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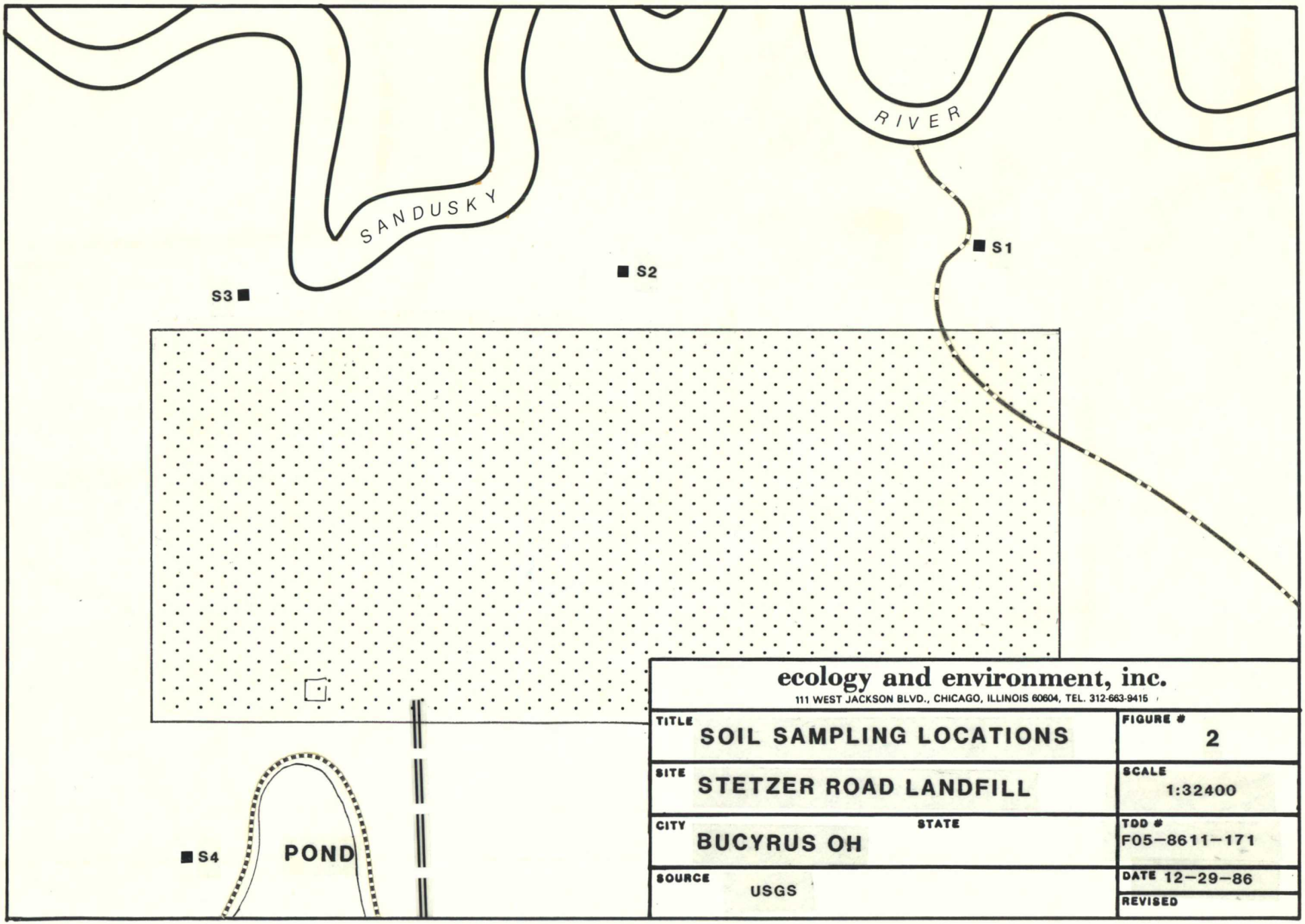

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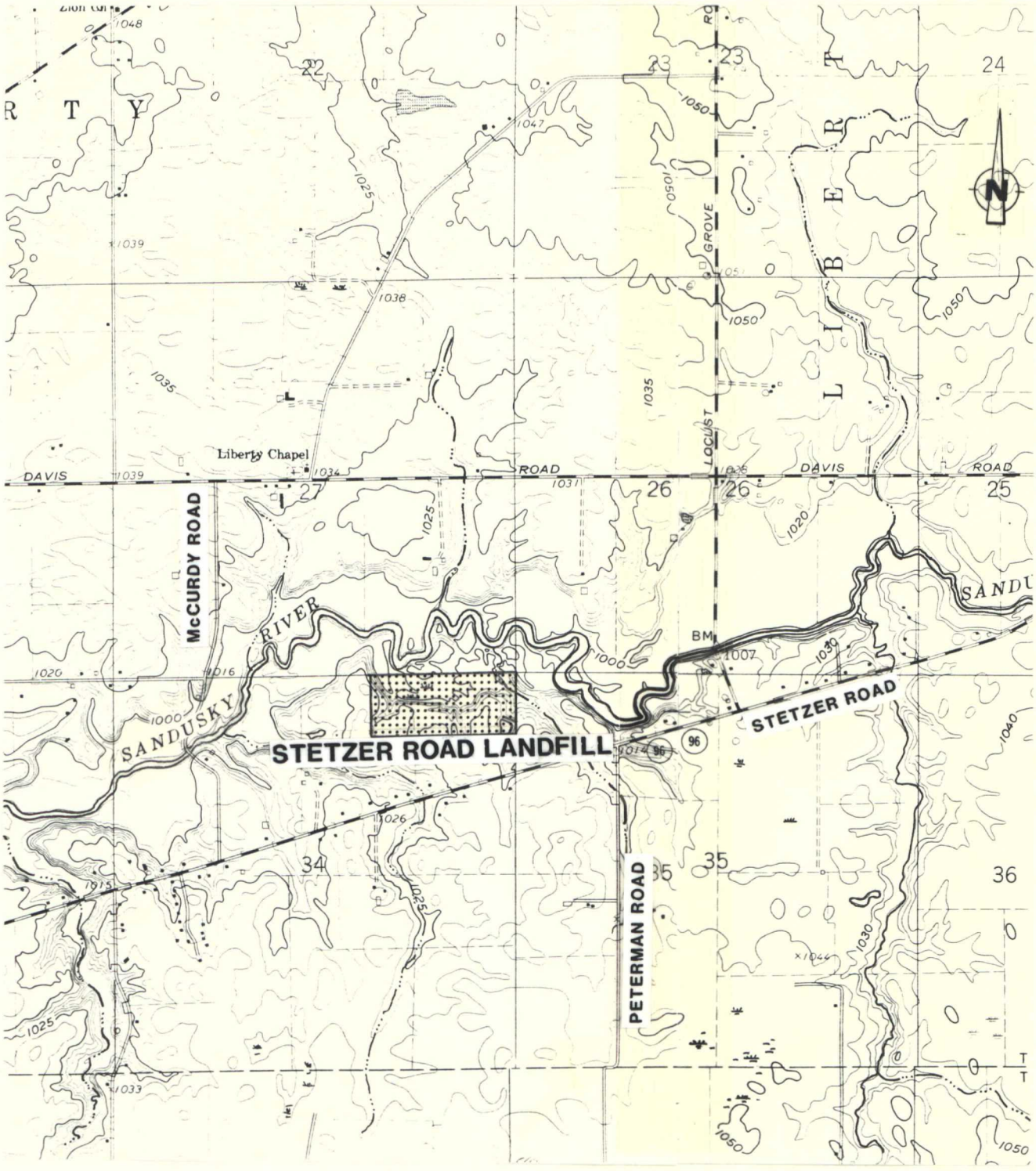
TITLE SOIL SAMPLING LOCATIONS	FIGURE # 2
SITE STETZER ROAD LANDFILL	SCALE 1:32400
CITY BUCYRUS OH STATE	TDD # F05-8611-171
SOURCE USGS	DATE 12-29-86
	REVISED



QUADRANGLE LOCATION

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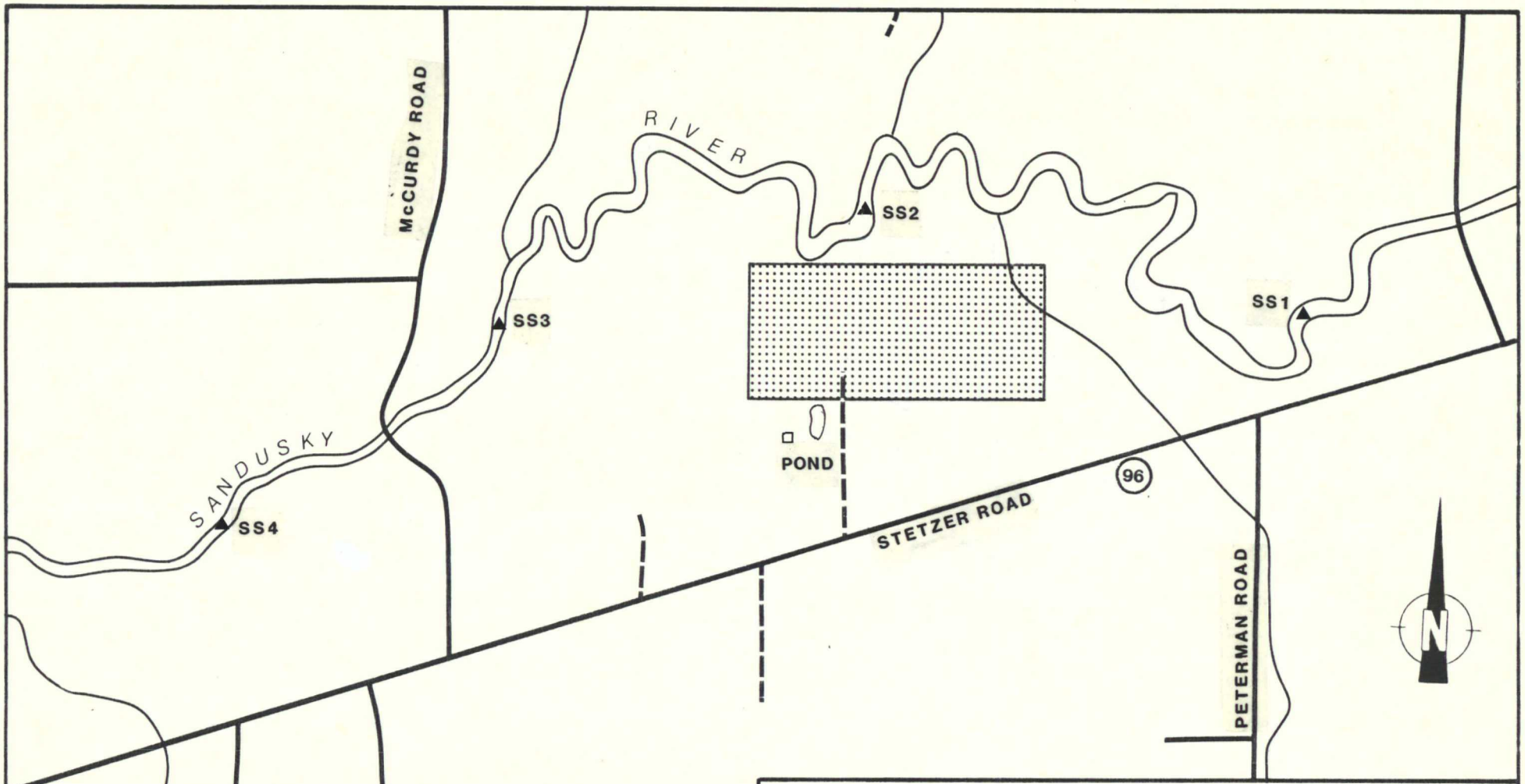
TITLE **SITE LOCATION MAP**	FIGURE # **1**
SITE **STETZER ROAD LANDFILL**	SCALE **1:24,000**
CITY **BUCYRUS OH** STATE	TDD # **F05-8611-171**
SOURCE **USGS**	DATE **12-29-86**
	REVISED



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TITLE SURFACE WATER & SEDIMENT SAMPLING LOCATIONS	FIGURE # 4
SITE STETZER ROAD LANDFILL	SCALE 1:11580
CITY BUCYRUS OH STATE	TDD # F05-8611-171
SOURCE USGS	DATE 12-29-86
	REVISED

