

Appendix: H

Replacement Options Estimate
March 03, 2023

COUNTY OF LANARK			COMPLETED BY JEWELL ENGINEERING INC.											
BLAKENEY BRIDGE REPLACEMENT			MARCH 3, 2023											
PRELIMINARY CONSTRUCTION COST ESTIMATES														
OPTION 1 - TWO LANE BRIDGE WITH NO PEDESTRIAN CROSSING														
PART A	GENERAL		OPTION 1A - TWO LANE NO PEDESTRIAN CROSSING, 90' AND 150' BRIDGES			OPTION 1B - TWO LANE NO PEDESTRIAN CROSSING, 90' AND 160' (W/ PIER)			OPTION 1C - TWO LANE NO PEDESTRIAN CROSSING, WITH 3 BRIDGES			OPTION 1D - TWO LANE NO PEDESTRIAN, WITH LARGER SPANS AND 3 TOTAL ABUTMENTS		
ITEM No.	DESCRIPTION	UNITS	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT
A1	Mobilization / Demobilization	L.S.	\$150,000.00	100.00%	\$150,000.00	\$150,000.00	100.00%	\$150,000.00	\$150,000.00	100.00%	\$150,000.00	\$150,000.00	100.00%	\$150,000.00
A2	Stream Protection	L.S.	\$20,000.00	100.00%	\$20,000.00	\$30,000.00	100.00%	\$30,000.00	\$25,000.00	100.00%	\$25,000.00	\$20,000.00	100.00%	\$20,000.00
A3	Quality Control Testing	L.S.	\$15,000.00	100.00%	\$15,000.00	\$17,500.00	100.00%	\$17,500.00	\$17,500.00	100.00%	\$17,500.00	\$15,000.00	100.00%	\$15,000.00
A4	Traffic Control	L.S.	\$10,000.00	100.00%	\$10,000.00	\$10,000.00	100.00%	\$10,000.00	\$10,000.00	100.00%	\$10,000.00	\$10,000.00	100.00%	\$10,000.00
A5	Utility Pole Relocation	L.S.	\$60,000.00	100.00%	\$60,000.00	\$60,000.00	100.00%	\$60,000.00	\$60,000.00	100.00%	\$60,000.00	\$60,000.00	100.00%	\$60,000.00
A6	Contingency Allowance (Provisional)	L.S.	\$150,000.00	100.00%	\$150,000.00	\$150,000.00	100.00%	\$150,000.00	\$150,000.00	100.00%	\$150,000.00	\$150,000.00	100.00%	\$150,000.00
			SUB-TOTAL PART A		\$405,000.00	SUB-TOTAL PART A		\$417,500.00	SUB-TOTAL PART A		\$412,500.00	SUB-TOTAL PART A		\$405,000.00
PART B	ROADWORKS													
ITEM No.	DESCRIPTION	UNITS	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT
B1	Site Preparation	L.S.	\$10,000.00	100.00%	\$10,000.00	\$10,000.00	100.00%	\$10,000.00	\$10,000.00	100.00%	\$10,000.00	\$10,000.00	100.00%	\$10,000.00
B2	Granular "A" (Roadway)	tonnes	\$50.00	100.00	\$5,000.00	\$50.00	100.00	\$5,000.00	\$50.00	100.00	\$5,000.00	\$50.00	50.00	\$2,500.00
B3	Granular "B" Type II (Roadway)	tonnes	\$35.00	300.00	\$10,500.00	\$35.00	300.00	\$10,500.00	\$35.00	300.00	\$10,500.00	\$35.00	150.00	\$5,250.00
B4	Earth Excavation and Disposal of Non Hazardous Waste	m ³	\$60.00	200.00	\$12,000.00	\$60.00	200.00	\$12,000.00	\$60.00	200.00	\$12,000.00	\$60.00	200.00	\$12,000.00
B7	Single Rail Steel Beam Guide Rail with Channel	m	\$325.00	150.00	\$48,750.00	\$325.00	130.00	\$42,250.00	\$325.00	170.00	\$55,250.00	\$325.00	80.00	\$26,000.00
B8	Steel Beam Guide Rail Structure Connection	ea	\$3,500.00	8.00	\$28,000.00	\$3,500.00	8.00	\$28,000.00	\$3,500.00	12.00	\$42,000.00	\$3,500.00	8.00	\$28,000.00
B9	Extruder End Treatments	ea	\$12,000.00	4.00	\$48,000.00	\$12,000.00	4.00	\$48,000.00	\$12,000.00	4.00	\$48,000.00	\$12,000.00	4.00	\$48,000.00
B10	Granular Sealing	m ²	\$40.00	200.00	\$8,000.00	\$40.00	175.00	\$7,000.00	\$40.00	225.00	\$9,000.00	\$40.00	100.00	\$4,000.00
