EUGENE DIETZGEN CO.

DRAWING MATERIALS, MATHEMATICAL and SURVEYING INSTRUMENTS

Chicago New York San Francisco New Orleans Pittsburg Toronto

Distances from Center of Roadway for Cross-Sectioning
Roadway 16 feet wide. Side Slopes 1 on 1.
For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	0
1	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	1
2	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	2
3	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	3
4	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	4
5	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	5
6	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	6
7	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	7
8	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	8
9	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	9
10	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	10
11	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	11
12	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	12
13	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	13
14	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	14
15	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	15
16	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	16
17	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	17
18	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	18
19	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	19
20	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	20
21	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	21
22	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	22
23	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	23
24	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	24
25	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	25
26	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	26
27	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	27
28	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	28
29	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	29
30	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	30
31	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	31
32	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	32
33	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	33
34	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	34
35	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	35
36	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	36
37	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	37
38	46.0	46.1	46.2	46.3	46.4	46.5	46.6	46.7	46.8	46.9	38
39	47.0	47.1	47.2	47.3	47.4	47.5	47.6	47.7	47.8	47.9	39
40	48.0	48.1	48.2	48.3	48.4	48.5	48.6	48.7	48.8	48.9	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 30.6. For same slopes but other widths of roadbed, correct above figures by one-half difference in width of roadbed; thus in example above, for 20 ft. roadbed distance will be 30.6+(20—16)÷2 or 2 ft. added to 30.6 =32.6. For slopes of 1 on 1½ see inside of back cover.

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ITEM 10

Item 10

El Capitan Dam

Areas of cross-sections of excavation for base of dam under schedule item 10.

The headings "below downstream toe wall", "downstream rock embankment", "Hydraulic fill", "upstream rock embankment" and "above upstream toe wall" indicate the part of the dam under which stripping was done.

Item 10

N 3420

Pg 30. Summary 2.

Downstream rock Emb.

East	top El.	Bottom	Ht	Ht Mean	Dist	Sq ft.
AA99.5	563.5	542.0	21.5			
				20.95	2.5	52.37
A502.	62.4	42.0	20.4			
				10.2	4.5	45.90
06.5	60.6	60.6	0.0			98.27

N 3430

Downstream rock Emb.

4489.3	54.0	41.9	12.1			
				12.25	1.7	20.82
91.	54.3	41.9	12.4			
				11.2	9	100.80
4500	56.1	46.1	10.0			
				5.0	8	40.00
08	57.7	57.7	0.0			161.62

N3440

Item 10

Downstream rock Emb

4479.1	47.4	41.5	5.9		
			6.0	0.9	5.40
80	47.6	41.5	6.1		
			5.8	10	58.00
90	50.0	44.5	5.5		
			5.7	10	57.00
4500	52.5	46.6	5.9		
			2.95	10	29.50
					~~311.52~~ 149.90
10	54.9	54.9	0.0		

Hydraulic Fill

4984	45.1	45.1	0.0		
			1.1	4	4.40
88	45.3	43.1	2.2		
			1.1	4	4.40
92	41.1	41.1	0.0		
					8.80

N3450

Item 10

Below downstream toe Wall

4438.4	42.0	42.0	0.0		
			2.85	1.6	4.56
40	42.0	36.3	5.7		
			6.2	10	62.00
50	42.0	35.3	6.7		
			6.6	4.5	29.70
54.5	42.0	35.5	6.5		
					96.26

Downstream rock Emb.

4480	43.8	43.8	00		
			0.8	10	8.00
90	45.8	44.2	1.6		
			4.4 2.2	10	22.00
4500	47.9	45.1	2.8		
			5.3 2.65	10	26.50
10	49.9	47.4	2.5		
			1.25	4	5.00
14	50.8	50.8	0.0		
					61.50

N 3450 Hydraulic Fill

Item 10

4985	39.6	39.6	0.0			
				0.8	1.5	1.20
86.5	39.8	38.2	1.6			
				2.65 ~~2.4~~	13.5	35.78 ~~32.40~~
5000	41.9 ~~41.94~~	38.2	3.7 ~~3.2~~			
	41.4			4.1 ~~3.85~~	5.2	21.32 ~~20.02~~
05.2	42.7	38.2	4.5			
				2.25	4.8	10.80
10	43.5	43.5	0.0			~~64.42~~
	See Enlarge Sheet *		1.2			69.10
						3.85
						72.95

N 3460

Below downstream toe wall

4418.8	42.0	42.0	0.0			
				3.6	11.2	40.32
30	42.0	34.8	7.2			
				6.9	10	69.00
40	42.0	35.4	6.6			
				6.4	10	64.00
50	42.0	35.8	6.2			
				6.45	10	64.50
60	42.0	35.3	6.7			

N 3460

Item 10

4460	42.0	35.3	6.7			
				6.7	3	20.10
63	42.0	35.3	6.7			257.92

Downstream rock end section = 0.0

Hydraulic Fill

4970	40.1	40.1	0.0			
				3.95	10	39.50
80	40.3	32.4	7.9			
(8)		(32.5)	17.6	8.8	10	88.00
90	40.6	30.9	9.7			
			21.2	10.6	7	74.20
97	40.7	29.2	11.5			
97	40.7	30.3	10.4			
				10.5	6	63.00 ~~63.30~~
5003	40.9	30.3	10.6			
			17.6	8.8	7	61.60
10	41.1	34.1	7.0			
				5.0	10	50.00
20	41.2	38.2	3.0			

N 3460

Hydraulic Fill

5020	41.2	38.2	3.0		
				1.5 10	15.00
30	41.5	41.5	0.0		~~391.60~~ 391.30
Less Area Item 12				See 416 / 5 =	158.53
					232.77 ~~231.30~~

N 3470

Below downstream toe wall.

4400	42.0	42.0	0.0		
10	42.0	33.0	9.0		
20	42.0	33.6	8.4		
30	42.0	35.0	7.0		
40	42.0	34.5	7.5		
50	42.0	36.7	2.65 5.3		345.50
				2.65 9.6	25.44
59.6	42.0	42.0	0.0		370.94
L					

N 3470

Hydraulic Fill

4967	38.0	38.0	0.0		
				3.75 6	22.50
73	38.0	30.5	7.5		
				8.4 7	58.80
80	38.0	28.7	9.3		
				10.0 10	100.00
90	38.0	27.3	10.7		
				9.85 ~~10.25~~ 7	68.95 ~~71.75~~
97	38.1	29.1	9.0		
97	38.1	~~28.3~~ 28.3	~~9.8~~ 9.8		
				9.8 ~~9.8~~ 6	~~58.80~~
5003	38.1	~~28.3~~ 28.3	~~9.8~~ 9.8		
5003	38.1	28.4	9.7	9.7 ~~9.75~~ 7	67.90 ~~68.25~~
10	38.1	28.4	9.7		
				8.1 10	81.00
20	38.2	31.7	6.5		
				3.25 4	13.00
24	38.2	38.2	0.0		470.95
Less area Item 12					154.56
					316.39

N3480 Item 10

Below downstream toe wall

4384	41.5	41.5	0.0			
				2.0	6	12.00
90	41.5	37.5	4.0			
				5.85	5	29.25
95	41.5	33.8	7.7			
				8.5	5	42.50
4400	41.5	32.2	9.3			
				8.85	10	88.50
10	41.5	33.1	8.4			
				8.1	10	81.00
20	41.5	33.7	7.8			
				7.6	10	76.00
30	41.5	34.1	7.4			
				6.6	5	33.00 ~~33.30~~
35	41.5	35.7	5.8			
				2.9	8	23.20
43	41.5	41.5	0.0			385.45

N3480 Item 10

Hydraulic Fill

4967	36.4	36.4	0.0			
				3.1	3	9.30
70	36.5	30.3	6.2			
				7.85	10	78.50
80	36.8	27.3	9.5			
				9.55	10	95.50
90	37.1	27.5	9.6			
				9.8	7	68.60
97	37.3	27.3	10.0			
97	37.3	27.9	9.4			
				9.5 ~~9.5~~	6	57.00 ~~57.30~~
5003	37.5	27.9	9.6			
5003	37.5	~~27.9~~ 28.5	~~9.6~~ 9.0			
				8.85 ~~9.15~~	7	61.95 ~~64.05~~
10	37.7	29.0	8.7			
				7.95	5	39.75
15	37.8	30.6	7.2			
				3.6	11	39.60
						450.20
26	38.0	38.0	0.0			
Less Item 12 area				146.00		144.50
Above upstream toe wall area = 0.0						305.70

N 3490 Item 10

Below downstream toe wall.

4381.4	40.0	40.0	0.0		
				2.5 3.6	9.00
85	40.0	35.0	5.0		
				5.75 5	28.75
90	40.0	33.5	6.5		
				7.35 10	73.50
4400	40.0	31.8	8.2		
				7.4 10	74.00
10	40.0	33.4	6.6		
				5.75 5	28.75
15	40.0	35.1	4.9		
				3.25 5	16.25
20	40.0	38.4	1.6		
				0.8 10	8.00
30	40.0	40.0	0.0		
					238.25

N 3490 Item 10 6

Hydraulic Fill.

4967	34.2	34.2	0.0		
				2.8 5	14.00 ~~9.00~~
72	34.5	28.9	5.6		
				6.25 8	50.00
80	35.1 34.9	28.2	6.9		
				7.45 10	74.50
90	35.5	27.5	8.0		
				8.15 7	57.05
97	35.9	27.6	8.3		
97	35.9	28.1	7.8		
				7.95 6	47.70
5003	36.2	28.1	8.1		
03	36.2	27.2	9.0		
				9.45 7	66.15
10	36.6	26.7	9.9		
				8.6 7	60.20
17	37.0	29.7	7.3		
				3.65 8	29.20
25	37.5	37.5	0.0		398.80
Less Item 12 area				107.40	111.40
					287.40

N 3490 Item 10

Above upstream toe wall

5533.1	50.0	50.0	0.0			D'
				0.7	2.9	2.03
36.0	50.0	48.6	1.4			
				1.35	4	5.40
40	50.0	48.7	1.3			
				0.65	4	2.60
44	50.0	50.0	00			10.03

N 3500

Below downstream toe wall

4380.7	39.4	39.4	0.0			
				3.45	4.3	14.83
85	39.4	32.5	6.9			
				6.15	10	61.50
95	39.4	34.0	5.4			
				5.65	8	45.20
4403	39.4	33.5	5.9			
				2.95	4	11.80
07	39.4	39.4	0.0			133.33

N 3500 Item 10 7

Hydraulic Fill.

4968	33.4	33.4	0.0			
				1.8	5	9.00
73	33.7	30.1	3.6			
				4.8	7	33.60
80	34.0	28.0	6.0			
				6.4	10	64.00
90	34.5	27.7	6.8			
				7.1	7	49.70
97	34.9	27.5	7.4			
97	34.9	28.0	6.9			
				7.05	6	42.30
5003	35.2	28.0	7.2			
03	35.2	27.1	8.1			
				8.0	7	56.00
10	35.6	27.7	7.9			
				7.0	6	42.00
16	35.9 (36.0)	29.8	6.1			
				3.05	8	24.40
24	36.4	36.4	0.0			321.00
Less Item 12 area						93.50
						227.50

N 3500 — Item 10

Above upstream toe wall

5517.7	50.0	50.0	0.0			
				1.5	15.1	22.65
32.8	50.0	47.0	3.0			
				1.9	7.2	13.68
40	50.0	49.2	0.8			
				0.4	5	2.00
45	50.0	50.0	0.0			38.33

N 3510

Below downstream toe wall.

4386.7	40.0	40.0	0.0			
				3.05	3.3	10.06
90	40.0	33.9	6.1			
				6.3	10	63.00
4400	40.0	33.5	6.5			
				3.25	10	32.50
10	40.0	40.0	0.0			105.56

N 3510 — Item 10

Hydraulic Fill

4970	33.9	33.9	0.0			
				2.45	5	12.25
75	34.0	29.1	4.9			
				11.4	5.7	5	28.50
80	34.2	27.7	6.5			
				13.2	6.6	10	66.00
90	34.5	27.8	6.7			
				6.75	7	47.25
97	34.7	27.9	6.8			
97	34.7	28.1	6.6			
				6.7	6	40.20
5003	34.9	28.1	6.8			
03	34.9	26.7	8.2			
				8.0	7	56.00
10	35.1	27.3	7.8			
				6.95	7	48.65
17	35.3	29.2	6.1			
				3.05	7	21.35
24	35.5	35.5	0.0			320.20
Less Item 12 area						85.12
						235.08

N 3510

upstream rock emb.

