

1488

PASTY

LEVEL BOOK

No. 3807



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CITY OF SAN DIEGO,  
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- No. 380 LEVEL BOOK. Left and Right Hand Page the same as Left Hand Page of this Book.
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	+	HI	-	Elev.
BM <sup>N</sup> 21				1.35 ✓
	521	656 ✓		
	VI 13+25			
N 13+25			73	-07
25			62	02
50			55	11
85			56	10
N 14+00			116	-50
	W 13+50			
N 14+00			60	06
75			76	-10
50			79	-13
25			82	-21
N 13+00			36	30
	W-13+45			
N 13+00			36	30
25			32	34
60			33	33
68			+1.6 38	82 22- 62+
82			+1.6 38	82
91			3.8 78	94
N 14+00		Hand Level		
			38 78	
		W-14+00		
92			38 78	94
82			+1.9 42	75
68			+1.6 38	72
60			32	29
25			38	28
N 13+00			40	26

Koss. A.  
March 6  
Huntington H.  
McLharr. E.  
Feb. 27-1981.



656

2

W-13+25

N12+00	32	31
25	38	28
50	42	19
85	35	31
90	85	-19

W-13+50

N12+75	36	30
50	40	26
25	38	27
N12+00	41	25

W-13+75

N12+00	43	143
25	38	28
50	35	30
75	36	30

W-14+00

N12+75	41	25
50	42	22
25	44	22
N12+00	43	22

W-13+25

N11+00	43	24
25	42	21
50	42	21
75	41	25



654

3

W-13+50

11+75 N	48	20
30	43	24
25	43	24
11+00 N	48	18

W-13+75

11+00 N	48	22
25	43	23
50	46	20
11+75 N	42	19

W-14+00

11+75 N	48	20
30	50	11
25	50	15
11+00	52	13

W-13+25

10+00 N	48	22
25	48	18
50	42	21
75	48	20

W-13+50

10+75	42	19
50	42	19
25	42	19
10+00	41	19



654

W-13+75

10+00 N	42	1 <u>7</u>
25	42	1 <u>7</u>
50	53	1 <u>3</u>
75	53	1 <u>4</u>

W-14+00

10+75 N	42	2 <u>3</u>
50	42	2 <u>3</u>
25	42	1 <u>9</u>
10+00	42	2 <u>9</u>

W-13+25

N 9+00	52	1 <u>4</u>
25	42	1 <u>2</u>
50	42	2 <u>1</u>
75	43	2 <u>3</u>

W-13+50

N 9+75	42	2 <u>0</u>
50	42	2 <u>1</u>
25	42	2 <u>5</u>
7+00	42	2 <u>2</u>

W-13+75

N 9+00	42	1 <u>9</u>
25	42	1 <u>9</u>
50	42	2 <u>3</u>
75	52	1 <u>6</u>



656

W-14+00

9+75 N	48	1.8
50	50	1.6
25	43	1.7
9+00	48	1.8

W-13+25

8+00 N	69	-0.3
25	79	-0.8
40	72	-1.1
75	59	1.0

W-13+50

8+75	43	2.3
50	43	1.8
25	58	0.8
8+00	52	0.7

W-13+75

8+00	49	1.7
25	49	2.0
50	43	1.9
75	49	2.2

W-14+00

8+75	49	1.7
50	42	1.9
25	42	1.7
8+00	49	1.7



656

6

W-13+25

N 7+00	10 <sup>e</sup>	-3.4
25	9 <sup>L</sup>	-2.5
50	8 <sup>e</sup>	-1.5
75	7 <sup>Z</sup>	-1.1

W-13+50

7+75	5 <sup>Z</sup>	0.8
50	6 <sup>L</sup>	0.5
25	4 <sup>Z</sup>	1.8
7+00	5 <sup>L</sup>	1.5

W-13+75

7+00	5 <sup>L</sup>	1.2
25	5 <sup>L</sup>	1.2
50	5 <sup>G</sup>	1.0
75	4 <sup>Z</sup>	1.7

W-14+00

7+75	5 <sup>e</sup>	1.6
50	5 <sup>Z</sup>	1.4
25	5 <sup>Z</sup>	1.4
7+00	5 <sup>Z</sup>	1.3

W-13+25

N 6+00	8 <sup>L</sup>	-1.5
25	8 <sup>L</sup>	-1.8
50	8 <sup>G</sup>	-2.0
75	9 <sup>e</sup>	-2.4



