

### SUMMARY OF QUANTITIES

CODE NO.	ITEM	QUANTITY	UNIT
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	196	UNIT
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	94	UNIT
20200100	EARTH EXCAVATION	1560	CU. YD.
20800150	TRENCH BACKFILL	341	CU. YD.
25001000	SEEDING, CLASS 2 (SPECIAL)	2.6	ACRE
28000250	TEMPORARY EROSION CONTROL SEEDING	260	POUND
28000300	TEMPORARY DITCH CHECKS	20	EACH
28000500	INLET AND PIPE PROTECTION	19	EACH
28100807	STONE DUMPED RIPRAP, CLASS A4	239	TON
50105220	PIPE CULVERT REMOVAL	900	FOOT
54200427	PIPE CULVERTS, TYPE 1 RCCP 12"	37	FOOT
54200433	PIPE CULVERTS, TYPE 1 RCCP 18"	46	FOOT
54200439	PIPE CULVERTS, TYPE 1 RCCP 24"	47	FOOT
54200451	PIPE CULVERTS, TYPE 1 RCCP 36"	34	FOOT
54200457	PIPE CULVERTS, TYPE 1 RCCP 42"	124	FOOT
54200637	PIPE CULVERTS, TYPE 1, CORRUGATED STEEL OR ALUMINUM CULVERT PIPE 12"	57	FOOT
54200640	PIPE CULVERTS, TYPE 1, CORRUGATED STEEL OR ALUMINUM CULVERT PIPE 15"	69	FOOT
54200643	PIPE CULVERTS, TYPE 1, CORRUGATED STEEL OR ALUMINUM CULVERT PIPE 18"	38	FOOT
54200649	PIPE CULVERTS, TYPE 1, CORRUGATED STEEL OR ALUMINUM CULVERT PIPE 24"	34	FOOT
54200661	PIPE CULVERTS, TYPE 1, CORRUGATED STEEL OR ALUMINUM CULVERT PIPE 36"	55	FOOT
54201273	PIPE CULVERTS, TYPE 2 RCCP 18"	93	FOOT
54201279	PIPE CULVERTS, TYPE 2 RCCP 24"	59	FOOT
54201285	PIPE CULVERTS, TYPE 2 RCCP 30"	143	FOOT
54201291	PIPE CULVERTS, TYPE 2 RCCP 36"	49	FOOT
54201297	PIPE CULVERTS, TYPE 2 RCCP 42"	56	FOOT
54206739	PIPE CULVERTS, TYPE 1, REINFORCED CONCRETE, EQUIVALENT ROUND-SIZE 24"	110	FOOT
54213663	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 18"	6	EACH
54213669	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 24"	4	EACH
54213675	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 30"	4	EACH
54213681	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 36"	4	EACH
54213687	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 42"	2	EACH
54390110	INSERTION CULVERT LINER 14"	67	FOOT
54390315	INSERTION CULVERT LINER 63"	111	FOOT
54390320	INSERTION CULVERT LINER 66"	164	FOOT
59300100	CONTROLLED LOW-STRENGTH MATERIAL	17.0	CU. YD.
60236200	INLETS, TYPE A, TYPE 8 GRATE	1	EACH
66503400	BARBED WIRE FENCE REMOVAL	120	FOOT
67100100	MOBILIZATION	1	L. SUM
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	1	L. SUM
70100600	TRAFFIC CONTROL AND PROTECTION, STANDARD 701336	1	L. SUM
70101700	TRAFFIC CONTROL AND PROTECTION	1	L. SUM
Z0014800	CULVERT TO BE CLEANED	566	FOOT
Z0023600	FILLING EXISTING CULVERTS	2	EACH
X4420132	CLASS D PATCHES (SPECIAL)	324.9	SQ. YD.
X5430100	INSERTION CULVERT LINER (SPECIAL)	79	FOOT

