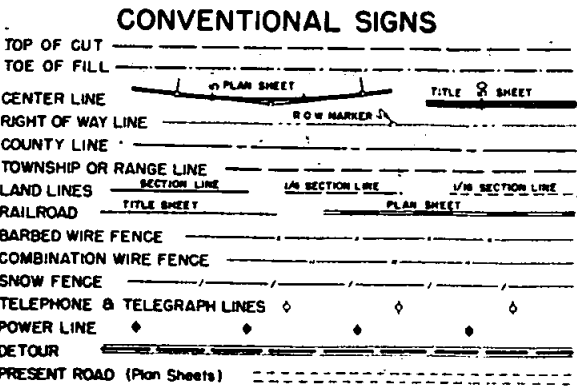


FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	F005-3(19)	1	

COLORADO
DEPARTMENT OF HIGHWAYS

PLAN AND PROFILE OF PROPOSED
FEDERAL AID PROJECT NO. F 005-3(19)
STATE HIGHWAY NO. 2 (40)
GRAND COUNTY



INDEX OF SHEETS

SHEET NO.		
1	TITLE PAGE, SKETCH MAP & TABULATION OF LENGTH & DESIGN DATA.	
2	TYPICAL SECTIONS, GENERAL NOTES & TAB. OF OBLITERATING OLD ROAD.	
3	SUMMARY OF APPROXIMATE QUANTITIES.	
4	SURFACING PLAN; DETAILS OF TIMBER COVER FOR INTERCEPTING HEADWALL, HEADWALL REMOVAL, & TYPICAL SECTION OF TRENCH FOR PIPE UNDERDRAIN.	
5	SUMMARY OF EARTHWORK QUANTITIES & TABULATIONS OF GUARD FENCE & GUARD POST REMOVALS	
6-9	LIST OF STRUCTURES	
10-14	DETAILS OF CRIBBING	
15	STANDARD METHODS FOR SUPERELEVATION & WIDENING OF CURVES	M-1-D
16	STANDARD SIDE-APPROACH ROADS, FLARING, CUT SLOPE TREATMENT & WIDENING AT BRIDGES AND AT CREST OF GRADES.	M-2-EN
17-18	STANDARD ROADWAY CONSTRUCTION TRAFFIC SIGNS	M-29-C
19	STANDARD IDENTIFICATION SIGNS	M-31-A
20	STANDARD SINGLE AND DOUBLE CONCRETE BOX-CULVERTS	M-50-B
21	STANDARD WINGWALLS FOR VARIOUS TYPES OF CONCRETE BOX-CULVERTS	M-50-BW
22	STANDARD METHODS OF BACKFILL AROUND STRUCTURES	M-60-B
23	STANDARD HEADWALLS AND APRONS FOR CMP CULVERTS	M-102-J
24	STANDARD TYPES OF DITCHES AND CONSTRUCTION METHODS	M-107-D
25	DELETED	
26	BIN TYPE METAL CRIBBING	M-130-B
27-38	ALIGNMENT PLAN AND PROFILE	
39-237	CROSS SECTIONS	
238-268	STRUCTURE CROSS SECTIONS	

