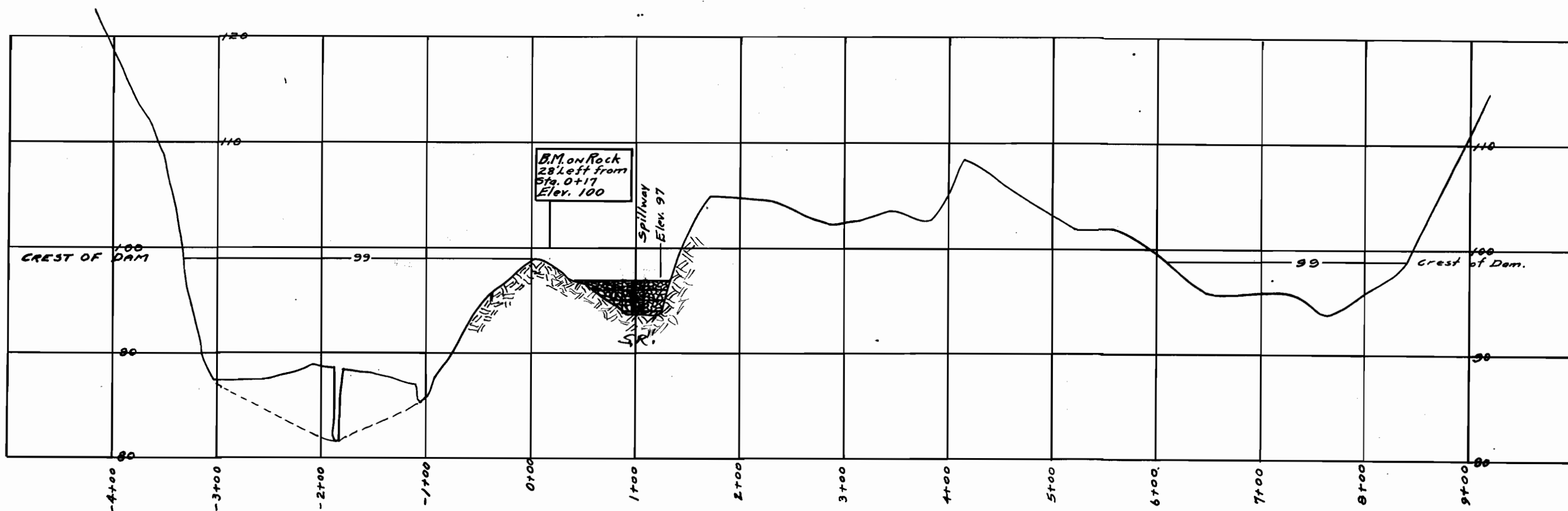
