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- 4. PIT LOCATION SKETCH MAP.
- 5. DETAILS OF BRIDGE STA. 521+.
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- 11. ALIGNMENT, PLAN AND PROFILE SHEET.
- 12-16. CROSS SECTIONS.
- 17. SUMMARY OF EARTHWORK QUANTITIES.

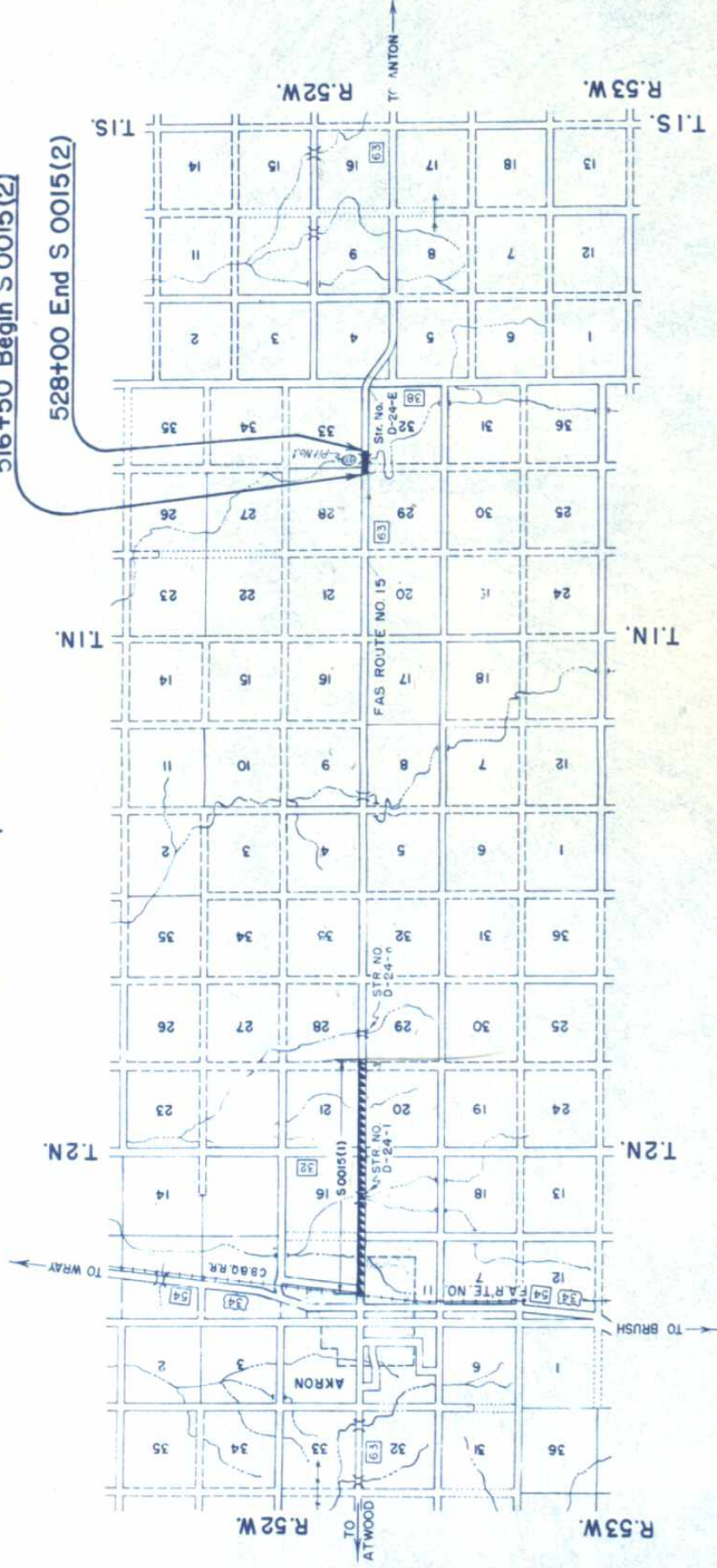
M-7-B
M-19-D
M-2-DM
M-29-A
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COLORADO
DEPARTMENT OF HIGHWAYS
PLAN AND PROFILE OF PROPOSED
FEDERAL AID PROJECT NO. S 0015(2)
STATE HIGHWAY NO. 63
WASHINGTON COUNTY

