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United States Department of the Interior
National Park Service

National Register of Historic Places
Registration Form

JAN 26 1990

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See instructions in *Guidelines for Completing National Register Forms* (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, styles, materials, and areas of significance, enter only the categories and subcategories listed in the instructions. For additional space use continuation sheets (Form 10-900a). Type all entries.

1. Name of Property

historic name Sparta Hydroelectric Station

other names/site number N/A

2. Location

street & number S.R. 11 & Calfkiller River N/A not for publication

city, town Sparta X vicinity

state Tennessee code TN county White code 185 zip code 38583

3. Classification

Ownership of Property

- private
- public-local
- public-State
- public-Federal

Category of Property

- building(s)
- district
- site
- structure
- object

Number of Resources within Property

Contributing	Noncontributing
_____	_____ buildings
_____	_____ sites
1	_____ structures
_____	_____ objects
1	0 Total

Name of related multiple property listing:

Pre-TVA Hydroelectric Development in Tennessee, 1901-1903

Number of contributing resources previously listed in the National Register 0

4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property meets does not meet the National Register criteria. See continuation sheet.

Herbert L. Huger
Signature of certifying official Deputy State Historic Preservation Officer
Tennessee Historical Commission
State or Federal agency and bureau

1/23/90
Date

In my opinion, the property meets does not meet the National Register criteria. See continuation sheet.

Signature of commenting or other official

Date

State or Federal agency and bureau

5. National Park Service Certification

I, hereby, certify that this property is:

- entered in the National Register. See continuation sheet.
- determined eligible for the National Register. See continuation sheet.
- determined not eligible for the National Register.
- removed from the National Register.
- other, (explain:)

Amy Federman

4/20/90

Signature of the Keeper

Date of Action

6. Function or Use

Historic Functions (enter categories from instructions)

INDUSTRY: energy-facility

Current Functions (enter categories from instructions)

NOT IN USE

7. Description

Architectural Classification
(enter categories from instructions)N/A

Materials (enter categories from instructions)

foundation CONCRETE

walls CONCRETE

roof CONCRETE

other

Describe present and historic physical appearance.

The Sparta Hydroelectric Station is located on the right (north) bank of the Calfkiller River. The complex begins with a diversion dam leading to a one-quarter mile long flume that follows a course parallel to the river and leads to the power house. It is located just to the east of the State Highway No. 111 bridge which crosses the river immediately below the dam, about 1.2 miles southwest of Sparta, the capitol of White County, Tennessee (population 19,567).

Construction of the extant Sparta hydrostation was begun at the present site and was completed in 1909. This new plant was located on the Calfkiller River about a mile downstream from where the first hydroelectric station in Sparta had burned in 1907. The extant resource features a unique seven-foot concrete dam which redirected river water into an open canal [i.e. flume] and conveyed it to the power house, a quarter-mile downstream.

The 430-foot long, seven-foot high, trapezoidal concrete gravity dam (with the date "1909" plainly visible today), concrete flume, and power house, built by Boise & Foust, contractors from Chattanooga, provided for the electric power needs of Sparta. The dam extends 400 feet in an angular-arch from the left (south) bank to the intake structure on the right (north) bank, so as to form an entrance channel. Its height varies from five to seven feet. According to TVA documents: ¹"The structure is in sound condition and would not require major repairs." ¹ The flume intake is also a concrete structure, with provision for four headgates and operating equipment to admit water to the flume. The seventeen-foot wide flume is rock and concrete, lined for the first 500 feet. In the upper section, portions of the concrete lining are damaged, while the intake and flume are filled with silt and choked with fallen trees and heavy undergrowth. The forebay consists of a gated structure, opening into a seventeen-foot deep concrete enclosure, containing a horizontal turbine in an open flume setting. According to a TVA report, no signs of major structural distress are evident in the forebay. The double-runner, horizontal turbine, installed in 1924 to replace the original 1910 triple-runner type, is still

¹ Tennessee Valley Authority, Small Hydro Feasibility Report for Sparta Dam, TVA/ONR/WR-82/11, WSDB Report No. WR28-1-510-133, February, 1982.

