

TrueQuant

NRM2-Based Project  
Takeoff, BOQ, Marked up Drawings & BBS – Sports Facility

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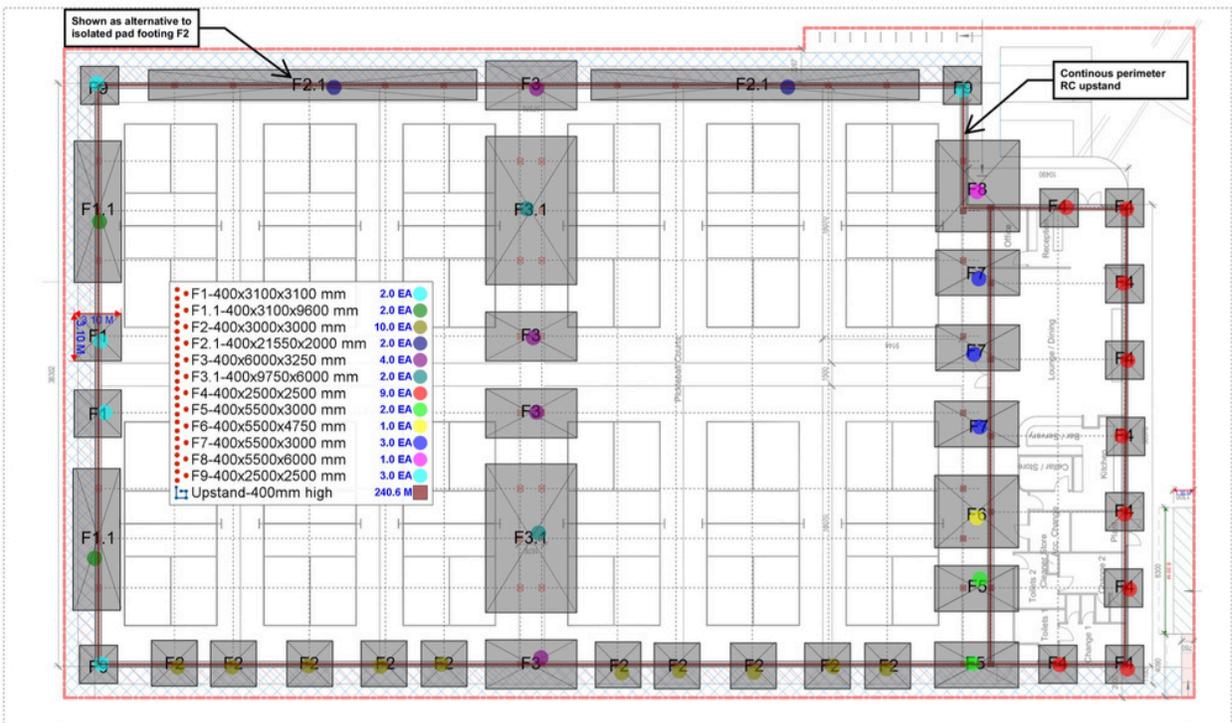
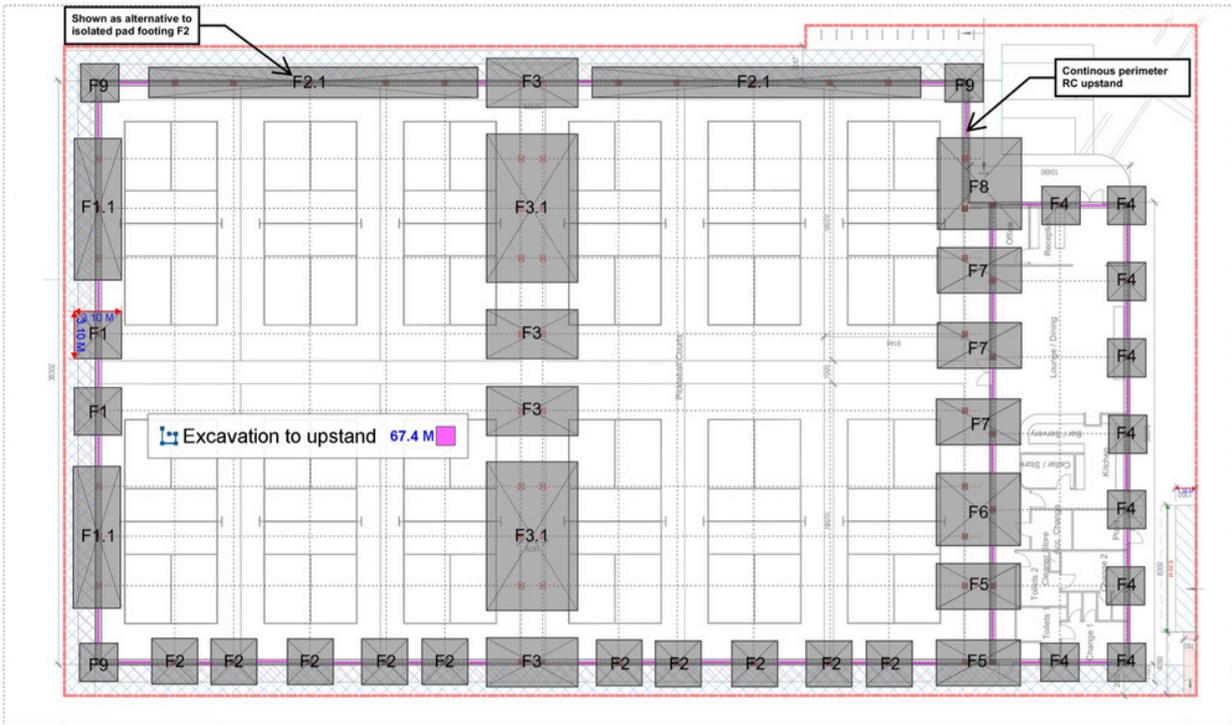
# Takeoff

Dwg	Level	Takeoff Description	Times	Dim1	Dim2	Dim3	Qty
CPB-AFL-Z1-XX-DR-A-01100 - Existing Site Plan	Foundation	Site clearance area	1	4153.20			4153.20
CPB-AFL-Z1-XX-DR-A-01100 - Existing Site Plan	Foundation	Site clearance area	1	4153.20			4153.20
CPB-AFL-Z1-XX-DR-A-20100 - Proposed Site Plan	Foundation	WS01 @GL +3.19m	1	128.61	1.16		149.19
CPB-AFL-Z1-XX-DR-A-20100 - Proposed Site Plan	Foundation	WS02 @GL +3.24m	1	400.50	0.94		377.67
CPB-AFL-Z1-XX-DR-A-20100 - Proposed Site Plan	Foundation	WS03 @GL +4.09m	1	400.18	0.30		120.05
CPB-AFL-Z1-XX-DR-A-20100 - Proposed Site Plan	Foundation	WS04 @GL +2.9m	1	154.67	1.05		162.40
CPB-AFL-Z1-XX-DR-A-20100 - Proposed Site Plan	Foundation	WS05 @GL +3.06m	1	401.80	1.05		421.88
CPB-AFL-Z1-XX-DR-A-20100 - Proposed Site Plan	Foundation	WS06 @GL +3.63m	1	400.64	1.35		540.86
CPB-AFL-Z1-XX-DR-A-20100 - Proposed Site Plan	Foundation	WS07 @GL +2.26m	1	178.60	0.75		133.95
CPB-AFL-Z1-XX-DR-A-20100 - Proposed Site Plan	Foundation	WS08 @GL +2.77m	1	401.78	0.60		241.07
CPB-AFL-Z1-XX-DR-A-20100 - Proposed Site Plan	Foundation	WS09 @GL +3.65m	1	400.30	1.50		600.45
CPB-AFL-Z1-XX-DR-A-20100 - Proposed Site Plan	Foundation	WS10 @GL +2.17m	1	618.42	0.35		216.45
CPB-AFL-Z1-XX-DR-A-20100 - Proposed Site Plan	Foundation	WS11 @GL +2.59m	1	373.87	0.70		261.71
CPB-AFL-Z1-XX-DR-A-20100 - Proposed Site Plan	Foundation	WS12 @GL +3.29m	1	295.09	1.00		295.09
