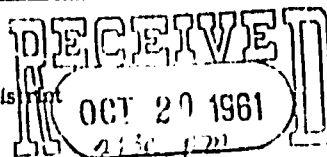


No. 906-3
 Water Division No. 3 JAMES RIVER District
 (Blanks to be Filled by the Engineer for the W. R. C.)
VESTED RIGHT
APPLICATION FOR PERMIT STATE WATER RESOURCES COMM.
To Appropriate Water within the State of South Dakota
 PIERRE, SOUTH DAKOTA



(NOTE—Draw a line through items not applicable.)

1. Name of applicant South Dakota Department of Game, Fish and Parks
 Postoffice address Pierrre, County HUGHES, State South Dakota

I. If a corporation

- (a) Name of same
 (b) Date and place of incorporation
 (c) Amount of capital stock
 (d) Amount paid in
 (e) Names and addresses of directors

(NOTE—A certified copy of articles of incorporation must accompany the application.)

II. Method of accomplishing the work and financial resources of the applicant:

- (a) Method of accomplishing work (Whether by contract, employment of others, or by direct labor)

- (b) Cash on hand, \$
 (c) Treasury stock, \$
 (d) Bonds to be issued, \$
 (e) Other resources, \$

2. Name of diversion work VOGELER DAM - Folsom County
As required to fill lake to outlet level - approximately 125
 3. Amount of water claimed acre feet per year cubic feet per second
 4. Source of water supply Dry Draw
One point in the watershed located in the NE 1/4 Sec. 35,
 5. Location of point of diversion T. 118, R. 70
 _____ on _____ bank _____ County.
 6. Annual period or periods during which water is to be used all year round
 7. To be used for:

I. Irrigation or domestic use: Gravity, overhead sprinkling or combination system?

- (a) Number of acres to be irrigated _____ acres.

- (b) Legal subdivisions to be irrigated

(NOTE—A list of lands to be irrigated, giving each subdivision and fraction with acreage thereof, should be written here, or may be appended as a part of this application. Same must also be shown on accompanying map.)

- (c) Statement as to domestic use (giving location, etc.) To the ordinary high water mark

of the inundated portion of Sec. 35, T. 118, R. 70

ii. Stockwatering, mining, milling, power, fish culture, fire protection and public recreation:

- (a) Nature of use Public recreational purposes

Name any of the above uses claimed

- (b) Amount of power to be generated _____ horse power.

Amount claimed for engine cooling

- (c) Location of plant

- (d) Method of developing power

- (e) Point where water will be returned to stream

8. Estimated cost of work:

(a) Head Gates, \$-----

(b) Pumping plant, \$-----

(c) Fluming, \$-----

(d) Canal earth, \$-----

Rock, \$-----

(e) Other structures ----- \$-----

Total, \$-----

9. Description of diversion works:

I. Nature of works: (Reservoir, dam, ditch, flume, pumping plant, etc.)

II. Dimensions of works.

Information requested not applicable. Vogeler Dam is

a meandered lake. Maximum depth approximately 12 feet

(a) Dam: Height ----- feet; length at bottom ----- feet; length at top -----

----- feet; thickness at bottom ----- feet; thickness at top -----

feet; slope at front water face -----; slope at back face -----

material used in construction -----

(b) Reservoir: Capacity when filled ----- acre feet. Surface area at highwater mark ----- 40 ----- acres.

DEPTH AT OUTLET-FEET	SURFACE AREA AT EACH DEPTH AT OUTLET--ACRES	FEET	ACRE-FOOT CAPACITY

(c)* Head gate: Width ----- feet; height ----- feet;

Material -----

(d) Canal: Total length ----- miles.

LOCATION BELOW HEADGATE	DEPTH	BOTTOM WIDTH	WIDTH AT WATER-LINE	GRADE PER MILE
At ----- Mile	----- feet	----- feet	----- feet	----- feet
At ----- Mile	----- feet	----- feet	----- feet	----- feet
At ----- Mile	----- feet	----- feet	----- feet	----- feet
At ----- Mile	----- feet	----- feet	----- feet	----- feet
At ----- Mile	----- feet	----- feet	----- feet	----- feet
At ----- Mile	----- feet	----- feet	----- feet	----- feet

(Give dimensions where reductions in size are made.)

10. Time required for completion of work ----- years. Not applicable - a meandered lake

11. Time required for complete application of water to the proposed beneficial use ----- years.

12. Choice of newspaper for publication of notice of intention to appropriate -----

STATE OF SOUTH DAKOTA

County of ----- Hughes ----- ss.

I, ----- Walter J. Fillmore -----

being first duly sworn on my oath depose and say: That my relation to the above described undertaking is that of owner, that I have read the above foregoing statement, examined the map accompanying the same, and that I know of my own personal knowledge that the matters therein stated and shown are true.

Signed -----

Subscribed and sworn to before me this ----- 20 ----- day of ----- October ----- 1961

Notary Public (or other qualified officer.)

*Each diversion must have a headgate or measuring device.

Remarks by State Water Resources Commission:

"Vested right" claimed

STATE OF SOUTH DAKOTA

County of

Hughes

ss.

Pierre, South Dakota,

December 28, 1962

This is to certify that the foregoing application was received by the Commission at 2:30 o'clock

P.m. upon the 20th day of October, 1961.

State Water Resources Commission

By:

Burtin Jones
for Chief Engineer, Executive Officer

Number of permit

906-3

Date of first receipt of application

October 20

1961

Date of return to applicant for correction, amendments or changes required as follows:

19

Date of receipt of corrected application

19

Date from which applicant may claim right

1937

19

Approved

December 28, 1962

Recorded in Book

7

Page

336

This is to certify that we have examined the foregoing application for a permit to appropriate water of the State of South Dakota, and we hereby grant the same as stated herein, subject, however, to the following limitations and conditions:

1st. The equivalent of at least one-fourth of the work above specified is to be completed on or before

19

2nd. The whole of said work is to be completed on or before

19

3rd. The limit of time for proof of beneficial use of water appropriated in accordance herewith is

completed

19

4th. The water appropriated shall be used for the purpose of

public recreation

5th. The prior right of all persons who, by compliance with the laws of the State of South Dakota, have acquired a right to the use of water must not be injuriously affected by this appropriation.

6th. The amount of the appropriation herein granted shall not exceed 125 acre feet annually cubic feet per second; neither shall it exceed the capacity of the above described system of diversion works, nor the least amount of water that experience may hereafter indicate as necessary for the production of crops in the exercise of the best husbandry; and further, said appropriation must be limited to not more than one-reventieth (1/70) of one cubic foot of water per second of time for each acre of land to which water is actually

used for public recreation

and beneficially applied for irrigation on or before

June 30, 1955

; said water to be used during the following described annual period:

Continuously

Witness my hand this

28th

da.

December

1962

State Water Resources Commission

By:

Seo Chinn

Chief Engineer, Executive Officer

Certificate of Construction issued

December 28, 1962

Water License issued

December 28, 1962

STATE OF SOUTH DAKOTA

WATER LICENSE No. 906-3

WHEREAS, On the 20th day of October A. D. 1961
the Department of Game, Fish and Parks
of Pierre County of Hughes and State of
South Dakota duly made application (No. 906-3) to us for a Vested Right 125 acre feet annually
of the waters of a dry draw
County of Faulk, State of South Dakota, for public recreation
purposes; and

WHEREAS, On the 28th day of December A. D. 1962
Vested Right recognising
Permit No. 906-3 was issued to said applicant for the diversion of said water, ~~recognising~~ the
completion of the works of diversion therein described ~~as follows:~~
~~XXXXXX~~ and ~~XXXXXX~~ application to beneficial use of said
water ~~XXXXXX~~ ~~XXXXXX~~ ~~XXXXXX~~
and,

WHEREAS, On the 20th day of October A. D. 1961
the holder of said permit duly made proof of the completion of adequate works for the diversion of 125 acre feet
annually ~~XXXXXX~~ said waters, as evidenced by our Certificate No. 906-3
dated December 28, 1962 confirming the completion of works of sufficient capacity for
diverting and conveying to the place of intended use 125 acre feet annually
priority of 1937 ~~XXXXXX~~ of water, with date of
and,

WHEREAS, On the 20th day of October A. D. 1961
proof was duly made of the application to beneficial use of 125 acre feet annually
to be used in place for public recreation.

NOW, THEREFORE, By the virtue of the authority vested in us by the laws of the State of South Dakota,
We hereby grant and confirm to the Department of Game, Fish and Parks

of Pierrre Vested Right the holder and owner of said Permit No. 906-3
a water right, dating from 1937 to the use of 125 acre feet annually

~~in the waters of~~ of the waters of a dry draw

In the County of Faulk and State of South Dakota, or so much thereof as may be
necessary for the purposes hereinbelow mentioned, to be diverted at a point in the NE 1/4 SE 1/4, Section 35,
T118N, R70W

and ~~to be used for~~ stored in place

for the purpose of public recreation

subject, however, to the laws of the State of South Dakota applicable to a license for the use of the waters of the
State, and subject, also to the local or community customs, rules and regulations which have been or may be
adopted from time to time by a majority of the users from a common source of supply, canal or lateral from
which such water may be taken, when such rules and regulations have for their object the economical use of such
water.

WITNESS, My hand and seal of our office at Pierre, South Dakota,
this 28th day of December A. D. Nineteen
Hundred and Sixty-Two.

State Water Resources Commission

By:

J. W. GRIMES
Chief Engineer, Executive Officer

STATE OF SOUTH DAKOTA

Water License No. _____

To _____

Source of Supply _____

County _____

Am't _____ c. f. s.

Point of Diversion _____

Place of Use _____

Purpose _____

Date of Priority _____

Recorded _____

in Book _____ of _____ Page _____

Permit No. 906-3Water Division No. 3 James River Water District

Certificate of Completion of Works

TO ALL WHOM IT MAY CONCERN:

This is to Certify, That the Department of Game, Fish and Parks

of Pierre, County of Hughes, and State of South Dakota, the holder Vested Right of Permit No. 906-3, issued upon Application No. 906-3, bearing date of priority of 1937, authorizing the diversion of 1.25 acre feet annually ~~not to exceed~~ of the waters of a dry draw County of Faulk, State of South Dakota, at a point in the NE 1/4 SE 1/4 Section 35, T118N, R70W

for public recreation purposes, has fully complied with the provisions of the laws of the State of South Dakota relating to proof of recognized as completion of the works of diversion set out and described in said Permit; that said works are ~~completely~~ satisfactory ~~not to exceed~~ for diverting and conveying to the place of intended use 1.25 acre feet annually ~~not to exceed~~ of water; and that the ~~not to exceed~~ use of said water are described as follows, to-wit: to be used in place for public recreation.

Witness my hand this 28th day of December A. D. 1962

State Water Resources Commission

By: J. W. GRIMES
Chief Engineer, Executive Officer

Location No. _____

Water Division No. _____ Water District _____

Proof of Application of Water to Beneficial Use

PETITION OF HOLDER

Ques. 1. State your name, residence, occupation and postoffice address.

Ans. South Dakota Department of Game, Fish and Parks, Pierre, South Dakota

Ques. 2. If acting in behalf of a corporation, state its name, principal place of business (if a foreign corporation, give name and postoffice of statutory agent,) your position with reference to same, and your authority for appearing in its behalf.

Ans. _____

Ques. 3. State date of posting and date of recording notice of appropriation.

Ans. _____

Ques. 4. State source of water supply and give exact location of point of diversion.

Ans. Dry Draw - one point in the watershed located in the NE 1/4 Sec. 35, T 118, R 70

Ques. 5. Describe your works of diversion giving length and height of each dam, and state amount of water they are capable of conveying from point of diversion to place of use, and give name of canal or ditch or other works by which water is conducted to such place of use, and date of completion of same.

Ans. A meandered lake - depth 12 feet - 40 acres

Ques. 6. State for what purpose water is used and describe place of use. (If for irrigation, name each subdivision in which used, and number of acres in each subdivision that have ACTUALLY been irrigated with said water.)

Ans. Fish and wildlife propagation, conservation and recreation

Ques. 7. If for other than irrigation purpose, state how applied, amount of horse power generated, etc.

Ans. Used in place in lake or reservoir

Ques. 8. What is the minimum amount of water required for the use specified above?

Ans. As required to fill lake to outlet level - approximately 125 acre feet per year

Ques. 9. If you are not the person or representative of the corporation to whom above mentioned permit was originally issued, please state how ownership was acquired by present holder.

Ans. _____

Ques. 10. State when, how, in what amount and to what extent, the water diverted under above mentioned permit has been used.

Ans. A meandered lake. Used by the public for uses specified except for
that amount lost by evaporation and seepage

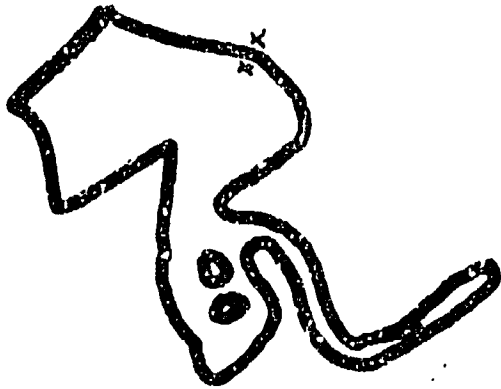
(Sign) W. J. McMan

I hereby certify that the foregoing testimony was read to the above subscriber before its signing, that I believe him to be the person he represents himself to be, and that said testimony was subscribed and sworn to before me, at my office in Pierre, County of Hughes

State of South Dakota, on this 20 day of October A. D. 1961
Edward B. Johnson
Witnesses. 11-6-65

I, the undersigned, do hereby certify that I am a duly qualified elector residing in the immediate vicinity of the diversion works designated in the foregoing testimony, that I have no interest in the works water or land above described, that I have read the foregoing testimony and that I know of my own personal knowledge that the matters therein stated are true.

Location No. -----	
PROOF OF APPLICATION OF WATER TO BENEFICIAL USE	
PETITION OF HOLDER	
Amount of Water ----- c. f. s.	
Source -----	
County -----	
Purpose -----	
Place of Use -----	
Date of recording -----	
Received and filed -----	



35

R'70W'

VOGELER DAM
FAULK CO., S.D.
FROM AERIAL PHOTO
CBN-2K-14
11-2-52
B.J. ROSE - 4/3/59
8" = 1 MILE

T118N



Department of Water & Natural Resources

Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501-3181

September 21, 1988

Richard Beringson, Secretary
Department of Game, Fish and Parks
Anderson Building
445 E Capitol
Pierre SD 57501

Dear Mr. Beringson:

I am writing to notify you that pursuant to the Notice of Intent to Validate Vested Water Right Claims dated June 20, 1988 that I intend to oppose validation of all Department of Game, Fish and Parks Vested Water Right Claims for lakes for the following reasons:

1. Until the outlet elevation for each lake is surveyed and the outlet elevation is set by the Water Management Board.
2. To allow the Vested Water Right Claim to be amended, if necessary, as follows:
 - a) Include the outlet elevation;
 - b) To correct the amount of water claimed;
 - c) To add the qualification that a vested claim is subject where necessary to installation of a concrete outlet structure to assure retention of the outlet as the established elevation; and
 - d) To add any amendments and qualifications necessary to clarify a Vested Right Claim.

Also, that I intend to oppose validation of all Department of Game, Fish and Parks Vested Water Right Claims for dams to allow the Vested Water Right Claim to be amended, if necessary, as follows:

1. To include the spillway elevation;
2. To correct the amount of water claimed; and
3. To add any amendments and qualifications necessary to clarify a Vested Right Claim.

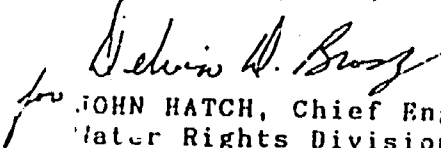


September 21, 1988
Richard Beringson, Secretary
Page 2

We will be working with your staff on these validations. We have already discussed setting outlet elevations before validating claims for lakes. Although the work necessary to complete the validation process will take several years to complete, the results should be of benefit to the public and to your Department. As the work is completed to validate each claim, the claim will be presented to the Water Management Board for validation.

Please advise if you have any questions.

Very truly yours,


JOHN HATCH, Chief Engineer
Water Rights Division
605 773-3352

cc: Ron Koth, Department of Game, Fish and Parks

SD EForm - 0495 V1 NOTICE OF TRANSFER OF OWNERSHIP

To: Chief Engineer
Water Rights Program, DENR
523 E. Capitol
Pierre, SD 57501-3181

RECEIVED
JUN 14 2006
WATER RIGHTS
PROGRAM

Water Right/Permit No. 906-3

Date: 6/12/2006

I/We request that Water Right/Permit No. 906-3 formerly owned by:
South Dakota Department of Game, Fish & Parks be transferred to:

New Owner Name: Jerry Vogeler
Address: P.O. Box 7077
City, State, Zip Pierre SD 57501 Telephone No. (605) 223-2060

Title to the following described land(s)/property has been transferred as described above:

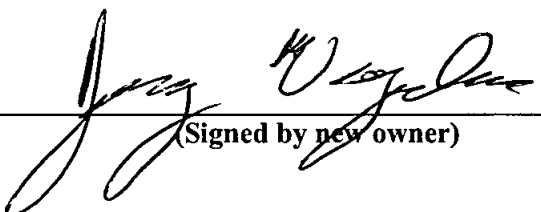
That portion of the NE1/4 of the NW1/4 of Section 35, Township 118 North, Range 70, West of the 5th Principal Meridian commencing at a point thirty-four rods south of the north line of said quarter and thence running south, consisting of fifty and one half acres, more or less; and that portion of the SW1/4 of the NE1/4 of Section 35, Township 118 North, Range 70, West of the 5th Principal Meridian, consisting of ten acres, more or less, in Faulk County, South Dakota.

☒ I understand that the validity of Water Right/Permit No. 906-3 has not been determined by this transfer action. If I have any questions on validity, I understand that only the Water Management Board has the authority to determine if a water right/permit is valid (see note below.)

You are requested to file this "Notice of Transfer" in the appropriate file with the Water Rights Program, as evidence of the change of ownership.

A fee of Two Dollars and Fifty Cents (\$2.50) is included to cover the filing fee as required by SDCL 46-2-13.

I, Jerry Vogeler, the new owner, certify that the above information is true and correct.


(Signed by new owner)

NOTE: Water permits may be cancelled for nonconstruction after the five year construction period has expired. Once a water permit is developed and the water used, the permit becomes a right. A water right may be lost for three reasons:

1. Abandonment - no intent to use water and use is abandoned.
2. Forfeiture - no use of water for three year period without legal excuse.
3. For a third violation of a condition of a water permit/right.

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date June 14, 20 06

RECEIVED OF Jerry Vogeler, PO Box 7077, Pierre SD 57501

The following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. _____ to Appropriate Water, to construct and to put water to beneficial use	2 50
Fee for Application for Permit No. _____ to Appropriate Water for Future use	
Fee to retain Future Use Permit No. _____ after period of seven years.	
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. _____	
Fee for Filing Transfer Form <u>906-3</u>	
Fee for _____	
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____	
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____	
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____	2.50
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____	
(Any Other Work Provided by Law)	TOTAL

No.

02433

By

Darland Eide
Chief Engineer *gm*



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

June 15, 2006

906-3

Jerry Vogeler
PO Box 7077
Pierre SD 57501

Dear Mr. Vogeler:

I am writing to acknowledge receipt of the ownership change you filed for Vested Water Right No. 906-3. The transfer has been completed. The vested water right formerly listed in the name of SD Game, Fish and Parks Department is now listed in your name.

Enclosed is your Receipt No. 02489 in the amount of \$2.50. In the event you do not have one, I am including a copy of the vested right for your records.

If I can answer any questions for you, please contact me.

Sincerely,

Genny McMath
Environmental Scientist
Water Rights Program
(605) 773-3352
email: genny.mcmath@state.sd.us

enclosures

Water Rights Division -DENR
Conversation or File Documentation

NAME OF PERSON OR FILE: Jerry Vogeler/Vogeler Dam

ADDRESS: PO Box 7077, Pierre, SD 57501 COUNTY: Faulk

DATE: December 19, 2006 TELEPHONE: XXXXXXX

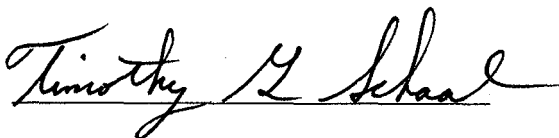
RE: Validation of Vested Right Claim No. 906-3

Vested Right Claim No. 906-3 was filed on October 20, 1961, by the South Dakota Department of Game Fish & Parks. It has a priority date of 1937 to store water in Vogeler Dam, located in the NW ¼ of Sec.35-T118N-R70W, in Faulk County. The amount of water claimed is "As required to fill lake to outlet level-approximately 125 acre-feet per year." The outlet level elevation was changed, probably in the early 1950's, by adding a 2.5 foot weir to the spillway inlet.

Vogeler Dam is a Category 3, Low Hazard dam constructed in 1937 by the Works Progress Administration (WPA). The Office of School and Public Lands held the easement for Vogeler Dam. The easement was transferred to Jerry Vogeler on August 21, 2006; with the requirement that Mr. Vogeler would repair the dam. Vested Right Claim No. 906-3 was also transferred to Mr. Vogeler on June 15, 2006.

The plans and specifications to repair the dam were prepared by Konechne Engineering and approved on June 5, 2006. The existing concrete spillway had failed and the plans showed replacing the concrete spillway with a CMP drop inlet structure with a 60 inch diameter riser and a 48 inch diameter barrel. The plans also called for adding a 150 foot wide earthcut secondary spillway and raising the embankment crest about one foot. Additional fill material would also be added to both the upstream and downstream slopes. The plans indicated that the drop inlet structure would be installed at the existing outlet elevation of 1744.3 feet mean sea level (fmsl). The dam was repaired and "As Built" plans were received on October 2, 2006 showing the outlet elevation of 1744.9 fmsl with a lake storage capacity of 190 acre-feet. The difference of about one-half for the outlet elevation is considered to be within the construction expectations of the replaced spillway structure.

Vested Right Claim No. 906-3 should be validated for an outlet elevation of 1744.9 fmsl and a reservoir storage capacity of 190 acre-feet of water.



Timothy G. Schaal, P.E.
Natural Resources Engineering Specialist
Water Rights Program

456
VOEGLER DAM
FAULK CO.



VOEGLER DAM SPILLWAY CONSTRUCTION

FAULK COUNTY
SOUTH DAKOTA
DEPT. OF GAME, FISH, & PARKS

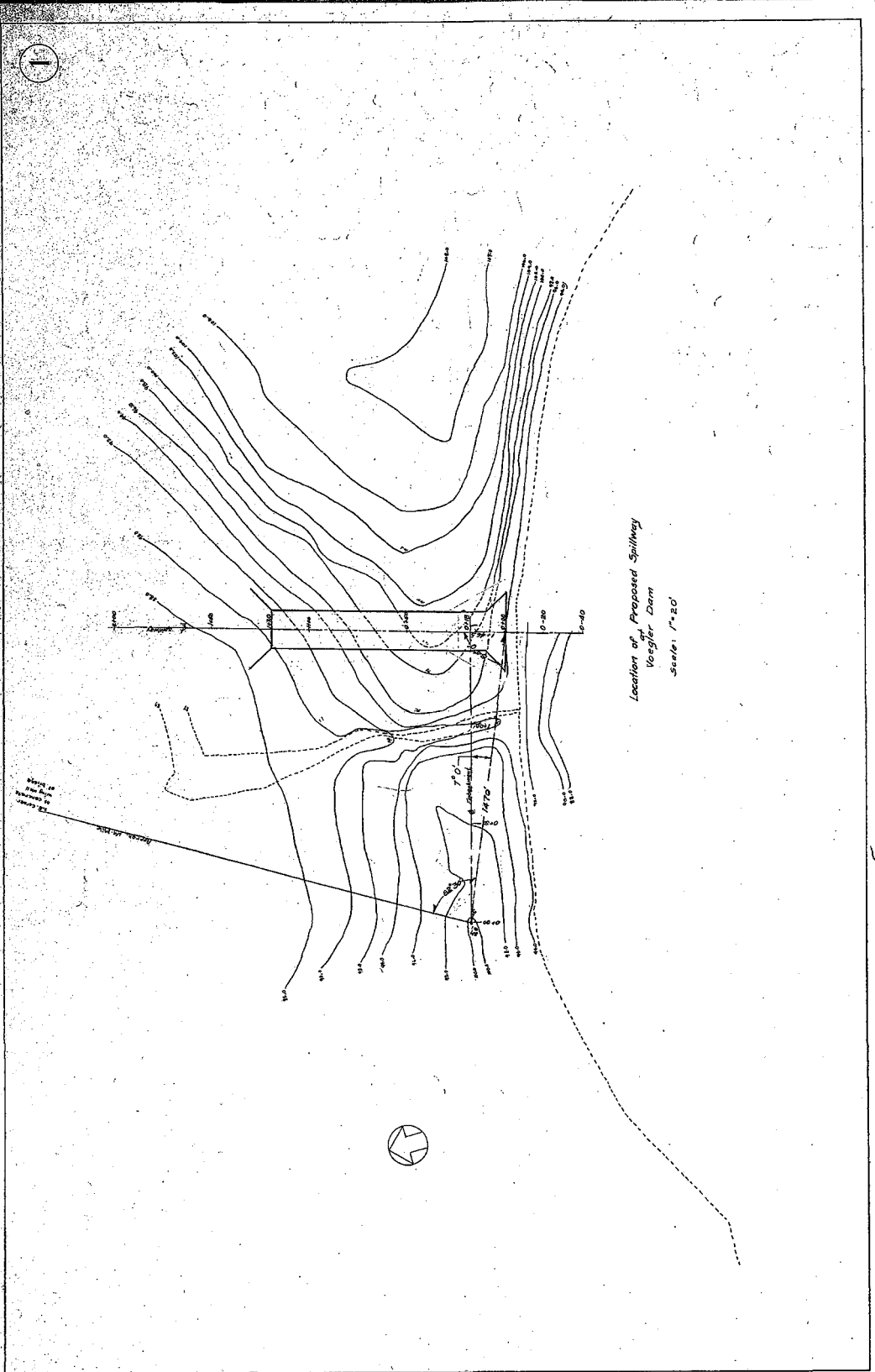
ELMER PETERSON
DIRECTOR

JULIAN STAVEN
CONSULTING ENGINEER
RAPID CITY, S. DAK.



10 8445

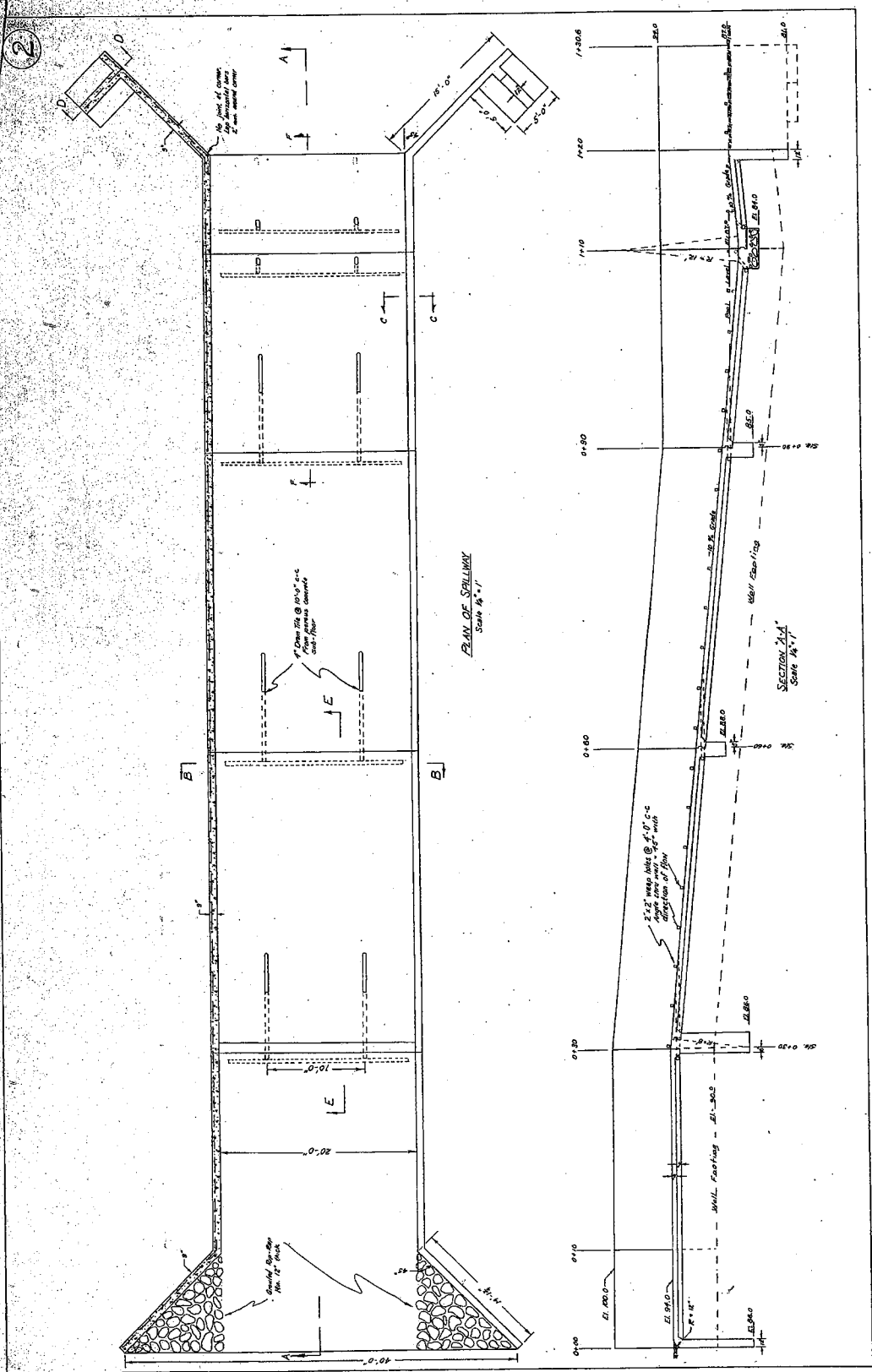
Voegler



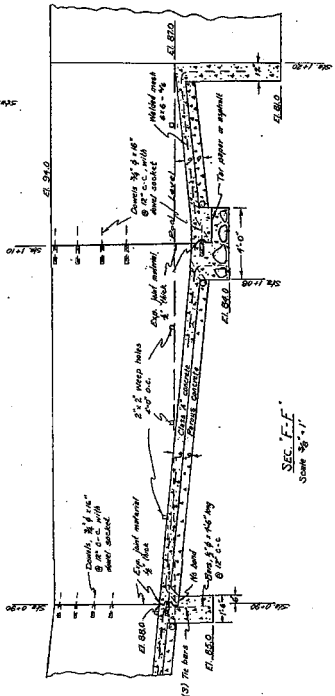
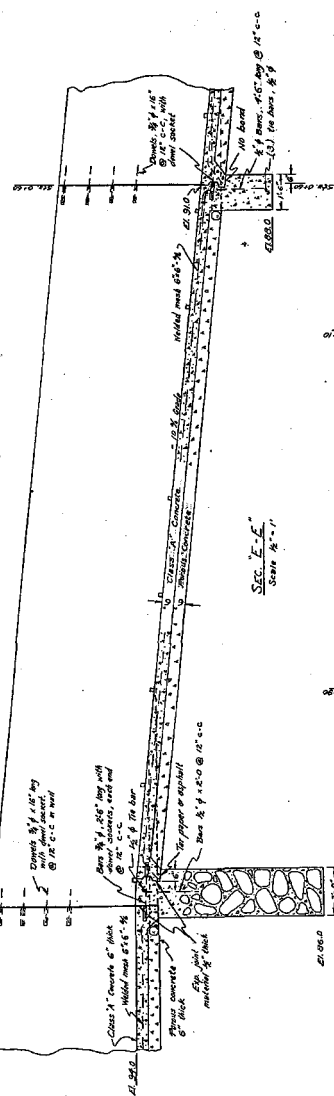
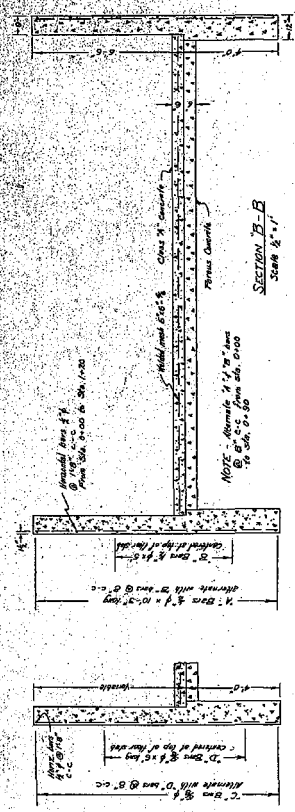
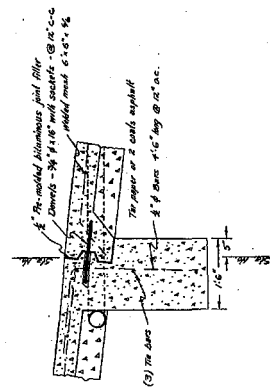
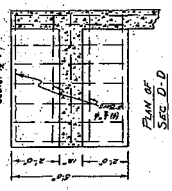
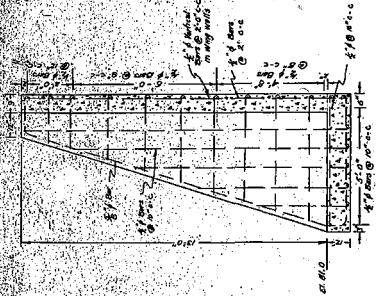
Location of Proposed Spillway
Vogler Dam
Scale: 1"=20'



