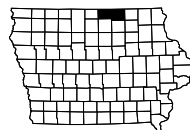


HMA Paved Shoulder - New
 HSIPX-009-6(67)--3L-98

LETTING DATE
 Oct 19 2021

Worth COUNTY



Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

Worth COUNTY

HMA Paved Shoulder - New
 1 mi E of Co Rd S56 to E Jct Co Rd T26

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

Value Engineering Saves. Refer to Article 1105.14 of the Specifications.

FE via Teams
Mary Kelly
Duane Nie
Jason Ruter
Nick Humpal
Chris Suntken
Roy Gelhaus
Ken Howe

Correct line weights and font

MILEAGE SUMMARY			105-1 09-27-94
Div.	Location	Lin. Ft.	Miles
	Sta. 260+07.4 to 471+34.3	21,126.9	4.00
	Sta. Eq. 471+34.3 Bk. = 0+00.0 Ah.		
	Sta. 0+00.0 to 316+67.8	31,667.8	6.00
	Bridge at Sta. 259+51.40	-10.8	0.00
	Railroad at Sta. 269+90.0	-223.0	-0.04
	Total	52,560.9	9.96



Correct lengths, they appear switched.

REVISIONS

TOTAL	..
PROJECT IDENTIFICATION NUMBER	16-98-009-010
PROJECT NUMBER	HSIPX-009-6(67)--3L-98
R.O.W. PROJECT NUMBER	

INDEX OF SHEETS

A.1-A.2	Title Sheet and Location Map
B.1-5	Typical Cross Sections and Details
C.1-4	Estimate of Quantities and General Notes
C.5	Index of Tabulations
C.5-13	Tabulations
D.1-9	As-Built Information Sheets
J.1	Traffic Control Sheet
U.1- U.4	500 Series and Detail Sheets
	500 Series and Detail Sheets

DESIGN DATA RURAL

2018 AADT 2700 V.P.D.
 20 -- AADT -- V.P.D.
 20 -- DHV -- V.P.H.
 TRUCKS 16 %
 Total
 Design ESALs ..

INDEX OF SEALS

SHEET NO.	NAME	TYPE
A.1	Mary K. Kelly	Primary Signature Block

PRELIMINARY PLANS

Subject to change by final design.

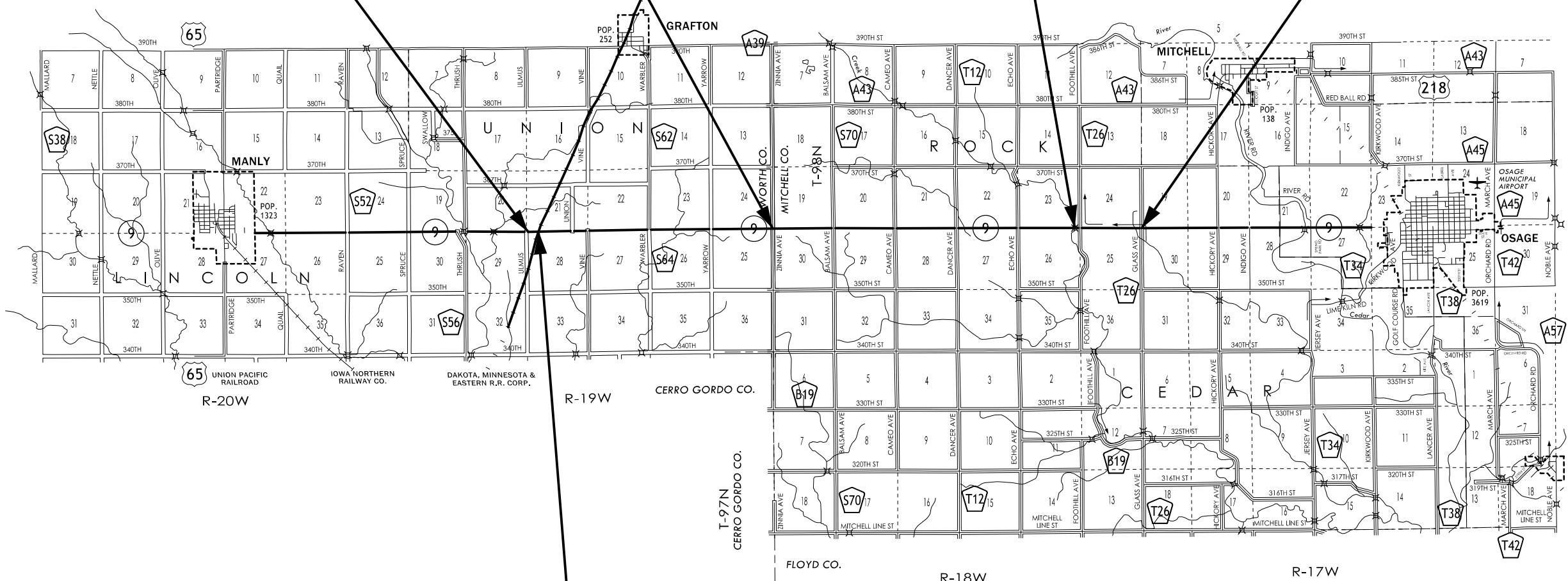
D2 PLAN - Date: X April 8, 2021

Begin Project
STA. 260+07.4

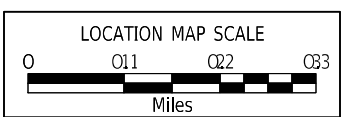
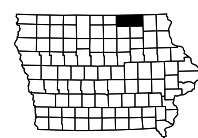
Sta. Eq.
471+34.3 Bk.
= 0+00.0 Ah.

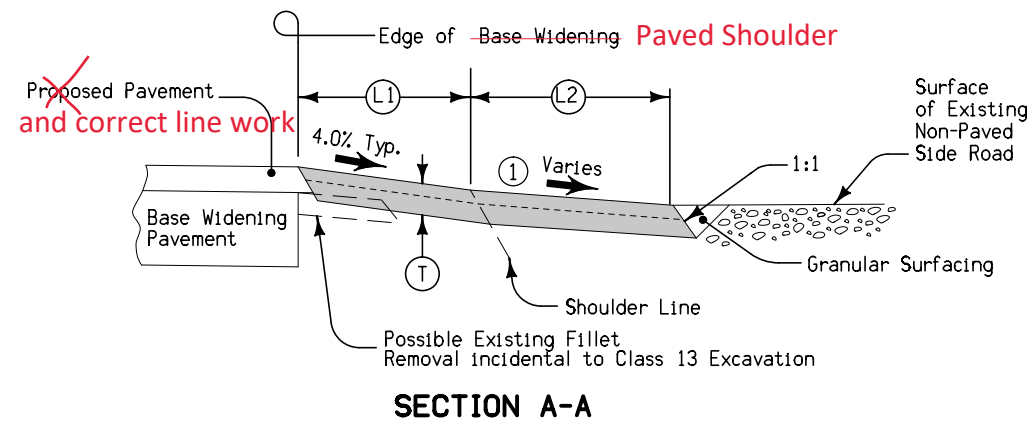
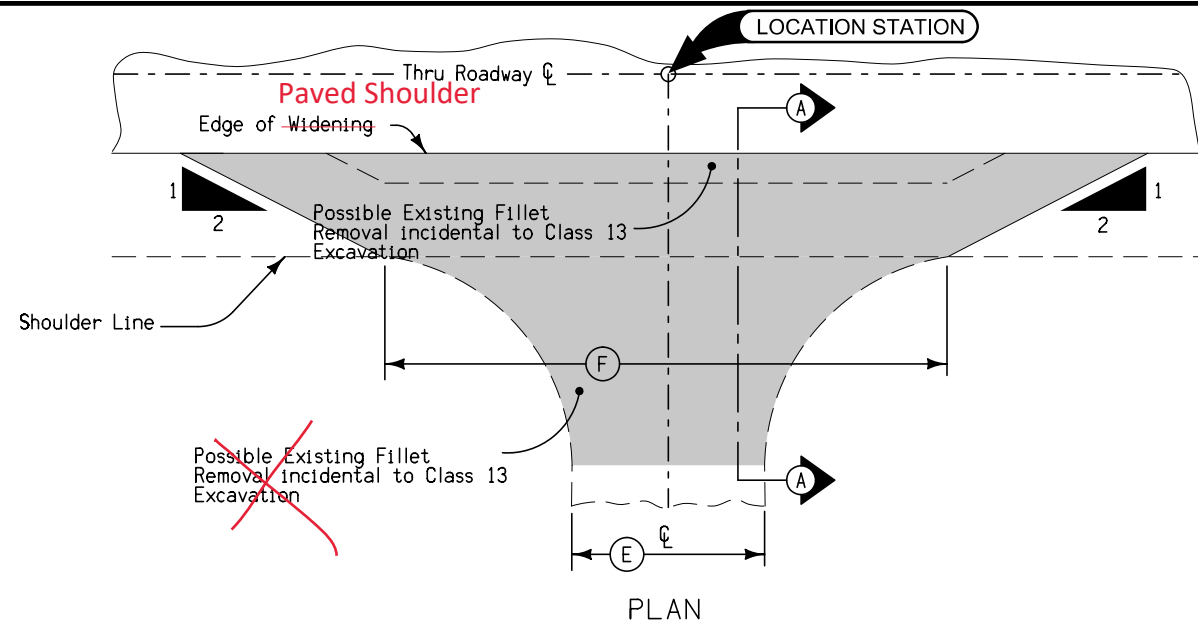
Sta. 259+51.4
Bridge FWA: 36501
Maint# 6693.5S009

End Project
STA. 316+67.8



Sta. 269+90.0
DM&E Railroad
FRA #380032C





Special shaping of existing surface prior to placement of fillet or fillet extension may be required by the Engineer and is incidental to other work on the project.

① Match existing slope.

100% STATE

Station Location	(F) Feet	(T) Inches	(L) Feet	6" BASE HMA Ton	Binder Ton	Class 13 Excavation CY	Remarks
299+22	73.0	6	4.0	11.0	1.0	5	Union Ave. LT
365+19.2	79.0	6	4.0	12.0	1.0	6	Warbler Ave. RT
418+42	29.0	6	4.0	11.0	1.0	5	Yarrow Ave. LT
418+42	29.0	6	4.0	11.0	1.0	5	Yarrow Ave. Rt
471+34.3	74.0	6	4.0	11.0	1.0	6	Zinna Ave. LT
471+34.3	74.0	6	4.0	11.0	1.0	6	Zinna Ave. RT
105+06	73.0	6	4.0	11.0	1.0	5	Cameo Ave. LT
105+06	74.0	6	4.0	11.0	1.0	5	Cameo Ave. RT
157+91	74.0	6	4.0	11.0	1.0	5	Dancer Ave. LT
157+91	74.0	6	4.0	11.0	1.0	5	Dancer Ave. RT
210+70.6	74.0	6	4.0	12.0	1.0	6	Echo Ave. LT
210+70.6	73.0	6	4.0	12.0	1.0	6	Echo Ave. RT
263+97.9	73.0	6	4.0	12.0	1.0	6	Foothill Ave. RT
				143.0	13.0	73	Totals

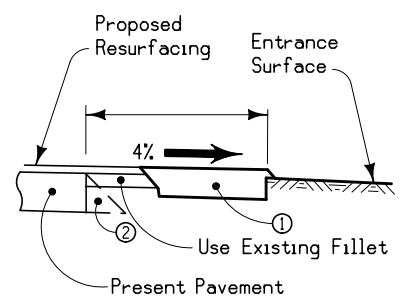
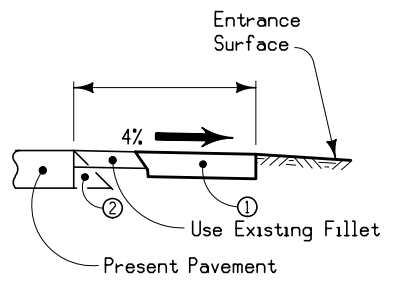
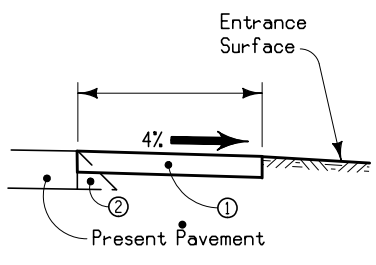
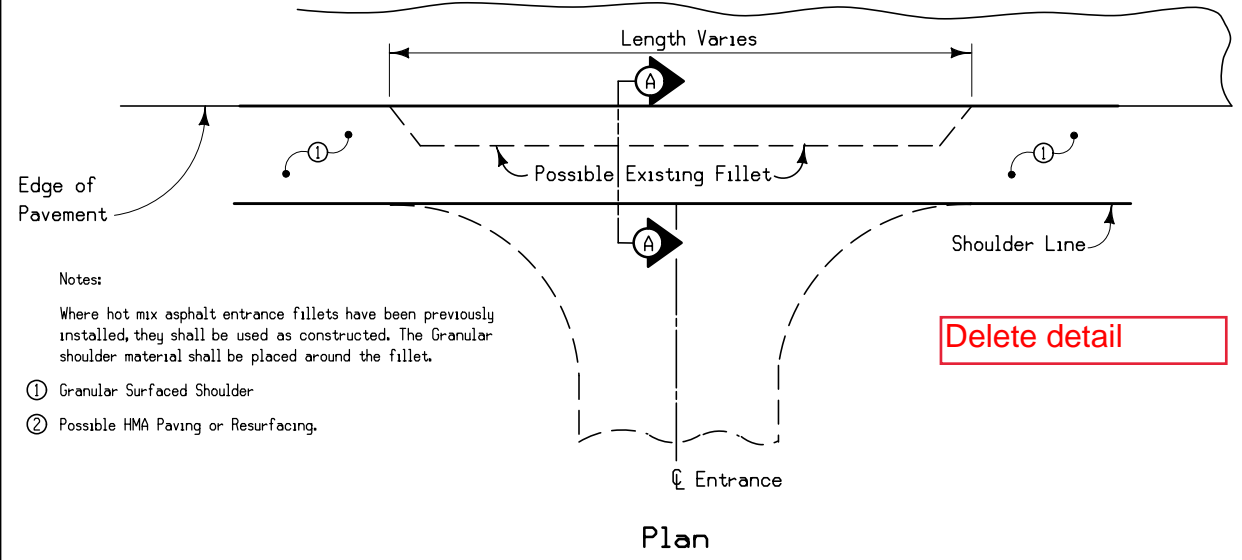
100% COUNTY

Station Location	(E) Feet	(T) Inches	(L) Feet	6" BASE HMA Ton	Binder Ton	Class 13 Excavation CY	Remarks
Worth County							
299+22	28.0	6	40.0	11.0	1.0	23	Union Ave. LT
365+19.2	24.0	6	40.0	12.0	1.0	24	Warbler Ave. RT
418+42	28.0	6	40.0	11.0	1.0	23	Yarrow Ave. LT
418+42	28.0	6	40.0	11.0	1.0	23	Yarrow Ave. Rt
471+34.3	20.0	6	40.0	11.0	1.0	21	Zinna Ave. LT
471+34.3	20.0	6	40.0	11.0	1.0	21	Zinna Ave. RT
			240.0	67.0	6.0	135	Worth Co. Totals
Mitchell County							
105+06	28.0	6	40.0	11.0	1.0	23	Cameo Ave. LT
105+06	22.0	6	40.0	11.0	1.0	23	Cameo Ave. RT
157+91	28.0	6	40.0	11.0	1.0	23	Dancer Ave. LT
157+91	28.0	6	40.0	11.0	1.0	23	Dancer Ave. RT
210+70.6	22.0	6	40.0	12.0	1.0	24	Echo Ave. LT
210+70.6	22.0	6	40.0	12.0	1.0	24	Echo Ave. RT
263+97.9	22.0	6	40.0	12.0	1.0	24	Foothill Ave. RT
			280.0	80.0	7.0	163	Mitchell Co. Totals

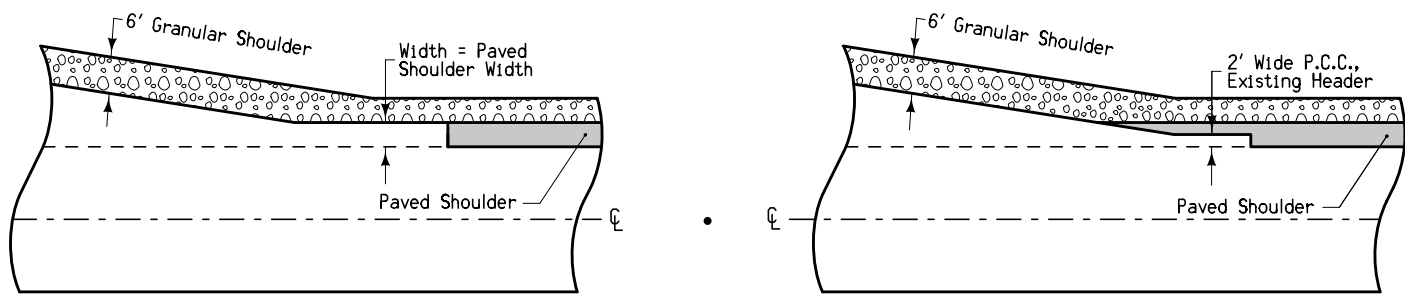
Verify E dimensions

Will not include subbase under sideroad paving.

FILLET EXTENSION FOR
NON-PAVED SIDE ROADS



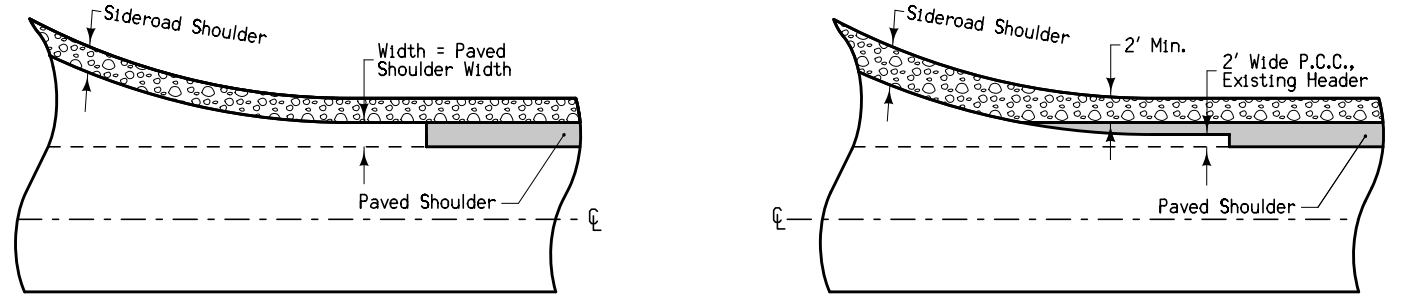
GRANULAR SHOULDER CONSTRUCTION THRU ENTRANCES



With Newly Constructed Turn Lanes

At UAC Turn Lanes

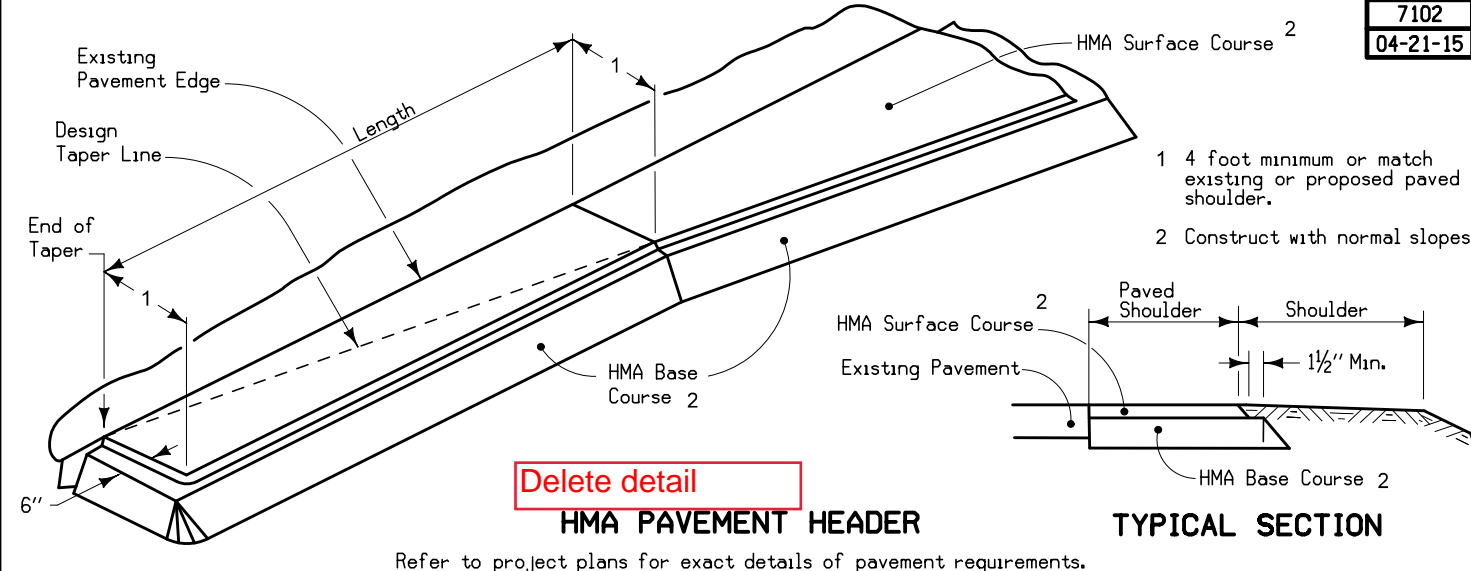
PAVED SHOULDER
DETAIL AT
TURN LANES



With Newly Constructed Returns

At UAC Returns

PAVED SHOULDER
DETAIL AT RETURNS

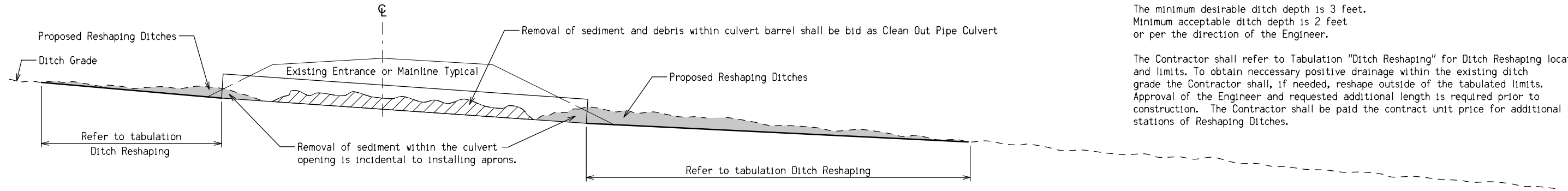


(A) Contractor to reshape ditch from culvert outlet as follows:

Minimum acceptable ditch grades range from 0.2% to 1.0%.
Desirable ditch grades range from 1.0% to 3.0%.

