FED. RD. DIVISION	STATE	PROJECT	FISCAL YEAR
2	OHIO	U-662(8)	

11/59

LAKE COUNTY
LAK-91-2.72

BEGIN SHEET STA. 155+00 — END SHEET STA. 167+00

SLOPE EASEMENT LINE
CONSTRUCTION LIMITS
EXISTING R/W
S.R. 91 N 2° 59' 17" E
GRD. RAIL
SEE DETAIL FOR TREES PROTECTION
SEE SECTION A-A
TO REMAIN
EXISTING PIPE TO BE REMOVED
B.M. #13 TOP BOLT OF FIRE HYDRANT LEFT 28' STA. 161+50 EL. 719.605
PROVIDE 21"x15" 60° WYE CONNECTION TO RE-CONNECT EXISTING PIPE. (EXACT LOCATION TO BE DETERMINED IN THE FIELD.
NOTE: EXISTING HERRINGBONE UNDERDRAIN TO REMAIN IN PLACE, CONNECTED TO NEW INLET BASIN WITH 6" ELBOW CL. I-3 @ 18" SLOPE & 6" CL. F-4 STORM SEWER
6" DRAIN TILE
B.M. #14 TOP OF EAST EDGE OF W.V. CASING LEFT 23' STA. 165+44 EL. 708.733
B.M. #15 TOP OF EAST EDGE OF W.V. CASING LEFT 23' STA. 166+44 EL. 706.70
GRAVEL DR.
ASPHALT RES. DR.
GRAVEL RES. DR.
10' GRAVEL FIELD DR. STA. 166+60
10' CYNDER RES. DR. STA. 162+30
SAN. M.H. 161+45
STA. 163+98 END NEW WATER MAIN 4" SB END
STD. C.B. #2-2A STA. 163+45 53.5' RT. CASTING ELEV. 716.00
STD. C.B. #2-2A STA. 163+45 53.5' RT. CASTING EL. 711.60
STD. M.H. #1 STA. 161+63 34.5' RT. +34.32' HYD. ASSEM.
STD. C.B. #2-2A STA. 164+68 34.5' RT.
STD. I #2-12 MOD. STA. 164+50 FL. 702.50
STD. M.H. #1 STA. 164+68 34.5' RT.
STD. C.B. #2-2A STA. 164+43 35' RT. CASTING ELEV. 706.70
STD. I #2-12 MOD. STA. 166+60 FL. 700.64
STD. M.H. #1 STA. 166+50 34.5' RT.
+46.15 ABANDON I.B.
STD. I #2-12 MOD. STA. 155+50 FL. 738.49
STD. M.H. #1 STA. 155+50 34.5' RT.
STD. I #2-14 MOD. STA. 158+80 FL. 722.93
STD. M.H. #1 STA. 158+80 34.5' RT.
STD. I #2-12 MOD. STA. 159+32 FL. 723.00
STD. C.B. #2-2B STA. 159+32 28' RT. CONNECT TO 15" PIPE WITH 15"x12" WYE FL.: (INFIELD)
STD. I #2-12 MOD. STA. 161+45 FL. 710.30
STD. I #2-12 MOD. STA. 161+63 FL. 710.00
STD. I #2-12 MOD. STA. 163+98 FL. 703.00
STD. I #2-12 MOD. STA. 166+60 FL. 700.14
STD. I #2-8 MOD. STA. 166+60 FL. 700.14
+80/24" H.Y.D.
+46/6" M.B.
+87/17" C.E.I. OBT #31415
+99/10" L.V.
+14/16" C.E.I. OBT #
+80/17" W.V. & BOX +81/16" M.B.
+65/16" M.B. +72/15" C.E.I. OBT #31412
+47/18" H.Y.D.V.
+41/22" H.Y.D.
+95/17" C.E.I. OBT #31418
+43/16" M.B. +58/16" M.B.
+08/16" C.E.I. OBT #31419
+12/13" M.B. +26/37" G.V. +28/16" C.E.I. OBT #307234
+59.51 MON. STA. 164+45
+98/13" M.B.
+36/20 H.Y.D.V. BOX RESET +37.34 H.Y.D.
+44/15" C.E.I. OBT #31420 +44.23 W.V.
+78/34 W.V.
+58/15" C.E.I. OBT #31421
+42/15" W.V.M.
+87/30 CONC. RET. WALL
+05/20" C.E.I. OBT #38919 +56.33 H.Y.D. ASSEM.
+97 ABANDON I.B.
+38/37" H.Y.D. ASSEM.
+78/196" C.E.I. GUIDE POLE
+79/82" C.E.I. OBT #30178
1-10 ASPHALT RES. DR. STA. 155+78
10' GRAVEL RES. DR.
10' GRAVEL RES. DR. STA. 162+30
10' GRAVEL FIELD DR. STA. 166+60
12" V.C.P.
10" V.C.P.
20" V.C.P.
18" CONC. P.
12" W.M.
8" W.M.
10" SAN.
12" CMP.
18" CP
6" CMP
20" V.C.P.
10" W.M.
B.M. #13
B.M. #14
B.M. #15
COMP.
1-10 GRAVEL RES. DR. STA. 161+63
1-10 ASPHALT RES. DR. STA. 164+68
12" ASPHALT RES. DR. STA. 164+00

