

EXHIBIT B.

**PERTINENT DATA OF
NEARBY PROJECTS**

EXHIBIT B

HOOVER DAM AND LAKE MEAD COLORADO RIVER PERTINENT DATA

COLORADO RIVER DRAINAGE AREAS

Location	Drainage Areas (sq mi) ¹	
	Total	Incremental
Glen Canyon Dam	107,740	
Lee Ferry ²	108,040	300
Hoover Dam	167,740	59,700
Davis Dam	169,340	1,600
Parker Dam	178,740	9,400
Imperial Dam	184,540	5,800
Southerly		
International Boundary	242,740	58,200

Notes:

1. USGS Water Resources Data less 3,959 square miles in Great Divide Basin.
2. Compact Point

REPRESENTATIVE STREAMFLOWS AND VOLUMES AT HOOVER DAM

Mean Annual Natural Runoff (1906-80)	15,135,000 ac-ft
Maximum Mean Daily Recorded Inflow ¹	220,000 cfs
Standard Project Rain Flood	
Maximum Mean Daily Inflow	112,000 cfs
Total Volume	1,079,000 ac-ft
Probable Maximum Rain Flood	
Maximum Mean Daily Inflow	194,600 cfs
Total Volume	2,760,000 ac-ft
Probable Maximum Snowmelt Flood	
Maximum Month	14,800,000 ac-ft
Total Volume, Jan-Aug	25,900,000 ac-ft

NOTES:

¹Colorado River near Grand Canyon, June 19, 1921.

DESCRIPTIVE DATA

DAM

Type	Concrete Gravity - Arch
Crest Elevation	1232 ft
Parapet Elevation	1236 ft
Structural Height	726.4 ft
Crest Length	1244 ft
Crest Width	45 ft
Freeboard Above Maximum Design Flood Pool	3 ft

SPILLWAY

Description	Two side-channel, gated spillways discharging through 50-ft dia. concrete lined tunnel through abutments, one on each side.
Total Crest Length	800 ft
Gates	
Description	Four floating drum gates on each spillway activated by filling float chambers.
Length, Each	100 ft
Maximum Height	16 ft

POWERPLANT

Operating Head	440 to 590 ft
Number of Units	19
Capacity (1980 Configuration)	1345 MW
Penstocks	Two 30-ft dia. steel conduit through concrete lined tunnels at abutment.

OUTLETS AND POWER PENSTOCKS

Intakes	
Description	Four towers, two near each abutment, one each for river outlets and power penstocks.
Sill Elevations	lower 895 ft upper 1045 ft
Gates	Two 32-ft dia. gates in each tower

RIVER OUTLETS

Conduits	Two 30-ft dia. steel conduits in concrete lined tunnels, one on each side ¹ .
Valves	Four 72-inch dia. needle valves on each conduit, each with an emergency ring-follower type gate immediately upstream.
Centerline Elevation of Valves (Nevada)	653.88 ft
(Arizona)	652.92 ft

CANYON WALL OUTLETS

Conduit	Two 30-ft dia. steel conduits in 37-ft dia. concrete lined tunnels, one through each abutment ¹ .
Valves	Two 84-inch diameter needle valves on each penstock, each w/an emergency ring-follower type gate immediately upstream.
Centerline Elevation of Valves	820.0 ft

NOTES:

¹30-ft dia. conduits used for both power penstocks and river and canyon wall releases.

AREA, STORAGE AND DISCHARGES AT VARIOUS POOL ELEVATIONS

Point	Elevation (ft)	Area (1000 ac)	Storages (1000 ac-ft)			Maximum Power Plant ²	Maximum Discharge (cfs)		
			Total ³ Active	Incremental Active	Below Maximum Design Pool		Canyon Wall Outlets ⁴	River Outlets ⁴	Spillway Gates Up
Top of Dam	1232	—	—	—	—	—	—	—	—
Maximum Design Flood Pool	1229	162.7	27377	340	0	—	16000	28500	65000 ⁵ 335000
Spillway Discharge @ 40,000 cfs Channel Capacity	1226.9	162±	27037	878	340	33500	16000	28400	40000 292000
Top of Raised Spillway Gates	1221.4	157.9	26159	282	1218	34000	16000	28100	0 184000
Minimum Required Flood Control Pool	1219.6	157±	25877	2189	1500	34100	16000	28300	— 154000
Permanent Spillway Crest	1205.4	148±	23708	1681	3669	35200	15900	27900	— 0
Maximum Required Flood Control Pool	1193.8	140±	22027	12003	5350	35700	15800	27500	— —
Minimum Power Pool	1083	83±	10024	10024	17353	38000	14300	24500	— —
Dead Storage	895	29±	2378	—	27377	—	0	0	— —

Notes:

¹Elevations refer to mean sea level datum.

²Exclusive of dead storage except as indicated.

³1980 configuration.

⁴With all turbines operating.

⁵Gates designed to release inflow to 400,000 cfs.