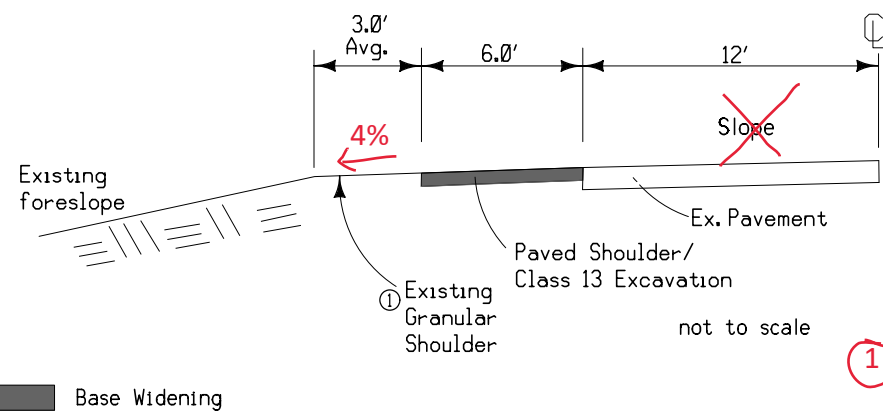
The minimum desirable ditch depth is 3 feet.
Minimum acceptable ditch depth is 2 feet
or per the direction of the Engineer.

The Contractor shall refer to Tabulation "Ditch Reshaping" for Ditch Reshaping locations and limits. To obtain necessary positive drainage within the existing ditch grade the Contractor shall, if needed, reshape outside of the tabulated limits. Approval of the Engineer and requested additional length is required prior to construction. The Contractor shall be paid the contract unit price for additional stations of Reshaping Ditches.



Make sure there is sufficient quantity to do what is needed

RESHAPING DITCHES TYPICAL



Notes:
Quantities have been determined on the basis of a design weight of 140 lbs. per cubic foot. See Tabulation 112-9.

- ① Complete granular pre-shouldering prior to Class 13 Excavation to provide for a trench for base widening. Existing granular shoulder material from the outer shoulder area may be used as designated by the Engineer.
- ② Tons per station. Assume an existing cross slope of 4.3%, a proposed slope of 4%, and a nominal midpoint thickness of four inches.

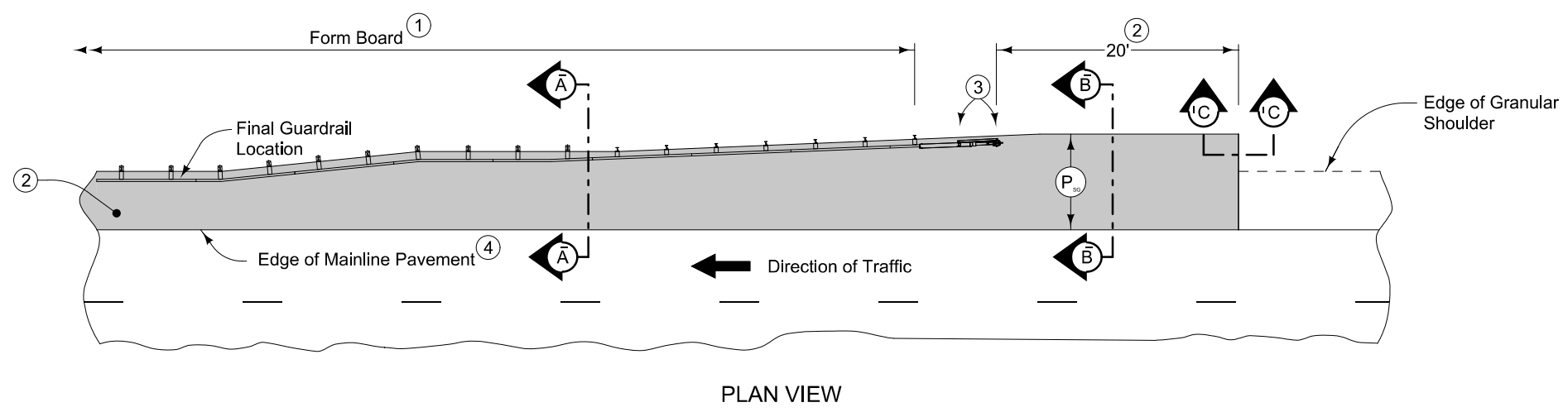
Construction recommends estimating granular shoulder at 2' wide 3" thick

7135
Modified

LOCATION				T Inches
ROAD	STATION TO STATION		SIDE	
IA 9	260+07.4	269+84.6	Both	6- ①
IA 9	269+95.4	258+34.9	Both	6- ①
IA 9	260+67.9	471+34.3	Both	6- ①
IA 9	0+00.0	316+67.8	Both	6- ①

TYPICAL SECTION
FOR TYPE 'B'
GRANULAR SHOULDER
ADJACENT TO HOT MIX ASPHALT
WIDENING AND RESURFACING
PAVED SHOULDER

fix font



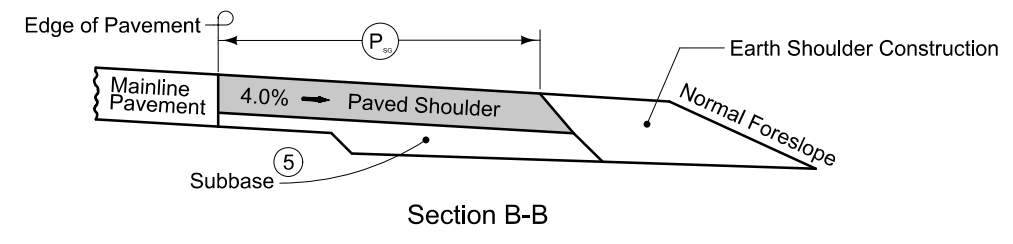
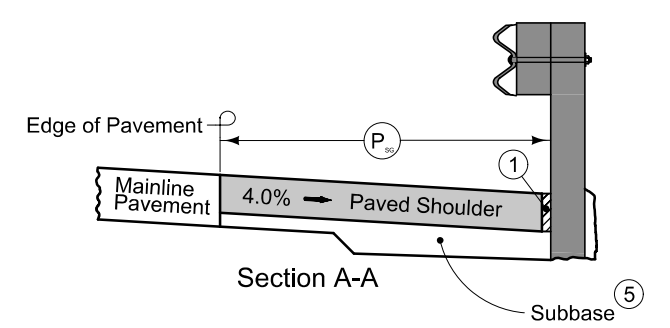
9" HMA Paved Shoulder at guardrail. 8" PCC may be substituted with the following jointing layout:

Match mainline pavement joint spacing. When mainline pavement is 8" or greater in thickness, place additional transverse 'C' joints in shoulder at mid-panel of the mainline pavement. Place longitudinal 'C' joint at P/2 from edge of mainline pavement when P is greater than 10' wide. Terminate longitudinal joint at transverse joint less than 10' in length.

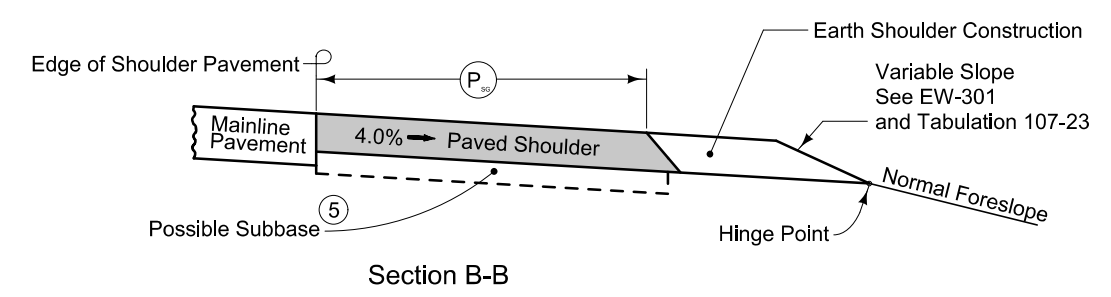
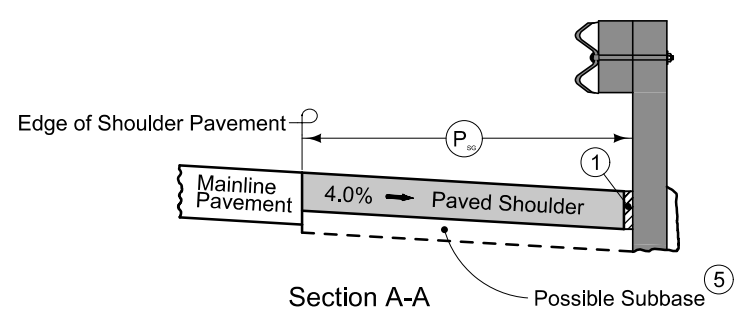
Compaction of HMA is required to face of guardrail post. Hand compaction will be allowed under guardrail. Removal and reinstallation of guardrail will be allowed with no additional payment.

Refer to Tabulation 112-9 for shoulder quantities.

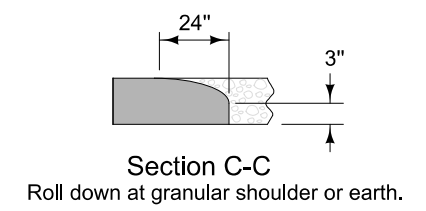
- ① PCC option only: When guardrail posts are installed prior to construction of PCC paved shoulder, fasten form board to the face of guardrail posts for the length shown.
- ② Continue paved shoulder 20 feet beyond the center of the first post.
- ③ Shoulder may be notched for first 2 posts or post sleeves may be installed through pavement. Do not drive posts through pavement.
- ④ 'KT-1 joint for PCC shoulder. 'B' joint for HMA shoulder.
- ⑤ Refer to other details in the plan.



NEW CONSTRUCTION

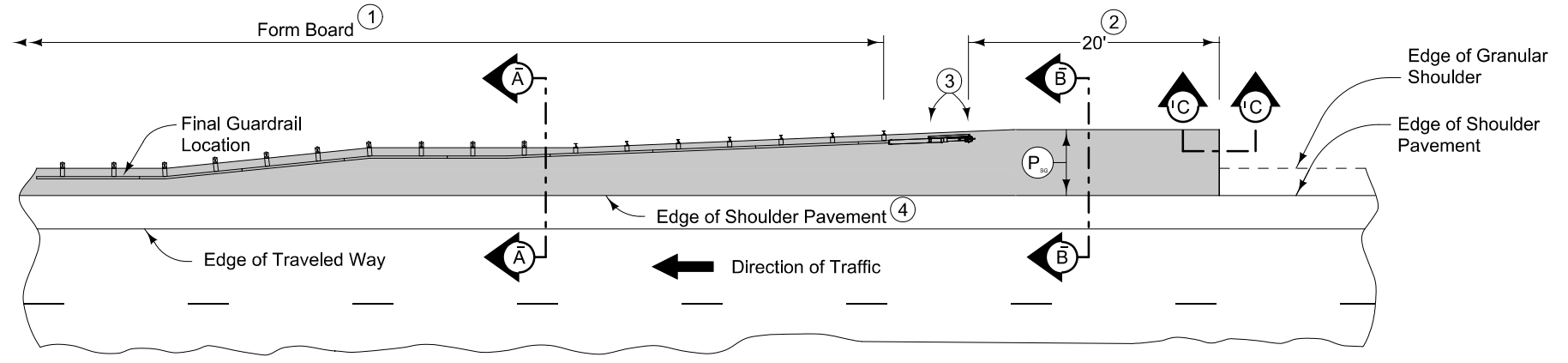


EXISTING SHOULDER



PAVED SHOULDER AT GUARDRAIL
(GRANULAR SHOULDER ADJACENT TO MAINLINE)

Use this detail at
for the railroad
guardrail.



PLAN VIEW

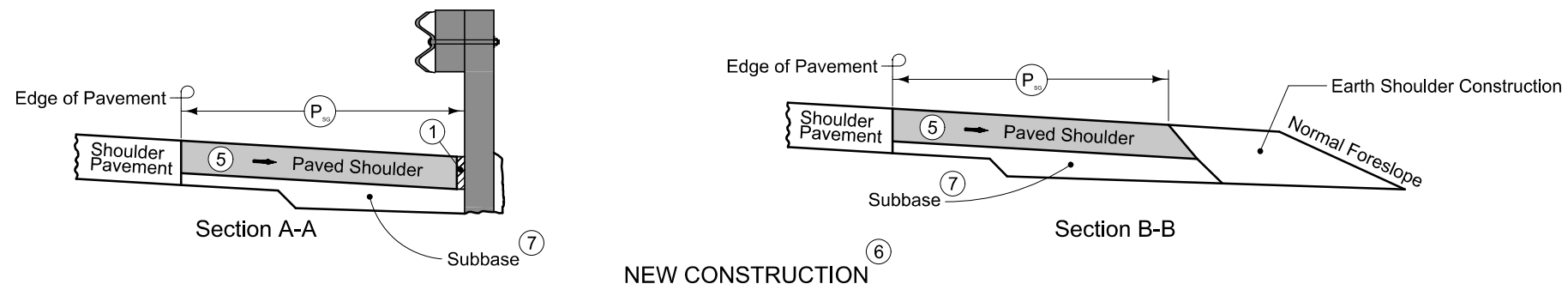
9" HMA Paved Shoulder at guardrail. 8" PCC may be substituted with the following jointing layout:

Match mainline pavement joint spacing. When mainline pavement is 8" or greater in thickness, place additional transverse 'C' joints in shoulder at mid-panel of the mainline pavement. Place longitudinal 'C' joint at P/2 from edge of mainline pavement when P is greater than 10' wide. Terminate longitudinal joint at transverse joint less than 10' in length.

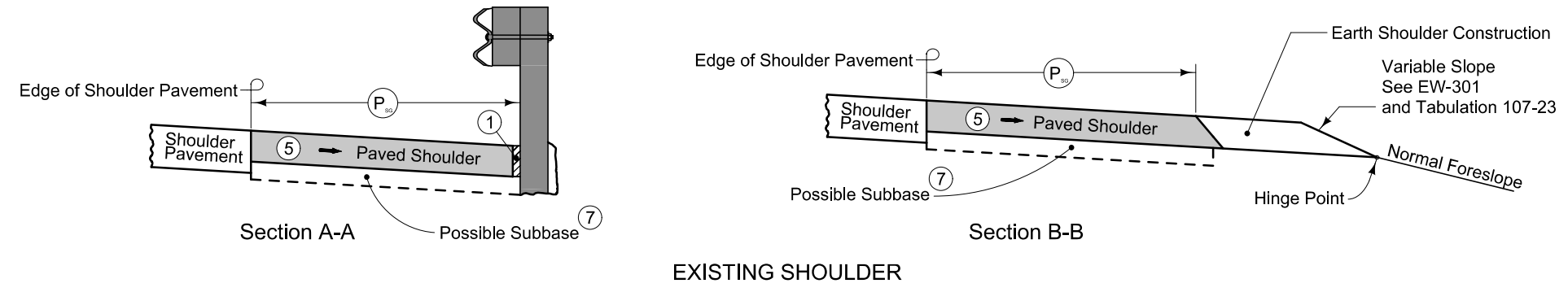
Compaction of HMA is required to face of guardrail post. Hand compaction will be allowed under guardrail. Removal and reinstallation of guardrail will be allowed with no additional payment.

Refer to Tabulation 112-9 for shoulder quantities.

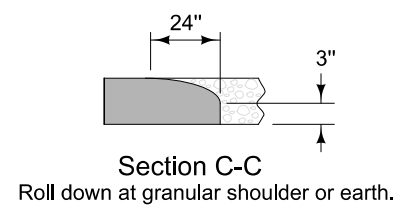
- ① PCC option only: When guardrail posts are installed prior to construction of PCC paved shoulder, fasten form board to the face of guardrail posts for the length shown.
- ② Continue paved shoulder 20 feet beyond the center of the first post.
- ③ Shoulder may be notched for first 2 posts or post sleeves may be installed through pavement. Do not drive posts through pavement.
- ④ 'KT-1 joint for PCC shoulder. 'B' joint for HMA shoulder.
- ⑤ Match shoulder slope.
- ⑥ The Contractor has the option to pave the paved shoulder at guardrail and the partial width paved shoulder as one operation.
- ⑦ Refer to other details in the plan.



NEW CONSTRUCTION



EXISTING SHOULDER



PAVED SHOULDER AT GUARDRAIL (ADJACENT TO PARTIAL WIDTH PAVED SHOULDER)

Look at adding a paved shoulder panel for a bridge end drain. May need a U sheet to show removals and new paved shoulder.

**ESTIMATED PROJECT QUANTITIES
(UP TO A 5 DIVISION PROJECT)**

Division 1: 100% HSIP Funding
Division 2: 100% 3R Funding
Division 3: 100% Worth County
Division 4: 100% Mitchell County

Item No.	Item Code	Item	Unit	Quantities											
				Estimated					As Built						
				Division 1	Division 2	Division 3	Division 4	Division 5	Total	Division 1	Division 2	Division 3	Division 4	Division 5	
1	2102-2625000	EMBANKMENT-IN-PLACE	CY	528.0						528.0					
2	2121-7425020	GRANULAR SHOULDERS, TYPE B	TON	6,503.5						6,503.5					
3	2125-2225050	RESHAPING DITCHES	STA	0.90						0.90					
4	2213-2713300	EXCAVATION, CLASS 13, FOR WIDENING	CY	10,323.0	3,406.6	135.0	163.0			14,027.6					
5	2213-8200000	BASE WIDENING, HOT MIX ASPHALT MIXTURE	TON												
6	2303-1031750	HOT MIX ASPHALT STANDARD TRAFFIC, BASE COURSE, 3/4 IN. MIX	TON	20,350	6,776.5	67.00	80.00			27,273.5					
7	2303-1258283	ASPHALT BINDER, PG 58-28S, STANDARD TRAFFIC	TON	1,225.40	408.50	6.00	7.00			1,646.90					
8	2303-6911000	HOT MIX ASPHALT PAVEMENT SAMPLES	LS	0.00	1					0.00					
9	2402-2720000	EXCAVATION, CLASS 20	CY	24						24					
10	2416-0100030	APRONS, CONCRETE, 30 IN. DIA.	EACH	3						3					
11	2416-0100036	APRONS, CONCRETE, 36 IN. DIA.	EACH	2						2					
12	2417-0225015	APRONS, METAL, 15 IN. DIA.	EACH	2						2					
13	2417-0225018	APRONS, METAL, 18 IN. DIA.	EACH	68						68					
14	2417-0225024	APRONS, METAL, 24 IN. DIA.	EACH	29						29					
15	2417-0225030	APRONS, METAL, 30 IN. DIA.	EACH	10						10					
16	2417-1040018	CULVERT, CORRUGATED METAL ENTRANCE PIPE, 18 IN. DIA.	LF	150						150					
17	2417-1040024	CULVERT, CORRUGATED METAL ENTRANCE PIPE, 24 IN. DIA.	LF	40						40					
18	2417-1040030	CULVERT, CORRUGATED METAL ENTRANCE PIPE, 30 IN. DIA.	LF	20						20					
19	2505-4008120	REMOVAL OF STEEL BEAM GUARDRAIL	LF	466.1						466.1					
20	2505-4008300	STEEL BEAM GUARDRAIL	LF	162.5						162.5					
21	2505-4008410	STEEL BEAM GUARDRAIL BARRIER TRANSITION SECTION, BA-201	EACH	4						4					
22	2505-4021010	STEEL BEAM GUARDRAIL END ANCHOR, BOLTED	EACH	4						4					
23	2505-4021030	STEEL BEAM GUARDRAIL END ANCHOR, THRIE BEAM	EACH	2						2					
24	2505-4021720	STEEL BEAM GUARDRAIL TANGENT END TERMINAL, BA-205	EACH	4						4					
25	2510-6745850	REMOVAL OF PAVEMENT	SY	0.0						0.0					
26	2527-9263109	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED	STA	1,309.06						1,309.06					
27	2527-9263137	PAINTED SYMBOLS AND LEGENDS, WATERBORNE OR SOLVENT-BASED	EACH	2						2					
28	2527-9270111	GROOVES CUT FOR PAVEMENT MARKINGS	STA	1,309.06						1,309.06					
29	2527-9270120	GROOVES CUT FOR SYMBOLS AND LEGENDS	EACH	2						2					
30	2528-8445110	TRAFFIC CONTROL	LS	0.00	1					0.00					
31	2528-8445113	FLAGGERS	EACH		see proposal					See Proposal					
32	2528-8445115	PILOT CARS	EACH		see proposal					See Proposal					
33	2533-4980005	MOBILIZATION	LS	0.00	1					0.00					
34	2548-0000100	MILLED SHOULDER RUMBLE STRIPS, HMA SURFACE	STA	113.2						113.2					
35	2548-0000110	ASPHALT EMULSION FOR FOG SEAL (SHOULDER RUMBLE STRIPS)	GAL	112.8						112.8					
36	2602-0000020	SILT FENCE	LF	1,014.9						1,014.9					
37	2602-0000071	REMOVAL OF SILT FENCE OR SILT FENCE FOR DITCH CHECKS	LF	1,014.9						1,014.9					
38	2602-0000101	MAINTENANCE OF SILT FENCE OR SILT FENCE FOR DITCH CHECK	LF	1,014.9						1,014.9					
39	2602-0000320	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 20 IN. DIA.	LF	2,460.0						2,460.0					
40	2602-0010010	MOBILIZATIONS, EROSION CONTROL	EACH	0	1					0					
41	2602-0010020	MOBILIZATIONS, EMERGENCY EROSION CONTROL	EACH	0	1					0					

12" sediment control devices

Refer to Design Manual 10C-1 to estimate quantities for removal and maintenance for silt fence.

Use 2122-5500060 Paved Shoulder, Hot Mix Asphalt, 6", SY, for paved shoulder
Add RR insurance bid item 2595-0005125

Construction will review area next to bridge for minimal full depth patches

100-1D 10-18-05
PROJECT DESCRIPTION
Construct 6-foot paved shoulders. Install milled shoulder rumble strips. Perform patching, foreslope flattening, and replace bridge guardrail.

