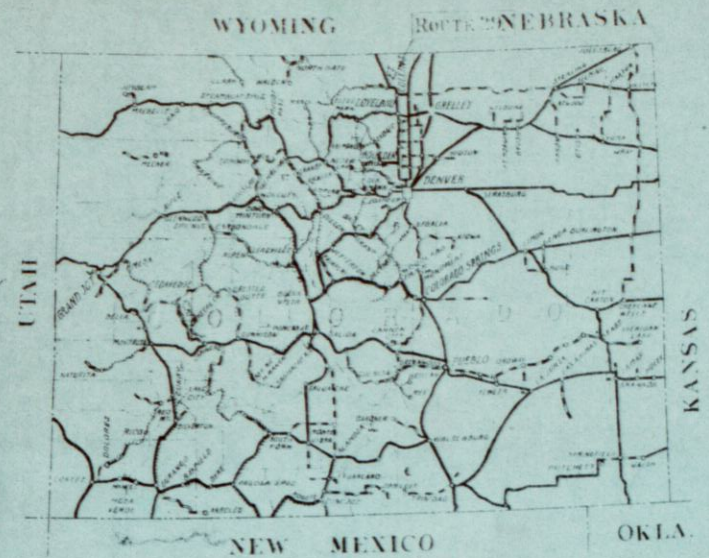


U.S. DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

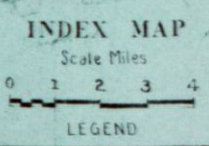
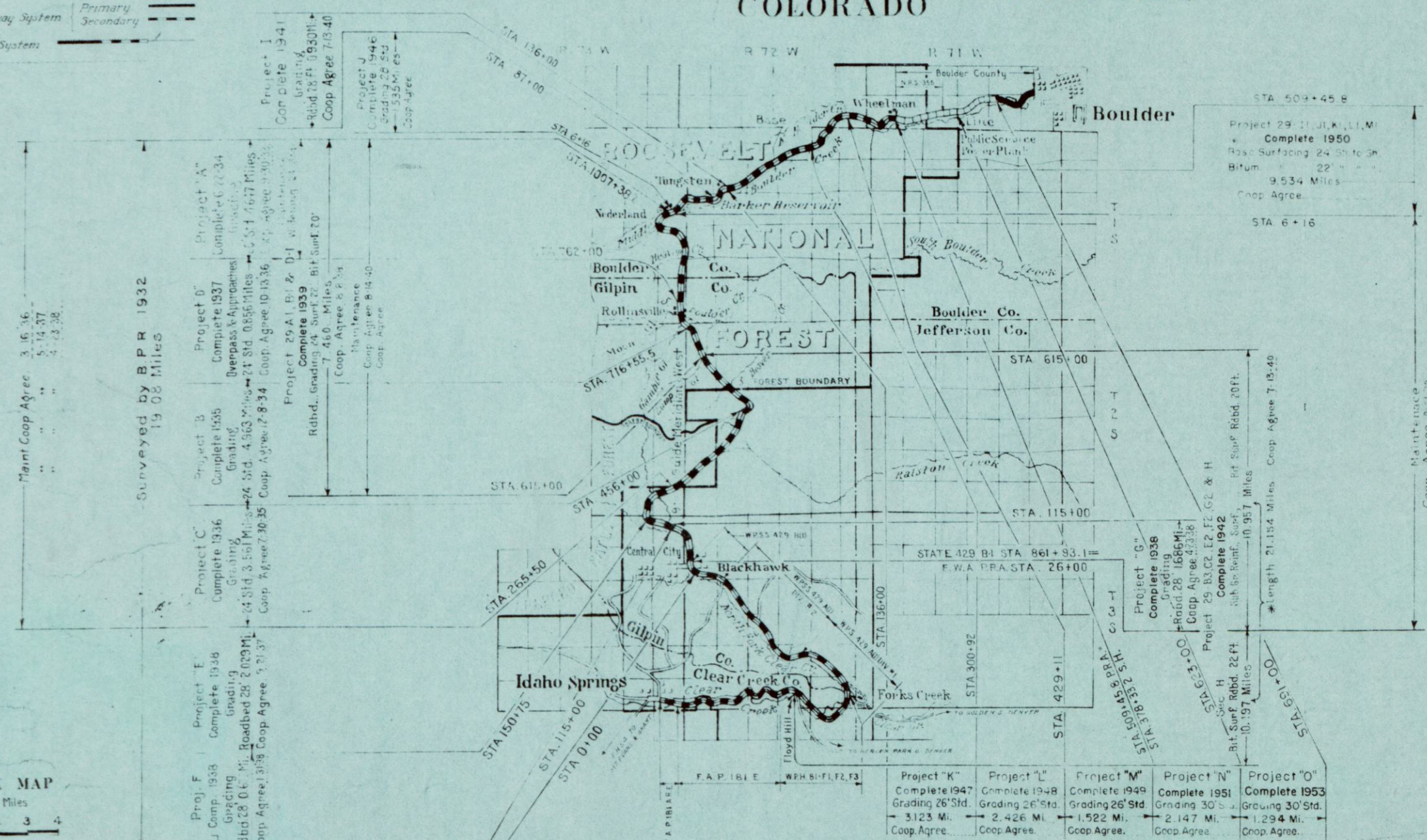
DIV.	STATE	ROUTE	SECTION	SHEET NO.	TOTAL SHEETS
9	COLO.	29	0	1	1



