

II. COST DATA FOR DRAINAGE EXCAVATION.

UNITED STATES DEPARTMENT OF AGRICULTURE.—BUREAU OF PUBLIC ROADS.

T. & S. = Team and scraper work. H.D. = Hydraulic dredge. F.D.D. = Floating dipper dredge. D.L.E. = Drag-line excavator. W.D.D. = Walking dipper dredge.)

State.	Drainage District and County.	Date let.	Excavation (Cubic Yards).	Bid per Cubic Yard.	Clearing per Acre.	Length. (Miles).	Base Width.			Side Slope.	Bern	Soil.	Remarks.	Engineer.		Contractor.
							Max.	Min.	Av.							
Ill. ..	Mackinaw D.D.; McLean and Ford Cos.	29/9/19	412,677	Cent. 12-78	None	11-5	35	6	..	9	6	Loam, clay	F.D.D., $\frac{1}{2}$ yd., 40 ft. boom, 6-15-20-35 ft. bases.			Bell & Hare, Bloomington, Ill.; N. C. McGinnis and Co., Bement, Ill.
Miss.	Pace D.D.; Bolivar Co. . .	8/3/20	341,700	31	Incl.	..	10	3	6	5	10	Alluvial loam	Arpin walking-dredge, 7 laterals 3 ft. base, balance 4-6-8-10 ft. bases.			W. W. Boone, Cleveland, Miss.; J. P. Arpin Co., Greenville, Miss.
Ill. ..	Indian Creek No. 2 D.D.; Cass and Morgan Cos.	3/3/20	1,059,640	11	Incl.	13-25	32	22	..	11	15	Loam and clay; some sand	F.D.D., $2\frac{1}{2}$ yd., 70 ft. boom; D.L.E., 1-12 ft. base; lateral, 12 ft., and 4 ft. base with F.D.D.			Caldwell Eng. Co., Jacksonville, Ill.; M. J. O'Meara & Son, Beardstown, Ill.
Mo. ..	Platt River No. 1 D.D.; Buchanan Co.	25/3/20	1,495,244	Main 14	\$87.12	17	22	16	18	17	10	Gumbo and mixed clay	F.D.D. and D.L.E. M.D. 10-7 mis., 1,022,614 yd. at 14c.; M.D. 5-5 mis., 397,630 yd. at 14 $\frac{1}{2}$ c.; M.D. 1 mis., 75,000 yd. at 15 $\frac{1}{2}$ c.			W. B. Hazen, St. Joseph, Mo.; Land & Sampson, St. Joseph, Mo.
Ky. ..	Otter Creek D.D.; Hopkins Co.	3/4/20	107,086	22	\$30	11	15	5	8	7	8	Alluvial and gumbo	D.L.E. or W.D.D.; new work			J. V. Poole, Madisonville, Pa.; Church & Co., Owensboro, Ky.
Ill. ..	McCraney Ck., Subdist. Sny. Island D.D.; Pike Co.	16/4/20	319,800	30	Incl.	..	..	..	..	..	8	Alluvial	D.L.E., 60 ft. boom; combined ditch and levee; lev., 7 ft. hl., 3 ft. top, 2; 1 ss.; 8 ft. berm; bids up to 34-7c.			J. C. Chamberlin, Pittsfield, Ill.; A. V. Wills & Sons, St. Louis, Mo.
Ill. ..	Garden Special D.D.; Mason Co.	20/4/20	110,000	29-5	..	..	8	6	..	7	..	Sandy loam	1 yd., 42 ft. span, Bay City dredge; 30,000 yd. levee at 30c., 40,000 yd. levee at 35c.; ditch-work clean out			C. H. Kreiling, Havana, Ill.; M. J. O'Meara & Son, Beardstown, Ill.
Iowa	Indian Creek No. 3 D.D.; Cass Co.	17/5/20	750,680	12-5	Incl.	12	18	16	17	11-6	10	Black loam	F.D.D. and one dry-land excavator			Boyd F. Walker, Atlantic, Ia.; Lana Construction Co.
Miss.	Bolivar Co. . .	-/5/20	220,000	19	\$52	..	..	..	..	..	..	..	F.D.D. . .			W. W. Boone, Cleveland, Miss.; R. H. McWilliams, Memphis, Tenn.
Mo. ..	Platte Valley D.D.; Worth and Nodaway Cos.	20/5/20	950,000	13	..	12-7	27	22	..	14	15	Wabash loam	2 D.L.L.s; D.D. has 6 laterals, 4-10 ft. base			Gates & Deleuw, Conway Building, Cinn.; Chas. Reese, Parnell, Mo.
Iowa	Drainage Dist. No. 3; Montgomery Co.	28/3/20	436,000	15	Incl.	7	14	14	14	16	12	Loam and sandy clay	D.L.E. . .			C. D. Forsbeck, Red Oak, Ia.; S. O. Briggs Co., Omaha, Nebr.
Miss.	Drainage Dist. No. 10; Bolivar Co.	5/6/20	552,700	19-5	\$40	14	25	12	..	8	10	Gumbo	F.D.D.; 6 miles of laterals, 3 ft. to 4 ft. base, 5 ft. deep			W. W. Boone, Cleveland, Miss.; R. H. McWilliams.
Iowa	Upper Soldier Valley D.D.; Monona Co.	8/6/20	1,340,000	11-75	Incl.	..	18	4	..	11	16	Loam and silt	$2\frac{1}{2}$ yd., Monaghan D.L.E.; 90% excav., 16 ft. and 18 ft. base. Some laterals sold at 25c. cubic yard			C. Moriarty, Sioux City, Ia.; S. O. Briggs Co., Omaha, Nebr.
Miss.	Bolivar Co. . .	-/6/20	5,000,000	16	..	..	..	..	..	..	..	..	Two Bay City machines			W. W. Boone, Cleveland, Miss.; R. H. Murdock, Grand Rapids, Miss.
Miss.	Bolivar Co. . .	-/6/20	70,000	35	Incl.	..	6	3	..	..	..	..	Bay City dredge			W. W. Boone, Cleveland, Miss.; Gaudin & Pratt, O'Reilly, Miss.
Iowa	Drainage Dist. No. 114; Palo Alto Co.	10/6/20	456,660	14-5	..	8	30	20	..	10	8	Loam and sand	F.D.D. . .			Guy R. Campbell, Emmetsburg, Ill.; E. D. Barr, Gibbon, Minn.