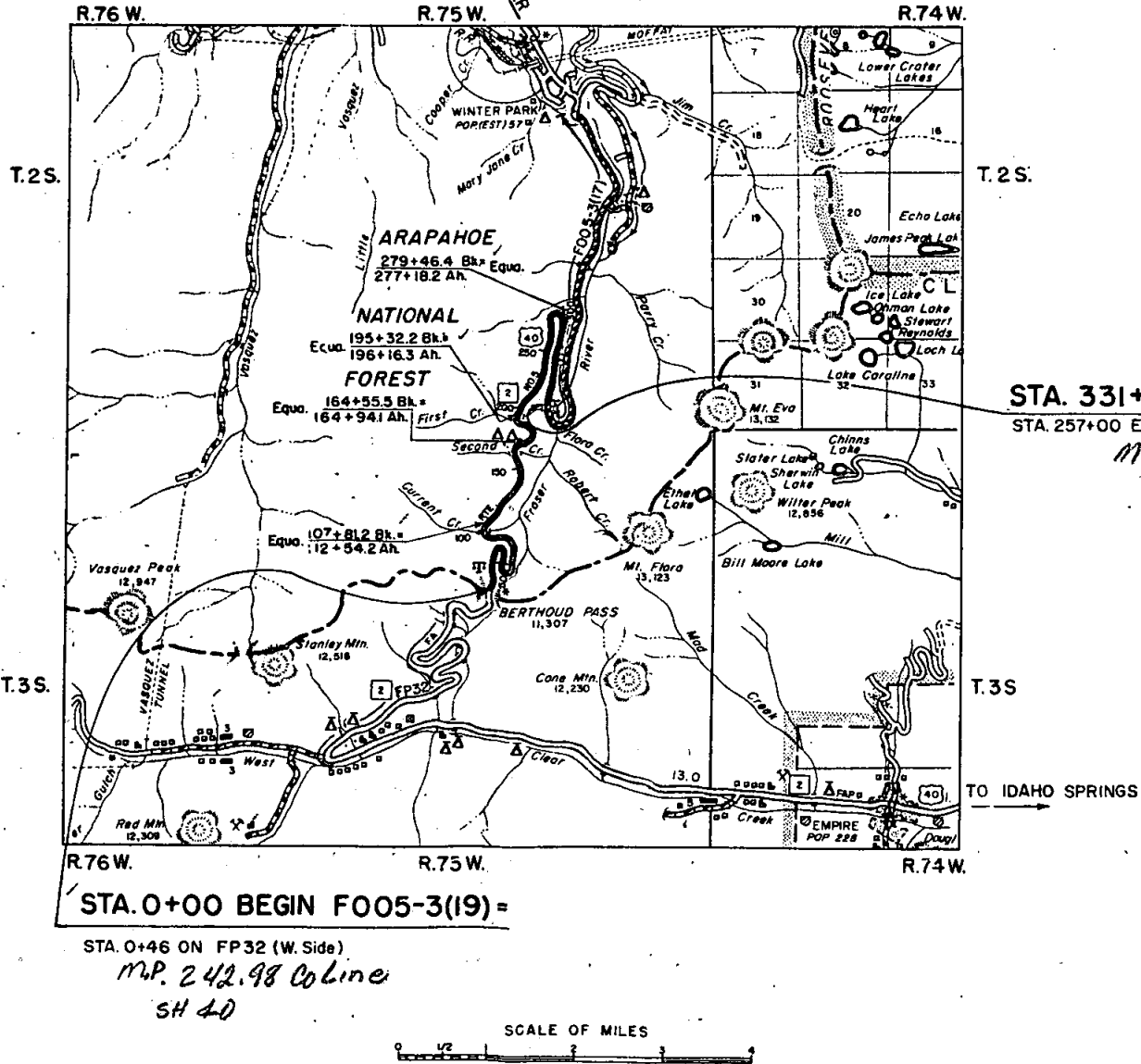
TABULATION OF LENGTH AND DESIGN DATA

STATION	ROADWAY	LIN. FT.	
0+00 Begin F005-3(19)= 0+46 on FP 32 (W. Side)		961.4	
9+61.4 Bk.= EQUATION 9+72.9 Ah.		3,403.4	
43+76.3 Bk.= EQUATION 42+66.7 Ah.		2,520.1	
67+86.8 Bk.= EQUATION 67+86.1 Ah.		781.6	
75+67.7 Bk.= EQUATION 75+67.6 Ah.		1,366.3	
89+33.9 Bk.= EQUATION 89+39.0 Ah.		1,842.2	
107+81.2 Bk.= EQUATION 112+54.2 Ah.		2,842.5	
140+96.7 Bk.= EQUATION 141+02.0 Ah.		2,353.5	
164+55.5 Bk.= EQUATION 164+94.1 Ah.		800.7	
172+94.8 Bk.= EQUATION 173+01.9 Ah.		2,230.3	
195+32.2 Bk.= EQUATION 196+16.3 Ah.		1,210.2	
208+26.5 Bk.= EQUATION 208+28.8 Ah.		1,005.5	
218+34.3 Bk.= EQUATION 218+35.8 Ah.		3,110.2	
249+46.0 Bk.= EQUATION 249+55.9 Ah.		2,990.5	
279+46.4 Bk.= EQUATION 277+18.2 Ah.		3,409.9	
311+28.1 Bk.= EQUATION 311+26.8 Ah.		2,054.9	
331+81.7 Bk.= 331+78.9 Ah. End F005-3(19)= 257+00 End F005-3(17)			
TOTAL		32,883.2	
SUMMARY		LIN. FT.	MILES
ROADWAY		32,883.2	6.228
NET & GROSS LENGTH		32,883.2	6.228
DESIGN DATA		42°33'	
MAXIMUM DEGREE OF CURVE		6.36%	
MAXIMUM GRADE		205'	
MINIMUM N.P.S.D. - HORIZONTAL		250'	
MINIMUM N.P.S.D. - VERTICAL		30 MPH.	
MAXIMUM DESIGN SPEED			

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
GROSS LENGTH OF PROJECT 32,883.2 FT. = 6.228 MILES
NET LENGTH OF PROJECT



STA. 331+81.7 END F005-3(19)=
STA. 257+00 END F005-3(17)
MP 236.7 SH 40

SEE SPECIAL PROVISIONS FOR NOTICE TO BIDDERS

COLORADO
DEPARTMENT OF HIGHWAYS

APPROVED: *Mark G. Wooten* 4-7-61
CHIEF ENGINEER DATE

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED: _____
DIVISION ENGINEER DATE

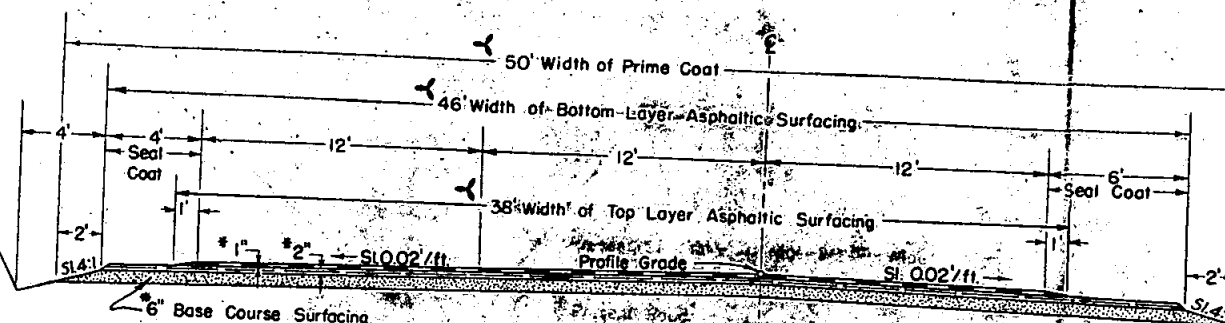
FEDERAL ROAD DIVISION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	F005-3(19)	2	

TYPICAL CROSS SECTION OF IMPROVEMENT

NOTE: See Standard M-2-EN for details of cut slope treatment, flaring and widening for guard fence.

Excavation below 4:1 slope and/or 10:1 slope will not be permitted.

The depth and width of the side ditch shall be varied where necessary in order to provide proper drainage and/or entrance to drainage structures.



NOTE: Bottom layer of Asphaltic Surfacing shall be completed for full width before Top Layer of Asphaltic Surfacing is placed. Paving joints in Top Layer will overlap min. 1 ft. over joints in Bottom Layer.

APPROXIMATE 6" COMPACTED THICKNESS OF GRAVEL OR CRUSHED ROCK SURFACING SHALL BE PLACED IN SEPARATE COURSES AT THE FOLLOWING RATE PER 100 LIN. FT. OF ROADWAY:
BASE COURSE SURFACING 160 TONS

FUTURE CONSTRUCTION

GENERAL NOTES

THIS PROJECT IS TO BE CONSTRUCTED IN CONFORMITY WITH THE STANDARD SPECIFICATIONS OF THE COLORADO DEPARTMENT OF HIGHWAYS ADOPTED JANUARY 1, 1958.

ALL QUANTITIES ON PRELIMINARY PLANS ARE TO BE CONSIDERED APPROXIMATE ONLY.

ALL CURVES ARE TO BE SUPERELEVATED AND WIDENED AS PROVIDED BY THE STANDARD SUPERELEVATION SHEET M-1-D. (MAX. SUPER 0.06'/FT.)

IT IS ESTIMATED THAT OLD ROAD IS TO BE OBLITERATED AT THE FOLLOWING LOCATIONS:

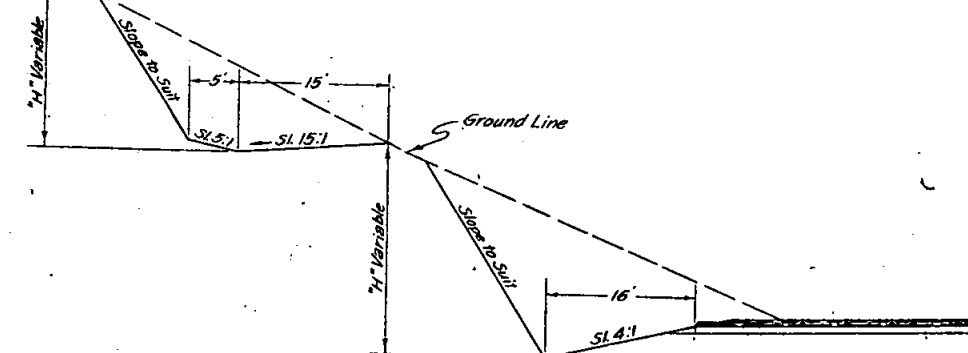
STATION	TO	STATION	SIDE
6+			LT.
29+		33+	RT.
34+		35+	"
38+			"
53+		54+	LT.
56+			RT.
58+		62+	LT.
93+		94+	"
99+		100+	"
182+			"
184+		186+	RT.
262+		273+	"

IF EXCAVATION OPERATIONS DEVELOP MATERIALS WHICH WILL STAND ON SLOPES STEEPER THAN SLOPE STAKE LINES, THE DEPARTMENT RESERVES THE RIGHT TO CHANGE CUT SLOPES DURING THE PROGRESS OF SUCH EXCAVATIONS.