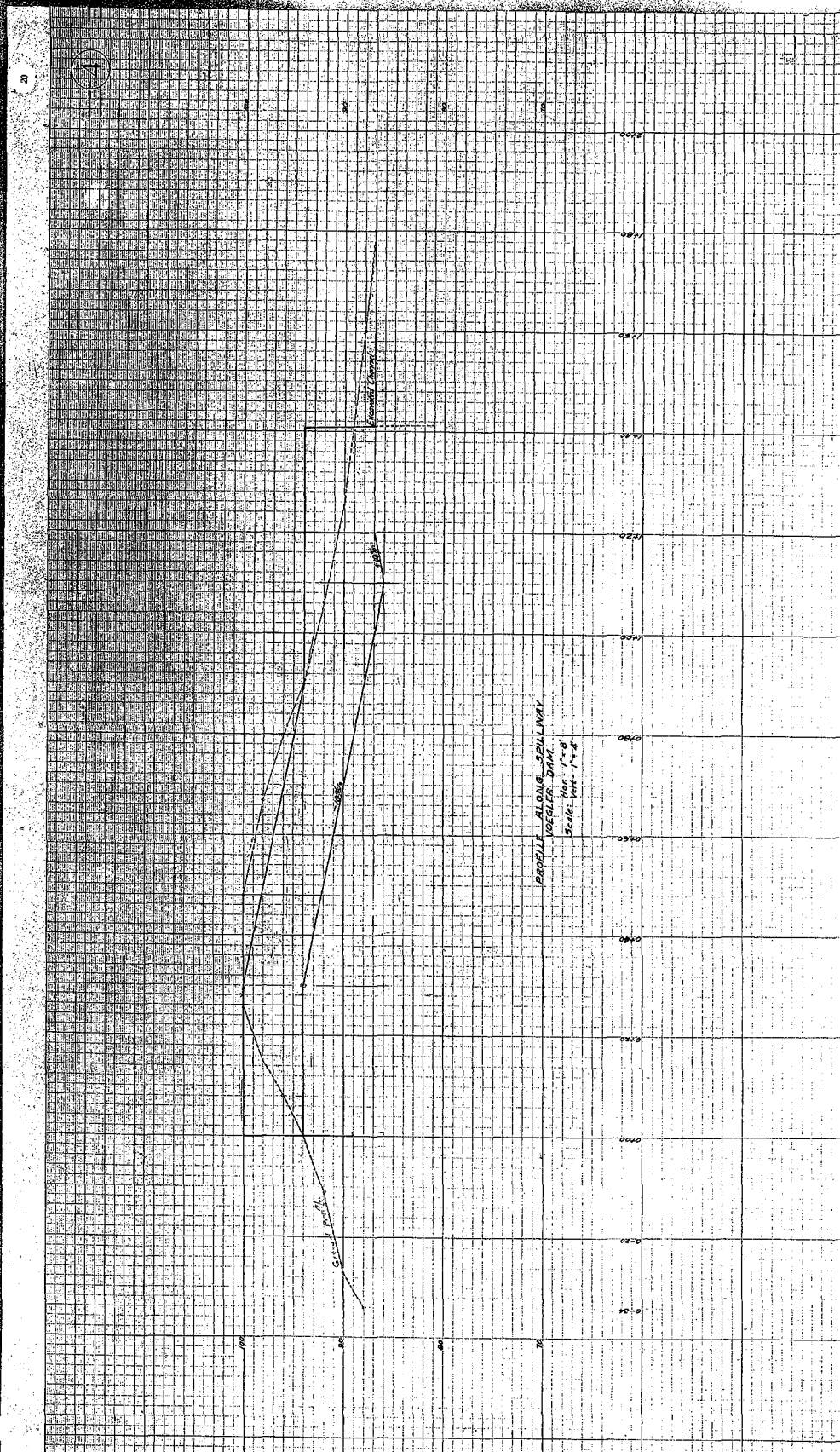
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3



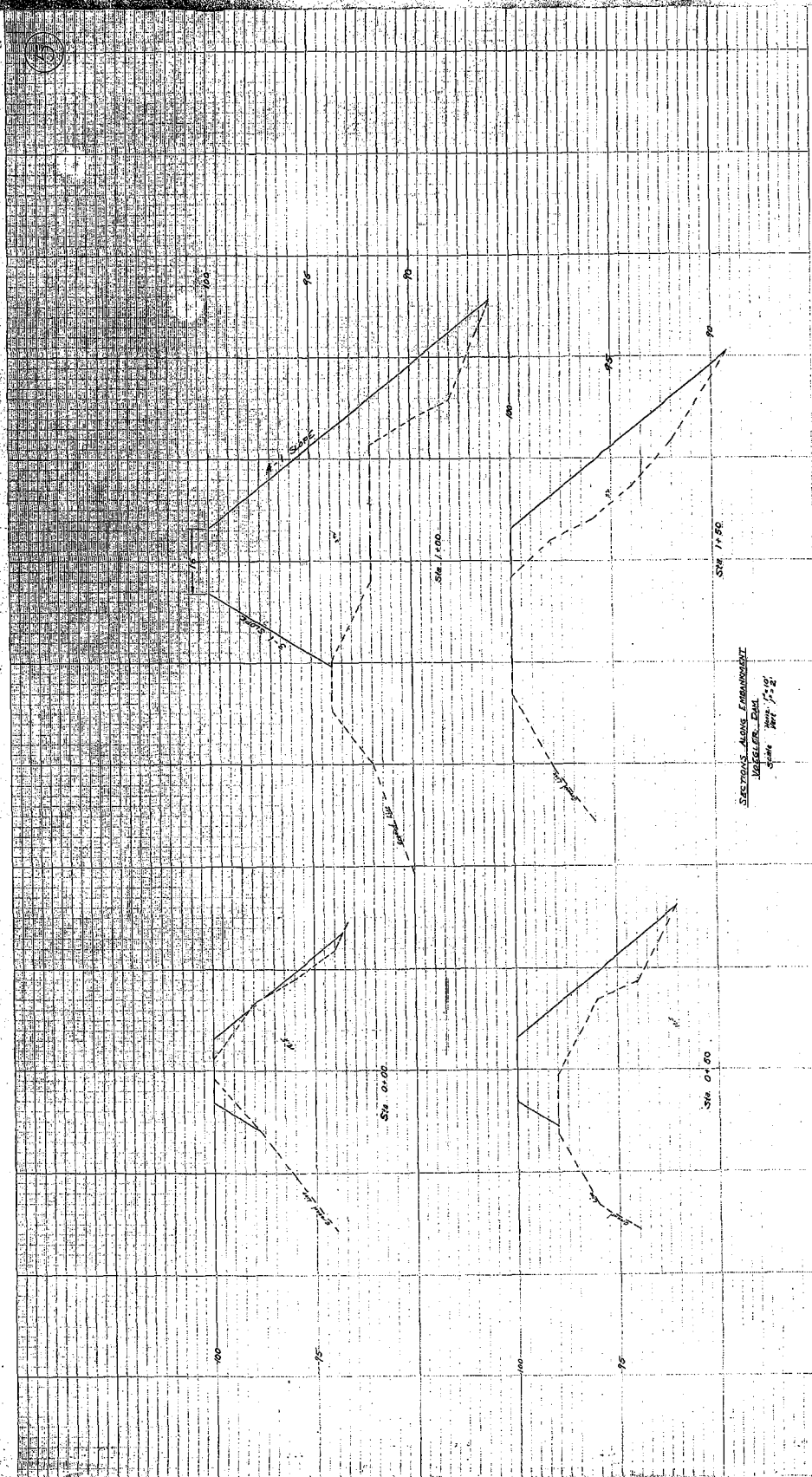
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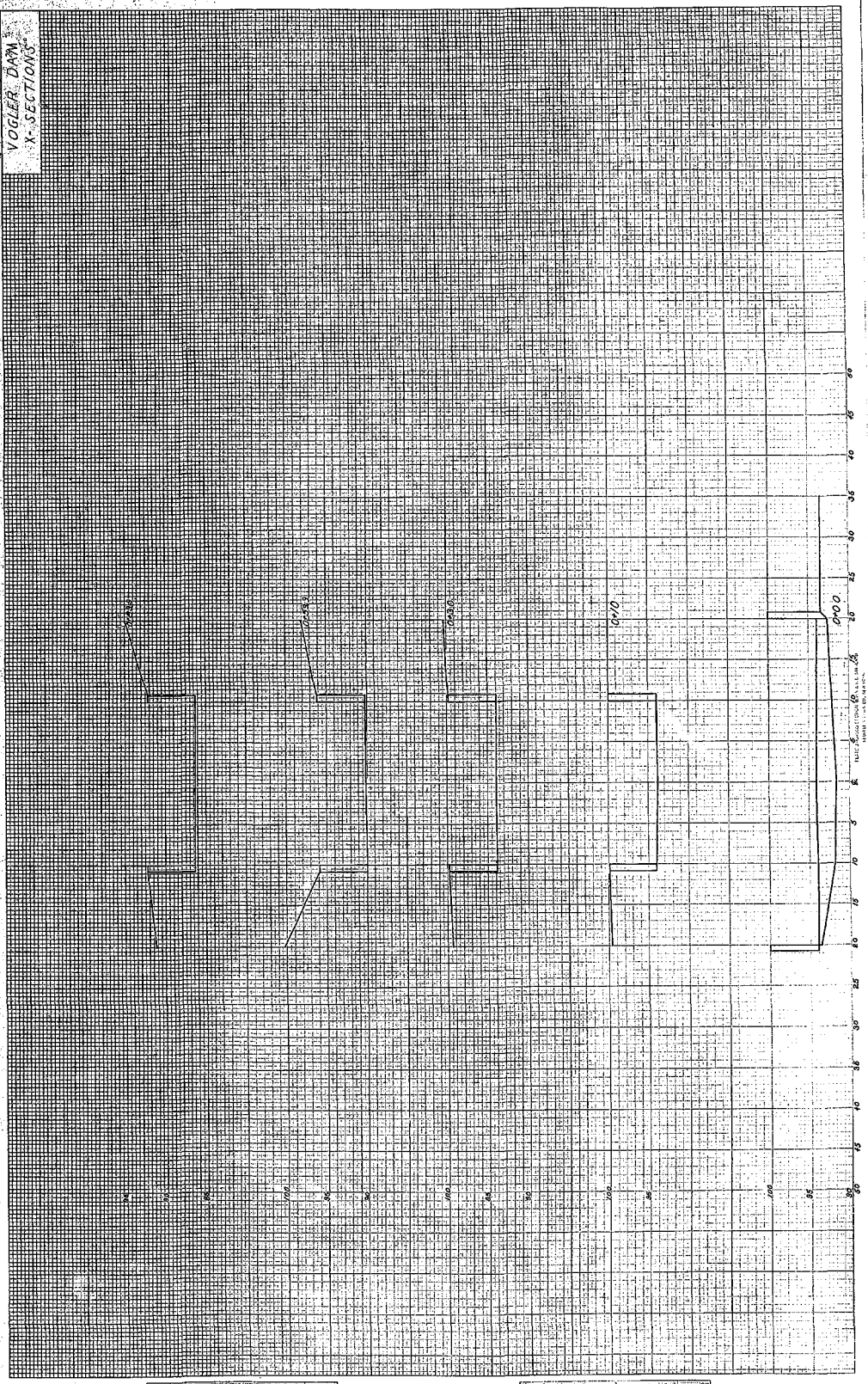
PROFILL ALONG SPILLWAY
VOELTER DAM.
Scale: 1" = 6'
Date: 1-1-6

PROFILL ALONG SPILLWAY
VOELTER DAM.
Scale: 1" = 6'
Date: 1-1-6





Page for 2 Pages
 VOGLER DAM
 X-SECTIONS

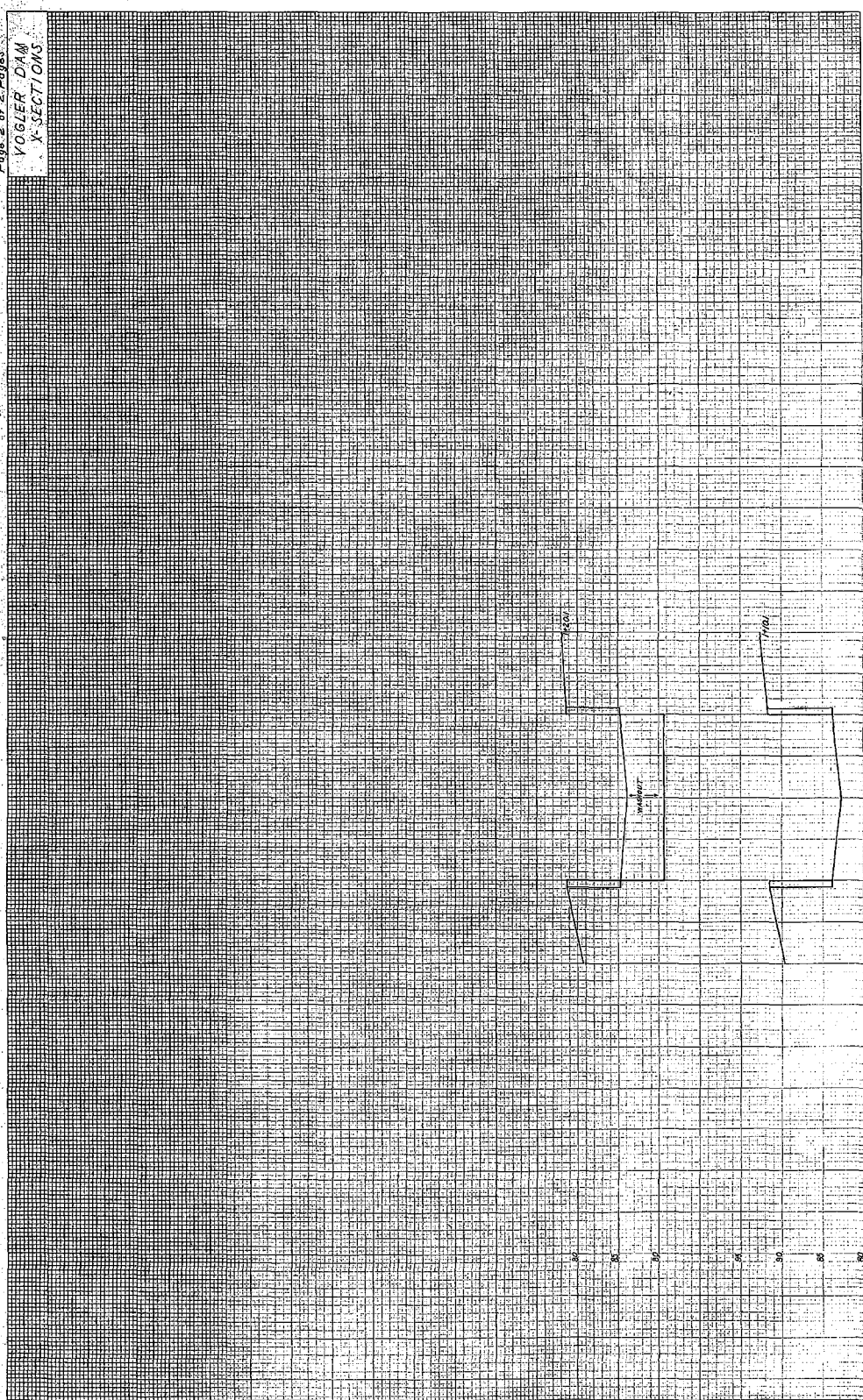


NO.	DATE	BY	CHECKED	APPROVED
1	10/1/50	J. H. H.	J. H. H.	J. H. H.
2	10/1/50	J. H. H.	J. H. H.	J. H. H.
3	10/1/50	J. H. H.	J. H. H.	J. H. H.
4	10/1/50	J. H. H.	J. H. H.	J. H. H.
5	10/1/50	J. H. H.	J. H. H.	J. H. H.

NO.	DATE	BY	CHECKED	APPROVED
1	10/1/50	J. H. H.	J. H. H.	J. H. H.
2	10/1/50	J. H. H.	J. H. H.	J. H. H.
3	10/1/50	J. H. H.	J. H. H.	J. H. H.
4	10/1/50	J. H. H.	J. H. H.	J. H. H.
5	10/1/50	J. H. H.	J. H. H.	J. H. H.



VOGLER DAM
X-SECTIONS



NO.	100
DATE	10/1/50
BY	J. H. B.
CHECKED	J. H. B.
APPROVED	J. H. B.
FINAL	J. H. B.

NO.	100
DATE	10/1/50
BY	J. H. B.
CHECKED	J. H. B.
APPROVED	J. H. B.
FINAL	J. H. B.





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

June 5, 2006

Jerry Vogeler
PO Box 7077
Pierre, SD 57501

Dear Mr. Vogeler:

We have reviewed the plans and specifications for the repair of Vogeler Dam located in the NW ¼ of Section 35-T118N-R70W, in Faulk County. The plans and specifications for the repair of Vogeler Dam are approved.

Our review was to determine compliance with the requirements of the Water Management Board Safety of Dams Rules, Chapter 74:02:08. Approval of these plans and specifications does not release you, as owner of the dam, from the responsibility for operating and maintaining the dam in good repair to ensure the safety of the dam.

Vogeler Dam (SD ID No. 00660) will be classified as a small size Category 3, Low Hazard dam with a dam height of 18 ft. and a normal storage capacity of 174 acre-feet and a maximum storage capacity of 412 acre-feet. It is currently listed as a State owned dam with the Office of School and Public Lands being the owner. After the agreement to release the easement from School and Public Lands is signed and the repair work is completed, the ownership of Vogeler dam can be changed over to your name.

The Department of Game Fish and Parks currently holds Vested Right Clam No. 906-3 for the storage of water in Vogeler Dam. Part of the P&S review process was to establish a mean sea level elevation for the primary spillway. Again after the repair work is completed, the Vested Right Claim can be validated for storage of water to elevation 1733.4 feet mean sea level (fmsl) and the capacity of 174 acre-feet. You will need to coordinate with the Department of Game, Fish and Parks on transferring the Vested Right Claim over to your name if so desired.

Sincerely,

Timothy G. Schaal, P.E.
Natural Resources Engineering Specialist
for Garland Erbele, Chief Engineer
Water Rights Program
(605) 773-3352

c: Dave Konechne
Leslie Petersen, GF&P

DENR

Re: Jerry Vogeler Dam Repair

Attached are:

- 1-copy of plans and specifications
- 2-Stage storage curve
- 3-sites floodrouting
- 4-cost estimate
- 5-bid form

The dam was raised one foot. The water level will not be changed but remain at the same level as the existing weir.

A handwritten signature in black ink, appearing to read "Dave Zuercher". The signature is fluid and cursive, with the first name "Dave" written in a larger, more prominent script than the last name "Zuercher".

Vogeler Dam Repair

Water Right No. 906-3 (6F & P)
SD Dam ID No. 00660 (S & PL)

Top of Dam Eten. - 101.3
2nd Spillway Eten. - 98.3
P. Spillway Eten. - 95
D/S Emb. Toe Eten. - 83

Cat. 3 - Low Hazard Dam

Ht. = 18 ft

Normal Storage Capacity - 174 A.-Ft
Int. Storage Capacity - 282 A.-Ft
Max. Storage Capacity - 412 A.-Ft

Int. Capacity x Eff Ht. = 282 x 15.3 = 4230 > 3000 ∴ 50 yr
Minimum Spillway Design

From USGS WRI 98-4055 "Tech for Est. Peak-Flows ... in 50"
DA = 8960 Ac = 14 mi.² PII = 0.8
Region B

$$Q_{50} = 206 CA^{.606} P_{II}^{.728}$$

$$= 206 (14)^{.606} (0.80)^{.728}$$

$$= (206) (4.9494) (0.8501)$$

$$= \underline{867 \text{ cfs}}$$

$$Q_{100} = 275 CA^{.625} P_{II}^{.742}$$

$$= 275 (14)^{.625} (0.80)^{.742}$$

$$= 275 (5.2039) (0.8474)$$

$$= \underline{1212 \text{ cfs}}$$

2nd Spillway Capacity

$$Q = CLH^{3/2}$$

$$C = 2.6$$

$$L = 150$$

$$H = 3 \text{ ft}$$

$$= 2.6 (150)(3)^{1.5}$$

$$= \underline{2025 \text{ cfs}}$$

Section 74:02:08:09

NRCS Annual Yield

DA = 8960 As CN = 75 ISO = 2

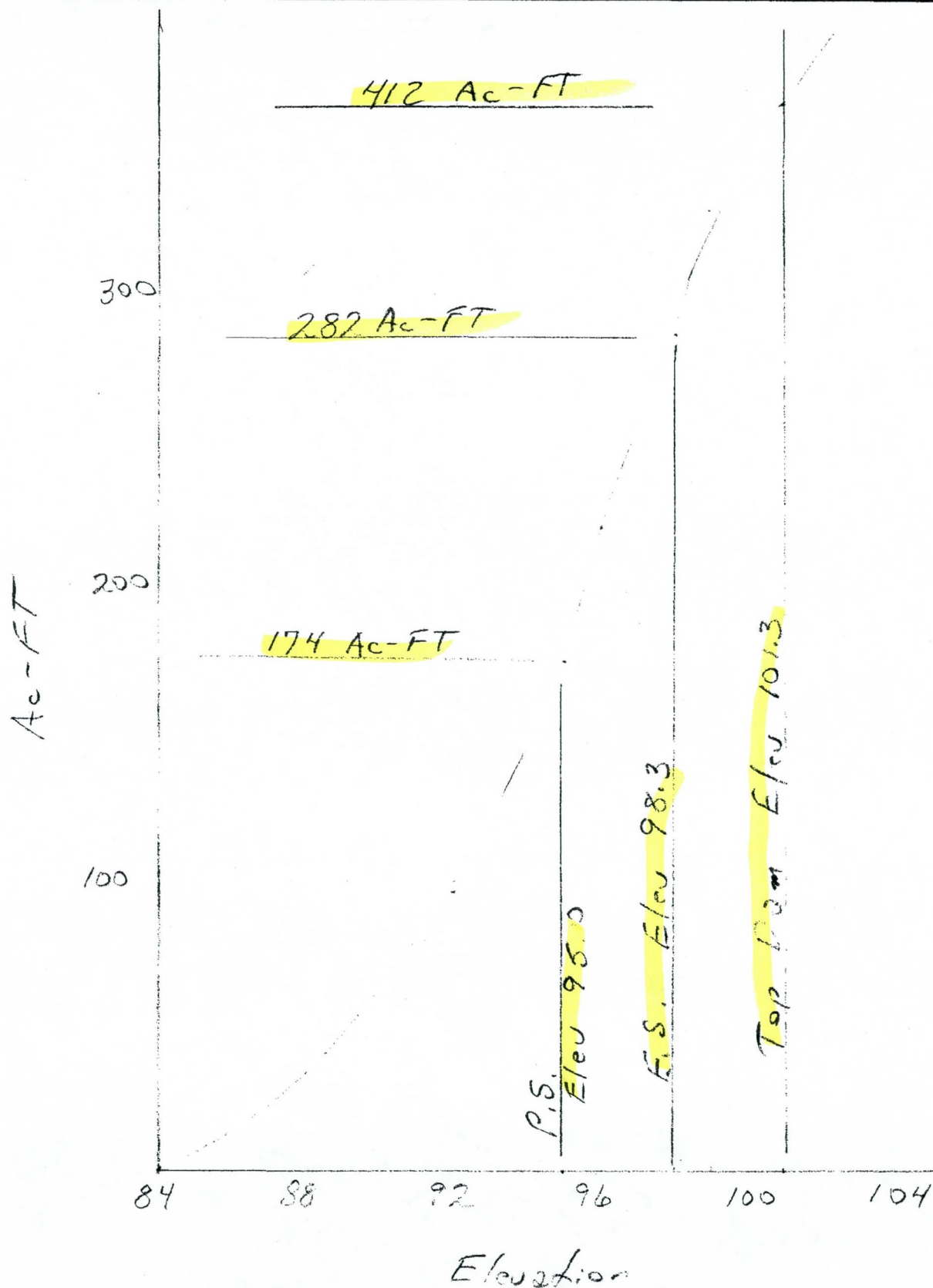
1. Topo Map - OK
2. Dam Ar's Profile - OK
3. Dam Max X-Sec. - OK
4. Area Capacity - OK
5. Spillway Rating - OK
6. Outlet Details - OK
7. Spillway Details - OK
8. Specs - SD NRCS - OK
9. EPP - N/A Cat. 3 - OK

80% chance = 0.13
 $0.13 \times 8960/12 = \underline{97 \text{ A.-Ft}}$

50% chance = 0.37
 $0.37 \times 8960/12 = \underline{280 \text{ A.-Ft}}$

10% chance = 1.80
 $1.8 \times 8960/12 = \underline{1344 \text{ A.-Ft}}$

BY	DATE	PROJECT <i>Jerry Vogeler</i>	SHEET ____ OF ____
CHKD BY	DATE	FEATURE	
DETAILS <i>NW 1/2 Sec 35, T 118 N, R 70 W</i>			



BID FORM

The undersigned state at the end of this form, having reviewed the local conditions affecting the cost of the work, construction specifications, drawings, and other contract documents which shall govern the purchase of materials, labor, and the awarding of the contract, hereby purposed and agrees to do all work and provide all materials or other items per the drawing which pertains to the contract work for:

Labor and Materials associated with the repair of the Vogeler Dam

BID SCHEDULE

ITEM	WORK	SPEC #	EST. QUANTITY	UNIT PRICE	UNIT	AMOUNT
1	EARTH FILL	SD-7S	467	XXXX	C.Y.	XXXXXX
	EXCAVATION	SD - 5	3580		C.Y.	
2	PRINCIPAL SPILLWAY	SD-15	xxxxxxx	xxxxxx	xxxxx	xxxxx
	-60 Inch Dia. Riser 8 ft long W/48 inch Dia stub 4 ft long		1		Lump Sum	
	-48 inch Dia. CMP		86		Lin. Ft.	
	-48 inch Dia Watertight Connecting Bands 24 inches wide		4		Each	
3	Concrete	SD-12B	1.8		C.Y.	
4	Reinforcing Steel	SD-13	49		Lbs.	
5	Sand Seep Collar	SD-9	31		C.Y.	
6	PVC Drain Pipe	SD-55	87		Lin. Ft.	
7	Timber Pipe Support	SD-16	1		Each	
8	Timber Trash Rack	SD-16	1		Each	

The Contractor shall include all costs for Labor, Materials and applicable taxes including Excise Tax for this Proposal. The Bidder understands that the Owner reserves the right to reject any and all bids and to wave any irregularities.

BIDDER _____

DATE _____

TELEPHONE NUMBER _____

1*****
 SITES XEQ 04/18/2006 WATER RESOURCE SITE ANALYSIS COMPUTER PROGRAM
 VER 2000 (USER MANUAL - DATED MAY 2001)
 TIME 10:47:15

***** 80-80 LIST OF INPUT DATA *****

SITES 05/01/2000 Vogeler Dam 14 H5
 SAVMOV 0 101
 SAVMOV 101 1 1
 STRUCTURE
 84 0
 86 8.5
 92 20.5
 96 35.5
 100 44.9
 102 55
 ENDTABLE
 WSDATA 5A1 AC 75 8960 31000 .6
 PDIRECT 2.2 .00 4.10
 POOLDATA ELEV 95 95 84 83 SC
 PSINLET 1 15.7
 PSDATA 1 90 48 .025 83
 ASDATA 41 400 180 2 .05 2
 ASINSURF 41 .03
 ASINLET 41 0.0 0.0 80 0.0 3
 180 10
 ENDTABLE
 ASEXSURF 41 .035
 .65 0
 3
 2 0
 .02
 ENDTABLE
 ASEXIT 41 N 400
 BTMWIDTH FEET 150
 GRAPHICS I
 GO,DESIGN HL TYPE2 24 TYPE2378 24
 SAVMOV 2 101 1
 ENDJOB

**** MESSAGE - ALTERNATE STRUCTURE ID (S 1) BEING USED
 SINCE USER DID NOT INPUT AN ID.

**** MESSAGE - ALTERNATE SUBWATERSHED ID (A) BEING USED SINCE
 USER DID NOT INPUT AN ID.

**** MESSAGE - DRAINAGE AREA FROM WSDATA CONTROL BEING CONVERTED FROM
 ACRES TO SQUARE MILES FOR COMPUTATION PURPOSES.

1SITES _____
 XEQ 04/18/2006 Vogeler Dam WSID=

VER 2000
TIME 10:47:15 SITE = S 1 SUBW= A
PASS= 1 PART= 1

***** BASIC DATA *****
CLIMATE AREA - NOT DEFINED DESIGN CLASS A1 = LT 3000.

STORM DISTRIBUTION-PSH 24 HOUR TYPE II RAINFALL DISTRIBUTION

STORM DISTRIBUTION AUX. -24 HOUR TYPE II RAINFALL DISTRIBUTION

PRECIP. - P-PS,1-DAY P-PS,10-DAY P-SD P-FB
2.20 0.00 0.00 4.10

WSDATA - CN DA-SM TC/L -/H QRF
75.00 14.00 31000.00 0.60 0.00

SITEDATA- PERM POOL CREST PS FP SED VALLEY FL 378?
95.00 95.00 0.00 83.00 YES

BASEFLOW INITIAL EL EXTRA VOL SITE TYPE
0.00 0.00 0.00 DESIGN

PSDATA - NO. COND COND L DIA/W -/H
1.00 90.00 48.00 0.00

PS N KE WEIR L TW EL
0.025 1.00 15.70 83.00

2ND STG ORF H ORF L START AUX.
0.00 0.00 0.00 0.00

ASCRESTS - AUX.1 AUX.2 AUX.3 AUX.4 AUX.5
0.00 0.00 0.00 0.00 0.00

AUX.DATA - REF.NO. RETARD. CI TIE STATION INLET LENGTH
41 0.00 400.00 180

AUX.DATA - INLET N SIDE SLOPE EXIT N EXIT SLOPE ACTUAL AUX?
0.030 2.00 0.035 0.050 NO

BTM WIDTH - BW1 BW2 BW3 BW4 BW5
ft 150.00 0.00 0.00 0.00 0.00

AUXILIARY SPILLWAY RATING DEVELOPED USING WSPVRT.

1SITES
XEQ 04/18/2006 Vogeler Dam WSID=
VER 2000 SUBW= A
TIME 10:47:15 SITE = S 1 PASS= 1 PART= 2

PERM POOL 95.00 FT 173.9 ACFT 31.75 AC 0.0 CFS

CREST PS 95.00 FT 173.9 ACFT 31.75 AC 0.0 CFS

SED ACCUM 95.00 FT 173.9 ACFT 31.75 AC 0.0 CFS

START ELEV 95.00 FT 173.9 ACFT 31.75 AC 0.0 CFS

NRCS-PSH D= 24.00 HR P= 2.20 IN Q= 0.48 IN DA= 14.00 SM
TC= 12.38 HR CN= 75.00 VOL= 360.7 ACFT

Annual Runoff

PEAK = 324.5 CFS, AT 20.8 HRS.

ROUTED RESULT - HYD TYPE EMAX VOL-MAX AMAX QMAX
NRCS-PSH 98.28 FT 294.6 ACFT 40.86 AC 206.5 CFS

PS STORAGE 120.7 ACFT, BETWEEN AUX. CREST AND SED. ACCUM ELEVATIONS.

DRAWDOWN (DDT) TEST 95.00 FT 173.9 ACFT 0.00 CFS
CONTROL IS 0.000 DETENTION STORAGE

TIME = 3.60 DAYS, TO 0.0 CFS (LIMIT = 10.00 DAYS)

RATING TABLE DEVELOPED, SITE = S 1:
BY PROGRAM FOR PS AND AUX. SPILLWAYS
AUX. RATING USED WSPVRT METHOD.

RATING TABLE NUMBER 1

	ELEV. FEET	Q-TOTAL CFS	Q-PS CFS	Q-AUX. CFS	VOLUME AC-FT	AREA ACRE
1	95.00	0.00	0.00	0.00	173.88	31.75
2	95.65	25.21	25.21	0.00	195.13	34.17
3	96.29	71.31	71.31	0.00	217.89	36.18
4	96.94	131.00	131.00	0.00	241.72	37.70
FULL CONDUIT FLOW, ELEV = 97.58 FT						
5	97.58	201.70	201.70	0.00	266.52	39.21
6	98.13	205.53	205.53	0.00	288.55	40.51
7	98.69	209.25	209.25	0.00	311.29	41.81
8	99.24	212.90	212.90	0.00	334.75	43.11
9	99.79	216.49	216.49	0.00	358.92	44.41
10	100.34	220.02	220.02	0.00	383.97	46.63
11	100.90	223.50	223.50	0.00	410.51	49.42
12	101.45	226.93	226.93	0.00	438.58	52.21
13	102.00	230.30	230.30	0.00	468.20	55.00

1SITES

XEQ 04/18/2006 Vogeler Dam WSID=
VER 2000 SUBW= A
TIME 10:47:15 SITE = S 1 PASS= 1 PART= 3

AUX. CREST 98.28 FT 294.6 ACFT 40.86 AC 206.5 CFS

PS STORAGE 120.7 ACFT, BETWEEN AUX. CREST AND SED. ACCUM ELEVATIONS.

START ELEV 95.00 FT 173.9 ACFT 31.75 AC 0.0 CFS

EFFECTIVE HEIGHT(H)= 14.3 FEET, PRODUCT= 4206. (H * STORAGE AT CREST AUX.).

INPUT DESIGN CLASS = A1 = LT 3000. PRODUCT.

***** WARNING - NHCP-378 CRITERIA DOES NOT APPLY WHEN THE EFFECTIVE HEIGHT
IS OVER 35 FEET OR THE PRODUCT IS 3000 OR GREATER.

NRCS-FBH D= 24.00 HR P= 4.10 IN Q= 1.74 IN DA= 14.00 SM
TC= 12.38 HR CN= 75.00 VOL= 1300.7 ACFT

PEAK = 1243.5 CFS, AT 20.2 HRS.

RATING TABLE DEVELOPED, SITE = S 1:
BY PROGRAM FOR PS AND AUX. SPILLWAYS
AUX. RATING USED WSPVRT METHOD.

RATING TABLE NUMBER 2

	ELEV. FEET	Q-TOTAL CFS	Q-PS CFS	Q-AUX. CFS	VOLUME AC-FT	AREA ACRE
1	95.00	0.00	0.00	0.00	173.88	31.75
2	95.65	25.21	25.21	0.00	195.13	34.17
3	96.29	71.31	71.31	0.00	217.89	36.18
4	96.94	131.00	131.00	0.00	241.72	37.70
FULL CONDUIT FLOW, ELEV = 97.58 FT						
5	97.58	201.70	201.70	0.00	266.52	39.21
6	97.67	202.35	202.35	0.00	269.96	39.42
7	97.76	202.95	202.95	0.00	273.42	39.62
8	97.84	203.55	203.55	0.00	276.90	39.83
9	97.93	204.15	204.15	0.00	280.40	40.04
10	98.02	204.75	204.75	0.00	283.91	40.24
11	98.11	205.34	205.34	0.00	287.44	40.45
12	98.19	205.94	205.94	0.00	290.99	40.65
13	98.28	206.53	206.53	0.00	294.55	40.86
14	98.47	225.01	207.78	17.22	302.19	41.30
15	98.65	250.12	209.03	41.09	309.92	41.73
16	98.99	360.05	211.25	148.80	324.02	42.52
17	99.40	562.20	213.94	348.26	341.61	43.48
18	100.14	1115.89	218.74	897.15	374.64	45.61
19	101.07	2009.84	224.59	1785.24	419.24	50.30
20	102.00	3114.40	230.30	2884.10	468.20	55.00

SUMMARY OF AUXILIARY SPILLWAY SURFACE CONDITIONS USED IN COMPUTATIONS BY REACH

REACH	FROM STA	TO STA	SLOPE CURVE	RETARDANCE COVER	VEGETAL CODE	MAINT. DEPTH	ROOTING LOCATION
	(ft)	(ft)	(%)	INDEX@	FACTOR	(ft)	*

1	220.	320.	-10.0	0.030	**	**	**	INLET
2	320.	400.	0.0	0.030	**	**	**	CREST
3	400.	800.	5.0	0.035	0.65	3	2.0	EXIT !

@ The program interprets retardance curve index entries of less than 1 as Manning's n values.

* Upper case indicates a reach of constructed spillway channel.

** The program does not use vegetal cover factor, maintenance code, and rooting depth for inlet and crest reaches in computations.

! Reach 3 used in computing exit channel velocities.

DRAWDOWN USING FREEBOARD STORM FOLLOWS, STARTING AT ELEVATION 98.28 FT.

DRAWDOWN (DDT) TEST 95.00 FT 173.9 ACFT 0.00 CFS
CONTROL IS 0.000 DETENTION STORAGE

TIME = 4.06 DAYS, TO 0.0 CFS (LIMIT = 10.00 DAYS)

ROUTED RESULTS	BTM	WIDTH	MAX ELEV	VOL-MAX	AREA-MAX	AUX.-HP	VOL-AUX.
	FT	FT	ACFT	AC	FT	ACFT	
NRCS-FBH	150.0	100.26	380.1	46.2	1.98	85.5	

PEAK - CFS Q-PS Q-AUX. Q-TOT.
DISCHARGE = 219. 1005. 1225.

