FED. ROAD DIST. NO.	STATE	STATE PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	899 A	1	

COLORADO
STATE HIGHWAY DEPARTMENT

PLAN AND PROFILE OF PROPOSED
STATE PROJECT NO. 899-A
STATE HIGHWAY NO. 66
LARIMER COUNTY

INDEX OF SHEETS

Sheet No. 1 Sketch Map and Title Sheet
" 2 Typical Cross Section and Summary of Quantities
" 3 Tabulation of Structures
" 4 to 5 Details of Bridge, Sta. 473+
" 6 Special Concrete Box Culvert

"	7	Standard Headwalls for C.M.P. Culverts	M-102-E
"	8	" Semi-rigid Metal Plate Guard Fence	M-21-A
"	9	" Flexible " " "	M-22-A
"	10	" Wire Fences with Steel Posts & and Marker Posts	M-27-A
"	11	" Structure Number Lettering	M-10-A
"	12	" Methods for Superelevation & Widening of Curves	M-1-A
"	13	Typical Side Approach Roads / Roadway Construction Traffic Signs	M-2-B

" 14 to 16 Alignment Plan and Profile
" 17 to 57 Cross Section Sheets

SCALES OF ORIGINAL TRACINGS

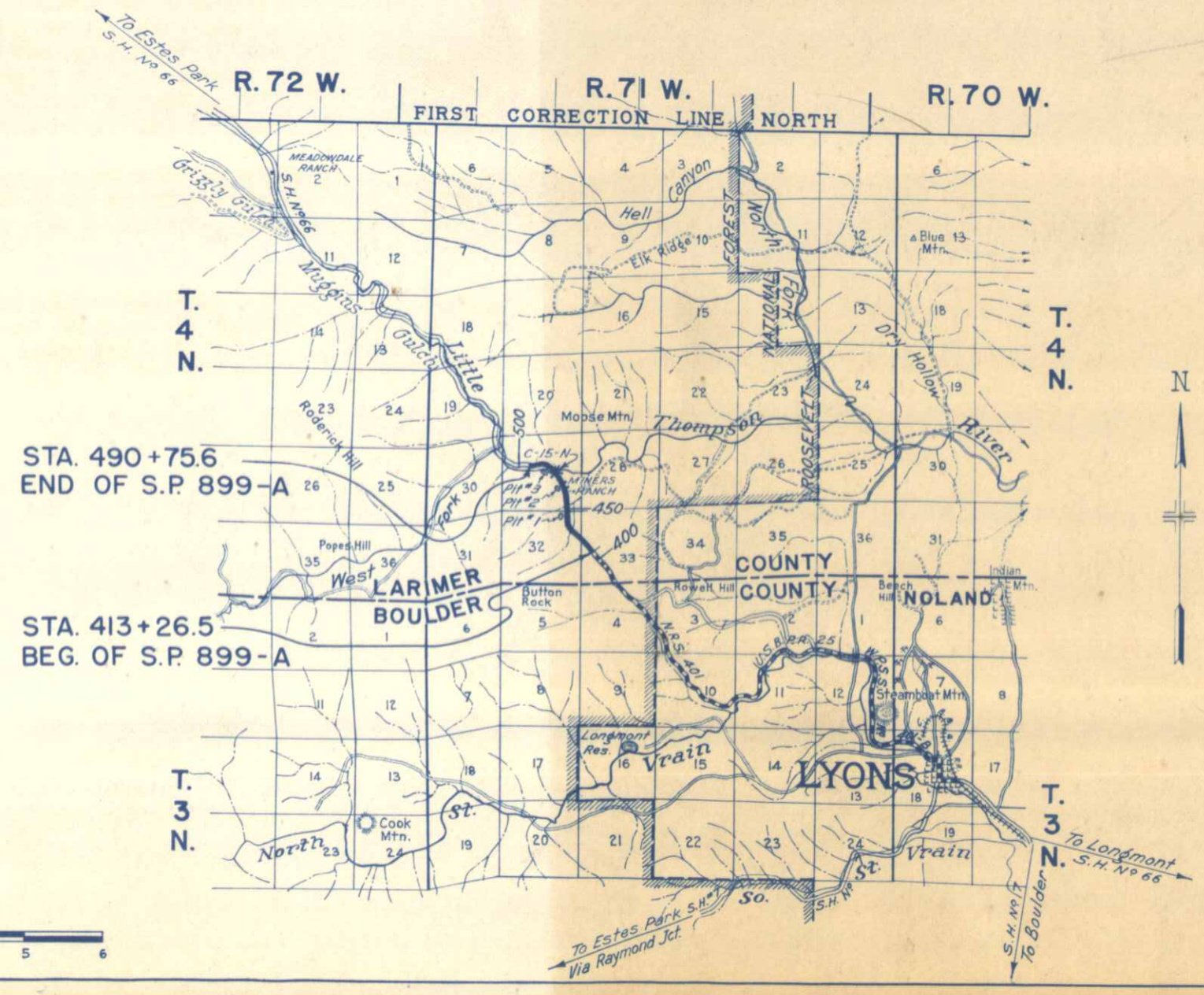
ON PLAN, 1 IN. - 100 FT.
ON PROFILE { 1 IN. - 100 FT. HORIZONTAL / 1 IN. - 10 FT. VERTICAL
GRADE LINE ON PROFILE IS SHOWN AS GRADE OF FINISHED ROAD
GROSS LENGTH OF PROJECT } 7,763.2 FEET = 1.470 MILES
NET LENGTH OF PROJECT }

