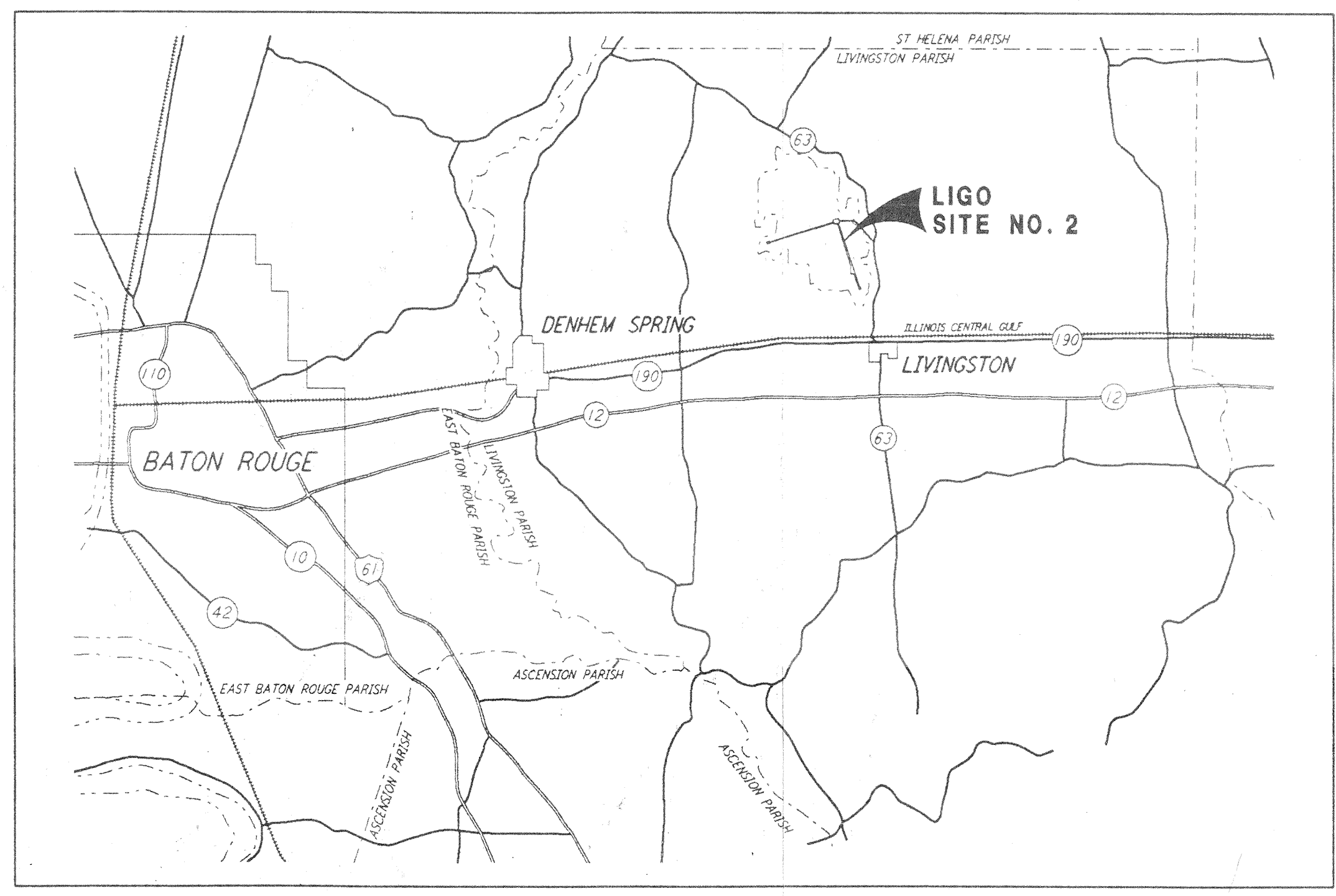
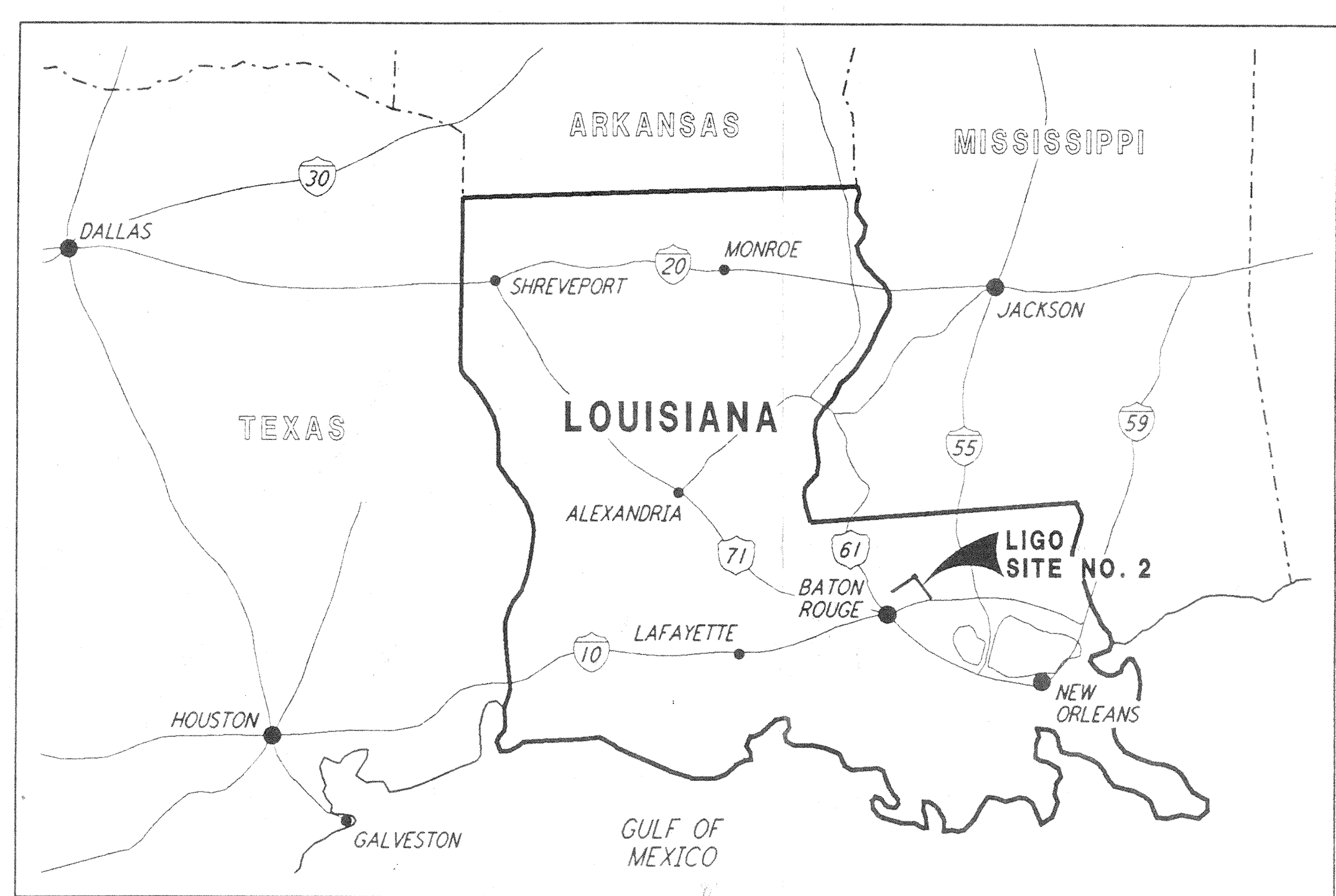