	CRITICAL DEPTH	CRITICAL VELOCITY	CRITICAL SLOPE-Sc	25% OF Q Sc
AUXILIARY SPILLWAY	FT	FT/SEC	FT/FT	FT/FT
	1.11	5.94	0.017	0.024

EFFECTIVE STRESS FOR STABILITY ANALYSIS OF AUX. EXIT CHANNEL

(Refer to Ag. Handbook 667, Chapt. 3, for allowable stresses.)

Aux. Discharge = 1005. cfs; Bottom Width = 150. ft

REACH FROM TO SLOPE MANNING'S VELOCITY STRESS

NO.	STA	STA	%	n	ft/s	lb/ft^2
3	400.	800.	5.00	0.035	8.18	1.539

AUXILIARY SPILLWAY DURATION FLOW = 20.2 HOURS

ATTACK, OE/B = 5.1 ACFT/FT

***** MESSAGE - NHCP378 CRITERIA USED BUT AUXILIARY SPILLWAY RATING NOT BASED ON ASFILE RATINGS.

EXIT CHANNEL FLOW SUPERCRITICAL: MAX VELOCITY= 8.2 FT/SEC

EXIT SLOPE = 0.050 FT/FT

FLOW DEPTH = 0.8 FT

>>>> NHCP378 RUN - MINIMUM DEPTH, CREST AUX. TO TOP OF DAM IS 2.00 FT.

NEW TOP OF DAM ELEVATION = 100.28.

ROUTED	BTM	WIDTH	MAX ELEV	VOL-MAX	AREA-MAX	AUX.HP	VOL-AUX.
RESULTS	FT	FT	ACFT	AC	FT	ACFT	
MINIMUM AUX.	150.0	100.28	381.4	46.3	2.01	86.8	

PEAK - CFS	Q-PS	Q-AUX.	Q-TOT.
DISCHARGES =	219.7	1030.9	1250.5

Em Spillway Capacity

	CRITICAL	CRITICAL	CRITICAL	25% OF Q
	DEPTH	VELOCITY	SLOPE-Sc	Sc
AUXILIARY	FT	FT/SEC	FT/FT	FT/FT
SPILLWAY —	1.13	5.99	0.017	0.023

>>>>> NHCP378 RUN - MINIMUM DEPTH, DESIGN FLOW TO TOP OF DAM; 1.00 FT REQUIRED
FOR THIS PASS. NEW TOP OF DAM ELEVATION = 101.26.

ROUTED	BTM	WIDTH	MAX ELEV	VOL-MAX	AREA-MAX	AUX.HP	VOL-AUX.
RESULTS	FT	FT	ACFT	AC	FT	ACFT	
MINIMUM AUX.	150.0	101.26	429.2	51.3	2.99	134.6	

PEAK - CFS	Q-PS	Q-AUX.	Q-TOT.
DISCHARGES =	225.8	2008.0	2233.8

Em Spillway @ Top Dam

	CRITICAL	CRITICAL	CRITICAL	25% OF Q
	DEPTH	VELOCITY	SLOPE-Sc	Sc
AUXILIARY	FT	FT/SEC	FT/FT	FT/FT
SPILLWAY —	1.76	7.44	0.015	0.020

INFLOW HYD 1 PSH-PEAK = 206.51 CFS AT 26.95 HRS, LOCATION POINT

INFLOW HYD 1 FBH-PEAK = 1224.98 CFS AT 21.44 HRS, LOCATION POINT
HYDOUT 1

1SITES.....JOB NO. 1 COMPLETE.

Vogeler Dam

0 SUBWATERSHED(S) ANALYZED.

1 STRUCTURE(S) ANALYZED.

2 HYDROGRAPHS ROUTED AT LOWEST SITE.

0 TRIALS TO OBTAIN BOTTOM WIDTH FOR SPECIFIED STRESS OR VELOCITY.

SITES.....COMPUTATIONS COMPLETE

>>> SITE SUBWS SUBWS DA CURVE TC TOTAL DA TYPE STRUC <<<									
ID	ID	(SQ MI)	NO.	(HRS)	(SQ MI)	DESIGN	CLASS		
S	1	A	14.00	75.12.38	14.00	378CR	A1		

PASS DIA./ AUX.CREST BTM. MAX. MAX. EMB. INTEGR.* EXIT* TYPE									
NO.	WIDTH	ELEV	WIDTH	HP	ELEV	VOL.	DIST.	VEL.	HYD
(IN/FT)	(FT)	(FT)	(FT)	(FT)	(CY)	(FT)	(FT/SEC)		
1	48.0	98.3	150.0	3.0	101.3	0.	0.	8.2	MIN. AUX.

* INTEGRITY DIST. AND EXIT VEL. ARE BASED ON THE ROUTED HYDROGRAPH AND WILL NOT RELATE TO THE MAX. ELEV. (TOP OF DAM), WHICH IS SET BY MINIMUM DESIGN CRITERIA.

SITES.....SUMMARY TABLE 1 COMPLETED.

NRCS SITES VERSION 2000 ,05/01/2000
FILES

INPUT

C:\data\Engineering\sites\vogeler1\vogler-48.D2C

OUTPUT - DATED 04/18/2006 10:47:15

C:\data\Engineering\sites\vogeler1\vogler-48.OUT

GRAPHICS FILES GENERATED

OPTION "L" DATED 04/18/2006 10:47:15

C:\data\Engineering\sites\vogeler1\vogler-48.DRG

OPTION "P" DATED 04/18/2006 10:47:15

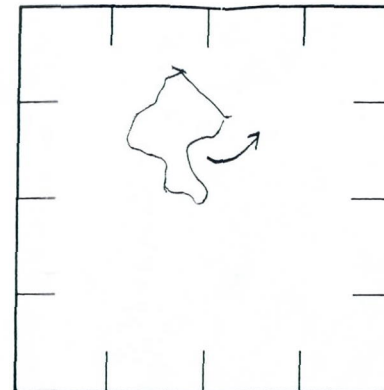
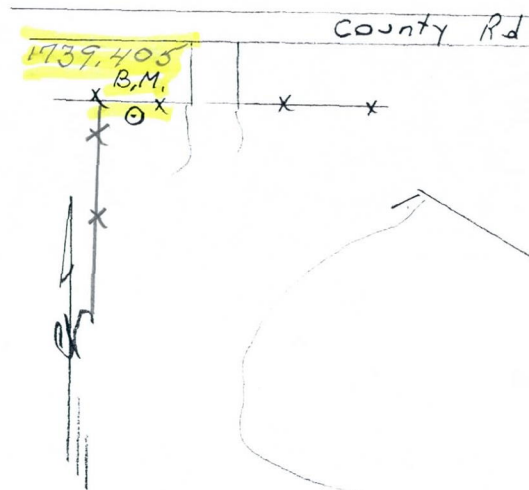
C:\data\Engineering\sites\vogeler1\vogler-48.DHY

OPTION "E" DATED 04/18/2006 10:47:15

C:\data\Engineering\sites\vogeler1\vogler-48.DEM

STRUCTURE DATA

DRAINAGE AREA	ANNUAL YIELD	PEAK RUNOFF	EMERG. SPLWY. CAPACITY	WATER DEPTH	SURFACE AREA	SEDIMENT STORAGE	TOTAL STORAGE
ACRES	AC.FT.	25-YR.	C.F.S.	FEET	ACRES	AC.FT.	AC.FT.
8960	360	1300	1030	11	32	—	174



Sec. 35 T. 118 N. R. 70 W
Faulk County

LOCATION

N 44° 59.821'
W 099° 14.286'

150 ft Em Spillway



Property Line

SKETCH PLAN OF DAM AND RESERVOIR AREA

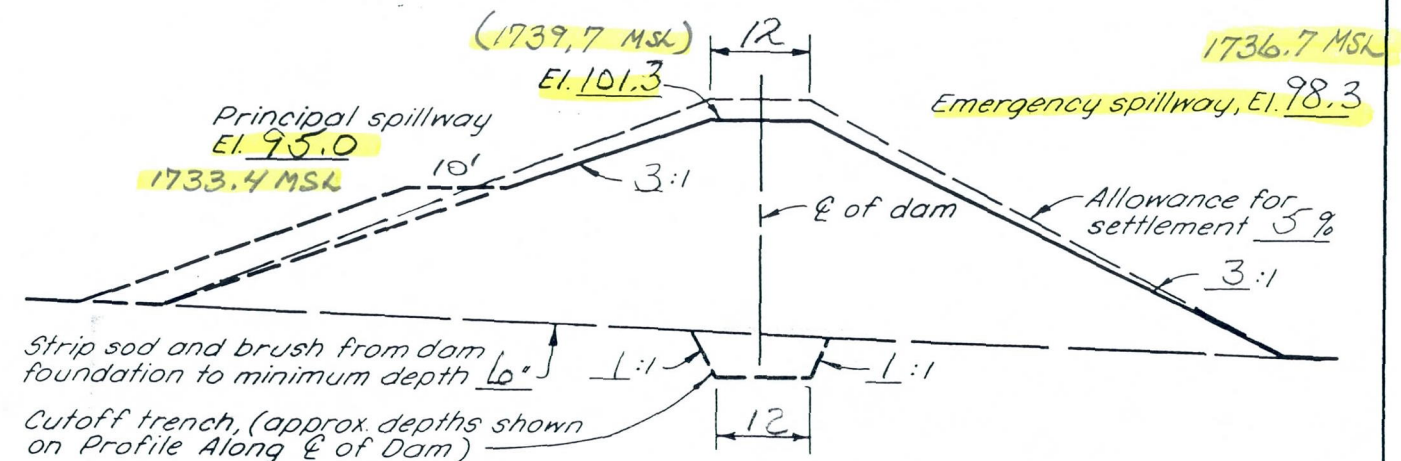
Approximate scale 1" = NA

REFERENCE: GUIDE PLAN NO. 1.0

USDA SCS LINCOLN NEBR. 1973

TABLE OF QUANTITIES

ITEM	UNIT	QUANTITY
Excavation		
Emergency Spillway	cy	6694
Core Trench	cy	342
Earth Fill - Dam	cy	2961
Earth Fill - Road	cy	748
60 inch Dia Riser 8 ft long w/4 ft 48 inch stub	ea	1
48 inch Dia spiral CMP	lin ft	90
48 inch Dia watertight connecting bands	ea	3
concrete	cy	1.8
reinforcing steel	lbs	49
sand seep collar	cy	31
PVC 4 inch dia drain pipe	lin ft	87
Timber Pipe Support	ea	1
Timber Trash Rack	ea	1
24 inch dia road culvert	lin ft	76



TYPICAL CROSS SECTION OF DAM

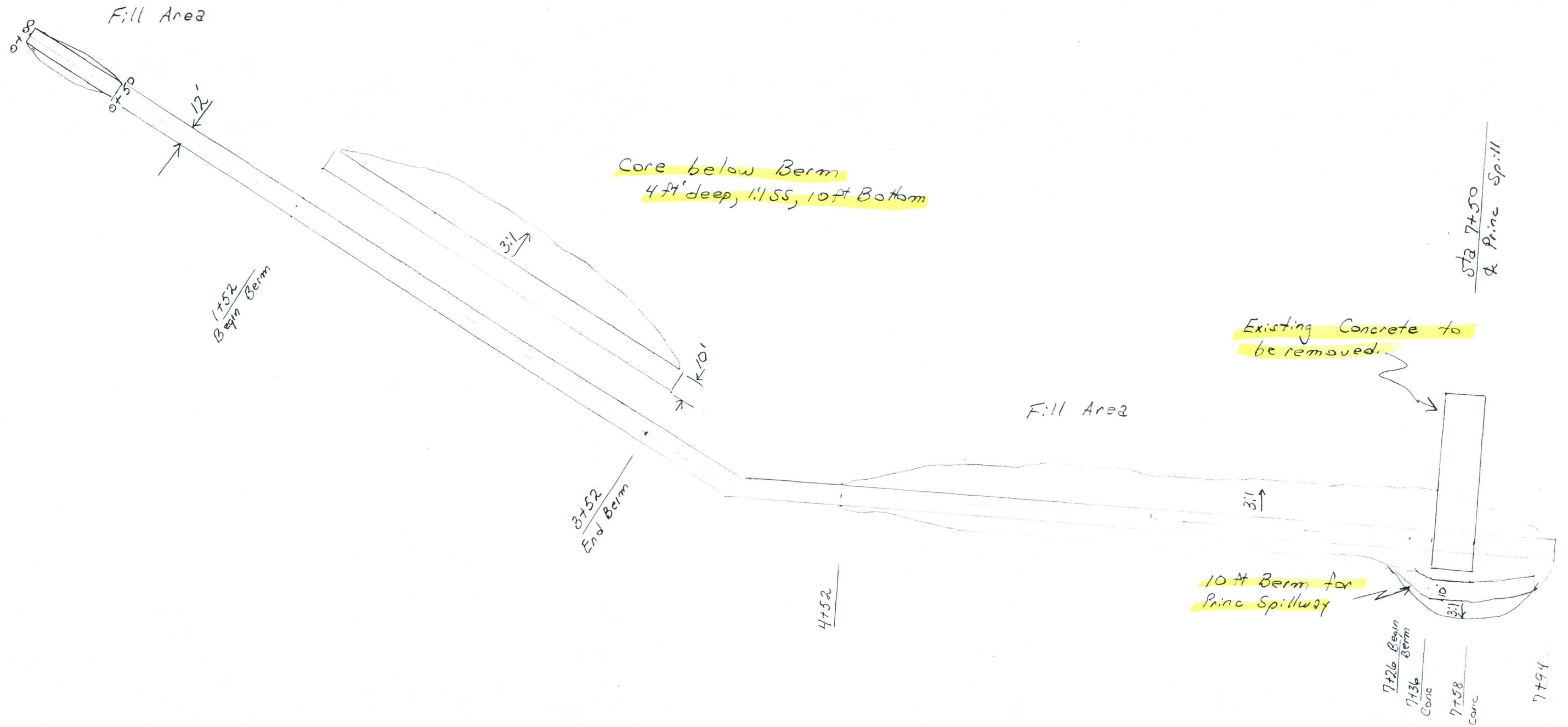
S.D. CONSTRUCTION AND MATERIAL SPECIFICATIONS:

- SD-2 Clearing & Grubbing
- SD-3 Structure Removal
- SD-5 Excavation
- SD-7S Earth Fill
- SD-9 Drain Fill
- SD-12B Concrete
- SD-13 Steel Reinforcement
- SD-15 CMP
- SD-16 Timber Fabrication
- SD-50 CMP

JOB PLAN NO. 1.0

EARTH DAM

OPERATOR: Jerry Vogeler	
CONSERVATION DISTRICT: Faulk	
Class "A" Hazard	
Designed: D. Konechne	Date: _____
Drawn: _____	Approved by: _____
Traced: _____	Title: _____
Checked: _____	Sheet: _____
	Drawing No: _____

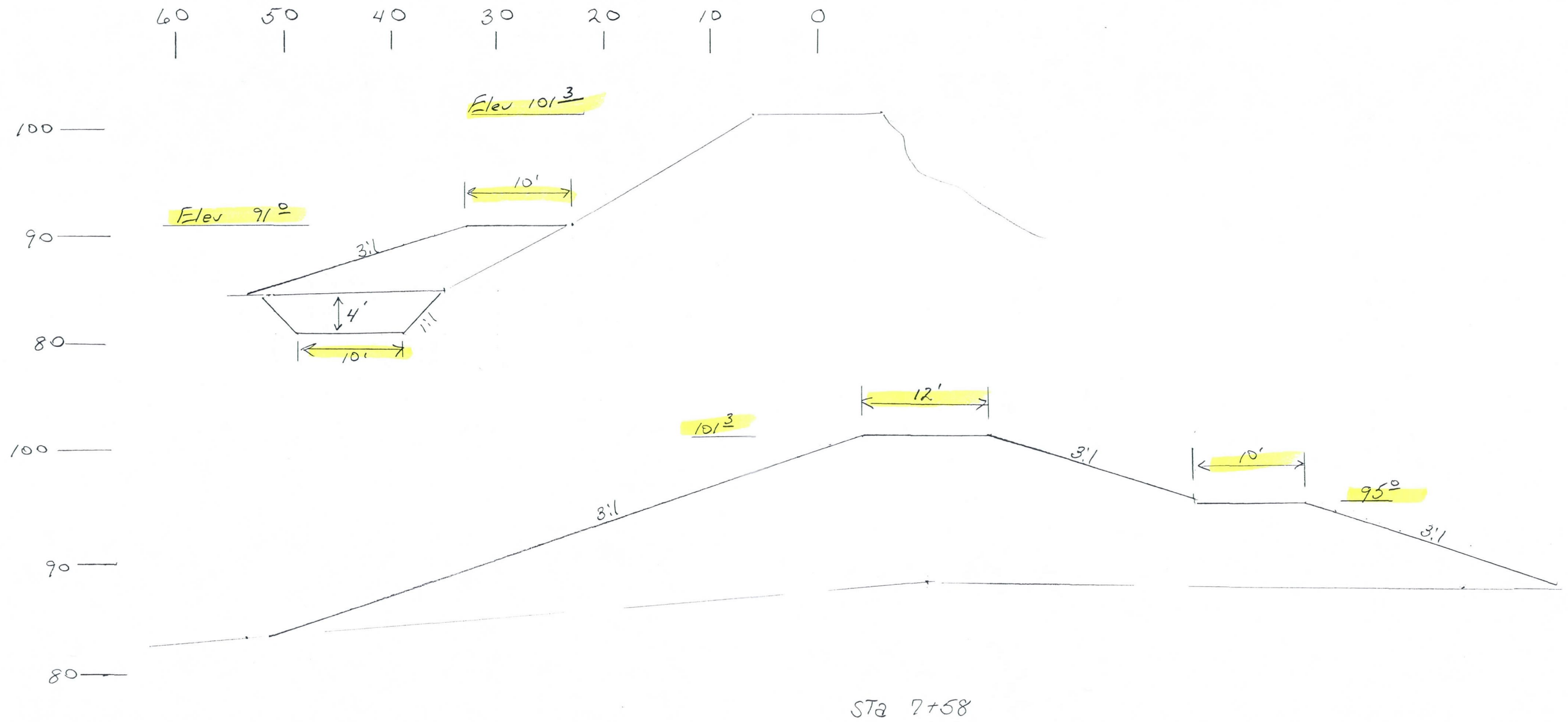


PLAN View
1" = 50 ft

Vogeler Dam

Sta 2+52

Vogeler Dam



Locate principal spillway pipe at $\mathbb{C}$ of dam sta. $\frac{9}{+90}$, at an angle of $\frac{90^\circ}{}$ to the $\mathbb{C}$ of the dam.

Emergency spillway El. 98.3

Principal spillway El. 95.0

Berm, if required 3:1
slope normal to CL of
dam
Berm only at
P.S. inlet

Trash rack and baffle plate
not shown. See job plan
no. 6, 4

3 : 1 slope normal
to $\odot$ of dam —

Top of dam after settlement El. 101.3

Note: Allowance for settlement 5 %

✓ 3:1 slope normal to $\mathbb{C}$ of dam

60" dia. riser, see
job plan no. 5.3

Antiseep collars

← sand seep collar
see job plan 3.8

90' of 48" dia. pipe

4 % gr

El. 87.6

27'

57'

CROSS SECTION OF DAM ALONG C OF PRINCIPAL SPILLWAY
(Not to scale)

SPECIFICATION NOTES

1. ELBOW, IF REQUIRED, MAY BE FABRICATED BY CONTINUOUS WELDING SEPERATE PIPE SECTIONS OR BY FABRICATING A CONTINUOUS WELDED JOINT ON THE UPSTREAM END OF LAST SECTION OF PIPE.
2. PIPE WALL THICKNESS SHALL BE 12 GAGE OR _____ INCHES.

48 inch dia to be spiral
CMP

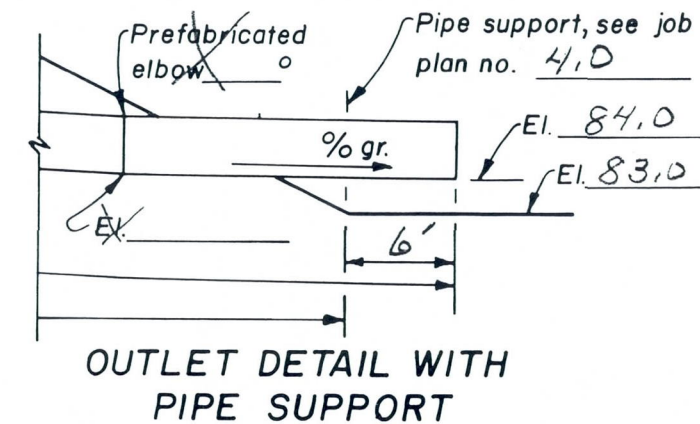
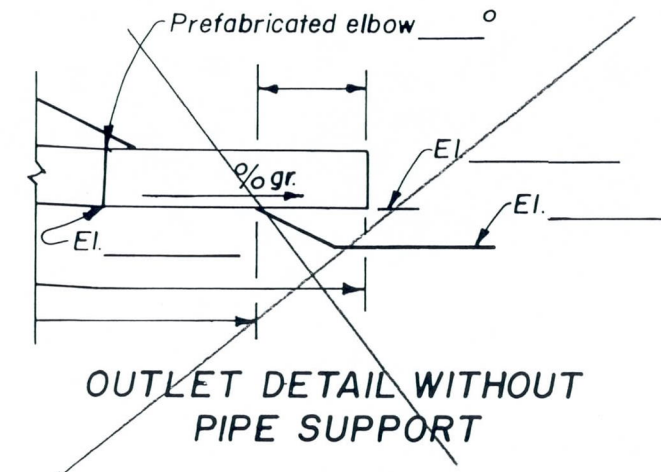
TABLE OF QUANTITIES

[illegible]

APPLICABLE STANDARD S.C.S. SPECIFICATIONS

REFERENCE: GUIDE PLAN NO. 2.0

Rev. 8/80
JOB PLAN NO. 2.0



Sec. _____, T. _____, R. _____
_____ County

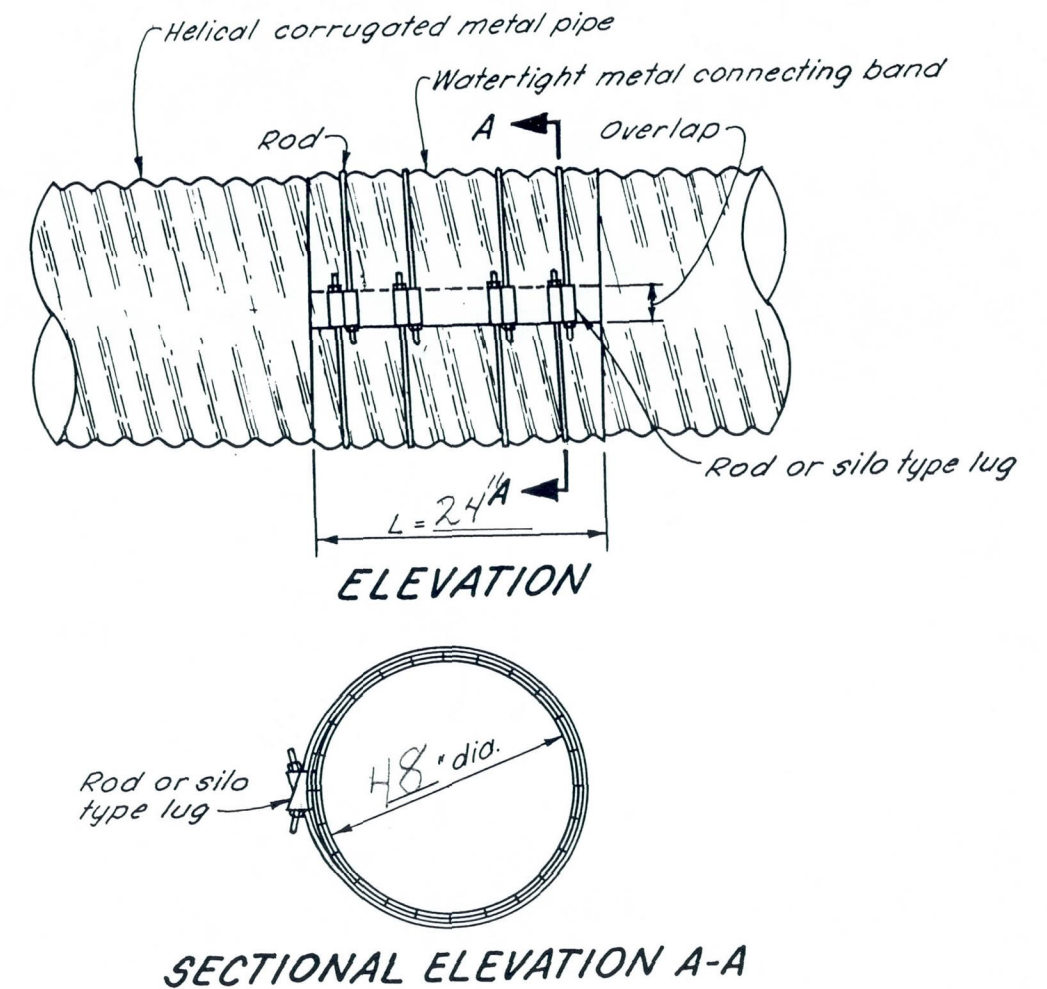
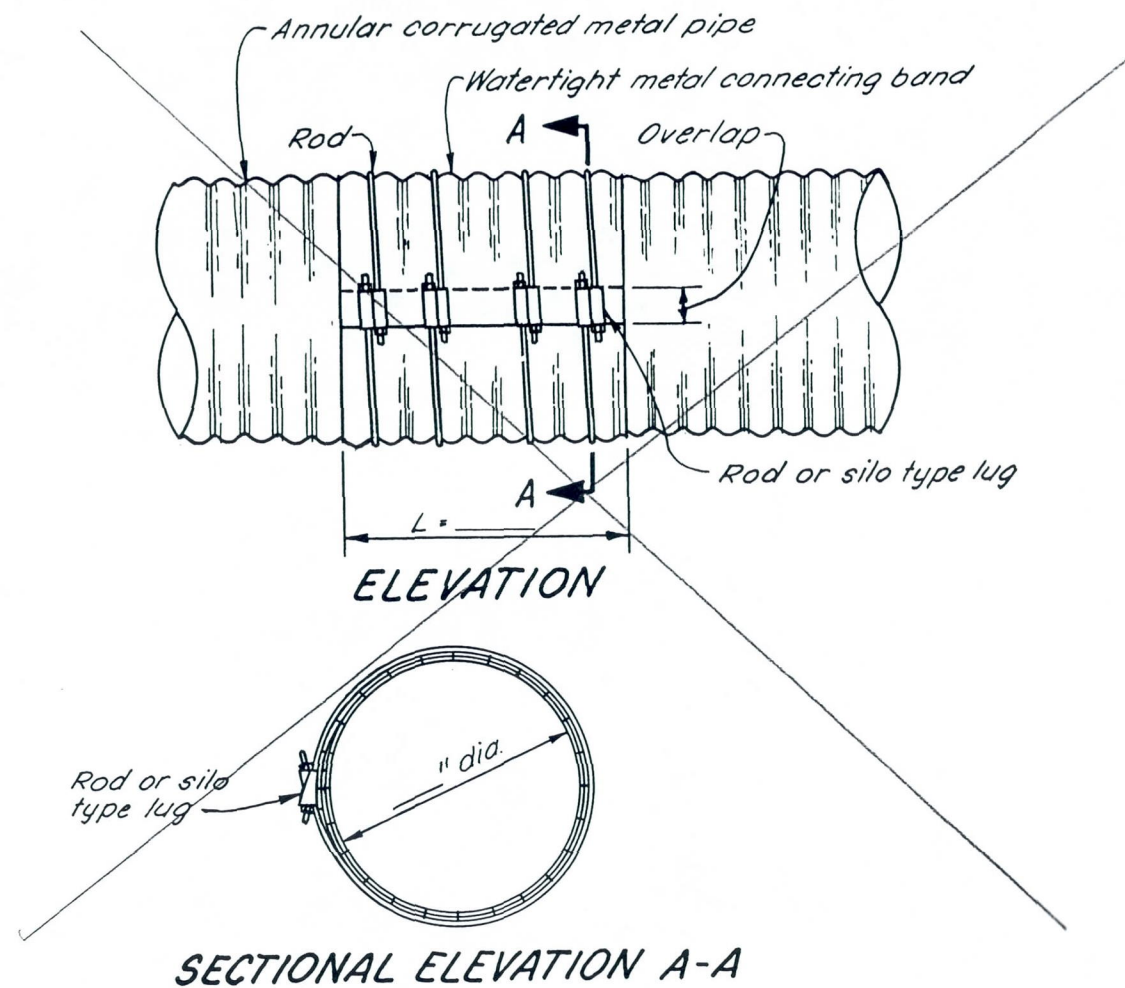
LOCATION

CORRUGATED METAL PIPE
DROP INLET PRINCIPAL SPILLWAY

OPERATOR Jerry Vogeler
CONSERVATION DISTRICT Faulk

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

	Date	Approved by
Designed		Title
Drawn		Title
Traced		Sheet
Checked		No
		of
		Drawing No.



DIMENSIONS AND QUANTITIES

PIPE DIA. INCHES	MINIMUM "L" INCHES	APPROX. OVERLAP INCHES	NUMBER OF RODS & LUGS	MINIMUM ROD DIA. IN.	NEOPRENE GASKET WIDTH INCHES	ASPHALT MASTIC GAL.
6-18	12	2	2	1/2	12	1 1/2
21-30	24	3	4	1/2	12	1 1/2
36-48	24	6	4	1/2	12	2

NOTES:

1. WATERTIGHTNESS WILL BE OBTAINED BY USE OF (1) 3/8" THICK NEOPRENE GASKET (WIDTH AS SHOWN) OR (2) ASPHALT MASTIC SEALING MATERIAL TO COVER FULL WIDTH OF BAND.
2. CROSS OUT BAND AND QUANTITIES NOT APPLICABLE.

WATERTIGHT CONNECTING BAND FOR ANNULAR AND HELICAL CORRUGATED METAL PIPE

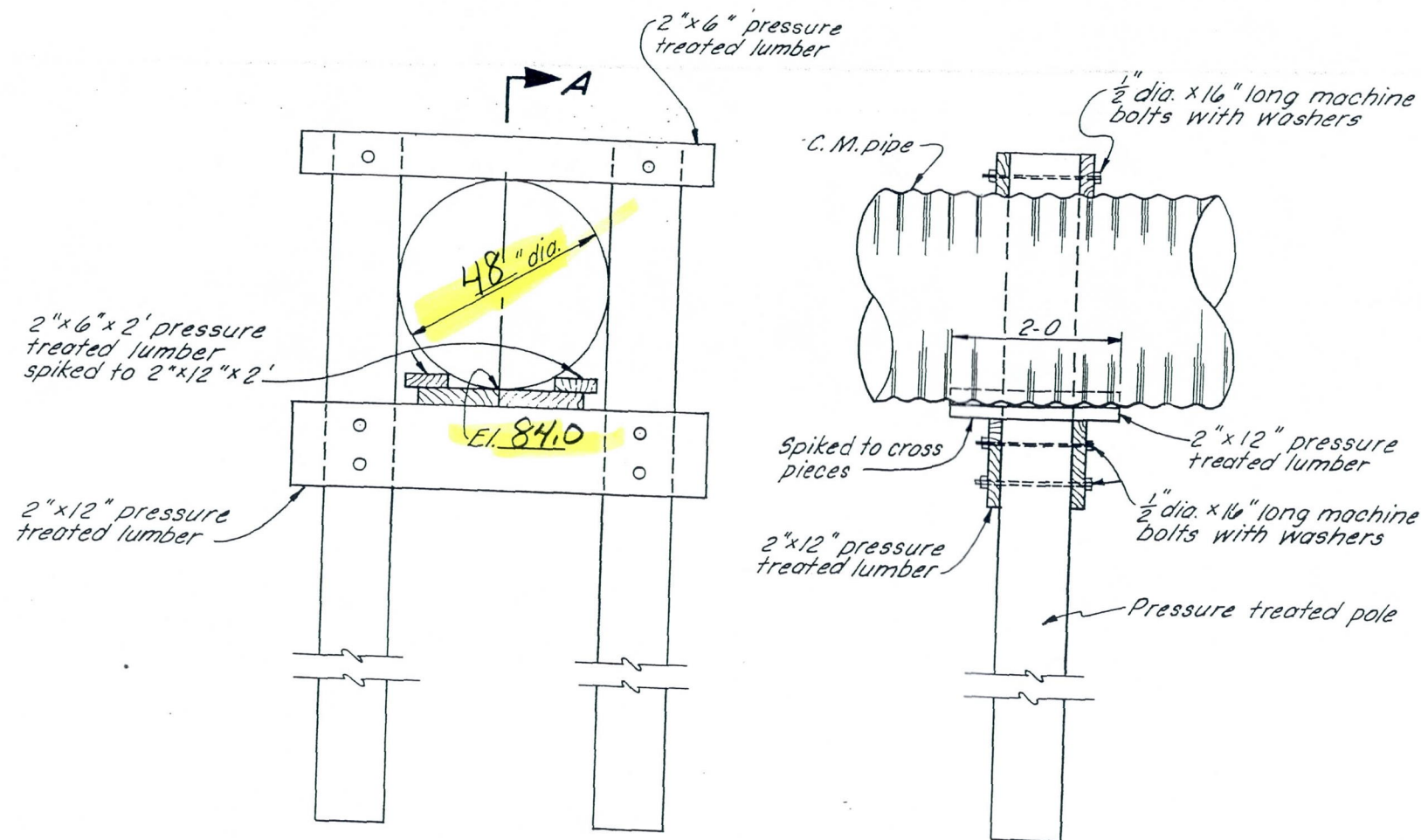
OPERATOR: Jerry Vogeler

CONSERVATION DISTRICT: _____

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Designed _____	Date _____	Approved by _____
Drawn _____		Title _____
Traced _____		Title _____
Checked _____	Sheet _____	Drawing No. _____
	No _____	
	of _____	

JOB PLAN NO. 3.0



ELEVATION

SECTIONAL ELEVATION A-A

TABLE OF QUANTITIES

ITEM	LENGTH FOR 48" DIA. C.M. PIPE	UNIT	QUANTITY
PRESSURE TREATED POLE 8" DIA.	10'	EACH	2
2" X 12" PRESSURE TREATED LUMBER	7'	EACH	2
2" X 6" PRESSURE TREATED LUMBER	7'	EACH	2
2" X 12" PRESSURE TREATED LUMBER	2'	EACH	2
2" X 6" PRESSURE TREATED LUMBER	2'	EACH	2
1/2" DIA. MACHINE BOLTS WITH NUTS	14"	EACH	6
1/2" DIA. WASHERS		EACH	

NOTES:

- HAND OR MACHINE TAMP BACKFILL THOROUGHLY AROUND FOOTINGS AND COLUMNS.