656

W-13+50

6+75 N	60	1.6
50	78	-1.2
25	81	-1.5
6+00	88	-2.2

W-13+75

6+00	61	0.5
25	52	0.9
50	53	1.2
75	62	1.1

W-14+00

6+75	49	1.7
50	52	1.2
25	53	1.3
6+00	53	1.3

BMM 21  
TP

495

580

521 135

514

0.41

0.72

St W-15+00  
N-4+00

B 1485  
9

BM 20

412

4.76

W-13+25

5+00	68	-2.0
05	67	-1.9
25	52	-1.1
50	61	-1.6
75	69	-2.1



476

W-13+50

G+	N5+75	70	-2.2
	50	72	-2.4
	25	65	-1.7
G+	3+00	60	-1.2

W-13+75

G+	5+00	60	-1.8
	20	72	-3.1
	50	55	-0.7
	75	51	-0.3

W-14+00

G+	5+75	33	1.5
	50	33	1.6
	25	42	-0.1
G+	5+00	52	-0.6

W-13+25

BMM	TP	4+00	36	1.2
		25	38	1.0
		50	44	0.4
BMM		75	64	-1.6

W-13+50

		4+75	32	0.9
5+0		50	38	1.0
0		25	32	0.9
2		4+00	32	0.9

3

7



476

W-13+75

N4+00	39	0.9
25	37	1.1
58	38	1.0
75	42	-0.1

W-14+00

A+75	75	-2.7
50	86	-3.8
25	45	0.3
4+00	43	0.3

W-13+25

3+00 N	44	0.4
25	44	0.4
50	42	0.6
75	42	0.6

W-13+50

3+75	42	0.6
50	43	0.5
25	43	0.6
3+00	42	0.5

W-13+75

3+00	42	0.1
25	41	-0.1
50	43	0.5
75	43	0.5



475

W-12+00

3+75	N	42	0.1
50		49	0.4
25		49	-0.1
3+00		49	0.4

W-12+25

2+00		56	-0.8
25		53	-0.5
50		46	0.2
75		42	0.1

W-13+50

2+75		43	0.5
50		42	0.0
25		48	0.3
2+00		44	0.7

W-13+75

2+00		43	0.4
25		45	0.3
50		44	0.4
75		47	0.1

W-14+00

2+75		41	0.0
50		50	-0.2
25		49	-0.1
2+00		48	0.0



476

w-13+25

1+00 N	55	-0.7
25	50	-0.2
50	45	0.3
75	52	-0.2

w-13+50

1+75	55	-0.7
50	48	-0.1
25	53	-0.5
1+00	50	-0.2

w-13+75

1+00	56	-0.8
25	52	-0.9
50	52	-0.4
75	50	-0.2

w-14+00

1+75	46	0.2
50	43	-0.1
25	42	0.1
1+00	55	-0.7

w-13+25

0+00 N	52	-0.9
25	53	-0.4
50	57	-0.9
75	54	-0.6



476

12

W-13+50

0+75 N	53	-0.5
50	54	-0.3
25	56	-0.8
0+00	58	-1.0

W-13+75

0+00	41	-1.3
25	52	-1.0
50	58	-1.0
75	58	-1.0

W-14+00

0+75	48	-0.1
50	56	-0.8
25	53	-0.4
0+00	52	-0.9

W-13+25

1+00 S	68	-2.0
75	65	-1.7
50	65	-1.7
0+25	67	-1.9

W-13+50

0+25	59	-1.1
50	59	-1.1
75	58	-1.0
1+00	61	-1.3



476

W-13+75

5 1+00	60	-1.2
75	60	-1.2
50	54	-0.6
0+25	51	-0.9

W-14+00

0+25	51	-0.3
50	52	-1.1
75	56	-0.8
1+00	50	-0.8

W-13+25

2+00	52	-0.9
75	52	-0.9
50	56	-0.8
1+25	65	-1.7

W-13+50

1+25	52	-0.9
50	60	-1.2
75	62	-1.4
2+00	64	-1.6

W-13+75

2+00	65	-1.7
75	65	-1.7
50	62	-1.3
1+25	59	-1.1



429

W-14+00

1+25 S	63	-1.4
50	63	-1.5
75	71	-2.3
2+00	74	-2.6

W-13+25

3+00 S	62	-1.9
75	65	-1.7
50	69	-1.2
2+25	69	-1.2

W-13+50

2+25	64	-1.6
50	62	-1.9
75	62	-1.9
3+00	62	-1.9

W-13+75

3+00	82	-3.6
75	45	-2.7
50	76	-2.8
2+25	69	-2.1

W-14+00

2+25	63	-1.9
50	71	-2.3
75	74	-2.6
3+00	74	-2.6



4.76

TP

BMN<sup>o</sup>19

5.00

-0.24

-0.13 ✓

W15+00

N8+00

1485

9

437

4.24

4.13

w-13+25

4+00.5 81 -4.6

75 83 -4.2

50 65 -2.4

3+25 64 -2.3

w-13+50

3+25 71 -3.0

50 74 -3.5

75 82 -4.1

4+00 84 -4.3

w-13+75

4+00 86 -4.5

75 81 -4.0

50 72 -3.6

3+25 71 -3.0

w-14+00

3+25 73 -3.2

50 76 -3.5

75 80 -3.9

4+00 83 -4.2



+13

W-14+25

5400	70	-2.9
75	71	-3.0
50	65	-2.4
25	65	-2.4
3+00	63	-2.2

W-14+50

3+00	60	-1.9
25	64	-2.3
50	65	-2.4
75	67	-2.6
4+00	72	-3.7

W-14+75

4+00	77	-3.6
75	74	-3.3
50	67	-2.6
25	68	-2.5
3+00	62	-2.1

W-15+00

3+00	67	-2.6
25	64	-2.5
50	68	-2.7
75	72	-3.2
4+00	72	-3.7



413

W-15+25

5+00	78	-3.7
75	73	-3.2
50	72	-3.0
35	66	-2.5
25	87	-4.6
