26

ENGINEERS'
SD. 526
LEVEL BOOK

№ 410

F.B. 526

DIETZGEN
TRADE MARK

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.

MICROFILMED
DEC 1 3 1964

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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Reed – Thomas alley MH # 304 – F.T. # 40

Chisholm Hall 9-4-22

Sta.	+	H.I.	–	Elev.	Grade .555%	Cut	Staked on 6' offset West.
0+00				327.13	321.00	6.13	MH # 304
+25	7.01	334.14	5.72	328.42	321.14	7.28	
+50			5.17	328.97	321.28	7.69	
+75			4.91	329.23	321.42	7.81	Grade Sheet # 412
1+00			5.33	328.81	321.56	7.25	
+25			5.58	328.56	321.69	6.87	
+50			6.48	327.66	321.83	5.83	
+80			5.91	328.23	322.00	6.23	MH # 303
2+00							

Cont'd on Page 2

Chisholm & Hall 9-4-22

Cont'd from Page 1

Sta.	+	H.I.	-	Elev.	Grade 3.67%	Cut	Staked on 6' offset West
0+00		334.14	5.91	328.23	322.00	6.23	MH # 303
+25 TP			4.16	329.98	322.90	7.08	
+50	10.14	340.12	8.28	331.84	323.80	8.04	
+75			6.78	333.34	324.70	8.64	Grade Sheet # 419
1+00			6.04	334.08	325.60	8.48	
+25			5.26	334.86	326.50	8.36	
+50			4.58	335.54	327.40	8.14	
+75			3.97	336.15	328.30	7.85	
2+00	Staked out						
+25			1.94	338.18	330.10	8.08	
+50			1.29	338.83	331.00	7.83	MH # 302

Cont'd on Page 3

Cont'd from Page 3

Sta.	+	H.I.	-	Elev.	Grade 3.6%	Cut	Staked on 6' offset West
0+00		340.12	1.29	338.83	331.00	7.83	MH # 302
+25	2.06	340.89	2.10	338.79	331.90	6.89	
+50			2.16	338.73	332.80	5.93	
+75			1.58	339.31	333.70	5.61	Grade Sheet # 420
1+00 TP			1.47	339.42	334.60	4.82	
+25	10.31	349.73	11.38	338.35	335.50	2.85	
+50			11.25	338.48	336.40	2.08	
+75			9.74	339.99	337.30	2.69	
2+00			7.63	342.10	338.20	3.90	
+25			5.38	344.35	339.10	5.25	
+50			2.66	347.07	340.00	7.07	MH # 301

Cont'd on Page 4

Chisholm
McIntosh } 9-16-'22

Cont'd from Page 3

Sta.	+	H.I.	−	Elev.	Grade 1.557%	Cut	Staked on 6' offset West
0+00	From Book 506 Page 75			352.42	345.30	7.12	MH # 300
+25	7.70	360.12	7.03	353.09	345.69	7.40	
+50			7.03	353.09	346.08	7.01	
+75			6.47	353.65	346.47	7.18	
1+00			5.76	354.36	346.86	7.50	
+25			5.10	355.02	347.25	7.77	
+50			4.78	355.34	347.64	7.70	Grade Sheet # 421
+75			4.43	355.69	348.02	7.67	
2+00			3.59	356.53	348.41	8.12	
+25			3.20	356.92	348.80	8.12	
+50			2.62	357.50	349.19	8.31	
+75			2.09	358.03	349.58	8.45	
3+00 TP.			1.87	358.25	349.97	8.28	
+25	4.58	362.83	4.18	358.65	350.36	8.29	
+40 30			3.89	358.94	350.60	8.34	MH # 299

Cont'd on Page 5

Chisholm
McIntosh } 9-16-22

Cont'd from Page 4

Sta.	+	H.I.	-	Elev.	Grade 1.86%	Cut	Staked on 6' offset West
0+00		362.83	3.89	358.94	350.60	8.34	MH # 299
+30			4.67	358.16	351.16	7.00	
+50			4.38	358.45	351.53	6.92	
+75			4.42	358.41	352.00	6.41	
1+00			4.51	358.32	352.46	5.86	
+25			4.50	358.33	352.93	5.40	
+50			3.28	359.55	353.39	6.16	Grade Sheet # 422
+75			3.13	359.70	353.86	5.84	
2+00			1.93	360.90	354.32	6.58	
+25			1.54	361.29	354.79	6.50	
+50	TP		0.69	362.14	355.25	6.89	
+75	6.92	369.06	6.15	362.91	355.72	7.19	
3+00			5.61	363.45	356.18	7.27	
+12 21			5.73	363.33	356.41	6.92	MH # 298

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Cisholm } 9-16-22
McIntosh }

Sta.	+	H.I.	-	Elev.	Grade 1.862%	Cut			
0+00		369.06	5.73	363.33	356.41	6.92	Staked on 6' offset West	MH # 298	
+25			5.52	363.54	356.88	6.66			
+50			5.36	363.70	357.34	6.36			
+75			5.06	364.00	357.81	6.19			
1+00			4.66	364.40	358.27	6.13			
+25			4.53	364.53	358.74	5.79			
+50			4.01	365.05	359.20	5.85		Grade Sheet # 423	
+75			3.23	365.83	359.67	6.16			
2+00			2.97	366.09	360.13	5.96			
+25			2.31	366.75	360.60	6.15			
+50 TP			2.20	366.86	361.07	5.79			
+75	4.98	371.84	4.57	367.27	361.53	5.74			
3+00 18			4.24	367.60	362.00	5.60		F.T. # 40	
B.M.			3.78	368.06	368.12	B.P.	N.W.	Thomas + Orange	

— End of Sewer —

Cherokee & Wilson Ave Sewer MH 112T – MH # 327

Chisholm, McIntosh } 9-11-22

Sta.	+	H.I.	–	Elev.	Grade 13.745 %	Cut	
B.M.	From Page 13 Book 507			302.43			Staked on 6' offset West.
							2x2 hub on 6' offset E. from MH center at MH # 311
TP	12.41	314.84	4.23	310.61			
TP	0.58	311.19	12.84	298.35			
TP	0.70	299.05	10.20	288.85			
TP	0.50	289.35	12.27	277.08			
W.S. 0+00	7.98	285.06	12.86	272.20	263.91	8.29	MH # 112T
+25			10.50	274.56	267.58	6.98	
+50			7.62	277.44	271.25	6.19	Grade Sheet # 415
+75			4.79	280.27	274.92	5.35	
1+00 TP			1.48	283.58	278.59	4.99	
+16½	11.70	295.28	9.02	286.26	281.00	5.26	MH # 328

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Chisholm
McIntosh } 9-11-32

Cont'd from Page 7

Sta.	+	H.I.	−	Elev.	Grade 3.515%	Cut	Staked on 6' offset North.
0+00		295.28	9.02	286.26	281.00	5.26	MH # 328
+25			7.29	287.99	281.88	6.11	
+50			6.03	289.25	282.76	6.49	
+75			4.66	290.62	283.64	6.98	
1+00			3.27	292.01	284.52	7.49	Grade Sheet # 416
+25			2.91	292.37	285.39	6.98	
+50			2.34	292.94	286.27	6.67	
+75			2.24	293.04	287.15	5.89	
N.W. +99" TP			2.35	292.93	288.00	4.93	MH # 327

Cont'd on Page 9

Cont'd from Page 8

Cherokee – Reed alley MH#327 – MH#326

Chisholm / McIntosh } 9-11-22

Sta.	+	H.I.	–	Elev.	Grade 5.9%	Cut	
0+00	TP	295.28	2.35	292.93	288.00	4.93	Staked on 6' offset West
+25	12.99	305.92	10.58	295.34	289.48	5.86	MH# 327
+50			7.53	298.39	290.95	7.44	
+75			4.73	301.19	292.43	8.76	
1+00			2.75	303.17	293.90	9.27	
+25	TP		1.34	304.58	295.38	9.20	Grade Sheet #417
+50	10.51	315.09	9.13	305.96	296.85	9.11	
+75			7.98	307.11	298.33	8.78	
2+00			7.03	308.06	299.80	8.26	
+25			6.08	309.01	301.28	7.73	
+50			5.17	309.92	302.75	7.17	
+75			4.30	310.79	304.23	6.56	
3+00			3.67	311.42	305.70	5.72	
+22	TP		3.20	311.89	307.00	4.89	MH# 326
B.M.	3.28	315.17	12.75	302.42	302.43		2x2 hub on 6' offset E from center of MH# 311