100-4A 10-29-02		
ESTIMATE REFERENCE INFORMATION		
Item No.	Item Code	Description
1	2102-2625000	EMBANKMENT-IN-PLACE For more information see Tabulation 104-13. RCP entrance pipe sections and aprons do not need to be tied.
2	2121-7425020	GRANULAR SHOULDERS, TYPE B See Tabulation 112-9 and Typical 7135 for more information. Pre-shouldering prior to class 13 excavation will be paid for by this item. At the direction of the Engineer, pre-shouldering will be required on both sides from Sta. 5+00 to Sta. 180+00.
3	2125-2225050	RESHAPING DITCHES For more information see Tabulation 103.5.
4	2213-2713300	EXCAVATION, CLASS 13, FOR WIDENING See Tabulation 112-9 and Typical MK-1 for more information. Removal of existing entrance and sideroad fillets shall be incidental to Class 13 excavation. Removal of existing widening shall be incidental to Class 13 excavation. Four feet of the Class 13 excavation shall be paid for with HSIP funding. It is estimated that 2/3 of the excavation (6,916.4) is HSIP eligible.
5	2213-8200000	BASE WIDENING, HOT MIX ASPHALT MIXTURE See Typical MK-1 and Tabulation 112-9 for more information. The contractor shall seal the longitudinal joint between the existing and new pavement with a coat of CRS-2 bitumen. Apply the bitumen material at a width of 3 inches centered on the joint edge. Blot excess material with sand. This shall be incidental to HMA, ST, Surface Course bid item. Four feet of the HMA Surface Mix and associated binder shall be paid for with HSIP funding. It is estimated that 2/3 of the HMA Surface Mix (13,573.5 ton) and Binder (836.9 ton) for shoulder widening is HSIP eligible.
6	2303-1031750	HOT MIX ASPHALT STANDARD TRAFFIC, BASE COURSE, 3/4 IN. MIX
7	2303-1258283	ASPHALT BINDER, PG 58-28S, STANDARD TRAFFIC See Typical MK-1 and Tabulation 112-9 for more information. The contractor shall seal the longitudinal joint between the existing and new pavement with a coat of CRS-2 bitumen. Apply the bitumen material at a width of 3 inches centered on the joint edge. Blot excess material with sand. This shall be incidental to HMA, ST, Surface Course bid item. Four feet of the HMA Surface Mix and associated binder shall be paid for with HSIP funding. It is estimated that 2/3 of the HMA Surface Mix (13,573.5 ton) and Binder (836.9 ton) for shoulder widening is HSIP eligible.
8	2303-6911000	HOT MIX ASPHALT PAVEMENT SAMPLES
9	2402-2720000	EXCAVATION, CLASS 20 For more information see Tabulation 104-13.
10	2416-0100030	APRONS, CONCRETE, 30 IN. DIA.
11	2416-0100036	APRONS, CONCRETE, 36 IN. DIA.
12	2417-0225015	APRONS, METAL, 15 IN. DIA.
13	2417-0225018	APRONS, METAL, 18 IN. DIA.
14	2417-0225024	APRONS, METAL, 24 IN. DIA.
15	2417-0225030	APRONS, METAL, 30 IN. DIA.
16	2417-1040018	CULVERT, CORRUGATED METAL ENTRANCE PIPE, 18 IN. DIA.
17	2417-1040024	CULVERT, CORRUGATED METAL ENTRANCE PIPE, 24 IN. DIA.
18	2417-1040030	CULVERT, CORRUGATED METAL ENTRANCE PIPE, 30 IN. DIA. For more information see Tabulation 104-13. RCP entrance pipe sections and aprons do not need to be tied.
19	2505-4008120	REMOVAL OF STEEL BEAM GUARDRAIL See Tabulation 110-7A for more information.
20	2505-4008300	STEEL BEAM GUARDRAIL See Tabulations 108-8A and 108-8D for more information.
21	2505-4008410	STEEL BEAM GUARDRAIL BARRIER TRANSITION SECTION, BA-201
22	2505-4021010	STEEL BEAM GUARDRAIL END ANCHOR, BOLTED
23	2505-4021030	STEEL BEAM GUARDRAIL END ANCHOR, THRIE BEAM

100-4A 10-29-02		
ESTIMATE REFERENCE INFORMATION		
Item No.	Item Code	Description
24	2505-4021720	STEEL BEAM GUARDRAIL TANGENT END TERMINAL, BA-205
25	2510-6745850	REMOVAL OF PAVEMENT See Tabulation 110-1 for more information.
26	2527-9263109	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED
27	2527-9263137	PAINTED SYMBOLS AND LEGENDS, WATERBORNE OR SOLVENT-BASED
28	2527-9270111	GROOVES CUT FOR PAVEMENT MARKINGS
29	2527-9270120	GROOVES CUT FOR SYMBOLS AND LEGENDS See Tabulation 108-22 for more information.
30	2528-8445110	TRAFFIC CONTROL
31	2528-8445113	FLAGGERS
32	2528-8445115	PILOT CARS
33	2533-4980005	MOBILIZATION
34	2548-0000100	MILLED SHOULDER RUMBLE STRIPS, HMA SURFACE
35	2548-0000110	ASPHALT EMULSION FOR FOG SEAL (SHOULDER RUMBLE STRIPS) See Tabulation 112-10 for more information.
36	2602-0000020	SILT FENCE
37	2602-0000071	REMOVAL OF SILT FENCE OR SILT FENCE FOR DITCH CHECKS
38	2602-0000101	MAINTENANCE OF SILT FENCE OR SILT FENCE FOR DITCH CHECK For more information see Tabulation 100-17.
39	2602-0000320	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 20 IN. DIA. For more information see Tabulations 104-13 and 100-19.
40	2602-0010010	MOBILIZATIONS, EROSION CONTROL
41	2602-0010020	MOBILIZATIONS, EMERGENCY EROSION CONTROL

Notes need to be edited

Do not need to add any comments about cemetery. Not in these project limits.

Review notes for RR. Do not need pavement marking notes as that is now covered in Rd Standard

Class 13 note should include "material becomes property of the Contractor."

UTILITIES

100-1D
Modified

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**EROSION CONTROL
(RURAL SEEDING)**

232-3A
04-16-19

Following the completion of work in a disturbed area and according to the seeding dates in Section 2601 of the Standard Specifications, place seed, fertilizer, and mulch on the disturbed area lying 8 feet adjacent to shoulder and median as follows:

Place seed and fertilize according to the requirements of Article 2601.03,C,3 and Section 4169 of the Standard Specifications.

Place mulch according to the requirements of Articles 2601.03,E,2,a and 4169.07,A of the Standard Specifications.

Preparing the seedbed, furnishing and applying seed, fertilizer, and mulch are all incidental to mobilization and will not be paid for separately.

**EROSION CONTROL
(STABILIZING CROP SEEDING)**

232-11
04-16-19

If outside of permanent seeding dates in Section 2601 of the Standard Specifications, or if required by a storm water permit, place stabilizing crop, fertilizer, and mulch on the disturbed area as follows:

Place seed and fertilize according to the requirements of Article 2601.03,C,1 and Section 4169 of the Standard Specifications.

Place mulch according to the requirements of Articles 2601.03,E,2,a and 4169.07,A of the Standard Specifications.

Preparing the seedbed, furnishing and applying seed, fertilizer, and mulch are incidental to mobilization and will not be paid for separately.

**UTILITIES
(NOT A POINT 25 PROJECT)**

262-6
10-18-05

This is NOT a POINT 25 project and is not subject to the provisions of IAC 761-115.25.

EXISTING PAVEMENT

No.	Location					Year	Type	Project Number	Surface		Base		Subbase		Removal		Coarse Aggregate			Reinforcement	Remarks	
	County	Route	Dir. of Travel	Begin Ref. Loc. Sign	End Ref. Loc. Sign				Type	Depth	Type	Depth	Type	Depth	Type	Depth	Source	Type	Durability Class			Type
98	IA9	1	184.69	188.67	1941	3	FA-134A	PC7	7.5							PLYMOUTH	GRAVEL	2				
98	IA9	1	184.69	188.67	1982		FR-9-6(25)--2G-98	BAC	1.5	TBB	1.5					RYG	C.LST.					
98	IA9	1	184.69	188.67	2000		STP-9-6(48)--2C-98	AAC	2	BAC	2					PLYMOUTH	GRAVEL					
66	IA9	1	188.67	194.65	1941	3	FA-368D	PC7	7.5							PLYMOUTH	GRAVEL	2	2			
66	IA9	1	188.67	194.65	1981		FR-9-6(23)--2G-66	BAC	3							OSAGE	GRAVEL		& LESCH ST.			
66	IA9	1	188.67	194.65	1998		STPN-9-6(46)--2J-66	ACC	1.5		3.5					DUENOW	C.LST.		BEDS 9-10			

INDEX OF TABULATIONS

Tabulation	Tabulation Title	Sheet No.
C Sheets		
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100-1D	PROJECT DESCRIPTION	C.2
100-1U	UTILITIES	C.3
100-4A	ESTIMATE REFERENCE INFORMATION	C.2 - C.2
100-17	TABULATION OF SILT FENCES	C.5
100-19	PERIMETER, SLOPE AND DITCH CHECK SEDIMENT CONTROL DEVICES	C.9
102-5	EXISTING PAVEMENT	C.4
102-10	PARTIAL DEPTH PCC FINISH PATCHES	No Sheet No.
103-5	DITCH RESHAPING	C.6
104-13	FORESLOPE FLATTENING AND DRAINAGE STRUCTURES BY ROAD CONTRACTOR (MAINLINE PIPES)	C.7 - C.8
105-4	STANDARD ROAD PLANS	C.4
107-23	GRADING FOR GUARDRAIL INSTALLATIONS	C.5
108-8A	STEEL BEAM GUARDRAIL AT CONCRETE BARRIER OR BRIDGE RAIL END SECTION	C.5
108-8D	STEEL BEAM GUARDRAIL AT RAILROAD SIGNALS	C.5
108-22	PAVEMENT MARKING LINE TYPES	C.10
108-29	PAVEMENT MARKING SYMBOLS AND LEGENDS	C.10
110-1	REMOVAL OF PAVEMENT	No Sheet No.
110-2	REMOVAL OF EXISTING STRUCTURES	C.8 - C.8
110-7A	REMOVAL OF STEEL BEAM GUARDRAIL	C.5
111-25	INDEX OF TABULATIONS	C.4
112-9	SHOULDERS	C.6
112-10	MILLED RUMBLE STRIPS	C.6

STANDARD ROAD PLANS

The following Standard Road Plans apply to construction work on this project.		
Number	Date	Title
BA-200	04-20-21	Steel Beam Guardrail Components
BA-202	10-20-15	Steel Beam Guardrail Bolted End Anchor
BA-204	10-15-19	Steel Beam Guardrail Thrie-Beam End Anchor
BA-205	04-20-21	Steel Beam Guardrail Tangent End Terminal (MASH TL-3)
BA-250	04-20-21	Steel Beam Guardrail Installation at Concrete Barrier or Bridge End Post (MASH TL-3)
BA-253	04-20-21	Steel Beam Guardrail Installation at Railroad Signal
DR-101	04-18-17	Pipe Culvert (Bedding and Backfill)
DR-103	04-21-15	Pipe Culvert (Installation Details)
DR-121	10-17-17	Connected Pipe Joints
DR-201	04-21-20	Concrete Aprons
DR-203	04-21-20	Metal Pipe Aprons and Beveled Ends
DR-601	04-18-17	Reinforced Concrete Pipe Culvert
DR-621	04-18-17	Pipe Extension
EC-201	04-20-21	Silt Fence
EC-204	04-20-21	Perimeter, Slope and Ditch Check Sediment Control Devices
EW-105	04-21-15	Reshaping Slopes and Ditches
EW-301	04-20-21	Guardrail Grading
PM-110	04-21-20	Line Types
PM-111	04-21-20	Symbols and Legends
PM-120	10-21-14	Stop Lines and Islands
PM-240	04-20-21	Railroad Crossing on Two-Lane Roadway
PM-521	10-15-19	Two-Lane Roadway with Right Turn Lanes
PR-107	10-16-18	Partial Depth PCC Finish Patches
PV-12	10-20-20	Milled Shoulder Rumble Strips
PV-203	04-21-20	HMA Base Widening
SI-172	04-19-16	Delineators
SI-173	04-19-16	Object Markers
SI-211	10-18-16	Object Marker and Delineator Placement with Guardrail
SI-241	04-20-21	Sign Placement Approaching a Railroad Crossing
SI-881	04-16-19	Special Signs for Workzones
TC-1	10-15-19	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-202	04-21-15	Work Within 15 ft of Traveled Way
TC-213	10-15-19	Lane Closure with Flaggers
TC-214	04-21-20	Lane Closure with Flaggers for use with Pilot Car
TC-232	10-21-14	Shoulder Rumble Strip Operations
TC-233	10-17-17	Pavement Marking Operations Two-Lane
TC-432	10-17-17	Shoulder Rumble Strip Operations
TC-433	10-17-17	Pavement Marking Operations

FORESLOPE FLATTENING AND DRAINAGE STRUCTURES BY ROAD CONTRACTOR (MAINLINE PIPES)

Refer to Standard Road Plans DR-121, DR-122, and DR-213.

* Not a bid item

Existing Information		New Information		Length of New Const. LF	Flow Line Elevations		Dimensions				Removal and Reinstallation of Culvert Aprons and Pipes				New Apron No.		Apron Guard* (DR-213) NO.	Type 'C' Connections* (DR-122) TYPE NO.		Connected Pipe Joint* (DR-121) TYPE	Embank.- In-Place CY	Class 20 CY	Remarks		
Location	Size and Type of Culvert	Size IN	Type of Culvert		LEFT	RIGHT	Total (LF)		Extensions (LF)		Aprons		Culvert Sections					IN	OUT					NO.	TYPE
							LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	NO.*	FT	NO.*	FT									
MAINLINE AND SIDEROAD PIPE																									
299+22 lt	18"x32' CMP sideroad						10	10							1	1					16.0		Union Ave.		
312+38 rt	24"x32' CMP sideroad														1						8.0		Vine Ave. West end		
428+60	30"x60' RCP														1	1				Type 2	16.0	8.0	see tab. 103-5		
451+69	36"x60' RCP														1	1				Type 2	24.0	8.0	see tab. 103-5		
330+05.5	30" RCP														1	6				Type 2	16.0	8.0	lt side		
ENTRANCE PIPE																									
275+74 rt	18"x24' CMP f.ent.														1	1					8.0				
325+65 lt	24"x24' CMP ent.														1	1					8.0		see tab. 110-2		
331+95 rt	24"x24' CMP														1	1					4.0		house # 2237		
332+75 rt	24"x24' CMP														1	1					4.0		house # 2237		
334+06 rt	15"x24' CMP														1	1					8.0		house # 2241/ tab. 110-2		
338+80 lt	24"x24' CMP														1	1					8.0		see tab. 110-2		
338+80 rt	24"x24' CMP														1	1					8.0				
352+20 lt	18"x30' CMP						10	10							1	1					8.0		see tab. 110-2		
361+35 rt	18"x30' CMP						10	10							1	1					16.0		house # 2293/ tab. 110-2		
373+65 rt	18"x26' CMP														1	1					8.0		house # 2317/ tab. 110-2		
384+75 lt	30"x26' CMP						10	10							1	1					24.0		house # 2338		
391+88 rt	18" x 44' CMP														1	1							see tab. 110-2		
344+00 lt	18"x30' CMP														1	1					8.0				
437+75 rt	30"x24' CMP														1	1					8.0				
453+70 lt	30"x24' CMP														1	1					8.0		see tab. 110-2		
465+65 rt	18"x24' CMP														1	1					8.0		see tab. 110-2		
2+70 rt	18"x26' CMP						10	10							1	1					16.0		house # 1012		
21+80 lt	18"x24' CMP														1	1					8.0				
25+50 lt	18"x26' CMP						10	10							1	1					24.0		house # 1065		
38+35 rt	18"x24' CMP														1	1									
45+27 lt	18"x24' CMP														1	1					8.0		see tab. 110-2		
69+16 lt	24"x24' CMP														1	1					8.0				
70+39 lt	24"x24' CMP						10	10							1	1					16.0				
85+08 rt	24"x24' CMP														1	1					8.0		see tab. 110-2		
95+95 lt	18"x24' CMP														1	1									
98+98 rt	18"x24' CMP														1	1							see tab. 110-2		
109+31 rt	18"x24' CMP														1	1					8.0				
110+22 lt	18"x24' CMP														1	1					8.0				
113+44 lt	18"x26' CMP						10	10							1	1					24.0		house # 1223		
123+00 lt	24"x26' CMP														1	1					16.0				
124+18 lt	24"x24' CMP														1	1					16.0				
124+55 lt	24"x24' CMP														1	1					8.0				

Make Type 3 Connections

FORESLOPE FLATTENING AND DRAINAGE STRUCTURES BY ROAD CONTRACTOR (MAINLINE PIPES)

Refer to Standard Road Plans DR-121, DR-122, and DR-213.

* Not a bid item

Existing Information		New Information		Length of New Const. LF	Flow Line Elevations		Dimensions				Removal and Reinstallation of Culvert Aprons and Pipes				New Apron No.		Apron Guard* (DR-213) NO.	Type 'C' Connections* (DR-122) NO.		Connected Pipe Joint* (DR-121) TYPE	Embank.- In-Place CY	Class 20 CY	Remarks		
Location	Size and Type of Culvert	Size IN	Type of Culvert		LEFT	RIGHT	Total (LF)		Extensions (LF)		Aprons		Culvert Sections		IN	OUT		NO.	TYPE					NO.	TYPE
							LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	NO.*	FT											
126+05 rt	30"x24' CMP													1	1						8.0	see tab. 110-2			
127+42 rt	24"x26' CMP								10	10						1	1				16.0				
128+60 rt	30"x26' CMP															1	1				8.0	house # 1276			
139+86 lt	18"x24' CMP															1	1				8.0				
143+86 lt	18"x26' CMP															1	1								
145+10 lt	18"x26' CMP															1	1				8.0				
148+60 lt	18"x24' CMP															1	1				8.0				
148+90 rt	18"x24' CMP															1	1								
184+24 rt	18"x24' CMP															1	1				8.0				
170+21 rt	24"x24' CMP															1	1				8.0				
173+40 lt	24"x24' CMP															1	1				8.0	see tab. 110-2			
184+37 lt	18"x24' CMP															1	1				8.0				
186+76 lt	18"x24' CMP															1	1				8.0	see tab. 110-2			
197+45 rt	18"x24' CMP															1	1				8.0				
232+08 lt	18"x24' CMP															1	1				8.0	see tab. 110-2			
235+75 lt	18"x24' RCP															1	1					house # 1457			
249+50 lt	18"x24' CMP															1	1								
284+00 rt	18"x24' CMP															1	1				8.0	see tab. 110-2			
285+50 rt	18"x24' CMP								10	10						1	1				16.0				
303+75 lt	18"x24' CMP															1	1					see tab. 110-2			
304+25 rt	18"x24' CMP															1	1				8.0	see tab. 110-2			
																					528.0	24.0			

110-2
04-16-13

REMOVAL OF EXISTING STRUCTURES

Location	Description	Remarks
325+65 lt	24"x24' CMP ent.	Remove 2' West end
334+06 rt	15"x24' CMP	Remove 2' West end
338+80 lt	24"x24' CMP	Remove 1' West end
352+20 lt	18"x30' CMP	Remove 1' East end
361+35 rt	18"x30' CMP	Remove 1' West end
373+65 rt	18"x26' CMP	Remove 1' West end
391+88 rt	18" x 44' CMP	Remove 1' East end
453+70 lt	30"x24' CMP	Remove 1' West end
465+65 rt	18"x24' CMP	Remove 1' West end
45+27 lt	18"x24' CMP	Remove 1' both ends
85+08 rt	24"x24' CMP	Remove 1' West end
98+98 rt	18"x24' CMP	Remove 1' West end

110-2
04-16-13

REMOVAL OF EXISTING STRUCTURES

Location	Description	Remarks
126+05 rt	30"x24' CMP	Remove 1' both ends
173+40 lt	24"x24' CMP	Remove 1' West end
186+76 lt	18"x24' CMP	Remove 1' East end
232+08 lt	18"x24' CMP	Remove 1' West end
284+00 rt	18"x24' CMP	Remove 2' East end
303+75 lt	18"x24' CMP	Remove 1' both ends
304+25 rt	18"x24' CMP	Remove 1' West end
		Incidental to apron installation

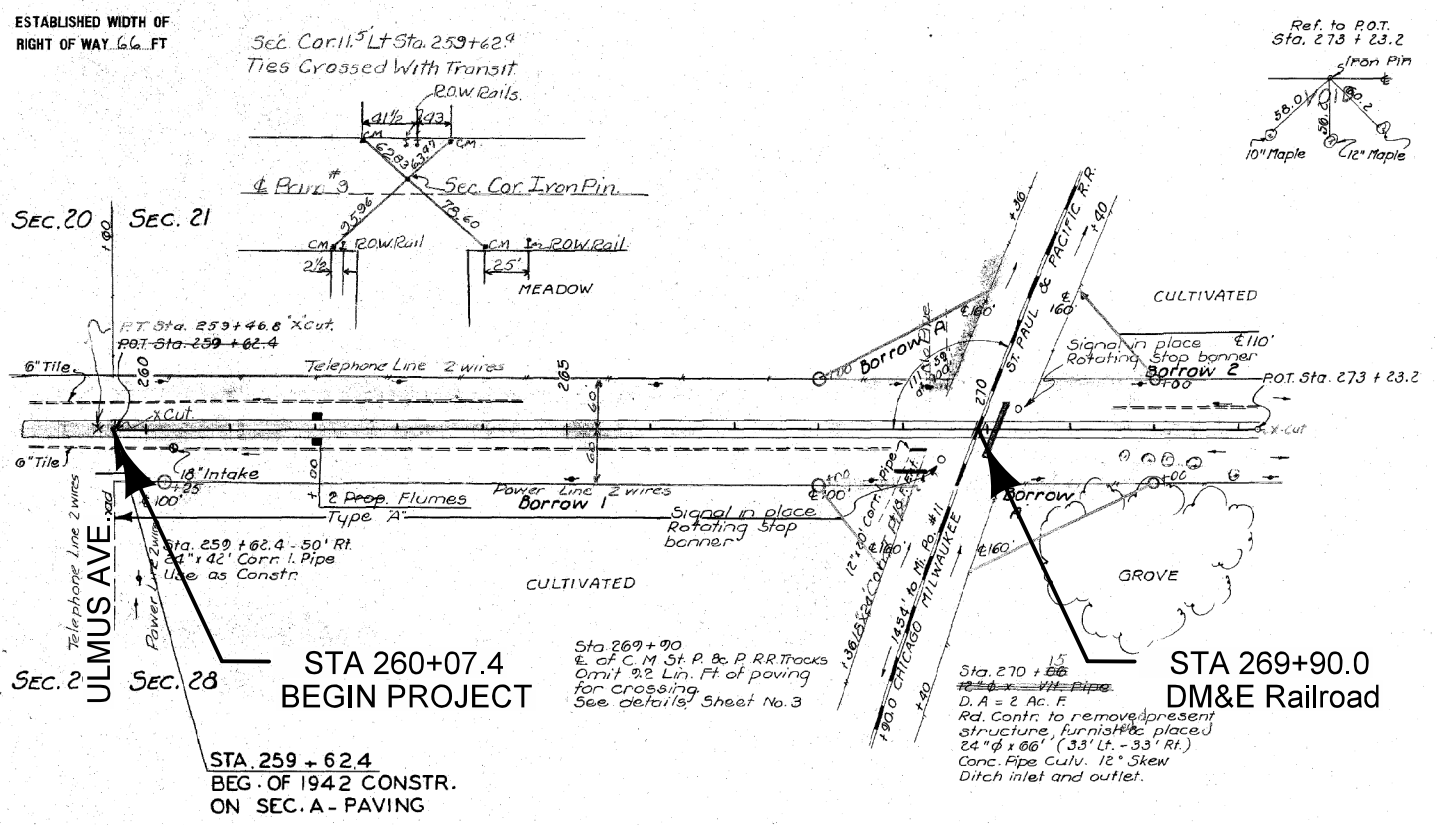
PERIMETER, SLOPE AND DITCH CHECK SEDIMENT CONTROL DEVICES

Possible Standards: EC-204

Location		Side	Perimeter and Slope			Ditch Check		Remarks
Begin Station	End Station		Length of Installation			Length of Installation		
			9 inch Dia	12 inch Dia	20 inch Dia	12 inch Dia	20 inch Dia	
		LF	LF	LF	LF	LF		
MAINLINE AND SIDEROAD PIPE							See 104-13 for more information	
299+22	lt	both				40.0	See EC-204 (inlet control)	
312+38	rt	both				40.0	See EC-204 (inlet control)	
428+60		rt				100.0	See 570-12	
451+69		both				60.0	See EC-204 (perimeter control)	
330+05.5		rt				100.0	See 570-12	
ENTRANCE PIPE								
275+74	rt	both				40.0	See EC-204 (ditch protection)	
325+65	lt	both				40.0	See EC-204 (ditch protection)	
331+95	rt	both				40.0	See EC-204 (ditch protection)	
332+75	rt	both				40.0	See EC-204 (ditch protection)	
334+06	rt	both				40.0	See EC-204 (ditch protection)	
338+80	lt	both				40.0	See EC-204 (ditch protection)	
338+80	rt	both				40.0	See EC-204 (ditch protection)	
352+20	lt	both				40.0	See EC-204 (ditch protection)	
361+35	rt	both				40.0	See EC-204 (ditch protection)	
373+65	rt	both				40.0	See EC-204 (ditch protection)	
384+75	lt	both				40.0	See EC-204 (ditch protection)	
391+88	rt	both				40.0	See EC-204 (ditch protection)	
344+00	lt	both				40.0	See EC-204 (ditch protection)	
437+75	rt	both				40.0	See EC-204 (ditch protection)	
453+70	lt	both				40.0	See EC-204 (ditch protection)	
465+65	rt	both				40.0	See EC-204 (ditch protection)	
2+70	rt	both				40.0	See EC-204 (ditch protection)	
21+80	lt	both				40.0	See EC-204 (ditch protection)	
25+50	lt	both				40.0	See EC-204 (ditch protection)	
38+35	rt	both				40.0	See EC-204 (ditch protection)	
45+27	lt	both				40.0	See EC-204 (ditch protection)	
69+16	lt	both				40.0	See EC-204 (ditch protection)	
70+39	lt	both				40.0	See EC-204 (ditch protection)	
85+08	rt	both				40.0	See EC-204 (ditch protection)	
95+95	lt	both				40.0	See EC-204 (ditch protection)	
98+98	rt	both				40.0	See EC-204 (ditch protection)	
109+31	rt	both				40.0	See EC-204 (ditch protection)	
110+22	lt	both				40.0	See EC-204 (ditch protection)	
113+44	lt	both				40.0	See EC-204 (ditch protection)	
123+00	lt	both				40.0	See EC-204 (ditch protection)	
124+18	lt	both				40.0	See EC-204 (ditch protection)	
124+55	lt	both				40.0	See EC-204 (ditch protection)	
126+05	rt	both				40.0	See EC-204 (ditch protection)	
127+42	rt	both				40.0	See EC-204 (ditch protection)	
128+60	rt	both				40.0	See EC-204 (ditch protection)	
139+86	lt	both				40.0	See EC-204 (ditch protection)	
143+86	lt	both				40.0	See EC-204 (ditch protection)	
145+10	lt	both				40.0	See EC-204 (ditch protection)	
148+60	lt	both				40.0	See EC-204 (ditch protection)	
148+90	rt	both				40.0	See EC-204 (ditch protection)	
184+24	rt	both				40.0	See EC-204 (ditch protection)	
170+21	rt	both				40.0	See EC-204 (ditch protection)	
173+40	lt	both				40.0	See EC-204 (ditch protection)	
184+37	lt	both				40.0	See EC-204 (ditch protection)	
186+76	lt	both				40.0	See EC-204 (ditch protection)	
197+45	rt	both				40.0	See EC-204 (ditch protection)	
232+08	lt	both				40.0	See EC-204 (ditch protection)	
235+75	lt	both				40.0	See EC-204 (ditch protection)	
249+50	lt	both				40.0	See EC-204 (ditch protection)	
284+00	rt	both				40.0	See EC-204 (ditch protection)	
285+50	rt	both				40.0	See EC-204 (ditch protection)	
303+75	lt	both				40.0	See EC-204 (ditch protection)	
304+25	rt	both				40.0	See EC-204 (ditch protection)	
						2460.0	total	

