

Before Hearing Commissioners
at Christchurch

under: the Resource Management Act 1991

in the matter of: application RMA/2021/3921 for consents to demolish
the heritage-listed Grand National Stand at Riccarton
Racecourse

and: **Canterbury Jockey Club**
Applicant

Evidence of Chris Lang (quantity surveyor)

Dated: 17 August 2022

Reference: JM Appleyard (jo.appleyard@chapmantripp.com)
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EVIDENCE OF CHRIS LANG

INTRODUCTION

- 1 My full name is Christopher David Lang. I am the Commercial Manager and Director of McKay Lang Limited, a Christchurch-based construction company.
- 2 I have been a quantity surveyor for thirty years, I hold a BSc (Hons) in Commercial Management and Quantity Surveying from Loughborough University in the UK. I am also a member of the New Zealand Institute of Quantity Surveyors.
- 3 My experience is predominantly based on working for main contractors in the commercial sector. I have also worked for a structural steel subcontractor that specialises in structural strengthening.
- 4 My experience specifically relating to structural strengthening started ten years before the Canterbury Earthquakes when we strengthened many of the buildings in the laneways around Christchurch.
- 5 Post-earthquake I delivered in excess of \$100,000,000 worth of insurance estimates to MWH Vero, securing \$40,000,000 back in actual construction work. My practical knowledge and expertise allows me to understand the building from a basic walk through and then to converse with the structural engineer to develop a solution. A skill which is evident in my estimate pricing that generally includes detail down to the nuts and bolts.
- 6 I am familiar with the Canterbury Jockey Club's (*CJC*) application to demolish the heritage-listed Grand National Stand (*GNS*) at Riccarton Racecourse (the *Application*). I am authorised to give evidence on behalf of CJC.

CODE OF CONDUCT

- 7 Although this is not an Environment Court hearing, I note that in preparing my evidence I have reviewed the Code of Conduct for Expert Witnesses contained in Part 7 of the Environment Court Practice Note 2014. I have complied with it in preparing my evidence. I confirm that the issues addressed in this statement of evidence are within my area of expertise, except where relying on the opinion or evidence of other witnesses. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

SCOPE OF EVIDENCE

- 8 In preparing my evidence, I have reviewed:
- 8.1 The Application;
 - 8.2 Responses to Council's further information requests;
 - 8.3 Submissions on the Application;
 - 8.4 The Officer's Report and associated appendices;
 - 8.5 The evidence of other witnesses for CJC; and
 - 8.6 The concept seismic strengthening design.
- 9 This evidence is divided as follows:
- 9.1 The seismic strengthening works;
 - 9.2 The builders work associated with completing these works;
 - 9.3 The additional compliance related works that would need completing to enable a building consent to be issued;
 - 9.4 The works not included in a QS assessment that are likely to incur further costs; and
 - 9.5 Response to Officer's report and appendices.

SUMMARY OF AND UPDATED QUANTITY SURVEYING (QS) COST ESTIMATES

- 10 Based on the 34%NBS and 67%NBS solutions recommended and set out in the report of **Mr George**, I estimated in November 2021 that the cost of strengthening under those two options would be:
- 10.1 \$ 13,869,828.00 for the 34%NBS solution; and
 - 10.2 \$ 16,190,339.00 for the 67%NBS solution.
- 11 Given the current construction climate giving rise to restricted building materials, increased steel prices, and labour delays (among other things) I have revisited my cost estimates for this hearing which I attach at **Appendix 1**. As of August 2022, I estimate that the cost of strengthening under those two options would be:
- 11.1 \$ 15,796,470.00 for the 34%NBS solution; and
 - 11.2 \$ 18,063,342.00 for the 67%NBS solution.

THE QUANTITY SURVEYING (QS) ASSESSMENT – ASSUMPTIONS AND ATTRIBUTABLE COSTS

The Seismic Strengthening Works

- 12 As part of my estimate preparation I made sure to thoroughly read and understand the concept proposed so that I could accurately cost the works. The concept proposed is similar to other schemes that I have worked on in the past and appeared to be the most appropriate way to strengthen the building.
- 13 The value of the strengthening works is approximately 77% of the total value of the project, this percentage is applicable to both the 34% and 67%NBS options.
- 14 My estimate to complete the works includes all the necessary items required to complete the works which might not necessarily be shown on the concept design but would be required such as grouting, dry packing and the like.
- 15 There will be significant coordination required to complete these works due to the number of people and vehicle movements required to complete the works.

Builders work associated with the seismic strengthening works

- 16 The value of the builders work required to complete these strengthening works is 21% of the total value of the project, this percentage is applicable to both the 34% and 67%NBS options.
- 17 In completing this estimate, based on prior experience, I have assumed there is no chance to remove and replace linings, fixtures or fittings due to compliance issues from when the building was originally built through to the current day. So the estimate allows for new products throughout, and doesn't allow for any targeted decorating repairs. I consider this to be appropriate and realistic.
- 18 When replacing linings the supporting structure (timber framing and the like) will need to be altered to allow fastenings to be installed to current best practice / product guidelines / building code. For example, additional timber would need to be added when fixing gib to allow for fixings at 300mm centres.

Additional compliance related works that would need completing to enable a building consent to be issued

- 19 The value of the works required to ensure compliance with current accessibility and life safety requirements is 2% of the project, this percentage is applicable to both the 34% and 67%NBS options.
- 20 In making allowances for compliance requirements I have considered all the factors that we learned from a recent south island

wide strengthening programme we have completed, upgrading fire alarms systems, requirements for emergency lighting coverage, additional signage, and altering doors and hardware to allow easy exit in the direction of travel.

