AMERICA'S CUP 36
Wynyard Hobson Proposal

URBAN DESIGN, LANDSCAPE AND PLANNING FIGURES

PART 2 -

LANDSCAPE AND VISUAL ASSESSMENT PLANS AND VISUAL SIMULATIONS

Boffa Miskell

N

0 300m

1:10,000 @ A3

Data Sources: Auckland City Council Aerials (2016), Boffa Miskell

Projection: NZGD 2000 New Zealand Transverse Mercator

AMERICA'S CUP 36 - WYNYARD HOBSON PROPOSAL - URBAN DESIGN, LANDSCAPE AND PLANNING FIGURES - PART 2

Location and Harbour Context

| Date: 10 April 2018 | Revision: 0 |

Prepared for Panuku Development Auckland by Boffa Miskell Limited

Project Manager: **john.goodwin@boffamiskell.co.nz** | *Drawn:* JMy | *Checked:* JGo

Boffa Miskell

N

0 150m

1:5,000 @ A3

Data Sources: Auckland City Council Aerials (2016), Boffa Miskell

Projection: NZGD 2000 New Zealand Transverse Mercator

AMERICA'S CUP 36 - WYNYARD HOBSON PROPOSAL - URBAN DESIGN, LANDSCAPE AND PLANNING FIGURES - PART 2

Western Waterfront Context

| Date: 10 April 2018 | Revision: 0 |

Prepared for Panuku Development Auckland by Boffa Miskell Limited

Project Manager: **john.goodwin@boffamiskell.co.nz** | *Drawn:* JMy | *Checked:* JGo

Boffa Miskell

N

0 300m

1:10,000 @ A3

Data Sources: Auckland Council (Aerials 2016, LiDAR 2013), Boffa Miskell

Projection: NZGD 2000 New Zealand Transverse Mercator

Legend

Building Locations

Building Footprints

Visibility

High Low

AMERICA'S CUP 36 - WYNYARD HOBSON PROPOSAL - URBAN DESIGN, LANDSCAPE AND PLANNING FIGURES - PART 2

Visibility Analysis - Harbour Context

| Date: 13 April 2018 | Revision: A |

Prepared for Panuku Development Auckland by Boffa Miskell Limited

Project Manager: **john.goodwin@boffamiskell.co.nz** | *Drawn:* JWa | *Checked:* JGo

Boffa Miskell

N

0 150m

1:5,000 @ A3

Data Sources: Auckland Council (Aerials 2016, LiDAR 2013), Boffa Miskell

Projection: NZGD 2000 New Zealand Transverse Mercator

Legend

Building Locations

Building Footprints

Visibility

High Low

AMERICA'S CUP 36 - WYNYARD HOBSON PROPOSAL - URBAN DESIGN, LANDSCAPE AND PLANNING FIGURES - PART 2

Visibility Analysis - Western Waterfront Context

| Date: 13 April 2018 | Revision: A |

Prepared for Panuku Development Auckland by Boffa Miskell Limited

Project Manager: **john.goodwin@boffamiskell.co.nz** | *Drawn:* JWa | *Checked:* JGo

Legend

1. Lighter Quay/ Viaduct Harbour Avenue
2. Waitemata Plaza
3. Princes Wharf - NW
4. Princes Wharf - Water Viewing Deck
5. Princes Wharf - Outside Euro Restaurant
6. Quay Street/ Princes Wharf Intersection
7. Eastern Viaduct
8. Wynyard Crossing Bridge
9. Karanga Plaza
10. ANZ Viaduct Events Centre Viewing Deck NE Corner
11. ANZ Viaduct Events Centre Viewing Deck NW Corner
12. Halsey Street/ North Wharf Intersection
13. North Wharf - Outside Jack Tar Restaurant
14. Lighter Quay Walkway - West Side (NE Corner)
15. Silo Park Gantry Structure (East End)
16. Silo Marina Heritage Landing Wharf
17. Wynyard Point (East Side)
18. Jacob's Ladder Footbridge
19. Ring Terrace
20. Shelley Beach Overbridge
21. Westhaven Marina - Eastern Extent of Wharf
22. Northcote Point (Dinghy Wharf)
23. Bayswater Point (Old Wharf)
24. Stanley Point Cyril Bassett VC Lookout
25. Stanley Bay - Seating Area
26. Birkenhead Ferry West of Wynyard Point (Decant)
27. Birkenhead/ Bayswater Ferry East of Wynyard Point (Wynyard Basin)

P1. Princes Wharf Apartments - Level 5
P2. Princes Wharf Apartments - Level 2
P3. The Point Apartments (Northern end) Level 1
P4. The Point Apartments (Northern end) Level 3
P5. The Point Apartments (Northern end) Level 5

Boffa Miskell

N

0 200m

1:12,000 @ A3

Data Sources: Auckland Council (Aerials 2016, LiDAR 2013), Boffa Miskell

Key

- Public Visual Simulation
- Public Reference Photo
- Private Reference
- Private Visual Simulation (P1/ P4/ P5)

AMERICA'S CUP 36 - WYNYARD HOBSON PROPOSAL - URBAN DESIGN, LANDSCAPE AND PLANNING FIGURES - PART 2

Viewpoint Location Plan - Harbour Context

| Date: 11 April 2018 | Revision: 0 |

Prepared for Panuku Development Auckland by Boffa Miskell Limited

Project Manager: **john.goodwin@boffamiskell.co.nz** | *Drawn:* JMy | *Checked:* JGo

