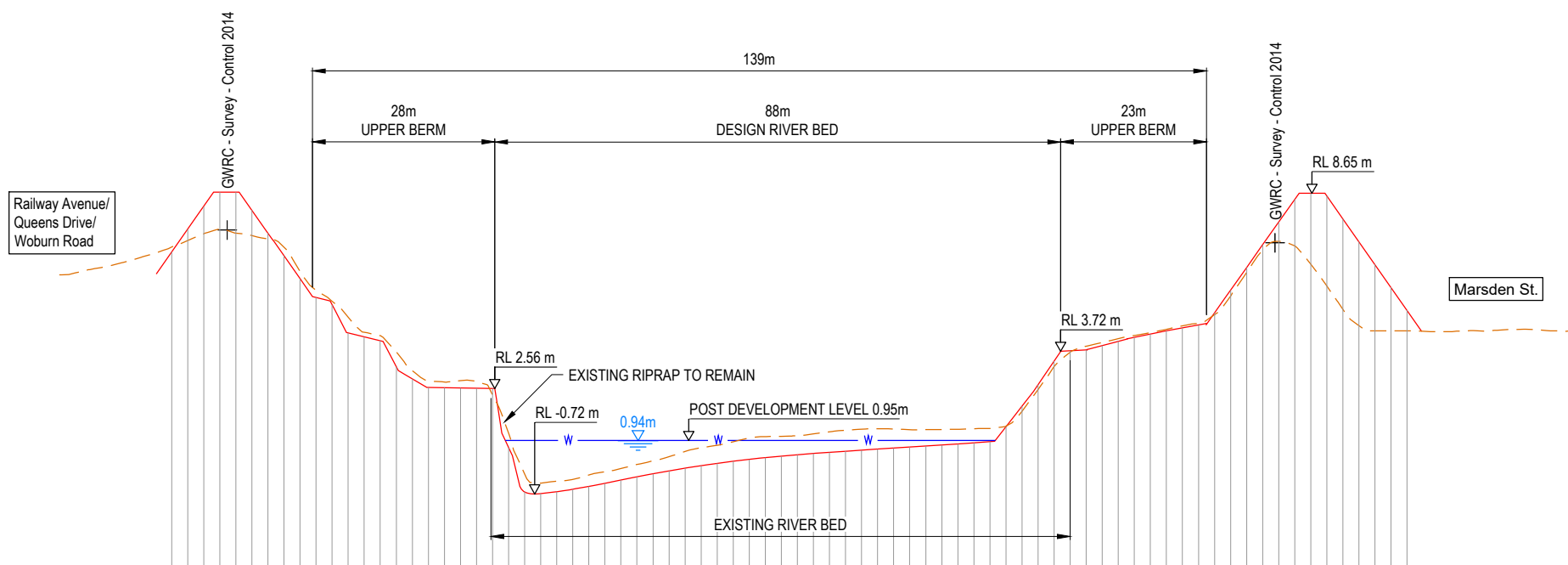


**LEGEND**

- PROPOSED STOPBANK AND RIVERWORKS DESIGN
- PROPOSED MELLING INTERCHANGE DESIGN
- - - EXISTING GROUND (2019 AND 2014 LIDAR COMBINED)
- ▬▬▬▬▬▬▬▬▬▬▬▬ PROPOSED ROCK RIPRAP

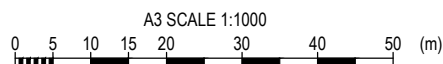
**NOTES:**

1. DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
2. LEVEL DATUM: LINZ (MSL) WELLINGTON VERTICAL DATUM 1953.
3. DIMENSIONS SHOWN HAVE BEEN PULLED DIRECTLY FROM THE DIMENSIONS IN THE DESIGN CAD FILE. THESE SHOW WHAT WE HAVE DESIGNED TO AND MAY NOT LINE UP WITH THE DISTINCT POINTS ON THE SECTIONS DESIGN FILE, SUPPLIED BY GWRC 14.01.2021.
4. 7 DAY MALF WATER LEVEL STANDS FOR 7 DAY MEAN ANNUAL LOW FLOW WATER LEVEL.
5. 2019 LIDAR SOMETIMES PICKED UP WATER LEVEL AND NOT RIVERBED LEVEL. WHERE THIS HAS HAPPENED THE 2014 DESIGN RIVER BED LEVEL WAS USED AS EXISTING RIVER BED LEVEL.
6. EXISTING RIVER BED HAS BEEN INTERPRETED FROM LIDAR INFORMATION.



Datum RL -3.0	
MELLING INTERCHANGE LEVEL(m)	
DESIGN STOPBANK RIVERBED LEVEL(m)	6.81, 7.33, 8.24, 8.68, 8.68, 8.12, 7.40, 6.97, 5.98, 5.40, 5.17, 4.30, 4.18, 4.06, 3.24, 2.87, 2.60, 2.59, 2.81, 2.58, 2.57, 2.56, 0.73, 1.16, -0.09, -0.65, -0.71, -0.65, -0.27, -0.57, -0.48, -0.39, -0.28, -0.19, -0.09, 0.00, 0.44, 0.08, 0.16, 0.23, 0.80, 0.91, 0.30, 0.36, 1.02, 1.07, 0.41, 0.46, 0.80, 1.10, 0.50, 0.54, 0.58, 1.10, 1.22, 0.61, 1.15, 1.30, 0.65, 0.68, 0.71, 1.28, 0.74, 1.28, 0.77, 0.80, 0.84, 1.30, 0.87, 1.32, 0.91, 1.37, 1.40, 1.38, 2.02, 2.53, 2.69, 3.24, 3.42, 3.74, 3.77, 3.88, 3.90, 4.00, 4.04, 4.16, 4.26, 4.30, 4.36, 4.41, 4.45, 4.54, 4.60, 4.86, 4.92, 5.63, 6.33, 6.18, 6.88, 7.04, 7.75, 8.46, 8.65, 8.65, 8.56, 7.85, 7.13, 6.42, 5.71, 5.00
COMBINED SURVEY DEM2014-LIDAR2019(m)	6.49, 6.63, 6.78, 6.97, 7.17, 7.38, 7.53, 7.40, 7.33, 7.22, 6.70, 6.20, 5.63, 5.28, 4.78, 4.30, 4.18, 4.06, 3.24, 2.87, 2.60, 2.77, 2.59, 2.81, 2.58, 2.57, 2.56, 0.73, 1.16, -0.09, -0.65, -0.71, -0.65, -0.27, -0.57, -0.48, -0.39, -0.28, -0.19, -0.09, 0.00, 0.44, 0.08, 0.16, 0.23, 0.80, 0.91, 1.02, 1.07, 1.08, 1.08, 1.10, 0.50, 0.54, 0.58, 1.10, 1.22, 0.61, 1.15, 1.30, 0.65, 0.68, 0.71, 1.28, 0.74, 1.28, 0.77, 0.80, 0.84, 1.30, 0.87, 1.32, 0.91, 1.37, 1.40, 1.38, 2.02, 2.53, 2.69, 3.24, 3.42, 3.74, 3.77, 3.88, 3.90, 4.00, 4.04, 4.16, 4.26, 4.30, 4.36, 4.41, 4.45, 4.54, 4.60, 4.86, 4.92, 5.63, 6.33, 6.18, 6.88, 7.04, 7.75, 8.46, 8.65, 8.65, 8.56, 7.85, 7.13, 6.42, 5.71, 5.00
OFFSET	0.00, 2.50, 5.00, 7.50, 10.00, 12.50, 15.00, 17.50, 20.00, 22.50, 25.00, 27.50, 30.00, 32.50, 35.00, 37.50, 40.00, 42.50, 45.00, 47.50, 50.00, 52.50, 55.00, 57.50, 60.00, 62.50, 65.00, 67.50, 70.00, 72.50, 75.00, 77.50, 80.00, 82.50, 85.00, 87.50, 90.00, 92.50, 95.00, 97.50, 100.00, 102.50, 105.00, 107.50, 110.00, 112.50, 115.00, 117.50, 120.00, 122.50, 125.00, 127.50, 130.00, 132.50, 135.00, 137.50, 140.00, 142.50, 145.00, 147.50, 150.00, 152.50, 155.00, 157.50, 160.00, 162.50, 165.00, 167.50, 170.00, 172.50, 175.00, 177.50, 180.00, 182.50, 185.00, 187.50, 190.00, 192.50, 195.00, 197.50, 200.00, 202.50, 205.00, 207.50, 210.00

SECTION 320 RIVER CROSS SECTION  
 SCALE 1: 1000 H  
 1: 200 V  
140



ORIGINAL IN COLOUR

**CONSENT ISSUE**

D	DESIGN FREEZE 2 - MELLING UPDATE	RHTA	LOHA	4/09/21
E	DESIGN FREEZE 2 - RESOURCE CONSENT	IARA	LOHA	5/07/21
F	DF2 - RESOURCE CONSENT AMENDMENTS	RHTA	LOHA	18/05/21
G	DF2 - RIPRAP AMENDMENTS	DSW	LOHA	15/06/21
H	CONSENT ISSUE	DFL	LOHA	BSS 28/07/21

No Revision Note: \* indicates signatures on original issue of drawing or last revision of drawing

Plot Date: 28 July 2021 - 10:07 am Plotted By: Daniel Foley-Logan

Cad File No: C:\12\Synergy\data\ALBTCAD\Riverlink\_438\CAD\DWG\A16-4381-SB400\_433.dwg



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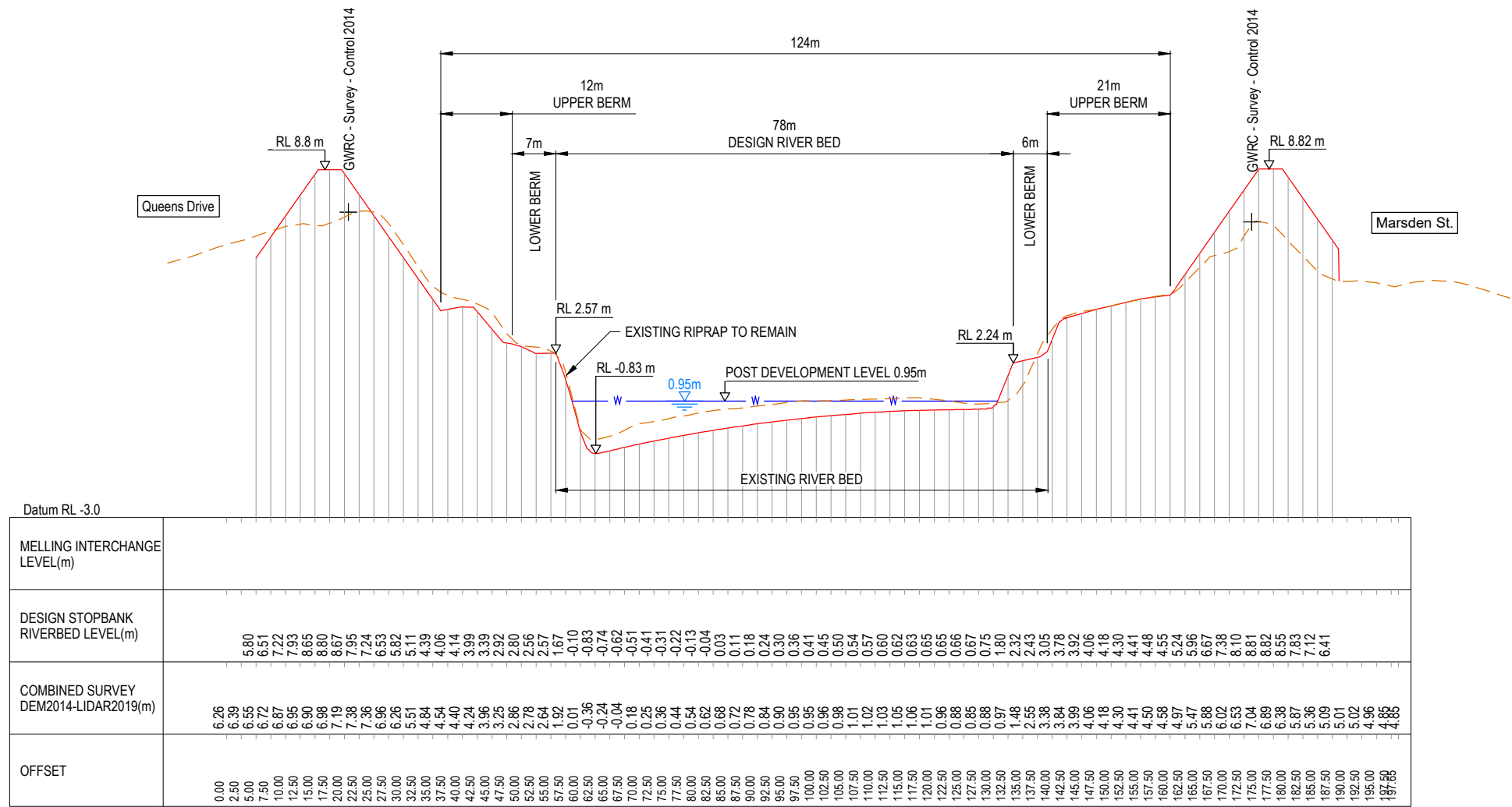
Drawn	DSW	Designer	TXH
Drafting Check	RBS	Design Check	LOHA
Approved	BRUCE SYMMANS		
Date	28/07/21		
Scale	1:1000		

Client	<b>RIVERLINK</b>		
Project	<b>RIVERLINK</b>		
Title	<b>RIVER CROSS SECTIONS SECTION 320</b>		
Original Size	A3	Drawing No:	<b>A16-4381-SB400</b>
Rev:	<b>H</b>		

This Drawing must not be used for Construction unless signed as Approved

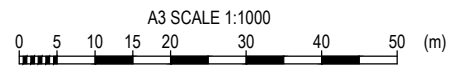
LEGEND	
	PROPOSED STOPBANK AND RIVERWORKS DESIGN
	PROPOSED MELLING INTERCHANGE DESIGN
	EXISTING GROUND (2019 AND 2014 LIDAR COMBINED)
	PROPOSED ROCK RIPRAP

- NOTES:
- DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
  - LEVEL DATUM: LINZ (MSL) WELLINGTON VERTICAL DATUM 1953.
  - DIMENSIONS SHOWN HAVE BEEN PULLED DIRECTLY FROM THE DIMENSIONS IN THE DESIGN CAD FILE. THESE SHOW WHAT WE HAVE DESIGNED TO AND MAY NOT LINE UP WITH THE DISTINCT POINTS ON THE SECTIONS DESIGN FILE, SUPPLIED BY GWRC 14.01.2021.
  - 7 DAY MALF WATER LEVEL STANDS FOR 7 DAY MEAN ANNUAL LOW FLOW WATER LEVEL.
  - 2019 LIDAR SOMETIMES PICKED UP WATER LEVEL AND NOT RIVERBED LEVEL. WHERE THIS HAS HAPPENED THE 2014 DESIGN RIVER BED LEVEL WAS USED AS EXISTING RIVER BED LEVEL.
  - EXISTING RIVER BED HAS BEEN INTERPRETED FROM LIDAR INFORMATION.



Datum RL -3.0	
MELLING INTERCHANGE LEVEL(m)	
DESIGN STOPBANK RIVERBED LEVEL(m)	5.80, 6.51, 6.72, 7.22, 7.93, 6.95, 8.65, 6.90, 8.80, 8.80, 7.19, 7.95, 7.38, 7.24, 6.96, 6.53, 6.92, 30.00, 5.11, 32.50, 4.84, 37.50, 4.06, 40.00, 4.40, 41.4, 3.99, 3.99, 3.25, 2.92, 2.86, 2.80, 2.66, 2.57, 2.64, 1.92, 0.01, 60.00, -0.10, 62.50, -0.36, 65.00, -0.24, 67.50, -0.04, 70.00, 0.18, 72.50, -0.41, 75.00, 0.36, 77.50, 0.44, 80.00, 0.54, 82.50, -0.13, 85.00, 0.68, 87.50, 0.72, 90.00, 0.78, 92.50, 0.84, 95.00, 0.90, 97.50, 0.95, 100.00, 0.96, 102.50, 0.96, 105.00, 0.98, 107.50, 1.01, 110.00, 1.02, 112.50, 1.03, 115.00, 1.05, 117.50, 1.06, 120.00, 1.01, 122.50, 0.96, 125.00, 0.88, 127.50, 0.85, 130.00, 0.88, 132.50, 0.97, 135.00, 1.48, 137.50, 2.55, 140.00, 3.38, 142.50, 3.84, 145.00, 3.99, 147.50, 4.06, 150.00, 4.18, 152.50, 4.30, 155.00, 4.41, 157.50, 4.48, 160.00, 4.58, 162.50, 4.97, 165.00, 5.47, 167.50, 5.88, 170.00, 6.02, 172.50, 6.53, 175.00, 7.04, 177.50, 6.89, 180.00, 6.38, 182.50, 5.87, 185.00, 5.36, 187.50, 5.09, 190.00, 5.01, 192.50, 5.02, 195.00, 4.96, 197.50, 4.85
COMBINED SURVEY DEM2014-LIDAR2019(m)	6.26, 6.39, 6.55, 6.55, 6.87, 7.22, 7.93, 6.95, 8.65, 6.90, 8.80, 8.80, 7.19, 7.95, 7.38, 7.24, 6.96, 6.53, 6.92, 30.00, 5.11, 32.50, 4.84, 37.50, 4.06, 40.00, 4.40, 41.4, 3.99, 3.99, 3.25, 2.92, 2.86, 2.80, 2.66, 2.57, 2.64, 1.92, 0.01, 60.00, -0.10, 62.50, -0.36, 65.00, -0.24, 67.50, -0.04, 70.00, 0.18, 72.50, -0.41, 75.00, 0.36, 77.50, 0.44, 80.00, 0.54, 82.50, -0.13, 85.00, 0.68, 87.50, 0.72, 90.00, 0.78, 92.50, 0.84, 95.00, 0.90, 97.50, 0.95, 100.00, 0.96, 102.50, 0.96, 105.00, 0.98, 107.50, 1.01, 110.00, 1.02, 112.50, 1.03, 115.00, 1.05, 117.50, 1.06, 120.00, 1.01, 122.50, 0.96, 125.00, 0.88, 127.50, 0.85, 130.00, 0.88, 132.50, 0.97, 135.00, 1.48, 137.50, 2.55, 140.00, 3.38, 142.50, 3.84, 145.00, 3.99, 147.50, 4.06, 150.00, 4.18, 152.50, 4.30, 155.00, 4.41, 157.50, 4.48, 160.00, 4.58, 162.50, 4.97, 165.00, 5.47, 167.50, 5.88, 170.00, 6.02, 172.50, 6.53, 175.00, 7.04, 177.50, 6.89, 180.00, 6.38, 182.50, 5.87, 185.00, 5.36, 187.50, 5.09, 190.00, 5.01, 192.50, 5.02, 195.00, 4.96, 197.50, 4.85
OFFSET	0.00, 2.50, 5.00, 7.50, 10.00, 12.50, 15.00, 17.50, 20.00, 22.50, 25.00, 27.50, 30.00, 32.50, 35.00, 37.50, 40.00, 42.50, 45.00, 47.50, 50.00, 52.50, 55.00, 57.50, 60.00, 62.50, 65.00, 67.50, 70.00, 72.50, 75.00, 77.50, 80.00, 82.50, 85.00, 87.50, 90.00, 92.50, 95.00, 97.50, 100.00, 102.50, 105.00, 107.50, 110.00, 112.50, 115.00, 117.50, 120.00, 122.50, 125.00, 127.50, 130.00, 132.50, 135.00, 137.50, 140.00, 142.50, 145.00, 147.50, 150.00, 152.50, 155.00, 157.50, 160.00, 162.50, 165.00, 167.50, 170.00, 172.50, 175.00, 177.50, 180.00, 182.50, 185.00, 187.50, 190.00, 192.50, 195.00, 197.50

SECTION 330 RIVER CROSS SECTION  
SCALE 1: 1000 H  
1: 200 V



ORIGINAL IN COLOUR

CONSENT ISSUE

D	DESIGN FREEZE 2 - MELLING UPDATE	RHTA	LOHA	4/09/21		
E	DESIGN FREEZE 2 - RESOURCE CONSENT	IARA	LOHA	5/07/21		
F	DF2 - RESOURCE CONSENT AMENDMENTS	RHTA	LOHA	18/05/21		
G	DF2 - RIPRAP AMENDMENTS	DSW	LOHA	15/06/21		
H	CONSENT ISSUE	DFL	LOHA	BSS 28/07/21		
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Checked	Approved	Date



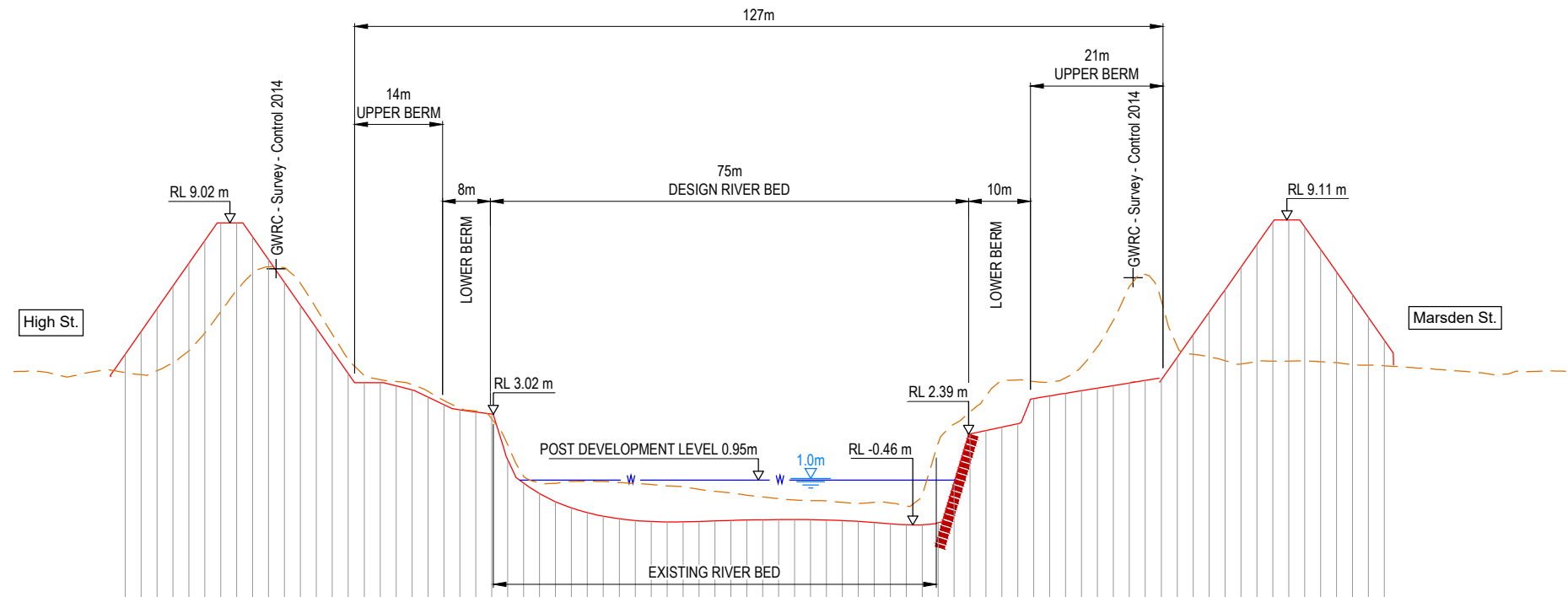
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Drawn	DSW	Designer	TXH
Drafting Check	RBS	Design Check	LOHA
Approved	BRUCE SYMMANS		
Date	28/07/21		
Scale	1:1000		

Client	RIVERLINK		
Project	RIVERLINK		
Title	RIVER CROSS SECTIONS SECTION 330		
Original Size	A3	Drawing No:	A16-4381-SB401
Rev:	H		

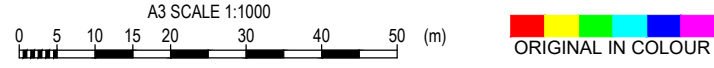
LEGEND	
	PROPOSED STOPBANK AND RIVERWORKS DESIGN
	PROPOSED MELLING INTERCHANGE DESIGN
	EXISTING GROUND (2019 AND 2014 LIDAR COMBINED)
	PROPOSED ROCK RIPRAP

- NOTES:
- DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
  - LEVEL DATUM: LINZ (MSL) WELLINGTON VERTICAL DATUM 1953.
  - DIMENSIONS SHOWN HAVE BEEN PULLED DIRECTLY FROM THE DIMENSIONS IN THE DESIGN CAD FILE. THESE SHOW WHAT WE HAVE DESIGNED TO AND MAY NOT LINE UP WITH THE DISTINCT POINTS ON THE SECTIONS DESIGN FILE, SUPPLIED BY GWRC 14.01.2021.
  - 7 DAY MALF WATER LEVEL STANDS FOR 7 DAY MEAN ANNUAL LOW FLOW WATER LEVEL.
  - 2019 LIDAR SOMETIMES PICKED UP WATER LEVEL AND NOT RIVERBED LEVEL. WHERE THIS HAS HAPPENED THE 2014 DESIGN RIVER BED LEVEL WAS USED AS EXISTING RIVER BED LEVEL.
  - EXISTING RIVER BED HAS BEEN INTERPRETED FROM LIDAR INFORMATION.



Datum RL -3.0	
MELLING INTERCHANGE LEVEL(m)	
DESIGN STOPBANK RIVERBED LEVEL(m)	4.89, 5.61, 6.32, 7.03, 7.75, 8.46, 9.02, 9.02, 8.58, 7.86, 7.15, 6.44, 5.72, 5.01, 4.29, 4.00, 4.00, 3.91, 3.78, 3.55, 3.31, 3.16, 3.09, 3.11, 3.02, 2.87, 2.06, 1.59, 0.86, 0.53, 0.27, 0.08, 0.08, 0.07, -0.07, -0.18, -0.26, -0.26, -0.26, -0.32, -0.35, -0.36, -0.36, -0.36, -0.35, -0.33, -0.33, -0.32, -0.32, -0.29, -0.29, -0.29, -0.30, -0.30, -0.22, -0.22, -0.25, -0.25, -0.23, -0.23, -0.14, -0.45, -0.45, -0.45, -0.39, 0.86, 2.70, 2.60, 3.09, 3.58, 2.50, 2.61, 4.09, 4.04, 3.51, 3.69, 4.03, 3.67, 3.75, 3.83, 3.92, 5.14, 5.96, 3.92, 165.00, 7.02, 4.00, 167.50, 7.40, 4.08, 170.00, 6.58, 4.09, 172.50, 5.15, 4.90, 175.00, 4.82, 6.22, 177.50, 4.70, 6.92, 180.00, 4.59, 7.63, 182.50, 4.68, 8.34, 185.00, 4.68, 9.05, 187.50, 4.68, 9.11, 190.00, 4.68, 8.90, 192.50, 4.66, 8.19, 195.00, 4.63, 7.47, 197.50, 4.57, 6.76, 200.00, 4.56, 6.05, 202.50, 4.54, 5.34, 205.00, 4.50, 4.47, 207.50, 4.47, 4.44, 210.00, 4.44, 4.42, 213.50, 4.42
COMBINED SURVEY DEM2014-LIDAR2019(m)	4.25, 4.35, 4.41, 4.32, 4.26, 4.38, 4.63, 5.00, 5.57, 6.23, 6.90, 7.43, 7.64, 7.61, 7.15, 6.44, 5.72, 5.01, 4.29, 4.00, 4.00, 3.91, 3.78, 3.55, 3.31, 3.16, 3.09, 3.11, 3.02, 2.87, 2.06, 1.59, 0.86, 0.53, 0.27, 0.08, 0.08, 0.07, -0.07, -0.18, -0.26, -0.26, -0.26, -0.32, -0.35, -0.36, -0.36, -0.36, -0.35, -0.33, -0.33, -0.32, -0.32, -0.29, -0.29, -0.29, -0.30, -0.30, -0.22, -0.22, -0.25, -0.25, -0.23, -0.23, -0.14, -0.45, -0.45, -0.45, -0.39, 0.86, 2.70, 2.60, 3.09, 3.58, 2.50, 2.61, 4.09, 4.04, 3.51, 3.69, 4.03, 3.67, 3.75, 3.83, 3.92, 5.14, 5.96, 3.92, 165.00, 7.02, 4.00, 167.50, 7.40, 4.08, 170.00, 6.58, 4.09, 172.50, 5.15, 4.90, 175.00, 4.82, 6.22, 177.50, 4.70, 6.92, 180.00, 4.59, 7.63, 182.50, 4.68, 8.34, 185.00, 4.68, 9.05, 187.50, 4.68, 9.11, 190.00, 4.68, 8.90, 192.50, 4.66, 8.19, 195.00, 4.63, 7.47, 197.50, 4.57, 6.76, 200.00, 4.56, 6.05, 202.50, 4.54, 5.34, 205.00, 4.50, 4.47, 207.50, 4.47, 4.44, 210.00, 4.44, 4.42, 213.50, 4.42
OFFSET	0.00, 2.50, 5.00, 7.50, 10.00, 12.50, 15.00, 17.50, 20.00, 22.50, 25.00, 27.50, 30.00, 32.50, 35.00, 37.50, 40.00, 42.50, 45.00, 47.50, 50.00, 52.50, 55.00, 57.50, 60.00, 62.50, 65.00, 67.50, 70.00, 72.50, 75.00, 77.50, 80.00, 82.50, 85.00, 87.50, 90.00, 92.50, 95.00, 97.50, 100.00, 102.50, 105.00, 107.50, 110.00, 112.50, 115.00, 117.50, 120.00, 122.50, 125.00, 127.50, 130.00, 132.50, 135.00, 137.50, 140.00, 142.50, 145.00, 147.50, 150.00, 152.50, 155.00, 157.50, 160.00, 162.50, 165.00, 167.50, 170.00, 172.50, 175.00, 177.50, 180.00, 182.50, 185.00, 187.50, 190.00, 192.50, 195.00, 197.50, 200.00, 202.50, 205.00, 207.50, 210.00, 213.50

