



**APPENDIX**  
Opinion of Probable Cost

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## Range Road 231 Cost Estimate

Cost Item	Rate	Unit Rate	Short Term Stage		Ultimate (Long Term) Stage	
			Quantity	Cost	Quantity	Cost
<b>Roadways</b>						
Remove Existing Pavement Surface	\$16.00	\$16 / sq m	11,700	\$187,200.00	0	\$0.00
Clearing and Grubbing	\$3.50	\$3.5 / sq m	3,600	\$12,600.00	7,500	\$26,250.00
Common Excavation	\$12.00	\$12 / m3	16,200	\$194,400.00	20,100	\$241,200.00
Waste Excavation	\$28.00	\$28 / m3	3,100	\$86,800.00	1,500	\$42,000.00
Borrow Excavation	\$40.00	\$40 / m3	0	\$0.00	0	\$0.00
Ditch Regrading	\$18.00	\$18 / m3	4,500	\$81,000.00	20,000	\$360,000.00
Waste Topsoil Excavation	\$28.00	\$28 / m3	5,100	\$142,800.00	6,100	\$170,800.00
Prepared Subgrade	\$5.00	\$5 / sq m	24,200	\$121,000.00	12,500	\$62,500.00
Granular Base Course	\$100.00	\$100 / sq m	4,900	\$490,000.00	1,000	\$100,000.00
Asphalt Concrete Pavement	\$65.00	\$65 / sq m	24,200	\$1,573,000.00	5,000	\$325,000.00
Roundabout Construction	\$300,000.00	\$300,000 / EA	1	\$300,000.00	3	\$900,000.00
Seeding/ Topsoil	\$10.00	\$10 / sq m	11,000	\$110,000.00	22,100	\$221,000.00
Concrete Curb and Gutter	\$90.00	\$90 / m	3,100	\$279,000.00	0	\$0.00
Concrete Curb Ramp	\$3,000.00	\$3000 / EA	2	\$6,000.00	14	\$42,000.00
3m Asphalt Multi-Use Trail	\$50.00	\$50 / sq m	900	\$45,000.00	2,900	\$145,000.00
Access Closure / Relocation	\$11,000.00	\$11,000 / EA	0	\$0.00	1	\$11,000.00
Access Closure / Relocation with Subdivision	\$0.00	\$0 / EA	0	\$0.00	4	\$0.00
Speed Limit and Pedestrian Crossing Signs	\$350.00	\$350 / EA	6	\$2,100.00	18	\$6,300.00
Paint lines	\$19.00	\$19 / m	1,300	\$24,700.00	4,900	\$93,100.00
<b>Utilities</b>						
Power Line Relocations - Overhead	\$100,000.00	\$100,000 / km	0	\$0.00	1.6	\$160,000.00
High Pressure Natural Gas Relocation	\$2,000,000.00	\$2,000,000 / km	0	\$0.00	0*	\$0.00
Low Pressure Natural Gas Relocation	\$100,000.00	\$100,000 / km	0.7	\$70,000.00	1.8	\$180,000.00
Telecommunication Trench**		\$ -	1,200	\$0.00	100	\$0.00
Telecommunication Pedestals**		\$ -	0		8	\$0.00
<b>Drainage</b>						
Culverts	\$350.00	\$350 / m	0	\$0.00	8	\$2,800.00
Storm Pipe	\$400.00	\$400 / m	610	\$244,000.00	0	\$0.00
Catchbasin Leads	\$4,000.00	\$4,000 / EA	165	\$660,000.00	0	\$0.00
Catchbasins	\$150.00	\$150 / m	11	\$1,650.00	0	\$0.00
Storm Manholes	\$2,000.00	\$2000 / EA	6	\$12,000.00	0	\$0.00
<b>Right-of-way</b>						
Land Value	\$150,000.00	\$150,000 / acre	1.05	\$157,950.00	0	\$0.00
Damages				\$ 52,800.00		\$0.00
Incidental Costs				\$ 100,000.00		\$0.00
			Total	\$4,954,000.00	Total	\$3,089,000.00
			Contingency (15%)	\$744,000.00		\$464,000.00
			Total with Contingency	\$5,698,000.00		\$3,553,000.00
			Engineering (10%)	\$570,000.00		\$356,000.00
			Total with Contingency and Engineering	\$6,268,000.00		\$3,909,000.00

### Notes:

\* Pipelines locations should be confirmed with utility provider. Utilities may not conflict if work remains in the Road Right-of-Way and ties in south of existing Wye Road intersection.

