FEDERAL ROAD REGION NO	DIVISION	PROJECT NO	SHEET NO
9	COLORADO	S 0133 (2)	1
			TOTAL SHEETS
			93

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO

R.O.W. ACQUIRED UNDER PROJECT NOS. S 0133(1) & S 0133(2).

AS CONSTRUCTED
REVISED DATE OCT 12 1967

PLAN AND PROFILE OF ~~PROPOSED~~ CONSTRUCTED

FEDERAL AID PROJECT NO. S 0133 (2)

STATE HIGHWAY NO. 42

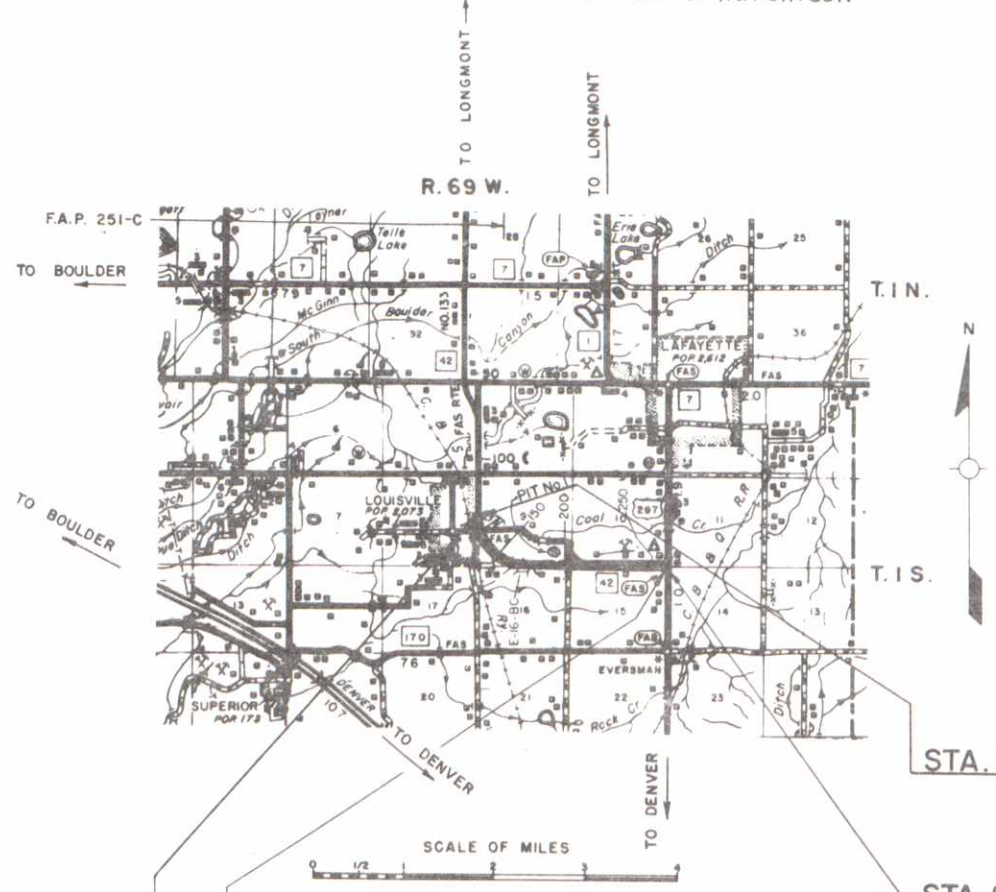
BOULDER COUNTY

SCALES OF ORIGINAL DRAWINGS

ON PLAN, 1 IN. = 100 FT.
ON PROFILE, 1 IN. = 100 FT. HORIZONTAL; 1 IN. = 10 FT. VERTICAL

GRADE LINE ON PROFILE IS SHOWN AS GRADE OF FINISHED ROAD

PROJ. BEGAN	MARCH 6, 1967
PROJ. COMPLETED	OCTOBER 12, 1967
CONTRACTOR	FLATIRON PAVING CO.
RESIDENT ENGR.	GEO. DANFORTH JR.
PROJECT ENGR.	JAMES D. HUTCHISON



STA. 139+15.7 BEGIN R.O.W. S 0133(2)

STA. 256+06.9 END R.O.W. S 0133(2)

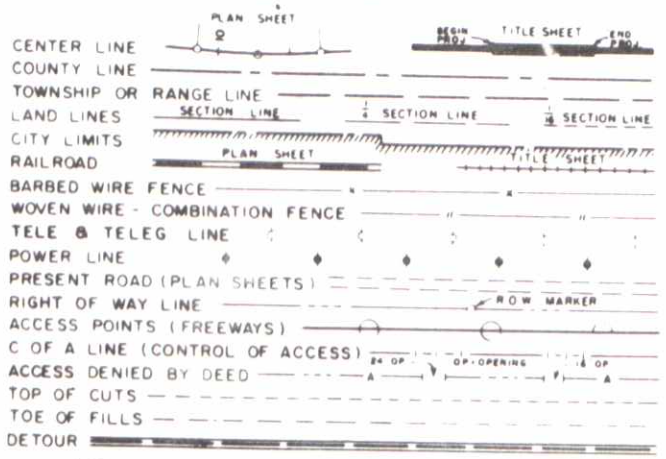
STA. 126+00 BEGIN CONST. S 0133(2)
STA. 126+00 END CONST. S 0133(1)

STA. 255+98.0 END CONST. S 0133(2)=
8.9' LT. APPROX. STA. 831+20 on C07-0001-06

APPROVED Albert Schreiner 12/5/67
DISTRICT FOUR

Oct. 12, 1967

CONVENTIONAL SIGNS



TABULATION OF LENGTH AND DESIGN DATA

STATION	R.O.W. LIN. FT.	ROADWAY LIN. FT.	MAJOR STRUCTURES LIN. FT.
126+00 BEGIN CONST. S0133(2)= 126+00 END CONST. S0133(1)			
139+15.7 BEGIN R.O.W. S0133(2)=		1315.7'	
S.T. 164+13.8 Bk (PROJ.)= 164+23.8 Ah (SURV.) EQUATION	2,498.1'	2498.1'	
168+54.0 STR No. E-16-BC 168+96.0	430.2' 42.0'	430.2'	42.0'
P.T. 190+87.6 Bk= 190+87.5 Ah. EQUATION	2,191.6	2,191.6	
203+30.7 Bk.= 203+30.7 Ah. EQUATION	1243.2'	1243.2'	
255+98.0 END CONST. S0133(2) = 8.9' LT Approx. STA. 831+20 ON C07-0001-06	5261.3'	5261.3	
256+06.9 END R.O.W. S0133(2)	8.9'		
TOTALS	11,675.3'	12,940.1'	42.0'

SUMMARY	LIN. FT.	MILES
Roadway - Net Length	12,940.1'	2.451
Structure	42.0'	0.008
ROW	11,675.3'	2.211
Net & Gross Length of Construction	12,982.1'	2.459

DESIGN DATA	
MAXIMUM DEGREE of CURVE	5°00'
MAXIMUM GRADE	6%
MINIMUM S.S.D. HORIZONTAL	635'
MINIMUM S.S.D. VERTICAL	495'
MAXIMUM DESIGN SPEED	60 MPH.

