

BRAZOS RIVER BASIN, TEXAS
DESIGN MEMORANDUM NO. 11B

MASTER PLAN
FOR SOMERVILLE RESERVOIR
YEGUA CREEK, TEXAS

U. S. ARMY ENGINEER DISTRICT, FORT WORTH
CORPS OF ENGINEERS
FORT WORTH, TEXAS

FEBRUARY 1963

(Army-Fort Worth, Texas)



DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102

IN REPLY REFER TO
SWFED-P

8 December 1966

SUBJECT: Supplement No. 3, Design Memorandum No. 11B, Master Plan,
Somerville Reservoir, Yegua Creek, Texas

THRU: Division Engineer
Southwestern Division

TO: Chief of Engineers

1. This supplement is submitted in accordance with provisions of EM 1130-2-302, paragraph 18b(1).

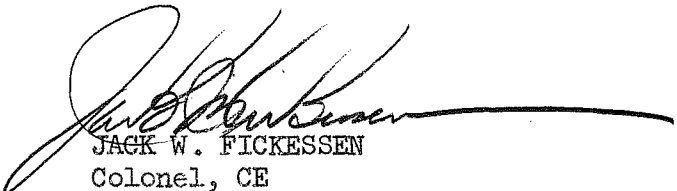
2. The purpose of this supplement is to present a mooring policy for Somerville Reservoir which pertains to the issuance of permits for mooring of private floating facilities such as boathouses, boat docks, and barges, and for fixed piers on the impounded waters. It is intended that this policy be included as supplementary rules and regulations governing the public use of the reservoir.

3. Arrangements for provision of storage facilities are described in the policy.

4. At a meeting held in Somerville, Texas, on 12 July 1966, the provisions of this policy were explained to a group of civic leaders, county and city officials of Washington, Lee, and Burleson Counties. There were no objections to the policy voiced at this meeting and there has been no written or vocal protests received in the district office since that time. In order to publicize the action, news releases will be made to news media in the immediate area of the project.

5. Plans are currently being prepared in the Fort Worth District office for advertising for initial commercial boat storage facilities at Big Creek Park and Yegua Creek Park. It is expected that these facilities will be advertised prior to 21 December 1966. Additional commercial boat storage facilities will be advertised as the need arises.

1 Incl
Mooring Policy


JACK W. FICKESSEN
Colonel, CE
District Engineer

Mooring Policy for Somerville Reservoir

Somerville Reservoir lies immediately southwest of Somerville, Texas, with the major portion of its shoreline bounded by rolling to hilly terrain. All investigations indicate that the reservoir will be subject to heavy visitation and recreational use as soon as impoundment of water has been initiated. Since the reservoir is located in a scenic region, there is a need for preservation of the shoreline and waters of the reservoir in as near the natural state as possible. In addition, we have a definite obligation to all concerned in connection with fire control, and an obligation to the general public from a public health, water pollution control, and navigational safety standpoint.

The water level of the new reservoir will be subject to fluctuation, and maintenance of any water craft moored on the reservoir will be a constant, day-to-day, time-consuming, costly and difficult problem for the owners. Lack of proper attention to the craft would result in eventual destruction by reason of wind and wave action or reservoir fluctuation, after which the craft would become navigational hazards or eyesores.

During the past 17 years of management and operation of reservoirs, we have found that the majority of owners of individual craft moored on the reservoirs have not assumed the responsibility for properly maintaining their craft. Such lack of action on their part has resulted in the despoilment of the natural scenic beauty of the shoreline lands, impairment of public health, operational problems, creation of fire hazards, establishment of navigational and water sports hazards, and general hampering of the use of land and water areas by the general public.

Therefore, in the best interests of all concerned, we have established a policy for the operation and management of Somerville Reservoir which prohibits the unrestricted placement and mooring of individual boats, barges, boathouses, houseboats, etc., and the construction of permanent piers and docks on the reservoir.

To assist the owners of vessels in launching or removing their vessels from the reservoir waters, hard-surfaced roads and boat launching facilities will be provided. In addition (subject to compliance with appropriate regulations) written requests from adjoining real estate developers (in cooperation with appropriate county authorities) for authority to construct access roads to reservoir waters and build boat launching facilities and parking areas at the ends of such roads will be given consideration.

Where an adequately justified need for boat storage and vessel mooring facilities develops, the Corps of Engineers will arrange to have these facilities provided by concessionaires. Dry storage of vessels on privately owned lands will also be encouraged.

Individuals who desire to store and moor their boats, boathouses, houseboats, docks, barges, and other vessels on the reservoir for periods in excess of three days at any one time will be requested to arrange for such storage in selected storage areas leased to concessionaires. Such concessionaires will be responsible for the care and protection of vessels stored with them when not in use, and for the movement of such vessels in case of fluctuation of the reservoir level and in other emergencies. No permits will be issued by the Corps of Engineers for the construction of permanent piers and docks or the mooring of any individual boats, boat docks, boathouses, barges, houseboats or other vessels on Somerville Reservoir waters at locations other than those included in concession lease areas.

Bona fide yacht clubs may, upon written request, be given consideration to lease certain land and water areas for the purpose of providing collected multiple storage facilities for vessels belonging to members of the clubs.

Concession areas providing vessel storage will be established as soon as the reservoir reaches a stage suitable and practicable for such an operation.

Further information regarding this policy may be obtained from the project engineer for operation and maintenance of the reservoir. The project headquarters is located adjacent to the southwest city limits of Somerville, Texas.

Any vessels moored in other than designated areas on the reservoir for any one period longer than three days will be considered as abandoned property and will be impounded and disposed of by the Government in accordance with existing regulations.

With the adoption of the above policy, we feel that we can operate and maintain a well controlled reservoir which will be an asset to the surrounding communities and enjoyable for all concerned.

U. S. ARMY ENGINEER DISTRICT, FORT WORTH

CORPS OF ENGINEERS

100 WEST VICKERY BOULEVARD
FORT WORTH, TEXAS

ADDRESS REPLY TO:
P. O. BOX 1600
FORT WORTH, TEXAS 76101

IN REPLY REFER TO:
SWFED-P

23 September 1966

SUBJECT: Supplement No. 2 to Design Memorandum No. 11B, Master Plan,
Somerville Reservoir, Yegua Creek, Texas

TO: Division Engineer
Southwestern Division

1. Reference is made to paragraph 4-08g of the master plan for Somerville Reservoir which pertains to the development of Brushy Creek Park. It was noted that development of this area was deferred to the future because of borrow operations in the area. It was further noted that development will be planned upon completion of the borrow and topographic survey.

2. The purpose of this supplement is to present the proposed development of that portion of Brushy Creek Park which was not affected by the borrow operations at the project. Development of this area is considered essential to the recreation program at the project in order to provide public access to the northern shoreline of the reservoir at the dam site.

3. Access to Brushy Creek Park will be provided over a construction ramp which is currently existing at the project which will connect with a road on the upstream side of the embankment leading to the area. This ramp will connect with a road that is part of the street system of the city of Somerville. It is proposed to surface the construction ramp and upgrade the ramp for park access purposes.

4. Brushy Creek Park (plate 30) will consist of approximately 50 acres above the ultimate conservation pool, elevation 238.0. Terrain is gently sloping and vegetative cover in the area is sparse. The proposed development in the area will consist of the construction of access road, boat launching ramps, sanitary facilities, potable water, and picnicking facilities. An estimate of the cost of providing these facilities is shown in the accompanying table. In the initial development, it is proposed to construct only the road, ramps, and toilet facility. The remainder of the development will be accomplished in the future development program.

SWFED-P

23 September 1966

SUBJECT: Supplement No. 2 to Design Memorandum No. 11B, Master Plan,
Somerville Reservoir, Yegua Creek, Texas

5. It is intended that the inclosed site layout plan for Brushy Creek Park supersede plate 30 now contained in the approved master plan.

6. Deliberate impoundment of water at Somerville Reservoir is scheduled for November 1966. In order to provide these concrete boat ramp facilities prior to inundation at the project, approval is requested to prepare plans and specifications concurrent with review of this supplement so that modification to the existing contract can be effected to construct the concrete boat ramps.

7. Upon approval of this supplement, request for funds for this construction will be made in accordance with established procedures.

FOR THE DISTRICT ENGINEER:

2 Incl (7 cys ea)
as


JACK W. BUTLER
Acting Executive Officer

14
SWDPL-R (SWFED-P, 23 Sep 66) 1st Ind
SUBJECT: Supplement No. 2 to Design Memorandum No. 11B, Master Plan,
Somerville Reservoir, Yegua Creek, Texas

Div Engr, SWDiv, CE, 1114 Commerce St, Dallas, Tex 75202, 26 Oct 66

TO: Chief of Engineers, Attn: ENGCW-OM

1. Forwarded, recommending approval subject to the following comments.

a. Par 3 and Plate 30. It is noted that access road 'A' crosses a swale along the toe of the embankment and again about midway of the peninsula where the roadway apparently will be below elevation 245.0, the five year flood frequency. Since this road is the only means of ingress and exit to the picnic area and boat launching facilities, the District should fully consider this aspect in design of the roadway and furnish the basis for the design finally proposed on the letter transmitting the plans and specifications for review and approval.

b. Par 4. This paragraph states that in the initial development it is proposed to construct only the roads, ramps and toilet facility which does not agree with the initial development as shown in the estimate of cost. Information obtained from the District indicates that, if possible, they intend to complete the development as shown in the estimate. Signs, buoys and site improvement are normal to developing the area and, if funds permit, the water system and the electric service lines will also be constructed.

c. The supplement does not state what action is planned for the Brushy Creek Park in response to EC 1110-2-13, 1 Oct 65, "Beautification Aspects of Engineering Design for Civil Works Projects" and multiple letter SWDGB-5, 10 Dec 65, subject: "Beautification of Civil Works Projects, EC 1110-2-13." Information as to measures planned for the reservoir should be furnished.

d. Par 6. In order to permit construction of the concrete boat ramp facilities by modification of an existing contract, prior to inundation, approval to prepare plans and specifications, concurrent with review of this supplement is granted by copy of this indorsement.

FOR THE DIVISION ENGINEER:

Marshall R. Jankovich
for HOWARD R. BARE
Acting Chief, Planning Division

2 Incl
wd 4 cys ea

Copy furnished:
Fort Worth District

ENGW-OM

2nd Ind

SUBJECT: Supplement No. 2 to Design Memorandum No. 11B, Master Plan,
Somerville Reservoir, Yegua Creek, Texas

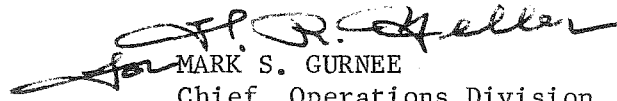
DA, CofEngrs, Washington, D. C. 20315, 14 November 1966

TO: Division Engineer, Southwestern Division

The Supplement is approved subject to the comments of the Division
Engineer in the preceding Indorsement.

FOR THE CHIEF OF ENGINEERS:

Incl
w/d


for MARK S. GURNEE
Chief, Operations Division
Civil Works

SWDPL-R (SWFGP, 28 Mar 66) 3rd Ind
SUBJECT: Supplement No. 1 to Design Memorandum No. 11B, Master Plan,
Somerville Reservoir, Yegua Creek, Texas

Div Engr, SWDiv, CE, 1114 Commerce St, Dallas, Tex 75202, 25 Jul 66

TO: District Engineer, Fort Worth

M.A.W.
for H. R. B.

Copy furnished:
CofEngrs, Attn: ENGOW-OM (3)

ENG CW-OM(SWFGP 28 March 66) 2nd Ind
SUBJECT: Supplement No. 1 to Design Memorandum No. 11B, Master Plan,
Somerville Reservoir, Yegua Creek, Texas

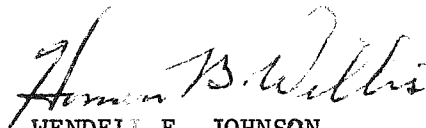
DA, CofEngrs, Washington, D. C., 20315, 13 July 1966

TO: Division Engineer, Southwestern Division

Supplement No. 1 to Design Memorandum No. 11B is approved subject
to the comments of the Division Engineer in the preceding 1st Indorsement.

FOR THE CHIEF OF ENGINEERS:

4 Incl
w/d


WENDELL E. JOHNSON
Chief, Engineering Division
Civil Works

DETAILS OF ESTIMATE OF COST FOR DEVELOPMENT OF BRUSHY CREEK PARK

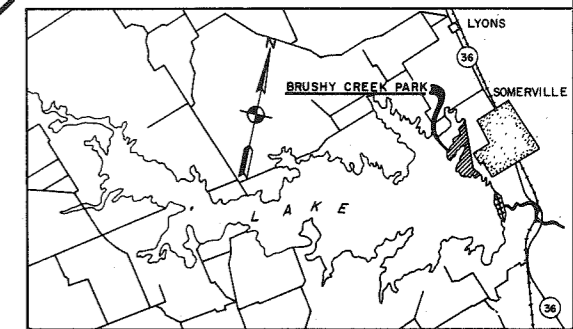
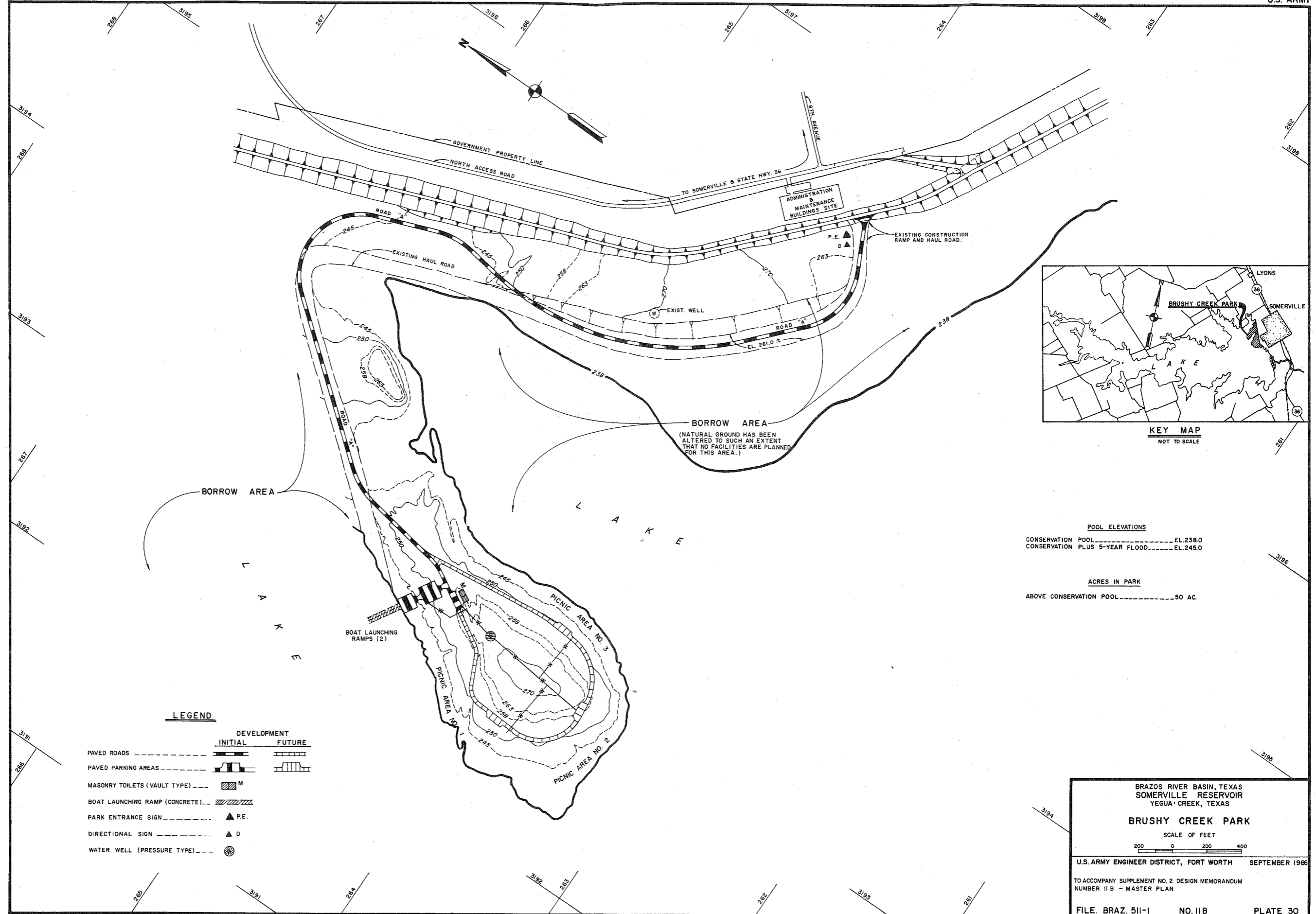
Item	:Unit	:Initial development		:Future development		:Total	
		:Quantity	: Cost	:Quantity	: Cost	:Quantity	: Cost
<u>Roads:</u>							
Paved	Mi	1.2	\$48,000	0.5	\$20,000	1.7	\$ 68,000
<u>Parking areas:</u>							
Paved	S.F.	2,000	600	6,000	1,800	8,000	2,400
<u>Boat launching sites:</u>							
Boat ramps (concrete)	Each	2	9,000	-	-	2	9,000
Turnarounds and trailer parking (paved)	S.F.	36,100	10,800	-	-	36,100	10,800
<u>Toilets:</u>							
Masonry double unit (concrete pit type)	Each	1	6,000	-	-	1	6,000
<u>Water systems:</u>							
Water well	Each	1	4,000	-	-	1	4,000
Water service lines	L.F.	1,000	2,000	1,500	3,000	2,500	5,000
Drinking fountains	Each	2	400	3	600	5	1,000
<u>Picnic facilities:</u>							
1 picnic unit consists of 2 tables, 1 fireplace, and 1 trash can.	Each	-	-	15	4,500	15	4,500
<u>Picnic shelters:</u>							
1-table shelter	Each	-	-	30	15,000	30	15,000
<u>Site improvement:</u>							
Includes tree planting, seeding, underbrushing, and cleanup	L.S.	Job	1,000	Job	4,000	Job	5,000

DETAILS OF ESTIMATE OF COST FOR DEVELOPMENT OF BRUSHY CREEK PARK

Item	:Unit	:Initial development		:Future development		:Total	
		:Quantity	: Cost	:Quantity	: Cost	:Quantity	: Cost
<u>Roads:</u>							
Paved	Mi	1.2	\$48,000	0.5	\$20,000	1.7	\$ 68,000
<u>Parking areas:</u>							
Paved	S.F.	2,000	600	6,000	1,800	8,000	2,400
<u>Boat launching sites:</u>							
Boat ramps (concrete)	Each	2	9,000	-	-	2	9,000
Turnarounds and trailer parking (paved)	S.F.	36,100	10,800	-	-	36,100	10,800
<u>Toilets:</u>							
Masonry double unit (concrete pit type)	Each	1	6,000	-	-	1	6,000
<u>Water systems:</u>							
Water well	Each	1	4,000	-	-	1	4,000
Water service lines	L.F.	1,000	2,000	1,500	3,000	2,500	5,000
Drinking fountains	Each	2	400	3	600	5	1,000
<u>Picnic facilities:</u>							
1 picnic unit consists of 2 tables, 1 fireplace, and 1 trash can.	Each	-	-	15	4,500	15	4,500
<u>Picnic shelters:</u>							
1-table shelter	Each	-	-	30	15,000	30	15,000
<u>Site improvement:</u>							
Includes tree planting, seeding, underbrushing, and cleanup	L.S.	Job	1,000	Job	4,000	Job	5,000

DETAILS OF ESTIMATE OF COST FOR DEVELOPMENT OF BRUSHY CREEK PARK
(continued)

Item	:Unit	:Initial development		:Future development		:Total	
		:Quantity	: Cost	:Quantity	: Cost	:Quantity	: Cost
Signs	L.S.	Job	\$ 700	Job	\$ 300	Job	\$ 1,000
Buoys	L.S.	Job	700	-	-	Job	700
Electric service lines	L.S.	Job	<u>1,200</u>	-	<u>-</u>	Job	<u>1,200</u>
Subtotal			\$84,400		\$49,200		\$133,600
E&D			5,900		3,400		9,300
S&A			<u>5,100</u>		<u>3,000</u>		<u>8,100</u>
Total			\$95,400		\$55,600		\$151,000



POOL ELEVATIONS

CONSERVATION POOL	EL. 238.0
CONSERVATION PLUS 5-YEAR FLOOD	EL. 245.0

ACRES IN PARK

ABOVE CONSERVATION POOL	50 AC.
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LEGEND

	DEVELOPMENT	
	INITIAL	FUTURE
PAVED ROADS		
PAVED PARKING AREAS		
MASONRY TOILETS (VAULT TYPE)		
BOAT LAUNCHING RAMP (CONCRETE)		
PARK ENTRANCE SIGN		
DIRECTIONAL SIGN		
WATER WELL (PRESSURE TYPE)		

BRAZOS RIVER BASIN, TEXAS
SOMERVILLE RESERVOIR
YEGUA CREEK, TEXAS

BRUSHY CREEK PARK

SCALE OF FEET
0 200 400

U.S. ARMY ENGINEER DISTRICT, FORT WORTH SEPTEMBER 1966

TO ACCOMPANY SUPPLEMENT NO. 2 DESIGN MEMORANDUM
NUMBER IIB - MASTER PLAN

FILE. BRAZ. 511-1 NO. IIB PLATE 30

SWDGB-6 (SWFGP 28 March 66) 1st Ind
SUBJECT: Supplement No. 1 to Design Memorandum No. 11B, Master Plan,
Somerville Reservoir, Yegua Creek, Texas

Div Engr, SWDiv, CE, 1114 Commerce St., Dallas, Tex. 75202 15 Apr 66

TO: Chief of Engineers, ATTN: ENGOW-OM

1. Forwarded, recommending approval subject to the following comments:

a. Birch Creek Park, Plates 20, 22 and 24.

(1) Construction of a bituminous surfaced access road, together with necessary trailer parking, turnaround, and toilet facilities, should be limited at this time to the road serving the ramps shown on Plate 22, since these ramps are so located as to permit satisfactory usage during the period the pool is operated to elevation 230.0. Construction of the road to the ramps shown on Plate 24, together with the support facilities, should be deferred because of unsatisfactory water conditions which will prevail at this site with the interim conservation pool, as previously stated in Par 1f and 1h of 1st Ind., 4 Nov 63, to letter SWFGP, 28 Feb 63, subject "Somerville Dam and Reservoir, Yegua Creek, Texas, Design Memorandum No. 11B, Master Plan.

(2) Construction of the bituminous surfaced road and parking area for the concessionaire facilities should be deferred until such time as the pool is operated at the ultimate conservation pool elevation of 238.0. Even at a pool elevation of 238.0 the site is not considered completely satisfactory since at the five-year drawdown elevation of 230.0 only a shallow channel of water some fifty feet or less in width would be available to serve the area. Since this is the only concession area planned for the upper reaches of the lake consideration should be given at this time to excavating a portion of the shoreline to a depth and width to provide the water areas required to make this a more usable and satisfactory concession site or to selection of an alternate site having more suitable offshore topography.

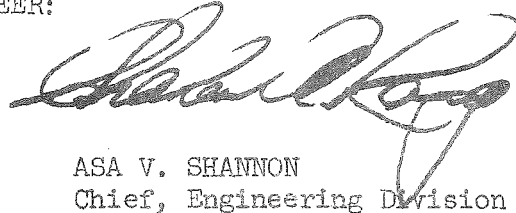
b. Yegua Creek Park, Plate 32.

(1) A bituminous surfaced road and parking in the concession area is considered necessary to assure an attractive development, and having the paved area in place should be of considerable value in attracting proposals from competent concession operators. The topography also shows that this will be a completely usable concession facility at either elevation 230.0, interim conservation pool or at elevation 238.0, ultimate conservation pool.

SWDGB-6 (SWFGP 28 March 66) 1st Ind (Cont'd)
SUBJECT: Supplement No. 1 to Design Memorandum No. 11B, Master Plan,
Somerville Reservoir, Yegua Creek, Texas

2. Modification of the plan on plate 32 should be accomplished at the subsequent up-dating of the Master Plan to conform to the comment contained in Par d of the 4th Ind to correspondence referenced in Par 1a(1) above, which states that "travel trailer camping area No. 2 and tent camping area No. 2 should be combined as one area designated for travel trailer and/or tent camping, with the flow of traffic in one direction."

FOR THE DIVISION ENGINEER:



ASA V. SHANNON
Chief, Engineering Division

4 Incl
wd 4 cys ea

Copy furnished:
Fort Worth District

U. S. ARMY ENGINEER DISTRICT, FORT WORTH

CORPS OF ENGINEERS

100 WEST VICKERY BOULEVARD

FORT WORTH, TEXAS

ESS REPLY TO:
BOX 1600
FORT WORTH, TEXAS 76101

IN REPLY REFER TO:
SWFGP

28 March 1966

SUBJECT: Supplement No. 1 to Design Memorandum No. 11B, Master Plan,
Somerville Reservoir, Yegua Creek, Texas

TO: Division Engineer
Southwestern Division

1. Reference is made to SWFGP letter dated 28 February 1963, subject:
Somerville Dam and Reservoir, Yegua Creek, Texas, Design Memorandum No. 11B,
Master Plan, and subsequent indorsements thereto.

2. Seven copies of the subject supplement are submitted for review and
approval.

3. The purpose of this supplement is to propose the construction of
roads, parking areas, and sanitary facilities in Birch Creek Park and
Yegua Creek Park at Somerville Reservoir. The proposed road and parking
area construction is designated by paved parking symbol on the accompany-
ing plates and the proposed toilet facilities are designated by hatched
markings. Details of this proposed construction are as follows:

a. Birch Creek Park (plates 20, 22 and 24).- It is proposed to
construct a bituminous surfaced road and parking area for concessionaire
facilities located in the northeastern portion of this park. These
facilities are proposed for inclusion in the initial stage of development
in order to comply with comment contained in paragraph 2 of 5th indorsement
to letter referenced in paragraph 1 above. It is also proposed to construct
initially bituminous surfaced access roads to serve the two boat launching
ramp sites with the necessary trailer parking and turnarounds and toilet
facilities. These two ramps are the only ramps at the project not served
by access roads. The proposed ramps at McCain Creek Park and Nails Creek
Park were not constructed because of unsatisfactory terrain conditions.
The estimated cost for the construction of these facilities will be
approximately \$205,000, as shown in the following tabulation.

Roads, 3.9 miles	\$136,500
Trailer parking and turnarounds	18,400
4 toilets, frame (concrete pit)	4,800
	<u>\$159,700</u>
10% contingency	16,000
Subtotal	<u>\$175,700</u>
E&D	17,600
S&A	<u>11,700</u>
Total	<u>\$205,000</u>

SWFGP

28 March 1966

SUBJECT: Supplement No. 1 to Design Memorandum No. 11B, Master Plan,
Somerville Reservoir, Yegua Creek, Texas

b. Yegua Creek Park (plate 32).- It is proposed to construct a bituminous surfaced road and parking area for concessionaire facilities located in this park. These facilities are proposed for inclusion in the initial stage of development in order to comply with comment contained in paragraph 2 of 5th indorsement to letter referenced in paragraph 1 above. It is also proposed to construct initially toilet facilities located at the boat launching ramp sites. The cost for the construction of these facilities in Yegua Creek Park will be approximately \$38,000 as shown in the following tabulation.

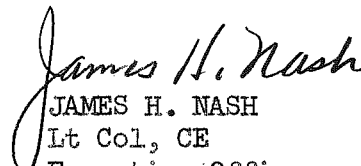
Roads, 0.5 mile	\$17,500
Parking area	2,000
Two toilets, masonry (double unit)	10,000
	<u>\$29,500</u>
10% contingency	2,950
	<u>\$32,450</u>
E&D	3,250
S&A	2,300
Total	<u>\$38,000</u>

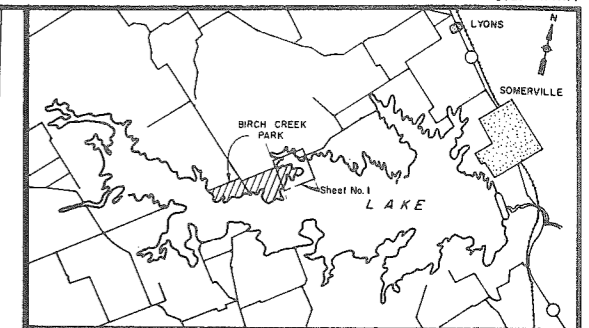
4. It is intended that the inclosed site layout plans for Birch Creek Park and Yegua Creek Park supersede plates 20, 22, 24, and 32 now contained in the approved master plan.

5. Upon approval of this supplement, request for funds for this construction will be made in accordance with established procedures.

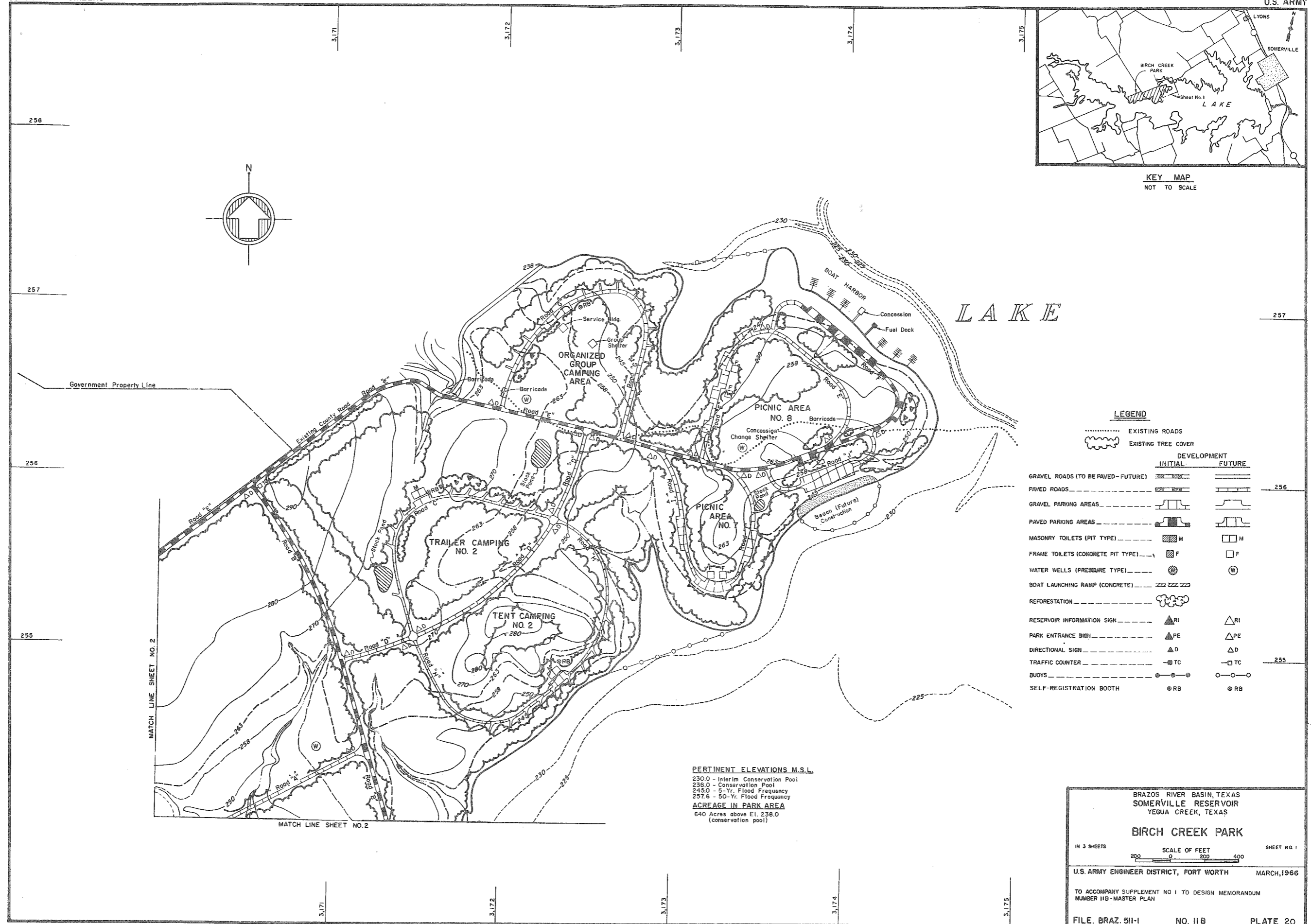
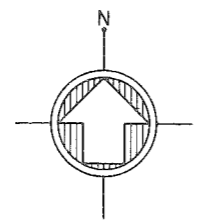
FOR THE DISTRICT ENGINEER:

4 Incl (7 cys ea)
as


JAMES H. NASH
Lt Col, CE
Executive Officer



KEY MAP
NOT TO SCALE



LAKE

LEGEND

.....	EXISTING ROADS		
~~~~~	EXISTING TREE COVER		
		DEVELOPMENT	
		INITIAL	FUTURE
---	GRAVEL ROADS (TO BE PAVED-FUTURE)	---	---
---	PAVED ROADS	---	---
---	GRAVEL PARKING AREAS	---	---
---	PAVED PARKING AREAS	---	---
---	MASONRY TOILETS (PIT TYPE)	M	M
---	FRAME TOILETS (CONCRETE PIT TYPE)	F	F
---	WATER WELLS (PRESSURE TYPE)	W	W
---	BOAT LAUNCHING RAMP (CONCRETE)	---	---
---	REFORESTATION	---	---
---	RESERVOIR INFORMATION SIGN	RI	RI
---	PARK ENTRANCE SIGN	PE	PE
---	DIRECTIONAL SIGN	D	D
---	TRAFFIC COUNTER	TC	TC
---	BUOYS	---	---
---	SELF-REGISTRATION BOOTH	RB	RB

**PERTINENT ELEVATIONS M.S.L.**  
 230.0 - Interim Conservation Pool  
 236.0 - Conservation Pool  
 245.0 - 5-Yr. Flood Frequency  
 257.6 - 50-Yr. Flood Frequency

**ACREAGE IN PARK AREA**  
 640 Acres above El. 236.0  
 (conservation pool)

BRAZOS RIVER BASIN, TEXAS  
 SOMERVILLE RESERVOIR  
 YEGUA CREEK, TEXAS

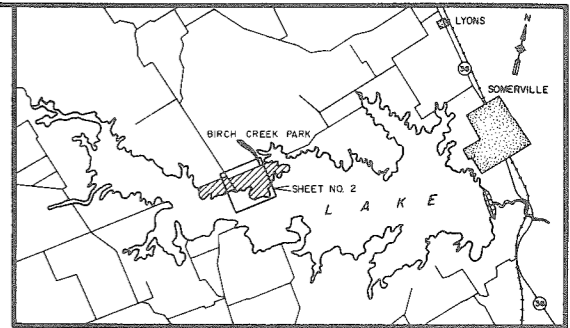
**BIRCH CREEK PARK**

IN 3 SHEETS      SCALE OF FEET      SHEET NO. 1  
 200      0      200      400

U.S. ARMY ENGINEER DISTRICT, FORT WORTH      MARCH, 1966

TO ACCOMPANY SUPPLEMENT NO. 1 TO DESIGN MEMORANDUM  
 NUMBER 11B - MASTER PLAN

FILE. BRAZ. 511-1      NO. 11B      PLATE 20  
 C.E.J.      Revised February 1964



**LEGEND**

.....	EXISTING ROAD		
~~~~~	EXISTING TREE COVER		
DEVELOPMENT			
	INITIAL	FUTURE	
-----	GRAVEL ROADS (To be paved - Future)	-----	
-----	PAVED ROADS	-----	
-----	GRAVEL PARKING AREAS	-----	
-----	PAVED PARKING AREAS	-----	
-----	MASONRY TOILETS (PIT TYPE)	M	M
-----	FRAM TOILETS (CONCRETE PIT TYPE)	F	F
-----	WATER WELLS (PRESSURE TYPE)	W	W
-----	BOAT LAUNCHING RAMP (CONCRETE)	-----	
-----	REFORESTATION	-----	
-----	RESERVOIR INFORMATION SIGN	RI	RI
-----	PARK ENTRANCE SIGN	PE	PE
-----	DIRECTIONAL SIGN	D	D
-----	TRAFFIC COUNTER	TC	TC
-----	BUOYS	B	B
-----	SELF REGISTRATION BOOTH	RB	RB

**BRAZOS RIVER BASIN, TEXAS
SOMERVILLE RESERVOIR
YEGUA CREEK, TEXAS**

BIRCH CREEK PARK

IN 3 SHEETS SHEET NO. 2

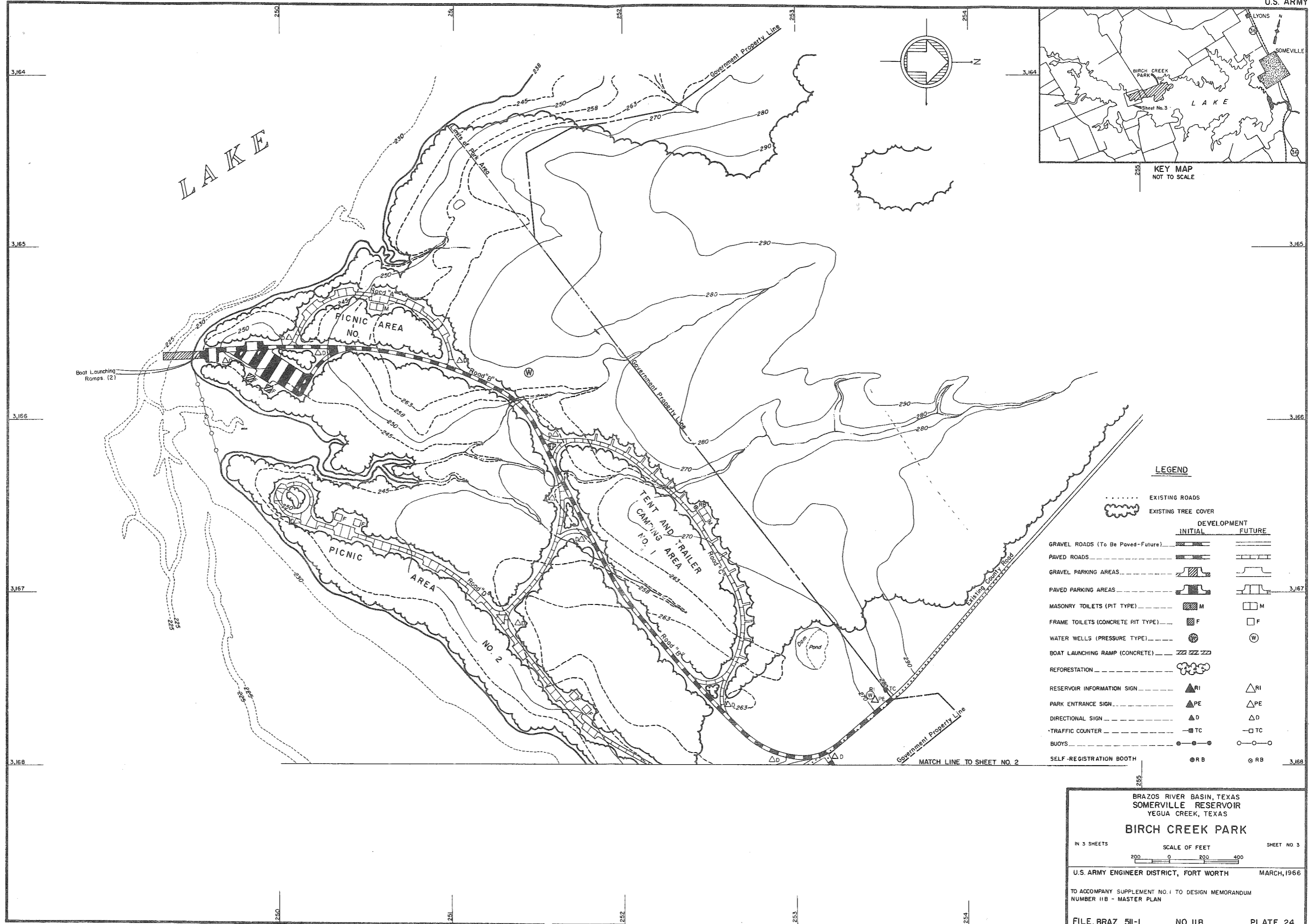
SCALE OF FEET
0 200 400

U.S. ARMY ENGINEER DISTRICT, FORT WORTH MARCH, 1966

TO ACCOMPANY SUPPLEMENT NO. 1 TO DESIGN MEMORANDUM
NUMBER 11B - MASTER PLAN

FILE BRAZ. 511-1 NO. 11B PLATE 22

66H Revised February 1964



LEGEND

	EXISTING ROADS		
	EXISTING TREE COVER		
		DEVELOPMENT	
		INITIAL	FUTURE
	GRAVEL ROADS (To Be Paved-Future)		
	PAVED ROADS		
	GRAVEL PARKING AREAS		
	PAVED PARKING AREAS		
	MASONRY TOILETS (PIT TYPE)		
	FRAME TOILETS (CONCRETE PIT TYPE)		
	WATER WELLS (PRESSURE TYPE)		
	BOAT LAUNCHING RAMP (CONCRETE)		
	REFORESTATION		
	RESERVOIR INFORMATION SIGN		
	PARK ENTRANCE SIGN		
	DIRECTIONAL SIGN		
	TRAFFIC COUNTER		
	BUOYS		
	SELF-REGISTRATION BOOTH		

BRAZOS RIVER BASIN, TEXAS
 SOMERVILLE RESERVOIR
 YEGUA CREEK, TEXAS

BIRCH CREEK PARK

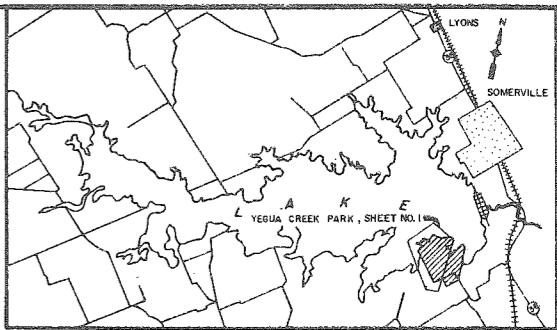
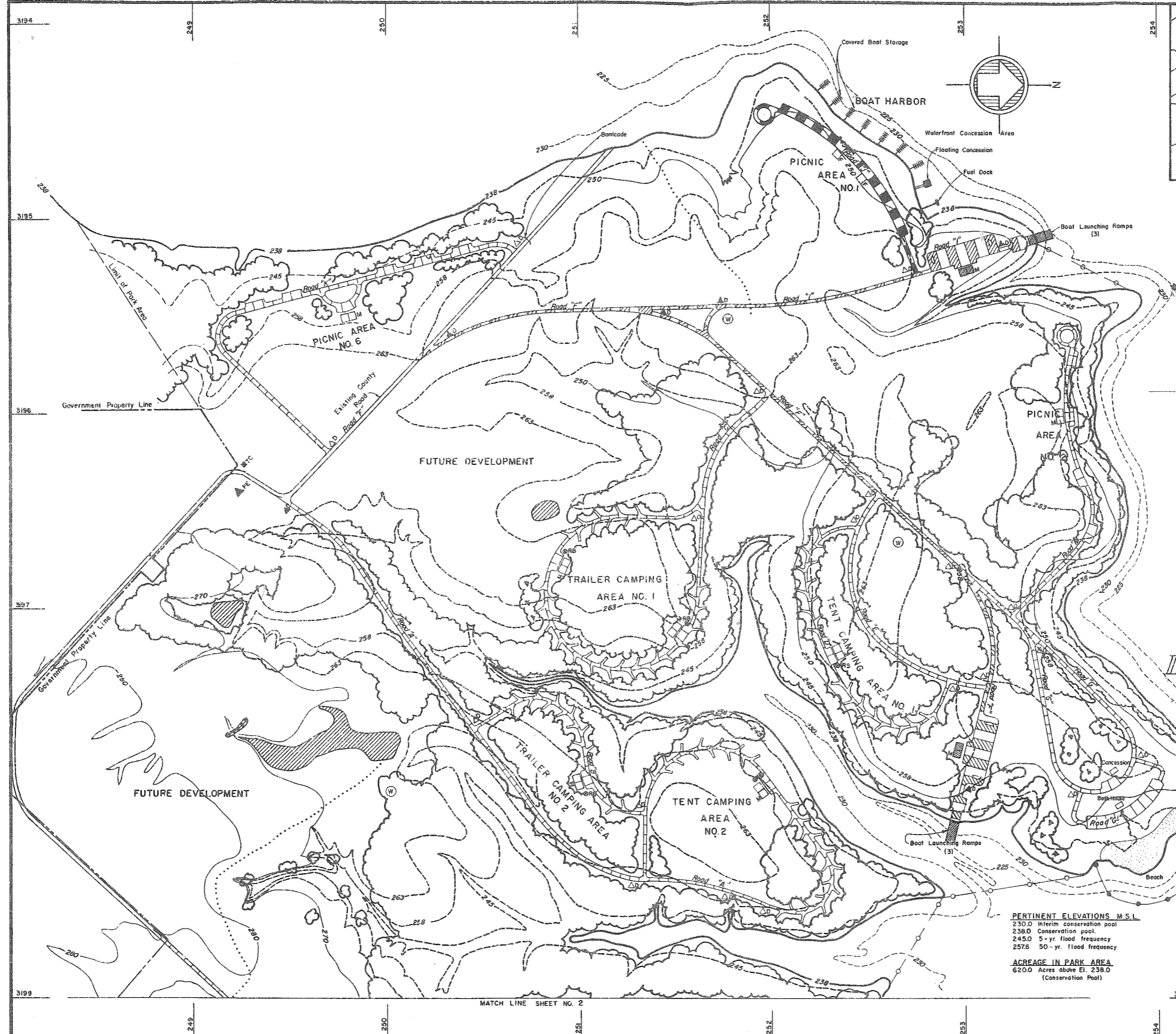
IN 3 SHEETS SHEET NO. 3

SCALE OF FEET
 0 200 400

U.S. ARMY ENGINEER DISTRICT, FORT WORTH MARCH, 1966

TO ACCOMPANY SUPPLEMENT NO. 1 TO DESIGN MEMORANDUM
 NUMBER 11B - MASTER PLAN

FILE BRAZ. 511-1 NO. 11B PLATE 24



KEY MAP
NOT TO SCALE

LEGEND

..... EXISTING ROAD
 [Clouds] EXISTING TREE COVER

	DEVELOPMENT	
	INITIAL	FUTURE
GRAVEL ROADS (TO BE PAVED - FUTURE)	[Symbol]	[Symbol]
PAVED ROADS	[Symbol]	[Symbol]
GRAVEL PARKING AREAS	[Symbol]	[Symbol]
PAVED PARKING AREAS	[Symbol]	[Symbol]
MASONRY TOILETS (PIT TYPE)	[Symbol]	[Symbol]
FRAME TOILETS (CONCRETE PIT TYPE)	[Symbol]	[Symbol]
WATER WELLS (PRESSURE TYPE)	[Symbol]	[Symbol]
BOAT LAUNCHING RAMP (CONCRETE)	[Symbol]	[Symbol]
REFORESTATION	[Symbol]	[Symbol]
RESERVOIR INFORMATION SIGN	[Symbol]	[Symbol]
PARK ENTRANCE SIGN	[Symbol]	[Symbol]
DIRECTIONAL SIGN	[Symbol]	[Symbol]
TRAFFIC COUNTER	[Symbol]	[Symbol]
BUOYS	[Symbol]	[Symbol]
SELF REGISTRATION BOOTH	[Symbol]	[Symbol]

PERTINENT ELEVATIONS M.S.L.
 230.0 Interim conservation pool
 238.0 Conservation pool
 245.0 5-yr flood frequency
 257.6 50-yr flood frequency

ACREAGE IN PARK AREA
 620.0 Acres above El. 238.0
 (Conservation Pool)

BRAZOS RIVER BASIN, TEXAS
 SOMERVILLE RESERVOIR
 YEGUA CREEK, TEXAS

YEGUA CREEK PARK

SCALE OF FEET
 IN 2 SHEETS 200 0 200 400 SHEET NO. 1

U.S. ARMY ENGINEER DISTRICT, FORT WORTH MARCH, 1964

TO ACCOMPANY SUPPLEMENT NO. 1 TO DESIGN MEMORANDUM
 NUMBER 11B - MASTER PLAN

FILE BRAZ. 511-1 NO. 11 B PLATE 32
 R.Z. Revised February 1964

3194 249 250 251 252 253 254

3195 238 245 258 263 265 268 270

3196 Government Property Line Existing County Road No. Road "A" Road "B" Road "C" Road "D" Road "E" Road "F" Road "G" Road "H" Road "I" Road "J" Road "K" Road "L" Road "M" Road "N" Road "O" Road "P" Road "Q" Road "R" Road "S" Road "T" Road "U" Road "V" Road "W" Road "X" Road "Y" Road "Z" Road "AA" Road "AB" Road "AC" Road "AD" Road "AE" Road "AF" Road "AG" Road "AH" Road "AI" Road "AJ" Road "AK" Road "AL" Road "AM" Road "AN" Road "AO" Road "AP" Road "AQ" Road "AR" Road "AS" Road "AT" Road "AU" Road "AV" Road "AW" Road "AX" Road "AY" Road "AZ" Road "BA" Road "BB" Road "BC" Road "BD" Road "BE" Road "BF" Road "BG" Road "BH" Road "BI" Road "BJ" Road "BK" Road "BL" Road "BM" Road "BN" Road "BO" Road "BP" Road "BQ" Road "BR" Road "BS" Road "BT" Road "BU" Road "BV" Road "BW" Road "BX" Road "BY" Road "BZ" Road "CA" Road "CB" Road "CC" Road "CD" Road "CE" Road "CF" Road "CG" Road "CH" Road "CI" Road "CJ" Road "CK" Road "CL" Road "CM" Road "CN" Road "CO" Road "CP" Road "CQ" Road "CR" Road "CS" 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Road "ZW" Road "ZX" Road "ZY" Road "ZZ"

3197 3198 3199

MATCH LINE SHEET NO. 2

ENGCW-OM (28 Feb 63)

4th Ind

SUBJECT: Somerville Dam and Reservoir, Yegua Creek, Texas, Design
Memorandum No. 11B, Master Plan

HQ, DA, CofEngrs, Washington, D. C., 20315, 2 June 1964

TO: Division Engineer, U. S. Army Engineer Division, Southwestern

The Master Plan is approved subject to the following.

a. Plate 10, Overlook Park - For safety of pedestrians adequate parking areas should be located on the same side of the road as the picnic facilities at sites 2, 3 and 4.

b. Plate 14, Rocky Creek Park, and Plate 32, Yegua Creek Park - for safety of pedestrians parking areas and roadways should not separate clothes changing facilities from the beach.

c. Plate 16, McCain Creek Park - Traffic should not be permitted to enter picnic area through travel trailer camping access road.


d. Plate 32, Yegua Creek Park - Travel trailer camping area No. 2 and tent camping area No. 2 should be combined as one area designated for travel trailer and/or tent camping, with the flow of traffic in one direction.

e. Subject reservoir area will be added to the Federal Code of Regulations, Title 36, Part 311, Governing Public Use of Certain Reservoir Areas at the appropriate time.

f. All project land and water are allocated to operational and public recreation use except for interim agricultural or grazing compatible to future use.

FOR THE CHIEF OF ENGINEERS:

2 Incls w/d


FRANK R. HELLER
Acting Chief, Operations Division
Civil Works

SWDGW-6 (SWFGP, 28 Feb 63) 5th Ind
SUBJECT: Somerville Dam and Reservoir, Yegua Creek, Texas, Design
Memorandum No. 11B, Master Plan

US Army Engr Div, Southwestern, Dallas, Tex, 8 June 64

TO: Dist Engr, US Army Engr Dist, Fort Worth, Tex

1. Subject plan has been approved subject to comments in the preceding indorsements.

2. The plan submitted and approved is in effect considered to be a construction design memorandum or developmental chapter of the Master Plan which will serve as a basis for the initial recreational development proposed. Specific plans and information regarding the zoning, management and administration of project lands and waters should be furnished when land acquisition is substantially complete, as well as your plans for development of commercial services and facilities prior to and following impoundment.

