Figure 2-2 Sheet 7 of 15

Sta.	B.S.	H.I.	F.S. or Grade Rod	Elev. or Planned Elev.	Settlement 2.5% ± H.
BM1	7.42	107.42		100.00	
2+05	N.W. end dam		+2.4	105.0	0.0
2+39			+2.4	105.0	0.5
TP1	0.15	95.31	12.26	95.16	
2+83			-9.7	105.0	0.6
3+00			-9.7	105.0	0.9
3+35			-9.7	105.0	1.0
TP2	11.88	106.32	0.87	94.44	
4+00			+1.3	105.0	0.5
4+69			+1.3	105.0	0.5

SCS-ENG-29 (5-70)

GPO : 1970 O—385-053

Geo. Smith Pond #3
Const. Layout
Dam

K J. Doe
Ø R. Rowe 3/5/74

Left 2:1 & Right 3:1

Top elev. 105.0 Top width 12'.

1" steel axle in fence line 200' N.W. of N.W. end of dam.

F=0.0 2.4 6.0	F=0.0 2.4 0.0	F=0.0 2.4 6.0
F=10.1 12.5 26.2	F=9.9 12.3 0.0	F=6.8 9.2 26.4
F=13.3 3.6 32.6	F=11.5 1.8 0.0	F=10.5 0.8 37.5
F=18.8 9.1 43.6	F=17.0 7.3 0.0	F=16.2 6.5 54.6
F=20.7 11.0 47.4	F=20.0 10.3 0.0	F=19.6 9.9 64.8
F=11.2 12.5 28.4	F=10.7 12.0 0.0	F=8.3 9.6 30.9
F=9.2 10.5 24.4	F=9.0 10.3 0.0	F=8.7 10.0 32.1

Sta.	B.S.	H.I.	F.S. or Grade Rod	Elev. or Planned Elev.	Settlement = 5% ℄ H.
		106.32			
5+27			+1.3	105.0	0.2
5+50	S.E. end dam		+1.3	105.0	0.0
BM1			6.31	100.01	
	19.45		19.44		
	Correct elev. TBM1 =			100.00	
		Diff. =		0.01	OK.

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Geo. Smith Pond #3
Const. Layout
Dam

2

Left	℄	Right
F=4.0	F=3.7	F=3.5
5.3	5.0	4.8
14.0	0.0	16.5
F=0.1	F=0.0	F=0.0
1.4	1.3	1.3
6.2	0.0	6.0

Note: See Figure 3-9 for stripping and core trench notes if they are to be measured.

Figure 2-2 Sheet 8 of 15

Figure 2-2 Sheet 9 of 15

Sta.	B.S.	+H.I.	F.S. or Grade Rod	Elev. or Planned Elev.	
BM1	0.18	100.18		100.00	
TP1	1.24	89.70	11.72	88.46	
0+00	At riser		+4.2	85.5	
0+23	℄ dam		+4.0	85.7	
0+48			+4.3	85.4	
0+75			+4.7	85.0	
TP2	11.87	101.10	0.47	89.23	
BM1			1.09	100.01	
	13.29		13.28		
	Correct elev.		BM1 =	100.00	
			Diff. =	0.01	OK.

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Geo. Smith Pond #3
Const. Layout
Principal Spwy. Excav.

3

Left ℄ Right

See Page 1.
(tube at right ∠ to ℄ Dam Sta. 3+00)

C+1.2
3.0
0

C+2.3
1.7
0

C+2.8
1.5
0

C+2.7
2.0
0

Sta.	B.S.	H.I.	F.S. or Grade Rod	Elev. or Planned Elev.	
BM2	1.02	111.02		110.00	
TP1	4.02	107.54 (107.5)	7.50	103.52	
1+05	Starting Sta.		+8.4	99.1	
1+40			+7.1	100.4	
1+52			+7.1	100.4	
2+00			+10.5	97.0	
TP2	3.92	100.60	10.86	96.68	
2+56			+7.7	92.9	
TP3	11.03	111.01	0.62	99.98	
BM2			1.03	109.98	
	19.99		20.01		
	Correct elev.		BM2 =	110.00	
			Diff. =	0.02	OK.

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Geo. Smith Pond #3
Const. Layout
Emergency Spwy.

4

Left & Right

Spike in base of lone elm.