Works not included in a QS assessment that are likely to incur further costs

- 21 This estimate relates to the concept design for strengthening works only, it does not take into account any works required to the building to repair other earthquake damage, or other parts of the structure (ie timber bleachers) that may have been affected due to the building not being in use.
- 21.1 There could be a significant amount of crack injection to complete to the external elevation and some of the structural elements internally. The range for crack injection is between \$ 150 and \$ 185 per lm.
- 21.2 Floor cracks requiring filling with a pourable grout could be completed for between \$ 60 and \$ 85 per lm.
- 21.3 Replacement of timber bleacher seating including painting and fixings would be between \$ 45 and \$ 65 per lm, with each new metal bracket to support the runs of timber painted and including the appropriate level of corrosion protection at between \$ 450 and \$ 650 each installed.
- 21.4 If panes of glass require replacing into existing frames this would be between \$ 180 and \$ 250 m2.
- 22 The Aurecon peer review also notes that in addition to upgrading the seismic capacity the final scheme should allow for bringing the gravity and wind loads. These costs are not allowed for in this estimate, but from previous experience on another local racecourse stand upgrade this could require the following:
- 22.1 Installation of cross bracing throughout the roof structure approximate cost of \$ 3,000 per pair of braces.
- 22.2 Additional columns connecting the roof to the bleacher structure below approximate cost of \$ 5,000 per column.
- 22.3 Upgrade of internal structure to provide load paths through the structure into increased foundation pads approximate cost for a 1 x 1 x 1m pad with a UB column of \$ 12,500 per pad and UB column.
- 22.4 Installation of structural steel PFC's or the like to the floor supporting beams to increase the floor support beams

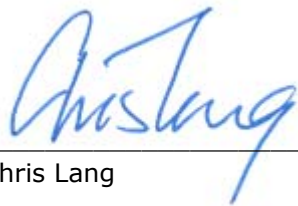
approximate cost of \$ 3,750 per nine metre length of PFC bolted to beams with chemset fixings.

- 23 In summary, there is likely to be an additional \$ 3,000,000 to \$ 5,000,000 worth of costs incurred that are not included in my QS estimate.

RESPONSE TO S 42A REPORT AND APPENDICES

- 24 I understand that the Council obtained a peer review of **Mr George's** report attached to the Application. This peer review considered the seismic strengthening concepts proposed were plausible and reasonable. I note that on this basis, the Council Officer did not consider it necessary to have my QS estimates peer reviewed.

Dated: 17 August 2022



Chris Lang

APPENDIX 1

Grand National Stand - 34% NBS Option

Job Name : JOCKEY R3 34C

Job Description

Client's Name: Kirk Roberts Consulting

Riccarton Racecourse - Grand National Stand

Trade Description	Trade %	Cost/ m2	--- Labour ---			Material Total	Sub Total	Mark Up %	Trade Total
			Qty	Rate	Total				
Grand National Stand - Riccarton Racecourse									
34%NBS Budget Estimate									
Substructure	8.59					1,179,484	1,179,484		1,179,484
Frame	43.38					5,958,527	5,958,527		5,958,527
Upper Floors	0.98					135,212	135,212		135,212
Structure Sub Total									<u>7,273,223.00</u>
External Walls	4.76					653,645	653,645		653,645
External Fabric Subtotal									<u>653,645.00</u>
Stairs	0.20					28,030	28,030		28,030
Internal Walls, Partitions	1.64					225,400	225,400		225,400
Floor Finishes	3.62					497,794	497,794		497,794
Wall Finishes	0.83					114,520	114,520		114,520
Ceiling Finishes	2.08					285,900	285,900		285,900
Fittings and Fixtures	0.70					96,470	96,470		96,470
Internal Finishing Subtotal									<u>1,248,114.00</u>
Plumbing and Drainage Services	0.70					96,390	96,390		96,390
Fire Services	1.21					166,560	166,560		166,560
Electrical and Data Services	1.07					146,880	146,880		146,880
Lifts & Escalator	0.29					39,440	39,440		39,440
Services Subtotal									<u>449,270.00</u>
External Works	2.56					351,693	351,693		351,693
External Works & Sundries Subtotal									<u>351,693.00</u>
Preliminaries	6.48					890,620	890,620		890,620
Margin	4.36					598,557	598,557		598,557
Contingency	10.89					1,496,392	1,496,392		1,496,392
Prelims, Contingency Subtotal									<u>2,985,569.00</u>
Inflation	5.64					774,547	774,547		774,547
Total Construction Cost									<u>13,736,061.00</u>
	100.00				60	13,736,061	13,736,061		13,736,061

Final Total \$ **13,736,061**
G.S.T. 15.00% : **2,060,409**
Final Total Incl. G.S.T. : \$ **15,796,470**

Grand National Stand - 34% NBS Option

Job Name : JOCKEY R3 34C

Job Description

Client's Name : Kirk Roberts Consulting

Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade : <u>Substructure</u></i>								
Level 0 - New Ground Beams								
Sawcut, breakout and dispose concrete slab internally, working carefully around existing columns	243.00	m2	85.00					20,655.00
Sawcut, breakout and dispose concrete slab externally, working carefully around existing panels and columns	23.00	m2	85.00					1,955.00
Carefully cut sections of external columns and scabble	1.00	no	1,105.00					1,105.00
Hand excavate and dispose off site from above areas	532.00	m3	225.00					119,700.00
Backfill with suitable fill and compact ready for concrete	27.00	m3	270.00					7,290.00
Place and brace formwork	421.00	m2	65.00					27,365.00
Drill and epoxy bar through column foundation (reinforcing measured elsewhere)	28.00	no	34.50					966.00
Drill and epoxy starters into existing foundation beam (reinforcing measured elsewhere)	740.00	no	34.50					25,530.00
Supply and place reinforcing	86,335.00	kg	7.50					647,512.50
Supply and place 30MPa pump mix concrete to ground beams, back up to slab level. Finish to a F5 finish	559.00	m3	435.00					243,165.00
Existing Stairs and Ramps								
Excavate and dispose off site from above areas	80.00	m3	225.00					18,000.00
Backfill with suitable fill and compact ready for concrete	48.00	m3	270.00					12,960.00
Supply and place reinforcing	4,320.00	kg	7.50					32,400.00
Supply and place 30MPa pump mix concrete to ground beams, back up to slab level. Finish to a F5 finish	48.00	m3	435.00					20,880.00
Substructure Total :								1,179,483.50