THICKNESS OF BASE COURSE SURFACING MATERIAL AS SHOWN ON PLANS IS APPROXIMATE ONLY. THIS MATERIAL IS TO BE PLACED ON THE BASIS OF THE TONNAGE SHOWN ON PLANS.

BUNKER BENCH SECTION

TO BE USED IN SNOW SLIDE AREAS
STA. 116+ TO 128+ AND STA. 138+ TO 145+



GENERAL NOTES FOR MULTIPLE PLATE CULVERT STA. 97+ 85

All work shall be done according to the Standard Specification of the Colorado Department of Highways applicable to the project.

The design of the plates as shown is based on a section modulus of 0.0732 for Ten (10) gauge plates.

The longitudinal joints shall be secured with a sufficient number of bolts of adequate strength to develop a joint which will be effective to an ultimate strength of 50,000 lbs. per linear foot of seam.

Pipe of alternate design having section modulus equivalent to or greater than that shown above may be used, after approval by the Department, provided that no plates less than Ten (10) gauge will be used.

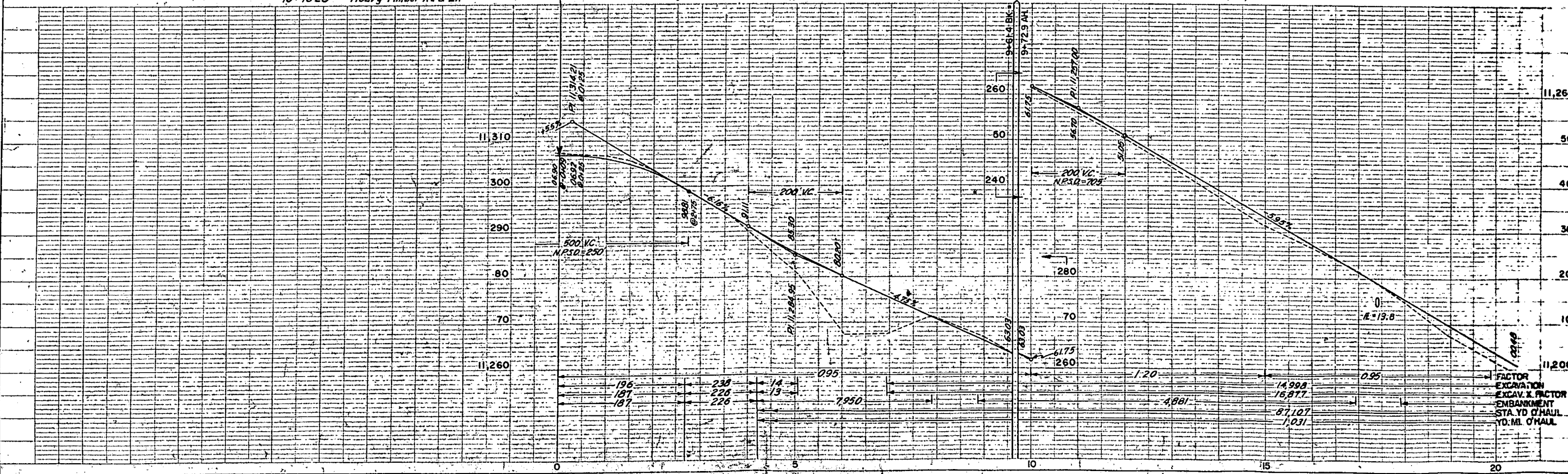
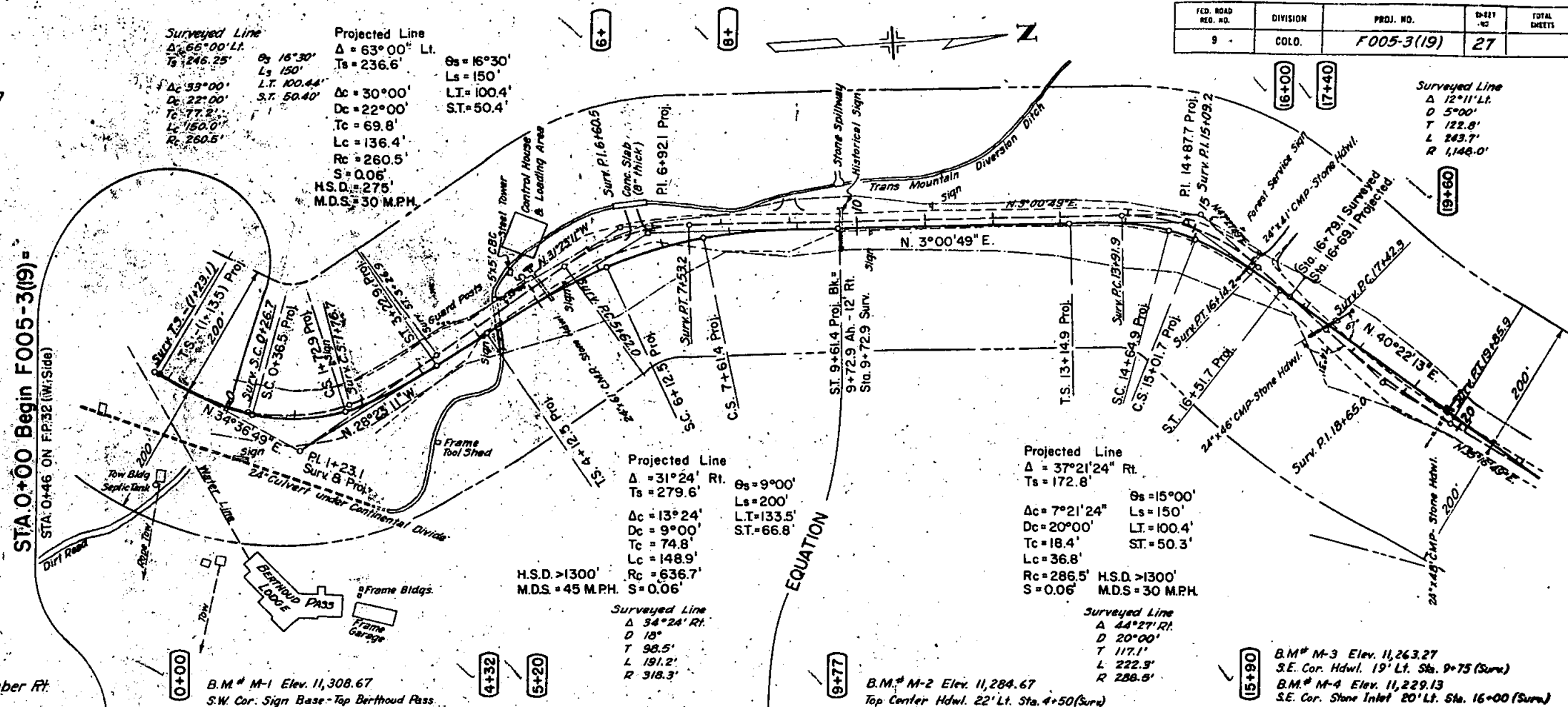
On this structure the longitudinal joints shall be secured with at least 4 bolts and not more than 8 bolts per linear foot of seam. The number of bolts provided and used shall be identical on all longitudinal joints and over the entire length of each joint.