TIMBER PIPE SUPPORT

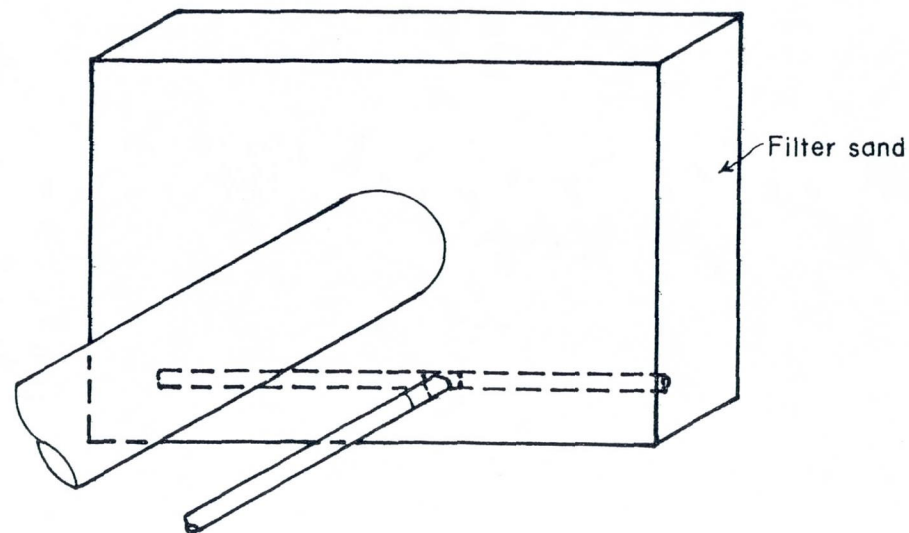
OPERATOR: Jerry Vogeler

CONSERVATION DISTRICT: _____

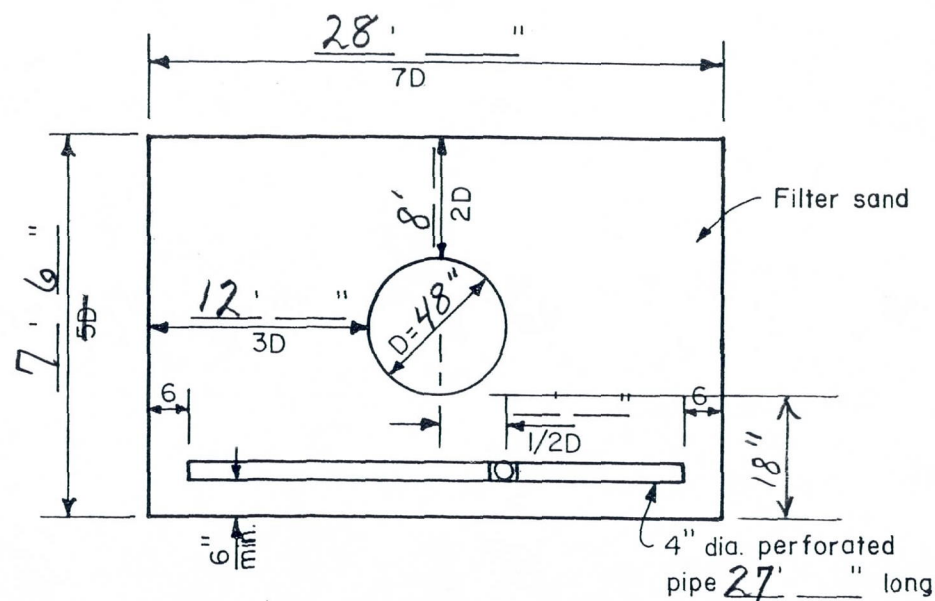
Designed.....	Date.....	Approved by.....
Drawn.....		Title.....
Traced.....		Title.....
Checked.....		Sheet No. _____ of _____
		Drawing No. _____

REFERENCE: GUIDE PLAN NO. 4.0

JOB PLAN NO. 4.0



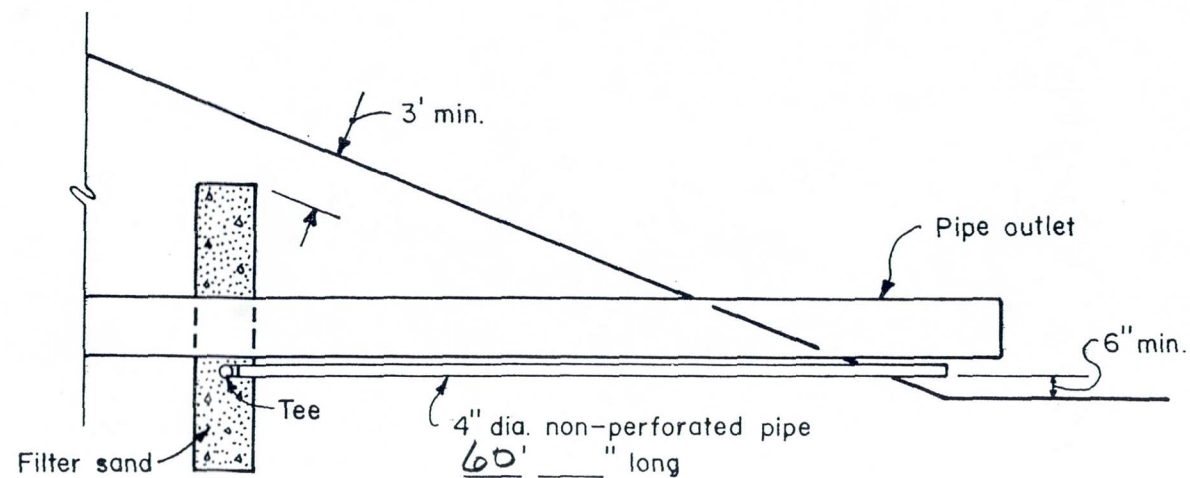
ISOMETRIC VIEW



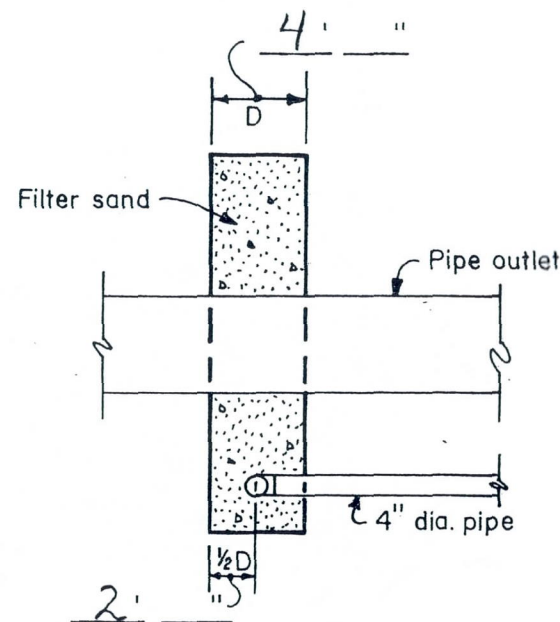
UPSTREAM VIEW

NOTE:

1. THE 4" DIA. PIPE SHALL BE ASTM D1785, SCHEDULE 40, PVC.
2. PROVIDE AN ANIMAL GUARD ON DRAIN OUTLET PIPE. DRILL 2, 1/2" DIA. HOLES, ON $\frac{1}{2}$ 6" FROM END OF PIPE AND PLACE A 3/8" DIA., 5 1/2" LONG GALVANIZED STEEL BOLT THRU THEM AND SECURE WITH A NUT (PLACE BOLT HORIZONTAL).



OUTLET DETAIL



SIDE VIEW

FILTER GRADATION

SIEVE SIZE	PERCENT PASSING
3/8"	100
4	95-100
8	80-100
16	50-85
30	25-60
50	10-30
100	2-10

3/cy

Sec. _____, T. _____, R. _____

County
LOCATION

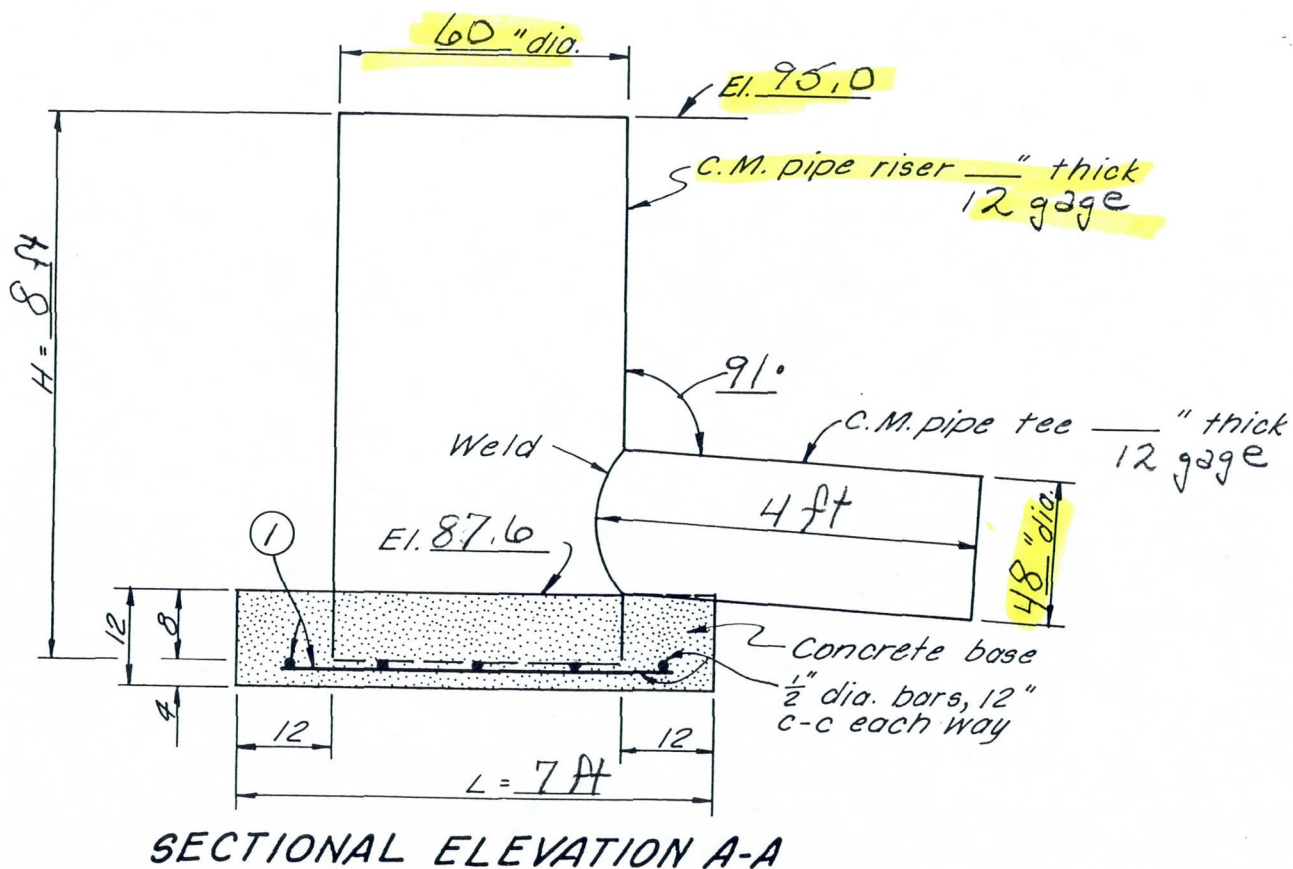
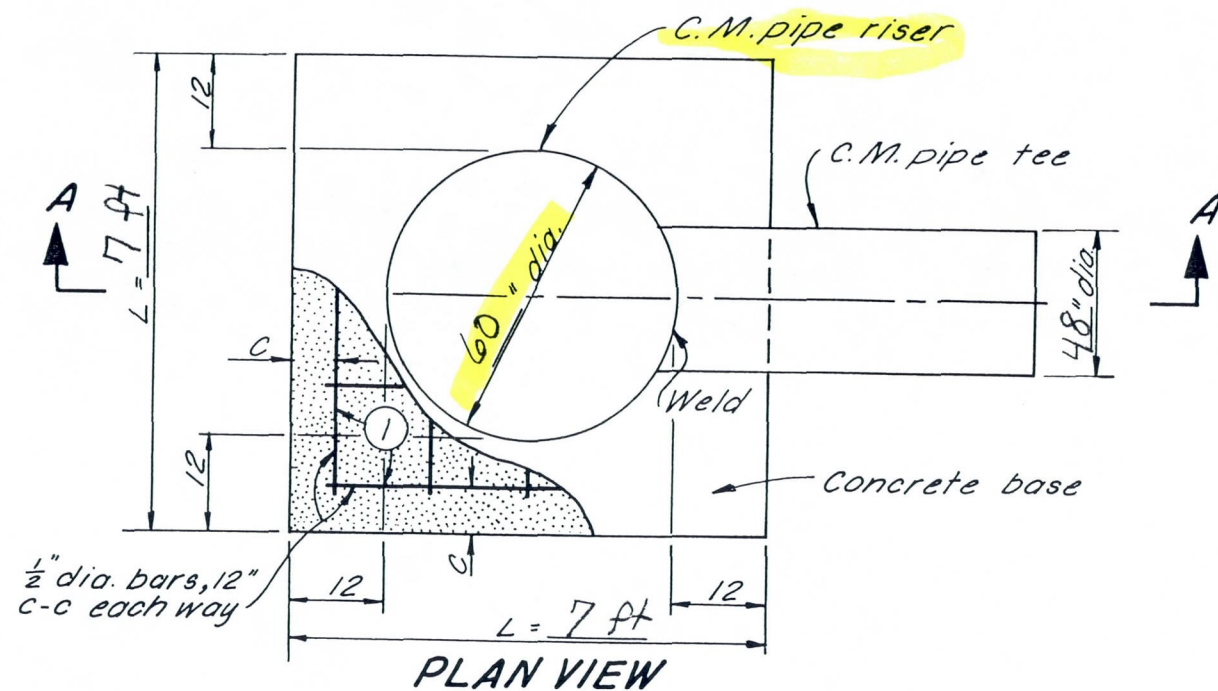
SAND ANTISEEP COLLAR

OPERATOR Jerry Vogeler

CONSERVATION DISTRICT _____

Date _____		Approved by: _____	
Designed: _____		Title: _____	
Drawn: _____		Title: _____	
Traced: _____		Sheet _____ Drawing No. _____	
Checked: _____		No _____ of _____	

JOB PLAN NO. 3.8



STEEL SCHEDULE

RISER DIA. IN.	BAR SIZE	MARK	TYPE	NO. REQ'D.	LENGTH FT.-IN.	TOTAL LENGTH FT.-IN.	TOTAL WT. LB.	C IN.	L FT.-IN.
60	4	1	STR.	12	6-0	72-0	49	6	7-0

TABLE OF QUANTITIES

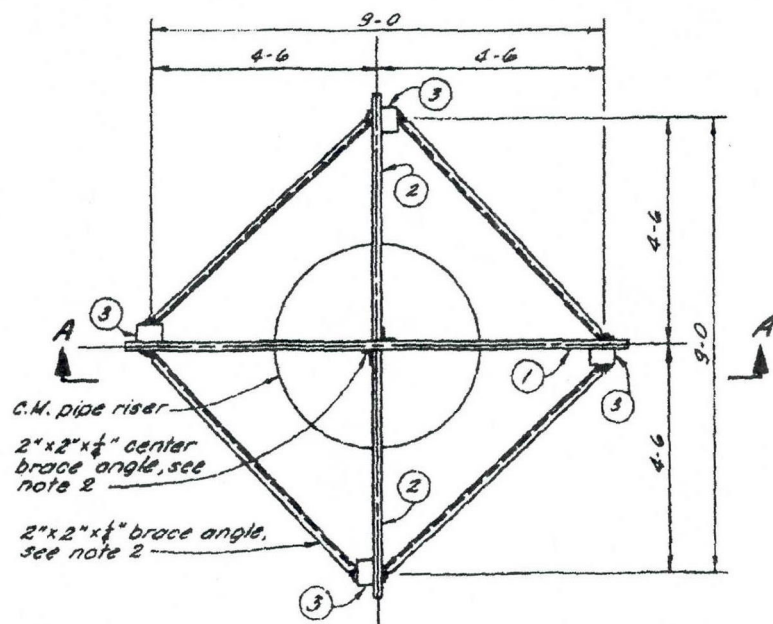
ITEM	UNIT	QUANTITY
CONCRETE	CU. YD.	1.8
REINFORCING STEEL	LB.	49

NOTE: All CMP to be spiral

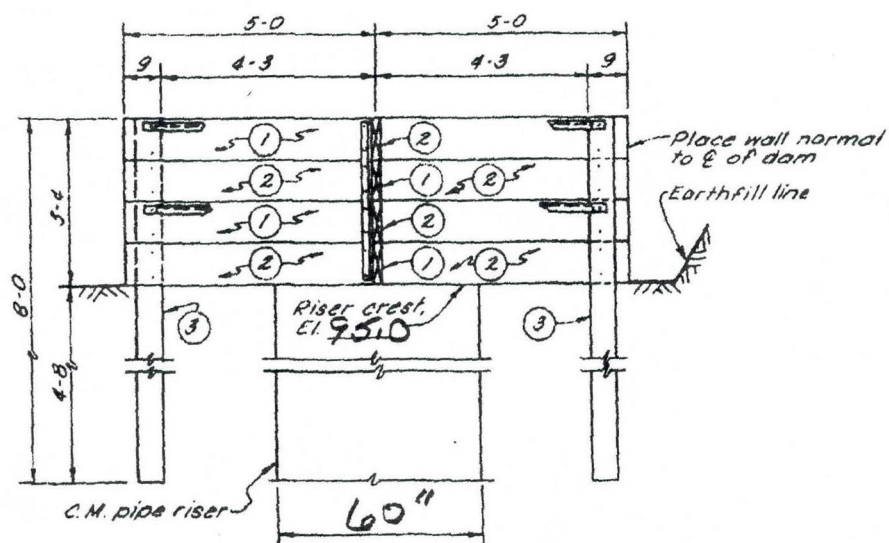
C.M. PIPE RISER WITH FABRICATED TEE

OPERATOR: Jerry Vogeler
 CONSERVATION DISTRICT: _____

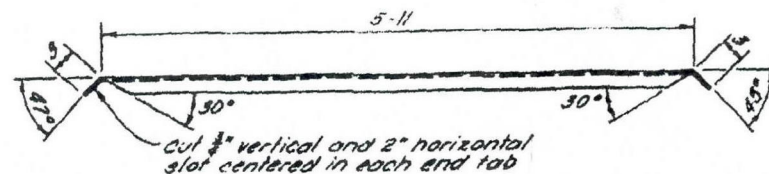
Designed _____	Date _____	Approved by _____
Drawn _____		Title _____
Traced _____		Title _____
Checked _____		Sheet No. _____
		Drawing No. _____



PLAN VIEW



SECTIONAL ELEVATION A-A



PLAN VIEW OF BRACE ANGLE

TABLE OF QUANTITIES

ITEM	MARK	NO. REQ'D.	QUANTITY
2" X 10" X 10' PRESSURE TREATED LUMBER	1	4	67 BD. FT.
2" X 10" X 4'-11" PRESSURE TREATED LUMBER	2	8	66 BD. FT.
4" X 6" X 8' PRESSURE TREATED POST	3	4	64 BD. FT.
2" X 2" X 1/4" X 6'-5" STEEL ANGLE		8	164 LB.
2" X 2" X 1/4" X 3'-2" STEEL ANGLE		2	20 LB.
5/8" X 8" STEEL BOLTS, NUTS, 2 WASHERS		32	32 SETS
1/2" X 3" STEEL BOLTS, NUTS, 2 WASHERS		32	32 SETS

NOTES:

1. TO 4" X 6" POSTS (4 REQUIRED) BOLT 2" X 10" BOARDS USING TWO 5/8" X 8" BOLTS PER 2" X 10" BOARD. DO NOT PLACE BOLTS CLOSER THAN 1 1/2" FROM EDGE OF BOARD.
2. FOR CENTER BRACE ANGLES DRILL 8 - 9/16" HOLES 5/8" FROM OUTER EDGE OF EACH LEG OF EACH ANGLE AND CENTERED 5 1/4" APART ALONG THE LEG.
3. ATTACH BRACE ANGLES TO TOP BOLT ON TOP 2" X 10" BOARD AND TO TOP BOLT ON NEXT TO BOTTOM BOARD.

TRASH RACK AND BAFFLE
FOR RISER DIA. 36" THRU 60"

OPERATOR: <u>Terry Vogeler</u>	
CONSERVATION DISTRICT: _____	
U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	
Designed _____	Drawn _____
Traced _____	Checked _____
Date _____	Approved by _____
_____	_____
_____	_____

JOB PLAN NO. 6.4

Page 8 of 8

5, N-29, 073.6-40

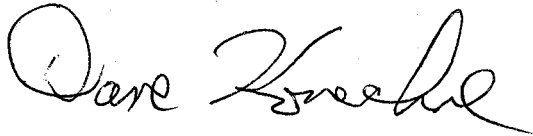
DENR

Re: Jerry Vogeler Dam Repair

Attached are:

- 1-copy of plans and specifications
- 2-Stage storage curve
- 3-sites floodrouting
- 4-cost estimate
- 5-bid form

The dam was raised one foot. The water level will not be changed but remain at the same level as the existing weir.

A handwritten signature in black ink, appearing to read "Dave Zuehl". The signature is written in a cursive, flowing style with a large initial "D".

Vogeler Dam Repair

Water Right No. 906-3 (6F+P)
SD Dam ID No. 00660 (S+PL)

Top of Dam Eten. - 101.3
2nd Spillway Eten. - 98.3
P. Spillway Eten. - 95
D/S Emb. Toe Eten. - 83

Ht. = 18 ft

Cat. 3 - Low Hazard Dam

Normal Storage Capacity - 174 A.-Ft
Int. Storage Capacity - 282 A.-Ft
Max. Storage Capacity - 412 A.-Ft

Int. Capacity x Eff Ht. = 282 x 15.3 = 4230 > 3000 ∴ 50 yr
Minimum Spillway Design

From USGS WRI 98-4055 "Tech for Est. Peak-Flows ... in 50"
DA = 8960 Ac = 14 mi.² PII = 0.8
Region B

$$Q_{50} = 206 CA^{.606} P_{II}^{.728}$$

$$= 206 (14)^{.606} (0.80)^{.728}$$

$$= (206) (4.9494) (0.8501)$$

$$= \underline{867 \text{ cfs}}$$

$$Q_{100} = 275 CA^{.625} P_{II}^{.742}$$

$$= 275 (14)^{.625} (0.80)^{.742}$$

$$= 275 (5.2039) (0.8474)$$

$$= \underline{1212 \text{ cfs}}$$

2nd Spillway Capacity

$$Q = CLH^{3/2}$$

$$C = 2.6$$

$$L = 150$$

$$H = 3 \text{ ft}$$

$$= 2.6 (150)(3)^{1.5}$$

$$= \underline{2025 \text{ cfs}}$$

Section 74:02:08:09

1. Topo Map - OK
2. Dam Ar's Profile - OK
3. Dam Max V-See. - OK
4. Area Capacity - OK
5. Spillway Rating - OK
6. Outlet Details - OK
7. Spillway Details - OK
8. Specs - SD NRCS - OK
9. EPP - N/A Cat. 3 - OK

NRCS Annual Yield

$$DA = 8960 \text{ As } CN = 75 \text{ } Z50 = 2$$

$$80\% \text{ chance} = 0.13$$

$$0.13 \times 8960/12 = \underline{97 \text{ A.-Ft}}$$

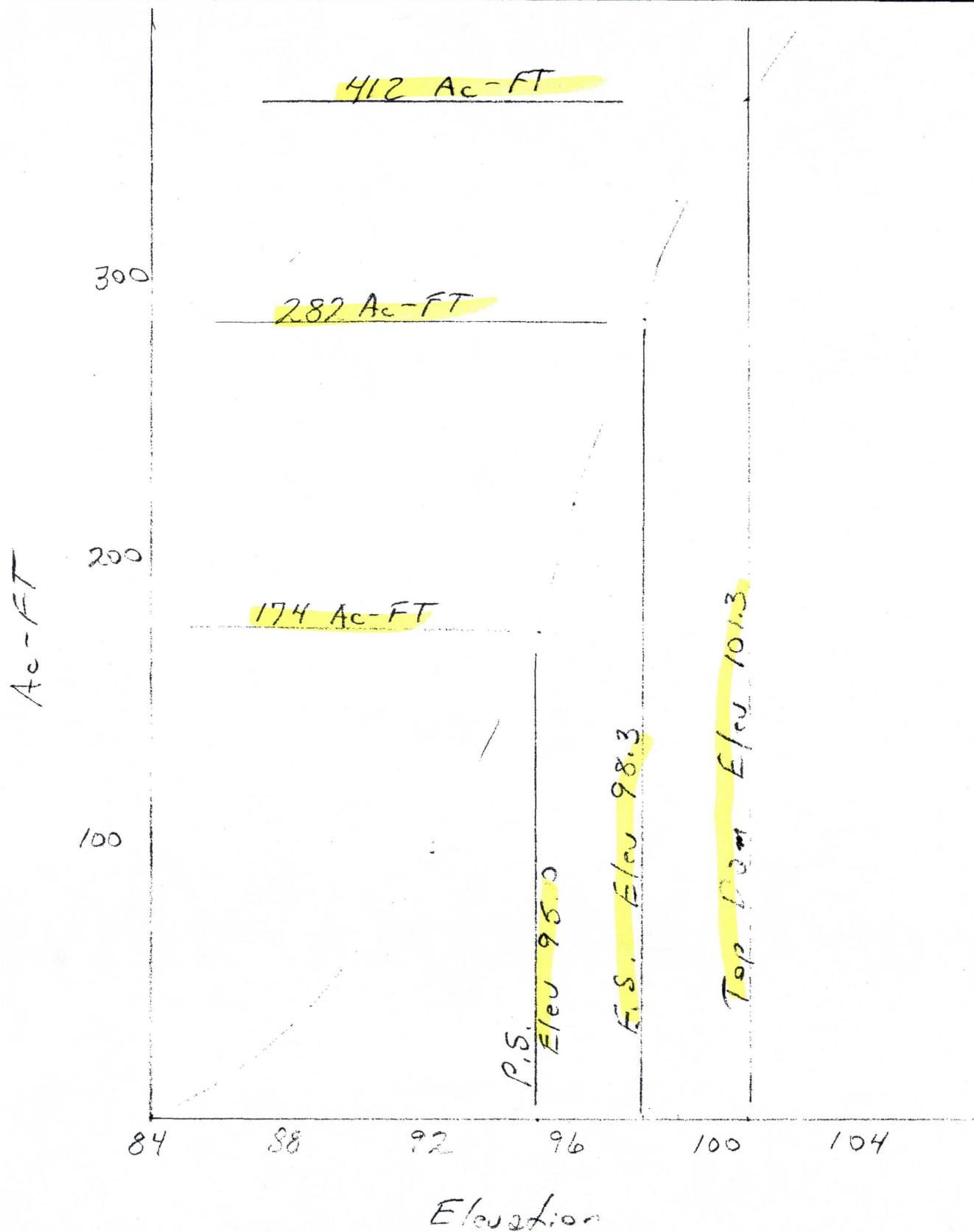
$$50\% \text{ chance} = 0.37$$

$$0.37 \times 8960/12 = \underline{280 \text{ A.-Ft}}$$

$$10\% \text{ chance} = 1.80$$

$$1.8 \times 8960/12 = \underline{1344 \text{ A.-Ft}}$$

BY	DATE	PROJECT <i>Jerry Vogeler</i>	SHEET ____ OF ____
CHKD BY	DATE	FEATURE	
DETAILS <i>NW 1/2 Sec 35, T 118 N, R 70 W</i>			



[illegible]

BID FORM

The undersigned state at the end of this form, having reviewed the local conditions affecting the cost of the work, construction specifications, drawings, and other contract documents which shall govern the purchase of materials, labor, and the awarding of the contract, hereby purposed and agrees to do all work and provide all materials or other items per the drawing which pertains to the contract work for:

Labor and Materials associated with the repair of the Vogeler Dam

BID SCHEDULE

ITEM	WORK	SPEC #	EST. QUANTITY	UNIT PRICE	UNIT	AMOUNT
1	EARTH FILL	SD-7S	467	XXXX	C.Y.	XXXXXX
	EXCAVATION	SD - 5	3580		C.Y.	
2	PRINCIPAL SPILLWAY	SD-15	xxxxxxx	xxxxxx	xxxxx	xxxxx
	-60 Inch Dia. Riser 8 ft long W/48 inch Dia stub 4 ft long		1		Lump Sum	
	-48 inch Dia. CMP		86		Lin. Ft.	
	-48 inch Dia Watertight Connecting Bands 24 inches wide		4		Each	
3	Concrete	SD-12B	1.8		C.Y.	
4	Reinforcing Steel	SD-13	49		Lbs.	
5	Sand Seep Collar	SD-9	31		C.Y.	
6	PVC Drain Pipe	SD-55	87		Lin. Ft.	
7	Timber Pipe Support	SD-16	1		Each	
8	Timber Trash Rack	SD-16	1		Each	

The Contractor shall include all costs for Labor, Materials and applicable taxes including Excise Tax for this Proposal. The Bidder understands that the Owner reserves the right to reject any and all bids and to wave any irregularities.

BIDDER _____

DATE _____

TELEPHONE NUMBER _____

1*****
 SITES XEQ 04/18/2006 WATER RESOURCE SITE ANALYSIS COMPUTER PROGRAM
 VER 2000 (USER MANUAL - DATED MAY 2001)
 TIME 10:47:15

***** 80-80 LIST OF INPUT DATA *****

SITES 05/01/2000 Vogeler Dam 14 H5
 SAVMOV 0 101
 SAVMOV 101 1 1
 STRUCTURE
 84 0
 86 8.5
 92 20.5
 96 35.5
 100 44.9
 102 55
 ENDTABLE
 WSDATA 5A1 AC 75 8960 31000 .6
 PDIRECT 2.2 .00 4.10
 POOLDATA ELEV 95 95 84 83 SC
 PSINLET 1 15.7
 PSDATA 1 90 48 .025 83
 ASDATA 41 400 180 2 .05 2
 ASINSURF 41 .03
 ASINLET 41 0.0 0.0 80 0.0 3
 180 10
 ENDTABLE
 ASEXSURF 41 .035
 .65 0
 3
 2 0
 .02
 ENDTABLE
 ASEXIT 41 N 400
 BTMWIDTH FEET 150
 GRAPHICS I
 GO,DESIGN HL TYPE2 24 TYPE2378 24
 SAVMOV 2 101 1
 ENDJOB

**** MESSAGE - ALTERNATE STRUCTURE ID (S 1) BEING USED
 SINCE USER DID NOT INPUT AN ID.

**** MESSAGE - ALTERNATE SUBWATERSHED ID (A) BEING USED SINCE
 USER DID NOT INPUT AN ID.

**** MESSAGE - DRAINAGE AREA FROM WSDATA CONTROL BEING CONVERTED FROM
 ACRES TO SQUARE MILES FOR COMPUTATION PURPOSES.

1SITES _____
 XEQ 04/18/2006 Vogeler Dam WSID=

VER 2000
TIME 10:47:15 SITE = S 1 SUBW= A
PASS= 1 PART= 1

***** BASIC DATA *****
CLIMATE AREA - NOT DEFINED DESIGN CLASS A1 = LT 3000.

STORM DISTRIBUTION-PSH 24 HOUR TYPE II RAINFALL DISTRIBUTION

STORM DISTRIBUTION AUX. -24 HOUR TYPE II RAINFALL DISTRIBUTION

PRECIP. - P-PS,1-DAY P-PS,10-DAY P-SD P-FB
2.20 0.00 0.00 4.10

WSDATA - CN DA-SM TC/L -/H QRF
75.00 14.00 31000.00 0.60 0.00

SITEDATA- PERM POOL CREST PS FP SED VALLEY FL 378?
95.00 95.00 0.00 83.00 YES

BASEFLOW INITIAL EL EXTRA VOL SITE TYPE
0.00 0.00 0.00 DESIGN

PSDATA - NO. COND COND L DIA/W -/H
1.00 90.00 48.00 0.00

PS N KE WEIR L TW EL
0.025 1.00 15.70 83.00

2ND STG ORF H ORF L START AUX.
0.00 0.00 0.00 0.00

ASCRESTS - AUX.1 AUX.2 AUX.3 AUX.4 AUX.5
0.00 0.00 0.00 0.00 0.00

AUX.DATA - REF.NO. RETARD. C TIE STATION INLET LENGTH
41 0.00 400.00 180

AUX.DATA - INLET N SIDE SLOPE EXIT N EXIT SLOPE ACTUAL AUX?
0.030 2.00 0.035 0.050 NO

BTM WIDTH - BW1 BW2 BW3 BW4 BW5
ft 150.00 0.00 0.00 0.00 0.00

AUXILIARY SPILLWAY RATING DEVELOPED USING WSPVRT.

1SITES
XEQ 04/18/2006 Vogeler Dam WSID=
VER 2000 SUBW= A
TIME 10:47:15 SITE = S 1 PASS= 1 PART= 2

PERM POOL 95.00 FT 173.9 ACFT 31.75 AC 0.0 CFS

CREST PS 95.00 FT 173.9 ACFT 31.75 AC 0.0 CFS

SED ACCUM 95.00 FT 173.9 ACFT 31.75 AC 0.0 CFS

START ELEV 95.00 FT 173.9 ACFT 31.75 AC 0.0 CFS

NRCS-PSH D= 24.00 HR P= 2.20 IN Q= 0.48 IN DA= 14.00 SM
TC= 12.38 HR CN= 75.00 VOL= 360.7 ACFT

Annual Runoff

PEAK = 324.5 CFS, AT 20.8 HRS.

ROUTED RESULT - HYD TYPE EMAX VOL-MAX AMAX QMAX
NRCS-PSH 98.28 FT 294.6 ACFT 40.86 AC 206.5 CFS

PS STORAGE 120.7 ACFT, BETWEEN AUX. CREST AND SED. ACCUM ELEVATIONS.

DRAWDOWN (DDT) TEST 95.00 FT 173.9 ACFT 0.00 CFS
CONTROL IS 0.000 DETENTION STORAGE

TIME = 3.60 DAYS, TO 0.0 CFS (LIMIT = 10.00 DAYS)

RATING TABLE DEVELOPED, SITE = S 1:
BY PROGRAM FOR PS AND AUX. SPILLWAYS
AUX. RATING USED WSPVRT METHOD.

RATING TABLE NUMBER 1

	ELEV. FEET	Q-TOTAL CFS	Q-PS CFS	Q-AUX. CFS	VOLUME AC-FT	AREA ACRE
1	95.00	0.00	0.00	0.00	173.88	31.75
2	95.65	25.21	25.21	0.00	195.13	34.17
3	96.29	71.31	71.31	0.00	217.89	36.18
4	96.94	131.00	131.00	0.00	241.72	37.70
FULL CONDUIT FLOW, ELEV = 97.58 FT						
5	97.58	201.70	201.70	0.00	266.52	39.21
6	98.13	205.53	205.53	0.00	288.55	40.51
7	98.69	209.25	209.25	0.00	311.29	41.81
8	99.24	212.90	212.90	0.00	334.75	43.11
9	99.79	216.49	216.49	0.00	358.92	44.41
10	100.34	220.02	220.02	0.00	383.97	46.63
11	100.90	223.50	223.50	0.00	410.51	49.42
12	101.45	226.93	226.93	0.00	438.58	52.21
13	102.00	230.30	230.30	0.00	468.20	55.00

1SITES

XEQ 04/18/2006 Vogeler Dam WSID=
VER 2000 SUBW= A
TIME 10:47:15 SITE = S 1 PASS= 1 PART= 3

AUX. CREST 98.28 FT 294.6 ACFT 40.86 AC 206.5 CFS

PS STORAGE 120.7 ACFT, BETWEEN AUX. CREST AND SED. ACCUM ELEVATIONS.

