FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	I-70-7(10)187	

G13

I-70-7(10)187

GUERNSEY COUNTY
GUE-40-17.37

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JUL 25 1965
JUL 25 1965

"LIMITED ACCESS"

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STATE OF OHIO
DEPARTMENT OF HIGHWAYS
GUE-40-17.37
VILLAGE OF OLD WASHINGTON
WILLS AND OXFORD TOWNSHIPS
GUERNSEY COUNTY

CONVENTIONAL SIGNS

Limited Access	LA
Center Line	
Corporation Line	
Existing R/W	
Proposed R/W	R/W
Temporary Easement	
Property Line	PL
Fence Line	
Limited Access & Right of Way	LAR/W
Gas Line	G G
Existing Sewer	
Proposed Sewer	

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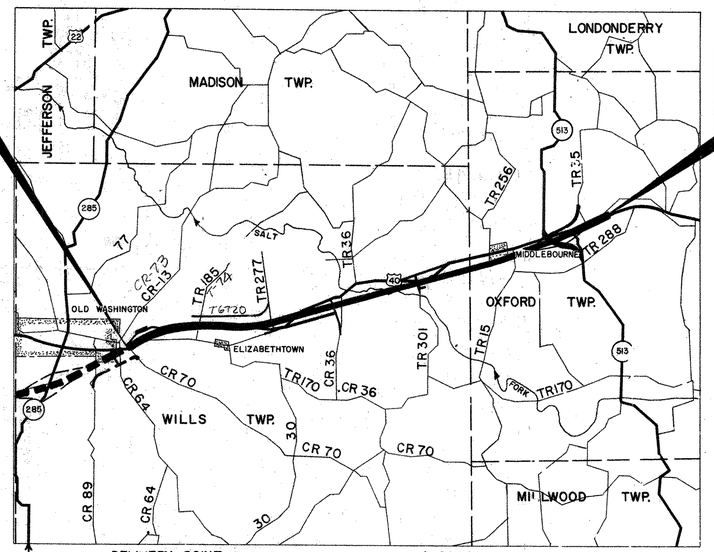
Proposed Manholes	●	Existing Catch Basins	□
		Proposed Catch Basins	■
		Catch Basins Abandoned	⊠
		Catch Basins Removed	⊠
Power Pole	℘	Telephone Pole	℘
		Trees	

Existing Guard Rail
Proposed Guard Rail

BEGIN PROJECT
I-70-7(10)187
STA. 641+00
S.L.M. 17.37

END PROJECT
I-70-7(10)187
STA. 415+00
S.L.M. 23.88



DELIVERY POINT
LORE CITY
BALTIMORE AND OHIO R.R.

LORE CITY
1.5 MILES

AVERAGE HAUL- 6.8 MI.

LOCATION MAP

SCALE OF MILES 0 1 2 3

PORTION TO BE IMPROVED
STATE HIGHWAYS
OTHER HIGHWAYS

SCALE

PLAN AND PROFILE	0'	50'	100'
PAVEMENT DETAILS	0'	20'	40'
CROSS SECTIONS	0'	10'	20'

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Sheet Nos. 440, 442, 488 & 489 Omitted

LINE DATA

Begin Project	Sta. 641+00.00	
Station Equation	Sta. 657+59.78	Back=
	Sta. 87+82.74	Ahead
End Project	Sta. 415+00.00	
Net Length of Project	34,377.04 L.F. = 6.510 Mi.	
Begin Work	Sta. 637+28.00	
Station Equation	Sta. 657+59.78	Back=
	Sta. 87+82.74	Ahead
End Work	Sta. 416+52.50	
Main Line Length of Work	34,901.54 L.F.	

WORK ADDITIONS

Twp.Rd. 185	Sta. 46+66.91	to 55+50.00	=	883.09 L.F.
Co.Rd. 36 (Reloc.)	Sta. 43+25.00	to 49+81.36	=	656.36 L.F.
Co.Rd. 301 (Reloc.)	Sta. 39+35.00	to 51+65.75	=	1230.75 L.F.
S.R. 513 (Reloc.)	Sta. 17+50.00	to 58+90.00	=	4140.00 L.F.
Twp. Rd. 35 (Reloc.)	Sta. 57+31.50	to 65+50.00	=	818.50 L.F.
Length of Work Additions			=	7728.70 L.F.
Total Length of Work			=	42,630.24 L.F. = 8.073 Mi.

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STANDARD DRAWINGS

NUMBER	DATE	NUMBER	DATE
B-T-71 R.	3-2-53	I -12	2-1-63
B-T-70- 71	11-15-60	I-15 Nº 1	11-15-60
DR-1	1-3-55	I-15 Nº 2	11-15-60
		I-15 Nº 2-A	8-17-60
G 7.07	6-1-56	I-15 Nº 5-B	2-1-63
HW-A&B	7-15-57	I-15 Nº 6	2-1-63
HWC	7-15-57	I-21-23	8-1-56
HW-E	2-1-63	L-1	4-1-50
		L-3	4-1-50
I-1	11-15-60	L-3-A	4-1-50
I-B, B2-2 A&B	2-1-63	L-J-Nº 1	7-1-55
I-B, B 2-3 & 2-4	2-1-63	T-J	9-12-60
I-8 CB Nº 4	2-1-63	SP-53	6-30-61
I-8 CB Nº 5	2-1-63	RI-1	7-15-58
I-8 CB Nº 6	2-1-63	T-35	1-2-56
		L-2	4-1-50
		F-2	2-1-63
I-8 , I Nº 2	2-1-63		
		RRA Nº 1	2-1-63
I-8 MH Nº 1	2-1-63	RRA Nº 2	1-20-58
I-8 MH Nº 2	2-1-63	RRA Nº 4-C	10-15-62
I-8 MH I-A	2-1-63	RRA Nº 5	11-3-58
FAC I-1	3-8-63	RRA No. 4-B	1-20-58
FAC I-2	3-8-63	RRA No. 4-A	1-20-58

STANDARD DRAWINGS - CONTINUED

NUMBER	DATE	NUMBER	DATE
AR- 1- 57	4-2-62		
CS- 2- 54 SH. 1 & 2	2-2-59		
AS- 1- 54	7-5-62		
CSB-2-56			
SH. 2 & 3	2-2-59		
RB- 1- 55	2-2-59		

SUPPLEMENTAL SPECIFICATIONS

NUMBER		DATE	NUMBER		DATE
CE-101.04		5-22-56	M-107.18	R.	4-3-61
			5-101		7-12-62
			M-106.11		1-26-61
I-125	R.	6-26-61			
B-112		8-21-61			
I-127	R.	1-15-62			
L-120	R.	1-2-62			

Sheets 445, 446, 451, 467 and 472 revised 1-15-64 C.E.H.

H-7

FILE NUMBER	GUERNSEY COUNTY	GUE-40-17.37
	DATE OF LETTING	19
	CONTRACT NUMBER	

1963 SPECIFICATIONS

This improvement is especially designed for thru traffic and has been declared a Limited Access Highway or Freeway by action of the Director of Highways in accordance with the provisions of Sec. 5511.02 of the Revised Code of Ohio.

The Standard Specifications of the State of Ohio, Department of Highways, including changes and supplemental specifications listed in the proposal, shall govern this improvement.

The Right of Way for this improvement will be provided by the State of Ohio.

I hereby approve these plans and declare that the making of this improvement will not require the closing of the highway to traffic, except as noted in the General Notes, and that provisions for the maintenance and safety of traffic will be as set forth on these plans and estimates.

Approved James T. Hodge
Date 9-11-63 Division Deputy Director

Approved D. H. Overman
Date 10-1-63 Engineer of Bridges

Approved R. V. Ricketts
Date 10-7-63 Engineer of Location & Design

Approved R. E. Shultz
Date 10-7-63 Deputy Director of Design & Construction

Approved T. A. Board
Date 10-3-63 Deputy Director of Right of Way

Approved F. W. Wilson
Date 10-11-63 Deputy Director of Planning & Programming

Approved
Date First Assistant Director

Approved R. E. Masheter
Date 10-11-63 Director of Highways

PLANS PREPARED BY
ALDEN E. STILLSON & ASSOCIATES, Limited
CONSULTING ENGINEERS
245 NORTH HIGH STREET
COLUMBUS, OHIO
FOR
STATE OF OHIO

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
APPROVED

MICROFILMED
JAN 7 1969
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DIVISION ENGINEER DATE

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

2 / 638

GUERNSEY COUNTY
GUE - 40 - 17.37

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JUL 25 1985

N

I-70-7(10)187
SLM 17.37
BEGIN PROJECT STA 641+00
BEGIN WORK 83+28
EQUATION Back 678+82.74 Ahead 651+52.74
52+53.96 T.R. 185 = 28+57.52 T.R. 277 = 8+57.52 S.R. "A"
STRUCTURE 4+85 SERVICE RD."A"
STRUCTURE 6+15 Service Rd "A"
STRUCTURE 8+10 Service Rd"A"
T.R. 185 (No Outlet)
WEST BOUND REST AREA
RAMP "E"
RAMP "F"
SERVICE ROAD "A"
T.R. 185
T.R. 277 RELOCATION
TR-6720
STRUCTURE GUE-40-1796
STRUCTURE GUE-40-1820
STRUCTURE GUE-40-1784
STRUCTURE GUE-40-1754
STRUCTURE 49+50 T.R.185
STRUCTURE GUE-40-1850
OLD WASHINGTON
ELIZABETHTOWN
N 68° 42' 40" E
S 80° 42' 57" E 150
50+73.90 T.R. 185 = 128+54.85 U.S. 40
BEGIN WORK 46+66.91
CURVE DATA
PI = 103+68.95
Δ = 30° 34' 23" Rt
D = 0° 59' 14"
R = 5803.58
L = 3096.79
T = 1586.21
E = 212.87
CURVE DATA
PI = 150+56.95
Δ = 22° 51' 52" Lt
D = 1° 30'
R = 3819.72
Ls = 200'
Lc = 1324.30
Ts = 872.51
Es = 77.76
U-TURN MEDIAN OPENING 221+26
END WORK 55+50
STRUCTURE GUE-40-1845
BEGIN WORK 28+85.52
STRUCTURE 63+50 TR. 277
T.R. 277 (No Outlet)
STRUCTURE GUE-40-1880
N 76° E
BEGIN WORK 165+00
STRUCTURE GUE-40-1939
RAMP "G"
CR 1 CONNECTION
END WORK 172+59
STRUCTURE GUE-40-1950
STRUCTURE GUE-40-2043
STRUCTURE 49+57.5 C.R.36
STRUCTURE GUE-40-1973
SERVICE ROAD "B"
STRUCTURE 108+00 C.R.1 Rebc
C.R.1 RELOCATION No.1
END WORK 13+40
RAMP "H"
BEGIN WORK 4+20
EAST BOUND REST AREA
END WORK 85+75
END WORK 29+81.36
T.R. 36
T.R. 289 (No Outlet)
BEGIN WORK 65+10
END WORK 130+99
CURVE DATA
P.I. = 369+27.24
Δ = 17° 38' 43" Lt
Dc = 0° 30'
R = 11459.16
T = 1778.61
L = 3529.06
E = 137.21
T.R. 256
T.R. 277
T.R. 16 (No Outlet)
END WORK 51+65.75
STRUCTURE 50+37.5 T.R. 644
C.R. 1 RELOCATION No. 2
89+75 C.R. 1 = 51+94 C.R. 301
BEGIN WORK 74+50
STRUCTURE 78+19 C.R.1 Rel.2
STRUCTURE GUE-40-2018
STRUCTURE GUE-40-2151
T.R. 643 (No Outlet)
T.R. 644 (No Outlet)
END WORK 113+50
STRUCTURE 51+55 T.R. 643
STRUCTURE 107+82 CR1. Reloc2
N 82° 01' 39" E
5865
N 78° 40' 39" E 200
46+00.20 C.R. 36 = 131+11.85 C.R. 1
C.R. 301 RELOCATION
50+00.00 C.R 301 = 289+79.00 BEGIN WORK 39+35
SALT FORK RELOCATION
C.R. 36 RELOCATION
STRUCTURE 45+60.5 C.R.36
STRUCTURE 46+56.6 C.R.36
STRUCTURE GUE-40-2039
48+00.63 C.R. 36 = 231+28.11 U.S. 40
END WORK 94+50
STRUCTURE GUE-40-2190
T.R. 289 (No Outlet)
T.R. 289 CONNECTION
STRUCTURE 91+90 T.R. 289
BEGIN WORK 89+83
89+75 T.R. 289 = 47+50 C.R. 301
MIDDLEBOURNE
BEG. WORK 29+00
END WORK 416+52.5
End project 415+00
I-70-7(10)187
SLM 23.88
END WORK 65+50
STRUCTURE 56+00 TR 35
T.R. 35 RELOCATION
STRUCTURE 44+25 T.R.35
STRUCTURE 31+00 T.R. 35
RAMP "A"
RAMP "B"
RAMP "C"
RAMP "D"
END WORK 58+90
STRUCTURE GUE-40-2328
31+35.40 T.R. 35 = 50+24.90 S.R.513 Reloc.
STRUCTURE GUE-40-2369
STRUCTURE GUE-40-2340
STRUCTURE GUE-40-2231
S.R. 513 RELOCATION
N 64° 22' 56" E
5650
T.R. 288
382+09.80 U.S. 40 = 46+97.58 S.R. 513
BEGIN WORK 17+50
STRUCTURE 18+42 Lt. S.R. 513
STRUCTURE 36+59 S.R. 513
STRUCTURE 43+25 S.R. 513
S.R. 513 INTERCHANGE
CURVE DATA
P.I. = 328+34.74
Δ = 3° 21' 00" Rt
D = 0° 15'
R = 22918.31
T = 670.19
L = 1340.00
E = 9.80
U-TURN MEDIAN OPENING 345+72
NO FEDERAL PARTICIPATION
S.R. 513
Sta. 17+50 to Sta. 42+50
Sta. 50+80 to Sta. 58+90
T.R. 28
SALT FORK
T.R. 170
C.R. 54
C.R. 89
C.R. 64
C.R. 70
C.R. 36
T.R. 15
HAWKINS RUN
COON RUN
C.R. 13
SALT FORK
T.R. 185 (No Outlet)
T.R. 277 (No Outlet)
T.R. 289 (No Outlet)
T.R. 256
T.R. 288
T.R. 289

LEGEND

- Proposed Project
- Adjacent Projects
- Existing Pavement to be salvaged

TRAFFIC

- 5865 — 1975 Average Daily Traffic (One Way) adjusted to equivalent Pass. Cars *
- 30 — 1975 Average Daily Traffic (Two Way)
- Directional Design Hourly Volume (Not Shown) = 1975 ADT x 12 % (Hourly) x 60 % (Directional)

* 1 Commercial = 3 Pass. Cars

SCALE IN MILES 0 1/4 1/2

SCHEMATIC PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

3
638

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JUL 25 1985

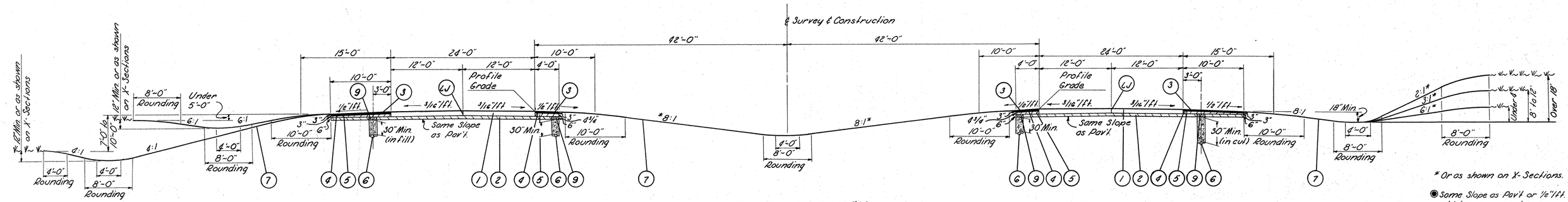
GUERNSEY COUNTY
GUE-90-17.37

TYPICAL SECTIONS

TYPE T-71

Design Speed 70 M.P.H.

CODE 7221

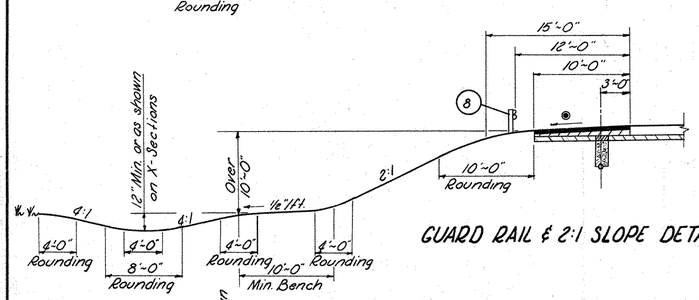


* Or as shown on X-Sections.

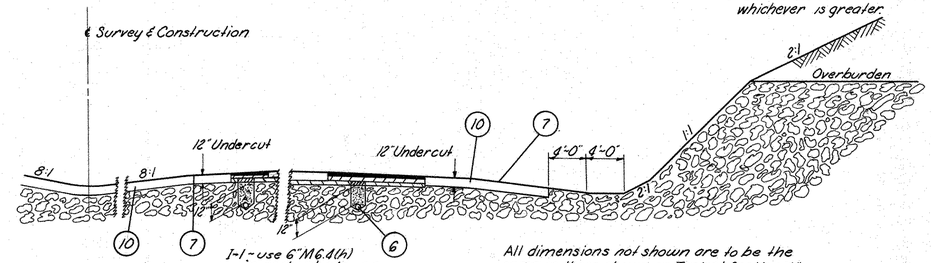
◉ Same Slope as Pav't or 1/2"/Ft. whichever is greater.

TYPICAL SECTION "A" NORMAL SECTION

641+00 to 657+59.78 (Back = 87+82.74 Ahead)
141+00 to 141+84.44
159+08.74 to 230+50.36
232+05.86 to 251+22.25
252+77.75 to 351+48.63
386+77.69 to 400+75.00



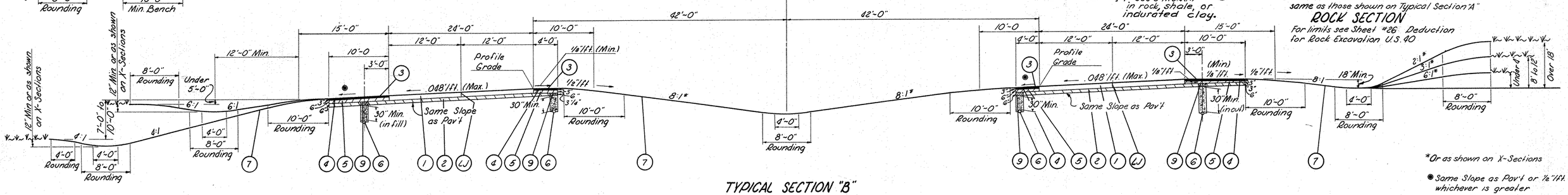
GUARD RAIL & 2:1 SLOPE DETAIL



All dimensions not shown are to be the same as those shown on Typical Section "A"

ROCK SECTION

For limits see Sheet #26 Deduction for Rock Excavation U.S. 90



* Or as shown on X-Sections

◉ Same Slope as Pav't or 1/2"/Ft. whichever is greater

TYPICAL SECTION "B" SUPERELEVATED SECTION

87+82.74 to 92+25
141+84.44 to 159+08.74
351+48.63 to 386+77.69

ITEM		DESCRIPTION
(1)	T-71	9" Reinforced Portland Cement Concrete Pavement.
(2)	I-22	6" (Unless otherwise shown) Subbase, Grading "A" or "B", modified as per plan
(3)	T-31	Bituminous Surface Treatment using 0.008 Cu. Yd. of No. 6 Aggregate and 0.25 Gal. Bituminous Material Per Sq. Yd. (See Note in Proposal)
(4)	■ B-21	3" Waterproofed Aggregate Base Course (See Notes 1 & 4)
(5)	B-112	Porous Base Course
(6)	I-1	6" Pipe Class I-3
(7)	L-9	Seeding & Protecting
(8)	I-15	Guard Rail Steel Beam Standard Type (Deep)

ITEM	DESCRIPTION
(LJ)	Standard Longitudinal Joint
(9)	Remove Subbase to width of Item I-1 trench and replace with new Type 3 backfill material immediately prior to placing the Item B-112 Porous Base Course. Cost shall be included in price bid per lin. Ft. for Item I-1, 6" Class I-3 Pipe
(10)	ROCK Undercut and Earth Backfill.

~ NOTES ~

■ 1. Thickness shown is "designed" thickness as described in Section B-21.01.

2. See General Notes for Subgrade, Subbase & Ft. Underdrain construction sequence.

3. For details not shown on this sheet, see Standard Drawing No. RI-1.

4. Type "A" T-35 Material may be used in construction of B-21 course. (See Note in Proposal)

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

1/638

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JUL 25 1985

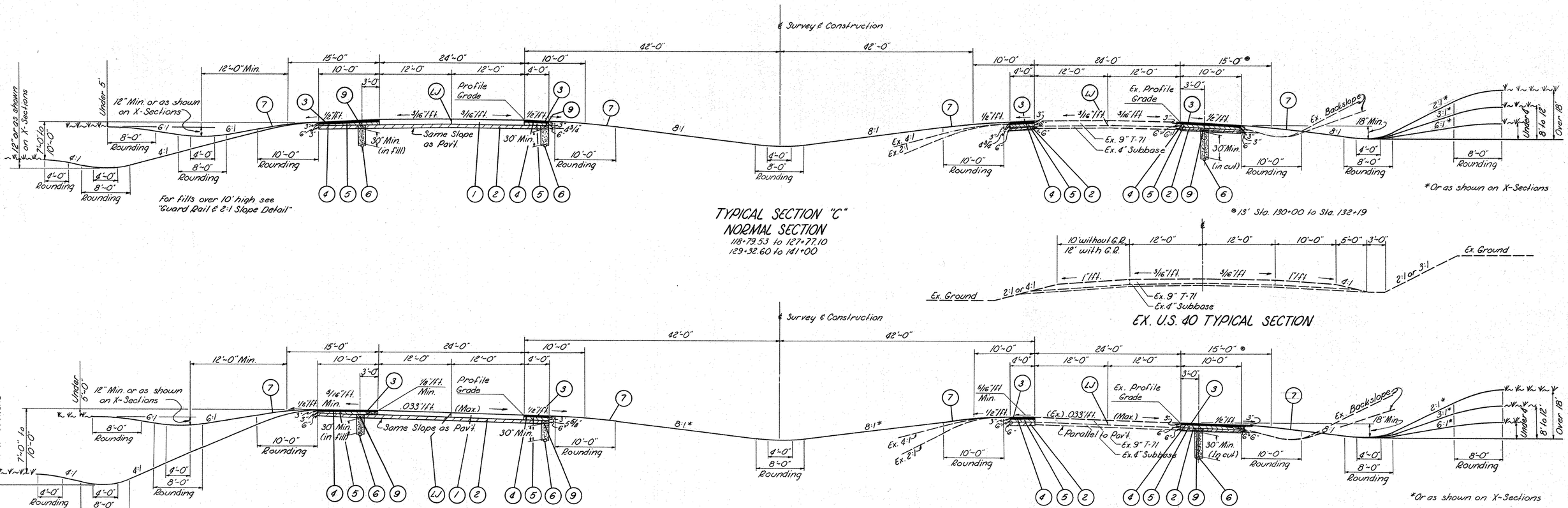
GUERNSEY COUNTY
GUE-40-17.37

TYPICAL SECTIONS

TYPE T-71

Design Speed 70 M.P.H.

CODE 7221



TYPICAL SECTION "C"
NORMAL SECTION
118+79.53 to 127+77.10
129+32.60 to 141+00

EX. U.S. 40 TYPICAL SECTION

TYPICAL SECTION "D"
SUPERELEVATED SECTION
92+25 to 118+79.53

® 13' Sta. 113+00 to Sta. 116+00 (See X-Sections for limits of Proposed 1½:1 Slopes on Ex. 2:1 Slopes)

ITEM	DESCRIPTION
(1) T-71	9" Reinforced Portland Cement Concrete Pavement.
(2) I-22	6" Subbase, Grading "A" or "B", Modified as per plan
(3) T-31	Bituminous Surface Treatment using 0.008 Cu. Yd. of No. 6 Aggregate and 0.25 Gal. Bituminous Material per Sq. Yd. (See Note in Proposal)
(4) ■ B-21	3" Waterproofed Aggregate Base Course. (See Notes 1 & 4)
(5) B-112	Porous Base Course.
(6) I-1	6" Pipe, Class I-3
(7) L-9	Seeding & Protecting.

ITEM	DESCRIPTION
(9)	Remove subbase for width of Item I-1 trench and replace with new Type 3 backfill material immediately prior to placing the Item B-112 Porous Base Course. Cost shall be included in price bid per lin. ft. for Item I-1, 6" Class I-3 Pipe
(LJ)	Standard Longitudinal Joint.

~ NOTES ~

■ 1. Thickness shown is "designed" thickness as described in Section B-21.01.

2. See General Notes for Subgrade, Subbase & I-1 Underdrain construction sequence.

3. For details not shown on this sheet see Standard Drawing No. RI-1.

4. Type "A" T-35 Material may be used in construction of B-21 Course. (See Note in Proposal)

TYPICAL SECTIONS ~ U.S. 40

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

5
638

MICROFILMED
JUL 25 1985

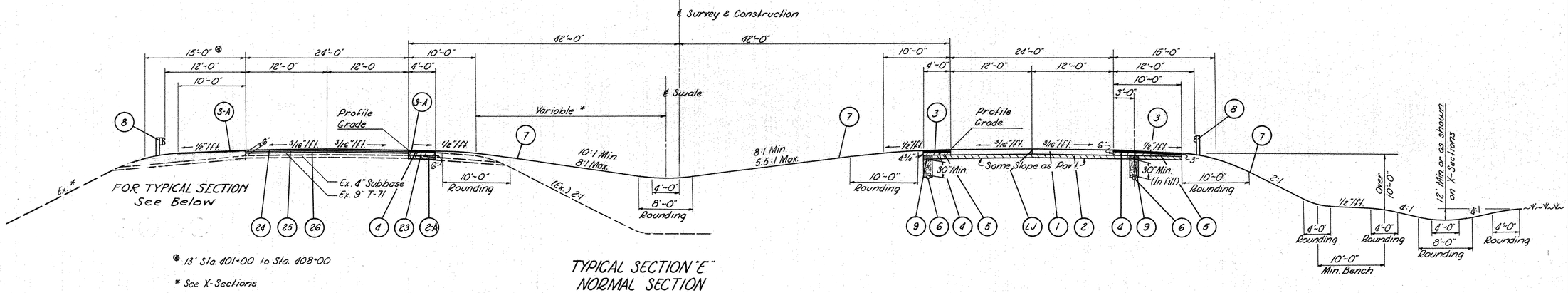
GUERNSEY COUNTY
GUE-40-17.37

TYPICAL SECTIONS

TYPE T-71 & T-35

Design Speed 70 M.P.H.

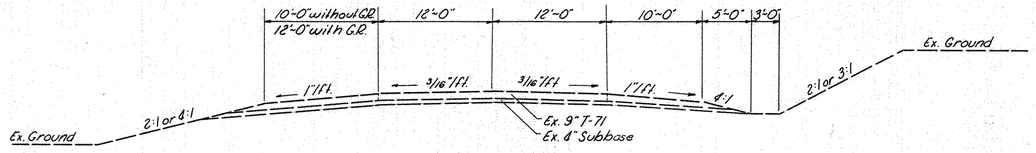
CODE 7221



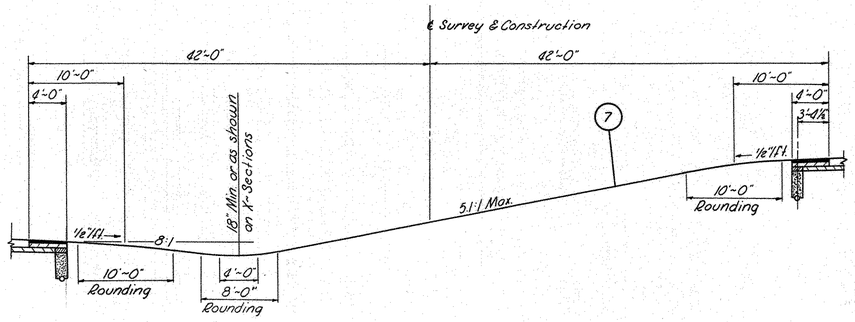
⊛ 13' Sta. 401+00 to Sta. 408+00

* See X-Sections

TYPICAL SECTION "E"
NORMAL SECTION
401+30 to 415+00

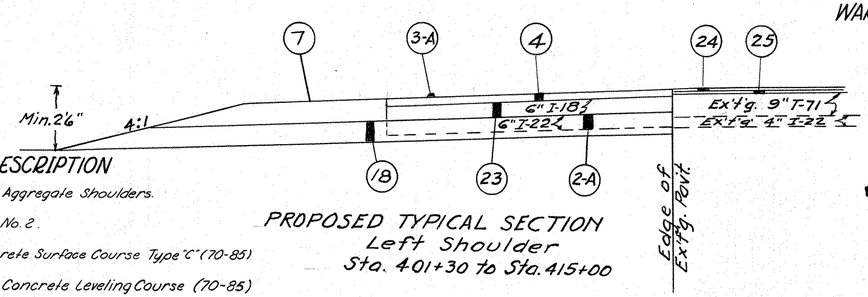


EXISTING U.S.40 TYPICAL SECTION



WARPED MEDIAN DETAIL

Limits
Sta. 378+00 to Sta. 415+00



PROPOSED TYPICAL SECTION
Left Shoulder
Sta. 401+30 to Sta. 415+00

ITEM		DESCRIPTION
1	T-71	9" Reinforced Portland Cement Concrete Pavement.
2	I-22	6" Subbase, Grading "A" or "B", modified as per plan.
3	T-31	Bituminous Surface Treatment using 0.008 Cu. Yd. of No.6 Aggregate and 0.25 Gal. Bituminous Material per Sq. Yd. (See Note in Proposal)
4	■ B-21	3" Waterproofed Aggregate Base Course. (See Notes 1 & 4)
5	B-112	Porous Base Course
6	I-1	6" Pipe Class I-3
7	L-9	Seeding & Protecting
8	I-15	Guard Rail, Steel Beam Standard Type (Deep)
9		Remove subbase for width of Item I-1 trench and replace with new Type 3 backfill material immediately prior to placing the Item B-112 Porous Base Course. Cost shall be included in price bid per lin. ft. for Item I-1, 6" Class I-3 Pipe

ITEM		DESCRIPTION
23	I-18	Stabilized Crushed Aggregate Shoulders.
18	I-9	Stone Underdrains No. 2.
24	■ T-35	1¼" Asphaltic Concrete Surface Course Type "C" (70-85)
25	■ B-35	1¼" Min. Asphaltic Concrete Leveling Course (70-85)
26	T-30	Bituminous Tack Coat, Sec. M5.5, MS-2, or RS-1, or Sec. M5.2, RC-1, or RC-2 as per Sec. T-30.02, apply at the rate of 0.10 Gal. per Sq. Yd.
3-A	T-31	Bituminous Surface Treatment using 0.008 Cu. Yd. of white limestone No. 6 Aggregate and 0.25 Gal. Bituminous Material per Sq. Yd. (See Note in Proposal)
LJ		Standard Longitudinal Joint.
2-A	I-22	6" Subbase

~ NOTES ~

■ 1. Thickness shown is "designed" thickness as described in Section B-21.01, T-35.01, & B-35.01.

2. See General Notes for Subgrade, Subbase, & I-1 Underdrain construction sequence.

3. For details not shown on this sheet, see Standard Drawing No. RI-1.

4. Type "A" T-35 Material may be used in construction of B-21 course. (See Note in Proposal)

5. I-9 Underdrains shall be spaced opposite the joints in the present pavement.

TYPICAL SECTIONS ~ U.S.40

TYPICAL SECTIONS

TYPE T-71

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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GUERNSEY COUNTY
GUE-40-17.37

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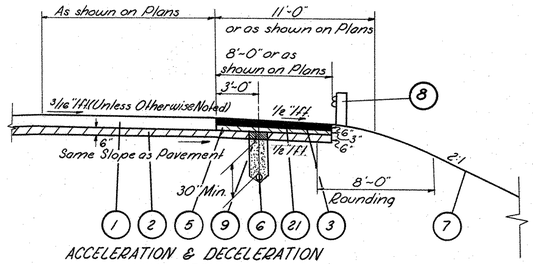
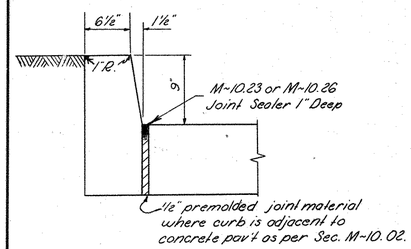
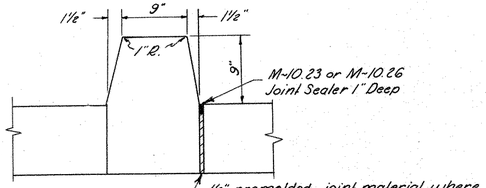


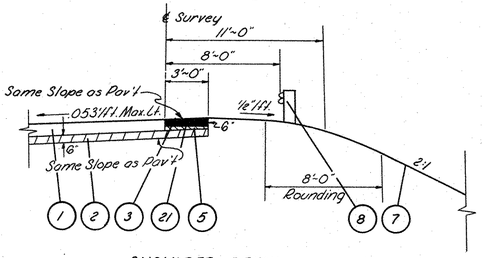
ACCELERATION & DECELERATION LANE DETAIL



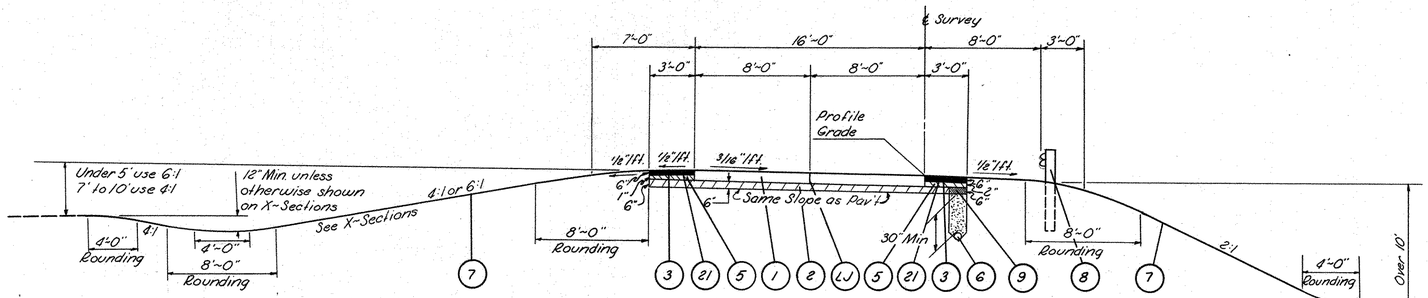
TYPE "A" CURB DETAIL



TYPE "B" CURB DETAIL
See Standard Drawing I-12

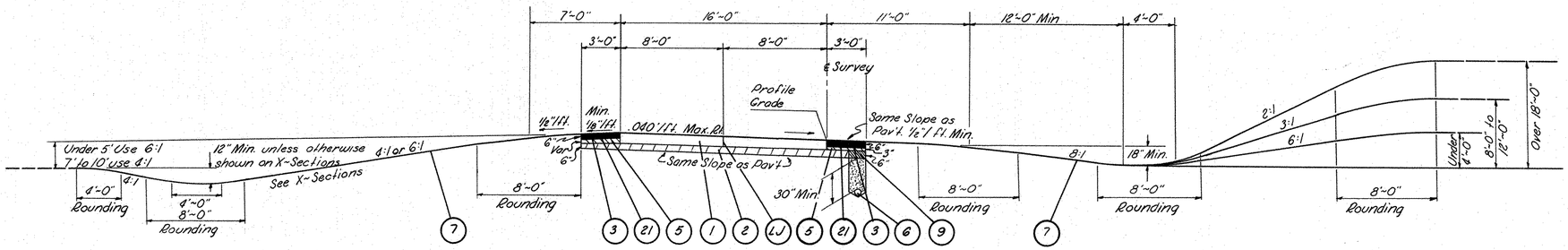


SHOULDER DETAIL
SUPERELEVATED SECTION SLOPED LEFT



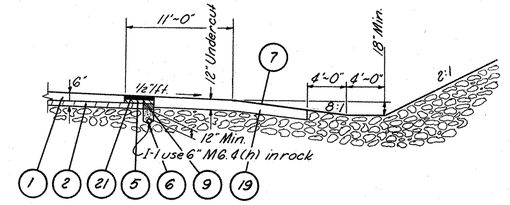
TYPICAL SECTION "F"
NORMAL SECTION

Ramp "A" 5+51.28 to 10+43.86
Ramp "B" 11+28.15 to 17+70.00
Ramp "C" 11+17.87 to 20+71.09
Ramp "D" 4+34.00 to 6+49.18
12+00.00 to 15+00.00
Ramp "E" 11+68.48 to 12+95.80
17+00.00 to 20+00.00
Ramp "F" 17+32.22 to 19+18.62
Ramp "H" 7+99.55 to 8+73.51
13+00.00 to 16+00.00



TYPICAL SECTION "G"
SUPERELEVATED SECTION

Ramp "A" 10+43.86 to 18+00.00
Ramp "B" 9+46.00 to 11+28.15
Ramp "C" 10+94.00 to 11+17.87
20+77.09 to 23+05.73
Ramp "D" 6+49.18 to 12+00.00
Ramp "E" 8+37.88 to 11+68.48
Ramp "E" 12+95.80 to 17+00.00
Ramp "F" 15+10.40 to 17+32.22
19+18.62 to 21+52.80
Ramp "G" 3+65.80 to 10+94.80
Ramp "H" 5+82.13 to 7+99.55
8+73.51 to 13+00.00



ROCK CUT DETAIL

For limits see sheet "26, deduction for Rock Excavation Ramps "A", "D" & "H."

ITEM		DESCRIPTION
1	T-71	9" Reinforced Portland Cement Concrete Pavement.
2	I-22	Subbase, Grading "A" or "B", modified as per plan
3	T-31	Bituminous Surface Treatment Using 0.008 Cu. Yd. of No. 6 Aggregate and 0.25 Gal. Bituminous Material Per Sq. Yd. (See Note in Proposal)
5	B-112	Porous Base Course
6	I-1	6" Pipe, Class I-3
7	L-9	Seeding & Protecting
8	I-15	Guard Rail, Steel Beam Standard Type (Deep)
9		Remove subbase for width of Item I-1 trench and replace with new Type 3 backfill material immediately prior to placing the Item B-112 Porous Base Course. Cost shall be included in price bid per lin. ft. for Item I-1, 6" Class I-3 Pipe
19		Rock Undercut and Earth Backfill
21	■ B-21	6" Waterproofed Aggregate Base Course (2-3" courses) (See Notes 1 & 4)
LJ		Standard Longitudinal Joint

~NOTES~

■ 1. Thickness shown is "designed" thickness as described in Section B-21.01.

2. See General Notes for Subgrade, Subbase, & I-1 Underdrain construction sequence.

3. For details not shown on this Sheet, see Standard Drawing No. R.I-1.

4. Type "A" T-35 Material may be used for construction of B-21 Course. (See Note in Proposal)

RAMP TYPICAL SECTIONS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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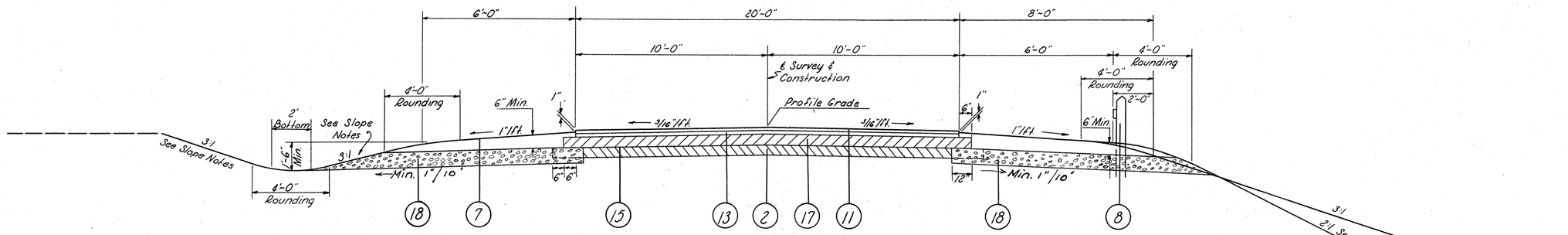
TYPICAL SECTIONS

TYPE T-71 AND T-35 ON B-19

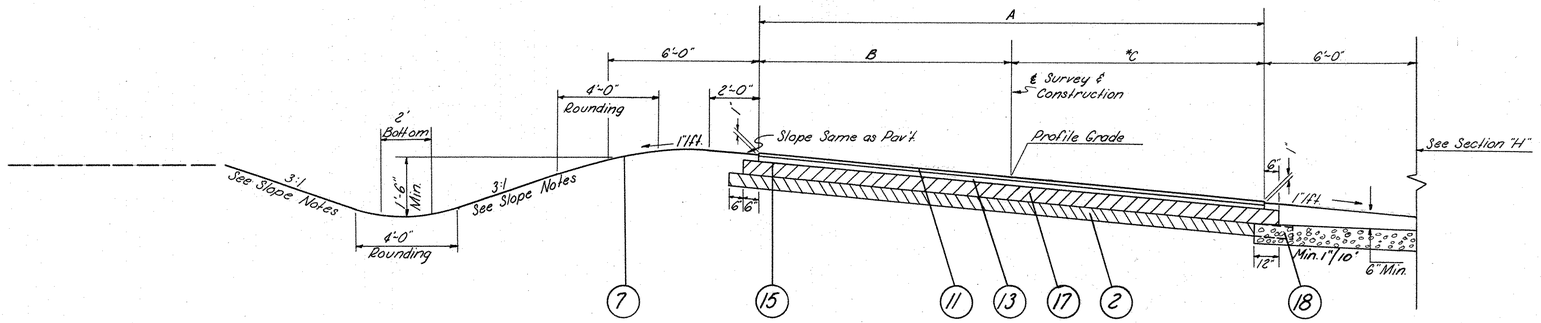
Design Speed 50 M.P.H.