B11	Small Signs, Ground Mounted	ea.	\$800.00	6.00	\$4,800.00	\$800.00	6.00	\$4,800.00	\$800.00	6.00	\$4,800.00	\$800.00	6.00	\$4,800.00
B12	Rock Protection	m ²	\$60.00	300.00	\$18,000.00	\$60.00	300.00	\$18,000.00	\$60.00	300.00	\$18,000.00	\$60.00	300.00	\$18,000.00
B13	Topsoil (Imported)	m ³	\$100.00	70.00	\$7,000.00	\$100.00	70.00	\$7,000.00	\$100.00	70.00	\$7,000.00	\$100.00	70.00	\$7,000.00
B14	Seed and Erosion Control Blanket	m ²	\$10.00	700.00	\$7,000.00	\$10.00	700.00	\$7,000.00	\$10.00	700.00	\$7,000.00	\$10.00	700.00	\$7,000.00
B15	Removal of Asphalt Pavement - Full Depth	m ²	\$8.00	350.00	\$2,800.00	\$8.00	350.00	\$2,800.00	\$8.00	350.00	\$2,800.00	\$8.00	350.00	\$2,800.00
B16	Hot Mix Asphalt - HL3 Surface Course	tonnes	\$350.00	120.00	\$42,000.00	\$350.00	120.00	\$42,000.00	\$350.00	120.00	\$42,000.00	\$350.00	120.00	\$42,000.00
B17	Hot Mix Asphalt - HL8 Base Course	tonnes	\$250.00	150.00	\$37,500.00	\$250.00	150.00	\$37,500.00	\$250.00	150.00	\$37,500.00	\$250.00	150.00	\$37,500.00
B18	Pavement Marking Allowance	ea.	\$5,000.00	1.00	\$5,000.00	\$5,000.00	1.00	\$5,000.00	\$5,000.00	1.00	\$5,000.00	\$5,000.00	1.00	\$5,000.00
			SUB-TOTAL PART B		\$294,350.00	SUB-TOTAL PART B		\$286,850.00	SUB-TOTAL PART B		\$315,850.00	SUB-TOTAL PART B		\$259,850.00
PART C	STRUCTURE WORKS													
ITEM No.	DESCRIPTION	UNITS	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT
C1	Removal of Existing Bridge Structure	L.S.	\$200,000.00	1.00	\$200,000.00	\$200,000.00	1.00	\$200,000.00	\$200,000.00	1.00	\$200,000.00	\$200,000.00	1.00	\$200,000.00
C2	Concrete Removal - Full Depth	L.S.	\$50,000.00	1.00	\$50,000.00	\$50,000.00	1.00	\$50,000.00	\$50,000.00	1.00	\$50,000.00	\$50,000.00	1.00	\$50,000.00
C3	Earth Excavation for Structure and Disposal of Non-Haz Waste	m ³	\$60.00	400.00	\$24,000.00	\$60.00	400.00	\$24,000.00	\$60.00	600.00	\$36,000.00	\$60.00	400.00	\$24,000.00
C4	Rock Excavation for Structure	m ³	\$200.00	100.00	\$20,000.00	\$200.00	140.00	\$28,000.00	\$200.00	150.00	\$30,000.00	\$200.00	85.00	\$17,000.00
C5	Dewatering Strucutre Excavations	L.S.	\$50,000.00	100.00%	\$50,000.00	\$100,000.00	100.00%	\$100,000.00	\$75,000.00	100.00%	\$75,000.00	\$50,000.00	100.00%	\$50,000.00
C6	Granular Backfill to Structure	L.S.	\$80,000.00	100.00%	\$80,000.00	\$80,000.00	100.00%	\$80,000.00	\$100,000.00	100.00%	\$100,000.00	\$80,000.00	100.00%	\$80,000.00
C7	Mass Concrete (Provisional)	m ³	\$600.00	20.00	\$12,000.00	\$600.00	20.00	\$12,000.00	\$600.00	30.00	\$18,000.00	\$600.00	15.00	\$9,000.00
C8	Concrete in Footings	m ³	\$1,200.00	120.00	\$144,000.00	\$1,200.00	150.00	\$180,000.00	\$1,200.00	170.00	\$204,000.00	\$1,200.00	105.00	\$126,000.00
C9	Concrete in Substructure	L.S.	\$400,000.00	100.00%	\$400,000.00	\$450,000.00	100.00%	\$450,000.00	\$530,000.00	100.00%	\$530,000.00	\$340,000.00	100.00%	\$340,000.00
C10	Concrete in Structure	L.S.	\$110,000.00	100.00%	\$110,000.00	\$130,000.00	100.00%	\$130,000.00	\$165,000.00	100.00%	\$165,000.00	\$100,000.00	100.00%	\$100,000.00
C11	Reinforcing Steel Bar	L.S.	\$75,000.00	100.00%	\$75,000.00	\$85,000.00	100.00%	\$85,000.00	\$105,000.00	100.00%	\$105,000.00	\$70,000.00	100.00%	\$70,000.00