CPB-AFL-Z1-XX-DR-A-20100 - Proposed Site Plan	Foundation	WS01 @GL +3.19m	1	128.61	5.09		654.62
CPB-AFL-Z1-XX-DR-A-20100 - Proposed Site Plan	Foundation	WS02 @GL +3.24m	1	400.50	5.31		2126.66
CPB-AFL-Z1-XX-DR-A-20100 - Proposed Site Plan	Foundation	WS03 @GL +4.09m	1	400.18	5.95		2381.07
CPB-AFL-Z1-XX-DR-A-20100 - Proposed Site Plan	Foundation	WS04 @GL +2.9m	1	154.67	5.20		804.28
CPB-AFL-Z1-XX-DR-A-20100 - Proposed Site Plan	Foundation	WS05 @GL +3.06m	1	401.60	5.20		2088.32
CPB-AFL-Z1-XX-DR-A-20100 - Proposed Site Plan	Foundation	WS06 @GL +3.63m	1	400.64	4.90		1963.14
CPB-AFL-Z1-XX-DR-A-20100 - Proposed Site Plan	Foundation	WS07 @GL +2.26m	1	178.60	5.50		982.30
CPB-AFL-Z1-XX-DR-A-20100 - Proposed Site Plan	Foundation	WS08 @GL +2.77m	1	401.78	5.65		2270.06
CPB-AFL-Z1-XX-DR-A-20100 - Proposed Site Plan	Foundation	WS09 @GL +3.65m	1	400.30	4.75		1901.43
CPB-AFL-Z1-XX-DR-A-20100 - Proposed Site Plan	Foundation	WS10 @GL +2.17m	1	618.42	5.90		3648.68
CPB-AFL-Z1-XX-DR-A-20100 - Proposed Site Plan	Foundation	WS11 @GL +2.59m	1	373.87	5.55		2074.98
CPB-AFL-Z1-XX-DR-A-20100 - Proposed Site Plan	Foundation	WS12 @GL +3.29m	1	295.09	5.25		1549.22
P451752_SK_005 Substructure Scheme	Foundation	F1-400x3100x3100 mm	2	3.10	3.10	0.80	15.38
P451752_SK_005 Substructure Scheme	Foundation	F11-400x3100x600 mm	2	3.10	9.80	0.80	47.62
P451752_SK_005 Substructure Scheme	Foundation	F2-400x3000x3000 mm	10	3.00	3.00	0.80	72.00
P451752_SK_005 Substructure Scheme	Foundation	F2.1-400x21550x2000 mm	2	21.55	2.00	0.80	68.96
P451752_SK_005 Substructure Scheme	Foundation	F3-400x6000x3250 mm	4	6.00	3.25	0.80	62.40