SECTION A-A
I-10 DUMPED ROCK CHANNEL PROTECTION

EXISTING GRADE ON ℄
PROPOSED GRADE ON ℄
V.P.C. STA. 160.00
V.P.T. STA. 157+50
V.P.I. STA. 162.75 710.68
V.P.T. STA. 165+50
285'-10" V.C.P. - 3.68%
800' V.C.
550' V.C.
330' 18"
24'-15" 3.00%
321'-10" V.C.P. 2.72%
-5.00%
-0.92%
305' 24" 2.74%
182'-30" 1.00%
50' 33" 0.82%
18"-15" 3.88%
10" V.C.P. 1.04%
FL. 18" S.W. 737.47
FL. 12" W 738.62
FL. 18" S 720.67
FL. 12" W 722.86
FL. 21" N 720.45
(67°RT.)-00 FL. 12" 723.00
(67°RT.)-32 FL. 12" 721.80
FL. 15" 700.23
FL. 15" 703.48
FL. 21" S. 703.33
FL. 12" W 703.30
FL. 24" W 703.08
FL. 24" S 700.32
FL. 12" W 702.43
FL. 15" E 703.00
FL. 36" N 699.82
+42 FL. 15" 706.70
FL. 30" S 698.00
FL. 12" W 700.67
FL. 33" N 697.73

STA. 150+00 TO STA. 160+00	
EXCAVATION	29,853 CU.YD.
EMBANKMENT	3,341 CU.YD.
SEEDING	10,474 SQ.YD.

STA. 160+00 TO STA. 170+00	
EXCAVATION	3,796 CU.YD.
EMBANKMENT	1,137 CU.YD.
SEEDING	3,917 SQ.YD.

STORM SEWERS

REF. NO.	STATION TO STATION	SIDE	I-1 LIN. FT. CL. I-1 12"	CL. H-1 6"	CL. E-1 12"	CL. E-1 15"	CL. E-1 18"	CL. E-1 21"	CL. E-1 24"	CL. E-1 30"	CL. E-1 33"	CL. F-4 6"	CL. F-4 12"	I-8 EACH STD. I MODIFIED 2-8	2-10	2-12	2-14	STD C.B. 2-2A A	STD C.B. 2-2A B	STD M.H. #1	I-5 EACH CL. E-1 30"x30" 60° WYE	24"x15" TEE	24"x5" TEE	45° BEND	CL. I-3 6"
1-S	155+00 To 167+00	R					380	283	305	182	50									5	1				
2-S	155+50	R&L	56		7											2									
3-S	158+80	R&L	56		7											1	1								
4-S	159+00 To 159+32	R			14							36							1		1				
5-S	161+45 TO 161+63	R					42												1						
6-S	161+63	R&L	56		7											2									
7-S	164+63 To 164+68	R					18												1						
8-S	164+68 To 164+80	R&L	56		7										1	1									
9-S	164+50 To 166+60	R&L	57		7									1		1									
10-S	164+50	R										18													2
11-S	162+95	R		10																		1			
12-S	163+34	R				19													1			1			
	TOTAL		281	10	49	79	380	283	305	182	50	18	36	1	1	7	1	3	1	5	2	1	1	2	