TYPICAL SECTION "H"
NORMAL SECTION

Station 30+00 to Station 40+00
*Station 56+50 to Station 58+50

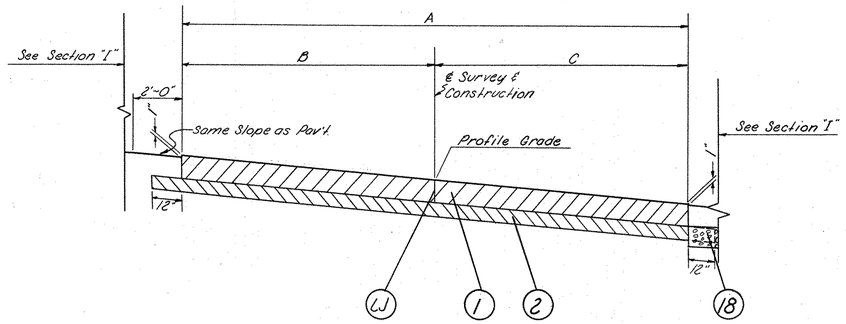
*Pavement Transitions from 20' to 16'



TYPICAL SECTION "I"
SUPERELEVATED SECTION

	A	B	C
Sta. 18+00 to Sta. 18+50.13	Variable	20' to 24'	
Sta. 18+50.13 to Sta. 29+00	24'	10'	14' Reversed
Sta. 29+00 to Sta. 30+00	Variable 24' to 20'		
Sta. 40+00 to Sta. 41+00	Variable 20' to 22'		
Sta. 41+00 to Sta. 43+26	22'	10'	12'
Sta. 43+26 to Sta. 43+55	Variable	22' to 24'	
Sta. 43+55 to Sta. 45+22.30	24'	12'	12'
Sta. 51+00 to Sta. 52+00	Variable 24' to 20'		
Sta. 52+00 to Sta. 55+50	22'	10'	12'
Sta. 55+50 to Sta. 56+50	Variable 22' to 20'		

*Dimension C is inside of curve.



TYPICAL SECTION "I-I"
SUPERELEVATED SECTION

Station 48+70.63 to Station 51+00 24' 12' 12'

EXISTING TYPICAL SECTIONS
North of U.S. 40 16' Surface treat.
South of U.S. 40 18' Asphaltic Concrete Pav't.

ITEM		DESCRIPTION
(1)	T-71	9" Reinforced Portland Cement Concrete Pavement
(2)	I-22	5" Subbase
(7)	L-9	Seeding and Protecting
(8)	I-15	Guard Rail, Steel Beam Standard Type (Deep)
(11) ■	T-35	1¼" Asphaltic Concrete Surface Course Type "C" (85-100)
(13) ■	B-35	1¾" Asphaltic Concrete Leveling Course (85-100)
(15)	T-30	Bituminous Prime Coat using Tar, Sec. M-5.7, RT 2 or 3 applied at the rate of 0.4 Gal./S.Y.
(17)	B-19	6" Aggregate Base Course
(18)	I-9	Stone Underdrains No. 2
(LJ)		Standard Longitudinal Joint

~ NOTES ~

■ 1. Thickness shown is "designed" thickness as described in Section T-35.01 & B-35.01

2. Stone underdrains shall be placed at fifty (50) foot intervals on each side of normal crowned sections and at twenty-five (25) foot intervals on the low side only of superelevated sections.

3. For details not shown on this drawing see Standard Construction Drawing numbers D2-1, R1-1, and T-35.01

~ SLOPE NOTES ~

1. For fills **over 10'** use 2:1 slopes
2. For fills **10' and under** 3:1 slopes
3. For cuts 5' and under use 3:1 backslopes
4. For cuts over 5' use 2:1 backslopes

S.R. 513 RELOCATION TYPICAL SECTIONS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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GUERNSEY COUNTY
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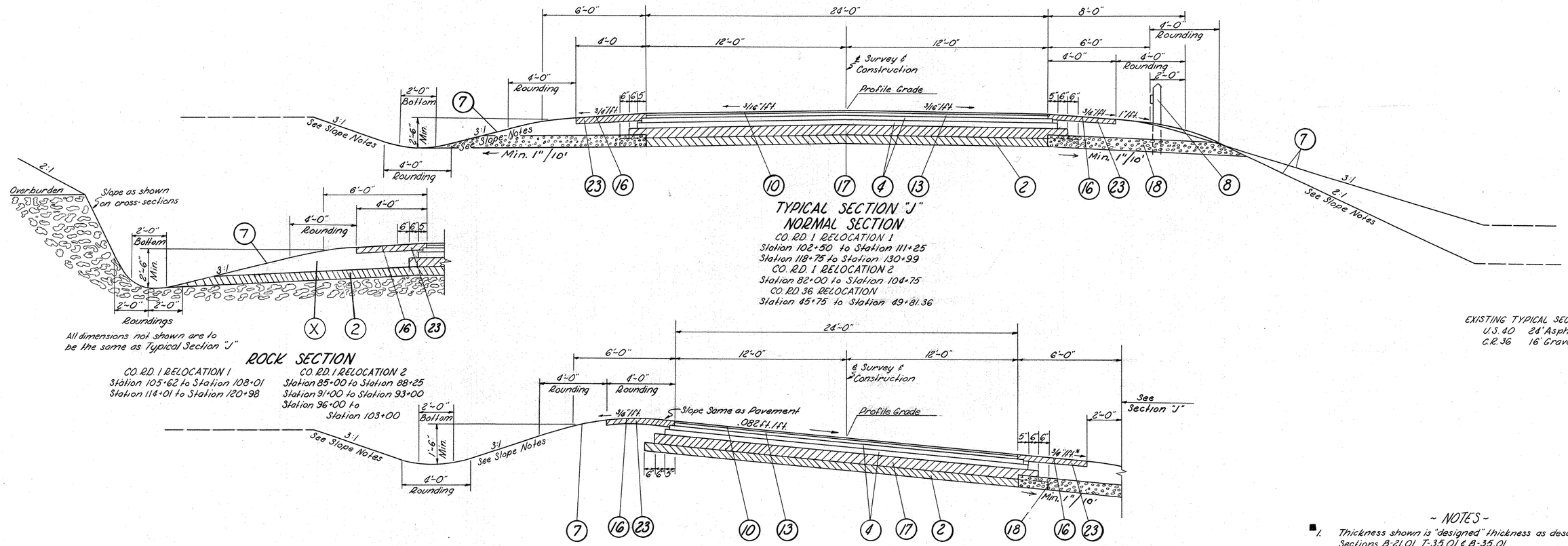
TYPICAL SECTIONS

TYPE T-35 ON B-21

Design Speed 50 M.P.H.
Pavement Designed for
Maintenance of U.S. 40
Traffic.



TYPICAL SECTION "J"
NORMAL SECTION

CO. RD. 1 RELOCATION 1
Station 102+50 to Station 111+25
Station 118+75 to Station 130+99
CO. RD. 1 RELOCATION 2
Station 82+00 to Station 104+75
CO. RD 36 RELOCATION
Station 45+75 to Station 49+81.36

ROCK SECTION

CO. RD. 1 RELOCATION 1
Station 105+62 to Station 108+01
Station 114+01 to Station 120+98

CO. RD. 1 RELOCATION 2
Station 85+00 to Station 88+25
Station 91+00 to Station 93+00
Station 96+00 to Station 103+00

TYPICAL SECTION "K"
SUPERELEVATED SECTION

CO. RD. 1 RELOCATION 1
Station 96+84 to Station 102+50
Station 111+25 to Station 118+75
CO. RD. 1 RELOCATION 2
Station 76+50 to Station 82+00 (Section Reversed)
Station 104+75 to Station 111+00 (Section Reversed)

	ITEM	DESCRIPTION
(10)	■ T-35	1" Asphaltic Concrete Surface Course Type "C" (70-85)
(13)	■ B-35	1½" Asphaltic Concrete Leveling Course (70-85)
(16)	Special	For Additional Stabilization with Calc. Chloride see Note in Proposal.
(4)	■ B-21	5" Waterproofed Aggregate Base (2-Course Construction)
(17)	B-19	6" Aggregate Base Course
(2)	1-22	5" Subbase
(7)	L-9	Seeding and Protecting
(18)	1-9	Stone Underdrains No. 2
(8)	1-15	Guard Rail, Steel Beam Standard Type (Deep)
(23)	1-18	5" Stabilized Crushed Aggregate Shoulders
(X)		Backfill with Soil as described in Sec. E-1.02

EXISTING TYPICAL SECTIONS
U.S. 40 24' Asphalt
C.R. 36 16' Gravel

~ NOTES ~

■ 1. Thickness shown is "designed" thickness as described in Sections B-21.01, T-35.01 & B-35.01
2. Stone underdrains shall be placed at fifty (50) foot intervals on each side of normal crowned sections and at twenty-five (25) foot intervals on the low side only of superelevated sections.
3. For details not shown on this drawing see Standard Construction Drawing numbers DR-1, R1-1 and T-35

~ SLOPE NOTES ~

1. For fills over 10' use 2:1 slopes
2. For fills 10' and under 3:1 slopes
3. For cuts 5' and under use 3:1 backslopes
4. For cuts over 5' use 2:1 backslopes

COUNTY ROADS 1 & 36 TYPICAL SECTIONS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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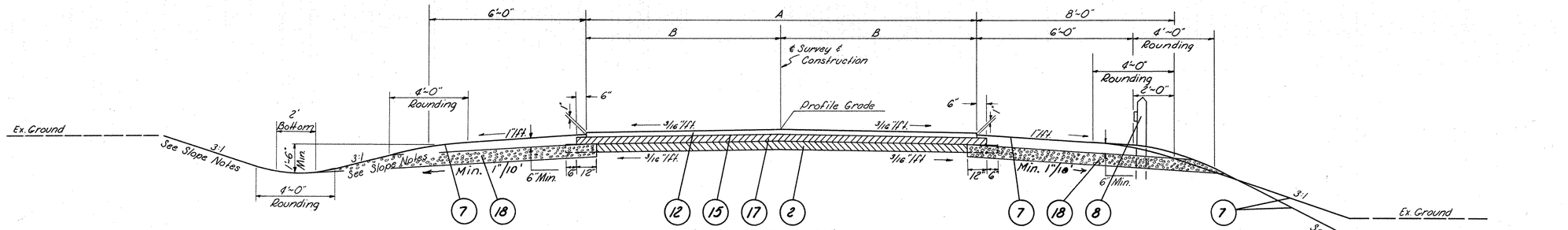
GUERNSEY COUNTY
GUE-40-17.37

TYPICAL SECTIONS

TYPE T-35 ON B-19

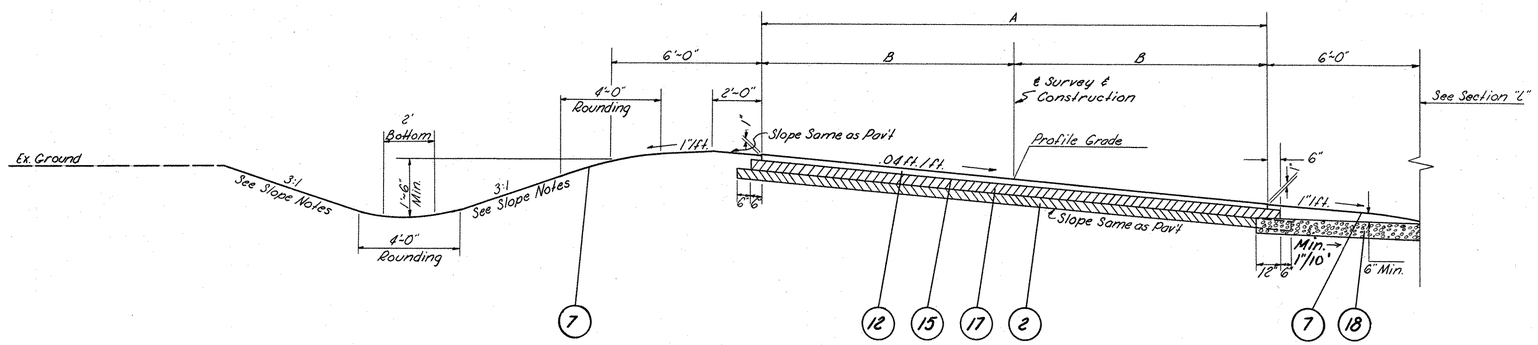
Design Speed 35 M.P.H.



TYPICAL SECTION "L"
NORMAL SECTION

	A	B
*Station 165+00 to Station 170+00 Co. Rd. 1 Connection	18'	9'
Station 46+75 to Station 48+34.25 Co. Rd. 301	16'	8'
Station 29+75 to Station 30+75, Station 35+50 to Station 36+40 Twp. Rd. 35	24'	12'
Station 89+83 to Station 90+21 Twp. Rd. 289	Variable	

*Pavement Transitions from 18' to 24'



TYPICAL SECTION "M"
SUPERELEVATED SECTION

	A	B
*Station 41+50 to Station 46+75 Co. Rd. 301 (Section Reversed)	16'	8'
Station 30+75 to Station 31+40, Station 31+65 to Station 35+50 (Section Reversed) Twp. Rd. 35	24'	12'
Station 46+66.91 to Station 47+08 Twp. Rd 185	Variable	

*Pavement Transitions from 12' to 16'

ITEM		DESCRIPTION
(2)	I-22	5" Subbase
(7)	L-9	Seeding and Protecting
(8)	I-15	Guard Rail, Steel Beam Standard Type (Deep)
(12) ■	T-35	1½" Asphaltic Concrete Surface Course Type "A" (85-100)
(15)	T-30	Bituminous Prime Coat using Sec. M 5.7, 2T-2 or 3 applied at the rate of 0.4 Gal./S.Y.
(17)	B-19	6" Aggregate Base Course
(18)	I-9	Stone Underdrains No. 2

EXISTING TYPICAL SECTIONS

County Road 1	16' Asphalt
U.S. 40	24' Concrete
County Road 301	12' Slag
Old U.S. 40 (east of S.R. 513)	24' & 18' Asphalt

~NOTES~

■ 1. Thickness shown is "designed" thickness as described in Section T-35.01

2. Stone underdrains shall be placed at fifty (50) foot intervals on each side of normal crowned sections and at twenty-five (25) foot intervals on the low side only of superelevated sections.

3. For details not shown on this drawing see Standard Construction Drawing numbers D2-1, 2.1-1, and T-35.

~SLOPE NOTES~

1. For fills over 10' use 2:1 slopes
2. For fills 10' and under 3:1 slopes
3. For cuts 5' and under use 3:1 backslopes
4. For cuts over 5' use 2:1 backslopes

CO. and TWP. ROADS — TYPICAL SECTIONS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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GUERNSEY COUNTY
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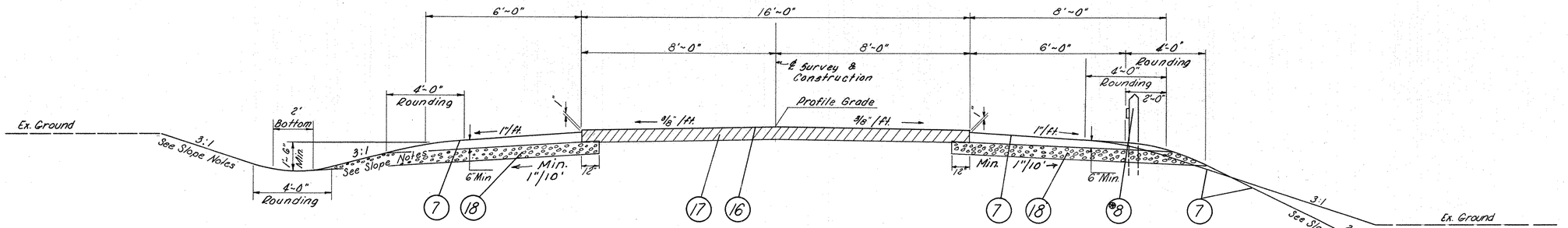
TYPICAL SECTIONS

TYPE B-19



TYPICAL SECTION "N"
NORMAL SECTION

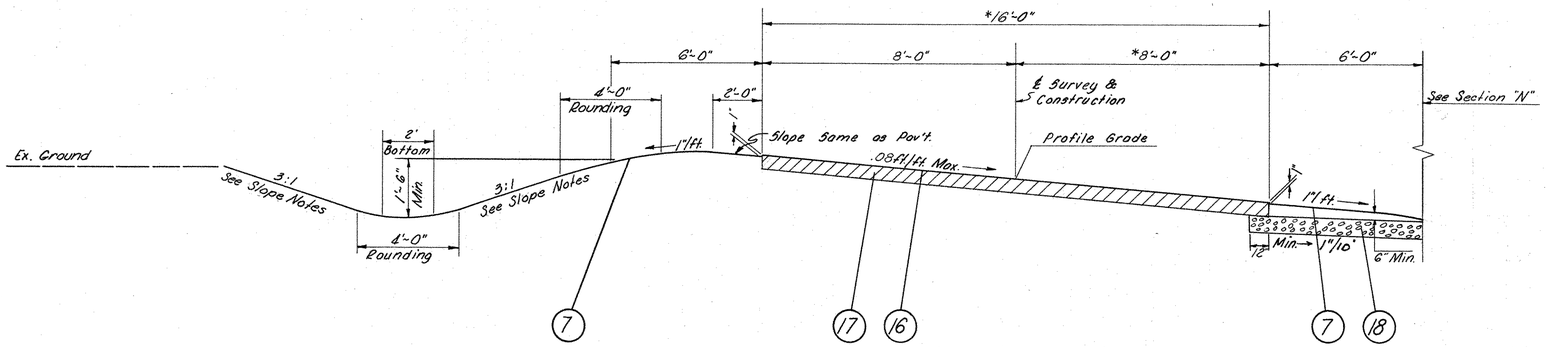
⊛ I-15 2-A C.Rail to match the existing railing.

SERVICE RD. "A" ⊛
Station 4+70 to Station 8+49.52
SERVICE RD. "B"
Station 5+00 to Station 11+90
TWP. RD. 35 RELOCATION
Station 44+00 to Station 55+75
Station 63+50 to Station 65+50

TWP. RD. 185
Station 49+25 to Station 51+25
TWP. RD. 277 RELOCATION
Station 28+65.52 to Station 42+00
Station 58+25 to Station 62+50
TWP. RD. 289
Station 90+21 to Station 93+00

EXISTING TYPICAL SECTIONS

Twp. Rd. 35	16' & 12' Slag
Twp. Rd. 185	16' Slag
Twp. Rd. 277	8' & 9' Slag



TYPICAL SECTION "O"
SUPERELEVATED SECTION

TWP. RD. 35 RELOCATION D.S. 35 M.P.H.
Station 55+75 to Station 63+50
TWP. RD. 185 D.S. 35 M.P.H.
Station 47+08 to Station 49+25 (Section Reversed)
Station 51+25 to Station 55+50
TWP. RD. 277 RELOCATION D.S. 25 M.P.H.
Station 42+00 to Station 58+25 (Section Reversed)
Station 62+50 to Station 65+75 Pav't transitions 16' to 8'

*Greater for curve widening

ITEM		DESCRIPTION
(7)	L-9	Seeding and Protecting
(8)	I-15	Guard Rail
(16)	Special	For additional stabilization with Calcium Chloride see note in proposal.
(17)	B-19	8" Aggregate Base Course
(18)	I-9	Stone Underdrains No. 2

~NOTES~

1. Stone underdrains shall be placed at fifty (50) foot intervals on each side of normal crowned sections and at twenty-five (25) foot intervals on the low side only of superelevated sections.
2. For details not shown on this drawing see Standard Construction Drawing numbers DR-1, RI-1, & T-35

~ SLOPE NOTES ~

1. For Fills over 10' use 2:1 Slopes
2. For Fills 10' and under 3:1 Slopes
3. For Cuts 5' and under use 3:1 backslopes
4. For Cuts over 5' use 2:1 backslopes

TWP. ROADS TYPICAL SECTIONS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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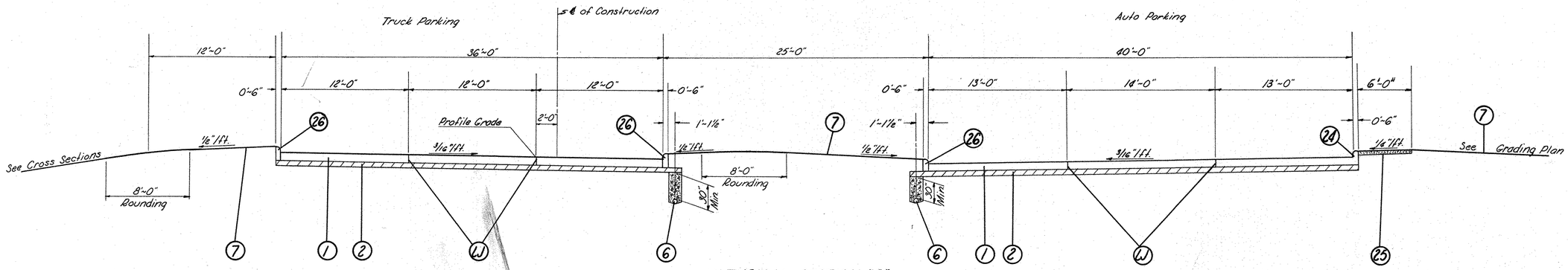
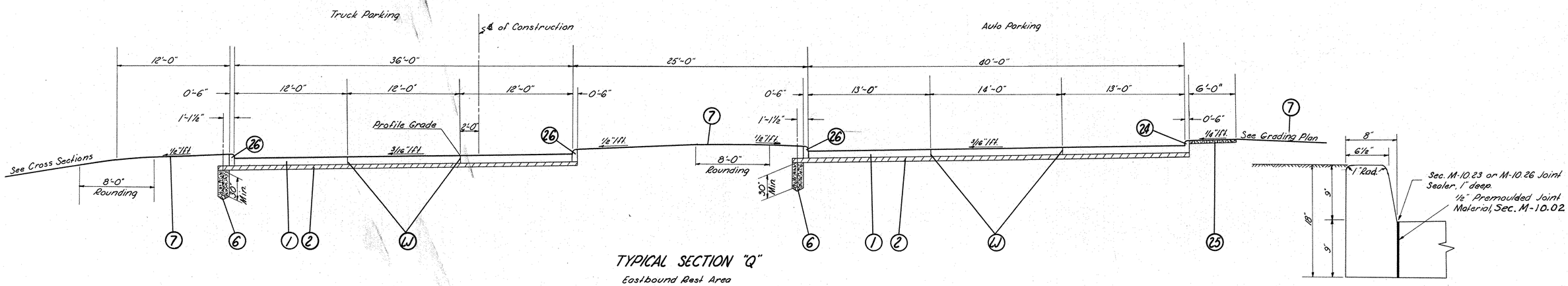
TYPICAL SECTIONS

TYPE T-71



TYPICAL SECTION "P"
Westbound Rest Area



TYPICAL SECTION "Q"
Eastbound Rest Area

Type "A" Concrete Curb

ITEM		DESCRIPTION
(1)	T-71	9" Reinforced Portland Cement Concrete Pavement.
(2)	I-22	6" Subbase, Grading "A" or "B", modified as per General Note.
(6)	I-1	6" Pipe Class I-Type 3
(7)	L-9	Seeding and Protecting.
(24)	I-12	Type 2-A Curb.
(25)	I-13	4" Portland Cement Concrete Sidewalk.
(26)	I-12	Type "A" Concrete Curb.
(W)		Standard Longitudinal Joint.

~NOTES~

1. See General Notes for Subbase & I-1 Underdrain construction sequence.

2. For details not shown on this sheet, see Standard Drawing RI-1 & I-12.

TYPICAL SECTIONS ~ REST AREAS

MICROFILMED
JUL 25 1985

FED. RD DIVISION	STATE	PROJECT	
2	OHIO		

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GUERNSEY COUNTY
GUE-40-17.37

GENERAL NOTES

FIELD OFFICE
The Contractor shall, in accordance with Sec. S-0.01 (b), provide for the exclusive use of the State's employees, a suitable field office having a minimum of 500 sq. ft. of floor space. The Contractor shall have a telephone installed and maintained in this field office during the construction of this project. The Contractor shall also provide and install wiring and outlets suitable for connecting electric lights and office equipment in this field office and provide 110-volt alternating current to this office during the entire period of construction of this project.

ELEVATION DATUM
All elevations are based on U.S.G.S. datum.

SECTION CORNER MARKERS
Section Corner Markers that will be disturbed by construction shall be protected by the Contractor as per Section G-7.09 until they can be witnessed, referenced and reset by the Engineer.

ESTIMATED QUANTITIES
Specific locations and usage of estimated quantities set up on this plan to be used "as directed by the Engineer" shall be made a matter of record by incorporation into the final change order governing completion of this project.

UTILITIES
The Contractor shall notify at least 5 working days, unless otherwise noted on these plans, before breaking ground all Public Service Corporations having wire, poles, pipe, conduits, manholes or other structures that may be affected by this operation, including all structures which are affected and not shown on these plans.

UNDERGROUND UTILITIES
The locations of the underground utilities shown on the plans have been obtained by diligent field checks and searches of available records. It is believed that they are essentially correct, but the State of Ohio makes no guarantees as to their accuracy or completeness.

UTILITY OWNERSHIP
Ohio Power Company, Canton, Ohio
Home Telephone Co., Fairview, Ohio
Guernsey-Muskingum Electric Co-op.Inc., New Concord, Ohio
The East Ohio Gas Co., E. 9th & Superior, Cleveland 14,Ohio

UTILITY ADJUSTMENT
Any or all work required for Public or Private Utilities will be done by and at the expense of their respective owners, unless otherwise noted on these plans.

REPLACEMENT
The Contractor shall replace, at his own expense, any item not specifically listed for removal that is damaged or destroyed by his operations.

DESIGN SPEED
The geometrics for this project have been planned for a design speed of 70 miles per hour, unless otherwise shown on these plans.

ROUNDING OF CORNERS SHOWN ON CROSS SECTIONS
The rounded corners shown on Standard Drawing RI-1, as modified by the typical sections, apply to all cross sections, even though otherwise shown on these plans.

GUARD RAIL FLARES
Where proposed guard rail flares are constructed of rail elements which have not been fabricated exactly to fit the curvature shown on the plans, the two end posts of each flared section shall be encased in a minimum 4-inch thickness of Class "E" concrete for the full depth of the post below the ground line. Payment for encasement, if required, shall be included in the unit price bid for the guard rail.

CONSTRUCTION LAYOUT STAKES
See note in proposal describing the work included in this lump sum pay item.

DRIVE LOCATIONS
The locations of the drives as shown on the plans may be relocated as directed by the Engineer outside the Limited Access right-of-way and providing that there is no additional cost to the State.

REMOVAL OF TREES AND STUMPS
All trees and stumps 12" or more in diameter, lying within the construction limits of this project shall be removed under the lump sum price bid for Item E-9, Removal of Trees and Stumps, except that those trees and stumps for which protection and preservation work is indicated elsewhere in these plans shall not be removed. The following is an approximate estimate of the number of trees and stumps to be removed:

Sizes	Participating No. Trees	Non-Participating No. Trees
12" - 18"	2333	5
18" - 24"	355	5
24" - 30"	138	2
30" - 36"	21	
36" - 42"	6	

The above estimate is approximate and the State of Ohio reserves the right to order the removal of additional trees or stumps outside the limits of construction but within the right-of-way and/or easement lines. Payment for the removal of these additional trees or stumps shall be included in the lump sum price bid for Item E-9, Removal of Trees and Stumps.

FEDERAL AID CONSTRUCTION IDENTIFICATION SIGNS:-
The Contractor shall furnish, erect, maintain and subsequently remove Federal Aid Construction Identification Signs at each of the following locations:
US 40:
(1) Southwest corner of S.R. 285 and Existing U.S. 40; (2) Sta. 416+00
S.R. 513:
(3) Sta. 18+00 and (4) Sta. 59+00
Sign details shall be as specified on Standard Drawing FACI-1, "Code N-43(2) 144", and the signs shall be erected in accordance with Standard Drawing FACI-2. Additional requirements shall be in accordance with notes in the proposal.

CENTERLINE REFERENCE MONUMENTS, AS PER PLAN
Monuments shall be constructed of Class "C" concrete, cast-in-place in a circular hole eight (8) inches in diameter and forty-four (44) inches in depth. Top of concrete shall be finished at a depth of two (2) inches below ground level and the upper six (6) inch portion of the concrete shall be formed. A one-half (1/2) inch steel rod six (6) inches long shall be embedded in the wet concrete as directed by the Engineer to mark the centerline and station.

REMOVAL AND STORAGE OF EXISTING CUMBERLAND MILESTONES
The Cumberland Milestones shall be carefully removed and stored near the right-of-way line. Payment for this operation shall be at the unit price bid for Item E-8 Removal and Storage of Cumberland Milestones.

GUARD RAIL ADJACENT TO BRIDGE
One (1) additional guard rail post shall be provided in the center of each panel of guard rail adjacent to the bridge, payment for which shall be included in the unit price bid for Item 606 Guard Rail, end

ITEM SPECIAL, DRILLED WELL ABANDONED
The existing concrete or stone slab well cover shall be removed and disposed of. The pump and all other salvageable parts shall be carefully removed and stored on the abutting property. The casing shall be cut off at least two feet below the proposed finished grade outside proposed pavement areas or at least two feet below the proposed subgrade elevation inside proposed pavement areas and capped with Class "E" Concrete or a standard threaded pipe cap.

The unit price bid for each "Drilled Well Abandoned" shall include payment for all labor, tools, materials, and incidentals necessary to complete this item. Two each to General Summary.

SUPERELEVATION
Superelevated curves shall be built without crown. The crown shall be worked out of the pavement in the area indicated on pavement details.

PAVEMENT JOINT SYMBOLS

L	Standard Longitudinal Joint
LK	Longitudinal Key Joint without tie bars
E	Standard Expansion Joint
E	Expansion Joint without tie bars, 2' minimum length
C	Construction Joint

PAVEMENT JOINTS
Although specific locations of certain contraction and expansion joints have been detailed on this plan, no waiver of the specifications and standard drawing requirements is intended and the maximum distance between contraction joints and the locations for expansion joints at structures and ramps shall in all cases fulfill the minimum requirements of the specifications and Standard Drawing T.J.

PAVEMENT ELEVATIONS
Pavement edge elevations are at the face of the curb unless otherwise indicated.

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SPECIAL EMBANKMENT CONSTRUCTION:
Special care shall be given to the construction of proposed embankment between stations: Co. Rd. 301 - Sta. 48+25 to Sta. 49+05. *See Sheet 357.*

All soil placed in embankment within these limits shall be spread in layers not greater than 6 inches loose depth and shall be compacted to not less than 102 percent of Laboratory Maximum Dry Weight. Each lift shall be approved before material for the next lift is brought in.

All shale or rock placed as fill in this area shall be spread in layers not greater than 8 inches loose depth. Rock which cannot be incorporated into an 8-inch lift shall either be reduced in size or excluded from this part of the embankment. All shale layers and layers containing a mixture of shale and rock shall be sprinkled prior to, or during compaction, as directed by the Engineer, until the moisture content of the shale is not less than optimum minus 3 percent and not more than optimum. Each shale or rock layer shall be rolled with at least four (4) complete coverages of a fully-ballasted tamping roller and at least two (2) complete coverages of a fully-ballasted 50-ton pneumatic tired roller as specified below. All other provisions of Section E-1.08 of the Construction and Material Specifications shall remain in effect.

The 50-ton pneumatic tired roller shall consist of four heavy rubber tired wheels mounted on a rigid steel frame. The wheels shall be evenly spaced in one line across the width of the roller and shall be arranged in such a manner that all wheels will carry approximately equal loads when operated over an uneven surface. The maximum center to center spacing between adjacent wheels shall not exceed 32 inches. The equipment shall have a suitable body for ballast loading. Ballast shall consist of suitable material of known unit weight in sufficient amount to load the roller to a gross weight of 50 tons.

The Engineer of Construction, Bureau of Construction, Central Office, shall be notified *before* embankment construction is started in this area.

Payment for all of the above, including all extra operations and equipment specified, shall be included in the unit price bid for Item E-1, Roadway Excavation, Method "B", as per plan.

ROCK PROFILE
The top of rock shown in these plans is approximate. The State makes no guarantees as to the accuracy of the elevation of the rock shown.

ROCK SUBGRADE
The Contractor shall be paid for the thickness of I-22 material shown on the typical sections in rock excavation areas. Any pockets in the rock below the plan subgrade elevation shall drain either longitudinally or laterally and all irregularities in the rock below this elevation shall be filled with I-22 material at no additional cost to the State.

ITEM I-22 SUBBASE, GRADING "A" or "B", AS PER PLAN
The material furnished for this item shall meet the requirements of Grading "A" or "B" of Sec. I-22.02 except that, for either grading, no more than 10 percent of the material shall pass a No. 200 sieve after all operations of placing and compacting have been completed.

E-4 BORROW USING GRANULAR MATERIAL OR ROCK, AS PER PLAN
An 18" compacted layer of granular material shall be placed on the existing ground throughout the full embankment width from Station 221+80 to 236+00; from Sta. 246+50 to 251+65; from Sta. 252+65 to 254+00. This material may be placed in a single lift by the method of end dumping. This quantity is not included in the earthwork Embankment Quantities. *The areas indicated for this operation may be adjusted by the Engineer during construction, and pay quantities will be determined by final measurement.*

Material for this item shall meet the requirements of Section E-1.02 for granular material, except that at least 85% by weight of the grains or particles shall be retained on a No. 200 sieve or it shall be rock as defined in Section E-1.02, consisting of broken sandstone or limestone essentially free from admixtures of shale or soil. In all areas where the plan calls for the construction of embankments using an initial lift of granular material or rock, the foundation shall be cleared and grubbed as required by Section E-1.03, but need not be scalped. Foundation compaction requirements of Section E-1.04 are also waived for these areas.

BENCHING OF FOUNDATION SLOPES
Although cross sections on this plan indicate specific widths and depths of proposed benching of the embankment foundation in certain areas, no waiver of the specifications is intended and all other sloped foundation areas shall be benched as set forth in Sec. E-1.04. No additional payment will be made for benching required by the provisions of Sec. E-1.04.

ITEM S.S. CE-101.04 COMPACTION USING HEAVY PNEUMATIC-TIRED ROLLER

An estimated quantity for this item has been provided in the General Summary for use, as directed by the Engineer, in proof rolling of all subgrade on the main line and ramps, except for areas where rock, shale, or indurated clay is encountered.

SEQUENCE OF CONSTRUCTION OPERATIONS FOR SUBGRADE, SUBBASE & I-1 UNDERDRAINS
Underdrains shall be installed and backfilled to subgrade elevation, immediately prior to construction of the subbase, except that, where subsurface conditions are such that improvement of an unstable subgrade can be accomplished through the drying action of deep underdrains, the project engineer may authorize or require the contractor to delay construction of the subbase as necessary.

The subbase shall then be constructed under the concrete pavement area and extended out to cover the porous backfill for the underdrain. Pavement shall then be constructed.

After the subbase in the shoulder area is in place and compacted as specified, and immediately prior to placing the porous base course, the material located above and within the underdrain trench shall be removed to the depth necessary to expose clean Type 3 backfill. The trench so excavated shall be backfilled with new Type 3 backfill material. If, after testing the subbase material for composition in the shoulder area, it is found that removal of contaminated material from the surface is necessary, such material shall be replaced with material meeting the requirements of Item B-112, Porous Base Course at the expense of the Contractor.

Porous base course shall then be constructed and construction of the waterproofed aggregate course shall follow immediately. *Payment for all of the above shall be included in the unit prices bid for the pertinent items affected.*

CHANNEL EXCAVATION
Excavation from Salt Fork Channel, *shall be used only for filling existing Channels from Sta. 242+00 to 266+75, Sta. 342+00 to 350+00, Sta. 365+50 to Sta. 366+50.*

E-1 ROADWAY EXCAVATION, UNSUITABLE
From Sta. 230+00 to Sta. 280+00 to be used only for filling existing channel.

AGRICULTURAL LIMING MATERIAL
The location and need for agricultural liming material shall be determined by laboratory tests after rough grading operations have been performed. Quantities of agricultural liming material , as shown on the plans, are sufficient for the entire project but will be non-performed for the areas where tests show that the liming material is not needed.

L-9 COMMERCIAL FERTILIZER
All areas to be seeded under Item L-9, or sodded under Item L-10, shall have commercial fertilizer (12-12-12) applied at the rate of twenty (20) pounds per 1,000 square feet.

SEEDING FORMULA
The following seed mixture shall, in lieu of the mixtures listed in Section L-9.11, be used throughout the limits of this project, *except* in Rest Areas:

65% Kentucky 31 Fescue
20% Kentucky Bluegrass
10% Creeping Red Fescue
5% Alsike Clover

Note: See Sheet #439 for Rest Area Seeding Formula

SEEDING
Quantities for seeding are calculated for the soil areas between the right-of-way fence lines, between the right-of-way lines in unfenced areas, and within the work limits for areas outside the right-of-way lines covered by channel change agreements throughout the Limited Access section of this project.

Quantities for seeding are calculated for the soil areas to the work limits, as shown on the cross sections throughout the non-limited access sections including the side roads, drives and service roads.

SEEDING NEW CHANNEL WORK
New channel banks shall be seeded where riprap or dumped rock is not provided. Channel flow lines shall not be seeded below normal water level.

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REINFORCED ENDS ON CORRUGATED METAL PIPE
Reinforced ends shall be required for the exposed ends of all corrugated metal pipe 8 inches or more in diameter if the exposed ends are unprotected by headwalls, catch basins or manholes.
Payment for reinforced ends shall be included in the unit price bid for the pertinent pipe item.

REMOVAL OF EXISTING PIPE
The removal of all existing pipe drains within the limits of proposed excavation items shall be included for payment in the unit prices bid for the respective excavation items unless otherwise itemized in the plans.

PRIVATE SEWER TAPS ON L.A. R/W
This plan makes no provision for connecting, nor shall the Engineer or Contractor connect any existing or new private drainage to the new highway drainage system when such private drains carry effluent or drainage from leaching bed outlets, cellar drains, or sink drains, or polluted water of any kind. Connections may be made to the existing or new highway drainage system when the water carried to the project drainage system does not come within the category outlined above. Acceptable water includes flow from roof drains, field drains, and enclosed natural drainage sources which would reach the road through natural channels if such water was not conducted artificially. Existing sewer taps which do not carry acceptable water as defined above shall be plugged at the right-of-way line.

Plugging specified shall be by means of Class "E" Concrete and payment therefor shall be included in the unit price bid for Item E-1, Roadway Excavation.

LOCATION AND SIZE OF PIPES
The location, type, depth, and size of all existing pipes are shown as near exact as the available information will permit. The State will not be responsible for any variations found during construction.

PLUGGING PIPE
The upstream ends of all pipe or tile lines intercepted by earthwork operations and, where indicated, the ends of pipe lines to be abandoned in place shall be effectively blocked and covered. Broken pieces and portions of pipe or tile shall be removed until a whole length is encountered which shall be blocked with concrete, flat stone or brick laid in mortar, or a precast clay or concrete stopper. Payment for the above work shall be included in the unit price bid for Item E-1, Roadway Excavation.

SEALING OF PIPE JOINTS
Where connections are made between rigid and flexible pipe sections or between pipe sections of different kind or type of end fabrication, whether required by the plans, arising from permissible use of optional materials, or encountered in connection to existing facilities, the joint shall be sealed, if sealing is required by the specifications, by means of a Class "E" concrete collar having a minimum thickness of 6 inches and a minimum length of 12 inches. Payment for sealing as described above shall be included in the unit price bid for the pertinent pipe item.

CONNECTIONS TO EXISTING PIPE
At places where the plans provide for proposed drainage pipe to be connected to existing pipe , it shall be the responsibility of the Contractor to locate the existing pipe both as to line and grade before he starts to lay the proposed pipe. Payment for this operation shall be included in the unit price bid for the pertinent pipe item.