Grand National Stand - 34% NBS Option

Job Name : JOCKEY R3 34C

Job Description

Client's Name : Kirk Roberts Consulting

Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade : Frame</i>								
Levels 1 - 4 - New Super Columns and Beams - Assumed Poured in Five Lifts								
Scabble the edges of each column to be poured against	988.00	m	40.00					39,520.00
Reo Scan, drill columns ready for post tensioned bars	884.00	no	56.00					49,504.00
Supply and place reinforcing	158,671.00	kg	7.50					1,190,032.50
Supply and place Macalloy Post Tensioned system	1,560.00	no	570.00					889,200.00
Supply, place, strike and move formwork. Assumed two sets of formwork, struck after three days and relocated to floor above	3,202.00	m2	215.00					688,430.00
Supply, place, strike formwork to form nib to cover post tensioning. Assumed two sets of formwork, struck after three days and relocated to floor above	138.00	m2	215.00					29,670.00
Supply and place 30MPa pump mix concrete to columns and beams. Finish to a F5 finish	783.00	m3	550.00					430,650.00
Supply and place 30MPa pump mix concrete to form nib to cover post tensioning. Finish to a F5 finish	9.00	m3	550.00					4,950.00
REV 2 - New Bleacher Support Frames and Additional Main Build Floor Support Beams								
Scabble the edges of each column to be poured against	171.00	m	40.00					6,840.00
Reo Scan, drill columns ready for post tensioned bars	155.00	no	56.00					8,680.00
Supply and place reinforcing	13,172.25	kg	7.50					98,791.88
Supply and place Macalloy Post Tensioned system	155.00	no	570.00					88,350.00
Supply, place, strike and move formwork. Assumed two sets of formwork, struck after three days and relocated to floor above	307.80	m2	215.00					66,177.00
Supply, place, strike formwork to form nib to cover post tensioning. Assumed two sets of formwork, struck after three days and relocated to floor above	189.00	m2	215.00					40,635.00

Grand National Stand - 34% NBS Option

Job Name : JOCKEY R3 34C

Job Description

Client's Name : Kirk Roberts Consulting

Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade : Frame</i>								<i>(Continued)</i>
Supply and place 30MPa pump mix concrete to columns and beams. Finish to a F5 finish	65.00	m3	550.00					35,750.00
Supply and place 30MPa pump mix concrete to form nib to cover post tensioning. Finish to a F5 finish	18.90	m3	550.00					10,395.00
Reid Bracing to Bleachers								
Supply and install RB32 reid bracing as detailed internally. Assumed fixed to concrete with 12mm plate fabricated brackets	3.00	no	36,912.00					110,736.00
Supply and install RB32 reid bracing as detailed externally. Assumed fixed to steel with 12mm plate fabricated brackets	1.00	no	37,110.00					37,110.00
Supply and install RB32 reid bracing as detailed to roof space above floors. Assumed fixed to steel with 12mm plate fabricated brackets	4.00	no	10,970.00					43,880.00
Lift Shaft								
Break out pocket in wall for drag bars	4.00	no	530.00					2,120.00
Supply and install drag bars	16.00	no	1,440.00					23,040.00
Supply and install carbon fibre strips	4.00	no	1,260.00					5,040.00
General Concrete Repairs								
Allow to repair spalling to existing concrete frames as works progress	25.00	no	395.00					9,875.00
Allow for low pressure epoxy injection to cracks, finished ready for decoration	350.00	m	185.00					64,750.00
Existing Stairs and Ramps								
Demolish existing damaged precast concrete and ramps and stairs	1.00	no	75,000.00					75,000.00
Engineer design formwork and propping solution for new insitu steps and ramps	1.00	no	375,000.00					375,000.00
Supply and place reinforcing	109,440.00	kg	7.50					820,800.00
Supply and place 30MPa pump mix concrete to columns, beams, and deck	912.00	m3	550.00					501,600.00
Connections to existing building	4.00	no	12,500.00					50,000.00
Galvanised steel handrails	240.00	m	675.00					162,000.00
Frame Total :								5,958,526.38

Grand National Stand - 34% NBS Option

Job Name : JOCKEY R3 34C

Job Description

Client's Name : Kirk Roberts Consulting

Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade : <u>Upper Floors</u></i>								
Levels 1 - 4 - Generally								
Supply and install temporary props for the duration of the works; props placed slab to slab	264.00	no	360.00					95,040.00
Supply and install temporary barriers to edges of open excavations on floors	579.00	m	18.00					10,422.00
General Concrete Repairs								
Allow for gravity placed epoxy mortar repairs to floor slab, includes for V grooving slab and finishing ready for carpet	350.00	m	85.00					29,750.00
Upper Floors Total :								135,212.00

Grand National Stand - 34% NBS Option

Job Name : <u>JOCKEY R3 34C</u>	Job Description
Client's Name : <u>Kirk Roberts Consulting</u>	Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade : <u>External Walls</u></i>								
Saw Cuts to Spandrel Panels								
Saw cut and break out 100mm of wall panels	68.00	m	55.00					3,740.00
Install slip brackets and install flexible weatherproof sealant	120.00	no	395.00					47,400.00
Compliance Upgrades								
Allow to remove existing door and replace with door and half doorset on hold opens to the Ground Floor entry doors	1.00	no	5,750.00					5,750.00
Add manifestations to entry doors	2.00	no	650.00					1,300.00
Add hold opens to the doors at the top of Stair 2 A&B	2.00	no	1,850.00					3,700.00
General Concrete Repairs								
Allow to repair spalling to existing concrete frames as works progress	50.00	no	395.00					19,750.00
Allow for low pressure epoxy injection to cracks, finished ready for decoration	2,500.00	m	185.00					462,500.00
Allow to paint all walls following crack repair	1,991.00	m2	55.00					109,505.00
External Walls Total :								653,645.00

Grand National Stand - 34% NBS Option

Job Name : <u>JOCKEY R3 34C</u>	Job Description
Client's Name : <u>Kirk Roberts Consulting</u>	Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade : <u>Stairs</u></i>								
Compliance Upgrades								
Provide colour contrast and tactile indicators to all stairs	13.00	no	1,560.00					20,280.00
Supply and install new handrails to stair 1	1.00	no	540.00					540.00
Upgrade handrails to Stairs 4, 5, 6, 7, 9	1.00	no	3,940.00					3,940.00
Close in open risers to Stair 4	1.00	no	2,040.00					2,040.00
Ramps 1 and 2 upgrade handrails	1.00	no	1,230.00					1,230.00
Stairs Total :								28,030.00