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in place, but is in poor condition, "having been dewatered and exposed to the elements for over 40 years.¹" The unit was rated at 300 horsepower under a twenty-three foot head.

The powerhouse is a small concrete structure located west of the forebay, and housed the generator, governor, and station equipment. While still structurally sound, the powerhouse has been denuded of all fixtures, doors, and windows. Original access roads to the flume and the powerhouse are in very poor condition.

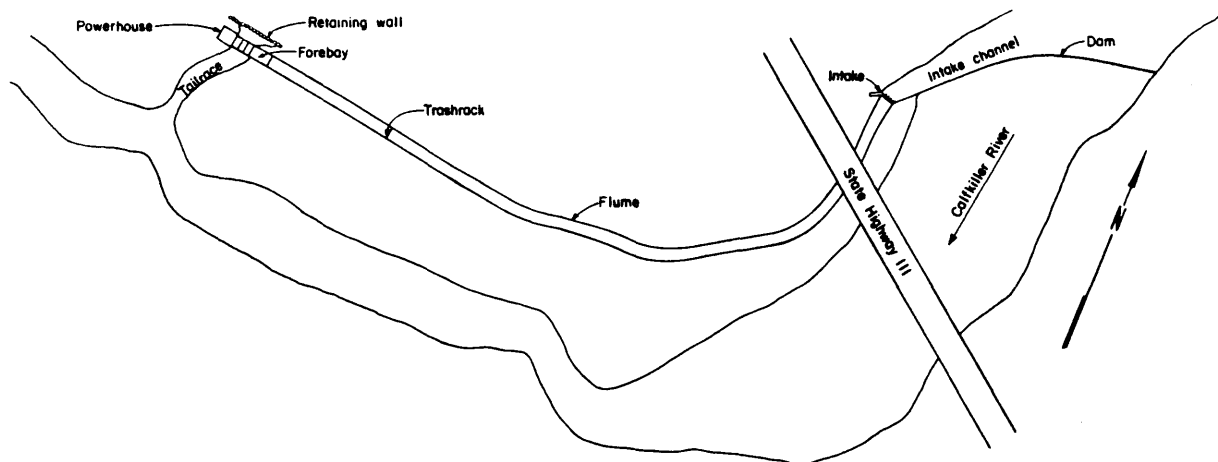
¹Ibid.

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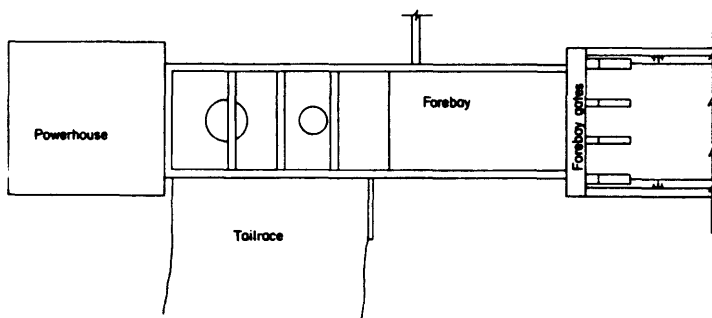
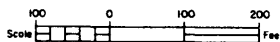
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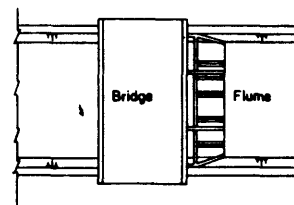
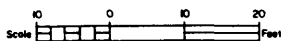
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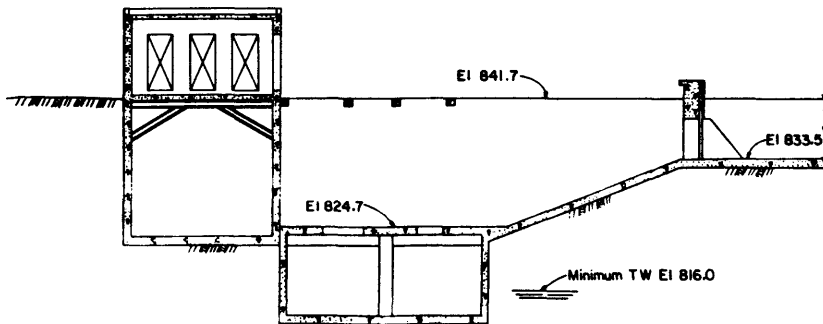
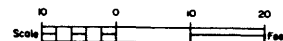
SITE PLAN