TOLEDO AND VICINITY

Scale of Miles
0 1 2 3

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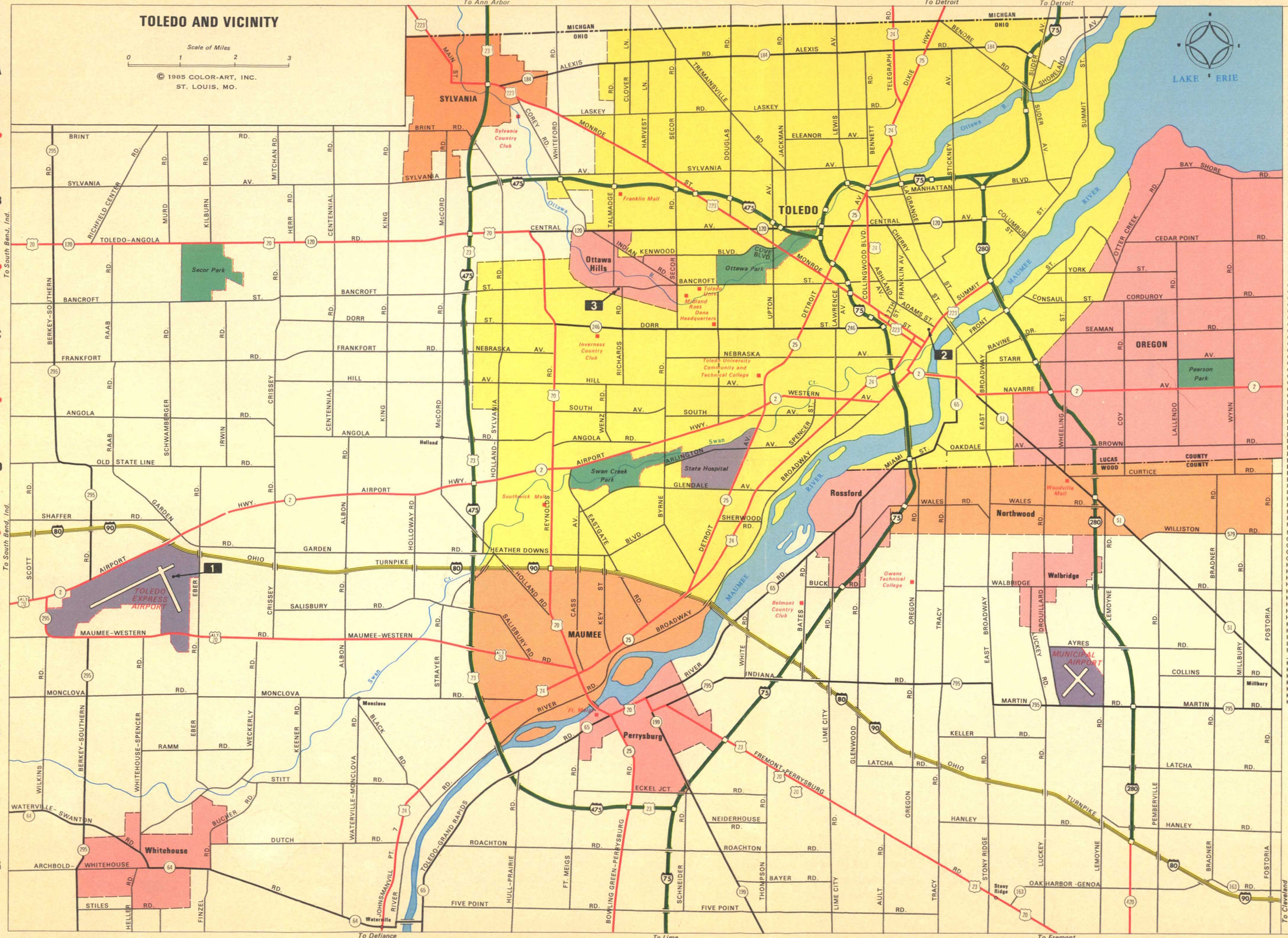
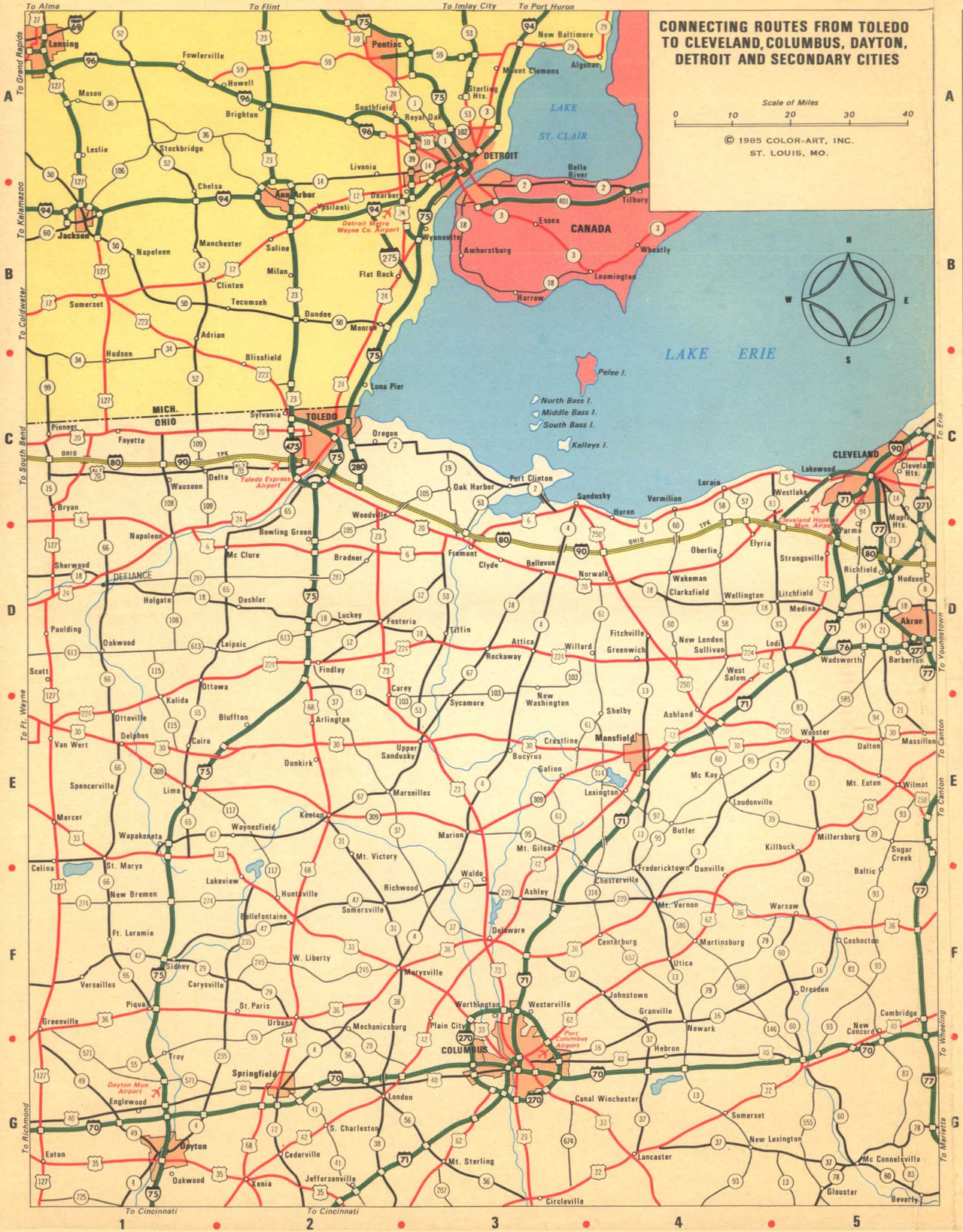


Toledo and vicinity Index

Adams St. C 8
Airport Hwy. D 4-6
Airport Hwy. E 1
Albon Rd. D 3
Albon Rd. E 3
Alexis Rd. A 5-8
Angola Rd. D 1-6
Archbold-Whitehouse Rd. G 1-3
Arlington Av. D 6
Ashland Av. C 7
Ault Rd. G 7
Ayres Rd. E 9
BanCroft St. C 1-6
Bates Rd. E 6
Bayer Rd. G 7
Bay Shore Rd. B 10
Bennett Rd. B 7
Benore Rd. A 8
Berkey Southern Rd. C 1
Berkey Southern Rd. F 1
Black Rd. F 3
Bowling Green Perrysburg Rd. G 5
Bradner Rd. E 10
Bradner Rd. G 10
Brint Rd. A 4
Brint Rd. B 1
Broadway D 7
Broadway E 6
Brown Rd. D 9
Buck Rd. E 7
Bucker Rd. G 2
Byrne Rd. D 6
Cass Av. E 5
Cedar Point Rd. B 10
Centennial Rd. B 3
Centennial Rd. D 3
Central Av. B 5-7
Cherry St. B 8
Clover Ln. A 5
Collingwood Blvd. C 7
Collins Rd. E 10
Columbus St. B 8
Consaul St. C 9
Corduroy Rd. C 10
Corey Rd. A 5
Cove Blvd. B 6
Coy Rd. D 9
Crissey Rd. C 2
Crissey Rd. E 2
Curtice Rd. D 10
Detroit Av. C 7
Detroit Av. E 6
Dixie Hwy. A 8
Dorr St. C 3-7
Douglas Rd. B 6
Drouilard Rd. E 9
Dutch Rd. G 3
East Broadway D 8
East Broadway E 8
Eastgate Rd. E 6
Eber Rd. F 2
Eckel Jct. Rd. F 6
Eleanor Av. B 7
Finzel Rd. G 2
Five Point Rd. G 4-7
Ft. Meigs Rd. G 5
Fostoria Rd. G 10
Frankfort Rd. C 1-3
Franklin Av. C 8
Fremont-Perrysburg F
Front St. C 8
Garden Rd. D 2
Garden Rd. E 3 & 4
Glendale Av. D 6
Glenwood Rd. F 7
Hanley Rd. G 8-10
Harvest Ln. B 6
Hawley St. C 7
Heather Downs Blvd. E
Heller Rd. G 1
Herr Rd. B 2
Hill Av. C 3-5
Holland Rd. E 5
Holland Sylvania Rd. D
Holloway Rd. E 4
Hull-Prairie Rd. G 4
Indian Rd. B 6
Indiana Rd. F 6
Irwin Rd. D 2
Jackman Rd. B 7
Kilburn Rd. B 2
King Rd. B 3
King Rd. D 3
Keeler Rd. F 8
Keener Rd. F 3
Kenwood Blvd. B 6
Key St. E 5
LaGrange St. B 8
Lallendo Rd. D 10
Laskey Rd. A 5-7
Latcha Rd. F 7-10
Lawrence Av. C 7
Lemoyne Rd. E 9
Lemoyne Rd. G 9
Lewis Av. B 7
Lime City Rd. F 7
Lime City Rd. G 7
Luckey Rd. E 9
Luckey Rd. G 9
Main St. A 4
Manhattan Blvd. B 8
Martin Rd. F 8-10
Matzinger Rd. A 8
Maumee Western E 1-3
McCord Rd. B 4
McCord Rd. D 4
Miami St. D 8
Millbury Rd. E 10
Mitchan Rd. B 2
Monclova Rd. F 1-4
Monroe St. A 5
Monroe St. C 7
Murd Rd. B 2
Navarre Av. D 9
Nebraska Av. C 4-6
Neiderhouse Rd. G 6
Oakdale Av. D 8
Oak Harbor Genoa Rd. G 9 & 10
Ohio Turnpike E 3
Ohio Turnpike F 8
Old State Line Rd. D 2
Oregon Rd. E 7
Oregon Rd. F 8
Otter Creek Rd. B 9
Pemberville Rd. F 10
Postoria Rd. E 10
Raab Rd. C 1
Raab Rd. D 1
Ramm Rd. F 1
Ravine Dr. C 8
Reynolds Rd. D 5
Richards Rd. C 5
Richfield Center Rd. B 1
River Rd. E 6
River Rd. F 4
River Rd. G 3
Roachton Rd. G 4-7
Salisbury Rd. E 3-5
Seaman Rd. C 9
Scott Rd. E 1
Schneidner Rd. G 6
Schwamberger Rd. D 2
Secor Rd. A 6
Secor Rd. C 6
Shaffer Rd. D 1
Sherwood Rd. D 6
Shoreland Av. A 9
South Av. D 5-7
Spencer St. D 7
Starr Av. C 8
Stickney Av. B 8
Stiles Rd. G 1
Stitt Rd. F 3
Stony Ridge Rd. G 8
Strayer Rd. F 4
Suder Av. A 9
Summit St. A 9
Summit St. C 8
Swanton Rd. G 1
Sylvania Av. B 1-7
Talmadge Rd. B 5
Telegraph Rd. A 7
Thompson Rd. G 7
Toledo-Angola Rd. B 1
Toledo-Grand Rapids Rd. G 4
Tracy Rd. E 8
Tracy Rd. G 8
Tremainsville Rd. A 6
Upton Av. C 7
Walbridge Rd. E 9
Wales Rd. D 8 & 9
Waterville Monclova Rd. F 3
Weckerly Rd. F 2
Wenz Rd. D 5
Western Av. D 7
Wheeling St. D 9
White Rd. E 6
Whiteford Rd. A 5
Whitehouse Spencer Rd. F 1
Williston Rd. E 10
Wynn Rd. D 10
York St. C 9
17th St. C 8