P451752_SK_005 Substructure Scheme	Foundation	F3.1-400x9750x6000 mm	2	9.75	6.00	0.80	93.60
P451752_SK_005 Substructure Scheme	Foundation	F4-400x2500x2500 mm	9	2.50	2.50	0.80	45.00
P451752_SK_005 Substructure Scheme	Foundation	F5-400x5500x3000 mm	2	5.50	3.00	0.80	26.40
P451752_SK_005 Substructure Scheme	Foundation	F6-400x5500x4750 mm	1	5.50	4.75	0.80	20.90
P451752_SK_005 Substructure Scheme	Foundation	F7-400x5500x3000 mm	3	5.50	3.00	0.80	39.60
P451752_SK_005 Substructure Scheme	Foundation	F8-400x5500x6000 mm	1	5.50	6.00	0.80	26.40
P451752_SK_005 Substructure Scheme	Foundation	F9-400x2500x2500 mm	3	2.50	2.50	0.80	15.00
P451752_SK_005 Substructure Scheme	Foundation	Excavation to upstand	1	67.40	0.40	0.40	10.78
		Total excavated qty	1		3520.57		3520.57
		Total Filling Qty	-1		2491.92		-2491.92
		Total excavated qty	1		544.04		544.04
		Total Filling Qty	-1		238.92		-238.92
		Site Area	1.00	4153.20	0.60		2491.92
		Site Area	1.00	4153.20	5.65		23465.58
		Excavated	1.00		544.04		544.04
		Concrete of Footings	-1.00		266.63		-266.63
		RC Upstand	-1.00	240.58	0.40	0.40	-38.49
		Cutting (WS01 to WS12) Made Ground LVL to LVL 6.25 m	1.00		23465.58		23465.58
		Total Filling Qty	-1		22444.75		-22444.75

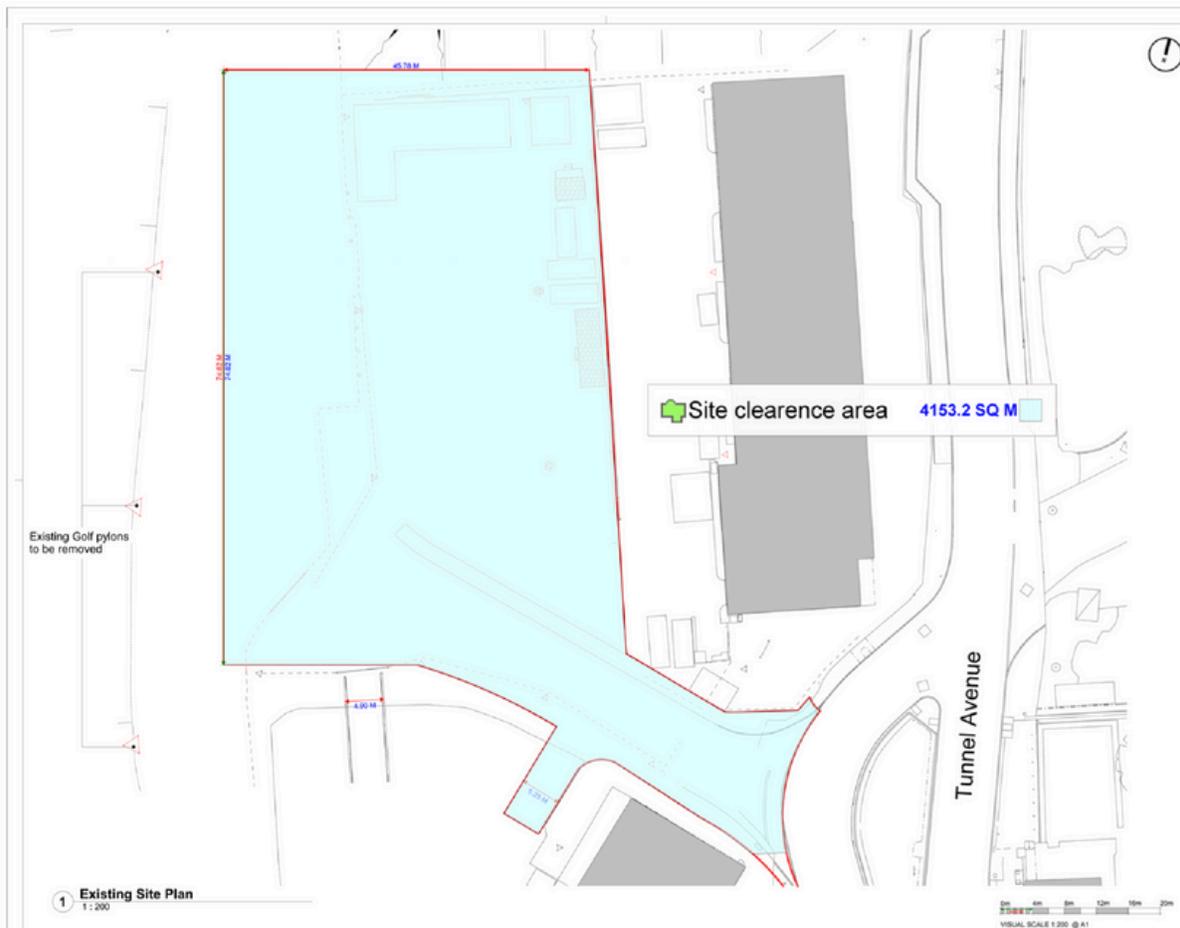
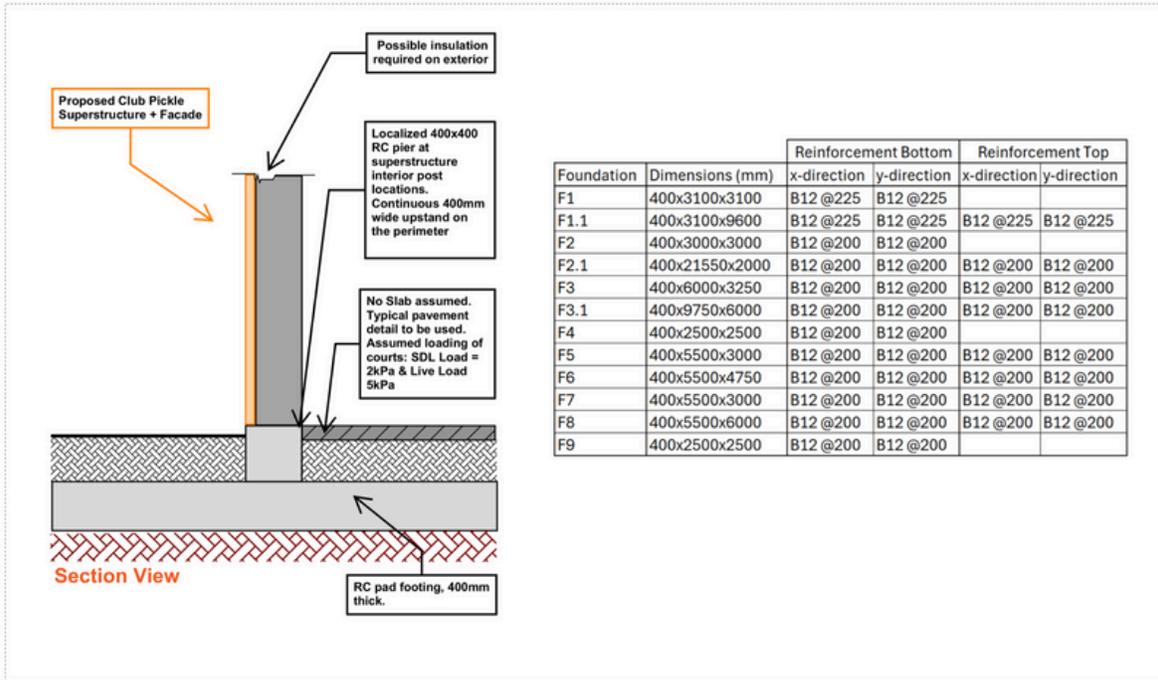
# BOQ

BILL OF QUANTITIES						REV - 00
Item	Ref	Description	Quantity	Unit	Rate	Amount
		<b>BILL NO. 05 : EXCAVATION AND FILLING</b>				
		05.1 Site Clearance/Preparation				
		05.02 Excavations				
		05.03 Disposal				
		05.04 Fillings				
		05.05 Membranes				
		<u>Refer to Drawings:</u> NPV-AFL- Z1-00-DR-A-20100, P451752-SK-005				