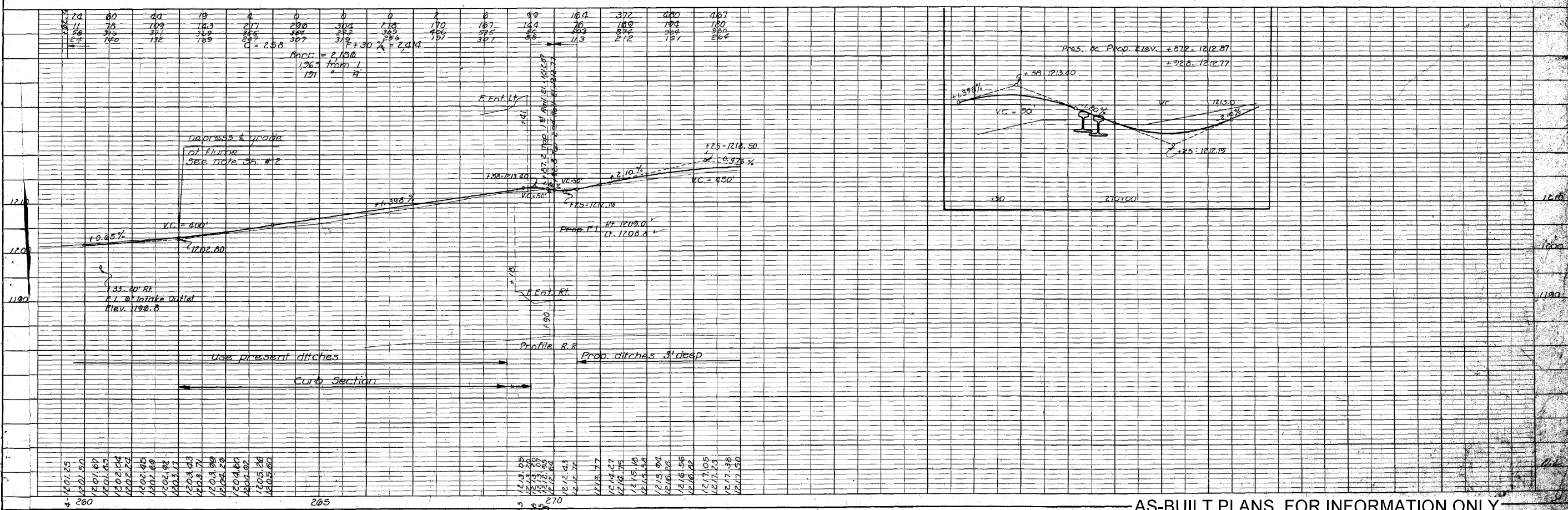
FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
5	Iowa	134 A (3)		7	36

UNION TWP
T. 98 N. R. 19 W.



PLAN	DATE
BY	
CHECKED	
DATE	
NO.	

PROFILE	DATE
BY	
CHECKED	
DATE	
NO.	

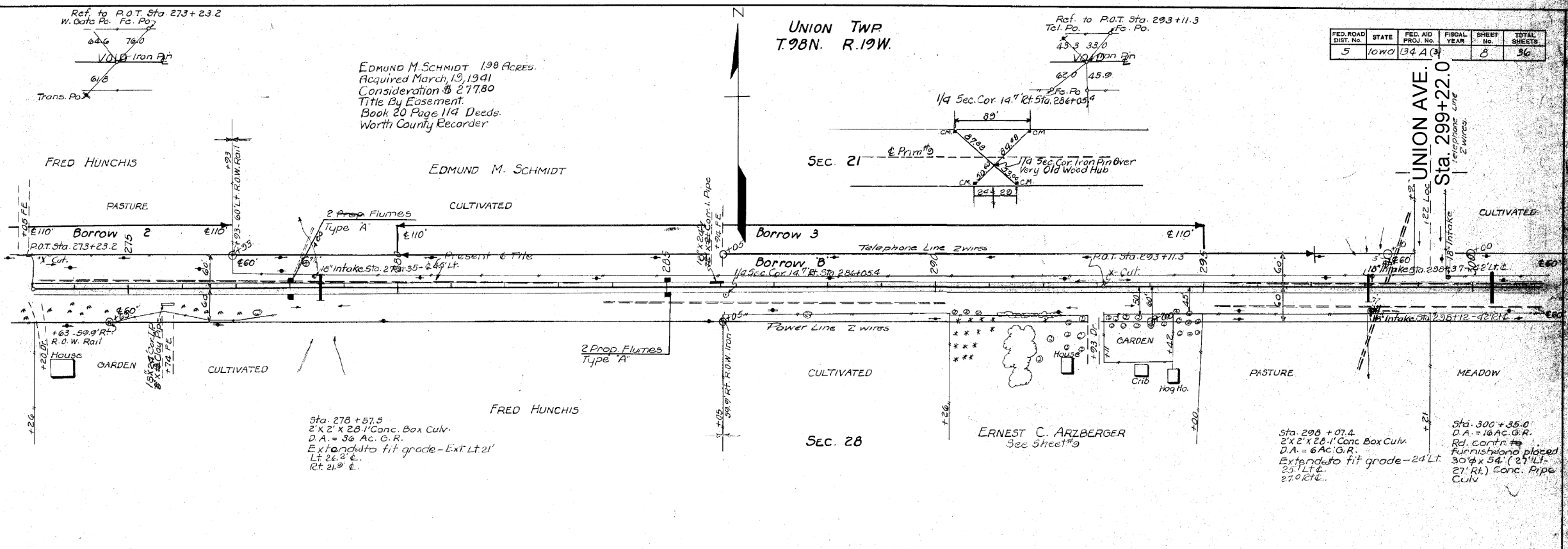


AS-BUILT PLANS, FOR INFORMATION ONLY
Worth Co. FA. Proj. # 134 A (3) Sheet # 1

ESTABLISHED WIDTH OF RIGHT OF WAY 66 FT

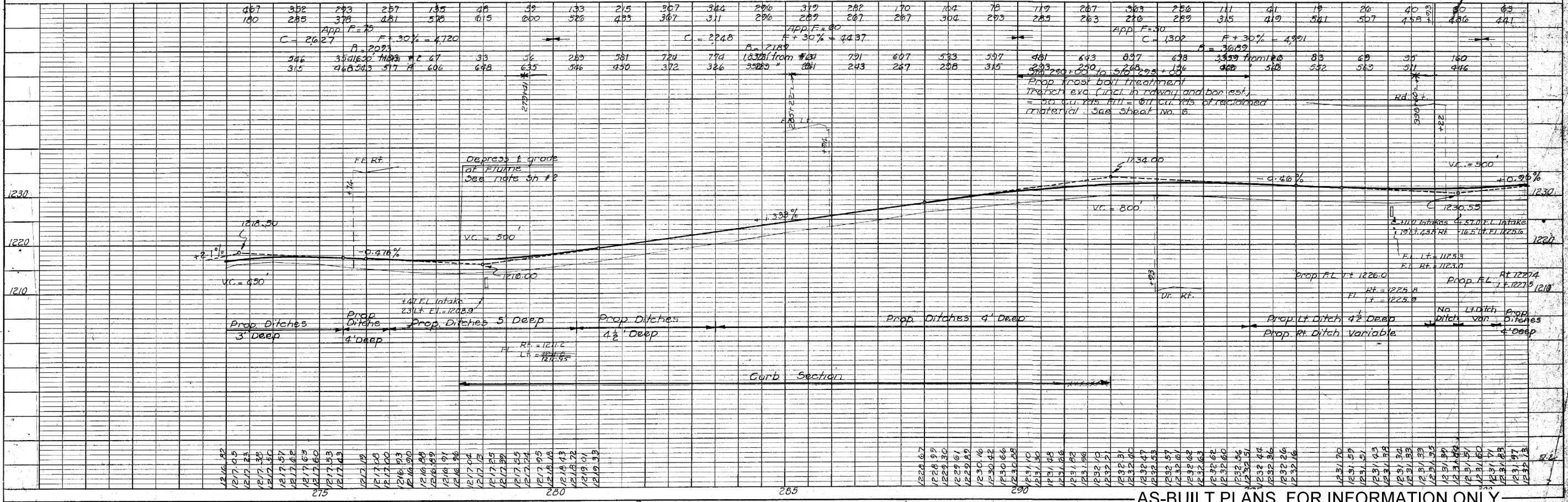
UNION TWP
T.98N. R.19W.

FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
5	10	134 A (3)		8	36



Sta. 278 + 57.5
2'x2' x 28.1' Conc. Box Culv.
D.A. = 36 Ac. G.R.
Extended to fit grade - Ext Lt 21'
Lt 26.2' e.
Rt. 21' e.

BENCH MARKS
24 Sta. 278 + 58 X on S. Hd. 2'x2' Conc. Box Culv. 22' Rt. - Elev. 1215.40
25 Sta. 293 + 10 R.R. Spike in N. side Twin Box Elder 89' Rt. - Elev. 1232.24
26 Sta. 299 + 21 2-60 Spikes in W. side 4th Fe. Post 108' Rt. - Elev. 1227.09



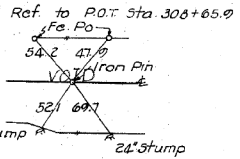
Prop frost bit treatment trench exc. (incl. in rd. way and bor. est.) = 50 cu. yds. fill = 67 cu. yds. of reclaimed material. See sheet no. 6.

AS-BUILT PLANS, FOR INFORMATION ONLY
Worth Co. F.A. Proj. # 134 A (3) Sheet # 8

PLAN	DATE
BY	
DATE	
BY	
DATE	
BY	
DATE	
BY	
DATE	
BY	
DATE	

PROFILE	DATE
BY	
DATE	
BY	
DATE	
BY	
DATE	
BY	
DATE	
BY	
DATE	

ESTABLISHED WIDTH OF RIGHT OF WAY 66 FT



UNION TWP.
T. 98 N. R. 19 W.
Sec. Cor. 114' 1/2" Sta. 312+33

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IOWA	134 A (3)		9	36

ROY J. URBATSCH 1.15 ACRES.
Acquired March 18, 1941.
Consideration \$165.00
Title By Easement
Book 20 Page 120
Worth County Recorder.

LEWIS D. PESHAK
See Sheet #10

ERNEST C. ARZBERGER 0.84 ACRES.
Acquired March 19, 1941
Consideration \$160.00
Title By Easement
Book 20 Page 111
Worth County Recorder.

Sta. 312+36.0
D.A. = 4' Ac. G.R.
Rd. contr. removed
present structure,
furnished and placed
24' x 48' (23' Lt. - 25' Rt.)
conc. pipe culv. at 50' Rt.

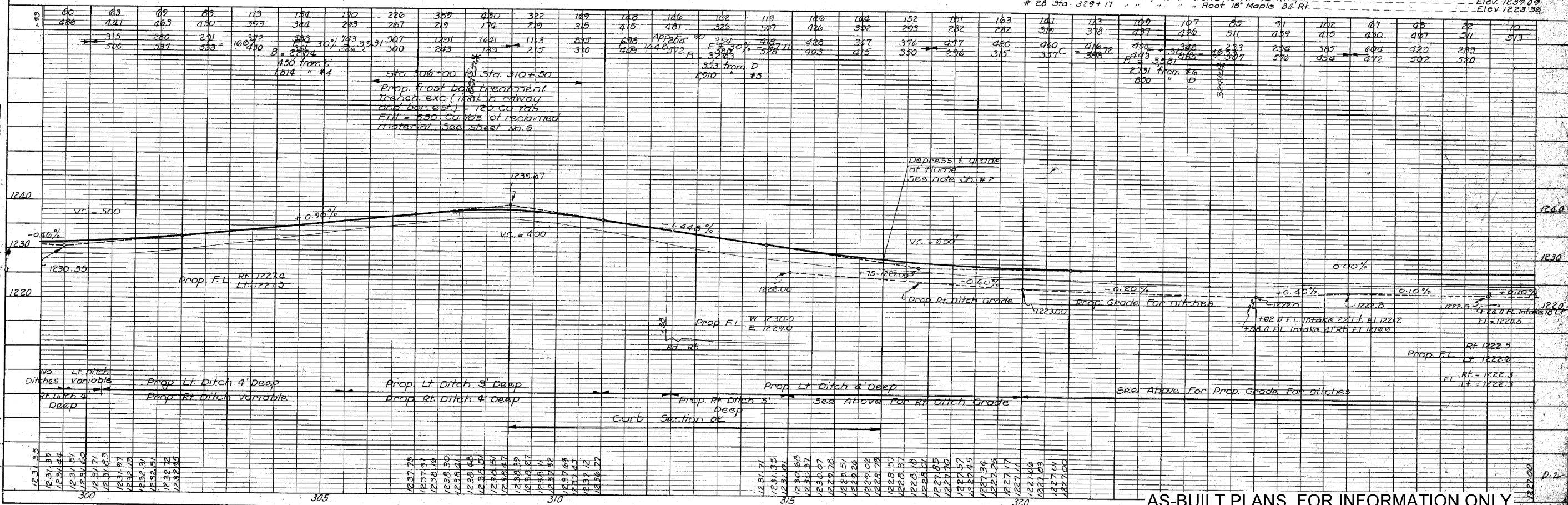
Sta. 330+05.5
D.A. = 20' Ac. G.R.
Rd. contr. removed
present structure,
furnished and placed
30' x 66' (33' Lt. &
33' Rt.) conc. pipe
culv.

BENCH MARKS
26 Sta. 209+21 2-60" Spikes in W. side 4th Fe. Po. 108' Rt.
27 Sta. 308+67 R. R. Spike in N. side, 15' Fr. 0' Rt.
28 Sta. 329+17 " " " " Root 18' Maple 8d. Rt.

Elev. 1227.09
Elev. 1239.09
Elev. 1223.36

DATE	BY	REVISION

DATE	BY	REVISION



AS-BUILT PLANS, FOR INFORMATION ONLY

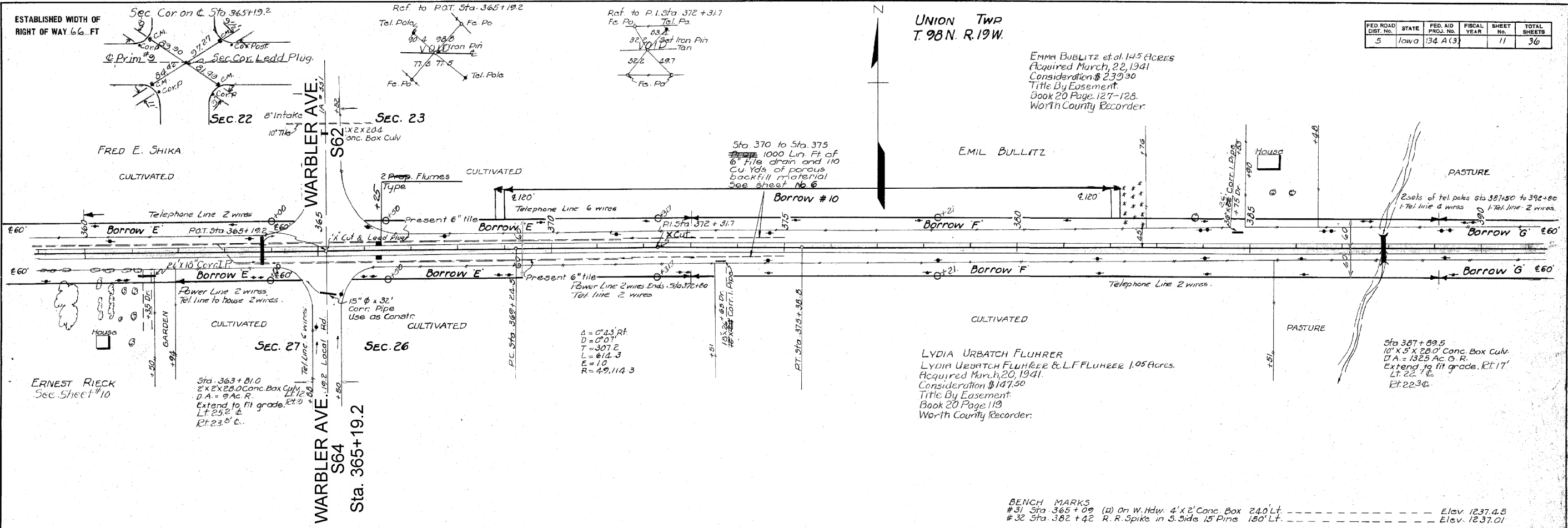
PLATE 1 - PLAN - PROFILE O.S.R. & R.E. STANDARD
KEUFFEL & ESSER CO. NEW YORK

Worth Co. F.A. Proj. # 134 A (3) Sheet # 9

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	Iowa	134 A(3)		11	36

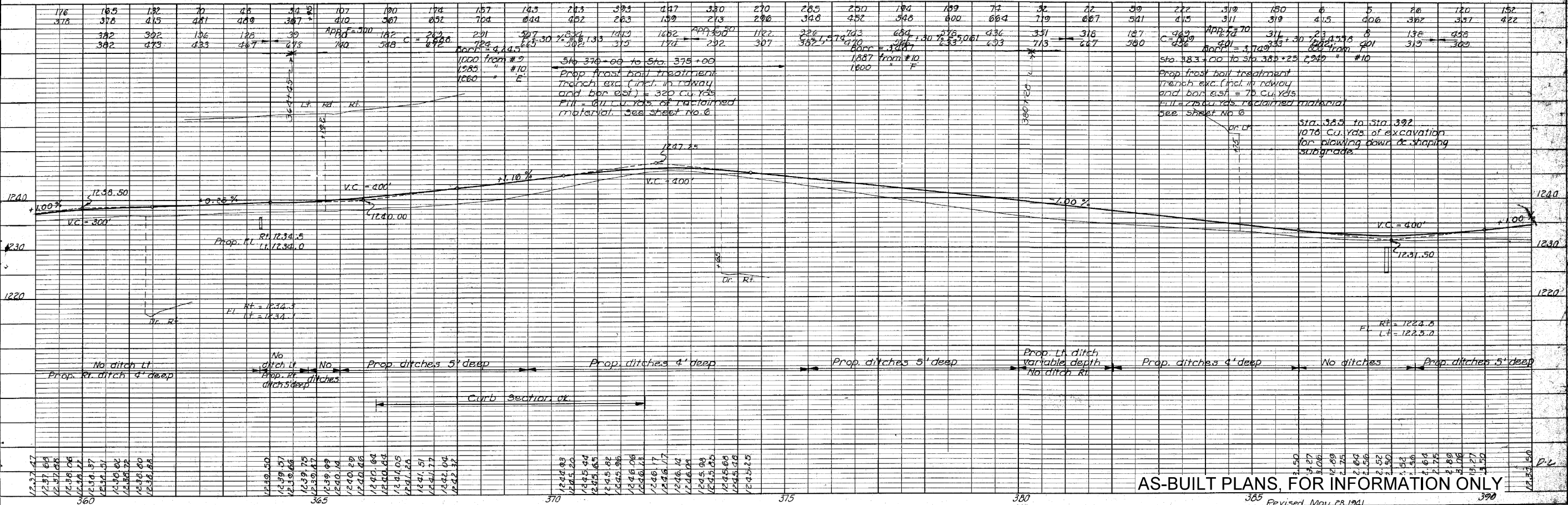
UNION TWP
T. 98 N. R. 19 W.

EMMA BUBLITZ et al. 14.5 ACRES
Acquired March 22, 1941
Consideration \$ 230.00
Title By Easement
Book 20 Page 127-128
Worth County Recorder



PLAN	DATE	BY
SURVEYED		
PLOTTED		
CHECKED		
RT. OF WAY CHECKED		

PROFILE	DATE	BY
SURVEYED		
GRADES CHECKED		
B. M. S. NOTED		
STRUCTURE NOTATIONS CHD.		