Detroit & Secondary Cities Index

Adrian	B-1	Jackson	B-1	Richwood	F-2
Akron	D-3	Jeffersonville	G-2	Rockaway	D-3
Algenac	A-4	Johnstown	F-4	Royal Oak	A-3
Amherstburg	B-3	Kalida	E-1	S. Charleston	
Arlington	E-2	Kenton	E-2		G-2
Ashland	E-4	Killbuck	E-5	Saline	B-2
Ashley	F-3	Lakeview	F-1	Sandusky	C-4
Attica	D-3	Lakewood	C-5	Scott	D-1
Baltic	F-5	Lancaster	G-4	Shelby	E-4
Barberton	D-5	Lansing	A-1	Sherwood	D-1
Barrow	B-3	Leamington	B-4	Sidney	F-1
Bellevue	D-3	Leipsic	D-1	Somerset	B-1
Belle Fontaine	F-2	Leslie	A-1	Somerset	G-5
Blissfield	B-2	Lexington	E-4	Somersville	F-2
Bluffton	B-1 & 2	Lima	E-1	Southfield	A-2
Bowling Green	D-2	Litchfield	D-5	Spencerville	E-1
Bradner	D-2	Livonia	A-2	Slackbridge	A-1
Bryan	E-1	Lodi	D-4	Sterling Hts.	A-3
Bucyrus	E-3	London	G-2	Strongsville	D-5
Bundee	B-2	Lorain	C-4	St. Marys	E-1
Butler	E-4	Loudonville	E-4	St. Paris	F-2
Brighton	A-2	Luckey	D-2	Sugar Creek	E-5
Caire	E-1	Mansfield	E-4	Sullivan	D-4
Cambridge	F-5	Maple Hts.	C-5	Sycamore	E-3
Canal		Marion	E-3	Sylvania	C-2
Winchester	G-4	Marseilles	E-3	Tecumseh	B-2
Carysville	F-1	Martinsburg	F-4	Tiffin	D-3
Cedarville	G-2	Marysville	F-3	Tilbury	B-4
Celina	E-1	Maschester	B-2	Troy	G-1
Centerburg	F-4	Mason	A-1	Upper Sandusky	E-3
Ceshacton	F-5	Massillon	E-5	Urbana	F-2
Cheisa	B-1	McClure	D-2	Utica	F-4
Chesterville	F-4	McConnelsville		Van Wart	E-1
Circleville	G-4		G-5	Vermilion	C-4
Clarksfield	D-4	McKay	E-4	Versailles	F-1
Cleveland Hts.	C-5	Mechanicsburg		Wadsworth	D-5
Clinton	B-2		F-2	Wakeman	D-4
Clyde	D-3	Mercer	E-1	Walde	F-3
Crestline	E-4	Milar	B-2	Wapakonata	E-1
Dalton	E-5	Millersburg	E-5	Warsaw	F-5
Danville	F-4	Modina	D-5	Wauseon	C-1
Dayton	G-1	Monroe	B-2	Waynesfield	E-2
Dearborn	B-2	Mount Clemens		Westerville	F-3
Delaware	F-3		A-3	Westlake	C-5
Delphos	E-1	Mt. Eaton	E-5	W. Liberty	F-2
Delta	C-1	Mt. Gilead	E-3	West Salem	D-4
Deshler	D-2	Mt. Sterling	G-3	Wettington	D-4
Detroit	A-3	Mt. Vernon	F-4	Wheatly	B-4
Dresden	F-5	Mt. Victory	E-2	Willard	D-3
Dunkirk	E-2	Napoleon	B-1	Wilmat	E-5
Eaton	G-1	Napoleon	D-1	Windsor	A-3
Elyria	D-4	Newark	F-4	Woodville	D-2
Englewood	G-1	New Baltimore		Wooster	E-5
Essex	B-3		A-3	Worthington	F-3
Fayette	C-1	New Bremen	F-1	Wyanoolite	B-3
Findlay	D-2	New Concord	F-5	Xenia	G-2
Fitchville	D-4	New Lexington	G-5	Ypsilanti	B-2
Flat Rock	B-2	New London	D-4		
Fostoria	D-2	New Washington			
Fowlerville	A-1				
Fredericktown		Norwalk	E-3		
	F-4	Oak Harbor	D-3		
Fremont	D-3	Oakwood	C-3		
Ft. Loramie	F-1	Oberlin	D-1		
Galion	E-3	Oregon	D-4		
Glouster	G-5	Ottawa	C-2		
Granville	F-4	Ottoville	D-2		
Greenville	F-1	Parma	E-1		
Greenwich	D-4	Paulding	D-5		
Hebron	F-4	Pioneer	D-1		
Heigate	D-1	Piqua	C-1		
Howell	A-2	Plain City	F-1		
Hudson	B-1	Pontiac	F-3		
Hudson	D-5	Port Clinton	A-2		
Huntsville	F-2	Richfield	C-3		
Huron	C-4		D-5		

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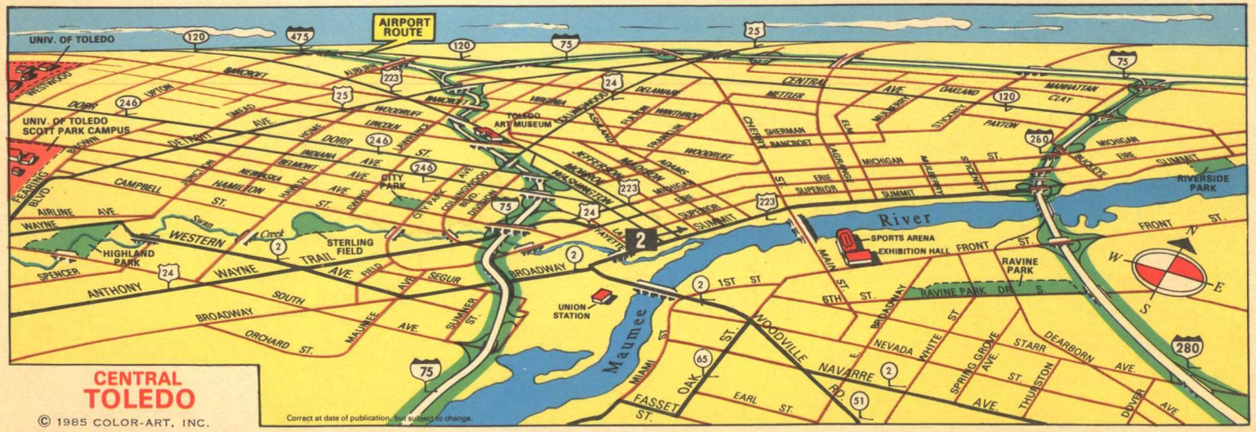

CENTRAL TOLEDO

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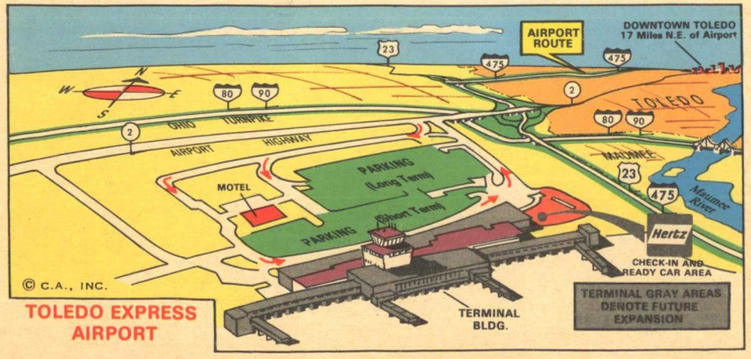

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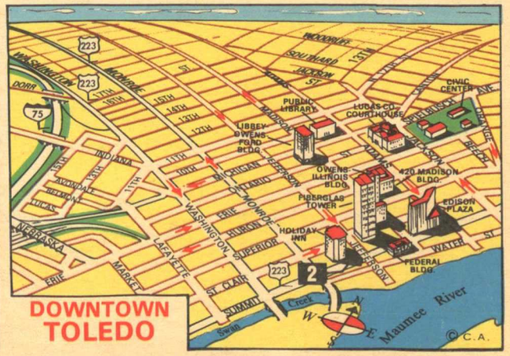

DOWNTOWN TOLEDO

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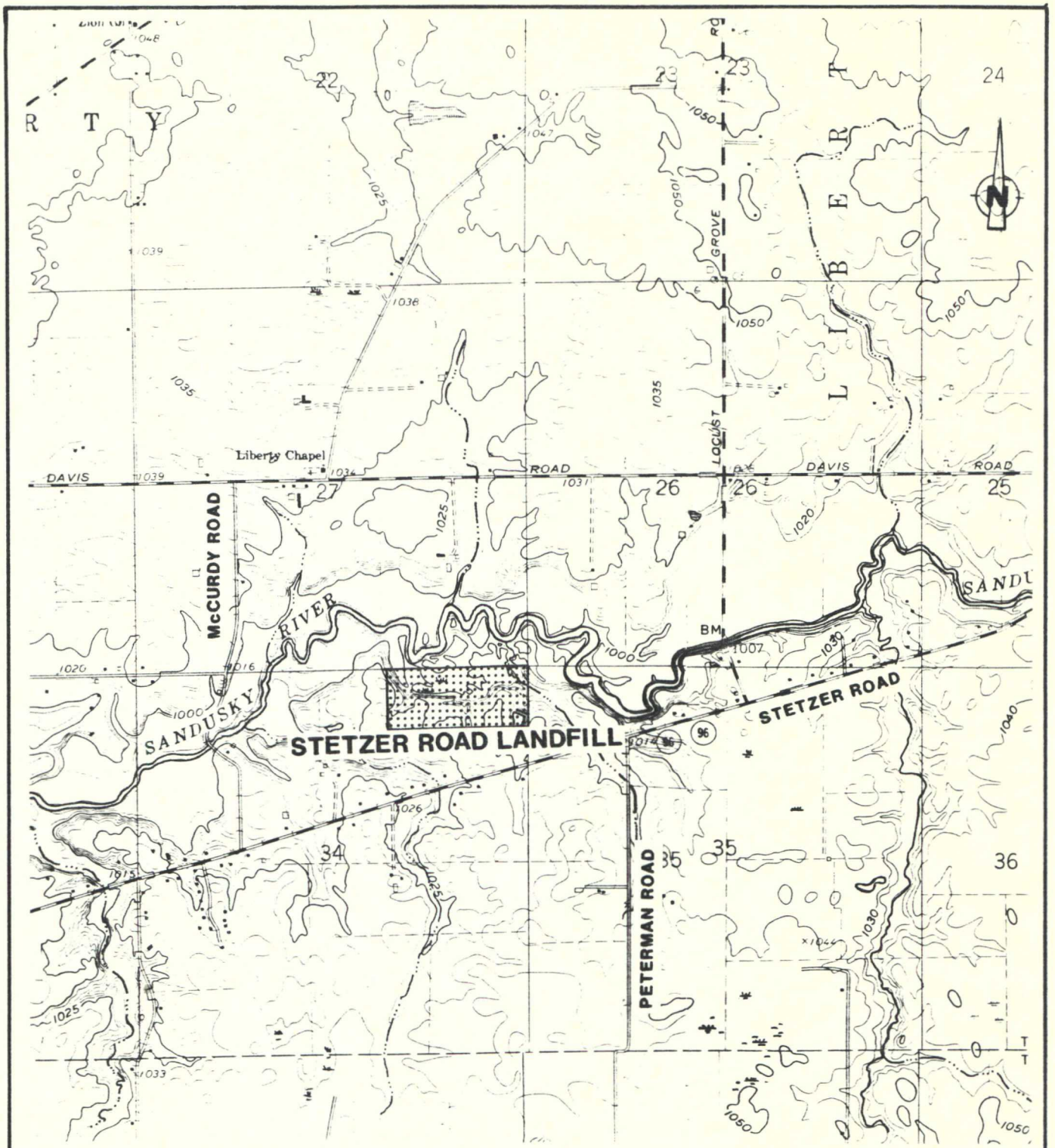

QUADRANGLE LOCATION

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111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415

TITLE **SITE LOCATION MAP**	FIGURE # **1**
SITE **STETZER ROAD LANDFILL**	SCALE **1:24,000**
CITY **BUCYRUS** STATE **OH**	TDD #
SOURCE **USGS**	DATE
	REVISED

Table 4. Population of County Subdivisions: 1960 to 1980—Con.

[Total population of a place in two or more county subdivisions appears in table 5. Counts relate to county subdivisions and places as defined at each census. For meaning of symbols, see Introduction]

County Subdivisions	1980	1970	1960
Clinton County—Con.			
Marion township	5 311	4 492	3 853
Blanchester village[15]	3 202	3 080	2 944
Richland township	3 735	3 139	3 418
Sabina village[15]	2 799	2 160	2 313
Union township	12 702	12 225	10 977
Wilmington city[15]	10 431	10 051	8 915
Vernon township	1 845	1 577	1 455
Clarksville village	525	574	583
Washington township	1 296	1 029	967
Wayne township	708	757	805
Wilson township	511	572	618
Columbiana County[16]	113 572	108 310	107 004
Butler township	3 228	3 001	2 341
Center township	6 549	6 222	6 265
Lisbon village[16]	3 159	3 521	3 579
East Liverpool city[16]	16 687	'20 020	22 306
Elkrun township	2 288	1 836	1 804
Fairfield township	8 996	7 772	7 036
Columbiana village (pt.)[16]	4 986	4 959	4 164
Leetonia village (pt.)	116	125	105
Franklin township	831	782	751
Summitville village	146	143	144
Hanover township	3 288	2 609	2 460
Hanoverton village	490	483	442
Knox township	4 486	3 731	3 384
Liverpool township[16]	4 921	'3 678	26 947
La Croft (CDP)	1 508	...	...
Madison township	3 387	2 438	2 159
Middleton township	3 426	2 677	2 491
Rogers village	298	310	295
Perry township	17 886	18 178	16 953
Salem city[16]	12 869	14 186	13 854
St. Clair township	8 080	7 428	5 737
Calcutta (CDP)	1 121	...	...
Glenmoor (CDP)	2 588	...	...
Salem township	5 365	5 109	5 176
Leetonia village (pt.)[16]	2 005	2 217	2 438
Washingtonville village (pt.)	532	500	589
Unity township	10 220	9 380	9 353
East Palestine city[16]	5 306	5 604	5 232
New Waterford village[16]	1 314	735	711
Washington township	2 618	2 540	2 665
Salineville village (pt.)[16]	1 629	1 686	1 898
Wayne township	741	567	570
Wellsville city	5 095	5 891	7 117
West township	3 022	2 444	2 094
Minerva village (pt.)[16]	7	...	...
Yellow Creek township	2 458	2 007	1 701
Coshocton County[17]	36 024	33 486	32 224
Adams township	580	581	579
Bedford township	405	344	367
Bethlehem township	1 094	797	675
Clark township	526	586	609
Coshocton city[17]	13 405	13 747	13 106
Crawford township	1 020	876	806
Baltic village (pt.)[17]	–	'–	...
Franklin township	1 338	1 237	1 196
Conesville village	451	448	451
Jackson township[17]	1 947	2 078	2 004
Jefferson township	1 421	1 253	1 145
Nellie village	150	140	145
Warsaw village	765	725	594
Keene township	1 523	1 155	846
Lafayette township[17]	4 275	3 228	2 754
West Lafayette village[17]	2 225	1 719	1 476
Linton township	716	660	743
Plainfield village	221	183	178
Mill Creek township	529	433	415
Monroe township	381	304	364
Newcastle township	358	418	416
Oxford township	1 521	1 259	1 171
Perry township	343	324	395
Pike township	415	336	383
Tiverton township	322	300	377
Tuscarawas township[17]	2 010	15 490	14 968
Virginia township	516	504	717
Washington township	452	458	441
White Eyes township	927	865	853
Crawford County[18]	50 075	50 364	46 775
Auburn township	989	1 032	1 140
Tiro village	279	310	334
Bucyrus township	12 274	12 342	11 882
Bucyrus city (pt.)[18]	11 298	11 319	10 967
Chatfield township	880	905	947
Chatfield village	228	291	263
Cranberry township	1 943	2 001	1 983
New Washington village	1 213	1 251	1 162
Dallas township	482	476	440
Galion city[18]	12 391	13 123	12 650
Holmes township	2 551	2 495	2 151
Bucyrus city (pt.)[18]	1 094	1 086	907
Jackson township	5 800	6 402	6 000
Crestline city (pt.)[18]	5 392	5 947	5 521
Jefferson township	1 731	1 532	1 185
North Robinson village (pt.)	111	66	44