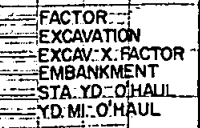
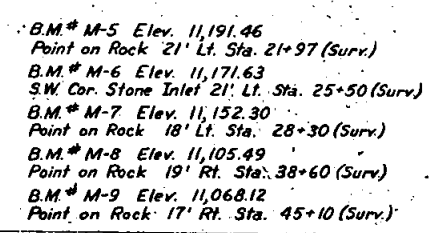
NOTE:
Alignment and Grades as shown are subject to modification during construction after approval by the Denver Office.

Soil data shown on the plans is obtained from best available testing laboratory information. This information is shown for convenience of the Contractor and the Department does not guarantee the accuracy of these tests. If materials not conforming to the data on plans are encountered during construction the grading plan shown on plans will be modified where necessary to secure dense, stable embankments.

R.O.W. for this project lies 200' each side of "Survey" centerline (total minimum width 400') except Rt. of Sta. 91+ to 103+ where the R.O.W. is shown as 200' from "Projected" centerline.

FED. ROAD NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	F005-3(19)	27	

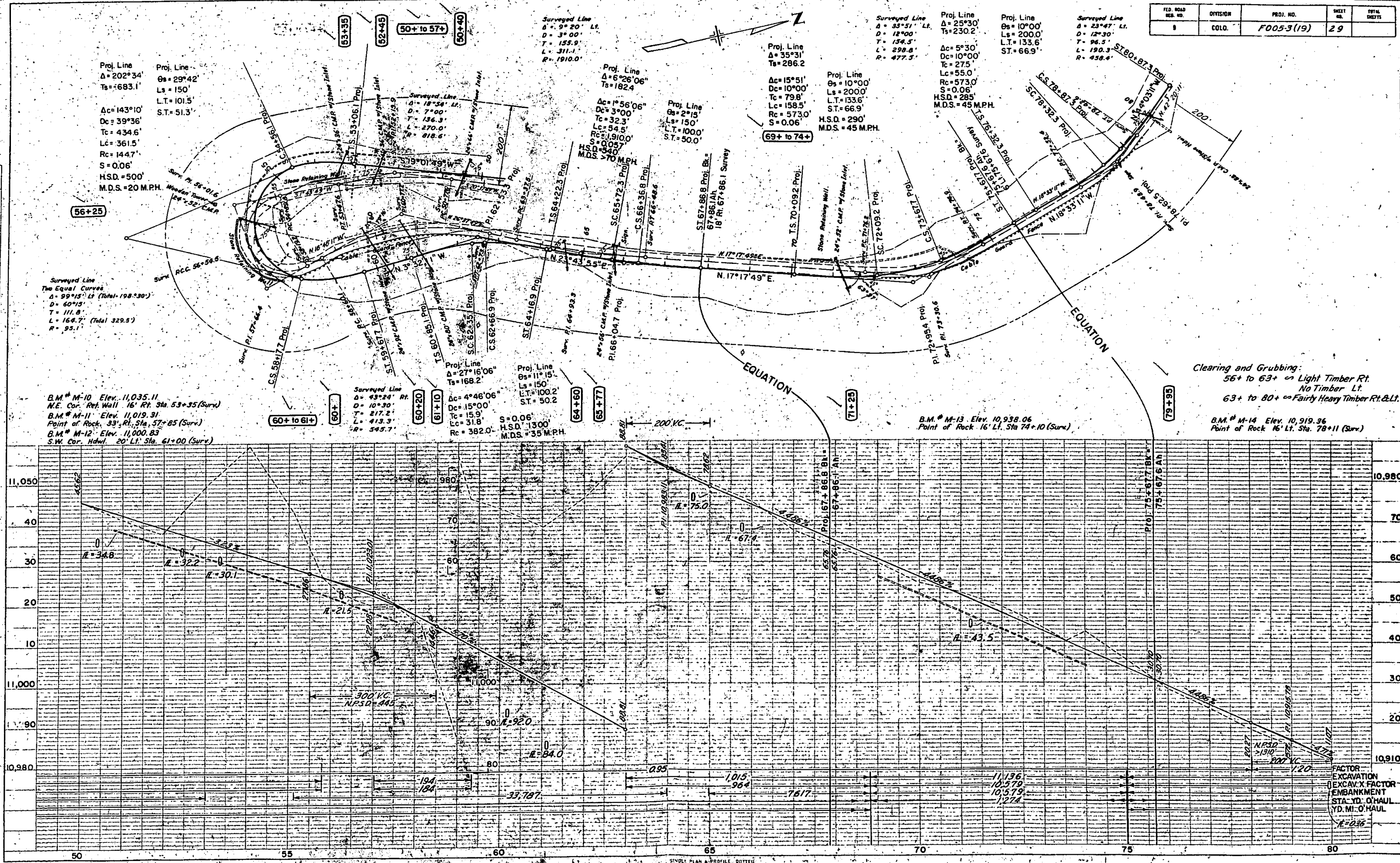




PLAN	DATE
NO. 22522	2/25/52
NOTE: BOOK	
ALIGNED CHECKED	
BY	
DATE	

PROFILE	DATE
NO. 22522	2/25/52
NOTE: BOOK	
GRADES CHECKED	
BY	
DATE	

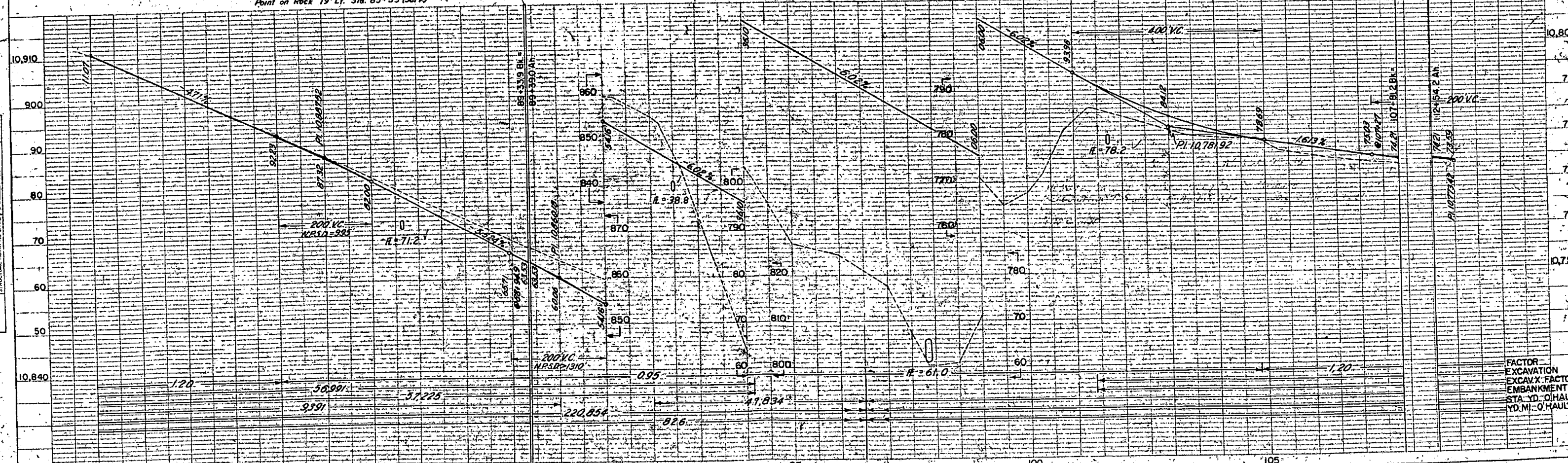
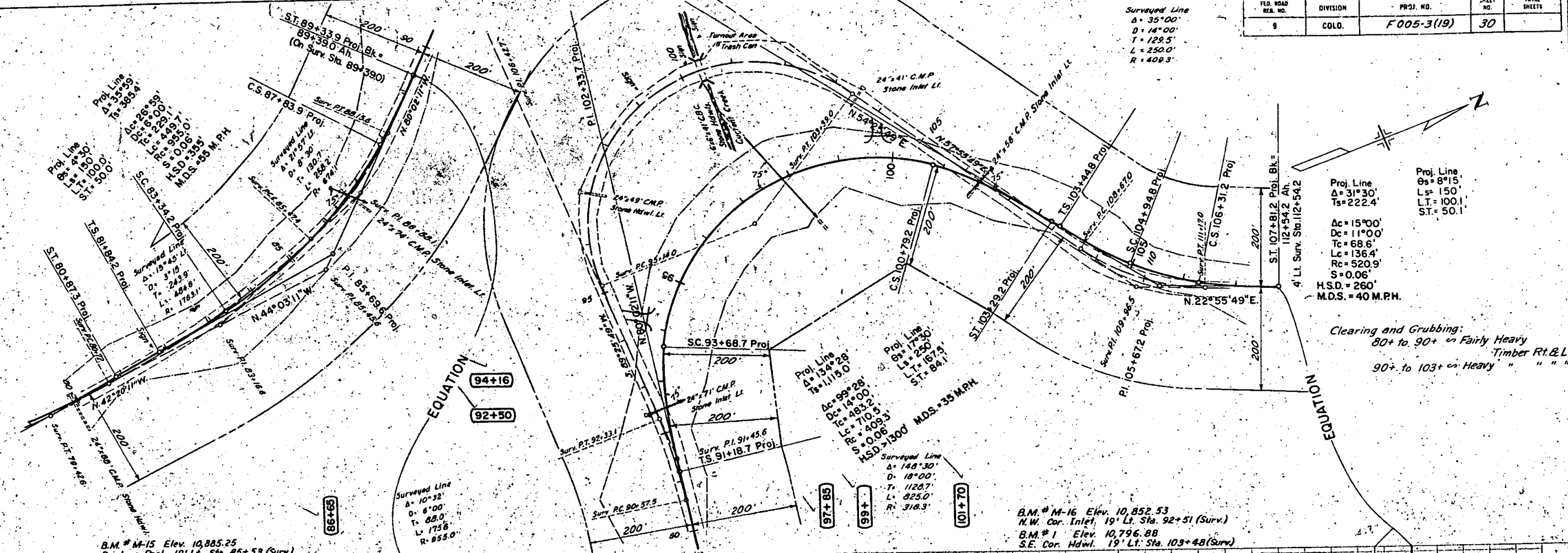
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9	COLO.	F0053(19)	29	



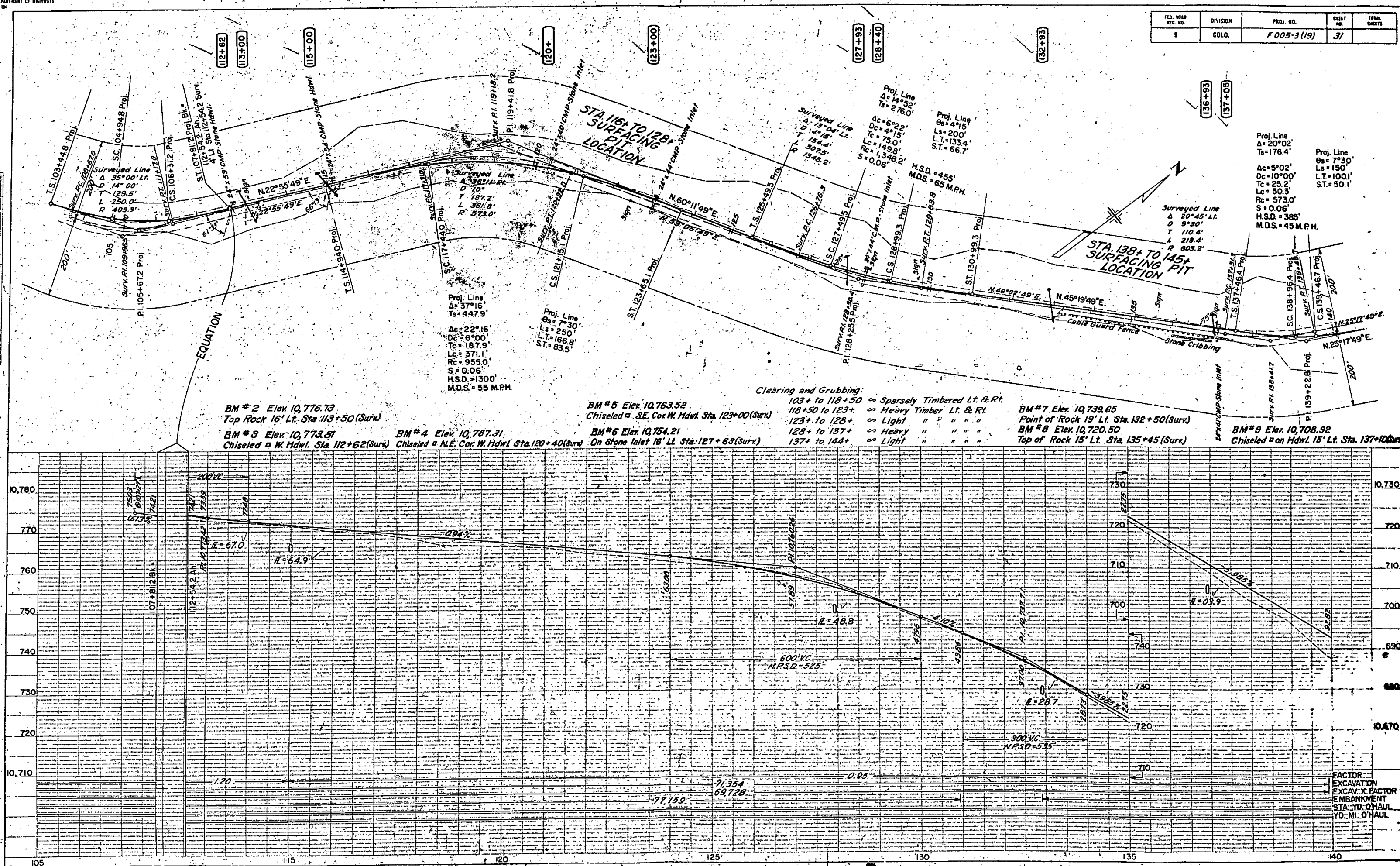
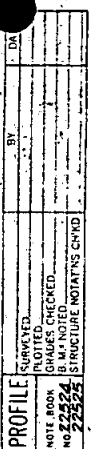
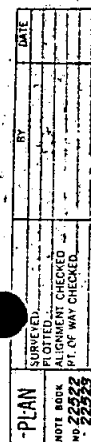
PLAN	DATE
NO. 22522	
NOTE: ROAD PLACEMENT CHECKED BY OF WAY CHECKED	