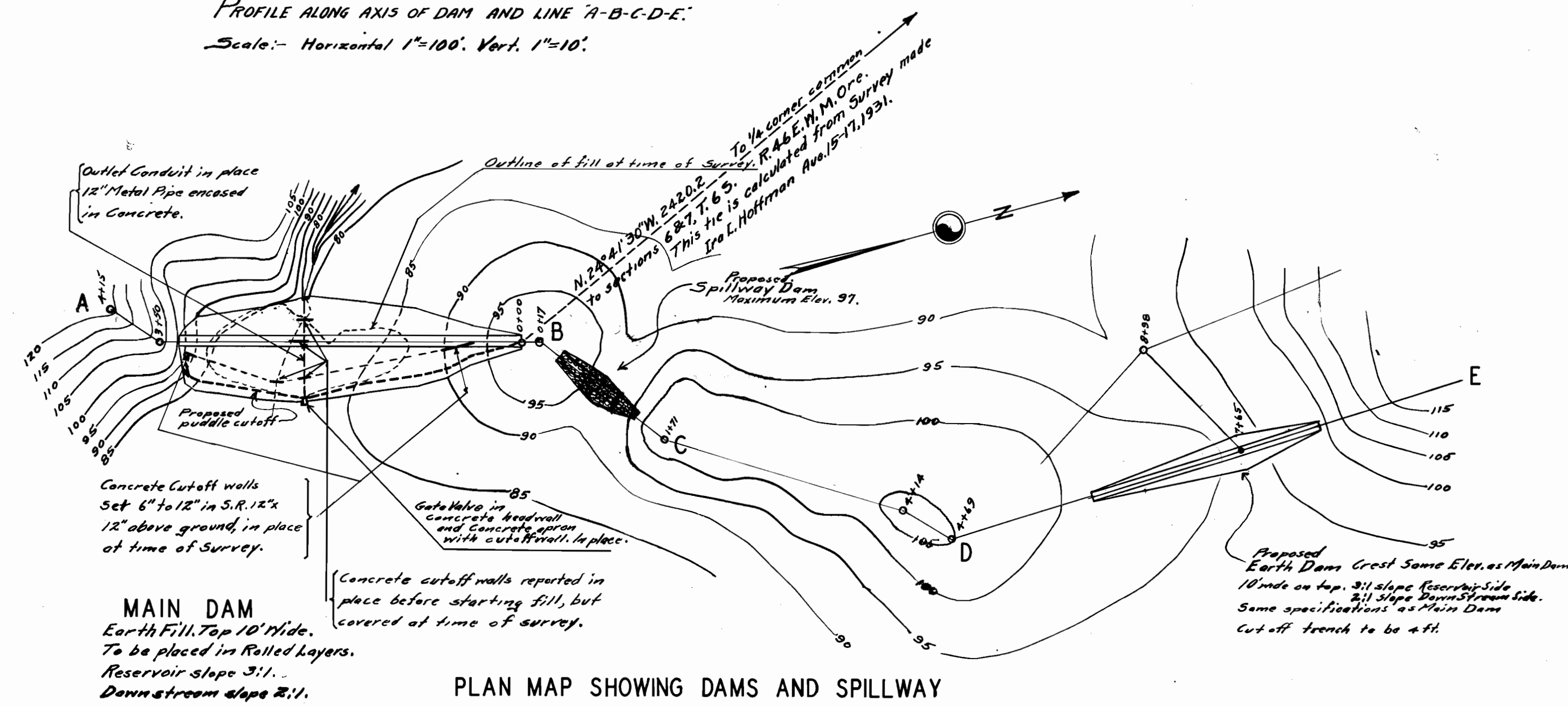