SCALES OF ORIGINAL TRACINGS
ON PLAN, 1 IN. = 100 FT.
ON PROFILE 1 IN. = 100 FT. HORIZONTAL
1 IN. = 10 FT. VERTICAL
GRAFIC LINE ON PROFILE IS SHOWN AS GRADE OF FINISHED ROAD
GROSS LENGTH OF PROJECT 1,150.0 FEET
NET LENGTH OF PROJECT 0.218 MILE

TABULATION OF LENGTH & DESIGN

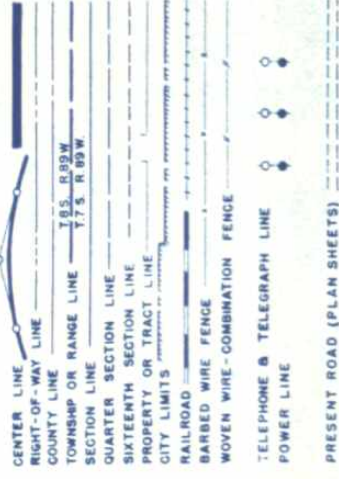
STATION	ROADWAY LIN. FT.	BRIDGE LIN. FT.	LOADING
516+50 Begin S 0015(2)	520.0		
521+70.0 Begin Bridge		58.5	H-20-44
522+28.5 End Bridge	571.5		
528+00 End S 0015(2)			
TOTALS	1091.5	58.5	
	SUMMARY	LIN. FT.	MILES
Roadway S 0015(2)		1091.5	0.207
Bridge S 0015(2)		58.5	0.011
TOTAL S 0015(2)		1150.0	0.218
DESIGN DATA			
Maximum Degree of Curve	None		
Maximum Grade	2.70%		
Minimum N.P.S.D. (Horizontal)	> 1300'		
Minimum N.P.S.D. (Vertical)	710'		
Maximum Design Speed	50 M.P.H.		



516+50 Begin S 0015(2)

528+00 End S 0015(2)

CONVENTIONAL SIGNS



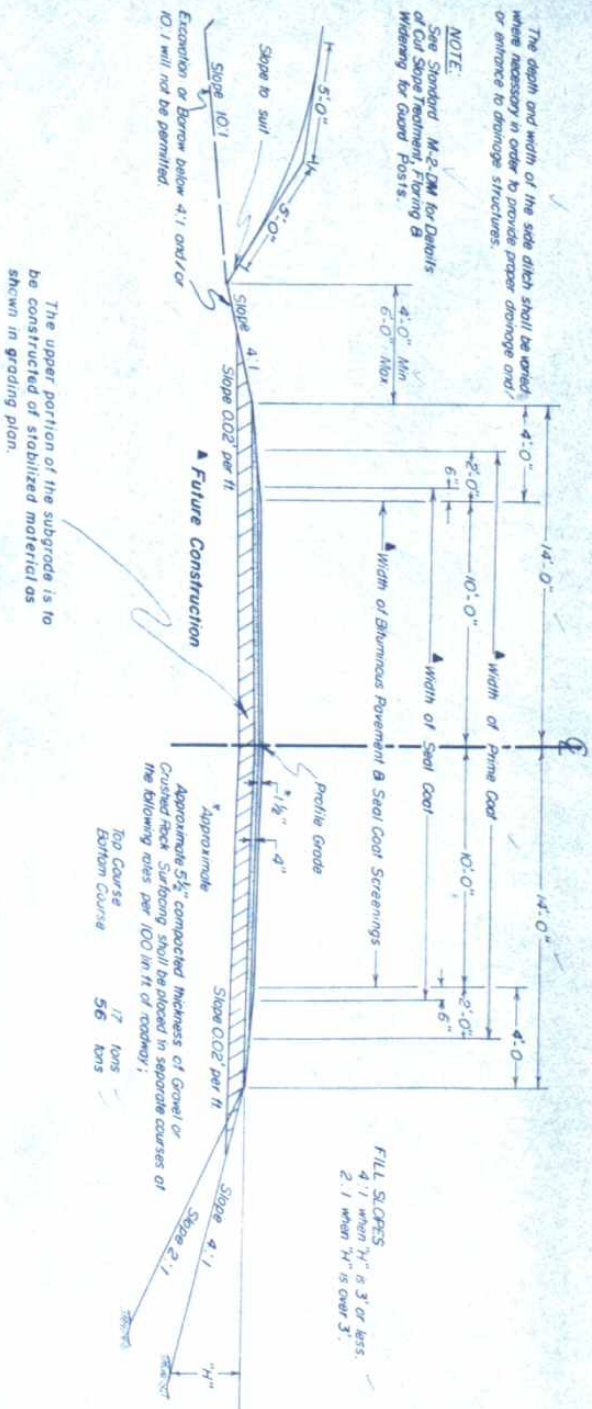
AS CONSTRUCTED PLAN
RETURN TO DIST. 4 DESIGN