Grand National Stand - 34% NBS Option

Job Name : <u>JOCKEY R3 34C</u>	Job Description
Client's Name : <u>Kirk Roberts Consulting</u>	Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade : <u>Internal Walls, Partitions</u></i>								
All Levels								
Allow to remove and dispose of internal partitons as required to complete the works	805.00	m2	85.00					68,425.00
Allow to reinstate timber framed plasterboard walls removed previously	805.00	m2	195.00					156,975.00
<u>Internal Walls, Partitions</u> Total :								225,400.00

Grand National Stand - 34% NBS Option

Job Name : JOCKEY R3 34C

Job Description

Client's Name : Kirk Roberts Consulting

Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade : Floor Finishes</i>								
All Levels								
Uplift and dispose all floor coverings throughout to allow for demolition	3,272.00	m2	56.00					183,232.00
Grind floors and lay new carpet tiles	3,272.00	m2	85.00					278,120.00
Extra value for vinyl to toilet and kitchen areas	654.40	m2	55.00					35,992.00
Compliance Upgrades								
Extra value to ramp up to one side of entry door to Level 2 main bar entry	1.00	no	450.00					450.00
Floor Finishes Total :								497,794.00

Grand National Stand - 34% NBS Option

Job Name :	<u>JOCKEY R3 34C</u>	<u>Job Description</u>
Client's Name :	<u>Kirk Roberts Consulting</u>	Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade :</i> <u>Wall Finishes</u>								
All Levels								
Allow to paint all walls and partitions	3,272.00	m2	35.00					114,520.00
<u>Wall Finishes</u> Total :								114,520.00

Grand National Stand - 34% NBS Option

Job Name : <u>JOCKEY R3 34C</u>	Job Description
Client's Name : <u>Kirk Roberts Consulting</u>	Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade :</i> <u>Ceiling Finishes</u>								
All Levels								
Allow to remove and dispose existing ceiling linings to allow concrete works	894.00	m2	45.00					40,230.00
Allow to frame out and reinstate ceilings, finished ready for painting	894.00	m2	165.00					147,510.00
Allow to paint all ceilings throughout level	3,272.00	m2	30.00					98,160.00
<u>Ceiling Finishes</u> Total :								285,900.00

Grand National Stand - 34% NBS Option

Job Name : <u>JOCKEY R3 34C</u>	Job Description
Client's Name : <u>Kirk Roberts Consulting</u>	Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade : <u>Fittings and Fixtures</u></i>								
All Levels								
Allow to remove and store fixtures and fittings from all floors, reinstate on completion of the works	4.00	no	19,500.00					78,000.00
Compliance Upgrades								
Add accessible counters to all existing counters	7.00	no	1,610.00					11,270.00
Adjust bleacher seating to provide wheelchair spaces	1.00	no	2,700.00					2,700.00
Upgrade building accessible signage	1.00	no	4,500.00					4,500.00
<u>Fittings and Fixtures</u> Total :								96,470.00

Grand National Stand - 34% NBS Option

Job Name : <u>JOCKEY R3 34C</u>	Job Description
Client's Name : <u>Kirk Roberts Consulting</u>	Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade : <u>Plumbing and Drainage Services</u></i>								
All Levels								
Allow to remove and dispose existing fittings to allow installation of super columns	9.00	no	450.00					4,050.00
Allow to alter pipework and install new compliant bathrooms	9.00	no	10,260.00					92,340.00
<u>Plumbing and Drainage Services</u> Total :								96,390.00

Grand National Stand - 34% NBS Option

Job Name : JOCKEY R3 34C

Job Description

Client's Name : Kirk Roberts Consulting

Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade : <u>Fire Services</u></i>								
All Levels								
Allow for isolations as required to complete the works, ensuring building is protected when site is closed	36.00	weeks	1,900.00					68,400.00
Allow to complete an upgrade to assumed a Type 4 system with all cable run in conduit	3,272.00	m2	30.00					98,160.00
<u>Fire Services</u> Total :								166,560.00

Grand National Stand - 34% NBS Option

Job Name : JOCKEY R3 34C

Job Description

Client's Name : Kirk Roberts Consulting

Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade : <u>Electrical and Data Services</u></i>								
All Levels								
<u>Toilets</u>								
Allow to remove and dispose existing fittings to allow installation of super columns	9.00	no	450.00					4,050.00
Allow to alter cabling and install new fittings	9.00	no	5,940.00					53,460.00
Public Areas								
General disconnections and alterations to public areas to allow installation of super columns	36.00	weeks	1,875.00					67,500.00
Extra value for replacement fittings not suitable for reuse	1.00	no	21,870.00					21,870.00
<u>Electrical and Data Services</u> Total :								146,880.00

Grand National Stand - 34% NBS Option

Job Name : <u>JOCKEY R3 34C</u>	Job Description
Client's Name : <u>Kirk Roberts Consulting</u>	Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount	
<i>Trade : <u>Lifts & Escalator</u></i>									
Generally									
Allow for a lift engineer to attend site and move lift as required for liftshaft strengthening works	4.00	no	1,110.00					4,440.00	
Upgrade internal lift car to comply with current code	1.00	no	35,000.00					35,000.00	
<u>Lifts & Escalator</u>							Total :		39,440.00

Grand National Stand - 34% NBS Option

Job Name : JOCKEY R3 34C

Job Description

Client's Name : Kirk Roberts Consulting

Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade : <u>External Works</u></i>								
Generally								
Allow to reinsate tarmac to outside of building line where new ground beams placed	1.00	no	4,500.00					4,500.00
Allow to install additional accessible car parks as required	1.00	no	1,250.00					1,250.00
Allow to remove existing asphalt and increase area to provide compliant gradient	2.00	no	3,750.00					7,500.00
Retaining Wall to Front of Stand								
Allow to remove external landscaping for wall replacement	1.00	no	7,500.00					7,500.00
Allow to breakout and remove existing wall, foundation and apron to allow replacement of wall	90.00	m	225.00					20,250.00
Allow to shape ground to receive new cantilevered foundation	90.00	m	35.00					3,150.00
Backfill with suitable fill and compact ready for concrete	108.00	m3	270.00					29,160.00
Place and brace formwork	513.00	m2	65.00					33,345.00
Supply and place reinforcing	19,375.00	kg	7.50					145,312.50
Supply and place 30MPa pump mix concrete to ground beams, back up to slab level. Finish to a F5 finish	155.00	m3	435.00					67,425.00
Paint wall	360.00	m2	55.00					19,800.00
Reinstate landscaping	1.00	no	12,500.00					12,500.00
External Works Total :								351,692.50