INDEX OF SHEETS

SEE SPECIAL PROVISIONS FOR NOTICE TO BIDDERS

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO

APPROVED Chas. E. Shumate 2-2-67
CHIEF ENGINEER DATE

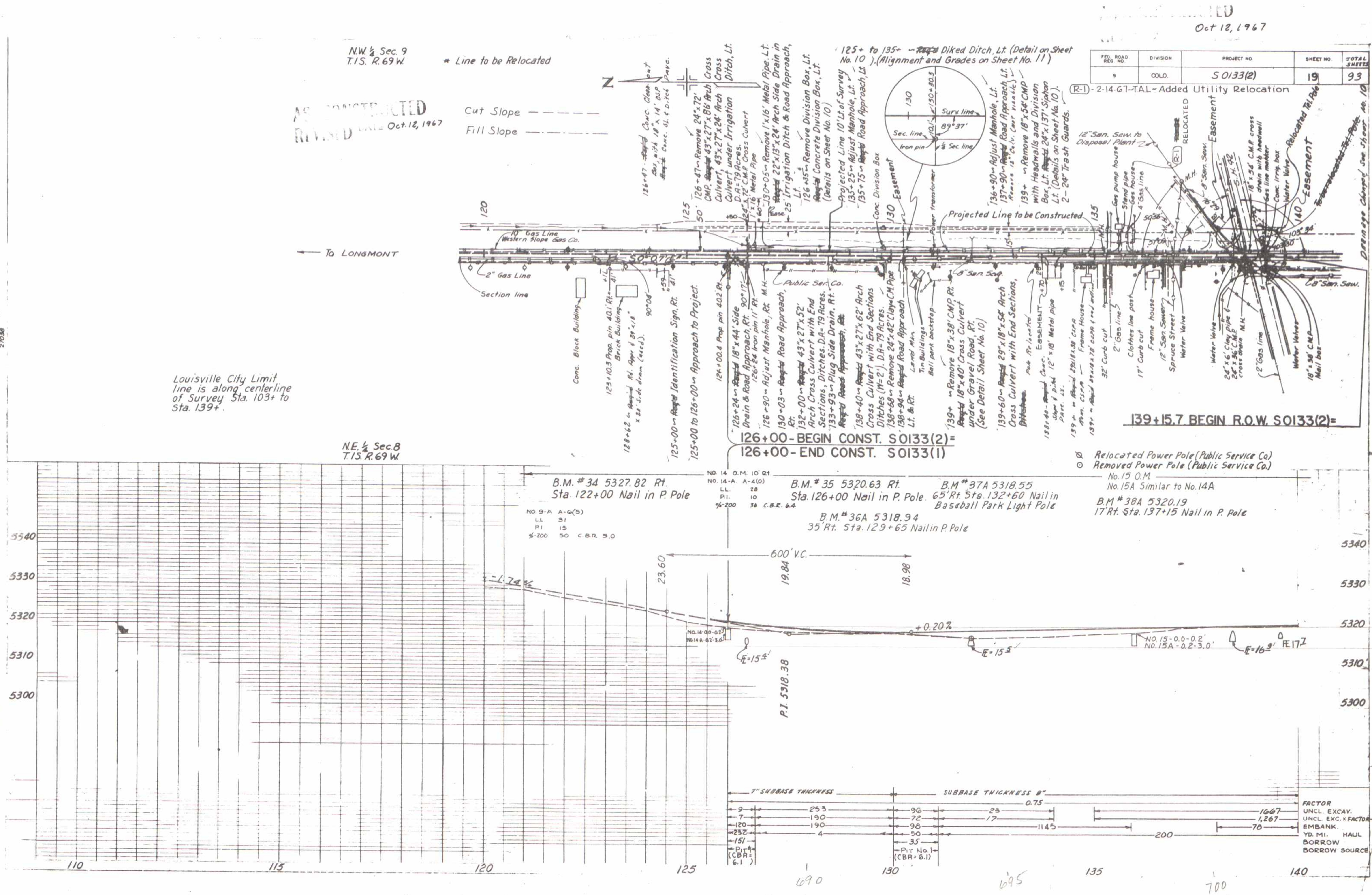
By L. L. Brown, Deputy Chief Engr.