COLORADO
DEPARTMENT OF HIGHWAYS
APPROVED: _____
CHIEF ENGINEER
DATE 5-28-53

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
RECOMMENDED FOR APPROVAL:
DISTRICT ENGINEER
APPROVED: _____
DIVISION ENGINEER
DATE

TYPICAL SECTION



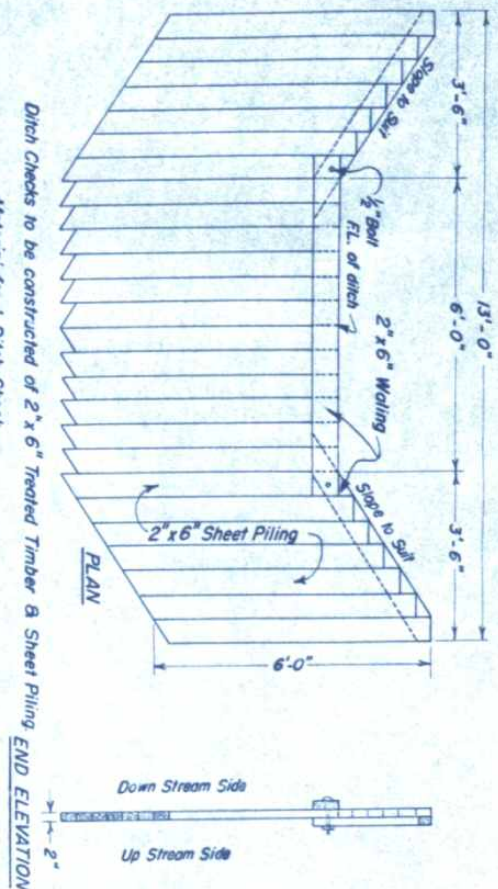
GENERAL NOTES

- This project is to be constructed in conformity with the Standard Specifications of the Colorado Department of Highways adopted June 1, 1952.
- All quantities on preliminary plans are to be considered approximate only.
- Payment for overhaul will be based on measurement along the centerline of the project.
- For preliminary plan quantities of Asphaltic Road Materials and Stone Screenings:-
- | | | |
|-------------------------|---|-----------------------------|
| PRIME COAT MC | ② | 0.40 Gals. per Sq. Yd. |
| PROCESS | ③ | Gals. per Sq. Yd. per inch. |
| SEAL COAT RC | ② | Gals. per Sq. Yd. |
| STONE SCREENINGS Type 4 | ③ | Lbs. per Sq. Yd. |
- Rate of application and grade of Asphaltic Material shall be as determined by the Engineer at time of application.
- Side approach roads to the project, as directed by the Engineer, shall be primed and seal coated to approximately 50 feet cut from edge of the asphaltic mat or to the Right of Way line, whichever is less.
- At Bridge Approaches, the Prime Coat, Asphaltic Mat and Seal Coat shall be widened to meet the curbed width of the bridge and shall take place gradually over a distance of 300 Ft., each way from the Bridge ends.
- It is estimated that rolling of the Asphaltic Mat with Flat Wheeled Roller will be necessary after compaction with Rubber Tired Rollers in order to provide a firm smooth surface.
- The Prime Coat, Asphaltic Mat and Seal Coat shall be placed over the curbed width of the bridge at Sta. 521+70.0 to Sta. 522+28.5.

