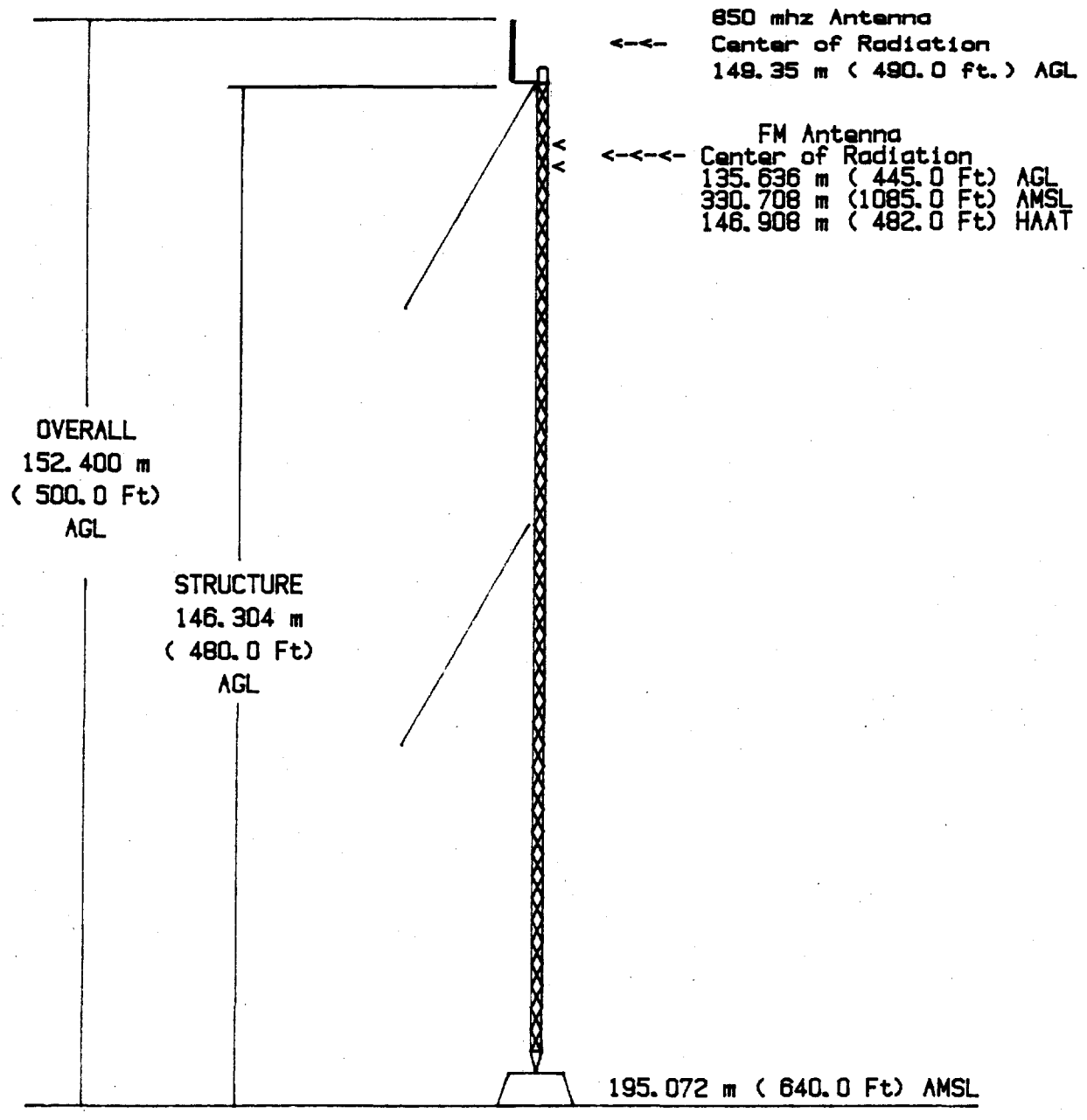


LATITUDE 41-18-05 LONGITUDE 88-57-11 183.80 m (603.0 Ft) TERR AVG

VERTICAL PLAN SKETCH

SITE ELEVATION - 195 m AMSL
TOP OF STRUCTURE - 152 m AGL
347 m AMSL
FM Antenna COR - 136 m AGL
331 m AMSL
147 m HAAT

NOTE: NOT DRAWN TO SCALE

EXHIBIT #2

NEW FM APPLICATION
DORIS A. STUDSTILL
CH 271A-102.1 MHZ-1.35 KW
OGLESBY, ILLINOIS

AUGUST 1991

BROMO COMMUNICATIONS
BROADCAST TECHNICAL CONSULTANTS
St Simons Island, Georgia Washington, D.C.

NEW FM APPLICATION
DORIS A. STUDSTILL
CH 271A - 102.1 MHZ - 1.35 KW
OGLESBY, ILLINOIS
August 1991

EXHIBIT #3

Section 73.213(c)(1) Justification

The proceeding which allotted Channel 271A to Oglesby, Illinois was commenced prior to October 2, 1989 and is therefore subject to the spacing regulations outlined in §73.213(c)(1) of the Commission's rules. Further, the Report and Order in MM Docket #89-517 notes that §73.213(c)(1) spacing may be used by any applicants at Ogelsby, Illinois with respect to Channel 271B, Danville, Illinois and Channel 272A, Rochelle, Illinois.

Attached, as Exhibit #3A, is a detailed spacing study which demonstrates that this proposal meets §73.213(c)(1) spacing towards the Danville and Rochelle, Illinois facilities. Spacing towards all other impacting facilities and proposals is met under §73.207 spacing.

CLEARANCE STUDY FOR NEW FM STATION OGLESBY, ILLINOIS
USING PROPOSED SITE AS REFERENCE/SECTION 73.213(c)(1) SPACING

REFERENCE
41 18 05 N
88 57 11 W

CLASS A
Previous rule spacings
CHANNEL 271 -102.1 MHz

DISPLAY DATES
DATA 06-25-91
SEARCH 08-08-91

CALL	CH#	CITY	STATE	BEAR'	D-KM	R-KM	MARGIN	
ALOPEN	271A	Oglesby	IL	265.6	8.94	105.0	-96.06	*
WRHLFM	272A	Rochelle	IL	352.8	69.63	64.0	5.63	
WDNL	271B	Danville	IL	138.8	170.08	163.0	7.08	
WTAZ	272A	Morton	IL	207.6	82.79	64.0	18.79	
WTMX	270B	Skokie	IL	59.7	127.17	105.0	22.17	
WBNQ	268B	Bloomington	IL	183.0	93.68	69.0	24.68	
WIXNFM	269A	Dixon	IL	322.0	73.76	27.0	46.76	
WTAS	272A	Crete	IL	89.2	111.67	64.0	47.67	
WLUMFM	271B	Milwaukee	WI	23.5	217.38	163.0	54.38	
WVAZ	274B	Oak Park	IL	59.1	129.22	69.0	60.22	
WVAZ.C	274B	Oak Park	IL	59.1	129.22	69.0	60.22	
WZUU.C	273A	Galva	IL	259.4	91.18	27.0	64.18	
AD274	274A	Morrison	IL	306.3	100.58	27.0	73.58	

SPACING STUDY

EXHIBIT #3A
NEW FM APPLICATION
DORIS A. STUDSTILL
CH 271A-102.1 MHZ-1.35 KW
OGLESBY, ILLINOIS

AUGUST 1991

BROMO COMMUNICATIONS
BROADCAST TECHNICAL CONSULTANTS
St Simons Island, Georgia
Washington, D.C.

NEW FM APPLICATION
DORIS A. STUDSTILL
CH 271A - 102.1 MHZ - 1.35 KW
OGLESBY, ILLINOIS
August 1991

EXHIBIT #4

Facilities Within Study

There are no proposed or authorized FM or Television transmitters within 60 meters of this proposal. There is a co-located 850 megahertz trunking system antenna side mounted near the top of the tower. It is not anticipated that the trunking system antenna will be effected by the proposed new FM antenna system. Should any problems occur, Doris A. Studstill will correct the problem to the Commission's satisfaction. There are no known established commercial or government receiving stations or cable head-end facilities within the blanketing contour of this proposal.

However, within the blanketing contour there are some sparsely populated areas. See Exhibit #4A for a detailed FM blanketing study and statement.

There is one authorized TV transmitter within 10 kilometers of this proposal. The distance and bearing to the transmitter site of WWTO-TV is attached as Exhibit #4B. Although it is the experience of Bromo Communications, Inc. that WWTO-TV will not be subject to any receiver-induced

intermodulation interference as a result of the granting and subsequent operation of this proposal. Should any problems arise Doris A. Studstill will use sound engineering practices and will also follow the guidelines of §73.318 of the Commission's rules and regulations to remedy the situation. There are no full service FM or other TV stations within 10 kilometers. There are no AM stations within 3.2 kilometers (2.0 miles) of this proposal.

FM BLANKETING CONTOUR CALCULATION

The blanketing contour of NEW FM is determined using the following formula as defined in 73.318 of the Commission's Rules:

D= 0.394 * SQR(P)
where D= distance to blanketing contour in km
P= ERP in kW of the station

The ERP of NEW FM is 1.35 kW yeilding a blanketing contour OF 0.46 km from the tower.

While it is the experience of this firm that very little, if any blanketing interference will be experienced by the grant of this proposal NEW FM will follow the guidelines of 73.318 and good engineering practice to satisfy blanketing complaints.

FM BLANKETING CONTOUR STUDY

EXHIBIT #4A
NEW FM APPLICATION
DORIS A. STUDSTILL
CH 271A-102.1 MHZ-1.35 KW
OGLESBY, ILLINOIS

AUGUST 1991

BROMO COMMUNICATIONS
BROADCAST TECHNICAL CONSULTANTS
St Simons Island, Georgia
Washington, D.C.