PLAN - POWERHOUSE AND FOREBAY



PLAN - TRASHRACK



SECTION THRU POWERHOUSE AND FOREBAY

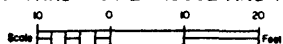


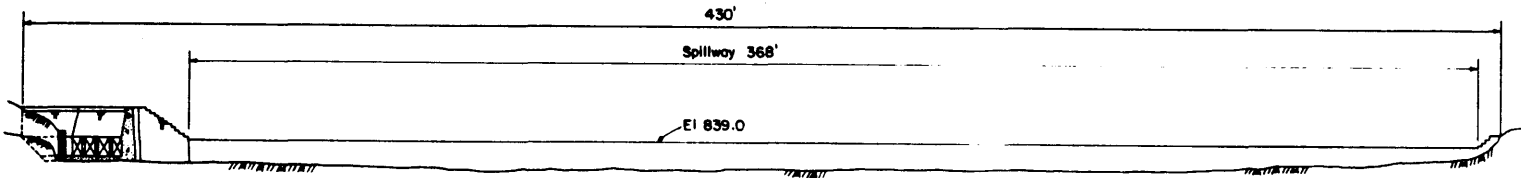
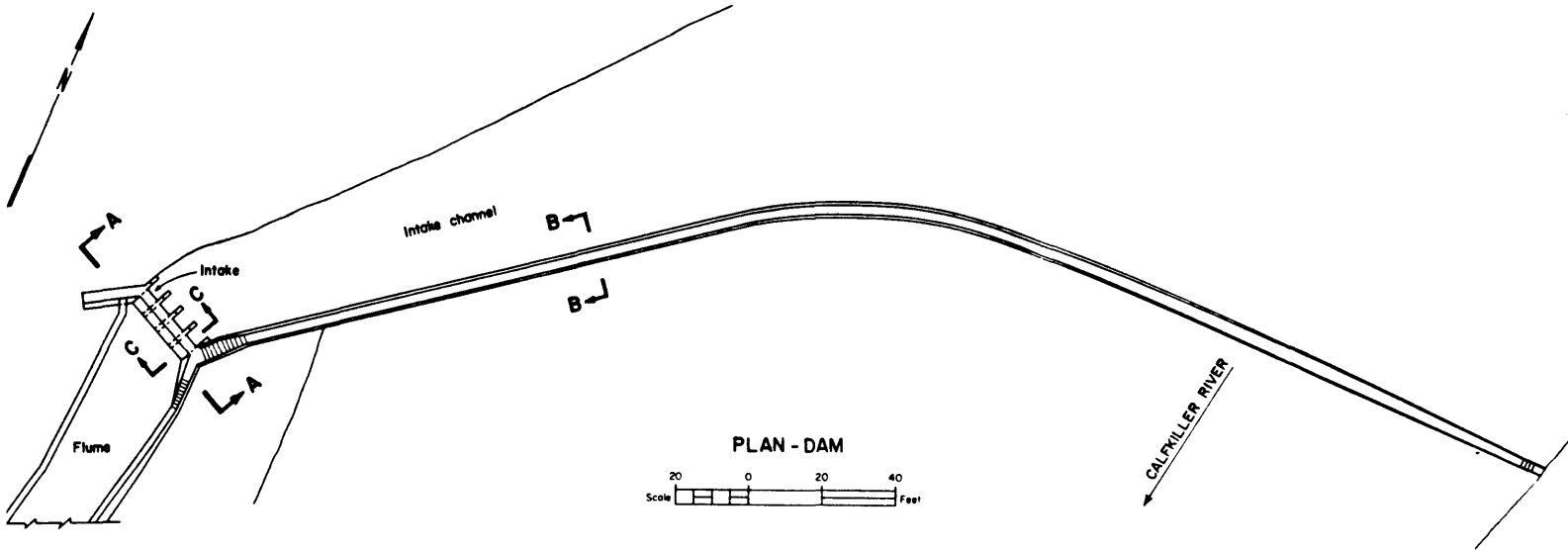
Figure 3. Existing Facilities - Sparta Dam