AS CONSTRUCTED
PROJECT 29-0
ROUTE 29 BOULDER-IDAHO SPRINGS
BOULDER VIA NEDERLAND & BLACKHAWK TO IDAHO SPRINGS
8 MILES CLASS 1
COLORADO FOREST HIGHWAY SYSTEM
ROOSEVELT & ARAPAHO NATIONAL FORESTS
BOULDER, GILPIN & CLEAR CREEK COUNTIES
COLORADO

SHEET NO.	DESCRIPTION	STATION	STATION
1	Title Sheet		
2	Typical Sections		
3	Summary		
24-27	Plan & Profile	623+00	691+00
Rev D3-Std. 130	Conc. Drop Inlets with Steel Grating		
Rev D3-Std. 117	C.R.M. Hdws. & Inlets for C.M.P. Culv.		
" " " 129	Std. Miscellaneous Structures		
" " " 129A	" " " "		
D3-Std. 131	Std. Maintenance Posts		
Rev D3-Std. 135	Std. Barbed Wire Fence		
Rev D3-Std. 143	Typical Construction Signs		
Rev D3-Std. 162	Refl. Timber Guide Posts		
Rev D3-Std. 163	5' x 7' x 54'-0" Conc. Box Culv.		671+00
D3-Std. 167	Timber Bridge	Appr. Road Rt.	663+15
D3-Std. 167A	2 Lane Timber Bridge	" " "	671+85
4 Sheets	Proposed Tunnel Sections		
D3-SP383 A to F	Tunnel Details	638+80	642+30
25-45	Cross Sections	623+00	691+00

Federal Aid Highway System
Forest Highway System
National Forests



EXISTING	UNIMPROVED	GRADED	REINFORCED	BASE	CR. ROCK	GRAV.	DISTURBED	TYPES
ROADS			SUBGRADE	COURSE	MACADAM			

U.S. DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
DIVISION NO. 9 DENVER, COLORADO

APPROVED _____ DATE _____ 19__

DIVISION ENGINEER
BY DESIGN ENGINEER

APPROVED _____ DATE _____ 19__

DISTRICT ENGINEER

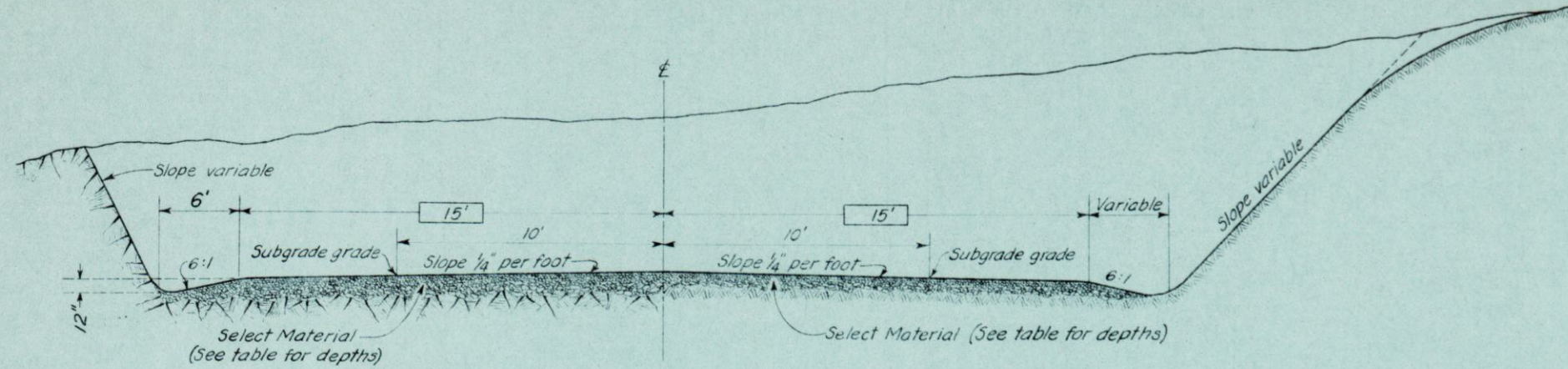
APPROVED _____ DATE _____ 19__

REGIONAL FORESTER

APPROVED _____ DATE _____ 19__

STATE HIGHWAY ENGINEER
STATE OF COLORADO

* Length includes tunnels, bridges and box culverts



GENERAL NOTES:

Where Borrow is specified in the contract and satisfactory material is found in the roadway excavation the right is reserved to increase the amount of Unclassified Excavation and reduce the Unclassified Excavation for Borrow. When additional material is needed for completing embankments, stabilizing the subgrade, or for selected cushion or topping it may be secured by uniformly widening thru or sidehill cuts or flattening cut slopes where satisfactory material is available. The slopes at the ends of all cuts shall be flattened and flared to improve appearance.

Furrow ditches shall be constructed on approximate one per cent grades following the ground contour and when possible shall be so constructed that the direction of flow will be away from the roadway.