AM STATIONS WITHIN 4 KM

FREQ	KM	MI	BEARING	LAT / LONG	STATUS	CL	PWR	FIELD	CALL	CO	ST	CITY
NONE												

FM STATIONS WITHIN 10 KM

CHANNEL	KM	MI	BEARING	LAT / LONG	STATUS	PWR	CALL	ST	CITY
205D	2.65	(1.65)	149.5	41:16:51/ 88:56:13	AP	0.00	AP205	IL	La Salle, etc.
271A	8.91	(5.54)	265.7	41:17:43/ 89: 3:34	AL	0.00	ALOPEN	IL	Oglesby

TV STATIONS WITHIN 10 KM

CHANNEL	KM	MI	BEARING	LAT / LONG	STATUS	PWR	CALL	ST	CITY
35Z	2.65	(1.65)	149.5	41:16:51/ 88:56:13	LI	5000.000	WWTO	IL	LASALLE

FACILITIES WITHIN 10 KM

EXHIBIT #4B
NEW FM APPLICATION
DORIS A. STUDSTILL
CH 271A-102.1 MHZ-1.35 KW
OGLESBY, ILLINOIS

AUGUST 1991

BROMO COMMUNICATIONS
BROADCAST TECHNICAL CONSULTANTS
St Simons Island, Georgia
Washington, D.C.

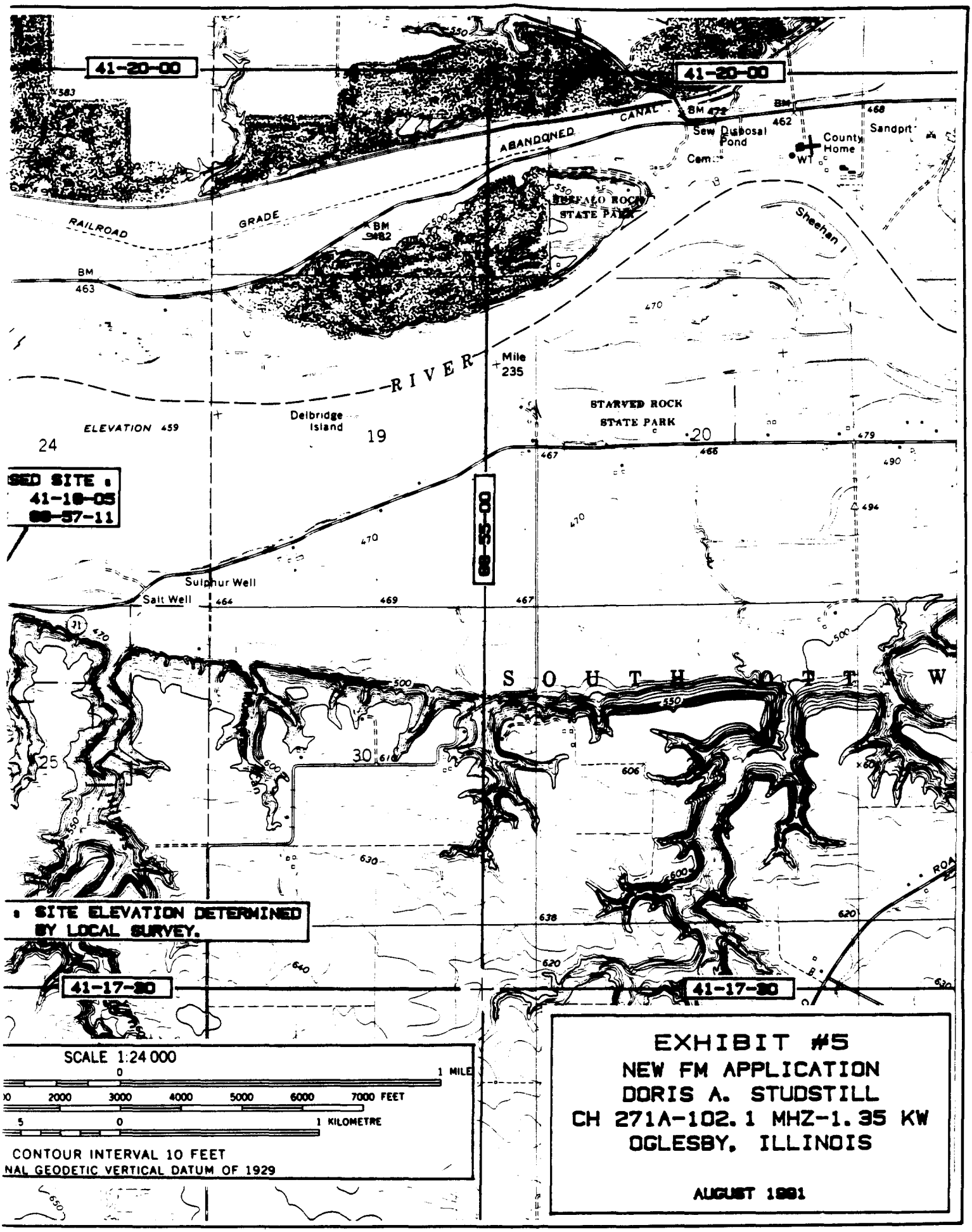
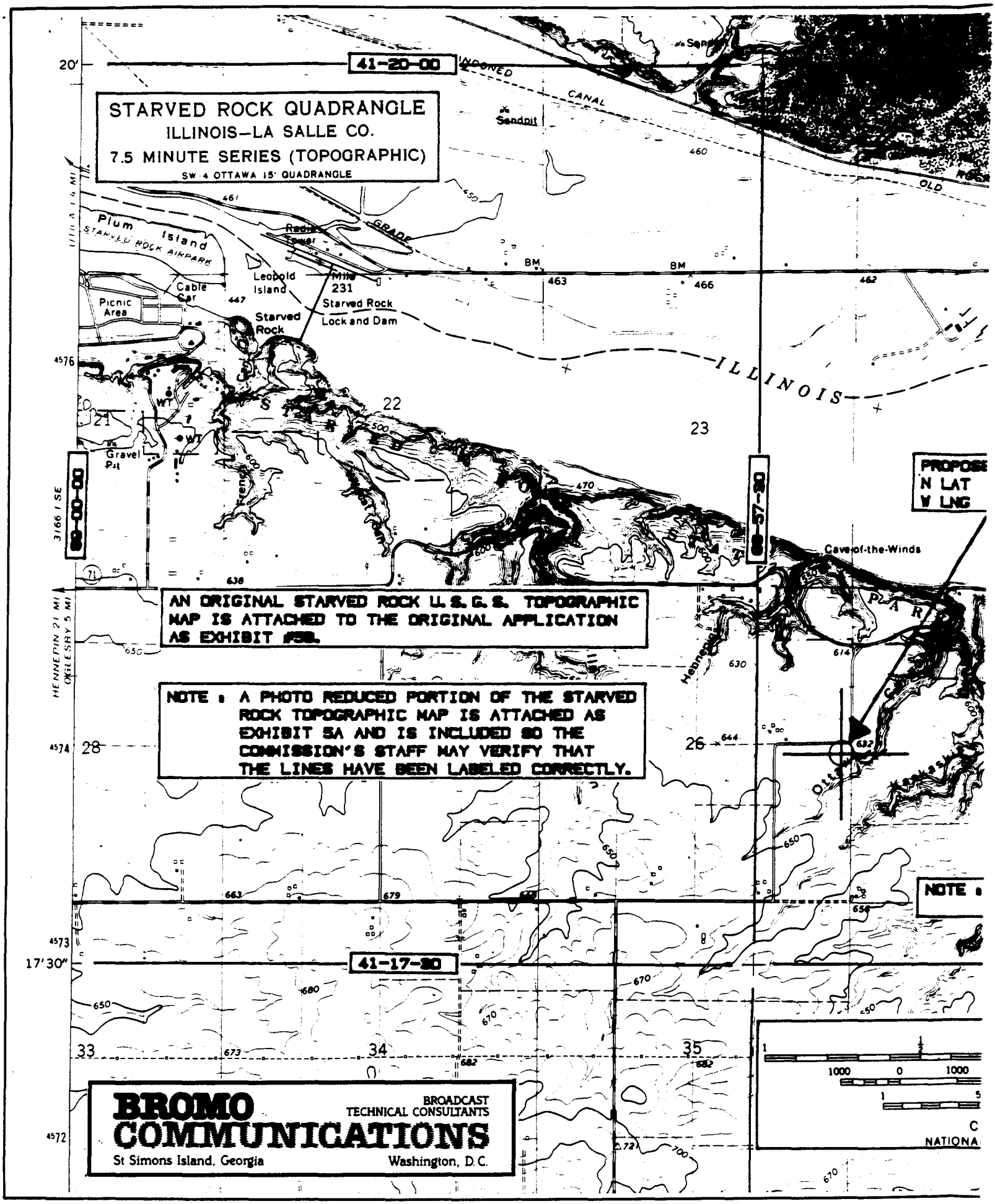
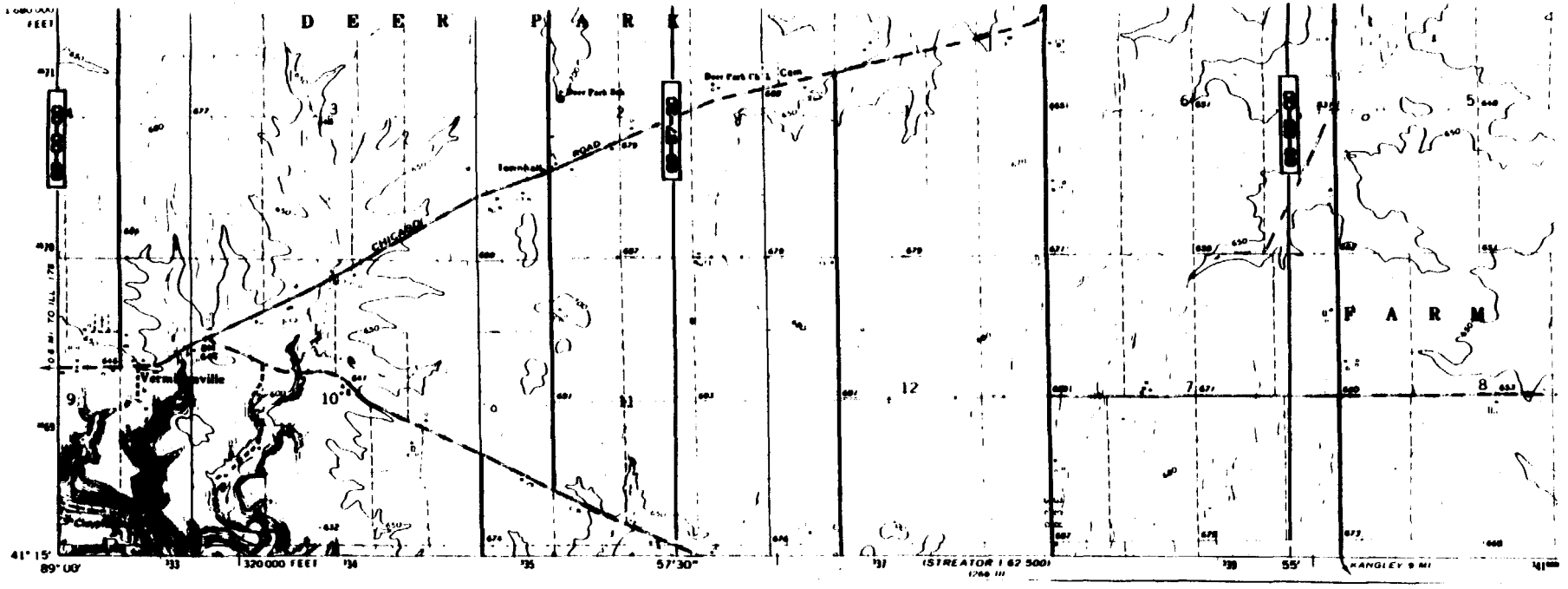