START ELEV 95.00 FT 173.9 ACFT 31.75 AC 0.0 CFS

EFFECTIVE HEIGHT(H)= 14.3 FEET, PRODUCT= 4206. (H * STORAGE AT CREST AUX.).

INPUT DESIGN CLASS = A1 = LT 3000. PRODUCT.

***** WARNING - NHCP-378 CRITERIA DOES NOT APPLY WHEN THE EFFECTIVE HEIGHT IS OVER 35 FEET OR THE PRODUCT IS 3000 OR GREATER.

NRCS-FBH D= 24.00 HR P= 4.10 IN Q= 1.74 IN DA= 14.00 SM
TC= 12.38 HR CN= 75.00 VOL= 1300.7 ACFT

PEAK = 1243.5 CFS, AT 20.2 HRS.

RATING TABLE DEVELOPED, SITE = S 1:
BY PROGRAM FOR PS AND AUX. SPILLWAYS
AUX. RATING USED WSPVRT METHOD.

RATING TABLE NUMBER 2

	ELEV. FEET	Q-TOTAL CFS	Q-PS CFS	Q-AUX. CFS	VOLUME AC-FT	AREA ACRE
1	95.00	0.00	0.00	0.00	173.88	31.75
2	95.65	25.21	25.21	0.00	195.13	34.17
3	96.29	71.31	71.31	0.00	217.89	36.18
4	96.94	131.00	131.00	0.00	241.72	37.70
FULL CONDUIT FLOW, ELEV = 97.58 FT						
5	97.58	201.70	201.70	0.00	266.52	39.21
6	97.67	202.35	202.35	0.00	269.96	39.42
7	97.76	202.95	202.95	0.00	273.42	39.62
8	97.84	203.55	203.55	0.00	276.90	39.83
9	97.93	204.15	204.15	0.00	280.40	40.04
10	98.02	204.75	204.75	0.00	283.91	40.24
11	98.11	205.34	205.34	0.00	287.44	40.45
12	98.19	205.94	205.94	0.00	290.99	40.65
13	98.28	206.53	206.53	0.00	294.55	40.86
14	98.47	225.01	207.78	17.22	302.19	41.30
15	98.65	250.12	209.03	41.09	309.92	41.73
16	98.99	360.05	211.25	148.80	324.02	42.52
17	99.40	562.20	213.94	348.26	341.61	43.48
18	100.14	1115.89	218.74	897.15	374.64	45.61
19	101.07	2009.84	224.59	1785.24	419.24	50.30
20	102.00	3114.40	230.30	2884.10	468.20	55.00

SUMMARY OF AUXILIARY SPILLWAY SURFACE CONDITIONS USED IN COMPUTATIONS BY REACH

REACH	FROM	TO	SLOPE	RETARDANCE	VEGETAL	MAINT.	ROOTING	REACH
	STA	STA	CURVE	COVER	CODE	DEPTH	LOCATION	
	(ft)	(ft)	(%)	INDEX@	FACTOR	(ft)	*	

1	220.	320.	-10.0	0.030	**	**	**	INLET
2	320.	400.	0.0	0.030	**	**	**	CREST
3	400.	800.	5.0	0.035	0.65	3	2.0	EXIT !

@ The program interprets retardance curve index entries of less than 1 as Manning's n values.

* Upper case indicates a reach of constructed spillway channel.

** The program does not use vegetal cover factor, maintenance code, and rooting depth for inlet and crest reaches in computations.

! Reach 3 used in computing exit channel velocities.

DRAWDOWN USING FREEBOARD STORM FOLLOWS, STARTING AT ELEVATION 98.28 FT.

DRAWDOWN (DDT) TEST 95.00 FT 173.9 ACFT 0.00 CFS
CONTROL IS 0.000 DETENTION STORAGE

TIME = 4.06 DAYS, TO 0.0 CFS (LIMIT = 10.00 DAYS)

ROUTED RESULTS	BTM	WIDTH	MAX	ELEV	VOL-MAX	AREA-MAX	AUX.-HP	VOL-AUX.
	FT	FT	ACFT	AC	FT	ACFT		
NRCS-FBH	150.0	100.26	380.1	46.2	1.98	85.5		

PEAK - CFS Q-PS Q-AUX. Q-TOT.
DISCHARGE = 219. 1005. 1225.

	CRITICAL	CRITICAL	CRITICAL	25% OF Q
	DEPTH	VELOCITY	SLOPE-Sc	Sc
AUXILIARY	FT	FT/SEC	FT/FT	FT/FT
SPILLWAY —	1.11	5.94	0.017	0.024

EFFECTIVE STRESS FOR STABILITY ANALYSIS OF AUX. EXIT CHANNEL

(Refer to Ag. Handbook 667, Chapt. 3, for allowable stresses.)

Aux. Discharge = 1005. cfs; Bottom Width = 150. ft

REACH FROM TO SLOPE MANNING'S VELOCITY STRESS

NO.	STA	STA	%	n	ft/s	lb/ft^2
3	400.	800.	5.00	0.035	8.18	1.539

AUXILIARY SPILLWAY DURATION FLOW = 20.2 HOURS

ATTACK, OE/B = 5.1 ACFT/FT

***** MESSAGE - NHCP378 CRITERIA USED BUT AUXILIARY SPILLWAY RATING NOT BASED ON ASFILE RATINGS.

EXIT CHANNEL FLOW SUPERCRITICAL: MAX VELOCITY= 8.2 FT/SEC

EXIT SLOPE = 0.050 FT/FT

FLOW DEPTH = 0.8 FT

>>>> NHCP378 RUN - MINIMUM DEPTH, CREST AUX. TO TOP OF DAM IS 2.00 FT.

NEW TOP OF DAM ELEVATION = 100.28.

ROUTED	BTM	WIDTH	MAX ELEV	VOL-MAX	AREA-MAX	AUX.HP	VOL-AUX.
RESULTS	FT	FT	ACFT	AC	FT	ACFT	
MINIMUM AUX.	150.0	100.28	381.4	46.3	2.01	86.8	

PEAK - CFS	Q-PS	Q-AUX.	Q-TOT.
DISCHARGES =	219.7	1030.9	1250.5

Em Spillway Capacity

	CRITICAL	CRITICAL	CRITICAL	25% OF Q
	DEPTH	VELOCITY	SLOPE-Sc	Sc
AUXILIARY	FT	FT/SEC	FT/FT	FT/FT
SPILLWAY —	1.13	5.99	0.017	0.023

>>>>> NHCP378 RUN - MINIMUM DEPTH, DESIGN FLOW TO TOP OF DAM; 1.00 FT REQUIRED
FOR THIS PASS. NEW TOP OF DAM ELEVATION = 101.26.

ROUTED	BTM	WIDTH	MAX ELEV	VOL-MAX	AREA-MAX	AUX.HP	VOL-AUX.
RESULTS	FT	FT	ACFT	AC	FT	ACFT	
MINIMUM AUX.	150.0	101.26	429.2	51.3	2.99	134.6	

PEAK - CFS	Q-PS	Q-AUX.	Q-TOT.
DISCHARGES =	225.8	2008.0	2233.8

Em Spillway @ Top Dam

	CRITICAL	CRITICAL	CRITICAL	25% OF Q
	DEPTH	VELOCITY	SLOPE-Sc	Sc
AUXILIARY	FT	FT/SEC	FT/FT	FT/FT
SPILLWAY —	1.76	7.44	0.015	0.020

INFLOW HYD 1 PSH-PEAK = 206.51 CFS AT 26.95 HRS, LOCATION POINT

INFLOW HYD 1 FBH-PEAK = 1224.98 CFS AT 21.44 HRS, LOCATION POINT
HYDOUT 1

1SITES.....JOB NO. 1 COMPLETE.

Vogeler Dam

0 SUBWATERSHED(S) ANALYZED.

1 STRUCTURE(S) ANALYZED.

2 HYDROGRAPHS ROUTED AT LOWEST SITE.

0 TRIALS TO OBTAIN BOTTOM WIDTH FOR SPECIFIED STRESS OR VELOCITY.

SITES.....COMPUTATIONS COMPLETE

>>> SITE SUBWS SUBWS DA CURVE TC TOTAL DA TYPE STRUC <<<									
ID	ID	(SQ MI)	NO.	(HRS)	(SQ MI)	DESIGN	CLASS		
S	1	A	14.00	75.12.38	14.00	378CR	A1		

PASS DIA./ AUX.CREST BTM. MAX. MAX. EMB. INTEGR.* EXIT* TYPE									
NO.	WIDTH	ELEV	WIDTH	HP	ELEV	VOL.	DIST.	VEL.	HYD
(IN/FT)	(FT)	(FT)	(FT)	(FT)	(CY)	(FT)	(FT/SEC)		
1	48.0	98.3	150.0	3.0	101.3	0.	0.	8.2	MIN. AUX.

* INTEGRITY DIST. AND EXIT VEL. ARE BASED ON THE ROUTED HYDROGRAPH AND WILL NOT RELATE TO THE MAX. ELEV. (TOP OF DAM), WHICH IS SET BY MINIMUM DESIGN CRITERIA.

SITES.....SUMMARY TABLE 1 COMPLETED.

NRCS SITES VERSION 2000 ,05/01/2000
FILES

INPUT

C:\data\Engineering\sites\vogeler1\vogler-48.D2C

OUTPUT - DATED 04/18/2006 10:47:15

C:\data\Engineering\sites\vogeler1\vogler-48.OUT

GRAPHICS FILES GENERATED

OPTION "L" DATED 04/18/2006 10:47:15

C:\data\Engineering\sites\vogeler1\vogler-48.DRG

OPTION "P" DATED 04/18/2006 10:47:15

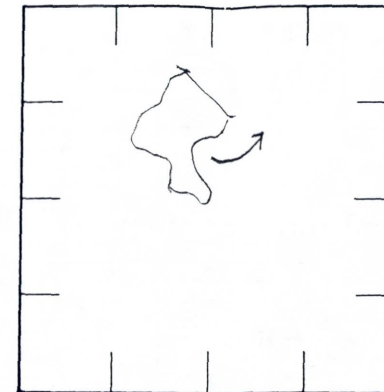
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OPTION "E" DATED 04/18/2006 10:47:15

C:\data\Engineering\sites\vogeler1\vogler-48.DEM

STRUCTURE DATA

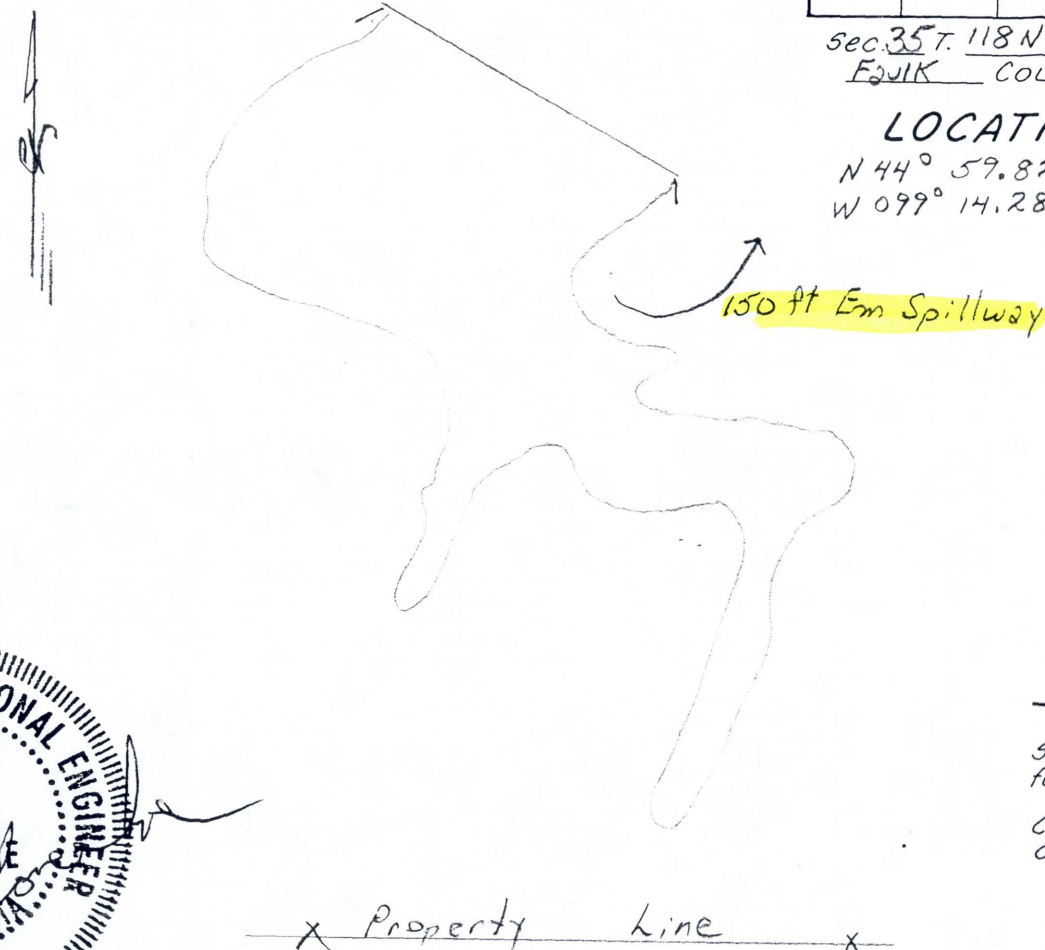
DRAINAGE AREA	ANNUAL YIELD	PEAK RUNOFF	EMERG. SPLWY. CAPACITY	WATER DEPTH	SURFACE AREA	SEDIMENT STORAGE	TOTAL STORAGE
ACRES	AC.FT.	25-YR.	C.F.S.	FEET	ACRES	AC.FT.	AC.FT.
8960	360	1300	1030	11	32	—	174



Sec. 35 T. 118 N. R. 70 W
Faulk County

LOCATION

N 44° 59.821'
W 099° 14.286'



SKETCH PLAN OF DAM AND RESERVOIR AREA

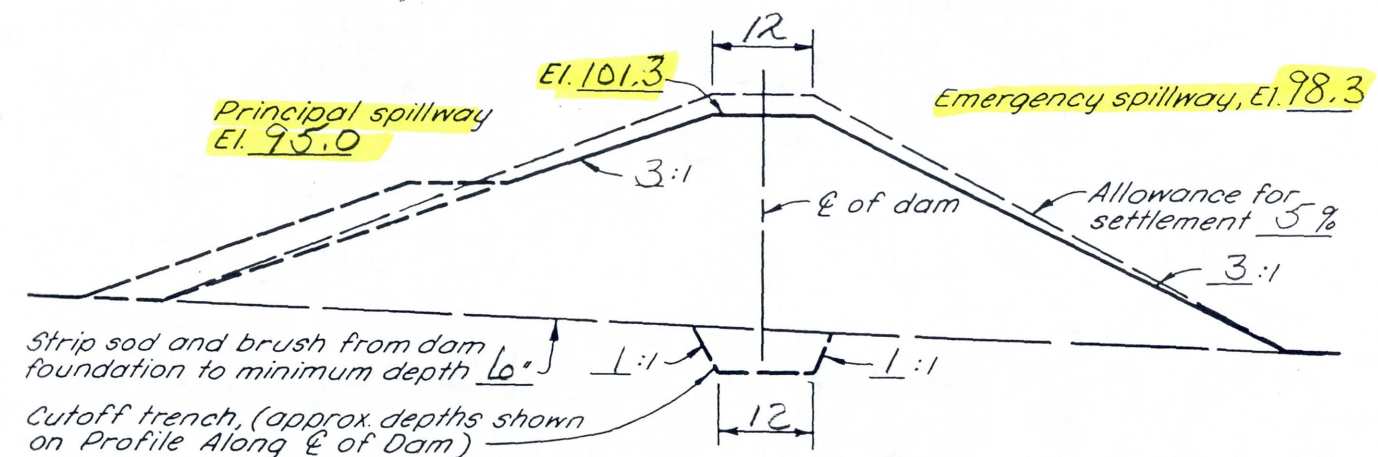
Approximate scale 1" = NA

REFERENCE: GUIDE PLAN NO. 1.0

USDA-SCS-LINCOLN, NEBR. 1973

TABLE OF QUANTITIES

ITEM	UNIT	QUANTITY
Excavation	cy	3580
Earth Fill	cy	
60" dia Riser - 8 ft long w/ 4 ft 48" stub	ea	1
48" dia spiral CMP	lin Ft	86
48" dia watertight connecting bands	ea	3
concrete	cy	1.8
reinforcing steel	lb	49
drain fill	cy	31
4 inch dia PVC	lin Ft	87
Timber Pipe Support	ea	1
Timber Trash Rack	ea	1



TYPICAL CROSS SECTION OF DAM

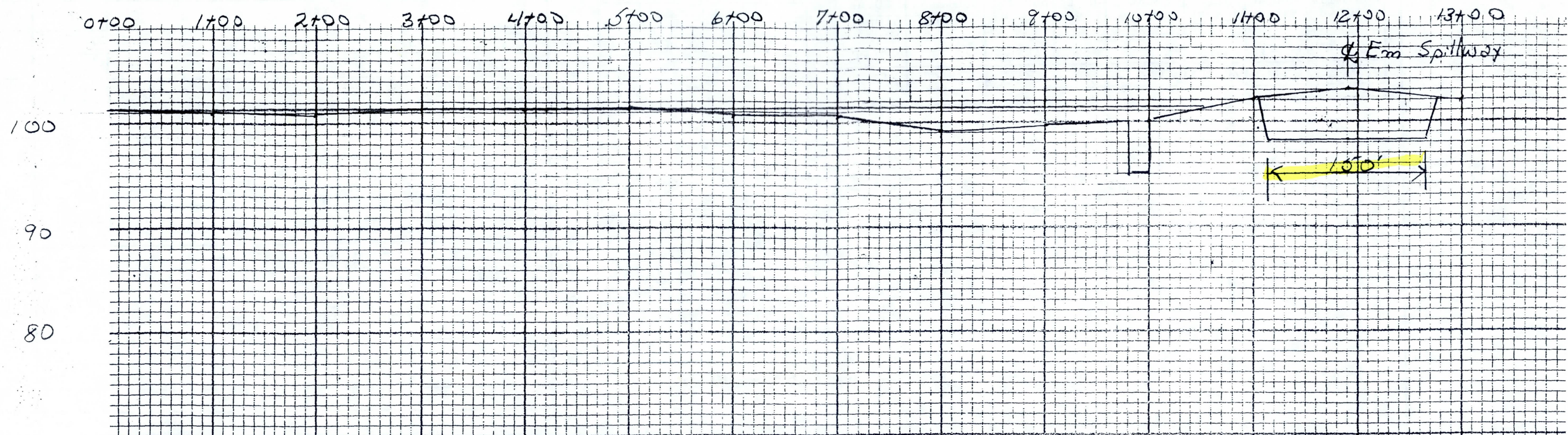
S.D. CONSTRUCTION AND MATERIAL SPECIFICATIONS:

- SD-2 Clearing & Grubbing
- SD-3 Structure Removal
- SD-5 Excavation
- SD-7S Earth Fill
- SD-9 Drain Fill
- SD-12B Concrete
- SD-13 Steel Reinforcement
- SD-15 CMP
- SD-16 Timber Fabrication
- SD-50 CMP

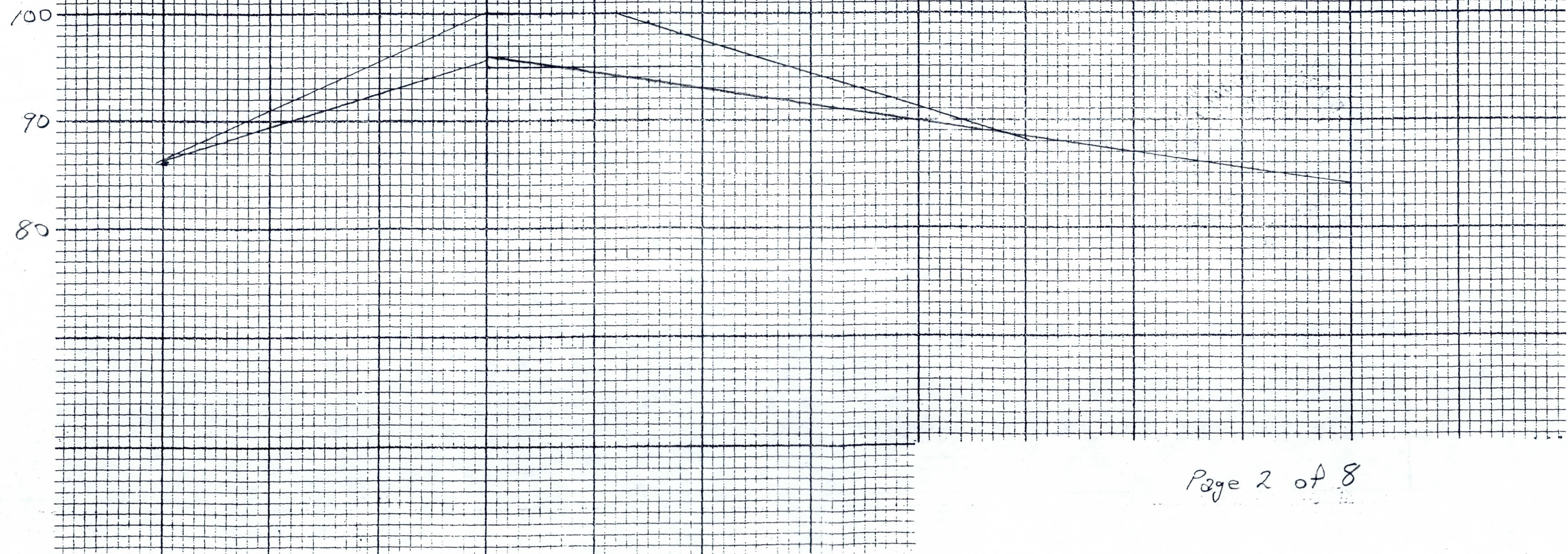
JOB PLAN NO. 1.0

EARTH DAM

OPERATOR: <u>Terry Vogeler</u>	Date
CONSERVATION DISTRICT: <u>Faulk</u>	
Class "A" Hazard	
Designed: <u>D. Konechne</u>	Approved by: _____
Drawn: _____	Title: _____
Traced: _____	Title: _____
Checked: _____	Sheet No. _____
	Drawing No. _____



CROSS SECTION AT CREST OF EMERGENCY SPILLWAY AND PROFILE ALONG C OF DAM



APPLICABLE STANDARD S.C.S. SPECIFICATIONS

ITEM	UNIT	QUANTITY
60 inch dia riser 8 ft long w/4 ft	ea	1
48 inch dia spiral CMP	lin ft	86
48 inch dia water tight bands	ea	4

TABLE OF QUANTITIES

SPECIFICATION NOTES

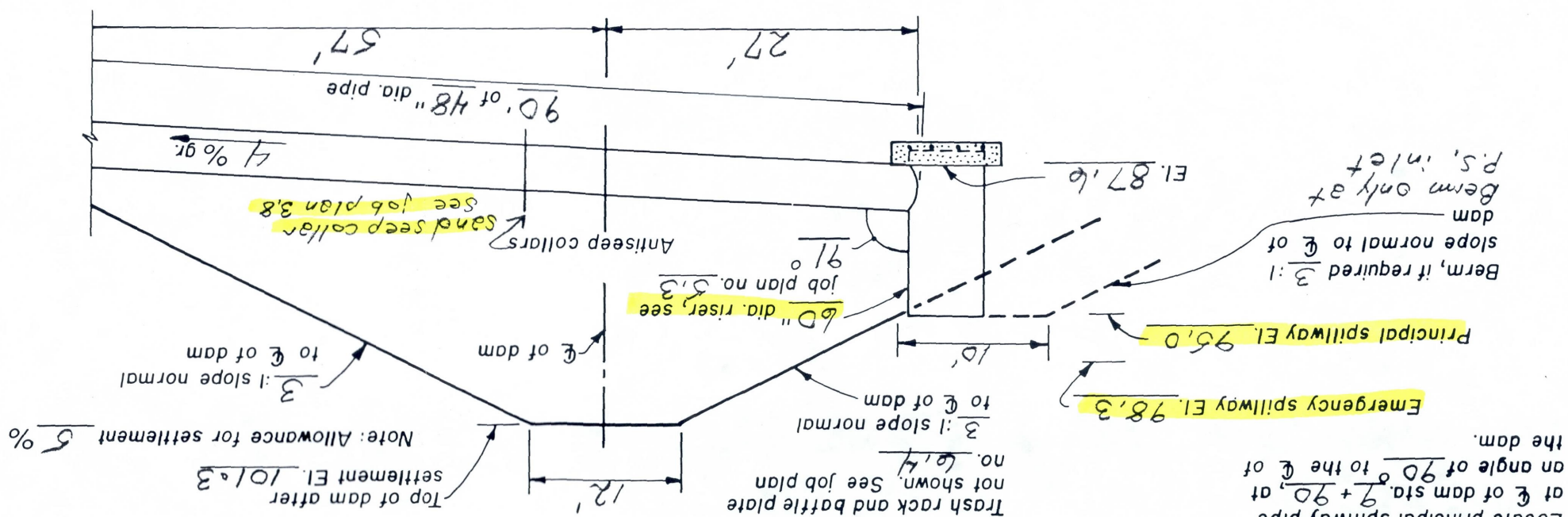
1. ELBOW, IF REQUIRED, MAY BE FABRICATED BY CONTINUOUS WELDING SEPARATE PIPE SECTIONS OR BY FABRICATING A CONTINUOUS WELDED JOINT ON THE UPSTREAM END OF LAST SECTION OF PIPE.
2. PIPE WALL THICKNESS SHALL BE 1/2 INCHES OR _____ INCHES.

48 inch dia to be spinned
CMP

PIPE WALL THICKNESS SHALL BE 12 GAGE OR _____ INCHES.

CROSS SECTION OF DAM ALONG E OF PRINCIPAL SPILLWAY
(Not to scale)

(Not to scale)



OUTLET DETAIL WITH
PIPE SUPPORT

6'

4'

El.

Pipe support, see job plan no. 410

Prefabricated elbow

El.

% gr.

El. 84.0

El. 83.0

~~OUTLET DETAIL WITHOUT
PIPE SUPPORT~~

OUTLET DETAIL WITHOUT PIPE SUPPORT

Pretabricated elbow

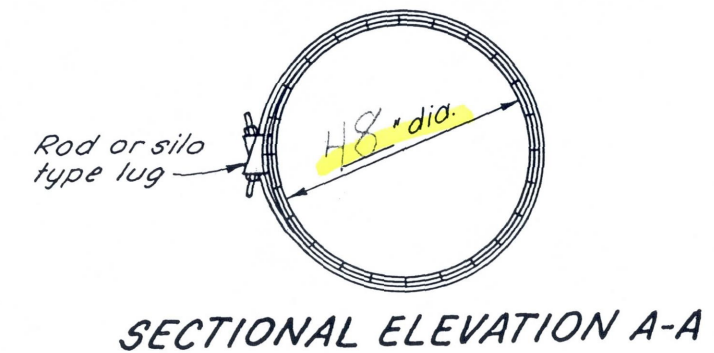
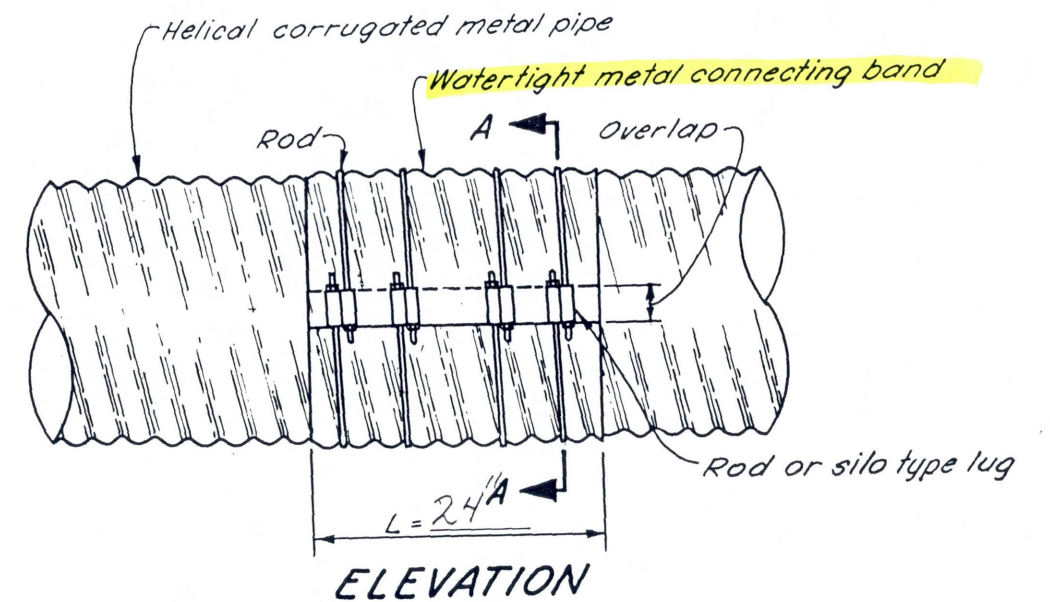
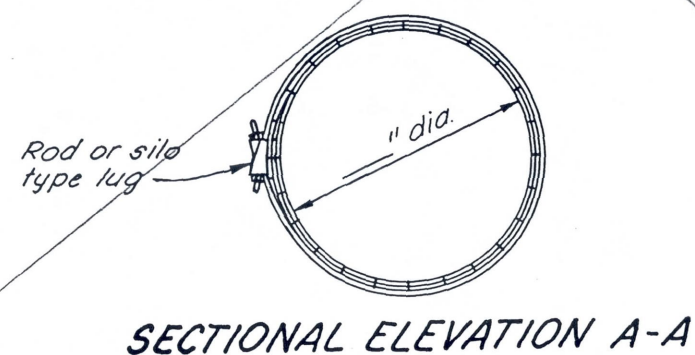
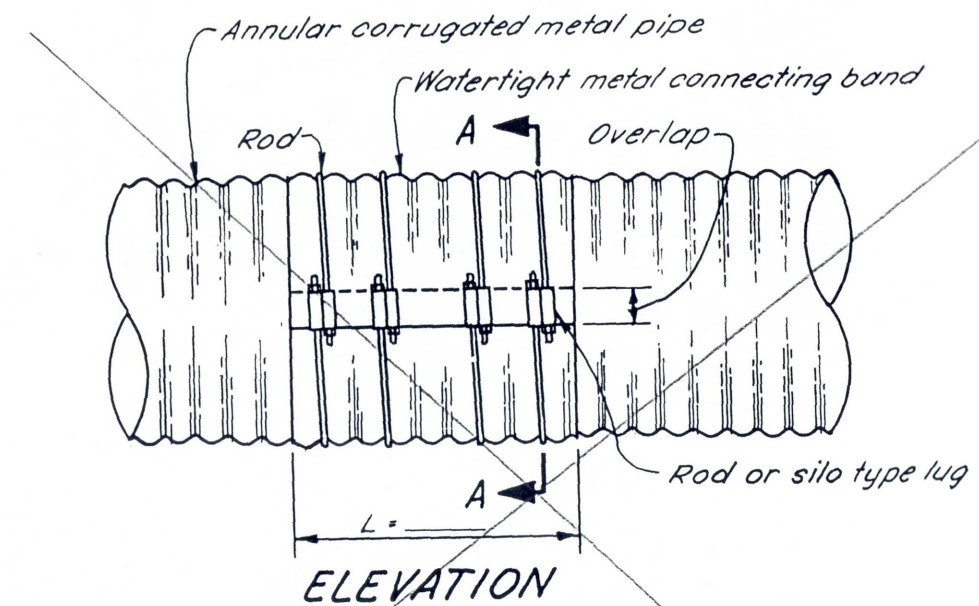
CORRUGATED METAL PIPE
DROP INLET PRINCIPAL SPILLWAY

LOCATION

Sec. _____, T. _____, R. _____
County _____

FLLET DETAIL WITH
PIPE SUPPORT

[illegible]



DIMENSIONS AND QUANTITIES

PIPE DIA. INCHES	MINIMUM "L" INCHES	APPROX. OVERLAP INCHES	NUMBER OF RODS & LUGS	MINIMUM ROD DIA. IN.	NEOPRENE GASKET WIDTH INCHES	ASPHALT MASTIC GAL.
6-18	12	2	2	1/2	12	1/2
21-30	24	3	4	1/2	12	1 1/2
36-48	24	6	4	1/2	12	2

NOTES:

1. WATERTIGHTNESS WILL BE OBTAINED BY USE OF (1) 3/8" THICK NEOPRENE GASKET (WIDTH AS SHOWN) OR (2) ASPHALT MASTIC SEALING MATERIAL TO COVER FULL WIDTH OF BAND.
2. CROSS OUT BAND AND QUANTITIES NOT APPLICABLE.