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED _____ DATE

DIVISION ENGINEER

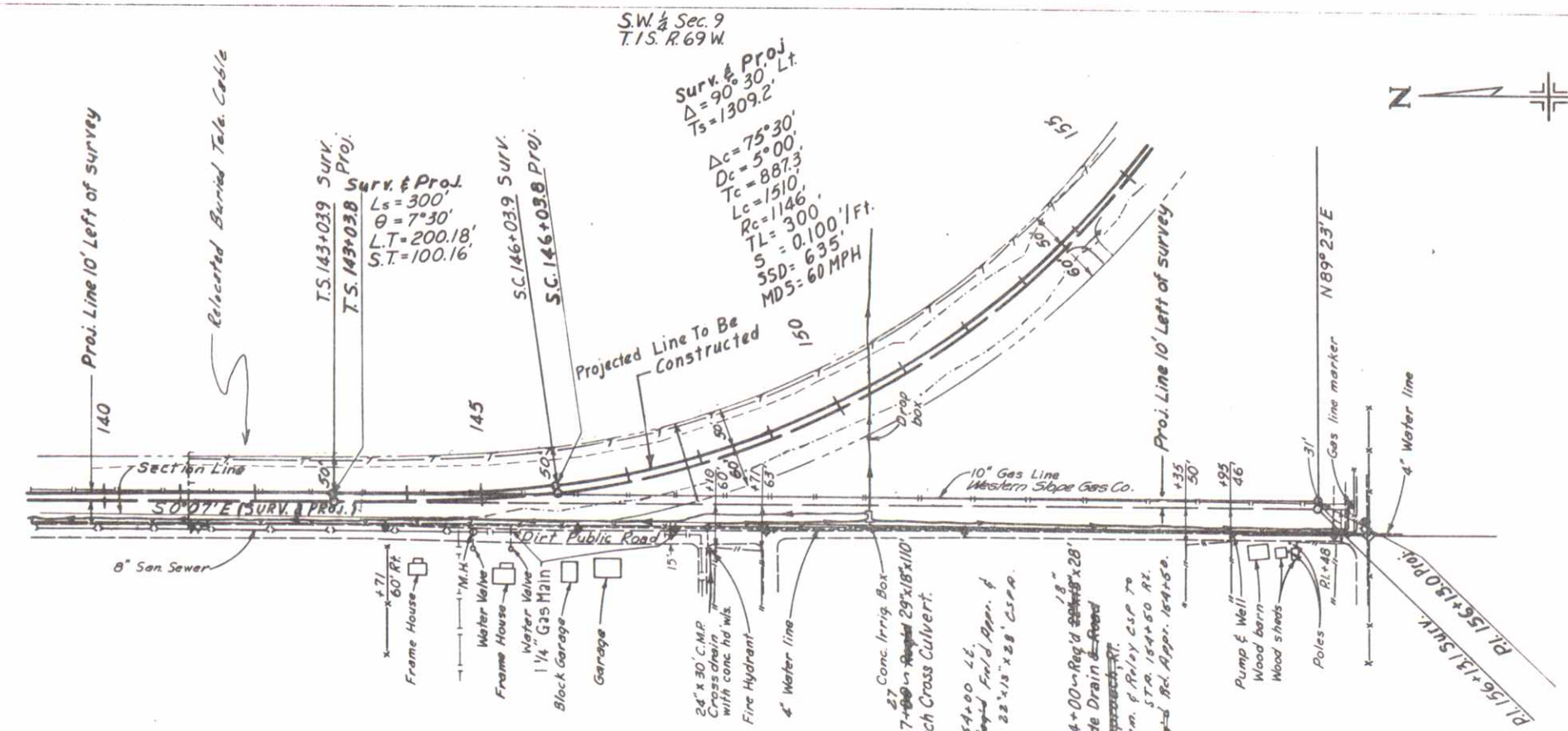
TAL



Oct 12, 1967
FED. ROAD REG. NO. 9
DIVISION COLO.
PROJECT NO. S 0133(2)
SHEET NO. 19
TOTAL SHEETS 93
(R-1) - 2-14-67-TAL - Added Utility Relocation
N.W. ¼ Sec. 9
T.1S. R.69W.
* Line to be Relocated
Cut Slope
Fill Slope
Oct. 12, 1967
To LONGMONT
Louisville City Limit line is along centerline of Survey Sta. 103+ to Sta. 139+.
125+ to 135+ Req'd Diked Ditch, Lt. (Detail on Sheet No. 10). (Alignment and Grades on Sheet No. 11)
Surv. line
Sec. line
Iron pin
¼ Sec. line
89°37'
130+30.3
10' Gas Line Western Slope Gas Co.
2" Gas Line
Section line
Conc. Block Building
Brick Building
123+10.3 Prop. pin 40.1' Rt.
125+00 Req'd Identification Sign, Rt.
125+00 to 126+00 Approach to Project.
126+00.8 Prop. pin 40.2' Rt.
126+24 Req'd 18"x44' Side Drain & Road Approach, Rt.
126+24 Iron pin 11' Rt.
126+90 Adjust Manhole, Rt. M.H.
130+03 Req'd Road Approach, Rt.
132+00 Req'd 43"x27"x52' Arch Cross Culvert with End Sections, Ditches. D.A.=19 Acres.
133+93 Plug Side Drain, Rt.
138+40 Req'd 43"x27"x62' Arch Cross Culvert with End Sections Ditches (W=2'). D.A.=79 Acres.
138+68 Remove 24"x42' Clay-CM Pipe
138+94 Req'd Road Approach Lt. & Rt.
126+47 Remove 24"x72' CMP. Req'd 43"x27"x86' Arch Cross Culvert, 43"x27"x24' Arch Culvert under Irrigation Ditch, Lt. D.A.=79 Acres.
24"x72' C.M.P. Cross Culvert
1'x16' Metal Pipe
130+05 Remove 1'x16' Metal Pipe, Lt.
Req'd 22"x13"x24' Arch Side Drain in 25' Irrigation Ditch & Road Approach, Lt.
126+35 Remove Division Box, Lt. Req'd Concrete Division Box, Lt. (Details on Sheet No. 10)
Projected Line 10' Lt. of Survey
135+25 Adjust Manhole, Lt.
135+75 Req'd Road Approach, Lt.
Conc. Division Box
Easement
Power transformer
Projected Line to be Constructed
136+90 Adjust Manhole, Lt.
137+90 Req'd Road Approach, Lt.
139+ Remove 18"x54' CMP with Headwalls and Division Box, Lt. Req'd 24"x137' Siphon Lt. (Details on Sheet No. 10). 2-24" Trash Guards.
Public Ser. Co.
8" San. Sew.
Ball park backstop
Tin Buildings
139+ Remove 18"x38' CMP Rt. Req'd 18"x40' Cross Culvert under Gravel Road, Rt. (See Detail Sheet No. 10)
139+60 Req'd 29"x18"x54' Arch Cross Culvert with End Sections,
Pole Relocated
Frame House
Gas pump house
Stand pipe
Gas house
4" Gas line
12" San. Sew. to Disposal Plant
RELOCATED
2" Gas line
32' Curb cut
Clothes line post
17' Curb cut
Frame house
12" San. Sewer
Spruce Street
Water Valve
24"x6' Clay pipe & 24"x36' C.M.P. cross drain M.H.
2" Gas line
Water Valves
18"x38' CMP
Mail box
8" San. Sew.
18"x54' C.M.P. cross drain with headwall
Gas line marker
Conc. irrig. box
Water Valve
Relocated Tel. Pole
Easement
Drainage Changed See Sheet No. 10
139+15.7 BEGIN R.O.W. S0133(2)=
126+00 - BEGIN CONST. S0133(2)=
126+00 - END CONST. S0133(1)
Relocated Power Pole (Public Service Co.)
Removed Power Pole (Public Service Co.)
N.E. ¼ Sec. 8
T.1S. R.69W.
B.M. #34 5327.82 Rt. Sta. 122+00 Nail in P. Pole
B.M. #35 5320.63 Rt. Sta. 126+00 Nail in P. Pole
B.M. #37A 5318.55 65' Rt. Sta. 132+60 Nail in Baseball Park Light Pole
B.M. #36A 5318.94 35' Rt. Sta. 129+65 Nail in P. Pole
B.M. #38A 5320.19 17' Rt. Sta. 137+15 Nail in P. Pole
No. 15 O.M.
No. 15A Similar to No. 14A
NO. 9-A A-6(5) LL 31 PI 15 %-200 50 C.B.R. 5.0
NO. 14 O.M. 10' Rt. NO. 14-A A-4(0) LL 28 PI 10 %-200 36 C.B.R. 6.4
600' V.C.
23.60
19.84
18.98
-1.74%
+0.20%
P.I. 5318.38
NO. 15 - 0.0 - 0.2'
NO. 15A - 0.2 - 3.0'
5340
5330
5320
5310
5300
7" SUBBASE THICKNESS
SUBBASE THICKNESS 8"
0.75
9 253 96 23 1667
7 190 72 17 1,267
120 190 98 1145 78
232 4 50 200
151 35
Pit 4 (CBR=6.1)
Pit No. 1 (CBR=6.1)
FACTOR
UNCL. EXCAV.
UNCL. EXC. x FACTOR
EMBANK.
YD. MI. HAUL
BORROW
BORROW SOURCE
110
115
120
125
130
135
140
690
695
700