PROFILE	DATE
NO. 22524	
NOTE: ROAD GRADING CHECKED BY STRUCTURE TOTALS CHECKED	

FED. ROAD DIST. NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	F005-3(19)	30	



FACTOR
EXCAVATION
EXCAV. FACTOR
EMBANKMENT
STA. YD. O'HAUL
YD. MI. O'HAUL

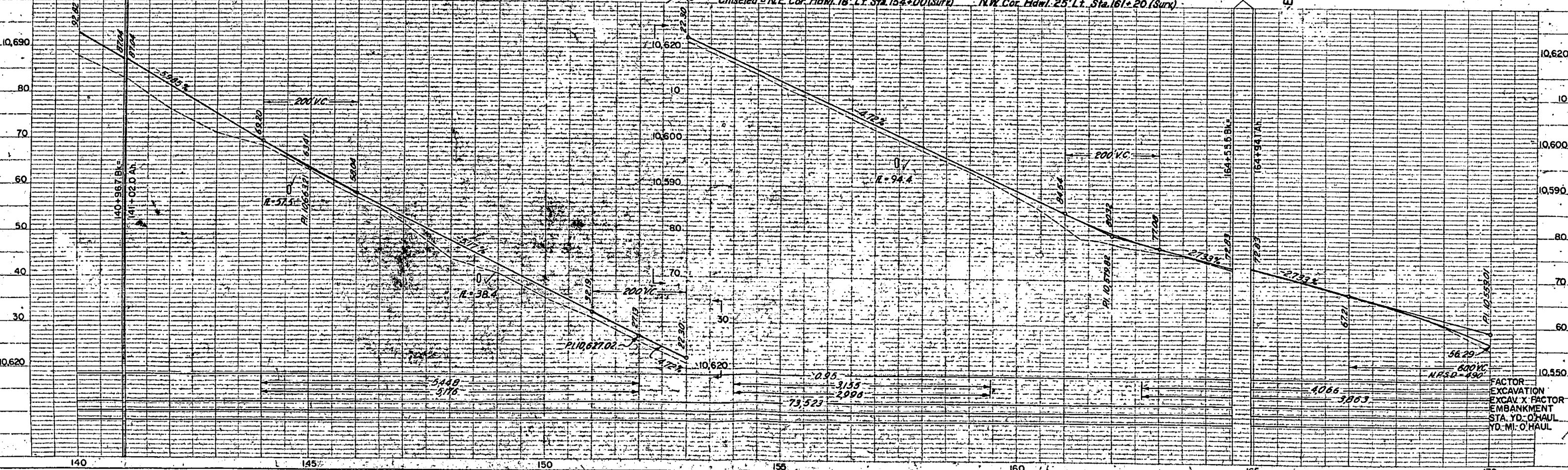
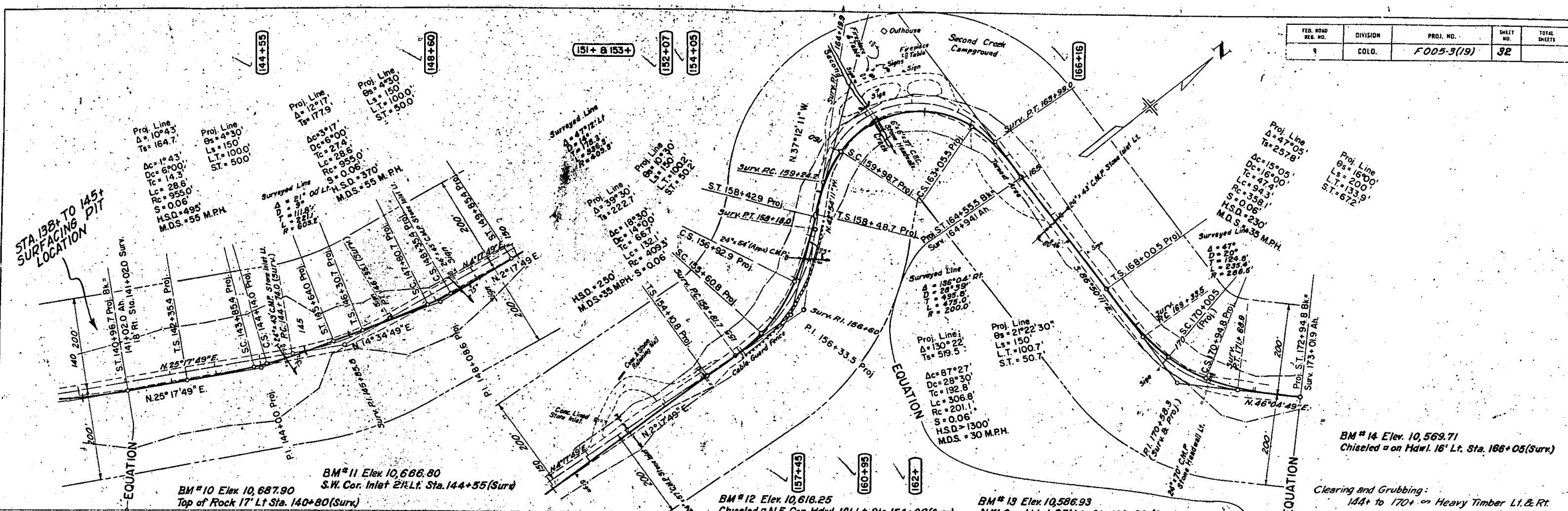


FACTOR
EXCAVATION
EXCAV. X FACTOR
EMBANKMENT
STA. YD. O'HAUL
YD. MI. O'HAUL

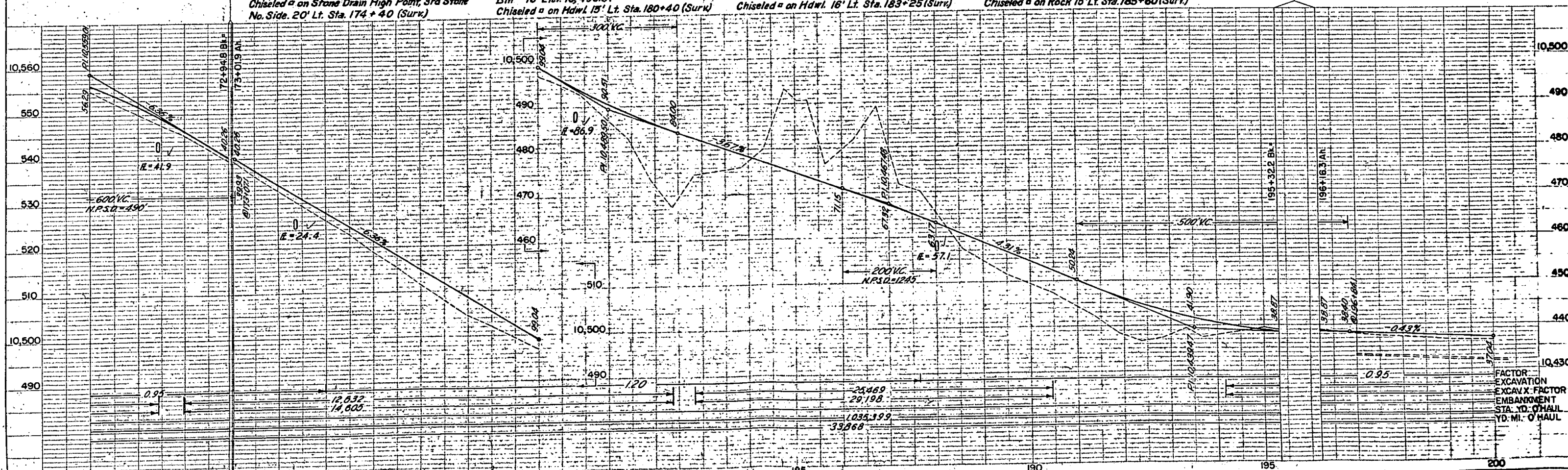
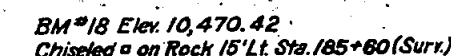
PLAN	DATE
BY	
CHECKED	
NOTED	
REVISION	