Boffa Miskell

N

0 100m

1:6,000 @ A3

Data Sources: Auckland Council (Aerials 2016, LiDAR 2013), Boffa Miskell

Key

- Public Visual Simulation
- Public Reference Photo
- Private Reference Photo
- Private Visual Simulation (P1/ P4/ P5)

Viewpoint Location Plan - Western Waterfront Context

| Date: 11 April 2018 | Revision: 0 |

Prepared for Panuku Development Auckland by Boffa Miskell Limited

Project Manager: **john.goodwin@boffamiskell.co.nz** | *Drawn:* JMy | *Checked:* JGo

Boffa Miskell
www.boffamiskell.co.nz

Viewpoint Details

NZTM Easting : 1756743.8 mE
NZTM Northing : 5920860.7 mN
Elevation : 4.9m Approx
Date of Photography : 9:56am, 22-Nov-17

Horizontal Field of View (Main Image): 90°
Optimum viewing distance of image @ A3 is 190mm

Data sources: Photography - BML; Aerials 2015/16, LiDAR 2011 - ACC; Survey - BECA; CAD 2D Base - BECA; 3D Model - BML Sketchup

AC36
Lighter Quay Viaducy Harbour Avenue - Existing

| Date: 22-Dec-17 | Revision: 0 |
Plan prepared for Panuku Development Ltd. by Boffa Miskell Limited
Project Manager: **john.goodwin@boffamiskell.co.nz@boffamiskell.co.nz** | *Drawn:* | *Checked:*

FIGURE
VP 1

Boffa Miskell
www.boffamiskell.co.nz

Viewpoint Details

NZTM Easting : 1756976.9 mE
NZTM Northing : 5921085.9 mN
Elevation : 4.28m Approx
Date of Photography : 10:15am, 22-Nov-17

Horizontal Field of View (Main Image): 125°
Optimum viewing distance of image @ A3 is 100mm

Data sources: Photography - BML; Aerials 2015/16, LiDAR 2011 - ACC; Survey - BECA; CAD 2D Base - BECA; 3D Model - BML Sketchup

AC36
Waitemata Plaza - Existing

| Date: 22-Dec-17 | Revision: 0 |
Plan prepared for Panuku Development Ltd. by Boffa Miskell Limited
Project Manager: **john.goodwin@boffamiskell.co.nz@boffamiskell.co.nz** | *Drawn:* | *Checked:*

FIGURE
VP 2

Boffa Miskell
www.boffamiskell.co.nz

Viewpoint Details

NZTM Easting : 1757414 mE
NZTM Northing : 5921516.9 mN
Elevation : 5.26m Approx
Date of Photography : 11:22am, 2-Feb-17

Horizontal Field of View (Main Image): 125°
Optimum viewing distance of image @ A3 is 100mm

Data sources: Photography - BML; Aerials 2015/16, LiDAR 2011 - ACC; Survey - BECA; CAD 2D Base - BECA; 3D Model - BML Sketchup

AC36
Princes Wharf - North West - Existing

| Date: 22-Dec-17 | Revision: 0 |
Plan prepared for Panuku Development Ltd. by Boffa Miskell Limited
Project Manager: **john.goodwin@boffamiskell.co.nz@boffamiskell.co.nz** | *Drawn:* | *Checked:*

FIGURE
VP 3

Boffa Miskell
www.boffamiskell.co.nz

Viewpoint Details

NZTM Easting : 1757416.6 mE
NZTM Northing : 5921509 mN
Elevation : 9.68m Approx
Date of Photography : 10.53am, 22-Nov-17

Horizontal Field of View (Main Image): 125°
Optimum viewing distance of image @ A3 is 100mm

Data sources: Photography - BML; Aerials 2015/16, LiDAR 2011 - ACC; Survey - BECA; CAD 2D Base - BECA; 3D Model - BML Sketchup

AC36
Princes Wharf - Water Viewing Deck - Existing

| Date: 22-Dec-17 | Revision: 0 |
Plan prepared for Panuku Development Ltd. by Boffa Miskell Limited
Project Manager: **john.goodwin@boffamiskell.co.nz@boffamiskell.co.nz** | *Drawn:* | *Checked:*

FIGURE
VP 4

Boffa Miskell
www.boffamiskell.co.nz

Viewpoint Details

NZTM Easting : 1757328 mE
NZTM Northing : 5921272.2 mN
Elevation : 5.26m Approx
Date of Photography : 11:11am, 22-Nov-17

Horizontal Field of View (Main Image): 125°
Optimum viewing distance of image @ A3 is 100mm

Data sources: Photography - BML; Aerials 2015/16, LiDAR 2011 - ACC; Survey - BECA; CAD 2D Base - BECA; 3D Model - BML Sketchup

AC36
Princes Wharf outside Euro Restaurant - Existing

| Date: 22-Dec-17 | Revision: 0 |
Plan prepared for Panuku Development Ltd. by Boffa Miskell Limited
Project Manager: **john.goodwin@boffamiskell.co.nz@boffamiskell.co.nz** | *Drawn:* | *Checked:*

FIGURE
VP 5

Boffa Miskell
www.boffamiskell.co.nz

Viewpoint Details

NZTM Easting : 1757306.3 mE
NZTM Northing : 5921173.5 mN
Elevation : 5.27m Approx
Date of Photography : 11:24am, 22-Nov-17

Horizontal Field of View (Main Image): 90°
Optimum viewing distance of image @ A3 is 190mm