5490	50.0	50.0	0.0			
				2.65	10	26.50
5500	50.0	44.7	5.3			
				7.0 ~~6.1~~	10	70.00 ~~61.00~~
10	50.0	41.3 ~~#3.1~~	8.7 ~~6.9~~			
				8.7 ~~6.9~~	3.5	30.45 ~~24.15~~
13.5	50.0	41.3 ~~#3.1~~	8.7 ~~6.9~~			126.95

Above upstream toe wall

13.5	50.0	41.3 ~~#3.1~~	8.7 ~~6.9~~			120.62
				7.4 ~~6.5~~	16.3	
29.8	50.0	43.9	6.1			
				3.05	10.2	31.11
40	50.0	50.0	0.0			151.73

N 3520

Below downstream toe wall.

H388	38.4	38.4	0.0			
				1.6	2	3.20
90	38.4	35.2	3.2			
				4.6	10	46.00
4400	38.4	32.4	6.0			

N 3520

Below downstream toe wall.

4400	38.4	32.4	6.0			
				5.35	5	26.75
05	38.4	33.7	4.7			
				2.35	5	11.75
10	38.4	38.4	0.0			87.70

Hydraulic Fill

11967	36.1	36.1	0.0			
				3.2	8	25.60
75	36.0	29.6	6.4			
				7.1	5	35.50
80	35.9	28.1	7.8			
				7.55	10	75.50
90	35.8	28.5	7.3			
				7.35 ~~7.5~~	7	51.45 ~~52.50~~
97	35.7	28.3 ~~28.0~~ 28.0	7.4 ~~7.7~~ 7.7			
				7.65	6	45.90
5003	35.6	28.0	7.6			
03						

N 3520

Item 10

Hydraulic Fill.

5003	356	27.7	7.9			
				7.4	7	51.80
10	35.5	28.6	6.9			
				6.25	5	31.25
15	35.4	29.8	5.6			
				2.8	8	22.40
						339.40
23	35.3	35.3	0.0			
Less Item 12 area						104.43
						236.09
						234.97

Upstream rock emb.

5470	50.0	50.0	0.0			
80	50.0	49.4	0.6			
90	50.0	44.2	5.8			
5500	50.0	42.1	7.9			103.50
			3.95	9.65	10.5	101.32
			1.93			
10.5	50.0	38.6	11.4			204.82

N 3520

Item 10

Above Upstream toe wall.

5510.5	50.0	38.6	11.4			
				10.7	16.6	177.62
27.1	50.0	40.0	10.0			
				9.5	2.9	27.55
30	50.0	41.0	9.0			
				5.9	10	59.00
40	50.0	47.2	2.8			
				1.4	5	7.00
45	50.0	50.0	0.0			271.17

N 3530

Below downstr toe wall

4389	38.4	38.4	0.0			
				0.55	1	0.55
90	38.4	37.3	1.1			
				3.45	10	34.50
4400	38.4	32.6	5.8			
				5.45	10	54.50
10	38.4	33.3	5.1			
				2.55	10	25.50
20	38.4	38.4	0.0			115.05

N 3530 Item 10

Hydraulic Fill.

4960	35.3	35.3	0.0			
				0.6	6	3.60
66	35.2	34.0	1.2			
				2.8	4	11.20
70	35.1	30.7	4.4			
				5.7	10	57.00
80	34.9	27.9	7.0			
				6.85	17	116.45
97	34.6	27.9	6.7			
97	34.6	28.6	6.0			
				5.95	6	35.70
5003	34.5	28.6	5.9			
03	34.5	28.3	6.2			
				5.85	7	40.95
10	34.4	28.9	5.5			
				4.7	5	23.50
15	34.3	30.4	3.9			
				1.95	6	11.70
21	34.2	34.2	0.0			300.10
Less Item 12 Area						71.10
						229.00

N 3530 Item 10

Upstream rock emb.

5475	50.0	50.0	0.0			
				1.9	5	9.50
80	50.0	46.2	3.8			
				6.35	10	63.50
90	500	41.1	8.9			
				9.7	10	97.00
5500	50.0	39.5	10.5			
				10.5	7.7	80.85
07.7	50.0	39.5	10.5			250.85

Above Upstream toe wall

07.7	50.0	39.5	10.5			
				10.5	16.9	177.45
24.6	50.0	39.5	10.5			
				10.4	5.4	56.16
30	50.0	39.7	10.3			
				8.4	10	84.00
40	50.0	43.5	6.5			
				3.25	10	32.50
50	50.0	50.0	0.0			350.11

N 3540 Item 10

Below down stream toe wall

H390	37.8	37.5	0.3			
				2.35	4	9.40
94	37.8	33.4	4.4			
				5.2	11	57.20
H405	37.8	31.8	6.0			
				5.4	5	27.00
10	37.8	33.0	4.8			
				2.4	5	12.00
15	37.8	37.8	0.0			
						105.60

Hydraulic Fill

H960	34.5	34.5	0.0			
				2.15	10	21.50
70	34.6	30.3	4.3			
				5.1	10	51.00
80	34.7	28.8	5.9			
				5.95	10	59.50
90	34.8	28.8	6.0			
				6.0	7	42.00
97	34.9	28.9	6.0			

N 3540 Item 10

Hydraulic fill

4997	34.9	28.9	6.0			
				6.1	6	36.60
5003	35.1	28.9	6.2			
03	35.1	27.9	7.2			
				7.0	7	49.00
10	35.2	28.4	6.8			
				5.8	5	29.00
15	35.3	30.5	4.8			
				2.4	9	21.60
24	35.3	35.3	0.0			310.20
						73.80

Less Item 12 area

236.40

Upstream rock emb. N 3540

5470.8	50.0	50.0	0.0			
				3.45	9.2	31.74
80	50.0	43.1	6.9			
				8.9	10	89.00
90	50.0	39.1	10.9			

N 3540 Item 10

Upstream rock emb.

5490	500	39.1	10.7			
				10.8	15.2	164.16
5505.2	50.0	39.3	10.7			284.90

Above upstream toewall.

05.2	50.0	39.3	10.7			
				10.35	17.3	179.05
22.5	50.0	40.0	10.0			
				10.3	7.5	77.25
30	50.0	39.4	10.6			
				8.8	10	88.00
40	50.0	43.0	7.0			
				3.5	10	35.00
50	50.0	50.0	0.0			379.30

N 3540 is last section containing item 10 above upstr toe wall and under upstream rock

N 3550 Item 10

13

Below downstream toe wall.

4391.3	37.5	37.5	0.0			
				2.75	3.7	10.17
95	37.5	32.0	5.5			
				5.5	15	82.50
4410	37.5	32.0	5.5			
				2.75	10	27.50
20	37.5	37.5	0.0			120.17

Hydraulic Fill

4940	36.4	36.4	0.0			
50	36.2	35.1	1.1			
60	36.0	33.6	2.4			
70	35.9	31.7	4.2			
80	35.7	30.0	5.7			
90	35.5	28.9	6.6 (3.3)			167.00
				6.6	7	46.20
97	35.4	28.8	6.6			
				6.5	6	39.00
5003	35.2	28.8	6.4			39.30

N 3550 Item 10

Hydraulic fill.

5003	35.2	27.9	7.3			
				7.1	7	49.70
10	35.1	28.2	6.9			
				6.05	5	30.25
15	35.0	29.8	5.2			
				2.6	7	18.20
22	34.9	34.9	0.0			350.35
Less Item 12 area						81.27
						269.08

N 3560

Below downstream end section toe Wall.

4395.4	36.8	36.8	0.0			
				2.05	1.6	3.28 ~~32.80~~
97	36.8	32.7	4.1			
			9.5	4.75	8	38.00
4405	36.8	31.4	5.4			
				4.5	10	45.00
15	~~36.8~~	~~33.2~~	3.6			9.00 ~~9.40~~
20	36.8	36.8	0.0	1.8	5	~~95.28~~ ~~45.20~~

N 3560 Item 10

Hydraulic fill

4960	34.3	34.3	0.0			
				0.9	5	4.50
65	34.4	32.6	1.8			
			4.1	2.05	5	10.25
70	34.5	32.2	2.3			
			7.0	3.5	10	35.00
80	34.6	29.9	4.7			
			10.2	5.1	10	51.00
90	34.8	29.3	5.5			
			11.9	5.65 ~~5.95~~	7	39.55 ~~41.65~~
97		29.1	5.8			
97	34.9	28.5	6.4			
				6.45	6	38.70
5003	~~35.0~~	28.5	6.5			
03	35.0	28.3	6.7			
				6.7	7	46.90
10	35.1	28.4	6.7			
			11.9	5.95	5	29.75
15	35.2	30.0	5.2			
				3.15	5	15.75
20	35.3	34.2	1.1			

N 3560

Hydraulic fill

Item 10

5020	35.3	34.2	1.1			
				0.55	10	5.50
30	35.5	35.5	0.0			276.90 ~~279.00~~
Less Item 12 area						80.13
						196.77

N 3570

Hydraulic fill

4960	35.6	35.6	0.0			
				1.3	10	13.00
70	35.6	33.0	2.6			
				7.5 3.75	6	22.50
76	35.6	30.7	4.9			
				10.7 5.35	4	21.40
80	35.6	29.8	5.8			
				6.3	10	63.00
90	35.6	28.8	6.8			
				6.5 ~~6.85~~	7	45.50 ~~47.95~~
97	35.6	29.4 ~~28.7~~	6.2 ~~6.9~~			

N 3570

Hydraulic fill

Item 10

4997	35.6	28.7	6.9			
				6.95	6	41.70
5003	35.7	28.7	7.0			
03	35.7	28.3	7.4			
				7.0	7	49.00
10	35.7	29.1	6.6			
				11.6 5.8	6	34.80
16	35.7	30.7	5.0			
				2.5	7	17.50
						308.40
23	35.7	35.7	0.0			
Less Item 12 area						90.77
						217.63

N 3580

Hydraulic fill

4970	37.2	37.2	0.0			
				2.75	5	13.75
75	37.2	31.7	5.5			
				12.9 6.45	5	32.25
80	37.2	29.8	7.4			

N 3580

Item 10

Hydraulic fill.

H980	37.2	29.8	7.4			
				7.95	10	79.50
90	37.2	28.7	8.5	8.2	7	57.40
97	37.2	29.3	7.9			
97	37.2	28.7	8.5	~~8.55~~	~~13~~	~~111.15~~
				8.55	6	51.30
5003	37.3	28.7	8.6			
3	37.3	28.6	8.7			
				8.6		60.20
				~~8.55~~	7	~~59.85~~
10	37.3	28.8	8.5			
				8.25	4	33.00
14	37.3	29.3	8.0			
				4.0	8	32.00
						359.40
22	37.3	37.3	0.0			
Less Item 12 area						124.23
						235.17

N 3590

Hydraulic fill.

H967	37.5	37.5	0.0			
				1.8	3	5.40
70	37.6	34.0	3.6			
				5.9	10	59.00
80	37.8	29.6	8.2			

N 3590

Item 10

Hydraulic fill.

4980	37.8	29.6	8.2			
				8.7	10	87.00
90	37.9	28.7	9.2			
				9.2		64.40
				~~9.3~~	7	
97	38.0	28.8	9.2			
97	38.0	28.6	9.4			
				9.5	6	57.00
						~~57.30~~
5003	38.2	29.6	9.6			
5003	38.2	28.9	9.3			
				9.0		108.00
				~~9.15~~	12	~~109.80~~
15	38.4	29.7	8.7			
				4.35	8	34.80
						415.60
						~~421.40~~
						~~418.10~~
23	38.6	38.6	0.0			
Less Item 12 area						147.73
						267.87

N 3600

Hydraulic fill.