PIPE CONNECTION TO CORRUGATED METAL STRUCTURE- SHEET 549.
Connection of proposed longitudinal drainage to the proposed corrugated metal structure at Sta. 389+30 shall be by means of a field welded stub on the structure. The stub shall meet the requirements of Sec. M-6.4 and have a minimum length of two feet and a minimum gage of 14. Location and elevation of the stub are to be considered approximate and may be adjusted by the Engineer to avoid cutting through joints in the structure.
The field welded joint shall be painted on the inside and outside with two coats of red lead paint, Sec. M- 9.9, and two coats of graphite paint Sec. 9.11. Welding shall be Class "B".
Payment for cutting into the structure and providing the connection described shall be included in the unit price bid for the proposed Item I-1, 15'6"x 9'5" Sectional Corrugated Metal Pipe-Arch Structure, Sec. M- 6.4(9), 1-1 gage, Class G-1.

DRAINAGE OF BASE MATERIAL
Where the base material is drained by I-9 Stone Underdrains, or by extensions of the subbase through the shoulders to the fill slope or the ditch line, the Contractor shall finish, seed, and mulch the slopes so as not to impede drainage of the base material.

ITEM I-9 STONE UNDERDRAINS, NO. 2
Stone Underdrains shall be placed at fifty (50) foot intervals on each side of normal crowned sections and at twenty-five (25) foot intervals on the low side only of superelevated sections, except where I-3 Underdrains have been provided, unless otherwise indicated on these plans.

SPECIAL DITCHES
For special ditch grades, see Cross Sections.

CATCH BASIN LOCATION
The location of a C.B. as shown on the plans is the center of grate.

2-6 INLET LOCATION
The location of an inlet as shown on the plans is the face of curb and the center of M.H. cover. The elevation shown on the plans is the pavement elevation minus the 2" depression at the face of curb opposite the center of the M.H. cover.

ITEM T-30 TACK COAT
Although this item has been estimated for use on the entire existing bituminous pavement area to be resurfaced, it shall be used only on dry or checked pavement areas where specifically directed by the Engineer. Payment will be made on final measurement.

CUT OFF WALLS
The Contractor shall provide Class "E" Concrete cut off walls for Item I-10, Riprap using 6" Reinforced Concrete slab, as per plan, as shown on these plans or as directed by the Engineer.
Payment for cut off walls shall be included in the unit price bid for Item I-10, Riprap using 6" Reinforced Concrete slab, as per plan.

SWALES AND/OR SPRINGS IN ROCK CUT
At the direction of the Engineer, a depression to concentrate the flow of water shall be cut into the face of the rock at all swales and/or springs encountered during construction. The width and depth of the depression for each location shall be as determined by the Engineer (See Detail Sheet) and shall extend to the ditch line. Payment for cutting these depressions shall be at the unit price bid for Item E-1 Roadway Excavation, as per plan.

6" CLASS I-3 PIPE. SEE SHEET 30
The Class I-3 pipe (for spring drainage) shall be covered with Type 3 porous backfill material to a height of one (1) foot above the top of the pipe. The remainder of the backfill for this item shall meet the specification requirements for Type 2 Backfill.

EROSION CONTROL
Items I-10, L-10 and L-120 are provided in these plans for erosion control. Rock of a stable nature will not be removed in order to place any of these items. The Engineer will check and non-perform quantities or adjust locations and quantities for these items where indicated by field conditions during construction.

DUMPED ROCK CHANNEL PROTECTION
Any piece of stone, broken masonry, or broken pavement resulting from the removal of existing structures or pavement and meeting the size requirements as provided in Section I-10.07 may be used in this item. Any protruding reinforcing steel in broken concrete shall be removed flush with concrete surface before material is used.

EROSION CONTROL AT BRIDGES
Sodded channels shall be provided at ends of bridges where required by the plans. Cost of all work necessary to complete the item shall be included in the unit price bid per square yard for "Item L-10, Sodding for Special Berm and Slope Protection."

ROCK UNDERCUT AND EARTH EMBANKMENT BACKFILL
As indicated by Typical Sections on Sheets 3 and 6, or as directed by the Engineer, Rock, shale, or Indurated Clay shall be undercut twelve (12) inches, and the undercut area shall be backfilled with soil as described in Sec. E-1.02 to the proposed finished elevation in accordance with the provisions of Sec. E-1.08.
The rock undercut and the earth embankment backfill has been included in quantities of Item E-1, Roadway Excavation, Method "B" As Per Plan and Embankment respectively as shown on Sheet 24.
Quantity of Earth Embankment for backfilling undercut areas as above indicated, is included in "Embankment" on Sheet 24.

TRENCH FOR PAVED SHOULDERS
Trench excavation for paved shoulders shall be performed only on one side of the pavement at a time. The open trench shall be adequately maintained and protected with temporary guide markers or barricades at all times. Placement of proposed subbase and base material shall follow as closely as possible behind the excavation operations. The length of paved shoulder trench which is open at any one time shall be held to a minimum and shall at all times be subject to approval of the Engineer.

PIPE DESIGNATIONS
All pipe designated F-1 throughout these plans shall be considered to be Class F-4 Pipe.

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GENERAL NOTES

MAINTENANCE OF TRAFFIC

TEMPORARY CONNECTIONS AND MAINTENANCE OF LOCAL TRAFFIC
525 C.Y. of *T-10* Aggregate, 10 tons of *I-4* Calcium Chloride and 50 C.Y. of T-35 Asphaltic Concrete Surface Course or an approved Bituminous Premix Surface Course is to be used at the direction of the Engineer for temporary connections not shown on the plans. Payment for construction, maintenance and subsequent removal and restoration to original lines of temporary connections, except for furnishing and placing items *T-10, I-4* and T-35 for maintaining traffic shall be included for payment in the lump sum bid for "Maintaining Traffic."

ALTERNATE METHODS
If the Contractor so elects, he may submit alternate methods for the maintenance of traffic provided the intent of the above provisions is followed and no additional inconvenience to the traveling public results therefrom. No alternate plan shall be placed into effect until approval has been granted in writing by the Director.

COOPERATION NOTE
The Contractor shall cooperate to the fullest extent with Contractors on adjacent projects in a manner which will result in a minimum amount of interference with other Contractors.

TEMPORARY *PAVEMENT*

Temporary pavement shall be paid for as either Item T-70 or Items T-10 and I-4 but shall be constructed in accordance with the requirements of Item S-15.
Removal of the temporary pavement when no longer needed for maintaining traffic shall be measured and paid for under Item E-8.
Cost of all drainage, earthwork, maintenance, and work required for restoring the areas to plan lines in a neat condition ready for seeding shall be included in the lump sum bid for Item I-3, Maintaining Traffic.

PART WIDTH CONSTRUCTION
Because of the necessity of building part of this project under traffic and constructing the pavement part at a time, extreme care shall be taken to prevent the construction of a butt joint on centerline in the B-19 and I-22 courses.

This shall be accomplished by building the B-19 and I-22 courses, placed with the first portion of the pavement built, at least eighteen (18) inches beyond the centerline and by surfacing no closer than eighteen (18) inches to this edge of the above courses. When the second portion of the pavement is built, at least twelve (12) inches of these projecting courses shall be broken down and thoroughly keyed in with the newly placed corresponding courses in the second portion of the pavement built. Payment for this operation shall be included in the unit price bid for the pertinent pavement items.

T-10 MODIFIED
This item shall consist of furnishing No. 3 or No. 34 Aggregate, when directed by the Engineer, in lieu of the grading specified under Item T-10. All other provisions of Item T-10 shall apply. The weights to be used in calculating the yardage to be paid for under this item shall be the same as those indicated in the Construction and Materials Specifications for crusher run or bank run materials.

PROTECTION OF TRAFFIC (Overhead Bridge Construction)
The Contractor shall safeguard the traveling public on *T.R. 185* by providing platforms, nets, or other suitable protection above the traveled lanes. Payment for this protection shall be included in the lump sum price bid for "Maintaining Traffic," *Item I-3."*

NON-RIGID PAVEMENT REMOVAL
Removal and disposal of existing non-rigid pavement, unless otherwise indicated on these plans, shall be measured and paid for as Item E-1, Roadway Excavation.

SCARIFICATION OF EXISTING FLEXIBLE PAVEMENT
Within the limits of construction where the existing flexible pavement will have less than six (6) inches of fill placed upon it, the pavement shall be thoroughly scarified for its full depth, mixed with sufficient soil and properly recompacted to insure the elimination of any planes of separation between it and the embankment placed thereon. Payment for scarification as described above shall be included in the unit price bid for Item E-1, Roadway Excavation.

PAVEMENT REMOVAL OUTSIDE NORMAL CONSTRUCTION LIMITS
After the existing pavement has been removed, the old roadway shall be plowed, harrowed, and dragged to a smooth grade, the old ditches filled, and the entire area sloped to drain and left in a neat condition ready for seeding. Payment for this work shall be included in the unit price bid for pavement removal, Item E-8. Seeding shall be measured and paid for in accordance with Item L-9.

REMOVAL OF EXISTING RIGID PAVEMENT *& PAVED GUTTER* : *Existing paved gutter and* rigid type pavements shall be removed under Item E-8 when they are located less than 3 feet below the proposed pavement subgrade in proposed pavement areas or less than 3 feet below the proposed finished surface in areas outside the proposed pavement.
When existing paved gutters
or existing rigid type pavements lie below the above limits they shall not be removed.
Payment for the removal of paved gutter shall be based on final measurement.

PLACEMENT OF ASPHALTIC CONCRETE
Two-way traffic shall be maintained at all times except that one-way traffic will be permitted for minimum periods of time consistent with the requirements of the specifications for protection of completed asphaltic concrete courses.

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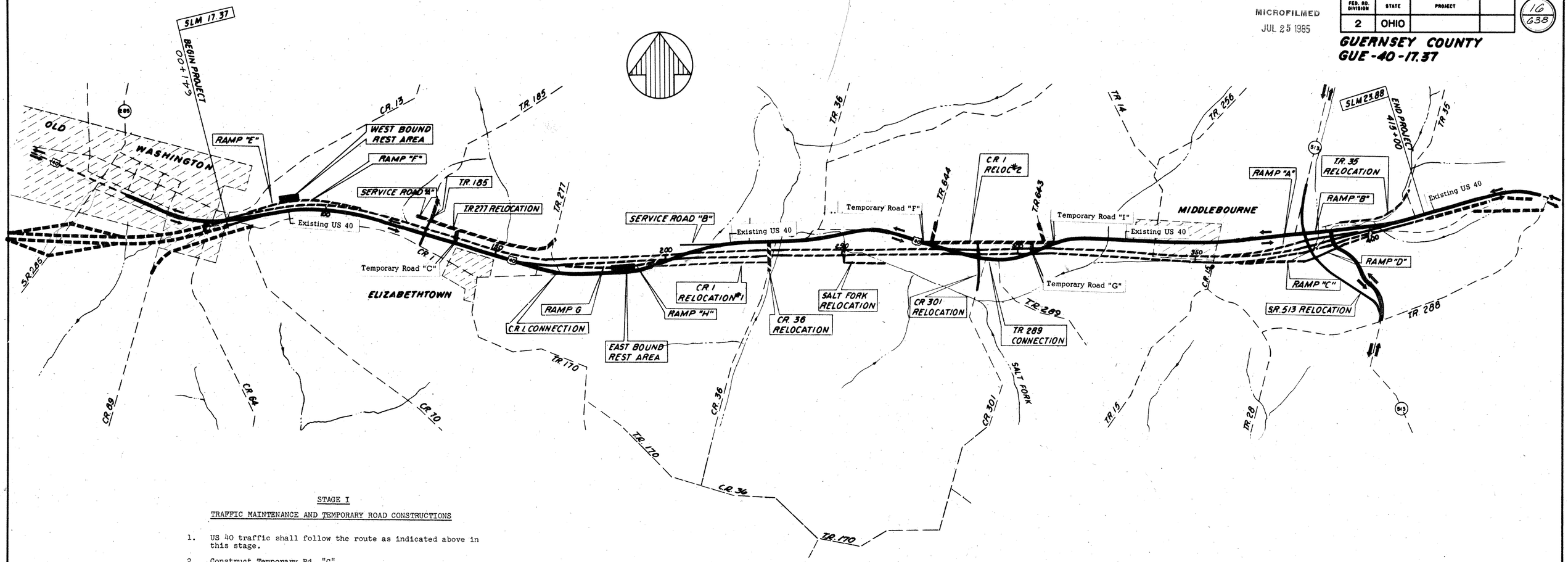

STAGE I

TRAFFIC MAINTENANCE AND TEMPORARY ROAD CONSTRUCTIONS

1. US 40 traffic shall follow the route as indicated above in this stage.
2. Construct Temporary Rd. "C".
3. Twp. Roads 185 & 277 shall remain open to traffic at all times. Part width construction on Twp. Rd. 185, north of Twp. Rd. 277 Relocated, will be necessary for maintaining traffic. Part width construction will be necessary where Twp. Rd. 277 relocation connects to the existing pavement on Twp. Rd. 277.
4. County Road 36 may be closed to traffic as directed by the Engineer, until the new location is open to traffic. County Road 301 shall remain open to traffic during the period when County Road 36 is closed.
5. Construct Temporary Rds. F, G & I.

   (a) Temporary Roads "F", "G" & "I". Construction shall be completed so that they will be open to traffic at the same time as Co. Rd. 1 Relocation #2. Temporary Rd. "G" is constructed for maintaining traffic on Twp. Rd. 289 to Ex. US 40.
6. Co. Rd. 301 & Twp. Roads 35, 289, 644 & 643 traffic shall be maintained at all times. Part width construction will be necessary on Twp. Rds. 643 & 644.
7. Co. Rd. 15 may be closed to traffic as directed by the Engineer.
8. S.R. 513. Two way traffic shall be maintained on Ex. S.R. 513.
9. Salt Fork Relocation may be constructed at any time.

STAGE CONSTRUCTION LEGEND

- Traffic is to be maintained.
- Must be built in the Stage.
- May be built in this Stage.
- Must be deferred to another Stage.
- Not part of this Contract.

SCALE IN MILES
0 ½

TRAFFIC MAINTENANCE & CONSTRUCTION PLAN STAGE I

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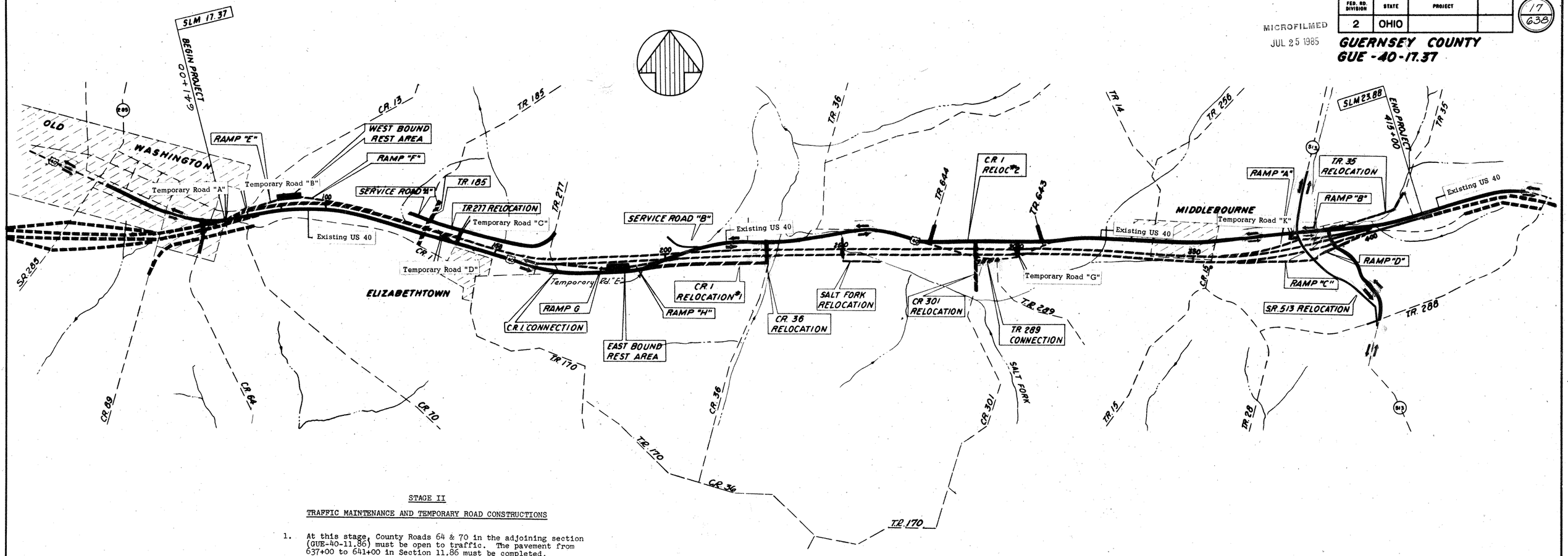

STAGE II

TRAFFIC MAINTENANCE AND TEMPORARY ROAD CONSTRUCTIONS

1. At this stage, County Roads 64 & 70 in the adjoining section (GUE-40-11.86) must be open to traffic. The pavement from 637+00 to 641+00 in Section 11.86 must be completed.
2. US 40 traffic shall follow the route indicated above.
3. Temporary Rds. A, B, D & *E shall be constructed.
4. Twp. Roads 185 & 277 traffic shall use Twp. Rd. 277 Relocation and Temporary Rd. "C" to Existing US 40.
   Twp. Road 185 from Twp. Rd. 277 Relocation to Ex. US 40 shall be closed during the new construction on Twp. Rd. 185.
   Twp. Road 277 from Twp. Rd. 277 Relocation to Ex. US 40 may be abandoned.
5. Co. Rd. 36 traffic shall use the Co. Rd. 36 Relocation when open to traffic.
6. Twp. Rds. 35, 289, 643 & 644 traffic shall be maintained at all times. Temporary Rd. "G" shall be used to maintain Twp. Rd. 289 traffic.
7. Twp. Rd. 301 shall be closed to traffic, for the construction of the relocation, when Co. Rd. 36 is open to traffic.
8. S.R. 513. Two way traffic shall be maintained.
9. *Temporary Roads "E". Construction shall be completed so that it will be opened to traffic at the same time as Co. Rd. 1 Relocation #1 and Co. Rd. 36.

STAGE CONSTRUCTION LEGEND

- Traffic is to be maintained.
- Must be built in the Stage.
- May be built in this Stage.
- Must be deferred to another Stage.
- Not part of this Contract.

SCALE IN MILES
0 ½ 1

TRAFFIC MAINTENANCE & CONSTRUCTION PLAN STAGE 2

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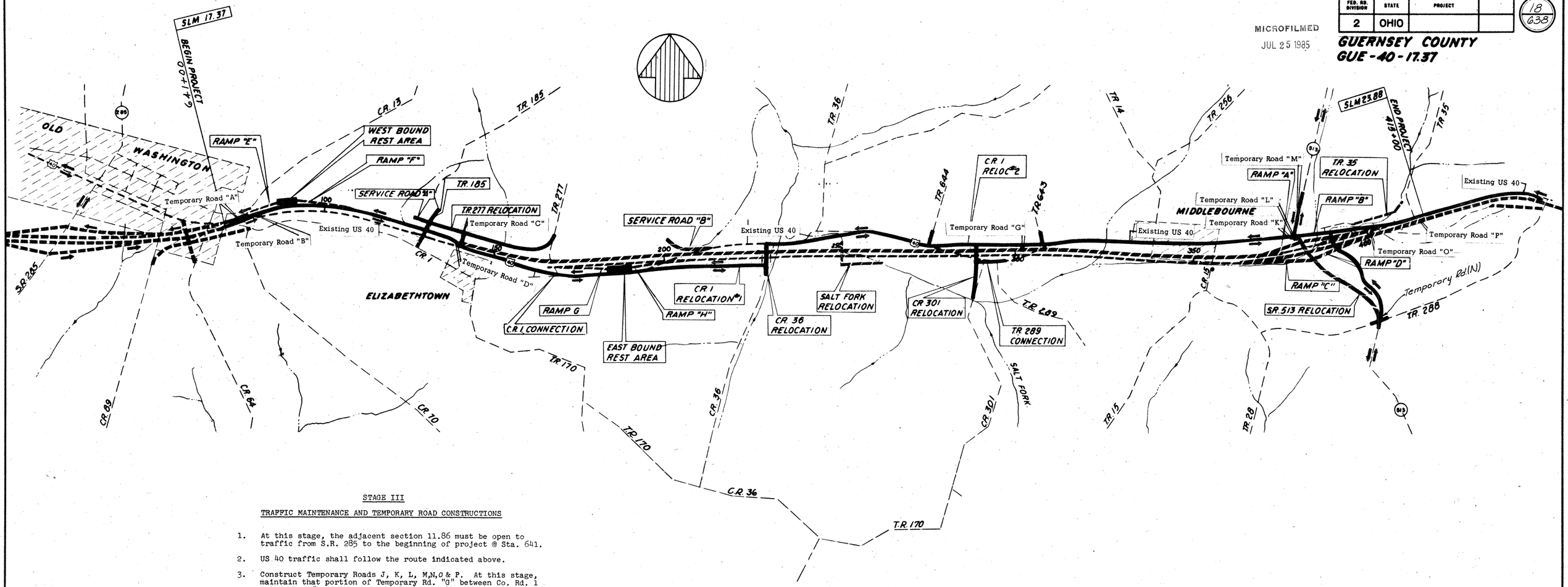

STAGE III

TRAFFIC MAINTENANCE AND TEMPORARY ROAD CONSTRUCTIONS

1. At this stage, the adjacent section 11.86 must be open to traffic from S.R. 285 to the beginning of project @ Sta. 641.
2. US 40 traffic shall follow the route indicated above.
3. Construct Temporary Roads J, K, L, M,N,O & P. At this stage, maintain that portion of Temporary Rd. "G" between Co. Rd. 1 Relocation #2 and proposed westbound US 40.
4. Twp. Roads 185 & 277 traffic shall use Twp. Rd. 277 Relocation and Temporary Rd. "G" to US 40 traffic.
5. Twp. Roads 289, 643, 644 & Co. Rd. 301 traffic shall be maintained on their respective finished roadways.
6. S.R. 513. Two-way traffic shall be maintained at all times on the route shown above.
7. Twp. Rd. 35 traffic shall be maintained on the existing road.

STAGE CONSTRUCTION LEGEND

- Traffic is to be maintained.
- Must be built in the Stage.
- May be built in this Stage.
- Must be deferred to another Stage.
- Not part of this Contract.

SCALE IN MILES
0 ½ 1

TRAFFIC MAINTENANCE & CONSTRUCTION PLAN STAGE 3

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JUL 25 1985

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

19/638

GUERNSEY COUNTY
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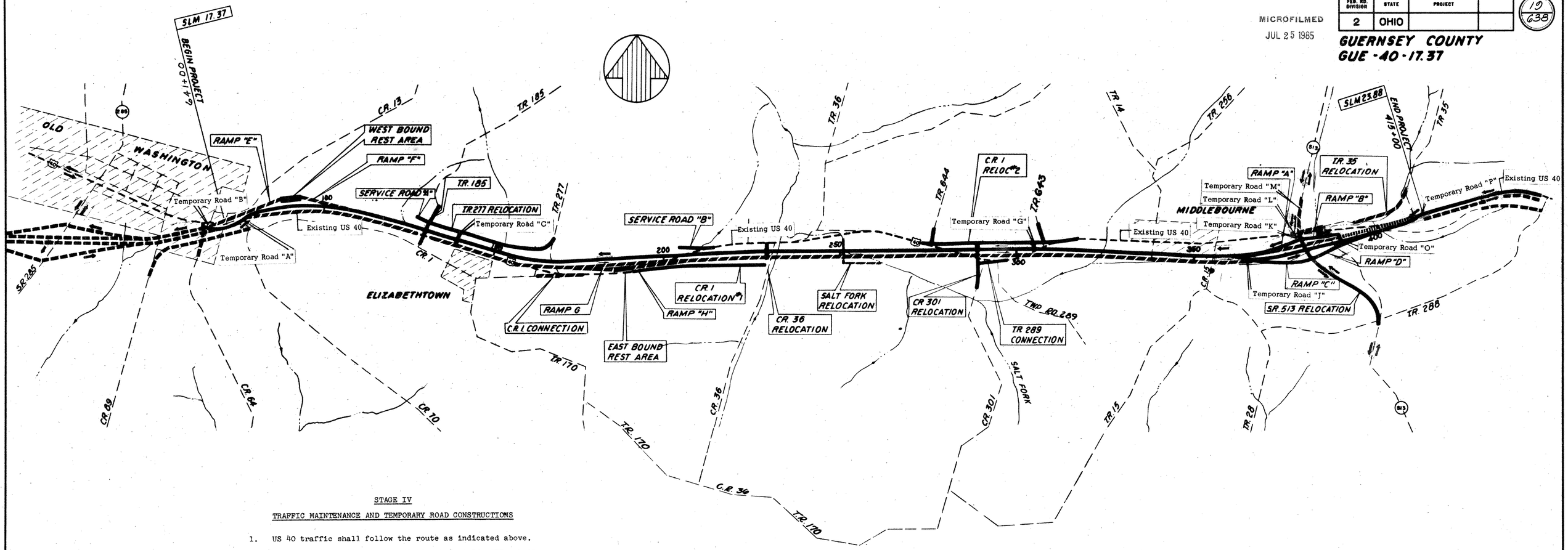

STAGE IV

TRAFFIC MAINTENANCE AND TEMPORARY ROAD CONSTRUCTIONS

1. US 40 traffic shall follow the route as indicated above.
2. Co. Rd. 1 Connection to Ex. US 40, at Twp. Rd. 277, shall be closed to traffic for a period not to exceed 30 days.
3. Twp. Roads 185, 289, 643 & 644 and Co. Rd. 301 traffic shall be maintained on their own respective finished roadways.
4. S.R. 513. Two way traffic shall be maintained on the proposed pavement from T.R. 288 to existing US 40. At this point, traffic shall be detoured over Temporary Roads L & M to Ex. S.R. 513 north of the project.

   Maintain access to the Old National Road via the existing crossover at Sta. 39+00 (Twp. Rd. 35) until the Twp. Rd. 35 connection is open to traffic at S.R. 513 Relocation.

   When Twp. Rd. 35 Relocation is completed and open to traffic at S.R. 513, the Existing Twp. Rd. 35 between US 40 and Twp. Rd. 35 Relocation shall be closed to traffic.

STAGE CONSTRUCTION LEGEND

- Traffic is to be maintained.
- Must be built in the Stage.
- May be built in this Stage.
- Must be deferred to another Stage.
- Not part of this Contract.
- To be constructed when Twp. Rd. 35 Relocation is open to traffic.

0 ½ 1

SCALE IN MILES

TRAFFIC MAINTENANCE & CONSTRUCTION PLAN STAGE 4

GENERAL SUMMARY

QUANTITIES			ITEM	UNIT	TYPE CODE - 7221 DESCRIPTION
Non-Participation by Federal	Total Participation by State & Federal	Project Total			
					ROADWAY
46,363	2,804,293	2,850,656 ✓	E-1	C.Y.	Roadway Excavation, Method "B" as per plan.
10,464	337,716	348,180 ✓	E-1	S.Y.	Compacted Subgrade
140,580	209,133	349,713 ✓	E-4	C.Y.	Borrow
	23,794	23,794 ✓	E-4	C.Y.	Borrow using granular material, as per plan
	37,282	37,282 ✓	E-8	S.Y.	Removal and Disposal of Existing Pavement.
848	13,852	14,700 ✓	E-11	M Gal.	Water
	3	3 ✓	E-8	Ea.	Removal and Storage of Existing Cumberland Milestones
103		103 ✓	E-8	S.Y.	Removal and Disposal of Existing Wearing Course
	1033	1033 ✓	E-8	L.F.	Removal and Disposal of Existing Paved Gutter, as per plan
Lump	Lump	Lump ✓	E-9	Lump	Removal of trees and stumps.
80	338	418 ✓	E-12	L.F.	Pipe removed, 15" and under
	286	286 ✓	E-12	L.F.	Pipe removed, over 15"
	53	53 ✓	I-8	Ea.	Centerline Reference Monuments, as per plan.
	7	7 ✓	I-8	Ea.	Standard Monument Assemblies
6009	288	6297 ✓	I-13	S.F.	4" Concrete Sidewalk
420		420 ✓	I-13	S.F.	7" Concrete Sidewalk
	350	350 ✓	I-15	L.F.	Guard Rail Removed and Disposed of
2800	3642.5	3092.5 ✓	I-15	L.F.	Guard Rail, Steel Beam Standard Type (Deep)
900		900 ✓	I-15	L.F.	Guard Rail, Steel Beam Barrier Type (Deep)
	1112.5	1112.5 ✓	I-15	L.F.	Guard Rail, wire Cable type (3 Cables)
	6937.5	6937.5 ✓	I-15	L.F.	Guard Rail, Removed & Rebuilt
	294	294 ✓	I-127	Ea.	Delineators, Post Mounted Type A-1
	179	179 ✓	I-127	Ea.	Delineators, Post Mounted Type C-2
	3	3 ✓	I-127	Ea.	Delineators, Post Mounted Type C-3
45,173	1,226,198	1,271,371 ✓	L-9	S.Y.	Seeding and Protecting, as per plan.
4.15	112.73	116.88 ✓	L-9	Tons	Commercial Fertilizer (12-12-12)
20.75	563.67	584.42 ✓	L-9	Tons	Agricultural Liming Material, as per plan.
934	26,020	26,954 ✓	L-10	S.Y.	Sodding
	375	375 ✓	L-10	S.Y.	Sodding for Special Berm and Slope Protection, as per plan.
	4715	4715 ✓	L-120	S.Y.	Jute Matting
	50	50 ✓	T-35	C.Y.	Asphaltic Concrete Surface Course or an approved Bituminous Premixed Surface Course for maintaining traffic.
206	865	1071 ✓	T-10	C.Y.	Traffic Compacted Surface Course for Maintaining Traffic
9	23.6	32.6 ✓	I-4	Ton	Calcium Chloride for Dust Control
206	340	546 ✓	T-10	C.Y.	Traffic Compacted Surface, Course for Maintaining Traffic, Modified as per plan
	23.12	23.12 ✓	I-125	Miles	4" Edge Lines
	5.04	5.04 ✓	I-125	Miles	6" Lane Lines & Centerlines
	0.61	0.61 ✓	I-125	Miles	8" Channelizing Lines
	Lump	Lump ✓	I-125	Lump	Curb & Island Marking
	Lump	Lump ✓	I-125	Lump	Diagonal Stripes
	22,410	22,410 ✓	Special	S.Y.	Furnishing and Mixing Calcium Chloride with Aggregate
	134	134 ✓ S.S. C.E. 101.04		Hours	Compaction using heavy pneumatic tired roller
	2	2 ✓	Special	Each	Drilled Wells abandoned
					DRAINAGE
	160	160 ✓	I-1	L.F.	15" Pipe Class A-1 Sec. M-6.6 (b), M-6.8 (b) or M-6.4 (d)
	114	114 ✓	I-1	L.F.	36" Pipe Class A-1
	506	506 ✓	I-1	L.F.	12" Pipe Class A-1 Sec. M6.6 (a) or M6.8 (b)
	212	212 ✓	I-1	L.F.	15" Pipe Class A-1 Sec. M6.6 (a) or M6.8 (b)
	93	93 ✓	I-1	L.F.	21" Pipe Class A-1
	96	96 ✓	I-1	L.F.	24" Pipe Class A-1 Sec. M6.6 (a) or M6.8 (b)
	114	114 ✓	I-1	L.F.	27" Pipe Class A-1 Sec. M6.6 (a) or M6.8 (b)
	52	52 ✓	I-1	L.F.	36" Pipe Class A-1 Sec. M6.6 (a) or M6.8 (b)
	190	190 ✓	I-1	L.F.	6" Pipe Class A-1 Sec. M6.6 (b) or M6.8 (b)
	601	601 ✓	I-1	L.F.	15" Pipe Class A-1 Sec. M6.6 (b) or M6.8 (b)
	80	80 ✓	I-1	L.F.	18" Pipe Class A-1 Sec. M6.6 (b) , M6.8 (b) or M-6.4 (d)
	97	97 ✓	I-1	L.F.	21" Pipe Class A-1 Sec. M6.6 (b) or M6.8 (b)
	22	22 ✓	I-1	L.F.	42" Pipe Class A-1 Sec. M6.6 (a)
	82	82 ✓	I-1	L.F.	60" Pipe Class A-1 Sec. M6.6 (a)
	70	70 ✓	I-1	L.F.	96" Pipe Class A-1 Sec. M6.6 (a)
	159	159 ✓	I-1	L.F.	24" Pipe Class A-1 Sec. M6.6 (c) or M-6.4 (d)
	298	298 ✓	I-1	L.F.	27" Pipe Class A-1 Sec. M6.6 (c)
	322	322 ✓	I-1	L.F.	27" Pipe Class A-1 Sec. M6.6 (d)
	412	412 ✓	I-1	L.F.	24" Pipe Class A-1 Sec. M6.4 (d) or M-6.6 (d)
	68	68 ✓	I-1	L.F.	30" Pipe Class A-1 Sec. M6.4 (d)
	66	66 ✓	I-1	L.F.	36" Pipe Class A-1 Sec. M6.4 (d)
	214	214 ✓	I-1	L.F.	24" Pipe Class A-1 Sec. M6.4 (d) 12 gage
	109	109 ✓	I-1	L.F.	27" Pipe Class A-1 Sec. M6.6 (b) or M-6.8 (b)
284		284 ✓	I-1	L.F.	36" Pipe Class A-1 Sec. M6.4 (d) 8 gage
	152	152 ✓	I-1	L.F.	42" Pipe Class A-1 Sec. M6.4 (d) 8 gage, Shop Elongated, as per plan
	420	420 ✓	I-1	L.F.	42" Pipe Class A-1 Sec. M6.4 (d) 8 gage
	152	152 ✓	I-1	L.F.	54" Pipe Class A-1 Sec. M6.4 (d) 8 gage Shop elongated as per plan.
	40	40 ✓	I-1	L.F.	54" Pipe Class A-1 Sec. M-6.4 (d) 8 gage Shop strutted as per plan.
	118	118 ✓	I-1	L.F.	60" Pipe Class A-1 Sec. M6.4 (g) 10-8 gage
	202	202 ✓	I-1	L.F.	60" Pipe Class A-1
	542	542 ✓	I-1	L.F.	72" Pipe Class A-1 Sec. M6.4 (g) 8-7 gage
	228	228 ✓	I-1	L.F.	126" Pipe Class A-1 Sec. M6.4 (g) 3-1 gage
	204	204 ✓	I-1	L.F.	138" Pipe Class A-1 Sec. M6.4 (g) 8-5 gage
	242	242 ✓	I-1	L.F.	144" Pipe Class A-1 Sec. M6.4 (g) 7-5 gage
46		46 ✓	I-1	L.F.	18" Pipe Class A-1
	68	68 ✓	I-1	L.F.	27" Pipe Class A-1
	18	18 ✓	I-1	L.F.	8" Pipe Class B-1
102		102 ✓	I-1	L.F.	12" Pipe Class D-1 Sec. M6.4 (c)
116		116 ✓	I-1	L.F.	24" Pipe Class D-1
140	214	354 ✓	I-1	L.F.	12" Pipe Class E-4
	276	276 ✓	I-1	L.F.	15" Pipe Class E-4
	558	558 ✓	I-1	L.F.	18" Pipe Class E-4
	200	200 ✓	I-1	L.F.	21" Pipe Class E-4
152		152	I-1	L.F.	4" Pipe Class E-4 Sec. M6.8 (a), with Slip Seal Joints
	1431	1431 ✓	I-1	L.F.	6" Pipe Class F-4
	100	100 ✓	I-1	L.F.	8" Pipe Class F-4
	162	162 ✓	I-1	L.F.	18" Pipe Class F-4
	84	84 ✓	I-1	L.F.	21" Pipe Class F-4
	126	126 ✓	I-1	L.F.	27" Pipe Class F-4

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FED. NO. DIVISION	STATE	PROJECT
2	OHIO	

GUERNSEY COUNTY
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GENERAL SUMMARY

QUANTITIES			ITEM	UNIT	TYPE CODE 7221 DESCRIPTION
Non-Participation by Federal	Total Participation by State & Federal	Project Total			
					DRAINAGE, CONTINUED
	540	540	I-1	L.F.	8" Pipe Class F-4 Sec. M6.4 (c)
	594	594	I-1	L.F.	15" Pipe Class F-4
	16	16	I-1	L.F.	68"x43" Pipe Class G-1 Sec. M6.7 (3)
	318	318	I-1	L.F.	15'-6"x 9'-5" Pipe Class G-1 Sec. M6.4 (g) 1-1 gage, as per plan.
	101,492	101,492	I-1	L.F.	6" Pipe Class I-3
	38,330	38,330	I-1	L.F.	6" Pipe Class I-3 Sec. M6.4 (h)
	242	242	I-1	L.F.	12" Pipe Class J-1
	110	110	I-1	L.F.	15" Pipe Class J-1 Sec. M-6.6 (b) or M-6.8 (b)
	2980	2980	I-1	L.F.	15" Pipe Class J-1
	306	306	I-1	L.F.	18" Pipe Class J-1
	222	222	I-1	L.F.	24" Pipe Class J-1
	132	132	I-1	L.F.	36" Pipe Class J-1
2.6	258.4	261	I-2	C.Y.	Masonry
	15	15	I-5	Ea.	6" Pipe Specials Class A-1, Sec. M-6.6 (b) or Sec. M-6.8 (b)
	15	15	I-5	Ea.	6" Pipe Specials Class F-4
	115	115	I-5	Ea.	6" Pipe Specials Class I-3
	34	34	I-5	Ea.	15" Pipe Specials Class F-4
	4	4	I-5	Ea.	21" Pipe Specials Class F-4
	2	2	I-5	Ea.	18" Pipe Specials Class F-4
	1	1	I-5	Ea.	27" Pipe Special Class F-4
	30	30	I-9	Lin. Ft.	Stone Underdrains, No. 1
	1	1	I-8	Ea.	Standard No. 2-2-B Catch Basin
1	2	3	I-8	Ea.	Standard No. 2-3 Catch Basins, Modified as per plan
	45	45	I-8	Ea.	Standard No. 4 Catch Basins
	6	6	I-8	Ea.	Standard No. 5 Catch Basins
	8	8	I-8	Ea.	Standard No. 6 Catch Basins
	5	5	I-8	Ea.	Standard No. 2-8 Median Inlets
	1	1	I-8	Ea.	Standard No. 2-10 Median Inlet
1	1	2	I-8	Ea.	Standard No. 1 Manholes
	1	1	I-8	Ea.	Standard No. 2 Manhole without drop pipe, Modified as per plan
	6	6	I-8	Ea.	Standard No. 2-6 Median Inlets
1200	7835	9035	I-9	L.F.	Stone Underdrains No. 2
10	1103	1113	I-10	S.Y.	Riprap, using 6" Reinforced Concrete Slab, as per plan
600	8165	8765	I-10	C.Y.	Dumped Rock Channel Protection
	1	1	I-16	Ea.	Catch Basin Abandoned
	42,630	42,630	E-3	C.Y.	Channel Excavation
	Lump	Lump	S-22	Lump	Removal of Portions of Existing Structures
	Lump	Lump	S-24	Lump	Removal of Existing Structures
					PAVEMENT
3102	2226	5328	T-30	Gal.	Bituminous Prime Coat, Sec. M 5.7, Pt. 2 or 3
	449	449	T-30	Gal.	Bituminous Tack Coat, Sec. M5.5, MS-2 or RS-1, or Sec. M 5.2 RC-1 or RC-2, as per Sec. T-30.02
	27716	27716	T-31	Gal.	Bituminous Surface Treatment, Bituminous Material, as per plan.
	869	869	T-31	C.Y.	Bituminous Surface Treatment, No. 6 Aggregate.
	18	18	T-31	C.Y.	Bituminous Surface Treatment, White Limestone No. 6 Aggregate.
	213	213	T-35	C.Y.	Asphaltic Concrete Surface Course, Type "A" (85-100)
	675	675	T-35	C.Y.	Asphaltic Concrete Surface Course, Type "C" (70-85)
309	57	366	T-35	C.Y.	Asphaltic Concrete Surface Course, Type "C" (85-100)
	7,255	7,255	T-70	S.Y.	9" Portland Cement Concrete Pavement
53	202,592	202,645	T-71	S.Y.	9" Reinforced Portland Cement Concrete Pavement
1471	8190	9661	B-10	C.Y.	Aggregate Base Course
	13,313	13,313	B-21	C.Y.	Waterproofed Aggregate Base Course, As Per Plan
	48	48	B-35	C.Y.	Asphaltic Concrete Base Course (85-100)
382	35	417	B-35	C.Y.	Asphaltic Concrete Leveling Course (85-100)
	999	999	B-35	C.Y.	Asphaltic Concrete Leveling Course (70-85)
	13997	13997	B-112	C.Y.	Porous Base Course
	1105	1105	I-7	S.Y.	Reinforced Concrete Approach Slabs-(T.=13")
	1108	1108	I-12	L.F.	Standard Type 2-A Curb
	319	319	I-12	L.F.	Standard Type 6 Curb
	3272	3272	I-12	L.F.	Type A-Curb, as per plan
	1922	1922	I-12	L.F.	Type B-Curb, as per plan.
	1192	1192	I-18	C.Y.	Stabilized Crushed Aggregate Shoulders and approaches.
	48	48	I-21	S.Y.	4" Portland Cement Concrete Median Pavement, Standard, Type I
1185	3971	5156	I-22	C.Y.	Subbase
	52018	52019	I-22	C.Y.	Subbase, Grading A or B, as per plan.