FOR THE DIVISION ENGINEER:



R. D. FIELD
Chief, Engineering Division

SWDGW-6 (SWFGP, 28 Feb 63)

3d Ind

SUBJECT: Somerville Dam and Reservoir, Yegua Creek, Texas, Design Memorandum
No. 11B, Master Plan

US Army Engr Div, Southwestern, Dallas, Tex, 16 March 64

TO: CofEngrs, DA, Washington, D.C. ATTN: ENGCW-OM

Forwarded recommending approval.

FOR THE DIVISION ENGINEER:



R. D. FIELD
Chief, Engineering Division

2 Incl

3. wd 4 cys

4. wd 4 cys

Copy furnished:

Fort Worth District

SWFGP (SWFGP 28 Feb 63)

2d Ind

SUBJECT: Somerville Dam and Reservoir, Yegua Creek, Texas, Design
Memorandum No. 11B, Master Plan

U. S. Army Engr Dist, Ft Worth, Tex, 4 Mar 64

TO: Division Engineer, U. S. Army Engineer Division, Southwestern

1. Comments listed in the first indorsement have been noted and action taken as listed in the following subparagraphs. The subparagraph numbers refer to similarly numbered subparagraphs in the first indorsement.

1a. The cost estimate has been revised to include the estimated cost for electric service.

1b. Names have been assigned to the park areas in lieu of numbers. The text and plates have been revised to show the names of the areas.

1c. Project information signs have been deleted from entrances to public use areas.

1d(1). Overlook Park (Area No. 1). The road within the picnic areas has been realigned basically in accordance with instructions contained in first indorsement. The entry road at the north end of the area has not been deleted, since this road is now an integral portion of the service road which will cross the dam. Consideration is being given to making this service road a public highway.

1d(2). The south end of Overlook Park (Area No. 1) has been redesigned to reflect changes that were necessary because of designation of the area for borrow purposes.

1e(1). Initial development in Rocky Creek Park (Area No. 2) has been revised to include paving of the road from the Government property line to the boat launching ramps.

1e(2). Location of the six masonry toilets about the 50-year flood elevation would place them too far away from the parking and picnicking areas. Since all of the frame toilets are for future development, a reappraisal of the needs for this type of facility can be made at a later date. Therefore, the 14 frame toilets have not been replaced.

1f. Development of McCain Creek Park (Area No. 3) has been deferred to the future with the exception of the construction of boat launching ramps.

1g. Initial development of Nails Creek Park (Area No. 4) has been limited to construction of boat launching ramps.

SWFGP (SWFGP 28 Feb 63)

2d Ind

4 Mar 64

SUBJECT: Somerville Dam and Reservoir, Yegua Creek, Texas, Design
Memorandum No. 11B, Master Plan

lh(1). Construction in Birch Creek Park (Area No. 5) will be limited to boat ramps only.

lh(2). Frame toilets have not been replaced because of reasons cited in subparagraph le(2) above.

li. Brushy Creek Park (Area No. 7). This area has been designated as a borrow area for the construction of the dam. Development has been deferred and note has been added to plate to indicate that development will be planned upon completion of borrow and topographic survey.

2. As a result of the revisions to the plan of development described in the preceding subparagraphs, the number of water wells has been reduced to three and water line extensions have been reduced to 7,400 linear feet.

3. Plans have been revised to indicate primary and secondary roads, road widths, and one-way roads.

4. Adequate buffer zones have been provided between camping areas and picnicking and other day use areas.

5. Pertinent pages of the text and the cost estimate have been revised to reflect the changes made on the plans and described in the preceding paragraphs.

FOR THE DISTRICT ENGINEER:



C. F. SWENSON
Chief, Engineering Division

2 Incl

wd Incl 1 & 2

Added 2 incl

3. Design Memo No. 11B (7 cys)

w/revised pages c, 2,
and 9-12, and revised
plates 4 and 9-35.

4. Revised Cost Estimate (7 cys)

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2	Parks and reservoirs within 50 miles of the proposed dam site	6

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2	Embankment plan and profile - Sheet No. 2
3	Pool elevation - probability and duration curve
4	Water depths areas
5	Reservoir clearing
6	Reservoir clearing
7	Reservoir clearing
8	Regional recreation areas
9	General development plan
10	Overlook Park
11	Overlook Park (Mosaic)
12	Rocky Creek Park - Sheet No. 1
13	Rocky Creek Park - Sheet No. 1 (Mosaic)
14	Rocky Creek Park - Sheet No. 2
15	Rocky Creek Park - Sheet No. 2 (Mosaic)
16	McCain Creek Park
17	McCain Creek Park (Mosaic)
18	Nails Creek Park
19	Nails Creek Park (Mosaic)
20	Birch Creek Park - Sheet No. 1
21	Birch Creek Park - Sheet No. 1 (Mosaic)
22	Birch Creek Park - Sheet No. 2
23	Birch Creek Park - Sheet No. 2 (Mosaic)
24	Birch Creek Park - Sheet No. 3
25	Birch Creek Park - Sheet No. 3 (Mosaic)
26	Big Creek Park - Sheet No. 1
27	Big Creek Park - Sheet No. 1 (Mosaic)
28	Big Creek Park - Sheet No. 2
29	Big Creek Park - Sheet No. 2 (Mosaic)
30	Brushy Creek Park
31	Brushy Creek Park (Mosaic)
32	Yegua Creek Park - Sheet No. 1
33	Yegua Creek Park - Sheet No. 1 (Mosaic)
34	Yegua Creek Park - Sheet No. 2
35	Yegua Creek Park - Sheet No. 2 (Mosaic)

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APPENDIX INDEX

Appendix
Number

Title

I Report prepared by U. S. Department of the Interior,
Region Three Office, National Park Service

BRAZOS RIVER BASIN, TEXAS

DESIGN MEMORANDUM NO. 11B

MASTER PLAN
FOR SOMERVILLE RESERVOIR
YEGUA CREEK, TEXAS

I - INTRODUCTION

1-01. Authority for the project.- Congressional authority for the construction of the Somerville Reservoir, a unit in the plan of improvements for the Brazos River Basin, Texas, is contained in the Flood Control Act approved 3 September 1954 (Public Law 780, 83d Congress, 2d Session) in accordance with the plan of improvements as outlined in House Document No. 535 (81st Congress, 2d Session). Authority to initiate advance planning on the project is contained in the Public Works Appropriation Act of 1959, approved 2 September 1958 (Public Law 85-863) and in Advice of Allotment C-126, dated 6 October 1958.

1-02. Authority for recreational program.- Congressional authority for the recreational program at reservoir projects under the control of the Department of the Army is contained in the Flood Control Act approved 22 December 1944 (Public Law 534, 78th Congress, 2d Session) and amended by additional acts as follows: the Flood Control Act approved 24 July 1946 (Public Law 526, 79th Congress, 2d Session), the Flood Control Act approved 3 September 1954 (Public Law 780, 83d Congress, 2d Session), and the Flood Control Act approved 23 October 1962 (Public Law 87-874, 87th Congress, 2d Session).

1-03. Scope of this report.- This design memorandum presents a plan to guide the administration, development, and coordinated management of land and water areas of the Somerville Reservoir project. The concept is to obtain the maximum utilization of the project area for public use, recreational activities, and other feasible uses.

II - DESCRIPTION AND CHARACTERISTICS OF THE PROJECT

2-01. Project purposes.- The Somerville Reservoir will be a flood control and water conservation project.

2-02. Reservoir water storage negotiations.- The Brazos River Authority, a state agency, has entered into a contract with the Department of the Army to purchase the conservation storage space in the reservoir. The contract was approved by the Secretary of the Army on 10 May 1962. The top of the conservation pool will be at an interim elevation of 230.0 during the period between the date of deliberate impoundment and the actual date the Brazos River Authority starts using water from the conservation-

storage space. This elevation corresponds to an average drawdown recurrence-interval of once in five years based on hypothetical reservoir regulation with the top of conservation pool at elevation 238.0.

2-03. Location.- The Somerville Dam site, located on Yegua Creek 20.0 river miles upstream from its confluence with the Brazos River, lies southwest of the town of Somerville, Texas. The dam is in the south central section of Burleson County and the north central section of Washington County, Texas. The reservoir area lies within Burleson, Washington, and Lee Counties, Texas. The plan and profile of the embankment are shown on plates 1 and 2.

2-04. Accessibility.-

a. Roads.- State Highway No. 36 is the main road that serves the town of Somerville. This highway crosses Yegua Creek about 0.7 mile downstream from the dam site. Access to the government property and public use areas will be available over existing improved and unimproved county roads, some of which will require alteration, realignment or relocation.

b. Railroads.- The nearest railhead is at Somerville, Texas, and is about one mile from the reservoir maintenance area.

2-05. Reservoir area.- The topographic features of the reservoir are undulating with wide valleys and moderate slopes. The topography of the northerly dike area is undulating with steep slopes to the ravine in the reservoir area and to the main dam. The area south of Yegua Creek is hilly. The main body of the impounded water at elevation 238.0 (top of the conservation storage) will have a maximum length of about 8.5 miles and a maximum width of about 5.1 miles. The impounded water at elevation 238.0 will inundate about 11,460 acres of land and will have a shoreline of approximately 85 miles. At the interim conservation pool, elevation 230.0 (see paragraph 2-02) the reservoir will have a maximum length of approximately 7.5 miles and a maximum width of approximately 3.5 miles. The water will inundate about 7,950 acres of land and will have a shoreline of approximately 32 miles.

2-06. Project structures.- The dam will be a rolled earth fill embankment about 5.0 miles long, including a 4,715-foot dike section and a 1,250-foot concrete chute spillway. The outlet works will consist of one 10-foot diameter conduit which will be controlled by two 5.0- by 10.0-foot gates. The invert will be at elevation 206.0. The maintenance area is located downstream from the dam. Facilities in this area will include an administration and maintenance building, a paint and oil storage building, and a storage and equipment building. Potable water will be provided by connecting to the municipal water system. The location of these facilities is shown on plate 2.

g. Plans.- Standard plans will be used in the construction of recreational facilities and will be approved separately; therefore, their inclusion within this design memorandum is not considered essential.

h. Vegetative improvements.- Vegetative improvements (tree planting and grass seeding) will be accomplished in accordance with Public Law 86-717. Timber in this region consists mainly of hardwoods: oak, elm, and cottonwood.

i. Signs.- The signs used in this district within public-use areas are generally flat, painted signs, although SWD standards permit the use of routed wood signs. They have not been used because of the additional cost of construction. Routed wood signs would be better suited to this project since their character harmonizes more closely with the scenic features in the Somerville Reservoir area; therefore, their use at this project is recommended.

4-07. Facilities to be provided by the Corps of Engineers.-

a. General.- Development of the public-use areas is planned primarily for water-oriented activities. The initial development will be accomplished by the Corps of Engineers. Efforts will be made to have the remaining developments accomplished by the licensees, including nonfederal agencies and commercial lessees.

b. Reservoir-management and operation facilities.- The location and facilities required for reservoir management and operation were submitted in Design Memorandum No. 9, Maintenance Facilities, dated February 1962. The proposed location of these facilities is shown on plate 2.

4-08. Description of areas.-

a. Overlook Park.- (Plate 10 and aerial mosaic plate 11). This area is adjacent to the south end of the dam and extends along the reservoir for a distance of approximately 5,000 feet. It has a shoreline length of about 5,900 feet and consists of approximately 125 acres above elevation 238.0. The terrain above the conservation-pool elevation is rolling and the tree cover is sparse. Vegetative improvements will be necessary. Access to the area is available from State Highway No. 36. This area will be developed with boat-launching ramps, tent camping, and picnicking areas. An observation area with an overlook shelter for the general public to view the upstream face of the dam and the lower reaches of the reservoir is proposed for development at this site. The overlook shelter will be located east of the spillway structure.

b. Rocky Creek Park.- (Plates 12 and 14 and aerial mosaic plates 13 and 15). This area is located on the south side of the reservoir. It consists of approximately 475 acres above elevation 238.0. The topography above the conservation-pool level is rolling. The partially-wooded areas

will provide a limited amount of shade for the using public and will, therefore, require vegetative improvements. Access to the area will be available over an existing county road. Development of boat-launching ramps, picnicking facilities, tent and trailer camping, organized-group areas, and beach improvements are planned.

c. McCain Creek Park.- (Plate 16 and aerial mosaic plate 17). This site is located on the south side of the reservoir and covers approximately 95 acres above elevation 238.0. The terrain above the conservation-pool level is rolling. The wooded areas will provide partial shade for visitors and, therefore, vegetative improvements are recommended. Accessibility to the area is available over an existing county road. The site is suitable for tent and trailer camping and for the development of boat-launching ramps and picnicking facilities.

d. Nails Creek Park.- (Plate 18 and aerial mosaic plate 19). This area, located on the south side of the reservoir, has rolling terrain above the conservation-pool level. It consists of 180 acres above elevation 238.0. Access to the area will be available over a county road. Development of boat-launching facilities, tent and trailer camping, organized-group areas, picnic areas and beach improvement is proposed.

e. Birch Creek Park.- (Plates 20, 22, and 24 and aerial mosaic plates 21, 23, and 25). This area, located on the north side of the reservoir consists of 640 acres above elevation 238.0. The area previously designated as Area No. 9 in Supplement No. 1, Design Memorandum No. 11A, Preliminary Master Plan, is now included in Birch Creek Park since the two areas are adjoining. The terrain above the conservation-pool level varies from rolling to rugged. The partially-wooded areas will provide some shade for the using public; however, vegetative improvements will be required. Access to the area is available over a county road. Proposed development will consist of boat-launching ramps, beach improvements, tent and trailer camping, organized-group camping, and picnic facilities. A site suitable for the development of commercial waterfront activities is located in the eastern extremity of the area.

f. Big Creek Park.- (Plates 26 and 28 and aerial mosaic plates 27 and 29). This area, located on the north side of the reservoir, covers approximately 425 acres. The site has a rolling topography. Vegetative improvements will be necessary to supplement the partially-wooded areas. The alignment of a road to provide access to this site will be coordinated with personnel in the Relocations Section and the Project Planning Branch as the proposed plan for county road relocation is developed. This area is suitable for the development of boat-launching ramps, beach improvements, tent and trailer camping, and picnic areas. A suitable site for commercial beach-concession activities is available in the Bear Creek channel area located at the north end of the public-use area.

g. Brushy Creek Park.- (Plate 30 and aerial mosaic plate 31). This area is adjacent to the north end of the dam and extends along the reservoir approximately 7,000 feet and has a shoreline length of about 21,000 feet. It covers approximately 310 acres above elevation 238.0. This area has been designated for borrow purposes; therefore, development has been deferred to the future and will be planned upon completion of the borrow and topographic survey.

h. Yegua Creek Park.- (Plates 32 and 34 and aerial mosaic plates 33 and 35). This area is located in the southeast end of the reservoir. It consists of approximately 620 acres above elevation 238.0. The terrain above the conservation-pool level is rolling and the tree cover is sparse. Tree planting in this area will be required. Accessibility to the area will be over a county road. Proposed development will include boat-launching ramps, beach improvements, tent and trailer camping, organized-group areas, and picnicking facilities. A suitable site for the development of commercial waterfront-concession facilities is located in the western portion of the area.

V - LAND MANAGEMENT

5-01. General.- The government will acquire fee title to approximately 32,550 acres and flowage easements over an additional 1,160 acres. There are 11,460 acres below the top of the ultimate conservation-pool level (elevation 238.0) and 7,950 acres below the top of the initial conservation-pool level (elevation 230.0). Paragraph 2-02 explains the ultimate and initial conservation-pool levels. About 825 acres will be utilized in the construction of the dam, appurtenant structures, and borrow and waste-disposal areas. The areas to be developed for public use consist of about 2,905 acres above the ultimate conservation-pool level, elevation 238.0. The remaining lands will be made available for other land uses. A land use map will be prepared and will be included in a land management plan which will be developed and submitted later as a supplement to this design memorandum.

5-02. Recreational purposes.- State and local governmental agencies will be encouraged to accept, under license agreements, the responsibility for developing, operating, and maintaining specific lands for public use. The granting of licenses for the development, operation, and maintenance of public-use areas will be dependent upon an advance determination by the Corps of Engineers that the obligation to be incurred by the political subdivision is within the scope of its responsibilities and financial capabilities.

5-03. Other purposes.- Conservation interests have not expressed a desire to license or lease any of these lands for wildlife management and development. Therefore, this plan proposes to outlease these lands for agricultural purposes. Agricultural leases consummated will be limited to

grazing purposes over all lands within the conservation-pool level (elevation 238.0). Leases will provide for cooperation in programs for management and improvement of fish and wildlife and in furtherance thereof. The leased premises will be subject to free public use for fishing and hunting. The outleased lands will be utilized in accordance with established practices and policies of the Department of the Army. The preparation of an over-all soil-conservation plan is not justified in view of the limited scope of the program. However, soil-conservation practices will be specified and planned primarily to protect the reservoir area. Technical assistance in land-use planning will be requested from the U. S. Soil Conservation Service if it is deemed necessary.

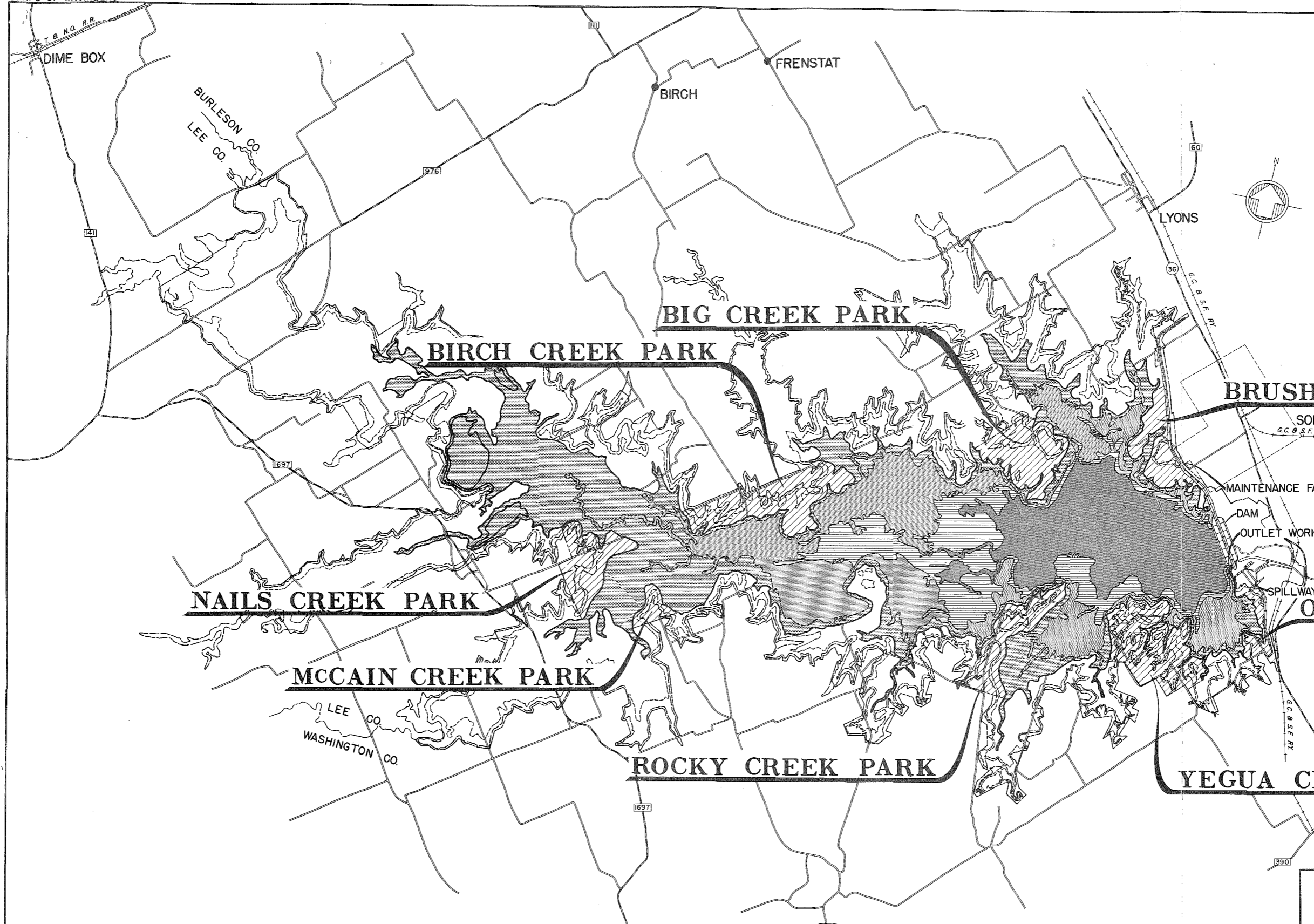
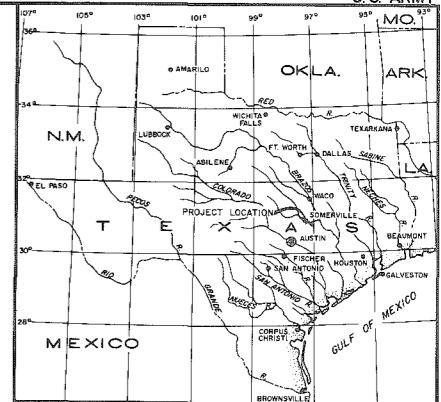
VI - COORDINATION WITH OTHER AGENCIES

6-01. General.- The Flood Control Act of 3 September 1954 provides that recreational development of reservoir areas under control of the Department of the Army shall be in the public interest and that preference for management and development of areas suitable for recreational purposes shall be given to federal, state, and local governmental agencies. These agencies have been contacted during the studies, investigations, and planning stages of development. The master plan for the development and management of the Somerville Reservoir has been coordinated with the interested federal, state, and local governmental agencies.

6-02. U. S. Public Health Service.- In April 1961 the U. S. Public Health Service, in cooperation with the Texas State Department of Health, submitted a report entitled "Preliminary Evaluation Report on Vector Problems Related to the Proposed Corps of Engineers Somerville Reservoir, Yegua Creek, Texas." A copy of this report is incorporated in General Design Memorandum No. 5, as Appendix IV.

6-03. U. S. Fish and Wildlife Service.- On April 12, 1961 the Bureau of Sport Fisheries and Wildlife, of the U. S. Fish and Wildlife Service, submitted a report on the fish and wildlife resources of the Somerville Reservoir project. A copy of this report is incorporated in General Design Memorandum No. 5, as Appendix II. The report and its recommendations have been endorsed by the Texas Game and Fish Commission. The report shows that the Somerville Reservoir will provide a reservoir-type fishery which is in great demand in the area. In addition, the report shows that sportsmen's expenditures associated with reservoir fishing on Somerville Reservoir and in the downstream area will amount to about \$90,000 annually.

6-04. National Park Service.- On March 2, 1960, representatives of the Region Three Office, National Park Service, and the Corps of Engineers conducted a field survey of the Somerville Reservoir area to evaluate the recreational potential of the project. The National Park Service submitted a report dated January 1962 commenting on the recreational use and development of Somerville Reservoir. A copy of this report is included in this design memorandum as Appendix I.



WATER DEPTHS

	0' TO 6' DEEP
	6' TO 18' DEEP
	18' TO 23' DEEP
	23' TO 36' DEEP
	PUBLIC USE AREAS

BRAZOS RIVER BASIN, TEXAS
SOMERVILLE RESERVOIR
YEGUA CREEK, TEXAS

WATER DEPTH AREAS

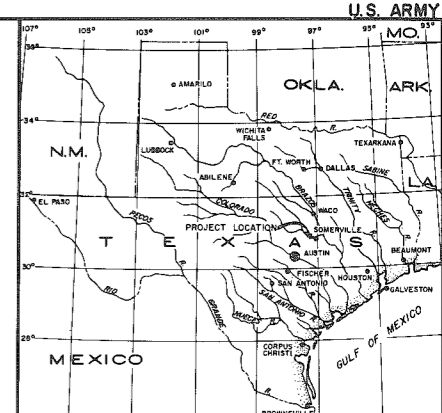
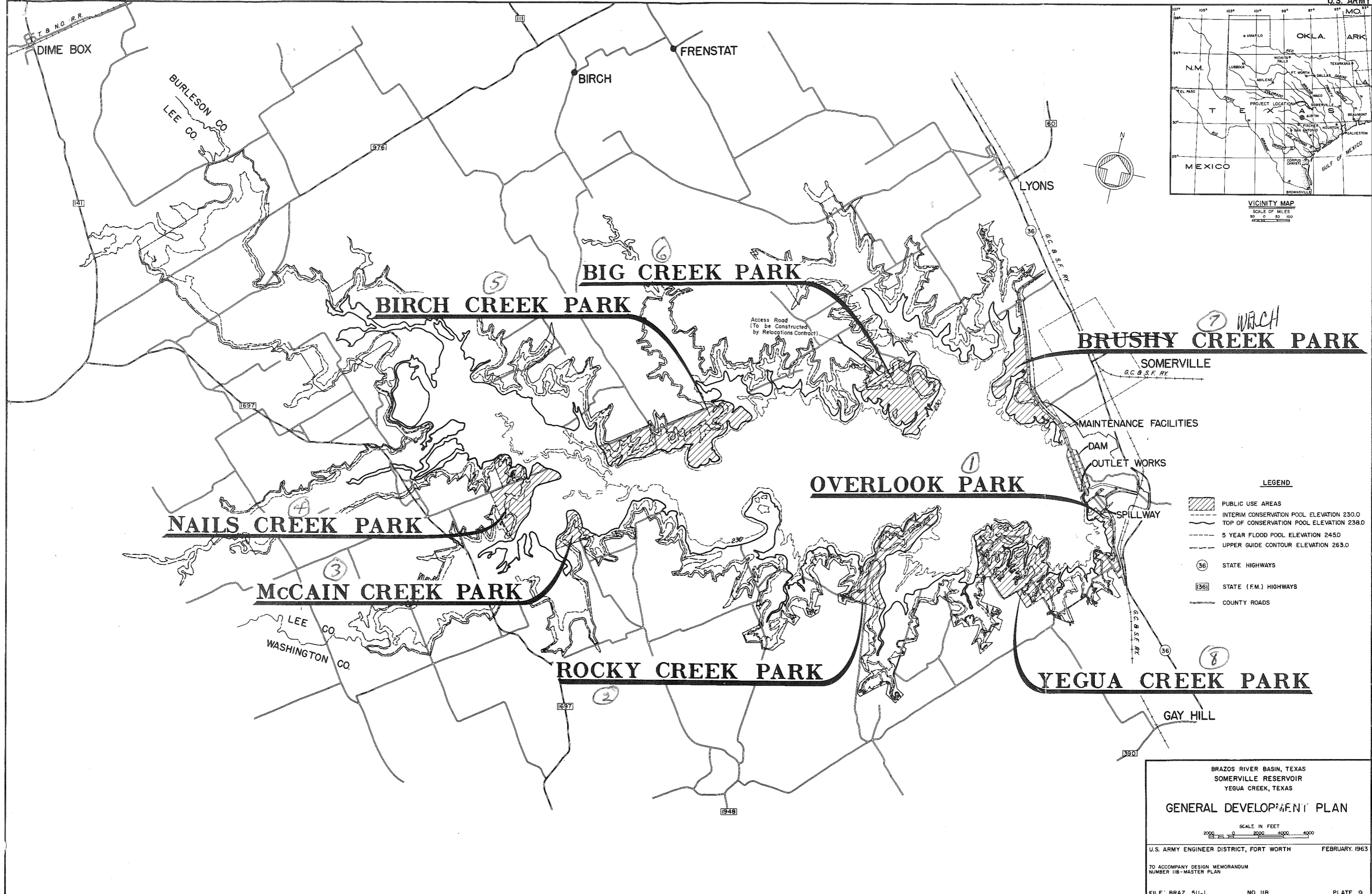
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U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY 1963

TO ACCOMPANY DESIGN MEMORANDUM
NUMBER 11B-MASTER PLAN

FILE: BRAZ. 511-1 NO. 11B PLATE 4

B.W.H. Revised February 1964



VICINITY MAP
SCALE OF MILES
50 0 50 100
FEET

- LEGEND**
- PUBLIC USE AREAS
 - INTERIM CONSERVATION POOL ELEVATION 230.0
 - TOP OF CONSERVATION POOL ELEVATION 238.0
 - 5 YEAR FLOOD POOL ELEVATION 245.0
 - UPPER GUIDE CONTOUR ELEVATION 263.0
 - STATE HIGHWAYS
 - STATE (F.M.) HIGHWAYS
 - COUNTY ROADS

BRAZOS RIVER BASIN, TEXAS
SOMERVILLE RESERVOIR
YEGUA CREEK, TEXAS

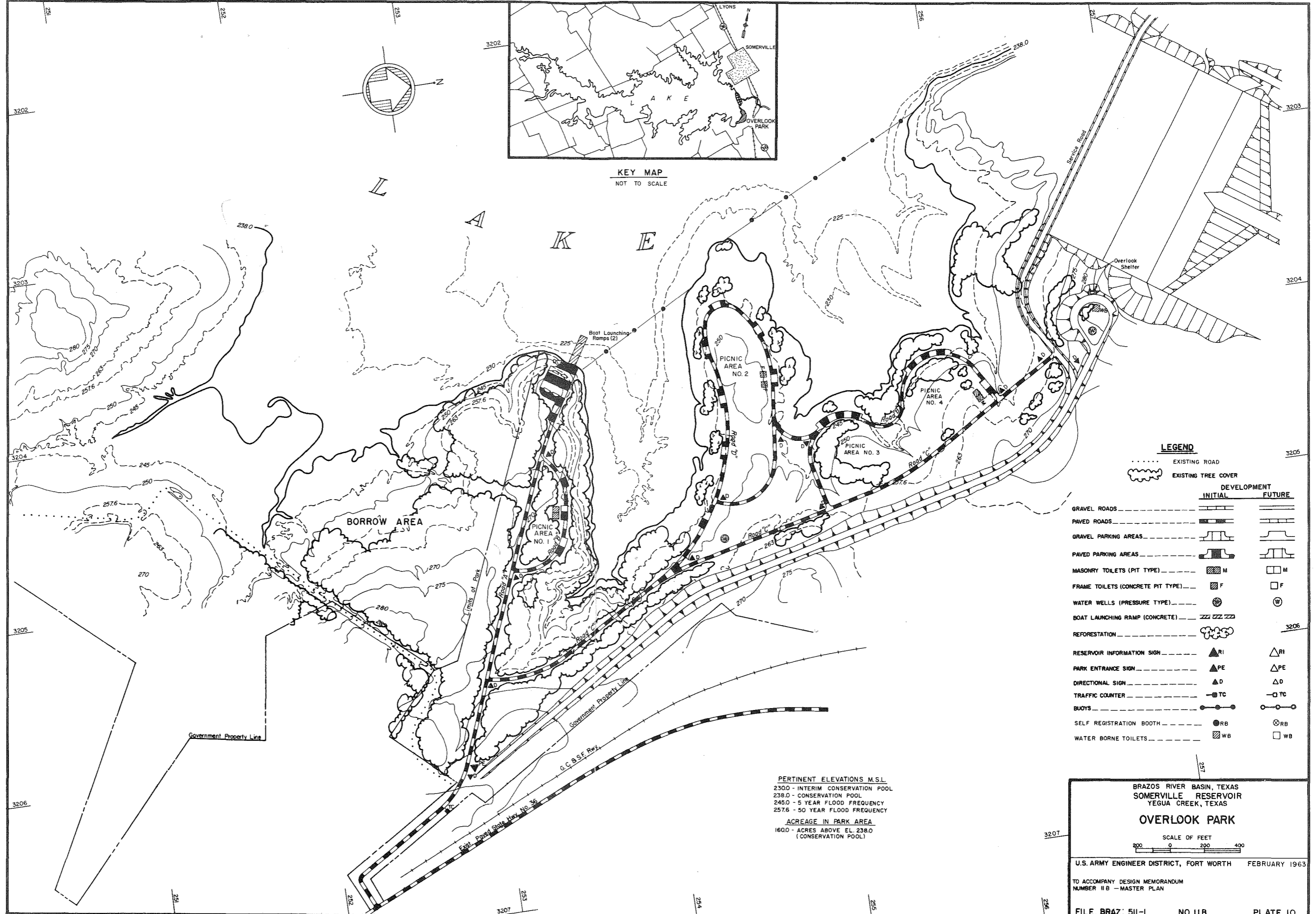
GENERAL DEVELOPMENT PLAN

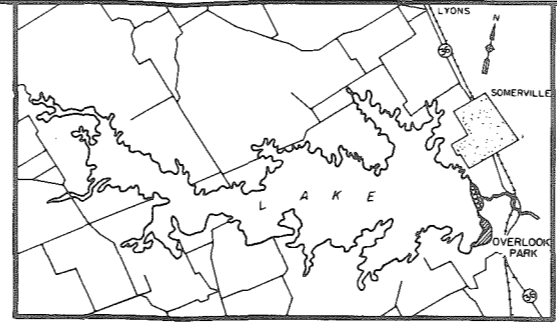
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U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY, 1963

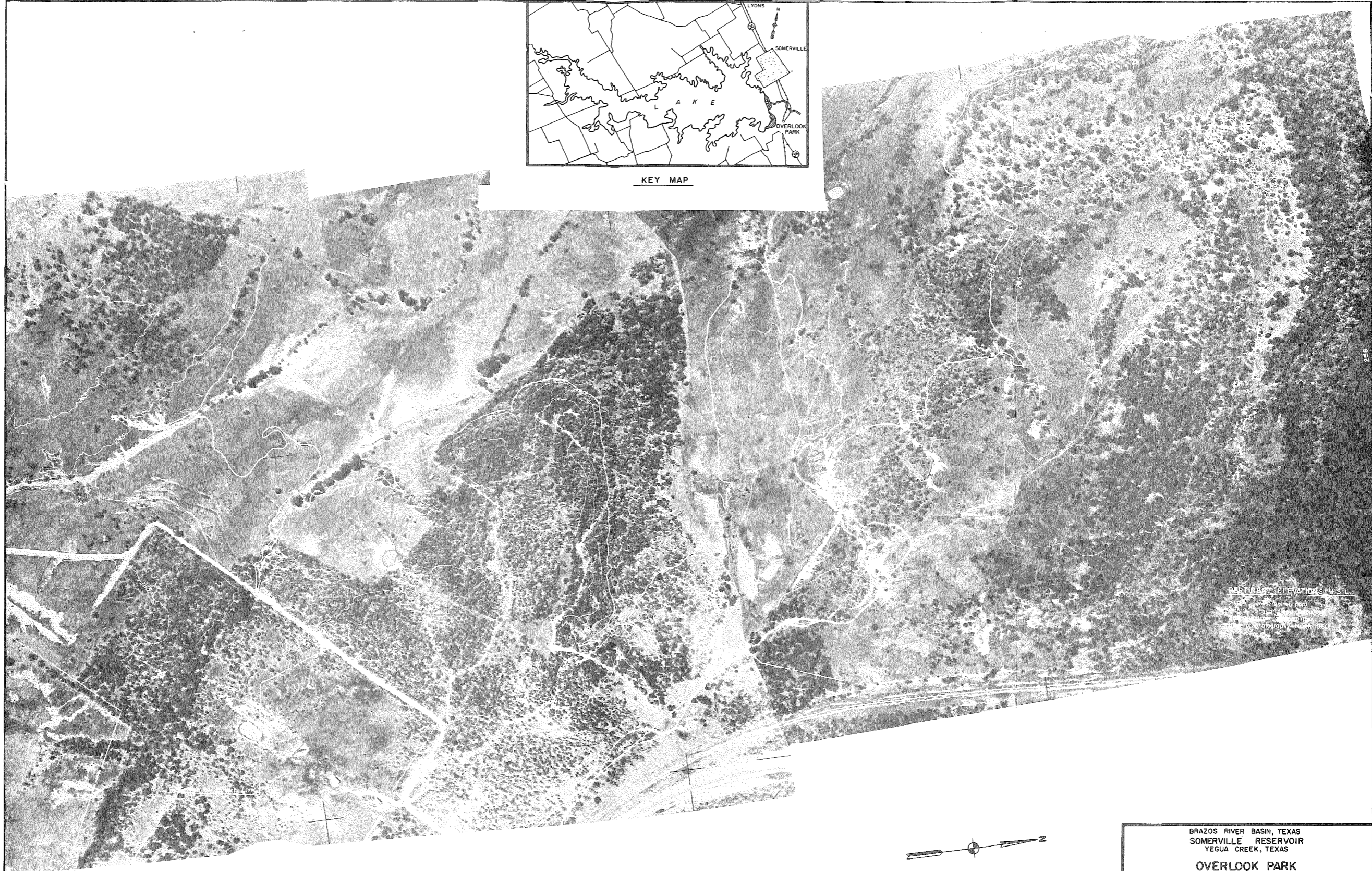
TO ACCOMPANY DESIGN MEMORANDUM
NUMBER IIB-MASTER PLAN

FILE: BRAZ. 511-1 NO. IIB PLATE 9
B.W.H. Revised February 1964





KEY MAP



PERTINENT ELEVATIONS IN FEET
1000
900
800
700
600
500
400
300
200
100
0

BRAZOS RIVER BASIN, TEXAS
 SOMERVILLE RESERVOIR
 YEGUA CREEK, TEXAS

OVERLOOK PARK

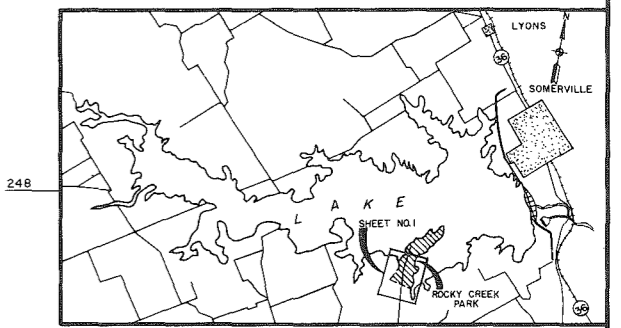
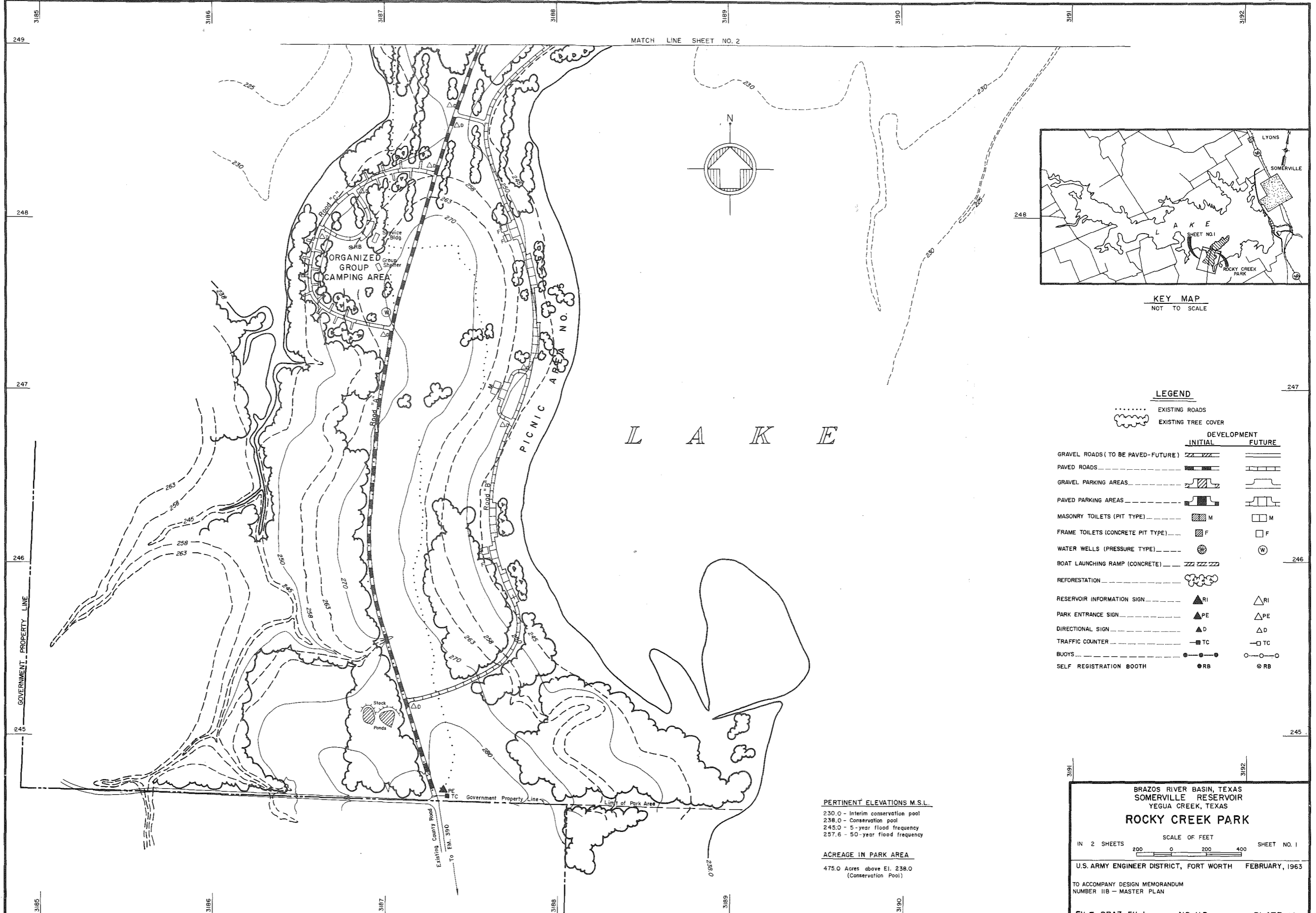
SCALE OF FEET
 200 0 200 400

U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY 1963

TO ACCOMPANY DESIGN MEMORANDUM
 NUMBER 11B - MASTER PLAN

FILE. BRAZ: S11-1 NO. 11B PLATE II

MATCH LINE SHEET NO. 2



LEGEND

	DEVELOPMENT	
	INITIAL	FUTURE
EXISTING ROADS	
EXISTING TREE COVER	[Cloud-like symbol]	
GRAVEL ROADS (TO BE PAVED-FUTURE)	[Hatched symbol]	[Dashed symbol]
PAVED ROADS	[Solid black symbol]	[Dashed black symbol]
GRAVEL PARKING AREAS	[Hatched symbol]	[Dashed symbol]
PAVED PARKING AREAS	[Solid black symbol]	[Dashed black symbol]
MASONRY TOILETS (PIT TYPE)	[Hatched symbol M]	[Square symbol M]
FRAME TOILETS (CONCRETE PIT TYPE)	[Hatched symbol F]	[Square symbol F]
WATER WELLS (PRESSURE TYPE)	[Circle with dot symbol]	[Circle with dot symbol]
BOAT LAUNCHING RAMP (CONCRETE)	[Zigzag symbol]	[Zigzag symbol]
REFORESTATION	[Cloud-like symbol]	[Cloud-like symbol]
RESERVOIR INFORMATION SIGN	[Triangle RI]	[Triangle RI]
PARK ENTRANCE SIGN	[Triangle PE]	[Triangle PE]
DIRECTIONAL SIGN	[Triangle D]	[Triangle D]
TRAFFIC COUNTER	[Square TC]	[Square TC]
BUOYS	[Circle RB]	[Circle RB]
SELF REGISTRATION BOOTH	[Circle RB]	[Circle RB]

PERTINENT ELEVATIONS M.S.L.
 230.0 - Interim conservation pool
 238.0 - Conservation pool
 245.0 - 5-year flood frequency
 257.6 - 50-year flood frequency

ACREAGE IN PARK AREA
 475.0 Acres above El. 238.0
 (Conservation Pool)

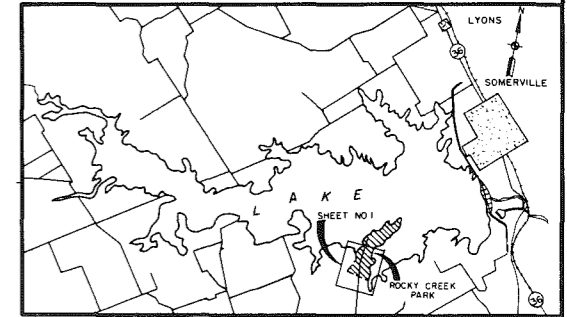
BRAZOS RIVER BASIN, TEXAS
 SOMERVILLE RESERVOIR
 YEGUA CREEK, TEXAS
ROCKY CREEK PARK

IN 2 SHEETS SCALE OF FEET SHEET NO. 1
 200 0 200 400

U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY, 1963

TO ACCOMPANY DESIGN MEMORANDUM
 NUMBER 118 - MASTER PLAN

FILE. BRAZ 511-1 NO. 118 PLATE 12



KEY MAP



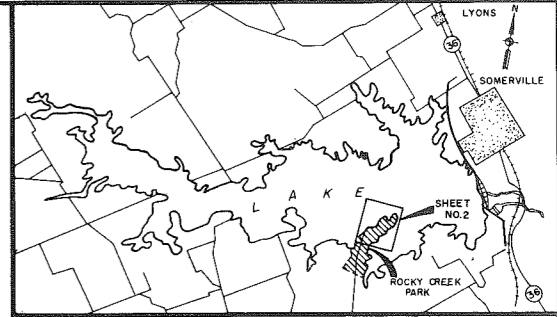
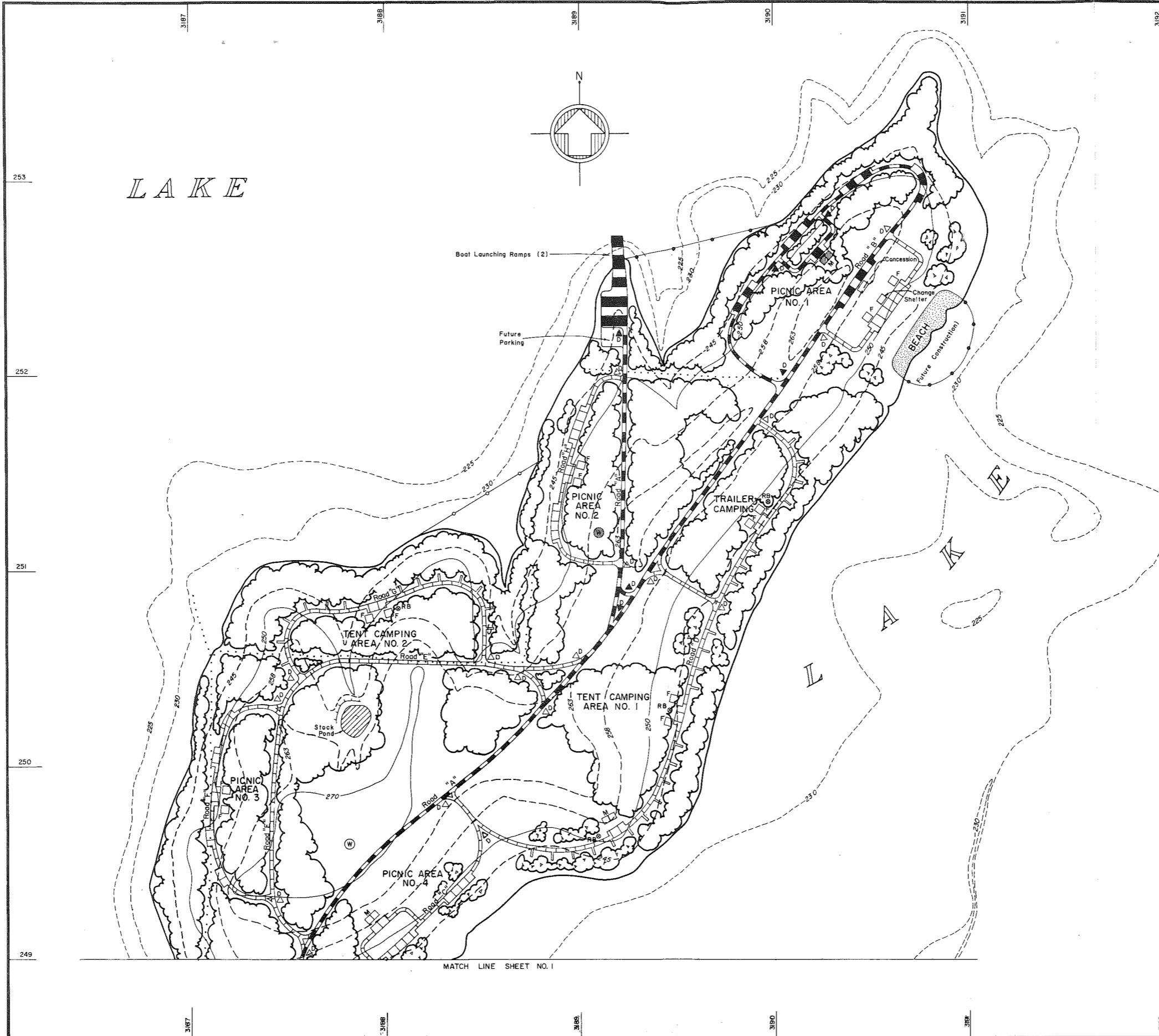
BRAZOS RIVER BASIN, TEXAS
 SOMERVILLE RESERVOIR
 YEGUA CREEK, TEXAS
ROCKY CREEK PARK

SCALE OF FEET
 IN 2 SHEETS 200 0 200 400 SHEET NO. 1

U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY, 1963

TO ACCOMPANY DESIGN MEMORANDUM
 NUMBER 118 - MASTER PLAN

FILE BRAZ 511-1 NO. 118 PLATE 13
 JAB Revised February 1964



LEGEND

	DEVELOPMENT	
	INITIAL	FUTURE
EXISTING ROADS
EXISTING TREE COVER	~~~~~	~~~~~
GRAVEL ROADS (TO BE PAVED - FUTURE)		
PAVED ROADS	=====	=====
GRAVEL PARKING AREAS		
PAVED PARKING AREAS	=====	=====
MASONRY TOILETS (PIT TYPE)	▨ M	□ M
FRAME TOILETS (CONCRETE PIT TYPE)	▨ F	□ F
WATER WELLS (PRESSURE TYPE)	⊙ W	⊙ W
BOAT LAUNCHING RAMP (CONCRETE)		
REFORESTATION	~~~~~	~~~~~
RESERVOIR INFORMATION SIGN	▲ RI	△ RI
PARK ENTRANCE SIGN	▲ PE	△ PE
DIRECTIONAL SIGN	▲ D	△ D
TRAFFIC COUNTER	● TC	○ TC
BUOYS	●	○
SELF-REGISTRATION BOOTH	● RB	○ RB