\*\* Costs for telecommunications relocation will be responsibility of telecommunications provider as it is within road right-of-way.

### Assumptions:

Assume Existing Roadway Structure of 500mm

Assume Existing Topsoil Thickness of 300mm

Assume Existing GBC and ACP Thickness of 300mm

Assume New GBC Pavement Structure of 200mm

Assume New Asphalt Concrete Pavement Structure of 250mm

Assume Roundabout Construction does not require existing pavement to be removed

## Range Road 232 Cost Estimate

Cost Item	Rate	Unit Rate	Short Term Stage		Ultimate (Long Term) Stage	
			Quantity	Cost	Quantity	Cost
<b>Roadways</b>						
Remove Existing Pavement Surface	\$16.00	\$16 / sq m	10,200	\$163,200	0	\$0
Clearing and Grubbing	\$3.50	\$3.5 / sq m	4,900	\$17,150	10,300	\$36,050
Common Excavation	\$12.00	\$12 / m3	10,900	\$130,800	21,800	\$261,600
Waste Excavation	\$28.00	\$28 / m3	4,200	\$117,600	1,400	\$39,200
Borrow Excavation	\$40.00	\$40 / m3	0	\$0	0	\$0
Ditch Regrading	\$18.00	\$18 / m3	9,900	\$178,200	18,000	\$324,000
Waste Topsoil Excavation	\$28.00	\$28 / m3	3,300	\$92,400	6,600	\$184,800
Prepared Subgrade	\$5.00	\$5 / sq m	7,900	\$39,500	11,300	\$56,500
Granular Base Course	\$100.00	\$100 / sq m	3,800	\$380,000	1,000	\$100,000
Asphalt Concrete Pavement	\$65.00	\$65 / sq m	18,100	\$1,176,500	4,500	\$292,500
Roundabout Construction	\$300,000.00	\$300,000 / EA	1	\$300,000	4	\$1,200,000
Seeding/ Topsoil	\$10.00	\$10 / sq m	10,900	\$109,000	21,800	\$218,000
Concrete Curb and Gutter	\$90.00	\$90 / m	3,200	\$288,000	0	\$0
Concrete Curb Ramp	\$3,000.00	\$3000 / EA	8	\$24,000	11	\$33,000
3m Asphalt Multi-Use Trail	\$50.00	\$50 / sq m	2,200	\$110,000	6,000	\$300,000
Access Closure / Relocation	\$11,000.00	\$11,000 / EA	1	\$11,000	7	\$77,000
Speed Limit and Pedestrian Crossing Signs	\$350.00	\$350 / EA	11	\$3,850	14	\$4,900
Paint lines	\$19.00	\$19 / m	1,400	\$26,600	5,600	\$106,400
<b>Utilities</b>						
Power Line Relocations - Overhead	\$100,000.00	\$100,000 / km	0.8	\$80,000	0.8	\$80,000
High Pressure Natural Gas Relocation	\$2,000,000.00	\$2,000,000 / km	2**	\$4,000,000		
Low Pressure Natural Gas Relocation	\$100,000.00	\$100,000 / km	0.2	\$20,000	1.8	\$180,000
Telecommunication Trench**		\$ -	2.4		5	
Telecommunication Pedestals**		\$ -	8		8	
<b>Drainage</b>						
Culverts	\$350.00	\$350 / m	0	\$0	12	\$4,200
Storm Pipe	\$400.00	\$400 / m	355	\$142,000	0	\$0
Catchbasin Leads	\$150.00	\$150 / m	120	\$18,000	0	\$0
Catchbasins	\$4,000.00	\$4,000 / EA	8	\$32,000	0	\$0
Storm Manholes	\$2,000.00	\$2000 / EA	3	\$6,000	0	\$0
<b>Right-of-way</b>						
Land Value	\$150,000.00	\$150,000 / acre	1.81	\$270,900	0.245	\$36,750
Damages				\$79,200		\$118,800
Incidental Costs				\$160,000		\$180,000
			Total	\$7,976,000	Total	\$3,834,000
			Contingency (15%)	\$1,197,000		\$576,000
			Total with Contingency	\$9,173,000		\$4,410,000
			Engineering (10%)	\$918,000		\$441,000
			Total with Contingency and Engineering	\$10,091,000		\$4,851,000

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