		<u>Refer to Specifications:</u> GENERIC QUANTITATIVE RISK ASSESSMENT REPORT				
		<u>Refer to relevant sections under New Rules of Measurement 2 (NRM 2) in addition to the preambles for measurement rules.</u>				
	5.1	<b>Site Clearance/Preparation</b>				
	5.1.1	<b>Site clearance — remove vegetation, shrubs, small trees, roots, surface rubbish, Levelling and dispose off-site to licensed tip, including re-grading to safe slopes.</b>				
A	5.1.1.1	Site Clearance (For Cutting and Filling)	4,153	m <sup>2</sup>		-
B	5.1.1.2	Site Clearance (For Foundation)	4,153	m <sup>2</sup>		-
	5.2	<b>Excavations</b>				
	5.2.1	<b>Excavation from existing level (as per Site Level Survey) down to 6.25 m (Alluvial deposits level), including excavation of soil and stacking on site for re-use as filling.</b>				
C	5.2.1.1	Cutting (WS01 to WS12) Existing LVL to Made Ground LVL	3,521	m <sup>3</sup>		-
D	5.2.1.2	Cutting (WS01 to WS12) Made Ground LVL to LVL 6.25 m	22,445	m <sup>3</sup>		-
E	5.2.1.3	Excavation For Foundations	544	m <sup>3</sup>		-
	5.3	<b>Disposal</b>				
	5.3.1	<b>Disposal of soil, after re-use for filling, consisting of remaining Made Ground and Alluvial soil, including handling, loading, transport, spreading, tipping, and compliance with statutory and environmental requirements.</b>				
F	5.3.1.1	Disposal of- Made Ground Soil	1,029	m <sup>3</sup>		-
G	5.3.1.2	Disposal of- Foundation Excavating Soil	305	m <sup>3</sup>		-
	5.4	<b>Fillings</b>				
	5.4.1	<b>Filling from existing level to proposed level using re-used excavated soil.</b>				
H	5.4.1.1	Filling (WS01 to WS12) @ 600 mm High - Capping	2,492	m <sup>3</sup>		-