Grand National Stand - 34% NBS Option

Job Name : JOCKEY R3 34C

Job Description

Client's Name : Kirk Roberts Consulting

Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade : Preliminaries</i>								
Site Establishment								
Site Container Hire - 1no	42.00	weeks	52.50					2,205.00
Site Container Establishment and Removal	1.00	no	630.00					630.00
Site Office Hire - 1no	42.00	weeks	183.75					7,717.50
Site Office Establishment and Removal	1.00	no	630.00					630.00
Site Lunch Room - 2no	42.00	weeks	472.50					19,845.00
Site Lunch Room Establishment and Removal	1.00	no	630.00					630.00
Site Toilet Block - 3no	42.00	weeks	236.25					9,922.50
Site Lunch Room Establishment and Removal	1.00	no	630.00					630.00
Site Fencing	42.00	weeks	831.60					34,927.20
Site Fencing Establishment, Maintenance and Removal	1.00	no	6,240.00					6,240.00
Site Supervision								
Project Manager - 100% supervision	42.00	weeks	3,375.00					141,750.00
Working Site Foreman - 4no - 50% working, 50% supervision	42.00	weeks	1,350.00					56,700.00
Health and Safety Manager - 10% of time allocated to the project	42.00	weeks	352.50					14,805.00
Quantity Surveyor - 50% of time allocated to the project	42.00	weeks	1,522.50					63,945.00
Access								
Scaffolding - To external walls for superframe and crack repair works	1,991.00	m2	35.70					71,078.70
Scaffolding - Weekly rental	28.00	weeks	8,529.44					238,824.43
Scaffold Towers to bleachers for reid brace install to levels 3 and 4, includes rental	28.00	no	2,362.50					66,150.00
Scaffold Protection to top of lift	1.00	no	3,675.00					3,675.00
Mobile Scaffolds - 12no	42.00	weeks	1,134.00					47,628.00
Consumables								
PPE	42.00	weeks	157.50					6,615.00
Small Tools	42.00	weeks	315.00					13,230.00
Site Office Consumables	42.00	weeks	157.50					6,615.00
Cleaning								
Skips and Rubbish Removal	42.00	weeks	1,365.00					57,330.00
Builders Clean on Completion	3,272.00	m2	5.78					18,895.80
Preliminaries Total :								890,619.13

Grand National Stand - 34% NBS Option

Job Name : <u>JOCKEY R3 34C</u>	Job Description
Client's Name : <u>Kirk Roberts Consulting</u>	Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade :</i> <u>Margin</u>								
Main Contractor OH+P allowed at 6% of the construction trade prices	1.00	no	598,556.70					598,556.70
<u>Margin Total :</u>								598,556.70

Grand National Stand - 34% NBS Option

Job Name : <u>JOCKEY R3 34C</u>	Job Description
Client's Name : <u>Kirk Roberts Consulting</u>	Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade :</i> <u>Contingency</u>								
Project Contingency allowed at 15% of the construction trade prices	1.00	no	1,496,391.75					1,496,391.75
<u>Contingency Total :</u>								1,496,391.75

Grand National Stand - 34% NBS Option

Job Name : <u>JOCKEY R3 34C</u>	Job Description
Client's Name : <u>Kirk Roberts Consulting</u>	Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade : <u>Inflation</u></i>								
This estimate has been completed in 2022Q2 works are expected to commence in 2023Q2 allow 6% cost increase	1.00	no	774,546.42					774,546.42
<u>Inflation</u> Total :								774,546.42

Grand National Stand - 67% NBS Option

Job Name : JOCKEY R3 67C

Job Description

Client's Name: Kirk Roberts Consulting

Riccarton Racecourse - Grand National Stand

Trade Description	Trade %	Cost/ m2	--- Labour ---			Material Total	Sub Total	Mark Up %	Trade Total
			Qty	Rate	Total				
Grand National Stand - Riccarton Racecourse									
67%NBS Budget Estimate									
Substructure	6.14					964,106	964,106		964,106
Frame	47.38					7,442,302	7,442,302		7,442,302
Upper Floors	0.86					135,212	135,212		135,212
Structure Sub Total									<u>8,541,620.00</u>
External Walls	4.16					653,645	653,645		653,645
External Fabric Subtotal									<u>653,645.00</u>
Stairs	0.18					28,030	28,030		28,030
Internal Walls, Partitions	1.44					225,400	225,400		225,400
Floor Finishes	3.17					497,794	497,794		497,794
Wall Finishes	0.73					114,520	114,520		114,520
Ceiling Finishes	1.82					285,900	285,900		285,900
Fittings and Fixtures	0.61					96,470	96,470		96,470
Internal Finishing Subtotal									<u>1,248,114.00</u>
Plumbing and Drainage Services	0.61					96,390	96,390		96,390
Fire Services	1.06					166,560	166,560		166,560
Electrical and Data Services	0.90					141,300	141,300		141,300
Lifts & Escalator	0.25					39,440	39,440		39,440
Services Subtotal									<u>443,690.00</u>
External Works	2.24					351,693	351,693		351,693
External Works & Sundries Subtotal									<u>351,693.00</u>
Preliminaries	5.67					890,620	890,620		890,620
Margin	4.89					768,224	768,224		768,224
Contingency	12.23					1,920,558	1,920,558		1,920,558
Prelims, Contingency Subtotal									<u>3,579,402.00</u>
Inflation	5.66					889,090	889,090		889,090
Total Construction Cost									<u>15,707,254.00</u>
	100.00				60	15,707,254	15,707,254		15,707,254

Final Total \$ 15,707,254
G.S.T. 15.00% : 2,356,088
Final Total Incl. G.S.T. : \$ 18,063,342