SECTION 340 RIVER CROSS SECTION  
SCALE 1: 1000 H, 1: 200 V



CONSENT ISSUE

D	DESIGN FREEZE 2 - MELLING UPDATE	RHTA	LOHA	4/09/21		
E	DESIGN FREEZE 2 - RESOURCE CONSENT	IARA	LOHA	5/07/21		
F	DF2 - RESOURCE CONSENT AMENDMENTS	RHTA	LOHA	18/05/21		
G	DF2 - RIPRAP AMENDMENTS	DSW	LOHA	15/06/21		
H	CONSENT ISSUE	DFL	LOHA	BSS 28/07/21		
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Checked	Approved	Date



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Drawn	DSW	Designer	TXH
Drafting Check	RBS	Design Check	LOHA
Approved	BRUCE SYMMANS		
Date	28/07/21		
Scale	1:1000		

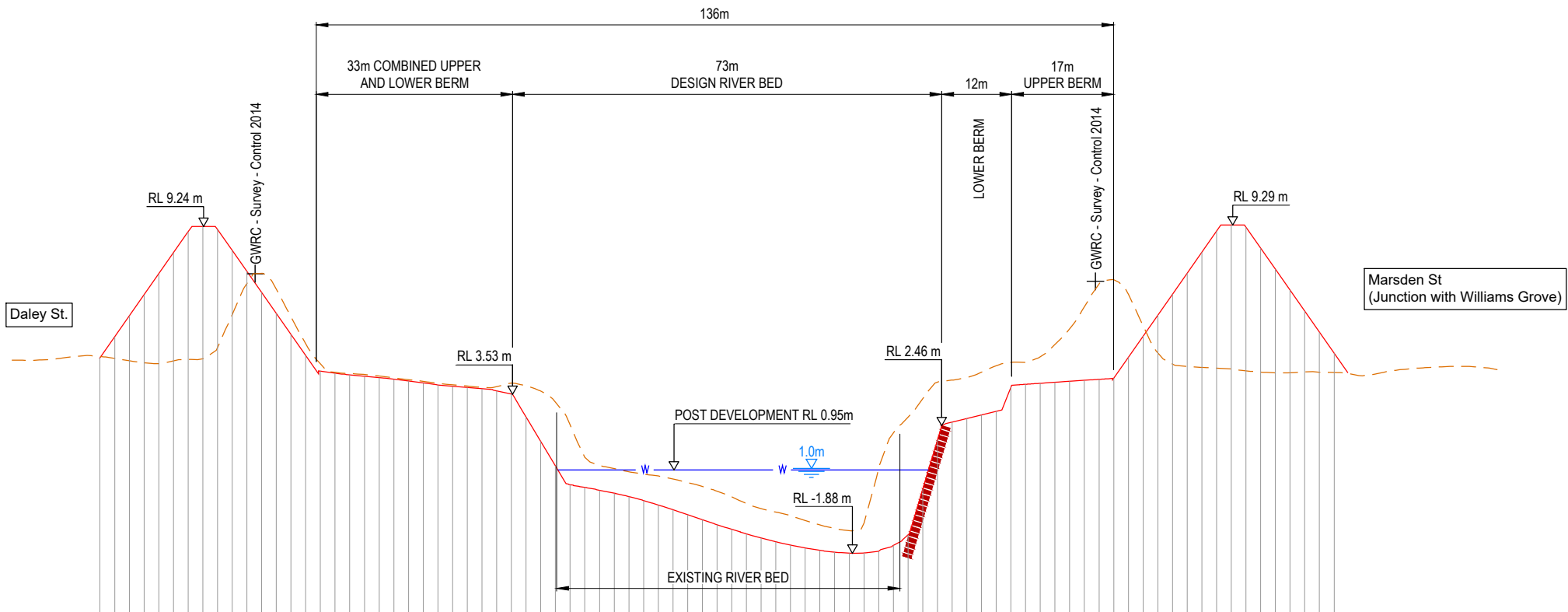
Client	RIVERLINK		
Project	RIVERLINK		
Title	RIVER CROSS SECTIONS SECTION 340		
Original Size	A3	Drawing No:	A16-4381-SB402
Rev:	H		

**LEGEND**

- PROPOSED STOPBANK AND RIVERWORKS DESIGN
- PROPOSED MELLING INTERCHANGE DESIGN
- EXISTING GROUND (2019 AND 2014 LIDAR COMBINED)
- PROPOSED ROCK RIPRAP

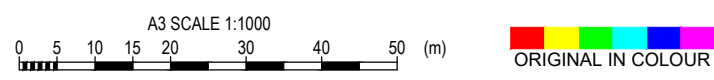
**NOTES:**

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- LEVEL DATUM: LINZ (MSL) WELLINGTON VERTICAL DATUM 1953.
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- 2019 LIDAR SOMETIMES PICKED UP WATER LEVEL AND NOT RIVERBED LEVEL. WHERE THIS HAS HAPPENED THE 2014 DESIGN RIVER BED LEVEL WAS USED AS EXISTING RIVER BED LEVEL.
- EXISTING RIVER BED HAS BEEN INTERPRETED FROM LIDAR INFORMATION.



Datum RL -4.0	
MELLING INTERCHANGE LEVEL(m)	
DESIGN STOPBANK RIVERBED LEVEL(m)	4.77, 4.77, 5.49, 6.20, 6.92, 7.63, 8.34, 9.06, 9.24, 9.14, 8.42, 7.71, 6.99, 6.28, 5.57, 4.85, 4.25, 4.28, 4.19, 4.14, 4.14, 4.10, 4.04, 3.98, 3.91, 3.84, 3.80, 3.76, 3.72, 3.64, 3.54, 2.76, 1.93, 3.63, 3.26, 2.49, 0.45, 0.36, 0.28, 1.11, 1.00, 0.16, 0.05, 0.81, 0.05, -0.08, 100.00, 0.75, -0.24, 102.50, 0.65, -0.57, 105.00, 0.39, -0.74, 107.50, 0.23, -0.91, 110.00, 0.04, -1.06, 112.50, -0.19, -1.22, 115.00, -0.19, -1.36, 117.50, -0.36, -1.49, 120.00, -0.48, -1.60, 122.50, -0.60, -1.70, 125.00, -0.76, -1.78, 127.50, -0.91, -1.84, 130.00, -1.03, -1.87, 132.50, -1.11, -1.87, 135.00, -0.86, -1.81, 137.50, 1.01, -1.61, 140.00, 2.21, -1.25, 142.50, 3.39, 0.31, 145.00, 3.94, 1.97, 147.50, 4.01, 2.58, 150.00, 4.01, 2.71, 152.50, 4.10, 2.83, 155.00, 4.28, 2.95, 157.50, 4.50, 3.17, 160.00, 4.62, 3.87, 162.50, 4.62, 3.90, 165.00, 4.81, 3.94, 167.50, 5.22, 3.97, 170.00, 5.76, 3.97, 172.50, 6.50, 4.00, 175.00, 7.28, 4.04, 177.50, 7.42, 4.08, 180.00, 6.92, 4.79, 182.50, 5.86, 5.51, 185.00, 4.94, 6.22, 187.50, 4.56, 6.94, 190.00, 4.47, 7.65, 192.50, 4.44, 8.37, 195.00, 4.42, 9.08, 197.50, 4.39, 9.29, 200.00, 4.32, 9.21, 202.50, 4.28, 8.50, 205.00, 4.26, 7.78, 207.50, 4.26, 7.07, 210.00, 4.29, 6.36, 212.50, 4.28, 5.64, 215.00, 4.27, 4.23, 217.50, 4.16, 4.23, 220.00, 4.16, 4.24, 222.50, 4.25, 4.25
COMBINED SURVEY DEM2014-LIDAR2019(m)	4.80, 4.85, 4.81, 4.75, 4.67, 4.60, 4.57, 4.57, 4.67, 4.71, 4.74, 5.13, 6.24, 7.29, 7.71, 7.64, 7.10, 6.28, 6.16, 5.25, 4.95, 4.57, 4.28, 4.25, 4.19, 4.14, 4.14, 4.10, 4.04, 3.98, 3.91, 3.84, 3.80, 3.76, 3.72, 3.64, 3.54, 2.76, 1.93, 3.63, 3.26, 2.49, 0.45, 0.36, 0.28, 1.11, 1.00, 0.16, 0.05, 0.81, 0.05, -0.08, 100.00, 0.75, -0.24, 102.50, 0.65, -0.57, 105.00, 0.39, -0.74, 107.50, 0.23, -0.91, 110.00, 0.04, -1.06, 112.50, -0.19, -1.22, 115.00, -0.19, -1.36, 117.50, -0.36, -1.49, 120.00, -0.48, -1.60, 122.50, -0.60, -1.70, 125.00, -0.76, -1.78, 127.50, -0.91, -1.84, 130.00, -1.03, -1.87, 132.50, -1.11, -1.87, 135.00, -0.86, -1.81, 137.50, 1.01, -1.61, 140.00, 2.21, -1.25, 142.50, 3.39, 0.31, 145.00, 3.94, 1.97, 147.50, 4.01, 2.58, 150.00, 4.01, 2.71, 152.50, 4.10, 2.83, 155.00, 4.28, 2.95, 157.50, 4.50, 3.17, 160.00, 4.62, 3.87, 162.50, 4.62, 3.90, 165.00, 4.81, 3.94, 167.50, 5.22, 3.97, 170.00, 5.76, 3.97, 172.50, 6.50, 4.00, 175.00, 7.28, 4.04, 177.50, 7.42, 4.08, 180.00, 6.92, 4.79, 182.50, 5.86, 5.51, 185.00, 4.94, 6.22, 187.50, 4.56, 6.94, 190.00, 4.47, 7.65, 192.50, 4.44, 8.37, 195.00, 4.42, 9.08, 197.50, 4.39, 9.29, 200.00, 4.32, 9.21, 202.50, 4.28, 8.50, 205.00, 4.26, 7.78, 207.50, 4.26, 7.07, 210.00, 4.29, 6.36, 212.50, 4.28, 5.64, 215.00, 4.27, 4.23, 217.50, 4.16, 4.23, 220.00, 4.16, 4.24, 222.50, 4.25, 4.25
OFFSET	0.00, 2.50, 5.00, 7.50, 10.00, 12.50, 15.00, 17.50, 20.00, 22.50, 25.00, 27.50, 30.00, 32.50, 35.00, 37.50, 40.00, 42.50, 45.00, 47.50, 50.00, 52.50, 55.00, 57.50, 60.00, 62.50, 65.00, 67.50, 70.00, 72.50, 75.00, 77.50, 80.00, 82.50, 85.00, 87.50, 90.00, 92.50, 95.00, 97.50, 100.00, 102.50, 105.00, 107.50, 110.00, 112.50, 115.00, 117.50, 120.00, 122.50, 125.00, 127.50, 130.00, 132.50, 135.00, 137.50, 140.00, 142.50, 145.00, 147.50, 150.00, 152.50, 155.00, 157.50, 160.00, 162.50, 165.00, 167.50, 170.00, 172.50, 175.00, 177.50, 180.00, 182.50, 185.00, 187.50, 190.00, 192.50, 195.00, 197.50, 200.00, 202.50, 205.00, 207.50, 210.00, 212.50, 215.00, 217.50, 220.00, 222.50

**SECTION 350 RIVER CROSS SECTION**  
 SCALE 1: 1000 H  
 1: 200 V



**CONSENT ISSUE**

D	DESIGN FREEZE 2 - MELLING UPDATE	RHTA	LOHA	4/09/21		
E	DESIGN FREEZE 2 - RESOURCE CONSENT	IARA	LOHA	5/07/21		
F	DF2 - RESOURCE CONSENT AMENDMENTS	RHTA	LOHA	18/05/21		
G	DF2 - RIPRAP AMENDMENTS	DSW	LOHA	15/06/21		
H	CONSENT ISSUE	DFL	LOHA	BSS 28/07/21		
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Checked	Approved	Date

**RiverLink**  
 Isthmus. Tonkin+Taylor GHD Holmes

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Drawn	DSW	Designer	TXH
Drafting Check	RBS	Design Check	LOHA
Approved	BRUCE SYMMANS		
Date	28/07/21		
Scale	1:1000		

Client	<b>RIVERLINK</b>		
Project	<b>RIVERLINK</b>		
Title	<b>RIVER CROSS SECTIONS SECTION 350</b>		
Original Size	<b>A3</b>	Drawing No:	<b>A16-4381-SB403</b>
Rev:			<b>H</b>

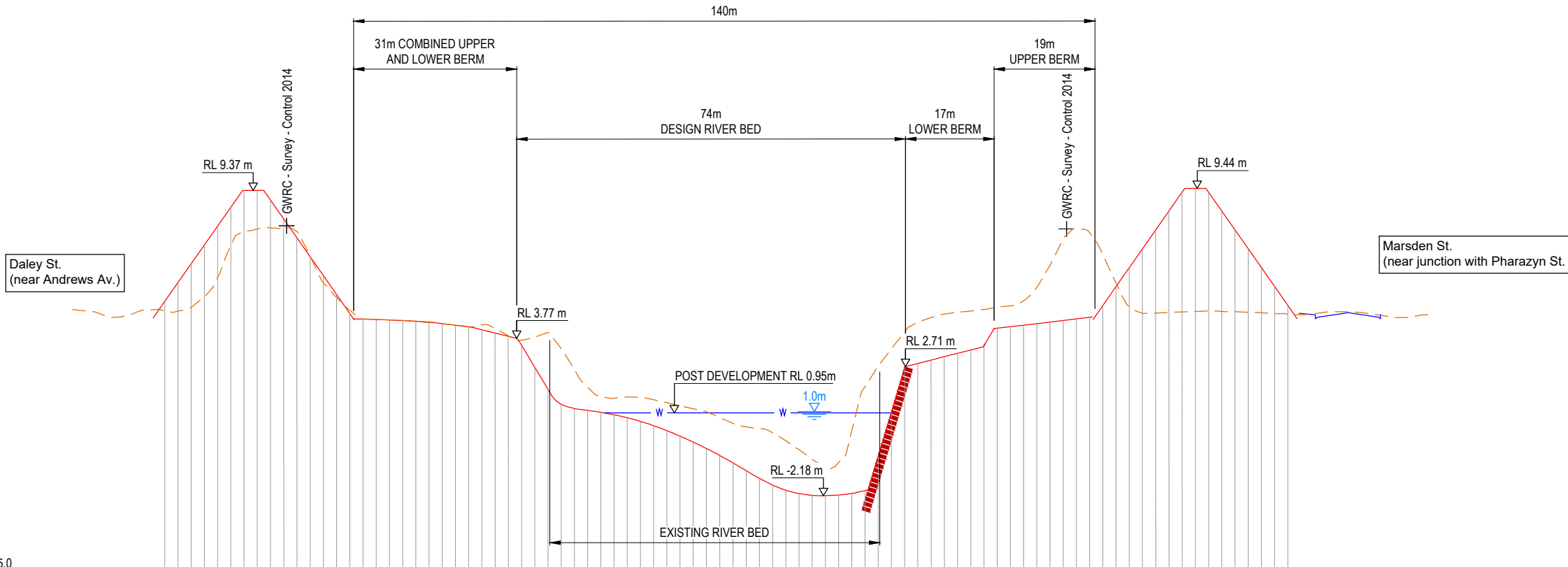


**LEGEND**

- PROPOSED STOPBANK AND RIVERWORKS DESIGN
- PROPOSED MELLING INTERCHANGE DESIGN
- - - EXISTING GROUND  
(2019 AND 2014 LIDAR COMBINED)
- ████████████████████ PROPOSED ROCK RIPRAP

**NOTES:**

1. DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
2. LEVEL DATUM: LINZ (MSL) WELLINGTON VERTICAL DATUM 1953.
3. DIMENSIONS SHOWN HAVE BEEN PULLED DIRECTLY FROM THE DIMENSIONS IN THE DESIGN CAD FILE. THESE SHOW WHAT WE HAVE DESIGNED TO AND MAY NOT LINE UP WITH THE DISTINCT POINTS ON THE SECTIONS DESIGN FILE, SUPPLIED BY GWRC 14.01.2021.
4. 7 DAY MALF WATER LEVEL STANDS FOR 7 DAY MEAN ANNUAL LOW FLOW WATER LEVEL.
5. 2019 LIDAR SOMETIMES PICKED UP WATER LEVEL AND NOT RIVERBED LEVEL. WHERE THIS HAS HAPPENED THE 2014 DESIGN RIVER BED LEVEL WAS USED AS EXISTING RIVER BED LEVEL.
6. EXISTING RIVER BED HAS BEEN INTERPRETED FROM LIDAR INFORMATION.



Datum RL -5.0	
MELLING INTERCHANGE LEVEL(m)	4.71 4.98
DESIGN STOPBANK RIVERBED LEVEL(m)	5.17 5.89 6.60 7.31 8.02 8.74 9.37 9.90 9.90 8.29 7.57 6.86 6.15 5.43 4.72 4.50 4.49 4.47 4.44 4.41 4.42 4.39 4.33 4.28 4.27 4.21 4.10 4.14 3.97 3.85 3.51 2.68 1.85 1.28 1.12 1.05 1.02 0.97 0.88 0.77 0.63 0.63 1.45 1.34 0.28 0.07 -0.16 -0.40 -0.66 -0.94 -1.23 -1.53 -1.78 -1.98 -2.10 -2.17 -2.18 -2.15 -2.10 -2.10 -1.99 -0.67 0.99 2.66 2.82 4.39 4.56 3.08 3.08 3.20 3.33 3.49 3.49 4.16 4.21 4.21 4.37 4.53 4.39 4.45 4.51 4.51 4.57 5.02 5.73 6.44 6.44 7.16 7.87 8.58 9.30 9.44 9.30 8.59 8.59 7.88 7.16 6.45 5.73 5.02
COMBINED SURVEY DEM2014-LIDAR2019(m)	4.62 4.79 4.85 4.82 4.80 4.96 5.33 6.07 7.29 8.74 9.37 7.91 7.95 7.92 8.29 7.81 6.88 6.15 5.43 4.84 4.72 4.50 4.49 4.47 4.44 4.41 4.42 4.39 4.33 4.28 4.27 4.21 4.10 4.14 3.97 3.86 3.70 3.81 3.99 3.38 2.60 1.92 1.05 0.97 1.50 1.56 1.54 1.45 1.34 1.22 1.11 0.99 0.77 0.55 0.43 0.36 0.20 0.10 -0.44 -0.80 -1.08 -1.18 -0.93 0.29 1.95 2.72 3.38 4.02 4.39 4.56 4.68 4.76 4.81 4.81 4.87 4.94 4.94 5.00 5.19 5.70 4.33 4.39 4.45 4.51 4.51 4.57 5.02 5.86 6.44 6.44 7.16 7.87 8.58 9.30 9.44 9.30 8.59 8.59 7.88 7.16 6.45 5.73 5.02
OFFSET	0.00 2.50 5.00 7.50 10.00 12.50 15.00 17.50 20.00 22.50 25.00 27.50 30.00 32.50 35.00 37.50 40.00 42.50 45.00 47.50 50.00 52.50 55.00 57.50 60.00 62.50 65.00 67.50 70.00 72.50 75.00 77.50 80.00 82.50 85.00 87.50 90.00 92.50 95.00 97.50 100.00 102.50 105.00 107.50 110.00 112.50 115.00 117.50 120.00 122.50 125.00 127.50 130.00 132.50 135.00 137.50 140.00 142.50 145.00 147.50 150.00 152.50 155.00 157.50 160.00 162.50 165.00 167.50 170.00 172.50 175.00 177.50 180.00 182.50 185.00 187.50 190.00 192.50 195.00 197.50 200.00 202.50 205.00 207.50 210.00 212.50 215.00 217.50 220.00 222.50 225.00

SECTION 360 RIVER CROSS SECTION  
SCALE 1: 1000 H  
1: 200 V



ORIGINAL IN COLOUR

**CONSENT ISSUE**




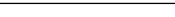
D	DESIGN FREEZE 2 - MELLING UPDATE	RHTA	LOHA	4/09/21			
E	DESIGN FREEZE 2 - RESOURCE CONSENT	IARA	LOHA	5/07/21			
F	DF2 - RESOURCE CONSENT AMENDMENTS	RHTA	LOHA	18/05/21			
G	DF2 - RIPRAP AMENDMENTS	DSW	LOHA	15/06/21			
H	CONSENT ISSUE	DFL	LOHA	BSS 28/07/21			
No	Revision	Note: *	Indicates signatures on original issue of drawing or last revision of drawing	Drawn	Checked	Approved	Date



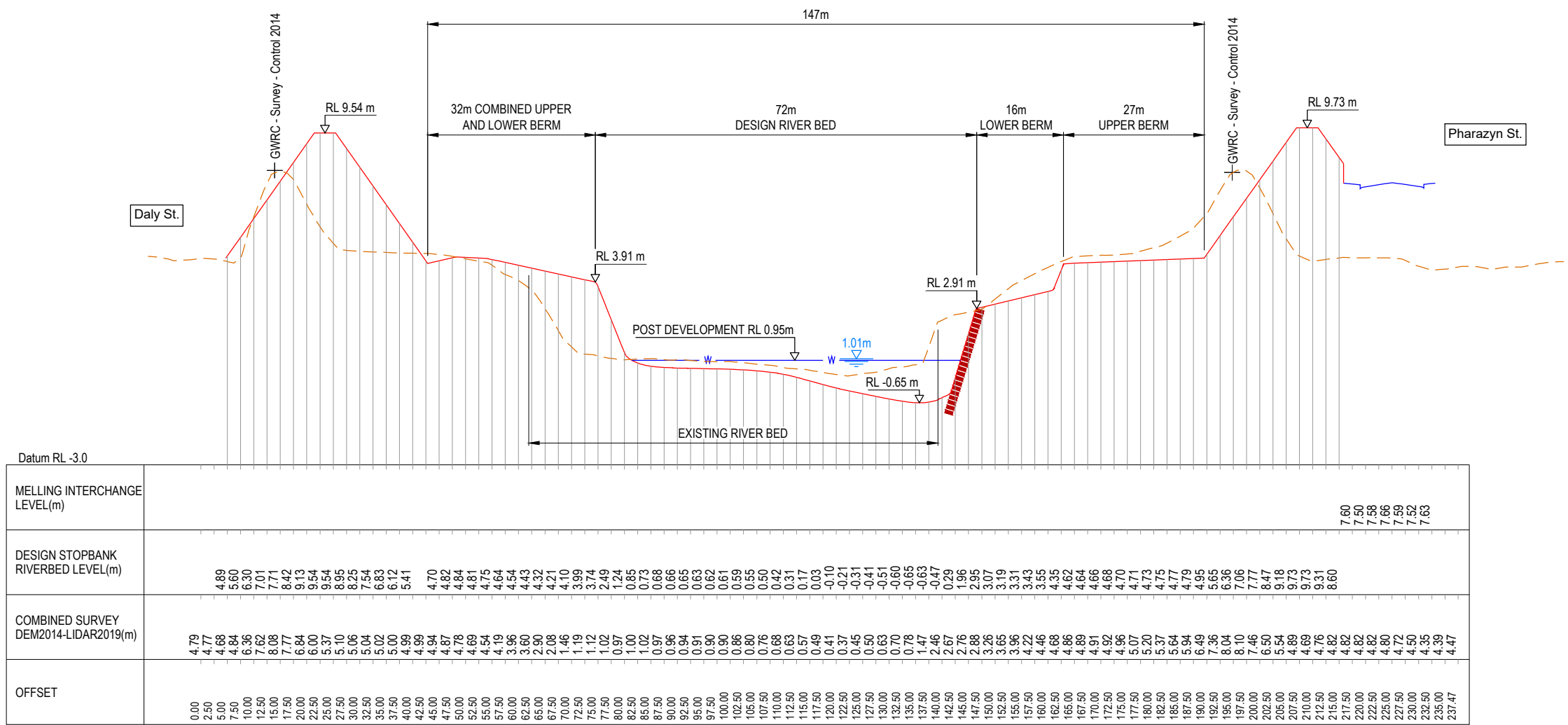
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Drawn	DSW	Designer	TXH
Drafting Check	RBS	Design Check	LOHA
Approved	BRUCE SYMMANS		
Date	28/07/21		
Scale	1:1000		

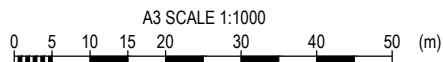
Client	<b>RIVERLINK</b>		
Project	<b>RIVERLINK</b>		
Title	<b>RIVER CROSS SECTIONS SECTION 360</b>		
Original Size	<b>A3</b>	Drawing No:	<b>A16-4381-SB404</b>
		Rev:	<b>H</b>

LEGEND	
	PROPOSED STOPBANK AND RIVERWORKS DESIGN
	PROPOSED MELLING INTERCHANGE DESIGN
	EXISTING GROUND (2019 AND 2014 LIDAR COMBINED)
	PROPOSED ROCK RIPRAP

- NOTES:
- DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
  - LEVEL DATUM: LINZ (MSL) WELLINGTON VERTICAL DATUM 1953.
  - DIMENSIONS SHOWN HAVE BEEN PULLED DIRECTLY FROM THE DIMENSIONS IN THE DESIGN CAD FILE. THESE SHOW WHAT WE HAVE DESIGNED TO AND MAY NOT LINE UP WITH THE DISTINCT POINTS ON THE SECTIONS DESIGN FILE, SUPPLIED BY GWRC 14.01.2021.
  - 7 DAY MALF WATER LEVEL STANDS FOR 7 DAY MEAN ANNUAL LOW FLOW WATER LEVEL.
  - 2019 LIDAR SOMETIMES PICKED UP WATER LEVEL AND NOT RIVERBED LEVEL. WHERE THIS HAS HAPPENED THE 2014 DESIGN RIVER BED LEVEL WAS USED AS EXISTING RIVER BED LEVEL.
  - EXISTING RIVER BED HAS BEEN INTERPRETED FROM LIDAR INFORMATION.



SECTION 370 RIVER CROSS SECTION  
SCALE 1: 1000 H  
1: 200 V



ORIGINAL IN COLOUR

CONSENT ISSUE

D	DESIGN FREEZE 2 - MELLING UPDATE	RHTA	LOHA	4/09/21
E	DESIGN FREEZE 2 - RESOURCE CONSENT	IARA	LOHA	5/07/21
F	DF2 - RESOURCE CONSENT AMENDMENTS	RHTA	LOHA	18/05/21
G	DF2 - RIPRAP AMENDMENTS	DSW	LOHA	15/06/21
H	CONSENT ISSUE	DFL	LOHA	BSS 28/07/21



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Drawn	DSW	Designer	TXH
Drafting Check	RBS	Design Check	LOHA
Approved	BRUCE SYMMANS		
Date	28/07/21		
Scale	1:1000		

Client **RIVERLINK**  
Project **RIVERLINK**  
Title **RIVER CROSS SECTIONS SECTION 370**

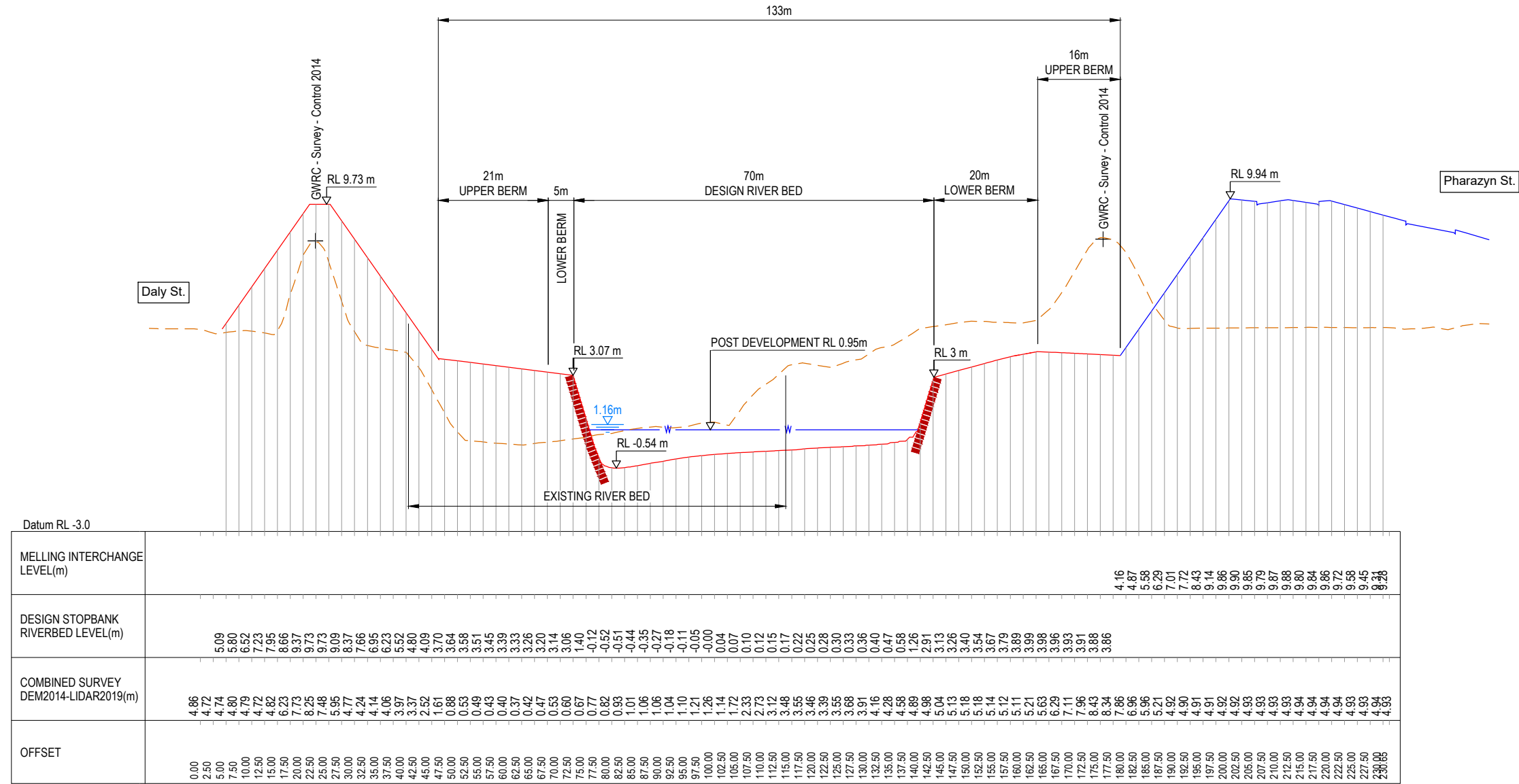
Original Size **A3** Drawing No: **A16-4381-SB405**

Rev: H

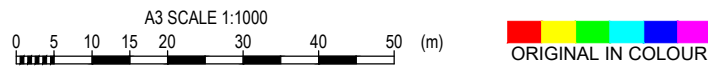
**LEGEND**

- PROPOSED STOPBANK AND RIVERWORKS DESIGN
- PROPOSED MELLING INTERCHANGE DESIGN
- - - - EXISTING GROUND (2019 AND 2014 LIDAR COMBINED)
- ▬▬▬▬▬▬▬▬▬▬▬▬ PROPOSED ROCK RIPRAP

- NOTES:**
1. DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
  2. LEVEL DATUM: LINZ (MSL) WELLINGTON VERTICAL DATUM 1953.
  3. DIMENSIONS SHOWN HAVE BEEN PULLED DIRECTLY FROM THE DIMENSIONS IN THE DESIGN CAD FILE. THESE SHOW WHAT WE HAVE DESIGNED TO AND MAY NOT LINE UP WITH THE DISTINCT POINTS ON THE SECTIONS DESIGN FILE, SUPPLIED BY GWRC 14.01.2021.
  4. 7 DAY MALF WATER LEVEL STANDS FOR 7 DAY MEAN ANNUAL LOW FLOW WATER LEVEL.
  5. 2019 LIDAR SOMETIMES PICKED UP WATER LEVEL AND NOT RIVERBED LEVEL. WHERE THIS HAS HAPPENED THE 2014 DESIGN RIVER BED LEVEL WAS USED AS EXISTING RIVER BED LEVEL.
  6. EXISTING RIVER BED HAS BEEN INTERPRETED FROM LIDAR INFORMATION.