I	5.4.1.2	Filling (WS01 to WS12) - General Fill	23,466	m <sup>3</sup>		-
J	5.4.1.3	Filling for Foundation	239	m <sup>3</sup>		-
K	5.4.1.4	Imported Soil for General Fill (Alluvial)	1,021	m <sup>3</sup>		-
		<b>CARRIED TO SECTION SUMMARY</b>			<b>To Collection</b>	-

# Marked Up Drawings



# Marked Up Drawings





# Bar Bending Schedule

BARBENDING SCHEDULE - RC Footing												Steel Reinforcement Bars										Weight of Element (kg)	Remarks		
Sl. No.	Location / Description	Parameters					Bar Dia	Spacing	No. Of Spans	No. Of Bars	Total No.	Cutting Length (mm)	Total Length (mm)	8	10	12	14	16	20	25	32				
		No.	Length	Width	Thick	Cover	Lap	Spacing																	
1	E1-400x1100x100 mm	Nos		3.10	0.40	0.05	50																		
		Dia		12																					
		Spacing		225																					
		Bottom Bar (x)	1.12	200	0.20	12	225	2	15	30	3.20	96.00	-	-	-	-	-	-	-	-	-	-	-	65.33	
		Bottom Bar (y)	1.12	200	0.20	12	225	2	15	30	3.20	96.00	-	-	-	-	-	-	-	-	-	-	-	65.33	
		Top Bar (x)	1.12	200	0.20	12	225	2	15	30	3.20	96.00	-	-	-	-	-	-	-	-	-	-	-	65.33	
		Top Bar (y)	1.12	200	0.20	12	225	2	15	30	3.20	96.00	-	-	-	-	-	-	-	-	-	-	-	65.33	
		Lap	1.12	200	0.20	12	225	2	15	30	3.20	96.00	-	-	-	-	-	-	-	-	-	-	-	65.33	
		Lap-Bottom Bar (x)	1.12	200	0.20	12	225	2	15	30	3.20	96.00	-	-	-	-	-	-	-	-	-	-	-	-	65.33
		Lap-Bottom Bar (y)	1.12	200	0.20	12	225	2	15	30	3.20	96.00	-	-	-	-	-	-	-	-	-	-	-	-	65.33
		Lap-Top Bar (x)	1.12	200	0.20	12	225	2	15	30	3.20	96.00	-	-	-	-	-	-	-	-	-	-	-	-	65.33
		Lap-Top Bar (y)	1.12	200	0.20	12	225	2	15	30	3.20	96.00	-	-	-	-	-	-	-	-	-	-	-	-	65.33