Thomas Ave Sewer MH 123T – MH # 290

Chisholm
McIntosh } 9-12-22

10

Sta.	+	H.I.	–	Elev.	Grade	Cut	Staked on 6' offset West
					4.612%		
B.M.				351.97			B.F. N.W. Reed & University
	1.81	353.78	8.11	345.67			
TP	0.86	346.53	12.52	334.01			
TP	0.18	334.79	12.68	321.51			
W.S. 0+00	8.69	330.20	10.54	319.66	310.40	9.26	MH # 123T
+25			10.43	319.77	311.55	8.22	
+50			9.50	320.70	312.71	7.99	
+75			7.74	322.46	313.86	8.60	
1+00			5.62	324.58	315.01	9.57	
+25			3.69	326.51	316.17	10.34	Grade Sheet # 413
+50			1.77	328.43	317.32	11.11	
+75 TP			0.14	330.06	318.47	11.59	
2+00	12.11	342.17	10.71	331.46	319.62	11.84	
+25			9.38	332.79	320.78	12.01	
+50			8.16	334.01	321.93	12.08	
+75			6.98	335.19	323.08	12.11	
3+00			5.87	336.30	324.24	12.06	
+10			5.54	336.63	324.70	11.93	MH # 291
	Street Grade MH # 291			336.41			

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Chisholm / McIntosh } 9-12-22

Cont'd from Page 10

Sta.	+	H.I.	-	Elev.	Grade 4.61%	Cut	Staked on 6' offset West
0+00		342.17	5.54	336.63	324.70	11.93	MH # 291
+25			4.68	337.49	325.85	11.64	
+50			3.85	338.32	327.01	11.31	
+75			3.11	339.06	328.16	10.90	
1+00			2.43	339.74	329.31	10.43	
+25			1.71	340.46	330.47	9.99	
+50 TP			1.07	341.10	331.62	9.48	Grade Sheet # 414
+75	7.40	348.50	6.68	341.82	332.77	9.05	
2+00			6.10	342.40	333.92	8.48	
+25			5.44	343.06	335.08	7.98	
+50			4.78	343.72	336.23	7.49	
+75			4.28	344.22	337.38	6.84	
3+00			3.54	344.96	338.54	6.42	
+10.			3.53	344.97	339.00	5.97	MH # 290
B.M. TP			2.81	345.69			
B.M.	8.11	353.80	1.81	351.99			B.P. N.W. Reed + University
	Street	Grade	MH # 290	344.90			

Cherokee - Reed alley MH# 326 - MH# 318

Chisholm McIntosh } 9-13-22

Sta.	+	H.I	-	Elev.	Grade 2. %	Cut	Staked on 6' offset West.
0 + 00				311.89	307.00	4.89	MH# 326
+ 25	10.08	321.97	9.60	312.37	307.50	4.87	
+ 50			9.03	312.94	308.00	4.94	
+ 75			8.60	313.37	308.50	4.87	Grade Sheet # 424
1 + 00			7.27	314.70	309.00	5.70	
+ 25			6.09	315.88	309.50	6.38	
+ 50			4.96	317.01	310.00	7.01	
+ 75			3.78	318.19	310.50	7.69	
2 + 00			2.93	319.04	311.00	8.04	
+ 25			2.22	319.75	311.50	8.25	
+ 50			1.67	320.30	312.00	8.30	
+ 65			1.26	320.71	312.30	8.41	MH# 325

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Chisholm
McIntosh } 9-13-22

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Sta.	+	H.I.	−	Elev.	Grade 1.975	Cut	Staked on 6' offset West
0+00		321.97	1.26	320.71	312.30	8.41	MH # 325
+25 TP			0.38	321.59	312.79	8.80	
+50	7.54	329.13	7.02	322.11	313.29	8.82	
+75			6.56	322.57	313.78	8.79	Grade Sheet # 425
1+00			5.89	323.24	314.28	8.96	
+25			5.44	323.69	314.77	8.92	
+50			5.19	323.94	315.26	8.68	
+75			4.78	324.35	315.76	8.59	
2+00			4.35	324.78	316.25	8.53	
+25			4.01	325.12	316.74	8.38	
+50			3.54	325.59	317.24	8.35	
+68.25			4.01	325.12	317.60	7.52	MH # 324

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Chisholm
McIntosh } 9-13-22

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Sta.	+	H.I.	−	Elev.	Grade 1.823%	Cut	Staked on 6' offset West
0+00		329.13	4.01	325.12	317.60	7.52	MH# 324
+30			5.46	323.67	318.15	5.52	
+50 TP			4.79	324.34	318.51	5.83	
+75	9.67	334.01	9.45	324.56	318.97	5.59	
1+00			9.00	325.01	319.42	5.59	
+25			6.20	327.81	319.88	7.93	
+50			5.83	328.18	320.33	7.85	Grade Sheet # 426
+75			5.33	328.68	320.79	7.89	
2+00			4.78	329.23	321.25	7.98	
+25			4.19	329.82	321.70	8.12	
+50			3.61	330.40	322.16	8.24	
+75			3.19	330.82	322.61	8.21	
3+00			2.37	331.64	323.07	8.57	
+25			2.17	331.84	323.52	8.32	
+40			2.09	331.92	323.80	8.12	MH# 323

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Chisholm
McIntosh } 9-13-22

Sta.	+	H.I.	−	Elev.	Grade 1.823%	Cut	Staked on 6' offset West
0+00 TP		334.01	2.09	331.92	323.80	8.12	MH #323
+25	6.47	338.39	5.99	332.40	324.26	8.14	
+50			5.70	332.69	324.71	7.98	
+75			5.36	333.03	325.17	7.86	
1+00			5.18	333.21	325.62	7.59	
+25			5.04	333.35	326.08	7.27	
+50			4.67	333.72	326.53	7.19	Grade Sheet # 427
+75			4.05	334.34	326.99	7.35	
2+00			4.01	334.38	327.45	6.93	
+25			3.35	335.04	327.90	7.14	
+50			3.09	335.30	328.36	6.94	
+75			2.68	335.71	328.81	6.90	
3+00 TP			2.43	335.96	329.27	6.69	
+25	5.36	341.32	5.00	336.32	329.72	6.60	
+40			5.16	336.16	330.00	6.16	MH #322

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Chisholm
McIntosh } 9-13-22

Sta.	+	H.I.	-	Elev.	Grade .941 %	Cut	Staked on 6' offset West
0+00		341.32	5.16	336.16	330.00	6.16	MH # 322
+30			6.30	335.02	330.28	4.74	
+50			5.77	335.55	330.47	5.08	
+75			6.08	335.24	330.71	4.53	
1+00			5.10	336.22	330.94	5.28	
+25			3.10	338.22	331.18	7.04	
+50			2.76	338.56	331.41	7.15	Grade Sheet # 428
+75			2.31	339.01	331.65	7.36	
2+00			1.79	339.53	331.88	7.65	
+25			1.66	339.66	332.12	7.54	
+50			1.51	339.81	332.35	7.46	
+75 TP	4.83	344.64	4.66	339.98	332.59	7.39	
3+00			4.90	339.74	332.82	6.92	
+25			4.66	339.98	333.06	6.92	
+40			4.77	339.87	333.20	6.67	MH # 321

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Chisholm
McIntosh } 9-13-22

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Sta.	+	H.I.	-	Elev.	Grade .941%	Cut	Staked on 6' offset West
0+00		344.64	4.77	339.87	333.20	6.67	MH #321
+25			4.65	339.99	333.44	6.55	
+50			4.68	339.96	333.67	6.29	
+75			5.02	339.62	333.91	5.71	
1+00			5.39	339.25	334.14	5.11	
+25			5.15	339.49	334.38	5.11	
+50			4.88	339.76	334.61	5.15	Grade Sheet #429
+75			3.69	340.95	334.85	6.10	
2+00 TP			3.06	341.58	335.08	6.50	
+25	6.11	347.69	5.99	341.70	335.32	6.38	
+50			5.59	342.10	335.55	6.55	
+75			5.13	342.56	335.79	6.77	
3+00			4.73	342.96	336.02	6.94	
+25			4.58	343.11	336.26	6.85	
+40			4.84	342.85	336.40	6.45	MH #320

Cont'd on Page 18

Sta.	+	H.I.	-	Elev.	Grade 1.588%	Cut	Staked on 6' offset West
0+00		347.69	4.84	342.85	336.40	6.45	MH # 320
+30			5.82	341.87	336.88	4.99	
+50			5.76	341.93	337.19	4.74	
+75			5.84	341.85	337.59	4.26	
1+00			4.96	342.73	337.99	4.74	
+25			2.20	345.49	338.39	7.10	
+50 TP			1.43	346.26	338.78	7.48	Grade Sheet # 430
+75	6.66	352.92	6.29	346.63	339.18	7.45	
2+00			5.92	347.00	339.58	7.42	
+25			5.25	347.67	339.97	7.70	
+50			5.23	347.69	340.37	7.32	
+75			5.28	347.64	340.77	6.87	
3+00			5.00	347.92	341.16	6.76	
+25			4.37	348.55	341.56	6.99	
+40			4.34	348.58	341.80	6.78	MH # 319

