

N.S. BUBBIS, P.ENG.  
DIRECTOR & CHIEF ENGINEER

THE METROPOLITAN CORPORATION OF  
GREATER WINNIPEG  
WATERWORKS AND WASTE DISPOSAL DIVISION

JAMES F. MACLAREN LIMITED  
CONSULTING ENGINEERS  
TORONTO LONDON

EVALUATION OF TENDERS RECEIVED OCT 3, 1963 FOR  
SUPPLY, DELIVERY AND SUPERVISION OF INSTALLATION OF  
SLUDGE COLLECTOR MECHANISMS FOR NORTH END SEWAGE TREATMENT PLANT  
CONTRACT NO. 130 CONTRACT F SPECIFICATIONS 514-63

DESCRIPTION	FRANCIS HANKIN & CO LTD.	BABCOCK-WILCOX & GOLDIE - McCULLOCH LTD.	LINK-BELT LTD.	HORTON STEEL WORKS LTD.	DORR-OLIVER-LONG LTD.	FLIGHT CANADA LIMITED	
						ALTERNATIVE 'A'	ALTERNATIVE 'B'
COLLECTOR TYPE	"REX" TYPE 56-HC	"EIMCO" TYPE "C"	"LINK-BELT" TYPE "SB"	"WALKER" TYPE "RS-X"	"DORR" TYPE "SZ-B"	NORSTEL & TEMPLEWOOD	NORSTEL & TEMPLEWOOD HAWKSLEY LTD.
MANUFACTURER	REX-CHAIN BELT (CANADA) LTD.	BABCOCK-WILCOX & GOLDIE-McCULLOCH LTD.	LINK-BELT LTD.	HORTON STEEL WORKS LTD.	DORR-OLIVER-LONG LTD.	NORSTEL & TEMPLEWOOD HAWKSLEY LTD.	NORSTEL & TEMPLEWOOD HAWKSLEY LTD.
PLACE OF MANUFACTURE	TORONTO, ONTARIO	GALT, ONTARIO	TORONTO, ONT. & WINNIPEG, MAN.	TORONTO, ONTARIO	ORILLIA, ONTARIO	SLOUGH, ENGLAND	SLOUGH, ENGLAND
WEIGHT OF ASSEMBLED COLLECTOR (LB)	22,300	21,000	25,000	—	23,975	27,000	10,500
MATERIALS OF CONSTRUCTION	STEEL	ALL STRUCTURAL STEEL AS PER A.S.T.M. A-7	STEEL	STEEL	STEEL	ROLLED STRUCTURAL STEEL	ALUMINUM ALLOY DUDUMINIUM "22"
SPEED (RPM.)	0.039	0.030 (OR AS DIRECTED)	0.046	0.042	—	—	—
MACHINE DESIGN TORQUE (FT.-LB)	56,000	35,000	34,400	—	—	—	—
PRIMARY REDUCER a. MANUFACTURER b. TYPE	WINSMITH INC. VERTICAL DOUBLE WORM GEAR	— WORM GEAR	LINK-BELT LTD. 18DB3, DOUBLE HELICAL REDUCER WORM GEAR	STERLING-WALKER, CANADA SINGLE REDUCTION WORM GEAR	— CAST MEEHANITE WORM GEAR	NORSTEL & TEMPLEWOOD HAWKSLEY LTD. WORM GEAR	NORSTEL & TEMPLEWOOD HAWKSLEY LTD. STRAIGHT LINE GEAR REDUCER W/ ANGLED OUTPUT SHAFT
FINAL REDUCER TYPE	PINION & INTERNAL SPUR GEAR	PINION & INTERNAL SPUR GEAR	PINION & EXTERNAL SPUR GEAR	PINION & SPUR GEAR	PINION & INTERNAL SPUR GEAR	PINION & INTERNAL SPUR GEAR	PINION & INTERNAL SPUR GEAR
MOTOR a. MANUFACTURER b. POWER - BHP c. SPEED - RPM d. TYPE e. INSULATION	WESTINGHOUSE, HAMILTON 3/4 HP. 600 RPM Drip PROOF PREMIUM CLASS "B"	"CROFTS" 3/4 HP. 1800 RPM —	C.G.E. OR WESTINGHOUSE 3/4 HP. 1800 RPM TOTALLY ENCLOSED	"STERLING" 3/4 HP. 1750 RPM. TOTALLY ENCLOSED	C.G.E. OR WESTINGHOUSE 3/4 HP. — —	CANADIAN GENERAL ELECTRIC — — —	CANADIAN GENERAL ELECTRIC — — —