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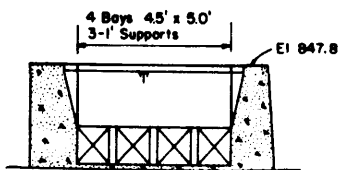
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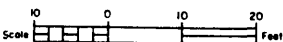
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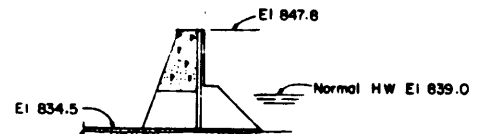
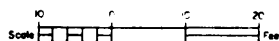
DOWNSTREAM ELEVATION - DAM
Not To Scale



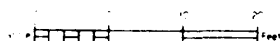
SECTION A-A



SECTION B-B



SECTION C-C



8. Statement of Significance

Certifying official has considered the significance of this property in relation to other properties:

nationally statewide locally

Applicable National Register Criteria A B C D

Criteria Considerations (Exceptions) A B C D E F G

Areas of Significance (enter categories from instructions)

ENGINEERING
COMMERCE

Period of Significance

1909-1933

Significant Dates

1909

Cultural Affiliation

N/A

Significant Person

N/A

Architect/Builder

Boise & Foust, builders

State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.

The Sparta Hydroelectric Station is significant under criterion C for engineering because it represents the kind of hydroelectric engineering projects typical at the time of its construction on the smaller rivers of the State of Tennessee. Its design is unique among its genre in the Volunteer State, especially in the presence of the concrete flume. It operated for thirty-two years, supplying the lion's share of Sparta's domestic and fledgling industrial needs.

The Sparta Hydroelectric Station is likewise significant under criterion A for commerce, as it represents a change in the business of trading, services, and commodities, and the gradual introduction of electricity into everyday human existence during the twentieth century in Tennessee.

The site's original 1909 appearance has been altered by neglect since its abandonment in 1941, yet it retains integrity of design with its unique concrete flume arrangement. The Sparta Hydroelectric Station was preceded by an earlier twentieth century effort. In 1902, four Sparta businessmen, J. T. Anderson, J. R. Tubb, O. H. Anderson, and S. B. Anderson formed the aptly-named Anderson and Tubb Power Company. Located at the site of an old grist mill, a mile upstream from the Sparta Hydroelectric Station, it was a peculiarly vernacular affair, at first consisting of a direct current (single phase), sixty-kilowatt generator from the Fayetteville steam generating plant, a waterwheel from Rome, Georgia, and an American Ball steam engine from the old Read House in Chattanooga. This arrangement operated for five years until 1907 when it burned.

In 1917, according to TVA documents, the Tennessee Electric Power Company (TEPCO) purchased the plant and operated it regularly until the early 1930s when the facility was placed on standby service. In the six years following 1926, "the plant output averaged 730,000 kWh annually at a production cost of approximately 2.5 mills/kWh." The TVA purchased the site in 1939 and determined that if it would continue operation, it would be too costly, and it was sold in 1941 to Mr. R. J. Snodgrass, the father

9. Major Bibliographical References

Previous documentation on file (NPS): N/A
 preliminary determination of individual listing (36 CFR 67) has been requested
 previously listed in the National Register
 previously determined eligible by the National Register
 designated a National Historic Landmark
 recorded by Historic American Buildings Survey # _____
 recorded by Historic American Engineering Record # _____