Char	1.12	200	0.20	12	225	2	15	30	3.20	96.00	-	-	-	-	-	-	-	-	-	-	-	-	65.33		
2	E1-400x1100x600 mm	Nos		3.10	0.40	0.05	50																		
		Dia		12																					
		Spacing		225																					
		Bottom Bar (x)	1.12	200	0.20	12	225	2	15	30	3.20	291.00	-	-	-	-	-	-	-	-	-	-	-	291.00	
		Bottom Bar (y)	1.12	200	0.20	12	225	2	15	30	3.20	291.00	-	-	-	-	-	-	-	-	-	-	-	-	291.00
		Top Bar (x)	1.12	200	0.20	12	225	2	15	30	3.20	291.00	-	-	-	-	-	-	-	-	-	-	-	-	291.00
		Top Bar (y)	1.12	200	0.20	12	225	2	15	30	3.20	291.00	-	-	-	-	-	-	-	-	-	-	-	-	291.00
		Lap	1.12	200	0.20	12	225	2	15	30	3.20	291.00	-	-	-	-	-	-	-	-	-	-	-	-	291.00
		Lap-Bottom Bar (x)	1.12	200	0.20	12	225	2	15	30	3.20	291.00	-	-	-	-	-	-	-	-	-	-	-	-	291.00
		Lap-Bottom Bar (y)	1.12	200	0.20	12	225	2	15	30	3.20	291.00	-	-	-	-	-	-	-	-	-	-	-	-	291.00
		Lap-Top Bar (x)	1.12	200	0.20	12	225	2	15	30	3.20	291.00	-	-	-	-	-	-	-	-	-	-	-	-	291.00
		Lap-Top Bar (y)	1.12	200	0.20	12	225	2	15	30	3.20	291.00	-	-	-	-	-	-	-	-	-	-	-	-	291.00
Char	1.12	200	0.20	12	225	2	15	30	3.20	291.00	-	-	-	-	-	-	-	-	-	-	-	-	291.00		
3	E2-400x3000x3000 mm	Nos		3.00	0.40	0.05	50																		
		Dia		12																					
		Spacing		200																					
		Bottom Bar (x)	1.12	200	0.20	12	200	10	18	180	3.10	496.00	-	-	-	-	-	-	-	-	-	-	-	-	440.89
		Bottom Bar (y)	1.12	200	0.20	12	200	10	18	180	3.10	496.00	-	-	-	-	-	-	-	-	-	-	-	-	440.89
		Top Bar (x)	1.12	200	0.20	12	200	10	18	180	3.10	496.00	-	-	-	-	-	-	-	-	-	-	-	-	440.89
		Top Bar (y)	1.12	200	0.20	12	200	10	18	180	3.10	496.00	-	-	-	-	-	-	-	-	-	-	-	-	440.89
		Lap	1.12	200	0.20	12	200	10	18	180	3.10	496.00	-	-	-	-	-	-	-	-	-	-	-	-	440.89