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Chisholm
McIntosh } 9-13-32

Sta.	+	H.I	-	Elev.	Grade 1.589%	Cut	Staked on 6' offset West
0+00		352.92	4.34	348.58	342.00	6.58	MH # 319
+25			4.37	348.55	342.40	6.15	
+50			4.11	348.81	342.99	6.02	
+75			3.95	348.97	343.19	5.78	
1+00 TP			3.56	349.36	343.59	5.77	
+25	7.12	356.48	6.73	349.75	343.99	5.76	
+50			5.98	350.50	344.38	6.12	
+75			5.82	350.66	344.78	5.88	Grade Sheet # 431
2+00			5.24	351.24	345.18	6.06	
+25			4.77	351.71	345.58	6.13	
+50			4.58	351.90	345.97	5.93	
+75			4.07	352.41	346.37	6.04	
3+00			3.52	352.96	346.77	6.19	
+25			3.29	353.19	347.16	6.03	
+39 72			2.98	353.50	347.40	6.10	MH # 318

Cherokee Ave. + Storey – Cherokee alley
MH# 328 – MH# 335

Chisholm
McIntosh } 9-14-22

Sta.	+	H.I.	–	Elev.	Grade 9.354%	Cut	Staked on 6' offset West
0+00	From Page 7 This Book			286.26	281.00	5.26	MH# 328
+25	12.89	299.15	10.26	288.89	283.34	5.55	
+50			7.41	291.74	285.68	6.06	
+75			4.72	294.43	288.02	6.41	
1+00 TP			1.38	297.77	290.35	7.42	
+25	11.80	309.57	9.51	300.06	292.69	7.37	Grade Sheet # 418
+50			7.55	302.02	295.03	6.99	
+75			5.58	303.99	297.37	6.62	
2+00			3.88	305.69	299.71	5.98	
+25			2.02	307.55	302.05	5.50	
+48			0.47	309.10	304.20	4.90	MH# 345

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Chisholm
McIntosh } 9-14-22

Cont'd from Page 20

Sta.	+	H.I.	−	Elev.	Grade .5%	Cut	Staked on 6' offset West
0 + 00 TP		309.57	0.47	309.10	304.20	4.90	MH # 345
+25	9.18	318.28	7.81	310.47	304.33	6.14	
+50			6.72	311.56	304.45	7.11	
+75			5.76	312.52	304.58	7.94	
1 + 00			4.96	313.32	304.70	8.62	Grade Sheet # 438
+25			4.19	314.09	304.83	9.26	
+50			3.37	314.91	304.95	9.96	
+75			2.41	315.87	305.08	10.79	
2 + 00			1.88	316.40	305.20	11.20	MH # 344
B.M.			6.38	311.90	311.82		2x2 hub on 6' offset W from center of MH # 326
		Street Grade		316.70		F. 0.30	

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Chisholm
Smale } 9-22-22

Cont'd from Page 21

S.W.	+	H.I.	-	Elev.	Grade ·421%	Cut	Staked on 6' offset South
0+00		318.28	1.88	316.40	305.20	11.20	MH# 344
+25	0.98	317.38	1.71	315.67	305.31	10.36	
+50			2.26	315.12	305.41	9.71	
+75			3.11	314.27	305.52	8.75	
1+00			3.82	313.56	305.62	7.94	Grade Sheet # 439
+25			4.79	312.59	305.73	6.86	
+50			5.32	312.06	305.83	6.23	
+75			6.47	310.91	305.94	4.97	
X +90			7.14	310.24	306.00	4.24	MH# 343
		Street Grade		309.80		0.44	

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	+	H.I	−	Elev.	Grade 3.404%	Cut	Staked on 6' offset West.
0 + 00		317.38	7.14	310.24	306.00	4.24	MH # 343
+ 25			5.27	312.11	306.85	5.26	
+ 50 TP			4.13	313.25	307.70	5.55	
+ 75	11.32	324.57	9.97	314.60	308.55	6.05	
1 + 00			8.79	315.78	309.40	6.38	
+ 25			7.83	316.74	310.26	6.48	Grade Sheet # 440
+ 50			6.82	317.75	311.11	6.64	
+ 75			6.09	318.48	311.96	6.52	
2 + 00			5.26	319.31	312.81	6.50	
+ 25			4.32	320.25	313.66	6.59	
+ 35			3.78	320.79	314.00	6.79	MH # 342

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Chisholm } 9-20-22
Smoke }

Cont'd from Page 23

Sta	+	H.I.	−	Eley.	Grade 3.34%	Cut	Staked on 6' offset West
0+00		324.57	3.78	320.79	314.00	6.79	MH # 342
+25			2.87	321.70	314.84	6.86	
+50			1.78	322.79	315.67	7.12	
+75 TP			1.14	323.43	316.51	6.92	
1+00	8.33	331.76	7.38	324.38	317.35	7.03	
+25			6.26	325.50	318.19	7.31	Grade Sheet # 441
+50			6.24	325.52	319.02	6.50	
+75			5.70	326.06	319.86	6.20	
2+00			5.02	326.74	320.70	6.04	
+25			4.74	327.02	321.54	5.48	
+38.85			4.25	327.51	322.00	5.51	MH # 341

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Chisholm } 9-22-'72
Smale }

Sta.	+	H.I.	-	Elev.	Grade	Cut	Staked on 6' offset West
					2.058%		
0+00		331.76	4.25	327.51	322.00	5.51	MH# 341
+30			3.84	327.92	322.62	5.30	
+50			3.35	328.41	323.03	5.38	
+75			3.52	328.24	323.54	4.70	
1+00 TP			2.92	328.84	324.06	4.78	
+25	9.33	338.17	7.72	330.45	324.57	5.88	
+50			6.96	331.21	325.09	6.12	Grade Sheet # 442
+75			6.01	332.16	325.60	6.56	
2+00			5.93	332.24	326.12	6.12	
+25			5.64	332.53	326.63	5.90	
+50			5.05	333.12	327.15	5.97	
+75			4.44	333.73	327.66	6.07	
3+00			4.21	333.96	328.17	5.79	
+25			3.76	334.41	328.69	5.72	
+40			3.79	334.38	329.00	5.38	MH# 340

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Sta.	+	H.I.	−	Elev.	Grade .8827%	Cut	Staked on 6' offset West
0+00		338.17	3.79	334.38	329.00	5.38	MH # 340
+25			3.17	335.00	329.22	5.78	
+50 TP			2.70	335.47	329.44	6.03	
+75	6.61	342.07	6.42	335.65	329.66	5.99	
1+00			6.01	336.06	329.88	6.18	
+25			5.92	336.15	330.10	6.05	
+50			5.46	336.61	330.32	6.29	
+75			5.04	337.03	330.54	6.49	Grade Sheet # 443
2+00			5.00	337.07	330.76	6.31	
+25			4.65	337.42	330.98	6.44	
+50			4.44	337.63	331.20	6.42	
+75			4.30	337.77	331.43	6.34	
3+00			4.07	338.00	331.65	6.35	
+25			3.70	338.37	331.87	6.50	
+40			3.62	338.45	332.00	6.45	MH # 339

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Chisholm & Smale 9-22-22

Sta.	+	HI	-	Elev.	Grade 1.47%	Cut	Staked on 6' offset West
0+00 TP		342.07	3.62	338.45	332.00	6.45	MH # 339
+30	6.34	344.79	8.25	336.54	332.44	4.10	
+50			7.76	337.03	332.74	4.29	
+75			7.78	337.01	333.10	3.91	
1+00			7.24	337.55	333.47	4.08	
+25			5.25	339.54	333.84	5.70	Grade Sheet # 444
+50			4.97	339.82	334.21	5.61	
+75			5.16	339.63	334.57	5.06	
2+00			4.66	340.13	334.94	5.19	
+25			4.22	340.57	335.31	5.26	
+50			3.29	341.50	335.68	5.82	
+75			1.91	342.88	336.04	6.84	
3+00			1.25	343.54	336.41	7.13	
+25	6.46	350.00	6.68	343.32	336.78	6.54	
+40			6.25	343.75	337.00	6.75	MH # 338

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Chisholm & Smale 9-22-22

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Sta.	+	H I	−	Elev.	Grade 1.47%	Cut	Staked on 6' offset West.
0 + 00		350.00	6.25	343.75	337.00	6.75	MH # 338
+ 25			6.13	343.87	337.37	6.50	
+ 50			6.21	343.79	337.74	6.05	
+ 75			5.12	344.88	338.10	6.78	
1 + 00			4.69	345.31	338.47	6.84	
+ 25			4.77	345.23	338.84	6.39	
+ 50			4.61	345.39	339.21	6.18	
+ 75			4.42	345.58	339.57	6.01	Grade Sheet # 445
2 + 00			4.23	345.77	339.94	5.83	
+ 25			3.99	346.01	340.31	5.70	
+ 50 TP			3.94	346.06	340.68	5.38	
+ 75	5.84	351.90	5.71	346.19	341.04	5.15	
3 + 00			5.44	346.46	341.41	5.05	
+ 25			5.27	346.63	341.78	4.85	
+ 40			5.28	346.62	342.00	4.62	MH # 337