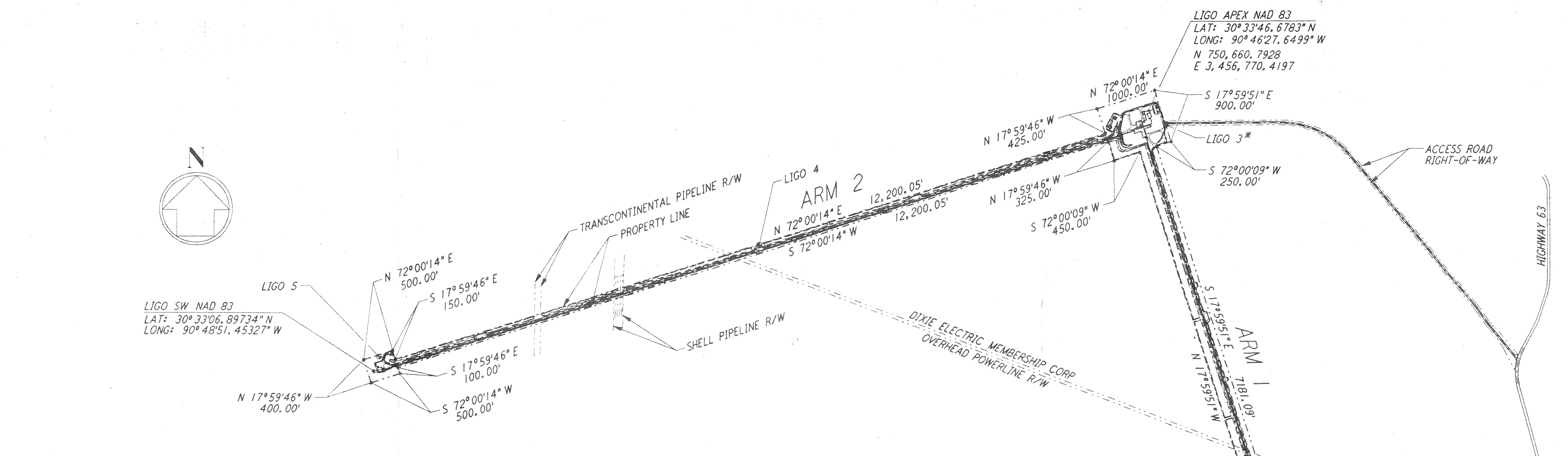