See continuation sheet

Primary location of additional data:
 State historic preservation office
 Other State agency
 Federal agency
 Local government
 University
 Other
Specify repository: _____

10. Geographical Data

Acreeage of property Approximately 6 acres

UTM References

A

1	6	6	3	7	5	0	0	3	9	7	5	1	2	0
Zone		Easting						Northing						

C

Zone		Easting						Northing						

B

Zone		Easting						Northing						

D

Zone		Easting						Northing						

See continuation sheet

Sparta, TN 332NW

Verbal Boundary Description

See pages: Section 7 page 3, Section 10 page 2, Section 10 page 3.

See continuation sheet

Boundary Justification

See continuation sheet

11. Form Prepared By

name/title James B. Jones, Jr., Historic Preservation Specialist
organization Tennessee Historical Commission date January 1990
street & number 701 Broadway telephone (615) 742-6718
city or town Nashville state TN zip code 37243-0442

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of the present owner, Mr. Joe Snodgrass. After its sale, the private owners removed most of its equipment for its salvage value, most likely enhanced by the exigencies of World War II.³

Although the Sparta Hydroelectric Station has been abandoned since 1941, the site's dam and intake structure, the one-quarter-mile-long-concrete flume, the forebay, trash rack, power house, and tail race are all extant today, documenting its integrity of design and materials. The Columbia Hydroelectric Station meets the registration requirements for Pre-TVA Hydroelectric Power Generating Facilities as set forth in the Multiple Property Documentation Form for Pre-TVA Hydroelectric Development in Tennessee, 1901-1933.

³ System Control News, January 1, 1973, No. 57, p. 5, and; A. W. Crouch, C. R. Matlock, "Small Hydro Plants Passing Into History," Electro Topics, vol. XVII, no. 1 (January/February, 1934), p. 12.

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MAJOR BIBLIOGRAPHICAL REFERENCES

Crouch, A. W., C. R. Matlock, "Small Hydro Plants Passing Into History,"
Electro Topics, Vol. XVII, No. 1 (January/February, 1934).

System Control News, January 1, 1973, No. 57.

Tennessee Valley Authority, Small Hydro Feasibility Report for Sparta Dam,
TVA/ONR/WR-82/11, WSDB Report No. WR28-1-510-133, February 1982.

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BOUNDARY DESCRIPTION

The boundaries for the Sparta Hydroelectric Station are as follows: starting from the dam, about 1/4 mile downstream along the Calkiller River, along and including the concrete flume, to the forebay and power house, continuing along the tail-race channel, out again to the Calkiller River. All associated resource components, except the dam, which stretches from east to west, are on the western side of the Calkiller River. Map 59 Parcel 96. See accompanying map.

BOUNDARY JUSTIFICATION

The boundaries include sufficient property to protect the historic integrity of the property.