CONVENTIONAL SIGNS

- Center Line of Survey
- Right of Way Lines
- Township or Range Lines
- Section Lines
- One Quarter Section Lines
- Railroad Tracks
- Barbed Wire Fence
- Pole Lines

4

AS CONSTRUCTED PLANS
RETURN TO DIST. 4 DESIGN



SCALE IN MILES
0 ½ 0 1 2 3 4 5 6

NOTE

It is recommended that the bidders on this Project go over the plan details with one of the following field representatives of this department:

Roy J. Randall Div Engr. Greeley
Homer J. Winter Res Engr. Lyons

RECOMMENDED FOR APPROVAL 2/27/37
ASSISTANT ENGINEER
APPROVED
Chas D. Hill
STATE HIGHWAY ENGINEER

FED. ROAD DIST. NO.	STATE	STATE PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	899-A	14	

T. 4 N., R. 71 W.
S.W. 1/4 SEC. 33

N.E. 1/4 SEC. 32

Sta. 410+10
Relay 18"x56' C.M.P. Cross Culvert at lower elevation at same station.
Reqd. 40 cu. yds. Uncl. Excav. for inlet.

Sta. 413+26.5
Move Project Marker & snow fence, Lt. (FORCE ACCOUNT)

Sta. 426+00
Req'd 18"x24' C.M.P. Side Drain, Rt.
" 18"x24' " " " Lt.
Req'd 20 cu yds. uncl. excavation for road approaches, Rt. & Lt.
Remove 1'x1'x20' wooden box culvert, Rt.

P.C. 404+96.4
Δ 10°23'L
D 5°00'
T 104.1
L 207.7
R 1146.0

P.T. 407+04.1

P.I. 410+04.7

P.C. 414+08.3
Δ 3°40'L
D 2°00'
T 91.7
L 183.3
R 2865.0

P.T. 415+91.6

588.0

742.0'

50'

400 — N. 33°19' W. — 405 — N. 43°42' W. — 410 — N. 35°48' W. — 415 — N. 39°28' W. — 420' — 425 — 430'

To Lyons

N.R.S. 401-(1935)

P.I. 406+00.5

P.C. 409+25.6
Δ 7°54'R
D 5°00'
T 79.1
L 158.0
R 1146.0

P.T. 410+83.6 BACK =
410+94.8 AHEAD

P.I. 415+00

Intercepting Ditch

Sta. 415+00 to 431+00
Req'd 500 cu yds. uncl. excavation for intercepting ditch, Rt.

425+32
190.4' to NE. Cor. Sec. 32

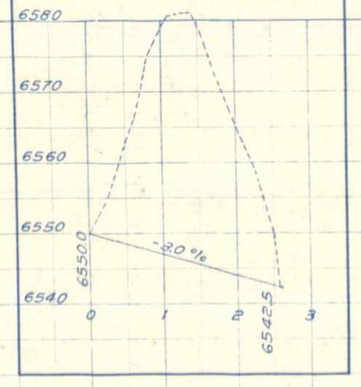
STA. 413+26.5
BEG. OF S.P. 899-A
END OF N.R.S. 401-(1935)

NOTE:
The roadway between Sta. 407+00 and 413+26.5 is to be constructed as an approach to the project. The quantities involved are shown on the roadway cross sections.

NOTES:
Alignment and grade shown on these plans are subject to change during construction, after approval by the Denver office of the Department.
All pole lines encroaching on construction are to be moved by owners.
All suitable material excavated from culverts, channel changes, and ditches, and not used for ditch embankment is to be used in the roadway embankment.
Metal Plate Guard Fence is tabulated on Sheet No. 3
Right of Way markers are " " " " 3.
Fencing is " " " " 3.

PROFILE OF CHANNEL CHANGE

STA. 1+10 OF CHANNEL CHANGE EQUALS STA. 474+14 OF ROADWAY.