Grand National Stand - 67% NBS Option

Job Name : JOCKEY R3 67C

Job Description

Client's Name : Kirk Roberts Consulting

Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade : <u>Substructure</u></i>								
Level 0 - New Ground Beams								
Sawcut, breakout and dispose concrete slab internally, working carefully around existing columns	675.00	m2	85.00					57,375.00
Sawcut, breakout and dispose concrete slab externally, working carefully around existing panels and columns	23.00	m2	85.00					1,955.00
Carefully cut sections of external columns and scabble	1.00	no	1,105.00					1,105.00
Hand excavate and dispose off site from above areas	608.00	m3	225.00					136,800.00
Backfill with suitable fill and compact ready for concrete	31.00	m3	270.00					8,370.00
Place and brace formwork	562.00	m2	65.00					36,530.00
Drill and epoxy bar through column foundation (reinforcing measured elsewhere)	18.00	no	34.50					621.00
Drill and epoxy starters into existing foundation beam (reinforcing measured elsewhere)	1,900.00	no	34.50					65,550.00
Supply and place reinforcing	54,720.00	kg	5.75					314,640.00
Supply and place 30MPa pump mix concrete to ground beams, back up to slab level. Finish to a F5 finish	608.00	m3	435.00					264,480.00
Existing Stairs and Ramps								
Excavate and dispose off site from above areas	80.00	m3	225.00					18,000.00
Backfill with suitable fill and compact ready for concrete	48.00	m3	270.00					12,960.00
Supply and place reinforcing	4,320.00	kg	5.75					24,840.00
Supply and place 30MPa pump mix concrete to ground beams, back up to slab level. Finish to a F5 finish	48.00	m3	435.00					20,880.00
Substructure Total :								964,106.00

Grand National Stand - 67% NBS Option

Job Name : JOCKEY R3 67C

Job Description

Client's Name : Kirk Roberts Consulting

Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade : Frame</i>								
Levels 1 - 4 - New Super Columns and Beams - Assumed Poured in Five Lifts								
Scabble the edges of each column to be poured against	1,482.00	m	40.00					59,280.00
Reo Scan, drill columns ready for post tensioned bars	1,326.00	no	56.00					74,256.00
Supply and place reinforcing	238,006.00	kg	5.75					1,368,534.50
Supply and place Macalloy Post Tensioned system	2,340.00	no	570.00					1,333,800.00
Supply, place, strike and move formwork. Assumed two sets of formwork, struck after three days and relocated to floor above	4,803.00	m2	215.00					1,032,645.00
Supply, place, strike formwork to form nib to cover post tensioning. Assumed two sets of formwork, struck after three days and relocated to floor above	207.00	m2	215.00					44,505.00
Supply and place 30MPa pump mix concrete to columns and beams. Finish to a F5 finish	1,174.00	m3	550.00					645,700.00
Supply and place 30MPa pump mix concrete to form nib to cover post tensioning. Finish to a F5 finish	14.00	m3	550.00					7,700.00
REV 2 - New Bleacher Support Frames and Additional Main Build Floor Support Beams								
Scabble the edges of each column to be poured against	257.00	m	40.00					10,280.00
Reo Scan, drill columns ready for post tensioned bars	232.50	no	56.00					13,020.00
Supply and place reinforcing	19,758.75	kg	5.75					113,612.81
Supply and place Macalloy Post Tensioned system	232.50	no	570.00					132,525.00
Supply, place, strike and move formwork. Assumed two sets of formwork, struck after three days and relocated to floor above	461.70	m2	215.00					99,265.50
Supply, place, strike formwork to form nib to cover post tensioning. Assumed two sets of formwork, struck after three days and relocated to floor above	283.00	m2	215.00					60,845.00

Grand National Stand - 67% NBS Option

Job Name : JOCKEY R3 67C

Job Description

Client's Name : Kirk Roberts Consulting

Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade : Frame</i>								<i>(Continued)</i>
Supply and place 30MPa pump mix concrete to columns and beams. Finish to a F5 finish	97.50	m3	550.00					53,625.00
Supply and place 30MPa pump mix concrete to form nib to cover post tensioning. Finish to a F5 finish	28.50	m3	550.00					15,675.00
Reid Bracing to Bleachers								
Supply and install RB32 reid bracing as detailed internally. Assumed fixed to concrete with 12mm plate fabricated brackets	4.00	no	36,942.00					147,768.00
Supply and install RB32 reid bracing as detailed externally. Assumed fixed to steel with 12mm plate fabricated brackets	2.00	no	37,110.00					74,220.00
Supply and install RB32 reid bracing as detailed to roof space above floors. Assumed fixed to steel with 12mm plate fabricated brackets	6.00	no	10,970.00					65,820.00
Lift Shaft								
Break out pocket in wall for drag bars	4.00	no	530.00					2,120.00
Supply and install drag bars	16.00	no	1,440.00					23,040.00
Supply and install carbon fibre strips	4.00	no	1,260.00					5,040.00
General Concrete Repairs								
Allow to repair spalling to existing concrete frames as works progress	25.00	no	395.00					9,875.00
Allow for low pressure epoxy injection to cracks, finished ready for decoration	350.00	m	185.00					64,750.00
Existing Stairs and Ramps								
Demolish existing damaged precast concrete and ramps and stairs	1.00	no	75,000.00					75,000.00
Engineer design formwork and propping solution for new insitu steps and ramps	1.00	no	375,000.00					375,000.00
Supply and place reinforcing	109,440.00	kg	7.50					820,800.00
Supply and place 30MPa pump mix concrete to columns, beams, and deck	912.00	m3	550.00					501,600.00
Connections to existing building	4.00	no	12,500.00					50,000.00
Galvanised steel handrails	240.00	m	675.00					162,000.00
Frame Total :								7,442,301.81

Grand National Stand - 67% NBS Option

Job Name : JOCKEY R3 67C

Job Description

Client's Name : Kirk Roberts Consulting

Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade : <u>Upper Floors</u></i>								
Levels 1 - 4 - Generally								
Supply and install temporary props for the duration of the works; props placed slab to slab	264.00	no	360.00					95,040.00
Supply and install temporary barriers to edges of open excavations on floors	579.00	m	18.00					10,422.00
General Concrete Repairs								
Allow for gravity placed epoxy mortar repairs to floor slab, includes for V grooving slab and finishing ready for carpet	350.00	m	85.00					29,750.00
Upper Floors Total :								135,212.00