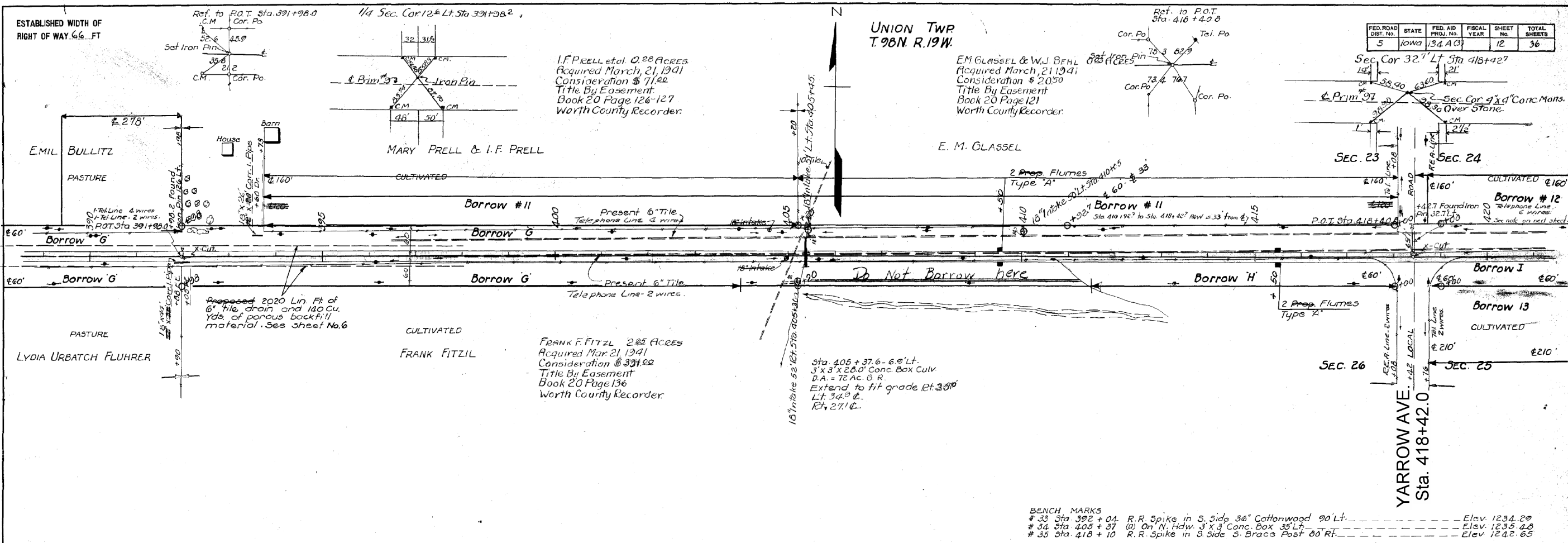
AS-BUILT PLANS, FOR INFORMATION ONLY

Worth Co. F.A. Proj. # 134 A (3) Sheet # 11

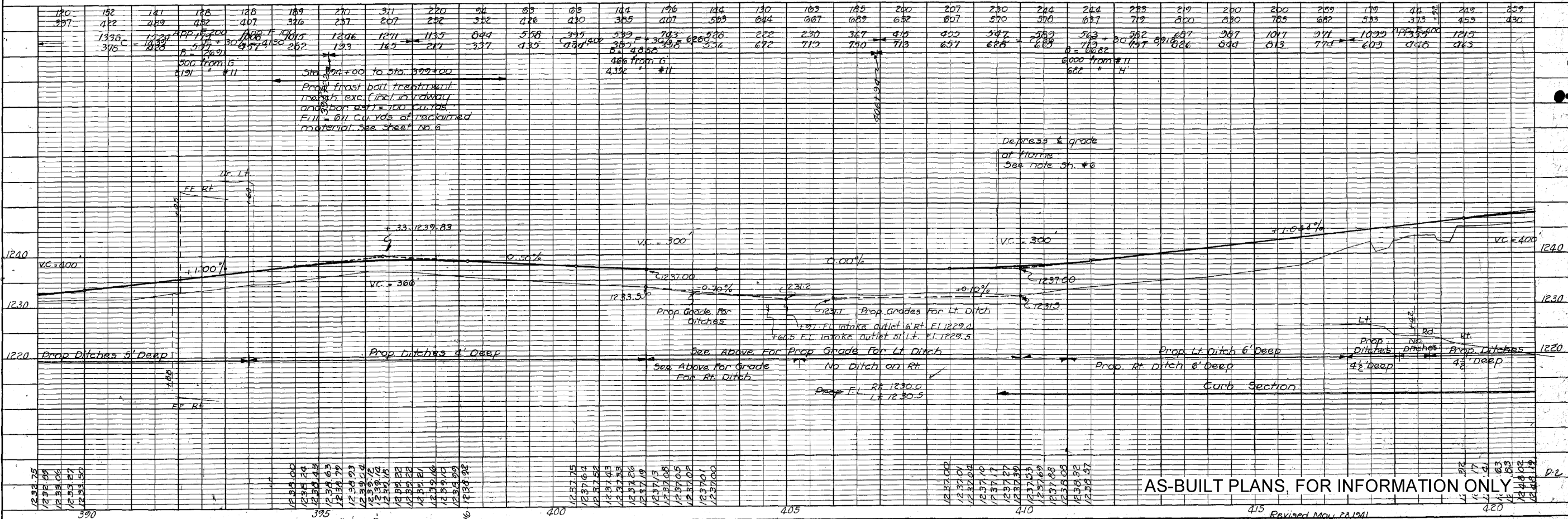
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IOWA	134 A (3)		12	36

PLAN SURVEYED BY DATE
 PLOTTED BY DATE
 NOTE BOOK NO. DATE
 ALIGNMENT CHECKED BY DATE
 RIGHT OF WAY CHECKED BY DATE

PROFILE SURVEYED BY DATE
 PLOTTED BY DATE
 NOTE BOOK NO. DATE
 STRUCTURE NOTATION CHECKED BY DATE



BENCH MARKS
 # 33 Sta 392 + 04 R.R. Spike in S. Side 36" Cottonwood 90' Lt. --- Elev. 1234.29
 # 34 Sta 405 + 37 (a) On N. Hdwy. 3' X 3' Conc. Box 35' Lt. --- Elev. 1235.48
 # 35 Sta 418 + 10 R.R. Spike in S. Side S. Braca Post 80' Rt. --- Elev. 1242.65

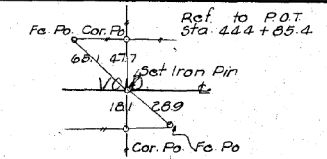


AS-BUILT PLANS, FOR INFORMATION ONLY

Revised May 22, 1941
 Worth Co. E.A. Proj. # 134 A (3) Sheet # 12

ESTABLISHED WIDTH OF RIGHT OF WAY 66 FT

UNION TWP
T.98N. R.19W.
SEC. 24

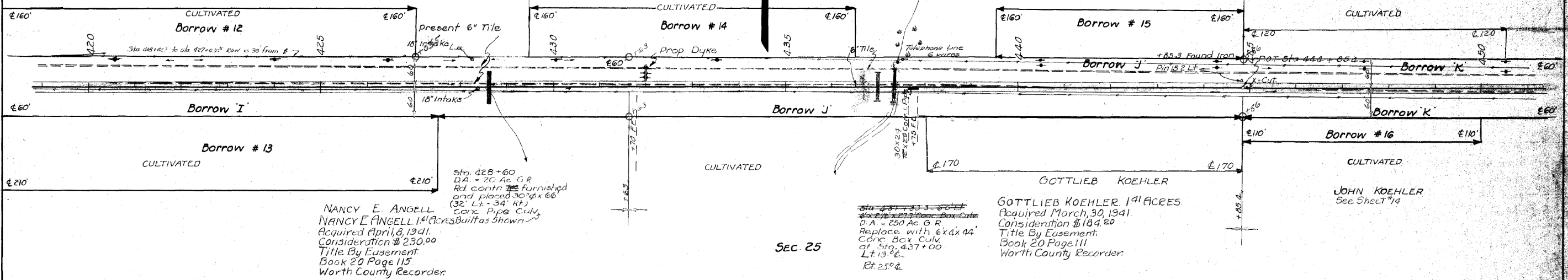


FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
5	INDA	134A(3)		13	36

1/4 Sec Cor 15th Lt 5th Sta. 444+85.3

FERDINAND HACKBANT JR. 0.24 ACRES.
Acquired April, 2, 1941.
Consideration \$86.00
Title By Easement
Book 20 Page 122-123.
Worth County Recorder.

FERDINAND HACKBANT JR

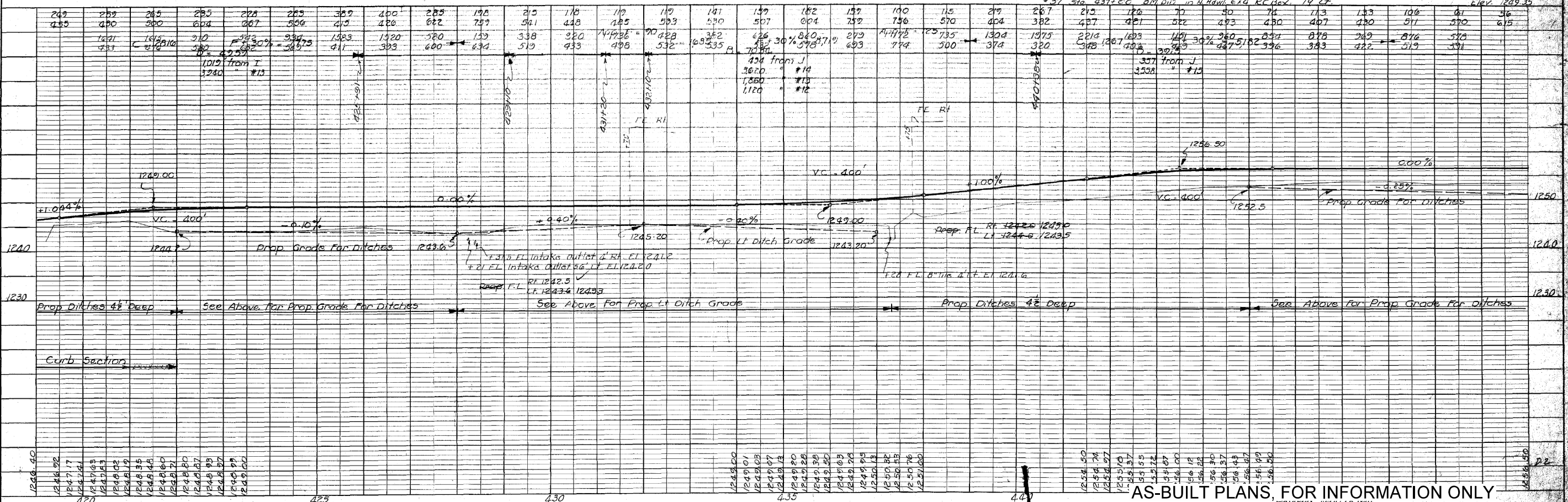


NANCY E. ANGELL
NANCY E. ANGELL 1.4 ACRES
Acquired April, 8, 1941.
Consideration \$230.00
Title By Easement
Book 20 Page 115
Worth County Recorder.

GOTTLIEB KOEHLER 1.4 ACRES
Acquired March, 30, 1941.
Consideration \$184.20
Title By Easement
Book 20 Page 111
Worth County Recorder.

SEC. 25

BENCH MARKS
#36 Sta 431+04 2-60" Spikes in N. side 7th Fe Post 73 Rt. Elev 1246.10
#37 Sta 437+33 (a) in N. Mdw. 6" x 2 1/2" Conc Box 45 Lt. Elev 1246.64
#37 Sta 437+00 BM on N. Hwy. 2nd RC Box 19 Lt. Elev 1249.35



AS-BUILT PLANS, FOR INFORMATION ONLY

Worth Co. FA Proj # 134 A (3) Sheet # 13

PLATE 1 - PLAN-PROFILE O. P. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK

PLAN	DATE	BY
SURVEYED		
PLOTTED		
CHECKED		
NOTE BOOK		
NO. OF WAY CHECKED		

PROFILE	DATE	BY
SURVEYED		
PLANNED		
CHECKED		
NOTE BOOK		
NO. OF NOTED		
STATIONING		

ESTABLISHED WIDTH OF RIGHT OF WAY 66 FT

JOHN F. GRAPER 1.16 ACRES
Acquired March 22, 1941
Consideration \$ 273.50
Title By Easement
Book 20 Page 115
Worth County Recorder

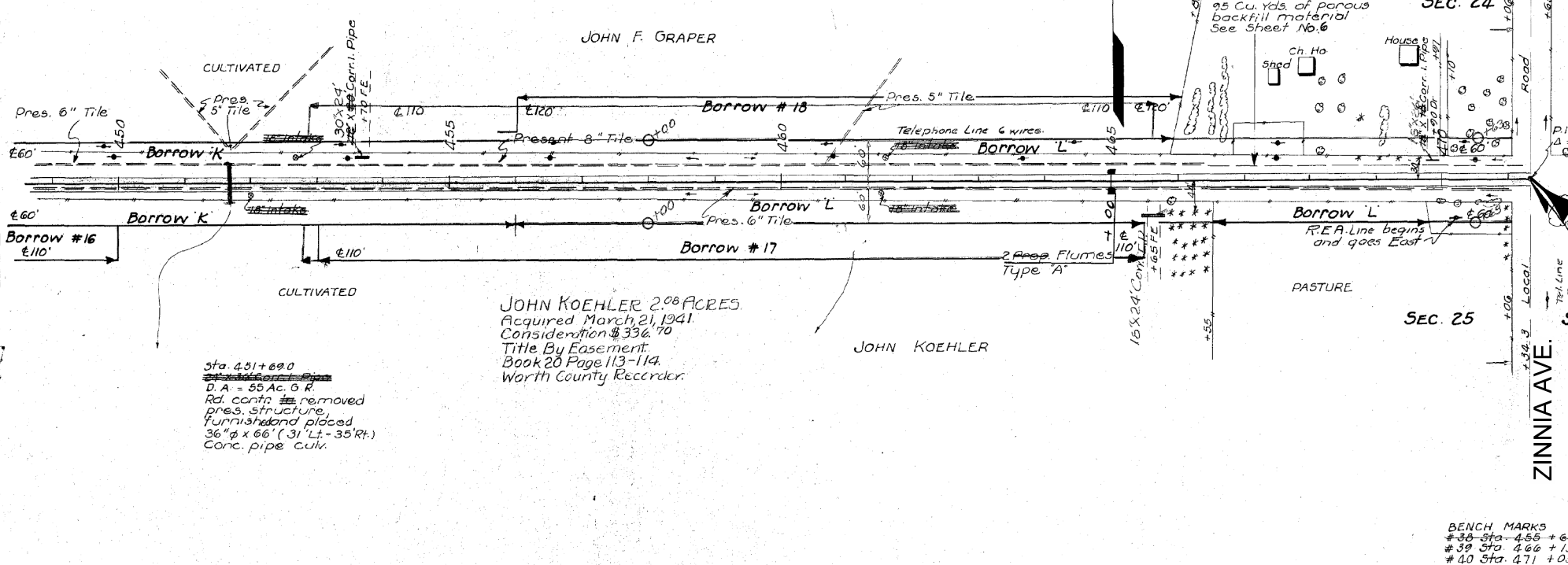
WORTH CO.
UNION TWP
T. 98N. R. 19W

MITCHELL CO.
ROCK TWP
T. 98N. R. 18W
Sec. Cor & P.I. Sta 417+34.3

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IOWA	134 A (3)		14	36

DATE	BY	REVISION

DATE	BY	REVISION

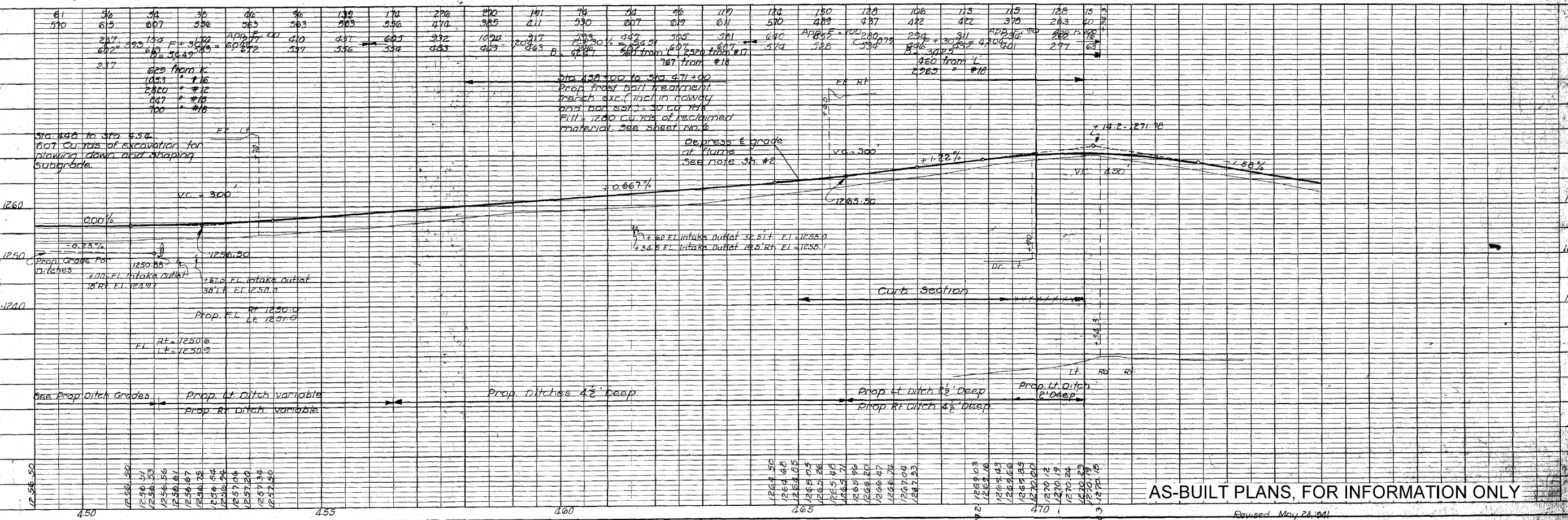


Sta. 451+69.0
D.A. = 55 Ac. G.R.
Rd. center removed
pres. structure
furnished and placed
36" x 66' (31' Lt. - 35' Rt.)
Conc. pipe cul.

JOHN KOEHLER 2.08 ACRES
Acquired March 21, 1941
Consideration \$ 336.70
Title By Easement
Book 20 Page 113-114
Worth County Recorder

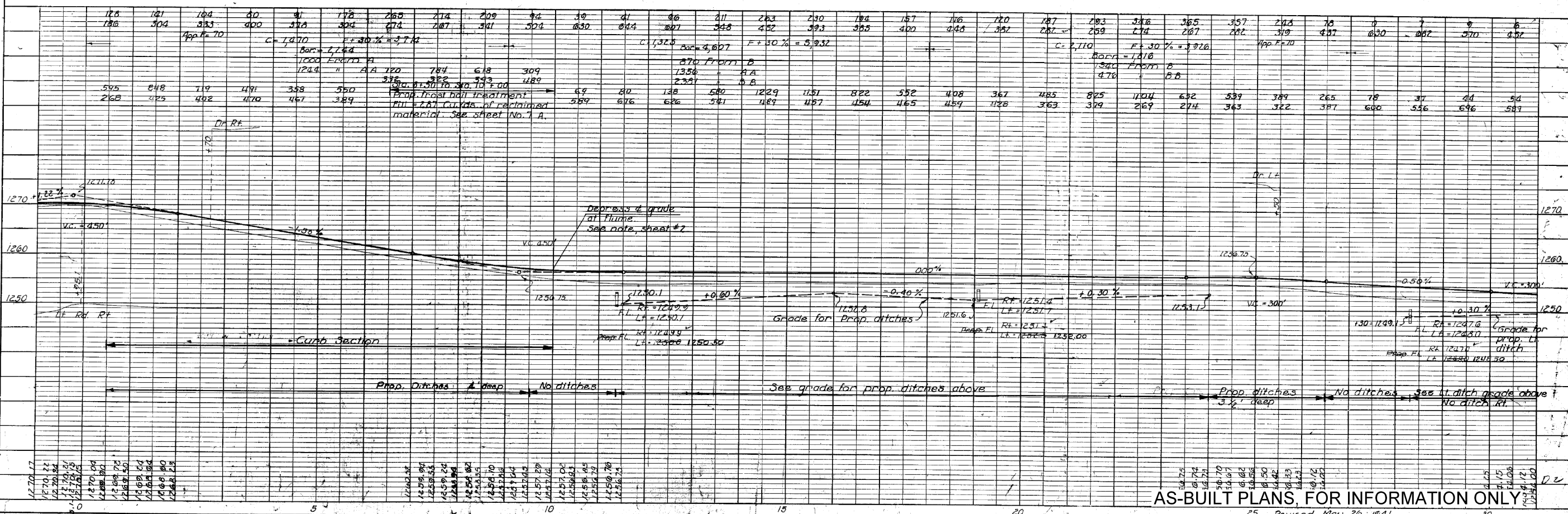
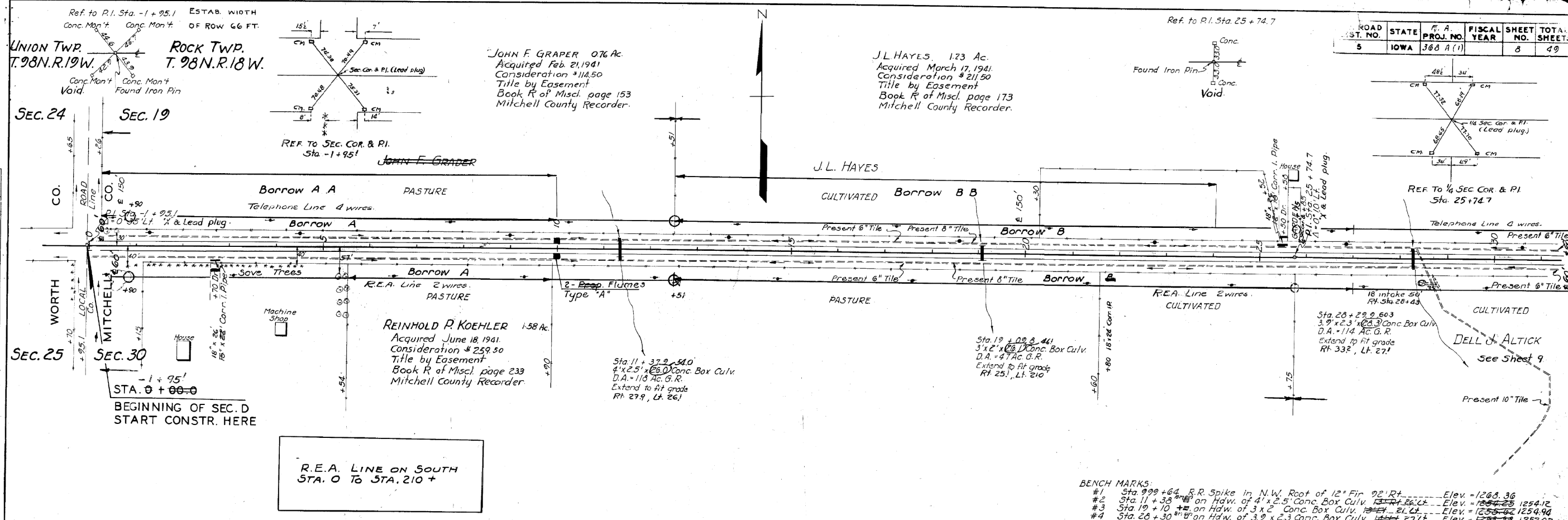
COUNTY LINE
STA. EQ. 471+34.3 Bk.
= STA. 0+00.0 Ah.
STA. 471+34.3
END OF 1942 CONSTR.
ON SEC. A
PAVING

BENCH MARKS
#38 Sta. 455+66 - 2 60" Spikes in S. Side Tel. Pole 39' Lt. - Elev. 1254.01
#39 Sta. 466+13 R.R. Spike in S. Side 18' Pine 64' Rt. - Elev. 1264.32
#40 Sta. 471+05 " " " N.W. Root 12' Fir 93' Rt. - Elev. 1268.36



AS-BUILT PLANS, FOR INFORMATION ONLY

Revised May 28, 2011
Worth Co. F.A. Proj. # 134 A (3) Sheet # 14



Sta.	128	131	134	140	141	178	200	214	209	94	39	41	46	111	263	230	194	157	116	120	187	203	316	365	357	218	75	0	7	9	6
Elev.	1260	1264	1267	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270
Prop. Elev.	1260	1264	1267	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270	1270
Excavation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fill	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AS-BUILT PLANS, FOR INFORMATION ONLY

25 Revised May 26, 1941

ESTAB. WIDTH OF ROW 66 FT.

