FED. ROAD DIST. No.	STATE	FEDERAL PROJ. NO.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
5N	MINN			8	85

DRAINAGE

LINE	SHEET NO.	STATION	LOCATION	IN PLACE	REMARKS	REMOVE PORT. CULV. LIN. FT.	REMOVE CONC. STRUCT. CU. YD.
1	15	503+00 S.B. 35W	℄		MEDIAN RELIEF		
2	15	508+50 N.B. 35W	℄		RT. DITCH RELIEF		
3	15	508+58 S.B. 35W	℄		MEDIAN RELIEF		
4	16	516+82 N.B. 35W	℄		CROSS S.B. 35W		
5	↑	518+50 N.B. 35W	20' LT.	18"x48' CMP	USE IN LOVELL ROAD BY-PASS	48	
6		522+00 S.B. 35W	℄		MEDIAN RELIEF		
7		13+00 LOVELL ROAD	℄				
8		14+56 LOVELL ROAD	54' RT.		ENTRANCE CULVERT		
9		16+30 LOVELL ROAD	℄	18" x 48' CMP	USE IN LOVELL ROAD BY-PASS	48	
10		16+62 LOVELL ROAD	25' RT.	12" x 34' CMP	ABANDON		
11		23+30 LOVELL ROAD	25' LT.	15" x 44 CMP	USE IN LOVELL ROAD BY-PASS	44	
12		4+27 S.E. RAMP (1)	℄		SKEW 18° RT.		
13		5+30 S.W. RAMP (1)	℄				
14		4+50 N.W. RAMP (1)	℄				
15		5+15 N.E. RAMP (1)	℄				
16		0+90 PIONEER RD. E.	30' LT.		ENTRANCE CULVERT		
17		2+88 PIONEER RD. E.	40' LT.		ENTRANCE CULVERT		
18		4+50 PIONEER RD E.	℄				
19		12+45 PIONEER RD. W.	℄				
20	↓	539+00 N.B. 35W	℄		MEDIAN RELIEF		
21	16	30+80 LOVELL RD.	℄	36"X 50" CMP	TO REMAIN		
22	19	552+00 N.B. 35W	℄		MEDIAN RELIEF		
23	19	552+00 S.B. 35W	℄		LT. DITCH RELIEF		
24	19	567+00 S.B. 35W	℄		MEDIAN RELIEF		
25	20	579+00 N.B. 35W	℄		MEDIAN RELIEF		
26	20	591+00 N.B. 35W	℄		MEDIAN RELIEF		
27	20	593+10 N.B. 35W	℄		SKEW 28° RT., CROSS S.B. 35W		
28	20	604+00 S.B. 35W	℄		MEDIAN RELIEF		
29							
30	21	610+50 N.B. 35W	℄		RT. DITCH RELIEF		
31	↑	610+50 S.B. 35W	℄		MEDIAN RELIEF		
32		5+20 S.E. RAMP (2)	℄				
33		4+58 S.W. RAMP (2)	℄		SKEW 22° LT.		
34		4+54 N.W. RAMP (2)	℄		SKEW 41° RT.		
35		7+50 N.E. RAMP (2)	℄		SKEW 42° LT. C.B. No. 1 ON CUL		
36		4+96 LEXINGTON AVE.	50' RT.		ENTRANCE CULVERT		
37		5+26 LEXINGTON AVE.	36' RT.	15" x 39' CMP	USE IN LEXINGTON AVE. BY-PASS	39	
38		10+70 LEXINGTON AVE	℄	24" x 50' SCP	USE IN LEXINGTON AVE. BY-PASS	50	
39		11+82 LEXINGTON AVE	℄		SKEW 43°30'LT. UNDER BRIDGE		
40		16+90 LEXINGTON AVE	44' RT.		ENTRANCE CULVERT-USE IN ENTRANCE TO BY-PASS		
41		616+75 N.B. 35W	℄		SKEW 23° LT., MEDIAN RELIEF		
42		616+40 S.B. 35W	℄		SKEW 23° LT., RT DITCH RELIEF		
43	↓	622+00 S.B. 35W	℄		MEDIAN RELIEF		
44	21	630+00 S.B. 35W	℄		MEDIAN RELIEF		
45							
46	24	644+00 S.B. 35W	℄		MEDIAN RELIEF		
47	24	647+48 N.B. 35W	℄		SKEW 8°30'RT, CROSS S.B.35W		
48	24	647+58 N.B. 35W	42'LT		MEDIAN DRAIN TO ℄ CULVERT		
49	24	660+40 S.B. 35W	℄		MEDIAN RELIEF		
50	25	675+00 N.B. 35W	℄		MEDIAN RELIEF		
51	25	688+50 N.B. 35W	℄		MEDIAN RELIEF		
52	25	688+50 S.B. 35W	℄		LT. DITCH RELIEF		
53							
54	25	5+90 SUNSET AVE	35' RT		ENTRANCE CULVERT		
55	↑	17+47 SUNSET AVE	℄		SKEW 31°30'LT - UNDER BRIDGE		
56		22+75 SUNSET AVE	℄				
57		23+72 SUNSET AVE	35'RT		ENTRANCE CULVERT		
58	↓	24+25 SUNSET AVE	℄				
59	25	15+81 ENGLEWOOD DR	23' LT		ENTRANCE CULVERT		
60							
61	27	700+00 S.B. 35W	℄		MEDIAN RELIEF		
62	27	719+57 N.B. 35W	℄		SKEW 13°30'RT, C.B.#2 on CUL		
63	28	730+00 S.B. 35W	℄		MEDIAN RELIEF		
64	↑	740+47 S.B. 35W	℄		MEDIAN RELIEF		
65		744+10 N.B. 35W	℄		SKEW 9° LT. CROSS S.B. 35W		
66		743+54-744+10 N.B.	52' - 62' RT		INCLUDES 10° ELBOW (4)		
67		744+25-744+55 N.B.	57' - 62' RT		INCLUDES 25° ELBOW (4)		
68		743+54 -743+81 S.B.	52' - 62' LT		INCLUDES 20° ELBOW (4)		
69	↓	743+98-744+18 S.B.	53' - 62' LT		INCLUDES 30° ELBOW (4)		
70	28	751+00 N.B. 35W	℄		MEDIAN RELIEF		