STRUCTURES OVER 20' SPAN

Structure No. GUE-40-1845	See Sheet No. 568 for Quantities
Structure No. GUE-40-2039	See Sheet No. 575 for Quantities
Structure No. GUE-40-2078	See Sheet No. 581 for Quantities
Structure No. GUE-40-2151	See Sheet No. 592 for Quantities
Structure No. GUE-40-2326	See Sheet No. 603 for Quantities

LIGHTING

See Sheet 445 for Quantities

REST AREAS

See Sheet 445, for Quantities

BUILDING REMOVALS

	Lump	Lump	E-10	Lump	1 Story Conc. Block Residence, 1 Frame Shed, one Concrete foundation,	Parcel No. 16-WL
	Lump	Lump	E-10	Lump	1 Frame Chicken House	Parcel No. 36-WL
	Lump	Lump	E-10	Lump	1 Frame Shed	Parcel No. 38-WL
	Lump	Lump	E-10	Lump	2 Story Frame Residence	Parcel No. 48-X
	Lump	Lump	E-10	Lump	1 Frame Shed	Parcel No. 49-WL
	Lump	Lump	E-10	Lump	1 Frame Barn, 2 Frame Sheds	Parcel No. 51-WL
	Lump	Lump	E-10	Lump	1 Frame Barn	Parcel No. 49-WD
	Lump	Lump	E-10	Lump	1 Frame Barn	Parcel No. 15-WD
Lump	Lump	Lump		Lump	Construction Layout Stakes	
Lump	Lump	Lump	I-3	Lump	Maintaining Traffic	

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FED. RD. DIVISION	STATE	PROJECT
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GUERNSEY COUNTY
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SUB SUMMARY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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GUERNSEY COUNTY
GUE ~ 40 ~ 17.37

ROADWAY

DRAINAGE

| SHEET NO. | E-8 Pavement Removal SY | E-12 Pipe Removal 15" & Under LF | E-12 Pipe Removal Over 15" LF | E-1 Compacted Subgrade SY | E-8 Removal of Ex. Wearing Course SY | I-15 2A LF | I-15 2A Barrier LF | I-15 No. 2 3-cable LF | I-15 Remove & Rebuild LF | L-10 Sod SY | L-10 Special Sod SY | E-8 Removal of Ex. Paved Gutter LF | L-120 Jute Matting SY | Spec. 191 Drilled wells abandoned Ea. | I-4 Calcium Chloride Tons | T-10 Compacted Surface Course C.Y. | T-10 Mod. Compacted Surface C.Y. | I-15 Removed & Disposed LF | E-8 Removal of Ex. Milestones Ea. | I-1 Class A-1 27" LF | 15" LF | 36" LF | M.G.6(a) or M.G.8(b) 36" LF | 12" LF | 15" LF | 21" LF | 24" LF | 27" LF | M.G.6(b) or M.G.8(b) 6" LF | 15" LF | 18" LF | 21" LF | M.G.6(a) 60" LF | 96" LF | 42" LF | M.G.6(c) 27" LF | 24" LF | M.G.6(d) 27" LF | M.G.4(d) 54" 8 gage Shop "Stuffed" L.F. | 36" LF | 24" LF | 30" LF | 24" 12 gage LF | 36" 8 gage LF | 42" 8 gage Shop Elong. LF | 42" 8 gage LF | 54" 8 gage Shop Elong. LF | M.G.4(g) 60" 10-8 gage LF | 60" 10-10 gage LF | 72" 8-7 gage LF | 126" 3-1 gage LF | 138" 8-5 gage LF | 144" 7-5 gage LF | Class J-1 18" LF | 36" LF | 29" LF | 12" LF | 15" LF | Class A-1 18" LF | 27" LF | B-1 8" L.F. | J-1 M-6.6(b) or M-6.8(b) 15" LF |
|---|---|---|---

SUB SUMMARY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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GUERNSEY COUNTY
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Drainage (Cont.)

SHEET No.	I-1 Class D D-1 M-6.4(c) 12" L.F.	I-1 Class D D-4 24" L.F.	I-1 Class E-4 12" L.F.	I-1 Class E-4 15" L.F.	I-1 Class E-4 18" L.F.	I-1 Class E-4 21" L.F.	I-1 Class E-4 M6.8(a) with Slip Seal Joint 4" L.F.	I-1 Class F-4 6" L.F.	I-1 Class F-4 8" L.F.	I-1 Class F-4 18" L.F.	I-1 Class F-4 21" L.F.	I-1 Class F-4 M-6.4(c) 8" L.F.	I-1 Class F-4 15" L.F.	I-1 27" L.F.	I-1 Class G-1 M6.7(a) 68"x43" L.F.	I-1 Class G-1 M6.4(g) 1-1 gage 15'-6"x9'-5" L.F.	I-3 6" L.F.	I-3 M6.4(h) 6" L.F.
30																		1500
38																		
39								40				20					1900	1536
40				100				40				10					1977	2608
41								40				10					1586	1390
42								10				30					1337	1558
43								30				30	40				2189	122
44								60				20	58				2666	
45				250				30				20	46				2565	200
46																	101	3784
47								30	20								1655	2459
48					400			60	30		32						2186	1045
49								70	10	53							2056	2082
50																	2800	1200
51								10				10					200	4316
52								40				20	42				3798	261
53								20				20					3225	850
54								20				20	118				4089	
55								20				20	44				3630	
56								60				20	33				4078	
57								60				20	74				3573	
58								70				20	61				4058	
59								20				20	20				4089	
60								70				10	38				3411	626
61																		4000
62								60				20					3641	400
63								70				20					3730	350
64								20				10					3047	1000
65								20				20					4094	
66								20				20					4096	
67								20				20					4094	
68								30				20					4290	
69						200		80				10					3766	409
70								80					20			318	3553	455
71																	1030	3408
72								10				10					1985	205
73								10	10								564	500
260																		
261																		
266																		
267										44	52							
268																		
269										65								
270																		
293																		
294																		
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333																		
337															16			
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361																		
363																		
364																		
365																		
366																		
367																		
394								10				30					2309	
395												20					1357	205
422																		
423					158													
424																		
425																		
426									30									
435																		
436																		
445	*102		140*/158	26			*82	90				10		126			1369	473
466		*116	56				*70	111				10					1398	398
498																		
**																		
⊗	102	116	140				152											
⊠			214	376	558	200		1431	100	162	84	540	504	126	16	318	101492	38330

SHEET No.	I-2 Masonry C.Y.	I-5 Class A-1 M-6.6(b) or M-6.8(b) 6" Ea.	I-5 Class F-4 6" Ea.	I-5 Class I-3 6" Ea.	I-5 M6.4(c) Class F-4 15" Ea.	I-5 M6.4(c) Class F-4 21" Ea.	I-5 M6.4(c) Class F-4 18" Ea.	I-5 M-6.4(d) Class F-4 27" Ea.	I-8 No. 2-2 B C.B. Ea.	I-8 No. 2-3 C.B. Mod. Ea.	I-8 No. 4 C.B. Ea.	I-8 No. 5 C.B. Ea.	I-8 No. 6 C.B. Ea.	I-8 No. 2-6 Inlet Ea.	I-8 No. 2-8 Inlet Ea.	I-8 No. 2-10 Inlet Ea.	I-8 No. 1 M.H. Ea.	I-8 No. 2 M.H. (Mod) w/o Drop Pipe Ea.
30																		
38																		
39	0.6	1		5							1							
40	18.3			2							2		1					
41	0.3			4							1	1						
42	5.1	2		3														
43	16.5			5	2						2							
44	0.8			4	2						3							
45	0.3			3	2						2							
46																		
47	0.3		4								1							
48	21.0		3	4		2					3							
49	0.5			5			2				1	1	1					
50	0.4																	
51	0.2		2										2					
52	0.3		1	3	2						1							
53	1.8			4							1							
54	0.5			4	4						2							
55	18.2			4	2						1							
56	0.5			5	4						2							
57	0.8			4	6						3							
58	0.8			5	6						3							
59	0.3			4	2						1							
60	0.3		2	2	2						1							
61																		
62	24.2			4							1							
63	0.8			5							3							
64	0.3	2		2							1							
65	0.3			4							1							
66	0.3			4							1							
67	44.3			4							1							
68	0.5			5							1		2					
69	0.2			5							2	2	1					
70	22.8		2	2							1							
71																		
72	22.3			2							1							
73	0.3			2							1							
260	0.72																	
261																		
266	1.56																	
267	1.28					2						1						
268																		
269																		
270	1.02																	
293																		
294																		
297																		
298	1.18																	
299																		
300																		
333	2.94																	
337	0.79																	
338																		
339																		
340	3.72																	
357																		
361	0.6																	
363	*0.6																	
364																		
365	*1.18																	
366	11.78																	
367																		
394	8.23	2		3									1					
395			1	1														
422																		
423	0.88								1								1	
424	1.18																	
425	8.4																	
426																		
435																		
436																		
445	*0.38/0.88	4		1				1		2		1		3	3		*1	
466	*0.42/0.23	4		1						1*				3	2	1		1
498																		
**																		
⊗	2.6									1							1	
⊠	258.4	15	15	115	34	4	2	1	1	2	45	6	8	6	5	1	1	1

PAVEMENT

SHEET No.	I-9 Stone Underdrains No. 2 L.F.	I-10 Riprap 6" R.C. Slab S.Y.	I-10 Dumped Rock Channel Prot. C.Y.	I-16 Abandon Ex. C.B. Ea.	E-3 Channel Excavation C.Y.	S-22 Removal of Portions of Ex. Struct. Lump	S-24 Removal of Ex. Structure Lump	I-9 Stone Underdrains No. 1 L.F.	I-22 Subbase 6" Grading "A" or "B" C.Y.	I-22 Subbase 6" C.Y.	B-19 Aggregate Base Course C.Y.	B-35 Base Course C.Y.	B-35 Leveling Course C.Y.	T-30 Tack Coat Gal.	T-30 Prime Coat Gal.	T-35 Type "A" C.Y.	T-35 Type "C" C.Y.	T-71 Reinforced Cement Concrete S.Y.	Special Calcium Chloride S.Y.	T-70 9" S.Y.
30								30												
38																				
39			78																	1836
40		57	2			2														
41		12	3						63									821		
42																				
43			201			1														
44			11															180		
45			110															662		1050
46																		32		
47			194																	
48		792	207		153															
49		43	51																	
50			138																	
51			17																	
52			189																	
53		120	84		51															
54			7																	
55		91	255		132															
56			14																	
57			27																	
58			40				1													
59			463																	
60			6				1													
61																				
62		93	273		323															
63			54		32															
64			2		9															
65			54																	
66			4																	
67		104	118				1				16.4								73.4	
68			224																	1220
69			3																	
70		291	90			1	2													
71																				383
72	120		116			1	1											147		
73	75		2																	1253
260	208	6.7	39																	
261	66																			
266	178		15								26.8								868	
267	360		568.8			1					10.1									
268	376		56																	
269	384		264								30.8								138.5	
270	235	22.2	376.8																	
293	480										25.2									
294												28.8		69		14.4				
297	220			1							10						1.3			655
298	464	11.3	82.2																	
299	489		206																	
300	412		617																	
333	312	31.0	4		11						108.5								439	
337	374	42.3	173								40.4		6.5		331	1.9	4.6		129	258
338	456		97																	
339	496		87																	
340	344	57.3	184		20		1				46.5		3.5			1.4	5.4		148	600
357	304																			
361	120						1				29	11.4	5.7			5.7	4			
363	*80									*1.2	*57.9		*5.4		3.3		*20			
364	*360		*92								*40						*15.8			
365	*480	*10	*498																	
366	*40/120		42																	
367	*240										*18									
394			51																	
395																				
422												8.3				4.2				
423	220		43				1			9.3	31.3				27	4.7	4.6		42	
424	192				37															
425	360	42	107		663						29									
426	200																			
435	180		317								46.6								122	
436	90		128				1				40.1				9.3		3.4		160	
445			*2.8/28.6																	
466																				
498			1641																	
**					1431	Lump	Lump		63	*1.2/9.3	*115.9/400.7	48.5	*5.4/15.7	69	72.7	32.3	*35.8/23.3	1842	1338.7	
⊗	1200	10	600																	
⊠	7835	1103	8165	1				30												7,255

⊗ Total Non Participation by Federal to Gen. Summary
⊠ Total to Gen. Summary
** Total to Sheet # 24
* Non-Participation by Federal

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

GUERNSEY COUNTY
GUE-40-17.37

Sheet No.	Station to Station	Exc. C.Y.	Emb. C.Y.	Emb+12% C.Y.	Seeding S.Y.	E-3 Exc. C.Y.	E-1 Unsut. C.Y.	Emb. ‡ C.Y.
39	640+00 to 650+00	38,133	26,380	29,546	22928			1580 ‡
40	650+00 to 90+00	37,439	30,782	34,476	26287			909 ‡
41	90+00 to 100+00	38,822	65,742	73,631	26531			932 ‡
42	100+00 to 110+00	71,879	27,662	30,981	30918			1450 ‡
43	110+00 to 120+00	4,649	74,810	83,787	32800			
44	120+00 to 130+00	4,869	38,197	42,781	24616			
45	130+00 to 140+00	24,046	50,146	56,164	26636			163 ‡
46	140+00 to 150+00	162,779	3,324	3,723	34048			3029 ‡
47	150+00 to 160+00	60,443	106,663	119,463	31707			2296 ‡
48	160+00 to 170+00	80,133	137,203	153,667	28649			1572 ‡
49	170+00 to 180+00	35,607	44,637	49,993	24,505			492 ‡
50	180+00 to 190+00	105,132	68,748	76,998	25451			1173 ‡
51	190+00 to 200+00	524,864	1,666	1,866	40109			3312 ‡
52	200+00 to 210+00	12,241	281,104	314,836	26574			166 ‡
53	210+00 to 220+00	79,977	109,302	122,418	27,284			793 ‡
54	220+00 to 230+00	7,757	204,569	229,117	25757			26 ‡
55	230+00 to 240+00	0	98,649	110,487	25348		757	
56	240+00 to 250+00	0	68,085	76,255	25585		802	
57	250+00 to 260+00	0	63,805	71,462	24640		2746	
58	260+00 to 270+00	0	62,827	70,366	26929		3234	
59	270+00 to 280+00	0	61,835	69,255	24439		2950	
60	280+00 to 290+00	16,441	52,589	58,900	26606			124 ‡
61	290+00 to 300+00	245,480	3,002	3,362	27888			3117 ‡
62	300+00 to 310+00	35,941	80,522	90,185	26817			459 ‡
63	310+00 to 320+00	121,700	49,173	55,074	35129	3093		91 ‡
64	320+00 to 330+00	207,188	44,699	50,063	35707	2073		817 ‡
65	330+00 to 340+00	1,044	59,706	66,871	30669	4182		
66	340+00 to 350+00	1,499	47,867	53,611	29239	2610		
67	350+00 to 360+00	4,325	36,252	40,602	29178	4110		
68	360+00 to 370+00	4,907	39,554	44,300	28898	7575		
69	370+00 to 380+00	16,690	19,742	22,111	16355			176 ‡
70	380+00 to 390+00	10,062	45,513	50,974	19794			182 ‡
71	390+00 to 400+00	239,169	3,930	4,402	39250			2109 ‡
72	400+00 to 410+00	6,170	105,125	117,740	23161			39 ‡
73	410+00 to 420+00	28,232	18,871	21,136	14,223			817 ‡
260	Twp. Rd. 185	19,356	6	7	6010			
261	Twp. Rd. 185	288	0	0	325			
266	Ser. Rd. "A" Twp. Rd. 277 Reloc.	1,635	8570	9598	4010			
267	Twp. Rd. 277 Reloc.	11,322	11606	12999	6976			
268	Twp. Rd. 277 Reloc.	35,013	2286	2560	9514			
269	Twp. Rd. 277 Reloc.	15,794	9771	10,944	8819			
270	Twp. Rd. 277 Reloc.	1,073	12207	13,672	4148			
293	Co. Rd. 1 Conn. @ Twp. Rd. 277	353	23	26	2139			
294	Co. Rd. 1 Conn. @ Twp. Rd. 277	85	17	19	228			
297	Co. Rd. 1 Reloc. 1	208	7344	8225	3095			
298	Co. Rd. 1 Reloc. 1	68,657	17181	19243	16259			
299	Co. Rd. 1 Reloc. 1	96,408	4201	4705	12866			
300	Co. Rd. 1 Reloc. 1	516	27062	30309	7643			
333	Co. Rd. 36 Reloc.	97	2240	2509	2101			
337	Co. Rd. 1 Reloc. 2	1,598	4841	5422	3960			
338	Co. Rd. 1 Reloc. 2	46,890	6794	7609	12400			
339	Co. Rd. 1 Reloc. 2	57,678	2053	2299	7636			
340	Co. Rd. 1 Reloc. 2	1,005	7024	7867	5091			
356	Co. Rd. 301 Reloc.	706	39	44	2137			
357	Co. Rd. 301 Reloc.	514	31462	35237	7980			
361	Twp. Rd. 289 Conn.	621	8943	10,016	3213			
363	S. R. 513 Reloc.	822*	444*	497*	2117*			
364	S. R. 513 Reloc.	33,789*	1148*	1286*	12,513*			
365	S. R. 513 Reloc.	498*	160,541*	179,806*	21,972*			
366	S. R. 513 Reloc.	337* / 992	4771* / 16371	5343* / 18336	1998* / 4356			
367	S. R. 513 Reloc.	10,917*	10*	11*	6573*			
396	S.R. 513 Inter. (Ramp "A")	24 882	17433	19525	12540			343 ‡
397	S.R. 513 Inter. (Ramp "B")	1873	31019	34741	8752			
396	S.R. 513 Inter. (Ramp "C")	51,558	22,954	25 708	22378			
397	S.R. 513 Inter. (Ramp "D")	40 684	8567	9595	7397			367 ‡
422	Twp. Rd. 35 Reloc.	250	7	8	666			
423	Twp. Rd. 35 Reloc.	2480	515	577	3183			
424	Twp. Rd. 35 Reloc.	1869	1729	1936	5334			
425	Twp. Rd. 35 Reloc.	3231	10217	11443	10510	604		
426	Twp. Rd. 35 Reloc.	2397	100	112	4166			
435	Ser. Rd. "B"	194	8125	9100	4815			
436	Ser. Rd. "B"	86	3463	3879	2518			
447	W. B. Rest Area	7116	15,035	16839	5673			
447	W.B. Rest Area Ramp "E"	16285	0	0	6026			
447	W. B. Rest Area Ramp "F"	9 082	89,858	100,641	10356			
468	E. B. Rest Area	1 645	10,321	11,560	6508			
468	E.B. Rest Area Ramp "G"	1657	8422	9433	4740			
468	E.B. Rest Area Ramp "H"	40088	10,197	11,421	8790			
498	Salt Fork Channel Relocation	0	0	0	6185	16952⊗		
	Total Embankment ‡		26,534‡	29718				26,534 ‡
	Total From Sheet #23					1431		
	Total	2793804						
	Total (Unsuitable E-1)	10489						
	Totals Taken To Gen. Summary	2,804,293			1,226,198	⊠42,630	(10,489)	
*	Totals Taken To Gen. Summary	46,363			45,173			
	Totals Taken To Earthwork Calc.	2,793,804	2,704,122	3,028,615	1,226,198	25,678		
*	Totals Taken To Earthwork Calc.	46,363	164,914	186,943	45,173			
	Total Unsuitable (to be used for filling Ex. Channels See Sheet #13)					16,952	10,489	

* NON-PARTICIPATING

⊠ 16,952 C.Y. of unsuitable material in this Quantity

⊗ Unsuitable

SHEET NUMBERS		I-22 Subbase C.Y.	I-13 7" Sidewalk S.F.	T-71 9" Reinf. Conc. S.Y.	T-35 Asph. Conc. Surf. Course Type "C" C.Y.	T-35 Asph. Conc. Surf. Course Type "A" C.Y.	B-19 Base Course C.Y.	T-30 Tack Coat Gal.	T-30 Prime Coat Gal.	T-31 No 6 Aggre. C.Y.	T-31 Bit. Material Gal.	I-12 Type "A" Curb L.F.	I-12 Type "B" Curb L.F.	I-12 Type 2-A Curb L.F.	I-12 Type 6 Curb L.F.		I-13 4" Sidewalk S.F.	I-21 4" Conc. Med. S.Y.	I-22 Grading A or B Subbase C.Y.	E-1 Comp. Subgrade S.Y.	B-35 Asph. Conc. Base Course C.Y.	B-35 Asph. Conc. Leveling Course C.Y.	Special Calcium Chloride S.Y.	I-18 C.Y.	B-21 Agg. Base C.Y.	B-112 Porous Base C.Y.
399				416						4.4	136.1								160	961					91	45
400				1898						8.1	251.4								484	2902					168	83
401				2577						12.3	383.6	73	481	114	106			16	702	4165					256	122
402				2134						6.4	200								488	2934					134	50
403				1319						3.2	101.4								288	1724					68	26
404				1538						3.8	115.7								333	2001					77	34
405				2771						9.4	293.4	96	205	108	104			15	668	3967					196	86
406				2170						11.1	345.6		250						597	3579					230	115
407				741						5.8	180.6								242	1453					120	60
449				1563						6.4	200.0								394	2362					133	66
450				2064						12.6	394.8	96	492						617	3700					263	124
451			*210	3892								1461		386			*2908 / 144		671	4032						
452				997						3.0	93.5								229	1371					62	23
453				1772						5.5	172.1								419	2460					132	56
470				1245						4.9	181.0								308	1850					101	50
471				1371						3.2	97.4			114	109			17	302	1761					65	26
472			*210	3800								1388		386			*3101 / 144		655	3932						
473				2296						12.7	397.0	158	494						657	3941					265	126
474				1157						7.2	224.9								343	2057					150	75
23		*1.2 / 9.3		1842	*39.8 / 23.3	32.3	*119.6 / 4997	69	72.7										63		48.5	*5.4 / 15.7	1338.7			
334		44.8			8.8		54.2		129.3											500		13.4	178.0	25	44.8	
35										12.2	381.9								246	15226					127.3	217
22																				599						
Total to Sh.#24-A *		1.2			39.8		119.6															5.4				
Total to Sh.#24-A		54.1		37563	32.1	32.3	5539	69	202	132.2	41504								8886	53779		29.1	1516.7	25	2683.1	1384
Total to GS. *			420														*6009 / 288									
Total to GS.												3272	1922	1108	319			48			48					

* Non-Participation by Federal

E-4 Granular Borrow	
Sheet	Cubic Yards
175	26
176	877
177	3576
178	4616
179	3235
180	5061
183	838
184	4035
185	1530
TOTAL TO G.S.	23,794

EARTHWORK CALCULATIONS

	PARTICIPATING	NON-PARTICIPATING
E-1 — Excavation	= 2,793,804 C.Y.	46,363 C.Y.
E-3 — Channel Excavation	25,678 C.Y.	
Total Excavation	2,819,482 C.Y.	46,363 C.Y.
Embankment +12%	3,028,615 C.Y.	186,943 C.Y.
E-4 — Borrow — Embankment +12% − Total Excavation	= 209,133 C.Y.	140,580 C.Y. to G.S.

FERTILIZER

L-9 — Seeding	= 1,226,198 S.Y.	45,173 S.Y.
L-10 — Sod	= 26 020 S.Y.	934 S.Y.
L-10 — Special Sod	= 375 S.Y.	
Total	1,252,593 S.Y.	46,107 S.Y.

$TOTAL \times \frac{20}{1000} \times \frac{0}{2000}$ = Fertilizer — = 112.73 Tons — 4.15 Tons to G.S.

WATER

Embankment	= 2,704,122 C.Y.	116,914 C.Y.
B-19	= 8,190 C.Y.	1,471 C.Y.
I-18	= 1,192 C.Y.	
I-22 — Subbase	= 55,990 C.Y.	1,185 C.Y.
Total	2,770,624 C.Y.	169,570 C.Y.

$TOTAL \times \frac{5\ M\text{-}Gal.}{1000}$ — 13,853 M. GAL. — 848 M. GAL. to G.S.

LIMING MATERIAL

Liming Material = $TOTAL \times \frac{100^{\#}}{1000\ SF} \times \frac{9\ SF}{1\ SY} \times \frac{1\ Ton}{2000^{\#}}$ = 563.67 TONS — 20.75 TONS to G.S.

ROLLING

S.S. CE - 101.04 = E-1 Compacted Subgrade ÷ $\frac{2000\ S.Y.}{hour}$

269,087 ÷ 2000 — 134 Hrs. to G.S.

‡ Embankment for rock undercut using soil as described in Sec. E-1.02.

PAVEMENT MARKING

STATION	Side	No. Lines	Edge Lines	Lane & Centerline	Channelization	Diagonal	Curb & Island
641+00 to 415+00	Rt. & Lt.	2	68,754				
641+00 to 415+00	Rt. & Lt.	2		25,783			
641+00 to 415+00	Rt.	1	31,177				
641+00 to 415+00	Lt.	1	31,527				
RAMP "A"							
356+00 to 49+87 S.R. 513	Rt.	1	2556				
48+97 to 13+75	Lt.	1	914				
368+00 to 365+75		1			225		LUMP
362+75 to 365+75		1		112.5			
RAMP "B"							
398+50 to 49+69 S.R. 513	Rt.	1	1708				
9+44 to 48+72 S.R. 513	Lt.	1	900				
393+00 to 395+75		1		103			
389+50 to 393+00		2			594	LUMP	LUMP
RAMP "C"							
362+75 to 43+26 S.R. 513	Rt.	1	2163				
10+92 to 44+67 S.R. 513	Lt.	1	1282				
366+30 to 368+80		1		94			
368+80 to 372+00		2			531	LUMP	LUMP
RAMP "D"							
43+16 to 407+00	Rt.	1	2395				
44+33 to 10+50	Lt.	1	737				
395+00 to 397+25		1			225		LUMP
397+25 to 400+25		1		112.5			
RAMP "E"							
8+38 to 641+00	Rt.	1	2062				
8+38 to 16+00	Lt.	1	762				
647+75 to 650+00		1			225		LUMP
644+75 to 647+75				112.5			
RAMP "F"							
111+00 to 21+61	Rt.	1	1461				
15+08 to 21+61	Lt.	1	653				
105+37 to 107+68		1		87			
102+00 to 105+37		2			580	LUMP	LUMP
RAMP "G"							
167+50 to 10+95	Rt.	1	1345				
5+63 to 10+95	Lt.	1	532				
170+84 to 173+18		1		88			
173+18 to 176+75		2			603	LUMP	LUMP
RAMP "H"							
5+82 to 208+00	Rt.	1	2218				
5+82 to 12+00	Lt.	1	618				
196+00 to 198+25		1			225		
198+25 to 201+25		1		112.5			LUMP
TOTAL LINEAR FEET			153764	26,605	3208		
TOTAL MILES TO GEN. SUMMARY			29.12	5.04	0.61	LUMP	LUMP

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

24-A
638

GUERNSEY COUNTY
GUE-40-17.37

T-71 9" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT

TYPICAL SECTION "A"

Sta. 641+00 to Sta. 657+59.78	US. 40	= 1659.78 L.F.	
Sta. 141+00 to Sta. 141+84.44	US. 40	= 84.44 L.F.	
Sta. 159+08.74 to Sta. 230+50.36	US. 40	= 7141.62 L.F.	
Sta. 232+05.86 to Sta. 251+22.25	US. 40	= 1916.39 L.F.	
Sta. 252+77.75 to Sta. 351+48.63	US. 40	= 9870.88 L.F.	
Sta. 386+77.69 to Sta. 400+75.00	US. 40	= 1397.31 L.F.	
	TOTAL	22,070.42 L.F.	
24'x(2 lanes) x 22,070.42' ÷ 9		=	117,708.91 S.Y.

TYPICAL SECTION "B"

Sta. 87+82.74 to Sta. 92+25.00	US. 40	= 442.26 L.F.	
Sta. 141+84.44 to Sta. 159+08.74	US. 40	= 1,724.30 L.F.	
Sta. 351+48.63 to Sta. 386+77.69	US. 40	= 3529.06 L.F.	
	TOTAL	5695.62 L.F.	
24'x(2 lanes) x 5,695.62 ÷ 9		=	30,376.64 S.Y.

TYPICAL SECTION "C"

Sta. 118+79.53 to Sta. 127+77.10	US. 40	= 897.57 L.F.	
Sta. 129+32.60 to Sta. 141+00.00	US. 40	= 1167.40 L.F.	
	TOTAL	2064.97 L.F.	
24'x 2064.97 ÷ 9		=	5506.59 S.Y.

TYPICAL SECTION "D"

Sta. 92+25.00 to Sta. 118+79.53	US. 40	= 2654.53 L.F.	
	TOTAL	2654.53 L.F.	
24'x 2654.53' ÷ 9		=	7078.75 S.Y.

TYPICAL SECTION "E"

Sta. 400+75.00 to Sta. 415+00.00	US. 40	= 1425.00 L.F.	
	TOTAL	1425.00 L.F.	
24'x 1425.00' ÷ 9		=	3800.00 S.Y.

TYPICAL SECTION "I-1"

Sta. 48+70.63 to Sta. 50+80.00	SR. 513 Reloc.	= 209.37 L.F.	
	TOTAL	209.37 L.F.	
24'x 209.37' ÷ 9		=	558.32 S.Y.
Sta. 50+80.00 to Sta. 51+00.00	SR. 513 Reloc.	= 20.00 L.F.	
	TOTAL	20.00 L.F.	
24'x 20' ÷ 9 (Non-Participation by Federal)		=	* 53.33 S.Y.
	TOTAL		165,029.21 S.Y.
Total taken from sheet # 24			37,563.00 S.Y.
TOTAL TAKEN TO GENERAL SUMMARY			202,392.00 S.Y.
" " " " "			* 53.00 S.Y.

T-31 BITUMINOUS SURFACE TREATMENT BITUMINOUS MATERIAL 0.25 GAL./SQ. YD.

TYPICAL SECTION "A"

Length from T-71	= 22,070.42 L.F.		
(10'+4') x (2 lanes) x 22,070.42' ÷ 9	=		68,663.53 S.Y.
(10'+4') x (8 approaches) of 25' ÷ 9	=		311.11 S.Y.
Deduct at Cross-overs			
Sta. 218+90 to Sta. 221+56 (Rt.)	= 286.00 L.F.		
Sta. 220+96 to Sta. 223+82 (Lt.)	= 286.00 L.F.		
Sta. 344+16 to Sta. 346+02 (Rt.)	= 286.00 L.F.		
Sta. 345+42 to Sta. 348+28 (Lt.)	= 286.00 L.F.		
TOTAL	1144.00 L.F.		
4'x 1144.0' ÷ 9	=		-508.44 S.Y.
Deduct at Romps			
Sta. 641+00 to Sta. 654+82 (Lt.)	= 1392.00 L.F.		
Sta. 167+50 to Sta. 176+75 (Rt.)	= 925.00 L.F.		
Sta. 191+05 to Sta. 208+00 (Rt.)	= 1695.00 L.F.		
Sta. 389+50 to Sta. 398+50 (Lt.)	= 900.00 L.F.		
Sta. 390+44.5 to Sta. 400+75 (Rt.)	= 1030.50 L.F.		
TOTAL	5942.50 L.F.		
10'x 5942.5' ÷ 9	=		-6,602.78 S.Y.

TYPICAL SECTION "B"

Length from T-71	= 5695.62 L.F.		
(10'x4') x (2 lanes) x 5695.62' ÷ 9	=		17,719.71 S.Y.
Deduct at Ramps			
Sta. 356+00 to Sta. 372+84 (Lt.)	= 1684.00 L.F.		
Sta. 362+75 to Sta. 372+00 (Rt.)	= 925.00 L.F.		
TOTAL	2609.00 L.F.		
10'x 2609.00' ÷ 9	=		-2898.89 S.Y.

TYPICAL SECTION "C"

Length from T-71	= 2064.97 L.F.		
(10'x4') x (2 lanes) x 2064.97' ÷ 9	=		6424.35 S.Y.
(10'x4') x (4 approaches) of 25' ÷ 9	=		155.56 S.Y.

TYPICAL SECTION "D"

Length from T-71	= 2,654.53 L.F.		
(10'+4') x (2 lanes) x 2,654.53 ÷ 9	=		8258.54 S.Y.
Deduct at Ramp			
Sta. 102+00 to Sta. 111+00 (Lt.)	= 900.00 L.F.		
10'x 900' ÷ 9	=		-1000.00 S.Y.

TYPICAL SECTION "E"

Length from T-71	= 1425.00 L.F.		
(10'+4') x (2 lanes) x 1425' ÷ 9	=		4433.33 S.Y.
Deduct at Ramp			
Sta. 400+75 to Sta. 407+00 (Lt.)	= 625.00 L.F.		
10'x 625' ÷ 9	=		-694.44 S.Y.
TOTAL			94,261.58 S.Y.
94,261.58 x 0.25/sq. yd.	=	23,565.40 GAL.	
Total from sheet # 24	=	4,150.40 GAL.	
TOTAL		27,715.80 GAL.	
TOTAL TAKEN TO GENERAL SUMMARY		27,716 GAL.	

T-31 BITUMINOUS SURFACE TREATMENT, NO. 6 AGGREGATE .008 CU. YD./SQ. YD.

Area from T-31 (above)	= 94,261.58 S.Y.		
Deduct			
TYPICAL SECTION "E"			
Length from T-71	= 1425.00 L.F.		
(10'+4') x 1425' ÷ 9	=		-2216.67 S.Y.
TOTAL			92,044.91 S.Y.
92,044.91 x .008 Cu. Yd./Sq. Yd.	=	736.36 C.Y.	
Total from sheet # 24		132.20 C.Y.	
TOTAL		868.56 C.Y.	
TOTAL TAKEN TO GENERAL SUMMARY		869 C.Y.	

T-31 BITUMINOUS SURFACE TREATMENT, WHITE LIMESTONE NO. 6 AGGREGATE .008 CU. YD/SQ. YD.

TYPICAL SECTION "E"

Length from T-71	= 1425.00 L.F.		
(10'+4') x 1425' ÷ 9	= 2216.67 S.Y.		
2216.67 x 008 Cu.Yd./Sq.Yd.	=		17.73 C.Y.
TOTAL TAKEN TO GENERAL SUMMARY		18 C.Y.	

B-21 3" WATERPROOFED AGGREGATE BASE COURSE

Area from T-31 above	= 94,261.58 S.Y.	
94,261.58 x 3" ÷ (12"x3)	=	7855.13 C.Y.

B-21 5" WATERPROOFED AGGREGATE BASE COURSE

TYPICAL SECTION "J"

Sta. 102+50 to Sta. 111+25	Co. Rd. 1 Reloc.1	= 875.00 L.F.	
Sta. 118+75 to Sta. 130+99	Co. Rd. 1 Reloc.1	= 1224.00 L.F.	
Sta. 82+00 to Sta. 104+75	Co. Rd. 1 Reloc.2	= 2275.00 L.F.	
Sta. 45+75 to Sta. 49+81.36	Co. Rd. 36	= 406.36 L.F.	
	TOTAL	4780.36 L.F.	
4780.36'x 24'-7½" x 5" ÷ (12"x27)	=		1816.61 C.Y.
See sheet # 334 for Radii Quantities for C.R. 36 & C.R. 1 Reloc.1			
Area of Radii C.R. 301	=		11.96 C.Y.

TYPICAL SECTION "K"

Sta. 96+84 to Sta. 102+50.00	C.R. 1 Reloc.1	= 566.00 L.F.	
Sta. 111+25 to Sta. 118+75.00	C.R. 1 Reloc.1	= 750.00 L.F.	
Sta. 76+50 to Sta. 82+00.00	C.R. 1 Reloc.2	= 550.00 L.F.	
Sta. 104+75 to Sta. 111+00.00	C.R. 1 Reloc.2	= 625.00 L.F.	
	TOTAL	2491.00 L.F.	
2491'x 24'-7½" x 5 ÷ (12"x27)	=		946.62 C.Y.
Total from sheet # 24			2683.10 C.Y.
	TOTAL		13313.42 C.Y.
TOTAL TAKEN TO GENERAL SUMMARY			13,313 C.Y.

B-112 POROUS BASE COURSE

TYPICAL SECTION "A"

Lengths from T-31	= 22,070.42 L.F.		
$\left(\frac{6"+3"}{2}\times 10'\right)+\left(\frac{6"+4\frac{3}{4}"}{2}\times 4\right)$ x (2 lanes) x 22,070.42 ÷ (12"x27)	=		9059.77 C.Y.
$\left(\frac{6"+3"}{2}\times 10\right)+\left(\frac{6"+4\frac{3}{4}"}{2}\times 4\right)$ x (2 lanes) x 100.00' ÷ (12"x27)	=		41.05 C.Y.
Deduct at Cross-overs	= 1144.00 L.F.		
$\left(\frac{6"+4\frac{3}{4}}{2}\right)$ x 4'x 1144' ÷ (12"x27)	=		-75.91 C.Y.
Deduct at Ramps	= 5942.50		
$\left(\frac{6+3}{2}\right)$ x 10' x 5942.50 ÷ (12"x27)	=		-825.35 C.Y.

TYPICAL SECTION "B"

Lengths from T-31	= 5695.62 L.F.		
[6"x10') + (6"x4'x2 lanes) + (6"+3/2 x7)] x 5695.62 ÷(12"x27)	=		2768.70 C.Y.
Deduct for Ramps			
(6'x10') x 1684' ÷ (12"x27)	=		-311.85 C.Y.
(6"x3') x $\left(\frac{6"+3"}{2}\times 7'\right)$ x 925 ÷ (12"x27)			-141.32 C.Y.

TYPICAL SECTION "C"

Lengths from T-31	= 2064.97 L.F.		
$\left[\left(\frac{6"+3"}{2}\times 10'\right)+\left(\frac{6"+4\frac{3}{4}"}{2}\times 4\right)\right]$ x (2 lanes) x 2064.97 ÷ (12"x27)	=		847.66 C.Y.
$\left[\left(\frac{6"+3"}{2}\times 10\right)+\left(\frac{6"+4\frac{3}{4}}{2}\times 4'\right)\right]$ x (2 lanes) x 50.00 ÷ (12"x27)	=		20.52 C.Y.

TYPICAL SECTION "D"

Lengths from T-31	= 2654.53 L.F.		
$\left[(6"+3")+\left(\frac{6"+3"}{2}\times 7'\right)+\left(\frac{6"+5\frac{5}{8}"}{2}\times 4'\right)+(6"x4')+\left(\frac{6"+3"}{2}\times 10'\right)\right]$ x 2654.53' ÷ (12"x27)	=		1161.36 C.Y.
Deduct for Ramp			
$\left[(6"+3")+\left(\frac{6"+3"}{2}\times 7'\right)\right]$ x 900' ÷ (12"x27)	=		-137.50 C.Y.

TYPICAL SECTION "E"

Lengths from T-31	= 1425.00 L.F.		
$\left(\frac{6"+3"}{2}\times 10'\right)+\left(\frac{6"+4\frac{3}{4}"}{2}\times 4\right)$ x (1 lane) x 1425.00 ÷ (12"x27)	=		292.48 C.Y.
Deduct for Ramp			
$\left(\frac{6"+3"}{2}\times 10'\right)$ x 625' ÷ (12"x27)	=		-86.81 C.Y.
Total from sheet #24			1384.00 C.Y.
TOTAL			13,996.80 C.Y.
TOTAL TAKEN TO GENERAL SUMMARY			13,997 C.Y.

I-22 SUBBASE, GRADING "A" OR "B", MODIFIED AS PER GENERAL NOTE

TYPICAL SECTION "A"

Length from T-71	= 22,070.42 L.F.		
4 approach slabs of 25' each	= 100.00 L.F.		
TOTAL	22,170.42 L.F.		
22,170.42 x 38'x 6"x (2 lanes) ÷ (12"x27)	=		31,202.81 C.Y.
Deduct for Cross-overs			
Length from T-31	= 1144.00 L.F.		
1144 x 6"x 4' ÷ (12"x27)	=		-87.74 C.Y.
Deduct for Ramps			
Length from T-31	= 5942.50 L.F.		
5942.5' x 6"x 10' ÷ (12"x27)			-1100.46 C.Y.

TYPICAL SECTION "B"

Length from T-71	= 5695.62 L.F.		
5695.62' x 72' x 6" ÷ (12"x27)	=		7594.16 C.Y.
5695.62' x 4' x $\left(\frac{6"+3\frac{1}{4}"}{2}\right)$ ÷ (12"x27)	=		325.20 C.Y.
Deduct for Romps			
Length from T-31	= 2609.00 L.F.		
2609' x 10' x 6" ÷ (12"x27)	=		-483.15 C.Y.

TYPICAL SECTION "C"

Length from T-71	= 2064.97 L.F.		
2 approach slabs at 25' each	= 50.00 L.F.		
TOTAL	2114.97 L.F.		
2114.97' x 52' x 6" ÷ (12"x27)	=		2036.64 C.Y.