BRAZOS RIVER BASIN, TEXAS
SOMERVILLE RESERVOIR
YEGUA CREEK, TEXAS

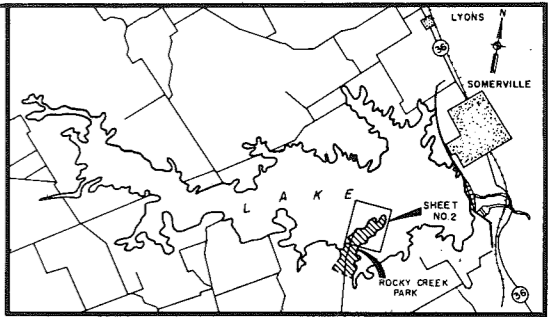
ROCKY CREEK PARK

SCALE OF FEET
IN 2 SHEETS 200 0 200 400 SHEET NO. 2

U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY 1963

TO ACCOMPANY DESIGN MEMORANDUM
NUMBER 11B - MASTER PLAN

FILE BRAZ 511-1 NO. 11B PLATE 14



KEY MAP



BRAZOS RIVER BASIN, TEXAS
SOMERVILLE RESERVOIR
YEGUA CREEK, TEXAS

ROCKY CREEK PARK

SCALE OF FEET

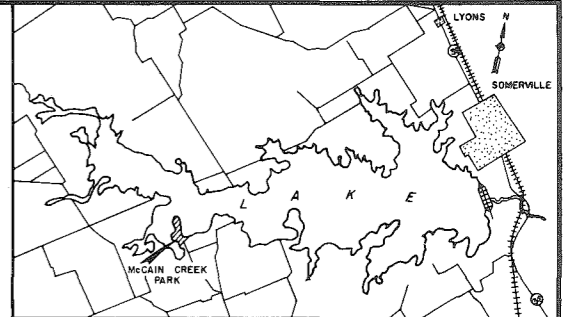
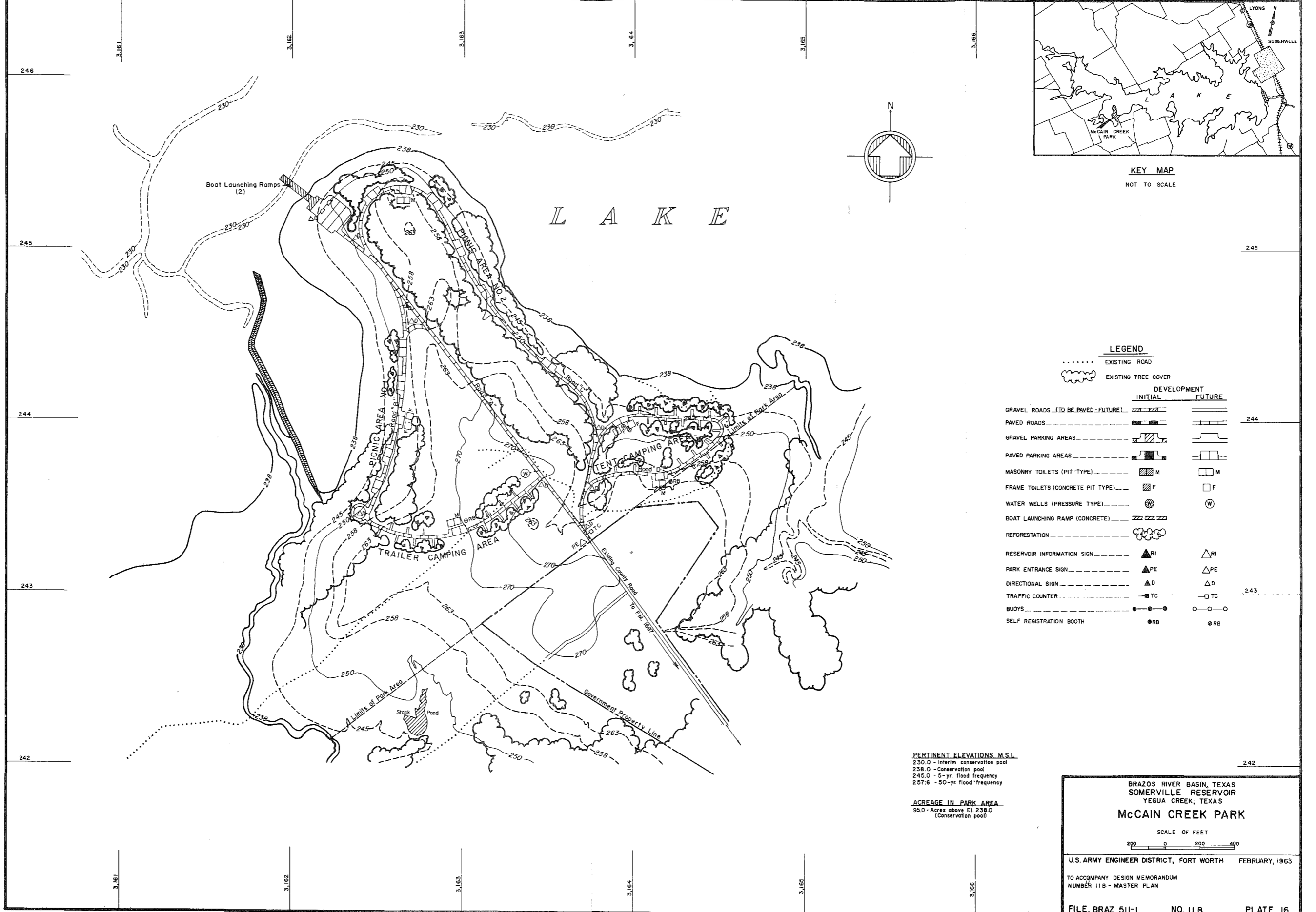
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U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY 1963

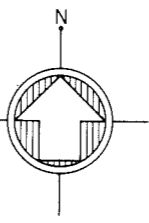
TO ACCOMPANY DESIGN MEMORANDUM
NUMBER 11B - MASTER PLAN

FILE, BRAZ 511-1 NO. 11B PLATE 15

J.A.B. Revised February 1964



KEY MAP
NOT TO SCALE



LEGEND

.....	EXISTING ROAD		
~~~~~	EXISTING TREE COVER		
		DEVELOPMENT	
		INITIAL	FUTURE
-----	GRAVEL ROADS (TO BE PAVED-FUTURE)		=====
-----	PAVED ROADS	=====	=====
-----	GRAVEL PARKING AREAS		=====
-----	PAVED PARKING AREAS	=====	=====
-----	MASONRY TOILETS (PIT TYPE)	▨ M	□ M
-----	FRAME TOILETS (CONCRETE PIT TYPE)	▨ F	□ F
-----	WATER WELLS (PRESSURE TYPE)	⊙	⊙
-----	BOAT LAUNCHING RAMP (CONCRETE)		
-----	REFORESTATION	~~~~~	~~~~~
-----	RESERVOIR INFORMATION SIGN	▲ RI	△ RI
-----	PARK ENTRANCE SIGN	▲ PE	△ PE
-----	DIRECTIONAL SIGN	▲ D	△ D
-----	TRAFFIC COUNTER	— TC	— TC
-----	BUOYS	●	○
-----	SELF REGISTRATION BOOTH	⊙ RB	⊙ RB

**PERTINENT ELEVATIONS, M.S.L.**  
 230.0 - Interim conservation pool  
 238.0 - Conservation pool  
 245.0 - 5-yr. flood frequency  
 257.6 - 50-yr. flood frequency

**ACREAGE IN PARK AREA**  
 95.0 - Acres above El. 238.0  
 (Conservation pool)

BRAZOS RIVER BASIN, TEXAS  
 SOMERVILLE RESERVOIR  
 YEGUA CREEK, TEXAS

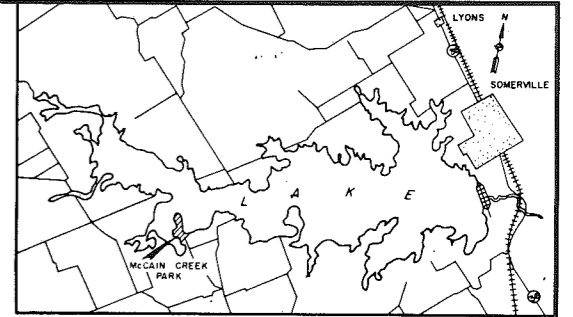
**McCain Creek Park**

SCALE OF FEET  
 0 200 400

U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY, 1963

TO ACCOMPANY DESIGN MEMORANDUM  
 NUMBER 11B - MASTER PLAN

FILE BRAZ 511-1 NO. 11B PLATE 16

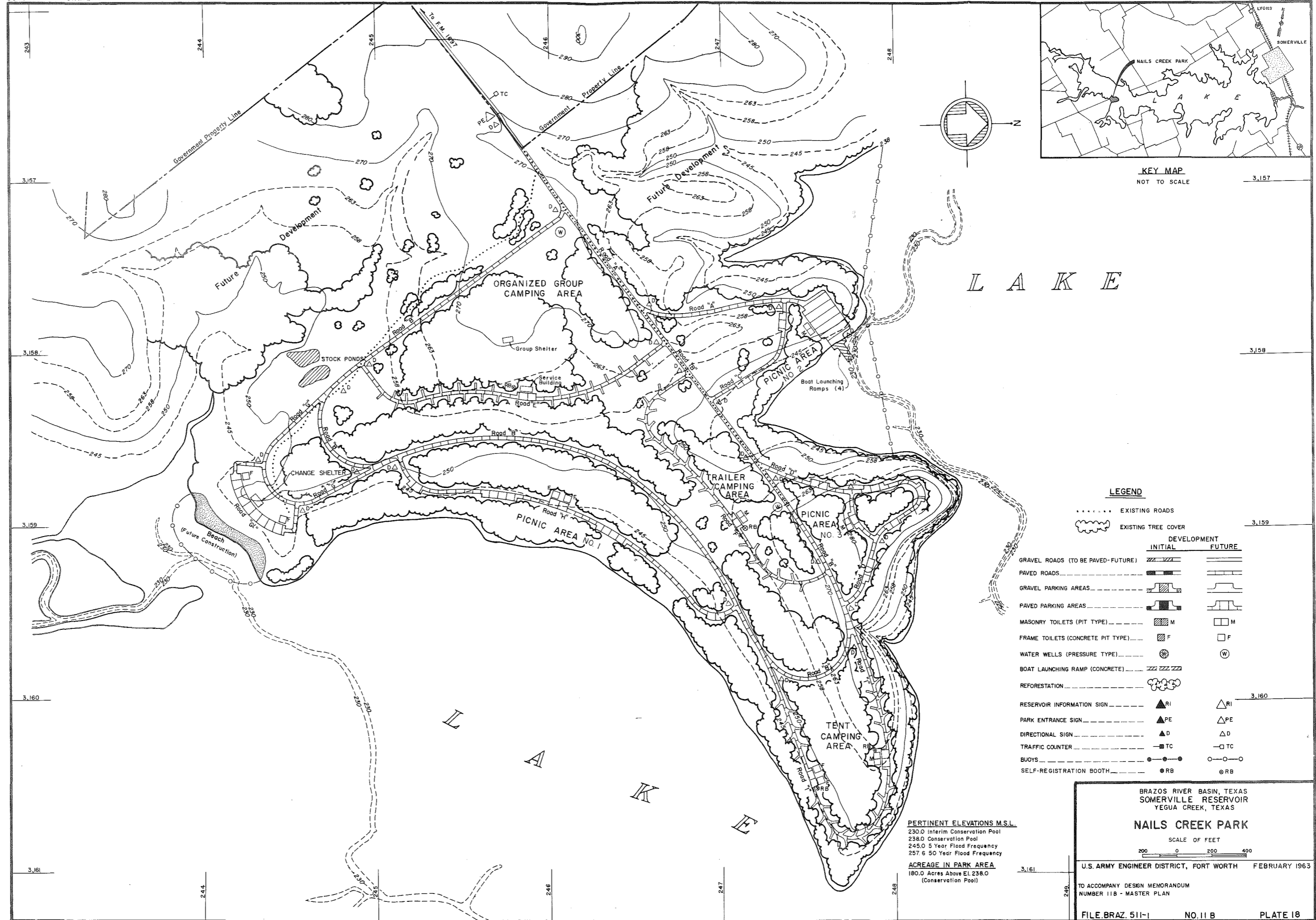


KEY MAP



BRAZOS RIVER BASIN, TEXAS  
 SOMERVILLE RESERVOIR  
 YEGUA CREEK, TEXAS  
**McCain Creek Park**  
 SCALE OF FEET  
 200 0 200 400  
 U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY, 1963  
 TO ACCOMPANY DESIGN MEMORANDUM  
 NUMBER 11B - MASTER PLAN  
 FILE. BRAZ. 511-1 NO. 11 B PLATE 17

PA. D. Revised February 1964



**KEY MAP**  
NOT TO SCALE

**LEGEND**

.....	EXISTING ROADS		
~~~~~	EXISTING TREE COVER		
		DEVELOPMENT	
		INITIAL	FUTURE
-----	GRAVEL ROADS (TO BE PAVED-FUTURE)	-----	-----
-----	PAVED ROADS	-----	-----
-----	GRAVEL PARKING AREAS	-----	-----
-----	PAVED PARKING AREAS	-----	-----
-----	MASONRY TOILETS (PIT TYPE)	-----	-----
-----	FRAME TOILETS (CONCRETE PIT TYPE)	-----	-----
-----	WATER WELLS (PRESSURE TYPE)	-----	-----
-----	BOAT LAUNCHING RAMP (CONCRETE)	-----	-----
-----	REFORESTATION	-----	-----
-----	RESERVOIR INFORMATION SIGN	-----	-----
-----	PARK ENTRANCE SIGN	-----	-----
-----	DIRECTIONAL SIGN	-----	-----
-----	TRAFFIC COUNTER	-----	-----
-----	BUDYS	-----	-----
-----	SELF-REGISTRATION BOOTH	-----	-----

PERTINENT ELEVATIONS M.S.L.
 230.0 Interim Conservation Pool
 238.0 Conservation Pool
 245.0 5 Year Flood Frequency
 257.6 50 Year Flood Frequency

ACREAGE IN PARK AREA
 180.0 Acres Above El. 238.0
 (Conservation Pool)

BRAZOS RIVER BASIN, TEXAS
 SOMERVILLE RESERVOIR
 YEGUA CREEK, TEXAS

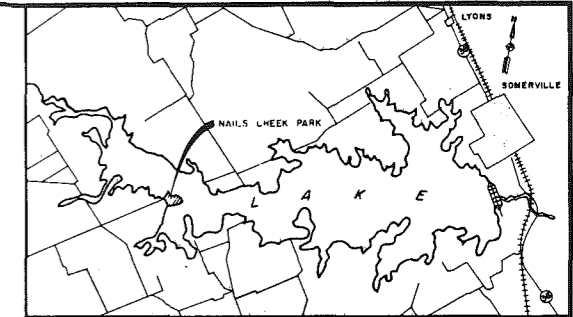
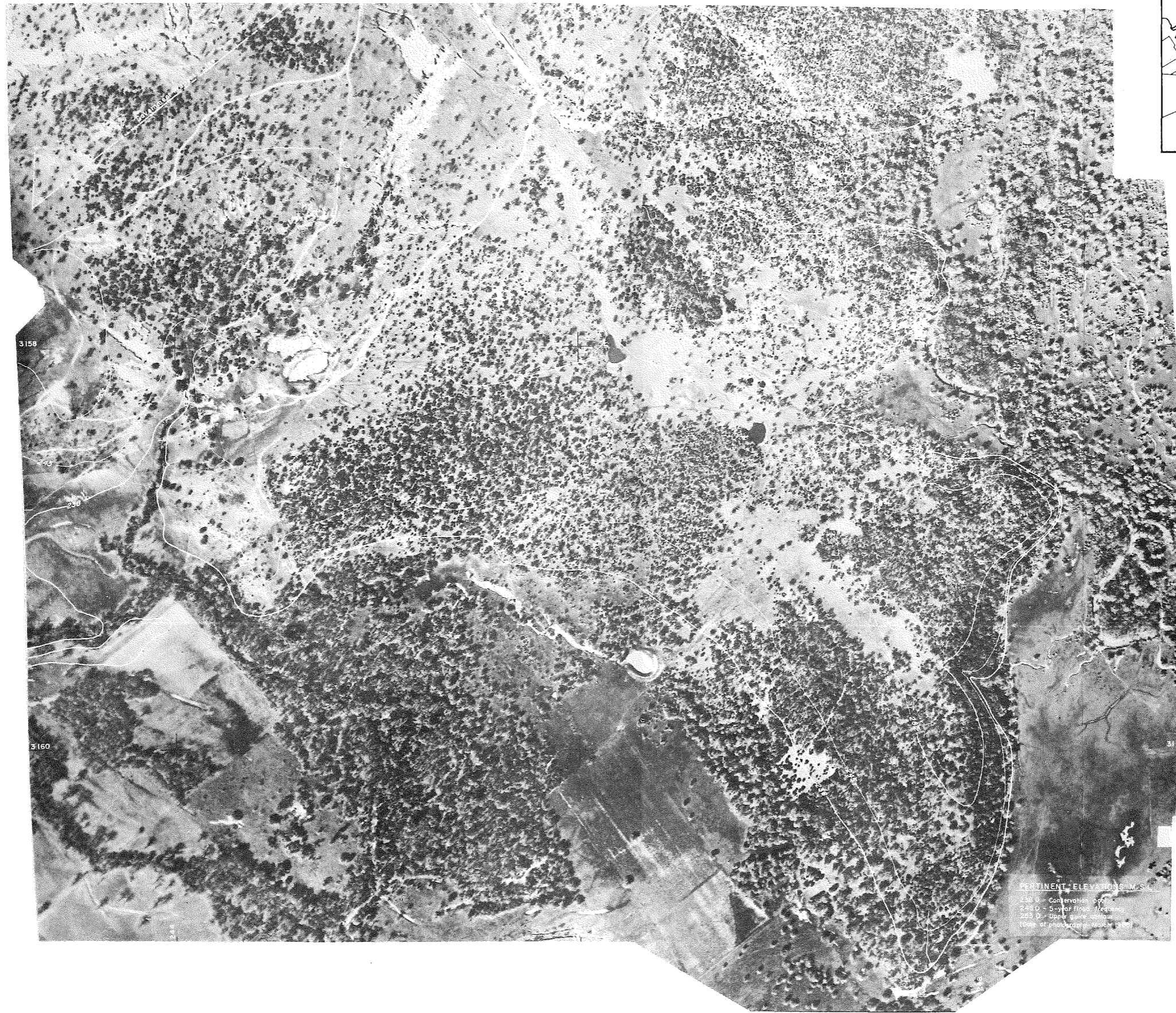
NAILS CREEK PARK

SCALE OF FEET
 0 200 400

U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY 1963

TO ACCOMPANY DESIGN MEMORANDUM
 NUMBER 11B - MASTER PLAN

FILE BRAZ. 511-1 NO. 11 B PLATE 18



KEY MAP



PERTINENT ELEVATIONS - M.S.
 130 9 - Contourline
 248 0 - Scale from 1:50,000
 223 0 - U.S. Army contour
 100 ft. of photograph scale

BRAZOS RIVER BASIN, TEXAS
 SOMERVILLE RESERVOIR
 YEGUA CREEK, TEXAS

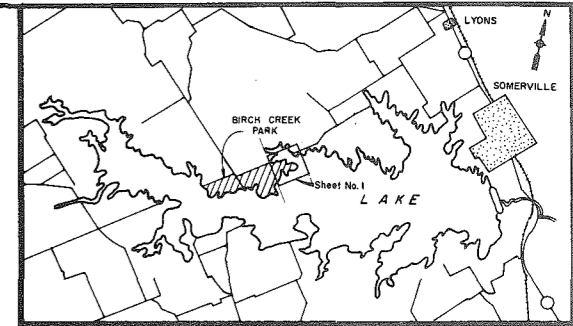
NAILS CREEK PARK

SCALE OF FEET

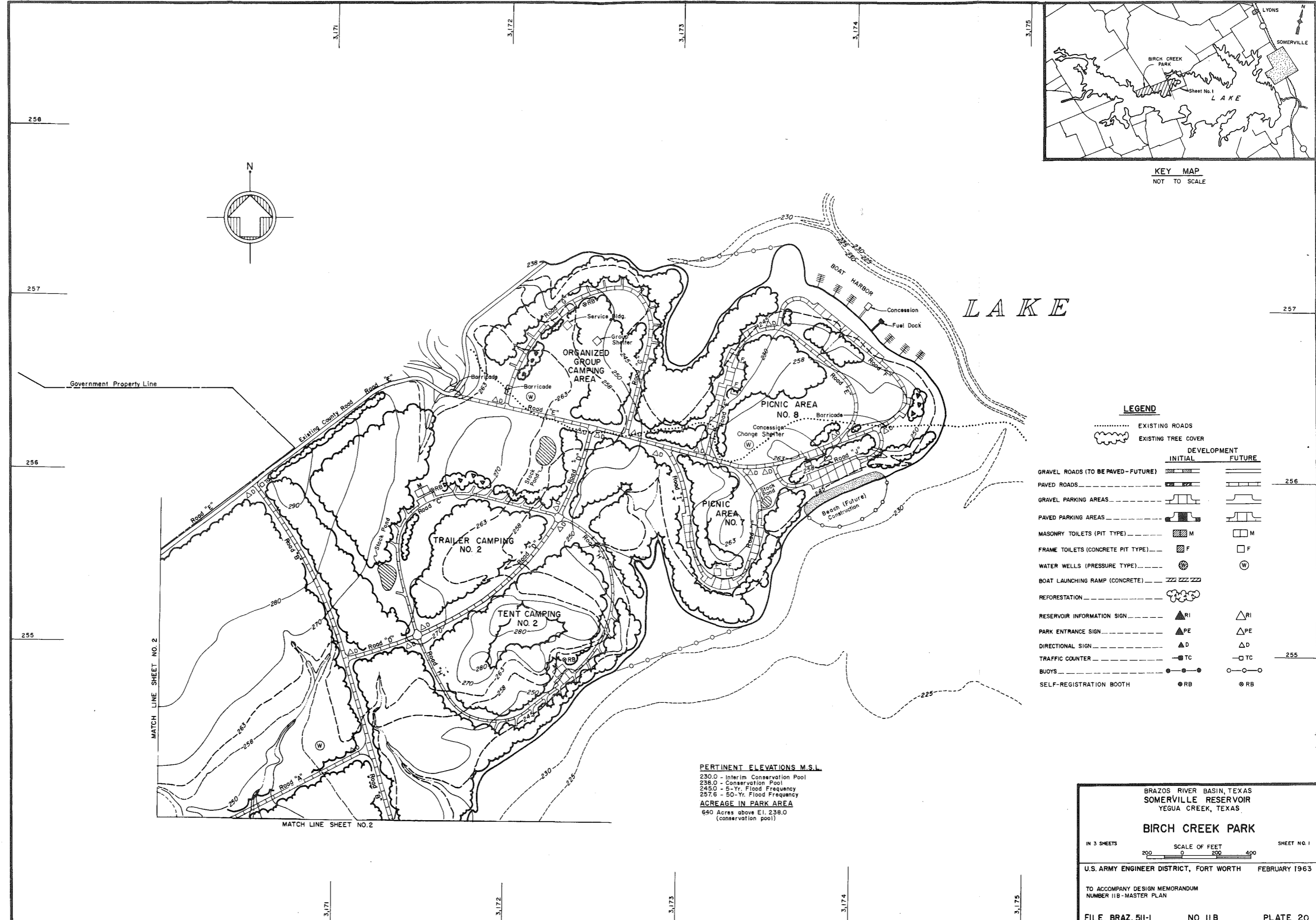
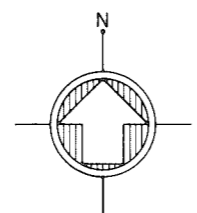
U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY 1963

TO ACCOMPANY DESIGN MEMORANDUM
 NUMBER 118 - MASTER PLAN

FILE BRAZ. 511-1 NO. 11 B PLATE 19



KEY MAP
NOT TO SCALE



LAKE

LEGEND

.....	EXISTING ROADS		
~~~~~	EXISTING TREE COVER		
		DEVELOPMENT	
		INITIAL	FUTURE
-----	GRAVEL ROADS (TO BE PAVED-FUTURE)		
-----	PAVED ROADS		
-----	GRAVEL PARKING AREAS		
-----	PAVED PARKING AREAS		
-----	MASONRY TOILETS (PIT TYPE)		
-----	FRAME TOILETS (CONCRETE PIT TYPE)		
-----	WATER WELLS (PRESSURE TYPE)		
-----	BOAT LAUNCHING RAMP (CONCRETE)		
-----	REFORESTATION		
-----	RESERVOIR INFORMATION SIGN		
-----	PARK ENTRANCE SIGN		
-----	DIRECTIONAL SIGN		
-----	TRAFFIC COUNTER		
-----	BUOYS		
-----	SELF-REGISTRATION BOOTH		

**PERTINENT ELEVATIONS M.S.L.**  
 230.0 - Interim Conservation Pool  
 238.0 - Conservation Pool  
 245.0 - 5-Yr. Flood Frequency  
 257.6 - 50-Yr. Flood Frequency  
**ACREAGE IN PARK AREA**  
 640 Acres above El. 238.0  
 (conservation pool)

BRAZOS RIVER BASIN, TEXAS  
 SOMERVILLE RESERVOIR  
 YEGUA CREEK, TEXAS

**BIRCH CREEK PARK**

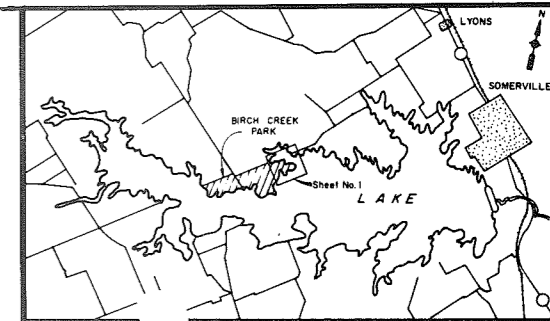
IN 3 SHEETS      SCALE OF FEET      SHEET NO. 1  
 200      0      200      400

U.S. ARMY ENGINEER DISTRICT, FORT WORTH      FEBRUARY 1963

TO ACCOMPANY DESIGN MEMORANDUM  
 NUMBER 11B - MASTER PLAN

FILE: BRAZ. 511-1      NO. 11B      PLATE 20





KEY MAP



PERTINENT ELEVATIONS - M.S.L.  
 226.0 - Conveyance point  
 245.0 - Upper field frequency  
 263.0 - Upper guide contour  
 (Date of photographs - August 1963)

BRAZOS RIVER BASIN, TEXAS  
 SOMERVILLE RESERVOIR  
 YEGUA CREEK, TEXAS

**BIRCH CREEK PARK**

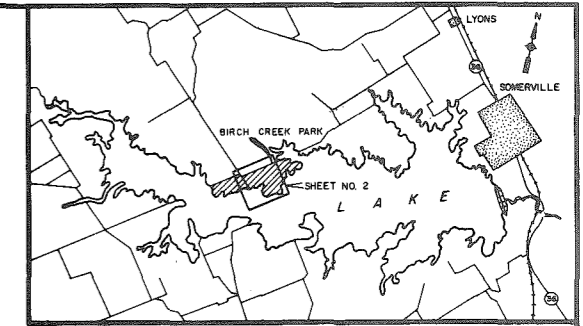
IN 3 SHEETS      SCALE OF FEET      SHEET NO. 1  
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U.S. ARMY ENGINEER DISTRICT, FORT WORTH      FEBRUARY 1963

TO ACCOMPANY DESIGN MEMORANDUM  
 NUMBER 11B - MASTER PLAN

FILE BRAZ. 511-1      NO. 11B      PLATE 21

C.E.J.      Revised February 1964



**LEGEND**

	DEVELOPMENT	
	INITIAL	FUTURE
EXISTING ROAD	(Solid line)	(Dashed line)
EXISTING TREE COVER	(Cloud-like symbol)	(Cloud-like symbol)
GRAVEL ROADS (To be paved - Future)	(Dashed line with diagonal hatching)	(Dashed line with diagonal hatching)
PAVED ROADS	(Solid line with double hatching)	(Solid line with double hatching)
GRAVEL PARKING AREAS	(Dashed line with diagonal hatching)	(Dashed line with diagonal hatching)
PAVED PARKING AREAS	(Solid line with double hatching)	(Solid line with double hatching)
MASONRY TOILETS (PIT TYPE)	(Square with 'M' and diagonal hatching)	(Square with 'M')
FRAME TOILETS (CONCRETE PIT TYPE)	(Square with 'F' and diagonal hatching)	(Square with 'F')
WATER WELLS (PRESSURE TYPE)	(Circle with 'W' and diagonal hatching)	(Circle with 'W')
BOAT LAUNCHING RAMP (CONCRETE)	(Dashed line with diagonal hatching)	(Dashed line with diagonal hatching)
REFORESTATION	(Cloud-like symbol with diagonal hatching)	(Cloud-like symbol)
RESERVOIR INFORMATION SIGN	(Triangle with 'RI' and diagonal hatching)	(Triangle with 'RI')
PARK ENTRANCE SIGN	(Triangle with 'PE' and diagonal hatching)	(Triangle with 'PE')
DIRECTIONAL SIGN	(Triangle with 'D' and diagonal hatching)	(Triangle with 'D')
TRAFFIC COUNTER	(Square with 'TC' and diagonal hatching)	(Square with 'TC')
BUOYS	(Circle with 'B' and diagonal hatching)	(Circle with 'B')
SELF REGISTRATION BOOTH	(Circle with 'RB' and diagonal hatching)	(Circle with 'RB')

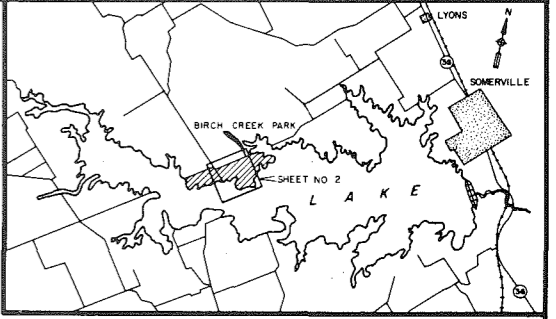
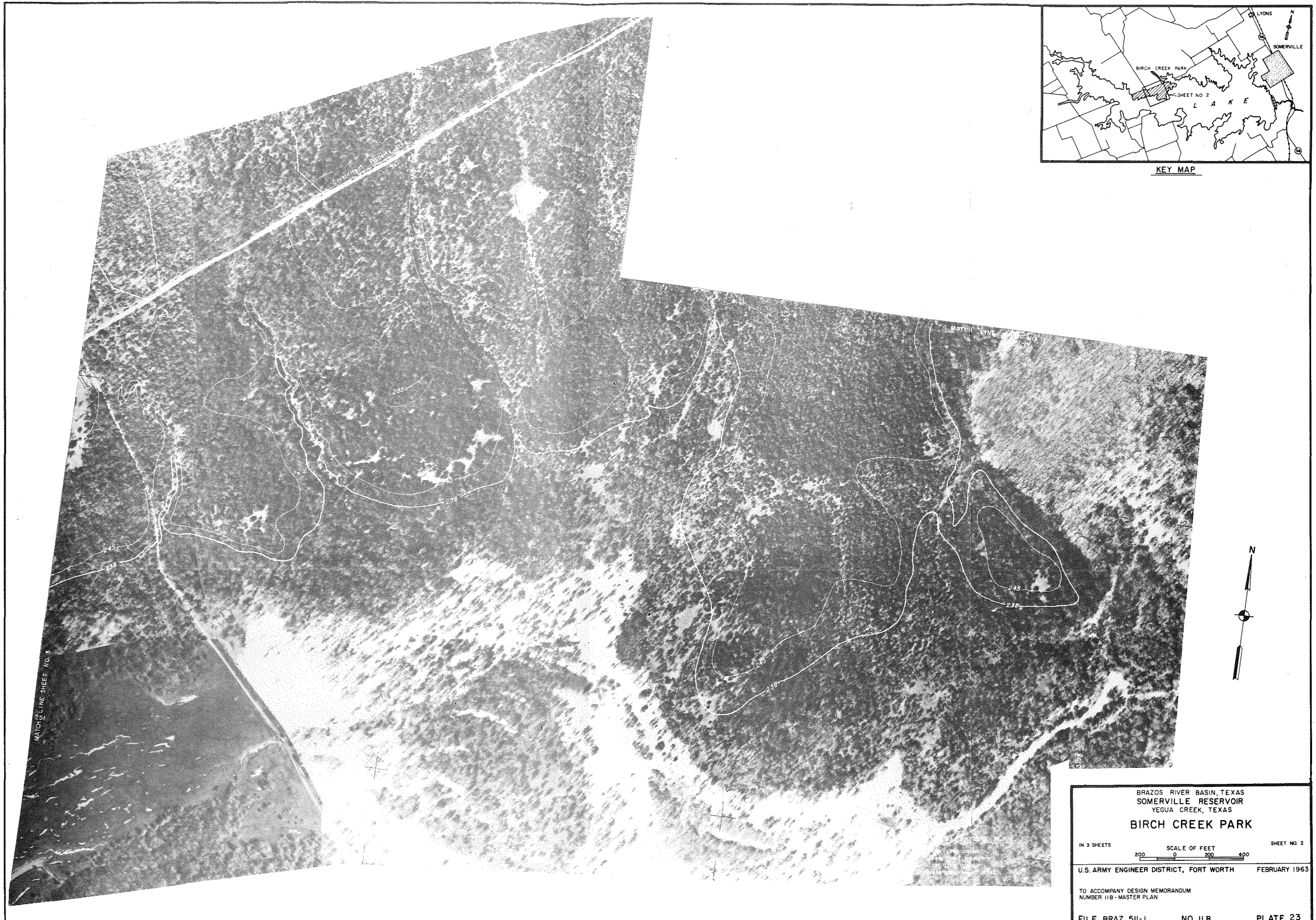
BRAZOS RIVER BASIN, TEXAS  
 SOMERVILLE RESERVOIR  
 YEGUA CREEK, TEXAS  
**BIRCH CREEK PARK**

IN 3 SHEETS SCALE OF FEET SHEET NO. 2  
 200 0 200 400

U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY 1963

TO ACCOMPANY DESIGN MEMORANDUM  
 NUMBER 11B - MASTER PLAN

FILE. BRAZ. 511-1 NO. 11B PLATE 22  
 G.G.H. Revised February 1964



KEY MAP

BRAZOS RIVER BASIN, TEXAS  
 SOMERVILLE RESERVOIR  
 YEGUA CREEK, TEXAS  
**BIRCH CREEK PARK**

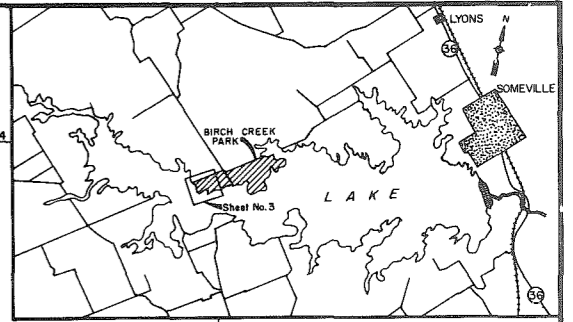
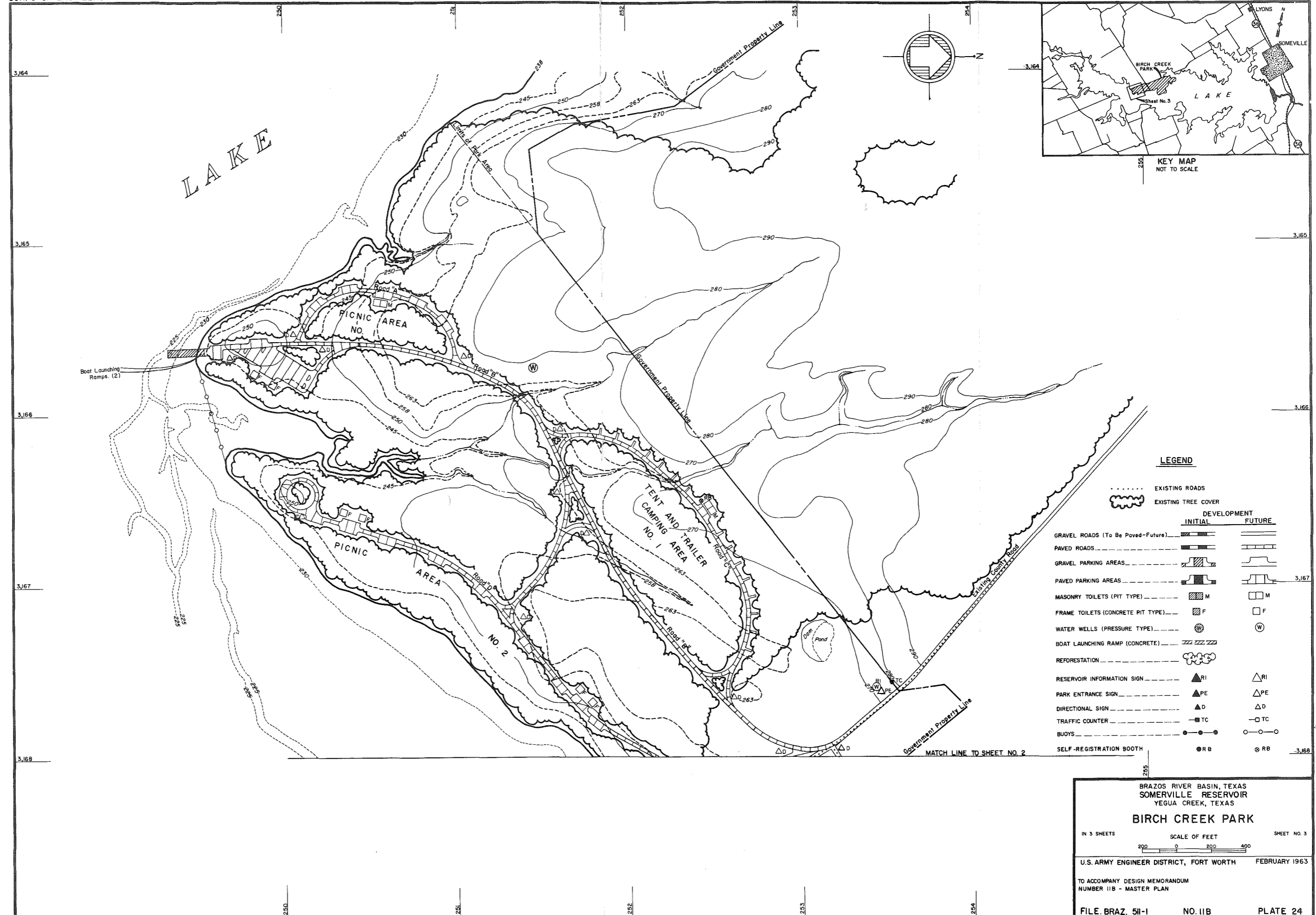
IN 3 SHEETS      SCALE OF FEET      SHEET NO. 2  
 200      0      200      400

U.S. ARMY ENGINEER DISTRICT, FORT WORTH      FEBRUARY 1963

TO ACCOMPANY DESIGN MEMORANDUM  
 NUMBER 11B - MASTER PLAN

FILE BRAZ. 511-1      NO. 11B      PLATE 23

G.G.H.      Revised February 1964



BRAZOS RIVER BASIN, TEXAS  
SOMERVILLE RESERVOIR  
YEGUA CREEK, TEXAS

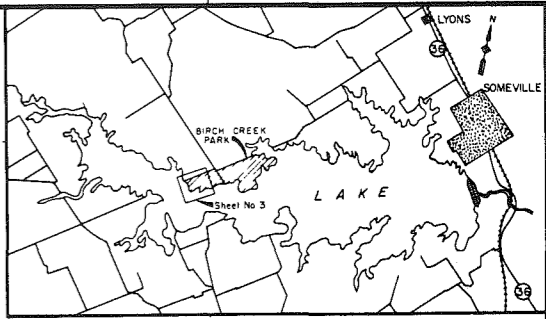
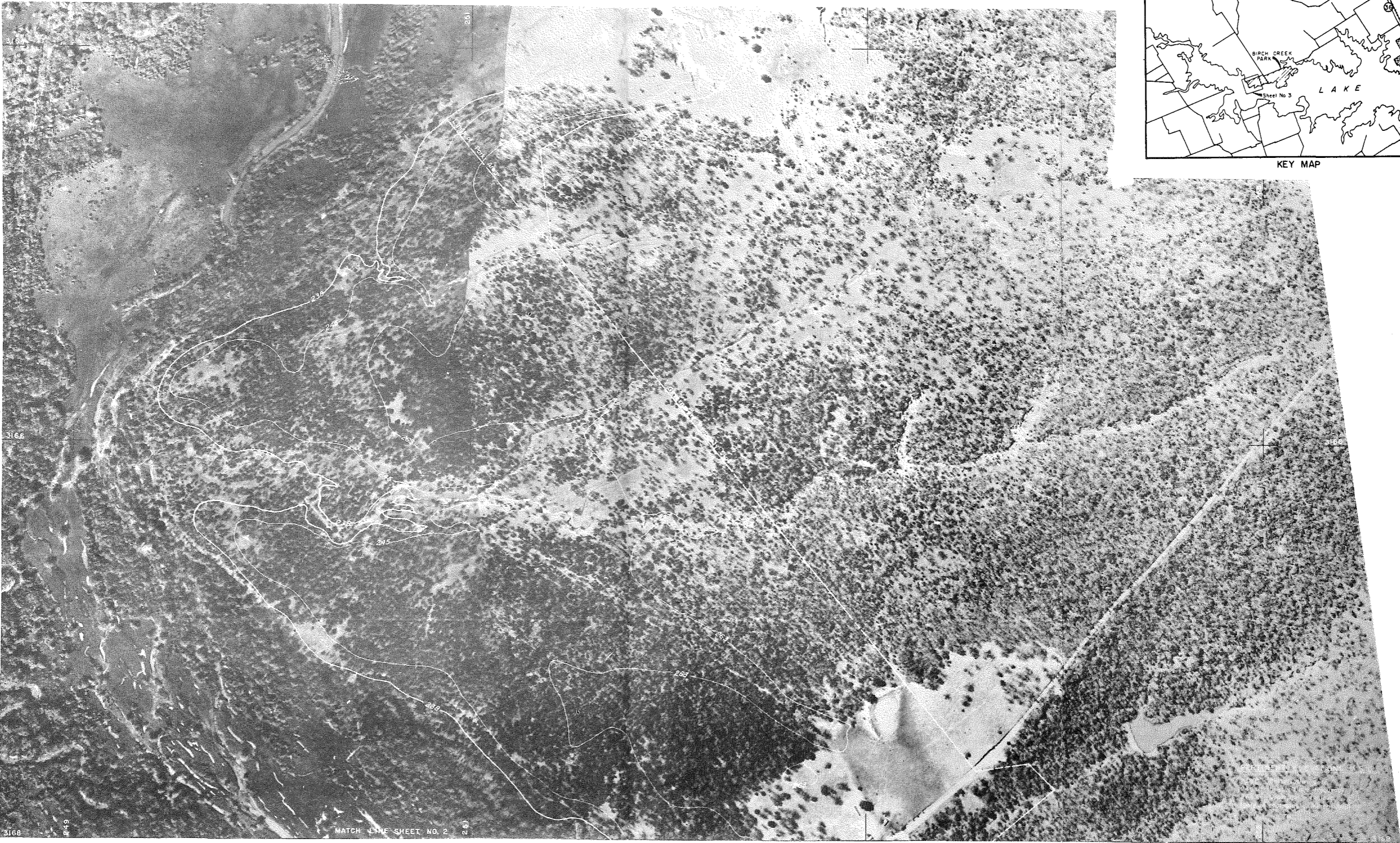
**BIRCH CREEK PARK**

IN 3 SHEETS SCALE OF FEET SHEET NO. 3  
0 200 400

U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY 1963

TO ACCOMPANY DESIGN MEMORANDUM  
NUMBER 11B - MASTER PLAN

FILE BRAZ. 511-1 NO. 11B PLATE 24  
Revised February 1964



KEY MAP

BRAZOS RIVER BASIN, TEXAS  
 SOMERVILLE RESERVOIR  
 YEGUA CREEK, TEXAS  
**BIRCH CREEK PARK**

IN 3 SHEETS      SCALE OF FEET      SHEET NO. 3  
 200 0 200 400

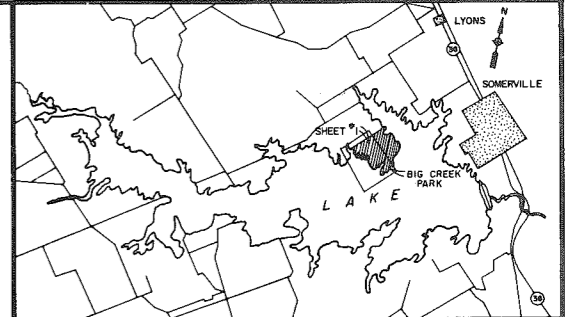
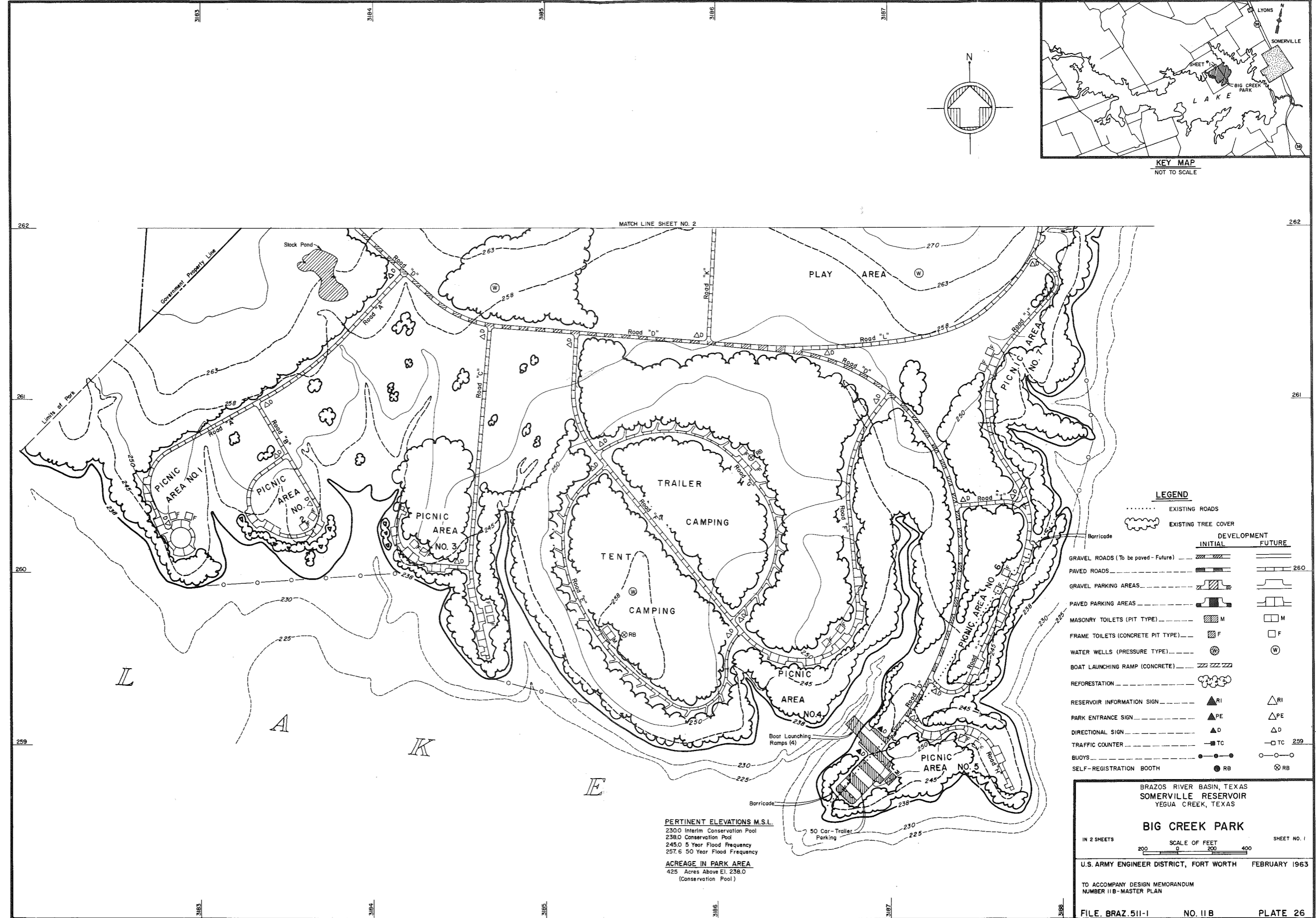
U.S. ARMY ENGINEER DISTRICT, FORT WORTH      FEBRUARY 1963

TO ACCOMPANY DESIGN MEMORANDUM  
 NUMBER 11B - MASTER PLAN

FILE BRAZ. 511-1      NO. 11B      PLATE 25



Revised February 1964



MATCH LINE SHEET NO. 2

**LEGEND**

.....	EXISTING ROADS		
~~~~~	EXISTING TREE COVER		
		DEVELOPMENT	
		INITIAL	FUTURE
-----	GRAVEL ROADS (To be paved - Future)	-----	-----
-----	PAVED ROADS	-----	-----
-----	GRAVEL PARKING AREAS	-----	-----
-----	PAVED PARKING AREAS	-----	-----
-----	MASONRY TOILETS (PIT TYPE)	M	M
-----	FRAME TOILETS (CONCRETE PIT TYPE)	F	F
-----	WATER WELLS (PRESSURE TYPE)	W	W
-----	BOAT LAUNCHING RAMP (CONCRETE)	-----	-----
-----	REFORESTATION	-----	-----
-----	RESERVOIR INFORMATION SIGN	RI	RI
-----	PARK ENTRANCE SIGN	PE	PE
-----	DIRECTIONAL SIGN	D	D
-----	TRAFFIC COUNTER	TC	TC
-----	BUOYS	-----	-----
-----	SELF-REGISTRATION BOOTH	RB	RB

PERTINENT ELEVATIONS M.S.L.