AS CONSTRUCTED
REVISED DATE Oct 12, 1967

		PROJECT NO	SHEET NO	TOTAL SHEET
	COLO.	S 0133(2)	20	93



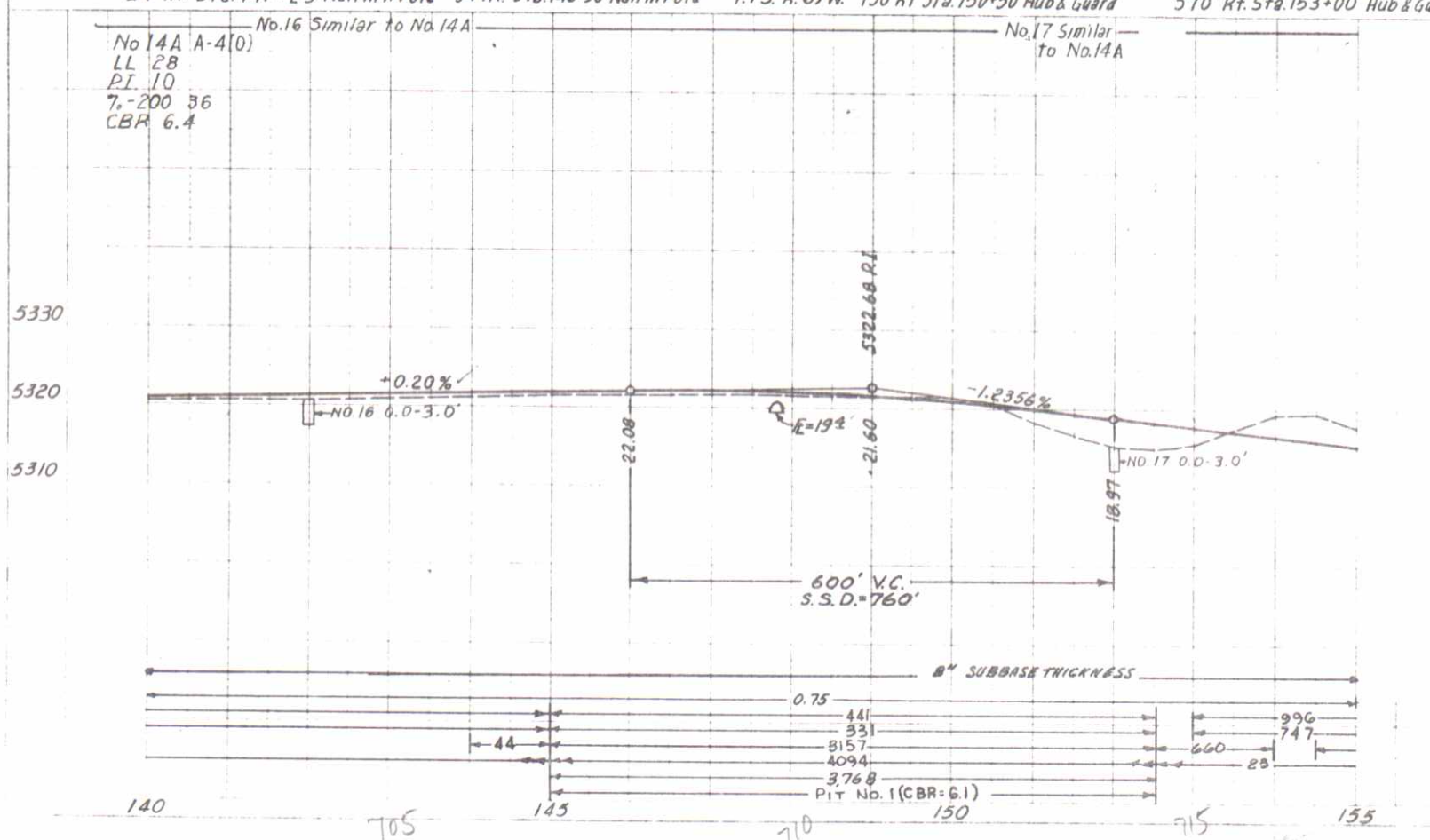
B.M.# 39A 5321.69
24' Rt. Sta. 141+25 Nail in P. Pole

B.M.# 40A 5325.28
34' Rt. Sta. 146+30 Nail in Pole

S.E. ¼ Sec. 8 T.1S. R.69W.

B.M.# 41A 5323.24
150' Rt. Sta. 150+50 Hub & Guard

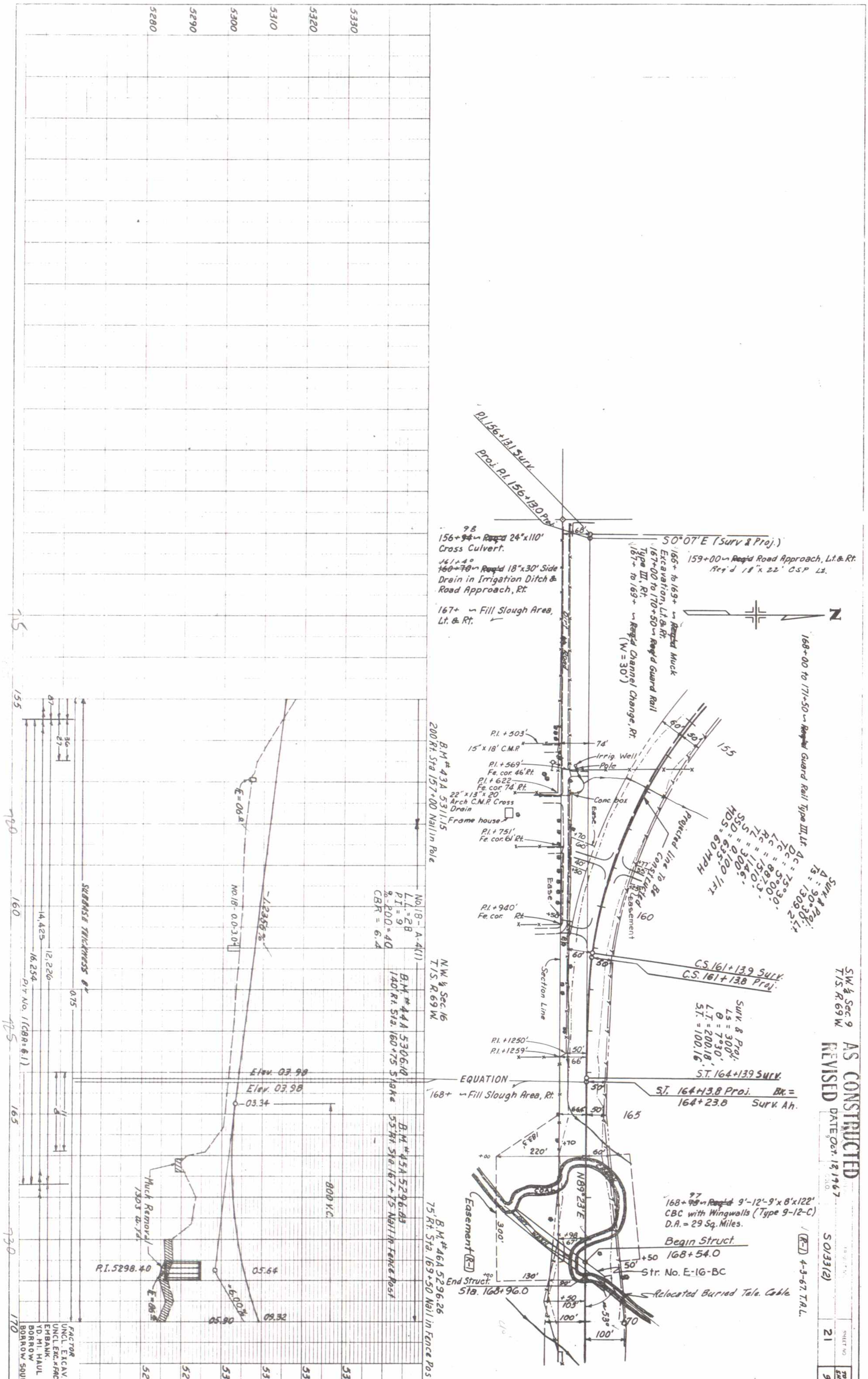
B.M.# 42A 5322.00
570' Rt. Sta. 153+00 Hub & Guard