County Subdivisions	1980	1970	1960
Crawford County—Con.			
Liberty township	1 489	1 477	1 295
Lykens township	694	744	759
Polk township[18]	2 770	2 617	1 713
Sandusky township	497	434	449
Texas township	458	404	385
Tod township	755	712	708
Vernon township	804	735	695
Whetstone township	3 567	2 933	2 393
Bucyrus city (pt.)[18]	1 041	706	402
North Robinson village (pt.)	191	211	245
Cuyahoga County[19]	1 498 400	'1 720 835	1 647 895
Bay Village city	17 846	18 163	14 489
Beachwood city	9 983	9 631	6 089
Bedford city	15 056	17 552	15 223
Bedford Heights city	13 214	13 063	5 275
Bentleyville village	381	338	301
Berea city	19 567	'22 465	16 592
Bratenahl village	1 485	1 613	1 332
Brecksville city	10 132	9 137	5 435
Broadview Heights city	10 920	11 463	6 209
Brooklyn city[19]	12 342	13 142	10 733
Brooklyn Heights village	1 653	1 527	1 449
Brook Park city	26 195	30 774	12 856
Chagrin Falls township	136	84	65
Chagrin Falls village	4 335	4 848	3 458
Cleveland city[19]	573 822	'750 879	876 050
Cleveland Heights city	56 438	60 767	61 813
Cuyahoga Heights village	739	866	796
East Cleveland city	36 957	39 600	37 991
Euclid city	59 999	71 552	62 998
Fairview Park city	19 311	'21 699	14 624
Garfield Heights city	34 938	41 417	38 455
Gates Mills village	2 236	2 378	1 588
Glenwillow village	492	'508	359
Highland Heights city	5 739	5 926	2 929
Hunting Valley village (pt.)	633	673	550
Independence city	6 607	7 034	6 868
Lakewood city	61 963	70 173	66 154
Linndale village	129	'169	381
Lyndhurst city	18 092	19 749	16 805
Maple Heights city	29 735	34 093	31 667
Mayfield village	3 577	3 548	1 977
Mayfield Heights city	21 550	22 139	13 478
Middleburg Heights city	16 218	12 367	7 282
Moreland Hills village	3 083	'2 952	2 188
Newburgh Heights village	2 678	3 396	3 512
North Olmsted city	36 486	34 861	16 290
North Randall village[19]	1 054	1 212	688
North Royalton city	17 671	12 807	9 290
Oakwood village	3 786	'3 499	3 283
Olmsted township	6 976	6 318	4 773
Olmsted Falls city[19]	5 868	2 504	2 144
Orange village	2 376	2 112	2 006
Parma city	92 548	100 216	82 845
Parma Heights city	23 112	27 192	18 100
Pepper Pike city	6 177	'5 382	3 217
Richmond Heights city	10 095	9 220	5 068
Riveredge township	477	632	416
Rocky River city	21 084	22 958	18 097
Seven Hills city	13 650	12 700	5 708
Shaker Heights city	32 487	36 306	36 460
Solon city	14 341	'11 147	6 333
South Euclid city	25 713	29 579	27 569
Strongsville city	28 577	15 182	8 504
University Heights city	15 401	17 055	16 641
Valley View village	1 576	1 422	1 221
Walton Hills village	2 199	2 508	1 776
Warrensville township	1 640	2 160	2 261
Warrensville Heights city[19]	16 565	18 925	10 609
Westlake city	19 483	15 689	12 906
Woodmere village	877	'1 041	398
Darke County[20]	55 096	49 141	45 612
Adams township	3 563	3 027	2 956
Bradford village (pt.)	994	923	860
Gettysburg village	545	526	443
Allen township	1 441	1 517	1 526
Burkettsville village (pt.)	97	107	113
New Weston village	184	174	146
Rossburg village	260	275	295
Brown township	2 199	1 931	1 935
Ansonia village[20]	1 267	1 044	1 002
Butler township	1 842	1 623	1 457
Castine village	147	150	169
New Madison village (pt.)[20]	218	157	75
Franklin township	1 341	1 237	1 243
Greenville township	17 470	15 849	13 966
Greenville city[20]	12 999	12 380	10 585
Harrison township	2 402	2 205	2 169
Hollansburg village	339	364	311
New Madison village (pt.)	790	802	835
Jackson township	3 569	2 978	2 703
Union City village[20]	1 716	1 808	1 657
Liberty township	1 218	1 278	1 335
Palestine village	213	246	257
Mississinawa township	855	848	885
Monroe township	1 824	1 634	1 451
Pitsburg village	460	462	394
Neave township	2 288	1 311	1 058

See footnotes at end of table.

LINE	1 OWNER OF FACILITY BY COUNTY	2 TYPE	3 ESTIMATED POPULATION SERVED	4 SOURCE OF SUPPLY	5 SURFACE SAFE YIELD (mgd)	6 TOTAL GROUNDWATER DEPENDABLE PUMPAGE (mgd)	7 PLANT SYSTEM CAPACITY (mgd)
1	Bucyrus	M	14,200	3 reservoirs (Sandusky River)	4.000	-	4.000
2							
3							
4	Crestline	M	5,945	7 wells (2 inoperative and 1 standby)	-	3.500	3.500
5	Galion	M	13,100	South Fork Olentangy River impoundment, 2 reservoirs	4.000	-	4.000
6	New Washington	M	1,200	1 well; 2 reservoirs (drainage ditch)	0.100	0.028	0.175
7							
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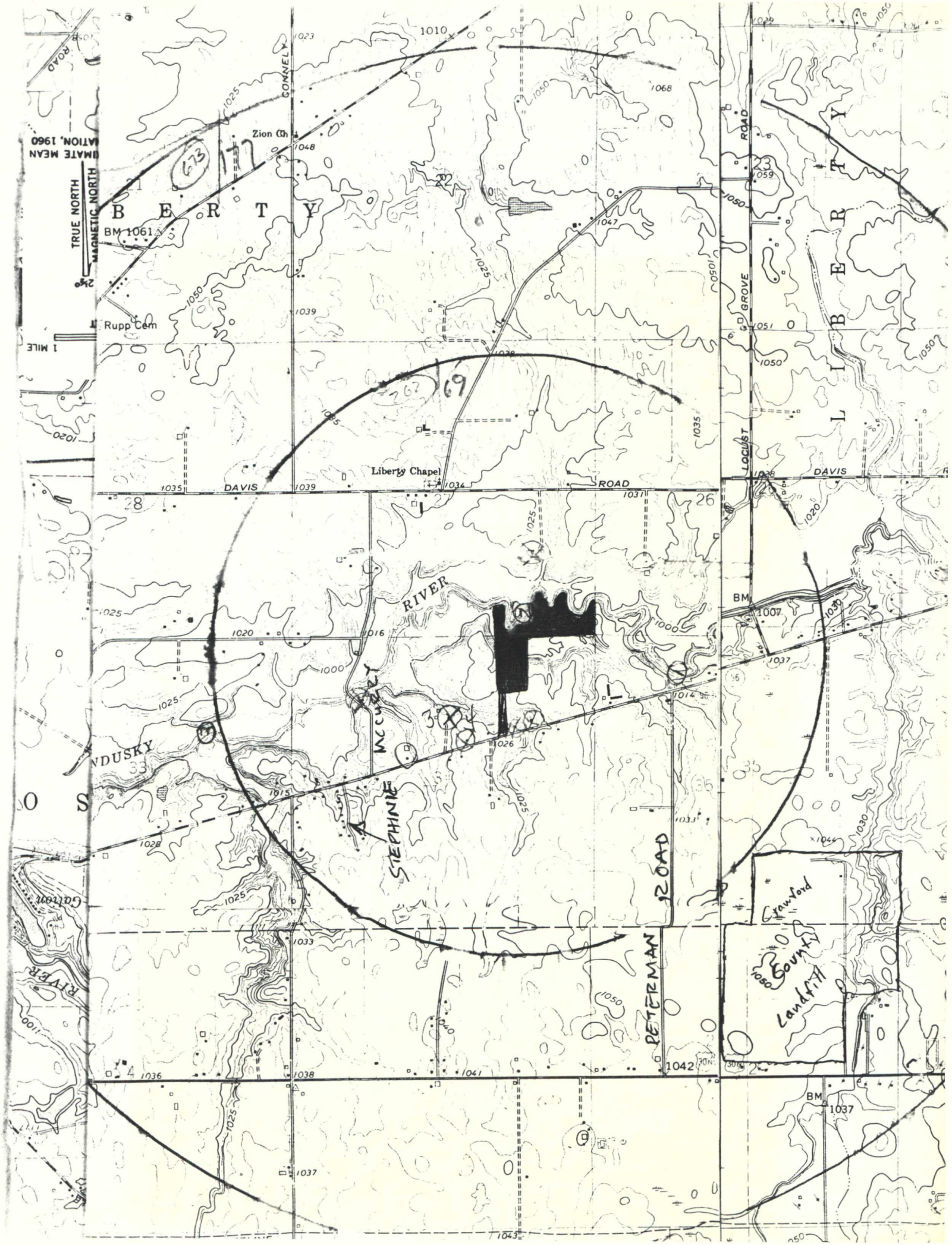
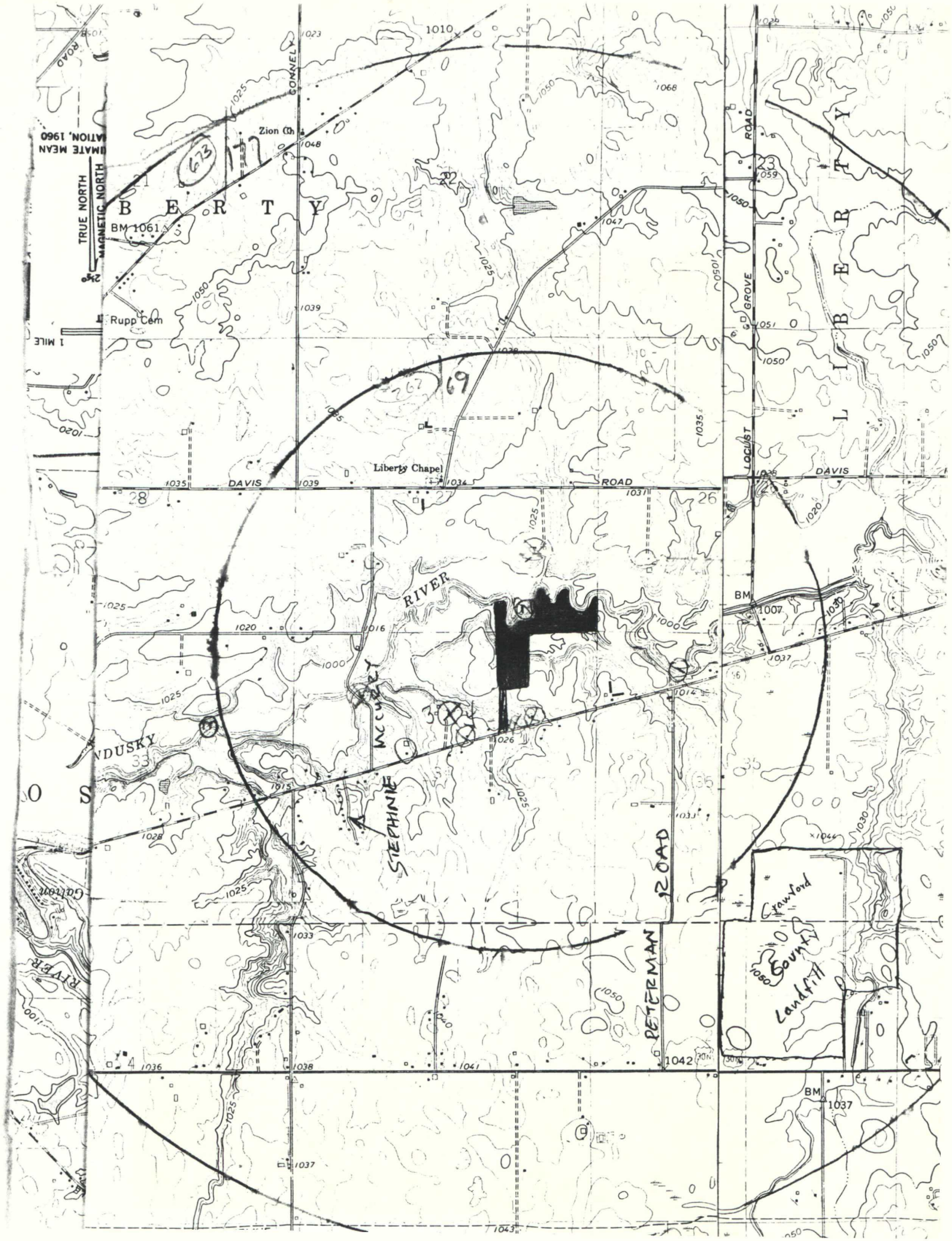
48							
49							
50							