EXHIBIT B

DAVIS DAM AND LAKE MOHAVE
COLORADO RIVER, NEVADA-ARIZONA

PERTINENT DATA

Type of dam Zoned earthfill
Stream system lower Colorado River
Completion date January 1950

Reservoir Lake Mohave
Total capacity to elevation 647 feet (Ac-Ft) 1,818,000
Active capacity, elevation 533.39 feet (Ac-Ft) 1,810,000
Surface area (Acres) 28,200

Dimensions of Dam
Structural height (Feet) 200
Hydraulic height (Feet) 140
Top width (Feet) 50
Maximum base width (Feet) 1,400
Crest length (Feet) 1,600
Crest elevation (Feet) 655
Total volume of dam (Cu-Yd) 3,642,000

Spillway
Type: Concrete ogee weir, controlled by three 50- by 50-foot fixed
wheel gates.
Elevation, top of gates (feet) 647
Crest elevation (feet) 597
Capacity at elevation 647 feet (CFS) 214,000

Outlet Works
Type: Two 22- by 19-foot tainter gates, one on each side of spill-
way section.
Capacity at elevation 610 feet (CFS) 43,400

EXHIBIT B

PARKER DAM AND LAKE HAVASU
COLORADO RIVER, CALIFORNIA-ARIZONA

PERTINENT DATA

Type of dam Concrete arch
Stream system lower Colorado River
Completion date July 1938

Reservoir Lake Havasu
Total capacity to elevation 450 feet (Ac-Ft) 648,000
Available capacity, elevation 400-450 feet (Ac-Ft) 180,000
Surface area (Acres) 20,400

Dimensions of Dam

Structural height (Feet) 320
Hydraulic height (Feet) 75
Top width (Feet) 39
Maximum base width (Feet) 100
Crest length (Feet) 856
Crest elevation (Feet) 455
Total volume of dam (Cu-Yd) 380,000

Spillway

Type: Overflow section at center of dam controlled by five
50- by 50-foot Stoney gates.
Elevation, top of gates (feet) 450
Crest elevation (feet) 400
Capacity at elevation 455 feet (CFS) 400,000

Outlet Works

Type: Four 22-foot-diameter steel penstocks through right abutment,
each controlled by one 22- by 35-foot fixed wheel gate.
Capacity at elevation 450 feet (CFS) 22,300

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PAINTED ROCK DAM AND RESERVOIR
MARICOPA COUNTY, ARIZONA
PERTINENT DATA

Construction Completed		January 18, 1960
Stream System		Gila River
Drainage Area (Gila River Basin excluding Willcox and Animas closed drainages)	sq. mi.	50,800
Reservoir		
Elevation		
Streambed at Dam	ft., msl	524
Spillway Crest	ft., msl	661
Spillway Design Surcharge Level (Max. Water Surface)	ft., msl	696.3
Top of Dam	ft., msl	705
Area		
Spillway Crest	acres	51,400
Spillway Design Surcharge Level (Max. Water Surface)	acres	81,600
Top of Dam	acres	90,000
Capacity, gross		
Spillway Crest (Flood Control)	ac-ft	2,492,000
Spillway Design Surcharge Level (Max. Water Surface)	ac-ft	4,834,000
Top of Dam	ac-ft	5,575,000
Allowance for Silting (Sedimentation)	ac-ft	200,000
Dam (Rolled Earth-fill)		
Height Above Original Streambed	ft., msl	181
Crest Length	feet	4,450
Crest Width	feet	20
Design Freeboard	feet	8.7
Saddle Dike (Right)		
Crest Length	feet	200
Height	feet	12
Saddle Dike (Left)		
Crest Length	feet	500
Height	feet	50
Spillway (Detached, Broadcrest)		
Crest Length	feet	610
Design Surcharge on Spillway Crest	feet	35.3
Discharge at Spillway Design Surcharge	cfs	398,800
Master Plan	cfs	401,700
Outlet Works		
Controlled		
Length of Approach Channel (Trapezoidal, Unlined)	feet	150
Entrance Invert Elevation (Gate Sill Elevation)	ft., msl	539
Number of Intake Gates (Tainter, Size-10' X 18')	each	1
Length of Transition Section (Gates to Outlet Conduit)	feet	123
Conduits (Circular)		
Number of Conduits	each	1
Size (Inside Diameter)	feet	25
Length	feet	925
Maximum Discharge at Spillway Crest	cfs	30,480
Regulated Discharge at Spillway Crest	cfs	22,500
Outlet Invert Elevation	ft., msl	519.8
Reservoir Design Flood		
Duration (Inflow)	days	18
Total Volume of Design Flood (Std. Proj. Flood)	ac-ft	2,800,000
Flood Volume over 22,500 cfs.	ac-ft	2,200,000
Inflow Peak	cfs	300,000
Controlled Outflow (Max. Avg. Outflow Capacity)	cfs	22,500
Reduction in Peak	cfs	227,500
Time to Drain Reservoir from Maximum WSE	days	70
Spillway Design Flood		
Length of Design Flood	days	18
Total Volume in 18 Days (Max. Probable Flood)	ac-ft	7,680,000
Inflow Peak	cfs	620,000
Outflow Peak	cfs	436,500
Reduction in Peak	cfs	183,500