05	85	-4.4
3+00	63	-2.2

W-15+50

3+00	66	-2.5
25	72	-3.0
50	75	-3.0
75	75	-3.4
4+00	78	-3.7

W-15+75

4+00	78	-3.5
75	74	-3.0
50	68	-2.7
25	63	-2.1
3+00	63	-2.1

W-16+00

3+00	68	-2.5
25	66	-2.5
50	65	-2.4
75	77	-3.6
4+00	73	-3.2

17



413

W-16+25

5400	73	-3.1
75	68	-2.7
50	64	-2.3
25	64	-2.3
3700	62	-2.1

W-16+50

3700	55	-1.7
25	63	-2.2
50	64	-2.3
75	65	-2.4
4700	70	-2.9

W-16+75

4700	72	-3.6
75	71	-3.0
50	74	-3.3
25	55	-1.4
3700	56	-1.5

W-17+00

3700	54	-1.3
25	73	-3.2
50	69	-1.9
75	52	-1.6
4700	60	-1.6



413

W-17+25

54+00	52	-1.6
75	56	-1.5
50	55	-1.4
25	52	-1.6
3+00	63	-2.2

W-17+50

3+00	58	-1.7
25	59	-1.8
50	52	-1.8
75	61	-2.0
4+00	64	-2.3

W-17+75

4+00	64	-2.3
75	61	-2.0
50	52	-1.6
25	56	-1.5
3+00	55	-1.4

W-18+00

3+00	52	-1.6
25	55	-1.4
50	61	-2.0
75	52	-1.6
4+00	56	-1.5



413

W-14+25

5	2+75	62	-2.6
	50	64	-2.5
	25	64	-2.0
	2+00	53	-1.3

W-14+50

	2+00	66	-2.5
	25	56	-1.5
	50	56	-1.5
	75	58	-1.7

W-14+75

	2+75	60	-1.9
	50	63	-2.2
	25	53	-1.2
	2+00	63	-2.1

W-15+00

	2+00	60	-1.9
	25	82	-4.1
	50	86	-4.5
	51	64	-2.5
	75	63	-2.3

W-15+25

	2+75	66	-2.5
4	50	59	-1.8
	35	64	-1.9
	34	84	-4.3

20



413

W-15+25

52+25	91	-4.6
"	64	-2.3
2+00	53	-1.8

W-15+50

2+00	53	-1.2
20	52	-1.6
21	83	-4.2
25	84	-4.3
2+25	60	-2.5
50	66	-2.5
75	65	-2.4

W-15+75

2+75	61	-2.0
50	59	-1.8
25	60	-1.9
2+00	81	-4.0

W-16+00

2+00	63	-2.2
25	55	-1.4
50	59	-1.6
75	57	-1.6

W-16+25

2+75	57	-1.6
50	58	-1.7
25	54	-1.3
2+00	52	-1.1

21



413

22

w-16+50

5 2+00	50	-0.9
25	53	-1.1
50	52	-1.6
75	55	-1.4

w-16+75

2+75	61	-2.0
50	54	-1.3
25	52	-1.1
2+00	51	-1.0

w-17+00

2+00	52	-1.1
25	48	-0.7
50	53	-1.2
75	50	-0.9

w-17+25

2+75	59	-1.8
50	52	-1.1
25	61	-2.0
2+00	51	-1.0

w-17+50

2+00	54	-1.3
25	51	-1.0
50	56	-1.5
75	54	-1.5



413

23

W-17+75

2+75 S	52	-1.1
50	51	-1.0
25	52	-1.1
2+00	52	-1.1

W-18+00

2+00	52	-1.1
25	53	-1.2
50	53	-1.2
75	51	-1.3

W-12+25

1+75 S	61	-2.0
50	60	-1.9
25	57	-1.6
1+00	56	-1.5

W-14+50

1+00	50	-0.9
25	55	-1.4
50	54	-1.3
75	58	-1.7

W-19+75

1+75	52	-1.1
50	50	-0.9
25	49	-0.8
1+00	48	-0.7



413

W-15+00

1+00	51	-1.0
25	53	-1.2
50	55	-1.4
75	53	-1.2

W-15+25

1+75	55	-1.4
50	58	-1.7
25	58	-1.7
1+00	54	-1.3

W-15+50

1+00	51	-1.0
25	54	-1.3
50	58	-1.7
75	55	-1.4

W-15+75

1+75	54	-1.5
50	55	-1.4
25	52	-1.0
1+00	53	-1.2

W-16+00

1+00	53	-1.2
25	54	-1.3
50	54	-1.5
75	50	-0.9



413

25

W-16+25

1+75	55	-1.4
50	52	-1.1
25	52	-1.6
1+00	54	-1.3

W-16+50

1+00	50	-0.9
25	52	-1.1
50	54	-1.5
75	54	-1.3

W-16+75

1+75	51	-1.0
50	52	-1.1
25	47	-0.6
1+00	51	-1.0

W-17+00

1+00	51	-1.0
25	53	-1.2
50	49	-0.8
75	51	-1.1

W-17+25

1+75	48	-0.7
50	49	-0.8
25	42	-0.1
1+00	53	-1.2



413

26

u-17+50

1+00	S	53	-1.1
25		52	-1.4
50		51	-1.0
75		52	-1.3

u-17+75

1+75		53	-1.2
50		49	-0.5
25		49	-0.5
1+00		48	-0.4

u-18+00

1+00		49	-0.8
25		48	-0.7
50		48	-0.7
75		48	-0.7

u-14+25

0+75	S	53	-1.2
50		52	-1.1
25		49	-0.5
0+00		49	-0.3

u-14+50

0+00		42	-0.6
25		48	-0.7
50		49	-0.8
75		42	-0.6



413

27

W-14+75

0+75 S	50	-0.9
50	51	-1.0
25	53	-1.2
0+00	52	-0.9

W-15+00

0+00	45	-0.4
25	49	-0.8
50	52	-1.1
75	48	-0.4

W-15+25

0+75	53	-1.3
50	46	-0.5
25	43	-0.3
0+00	47	-0.6

