

Proposed Roundabout Intersection of Middle - Milfield and Congewai Roads, Paxton - Works Estimate - Cessnock City Council LGA

Revision
5-Nov-2008

Reference Drawings
2122870A-CIV-APPC000 to APPC005

This preliminary cost estimate has been prepared from a preliminary concept design only. Rates have been estimated based on market conditions at the date of the revision which varies over time. Reference is made to PB's cost estimate qualifications statement, a copy of which is attached to this estimate.

Contingency Codes

A	Final design checked and approved, but rates not tested	5%
B	Design finalised, but not checked or approved	10%
C	Preliminary Design, not finalised	20%
D	No detailed design, estimate based on rules of thumb	30%

								Contingencies
Item	Description	Quantity	Unit	Rate	Total	Code	Rate	value including contingency
1.00	PRELIMINARY							
1.01	Site Establishment and demobilisation	1	Item	\$10,000.00	\$10,000.00	B	10%	\$11,000.00
1.02	Clearing, shearing, tub-grinding and stockpiling mulch on site during construction as directed by the Superintendent.	1	Item	\$2,500.00	\$2,500.00	B	10%	\$2,750.00
	Sub Total				\$12,500.00			\$13,750.00
2.00	TOPSOIL							
2.01	Strip topsoil to stockpile on site during construction as directed by the Superintendent (100mm Adopted)	500	m ³	\$4.00	\$2,000.00	B	10%	\$2,200.00
2.02	Respread previously stockpiled topsoil to road reserves, batters, accessways, trenches, site regate areas and landscaped areas with any excess stockpiled on site as directed by the Superintendent	500	m ³	\$5.00	\$2,500.00	B	10%	\$2,750.00
	Sub Total				\$4,500.00			\$4,950.00
3.00	EARTHWORKS							
	Bulk Excavation in all classes of material	Cut (m ³)	Fill (m ³)					
	i) Total Earthworks Measurement (measured from natural surface to finished surface level)	4906	4546					
	ii) allowance for boxing							
	iii) spoil from drainage trenches							
	iv) spoil from water trenches							
	v) spoil from Sewer trenches							
	vi) spoil for electrical trenches							
3.01	Cut to fill	4906	m ³	\$5.00	\$24,530.00	B	10%	\$26,983.00
3.02	Export fill	360	m ³	\$30.00	\$10,800.00	B	10%	\$11,880.00
3.03	Geotechnical testing and certification of fill to AS 3798 class 1	4906	m ³	\$0.50	\$2,453.00	D	30%	\$3,188.90
	Sub Total				\$37,783.00			\$42,051.90
4.00	PAVEMENT							
4.01	Trim and compact subgrade	4,650	m ²	\$1.20	\$5,580.00	B	10%	\$6,138.00
4.02	Supply, place, trim and compact approved sub base material 500mm thick	4,650	m ²	\$40.00	\$186,000.00	C	20%	\$223,200.00
4.03	Supply, place, trim and compact approved basecourse 100mm thick	4,200	m ²	\$12.50	\$52,500.00	B	10%	\$57,750.00
4.04	10mm Primer Seal to all roads	4,200	m ²	\$5.00	\$21,000.00	B	10%	\$23,100.00
4.05	50mm AC14 Polymer modified wearing course	600	m ²	\$20.00	\$12,000.00	B	10%	\$13,200.00
4.06	50mm AC14 wearing course	3,600	m ²	\$17.50	\$63,000.00	B	10%	\$69,300.00
4.07	Subsoil drainage lines and flushing points to Council Requirements	200	m	\$35.00	\$7,000.00	D	30%	\$9,100.00
4.08	Geotechnical testing and certification of road pavements	650	m	\$10.00	\$6,500.00	D	30%	\$8,450.00
	Sub Total				\$353,580.00			\$410,238.00
5.00	STORMWATER							
	Excavate in material other than rock, supply, bed, lay, joint and backfill drainage structures including granular backfill under pavements and anchor blocks where pipe grade exceeds 12%							
5.01	i) 375mm RRJ RCP Class 2		m	\$120.00	\$0.00	D	30%	\$0.00
5.02	ii) 450mm RRJ RCP Class 2	102	m	\$145.00	\$14,790.00	D	30%	\$19,227.00
5.03	iii) 525mm RRJ RCP Class 2		m	\$170.00	\$0.00	D	30%	\$0.00
5.04	iv) 600mm RRJ RCP Class 2		m	\$200.00	\$0.00	D	30%	\$0.00
5.05	v) 750mm RRJ RCP Class 3		m	\$310.00	\$0.00	D	30%	\$0.00
5.06	vi) 825mm RRJ RCP Class 4		m	\$370.00	\$0.00	D	30%	\$0.00
5.07	vii) 900mm RRJ RCP Class 5		m	\$440.00	\$0.00	D	30%	\$0.00
5.08	Stockpile excess material from drainage trenches on site as directed by the Superintendent		m ³	\$4.00	\$0.00	D	30%	\$0.00
5.09	viii) DGGP with 2.4m EKI	3	No.	\$1,800.00	\$5,400.00	D	30%	\$7,020.00
5.10	x) Outlet headwall	1	No.	\$800.00	\$800.00	D	30%	\$1,040.00
5.11	xi) Junction pit	1	No.	\$1,800.00	\$1,800.00	D	30%	\$2,340.00
	Sub Total				\$22,790.00			\$29,627.00
6.00	CONCRETE							
6.01	Upright kerb & gutter including drainage connections	283	m	\$40.00	\$11,320.00	B	10%	\$12,452.00
6.02	Pram ramps 2500mm wide x 150mm thick to Council Requirements		m	\$110.00	\$0.00	B	10%	\$0.00
6.02	Median Infill	550	m ²	\$60.00	\$33,000.00	B	10%	\$36,300.00
6.03	Cycleway 2.5 wide plain concrete to council requirements		m	\$120.00	\$0.00	B	10%	\$0.00
6.04	Footpaving 1.2 wide plain concrete to Council requirements		m	\$75.00	\$0.00	B	10%	\$0.00
	Sub Total				\$44,320.00			\$48,752.00