Data sources: Photography - BML; Aerials 2015/16, LiDAR 2011 - ACC; Survey - BECA; CAD 2D Base - BECA; 3D Model - BML Sketchup

AC36
Quay Street / Princes Wharf Intersection - Existing

| Date: 22-Dec-17 | Revision: 0 |
Plan prepared for Panuku Development Ltd. by Boffa Miskell Limited
Project Manager: **john.goodwin@boffamiskell.co.nz@boffamiskell.co.nz** | *Drawn:* | *Checked:*

FIGURE
VP 6

Boffa Miskell
www.boffamiskell.co.nz

Viewpoint Details

NZTM Easting : 1757174.3 mE
NZTM Northing : 5921205.3 mN
Elevation : 4.91m Approx
Date of Photography : 9:37am, 4-Dec-17

Horizontal Field of View (Main Image): 125°
Optimum viewing distance of image @ A3 is 100mm

Data sources: Photography - BML; Aerials 2015/16, LiDAR 2011 - ACC; Survey - BECA; CAD 2D Base - BECA; 3D Model - BML Sketchup

AC36
Eastern Viaduct - Existing

| Date: 22-Dec-17 | Revision: 0 |
Plan prepared for Panuku Development Ltd. by Boffa Miskell Limited
Project Manager: **john.goodwin@boffamiskell.co.nz@boffamiskell.co.nz** | *Drawn:* | *Checked:*

FIGURE
VP 7

Boffa Miskell
www.boffamiskell.co.nz

Viewpoint Details

NZTM Easting : 1756921.5 mE
NZTM Northing : 5921289.8 mN
Elevation : 6.68m Approx
Date of Photography : 3:05pm, 28-Nov-17

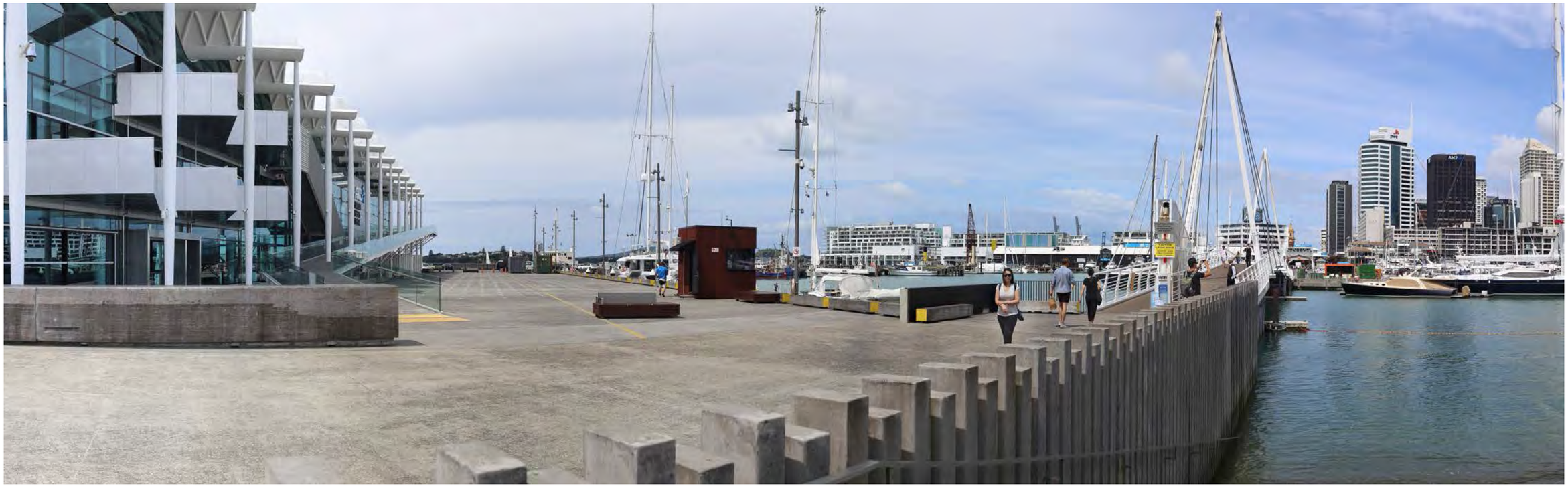
Horizontal Field of View (Main Image): 125°
Optimum viewing distance of image @ A3 is 100mm

Data sources: Photography - BML; Aerials 2015/16, LiDAR 2011 - ACC; Survey - BECA; CAD 2D Base - BECA; 3D Model - BML Sketchup

AC36
Wynyard Crossing Bridge - Existing

| Date: 22-Dec-17 | Revision: 0 |
Plan prepared for Panuku Development Ltd. by Boffa Miskell Limited
Project Manager: **john.goodwin@boffamiskell.co.nz@boffamiskell.co.nz** | *Drawn:* | *Checked:*

FIGURE
VP 8



Boffa Miskell
www.boffamiskell.co.nz

Viewpoint Details

NZTM Easting : 1756860.5 mE
NZTM Northing : 5921304.1 mN
Elevation : 4.97m Approx
Date of Photography : 11:55am, 22-Nov-17

Horizontal Field of View (Main Image): 125°
Optimum viewing distance of image @ A3 is 100mm

Data sources: Photography - BML; Aerials 2015/16, LiDAR 2011 - ACC; Survey - BECA; CAD 2D Base - BECA; 3D Model - BML Sketchup

AC36
Karanga Plaza - Existing

| Date: 22-Dec-17 | Revision: 0 |
Plan prepared for Panuku Development Ltd. by Boffa Miskell Limited
Project Manager: **john.goodwin@boffamiskell.co.nz** | *Drawn:* | *Checked:*