TYPICAL SECTION "D"

Length from T-71	= 2654.53 L.F.		
2654.53' x 52' x 6" ÷ (12"x27)	=		2556.21 C.Y.
Deduct for Romp			
Length from T-31	= 900.00 L.F.		
900' x 10' x 6" ÷ (12"x27)	=		-166.67 C.Y.

TYPICAL SECTION "E"

Length from T-71	= 1425.00 L.F.		
1425' x 52' x 6" ÷ (12"x27)	=		1372.22 C.Y.
Deduct for Romp			
Length from T-31	= 625.00 L.F.		
625' x 10' x 6" ÷ (12"x27)	=		-115.74 C.Y.
Total from sheet No. 24			8886.00 C.Y.
TOTAL			52019.48 C.Y.
TOTAL TAKEN TO GENERAL SUMMARY			52019 C.Y.

I-22 SUBBASE

TYPICAL SECTION "H"

Sta. 30+00 to Sta. 40+00	SR. 513	= 1000.00 L.F.	
Sta. 56+50 to Sta. 58+50	SR. 513	= 200.00 L.F.	
	TOTAL	1200.00 L.F.	
1200'x 22'x 5" ÷ (12"x27)	=		*407.41 C.Y.
Deduct for taper			
Sta. 58+00 to Sta. 58+50	SR. 513	= 50.00 L.F.	
50 x $\left(\frac{4+0}{2}\right)$ x 5" ÷ (12"x27)	=		-*1.54 C.Y.

TYPICAL SECTION "I"

Sta. 18+00 to Sta. 18+50.13	SR. 513	50.13 L.F.	
50.13' x $\left(\frac{22'+26'}{2}\right)$ x 5" ÷ (12"x27)	=		*18.57 C.Y.
Sta. 18+50.13 to Sta. 29+00	SR. 513	1049.87 L.F.	
1049.87' x 26'x 5" ÷ (12"x27)	=		*421.24 C.Y.

* Non-Participation by Federal

PAVEMENT CACULATIONS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

25
838

GUERNSEY COUNTY
GUE-40-17.37

TYPICAL SECTION "I" (Con't.)

Sta. 29+00 to Sta. 30+00	S.R. 513	= 100.00 L.F.	
100'x$\left(\frac{26'+22'}{2}\right)$x 5" ÷(12"x27)		=	*37.04 C.Y.
Sta. 40+00 to Sta. 41+00	S.R. 513	= 100.00 L.F.	
100'x $\left(\frac{22'+24'}{2}\right)$ x 5" ÷(12"x27)		=	*35.49 C.Y.
Sta. 41+00 to Sta. 42+50	S.R.513	= 150.00 L.F.	
150.00 x 24'x5" ÷(12"x27)		=	*55.56 C.Y.
Sta. 42+50 to 43+55	S.R.513	= 105.00 L.F.	
105'x$\left(\frac{24'+26'}{2}\right)$x5" ÷(12"x27)		=	60.51 C.Y.
Sta. 43+55 to Sta. 45+22.30	S.R. 513	= 167.30 L.F.	
167.30'x 26'x 5" ÷(12"x27)		=	67.13 C.Y.
Sta. 51+00 to Sta. 52+00	S.R. 513	= 100.00 L.F.	
100'x$\left(\frac{26'+22'}{2}\right)$ x5" ÷(12"x27)		=	*37.04 C.Y.
Sta. 52+00 to Sta. 55+50	S.R. 513	= 350.00 L.F.	
350'x 24'x5" ÷(12"x27)		=	*129.63 C.Y.
Sta. 55+50 to Sta. 56+50	S.R. 513	= 100.00 L.F.	
100'x$\left(\frac{24'+22'}{2}\right)$ x5" ÷(12"x27)		=	*35.49 C.Y.

TYPICAL SECTION "I-1"

Sta. 48+70.63 to Sta. 50+80	S.R. 513	= 209.37 L.F.	
209.37'x 26'x5" ÷(12"x27)		=	84.01 C.Y.
Sta. 50+80 to Sta. 51+00	S.R. 513	= 20.00 L.F.	
20'x 26'x 5" ÷(12"x27)		=	*8.02 C.Y.
Area for Approach Slabs, Area from I-7 on S.R. 513.			
157.79 x5" ÷(12"x3)		=	21.92 C.Y.

TYPICAL SECTION "J"

Length from B-21		= 4780.36 L.F.	
4780.36'x 26'-10"x 5" ÷(12"x27)		=	1979.52 C.Y.
See sheet No.334 for Radii Quantities for C.R.36 and C.R. 1 Reloc.1			
Area at C.R. 301 = 775 S.F. x5" ÷(12"x27)		=	11.96 C.Y.

TYPICAL SECTION "K"

Length from B-21		= 2491.00 L.F.	
2491'x 26'-10"x5 ÷(12"x27)		=	1031.51 C.Y.

TYPICAL SECTION "L"

Sta. 165+00 to Sta. 170+00	C.R. 1 Connection	= 500.00 L.F.	
500'x 20'x 5" ÷(12"x27)		=	154.32 C.Y.
Add for Taper			
75'x 3'x5" ÷ (12"x27)		=	3.47 C.Y.
Sta. 46+75 to Sta. 48+34.25	C.R. 301	= 159.25 L.F.	
159+25'x 18'x 5" ÷(12"x27)		=	44.24 C.Y.
Area of Radii of T.R. 289 = 1150 S.F. x 5"÷(12"x27)		=	17.75 C.Y.
Sta. 29+75 to Sta. 30+75	T.R. 35	= 100.00 L.F.	
Sta. 33+50 to Sta. 36+40	T.R. 35	= 90.00 L.F.	
	TOTAL	= 190.00 L.F.	
190'x 26'x 5" ÷(12"x27)		=	76.23 C.Y.
Area for Approach Slabs, Area from I-7 on C.R. 301			
146.72 x 5" ÷(12"x3)		=	20.38 C.Y.

TYPICAL SECTION "M"

Sta. 41+50 to Sta. 46+75	C.R. 301	= 525.00 L.F.	
525'x 18'x 5" ÷(12"x27)		=	145.83 C.Y.
Sta. 30+75 to Sta. 31+40	T.R. 35	= 65.00 L.F.	
Sta. 31+65 to Sta. 35+50	T.R. 35	= 385.00 L.F.	
	TOTAL	450.00 L.F.	
450'x26'x5" ÷(12"x27)		=	180.56 C.Y.
Add for Radii of S.R. 513 on T.R. 35			
1200 S.F. x 5" ÷(12"x27)		=	18.52 C.Y.
Add for Radii of T.R. 185 = 1325 S.F.		=	20.45 C.Y.
Deduct for TAPER			
Sta. 41+50 to Sta. 42+00	C.R. 301	= 50.00 L.F.	
50'x$\left(\frac{4'+0}{2}\right)$ x5" ÷(12"x27)		=	-1.54 C.Y.
Total from sheet No. 24		=	*1.2 C.Y.
Total from sheet No. 24		=	50.1 C.Y.
TOTAL TAKEN TO GENERAL SUMMARY		=	*1185 C.Y.
TOTAL TAKEN TO GENERAL SUMMARY		=	3971 C.Y.

I-7 REINFORCED CONCRETE APPROACH SLABS

TYPICAL SECTION "A" U.S. 40

25'x 24' x 8 approoches ÷ 9	=	533.33 S.Y.

TYPICAL SECTION "C" U.S. 40

25'x 24' x 4approoches ÷ 9	=	266.67 S.Y.

TYPICAL SECTION "I" S.R. 513

1 Structure, 2 Approoches ÷ 9	=	157.79 S.Y.

TYPICAL SECTION "L" C.R. 301

1 Structure, 2 Approoches ÷ 9	=	146.72 S.Y.
TOTAL	=	1104.51 S.Y.
TOTAL TAKEN TO GENERAL SUMMARY	=	1105 S.Y.

T-35, 1¼" ASPHALTIC CONCRETE SURFACE COURSE TYPE "C" (70-85)

TYPICAL SECTION "E"

Length from T-71	= 1425 L.F.	
(1425'x 24'x 1¼") ÷(12"x27)	=	131.94 C.Y.
TOTAL TAKEN BELOW		132 C.Y.

T-35, 1¼" ASPHALTIC CONCRETE SURFACE COURSE TYPE "C" (85-100)

TYPICAL SECTION "H"

Lengths from I-22	= 975.00 L.F.	
1200'x 20' ÷9	=	*2666.67 S.Y.
Deduct for Taper		
50'x$\left(\frac{4'+0}{2}\right)$ ÷9	=	-*11.11 S.Y.

T-35, 1¼" ASPHALTIC CONCRETE SURFACE COURSE TYPE "C" (85-100)

TYPICAL SECTION "I"

Length from I-22	= 50.13 L.F.	
50.13'x$\left(\frac{20'+24'}{2}\right)$ ÷9	=	*122.54 S.Y.
Length from I-22	= 1049.87 L.F.	
1049.87'x24' ÷ 9	=	*2799.65 S.Y.
Length from I-22	= 100.00 L.F.	
100'x$\left(\frac{24'+20'}{2}\right)$ ÷ 9	=	*244.44 S.Y.
Length from I-22	= 100.00 L.F.	
100'x $\left(\frac{20'+22'}{2}\right)$ ÷9	=	*233.33 S.Y.
Length from I-22	= 150.00 L.F.	
150'x 22' ÷ 9	=	*366.67 S.Y.
Length from I-22	= 105.00 L.F.	
105'x$\left(\frac{22'+24'}{2}\right)$ ÷ 9	=	268.33 S.Y.
Length from I-22	= 167.30 L.F.	
167.30'x 24' ÷ 9	=	446.13 S.Y.
Length from I-22	= 100.00 L.F.	
100'x$\left(\frac{24'+20'}{2}\right)$ ÷ 9	=	*244.44 S.Y.
Length from I-22	= 350.00 L.F.	
350'x 22' ÷ 9	=	*855.56 S.Y.
Length from I-22	= 100.00 L.F.	
100'x$\left(\frac{22'+20'}{2}\right)$ ÷ 9	=	*233.33 S.Y.
TOTAL		*7755.52 S.Y.
TOTAL		714.46 S.Y.
7755.52'x 1¼" ÷(12"x3)		*269.29 C.Y.
714.46'x 1¼" ÷(12"x3)		24.81 C.Y.
Total from sheet No. 24		*39.8 C.Y.
Total from sheet No. 24		32.10 C.Y.
TOTAL TAKEN TO GENERAL SUMMARY		*309 C.Y.
TOTAL TAKEN TO GENERAL SUMMARY		57 C.Y.

T-35, 1" ASPHALTIC CONCRETE SURFACE COURSE TYPE "C" (70-85)

TYPICAL SECTION "J"

Length from B-21	= 4780.36 L.F.	
4780.36'x 24' ÷ 9"	=	12,747.63 S.Y.
Area of C.R. 301 = 775 S.F.		
775 S.F. ÷9	=	86.11 S.Y.
See sheet No.334 for Radii Quantities for C.R.36 and C.R. 1 Reloc.1		

TYPICAL SECTION "K"

Length from B-21	= 2491.00 L.F.	
2491'x 24' ÷ 9	=	6642.67 S.Y.
TOTAL		19,476.41 S.Y.
19476.41 x 1" ÷(12"x3)		541.01 C.Y.
TOTAL TAKEN TO GENERAL SUMMARY	132 C.Y. +541 C.Y.	673 C.Y.

T-35, 1½" ASPHALTIC CONCRETE SURFACE COURSE TYPE "A" (85-100)

TYPICAL SECTION "L"

Length from I-22	= 500.00 L.F.	
500'x 18' ÷ 9	=	1000.00 S.Y.
Add for taper		
75'x3' ÷9	=	25.00 S.Y.
Length from I-22	= 159.25 L.F.	
159.25'x 18' ÷ 9	=	283.11 S.Y.
Length from I-22	= 190.00 L.F.	
190'x 24' ÷ 9	=	506.67 S.Y.
Area from I-22 = 1150 S.F. ÷ 9	=	127.78 S.Y.

TYPICAL SECTION "M"

Length from I-22	= 525.00 L.F.	
525'x 16' ÷ 9	=	933.33 S.Y.
Length from I-22	= 450.00 L.F.	
450'x 24' ÷ 9	=	1200.00 S.Y.

TYPICAL SECTION "M" (Con't.)

Add for Radii of S.R. 513 on T.R. 35		
1200 S.F. ÷ 9	=	133.33 S.Y.
Deduct for Taper		
50'x$\left(\frac{4'+0}{2}\right)$ ÷9	=	-11.11 S.Y.
Area from I-22 = 1325 S.F. ÷ 9	=	147.22 S.Y.
TOTAL		4345.33 S.Y.
4345.33 x 1½" ÷(12"x3)	=	181.06 C.Y.
Total from sheet No. 24		32.3 C.Y.
TOTAL TAKEN TO GENERAL SUMMARY		213 C.Y.

T-30, BITUMINOUS PRIME COAT AT 0.40 GAL./SQ. YD.

Area from T-35 1¼"	*7755.52 S.Y.	
Area from T-35 1¼"	= 714.46 S.Y.	
Area from T-35 1½"	= 4345.33 S.Y.	
TOTAL	5059.79 S.Y.	
TOTAL	*7755.52 S.Y.	
5059.79'x 0.4	= 2023.92 Gal.	
Total from sheet No. 24	202.00 Gal.	
TOTAL	2225.92 Gal.	
TOTAL TAKEN TO GENERAL SUMMARY	2226.0 Gal.	
7755.52' x 0.4	*3102.21 Gal.	
TOTAL TAKEN TO GENERAL SUMMARY	*3102 Gal.	

T-30, BITUMINOUS TACK COAT AT 0.10 GAL./SQ. YD.

TYPICAL SECTION "E"

Area from T-71	=	3800.00 S.Y.
3800 x 0.10	= 380.00 Gal.	
Total from sheet No. 24	= 69 Gal.	
TOTAL	449 Gal.	
TOTAL TAKEN TO GENERAL SUMMARY	449 Gal.	

B-35, 1¼" ASPHALTIC CONCRETE LEVELING COURSE (70-85)

TYPICAL SECTION "E"

Length from T-71	= 1425 L.F.	
1425'x 24'x 1½" ÷(12"x27) (additional ¼" for crown correction)	=	158.33 C.Y.
TOTAL TAKEN BELOW		158 C.Y.

B-35, 1¾" ASPHALTIC CONCRETE LEVELING COURSE (85-100)

Area from T-35 1¼"	*= 7755.52 S.Y.	
Area from T-35 1¼"	= 714.46 S.Y.	
7755.52 x 1¾" ÷(12"x3)	=	*337.00 C.Y.
Total from sheet No. 24	=	*5.40 C.Y.
TOTAL TAKEN TO GENERAL SUMMARY	=	*382 C.Y.
714.46 x 1¾" ÷(12"x3)	=	34.73 C.Y.
TOTAL TAKEN TO GENERAL SUMMARY	=	35 C.Y.

B-35, 1½" ASPHALTIC CONCRETE LEVELING COURSE (70-85)

Area from T-35	= 19476.41 S.Y.	
19476.41 x1½ ÷ (12"x3)	=	811.52 C.Y.
Total from sheet No. 24	=	29.10 C.Y.
TOTAL	=	840.62 C.Y.
TOTAL TAKEN TO GENERAL SUMMARY	158 C.Y. +841 C.Y.	999 C.Y.

B-18, AGGREGATE BASE COURSE

TYPICAL SECTION "H"

Length from I-22	= 1200.00 L.F.	
1200'x 21' ÷9	=	*2800.00 S.Y.
Deduct for taper		
Length from I-22	= 50.00 L.F.	
50'x$\left(\frac{4'+0}{2}\right)$ ÷ 9	=	-*11.11 S.Y.

TYPICAL SECTION "I"

Length from I-22	= 50.13 L.F.	
50.13'x$\left(\frac{21'+25'}{2}\right)$ ÷ 9	=	*128.11 S.Y.
Length from I-22	= 1049.87 L.F.	
1049.87'x 25' ÷ 9	=	*2916.31 S.Y.
Length from I-22	= 100.00 L.F.	
100'x$\left(\frac{25'+21'}{2}\right)$ ÷9	=	*255.56 S.Y.
Length from I-22	= 100.00 L.F.	
100'x$\left(\frac{21'+23'}{2}\right)$ ÷ 9	=	*244.44 S.Y.
Length from I-22	= 150.00 L.F.	
150'x 23' ÷ 9	=	*383.33 S.Y.
Length from I-22	= 105.00 L.F.	
105'x$\left(\frac{23'+25'}{2}\right)$ ÷ 9	=	280.00 S.Y.
Length from I-22	= 167.30 L.F.	
167.30'x 25' ÷ 9	=	464.72 S.Y.
Length from I-22	= 100.00 L.F.	
100'x$\left(\frac{25'+21'}{2}\right)$ ÷ 9	=	*255.56 S.Y.

*Non-Participation by Federal

PAVEMENT CACULATIONS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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GUERNSEY COUNTY
GUE-40-17.37

B-19. AGGREGATE BASE COURSE (CON'T)

TYPICAL SECTION "I" (Con't.)

Length from I-22	= 350.00 L.F.		
350' x 23' ÷ 9	=		*894 .44 S.Y.
Length from I-22	= 100.00 L.F.		
100' x $\left(\frac{23' \times 21'}{2}\right)$ ÷ 9	=		*244 .44 S.Y.

TYPICAL SECTION "J"

Length from B-21	= 4780.36 L.F.		
4780.36' x 25'-10" ÷ 9	=		13721 .40 S.Y.
Area of C.R. 301	= 775 S.F.		
775 ÷ 9	=		86. 11 S.Y.
See sheet No. 334 for Radii Quantities for C.R. 36 and C.R. 1, Reloc. 1			

TYPICAL SECTION "K"

Length from B-21	= 2491.00 L.F.		
2491' x 25'-10" ÷ 9	=		7150.09 S.Y.

TYPICAL SECTION "L"

Length from I-22	= 500.00 L.F.		
500' x 19' ÷ 9	=		1055.56 S.Y.
Add for taper			
75' x 3' ÷ 9	=		25.00 S.Y.
Length from I-22	= 159.25 L.F.		
159.25' x 17' ÷ 9	=		300. 81 S.Y.
Length from I-22	= 190.00 L.F.		
190' x 25' ÷ 9	=		527.78 S.Y.
Area from I-22	= 1150 S.F.		
1150 ÷ 9	=		127. 78 S.Y.

TYPICAL SECTION "M"

Area from I-22	= 1325 S.F.		
1325 ÷ 9	=		147.22 S.Y.
Length from I-22	= 525.00 L.F.		
525' x 17' ÷ 9	=		991. 67 S.Y.
Length from I-22	= 450.00 L.F.		
450' x 25' ÷ 9	=		1250.00 S.Y.
Add for Radii of S.R. 513 on T.R. 85	= 1200 S.F.		
1200 ÷ 9	=		133.33 S.Y.
Deduction for taper			
Length from I-22	= 50.00 L.F.		
50' x $\left(\frac{4'0''}{2}\right)$ ÷ 9	=		- 11.11 S.Y.
	Total		26,250.36 S.Y.
	Total		*8111.08 S.Y.
26,250.36 x 6" ÷ (12" x 3)		= 4375.06 C.Y.	
*8111.08 x 6" ÷ (12" x 3)		*1351. 85 C.Y.	

TYPICAL SECTION "N"

Sta. 4+70 to Sta. 8+49.52	Service Rd. "A"	= 379.52 L.F.	
Sta. 5+00 to Sta. 11+90.00	Service Rd. "B"	= 690.00 L.F.	
Sta. 44+00 to Sta. 55+75.00	T.R. 35	= 1175.00 L.F.	
Sta. 63+50 to Sta. 65+50	T.R. 35	= 200.00 L.F.	
Sta. 49+25 to Sta. 51+25	T.R. 185	= 200.00 L.F.	
Sta. 28+65.52 to Sta. 42+00	T.R. 277	= 1334.48 L.F.	
Sta. 58+25 to Sta. 62+50	T.R. 277	= 425.00 L.F.	
Sta. 90+21 to Sta. 93+00	T.R. 289	= 279.00 L.F.	
	Total	4683.00 L.F.	
4683' x 16' ÷ 9	=		8325.33 S.Y.
Radii of Service Rd. "A"	= 225 S.F.		
225 ÷ 9	=		25.00 S.Y.
Tapered Area			
Sta. 93+00 to Sta. 93+65	T.R. 289	= 65.00 L.F.	
65 x $\left(\frac{8'0}{2}\right)$ ÷ 9	=		28.89 S.Y.

TYPICAL SECTION "O"

Sta. 55+75 to Sta. 63+50	T.R. 35	= 775.00 L.F.	
Sta. 47+08 to Sta. 49+25	T.R. 185	= 217.00 L.F.	
Sta. 51+25 to Sta. 55+50	T.R. 185	= 425.00 L.F.	
Sta. 42+00 to Sta. 58+25	T.R. 277	= 1625.00 L.F.	
Sta. 62+50 to Sta. 65+75	T.R. 277	= 325.00 L.F.	
	Total	3367.00 L.F.	
3367' x 16' ÷ 9	=		5985.78 S.Y.
Add for widening			
Sta. 56+00 to Sta. 63+25	T.R. 35	= 725.00 L.F.	
200' x $\left(\frac{4'0}{2}\right)$ ÷ 9	=		44.44 S.Y.
525' x 4' ÷ 9	=		233.33 S.Y.
Add for Radii of T.R. 277	= 800 S.F.		
800 ÷ 9	=		88.89 S.Y.
Deduct for taper			
Sta. 64+50 to Sta. 65+75	T.R. 277	= 125.00 L.F.	
125' x $\left(\frac{8'0}{2}\right)$ ÷ 9	=		- 55.56 S.Y.
	Total		14,676.10 S.Y.
14,676.10 x 8" ÷ (12" x 3)		= 3261.36 C.Y.	
Total from sheet No. 24		553.90 C.Y.	
	Total	8190.32 C.Y.	

TYPICAL SECTION "O" (Con't.)

TOTAL TAKEN TO GENERAL SUMMARY	=	8190 C.Y.	
Total from sheet No. 24		*1196 C.Y.	
Total		*1671.64 C.Y.	
TOTAL TAKEN TO GENERAL SUMMARY		*1471 C.Y.	

SPECIAL - FURNISHING AND MIXING CALCIUM CHLORIDE WITH AGGREGATE

TYPICAL SECTIONS "N" and "O"

Area from B-19 (8")	=	14676. 10 S.Y.	

TYPICAL SECTIONS "J" and "K"

Area from I-18	=	6218.88 S.Y.	
Total from sheet No. 24	=	1516.7 S.Y.	
Total		22609.48 S.Y.	
TOTAL TAKEN TO GENERAL SUMMARY		22610 S.Y.	

E-1 COMPACTED SUBGRADE

TYPICAL SECTION "A"

Area from T-71	=	117,708. 91 S.Y.	
Area from T-31	=	61,865.42 S.Y.	

TYPICAL SECTION "B"

Area from T-71	=	30,376.64 S.Y.	
Area from T-31	=	14,820. 82 S.Y.	

TYPICAL SECTION "C"

Area from T-71	=	5,506. 59 S.Y.	
Area from T-31	=	0,579. 91 S.Y.	

TYPICAL SECTION "D"

Area from T-71	=	7,078. 75 S.Y.	
Area from T-31	=	7,258. 54 S.Y.	

TYPICAL SECTION "E"

Area from T-71	=	3,800.00 S.Y.	
Area from T-31	=	3,738. 89 S.Y.	

TYPICAL SECTION "H"

Area from T-35	=		*2,655. 56 S.Y.

TYPICAL SECTION "I" and "I-L"

Area from T-71	=	558. 32 S.Y.	
Area from T-71	=	*5333 S.Y.	
Area from T-35	=	714.46 S.Y.	
Area from T-35	=	*7755.52 S.Y.	

TYPICAL SECTION "J"

Area from T-35	=	12,833. 74 S.Y.	

TYPICAL SECTION "K"

Area from T-35	=	6,642.67 S.Y.	

TYPICAL SECTION "L"

Area from T-35	=	1,942. 56 S.Y.	

TYPICAL SECTION "M"

Area from T-35	=	2,402. 77 S.Y.	
Total from sheet No. 24		53,779 .00 S.Y.	

Deduction for Rock Excavation - US 40

		One lane	Two lane
Sta. 105+00	to Sta. 109+00	= 400.00 L.F.	
Sta. 138+00	to Sta. 145+00	= 700.00 L.F.	
Sta. 145+00	to Sta. 146+00	=	100 .00 L.F.
Sta. 148+00	to Sta. 149+00	= 300 .00 L.F.	
Sta. 149+00	to Sta. 154+00	=	500.00 L.F.
Sta. 154+00	to Sta. 154+50	= 50 .00 L.F.	
Sta. 164+41	to Sta. 165+00	= 59 .00 L.F.	
Sta. 165+00	to Sta. 166+00	= 100 .00 L.F.	
Sta. 166+00	to Sta. 171+37	=	537.00 L.F.
Sta. 174+00	to Sta. 175+00	=	100 .00 L.F.
Sta. 213+51	to Sta. 217+19	= 368 .00 L.F.	
Sta. 218+00	to Sta. 221+00	= 300 .00 L.F.	
Sta. 286+00	to Sta. 288+25	= 225 .00 L.F.	
Sta. 290+00	to Sta. 291+00	= 100 .00 L.F.	
Sta. 291+00	to Sta. 293+00	=	200.00 L.F.
Sta. 293+00	to Sta. 294+00	= 100 .00 L.F.	
Sta. 294+00	to Sta. 300+40	=	640.00 L.F.
Sta. 300+40	to Sta. 302+00	= 160 .00 L.F.	
Sta. 318+00	to Sta. 325+00	= 700 .00 L.F.	
Sta. 387+45	to Sta. 390+50	= 305 .00 L.F.	
Sta. 390+50	to Sta. 393+50	=	300.00 L.F.
Sta. 394+00	to Sta. 400+50	= 650 .00 L.F.	
Sta. 411+00	to Sta. 413+50	= 250 .00 L.F.	
	Total	4767 .00 L.F.	2577.00 L.F.

DEDUCTION FOR ROCK EXCAVATION (CON'T.)

4767' x 38' ÷ 9			=	- 20127 S.Y.
2577' x 38' x (2 lanes) ÷ 9			=	- 200 72 S.Y.
T.R. 185				
49+00 to 52+00		= 300.00 L.F.		
300' x 18' ÷ 9			=	- 533 S.Y.
T.R. 277				
32+00 to 34+00		= 200.00 L.F.		
39+72 to 46+79		= 707.00 L.F.		
52+52 to 56+34		= 382.00 L.F.		
	Total	1289.00 L.F.		
1289' x 16' ÷ 9			=	- 2292 S.Y.
C.R. 1, Reloc. 1				
105+62 to 108+01		= 239.00 L.F.		
114+01 to 120+98		= 697.00 L.F.		
	Total	936.00 L.F.		
936' x 24' ÷ 9			=	- 2496 S.Y.
C.R. 1, Reloc. 2				
85+00 to 88+25		= 325.00 L.F.		
91+00 to 93+00		= 200.00 L.F.		
96+00 to 103+00		= 700.00 L.F.		
	Total	1225.00 L.F.		
1225' x 24' ÷ 9			=	- 3267 S.Y.
S.R. 513 Reloc.				
Sta. 21+50 to Sta. 29+00		= 800.00 L.F.		
800' x 20' ÷ 9			=	*- 1778 S.Y.
Ramp "A"				
Sta. 11+04 to Sta. 13+04		= 200.00 L.F.		
200' x 22' ÷ 9			=	- 489 S.Y.
Ramp "D"				
Sta. 8+00 to Sta. 10+00		= 200.00 L.F.		
200' x 22' ÷ 9				- 489 S.Y.
Ramp "H"				
Sta. 6+93 to Sta. 11+00		= 407.00 L.F.		
407' x 22' ÷ 9			=	- 995 S.Y.
		Total		336,610. 99 S.Y.
		Total		* 10,464. 41 S.Y.
TOTAL TAKEN TO GENERAL SUMMARY		336,611 + 110S Appr. Slabs - Sh. 25		337, 716 S.Y. -
TOTAL TAKEN TO GENERAL SUMMARY				* 10, 464 S.Y.

I-18. STABILIZED CRUSHED AGGREGATE SHOULDERS

TYPICAL SECTION "E"

Length from T-71	= 1425.00 L.F.		
1425.00' x 10' x $\left(\frac{6'3''}{2}\right)$ ÷ (12" x 27)		=	197.92 C.Y.
1425.00' x 4' x 6" ÷ (12" x 27)		=	105.56 C.Y.

TYPICAL SECTION "J"

Length from B-21	= 4780.36 L.F.		
4780.36' x 4' x (2 lanes) ÷ 9		=	4249.21 S.Y.
Deductions			
Sta. 130+21.33 to Sta. 130+99 (Lt.)	C.R. 1, Reloc. 1	= 77.67 L.F.	
Sta. 130+71 to Sta. 130+99 (Rt.)	C.R. 1, Reloc. 1	= 28.00 L.F.	
Sta. 45+75 to Sta. 46+97.27 (Lt.)	C.R. 36	= 122.29 L.F.	
Sta. 48+85.46 to Sta. 49+81.36 (Rt.)	C.R. 36	= 85.90 L.F.	
Sta. 49+55 to Sta. 49+81.36 (Lt.)	C.R. 36	= 26.36 L.F.	
Sta. 89+44 to Sta. 90+08 (Rt.)	C.R. 1, Reloc. 2	= 64.00 L.F.	
	Total	404.20 L.F.	
404.20' x 4' ÷ 9		=	- 179.64 S.Y.

TYPICAL SECTION "K"

Length from B-21	= 2491.00 L.F.		
2491.00' x 4' x (2 lanes) ÷ 9		=	2214.22 S.Y.
Deductions			
Sta. 97+81 to Sta. 98+19	C.R. 1, Reloc. 1	= 38.00 L.F.	
Sta. 78+84 to Sta. 79+30	C.R. 1, Reloc. 2	= 46.00 L.F.	
Sta. 104+52 to Sta. 105+19	C.R. 1, Reloc 2	= 67.00 L.F.	
	Total	151.00 L.F.	
151' x 4' ÷ 9		=	- 67.11 S.Y.
	Total		6216.68 S.Y.
6216.68 x 5" ÷ (12" x 3)			863.43 C.Y.
Total from sheet No. 24			25.00 C.Y.
	Total		1191. 90 C.Y.
TOTAL TAKEN TO GENERAL SUMMARY			1192 C.Y.

* Non-Participation by Federal

PAVEMENT CALCULATIONS

SUPERELEVATION TABLES

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

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GUERNSEY COUNTY
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~0° 59' 14" CURVE RIGHT SMAX = .032 1/1

STATION	WESTBOUND			EASTBOUND		
	Lt. Edge	℄	Rt. Edge*	Lt. Edge*	℄	Rt. Edge
	Normal Section 641+00 to 655+00					
655+50	962.07	962.26	962.07	962.83	963.02	962.83
+75	962.25	962.43	962.24	963.00	963.19	963.00
656+00	962.47	962.60	962.41	963.17	963.36	963.17
+25	962.69	962.75	962.56	963.33	963.52	963.33
+50	962.89	962.89	962.70	963.48	963.61	963.42
+75	963.07	963.02	962.83	963.62	963.68	963.49
657+00	963.24	963.14	962.95	963.74	963.74	963.55
+25	963.39	963.25	963.06	963.86	963.80	963.61
+50	963.53	963.34	963.15	963.95	963.83	963.64
Equation: 657+59.78 Back = 87+82.74 Ahead						
88+00	963.72	963.48	963.24	964.04	963.84	963.63
+25	963.89	963.60	963.31	964.11	963.86	963.61
+50	964.04	963.70	963.36	964.17	963.88	963.59
+75	964.15	963.79	963.41	964.21	963.89	963.57
89+00	964.20	963.82	963.44	964.24	963.90	963.55
+25	964.23	963.85	963.46	964.26	963.90	963.53
+50	964.25	963.86	963.48	964.26	963.89	963.57
+75	964.24	963.86	963.47	964.25	963.87	963.49
90+00	964.23	963.84	963.46	964.23	963.85	963.47
+25	964.20	963.82	963.43	964.19	963.81	963.43
+50	964.17	963.78	963.40	964.14	963.76	963.38
+75	964.12	963.73	963.35	964.08	963.70	963.32
91+00	964.05	963.67	963.28	964.00	963.62	963.24
+25	963.98	963.60	963.21	963.91	963.53	963.15
+50	963.90	963.51	963.13	963.81	963.43	963.05
+75	963.80	963.41	963.03	963.69	963.31	962.93
92+00	963.69	963.30	962.92	963.56	963.18	962.80
+25	963.57	963.18	962.80	963.42	963.05	962.67
+50	963.44	963.05	962.67			
+75	963.29	962.91	962.52	*End New Pavement		
93+00	963.13	962.75	962.36			
+25	962.97	962.58	962.20			
+50	962.79	962.40	962.02			
+75	962.59	962.21	961.82			
94+00	962.39	962.01	961.62			
+25	962.18	961.80	961.41			
+50	961.97	961.59	961.20			
+75	961.76	961.38	960.99	961.58	961.15	960.81
95+00	961.55	961.17	960.78	961.37	960.94	960.60
+25	961.34	960.96	960.57	961.16	960.74	960.40
+50	961.13	960.75	960.36	960.95	960.54	960.20
+75	960.92	960.54	960.15	960.74	960.33	959.99
96+00	960.71	960.33	959.94	960.53	960.12	959.78
+25	960.50	960.12	959.73	960.32	959.92	959.58
+50	960.29	959.91	959.52	960.12	959.72	959.38
+75	960.08	959.70	959.31	959.92	959.52	959.18
97+00	959.87	959.49	959.10	959.72	959.32	958.98
+25	959.66	959.28	958.89	959.52	959.13	958.79
+50	959.45	959.07	958.68			
+75	959.24	958.86	958.47			
98+00	959.03	958.65	958.26			
+25	958.82	958.44	958.05			
+50	958.61	958.23	957.84			
+75	958.40	958.02	957.63			
99+00	958.19	957.81	957.42			
+25	957.98	957.60	957.21			
+50	957.77	957.39	957.00			
+75	957.56	957.18	956.79			
100+00	957.35	956.97	956.58			
+25	957.14	956.76	956.37			
+50	956.93	956.55	956.16			
+75	956.72	956.34	955.95			
101+00	956.51	956.13	955.74			
+25	956.30	955.92	955.53			

Existing Pavement

~0° 59' 14" CURVE RIGHT SMAX = .032 1/1

STATION	WESTBOUND			EASTBOUND		
	Lt. Edge	℄	Rt. Edge*	Lt. Edge*	℄	Rt. Edge
101+50	956.09	955.71	955.32			
+75	955.88	955.50	955.11			
102+00	955.67	955.29	954.90			
+25	955.46	955.08	954.69			
+50	955.25	954.87	954.48			
+75	955.04	954.66	954.27			
103+00	954.83	954.45	954.06			
+25	954.62	954.24	953.85			
+50	954.41	954.03	953.64			
+75	954.20	953.82	953.43			
104+00	953.99	953.61	953.22			
+25	953.78	953.40	953.01			
+50	953.57	953.19	952.80			
+75	953.36	952.98	952.59			
105+00	953.15	952.77	952.38			
+25	952.94	952.56	952.17			
+50	952.73	952.35	951.96			
+75	952.52	952.14	951.75			
106+00	952.31	951.93	951.54			
+25	952.10	951.72	951.33			
+50	951.89	951.51	951.12			
+75	951.68	951.30	950.91			
107+00	951.47	951.09	950.70			
+25	951.26	950.88	950.49			
+50	951.05	950.67	950.28			
+75	950.84	950.46	950.07			
108+00	950.63	950.25	949.86			
+25	950.42	950.04	949.65			
+50	950.21	949.83	949.44			
+75	950.00	949.62	949.23			
109+00	949.79	949.41	949.02			
+25	949.58	949.20	948.81			
+50	949.37	948.99	948.60			
+75	949.16	948.78	948.39			
110+00	948.95	948.57	948.18			
+25	948.74	948.36	947.97			
+50	948.53	948.15	947.76			
+75	948.32	947.94	947.55			
111+00	948.11	947.73	947.34			
+25	947.90	947.52	947.13			
+50	947.69	947.31	946.92			
+75	947.48	947.10	946.71			
112+00	947.27	946.89	946.50			
+25	947.06	946.68	946.29			
+50	946.85	946.47	946.08			
+75	946.64	946.26	945.87			
113+00	946.43	946.05	945.66			
+25	946.22	945.84	945.45			
+50	946.01	945.63	945.24			
+75	945.80	945.42	945.03			
114+00	945.59	945.21	944.82			
+25	945.38	945.00	944.61			
+50	945.17	944.79	944.40			
+75	944.96	944.58	944.19			
115+00	944.75	944.37	943.98			
+25	944.54	944.16	943.77			
+50	944.33	943.95	943.56			
+75	944.12	943.74	943.35			
116+00	943.91	943.53	943.14			
+25	943.70	943.32	942.93			
+50	943.49	943.11	942.72			
+75	943.28	942.90	942.51			
117+00	943.07	942.69	942.30			
+25	942.86	942.48	942.09			
+50	942.65	942.27	941.88			
+75	942.40	942.05	941.67			
118+00	942.14	941.80	941.46			
+25	941.83	941.54	941.25			

Existing Pavement

~0° 59' 14" CURVE RIGHT SMAX = .032 1/1

STATION	WESTBOUND			EASTBOUND		
	Lt. Edge	℄	Rt. Edge*	Lt. Edge*	℄	Rt. Edge
118+50	941.52	941.28	941.04			
+75	941.22	941.03	940.83			
119+00	940.95	940.81	940.62			
+25	940.70	940.60	940.41			
+50	940.44	940.39	940.20			
+75	940.18	940.18	939.99			
120+00	939.91	939.97	939.78			
+25	939.63	939.76	939.57			
+50	939.37	939.55	939.36			
+75	939.15	939.34	939.15			
	Normal Section 120+75 to 140+75					

Existing Pavement

1° 30' CURVE LEFT SMAX = .048 1/1

STATION	WESTBOUND			EASTBOUND		
	Lt. Edge	℄	Rt. Edge*	Lt. Edge*	℄	Rt. Edge
140+75	938.87	939.06	938.87			
141+00	938.93	939.12	938.94	939.29	939.44	939.29
+25	938.95	939.14	938.99	939.33	939.52	939.37
+50	938.92	939.11	939.02	939.35	939.54	939.45
+75	938.88	939.07	939.05	939.36	939.55	939.53
142+00	938.82	939.01	939.06	939.37	939.56	939.61
+25	938.74	938.93	939.05	939.37	939.57	939.70
+50	938.63	938.84	939.03	939.35	939.58	939.78
+75	938.48	938.74	939.00	939.31	939.59	939.86
143+00	938.27	938.61	938.95	939.27	939.60	939.94
+25	938.07	938.48	938.89	939.20	939.61	940.02
+50	937.85	938.33	938.81	939.13	939.61	940.08
+75	937.63	938.17	938.72	939.04	939.57	940.10
144+00	937.46	938.04	938.62	938.93	939.50	940.07
+25	937.34	937.92	938.50	938.82	939.40	939.98
+50	937.22	937.80	938.37	938.68	939.26	939.84
+75	937.08	937.65	938.23	938.54	939.11	939.69
145+00	936.92	937.50	938.07	938.38	938.95	939.53
+25	936.75	937.32	937.90	938.20	938.78	939.35
+50	936.56	937.14	937.71	938.01	938.59	939.16
+75	936.36	936.94	937.51	937.81	938.38	938.96
146+00	936.15	936.72	937.30	937.59	938.17	938.74
+25	935.92	936.49	937.07	937.36	937.93	938.51
+50	935.68	936.25	936.83	937.11	937.69	938.26
+75	935.42	936.00	936.57	936.85	937.43	938.00
147+00	935.15	935.73	936.30	936.58	937.15	937.73
+25	934.87	935.44	936.02	936.29	936.86	937.44
+50	934.57	935.15	935.72	935.98	936.56	937.14
+75	934.26	934.83	935.41	935.67	936.24	936.82
148+00	933.93	934.51	935.08	935.33	935.91	936.49
+25	933.60	934.17	934.75	934.99	935.57	936.14
+50	933.24	933.82	934.39	934.63	935.21	935.78