- 230.0 Interim Conservation Pool
- 238.0 Conservation Pond
- 245.0 5 Year Flood Frequency
- 257.6 50 Year Flood Frequency

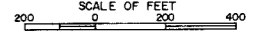
ACREAGE IN PARK AREA

425 Acres Above El. 238.0 (Conservation Pool)

BRAZOS RIVER BASIN, TEXAS
SOMERVILLE RESERVOIR
YEGUA CREEK, TEXAS

BIG CREEK PARK

IN 2 SHEETS SHEET NO. 1

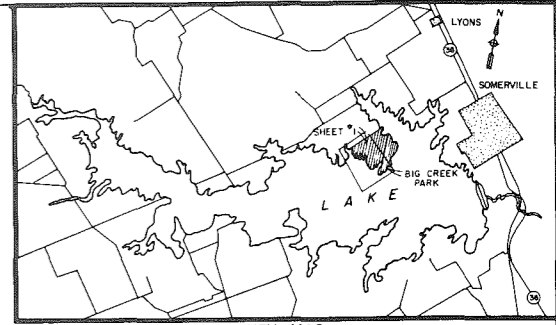


U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY 1963

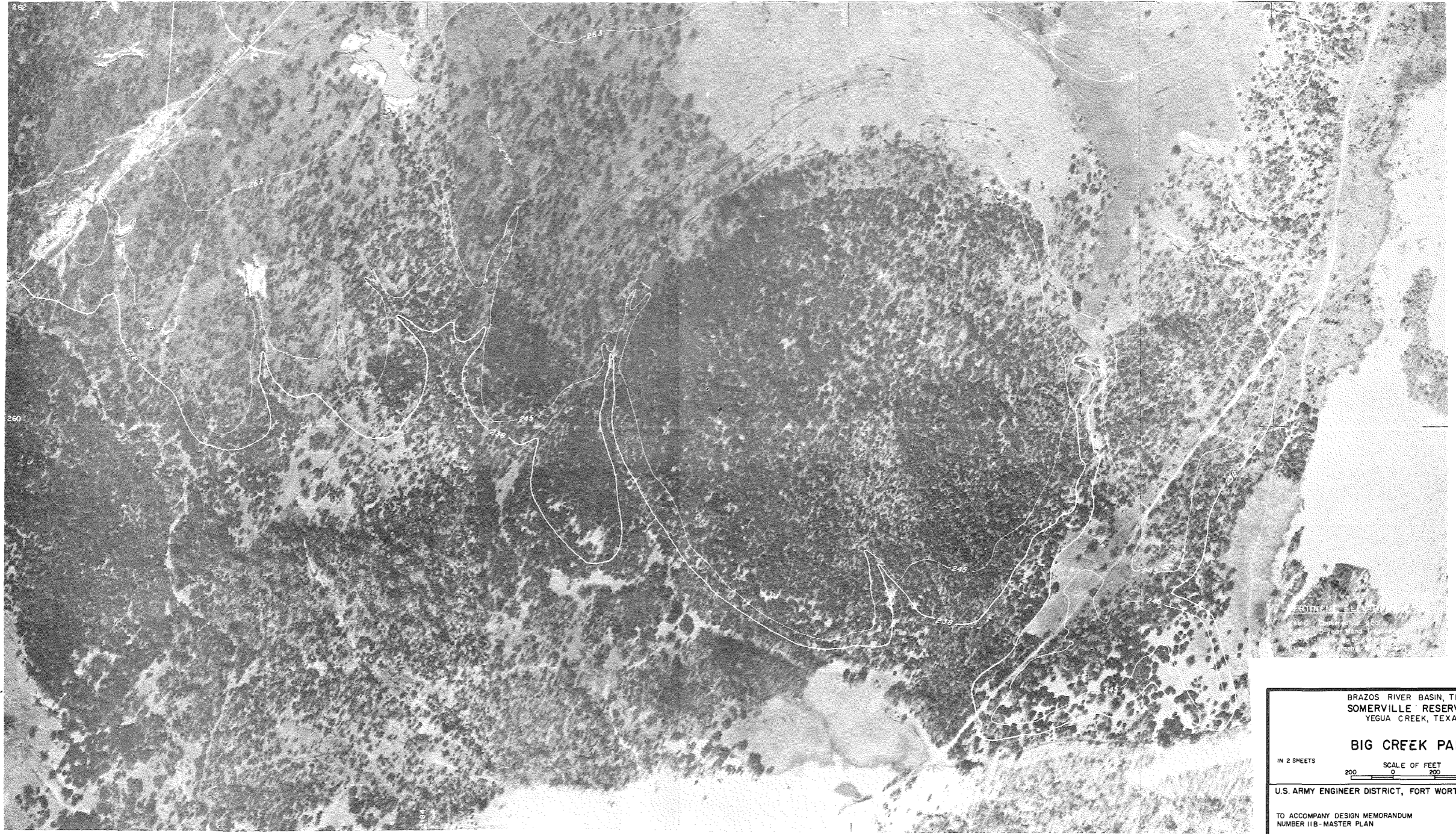
TO ACCOMPANY DESIGN MEMORANDUM
NUMBER 11B-MASTER PLAN

FILE BRAZ.511-1 NO. 11B PLATE 26

R.M.Z. Revised February 1964

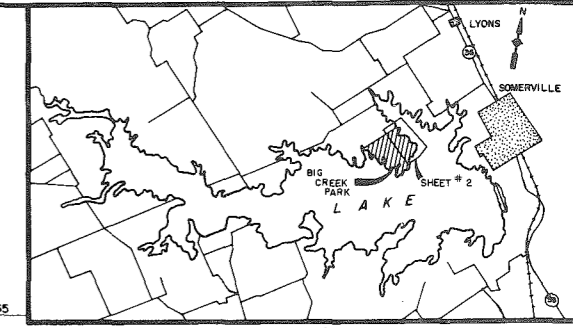
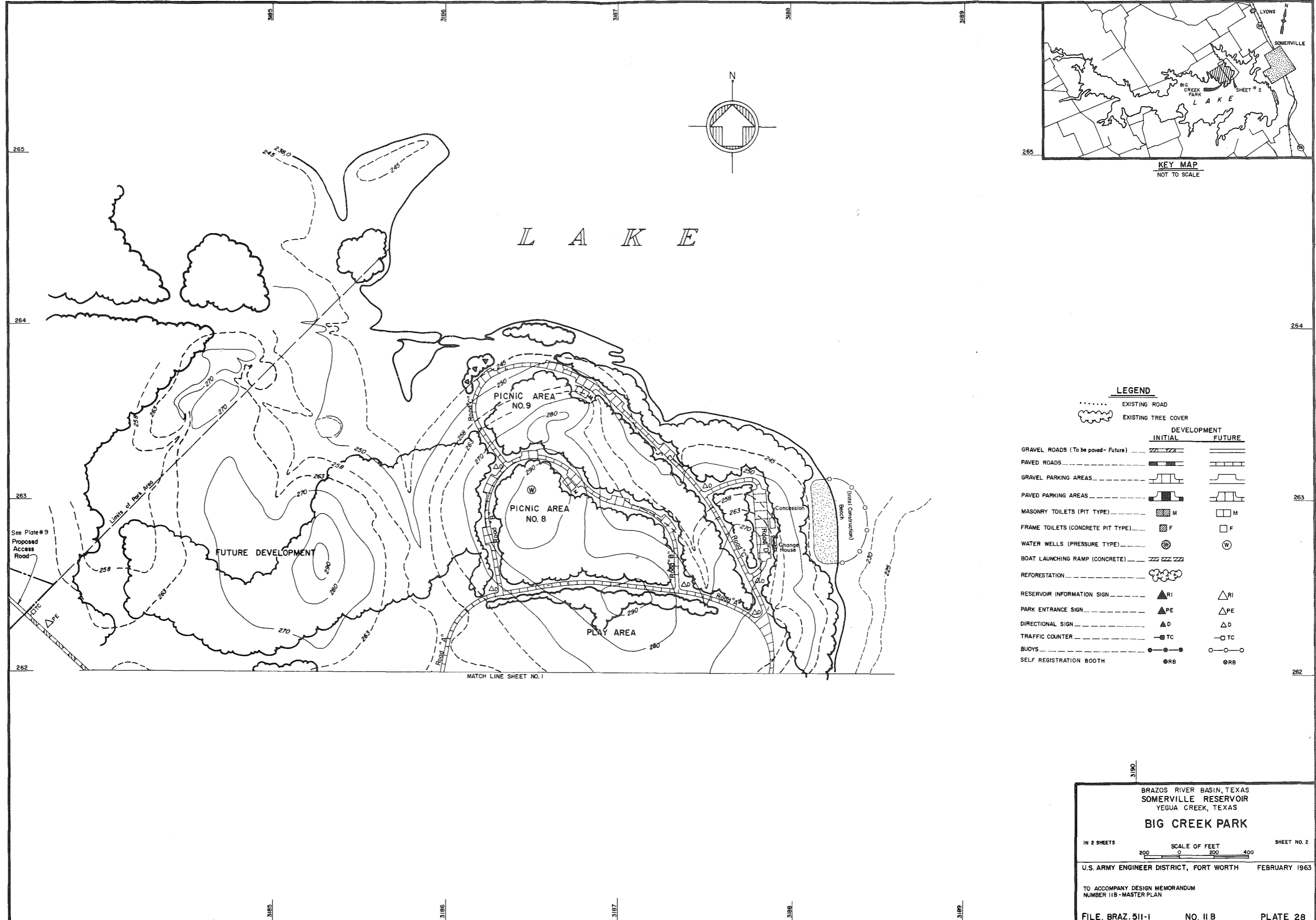


KEY MAP



BRAZOS RIVER BASIN, TEXAS
 SOMERVILLE RESERVOIR
 YEGUA CREEK, TEXAS
BIG CREEK PARK
 IN 2 SHEETS SCALE OF FEET SHEET NO. 1
 200 0 200 400
 U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY 1963
 TO ACCOMPANY DESIGN MEMORANDUM
 NUMBER 118-MASTER PLAN
 FILE BRAZ. 511-1 NO. 118 PLATE 27
 R.M.Z.