W-15+50

0+00	46	-0.5
25	54	-1.3
50	50	-0.9
75	52	-1.1

W-15+75

0+75	52	-1.1
50	52	-1.1
25	51	-1.0
0+00	51	-1.0



413

w-16+00

0+00 S	51	-1.0
25	53	-1.2
50	54	-1.3
75	53	-1.2

w-16+25

0+75	53	-1.2
50	54	-1.3
25	54	-1.5
0+00	53	-1.2

w-16+50

0+00	50	-0.9
25	42	-0.1
50	42	-0.1
75	45	-0.4

w-16+75

0+75	52	-1.1
50	53	-1.2
25	52	-1.2
0+00	50	-0.9

w-17+00

0+00	54	-1.3
25	54	-1.3
50	50	-0.9
75	52	-1.2



413

29

W-17+25

0+75 S	52	-1.1
50	53	-1.2
25	48	-0.7
0+00	45	-0.4

W-17+30

0+00	43	-0.1
25	43	-0.2
50	45	-0.4
75	48	-0.7

W-17+75

0+75	45	-0.5
50	44	-0.3
25	44	-0.3
0+00	44	-0.3

W-18+00

0+00	46	-0.5
25	44	-0.3
50	48	-0.7
75	48	-0.7

W-14+25

0+25 N	42	-0.7
50	48	-0.7
75	46	-0.5
1+00	46	-0.5



413

30

W-14+50

1+00 N	45	-0.4
75	43	-0.1
50	41	0.0
25	43	-0.1

W-14+75

0+25	44	-0.5
50	54	-1.6
75	45	-0.4
1+00	43	-0.1

W-15+00

1+00	43	-0.1
75	44	-0.5
50	44	-0.5
25	44	-0.3

W-15-25

0+25	45	-0.4
50	43	-0.1
75	42	-0.1
1+00	43	-0.7

W-15+50

1+00	42	-0.1
75	41	0.0
50	43	-0.2
25	48	-0.7



413

w-15+75

0+25 N	48	-0.7
50	49	-0.8
75	42	-0.3
1+00	49	-0.8

w-16+00

1+00	60	-1.9
75	55	-1.4
50	47	-0.8
25	47	-0.8

w-16+25

0+25	52	-1.1
50	54	-1.3
75	54	-1.3
1+00	70	-2.9

w-16+50

1+00	50	-0.9
75	52	-1.6
50	62	-2.1
25	32	-1.1

w-16+75

0+25	51	-1.0
50	52	-1.0
75	50	-1.0
1+00	41	0.0



413

32

W-17+00

1400 N.	42	-0.1
75	41	-0.6
50	42	-0.6
25	42	-0.8

W-17+25

0+25	40	0.1
50	40	0.1
75	42	-0.6
1+00	42	-0.1

W-17+50

1+00	43	-0.2
75	42	-0.7
50	51	-1.0
25	43	-0.2

W-17+75

0+25	44	-0.3
50	52	-1.1
75	42	-0.7
1+00	46	-0.5

W-18+00

1+00	51	-1.0
75	42	-0.6
50	45	-0.8
25	42	-0.1



413

w-14+25

1+25	41	-0.3
50	45	-0.4
75	44	-0.3
2+00	41	0.0

w-14+50

1+00	43	-0.2
75	43	-0.6
50	41	-0.3
25	42	-0.3

w-14+75

1+25	42	-0.6
50	44	-0.3
75	43	-0.2
2+00	39	0.2

w-15+00

2+00	43	-0.2
75	41	0.0
50	42	-0.1
25	43	-0.2

w-15+25

1+25	41	0.0
50	40	0.1
75	40	0.1
2+00	45	-0.4



413

W-15+50

2+00 N	52	-1.6
75	43	-0.1
50	39	0.2
25	43	-0.2

W-15+75

1+25	53	-1.1
50	62	-1.9
75	69	-2.8
2+00	68	-2.7

W-16+00

2+00	43	-0.2
75	50	-0.9
50	73	-3.2
25	72	-3.1

W-16+25

1+25	52	-1.8
50	44	-0.5
75	44	-0.3
2+00	42	-0.1

W-16+50

2+00	42	-0.1
75	43	-0.2
50	41	0.0
25	42	-0.1



413

35

16+75-W

1+25 N	41	0.0
50	41	0.0
75	44	-0.3
2+00	43	-0.2

17+00-W

2+00	41	0.0
75	43	-0.2
50	45	-0.4
25	41	0.0

W-17+25

1+25	42	-0.6
50	45	-0.4
75	42	-0.6
2+00	44	-0.3

W-17+50

2+00	44	-0.3
75	44	-0.5
50	45	-0.4
25	47	-0.6

W-17+75

1+25	46	-0.4
50	45	-0.4
75	44	-0.3
2+00	44	-0.3



413

W-14+00

2+00 N	44	-0.3
75	46	-0.5
50	46	-0.5
25	44	-0.5
TD	422	-0.14

544

BM. 20	449	-56	W 15+00
—	—	0.64 = 72	N 5+00
—	—	$\frac{1483}{9}$	—

BM 20	523	0.64	W-16+00
		172	N-5+00

5.93  
5.87

W-14+25

2+25 N	64	-0.2
50	62	-0.2
75	60	-0.1
3+00	54	0.5

W-14+50

3+00	55	0.4
75	58	0.1
50	60	-0.1
25	62	-0.3

W-14+75

3+00	62	-0.8
75	57	0.2
50	55	0.4
25	56	0.3

36



587

37

W-15+00

3+00 N	88	-2.9
75	79	-2.0
50	62	-0.3
25	60	-0.1

W-15+25

2+25	65	-0.6
50	83	-2.4
75	91	-3.2
3+00	64	-0.5

W-15+50

3+00	60	-0.1
75	54	0.5
50	81	-2.5
25	85	-2.6

W-15+75

2+25	63	-0.4
50	58	0.1
75	62	-0.3
3+00	56	0.3

W-16+00

3+00.	56	0.6
75	59	0.0
50	62	-0.3
25	62	-0.4



587.