ROCK TWP
T. 98 N. R. 18 W.

ROAD DIST. NO.	STATE	F.A. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IOWA	368 D (1)		9	49

ANNA WITT ET AL 110 Ac
Acquired March 3, 1941
Consideration \$ 196.50
Title by Easement
Book R of Misc. page 161
Mitchell County Recorder.

J. L. HAYES
See Sheet 8

ANNA WITT ET AL.

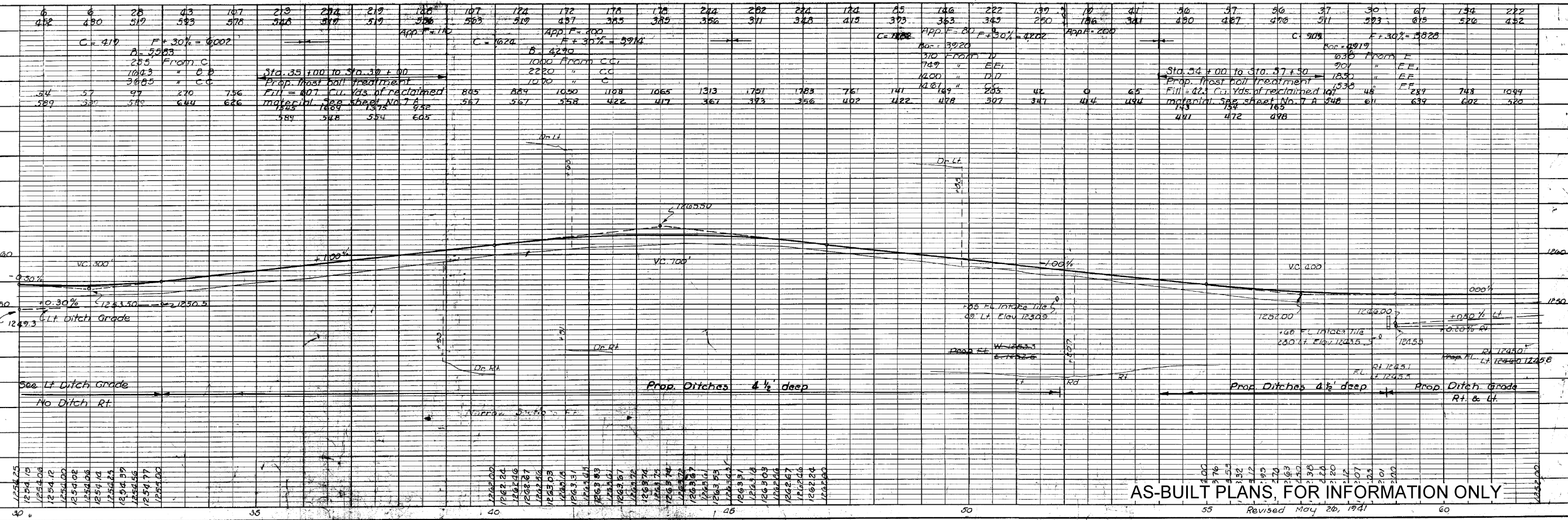
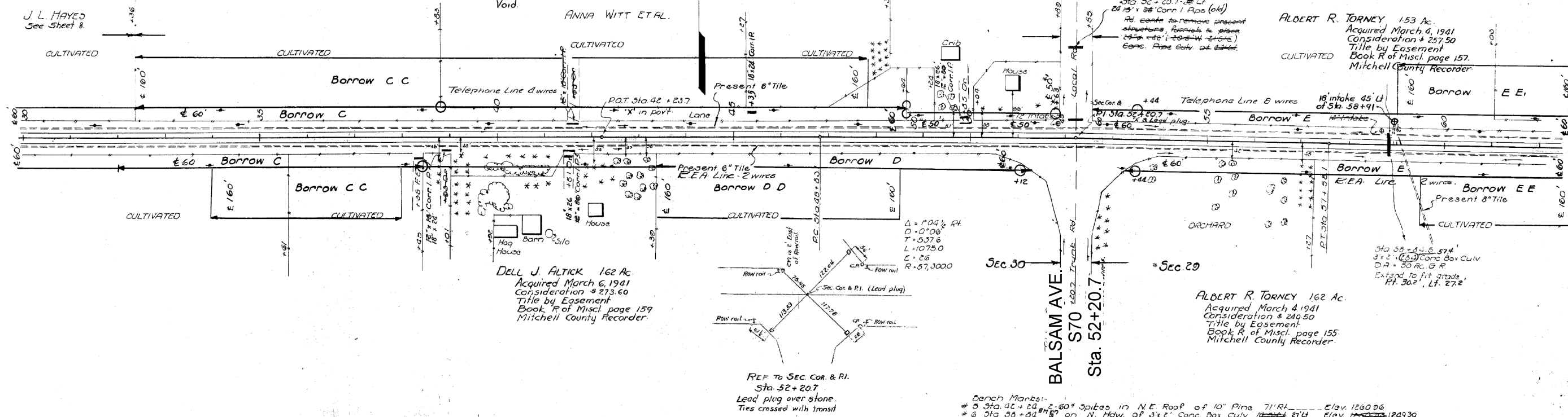
ALBERT R. TORNEY 153 Ac.
Acquired March 4, 1941
Consideration \$ 257.50
Title by Easement
Book R of Misc. page 157
Mitchell County Recorder

DELL J. ALTICK 162 Ac.
Acquired March 6, 1941
Consideration \$ 273.60
Title by Easement
Book R of Misc. page 159
Mitchell County Recorder.

ALBERT R. TORNEY 162 Ac.
Acquired March 4, 1941
Consideration \$ 249.50
Title by Easement
Book R of Misc. page 155
Mitchell County Recorder.

DATE	BY	PLAN
		SURVEYED
		PLOTTED
		NOTE BOOK
		NO.

DATE	BY	PROFILE
		SURVEYED
		GRADES CHECKED
		STRUCTURE NOTATIONS CHKD.
		NO.



AS-BUILT PLANS, FOR INFORMATION ONLY

Revised May 26, 1941
Mitchell Co. F.A. Proj. No. 368 D (1) Sheet No. 9

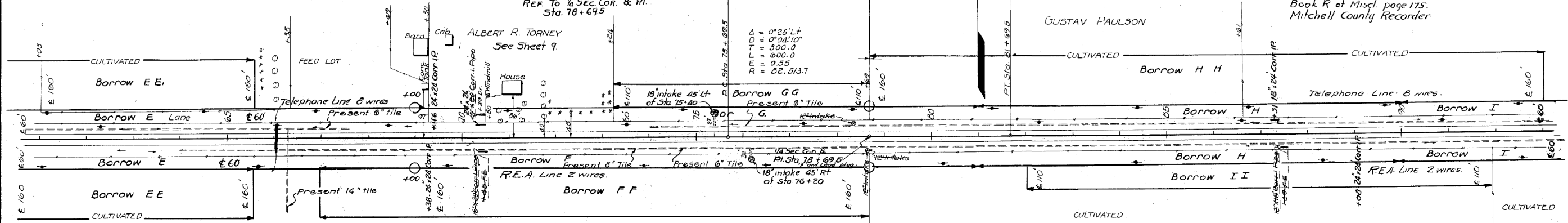
ESTAB. WIDTH
OF ROW 66 FT.

Rock TWP
T 28 N R 18 W
SEC. 20

ROAD DIST. NO.	STATE	F.A. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IOWA	368 D(1)		10	49

GUSTAV PAULSON 161 Ac.
Acquired March 5, 1941
Consideration \$249.00
Title by Easement
Book R of Misc. page 175.
Mitchell County Recorder.

DATE	
BY	
SURVEYED	
PLOTTED	
ALIGNED	
CHECKED	
NOTE BOOK	
NO.	

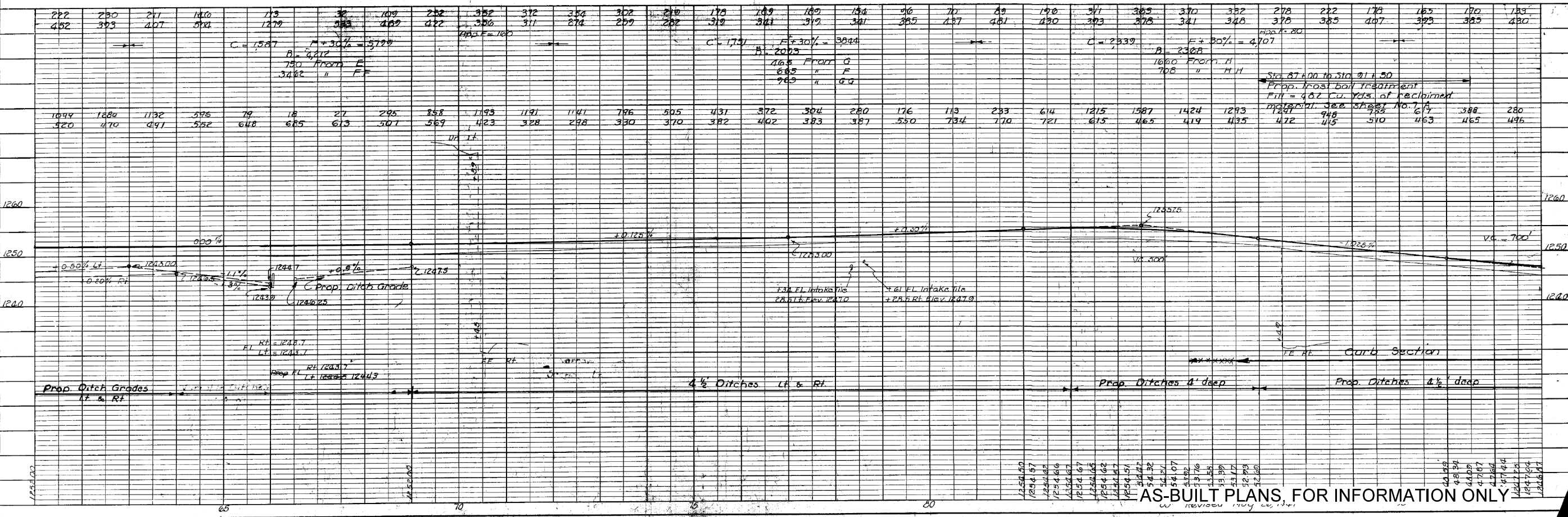


Sta 66+05.5 - 663
D x 27' x 66.3' Conc Box Culv.
D.A. = 127 Ac. G.R.
Extend to fit grade.
Rt. 29° Lt. 27'

ALBERT R. TORNEY
See Sheet 9.

HATTIE TORNEY & LESLIE TORNEY 161 Ac.
Acquired March 4, 1941.
Consideration \$254.50
Title by Easement.
Book R of Misc. page 257
Mitchell County Recorder.

BENCH MARKS
7 Sta. 66+05.5 B.M. No. 1 On Hdwr. of 6x27 Conc Box Culv. 18' x 27' Lt. Elev. 1249.22
8 Sta. 78+69.5 B.M. No. 2 On 2' x 2' spikes in W. side of Gravel Road 50' Lt. Elev. 1251.21



DATE	
BY	
SURVEYED	
PLOTTED	
CHECKED	
NOTE BOOK	
NO.	

AS-BUILT PLANS, FOR INFORMATION ONLY

PLATE 1 - PLAN - PROFILE OF P.A. & R.E. STATIONS

Mitchell Co. F.A. Proj. No. 368 D(1) Sheet No. 10

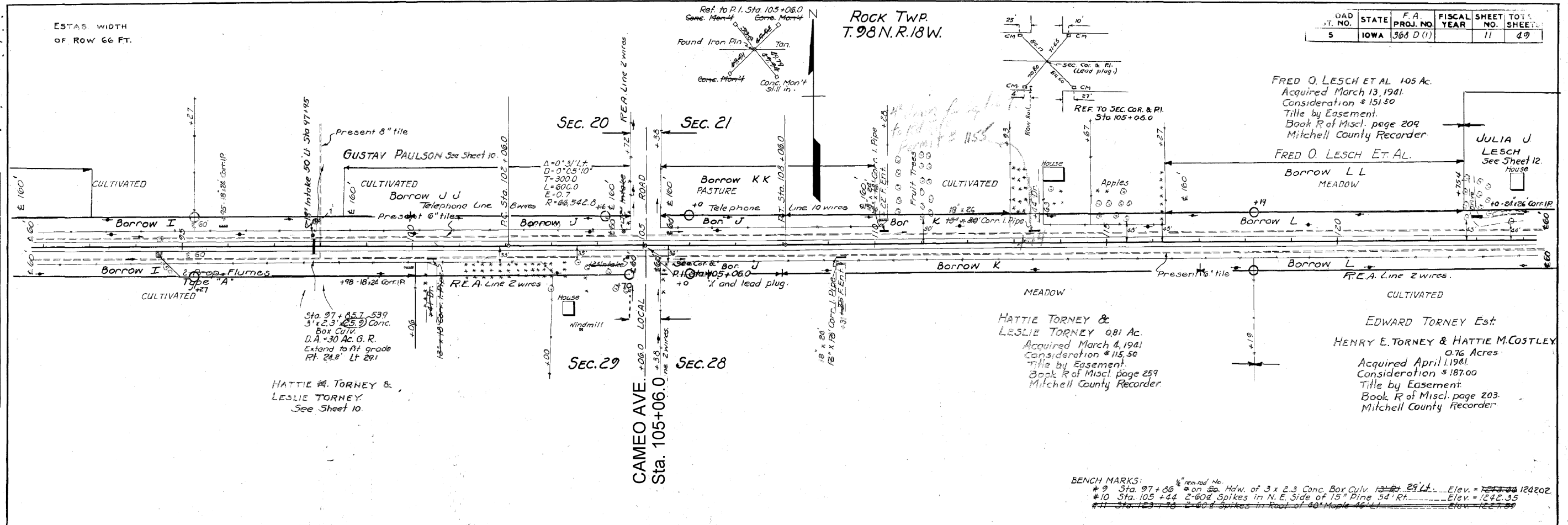
ESTAB WIDTH OF ROW 66 FT.

ROCK TWP. T. 98 N. R. 18 W.

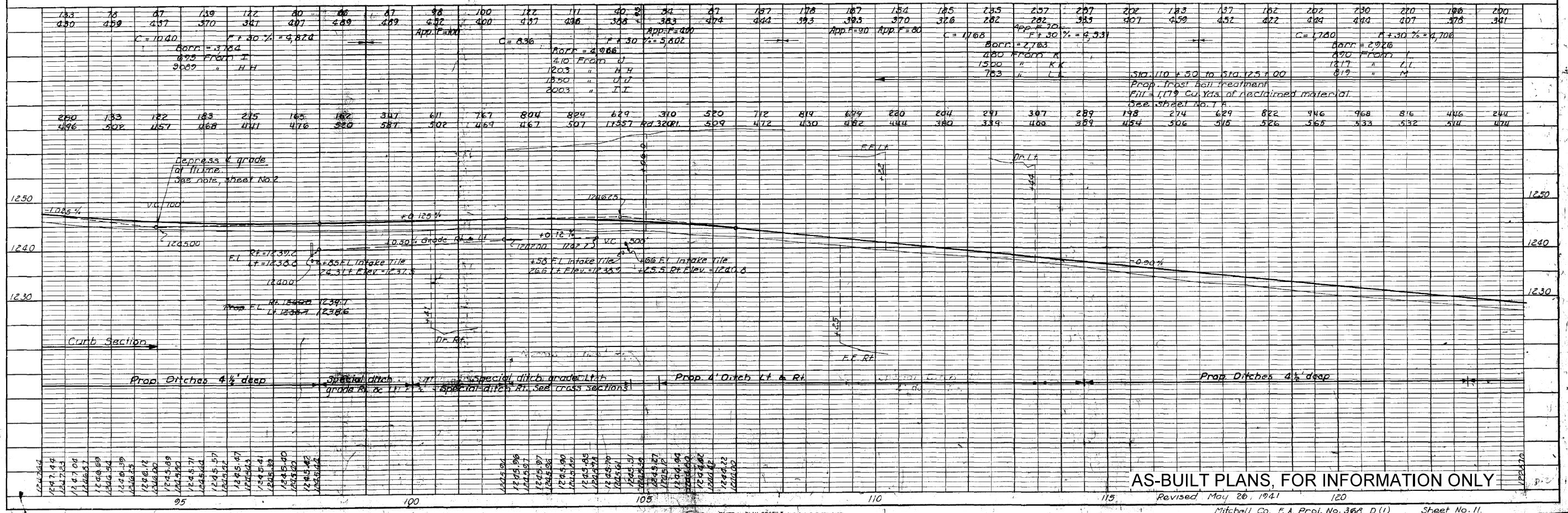
OAD ST. NO.	STATE	F. A. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOT. SHEETS
5	IOWA	368 D (1)		11	49

PLAN	DATE	BY
SURVEYED		
NOTE BOOK		
ALIGNMENT CHECKED		
FT. OF WAY CHECKED		

PROFILE	DATE	BY
SURVEYED		
NOTE BOOK		
GRADES CHECKED		
STRUCTURE NOTATIONS CHECKED		

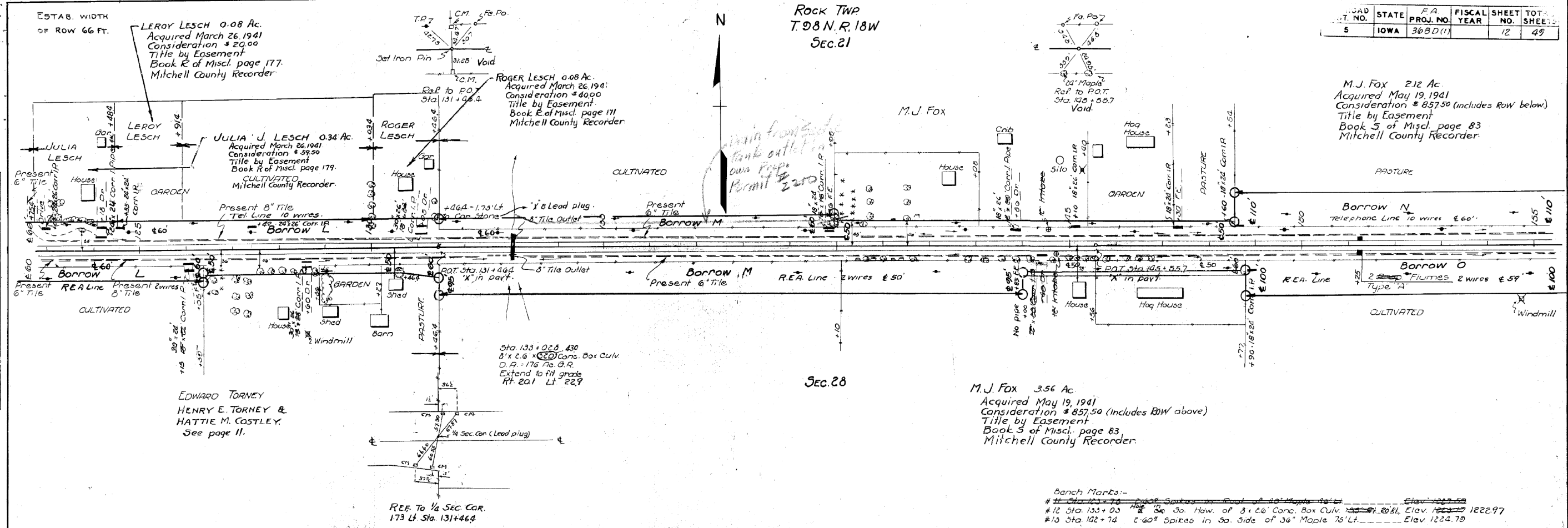


BENCH MARKS:
 #9 Sta. 97+06 on So. Hdwy. of 3 x 2.3 Conc. Box Culv. 13' x 29' Lt. Elev. = 1243.20
 #10 Sta. 105+44 2-60d Spikes in N. E. Side of 15" Pine 54' Rt. Elev. = 1242.35
 #11 Sta. 123+76 2-60d Spikes in Roof of 40' Maple 46' Lt. Elev. = 1227.59



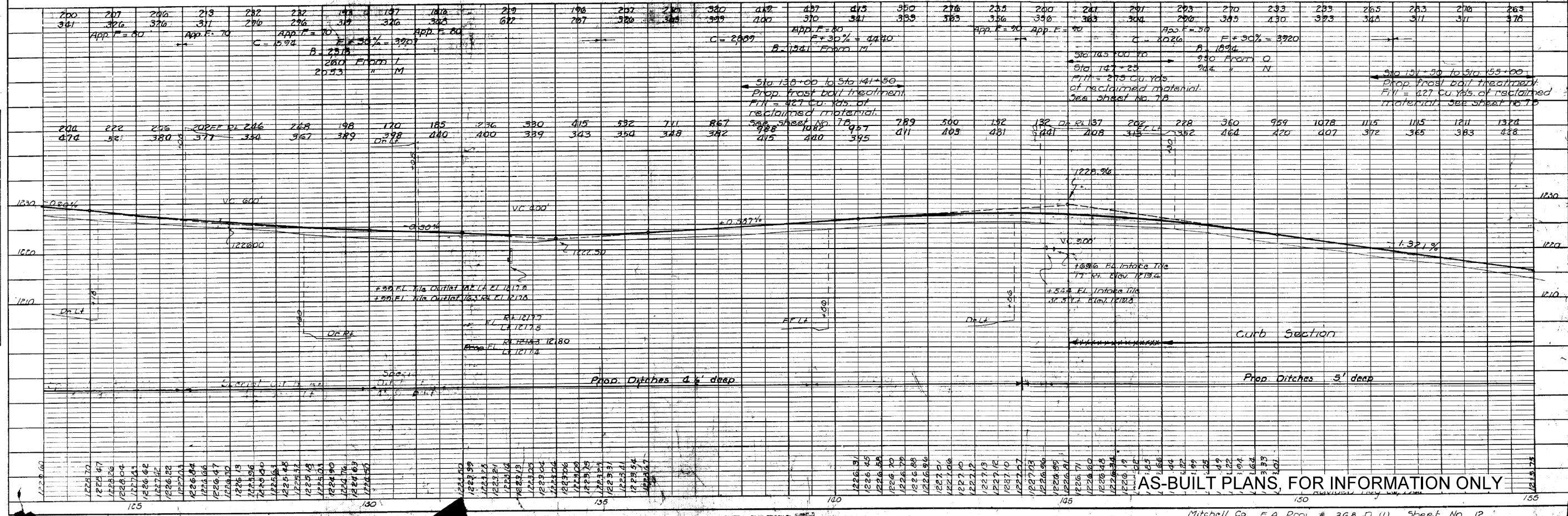
ROAD DIST. NO.	STATE	F.A. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOT. SHEETS
5	IOWA	368 D (1)		12	49