Revised February 1964



LEGEND

.....	EXISTING ROAD		
~~~~~	EXISTING TREE COVER		
		DEVELOPMENT	
		INITIAL	FUTURE
GRAVEL ROADS (To be paved- Future)	---	---	---
PAVED ROADS	---	---	---
GRAVEL PARKING AREAS	---	---	---
PAVED PARKING AREAS	---	---	---
MASONRY TOILETS (PIT TYPE)	--- M	---	---
FRAME TOILETS (CONCRETE PIT TYPE)	--- F	---	---
WATER WELLS (PRESSURE TYPE)	--- W	---	---
BOAT LAUNCHING RAMP (CONCRETE)	---	---	---
REFORESTATION	---	---	---
RESERVOIR INFORMATION SIGN	--- RI	---	---
PARK ENTRANCE SIGN	--- PE	---	---
DIRECTIONAL SIGN	--- D	---	---
TRAFFIC COUNTER	--- TC	---	---
BUOYS	--- B	---	---
SELF REGISTRATION BOOTH	--- RB	---	---

BRAZOS RIVER BASIN, TEXAS  
 SOMERVILLE RESERVOIR  
 YEGUA CREEK, TEXAS

**BIG CREEK PARK**

IN 2 SHEETS      SCALE OF FEET      SHEET NO. 2  
 200 0 200 400

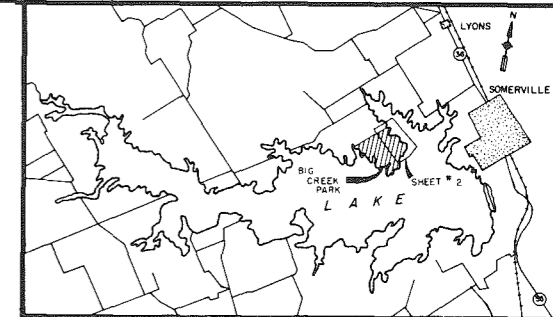
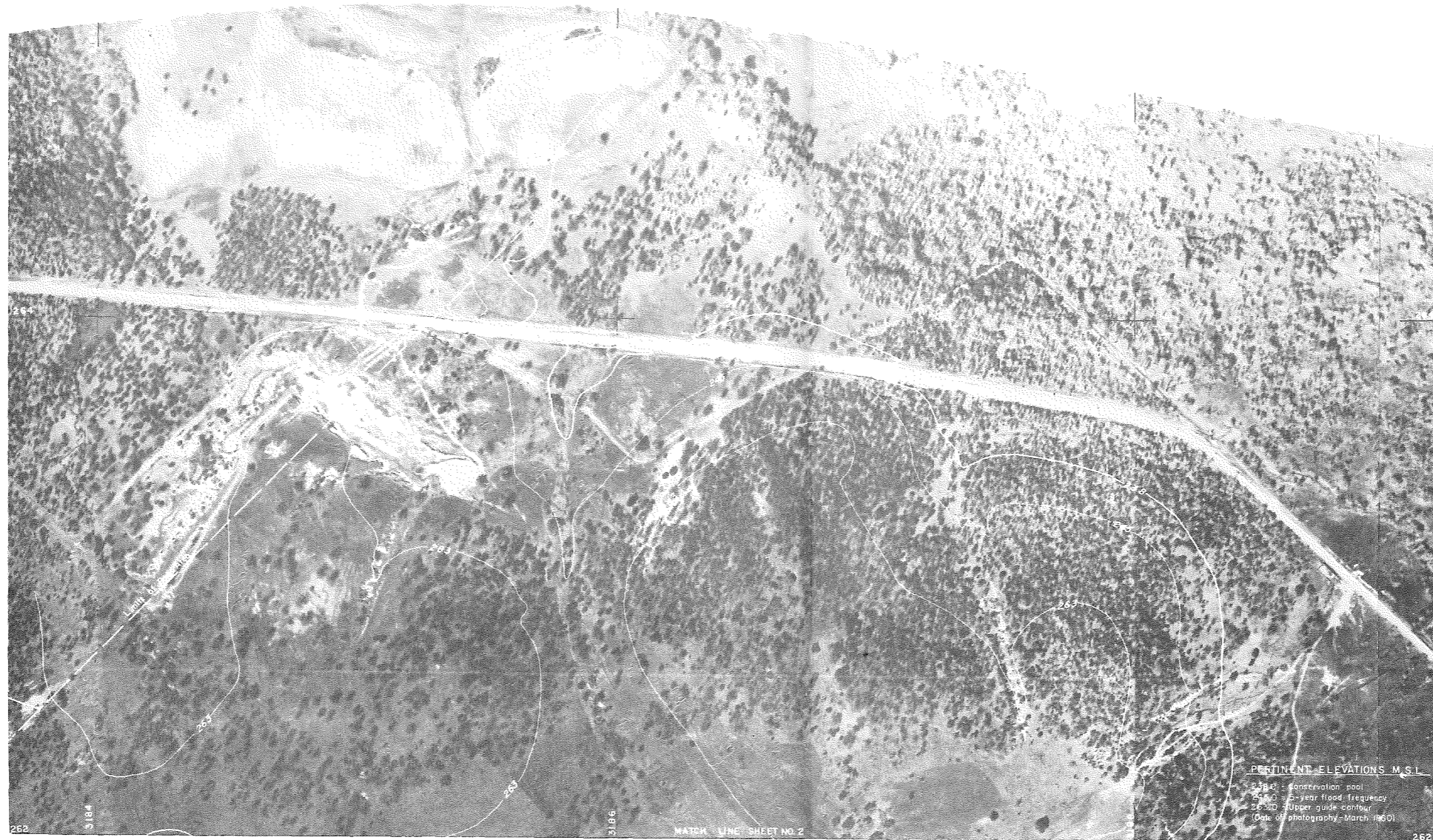
U.S. ARMY ENGINEER DISTRICT, FORT WORTH      FEBRUARY 1963

TO ACCOMPANY DESIGN MEMORANDUM  
 NUMBER 118 - MASTER PLAN

FILE BRAZ. 511-1      NO. 118      PLATE 28

J.A.B.      Revised February 1964





KEY MAP



PERTINENT ELEVATIONS, M.S.L.

- 248.0 - conservation pool
- 250.0 - 5-year flood frequency
- 252.0 - 100-year flood frequency
- (Date of photography - March 1960)

BRAZOS RIVER BASIN, TEXAS  
SOMERVILLE RESERVOIR  
YEGUA CREEK, TEXAS  
**BIG CREEK PARK**

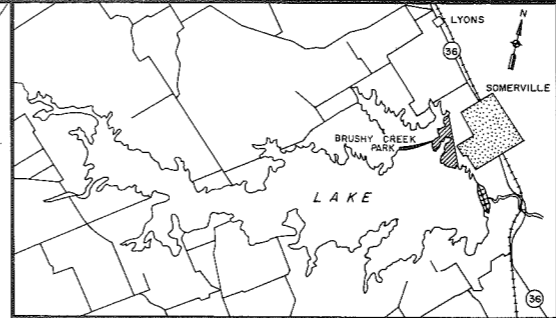
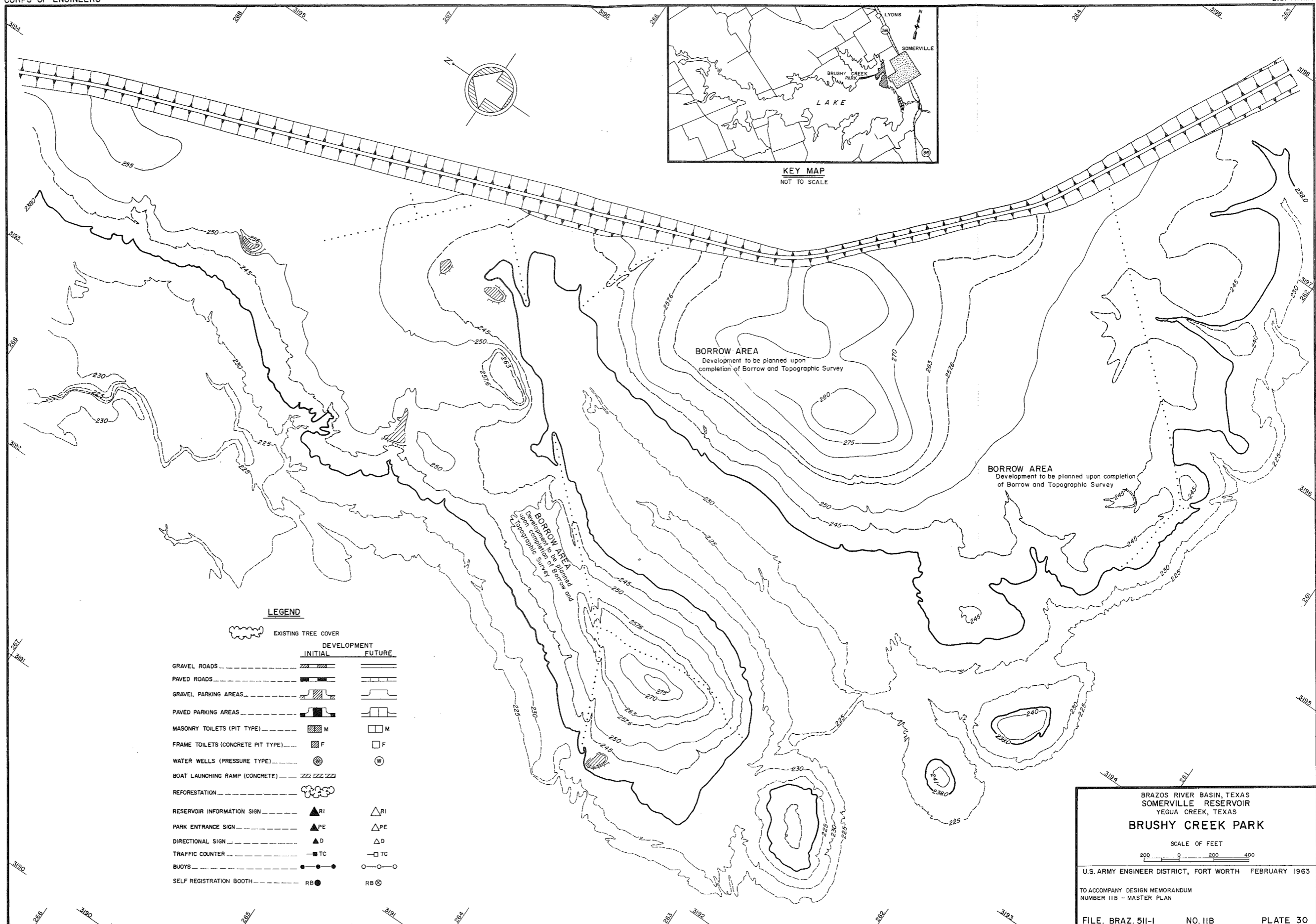
IN 2 SHEETS SHEET NO. 2

SCALE OF FEET  
0 200 400

U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY 1963

TO ACCOMPANY DESIGN MEMORANDUM  
NUMBER 11B - MASTER PLAN

FILE. BRAZ. 511-1 NO. 11B PLATE 29



KEY MAP  
NOT TO SCALE

**LEGEND**

	EXISTING TREE COVER	
	DEVELOPMENT	
	INITIAL	FUTURE
GRAVEL ROADS		
PAVED ROADS		
GRAVEL PARKING AREAS		
PAVED PARKING AREAS		
MASONRY TOILETS (PIT TYPE)	M	M
FRAME TOILETS (CONCRETE PIT TYPE)	F	F
WATER WELLS (PRESSURE TYPE)	W	W
BOAT LAUNCHING RAMP (CONCRETE)		
REFORESTATION		
RESERVOIR INFORMATION SIGN	RI	RI
PARK ENTRANCE SIGN	PE	PE
DIRECTIONAL SIGN	D	D
TRAFFIC COUNTER	TC	TC
BUOYS		
SELF REGISTRATION BOOTH	RB	RB

BRAZOS RIVER BASIN, TEXAS  
SOMERVILLE RESERVOIR  
YEGUA CREEK, TEXAS

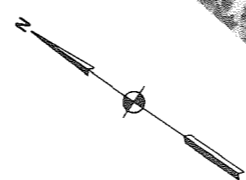
**BRUSHY CREEK PARK**

SCALE OF FEET  
0 200 400

U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY 1963

TO ACCOMPANY DESIGN MEMORANDUM  
NUMBER 11B - MASTER PLAN

FILE. BRAZ. 511-1 NO. 11B PLATE 30



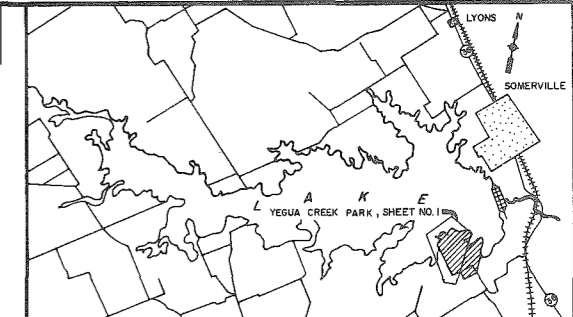
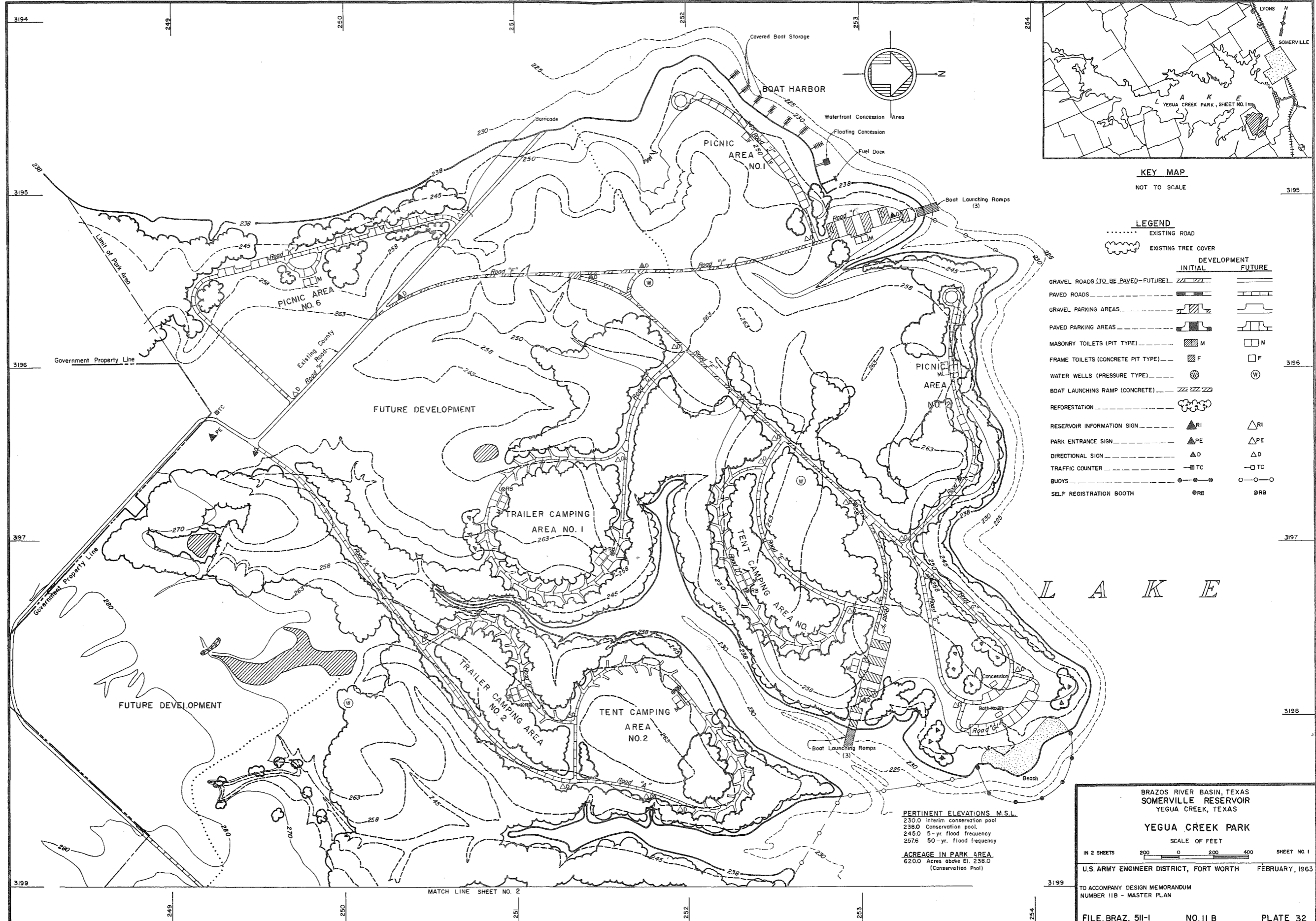
BRAZOS RIVER BASIN, TEXAS  
 SOMERVILLE RESERVOIR  
 YEGUA CREEK, TEXAS  
**BRUSHY CREEK PARK**

SCALE OF FEET  
 0 200 400

U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY 1963

TO ACCOMPANY DESIGN MEMORANDUM  
 NUMBER IIB - MASTER PLAN

FILE. BRAZ. 511-I NO. IIB PLATE 31  
 B.W.H. Revised February 1964



**LEGEND**

	DEVELOPMENT	
	INITIAL	FUTURE
EXISTING ROAD	(Dashed line)	(Dashed line)
EXISTING TREE COVER	(Cloud-like symbol)	(Cloud-like symbol)
GRAVEL ROADS (TO BE PAVED - FUTURE)	(Hatched line)	(Hatched line)
PAVED ROADS	(Solid line)	(Solid line)
GRAVEL PARKING AREAS	(Hatched area)	(Hatched area)
PAVED PARKING AREAS	(Solid area)	(Solid area)
MASONRY TOILETS (PIT TYPE)	(Square with 'M')	(Square with 'M')
FRAME TOILETS (CONCRETE PIT TYPE)	(Square with 'F')	(Square with 'F')
WATER WELLS (PRESSURE TYPE)	(Circle with 'W')	(Circle with 'W')
BOAT LAUNCHING RAMP (CONCRETE)	(Zigzag line)	(Zigzag line)
REFORESTATION	(Cloud-like symbol)	(Cloud-like symbol)
RESERVOIR INFORMATION SIGN	(Triangle with 'RI')	(Triangle with 'RI')
PARK ENTRANCE SIGN	(Triangle with 'PE')	(Triangle with 'PE')
DIRECTIONAL SIGN	(Triangle with 'D')	(Triangle with 'D')
TRAFFIC COUNTER	(Square with 'TC')	(Square with 'TC')
BUOYS	(Circle with 'B')	(Circle with 'B')
SELF REGISTRATION BOOTH	(Circle with 'RB')	(Circle with 'RB')

**PERTINENT ELEVATIONS M.S.L.**  
 230.0 Interim conservation pool  
 238.0 Conservation pool  
 245.0 5-yr. flood frequency  
 257.6 50-yr. flood frequency

**ACREAGE IN PARK AREA**  
 620.0 Acres above El. 238.0  
 (Conservation Pool)

BRAZOS RIVER BASIN, TEXAS  
 SOMERVILLE RESERVOIR  
 YEGUA CREEK, TEXAS

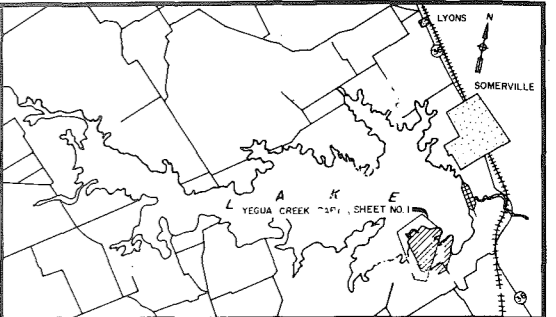
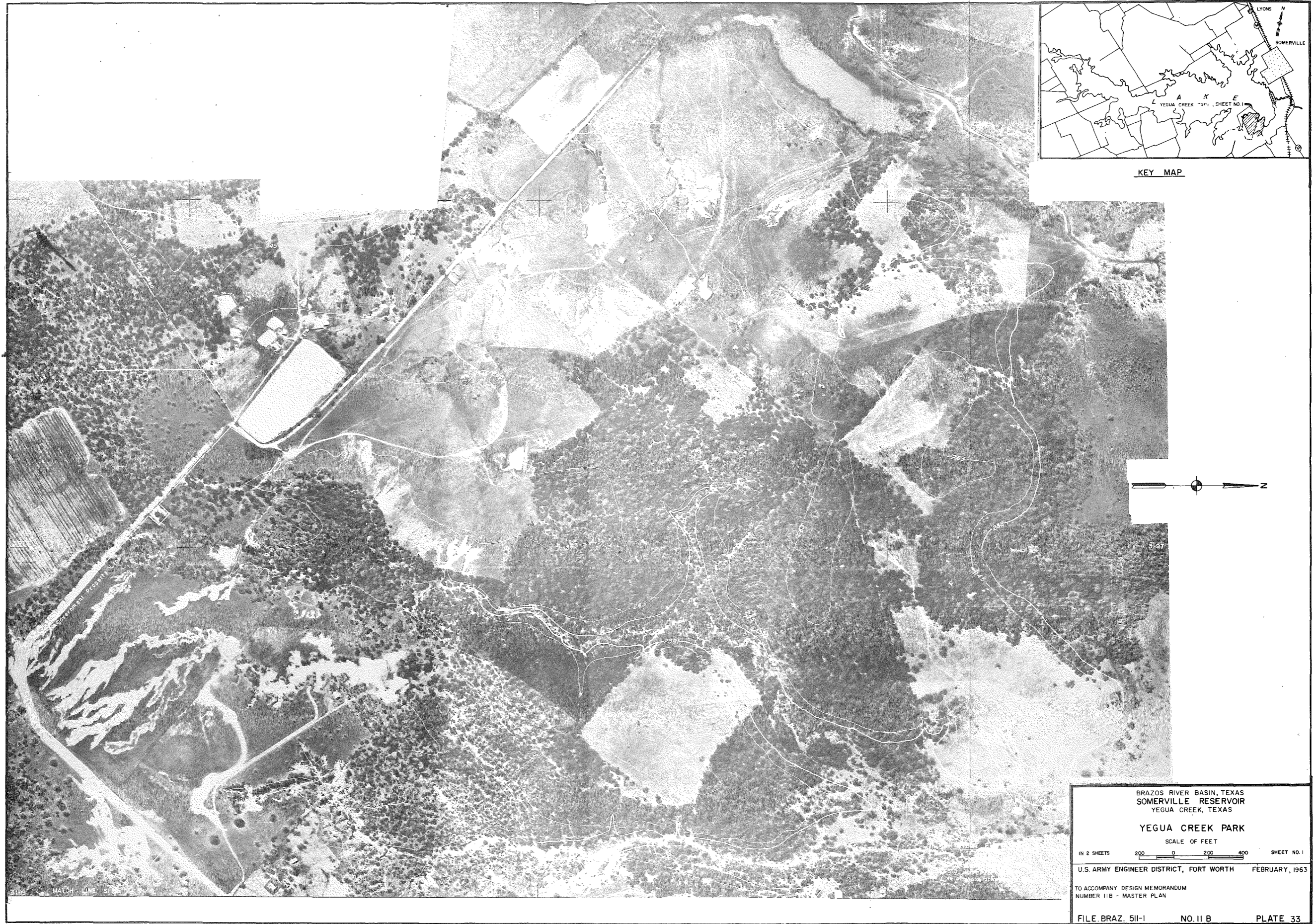
**YEGUA CREEK PARK**

SCALE OF FEET  
 IN 2 SHEETS 200 0 200 400 SHEET NO. 1

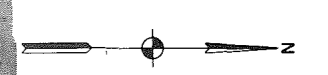
U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY, 1963

TO ACCOMPANY DESIGN MEMORANDUM  
 NUMBER 11B - MASTER PLAN

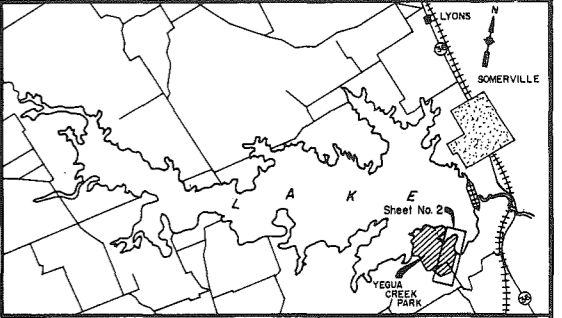
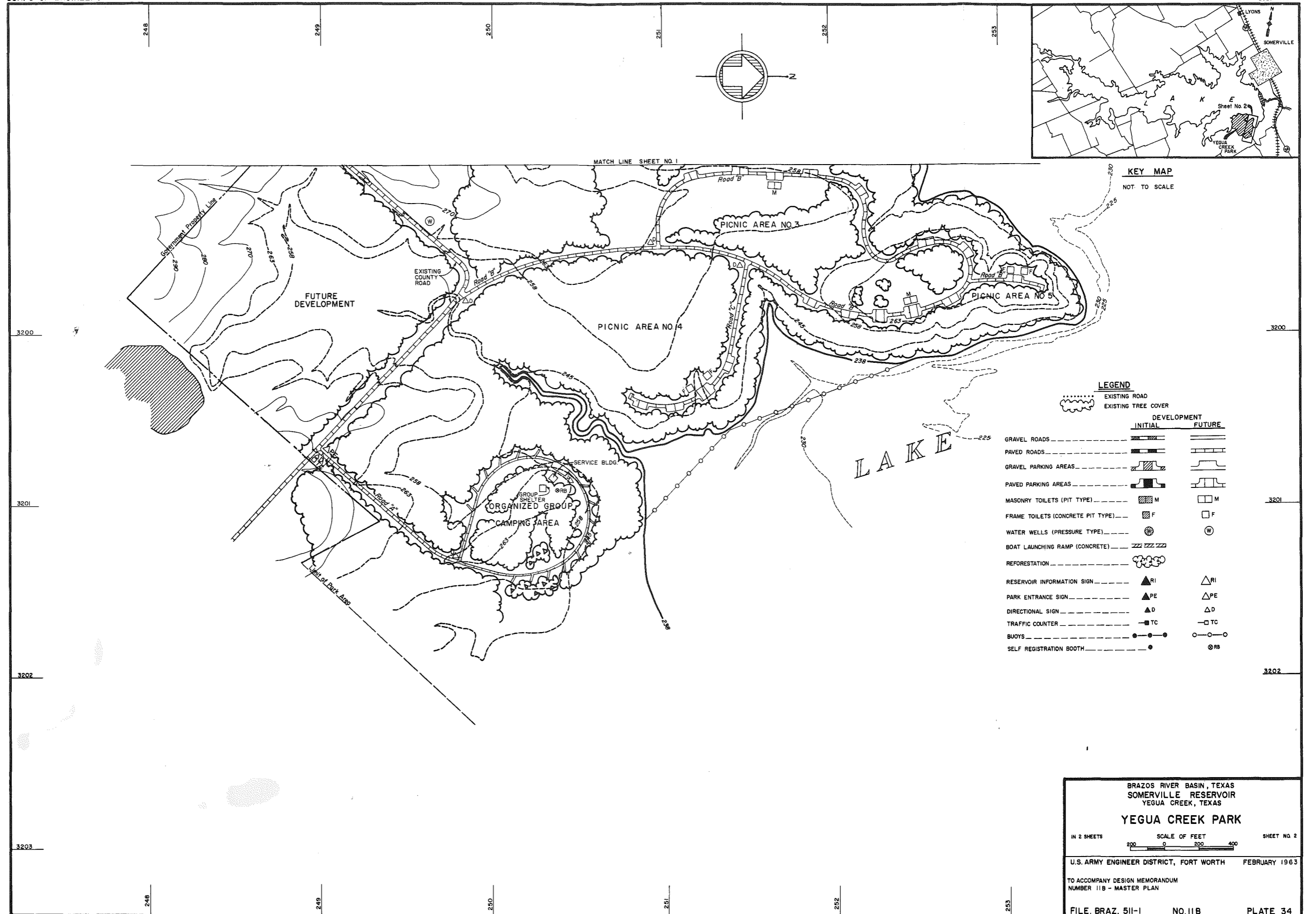
FILE BRAZ. 511- NO. 11 B PLATE 32



KEY MAP



BRAZOS RIVER BASIN, TEXAS  
 SOMERVILLE RESERVOIR  
 YEGUA CREEK, TEXAS  
**YEGUA CREEK PARK**  
 SCALE OF FEET  
 IN 2 SHEETS 200 0 200 400 SHEET NO. 1  
 U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY, 1963  
 TO ACCOMPANY DESIGN MEMORANDUM  
 NUMBER 11B - MASTER PLAN  
 FILE BRAZ. 511-1 NO. 11 B PLATE 33  
 Revised February 1964



**LEGEND**

EXISTING ROAD	-----	DEVELOPMENT	
EXISTING TREE COVER	~~~~~	INITIAL	FUTURE
GRAVEL ROADS	-----	-----	-----
PAVED ROADS	-----	-----	-----
GRAVEL PARKING AREAS	-----	-----	-----
PAVED PARKING AREAS	-----	-----	-----
MASONRY TOILETS (PIT TYPE)	□ M	□ M	□ M
FRAME TOILETS (CONCRETE PIT TYPE)	□ F	□ F	□ F
WATER WELLS (PRESSURE TYPE)	○ W	○ W	○ W
BOAT LAUNCHING RAMP (CONCRETE)	~~~~~	~~~~~	~~~~~
REFORESTATION	~~~~~	~~~~~	~~~~~
RESERVOIR INFORMATION SIGN	▲ RI	▲ RI	▲ RI
PARK ENTRANCE SIGN	▲ PE	▲ PE	▲ PE
DIRECTIONAL SIGN	▲ D	▲ D	▲ D
TRAFFIC COUNTER	■ TC	■ TC	■ TC
BUOYS	● B	● B	● B
SELF REGISTRATION BOOTH	● RB	● RB	● RB

BRAZOS RIVER BASIN, TEXAS  
SOMERVILLE RESERVOIR  
YEGUA CREEK, TEXAS

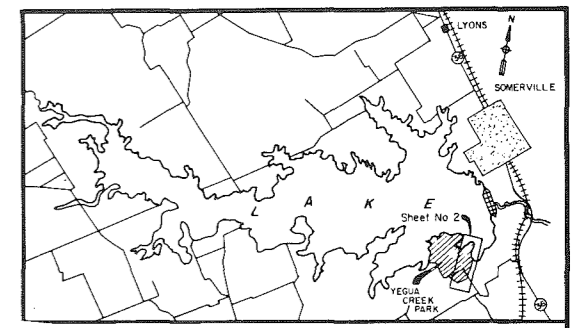
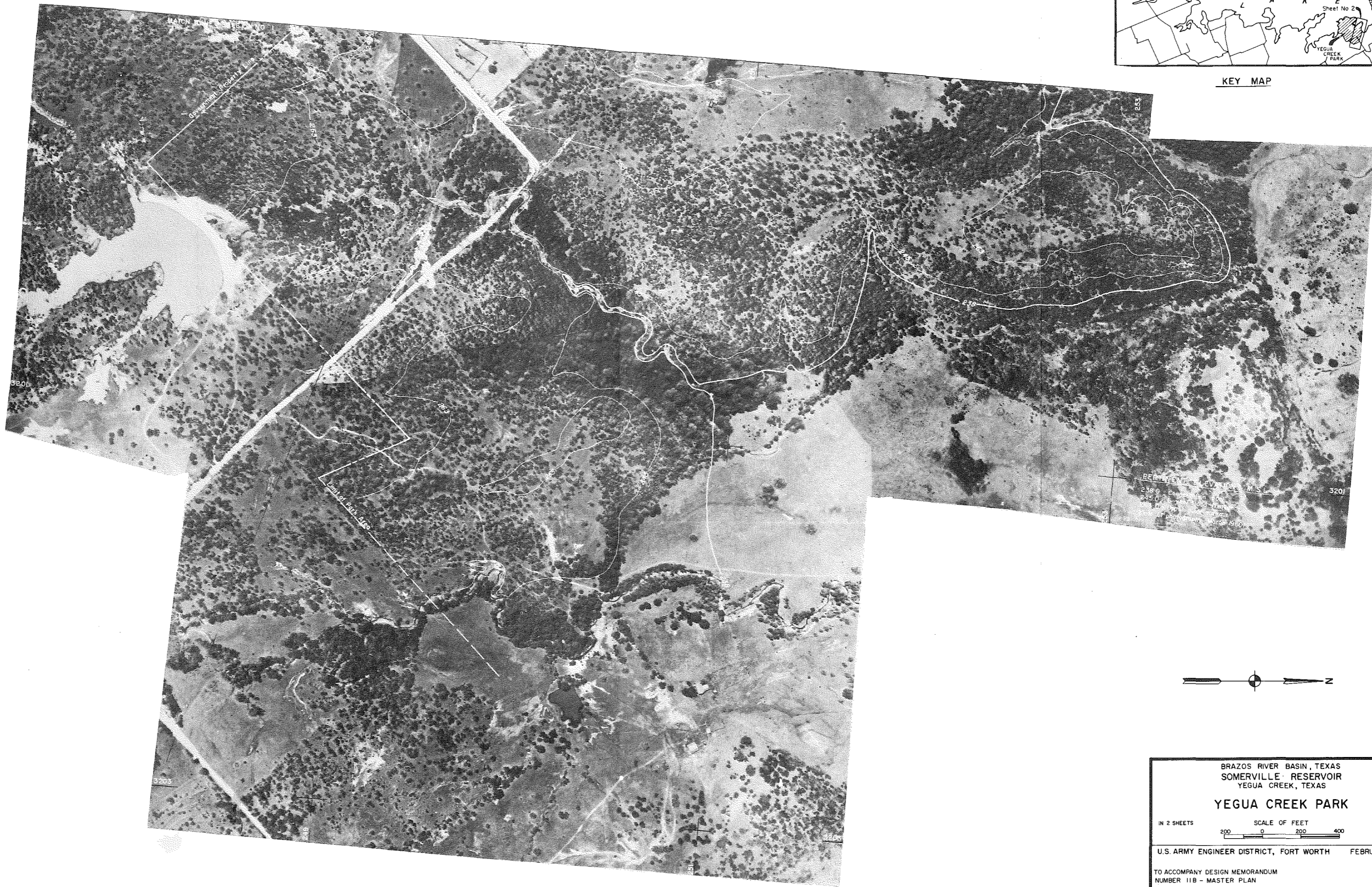
**YEGUA CREEK PARK**

IN 2 SHEETS      SCALE OF FEET      SHEET NO. 2  
200      0      200      400

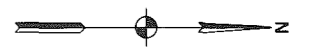
U.S. ARMY ENGINEER DISTRICT, FORT WORTH      FEBRUARY 1963

TO ACCOMPANY DESIGN MEMORANDUM  
NUMBER 11B - MASTER PLAN

FILE. BRAZ. 511-1      NO. 11B      PLATE 34



KEY MAP



BRAZOS RIVER BASIN, TEXAS  
 SOMERVILLE RESERVOIR  
 YEGUA CREEK, TEXAS  
**YEGUA CREEK PARK**  
 IN 2 SHEETS      SCALE OF FEET      SHEET NO. 2  
 200      0      200      400  
 U.S. ARMY ENGINEER DISTRICT, FORT WORTH      FEBRUARY 1963  
 TO ACCOMPANY DESIGN MEMORANDUM  
 NUMBER 11B - MASTER PLAN  
 FILE. BRAZ. 511-1      NO. 11B      PLATE 35

Revised February 1964

SOMERVILLE RESERVOIR  
YEGUA CREEK, TEXAS

Estimate of Cost for Public Use and Access Facilities

1. Initial development is that required to serve the anticipated number of annual visitors for a three-year period after deliberate impoundment of water is initiated. Future development is that required to complete the proposed public use development. Every effort will be made during negotiations to consummate license or lease agreements with interested nonfederal agencies to have them agree to provide the future development in the public use areas. No attempt has been made to prepare estimate of costs for facilities to be constructed by concessionaires or other agencies.

2. The sum of \$292,000 is the estimated cost to provide potable water in the public use areas in the initial and future development program. The water will be provided from wells by hydropneumatic system with water distribution lines to water fountains and spigots.

3. The initial and future development program provides an estimated \$273,600 for the construction of toilets. The initial development will provide one masonry double unit (waterborne type), 4 masonry double units (concrete pit type), and 2 frame single units (concrete pit type). The frame toilets will be used only in remote areas where construction of the more expensive masonry units is not warranted, or when toilets are needed at lower elevations. Future development will consist of construction of 29 masonry double units (concrete pit type) and 76 frame single units (concrete pit type).

4. The initial development program amounts to \$549,000, which is the amount shown in the current approved PB-3.



## I - COST ESTIMATES

1-01. General.- The estimated cost for the construction of public use facilities at this project, including engineering and design and supervision and administration, is \$3,791,600, which includes initial and future development based on current prices. No attempt has been made to establish cost estimates for facilities to be constructed by other agencies, since the criteria, design, and materials they will use is not known. For review convenience, the tabulation below provides the estimated cost of each area showing initial cost, future cost, and the total cost.

<u>Public access areas</u>	<u>Initial cost</u>	<u>Future cost</u>	<u>Total</u>
Overlook Park	\$ 213,400	\$ 46,100	\$ 259,500
Rocky Creek Park	176,400	348,100	524,500
McCain Creek Park	12,400	169,200	181,600
Nails Creek Park	13,600	344,400	358,000
Birch Creek Park	25,500	715,300	740,800
Big Creek Park	45,000	496,000	541,000
Yegua Creek Park	62,700	652,500	715,200
Subtotals	\$ 549,000	\$2,771,600	\$3,320,600
E&D*	75,000	194,000	269,000
S&A	36,000	166,000	202,000
Estimated total cost	\$ 660,000	\$3,131,600	\$3,791,600

*Includes the cost of the preparation of the master plan.

1-02. Analysis of cost.- The purpose of this analysis is to show that the major portion of the cost of developing the areas is required for construction and paving of the roads and parking areas. These costs and percentages are as follows:

<u>Item</u>	<u>Total cost</u>	<u>Percent of total cost</u>
Roads (includes paving)	\$1,567,200	47
Parking areas (includes paving)	209,900	6
Launching ramps	84,900	3
Sanitary facilities	273,600	8
Picnic facilities (includes tables and shelters in picnic and camping areas)	673,800	20
Other facilities (includes service buildings, change shelters and beach improvement)	93,200	3

<u>Item</u>	<u>Total cost</u>	<u>Percent of total cost</u>
Water systems (includes well, pumphouse, underground service lines and fountains)	\$ 292,000	9
Miscellaneous (includes site improvement, signs, buoys, electric service lines)	<u>126,000</u>	<u>4</u>
	\$3,320,600*	100

*Engineering and design and supervision and administration not included.

1-03. Cost estimates.- A cost estimate summary for the proposed initial and future development at the project is shown in cost estimate table 1. A detailed cost estimate summary for each individual area is shown in cost estimate tables 2 through 8. The funds required by fiscal years for the proposed initial development is shown in cost estimate table 9. The funds required for operation and maintenance are shown in cost estimate table 10.

TABLE 1

SUMMARY OF ESTIMATE OF COST  
PUBLIC USE AND RESERVOIR DEVELOPMENT

Acct: No.:	Item	Unit	Initial Development (1)		Future Development		Total	
			Quantity	Cost	Quantity	Cost	Quantity	Cost
<b>14. RECREATIONAL FACILITIES</b>								
<b>a. Roads:</b>								
	Gravel	Miles	3.0	\$60,000	0.1	\$2,000	3.1	\$62,000
	Paved	Miles	5.7	199,500	37.3	1,305,500	43.0	1,505,000
	Foot Path	Miles	-	-	0.2	200	0.2	200
	<b>b. Parking areas:</b>							
	Paved	S.F.	58,000	11,600	693,000	138,600	751,000	150,200
	<b>c. Boat launching sites:</b>							
	Boat ramps (concrete)	Each	24	84,900	-	-	24	84,900
	Turnarounds and trailer parking (paved)	S.F.	80,500	16,100	218,000	43,600	298,500	59,700
	<b>d. Toilets:</b>							
	Masonry double unit (waterborne type)	Each	1	15,000	-	-	1	15,000
	Masonry double unit (concrete pit type)	Each	4	20,000	29	145,000	33	165,000
	Frame single unit (concrete pit type)	Each	2	2,400	76	91,200	78	93,600
	<b>e. Water supply systems:(2)</b>							
	Water well pressure type) (WP-2)	Each	3	12,000	19	76,000	22	88,000
	Water line extension	L.F.	7,400	14,800	94,600	189,200	102,000	204,000

TABLE 1 (CONT'D)

Acct: No. :	Item	Initial Development (1)			Future Development		Total	
		Unit	Quantity	Cost	Quantity	Cost	Quantity	Cost
14. RECREATIONAL FACILITIES (CONT'D)								
f.	Picnic facilities 1 picnic unit consists of 2 tables, 1 fireplace, and 1 trash can.	Each	70	\$42,000	598	\$358,800	668	\$400,800
g.	Picnic shelters:							
	1-table shelters	Each	70	35,000	476	238,000	546	273,000
	Group shelters (PS-1)	Each	-	-	4	14,000	4	14,000
h.	Site improvement (includes tree planting, seeding, underbrushing, and cleanup)	L.S.	Job	14,500	Job	43,200	Job	57,700
i.	Signs	L.S.	Job	2,900	Job	10,400	Job	13,300
j.	Buoys	L.S.	Job	2,300	Job	8,600	Job	10,900
k.	Elec Serv Lines	L.S.	Job	6,000	Job	38,100	Job	44,100
l.	Beach improvement	L.S.	Job	10,000	Job	15,000	Job	25,000
m.	Change shelter (XD-2)	Each	-	-	5	4,000	5	4,000

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TABLE 1 (CONT'D)

Acct: No. :	Item	Initial Development (1)			Future Development		Total	
		Unit	Quantity	Cost	Quantity	Cost	Quantity	Cost
14. RECREATIONAL FACILITIES (CONT'D)								
	n. Service Building (includes waterborne toilets, shower & laundry facilities)	Each	-	-	4	\$48,000	4	\$48,000
	o. Registration booths	Each	-	-	22	2,200	22	2,200
	Subtotal			\$549,000		\$2,771,600		\$3,320,600
	30. E&D (includes prepara- tion of master plan)			75,000		194,000		269,000
	31. S&A			36,000		166,000		202,000
	Total			\$660,000		\$3,131,600		\$3,791,600

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(1) Recreational development required for the first three years after the project is placed in useful operation.

(2) See paragraph 2, "Estimate of cost for public facilities."

TABLE 2

DETAILS OF ESTIMATE OF COST  
FOR DEVELOPMENT-PUBLIC USE AREAS

Acct: No. :	Item	Unit	Initial Development (1)		Future Development		Total	
			Quan- tity	Cost	Quan- tity	Cost	Quan- tity	Cost
<b>14. RECREATIONAL FACILITIES</b>								
<u>Overlook Park</u>								
a.	Roads:							
	Paved	Miles	2.8	\$98,000	-	-	2.8	\$98,000
b.	Parking areas:							
	Paved	S.F.	34,000	6,800	-	-	34,000	6,800
c.	Boat launching sites:							
	Boat ramps (concrete)	Each	2	9,500	-	-	2	9,500
	Turnarounds & trailer parking (paved)	S.F.	17,000	3,400	-	-	17,000	3,400
d.	Toilets:							
	Masonry double unit (waterborne)	Each	1	15,000	-	-	1	15,000
	Masonry double unit (concrete pit type)	Each	2	10,000	-	-	2	10,000
	Frame single unit (concrete pit type)	Each	2	2,400	-	-	2	2,400
e.	Water supply systems:(2)							
	Water well (pressure type)	Each	2	8,000	-	-	2	8,000
	Waterline extension	L.F.	4,600	9,200	-	-	4,600	9,200

TABLE 2 (CONT'D)

Acct: No. :	Item	Initial Development (1)			Future Development		Total	
		Unit	Quantity	Cost	Quantity	Cost	Quantity	Cost
14. RECREATIONAL FACILITIES (CONT'D)								
	f. Picnic facilities 1 picnic unit consists of 2 tables, 1 fireplace, and 1 trash can.	Each	40	\$24,000	40	\$24,000	80	\$48,000
	g. Picnic shelters: 1-table shelters	Each	40	20,000	40	20,000	80	40,000
	h. Site improvement (includes tree planting, seeding, underbrushing & cleanup)	L.S.	Job	2,100	Job	2,100	Job	4,200
	i. Signs	L.S.	Job	1,200	-	-	Job	1,200
	j. Buoys	L.S.	Job	1,000	-	-	Job	1,000
	k. Elec serv lines	L.S.	Job	2,800	-	-	Job	2,800
	Total			\$213,400		\$46,100		\$259,500

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(1) Recreational development required for the first 3 years after the project is placed in useful operation.

(2) See paragraph 2, "Estimate of cost for public facilities."

TABLE 3

DETAILS OF ESTIMATE OF COST  
FOR DEVELOPMENT-PUBLIC USE AREAS

Acct: No. :	Item	Initial Development (1)			Future Development		Total	
		Unit	Quantity	Cost	Quantity	Cost	Quantity	Cost
14. RECREATIONAL FACILITIES								
<u>Rocky Creek Park</u>								
a. Roads:								
	Paved	Miles	2.9	\$101,500	4.2	\$147,000	7.1	\$248,500
	Gravel	Miles	-	-	0.1	2,000	0.1	2,000
b. Parking areas:								
	Paved	S.F.	24,000	4,800	90,000	18,000	114,000	22,800
c. Boat launching sites:								
	Boat ramps (concrete)	Each	2	7,000	-	-	2	7,000
	Turnarounds & trailer parking (paved)	S.F.	20,000	4,000	1,000	200	21,000	4,200
d. Toilets:								
	Masonry double unit (concrete pit type)	Each	1	5,000	3	15,000	4	20,000
	Frame single unit (concrete pit type)	Each	-	-	16	19,200	16	19,200
e. Water supply systems:(2)								
	Water well (pressure type)	Each	1	4,000	2	8,000	3	12,000
	Waterline extension	L.F.	2,800	5,600	10,300	20,600	13,100	26,200

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TABLE 3 (CONT'D)

Acct: No. :	Item	Unit	Initial Development (1)		Future Development		Total	
			Quan- tity	Cost	Quan- tity	Cost	Quan- tity	Cost
14. RECREATIONAL FACILITIES (CONT'D)								
	f. Picnic facilities 1 picnic unit consists of 2 tables, 1 fireplace, and 1 trash can.	Each	30	\$18,000	88	\$52,800	118	\$70,800
	g. Picnic shelters:							
	One-table shelters	Each	30	15,000	75	37,500	105	52,500
	Group shelters	Each	-	-	1	3,500	1	3,500
	h. Site improvement (includes tree planting, seeding, underbrushing & cleanup)	L.S.	Job	1,500	Job	7,300	Job	8,800
	i. Signs	L.S.	Job	800	Job	1,400	Job	2,200
	j. Buoys	L.S.	Job	1,000	-	-	Job	1,000
	k. Elec serv lines	L.S.	Job	3,200	Job	2,400	Job	5,600
	l. Beach improvement	L.S.	Job	5,000	-	-	Job	5,000
	m. Change shelter	Each	-	-	1	800	1	800
	n. Service Bldg (includes water- borne toilets, shower, and laundry facilities)	Each	-	-	1	12,000	1	12,000
	o. Registration booths	Each	-	-	4	400	4	400
	Total			\$176,400		\$348,100		\$524,500

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(1) Recreational development required for the first 3 years after the project is placed in useful operation.  
(2) See paragraph 2, "Estimate of cost for public facilities."

TABLE 4

DETAILS OF ESTIMATE OF COST  
FOR DEVELOPMENT-PUBLIC USE AREAS

Acct: No. :	Item	Initial Development (1)			Future Development		Total	
		Unit	Quantity	Cost	Quantity	Cost	Quantity	Cost
<b>14. RECREATIONAL FACILITIES</b>								
<u>McCain Creek Park</u>								
a. Roads:								
	Paved	Miles	-	-	2.1	\$73,500	2.1	\$73,500
b. Parking areas:								
	Paved	S.F.	-	-	45,000	9,000	45,000	9,000
c. Boat launching sites:								
	Boat ramps (concrete)	Each	2	\$10,000	-	-	2	10,000
	Turnarounds & trailer parking (paved)	S.F.	-	-	20,000	4,000	20,000	4,000
d. Toilets:								
	Masonry double unit (concrete pit type)	Each	-	-	3	15,000	3	15,000
	Frame single unit (concrete pit type)	Each	-	-	4	4,800	4	4,800
e. Water supply systems:(2)								
	Water well (pressure type)	Each	-	-	1	4,000	1	4,000
	Waterline extension	L.F.	-	-	6,400	12,800	6,400	12,800
f. Picnic facilities								
	Each	Each	-	-	35	21,000	35	21,000
	1 picnic unit consists of 2 tables, 1 fireplace, and 1 trash can.							

TABLE 4 (CONT'D)

Acct: No. :	Item	Initial Development (1)			Future Development		Total	
		Unit	Quantity	Cost	Quantity	Cost	Quantity	Cost
14. RECREATIONAL FACILITIES (CONT'D)								
g. Picnic shelters:								
	One-table shelters	Each	-	-	21	\$10,500	21	\$10,500
h. Site improvement (includes tree planting, seeding, underbrushing, & cleanup)								
		L.S.	Job	\$2,400	Job	7,500	Job	9,900
i. Signs								
		L.S.	Job	-	Job	1,000	Job	1,000
j. Buoys								
		L.S.	Job	-	-	-	-	-
k. Elec serv lines								
		L.S.	-	-	Job	5,800	Job	5,800
l. Beach improvement								
		L.S.	-	-	-	-	-	-
m. Change shelter								
		Each	-	-	-	-	-	-
n. Service Bldg (includes water-borne toilets, shower, and laundry facilities)								
		Each	-	-	-	-	-	-
o. Registration booths								
		Each	-	-	3	300	3	300
Total				\$12,400		\$169,200		\$181,600

(1) Recreational development required for the first 3 years after the project is placed in useful operation.

(2) See paragraph 2, "Estimate of cost for public facilities."

TABLE 5

DETAILS OF ESTIMATE OF COST  
FOR DEVELOPMENT-PUBLIC USE AREAS

Acct: No. :	Item	Initial Development (1)		Future Development		Total	
		Unit	Quantity	Quantity	Cost	Quantity	Cost
<b>14. RECREATIONAL FACILITIES</b>							
<u>Nails Creek Park</u>							
a.	Roads:						
	Paved	Miles	-	5.1	\$178,500	5.1	\$178,500
b.	Parking areas:						
	Paved	S.F.	-	103,000	20,600	103,000	20,600
c.	Boat launching sites:						
	Boat ramps (concrete)	Each	4	13,600	-	4	13,600
	Turnarounds & trailer parking (paved)	S.F.	-	28,000	5,600	28,000	5,600
d.	Toilets:						
	Masonry double unit (concrete pit type)	Each	-	4	20,000	4	20,000
	Frame single unit (concrete pit type)	Each	-	6	7,200	6	7,200
e.	Water supply systems: (2)						
	Water well (pressure type)	Each	-	2	8,000	2	8,000
	Waterline extension	L.F.	-	12,100	24,200	12,100	24,200
f.	Picnic facilities	Each	-	53	31,200	53	31,200
	1 picnic unit consists of 2 tables, 1 fireplace, and 1 trash can.						

TABLE 5 (CONT'D)

Acct: No :	Item	Initial Development (1)			Future Development		Total	
		Unit	Quantity	Cost	Quantity	Cost	Quantity	Cost
14. RECREATIONAL FACILITIES (CONT'D)								
g. Picnic shelters:								
	One-table shelters	Each	-	-	26	\$13,000	26	\$13,000
	Group shelters	Each	-	-	1	3,500	1	3,500
h. Site improvement (includes tree planting, seeding, underbrushing & cleanup)								
		L.S.	-	-	Job	5,800	Job	5,800
i. Signs								
		L.S.	-	-	Job	1,700	Job	1,700
j. Buoys								
		L.S.	-	-	Job	1,500	Job	1,500
k. Elec serv lines								
		L.S.	-	-	Job	5,400	Job	5,400
l. Beach improvement								
		L.S.	-	-	Job	5,000	Job	5,000
m. Change shelter								
		Each	-	-	1	800	1	800
n. Service Bldg (includes waterborne toilets, shower, and laundry facilities)								
		Each	-	-	1	12,000	1	12,000
o. Registration booths								
		Each	-	-	4	400	4	400
Total				\$13,600		\$344,400		\$358,000

(1) Recreational development required for the first 3 years after the project is placed in useful operation.  
(2) See paragraph 2, "Estimate of cost for public facilities."

TABLE 6

DETAILS OF ESTIMATE OF COST  
FOR DEVELOPMENT-PUBLIC USE AREAS

Acct: No. :	Item	Initial Development (1)			Future Development		Total	
		Unit	Quantity	Cost	Quantity	Cost	Quantity	Cost
<b>14. RECREATIONAL FACILITIES</b>								
<u>Birch Creek Park</u>								
a. Roads:								
	Paved	Miles	-	-	9.9	\$346,500	9.9	\$346,500
	Foot trail	Miles	-	-	0.2	200	0.2	200
b. Parking areas:								
	Paved	S.F.	-	-	181,000	36,200	181,000	36,200
c. Boat launching sites:								
	Boat ramps (concrete)	Each	4	\$20,000	-	-	4	20,000
	Turnarounds & trailer parking (paved)	S.F.	-	-	82,000	16,400	82,000	16,400
d. Toilets:								
	Masonry double unit (concrete pit type)	Each	-	-	5	25,000	5	25,000
	Frame single unit (concrete pit type)	Each	-	-	26	31,200	26	31,200
e. Water supply systems:(2)								
	Water well (pressure type)	Each	-	-	6	24,000	6	24,000
	Waterline extension	L.F.	-	-	24,300	48,600	24,300	48,600
f. Picnic facilities								
	Each	Each	-	-	138	82,800	138	82,800
	1 picnic unit consists of 2 tables, 1 fireplace, and 1 trash can.							

TABLE 6 (CONT'D)

Acct: No	Item	Initial Development (1)			Future Development		Total	
		Unit	Quantity	Cost	Quantity	Cost	Quantity	Cost
14. RECREATIONAL FACILITIES (CONT'D)								
g. Picnic shelters:								
	One-table shelters	Each	-	-	122	\$61,000	122	\$61,000
	Group shelters	Each	-	-	1	3,500	1	3,500
h. Site improvement (includes tree planting, seeding, underbrushing & cleanup)								
		L.S.	Job	\$5,500	Job	7,200	Job	12,700
i. Signs								
		L.S.	-	-	Job	2,700	Job	2,700
j. Buoys								
		L.S.	-	-	Job	3,900	Job	3,900
k. Elec serv lines								
		L.S.	-	-	Job	8,000	Job	8,000
l. Beach improvement								
		L.S.	-	-	Job	5,000	Job	5,000
m. Change shelter								
		Each	-	-	1	800	1	800
n. Service Bldg (includes water-borne toilets, shower, and laundry facilities)								
		Each	-	-	1	12,000	1	12,000
o. Registration booths								
		Each	-	-	3	300	3	300
	Total			\$25,500		\$715,300		\$740,800

(1) Recreational development required for the first 3 years after the project is placed in useful operation.

(2) See paragraph 2, "Estimate of cost for public facilities."

TABLE 7

DETAILS OF ESTIMATE OF COST  
FOR DEVELOPMENT-PUBLIC USE AREAS

Acct: No. :	Item	Unit	Initial Development (1)		Future Development		Total	
			Quan- tity	Cost	Quan- tity	Cost	Quan- tity	Cost
14. RECREATIONAL FACILITIES								
<u>Big Creek Park</u>								
a. Roads:								
	Paved	Miles	-	-	7.3	\$255,500	7.3	\$255,500
	Gravel	Miles	1.4	\$28,000	-	-	1.4	28,000
b. Parking areas:								
	Paved	S.F.	-	-	115,000	23,000	115,000	23,000
c. Boat launching sites:								
	Boat ramps (concrete)	Each	4	8,000	-	-	4	8,000
	Turnarounds & trailer parking (gravel)	S.F.	39,000*	3,900	39,000	7,800	39,000	11,700
d. Toilets:								
	Masonry double unit (concrete pit type)	Each	1	5,000	3	15,000	4	20,000
	Frame single unit (concrete pit type)	Each	-	-	18	21,600	18	21,600
e. Water supply systems: (2)								
	Water well (pressure type)	Each	-	-	4	16,000	4	16,000
	Waterline extension	L.F.	-	-	14,900	29,800	14,900	29,800
f. Picnic facilities								
	Each	Each	-	-	100	60,000	100	60,000
	1 picnic unit consists of 2 tables, 1 fireplace, and 1 trash can.							



TABLE 7 (CONT'D)

Acct: No. :	Item	Initial Development (1)			Future Development		Total	
		Unit	Quantity	Cost	Quantity	Cost	Quantity	Cost
14. RECREATIONAL FACILITIES (CONT'D)								
g. Picnic shelters:								
	One-table shelters	Each	-	-	89	\$44,500	89	\$44,500
h. Site improvement (includes tree planting, seeding, underbrushing & cleanup)								
		L.S.	-	-	Job	5,600	Job	5,600
	i. Signs	L.S.	Job	100	Job	1,400	Job	1,500
	j. Buoys	L.S.	-	-	Job	1,200	Job	1,200
	k. Elec serv lines	L.S.	-	-	Job	8,600	Job	8,600
	l. Beach improvement	L.S.	-	-	Job	5,000	Job	5,000
	m. Change shelter	Each	-	-	1	800	1	800
n. Service Bldg (includes water-borne toilets, shower & laundry facilities)								
		Each	-	-	-	-	-	-
	o. Registration booths	Each	-	-	2	200	2	200
	Total			\$45,000		\$496,000		\$541,000

*To be paved in future development.

(1) Recreational development required for the first 3 years after the project is placed in useful operation.

(2) See paragraph 2, "Estimate of cost for public facilities."

TABLE 8

DETAILS OF ESTIMATE OF COST  
FOR DEVELOPMENT-PUBLIC USE AREAS

Acct: No. :	Item	Initial Development (1)		Future Development		Total	
		Unit	Quantity	Unit	Quantity	Unit	Quantity
			Cost		Cost		Cost
<b>14. RECREATIONAL FACILITIES</b>							
<u>Yegua Creek Park</u>							
a. Roads:							
	Paved	Miles	-	8.7	\$304,500	8.7	\$304,500
	Gravel	Miles	1.6	-	\$32,000	1.6	32,000
b. Parking areas:							
	Paved	S.F.	-	159,000	31,800	159,000	31,800
c. Boat launching sites:							
	Boat ramps (concrete)	Each	6	16,800	-	6	16,800
	Turnarounds & trailer parking (gravel)	S.F.	48,000*	4,800	48,000	9,600	48,000
d. Toilets:							
	Masonry double unit (concrete pit type)	Each	-	11	55,000	11	55,000
	Frame single unit (concrete pit type)	Each	-	6	7,200	6	7,200
e. Water supply systems:(2)							
	Water well (pressure type)	Each	-	4	16,000	4	16,000
	Waterline extension	L.F.	-	26,600	53,200	26,600	53,200
f. Picnic facilities							
	1 picnic unit consists of 2 tables, 1 fireplace, and 1 trash can.	Each	-	145	87,000	145	87,000

TABLE 8 (CONT'D)

Acct. No.	Item	Initial Development (1)			Future Development		Total	
		Unit	Quantity	Cost	Quantity	Cost	Quantity	Cost
14. RECREATIONAL FACILITIES (CONT'D)								
g. Picnic shelters:								
	One-table shelters	Each	-	-	103	\$51,500	103	\$51,500
	Group shelters	Each	-	-	1	3,500	1	3,500
h. Site improvement (includes tree planting, seeding, underbrushing & cleanup)								
		L.S.	Job	\$3,000	Job	7,700	Job	10,700
i. Signs								
		L.S.	Job	800	Job	2,200	Job	3,000
j. Buoys								
		L.S.	Job	300	Job	2,000	Job	2,300
k. Elec serv lines								
		L.S.	-	-	Job	7,900	Job	7,900
l. Beach improvement								
		L.S.	Job	5,000	-	-	Job	5,000
m. Change shelter								
		Each	-	-	1	800	1	800
n. Service Bldg (includes water-borne toilets, shower and laundry facilities)								
		Each	-	-	1	12,000	1	12,000
o. Registration booths								
		Each	-	-	6	600	6	600
Total				\$62,700		\$652,500		\$715,200

*To be paved in future development.

(1) Recreational development required for the first 3 years after the project is placed in useful operation.

(2) See paragraph 2, "Estimate of cost for public facilities."

TABLE 9

## FUNDS REQUIRED BY FISCAL YEARS

SCHEDULE OF FUNDS REQUIRED (\$1000)			
F.Y. 1965 (1)	F.Y. 1966	After F.Y. 1966	Total
\$382.1	\$166.9	\$2,771.6	\$3,320.6
76.4 (2)	34.6 (2)	360.0 (2)	471.0 (2)
458.5	201.5	3,131.6	3,791.6

(1) Deliberate impoundment of water scheduled during second quarter of calendar year 1966.

(2) Engineering and Design and Supervision and Administration.

TABLE 10

FUNDS REQUIRED FOR OPERATION AND MAINTENANCE

1. The estimated annual cost of operation and maintenance and real estate management is listed below.

Recreation Facilities

Operation and maintenance of facilities (including contract cleanup, mowing, grading and maintenance of roads, repair of structures, etc.)	\$60,000
Project Office	50,000
District Office staff functions	<u>20,000</u>
Subtotal	\$130,000

Real Estate Management Services

Compliance Inspections	2,000
Utilization	500
Outgrants	6,000
Crops, timber and gravel	500
Building and improvements	500
Real Estate Audit	<u>500</u>
Subtotal	<u>10,000</u>
Total	\$140,000

2. The above breakdown is based on the first five years after the project has been placed in operational status. For ultimate recreational development, the average annual estimate would be based on 6% of the capital outlay of the facilities.

U. S. ARMY ENGINEER DISTRICT, FORT WORTH  
CORPS OF ENGINEERS

ADDRESS REPLY TO:  
DISTRICT ENGINEER  
U. S. ARMY ENGINEER DISTRICT, FORT WORTH  
P. O. BOX 1600  
FORT WORTH, TEXAS  
IN REPLY REFER TO

100 WEST VICKERY BOULEVARD  
FORT WORTH 4, TEXAS

SWFGP

28 February 1963

SUBJECT: Somerville Dam and Reservoir, Yegua Creek, Texas, Design  
Memorandum No. 11B, Master Plan

THRU: Division Engineer  
U. S. Army Engineer Division, Southwestern  
Dallas, Texas

TO: Chief of Engineers  
Department of the Army  
Washington 25, D. C.

1. Submitted herewith for approval is Design Memorandum No. 11B, Master Plan for the Reservoir Development and Management of the Somerville Reservoir project, now under construction on the Yegua Creek, Texas. The estimated cost of the work proposed in the master plan accompanies the design memorandum as Inclosure 2. Attention is invited to the fact that the cost estimate for the initial development exceeds the amount shown on the current PB-3. The increase in cost is explained in paragraph 5, pages 1 and 2 of the accompanying cost estimate.

2. It is recommended that the design memorandum and the cost estimate for the work proposed be approved as a guide for the development and management of the project area. It is also recommended that the rules and regulations governing public use of certain reservoir areas administered by the Corps of Engineers, published in title 36, chapter III, of the Federal Code of Regulations be amended to add Somerville Reservoir, Yegua Creek, Texas.

2 Incl (7 cys)  
1. Design Memo No. 11B  
2. Cost Estimate

*F. P. Koisch*  
F. P. KOISCH  
Colonel, CE  
District Engineer

(35 copies prepared)

BRAZOS RIVER BASIN, TEXAS  
SOMERVILLE RESERVOIR  
YEGUA CREEK, TEXAS

STATUS OF DESIGN MEMORANDA

Design No.	Part Section	Date Submitted	Date
		District	Division
		Engineer	Engineer
			Approved
			OCE
1	<u>Hydrology</u>	30 Jun 60	3 Oct 60
	Supplement No. 1	9 Mar 61	17 Mar 61
2	<u>Site Selection</u>	13 Jul 60	8 Aug 60
3	<u>Real Estate</u>		
	I Lands for Construction Area	10 May 61	20 Jul 61
	II Lands for Reservoir Area	14 Jun 62	26 Sep 62
4	<u>Relocations</u>		
	I County Roads	1 Mar 63*	
	II State Highway FM 1697	28 Nov 62	5 Feb 63
	III Access Road	12 Jun 64*	
	IV-A L.C.R.A. Elec Co-op	28 Aug 64*	
	IV-B Gulf States Utilities Co.	30 Oct 64*	
	V-A Caldwell County Telephone Co.	30 Sep 64*	
	V-B Southwestern States Telephone Company	30 Oct 64*	
5	<u>General</u>	26 Jun 61	27 Nov 61
7	<u>Earthen Embankment</u>	1 Apr 63*	
8	<u>Access Road &amp; Earth Dike</u>	28 Apr 61	27 Nov 61
9	<u>Maintenance Facilities</u>	7 Feb 62	6 Mar 62
	Supplement No. 1		
	Shelter for Fallout Protection	28 Aug 62	12 Sep 62

STATUS OF DESIGN MEMORANDA (CONT'D)

Design No.	Part	Section	Date Submitted	District Engineer	Division Engineer	Date Approved	OCE
10		<u>Spillway</u>	15 Aug 62			15 Oct 62	21 Nov 62
11		<u>Reservoir Management</u>					
	A	Preliminary Master Plan	23 Mar 61			1 Sep 61	16 Nov 61
	B	Master Plan	This Report				
12		<u>Outlet Works</u>	14 Aug 62			15 Oct 62	30 Jan 63
13		<u>Visitors' Overlook</u>	4 Oct 62*				
14		<u>Channel Improvement</u>	27 Aug 62			31 Oct 62	
15		<u>Reservoir Clearing</u>	14 Sep 62			15 Oct 62	26 Nov 62

*Scheduled date of submission



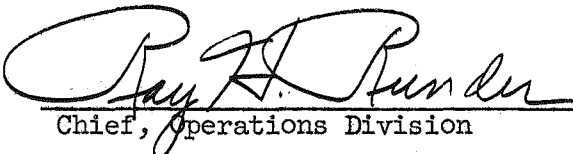
BRAZOS RIVER BASIN, TEXAS

DESIGN MEMORANDUM NO. 11B

MASTER PLAN  
FOR SOMERVILLE RESERVOIR  
YEGUA CREEK, TEXAS

This report, prepared in the Planning and Reports Branch of the Engineering Division, Fort Worth District, has been coordinated with the Real Estate Division and the Operations Division and is recommended for approval.

  
Chief, Real Estate Division

  
Chief, Operations Division

BRAZOS RIVER BASIN, TEXAS

DESIGN MEMORANDUM NO. 11B

MASTER PLAN  
FOR SOMERVILLE RESERVOIR  
YEGUA CREEK, TEXAS

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Region Three Office, National Park Service

BRAZOS RIVER BASIN, TEXAS

DESIGN MEMORANDUM NO. 11B

MASTER PLAN  
FOR SOMERVILLE RESERVOIR  
YEGUA CREEK, TEXAS

I - INTRODUCTION

1-01. Authority for the project.- Congressional authority for the construction of the Somerville Reservoir, a unit in the plan of improvements for the Brazos River Basin, Texas, is contained in the Flood Control Act approved 3 September 1954 (Public Law 780, 83d Congress, 2d Session) in accordance with the plan of improvements as outlined in House Document No. 535 (81st Congress, 2d Session). Authority to initiate advance planning on the project is contained in the Public Works Appropriation Act of 1959, approved 2 September 1958 (Public Law 85-863) and in Advice of Allotment C-126, dated 6 October 1958.

1-02. Authority for recreational program.- Congressional authority for the recreational program at reservoir projects under the control of the Department of the Army is contained in the Flood Control Act approved 22 December 1944 (Public Law 534, 78th Congress, 2d Session) and amended by additional acts as follows: the Flood Control Act approved 24 July 1946 (Public Law 526, 79th Congress, 2d Session), the Flood Control Act approved 3 September 1954 (Public Law 780, 83d Congress, 2d Session), and the Flood Control Act approved 23 October 1962 (Public Law 87-874, 87th Congress, 2d Session).

1-03. Scope of this report.- This design memorandum presents a plan to guide the administration, development, and coordinated management of land and water areas of the Somerville Reservoir project. The concept is to obtain the maximum utilization of the project area for public use, recreational activities, and other feasible uses.

II - DESCRIPTION AND CHARACTERISTICS OF THE PROJECT

2-01. Project purposes.- The Somerville Reservoir will be a flood control and water conservation project.

2-02. Reservoir water storage negotiations.- The Brazos River Authority, a state agency, has entered into a contract with the Department of the Army to purchase the conservation storage space in the reservoir. The contract was approved by the Secretary of the Army on 10 May 1962. The top of the conservation pool will be at an interim elevation of 230.0 during the period between the date of deliberate impoundment and the actual date the Brazos River Authority starts using water from the conservation-

3-02. Factors.- Climate, topography, accessibility, tree cover, fish, wildlife, and the availability of facilities and services are some of the factors which determine public use of recreational facilities for the enjoyment of outdoor recreation. Other factors such as the economic status, the population within the zones of influence, as well as the availability of other recreational facilities in the vicinity all have a relative bearing on the number of visitors a project of this type will attract for purposes of recreation.

3-03. Climate.- The climate over the Yegua Creek watershed is generally mild with hot summers and cool winters. Freezing temperatures and snowfall are experienced occasionally, along with the passage of cold, high-pressure air masses from the northwestern polar regions and continental western highlands. Somerville is the only town within the Yegua Creek watershed that has a station for the purpose of observing temperatures and maintaining climatic records. These records are of short duration. The mean annual temperature over the watershed, as determined from stations adjacent to the watershed, is 68.3 degrees Fahrenheit. The average length of the growing season between killing frosts in the Yegua Creek watershed is about 250 days.

3-04. Region served.- For the purpose of preparing an over-all plan of development, two major zones of influence have been considered. The primary zone includes the territory within the 50-mile radius and the secondary zone includes the area between the 50-mile radius and 100-mile radius of the dam. The area includes all or portions of 43 counties. It is expected that the majority of the visitors will be attracted from the primary zone of influence and a substantial number of visitors will be attracted from the secondary zone. Some visitors will be attracted from beyond the secondary zone of influence.

3-05. Population.- The 1960 census recorded approximately 195,000 persons residing within a 50-mile radius of the proposed dam site and approximately 2,091,000 persons between the 50- and 100-mile radii of the dam site, or a total of 2,286,000 persons residing within a 100-mile radii of the dam.

3-06. Estimated attendance.- Based on the number of visitors attracted annually to the completed reservoirs in this district, it is estimated that the Somerville Reservoir will attract about 900,000 visitors during the third year of operation and a maximum in excess of 2,250,000 visitors annually.

3-07. Related recreational areas.- Table 2 presents data on parks and lakes within a 50-mile radius of the proposed dam site. Locations of these areas in relation to Somerville Reservoir are shown on plate 8.

storage space. This elevation corresponds to an average drawdown recurrence-interval of once in five years based on hypothetical reservoir regulation with the top of conservation pool at elevation 238.0.

2-03. Location.- The Somerville Dam site, located on Yegua Creek 20.0 river miles upstream from its confluence with the Brazos River, lies southwest of the town of Somerville, Texas. The dam is in the south central section of Burleson County and the north central section of Washington County, Texas. The reservoir area lies within Burleson, Washington, and Lee Counties, Texas. The plan and profile of the embankment are shown on plates 1 and 2.

2-04. Accessibility.-

a. Roads.- State Highway No. 36 is the main road that serves the town of Somerville. This highway crosses Yegua Creek about 0.7 mile downstream from the dam site. Access to the government property and public use areas will be available over existing improved and unimproved county roads, some of which will require alteration, realignment or relocation. A plan for alteration, realignment or relocation of the county roads has not been developed.

b. Railroads.- The nearest railhead is at Somerville, Texas, and is about one mile from the reservoir maintenance area.

2-05. Reservoir area.- The topographic features of the reservoir are undulating with wide valleys and moderate slopes. The topography of the northerly dike area is undulating with steep slopes to the ravine in the reservoir area and to the main dam. The area south of Yegua Creek is hilly. The main body of the impounded water at elevation 238.0 (top of the conservation storage) will have a maximum length of about 8.5 miles and a maximum width of about 5.1 miles. The impounded water at elevation 238.0 will inundate about 11,460 acres of land and will have a shoreline of approximately 85 miles. At the interim conservation pool, elevation 230.0 (see paragraph 2-02) the reservoir will have a maximum length of approximately 7.5 miles and a maximum width of approximately 3.5 miles. The water will inundate about 7,950 acres of land and will have a shoreline of approximately 32 miles.

2-06. Project structures.- The dam will be a rolled earth fill embankment about 5.0 miles long, including a 4,715-foot dike section and a 1,250-foot concrete chute spillway. The outlet works will consist of one 10-foot diameter conduit which will be controlled by two 5.0- by 10.0-foot gates. The invert will be at elevation 206.0. The maintenance area is located downstream from the dam. Facilities in this area will include an administration and maintenance building, a paint and oil storage building, and a storage and equipment building. Potable water will be provided by connecting to the municipal water system. The location of these facilities is shown on plate 2.



2-07. Pertinent features.- The pertinent features of the project are shown in table 1.