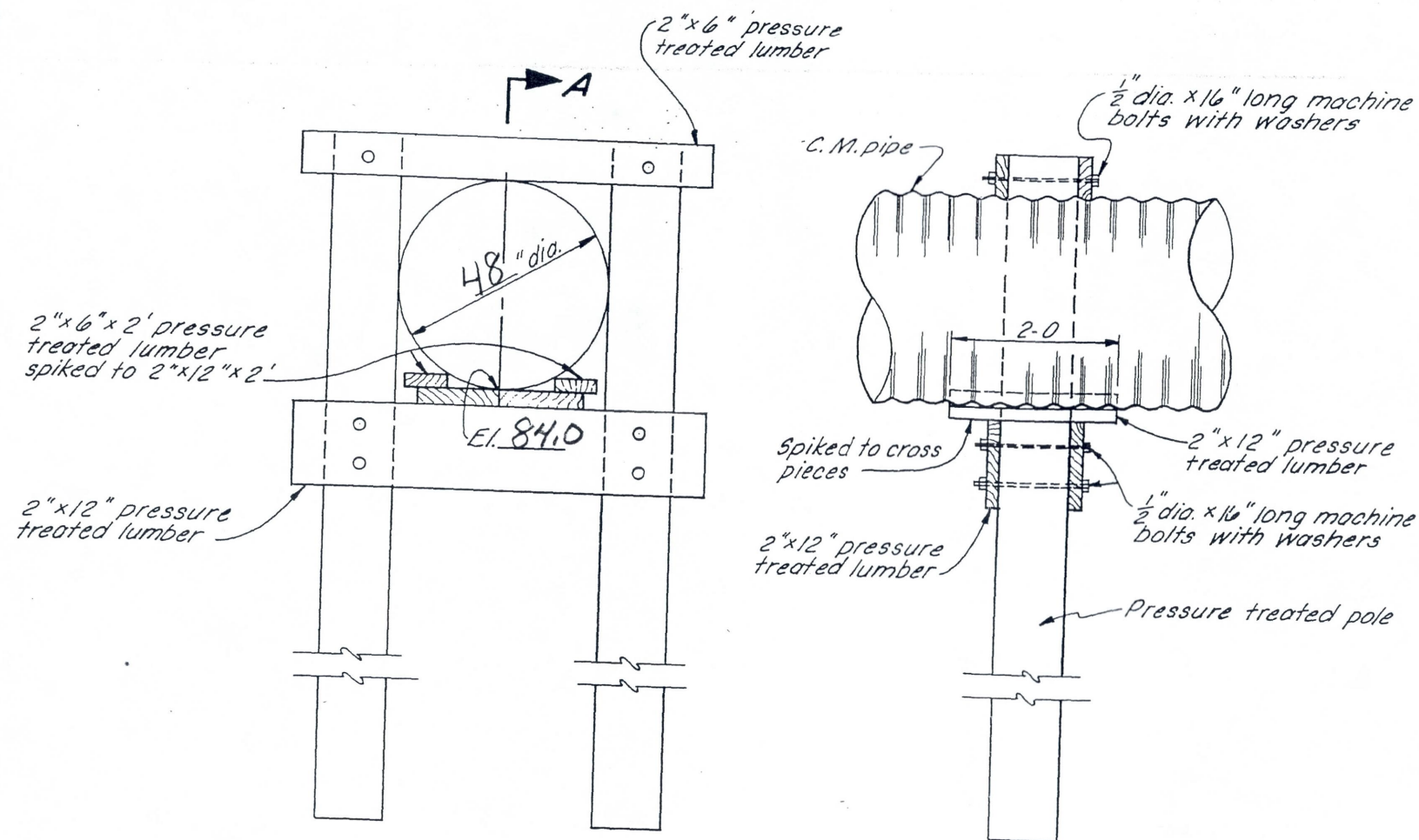
WATERTIGHT CONNECTING BAND FOR ANNULAR AND HELICAL CORRUGATED METAL PIPE

OPERATOR: <u>Jerry Vogeler</u>	
CONSERVATION DISTRICT: _____	
U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	
Designed _____	Date _____ Approved by _____
Drawn _____	Title _____
Traced _____	Title _____
Checked _____	Sheet _____ Drawing No. _____
	No. _____ of _____

JOB PLAN NO. 3.0

Page 4 of 8

5 N-29.073.30



ELEVATION

SECTIONAL ELEVATION A-A

NOTES:

1. HAND OR MACHINE TAMP BACKFILL THOROUGHLY AROUND FOOTINGS AND COLUMNS.

TABLE OF QUANTITIES

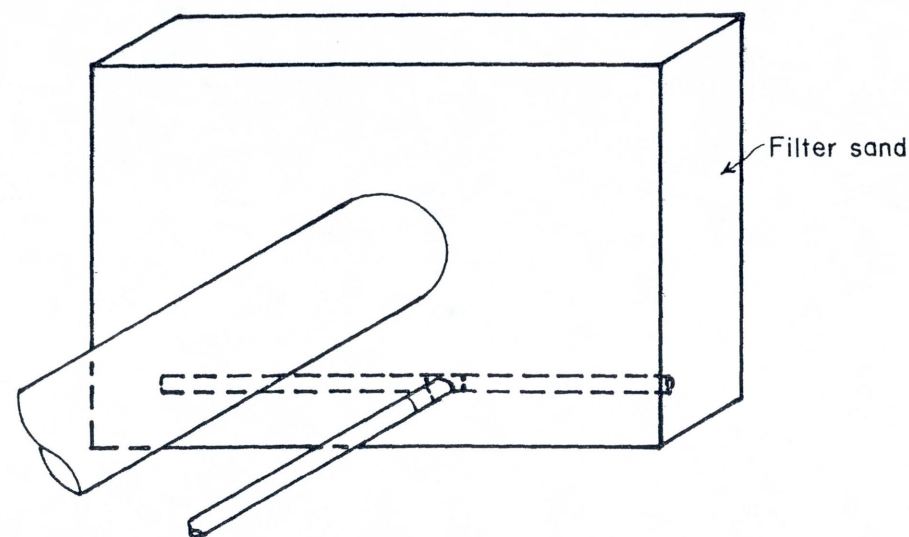
ITEM	LENGTH FOR 48" DIA. C.M. PIPE	UNIT	QUANTITY
PRESSURE TREATED POLE 8" DIA.	10'	EACH	2
2" X 12" PRESSURE TREATED LUMBER	7'	EACH	2
2" X 6" PRESSURE TREATED LUMBER	7'	EACH	2
2" X 12" PRESSURE TREATED LUMBER	2'	EACH	2
2" X 6" PRESSURE TREATED LUMBER	2'	EACH	2
1/2" DIA. MACHINE BOLTS WITH NUTS	14"	EACH	6
1/2" DIA. WASHERS		EACH	

REFERENCE: GUIDE PLAN NO. 4.0

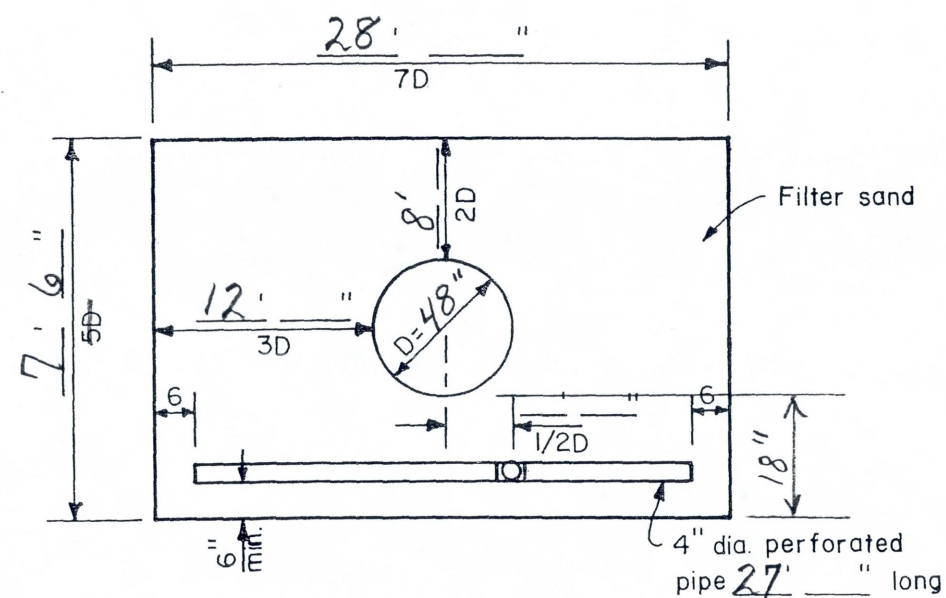
JOB PLAN NO. 4.0

TIMBER PIPE SUPPORT

OPERATOR: <u>Jerry Vogeler</u>	
CONSERVATION DISTRICT: _____	
Designed _____	Date _____
Drawn _____	Approved by _____
Traced _____	Title _____
Checked _____	Sheet _____
	Drawing No. _____
	of _____



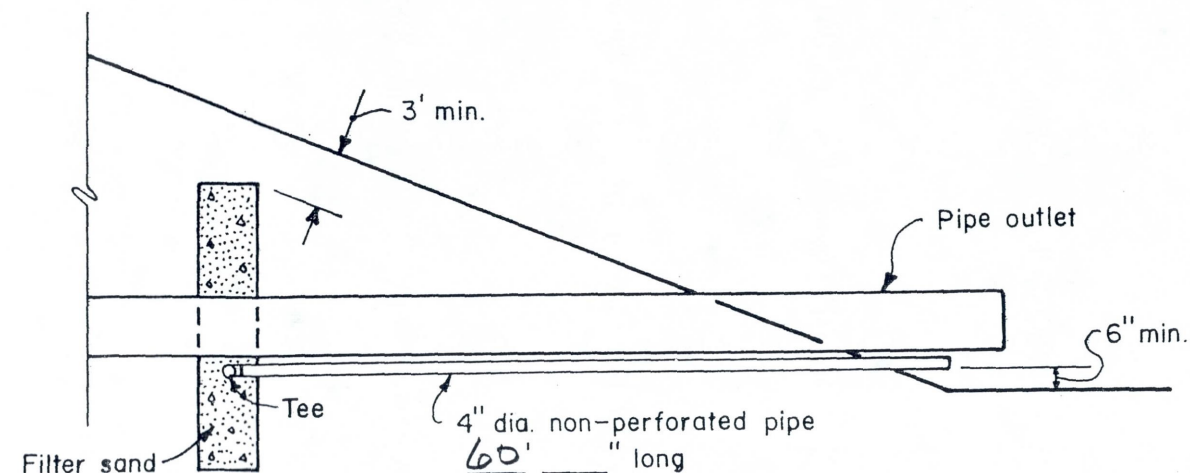
ISOMETRIC VIEW



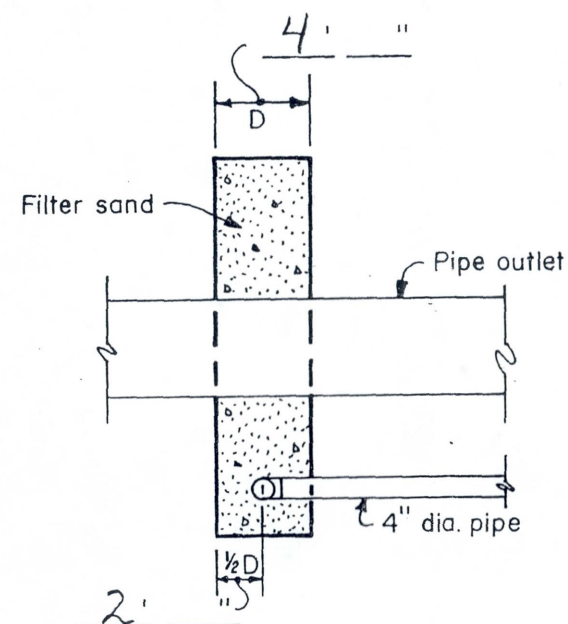
UPSTREAM VIEW

NOTE:

1. THE 4" DIA. PIPE SHALL BE ASTM D1785, SCHEDULE 40, PVC.
2. PROVIDE AN ANIMAL GUARD ON DRAIN OUTLET PIPE. DRILL 2, 1/2" DIA. HOLES, ON $\varnothing$ 6" FROM END OF PIPE AND PLACE A 3/8" DIA., 5 1/2" LONG GALVANIZED STEEL BOLT THRU THEM AND SECURE WITH A NUT (PLACE BOLT HORIZONTAL).



OUTLET DETAIL



SIDE VIEW

FILTER GRADATION

SIEVE SIZE	PERCENT PASSING
3/8"	100
4	95-100
8	80-100
16	50-85
30	25-60
50	10-30
100	2-10

31cy

Sec. _____, T. _____, R. _____

County _____

LOCATION

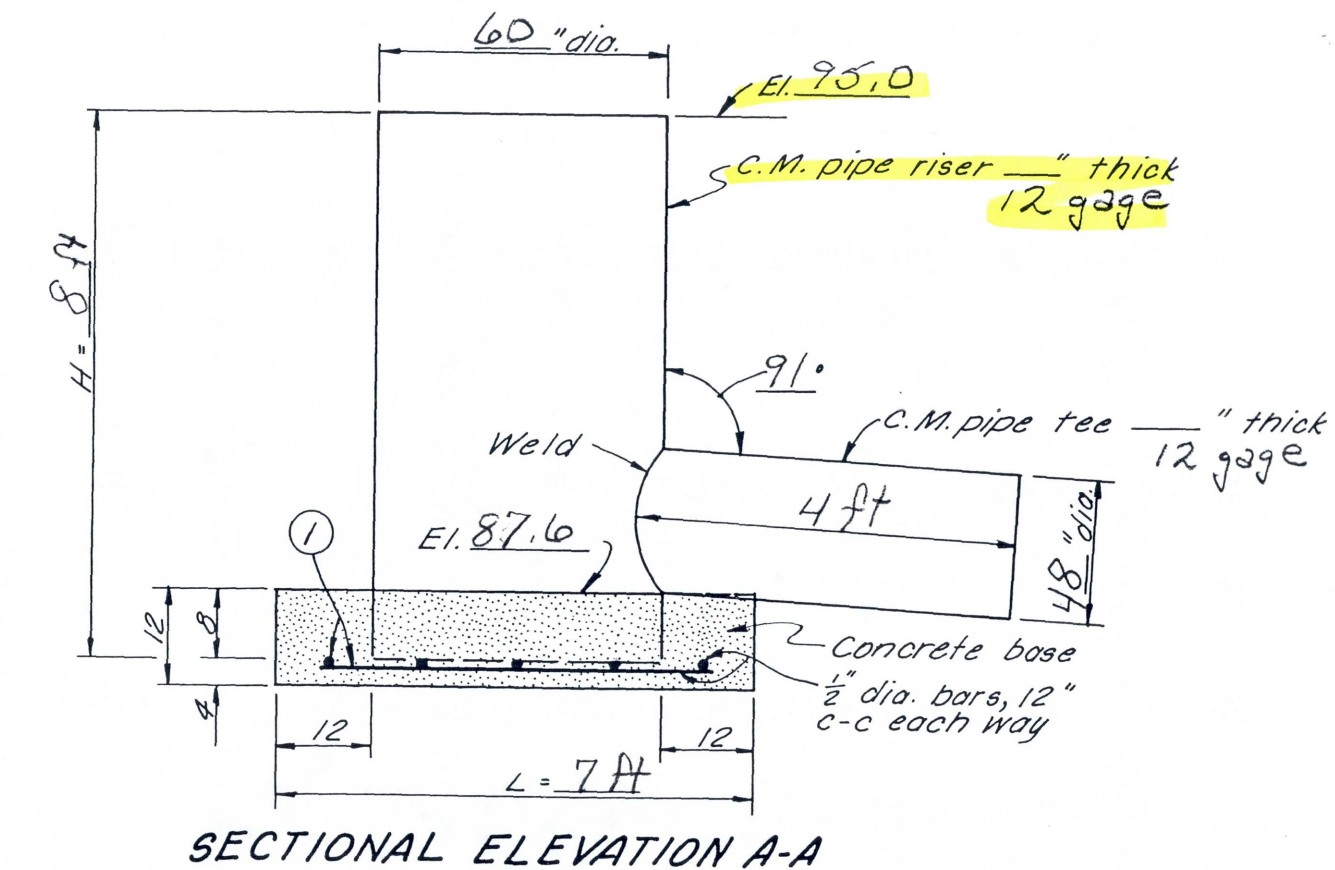
SAND ANTISEEP COLLAR

OPERATOR Jerry Vogeler

CONSERVATION DISTRICT _____

Designed _____	Date _____	Approved by _____
Drawn _____		Title _____
Traced _____		Title _____
Checked _____	Sheet _____	Drawing No. _____
	No _____	
	of _____	

JOB PLAN NO. 3.8

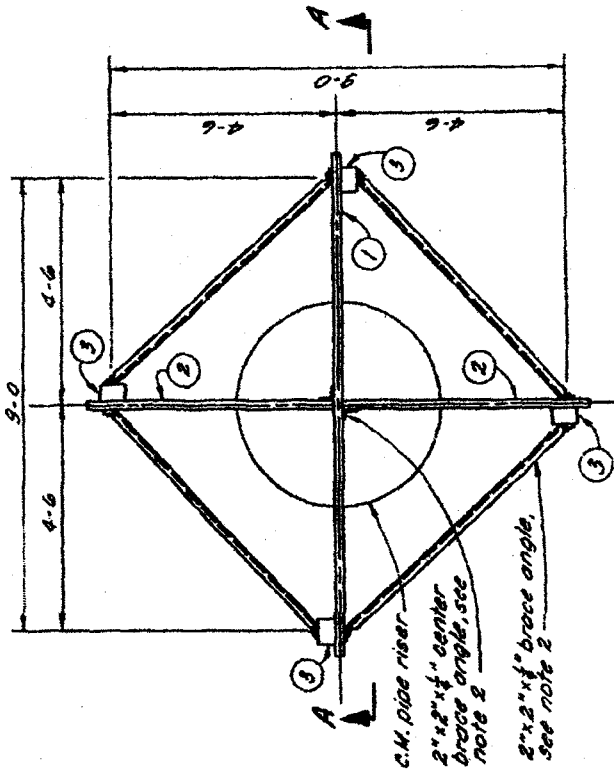


RISER DIA. IN.	BAR SIZE	MARK	TYPE	NO. REQ'D.	LENGTH FT.-IN.	TOTAL LENGTH FT.-IN.	TOTAL WT. LB.	C IN.	L FT.-IN.
60	4	1	STR.	12	6-0	72-0	49	6	7-0

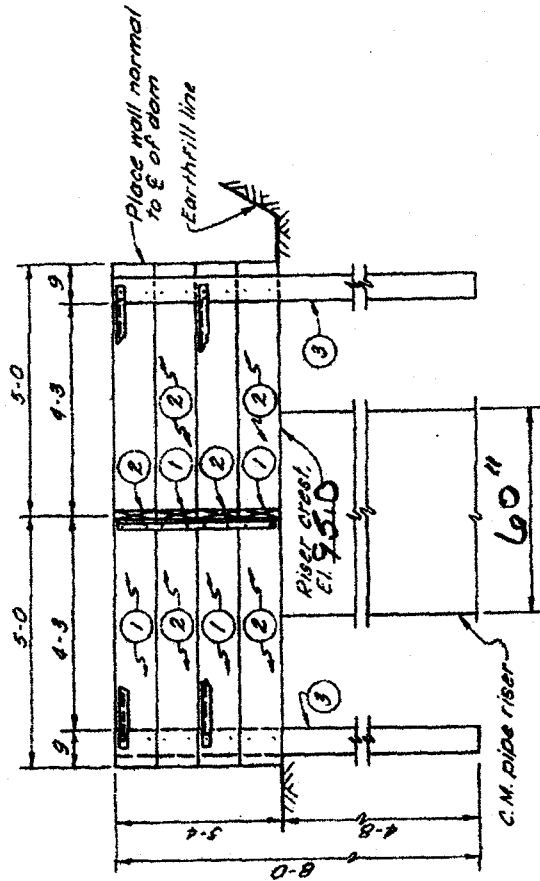
ITEM	UNIT	QUANTITY
CONCRETE	CU.YD.	1.8
REINFORCING STEEL	LB.	49

NOTE: All CMP to be spiral

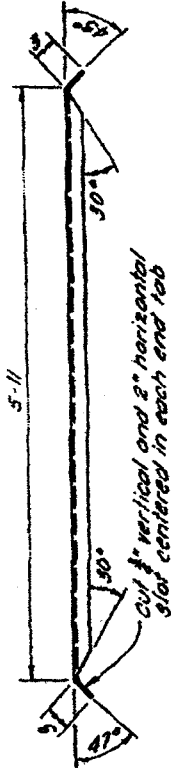
OPERATOR: <u>Jerry Vogeler</u>	
CONSERVATION DISTRICT: _____	
Date _____	Approved by _____
Designed _____	Title _____
Drawn _____	Title _____
Traced _____	Sheet No. _____ Drawing No. _____
Checked _____	No. _____ of _____



PLAN VIEW



SECTIONAL ELEVATION A-A



PLAN VIEW OF BRACE ANGLE

TABLE OF QUANTITIES

ITEM	MARK	NO. REQ'D.	QUANTITY
2" X 10" X 10' PRESSURE TREATED LUMBER	1	4	67 BD. FT.
2" X 10" X 4'-11" PRESSURE TREATED LUMBER	2	8	66 BD. FT.
4" X 6" X 8' PRESSURE TREATED POST	3	4	84 BD. FT.
2" X 2" X 1/4" X 6'-5" STEEL ANGLE		8	164 LB.
2" X 2" X 1/4" X 3'-2" STEEL ANGLE		2	20 LB.
5/8" X 8" STEEL BOLTS, NUTS, 2 WASHERS		32	32 SETS
1/2" X 3" STEEL BOLTS, NUTS, 2 WASHERS		32	32 SETS

NOTES:

1. TO 4" X 6" POSTS (4 REQUIRED) BOLT 2" X 10" BOARDS USING TWO 5/8" X 8" BOLTS PER 2" X 10" BOARD. DO NOT PLACE BOLTS CLOSER THAN 1 1/2" FROM EDGE OF BOARD.
2. FOR CENTER BRACE ANGLES DRILL 8 - 9/16" HOLES 5/8" FROM OUTER EDGE OF EACH LEG OF EACH ANGLE AND CENTERED 5 1/4" APART ALONG THE LEG.
3. ATTACH BRACE ANGLES TO TOP BOLT ON TOP 2" X 10" BOARD AND TO TOP BOLT ON NEXT TO BOTTOM BOARD.

TRASH RACK AND BAFFLE
FOR RISER DIA. 36" THRU 60"

OPERATOR: Terry Vogel

CONSERVATION DISTRICT: _____

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Designed	Checked	Drawn	Reviewed
Approved By	For	Project	Station

JOB PLAN NO. 6.4

Page 8 of 8

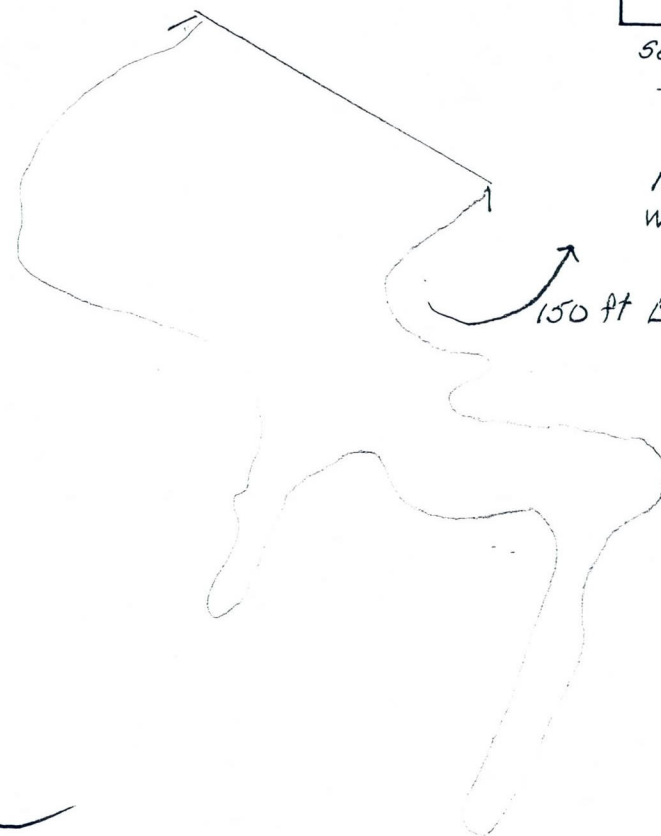
5.N-29,073.6-40

STRUCTURE DATA

DRAINAGE AREA	ANNUAL YIELD	PEAK RUNOFF	EMERG. SPLWY. CAPACITY	WATER DEPTH	SURFACE AREA	SEDIMENT STORAGE	TOTAL STORAGE
ACRES	AC.FT.	25-YR.	C.F.S.	FEET	ACRES	AC.FT.	AC.FT.
8960	360	1300	1030	11	32	-	174

County Rd

B.M.
1739.405



150 ft Em Spillway

Sec. 35 T. 118 N. R. 70 W
Faulk County

LOCATION

N 44° 59.821'
W 099° 14.286'

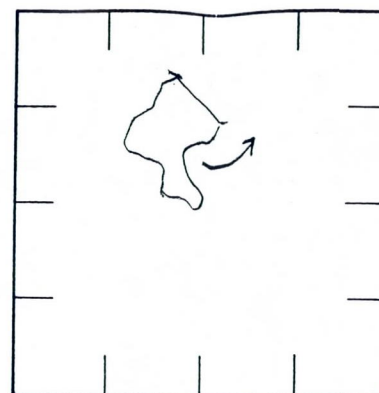
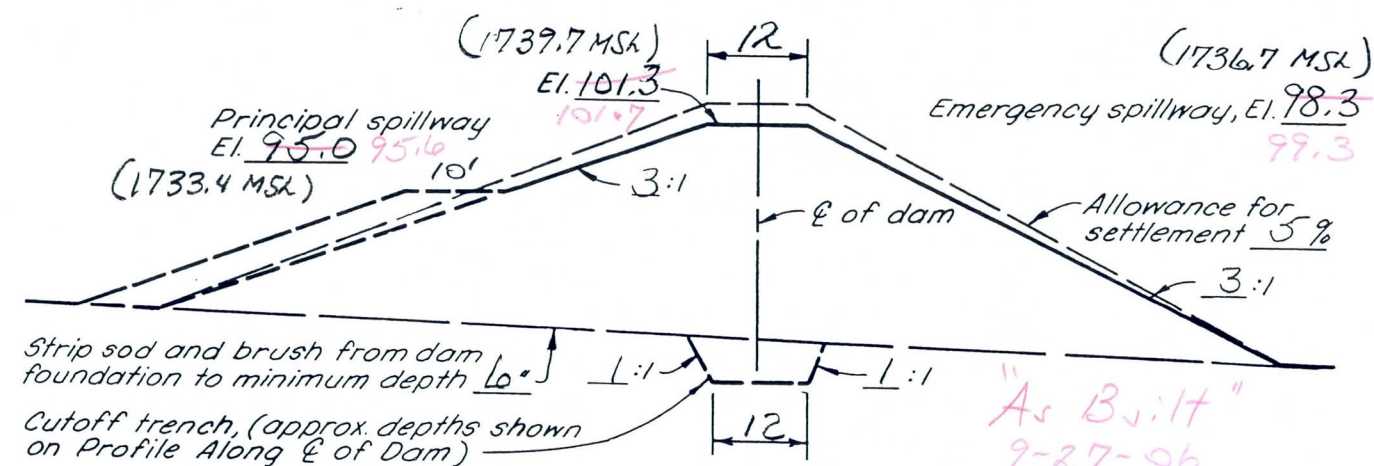


TABLE OF QUANTITIES

ITEM	UNIT	QUANTITY
Excavation		
Emergency Spillway	cy	6694
Core Trench	cy	342
Earth Fill - Dam	cy	2961
Earth Fill - Road	cy	748
60 inch Dia Riser 8 ft long w/4 ft 48 inch stub	ea	1
48 inch Dia spiral CMP	lin ft	90
48 inch Dia watertight connecting bands	ea	3
concrete	cy	1.8
reinforcing steel	lbs	49
sand seep collar	cy	31
PVC 4 inch dia drain pipe	lin ft	87
Timber Pipe Support	ea	1
Timber Trash Rack	ea	1
24 inch dia road culvert	lin ft	76



Property Line



TYPICAL CROSS SECTION OF DAM

S.D. CONSTRUCTION AND MATERIAL SPECIFICATIONS:

- SD-2 Cleaning & Grubbing
- SD-3 Structure Removal
- SD-5 Excavation
- SD-7S Earth Fill
- SD-9 Drain Fill
- SD-12B Concrete
- SD-13 Steel Reinforcement
- SD-15 CMP
- SD-16 Timber Fabrication
- SD-50 CMP

EARTH DAM

OPERATOR: <u>Jerry Vogeler</u>	Date
CONSERVATION DISTRICT: <u>Faulk</u>	
Class "A" Hazard	
Designed: <u>D. Konechne</u>	Approved by: _____
Drawn: _____	Title: _____
Traced: _____	Title: _____
Checked: _____	Sheet No. _____
	Drawing No. _____

SKETCH PLAN OF DAM AND RESERVOIR AREA

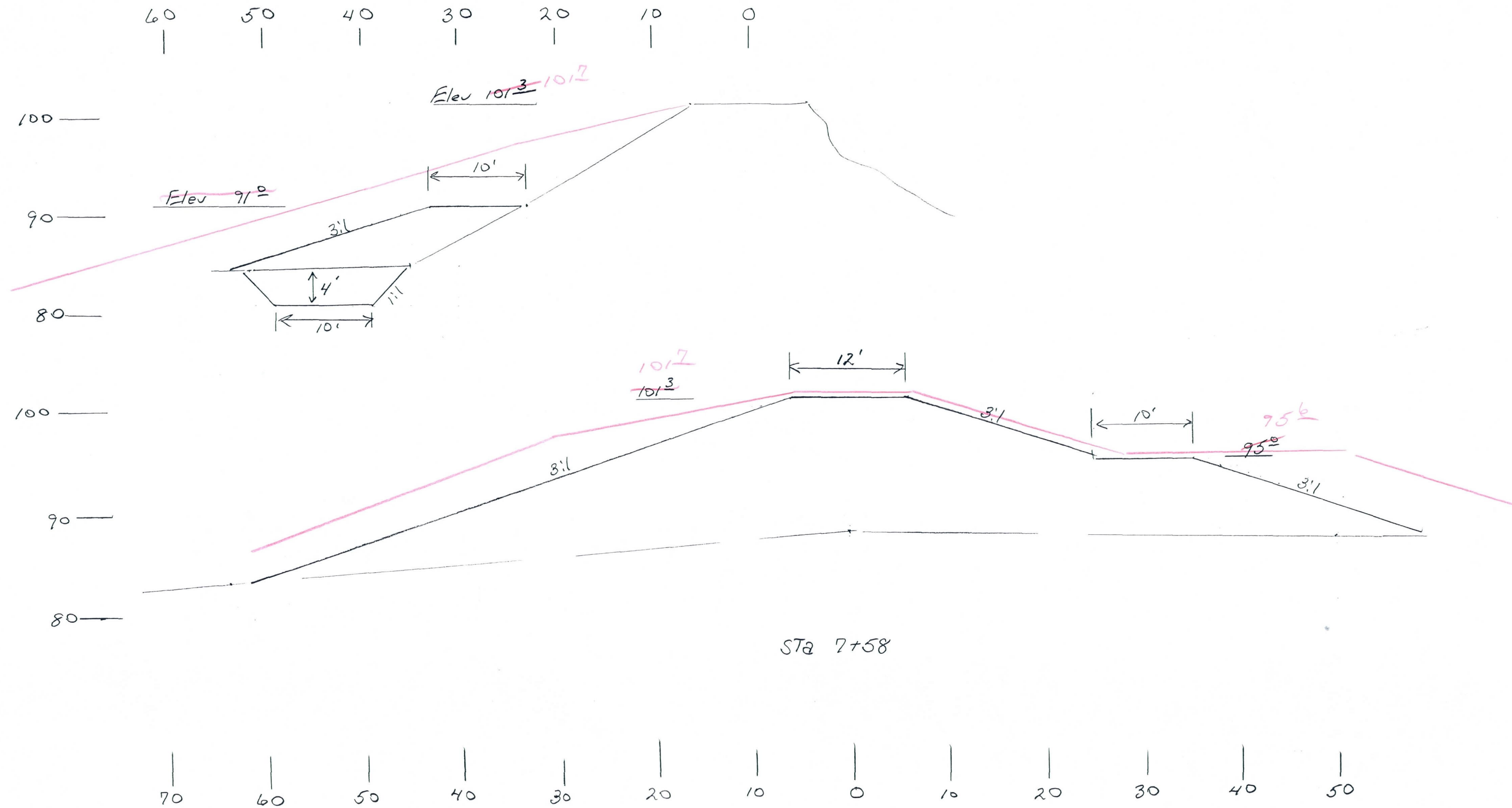
Approximate scale 1" = NA

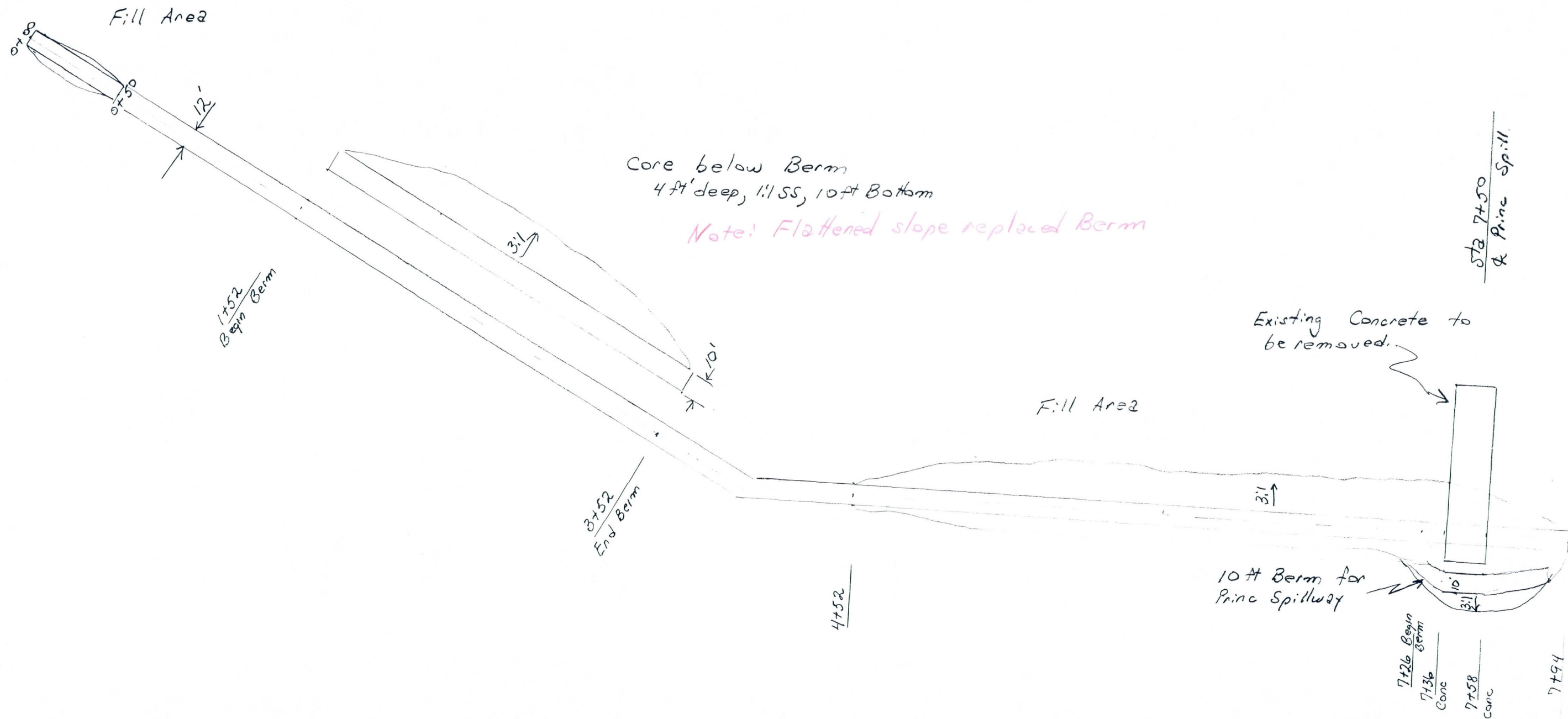
REFERENCE: GUIDE PLAN NO. 1.0

USDA-SCS-LINCOLN, NEBR. 1973

RECEIVED
OCT - 2 2006
WATER RIGHTS
PROGRAM

Vogeler Darm

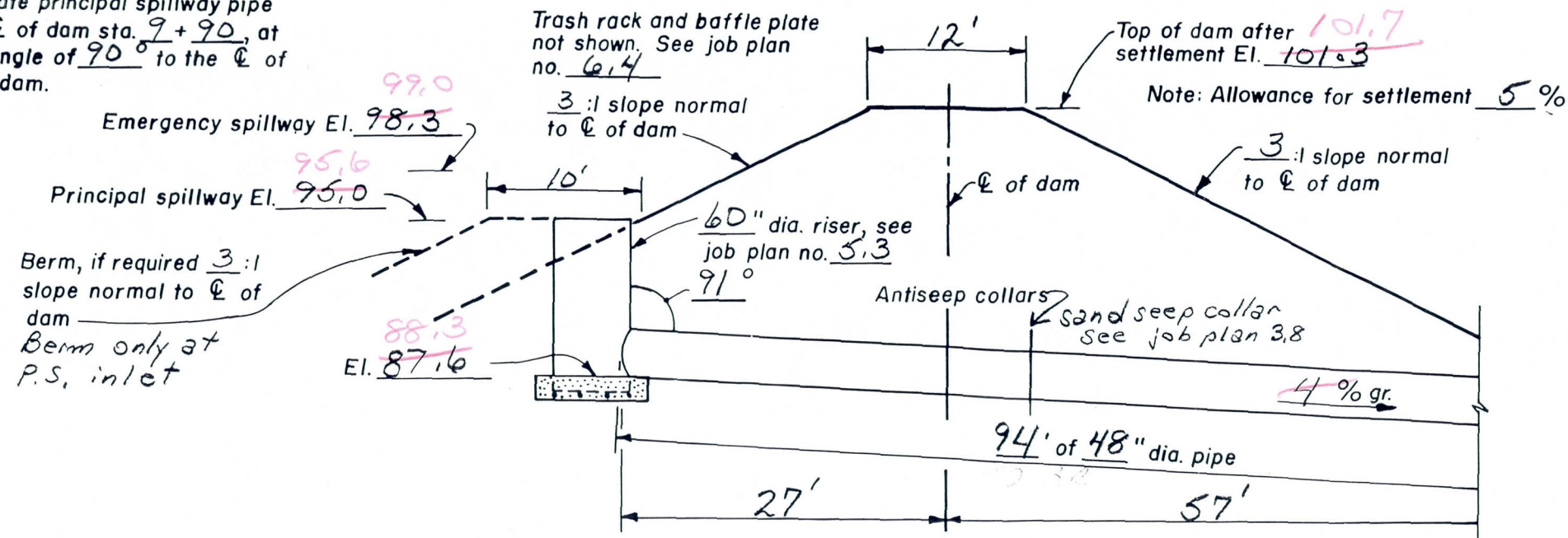




PLAN View
1" = 50 ft

Vogeler Dam

Locate principal spillway pipe at C of dam sta. $7+90$, at an angle of 90° to the C of the dam.