SECTION 380 RIVER CROSS SECTION  
 SCALE 1: 1000 H  
 1: 200 V



**CONSENT ISSUE**

D	DESIGN FREEZE 2 - MELLING UPDATE	RHTA	LOHA	4/09/21
E	DESIGN FREEZE 2 - RESOURCE CONSENT	IARA	LOHA	5/07/21
F	DF2 - RESOURCE CONSENT AMENDMENTS	RHTA	LOHA	18/05/21
G	DF2 - RIPRAP AMENDMENTS	DSW	LOHA	15/06/21
H	CONSENT ISSUE	DFL	LOHA	BSS 28/07/21



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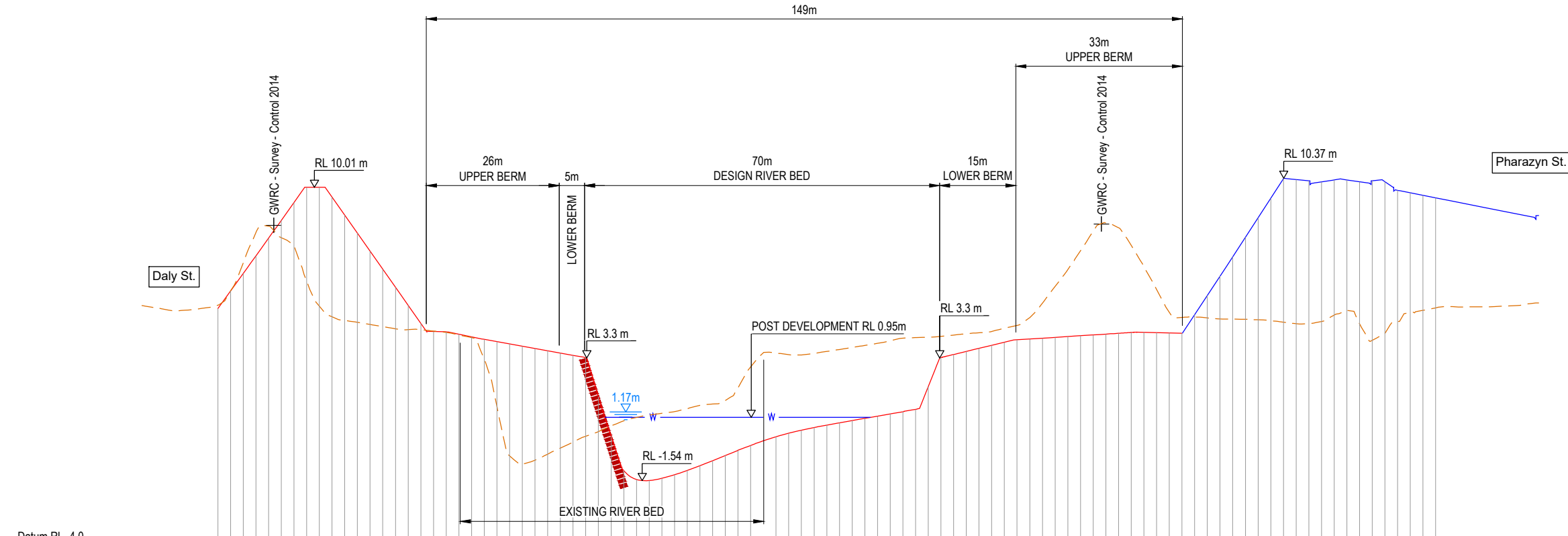
Drawn	DSW	Designer	TXH
Drafting	RBS	Design	LOHA
Check		Check	
Approved	BRUCE SYMMANS		
Date	28/07/21		
Scale	1:1000		

Client	RIVERLINK		
Project	RIVERLINK		
Title	RIVER CROSS SECTIONS SECTION 380		
Original Size	A3	Drawing No:	A16-4381-SB406
Rev:	H		

**LEGEND**

- PROPOSED STOPBANK AND RIVERWORKS DESIGN
- PROPOSED MELLING INTERCHANGE DESIGN
- EXISTING GROUND (2019 AND 2014 LIDAR COMBINED)
- PROPOSED ROCK RIPRAP

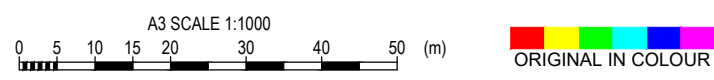
- NOTES:**
- DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
  - LEVEL DATUM: LINZ (MSL) WELLINGTON VERTICAL DATUM 1953.
  - DIMENSIONS SHOWN HAVE BEEN PULLED DIRECTLY FROM THE DIMENSIONS IN THE DESIGN CAD FILE. THESE SHOW WHAT WE HAVE DESIGNED TO AND MAY NOT LINE UP WITH THE DISTINCT POINTS ON THE SECTIONS DESIGN FILE, SUPPLIED BY GWRC 14.01.2021.
  - 7 DAY MALF WATER LEVEL STANDS FOR 7 DAY MEAN ANNUAL LOW FLOW WATER LEVEL.
  - 2019 LIDAR SOMETIMES PICKED UP WATER LEVEL AND NOT RIVERBED LEVEL. WHERE THIS HAS HAPPENED THE 2014 DESIGN RIVER BED LEVEL WAS USED AS EXISTING RIVER BED LEVEL.
  - EXISTING RIVER BED HAS BEEN INTERPRETED FROM LIDAR INFORMATION.



Datum RL -4.0

OFFSET	COMBINED SURVEY DEM2014-LIDAR2019(m)	DESIGN STOPBANK RIVERBED LEVEL(m)	MELLING INTERCHANGE LEVEL(m)
0.00	5.20		
2.50	5.26		
5.00	5.37		
7.50	5.93	5.24	
10.00	7.04	5.93	
12.50	8.23	6.62	
15.00	8.49	7.32	
17.50	8.03	8.01	
20.00	7.70	8.71	
22.50	6.31	9.42	
25.00	5.34	10.01	
27.50	4.91	10.01	
30.00	4.77	9.63	
32.50	4.70	8.92	
35.00	4.62	8.21	
37.50	4.53	7.50	
40.00	4.44	6.79	
42.50	4.41	6.08	
45.00	4.41	5.37	
47.50	4.35	4.65	
50.00	4.30	4.33	
52.50	4.20	4.32	
55.00	4.10	4.23	
57.50	3.24	4.02	
60.00	1.38	3.94	
62.50	-0.57	3.85	
65.00	-0.90	3.76	
67.50	-0.73	3.67	
70.00	-0.49	3.58	
72.50	-0.25	3.49	
75.00	-0.02	3.40	
77.50	0.21	3.31	
80.00	0.39	3.22	
82.50	0.62	3.13	
85.00	0.82	3.04	
87.50	0.95	2.95	
90.00	1.04	2.86	
92.50	1.11	2.77	
95.00	1.18	2.68	
97.50	1.30	2.59	
100.00	1.43	2.50	
102.50	1.48	2.41	
105.00	1.62	2.32	
107.50	1.72	2.23	
110.00	1.95	2.14	
112.50	3.50	2.05	
115.00	3.49	1.96	
117.50	3.43	1.87	
120.00	3.42	1.78	
122.50	3.47	1.69	
125.00	3.55	1.60	
127.50	3.63	1.51	
130.00	3.71	1.42	
132.50	3.79	1.33	
135.00	3.87	1.24	
137.50	3.97	1.15	
140.00	4.07	1.06	
142.50	4.10	0.97	
145.00	4.11	0.88	
147.50	4.15	0.79	
150.00	4.20	0.70	
152.50	4.25	0.61	
155.00	4.29	0.52	
157.50	4.34	0.43	
160.00	4.46	0.34	
162.50	4.58	0.25	
165.00	4.89	0.16	
167.50	5.46	0.07	
170.00	6.11	0.00	
172.50	6.77	0.00	
175.00	7.51	0.00	
177.50	8.29	0.00	
180.00	8.61	0.00	
182.50	8.43	0.00	
185.00	7.73	0.00	
187.50	6.89	0.00	
190.00	5.99	0.00	
192.50	5.10	0.00	
195.00	4.89	0.00	
197.50	4.90	0.00	
200.00	4.87	0.00	
202.50	4.83	0.00	
205.00	4.83	0.00	
207.50	4.81	0.00	
210.00	4.80	0.00	
212.50	4.76	0.00	
215.00	4.70	0.00	
217.50	4.64	0.00	
220.00	4.65	0.00	
222.50	4.73	0.00	
225.00	4.98	0.00	
227.50	5.16	0.00	
230.00	4.63	0.00	
232.50	3.99	0.00	
235.00	4.26	0.00	
237.50	4.73	0.00	
240.00	5.08	0.00	
242.50	5.17	0.00	
245.00	5.27	0.00	
	9.69		

**SECTION 390 RIVER CROSS SECTION**  
 SCALE 1: 1000 H  
 1: 200 V



**CONSENT ISSUE**

D	DESIGN FREEZE 2 - MELLING UPDATE	RHTA	LOHA	4/09/21		
E	DESIGN FREEZE 2 - RESOURCE CONSENT	IARA	LOHA	5/07/21		
F	DF2 - RESOURCE CONSENT AMENDMENTS	RHTA	LOHA	18/05/21		
G	DF2 - RIPRAP AMENDMENTS	DSW	LOHA	15/06/21		
H	CONSENT ISSUE	DFL	LOHA	BSS 28/07/21		
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Checked	Approved	Date



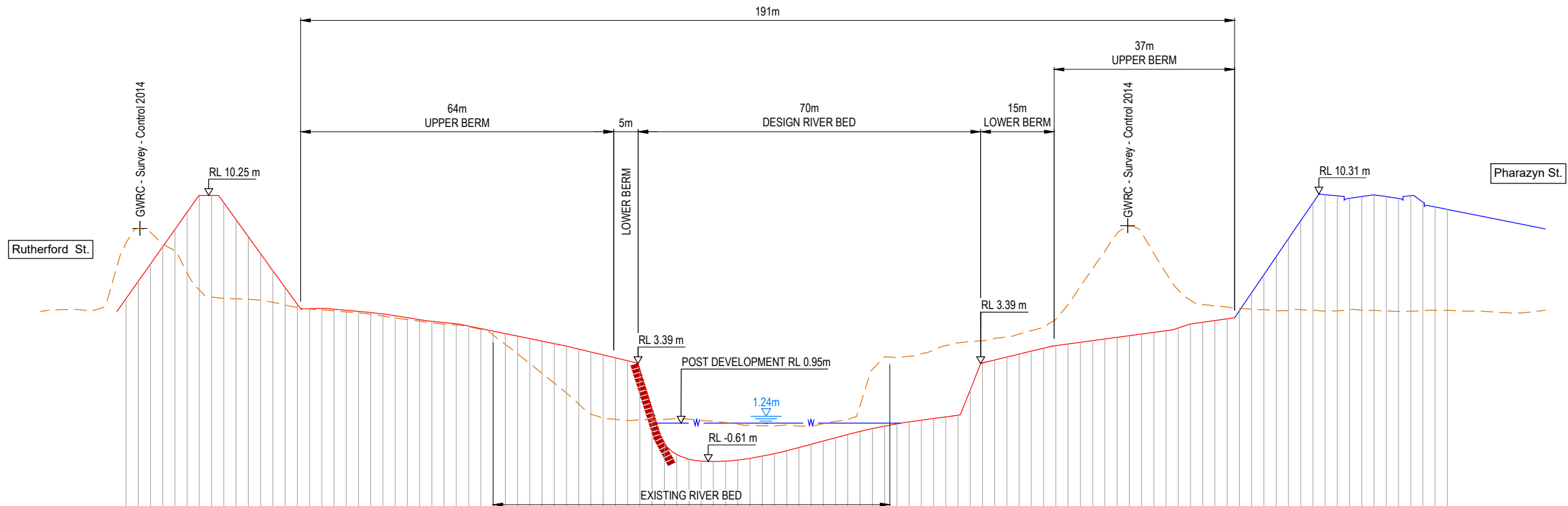
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Drawn	DSW	Designer	TXH
Drafting Check	RBS	Design Check	LOHA
Approved	BRUCE SYMMANS		
Date	28/07/21		
Scale	1:1000		

Client	<b>RIVERLINK</b>		
Project	<b>RIVERLINK</b>		
Title	<b>RIVER CROSS SECTIONS SECTION 390</b>		
Original Size	<b>A3</b>	Drawing No:	<b>A16-4381-SB407</b>
		Rev:	<b>H</b>

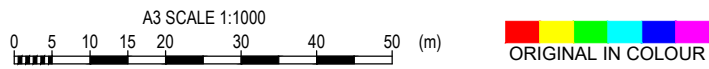
LEGEND	
	PROPOSED STOPBANK AND RIVERWORKS DESIGN
	PROPOSED MELLING INTERCHANGE DESIGN
	EXISTING GROUND (2019 AND 2014 LIDAR COMBINED)
	PROPOSED ROCK RIPRAP

- NOTES:
- DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
  - LEVEL DATUM: LINZ (MSL) WELLINGTON VERTICAL DATUM 1953.
  - DIMENSIONS SHOWN HAVE BEEN PULLED DIRECTLY FROM THE DIMENSIONS IN THE DESIGN CAD FILE. THESE SHOW WHAT WE HAVE DESIGNED TO AND MAY NOT LINE UP WITH THE DISTINCT POINTS ON THE SECTIONS DESIGN FILE, SUPPLIED BY GWRC 14.01.2021.
  - 7 DAY MALF WATER LEVEL STANDS FOR 7 DAY MEAN ANNUAL LOW FLOW WATER LEVEL.
  - 2019 LIDAR SOMETIMES PICKED UP WATER LEVEL AND NOT RIVERBED LEVEL. WHERE THIS HAS HAPPENED THE 2014 DESIGN RIVER BED LEVEL WAS USED AS EXISTING RIVER BED LEVEL.
  - EXISTING RIVER BED HAS BEEN INTERPRETED FROM LIDAR INFORMATION.



Datum RL -3.0	
MELLING INTERCHANGE LEVEL(m)	5.55 6.28 7.01 7.75 8.48 9.21 9.95 10.28 10.23 10.13 10.21 10.28 10.20 10.13 10.24 9.98 9.88
DESIGN STOPBANK RIVERBED LEVEL(m)	6.05 6.75 7.46 8.16 8.87 9.58 10.25 10.25 9.96 9.26 8.56 7.87 7.18 6.49 5.81 5.63 5.64 5.61 5.56 5.52 5.46 5.41 5.33 5.34 5.25 5.18 5.12 5.12 5.06 5.06 5.01 4.96 4.92 4.81 4.71 4.61 4.51 4.41 4.30 4.20 4.20 4.10 3.98 3.86 3.74 3.62 3.50 3.33 3.13 1.47 0.14 -0.31 -0.52 -0.59 -0.61 -0.59 -0.55 -0.48 -0.39 -0.28 -0.17 -0.04 0.09 0.23 0.36 0.49 0.62 0.73 0.84 0.93 1.01 1.08 1.14 1.14 1.22 1.29 2.32 3.42 3.54 3.66 3.78 3.90 4.02 4.12 4.19 4.26 4.33 4.39 4.46 4.53 4.60 4.66 4.73 4.84 5.00 5.07 5.14 5.22
COMBINED SURVEY DEM2014-LIDAR2019(m)	5.54 5.66 6.30 6.90 7.50 8.10 8.70 9.30 9.90 10.50 10.50 9.96 9.26 8.56 7.87 7.18 6.49 5.81 5.63 5.64 5.61 5.56 5.52 5.46 5.41 5.33 5.34 5.25 5.18 5.12 5.12 5.06 5.06 5.01 4.96 4.92 4.81 4.71 4.61 4.51 4.41 4.30 4.20 4.20 4.10 3.98 3.86 3.74 3.62 3.50 3.33 3.13 1.47 0.14 -0.31 -0.52 -0.59 -0.61 -0.59 -0.55 -0.48 -0.39 -0.28 -0.17 -0.04 0.09 0.23 0.36 0.49 0.62 0.73 0.84 0.93 1.01 1.08 1.14 1.14 1.22 1.29 2.32 3.42 3.54 3.66 3.78 3.90 4.02 4.12 4.19 4.26 4.33 4.39 4.46 4.53 4.60 4.66 4.73 4.84 5.00 5.07 5.14 5.22
OFFSET	0.00 2.50 5.00 7.50 10.00 12.50 15.00 17.50 20.00 22.50 25.00 27.50 30.00 32.50 35.00 37.50 40.00 42.50 45.00 47.50 50.00 52.50 55.00 57.50 60.00 62.50 65.00 67.50 70.00 72.50 75.00 77.50 80.00 82.50 85.00 87.50 90.00 92.50 95.00 97.50 100.00 102.50 105.00 107.50 110.00 112.50 115.00 117.50 120.00 122.50 125.00 127.50 130.00 132.50 135.00 137.50 140.00 142.50 145.00 147.50 150.00 152.50 155.00 157.50 160.00 162.50 165.00 167.50 170.00 172.50 175.00 177.50 180.00 182.50 185.00 187.50 190.00 192.50 195.00 197.50 200.00 202.50 205.00 207.50 210.00 212.50 215.00 217.50 220.00 222.50 225.00 227.50 230.00 232.50 235.00 237.50 240.00 242.50 245.00 247.50 250.00 252.50 255.00 257.50 260.00 262.50 265.00 267.50 270.00 272.50 275.00 277.50

SECTION 400 RIVER CROSS SECTION  
SCALE 1: 1000 H  
1: 200 V



CONSENT ISSUE

D	DESIGN FREEZE 2 - MELLING UPDATE	RHTA	LOHA	4/09/21		
E	DESIGN FREEZE 2 - RESOURCE CONSENT	IARA	LOHA	5/07/21		
F	DF2 - RESOURCE CONSENT AMENDMENTS	RHTA	LOHA	18/05/21		
G	DF2 - RIPRAP AMENDMENTS	DSW	LOHA	15/06/21		
H	CONSENT ISSUE	DFL	LOHA	BSS 28/07/21		
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Checked	Approved	Date

**RiverLink**  
Isthmus. Tonkin+Taylor GHD Holmes

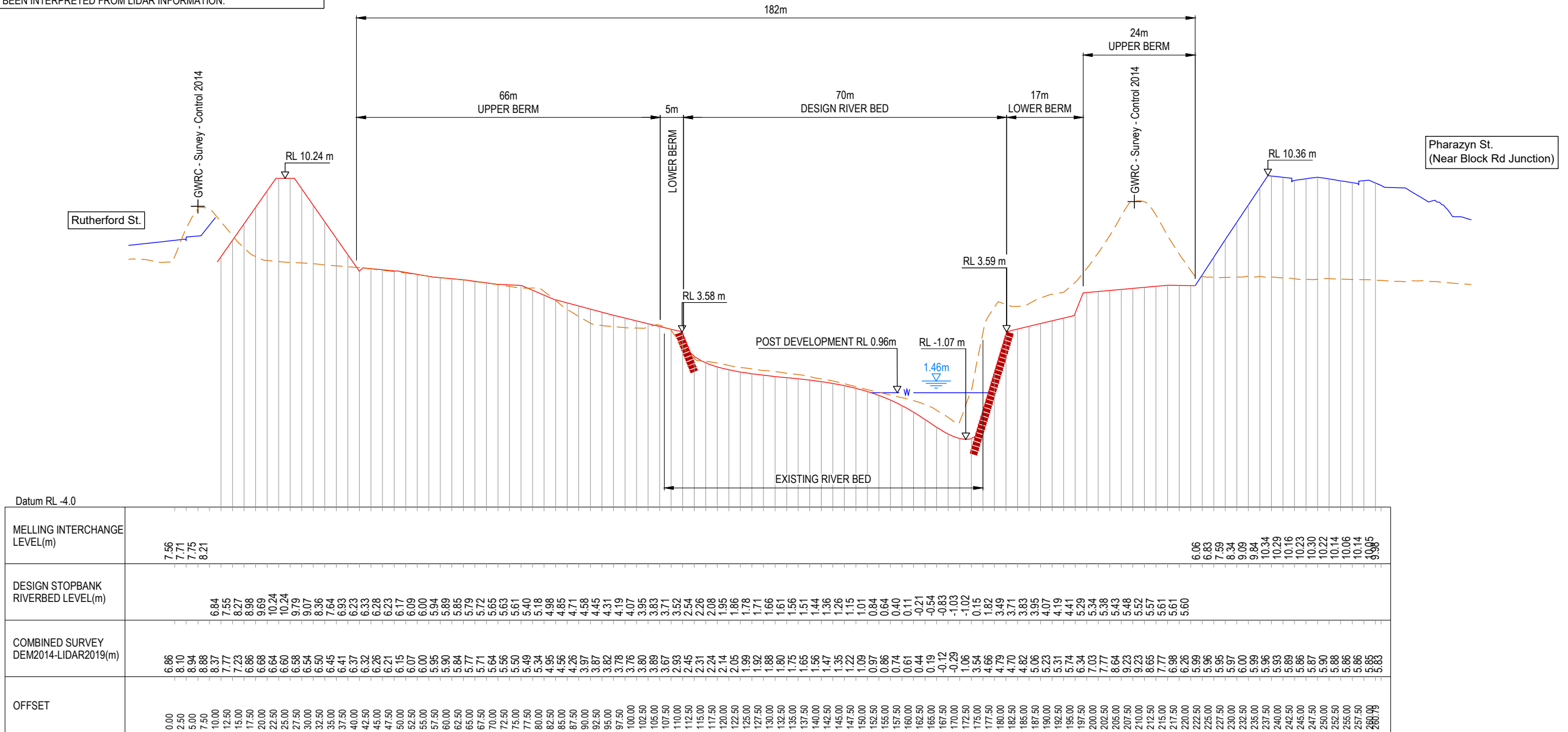
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Drawn	DSW	Designer	TXH
Drafting Check	RBS	Design Check	LOHA
Approved	BRUCE SYMMANS		
Date	28/07/21		
Scale	1:1000		

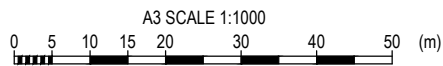
Client	<b>RIVERLINK</b>
Project	<b>RIVERLINK</b>
Title	<b>RIVER CROSS SECTIONS SECTION 400</b>
Original Size	<b>A3</b>
Drawing No:	<b>A16-4381-SB408</b>
Rev:	<b>H</b>

LEGEND	
	PROPOSED STOPBANK AND RIVERWORKS DESIGN
	PROPOSED MELLING INTERCHANGE DESIGN
	EXISTING GROUND (2019 AND 2014 LIDAR COMBINED)
	PROPOSED ROCK RIPRAP

- NOTES:**
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  - EXISTING RIVER BED HAS BEEN INTERPRETED FROM LIDAR INFORMATION.



SECTION 410 RIVER CROSS SECTION  
SCALE 1: 1000 H  
1: 200 V



ORIGINAL IN COLOUR

CONSENT ISSUE

D	DESIGN FREEZE 2 - MELLING UPDATE	RHTA	LOHA	4/09/21		
E	DESIGN FREEZE 2 - RESOURCE CONSENT	IARA	LOHA	5/07/21		
F	DF2 - RESOURCE CONSENT AMENDMENTS	RHTA	LOHA	18/05/21		
G	DF2 - RIPRAP AMENDMENTS	DSW	LOHA	15/06/21		
H	CONSENT ISSUE	DFL	LOHA	BSS 28/07/21		
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Checked	Approved	Date



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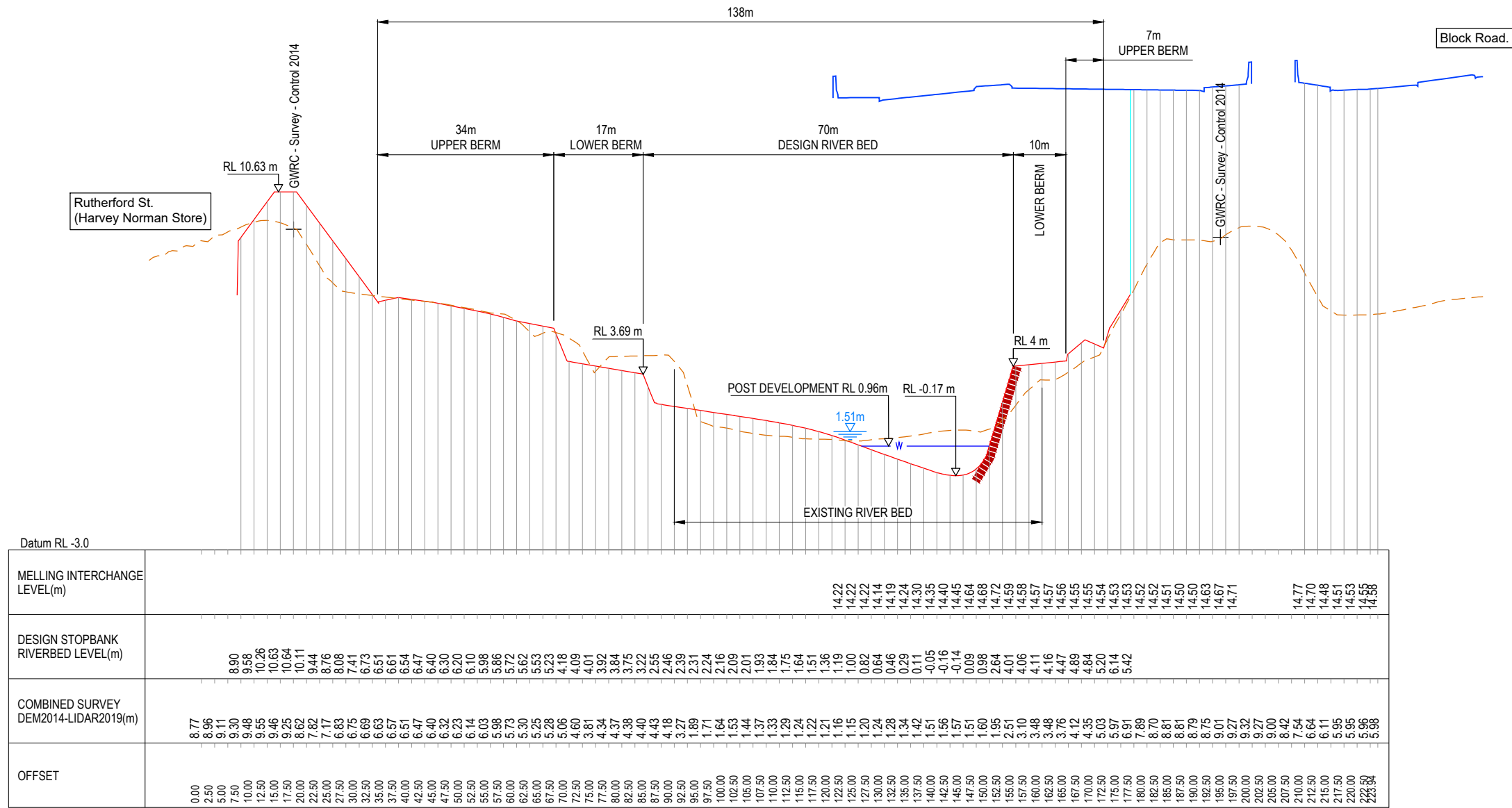
Drawn	DSW	Designer	TXH
Drafting Check	RBS	Design Check	LOHA
Approved	BRUCE SYMMANS		
Date	28/07/21		
Scale	1:1000		

Client	RIVERLINK
Project	RIVERLINK
Title	RIVER CROSS SECTIONS SECTION 410
Original Size	A3
Drawing No:	A16-4381-SB409
Rev:	H

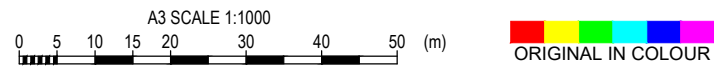


LEGEND	
	PROPOSED STOPBANK AND RIVERWORKS DESIGN
	PROPOSED MELLING INTERCHANGE DESIGN
	EXISTING GROUND (2019 AND 2014 LIDAR COMBINED)
	PROPOSED ROCK RIPRAP

- NOTES:
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  - LEVEL DATUM: LINZ (MSL) WELLINGTON VERTICAL DATUM 1953.
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  - 2019 LIDAR SOMETIMES PICKED UP WATER LEVEL AND NOT RIVERBED LEVEL. WHERE THIS HAS HAPPENED THE 2014 DESIGN RIVER BED LEVEL WAS USED AS EXISTING RIVER BED LEVEL.
  - EXISTING RIVER BED HAS BEEN INTERPRETED FROM LIDAR INFORMATION.