TYPE 2 DRIVEWAYS

REF. NO.	STATION	SIDE	8-19 AGGREGATE BASE COURSE CU.YD.	1-35 TYPE 'C' ASP. CONC. SURFACE COURSE CU.YD.	E-1 ROADWAY EXCAV. CU. YD.
1-D	155+78	R	21	8.4	X-SECT.
2-D	156+50	R	13.9	5.6	X-SECT.
3-D	159+14	R	12.9	5.2	X-SECT.
4-D	160+50	L	11.1	4.4	X-SECT.
5-D	162+30	L	3.6	1.4	3
6-D	162+59	R	6.0	2.4	8
7-D	164+10	R	4.2	1.7	6
8-D	164+86	R	2.5	1.0	4
9-D	165+17	L	3.0	1.2	4
10-D	166+94	L	3.0	-	3
	TOTALS		81	31.	28

REF. NO.	STATION	SIDE	F-16 ABANDONED INLETS EA.	E-12 PIPE REMOVED 15" & UNDER L.F.	E-12 PIPE REMOVED OVER 15" L.F.
1-P	155+00 TO 158+97	R		397	
2-P	155+61	L&R		20	2
3-P	158+97	L&R		47	1
4-P	158+97 TO 164+61	R	-	-	564
5-P	160+36	L&R		35	
6-P	162+21 TO 162+42	L	21	-	32
7-P	162+44 TO 162+76	R			
9-P	164+61	L&R		40	1
10-P	164+61 TO 167+00	R		-	239
	TOTALS			560	835

REF. NO.	STATION	SIDE	I-5 GUARD RAIL L.F.
1-G	155+78 TO 156+20	L	-
2-G	156+50 TO 156+57	R	-
3-G	156+57 TO 156+85	R	-
4-G	156+85 TO 156+25	L	375
5-G	156+25 TO 160+00	L	215
6-G	156+74 TO 159+03.5	R	-
	TOTAL	R	600

REF. NO.	STATION	SIDE	I-5 REMOVAL & DISPOSED OF L.F.
1-H	156+20 TO 158+70	L	250
2-H	156+57 TO 158+87	R	230
3-H	156+25 TO 160+00	L	-
4-H	156+74 TO 159+03.5	R	-
	TOTAL		480

REF. NO.	STATION	SIDE	I-10 SOD LENGTH X WIDTH	I-10 DUMPED ROCK CHANNEL PROTECTION SQ. YD.	I-10 DUMPED ROCK CHANNEL PROTECTION CU. YD.
1-E	157+00 TO 158+10	R	110x6	74	2
2-E	159+32 TO 161+45	R	208x6	139	2
	TOTAL			213	2

REF. NO.	STATION	SIDE	I-1 LIN. FT. CL. I-3 6" DSEP	CL. I-3 6" SYMLCON	CL. F-4 6"
1-F	155+00 TO 158+80 (0 LENGTH BEFORE INLET)	R&L	720	-	40
2-F	160+00 TO 167+00 (0 LENGTH BEFORE INLET)	R&L	-	1340	60
	TOTAL		720	1340	100

WATER WORK ITEM ITEM 614		
STATION	SERVICE BRANCH LOWERED MIN 4' COVER	LIN. FT.
155+55		70
156+40		70
TOTAL		140

SANITARY SEWER ITEM 603		
STATION	6" CONDUIT TYPE "B" 706.08 WITH CLASS "B" BEDDING WITH COMPRESSION TYPE JOINTS.	LIN. FT.
155+37		72
156+93		72
TOTAL		144

I-8 MONUMENT ASSEMBLIES

REF. No.	STATION	EACH
I-M	164+59.5 (ONE)	1
	TOTAL	1

PLAN & PROFILE STA. 155+00 TO 167+00

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