EXHIBIT #5
NEW FM APPLICATION
DORIS A. STUDSTILL
CH 271A-102.1 MHZ-1.35 KW
OGLESBY, ILLINOIS

AUGUST 1991


STARVED ROCK QUADRANGLE
ILLINOIS—LA SALLE CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
SW 4 OTTAWA 15' QUADRANGLE
41-20-00
41-17-30
20'
17'30"
ABANDONED
CANAL
OLD
GRADE
Sandpit
Plum Island
STARVED ROCK AIRPARK
Radio Tower
Leopold Island
Mile 231
Starved Rock Lock and Dam
Cable Car
Picnic Area
Starved Rock
Gravel Pit
ILLINOIS
Cave-of-the-Winds
PROPOSE
N LAT
W LNG
AN ORIGINAL STARVED ROCK U. S. G. S. TOPOGRAPHIC MAP IS ATTACHED TO THE ORIGINAL APPLICATION AS EXHIBIT #5B.
NOTE : A PHOTO REDUCED PORTION OF THE STARVED ROCK TOPOGRAPHIC MAP IS ATTACHED AS EXHIBIT 5A AND IS INCLUDED SO THE COMMISSION'S STAFF MAY VERIFY THAT THE LINES HAVE BEEN LABELED CORRECTLY.
NOTE :
HENNEPIN 21 MI
OGLESBY 5 MI
3166 I SE
BROMO COMMUNICATIONS
BROADCAST TECHNICAL CONSULTANTS
St Simons Island, Georgia
Washington, D.C.



STARVED ROCK QUAD (REDUCED)

A FULL SCALE COPY OF A PORTION OF THE STARVED ROCK U.S.G.S. 7.5 MINUTE TOPOGRAPHIC MAP IS ATTACHED AS EXHIBIT #5. AN ORIGINAL STARVED ROCK TOPOGRAPHIC MAP IS ATTACHED TO THE ORIGINAL APPLICATION AS EXHIBIT #5B.

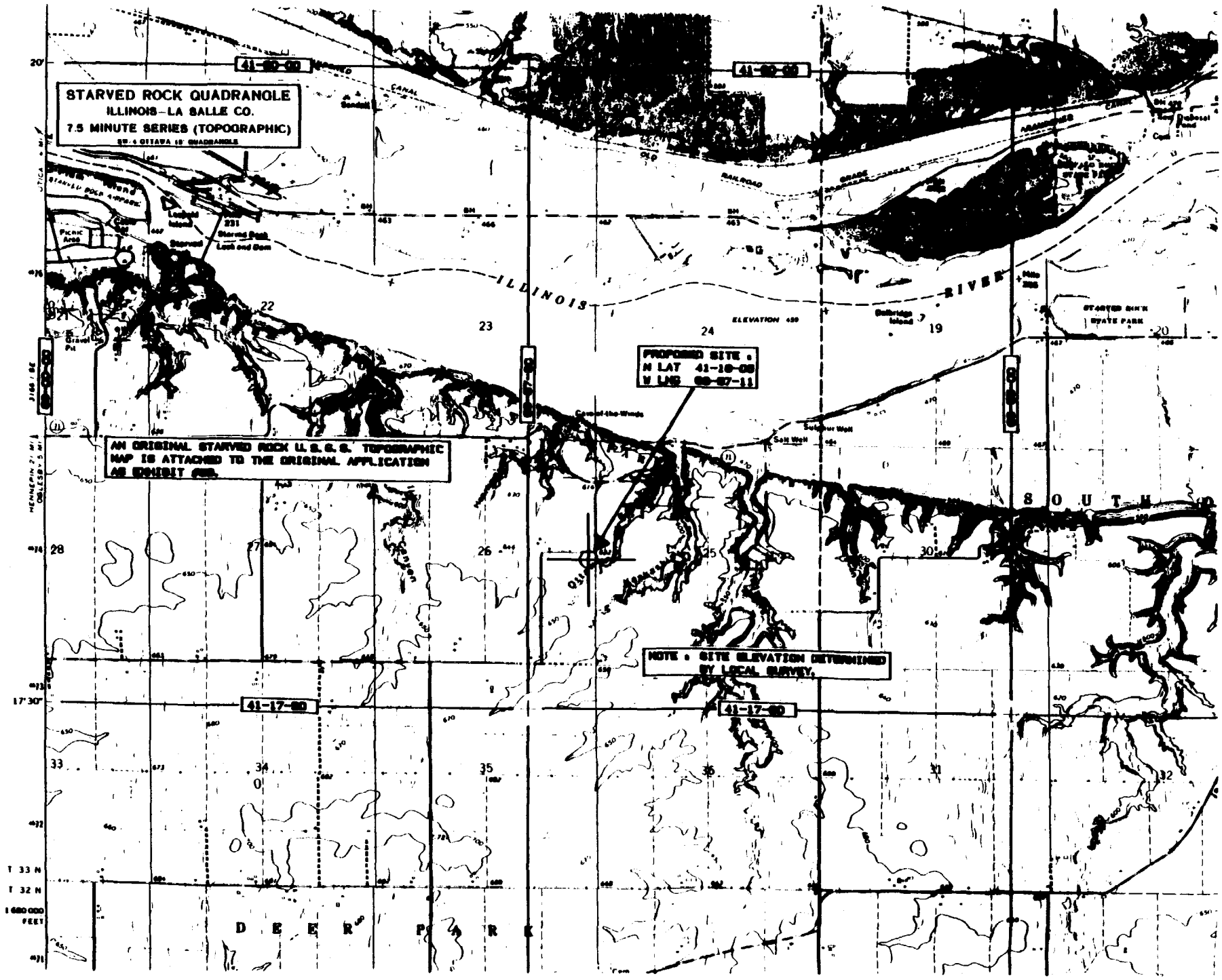
SCALE

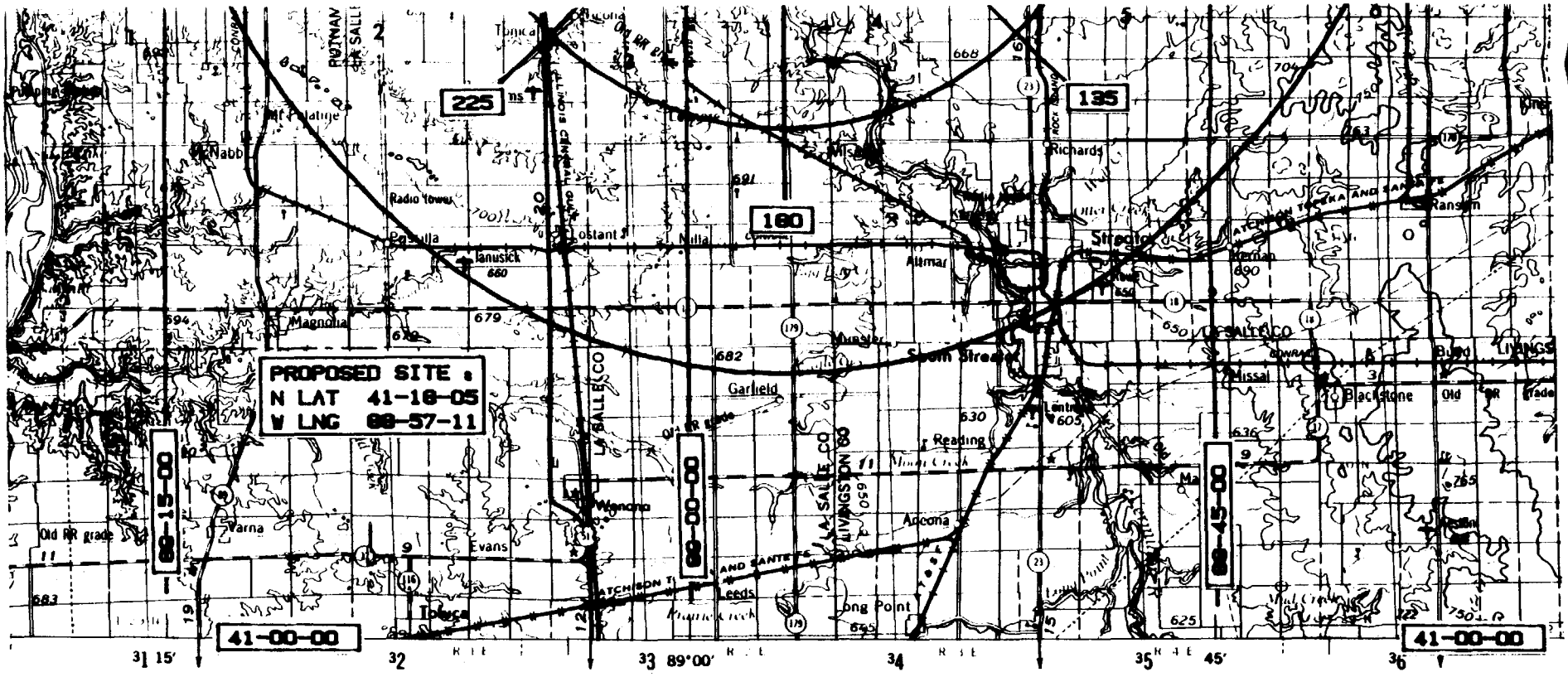
CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