C12	Reinforcing Stainless Steel Bar	L.S.	\$80,000.00	100.00%	\$80,000.00	\$90,000.00	100.00%	\$90,000.00	\$120,000.00	100.00%	\$120,000.00	\$75,000.00	100.00%	\$75,000.00
C13	Fabrication of Pre-Engineered Steel Truss with Steel Deck	L.S.	\$1,425,000.00	100.00%	\$1,425,000.00	\$1,600,000.00	100.00%	\$1,600,000.00	\$1,225,000.00	100.00%	\$1,225,000.00	\$2,200,000.00	100.00%	\$2,200,000.00
C14	Delivery of Pre-Engineered Steel Truss With Deck	L.S.	\$25,000.00	100.00%	\$25,000.00	\$25,000.00	100.00%	\$25,000.00	\$25,000.00	100.00%	\$25,000.00	\$25,000.00	100.00%	\$25,000.00
C15	Erection of Structural Steel With Deck	L.S.	\$100,000.00	100.00%	\$100,000.00	\$100,000.00	100.00%	\$100,000.00	\$120,000.00	100.00%	\$120,000.00	\$100,000.00	100.00%	\$100,000.00
C16	Supply & Installation of Box Beam Railing	m	\$1,000.00	150.00	\$150,000.00	\$1,000.00	170.00	\$170,000.00	\$1,000.00	135.00	\$135,000.00	\$1,000.00	190.00	\$190,000.00
C17	Steel Bridge Deck Waterproofing	L.S.	\$25,000.00	100.00%	\$25,000.00	\$27,500.00	100.00%	\$27,500.00	\$22,500.00	100.00%	\$22,500.00	\$30,000.00	100.00%	\$30,000.00
C18	Pipe Subdrain	m	\$80.00	40.00	\$3,200.00	\$80.00	40.00	\$3,200.00	\$80.00	60.00	\$4,800.00	\$80.00	40.00	\$3,200.00
			SUB-TOTAL PART C		\$2,973,200.00	SUB-TOTAL PART C		3,354,700.00	SUB-TOTAL PART C		\$3,165,300.00	SUB-TOTAL PART C		3,689,200.00
			SUB-TOTAL PART A+B+C		\$3,672,550.00	SUB-TOTAL PART A+B+C		\$4,059,050.00	SUB-TOTAL PART A+B+C		\$3,893,650.00	SUB-TOTAL PART A+B+C		\$4,354,050.00

COUNTY OF LANARK			COMPLETED BY JEWELL ENGINEERING INC.											
BLAKENEY BRIDGE REPLACEMENT			MARCH 3, 2023											
PRELIMINARY CONSTRUCTION COST ESTIMATES														
OPTION 2 - TWO LANE BRIDGE WITH PEDESTRIAN CROSSING														
PART A	GENERAL		OPTION 2A - TWO LANE with PEDESTRIAN CROSSING, 90' AND 150' BRIDGES			OPTION 2B - TWO LANE with PEDESTRIAN CROSSING, 90' AND 160' (W/ PIER)			OPTION 2C - TWO LANE with PEDESTRIAN CROSSING AND THREE BRIDGES			OPTION 2D - TWO LANE with PEDESTRIAN CROSSING, LARGER SPANS AND 3 ABUTMENTS		
ITEM No.	DESCRIPTION	UNITS	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT
A1	Mobilization / Demobilization	L.S.	\$150,000.00	100.00%	\$150,000.00	\$150,000.00	100.00%	\$150,000.00	\$150,000.00	100.00%	\$150,000.00	\$150,000.00	100.00%	\$150,000.00
A2	Stream Protection	L.S.	\$20,000.00	100.00%	\$20,000.00	\$30,000.00	100.00%	\$30,000.00	\$25,000.00	100.00%	\$25,000.00	\$20,000.00	100.00%	\$20,000.00
A3	Quality Control Testing	L.S.	\$15,000.00	100.00%	\$15,000.00	\$17,500.00	100.00%	\$17,500.00	\$17,500.00	100.00%	\$17,500.00	\$15,000.00	100.00%	\$15,000.00
A4	Traffic Control	L.S.	\$10,000.00	100.00%	\$10,000.00	\$10,000.00	100.00%	\$10,000.00	\$10,000.00	100.00%	\$10,000.00	\$10,000.00	100.00%	\$10,000.00
A5	Utility Pole Relocation Allowance	L.S.	\$60,000.00	100.00%	\$60,000.00	\$60,000.00	100.00%	\$60,000.00	\$60,000.00	100.00%	\$60,000.00	\$60,000.00	100.00%	\$60,000.00
A6	Contingency Allowance (Provisional)	L.S.	\$150,000.00	100.00%	\$150,000.00	\$150,000.00	100.00%	\$150,000.00	\$150,000.00	100.00%	\$150,000.00	\$150,000.00	100.00%	\$150,000.00