SECTION 420 RIVER CROSS SECTION  
SCALE 1: 1000 H  
1: 200 V



CONSENT ISSUE

D	DESIGN FREEZE 2 - MELLING UPDATE	RHTA	LOHA	4/09/21		
E	DESIGN FREEZE 2 - RESOURCE CONSENT	IARA	LOHA	5/07/21		
F	DF2 - RESOURCE CONSENT AMENDMENTS	RHTA	LOHA	18/05/21		
G	DF2 - RIPRAP AMENDMENTS	DSW	LOHA	15/06/21		
H	CONSENT ISSUE	DFL	LOHA	BSS 28/07/21		
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Checked	Approved	Date

**RiverLink**  
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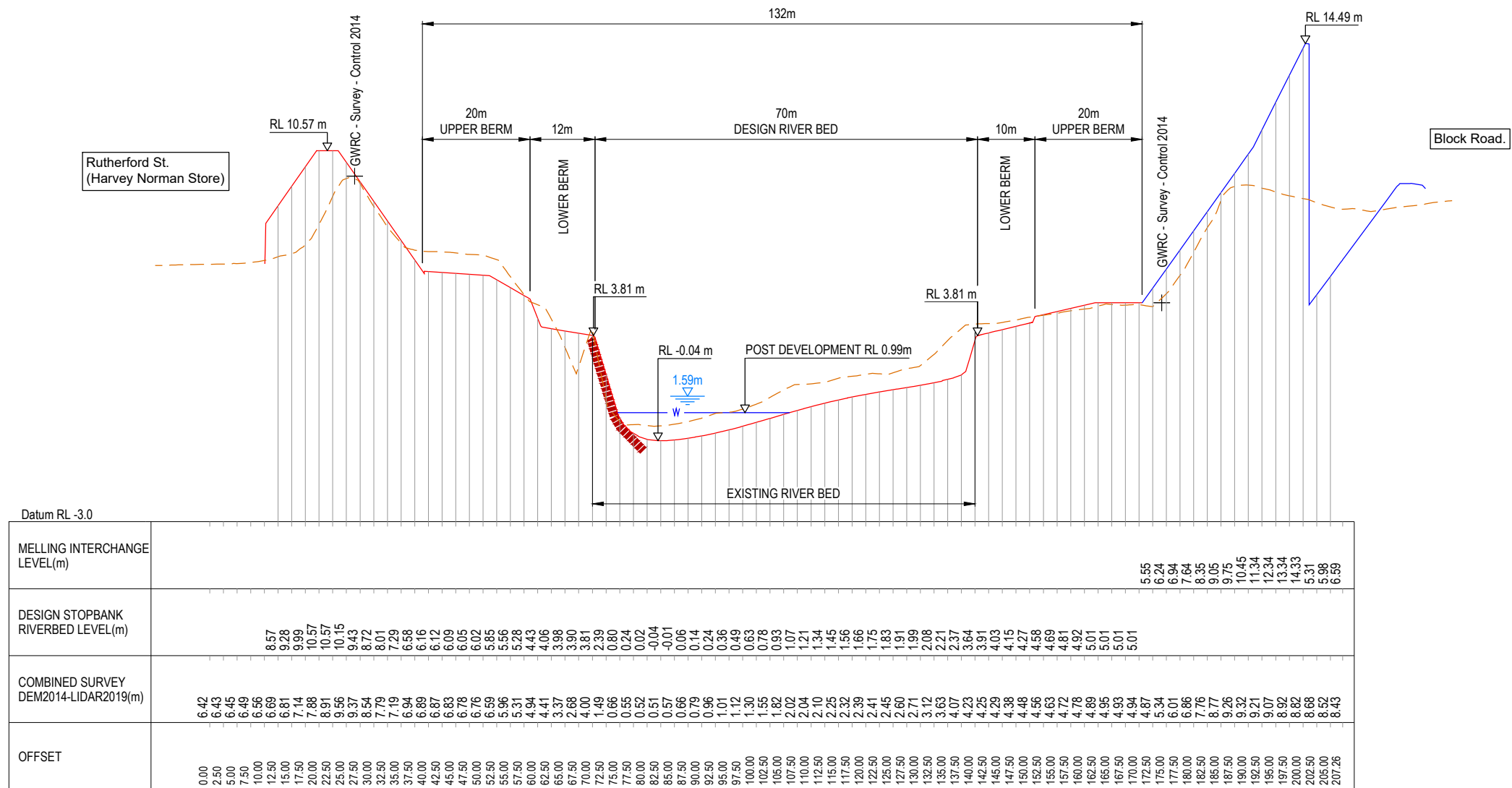
Drawn	DSW	Designer	TXH
Drafting	RBS	Design Check	LOHA
Approved	BRUCE SYMMANS		
Date	28/07/21		
Scale	1:1000		

Client	RIVERLINK		
Project	RIVERLINK		
Title	RIVER CROSS SECTIONS SECTION 420		
Original Size	A3	Drawing No:	A16-4381-SB410
Rev:	H		

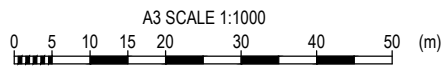
**LEGEND**

- PROPOSED STOPBANK AND RIVERWORKS DESIGN
- PROPOSED MELLING INTERCHANGE DESIGN
- EXISTING GROUND (2019 AND 2014 LIDAR COMBINED)
- PROPOSED ROCK RIPRAP

- NOTES:**
- DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
  - LEVEL DATUM: LINZ (MSL) WELLINGTON VERTICAL DATUM 1953.
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  - EXISTING RIVER BED HAS BEEN INTERPRETED FROM LIDAR INFORMATION.



SECTION 430 RIVER CROSS SECTION  
 SCALE 1: 1000 H  
 1: 200 V



ORIGINAL IN COLOUR

CONSENT ISSUE

D	DESIGN FREEZE 2 - MELLING UPDATE	RHTA	LOHA	4/09/21
E	DESIGN FREEZE 2 - RESOURCE CONSENT	IARA	LOHA	5/07/21
F	DF2 - RESOURCE CONSENT AMENDMENTS	RHTA	LOHA	18/05/21
G	DF2 - RIPRAP AMENDMENTS	DSW	LOHA	15/06/21
H	CONSENT ISSUE	DFL	LOHA	BSS 28/07/21



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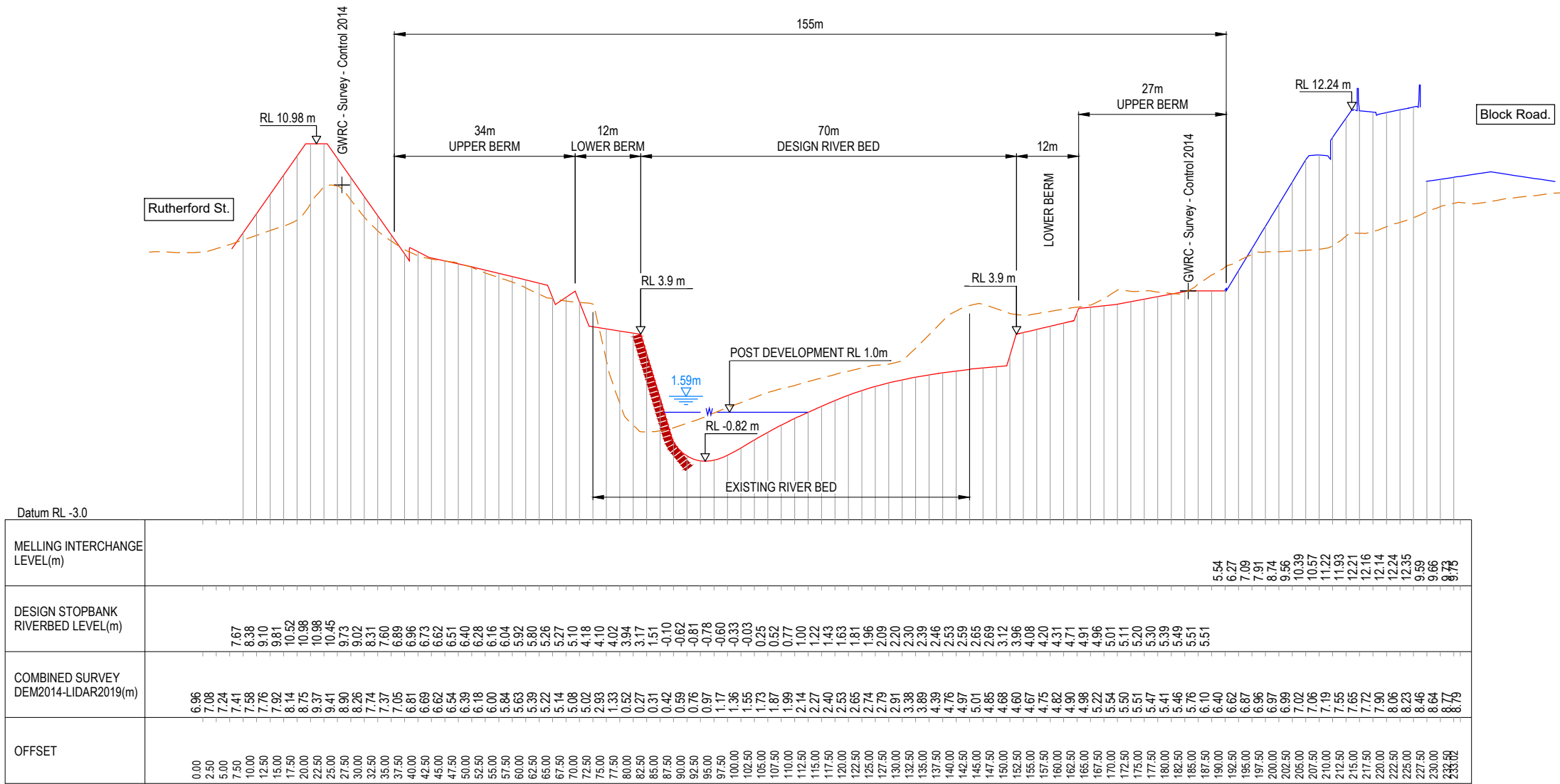
Drawn	DSW	Designer	TXH
Drafting	RBS	Design Check	LOHA
Approved	BRUCE SYMMANS		
Date	28/07/21		
Scale	1:1000		

Client	RIVERLINK		
Project	RIVERLINK		
Title	RIVER CROSS SECTIONS SECTION 430		
Original Size	A3	Drawing No:	A16-4381-SB411
Rev:	H		

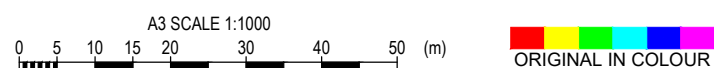
**LEGEND**

- PROPOSED STOPBANK AND RIVERWORKS DESIGN
- PROPOSED MELLING INTERCHANGE DESIGN
- - - EXISTING GROUND (2019 AND 2014 LIDAR COMBINED)
- ▄▄▄▄▄▄▄▄▄▄▄▄ PROPOSED ROCK RIPRAP

- NOTES:**
- DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
  - LEVEL DATUM: LINZ (MSL) WELLINGTON VERTICAL DATUM 1953.
  - DIMENSIONS SHOWN HAVE BEEN PULLED DIRECTLY FROM THE DIMENSIONS IN THE DESIGN CAD FILE. THESE SHOW WHAT WE HAVE DESIGNED TO AND MAY NOT LINE UP WITH THE DISTINCT POINTS ON THE SECTIONS DESIGN FILE, SUPPLIED BY GWRC 14.01.2021.
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SECTION 440 RIVER CROSS SECTION  
 SCALE 1: 1000 H, 1: 200 V



**CONSENT ISSUE**

D	DESIGN FREEZE 2 - MELLING UPDATE	RHTA	LOHA	4/09/21		
E	DESIGN FREEZE 2 - RESOURCE CONSENT	IARA	LOHA	5/07/21		
F	DF2 - RESOURCE CONSENT AMENDMENTS	RHTA	LOHA	18/05/21		
G	DF2 - RIPRAP AMENDMENTS	DSW	LOHA	15/06/21		
H	CONSENT ISSUE	DFL	LOHA	BSS 28/07/21		
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Checked	Approved	Date

**RiverLink**

**Isthmus.** **Tonkin+Taylor** **GHD** **Holmes**

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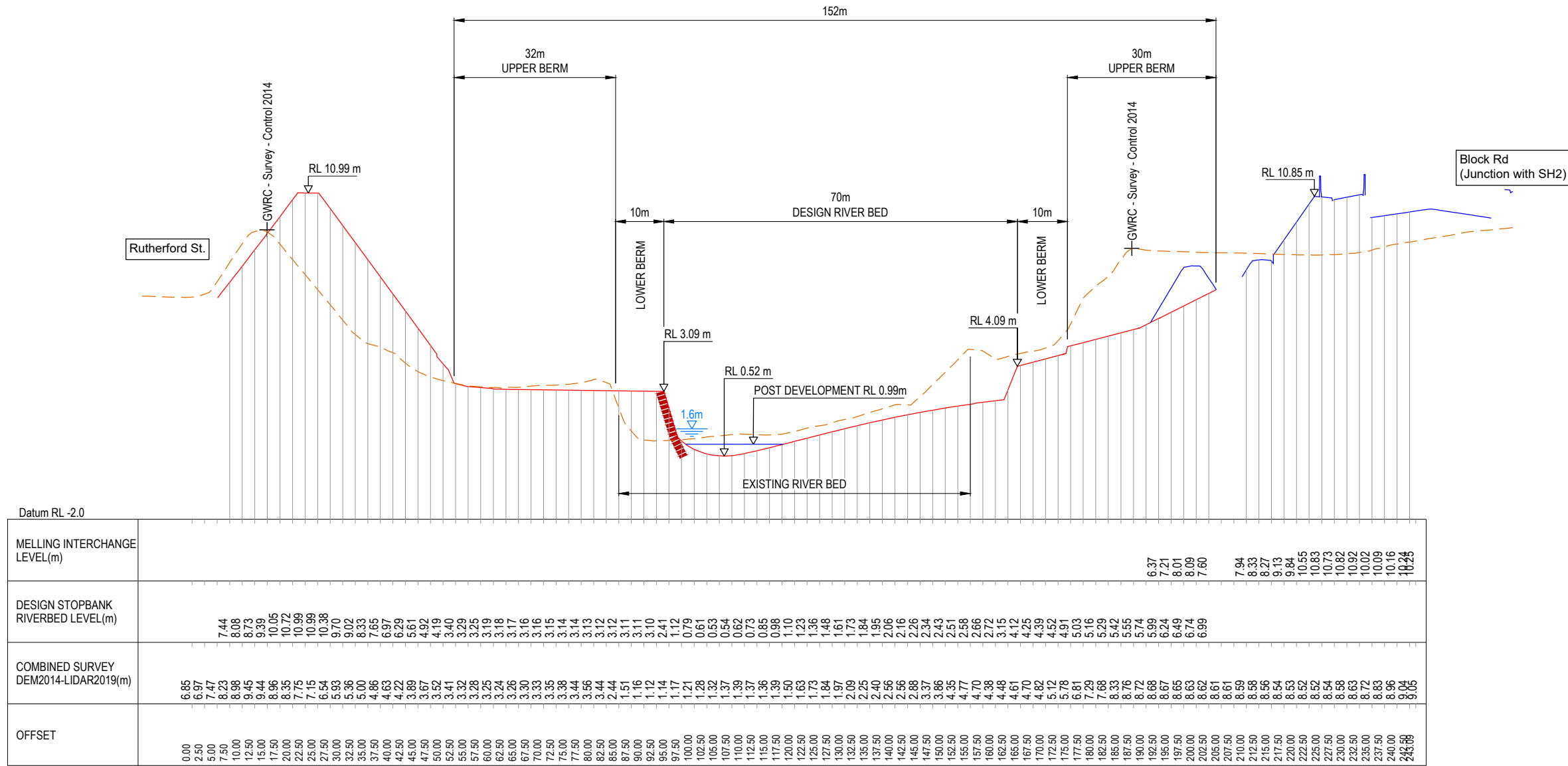
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Drawn	DSW	Designer	TXH
Drafting Check	RBS	Design Check	LOHA
Approved	BRUCE SYMMANS		
Date	28/07/21		
Scale	1:1000		

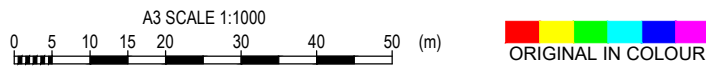
Client	<b>RIVERLINK</b>		
Project	<b>RIVERLINK</b>		
Title	<b>RIVER CROSS SECTIONS SECTION 440</b>		
Original Size	<b>A3</b>	Drawing No:	<b>A16-4381-SB412</b>
Rev:	<b>H</b>		

LEGEND	
	PROPOSED STOPBANK AND RIVERWORKS DESIGN
	PROPOSED MELLING INTERCHANGE DESIGN
	EXISTING GROUND (2019 AND 2014 LIDAR COMBINED)
	PROPOSED ROCK RIPRAP

- NOTES:
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SECTION 450 RIVER CROSS SECTION  
SCALE 1: 1000 H, 1: 200 V



CONSENT ISSUE

D	DESIGN FREEZE 2 - MELLING UPDATE	RHTA	LOHA	4/09/21		
E	DESIGN FREEZE 2 - RESOURCE CONSENT	IARA	LOHA	5/07/21		
F	DF2 - RESOURCE CONSENT AMENDMENTS	RHTA	LOHA	18/05/21		
G	DF2 - RIPRAP AMENDMENTS	DSW	LOHA	15/06/21		
H	CONSENT ISSUE	DFL	LOHA	BSS 28/07/21		
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Checked	Approved	Date

**RiverLink**  
Isthmus. Tonkin+Taylor GHD Holmes

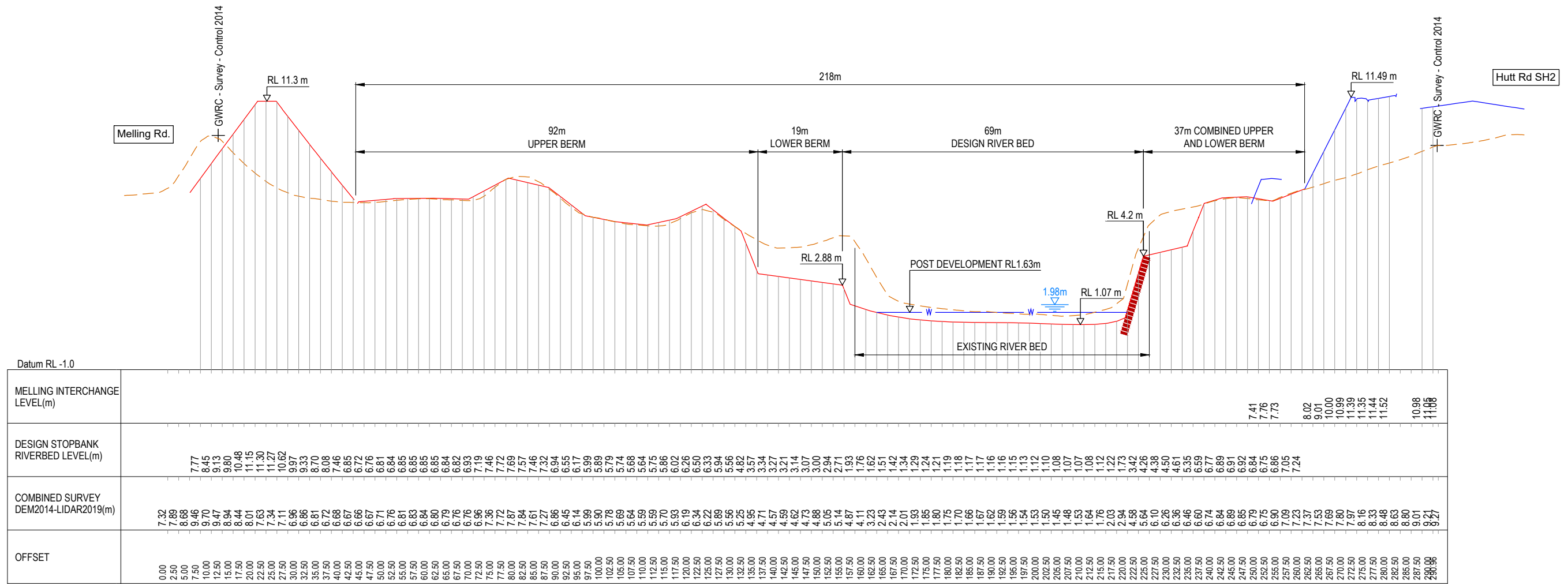
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Drawn	DSW	Designer	TXH
Drafting Check	RBS	Design Check	LOHA
Approved	BRUCE SYMMANS		
Date	28/07/21		
Scale	1:1000		

Client	RIVERLINK		
Project	RIVERLINK		
Title	RIVER CROSS SECTIONS SECTION 450		
Original Size	A3	Drawing No:	A16-4381-SB413
Rev:	H		

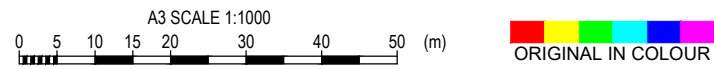
LEGEND	
	PROPOSED STOPBANK AND RIVERWORKS DESIGN
	PROPOSED MELLING INTERCHANGE DESIGN
	EXISTING GROUND (2019 AND 2014 LIDAR COMBINED)
	PROPOSED ROCK RIPRAP

- NOTES:
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Offset	Combined Survey DEM2014-LIDAR2019(m)	Design Stopbank Riverbed Level(m)	Melling Interchange Level(m)
0.00	7.32		
2.50	7.89		
5.00	8.68		
7.50	9.46	7.77	
10.00	9.70	8.45	
12.50	9.47	9.13	
15.00	8.94	9.80	
17.50	8.44	10.48	
20.00	8.01	11.15	
22.50	7.63	11.30	
25.00	7.34	11.27	
27.50	7.11	10.62	
30.00	6.96	9.97	
32.50	6.86	9.33	
35.00	6.81	8.70	
37.50	6.72	8.08	
40.00	6.66	7.46	
42.50	6.67	6.85	
45.00	6.66	6.72	
47.50	6.67	6.76	
50.00	6.71	6.81	
52.50	6.76	6.84	
55.00	6.81	6.85	
57.50	6.83	6.85	
60.00	6.84	6.85	
62.50	6.80	6.85	
65.00	6.79	6.84	
67.50	6.76	6.82	
70.00	6.76	6.93	
72.50	6.96	7.19	
75.00	7.36	7.46	
77.50	7.72	7.72	
80.00	7.87	7.69	
82.50	7.84	7.57	
85.00	7.61	7.46	
87.50	7.27	7.32	
90.00	6.86	6.94	
92.50	6.45	6.55	
95.00	6.14	6.17	
97.50	5.99	5.99	
100.00	5.90	5.89	
102.50	5.78	5.79	
105.00	5.69	5.74	
107.50	5.64	5.68	
110.00	5.59	5.64	
112.50	5.59	5.75	
115.00	5.70	5.86	
117.50	5.93	6.02	
120.00	6.19	6.26	
122.50	6.34	6.50	
125.00	6.22	6.33	
127.50	5.89	5.94	
130.00	5.56	5.56	
132.50	5.25	4.82	
135.00	4.95	3.57	
137.50	4.71	3.34	
140.00	4.57	3.27	
142.50	4.59	3.21	
145.00	4.62	3.14	
147.50	4.73	3.07	
150.00	4.88	3.00	
152.50	5.05	2.94	
155.00	5.14	2.71	
157.50	4.87	1.93	
160.00	4.11	1.76	
162.50	3.23	1.62	
165.00	2.43	1.51	
167.50	2.14	1.42	
170.00	2.01	1.34	
172.50	1.93	1.29	
175.00	1.85	1.24	
177.50	1.80	1.21	
180.00	1.75	1.19	
182.50	1.70	1.18	
185.00	1.66	1.17	
187.50	1.67	1.17	
190.00	1.62	1.16	
192.50	1.59	1.16	
195.00	1.56	1.15	
197.50	1.54	1.13	
200.00	1.53	1.12	
202.50	1.50	1.10	
205.00	1.45	1.08	
207.50	1.48	1.07	
210.00	1.53	1.07	
212.50	1.64	1.08	
215.00	1.76	1.12	
217.50	2.03	1.22	
220.00	2.94	1.73	
222.50	4.58	3.42	
225.00	5.64	4.26	
227.50	6.10	4.88	
230.00	6.26	4.50	
232.50	6.36	4.61	
235.00	6.46	5.35	
237.50	6.60	6.59	
240.00	6.74	6.77	
242.50	6.84	6.89	
245.00	6.89	6.91	
247.50	6.85	6.92	
250.00	6.79	6.84	
252.50	6.75	6.86	
255.00	6.90	6.86	
257.50	7.09	7.05	
260.00	7.23	7.23	
262.50	7.37	7.37	
265.00	7.53	7.53	
267.50	7.69	7.69	
270.00	7.80	7.80	
272.50	7.97	7.97	
275.00	8.16	8.16	
277.50	8.33	8.33	
280.00	8.48	8.48	
282.50	8.63	8.63	
285.00	8.80	8.80	
287.50	9.01	9.01	
290.00	9.27	11.08	

SECTION 460 RIVER CROSS SECTION  
SCALE 1: 1000 H  
1: 200 V



CONSENT ISSUE

D	DESIGN FREEZE 2 - MELLING UPDATE	RHTA	LOHA	4/09/21		
E	DESIGN FREEZE 2 - RESOURCE CONSENT	IARA	LOHA	5/07/21		
F	DF2 - RESOURCE CONSENT AMENDMENTS	RHTA	LOHA	18/05/21		
G	DF2 - RIPRAP AMENDMENTS	DSW	LOHA	15/06/21		
H	CONSENT ISSUE	DFL	LOHA	BSS 28/07/21		
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Checked	Approved	Date

**RiverLink**  
Isthmus. Tonkin+Taylor GHD Holmes

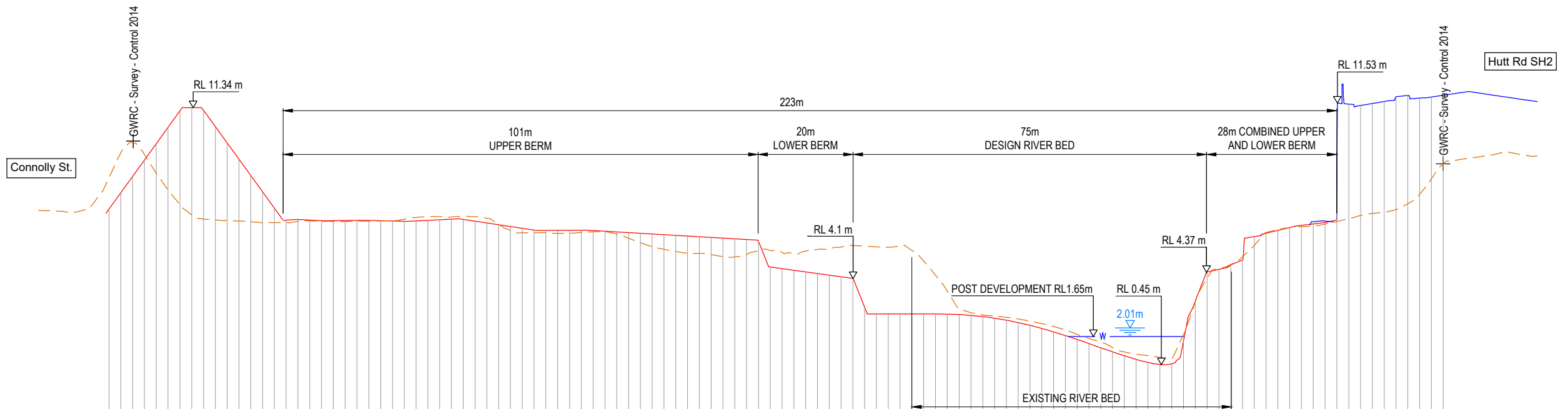
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Drawn	DSW	Designer	TXH
Drafting Check	RBS	Design Check	LOHA
Approved	BRUCE SYMMANS		
Date	28/07/21		
Scale	1:1000		

Client	RIVERLINK		
Project	RIVERLINK		
Title	RIVER CROSS SECTIONS SECTION 460		
Original Size	A3	Drawing No:	A16-4381-SB414
Rev:	H		

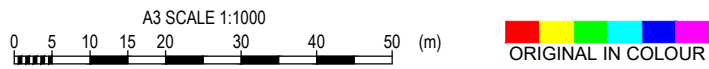
LEGEND	
	PROPOSED STOPBANK AND RIVERWORKS DESIGN
	PROPOSED MELLING INTERCHANGE DESIGN
	EXISTING GROUND (2019 AND 2014 LIDAR COMBINED)
	PROPOSED ROCK RIPRAP

- NOTES:
- DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
  - LEVEL DATUM: LINZ (MSL) WELLINGTON VERTICAL DATUM 1953.
  - DIMENSIONS SHOWN HAVE BEEN PULLED DIRECTLY FROM THE DIMENSIONS IN THE DESIGN CAD FILE. THESE SHOW WHAT WE HAVE DESIGNED TO AND MAY NOT LINE UP WITH THE DISTINCT POINTS ON THE SECTIONS DESIGN FILE, SUPPLIED BY GWRC 14.01.2021.
  - 7 DAY MALF WATER LEVEL STANDS FOR 7 DAY MEAN ANNUAL LOW FLOW WATER LEVEL.
  - 2019 LIDAR SOMETIMES PICKED UP WATER LEVEL AND NOT RIVERBED LEVEL. WHERE THIS HAS HAPPENED THE 2014 DESIGN RIVER BED LEVEL WAS USED AS EXISTING RIVER BED LEVEL.
  - EXISTING RIVER BED HAS BEEN INTERPRETED FROM LIDAR INFORMATION.