1° 30' CURVE LEFT SMAX = .048 1/1

STATION	WESTBOUND			EASTBOUND		
	Lt. Edge	℄	Rt. Edge*	Lt. Edge*	℄	Rt. Edge
148+75	932.87	933.45	934.02	934.25	934.83	935.41
149+00	932.49	933.07	933.64	933.87	934.44	935.02
+25	932.10	932.67	933.25	933.46	934.04	934.62
+50	931.69	932.26	932.84	933.05	933.62	934.20
+75	931.27	931.84	932.42	932.62	933.19	933.77
150+00	930.83	931.41	931.98	932.17	932.75	933.32
+25	930.38	930.96	931.53	931.71	932.29	932.86
+50	929.92	930.49	931.07	931.24	931.81	932.39
+75	929.44	930.01	930.59	930.75	931.32	931.90
151+00	928.95	929.52	930.10	930.25	930.82	931.40
+25	928.44	929.01	929.59	929.73	930.31	930.88
+50	927.92	928.49	929.07	929.20	929.78	930.35
+75	927.38	927.96	928.53	928.65	929.23	929.81
152+00	926.84	927.41	927.99	928.10	928.67	929.25
+25	926.28	926.85	927.43	927.52	928.10	928.67
+50	925.70	926.27	926.85	926.93	927.51	928.09
+75	925.11	925.68	926.26	926.33	926.91	927.48
153+00	924.51	925.08	925.66	925.72	926.29	926.87
+25	923.89	924.46	925.04	925.09	925.66	926.24
+50	923.26	923.83	924.41	924.44	925.02	925.59
+75	922.61	923.19	923.76	923.78	924.36	924.94
154+00	921.95	922.53	923.10	923.11	923.69	924.26
+25	921.28	921.85	922.43	922.43	923.01	923.58
+50	920.60	921.18	921.75	921.75	922.33	922.90
+75	919.92	920.50	921.07	921.07	921.65	922.22
155+00	919.24	919.82	920.39	920.39	920.97	921.54
+25	918.56	919.14	919.71	919.71	920.29	920.86
+50	917.88	918.46	919.03	919.03	919.61	920.18
+75	917.20	917.78	918.35	918.35	918.93	919.50
156+00	916.52	917.10	917.67	917.67	918.25	918.82
+25	915.84	916.42	916.99	916.99	917.57	918.14
+50	915.15	915.73	916.31	916.31	916.89	917.47
+75	914.47	915.05	915.63	915.63	916.21	916.79
157+00	913.82	914.38	914.95	914.95	915.52	916.08
+25	913.23	913.75	914.27	914.27	914.79	915.31
+50	912.69	913.14	913.59	913.59	914.04	914.49
+75	912.15	912.53	912.91	912.91	913.29	913.67
158+00	911.61	911.92	912.23	912.23	912.54	912.85
+25	911.07	911.31	911.55	911.55	911.79	912.03
+50	910.54	910.73	910.89	910.89	911.08	911.24
+75	909.98	910.17	910.26	910.26	910.45	910.54
159+00	909.45	909.64	909.66	909.66	909.85	909.87
+25	908.94	909.13	909.09	909.09	909.28	909.24
+50	908.47	908.66	908.56	908.56	908.75	908.65
+75	908.03	908.22	908.07	908.07	908.26	908.11
160+00	907.60	907.79	907.60	907.60	907.79	907.60
	Normal Section 160+00 to 350+50					

* Profile Grade

SUPERELEVATION TABLES

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

28
638

GUERNSEY COUNTY
GUE-40-17.37

0°30' CURVE LEFT SMAX = .0156 ft/ft

STATION	WESTBOUND			EASTBOUND		
	Lt. Edge	℄	Rt. Edge*	Lt. Edge*	℄	Rt. Edge
350+50	853.90	854.09	853.90	853.90	854.09	853.90
+75	853.98	854.17	854.00	854.00	854.19	854.02
351+00	854.04	854.23	854.10	854.10	854.29	854.16
+25	854.07	854.26	854.20	854.20	854.39	854.33
+50	854.11	854.30	854.30	854.30	854.49	854.49
+75	854.15	854.34	854.40	854.40	854.59	854.65
352+00	854.18	854.37	854.50	854.50	854.69	854.81
+25	854.24	854.43	854.60	854.60	854.79	854.96
+50	854.32	854.51	854.70	854.70	854.89	855.08
+75	854.42	854.61	854.80	854.80	854.99	855.18
353+00	854.52	854.71	854.90	854.90	855.09	855.28
+25	854.62	854.81	855.00	855.00	855.19	855.38
+50	854.72	854.91	855.10	855.10	855.29	855.48
+75	854.82	855.01	855.20	855.20	855.39	855.58
354+00	854.92	855.11	855.30	855.30	855.49	855.68
+25	855.02	855.21	855.40	855.40	855.59	855.78
+50	855.12	855.31	855.50	855.50	855.69	855.88
+75	855.22	855.41	855.60	855.60	855.79	855.98
355+00	855.32	855.51	855.70	855.70	855.89	856.08
+25	855.42	855.61	855.80	855.80	855.99	856.18
+50	855.52	855.71	855.90	855.90	856.09	856.28
+75	855.62	855.81	856.00	856.00	856.19	856.38
356+00	855.72	855.91	856.10	856.10	856.29	856.48
+25	855.82	856.01	856.20	856.20	856.39	856.58
+50	855.92	856.11	856.30	856.30	856.49	856.68
+75	856.02	856.21	856.40	856.40	856.59	856.78
357+00	856.12	856.31	856.50	856.50	856.69	856.88
+25	856.22	856.41	856.60	856.60	856.79	856.98
+50	856.32	856.51	856.70	856.70	856.89	857.08
+75	856.42	856.61	856.80	856.80	856.99	857.18
358+00	856.52	856.71	856.90	856.90	857.09	857.28
+25	856.62	856.81	857.00	857.00	857.19	857.38
+50	856.72	856.91	857.10	857.10	857.29	857.48
+75	856.82	857.01	857.20	857.20	857.39	857.58
359+00	856.92	857.11	857.30	857.30	857.49	857.68
+25	857.02	857.21	857.40	857.40	857.59	857.78
+50	857.12	857.31	857.50	857.50	857.69	857.88
+75	857.22	857.41	857.60	857.60	857.79	857.98
360+00	857.32	857.51	857.70	857.70	857.89	858.08
+25	857.42	857.61	857.80	857.80	857.99	858.18
+50	857.52	857.71	857.90	857.90	858.09	858.28
+75	857.62	857.81	858.00	858.00	858.19	858.38
361+00	857.72	857.91	858.10	858.10	858.29	858.48
+25	857.82	858.01	858.20	858.20	858.39	858.58
+50	857.92	858.11	858.20	858.30	858.49	858.68
+75	858.02	858.21	858.40	858.40	858.59	858.78
362+00	858.12	858.31	858.50	858.50	858.69	858.88
+25	858.22	858.41	858.60	858.60	858.79	858.98
+50	858.32	858.51	858.70	858.70	858.89	859.08
+75	858.42	858.61	858.80	858.80	858.99	859.18
363+00	858.52	858.71	858.90	858.90	859.09	859.28
+25	858.62	858.81	859.00	859.00	859.19	859.38
+50	858.72	858.91	859.10	859.10	859.29	859.48
+75	858.82	859.01	859.20	859.20	859.39	859.58
364+00	858.92	859.11	859.30	859.30	859.49	859.68
+25	859.02	859.21	859.40	859.40	859.59	859.78
+50	859.12	859.31	859.50	859.50	859.69	859.88
+75	859.22	859.41	859.60	859.60	859.79	859.98
365+00	859.32	859.51	859.70	859.70	859.89	860.08
+25	859.42	859.61	859.80	859.80	859.99	860.18
+50	859.52	859.71	859.90	859.90	860.09	860.28
+75	859.62	859.81	860.00	860.00	860.19	860.38
366+00	859.72	859.91	860.10	860.10	860.29	860.48
+25	859.82	860.01	860.20	860.20	860.39	860.58

0°30' CURVE LEFT SMAX = .0156 ft/ft

STATION	WESTBOUND			EASTBOUND		
	Lt. Edge	℄	Rt. Edge*	Lt. Edge*	℄	Rt. Edge
366+50	859.92	860.11	860.30	860.30	860.49	860.68
+75	860.02	860.21	860.40	860.40	860.59	860.78
367+00	860.12	860.31	860.50	860.50	860.69	860.88
+25	860.22	860.41	860.60	860.60	860.79	860.98
+50	860.32	860.51	860.70	860.70	860.89	861.08
+75	860.42	860.61	860.80	860.80	860.99	861.18
368+00	860.52	860.71	860.90	860.90	861.09	861.28
+25	860.62	860.81	861.00	861.00	861.19	861.38
+50	860.72	860.91	861.10	861.10	861.29	861.48
+75	860.82	861.01	861.20	861.20	861.39	861.58
369+00	860.92	861.11	861.30	861.30	861.49	861.68
+25	861.02	861.21	861.40	861.40	861.59	861.78
+50	861.12	861.31	861.50	861.50	861.69	861.88
+75	861.22	861.41	861.60	861.60	861.79	861.98
370+00	861.32	861.51	861.70	861.70	861.89	862.08
+25	861.42	861.61	861.80	861.80	861.99	862.18
+50	861.52	861.71	861.90	861.90	862.09	862.28
+75	861.62	861.81	862.00	862.00	862.19	862.38
371+00	861.72	861.91	862.10	862.10	862.29	862.48
+25	861.82	862.01	862.20	862.20	862.39	862.58
+50	861.92	862.11	862.30	862.30	862.49	862.68
+75	862.02	862.21	862.40	862.40	862.59	862.78
372+00	862.12	862.31	862.50	862.50	862.69	862.88
+25	862.22	862.41	862.60	862.60	862.79	862.98
+50	862.32	862.51	862.70	862.70	862.89	863.08
+75	862.42	862.61	862.80	862.80	862.99	863.18
373+00	862.52	862.71	862.90	862.90	863.09	863.28
+25	862.62	862.81	863.00	863.00	863.19	863.38
+50	862.72	862.91	863.10	863.10	863.29	863.48
+75	862.82	863.01	863.20	863.20	863.39	863.58
374+00	862.92	863.11	863.30	863.30	863.49	863.68
+25	863.02	863.21	863.40	863.41	863.60	863.79
+50	863.12	863.31	863.50	863.52	863.71	863.90
+75	863.22	863.41	863.60	863.65	863.84	864.03
375+00	863.32	863.51	863.70	863.78	863.97	864.16
+25	863.42	863.61	863.80	863.93	864.12	864.31
+50	863.52	863.71	863.90	864.09	864.28	864.47
+75	863.62	863.81	864.00	864.26	864.45	864.63
376+00	863.71	863.91	864.10	864.44	864.63	864.82
+25	863.83	864.02	864.21	864.63	864.82	865.01
+50	863.94	864.13	864.32	864.83	865.02	865.21
+75	864.07	864.26	864.45	865.04	865.23	865.42
377+00	864.20	864.39	864.58	865.26	865.45	865.64
+25	864.35	864.54	864.73	865.50	865.69	865.88
+50	864.51	864.70	864.89	865.74	865.93	866.12
+75	864.68	864.87	865.06	866.00	866.19	866.38
378+00	864.86	865.05	865.24	866.26	866.45	866.64
+25	865.05	865.24	865.43	866.54	866.73	866.92
+50	865.25	865.44	865.63	866.82	867.01	867.20
+75	865.46	865.65	865.84	867.12	867.31	867.50
379+00	865.68	865.87	866.06	867.43	867.62	867.81
+25	865.92	866.11	866.30	867.74	867.93	868.12
+50	866.16	866.35	866.54	868.07	868.26	868.45
+75	866.42	866.61	866.80	868.41	868.60	868.79
380+00	866.68	866.87	867.06	868.76	868.95	869.14
+25	866.96	867.15	867.34	869.12	869.31	869.50
+50	867.24	867.43	867.62	869.49	869.68	869.87
+75	867.54	867.73	867.92	869.87	869.87	870.06
381+00	867.85	868.04	868.23	870.27	870.46	870.65
+25	868.16	868.35	868.54	870.67	870.86	871.05
+50	868.49	868.68	868.87	871.08	871.26	871.45
+75	868.83	869.02	869.21	871.51	871.70	871.89
382+00	869.18	869.37	869.56	871.94	872.13	872.32
+25	869.54	869.73	869.92	872.38	872.57	872.76
+50	869.91	870.10	870.29	872.82	873.01	873.20
+75	870.29	870.48	870.67	873.26	873.45	873.64
383+00	870.69	870.88	871.07	873.70	873.89	874.08
+25	871.08	871.27	871.47	874.14	874.33	874.52

0°30' CURVE LEFT SMAX = .0156 ft/ft

STATION	WESTBOUND			EASTBOUND		
	Lt. Edge	℄	Rt. Edge*	Lt. Edge*	℄	Rt. Edge
383+50	871.50	871.69	871.88	874.58	874.77	874.96
+75	871.93	872.12	872.31	875.02	875.21	875.40
384+00	872.36	872.55	872.74	875.46	875.65	875.84
+25	872.80	872.99	873.18	875.90	876.09	876.28
+50	873.24	873.43	873.62	876.34	876.53	876.72
+75	873.68	873.87	874.06	876.78	876.97	877.16
385+00	874.12	874.31	874.50	877.22	877.41	877.60
+25	874.56	874.75	874.94	877.66	877.85	878.04
+50	875.00	875.19	875.38	878.10	878.29	878.48
+75	875.44	875.63	875.82	878.54	878.73	878.92
386+00	875.88	876.07	876.26	878.98	879.17	879.36
+25	876.34	876.53	876.70	879.42	879.61	879.78
+50	876.82	877.01	877.14	879.86	880.05	880.18
+75	877.33	877.52	877.58	880.30	880.49	880.55
387+00	877.83	878.02	878.02	880.74	880.93	880.93
+25	878.33	878.52	878.46	881.18	881.37	881.31
+50	878.84	879.03	878.90	881.62	881.81	881.68
+75	879.32	879.51	879.34	882.06	882.25	882.08
388+00	879.78	879.97	879.78	882.50	882.69	882.50

Normal Section:
388+00 to 400+25 West Bound
388+00 to 415+00 East Bound

TRANSITION TO EXISTING CROWN

STATION	WESTBOUND			EASTBOUND		
	Lt. Edge	℄	Rt. Edge*	Lt. Edge*	℄	Rt. Edge
400+25	909.75	909.94	909.75			
+50	910.75	910.94	910.76	Normal Section		
+75	911.75	911.94	911.80			

End New Pavement

* Profile Grade

PMS, 2-28-62

TYPICAL DETAILS I-1
(UNDERDRAIN OUTLETS)

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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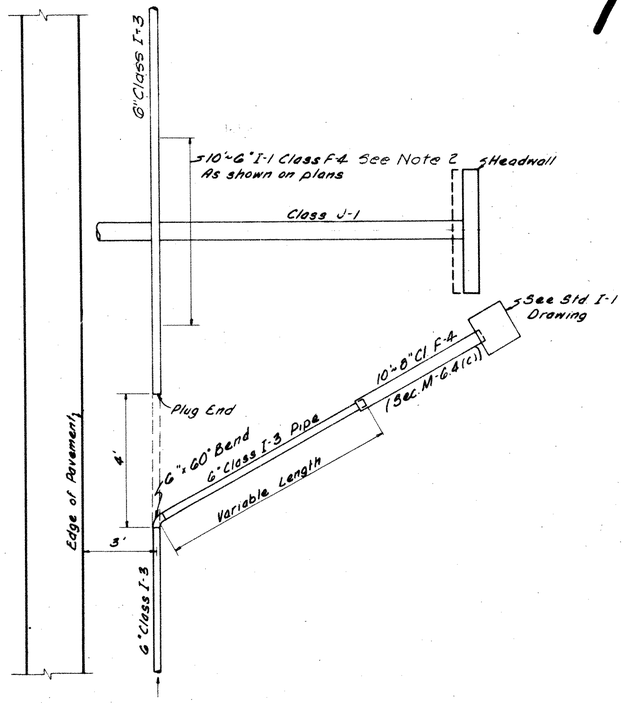
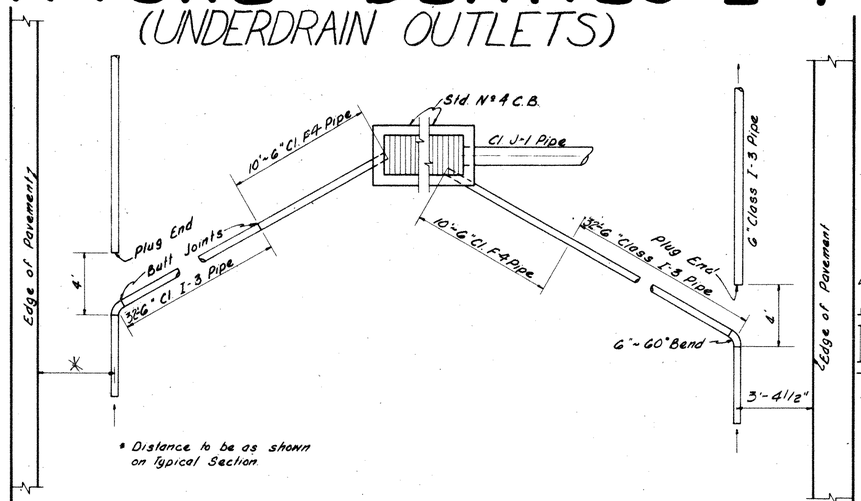
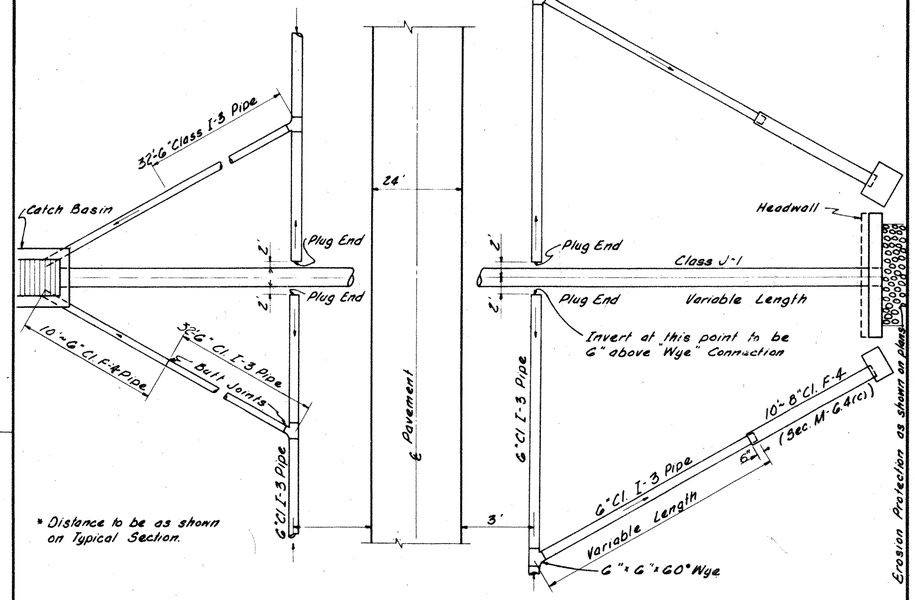


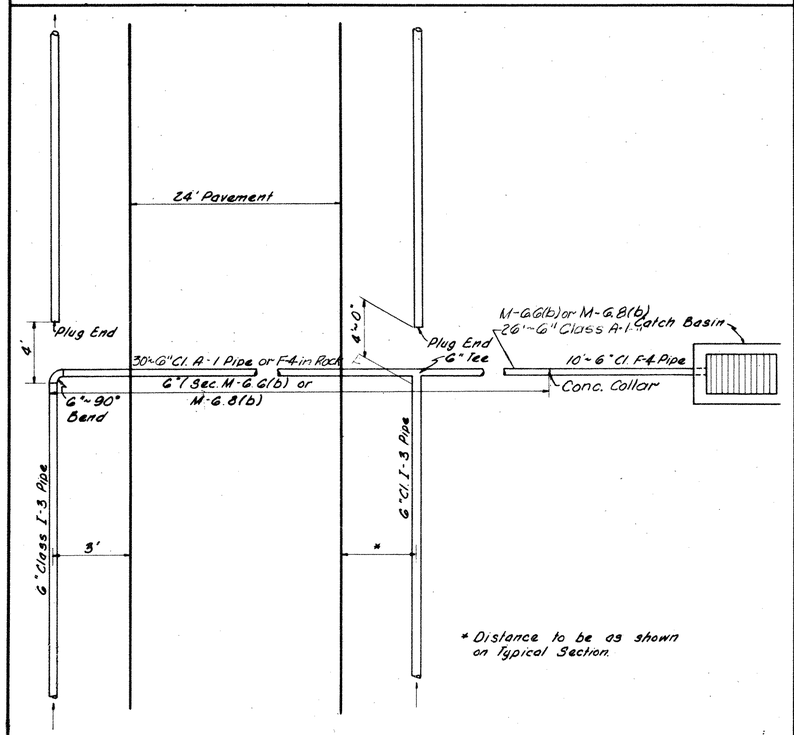
UNDERDRAIN OUTLET DETAIL "A"



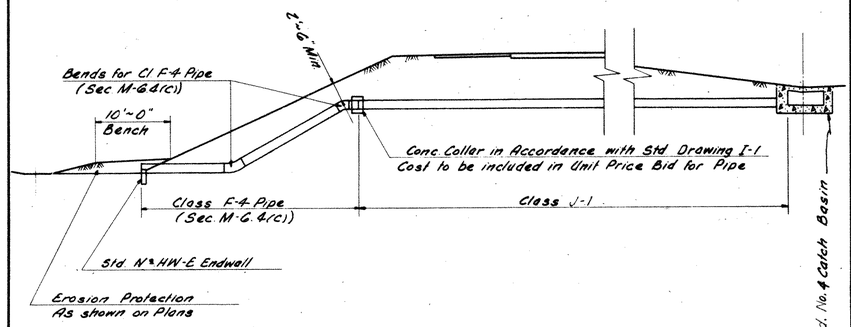
UNDERDRAIN OUTLET DETAIL "B"



UNDERDRAIN OUTLET DETAIL "C"



UNDERDRAIN OUTLET DETAIL "D"



*When Indicated on Plans

MEDIAN OUTLET DETAIL IN HIGH FILL

NOTE:

1. 6" Class F-4 Pipe (Sec. M-6.4(c)) shall be furnished with one rolled end. The rolled end shall be placed at the outlet end.
2. When underdrains continue across a transverse line, such as in detail "A," a 10' min. length of 6" class F-4 pipe shall be used to span a trench unless the crossing is 3' above the top of the pipe. or more

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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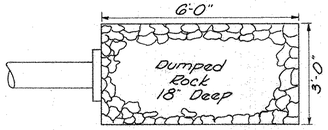
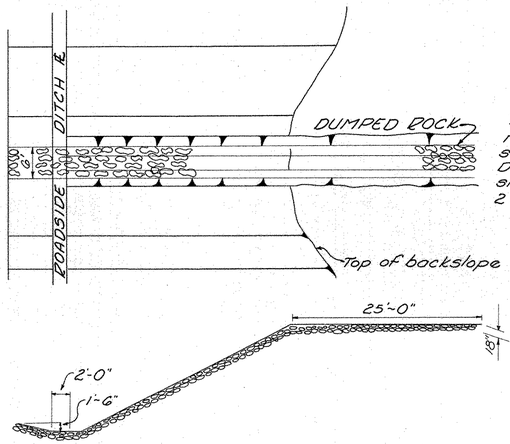


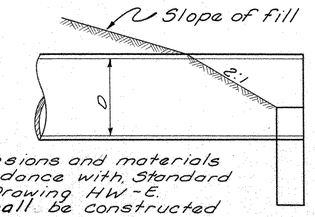
MEDIAN OUTLET PROTECTION

To be used as noted in areas where no ditches are to be constructed.



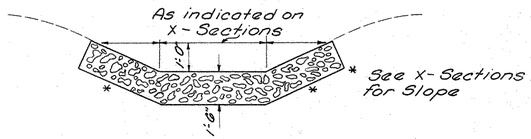
Typical section for dumped rock shall be the same as shown for the Roadside Ditch. Dumped Rock Detail with 2:1 slopes. Ditch flowline shall be 2 feet below back slope plane.

DUMPED ROCK CHANNEL PROTECTION FOR DITCHES OVER SLOPES

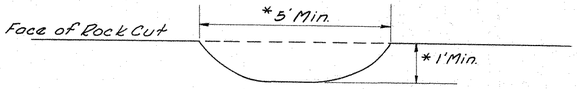


All other dimensions and materials to be in accordance with, Standard Construction Drawing HW-E.
All endwalls shall be constructed normal to the pipe, unless otherwise noted on plans.
Dimensions shown on plans to end of pipe are to outside face of endwalls.

HEADWALL "E"

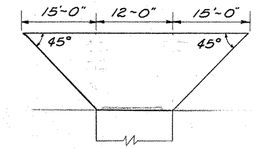


ROADSIDE DITCH
DUMPED ROCK CHANNEL PROTECTION



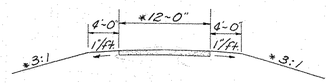
DETAIL OF DEPRESSION IN ROCK CUT

*See General Note "Swales and/or Springs in Rock Cut" Sheet 14



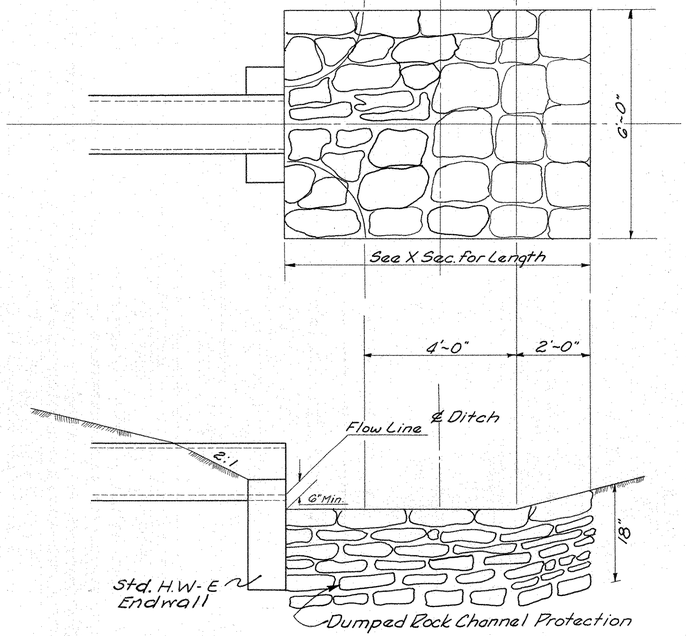
DRIVE DETAIL, Type II

Use shoulder width & slopes as shown in Residential Or Typical below.

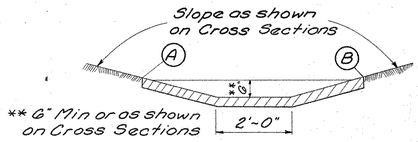


* Unless otherwise shown, Type pavement as indicated on plans.

TYPICAL SECTION RESIDENTIAL AND FIELD DRIVE

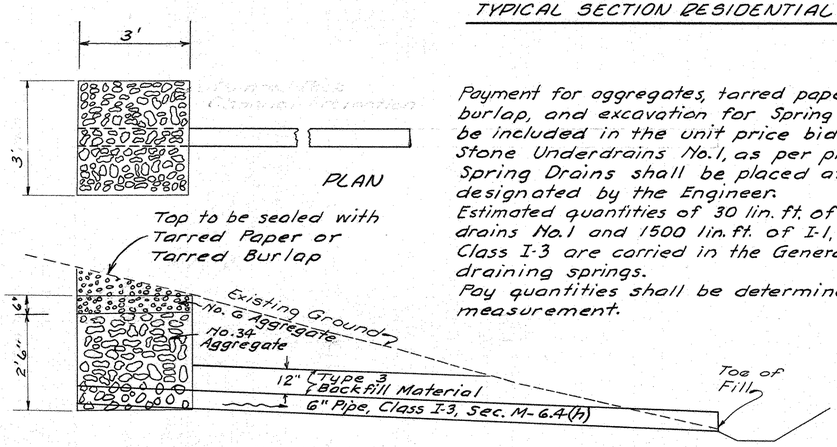


DUMPED ROCK DETAIL AT MEDIAN OUTLET



ROADWAY DITCH SOD DETAIL

Points A & B shall be the same elevation.



LONGITUDINAL SECTION

DETAIL OF SPRING DRAINS

Payment for aggregates, tarred paper or tarred burlap, and excavation for Spring Drains shall be included in the unit price bid for Item I-9 Stone Underdrains No.1, as per plan.
Spring Drains shall be placed at locations designated by the Engineer.
Estimated quantities of 30 lin. ft. of I-9 Stone Underdrains No.1 and 1500 lin. ft. of I-1, 6" pipe, Sec. M-6.4(h) Class I-3 are carried in the General Summary for draining springs.
Pay quantities shall be determined by final measurement.

NOTE: See General Note - 6" Class I-3 Pipe See Sh. 14

ESTIMATED QUANTITIES

I-1	6" Pipe	Class I-3 Sec. M.6.4(h)	1500 Lin. Ft.
I-9	Stone Underdrains, No.1		30 Lin. Ft.

SPECIAL DETAILS

FED. RD DIVISION	STATE	PROJECT	
2	OHIO		

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SPECIAL BERM & SLOPE PROTECTION

Prior to placement of sod in the berm and slope, galvanized poultry fence shall be placed on the finished grade in strands which shall be at right angles to the direction of flow. Each strand shall be staked securely on top and bottom with stakes spaced at four foot intervals and alternated in rows four feet apart.

Stakes shall be 1"x1"x8" wood stakes and shall be perpendicular to the ground and flush with the finished grade.

The fence shall be Straight Line Poultry Fence or equivalent with strand width of four feet, having a two inch mesh and all wires No. 20 Gauge.

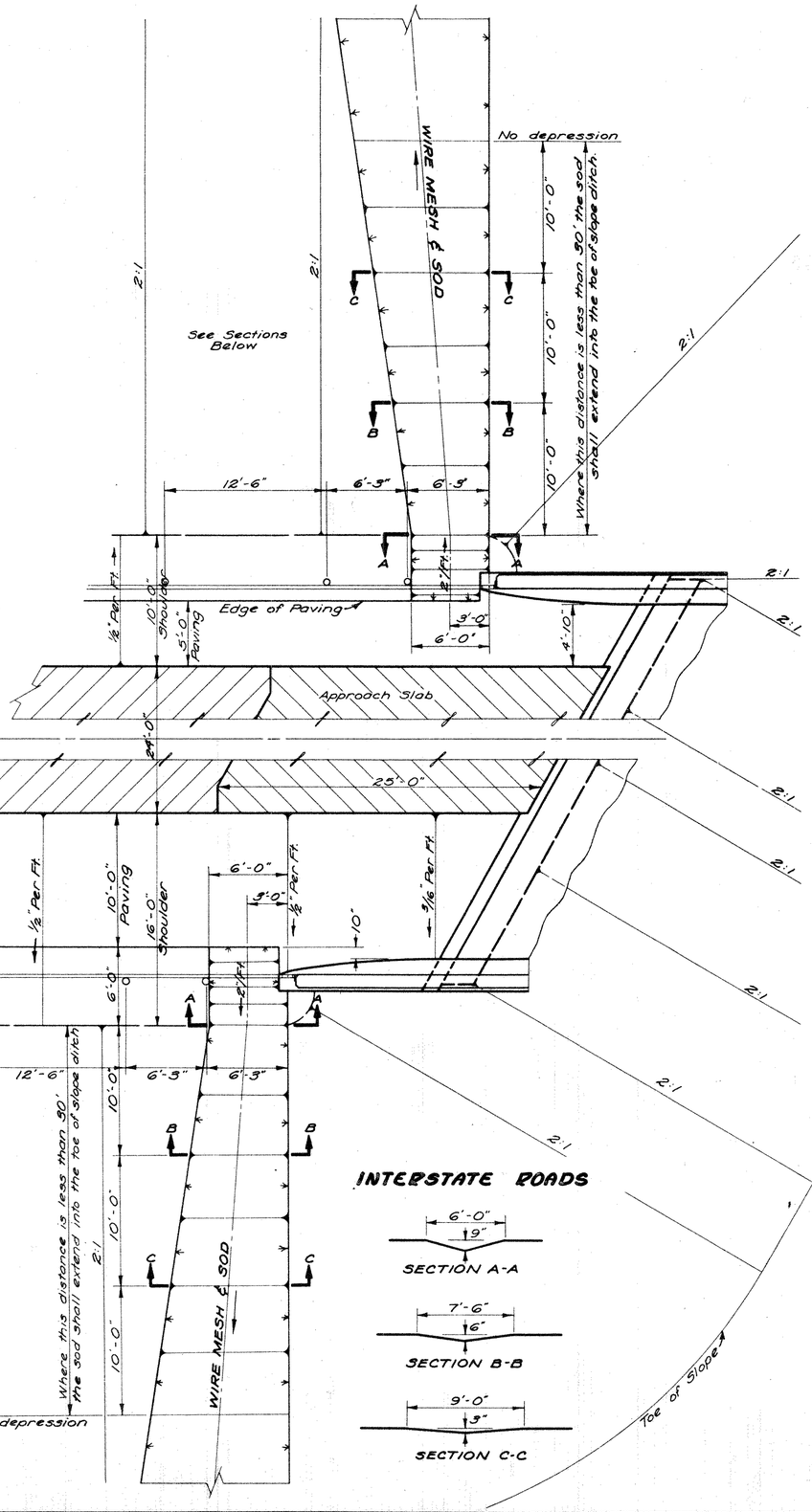
The strands of fencing shall be fastened together at twelve inch intervals by means of hog rings.

The fence shall be secured to the wood stakes by metal staples.

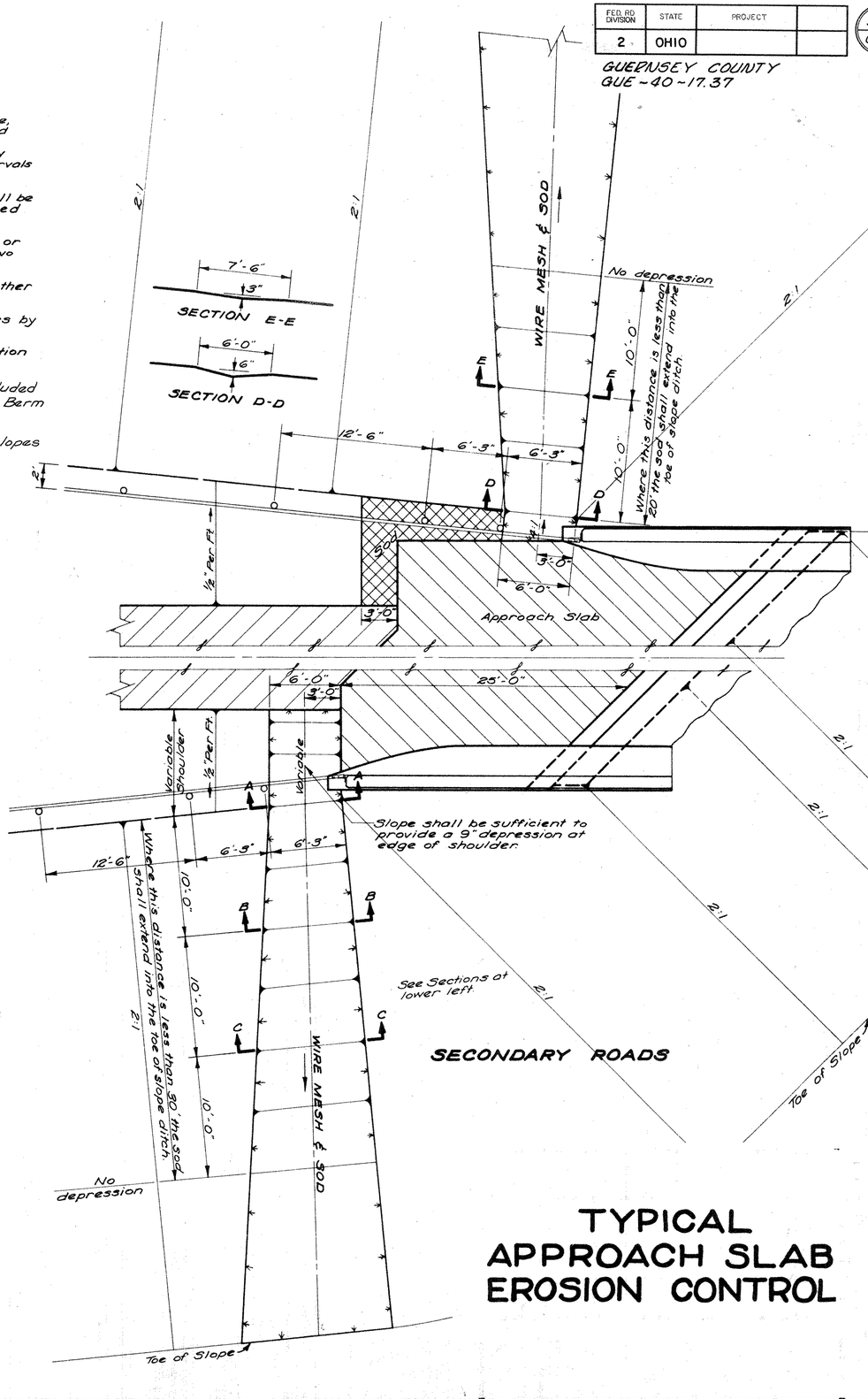
Sod shall be laid in accordance with Construction and Materials Specifications Section L-10.07.

Payment for all materials and labor is to be included in the price bid per sq. yd. for L-10 Sodding for Special Berm and Slope protection.

The protection is not to be used where the slopes into the ditches or median are 6:1 or less.