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Chisholm Smale 9-22-22

	+	H.I.	−	Elev.	Grade 1.323%	Cut	Staked on 6' offset West
0+00		351.90	5.28	346.62	342.00	4.62	MH# 337
+35			5.26	346.64	342.40	4.24	
+50			5.01	346.89	342.66	4.23	
+75			5.05	346.85	342.99	3.86	
1+00			4.69	347.21	343.32	3.89	
+25			4.11	347.79	343.65	4.14	
+50			3.58	348.32	343.98	4.34	Grade Sheet # 446
+75			3.09	348.81	344.32	4.49	
2+00 TP			2.04	349.86	344.65	5.21	
+25	7.55	357.41	7.26	350.15	344.98	5.17	
+50			6.69	350.72	345.31	5.41	
+75			6.38	351.03	345.64	5.39	
3+00			6.08	351.33	345.97	5.36	
+25			5.54	351.87	346.30	5.57	
+40			5.10	352.31	346.50	5.81	MH# 336

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Chisholm } 9-22-22
Smale }

	+	H.I	−	Elev.	Grade 1.323%	Cut	Staked on 6' offset West
0+00		357.41	5.10	352.31	346.50	5.81	MH# 336
+25			4.35	353.06	346.83	6.23	
+50			4.37	353.04	347.16	5.88	
+75			3.74	353.67	347.49	6.18	
1+00			3.49	353.92	347.82	6.10	
+25			3.18	354.23	348.15	6.08	
+50 TP			2.83	354.58	348.48	6.10	Grade Sheet # 447
+75	7.75	362.33	7.30	355.03	348.82	6.21	
2+00			7.26	355.07	349.15	5.92	
+25			6.53	355.80	349.48	6.32	
+50			6.46	355.87	349.81	6.06	
+75			5.66	356.67	350.14	6.53	
3+00			4.92	347.41	350.47	6.94	
+25			4.19	348.14	350.80	7.34	
+40			4.41	357.92	351.00	6.92	MH# 335
B.M.			2.97	359.35	359.37	B.P.	N.W. Storey + University

Cherokee - Reed alley MH #317 - F.T. #41

Chisholm & Smale 9-23-22

Sta.	+	H.I.	-	Elev.	Grade 1.029%	Cut	Staked on 6' offset West
0+00	From Book 509 Page 77			358.35	350.90	7.45	MH # 317
+25	6.18	364.53	6.20	358.33	351.16	7.17	
+50			6.10	358.43	351.41	7.02	
+75			6.18	358.35	351.67	6.68	
1+00			5.76	358.77	351.93	6.84	
+25			5.11	359.42	352.19	7.23	
+50			4.84	359.69	352.44	7.25	
+75			4.36	360.17	352.70	7.47	Grade Sheet #432
2+00			3.91	360.62	352.96	7.66	
+25			3.69	360.84	353.22	7.62	
+50			3.53	361.00	353.47	7.53	
+75			3.33	361.20	353.73	7.47	
3+00 TP			3.12	361.41	353.99	7.42	
+25	6.44	367.85	6.11	361.74	354.24	7.50	
+40			6.05	361.80	354.40	7.40	MH # 316

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Chisholm & Smale 9-23-27

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Sta.	+	H.I.	−	Elev.	Grade 1.555%	Cut	Staked on 6' offset West
0+00		367.85	6.05	361.80	354.40	7.40	MH # 316
+30			6.12	361.73	354.87	6.86	
+50			6.02	361.83	355.18	6.65	
+75			5.15	362.70	355.57	7.13	
1+00			4.68	363.17	355.96	7.21	
+25			4.46	363.39	356.34	7.05	
+50			4.09	363.76	356.73	7.03	Grade Sheet # 433
+75			3.87	363.98	357.12	6.86	
2+00			3.62	364.23	357.51	6.72	
+25			2.94	364.91	357.90	7.01	
+50 TP			2.19	365.66	358.29	7.37	
+75	6.91	372.57	6.55	366.02	358.68	7.34	
3+00			6.53	366.04	359.07	6.97	
+25			6.04	366.53	359.45	7.08	
+35			5.63	366.94	359.61	7.33	MH # 315

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Chisholm
Smale } 9-23-32

Cont'd from Page 32

Sta.	+	H.I.	−	Elev.	Grade 1.556%	Cut.	Staked on 6' offset West
0+00		372.57	5.63	366.94	359.61	7.33	MH # 315
+25			5.13	367.44	360.00	7.44	
+50			4.90	367.67	360.39	7.28	
+75			4.40	368.17	360.78	7.39	
1+00			4.31	368.26	361.17	7.09	
+25			4.09	368.48	361.56	6.92	
+50			4.10	368.47	361.94	6.53	Grade Sheet # 434
+75			3.60	368.97	362.33	6.64	
2+00			3.46	369.11	362.72	6.39	
+25			3.22	369.35	363.11	6.24	
+50 TP			3.37	369.20	363.50	5.70	
+75	4.67	373.87	4.63	369.24	363.89	5.35	
3+00			4.35	369.52	364.28	5.24	
S.W. +36 70			4.21	369.66	364.85	4.81	MH # 314
	Street Grade			369.43		0.23	

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Chisholm
Smale 9-23-22

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Sta.	+	H.I.	−	Elev.	Grade .4%	Cut	Staked on 6' offset South
0+00		373.87	4.21	369.66	364.85	4.81	MH #314
+25			4.29	369.58	364.95	4.63	
+50			4.18	369.69	365.05	4.64	
+75			3.89	369.98	365.15	4.83	
1+00			3.72	370.15	365.25	4.90	Grade Sheet #435
+25			3.66	370.21	365.35	4.86	
+50			3.31	370.56	365.45	5.11	
S.W. +59.5			3.38	370.49	365.49	5.00	MH #313.
B.M.			4.08	369.79	369.83	B.P. N.W. Reed & Orange	
		Street Grade		370.55		F.0.06	

73.25
6.81
11.44

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Sta.	+	H.I.	−	Elev.	Grade -4%	Cut	Staked on 6' offset West.
0+00		373.87	3.38	370.49	365.49	5.00	MA #313
+25	5.87	376.36	6.44	369.92	365.59	4.33	
+50			5.13	371.23	365.69	5.54	
+75			4.35	372.01	365.79	6.22	
1+00			4.48	371.88	365.89	5.99	
+25			4.86	371.50	365.99	5.51	Grade Sheet #436
+50			4.90	371.46	366.09	5.37	
+75			4.58	371.78	366.19	5.59	
2+00			4.33	372.03	366.29	5.74	
+25			4.20	372.16	366.39	5.77	
+50			4.00	372.36	366.49	5.87	
+75			3.76	372.60	366.59	6.01	
3+00			4.05	372.31	366.69	5.62	
+26			4.02	372.34	366.77	5.57	MA #312

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Chisholm & Smale 9-24-22

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Sta.	+	H.I.	−	Elev.	Grade .4%	Cut	
0+00		376.36	4.02	372.34	366.77	5.57	Staked on 6' offset West
+25	5.01	377.35	4.92	372.43	366.87	5.56	MH # 312
+50			4.98	372.37	366.97	5.40	
+75			5.05	372.30	367.07	5.23	
1+00			5.01	372.34	367.17	5.17	
+25			5.01	372.34	367.27	5.07	Grade Sheet #437
+50			5.15	372.20	367.37	4.83	
+75			4.85	372.50	367.47	5.03	
2+00			4.21	373.14	367.57	5.57	
+25			3.94	373.41	367.67	5.74	
+50			3.67	373.68	367.77	5.91	
+75			3.42	373.93	367.87	6.06	
3+07			3.18	374.17	368.00	6.17	F.T. #41
B.M.	3.45	377.62	4.22	373.40	373.46	B.P. N.W.	El Cajon & Reed

Storey – Cherokee alley MH# 334 – F.T. # 42

Chisholm } 9-29-'22
Smale }

Sta.	+	H.I.	-	Elev.	Grade .47%	Cut	Staked on 6' offset West
0 + 00	From Book 507 Page 75			361.81	356.60	5.21	MH# 334
+25	6.74	368.55	6.61	361.94	356.72	5.22	
+50			6.36	362.19	356.84	5.35	
+75			6.08	362.47	356.95	5.52	
1			5.55	363.00	357.07	5.93	
+25			5.50	363.05	357.19	5.86	
+50			5.12	363.43	357.31	6.12	Grade Sheet # 448
+75			4.82	363.73	357.42	6.31	
2			4.56	363.99	357.54	6.45	
+25			4.14	364.41	357.66	6.75	
+50			3.96	364.59	357.78	6.81	
+75			3.52	365.03	357.89	7.14	
3 TP			3.23	365.32	358.01	7.31	
+25	7.04	372.36	6.78	365.58	358.13	7.45	
+			6.54	365.82	358.20	7.62	MH# 333