			SUB-TOTAL PART A		\$405,000.00	SUB-TOTAL PART A		\$417,500.00	SUB-TOTAL PART A		\$412,500.00	SUB-TOTAL PART A		\$405,000.00
PART B	ROADWORKS													
ITEM No.	DESCRIPTION	UNITS	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT
B1	Site Preparation	L.S.	\$15,000.00	100.00%	\$15,000.00	\$15,000.00	100.00%	\$15,000.00	\$15,000.00	100.00%	\$15,000.00	\$15,000.00	100.00%	\$15,000.00
B2	Granular "A" (Roadway and Walkway)	tonnes	\$50.00	200.00	\$10,000.00	\$50.00	200.00	\$10,000.00	\$50.00	200.00	\$10,000.00	\$50.00	200.00	\$10,000.00
B3	Granular "B" Type II (Roadway and Walkway)	tonnes	\$35.00	600.00	\$21,000.00	\$35.00	600.00	\$21,000.00	\$35.00	600.00	\$21,000.00	\$35.00	600.00	\$21,000.00
B4	Earth Excavation and Disposal of Non Hazardous Waste	m ³	\$60.00	250.00	\$15,000.00	\$60.00	250.00	\$15,000.00	\$60.00	250.00	\$15,000.00	\$60.00	250.00	\$15,000.00
B7	Single Rail Steel Beam Guide Rail with Channel	m	\$325.00	150.00	\$48,750.00	\$325.00	130.00	\$42,250.00	\$325.00	170.00	\$55,250.00	\$325.00	80.00	\$26,000.00
B8	Steel Beam Guide Rail Structure Connection	ea	\$3,500.00	8.00	\$28,000.00	\$3,500.00	8.00	\$28,000.00	\$3,500.00	12.00	\$42,000.00	\$3,500.00	8.00	\$28,000.00
B9	Extruder End Treatments	ea	\$12,000.00	4.00	\$48,000.00	\$12,000.00	4.00	\$48,000.00	\$12,000.00	4.00	\$48,000.00	\$12,000.00	4.00	\$48,000.00
B10	Granular Sealing	m2	\$40.00	200.00	\$8,000.00	\$40.00	175.00	\$7,000.00	\$40.00	225.00	\$9,000.00	\$40.00	100.00	\$4,000.00
B11	Small Signs, Ground Mounted	ea.	\$800.00	6.00	\$4,800.00	\$800.00	6.00	\$4,800.00	\$800.00	6.00	\$4,800.00	\$800.00	6.00	\$4,800.00
B12	Rock Protection	m ²	\$60.00	300.00	\$18,000.00	\$60.00	300.00	\$18,000.00	\$60.00	300.00	\$18,000.00	\$60.00	300.00	\$18,000.00
B13	Topsoil (Imported)	m ³	\$100.00	70.00	\$7,000.00	\$100.00	70.00	\$7,000.00	\$100.00	70.00	\$7,000.00	\$100.00	70.00	\$7,000.00
B14	Seed and Erosion Control Blanket	m ²	\$10.00	700.00	\$7,000.00	\$10.00	700.00	\$7,000.00	\$10.00	700.00	\$7,000.00	\$10.00	700.00	\$7,000.00
B15	Removal of Asphalt Pavement - Full Depth	m ²	\$8.00	350.00	\$2,800.00	\$8.00	350.00	\$2,800.00	\$8.00	350.00	\$2,800.00	\$8.00	350.00	\$2,800.00
B16	Hot Mix Asphalt - HL3 Surface Course	tonnes	\$350.00	120.00	\$42,000.00	\$350.00	120.00	\$42,000.00	\$350.00	120.00	\$42,000.00	\$350.00	120.00	\$42,000.00
B17	Hot Mix Asphalt - HL8 Base Course	tonnes	\$250.00	150.00	\$37,500.00	\$250.00	150.00	\$37,500.00	\$250.00	150.00	\$37,500.00	\$250.00	150.00	\$37,500.00
B18	Pavement Marking Allowance	ea.	\$5,000.00	1.00	\$5,000.00	\$5,000.00	1.00	\$5,000.00	\$5,000.00	1.00	\$5,000.00	\$5,000.00	1.00	\$5,000.00
			SUB-TOTAL PART B		\$317,850.00	SUB-TOTAL PART B		\$310,350.00	SUB-TOTAL PART B		\$339,350.00	SUB-TOTAL PART B		\$286,100.00
PART C	STRUCTURE WORKS													
ITEM No.	DESCRIPTION	UNITS	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT
C1	Removal of Existing Bridge Structure	L.S.	\$200,000.00	1.00	\$200,000.00	\$200,000.00	1.00	\$200,000.00	\$200,000.00	1.00	\$200,000.00	\$200,000.00	1.00	\$200,000.00