EXHIBIT #5A
NEW FM APPLICATION
DORIS A. STUDSTILL
CH 271A-102.1 MHZ-1.35 KW
OGLESBY, ILLINOIS

AUGUST 1991

BROMO COMMUNICATIONS
BROADCAST TECHNICAL CONSULTANTS
St Simons Island, Georgia — Washington, D.C.


STARVED ROCK QUADRANGLE
ILLINOIS–LA SALLE CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
AN ORIGINAL STARVED ROCK U. S. G. S. TOPOGRAPHIC MAP IS ATTACHED TO THE ORIGINAL APPLICATION AS EXHIBIT
PROPOSED SITE :
N LAT 41-18-00
W LNG 89-07-11
NOTE : SITE ELEVATION DETERMINED BY LOCAL SURVEY.
41-20-00
41-17-00
ILLINOIS
RIVER
SOUTH
DEER PARK
ELEVATION 450
T 33 N
T 32 N
1 680 000 FEET



PREDICTED CONTOURS

MAP IS A PORTION OF THE 1:250,000 SCALE
U.S.G.S. AURORA ILLINOIS BASE MAP.

EXHIBIT #6

NEW FM APPLICATION
DORIS A. STUDSTILL
CH 271A-102.1 MHZ-1.35 KW
OGLESBY, ILLINOIS

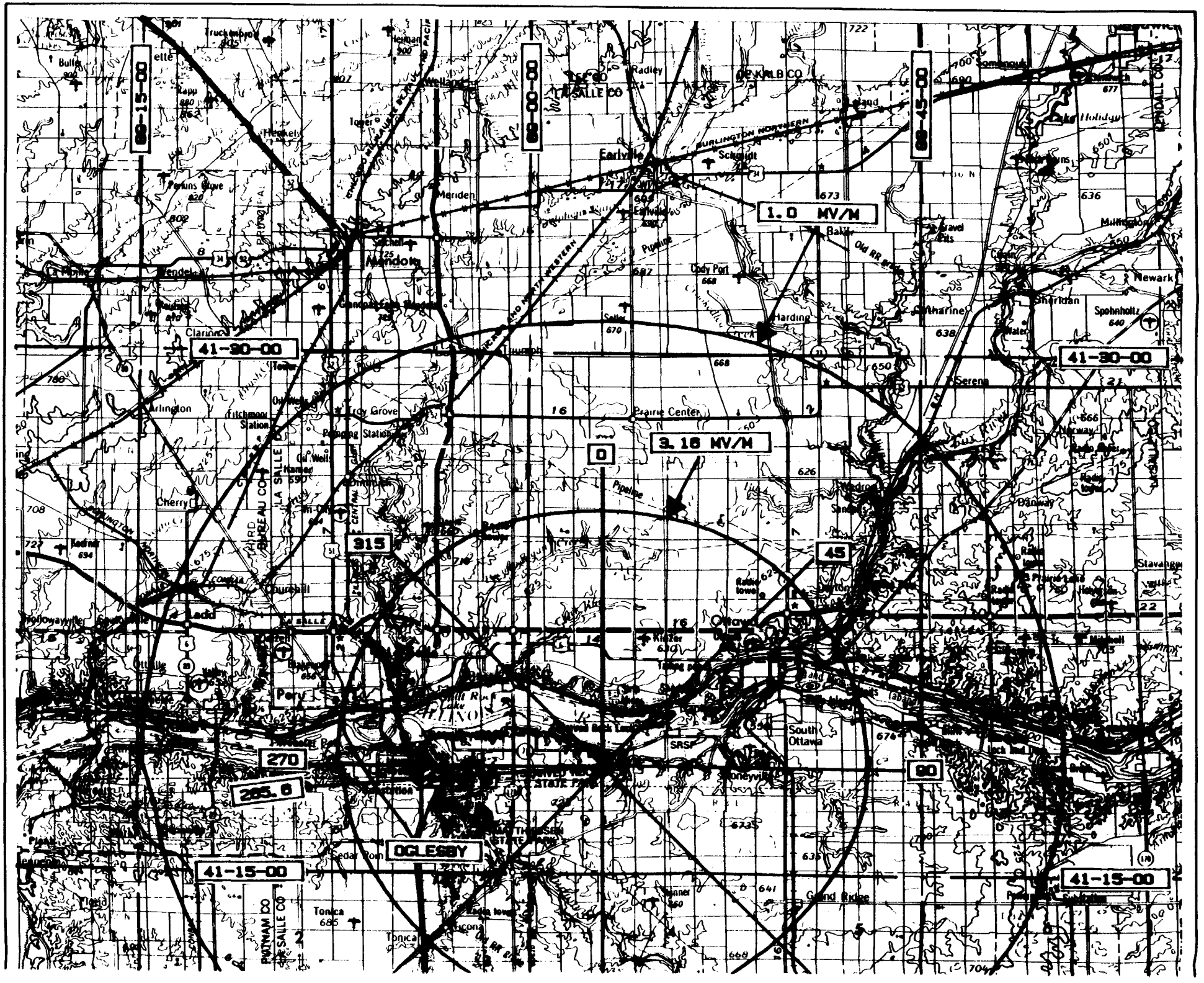
AUGUST 1991

SCALE 1:250,000

MI 5 0 5 10 15 MI

KM 5 0 5 10 15 20 25 KM

BROMO COMMUNICATIONS
BROADCAST TECHNICAL CONSULTANTS
St Simons Island, Georgia
Washington, D.C.


1.0 MV/M
3.18 MV/M
41-30-00
41-15-00
OGLESBY
Mendota
Earlville
Ottawa
Streator
Marseilles
Seneca
Morris
Minooka
Coal City
Braceville
Gardner
Wilmington
Verona
Grand Ridge
Tonica
Peru
Oglesby
Ladd
Cherry
Arlington
Troy Grove
Prairie Center
Serena
Harding
Sheridan
Newark
Norway
Danway
Stavanger
Meriden
Wellington
Radley
Schmidt
Cody Port
Sellers
Clarinda
Fitchmore Station
Pumping Station
Oil Wells
Hamer
Churchill
Holloway
Kiester
Mitchell
South Ottawa
Sheridan
Spohnholtz
Pipeline
Old RR grade
Gravel Pits
Lake Holiday
Millington
Sandy
Radio tower
Water
Cemetery
Cedar Point
Dimmer
Tonica
Lake Ottawa
Illinois River
Fox River
Vermilion River
Illinois Waterway
Illinois Central Gulf
Burlington Northern
Chicago Milwaukee St. Paul and Pacific
Chicago and North Western
Pennsylvania
Lake Michigan
Starved Rock State Park
Matthiessen State Park
Dayton
Lake Holiday
Lake Ottawa
Lake Michigan
LA SALLE CO
BUREAU CO
KANKAKEE CO
KENDALL CO
GRUNDY CO
PUTNAM CO
LA SALLE
315
45
90
270
265.6
0