INTERSTATE ROADS



SECONDARY ROADS

TYPICAL APPROACH SLAB EROSION CONTROL

APPROACH SLAB EROSION CONTROL

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

GUERNSEY COUNTY
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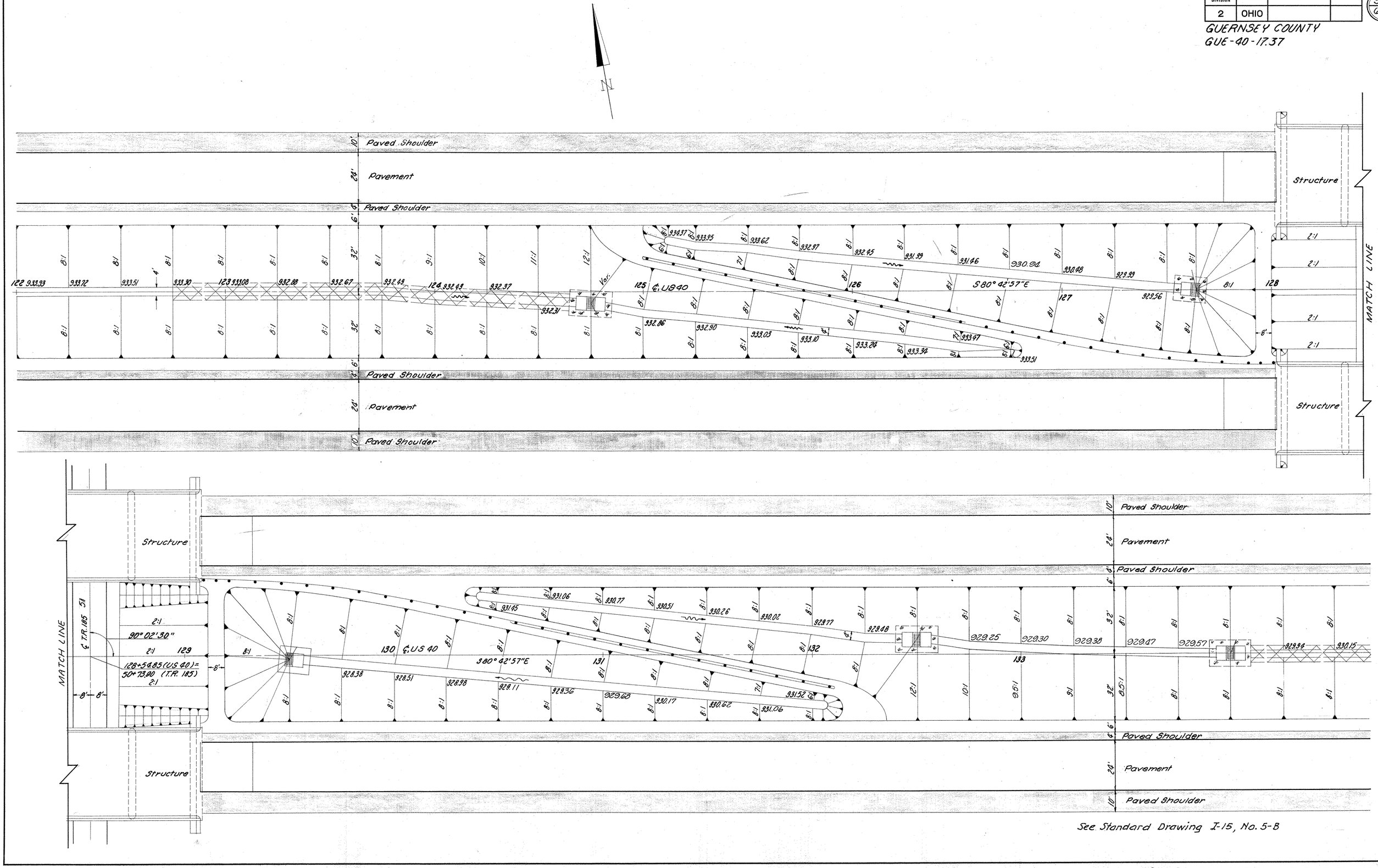

See Standard Drawing I-15, No. 5-B

GUARD RAIL DETAILS AT TWP RD 185

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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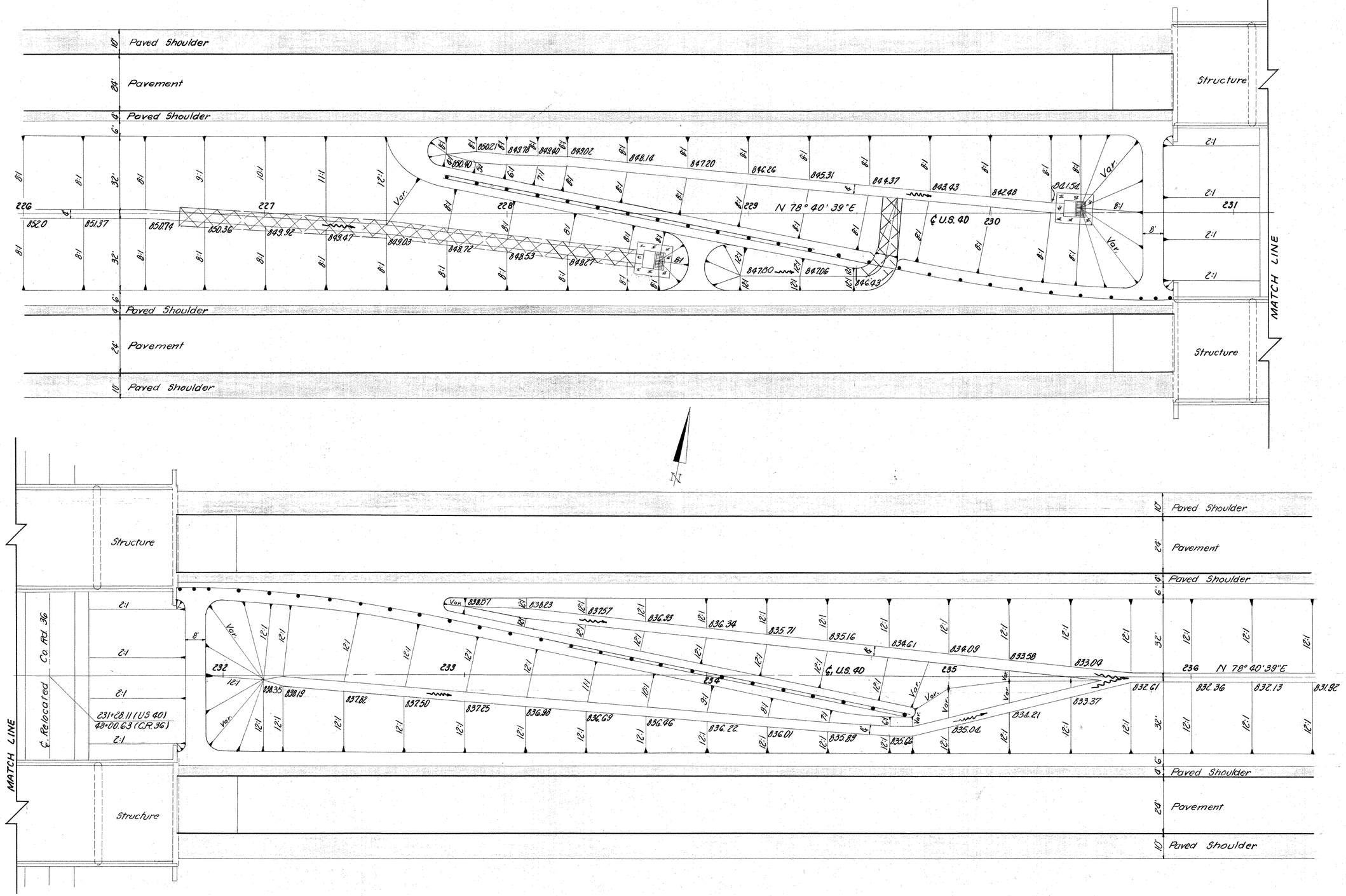
GUERNSEY COUNTY
GUE - 40 - 17.37



See Standard Drawing I-15, No. 5-B

GUARD RAIL DETAILS AT Co. Rd. 36

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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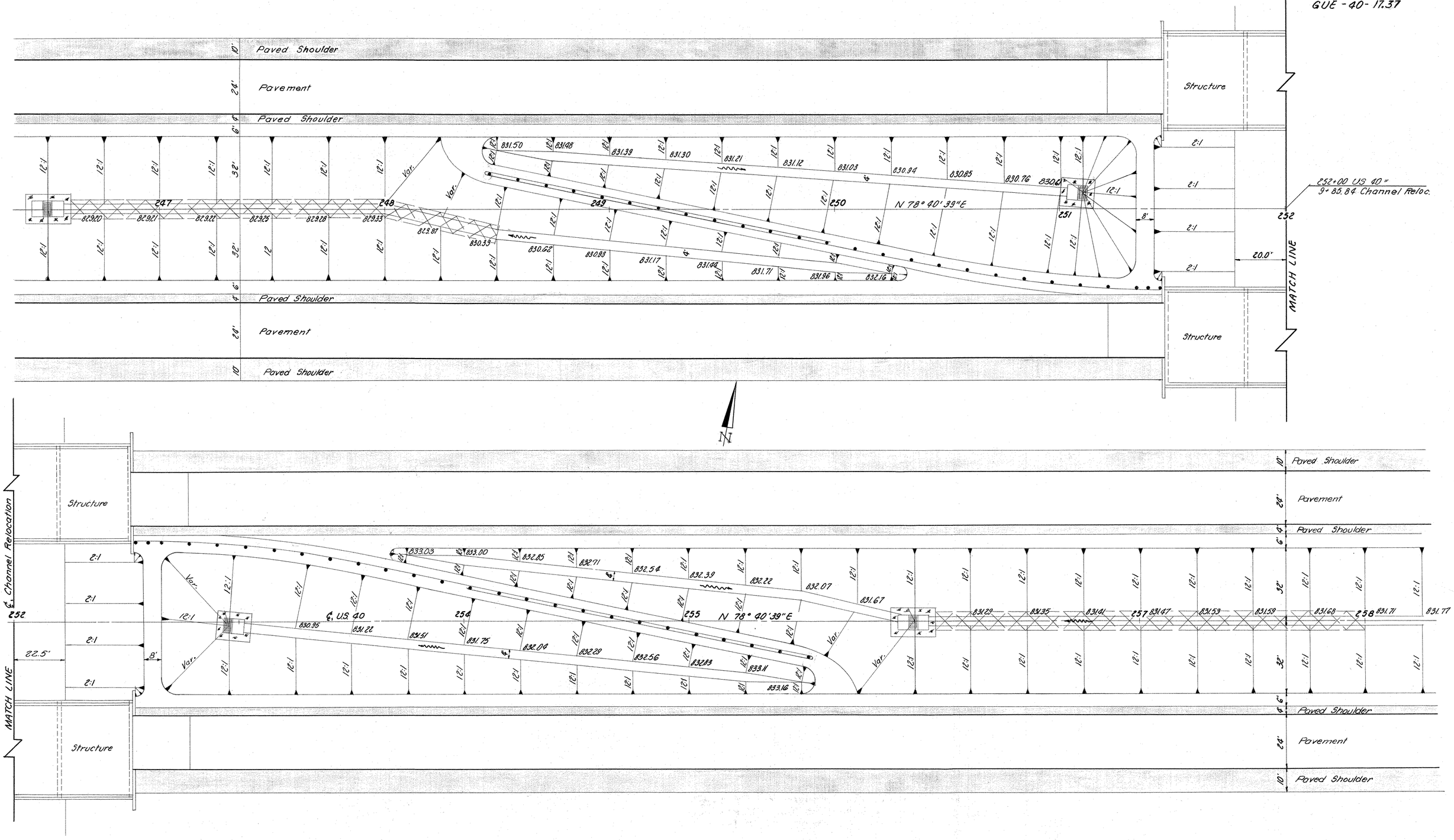
638

GUERNSEY COUNTY
GUE - 40 - 17.37



See Standard Drawing I-15, No. 5-B

GUARD RAIL DETAILS AT SALT FORK CHANNEL RELOCATION

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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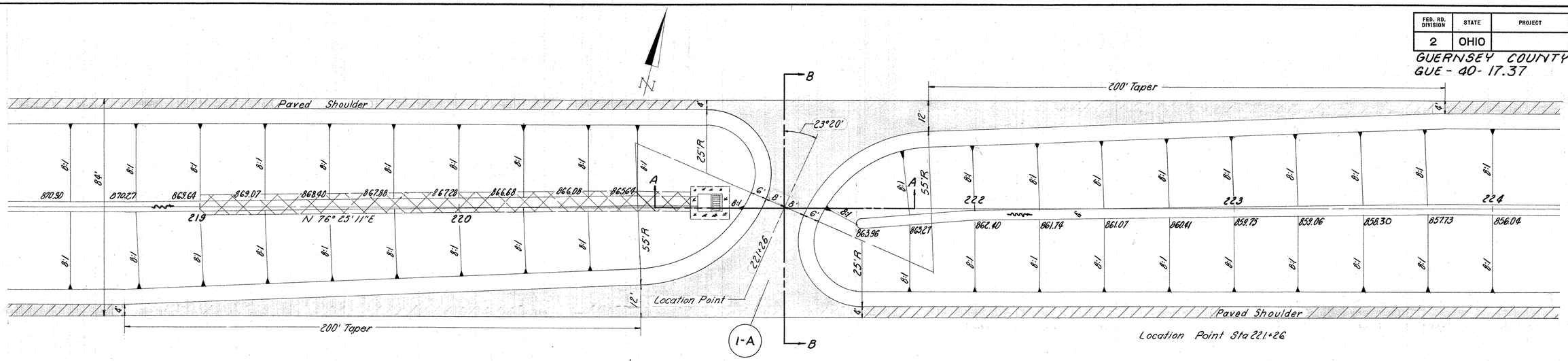
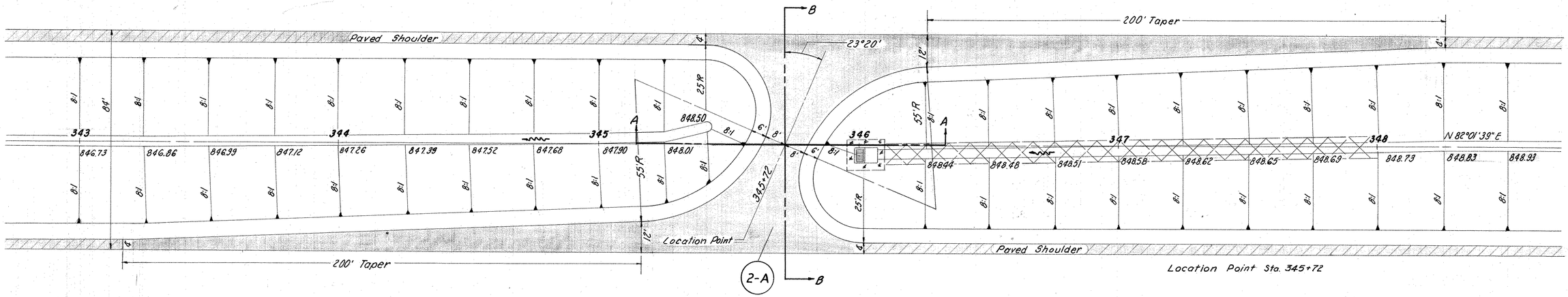
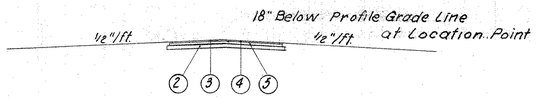
638

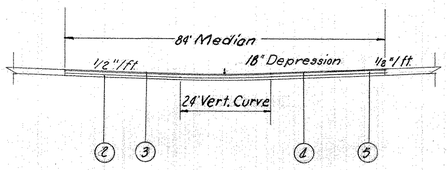
GUERNSEY COUNTY
GUE - 40- 17.37







SECTION, A-A



SECTION, B-B

LEGEND

Pavement Quantities are not included in Quantities in table on this sheet.

● Thickness shown is "designed" thickness as described in Sec. B-21.01 Type "A" T-35 material may be used in the construction of B-21 course. See Note in Proposal.

ITEM	DESCRIPTION
℄	I-22 6" Subbase Grading A or B (See General Notes)
3	T-31 Bituminous Surface Treatment Using 0.008 Cu. Yd. or No. 8 Aggregate and 0.25 Gal. Bituminous Material Per Sq. Yd.
● 4	B-21 3" Waterproof Aggregate Base Course (See Note in Proposal)
5	B-112 5" Porous Base Course

PAVEMENT QUANTITIES

Ref No	B-21 3"	T-31 No. 8 Aggre.	T-31 Bit. Mat.	B-112 5"	I-22 6"	E-1 Comp. Sub. Gr.
	Cu. Yds.	Cu. Yds.	Gal.	Cu. Yds.	Cu. Yds.	Sq. Yds.
1-A	63.65	6.11	190.94	108.48	133.06	763.78
2-A	63.65	6.11	190.94	108.48	133.06	763.78
Totals	127.30	12.22	381.88	216.96	266.12	1527.56

U-TURN MEDIAN OPENINGS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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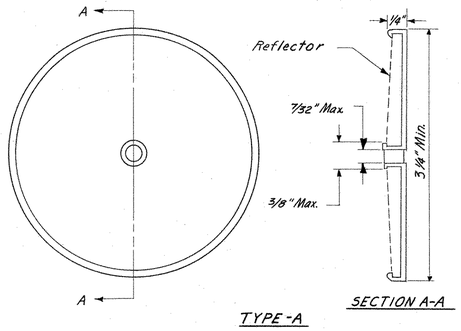
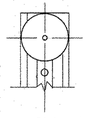
GUERNSEY COUNTY
GUE-40-17.37

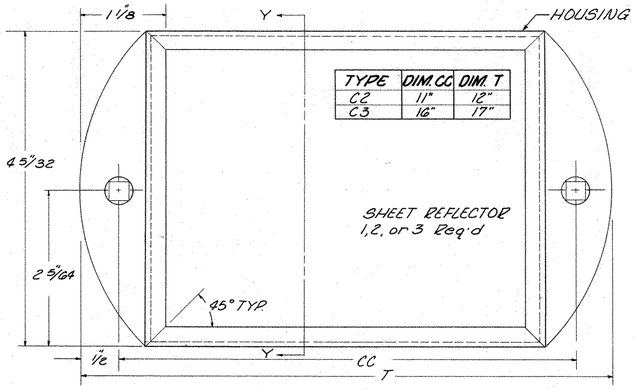


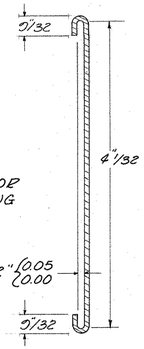
TYPE-A

SECTION A-A

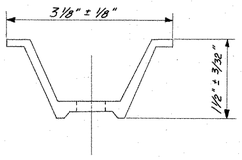


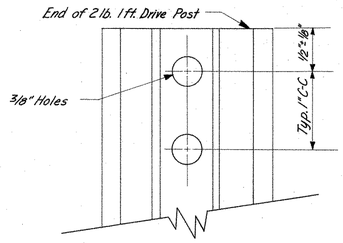
A-1



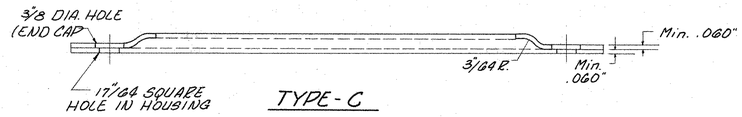


SECTION Y-Y





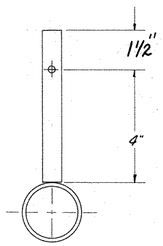
REFLECTOR & DELINEATOR POST DETAIL



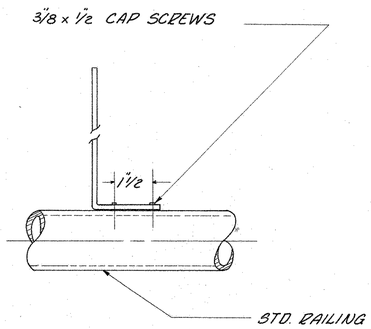
TYPE-C

REFLECTOR & DELINEATOR DETAIL

ALL BRACKETS 1/4 x 1 1/4 STAINLESS STEEL



TYPE A-1
3/16 DIA. HOLE



BRIDGE RAIL BRACKET DETAIL

Note: The lateral placement of delineators from edge of pavement shall vary on speed change lanes to maintain a minumin distance of 2'-6" from edge of paved shoulder.

DELINEATOR SUMMARY

STA.	TO STA.	SIDE	DIST. FROM OUT-SIDE EDGE PAV'T.	INTERVAL	A-1	C-2	C-3
641+00	653+00	Rt.	12.5'	200	6		
655+00	657+00	Rt. & Lt.	12.5'	200	4		
88+00	102+00	Rt. & Lt.	12.5'	200	16		
104+00	110+00	Rt.	12.5'	200	4		
112+00	120+00	Rt. & Lt.	12.5'	200	10		
120+00	140+00	Rt. & Lt.	12.5'	200	20		
140+00	160+00	Rt. & Lt.	12.5'	200	20		
160+00	166+00	Rt. & Lt.	12.5'	200	6		
166+00	176+00	Lt.	12.5'	200	5		
178+00	190+00	Rt. & Lt.	12.5'	200	14		
190+00	208+00	Lt.	12.5'	200	9		
208+00	250+00	Rt. & Lt.	12.5'	200	42		
254+00	354+00	Rt. & Lt.	12.5'	200	102		
354+00	362+00	Rt.	12.5'	200	4		
372+00	390+00	Rt.	12.5'	200	10		
373+00	389+00	Lt.	12.5'	200	9		
399+00	415+00	Lt.	12.5'	200	9		
409+00	415+00	Rt.	12.5'	200	4		
			RAMP "A"				
5+50	9+50	Rt.	8.5'	100		5	
9+50	13+10	Lt.	4.5'	90		5	
13+10	15+80	Rt.	8.5'	90		4	
17+00	357+00	Rt.	8.5'	100		12	
356+00		Lt.	12.5'				1
			RAMP "B"				
398+00	10+00	Rt.	8.5'	100		9	
10+00	12+00	Rt.	8.5'	100		3	
12+00	18+00	Rt.	8.5'	100		6	
			RAMP "C"				
362+00	12+00	Rt.	8.5'	100		10	
12+00	20+00	Rt.	8.5'	100		8	
20+00	23+10	Rt.	8.5'	40		8	
			RAMP "D"				
4+00	6+00	Rt.	8.5'	100		3	
6+00	10+40	Lt.	4.5'	90		6	
10+50	11+40	Rt.	8.5'	90		2	
13+00	406+00	Rt.	8.5'	100		14	
407+00		Rt.	12.5'				1
			RAMP "E"				
8+40	11+90	Rt.	8.5'	70		6	
11+80	15+00	Lt.	4.5'	80		5	
15+00	17+40	Rt.	8.5'	80		4	
19+00	643+00	Rt.	8.5'	100		9	
			RAMP "F"				
111+00	107+00	Rt.	8.5'	100		5	
107+00	15+00	Rt.	8.5'	100		4	
16+00	18+00	Rt.	8.5'	100		3	
19+10	21+50	Rt.	8.5'	60		5	
			RAMP "G"				
168+00	170+00	Rt.	8.5	100		3	
170+00	6+00	Rt.	8.5	100		6	
6+00	9+00	Rt.	8.5'	100		3	
9+00	11+00	Rt.	8.5'	50		5	
			RAMP "H"				
6+00	8+80	Rt.	8.5'	70		5	
8+60	11+00	Lt.	4.5'	80		4	
11+00	12+60	Rt.	8.5'	80		3	
14+00	207+00	Rt.	8.5'	100		14	
208+00		Rt.	12.5'	100			1
Total to General Summary					294	179	3

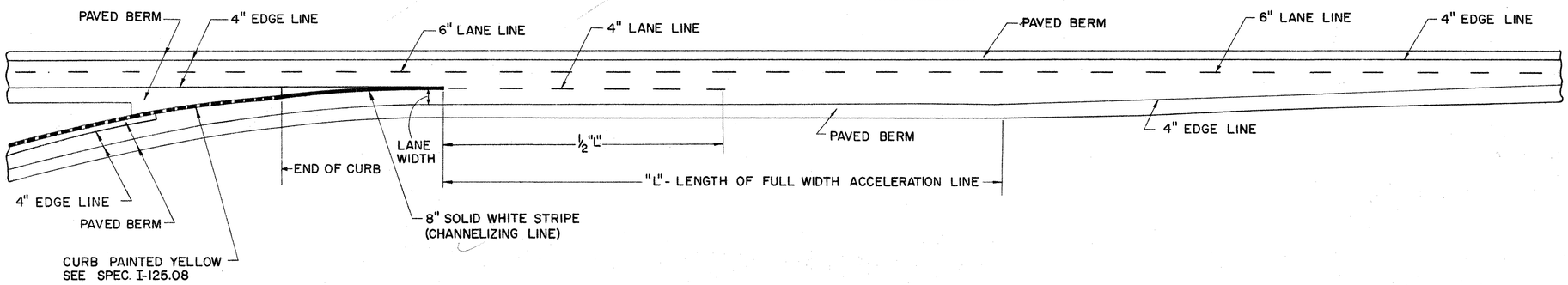
SPECIAL DETAILS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

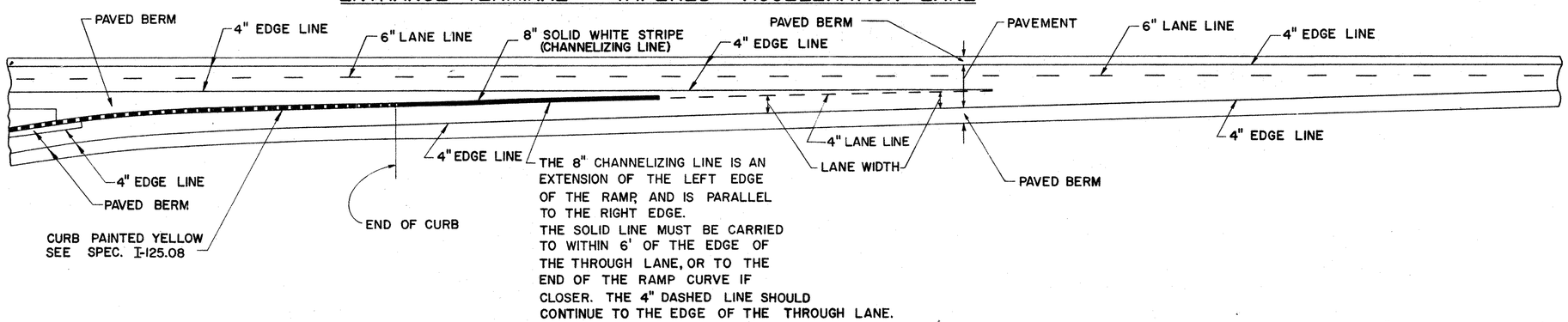
36-A
638

GUERNSEY COUNTY
GUE-40-17.37

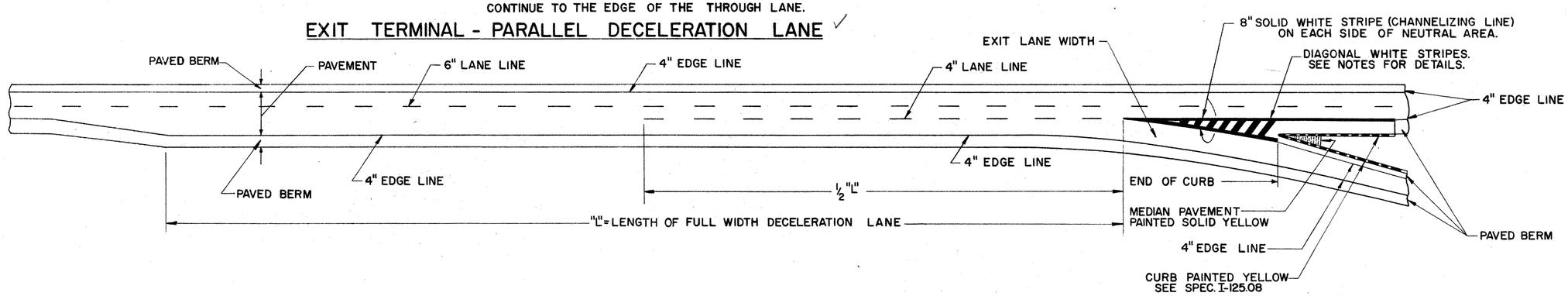
ENTRANCE TERMINAL - PARALLEL ACCELERATION LANE



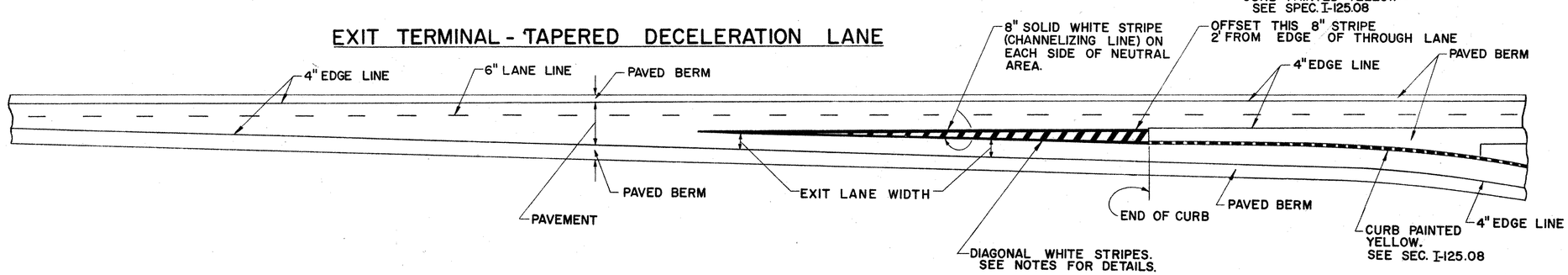
ENTRANCE TERMINAL - TAPERED ACCELERATION LANE



EXIT TERMINAL - PARALLEL DECELERATION LANE



EXIT TERMINAL - TAPERED DECELERATION LANE



NOTES

EDGE LINES SHALL BE PLACED IN THE LOCATIONS AS SHOWN TO CONFORM TO SUPPLEMENTAL SPECIFICATION No. I-125 AND DEFINED IN SECTION I-125.06.

LANE LINES SHALL BE PLACED IN THE LOCATIONS AS SHOWN TO CONFORM TO SUPPLEMENTAL SPECIFICATION No. I-125 AND DEFINED IN SECTION I-125.07.

CHANNELIZING LINES SHALL BE CONTINUOUS WHITE BEADED STRIPES 8" IN WIDTH PLACED IN THE LOCATIONS AS SHOWN TO CONFORM TO SUPPLEMENTAL SPECIFICATION No. I-125 AND DEFINED IN SECTION I-125.07 b.

DIAGONAL STRIPES IN EXIT RAMP MARKINGS SHALL BE 2' WIDE WHITE BEADED STRIPES SET AT A 45° ANGLE TO THE CENTER LINE OF THE THROUGH PAVEMENT AND SLANTED IN THE DIRECTION OF THE FLOW OF TRAFFIC ON SAID PAVEMENT. SPACE BETWEEN THE 2' DIAGONAL STRIPES SHALL BE 6' AS MEASURED PARALLEL TO THE CENTER LINE OF THE THROUGH PAVEMENT. PAINT ON THE DIAGONAL STRIPES SHALL BE APPLIED AT THE RATE OF ONE GALLON TO EACH 100 SQUARE FEET AND GLASS BEADS SHALL BE APPLIED AT THE RATE OF SIX POUNDS PER GALLON OF PAINT. DIAGONAL WHITE STRIPES SHALL BE PLACED BETWEEN THE TWO 8" WHITE CHANNELIZING LINES AT EXIT RAMPS AS SHOWN TO CONFORM TO SUPPLEMENTAL SPECIFICATION No. I-125 AND DEFINED IN SECTION I-125.07 c.

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

PAVEMENT MARKING

PM-1

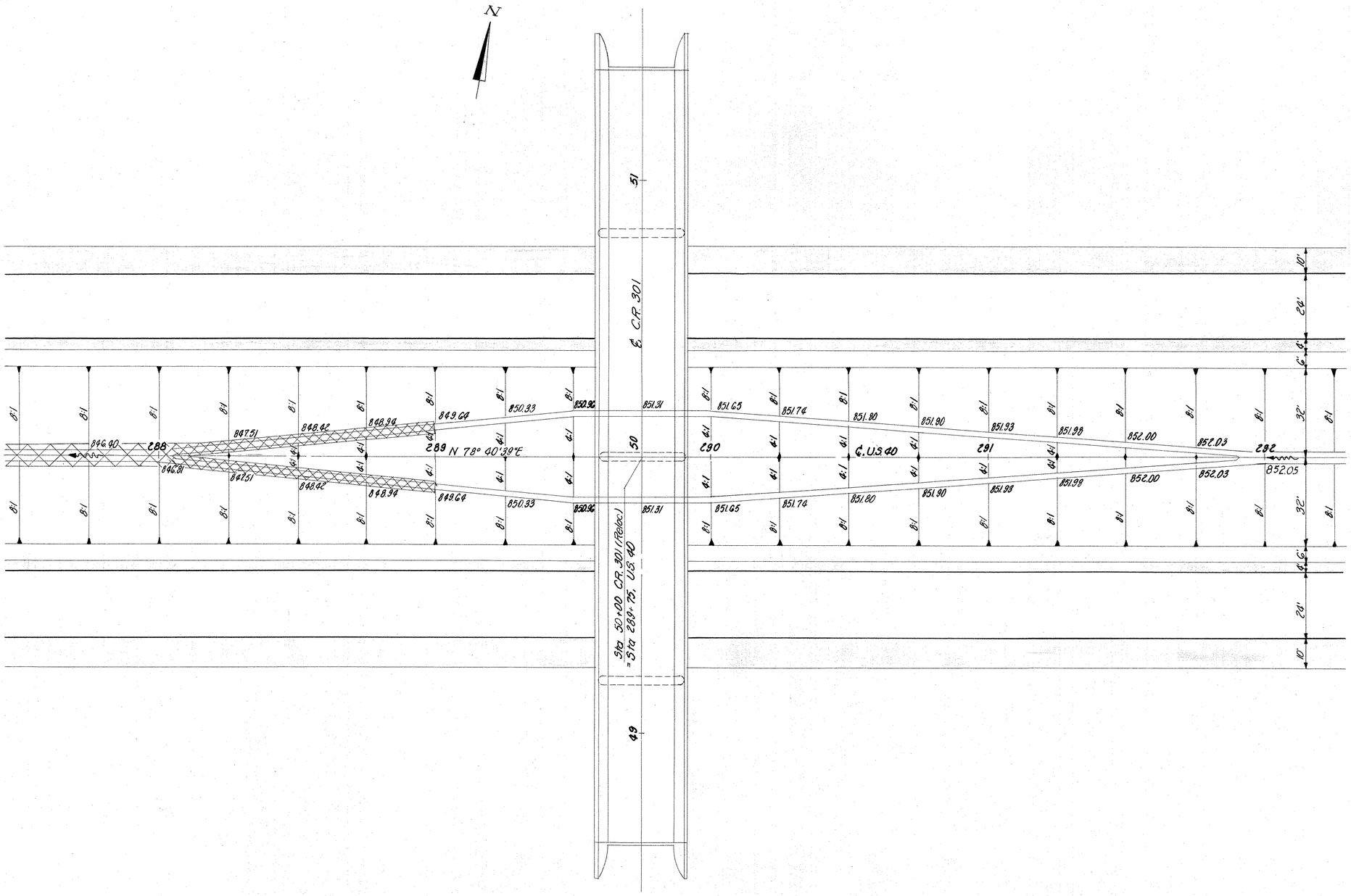
DATE
7-17-61
4-6-62

APPROVED Robert E. Lowder
ENGINEER OF TRAFFIC

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

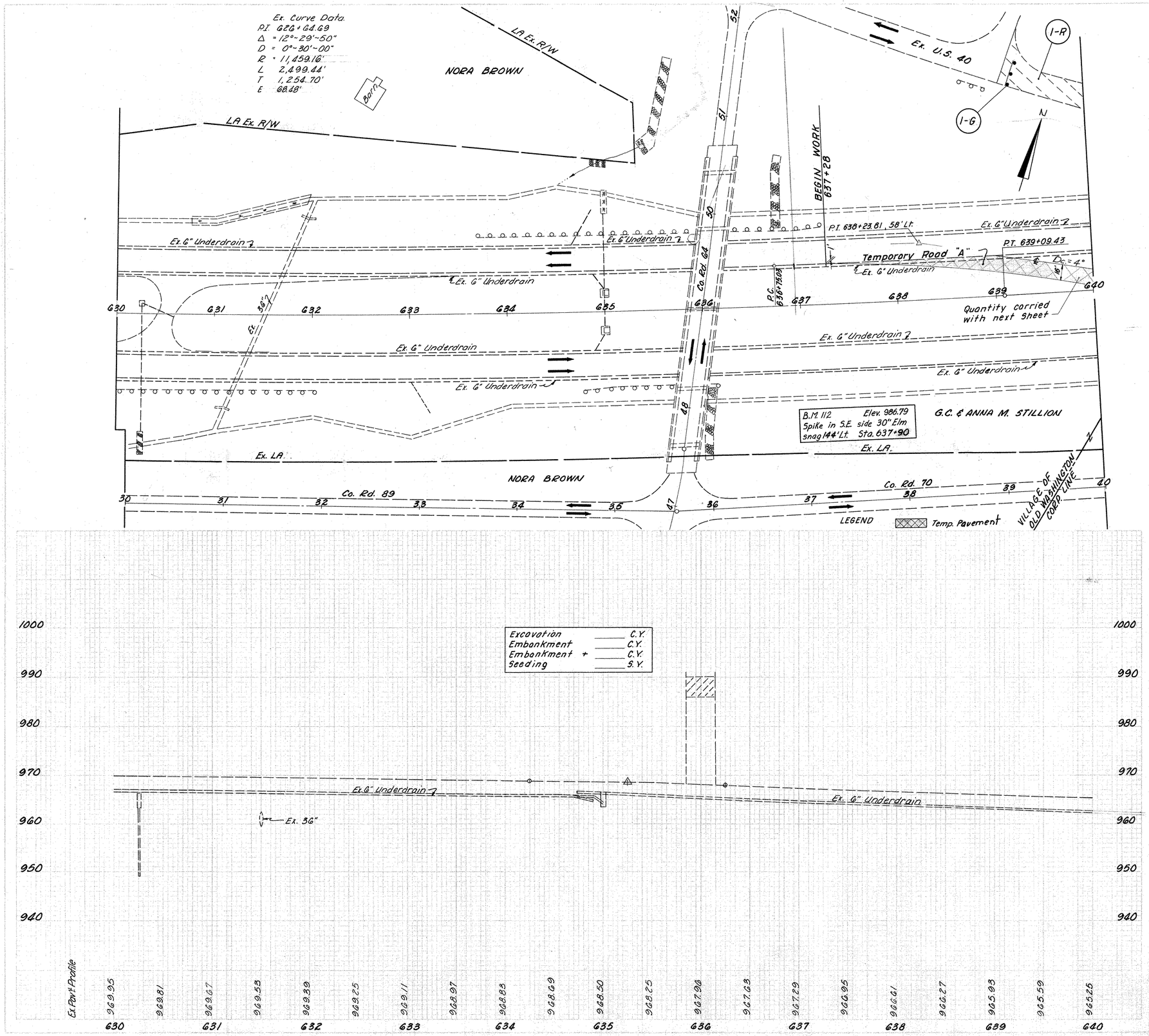
37
638

GUERNSEY COUNTY
GUE-40-17.37



DRAINAGE DETAILS AT Co Rd. 301

GUERNSEY COUNTY GUE-40-17.37



ESTIMATED QUANTITIES

SEE SHEET NO.	STATION TO STATION	SIDE	I-15 E-8 Stand. Pav't Removal 2-A L.F. S.Y.
	UNITS		
	1-G 639+22	Lt.	25
	1-R 639+10 to 640+00	Lt.	264
	TO SUMMARY		25 264

630+00 to 640+00

Note:
Marker will be furnished & erected on the Right by the State forces prior to acceptance of this improvement.

TREE REMOVAL
640+00 TO 650+00
NONE

UTILITIES
Ohio Power Company
Home Telephone Company

THE GUERNSEY COUNTY AGRICULTURAL ASSOCIATION

I-70-7 (10) 187
SLM 17.37

Ex. Co. Rd. 13 End G.R. +50±
+00, 107' Lt. 8" Inv. 958.00
Begin G.R. 178±
Ex. U.S. 40
WASHINGTON - KNOX LINE
VILLAGE OF CASTON
JOHN G. LAUGHMAN & WILMA M. LAUGHMAN
JAMES LAUGHMAN
Dug Well 32' Deep 5'x5' Conc. Slab
Temporary Road "A"
Temporary Road "B" See Sheet No. 495 for Details.
Ex. Co. Rd. 70 Reloc.
BEGIN PROJECT 641+00
VILLAGE OF
Ex. L.A.?
Ex. R/W?
Ex. Fence
Ex. Shed
Ex. Gar.
Ex. Dwg.
Ex. Tree
Ex. Bldg.
Ex. Silo
Ex. Pump
Ex. Tank
Ex. Trans.
Ex. Pole
Ex. Mail Box
Ex. Sign
Ex. Gas Line
Ex. Water Line
Ex. Tel. Line
Ex. Elec. Line
Ex. Gas Valve
Ex. Water Valve
Ex. Tel. Pedestal
Ex. Elec. Pedestal
Ex. Gas Meter
Ex. Water Meter
Ex. Tel. Manhole
Ex. Elec. Manhole
Ex. Gas Manhole
Ex. Water Manhole
Ex. Sewer Manhole
Ex. Inlet
Ex. Culvert
Ex. Guard Rail
Ex. Paved Gutter ?
Constr. Limits ?
Ex. Ground
Ex. Paved Ditch
Ex. Slope
Ex. Curb
Ex. Sidewalk
Ex. Steps
Ex. Retaining Wall
Ex. Bridge
Ex. Culvert
Ex. Pavement
Ex. Shoulder
Ex. Median
Ex. Island
Ex. Ramp
Ex. Gore
Ex. Turn Lane
Ex. Passing Lane
Ex. Climbing Lane
Ex. Auxiliary Lane
Ex. Acceleration Lane
Ex. Deceleration Lane
Ex. Weaving Lane
Ex. Merging Lane
Ex. Diverging Lane
Ex. Crossover
Ex. Intersection
Ex. Railroad
Ex. Railroad Crossing
Ex. Railroad Signal
Ex. Railroad Gate
Ex. Railroad Bridge
Ex. Railroad Culvert
Ex. Railroad Retaining Wall
Ex. Railroad Slope
Ex. Railroad Ditch
Ex. Railroad Curb
Ex. Railroad Sidewalk
Ex. Railroad Steps
Ex. Railroad Guard Rail
Ex. Railroad Paved Gutter
Ex. Railroad Constr. Limits
Ex. Railroad Ground
Ex. Railroad Paved Ditch
Ex. Railroad Slope
Ex. Railroad Curb
Ex. Railroad Sidewalk
Ex. Railroad Steps
Ex. Railroad Retaining Wall
Ex. Railroad Bridge
Ex. Railroad Culvert
Ex. Railroad Pavement
Ex. Railroad Shoulder
Ex. Railroad Median
Ex. Railroad Island
Ex. Railroad Ramp
Ex. Railroad Gore
Ex. Railroad Turn Lane
Ex. Railroad Passing Lane
Ex. Railroad Climbing Lane
Ex. Railroad Auxiliary Lane
Ex. Railroad Acceleration Lane
Ex. Railroad Deceleration Lane
Ex. Railroad Weaving Lane
Ex. Railroad Merging Lane
Ex. Railroad Diverging Lane
Ex. Railroad Crossover
Ex. Railroad Intersection

Inv. 961.78
Inv. 955.59
Inv. 958.25
Inv. 955.67
Inv. 955.81
Inv. 955.78
Inv. 955.67
Inv. 954.72
Inv. 954.81
Inv. 954.67
Inv. 960.80
Inv. 961.50
Inv. 961.72
Inv. 958.76
Inv. 955.73
Inv. 952.73
Inv. 953.58
Inv. 954.82
Inv. 952.82
Inv. 948.20
Inv. 953.95
Inv. 903.93
Inv. 921.06

504'-6" M6.4(h) 10'-8" F.T.
344'-6" M6.4(h)
408'-6"
179'-6" @ 1.66%
229'-6" @ 0.3%
100'-6" @ 0.32%
300'-6" @ 0.62%
50'-6" @ 4.18%
Dc: 4°00'
Pl 643+00 42' Rt.
Break up Concrete slabs & fill dug wells. Cost to be included in price bid for E-1

BM 113 Elev. 963.77
Square on south corner of conc. well platform 8' Rt. Sta. 646+28

Note!
For Ex. Typical Section in adjoining Pavement see Typical Section "A" except the existing median is raised.

LEGEND
Temporary Pavement

* For Class A-1 Pipe
@ For Class I-3 Pipe

C.B. & End Quantities carried with next Sht.

Culvert Quantities with next Sheet.

L.A.R/W

Excavation 38,133 C.Y.
Embankment 26,380 C.Y.
Embankment +12% 29,546 C.Y.
Seeding 22,928 S.Y.

Emb. as per E-1.02 1580 C.Y.