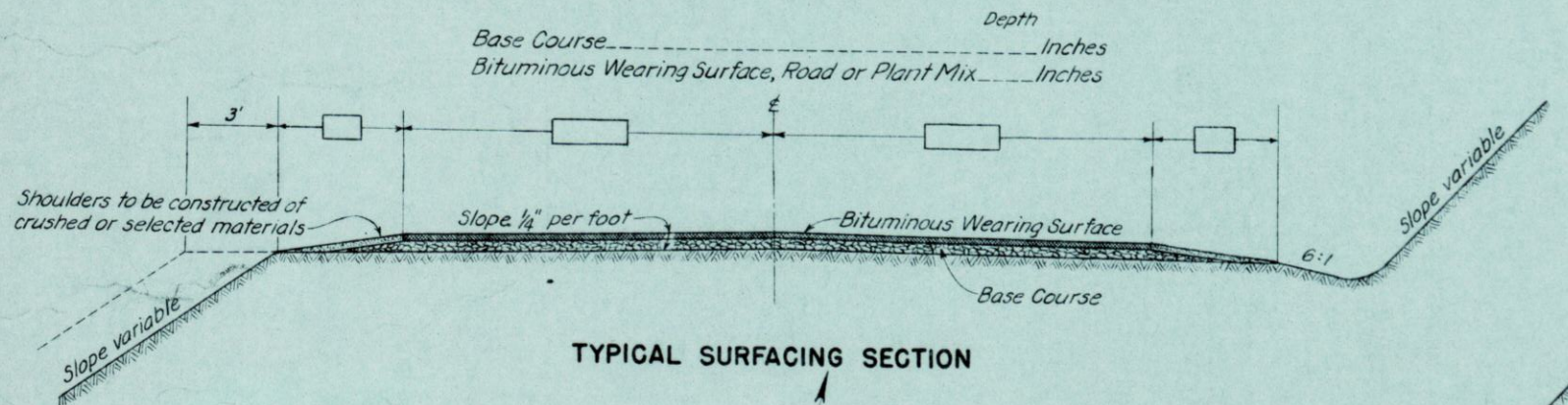
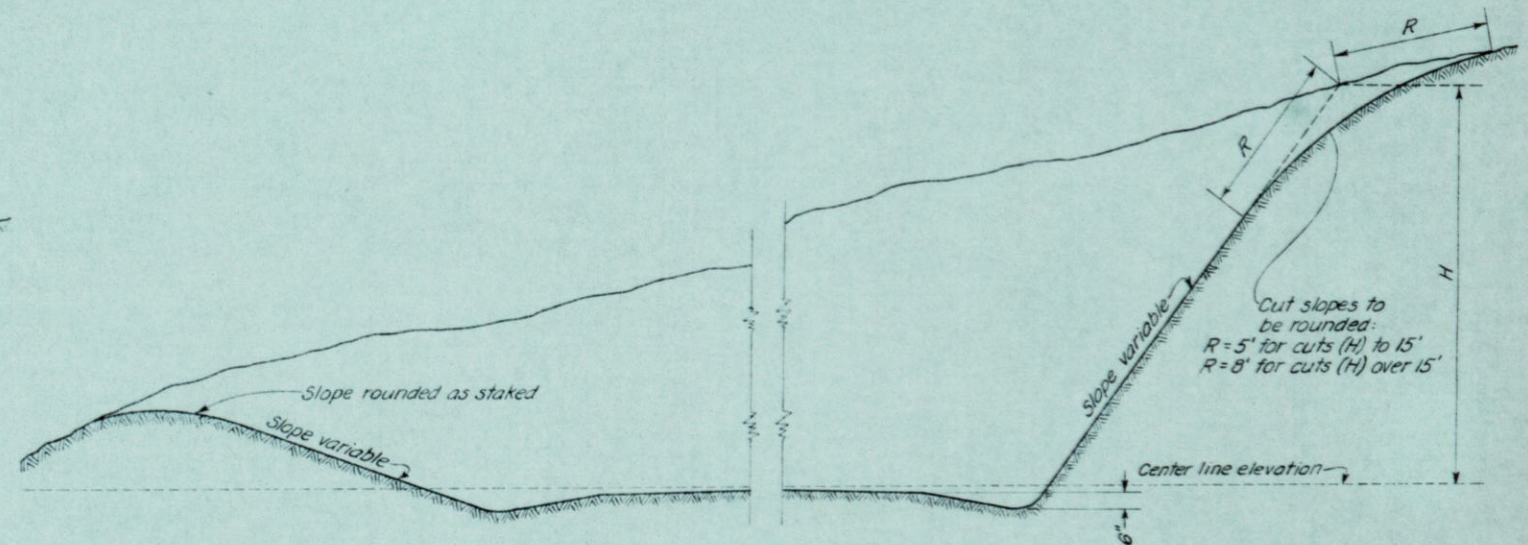
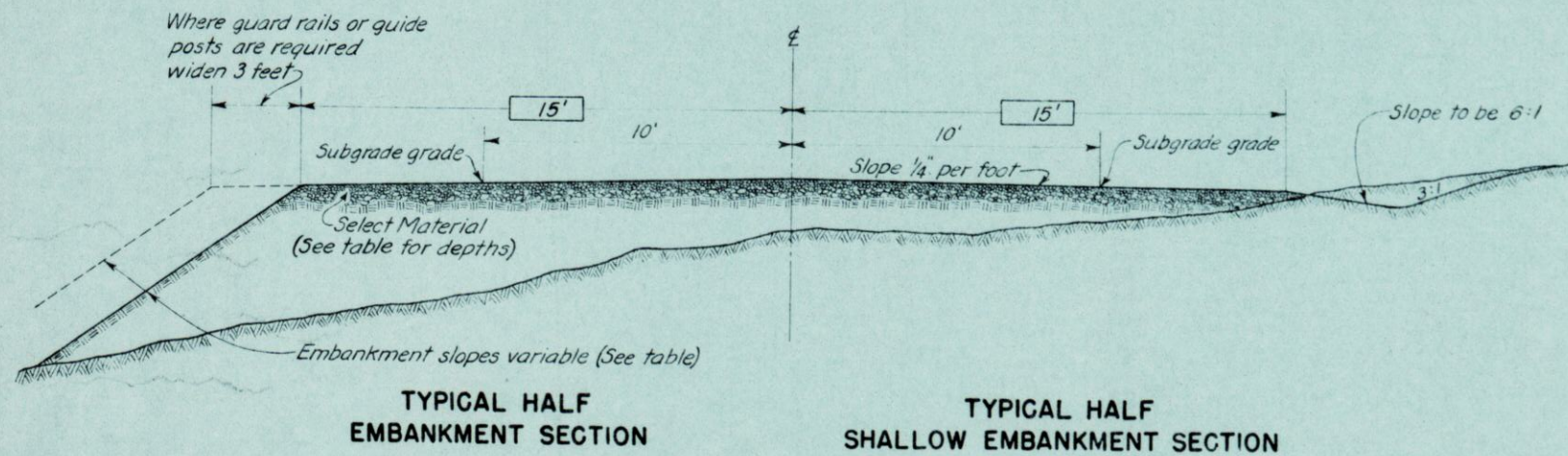
Topsoil shall be conserved and either placed in stockpiles or spread over cut and embankment slopes as directed and in accordance with the specifications.