C2	Concrete Removal - Full Depth	L.S.	\$50,000.00	1.00	\$50,000.00	\$50,000.00	1.00	\$50,000.00	\$50,000.00	1.00	\$50,000.00	\$50,000.00	1.00	\$50,000.00
C3	Earth Excavation for Structure and Disposal of Non-Haz Waste	m ³	\$60.00	450.00	\$27,000.00	\$60.00	450.00	\$27,000.00	\$60.00	650.00	\$39,000.00	\$60.00	400.00	\$24,000.00
C4	Rock Excavation for Structure	m ³	\$200.00	110.00	\$22,000.00	\$200.00	150.00	\$30,000.00	\$200.00	160.00	\$32,000.00	\$200.00	100.00	\$20,000.00
C5	Dewatering Strucutre Excavations	L.S.	\$50,000.00	100.00%	\$50,000.00	\$100,000.00	100.00%	\$100,000.00	\$75,000.00	100.00%	\$75,000.00	\$50,000.00	100.00%	\$50,000.00
C6	Granular Backfill to Structure	L.S.	\$90,000.00	100.00%	\$90,000.00	\$90,000.00	100.00%	\$90,000.00	\$105,000.00	100.00%	\$105,000.00	\$90,000.00	100.00%	\$90,000.00
C7	Mass Concrete (Provisional)	m ³	\$600.00	22.00	\$13,200.00	\$600.00	22.00	\$13,200.00	\$600.00	30.00	\$18,000.00	\$600.00	20.00	\$12,000.00
C8	Concrete in Footings	m ³	\$1,200.00	130.00	\$156,000.00	\$1,200.00	160.00	\$192,000.00	\$1,200.00	180.00	\$216,000.00	\$1,200.00	120.00	\$144,000.00
C9	Concrete in Substructure	L.S.	\$425,000.00	100.00%	\$425,000.00	\$485,000.00	100.00%	\$485,000.00	\$570,000.00	100.00%	\$570,000.00	\$350,000.00	100.00%	\$350,000.00
C10	Concrete in Structure	L.S.	\$115,000.00	100.00%	\$115,000.00	\$140,000.00	100.00%	\$140,000.00	\$165,000.00	100.00%	\$165,000.00	\$100,000.00	100.00%	\$100,000.00
C11	Reinforcing Steel Bar	L.S.	\$85,000.00	100.00%	\$85,000.00	\$100,000.00	100.00%	\$100,000.00	\$105,000.00	100.00%	\$105,000.00	\$80,000.00	100.00%	\$80,000.00
C12	Reinforcing Stainless Steel Bar	L.S.	\$90,000.00	100.00%	\$90,000.00	\$105,000.00	100.00%	\$105,000.00	\$120,000.00	100.00%	\$120,000.00	\$85,000.00	100.00%	\$85,000.00
C13	Fabrication of Pre-Engineered Steel Truss with Steel Deck	L.S.	\$1,700,000.00	100.00%	\$1,700,000.00	\$1,800,000.00	100.00%	\$1,800,000.00	\$1,400,000.00	100.00%	\$1,400,000.00	\$2,400,000.00	100.00%	\$2,400,000.00
C14	Delivery of Pre-Engineered Steel Truss With Deck	L.S.	\$25,000.00	100.00%	\$25,000.00	\$25,000.00	100.00%	\$25,000.00	\$25,000.00	100.00%	\$25,000.00	\$25,000.00	100.00%	\$25,000.00
C15	Erection of Structural Steel With Deck	L.S.	\$125,000.00	100.00%	\$125,000.00	\$125,000.00	100.00%	\$125,000.00	\$150,000.00	100.00%	\$150,000.00	\$125,000.00	100.00%	\$125,000.00
C16	Supply & Installation of Box Beam Railing	m	\$1,000.00	150.00	\$150,000.00	\$1,000.00	170.00	\$170,000.00	\$1,000.00	135.00	\$135,000.00	\$1,000.00	190.00	\$190,000.00
C17	Steel Bridge Deck Waterproofing	L.S.	\$25,000.00	100.00%	\$25,000.00	\$27,500.00	100.00%	\$27,500.00	\$22,500.00	100.00%	\$22,500.00	\$30,000.00	100.00%	\$30,000.00
C18	Pipe Subdrain	m	\$80.00	40.00	\$3,200.00	\$80.00	40.00	\$3,200.00	\$80.00	60.00	\$4,800.00	\$80.00	40.00	\$3,200.00
			SUB-TOTAL PART C		\$3,351,400.00	SUB-TOTAL PART C		3,682,900.00	SUB-TOTAL PART C		\$3,432,300.00	SUB-TOTAL PART C		3,978,200.00
			SUB-TOTAL PART A+B+C		\$4,074,250.00	SUB-TOTAL PART A+B+C		\$4,410,750.00	SUB-TOTAL PART A+B+C		\$4,184,150.00	SUB-TOTAL PART A+B+C		\$4,669,300.00

COUNTY OF LANARK		COMPLETED BY JEWELL ENGINEERING INC.												