		Lap-Bottom Bar (x)	1.12	200	0.20	12	200	10	18	180	3.10	496.00	-	-	-	-	-	-	-	-	-	-	-	-	440.89
		Lap-Bottom Bar (y)	1.12	200	0.20	12	200	10	18	180	3.10	496.00	-	-	-	-	-	-	-	-	-	-	-	-	440.89
		Lap-Top Bar (x)	1.12	200	0.20	12	200	10	18	180	3.10	496.00	-	-	-	-	-	-	-	-	-	-	-	-	440.89
		Lap-Top Bar (y)	1.12	200	0.20	12	200	10	18	180	3.10	496.00	-	-	-	-	-	-	-	-	-	-	-	-	440.89
Char	1.12	200	0.20	12	200	10	18	180	3.10	496.00	-	-	-	-	-	-	-	-	-	-	-	-	440.89		
4	E2.1-400x1100x2000 mm	Nos		2.155	0.40	0.05	50																		
		Dia		12																					
		Spacing		200																					
		Bottom Bar (x)	1.12	200	0.20	12	200	2	11	22	2.145	476.30	-	-	-	-	-	-	-	-	-	-	-	-	423.38
		Bottom Bar (y)	1.12	200	0.20	12	200	2	11	22	2.145	476.30	-	-	-	-	-	-	-	-	-	-	-	-	423.38
		Top Bar (x)	1.12	200	0.20	12	200	2	11	22	2.145	476.30	-	-	-	-	-	-	-	-	-	-	-	-	423.38
		Top Bar (y)	1.12	200	0.20	12	200	2	11	22	2.145	476.30	-	-	-	-	-	-	-	-	-	-	-	-	423.38
		Lap	1.12	200	0.20	12	200	2	11	22	2.145	476.30	-	-	-	-	-	-	-	-	-	-	-	-	423.38
		Lap-Bottom Bar (x)	1.12	200	0.20	12	200	2	11	22	2.145	476.30	-	-	-	-	-	-	-	-	-	-	-	-	423.38
		Lap-Bottom Bar (y)	1.12	200	0.20	12	200	2	11	22	2.145	476.30	-	-	-	-	-	-	-	-	-	-	-	-	423.38
		Lap-Top Bar (x)	1.12	200	0.20	12	200	2	11	22	2.145	476.30	-	-	-	-	-	-	-	-	-	-	-	-	423.38
		Lap-Top Bar (y)	1.12	200	0.20	12	200	2	11	22	2.145	476.30	-	-	-	-	-	-	-	-	-	-	-	-	423.38
Char	1.12	200	0.20	12	200	2	11	22	2.145	476.30	-	-	-	-	-	-	-	-	-	-	-	-	423.38		
5	E3-400x6000x3250 mm	Nos		6.00	3.25	0.40	0.05	50																	
		Dia		12																					
		Spacing		200																					