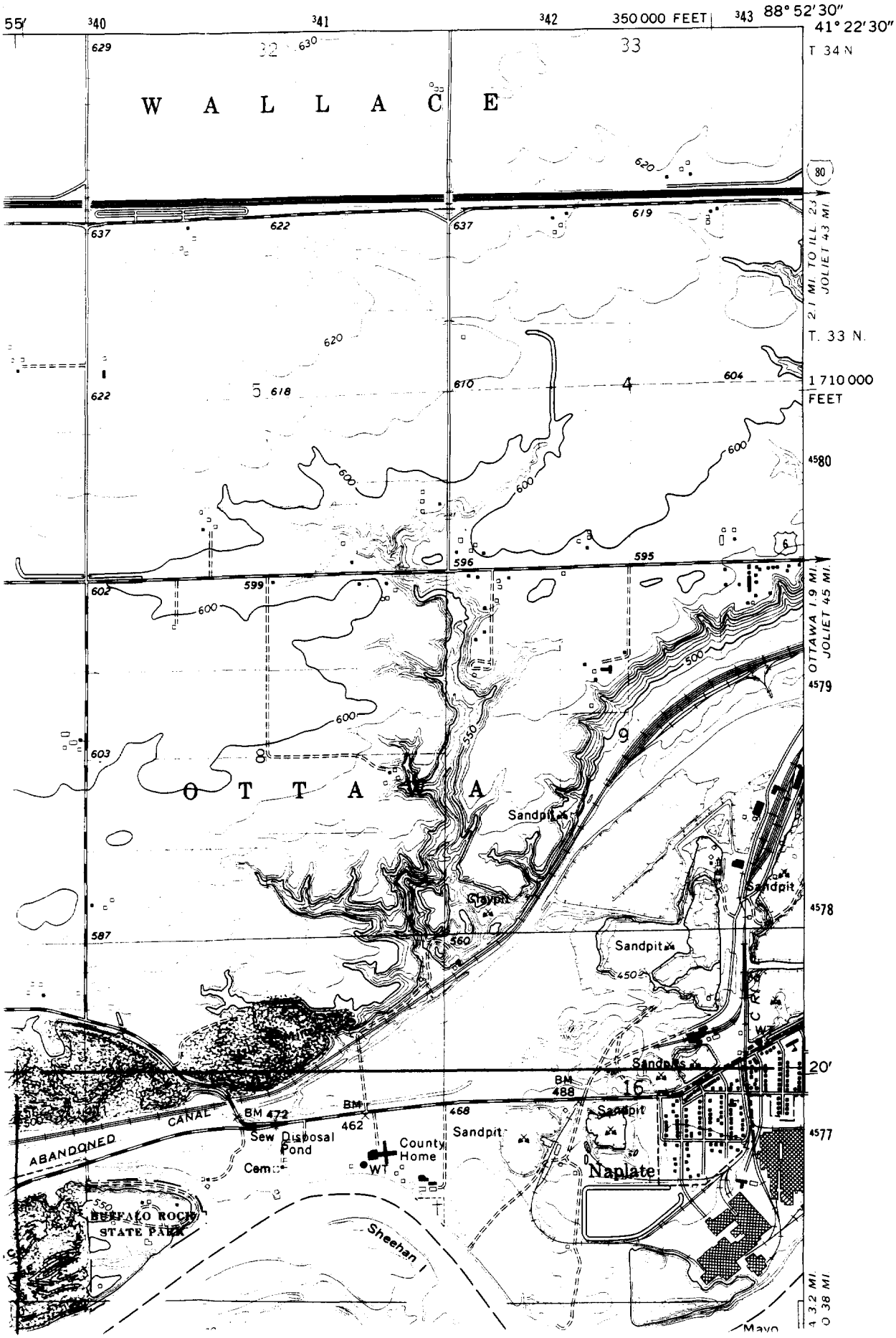
STARVED ROCK QUADRANGLE

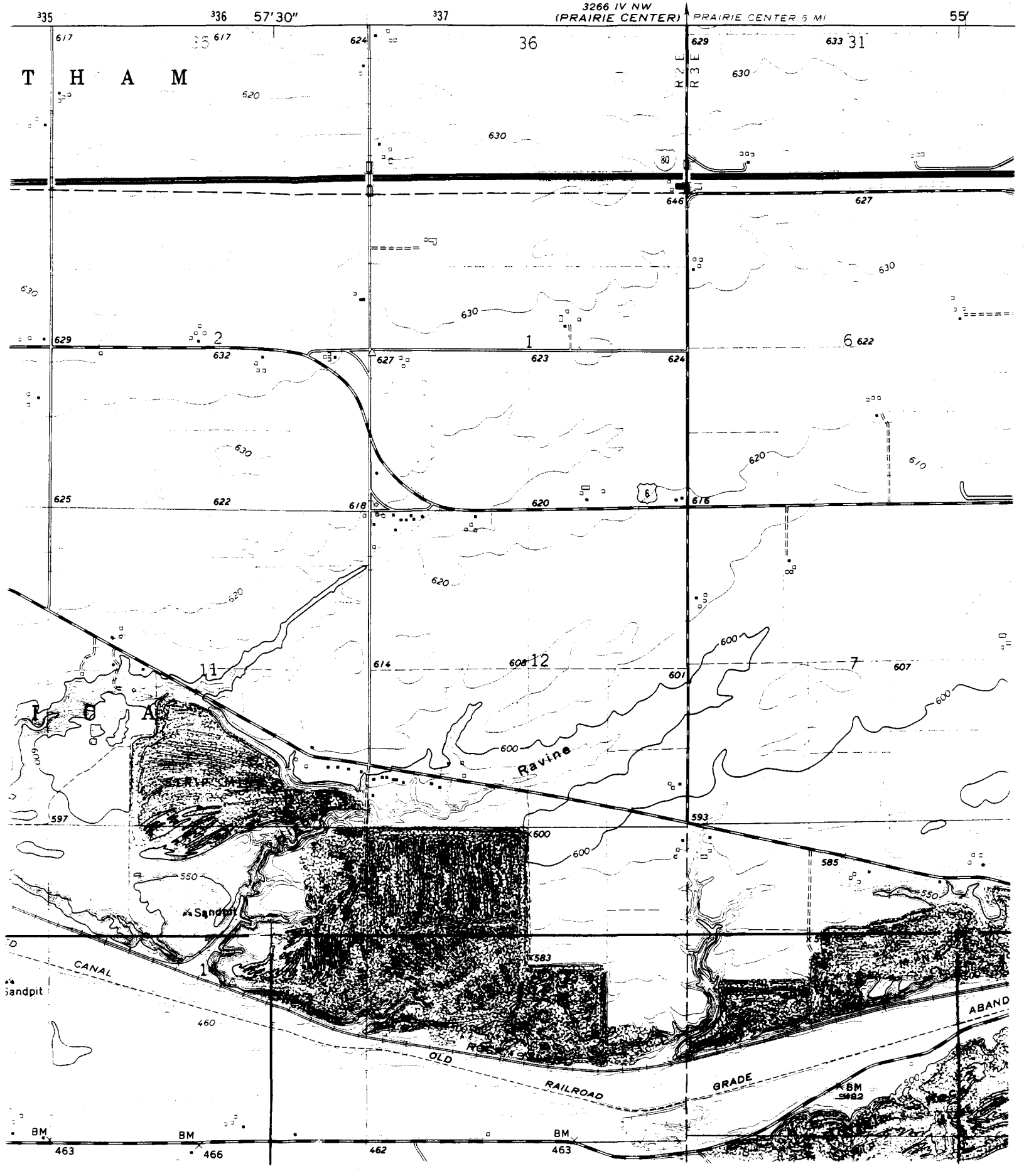
ILLINOIS—LA SALLE CO.

7.5 MINUTE SERIES (TOPOGRAPHIC)

SW/4 OTTAWA 15' QUADRANGLE

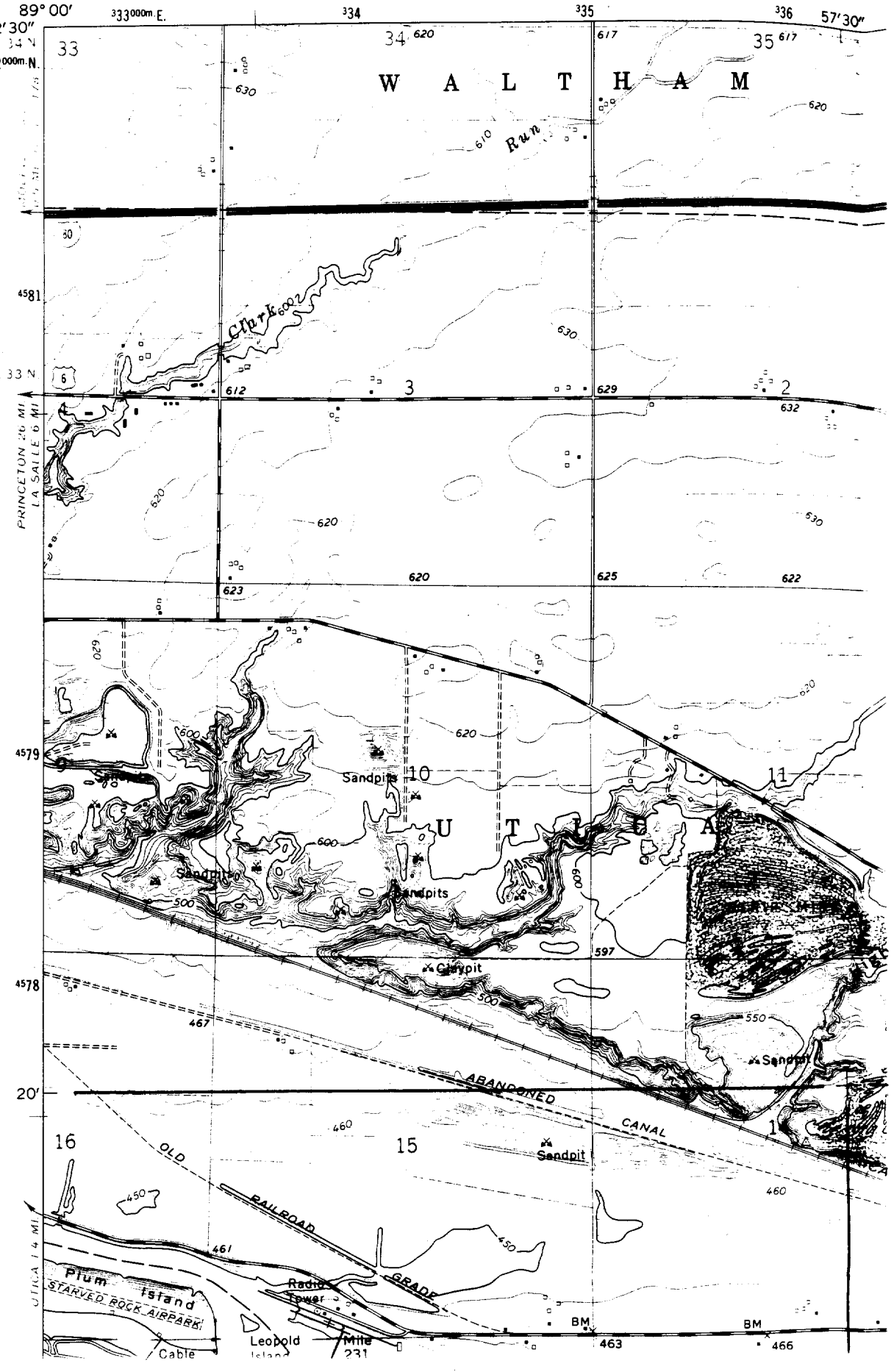
3266 IV NE (WEDRON)