Bottom width = 20.0'

Side slopes = 2:1

C=0.1 8.3 10.2	C=0.0 8.4 0	C=0.0 8.4 10.0
C=4.7 2.4 19.4	C=3.6 3.5 0	C=4.3 2.8 18.6
C=5.5 1.6 21.0	C=4.8 2.3 0	C=5.1 2.0 20.2
C=4.6 5.9 19.2	C=3.3 7.2 0	C=4.0 6.5 18.0
C=0.0 7.7 10.0	C=0.0 7.7 0	C=0.1 7.6 10.2

Figure 2-2 Sheet 10 of 15

Figure 2-2 Sheet 11 of 15

FIGURE 2-2

Engineering Notes for Pond Dam and Spillway

Construction Check Survey

These notes illustrate the standard Soil Conservation Service format for a fill that is too high to be checked from one instrument set up. To expedite the construction check survey necessary dimensions, stations and elevations are taken from the plans and entered in the field notebook for ready reference.

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

SCD Blue Maintain — Date 3/21/74

Field Office Cavalier

Name George Smith

(Individual) Group Unit of Govt.
(circle one)

Job Farm Pond #3

Design Sur. — Const. Layout

Const. Check ✓ — Other Const. Recheck

Ident. No. 81-008-26A — Field No. 11

Location — N

SCS-ENG-28A REV. 5-75

Sta.	B.S.	H.I.	F.S. or Grade Rod	Elev. or Planned Elev.	Planned elev. + 3% ~~5~~ H.
	Upper portion of dam				
BM1	7.51	107.51		100.00	
2+05			+2.5		105.0
2+39			+2.0		105.5
2+83			+1.8		105.7
3+00			+1.5		106.0
3+35			+1.5		106.0
Side Shot			10.1	97.4	
4+00			+2.0		105.5
4+69			+2.0		105.5
5+27			+2.3		105.2
5+50			+2.5		105.0

SCS-ENG-29 (5-70)

GPO : 1970 O—385-053

Geo. Smith Pond #3 Const. Check Dam

π J. Doe
ø R. Rowe 3/21/74

1

Left (DS) ℄ Right (US)

1" steel axle in fence line 200' N.W. of N.W end of dam.

2.4

12.6/26 1.9/6 1.8 2.0/6 8.6/25

1.7

11.7/26 1.3/6 1.4 1.4/6 11.6/35

11.8/26 1.3/6 1.3 1.4/6 11.7/35

Crest of Principal Spillway

11.9/25 2.0/5 1.9 2.0/7 10.7/31

2.1

6.3/14 2.2/6 2.1 2.0/6 5.4/17

2.4

Figure 2-2 Sheet 12 of 15

Figure 2-2 Sheet 13 of 15

Sta.	B.S.	H.I.	F.S. or Grade Rod	Elev. or Planned Elev.
Lower portion of dam - downstream				
		107.51		
TP1	1.21	97.01	11.71	95.80
3+00				
Side Shot			12.0	85.0
3+35				
	Lower portion of dam upstream			
TP2	11.66	107.59	1.08	95.93
TP3	1.29	97.10	11.78	95.81
3+00				
3+35				
TP4	11.31	107.31	1.10	96.00
BM1			7.29	100.02
	37.10		37.08	

SCS-ENG-29 (5-70) Correct elev. BM1 = 100.00
Diff. = 0.02 OK.

Geo. Smith Pond #3 — J. Doe — 2
Const. Check — R. Rowe — 3/21/74
Dam

Left (DS) & Right (US)

10.8 / 44

Downstream invert of principal S.W.

12.7 / 48

8.3 / 55

12.7 / 66

Sta.	B.S.	H.I.	F.S. or Grade Rod	Elev. or Planned Elev.	
BM2	0.80	110.80		110.00	
TP1	2.02	101.11	11.71	99.09	
1+80			+2.7	98.4	
2+00			+4.1	97.0	
2+20			+5.6	95.5	
TP2	11.80	111.80	1.11	100.00	
BM2			1.79	110.01	
	14.62		14.61		
Correct elev. BM2=				110.00	
		Diff =		0.01	OK.

SCS-ENG-29 (5-70)

GPO : 1970 O—385-053

Geo. Smith Pond #3
Const. Recheck
Spillway

J. Doe
Ø Geo. Smith

4
3/22/74

Left ℄ Right

Spike in base of lone elm.

2.6/10	2.7	2.6/10
4.1/10	4.1	4.1/10
5.5/10	5.6	5.5/10

Construction meets plans and specs.

J. Doe
Engr. Tech.
3/22/74

Figure 2-2 Sheet 14 of 15

Figure 2-2 Sheet 15 of 15

Sta.	B.S.	H.I.	F.S. or Grade Rod	Elev. or Planned Elev.	
BM2	0.80	110.80		110.00	
TP1	2.02 ~~21.02~~	101.11	11.71	99.09	
1+80			+2.7	98.4	
2+00			+4.1	97.0	
2+20			+5.6	95.5	
TP2	11.80	111.80	1.11	100.00	
BM2			1.79	110.01	
	14.62		14.61		
	Correct elev. TBM 2 =			110.00	
		Diff =		0.01	OK.