Roadway ditches at the ends of cuts shall be constructed so as to carry the flow away from the adjacent embankment slopes.

Embankment slopes shall be uniformly warped between one rate of slope and another. The transition shall cover a distance of not less than fifty feet.

Subgrade grade to be on the surface of stabilized graded road and located ten feet from center line on tangents and insides of curves.

Public Roads Administration book of "Transition Curves for Highways" shall be used to determine superelevation and transition lengths (Table I) and widening of curves (Table IX).



SELECT MATERIAL		
STATION TO STATION	DEPTH	
623+00	691+00	9"
	Item 26	5"
	Item 47	4"

SLOPES			
HEIGHT	EMBANKMENT SLOPE	EARTH CUT SLOPE	ROCK CUT SLOPE
0' to 3'	6:1	3:1	
3' to 6'	4:1	3:1	1/4:1
6' to 12'	2:1	2:1	to 1:1
12' to 30'	1 1/2:1	1 1/2:1	
30' Up	1 1/2:1	1:1	

When field conditions indicate the need for slopes other than those indicated above they shall be constructed as staked by the Engineer.

In cases where the height of cuts are in excess of 30 feet and in material which erodes readily use slopes of 1 1/2 to 1 or flatter if practical.

U.S. DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
DIVISION NO. 9 DENVER, COLO.

TYPICAL CROSS SECTIONS NATIONAL FOREST & PARK HIGHWAYS

DIVISION No. 9 STANDARD ROADBED: GRADED 30' Shoulder to Shoulder
PROJECT Colo. 29-0, Boulder-Idaho Springs
NATIONAL Forest: Roosevelt
COUNTY Boulder
STATE Colorado

BASE COURSE Not included in this contract.
BITUMINOUS WEARING SURFACE " " " "