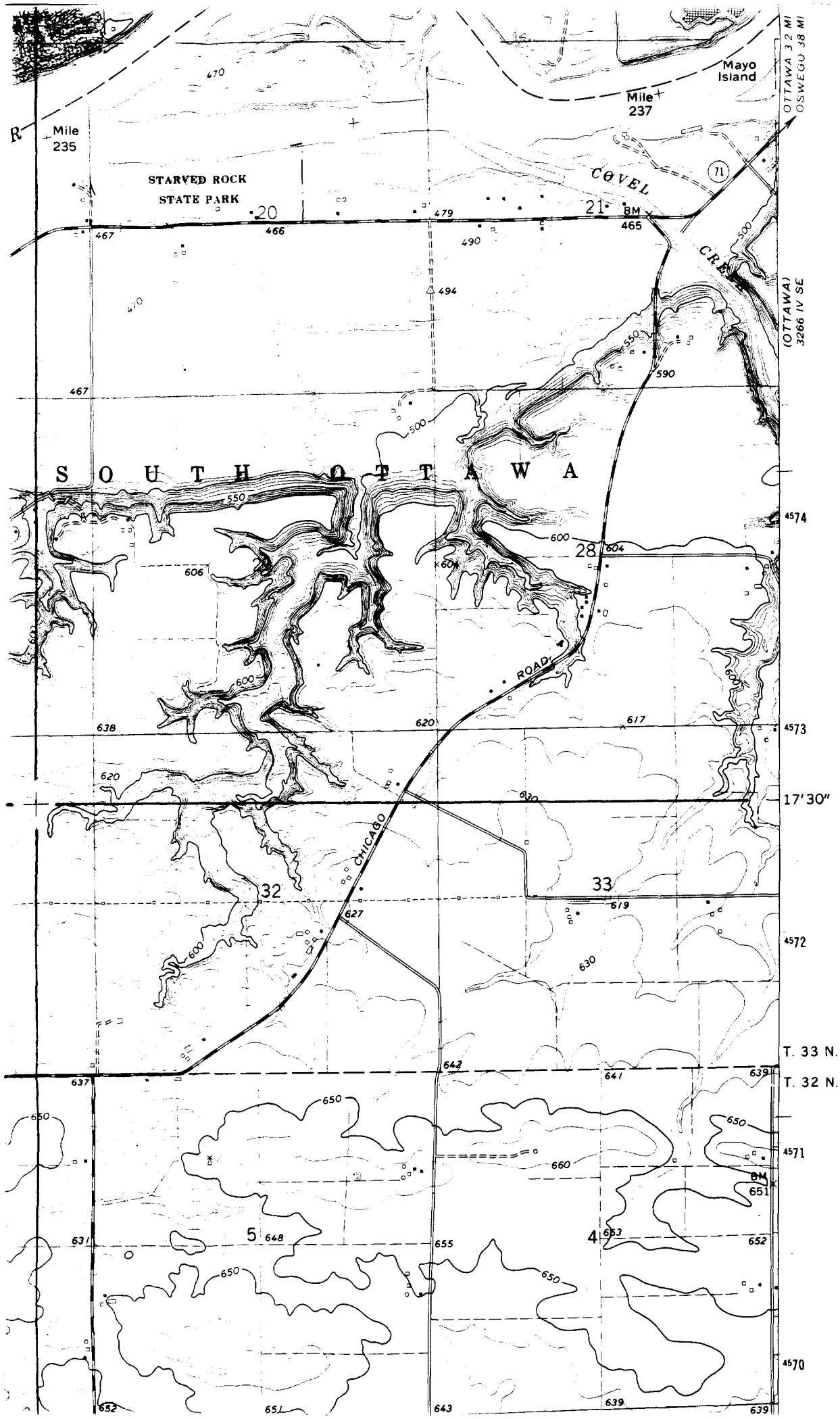


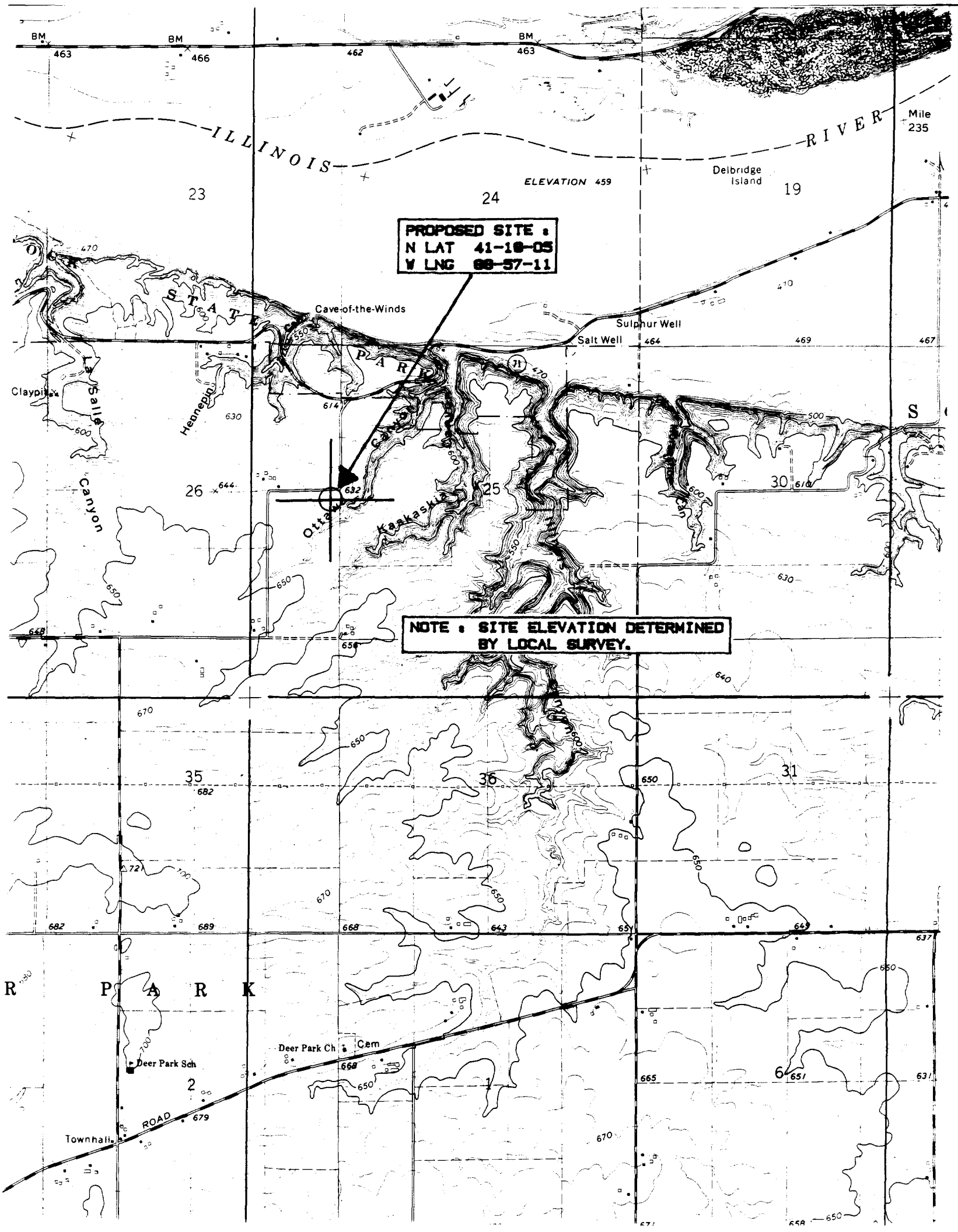

3266 IV NW
(PRAIRIE CENTER)
PRAIRIE CENTER 5 MI
57'30"
55'
335
336
337
T H A M
R2E
R3E
Ravine
Sandpit
CANAL
OLD RAILROAD GRADE
ABAND
BM
463
466
462
463

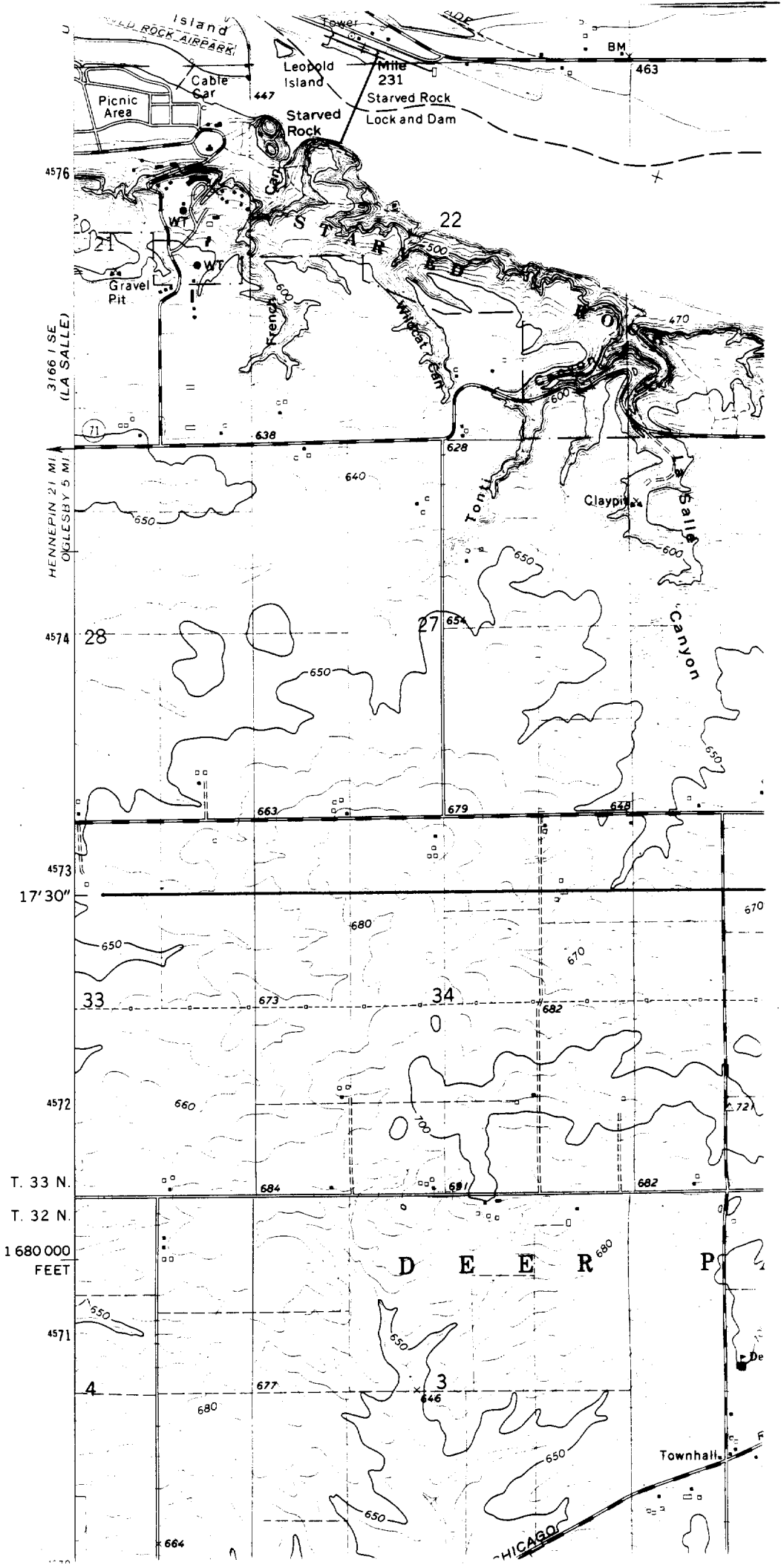
3166 I NE
(TROY GROVE)