FIGURE
VP 9

Boffa Miskell
www.boffamiskell.co.nz

Viewpoint Details

NZTM Easting	: 1756860.5 mE	Horizontal Field of View (Main Image): 125°
NZTM Northing	: 5921304.1 mN	Optimum viewing distance of image @ A3 is 100mm
Elevation	: 11.69m Approx	
Date of Photography	: 10:26am, 4-Dec-17	

Data sources: Photography - BML; Aerials 2015/16, LiDAR 2011 - ACC; Survey - BECA; CAD 2D Base - BECA; 3D Model - BML Sketchup

AC36
VP10 - Events Centre Viewing Deck NE Corner - Existing

| Date: 13-Dec-17 | Revision: 1 |
Plan prepared for Panuku Development Ltd. by Boffa Miskell Limited
Project Manager: **john.goodwin@boffamiskell.co.nz@boffamiskell.co.nz** | *Drawn:* | *Checked:*

FIGURE
VP 10

Boffa Miskell
www.boffamiskell.co.nz

Viewpoint Details

NZTM Easting : 1756896.3 mE
NZTM Northing : 5921414.5 mN
Elevation : 11.73m Approx
Date of Photography : 10:34am, 4-Dec-17

Horizontal Field of View (Main Image): 125°
Optimum viewing distance of image @ A3 is 100mm

Data sources: Photography - BML; Aerials 2015/16, LiDAR 2011 - ACC; Survey - BECA; CAD 2D Base - BECA; 3D Model - BML Sketchup

AC36
VP11 - Events Centre Viewing Deck NE Corner - Existing

| Date: 13-Dec-17 | Revision: 0 |
Plan prepared for Panuku Development Ltd. by Boffa Miskell Limited
Project Manager: **john.goodwin@boffamiskell.co.nz@boffamiskell.co.nz** | *Drawn:* | *Checked:*

FIGURE
VP 11

Boffa Miskell
www.boffamiskell.co.nz

Viewpoint Details

NZTM Easting : 1756795.7 mE
NZTM Northing : 5921337.3 mN
Elevation : 4.91m Approx
Date of Photography : 4:03pm, 28-Nov-17

Horizontal Field of View (Main Image): 125°
Optimum viewing distance of image @ A3 is 100mm

Data sources: Photography - BML; Aerials 2015/16, LiDAR 2011 - ACC; Survey - BECA; CAD 2D Base - BECA; 3D Model - BML Sketchup

AC36
VP12 - Halsey Street/ North Wharf Intersection -Existing

| Date: 13-Dec-17 | Revision: 0 |
Plan prepared for Panuku Development Ltd. by Boffa Miskell Limited
Project Manager: **john.goodwin@boffamiskell.co.nz@boffamiskell.co.nz** | *Drawn:* | *Checked:*

FIGURE
VP 12

Boffa Miskell
www.boffamiskell.co.nz

Viewpoint Details

NZTM Easting : 1756704 mE
NZTM Northing : 5921370.6 mN
Elevation : 4.88m Approx
Date of Photography : 4:29pm, 12-Dec-17

Horizontal Field of View (Main Image): 125°
Optimum viewing distance of image @ A3 is 100mm

Data sources: Photography - BML; Aerials 2015/16, LiDAR 2011 - ACC; Survey - BECA; CAD 2D Base - BECA; 3D Model - BML Sketchup

AC36
North Wharf outside Jack Tar Restaurant - Existing

| Date: 22-Dec-17 | Revision: 0 |
Plan prepared for Panuku Development Ltd. by Boffa Miskell Limited
Project Manager: **john.goodwin@boffamiskell.co.nz@boffamiskell.co.nz** | *Drawn:* | *Checked:*

FIGURE
VP 13

Boffa Miskell
www.boffamiskell.co.nz

Viewpoint Details

NZTM Easting : 1756790.3 mE
NZTM Northing : 5921046.4 mN
Elevation : 4.12m Approx
Date of Photography : 4:21pm, 28-Nov-17

Horizontal Field of View (Main Image): 125°
Optimum viewing distance of image @ A3 is 100mm

Data sources: Photography - BML; Aerials 2015/16, LiDAR 2011 - ACC; Survey - BECA; CAD 2D Base - BECA; 3D Model - BML Sketchup

AC36
Lighter Quay Walkway Corner - Existing

| Date: 22-Dec-17 | Revision: 0 |
Plan prepared for Panuku Development Ltd. by Boffa Miskell Limited
Project Manager: **john.goodwin@boffamiskell.co.nz@boffamiskell.co.nz** | *Drawn:* | *Checked:*

FIGURE
VP 14

Boffa Miskell
www.boffamiskell.co.nz

Viewpoint Details

NZTM Easting : 1756546 mE
NZTM Northing : 5921429.6 mN
Elevation : 13.8m Approx
Date of Photography : 3:41pm, 22-Nov-17

Horizontal Field of View (Main Image): 90°
Optimum viewing distance of image @ A3 is 190mm

Data sources: Photography - BML; Aerials 2015/16, LiDAR 2011 - ACC; Survey - BECA; CAD 2D Base - BECA; 3D Model - BML Sketchup

AC36
Silo Park Gantry Structure (East End) - Existing

| Date: 22-Dec-17 | Revision: 0 |
Plan prepared for Panuku Development Ltd. by Boffa Miskell Limited
Project Manager: **john.goodwin@boffamiskell.co.nz** | *Drawn:* | *Checked:*