W-16+25

2+25 N	57	0.2
56	57	0.2
75	56	0.3
3+00	56	0.3

W-16+50

3+00	55	0.4
75	59	0.0
50	59	0.6
25	58	0.1

W-16+75

2+25	56	0.3
50	56	0.3
75	61	-0.2
3+00	52	0.2

W-17+00

3+00	52	0.2
75	59	0.6
50	60	-0.1
25	60	-0.1

W-17+25

2+25	57	0.6
50	52	0.2
75	52	0.2
3+00	56	0.3



582

W-17+50

3+00 N	62	-0.1
75	58	0.1
50	51	0.2
25	58	0.1

W-17+75

2+25	57	0.0
50	58	0.1
75	61	-0.2
3+00	63	-0.4

W-18+00

3+00	58	0.1
75	62	-0.3
50	61	-0.2
25	61	-0.2

W-14+25

3+25 N	59	0.0
50	55	0.4
75	61	-0.1
4+00	52	0.2

W-14+50

4+00	92	-3.1
75	89	-3.0
50	63	-0.4
25	58	0.1



587

W-14+75

3+25N	84	-2.2
60	92	-3.3
75	85	-2.6
4+00	54	0.5

W-15+00

4+00	52	0.6
75	64	-0.2
50	64	-0.5
25	94	-3.2

W-15+25

3+25	63	-0.4
50	64	-0.2
75	49	1.0
4+00	55	0.4

W-15+50

4+00	55	0.4
75	54	0.3
50	54	0.3
25	54	0.3

W-15+75

3+25	58	0.1
50	58	0.1
75	58	0.1
4+00	58	0.1



587

W-16+00

4+00 N	55	0.4
75	55	0.4
50	55	0.4
25	56	0.3

W-16+25

3+25	55	0.4
50	59	0.0
75	53	0.6
4+00	56	0.3

W-16+50

4+00	55	0.4
75	56	0.3
50	55	0.4
25	58	0.1

W-16+75

3+25	56	0.3
50	54	0.5
75	58	0.1
4+00	54	0.5

W-17+00

4+00	59	0.0
75	57	0.2
50	59	0.0
25	54	0.5



587

W-17+25

3+25 N	60	-0.1
50	59	0.0
75	52	0.1
4+00	59	0.0

W-17+50

4+00	60	-0.1
75	61	-0.2
50	60	-0.1
25	64	-0.2

W-17+75

3+25	60	-0.1
50	62	-0.3
75	62	-0.4
4+00	64	-0.2

W-18+00

4+00	64	-0.2
75	63	-0.4
50	64	-0.2
25	64	-0.2

W-14+25

4+25 N	85	-2.6
50	74	1.2
75	55	0.4
5+00	88	0.1

42



587

W-14+50

5+00 N	92	4.2
75	53	0.6
50	52	0.4
25	75	1.7

W-14+25

4+25	56	0.3
50	52	0.6
75	42	1.0
5+00	51	0.8

W-15+00

5+00	52	0.7
75	52	0.6
50	53	0.6
25	50	0.9

W-15+25

4+25	53	0.6
50	55	0.4
75	52	0.5
5+00	52	0.3

W-15+50

5+00	52	0.7
75	51	0.8
50	52	0.4
25	52	0.2

43



587

W-15+75

4+25 N	54	0.3
50	51	0.8
75	53	0.4
5+00	53	0.6

W-16+00

5+00	53	0.6
75	53	0.6
50	53	0.6
25	53	0.6

W-16+25

4+25	52	0.4
50	58	0.1
75	53	0.4
5+00	53	0.6

W-16+50

5+00	54	0.5
75	54	0.5
50	54	0.3
25	52	0.2

W-16+75

4+25	54	0.3
50	55	0.4
75	55	0.4
5+00	54	0.4



587

W-17+00

5+00 N	56	0.3
75	60	-0.1
50	57	0.2
25	56	0.3

W-17+25

4+25	57	0.2
50	57	0.2
75	65	-0.6
5+00	59	0.0

W-17+50

5+00	61	-0.2
75	63	-0.4
50	59	0.0
25	58	0.1

W-17+75

4+25	60	-0.1
50	64	-0.2
75	64	-0.5
5+00	65	-0.6

W-18+00

5+00	62	-0.8
75	63	-0.5
50	62	-0.8
25	63	-0.9



587

W-14-25

5+25 N	49	1.1
50	52	0.7
75	48	1.1
6+00	54	0.8

W-14+50

6+00	49	1.0
75	54	0.8
50	50	0.9
25	49	1.0

W-14+75

5+25	53	0.6
50	50	0.9
75	49	1.0
6+00	52	0.2

W-15+00

6+00	48	1.1
75	54	0.5
50	50	0.9
25	54	0.5

W-18+25

5+25	50	0.9
50	54	0.5
75	49	1.0
6+00	48	1.1



582

W-15+50

6+00	N	50	0.9
75		49	1.0
50		49	1.0
25		51	0.5

W-15+75

5+25		51	0.8
50		50	0.9
75		50	0.9
6+00		51	0.8

W-16+00

6+00		52	0.7
75		56	0.3
50		52	0.7
25		51	0.8

W-16+25

5+25		53	0.6
50		54	0.8
75		52	0.3
6+00		53	0.6

W-16+50

6+00		54	0.5
75		53	0.6
50		52	0.4
25		54	0.5



582

w-16+75

5+25	57	0.2
50	58	0.1
75	55	0.4
6+00	52	0.4

w-17+00

6+00	57	0.2
75	52	0.3
50	62	-0.1
25	54	0.3

w-17+25

5+25	62	-0.1
50	62	-0.3
75	57	0.0
6+00	62	-0.1

w-17+50

6+00	62	-0.7
75	62	-0.8
50	62	-0.3
25	62	-0.3

w-17+75

5+25	62	-0.7
50	72	-1.3
75	74	-1.2
6+00	69	-1.0



382

w-18+00

6+00	N	69	-1.0
75		74	-1.2
50		70	-1.1
25		68	-0.9

w-14+25

6+25	N	49	1.3
50		48	1.1
75		49	1.0
7+00		49	1.0

w-14+50

7+00		50	0.9
75		44	1.5
50		50	0.9
25		50	0.9

w-14+75

6+25		49	1.0
50		47	1.2
75		49	1.0