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Chisholm Smale } 9-29-'22

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Sta.	+	H.I.	−	Elev.	Grade 2.184%	Cut	Staked on 6' offset West
0+00		372.36	6.54	365.82	358.20	7.62	MH # 333
+30			6.70	365.66	358.75	6.91	
+50			6.35	366.01	359.29	6.72	
+75			5.09	367.27	359.84	7.43	
1			4.94	367.42	360.38	7.04	
+25			4.41	367.95	360.93	7.02	
+50			4.00	368.36	361.48	6.88	Grade Sheet # 451
+75			3.33	369.03	362.02	7.01	
2			2.99	369.37	362.57	6.80	
+25			2.81	369.55	363.11	6.44	
+50 TP			2.32	370.04	363.66	6.38	
+75	5.95	375.99	5.85	370.14	364.21	5.93	
3			5.18	370.81	364.75	6.06	
+11 30			4.94	371.05	365.00	6.05	MH # 332

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Chisholm & Smale 9-29-22

Sta.	+	H.I.	-	Elev.	Grade .834%	Cut	Staked on 6' offset West
0+00		375.99	4.94	371.05	365.00	6.05	MH # 332
+25			4.86	371.13	365.21	5.92	
+50			4.87	371.12	365.42	5.70	
+75			4.77	371.22	365.63	5.59	
1			4.59	371.40	365.83	5.57	
+25			4.22	371.77	366.04	5.73	
+50			4.26	371.73	366.25	5.48	Grade Sheet # 453
+75			4.17	371.82	366.46	5.36	
2			3.86	372.13	366.67	5.46	
+25 TP			3.50	372.49	366.88	5.61	
+50	4.68	377.17	4.54	372.63	367.09	5.54	
+75			4.25	372.92	367.29	5.63	
3			4.36	372.81	367.50	5.31	
+30			5.10	372.07	367.75	4.32	
S.W. +59 58			4.73	372.44	368.00	4.44	MH # 331

Street Grade 372.44

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Chisholm } 9-29-'22
Smale }

Sta	+	H I	−	Elev.	Grade	Cut	Staked on 6' offset South
					·467		
0 + 00		377.17	4.73	372.44	368.00	4.44	MH # 331
+25			4.38	372.79	368.12	4.67	
+50			4.16	373.01	368.23	4.78	
+75			3.95	373.22	368.35	4.87	Grade Sheet # 454
S.M. 1+04 86			3.48	373.69	368.49	5.20	MH # 330
	Street Grade			373.55		0.14	

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Chisholm & Smale 4-29-72

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Sta.	+	H.I.	−	Elev.	Grade ·4%	Cut	Staked on 6' offset West
0+00		377.17	3.48	373.69	368.49	5.20	MH # 330
+25			4.41	372.76	368.59	4.17	
+50 TP			2.69	374.48	368.69	5.79	
+75	5.64	380.12	5.34	374.78	368.79	5.99	
1			5.38	374.74	368.89	5.85	
+25			5.25	374.87	368.99	5.88	Grade Sheet # 455
+50			4.72	375.40	369.09	6.31	
+75			4.66	375.46	369.19	6.27	
2			4.46	375.66	369.29	6.37	
+25			4.70	375.42	369.39	6.03	
+50			4.67	375.45	369.49	5.96	
+75			4.60	375.52	369.59	5.93	
3			4.32	375.80	369.69	6.11	
+15			4.53	375.59	369.75	5.84	MH # 329

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Chisholm & Smale 9-29-22

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Sta	+	H.I.	–	Elev.	Grade .4%	Cut	Staked on 6' offset West
0+00		380.12	4.53	375.59	369.75	5.84	MH # 329
+25 TP			4.43	375.69	369.85	5.84	
+50	3.66	379.35	3.42	375.93	369.95	5.98	
+75			3.64	375.71	370.05	5.66	
1			3.98	375.37	370.15	5.22	
+25			4.38	374.97	370.25	4.72	Grade Sheet # 456
+50			4.36	374.99	370.35	4.64	
+75			4.57	374.78	370.45	4.33	
2			4.56	374.79	370.55	4.24	
+25			4.43	374.92	370.65	4.27	
+50			4.47	374.88	370.75	4.13	
+75			4.26	375.09	370.85	4.24	
3			3.89	375.46	370.95	4.51	
+11.70			3.97	375.38	371.00	4.38	F.T. # 42
TP	3.17	378.55	4.62	373.93			
B.M.	2.79	376.72	4.73	371.99	372.01		B.P. N.W. Orange + Cherokee

Swift - Pacific alley MA #377 - F.T. #46

Chisholm } 10-11-'22
Shawver }

Sta.	+	H.I	-	Elev.	Grade 1.365%	Cut	Staked on 6' offset West
0+00	From Book 506 Page 72			365.65	357.90	7.75	MA #377
+25	7.26	372.91	7.04	365.87	358.24	7.63	
+50			6.13	366.78	358.58	8.20	
+75			6.21	366.70	358.92	7.78	
1			6.29	366.62	359.27	7.35	
+25			4.69	368.22	359.61	8.61	
+50			4.71	368.20	359.95	8.25	Grade Sheet #484
+75			4.72	368.19	360.29	7.90	
2			4.56	368.35	360.63	7.72	
+25			4.37	368.54	360.97	7.57	
+50			4.21	368.70	361.31	7.39	
+75			3.74	369.17	361.65	7.52	
3 TP			3.61	369.30	362.00	7.30	
+25	7.57	376.87	6.99	369.88	362.34	7.54	
N.W. +58.9			7.26	369.61	362.80	6.81	MA #376

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Chisholm } 10-11-22
Showner }

Sta.	+	H.I.	—	Elev.	Grade .835%	Cut	Staked on 6' offset North
0+00		376.87	7.26	369.61	362.80	6.81	Mh # 376
+23 95			7.19	369.68	363.00	6.68	Mh # 375
							Grade Sheet # 485
				369.94		F. 0.33	Street Grade at Mh # 376
				370.01		F. 0.33	Street Grade at Mh # 375

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C. Osborn & Shawver 10-11-22

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Sta.	+	H.I	−	Elev.	Grade 1.427%	Cut	Staked on 6' offset West
0 +00		376.87	7.19	369.68	363.00	6.68	MH # 375
+25			6.79	370.08	363.36	6.72	
+50			5.75	371.12	363.71	7.41	
+75			5.45	371.42	364.07	7.35	
1			5.05	371.82	364.43	7.39	
+25			4.88	371.99	364.78	7.21	Grade Sheet # 486
+50			3.89	372.98	365.14	7.84	
+75			4.84	372.03	365.50	6.53	
2			4.27	372.60	365.85	6.75	
+25			3.51	373.36	366.21	7.15	
+50 TP			3.62	373.25	366.57	6.68	
+75	5.95	379.20	5.90	373.30	366.92	6.38	
+90.01			5.81	373.39	367.14	6.25	MH # 374

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Sta.	+	H.I	−	Elev.	Grade 1.429%	Cut	Staked on 6' offset West
0+00		379.20	5.81	373.39	367.14	6.25	Mk 374
+25			5.58	373.62	367.50	6.12	
+50			5.23	373.97	367.85	6.12	
+75			4.91	374.29	368.21	6.08	
1			5.01	374.19	368.57	5.62	
+25			4.73	374.47	368.93	5.54	
+50			4.69	374.51	369.28	5.23	Grade Sheet # 487
+75			4.25	374.95	369.64	5.31	
2			4.02	375.18	370.00	5.18	
+25			3.66	375.54	370.36	5.18	
150 TP			3.10	376.10	370.71	5.39	
+75	6.26	382.36	6.22	376.14	371.07	5.07	
3			5.92	376.44	371.43	5.01	
+25			5.81	376.55	371.78	4.77	
+40			5.38	376.98	372.00	4.98	Mk 373

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Sta	+	H.I	−	Elev.	Grade
N.W.					2.36%
0+00		382.36	5.38	376.98	372.00
N.W.					
+16 93			5.42	376.94	372.40
				376.92	
				377.02	

Cont'd on Page 48

Christopher Shawver } 10-11-27

Cut	
	Staked on 6' offset North
4.98	MH #373
4.54	MH #372
	Grade Sheet # 488
0.06	Street Grade at MH #373
F. 0.08	Street Grade at MH #372

Chisholm } 10-11-22
Shawver }

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Sta.	+	H.I.	−	Elev.	Grade .4%	Cut	Staked on 6' offset West
0+00		382.36	5.42	376.94	372.40	4.54	MH # 372
+25			5.81	376.55	372.50	4.05	
+50			4.67	377.69	372.60	5.09	
+75			4.76	377.60	372.70	4.90	
1			4.54	377.82	372.80	5.02	
+25			4.32	378.04	372.90	5.14	
+50			3.88	378.48	373.00	5.48	Grade Sheet # 489
+75			3.62	378.74	373.10	5.64	
2 TP			3.50	378.86	373.20	5.66	
+25	5.06	383.92	4.98	378.94	373.30	5.64	
+50			5.18	378.74	373.40	5.34	
+75			5.24	378.68	373.50	5.18	
3			4.98	378.94	373.60	5.34	
+10			5.05	378.87	373.64	5.23	MH # 371