FIGURE
VP 15

Boffa Miskell
www.boffamiskell.co.nz

Viewpoint Details

NZTM Easting : 1756386.6 mE
NZTM Northing : 5921569.3 mN
Elevation : 4.87m Approx
Date of Photography : 3:48pm, 22-Nov-17

Horizontal Field of View (Main Image): 125°
Optimum viewing distance of image @ A3 is 100mm

Data sources: Photography - BML; Aerials 2015/16, LiDAR 2011 - ACC; Survey - BECA; CAD 2D Base - BECA; 3D Model - BML Sketchup

AC36
Heritage Landing Wharf (Silo Marina) - Existing

| Date: 22-Dec-17 | Revision: 0 |
Plan prepared for Panuku Development Ltd. by Boffa Miskell Limited
Project Manager: **john.goodwin@boffamiskell.co.nz@boffamiskell.co.nz** | *Drawn:* | *Checked:*

FIGURE
VP 16

Boffa Miskell
www.boffamiskell.co.nz

Viewpoint Details

NZTM Easting : 1756924.4 mE
NZTM Northing : 5921780.9 mN
Elevation : 5.1m Approx
Date of Photography : 3:56pm, 22-Nov-17

Horizontal Field of View (Main Image): 125°
Optimum viewing distance of image @ A3 is 100mm

Data sources: Photography - BML; Aerials 2015/16, LiDAR 2011 - ACC; Survey - BECA; CAD 2D Base - BECA; 3D Model - BML Sketchup

AC36
Wynyard Point (East Side) - Existing

| Date: 22-Dec-17 | Revision: 0 |
Plan prepared for Panuku Development Ltd. by Boffa Miskell Limited
Project Manager: **john.goodwin@boffamiskell.co.nz@boffamiskell.co.nz** | *Drawn:* | *Checked:*

FIGURE
VP 17

Boffa Miskell
www.boffamiskell.co.nz

Viewpoint Details

NZTM Easting : 1756128 mE
NZTM Northing : 5921053.6 mN
Elevation : 13.1m Approx
Date of Photography : 3:32pm, 22-Nov-17

Horizontal Field of View (Main Image): 90°
Optimum viewing distance of image @ A3 is 190mm

Data sources: Photography - BML; Aerials 2015/16, LiDAR 2011 - ACC; Survey - BECA; CAD 2D Base - BECA; 3D Model - BML Sketchup

AC36
Jacobs Ladder Footbridge - Existing

| Date: 22-Dec-17 | Revision: 0 |
Plan prepared for Panuku Development Ltd. by Boffa Miskell Limited
Project Manager: **john.goodwin@boffamiskell.co.nz@boffamiskell.co.nz** | *Drawn:* | *Checked:*

FIGURE
VP 18

Boffa Miskell
www.boffamiskell.co.nz

Viewpoint Details

NZTM Easting : 1755591 mE
NZTM Northing : 5921233 mN
Elevation : 20.2m Approx
Date of Photography : 2:06pm, 17-Aug-16

Horizontal Field of View (Main Image): 90°
Optimum viewing distance of image @ A3 is 190mm

Data sources: Photography - BML; Aerials 2015/16, LiDAR 2011 - ACC; Survey - BECA; CAD 2D Base - BECA; 3D Model - BML Sketchup

AC36
Ring Terrace (already taken) - Existing

| Date: 22-Dec-17 | Revision: 0 |
Plan prepared for Panuku Development Ltd. by Boffa Miskell Limited
Project Manager: **john.goodwin@boffamiskell.co.nz@boffamiskell.co.nz** | *Drawn:* | *Checked:*

FIGURE
VP 19

Boffa Miskell
www.boffamiskell.co.nz

Viewpoint Details

NZTM Easting : 1755312 mE
NZTM Northing : 5921601.8 mN
Elevation : 17m Approx
Date of Photography : 3:24pm, 22-Nov-17

Horizontal Field of View (Main Image): 90°
Optimum viewing distance of image @ A3 is 190mm

Data sources: Photography - BML; Aerials 2015/16, LiDAR 2011 - ACC; Survey - BECA; CAD 2D Base - BECA; 3D Model - BML Sketchup

AC36
Shelley Beach Overbridge - Existing

| Date: 22-Dec-17 | Revision: 0 |
Plan prepared for Panuku Development Ltd. by Boffa Miskell Limited
Project Manager: **john.goodwin@boffamiskell.co.nz@boffamiskell.co.nz** | *Drawn:* | *Checked:*

FIGURE
VP 20

Boffa Miskell
www.boffamiskell.co.nz

Viewpoint Details

NZTM Easting : 1755903.2 mE
NZTM Northing : 5921937.9 mN
Elevation : 4.51m Approx
Date of Photography : 3:16pm, 22-Nov-17

Horizontal Field of View (Main Image): 90°
Optimum viewing distance of image @ A3 is 190mm

Data sources: Photography - BML; Aerials 2015/16, LiDAR 2011 - ACC; Survey - BECA; CAD 2D Base - BECA; 3D Model - BML Sketchup

AC36
Westhaven Marina / Eastern Extent of Wharf - Existing

| Date: 22-Dec-17 | Revision: 0 |
Plan prepared for Panuku Development Ltd. by Boffa Miskell Limited
Project Manager: **john.goodwin@boffamiskell.co.nz@boffamiskell.co.nz** | *Drawn:* | *Checked:*