7+00		47	1.2

w-15+00

7+00		51	0.9
75		48	1.1
50		48	1.1
25		50	0.9



582

50

W-15+20

6+25 N	42	1.2
50	48	1.1
75	52	0.9
7+00	51	0.8

W-15+50

7+00	52	0.7
75	52	0.7
50	51	0.8
6+25	52	0.9

W-15+75

6+25	51	0.8
50	52	0.7
75	52	0.9
7+00	51	0.8

W-16+00

7+00	52	0.7
75	51	0.2
50	52	0.7
25	52	0.7

W-16+25

6+25	54	0.5
50	54	0.5
75	59	0.0
7+00	53	0.6



582

W-16+50

7+00 N	54	0.5
75	55	0.4
50	61	-0.2
25	54	0.5

W-16+75

6+25	57	0.1
50	58	0.1
75	52	0.2
7+00	52	0.2

W-17+00

7+00	63	-0.4
75	63	-0.5
50	64	-0.5
25	62	-0.1

W-17+25

6+25	64	-0.5
50	65	-0.6
75	65	-0.6
7+00	67	-0.8

W-17+50

7+00	63	-0.4
75	64	-0.5
50	67	-0.8
25	64	-0.7



587

W-17+75

6+25N	68	-0.9
50	68	-0.9
75	65	-0.6
7+00	65	-0.6

W-18+00

7+00	60	-0.1
75	62	-0.3
50	62	-0.9
25	60	-0.1

W-14+25

7+25N	51	0.8
50	45	1.4
75	43	1.6

W-14+50

7+75	46	1.3
50	42	1.7
25	50	0.9

W-14+75

7+25	47	1.2
50	46	1.3
75	40	1.3

W-15+00

7+75	42	1.1
50	46	1.3
25	49	1.0

52



587

w-15+25

7+25	49	1.0
50	48	1.1
75	48	1.1

w-15+50

7+75	51	0.8
50	49	1.0
25	51	0.8

w-15+75

7+25	53	0.6
50	51	0.8
75	52	0.3

w-16+00

7+75	52	0.5
50	52	0.5
25	53	0.6

w-16+25

7+25	54	0.5
50	52	0.2
75	55	0.4

w-16+50

7+75	54	0.5
50	52	0.0
25	52	0.2



583

W-16+75

7+25 N	59	0.0
50	61	-0.2
75	62	-0.6

W-17+00

7+75	63	-0.4
50	64	-0.5
25	62	-0.3

W-17+25

7+25	62	-0.3
50	61	-0.2
75	60	-0.1

W-17+50

7+75	58	0.1
50	57	0.2
25	59	0.0

W-17+75

7+25	63	-0.3
50	60	-0.1
75	59	0.0

W-18+00

7+75	60	-0.1
50	56	0.3
25	58	0.1
	523	

BM 20

.72  
0.6+W-15+00  
N-5+00

BM #20

W-15+00  
N-5+00

54



	+	H1	-	Elev.	
B.M. 20				0.64	$\frac{72 \times 108}{9}$ W-15+00 N-3+00

5.23

TP		5.87	4.99	0.88	N-7+00 W-16+00
----	--	------	------	------	-------------------

5.45

B.M. 22		6.33	4.39	2.00	$\frac{484}{52}$ W-20+00 N-10+00
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5.20

B.M. 30		7.20	5.75	1.45	W-24+00 N-7+00
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B.M. #20	W-15+00 N-3+00
----------	-------------------

B.M. #	N-7+00 W-16+00
--------	-------------------

B.M. #22	W-20+00 N-10+00
----------	--------------------

B.M. #30	W-24+00 N-7+00
----------	-------------------



6.90  
 + HI - Elev  
 B. BM 22 2.00 ✓ <sup>N 10+00</sup> <sub>W-20+50</sub>

BM 22

N 10+00  
 W 20+00

4.90

6.90 ✓

3

W-18+25

11+00 N 4.3 2.6

B. 25 4.1 2.8

50 4.1 2.8

75 3.9 3.0

W-18+50

11+75 3.5 3.4

50 3.8 3.1

25 3.9 3.0

11+00 4.0 2.9

W-18+75

11+00 3.9 3.0

25 3.4 3.5

50 3.5 3.5

75 3.8 3.1

W-19+00

11+75 3.8 3.1

50 3.2 3.2

25 3.6 3.3

11+00 3.8 3.1



690

57

w-19+20

Toe of slope

8	11+60	N	51	1.8
	25		51	1.8
	50		50	1.9
	75		49	2.3

w-19+25

bottom of ditch

3	11+75		65	0.4
B	50		69	0.0
	25		66	0.3
	11+00		70	-0.1

w-19+35

Toe of slope

	11+00		45	2.4
	25		42	2.7
	50		43	2.6
	75		40	2.9

w-19+50

	11+75		38	3.0
	50		46	2.3
	25		44	2.3
	11+00		48	2.1

w-19+75

	11+00		43	2.6
	25		42	2.7
	50		38	3.1
	75		37	3.2



690

W-20+00

B	N 11+75	36	3.3
	50	36	3.3
	25	40	2.9
	11+00	44	2.5

W-20+25

	11+00	39	3.0
B	25	38	3.1
	50	37	3.2
	75	33	3.6

W-20+50

	11+75	33	3.6
	50	34	3.5
	25	34	3.5
	11+00	38	3.1

W-20+75

	11+00	36	3.3
	25	33	3.7
	50	31	3.8
	75	31	3.8

W-21+00

	11+75	36	3.3
	50	31	3.8
	25	34	3.5
	11+00	39	3.0



690

W-21+25

11+00 N	4 <sup>0</sup>	2.9
25	3 <sup>8</sup>	3.1
50	3 <sup>2</sup>	3.7
60	5 <sup>1</sup>	1.8
75	3 <sup>0</sup>	3.9