SUMMARY OF APPROXIMATE QUANTITIES

ITEM I.O.	ITEM	UNIT	BRIDGE STA. 521+	ROADWAY	PROJECT TOTALS
11a 11b 11c	Removing and Re-setting Metalboxes Removal of 2 Bridges Sta. 521+	Lump Sum Lump Sum	•	•	•
13c	Undersified Excavation	Cu Yd.	300	4700	5000
14a 14b 14c 14d 15c 16c	Dry Rock Excavation (Str.) Dry Common Excavation (Str.) Wet Rock Excavation (Str.) Wet Common Excavation (Str.) Structure Backfill (Class 1) Mechanical Tamping	Cu Yd. Cu Yd. Cu Yd. Cu Yd. Cu Yd. Hour	5 70 5 5 350 35	5 10 5 5 20 30	10 80 10 10 370 40
17a	Rolling with Tamping Roller (Two (2) Unit)	Hour		30	30
17c	Rolling with Flat Wheeled Roller (Tandem)	Hour		10	10
17f	Furnishing Tamping Roller (Two (2) Unit)	Each		1	1
17h 17k 18a 18c	Furnishing Flat Wheeled Roller (Tandem) Wetting Station Yard Overhaul Ton Mile Overhaul	Each M Gal. Sta. Yd. Ton Mi.		1 170 4000 200	1 170 4000 200
26d	Gravel or Crushed Rock Surfacing (Grading "D")	Ton		1200	1200
42a 42b 44b	Untreated Bridge Timber Treated Bridge Timber Miscellaneous Treated Timber	M ft. dm. M ft. dm. M ft. dm.	1.4 28.1	Q.1	1.4 28.1 3.1
53b 59a 60a	18" Corrugated Metal Culvert Pipe Treated Sheet Piling Treated Timber Piling	L.in. Ft. L.in. Ft. L.in. Ft.		26 780	26 780
64 92	Dry Rubble Slope and Ditch Paving (18" thick) Timber Guard Posts	Sq. Yd. Each	130	24	130 24
81a	WORK BY STATE FORCES Project Markers	Each		2	2

TIMBER DITCH CHECK
STA'S. 523+15, 524+00, 524+35, 524+65 & 525+00



Ditch Checks to be constructed of 2' x 6" treated Timber & Sheet Piling
Material for 1 Ditch Check
26 pcs. 2 1/2 x 6 x 6' sheet piling
2 pcs. 2 x 6 x 5' walling
1 pc. 2 1/2 x 6 x 7' walling
2 lbs. 1/2 x 7" bolts with nuts and washers.
4 lbs. nails, 16d

Note: Cost of bolts and nails to be included
in bid price of Sheet Piling.

TIMBER GUARD POSTS

STATION	SIDE	SPACING	NO.
521+06 to 521+70	Rt. & Lt.	Bridge	12
522+28 to 522+92	Rt. & Lt.	Bridge	12
TOTAL			24

LIST OF STRUCTURES

LOCATION	DESCRIPTION	REMOVE STRUCTURE		EXCAVATION		STRUCT. EXCAV. ●	STRUCT. BACKFILL GL. YDS.	MECH. TAMP. HOURS	SURFACING OVERHAUL		CORR. METAL CULVERT PIPE LINEAR FEET 18"	MISCELLANEOUS
		NO.	KIND	UNCL.	CL. YDS				TONS	STA. YDS.		
						UNCL.	CL. YDS	GL.			TONS	
516+50 516+50 518+90 521+to 522+	Project Marker, Rt. Approach to Project Road Approach, Rt. & Lt. Remove Bridges, Timber Bridge				▲75 135				* 56	150		[1-Project Marker (State Forces)]
523+to 525+ 527+35	(5) Timber ditch checks, Rt. Remove 12' x 26' C.M.P. Rt. Side drain & road approach, Rt. approach, to Project Approach to Project Project Marker, Rt.		1 C.M.P.		10 ▲50	5 8	5 7		15 *	34 325	26	[780 Lin. ft. of 2'x6"x6" Tr Timber Sheet Piling, 85 Bd Ft. Misc Tr. Timber.
528+00 528+00												[1-Project Marker (State Forces)]
	Mechanical Tamping entire Project.							2				
Totals		1			270	13	12	2	71	517	26	

- * Quantities included in Surfacing Plan
- ▲ Embankment to be made of Borrow from pit #1.
- Structural excavation is estimated to be 90% Common and 10% Rock each of which is estimated to be 90% Dry and 10% Wet.

SURFACING PLAN

It is estimated that material for Gravel or Crushed Rock Surfacing for this project is available in the vicinity of the pit indicated in the following tabulation. Estimated quantities involved in this operation are shown below.
Alteration of the Surfacing Plan as here outlined will be allowed only on written permission from the Department.