		Bottom Bar (x)	1.12	200	0.20	12	200	4	17	68	6.10	414.80	-	-	-	-	-	-	-	-	-	-	-	-	368.71
		Bottom Bar (y)	1.12	200	0.20	12	200	4	17	68	6.10	414.80	-	-	-	-	-	-	-	-	-	-	-	-	368.71
		Top Bar (x)	1.12	200	0.20	12	200	4	17	68	6.10	414.80	-	-	-	-	-	-	-	-	-	-	-	-	368.71
		Top Bar (y)	1.12	200	0.20	12	200	4	17	68	6.10	414.80	-	-	-	-	-	-	-	-	-	-	-	-	368.71
		Lap	1.12	200	0.20	12	200	4	17	68	6.10	414.80	-	-	-	-	-	-	-	-	-	-	-	-	368.71
		Lap-Bottom Bar (x)	1.12	200	0.20	12	200	4	17	68	6.10	414.80	-	-	-	-	-	-	-	-	-	-	-	-	368.71
		Lap-Bottom Bar (y)	1.12	200	0.20	12	200	4	17	68	6.10	414.80	-	-	-	-	-	-	-	-	-	-	-	-	368.71
		Lap-Top Bar (x)	1.12	200	0.20	12	200	4	17	68	6.10	414.80	-	-	-	-	-	-	-	-	-	-	-	-	368.71
		Lap-Top Bar (y)	1.12	200	0.20	12	200	4	17	68	6.10	414.80	-	-	-	-	-	-	-	-	-	-	-	-	368.71
Char	1.12	200	0.20	12	200	4	17	68	6.10	414.80	-	-	-	-	-	-	-	-	-	-	-	-	368.71		
6	E3.1-400x1750x6000 mm	Nos		9.75	6.00	0.40	0.05	50																	
		Dia		12																					
		Spacing		200																					
		Bottom Bar (x)	1.12	200	0.20	12	200	2	31	62	9.85	610.70	-	-	-	-	-	-	-	-	-	-	-	-	562.84
		Bottom Bar (y)	1.12	200	0.20	12	200	2	31	62	9.85	610.70	-	-	-	-	-	-	-	-	-	-	-	-	562.84
		Top Bar (x)	1.12	200	0.20	12	200	2	31	62	9.85	610.70	-	-	-	-	-	-	-	-	-	-	-	-	562.84
		Top Bar (y)	1.12	200	0.20	12	200	2	31	62	9.85	610.70	-	-	-	-	-	-	-	-	-	-	-	-	562.84
		Lap	1.12	200	0.20	12	200	2	31	62	9.85	610.70	-	-	-	-	-	-	-	-	-	-	-	-	562.84
		Lap-Bottom Bar (x)	1.12	200	0.20	12	200	2	31	62	9.85	610.70	-	-	-	-	-	-	-	-	-	-	-	-	562.84
		Lap-Bottom Bar (y)	1.12	200	0.20	12	200	2	31	62	9.85														