ditch

W-21+50

11+75	3 <sup>2</sup>	3.7
65	3 <sup>1</sup>	3.8
55	4 <sup>9</sup>	2.0
30	4 <sup>0</sup>	2.9
25	3 <sup>6</sup>	3.3
11+00	3 <sup>8</sup>	3.1

toe of slope

ditch

toe of slope

W-21+75

11+00	3 <sup>7</sup>	3.2
25	3 <sup>4</sup>	3.5
40	3 <sup>3</sup>	3.6
50	5 <sup>1</sup>	1.8
75	3 <sup>2</sup>	3.7

ditch

W-22+00

11+75	3 <sup>7</sup>	3.2
50	3 <sup>7</sup>	3.2
35	5 <sup>4</sup>	1.5
25	3 <sup>1</sup>	3.8
11+00	4 <sup>0</sup>	2.9

ditch



690

w-22+25

11+00 N	40	2.9
25	44	2.8
30	56	1.3
40	39	3.0
50	37	3.2
75	38	3.1

ditch  
toe of slope

w-22+50

11+75	58	1.1
50	56	1.3
30	62	0.7
25	49	2.3
11+00	39	3.0

ditch

w-22+75

11+00	43	2.6
25	68	0.1
50	52	1.7
75	49	2.0

ditch

w-23+00

11+75	45	2.4
50	51	1.8
25	59	1.0
11+00	104	-3.2

Dump hole.



690

61

W-23+25

11+00 N	48	2.1
25	50	1.9
50	48	2.1
75	43	2.6

W-23+50

11+75	43	2.6
50	46	2.3
25	49	2.0
11+00	47	2.2

W-23+75

11+00	49	2.0
25	45	2.4
50	45	2.4
75	42	2.7

W-24+00

11+75	41	2.8
50	43	2.7
25	42	2.7
11+00	45	2.4

W-18+25

10+00 N	45	2.4
25	42	2.4
50	42	2.2
75	46	2.3



690

w-18+50

10+75	44	2.5
50	45	2.4
25	46	2.3
10+00	47	2.2

w-18+75

10+00	42	2.0
25	45	2.4
50	44	2.5
75	42	2.7

w-19+00

10+75	42	2.9
50	38	3.1
25	43	2.6
10+00	42	2.1

w-19+20

10+00	42	2.3
25	42	2.7
50	42	2.0
75	50	1.9

top of slope

w-19+25

10+75	69	0.0
50	69	0.0
25	71	-0.2
10+00	72	-0.1

bottom of ditch



690

W-19+35

10+00 N	49	2.0
25	45	2.4
50	48	2.1
75	48	2.1

W-19+50

10+75	50	1.9
50	50	1.9
25	48	2.1
10+00	47	2.2

W-19+75

10+00	49	2.0
25	49	2.0
50	40	2.3
75	45	2.4

W-20+00

10+75	43	2.6
50	49	2.6
25	47	2.2
10+00	30	1.9

20+25

10+00	49	2.0
25	45	2.4
50	43	2.6
75	37	3.2



690

W-20+50

10+75M	38	3.1
50	43	2.6
25	48	2.1
10+00	54	1.8

W-20+75

10+00	53	4.7
25	49	2.0
50	45	2.4
75	39	3.0

W-21+00

10+75	43	2.6
50	45	2.4
25	42	2.2
10+00	51	1.8

W-21+25

10+00	50	1.9
25	49	2.0
50	46	2.3
75	42	2.7

W-21+50

10+75	41	2.8
50	45	2.4
25	47	2.2
10+00	50	1.9

64



690

W-21+75

10+00 N	50	1.9
25	46	2.3
50	41	2.5
75	42	2.7

W-22+00

10+75	43	2.6
50	45	2.4
25	42	2.2
10+00	50	1.9

W-22+25

10+00	48	2.1
25	49	2.0
50	47	2.2
75	43	2.6

W-22+50

10+75	42	2.7
50	48	2.1
25	46	2.3
10+00	47	2.2

W-22+75

10+00	46	2.3
25	42	2.7
50	40	2.9
75	43	2.6

65



690

W-23+00

10+75	74	-0.2
50	44	2.5
25	43	2.6
10+00	42	2.2

W-23+25

10+00	51	1.8
20	50	1.9
50	85	-1.6
75	89	-2.0

W-23+50

10+75	47	2.2
50	52	1.7
25	60	0.9
10+00	55	1.4

W-23+75

10+00	54	1.4
25	51	1.8
50	49	2.0
75	50	1.9

W-24+00

10+75	49	2.5
50	46	2.3
25	48	2.1
10+00	47	2.2

ditch

Top of slope  
Damp hole  
" "



690

w-18+25

9+60N	52	1.0
25	52	1.4
50	53	1.6
75	50	1.9

w-18+50

9+75	49	2.0
50	48	2.1
75	51	1.8
9+00	52	1.4

w-18+75

9+00	52	1.4
25	52	1.7
50	50	1.9
75	50	1.9

w-19+00

9+75	50	1.9
50	50	1.9
25	55	1.4
9+00	56	1.3

w-19+10

9+00	55	1.4
25	54	1.5
50	51	1.8
75	51	1.8

Toe of slope



690

w-19+24

9+75N	72	-0.3
50	71	-0.2
25	69	0.0
9+00	53	1.6

w-19+35

9+00	54	1.5
25	46	2.3
50	46	2.3
75	44	2.5

w-19+50

9+75	43	2.7
50	45	2.4
25	48	2.1
9+00	30	1.9

w-19+75

9+00	53	1.6
25	53	1.7
50	50	1.9
75	49	2.0

w-20+00

9+75	52	1.7
50	52	1.7
25	52	1.7
9+00	52	1.7

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bottom of ditch

" " "