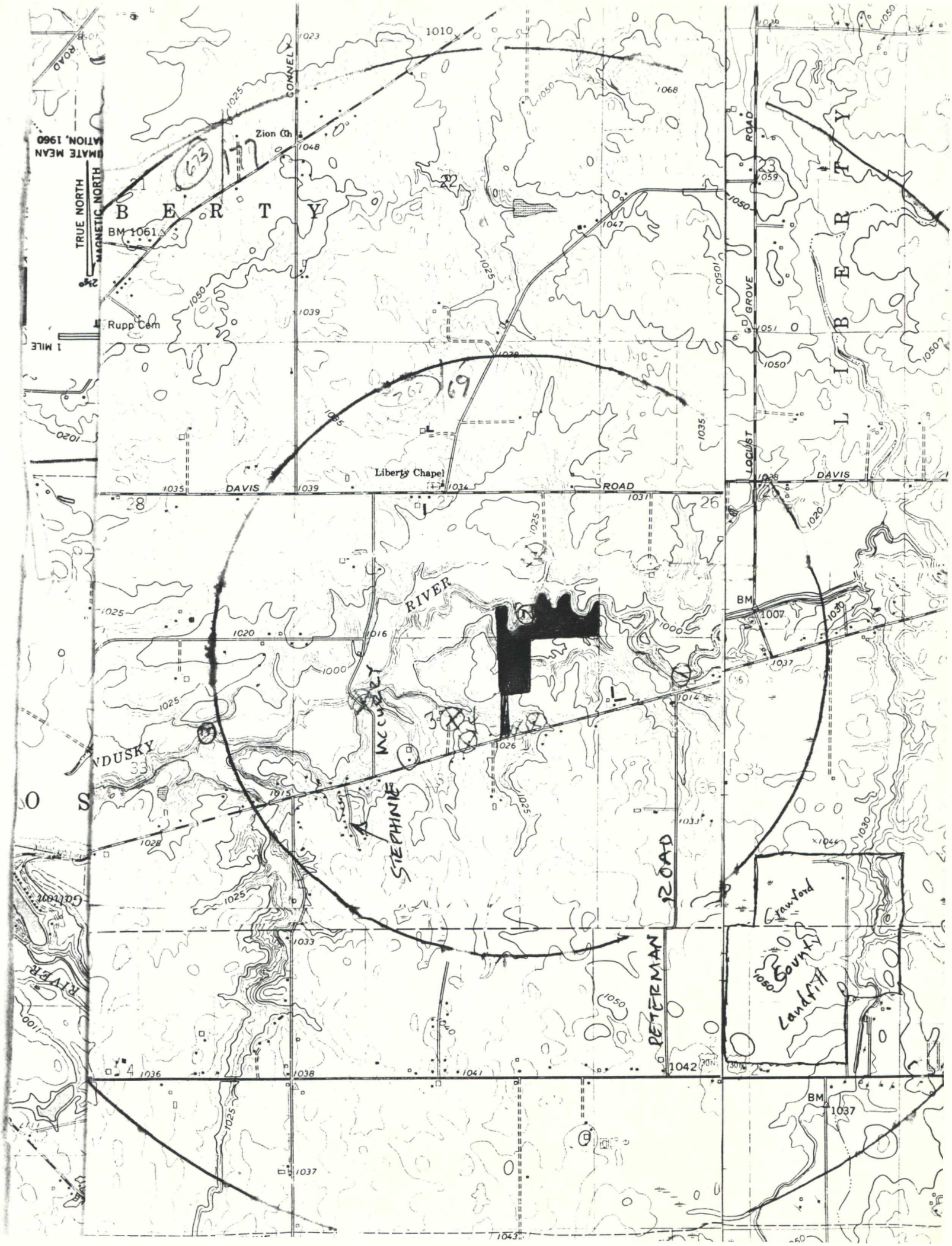
8	9	10	11	12	13	14	15	16	17	18	
WATER SUPPLY STORAGE		WATER SUPPLY OUTPUT		DEMAND BY HEAVY WATER USING INDUSTRY (mgd)	DEMAND IN G.P.C.D.		TREATMENT FACILITIES	LABORATORY	ANTICIPATED IMPROVEMENTS	TELEPHONE NUMBER	LINE
CLEARWELL (mg)	DISTRIBUTION SYSTEM (mg)	MAXIMUM DAY (mg)	AVERAGE DAY (mg)		TOTAL	LESS HEAVY INDUSTRY					
1.000	0.500	2.246	1.650	0.875	116	55	HCDFKMRSTV	A	additional distribution for transmission; renovate treatment plant; pumps	WP-419-562-7951	1 2 3
2.000	1.000	1.700	1.200	0.360	202	141	DK	N	new 5.0 mg-capacity treatment plant	PD-419-683-2222	4
1.370	0.375	2.120	1.480	0.105	113	105	HCDFKMRST	A	double treatment capacity	WP-419-468-1393	5
-	0.100	0.100	0.080	-	67	-	HCDFKST	C	connect dead-end distribution loops; 15.0 mg clearwell ground storage; new transmission lines; additional treatment, filtration, and settling	PD-419-492-2321	6 7 8 9 10
											11 12 13 14 15
											16 17 18 19 20
											21 22 23 24 25
											26 27 28 29 30
											31 32 33 34 35
											36 37 38 39 40
											41 42 43 44 45
											46 47 48 49 50