PROFILE	DATE
BY	
CHECKED	
NOTED	
REVISION	

FED. ROAD DIST. NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	F005-3(19)	32	



PROFILE	SURVEYED	BY	DATE
NOTE ROOM	GRADES CHECKED		
NO. 22525	8 M ² NOTED		
	STRIPTUBE MOUNTING CHAND		



FACTOR
EXCAVATION
EXCAV X FACTOR
EMBANKMENT
STA. YD. O'HAUL
YD. MI. O'HAUL

The drawing is a technical engineering plan and profile for a road project. The top portion is a plan view showing the road's alignment, including curves, stations, and landmarks. The bottom portion is a profile view showing the road's elevation, with a vertical curve labeled '600' VC' and 'N.P.S.D. = 410'.

Plan View Details:

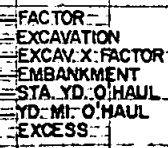
- Surveyed Line:** Shows the existing road alignment with various curves and stations.
- Proj. Line:** Shows the proposed road alignment with various curves and stations.
- Curves:** Labeled with 'C.S.' (Curve Station) and 'P.C.' (Point of Curvature) or 'P.T.' (Point of Tangency).
- Stations:** Marked along the road alignment, ranging from 201+75 to 225+35.
- Landmarks:** 'EQUATION' and 'Stone Inlet' are labeled as key features.
- Clearing and Grubbing:** Indicated for stations 202+ to 219+ and 219+ to 230+.

Profile View Details:

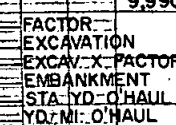
- Vertical Curve:** Labeled '600' VC' and 'N.P.S.D. = 410'.
- Elevation:** The vertical axis shows elevation in feet, ranging from 10,370 to 10,430.
- Stations:** Marked along the profile, corresponding to the plan view.
- Grading:** Indicated by a dashed line showing the proposed road grade.

Technical Annotations:

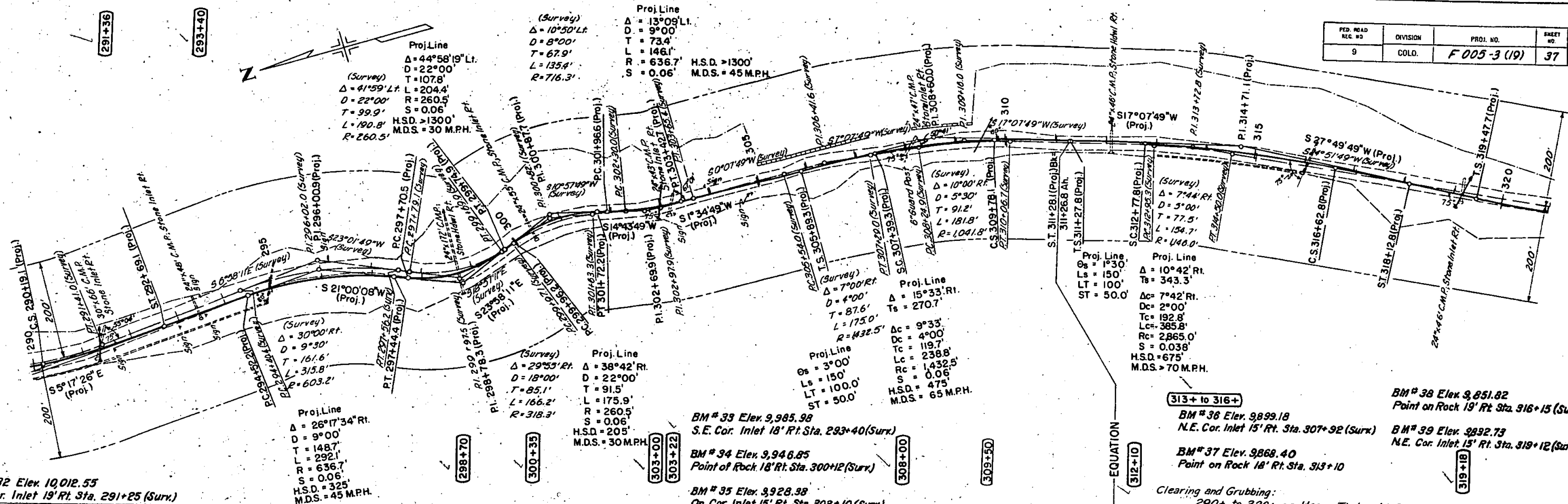
- Surveyed Line:** $\Delta = 13^\circ 30' \text{ Lt.}$, $D = 11''$, $T = 61.8'$, $L = 122.7'$, $R = 520.9'$.
- Proj. Line:** $\Delta = 8^\circ 20'$, $T_s = 102.2'$, $D_c = 0^\circ 20'$, $D_c = 8^\circ 00'$, $T_c = 21'$, $L_c = 4.2'$, $R_c = 716.3'$, $S = 0.06$, $H.S.D. = 325'$, $M.D.S. = 50 \text{ MPH}$.
- Clearing and Grubbing:** 202+ to 219+ ∞ Light Timber Lt. & R., 219+ to 230+ ∞ Heavy " " " "



Proj. Line
 $\Delta = 25^{\circ}03'38''$ Lt.
 $T_s = 307.5'$
 $\Delta c = 7^{\circ}33'38''$
 $Dc = 7^{\circ}00'$
 $Tc = 56.2'$ S = 0.06'
 $Lc = 108.0'$ H.S.D. > 1300'
 $Rc = 818.6'$ M.D.S. = 50 M.P.H.



FED. ROAD REC. NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	F 005-3 (19)	37	



BM #32 Elev. 10,012.55
S.E. Cor. Inlet 19' Rt. Sta. 291+25 (Surr.)

BM #33 Elev. 9,985.98
S.E. Cor. Inlet 18' Rt. Sta. 293+40 (Surr.)

BM #34 Elev. 9,946.85
Point of Rock 18' Rt. Sta. 300+12 (Surr.)

BM #35 Elev. 9,928.38
On Cor. Inlet 15' Rt. Sta. 303+10 (Surr.)