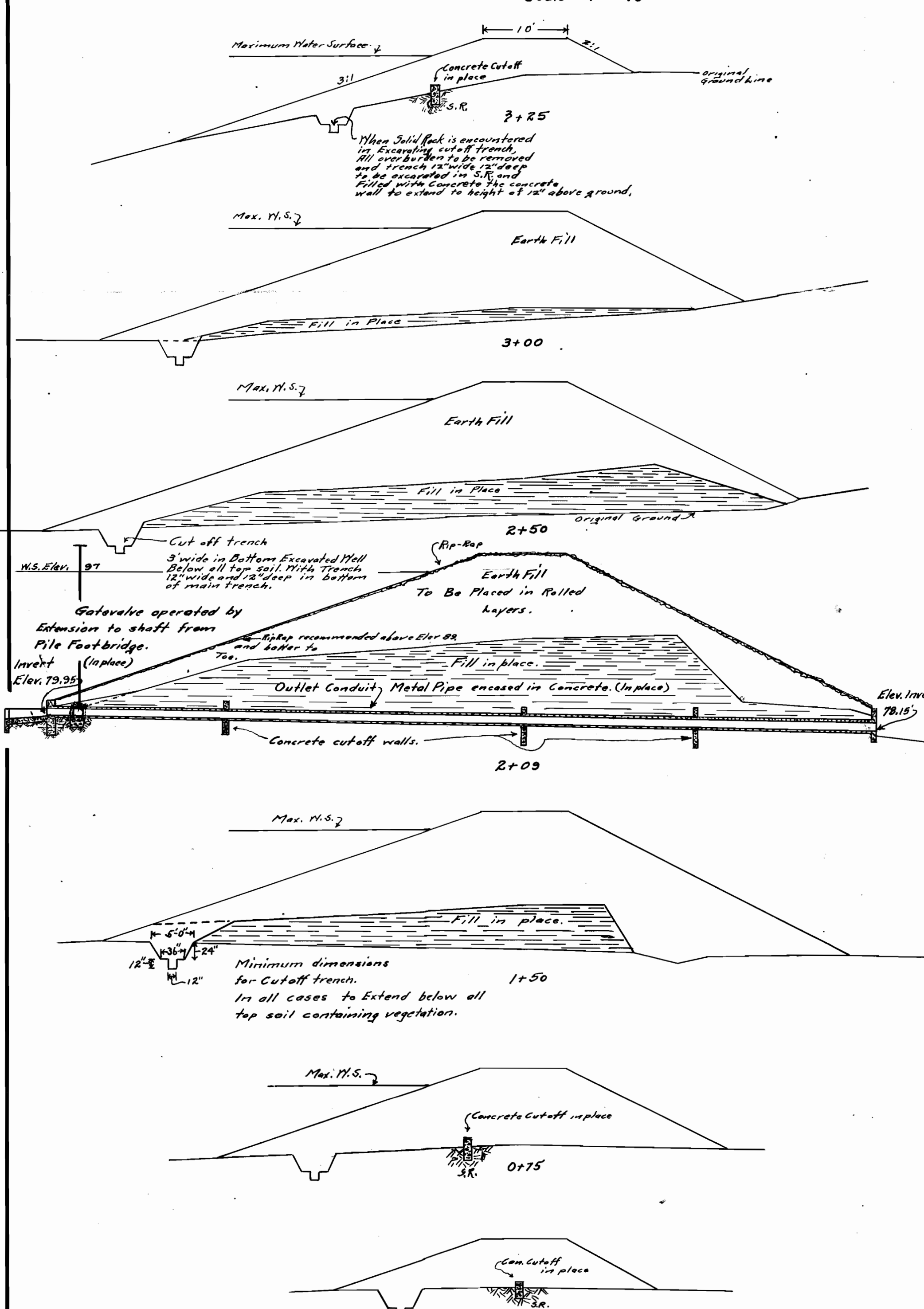


PROFILE ALONG AXIS OF DAM AND LINE "A-B-C-D-E."
Scale: Horizontal 1"=100'. Vert. 1"=10'.



PLAN MAP SHOWING DAMS AND SPILLWAY
Scale=1"=100' ASSUMED ELEVATIONS
Contour interval 5 ft.

CROSS SECTIONS MAIN DAM
Scale=1"=10'



FOUNDATION

All vegetation shall be removed from Dam site, and all top soil containing vegetation and other extraneous material shall be removed from Dam site.

All springs that may be in the foundation area will be traced to their source outside the foundation area of the dam or intercepted outside the foundation area and diverted. No material will be placed in the dam until the foundation is prepared in accordance with the Engineer's instructions and approved by the Engineer.

All material to be used in the construction of the Dam must be approved by the Engineer.

Before placing any new material into the dam the surface of the ground in the foundation area, after being properly prepared, shall be placed in alternate roughened in front parallel to the axis of the dam to assure a good bond between the foundation and the material going into the Dam.

Before placing any new material on the dam the layer of white light-weight soil in the existing dam, pointed out by the Engineer, shall be removed therefrom. The material in the existing dam shall be spread to cover the entire foundation area within the slope stakes.

