

III. COST DATA FOR TILE DRAINAGE—continued.
UNITED STATES DEPARTMENT OF AGRICULTURE.—BUREAU OF PUBLIC ROADS—continued.

State.	Drainage District and County.	Date let.	Kind of Tile.	Diagonals in Inches.	Length in Feet.	Cost per Foot.	Depth.		Hauling Tile: Distance and Price per Ton.	Construction: Digging, Laying, and H.F. Cost per Foot.	Remarks.	Engineer, Contractor, &c.
							Max.	Av.				
Iowa	Polk - Story D.D. No. 4; Polk-Story Cos.	19/7/20	Cem. T.	10	900	\$ 0.2831	..	4-6	..	\$ 0.32	..	Contractors, Mason & Twigg, Huxley, Iowa; manufacturers, Iowa Pipe and Tile Co., Des Moines, Iowa.
			S.P.	10	200	0.420	..	4-6	..	0.45		
			Cem. T.	9	400	0.200	..	5-0	..	0.30		
			Cem. T.	8	..	0.180	..	4-8	..	0.242		
			Cem. T.	7	1,400	0.156	..	4-5	..	0.260		
			Cem. T.	6	346	0.087	..	7-0	Delivered on site of work for prices shown	0.174		
			C.T.	26	7,300	1.915	..	6-5	..	1.0317		
			C.T.	24	2,040	1.580	0.6317		
			S.P.	24	575	2.000	..	7-5	..	0.5317		
			C.T.	22	2,060	1.310	..	6-7	..	0.5317		
			C.T.	20	2,100	1.070	..	5-0	..	0.3317		
			C.T.	15	1,160	0.690	..	5-0	..	0.1517		
			C.T.	10	3,500	0.280	..	5-0	..	0.1817		
			C.T.	8	1,500	0.210	..	4-0	..	0.1017		
Ill.	Union D.D. No. 1; Sangamon Co.	15/7/20	S.B.	42	5,000	0.120	6-6	6-0	5 m.; \$2.10	0.800	Concrete-work, 62-9 yd., at 33c. per yd.; 1 large brick c.b., \$397. Prices are for low bids; contracts not let when data were obtained	Engineer, J. W. Dappert, Taylorville, Ill.; contractor, H. T. Munson, Illinois, Ill.; manufacturers, Evans & Howat, Fire Brick Co., St. Louis.
			S.B.	39	5,910	3.740	6-0	5-6	5 m.; \$2.10	0.625		
			S.B.	36	3,080	3.130	6-4	4-8	5 m.; \$2.10	0.552		
			S.B.	30	2,597	2.410	8-5	4-8	5 m.; \$2.10	0.350		
			S.B.	24	3,081	1.650	5-9	5-5	5 m.; \$2.10	0.320		
			Cem. T.	16	2,383	0.520	..	4-3	3 m.	0.294		
			Cem. T.	52	2,900	Approximate \$10 per ton for weight of tile	16-7	14-3	2 m.; \$1	2.20		
			Cem. T.	48	3,900	..	16-3	12-3	2 m.; \$1	2.00		
			Cem. T.	42	1,600	..	10-3	9-7	2 m.; \$1	1.75		
			Cem. T.	40	2,200	..	9-8	8-6	2 m.; \$1	1.50		
Cem. T.	36	1,800	..	10-3	8-8	2 m.; \$1	1.40					
Cem. T.	30	3,400	..	6-9	6-3	2 m.; \$1	0.74					
Cem. T.	24	1,621	..	6-8	6-0	2 m.; \$1	0.50					
Cem. T.	20	6,235	..	7-0	6-0	2 m.; \$1	0-35					
Cem. T.	18	16,215	..	10-0	6-0	2 m.; \$1	0.32					
Cem. T.	16	11,995	..	9-5	6-0	2 m.; \$1	0.29					
Cem. T.	14	14,680	..	8-0	5-5	2 m.; \$1	0.23					
Cem. T.	12	14,270	..	7-8	5-5	2 m.; \$1	0.20					
Cem. T.	10	15,205	..	7-2	5-0	2 m.; \$1	0.15					
Cem. T.	8	32,280	..	6-8	4-5	2 m.; \$1	0.10					
Cem. T.	34	2,000	\$3.40 in place	4-0	3-0	45c. per ton mile	40c. cu. yd.					
Ill.	Sub. D.D. Embarrass River; Champaign and Vermilion Cos.	17/8/20	Cem. T.	16	2,383	0.520	..	4-3	3 m.	0.294	Construction includes hauling, also constructing 2 ground wells	Engineer, W. E. Price, Tuscola, Ill.; contractor, Sam Warner, Broadlands, Ill.; manufacturer, F. W. Scanling, Chrisman, Ill.
			Cem. T.	52	2,900	Approximate \$10 per ton for weight of tile	16-7	14-3	2 m.; \$1	2.20		
Minn.	County Drain No. 57; Blue Earth Co.	24/7/20	Cem. T.	48	3,900	..	16-3	12-3	2 m.; \$1	2.00	Total tile contract, \$163,000; approx., 8,200 tons	Engineer, Roy Allison, Mankato, Minn.; contractor, Frank Essel, Mankato, Minn.; manufacturers, Minnesota Pipe and Tile Co., Mankato, Minn.
			Cem. T.	42	1,600	..	10-3	9-7	2 m.; \$1	1.75		
Iowa	Joint D.D. No. 17 ..	28/7/20	Cem. T.	52	2,900	..	16-7	14-3	2 m.; \$1	2.20	Head wall, 10 yd., \$27; tile laid in open ditch, back-filled 3½ ft. over tile	Engineer, F. A. MacDonald, Armstrong, Iowa; manufacturers, Armstrong Cement Co., Armstrong, Iowa.
			Cem. T.	48	3,900	..	16-3	12-3	2 m.; \$1	2.00		