FIGURE
VP 21

Boffa Miskell
www.boffamiskell.co.nz

Viewpoint Details

NZTM Easting : 1756154.7 mE
NZTM Northing : 5923343.2 mN
Elevation : 4.8m Approx
Date of Photography : 2:35pm, 22-Nov-17

Horizontal Field of View (Main Image): 90°
Optimum viewing distance of image @ A3 is 190mm

Data sources: Photography - BML; Aerials 2015/16, LiDAR 2011 - ACC; Survey - BECA; CAD 2D Base - BECA; 3D Model - BML Sketchup

AC36
Northcote Point (Dinghy Lockers) - Existing

| Date: 22-Dec-17 | Revision: 0 |
Plan prepared for Panuku Development Ltd. by Boffa Miskell Limited
Project Manager: **john.goodwin@boffamiskell.co.nz@boffamiskell.co.nz** | *Drawn:* | *Checked:*

FIGURE
VP 22

Boffa Miskell
www.boffamiskell.co.nz

Viewpoint Details

NZTM Easting : 1757650.9 mE
NZTM Northing : 5923491 mN
Elevation : 4.7m Approx
Date of Photography : 2:07pm, 22-Nov-17

Horizontal Field of View (Main Image): 90°
Optimum viewing distance of image @ A3 is 190mm

Data sources: Photography - BML; Aerials 2015/16, LiDAR 2011 - ACC; Survey - BECA; CAD 2D Base - BECA; 3D Model - BML Sketchup

AC36
Bayswater Point (Old Wharf) - Existing

| Date: 22-Dec-17 | Revision: 0 |
Plan prepared for Panuku Development Ltd. by Boffa Miskell Limited
Project Manager: **john.goodwin@boffamiskell.co.nz@boffamiskell.co.nz** | *Drawn:* | *Checked:*

FIGURE
VP 23

Boffa Miskell
www.boffamiskell.co.nz

Viewpoint Details

NZTM Easting : 1758160.9 mE
NZTM Northing : 5922610.1 mN
Elevation : 28.3m Approx
Date of Photography : 1:34pm, 22-Nov-17

Horizontal Field of View (Main Image): 125°
Optimum viewing distance of image @ A3 is 100mm

Data sources: Photography - BML; Aerials 2015/16, LiDAR 2011 - ACC; Survey - BECA; CAD 2D Base - BECA; 3D Model - BML Sketchup

AC36
Cyril Bassett VC Lookout / Stanley Point - Existing

| Date: 22-Dec-17 | Revision: 0 |
Plan prepared for Panuku Development Ltd. by Boffa Miskell Limited
Project Manager: **john.goodwin@boffamiskell.co.nz@boffamiskell.co.nz** | *Drawn:* | *Checked:*

FIGURE
VP 24

Boffa Miskell
www.boffamiskell.co.nz

Viewpoint Details

NZTM Easting : 1758830.6 mE
NZTM Northing : 5922864 mN
Elevation : 4.4m Approx
Date of Photography : 1:50pm, 22-Nov-17

Horizontal Field of View (Main Image): 90°
Optimum viewing distance of image @ A3 is 190mm

Data sources: Photography - BML; Aerials 2015/16, LiDAR 2011 - ACC; Survey - BECA; CAD 2D Base - BECA; 3D Model - BML Sketchup

AC36
Stanley Bay / Seating Area - Existing

| Date: 22-Dec-17 | Revision: 0 |
Plan prepared for Panuku Development Ltd. by Boffa Miskell Limited
Project Manager: **john.goodwin@boffamiskell.co.nz** | *Drawn:* | *Checked:*

FIGURE
VP 25

Boffa Miskell
www.boffamiskell.co.nz

Viewpoint Details

NZTM Easting : 1756447 mE
NZTM Northing : 5922516.7 mN
Elevation : m Approx
Date of Photography : 2:01pm, 28-Nov-17

Horizontal Field of View (Main Image): 65°
Optimum viewing distance of image @ A3 is 300mm

Data sources: Photography - BML; Aerials 2015/16, LiDAR 2011 - ACC; Survey - BECA; CAD 2D Base - BECA; 3D Model - BML Sketchup

AC36
Birkenhead Ferry West of Wynyard Point (Decant) - Existing

| Date: 22-Dec-17 | Revision: 0 |
Plan prepared for Panuku Development Ltd. by Boffa Miskell Limited
Project Manager: **john.goodwin@boffamiskell.co.nz** | *Drawn:* | *Checked:*

FIGURE
VP 26

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Viewpoint Details

NZTM Easting : 1757442.5 mE
NZTM Northing : 5921663.1 mN
Elevation : m Approx
Date of Photography : 2:01pm, 28-Nov-17

Horizontal Field of View (Main Image): 65°
Optimum viewing distance of image @ A3 is 300mm

Data sources: Photography - BML; Aerials 2015/16, LiDAR 2011 - ACC; Survey - BECA; CAD 2D Base - BECA; 3D Model - BML Sketchup

AC36
Birkenhead / Bayswater Ferry East of Wynyard Point (Wynyard Basin) - Existing
| Date: 22-Dec-17 | Revision: 0 |
Plan prepared for Panuku Development Ltd. by Boffa Miskell Limited
Project Manager: **john.goodwin@boffamiskell.co.nz@boffamiskell.co.nz** | *Drawn:* | *Checked:*

FIGURE
VP 27

Boffa Miskell
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Viewpoint Details

NZTM Easting : mE
NZTM Northing : mN
Elevation : m Approx
Date of Photography : , 19-Dec-17