Datum RL -2.0	
MELLING INTERCHANGE LEVEL(m)	6.51 6.53 7.92 11.49 11.43 11.52 11.60 11.80 11.85 11.74 11.79 11.87
DESIGN STOPBANK RIVERBED LEVEL(m)	7.04 7.74 8.43 9.12 9.82 10.51 11.20 11.34 11.23 10.54 9.85 9.16 8.46 7.77 7.08 6.47 6.57 6.60 6.58 6.54 6.55 6.52 6.55 6.56 6.57 6.54 6.57 6.53 6.53 6.55 6.54 6.61 6.54 6.54 6.73 6.56 6.59 6.61 6.61 6.60 6.63 6.53 6.45 6.46 6.38 6.40 6.30 6.14 6.03 6.23 6.04 6.15 6.14 6.01 6.15 6.02 6.15 6.15 6.08 6.13 6.10 6.07 5.98 6.07 5.82 6.04 6.01 5.99 5.45 5.99 5.35 5.96 125.00 5.24 5.93 5.90 5.17 5.87 5.84 5.11 5.91 5.02 5.78 5.11 5.75 5.68 5.28 5.68 145.00 5.29 4.59 147.50 5.21 4.52 150.00 5.18 4.45 152.50 5.26 4.38 155.00 5.33 4.31 157.50 5.37 4.24 160.00 5.44 4.17 162.50 5.50 4.10 165.00 5.47 2.87 167.50 5.44 2.60 170.00 5.43 2.60 172.50 5.48 2.60 175.00 5.30 2.60 180.00 4.84 2.60 182.50 4.24 2.59 185.00 2.81 2.88 187.50 2.66 2.54 190.00 2.56 2.49 192.50 2.51 2.42 195.00 2.46 2.34 197.50 2.39 2.23 200.00 2.29 2.12 202.50 2.19 1.99 205.00 2.07 1.84 207.50 1.93 1.69 210.00 1.73 1.52 212.50 1.56 1.34 215.00 1.41 1.17 217.50 1.18 0.99 220.00 0.99 0.83 222.50 0.90 0.67 225.00 0.83 0.55 227.50 0.76 0.46 230.00 0.69 0.49 232.50 1.72 1.45 235.00 3.10 3.15 237.50 4.10 4.37 240.00 4.52 4.48 242.50 4.70 4.67 245.00 5.02 4.88 247.50 5.51 5.88 250.00 6.05 6.02 252.50 6.14 6.14 255.00 6.26 6.35 257.50 6.29 6.33 260.00 6.41 6.41 262.50 6.51 6.51 265.00 6.63 6.63 267.50 6.77 6.77 270.00 6.86 6.86 272.50 6.90 6.90 275.00 7.02 7.02 277.50 7.27 7.27 280.00 7.67 7.67 282.50 8.33 8.33 285.00 8.96 8.96 287.50
COMBINED SURVEY DEM2014-LIDAR2019(m)	7.02 7.51 8.37 9.43 9.85 9.36 8.82 7.85 7.23 6.80 6.62 6.58 6.55 6.54 6.50 6.47 7.77 6.47 6.57 6.60 6.52 6.54 6.55 6.52 6.55 6.56 6.57 6.54 6.57 6.53 6.53 6.55 6.54 6.61 6.54 6.54 6.73 6.56 6.59 6.61 6.61 6.60 6.63 6.53 6.45 6.46 6.38 6.40 6.30 6.14 6.03 6.23 6.04 6.15 6.14 6.01 6.15 6.02 6.15 6.15 6.08 6.13 6.10 6.07 5.98 6.07 5.82 6.04 6.01 5.99 5.45 5.99 5.35 5.96 125.00 5.24 5.93 5.90 5.17 5.87 5.84 5.11 5.91 5.02 5.78 5.11 5.75 5.68 5.28 5.68 145.00 5.29 4.59 147.50 5.21 4.52 150.00 5.18 4.45 152.50 5.26 4.38 155.00 5.33 4.31 157.50 5.37 4.24 160.00 5.44 4.17 162.50 5.50 4.10 165.00 5.47 2.87 167.50 5.44 2.60 170.00 5.43 2.60 172.50 5.48 2.60 175.00 5.30 2.60 180.00 4.84 2.60 182.50 4.24 2.59 185.00 2.81 2.88 187.50 2.66 2.54 190.00 2.56 2.49 192.50 2.51 2.42 195.00 2.46 2.34 197.50 2.39 2.23 200.00 2.29 2.12 202.50 2.19 1.99 205.00 2.07 1.84 207.50 1.93 1.69 210.00 1.73 1.52 212.50 1.56 1.34 215.00 1.41 1.17 217.50 1.18 0.99 220.00 0.99 0.83 222.50 0.90 0.67 225.00 0.83 0.55 227.50 0.76 0.46 230.00 0.69 0.49 232.50 1.72 1.45 235.00 3.10 3.15 237.50 4.10 4.37 240.00 4.52 4.48 242.50 4.70 4.67 245.00 5.02 4.88 247.50 5.51 5.88 250.00 6.05 6.02 252.50 6.14 6.14 255.00 6.26 6.35 257.50 6.29 6.33 260.00 6.41 6.41 262.50 6.51 6.51 265.00 6.63 6.63 267.50 6.77 6.77 270.00 6.86 6.86 272.50 6.90 6.90 275.00 7.02 7.02 277.50 7.27 7.27 280.00 7.67 7.67 282.50 8.33 8.33 285.00 8.96 8.96 287.50
OFFSET	0.00 2.50 5.00 7.50 10.00 12.50 15.00 17.50 20.00 22.50 25.00 27.50 30.00 32.50 35.00 37.50 40.00 42.50 45.00 47.50 50.00 52.50 55.00 57.50 60.00 62.50 65.00 67.50 70.00 72.50 75.00 77.50 80.00 82.50 85.00 87.50 90.00 92.50 95.00 97.50 100.00 102.50 105.00 107.50 110.00 112.50 115.00 117.50 120.00 122.50 125.00 127.50 130.00 132.50 135.00 137.50 140.00 142.50 145.00 147.50 150.00 152.50 155.00 157.50 160.00 162.50 165.00 167.50 170.00 172.50 175.00 180.00 182.50 185.00 187.50 190.00 192.50 195.00 197.50 200.00 202.50 205.00 207.50 210.00 212.50 215.00 217.50 220.00 222.50 225.00 227.50 230.00 232.50 235.00 237.50 240.00 242.50 245.00 247.50 250.00 252.50 255.00 257.50 260.00 262.50 265.00 267.50 270.00 272.50 275.00 277.50 280.00 282.50 285.00 287.50

SECTION 470 RIVER CROSS SECTION  
SCALE 1: 1000 H  
1: 200 V



CONSENT ISSUE

D	DESIGN FREEZE 2 - MELLING UPDATE	RHTA	LOHA	4/09/21		
E	DESIGN FREEZE 2 - RESOURCE CONSENT	IARA	LOHA	5/07/21		
F	DF2 - RESOURCE CONSENT AMENDMENTS	RHTA	LOHA	18/05/21		
G	DF2 - RIPRAP AMENDMENTS	DSW	LOHA	15/06/21		
H	CONSENT ISSUE	DFL	LOHA	BSS 28/07/21		
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Checked	Approved	Date



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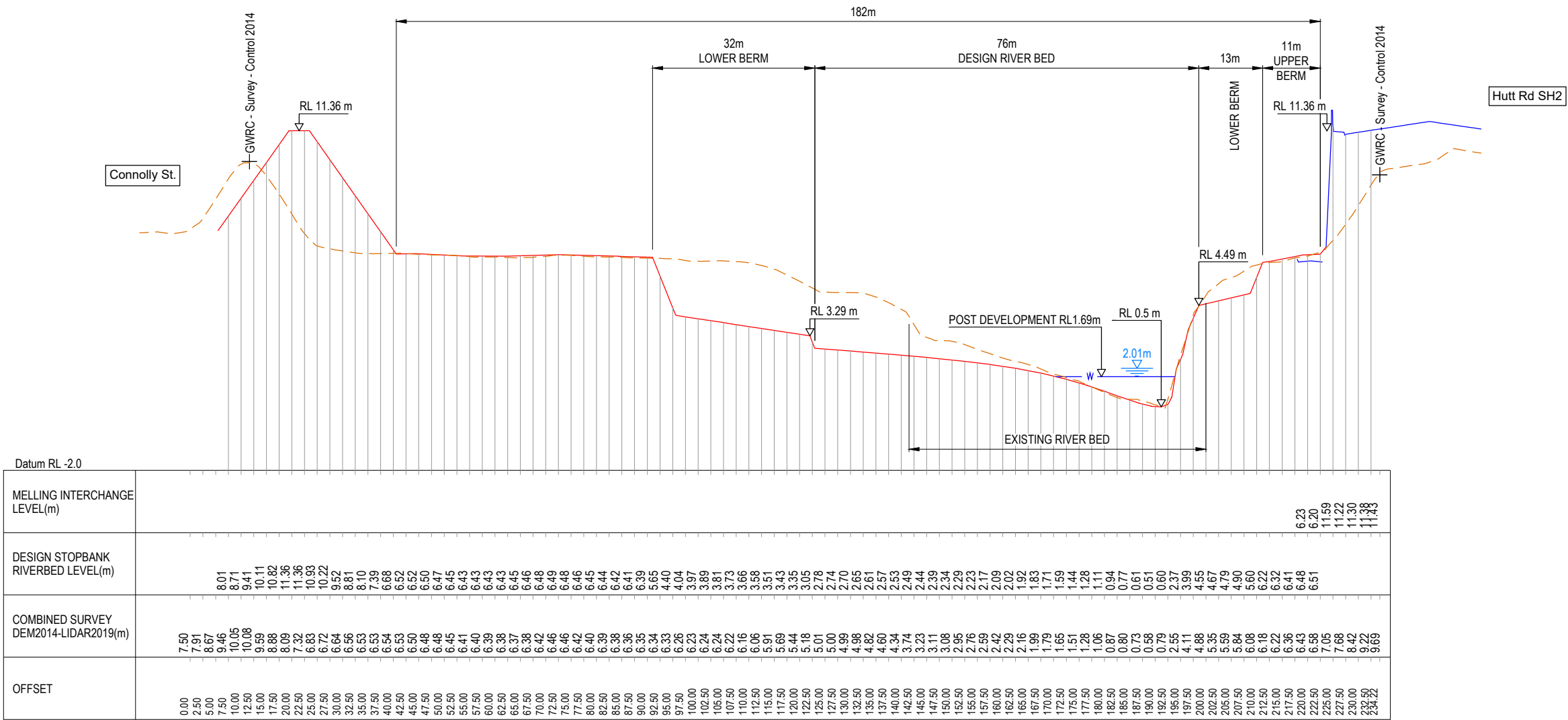
Drawn	DSW	Designer	TXH
Drafting Check	RBS	Design Check	LOHA
Approved	BRUCE SYMMANS		
Date	28/07/21		
Scale	1:1000		

Client	RIVERLINK		
Project	RIVERLINK		
Title	RIVER CROSS SECTIONS SECTION 470		
Original Size	A3	Drawing No:	A16-4381-SB415
Rev:	H		

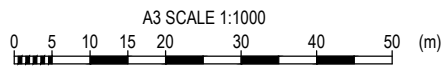


LEGEND	
	PROPOSED STOPBANK AND RIVERWORKS DESIGN
	PROPOSED MELLING INTERCHANGE DESIGN
	EXISTING GROUND (2019 AND 2014 LIDAR COMBINED)
	PROPOSED ROCK RIPRAP

- NOTES:
- DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
  - LEVEL DATUM: LINZ (MSL) WELLINGTON VERTICAL DATUM 1953.
  - DIMENSIONS SHOWN HAVE BEEN PULLED DIRECTLY FROM THE DIMENSIONS IN THE DESIGN CAD FILE. THESE SHOW WHAT WE HAVE DESIGNED TO AND MAY NOT LINE UP WITH THE DISTINCT POINTS ON THE SECTIONS DESIGN FILE, SUPPLIED BY GWRC 14.01.2021.
  - 7 DAY MALF WATER LEVEL STANDS FOR 7 DAY MEAN ANNUAL LOW FLOW WATER LEVEL.
  - 2019 LIDAR SOMETIMES PICKED UP WATER LEVEL AND NOT RIVERBED LEVEL. WHERE THIS HAS HAPPENED THE 2014 DESIGN RIVER BED LEVEL WAS USED AS EXISTING RIVER BED LEVEL.
  - EXISTING RIVER BED HAS BEEN INTERPRETED FROM LIDAR INFORMATION.



SECTION 480 RIVER CROSS SECTION  
 SCALE 1: 1000 H  
 1: 200 V



ORIGINAL IN COLOUR

CONSENT ISSUE

D	DESIGN FREEZE 2 - MELLING UPDATE	RHTA	LOHA	4/09/21
E	DESIGN FREEZE 2 - RESOURCE CONSENT	IARA	LOHA	5/07/21
F	DF2 - RESOURCE CONSENT AMENDMENTS	RHTA	LOHA	18/05/21
G	DF2 - RIPRAP AMENDMENTS	DSW	LOHA	15/06/21
H	CONSENT ISSUE	DFL	LOHA	BSS 28/07/21

No	Revision	Note	Drawn	Checked	Approved	Date

RiverLink

Isthmus. Tonkin+Taylor GHD Holmes

DO NOT SCALE

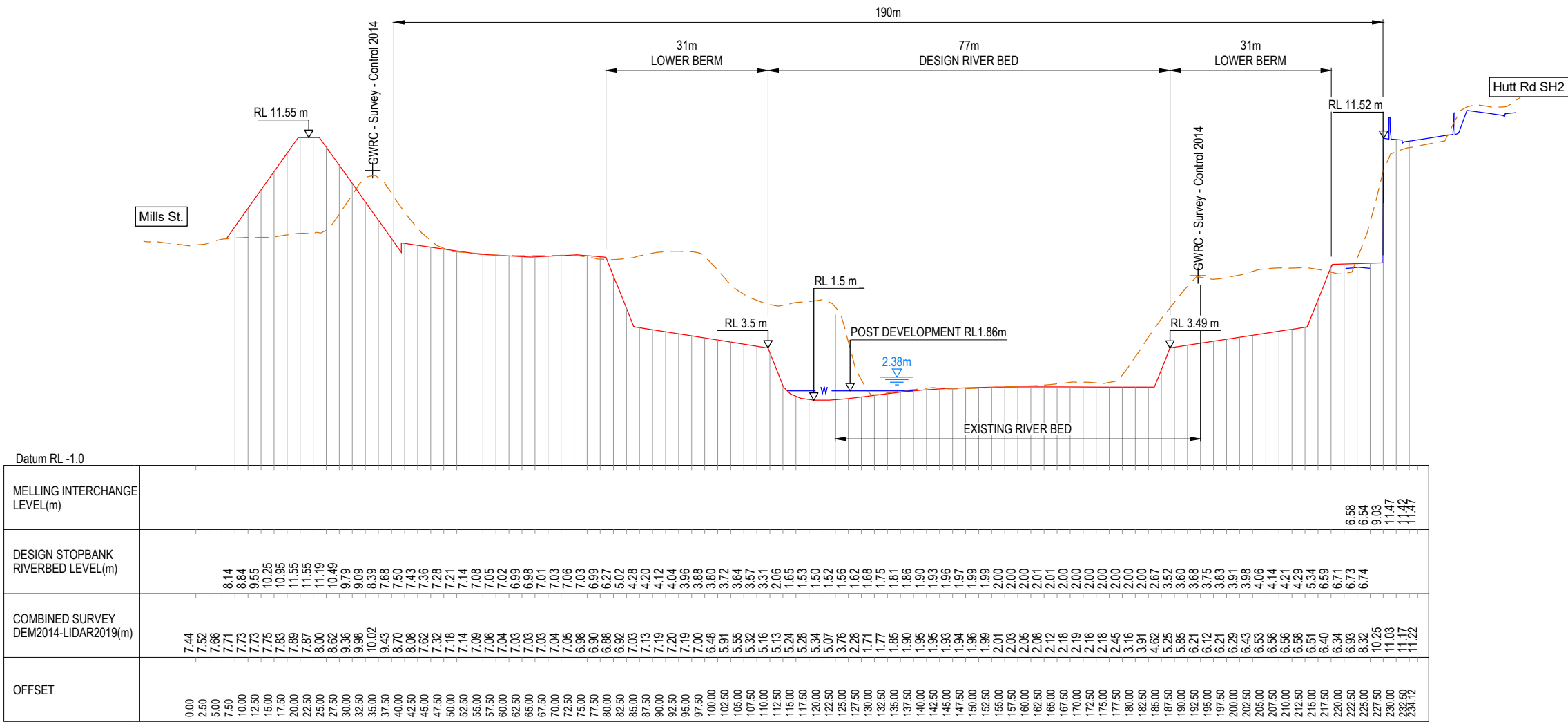
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Drawn	DSW	Designer	TXH
Drafting Check	RBS	Design Check	LOHA
Approved	BRUCE SYMMANS		
Date	28/07/21		
Scale	1:1000		

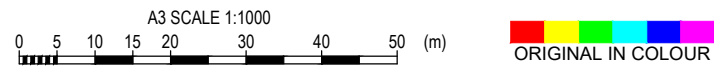
Client	RIVERLINK		
Project	RIVERLINK		
Title	RIVER CROSS SECTIONS SECTION 480		
Original Size	A3	Drawing No:	A16-4381-SB416
Rev:	H		

LEGEND	
	PROPOSED STOPBANK AND RIVERWORKS DESIGN
	PROPOSED MELLING INTERCHANGE DESIGN
	EXISTING GROUND (2019 AND 2014 LIDAR COMBINED)
	PROPOSED ROCK RIPRAP

- NOTES:
- DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
  - LEVEL DATUM: LINZ (MSL) WELLINGTON VERTICAL DATUM 1953.
  - DIMENSIONS SHOWN HAVE BEEN PULLED DIRECTLY FROM THE DIMENSIONS IN THE DESIGN CAD FILE. THESE SHOW WHAT WE HAVE DESIGNED TO AND MAY NOT LINE UP WITH THE DISTINCT POINTS ON THE SECTIONS DESIGN FILE, SUPPLIED BY GWRC 14.01.2021.
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  - 2019 LIDAR SOMETIMES PICKED UP WATER LEVEL AND NOT RIVERBED LEVEL. WHERE THIS HAS HAPPENED THE 2014 DESIGN RIVER BED LEVEL WAS USED AS EXISTING RIVER BED LEVEL.
  - EXISTING RIVER BED HAS BEEN INTERPRETED FROM LIDAR INFORMATION.



SECTION 490 RIVER CROSS SECTION  
SCALE 1: 1000 H, 1: 200 V



CONSENT ISSUE

No	Revision	Note	Drawn	Checked	Approved	Date
D	DESIGN FREEZE 2 - MELLING UPDATE		RHTA	LOHA		4/09/21
E	DESIGN FREEZE 2 - RESOURCE CONSENT		IARA	LOHA		5/07/21
F	DF2 - RESOURCE CONSENT AMENDMENTS		RHTA	LOHA		18/05/21
G	DF2 - RIPRAP AMENDMENTS		DSW	LOHA		15/06/21
H	CONSENT ISSUE		DFL	LOHA	BSS	28/07/21

**RiverLink**  
Isthmus. Tonkin+Taylor GHD Holmes

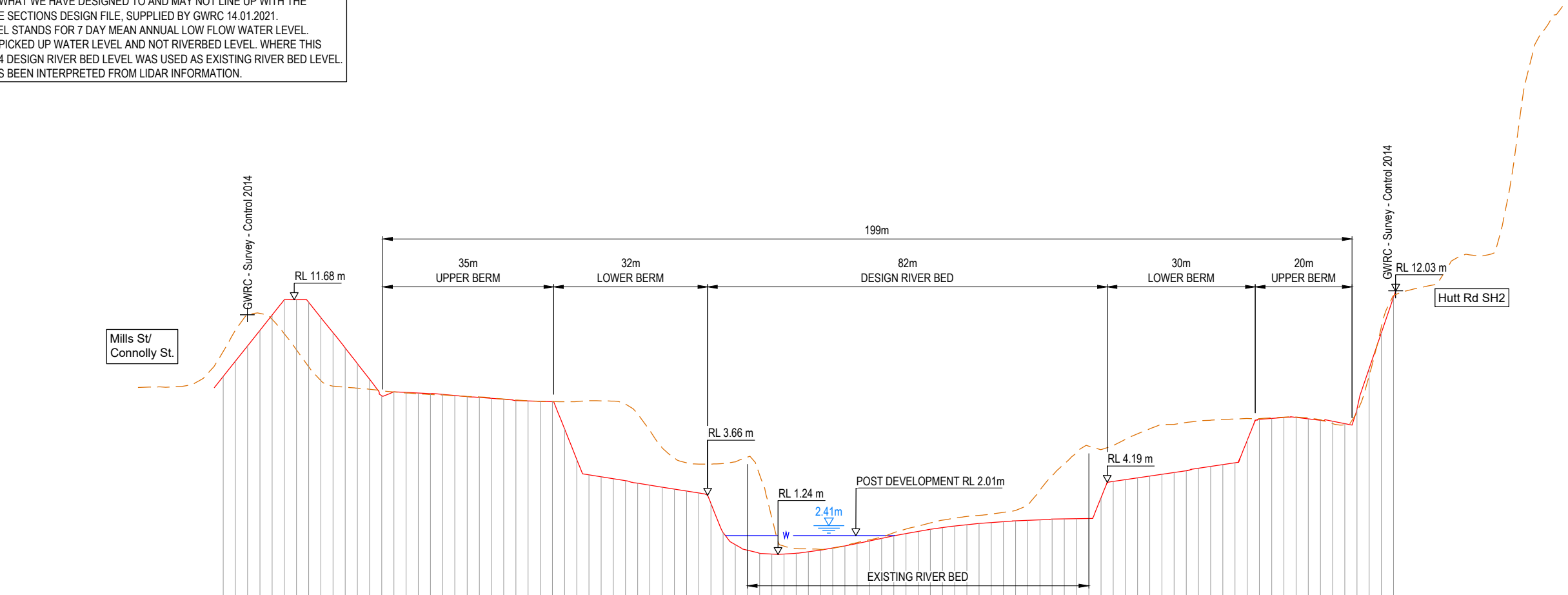
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Drawn	DSW	Designer	TXH
Drafting Check	RBS	Design Check	LOHA
Approved	BRUCE SYMMANS		
Date	28/07/21		
Scale	1:1000		

Client	RIVERLINK		
Project	RIVERLINK		
Title	RIVER CROSS SECTIONS SECTION 490		
Original Size	A3	Drawing No:	A16-4381-SB417
Rev:	H		

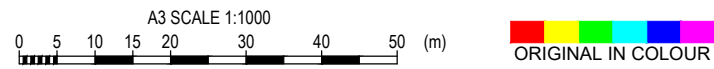
LEGEND	
	PROPOSED STOPBANK AND RIVERWORKS DESIGN
	PROPOSED MELLING INTERCHANGE DESIGN
	EXISTING GROUND (2019 AND 2014 LIDAR COMBINED)
	PROPOSED ROCK RIPRAP

- NOTES:
- DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
  - LEVEL DATUM: LINZ (MSL) WELLINGTON VERTICAL DATUM 1953.
  - DIMENSIONS SHOWN HAVE BEEN PULLED DIRECTLY FROM THE DIMENSIONS IN THE DESIGN CAD FILE. THESE SHOW WHAT WE HAVE DESIGNED TO AND MAY NOT LINE UP WITH THE DISTINCT POINTS ON THE SECTIONS DESIGN FILE, SUPPLIED BY GWRC 14.01.2021.
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  - 2019 LIDAR SOMETIMES PICKED UP WATER LEVEL AND NOT RIVERBED LEVEL. WHERE THIS HAS HAPPENED THE 2014 DESIGN RIVER BED LEVEL WAS USED AS EXISTING RIVER BED LEVEL.
  - EXISTING RIVER BED HAS BEEN INTERPRETED FROM LIDAR INFORMATION.



Offset	Combined Survey DEM2014-LIDAR2019(m)	Design Stopbank Riverbed Level(m)	Melling Interchange Level(m)
0.00	8.16		
2.50	8.35		
5.00	8.80		
7.50	9.56	8.53	
10.00	10.44	9.16	
12.50	11.06	9.79	
15.00	11.12	10.42	
17.50	10.87	11.04	
20.00	10.28	11.67	
22.50	9.62	11.68	
25.00	8.93	11.58	
27.50	8.37	10.95	
30.00	8.13	10.33	
32.50	8.09	9.70	
35.00	8.06	9.06	
37.50	8.01	8.41	
40.00	7.95	7.74	
42.50	7.90	7.90	
45.00	7.86	7.88	
47.50	7.82	7.85	
50.00	7.79	7.83	
52.50	7.76	7.80	
55.00	7.74	7.75	
57.50	7.71	7.71	
60.00	7.69	7.67	
62.50	7.65	7.63	
65.00	7.61	7.60	
67.50	7.56	7.54	
70.00	7.53	7.53	
72.50	7.51	7.51	
75.00	7.50	7.50	
77.50	7.50	6.37	
80.00	7.51	5.12	
82.50	7.54	4.50	
85.00	7.53	4.42	
87.50	7.52	4.34	
90.00	7.40	4.26	
92.50	6.99	4.15	
95.00	6.30	4.07	
97.50	5.60	3.99	
100.00	5.19	3.91	
102.50	4.99	3.83	
105.00	4.94	3.75	
107.50	4.94	3.33	
110.00	4.96	2.14	
112.50	5.03	1.64	
115.00	5.23	1.41	
117.50	4.50	1.28	
120.00	2.73	1.25	
122.50	1.58	1.25	
125.00	1.47	1.28	
127.50	1.47	1.35	
130.00	1.44	1.41	
132.50	1.49	1.50	
135.00	1.59	1.59	
137.50	1.72	1.69	
140.00	1.83	1.79	
142.50	1.94	1.90	
145.00	2.12	2.00	
147.50	2.27	2.09	
150.00	2.40	2.18	
152.50	2.53	2.26	
155.00	2.64	2.33	
157.50	2.72	2.40	
160.00	2.79	2.45	
162.50	2.84	2.50	
165.00	2.89	2.54	
167.50	2.96	2.58	
170.00	3.04	2.61	
172.50	3.26	2.63	
175.00	3.88	2.65	
177.50	4.47	2.69	
180.00	4.95	2.69	
182.50	5.41	2.70	
185.00	5.67	2.71	
187.50	5.53	3.56	
190.00	5.70	4.23	
192.50	5.95	4.30	
195.00	6.18	4.37	
197.50	6.38	4.45	
200.00	6.55	4.52	
202.50	6.57	4.59	
205.00	6.65	4.67	
207.50	6.70	4.77	
210.00	6.74	4.85	
212.50	6.76	4.92	
215.00	6.79	4.99	
217.50	6.81	5.32	
220.00	6.81	6.77	
222.50	6.84	6.81	
225.00	6.86	6.85	
227.50	6.87	6.86	
230.00	6.83	6.80	
232.50	6.73	6.73	
235.00	6.60	6.70	
237.50	6.55	6.60	
240.00	7.06	7.19	
242.50	8.56	8.65	
245.00	10.55	10.31	
247.50	11.84	10.31	
250.00	12.03	12.03	
252.50	12.15	12.15	
255.00	12.26	12.26	
257.50	12.66	12.66	
260.00	13.34	13.34	
262.18	13.53	13.53	

SECTION 500 RIVER CROSS SECTION  
 SCALE 1: 1000 H  
 1: 200 V



CONSENT ISSUE

D	DESIGN FREEZE 2 - MELLING UPDATE	RHTA	LOHA	4/09/21		
E	DESIGN FREEZE 2 - RESOURCE CONSENT	IARA	LOHA	5/07/21		
F	DF2 - RESOURCE CONSENT AMENDMENTS	RHTA	LOHA	18/05/21		
G	DF2 - RIPRAP AMENDMENTS	DSW	LOHA	15/06/21		
H	CONSENT ISSUE	DFL	LOHA	BSS 28/07/21		
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Checked	Approved	Date

**RiverLink**  
 Isthmus. Tonkin+Taylor GHD Holmes

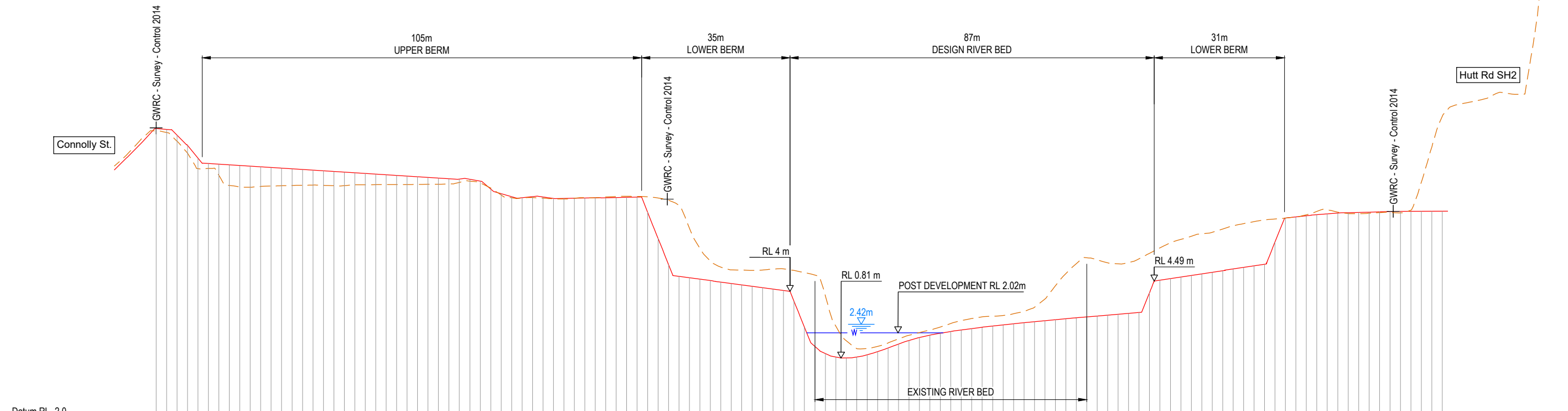
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Drafting Check	RBS	Design Check	LOHA
Approved	BRUCE SYMMANS		
Date	28/07/21		
Scale	1:1000		

Client	RIVERLINK		
Project	RIVERLINK		
Title	RIVER CROSS SECTIONS SECTION 500		
Original Size	A3	Drawing No:	A16-4381-SB418
Rev:	H		

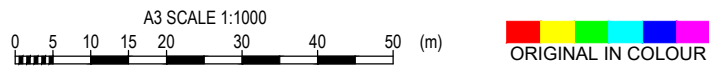
LEGEND	
	PROPOSED STOPBANK AND RIVERWORKS DESIGN
	PROPOSED MELLING INTERCHANGE DESIGN
	EXISTING GROUND (2019 AND 2014 LIDAR COMBINED)
	PROPOSED ROCK RIPRAP

- NOTES:
- DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
  - LEVEL DATUM: LINZ (MSL) WELLINGTON VERTICAL DATUM 1953.
  - DIMENSIONS SHOWN HAVE BEEN PULLED DIRECTLY FROM THE DIMENSIONS IN THE DESIGN CAD FILE. THESE SHOW WHAT WE HAVE DESIGNED TO AND MAY NOT LINE UP WITH THE DISTINCT POINTS ON THE SECTIONS DESIGN FILE, SUPPLIED BY GWRC 14.01.2021.
  - 7 DAY MALF WATER LEVEL STANDS FOR 7 DAY MEAN ANNUAL LOW FLOW WATER LEVEL.
  - 2019 LIDAR SOMETIMES PICKED UP WATER LEVEL AND NOT RIVERBED LEVEL. WHERE THIS HAS HAPPENED THE 2014 DESIGN RIVER BED LEVEL WAS USED AS EXISTING RIVER BED LEVEL.
  - EXISTING RIVER BED HAS BEEN INTERPRETED FROM LIDAR INFORMATION.