H967	38.3	38.3	0.0			
				2.05	7	14.35
70	38.4	34.3	4.1			
				6.5	10	65.00
80	38.6	29.7	8.9			

N 3600 Hydraulic fill

Item 10

4980	38.6	29.7	8.9		
				9.5 10	95.00
90	38.8	29.7	10.1		
97	39.0	29.2	9.8 ~~9.95 4.7~~	7	69.65
97	39.0	28.8	10.2		
				10.3 6	61.80
5003	39.2	28.8	10.4		
03	39.2	28.5	10.7		
				10.15 11	111.65
14	39.4	29.8	9.6		
				8.4 3	25.20
17	39.4	32.2	7.2		
				3.6 6	21.60
					464.25
23	39.5	39.5	0.0		
					159.92
Less	Item 12	area			304.33

3610 Hydraulic fill

Item 10

4967	39.0	39.0	0.0		
				2.35 3	7.05
70	39.0	34.3	4.7		
				6.3 5	31.50 ~~31.10~~
75	39.1	31.2	7.9		
				19.3 2.65 8.7 5	43.25 ~~43.50~~
80	39.1	29.7	9.4		
				19.5 9.75 10	97.50
90	39.2	29.1	10.1		
97	39.3	29.3	10.0 ~~10.2~~	10.05 7	70.35 ~~71.40~~
97	39.3	29.0	10.3		
				10.3 6	61.80
5003	39.3	29.0	10.3		
03	39.3	28.7	10.6		
				19.7 9.85 13	128.05
16	39.4	30.3	9.1		
				4.55 7	31.85
					471.35
23	39.5	39.5	0.0		
Less	Item 12	area			159.96
					311.39

N3620 Hydraulic Fill

Item 10

4968	38.8	38.8	0.0			
				2.2	3	6.60
71	38.8	34.4	4.4			
			12.1	6.05	3	18.15
74	38.9	31.2	7.7			
			17.6	8.8	6	52.80
80	39.0	29.1	9.9			
				10.1	10	101.00
90	39.2	28.9	10.3			
97	39.3	29.3	10.0	10.15 ~~10.35~~	7	71.05 ~~72.45~~
97	39.3	28.9	10.4			
				10.5	6	63.00 ~~63.30~~
5003	39.5	28.9	10.6			
			19.3	10.1 ~~9.65~~	12	121.20 ~~115.80~~
15	39.7	30.1 ~~31.0~~	9.6 ~~8.7~~			
				4.8 ~~4.35~~	8	38.40
						472.20
23	39.8	39.8	0.0			
Less Item 12 area						159.92
						312.28

N3630 Hydraulic Fill.

Item 10

18

4967	39.3	39.3	0.0			
				2.5	4	10.00 ~~10.20~~
71	39.3	34.3	5.0			
				6.65	4	26.60
75	39.3	31.0	8.3			
				9.25	5	46.25
80	39.3	29.1	10.2			
				10.35	10	103.50
90	39.2	28.7	10.5			
97	39.2	29.0	10.2	10.35 ~~10.3~~	7	72.45 ~~72.10~~
97	39.2	29.1	10.1			
				10.1	6	60.60
5003	39.2	29.1	10.1			
03	39.2	28.7	10.5			
			19.6	9.8	12	117.60
15	39.1	30.0	9.1			
				4.55	8	36.40
						473.40 ~~473.05~~
23	39.1	39.1	0.0			
Less Item 12 area						160.00
						313.40

N 3640

Hydraulic fill.

Item 10

4967	40.3	40.3	0.0			
				3.3	5	16.50
72	40.3	33.7	6.6			
				8.0	3	24.00
75	40.2	30.8	9.4			
				10.0	5	50.00
80	40.1	29.5	10.6			
				10.75	10	107.50
90	39.9	29.0	10.9			
				10.65	7	74.55
97	39.8	29.4	10.4	~~10.7~~		~~74.90~~
97	39.8	29.3	10.5			
				10.45	6	62.70
5003	39.7	29.3	10.4			
			19.9	9.95	12	119.40
15	39.5	30.0	9.5			
				4.75	8	38.00
						492.65
						~~493.00~~
23	39.4	39.4	0.0			
Less Item 12 area						160.00
						~~333.00~~
						332.65

N 3650

Hydraulic fill.

Item 10

4967	41.3	41.3	0.0			
				3.5	5	17.50
72	41.3	34.3	7.0			
				8.85	4	35.40
76	41.2	30.5	10.7			
				11.0	4	44.00
80	40.9	29.6	11.3			
				11.2	10	112.00
90	40.6	29.5	11.1			
				11.2	7	78.40
97	40.4	29.1	11.3			
97	40.4	29.7	10.7			
				10.55	6	63.30
5003	40.1	29.7	10.4			
5003	40.1	29.9	10.2	9.45		
			19.1	~~9.55~~	12	113.40
						~~114.60~~
15	39.8	31.1	8.7			
				4.35	7	30.45
						494.45
						~~495.65~~
22	39.6	39.6	0.0			
Less Item 12 area						159.98
						~~335.63~~
						334.47

N 3660 Item 10

Hydraulic fill

4966.	42.4	42.4	0.0			
				3.85	8	30.80
74	42.0	34.3	7.7			
				9.75	6	58.50
80	41.8	30.0	11.8			
				11.7	10	117.00
90	41.4	29.8	11.6			
				11.55	7	80.85
97	41.1	29.6	11.5			
97	41.1	30.6	10.5			
				10.4	6	62.40
5003	40.9	30.6	10.3			
03	40.9	29.9	11.0			
				10.0	12	120.00
15	40.3	31.3	9.0			
				4.5	7	31.50
22	40.0	40.0	0.0			501.05
Less Item 12 area						159.75
						341.30

N 3670 Item 10 20

Hydraulic fill

4967	42.9	42.9	0.0			
				5.2	9	46.80
76	42.5	32.1	10.4			
				10.8	4	43.20
80	42.3	31.1	11.2			
				10.85	10	108.50
90	41.6	31.1	10.5			
				10.65	7	74.55
97	41.4	30.6	10.8			
97	41.4	31.0	10.4			
				10.25	6	61.50
5003	41.1	31.0	10.1			
03	41.1	30.7	10.4			
				9.8	12	117.60
15	40.6	31.4	9.2			
				4.6	7	32.20
22	40.2	40.2	0.0			484.35
Less Item 12 area						158.50
						325.85

N 3680

Item 10

Hydraulic fill

H965	44.6	44.6	0.0		
				4.8 9	43.20
74	43.9	34.3	9.6		
				10.45 6	62.70
80	43.5	32.2	11.3		
				11.0 10	110.00
90	42.7	32.0	10.7		
97	42.2	32.2	10.0	10.35 ~~10.55~~ 7	72.45 ~~73.85~~
97	42.2	31.8	10.4		
				10.15 6	60.90
5003	41.7	31.8	9.9		
03	41.7	31.2	10.5		
				9.45 12	113.40
15	40.7	32.3	8.4		
				4.2 7	29.40
					492.05 ~~493.45~~
22	40.3	40.3	0.0		
Less Item 12 area					155.02
					~~338.35~~ 337.03

N 3690

Item 10

21

Hydraulic fill

H965	45.8	45.8	0.0		
				5.35 10	53.50
75	45.0	34.3	10.7		
				11.1 5	55.50
80	44.6	33.1	11.5		
				11.1 10	111.00
90	43.7	33.0	10.7		
97	43.1	33.1	10.0	10.35 ~~10.55~~ 7	72.45 ~~73.85~~
97	43.1	32.7	10.4		
				10.2 6	61.20
5003	42.7	32.7	10.0		
03	42.7	31.1	11.6		
				10.45 10	104.50
13	41.9	32.6	9.3		
				4.65 9	41.85
					500.00 ~~501.40~~
22	41.1	41.1	0.0		
Less Item 12 area					155.92 ~~156.30~~
					~~345.40~~ 344.08

N 3700 Item 10

Hydraulic fill

4960	48.6	48.6	0.0		
				1.7 6	10.20
66	48.2	44.8	3.4		
				8.1 9	72.90
75	47.6	34.8	12.8		
				12.9 5	64.75
80	47.3	34.2	13.1		
				12.7 10	127.00
90	46.6	34.3	12.3		
				12.2 7	85.40
97	46.2	34.1	12.1		
97	46.2	35.5	10.7		
				10.5 6	63.00
					~~63.30~~
5003	45.8	35.5	10.3		
03	45.8	32.5	13.3		
				12.3 10	123.00
13	45.1	33.8	11.3		
				6.3 8	50.40
21	44.5	43.2	1.3		

#12 Subtracted from total
Results are the same -

N 3700 Item 10

5021	44.5	43.2	1.3		
				0.65 9	5.85
30	44.0	44.0	0.0		602.50
Less Item 12 area					158.96
					443.54

N 3710

Hydraulic fill

4965	48.9	47.7	1.2		
				6.5 9	58.50
74	48.3	36.5	11.8		
				12.05 6	72.30
80	47.9	35.6	12.3		
				12.2 10	122.00
90	47.2	35.1	12.1		
				12.05 7	84.35
97	46.7	34.7	12.0	~~12.0~~	~~84.00~~
97	46.7	34.8	11.9		
				11.7 6	70.20
5003	46.3	34.8	11.5		

N 3710
Hydraulic fill.

Item 10

5003	46.3	33.2	13.1			
				12.3	9	110.70
12	45.8	34.3	11.5			
				5.75	9	51.75
						569.80
						~~569.45~~
21	45.1	45.1	0.0			
Less Item 12 area						160.00
						~~409.45~~
						409.80

N 3720
Hydraulic fill.

4965	50.5	50.5	0.0			
				1.2	1	1.20
66	50.5	48.1	2.4			
				17.6	9	68.40
75	50.1	37.3	12.8			
				13.2	5	66.00
						~~66.10~~
80	49.9	36.3	13.6			
				13.65	10	136.50
90	49.5	35.8	13.7			
				13.7	7	95.90
97	49.2	35.5	13.7			

N 3720
Hydraulic fill.

Item 10

4991	49.2	35.5	13.7			
				13.6	6	81.60
5003	49.0	35.5	13.5			
03	49.0	33.8	15.2			
				14.6	7	102.20
10	48.6	34.6	14.0			
				7.0	13	91.00
						642.80
23	48.1	48.1	0.0			
Less Item 12 area						160.00
						482.80

N 3730
Hydraulic fill.

4965	51.2	51.2	0.0			
				1.55	2	3.10
67	51.1	48.0	3.1			
				8.15	8	65.20
75	51.0	37.8	13.2			
				13.6	5	68.00
						~~68.30~~
80	50.9	36.9	14.0			

N 37.30 Item 10

Hydraulic fill.

H980	50.9	36.9	14.0		
				14.15 10	141.50
90	50.6	36.3	14.3		
				14.45 7	101.15
97	50.5	35.9	14.6	~~14.4~~	~~100.80~~
97	50.5	36.0	14.5		
				14.4 6	86.40
5003	50.3	36.0	14.3		
03	50.3	35.7	14.6		
			28.3	14.15 8	113.20
11	50.1	36.4	13.7		
				6.85 12	82.20
					660.75
23	49.7	49.7	0.0		~~660.40~~
Less Item 12 area					160.00
					~~500.40~~ 500.75

N 37.40

Hydraulic fill.

H965	51.7	51.7	0.0		
				1.1 1	1.10
66	51.7	49.5	2.2		

N 37.40 Item 10

Hydraulic fill

H966	51.7	49.5	2.2		
				5.4 4	21.60
70	51.6	43.0	8.6		
			21.3	10.65 5	53.25
75	51.4	38.7	12.7		
			26.6	13.3 5	66.50
80	51.2	37.3	13.9		
			28.4	14.2 10	142.00
90	50.9	36.4	14.5		
				14.45 7	101.15
97	50.7	36.3	14.4		
97	50.7	36.6	14.1		
				14.0 6	84.00
5003	50.5	36.6	13.9		
			26.4	13.2 9	118.80
12	50.2	37.7	12.5		
				6.25 11	68.75
					657.15
23	49.9	49.9	0.0		160.00
Less Item 12 area					497.15

N 3750

Item 10

Hydraulic fill.

4960	52.9	52.9	0.0			
65	52.6	52.6	0.0	6.5	13 8	~~84.50~~ 52.00
73	52.2	39.2	13.0	13.45	7	94.15
80	51.8	37.9	13.9	13.8	10	138.00
90	51.2	37.5	13.7	13.3 ~~13.45~~	7	93.10 ~~94.15~~
97	50.8	37.9	12.9			
97	50.8	37.6	13.2	13.0	6	78.00
5003	50.4	37.6	12.8			
03	50.4	37.1	13.3	13.05	6	78.30
09	50.2	37.4	12.8	9.55	10	95.50
19	49.5	43.2	6.3	3.15 ~~3.65~~	5	15.75 ~~18.25~~
						644.80 ~~680.85~~
24	49.3	49.3	0.0			
Less Item 12 area						159.96
						~~518.35~~ 484.84

N 3760

Item 10

25

Hydraulic fill.