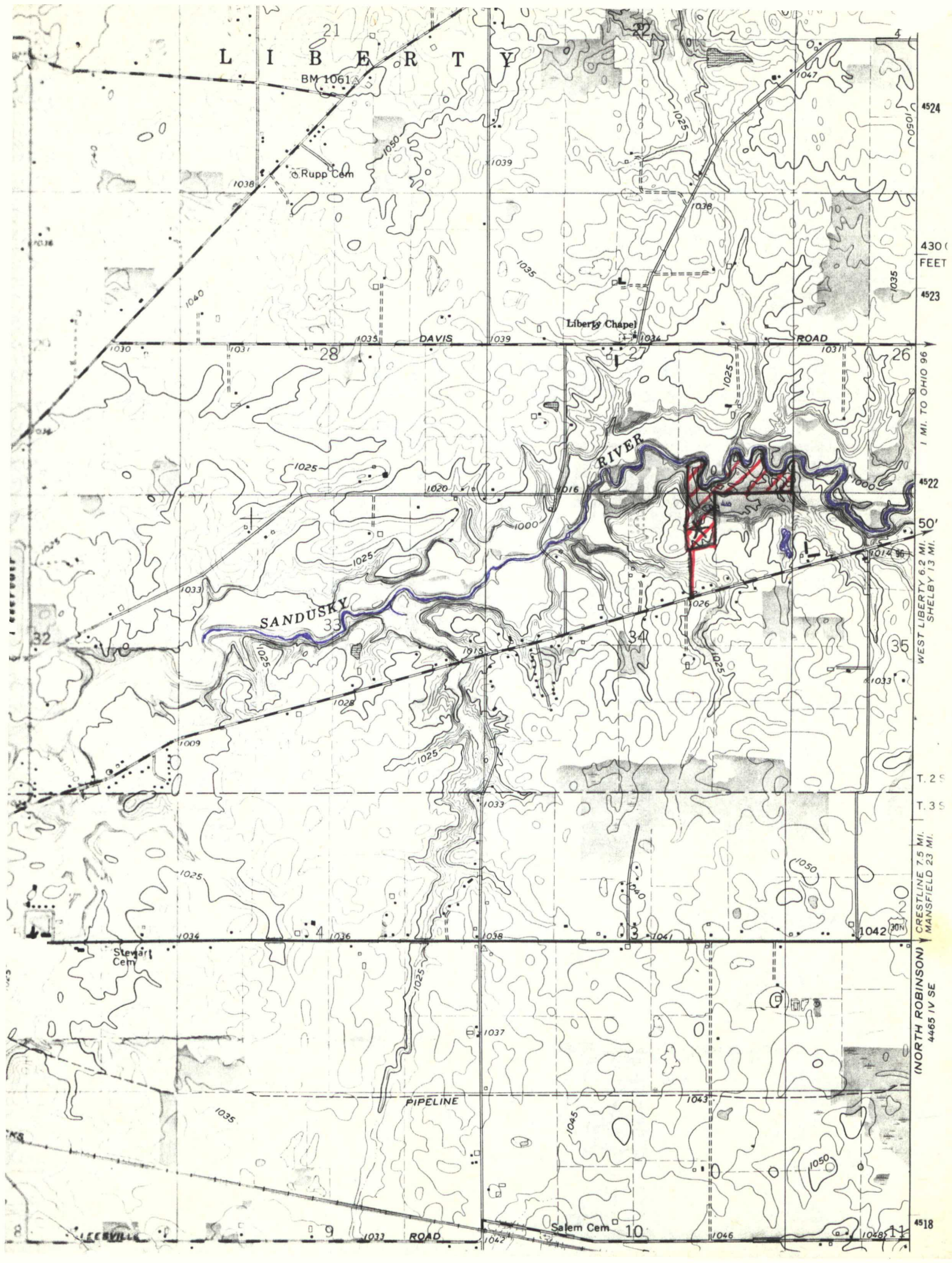
INVENTORY OF MUNICIPAL WATER-SUPPLY SYSTEMS, BY COUNTY, OHIO, 1975

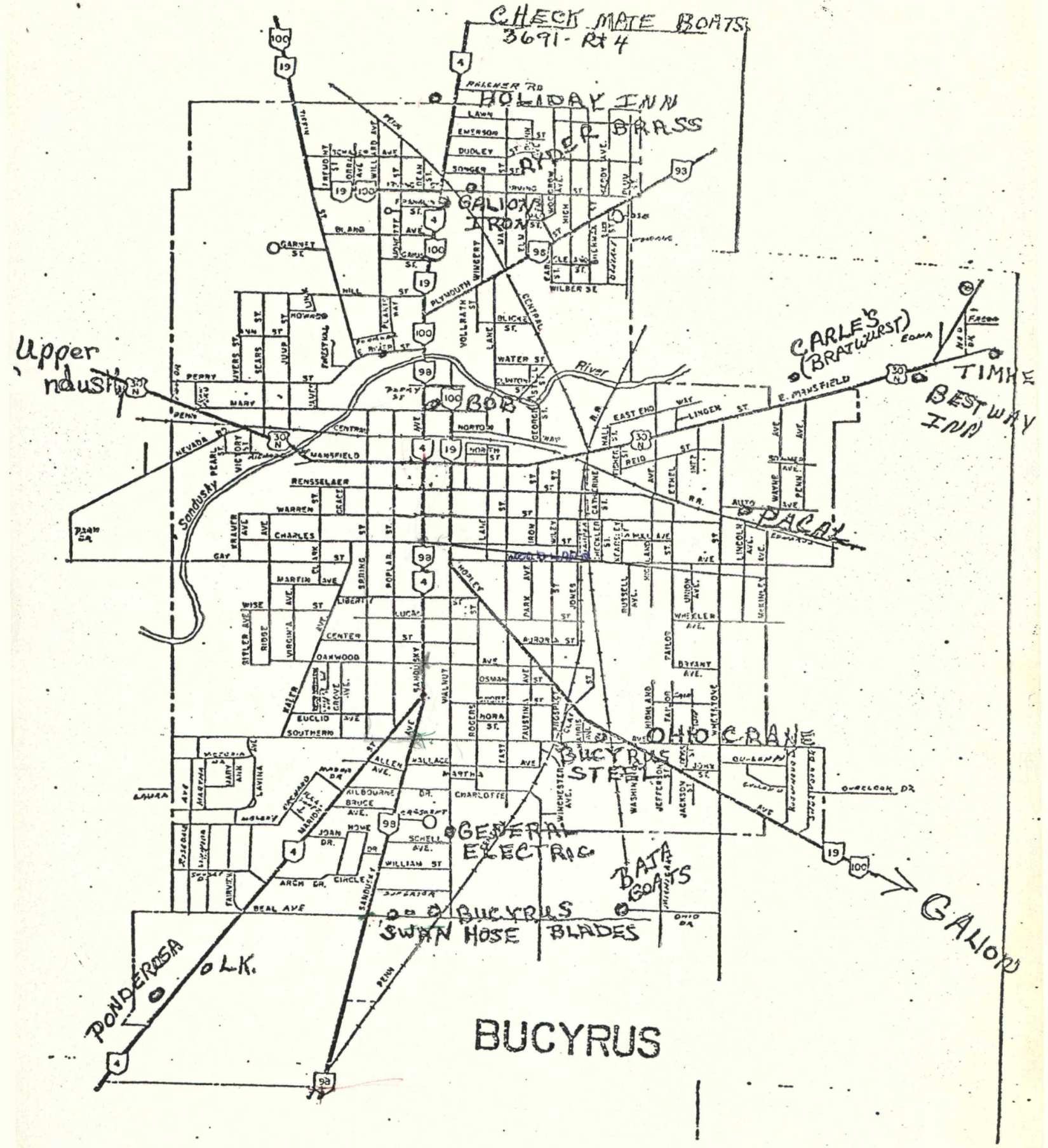
17 CRAWFORD COUNTY

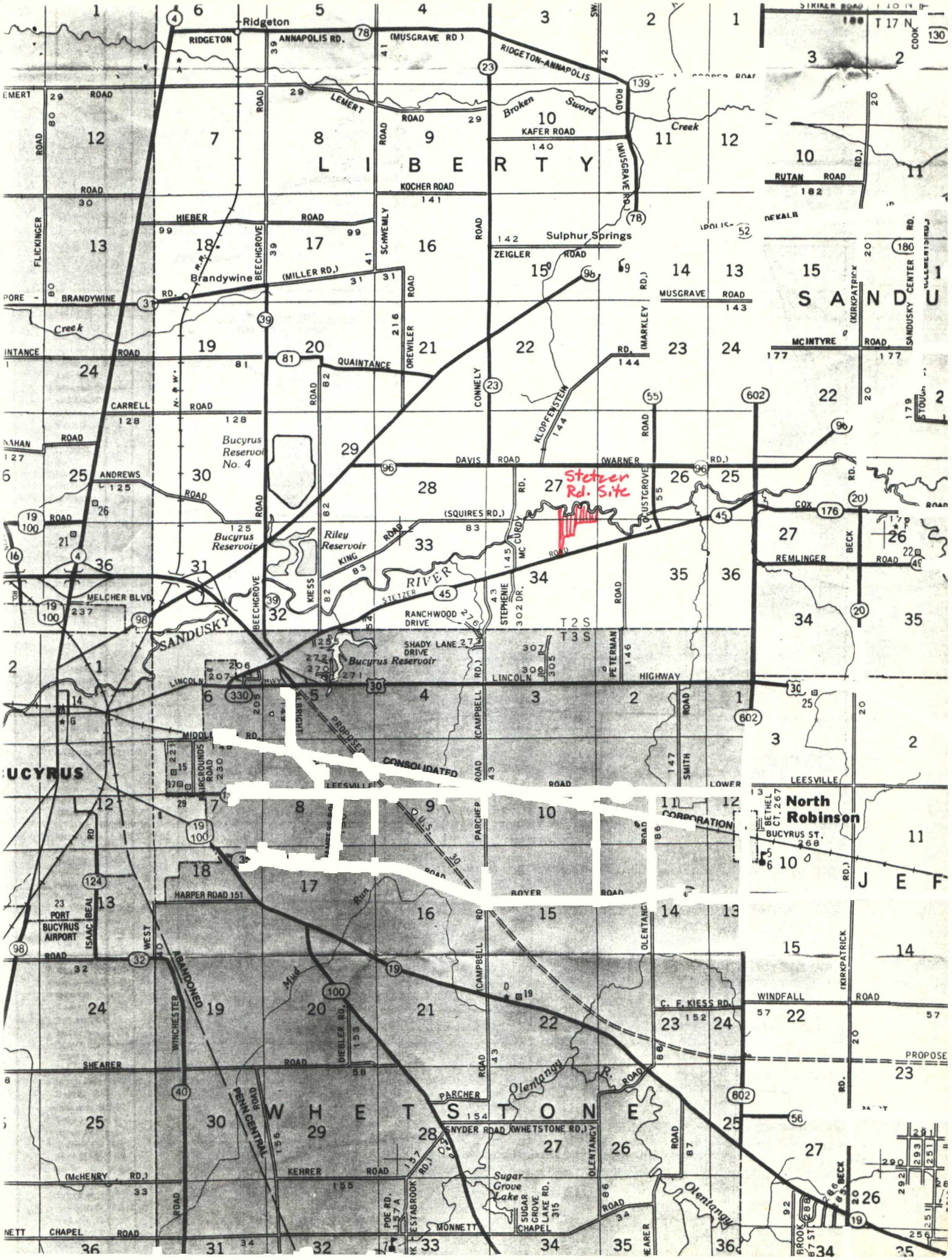

TRUE NORTH
MAGNETIC NORTH
MEAN
1960
1 MILE
BERTY
BERTY
LIBERTY
Zion Ch
BM 1061
Rupp Cem
Liberty Chapel
DAVIS
ROAD
CONNELY
GROVE
LOCUST
RIVER
MCCURDY
STEPHINIE
ROAD
PETERMAN
Crawford County Landfill
BM 1007
BM 1037
1042
673
262
69

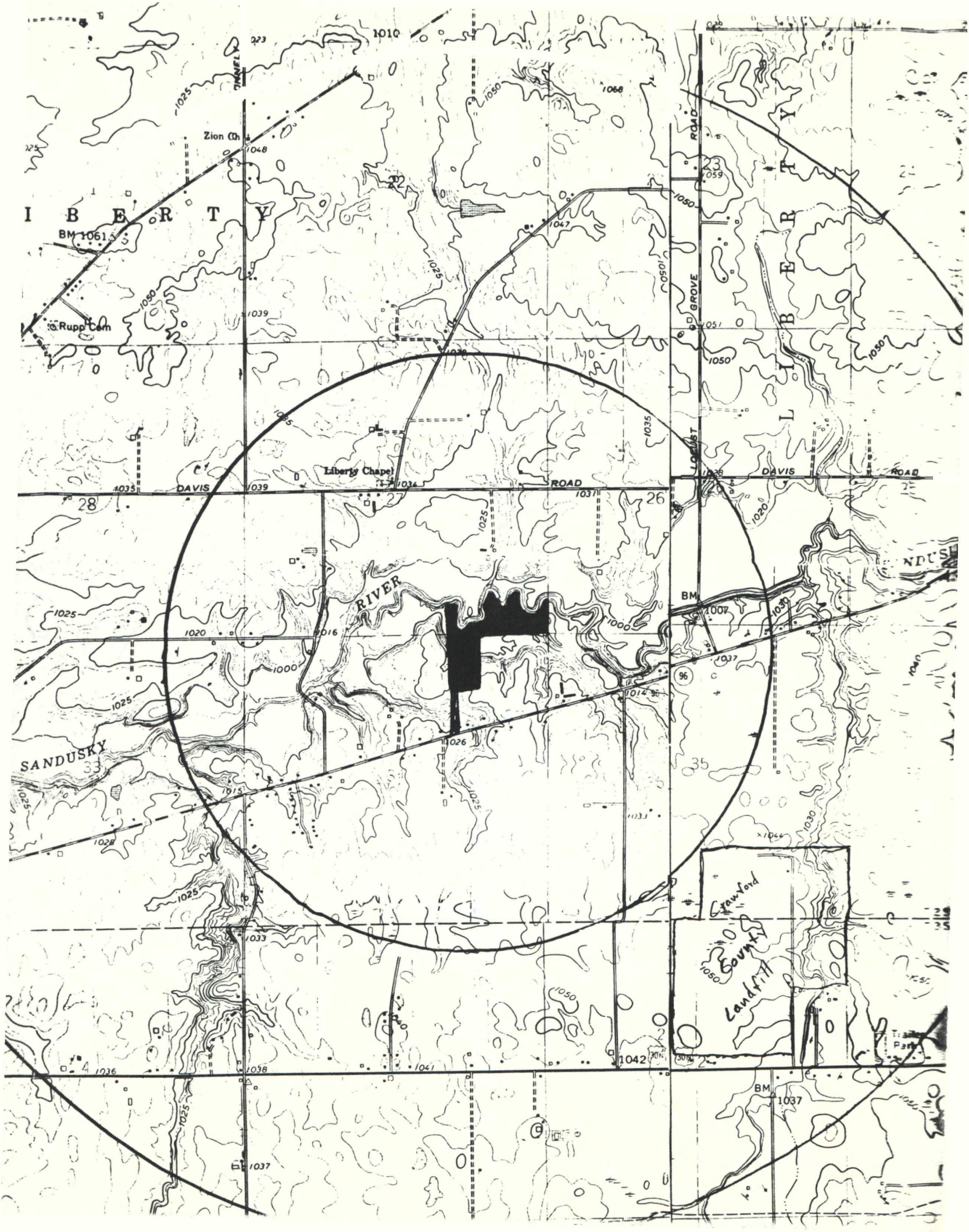

TRUE NORTH
MAGNETIC NORTH
ATION, 1960
1 MILE
BERTY
LIBERTY
Zion Ch
BM 1061
Rupp Cem
Liberty Chapel
CONNELY
ROAD
GROVE
LOCUST
DAVIS
ROAD
RIVER
McCARTY
STEPHINE
PETERMAN
ROAD
Crawford County Landfill
BM 1007
BM 1037
DUSKY
Gallion
RIVER
673
172
262
69


B E R T Y
L I B E R T Y
Zion Ch
Rupp Cem
BM 1061
TRUE NORTH
MAGNETIC NORTH
1 MILE
CONNELY
ROAD
GROVE
LOCUST
DAVIS
ROAD
Liberty Chapel
RIVER
McCURDY
STEPHINE
PETERMAN
ROAD
Crawford County Landfill
BM 1007
BM 1037
673
177
367
169


LIBERTY
BM 1061
Rupp Cem
Liberty Chapel
DAVIS
ROAD
RIVER
SANDUSKY
PIPELINE
Stewart Cem
Salem Cem
ROAD
4524
4523
4522
4518
FEET
1 MI. TO OHIO 96
WEST LIBERTY 6.2 MI.
SHELBY 13 MI.
CRESTLINE 7.5 MI.
MANSFIELD 23 MI.
(NORTH ROBINSON)
4465 IV SE
T. 2 S
T. 3 S

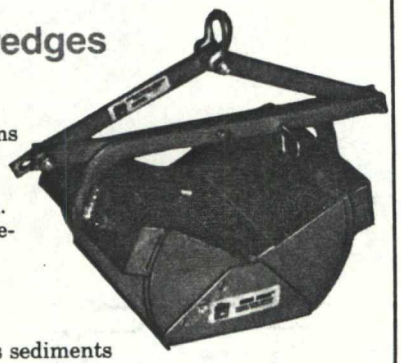

CHECK MATE BOATS
3691 - Rt 4
HOLIDAY INN
BRASS
GALION IRON
Upper Industry
CARLE'S (BRATWURST)
TIMHE
BESTWAY INN
BOB
PACA
OHIO CRAN
BUCYRUS STEEL
GENERAL ELECTRIC
BAJA BOATS
BUCYRUS SWAN HOSE BLADES
PONDEROSA
L.K.
GALION
BUCYRUS


Ridgeton
RIDGETON
ANNAPOLIS RD.
(MUSGRAVE RD.)
RIDGETON-ANNAPOLIS
LEMERT
ROAD
Broken Sword Creek
KAFER ROAD
L I B E R T Y
KOCHER ROAD
HIEBER
Sulphur Springs
ZEIGLER
Brandywine
(MILLER RD.)
BRANDYWINE
Creek
QUAINTANCE
CARRELL
Bucyrus Reservoir No. 4
ANDREWS
DAVIS
(WARNER RD.)
Stetzer Rd. Site
(SQUIRES RD.)
Bucyrus Reservoir
Riley Reservoir
KING
RIVER
STETZER
RANCHWOOD DRIVE
SHADY LANE DRIVE
Bucyrus Reservoir
SANDUSKY
MELCHER BLVD.
LINCOLN
HIGHWAY
MIDDLE
CONSOLIDATED
LEESVILLE
CORPORATION
North Robinson
BUCYRUS ST.
BUCYRUS
PORT BUCYRUS AIRPORT
HARPER ROAD 151
ABANDONED
PENN CENTRAL
Mud Run
Olentangy R.
WINDFALL
C. F. KIESS RD.
PROPOSE
SHEARER
PARCHER
W H E T S T O N E
SNYDER ROAD (WHETSTONE RD.)
KEHRER
(McHENRY RD.)
Sugar Grove Lake
SUGAR GROVE CHAPEL
MONNETT
CHAPEL
T 17 N
T 2 S
T 3 S
J E F
S A N D U


LIBERTY
Zion Ch
BM 1061
Rupp Cem
Liberty Chapel
DAVIS
ROAD
GROVE
LOCUST
RIVER
SANDUSKY
BM
Crawford County Landfill
BM 1037

Dredging and sampling equipment

Ponar® grab dredges



Sample all types of benthos sediments from deep lake or ocean bottoms except the hardest clay.

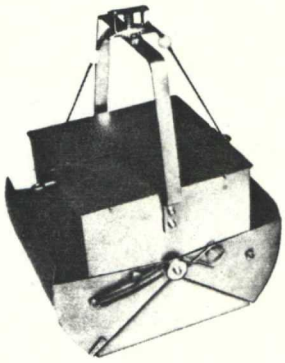
Closing mechanism releases on striking bottom. A locking "safety pin" prevents accidental closing. Top surfaces are covered with #30 mesh brass screen to reduce shock waves and drift; prevents sediments and organisms from escaping. Made of electroplated steel.

R-5471-00 Ponar dredge. 9" × 9" sampling area. Shpg wt 60 lbs (27.5kg) **$334.90**

R-5471-10 Petite Ponar dredge. 6" × 6" sampling area. For hand-line operation. Shpg wt 20 lbs (9kg) **$331.40**

Ponar—Reg TM Wildlife Supply Company

Ekman dredges



Sample soft, silty, vegetation-free river, stream or lake bottoms. Ideal for collecting samples of bottom fauna for productivity, biological and geological studies.

This messenger-activated dredge has solid brass construction with stainless steel springs and cables. Dredge has a flow-through design for low drag and good descent stability; positive action lid and jaw control mechanism.

Requires messenger for activation. Choose 5499-10 or -15 messengers below; order descent cable from page 135. Models are available with marine plywood cases.

Cat. no.	Sample vol	Case	Shpg wt	Price
R-5470-00	6" × 6" × 6"	Yes	15 lbs (7kg)	$208.50
R-5470-01	6" × 6" × 6"	No	10 lbs (4.5kg)	181.50
R-5470-10	9" × 9" × 9"	Yes	28 lbs (13kg)	313.25
R-5470-11	9" × 9" × 9"	No	23 lbs (10.5 kg)	268.85

R-5499-10 Messenger, 11-oz tapered nose. Nickle-plated brass, split barrel **$22.00**

R-5499-15 Messenger, 8-oz, tapered nose, solid barrel **$16.45**

Petersen dredge

Sample sand, marl, gravel, clay and hard-bottom surfaces of deep lakes and oceans. Dredge provides deep-biting sediment penetration with its tapered jaws and 70 lbs of weights. Vent holes in the jaws reduce frontal shock waves. A latch-type mechanism closes jaws when dredge hits bottom. Sampling area is 12" × 12".

John McGuine equipment man 353-12704

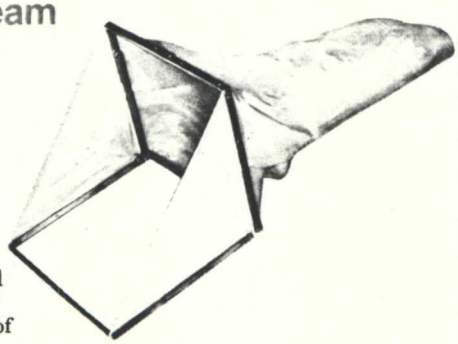
Made of zinc-plated steel. Comes with jaw weights and a safety lock to hold jaws open during handling and transporting.

We recommend using the 5475-05 crane hoist kit and 5475-00 winch (below), and 5499-20 aircraft cable (sold on page 135) to operate this dredge.