7.00	WATER								
	Excavate in material other than rock, supply, bed, lay, joint and backfill water services in accordance with approved Water Corporation drawings								
7.01	i) 150mm water main (est)	450	m	\$75.00	\$33,750.00	D	30%	\$43,875.00	
7.01	ii) Hydrant	4	No.	\$450.00	\$1,800.00	D	30%	\$2,340.00	
7.02	iii) Stop valve	1	No.	\$400.00	\$400.00	D	30%	\$520.00	
7.02	iv) Reflux valve		No.	\$500.00	\$0.00	D	30%	\$0.00	
	Sub Total				\$35,950.00			\$46,735.00	
8.00	SEWER								
	Excavate in material other than rock, supply, bed, lay, joint and backfill sewer services in accordance with approved Water Corporation drawings								
8.01	i) 150mm uPVC SN8 sewer line		m	\$75.00	\$0.00	D	30%	\$0.00	
8.02	Stockpile excess material from services trenches on site as directed by the Superintendent		m ³	\$4.00	\$0.00	D	30%	\$0.00	
8.03	ii) Manholes		No.	\$1,800.00	\$0.00	D	30%	\$0.00	
8.04	iii) Sewer Pump Station		item	\$1,500,000.00	\$0.00	D	30%	\$0.00	
8.05	iv) Rising Main		item	\$200,000.00	\$0.00	D	30%	\$0.00	
	Sub Total				\$0.00			\$0.00	
9.00	ELECTRICAL								
	Electrical reticulation in accordance with approved design drawings								
9.01	i) Excavate in material other than rock, Common Services Trenching		m	\$30.00	\$0.00	C	20%	\$0.00	
9.02	ii) Street lighting	12	No.	\$3,000.00	\$36,000.00	C	20%	\$43,200.00	
9.03	iii) kiosk Substations		item	\$60,000.00	\$0.00	C	20%	\$0.00	
9.04	iv) LV cables		m	\$150.00	\$0.00	C	20%	\$0.00	
9.05	v) HV cables inside site boundary		m	\$250.00	\$0.00	C	20%	\$0.00	
9.06	vi) HV cables lead in		m	\$250.00	\$0.00	C	20%	\$0.00	
9.07	vii) Road Crossings	3	item	\$2,500.00	\$7,500.00	C	20%	\$9,000.00	
9.08	viii) Relocation of powerpoles	5	No.	\$10,000.00	\$50,000.00	C	20%	\$60,000.00	
	Sub Total				\$93,500.00			\$112,200.00	
10.00	LANDSCAPING								
10.01	Respread previously stockpiled mulch (75mm min.) and grass seeding to all batters, lot regrading areas, backfilled trenches and denuded areas including watering, seeding fertilizing and maintenance for a period of 3 months from practical completion.		ha	\$2,000.00	\$0.00	B	10%	\$0.00	
10.02	Fully turf all road reserves from boundary to boundary including watering, fertilizing, and maintenance for a period of 3 months from practical completion. Place 2 strips of turf along all cut batters parallel to contour to prevent scour.	4,225	m ²	\$4.50	\$19,012.50	B	10%	\$20,913.75	
10.03	Street Trees		No.	\$600.00	\$0.00	B	10%	\$0.00	
10.04	Bulk area landscaping works		Ha	\$10,000.00	\$0.00	D	30%	\$0.00	
10.1	Sub Total				\$19,012.50			\$20,913.75	
11.00	EROSION CONTROL								
11.01	Sediment control devices in accordance with sediment and Erosion control drawings	1	item	\$10,000.00	\$10,000.00	D	30%	\$13,000.00	
	Sub Total				\$10,000.00			\$13,000.00	
12.00	Linemarking and Signage								
12.01	'No Stopping' signs		item	\$500.00	\$0.00	C	20%	\$0.00	
12.02	'No Through Road' signs		item	\$500.00	\$0.00	C	20%	\$0.00	
12.03	Chevron board	1	item	\$750.00	\$750.00	D	30%	\$975.00	
12.04	Miscellaneous signs	1	item	\$10,000.00	\$10,000.00	D	30%	\$13,000.00	
12.05	Retaining wall		m ²	\$360.00	\$0.00	C	20%	\$0.00	
12.06	Landscaping	1	item	\$10,000.00	\$10,000.00	D	30%	\$13,000.00	
	Linemarking								
12.07	Lane markings	700	m	\$3.00	\$2,100.00	B	10%	\$2,310.00	
12.08	Hold lines	44	m	\$3.40	\$149.60	B	10%	\$164.56	
12.09	Turning arrows		item	\$50.00	\$0.00	B	10%	\$0.00	
12.10	Guardrail	10	m	\$150.00	\$1,500.00	B	10%	\$1,650.00	
	Sub Total				\$24,499.60			\$31,099.56	
13.00	MISCELLANEOUS								
13.01	Survey set out work as well as work as executed drawings to Council and utilities authorities requirements.	1	item	\$10,000.00	\$10,000.00	D	30%	\$13,000.00	
13.1	Sub Total				\$10,000.00			\$13,000.00	
	Grand Total				\$668,435.10			\$786,317.21	
	GST				\$66,843.51			\$78,631.72	
	Total including GST				\$735,278.61			\$864,948.93	
	Total Average Contingencies							18%	