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Geo. Smith Pond #3 Const. Recheck Spillway

J. Doe 4
Geo. Smith 3/22/74

Left ℄ Right

Spike in base of lone elm.

2.6/10	2.7	2.6/10
4.1/10	4.1	4.1/10
5.5/10	5.6	5.5/10

Construction meets plans and specs.

J. Doe
Engr. Tech.
3/22/74

FIGURE 2-3

Engineering Notes for a Diversion

The format and information illustrated by these notes are satisfactory for small diversions when drainage areas are small; topography is reasonably uniform; elevations with respect to other structures are not important and where approved design tables are available.

Notes similar to the format shown in Figure 2-7 should be recorded for the larger diversions where considerable cut and fill are required and where vertical control is important.

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

SCD Boone Date 2/26/74

Field Office Boone

Name W. A. Jones

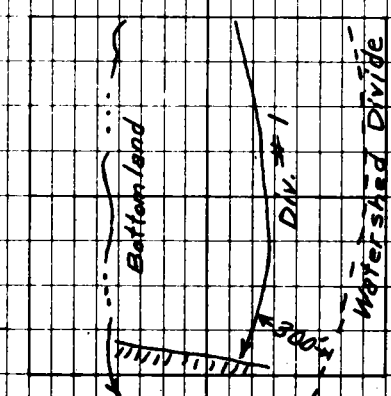
(Individual) Group Unit of Govt.
(circle one)

Job Diversion #1

Design Sur. ✓ Const. Layout ✓

Const. Check ✓ Other Const. Recheck

Ident. No. 49-006-062 Field No. 3



Scale
1" =

Legal Description

Sec T R

or

Location: 5 Mi. West of Redwood

SCS-ENG-28 REV. 5-75

Figure 2-3 Sheet 1 of 3

Figure 2-3 Sheet 2 of 3

Sta.	B.S.	H.I.	F.S. or Grade Rod	Elev. or Planned Elev.
0+00			9.3	
1+00			7.9	
2+00			7.5	
3+00			7.1	
4+00			6.7	
5+00			6.3	
6+00			5.9	
7+00			5.5	
7+62			5.2	

SCS-ENG-29 (5-70)

GPO : 1970 O—385-053

W.A. Jones
Diversion #1

π V. Ray
Ø W.A. Jones
2/26/74

1

Design + Const. Layout

Outlet - Veg. W.W.

Total length - 762 /in.ft.

Av. Fill/100 ft = 48.2 yd.^{3}

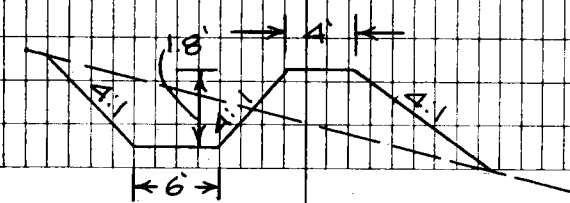
Total Fill = $48.2\left(\frac{762}{100}\right) = 367$ yd^3

Design

D.A. - 20 ac, Q = 30 cfs

Channel Grade - 0.4%

Velocity - 2 ft/sec.



Sta.	~~B.S.~~ Chan. Rod	~~H.I.~~ Ridge Rod	~~F.S. or Grade Rod~~	~~Elev. or Planned Elev.~~	
0+00	8.6	Bottom of vegetated waterway			
1+00	8.2	6.4			
2+00	7.8	6.0	Recheck Chan.	3/1/74 Ridge	
3+00	7.5	5.6	6.6	4.7	
3+50	High 6.9	Low 6.1	6.4	4.6	OK. V. Ray
4+00	7.1	5.2	6.2	4.3	
5+00	6.6	4.7			
6+00	6.3	4.4			
7+00	5.9	3.9			
7+65	5.6	3.8			

SCS-ENG-29 (5-70)

GPO : 1970 O—385-053

W.A. Jones Diversion #1 Const Check & Recheck

π & Notes V. Ray 2
ø W.A. Jones 2/28/74

Nat. gr. Nat. gr.

4.3	4.7	6.2	6.2	4.4	4.4	6.1	6.5
0	10	17	23	31	35	43	53

Construction meets plans and specifications.

V. Ray
Cons. Tech
3/1/74

Figure 2-3 Sheet 3 of 3