OVERLOAD DEVICE a. PRIMARY b. SECONDARY	2-MICRO SWITCHES, ALARM-SHUT-OFF SHEAR PIN	CAMS CONTACT NEMA IV LIMIT SWITCHES NIL	"ANCHOR-WALDRON" CUT-OUT SWITCH NIL	— SHEAR PIN	2-MERCURY SWITCHES, ACTUATED BY WORM SHAFT SHEAR PIN	— —	— —
INFLUENT COLUMN a. DIAMETER (IN.) b. THICKNESS (IN.)	36 —	32 1/4" REINFORCED STEEL PL.	36 1/4" MILD STEEL PL WITH 3/8" FLANGES	— —	24 1/4" MILD STEEL PL	32 1/4" FABRICATED STEEL	32 —
INFLUENT WELL a. DIAMETER (FT.) b. DEPTH (FT.)	12'-2 1/2" 5'-0"	12'-0" 3'-0"	14'-0" 4'-6"	12'-0" 4'-0"	14'-0" 4'-0"	12'-0" 5'-0"	12'-0" (1/16" THICK ALUMINUM ALLOY) 5'-0"
CENTRE CAGE CORNER SWEEP RADIUS	1/4" STR. ST. WELDED WITH 1-BOLTED SPLICE 15'-0" ±	STEEL BOX TRUSS STATE "TANK" COR. RADIUS = 15'-0"	HEAVY STRUCTURAL STEEL CAGE 16'-0"	HEAVY DUTY FABRICATED STEEL 13'-0"	—	—	—
COLLECTOR ARMS: TYPE OF TRUSS	TRIANGULAR TRUSS, WELDED MIN 1/4" THICKS. MAX. 2-BOLTED SPLICES / ARM	STEEL TRUSS (BOX TYPE)	STEEL BOX TRUSS (MIN. 1/4" THICKS)	STEEL TRIANGULAR TRUSS	STRUCT. STEEL TRIANGULAR TRUSS (MIN 1/4" THICKS)	BOX TRUSS OF ROLLED STEEL ANGLES	TRIANGULAR TRUSS OF ALUMINUM ALLOY
SHOP PAINTING a. GENERAL b. DRIVE	SANDBLAST + 1-PRIMER 1-PRIMER, 2-CHLORINE RUBBER ENAMEL	SANDBLAST + 1-PRIMER 1-PRIMER, 2-CHLORINE RUBBER ENAMEL	AS SPECIFIED AS SPECIFIED	a. 1-RUST INHIBITIVE PRIMER b. 1-MACHINERY ENAMEL	a. — b. —	AS SPECIFIED AS SPECIFIED	NOT REQUIRED AS SPECIFIED
TENDER PRICE	\$ 103,000.00	\$ 105,218.00	\$ 113,565.00	\$ 118,700.00	\$ 134,257.00 <sup>†</sup>	\$ 157,525.00	\$ 140,100.00
DELIVERY DATE	SEPT. 15 - 1964	9 MONTHS AFTER CONTRACT RECEIPT	APRIL 1 - 1964	MAY 2 - 1964	MARCH 23 - 1964	NOV. 30 - 1964	NOV. 30 - 1964
BONDING COMPANY	U.S. FIDELITY GUARANTEE	—	—	—	—	—	—
BID BOND	\$ 20,000.00	\$ 12,000.00	\$ 12,000.00	\$ 14,000.00	\$ 14,000.00	\$ 15,752.50	\$ 15,752.50
OBJECTIONS TO SPECIFICATIONS	1. LIQUIDATED DAMAGES CLAUSE 8.07 i.e. "FORCE MAJEURE" LIMITATION.	1. ARBITRATION CLAUSE. 2. LIQUIDATED DAMAGE CLAUSE. 3. PAYMENT CLAUSE.	—	—	NOTE: TENDER PRICE IS INCLUSIVE OF PROVINCIAL † SALES TAX AMOUNTING TO \$ 13,305.00	VARIABLE CONTRACT PRICE WITH CHANGING MATERIAL COSTS	VARIABLE CONTRACT PRICE WITH CHANGING MATERIAL COSTS

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File # NR 12177