Grand National Stand - 67% NBS Option

Job Name : <u>JOCKEY R3 67C</u>	Job Description
Client's Name : <u>Kirk Roberts Consulting</u>	Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade : <u>External Walls</u></i>								
Saw Cuts to Spandrel Panels								
Saw cut and break out 100mm of wall panels	68.00	m	55.00					3,740.00
Install slip brackets and install flexible weatherproof sealant	120.00	no	395.00					47,400.00
Compliance Upgrades								
Allow to remove existing door and replace with door and half doorset on hold opens to the Ground Floor entry doors	1.00	no	5,750.00					5,750.00
Add manifestations to entry doors	2.00	no	650.00					1,300.00
Add hold opens to the doors at the top of Stair 2 A&B	2.00	no	1,850.00					3,700.00
General Concrete Repairs								
Allow to repair spalling to existing concrete frames as works progress	50.00	no	395.00					19,750.00
Allow for low pressure epoxy injection to cracks, finished ready for decoration	2,500.00	m	185.00					462,500.00
Allow to paint all walls following crack repair	1,991.00	m2	55.00					109,505.00
External Walls Total :								653,645.00

Grand National Stand - 67% NBS Option

Job Name : <u>JOCKEY R3 67C</u>	Job Description
Client's Name : <u>Kirk Roberts Consulting</u>	Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade : <u>Stairs</u></i>								
Compliance Upgrades								
Provide colour contrast and tactile indicators to all stairs	13.00	no	1,560.00					20,280.00
Supply and install new handrails to stair 1	1.00	no	540.00					540.00
Upgrade handrails to Stairs 4, 5, 6, 7, 9	1.00	no	3,940.00					3,940.00
Close in open risers to Stair 4	1.00	no	2,040.00					2,040.00
Ramps 1 and 2 upgrade handrails	1.00	no	1,230.00					1,230.00
Stairs Total :								28,030.00

Grand National Stand - 67% NBS Option

Job Name : <u>JOCKEY R3 67C</u>	Job Description
Client's Name : <u>Kirk Roberts Consulting</u>	Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade : <u>Internal Walls, Partitions</u></i>								
All Levels								
Allow to remove and dispose of internal partitons as required to complete the works	805.00	m2	85.00					68,425.00
Allow to reinstate timber framed plasterboard walls removed previously	805.00	m2	195.00					156,975.00
<u>Internal Walls, Partitions</u> Total :								225,400.00

Grand National Stand - 67% NBS Option

Job Name : <u>JOCKEY R3 67C</u>	Job Description
Client's Name : <u>Kirk Roberts Consulting</u>	Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade : <u>Floor Finishes</u></i>								
All Levels								
Uplift and dispose all floor coverings throughout to allow for demolition	3,272.00	m2	56.00					183,232.00
Grind floors and lay new carpet tiles	3,272.00	m2	85.00					278,120.00
Extra value for vinyl to toilet and kitchen areas	654.40	m2	55.00					35,992.00
Compliance Upgrades								
Extra value to ramp up to one side of entry door to Level 2 main bar entry	1.00	no	450.00					450.00
<u>Floor Finishes</u> Total :								497,794.00

Grand National Stand - 67% NBS Option

Job Name :	<u>JOCKEY R3 67C</u>	<u>Job Description</u>
Client's Name :	<u>Kirk Roberts Consulting</u>	Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade :</i> <u>Wall Finishes</u>								
All Levels								
Allow to paint all walls and partitions	3,272.00	m2	35.00					114,520.00
<u>Wall Finishes</u> Total :								114,520.00

Grand National Stand - 67% NBS Option

Job Name :	<u>JOCKEY R3 67C</u>	<u>Job Description</u>
Client's Name :	<u>Kirk Roberts Consulting</u>	Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade : <u>Ceiling Finishes</u></i>								
All Levels								
Allow to remove and dispose existing ceiling linings to allow concrete works	894.00	m2	45.00					40,230.00
Allow to frame out and reinstate ceilings, finished ready for painting	894.00	m2	165.00					147,510.00
Allow to paint all ceilings throughout level	3,272.00	m2	30.00					98,160.00
<u>Ceiling Finishes</u> Total :								285,900.00

Grand National Stand - 67% NBS Option

Job Name : <u>JOCKEY R3 67C</u>	Job Description
Client's Name : <u>Kirk Roberts Consulting</u>	Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade : <u>Fittings and Fixtures</u></i>								
All Levels								
Allow to remove and store fixtures and fittings from all floors, reinstate on completion of the works	4.00	no	19,500.00					78,000.00
Compliance Upgrades								
Add accessible counters to all existing counters	7.00	no	1,610.00					11,270.00
Adjust bleacher seating to provide wheelchair spaces	1.00	no	2,700.00					2,700.00
Upgrade building accessible signage	1.00	no	4,500.00					4,500.00
<u>Fittings and Fixtures</u> Total :								96,470.00

Grand National Stand - 67% NBS Option

Job Name : <u>JOCKEY R3 67C</u>	Job Description
Client's Name : <u>Kirk Roberts Consulting</u>	Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade : <u>Plumbing and Drainage Services</u></i>								
All Levels								
Allow to remove and dispose existing fittings to allow installation of super columns	9.00	no	450.00					4,050.00
Allow to alter pipework and install new compliant bathrooms	9.00	no	10,260.00					92,340.00
<u>Plumbing and Drainage Services</u> Total :								96,390.00

Grand National Stand - 67% NBS Option

Job Name : JOCKEY R3 67C

Job Description

Client's Name : Kirk Roberts Consulting

Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade : <u>Fire Services</u></i>								
All Levels								
Allow for isolations as required to complete the works, ensuring building is protected when site is closed	36.00	weeks	1,900.00					68,400.00
Allow to complete an upgrade to assumed a Type 4 system with all cable run in conduit	3,272.00	m2	30.00					98,160.00
<u>Fire Services</u> Total :								166,560.00