R-5472-00 Petersen grab dredge. Shpg wt 85 lbs (39kg) **$311.90**

R-5472-09 Extra jaw weights for deeper sediment penetration. Zinc-plated steel. Shpg wt 18 lbs (8kg) **$44.10/pair**

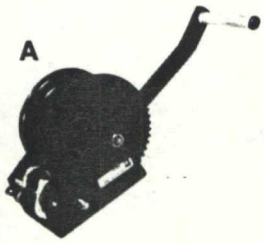
Surber stream bottom sampler



Gather samples of insects, larvae and other forms of aquatic life found in shallow flowing streams. Ideal water depth should be 12"-18". Sampler assembly consists of a silk net (6" downstream diameter x 24" long) and a solid brass folding framework. Net has 1024μ openings. Inlet area is 12" x 12". Complete with case.

R-5473-00 Surber sampler. Shpg wt 9 lbs (4kg) **$147.85**

Accessories



A) Winch handles 1000 lbs with 1:1 and 1:5 drives. 7" dia drum accepts 154 ft of 3/16" nylon line or 350 ft of 1/8" aircraft cable. "U" bolts included.

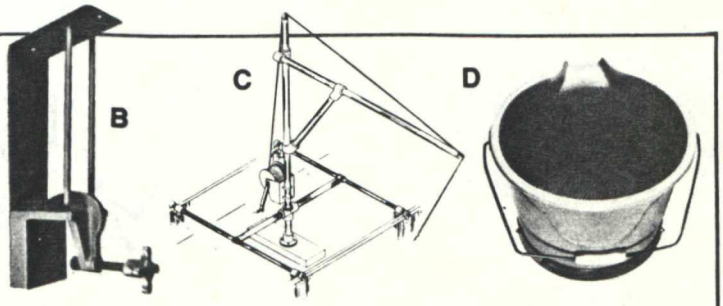
R-5475-00 Winch. Shpg wt 10 lbs (4.5kg) **$89.90**

B) Winch mount for 5475-00 above. 4" x 5½" mounting plate. Clamps to side boards, transom. 2" clamp opening.

R-5475-01 Winch mount **$76.15**

C) Portable crane kit. Adjustable inboard and outboard clamps, mounting hardware, and instructions. 6½" variable boom length. 68" max outboard clamp-to-clamp distance. Max line load is 250 lbs (depending on boat size).

R-5475-05 Crane kit. Winch and line not included. Shpg wt 100 lbs (45.5kg) **$290.40**



D) Wash bucket for littoral sample from Ekman dredges. Heavy-duty plastic with 533μ brass wire cloth bottom reinforced with hardware cloth; brass ring maintains bucket shape. 12" dia × 8" deep. 3 gallon capacity.

R-5470-15 Wash bucket. Shpg wt 5 lbs (2.5kg) **$43.18**

Wash frame (not shown) has 520μ screen. All-brass screen and frame. Hand-hold on either end of frame. Measures 14"L × 20"W × 4"D. Fine sand and silt wash out, leaving all specimens.

R-5471-05 Wash frame. Shpg wt 15 lbs (7kg) **$125.95**

Ground-Water Resources of AWFORD COUNTY

by
James J. Schmidt

Index Map

40
55

LEGEND

AREAS IN WHICH YIELDS OF 100 TO 500 GALLONS PER MINUTE MAY BE DEVELOPED.

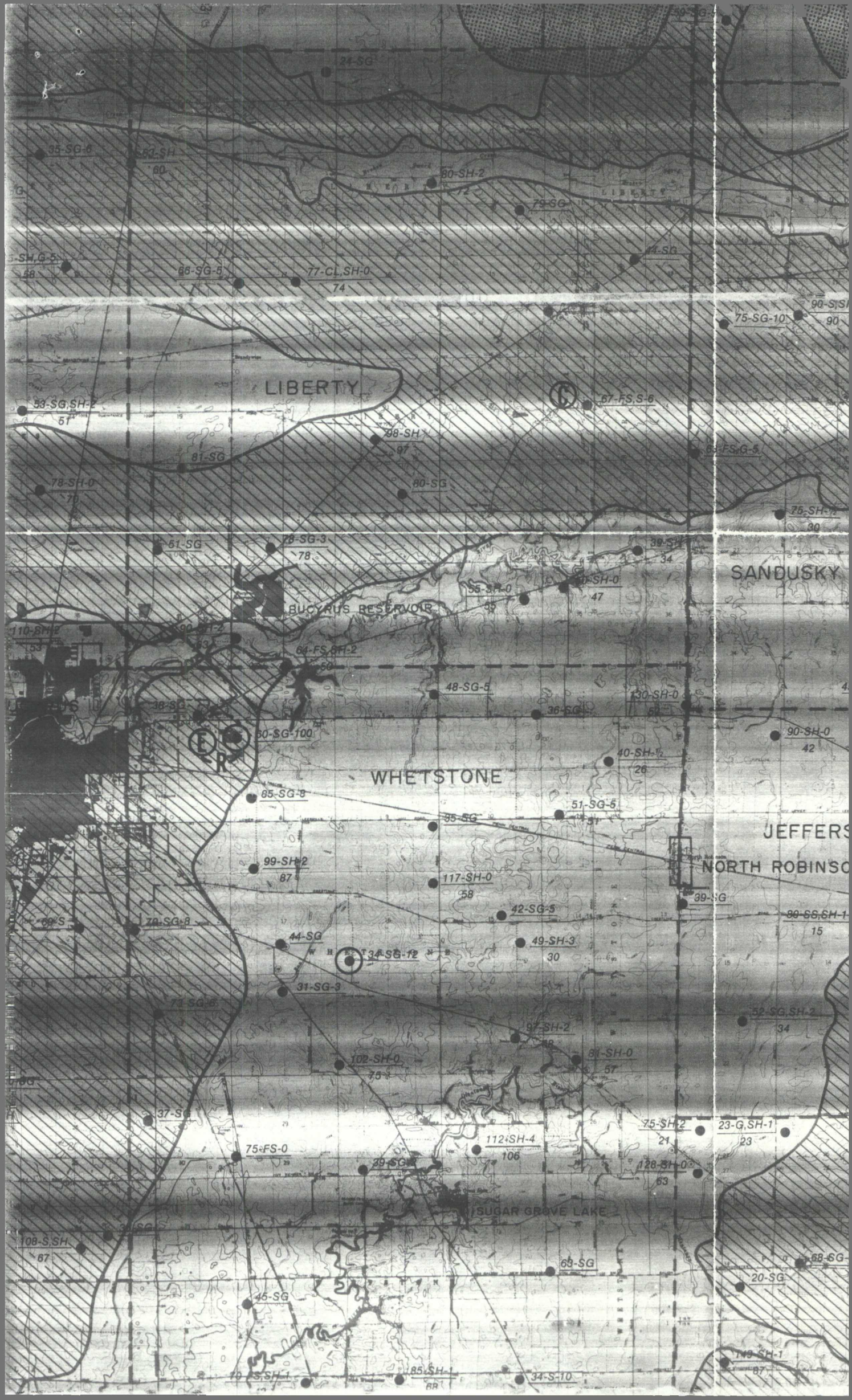
Proven yields of more than 1500 gallons per minute have been developed at depths of less than 300 feet. Regional yields are projected as less than 500 gallons per minute. Farm and domestic supplies of 10 to 15 gallons per minute are usually encountered at depths of less than 95 feet. Presence of hydrogen sulfide is noted.

AREAS IN WHICH YIELDS OF AS MUCH AS 20 GALLONS PER MINUTE MAY BE DEVELOPED.

Domestic ground-water supplies are developed from sandstone—shale formations at depths of 80 to 110 feet. Yields seldom exceed 15 gallons per minute with hydrogen sulfide often noted.

AREAS IN WHICH YIELDS OF 3 TO 10 GALLONS PER MINUTE MAY BE DEVELOPED.

Sandstone and shale bedrock is principal source of water at depths of about 85 feet, although domestic supplies have been developed from glacial overburden at depths of 35 to 90 feet.


LIBERTY
SANDUSKY
WHETSTONE
JEFFERS
NORTH ROBINSO
BUCYRUS RESERVOIR
SUGAR GROVE LAKE
24-SG
35-SG-6
62-SH
60
80-SH-2
72
79-SG
74-SG
66-SG-5
77-CL,SH-0
74
75-SG-10
90
67-FS,S-6
53-SG,SH-2
51
98-SH
97
81-SG
63-FS,G-5
78-SH-0
70
80-SG
75-SH-½
30
51-SG
78-SG-3
78
39-SH
34
55-SH-0
55
47
110-SH-2
53
90-SH-2
63
64-FS,SH-2
50
48-SG-5
30-SH-0
60
36-SG
38-SG
80-SG-100
90-SH-0
42
40-SH-½
26
85-SG-8
51-SG-5
31
95-SG
99-SH-2
87
117-SH-0
58
39-SG
42-SG-5
90-SS,SH-1
15
69-S
70-SG-8
44-SG
34-SG-12
49-SH-3
30
31-SG-3
77-SG-6
52-SG,SH-2
34
97-SH-2
88
102-SH-0
75
81-SH-0
57
37-SG
75-SH-2
21
23-G,SH-1
23
75-FS-0
112-SH-4
106
39-SG
128-SH-0
63
108-S,SH
67
69-SG
68-SG-
20-SG
46-SG
70-S,SH-1
85-SH-1
88
34-S-10
119-SH-1
87

STETZER ROAD SITE
BUCYRUS, OHIO

1b
1c
1d

BUCYRUS
NORTH ROBINSON
CHATFIELD
NEW WASHINGTON
} 7.5 MINUTE QUADRANGLE

SCALE 1:24 000

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 10 FEET
DATUM IS MEAN SEA LEVEL

OHIO
QUADRANGLE LOCATION

2½°
TRUE NORTH
MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION, 1960

1946

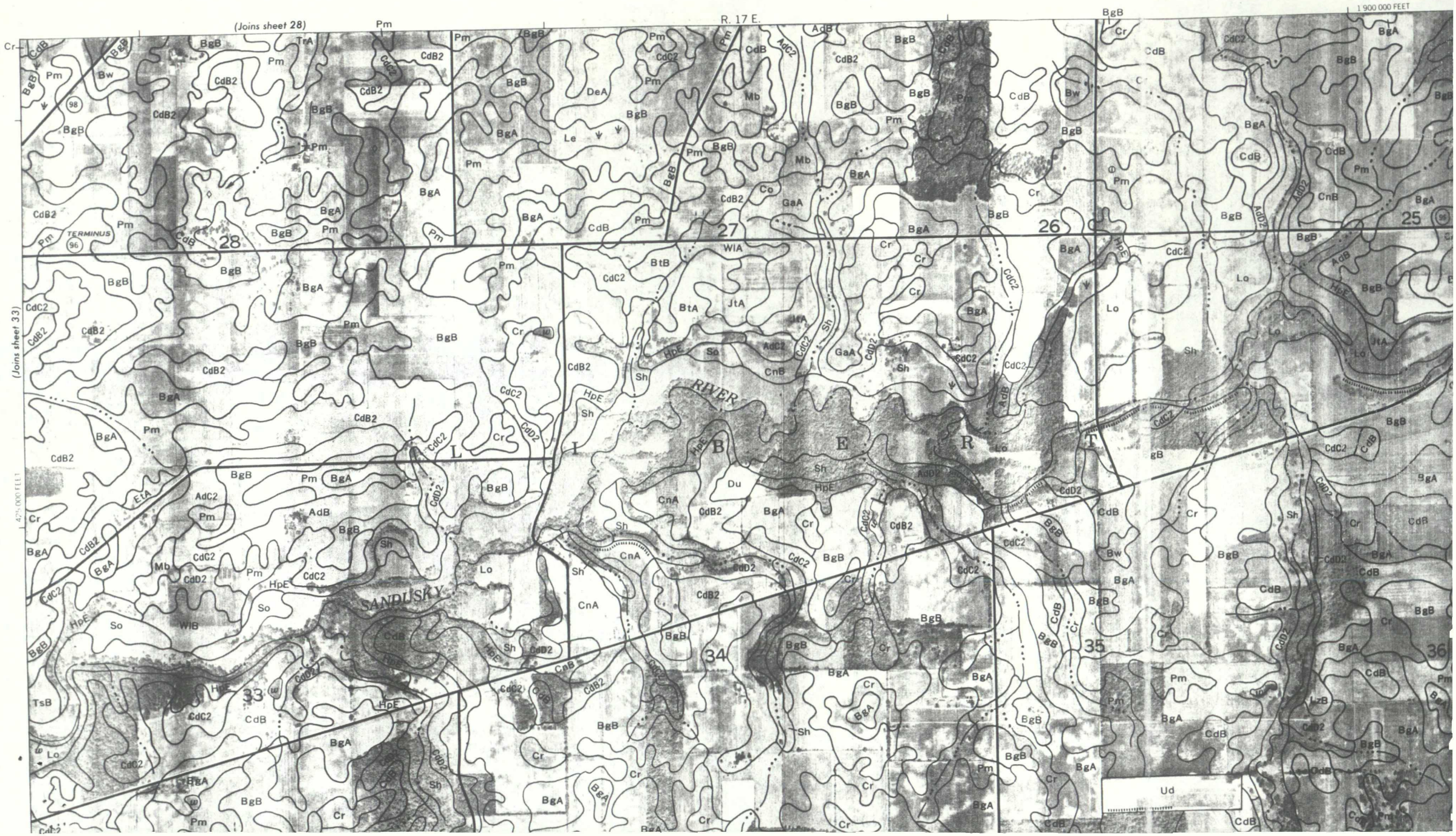
63 177

262 69

Crawford County Landfill

LIBERTY
SANDUSKY
WHETSTONE
JEFFERSON

Sulphur Springs
Brandywine
North Robinson
Bucyrus Reservoir
Riley Reservoir
Lake Gatton
Liberty Chapel
Rupp Cem
Zion Ch
Sandusky Cem
Evangelical Ch
Luke Cem
Biddle Ch
Biddle Cem
Stewart Cem
Salem Cem
County Home
Fairground
Drive-in Theater
Gravel Pit
Radio Tower
Fish Hatchery
St Paul Ch
United Cem
Broken Sword Creek
Sandusky River
Sandusky Creek
PENN CENTRAL
PIPELINE
ANNAPOLIS ROAD
DAVIS ROAD
RUTAN ROAD
DEKALB ROAD
MC INTYRE ROAD
STOUGH ROAD
REPPINGER ROAD
LOWER LEESVILLE ROAD
CRESTLINE ROAD
RETZEMAN ROAD
STEPHINE
CONNELY ROAD
BEECHGROVE ROAD
LOCUST GROVE ROAD
BANDLORY ROAD
NEW HAVEN ROAD
QUAINTANCE ROAD
WHETSTONE ST
CHAMBERS ROAD
BOUNDARY
CONGRESS
RANGES
SEVEN
OLD LANDS
NORTH
EAST
WEST
3 TRACKS
SPILLWAY
BM 1061
BM 1025
BM 1064
BM 1007
BM 1037
BM 1052
BM 1114
BR 1023
BR 1086
BR 1096
T 17 N
T 18 N
T 16 N
T 15 N
T 25
T 35