Horizontal Field of View (Main Image): 90°
Optimum viewing distance of image @ A3 is 190mm

Data sources: Photography - BML; Aerials 2015/16, LiDAR 2011 - ACC; Survey - BECA; CAD 2D Base - BECA; 3D Model - BML Sketchup

AC36
Princes Wharf Apartments - Level 5

| Date: 22-Dec-17 | Revision: 0 |
Plan prepared for Panuku Development Ltd. by Boffa Miskell Limited
Project Manager: **john.goodwin@boffamiskell.co.nz@boffamiskell.co.nz** | *Drawn:* | *Checked:*

FIGURE
VP P1

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Viewpoint Details

NZTM Easting : mE
NZTM Northing : mN
Elevation : m Approx
Date of Photography : , 19-Dec-17

Horizontal Field of View (Main Image): 90°
Optimum viewing distance of image @ A3 is 190mm

Data sources: Photography - BML; Aerials 2015/16, LiDAR 2011 - ACC; Survey - BECA; CAD 2D Base - BECA; 3D Model - BML Sketchup

AC36
Princes Wharf Apartments - Level 1

| Date: 22-Dec-17 | Revision: 0 |
Plan prepared for Panuku Development Ltd. by Boffa Miskell Limited
Project Manager: **john.goodwin@boffamiskell.co.nz@boffamiskell.co.nz** | *Drawn:* | *Checked:*

FIGURE
VP P2

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Viewpoint Details

NZTM Easting : mE
NZTM Northing : mN
Elevation : m Approx
Date of Photography : , 19-Dec-17

Horizontal Field of View (Main Image): 90°
Optimum viewing distance of image @ A3 is 190mm

Data sources: Photography - BML; Aerials 2015/16, LiDAR 2011 - ACC; Survey - BECA; CAD 2D Base - BECA; 3D Model - BML Sketchup

AC36
The Point Apartments (Northern end) Level 1

| Date: 22-Dec-17 | Revision: 0 |
Plan prepared for Panuku Development Ltd. by Boffa Miskell Limited
Project Manager: **john.goodwin@boffamiskell.co.nz@boffamiskell.co.nz** | *Drawn:* | *Checked:*

FIGURE
VP P3

Boffa Miskell
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Viewpoint Details

NZTM Easting : mE
NZTM Northing : mN
Elevation : m Approx
Date of Photography : , 19-Dec-17

Horizontal Field of View (Main Image): 90°
Optimum viewing distance of image @ A3 is 190mm

Data sources: Photography - BML; Aerials 2015/16, LiDAR 2011 - ACC; Survey - BECA; CAD 2D Base - BECA; 3D Model - BML Sketchup

AC36
The Point Apartments (Northern end) Level 3

| Date: 22-Dec-17 | Revision: 0 |
Plan prepared for Panuku Development Ltd. by Boffa Miskell Limited
Project Manager: **john.goodwin@boffamiskell.co.nz@boffamiskell.co.nz** | *Drawn:* | *Checked:*

FIGURE
VP P4

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Viewpoint Details

NZTM Easting : mE
NZTM Northing : mN
Elevation : m Approx
Date of Photography : , 19-Dec-17

Horizontal Field of View (Main Image): 90°
Optimum viewing distance of image @ A3 is 190mm

Data sources: Photography - BML; Aerials 2015/16, LiDAR 2011 - ACC; Survey - BECA; CAD 2D Base - BECA; 3D Model - BML Sketchup

AC36
The Point Apartments (Northern end) Level 5

| Date: 22-Dec-17 | Revision: 0 |
Plan prepared for Panuku Development Ltd. by Boffa Miskell Limited
Project Manager: **john.goodwin@boffamiskell.co.nz@boffamiskell.co.nz** | *Drawn:* | *Checked:*

FIGURE
VP P5

VISUAL SIMULATION METHODOLOGY

The simulations have been produced in accordance with the NZILA Best Practice Guidelines for Visual Simulations (BPG 10.2) and adhere to Boffa Miskell's internal Visualisation Guidelines.

Site Visit
Site photographs were taken with a Canon 6D digital SLR camera fitted with a 50mm focal length lens and mounted on a tripod and panoramic head. (0) The photos were taken at predetermined viewpoints (public and private) and the locations of each viewpoint were subsequently surveyed by Registered Surveyor. A number of other easily identifiable points visible in each photo were also surveyed to assist with photo matching.

Production
Using digital stitching software, each sequence of photographs was merged to create a panorama with a 90° or 65° horizontal field of view. These were stitched using a rectilinear transformation - (1).
An architectural model of the proposed development (positioned at it's correct height and location) was combined with 3D modelling of the wharves, LIDAR data and camera viewpoint data in visualisation software - (2).

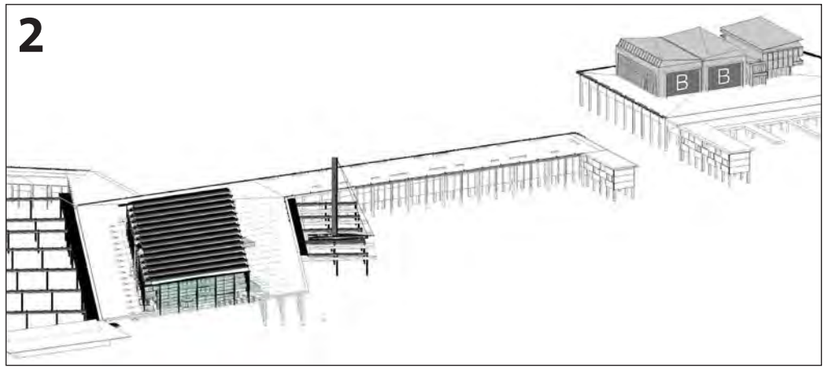
Virtual camera views were then created in this file with the LIDAR point cloud data turned on. These views were then matched to the photographic panoramas - (3).

