

New Watermain South of Williams Parkway
Shortlist Evaluation

	Unit	Alternative 2A			Alternative 2B			Alternative 4B			Alternative 4C			Alternative 4D			Alternative 5		
		Quantity	Unit Rate	Cost	Quantity	Unit Rate	Cost	Quantity	Unit Rate	Cost	Quantity	Unit Rate	Cost	Quantity	Unit Rate	Cost	Quantity	Unit Rate	Cost
Technical - Cost Estimate																			
Site Preparation for shaft	I.s.	3	\$ 600,000.00	\$ 1,800,000.00	2	\$ 600,000.00	\$ 1,200,000.00	1	\$ 600,000.00	\$ 600,000.00	3	\$ 600,000.00	\$ 1,800,000.00	2	\$ 600,000.00	\$ 1,200,000.00	3	\$ 600,000.00	\$ 1,800,000.00
Supply and Installation of 750 mm Watermain (Open Cut)	m	405	\$ 2,400.00	\$ 972,000.00	1505	\$ 2,400.00	\$ 3,612,000.00	1835	\$ 2,800.00	\$ 5,138,000.00	1515	\$ 2,800.00	\$ 4,242,000.00	2425	\$ 2,800.00	\$ 6,790,000.00	1715	\$ 2,600.00	\$ 4,459,000.00
1500mm Tunnel Steel Liner including grout including installation by tunnel method	m	1685	\$ 11,500.00	\$ 19,377,500.00	930	\$ 11,500.00	\$ 10,695,000.00	945	\$ 11,500.00	\$ 10,867,500.00	860	\$ 11,500.00	\$ 9,890,000.00	285	\$ 11,500.00	\$ 3,277,500.00	860	\$ 11,500.00	\$ 9,890,000.00
Supply and installation of 750mm inside Steel Liner includes installation and material	m	1685	\$ 1,500.00	\$ 2,527,500.00	930	\$ 1,500.00	\$ 1,395,000.00	945	\$ 1,500.00	\$ 1,417,500.00	860	\$ 1,500.00	\$ 1,290,000.00	285	\$ 1,500.00	\$ 427,500.00	860	\$ 1,500.00	\$ 1,290,000.00
Connections to Existing WM's	each	4	\$ 40,000.00	\$ 160,000.00	3	\$ 40,000.00	\$ 120,000.00	4	\$ 40,000.00	\$ 160,000.00	2	\$ 40,000.00	\$ 80,000.00	2	\$ 40,000.00	\$ 80,000.00	2	\$ 40,000.00	\$ 80,000.00
Installation of Chambers	each	3	\$ 669,000.00	\$ 2,007,000.00	3	\$ 669,000.00	\$ 2,007,000.00	3	\$ 674,000.00	\$ 2,022,000.00	3	\$ 674,000.00	\$ 2,022,000.00	3	\$ 674,000.00	\$ 2,022,000.00	3	\$ 671,000.00	\$ 2,013,000.00
Shaft Construction - Excavation and Support (Launching and Receiving Shafts)	each	3	\$ 550,000.00	\$ 1,650,000.00	2	\$ 550,000.00	\$ 1,100,000.00	3	\$ 550,000.00	\$ 1,650,000.00	3	\$ 550,000.00	\$ 1,650,000.00	2	\$ 550,000.00	\$ 1,100,000.00	3	\$ 550,000.00	\$ 1,650,000.00
Site Restoration for shaft	I.s.	3	\$ 360,000.00	\$ 1,080,000.00	2	\$ 360,000.00	\$ 720,000.00	3	\$ 360,000.00	\$ 1,080,000.00	3	\$ 360,000.00	\$ 1,080,000.00	2	\$ 360,000.00	\$ 720,000.00	3	\$ 360,000.00	\$ 1,080,000.00
Trench Pipe Restoration	m2	1519	\$ 250.00	\$ 379,750.00	5644	\$ 250.00	\$ 1,411,000.00	6881	\$ 250.00	\$ 1,720,250.00	5681	\$ 250.00	\$ 1,420,250.00	9094	\$ 250.00	\$ 2,273,500.00	6431	\$ 250.00	\$ 1,607,750.00
General - Cost Estimate																			
Mobilization/Demobilization	I.s.	1	\$ 449,306.25	\$ 449,306.25	1	\$ 449,306.25	\$ 449,306.25	1	\$ 444,200.00	\$ 444,200.00	1	\$ 460,900.00	\$ 460,900.00	1	\$ 433,400.00	\$ 433,400.00	1	\$ 469,600.00	\$ 469,600.00
Bonding and Insurance	I.s.	1	\$ 299,537.50	\$ 299,537.50	1	\$ 299,537.50	\$ 299,537.50	1	\$ 296,100.00	\$ 296,100.00	1	\$ 307,300.00	\$ 307,300.00	1	\$ 288,900.00	\$ 288,900.00	1	\$ 313,000.00	\$ 313,000.00
Pre-Construction Assessments	I.s.	1	\$ 15,600.00	\$ 15,600.00	1	\$ 16,300.00	\$ 16,300.00	1	\$ 23,700.00	\$ 23,700.00	1	\$ 24,600.00	\$ 24,600.00	1	\$ 23,100.00	\$ 23,100.00	1	\$ 25,000.00	\$ 25,000.00