Offset	Combined Survey DEM2014-LIDAR2019(m)	Design Stopbank Riverbed Level(m)	Melling Interchange Level(m)
0.00	11.66	11.77	
2.50	11.58	11.46	
5.00	11.17	10.36	
7.50	10.80	10.10	
10.00	9.86	10.07	
12.50	9.54	10.04	
15.00	9.05	10.00	
17.50	8.99	9.97	
20.00	8.97	9.94	
22.50	9.01	9.91	
25.00	9.03	9.88	
27.50	9.04	9.85	
30.00	9.06	9.81	
32.50	9.07	9.78	
35.00	9.06	9.75	
37.50	9.04	9.72	
40.00	9.05	9.69	
42.50	9.09	9.66	
45.00	9.09	9.63	
47.50	9.09	9.59	
50.00	9.09	9.56	
52.50	9.09	9.53	
55.00	9.09	9.50	
57.50	9.10	9.47	
60.00	9.10	9.44	
62.50	9.11	9.41	
65.00	9.11	9.37	
67.50	9.12	9.36	
70.00	9.20	9.35	
72.50	9.26	9.28	
75.00	9.19	9.26	
77.50	8.93	8.88	
80.00	8.59	8.66	
82.50	8.46	8.52	
85.00	8.45	8.47	
87.50	8.47	8.52	
90.00	8.45	8.50	
92.50	8.42	8.43	
95.00	8.41	8.43	
97.50	8.44	8.44	
100.00	8.46	8.46	
102.50	8.47	8.47	
105.00	8.50	8.46	
107.50	8.53	8.47	
110.00	8.54	8.47	
112.50	8.54	8.49	
115.00	8.53	8.50	
117.50	8.51	7.78	
120.00	8.46	6.63	
122.50	8.35	5.28	
125.00	8.09	4.71	
127.50	7.02	4.65	
130.00	6.06	4.58	
132.50	5.45	4.52	
135.00	5.15	4.43	
137.50	5.02	4.37	
140.00	4.30	4.30	
142.50	4.99	4.24	
145.00	5.02	4.17	
147.50	5.06	4.11	
150.00	5.07	4.04	
152.50	5.00	3.53	
155.00	4.89	2.29	
157.50	4.78	1.37	
160.00	3.79	1.03	
162.50	2.34	0.86	
165.00	1.64	0.82	
167.50	1.26	0.86	
170.00	1.27	0.97	
172.50	1.37	1.12	
175.00	1.53	1.30	
177.50	1.73	1.48	
180.00	1.90	1.65	
182.50	2.02	1.79	
185.00	2.15	1.90	
187.50	2.29	2.00	
190.00	2.46	2.08	
192.50	2.60	2.15	
195.00	2.70	2.22	
197.50	2.78	2.28	
200.00	2.81	2.34	
202.50	2.84	2.39	
205.00	2.93	2.45	
207.50	3.05	2.50	
210.00	3.24	2.55	
212.50	3.63	2.59	
215.00	4.26	2.64	
217.50	4.85	2.69	
220.00	5.32	2.73	
222.50	5.60	2.78	
225.00	5.50	2.82	
227.50	5.36	2.86	
230.00	5.31	2.90	
232.50	5.37	2.95	
235.00	5.55	2.99	
237.50	5.81	3.03	
240.00	6.07	4.33	
242.50	6.32	4.61	
245.00	6.47	4.68	
247.50	6.63	4.76	
250.00	6.75	4.83	
252.50	6.82	4.90	
255.00	6.97	4.98	
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290.00	7.73	7.78	
292.50	7.76	7.80	
295.00	7.76	7.81	
297.50	7.74	7.82	
300.00	7.87	7.82	
302.50	9.21	7.82	
305.00	10.89	7.82	
307.50	12.36	7.82	
310.00	12.84	7.82	
312.50	12.97	7.82	
315.00	13.11	7.82	

SECTION 510 RIVER CROSS SECTION  
SCALE 1: 1000 H  
1: 200 V



CONSENT ISSUE





C	DESIGN FREEZE 2 - MELLING UPDATE	RHTA	LOHA	4/09/21
D	DESIGN FREEZE 2 - RESOURCE CONSENT	IARA	LOHA	5/07/21
E	DF2 - RESOURCE CONSENT AMENDMENTS	RHTA	LOHA	18/05/21
F	DF2 - RIPRAP AMENDMENTS	DSW	LOHA	15/06/21
G	CONSENT ISSUE	DFL	LOHA	BSS 28/07/21
No	Revision	Note:	* indicates signatures on original issue of drawing or last revision of drawing	
Drawn	Checked	Approved	Date	

**RiverLink**  
Isthmus. Tonkin+Taylor GHD Holmes

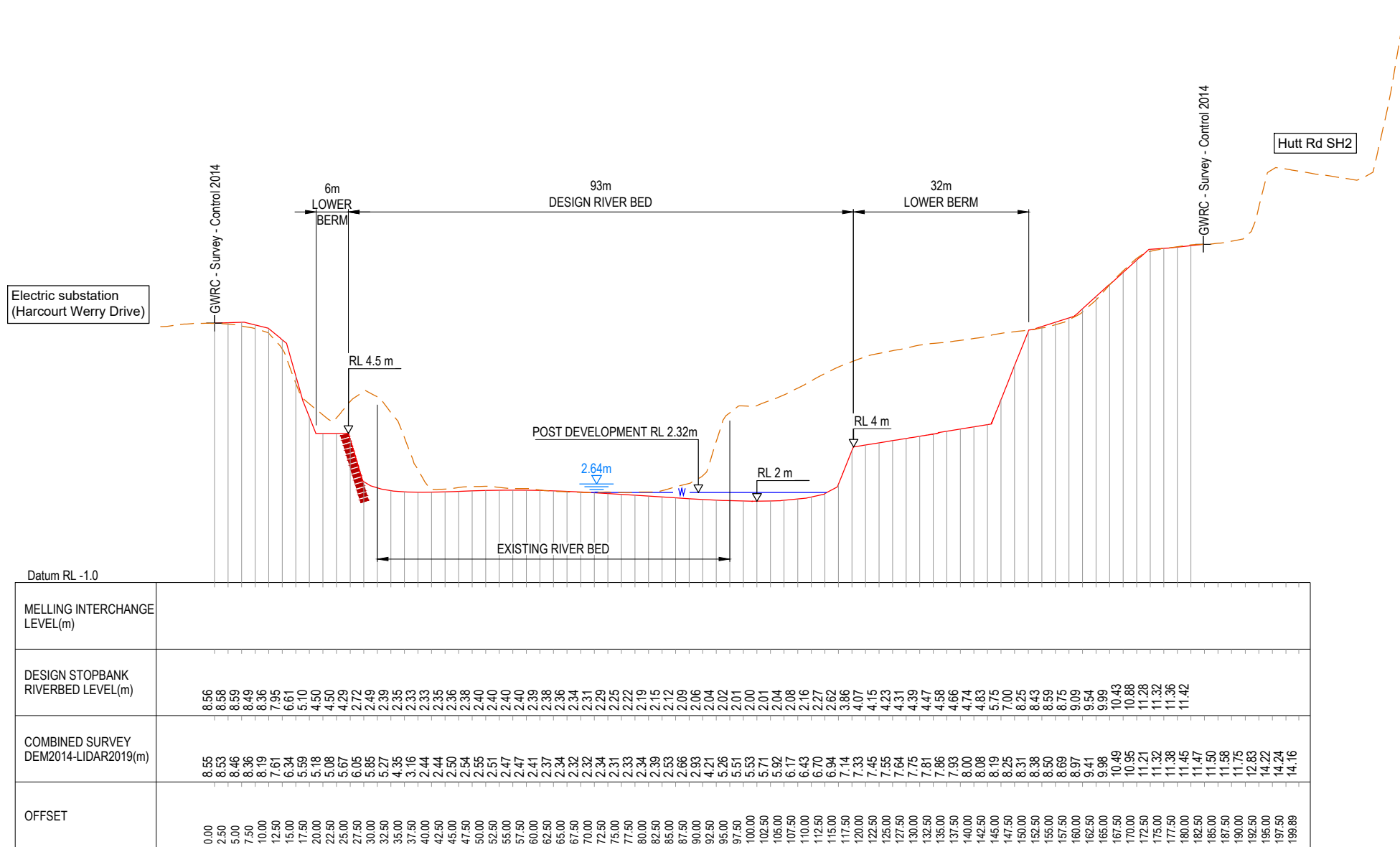
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Drafting Check	RBS	Design Check	LOHA
Approved	BRUCE SYMMANS		
Date	28/07/21		
Scale	1:1000		

Client	RIVERLINK RIVERLINK		
Project	RIVERLINK RIVERLINK		
Title	RIVER CROSS SECTIONS SECTION 510		
Original Size	A3	Drawing No:	A16-4381-SB419
Rev:	G		

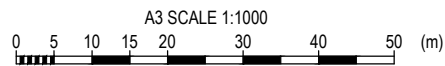
LEGEND	
	PROPOSED STOPBANK AND RIVERWORKS DESIGN
	PROPOSED MELLING INTERCHANGE DESIGN
	EXISTING GROUND (2019 AND 2014 LIDAR COMBINED)
	PROPOSED ROCK RIPRAP

- NOTES:
- DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
  - LEVEL DATUM: LINZ (MSL) WELLINGTON VERTICAL DATUM 1953.
  - DIMENSIONS SHOWN HAVE BEEN PULLED DIRECTLY FROM THE DIMENSIONS IN THE DESIGN CAD FILE. THESE SHOW WHAT WE HAVE DESIGNED TO AND MAY NOT LINE UP WITH THE DISTINCT POINTS ON THE SECTIONS DESIGN FILE, SUPPLIED BY GWRC 14.01.2021.
  - 7 DAY MALF WATER LEVEL STANDS FOR 7 DAY MEAN ANNUAL LOW FLOW WATER LEVEL.
  - 2019 LIDAR SOMETIMES PICKED UP WATER LEVEL AND NOT RIVERBED LEVEL. WHERE THIS HAS HAPPENED THE 2014 DESIGN RIVER BED LEVEL WAS USED AS EXISTING RIVER BED LEVEL.
  - EXISTING RIVER BED HAS BEEN INTERPRETED FROM LIDAR INFORMATION.



SECTION 520 RIVER CROSS SECTION  
141

SCALE 1: 1000 H  
1: 200 V



ORIGINAL IN COLOUR

CONSENT ISSUE

C	DESIGN FREEZE 2 - MELLING UPDATE	RHTA	LOHA	4/09/21
D	DESIGN FREEZE 2 - RESOURCE CONSENT	IARA	LOHA	5/07/21
E	DF2 - RESOURCE CONSENT AMENDMENTS	RHTA	LOHA	18/05/21
F	DF2 - RIPRAP AMENDMENTS	DSW	LOHA	15/06/21
G	CONSENT ISSUE	DFL	LOHA	BSS 28/07/21

No	Revision	Note	Drawn	Checked	Approved	Date
		Note: * indicates signatures on original issue of drawing or last revision of drawing				



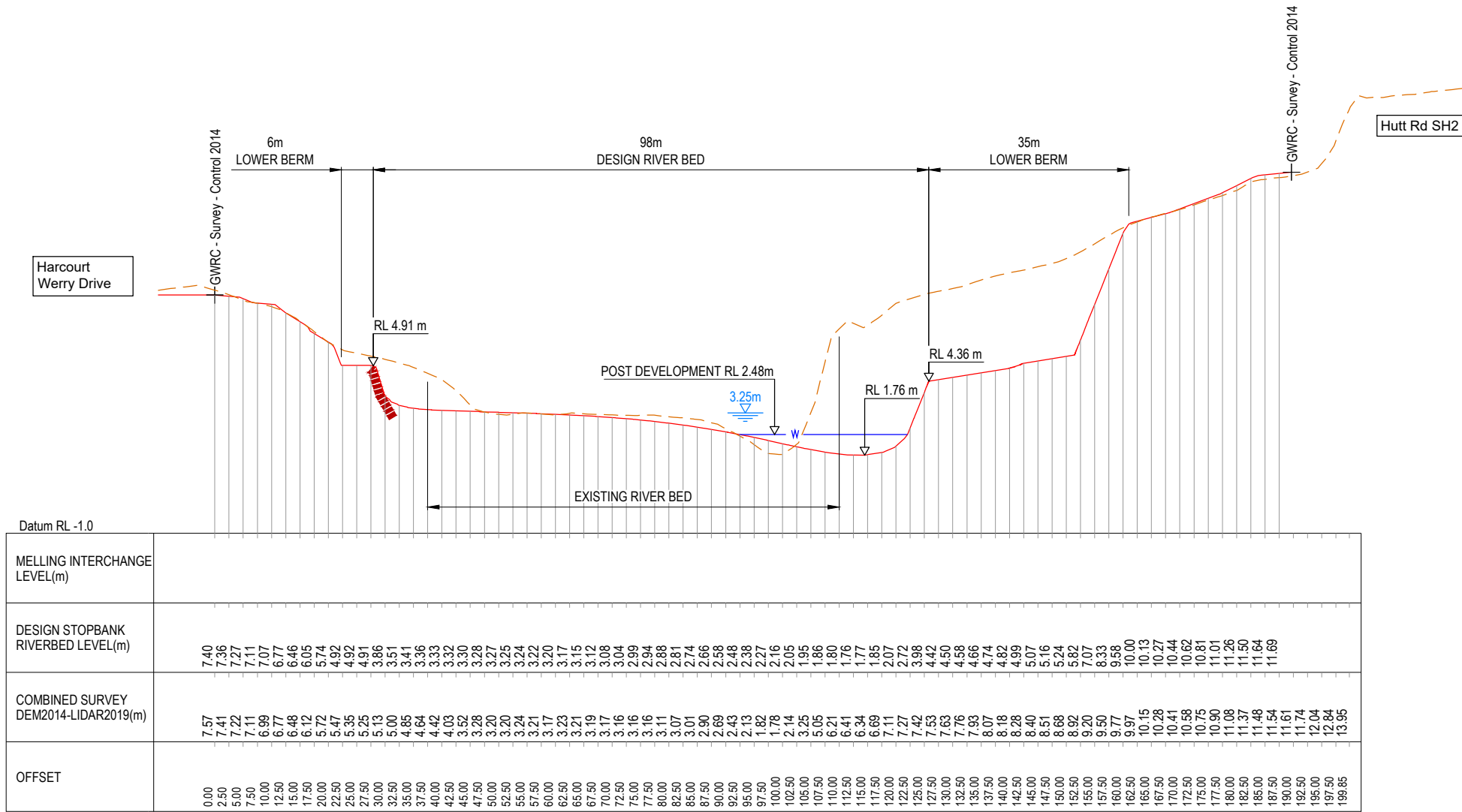
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Drawn	DSW	Designer	TXH
Drafting Check	RBS	Design Check	LOHA
Approved	BRUCE SYMMANS		
Date	28/07/21		
Scale	1:1000		

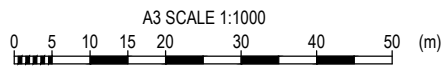
Client	RIVERLINK		
Project	RIVERLINK		
Title	RIVER CROSS SECTIONS SECTION 520		
Original Size	A3	Drawing No:	A16-4381-SB420
Rev:	G		

LEGEND	
	PROPOSED STOPBANK AND RIVERWORKS DESIGN
	PROPOSED MELLING INTERCHANGE DESIGN
	EXISTING GROUND (2019 AND 2014 LIDAR COMBINED)
	PROPOSED ROCK RIPRAP

- NOTES:
- DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
  - LEVEL DATUM: LINZ (MSL) WELLINGTON VERTICAL DATUM 1953.
  - DIMENSIONS SHOWN HAVE BEEN PULLED DIRECTLY FROM THE DIMENSIONS IN THE DESIGN CAD FILE. THESE SHOW WHAT WE HAVE DESIGNED TO AND MAY NOT LINE UP WITH THE DISTINCT POINTS ON THE SECTIONS DESIGN FILE, SUPPLIED BY GWRC 14.01.2021.
  - 7 DAY MALF WATER LEVEL STANDS FOR 7 DAY MEAN ANNUAL LOW FLOW WATER LEVEL.
  - 2019 LIDAR SOMETIMES PICKED UP WATER LEVEL AND NOT RIVERBED LEVEL. WHERE THIS HAS HAPPENED THE 2014 DESIGN RIVER BED LEVEL WAS USED AS EXISTING RIVER BED LEVEL.
  - EXISTING RIVER BED HAS BEEN INTERPRETED FROM LIDAR INFORMATION.



SECTION 530 RIVER CROSS SECTION  
 SCALE 1: 1000 H  
 1: 200 V



ORIGINAL IN COLOUR

CONSENT ISSUE

C	DESIGN FREEZE 2 - MELLING UPDATE	RHTA	LOHA	4/09/21		
D	DESIGN FREEZE 2 - RESOURCE CONSENT	IARA	LOHA	5/07/21		
E	DF2 - RESOURCE CONSENT AMENDMENTS	RHTA	LOHA	18/05/21		
F	DF2 - RIPRAP AMENDMENTS	DSW	LOHA	15/06/21		
G	CONSENT ISSUE	DFL	LOHA	BSS 28/07/21		
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Checked	Approved	Date



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Drafting Check	RBS	Design Check	LOHA
Approved	BRUCE SYMMANS		
Date	28/07/21		
Scale	1:1000		

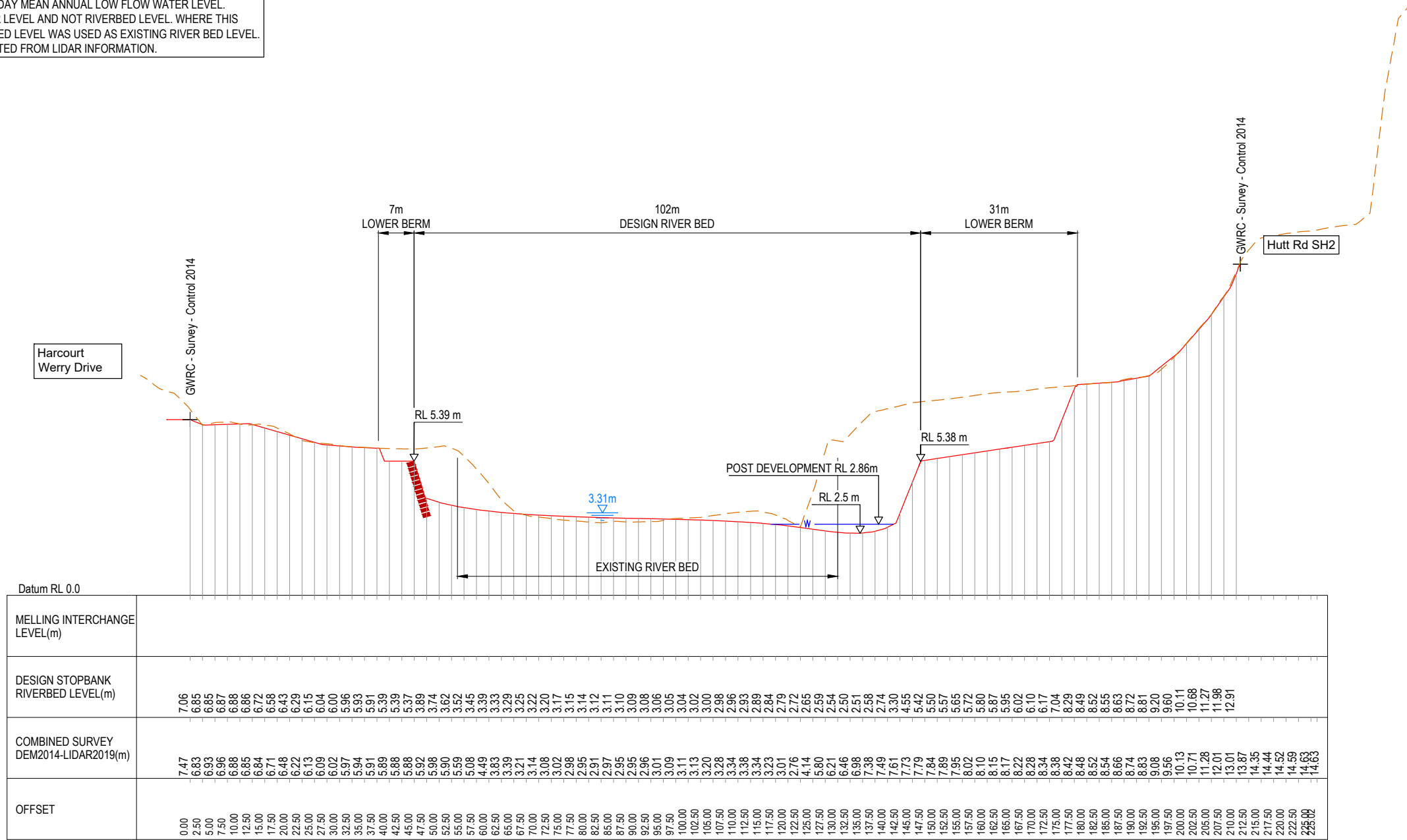
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Project	RIVERLINK		
Title	RIVER CROSS SECTIONS SECTION 530		
Original Size	A3	Drawing No:	A16-4381-SB421
Rev:	G		



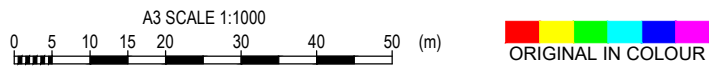
**LEGEND**

- PROPOSED STOPBANK AND RIVERWORKS DESIGN
- PROPOSED MELLING INTERCHANGE DESIGN
- EXISTING GROUND (2019 AND 2014 LIDAR COMBINED)
- PROPOSED ROCK RIPRAP

- NOTES:**
- DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
  - LEVEL DATUM: LINZ (MSL) WELLINGTON VERTICAL DATUM 1953.
  - DIMENSIONS SHOWN HAVE BEEN PULLED DIRECTLY FROM THE DIMENSIONS IN THE DESIGN CAD FILE. THESE SHOW WHAT WE HAVE DESIGNED TO AND MAY NOT LINE UP WITH THE DISTINCT POINTS ON THE SECTIONS DESIGN FILE, SUPPLIED BY GWRC 14.01.2021.
  - 7 DAY MALF WATER LEVEL STANDS FOR 7 DAY MEAN ANNUAL LOW FLOW WATER LEVEL.
  - 2019 LIDAR SOMETIMES PICKED UP WATER LEVEL AND NOT RIVERBED LEVEL. WHERE THIS HAS HAPPENED THE 2014 DESIGN RIVER BED LEVEL WAS USED AS EXISTING RIVER BED LEVEL.
  - EXISTING RIVER BED HAS BEEN INTERPRETED FROM LIDAR INFORMATION.



SECTION 540 RIVER CROSS SECTION  
 SCALE 1: 1000 H  
 1: 200 V



**CONSENT ISSUE**

C	DESIGN FREEZE 2 - MELLING UPDATE	RHTA	LOHA	4/09/21
D	DESIGN FREEZE 2 - RESOURCE CONSENT	IARA	LOHA	5/07/21
E	DF2 - RESOURCE CONSENT AMENDMENTS	RHTA	LOHA	18/05/21
F	DF2 - RIPRAP AMENDMENTS	DSW	LOHA	15/06/21
G	CONSENT ISSUE	DFL	LOHA	BSS 28/07/21



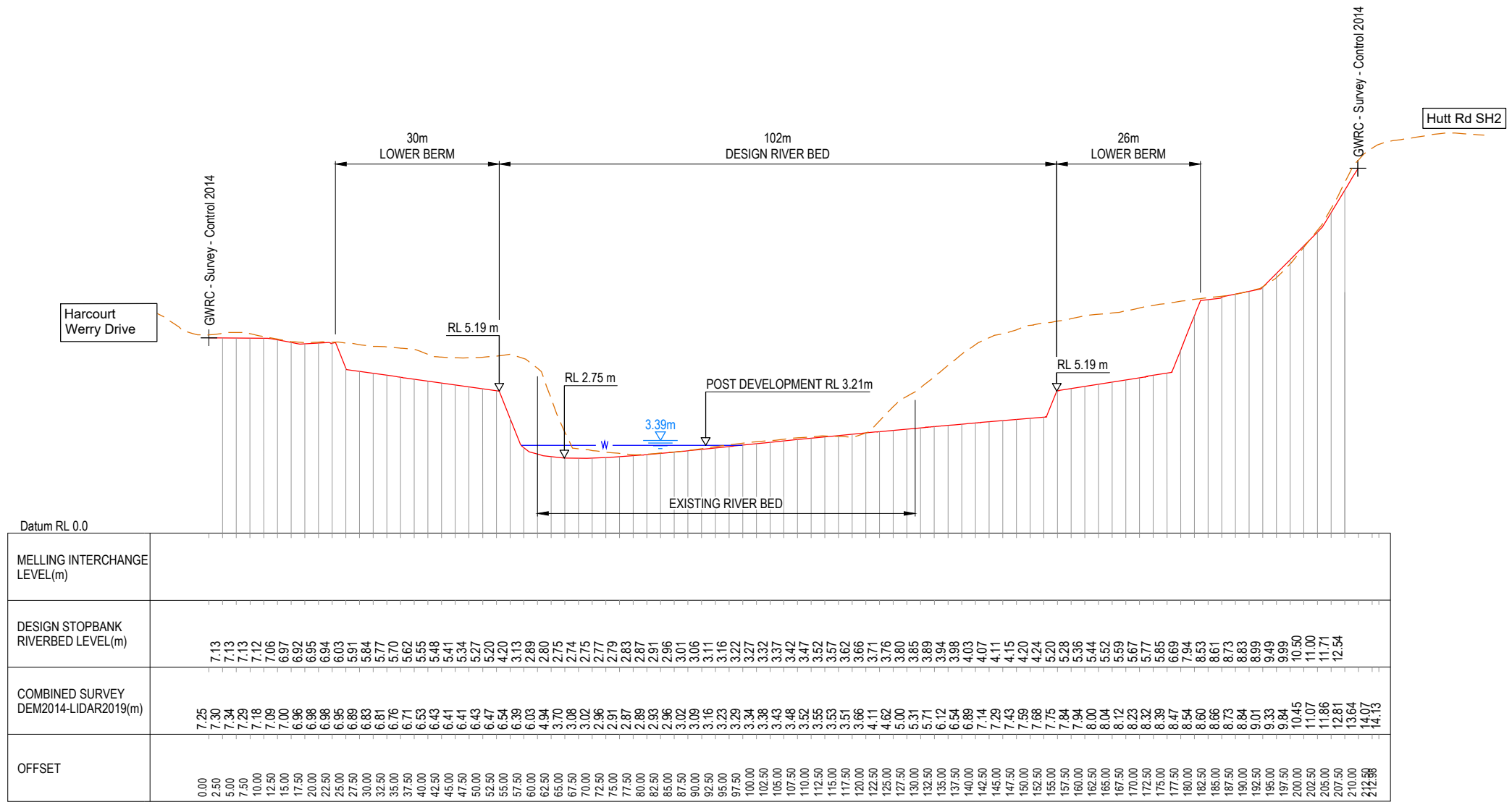
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Drafting Check	RBS	Design Check	LOHA
Approved	BRUCE SYMMANS		
Date	28/07/21		
Scale	1:1000		

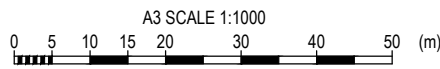
Client	RIVERLINK		
Project	RIVERLINK		
Title	RIVER CROSS SECTIONS SECTION 540		
Original Size	A3	Drawing No:	A16-4381-SB422
Rev:	G		

LEGEND	
	PROPOSED STOPBANK AND RIVERWORKS DESIGN
	PROPOSED MELLING INTERCHANGE DESIGN
	EXISTING GROUND (2019 AND 2014 LIDAR COMBINED)
	PROPOSED ROCK RIPRAP

- NOTES:
- DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
  - LEVEL DATUM: LINZ (MSL) WELLINGTON VERTICAL DATUM 1953.
  - DIMENSIONS SHOWN HAVE BEEN PULLED DIRECTLY FROM THE DIMENSIONS IN THE DESIGN CAD FILE. THESE SHOW WHAT WE HAVE DESIGNED TO AND MAY NOT LINE UP WITH THE DISTINCT POINTS ON THE SECTIONS DESIGN FILE, SUPPLIED BY GWRC 14.01.2021.
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  - 2019 LIDAR SOMETIMES PICKED UP WATER LEVEL AND NOT RIVERBED LEVEL. WHERE THIS HAS HAPPENED THE 2014 DESIGN RIVER BED LEVEL WAS USED AS EXISTING RIVER BED LEVEL.
  - EXISTING RIVER BED HAS BEEN INTERPRETED FROM LIDAR INFORMATION.