CONSTRUCTION

Cut-off trenches shall be excavated as indicated on the plan and cross sections. After excavation to proper depth, the cut-off trenches shall be filled with selected material approved by the Engineer and thoroughly tamped. Where solid rock is encountered the rock shall be stripped and a trench one foot wide and one foot deep shall be excavated therein and filled with concrete. The concrete to project above and form a wall of at least one foot above the rock. After forms are removed selected material like that in other cut-off trenches will be packed around the wall and the trench above rock filled with the same material.

All material going into the dam shall be placed in horizontal layers not to exceed six inches in depth. Each layer shall be thoroughly compacted by rolling in two directions. After rolling and before placing the next layer the surface shall be roughened with a device by dragging corner parallel to the axis of the dam to insure bonding with the next layer. If considered necessary by the Engineer each layer shall be dampened to form placing the next layer. The placing of the first layer of material shall commence at the slope stakes of the lowest abutment, the widest place of the dam at its base, and each successive layer shall cover the entire dam at that particular elevation. Builders in the foundation area shall be removed therefrom and placed at least two feet above the dam. No buildings will be placed in the dam.

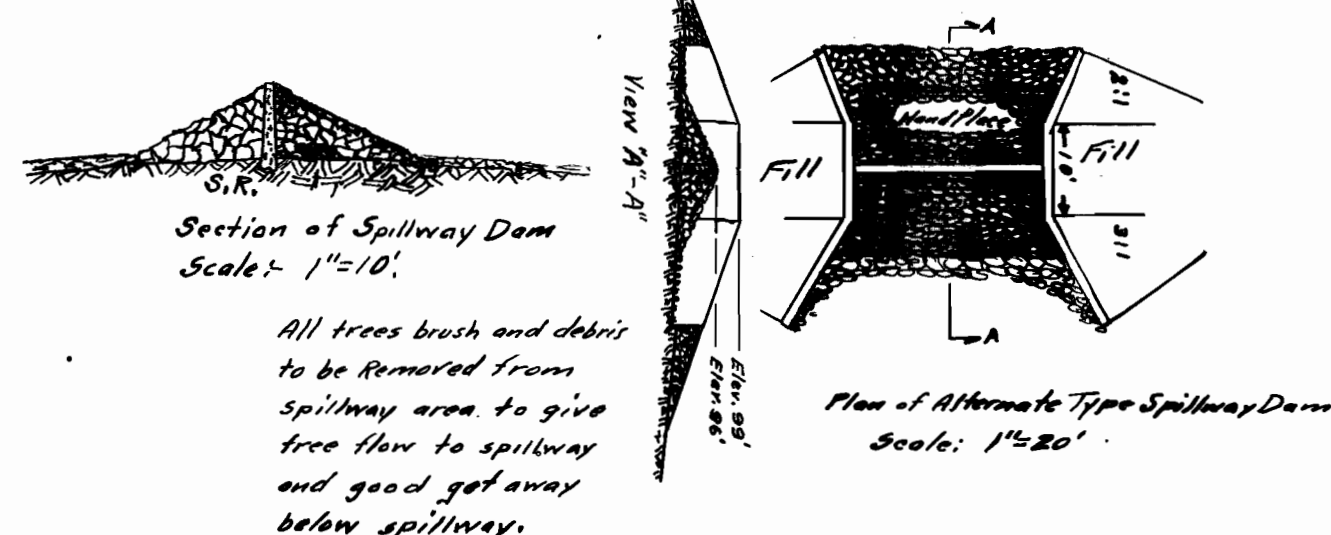
After the Earth Dam is up to grade and a full ten feet wide on top for its entire length, the upstream shall be rip-rapped to prevent erosion. Hard placed rip-rap is recommended to avoid the maintenance required by gravel protection. The dam stream slope should be rip-rapped to reduce maintenance. Rip-rapping material may be avoided by distributing broken glass and covering to a depth of a few inches.