4966	53.6	53.6	0.0			
				5.85	6	35.10
72	53.3	41.6	11.7	24.2		
				12.1	8	96.80
80	52.8	40.3	12.5	26.1		
				13.05	10	130.50
90	52.2	38.6	13.6			
				13.75	7	96.25
97	51.8	37.9	13.9			
97	51.8	39.2	12.6			
				12.4	6	74.40
5003	51.4	39.2	12.2			
03	51.4	37.7	13.7	26.5		
				13.25	9	119.25
12	50.9	38.1	12.8			
				6.4	8	51.20
20	50.4	50.4	0.0			603.50
Less Item 12 area						160.00
						443.50

N 3770

Item 10

Hydraulic Fill.

4966	56.4	56.4	0.0			
				5.9	7	41.30
73	55.9	44.1	11.8			
				12.2	7	85.40
80	55.4	42.8	12.6			
				13.8	10	138.00
90	54.6	396	15.0			
				15.2	7	106.40
97	54.1	38.7	15.4			
97	54.1	40.7	13.4			79.20
				13.2		
				~~12.7~~	6	~~76.20~~
5003	53.7	40.7	13.0			
			~~12.0~~			
03	53.7	38.4	15.3			
				15.25		45.75
				~~15.1~~	3	~~45.30~~
		38.3	15.2			
06	53.5	~~38.6~~	14.9			
				7.6		91.20
				~~7.45~~	12	~~89.40~~
						~~587.25~~
18	52.6	52.6	0.0			
Less Item 12 area						160.00
						~~427.00~~
						427.25

N 3780

Item 10

Hydraulic Fill.

4960	61.2	61.2	0.0			
				3.6	10	36.00
70	60.2	53.0	7.2			
				9.7	10	97.00
80	59.2	47.0	12.2			
				13.85	5	69.25
85	58.7	43.2	15.5			
				15.75	7	110.25
92	58.0	42.0	16.0			
				17.45		87.25
97	57.5	38.6	18.9	~~15.6~~	5	~~78.00~~
97	57.5	42.3	15.2			
				14.9	6	89.40
5003	56.9	42.3	14.6			
5003	56.9	42.4	14.5			
				14.0		56.00
				~~14.05~~	4	~~56.20~~
07	56.5	43.0	13.5			
				6.75	8	54.00
						599.15
15	55.6	55.6	0.0			
Less Item 12 area						160.00
						439.15

N 3790

Item 10

Hydraulic fill.

4970	67.4	67.4	0.0			
				3.2	10	32.00
80	65.4	59.0	6.4			
				8.85	7	61.95
87	64.0	52.7	11.3			
				14.05	3	42.15
90	63.4	46.6	16.8			
94	62.6	45.0	17.6	17.2	4	68.80
97	62.0	40.5	21.5	19.55	7 3	~~1 1.30~~ 58.65
97	62.0	47.0	15.0			
				14.4	6	86.40
5003	60.8	47.0	13.8			
03	60.8	43 2	17.6			
				8.8	11	96.80
						446.75
14	58.6	58.6	0.0			~~430.60~~
Less Item 12 Area						160.00
						~~270.60~~
						286.75

N 3800

Item 10.

Hydraulic fill.

4970	74.1	74.1	0.0			
				0.6	4	2.40
74	73.1	72.0	1.1			
				4.25	8	34.00
82	71.3	64.0	7.3			
				9.75	1	9.75
83	71.1	58.9	12.2			
				13.05	9	117.45
92	69.0	55.1	13.9	~~11.2~~		
~~89~~	~~69.6~~	~~59.6~~	~~10.2~~	11.95	5	89.75
97	67.9	45.9	22.0			
97	67.9	59.4	8.5			
				6.7	13.5	90.45
5010.5	64.3	59.4	4.9			
				2.45	1.5	3.67
						347.47
12	64.1	64.1	0.0			~~311.05~~
Less Item 7 Area on Left side only						32.00
						~~248.85~~
						315.47

ITEM 10

COMPUTATIONS FOR VOLUME

Beneath HYDRAULIC FILL

North	Area sq.ft.	North	Area sq.ft.
3440	~~8.80~~ 4.40 ✓	3610	311.39 ✓ ~~312.40~~
50	72.95 ✓	20	312.28 ✓ ~~304.60~~
60	232.77 ✓	30	313.40 ✓ ~~313.05~~
70	316.39 ✓	40	332.65 ✓ ~~333.00~~
80	305.70 ✓	50	334.47 ✓ ~~335.65~~
90	287.40 ✓	60	341.30 ✓
35.00	227.50 ✓	70	325.85 ✓
10	235.08 ✓	80	337.03 ✓ ~~338.55~~
20	234.97 ✓ ~~236.02~~	90	344.08 ✓ ~~345.40~~
30	229.00 ✓	3700	443.54 ✓
40	236.40 ✓	10	409.80 ✓ ~~409.45~~
50	269.08 ✓	20	482.80 ✓
60	196.77 ✓	30	500.75 ✓ ~~500.40~~
70	217.63 ✓	40	497.15 ✓
80	235.17 ✓	50	484.84 ✓ ~~518.35~~
90	267.87 ✓ ~~270.30~~	60	443.50 ✓
3600	304.33 ✓ ~~306.45~~	70	427.25 ~~425.00~~

North	Area sq.ft.
3780	439.15 ✓ ~~430.10~~
90	286.75 ✓ ~~290.60~~
3800	~~315.47~~ 303.25 ✓ = 157.73 ~~for section end Area~~

~~11,400.47~~ x 10 = ~~114,004.10~~ ft³

11399.12 x 10 = 113,991.20 ✓ Cu.ft.

TOTAL = ~~4,222.37~~ 4221.90 ✓ Cubic Yards

Item 10

BELOW DOWNSTREAM TOEWALL

North	Area sq.ft.
3440	0.0 ✓
50	96.26 ✓
60	257.92 ✓
70	370.94 ✓
80	385.45 ✓
90	238.25 ✓
3500	133.33 ✓
10	105.56 ✓
20	87.70 ✓
30	115.05 ✓
40	105.60 ✓
50	120.17 ✓
60	47.64 ✓
	2) 95.28

2063.87 ✓ × 10 = 20,638.70 ft³ ✓

TOTAL = 764.40 ✓ Cubic Yards.

Item 10

ABOVE UPSTREAM TOEWALL

North	Area sq.ft.
3480	0.0 ✓
90	10.03 ✓
3500	38.33 ✓
10	151.73 ✓
20	271.17 ✓
30	350.11 ✓
40	189.65 ✓
	2) 379.30

996.35 × 10 = ~~9963.50 ft³~~

1011.02 ✓ × 10 = 10110.20 Cu ft.

TOTAL = ~~369.02~~ Cubic Yards

" 374.45 ✓ " "

Item 10

UPSTREAM ROCK

Below Up — stream Toe Wall.

North	Area sq. ft.
3500	0.0 ✓
10	126.95 ✓ + 111.65
20	204.82 ✓
30	250.85 ✓
40	142 45 2) 284.90 ✓

~~709.77 x 10 = 7097.70 ft³~~

725.07 ✓ x 10 ✓ = 7250.70 ✓ Cu ft.

TOTAL = ~~262.88~~ Cubic Yards

" 268.54 ✓ " "

Item 10

DOWNSTREAM ROCK

Above Down stream Toe Wall.

North	Area sq. ft.
3410	0.0 ✓
20	98.27 ✓ See Page 1
30	161.62 ✓
40	149.90 ~~311.52~~
50	61.50 ✓
60	0.0 ✓

471.29 ✓ ~~632.91~~ x 10 = 4712.90 ~~6329.10~~ ft³

174.55 ✓ ~~234.41~~ Cubic Yards ✓

Item 3.

EL CAPITAN DAM

Areas of Cross-Sections of Excavation for Base of Dam Under Schedule Item 3 Starting at N. 3600 Going Both ways

H.O. & H.V.N. Dec. 6, 1933

N. 3600 Hyd. Fill

East	Elev Top	Bottom	Ht	Mean	Dist	Area
4880	553.1	53.1	0.0			
90	52.3	50.1	2.2			
4900	51.0	49.1	1.9			
10	53.3	46.7	6.6			
20	46.8	44.8	2.0			
30	42.7	42.7	0.0			127.00

N 3610 Hyd. Fill

4906	48.0	48.0	0.0			
				0.4	4	1.60
10	47.9	47.1	0.8			
20	46.3	44.9	1.4			18.00
30	43.1	43.1	0.0			19.60

N. 3620 " "

4906	48.1	48.1	0.0			
				0.1	4	0.40
10	47.8	47.6	0.2			
20	46.9	45.4	1.5			
30	42.4	42.4	0.0			

N 3620 Hyd. Fill

Item 3

4940	39.4	39.4	0.0
50	39.3	39.0	0.3
60	39.3	39.3	0.0

1.90
2.30

N 3630 Hyd. Fill

4930	41.7	41.7	0.0
40	40.1	39.9	0.2
50	39.5	39.2	0.3
60	39.4	39.1	0.3
			0.15 7
67	39.3	39.3	0.0

6.50
1.05
7.55

N 3640 = 0.0

N 3650 - Hyd. Fill.

4910	49.3	49.3	0.0
20	48.7	47.9	0.8
30	46.2	45.0	1.2
40	41.2	41.2	0.0
50	40.7	40.6	0.1
60	40.7	40.5	0.2
			0.1 7
67	41.3	41.3	0.0

22.00
.70
22.70

N 3660 - Hyd. Fill

Item 3.

4890	53.1	53.1	0.0
4900	52.8	51.9	0.9
10	53.0	49.8	3.2
20	52.4	48.1	4.3
30	50.2	46.2	4.0
40	46.3	44.0	2.3
50	41.4	41.4	0.0

147.00

N 3670 Hyd. Fill

4740	49.4	49.4	0.0
50	57.0	52.0	5.0
60	56.0	53.2	2.8
70	56.6	54.5	2.1
80	55.9	55.1	0.8
90	55.4	55.4	0.0
4880	53.5	53.5	0.0
90	54.1	53.1	1.0
4900	53.7	52.2	1.5
10	53.2	50.5	2.7

(cont.)

N. 3670 - Hyd. Fill

Item 3

(cont.)

4920	52.7	48.8	3.9			
30	52.6	46.9	5.7			
40	45.2	45.2	0.0			
50	43.0	43.0	0.0			
60	42.8	42.7	0.1			255.50
				0.05	7	.35
67	42.9	42.9	0.0			255.85

N 3680 - Hyd. Fill

4730	48.0	48.0	0.0			
40	54.7	50.7	4.0			
50	58.5	52.3	6.2			
60	58.2	53.5	4.7			
70	57.6	55.0	2.6			
80	56.8	56.0	0.8			
90	56.1	56.1	0.0			
4890	53.6	53.6	0.0			
4900	53.5	53.1	0.4			

(cont.)

N. 3680 - Hyd. Fill

Item 3

(cont)

4910	53.4	51.6	1.8			
20	53.6	50.1	3.5			
30	51.7	47.9	3.8			
40	46.8	46.5	0.3			
50	44.9	44.6	0.3			
60	44.3	44.0	0.3			285.50
				0.6	5	3.00
65	44.6	43.7	0.9			
				0.45	1	.45
66	43.6	43.6	0.0			288.95

N 3690

Downstream Rock Emb.

4710	46.0	46.0	0.0	
20	50.8	48.7	2.1	
30	59.5	49.7	9.8	70.00

N. 3690

Item 3

Hyd. Fill.

4730	59.5	49.7	9.8
40	59.6	50.5	9.1
50	59.3	52.0	7.3
60	59.0	53.4	5.6
70	58.1	54.9	3.2
80	57.6	57.2	0.4
90	57.3	57.3	0.0
4890	54.0	54.0	0.0
4900	53.6	53.0	0.6
10	53.4	52.9	0.5
20	53.1	51.6	1.5
30	52.9	48.8	4.1
40	51.6	47.0	4.6
50	48.9	45.9	3.0
60	48.0	45.8	2.2
			1.1 5
65	45.8	45.8	0.0

459.00

5.50

464.50

N. 3700

Item 3

Downstream Rock

4710	50.0	50.0	0.0
20	57.7	49.1	8.6
30	60.1	49.7	10.4

138.00

Hyd. Fill.