LINE	CULVERT EXCAVATION CU. YD.	SODDING SQ. YD.	RIP-RAP CU. YD.	CHANNEL EXCAVATION CU. YD	PORTABLE CULVERTS 18" C.M. LIN. FT.	18" C.M. APR.	24" C.M. LIN. FT.	24" C.M. APR.	30" C.M. LIN. FT.	30" C.M. APR.	LIN. FT.	APR.	LIN. FT.	APR.	18" S.C. LIN. FT.	18" S.C. APR.	24" S.C. LIN. FT.	24" S.C. APR.	30" S.C. LIN. FT.	30" S.C. APR.	36" S.C. LIN. FT.	36" S.C. APR.
1	10	11													46	2						
2	7 (5)	14															46	2				
3	7 (5)	14															46	2				
4	55	18																	128	2		
5																						
6	17	11													64	2						
7	7	13			56	2																
8	0	13			52	2																
9																						
10																						
11																						
12	6 (5)	13			62	2																
13	25	13			62	2																
14	19	13			62	2																
15	11	15					64	2														
16	0	13			24	2																
17	0	13			42	2																
18	8 (5)	13			86	2																
19	12	13			48	2																
20	7	11													50	2						
21																						
22	13 (5)	14															56	2				
23	13 (5)	14															54	2				
24	14	11													52	2						
25	5 (5)	11													46	2						
26	5 (5)	11													50	2						
27	319 (7)		67																			
28	14 (6)	11													48	2						
29																						
30	30 (6)	14															50	2				
31	47 (6)	14															80	2				
32	62 (6)	13			76	2																
33	30 (5)	17							118	2												
34	40	15					82	2														
35	30	15					70	2														
36	0	13			34	2																
37																						
38																						
39	102	15					200	2														
40	0	13			34	2																
41	16 (5)	14															50	2				
42	10 (5)	14															52	2				
43	10	11													44	2						
44	5	11													44	2						
45																						
46	12	11													50	2						
47	59 (5)	21	33																		160	2
48	0	6													2	1						
49	24	11													54	2						
50	13	11													52	2						
51	7 (5)	14															46	2				
52	8 (5)	14															44	2				
53																						
54	0	13			32	2																
55	148	18																	172	2		
56	11	13			72	2																
57	0	13			36	2																
58	5	13			46	2																
59	0	13			24	2																
60																						
61	6	11													48	2						
62	44 (5)	18																	178	2		
63	10	11													50	2						
64	12	11													50	2						
65	187		24																			
66		8																				
67		7																				
68		9																				
69		7																				
70	19	11													56	2						

LINE	PIPE FLUMES 72" S.C. LIN. FT.	72" S.C. APR.	88" x 54" S.C.P.-A LIN. FT.	88" x 54" S.C.P.-A APR.	18" M.P. LIN. FT.	18" M.P. APR.	24" M.P. LIN. FT.	24" M.P. APR.	30" M.P. LIN. FT.	30" M.P. APR.	CLASS	BEDDING
1											III	B
2											III	B
3											III	B
4											III	B
5												
6											II	C
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20											II	C
21												
22											II	C
23											II	C
24											II	C
25											III	B
26											III	B
27			180	2							II	C
28											III	B
29												
30											II	C
31											II	C
32												
33												
34												
35												
36												
37												
38												
39												
40												
41											III	B
42											III	B
43											III	B
44											III	B
45												
46											II	C
47											II	C
48												
49											II	C
50											II	C
51											III	B
52											III	B
53												
54												
55											III	C
56												
57												
58												
59												
60												
61											II	C
62											II	C
63											III	B
64											II	C
65	192	2									II	C
66							56	2				
67					22	2						
68									28	2		
69					22	2						
70											II	C

(1) LOVELL ROAD INTERCHANGE.
(2) LEXINGTON AVENUE INTERCHANGE.

(4) DRAINS FROM ROADWAY DITCH TO COUNTY DITCH NO. 10.
(5) CONSTRUCT THE EMBANKMENT TO 1/2 THE DIAMETER OF THE CULVERT PRIOR TO INSTALLING THE CULVERT.
(6) CONSTRUCT THE EMBANKMENT TO THE BOTTOM OF THE 12" SELECTED GRANULAR MATERIAL PRIOR TO INSTALLING THE CULVERT.
(7) INCLUDES 79 C.Y. OF UNSUITABLE MATERIAL EXCAVATED BELOW FLOW LINE OF CULVERT.

TABULATION OF QUANTITIES
(DRAINAGE)