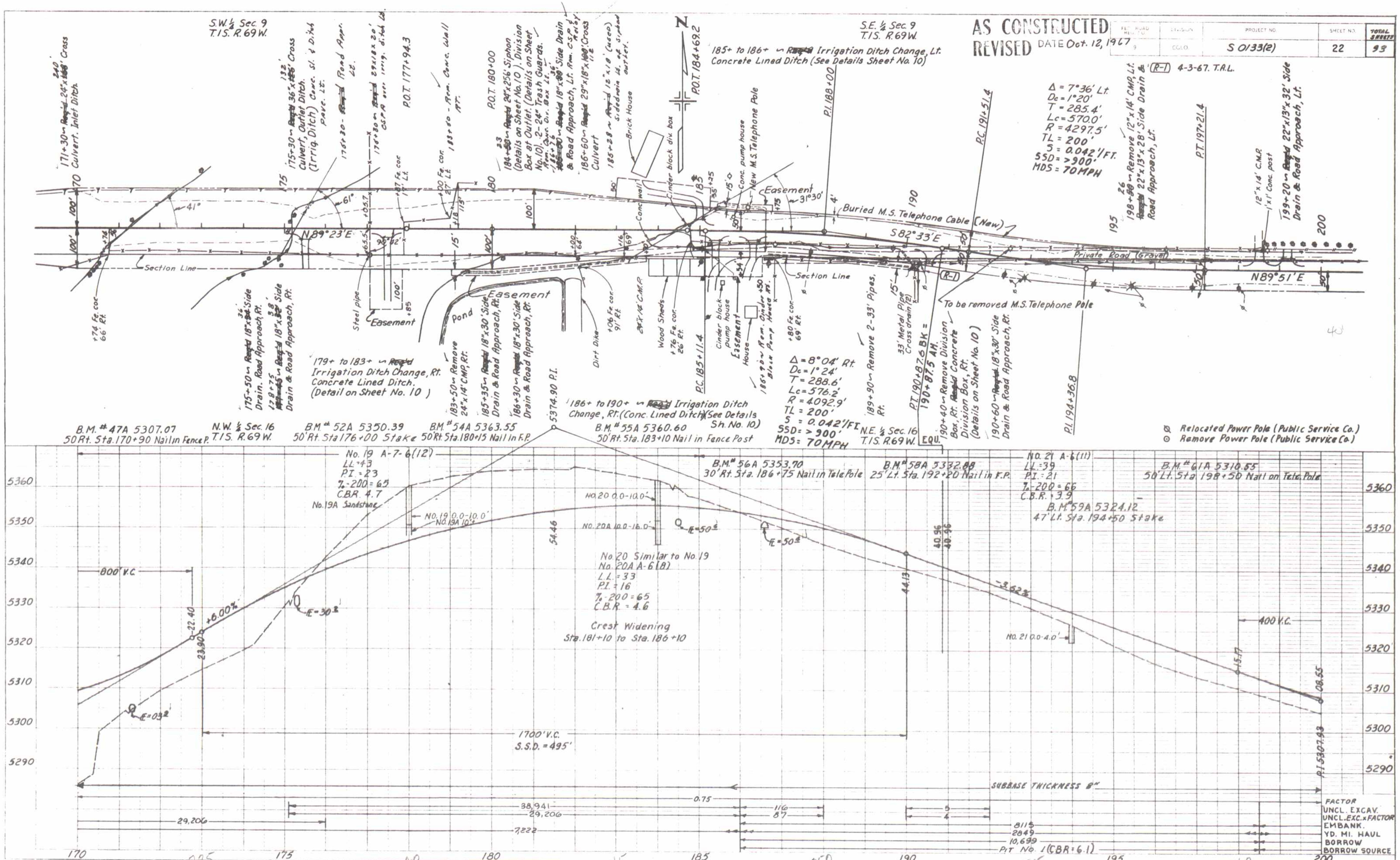
FACTOR
UNCL. EXC.AV.
UNCL. EXC. x FACTOR
EMBANK.
YD. MI. HAUL
BORROW
BORROW SOURCE