MATERIAL TO BE PLACED	SOURCE	AVAILABLE	QUANTITY TONS USED		OVERHAUL TON MILE	
			BOTTOM COURSE	TOP COURSE	BOTTOM COURSE	TOP COURSE
516+50 - 520+00 520+00 - 521+70 522+28.5 - 528+00	Pit No. 1 Haul Dist. 250' to Sta. 520+00	7000 cu yd.	196 95 320	60 31 96	16 5 46	5 2 14
Appr. to project 516+ Appr. to project 528+ Bridge Widening From list of Structures	R-78		112 112 37 71	34 34 13	15 24 2 8	5 8 2
TOTALS			943	268	116	36

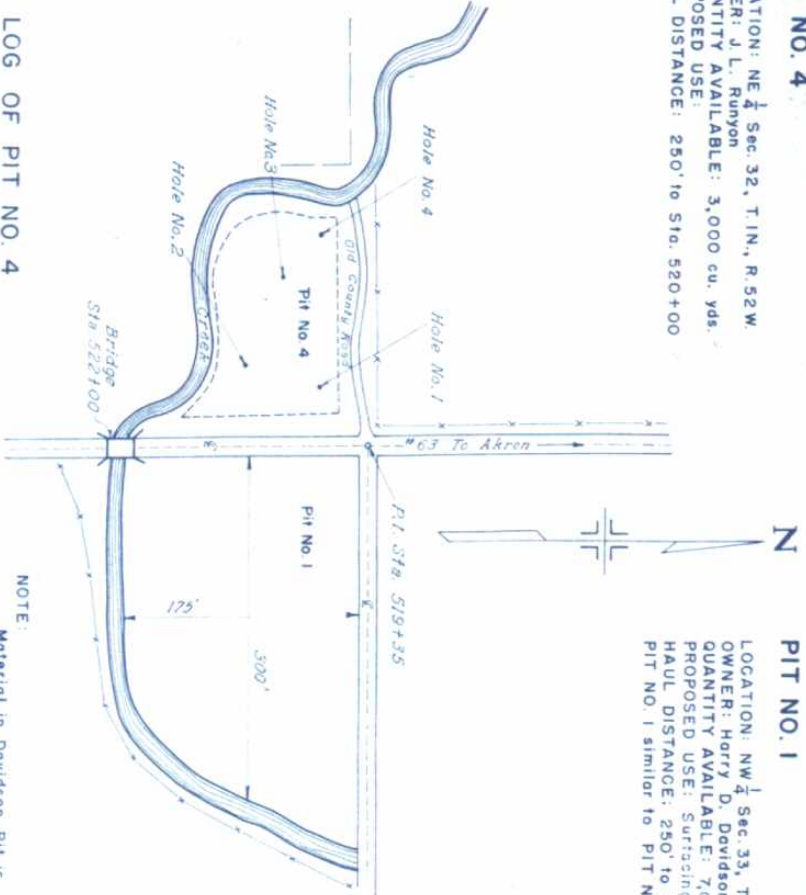
FEDERAL ROAD DIVISION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	S 0015121	4	

PIT NO. 4

LOCATION: NE $\frac{1}{4}$ Sec. 32, T. 1 N., R. 52 W.
OWNER: J. L. Runyon
QUANTITY AVAILABLE: 3,000 cu. yds.
PROPOSED USE:
HAUL DISTANCE: 250' to Sta. 520+00

PIT NO. 1

LOCATION: NW $\frac{1}{4}$ Sec. 33, T. 1 N., R. 52 W.
OWNER: Harry D. Davidson
QUANTITY AVAILABLE: 7,000 cu. yds.
PROPOSED USE: Surfacing, Structure Backfill and Borrow
HAUL DISTANCE: 250' to Sta. 520+00
PIT NO. 1 similar to PIT NO. 4



LOG OF PIT NO. 4

SAMPLE NO. 3915 ✓

HOLE NO.	TEST NO.	DEPTH	DESCRIPTION
1	(No Sample)	0'-6"	Overburden
2	1	0'-3"	Overburden
	1A	3'-9"	Sand & Gravel
3	2	0'-6"	Overburden
	2A	6'-9"	Sand & Gravel
4	(No Sample)		Plastic Gravel

NOTE:
Material in Davidson Pit is
assumed to be similar to sample No. 3915

SW 1/4 Sec. 28
T1N, R 52W

NOTE: 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.

P.O.T. 504+00

Cultivated

Present R.O.W. fence

To Akron

Present R.O.W. fence

NOTE: Alignment and grades as shown are subject to modification during construction after approval by the Denver office. Guard Posts are tabulated on sheet 3.