### GENERAL NOTES

1. THE SHRINKAGE FACTOR FOR EMBANKMENT IS 25%.
2. EXCEPT FOR TREE REMOVAL AS SHOWN ON PLANS, ALL CLEARING AND GRUBBING IS TO BE INCLUDED IN THE UNIT PRICE BID FOR EARTH EXCAVATION.
3. THE LAYOUT OF RIPRAP MAY BE VARIED IN THE FIELD TO SUIT GROUND CONDITIONS AS DIRECTED BY THE ENGINEER.
4. THE AREA TO BE SEEDED SHALL CONSIST OF DISTURBED EARTH SURFACES WITHIN THE LIMITS OF THE EARTHWORK SHOWN ON THE PLANS AND IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE SEEDING OF AREAS DISTURBED BY THE CONTRACTOR DURING CULVERT LINING WORK SHALL BE CONSIDERED INCLUDED IN INSERTION CULVERT LINER AND WILL NOT BE MEASURED FOR PAYMENT.
5. EXCEPT WHERE DESIGNATED OTHERWISE, THE LOCATIONS AND/OR DEPTHS OF UNDERGROUND UTILITIES SHOWN HAVE BEEN PROVIDED BY OTHERS & MUST BE CONSIDERED APPROXIMATE. FIELD MARKING OF FACILITIES IN CRITICAL AREAS MAY BE OBTAINED BY PROVIDING A MINIMUM OF 96 HOURS ADVANCE NOTICE TO JULIE, PHONE 811 OR 800-892-0123.
6. THE CONTRACTOR SHALL PERFORM HIS WORK IN A MANNER WHICH WILL NOT DAMAGE ANY UTILITY LINES. IF THE CONTRACTOR DAMAGES A UTILITY LINE, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO HAVE THE LINE REPAIRED TO THE SATISFACTION OF THE UTILITY OWNER. NO ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR THE REPAIR COST.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSURE THAT ALL EROSION AND DISPLACED SEDIMENT DOES NOT MIGRATE OFF SITE. IF UNEXPECTED EROSION OR SEDIMENTATION OCCURS (OR IF THE EROSION PLAN STRUCTURES BECOME DAMAGED), THE CONTRACTOR SHALL PROVIDE SUFFICIENT MEASURES TO REPAIR, REPLACE OR INSTALL EROSION CONTROL STRUCTURES TO INSURE OFF-SITE DAMAGE DOES NOT OCCUR. ANY SEDIMENT OR EROSION DAMAGE WHICH OCCURS OFF-SITE SHALL BE REPAIRED BY THE CONTRACTOR AT HIS/HER EXPENSE.
8. ALL PROPOSED EASEMENTS ARE TEMPORARY CONSTRUCTION EASEMENTS.
9. ALL EXCESS EXCAVATED EARTH MATERIAL SHALL BE PLACED AND COMPACTED AT APPROXIMATE RT. STA. 188+60 TO RT. STA. 189+60 AS DIRECTED BY THE ENGINEER.

APPROX. LOCATION	PIPE CULVERT & INSERTION LINER SUMMARY														TRENCH BACKFILL	C.U. YD.	C.L.S.M.					
	INSERTION LINER	TY. 1 RCCP				TY. 2 RCCP				TY. 1 CORR. STL. OR ALUM.												
STA. 19+35	79'																					
LT. STA. 20+00																						
LT. STA. 25+50																						
STA. 61+55																						
STA. 70+79		111'																				
STA. 78+29																						
STA. 87+54																						
STA. 90+89		67'																				
STA. 114+58																						
STA. 116+84																						
STA. 128+49																						
LT. STA. 131+50																						
LT. STA. 142+80																						
RT. STA. 155+50																						
STA. 159+53																						
RT. STA. 160+00																						
STA. 164+96																						
RT. STA. 178+40																						
STA. 179+13																						
STA. 188+08																						
STA. 199+80																						
STA. 226+71																						
STA. 276+93																						
TOTAL	79'	67'	111'	164'	37'	46'	47'	110'	34'	124'	93'	59'	143'	49'	56'	57'	89'	38'	34'	55'	341	17.0
TOTAL PRC FLARED END SECTS.					2	2	2	2	4	2	4	2	2									