TABLE 1

PERTINENT FEATURES OF PROJECT

Feature	: Elevation : (ft msl)	: Area : (acres)	: Capacity : (acre ft)
Top of dam	280.0	47,400	1,267,400
Maximum design water surface	274.5	39,800	1,028,800
Upper guide contour (1)	263.0	28,500	639,620
Spillway crest (top of flood-control pool)	258.0	24,400	507,500 (2)
Five-year flood line	245.0	15,230	253,285
Top of ultimate conservation storage (3)	238.0	11,460	160,100
Top of initial conservation storage (3)	230.0	7,950	83,140
Five-year drawdown	230.0	7,950	83,140
Ten-year drawdown	226.0	6,300	54,740
Streambed	200.00	-	-
Shoreline at conservation level - about 85 miles			
<u>Shoreline at interim conservation level, elevation 230.0 - about 32 miles</u>			

- (1) Datum for upper guide contour applies to the entire reservoir area.  
 (2) Includes 25,900 acre-feet of sediment storage with 16,200 acre-feet below elevation 238.0 and 9,700 acre-feet between elevations 238.0 and 258.0.  
 (3) Refer to paragraph 2-02 for explanation of initial and ultimate conservation storage.

2-08. Status of project.- Construction of the project was initiated in the summer of 1962 with the award of a contract for construction of the initial stage of the embankment, the access road and the visitors overlook site. As of 31 December 1962 the project was approximately 6 percent complete. Deliberate impoundment of water is scheduled during the second quarter of calendar year 1966.

2-09. Fluctuation of pool.- Hypothetical regulation of the reservoir from the period of May 1924 through September 1959 was used as a basis for determining the reservoir pool elevation-frequency and duration curves shown on plate 3. These curves were based on observed gage records on the Yegua Creek, Somerville, Texas. Water depths in the reservoir at the top of conservation storage, elevation 238.0, are shown on plate 4.

2-10. Lands.- Approximately 32,550 acres will be acquired in fee title and a lesser interest will be acquired over 1,162 acres. It is proposed to acquire fee title to a blocked-out line encompassing the upper guide contour of elevation 263.0 or 300 feet horizontally from the static full-pool elevation 258.0, whichever is greater, and additional lands required for public access. Flowage easements will be acquired over lands in remote areas. The basis for establishing the upper guide contour and the static full-pool elevation is discussed in Design Memorandum No. 1, Hydrology. No other federal agency has jurisdiction over any lands within the project area.

2-11. Clearing.- The plan for clearing the reservoir is presented in Design Memorandum No. 12, Clearing. Horizontal clearing will be made within one mile upstream of any part of the main dam structure and within one mile of each primary recreation area. Clearing will also be accomplished in three seining areas as recommended by the Bureau of Sport Fisheries and Wildlife. The upper limit of clearing will be at elevation 238.0, top of the conservation pool. The lower limit of clearing will be at elevation 221.0, 5 feet below the 10-year-frequency drawdown, as suggested by the criteria of EM 415-2-301. The total clearing in the reservoir area will be approximately 10,830 acres. This plan will result in 79 miles of cleared shoreline from the total of 85 miles at conservation pool level. In normal operation, 95 percent of the lake will be open water for boating, water sports, and fishing. The general plan for clearing is shown on plates 5-7.

2-12. Archeological and paleontological resources.- A field reconnaissance was made in February 1960 by representatives of this office accompanied by a representative of the National Park Service. To date, no report has been received from the National Park Service regarding archeological or paleontological resources within the locality of the Somerville Reservoir project.

### III - RECREATIONAL RESOURCES

3-01. General.- Somerville Reservoir is located in an area which is predominantly agricultural. The population of this region is rural-farm. The principal economy of the area is livestock production and much of the land once used for crops has been converted to pasture. There are areas along Cedar Creek where intensive cultivation is practiced. The only industry is that of processing railroad crossties from timber shipped by rail from other parts of the state. The recreational facilities, when developed, will provide a major recreational resource for the region and will attract visitors for fishing, boating, picnicking, swimming, and camping. The construction of the dam and appurtenant works is attracting many sightseers and the number of visitors will increase after the recreational facilities are provided. An overlook site, parking area, and visitors' shelter will be constructed on the east side of the outlet works. This area will provide a site for visitors to view the dam and outlet works during their construction, and the lower reaches of the reservoir after the project is placed in operation.

TABLE 2

PARKS AND RESERVOIRS WITHIN 50 MILES OF THE PROPOSED DAM SITE

Name	County	Approximate distance (Miles from dam)	Administering agency	Project purpose
Bastrop State Park	Bastrop	48 southwest	State of Texas	Recreation
Buescher State Park	Bastrop	43 southwest	State of Texas	Recreation
Monument Hill State Park	Fayette	41 southwest	State of Texas	Historical
Washington State Park	Washington	25 east	State of Texas	Historical & recreation
Stephen F. Austin State Park	Austin	42 southeast	State of Texas	Historical & recreation

IV - PLAN OF DEVELOPMENT

4-01. General.- All public-use areas and their related facilities will be located on lands owned by the federal government and under the jurisdiction of the Corps of Engineers. The locations of the sites selected for recreational development are shown on plate 9. The plan which is presented herein is intended to provide information necessary for the development of recreational sites and facilities, a program of land management, and the development of wildlife and fishing resources. The proposed plan is sufficiently flexible to meet changing and variable conditions, and to serve as a guide for the comprehensive use of the reservoir area through planned public-use areas. These areas and their related facilities will be located on lands acquired for Somerville Reservoir. Provisions for day camping and vacation use have been included in the plan. It is also proposed to provide sufficient services and supplies to meet visitors' needs. Future study is proposed concerning the development and use of some of the existing stock ponds within the areas as fishing ponds for children.

4-02. Basis for selection of areas.- The selection of areas for recreational development is based upon the existing features of the reservoir and the proximity of existing access roads. The final selection of the sites for development was made after consideration was given to the adaptability of each site to the proposed facilities, accessibility, terrain, scenic qualities, proximity of other sites, sheltered water areas, water frontage, and water depths.

4-03. Basic recreational facilities.- The basic recreational facilities developed by the Corps of Engineers will be in accordance with standard plans contained in a folio published by the Office, Chief of Engineers. These basic facilities will include but are not limited to roads, parking areas, boat

launching ramps, sanitary facilities, potable water supplies, public camping and picnic areas, signs, and essential safety measures required in connection with such facilities.

4-04. Commercial activities.- It is proposed that commercial activities for providing facilities, supplies, and services for which the public is generally charged a fee will be accomplished by concessionaires. These facilities will include such items as boat docks, boat repair and storage, boat rentals, sale of food and drinks, fishing supplies, gasoline and oil, etc. The award of minor and major concessions will be accomplished in accordance with paragraph 21c(5) of EM 405-1-830, dated 27 July 1960. Commercial activities authorized by state and local governmental agencies, in accordance with completed license or lease agreements, will require approval of the district engineer prior to the execution of each third party agreement.

4-05. Mosaics.- The aerial mosaics depicting each public use area were flown in March 1960. It is proposed to take new aerial photographs of the areas just prior to the time this design memorandum will require updating.

4-06. Design criteria.- The following design criteria will be utilized in the planning and construction of the proposed development.

a. Structures.- Structures, such as permanent concession buildings and bathhouses, which would be damaged by flooding, will be constructed at or above the 50-year flood elevation 257.6. Picnic tables, fireplaces, and related facilities which will not be appreciably damaged by flooding will be located at least three feet above the conservation pool elevation 238.0. Approved standard plans will be used in the construction of picnic tables, fireplaces, and related facilities.

b. Roads and parking areas.- Existing state and county roads will provide access to the various public-use areas. The counties will be encouraged to improve their roads to an all-weather status at no cost to the government. All necessary rights-of-way to provide access from existing roads to selected public-use areas will be 100 feet in width. Existing roads within the public-use areas will be utilized to the fullest extent practicable. Access roads connecting recreation roads with existing public roads will be 20 feet wide with 4-foot shoulders. Circulating roads within the recreation areas will vary from 18 to 20 feet in width with 4-foot shoulders. Service roads will vary from 10 to 12 feet in width with 4-foot shoulders. Except for roads leading to the launching ramps, roads and parking areas where practicable will be kept at least three feet above the conservation storage elevation 238.0. Bituminous surfacing and locally available material will be used for the roads and parking areas. Parking spaces for automobiles will be 10 by 20 feet. So that a minimum number of trees are destroyed during clearing operations of large recreational developments of picnic areas, it is planned to provide parking spaces for two cars at intervals to be determined in the field, dependent upon the location of existing trees. The two-car parking

spaces may be connected in the future to provide additional parking spaces. In some areas one-way drives 12 feet in width will be used for short loops in camping areas. Car-trailer spaces will be 10 by 40 feet for 90-degree head-in parking and 10 by 35 feet for 45-degree parking with 25-foot-width aisles or access lanes.

c. Water supply.- Potable water in each public use area will be supplied from wells using a hydropneumatic system. In distant picnicking and camping areas it may be necessary, in the interest of economy, to provide the potable water supply by means of a shallow well using a hand pump. The extreme variation in depths of the water-bearing aquifers may require drilling a test well at each of the recreation areas. It may also be necessary to obtain water from the reservoir by installing pumps, filters, and chlorinators.

d. Sanitary facilities.- These facilities will necessarily vary with the location and extent of each public use area. The following criteria are used in determining the type of sanitary facility to be constructed.

(1) Waterborne toilets will be used in service buildings, within the organized group areas, and other areas where this type of installation is best suited. They will be located above the 50-year flood-frequency elevation.

(2) Masonry toilets, a double unit with concrete pit will generally be located above the 50-year flood elevation.

(3) Frame toilets, a single unit with concrete pit, will be located below the 50-year flood elevation and in areas where a more costly type of installation cannot be justified.

e. Electrical power.- The reservoir area is served by several electric power companies. These lines can be extended when necessary to supply the electric power required.

f. Waterfront facilities.- Boat-launching ramps will be 14 feet, or multiples of 14 feet in width, with the length governed by the slope of the land and estimated water level fluctuation. Ramps will be constructed of concrete according to approved standard plans and will be located so that they present a minimum hazard to boating operations. In order to provide adequate protection, boat basins and boat-storage facilities will be located in embayment or tributary arms with sufficient water depth to insure mooring when the water elevation is at 226.0, the 10-year drawdown. Boat-launching ramps will be provided with riprap protection as required. The upper and lower vertical limits and the slope of ramps will be in accordance with paragraph 3a of EM 1130-2-312 wherever practicable.

g. Plans. - Standard plans will be used in the construction of recreational facilities and will be approved separately; therefore, their inclusion within this design memorandum is not considered essential.

h. Vegetative improvements. - Vegetative improvements (tree planting and grass seeding) will be accomplished in accordance with Public Law 86-717. Timber in this region consists mainly of hardwoods: oak, elm, and cottonwood.

i. Signs. - The signs used in this district within public-use areas are generally flat, painted signs, although SWD standards permit the use of routed wood signs. They have not been used because of the additional cost of construction. Routed wood signs would be better suited to this project since their character harmonizes more closely with the scenic features in the Somerville Reservoir area; therefore, their use at this project is recommended.

#### 4-07. Facilities to be provided by the Corps of Engineers. -

a. General. - Development of the public-use areas is planned primarily for water-oriented activities. The initial development will be accomplished by the Corps of Engineers. Efforts will be made to have the remaining developments accomplished by the licensees, including nonfederal agencies and commercial lessees.

b. Reservoir-management and operation facilities. - The location and facilities required for reservoir management and operation were submitted in Design Memorandum No. 9, Maintenance Facilities, dated February 1962. The proposed location of these facilities is shown on plate 2.

#### 4-08. Description of areas. -

a. Area No. 1. - (Plate 10 and aerial mosaic plate 11). This area is adjacent to the south end of the dam and extends along the reservoir for a distance of approximately 5,000 feet. It has a shoreline length of about 8,500 feet and consists of approximately 160 acres above elevation 238.0. The terrain above the conservation-pool elevation is rolling and the tree cover is sparse. Vegetative improvements will be necessary. Access to the area is available from State Highway No. 36. This area will be developed with boat-launching ramps, tent camping, and picnicking areas. An observation area with an overlook shelter for the general public to view the upstream face of the dam and the lower reaches of the reservoir is proposed for development at this site. The overlook shelter will be located east of the spillway structure.

b. Area No. 2. - (Plates 12 and 14 and aerial mosaic plates 13 and 15). This area is located on the south side of the reservoir. It consists of approximately 475 acres above elevation 238.0. The topography above the conservation-pool level is rolling. The partially-wooded areas

will provide a limited amount of shade for the using public and will, therefore, require vegetative improvements. Access to the area will be available over an existing county road. Development of boat-launching ramps, picnicking facilities, tent and trailer camping, organized-group areas, and beach improvements are planned.

c. Area No. 3.- (Plate 16 and aerial mosaic plate 17). This site is located on the south side of the reservoir and covers approximately 95 acres above elevation 238.0. The terrain above the conservation-pool level is rolling. The wooded areas will provide partial shade for visitors and, therefore, vegetative improvements are recommended. Accessibility to the area is available over an existing county road. The site is suitable for tent and trailer camping and for the development of boat-launching ramps and picnicking facilities.

d. Area No. 4.- (Plate 18 and aerial mosaic plate 19). This area, located on the south side of the reservoir, has rolling terrain above the conservation-pool level. It consists of 180 acres above elevation 238.0. Access to the area will be available over a county road. Development of boat-launching facilities, tent and trailer camping, organized-group areas, picnic areas and beach improvement is proposed.

e. Area No. 5.- (Plates 20, 22, and 24 and aerial mosaic plates 21, 23, and 25). This area, located on the north side of the reservoir consists of 640 acres above elevation 238.0. The area previously designated as Area No. 9 in Supplement No. 1, Design Memorandum No. 11A, Preliminary Master Plan, is now included in Area No. 5 since the two areas are adjoining. The terrain above the conservation-pool level varies from rolling to rugged. The partially-wooded areas will provide some shade for the using public; however, vegetative improvements will be required. Access to the area is available over a county road. Proposed development will consist of boat-launching ramps, beach improvements, tent and trailer camping, organized-group camping, and picnic facilities. A site suitable for the development of commercial waterfront activities is located in the eastern extremity of the area.

f. Area No. 6.- (Plates 26 and 28 and aerial mosaic plates 27 and 29). This area, located on the north side of the reservoir covers approximately 425 acres. The site has a rolling topography. Vegetative improvements will be necessary to supplement the partially-wooded areas. The alignment of a road to provide access to this site will be coordinated with personnel in the Relocations Section and the Planning and Reports Branch as the proposed plan for county road relocation is developed. This area is suitable for the development of boat-launching ramps, beach improvements, tent and trailer camping, and picnic areas. A suitable site for commercial beach-concession activities is available in the Bear Creek channel area located at the north end of the public-use area.

g. Area No. 7.- (Plate 30 and aerial mosaic plate 31). This area is adjacent to the north end of the dam and extends along the reservoir approximately 7,000 feet and has a shoreline length of about 21,000 feet. It covers approximately 310 acres above elevation 238.0. The terrain above the conservation-pool level is rolling and the tree cover is scattered. Considerable tree planting in this area will be necessary to provide shade for the visiting public. Access to the area will be available over an access road to be constructed across the main embankment which will connect to an existing county road. The development of picnicking facilities, beach improvements, and tent and trailer camping areas is proposed. A suitable site for commercial beach-concession activities is available in the cove located in the central portion of the public-use area.

h. Area No. 8.- (Plates 32 and 34 and aerial mosaic plates 33 and 35). This area is located in the southeast end of the reservoir. It consists of approximately 620 acres above elevation 238.0. The terrain above the conservation-pool level is rolling and the tree cover is sparse. Tree planting in this area will be required. Accessibility to the area will be over a county road. Proposed development will include boat-launching ramps, beach improvements, tent and trailer camping, organized-group areas, and picnicking facilities. A suitable site for the development of commercial waterfront-concession facilities is located in the western portion of the area.

#### V - LAND MANAGEMENT

5-01. General.- The government will acquire fee title to approximately 32,550 acres and flowage easements over an additional 1,160 acres. There are 11,460 acres below the top of the ultimate conservation-pool level (elevation 238.0) and 7,950 acres below the top of the initial conservation-pool level (elevation 230.0). Paragraph 2-02 explains the ultimate and initial conservation-pool levels. About 825 acres will be utilized in the construction of the dam, appurtenant structures, and borrow and waste-disposal areas. The areas to be developed for public use consist of about 2,905 acres above the ultimate conservation-pool level, elevation 238.0. The remaining lands will be made available for other land uses.

5-02. Recreational purposes.- State and local governmental agencies will be encouraged to accept, under license agreements, the responsibility for developing, operating, and maintaining specific lands for public use. The granting of licenses for the development, operation, and maintenance of public-use areas will be dependent upon an advance determination by the Corps of Engineers that the obligation to be incurred by the political subdivision is within the scope of its responsibilities and financial capabilities.

5-03. Other purposes.- Conservation interests have not expressed a desire to license or lease any of these lands for wildlife management and development. Therefore, this plan proposes to outlease these lands for agricultural purposes. Agricultural leases consummated will be limited to



grazing purposes over all lands within the conservation-pool level (elevation 238.0). Leases will provide for cooperation in programs for management and improvement of fish and wildlife and in furtherance thereof. The leased premises will be subject to free public use for fishing and hunting. The outleased lands will be utilized in accordance with established practices and policies of the Department of the Army. The preparation of an over-all soil-conservation plan is not justified in view of the limited scope of the program. However, soil-conservation practices will be specified and planned primarily to protect the reservoir area. Technical assistance in land-use planning will be requested from the U. S. Soil Conservation Service if it is deemed necessary.

## VI - COORDINATION WITH OTHER AGENCIES

6-01. General.-- The Flood Control Act of 3 September 1954 provides that recreational development of reservoir areas under control of the Department of the Army shall be in the public interest and that preference for management and development of areas suitable for recreational purposes shall be given to federal, state, and local governmental agencies. These agencies have been contacted during the studies, investigations, and planning stages of development. The master plan for the development and management of the Somerville Reservoir has been coordinated with the interested federal, state, and local governmental agencies.

6-02. U. S. Public Health Service.-- In April 1961 the U. S. Public Health Service, in cooperation with the Texas State Department of Health, submitted a report entitled "Preliminary Evaluation Report on Vector Problems Related to the Proposed Corps of Engineers Somerville Reservoir, Yegua Creek, Texas." A copy of this report is incorporated in General Design Memorandum No. 5, as Appendix IV.

6-03. U. S. Fish and Wildlife Service.-- On April 12, 1961 the Bureau of Sport Fisheries and Wildlife, of the U. S. Fish and Wildlife Service, submitted a report on the fish and wildlife resources of the Somerville Reservoir project. A copy of this report is incorporated in General Design Memorandum No. 5, as Appendix II. The report and its recommendations have been endorsed by the Texas Game and Fish Commission. The report shows that the Somerville Reservoir will provide a reservoir-type fishery which is in great demand in the area. In addition, the report shows that sportsmen's expenditures associated with reservoir fishing on Somerville Reservoir and in the downstream area will amount to about \$90,000 annually.

6-04. National Park Service.-- On March 2, 1960, representatives of the Region Three Office, National Park Service, and the Corps of Engineers conducted a field survey of the Somerville Reservoir area to evaluate the recreational potential of the project. The National Park Service submitted a report dated January 1962 commenting on the recreational use and development of Somerville Reservoir. A copy of this report is included in this design memorandum as Appendix I.

6-05. State Parks Board.- A representative of this board has been verbally advised of the location and proposed construction schedule of this authorized project. The representative stated that a decision would have to be made at some future date as to the State Parks Board's interest.

6-06. Local governmental agencies.-

a. In December 1960, a representative from the Fort Worth District outlined the policies of the Corps of Engineers concerning the licensing of recreational areas to local governmental agencies for the development and management of public-use areas. The county judge of Burleson County; the mayor of Somerville, Texas; and the mayor Brenham, Texas were in attendance. The mayor of Caldwell, Texas and the county judge of Washington County were not available for consultation.

b. The county judge of Burleson County expressed an interest in licensing an area at the Somerville project, dependent upon the availability of funds and the approval of the county commissioners.

c. The mayor of Somerville, Texas forwarded a letter to the district office dated 4 January 1963 expressing a desire for concession rights in a public park. The mayor was informed that the policy of the Corps of Engineers is to encourage state and local governmental agencies to license areas selected for development for public use and accept responsibility for the development and management of the licensed area as a public park.

d. The mayor of Brenham, Texas expressed an interest in licensing a recreational area jointly with Washington County. The Washington County judge was not present when this matter was discussed. However, the mayor of Brenham believes that the county officials would be receptive to the proposal.

6-07. Public hearing.- A public hearing was held at Somerville, Texas, on 3 October 1962, with a total attendance of 425 persons which included representatives of various federal, state, and local governmental agencies and interested individuals. The purpose of the hearing was to inform the public of the proposed plan of land acquisition for Somerville Reservoir. An exhibit showing the location of the recreation areas was displayed at this hearing.

VII - POLICIES, ADMINISTRATION, AND MANAGEMENT

7-01. Policies.- The policies pertaining to the administration and management of the Somerville project will be so formulated as to provide the visiting public access to all public-use areas of the lake and government-owned property consistent with orderly and planned development. The policies based on federal, state and local legislation, as well as experience gained in the operation of public-use areas at similar projects,

will be the governing factors in determining adequate administration, management, and development of the project area, but will not conflict with the operation of the project's authorized purposes.

7-02. Administration and management.- The administration and management of the Somerville project will be accomplished jointly through personnel of the Fort Worth District Office and field personnel.

a. District office.- District office personnel will be principally concerned with the project's operation and management in accordance with purposes for which the project was authorized; the nature, location, construction codes, and requirements of development and improvements; coordination and reconciliation of activities relative to policies and regulations; coordination with representatives of other agencies and individuals; processing of leases, licenses, and permits not delegated to field personnel for issuance; and public relations.

b. Field office.- Field office personnel, including a project engineer, one dam-equipment foreman, three dam-equipment repairers, one clerk, and seasonal laborers as required will be assigned to the project. They will be concerned with direct operation, maintenance, and management of the project; supervision of all activities conducted on the impounded water and land over which the government acquires fee title or a lesser interest; protect and maintain government properties and interests; and require high standards of public health and safety. The field personnel will be trained in the rudiments of fire and mosquito control. Sufficient materials and equipment will be available at the project for the field personnel to conduct these activities when the conditions demand. The project engineer will enter into cooperative agreements with local governmental agencies for participating in fire suppression when the need arises without cost to the federal government. The project engineer assigned responsibility for all field activities will be delegated as much authority as is practicable in order to maintain expeditious and beneficial administration and management on the project. He will be furnished with copies of all rules and regulations pertaining to maintenance and management of the project, including a manual outlining his procedures, policies, responsibilities, and duties.

c. Law enforcement.- Enforcements of civil and criminal laws at the project will remain the responsibility of duly constituted officers of the federal, state, and local governmental agencies. The Corps of Engineers, through the project engineer and his assistants, will cooperate fully with law enforcement officers who are responsible for the enforcement of civil actions; game and fish conservation; public health and sanitation; and the prevention of pollution. The State of Texas has enacted a law known as the "Water Safety Act" to promote safety for persons and property in and connected with the use, operation and equipment of vessels and to promote uniformity of laws. Officials and officers of the State Highway Department are responsible for the enforcement of this law.

d. Rules and regulations.- Basic rules and regulations governing public use of reservoir areas will be prescribed by the Secretary of the Army and supplemented by the district engineer to meet actual problems on the project in the interest of public safety; protection of government property; and for other reasons. The rules and regulations prescribed by the Secretary of the Army are codified and appear in Title 36, Chapter III, of the Code of Federal Regulations. The rules and regulations will be published in the Federal Register which action by law constitutes a public notice.

#### VIII - JUSTIFICATION FOR DEVELOPMENT

8-01. Economic effect.- The formation of a lake the size of the Somerville Reservoir will attract visitors residing within, and from beyond, the immediate vicinity of the project. The development of fishing camps and private cottages, which will be developed on privately-owned land, is also anticipated. The influx of visitors will also increase business activities in the towns within the immediate vicinity of the project.

8-02. Benefits.- Pleasure and relaxation are some of the benefits that will be enjoyed by the visiting public through the use of government-owned land and the recreational facilities. The value of these benefits will necessarily vary because of the individual's recreational interests and ability and willingness to pay for the various recreational activities. Records of recreational activities at completed projects in this district indicate that 35 percent of the annual visitation was by fishermen or hunters. For this report, the remaining 65 percent have been classified as general recreators indulging in camping, picnicking, swimming, boating, sightseeing, and other forms of recreation. This district uses a conservative figure of 50 cents per visitor-day for the general recreator category and \$1.00 per day for the fishermen and hunters category in estimating the recreational benefits of a project. Based on an estimated annual visitation, after the third year of operation, of 900,000 people, the recreational benefits annually will be about \$607,500.

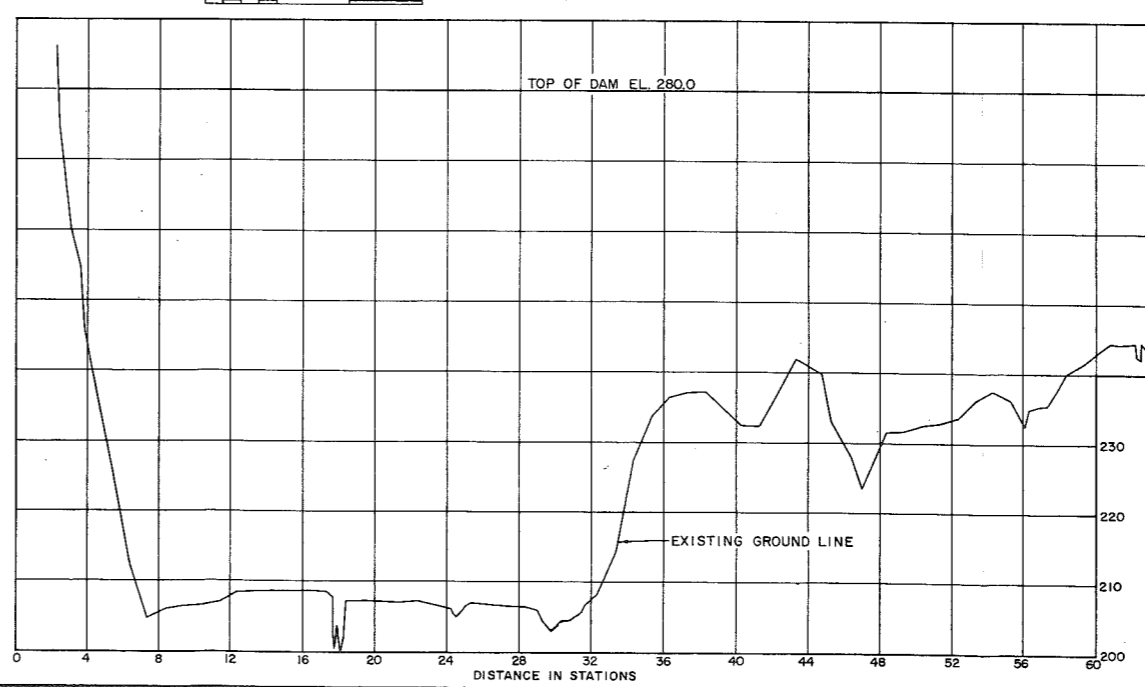
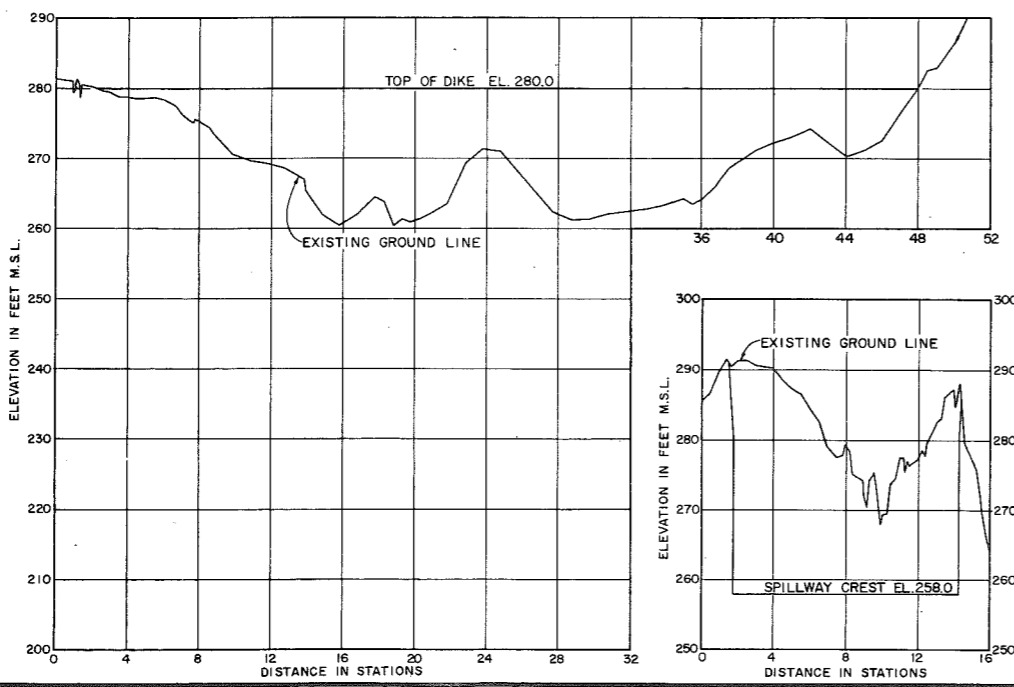
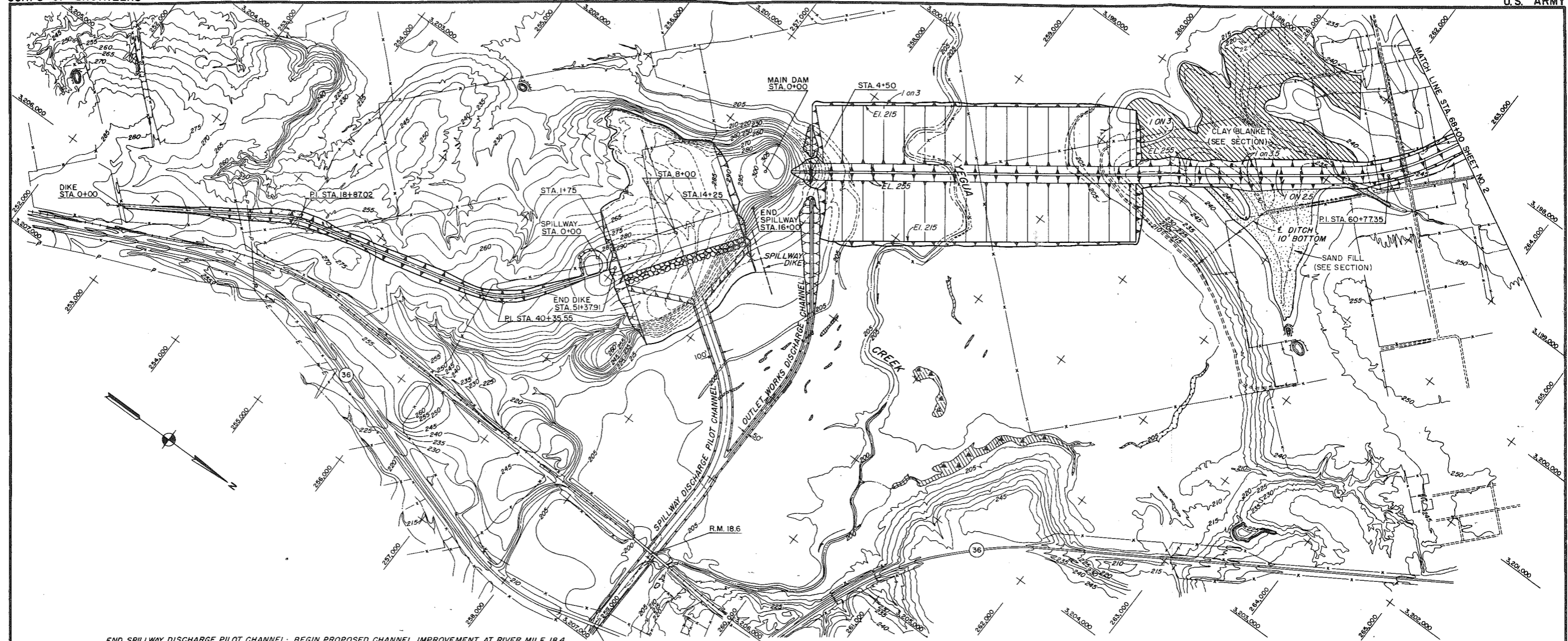
8-03. Development and management.- The plan of development and management as presented herein complies with the requirements of the Flood Control Act of 22 December 1944, as amended, and existing policies adopted and instructions issued by higher authority.

#### IX - CONCLUSIONS AND RECOMMENDATIONS

9-01. Conclusions.- The plan of development presented herein has the concurrence and support of representatives of local governmental agencies and the general public as evidenced by vocal expressions made by city and county officials and in letters to this office.

9-02. Recommendations.- It is recommended that the Master Plan for Somerville Reservoir involving development for public use and land management be approved as proposed herein, including the development

proposed for the first three years of operation. It is further recommended that rules and regulations governing public use of certain reservoir areas administered by the Corps of Engineers published in Title 36, Chapter III, of the Federal Code of Regulations be amended to add Somerville Reservoir, Somerville, Texas.

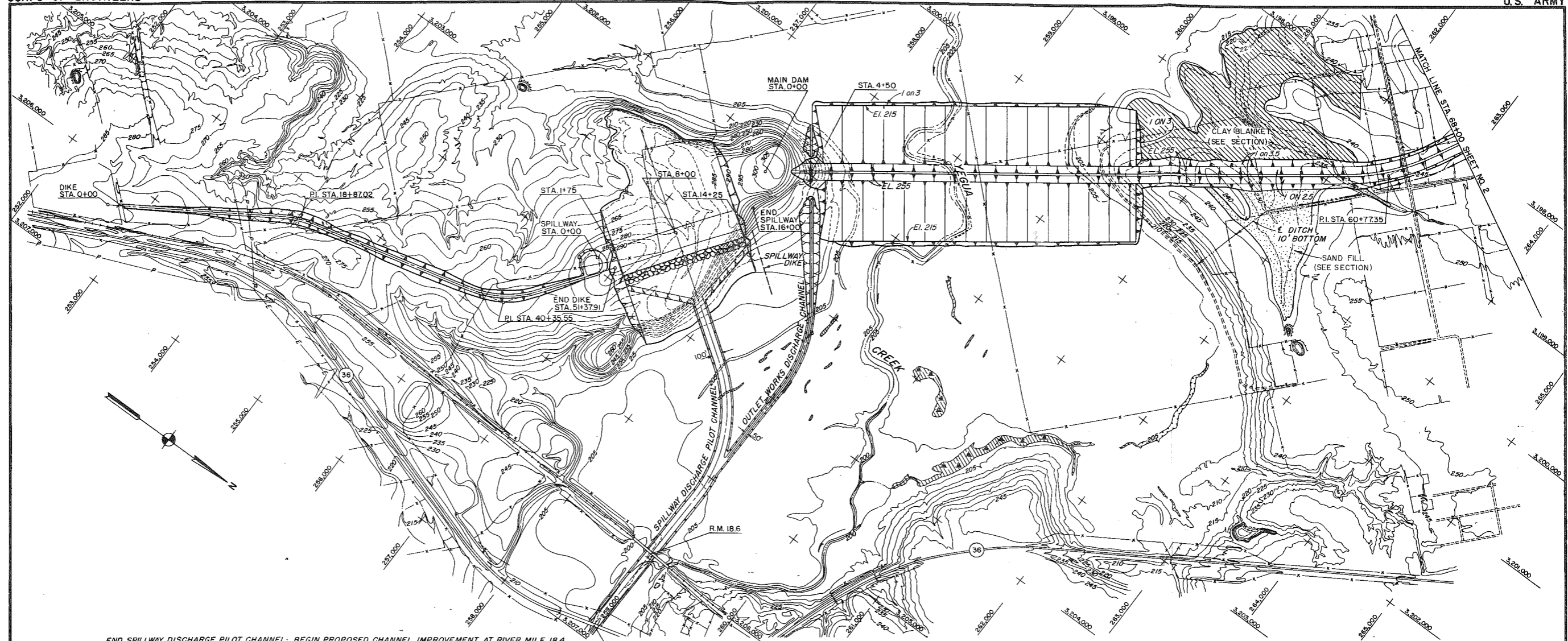


BRAZOS RIVER BASIN, TEXAS  
 SOMERVILLE RESERVOIR  
 YEGUA CREEK, TEXAS  
**EMBANKMENT**  
 PLAN AND PROFILE

IN 2 SHEETS SCALES AS SHOWN SHEET NO. 1  
 U.S. ARMY ENGINEER DISTRICT, FORT WORTH JUNE 1962

TO ACCOMPANY DESIGN MEMORANDUM  
 NUMBER 7 EMBANKMENT

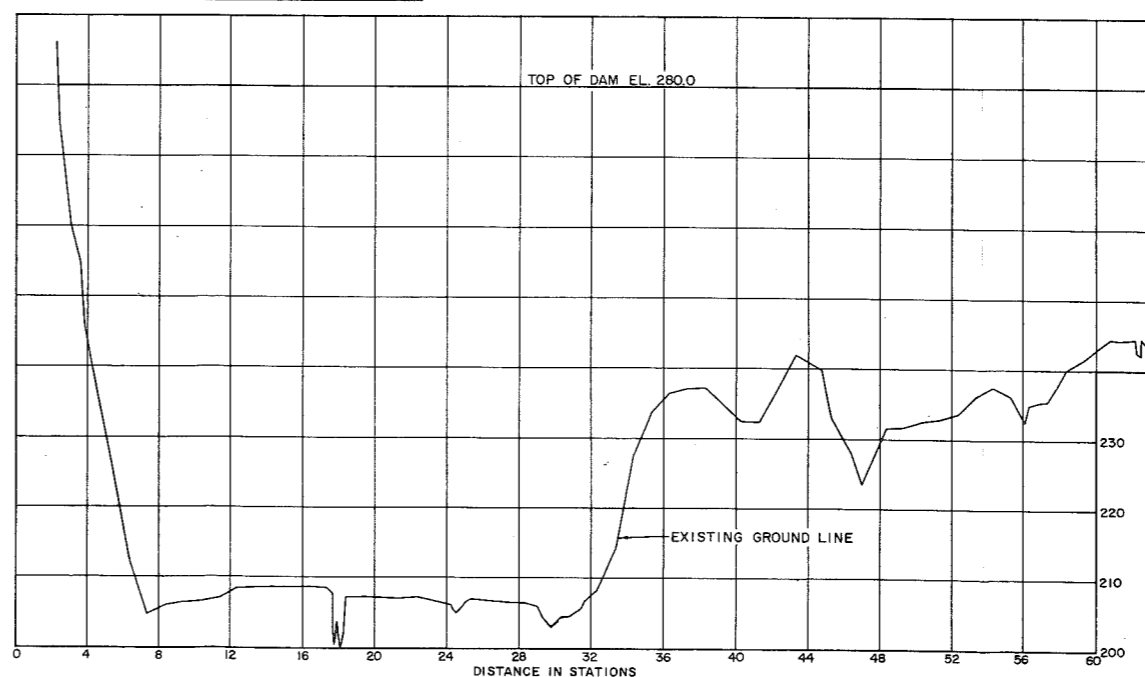
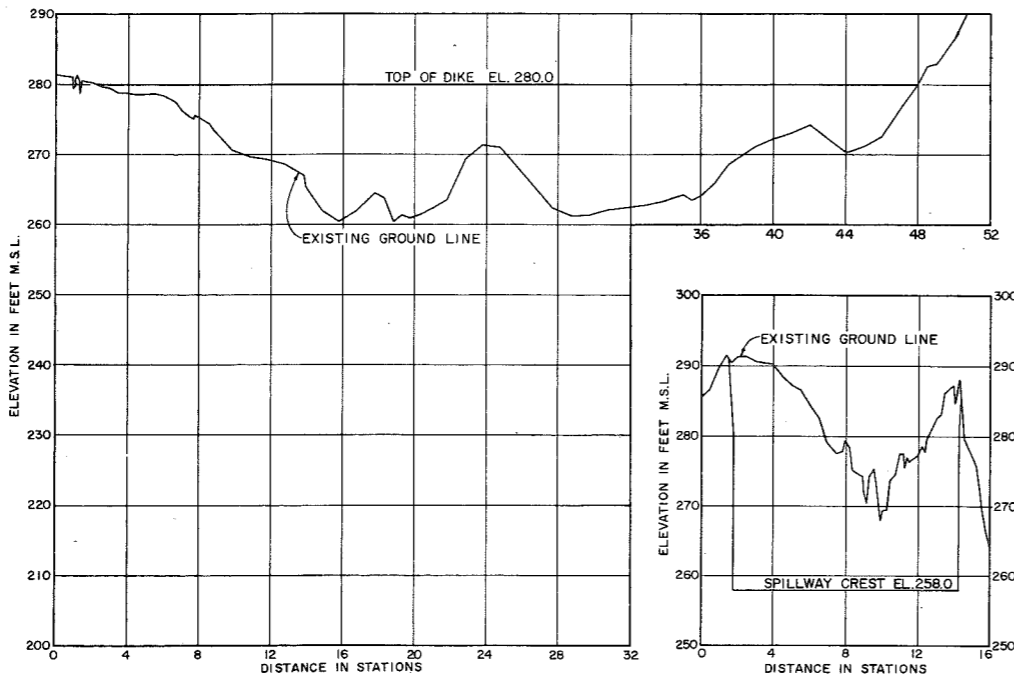
FILE: BRAZ. 511-1 NO. 7 PLATE 29



END SPILLWAY DISCHARGE PILOT CHANNEL; BEGIN PROPOSED CHANNEL IMPROVEMENT AT RIVER MILE 18.4

PLAN

SCALE OF FEET

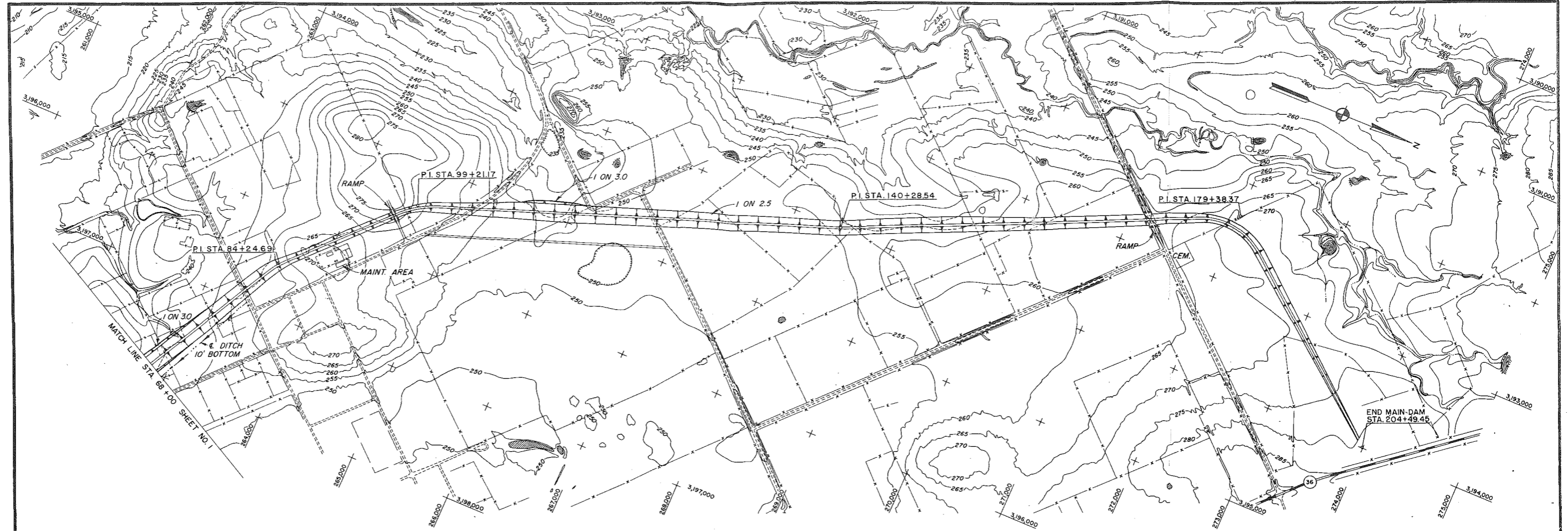


BRAZOS RIVER BASIN, TEXAS  
 SOMERVILLE RESERVOIR  
 YEGUA CREEK, TEXAS  
**EMBANKMENT**  
 PLAN AND PROFILE

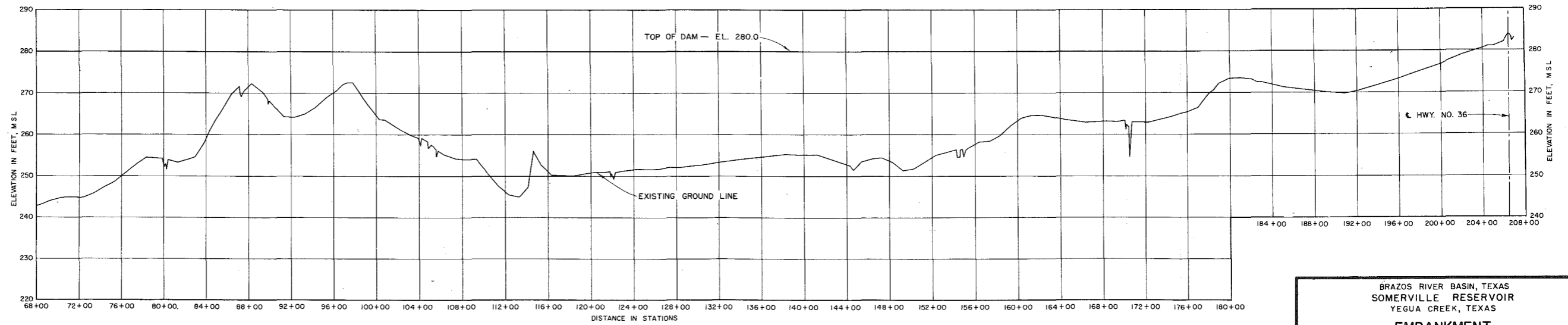
IN 2 SHEETS SCALES AS SHOWN SHEET NO. 1  
 U.S. ARMY ENGINEER DISTRICT, FORT WORTH JUNE 1962

TO ACCOMPANY DESIGN MEMORANDUM  
 NUMBER 7 EMBANKMENT

FILE: BRAZ. 511-1 NO. 7 PLATE 29



**PLAN**  
SCALE OF FEET  
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BRAZOS RIVER BASIN, TEXAS  
SOMERVILLE RESERVOIR  
YEGUA CREEK, TEXAS

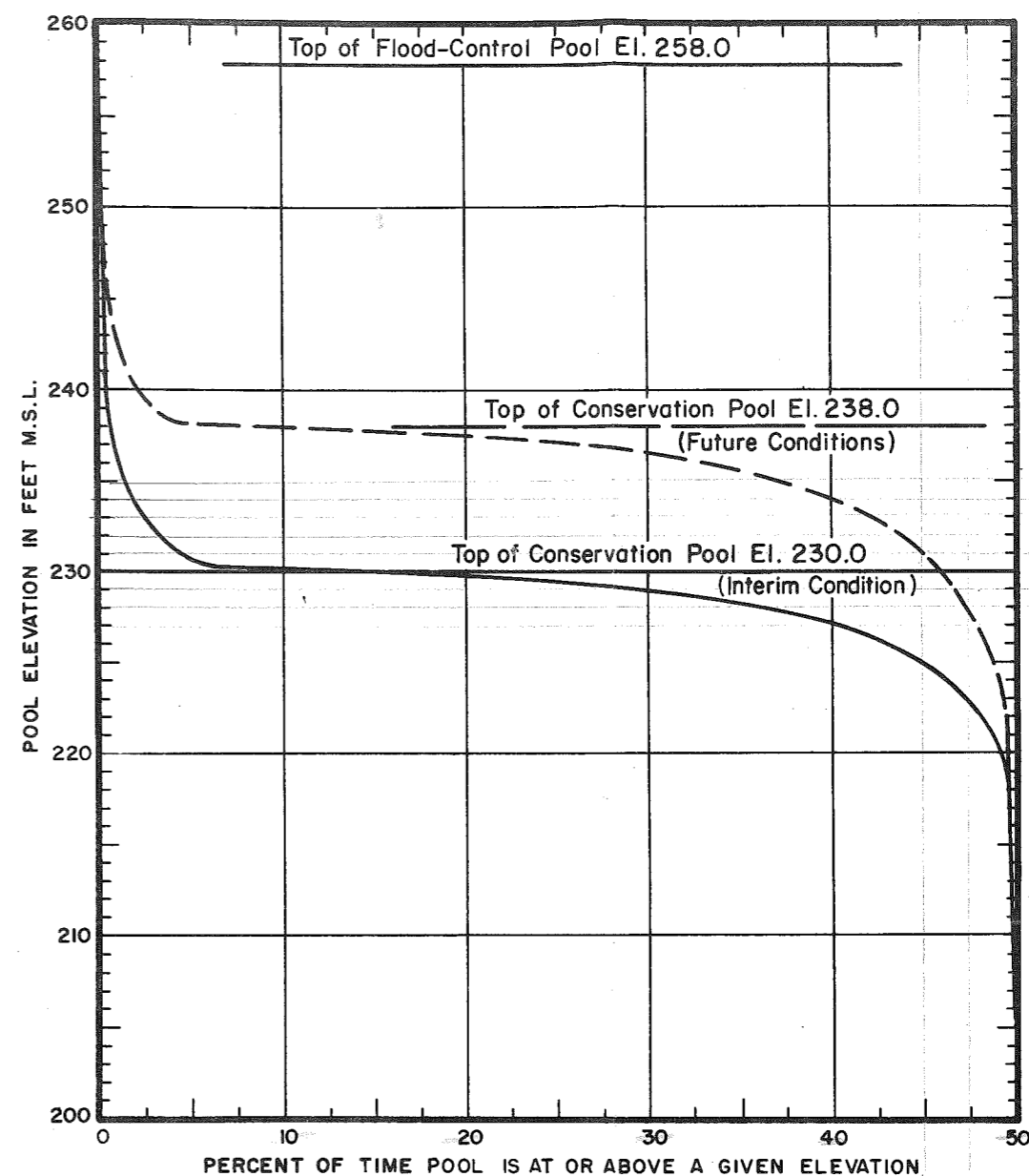
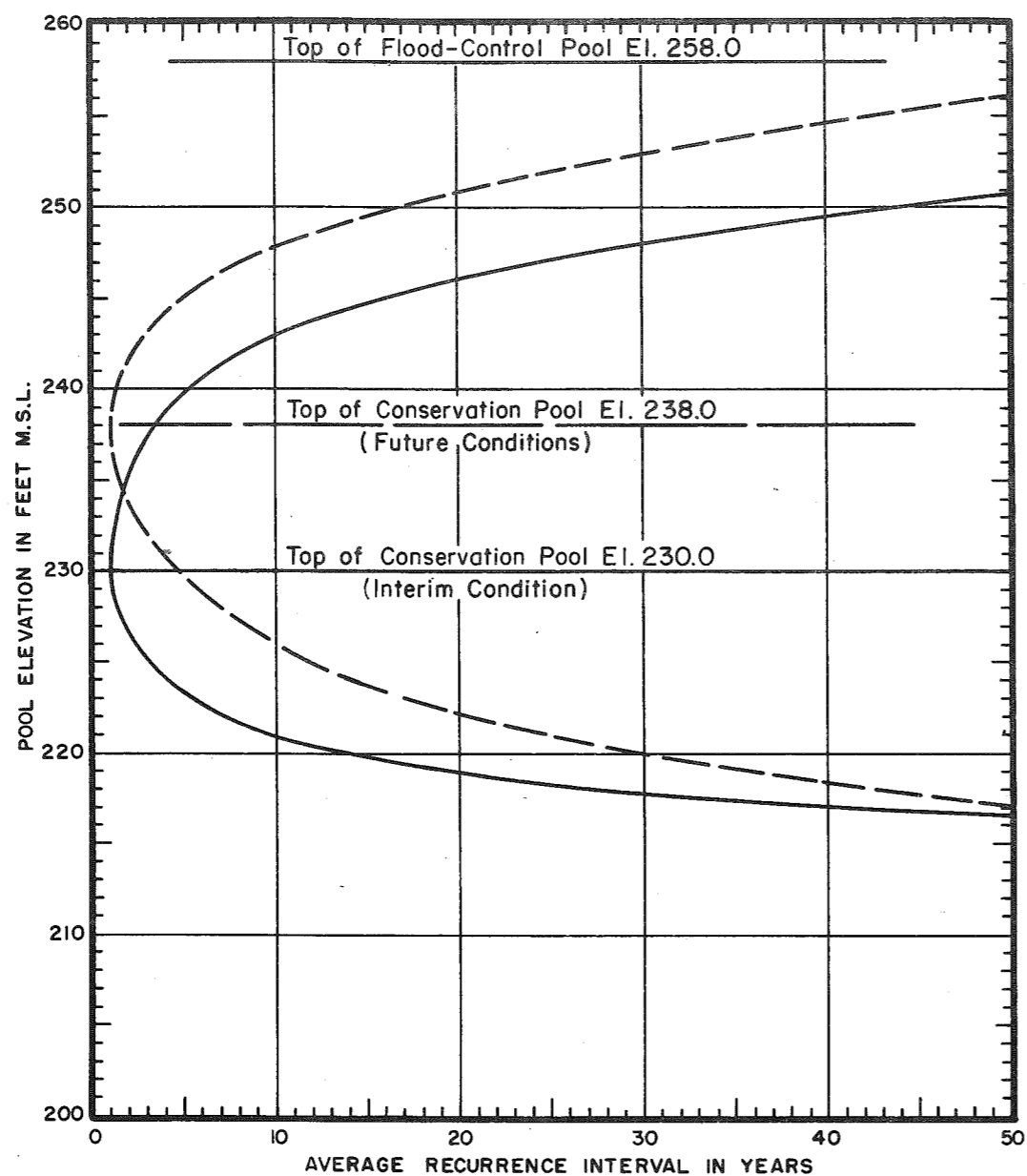
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PLAN AND PROFILE

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NUMBER 7 - EMBANKMENT

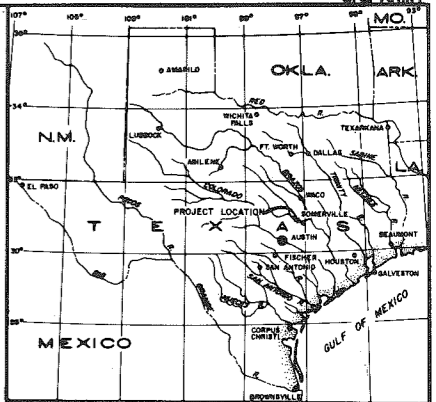
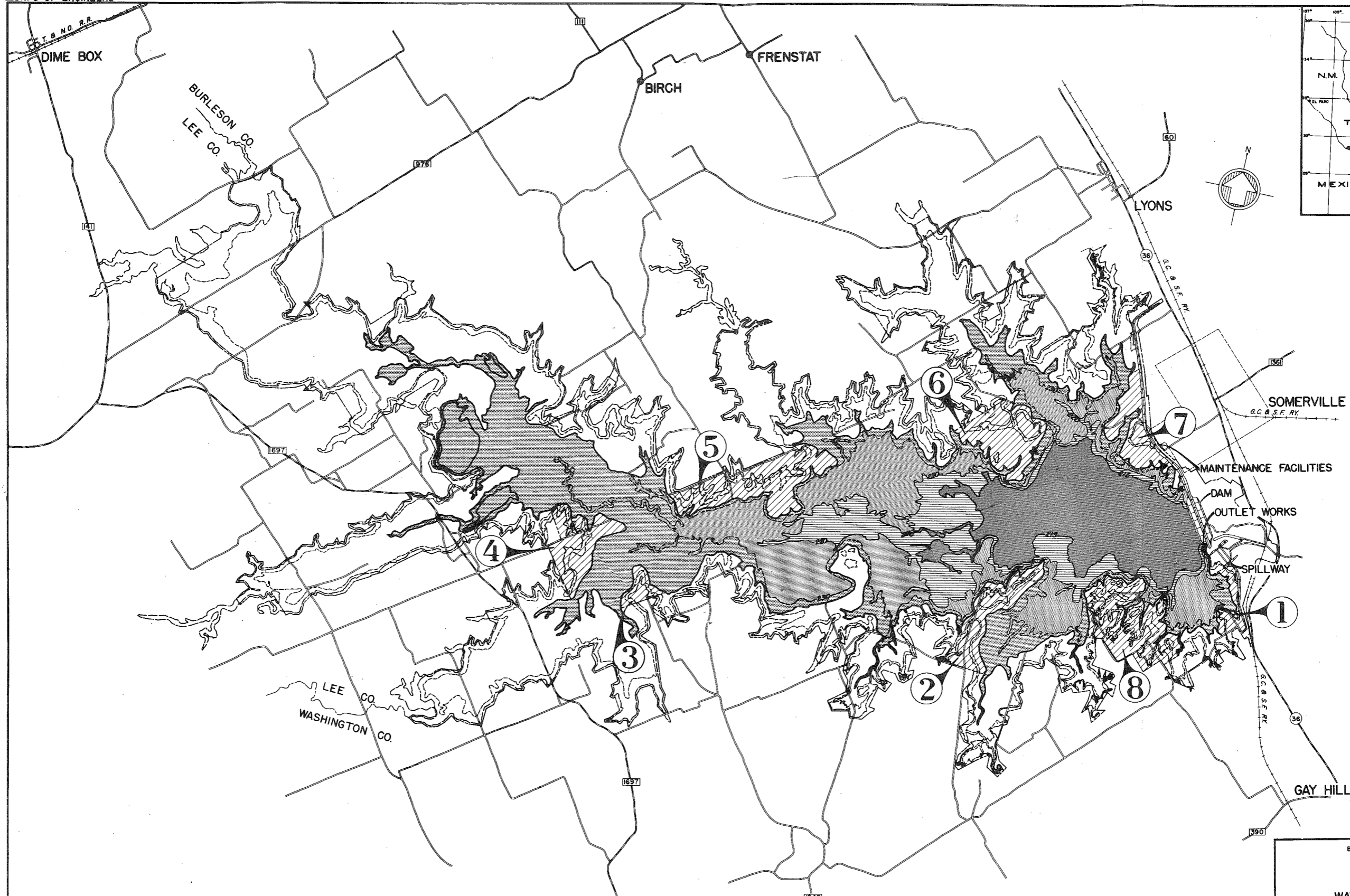
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**LEGEND**  
 ——— INTERIM CONDITION  
 - - - FUTURE CONDITIONS

BRAZOS RIVER BASIN, TEXAS  
 SOMERVILLE RESERVOIR  
 YEGUA CREEK TEXAS  
**POOL ELEVATION-PROBABILITY  
 AND  
 DURATION CURVE**  
 SCALE AS SHOWN  
 U.S. ARMY ENGINEER DISTRICT, FORT WORTH  
 TO ACCOMPANY DESIGN MEMORANDUM  
 NUMBER 11B MASTER PLAN  
 FILE BRAZ. 511-1 NO. 11B PLATE 3



VICINITY MAP  
SCALE OF MILES  
0 50 100  
MILES

**WATER DEPTHS**

	0' TO 8'
	8' TO 18'
	18' TO 23'
	23' TO 38'
	PUBLIC USE AREAS

BRAZOS RIVER BASIN, TEXAS  
SOMERVILLE RESERVOIR  
YEGUA CREEK, TEXAS

**WATER DEPTHS AREAS**

SCALE IN FEET  
0 2000 4000

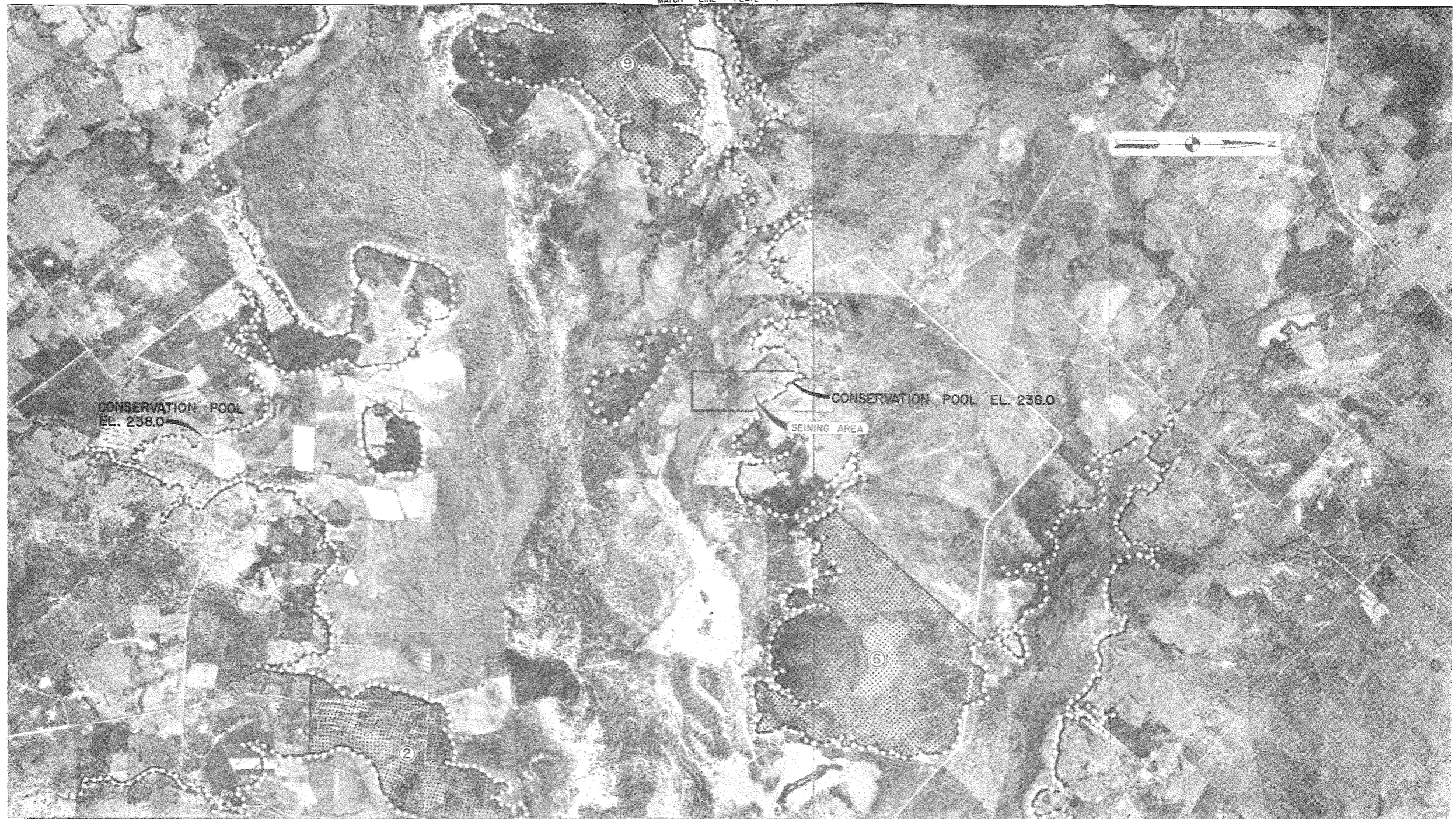
U.S. ARMY ENGINEER DISTRICT, FORT WORTH      FEBRUARY 1963

TO ACCOMPANY DESIGN MEMORANDUM  
NUMBER IIB-MASTER PLAN

FILE: BRAZ. 511-1      NO. IIB      PLATE 4

B.W.H.

MATCH LINE PLATE 4



MATCH LINE PLATE 2

BRAZOS RIVER BASIN, TEXAS  
 SOMERVILLE RESERVOIR  
 YEGUA CREEK, TEXAS

**RESERVOIR CLEARING**

SCALE OF FEET  
 1000 100m 2000

U.S. ARMY ENGINEER DISTRICT, FORT WORTH AUGUST 1962

TO ACCOMPANY DESIGN MEMORANDUM  
 NUMBER 15 - RESERVOIR CLEARING

FILE BRAZ. 511-1 NO. 15 PLATE 3



MATCH LINE PLATE 3

BRAZOS RIVER BASIN, TEXAS  
 SOMERVILLE RESERVOIR  
 YEGUA CREEK, TEXAS

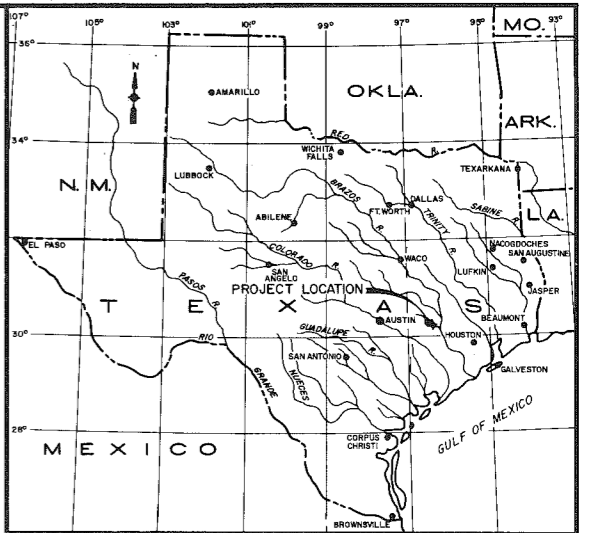
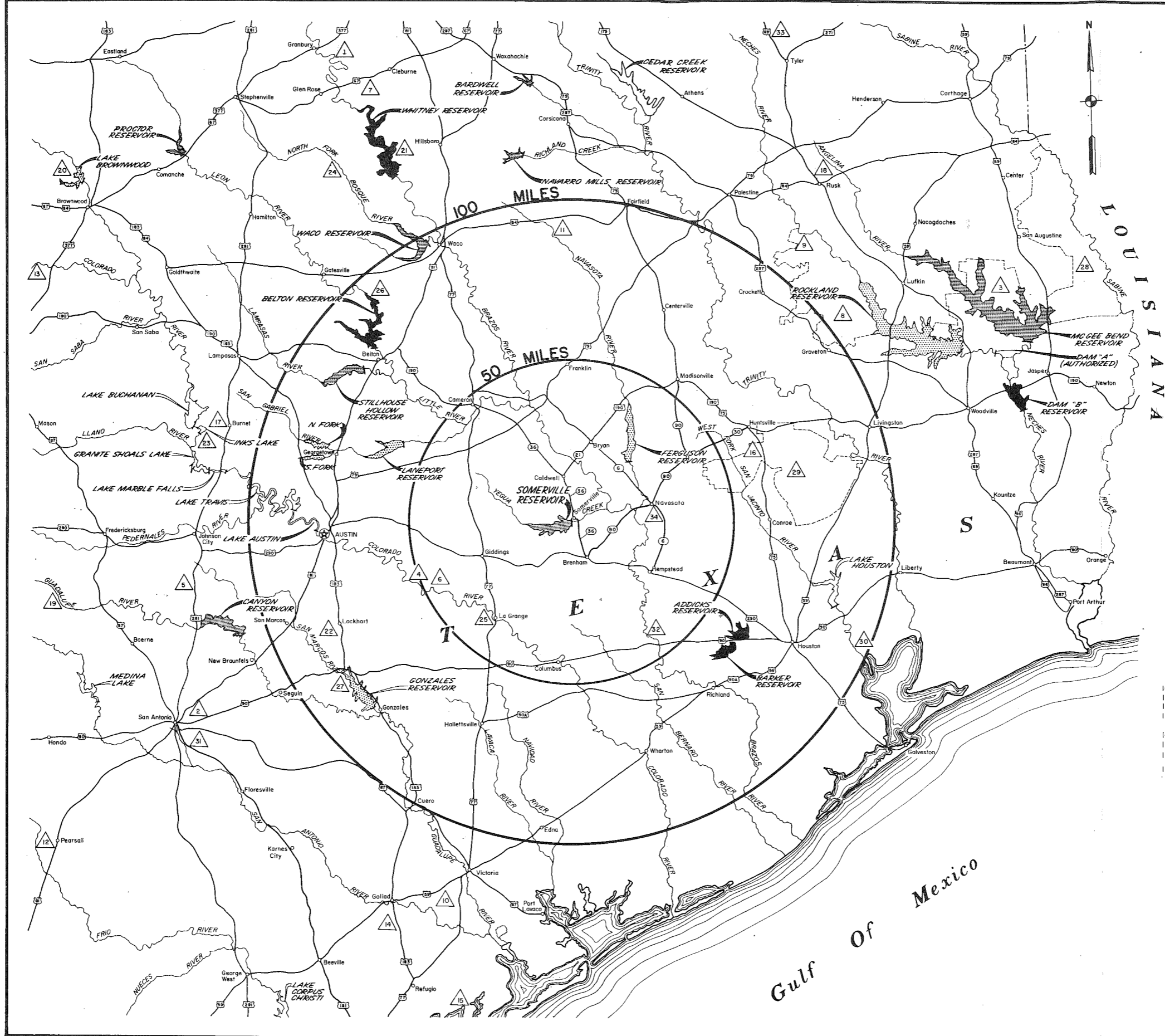
**RESERVOIR CLEARING**

SCALE OF FEET  
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U.S. ARMY ENGINEER DISTRICT, FORT WORTH      AUGUST 1962

TO ACCOMPANY DESIGN MEMORANDUM  
 NUMBER 15 - RESERVOIR CLEARING

FILE. BRAZ. 511-1      NO. 15      PLATE 4



VICINITY MAP  
SCALE OF MILES  
0 50 100

- LEGEND**
- C. OF E. PROJECTS COMPLETED
  - UNDER CONSTRUCTION
  - AUTHORIZED
  - OTHER PROJECTS
  - LAKES AND RESERVOIRS BY OTHER AGENCIES
- POINTS OF INTEREST**  
(R) Recreational Facilities (H) Historical Attractions

- INDEX TO POINTS OF INTEREST**
- |                                                      |                                        |
|------------------------------------------------------|----------------------------------------|
| 1. Acton State Park (H)                              | 18. Jim Hogg State Park (H)            |
| 2. Alamo State Park (H)                              | 19. Kerrville State Park (R)           |
| 3. Angelina National Forest                          | 20. Lake Brownwood State Park (R)      |
| 4. Bastrop State Park (R)                            | 21. Lake Whitney State Park (R)        |
| 5. Blanco State Park (R)                             | 22. Lockhart State Park (R)            |
| 6. Buescher State Park (R)                           | 23. Longhorn Cavern State Park (R)     |
| 7. Cleburne State Park (R)                           | 24. Meridian State Park (R)            |
| 8. Davy Crockett National Forest                     | 25. Monument Hill State Park (H)       |
| 9. Mission San Francisco De Los Tejas State Park (H) | 26. Mather Neff State Park (R)         |
| 10. Fannin Battlefield State Park (H)                | 27. Palmetto State Park (R)            |
| 11. Fort Parker State Park (R)                       | 28. Sabine National Forest             |
| 12. Frio State Park (R)                              | 29. Sam Houston National Forest        |
| 13. Geographical Center of the State of Texas        | 30. San Jacinto State Park (R)         |
| 14. Goliad State Park (H&R)                          | 31. San Jose Mission State Park (H)    |
| 15. Goose Island State Park (R)                      | 32. Stephen F. Austin State Park (H&R) |
| 16. Huntsville State Park (R)                        | 33. Tyler State Park (R)               |
| 17. Inks Lake State Park (R)                         | 34. Washington State Park (H&R)        |

BRAZOS RIVER BASIN, TEXAS  
SOMERVILLE RESERVOIR  
YEGUA CREEK, TEXAS

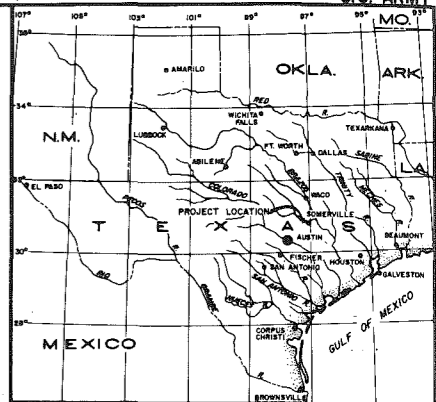
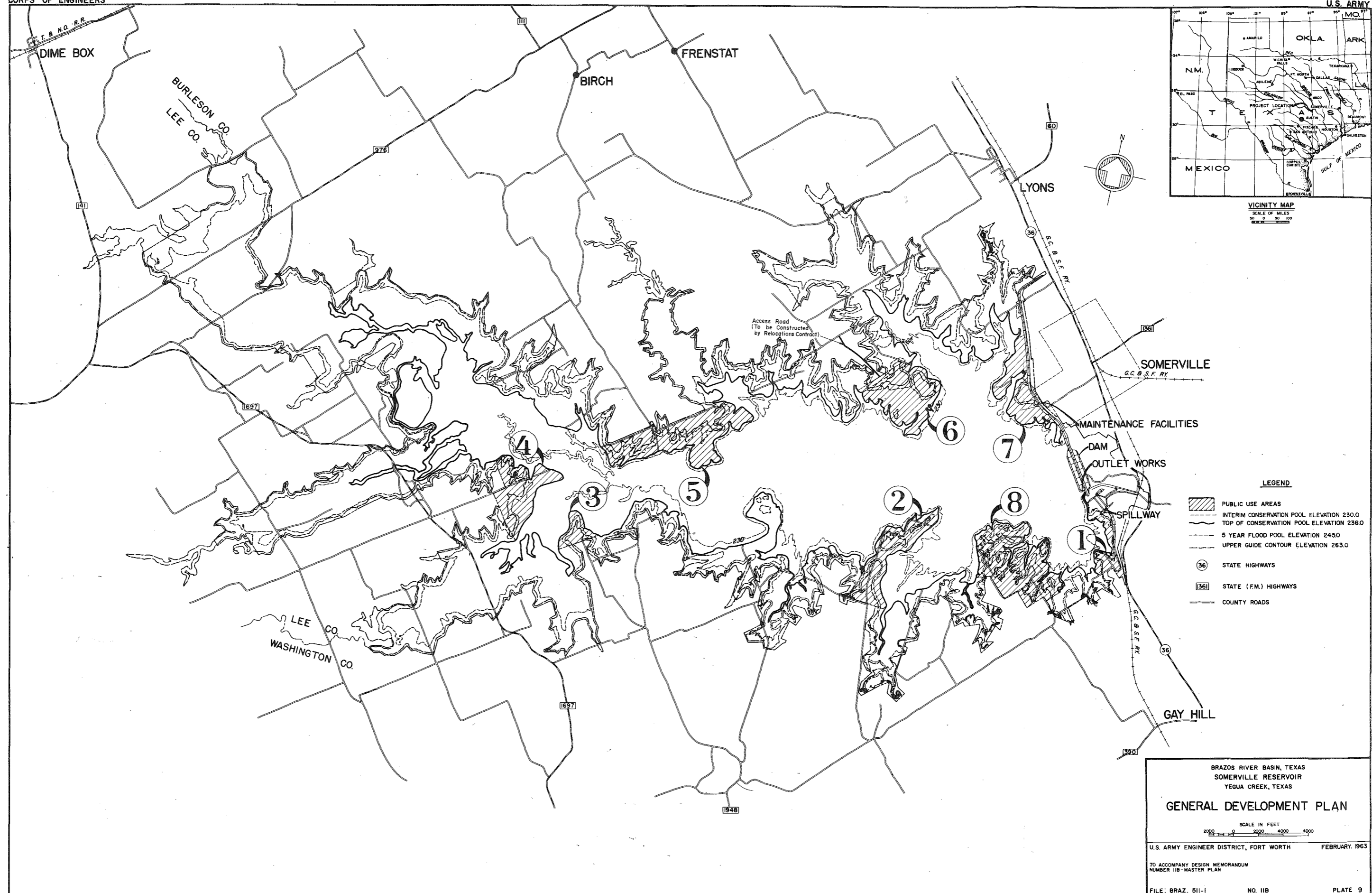
**REGIONAL RECREATION AREAS**

SCALE IN MILES  
0 20 40

U.S. ARMY ENGINEER DISTRICT, FORT WORTH      FEBRUARY 1963

TO ACCOMPANY DESIGN MEMORANDUM  
NUMBER IIB - MASTER PLAN

FILE. BRAZ. 511-1      NO. IIB      PLATE 8



- LEGEND**
- PUBLIC USE AREAS
  - INTERIM CONSERVATION POOL ELEVATION 230.0
  - TOP OF CONSERVATION POOL ELEVATION 236.0
  - 5 YEAR FLOOD POOL ELEVATION 245.0
  - UPPER GUIDE CONTOUR ELEVATION 263.0
  - STATE HIGHWAYS
  - STATE (F.M.) HIGHWAYS
  - COUNTY ROADS

BRAZOS RIVER BASIN, TEXAS  
 SOMERVILLE RESERVOIR  
 YEGUA CREEK, TEXAS

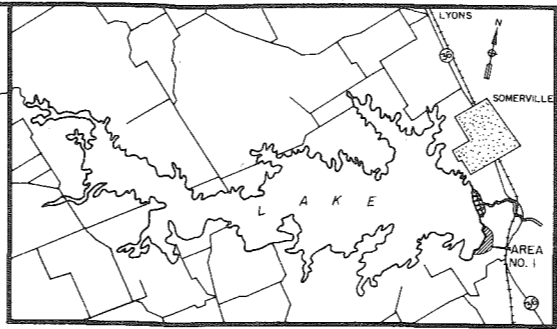
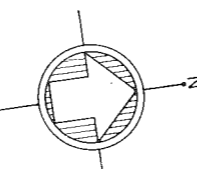
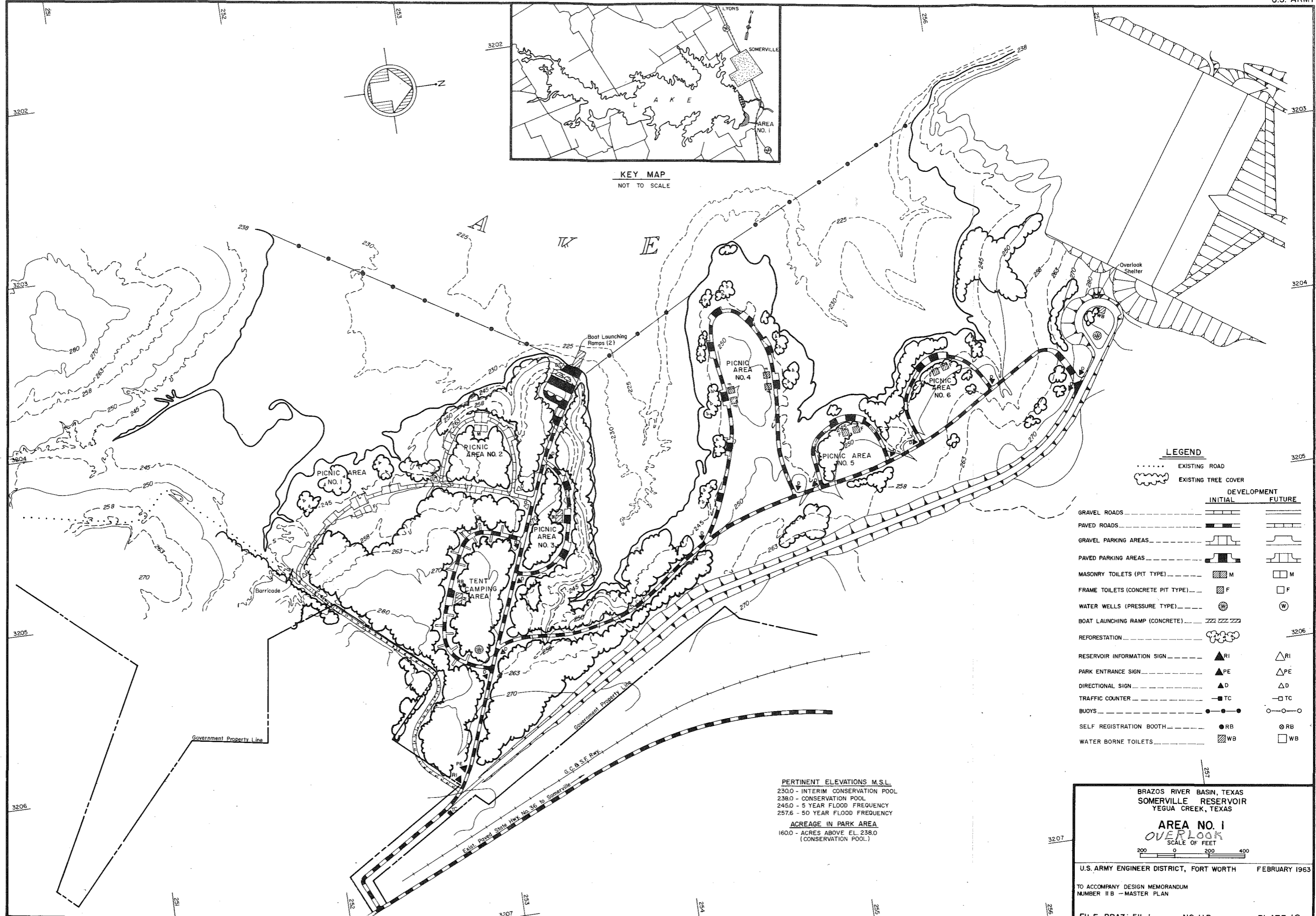
**GENERAL DEVELOPMENT PLAN**

SCALE IN FEET  
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U.S. ARMY ENGINEER DISTRICT, FORT WORTH      FEBRUARY, 1963

TO ACCOMPANY DESIGN MEMORANDUM  
 NUMBER 118—MASTER PLAN

FILE: BRAZ. 511-1      NO. 118      PLATE 9



KEY MAP  
NOT TO SCALE

LEGEND

.....	EXISTING ROAD		
~~~~~	EXISTING TREE COVER		
		DEVELOPMENT	
		INITIAL	FUTURE
---	GRAVEL ROADS	---	---
---	PAVED ROADS	---	---
---	GRAVEL PARKING AREAS	---	---
---	PAVED PARKING AREAS	---	---
---	MASONRY TOILETS (PIT TYPE)	M	M
---	FRAME TOILETS (CONCRETE PIT TYPE)	F	F
---	WATER WELLS (PRESSURE TYPE)	W	W
---	BOAT LAUNCHING RAMP (CONCRETE)	---	---
---	REFORESTATION	---	---
---	RESERVOIR INFORMATION SIGN	RI	RI
---	PARK ENTRANCE SIGN	PE	PE
---	DIRECTIONAL SIGN	D	D
---	TRAFFIC COUNTER	TC	TC
---	BUOYS	B	B
---	SELF REGISTRATION BOOTH	RB	RB
---	WATER BORNE TOILETS	WB	WB