Grazing Land

STA. 516 + 50
BEGIN SOO15(2)

SE 1/4 Sec. 29

516+50 ~ Reg'd. Project Marker Rt. (STATE FORCES)

516+50 ~ Reg'd. Approach to Project

STRUCTURE NOTES FOR BRIDGE, STA. 521+70.0 TO STA. 522+28.5, STRUCTURE NO. D-24-E

Present Structure:
Span - 1 @ 38.5' B.I. @ 24'
Clear Roadway - 20'
Clear Waterway - 59.8'
Type of Superstructure - 38.5' = Timber on 10" I Beams
Type of Substructure - 38.5' = Conc. Abutts & Pier
Requirements as to removal - Remove

Stream Data:
Drainage Area in Sq. Miles - 8.0
Velocity during high water - 68.4
Maximum high water - 4658.4
Normal Stage - Dry
Drift - Light
Scour - 2

Nearby Structures on Stream:
Location - Same
Waterway - 598'
Record During Floods - Sufficient

84 Similar to #81

85 Similar to #81

86 Similar to #5

87 Similar to #88

88 Similar to #88

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92 Similar to #88

93 Similar to #88

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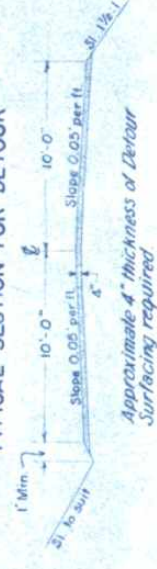
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TYPICAL SECTION FOR DETOUR



NW 1/4 Sec. 33
T1N, R 52W

Cultivated

Louglas Telephone Company

To Akron

Present R.O.W. fence

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Grazing Land

STA. 516 + 50
BEGIN SOO15(2)

SE 1/4 Sec. 29

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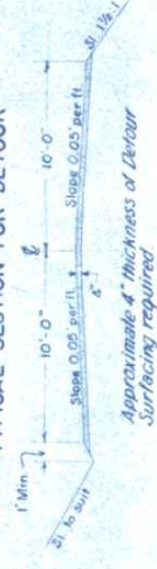
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TYPICAL SECTION FOR DETOUR



NW 1/4 Sec. 33
T1N, R 52W

Cultivated

Louglas Telephone Company

To Akron

Present R.O.W. fence

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Grazing Land

STA. 516 + 50
BEGIN SOO15(2)

SE 1/4 Sec. 29

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516+50 ~ Reg'd. Approach to Project

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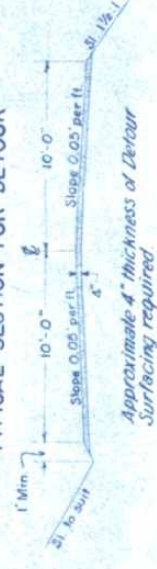
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TYPICAL SECTION FOR DETOUR



NW 1/4 Sec. 33
T1N, R 52W

Cultivated

Louglas Telephone Company

To Akron

Present R.O.W. fence

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Grazing Land

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BEGIN SOO15(2)

SE 1/4 Sec. 29

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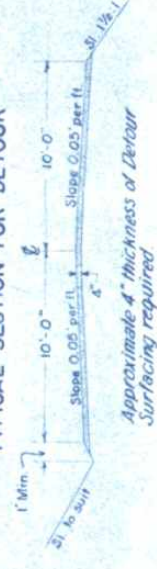
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TYPICAL SECTION FOR DETOUR



NW 1/4 Sec. 33
T1N, R 52W

Cultivated

Louglas Telephone Company

To Akron

Present R.O.W. fence

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Grazing Land

STA. 516 + 50
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SE 1/4 Sec. 29

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Excavation		Embankment		Area	
Cu. Yds.	Area	Area	Cu. Yds.	Area	Cu. Yds.

EARTHWORK TOTALS 50015 (2)

EXCAVATION
FROM CROSS SECTIONS
BORROW
LIST OF STRUCTURES AS EMBANKMENT

ESTIMATED FOR SUBSIDENCE
ESTIMATED FOR BORROW TOP 8' STA. 522+38.5 TO 528+00

746 ✓
2,537 ✓
270 ✓

TOTAL

387 ✓
585 ✓
4525 ✓

EMBANKMENT

EMBANKMENT X FACTOR

STATION YARD OVERHAUL

FROM MASS DIAGRAM
ESTIMATE FOR SUBSIDENCE
FROM LIST OF STRUCTURES
ESTIMATED BORROW TOP 8' STA. 522+38.5 TO 528+00

1,000 ✓
257 ✓
517 ✓
1,365 ✓
3119 ✓

TOTAL

2,573 ✓
2,573 ✓
3,283 ✓
3,283 ✓

TOTAL

TOTAL