the proposed development in its correct location and scale relative to the photo. Lower parts of the proposed development were erased using Photoshop software where they would be behind foreground topography or vegetation.
- The time and weather when the photo was taken was entered to the programme in order to replicate lighting conditions.
- The completed photomontage is presented over two pages:
 - The photos are produced to replicate correct scale at the nominated reading distance (in this case 400mm).
 - Each photomontage is printed across two facing pages to illustrate a field of view of approximately 110° at a reading distance of 400mm. This approximates the field of human binocular vision. (But not peripheral vision which extends to approximately 200°)

Notes on use of Photosimulations:

- The Photosimulations are a useful tool but they cannot not precisely reproduce real life for the following reasons:
 - 2D Photography flattens an image compared to binocular vision.
 - Photography is static, whereas the human vision can scan and remember information.
 - Photographs are passive, whereas the eye seeks out detail.
 - The human eye can see more contrast than can be reproduced through photography.
 - Physical resolution of photography and printing is less than that of the human eye.

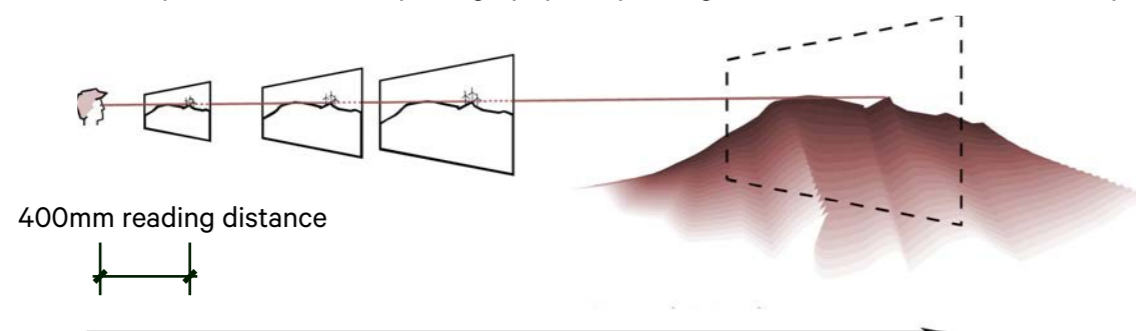


Figure 01: The relationship between reading distance and real life scale.

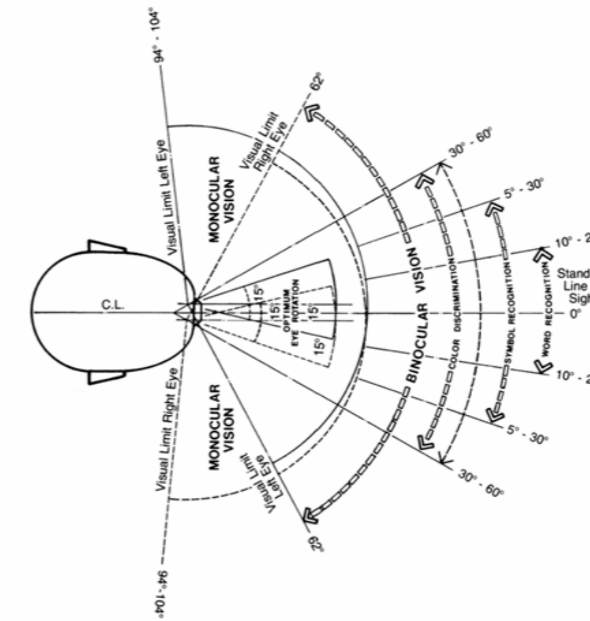


Figure 02: Binocular vision is approximately 124°. Field of view is approximately 110° across 2 x A3 pages at correct scale image for 400mm reading distance (vertical field of view is approximately 33°)

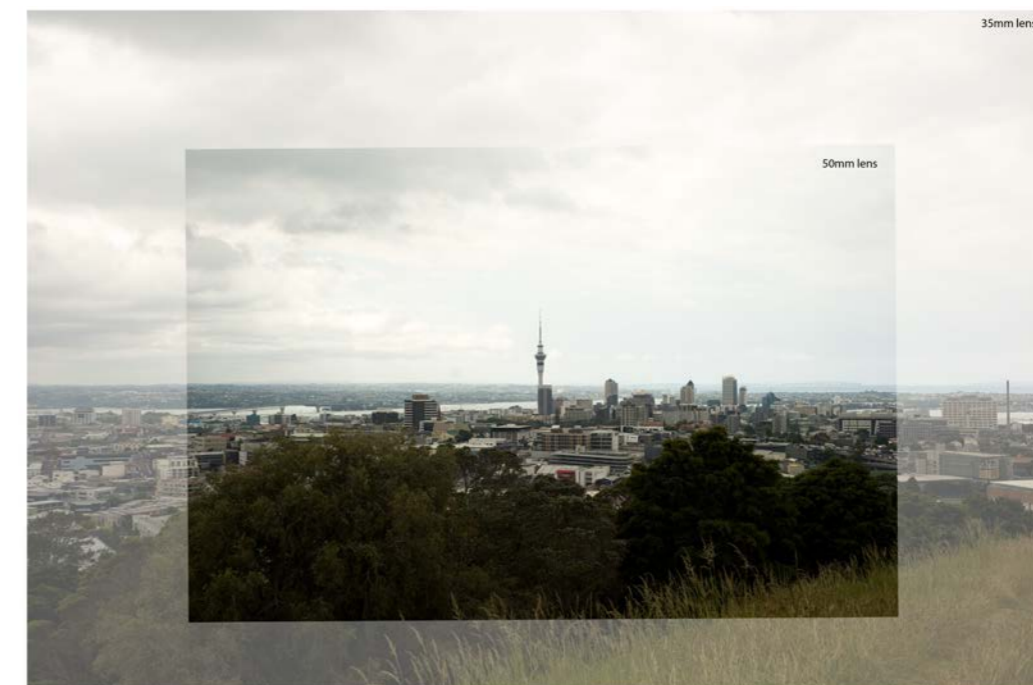


Figure 03: Comparison of 35mm lens and 50mm lens

Two images from the same location. With 35mm and 50mm lenses perspective is influenced by field of view, not by lens focal length. The overlaid portion is identical.