APPROVED *Edo E. Leland* DATE JANUARY 1946
DESIGN ENGINEER Revised JAN 3, 1951

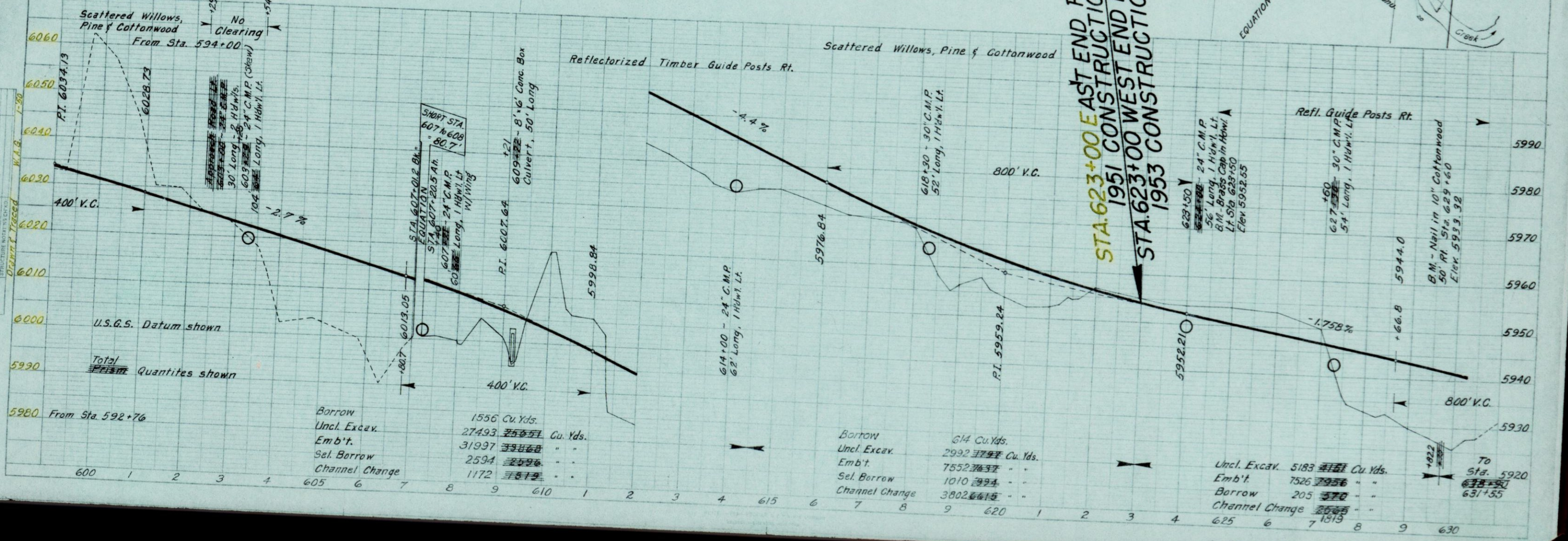
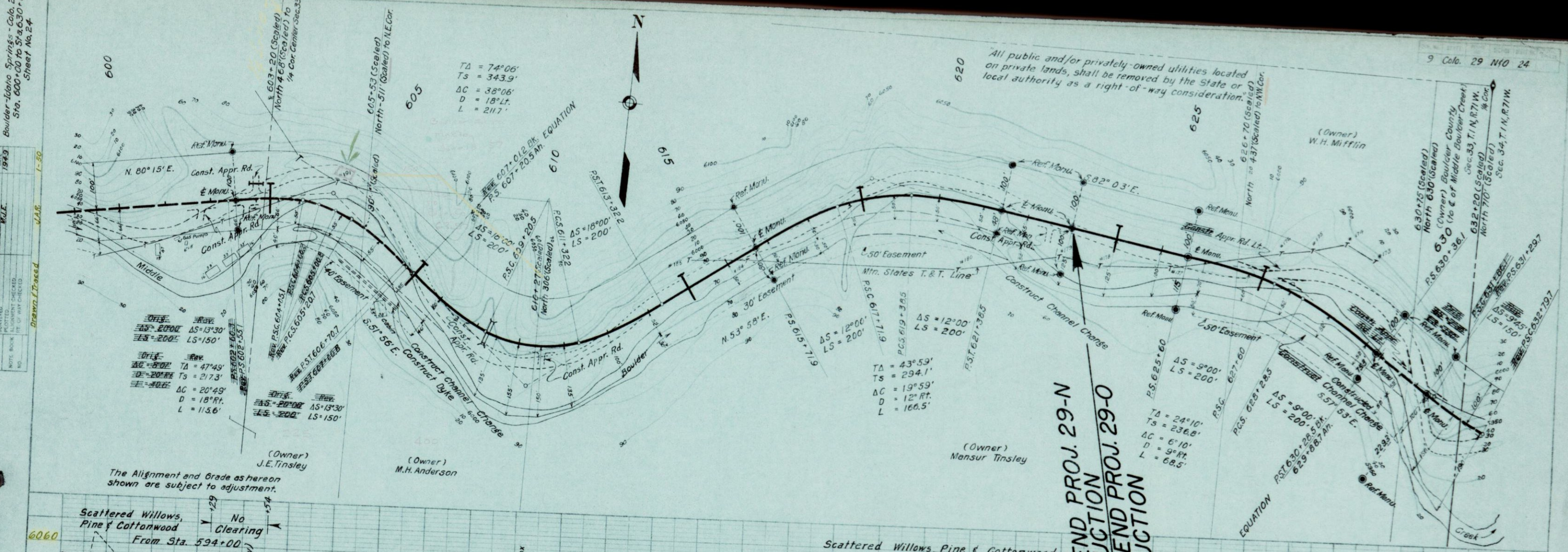
Boulder-Lafayette Springs - Colo. 2.9
Sta. 600+00 to Sta. 630+00
Sheet No. 24