CROSS SECTION OF DAM ALONG C OF PRINCIPAL SPILLWAY
(Not to scale)

SPECIFICATION NOTES

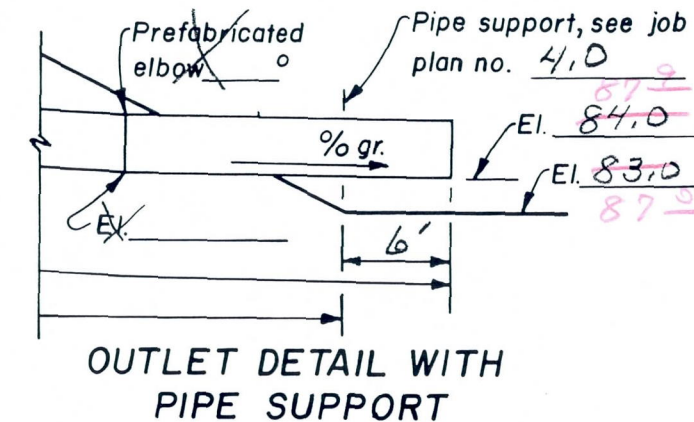
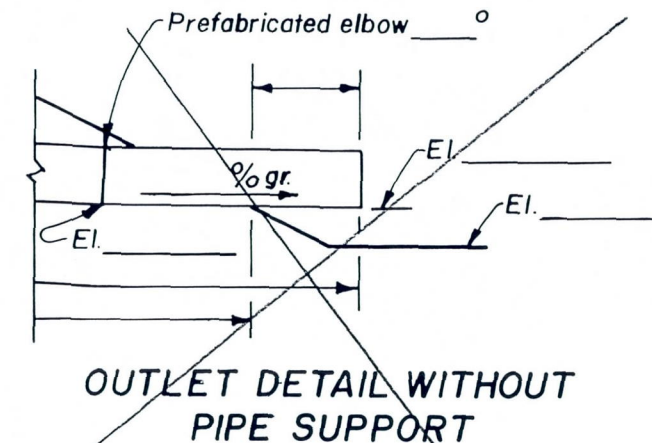
- ELBOW, IF REQUIRED, MAY BE FABRICATED BY CONTINUOUS WELDING SEPERATE PIPE SECTIONS OR BY FABRICATING A CONTINUOUS WELDED JOINT ON THE UPSTREAM END OF LAST SECTION OF PIPE.
- PIPE WALL THICKNESS SHALL BE 12 GAGE OR _____ INCHES.

48 inch dia to be spiral CMP

TABLE OF QUANTITIES

ITEM	UNIT	QUANTITY
60 inch dia riser 8 ft long w/ 4 ft $48''$ stub	ea	1
48 inch dia spiral CMP	lin ft	90
48 inch dia watertight bands	ea	3

APPLICABLE STANDARD S.C.S. SPECIFICATIONS

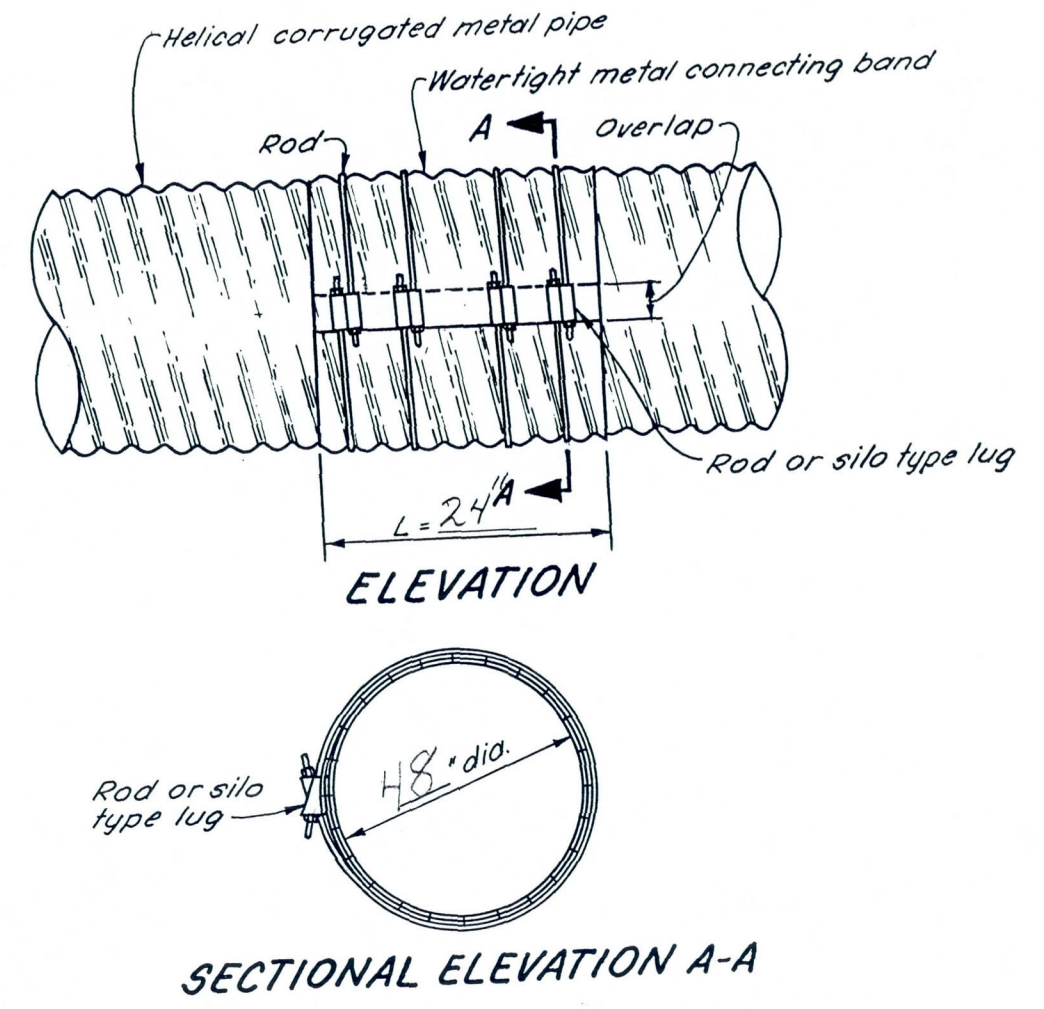
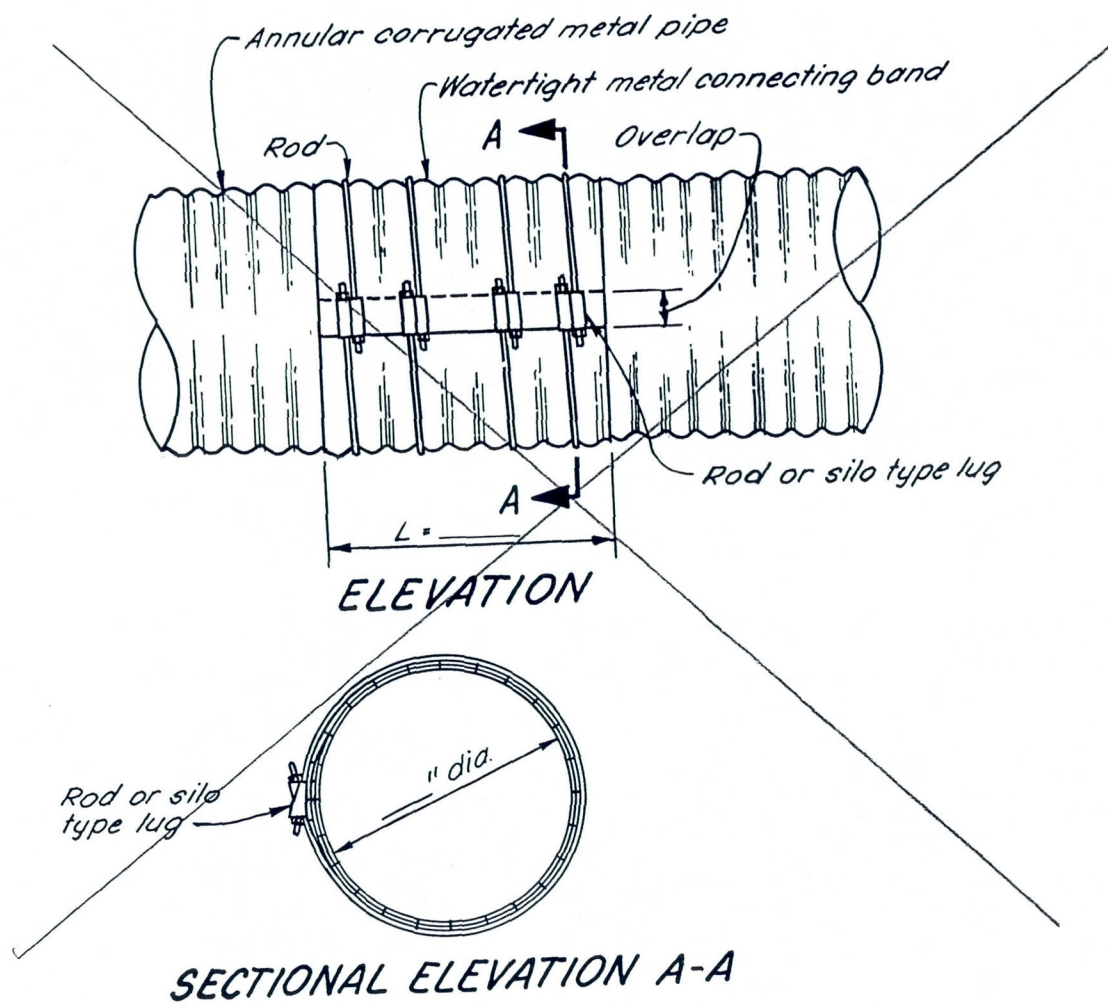


Sec. _____, T. _____, R. _____
County _____

LOCATION

CORRUGATED METAL PIPE DROP INLET PRINCIPAL SPILLWAY

OPERATOR <u>Jerry Vogeler</u>	
CONSERVATION DISTRICT <u>F201K</u>	
U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	
Designed _____	Date _____
Drawn _____	Approved by _____
Traced _____	Title _____
Checked _____	Title _____
Sheet No. _____	Drawing No. _____
of _____	



DIMENSIONS AND QUANTITIES

PIPE DIA. INCHES	MINIMUM "L" INCHES	APPROX. OVERLAP INCHES	NUMBER OF RODS & LUGS	MINIMUM ROD DIA. IN.	NEOPRENE GASKET WIDTH INCHES	ASPHALT MASTIC GAL.
6-18	12	2	2	1/2	12	1/2
21-30	24	3	4	1/2	12	1 1/2
36-48	24	6	4	1/2	12	2

NOTES:

1. WATERTIGHTNESS WILL BE OBTAINED BY USE OF (1) 3/8" THICK NEOPRENE GASKET (WIDTH AS SHOWN) OR (2) ASPHALT MASTIC SEALING MATERIAL TO COVER FULL WIDTH OF BAND.
2. CROSS OUT BAND AND QUANTITIES NOT APPLICABLE.

**WATERTIGHT CONNECTING BAND
FOR ANNULAR AND HELICAL
CORRUGATED METAL PIPE**

OPERATOR: Jerry Vogeler

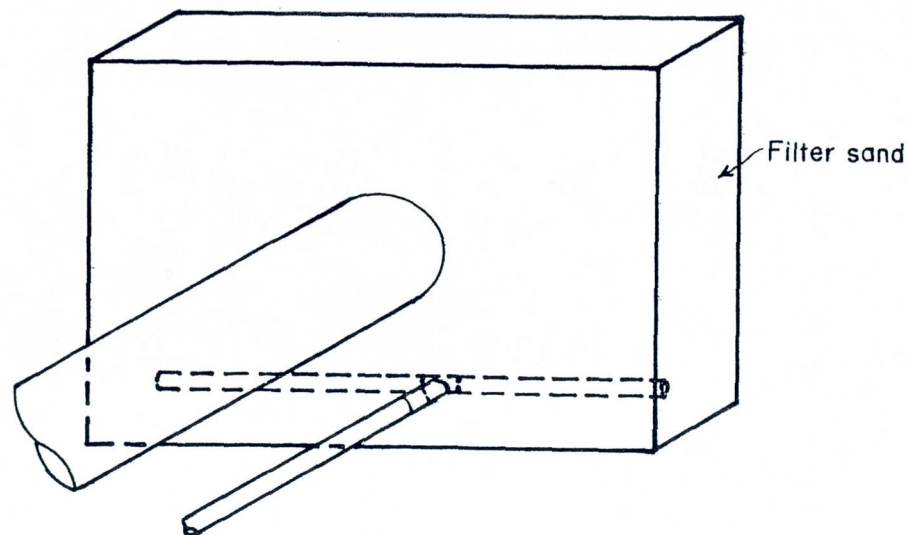
CONSERVATION DISTRICT: _____

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

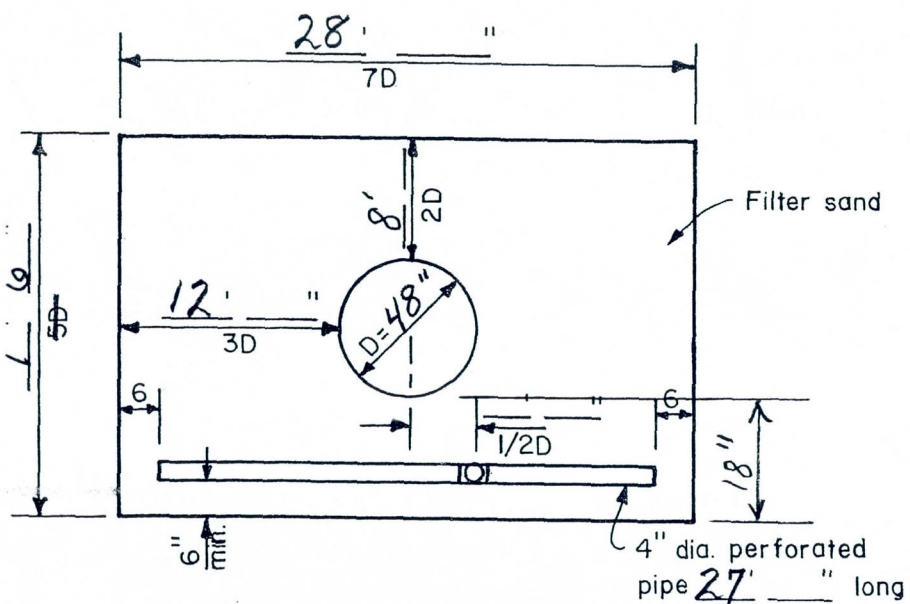
Designed _____	Date _____	Approved by _____
Drawn _____		Title _____
Traced _____		Title _____
Checked _____		Sheet _____
		Drawing No. _____
		No _____
		of _____

JOB PLAN NO. 3.0

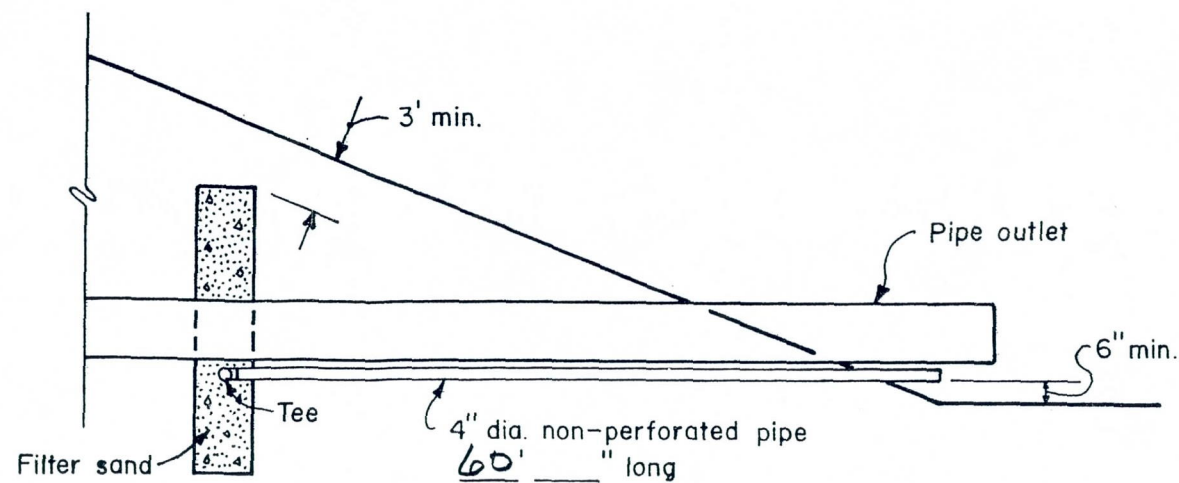




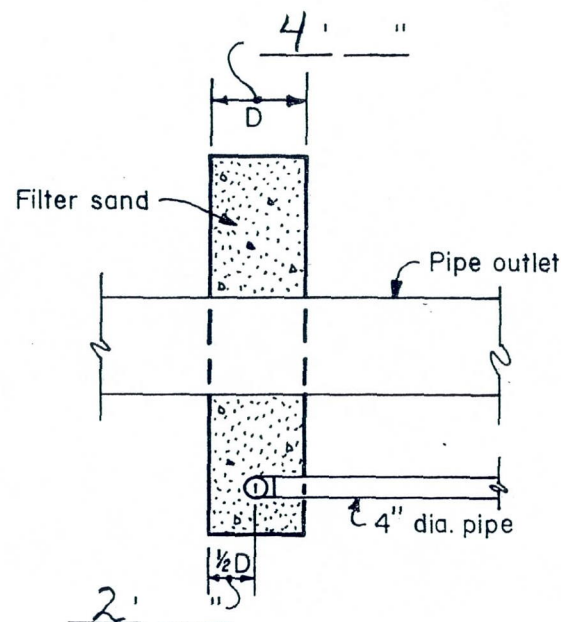
ISOMETRIC VIEW



UPSTREAM VIEW



OUTLET DETAIL



SIDE VIEW

FILTER GRADATION

SIEVE SIZE	PERCENT PASSING
3/8"	100
4	95-100
8	80-100
16	50-85
30	25-60
50	10-30
100	2-10

31cy

Sec. _____, T. _____, R. _____

_____ County

LOCATION

SAND ANTISEEP COLLAR

OPERATOR Terry Vogeler

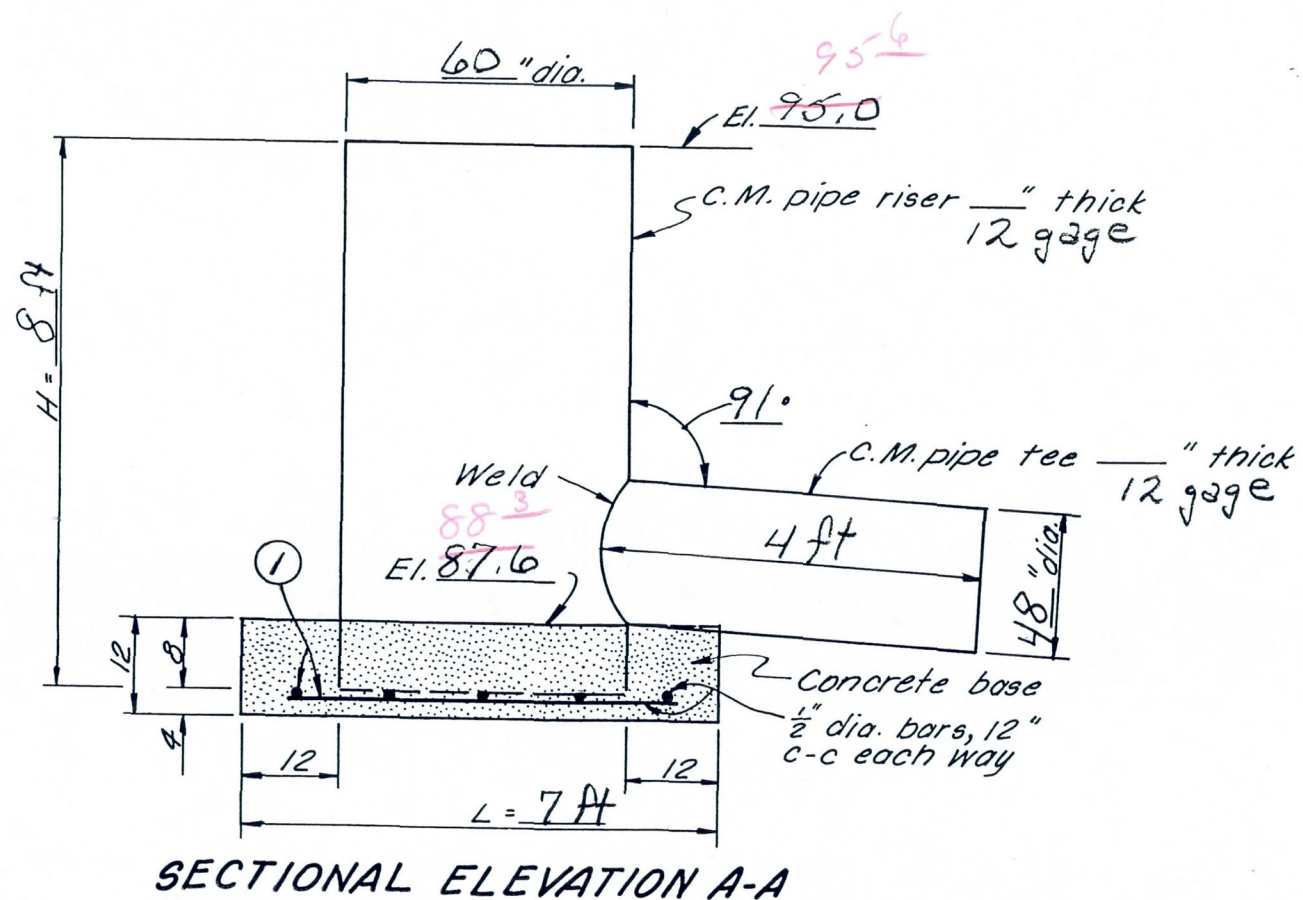
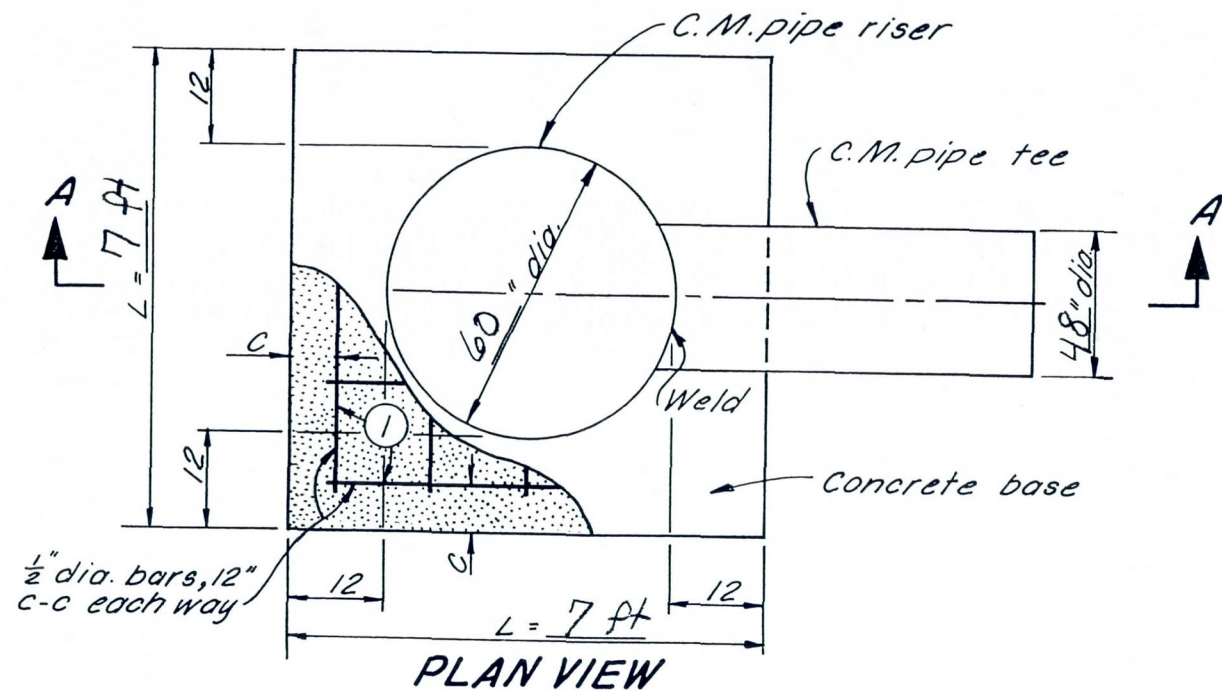
CONSERVATION DISTRICT _____

Designed _____		Date _____		Approved by _____	
Drawn _____		Title _____		Title _____	
Traced _____		Sheet No. _____		Drawing No. _____	
Checked _____		of _____			

JOB PLAN NO. 3.8

NOTE:

1. THE 4" DIA. PIPE SHALL BE ASTM D1785, SCHEDULE 40, PVC.
2. PROVIDE AN ANIMAL GUARD ON DRAIN OUTLET PIPE. DRILL 2, 1/2" DIA. HOLES, ON 6" FROM END OF PIPE AND PLACE A 3/8" DIA., 5 1/2" LONG GALVANIZED STEEL BOLT THRU THEM AND SECURE WITH A NUT (PLACE BOLT HORIZONTAL).



STEEL SCHEDULE

RISER DIA. IN.	BAR SIZE	MARK	TYPE	NO. REQ'D.	LENGTH FT.-IN.	TOTAL LENGTH FT.-IN.	TOTAL WT. LB.	C IN.	L FT.-IN.
60	4	1	STR.	12	6-0	72-0	49	6	7-0

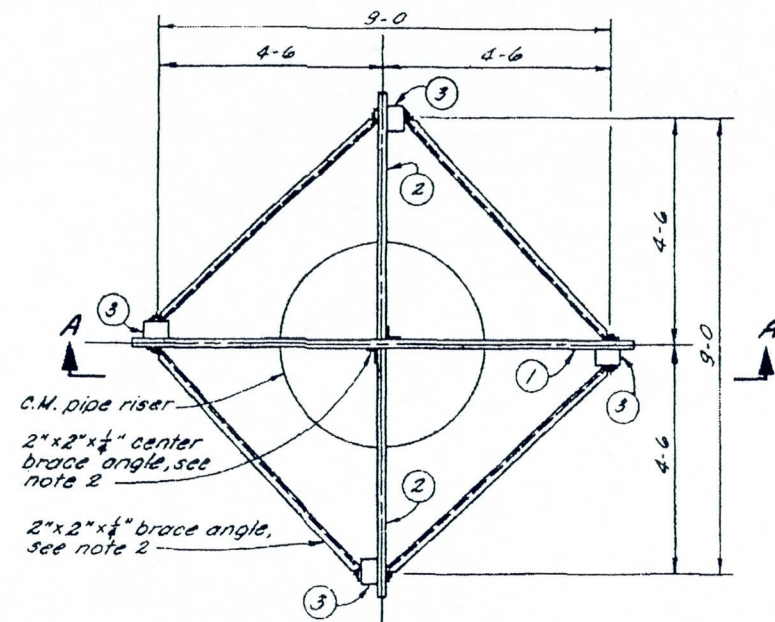
TABLE OF QUANTITIES

ITEM	UNIT	QUANTITY
CONCRETE	CU. YD.	1.8
REINFORCING STEEL	LB.	49

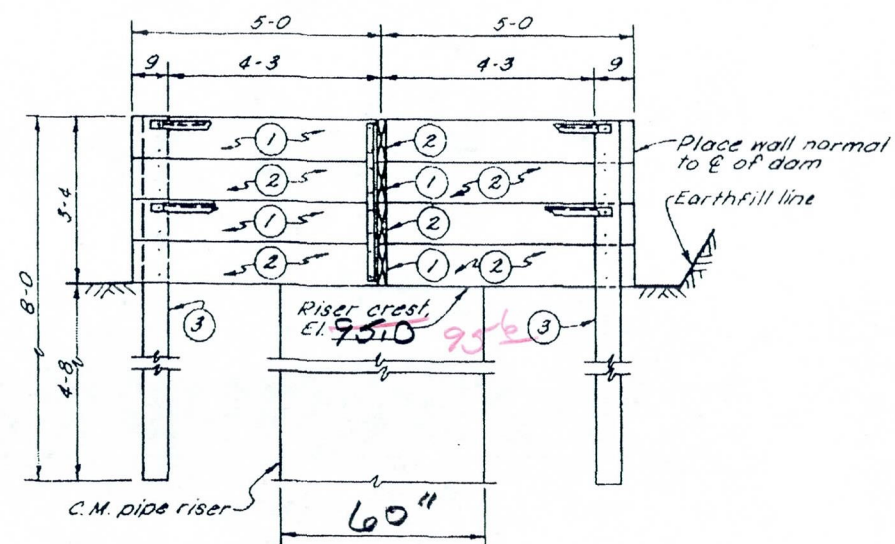
NOTE: All CMP to be spiral

C.M. PIPE RISER WITH FABRICATED TEE

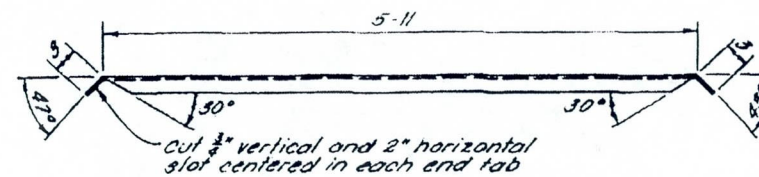
OPERATOR: <u>Jerry Vogeler</u>	
CONSERVATION DISTRICT: _____	
Designed _____	Date _____
Drawn _____	Approved by _____
Traced _____	Title _____
Checked _____	Title _____
	Sheet _____
	Drawing No. _____
	of _____



PLAN VIEW



SECTIONAL ELEVATION A-A



PLAN VIEW OF BRACE ANGLE

TABLE OF QUANTITIES

ITEM	MARK	NO. REQ'D.	QUANTITY
2" X 10" X 10' PRESSURE TREATED LUMBER	1	4	67 BD.FT.
2" X 10" X 4'-11" PRESSURE TREATED LUMBER	2	8	66 BD.FT.
4" X 6" X 8' PRESSURE TREATED POST	3	4	64 BD.FT.
2" X 2" X 1/4" X 6'-5" STEEL ANGLE		8	164 LB.
2" X 2" X 1/4" X 3'-2" STEEL ANGLE		2	20 LB.
5/8" X 8" STEEL BOLTS, NUTS, 2 WASHERS		32	32 SETS
1/2" X 3" STEEL BOLTS, NUTS, 2 WASHERS		32	32 SETS

NOTES:

1. TO 4" X 6" POSTS (4 REQUIRED) BOLT 2" X 10" BOARDS USING TWO 5/8" X 8" BOLTS PER 2" X 10" BOARD. DO NOT PLACE BOLTS CLOSER THAN 1 1/2" FROM EDGE OF BOARD.
2. FOR CENTER BRACE ANGLES DRILL 8 - 9/16" HOLES 5/8" FROM OUTER EDGE OF EACH LEG OF EACH ANGLE AND CENTERED 5 1/4" APART ALONG THE LEG.
3. ATTACH BRACE ANGLES TO TOP BOLT ON TOP 2" X 10" BOARD AND TO TOP BOLT ON NEXT TO BOTTOM BOARD.

TRASH RACK AND BAFFLE
FOR RISER DIA. 36" THRU 60"

OPERATOR: Terry Vogeler
CONSERVATION DISTRICT: _____

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Designed _____	Date _____	Approved by _____
Drawn _____		Title _____
Tracer _____		Sheet _____
Checker _____		Drawn by _____

JOB PLAN NO. 6.4



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

October 5, 2006

Bryce Healy, Commissioner
Office of School and Public Lands
500 E. Capitol Avenue
Pierre, SD 57501

Dear Mr. Healy:

I am writing in regard to Vogeler Dam and your recent Release And Abandonment Agreement with Jerry Vogeler.

We conducted an inspection on September 27, 2006 of the Vogeler Dam repair project completed by Mr. Vogeler; and received a set of "As Built" plans from his engineer on October 2, 2006. The needed repairs described in Exhibit A (our 2004 Vogeler Dam Inspection Report) of the Agreement have been completed and the project looked real good. There were still a few trees and brush that need to be removed from the upstream slope of the dam and I have talked to Mr. Vogeler that this type of work could be an annual maintenance item.

The "As Built" plans indicate a top of dam elevation of 101.7 feet mean sea level (fmssl); the secondary spillway elevation at 99.3 fmssl; and the primary spillway elevation at 95.6 fmssl with a storage capacity of 190 acre-feet of water. The plans also indicate that additional fill material from the secondary spillway was used to flatten the embankment slopes.

If you have any questions, please feel free to contact us.

Sincerely,

Timothy G. Schaal, P.E.
Natural Resources Engineering Specialist
for Garland Erbele, Chief Engineer
Water Rights Program
(605) 773-3352

c: Mike Cornelison, S&PL
Harold Deering, Attorney General's Office
Jerry Vogeler, landowner

September 20, 2006

JERRY VOGELER
PO BOX 7077
PIERRE SD 57501-7077

Dear Jerry,

Please find enclosed Certified Copy of Recorded Release and Abandonment Agreement.