" " "

" " "

top of slope

" "

" "

" "

" "



690

W-20+25

9+00 N	52	1.4
25	52	1.4
50	49	1.0
75	49	1.0

W-20+50

9+75	51	1.8
50	52	1.7
25	52	1.7
9+00	54	1.5

W-20+75

9+00	54	1.5
25	56	1.3
50	53	1.6
75	53	1.6

W-21+00

9+75	52	1.7
50	52	1.7
25	52	1.7
9+00	52	1.4

W-21+25

9+00	53	1.7
25	54	1.5
50	53	1.7
75	54	1.5

69



690

W-21+50

9+75 N	5 $\pm$	1.8
50	5 $\pm$	1.8
25	5 $\pm$	1.5
9+00	5 $\pm$	1.3

W-21+75

9+00	5 $\pm$	1.6
25	5 $\pm$	1.5
50	5 $\pm$	1.6
75	5 $\pm$	1.9

W-22+00

7+75	5 $\pm$	1.8
50	5 $\pm$	1.6
25	5 $\pm$	1.6
9+00	5 $\pm$	1.5

W-22+25

9+00	5 $\pm$	1.8
25	5 $\pm$	1.9
50	5 $\pm$	1.4
75	5 $\pm$	1.8

W-22+50

9+75	5 $\pm$	1.8
50	5 $\pm$	1.9
25	4 $\pm$	2.0
9+00	5 $\pm$	1.8

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4<sup>90</sup>

W-22-75

9+00 N	50	1.9
25	53	1.6
50	53	1.6
75	51	1.8

W-23+00

9+75	46	2.3
50	49	2.3
25	47	2.2
9+00	53	1.6

W-23+25

9+00	51	1.8
25	48	2.1
50	49	2.0
75	49	2.0

W-23+50

9+75	49	2.0
50	49	2.0
25	52	1.7
9+00	50	1.9

W-23+75

9+00	62	0.7
25	62	0.7
50	66	0.3
75	65	0.4



690

W-24400

9+75 N	49	2.0
50	51	1.8
25	54	1.3
9+00	52	1.7

W-18+25

8+00 N	49	0.3
25	49	0.3
50	64	0.5
75	52	1.0

W-18+50

8+75	52	1.0
50	55	1.4
25	60	0.9
8+00	61	0.8

W-18+75

8+00	62	0.7
25	60	0.9
50	57	1.2
75	54	1.3

W-19+00

8+75	57	1.2
50	63	0.1
25	78	-0.9
8+00	54	1.5

ditch

72



690

W-19+25

8+00 N	52	1.2
25	54	1.5
50	50	1.9
75	52	1.6

W-19+50

8+75	54	1.5
50	53	1.0
25	62	0.7
8+00	63	0.6

W-19+75

8+00	61	0.8
25	64	0.8
50	53	1.0
75	52	1.2

W-20+00

8+75	55	1.4
50	55	1.3
25	60	0.9
8+00	63	0.6

W-20+25

8+00	60	0.9
25	53	1.1
50	52	1.2
75	53	1.6



690

W-20+50

8+75N	54	1.5
50	52	1.2
25	55	1.4
8+00	52	1.2

W-20+75

8+00	52	1.2
25	54	1.3
30	53	1.6
75	55	1.4

W-21+00

8+75	56	1.3
50	56	1.3
25	58	1.1
8+00	59	1.0

W-21+25

8+00	59	1.0
25	58	1.1
50	57	1.2
75	56	1.3

W-21+50

8+75	58	1.1
50	58	1.1
25	58	1.1
8+00	69	0.9

74



690

W-21+75

8+00	62	0.7
25	58	1.1
50	54	1.3
75	54	1.3

W-22+00

8+75	52	1.2
50	58	1.1
25	58	1.1
8+00	62	0.9

W-22+25

8+00	62	0.7
25	52	1.2
50	52	1.2
75	52	1.7

W-22+50

8+75	51	1.8
50	52	1.7
25	54	1.3
8+00	58	1.1

W-22+75

8+00	54	1.3
25	55	1.4
50	54	1.5
75	52	1.7

75



690

W-23+00

8+75N	54	1.3
50	53	1.6
25	52	1.7
8+00	52	1.7

W-23+25

8+00	55	1.4
25	55	1.4
50	51	1.8
75	46	2.3

W-23+50

8+75	61	0.8
50	58	1.1
25	50	1.9
8+00	54	1.8

W-23+75

8+00	51	1.8
25	47	2.2
50	44	2.5
75	49	2.0

W-24+00

8+75	51	1.8
50	62	0.1
25	72	-0.1
10	69	0.0
8+00	55	1.3

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B.M. 22

690

Elev

490

2.00 ✓

N 10.00  
W 2.00

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DIRECTIONS FOR USE OF TABLES

TABLE No. 1.

Distance of slope stake from side or shoulder stake for any width roadway, slope 1 1/2 to 1. If ground is nearly level, the cut or fill at side stake is located by the double entry method in left column and top row. The number in body

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IMPROVED TABLES  
AND  
INFORMATION

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To find Tangent and External for curve of any other degree, divide by degree of curve and add correction found in column of corrections. Degree of curve with a given  $L$  may be found by dividing tangent (or external), opposite  $L$  by given tangent (or external). The distance from a point on the tangent to the curve is very nearly the square of the tangent length divided by twice the radius.