(Joins sheet 28)
(Joins sheet 33)
R. 17 E.
1 900 000 FEET
425 000 FEET
TERMINUS
SANDUSKY
RIVER
BELLEVUE
28
27
26
25
33
34
35
36
Scale 1:15 840

SOIL SURVEY OF
Crawford County, Ohio

United States Department of Agriculture
Soil Conservation Service
In cooperation with
Ohio Department of Natural Resources
Division of Lands and Soil and
Ohio Agricultural Research and Development Center

Index to Map Units

	Page
AdB—Alexandria silt loam, 2 to 6 percent slopes	9
AdC2—Alexandria silt loam, 6 to 12 percent slopes, moderately eroded	9
AdD2—Alexandria silt loam, 12 to 18 percent slopes, moderately eroded	10
BgA—Bennington silt loam, 0 to 2 percent slopes	10
BgB—Bennington silt loam, 2 to 6 percent slopes	11
BhB—Bennington-Urban land complex, undulating	11
BoA—Blount silt loam, 0 to 2 percent slopes	12
BoB—Blount silt loam, 2 to 6 percent slopes	12
BtA—Bogart loam, 0 to 2 percent slopes	13
BtB—Bogart loam, 2 to 6 percent slopes	13
Bw—Bono silty clay loam	14
CdB—Cardington silt loam, 2 to 6 percent slopes	14
CdB2—Cardington silt loam, 2 to 6 percent slopes, moderately eroded	15
CdC2—Cardington silt loam, 6 to 12 percent slopes, moderately eroded	15
CdD2—Cardington silt loam, 12 to 18 percent slopes, moderately eroded	16
CeC—Cardington-Urban land complex, rolling	16
Ck—Carlisle muck	17
CnA—Chili loam, 0 to 2 percent slopes	17
CnB—Chili loam, 2 to 6 percent slopes	18
CnC2—Chili loam, 6 to 12 percent slopes, moderately eroded	18
CnD2—Chili loam, 12 to 18 percent slopes, moderately eroded	19
Co—Colwood silt loam	19
Cr—Condit-Bennington silt loams	20
DeA—Del Rey silt loam, 0 to 2 percent slopes	20
Du—Dumps	20
EtA—Elliott silt loam, 0 to 3 percent slopes	21
FcA—Fitchville silt loam, 0 to 2 percent slopes	21
FcB—Fitchville silt loam, 2 to 6 percent slopes	22
GaA—Gallman silt loam, 0 to 2 percent slopes	22
GaB—Gallman silt loam, 2 to 6 percent slopes	22
GwB—Glynwood silt loam, 2 to 6 percent slopes	23
GwB2—Glynwood silt loam, 2 to 6 percent slopes, moderately eroded	23
GwC2—Glynwood silt loam, 6 to 12 percent slopes, moderately eroded	24
GwD2—Glynwood silt loam, 12 to 18 percent slopes, moderately eroded	24
HpE—Hennepin-Alexandria silt loams, 18 to 50 percent slopes	25
JtA—Jimtown loam, 0 to 2 percent slopes	25
JtB—Jimtown loam, 2 to 6 percent slopes	25
KbA—Kibbie fine sandy loam, 0 to 2 percent slopes	26
KcB—Kibbie-Bennington complex, 2 to 6 percent slopes	26
Le—Lenawee silty clay loam	27
Lg—Lenawee silt loam, overwash	28
Lh—Lenawee Variant silty clay loam	28
Lo—Lobdell silt loam	28
Lu—Luray silty clay loam	29
Lw—Luray-Urban land complex	29
LzB—Lykens silt loam, 2 to 6 percent slopes	30
Mb—Marengo silty clay loam	30
Md—Medway silt loam	31
MkA—Mitiwanga silt loam, 0 to 3 percent slopes	31
Mu—Muskego muck	32
On—Olentangy mucky silt loam	32
Os—Olmsted silty clay loam	33
Pm—Pewamo silty clay loam	33
Sb—Sebring silt loam	34
Sh—Shoals silt loam	35
So—Sloan silt loam	35
TrA—Tiro silt loam, 0 to 2 percent slopes	35
TrB—Tiro silt loam, 2 to 6 percent slopes	36
TsB—Tuscola fine sandy loam, 2 to 6 percent slopes	36
TuB—Tuscola-Bennington complex, 2 to 6 percent slopes	37
Ud—Udorthents, loamy	37
Ur—Urban land	38
WaA—Wadsworth silt loam, 0 to 2 percent slopes	38
WaB—Wadsworth silt loam, 2 to 6 percent slopes	38
Wb—Wallkill silt loam	39
WlA—Wilmer Variant silt loam, 0 to 2 percent slopes	39
WlB—Wilmer Variant silt loam, 2 to 6 percent slopes	39

Ground-Water Resources of CRAWFORD COUNTY

by
James J. Schmidt

Index Map

LEGEND

AREAS IN WHICH YELDS OF 100 TO 500 GALLONS PER MINUTE MAY BE DEVELOPED.

Proven yields of more than 1500 gallons per minute have been developed at depths of less than 100 feet. Regional yields are projected as less than 500 gallons per minute. Firm and domestic supplies of 10 to 15 gallons per minute are usually encountered at depths of less than 95 feet. Presence of hydrogen sulfide is noted.

AREAS IN WHICH YELDS OF AS MUCH AS 20 GALLONS PER MINUTE MAY BE DEVELOPED.

Domestic ground-waer supplies are developed from sandstone—shale formations at depths of 80 to 110 feet. Yields seldom exceed 15 gallons per minute with hydrogen sulfide often noted.

AREAS IN WHICH YIELDS OF 3 TO 10 GALLONS PER MINUTE MAY BE DEVELOPED.

Sandstone and shalebedrock is principal source of water at depths of about 85 feet, although domestic supplies have been developed from glacial overburden at depths of 35 to 90 feet.

Water-bearing lenses of sand and gravel, interbedded in fairly thick layers of clay and deposited as glacial moraines, yield as much as 10 gallons per minute. If permeable sand and gravel is not encountered above the limestone or sandstone formations, wells may be deepened to develop adequate supplies.

AREAS IN WHICH YIELDS OF LESS THAN 3 GALLONS PER MINUTE MAY BE DEVELOPED.

Clayey till above non-water-bearing shale bedrock yields less than two gallons per minute. Dry wells are not uncommon and homeowners rely upon additional storage and/or cisterns to maintain daily requirements. Shallow wells less than 40 feet deep often yield hydrogen sulfide free water. Deeper drilling will yield black sulfurous water. Chemical analysis B.

Fine grained sand and silt above non-water-bearing shale bedrock. Material generally contains water but difficult to recover. Yields generally less than 1 gallon per minute.

SYMBOLS

Depth (ft) - Water bearing Formations - Yield (gpm)
Depth to Bedrock (ft)

S – Sand SH – Shale SS – Sandstone CL – Clay

G – Gravel FS – Fine Sand LS – Limestone

R Specialized Development Recharge Lagoons

Test Well

Water Well

A Site - Chemical Analy

Industrial - Municipal

Well Site	A	B	C	D	E	F	G
Depth (ft)	330	350	67	285	60	32	313
Critical Pumping Level (ft)	125	-	-	90	-	-	110
Hardness as $CaCO_3$	325	2180	336	924	730	391	490
Iron	.64	3.4	2.1	.12	3.8	.47	1.7
Dissolved Solids	357	2900	415	1190	882	445	570
Sulfates (SO_4)	53	1800	40	642	310	31	180
Hydrogen Sulfide (H_2S)	-	*40+	-	7.5	-	-	-
Aquifer	Ls	Ls	S&G	Ls	S&G	Ss	Ls

Chemical constituents as milligrams per liter (mgl).

*Field Tested

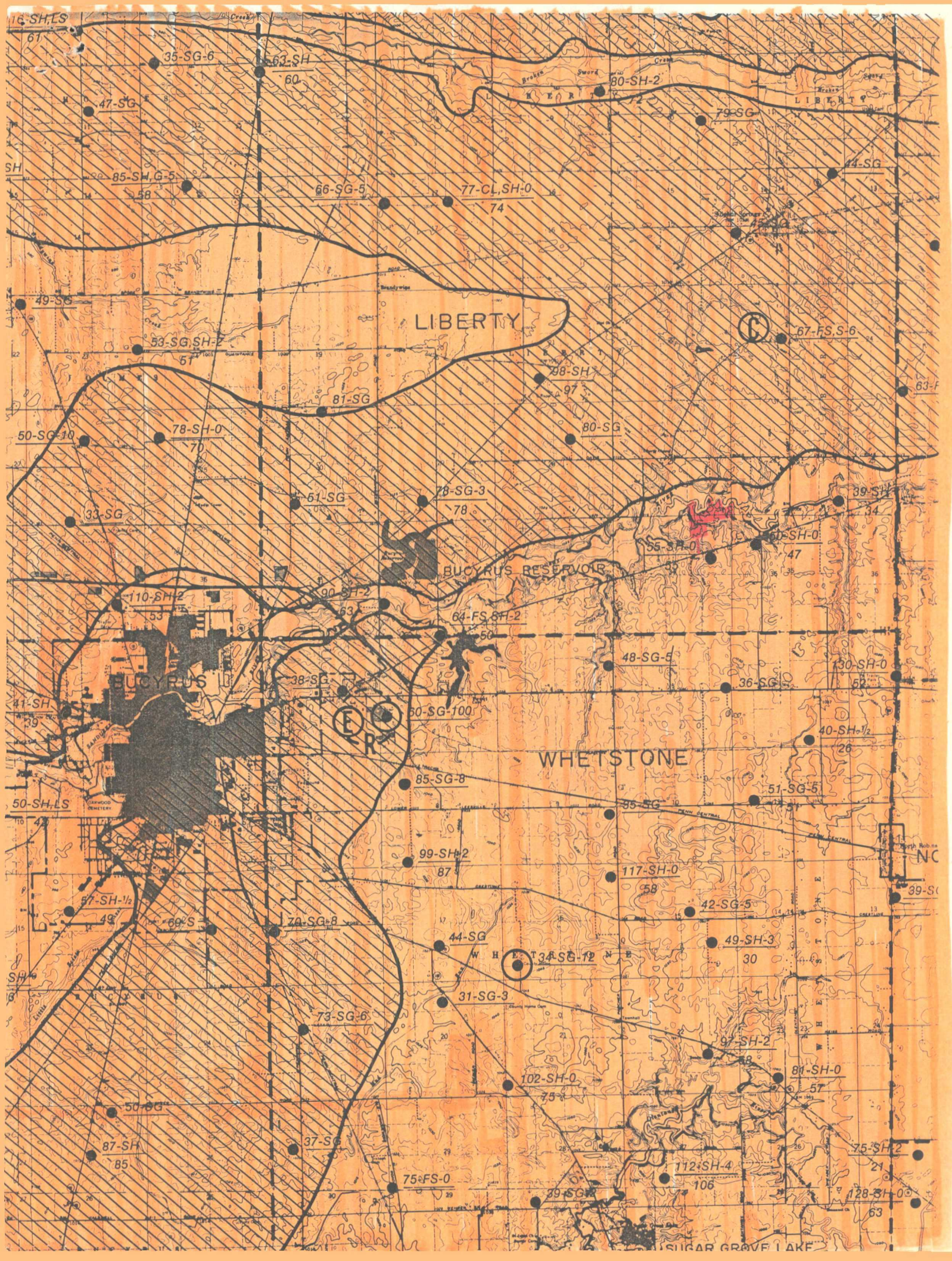
1:62,500

Scale in miles

0 1 2 3 4

Contour Interval: 10 feet

by a grant from the U.S. Water


LIBERTY
WHETSTONE
BUCYRUS
BUCYRUS RESERVOIR
SUGAR GROVE LAKE
35-SG-6
63-SH
60
80-SH-2
47-SG
79-SG
44-SG
85-SH,G-5
58
66-SG-5
77-CL,SH-0
74
49-SG
53-SG,SH-2
51
67-FS,S-6
98-SH
97
81-SG
80-SG
50-SG-10
78-SH-0
70
51-SG
78-SG-3
78
33-SG
39-SH
34
55-SH-0
50-SH-0
47
110-SH-2
53
90-SH-2
63
64-FS,SH-2
50
48-SG-5
130-SH-0
52
36-SG
38-SG
41-SH
39
50-SG-100
40-SH-½
26
85-SG-8
51-SG-5
50-SH,LS
95-SG
99-SH-2
87
117-SH-0
58
57-SH-½
49
42-SG-5
69-S
70-SG-8
44-SG
49-SH-3
30
34-SG-12
31-SG-3
73-SG-6
97-SH-2
48
81-SH-0
57
102-SH-0
75
50-SG
87-SH
85
37-SG
75-SH-2
21
112-SH-4
106
75-FS-0
39-SG
128-SH-0
63