SPILLWAY

Location of Spillway—Between "B" & "C" on Plan Map. This saddle is solid rock with very little overburden. A trench shall be excavated in the saddle to a depth of at least 8' and a width of 12'. In the trench shall be a vertical concrete wall extending across the entire saddle and to a height of not to exceed elevation 95 with a top width of 6'. Hard placed rock fill with slope of 2:1 shall be laid on each side of the concrete wall, care being taken to get good footing for the downstream toe, excavating where necessary to do so. Length of spillway 30 ft. This is recommended. Alternate spillway: Rock placed Earthfill dam with concrete spillway 20 ft. wide with maximum crest elevation 96.

Advantage of wide spillway.
Width ample to take care of flood run-off.
More storage capacity.
Freeboard ample even in flood.

Advantage of lower but narrow spillway.
More freeboard.

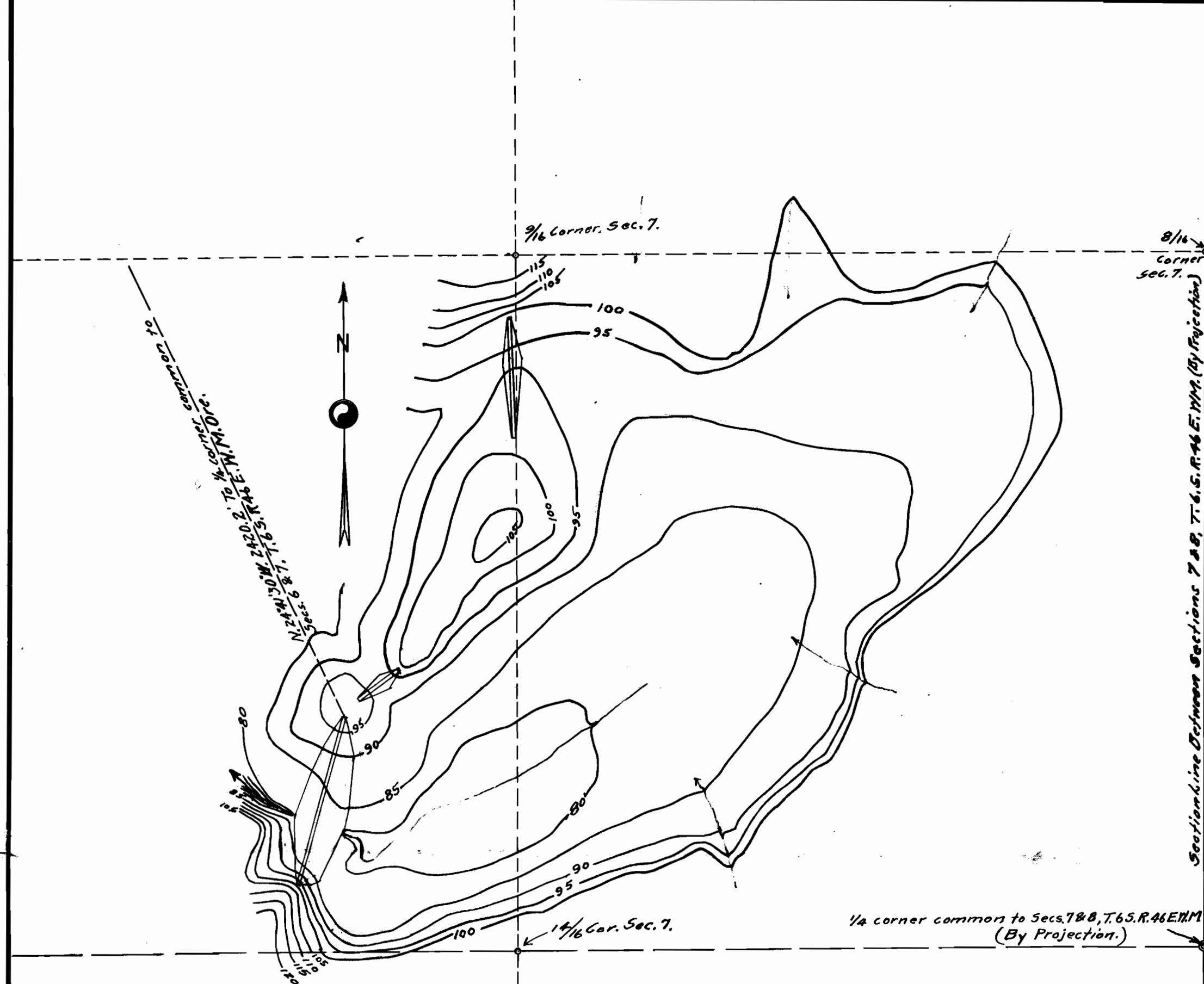


All trees brush and debris to be removed from spillway area to give free flow to spillway and good footing below spillway.

CONCRETE
Aggregates to be used in concrete shall be approved by the Engineer. Sand and gravel shall be separated by screening before mixing into concrete. The sand shall pass through a 1/4 inch screen. Gravel shall be retained on 1/4 inch screen and pass 1/2 inch screen. Sand and gravel shall be free from organic matter and contain less than 3% silt.
Nominal mix: 1 1/2:2:4, cement, sand and gravel, by volume.
Concrete to be placed with water content to yield a slump test of not to exceed 3 inches.