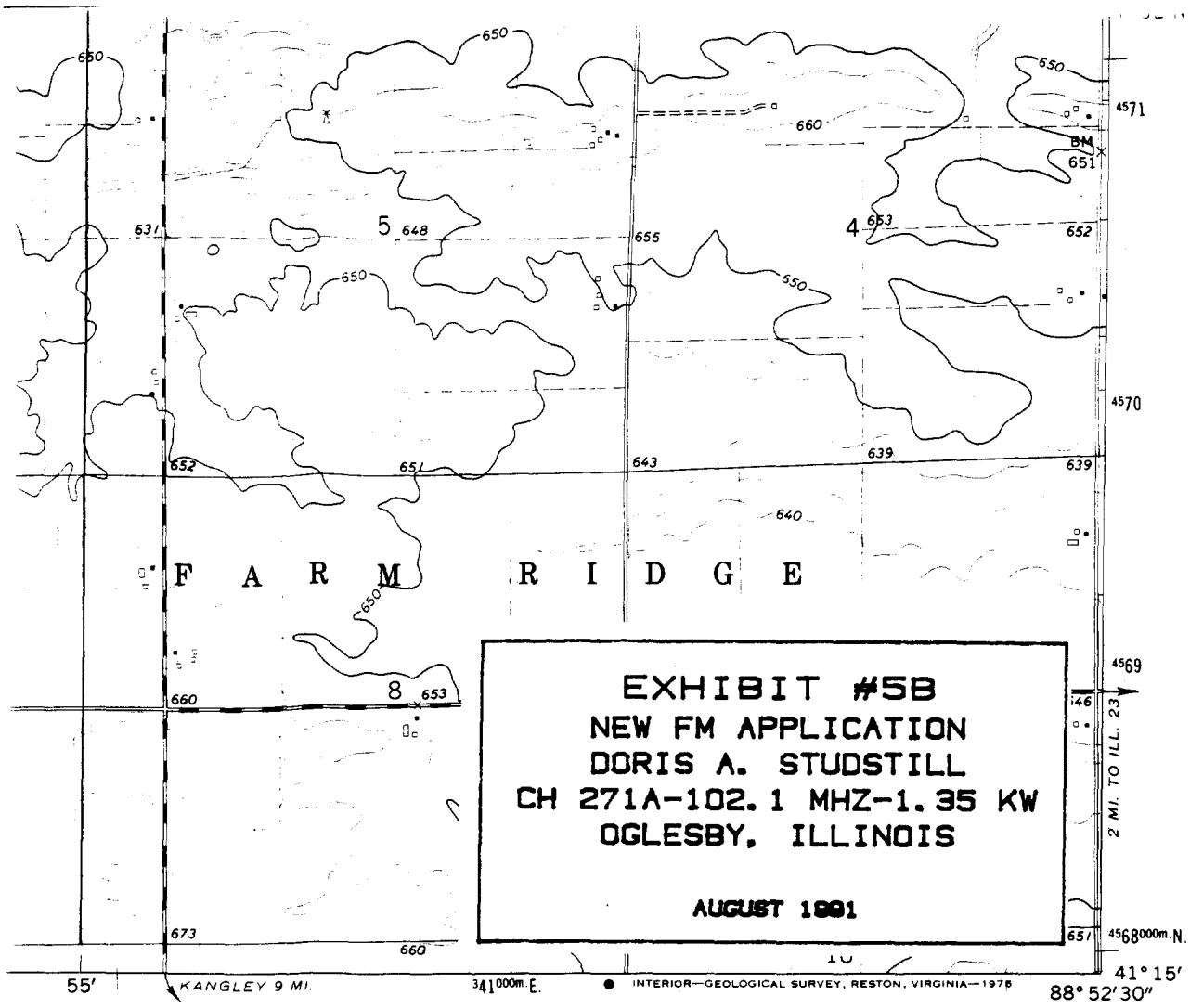
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY




Mile 235
Mile 237
Mayo Island
OTTAWA 3.2 MI
OSWEGO 3.8 MI
STARVED ROCK STATE PARK
COVEL
CREEK
71
20
21
BM
465
466
467
479
490
494
410
470
500
550
590
(OTTAWA) 3266 IV SE
SOUTH OTTAWA
28
604
606
600
ROAD
638
620
617
4574
4573
17'30"
CHICAGO
32
33
627
619
630
4572
T. 33 N.
T. 32 N.
637
642
641
639
650
660
651
BM
4571
5
648
655
4
653
652
631
643
652
651
4570


PROPOSED SITE :
N LAT 41-10-05
W LNG 88-57-11
NOTE : SITE ELEVATION DETERMINED BY LOCAL SURVEY.
ILLINOIS RIVER
Mile 235
ELEVATION 459
Delbridge Island
Cave-of-the-Winds
Sulphur Well
Salt Well
Claypit
La Salle
Hennepin
Canyon
Ottawa
Kaskaskia
Canyon
Deer Park Ch
Cem
Deer Park Sch
Townhall
ROAD
PARK
23
24
19
26
25
30
35
36
31
2
1
6


Island
ROCK AIRPARK
Tower
BM
463
Leopold Island
Mile 231
Starved Rock Lock and Dam
Cable Car
447
Picnic Area
Starved Rock
4576
21
22
WT
WT
Gravel Pit
French
Wildcat Ran
500
600
470
3166 I SE (LA SALLE)
71
638
628
HENNEPIN 21 MI
OGLESBY 5 MI
640
650
Tonti
Claypit
La Salle
600
650
4574
28
27
654
Canyon
650
663
679
648
4573
17'30"
680
650
670
33
673
34
682
4572
660
700
721
T. 33 N.
684
681
682
T. 32 N.
1 680 000 FEET
D E E R
680
P
650
4571
650
4
677
3
646
680
650
Townhall
650
664
CHICAGO



1 MILE

ROAD CLASSIFICATION

Primary highway, all weather, hard surface

Light-duty road, all weather, improved surface

Secondary highway, all weather, hard surface

Unimproved road, fair or dry weather

Interstate Route

U. S. Route

State Route

(STREATOR 1:62 500)
3266 III

QUADRANGLE LOCATION

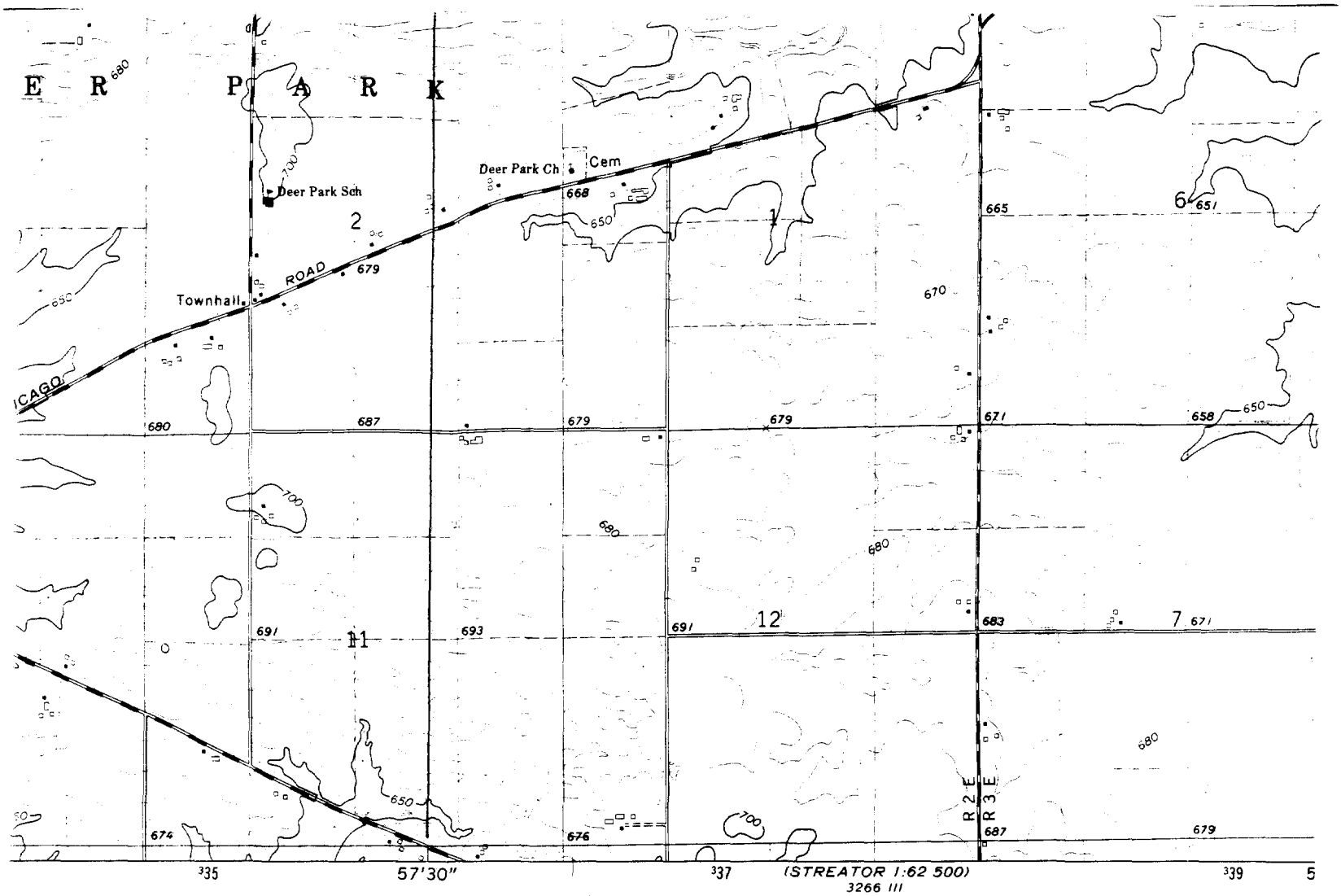
STARVED ROCK, ILL.