4730	60.1	49.7	10.4
40	60.0	50.5	9.5
50	59.9	51.5	8.4
60	59.9	53.0	6.9
70	59.6	56.6	3.0
80	59.2	59.1	0.1
90	59.3	59.0	0.3
4800	58.4	58.4	0.0
4880	54.5	54.5	0.0
90	54.5	54.3	0.2
4900	53.6	53.5	0.1
10	53.5	53.5	0.0
20	53.2	52.3	0.9

(cont.)

N. 3700 – Hyd. Fill

Item 3

(cont.)

4930	52.7	49.9	2.8 ✓
40	51.3	48.4	2.9 ✓
50	50.3	47.6	2.7 ✓
60	48.6	48.6	0.0 ✓

430.00 ✓

N. 3710

Downstream Rock

46.90	51.1	51.1	0.0
4700	59.5	55.2	4.3 ✓
10	59.7	50.5	9.2 ✓
20	59.7	49.9	9.8 ✓
30	59.7	49.9	9.8 ✓

282.00 ✓

N. 3710

Item 3.

Hyd. Fill

4730	59.7	49.9	9.8 ✓
40	59.7	50.2	9.5 ✓
50	59.7	51.2	8.5 ✓
60	59.8	54.8	5.0 ✓
70	59.8	59.8	0.0 ✓
4870	56.6	56.6	0.0 ✓
80	55.2	54.1	1.1 ✓
90	54.2	53.5	0.7 ✓
4900	53.8	53.6	0.2 ✓
10	53.7	53.7	0.0 ✓
20	53.4	53.3	0.1 ✓
30	53.0	51.1	1.9 ✓
40	52.2	49.6	2.6 ✓
50	50.4	49.3	1.1 ✓
60	50.0	48.6	1.4 ✓
			0.7
			1.3 ✓ 5 ✓
65 st. up.	48.9	47.7	1.2 ✓

363.00
367.00
6.50
373.50
369.50

N. 3720

Item 3

Downstream Rock

4700	52.5	52.5	0.0	
10	59.7	51.4	8.3	
20	59.7	50.6	9.1	
30	59.6	50.4	9.2	220.00

Hyd. Fill

4730	59.6	50.4	9.2	
40	59.6	50.8	8.8	
50	59.6	53.5	6.1	
60	59.7	59.7	0.0	
4890	54.0	54.0	0.0	
4900	54.3	53.4	0.9	
10	54.1	53.4	0.7	
20	54.4	53.8	0.6	
30	53.5	52.2	1.3	
40	53.2	51.3	1.9	
50	51.5	50.2	1.3	
60	51.0	50.1	0.9	266.50

Item 3

4960	51.0	50.1	0.9	
			1.5 5	7.50
65	50.5	48.4	2.1	
			1.05 1	1.05
66	48.1	48.1	0.0	275.05

N. 3730

Downstream Rock

4670	559	559	0.0	
80	59.6	58.5	1.1	
90	59.4	59.0	0.4	
4700	59.6	52.5	7.1	
10	598	51.7	8.1	
20	596	52.1	7.5	
30	59.8	53.7	6.1	272.50

N. 3730

Item 3

Hyd. Fill

4730	59.8	53.7	6.1	✓
40	60.1	56.6	3.5	✓
50	60.4	60.4	0.0	✓
4890	60.8	60.8	0.0	✓
4900	56.8	53.8	3.0	✓
10	54.9	53.3	1.6	✓
20	55.0	53.0	2.0	✓
30	53.6	52.3	1.3	✓
40	53.4	51.6	1.8	✓
50	52.0	51.2	0.8	✓
60	51.9	50.3	1.6	✓
			2.1 ✓	5 ✓
65	51.2	48.6	2.6	✓
			1.3 ✓	2 ✓
67	48.0	48.0	0.0	✓

178.50 ✓
10.50 ✓
2.60 ✓
191.60 ✓

N 3740

Item 3

D.S. Rock

4680	56.1	56.1	0.0	✓
90	60.1	54.7	5.4	✓
4700	60.5	54.4	~~5.1~~ 6.1	
			~~6.2~~ 6.7	7 ✓
07	61.8	54.5	7.3	✓
			7.1 ✓	3 ✓
10	61.4	54.5	6.9	✓
20	61.1	56.4	4.7	✓
30	61.1	58.2	2.9	✓
40	61.8	61.8	0.0	✓

8A5
~~7.95~~
~~43.40~~ 16.90
21.30
110.50 ✓
~~182.95~~
187.15

Hyd. Fill

4880	63.9	63.9	0.0	✓
90	64.1	63.3	0.8	✓
4900	61.7	57.4	4.3	✓
10	59.3	57.7	1.6	✓
20	57.0	54.4	2.6	✓
30	54.4	53.4	1.0	✓

(cont.)

N. 3740 (cont.) Hyd. Fill — Item 3

4940	53.3	52.7	0.6			
50	52.7	52.4	0.3			
60	52.1	51.7	0.4			114.00
				1.1	5	5.50
65	51.7	49.9	1.8			
				0.9	1	.90
66	49.5	49.5	0.0			120.40

N. 3750 D. S. Rock — Item 3

4650	56.5	56.5	0.0			
60	62.1	59.0	3.1			
70	62.5	57.8	4.7			
80	63.8	56.3	7.5			
90	63.5	57.6	5.9			182.50
				6.05	2	12.10
92	64.0	57.8	6.2			

N. 3750 D. S. Rock

4692	64.0	57.8	6.2			
				5.3	8	42.40
4700	63.0	58.6	4.4			
10	62.6	58.6	4.0			
20	62.6	60.1	2.5			
30	62.7	62.7	0.0			87.00
						324.00

Hyd. Fill

4920	59.0	59.0	0.0			
30	56.6	56.0	0.6			
40	54.0	53.7	0.3			
50	53.6	53.3	0.3			
60	52.9	52.9	0.0			~~40.50~~ 12.00

N. 3760

Item 3

D.S. Rock

4630	61.4	61.4	0.0
40	63.3	61.5	1.8
50	63.7	61.6	2.1
60	64.2	59.5	4.7
70	64.3	60.2	4.1
80	65.4	60.7	4.7
90	66.2	61.5	4.7
4700	67.5	61.5	6.0
10	69.0	63.2	5.8
20	70.6	64.2	6.4
30	69.1	67.2	1.9
40	70.9	70.9	0.0

422.00

Hyd. Fill

4930	59.1	59.1	0.0
40	56.1	55.4	0.7
50	55.0	54.8	0.2
60	55.7	54.3	1.4

N. 3760

Item 3

Hyd. Fill

4960	55.7	54.3	1.4	16.00
			1.1 4	4.40
64	54.6	53.8	0.8	
			0.4 2	.80
66	53.6	53.6	0.0	21.20

N. 3770 to N 3810 = 0.0

N 3820

Hyd Fill

4710	94.8	94.8	0.0
20	95.6	94.4	1.2
30	96.8	92.4	4.4
40	97.7	91.4	6.3
50	99.8	92.1	7.7
60	600.8	600.8	0.0
70	02.8	99.5	3.3
80	04.8	602.9	1.9
90	06.7	06.4	0.3
4800	08.1	08.1	0.0

N. 3820 Hyd. Fill

Item 3

4870	13.7	13.7	0.0
80	11.5	11.4	0.1
90	12.5	07.6	4.9
4900	12.3	11.6	0.7
10	09.6	09.1	0.5
20	07.3	07.3	0.0

313.00

N3830 Hyd. Fill

4700	97.7	97.4	0.3
10	99.9	96.3	3.6
20	99.4	95.1	4.3
30	00.8	93.9	6.9
40	02.3	02.3	0.0
4830	16.9	16.9	0.0
40	21.9	19.3	2.6
50	21.7	20.2	1.5
60	21.1	21.1	0.0

N3830 Hyd. Fill

Item 3

4880	19.6	19.6	0.0			
90	20.6	19.5	1.1			
4900	19.9	19.5	0.4			
10	20.7	20.6	0.1			
20	18.7	18.4	0.3			208.00
				0.35	5	1.75
25	14.1	13.7	0.4			
26	13.2	13.2	0.0	0.2	1	.20
33	08.0	08.0	0.0			
				1.55	2	3.10
35	06.9	03.8	3.1			
				1.9	5	9.50
40	04.1	03.4	0.7			
				0.35	10	3.50
50	02.5	02.5	0.0			
				2.2	8	17.60
58	02.7	98.3	4.4			
						243.65

N 3840

Item 3

Hyd Fill

4700	601.1	599.2	1.9
10	02.7	601.9	0.8
20	04.0	03.3	0.7
30	05.8	03.8	2.0
40	06.5	04.4	2.1
50	07.9	05.2	2.7
60	09.9	06.8	3.1
70	11.2	08.6	2.6
80	13.1	10.3	2.8
90	15.2	11.5	3.7
4800	17.4	13.4	4.0
10	21.1	14.8	6.3
20	23.3	16.4	6.9
30	24.1	17.4	6.7 ~~4.7~~
40	24.9	18.3	6.6
50	25.2	19.8	5.4
60	25.2	20.9	4.3
70	25.4	21.9	3.5
80	26.3	22.7	3.6 ~~3.5~~

Cont.

Item 3

Cont.

4890	26.3	23.2	3.1
4900	26.5	23.8	2.7
10	24.8	23.8	1.0
20	22.6	19.9	2.7
30	17.1	15.0	2.1
40	13.6	12.1	1.5
50	11.5	09.2	2.3
60	08.5	05.4	3.1
70	05.9	04.9	1.0
80	598.3	597.4	0.9
90	92.3	89.8	2.5

~~874.00~~

904.00

N 3850

Item 3

Hyd. Fill.

4700	605.5	01.2	4.3
10	08.2	02.6	5.6
20	08.5	03.4	5.1
30	09.9	04.2	5.7
40	10.5	04.7	5.8
50	12.9	05.7	7.2
60	13.8	07.2	6.6
70	15.1	10.5	4.6
80	18.5	12.7	5.8
90	19.1	14.0	5.1
4800	23.5	17.2	6.3
10	26.2	20.2	6.0
20	26.9	22.7	4.2
30	29.4	21.4	8.0
40	29.1	22.0	7.1
50	30.8	22.7	8.1
60	31.6	24.9	6.7
70	31.0	24.6	6.4
80	31.5	25.0	6.5

Cont.

Item 3

Cont Hyd Fill.

4890	32.7	26.3	6.4			
4900	31.9	25.4	6.5			
10	30.0	24.9	5.1			
20	28.0	23.6	4.4 ~~5.4~~			
30	25.0	24.2	0.8			
40	22.0	18.1	3.9			
50	17.5	15.5	2.0			
60	15.6	14.7	0.9			
70	11.8	11.0	0.8			
80	05.6	04.2	1.4			
90	03.1	94.8	8.3			1493.00 ~~1503.00~~
				9.7	4	38.80
94	01.8	90.7	11.1			
			27.9	13.95	3	41.85
97	00.8	84.0	16.8			
			30.1	15.05	6	90.30
5003	99.4	86.1	13.3			
				9.2	7	64.40
5010	98.6	93.5	5.1			

N 3850

Hyd Fill

Item 3

5010	98.6	93.5	5.1
			3.35 4 13.40
14	96.8	95.2	1.6
			1741.75
Less Area of Item 7 =			134.5
			1607.25

N 3860

Hyd. Fill

4700	09.9	02.3	7.6
10	11.8	04.4	7.4
20	13.2	09.0	4.2
30	14.4	10.8	3.6
40	15.4	11.7	3.7
50	16.6	16.6	0.0
60	18.6	18.6	0.0
70	21.8	19.7	2.1
80	22.8	19.3	3.5
90	25.6	25.6	0.0
4800	28.1	24.8	3.3
Cont.			

N. 3860

Item 3

Cont. Hyd. Fill

4810	31.9	26.5	5.4
20	33.6	27.5	6.1
30	34.6	30.2	4.4
40	34.0	34.0	0.0
50	35.1	29.7	5.4
60	35.9	29.9	6.0
70	34.8	31.1	3.7
80	36.3	34.7	1.6
90	37.0	33.2	3.8
4900	38.0	33.9	4.1
10	34.6	33.4	1.2
20	35.1	34.5	0.6
30	34.2	34.1	0.1
40	28.8	26.3	2.5
50	25.4	25.4	0.0
60	23.7	23.7	0.0
70	20.8	20.6	0.2 766.00
74	18.6	14.0	4.6 2.4 4 9.60
7[illegible]	18.[illegible]	14.0	4.55 6 27.30
80	15.4	10.9	4.5

N3860 Item 3

Hyd Fill.

