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ODOT District 4
STRUCTURES QUANTITY CALCULATIONS

Replacement of
US-20 Bridge No. ATB-20–0828
over Indian Creek
Saybrook Township,
Ashtabula County, Ohio

PID No. 101798
C-R-S: ATB / TRU - 20 / VAR - 8.28 / VAR

September 4, 2019
(TRACINGS)

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Project ATP-20-8.28
Project No. 170482 Sheet No. 1 of 2
Calculated By MCF Date 1/17/19
Checked By SAT Date 1/18/19
Subject ESTIMATED QUANTITIES - FINAL

202-11001 STRUCTURE REMOVED AS PER PLAN ~ LS

= (1565 SF (BMRP-191) EXISTING STRUCTURE × $20/SF) + (130 FT × 64 FT × $2/SF) = $47,940 => SAY $50,000
CONCRETE PAVEMENT BELOW U.S 20

202-23500 WEARING COURSE REMOVED ~ SY

= 46 FT × 23.5 FT × 1/9 = 120.11 SY => SAY 121 SY

204-13000 EXCAVATION OF SUBGRADE ~ CY

= (2892 SF (CADD) × 2 FT × 1/27 = 214.22 => SAY 215 CY

204-30020 GRANULAR MATERIAL, TYPE C ~ CY

= 2892 SF (CADD) × 2 FT × 1/27 = 214.22 => SAY 215 CY

204-50000 GEOTEXTILE FABRIC ~ SY

= (2892 SF (CADD) + (2 FT × 340 FT)) × 1/9 = 396.89 => SAY 397 SY

503-11100 COFFERDAMS & EXCAVATION BRACING ~ LS

ASSUME $150/FT × 78 FT = $11,700 => SAY $12,000

503-21300 UNCLASSIFIED EXCAVATION ~ LS

= (117 SF + 142 SF + 180 SF + 117 SF) × 13 FT × 1/27 × $30/CY = $803 => CONSERVATIVELY SAY $15,000

509-10000 EPOXY COATED REINFORCING STEEL ~ LB

(SEE PLAN REINFORCING SCHEDULE) = 4328# + 4065# = 8,393 LB

511-46210 CLASS QC1 CONCRETE, RETAINING/WINGWALL INCLUDING FOOTING ~ CY

CULVERT FOOTING = ((1.5FT × 2FT) + (9FT × 2FT) + (4.08 FT × 1FT)) × 20 FT × 2 EA × 1/27 = 37.16 CY

WW FOOTING = ((1.5 FT × 2FT) + (9FT × 2FT)) × 55 FT × 1/27 = 42.78 CY

WW'S = 55 FT × 9.75 FT × 1.25 FT × 1/27 = 24.83 CY

TOTAL = 104.77 CY => SAY 105 CY

511-46610 CLASS QC1 CONCRETE, HEADWALL ~ CY

= 1.25 FT × 1.5 FT × 20 FT × 2 EA × 1/27 = 2.78 CY => SAY 3 CY

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Project ATB-20-8.2B
Project No. 170482 Sheet No. 2 of 2
Calculated By MLF Date 1/18/19
Checked By SAT Date 1/18/19
Subject ESTIMATED QUANTITIES- FINAL

512-10100 SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) ~ SY

HEADWALL = 3.25 FT x 20 FT x 2 EA x 1/9 = 14.44 SY

CULVERT ENDS = (38 SF + (34 FT x 2 FT DEEP)) x 2 EA x 1/9 = 23.56 SY

WW BACK & TOP = 1.25 FT x 55 FT x 1/9 = 10.69 SY

WW FRONT = (105 SF + 64 SF + 88 SF + 64 SF) (CAN) x 1/9 = 35.67 SY

TOTAL = 84.36 SY => SAY 85 SY

512-33000 TYPE 2 WATERPROOFING ~ SY

= 20 FT x 77.5 FT x 1/9 = 172.22 SY => SAY 173 SY

516-13600 1" P.E.J.F. ~ SF

= 11.5 FT x 1.25 FT x 4 EA = 57.5 SF => SAY 58 SF

518-21201 POROUS BACKFILL W/ GEOTEXTILE FABRIC, AS PER PLAN ~ CY

= (88 SF + 54 SF + 54 SF + 73 SF) x 1.5 FT x 1/27 = 14.94 CY => SAY 15 CY

611-96480 18'x8' CONDUIT, TYPE A, 706.05, AS PER PLAN ~ FT

= 78 FT

512-33010 TYPE 3 WATERPROOFING ~ SY

= 22 FT x 77.5 FT x 1/9 = 189.44 SY => SAY 190 SY