27700
27701

P.A. No. 66



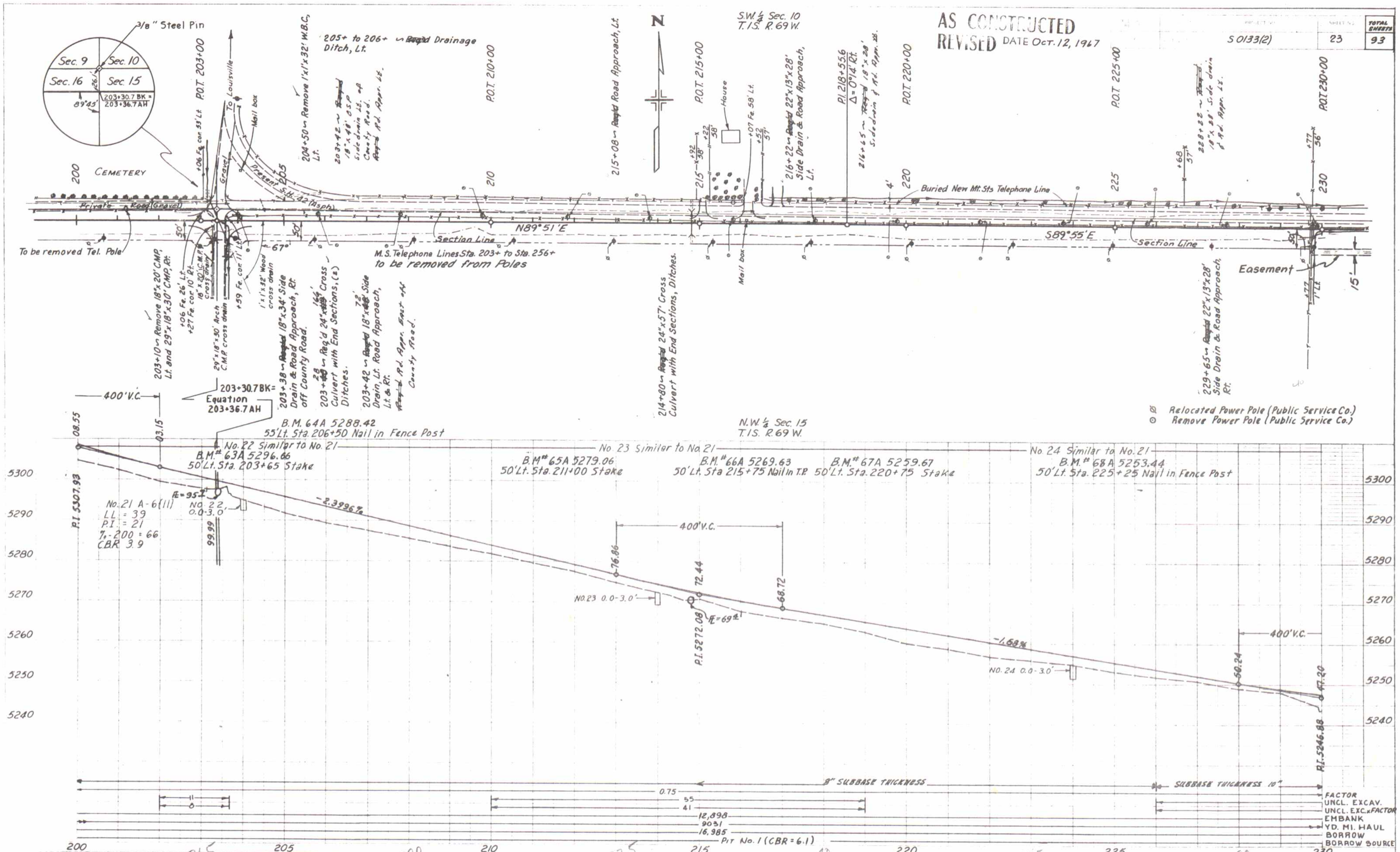
D.A. No. 66
27700
27701
5280
5290
5300
5310
5320
5330
P.I. 156+131 Surv.
Proj. P.I. 156+130 Proj.
S0°07'E (Surv & Proj.)
Cross Culvert.
Drain in Irrigation Ditch & Road Approach, Rt.
167+ ~ Fill Slough Area, Lt. & Rt.
159+00 ~ Road Approach, Lt. & Rt.
N
P.I. +503'
15" x 18' C.M.P.
Irrig. Well
Pole
Conc. box
Frame house
Base
Section Line
Easement
Projected line to be Constructed
155
160
165
170
C.S. 161+13.9 Surv.
C.S. 161+13.8 Proj.
ST. 164+13.9 Surv.
S.T. 164+13.8 Proj.
164+23.8
Surv. Ah.
EQUATION
Elev. 03.98
Elev. 03.98
168+ ~ Fill Slough Area, Rt.
B.M. #43A 5311.15
200' Rt. Sta. 157+00 Nail in Pole
B.M. #44A 5306.10
140' Rt. Sta. 160+75 Stake
B.M. #45A 5296.89
55' Rt. Sta. 167+75 Nail in Fence Post
B.M. #46A 5296.26
75' Rt. Sta. 169+50 Nail in Fence Post
No. 18 - A-4(1)
L.L. = 28
P.I. = 9
-200 = 40
CBR = 6.2
N.W. 1/4 Sec. 16
T.1S. R.69W.
SW. 1/4 Sec. 9
T.1S. R.69W.
Subbase Thickness 8"
Pit No. 11 (CBR=6.1)
Muck Removal
800' V.C.
P.I. 5298.40
05.64
05.80
09.32
03.34
-6.00%
FACTOR
UNCL. EXCAV.
UNCL. EXC. x FACTOR
EMBANK.
YD. MI. HAUL
BORROW
BORROW SOURCE
168+97 ~ Req'd 9'-12'-9' x 8' x 122' CBC with Wingwalls (Type 9-12-C)
D.A. = 29 Sq. Miles.
Begin Struct. 168+54.0
Str. No. E-16-BC
End Struct. Sta. 168+96.0
Relocated Buried Tele. Cable
N89°23'E
Easement
AS CONSTRUCTED
REVISED
DATE Oct. 18, 1967
S 0133(2)
4-3-67 T.R.L.
SHEET NO. 21
TOTAL SHEETS 93



27700
27701
D.A. No. 66
AS CONSTRUCTED
REVISED DATE Oct. 12, 1967
R-1 4-3-67. T.A.L.
FED. ROAD REG. NO. 9
STATE COLO.
PROJECT NO. S 0133(2)
SHEET NO. 22
TOTAL SHEETS 93
S.W. ¼ Sec. 9 T.1S. R.69W.
S.E. ¼ Sec. 9 T.1S. R.69W.
N.W. ¼ Sec. 16 T.1S. R.69W.
N.E. ¼ Sec. 16 T.1S. R.69W.
171+30 Req'd 24"x168' 240' Cross Culvert. Inlet Ditch.
+74 Fe. cor. 66' Rt.
Section Line
175+50 Req'd 18"x34' 36' Side Drain. Road Approach, Rt.
177+45 178+75 Req'd 18"x32' 38' Side Drain & Road Approach, Rt.
175+30 Req'd 36"x126' 132' Cross Culvert, Outlet Ditch. (Irrig. Ditch) Conc. sl. & Ditch pave. Lt.
176+30 - Req'd Road App. Lt.
176+80 Req'd 29x18x20' CSPA over irrig. ditch Lt.
N89°23'E
61°
41°
Steel pipe
Easement
100'
+85
65.5'
+05.7
90°02'
+87 Fe. cor. 17' Lt.
P.O.T. 177+94.3
179+ to 183+ Req'd Irrigation Ditch Change, Rt. Concrete Lined Ditch. (Detail on Sheet No. 10)
183+50 Remove 24"x14' CMP, Rt.
+00 Fe. cor. 27' Lt.
183+50 - Rem. Conc. Wall Rt.
15'
+18
115'
Pond
185+35 Req'd 18"x30' Side Drain & Road Approach, Rt.
186+30 Req'd 18"x30' Side Drain & Road Approach, Rt.
P.O.T. 180+00
184+50 23 Req'd 24"x256' Siphon (Details on Sheet No. 10). Division Box at Outlet. (Details on Sheet No. 10). 2-24" Trash Guards.
Rem. Conc. Div. Box Lt.
185+00 186+76 Req'd 18"x30' 36' Side Drain & Road Approach, Lt. Rem. CSP & Relay.
186+60 Req'd 29"x18"x100' 112' Cross Culvert
185+28 Req'd 12"x18' (used) Sidedrain Lt. of siphon outlet.
Dirt Dike
+00 64'
+06 Fe. cor. 91' Rt.
+16 69'
50'
Brick House
24"x14' C.M.P.
Conc wall
Wood Sheds
+76 Fe. cor. 26' Rt.
Cinder block div. box
N
P.O.T. 184+69.2
P.C. 185+11.4
185
+25
35'
15'
Cinder block pump house
Easement
House
+54
50'
Conc. pump house
New M.S. Telephone Pole
186+90 Rem. Cinder Block Pump House Rt.
+50
+75
Easement
31°30'
+80 Fe. cor. 69' Rt.
Δ = 8°04' Rt.
Dc = 1°24'
T = 288.6'
Lc = 576.2'
R = 4092.9'
TL = 200'
S = 0.042'/FT.
SSD = >900'
MDS = 70 MPH
185+ to 186+ Req'd Irrigation Ditch Change, Lt. Concrete Lined Ditch (See Details Sheet No. 10)
P.I. 188+00
4'
Buried M.S. Telephone Cable (New)
189+90 Remove 2-33' Pipes, Rt.
15'
33' Metal Pipe Cross drain (2)
S82°33'E
190
P.T. 190+87.6 BK = 190+87.5 AH.
190+40 Remove Division Box, Rt. Req'd Concrete Division Box, Rt. (Details on Sheet No. 10)
R-1
To be removed M.S. Telephone Pole
50'
P.C. 191+51.4
190+60 Req'd 18"x30' Side Drain & Road Approach, Rt.
Δ = 7°36' Lt.
Dc = 1°20'
T = 285.4'
Lc = 570.0'
R = 4297.5'
TL = 200'
S = 0.042'/FT.
SSD = >900'
MDS = 70 MPH
P.I. 194+36.8
Private Road (Gravel)
195
198+50 26 Remove 12"x14' CMP, Lt. Req'd 22"x13"x28' Side Drain & Road Approach, Lt.
P.T. 197+21.4
12"x14' C.M.P.
1'x1' Conc. post
199+20 Req'd 22"x13"x32' Side Drain & Road Approach, Lt.
N89°51'E
200
Ø Relocated Power Pole (Public Service Co.)
⊙ Remove Power Pole (Public Service Co.)
B.M. #47A 5307.07 50' Rt. Sta. 170+90 Nail in Fence P.
B.M. #52A 5350.39 50' Rt. Sta. 176+00 Stake
B.M. #54A 5363.55 50' Rt. Sta. 180+15 Nail in F.P.
5374.90 P.I.
186+ to 190+ Req'd Irrigation Ditch Change, Rt. (Conc. Lined Ditch) (See Details Sh. No. 10)
B.M. #55A 5360.60 50' Rt. Sta. 183+10 Nail in Fence Post
B.M. #56A 5353.70 30' Rt. Sta. 186+75 Nail in Tele Pole
B.M. #58A 5332.88 25' Lt. Sta. 192+20 Nail in F.P.
EQU.
B.M. #59A 5324.12 47' Lt. Sta. 194+50 Stake
B.M. #61A 5310.55 50' Lt. Sta. 198+50 Nail on Tele Pole
No. 19 A-7-6(12)
L.L. = 43
P.I. = 23
% -200 = 65
C.B.R. 4.7
No. 19A Sandstone
No. 19 0.0-10.0'
No. 19A 10'±
No. 20 0.0-10.0'
No. 20A 10.0-16.0'
No. 20 Similar to No. 19
No. 20A A-6(8)
L.L. = 33
P.I. = 16
% -200 = 65
C.B.R. = 4.6
Crest Widening Sta. 181+10 to Sta. 186+10
No. 21 A-6(11)
L.L. = 39
P.I. = 21
% -200 = 66
C.B.R. = 3.9
No. 21 0.0-4.0'
800' V.C.
-22.40
23.90
+6.00%
℄ = 03±
℄ = 30±
℄ = 50±
54.46
44.13
40.96
-3.62%
400' V.C.
15.17
08.55
P.I. 5307.93
1700' V.C.
S.S.D. = 495'
SUBBASE THICKNESS 8"
0.75
38,941
29,206
7,222
116
87
5
4
8115
2849
10,699
PIT No. 1 (CBR = 6.1)
FACTOR
UNCL. EXCAV.
UNCL. EXC. x FACTOR
EMBANK.
YD. MI. HAUL
BORROW
BORROW SOURCE
5290
5300
5310
5320
5330
5340
5350
5360
170
175
180
185
190
195
200