SECTION 550 RIVER CROSS SECTION  
SCALE 1: 1000 H  
1: 200 V



ORIGINAL IN COLOUR

CONSENT ISSUE

C	DESIGN FREEZE 2 - MELLING UPDATE	RHTA	LOHA	4/09/21		
D	DESIGN FREEZE 2 - RESOURCE CONSENT	IARA	LOHA	5/07/21		
E	DF2 - RESOURCE CONSENT AMENDMENTS	RHTA	LOHA	18/05/21		
F	DF2 - RIPRAP AMENDMENTS	DSW	LOHA	15/06/21		
G	CONSENT ISSUE	DFL	LOHA	BSS 28/07/21		
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Checked	Approved	Date



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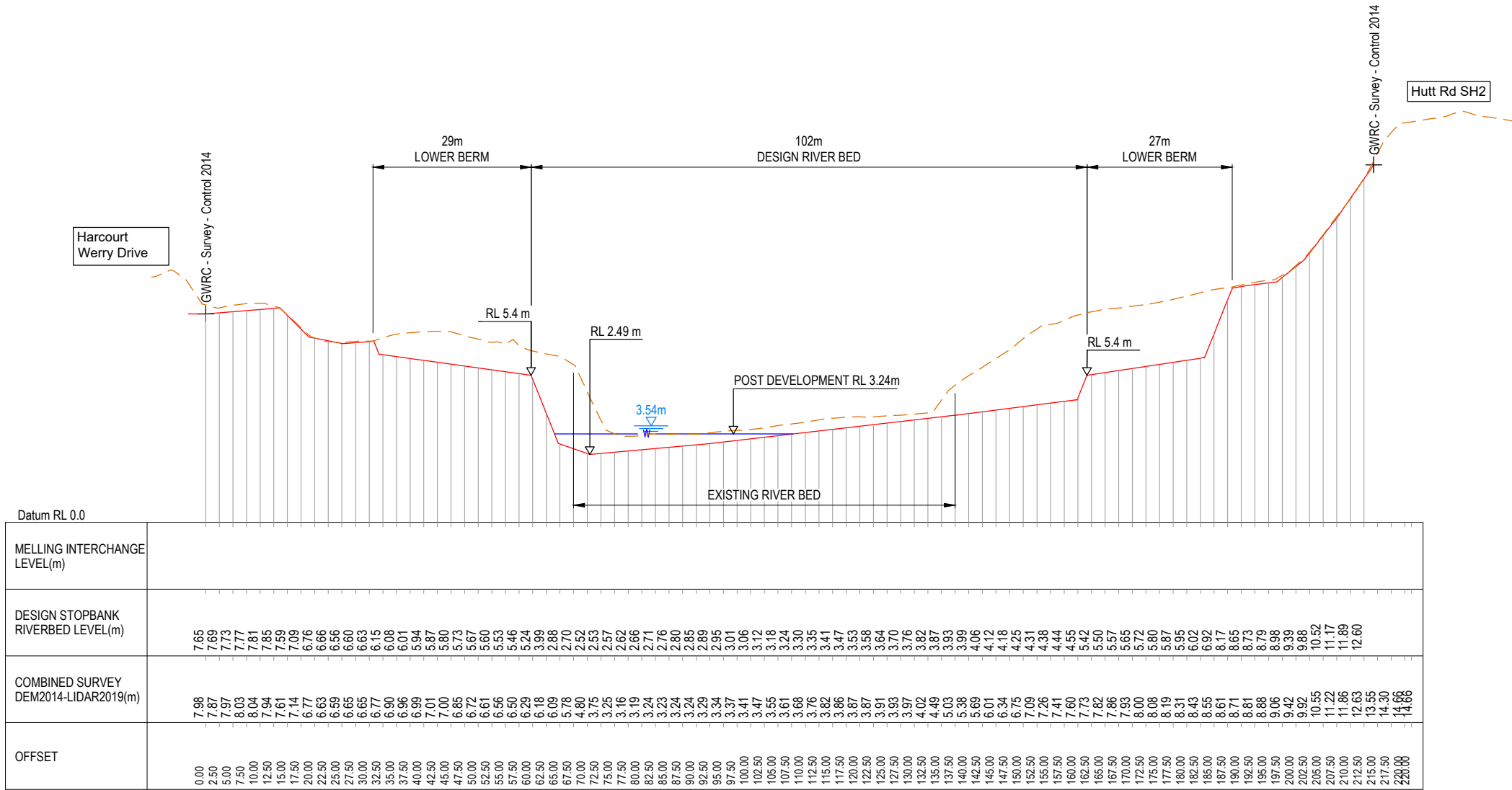
Drawn	DSW	Designer	TXH
Drafting Check	RBS	Design Check	LOHA
Approved	BRUCE SYMMANS		
Date	28/07/21		
Scale	1:1000		

Client	RIVERLINK		
Project	RIVERLINK		
Title	RIVER CROSS SECTIONS SECTION 550		
Original Size	A3	Drawing No:	A16-4381-SB423
Rev:	G		

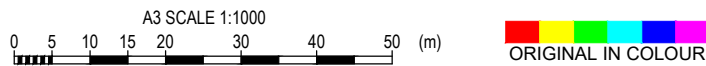
**LEGEND**

- PROPOSED STOPBANK AND RIVERWORKS DESIGN
- PROPOSED MELLING INTERCHANGE DESIGN
- EXISTING GROUND (2019 AND 2014 LIDAR COMBINED)
- PROPOSED ROCK RIPRAP

- NOTES:**
- DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
  - LEVEL DATUM: LINZ (MSL) WELLINGTON VERTICAL DATUM 1953.
  - DIMENSIONS SHOWN HAVE BEEN PULLED DIRECTLY FROM THE DIMENSIONS IN THE DESIGN CAD FILE. THESE SHOW WHAT WE HAVE DESIGNED TO AND MAY NOT LINE UP WITH THE DISTINCT POINTS ON THE SECTIONS DESIGN FILE, SUPPLIED BY GWRC 14.01.2021.
  - 7 DAY MALF WATER LEVEL STANDS FOR 7 DAY MEAN ANNUAL LOW FLOW WATER LEVEL.
  - 2019 LIDAR SOMETIMES PICKED UP WATER LEVEL AND NOT RIVERBED LEVEL. WHERE THIS HAS HAPPENED THE 2014 DESIGN RIVER BED LEVEL WAS USED AS EXISTING RIVER BED LEVEL.
  - EXISTING RIVER BED HAS BEEN INTERPRETED FROM LIDAR INFORMATION.



SECTION 560 RIVER CROSS SECTION  
 SCALE 1: 1000 H  
 1: 200 V



CONSENT ISSUE

C	DESIGN FREEZE 2 - MELLING UPDATE	RHTA	LOHA	4/09/21
D	DESIGN FREEZE 2 - RESOURCE CONSENT	IARA	LOHA	5/07/21
E	DF2 - RESOURCE CONSENT AMENDMENTS	RHTA	LOHA	18/05/21
F	DF2 - RIPRAP AMENDMENTS	DSW	LOHA	15/06/21
G	CONSENT ISSUE	DFL	LOHA	BSS 28/07/21



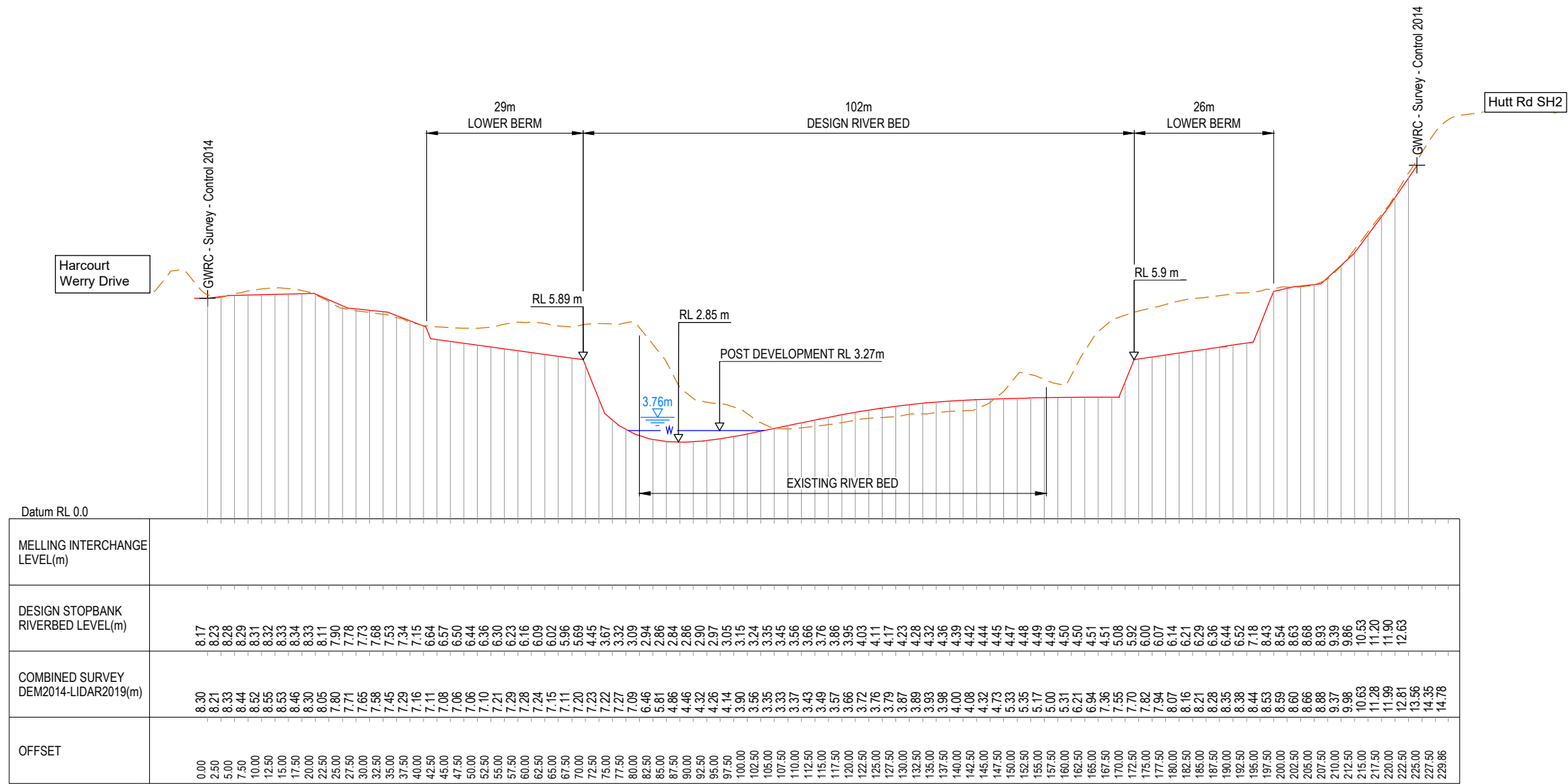
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Drafting Check	RBS	Design Check	LOHA
Approved	BRUCE SYMMANS		
Date	28/07/21		
Scale	1:1000		

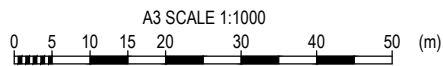
Client	RIVERLINK		
Project	RIVERLINK		
Title	RIVER CROSS SECTIONS SECTION 560		
Original Size	A3	Drawing No:	A16-4381-SB424
Rev:	G		

LEGEND	
	PROPOSED STOPBANK AND RIVERWORKS DESIGN
	PROPOSED MELLING INTERCHANGE DESIGN
	EXISTING GROUND (2019 AND 2014 LIDAR COMBINED)
	PROPOSED ROCK RIPRAP

- NOTES:
- DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
  - LEVEL DATUM: LINZ (MSL) WELLINGTON VERTICAL DATUM 1953.
  - DIMENSIONS SHOWN HAVE BEEN PULLED DIRECTLY FROM THE DIMENSIONS IN THE DESIGN CAD FILE. THESE SHOW WHAT WE HAVE DESIGNED TO AND MAY NOT LINE UP WITH THE DISTINCT POINTS ON THE SECTIONS DESIGN FILE, SUPPLIED BY GWRC 14.01.2021.
  - 7 DAY MALF WATER LEVEL STANDS FOR 7 DAY MEAN ANNUAL LOW FLOW WATER LEVEL.
  - 2019 LIDAR SOMETIMES PICKED UP WATER LEVEL AND NOT RIVERBED LEVEL. WHERE THIS HAS HAPPENED THE 2014 DESIGN RIVER BED LEVEL WAS USED AS EXISTING RIVER BED LEVEL.
  - EXISTING RIVER BED HAS BEEN INTERPRETED FROM LIDAR INFORMATION.



SECTION 570 RIVER CROSS SECTION  
 SCALE 1: 1000 H  
 1: 200 V



ORIGINAL IN COLOUR

CONSENT ISSUE

C	DESIGN FREEZE 2 - MELLING UPDATE	RHTA	LOHA	4/09/21
D	DESIGN FREEZE 2 - RESOURCE CONSENT	IARA	LOHA	5/07/21
E	DF2 - RESOURCE CONSENT AMENDMENTS	RHTA	LOHA	18/05/21
F	DF2 - RIPRAP AMENDMENTS	DSW	LOHA	15/06/21
G	CONSENT ISSUE	DFL	LOHA	BSS 28/07/21

No	Revision	Note	Drawn	Checked	Approved	Date
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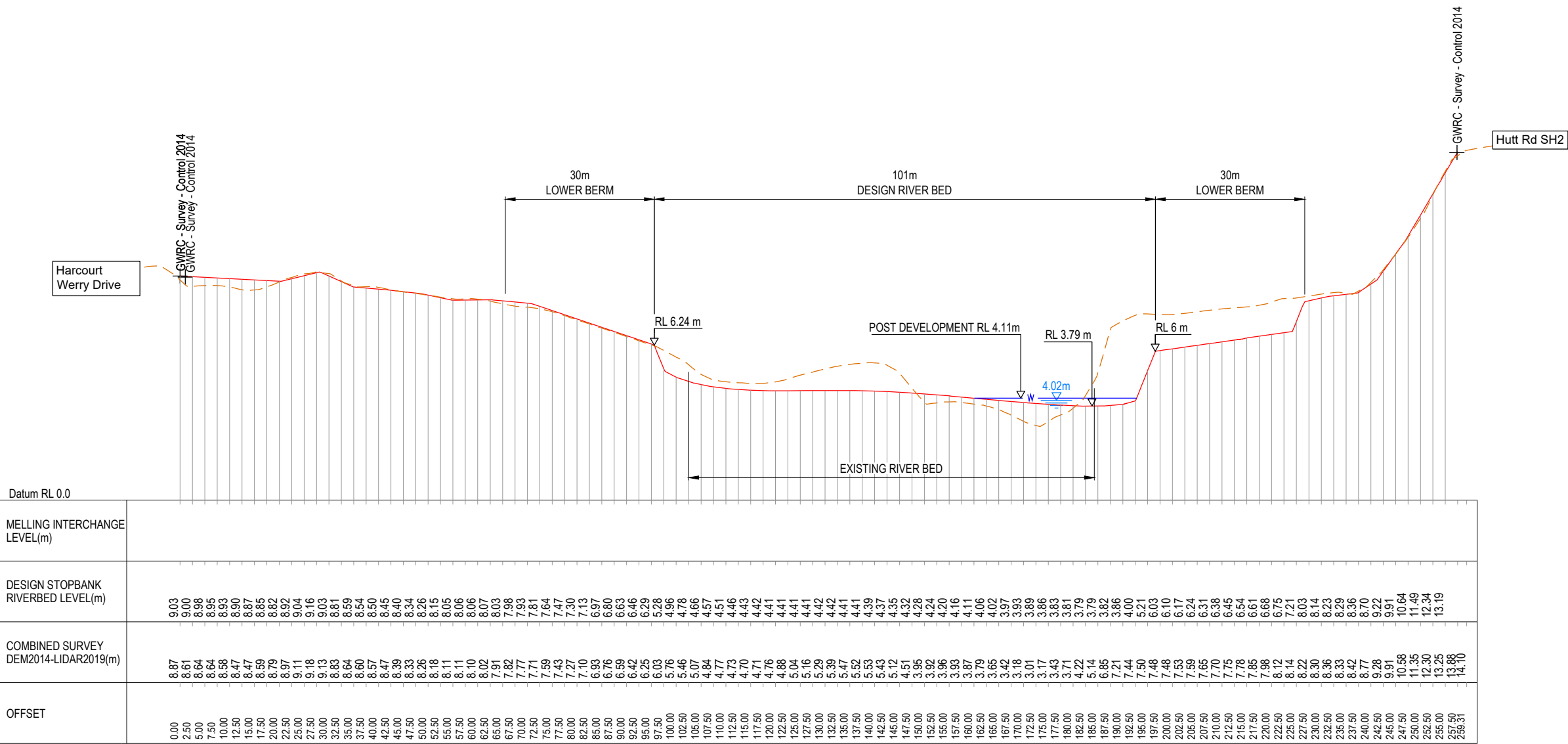
Drawn	DSW	Designer	TXH
Drafting Check	RBS	Design Check	LOHA
Approved	BRUCE SYMMANS		
Date	28/07/21		
Scale	1:1000		

Client	RIVERLINK		
Project	RIVERLINK		
Title	RIVER CROSS SECTIONS SECTION 570		
Original Size	A3	Drawing No:	A16-4381-SB425
Rev:	G		

**LEGEND**

- PROPOSED STOPBANK AND RIVERWORKS DESIGN
- PROPOSED MELLING INTERCHANGE DESIGN
- EXISTING GROUND (2019 AND 2014 LIDAR COMBINED)
- PROPOSED ROCK RIPRAP

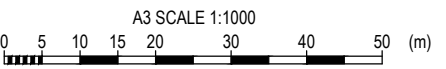
- NOTES:**
- DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
  - LEVEL DATUM: LINZ (MSL) WELLINGTON VERTICAL DATUM 1953.
  - DIMENSIONS SHOWN HAVE BEEN PULLED DIRECTLY FROM THE DIMENSIONS IN THE DESIGN CAD FILE. THESE SHOW WHAT WE HAVE DESIGNED TO AND MAY NOT LINE UP WITH THE DISTINCT POINTS ON THE SECTIONS DESIGN FILE, SUPPLIED BY GWRC 14.01.2021.
  - 7 DAY MALF WATER LEVEL STANDS FOR 7 DAY MEAN ANNUAL LOW FLOW WATER LEVEL.
  - 2019 LIDAR SOMETIMES PICKED UP WATER LEVEL AND NOT RIVERBED LEVEL. WHERE THIS HAS HAPPENED THE 2014 DESIGN RIVER BED LEVEL WAS USED AS EXISTING RIVER BED LEVEL.
  - EXISTING RIVER BED HAS BEEN INTERPRETED FROM LIDAR INFORMATION.



Datum RL 0.0

Offset	Combined Survey DEM2014-LIDAR2019(m)	Design Stopbank Riverbed Level(m)	Melling Interchange Level(m)
0.00	8.87	9.03	
2.50	8.61	9.00	
5.00	8.64	8.98	
7.50	8.64	8.95	
10.00	8.58	8.93	
12.50	8.47	8.90	
15.00	8.47	8.87	
17.50	8.39	8.85	
20.00	8.79	8.82	
22.50	8.97	8.92	
25.00	9.11	9.04	
27.50	9.18	9.16	
30.00	9.13	9.03	
32.50	8.83	8.81	
35.00	8.64	8.59	
37.50	8.60	8.54	
40.00	8.57	8.50	
42.50	8.47	8.45	
45.00	8.39	8.40	
47.50	8.33	8.34	
50.00	8.26	8.26	
52.50	8.18	8.15	
55.00	8.11	8.05	
57.50	8.11	8.06	
60.00	8.10	8.06	
62.50	8.02	8.07	
65.00	7.91	8.03	
67.50	7.82	7.98	
70.00	7.77	7.93	
72.50	7.71	7.81	
75.00	7.59	7.64	
77.50	7.43	7.47	
80.00	7.27	7.30	
82.50	7.10	7.13	
85.00	6.93	6.97	
87.50	6.76	6.80	
90.00	6.59	6.63	
92.50	6.42	6.46	
95.00	6.25	6.29	
97.50	6.03	6.03	
100.00	5.76	5.28	
102.50	5.46	4.78	
105.00	5.07	4.66	
107.50	4.84	4.57	
110.00	4.77	4.51	
112.50	4.73	4.46	
115.00	4.70	4.43	
117.50	4.71	4.42	
120.00	4.76	4.41	
122.50	4.88	4.41	
125.00	5.04	4.41	
127.50	5.16	4.41	
130.00	5.29	4.42	
132.50	5.39	4.42	
135.00	5.47	4.41	
137.50	5.52	4.41	
140.00	5.53	4.39	
142.50	5.43	4.37	
145.00	5.12	4.35	
147.50	4.51	4.32	
150.00	3.95	4.28	
152.50	3.92	4.24	
155.00	3.96	4.20	
157.50	3.93	4.16	
160.00	3.87	4.11	
162.50	3.79	4.06	
165.00	3.65	4.02	
167.50	3.42	3.97	
170.00	3.18	3.93	
172.50	3.01	3.89	
175.00	3.17	3.86	
177.50	3.43	3.83	
180.00	3.71	3.81	
182.50	4.22	3.79	
185.00	5.14	3.79	
187.50	6.85	3.82	
190.00	7.21	3.86	
192.50	7.44	4.00	
195.00	7.50	5.21	
197.50	7.48	6.03	
200.00	7.48	6.10	
202.50	7.55	6.17	
205.00	7.59	6.24	
207.50	7.65	6.31	
210.00	7.70	6.38	
212.50	7.75	6.45	
215.00	7.78	6.54	
217.50	7.85	6.61	
220.00	7.98	6.68	
222.50	8.12	6.75	
225.00	8.14	7.21	
227.50	8.22	8.03	
230.00	8.30	8.14	
232.50	8.36	8.23	
235.00	8.33	8.29	
237.50	8.42	8.36	
240.00	8.77	8.70	
242.50	9.28	9.22	
245.00	9.91	9.91	
247.50	10.58	10.64	
250.00	11.35	11.49	
252.50	12.30	12.34	
255.00	13.25	13.19	
257.50	13.88		
259.31	14.10		

SECTION 580 RIVER CROSS SECTION  
 SCALE 1: 1000 H  
 1: 200 V



ORIGINAL IN COLOUR

CONSENT ISSUE

C	DESIGN FREEZE 2 - MELLING UPDATE	RHTA	LOHA	4/09/21		
D	DESIGN FREEZE 2 - RESOURCE CONSENT	IARA	LOHA	5/07/21		
E	DF2 - RESOURCE CONSENT AMENDMENTS	RHTA	LOHA	18/05/21		
F	DF2 - RIPRAP AMENDMENTS	DSW	LOHA	15/06/21		
G	CONSENT ISSUE	DFL	LOHA	BSS 28/07/21		
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Checked	Approved	Date

**RiverLink**

Isthmus. Tonkin+Taylor GHD Holmes

**DO NOT SCALE**

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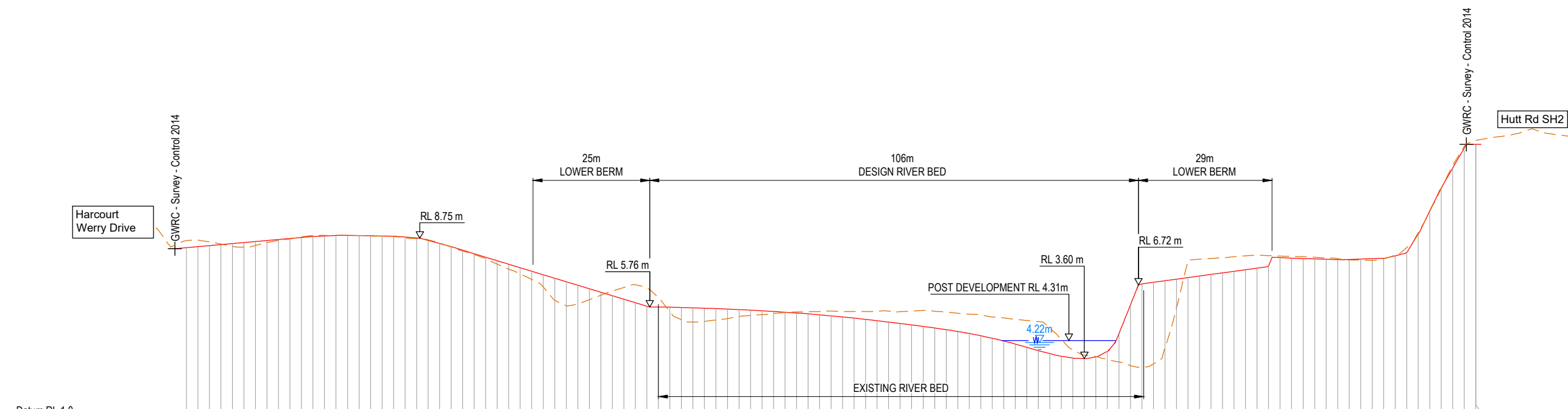
Drawn DSW Designer TXH  
 Drafting Check RBS Design Check LOHA  
 Approved BRUCE SYMMANS  
 Date 28/07/21  
 Scale 1:1000

This Drawing must not be used for Construction unless signed as Approved

Client **RIVERLINK**  
 Project **RIVERLINK**  
 Title **RIVER CROSS SECTIONS SECTION 580**  
 Original Size **A3** Drawing No: **A16-4381-SB426** Rev: **G**

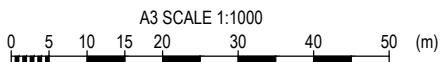
LEGEND	
	PROPOSED STOPBANK AND RIVERWORKS DESIGN
	PROPOSED MELLING INTERCHANGE DESIGN
	EXISTING GROUND (2019 AND 2014 LIDAR COMBINED)
	PROPOSED ROCK RIPRAP

- NOTES:**
- DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
  - LEVEL DATUM: LINZ (MSL) WELLINGTON VERTICAL DATUM 1953.
  - DIMENSIONS SHOWN HAVE BEEN PULLED DIRECTLY FROM THE DIMENSIONS IN THE DESIGN CAD FILE. THESE SHOW WHAT WE HAVE DESIGNED TO AND MAY NOT LINE UP WITH THE DISTINCT POINTS ON THE SECTIONS DESIGN FILE, SUPPLIED BY GWRC 14.01.2021.
  - 7 DAY MAFW WATER LEVEL STANDS FOR 7 DAY MEAN ANNUAL LOW FLOW WATER LEVEL.
  - 2019 LIDAR SOMETIMES PICKED UP WATER LEVEL AND NOT RIVERBED LEVEL. WHERE THIS HAS HAPPENED THE 2014 DESIGN RIVER BED LEVEL WAS USED AS EXISTING RIVER BED LEVEL.
  - EXISTING RIVER BED HAS BEEN INTERPRETED FROM LIDAR INFORMATION.



Datum RL 1.0	
OFFSET	COMBINED SURVEY DEM2014-LIDAR2019(m)
0.00	8.45
2.50	8.64
5.00	8.66
7.50	8.59
10.00	8.47
12.50	8.51
15.00	8.36
17.50	8.43
20.00	8.65
22.50	8.69
25.00	8.72
27.50	8.81
30.00	8.87
32.50	8.87
35.00	8.88
37.50	8.87
40.00	8.86
42.50	8.85
45.00	8.83
47.50	8.82
50.00	8.76
52.50	8.73
55.00	8.67
57.50	8.65
60.00	8.54
62.50	8.36
65.00	8.19
67.50	8.04
70.00	7.92
72.50	7.62
75.00	7.41
77.50	7.20
80.00	6.96
82.50	6.63
85.00	6.05
87.50	7.01
90.00	5.82
92.50	6.71
95.00	6.08
97.50	6.27
100.00	6.45
102.50	6.61
105.00	6.72
107.50	5.80
110.00	6.18
112.50	5.56
115.00	5.20
117.50	5.11
120.00	5.14
122.50	5.71
125.00	5.26
127.50	5.67
130.00	5.36
132.50	5.40
135.00	5.63
137.50	5.43
140.00	5.60
142.50	5.47
145.00	5.57
147.50	5.54
150.00	5.50
152.50	5.55
155.00	5.46
157.50	5.57
160.00	5.38
162.50	5.59
165.00	5.11
167.50	5.05
170.00	4.98
172.50	4.92
175.00	4.61
177.50	5.55
180.00	5.11
182.50	5.33
185.00	4.40
187.50	5.29
190.00	4.28
192.50	4.15
195.00	4.01
197.50	5.13
200.00	3.97
202.50	3.74
205.00	4.84
207.50	3.63
210.00	3.91
212.50	3.54
215.00	3.68
217.50	3.52
220.00	3.61
222.50	3.84
225.00	4.60
227.50	3.22
230.00	3.15
232.50	3.30
235.00	6.84
237.50	3.99
240.00	6.90
242.50	5.72
245.00	6.97
247.50	7.04
250.00	7.75
252.50	7.83
255.00	7.11
257.50	7.87
260.00	7.90
262.50	7.24
265.00	7.31
267.50	7.94
270.00	7.98
272.50	7.38
275.00	7.45
277.50	8.00
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282.50	7.99
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287.50	7.96
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292.50	7.86
295.00	7.85
297.50	7.90
300.00	7.84
302.50	7.82
305.00	7.86
307.50	7.80
310.00	7.82
312.50	7.84
315.00	7.78
317.50	7.86
320.00	7.86
322.50	8.01
325.00	8.34
327.50	8.14
330.00	8.98
332.50	8.93
335.00	9.91
337.50	10.90
340.00	10.93
342.50	11.92
345.00	11.80
347.50	12.74
350.00	12.66
352.50	12.82
355.00	12.82

SECTION **590** RIVER CROSS SECTION  
 SCALE 1: 1000 H  
 1: 200 V



ORIGINAL IN COLOUR

CONSENT ISSUE

C	DESIGN FREEZE 2 - MELLING UPDATE	RHTA	LOHA	4/09/21
D	DESIGN FREEZE 2 - RESOURCE CONSENT	IARA	LOHA	5/07/21
E	DF2 - RESOURCE CONSENT AMENDMENTS	RHTA	LOHA	18/05/21
F	DF2 - RIPRAP AMENDMENTS	DSW	LOHA	15/06/21
G	CONSENT ISSUE	DFL	LOHA	BSS 28/07/21

No	Revision	Note	Drawn	Checked	Approved	Date



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Drawn	DSW	Designer	TXH
Drafting Check	RBS	Design Check	LOHA
Approved	BRUCE SYMMANS		
Date	28/07/21		

Client **RIVERLINK**  
 Project **RIVERLINK**  
 Title **RIVER CROSS SECTIONS SECTION 590**

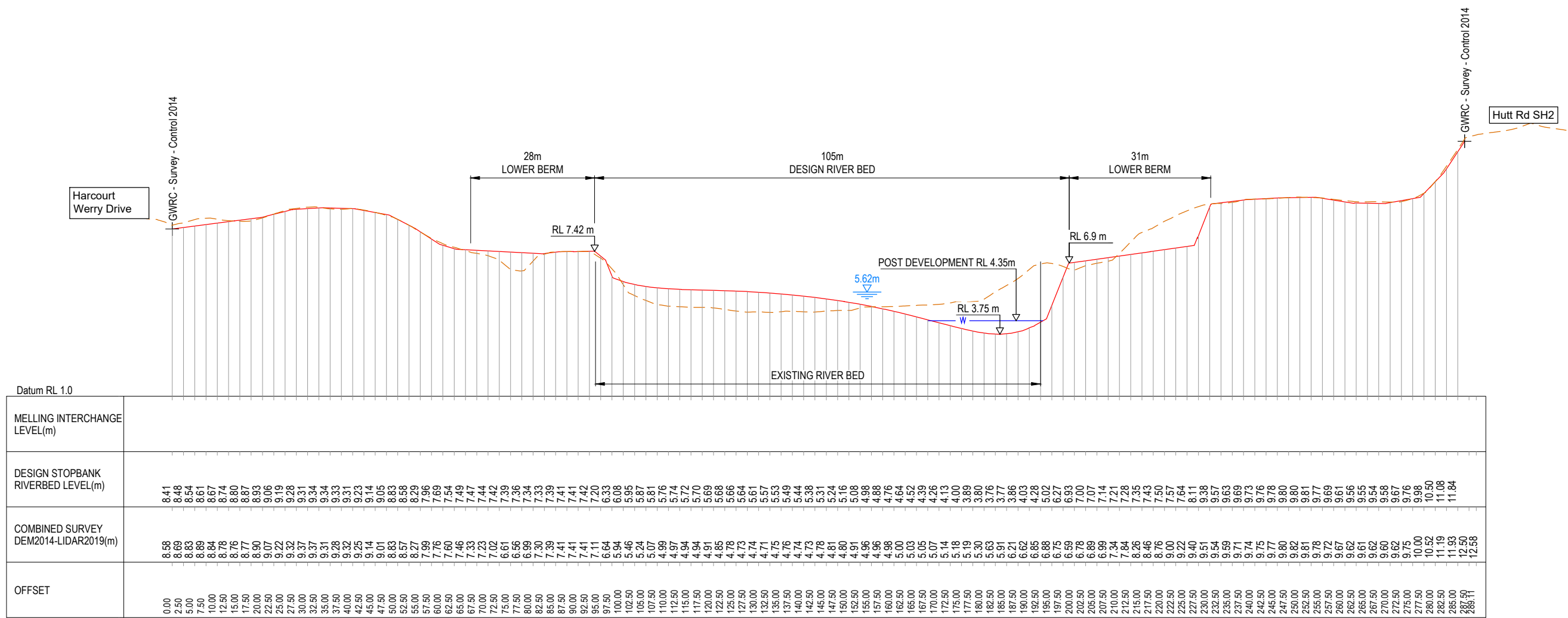
Original Size **A3** Drawing No: **A16-4381-SB427**

Rev: **G**

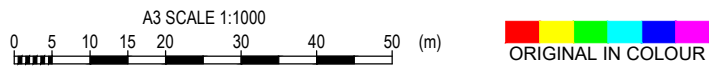


LEGEND	
	PROPOSED STOPBANK AND RIVERWORKS DESIGN
	PROPOSED MELLING INTERCHANGE DESIGN
	EXISTING GROUND (2019 AND 2014 LIDAR COMBINED)
	PROPOSED ROCK RIPRAP

- NOTES:
- DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
  - LEVEL DATUM: LINZ (MSL) WELLINGTON VERTICAL DATUM 1953.
  - DIMENSIONS SHOWN HAVE BEEN PULLED DIRECTLY FROM THE DIMENSIONS IN THE DESIGN CAD FILE. THESE SHOW WHAT WE HAVE DESIGNED TO AND MAY NOT LINE UP WITH THE DISTINCT POINTS ON THE SECTIONS DESIGN FILE, SUPPLIED BY GWRC 14.01.2021.
  - 7 DAY MALF WATER LEVEL STANDS FOR 7 DAY MEAN ANNUAL LOW FLOW WATER LEVEL.
  - 2019 LIDAR SOMETIMES PICKED UP WATER LEVEL AND NOT RIVERBED LEVEL. WHERE THIS HAS HAPPENED THE 2014 DESIGN RIVER BED LEVEL WAS USED AS EXISTING RIVER BED LEVEL.
  - EXISTING RIVER BED HAS BEEN INTERPRETED FROM LIDAR INFORMATION.