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Chisholm
Shawver } 10-11-22

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Sta.	+	H.I	-	Elev.	Grade .4%	Cut	Staked on 6' offset West
0+00		383.92	5.05	378.87	373.64	5.23	MH # 371
+25			5.14	378.78	373.74	5.04	
+50			5.03	378.89	373.84	5.05	
+75			4.65	379.27	373.94	5.33	
1			5.11	378.81	374.04	4.77	
+25			4.92	379.00	374.14	4.86	
+50 TP			4.91	379.01	374.24	4.77	Grade Sheet # 490
+75	4.81	383.82	4.83	378.99	374.34	4.65	
2			4.80	379.02	374.44	4.58	
+25			4.89	378.93	374.54	4.39	
+50			4.80	379.02	374.64	4.38	
+75			4.67	379.15	374.74	4.41	
3			4.41	379.41	374.84	4.57	
+17 TP			4.40	379.42	374.91	4.51	F.T # 46
TP	5.30	384.72	5.41	379.31			
B.M.	3.40	382.71	4.55	378.16	378.06		B.P N.W. Pacific + Orange

Castle Street + Swift – Pacific alley
MH #101½T – MH #378

Sta.	+	H.I.	–	Eley.	Grade
					8.969%
B.M.				285.97	
TP	0.44	286.41	12.77	273.64	
0+00	11.86	285.50	12.64	272.86	267.30
+25	11.81	284.67	13.05	271.62	269.54
+35			4.78	279.89	270.44
+50			1.85	282.82	271.78
+75			1.75	282.92	274.03
N.W. +97			0.88	283.79	276.00
				284.18	

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Chisholm & Shawer 10-12-22

Cut	Staked on 6' offset North
B.P. N.E.	Swift + Castle
5.56	MH #101½T
2.08	
9.45	
11.04	Grade Sheet #477
8.89	
7.79	MH #386
F. 0.39	Street Grade at MH #386

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Sta	+	H.I	-	Elev	Grade 13.684%
0+00		284.67	0.88	283.79	276.00
+25	10.79	294.58	9.90	284.68	279.42
+50			7.49	287.09	282.84
+75			3.92	290.66	286.26
TP			0.52	294.06	
1+00	12.12	306.18	11.63	294.55	289.68
+25			7.93	298.25	293.11
+50			3.99	302.19	296.53
+75 TP N.W.			0.47	305.71	299.95
+90	2.22	307.93	0.89	307.04	302.00
TP			12.80	295.13	
B.M.	0.44	295.57	9.59	285.98	285.97
				307.60	

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Bishop & Shawver 10-12-22

Cut	Staked on 6' offset North			
7.79		MH #386		
5.26				
4.25				
4.40				
—		Grade Sheet #478		
4.87				
5.14				
5.66				
5.76				
5.64		MH #383		
B.P. N.E. Swift & Castle				
F 0.56		Street Grade	MH #383	

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Sta.	+	H.I.	-	Elev.	Grade ·4%	Cut	Staked on 6' offset East.
0+00	From Page 51			307.04	302.00	5.04	MH # 383
+25	4.58	311.62	4.23	307.39	302.10	5.29	
+50			1.42	310.20	302.20	8.00	
+75			3.09	308.53	302.30	6.23	
1			4.06	307.56	302.40	5.16	
+25			4.09	307.53	302.50	5.03	Grade Sheet # 491
+50			4.10	307.52	302.60	4.92	
+75			3.48	308.14	302.70	5.44	
2			3.63	307.99	302.80	5.19	
+25			3.27	308.35	302.90	5.45	
+40			3.57	308.05	302.96	5.09	MH # 384

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Chisholm & Shawver 10-14-22

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Sta.	+	H.I.	−	Elev.	Grade	Cut	Staked on 6' offset East
0+00		311.62	3.57	308.05	302.96	5.09	MH #384
+25			1.84	309.78	303.06	6.72	
+50 TP			0.78	310.84	303.16	7.68	
+75	6.18	317.02	5.07	311.95	303.26	8.69	
1			4.20	312.82	303.36	9.46	
+25			3.68	313.34	303.46	9.88	
+50			3.95	313.07	303.56	9.51	Grade Sheet #492
+75			4.30	312.72	303.66	9.06	
2			5.07	311.95	303.76	8.19	
+25			6.81	310.21	303.86	6.35	
+40			8.16	308.86	303.92	4.94	MH #385
TP			9.53	307.49			
B.M.	3.89	311.38	4.32	307.06	307.04		

2x2 hub at P.I. of 6' offset No. + W. at MH #383

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Sta.	+	H.I.	−	Elev	Grade 7.954	Cut	Staked on 6' offset West
	From Page 52 This Book			307.04	302.00	5.04	MH # 383
+25	11.94	318.98	12.37	306.61	303.99	2.62	
+50			7.51	311.47	305.98	5.49	
+75			4.38	314.60	307.97	6.63	
1			3.26	315.72	309.95	5.77	
+25			2.27	316.71	311.94	4.77	Grade Sheet # 479
+50			0.46	318.52	313.93	4.59	
+75	12.25	330.77	9.78	320.99	315.92	5.07	
2			6.76	324.01	317.91	6.10	
+20			5.57	325.20	319.50	5.70	MH # 382

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Chisholm / Shawver 10-14-22

Sta.	+	H.I	-	Elev.	Grade 7.954%	Cut	Staked on 6' offset West
0+00		330.77	5.57	325.20	319.50	5.70	MH #382
+25			3.51	327.26	321.49	5.77	
+50 TP			2.35	328.42	323.48	4.94	
+75	11.43	339.85	9.21	330.64	325.47	5.17	
1			7.02	332.83	327.45	5.38	
+25			5.47	334.38	329.44	4.94	
+50			3.03	336.82	331.43	5.39	Grade Sheet # 480
+75 TP			2.02	337.83	333.42	4.41	
2	12.08	349.91	9.42	340.49	335.41	5.08	
+20			9.01	340.90	337.00	3.96	MH #381
TP			1.48	348.43			
TP	12.12	360.55	3.27	357.28			
B.M.	5.96	363.24	3.14	360.10	360.10		2x2 hub on 6' offset West from MH #378

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Sta.	+	H.I.	-	Elev	Grade 1.397%	Cut	Staked on 6' offset West
0+00	From Page 55			340.90	337.00	3.90	MH # 381
+25	11.13	352.03	9.55	342.48	337.35	5.13	
+50			9.04	342.99	337.70	5.29	
+75			8.04	343.99	338.05	5.94	
1			6.83	345.20	338.40	6.80	
+25			6.39	345.64	338.75	6.89	
+50			5.19	346.84	339.10	7.74	Grade Sheet # 481
+75			5.04	346.99	339.44	7.55	
2			6.98	345.05	339.79	5.26	
+25			7.76	344.27	340.14	4.13	
+50			7.02	345.01	340.49	4.52	
+75			6.54	345.49	340.84	4.65	
3 +00 45			1.90	350.13	341.20	8.93	MH # 380

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Chisholm File 10-15-22

Chisholm
Hile } 10-15-22

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Sta.	+	H.I	-	Elev.	Grade 3.769%	Cut	Staked on 6' offset West
0+00		352.03	1.90	350.13	341.20	8.93	M# 380
+25	10.61	360.74	8.02	352.72	342.14	10.58	
+50			7.31	353.43	343.08	10.35	
+75			6.71	354.03	344.03	10.00	
1			6.41	354.33	344.97	9.36	
+25			6.00	354.74	345.91	8.83	Grade Sheet #482
+50			5.12	355.62	346.85	8.77	
+75			4.98	355.76	347.80	7.96	
2			4.47	356.27	348.74	7.53	
+25			4.40	356.34	349.68	6.66	
+50	Strike out				350.62		
+60			4.29	356.45	351.00	5.45	M# 379

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Sta.	+	H.I.	-	Elev.	Grade .666
0+00		360.74	4.29	356.45	351.00
+25 TP			4.20	356.54	351.17
+50	6.62	363.16	6.10	357.06	351.33
+75			5.91	357.25	351.50
1			5.79	357.37	351.67
+25			4.94	358.22	351.83
+50			4.96	358.20	352.00
+75			4.96	358.20	352.17
2			4.66	358.50	352.33
+25			4.48	358.68	352.50
+50			3.64	359.52	352.67
+75			3.43	360.03	352.83
3+00 20			3.06	360.10	353.00

Chisholm Hile 10-15-27

CUT	Staked on 6' offset West
5.45	M# 379
5.37	
5.73	
5.75	
5.70	
6.39	
6.20	Grade Sheet # 483
6.03	
6.17	
6.18	
6.85	
7.26	
7.10	M# 378