27700
27701

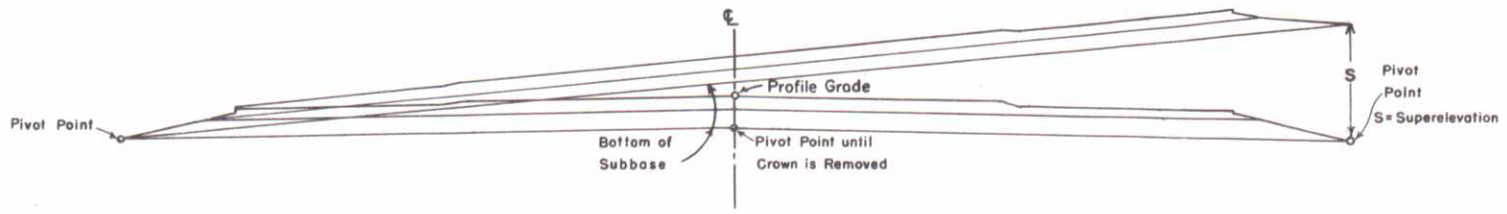
D.A.
No. 66

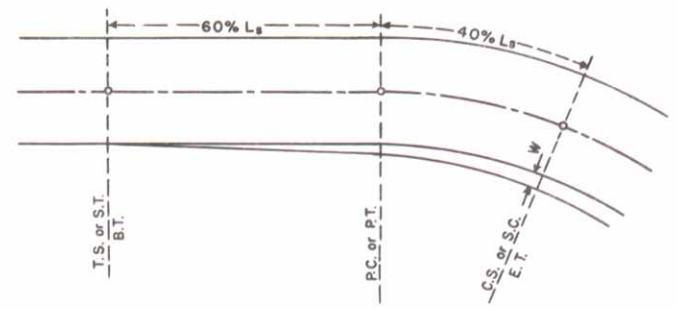


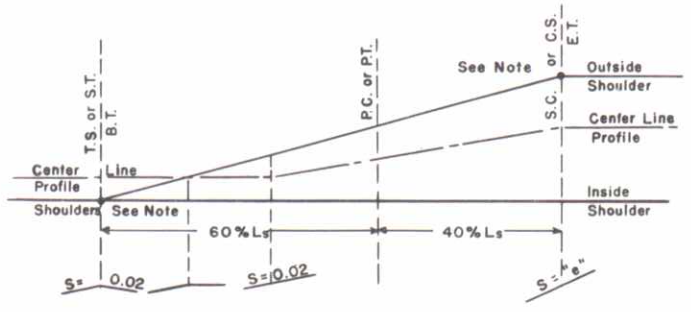
STANDARD M-203-A

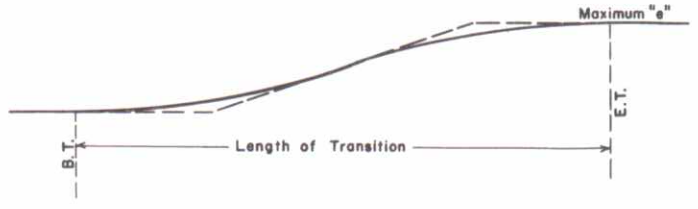
(JULY 1, 1965)

FEDERAL ROAD REGION NO.	DISTRICT	PROJECT NO.	SHEET NO.
9	COLORADO		









● NOTE-
For obtaining smooth profiles on pavement edges, vertical curves can be inserted between the angular breaks at the beginning and the end of the super-elevation transition.

PAVEMENT WIDENING

Pavement Width	20 Ft.	22 Ft.	24 Ft.
Degree of Curve			
0° - 3°	0 Ft.	0 Ft.	0 Ft.
4° - 6°	2.0 Ft.	0 Ft.	0 Ft.
7° - 10°	2.5 Ft.	0 Ft.	0 Ft.
11° - 17°	3.0 Ft.	2.0 Ft.	0 Ft.
18° - 21°	3.5 Ft.	2.5 Ft.	0 Ft.
22° - Up	4.0 Ft.	3.0 Ft.	2.0 Ft.

Widening is to be on the inside edge of the pavement and the transition is to extend over the same transition length as the superelevation.