PERTINENT ELEVATIONS M.S.L.
 2300 - INTERIM CONSERVATION POOL
 238.0 - CONSERVATION POOL
 245.0 - 5 YEAR FLOOD FREQUENCY
 257.6 - 50 YEAR FLOOD FREQUENCY

ACREAGE IN PARK AREA
 1600 - ACRES ABOVE EL. 238.0
 (CONSERVATION POOL)

BRAZOS RIVER BASIN, TEXAS
 SOMERVILLE RESERVOIR
 YEGUA CREEK, TEXAS

AREA NO. 1
OVERLOOK
 SCALE OF FEET

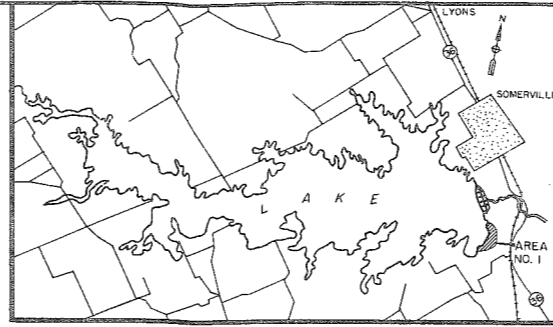
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U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY 1963

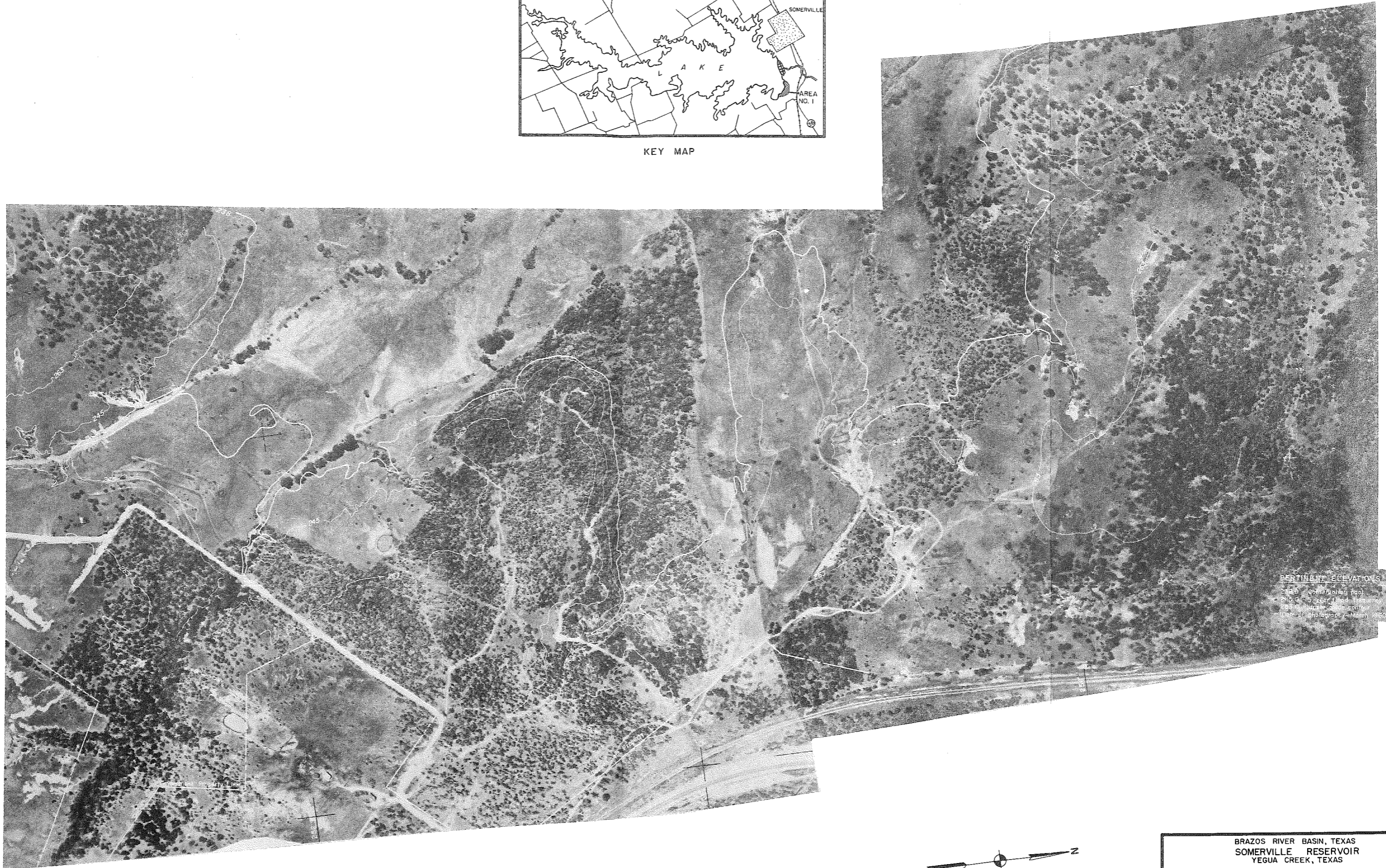
TO ACCOMPANY DESIGN MEMORANDUM
 NUMBER 11B - MASTER PLAN

FILE BRAZ. 511-1 NO. 11B PLATE 10

J.A.B.



KEY MAP



PERTINENT ELEVATIONS - M.S.L.
 220 - Contouring spot
 220 - Contouring spot
 220 - Contouring spot
 220 - Contouring spot



BRAZOS RIVER BASIN, TEXAS
 SOMERVILLE RESERVOIR
 YEGUA CREEK, TEXAS

AREA NO. 1
OVERLOOK

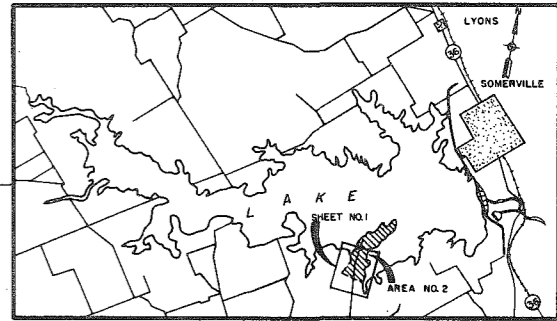
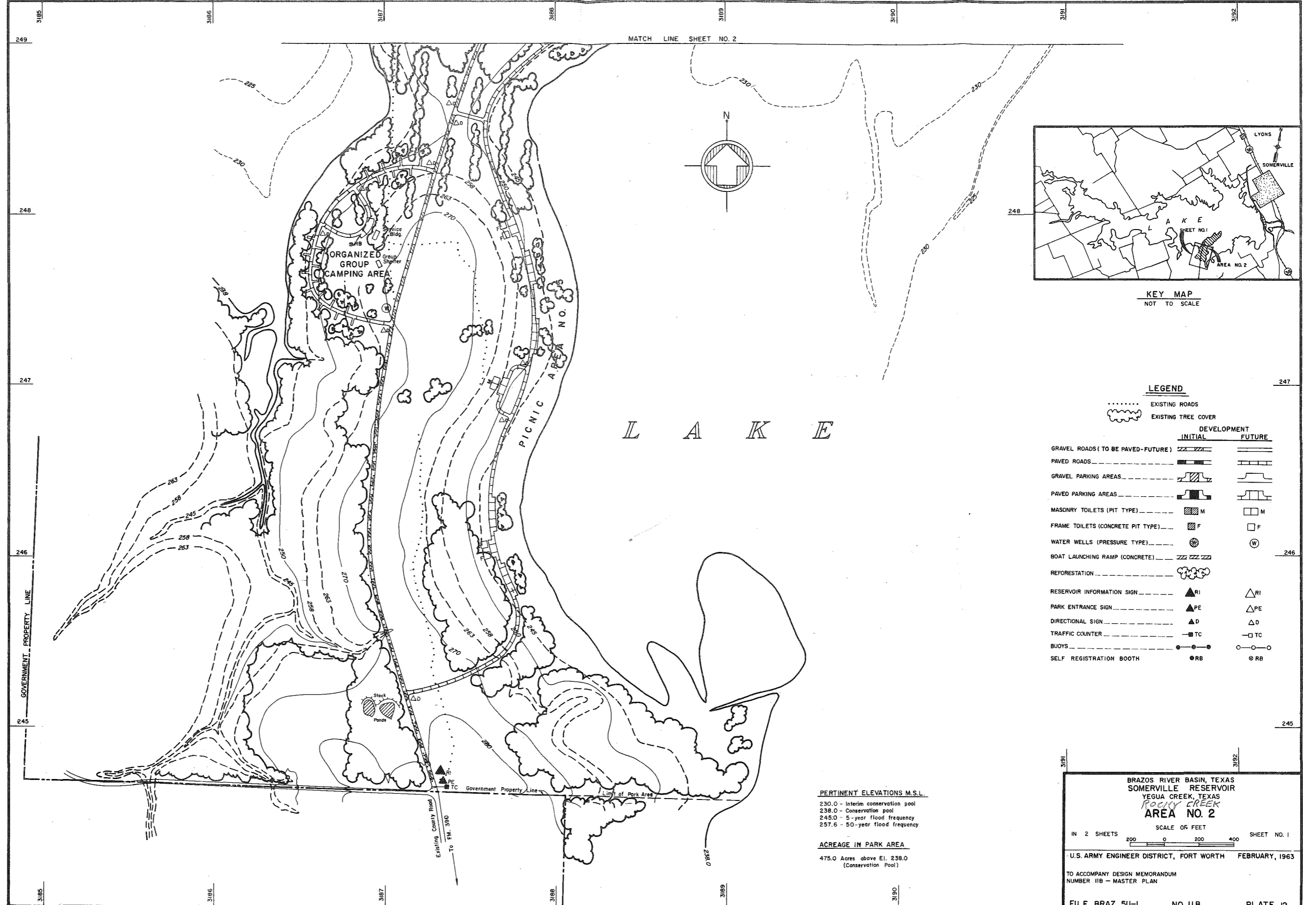
SCALE OF FEET
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U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY 1963

TO ACCOMPANY DESIGN MEMORANDUM
 NUMBER 11B - MASTER PLAN

FILE. BRAZ. 511-1 NO. 11B PLATE II

MATCH LINE SHEET NO. 2



KEY MAP NOT TO SCALE

LEGEND

.....	EXISTING ROADS		
~~~~~	EXISTING TREE COVER		
		DEVELOPMENT	
		INITIAL	FUTURE
GRAVEL ROADS (TO BE PAVED-FUTURE)			
PAVED ROADS	— — — — —	— — — — —	— — — — —
GRAVEL PARKING AREAS			
PAVED PARKING AREAS			
MASONRY TOILETS (PIT TYPE)	■ M	□ M	□ M
FRAME TOILETS (CONCRETE PIT TYPE)	■ F	□ F	□ F
WATER WELLS (PRESSURE TYPE)	⊙	⊙	⊙
BOAT LAUNCHING RAMP (CONCRETE)			
REFORESTATION	⊙	⊙	⊙
RESERVOIR INFORMATION SIGN	▲ RI	△ RI	△ RI
PARK ENTRANCE SIGN	▲ PE	△ PE	△ PE
DIRECTIONAL SIGN	▲ D	△ D	△ D
TRAFFIC COUNTER	■ TC	□ TC	□ TC
BUOYS	⊙	⊙	⊙
SELF REGISTRATION BOOTH	⊙ RB	⊙ RB	⊙ RB

**PERTINENT ELEVATIONS M.S.L.**  
 230.0 - Interim conservation pool  
 238.0 - Conservation pool  
 245.0 - 5-year flood frequency  
 257.6 - 50-year flood frequency

**ACREAGE IN PARK AREA**  
 475.0 Acres above El. 238.0  
 (Conservation Pool)

BRAZOS RIVER BASIN, TEXAS  
 SOMERVILLE RESERVOIR  
 YESUA CREEK, TEXAS  
 ROCKY CREEK  
**AREA NO. 2**

SCALE OF FEET  
 200 0 200 400

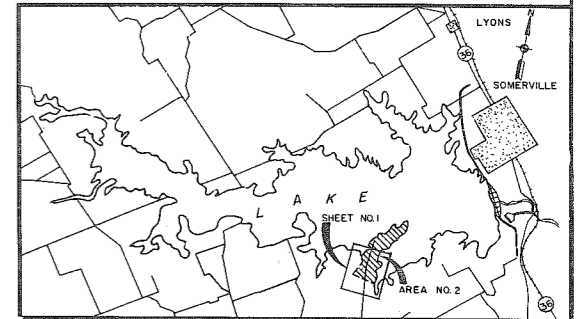
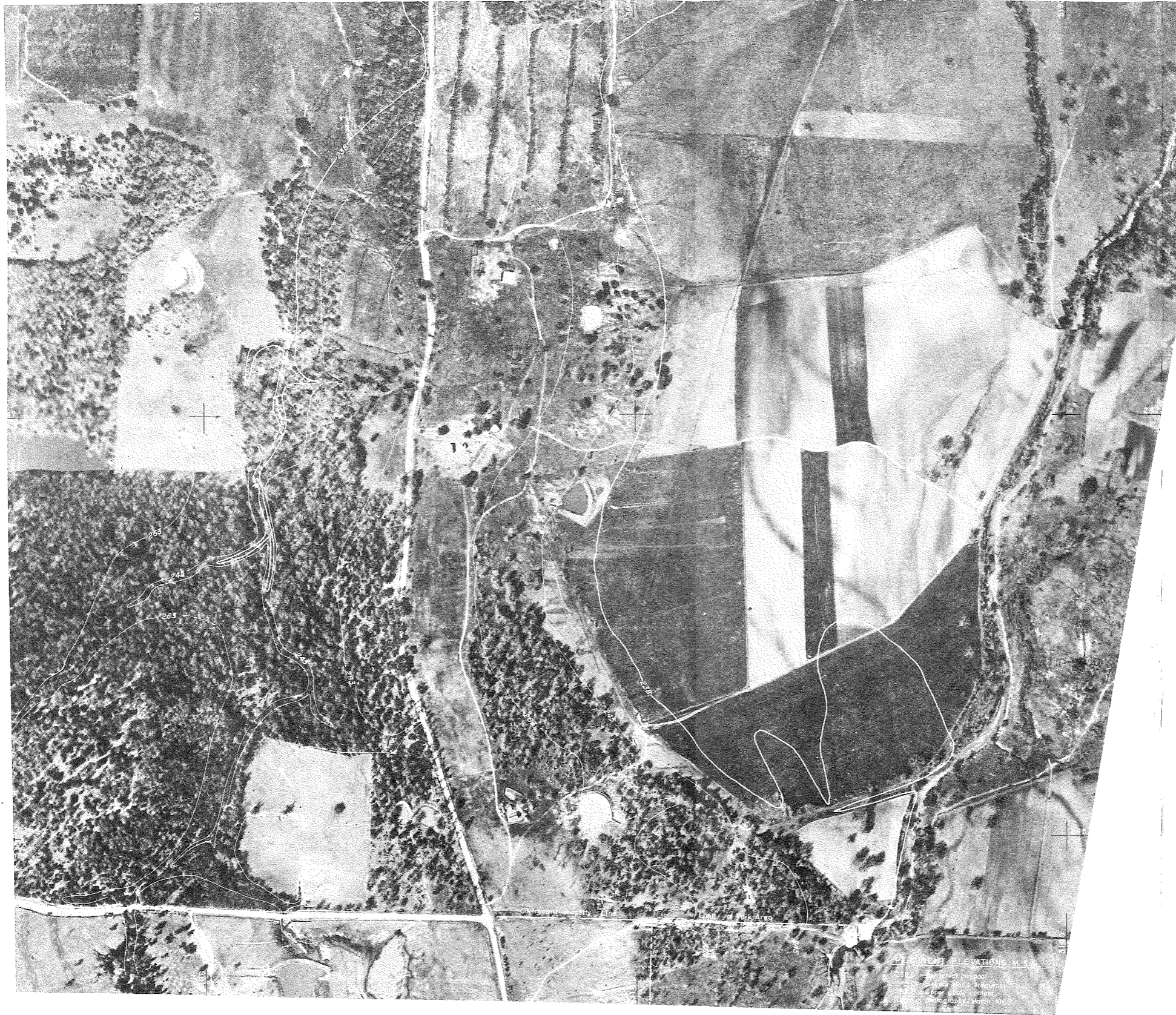
IN 2 SHEETS SHEET NO. 1

U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY, 1963

TO ACCOMPANY DESIGN MEMORANDUM  
 NUMBER 11B - MASTER PLAN

FILE. BRAZ 511-1 NO. 11B PLATE 12

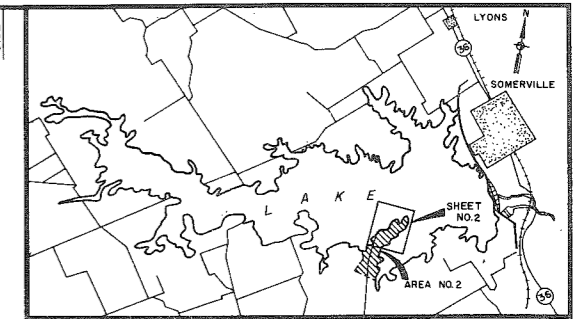
J.A.B.



KEY MAP



BRAZOS RIVER BASIN, TEXAS  
 SOMERVILLE RESERVOIR  
 YEGUA CREEK, TEXAS  
*ROCKY CREEK*  
**AREA NO. 2**  
 SCALE OF FEET  
 IN 2 SHEETS 200 0 200 400 SHEET NO. 1  
 U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY, 1963  
 TO ACCOMPANY DESIGN MEMORANDUM  
 NUMBER 11B - MASTER PLAN  
 FILE. BRAZ 511-1 NO. 11B PLATE 13



KEY MAP NOT TO SCALE

LEGEND

.....	EXISTING ROADS		
~~~~~	EXISTING TREE COVER		
		DEVELOPMENT	
		INITIAL	FUTURE
-----	GRAVEL ROADS (TO BE PAVED - FUTURE)	-----	-----
-----	PAVED ROADS	-----	-----
-----	GRAVEL PARKING AREAS	-----	-----
-----	PAVED PARKING AREAS	-----	-----
-----	MASONRY TOILETS (PIT TYPE)	M	M
-----	FRAME TOILETS (CONCRETE PIT TYPE)	F	F
-----	WATER WELLS (PRESSURE TYPE)	W	W
-----	BOAT LAUNCHING RAMP (CONCRETE)	-----	-----
-----	REFORESTATION	-----	-----
-----	RESERVOIR INFORMATION SIGN	RI	RI
-----	PARK ENTRANCE SIGN	PE	PE
-----	DIRECTIONAL SIGN	D	D
-----	TRAFFIC COUNTER	TC	TC
-----	BUOYS	-----	-----
-----	SELF-REGISTRATION BOOTH	RB	RB

BRAZOS RIVER BASIN, TEXAS
SOMERVILLE RESERVOIR
YEGUA CREEK, TEXAS
ROCKY CREEK
AREA NO. 2

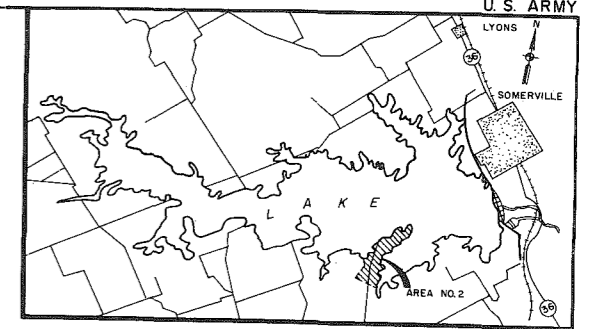
SCALE OF FEET
IN 2 SHEETS 200 0 200 400 SHEET NO. 2

U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY 1963

TO ACCOMPANY DESIGN MEMORANDUM
NUMBER 11B - MASTER PLAN

FILE BRAZ 511-1 NO. 11B PLATE 14

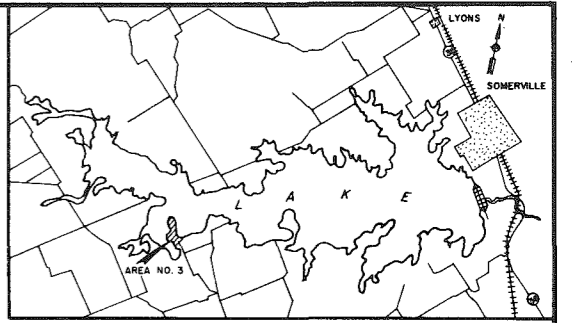
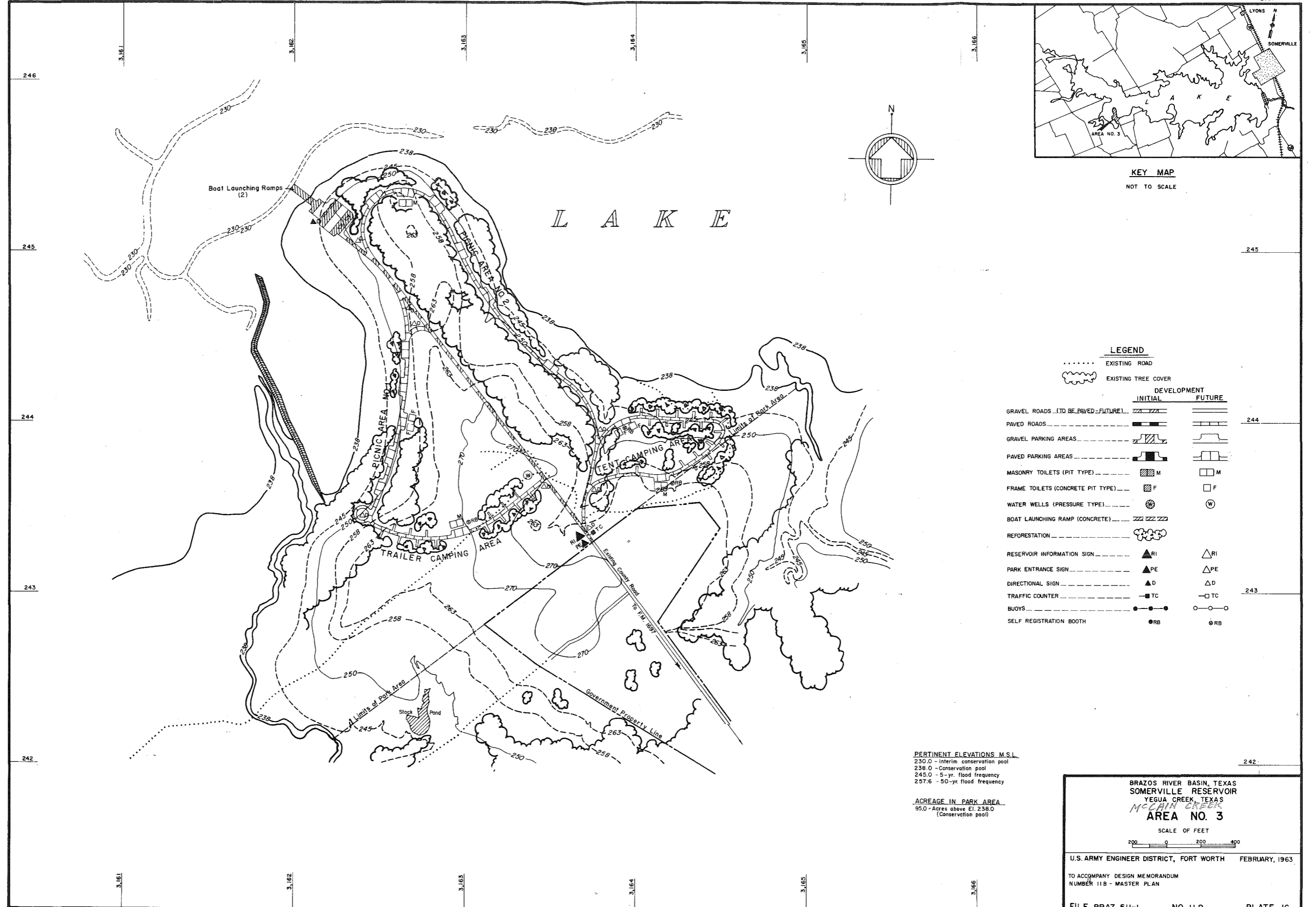
J.A.B.



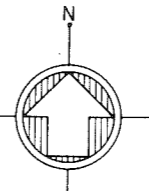
KEY MAP



BRAZOS RIVER BASIN, TEXAS
 SOMERVILLE RESERVOIR
 YEGUA CREEK, TEXAS
 ROCKY CREEK
AREA NO. 2
 SCALE OF FEET
 IN 2 SHEETS 0 200 400 SHEET NO. 2
 U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY, 1963
 TO ACCOMPANY DESIGN MEMORANDUM
 NUMBER 11B-- MASTER PLAN
 FILE BRAZ 511-1 NO. 11B PLATE 15



KEY MAP
NOT TO SCALE



LEGEND

.....	EXISTING ROAD		
~~~~~	EXISTING TREE COVER		
DEVELOPMENT			
	INITIAL	FUTURE	
-----	GRAVEL ROADS (TO BE PAVED-FUTURE)	-----	244
-----	PAVED ROADS	-----	
-----	GRAVEL PARKING AREAS	-----	
-----	PAVED PARKING AREAS	-----	
-----	MASONRY TOILETS (PIT TYPE)	-----	
-----	FRAME TOILETS (CONCRETE PIT TYPE)	-----	
-----	WATER WELLS (PRESSURE TYPE)	-----	
-----	BOAT LAUNCHING RAMP (CONCRETE)	-----	
-----	REFORESTATION	-----	
-----	RESERVOIR INFORMATION SIGN	-----	
-----	PARK ENTRANCE SIGN	-----	
-----	DIRECTIONAL SIGN	-----	
-----	TRAFFIC COUNTER	-----	243
-----	BUOYS	-----	
-----	SELF REGISTRATION BOOTH	-----	

**PERTINENT ELEVATIONS M.S.L.**  
 230.0 - Interim conservation pool  
 238.0 - Conservation pool  
 245.0 - 5-yr. flood frequency  
 257.6 - 50-yr. flood frequency

**ACREAGE IN PARK AREA**  
 95.0 - Acres above El. 238.0  
 (Conservation pool)

BRAZOS RIVER BASIN, TEXAS  
 SOMERVILLE RESERVOIR  
 YEGUA CREEK, TEXAS  
 MCCAIN CREEK  
**AREA NO. 3**

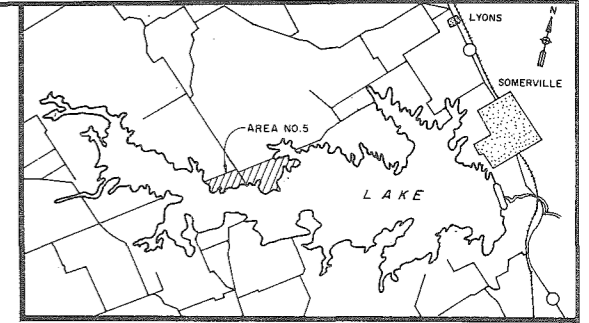
SCALE OF FEET

200 0 200 400

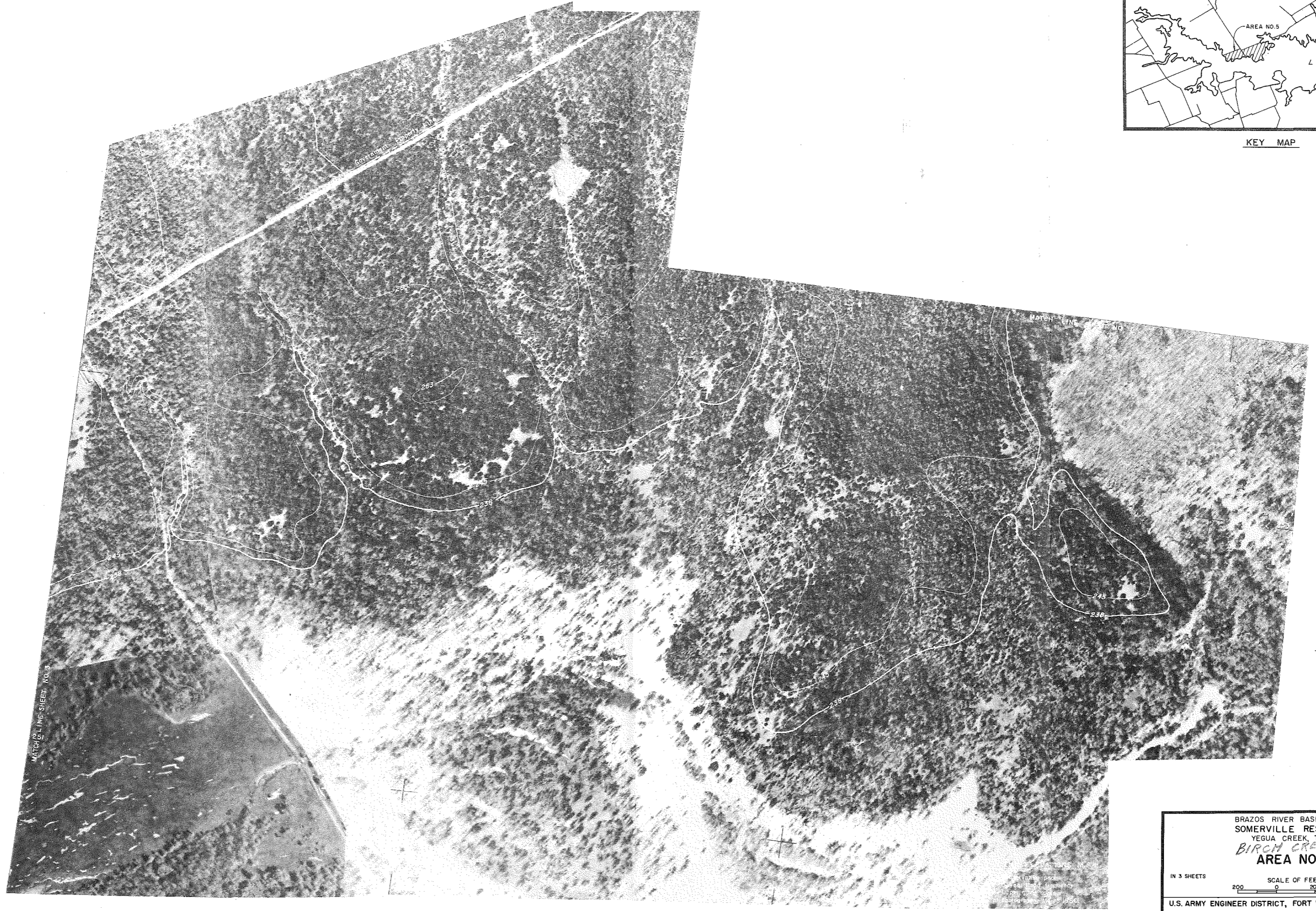
U.S. ARMY ENGINEER DISTRICT, FORT WORTH    FEBRUARY, 1963

TO ACCOMPANY DESIGN MEMORANDUM  
 NUMBER 11B - MASTER PLAN

FILE BRAZ 511-1    NO. 11B    PLATE 16



KEY MAP



BRAZOS RIVER BASIN, TEXAS  
 SOMERVILLE RESERVOIR  
 YEGUA CREEK, TEXAS  
*BIRCH CREEK*  
**AREA NO. 5**

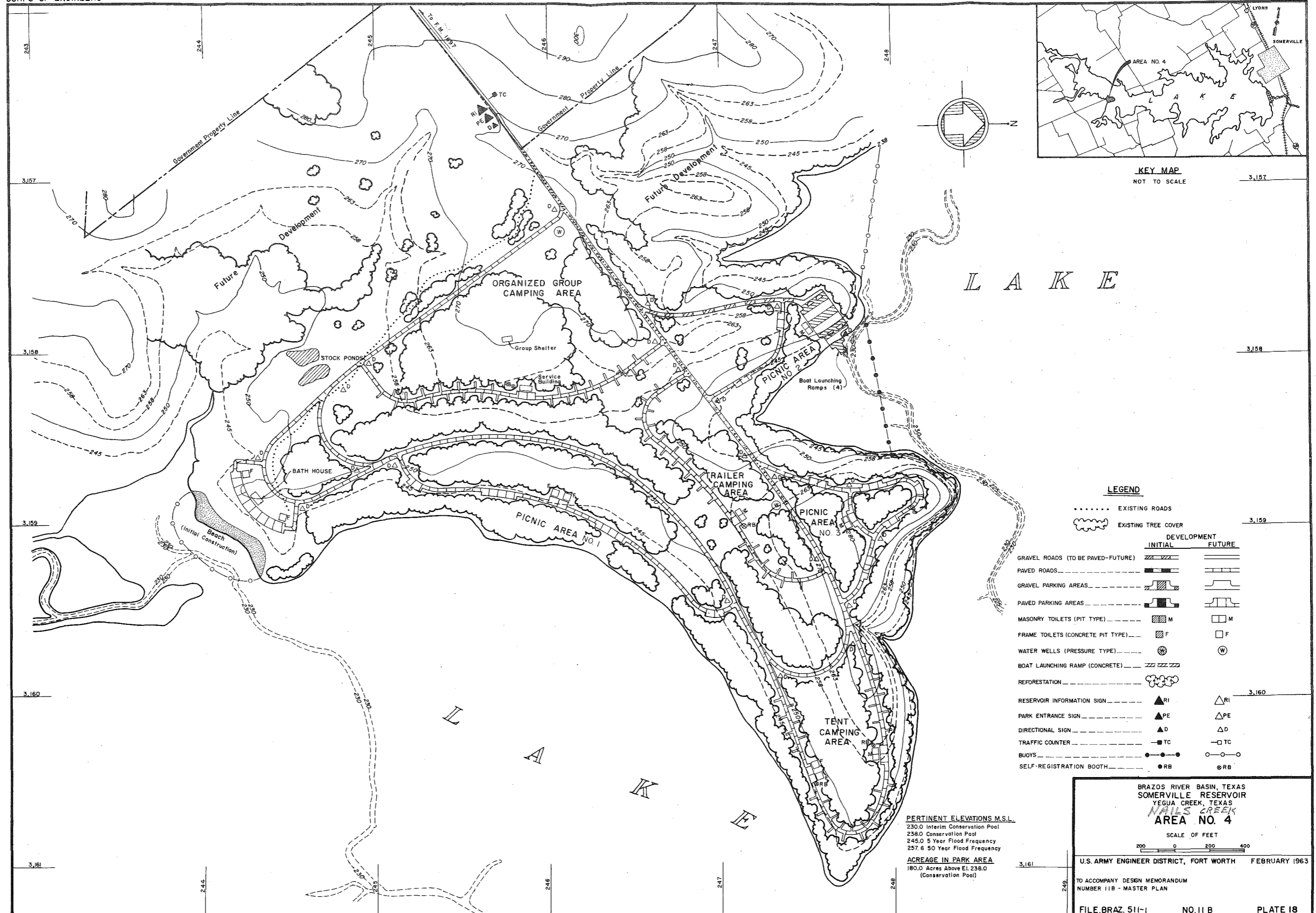
IN 3 SHEETS SHEET NO. 2

SCALE OF FEET  
 0 200 400

U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY, 1963

TO ACCOMPANY DESIGN MEMORANDUM  
 NUMBER 11B - MASTER PLAN

FILE. BRAZ. 511-1 NO. 11B PLATE 17



**KEY MAP**  
NOT TO SCALE

**LEGEND**

- ..... EXISTING ROADS
  - Existing Tree Cover
- |                                   | DEVELOPMENT |             |
|-----------------------------------|-------------|-------------|
|                                   | INITIAL     | FUTURE      |
| GRAVEL ROADS (TO BE PAVED-FUTURE) | [Symbol]    | [Symbol]    |
| PAVED ROADS                       | [Symbol]    | [Symbol]    |
| GRAVEL PARKING AREAS              | [Symbol]    | [Symbol]    |
| PAVED PARKING AREAS               | [Symbol]    | [Symbol]    |
| MASONRY TOILETS (PIT TYPE)        | [Symbol] M  | [Symbol] M  |
| FRAME TOILETS (CONCRETE PIT TYPE) | [Symbol] F  | [Symbol] F  |
| WATER WELLS (PRESSURE TYPE)       | [Symbol]    | [Symbol]    |
| BOAT LAUNCHING RAMP (CONCRETE)    | [Symbol]    | [Symbol]    |
| REFORESTATION                     | [Symbol]    | [Symbol]    |
| RESERVOIR INFORMATION SIGN        | [Symbol] RI | [Symbol] RI |
| PARK ENTRANCE SIGN                | [Symbol] PE | [Symbol] PE |
| DIRECTIONAL SIGN                  | [Symbol] D  | [Symbol] D  |
| TRAFFIC COUNTER                   | [Symbol] TC | [Symbol] TC |
| BUOYS                             | [Symbol]    | [Symbol]    |
| SELF-REGISTRATION BOOTH           | [Symbol] RB | [Symbol] RB |

**PERTINENT ELEVATIONS M.S.L.**  
 230.0 Interim Conservation Pool  
 238.0 Conservation Pool  
 245.0 5 Year Flood Frequency  
 257.6 50 Year Flood Frequency

**ACREAGE IN PARK AREA**  
 180.0 Acres Above El. 238.0  
 (Conservation Pool)

BRAZOS RIVER BASIN, TEXAS  
 SOMERVILLE RESERVOIR  
 YEGUA CREEK, TEXAS  
 NAILS CREEK  
**AREA NO. 4**

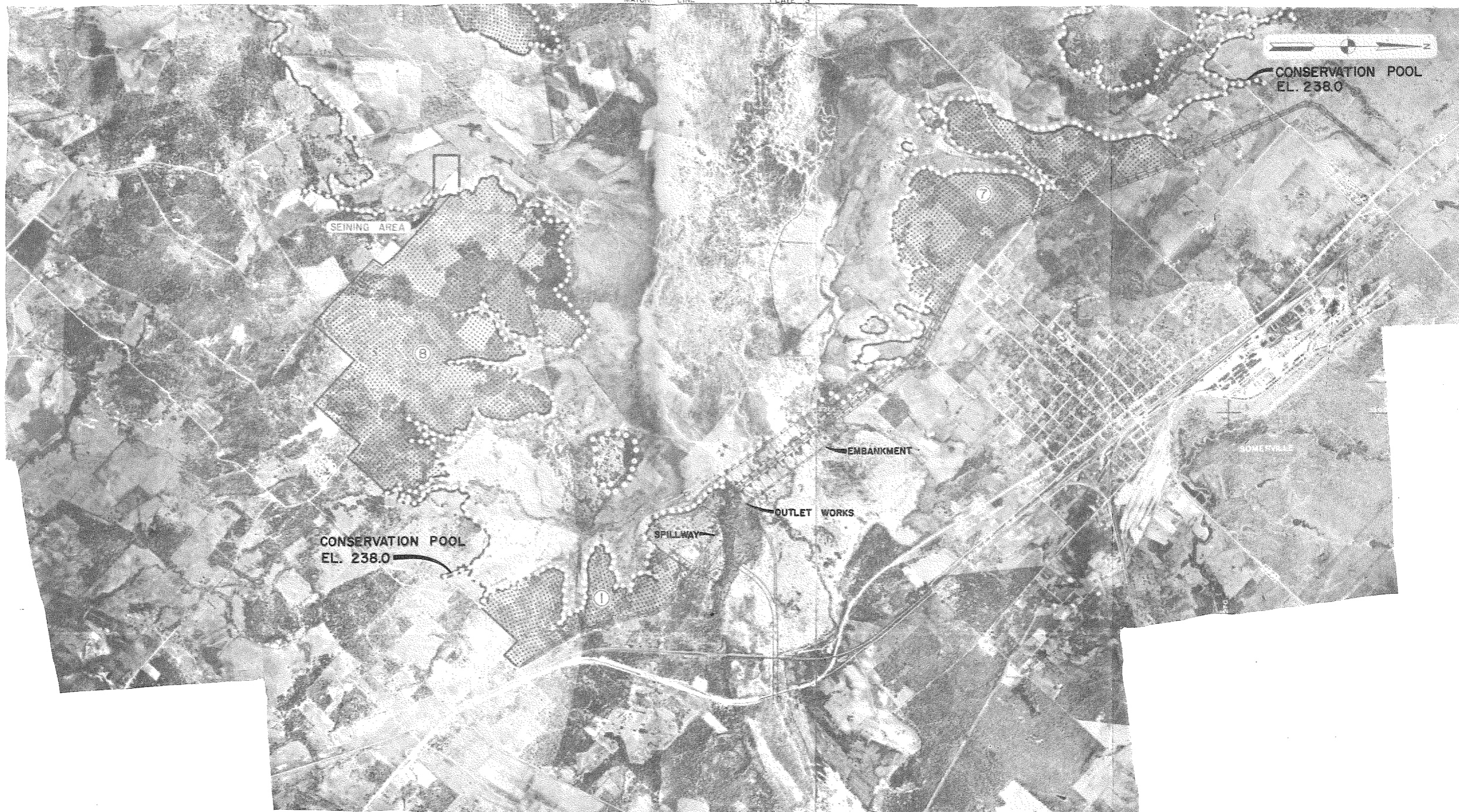
SCALE OF FEET  
 0 200 400

U.S. ARMY ENGINEER DISTRICT, FORT WORTH    FEBRUARY 1963

TO ACCOMPANY DESIGN MEMORANDUM  
 NUMBER 11B - MASTER PLAN

FILE BRAZ. 511-1    NO. 11 B    PLATE 18

MATCH LINE PLATE 3



LEGEND



APPROVED RECREATION AREA AND NUMBER

WHITE DOTS INDICATE LIMITS OF CLEARING

BRAZOS RIVER BASIN, TEXAS  
 SOMERVILLE RESERVOIR  
 YEGUA CREEK, TEXAS

**RESERVOIR CLEARING**

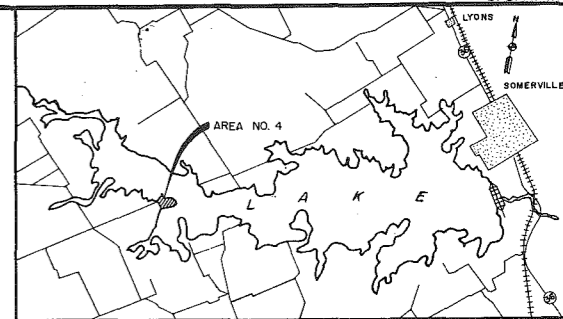
SCALE OF FEET  
 1000 0 1000 2000

U.S. ARMY ENGINEER DISTRICT, FORT WORTH AUGUST 1962

TO ACCOMPANY DESIGN MEMORANDUM  
 NUMBER 15 - RESERVOIR CLEARING

FILE. BRAZ. 511-1 NO. 15 PLATE 2

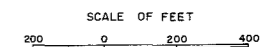




KEY MAP



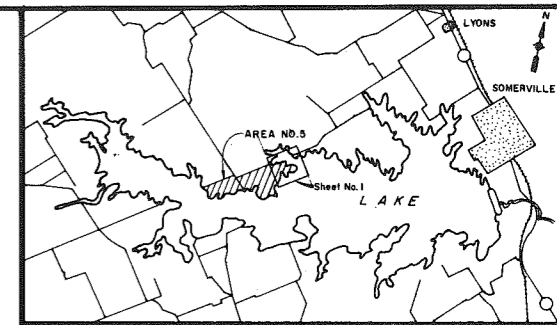
BRAZOS RIVER BASIN, TEXAS  
 SOMERVILLE RESERVOIR  
 YEGUA CREEK, TEXAS  
*NAILS CREEK*  
**AREA NO. 4**



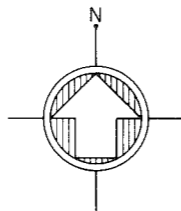
U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY 1963

TO ACCOMPANY DESIGN MEMORANDUM  
NUMBER 11B - MASTER PLAN

FILE BRAZ 511-1 NO. 11 B PLATE 19



KEY MAP NOT TO SCALE



LAKE

LEGEND

.....	EXISTING ROADS		
~~~~~	EXISTING TREE COVER		
		DEVELOPMENT	
		INITIAL	FUTURE
	GRAVEL ROADS (TO BE PAVED-FUTURE)		
----	PAVED ROADS	----	----
	GRAVEL PARKING AREAS		
----	PAVED PARKING AREAS	----	----
	MASONRY TOILETS (PIT TYPE)		
	FRAME TOILETS (CONCRETE PIT TYPE)		
⊙	WATER WELLS (PRESSURE TYPE)	⊙	⊙
	BOAT LAUNCHING RAMP (CONCRETE)		
~~~~~	REFORESTATION	~~~~~	~~~~~
▲RI	RESERVOIR INFORMATION SIGN	▲RI	▲RI
▲PE	PARK ENTRANCE SIGN	▲PE	▲PE
▲D	DIRECTIONAL SIGN	▲D	▲D
—TC	TRAFFIC COUNTER	—TC	—TC
●—●	BUOYS	●—●	●—●
●RB	SELF-REGISTRATION BOOTH	●RB	●RB

**PERTINENT ELEVATIONS M.S.L.**  
 230.0 - Interim Conservation Pool  
 238.0 - Conservation Pool  
 245.0 - 5-Yr. Flood Frequency  
 257.6 - 50-Yr. Flood Frequency

**ACREAGE IN PARK AREA**  
 640 Acres above El. 238.0  
 (conservation pool)

BRAZOS RIVER BASIN, TEXAS  
 SOMERVILLE RESERVOIR  
 YEGUA CREEK, TEXAS  
 BIRCH CREEK  
**AREA NO. 5**

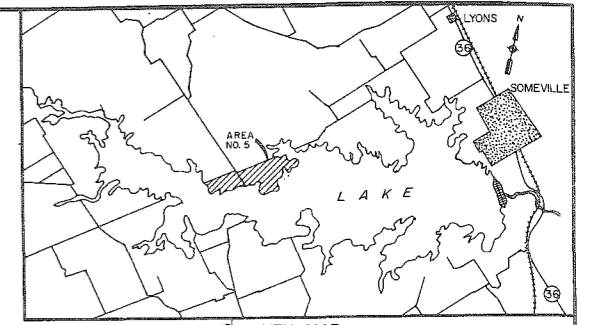
IN 3 SHEETS      SCALE OF FEET      SHEET NO. 1  
 0      200      400

U.S. ARMY ENGINEER DISTRICT, FORT WORTH      FEBRUARY 1963

TO ACCOMPANY DESIGN MEMORANDUM  
 NUMBER 11B-MASTER PLAN

FILE. BRAZ. 511-1      NO. 11B      PLATE 20  
 C.E.J.

MATCH LINE SHEET NO. 2 (left and bottom edges)  
 258, 257, 256, 255 (vertical grid lines)  
 3,171, 3,172, 3,173, 3,174, 3,175 (horizontal grid lines)



KEY MAP



PERTINENT ELEVATIONS, M. S. L.  
 236.0' Conservation pool  
 245.0' 10-year flood frequency  
 265.0' 10-year guide channel  
 10cm of photogram March 1963



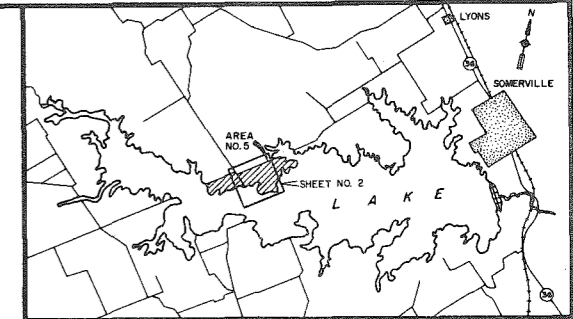
BRAZOS RIVER BASIN, TEXAS  
 SOMERVILLE RESERVOIR  
 YEGUA CREEK, TEXAS  
*BIRCH CREEK*  
 AREA NO. 5

IN 3 SHEETS      SCALE OF FEET      SHEET NO. 1  
 200      0      200      400

U.S. ARMY ENGINEER DISTRICT, FORT WORTH      FEBRUARY, 1963

TO ACCOMPANY DESIGN MEMORANDUM  
 NUMBER 11B - MASTER PLAN

FILE. BRAZ. 511-1      NO. 11B      PLATE 21



LEGEND

	DEVELOPMENT	
	INITIAL	FUTURE
EXISTING ROAD	(Dashed line)	(Solid line)
EXISTING TREE COVER	(Cloud-like pattern)	(Cloud-like pattern)
GRAVEL ROADS (To be paved - Future)	(Dashed line with diagonal hatching)	(Solid line with diagonal hatching)
PAVED ROADS	(Solid line with double hatching)	(Solid line with double hatching)
GRAVEL PARKING AREAS	(Dashed line with diagonal hatching)	(Solid line with diagonal hatching)
PAVED PARKING AREAS	(Solid line with diagonal hatching)	(Solid line with diagonal hatching)
MASONRY TOILETS (PIT TYPE)	(Square with 'M')	(Square with 'M')
FRAME TOILETS (CONCRETE PIT TYPE)	(Square with 'F')	(Square with 'F')
WATER WELLS (PRESSURE TYPE)	(Circle with 'W')	(Circle with 'W')
BOAT LAUNCHING RAMP (CONCRETE)	(Dashed line with diagonal hatching)	(Dashed line with diagonal hatching)
REFORESTATION	(Cloud-like pattern)	(Cloud-like pattern)
RESERVOIR INFORMATION SIGN	(Triangle with 'RI')	(Triangle with 'RI')
PARK ENTRANCE SIGN	(Triangle with 'PE')	(Triangle with 'PE')
DIRECTIONAL SIGN	(Triangle with 'D')	(Triangle with 'D')
TRAFFIC COUNTER	(Square with 'TC')	(Square with 'TC')
BUOYS	(Circle with 'B')	(Circle with 'B')
SELF REGISTRATION BOOTH	(Circle with 'RB')	(Circle with 'RB')

BRAZOS RIVER BASIN, TEXAS  
 SOMERVILLE RESERVOIR  
 YEGUA CREEK, TEXAS  
 BIRCH CREEK  
**AREA NO. 5**

IN 3 SHEETS      SCALE OF FEET      SHEET NO. 2  
 0      200      400

U.S. ARMY ENGINEER DISTRICT, FORT WORTH      FEBRUARY 1963

TO ACCOMPANY DESIGN MEMORANDUM  
 NUMBER 11B - MASTER PLAN

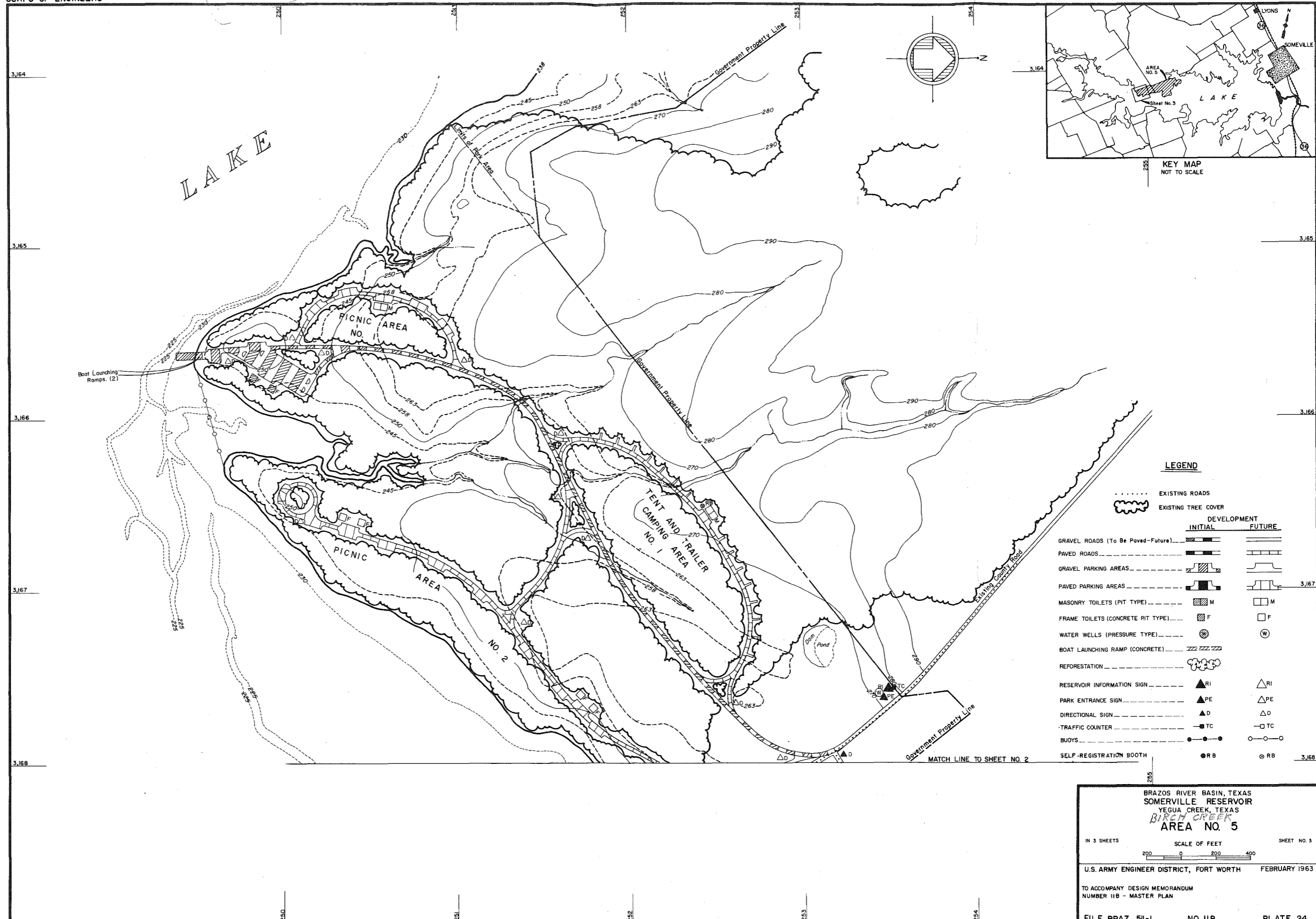
FILE. BRAZ. 511-1      NO. 11B      PLATE 22



KEY MAP



BRAZOS RIVER BASIN, TEXAS  
 SOMERVILLE RESERVOIR  
 YEGUA CREEK, TEXAS  
 NICCAIN CREEK  
 AREA NO. 3  
 SCALE OF FEET  
 0 200 400  
 U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY, 1963  
 TO ACCOMPANY DESIGN MEMORANDUM  
 NUMBER 11B - MASTER PLAN  
 FILE. BRAZ 511-1 NO. 11B PLATE 23



**LEGEND**

.....	EXISTING ROADS		
~~~~~	EXISTING TREE COVER		
		DEVELOPMENT	
		INITIAL	FUTURE
-----	GRAVEL ROADS (To Be Paved-Future)	-----	-----
-----	PAVED ROADS	-----	-----
-----	GRAVEL PARKING AREAS	-----	-----
-----	PAVED PARKING AREAS	-----	-----
-----	MASONRY TOILETS (PIT TYPE)	----- M	----- M
-----	FRAME TOILETS (CONCRETE PIT TYPE)	----- F	----- F
-----	WATER WELLS (PRESSURE TYPE)	----- W	----- W
-----	BOAT LAUNCHING RAMP (CONCRETE)	-----	-----
-----	REFORESTATION	-----	-----
-----	RESERVOIR INFORMATION SIGN	----- RI	----- RI
-----	PARK ENTRANCE SIGN	----- PE	----- PE
-----	DIRECTIONAL SIGN	----- D	----- D
-----	TRAFFIC COUNTER	----- TC	----- TC
-----	BUOYS	-----	-----
-----	SELF-REGISTRATION BOOTH	----- RB	----- RB