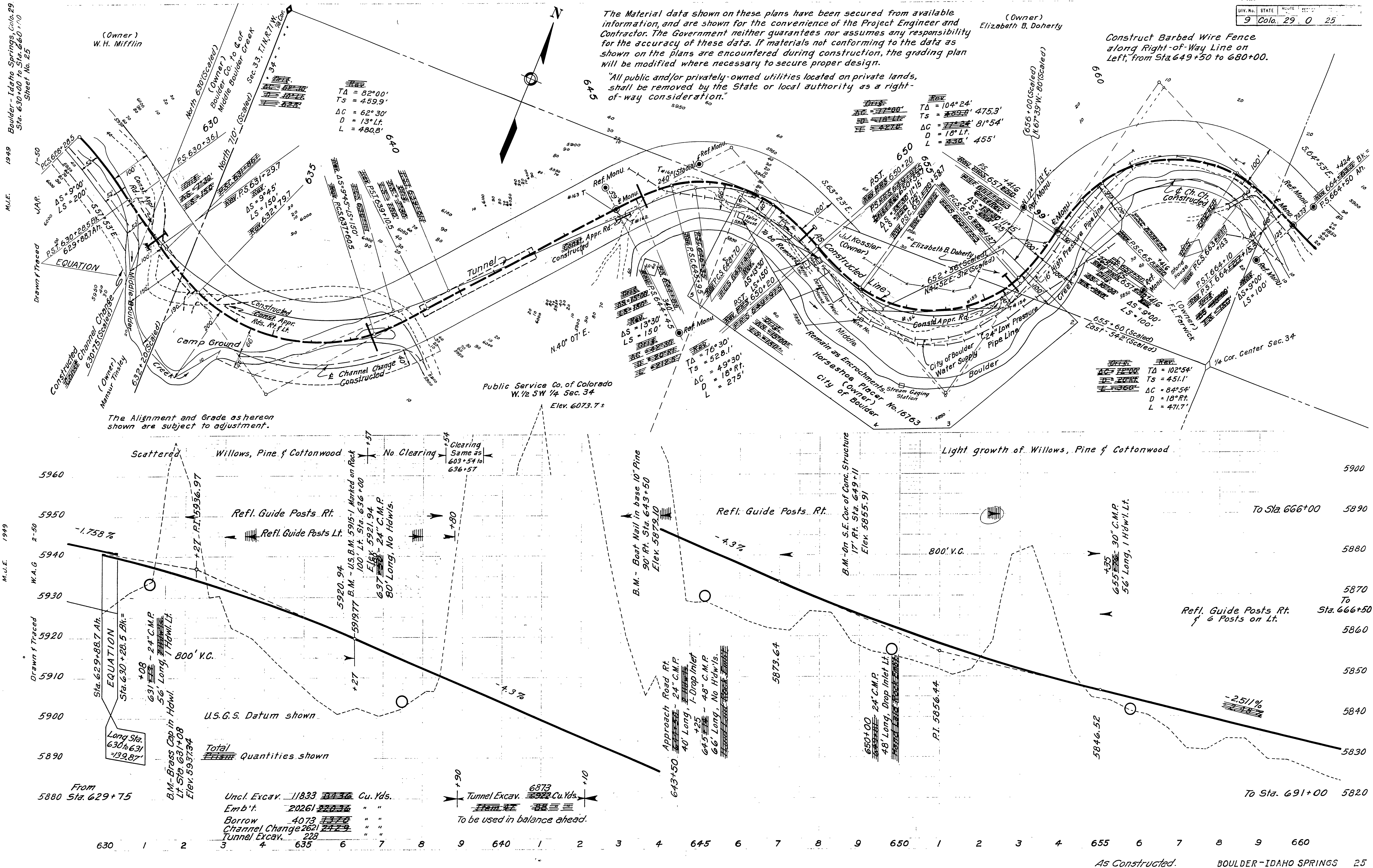
PLAN
DATE 1949
BY M.L.E.
NOTED: ALIGNED CHECKED
NOTE: BOOK GRADES CHECKED
DATE 1949
BY M.L.E.
NOTED: ALIGNED CHECKED
NOTE: BOOK GRADES CHECKED

TA = 74°06'
TS = 343.9'
AC = 38°06'
D = 18°11'
L = 2117'

All public and/or privately-owned utilities located on private lands, shall be removed by the State or local authority as a right-of-way consideration.

9 Colo. 29 N10 24





DATE 1949
M.L.E.
NOTES:
1. ALL DIMENSIONS SHOWN ARE IN FEET.
2. ALL DIMENSIONS SHOWN ARE TO CENTERLINE UNLESS OTHERWISE NOTED.
3. ALL DIMENSIONS SHOWN ARE TO CENTERLINE UNLESS OTHERWISE NOTED.

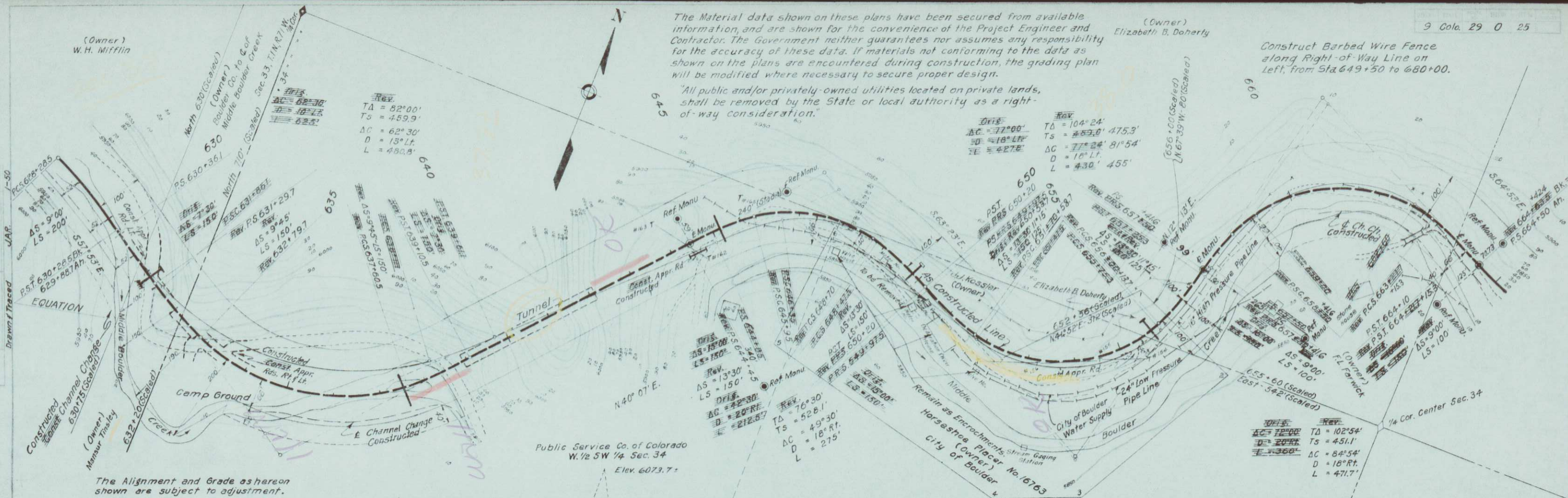
PROFILE
DATE 1949
M.L.E.
NOTE: B.O.A. DIMENSIONS CHECKED.
B.M. & NOTED.
STRUCTURE WITHIN OFFICE.