REVISIONS		

SUPERELEVATION RATES FOR TWO LANE CROWNED SECTION

TABLE 1

Degree of Curve	Maximum Superelevation = 0.08			Maximum Superelevation = 0.10		
	Super. Rate Ft./Ft.	Maximum Design Speed M.P.H.	Minimum Transition or Spiral Length	Super. Rate Ft./Ft.	Maximum Design Speed M.P.H.	Minimum Transition or Spiral Length
0°15'	R C	70	200'	R C	70	200'
0°30'	R C	70	200'	R C	70	200'
0°45'	.021	70	200'	.021	70	200'
1°00'	.028	70	200'	.028	70	200'
1°30'	.042	70	200'	.042	70	200'
2°00'	.056	70	200'	.055	70	200'
2°30'	.069	70	200'	.069	70	200'
3°00'	.076	70	250'	.083	70	250'
3°30'	.080	70	250'	.096	70	300'
4°	.080	65	250'	.100	65	300'
5°	.080	60	250'	.100	60	300'
6°	.080	55	200'	.100	55	250'
7°	.080	50	200'	.100	50	250'
8°	.080	45	200'	.100	50	250'
9°	.080	45	200'	.100	45	250'
10°	.080	40	200'	.100	45	250'
11°	.080	40	200'	.100	40	200'
12°	.080	40	200'	.100	40	200'
13°	.080	35	150'	.100	40	200'
14°	.080	35	150'	.100	35	200'
15°	.080	35	150'	.100	35	200'
16°	.080	35	150'	.100	35	200'
17°	.080	30	150'	.100	35	200'
18°	.080	30	150'	.100	30	200'
19°	.080	30	150'	.100	30	200'
20°	.080	30	150'	.100	30	200'
21°	.080	30	150'	.100	30	200'
22°	.080	30	150'	.100	30	200'
23°	.080	30	150'	.100	30	200'
24°				.100	30	200'
25°				.100	30	200'

NOTES—Plains Areas use 0.10 Maximum Superelevation Rate.
Mountainous Areas & areas where Icing conditions frequently exist, use 0.08 Maximum Superelevation Rate.

SUPERELEVATION RATES FOR SPECIAL CASES■

TABLE 2

Degree of Curve	30 M.P.H.			35 M.P.H.			40 M.P.H.			45 M.P.H.			50 M.P.H.			55 M.P.H.			60 M.P.H.			Degree of Curve
	Required Superelevation Rate Ft./Ft.		Minimum Length of Transition	Required Superelevation Rate Ft./Ft.		Minimum Length of Transition	Required Superelevation Rate Ft./Ft.		Minimum Length of Transition	Required Superelevation Rate Ft./Ft.		Minimum Length of Transition	Required Superelevation Rate Ft./Ft.		Minimum Length of Transition	Required Superelevation Rate Ft./Ft.		Minimum Length of Transition	Required Superelevation Rate Ft./Ft.		Minimum Length of Transition	
	0.08	0.10	or Spiral	0.08	0.10	or Spiral	0.08	0.10	or Spiral	0.08	0.10	or Spiral	0.08	0.10	or Spiral	0.08	0.10	or Spiral	0.08	0.10	or Spiral	
0°15'	N C	N C	0	N C	N C	0	N C	N C	0	N C	N C	0	N C	N C	0	N C	N C	0	N C	N C	0	0°15'
0°30'	N C	N C	0	N C	N C	0	N C	N C	0	N C	N C	0	R C	R C	150'	R C	R C	200'	R C	R C	200'	0°30'
0°45'	N C	N C	0	N C	N C	0	R C	R C	150'	R C	R C	150'	R C	R C	150'	R C	R C	200'	R C	R C	200'	0°45'
1°00'	N C	N C	0	R C	R C	150'	R C	R C	150'	R C	R C	150'	R C	R C	150'	.021	.021	200'	.022	.022	200'	1°00'
1°30'	R C	R C	100'	R C	R C	150'	R C	R C	150'	.023	.024	150'	.027	.027	150'	.031	.031	200'	.035	.034	200'	1°30'
2°00'	R C	R C	100'	R C	.021	150'	.025	.027	150'	.030	.032	150'	.035	.036	150'	.041	.042	200'	.047	.046	200'	2°00'
2°30'	R C	R C	100'	.025	.026	150'	.030	.033	150'	.036	.039	150'	.043	.045	150'	.050	.052	200'	.057	.059	200'	2°30'
3°00'	.023	.024	100'	.029	.031	150'	.035	.038	150'	.042	.046	150'	.050	.054	150'	.057	.062	200'	.066	.070	200'	3°00'
3°30'	.026	.027	100'	.033	.035	150'	.040	.045	150'	.048	.053	150'	.056	.063	150'	.064	.072	200'	.072	.081	250'	3°30'
4°	.029	.030	100'	.037	.040	150'	.044	.050	150'	.053	.060	150'	.062	.070	200'	.069	.079	200'	.076	.090	250'	4°
5°	.035	.038	100'	.044	.048	150'	.053	.060	150'	.062	.071	200'	.070	.083	200'	.077	.091	250'	.080	.099	300'	5°
6°	.041	.044	100'	.050	.056	150'	.060	.068	150'	.069	.080	200'	.076	.093	250'	.080	.098	250'		.100	300'	6°
7°	.045	.050	100'	.056	.063	150'	.066	.076	150'	.074	.088	200'	.079	.097	250'		.100	250'				7°
8°	.050	.055	100'	.061	.069	150'	.071	.084	200'	.078	.094	200'	.080	.100	250'							8°
9°	.054	.061	100'	.065	.075	150'	.074	.089	200'	.080	.097	250'										9°
10°	.058	.065	150'	.069	.081	150'	.077	.093	200'	.080	.100	250'										10°
11°	.061	.070	150'	.072	.085	200'	.079	.096	200'													11°
12°	.065	.074	150'	.075	.089	200'	.080	.098	200'													12°
13°	.067	.078	150'	.077	.092	200'		.100	200'													13°
14°	.070	.082	150'	.078	.095	200'																
15°	.072	.085	150'	.079	.097	200'																
16°	.074	.087	150'	.080	.099	200'																
17°	.076	.090	150'		.100	200'																
18°	.077	.093	200'		.100	200'																
19°	.078	.095	200'																			
20°	.079	.096	200'																			
21°	.080	.098	200'																			
22°	.080	.099	200'																			
23°	.080	.099	200'																			
24°		.100	200'																			
25°		.100	200'																			

■ Table 2 data may be used for City Streets & Interchanges.
NC= Normal Crown section.
RC= Remove adverse crown, superelevate at normal crown slope.

NOTES—Transition or Spiral Lengths are shown in the tables for 2 Lane Crowned Highways.
For 3 Lane Crowned Highways use 1.2 times the lengths shown, rounded to the nearest 50 feet.
" 4 " " " " 1.5 " " " " " " " " " "
Width of Crowned Highway to be figured for Superelevation—left pivot point to right pivot point.

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO

SUPERELEVATION & WIDENING OF CURVES CROWNED HIGHWAYS

Designed by S.B.L. Made by S.B.L. Checked by L.E.O.	Approved by Staff Design Engr. Date