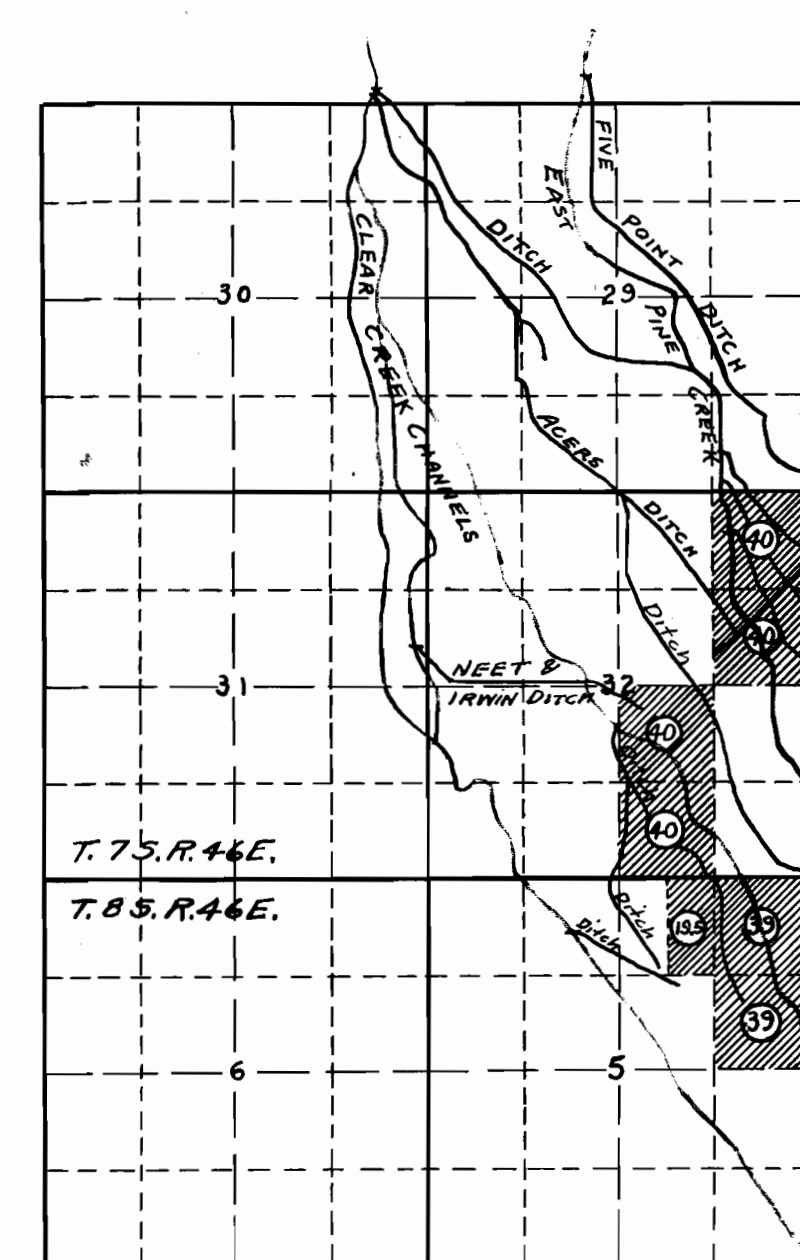
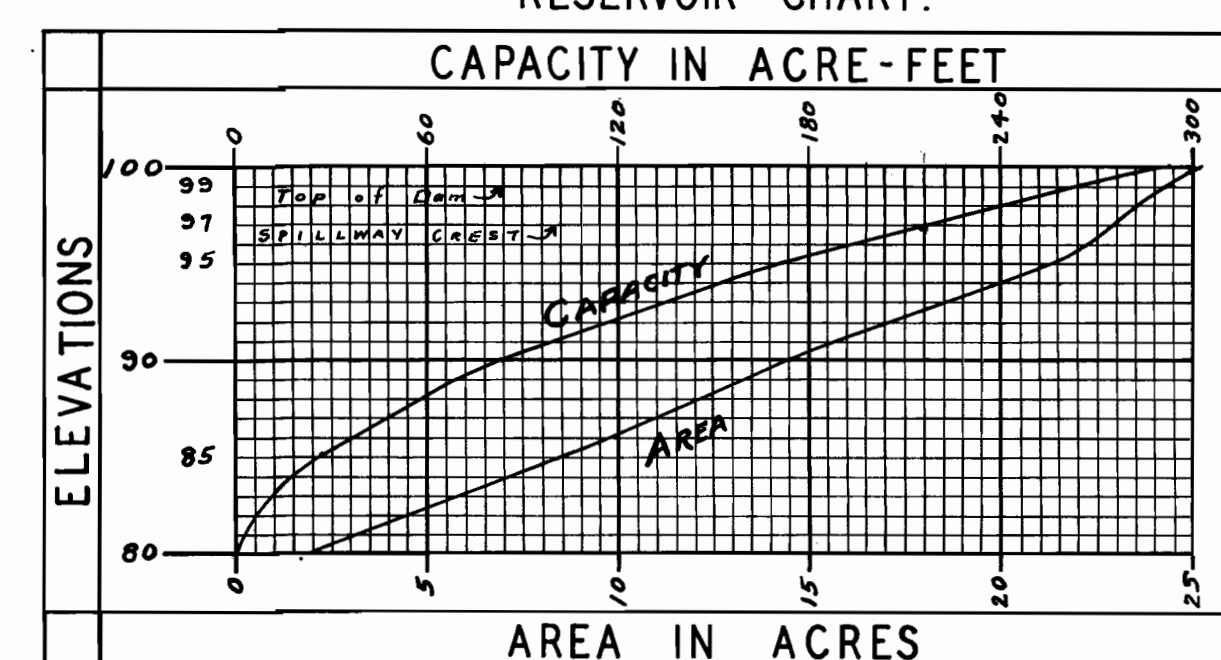
Approximate Quantities of Material required for One cubic Yard of Concrete

Cement	5.84 sacks.
Sand	0.44 Cu.Yd.
Gravel	0.89 Cu.Yd.



PLAN MAP MELHORN-BASSETT RESERVOIR SITE
Scale=1"=200'
Contour interval 5 ft.