Rock TWP
T. 28 N. R. 18 W
Sec. 21



PLAN
SURVEYED BY: []
NOTE BOOK ALLOCATION CHECKED: []
FIT. OF WAY CHECKED: []

PROFILE
SURVEYED BY: []
NOTE BOOK GRADES CHECKED: []
E. M.S. NOTED: []
STRUCTURE NOTINGS CHECKED: []



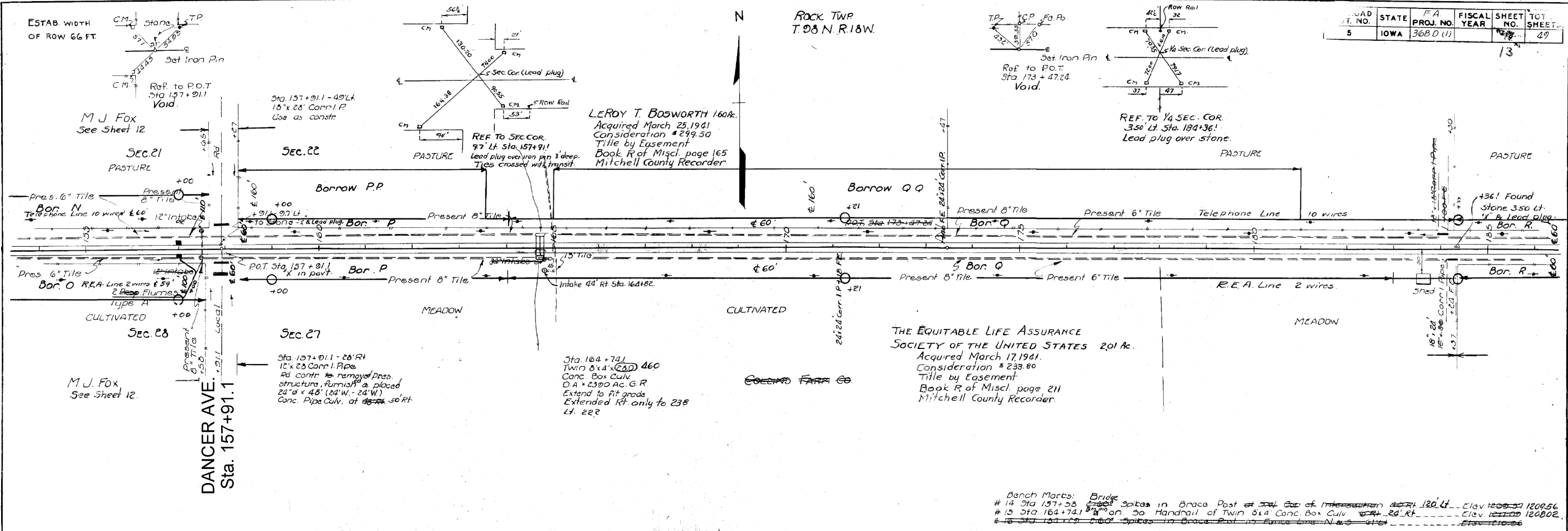
Bench Marks:-
#11 Sta 103+75 Elev. 1227.50
#12 Sta 133+00 Elev. 1227.97
#13 Sta 142+74 Elev. 1224.79

AS-BUILT PLANS, FOR INFORMATION ONLY

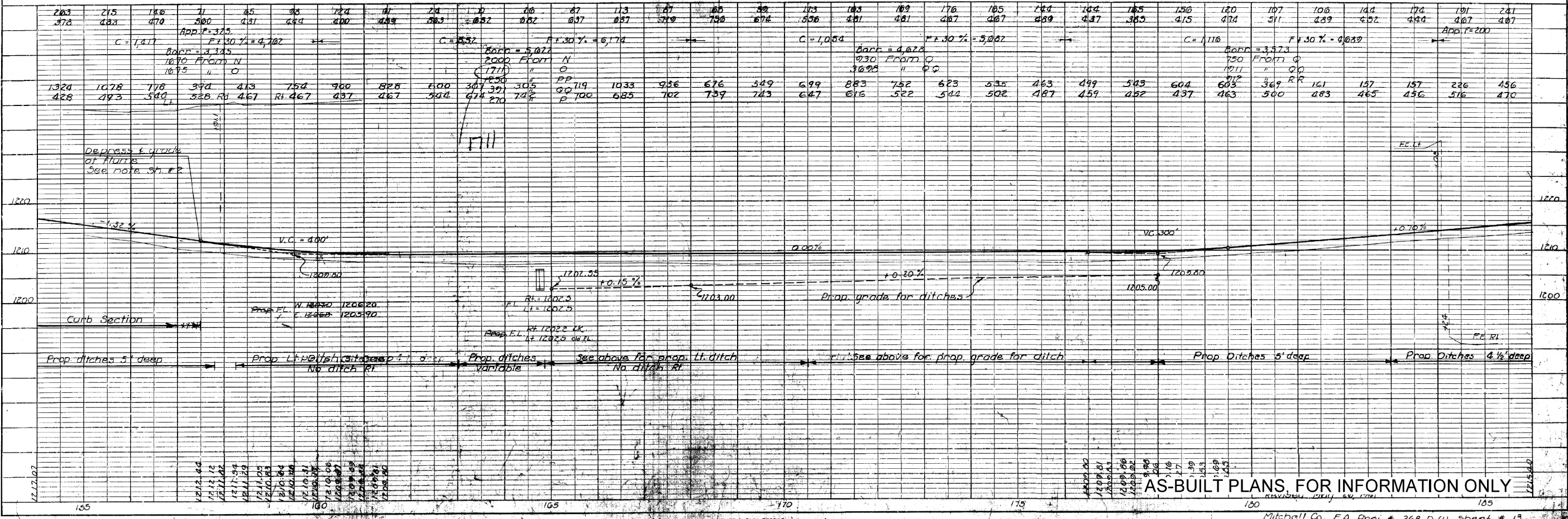
Mitchell Co F.A. Proj. # 368 D (1) Sheet No. 12

ROAD DIST. NO.	STATE	F.A. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOT. SHEETS
5	IOWA	368 D (1)		13	49

PLAN	DATE
BY: [Blank]	[Blank]
DATE: [Blank]	[Blank]
BY: [Blank]	[Blank]
DATE: [Blank]	[Blank]
BY: [Blank]	[Blank]
DATE: [Blank]	[Blank]



Bench Marks: Bridge
 # 14 Sta 157+58 Spikes in Brace Post at 304' Gap of Intersection with Rt. 120 Lt. Elev. 1209.56
 # 15 Sta 162+74.1 Spikes on 30' Handrail of Twin 8x4' Conc. Box Culv. 24' Rt. Elev. 1208.02
 # 16 Sta 157+58 Spikes in Brace Post in Fence Line N.E.S. Elev. 1208.56



PROFILE	DATE
BY: [Blank]	[Blank]
DATE: [Blank]	[Blank]
BY: [Blank]	[Blank]
DATE: [Blank]	[Blank]
BY: [Blank]	[Blank]
DATE: [Blank]	[Blank]

AS-BUILT PLANS, FOR INFORMATION ONLY

ESTAB. WIDTH OF ROW 66 FT.

ROCK TWP T.08 N.R.18W

ROAD NO.	STATE	F.A. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOT. SHEETS
5	IOWA	368 D (1)		14	49

ARTHUR T. ALTICK & DELL J. ALTICK See Sheet 15

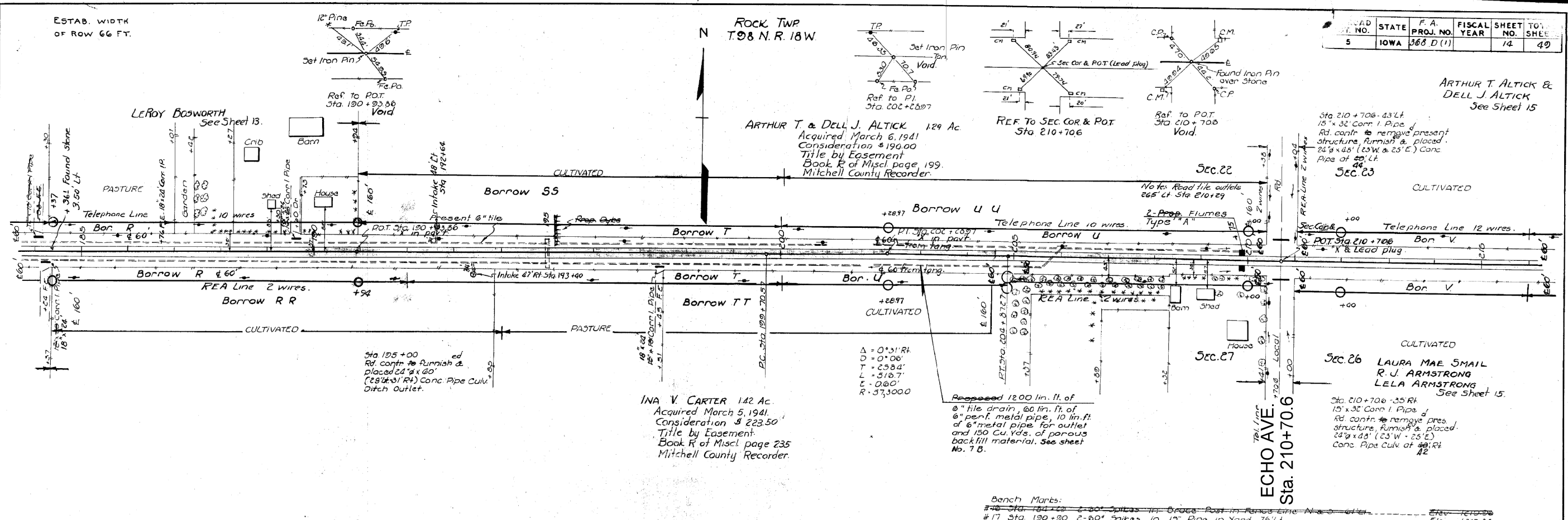
ARTHUR T. & DELL J. ALTICK 1.29 Ac
Acquired March 6, 1941
Consideration \$190.00
Title by Easement
Book R of Misc. page 199.
Mitchell County Recorder.

INA V. CARTER 1.42 Ac
Acquired March 5, 1941
Consideration \$223.50
Title by Easement
Book R of Misc. page 235
Mitchell County Recorder.

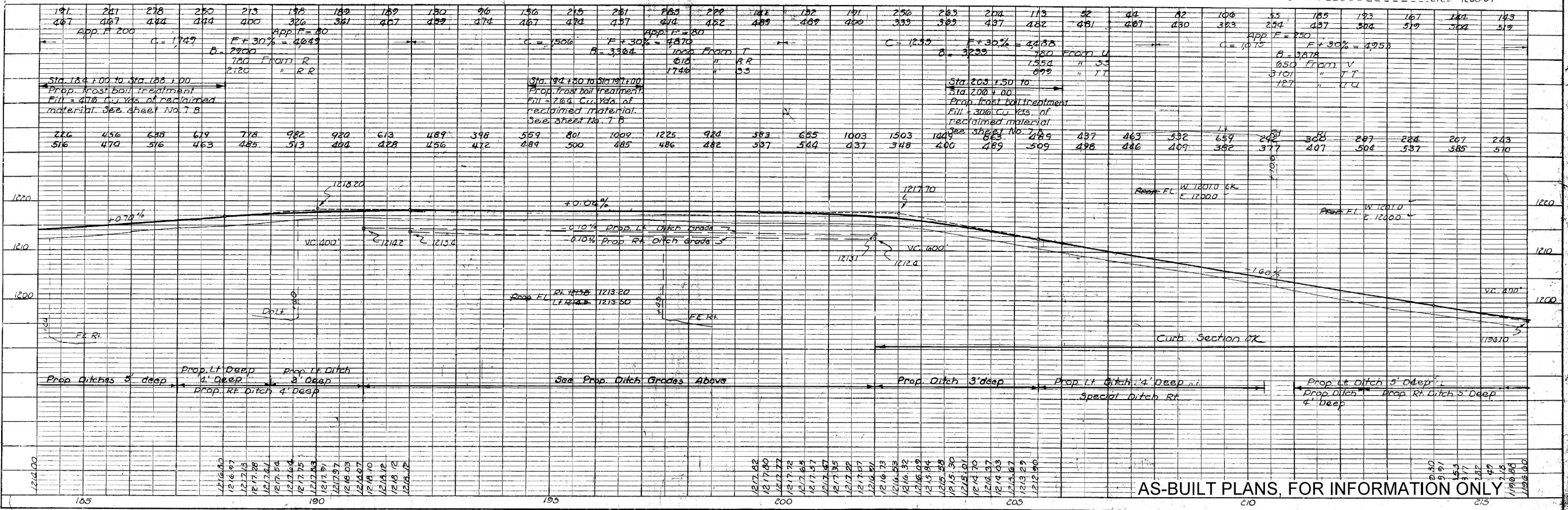
Sec. 26 LAURA MAE SMAIL R. J. ARMSTRONG LELA ARMSTRONG See Sheet 15.

DATE	BY	REVISION

DATE	BY	REVISION



Bench Marks:
#16 Sta. 184+00 2-60" Spikes in Grace Post in Range Line N. & S. of Rd. Elev. 1210.00
#17 Sta. 190+00 2-60" Spikes in 15" Pine in Yard 76' Lt. Elev. 1217.05
#18 Sta. 209+00 2-60" Spikes in 30" Maple in Farm Yard 77' Rt. Elev. 1205.07



AS-BUILT PLANS, FOR INFORMATION ONLY

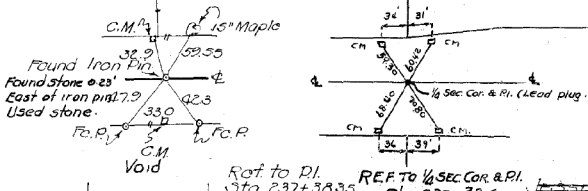
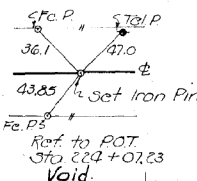
PLATE 1-PLAN-PROFILE O.P.R. & R.E. STANDARD

Mitchell Co. F.A. Proj. No. 368 D (1) Sheet No. 14

ESTAB. WIDTH
OF ROW 66 FT.

ROCK TWP
T. 28 N. R. 18 W.

ROAD NO.	STATE	F.A. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOT. SHEET
5	IOWA	368 D(1)		15	49



ARTHUR T &
DELL J. ALTICK 0.81 Acres
Acquired April 29, 1941
Consideration \$ 121.50
Title by Easement
Book R of Misc. page 197
Mitchell County Recorder.

KATHARINA POPP 0.71 Ac.
Acquired March 20, 1941
Consideration \$ 138.30
Title by Easement
Book R of Misc. page 151
Mitchell County Recorder.

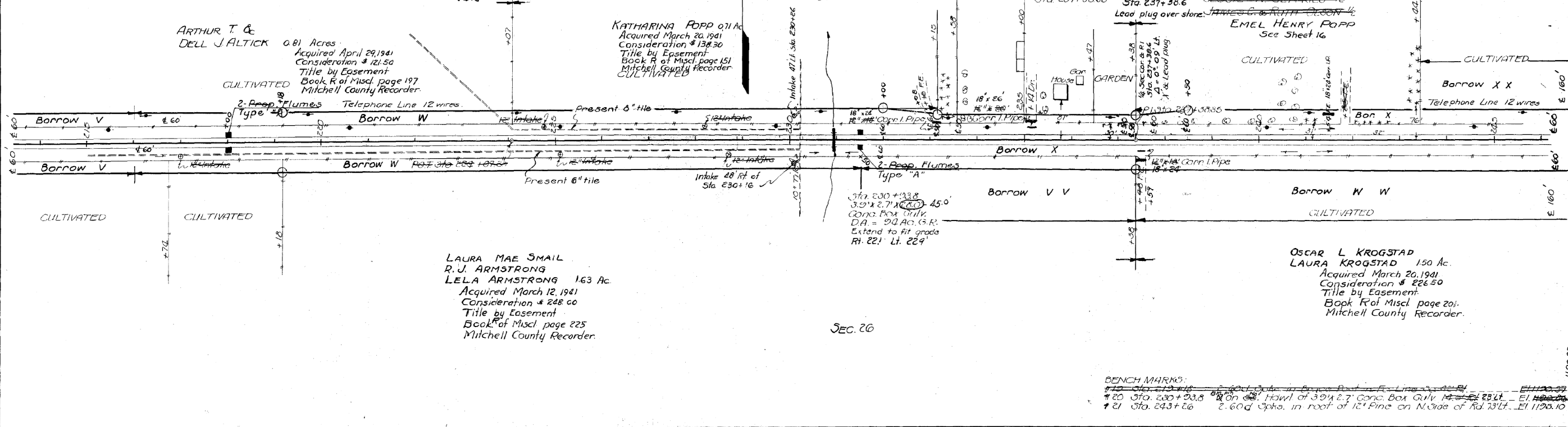
EMEL HENRY POPP
See Sheet 16

LAURA MAE SMAIL
R. J. ARMSTRONG
LELA ARMSTRONG 1.63 Ac.
Acquired March 12, 1941
Consideration \$ 248.00
Title by Easement
Book of Misc. page 225
Mitchell County Recorder.

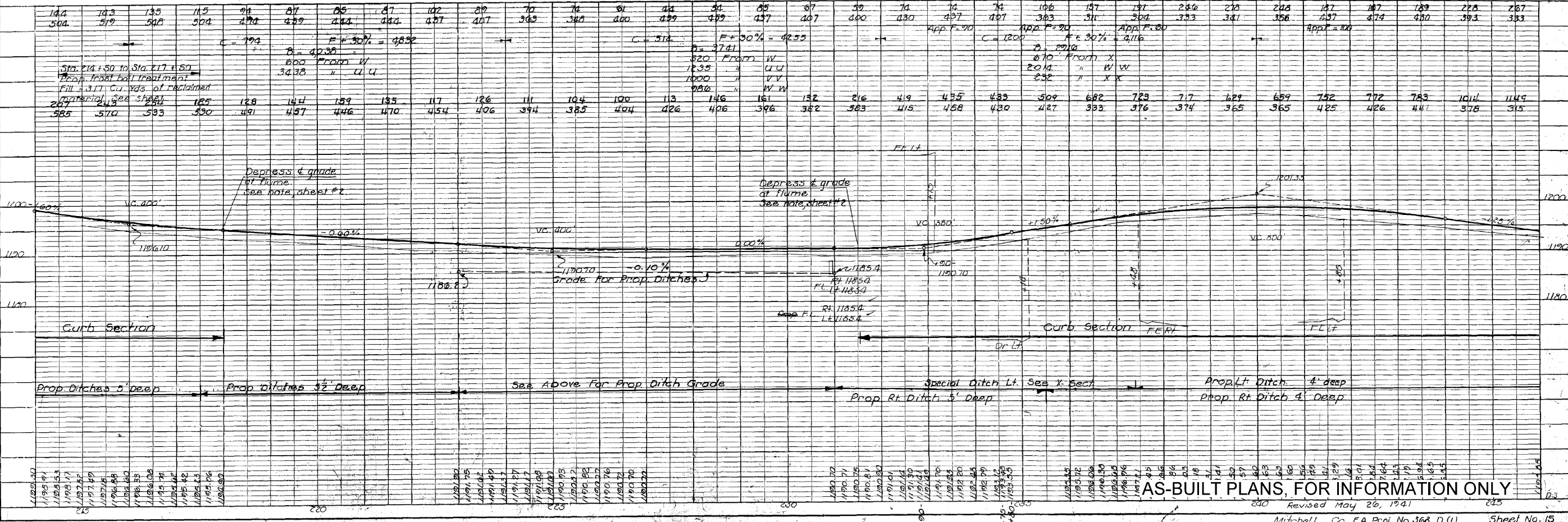
OSCAR L. KROGSTAD
LAURA KROGSTAD 1.50 Ac.
Acquired March 20, 1941
Consideration \$ 226.50
Title by Easement
Book of Misc. page 201
Mitchell County Recorder.

DATE	BY	REVISION
		PLAN SURVEYED
		NOTE BOOK ALIGNMENT CHECKED
		NO. OF WAY CHECKED

DATE	BY	REVISION
		PROFILE SURVEYED
		NOTE BOOK GRADES CHECKED
		NO. OF GRADES CHECKED
		STRUCTURE NOTED IN CYCLO.



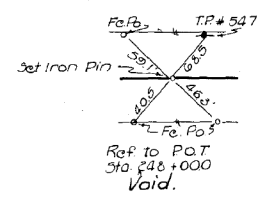
BENCH MARKS:
#19 Sta. 219+16 2.60' Spks. in Edge Road on E. Side of Rd. 15' Lt. - El. 1120.37
#20 Sta. 230+23.8 6.5' on 38' Haul of 3 3/4" x 2 1/2" Conc. Box Gully on E. Side of Rd. 15' Lt. - El. 1120.26
#21 Sta. 243+26 2.60' Spks. in roof of 12" Pine on N. Side of Rd. 15' Lt. - El. 1125.10



AS-BUILT PLANS, FOR INFORMATION ONLY

Revised May 26, 1941
Mitchell Co. F.A. Proj. No. 368 D(1) Sheet No. 15

ESTAB. WIDTH OF ROW 66 FT.



ROCK TWP
T. 28 N. R. 18 W.