4980	15.4	10.9	4.5		
				7.6 10	76.00
90	12.6	01.9	10.7		
				11.35 5	56.75
95	11.7	99.7	12.0		
			2.78	13.9 1	13.90
96	11.5	95.7	15.8		
				14.9 7	104.30
5003	09.7	95.7	14.0		
				11.85 2	23.70
05	08.9	99.2	9.7		
				7.8 5	39.00
10	07.0	01.1	5.9		
				5.05 2	10.10
12	06.1	01.9	4.2		
				3.3 ~~2.1~~ 8	26.40 ~~16.80~~
20	02.7	00.3	2.4 ~~0.0~~		
30	98.8	98.1	0.7		32.00 ~~20.00~~
40	94.4	91.8	2.6		1185.05
Less Area of Item 7					135.1
					1049.95

N3870 Item 3

D.S. Rock

4670	11.1	03.7	7.4	
80	12.8	03.2	9.6	
90	13.7	05.5	8.2	
4700	14.8	13.5	1.3	221.50
			0.65 2	1.30
02	15.1	15.1	0.0	222.80

Hyd Fill

4730	19.0	19.0	0.0	
40	19.9	19.2	0.7	
50	21.7	19.7	2.0	
60	25.1	21.9	3.2	
70	27.6	26.4	1.2	
80	30.2	28.9	1.3	
90	34.9	34.3	0.6	
4800	36.2	36.2	0.0	
10	37.9	37.5	0.4	
20	39.6	37.9	1.7	

Cont

X

N 3870 — Item 3

Cont Hyd Fill

4830	40.3	39.0	1.3		
40	41.4	41.3	0.1		
50	41.4	41.4	0.0		
4920	43.6	40.1	3.5		
30	42.4	38.0	4.4		
40	39.0	38.2	0.8		
50	39.0	33.6	5.4		
60	32.1	32.1	0.0		
70	29.5	23.5	6.0		
80	25.1	19.3	5.8		337.50
				6.55 7	45.85
87	22.5	15.2	7.3		
				7.2 3	21.60
90	21.4	14.3	7.1		
				12.0 6	72.00
96	19.2	02.3	16.9		
				18.9 1	18.90
97	18.8	97.9	20.9		
				19.5 6	117.30

N 3870 — Item 3

Hyd Fill

5003	16.8	98.7	18.1		
				16.05 3	48.15
06	15.9	01.9	14.0		
				13.3 4	53.20
10	14.7	02.1	12.6		
				11.85 5	59.25
15	13.4	02.3	11.1		
				6.7 5	33.50
20	12.2	09.9	2.3		
				1.3 7	9.10
27	10.0	09.7	0.3		
				2.5 3	7.50
30	09.0	04.3	4.7		
40	00.4	99.5	0.9		
50	00.3	98.5	1.8		41.50
					14.40
				1.8 8	879.75
					162.4
58	97.1	95.3	1.8		
Less Area Item 7					717.35

N 3880 Item 3

Hyd Fill

4700	18.7	18.7	0.0		
10	20.0	18.9	1.1		
20	21.7	18.8	2.9		
30	23.2	19.0	4.2		
40	24.2	19.1	5.1		
50	26.5	20.2	6.3		
60	29.1	29.1	0.0		
70	32.8	30.7	2.1		
80	35.3	35.0	0.3		
90	37.7	36.2	1.5		
4800	40.4	38.2	2.2		
10	43.4	40.8	2.6		
4960	38.1	38.1	0.0		
70	33.7	33.2	0.5		
80	34.3	28.8	5.5		
90	30.2	19.6	10.6		383.00
				11.45 11.95 3	34.35 35.85
93	29.2	16.9	12.3		
			29.4	14.75 2	29.90
95	28.5	10.9	17.6		

N 3880 Item 3 47

Hyd. Fill.

			Ht.	Mean	Dist.	Area.
95	28.5	10.9	17.6			
				19.0	2	38.00
97	27.9	07.5	20.4			
				22.65	6	135.90
5003	25.4	00.5	24.9			
				20.7	3	62.10
06	23.8	07.3	16.5			
				13.1	4	52.40
10	21.8	12.1	9.7			
				7.15	10	71.50
20	18.7	14.1	4.6			
				2.8	10	28.00
30	11.8	10.8	1.0			
				1.95	8	15.60
38	11.2	08.3	2.9			
				1.95	2	3.90
40	11.0	10.0	1.0			
				0.5	10	5.00
50	07.3	07.3	0.0			

N 3880 Item 3

	Hyd.	Fill			
5050	07.3	07.3	0.0	✓	
60	05.3	03.0	2.3	✓	
70	01.2	99.8	1.4	✓	
80	97.5	92.0	5.5	✓	✓
					64.50
			5.3 ✓	6 ✓	31.80
					955.95 ~~957.45~~
86	94.6	89.5	5.1	✓	
	Less Area of Item 7 =				178.40
					~~779.05~~ 777.55

N 3890 Item 3

	D. S.	Rock				
4590	05.5	05.5	0.0	✓		
4600	07.4	02.7	4.7	✓		
10	09.4	02.9	6.5	✓		
20	12.0	10.2	1.8	✓		121.00 ✓
				0.9 ✓	4 ✓	3.60 ✓
24	13.0	13.0	0.0	✓		
4650	17.1	17.1	0.0	✓		
60	18.9	18.6	0.3	✓		
70	20.2	18.5	1.7	✓		
80	21.5	18.7	2.8	✓		
90	22.6	18.7	3.9	✓		
4700	23.5	18.7	4.8	✓		
10	24.6	18.7	5.9	✓		
20	26.7	18.4	8.3	✓		235.50 ✓
						360.10 ✓

N 3890 Item 3

Hyd. Fill

4720	26.7	18.4	8.3		
30	28.2	19.2	9.0		
40	29.0	22.6	6.4		
50	31.6	23.0	8.6		238.50
				4.3 5	21.50
55	33.0	33.0	0.0		
				1.1 5	5.50
60	34.6	32.4	2.2		
70	37.1	35.8	1.3		
80	39.4	39.4	0.0		24.00
4980	43.1	39.9	3.2		
				3.65 8	29.20
88	39.5	35.4	4.1		
				5.55 2	11.10
90	38.6	31.6	7.0		
				10.2 5	51.00
95	35.7	22.3	13.4		

N 3890 Item 3

Hyd. Fill

4995	35.7	18.4	17.3		
				17.4 2	34.80
97	34.6	17.1	17.5		
				19.1 6	114.60
5003	31.3	10.6	20.7		
				17.15 3	51.45
06	29.7	16.1	13.6		
				10.55 4	42.20
10	27.5	20.0	7.5		
20	26.1	22.0	4.1		
30	19.6	18.1	1.5		
40	22.9	21.9	1.0		
50	18.5	15.4	3.1		
60	13.3	11.6	1.7		
70	09.0	06.3	2.7		
80	04.0	01.7	2.3		
90	02.6	02.6	0.0		201.50
				1.3 5	6.50
95	99.4	96.8	2.6		6.50
				1.3 5	838.35
5100	96.2	96.2	0.0		149.0
Less Area of Item 7 =					689.35

N 3900 — Item 3

D.S Rock

4630	17.3	17.3	0.0
40	19.1	18.6	0.5
50	20.7	18.5	2.2
60	22.4	18.5	3.9
70	24.0	18.5	5.5
80	25.5	18.5	7.0
90	26.0	18.4	7.6
4700	27.7	18.4	9.3
10	28.8	18.5	10.3
20	31.0	20.0	11.0
30	32.7	23.2	9.5
40	35.4	28.4	7.0
50	36.5	36.5	0.0

738.00

Hyd. Fill

4873	56.2	56.2	0.0		
				1.45 ~~1.95~~	7
80	59.4	56.5	2.9		

10.15 ~~13.65~~

N 3900 — Item 3 — 50

Hyd. Fill

4880	59.4	56.5	2.9			
				2.2	4	8.80
84	61.5	60.0	1.5			
				0.75	2	1.50
86	61.6	61.6	0.0			
				0.85	4	3.40
90	61.9	60.2	1.7			
4900	61.9	59.4	2.5			
10	60.9	54.3	6.6			
20	50.9	50.9	0.0			99.50
4995	43.4	39.8	3.6			
				3.15	2	6.30
97	41.2	38.5	2.7			
97	41.2	35.0	6.2			
				4.6	3	13.80
5000	38.0	35.0	3.0			
				2.6	3	7.80
03	37.2	35.0	2.2			

N 3900 Item 3

Hyd. Fill

5003	37.2	35.8	1.4		
				1.3 7	9.10
10	35.2	34.0	1.2		
				0.6 1	.60
11	34.0	34.0	0.0		
26	27.0	27.0	0.0		
				2.35 4	9.40
30	29.8	25.1	4.7		
40	31.5	25.3	6.2		
50	27.0	23.3	3.7		
60	21.6	19.5	2.1		133.00
				2.3 4	9.20
64	18.8	16.3	2.5		
				1.9 6	11.40
70	14.6	13.3	1.3		
80	11.6	09.6	2.0		
90	09.8	06.7	3.1		42.00

Cont

N 3900 Item 3

Cont. Hyd. Fill

90	09.8	06.7	3.1		
				3.65 3	10.95
93	08.8	04.6	4.2		
				2.65 7	18.55
5100	06.6	05.5	1.1		
10	04.7	03.9	0.8		
20	02.3	02.0	0.3		
30	00.9	99.8	1.1		
40	01.4	01.1	0.3		
50	99.9	99.5	0.4		
60	99.6	99.6	0.0		34.50

No Item 7 to be Subtracted

~~433.45~~
429.95

N 3910 — Item 3

D.S. Rock

4620	18.9	18.9	0.0		
30	19.7	18.3	1.4		
40	23.8	18.2	5.6		
50	25.0	18.3	6.7		
60	27.5	19.0	8.5		
70	27.8	18.8	9.0		
80	29.6	23.2	6.4		
90	30.7	21.8	8.9		
4700	32.3	24.4	7.9		
10.	34.0	30.8	3.2		560.00
				1.6 5	8.00
15	35.2	35.2	0.0		
				0.55 5	2.75
20	36.4	35.3	1.1		
				0.55 10	5.50
30	38.7	38.7	0.0		576.25

N 3910 — Item 3 — 52

Hyd. Fill

4816	62.6	62.6	0.0		
				0.2 4	.80
20	63.2	62.8	0.4		
				1.45 (1.95) 10	14.50 (19.50)
30	65.7	63.2	2.5		
				1.25 5	6.25
35	65.7	65.7	0.0		
				0.15 5	.75
40	65.7	65.4	0.3		
50	70.6	65.4	5.2		
60	69.9	69.8	0.1		54.00
				0.85 5	4.25
65	70.5	68.9	1.6		
				1.8 5	9.00
70	71.1	69.1	2.0		
				1.0 10	10.00
80	67.8	67.8	0.0		

N 3910 Hyd. Fill. ~~Item 3~~

4910	66.8	66.8	00		
				0.25 1.0	2.50
20	64.4	63.9	0.5		
				1.2 7	8.40
27	63.8	61.9	1.9		
				0.95 1	.95
28	61.6	61.6	00		
5010	44.6	40.1	4.5		
20	39.3	37.7	1.6		
30	38.5	33.6	4.9		
40	41.1	31.5	9.6		
50	33.0	31.0	2.0		
60	26.0	26.0	0.0		
70	24.5	21.0	3.5		
80	19.5	19.0	0.5		
90	20.2	18.6	1.6		
5100	17.6	16.0	1.6		
10	15.7	15.1	0.6 ~~0.7~~		
20	13.2	12.5	0.7		

Cont

N 3910 Hyd. Fill ~~Item 3~~ 53

5130	11.5	10.1	1.4		
40	12.6	09.4	3.2		
50	12.0	09.1	2.9		
60	10.6	08.7	1.9		
70	05.0	05.0	0.0		
80	04.9	01.7	3.2		
90	04.1	02.4	1.7 ~~2.7~~		
			~~1.35~~ .85 4		
94	02.5	02.5	0.0		

No Item 7 to be subtracted

445.50
~~429.00~~
3.40
~~5.40~~

~~550.80~~
560 3.0

X

N 3920 Item 3.