P.I. 60.40

N.W. 1/4 SEC. 33

+6.00%

-6.00%

39.40

P.C. 408+38.8

18.40

F.L. 23.9

410+83.6 BACK =
410+94.8 AHEAD

1400' V.C.

18.40

79.40

6750
6740
6730
6720
6710
6700
6690
6680
6670

EXCAV.	1502		12,386		12,386
EMB.		8			
BALANCE FACTOR			0.8		
BORROW					
STA. YD. O'HAUL			115,070		
YD. MI. O'HAUL			436		
BORROW SOURCE					

1494 cu. yds. excess excavation to be used as selected material between sta. 408 & 420+50.

400 405 410 415 420 425 430

PLATE 1—PLAN-PROFILE O. P. R. & R. E. STANDARD

FED. ROAD DIST. NO.	STATE	STATE PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	899-A	15	

T. 4 N., R. 71 W.
N.E. 1/4 SEC. 32

Sta. 431+00
Req'd. 48"x88' C.M.P. Cross Culvert.
Remove 18"x30' C.M.P. Culvert, Rt.

Sta. 432+00
Req'd. 30 cu. yds. embankment for road approach, Lt.

Sta. 433+00
Req'd. 48"x74' C.M.P. Cross Culvert & 10 cu. yds. uncl. excavation for outlet.

Sta. 433+80
Remove timbers from rock drain.

Sta. 434+25
Req'd. 24"x72' C.M.P. Cross Culvert. Remove 15"x25' C.M.P. Culvert.

Sta. 439+80
Req'd. 18"x24' C.M.P. Side Drain, Lt. & 75 cu. yds. uncl. excavation for road approaches, Rt. & Lt.

Sta. 445+65
Req'd. 18"x24' C.M.P. Side Drain, Lt. & 75 cu. yds. embankment for road approaches, Rt. & Lt.

Sta. 451+00 to 459+00
Req'd. 400 cu. yds. uncl. excavation for intercepting ditch, Lt.

Sta. 452+35
Req'd. 18"x28' C.M.P. Side Drain, Rt.

Pit No. 1

Surveyed line
N 18°22'W
Projected line

Survey:
Δ 21°06'R
D 5°00'
T 213.4
L 422.0
R 1146.0

Projected:
Δ 21°06'R
D 2°00'
T 533.6
L 1055.0
R 2865.0

Survey P.C. 437+02.0
Projected P.C. 433+81.8
Survey P.T. 441+24.0
Projected P.T. 441+36.8 BACK = 444+44.2 AHEAD
Pl. 439+15.4
447+89
72°10'
1064' to NE Cor. Sec. 32

Intercepting Ditch
Drainage

Sta. 446+00
Req'd. 24"x50' C.M.P. Cross Culvert & 5 cu. yds. uncl. excavation for inlet.
Remove 24"x24' C.M.P. Culvert.

NOTE:
Projected line to be constructed.

Sta. 448+75
Req'd. 10 cu. yds. embankment for road approach, Rt.

Sta. 451+00
Req'd. 48"x148' C.M.P. Cross Culvert & 10 cu. yds. uncl. excavation for inlet.

Sta. 451+50 to 461+38
Req'd. 500 cu. yds. uncl. excavation for ditch to divert flood water from cultivated field, Rt.

Sta. 452+50
Req'd. 6'x7'x36' Conc. Box Culvert & 25 cu. yds. uncl. excavation for approaches.

Sta. 453+00
Req'd. 36"x30' C.M.P. Side Drain, Rt. & 100 cu. yds. embankment for road approach, Rt.

EQUATION

S.E. 1/4 SEC. 29

6.0 %
23.40
600' V.C.
39.71
Pl. 55.40
FL. 48.7
FL. 44.0
FL. 44.5
54.65
Pl. 53.15
53.65
50.72
-0.25 %
42.93
Back 444+36.6
Ahead 444+44.2
400' V.C.
-5.108 %
28.10
FL. 27.9
Pl. 33.10
-5.0 %
700' V.C.
19.53
Pl. 10.60
FL. 83.0
28.80
+5.2 %
FL. 12.0
1000' V.C.
40.80
Pl. 54.80
-6.0 %

Excav.			1476		2623		656		1248		3215		1200	7328		7408	
Emb.		1476															
Balance Factor	0.8						0.85							0.75		80	
Borrow													3188	1200			
Sta. Yd. O'Haul			75				6811							12,356			
Yd. Mi. O'Haul																	
Borrow Source																	

Widened cuts, sta. 437 to 440

PLAN: DRAFTED, TRACED, ALIGNMENT CHECKED, P.I. NO., STA. OF BAR CHECKED, NO.

PROFILE: DRAFTED, TRACED, NOTE BOOK, GRADES CHECKED, P.I. NO., STRUCTURE NO., NO. OF BAR CHECKED, NO.

STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
COLO.	899-A	16	

T. 4 N., R. 71 W.
S.E. 1/4 SEC. 29

Intercepting Ditch.

Approximate location of new 1½" water pipe.

Spring — Location of present water pipe.

Sta. 461+38
Req'd. 36"×40' C.M.P. Cross Culvert & 25 cu. yds. uncl. excavation for inlet & outlet.

N. 18°22'W.

PC 463+35.4
Δ 5°38'L
D 2°00'
T 141.0
L 281.7
R 2865.0

Pit No. 2

Sta. 464+80
Remove old water pipe and cistern.

PT 466+17.1

Cistern

1500 cu. yds selected material

Pit No. 3, 1150' ahead along old road from Sta. 467+00.

Present Road

Sta. 473+50
Req'd. 50 cu. yds. embankment for road approaches, Rt. & Lt.

NOTE:
Projected line to be constructed.

Surveyed: Δ 83°17'L
D 14°00'
T 363.9
L 594.9
R 409.3

Sta. 481+20
Req'd. 24"×88' C.M.P. Cross Culvert.

Sta. 490+75.6 (BACK)
Req'd. Project Marker.

PI 489+26.2

Rev Curve Sta 489+, 6/2/37, J.L.L.

RIVER

490

N. 56°50'W.

PC 487+76.2

PT 490+56.5 BACK
S.H.D. 490+75.6
U.S.B.P.R. 488+27.5 AHEAD

Revised.
Δ 50°27'R
D 18°
T 1500'
L 280.3
R 318.3

Present Road

THOMPSON

N. 72°43'W.

485

Sta. 465+00 (280' Rt.)
Req'd. Concrete Cistern as per details shown on Sheet No. 2.
Req'd. 800'-1½" galvanized iron water pipe with fittings to be laid from spring to cistern. This water pipe is to be placed 5 feet below the surface of the ground. The price bid per linear foot of pipe in place is to include all excavation and backfill.

PI 464+76.4

Cistern

470

LITTLE THOMPSON RIVER

Channel Change
N. 24°00'W.

Projected P.C. 475+17.1
Surveyed P.C. 475+45.1

Projected Surveyed P.T. 491+57.7
Surveyed P.T. 491+40.0

Projected: Δ 83°17'L
D 13°00'
T 391.9
L 640.6
R 440.8

475

Projected line

Surveyed line

480

LITTLE THOMPSON RIVER

483+34.9 AHEAD
483+56.4 BACK

EQUATION

STA. 490+75.6 (BACK) EQUALS
STA. 488+27.5 (AHEAD)
END OF S.P. 899-A
BEGINNING OF U.S.B.P.R. PROJ.

Sta. 473+92.33 to 474+35.66
Req'd. Concrete I Beam Bridge (1 Span @ 40') as per details shown on Sheets No. 4 & 5
Req'd. 4427 Cu. Yds. Uncl. excavation for Channel Change.
Excavated material to be used in roadway embankment

N.E. 1/4 SEC. 29

N.W. 1/4 SEC. 29

Profile Sta 487+74.6 to Sta 490+75.6
Not Revised · 6/2/37

PI 489+26.2

PI 487+82.0

PI 92.03

483+56.4 BACK =
483+34.9 AHEAD

+1.85 %

Grade of +1.85 extends to P.I. (elev. 08.00) at U.S.B.P.R. sta. 489+50

Refer to sheet No. 14 for profile of channel change.

Cross section of channel change.

+15'

14.70' 1 side slopes

PI 76.80

PI 88.20

FL. 73.8

FL. 31.0

PI 54.80

1000' V.C.

-6.00 %

800' V.C.

200' V.C.

+1.2 %

+1.855 %

84.00

81.60

87.00

88.36

90.06

00.60

6660
6650
6640
6630
6620
6610
6600
6590
6580
6570
6560
6550
6540

NOTES FOR BRIDGE STA. 473+92.33 TO 474+35.66 STRUCTURE No. C-15-N

PRESENT STRUCTURE:
Span-
Clear roadway-
Clear waterway-
Type of Superstructure-
Type of Substructure-
Requirements as to removal-

STREAM DATA:
Drainage area in sq. miles- 50±
Velocity during high water-
Elevation of:
Maximum high water-
Low water-
Normal stage-
Stream bed- 6546.7
Drift- Medium
Scour- Medium

PROPOSED STRUCTURE:
Position referred to present structure-
Span- 40'
Clear roadway- 30'
Clear waterway- 715 Sq. Ft.
Type of Superstructure- Conc. I Beam
Type of Substructure- Gravity Abut.
Detour Structure requirements-
R.R. Siding-
Haul to bridge site-

Nearby structures on same stream-
Location-
Waterway-
Record during floods-

| | | |