The Material data shown on these plans have been secured from available information, and are shown for the convenience of the Project Engineer and Contractor. The Government neither guarantees nor assumes any responsibility for the accuracy of these data. If materials not conforming to the data as shown on the plans are encountered during construction, the grading plan will be modified where necessary to secure proper design.

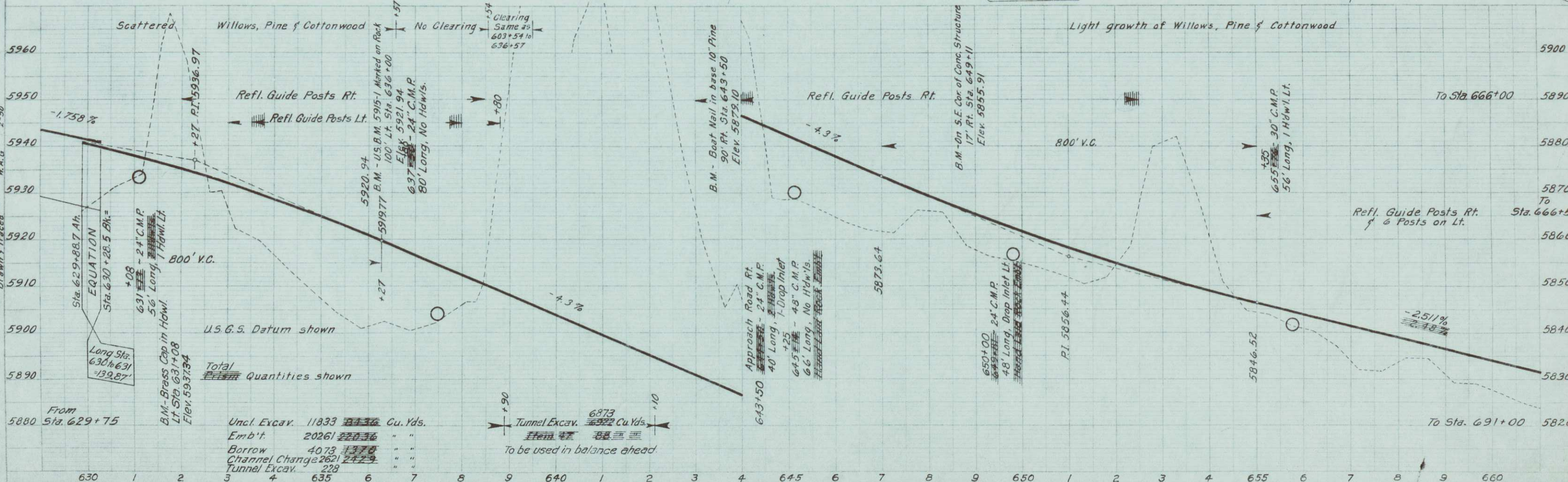
All public and/or privately owned utilities located on private lands, shall be removed by the State or local authority as a right-of-way consideration.

(Owner)
Elizabeth B. Doherty

Construct Barbed Wire Fence along Right-of-Way Line on Left, from Sta. 649+50 to 680+00.

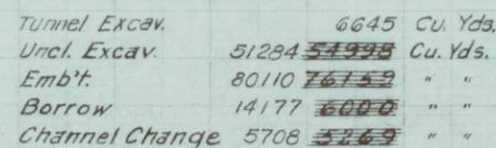
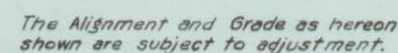
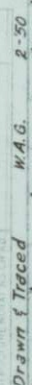


The Alignment and Grade as hereon shown are subject to adjustment.