\* INDICATES PIPE WITH PRC FLARED END SECTIONS (PIPE LENGTH DOES NOT INCLUDE END SECTION LENGTHS)  
 \*\* INDICATES CONCRETE, EQ. ROUND-SIZED 24"

### HORIZONTAL / VERTICAL CONTROL COORDINATES

POINT	LOCATION	N. COOR.	E. COOR.	ELEV.
HVC#1(IRON PIN)	19.4' RT., STA. 17+17.85	903041.54	766172.39	602.30
HVC#2(IRON PIN)	25.4' RT., STA. 37+76.60	902967.66	768230.06	612.74
HVC#3(IRON PIN)	13.3' RT., STA. 63+52.85	902917.57	770805.87	595.35
HVC#4(IRON PIN)	14.2' RT., STA. 92+65.55	902843.21	773717.55	584.09
HVC#5(IRON PIN)	16.0' RT., STA. 125+70.87	902748.83	777021.51	586.28
HVC#6(IRON PIN)	16.9' RT., STA. 145+13.19	902693.30	778963.03	590.90
HVC#7(IRON PIN)	15.2' RT., STA. 168+44.81	902602.24	781291.51	589.67
HVC#8(IRON PIN)	31.2' RT., STA. 186+09.64	902486.34	783048.24	582.81
HVC#9(IRON PIN)	35.2' LT., STA. 193+30.88	902589.69	783765.13	573.33
HVC#10(IRON PIN)	14.1' RT., STA. 205+36.69	902528.69	784970.57	549.49
HVC#11(IRON PIN)	19.0' RT., STA. 232+18.68	902460.02	787651.81	570.99
HVC#12(IRON PIN)	25.0' RT., STA. 256+92.54	902409.48	790125.16	592.49
HVC#13(IRON PIN)	20.1' RT., STA. 276+31.16	902379.85	792063.94	585.63

### LEGEND

- W.V. ⊙ EXISTING WATER VALVE
- W.M. ⊙ EXISTING WATER METER
- F.H. ⊕ EXISTING FIRE HYDRANT
- ⊙ EXISTING GAS REGULATOR
- P.P. ⊕ EXISTING POWER POLE
- OHE — EXISTING OVERHEAD ELECTRIC LINE
- EXISTING GUY WIRE
- ⊕ EXISTING MAILBOX
- ⊕ EXISTING SIGN
- T.P. ⊕ EXISTING TELEPHONE POLE
- T.PED. ⊕ EXISTING TELEPHONE PEDESTAL
- OHT — EXISTING OVERHEAD TELEPHONE LINE
- 12" ⊙ EXISTING TREE
- ⊕ EXISTING STUMP
- EXISTING TREE LINE
- x — EXISTING CULTIVATION LINE
- x — EXISTING FENCE
- I.P. EXISTING IRON PIN
- ROW # EXISTING RIGHT-OF-WAY MARKER
- ⊕ EXISTING STORM INLET
- MH ⊕ EXISTING MANHOLE
- — — — — EXISTING STORM SEWER
- — — — — EXISTING SURFACE DRAINAGE
- EXIST. EXISTING
- CMP CORRUGATED METAL PIPE
- CPP CORRUGATED PLASTIC PIPE
- RCP REINFORCED CONCRETE PIPE
- INV. INVERT
- CONC. CONCRETE
- EL. ELEVATION
- P.E. PRIVATE ENTRANCE
- F.E. FIELD ENTRANCE
- BLDG. BUILDING
- VIT. VITRIFIED
- DRAIN. EASE. DRAINAGE EASEMENT
- ROW RIGHT OF WAY
- APPROX. APPROXIMATE
- — — — — PROPOSED SURFACE DRAINAGE
- ⊕ PROPOSED PRC FLARED END SECTION
- ⊕ OR ⊕ PROPOSED STONE DUMPED RIPRAP, CLASS A4
- ⊕ OR ⊕ PROPOSED TEMPORARY DITCH CHECK
- ⊕ PROPOSED TEMPORARY INLET AND PIPE PROTECTION
- HVC#1 HORIZONTAL / VERTICAL CONTROL POINT