Swift Ave MH# 386 — MH# 387

Chisholm / Hile } 10-15-22

Sta	+	H.I.	−	Elev	Grade	Cut	Staked on 6' offset West
					8.709%		
0+00	From Page 50			283.79	276.00	7.79	MH# 386
+25	12.43	296.22	12.00	284.22	278.18	6.04	
+50			10.65	285.57	280.35	5.22	
+75			8.71	287.51	282.53	4.98	
1			6.16	290.06	284.71	5.35	
+25			4.00	292.22	286.89	5.33	
+50			1.86	294.36	289.06	5.30	Grade Sheet# 473
TP			0.10	296.12		—	
+75	12.78	308.90	12.36	296.54	291.24	5.30	
2			10.17	298.73	293.42	5.31	
+25			7.99	300.91	295.60	5.31	
+50			5.71	303.19	297.77	5.42	
+75			3.64	305.26	299.95	5.31	
3 TP			1.36	307.54	302.13	5.41	
+20	12.70	320.24	10.96	309.28	303.87	5.41	MH# 388
				309.12		0.16	Street Grade at MH# 388

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Chisholm Hile 10-15-22

Cont'd from Page 59

Sta.	+	H.I.	-	Elev.	Grade 8.702%	Cut	Staked on 6' offset West.
0+00		320.24	10.96	309.28	303.87	5.41	MH # 388
+25			8.89	311.35	306.05	5.30	
+50			6.73	313.51	308.22	5.29	
+75			4.50	315.74	310.40	5.34	
1			2.37	317.87	312.57	5.30	
+25 TP			0.18	320.06	314.75	5.31	Grade Sheet # 494
+50	12.88	332.94	10.66	322.28	316.92	5.36	
+75			8.70	324.24	319.10	5.14	
2			6.36	326.58	321.27	5.31	
+25			4.22	328.72	323.45	5.27	
+50 TP			1.98	330.96	325.63	5.33	
+75	10.76	341.72	8.57	333.15	327.80	5.35	
3 +00 25			6.58	335.14	330.00	5.14	MH # 387
TP			0.54	341.18			
TP	12.71	353.89	0.46	353.43			
TP	7.46	360.89	2.11	358.78			
B.M.	6.38	365.16	3.68	361.48	361.48		B.P.N.W. Pacific T. University
				334.94			Street Grade # MH 387

End of Sewer

Chisholm & Shawver 10-18-22

Cont'd from Page 71

Sta.	+	H.I.	−	Elev.	Grade .3%	Cut	Staked on 6 offset East
3+58 8/		328.98	4.89	324.09	318.00	6.09	
+83 8/			4.65	324.33	318.08	6.25	
4 +08 8/	TP		4.27	324.71	318.15	6.56	
+33 8	4.98	329.69	4.15	325.54	318.23	7.31	
+58 8/			5.26	324.43	318.30	6.13	Grade Sheet #555
+83 8/			5.34	324.35	318.38	5.97	
5 +08 8/			5.36	324.33	318.45	5.88	
+33 8/			5.72	323.97	318.53	5.44	
+58 8/			6.10	323.59	318.60	4.99	
+83 8/			6.57	323.12	318.68	4.44	
6 +08 8/			7.08	322.61	318.75	3.86	F.T. #53
TP	7.78	330.39	5.32	325.07			
TP	5.36	330.43	3.34	327.09			
TP	5.33	332.42	2.41	330.01			
TP	4.73	334.74	9.25	325.49			
TP	3.51	329.00	0.63	328.37			
B.M. (S.D.)	7.71	336.08	2.60	333.48	333.44	B.P. N.W. University & Pueblo	

End of Sewer

Mission - Wabash Alley MH# 405 - F.T. # 48

Chisholm } 10-18-22
Shawver }

Sta.	+	H.I.	-	Elev.	Grade .3%	Cut	Staked on 6' offset East.
0+00	From Page 73 This Book			316.27	304.40	11.87	MH# 405
+25	7.06	323.33	7.99	315.34	304.48	10.86	
+50			6.54	316.79	304.55	12.24	
+75			5.74	317.59	304.63	12.96	
1			5.78	317.55	304.70	12.85	
+25			4.87	318.46	304.78	13.68	
+50			5.36	317.97	304.85	13.12	Grade Sheet # 495
+75			5.25	318.08	304.93	13.15	
2			5.52	317.81	305.00	12.81	
+25			5.76	317.57	305.08	12.49	
+50			5.42	317.91	305.15	12.76	
+75			5.46	317.87	305.23	12.64	
3 TP			5.31	318.02	305.30	12.72	
+25	4.44	322.46	4.37	318.09	305.38	12.71	
+50			4.63	317.83	305.45	12.38	
+75			4.39	318.07	305.53	12.54	
+99.5			4.63	317.83	305.60	12.23	MH# 406

Cont'd on Page 64

Cont'd from Page 63

Chisholm } 10-18-22
Shawver }

Sta	+	H.I.	-	Elev	Grade .3%	Cut	Staked on 6' offset East.
0+00		322.46	4.63	317.83	305.60	12.23	MH # 406
+25			4.94	317.52	305.68	11.84	
+50			5.09	317.37	305.75	11.62	
+75			5.50	316.96	305.83	11.13	
1			6.15	316.31	305.90	10.41	
+25			6.67	315.79	305.98	9.81	
+50			7.28	315.18	306.05	9.13	
+75			7.80	314.66	306.13	8.53	Grade Sheet # 496
2 TP			8.09	314.37	306.20	8.17	
+25	2.75	317.12	3.24	313.88	306.28	7.60	
+50			4.37	312.75	306.35	6.40	
+75			4.71	312.41	306.43	5.98	
3			4.72	312.40	306.50	5.90	
+25			5.35	311.77	306.58	5.19	
+50			5.76	311.36	306.65	4.71	
+75			5.87	311.25	306.73	4.52	
4+00			6.42	310.70	306.80	3.90	MH # 407

Cont'd on Page 65

Cont'd from Page 64

Chisholm } 10-18-22
Shawver }

Sta	+	H.I.	−	Elev.	Grade 1.433%	Cut	Staked on 6' offset East.
0+00		317.12	6.42	310.70	307.00	3.70	MH #407
+25			7.28	309.84	307.36	2.48	
+50			6.68	310.44	307.72	2.72	
+75			5.72	311.40	308.07	3.33	
1 TP			5.23	311.89	308.43	3.46	
+25	9.51	321.40	8.29	313.11	308.79	4.32	Grade Sheet #551
+50			8.03	313.37	309.15	4.22	
+75			7.65	313.75	309.51	4.24	
2			7.08	314.32	309.87	4.45	
+25			7.62	313.78	310.22	3.56	
+50			7.06	314.34	310.58	3.76	
+79			6.12	315.28	311.00	4.28	F.T. #48
TP			1.67	319.73			
TP	4.89	324.62	3.01	321.61			
TP	7.28	328.89	6.25	322.64			
TP	7.78	330.42	5.32	325.10			
TP	5.36	330.46	3.34	327.12			
TP	5.33	332.45	2.41	330.04			
TP	4.73	334.77	9.25	325.52			
TP	3.51	329.03	0.63	328.40			
B.M. (S.D.)	7.71	336.11	2.60	333.51	333.44		B.P. N.W. University + Pueblo

Pueblo – Mission alley MH# 105T – MH# 439
MH# 105T – F.T. #53

Chisholm Showver 10-14-22

Sta	+	H.I.	–	Elev.	Grade	Cut	Staked on 6' offset East
B.M.	From Page 72			289.40	10.388 %		W/S MH ring on ℄ E & W, at MH# 104T
TP	11.48	300.88	0.89	299.99			
0+00	11.08	311.07	10.91	300.16	295.20	4.96	MH# 105T Take grade from
+25			10.37	300.70	297.80	2.90	E/S MH ring on ℄ E. & W.
+50			7.18	303.89	300.39	3.50	
TP			0.06	311.01	—	—	
+75	11.22	322.23	10.89	311.34	302.49	8.35	Grade Sheet # 498
1			9.85	312.38	305.59	6.79	
+25			8.19	314.04	308.19	5.85	
+50			6.37	315.86	310.78	5.08	
+75			3.53	318.70	313.38	5.32	
+87 1			2.26	319.97	314.70	5.27	MH# 441
TP			12.51	309.72			
B.M.	0.75	310.47	10.33	300.14	300.16		E/S MH# ring on ℄ E & W. at MH# 105T

Chisholm
Shawver } 10-14-22

Cont'd from Page 66

Sta	+	H.I.	−	Elev.	Grade 18.049%	Cut	Staked on 6' offset East
0+00	From	Page 66		300.16	295.20	4.96	MH# 105T.
+25	10.33	310.49	7.89	302.60	299.71	2.89	
TP			0.81	309.68	—	—	
+50	11.54	321.22	10.69	310.53	304.22	6.31	Grade Sheet #497
+75			3.26	317.96	308.74	9.22	
1			1.46	319.76	313.25	6.51	
+09 I			1.17	320.05	315.00	5.05	MH# 440

Cont'd on Page 68

Chisholm
Shawver } 10-4-22

Cont'd from Page 67

Sta.	+	H.I.	-	Elev.	Grade 2.718%	Cut	
0+00		321.22	1.17	320.05	315.00	5.05	Staked on 6' offset West
+25 TP			1.18	320.04	315.68	4.36	MH # 440 – Take grade from 2x2 hub on 6' offset East
+50	11.87	331.91	10.14	321.77	316.36	5.41	
+75			9.20	322.71	317.04	5.67	
1			7.87	324.04	317.72	6.32	
+25			6.91	325.00	318.40	6.60	
+50			6.02	325.89	319.08	6.81	
+75			4.77	327.14	319.76	7.38	Grade Sheet # 552
2			3.72	328.19	320.44	7.75	
+25			2.96	328.95	321.12	7.83	
+50			2.31	329.60	321.80	7.80	
+75			1.47	330.44	322.47	7.97	
3			0.88	331.03	323.15	7.88	
+25 TP			0.12	331.79	323.83	7.96	
+50	6.50	338.29	5.80	332.49	324.51	7.98	
+75			5.13	333.16	325.19	7.97	
4+04 I			5.97	332.32	326.00	6.32	MH # 439
B.M. (S.D.)			4.78	333.51	333.44		B.F. N.W. University + Pueblo.