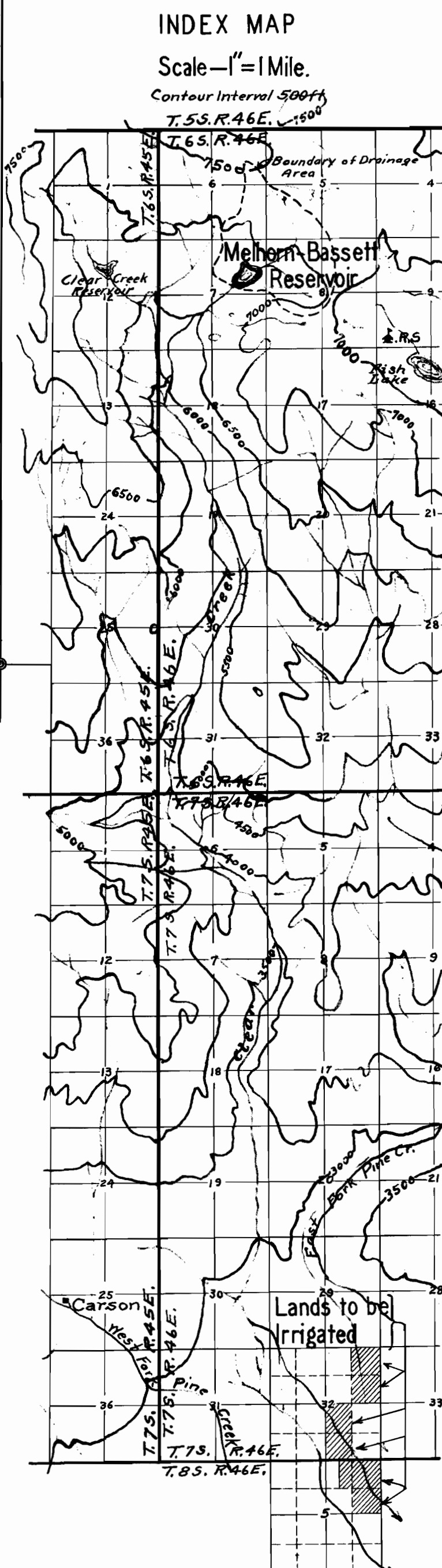
RESERVOIR CHART



MAP OF LANDS TO BE IRRIGATED BY
MELHORN-BASSETT RESERVOIR WATER
Scale=2 inches=1 mile.

Existing ditches will be used.
This Map was copied from Map by Ira L. Hoffman, stating his information was taken from Pine Creek Association Map.

Application No. R-14304
Permit No. R-657



I, Philo H. Anderson, of Baker, Oregon, hereby certify that this map was prepared from the notes taken during an actual survey made by me, August 28, 1932, U.S. Forest Service Map and information taken from Map made by Ira L. Hoffman, Registered Professional Engineer No. 30, Oregon, and that it correctly represents the works described in the accompanying application, together with the location of streams and other ditches in the immediate vicinity.

Philo H. Anderson
Registered Professional Engineer
Oregon No. 1287, March 2, 1933, date of Registration.

PLANS TO ACCOMPANY APPLICATIONS FOR PERMITS
TO APPROPRIATE WATER AND CONSTRUCT STORAGE
RESERVOIR. TO BE KNOWN AS MELHORN-BASSETT
RESERVOIR. INITIAL APPLICATION NO. R 14304.
Philo H. Anderson, Engineer, Baker, Oregon.
This is Sheet NO 1 of 2 Sheets.

MAPS TO ACCOMPANY APPLICATIONS FOR PERMITS
TO APPROPRIATE WATER AND CONSTRUCT STORAGE
RESERVOIR. TO BE KNOWN AS MELHORN-BASSETT
RESERVOIR. INITIAL APPLICATION NO. R 14304.
Philo H. Anderson, Engineer, Baker, Oregon.
This is Sheet NO 2 of 2 Sheets.