Grand National Stand - 67% NBS Option

Job Name : JOCKEY R3 67C

Job Description

Client's Name : Kirk Roberts Consulting

Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade : <u>Electrical and Data Services</u></i>								
All Levels								
<u>Toilets</u>								
Allow to remove and dispose existing fittings to allow installation of super columns	9.00	no	450.00					4,050.00
Allow to alter cabling and install new fittings	9.00	no	5,500.00					49,500.00
Public Areas								
General disconnections and alterations to public areas to allow installation of super columns	36.00	weeks	1,875.00					67,500.00
Extra value for replacement fittings not suitable for reuse	1.00	no	20,250.00					20,250.00
<u>Electrical and Data Services</u> Total :								141,300.00

Grand National Stand - 67% NBS Option

Job Name : <u>JOCKEY R3 67C</u>	Job Description
Client's Name : <u>Kirk Roberts Consulting</u>	Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade : <u>Lifts & Escalator</u></i>								
Generally								
Allow for a lift engineer to attend site and move lift as required for liftshaft strengthening works	4.00	no	1,110.00					4,440.00
Upgrade internal lift car to comply with current code	1.00	no	35,000.00					35,000.00
<u>Lifts & Escalator</u>							Total :	39,440.00

Grand National Stand - 67% NBS Option

Job Name : JOCKEY R3 67C

Job Description

Client's Name : Kirk Roberts Consulting

Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade : <u>External Works</u></i>								
Generally								
Allow to reinsate tarmac to outside of building line where new ground beams placed	1.00	no	4,500.00					4,500.00
Allow to install additional accessible car parks as required	1.00	no	1,250.00					1,250.00
Allow to remove existing asphalt and increase area to provide compliant gradient	2.00	no	3,750.00					7,500.00
Retaining Wall to Front of Stand								
Allow to remove external landscaping for wall replacement	1.00	no	7,500.00					7,500.00
Allow to breakout and remove existing wall, foundation and apron to allow replacement of wall	90.00	m	225.00					20,250.00
Allow to shape ground to receive new cantilevered foundation	90.00	m	35.00					3,150.00
Backfill with suitable fill and compact ready for concrete	108.00	m3	270.00					29,160.00
Place and brace formwork	513.00	m2	65.00					33,345.00
Supply and place reinforcing	19,375.00	kg	7.50					145,312.50
Supply and place 30MPa pump mix concrete to ground beams, back up to slab level. Finish to a F5 finish	155.00	m3	435.00					67,425.00
Paint wall	360.00	m2	55.00					19,800.00
Reinstate landscaping	1.00	no	12,500.00					12,500.00
External Works Total :								351,692.50

Grand National Stand - 67% NBS Option

Job Name : JOCKEY R3 67C

Job Description

Client's Name : Kirk Roberts Consulting

Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade : Preliminaries</i>								
Site Establishment								
Site Container Hire - 1no	42.00	weeks	52.50					2,205.00
Site Container Establishment and Removal	1.00	no	630.00					630.00
Site Office Hire - 1no	42.00	weeks	183.75					7,717.50
Site Office Establishment and Removal	1.00	no	630.00					630.00
Site Lunch Room - 2no	42.00	weeks	472.50					19,845.00
Site Lunch Room Establishment and Removal	1.00	no	630.00					630.00
Site Toilet Block - 3no	42.00	weeks	236.25					9,922.50
Site Lunch Room Establishment and Removal	1.00	no	630.00					630.00
Site Fencing	42.00	weeks	831.60					34,927.20
Site Fencing Establishment, Maintenance and Removal	1.00	no	6,240.00					6,240.00
Site Supervision								
Project Manager - 100% supervision	42.00	weeks	3,375.00					141,750.00
Working Site Foreman - 4no - 50% working, 50% supervision	42.00	weeks	1,350.00					56,700.00
Health and Safety Manager - 10% of time allocated to the project	42.00	weeks	352.50					14,805.00
Quantity Surveyor - 50% of time allocated to the project	42.00	weeks	1,522.50					63,945.00
Access								
Scaffolding - To external walls for superframe and crack repair works	1,991.00	m2	35.70					71,078.70
Scaffolding - Weekly rental	28.00	weeks	8,529.44					238,824.43
Scaffold Towers to bleachers for reid brace install to levels 3 and 4, includes rental	28.00	no	2,362.50					66,150.00
Scaffold Protection to top of lift	1.00	no	3,675.00					3,675.00
Mobile Scaffolds - 12no	42.00	weeks	1,134.00					47,628.00
Consumables								
PPE	42.00	weeks	157.50					6,615.00
Small Tools	42.00	weeks	315.00					13,230.00
Site Office Consumables	42.00	weeks	157.50					6,615.00
Cleaning								
Skips and Rubbish Removal	42.00	weeks	1,365.00					57,330.00
Builders Clean on Completion	3,272.00	m2	5.78					18,895.80
Preliminaries Total :								890,619.13

Grand National Stand - 67% NBS Option

Job Name : <u>JOCKEY R3 67C</u>	Job Description
Client's Name : <u>Kirk Roberts Consulting</u>	Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade :</i> <u>Margin</u>								
Main Contractor OH+P allowed at 6% of the construction trade prices	1.00	no	768,223.08					768,223.08
<u>Margin Total :</u>								768,223.08

Grand National Stand - 67% NBS Option

Job Name : <u>JOCKEY R3 67C</u>	Job Description
Client's Name : <u>Kirk Roberts Consulting</u>	Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade :</i> <u>Contingency</u>								
Project Contingency allowed at 15% of the construction trade prices	1.00	no	1,920,557.70					1,920,557.70
<u>Contingency Total :</u>								1,920,557.70

Grand National Stand - 67% NBS Option

Job Name : <u>JOCKEY R3 67C</u>	Job Description
Client's Name : <u>Kirk Roberts Consulting</u>	Riccarton Racecourse - Grand National Stand

Item Description	Quantity	Unit	Material Rate	Mark Up %	Labour Factor	Labour Qty	Labour Rate	Amount
<i>Trade : <u>Inflation</u></i>								
This estimate has been completed in 2021Q2 works are expected to commence in 2023Q2 allow 6% cost increase	1.00	no	889,089.84					889,089.84
<u>Inflation</u> Total :								889,089.84