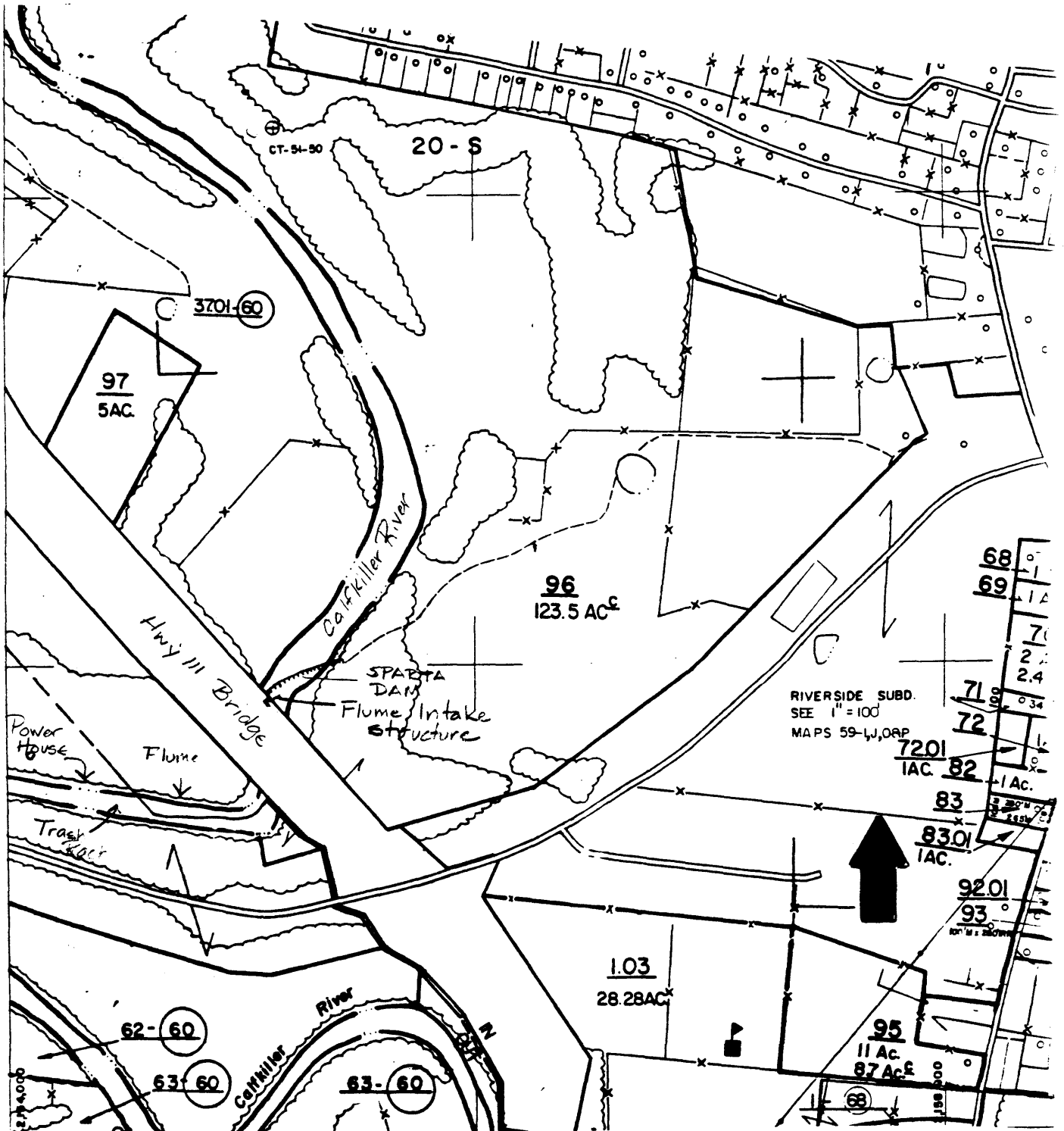
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Scale: 1" = 400'



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Sparta Hydroelectric Station
State Route 11 & Calfkiller River, 1.2 miles south of Sparta
Sparta, White County, Tennessee
Photo By: James B. Jones, Jr.
Date: March 1989
Neg: Tennessee Historical Commission
701 Broadway
Nashville, Tennessee 37243-0442

Dam, looking south
#1 of 13

Flume Intake, looking northeast
#2 of 13

Dam/Intake abutment, looking southeast
#3 of 13

Intake structure, looking southeast
#4 of 13

Outside wall of flume with sluice visible, looking north
#5 of 13

Exterior flume wall, looking west
#6 of 13

Flume wall, looking east
#7 of 13

Trash rack in flume, looking northeast
#8 of 13

Flume, looking northwest
#9 of 13

Forebay gates, looking south
#10 of 13

Exterior forebay wall and powerhouse, looking northwest
#11 of 13

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Detail of exterior forebay wall, looking northwest
#12 of 13

Forebay, abandoned turbine, powerhouse and tailrace, looking northwest
#13 of 13