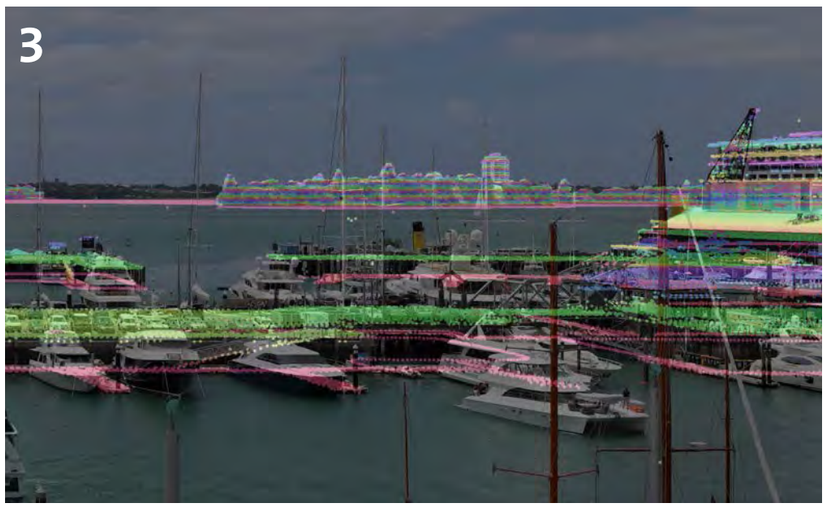
Meanwhile, a photorealistic rendering of the 3D model was exported from the visualisation software - (4).

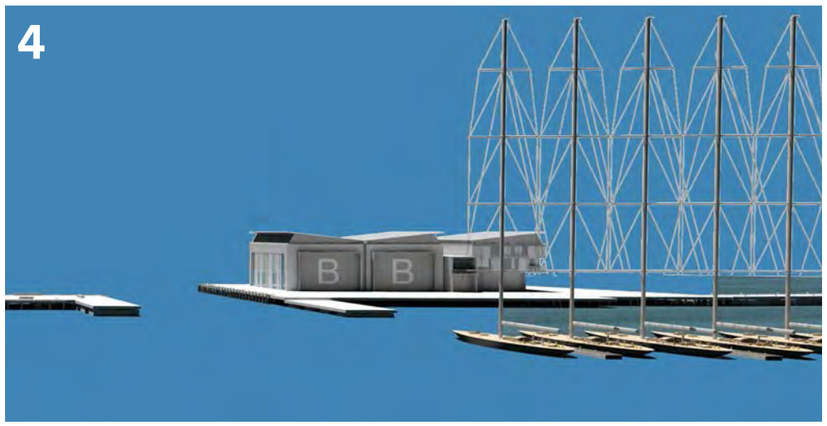
The point cloud image and the rendering were matched together over the panorama - (5). A foreground mask containing intervening foreground detail was created - (6).

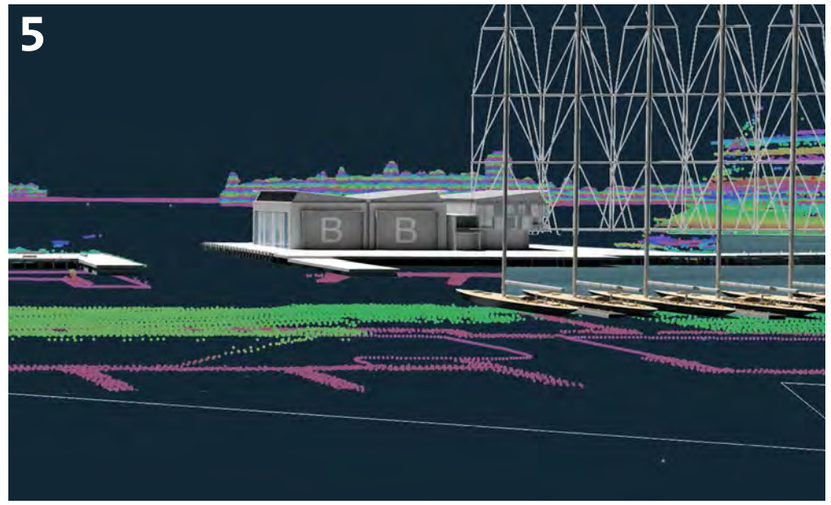
The final simulation was produced - (7) and all panoramas were then assembled using graphic design software.

Publishing and Viewing
Simulations which have a horizontal field of view of 90° should be viewed from a distance of 20 cm when printed at A3. Those with a field of view of 65° should be viewed from a distance of 30 cm at A3. This will ensure that each simulation is viewed as if standing on-site at the actual camera location, and elements will appear "true to scale".









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AMERICAS CUP WYNYARD HOBSON PROPOSAL

VISUAL SIMULATIONS - METHODOLOGY

| Date: 9 April 2018 | Revision: 0 |

Prepared for Panuku Developmment Ltd. by Boffa Miskell Ltd

Project Manager: **john.goodwin@boffamiskell.co.nz** | *Drawn:* PMo | *Checked:* Dlr