Cont'd on Page 69

Cont'd from Page 68

Sta.	+	H.I.	-	Elev.	Grade .3%	Cut	Staked on 6' offset East.
0+00	From Page 66			319.97	314.70	5.27	MH # 441
+25	11.00	330.97	9.67	321.30	314.78	6.52	
+50			8.56	322.41	314.85	7.56	
+75			7.62	323.35	314.93	8.42	
1			6.58	324.39	315.00	9.39	
+25			5.69	325.28	315.08	10.20	
+50			5.12	325.85	315.15	10.70	Grade Sheet # 553.
+75			5.12	325.85	315.23	10.62	
2			4.84	326.13	315.30	10.83	
+25			4.55	326.42	315.38	11.04	
+50			4.97	326.00	315.45	10.55	
+75			4.69	326.28	315.53	10.75	
3 TP			4.94	326.03	315.60	10.43	
+25	5.65	331.68	5.79	325.89	315.68	10.21	
+50			5.83	325.85	315.75	10.10	
+79 3			5.64	326.04	315.84	10.20	MH # 442

Cont'd on Page 70.

Cont'd from Page 69

Sta	+	H.I.	-	Elev.	Grade .3%
0 + 00		331.68	5.64	326.04	315.84
+25			5.41	326.27	315.92
+50			5.19	326.49	315.99
+75			4.98	326.70	316.07
1			4.62	327.06	316.14
+25			4.72	326.96	316.22
+50			4.77	326.91	316.29
+75			4.58	327.10	316.37
2 TP			4.87	326.81	316.44
+25	2.93	329.74	2.91	326.83	316.52
+50			3.14	326.60	316.59
+75			3.42	326.32	316.67
3			3.53	326.21	316.74
+25			4.46	325.28	316.82
+60			5.15	324.59	316.92

Cont'd on Page 71

Chisholm & Shawver 10-18-22

Cut	
	Staked on 6' offset East.
10.20	MH # 442
10.35	
10.50	
10.63	
10.92	
10.74	
10.62	Grade Sheet # 554
10.73	
10.37	
10.31	
10.01	
9.65	
9.47	
8.46	
7.67	MH # 443

Cont'd from Page 70

Sta	+	H.I	-	Elev.	Grade .3%	Cut	Staked on 6' offset East
0+00		329.74	5.15	324.59	316.92	7.67	MH # 443
+25			5.94	323.80	317.00	6.80	
+50			7.04	322.70	317.07	5.63	
+75			7.58	322.16	317.15	5.01	
1			8.20	321.54	317.22	4.32	
+25			9.03	320.71	317.30	3.41	Grade Sheet # 555
+50 TP			9.71	320.03	317.37	2.66	
+75	8.95	328.98	9.51	319.47	317.45	2.02	
2			9.50	319.48	317.52	1.96	
+25			9.22	319.76	317.60	2.16	
+50			9.11	319.87	317.67	2.20	
+75			8.09	320.89	317.75	3.14	
3			6.24	322.74	317.82	4.92	
+25			5.22	323.76	317.90	5.86	
+50			4.86	324.12	317.97	6.15	
+58 BC			4.89	324.09	318.00	6.09	(F.T # 53 - moved 250' So. Cont'd on Page 62)

Cont'd on Page 62

Mission-Wabash alley MH#104T - MH#405

Sta.	+	H.I.	-	Elev.	Grade .725%	Cut	Staked on 6' offset West.
B.M.	From Page 74 This Book			294.16			2x2 hub on 6' offset West from center of MH#403
W.S. 0+00	2.99	297.15	7.75	289.40	282.54	6.86	MH#104T
+25			11.12	286.03	282.72	3.31	
+50			10.02	287.13	282.90	4.23	
+63¼			4.45	292.70	283.00	9.70	MH#404

Grade Sheet # 499

Cont'd on Page 73

Cont'd from Page 72

Chisholm } 10-9-22
Shawver }

Sta.	+	H.I.	-	Elev	Grade	Cut	Staked on 6' offset West.
					48.63		
0+00		297.15	4.45	292.70	283.00	9.70	MH # 404
TP			0.30	296.85		—	
+25	12.68	309.53	1.50	308.03	295.16	12.87	
TP			0.44	309.09			Grade Sheet # 500
+44	7.44	316.53	0.26	316.27	304.40	11.87	MH # 405
TP			11.76	304.77			
B.M.	1.91	306.68	12.51	294.17	294.16		2x2 hub on 6' offset West from center of MH # 403

Wabash Ave. MH # 102T – MH # 403

Bisholm / Smale } 9-20-22

	+	H.I.	–	Elev.	Grade 6.825%	Cut	Staked on 6' offset West
B.M.				285.97		B.P.	N.E. Swift & Castle
Wl. S. 0+00 TP	4.76	290.73	9.50	281.23	274.80	6.43	MH # 102T
+25	12.90	294.13	11.62	282.51	276.51	6.00	
+50			9.08	285.05	278.21	6.84	
+75			8.30	285.83	279.92	5.91	
1+00			8.23	285.90	281.63	4.27	
+25			6.96	287.17	283.33	3.84	
+50			6.07	288.06	285.04	3.02	
+75			4.48	289.65	286.74	2.91	
2+00			2.64	291.49	288.45	3.04	
TP			0.83	293.30			
+35.6	2.21	295.51	1.35	294.16	290.88	3.28	MH # 403
TP			6.49	289.02			
B.M.	1.69	290.71	4.72	285.99	285.97	B.P.	N.E. Swift & Castle.

Slope Meas. alley

Blk F McFadden & Buxton

" 33 Park Villas.

Moore

7-23-40.

14.90	x 50 =	745.00
14.85	x 50 =	742.50
14.95	x 50 =	747.50
15.00	x 100 =	1500.00
14.95	x 50 =	747.50
14.80	x 50 =	740.00
14.65	x 50 =	732.50
14.45	x 25 =	361.25
14.40	x 25 =	360.00
14.55	x 50 =	727.50
14.60	x 24 =	350.40
14.80	x 00.10	1.48
15.00	x 77	1155.00
	601.10 =	8910.63 □'

5817-L

INDEXED
EFB

Landis ST.

0+00	15
0+50	14.8
1+00	14.9
1+50	15
2+50	15
3+00	14.9
3+50	14.7
4+00	14.6
4+25	14.3
4+50	14.5
5+00	14.6
5+24	14.6
5+24.10	15
6+01.10	15

Fence in alley on east side

Fence in alley

8910.63 □'
7-24-40

DWIGHT ST

B.M.				326.40							
	0.60	377.00	12.37	314.63			−	3.91			
	0.17	314.80	13.10	301.70			+	3.61			
	0.68	302.38	12.63	289.75							
	0.43	290.18	4.25	285.93							
				373.25	369.83	3.42					
	2.95	376.20	8.56	367.64							
	1.77	369.41	7.59	361.82							
	0.96	362.78	1.03	361.75							
			7.40	355.38	351.97	3.41					
			351.97								
	7.40	359.37									
			5.86	353.51							

0+00				272.20	263.91
+25				274.56	267.58
+50				277.44	271.25
+75				280.27	274.92
1+00				283.58	278.59
+~~16~~ 4				286.26	281.00

330 – 319 225 – 315

329 – F.T. 42 0+00 – 317

395 – 394 1+25 – 175

355 – 354 0+00 3+20

354 N. 0+50

36
28
64

y branches 64.

8.29
6.98
6.19
5.35
4.99
5.26

63,91
3.6705
675805
3.6705
712510
3.6705
7492.15
3.6705
7859.20
23958
809878

164

14682
164
58728
86892
14682
2395848

				351.97
	1.81	353.78	8.11	345.67
				349.62
	3.62	353.24	5.94	347.30
	3.92	351.22	5.46	345.76
	12.85		12.85	22.05
	5.00			
		77.20	7	7220
			12.85	264.35

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	5.33
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	25.2	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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