SW/4 OTTAWA 15′ QUADRANGLE

N4115—W8852.5/7.5

1970

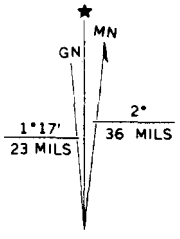
AMS 3266 IV SW—SERIES V863



urvey

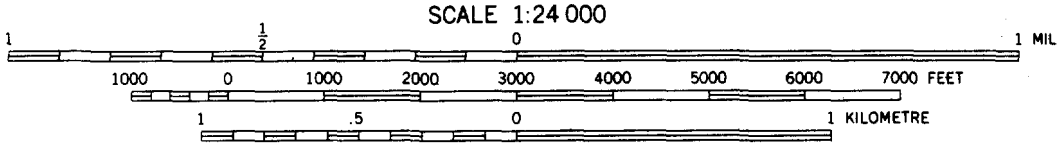
one

where
unchecked



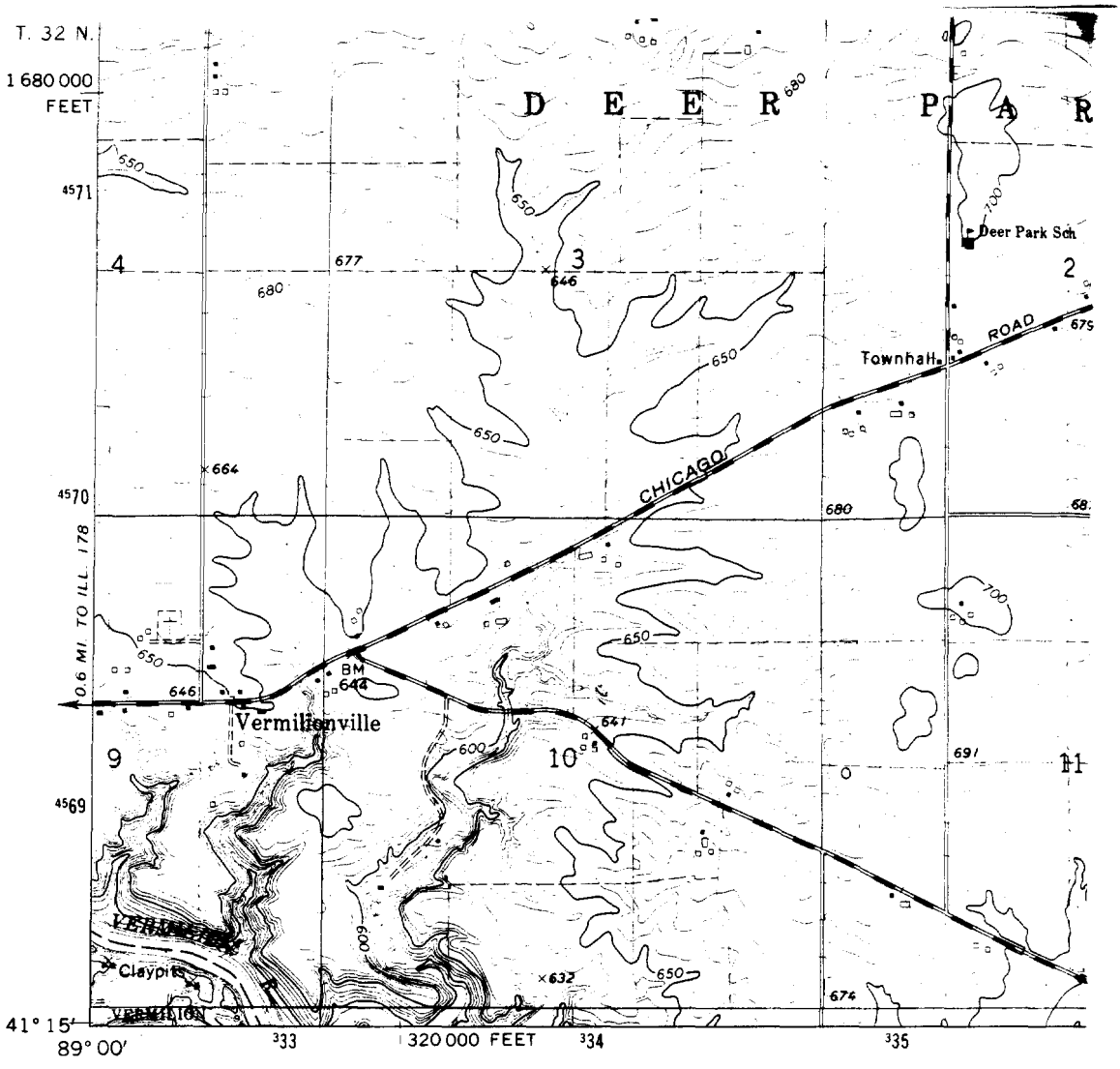
UTM GRID AND 1970 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

SCALE 1:24 000



CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, RESTON, VIRGINIA 22092
AND BY THE STATE GEOLOGICAL SURVEY, URBANA, ILLINOIS 61801
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST



(WENONA 1:62 500)
3166 II

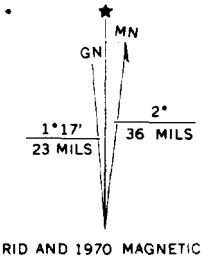
Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography by photogrammetric methods from aerial photographs taken 1967. Field checked 1970

Polyconic projection. 1927 North American datum
10,000-foot grid based on Illinois coordinate system, east zone
1000-metre Universal Transverse Mercator grid ticks, zone 16, shown in blue

Fine red dashed lines indicate selected fence and field lines where generally visible on aerial photographs. This information is unchecked



UTM GRID AND 1970 MAGNETIC DECLINATION AT CENTER OF S

NEW FM APPLICATION
DORIS A. STUDSTILL
CH 271A - 102.1 MHZ - 1.35 KW
OGLESBY, ILLINOIS
August 1991

EXHIBIT #7

Radiofrequency Radiation Study and Statement

This radiofrequency radiation study is being conducted to determine whether this proposal is in compliance with OST Bulletin Number 65, dated October 1985, regarding human exposure to radiofrequency radiation in the vicinity of broadcast towers. This study considers all nearby contributing stations and utilizes the appropriate formulas contained in the OST Bulletin.

The proposed new FM two bay antenna system will be mounted with its center of radiation 135.636 meters (445.0 feet) above the ground at the proposed tower location and operate with an effective radiated power of 1.35 kilowatts of horizontal and vertical power. At 2 meters, the height of an average person, above the ground at the base of the proposed tower, the antenna system will contribute, worst case .0051 mw or 0.5% of the allowable ANSI limit. The contribution of the 850 megahertz antenna system is less than .1% of the allowable limit and will therefore not be addressed further. Since the contribution of the FM antenna is far below the

100% limit defined in the aforementioned bulletin, this proposal is believed to be in compliance with OST Bulletin Number 65 as is required by the Federal Communications Commission.

Further, the applicant will post warning signs in the vicinity of the tower warning of potential radiofrequency radiation hazards at the site. The applicant also will reduce power of the proposed facility or discontinue operation should anyone be required to climb the tower for maintenance or inspection. This will insure that workers will not be exposed to excessive radiofrequency radiation.

AFFIDAVIT AND QUALIFICATIONS OF CONSULTANT

State of Georgia)
St. Simons Island) ss:
County of Glynn)

JEFFERSON G. BROCK being duly sworn, deposes and says that he is an officer of Bromo Communications, Inc. Bromo has been engaged by Doris A. Studstill, to prepare the attached Technical Exhibit.

His qualifications are a matter of record before the Federal Communications Commission. He has been active in Broadcast Engineering since 1979.

The attached report was either prepared by him or under his direction and all material and exhibits attached hereto are believed to be true and correct.

This the 9th day of August, 1991.

Jefferson G. Brock
Affiant

Sworn to and subscribed before me this the 9th day of August, 1991.

Notary Public, State of Georgia
My Commission Expires: July 21, 1995

JUDY C. PASEUR
NOTARY
GEORGIA
PUBLIC
GLYNN COUNTY