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LA-C-503	CIVIL, DRAWING MATRIX
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LA-E-517	ELECTRICAL, MID STATION B, GROUNDING & UNDERGROUND PLAN

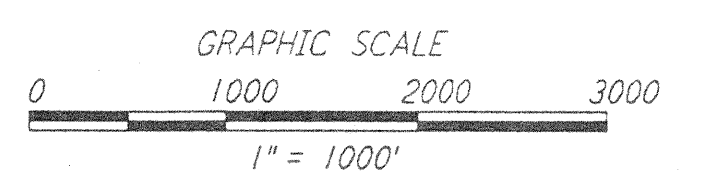


GPS POINT	COORDINATES		ELEVATION
	NORTH	EAST	
APEX	750660.79279	3456770.41970	-
LIGO 1*	738320.57379	3460989.05172	50.1859
LIGO 2	744519.64252	3458903.40003	54.8696
LIGO 3*	750681.37965	3457182.57992	58.6390
LIGO 4	748702.39005	3450520.15899	62.4526
LIGO 5	746819.76529	3444303.96185	58.6393
A 290	-	-	42.1193
Y 21	-	-	41.2794
S 294	-	-	42.4081

NOTE: GPS COORDINATE POINTS ARE HIGH ACCURACY  
 \* LIGO 1 AND LIGO 3 SHALL BE RE-ESTABLISHED BY CONTRACTOR IN NEW A LOCATION, TO BE DETERMINED.

**SURVEY NOTES:**

- PROPERTY LINE LOCATION AND LIGO ACCESS ROAD RIGHT-OF-WAY ARE BY A SURVEY PERFORMED BY ALEX THERIOT JR & ASSOCIATES, INC., DENHAM SPRINGS, DATED MARCH 12, 1993.
- HORIZONTAL AND VERTICAL CONTROLS ARE FROM A VERNON F. MEYER GPS SURVEY, AND ARE AS FOLLOWS:  
 HORIZONTAL CONTROL: ALL BEARINGS AND DISTANCES SHOWN HEREON ARE LAMBERT GRID, NAD 83/92, LOUISIANA SOUTH ZONE (1702).  
 VERTICAL CONTROL: ELEVATIONS SHOWN ARE MEAN SEA LEVEL, DATUM NAVD 88. ELEVATIONS ARE A LEAST SQUARES ADJUSTMENT HOLDING TO NAVD 88 VALUES OF NGS ADJUSTED ELEVATION OF BENCHMARK A 290, Y 21 AND S 294 (VERT. ORDER - FIRST CLASS 1)
- CALTECH WILL PROVIDE FIVE (5) GPS SURVEY MONUMENTS FOR INITIAL CONTROL OF THE WORK. ADDITIONAL (APPROXIMATELY 15) FIRST ORDER GPS MONUMENTS ARE NECESSARY TO ACCURATELY PLACE THE EQUIPMENT.
- ROUGH GRADING DRAWINGS WERE BASED ON AN APEX COORDINATE OF N 750662.6458, E 3456770.8116. THIS ROUGH GRADING APEX POINT, GRID, OR OTHER ROUGH GRADING COORDINATES SHALL NOT BE USED FOR THE CONTROL OF THE WORK IN THIS CONTRACT.
- CONTRACTOR SHALL USE THE TEMPORARY ACCESS ROAD WHEN DIRECTED BY THE CONSTRUCTION MANAGER. THIS MAY BE AT ANY TIME, BUT PRIMARILY DURING CONSTRUCTION OF THE MAIN ACCESS ROAD BY OTHERS.
- CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL FOR TEMPORARY ACCESS ROAD, AS WELL AS BEAM TUBE SERVICE ROADS IN ACCORDANCE WITH THE SPECIFICATIONS.
- CONTRACTOR IS RESPONSIBLE FOR MAINTAINING BEAM TUBE SERVICE ROADS AT DESIGN GRADE, TO PROVIDE SMOOTH PASSAGE FOR ALL CONSTRUCTION TRAFFIC.



DRAWING NO.	DESCRIPTION	NO.	DATE	BY	CHKD	ENGR	PROJ	DESCRIPTION

ISSUED FOR CONSTRUCTION	
DRAWN	WRB 11-15-96
CHECKED	JML 11/15/96
ENGINEER	JLB 11/15/96
PROJ	SP/PA 11/15/96

*Handwritten signature and date: 10/21/96*

LASER INTERFEROMETER GRAVITATIONAL-WAVE OBSERVATORY BEAM TUBE ENCLOSURE - LIVINGSTON, LA

CIVIL DRAWING INDEX LOCATION & VICINITY MAPS

AS NOTED PPI50969 8094

**LA-C-501**

LIGO-0961257-0000