BRAZOS RIVER BASIN, TEXAS
SOMERVILLE RESERVOIR
YEGUA CREEK, TEXAS
BIRCH CREEK
AREA NO. 5

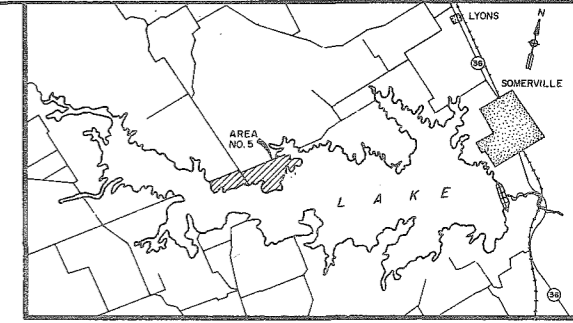
IN 3 SHEETS SHEET NO. 3

SCALE OF FEET
200 0 400

U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY 1963

TO ACCOMPANY DESIGN MEMORANDUM
NUMBER 11B - MASTER PLAN

FILE BRAZ. 511-1 NO. 11B PLATE 24



KEY MAP

3168

MATCH LINE SHEET NO. 2



BRAZOS RIVER BASIN, TEXAS
 SOMERVILLE RESERVOIR
 YEGUA CREEK, TEXAS
 BIRCH CREEK
 AREA NO. 5

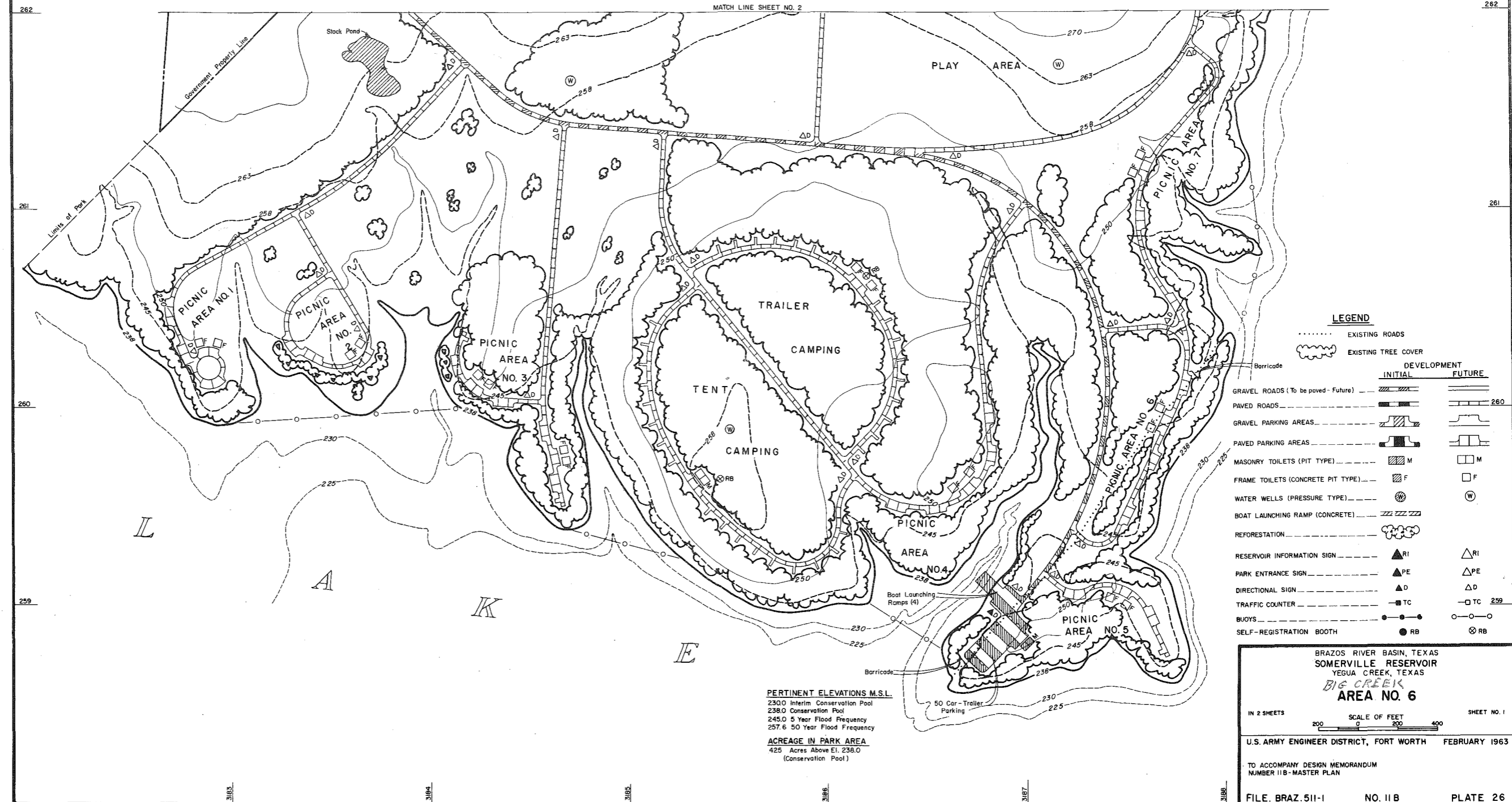
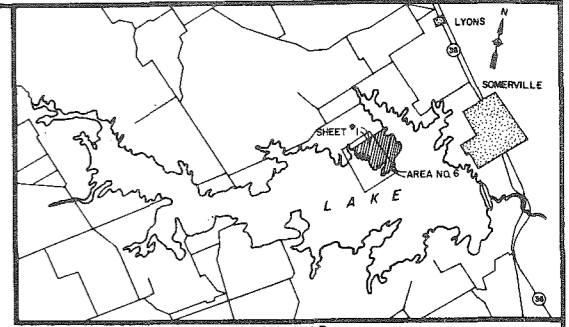
IN 3 SHEETS SHEET NO. 3

SCALE OF FEET
 200 0 200 400

U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY, 1963

TO ACCOMPANY DESIGN MEMORANDUM
 NUMBER 11B - MASTER PLAN

FILE BRAZ. 511-1 NO. 11B PLATE 25



PERTINENT ELEVATIONS M.S.L.
 230.0 Interim Conservation Pool
 238.0 Conservation Pool
 245.0 5 Year Flood Frequency
 257.6 50 Year Flood Frequency

ACREAGE IN PARK AREA
 425 Acres Above El. 238.0
 (Conservation Pool)

LEGEND

.....	EXISTING ROADS		
~~~~~	EXISTING TREE COVER		
		<b>DEVELOPMENT</b>	
		<b>INITIAL</b>	<b>FUTURE</b>
---	GRAVEL ROADS (To be paved - Future)	---	---
---	PAVED ROADS	---	---
---	GRAVEL PARKING AREAS	---	---
---	PAVED PARKING AREAS	---	---
---	MASONRY TOILETS (PIT TYPE)	M	M
---	FRAME TOILETS (CONCRETE PIT TYPE)	F	F
---	WATER WELLS (PRESSURE TYPE)	W	W
---	BOAT LAUNCHING RAMP (CONCRETE)	---	---
---	REFORESTATION	---	---
---	RESERVOIR INFORMATION SIGN	RI	RI
---	PARK ENTRANCE SIGN	PE	PE
---	DIRECTIONAL SIGN	D	D
---	TRAFFIC COUNTER	TC	TC
---	BUOYS	---	---
---	SELF-REGISTRATION BOOTH	RB	RB

BRAZOS RIVER BASIN, TEXAS  
 SOMERVILLE RESERVOIR  
 YEGUA CREEK, TEXAS  
**BIG CREEK**  
**AREA NO. 6**

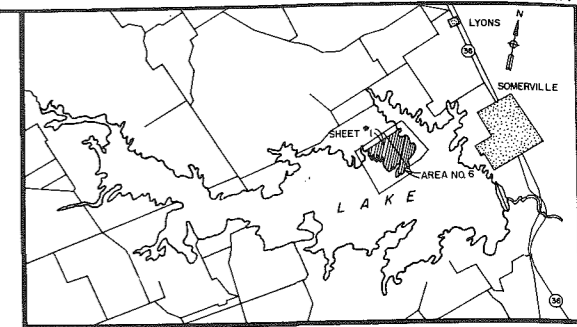
IN 2 SHEETS      SCALE OF FEET      SHEET NO. 1  
 200      0      200      400

U.S. ARMY ENGINEER DISTRICT, FORT WORTH      FEBRUARY 1963

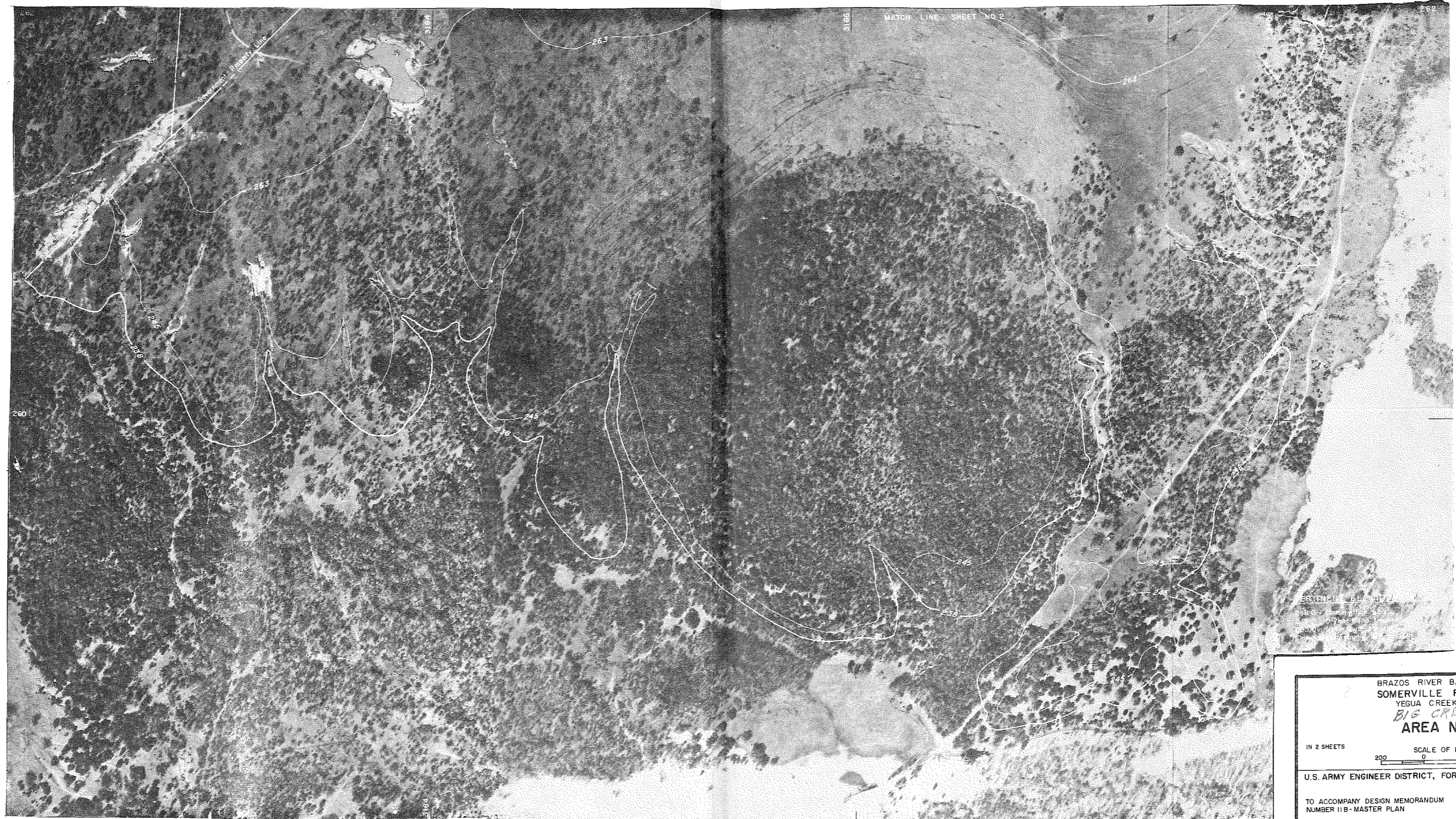
TO ACCOMPANY DESIGN MEMORANDUM  
 NUMBER 11B - MASTER PLAN

FILE. BRAZ. 511-1      NO. 11B      PLATE 26  
 R.M.Z.





KEY MAP



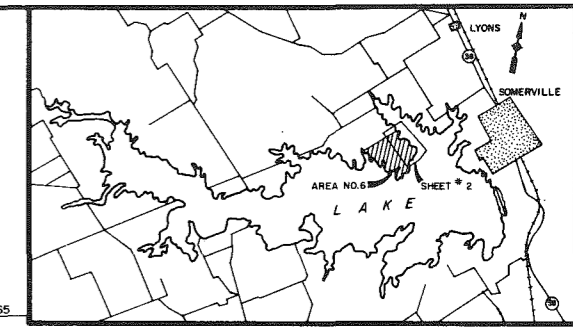
BRAZOS RIVER BASIN, TEXAS  
 SOMERVILLE RESERVOIR  
 YEGUA CREEK, TEXAS  
**BIG CREEK**  
**AREA NO. 6**

IN 2 SHEETS      SCALE OF FEET      SHEET NO. 1  
 200      0      200      400

U.S. ARMY ENGINEER DISTRICT, FORT WORTH      FEBRUARY 1963

TO ACCOMPANY DESIGN MEMORANDUM  
 NUMBER 11B-MASTER PLAN

FILE. BRAZ. 511-1      NO. 11B      PLATE 27



KEY MAP  
NOT TO SCALE

LEGEND

	DEVELOPMENT	
	INITIAL	FUTURE
EXISTING ROAD	[Symbol: Dashed line]	
EXISTING TREE COVER	[Symbol: Cloud-like outline]	
GRAVEL ROADS (To be paved - Future)	[Symbol: Dashed line with diagonal hatching]	[Symbol: Solid line with diagonal hatching]
PAVED ROADS	[Symbol: Solid line]	[Symbol: Solid line]
GRAVEL PARKING AREAS	[Symbol: Dashed line with diagonal hatching]	[Symbol: Solid line with diagonal hatching]
PAVED PARKING AREAS	[Symbol: Solid line with diagonal hatching]	[Symbol: Solid line with diagonal hatching]
MASONRY TOILETS (PIT TYPE)	[Symbol: Square with 'M']	[Symbol: Square with 'M']
FRAME TOILETS (CONCRETE PIT TYPE)	[Symbol: Square with 'F']	[Symbol: Square with 'F']
WATER WELLS (PRESSURE TYPE)	[Symbol: Circle with 'W']	[Symbol: Circle with 'W']
BOAT LAUNCHING RAMP (CONCRETE)	[Symbol: Zigzag line]	[Symbol: Zigzag line]
REFORESTATION	[Symbol: Cloud-like outline]	
RESERVOIR INFORMATION SIGN	[Symbol: Triangle with 'RI']	[Symbol: Triangle with 'RI']
PARK ENTRANCE SIGN	[Symbol: Triangle with 'PE']	[Symbol: Triangle with 'PE']
DIRECTIONAL SIGN	[Symbol: Triangle with 'D']	[Symbol: Triangle with 'D']
TRAFFIC COUNTER	[Symbol: Square with 'TC']	[Symbol: Square with 'TC']
BUOYS	[Symbol: Circle with 'RB']	[Symbol: Circle with 'RB']
SELF REGISTRATION BOOTH	[Symbol: Circle with 'RB']	[Symbol: Circle with 'RB']

See Plate # 9  
Proposed  
Access  
Road

MATCH LINE SHEET NO. 1

BRAZOS RIVER BASIN, TEXAS  
SOMERVILLE RESERVOIR  
YEGUA CREEK, TEXAS  
*BIG CANYON*  
**AREA NO. 6**

IN 2 SHEETS      SCALE OF FEET      SHEET NO. 2  
200      0      200      400

U.S. ARMY ENGINEER DISTRICT, FORT WORTH      FEBRUARY 1963

TO ACCOMPANY DESIGN MEMORANDUM  
NUMBER 11B - MASTER PLAN

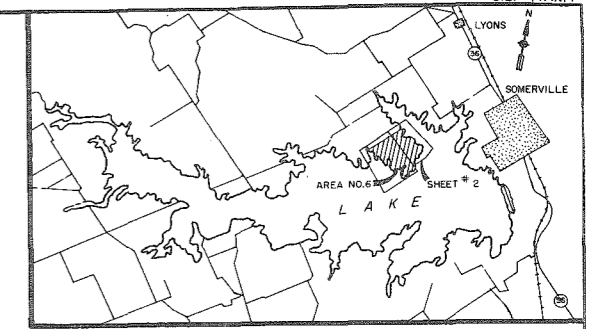
FILE. BRAZ. 511-1      NO. 11B      PLATE 28  
J.A.B.



PERTINENT ELEVATIONS M.S.L.  
 265.0 - Conservation pool  
 260.0 - 5-year flood frequency  
 255.0 - Upper guide contour  
 Date of photography - March 1961

MATCH LINE SHEET NO. 2

262



KEY MAP



BRAZOS RIVER BASIN, TEXAS  
 SOMERVILLE RESERVOIR  
 YEGUA CREEK, TEXAS  
*BIG CREEK*  
**AREA NO. 6**

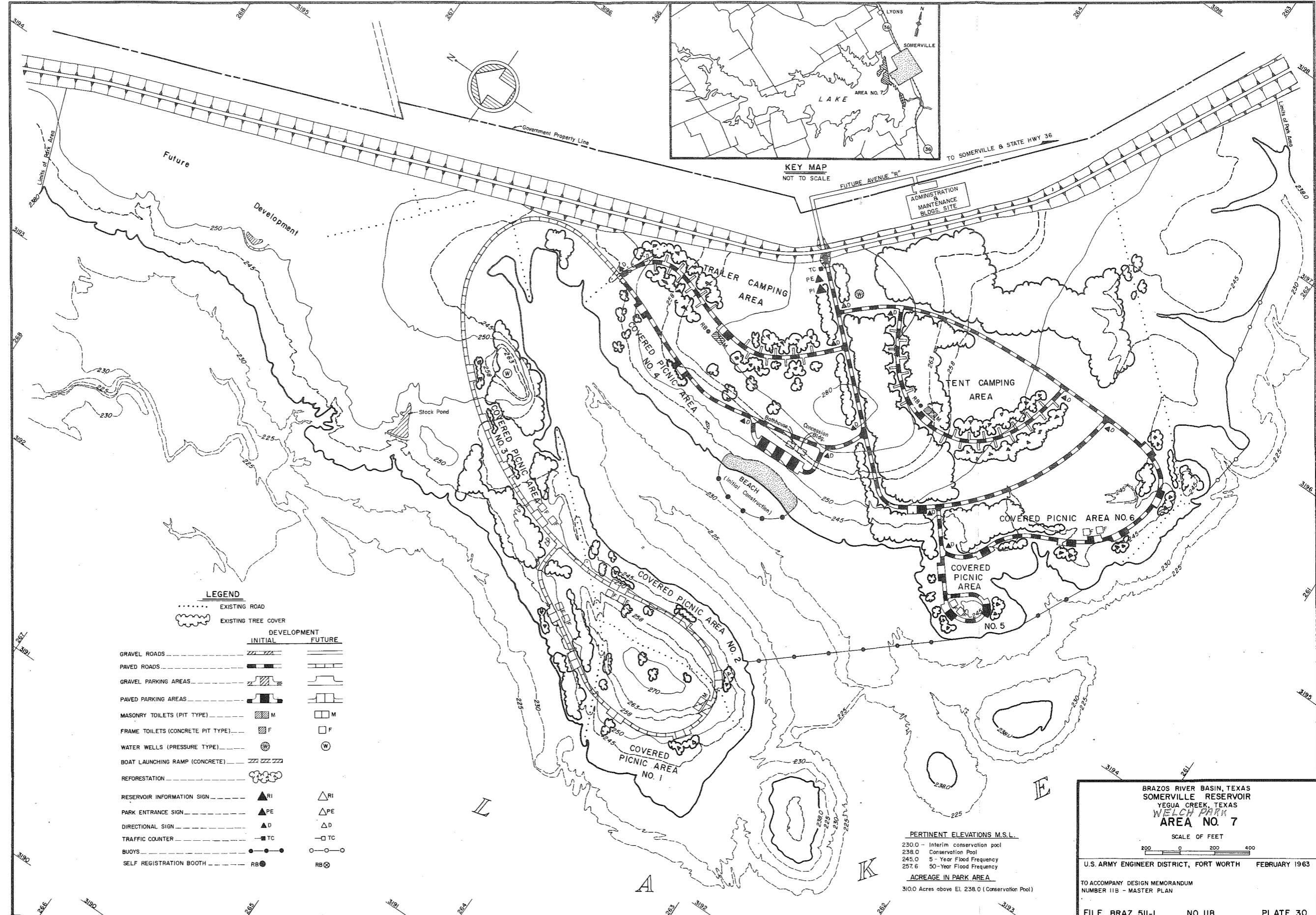
IN 2 SHEETS SHEET NO. 2

SCALE OF FEET  
 0 200 400

U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY 1963

TO ACCOMPANY DESIGN MEMORANDUM  
 NUMBER 11B - MASTER PLAN

FILE. BRAZ. 5111 NO. 11B PLATE 29



**LEGEND**

.....	EXISTING ROAD		
~~~~~	EXISTING TREE COVER		
		DEVELOPMENT	
		INITIAL	FUTURE
---	GRAVEL ROADS	---	---
---	PAVED ROADS	---	---
---	GRAVEL PARKING AREAS	---	---
---	PAVED PARKING AREAS	---	---
---	MASONRY TOILETS (PIT TYPE)	▨ M	□ M
---	FRAME TOILETS (CONCRETE PIT TYPE)	▨ F	□ F
---	WATER WELLS (PRESSURE TYPE)	⊙	⊙
---	BOAT LAUNCHING RAMP (CONCRETE)	▨	▨
---	REFORESTATION	⊙	⊙
---	RESERVOIR INFORMATION SIGN	▲ RI	△ RI
---	PARK ENTRANCE SIGN	▲ PE	△ PE
---	DIRECTIONAL SIGN	▲ D	△ D
---	TRAFFIC COUNTER	▬ TC	▬ TC
---	BUOYS	○	○
---	SELF REGISTRATION BOOTH	⊙ RB	⊙ RB

PERTINENT ELEVATIONS M.S.L.
 230.0 - Interim conservation pool
 238.0 - Conservation Pool
 245.0 - 5-Year Flood Frequency
 257.6 - 50-Year Flood Frequency

ACREAGE IN PARK AREA
 310.0 Acres above El. 238.0 (Conservation Pool)

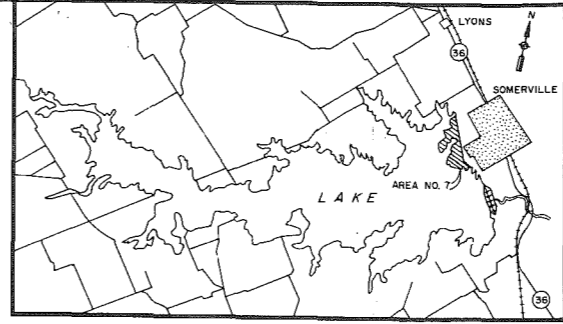
BRAZOS RIVER BASIN, TEXAS
 SOMERVILLE RESERVOIR
 YEGUA CREEK, TEXAS
WELCH PARK AREA NO. 7

SCALE OF FEET
 0 200 400

U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY 1963

TO ACCOMPANY DESIGN MEMORANDUM
 NUMBER 11B - MASTER PLAN

FILE. BRAZ. 511-1 NO. 11B PLATE 30
 B.W.H.



KEY MAP

CONTINENT ELEVATIONS M.S.L.
 245 - construction level
 244 - 2-foot flood elevation
 243 - water table surface
 (Data by photogrammetry - 1962)

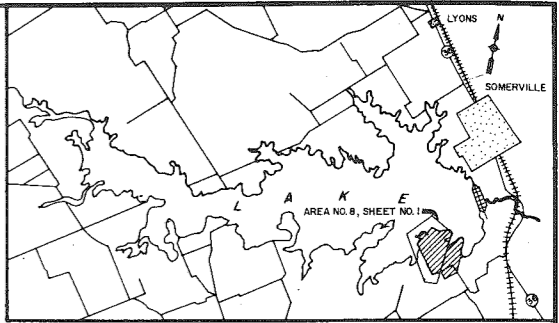
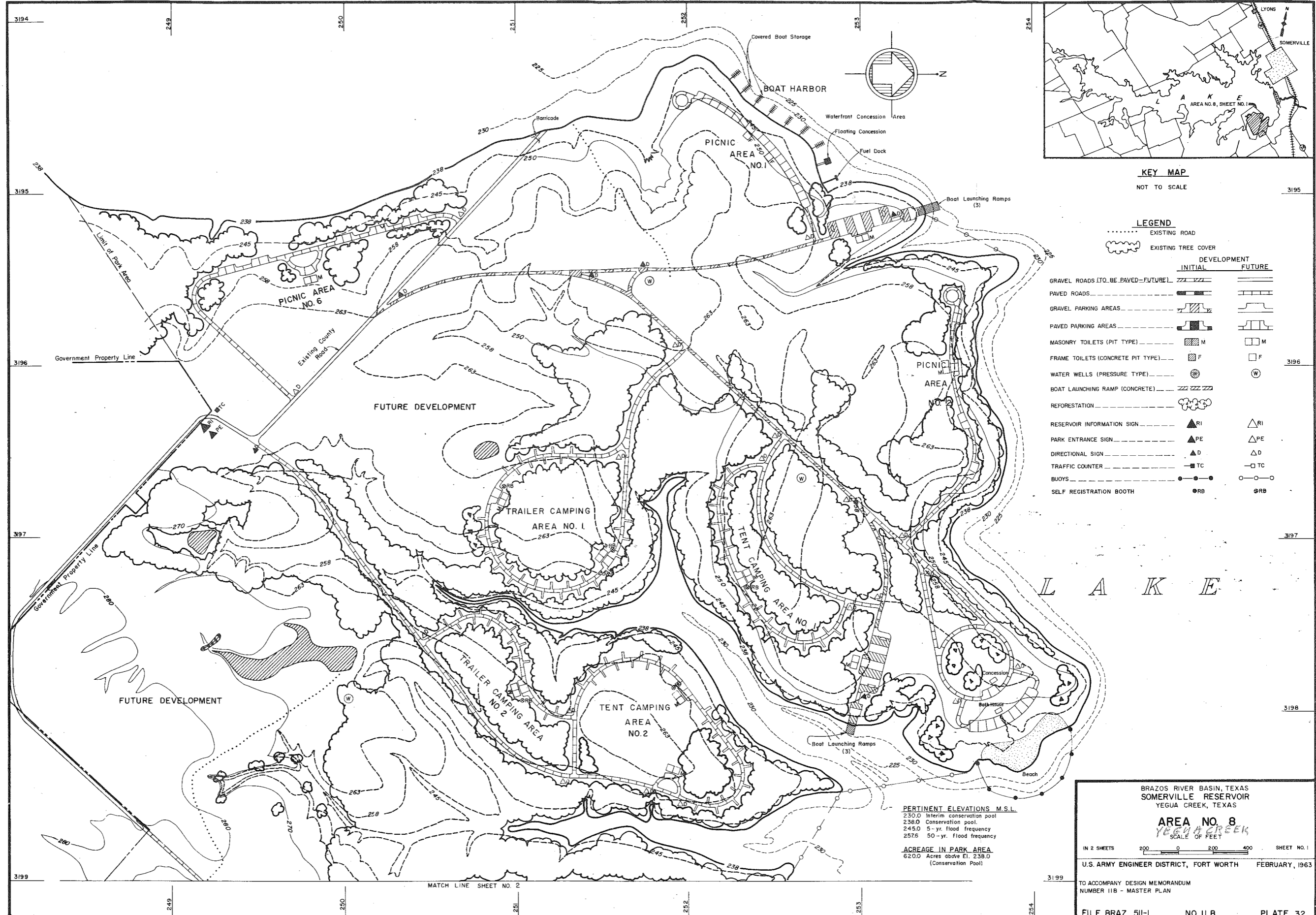
BRAZOS RIVER BASIN, TEXAS
 SOMERVILLE RESERVOIR
 YEGUA CREEK, TEXAS
WELCH PARK
 AREA NO. 7

SCALE OF FEET
 0 200 400

U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY 1963

TO ACCOMPANY DESIGN MEMORANDUM
 NUMBER 118 - MASTER PLAN

FILE. BRAZ. 511-1 NO. 118 PLATE 31



KEY MAP
NOT TO SCALE

LEGEND

EXISTING	DEVELOPMENT	
	INITIAL	FUTURE
EXISTING ROAD	GRAVEL ROADS (TO BE PAVED-FUTURE)	PAVED ROADS
EXISTING TREE COVER	GRAVEL PARKING AREAS	PAVED PARKING AREAS
	MASONRY TOILETS (PIT TYPE)	MASONRY TOILETS (CONCRETE PIT TYPE)
	FRAME TOILETS (CONCRETE PIT TYPE)	WATER WELLS (PRESSURE TYPE)
	BOAT LAUNCHING RAMP (CONCRETE)	REFORESTATION
	RESERVOIR INFORMATION SIGN	PARK ENTRANCE SIGN
	DIRECTIONAL SIGN	TRAFFIC COUNTER
	BUOYS	SELF REGISTRATION BOOTH

PERTINENT ELEVATIONS M.S.L.
 230.0 Interim conservation pool
 238.0 Conservation pool
 245.0 5-yr. flood frequency
 257.6 50-yr. flood frequency

ACREAGE IN PARK AREA
 620.0 Acres above El. 238.0
 (Conservation Pool)

BRAZOS RIVER BASIN, TEXAS
 SOMERVILLE RESERVOIR
 YEGUA CREEK, TEXAS

AREA NO. 8
 YEGUA CREEK
 SCALE OF FEET

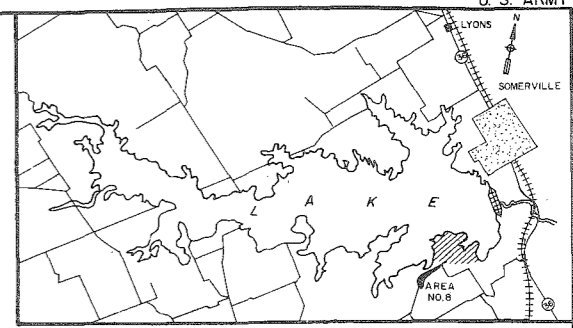
IN 2 SHEETS 200 0 200 400 SHEET NO. 1

U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY, 1963

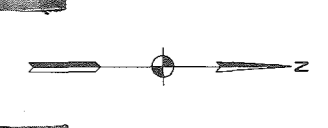
TO ACCOMPANY DESIGN MEMORANDUM
 NUMBER 11B - MASTER PLAN

FILE BRAZ. SII-1 NO. 11 B PLATE 32
 R.Z.

MATCH LINE SHEET NO. 2



KEY MAP



BRAZOS RIVER BASIN, TEXAS
 SOMERVILLE RESERVOIR
 YEGUA CREEK, TEXAS
YEGUA CREEK
AREA NO. 8

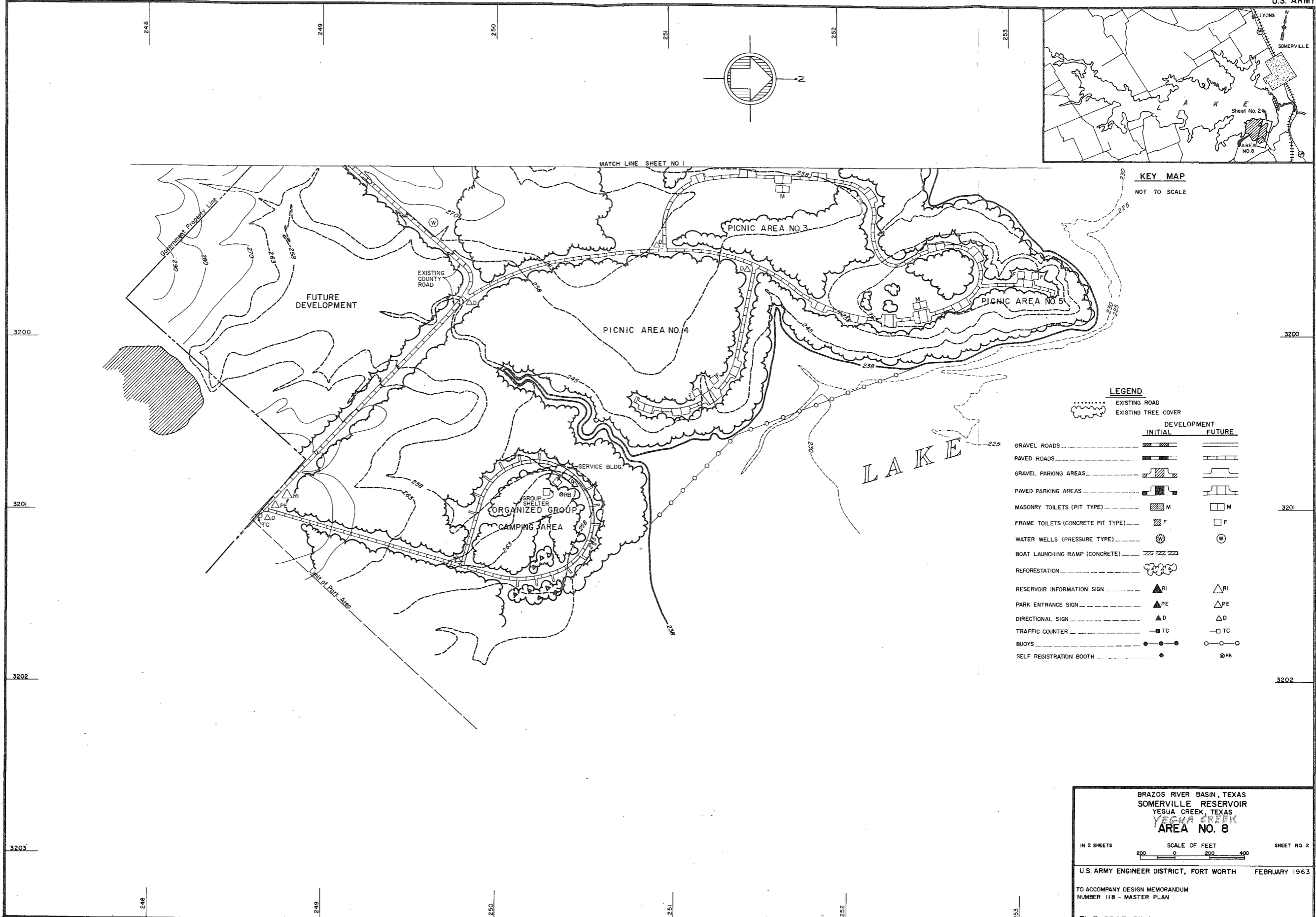
SCALE OF FEET
 IN 2 SHEETS 200 0 200 400 SHEET NO. 1

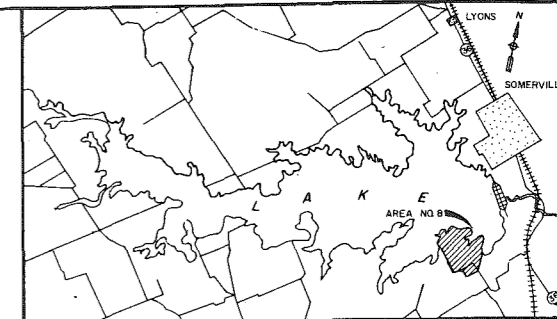
U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY, 1963

TO ACCOMPANY DESIGN MEMORANDUM
 NUMBER 11B - MASTER PLAN

FILE, BRAZ. 511-1 NO. 11 B PLATE 33

MATCH LINE SHEET NO. 1





KEY MAP



BRAZOS RIVER BASIN, TEXAS
 SOMERVILLE RESERVOIR
 YEGUA CREEK, TEXAS
 YEGUA CREEK
AREA NO. 8

IN 2 SHEETS SCALE OF FEET SHEET NO. 2
 200 0 200 400

U.S. ARMY ENGINEER DISTRICT, FORT WORTH FEBRUARY, 1963

TO ACCOMPANY DESIGN MEMORANDUM
 NUMBER IIB - MASTER PLAN

FILE. BRAZ. 511-1 NO. IIB PLATE 35

BRAZOS RIVER BASIN, TEXAS

DESIGN MEMORANDUM NO. 11B
FOR SOMERVILLE RESERVOIR
YEGUA CREEK, TEXAS

APPENDIX I

REPORT PREPARED BY
U. S. DEPARTMENT OF THE INTERIOR
REGION THREE OFFICE
NATIONAL PARK SERVICE

COMMENTS ON
PRELIMINARY RECREATION PLAN
SOMERVILLE RESERVOIR
BRAZOS RIVER BASIN
TEXAS

Prepared by
Region Three Office, National Park Service
Department of the Interior

for
Fort Worth District
U.S. Corps of Engineers
Department of the Army

January 1962



UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

Region Three
Santa Fe, New Mexico

IN REPLY REFER TO:

L7423

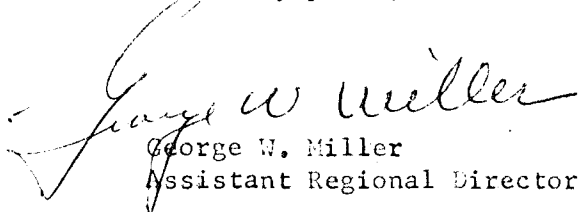
JAN 10 1962

District Engineer
U.S. Army Engineer District, Fort Worth
P.O. Box 1600
Fort Worth, Texas

Dear Sir:

Enclosed are three copies of our comments on your preliminary recreation plan for Somerville Reservoir, Brazos River Basin, Texas. These comments were prepared in accordance with your letter request of February 17, 1960.

Sincerely yours,


George W. Miller
Assistant Regional Director

In Duplicate

Enclosures 3

Copy to: Director, National Park Service
U.S. Fish and Wildlife Service, Albuquerque

INTRODUCTION

These comments have been prepared pursuant to the Corps of Engineers, Fort Worth District Office, letter request of February 17, 1960. Authority for this cooperative assistance is found in the Park, Parkway, and Recreational Area Study Act of June 1936.

A field study of the Somerville Reservoir site was made on March 2, 1960 by Corps of Engineers, Fort Worth District Office, representatives F.K. Mixon and F.E. Clary, and Park Landscape Architect Urban E. Rogers of the Region Three Office, National Park Service.

GENERAL OBSERVATIONS

Somerville Dam and Reservoir is an authorized Corps of Engineers multiple-purpose project. The dam site is located on Yegua Creek in Burleson and Washington Counties about two miles south of Somerville, Texas. A portion of the reservoir will extend into Lee County.

State Highway 36 which passes through Somerville links with nearby Federal highways to provide excellent access to the project area. Numerous unmarked roads through the reservoir basin make the future shoreline readily accessible.

The earth fill dam will impound 390,700 acre-feet of water for conservation, flood control and sedimentation reserve. The conservation pool will normally be held at or near elevation 225.0 and will have a surface area of 6,890 acres with a 60 mile shoreline. Approximately 11 miles of Yegua Creek will be inundated. The project is estimated to cost \$15,900,000.

The reservoir basin is characterized by rolling, partly wooded terrain with heavy undergrowth and an occasional high land swamp. The soils are of a sandy type and well adapted to farming. A considerable portion of the cultivated land is used for permanent pasture.

East Central Texas weather is hot and humid in the summer and mild in the winter. Temperatures at the project area average 51 degrees F and 85 degrees F in January and July respectively. Annual rainfall, about 38 inches, occurs heaviest in the spring.

This section of Texas has primarily an agricultural economy with some industry. Many small towns and rural dwellings typify the immediate area. Austin, Houston and Waco are situated from 75 to 100 miles in distance. The combined population of these metropolitan areas was close to one and one-quarter million in 1960. The population within 25 miles

of the project is nearly 40,000. Approximately 176,000 people reside within 50 miles of the Somerville site.

Two State parks and three State historical parks are within one hour's driving time. Close to one-half million people enjoyed the recreation aspects of these five parks in 1959. Two small lakes provide a limited recreation outlet for nearby residents. One proposed Corps of Engineers reservoir, Millican, is located 30 miles northeast.

Present recreation use of the reservoir basin is limited to hunting and fishing.

RECREATION EVALUATION AND RECOMMENDED DEVELOPMENT

The authorized Somerville Reservoir project will create an attractive impoundment. The 6,890 acre reservoir, nestled in the Yegua River valley and surrounded by rolling wooded hills, will be very inviting from the outset. Although the reservoir will be relatively shallow, the rolling terrain will provide choice deep water shoreline areas. Little if any fluctuation is anticipated. Access roads are conveniently located and should encourage visitor use. The proximity of metropolitan areas, particularly Houston, is significant. The climate is favorable to outdoor types of recreation.

Water recreation areas of a comparable size are infrequent in this part of Texas. In view of this and the above evaluation, it is believed Somerville Reservoir will receive heavy visitor use. In anticipation of such use, the Corps of Engineers preliminary recreation plan provides approximately 2,160 acres of land above conservation pool for public recreation use. Nine sites varying in size from 95 to 425 acres are planned. The sites selected will reserve the most desirable shorelands for park purposes. The sites are well related to the present road system, views of the reservoir, rolling terrain, water depth, prevailing winds and the very irregular shoreline with many pronounced points, bays and inlets. Sufficient land is included to protect each site from encroachment of adverse developments and to provide for foreseeable future expansion.

Public use, concession and administration facilities are recommended for the ultimate recreation development of Somerville Reservoir. The extent of development will be determined primarily by the location, acreage and probable use of each site as well as the suitability of terrain.

Public use facilities are considered essential for the visitors safety and enjoyment of the reservoir and should include: access and circulatory roads, parking areas, trails, barriers and signs; fencing; boat launching ramps,

docks and buoys for boating, fishing and water skiing; water and sanitary facilities; swimming beaches with changing booths; picnic areas and campgrounds including tables, fireplaces, trash receptacles and shelters, if immediate shade is not available; an overlook in the vicinity of the dam; site preparation including landscaping as required; and the installation of basic safety features.

Concession facilities are very desirable to complete the recreation developments. These facilities are generally revenue producing and furnished by the administering agency or its authorized concessioner. Such facilities could include: marina and fishing supply center; dining facilities and a snack bar; additional swimming facilities; and overnight accommodations.

Due to the extensive recreation development envisioned, administration facilities should be provided to assure the safe and full public use of all facilities. Utility buildings, service areas, employee housing and additional facilities desirable to realize more fully the recreation potentialities of the reservoir are recommended. Sufficient space should be reserved within the park sites for this purpose.

CONCLUSIONS AND RECOMMENDATIONS

It Is Concluded That:

1. The project will create an attractive impoundment that is suitable for recreation.
2. Due to the proximity of metropolitan areas and the lack of comparable water recreation areas, the reservoir will receive heavy visitor use.
3. The recreation sites selected by the Corps of Engineers will reserve the most desirable shorelands for park purposes.
4. The sites with adequate facilities will accommodate the anticipated visitor use.
5. When the ultimate recreation development is realized, it is conservatively estimated the annual use will equal 500,000 visitor days.

It Is Recommended That:

1. Public use, concession and administration facilities comprise the ultimate recreation development.
2. The Texas State Parks Board and surrounding municipalities be approached concerning the administration of the sites selected for public recreation use.