Post-Construction Assessments	I.s.	1	\$ 9,800.00	\$ 9,800.00	1	\$ 10,200.00	\$ 10,200.00	1	\$ 14,800.00	\$ 14,800.00	1	\$ 15,400.00	\$ 15,400.00	1	\$ 14,400.00	\$ 14,400.00	1	\$ 15,700.00	\$ 15,700.00
Supply Agency Field Office	I.s.	1	\$ 162,000.00	\$ 162,000.00	1	\$ 162,000.00	\$ 162,000.00	1	\$ 162,000.00	\$ 162,000.00	1	\$ 162,000.00	\$ 162,000.00	1	\$ 162,000.00	\$ 162,000.00	1	\$ 450,000.00	\$ 450,000.00
Traffic Management	I.s.	1	\$ 300,400.00	\$ 300,400.00	1	\$ 300,400.00	\$ 300,400.00	1	\$ 370,100.00	\$ 370,100.00	1	\$ 384,100.00	\$ 384,100.00	1	\$ 361,200.00	\$ 361,200.00	1	\$ 391,300.00	\$ 391,300.00
Geotechnical Instrumentation Monitoring	I.s.	1	\$ 83,100.00	\$ 83,100.00	1	\$ 86,800.00	\$ 86,800.00	1	\$ 125,800.00	\$ 125,800.00	1	\$ 130,600.00	\$ 130,600.00	1	\$ 122,800.00	\$ 122,800.00	1	\$ 133,000.00	\$ 133,000.00
Vibration Monitoring	I.s.	1	\$ 15,600.00	\$ 15,600.00	1	\$ 16,300.00	\$ 16,300.00	1	\$ 23,700.00	\$ 23,700.00	1	\$ 24,600.00	\$ 24,600.00	1	\$ 23,100.00	\$ 23,100.00	1	\$ 25,000.00	\$ 25,000.00
Erosion and Sediment Control	I.s.	1	\$ 34,200.00	\$ 34,200.00	1	\$ 35,800.00	\$ 35,800.00	1	\$ 51,800.00	\$ 51,800.00	1	\$ 53,800.00	\$ 53,800.00	1	\$ 50,600.00	\$ 50,600.00	1	\$ 54,800.00	\$ 54,800.00
Mud and Dust Control	I.s.	1	\$ 342,000.00	\$ 342,000.00	1	\$ 306,500.00	\$ 306,500.00	1	\$ 342,200.00	\$ 342,200.00	1	\$ 254,500.00	\$ 254,500.00	1	\$ 329,000.00	\$ 329,000.00	1	\$ 277,257.86	\$ 277,257.86
Project Signs	each	6	\$ 800.00	\$ 4,800.00	6	\$ 800.00	\$ 4,800.00	6	\$ 800.00	\$ 4,800.00	6	\$ 800.00	\$ 4,800.00	6	\$ 800.00	\$ 4,800.00	6	\$ 800.00	\$ 4,800.00
Dewatering	I.s.	1	\$ 278,700.00	\$ 278,700.00	1	\$ 266,650.00	\$ 266,650.00	1	\$ 297,700.00	\$ 297,700.00	1	\$ 250,050.00	\$ 250,050.00	1	\$ 286,330.00	\$ 286,330.00	1	\$ 270,930.00	\$ 270,930.00
Record Drawings and O&M Manual	I.s.	1	\$ 30,000.00	\$ 30,000.00	1	\$ 30,000.00	\$ 30,000.00	1	\$ 30,000.00	\$ 30,000.00	1	\$ 30,000.00	\$ 30,000.00	1	\$ 30,000.00	\$ 30,000.00	1	\$ 30,000.00	\$ 30,000.00
Watermain Pressure Testing	I.s.	1	\$ 78,200.00	\$ 78,200.00	1	\$ 81,700.00	\$ 81,700.00	1	\$ 118,400.00	\$ 118,400.00	1	\$ 122,900.00	\$ 122,900.00	1	\$ 115,600.00	\$ 115,600.00	1	\$ 125,200.00	\$ 125,200.00
Watermain Commissioning	I.s.	1	\$ 78,200.00	\$ 78,200.00	1	\$ 81,700.00	\$ 81,700.00	1	\$ 118,400.00	\$ 118,400.00	1	\$ 122,900.00	\$ 122,900.00	1	\$ 115,600.00	\$ 115,600.00	1	\$ 125,200.00	\$ 125,200.00
Sub-Total				\$ 32,135,193.75			\$ 24,407,993.75			\$ 27,078,950.00			\$ 25,822,700.00			\$ 20,251,330.00			\$ 26,580,537.86

Note1. Difficult tunneling for Option 4D. Limited space for shaft locations

Note2. Difficult tunneling for part of Option 5 (65m). Tentative shaft location is at a mechanic shop or road closure

Notes:

1. Launch shaft compound size: 20m x 50m
2. Launch Shaft size: 10m x 5m
3. Reception shaft compound size: 10m x 25m
4. Reception shaft size: 8m x 4m
5. Maps showing compound locations is attached.
6. Please see attached presentation showing the Route options: in particular slide 27 showing the options that we need to cost.
7. Allow 1.5 years of construction starting from Dec 2025.
8. Standard details for valve chambers based on 1-3-30
- Assumed Chambers will install inside the Shaft
- Assumed concrete thicknesses for: base slab is 1000mm, suspended slab is 300mm and wall is 800mm.