I visited with our legal council Harold Deering SD Attorney General's Office and we can proceed with a Quit Claim Deed following an inspection by Tim Schaal with the Dept. of Environment and Natural Resources and myself, of the repaired and or rebuilt structure; as well as the receipt of a set of the as built plans.

I will be coordinating a trip to the site with Tim Schaal in the near future since you completed the project.

If you have any questions please contact me at 605-773-4172.

Sincerely,

Mike Cornelison
Land Agent

Cc Harold Deering SD AG's Office
Tim Schaal SD DENR

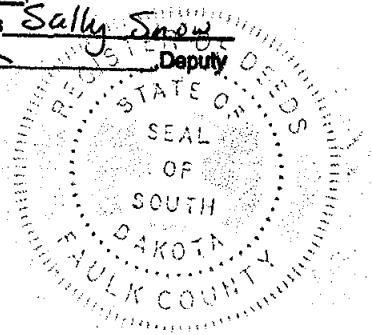
RECEIVED

SEP 21 2006

WATER RIGHTS
PROGRAM

This document prepared by:
Michael J. Cornelison
Office of School and Public Lands
500 E Capitol Avenue
Pierre, SD 57501
(605) 773-3303

B9791
STATE OF SOUTH DAKOTA } SS
COUNTY OF FAULK
Filed for record this 13th day of September
A.D. 2006, at 9:25 o'clock A. M. and
recorded in book II of Misc
Page 212
Register of Deeds Sally Snow
by [Signature] Deputy
FEE \$140
INDEX
NUMERICAL
COMPARED
SEAL
~~TRANSF.~~



RELEASE AND ABANDONMENT AGREEMENT

AGREEMENT made and entered into this 21st day of August, 2006, by and between the State of South Dakota, acting through its Commissioner of School and Public Lands, State Capitol Building, 500 East Capitol Avenue, Pierre, SD 57501-5070 (the "State") and Jerry Vogeler, of P.O. Box 7077, Pierre, South Dakota 57501 (the "Landowner").

WITNESSETH:

WHEREAS, the State acquired an easement dated July 10, 1934 from Stanley R. Pierce and his wife, to build and construct an artificial lake including the right to flood certain lands as herein described in Faulk County, South Dakota; and

WHEREAS, the Chief Engineer, Division of Water Rights, pursuant to the State's Safety of Dams Program, has conducted an inspection and has determined that certain repairs are required to ensure the safety of the earthen structure creating the artificial lake know as Vogeler Dam; and

WHEREAS, the State has determined that the costs of making those repairs exceeds the benefit of the artificial lake to the State, and has determined that this release and abandonment agreement will not jeopardize or impair the interests of the State; and

WHEREAS, the Landowner is the successor in interest and the legal title holder of the real property which is subject to the easement and the artificial lake, and as such has the reversionary rights in the easement upon release and abandonment by the State, desires the continuance of the lake know as Vogeler Dam, and is entering into this Agreement to induce the State to forego breaching the embankment and draining the artificial lake;

RECEIVED
SEP 19 2006
SCHOOL & PUBLIC LANDS
STATE OF SOUTH DAKOTA

NOW THEREFORE IT IS MUTUALLY AGREED AS FOLLOWS:

1. In consideration of the Landowner's agreement to make the repairs to Vogeler Dam as set forth in Exhibit A attached hereto and by this reference incorporated herein, the State agrees to release and quit claim all right and interest it acquired pursuant to the easement filed for record on the 28th day of August, 1934 at 1:00 o'clock P.M. and recorded in Book K of Miscellaneous at page 327, Office of the Register of Deeds, Faulk County, South Dakota, in and to the following described real estate in the County of Faulk, State of South Dakota, to wit:

That portion of the NE1/4 of the NW1/4 of Section 35, Township 118 North, Range 70, West of the 5th Principal Meridian commencing at a point thirty-four rods south of the north line of said quarter and thence running south, consisting of fifty and one half acres, more or less; and

That portion of the SW1/4 of the NE1/4 of Section 35, Township 118 North, Range 70, West of the 5th Principal Meridian, consisting of ten acres, more or less.

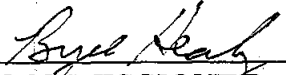
2. The parties agree that the purpose of this Agreement is to abandon, release and quit claim to Landowner the interest that the State acquired pursuant to the easement above described. Landowner agrees to make those repairs described in Exhibit A by December 31, 2008, at no cost to the State.

3. Landowner agrees to accept all responsibility for the operation, maintenance and repair of Vogeler Dam, and agrees to indemnify and hold the State of South Dakota, its officers, agents and employees, harmless from and against any and all actions, suits, damages, liability or other proceedings that may arise as the result of the operation, maintenance and repair of Vogeler Dam, from and after the date of this Agreement, including the performance of the repairs described in Exhibit A.

4. The parties agree that the release described herein is contingent upon Landowner making the repairs described in Exhibit A in a timely manner. In the event that Landowner has not completed the repairs required on or before the 31st day of December, 2008, this Agreement will, at the sole option of the State, upon failure to complete the repairs within 90 days written notice from the State, become null and void, and of no effect, and the State will not be obligated to reimburse Landowner for any work done prior to such termination. Upon completion of the repairs described in Exhibit A, the State agrees to execute a release of easement and record the same with the Faulk County Register of Deeds.

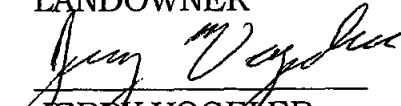
IN WITNESS WHEREOF, the parties signify their agreement effective the date above first written by the signatures affixed below.

STATE OF SOUTH DAKOTA



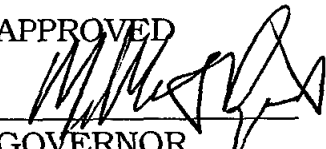
COMMISSIONER, OFFICE OF
SCHOOL AND PUBLIC LANDS

LANDOWNER



JERRY VOGELER

APPROVED



GOVERNOR
STATE OF SOUTH DAKOTA

RELEASE AND ABANDONMENT
AGREEMENT

AGREEMENT made and entered into this 9th day of June, 2006, by and between the State of South Dakota, acting through its Commissioner of School and Public Lands, State Capitol Building, 500 East Capitol Avenue, Pierre, SD 57501-5070 (the "State") and Jerry Vogeler, of P.O. Box 7077, Pierre, South Dakota 57501 (the "Landowner").

WITNESSETH:

WHEREAS, the State acquired an easement dated July 10, 1934 from Stanley R. Pierce and his wife, to build and construct an artificial lake including the right to flood certain lands as herein described in Faulk County, South Dakota; and

WHEREAS, the Chief Engineer, Division of Water Rights, pursuant to the State's Safety of Dams Program, has conducted an inspection and has determined that certain repairs are required to ensure the safety of the earthen structure creating the artificial lake know as Vogeler Dam; and

WHEREAS, the State has determined that the costs of making those repairs exceeds the benefit of the artificial lake to the State, and has determined that this release and abandonment agreement will not jeopardize or impair the interests of the State; and

WHEREAS, the Landowner is the successor in interest and the legal title holder of the real property which is subject to the easement and the artificial lake, and as such has the reversionary rights in the easement upon release and abandonment by the State, desires the continuance of the lake know as Vogeler Dam, and is entering into this Agreement to induce the State to forego breaching the embankment and draining the artificial lake;

NOW THEREFORE IT IS MUTUALLY AGREED AS FOLLOWS:

1. In consideration of the Landowner's agreement to make the repairs to Vogeler Dam as set forth in Exhibit A attached hereto and by this reference incorporated herein, the State agrees to release and quit claim all right and interest it acquired pursuant to the easement filed for record on the 28th day of August, 1934 at 1:00 o'clock P.M. and recorded in Book M of Miscellaneous at page 327, Office of the Register of Deeds, Faulk County, South Dakota, in and to the following described real estate in the County of Faulk, State of South Dakota, to wit:

That portion of the NE1/4 of the NW1/4 of Section 35,
Township 118 North, Range 70, West of the 5th Principal

Meridian commencing at a point thirty-four rods south of the north line of said quarter and thence running south, consisting of fifty and one half acres, more or less; and

That portion of the SW1/4 of the NE1/4 of Section 35, Township 118 North, Range 70, West of the 5th Principal Meridian, consisting of ten acres, more or less.

2. The parties agree that the purpose of this Agreement is to abandon, release and quit claim to Landowner the interest that the State acquired pursuant to the easement above described. Landowner agrees to make those repairs described in Exhibit A by December 31, 2008, at no cost to the State.

3. Landowner agrees to accept all responsibility for the operation, maintenance and repair of Vogeler Dam, and agrees to indemnify and hold the State of South Dakota, its officers, agents and employees, harmless from and against any and all actions, suits, damages, liability or other proceedings that may arise as the result of the operation, maintenance and repair of Vogeler Dam, from and after the date of this Agreement, including the performance of the repairs described in Exhibit A.

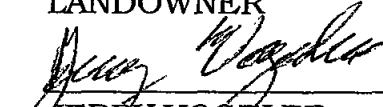
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IN WITNESS WHEREOF, the parties signify their agreement effective the date above first written by the signatures affixed below.

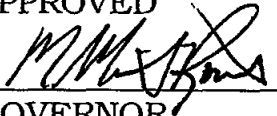
STATE OF SOUTH DAKOTA


COMMISSIONER, OFFICE OF
SCHOOL AND PUBLIC LANDS

LANDOWNER


JERRY VOGELER

APPROVED


GOVERNOR
STATE OF SOUTH DAKOTA

Water Rights Division -DENR
Conversation or File Documentation

NAME OF PERSON OR FILE: Jerry Vogeler/Vogeler Dam

ADDRESS: PO Box 7077, Pierre, SD 57501 COUNTY: Faulk

DATE: December 19, 2006 TELEPHONE: XXXXXXX

RE: Validation of Vested Right Claim No. 906-3

Vested Right Claim No. 906-3 was filed on October 20, 1961, by the South Dakota Department of Game Fish & Parks. It has a priority date of 1937 to store water in Vogeler Dam, located in the NW ¼ of Sec.35-T118N-R70W, in Faulk County. The amount of water claimed is "As required to fill lake to outlet level-approximately 125 acre-feet per year." The outlet level elevation was changed, probably in the early 1950's, by adding an 18 inch weir to the spillway inlet.

Vogeler Dam is a Category 3, Low Hazard dam constructed in 1937 by the Works Progress Administration (WPA). The Office of School and Public Lands held the easement for Vogeler Dam. The easement was transferred to Jerry Vogeler on August 21, 2006; with the requirement that Mr. Vogeler would repair the dam. Vested Right Claim No. 906-3 was also transferred to Mr. Vogeler on June 15, 2006.

The plans and specifications to repair the dam were prepared by Konechne Engineering and approved on June 5, 2006. The existing concrete spillway had failed and the plans showed replacing the concrete spillway with a CMP drop inlet structure with a 60 inch diameter riser and a 48 inch diameter barrel. The plans also called for adding a 150 foot wide earthcut secondary spillway and raising the embankment crest about one foot. Additional fill material would also be added to both the upstream and downstream slopes. The plans indicated that the drop inlet structure would be installed at the existing outlet elevation of 1744.3 feet mean sea level (fmsl). The dam was repaired and "As Built" plans were received on October 2, 2006 showing the outlet elevation of 1744.9 fmsl with a lake storage capacity of 190 acre-feet. The difference of about one-half for the outlet elevation is considered to be within the construction expectations of the replaced spillway structure.

Vested Right Claim No. 906-3 should be validated for an outlet elevation of 1744.9 fmsl and a reservoir storage capacity of 190 acre-feet of water.



Timothy G. Schaal, P.E.
Natural Resources Engineering Specialist
Water Rights Program

Jerry Vogeler
PO Box 7077
Pierre, SD 57501
Phone: 605-223-2060 • Fax: 605-223-2061
E-mail: jerryvogeler@pie.midco.net

December 14, 2006

Mr. Tim Schaal
SD Dept. of Environment and Natural Resources
523 East Capitol
Pierre, SD 57501

RECEIVED

DEC 15 2006

**WATER RIGHT
PROGRAM**

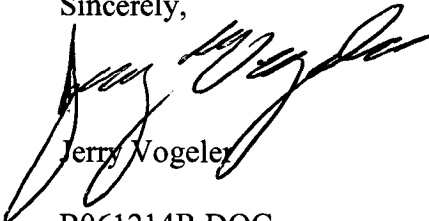
Dear Tim:

Per our telephone conversation, I write to request that water right number 906-3 for Vogeler Lake be validated.

The "as built" drawings for Vogeler Dam contain elevations for the primary, secondary and the dam itself. The elevations are tied to a mean sea level benchmark.

Please let me know how to proceed with validation of this water right.

Sincerely,



Jerry Vogeler

B061214B.DOC

Gronlund, Eric

From: Jerry Biedenfeld-Vogeler [jerryvogeler@pie.midco.net]
Sent: Thursday, December 21, 2006 10:31 AM
To: Gronlund, Eric
Subject: Re: Priority dates for Recognized VR No. 906-3

Eric

I am willing to work with you and Chief Engineer to reach reasonable decision.

Wanted to bring something else to your attention. When Vogeler dam was originally built, it was built with a rock spillway. I do not have elevations.

In the early 40's, after the rock spillway washed out, the concrete spillway was constructed. The elevation of the concrete spillway was lowered. You can see from the attached photo this is true. You can see the rock spillway to the left of the concrete spillway in this photo. I know this is location of rock spillway because contractor intended to bury concrete spillway in this location and could not because he run into many rocks.

I also sent another photo of the dam when the rock spillway was being constructed. Also sent picture of downstream slope of rock spillway.

Even with the 18 inch raise in the early 1950's, the lake elevation was still lower than when it had the rock spillway. You can also determine this from the attached photo.

Not trying to dispute anything you said in your e-mail or your recommendations. I understand this is difficult at best when the information is less than complete. On other hand, want you to have as much information as possible.

My best guess based on pictures, what I learned during construction, and what I have been told; is that the current elevation is probably very similar to the rock spillway.

Let me know your thoughts.

Jerry Vogeler

----- Original Message -----

From: Eric.Gronlund@state.sd.us
To: jerryvogeler@pie.midco.net
Cc: Tim.Schaal@state.sd.us
Sent: Thursday, December 21, 2006 9:38 AM
Subject: Priority dates for Recognized VR No. 906-3

Jerry Vogeler

I wanted to briefly update you on the validation of the recognized vested water right for Vogeler Dam. The original vested water right claim states a priority date is January 1, 1937. However, it is my understanding that in the 1950's (exact date unknown) the spillway was raised 18 inches. This is affirmed in the recent newspaper article you provided us. Therefore, I believe two priority dates are applicable in validating the water right. First, a January 1, 1937 priority date for the level of development that occurred at that time and a 1950 priority date for the raise in elevation that occurred sometime in I presume the early 1950's.

To arrive at the elevations associated with the two priority dates. I rely on Mr. Konechne's survey.

12/21/2006

The plans called for primary outlet elevation of 1744.3 fmsl but the survey conducted after construction found constructed elevation of 1744.9 fmsl. Based on the documentation that indicates a 18" raise in the 1950's, I conclude that the 1937 elevation is 2 foot lower than current elevation. Therefore I am proposing the following priority dates

January 1, 1937 for water impounded at or below elevation 1,742.9 fmsl
January 1, 1950 for water impounded above 1,742.9 fmsl to 1,744.9 fmsl.

I have not discussed this with the Chief Engineer for his final recommendation yet as I first wanted to touch base with you.

From a practical standpoint, the split priority date does not have an impact on your dam. Primarily because the one downstream dam "Faulkton Lake" which theoretically could make a call for water has a 1936 priority date which trumps the Vogeler dam 1937 priority date.

Secondly, I believe allowing the 1950 priority date up to elevation 1744.9 fmsl is generous. First, we don't know the exact date of the 18 inch raise that took place in the 1950's so I am proposing giving the Jan. 1, 1950. Also, there appears to have been an additional 6 inch raise in the recent construction.

I wanted to run this by you before going any farther. Please let me know what you think. Again, it will be the Chief Engineer's final recommendation but this is what Tim and I are proposing to advise him.

Eric Gronlund
Water Rights Program, DENR
605 773-3352



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

**RECOMMENDATION OF CHIEF ENGINEER FOR VALIDATION OF RECOGNIZED
VESTED WATER RIGHT CLAIM NO. 906-3, Jerry Vogeler**

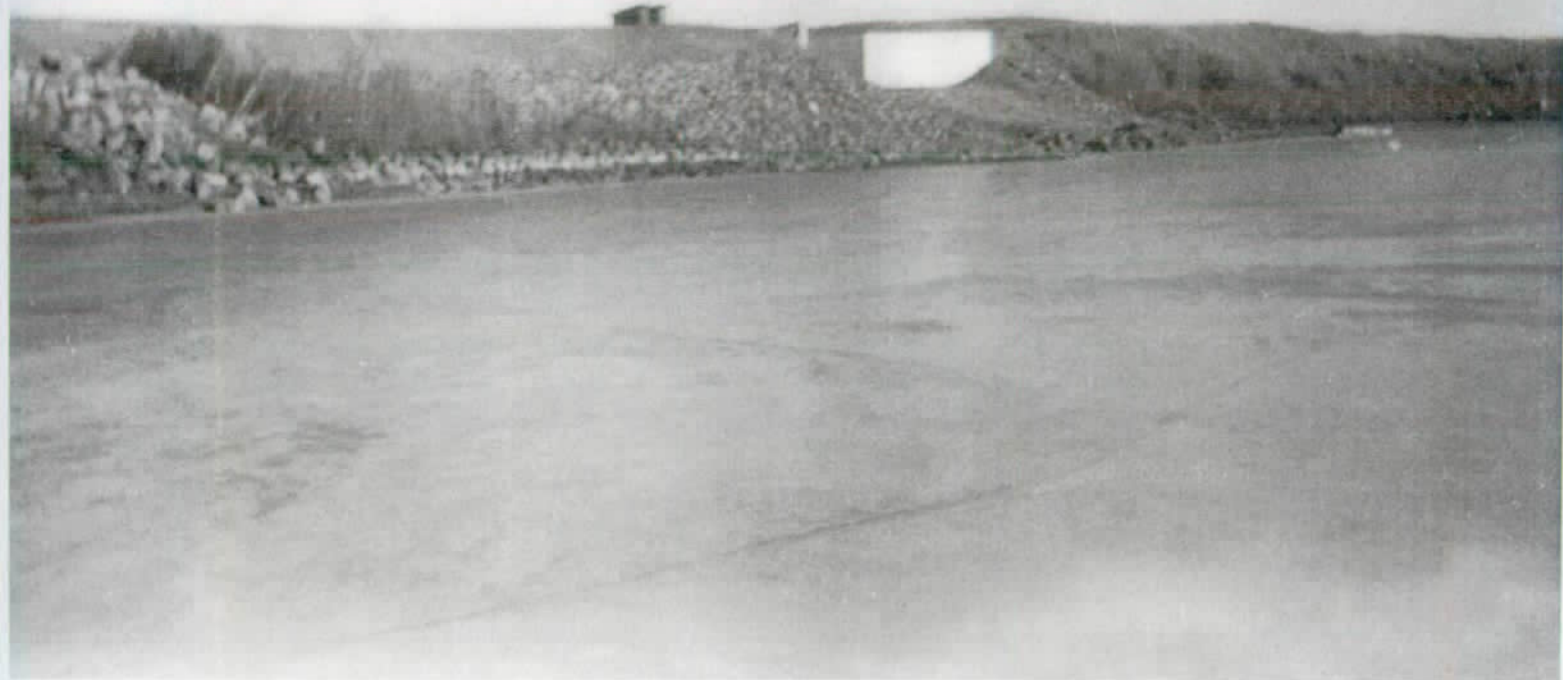
Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Division, Department of Environment and Natural Resources concerning Validation of Recognized Vested Water Right Claim No. 906-3. Jerry Vogeler, PO Box 7077, Pierre SD 57501.

The Chief Engineer is recommending VALIDATION of Recognized Vested Water Right Claim No. 906-3 for sufficient water to maintain the water level to the outlet elevation of 1744.9 feet mean sea level. The priority date for the vested water right will be divided as follows:

January 1, 1937 - water impounded $\leq 1,742.9$ fmsl

January 1, 1950 - water impounded $> 1,742.9$ fmsl and $\leq 1,744.9$ fmsl.

Garland Erbele, Chief Engineer
January 2, 2007



12/10/21



12/10/21



ROYAL
NAVY
MUSEUM





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

January 2, 2007

NOTICE

TO: Jerry Vogeler
PO Box 7077
Pierre SD 57501

FROM: Garland Erbele, Chief Engineer
Water Rights Program DENR

SUBJECT: Hearing to Consider Validation of Recognized Vested Water Right No. 906-3

A notice of intent to validate recognized Vested Water Right Claim No. 906-3 was published in the Faulk County Record on June 22 and 29, 1988. The notice as published was to validate the claim for Vogeler dam for sufficient water to fill the lake annually to the outlet elevation or to the elevation necessary to maintain the ordinary high water mark, whichever is lower. The Chief Engineer at the time filed a petition in response to the notice of intent to validate. The purpose of filing was to allow for amendment and qualifications necessary to clarify the claim. In the case of lakes this included surveying in order to establish an outlet elevation.

The Water Management Board will consider validation of Recognized Vested Water Right No. 906-3 at 11:00 AM on March 7, 2007 at the Floyd Matthew Training Center, Joe Foss Building, 523 E Capitol Avenue, Pierre SD. The agenda time is an estimate and may be delayed due to prior agenda items.

I recommend validation of recognized Vested Water Right Claim No. 906-3 for sufficient water to maintain the water level to the outlet elevation of 1744.9 feet mean sea level. The priority date for the vested water right will be divided as follows:

January 1, 1937 - water impounded $\leq$ 1,742.9 fmsl

January 1, 1950 - water impounded $>$ 1,742.9 fmsl and $\leq$ 1,744.9 fmsl.

Applicable provision of the published notice of intent to validate Recognized Vested Water Right No. 906-3 still apply at this hearing.

Please contact Eric Gronlund at 773-3352 if you have any questions.

c: Diane Best, Assistant Attorney General
Leslie Petersen, G,F&P Water Permits Coordinator

CERTIFICATION

I hereby certify that on January 2, 2007 , I have personally deposited with the United States mail at Pierre, South Dakota, first class postage, prepaid envelopes containing a Notice dated January 2, 2007 regarding Hearing to Consider Validation of Recognized Vested Water Right No. 906-3 addressed as stated below:

Jerry Vogeler
PO Box 7077
Pierre SD 57501

A copy of the above described Notice was sent Inter-office to:

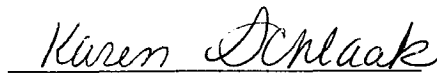
Diane Best, Assistant Attorney General, 1302 E Hwy 14, Suite 1
Leslie Petersen, GF&P, Foss Building



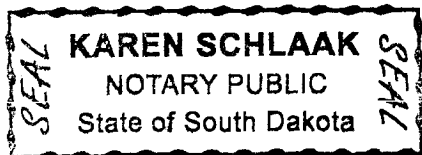
Eric Gronlund
Natural Resource Engineer
Water Rights

STATE OF SOUTH DAKOTA)
) SS
COUNTY OF HUGHES)

Sworn to, before me, this 2nd day of January, 2007.



Karen Schlaak
Notary Public
My Commission expires April 1, 2007





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

March 12, 2007

Jerry Vogeler
PO Box 7077
Pierre SD 57501

Dear Mr. Vogeler:

The original Notice of Intent to Validate Vested Water Right Claim No. 906-3 was published with an error in the legal description of the dam location. Therefore, the notice needs to be readvertised to correct the error. The Readvertisement of Vested Water Right No. 906-3 has been sent to the Publisher of the Faulk County Record printed at Faulkton SD. For your information, a copy of the notice is enclosed.

The cost of publication of this notice will be paid by the Water Rights Program. Please contact us if you have any questions.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

March 12, 2007

Faulk County Record
PO Box 68
Faulkton SD 57438-0068

ATTENTION: Legal Department

Enclosed is a Readvertisement of Vested Water Right No. 906-3. Please publish the first notice on March 21, 2007 with the second publication 7 days later. The text of the notice can be e-mailed to your paper by contacting Karen Schlaak at (605) 773-3352.

Please BILL the Water Rights Program for the cost of publication.

Please send the Water Rights Program the first publication immediately. The publication is checked for accuracy so any corrections can be made in the second publication. You may use the form below or fax a copy of the first publication. Any fax should be sent to the attention of Karen Schlaak at (605) 773-4068. Publication errors can invalidate the public notice.

After the second publication, **please send us an affidavit or use the enclosed Proof of Publication form.** The Water Rights Program records require an affidavit or Proof of Publication. Delays in receiving the affidavit can be costly to the applicant.

Sincerely,

Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

-----CUT HERE-----

FIRST TRANSMITTAL NOTICE

TO: Eric Gronlund
Water Rights Program
523 E Capitol
Pierre SD 57501-3181

No. 906-3

Date _____

We are in receipt of your letter of March 12, 2007 enclosing Readvertisement of Notice of Vested Water Right No. 906-3 which was first published in our issue _____. ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.

Name

Newspaper

**READVERTISEMENT OF
VESTED WATER RIGHT No. 906-3**

Notice is given of readvertisement of Vested Water Right No. 906-3 held by Jerry Vogeler, PO Box 7077, Pierre SD 57501. Vested Water Right No. 906-3 was validated by the Water Management Board on March 7, 2007 and authorizes the storage of 190 acre-feet of water in Vogeler Dam with an outlet elevation of 1744.9 feet mean sea level. Readvertisement of the original notice of intent to validate this claim, as published on June 22 and 29, 1988 in the Faulk County Record is necessary to correct an error in the legal description of the dam location. The notice published in 1988 indicated the dam was located in the NE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 35-T118N-R70W. The correct location of the dam is the NW $\frac{1}{4}$ Section 35-T118N-R70W.

Any person who wishes to oppose Vested Water Right No. 906-3 shall file a petition of opposition by April 23²³ 2007 with the Chief Engineer, Water Rights Program, Department of Environment and Natural Resources, Joe Foss Building, 523 East Capitol, Pierre, SD 57501-3181 (605 773-3352) and with the vested water right holder at the listed address. The petition may be informal, but it must include a statement describing the petitioner's interest the vested water right, the reasons for the petitioner's opposition, and the signature and mailing address of the petitioner or his legal counsel if legal counsel is obtained.

If no person opposes the readvertisement pursuant to SDCL 46-2A-16, the Chief Engineer will issue Vested Water Right No. 906-3 as validated by the Water Management Board. If a petition to oppose the vested water right is filed, a hearing will be scheduled and the Water Management Board will reconsider the vested water right claim. Contact Eric Gronlund at (605) 773-3352 to request copies of the information pertaining to this vested water right. Steven M Pirner, Secretary, Department of Environment and Natural Resources

FAULK COUNTY RECORD

121 8th Ave. S.
P.O. Box 68
Faulkton, S.D. 57438

Jim Moritz, Publisher
Staff: Val Ramsdell, Donna Speck, Garrick Moritz

605-598-6525 (Fax 605-598-4355)
E-mail: fcrecord@westtelco.com

Wednesday, March 28, 2007

RECEIVED

MAR 29 2007

**WATER RIGHTS
PROGRAM**

Dear Mr. Gronlund,

Please find enclosed the first publication of
Re-Advertisement of Vested Water Right No. 906-3.

I made a mistake!

We ran the legal on March 21 as it should have run and
I neglected to run it again on March 28!

We are running it for the second time on April 4, 2007
so that it will run two times - just skipping a week.

If this meets with your approval . . . or not - let us know.

I am so sorry for this inconvenience!

Val Ramsdell

Water Rights Program - File Documentation

NAME: Val Ramsdell, Faulk Co. Record

ADDRESS: Faulkton SD

DATE: 3-29-07 **COUNTY:** FA **TELEPHONE:** 605 598-6525

RE: Notice for Readvertisement of Vested Water Right No. 906-3

COMMENTS:

We received the first publication of this notice on March 29th with a note that it was published on March 21 but not again on March 28th.

I called Val Ramsdell with the paper and told her the notice would need to be published again on April 4 and 11th. I also indicated that the date in the 2nd paragraph regarding petitions would need to be changed to April 23, 2007.

Eric called Jerry Vogeler informed him.



Karen Schlaak
Environmental Scientist

RECEIVED

APR 20 2007

WATER RIGHTS
PROGRAM

No. 77, April 4 & 11, 2007

**RE-ADVERTISEMENT OF
VESTED WATER RIGHT
No. 906-3**

Notice is given of re-advertisement of Vested Water Right No. 906-3 held by Jerry Vogeler, PO Box 7077, Pierre, SD 57501. Vested Water Right No. 906-3 was validated by the Water Management Board on March 7, 2007 and authorizes the storage of 190 acre-feet of water in Vogeler Dam with an outlet elevation of 1744.9 feet mean sea level. Re-advertisement of the original notice of intent to validate this claim, as published on June 22 and 29, 1988 in the Faulk County Record is necessary to correct an error in the legal description of the dam location. The notice published in 1988 indicated the dam was located in the NE 1/4 SE 1/4 Section 35-T118N-R70W. The correct location of the dam is the NW 1/4 Section 35-T118N-R70W.

Any person who wishes to oppose Vested Water Right No. 906-3 shall file a petition of opposition by April 23, 2007 with the Chief Engineer, Water Rights Program, Department of Environment and Natural Resources, Joe Foss Building, 523 East Capitol, Pierre, SD 57501-3181 (605-773-3352) and with the vested water right holder at the listed address. The petition may be informal, but it must include a statement describing the petitioner's interest in the vested water right, the reasons for the petitioner's opposition, and the signature and mailing address of the petitioner or his legal counsel if legal counsel is obtained.

If no person opposes the re-advertisement pursuant to SDCL 46-2A-16, the Chief Engineer will issue Vested Water Right No. 906-3 as validated by the Water Management Board. If a petition to oppose the vested water right is filed, a hearing will be scheduled and the Water Management Board will reconsider the vested water right claim. Contact Eric Gronlund at (605) 773-3352 to request copies of the information pertaining to this vested water right. Steven M Pirner, Secretary, Department of Environment and Natural Resources.

Affidavit of Publication

State of South Dakota

§

County of Faulk

James B. Moritz of said county, being first duly sworn, on oath says that he is the publisher of the **Faulk County Record**, a weekly newspaper printed and published in Faulkton in said County of Faulk and has a full and personal knowledge of all the facts therein stated; that said newspaper is a legal newspaper and has a bona-fide circulation of at least two hundred copies weekly, and has been published within said County for fifty-two successive weeks next prior to the publication of the notice herein mentioned, and was and is printed wholly or in part in an office maintained at said place of publication; that the

**Re-Advertisement of
Vested Water Right
No. 906-3**

a printed copy of which, taken from the paper in which same was published, is attached to this sheet, and is made a part of this Affidavit, was published in said newspaper at least once in each week for

Two (2)

successive weeks, on the day of each week on which said newspaper was regularly published, to-wit:

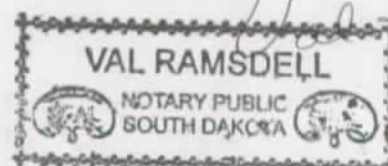
**Wednesday, April 4, 2007
Wednesday, April 11, 2007**

that the full amount of the fees for the publication of the annexed notice is **\$35.15**

James B. Moritz

Subscribed and sworn to before me this

Thursday, April 12, 2007



Notary Public
Faulk County, South Dakota

**My Commission Expires
Jan. 17, 2011**

PAYMENT REQUEST FORM

PAYEE: FAULK COUNTY RECORD
PO BOX 68
FAULKTON SD 57438

FROM: Water Rights Program
523 E. Capitol
Pierre, SD 57501-3181

DESCRIPTION OF SERVICE, PRODUCE OR TRANSFER

Re-advertisement of Vested water rights publication (permit # 906-3)

AMOUNT: \$35.15

FUNDING SOURCE:

GENERAL: X

FEDERAL:

COMMENTS:

AUTHORIZATION:

Barbara E. Cole 4/24/07

I declare and affirm under the penalties of perjury that this claim is in all things, true and correct. I further agree to comply with the provisions of the Civil Rights Act of 1964 and regulations issued thereunder relating to nondiscrimination in federal assisted programs.

SOUTH DAKOTA

VESTED WATER RIGHT NO. 906-3

Date of Receipt of Claim October 20, 1961.

Date of Validation March 7, 2007.

The Water Management Board validated Vested Water Right Claim No. 906-3 for Jerry Vogeler, PO Box 7077, Pierre SD 57501 with the following limitations, conditions and qualifications:

1. Vested Water Right No. 906-3 is for sufficient water to fill Vogeler dam to the outlet elevation with a storage capacity of 190 acre feet of water. The outlet elevation has been established at 1744.9 feet mean sea level (fmsl). Vogeler dam is located in the NW ¼ Section 35-T118N-R70W.
2. The appropriated water is used for fish and wildlife propagation and may not exceed the amount of water needed for beneficial use.

The water is to be used during the following annual period: January 1 – December 31.

3. The priority dates of the Vested Water Right are: January 1, 1937 – water impounded = 1,742.9 fmsl and January 1, 1950 – water impounded > 1,742.9 fmsl and = 1,744.9 fmsl.
4. The dam has been constructed and water has been applied to beneficial use.
5. Water Rights obtained in compliance with the laws of the State of South Dakota must not be unlawfully impaired by this appropriation.

WATER MANAGEMENT BOARD

By: Garland Erbele

Garland Erbele, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

MAY 10 2007

date



REISSUED

STATE OF SOUTH DAKOTA

VESTED RIGHT WATER LICENSE NO. 906-3

(1) The South Dakota Department of Game, Fish and Parks, Pierre SD was issued Water License No. 906-3, for a vested right claim to appropriate 125 acre-feet annually (Vogeler Dam) from runoff, Faulk County, South Dakota, for public recreation purposes.

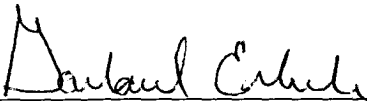
On June 15, 2006, Vested Right No. 906-3 was transferred to Jerry Vogeler, PO Box 7077, Pierre SD.

On March 7, 2007, the Water Management Board validated Vested Right No. 906-3. Vested Right No. 906-3 is being reissued to reflect the outlet elevations as they currently exist.

(2) The dam has been completed and water applied to beneficial use in accordance with South Dakota State Law. Pursuant to South Dakota Codified Law 46-5-30.1, the holder and/or owner of Vested Water Right No. 906-3 is reissued a license, bearing priority dates of January 1, 1937 – water impounded = 1,742.9 feet mean sea level (fmsl) and January 1, 1950 – water impounded > 1,742.9 fmsl and = 1,744.9 fmsl.

The diversion point is located in the NW ¼ Section 35-T118N-R70W with storage capacity of 190 acre feet of water.

(3) This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 906-3.



Garland Erbele, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

MAY 10 2007

date





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

MAY 10 2007

906-3

Jerry Vogeler
PO Box 7077
Pierre SD 57501

Dear Mr. Vogeler:

The Water Management Board has validated the enclosed Vested Water Right No. 906-3. This validation gives legal status to the claim and is the final document for your vested right. Enclosed is the reissued water license which reflects the right as validated by the Board.

As long as you use the water beneficially, as stated in the validation, State Water Laws provide that you have a continuing right to use the water.

Very truly yours,

Garland Erbele, Chief Engineer
Water Rights Program
605 773-3352

enclosures