BLAKENEY BRIDGE REPLACEMENT		MARCH 3, 2023												
PRELIMINARY CONSTRUCTION COST ESTIMATES														
OPTION 3 - SINGLE LANE 7.3M WIDE BRIDGE WITH ACCOMODATION FOR FUTURE CANTILEVERED WALKWAY														
PART A	GENERAL		OPTION 3A - SINGLE LANE WITH WALK DELINEATION ON DECK			OPTION 3B - SINGLE LANE WITH WALK DELINEATION AND ADDITIONAL PIER			OPTION 3C - SINGLE LANE WITH WALK DELINEATION, THREE BRIDGES			OPTION 3D - SINGLE LANE, LARGEST BRIDGES AND 3 TOTAL ABUTMENTS		
ITEM No.	DESCRIPTION	UNITS	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT
A1	Mobilization / Demobilization	L.S.	\$150,000.00	100.00%	\$150,000.00	\$150,000.00	100.00%	\$150,000.00	\$150,000.00	100.00%	\$150,000.00	\$150,000.00	100.00%	\$150,000.00
A2	Stream Protection	L.S.	\$20,000.00	100.00%	\$20,000.00	\$30,000.00	100.00%	\$30,000.00	\$30,000.00	100.00%	\$25,000.00	\$20,000.00	100.00%	\$20,000.00
A3	Quality Control Testing	L.S.	\$15,000.00	100.00%	\$15,000.00	\$17,500.00	100.00%	\$17,500.00	\$17,500.00	100.00%	\$17,500.00	\$15,000.00	100.00%	\$15,000.00
A4	Traffic Control	L.S.	\$10,000.00	100.00%	\$10,000.00	\$10,000.00	100.00%	\$10,000.00	\$10,000.00	100.00%	\$10,000.00	\$10,000.00	100.00%	\$10,000.00
A5	Contingency Allowance (Provisional)	L.S.	\$150,000.00	100.00%	\$150,000.00	\$150,000.00	100.00%	\$150,000.00	\$150,000.00	100.00%	\$150,000.00	\$150,000.00	100.00%	\$150,000.00
			SUB-TOTAL PART A		\$345,000.00	SUB-TOTAL PART A		\$357,500.00	SUB-TOTAL PART A		\$352,500.00	SUB-TOTAL PART A		\$345,000.00
PART B	ROADWORKS													
ITEM No.	DESCRIPTION	UNITS	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT
B1	Site Preparation	L.S.	\$15,000.00	100.00%	\$15,000.00	\$15,000.00	100.00%	\$15,000.00	\$15,000.00	100.00%	\$15,000.00	\$15,000.00	100.00%	\$15,000.00
B2	Granular "A" (Roadway and Walkway)	tonnes	\$50.00	100.00	\$5,000.00	\$50.00	100.00	\$5,000.00	\$50.00	100.00	\$5,000.00	\$50.00	50.00	\$2,500.00
B3	Granular "B" Type II (Roadway and Walkway)	tonnes	\$35.00	300.00	\$10,500.00	\$35.00	300.00	\$10,500.00	\$35.00	300.00	\$10,500.00	\$35.00	150.00	\$5,250.00
B4	Earth Excavation and Disposal of Non Hazardous Waste	m ³	\$60.00	250.00	\$15,000.00	\$60.00	250.00	\$15,000.00	\$60.00	250.00	\$15,000.00	\$60.00	250.00	\$15,000.00
B7	Single Rail Steel Beam Guide Rail with Channel	m	\$325.00	150.00	\$48,750.00	\$325.00	130.00	\$42,250.00	\$325.00	170.00	\$55,250.00	\$325.00	80.00	\$26,000.00
B8	Steel Beam Guide Rail Structure Connection	ea	\$3,500.00	8.00	\$28,000.00	\$3,500.00	8.00	\$28,000.00	\$3,500.00	12.00	\$42,000.00	\$3,500.00	8.00	\$28,000.00
B9	Extruder End Treatments	ea	\$12,000.00	4.00	\$48,000.00	\$12,000.00	4.00	\$48,000.00	\$12,000.00	4.00	\$48,000.00	\$12,000.00	4.00	\$48,000.00
B10	Granular Sealing	m ²	\$40.00	200.00	\$8,000.00	\$40.00	175.00	\$7,000.00	\$40.00	225.00	\$9,000.00	\$40.00	100.00	\$4,000.00
B11	Small Signs, Ground Mounted	ea.	\$800.00	6.00	\$4,800.00	\$800.00	6.00	\$4,800.00	\$800.00	6.00	\$4,800.00	\$800.00	6.00	\$4,800.00