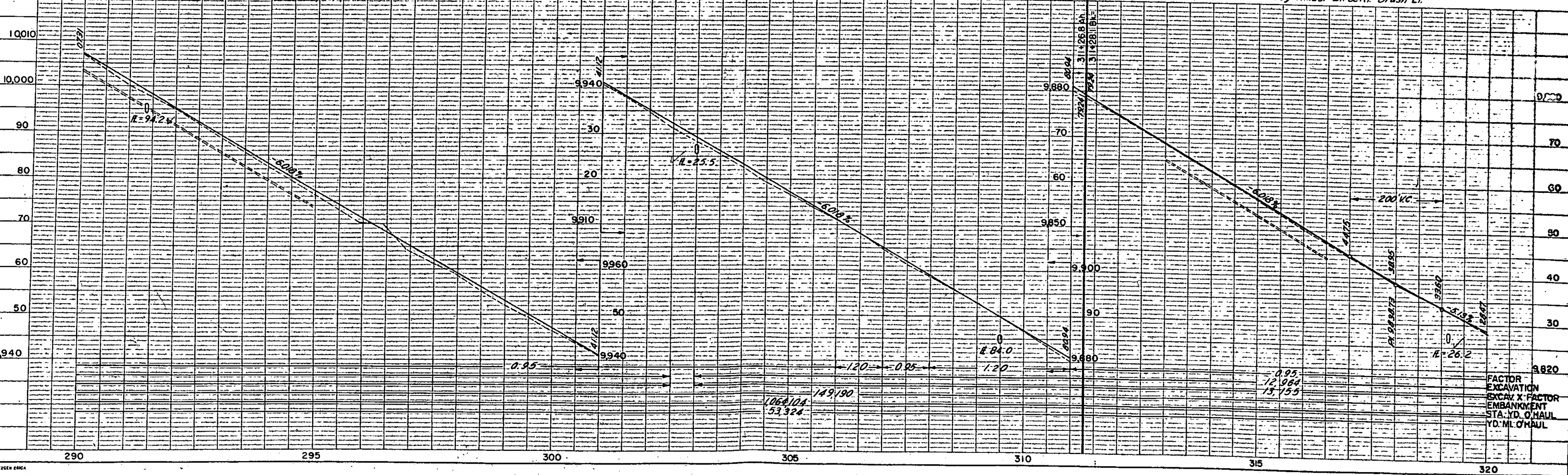
BM #36 Elev. 9,899.18
N.E. Cor. Inlet 15' Rt. Sta. 307+92 (Surr.)

BM #37 Elev. 9,868.40
Point on Rock 18' Rt. Sta. 313+10

BM #38 Elev. 9,851.82
Point on Rock 19' Rt. Sta. 316+15 (Surr.)

BM #39 Elev. 9,832.73
N.E. Cor. Inlet 15' Rt. Sta. 319+12 (Surr.)

Clearing and Grubbing:
290+ to 320+ Heavy Timber Lt. & Rt. Brush Lt.



FACTOR
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EXCAV. X FACTOR
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YD. MI. O'HAUL

FED. ROAD REC. NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	F 005-3 (19)	38	

PLAN	DATE	BY	CHECKED
NO. 22526			

PROFILE	DATE	BY	CHECKED
NO. 22526			

Proj. Line
 $\Delta = 37^{\circ}06' \text{ Lt.}$
 $T_s = 318.6'$
 $\Delta_c = 12^{\circ}06' \text{ Lt.}$
 $D_c = 10^{\circ}00'$
 $T_c = 60.7'$
 $L_c = 121.0'$
 $R_c = 573.0'$
 $S = 0.06'$
 $H.S.D. = 1300'$
 $M.O.S. = 45 \text{ M.P.H.}$

$\Delta = 12^{\circ}30'$
 $L_s = 250.0'$
 $LT = 167.1'$
 $ST = 83.7'$

(Survey)
 $\Delta = 36^{\circ}00' \text{ Lt.}$
 $D = 10^{\circ}30'$
 $T = 177.3'$
 $L = 342.9'$
 $R = 545.7'$

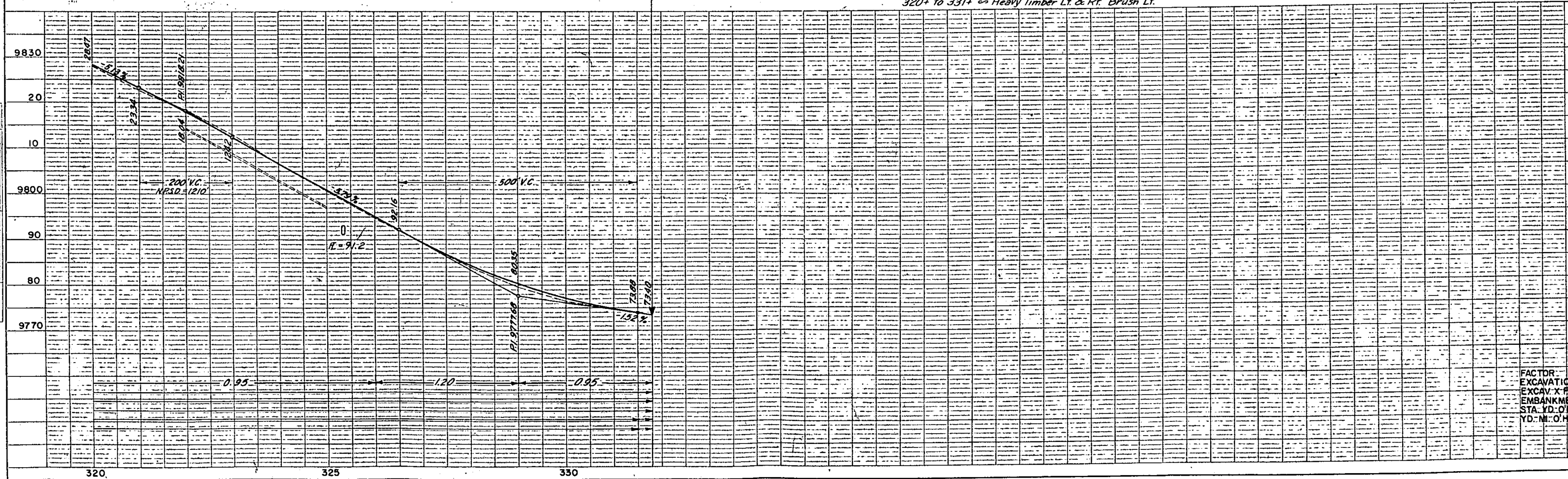
(Survey)
 $\Delta = 2^{\circ}32' \text{ Rt.}$
 $D = 1^{\circ}30'$
 $T = 84.5'$
 $L = 168.9'$
 $R = 382.00'$

Proj. Line
 $\Delta = 0^{\circ}55' \text{ Rt.}$
Angle Point
(Survey)
 $\Delta = 0^{\circ}15' \text{ Rt.}$
Angle Point

Sta. 331+ - Req'd F.A. Information Sign Lt.
STA. 331+81.7 END FO05-3(19) =
STA. 257+00 END FO05-3(17)

EQUATION

Clearing and Grubbing.
320+ to 331+ - Heavy Timber Lt. & Rt. Brush Lt.



FACTOR
EXCAVATION
EXCAV. X FACTOR
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YD. MI. O'HAUL