SECTION **600** RIVER CROSS SECTION  
 SCALE 1: 1000 H  
 1: 200 V



**CONSENT ISSUE**

C	DESIGN FREEZE 2 - MELLING UPDATE	RHTA	LOHA	4/09/21		
D	DESIGN FREEZE 2 - RESOURCE CONSENT	IARA	LOHA	5/07/21		
E	DF2 - RESOURCE CONSENT AMENDMENTS	RHTA	LOHA	18/05/21		
F	DF2 - RIPRAP AMENDMENTS	DSW	LOHA	15/06/21		
G	CONSENT ISSUE	DFL	LOHA	BSS 28/07/21		
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Checked	Approved	Date



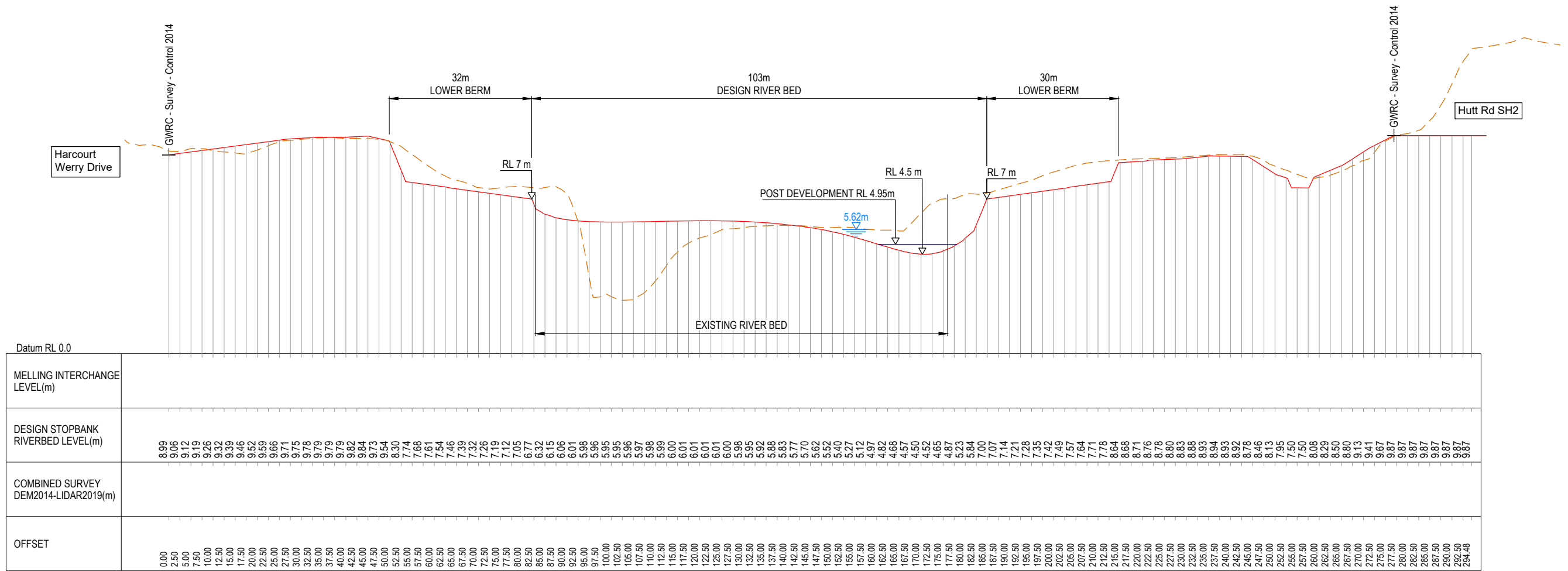
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Drawn	DSW	Designer	TXH
Drafting Check	RBS	Design Check	LOHA
Approved	BRUCE SYMMANS		
Date	28/07/21		
Scale	1:1000		

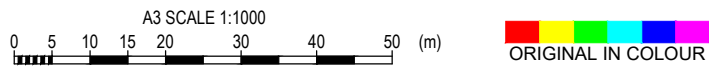
Client	<b>RIVERLINK</b>		
Project	<b>RIVERLINK</b>		
Title	<b>RIVER CROSS SECTIONS SECTION 600</b>		
Original Size	A3	Drawing No:	<b>A16-4381-SB428</b>
Rev:	<b>G</b>		

LEGEND	
	PROPOSED STOPBANK AND RIVERWORKS DESIGN
	PROPOSED MELLING INTERCHANGE DESIGN
	EXISTING GROUND (2019 AND 2014 LIDAR COMBINED)
	PROPOSED ROCK RIPRAP

- NOTES:
- DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
  - LEVEL DATUM: LINZ (MSL) WELLINGTON VERTICAL DATUM 1953.
  - DIMENSIONS SHOWN HAVE BEEN PULLED DIRECTLY FROM THE DIMENSIONS IN THE DESIGN CAD FILE. THESE SHOW WHAT WE HAVE DESIGNED TO AND MAY NOT LINE UP WITH THE DISTINCT POINTS ON THE SECTIONS DESIGN FILE, SUPPLIED BY GWRC 14.01.2021.
  - 7 DAY MALF WATER LEVEL STANDS FOR 7 DAY MEAN ANNUAL LOW FLOW WATER LEVEL.
  - 2019 LIDAR SOMETIMES PICKED UP WATER LEVEL AND NOT RIVERBED LEVEL. WHERE THIS HAS HAPPENED THE 2014 DESIGN RIVER BED LEVEL WAS USED AS EXISTING RIVER BED LEVEL.
  - EXISTING RIVER BED HAS BEEN INTERPRETED FROM LIDAR INFORMATION.



SECTION 610 RIVER CROSS SECTION  
SCALE 1: 1000 H  
1: 200 V



CONSENT ISSUE

C	DESIGN FREEZE 2 - MELLING UPDATE	RHTA	LOHA	4/09/21		
D	DESIGN FREEZE 2 - RESOURCE CONSENT	IARA	LOHA	5/07/21		
E	DF2 - RESOURCE CONSENT AMENDMENTS	RHTA	LOHA	18/05/21		
F	DF2 - RIPRAP AMENDMENTS	DSW	LOHA	15/06/21		
G	CONSENT ISSUE	DFL	LOHA	BSS 28/07/21		
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Checked	Approved	Date

**RiverLink**  
Isthmus. Tonkin+Taylor GHD Holmes

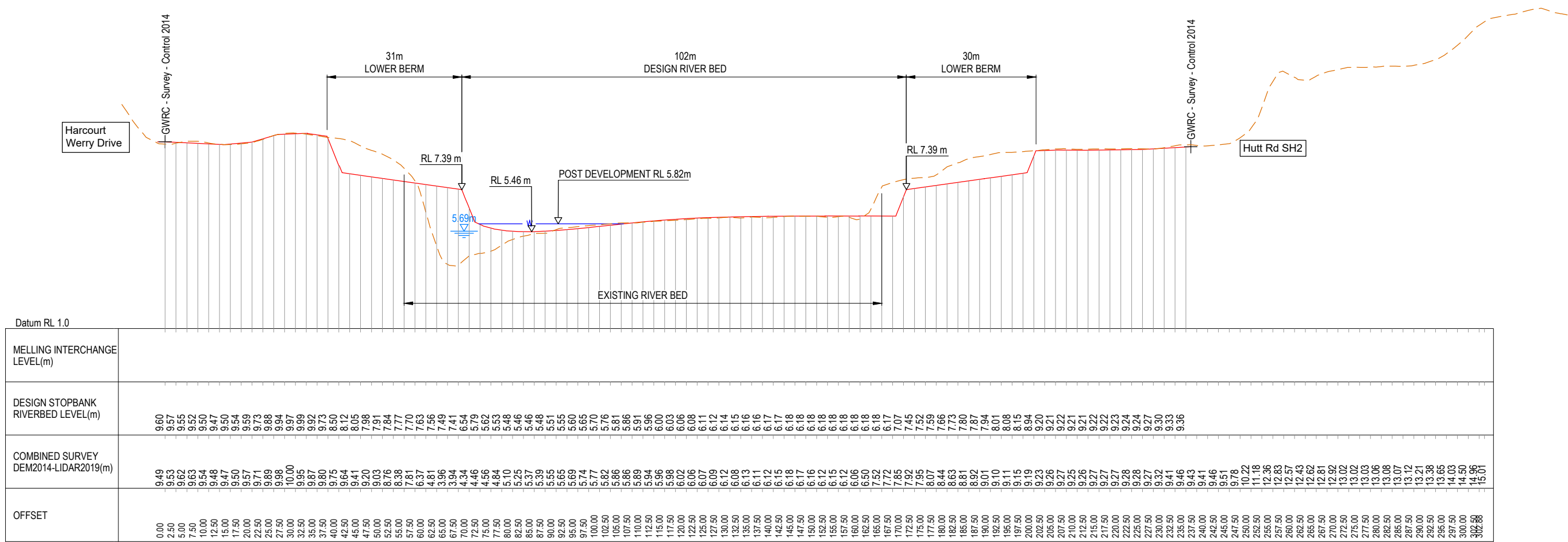
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Drawn	DSW	Designer	TXH
Drafting Check	RBS	Design Check	LOHA
Approved	BRUCE SYMMANS		
Date	28/07/21		
Scale	1:1000		

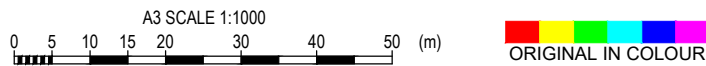
Client	RIVERLINK		
Project	RIVERLINK		
Title	RIVER CROSS SECTIONS SECTION 610		
Original Size	A3	Drawing No:	A16-4381-SB429
Rev:	G		

LEGEND	
	PROPOSED STOPBANK AND RIVERWORKS DESIGN
	PROPOSED MELLING INTERCHANGE DESIGN
	EXISTING GROUND (2019 AND 2014 LIDAR COMBINED)
	PROPOSED ROCK RIPRAP

- NOTES:
- DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
  - LEVEL DATUM: LINZ (MSL) WELLINGTON VERTICAL DATUM 1953.
  - DIMENSIONS SHOWN HAVE BEEN PULLED DIRECTLY FROM THE DIMENSIONS IN THE DESIGN CAD FILE. THESE SHOW WHAT WE HAVE DESIGNED TO AND MAY NOT LINE UP WITH THE DISTINCT POINTS ON THE SECTIONS DESIGN FILE, SUPPLIED BY GWRC 14.01.2021.
  - 7 DAY MALF WATER LEVEL STANDS FOR 7 DAY MEAN ANNUAL LOW FLOW WATER LEVEL.
  - 2019 LIDAR SOMETIMES PICKED UP WATER LEVEL AND NOT RIVERBED LEVEL. WHERE THIS HAS HAPPENED THE 2014 DESIGN RIVER BED LEVEL WAS USED AS EXISTING RIVER BED LEVEL.
  - EXISTING RIVER BED HAS BEEN INTERPRETED FROM LIDAR INFORMATION.



SECTION 620 RIVER CROSS SECTION  
 SCALE 1: 1000 H  
 1: 200 V



CONSENT ISSUE

C	DESIGN FREEZE 2 - MELLING UPDATE	RHTA	LOHA	4/09/21
D	DESIGN FREEZE 2 - RESOURCE CONSENT	IARA	LOHA	5/07/21
E	DF2 - RESOURCE CONSENT AMENDMENTS	RHTA	LOHA	18/05/21
F	DF2 - RIPRAP AMENDMENTS	DSW	LOHA	15/06/21
G	CONSENT ISSUE	DFL	LOHA	28/07/21







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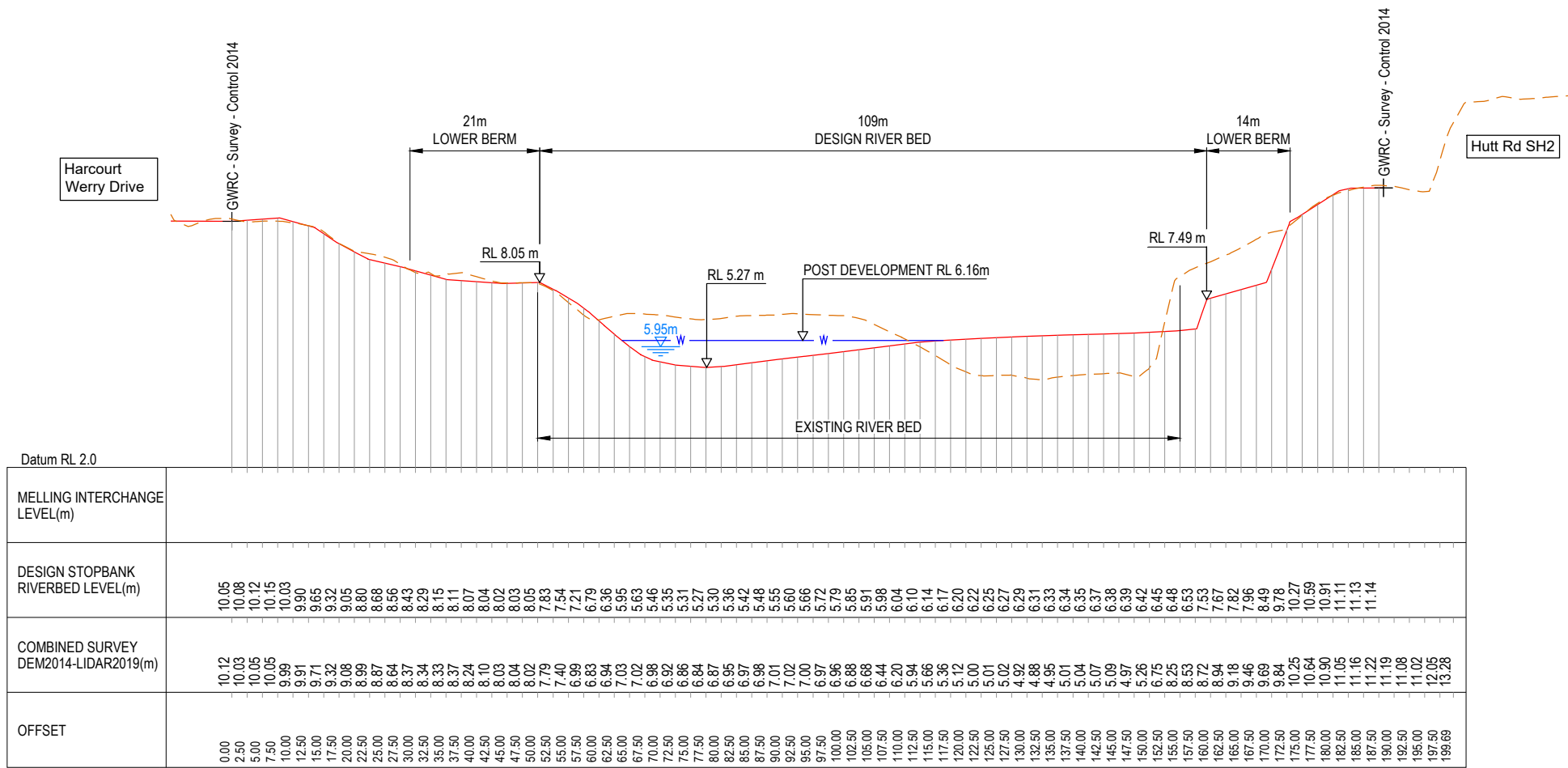
Drawn	DSW	Designer	TXH
Drafting Check	RBS	Design Check	LOHA
Approved	BRUCE SYMMANS		
Date	28/07/21		
Scale	1:1000		

Client	RIVERLINK		
Project	RIVERLINK		
Title	RIVER CROSS SECTIONS SECTION 620		
Original Size	A3	Drawing No:	A16-4381-SB430
Rev:	G		

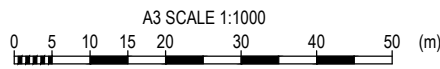


LEGEND	
	PROPOSED STOPBANK AND RIVERWORKS DESIGN
	PROPOSED MELLING INTERCHANGE DESIGN
	EXISTING GROUND (2019 AND 2014 LIDAR COMBINED)
	PROPOSED ROCK RIPRAP

- NOTES:
- DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
  - LEVEL DATUM: LINZ (MSL) WELLINGTON VERTICAL DATUM 1953.
  - DIMENSIONS SHOWN HAVE BEEN PULLED DIRECTLY FROM THE DIMENSIONS IN THE DESIGN CAD FILE. THESE SHOW WHAT WE HAVE DESIGNED TO AND MAY NOT LINE UP WITH THE DISTINCT POINTS ON THE SECTIONS DESIGN FILE, SUPPLIED BY GWRC 14.01.2021.
  - 7 DAY MALF WATER LEVEL STANDS FOR 7 DAY MEAN ANNUAL LOW FLOW WATER LEVEL.
  - 2019 LIDAR SOMETIMES PICKED UP WATER LEVEL AND NOT RIVERBED LEVEL. WHERE THIS HAS HAPPENED THE 2014 DESIGN RIVER BED LEVEL WAS USED AS EXISTING RIVER BED LEVEL.
  - EXISTING RIVER BED HAS BEEN INTERPRETED FROM LIDAR INFORMATION.



SECTION 640 RIVER CROSS SECTION  
SCALE 1: 1000 H  
1: 200 V



ORIGINAL IN COLOUR

CONSENT ISSUE

C	DESIGN FREEZE 2 - MELLING UPDATE	RHTA	LOHA	4/09/21		
D	DESIGN FREEZE 2 - RESOURCE CONSENT	IARA	LOHA	5/07/21		
E	DF2 - RESOURCE CONSENT AMENDMENTS	RHTA	LOHA	18/05/21		
F	DF2 - RIPRAP AMENDMENTS	DSW	LOHA	15/06/21		
G	CONSENT ISSUE	DFL	LOHA	BSS 28/07/21		
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Checked	Approved	Date



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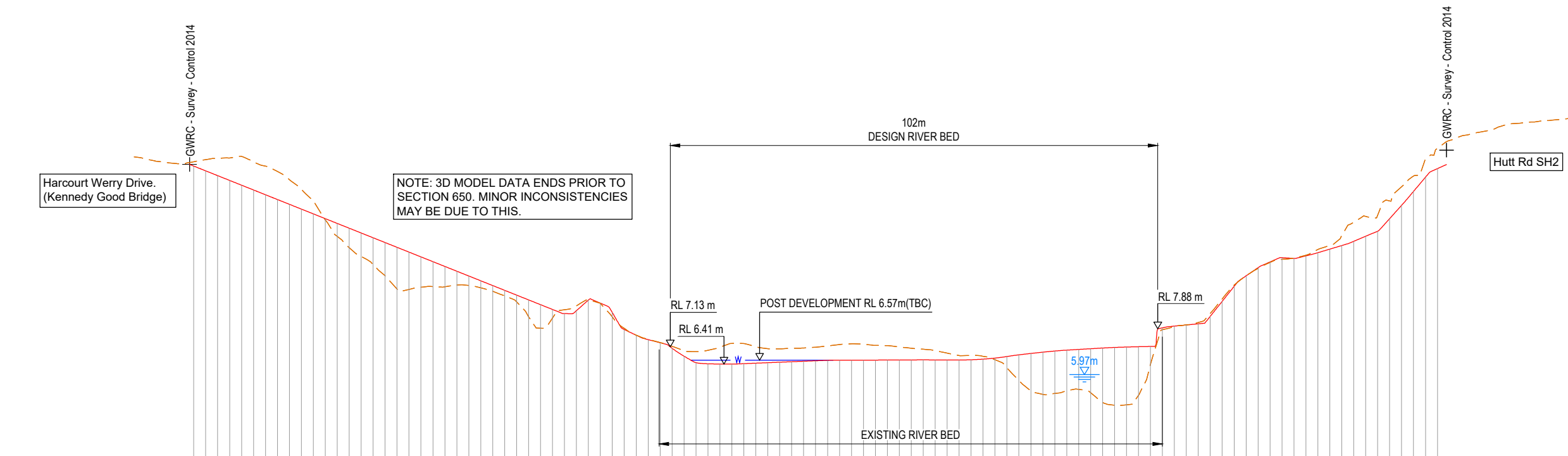
Drawn	DSW	Designer	TXH
Drafting Check	RBS	Design Check	LOHA
Approved	BRUCE SYMMANS		
Date	28/07/21		
Scale	1:1000		

Client	RIVERLINK		
Project	RIVERLINK		
Title	RIVER CROSS SECTIONS SECTION 640		
Original Size	A3	Drawing No:	A16-4381-SB432
Rev:	G		

**LEGEND**

- PROPOSED STOPBANK AND RIVERWORKS DESIGN
- PROPOSED MELLING INTERCHANGE DESIGN
- EXISTING GROUND (2019 AND 2014 LIDAR COMBINED)
- PROPOSED ROCK RIPRAP

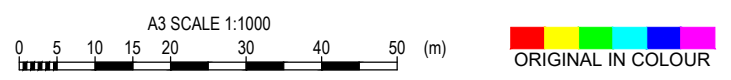
- NOTES:**
- DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
  - LEVEL DATUM: LINZ (MSL) WELLINGTON VERTICAL DATUM 1953.
  - DIMENSIONS SHOWN HAVE BEEN PULLED DIRECTLY FROM THE DIMENSIONS IN THE DESIGN CAD FILE. THESE SHOW WHAT WE HAVE DESIGNED TO AND MAY NOT LINE UP WITH THE DISTINCT POINTS ON THE SECTIONS DESIGN FILE, SUPPLIED BY GWRC 14.01.2021.
  - 7 DAY MALF WATER LEVEL STANDS FOR 7 DAY MEAN ANNUAL LOW FLOW WATER LEVEL.
  - 2019 LIDAR SOMETIMES PICKED UP WATER LEVEL AND NOT RIVERBED LEVEL. WHERE THIS HAS HAPPENED THE 2014 DESIGN RIVER BED LEVEL WAS USED AS EXISTING RIVER BED LEVEL.
  - EXISTING RIVER BED HAS BEEN INTERPRETED FROM LIDAR INFORMATION.



Datum RL 2.0

OFFSET	COMBINED SURVEY DEM2014-LIDAR2019(m)	DESIGN STOPBANK RIVERBED LEVEL(m)	MELLING INTERCHANGE LEVEL(m)
0.00	14.77		
2.50	14.86	14.68	
5.00	14.95	14.48	
7.50	15.00	14.28	
10.00	15.02	14.08	
12.50	15.09	13.88	
15.00	14.86	13.68	
17.50	14.68	13.48	
20.00	14.46	13.28	
22.50	14.12	13.09	
25.00	13.71	12.89	
27.50	13.23	12.69	
30.00	12.43	12.49	
32.50	11.74	12.29	
35.00	11.28	12.09	
37.50	10.91	11.89	
40.00	10.57	11.69	
42.50	10.10	11.49	
45.00	9.55	11.29	
47.50	9.53	11.09	
50.00	9.62	10.89	
52.50	9.65	10.69	
55.00	9.64	10.49	
57.50	9.72	10.29	
60.00	9.70	10.09	
62.50	9.60	9.89	
65.00	9.45	9.69	
67.50	9.26	9.49	
70.00	9.01	9.29	
72.50	8.39	9.09	
75.00	7.91	8.89	
77.50	8.34	8.69	
80.00	8.68	8.52	
82.50	8.85	8.64	
85.00	9.09	8.95	
87.50	8.95	8.96	
90.00	8.38	8.56	
92.50	7.90	7.86	
95.00	7.62	7.62	
97.50	7.44	7.43	
100.00	7.31	7.30	
102.50	7.16	7.07	
105.00	6.97	6.74	
107.50	6.93	6.47	
110.00	6.99	6.42	
112.50	7.12	6.41	
115.00	7.27	6.41	
117.50	7.27	6.43	
120.00	7.14	6.45	
122.50	7.06	6.47	
125.00	7.05	6.49	
127.50	7.07	6.51	
130.00	7.08	6.53	
132.50	7.11	6.55	
135.00	7.17	6.57	
137.50	7.23	6.58	
140.00	7.26	6.58	
142.50	7.24	6.58	
145.00	7.20	6.58	
147.50	7.18	6.58	
150.00	7.13	6.58	
152.50	7.08	6.59	
155.00	7.03	6.59	
157.50	6.97	6.58	
160.00	6.87	6.58	
162.50	6.77	6.58	
165.00	6.77	6.59	
167.50	6.74	6.62	
170.00	6.59	6.66	
172.50	6.26	6.73	
175.00	5.73	6.80	
177.50	5.30	6.86	
180.00	5.15	6.91	
182.50	5.19	6.96	
185.00	5.29	6.99	
187.50	5.36	7.02	
190.00	5.22	7.05	
192.50	4.81	7.08	
195.00	4.69	7.11	
197.50	4.71	7.12	
200.00	5.11	7.14	
202.50	6.40	7.15	
205.00	7.84	7.92	
207.50	7.99	8.00	
210.00	8.05	8.05	
212.50	8.15	8.09	
215.00	8.53	8.41	
217.50	9.13	9.03	
220.00	9.72	9.66	
222.50	10.11	10.10	
225.00	10.41	10.44	
227.50	10.66	10.68	
230.00	10.78	10.86	
232.50	10.84	10.83	
235.00	10.96	10.93	
237.50	11.20	11.06	
240.00	11.37	11.21	
242.50	11.78	11.36	
245.00	12.34	11.54	
247.50	12.58	11.75	
250.00	12.64	11.96	
252.50	13.23	12.49	
255.00	13.82	13.04	
257.50	14.27	13.63	
260.00	14.96	14.22	
262.50	15.42	14.58	
265.00	15.75		
267.50	15.94		
270.00	16.09		

SECTION 650 RIVER CROSS SECTION  
SCALE 1: 1000 H  
1: 200 V



**CONSENT ISSUE**

C	DESIGN FREEZE 2 - MELLING UPDATE	RHTA	LOHA	4/09/21
D	DESIGN FREEZE 2 - RESOURCE CONSENT	lARA	LOHA	5/07/21
E	DF2 - RESOURCE CONSENT AMENDMENTS	RHTA	LOHA	18/05/21
F	DF2 - RIPRAP AMENDMENTS	DSW	LOHA	15/06/21
G	CONSENT ISSUE	DFL	LOHA	BSS 28/07/21

**RiverLink**  
Isthmus. Tonkin+Taylor GHD Holmes

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Client	RIVERLINK		
Project	RIVERLINK		
Title	RIVER CROSS SECTIONS SECTION 650		
Original Size	A3	Drawing No:	A16-4381-SB433
Rev:	G		