B12	Rock Protection	m ²	\$60.00	300.00	\$18,000.00	\$60.00	300.00	\$18,000.00	\$60.00	300.00	\$18,000.00	\$60.00	300.00	\$18,000.00
B13	Topsoil (Imported)	m ³	\$100.00	70.00	\$7,000.00	\$100.00	70.00	\$7,000.00	\$100.00	70.00	\$7,000.00	\$100.00	70.00	\$7,000.00
B14	Seed and Erosion Control Blanket	m ²	\$10.00	700.00	\$7,000.00	\$10.00	700.00	\$7,000.00	\$10.00	700.00	\$7,000.00	\$10.00	700.00	\$7,000.00
B15	Removal of Asphalt Pavement - Full Depth	m ²	\$8.00	350.00	\$2,800.00	\$8.00	350.00	\$2,800.00	\$8.00	350.00	\$2,800.00	\$8.00	350.00	\$2,800.00
B16	Hot Mix Asphalt - HL3 Surface Course	tonnes	\$350.00	120.00	\$42,000.00	\$350.00	120.00	\$42,000.00	\$350.00	120.00	\$42,000.00	\$350.00	120.00	\$42,000.00
B17	Hot Mix Asphalt - HL8 Base Course	tonnes	\$250.00	150.00	\$37,500.00	\$250.00	150.00	\$37,500.00	\$250.00	150.00	\$37,500.00	\$250.00	150.00	\$37,500.00
B18	Pavement Marking Allowance	ea.	\$10,000.00	1.00	\$10,000.00	\$10,000.00	1.00	\$10,000.00	\$10,000.00	1.00	\$10,000.00	\$10,000.00	1.00	\$10,000.00
			SUB-TOTAL PART B		\$307,350.00	SUB-TOTAL PART B		\$299,850.00	SUB-TOTAL PART B		\$328,850.00	SUB-TOTAL PART B		\$272,850.00
PART C	STRUCTURE WORKS													
ITEM No.	DESCRIPTION	UNITS	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT
C1	Removal of Existing Bridge Structure	L.S.	\$200,000.00	1.00	\$200,000.00	\$200,000.00	1.00	\$200,000.00	\$200,000.00	1.00	\$200,000.00	\$200,000.00	1.00	\$200,000.00
C2	Concrete Removal - Full Depth	L.S.	\$50,000.00	1.00	\$50,000.00	\$50,000.00	1.00	\$50,000.00	\$50,000.00	1.00	\$50,000.00	\$50,000.00	1.00	\$50,000.00
C3	Earth Excavation for Structure and Disposal of Non-Haz Waste	m ³	\$60.00	450.00	\$27,000.00	\$60.00	450.00	\$27,000.00	\$60.00	650.00	\$39,000.00	\$60.00	400.00	\$24,000.00
C4	Rock Excavation for Structure	m ³	\$200.00	110.00	\$22,000.00	\$200.00	150.00	\$30,000.00	\$200.00	160.00	\$32,000.00	\$200.00	100.00	\$20,000.00
C5	Dewatering Structure Excavations	L.S.	\$50,000.00	100.00%	\$50,000.00	\$100,000.00	100.00%	\$100,000.00	\$75,000.00	100.00%	\$75,000.00	\$50,000.00	100.00%	\$50,000.00
C6	Granular Backfill to Structure	L.S.	\$90,000.00	100.00%	\$90,000.00	\$90,000.00	100.00%	\$90,000.00	\$105,000.00	100.00%	\$105,000.00	\$90,000.00	100.00%	\$90,000.00
C7	Mass Concrete (Provisional)	m ³	\$600.00	22.00	\$13,200.00	\$600.00	22.00	\$13,200.00	\$600.00	30.00	\$18,000.00	\$600.00	20.00	\$12,000.00
C8	Concrete in Footings	m ³	\$1,200.00	130.00	\$156,000.00	\$1,200.00	160.00	\$192,000.00	\$1,200.00	180.00	\$216,000.00	\$1,200.00	120.00	\$144,000.00
C9	Concrete in Substructure	L.S.	\$425,000.00	100.00%	\$425,000.00	\$485,000.00	100.00%	\$485,000.00	\$570,000.00	100.00%	\$570,000.00	\$350,000.00	100.00%	\$350,000.00
C10	Concrete in Structure	L.S.	\$115,000.00	100.00%	\$115,000.00	\$140,000.00	100.00%	\$140,000.00	\$165,000.00	100.00%	\$165,000.00	\$100,000.00	100.00%	\$100,000.00