	Hyd.	Fill		
4820	68.4	68.4	0.0	
30	72.6	70.4	2.2	
40	74.0	70.5	3.5	
50	74.5	70.6	3.9	
60	76.3	70.8	5.5	
70	74.8	70.9	3.9	
80	74.6	71.1	3.5	
90	73.4	71.2	2.2	
4900	73.0	71.4	1.6	
10	71.5	71.5	0.0	
4935	69.4	69.4	0.0	263.00
			1.3 5	6.50
40	66.9	64.3	2.6	
			3.45 6	20.70
46	66.0	61.7	4.3	
			4.0 4	16.00
50	63.6	59.9	3.7	
			3.2 10	32.00
60	58.6	55.9	2.7	

Cont.

N 3.920 Item 3

Cont.	Hyd	Fill		
4960	58.6	55.9	2.7	
			2.7 5.	13.50
65	55.8	53.1	2.7	
			1.35 5	6.75
70	50.4	50.4	0.0	
5030	46.9	40.5	6.4	
40	46.3	39.5	6.8	
50	43.0	38.4	4.6	
60	35.1	33.0	2.1	
70	31.3	29.4	1.9	
80	28.3	27.5	0.8	
90	29.4	27.0	2.4	
5100	27.4	26.1	1.3	
10	24.2	22.9	1.3	
20	23.5	19.8	3.7	
30	19.3	18.7	0.6	
40	19.5	16.8	2.7	
50	19.3	16.7	2.6	
60	16.8	14.3	2.5	

Cont.

N 3920

Item 3

Cont. Hyd. Fill

5170	14.2	11.0	3.2	
80	13.7	09.1	4.6	
90	12.1	07.4	4.7	
5200	08.8	04.8	4.0	
			2.0	3
03	03.0	03.0	0.0	

510.00
6.00
874.45

N 3930

Item 3

D.S. Rock

4806	70.2	70.2	0.0		
			0.8	4	3.20
10	71.6	70.0	1.6		
20	75.4	69.9	5.5		
30	76.9	70.0	6.9		97.50
					100.70

Hyd Fill

4830	76.9	70.0	6.9		
40	78.6	70.5	8.1		
50	78.9	74.1	4.8		
60	82.0	73.1	8.9		
70	81.7	78.2	3.5		
80	81.7	77.1	4.6		310.50
			5.0	5	25.00
85	81.6	76.2	5.4		
			6.85	5	34.25
90	81.5	73.2	8.3		
4900	82.4	71.8	10.6		

Cont.

N 3930 Item 3
Hyd. Fill
Cont.

4910	78.8	71.5	7.3			
20	77.8	71.6	6.2			
30	77.1	71.7	5.4			
40	72.8	69.7	3.1			
50	69.7	66.5	3.2			
60	67.7	65.0	2.7		413.00	
				1.65 5	8.25	
65	67.3	66.7	0.6			
				3.75 5	18.75	
70	67.0	60.1	6.9			
				6.15 10	61.50	
80	64.6	59.2	5.4			
				7.5 5	37.50	
85	63.8	54.2	9.6			
			8.57	12.85 5	64.25	
90	63.0	46.9	16.1			
			8.50	17.5 2	35.00	
92	62.9	44.0	18.9			

N 3930 Item 3
Hyd. Fill

4992	62.9	44.0	18.9		
				9.45 ~~9.95~~ 3	28.35 ~~29.85~~
95	39.7	39.7	0.0		
5100	33.5	33.5	0.0		
10	31.5	29.7	1.8		
20	29.0	27.0	2.0		
30	26.0	24.5	1.5		
40	24.9	22.8	2.1		
50	22.9	21.5	1.4		
60	20.0	18.1	1.9		
70	19.5	16.3	3.2		
80	17.8	13.8	4.0		
90	15.9	11.5	4.4		
5200	13.7	09.0	4.7		270.00
10	04.3	04.3	0.0		1306.35

Less Area Item 7 = 7.0

1299.35

N 3940
D.S. Rock

Item 3

4788 3/4	69.8	69.8	0.0			
				0.5	1.7	0.85
90	70.8	69.8	1.0			
4800	73.9	69.8	4.1			
10	77.6	69.8	7.8			
20	81.3	70.0	11.3			
30	82.9	82.9	0.0	23.70	10	237.00
						237.85

Hyd Fill

4912 1/2	85.0	85.0	0.0			
				1.4	7.8	10.92
20	85.5	82.7	2.8			
				4.0	10	40.00
30	81.8	76.6	5.2			
				6.55	5	32.75
35	80.0	72.1	7.9			
				7.05	5	35.25
40	78.2	72.0	6.2			

N3940
Hyd. Fill

Item 3

4940	78.2	72.0	6.2			
				4.1	10	41.00
50	73.9	71.9	2.0			
				1.0	9.1	9.10
59 1/2	71.9	71.9	0.0			
81	68.7	68.7	0.0			
				5.15	9	46.35
90	67.5	57.2	10.3			
				11.0	3	33.00
93	66.9	55.2	11.7			
				10.7	4	42.80
97	62.3	52.6	9.7			
				8.2	6	49.20
5003	55.3	48.6	6.7			
				3.35	13	43.55
16	40.1	40.1	0.0			

N3940 Hyd. fill — Item 3

5140	27.8	27.8	0.0			
50	25.9	24.3	1.6			
60	23.8	21.8	2.0			
70	22.9	19.8	3.1			
80	21.1	19.1	2.0			
90	19.1	16.1	3.0			
5200	16.4	11.2	5.2			
10	07.0	07.0	0.0	16.90	10	169.00
						552.92
Less Area Item 7						81.66
						471.26

U.S. Rock = 0.00

N3950 D.S. Rock — Item 3

4775	70.1	70.1	0.0			
				1.35	5	6.75
80	72.8	70.1	2.7			
90	76.3	69.8	6.5			
4800	78.8	70.0	8.8			
10	84.1	70.5	3.6	18.45	10	184.50
				3.75	8	30.00
18	86.5	82.6	3.9			
				3.65	2	7.30
20	87.1	83.7	3.4			
				1.7	6.3	10.71
26 3/4	88.5	88.5	0.0			
36	92.0	92.0	0.0			
				0.85	4	3.40
40	93.7	92.0	1.7			
				0.85	5	4.25
45	91.8	91.8	0.0			246.91

N 3950
Hyd. Fill

Item 3

4913.4	94.1	94.1	0.0			
				2.25	6.6	14.85
20	93.2	88.7	4.5			
30	91.2	84.0	7.2			
40	86.7	81.2	5.5			
50	82.3	77.0	5.3			
60	83.3	72.2	11.1			
70	78.3	72.0	6.3			
80	76.5	71.9	4.6			
90	73.3	67.3	6.0	45.25	10	452.50
				6.75	7	47.25
97	72.3	64.8	7.5			
			21.9	10.95	3	32.85
5000	71.8	57.4	14.4			
			35.8	17.9	3	53.70
03	71.4	50.0	21.4			
			35.2	17.6	3	52.80
06	68.6	54.8	13.8			
				9.5	4	38.00
10	66.6	61.4	5.2			

N 3950
Hyd. fill.

Item 3

5010	66.6	61.4	5.2			
				2.6	10	26.00
20	59.8	59.8	0.0			
5150	28.6	28.6	0.0			
60	27.1	25.8	1.3			
70	26.2	23.8	2.4			
80	24.5	22.1	2.4			
90	21.9	20.1	1.8			
5200	20.1	17.0	3.1			
10	16.5	14.9	1.6			
20	10.9	10.9	0.0	12.60	10	126.00
						843.95
Less Area Item 7						118.11
						725.84

U.S Rock = 0.00

N 3960
D.S. Rock

Item 3

A760	71.2	71.2	0.0			
70	73.5	71.0	2.5			
80	76.3	70.5	5.8			
90	80.4	70.3	10.1			
A800	84.2	70.6	13.6	25.20	10	252.00
			25.0	12.5	9	112.50
09	88.6	77.2	11.4			
			6.2	2		12.40
11	89.7	88.7	1.0			
			3.7	1.85	7	12.95
18	95.3	92.6	2.7			
			6.6	3.3	2	6.60
20	96.0	92.1	3.9			
			9.1	4.55	10	45.50
30	97.2	92.0	5.2			
			11.3	5.65	10	56.50
40	98.2	92.1	6.1			
			15.8	7.9	6	47.40
A6	702.2	92.5	9.7			

N 3960
D.S. Rock

Item 3

A846	02.2	92.5	9.7			
			16.3	8.15	A	32.60
50	04.8	98.2	6.6			
			7.2	3.6	10	36.00
60	08.3	07.7	0.6			
				0.7	10	7.00
70	08.8	08.0	0.8			
				0.4	2.3	0.92
72.3	08.3	08.3	0.0			622.37

Hyd. Fill

4920	02.7	02.6	0.1			
				0.9	10	9.00
30	00.8	99.1	1.7			
				0.85	6.3	5.35
36.3	94.3	94.3	0.0			
44.2	89.4	89.4	0.0			
				0.55	5.8	3.19
50	87.8	86.7	1.1			

N 3960
Hyd Fill

Item 3

4950	87.8	86.7	1.1			
				0.7	10	7.00
60	87.4	87.1	0.3			
				3.2	5	16.00
65	85.7	79.6	6.1			
				6.65	5	33.25
70	83.8	76.6	7.2			
				8.6	8	68.80
78	81.8	71.8	10.0			
				9.75	2	19.50
80	81.3	71.8	9.5			
				8.2	10	82.00
90	78.5	71.6	6.9			
				6.15	7	43.05
97	76.8	71.4	5.4			
				5.1	3	15.30
5000	76.1	71.3	4.8			
				4.4	3	13.20
03	75.1	71.1	4.0			

N 3960
Hyd Fill

Item 3

5003	75.1	71.1	4.0			
				2.15	7	15.05
10	67.9	67.6	0.3			
				0.15	7	1.05
17	66.9	66.9	0.0			
5150	31.6	31.6	0.0			
60	31.2	30.3	0.9			
70	30.2	29.0	1.2			
80	29.0	27.0	1.0			
90	25.2	23.8	1.4			
5200	22.6	20.1	2.5			
10	18.8	16.6	2.2			
20	08.1	08.1	0.0	9.20	10	92.00
						423.74
Less Area Item 7						73.04
						350.70

U.S Rock = 0.00

N 3970
D.S. Rock

Item 3

4750	74.8	74.8	0.0			
60	75.0	72.1	2.9			
70	77.8	71.4	6.4			
80	81.3	70.7	10.6			
90	85.6	70.6	15.0	27.40	10	274.00
				14.4	8	115.20
98	89.0	75.2	13.8			
				13.2	2	26.40
4800	89.8	77.2	12.6			
				11.15	5	55.75
05	91.9	82.2	9.7			
				5.45	5	27.25
10	94.1	92.9	1.2			
				3.35	10	33.50
20	97.7	92.2	5.5			
			1.5	7.85	10	78.50
30	702.3	92.1	10.2			
				10.25	4	41.00
34	02.6	92.3	10.3			

N 3970
D.S. Rock

Item 3

4834	02.6	92.3	10.3			
				7.25	6	43.50
40	03.0	99.8	4.2			
50	06.8	04.0	2.8			
60	12.0	07.4	4.6			
70	17.4	08.4	9.0			
80	12.3	09.8	2.5	19.75	10	197.50
				1.25	4.7	5.87
84 1/2	12.2	12.2	0.0			898.47

Hyd. fill

4921 1/2	07.7	07.7	0.0			
				1.95	8.9	17.35
30	06.3	02.4	3.9			
				1.95	8.7	16.96
38 1/2	99.2	99.2	0.0			
43 3/4	98.0	98.0	0.0			
				0.6	6.7	4.02
50	97.7	96.5	1.2			

IN 3970 Hyd. Fill. Item 3

4950	97.7	96.5	1.2			
				0.6	8	4.80
58	93.7	93.7	0.0			
62+6	92.6	92.6	0.0			
				0.8	7.4	5.92
70	92.5	90.9	1.6			
				1.4	2	2.80
72	91.7	90.5	1.2			
				1.95	8	15.60
80	88.5	85.8	2.7			
				3.25	5	15.75
85	86.6	82.8	3.8			
			11.5	5.75	5	28.75
90	84.8	77.1	7.7			
			199	9.95	5	49.75
95	83.6	71.4	12.2			
			239	11.95	2	23.90
97	83.1	71.4	11.7			
				11.35	3	34.05
5000	82.4	71.4	11.0			

3970 Hyd. Fill. Item 3

5000	82.4	71.4	11.0			
			21.2	10.6	3	31.80
03	81.6	71.4	10.2			
				9.25	7	64.75
10	79.6	71.3	8.3			
				5.7	10	57.00
20	74.2	71.1	3.1			
				2.6	10	26.00
30	72.7	70.6	2.1			
				1.05	3.9	4.09
33+9	70.6	70.6	0.0			
41	67.6	67.6	0.0			
				0.6	4	2.40
45	66.4	65.2	1.2			
				1.75	5	8.75
50	64.9	62.6	2.3			
				1.15	4	4.60
54	60.5	60.5	0.0			

N 3970
Hyd Fill

Item 3.