Total Quantities shown

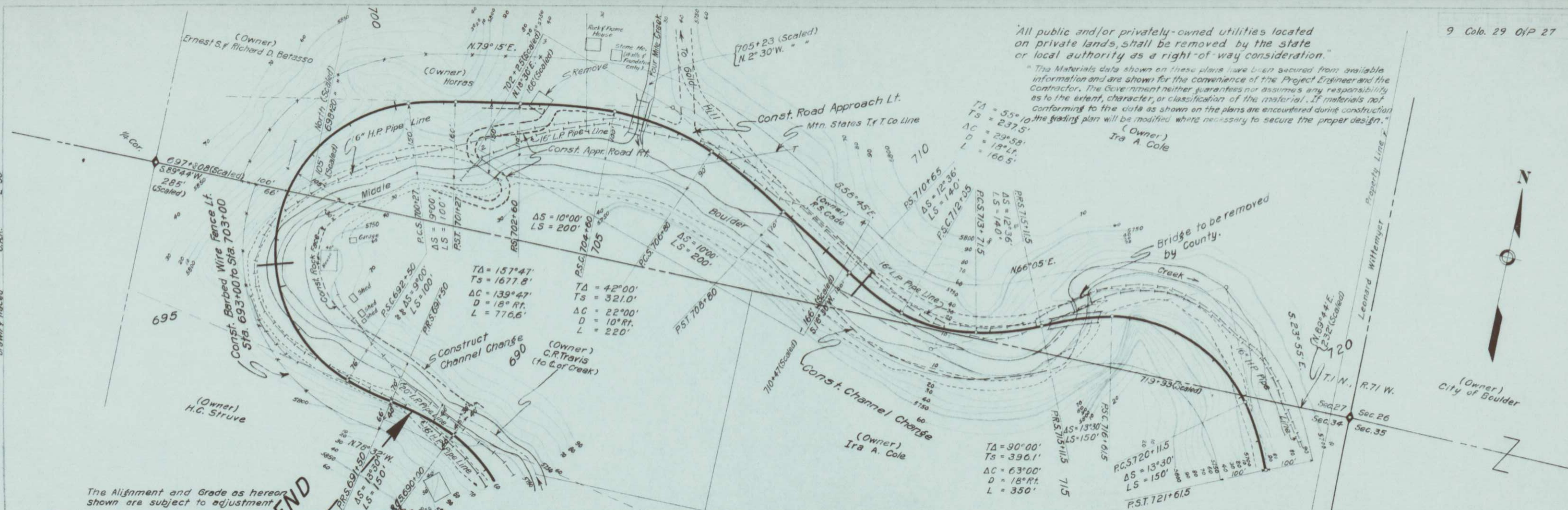
Uncl. Excav. 11833 11833 Cu. Yds.
Emb't. 20261 20261 "
Borrow 4073 4073 "
Channel Change 2621 2621 "
Tunnel Excav. 228 228 "
To be used in balance ahead.



As Constructed. BOULDER - IDAHO SPRINGS 26

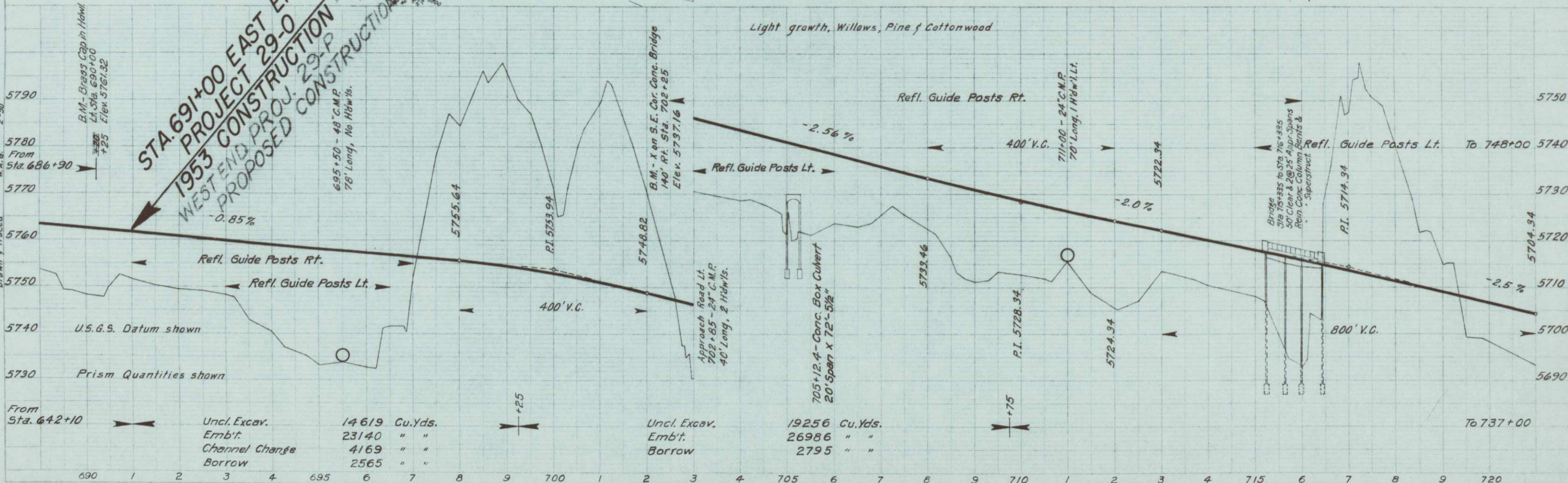
All public and/or privately-owned utilities located on private lands, shall be removed by the state or local authority as a right-of-way consideration.

The Materials data shown on these plans have been secured from available information and are shown for the convenience of the Project Engineer and the Contractor. The Government neither guarantees nor assumes any responsibility as to the extent, character, or classification of the material. If materials not conforming to the data as shown on the plans are encountered during construction, the grading plan will be modified where necessary to secure the proper design.



The Alignment and Grade as hereon shown are subject to adjustment

STA. 691+00 EAST END
PROJECT 29-0
1953 CONSTRUCTION
WEST END PROJ. 29-P
PROPOSED CONSTRUCTION



Uncl. Excav.	14619	Cu. Yds.
Embl't.	23140	" "
Channel Change	4169	" "
Borrow	2565	" "

Uncl. Excav.	19256	Cu. Yds.
Embl't.	26986	" "
Borrow	2795	" "