C11	Reinforcing Steel Bar	L.S.	\$70,000.00	100.00%	\$70,000.00	\$100,000.00	100.00%	\$100,000.00	\$105,000.00	100.00%	\$105,000.00	\$80,000.00	100.00%	\$80,000.00
C12	Reinforcing Stainless Steel Bar	L.S.	\$90,000.00	100.00%	\$90,000.00	\$105,000.00	100.00%	\$105,000.00	\$120,000.00	100.00%	\$120,000.00	\$85,000.00	100.00%	\$85,000.00
C13	Fabrication of Pre-Engineered Steel Truss with Steel Deck	L.S.	\$1,600,000.00	100.00%	\$1,600,000.00	\$1,700,000.00	100.00%	\$1,700,000.00	\$1,300,000.00	100.00%	\$1,300,000.00	\$2,300,000.00	100.00%	\$2,300,000.00
C14	Delivery of Pre-Engineered Steel Truss With Deck	L.S.	\$25,000.00	100.00%	\$25,000.00	\$25,000.00	100.00%	\$25,000.00	\$25,000.00	100.00%	\$25,000.00	\$25,000.00	100.00%	\$25,000.00
C15	Erection of Structural Steel With Deck	L.S.	\$125,000.00	100.00%	\$125,000.00	\$125,000.00	100.00%	\$125,000.00	\$150,000.00	100.00%	\$150,000.00	\$125,000.00	100.00%	\$125,000.00
C16	Supply & Installation of Box Beam Railing	m	\$1,000.00	150.00	\$150,000.00	\$1,000.00	170.00	\$170,000.00	\$1,000.00	135.00	\$135,000.00	\$1,000.00	190.00	\$190,000.00
C17	Steel Bridge Deck Waterproofing	L.S.	\$25,000.00	100.00%	\$25,000.00	\$27,500.00	100.00%	\$27,500.00	\$22,500.00	100.00%	\$22,500.00	\$30,000.00	100.00%	\$30,000.00
C18	Pipe Subdrain	m	\$80.00	40.00	\$3,200.00	\$80.00	40.00	\$3,200.00	\$80.00	60.00	\$4,800.00	\$80.00	40.00	\$3,200.00
			SUB-TOTAL PART C		\$3,236,400.00	SUB-TOTAL PART C		3,582,900.00	SUB-TOTAL PART C		\$3,332,300.00	SUB-TOTAL PART C		3,878,200.00
PART D	ELECTRICAL AND SIGNALS													
ITEM No.	DESCRIPTION	UNITS	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT	ESTIMATED PRICE	ESTIMATED QUANTITY	AMOUNT
D1	Electrical Cables, Ducts and Handholes	L.S.	\$50,000.00	100.00%	\$50,000.00	\$50,000.00	100.00%	\$50,000.00	\$50,000.00	100.00%	\$50,000.00	\$50,000.00	100.00%	\$50,000.00
D2	Steel Poles, Base Mounted	ea	\$3,000.00	4.00	\$12,000.00	\$3,000.00	4.00	\$12,000.00	\$3,000.00	4.00	\$12,000.00	\$3,000.00	4.00	\$12,000.00
D3	Concrete Footings	ea	\$2,500.00	4.00	\$10,000.00	\$2,500.00	4.00	\$10,000.00	\$2,500.00	4.00	\$10,000.00	\$2,500.00	4.00	\$10,000.00
D4	LED Roadway Lighting Luminaires	ea	\$2,000.00	2.00	\$4,000.00	\$2,000.00	2.00	\$4,000.00	\$2,000.00	2.00	\$4,000.00	\$2,000.00	2.00	\$4,000.00
D5	Signal Heads and Hangers	ea	\$2,000.00	4.00	\$8,000.00	\$2,000.00	4.00	\$8,000.00	\$2,000.00	4.00	\$8,000.00	\$2,000.00	4.00	\$8,000.00
D6	Traffic Signal Controllers	ea	\$50,000.00	1.00	\$50,000.00	\$50,000.00	1.00	\$50,000.00	\$50,000.00	1.00	\$50,000.00	\$50,000.00	1.00	\$50,000.00
D7	Loop Detectors	ea	\$1,500.00	2.00	\$3,000.00	\$1,500.00	2.00	\$3,000.00	\$1,500.00	2.00	\$3,000.00	\$1,500.00	2.00	\$3,000.00
			SUB-TOTAL PART D		\$137,000.00	SUB-TOTAL PART D		\$137,000.00	SUB-TOTAL PART D		\$137,000.00	SUB-TOTAL PART D		\$137,000.00
			SUB-TOTAL ALL PARTS		\$4,025,750.00	SUB-TOTAL ALL PARTS		\$4,377,250.00	SUB-TOTAL ALL PARTS		\$4,150,650.00	SUB-TOTAL ALL PARTS		\$4,633,050.00