5170.	52.8	52.8	0.0			
80	51.9	51.4	0.5			
90	48.3	45.4	2.9			
5200	44.9	42.8	2.1			
10	41.5	37.9	3.6			
20	36.9	32.7	4.2	11.2	10	112.00

531.04
Less Item 7 area 112.00

419.04

U.S. Rock = 0.0

Table IX.—Calculation of Earthwork.

Width	HEIGHT														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	.02	.04	.06	.07	.09	.11	.13	.15	.17	.18	.20	.22	.24	.26	.28
2	.04	.07	.11	.15	.18	.22	.26	.30	.33	.37	.41	.44	.48	.52	.56
3	.06	.11	.17	.22	.28	.33	.39	.44	.50	.56	.61	.67	.72	.78	.83
4	.07	.15	.22	.30	.37	.44	.52	.59	.67	.74	.81	.89	.96	1.04	1.11
5	.09	.19	.28	.37	.46	.56	.65	.74	.83	.93	1.02	1.11	1.20	1.30	1.39
6	.11	.22	.33	.44	.56	.67	.78	.89	1.00	1.11	1.22	1.33	1.44	1.55	1.67
7	.13	.26	.39	.52	.65	.78	.91	1.04	1.16	1.30	1.42	1.55	1.68	1.81	1.94
8	.15	.30	.44	.59	.74	.89	1.04	1.19	1.33	1.48	1.63	1.78	1.92	2.08	2.22
9	.17	.33	.50	.67	.83	1.00	1.17	1.33	1.50	1.67	1.83	2.00	2.17	2.33	2.50
10	.18	.37	.56	.74	.93	1.11	1.30	1.48	1.67	1.85	2.04	2.22	2.41	2.59	2.78
11	.20	.41	.61	.82	1.02	1.22	1.43	1.63	1.83	2.04	2.24	2.44	2.65	2.85	3.06
12	.22	.44	.67	.89	1.11	1.33	1.56	1.78	2.00	2.22	2.44	2.67	2.89	3.11	3.33
13	.24	.48	.72	.96	1.20	1.44	1.68	1.92	2.16	2.41	2.65	2.89	3.13	3.37	3.61
14	.26	.52	.78	1.04	1.30	1.55	1.81	2.08	2.33	2.59	2.85	3.11	3.37	3.63	3.89
15	.28	.56	.83	1.11	1.39	1.67	1.94	2.22	2.50	2.78	3.06	3.33	3.61	3.89	4.17
16	.30	.59	.89	1.18	1.48	1.78	2.07	2.37	2.67	2.96	3.26	3.56	3.85	4.15	4.44
17	.31	.63	.94	1.26	1.57	1.89	2.20	2.52	2.83	3.15	3.46	3.78	4.09	4.41	4.72
18	.33	.67	1.00	1.33	1.67	2.00	2.33	2.67	3.00	3.33	3.67	4.00	4.33	4.67	5.00
19	.35	.70	1.06	1.41	1.76	2.11	2.46	2.82	3.17	3.52	3.87	4.22	4.57	4.92	5.28
20	.37	.74	1.11	1.48	1.85	2.22	2.59	2.96	3.33	3.70	4.07	4.44	4.81	5.18	5.56
21	.39	.78	1.17	1.55	1.94	2.33	2.72	3.11	3.50	3.89	4.28	4.67	5.06	5.44	5.83
22	.41	.81	1.22	1.63	2.04	2.44	2.85	3.26	3.67	4.07	4.48	4.89	5.30	5.70	6.11
23	.43	.85	1.28	1.70	2.13	2.56	2.98	3.41	3.83	4.26	4.68	5.11	5.54	5.96	6.39
24	.44	.89	1.33	1.78	2.22	2.67	3.11	3.56	4.00	4.44	4.89	5.33	5.78	6.22	6.67
25	.46	.92	1.39	1.85	2.31	2.78	3.24	3.70	4.17	4.63	5.09	5.56	6.02	6.48	6.94
26	.48	.96	1.44	1.92	2.41	2.89	3.37	3.85	4.33	4.82	5.30	5.78	6.26	6.74	7.24
27	.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50
28	.52	1.04	1.55	2.07	2.59	3.11	3.63	4.15	4.67	5.18	5.70	6.22	6.74	7.26	7.78
29	.54	1.07	1.61	2.15	2.68	3.22	3.76	4.30	4.83	5.37	5.91	6.44	6.98	7.52	8.06
30	.56	1.11	1.67	2.22	2.78	3.33	3.89	4.44	5.00	5.55	6.11	6.67	7.22	7.78	8.33
31	.57	1.15	1.72	2.30	2.87	3.44	4.02	4.59	5.17	5.74	6.32	6.89	7.46	8.04	8.61
32	.59	1.18	1.78	2.37	2.96	3.56	4.15	4.74	5.33	5.92	6.52	7.11	7.70	8.30	8.89
33	.61	1.22	1.83	2.44	3.05	3.67	4.28	4.89	5.50	6.11	6.72	7.33	7.94	8.55	9.17
34	.63	1.26	1.89	2.52	3.15	3.78	4.40	5.04	5.67	6.29	6.93	7.56	8.18	8.81	9.44
35	.65	1.30	1.94	2.59	3.24	3.89	4.53	5.18	5.83	6.48	7.13	7.78	8.42	9.08	9.72
36	.67	1.33	2.00	2.67	3.33	4.00	4.66	5.33	6.00	6.67	7.33	8.00	8.67	9.33	10.00
37	.68	1.37	2.06	2.74	3.42	4.11	4.79	5.48	6.17	6.85	7.54	8.22	8.91	9.59	10.28
38	.70	1.41	2.11	2.82	3.52	4.22	4.92	5.63	6.33	7.03	7.74	8.44	9.15	9.85	10.56
39	.72	1.44	2.17	2.89	3.61	4.33	5.05	5.78	6.50	7.22	7.95	8.67	9.39	10.11	10.83
40	.74	1.48	2.22	2.96	3.70	4.44	5.18	5.92	6.67	7.41	8.15	8.89	9.63	10.37	11.11

Table gives cu. yds. in 1 ft. of a triangle of given width and height. Corrections for tenths of width are one tenth the values found under each height considering the widths from 1 to 9 as tenths and similarly the corrections for tenths of height are one tenth the figures opposite width considering the heights from 1 to 9 as tenths. Thus if w =16.2 and h =5.3, cu. yds. =1.48+.028+.089 =1.597 cu. yds. or practically 160 cu. yds. per 100 ft. If w exceeds 40 ft., use one half and multiply result by 2, if both w and h are large use one half of each and multiply result by 4. Any cross-section may be divided into triangles by the following rule. To the triangle of the sum of the outside cuts (or fills) =h, and ½ the roadbed =w, add the triangles formed by taking the distance out to each break in turn (=w's) by the difference between the cuts (or fills) on each side of it (=h's) always subtracting the outer from the inner.

Distances from Center of Roadway for Cross-Sectioning.

Roadway 16 feet wide. Side Slopes 1 on 1½.

For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.2	8.3	8.5	8.6	8.8	8.9	9.1	9.2	9.4	0
1	9.5	9.7	9.8	10.0	10.1	10.3	10.4	10.6	10.7	10.9	1
2	11.0	11.2	11.3	11.5	11.6	11.8	11.9	12.1	12.2	12.4	2
3	12.5	12.7	12.8	13.0	13.1	13.3	13.4	13.6	13.7	13.9	3
4	14.0	14.2	14.3	14.5	14.6	14.8	14.9	15.1	15.2	15.4	4
5	15.5	15.7	15.8	16.0	16.1	16.3	16.4	16.6	16.7	16.9	5
6	17.0	17.2	17.3	17.5	17.6	17.8	17.9	18.1	18.2	18.4	6
7	18.5	18.7	18.8	19.0	19.1	19.3	19.4	19.6	19.7	19.9	7
8	20.0	20.2	20.3	20.5	20.6	20.8	20.9	21.1	21.2	21.4	8
9	21.5	21.7	21.8	22.0	22.1	22.3	22.4	22.6	22.7	22.9	9
10	23.0	23.2	23.3	23.5	23.6	23.8	23.9	24.1	24.2	24.4	10
11	24.5	24.7	24.8	25.0	25.1	25.3	25.4	25.6	25.7	25.9	11
12	26.0	26.2	26.3	26.5	26.6	26.8	26.9	27.1	27.2	27.4	12
13	27.5	27.7	27.8	28.0	28.1	28.3	28.4	28.6	28.7	28.9	13
14	29.0	29.2	29.3	29.5	29.6	29.8	29.9	30.1	30.2	30.4	14
15	30.5	30.7	30.8	31.0	31.1	31.3	31.4	31.6	31.7	31.9	15
16	32.0	32.2	32.3	32.5	32.6	32.8	32.9	33.1	33.2	33.4	16
17	33.5	33.7	33.8	34.0	34.1	34.3	34.4	34.6	34.7	34.9	17
18	35.0	35.2	35.3	35.5	35.6	35.8	35.9	36.1	36.2	36.4	18
19	36.5	36.7	36.8	37.0	37.1	37.3	37.4	37.6	37.7	37.9	19
20	38.0	38.2	38.3	38.5	38.6	38.8	38.9	39.1	39.2	39.4	20
21	39.5	39.7	39.8	40.0	40.1	40.3	40.4	40.6	40.7	40.9	21
22	41.0	41.2	41.3	41.5	41.6	41.8	41.9	42.1	42.2	42.4	22
23	42.5	42.7	42.8	43.0	43.1	43.3	43.4	43.6	43.7	43.9	23
24	44.0	44.2	44.3	44.5	44.6	44.8	44.9	45.1	45.2	45.4	24
25	45.5	45.7	45.8	46.0	46.1	46.3	46.4	46.6	46.7	46.9	25
26	47.0	47.2	47.3	47.5	47.6	47.8	47.9	48.1	48.2	48.4	26
27	48.5	48.7	48.8	49.0	49.1	49.3	49.4	49.6	49.7	49.9	27
28	50.0	50.2	50.3	50.5	50.6	50.8	50.9	51.1	51.2	51.4	28
29	51.5	51.7	51.8	52.0	52.1	52.3	52.4	52.6	52.7	52.9	29
30	53.0	53.2	53.3	53.5	53.6	53.8	53.9	54.1	54.2	54.4	30
31	54.5	54.7	54.8	55.0	55.1	55.3	55.4	55.6	55.7	55.9	31
32	56.0	56.2	56.3	56.5	56.6	56.8	56.9	57.1	57.2	57.4	32
33	57.5	57.7	57.8	58.0	58.1	58.3	58.4	58.6	58.7	58.9	33
34	59.0	59.2	59.3	59.5	59.6	59.8	59.9	60.1	60.2	60.4	34
35	60.5	60.7	60.8	61.0	61.1	61.3	61.4	61.6	61.7	61.9	35
36	62.0	62.2	62.3	62.5	62.6	62.8	62.9	63.1	63.2	63.4	36
37	63.5	63.7	63.8	64.0	64.1	64.3	64.4	64.6	64.7	64.9	37
38	65.0	65.2	65.3	65.5	65.6	65.8	65.9	66.1	66.2	66.4	38
39	66.5	66.7	66.8	67.0	67.1	67.3	67.4	67.6	67.7	67.9	39
40	68.0	68.2	68.3	68.5	68.6	68.8	68.9	69.1	69.2	69.4	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 41.9. For same slopes but other widths of roadbed correct above figures by one-half difference in width of roadbed; thus in example above for 20 ft. roadbed distance will be 41.9+(20—16)÷2 or 2 ft. added to 41.9 =43.9. For slopes of 1 on 1 see inside of front cover.

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