SAD NO.	STATE	FA PROJ. NO.	FISCAL YEAR	SHEET NO.	TOT. SHEETS
5	IOWA	368 D(1)		16	49

EMEL HENRY POPP 1.75 Ac.
Acquired March 20, 1941
Consideration \$221.00
Title by Easement

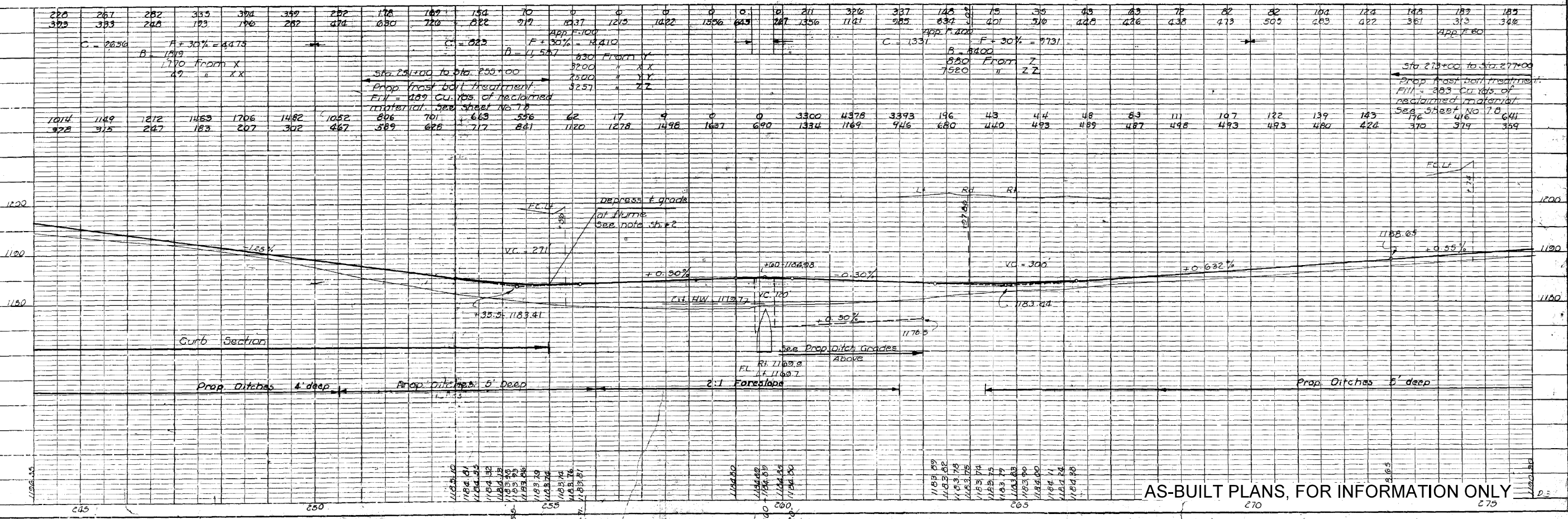
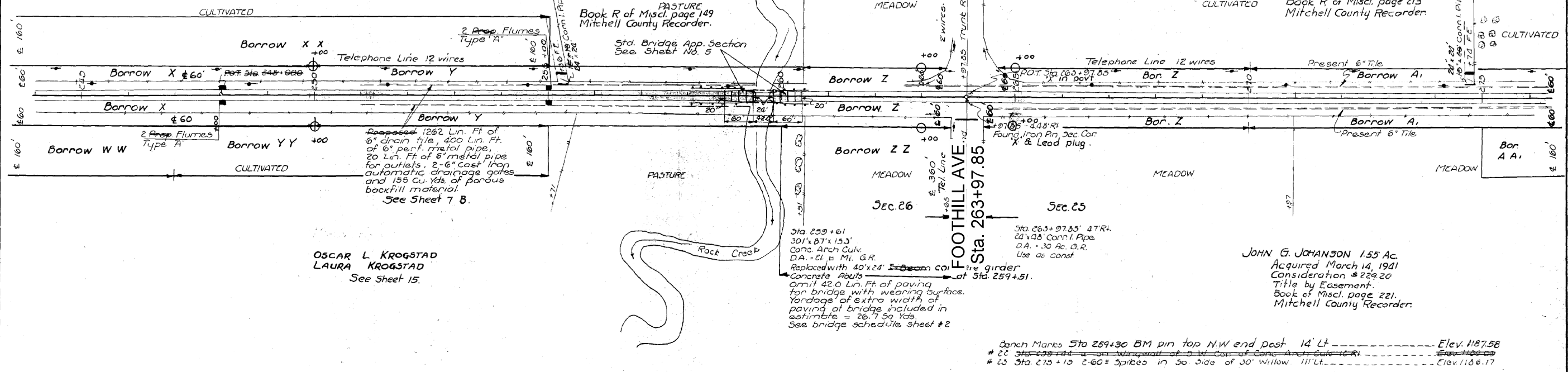
JANE HOVELSON ETAL (ESTATE) 164 Ac.
Acquired March 24, 1941
Consideration \$263.60
Title by Easement
Book R of Misc. page 213
Mitchell County Recorder.

OSCAR L. KROGSTAD
LAURA KROGSTAD
See Sheet 15.

JOHN G. JOHANSON 1.55 Ac.
Acquired March 14, 1941
Consideration \$229.20
Title by Easement.
Book of Misc. page 221.
Mitchell County Recorder.

DATE: _____ BY: _____
PLAN: SURVEYED, GRADES CHECKED, AS-BUILT CHECKED, RT. OF WAY CHECKED.
NO. _____

DATE: _____ BY: _____
PROFILE: SURVEYED, GRADES CHECKED, AS-BUILT CHECKED, PRODUCTION OF STAKES (CH/MS).
NO. _____



AS-BUILT PLANS, FOR INFORMATION ONLY

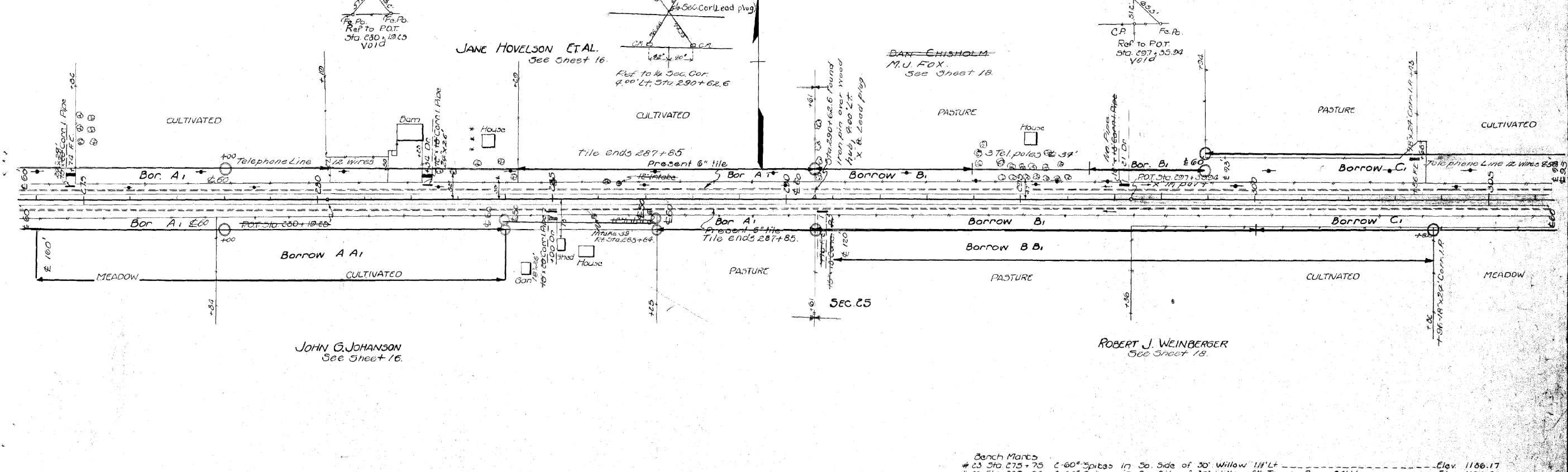
PLATE 1 - PLAN - PROFILE R. A. R. STANBARD
KELP & ESSER CO., NEW YORK.

Mitchell Co. FA Proj # 368 D (1) Sheet # 16

ROAD DIST. NO.	STATE	F. A. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IOWA	368 D (1)		17	49

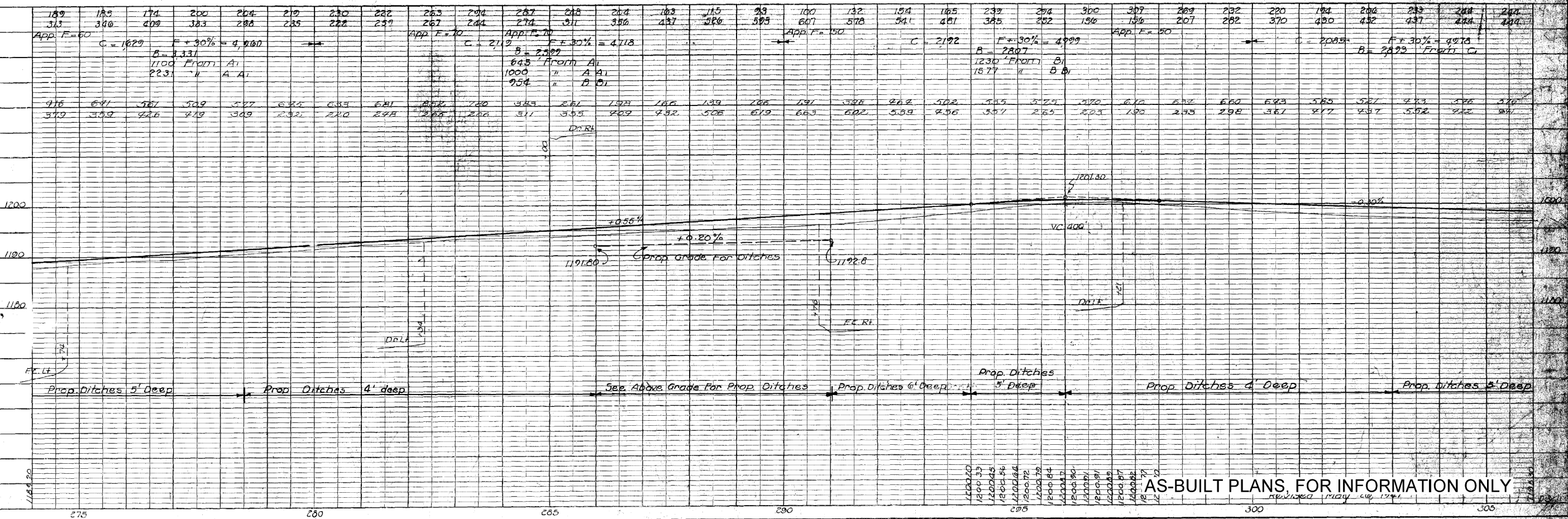
ESTAB WIDTH OF ROW 66 FT.

ROCK TWP
T. 28 N. R. 18 W.
SEC. 24



DATE	
BY	
REVISION	
NO.	
DESCRIPTION	

DATE	
BY	
REVISION	
NO.	
DESCRIPTION	



Bench Marks
25 Sta 275+75 C-60' Spikes in So. Side of 30' Willow 11/1' Lt. Elev. 1186.17
24 Sta 289+66 C-60' Spikes in So. Side of 30' Willow 4th Tree in Row 9' Lt. Elev. 1194.89

AS-BUILT PLANS, FOR INFORMATION ONLY

511 TRAVEL RESTRICTIONS

Route	Direction	County	Location Description	Feature Crossed	Object Type	Maint. Bridge No., Structure ID, or FHWA No.	Type of Restriction	Existing Measurement	Construction Measurement	Construction Measurement as Signed	Projected As Built Measurement	Remarks
			Not travel restrictions anticipated.									

111-01
04-17-12

COORDINATED OPERATIONS

Other work in progress during the same period of time will include the construction of the projects listed. Coordinate operations with those of other contractors working within the same area.

Project	Type of Work
BRFN-009-6(70)--39-66	Bridge Deck Overlay

108-23A
08-01-08

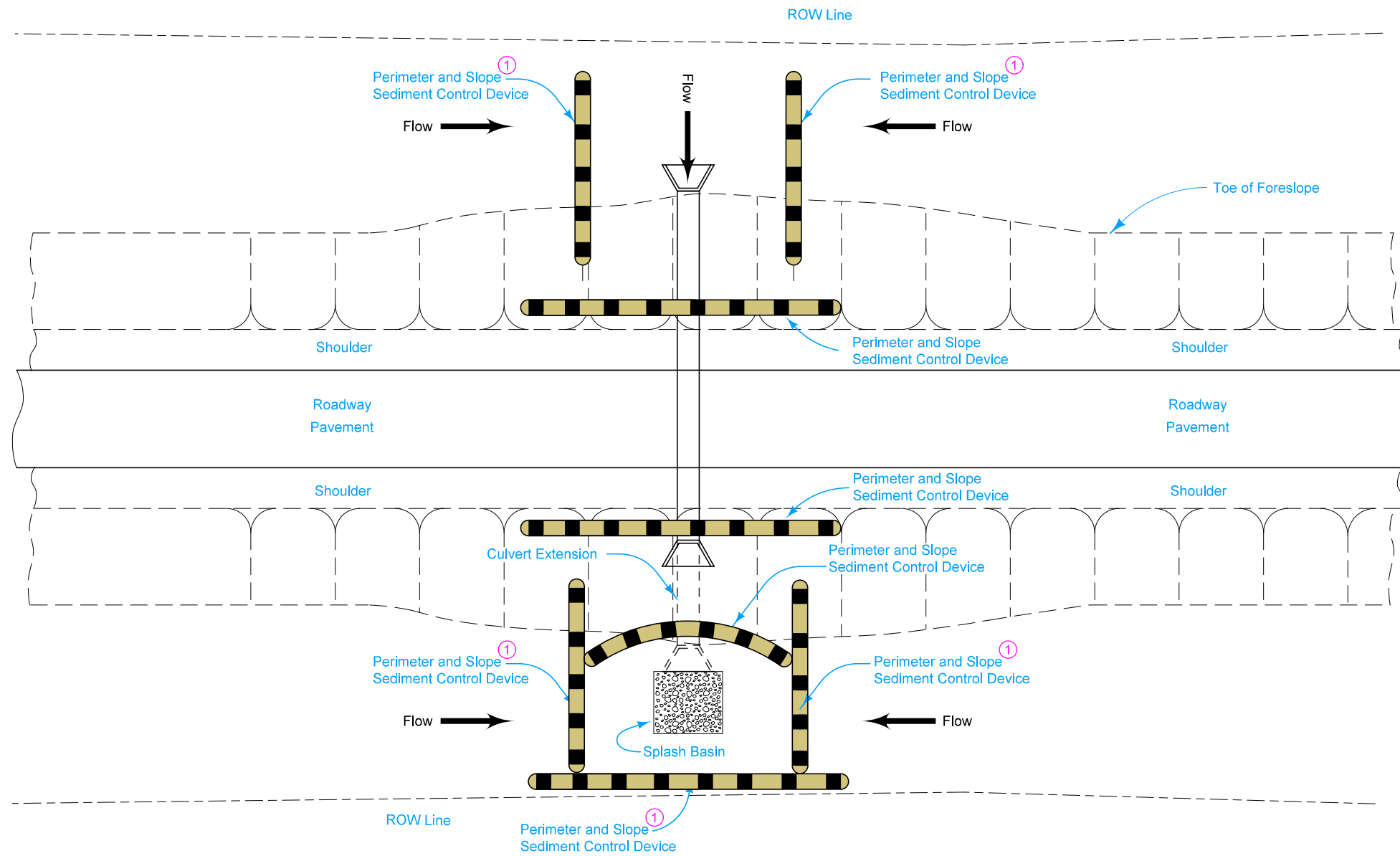
TRAFFIC CONTROL PLAN

- 1) Thru traffic on IA 9 shall remain open at all times during construction.
- 2) The contractor shall coordinate with any other projects in the area.

Add Project Number for pipe replacement project

See Standard Road Plans [EC-201](#), [EC-204](#), and [EC-301](#) for installation details.

① Silt Fence for Ditch Check may be substituted at no additional cost to the Contracting Authority at the discretion of the Engineer.



Possible Contract Items:
 Perimeter and Slope Sediment Control Device
 Erosion Stone
 Class E Revetment
 Engineering Fabric

Possible Tabulations:
 100-19
 100-23
 100-34

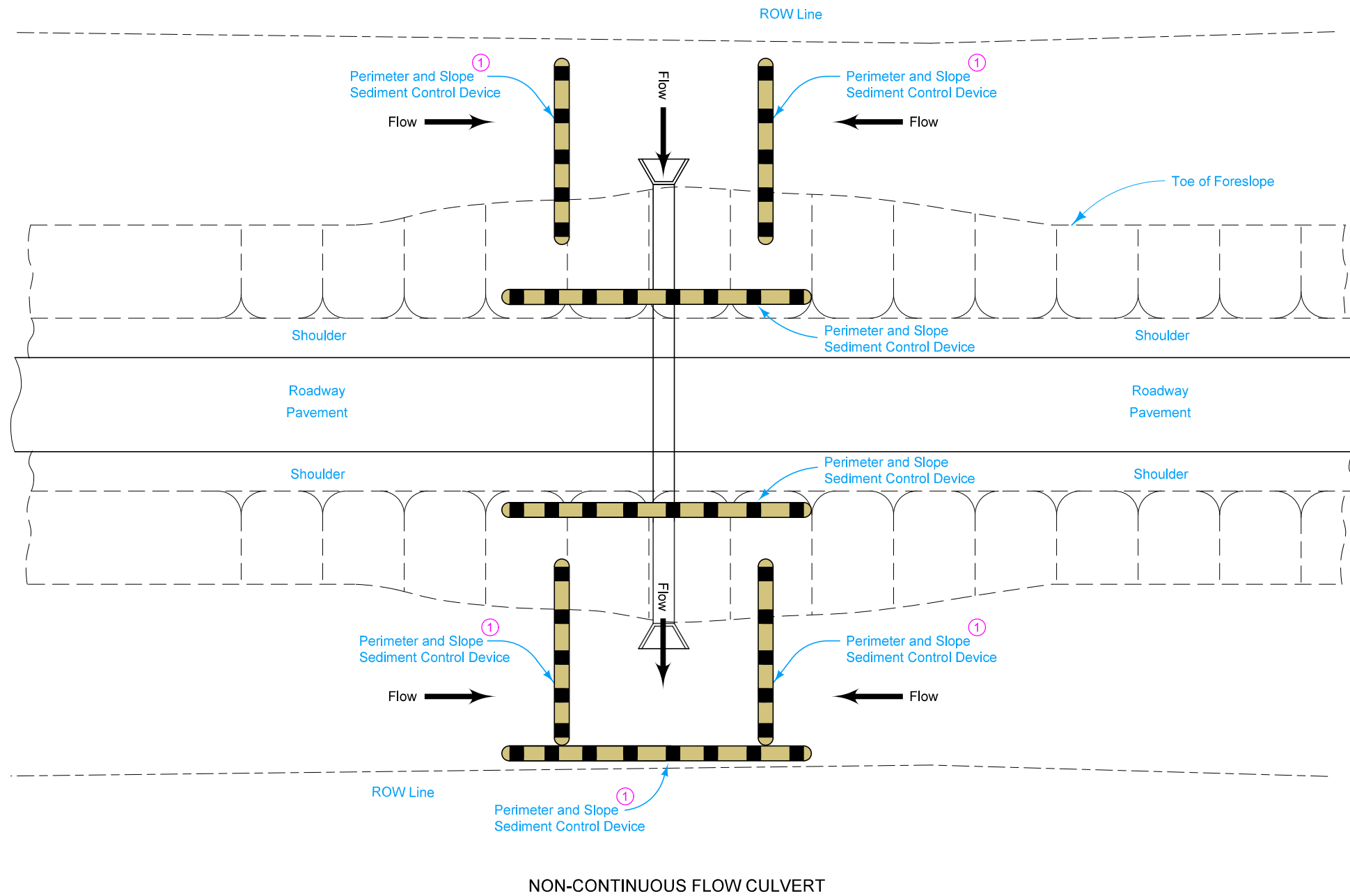
	REVISION	
	NEW	10-15-19
ROAD DESIGN DETAIL	570-11	
	SHEET 1 of 1	

REVISIONS: New. _____

**TEMPORARY SEDIMENT CONTROL
 FOR CULVERT EXTENSION WITH
 EXPOSED SOIL**

See Standard Road Plans EC-201 and EC-204 for installation details.

① Silt Fence for Ditch Check may be substituted at no additional cost to the Contracting Authority at the discretion of the Engineer.



Possible Contract Items:
Perimeter and Slope Sediment Control Device

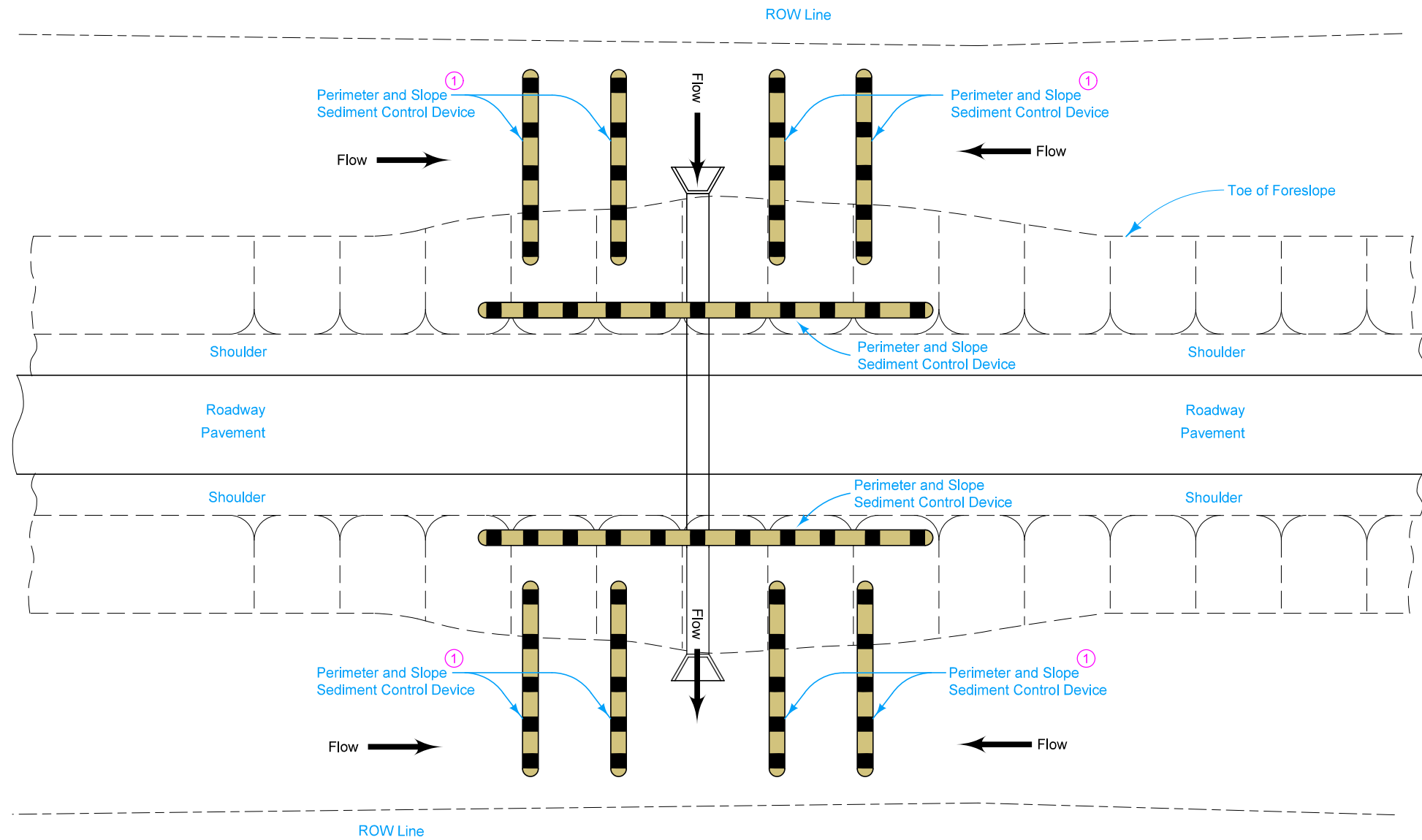
Possible Tabulations:
100-19
100-34

	REVISION	
	NEW	10-15-19
ROAD DESIGN DETAIL	570-12	
	SHEET 1 of 2	

REVISIONS: New

**TEMPORARY SEDIMENT CONTROL
FOR SHOULDER WIDENING WITH
EXPOSED SOIL**

① Silt Fence for Ditch Check may be substituted at no additional cost to the Contracting Authority at the discretion of the Engineer.



CONTINUOUS FLOW CULVERT

ROAD DESIGN DETAIL	REVISION	
	NEW	10-15-19
	570-12	
SHEET 2 of 2		

REVISIONS: New

**TEMPORARY SEDIMENT CONTROL
FOR SHOULDER WIDENING WITH
EXPOSED SOIL**