P.V.I. 649+53.00 500' V.C. E.B. Lanes Elev. 958.77
P.V.I. 650+09.00 500' V.C. W.B. Lanes Elev. 958.39

Ex. I-3 +00 Conn. to Ex. I-3 Inv. 961.72
6" Underdrains M6.4(h) (2.75' below edge of Pav't) E.B. & W.B. Lanes -0.68%
Conn. to Ex. I-3 Sta. 642+00 Inv. 961.50
6" @ 1.66%
6" @ 0.62%
6" @ 0.3%
6" @ 0.32%
+50 Inv. 958.76
+00 956.67
+50, No. 4 C.B. Grate 955.73 Inv. 15" 952.73 6" Inv. N & S 953.58
+00, No. 4 C.B. Grate 954.82 Inv. 15" 952.82

E.B. & W.B. PROFILE
E.B. PROFILE
W.B. PROFILE

| | | |

UTILITIES
HOME TELEPHONE CO.

WILMA M. LAUGHMAN & JOHN G. LAUGHMAN

LA R/W

LA Ex. R/W

CURVE DATA
Temp.-Runaround
P.I. = 652+29.56
Δ = 13° 54' 00"
Dc = 4° 00
R = 1432.39
T = 174.61
L = 347.50
S.T. 17+00.00

Temporary Road "B" See Sheet 406 for Details

MAIN & CURVE DATA
P.I. = 103+68.95
Δ = 30° 34' 23" Rt.
D = 0° 59' 14"
R = 5,803.58'
L = 3,096.79'
T = 1,586.21'
E = 212.87'

Note: See General Note for removal of Cumberland Milestone

RAMP "E" CURVE DATA
P.I. = 14+98.20
Δ = 8° 55' 49" Rt.
D = 3° 30' 00"
R = 1637.02'
Lc = 104.20'
Ls = 150.00
Ts = 202.39
θs = 2° 37' 30"
Es = 5.52'

Tacked Hub
Tacked Hub
I.P.
P.C. 87+82.74 = G57+59.78

10" Elm
6" Willow
I.P.
I.P. Bent
Center Punch
Hub
Hub
3" Elm

19+00 Ramp "E" Constr. Limits

Ramp "E"
P.I. 14+98.20

See Sheet No. 406 for Ramp "E"

Paved Gutter Removal with Preceding Sheet.

Ex. Field Drive

RAMP "E" (Abandon)

EQUATION
Survey & Const.
Back 657+59.78 = PC 87+82.76
Ahead

Tree Removal 650+00 to 90+00

SIZE	No. TREES
12"-18"	2

See Preceding Sheet for South end of Culvert

Ex. U.S. 40

Cumberland Milestone 171

JAMES LAUGHMAN

LA - Ex. R/W

Constr. Limits

Ex. LA

LA

Ex. Co. Rd. 1

LA-Ex. R/W Billboard

LEGEND
Temp. Road

B.M. 200 Elev. 958.01
M.S. in tele. pole
30' Rt. Sta. 651+15

JAMES & LAUGHMAN
B.M. 201 Elev. 999.28
M.S. in tele. pole
241' Rt. Sta. 89+82

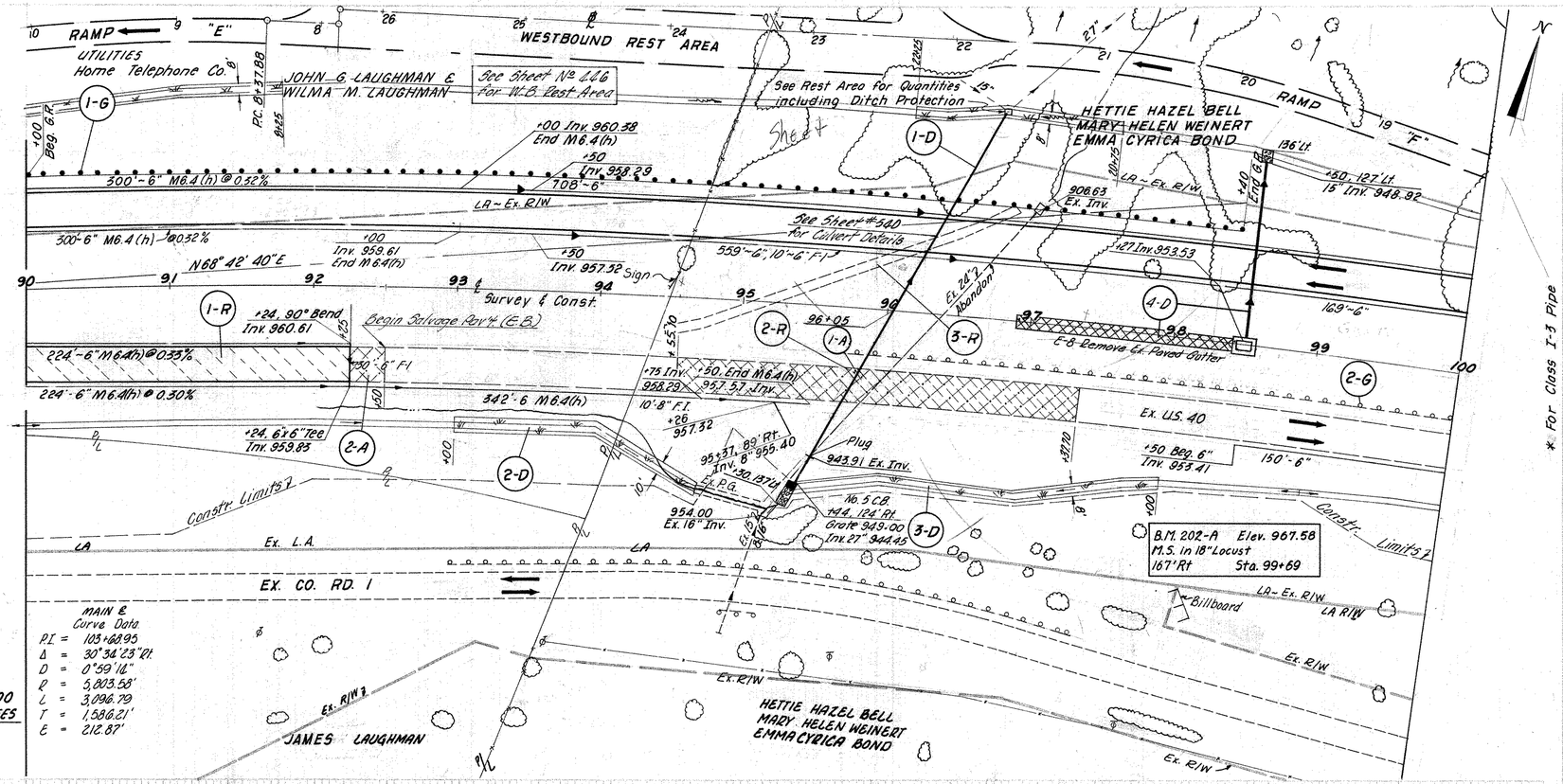
Ex. R/W

* For Class I-3 Pipe

ESTIMATED QUANTITIES

ITEM	UNIT	Sta. 650+00 to 652+60	Sta. 652+60 to 654+00	Sta. 654+00 to 656+60	Sta. 656+60 to 658+25 (Culvert)	Sta. 658+25 to 659+00	Sta. 650+00 to 652+37 "E"	Sta. 652+37 to 654+00 "E"	Sta. 654+00 to 656+00 "E"	Sta. 656+00 to 658+25 E.B.	Sta. 650+00 to 652+86	Sta. 652+86 to 653+14	Sta. 653+14 to 654+00	Sta. 654+00 to 656+00	Sta. 656+00 to 658+25 E.B.	Sta. 650+00 to 652+86	Sta. 652+86 to 653+14	Sta. 653+14 to 654+00	Sta. 654+00 to 656+00	Sta. 656+00 to 658+25 E.B.	TOTAL TO SUMMARY
Removed	Lin. Ft.				2																4
Rebuilt	Lin. Ft.				2																4
Stand 2-9	Ea				1																1
Removal & Storage of Structure	Ea				1																1
Removal of Portions of Ex. Structure	Ea				1																1
Ex. Pav't.	S.Y.				2																2
Mat'l. Under Pav't.	S.Y.				2																2
Jute Matting	S.Y.				133																133
Class E-4 Pipe W=6.6 (0) 15"	L.F.				100																100
Class A-1 Pipe W=6.6(0) 42"	L.F.				22																22
Class I-1 Pipe W=6.6(0) 42"	L.F.				120	82															202
Class I-3 Pipe W=6.6(0) 15"	L.F.						350	125													475
Class I-3 Pipe W=6.6(0) 6"	L.F.									2315											2315
Class F-4 Pipe 9"x9" Elong. Metal Pipe	L.F.																				
Class F-4 Pipe 6"	L.F.																				
Class F-3 Pipe 6"	L.F.																				
Concrete Pavement	S.Y.																				
Concrete Pavement Reinforcement	Lb.																				
Concrete Pavement Joints	L.F.																				
Concrete Pavement Expansion Joints	L.F.																				
Concrete Pavement Thickened Edge	L.F.																				
Concrete Pavement Tie Bars	Ea.																				
Concrete Pavement Dowel Bars	Ea.																				
Concrete Pavement Dowel Bar Baskets	Ea.																				
Concrete Pavement Dowel Bar Caps	Ea.																				
Concrete Pavement Tie Bar Caps	Ea.																				
Concrete Pavement Dowel Bar Sleeves	Ea.																				
Concrete Pavement Tie Bar Sleeves	Ea.																				
Concrete Pavement Dowel Bar Retainers	Ea.																				
Concrete Pavement Tie Bar Retainers	Ea.																				
Concrete Pavement Dowel Bar Retainer Caps	Ea.																				
Concrete Pavement Tie Bar Retainer Caps	Ea.																				
Concrete Pavement Dowel Bar Retainer Sleeves	Ea.																				
Concrete Pavement Tie Bar Retainer Sleeves

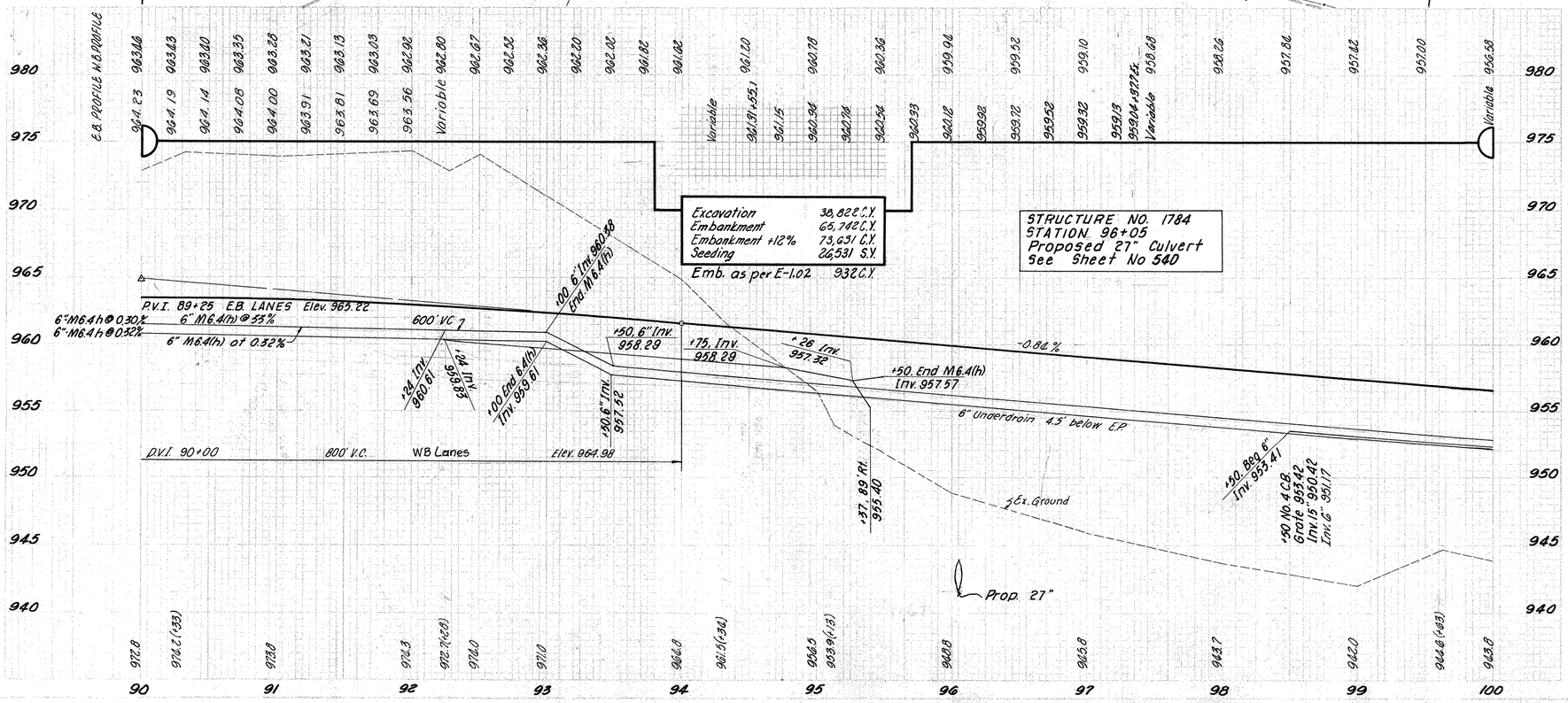
GUERNSEY COUNTY GUE-40-17.37



MAIN E
Curve Data
P.I. = 103+68.95
Δ = 30° 34' 23" Rt.
D = 0° 59' 16"
R = 5,803.58'
L = 3,096.79
T = 1,586.21'
E = 212.87'

TREE REMOVAL
90+00 to 100+00

SIZE	No. TREES
12" to 18"	132
18" to 24"	44
24" to 30"	11



ESTIMATED QUANTITIES

SEE SHEET NO	ITEM	DESCRIPTION	UNIT	SIDE	1-15	1-15	1-8	1-22	1-71	1-120	Class A-1 M6.6(h) or M6.6(c)	Class F-4 M6.4(c)	Class I-3 M6.4(h)	1:5	E-8	E-3	I-2	I-10	L-10	1-1	SEE SHEET NO
					Stand. 2A	Guard Rail Removed & Reset	C.B.	0'-6" Grading A or B	9"	Jute Mothing											
					L.F.	L.F.	Ea.	C.Y.	S.Y.	S.Y.	L.F.	L.F.	L.F.	Ea.	Ea.	C.Y.	C.Y.	S.Y.	S.Y.		
	1-A	94+55.0 to 97+37.70		Lt.														12	540		
	2-A	92+25 to 92+50		Lt.															200		
	1-D	90+05 Culvert		Rt. & Lt.															220		
	2-D	93+00 to 94+13		Rt.															14.5		
	3-D	95+48 to 98+00		Rt.																	
	4-D	96+90 to 98+50		Rt. & Lt.			1										0.26	3	86		
	1-G	90+00 to 98+40	W.B.	Lt.	850																
	2-G	95+73 to 100+00	E.B.	Lt.		425															
	1-R	90+00 to 92+50		Rt.																	
	2-R	94+55.1 to 97+37.7		Rt.																	
	3-R	94+50 to 97+00		Rt. & Lt.																	
		90+00 to 100+00	W.B.	Lt.																	
		90+00 to 100+00	W.B.	Rt.																	
		90+00 to 92+24	E.B.	Lt.																	
		90+00 to 95+50	E.B.	Rt.																	
		92+50 to 100+00	E.B.	Rt.																	
	I-1				850	425	1	63	881	135	298	127	1586	1	1061	280	0.3	3	495		127

TO SUMMARY

90+00 to 100+00

GUERNSEY COUNTY GUE-40-17.37

PK in 4" Hickory
22.57
2479.1 I.P.
PK in 2" Elm

P.I. 103+68.95

UTILITIES
Home Telephone Co.

RAMP "F"
CURVE DATA
P.I. 13+91.21
Δ = 3°28'40" Rt
D = 0°30'00"
R = 11,459.16'
L = 682.22'
T = 341.21'
E = 5.08'

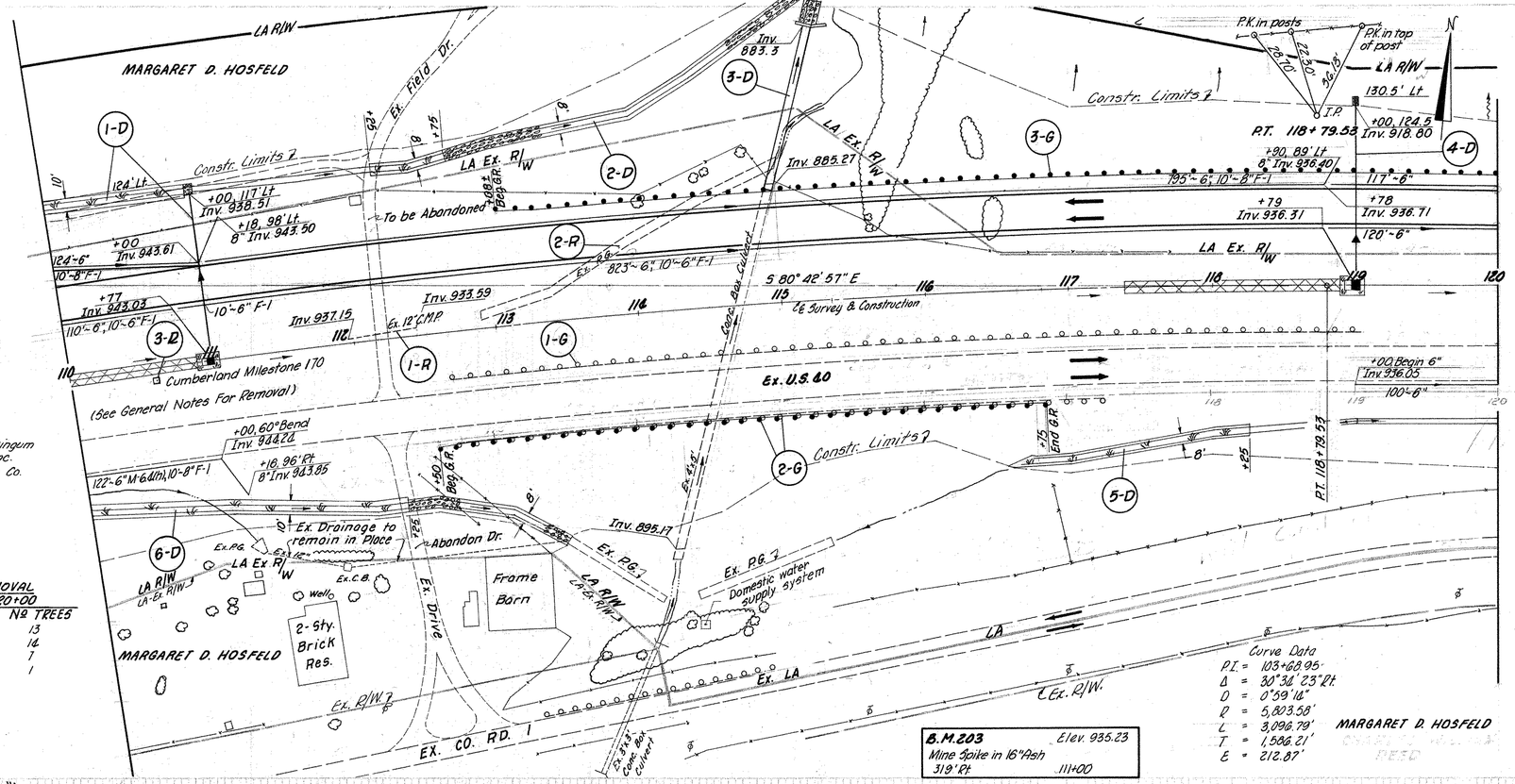
TREE REMOVAL
100+00 to 110+00

Size	No. Trees
12"-18"	32
18"-24"	9
24"-30"	1

* For Class I-3 Pipe
* For Class A-1 Pipe

ESTIMATED QUANTITIES

| | | |



UTILITIES
Guernsey - Muskingum Electric Coop. Inc.
Home Telephone Co.

TREE REMOVAL
110+00 TO 120+00

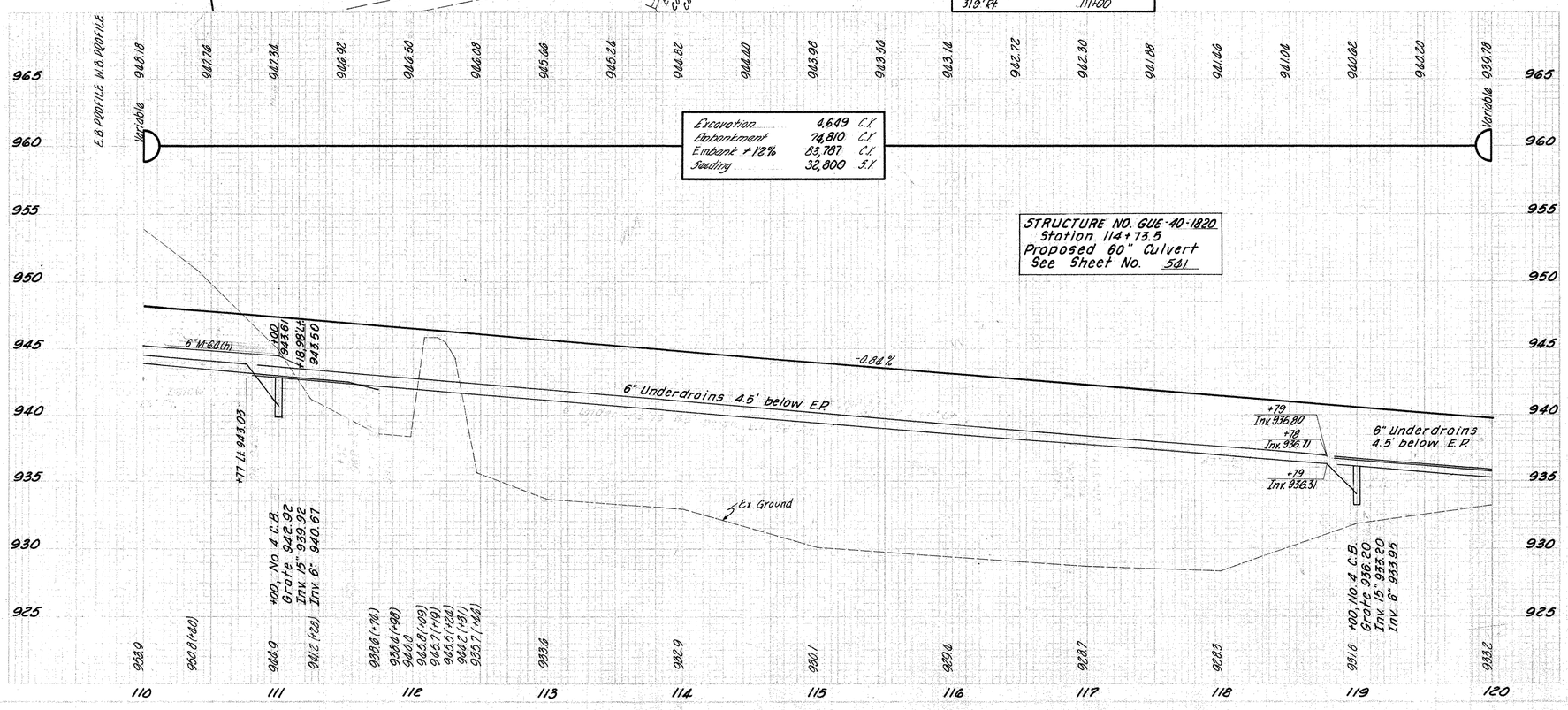
SIZE	Nº TREES
12" to 18"	13
18" to 24"	14
24" to 30"	7
36" to 42"	1

B.M. 203 Elev. 935.23
Mine Spike in 16" Ash
319' Rt. 111+00

Curve Data
P.I. = 103+68.95
Δ = 30° 31' 23" Rt.
D = 0° 59' 18"
R = 5,803.58'
L = 3,096.79'
T = 1,586.21'
E = 212.87'

Excavation	4,649 C.Y.
Embankment	74,810 C.Y.
Embank +12%	83,787 C.Y.
Seeding	32,800 S.Y.

STRUCTURE NO. GUE-40-1820
Station 114+73.5
Proposed 60" Culvert
See Sheet No. 581



ESTIMATED QUANTITIES

SHEET NO.	STATION TO STATION	SIDE	UNITS	Class A-1 M-6.4(g)10-8 (Base) 80" L.F.	Class A-1 M-6.4(g)10-8 (Base) 6" L.F.	Class A-1 M-6.4(g)10-8 (Base) 8" L.F.	Class A-1 M-6.4(g)10-8 (Base) 15" L.F.	Class F-4 M-8.4(C) 15" L.F.	CLASS F-3 Weld(H) bends 6" L.F.	CLASS F-3 15° 30° bends M-6.4(C) Ea.	F-5 ✱ 6" 60° bend Ea.	E-8 Remove & Store Ea.	F-2 Masonry C.Y.	I-10 Dumped Rock Chan. Prot. C.Y.	I-10 Sod S.Y.	L-10
1-D	110+00 to 111+00	Lt & Rt													94	
2-D	112+25 to 115+35	Lt													117	
3-D	114+73.5 (Culvert)	Lt													80	
4-D	117+40 to 119+00	Lt & Rt													133	
5-D	118+65 to 119+25	Rt													88	
6-D	110+00 to 113+37	Rt														
1-G	110+00 to 111+00	Lt & Rt														
2-G	112+25 to 115+35	Lt														
3-G	113+08 to 120+00 W.B.	Lt														
1-G	112+65 to 118+80 E.B.	Lt & Rt														
2-G	112+50 to 117+20 E.B.	Rt														
3-G	113+08 to 120+00 W.B.	Lt														
1-R	111+96 to 112+44	Lt														
2-R	113+00 to 115+00	Lt														
3-2	110+58.6, 8.3' Rt.	Rt.														
	110+00 to 120+00 W.B.	Lt														
	110+00 to 120+00 W.B.	Rt														
	110+00 to 111+18.96' Rt.	Rt														
	118+00 to 120+00 E.B.	Rt														
E-1																
I-1																
				118				40	2	2	2	1	16.0	2	5	1
							30			1			0.26			
							6"	15"	6"							
							L.F.	L.F.	L.F.							
									1036							
							20		1055	122						
							30	10								
							6"	15"								
							L.F.	L.F.								
										100						
								40								

MICROFILMED
JUL 25 1985
DOCUMENT NUMBER 2 | STATE OHIO | COUNTY

44
G38

GUERNSEY COUNTY GUE-40-17.37

UTILITIES
GUERNSEY-MUSKINGUM ELECTRIC COOP. INC.

MARGARET D. HOSFELD

P.K.'s in Fence Posts
31.34'
61.40'
88.85'
I.P.
P.O.T. 123+00.00

P.K. in Fence post
P.K. in Sign Post
P.K. in fence post
54.69'
26.59'
34.72'
I.P.
P.O.T. 127+00.00

CURVE DATA
SERVICE RD. "A"

P.I. = 5+99.44	P.I. = 6+71.21
Δ = 28°14'38"	Δ = 37°01'45"
D = 46°	D = 46°
R = 124.56'	R = 124.56'
T = 31.34'	T = 41.71'
L = 61.40'	L = 80.50'
E = 3.88'	E = 6.79'

TREE REMOVAL
120+00 to 130+00

SIZE	Nº TREES
12" to 18"	6
18" to 24"	4
24" to 30"	1
30" to 36"	1

B.M. 204 Elev. 966.44
M.S. in telephone pole
22.1' Rt. Sta. 121+00

B.M. 205-A Elev. 925.22
M.S. in 18" Ash
112' Lt. Sta. 127+29

See Sheet Nº 267 for Twp. Rd. 277 Reloc. & Service Rd. "A"

See Sheet Nº 32 for Guard Rail Details

See Sheet Nº 260 for Twp. Rd. 185

Quantities with T.R. 185

FRANKLIN SLASOR
SERVICE RD. "A"
T.R. 277 Reloc.
T.R. 185
Abandon Drive
Billboard
Abandon
Ex. U.G. 40
Ex. Field Dr.
Constr. Limits
Survey & Construction
2-Sty. Fr. Res.
1 Sty. Block
1-Sty. Fr. Res.
Well
Ex. Co. Rd. 1
MARGARET D. HOSFELD
WILLIAM I. BADGER
MARY E. BADGER
Ex. C.L.A.
Ex. R/W
L.A. Ex. R/W
L.A. R/W
R/W
L.A.
Ex. C.M.P.
Ex. 18" C.M.P.
Ex. 12" C.M.P.
Ex. 15" C.M.P.
Ex. 6" W.L.
Ex. Gas Line
Ex. Tel. Line
Ex. Overhead Tel.
Ex. Power Line
Ex. Fence
Ex. Ditch
Ex. Creek
Ex. Pond
Ex. Bldg.
Ex. Barn & Shed
Ex. Silo
Ex. Tank
Ex. Trees
Ex. Brush
Ex. Woods
Ex. Orchard
Ex. Grass
Ex. Corn
Ex. Soybeans
Ex. Wheat
Ex. Hay
Ex. Pasture
Ex. Meadow
Ex. Alfalfa
Ex. Oats
Ex. Rye
Ex. Barley
Ex. Potatoes
Ex. Tobacco
Ex. Cotton
Ex. Peanuts
Ex. Rice
Ex. Sugar Cane
Ex. Sugar Beets
Ex. Sorghum
Ex. Millet
Ex. Buckwheat
Ex. Flax
Ex. Hemp
Ex. Jute
Ex. Sisal
Ex. Abaca
Ex. Coir
Ex. Kapok
Ex. Ramie
Ex. Kenaf
Ex. Roselle
Ex. Okra
Ex. Eggplant
Ex. Tomato
Ex. Pepper
Ex. Cucumber
Ex. Squash
Ex. Pumpkin
Ex. Watermelon
Ex. Cantaloupe
Ex. Honeydew
Ex. Casaba
Ex. Crenshaw
Ex. Persian
Ex. Muskmelon
Ex. Canteloupe
Ex. Honeydew
Ex. Casaba
Ex. Crenshaw
Ex. Persian
Ex. Muskmelon

E.P. PROFILE
Variable
939.78 939.36 938.94 938.52 938.10 937.68 937.26 936.84 936.42 936.00 935.58 935.16 934.74 934.32 933.90 933.48 933.28 933.09 932.93 932.78 932.65 932.53 932.44 932.36 932.30 932.25 931.95

Excavation 4,869 C.Y.
Embankment 38,197 C.Y.
Embank. +12% 42,781 C.Y.
Loading 24,616 S.Y.

PROPOSED TWIN STRUCTURES Nº GUE-40-1845 L&R
TYPE: Continuous Reinforced Concrete Slab and Reinforced Concrete Substructure
SPANS: 32'-40'-32' (% Bearings)
ROADWAY: 42' flr of parapets with Aluminum Railing and 1'-2" curbs
LOADING: CF-2000 (1957) Adequate for AASHO alternate Loading
WEARING SURFACE: 1" monolithic concrete
SKEW: None
ALIGNMENT: Tangent
APPROACH SLABS: AS-1-54, 25' long

Bridge Limits = 105'-6"
P.V.I. 130+50
600' V.C.
W.B. Lanes
Elev. 930.96
-0.84%
6" Underdrains 4.5' Below E.P.
Ex. Ground
6" Underdrains

ESTIMATED QUANTITIES

ITEM	SIDE	STATION TO STATION	UNITS	C.B. Type 1-15 Standard 2-A L.F.	C.B. Nº 4 2-A Ea.	C.B. Removed & Rebuilt 1-15 L.F.	9" Removal of Ex. Pav't. T-11 S.Y.	Removal of Ex. Pav't. E-3 S.Y.	Jute Matting L-120 S.Y.	Class J-1 15" L.F.
1-D		123+15 to 124+75	RT. & LT.		1				133	107
2-D		127+64	LT.		1					
3-D		129+50	LT. & RT.							92
4-D		129+08	LT.							
5-D		129+00	RT.							
6-D		124+75 to 127+75	RT.							
1-A		129+32.00 to 130+00	Rt.				180			
1-2		129+32.00 to 130+00	Rt.					180		
1-G		120+00 to 128+00 W.B.	Lt.	800						
2-G		125+00 to 128+00 E.B.	Lt. & Rt.	450						
3-G		129+038 to 129+97± W.B.	Lt. & Rt.	175						
4-G		129+07± to 129+95± E.B.	Lt.			87.5				
5-G		128+90± to 130+00± E.B.	Rt.			150				
6-G		129+096 to 129+97± E.B.	Rt.	87.5						
		120+00 to 127+99 W.B.	Lt.							
		129+11.5 to 130+00 W.B.	Lt.							
		120+00 to 127+99 W.B.	Rt.							
		129+11.5 to 130+00 W.B.	Rt.							
		120+00 to 127+99 E.B.	Rt.							
		TO SUMMARY		1512.5	150	3	237.5	180	133	199

Class I-3
I-1

Non-participation by Federal

120+00 to 130+00

ITEM	Class F-4 6" L.F.	Class F-4 8" L.F.	Class F-4 15" L.F.	Class I-3 6" L.F.	15" bends M-6.4 (C) Ea.	6"x6" Barn & Shop WYE Ea.	Special Masonry Dumped Rock Chan. Prot. C.Y.	5" Conc. Slope Prot. S.Y.	I-2 C.Y.	I-10 L.F.	I-10 L.F.	SEE SHEET NO.
1-D									0.26	2	100	
2-D									0.26	2	101	
3-D									0.26	7	102	
4-D												
5-D												
6-D												
1-A												
1-2												
1-G												
2-G												
3-G												
4-G												
5-G												
6-G												

VICTOR DELL-OMO & LILLY McCABE DELL-OMO

P.K. in 12" Cotton Wood

P.K. in Post.

I.P.

P.K. in G.R. Post

MERVIN G. HALL
LOIS ELIZABETH HALL

Temporary Road "C" For Details See Sheet No. 267 Quantities carried with T.R. 277 Reloc.

R/W

P.O.T. 132+74.48

See Sheet No 267 For Twp. Rd 277 Reloc.

Ex. E/W

Spring

Cons't Limits

Frame Barn

S 80°42'57" E

TWP. RD. 277 RELOC.

LA

155' Lt.

Structure GUE-40-1850 with T.R. 277 Reloc.

10'-6" 10'-6" F-1 Inv. 866.81

PI 132+20 54' Lt. +00 Inv. 928.03

+50, 131' Lt Inv. 907.20

+50.90 Lt 9° 927.37

150'-6" @ 0.3%

50'-6" @ 0.3%

+50.6' x 6" Tee Inv. 927.58

200'-6" @ 0.3% Ex. L.A

+69 6" Inv. 928.39

10'-6" F-1

55'-6"

Temp. Road "D" See Sheet 695 For Details.

659'-6", 10'-6" F-1

690'-6"

+00 Inv. 932.76

+00 Beg M 6.4 (h) Inv. 935.29

100'-6" M 6.4 (h)

Temp. Culvert

LA-Ex. R/W

Ex. P.G.

5.80°42'57" E

C.L. Survey & Construction

VICTOR DELL-OMO & LILLY McCABE DELL-OMO

Ex. 12" CMP

936.28

936.41

943.36

EX. U.S. 40

PI 135+80 54' Rt.

Dc. = 5°

751'-6", 10'-8" F-1

+75.6' 60° Bend Inv. 928.54

Ex. 12" CMP

936.35

936.62

Abandon Ex. Drive

VICTOR DELL-OMO & LILLY McCABE DELL-OMO

Ex. 4'-4" Box Culvert Inv. 872.8

+57.99' Rt. 8" Inv. 928.00

B.M. 206-A Elev. 936.63
M.S. in 8" Elm
151' Rt. Sta. 138+09

+00 Inv. 933.40

LA-Ex. R/W

LA R/W

DELLA L. BUCHANAN

FRANKLIN SASAP

SEE SHEET 38 FOR GUARD RAIL DETAILS

1-A Temp. Road "D" See Sheet 695 For Details.

1-D, 1-G, 2-D, 2-K, 2-G, 3-G, 2-A, 3-L2, 4-G, 3-D, 4-D, 1-R

E-12 Remove Ex. Pipe

* For Class I-3 Pipe
⊛ For Class F-1 Pipe

TREE REMOVAL
130+00 TO 140+00

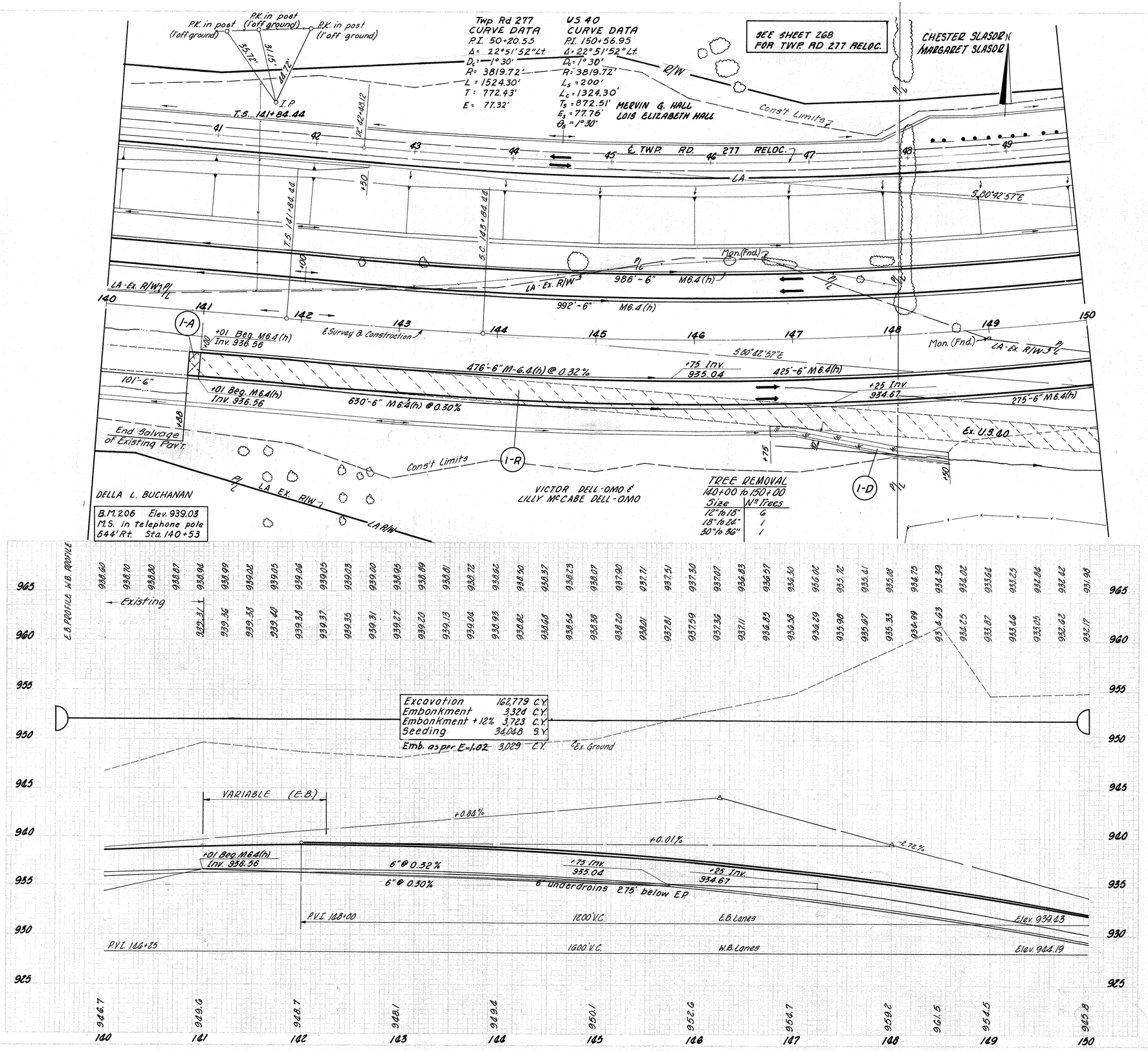
SIZE	NO. TREES
12" to 18"	81
18" to 24"	17
24" to 30"	5

Excavation 28,046 C.Y.
Embankment 50,146 C.Y.
Embank. + 12% 56,164 C.Y.
Seeding 26,636 S.Y.

Emb. as per E-102 163 C.Y.

E.P. PROFILE W.B. PROFILE

| | | |



ESTIMATED QUANTITIES

ITEM NO.	STATION TO STATION	SIDE	UNITS	TOTALS to Summary
L-10	Sod		S.Y.	189
I-1	Class F-3 M6.4(h)		6"	101 3784
	6"		6"	986
	L.F.		L.F.	932
				901
				905
				101
E-8	Removal of Ex. Pav't.		S.Y.	2482
T-71	9"		S.Y.	32
1-A	140+88 to 141+00	Rt.		
1-D	146+75 to 148+50	Rt.		
1-R	140+88 to 150+00 Ex.	Rt.		
	140+00 to 150+00 W.B.	Lt.		
	140+00 to 150+00 W.B.	Rt.		
	141+01 to 150+00 E.B.	Lt.		
	140+00 to 150+00 E.B.	Rt.		

140+00 to 150+00

LEGEND

Removal of existing Pav't

UTILITIES
HOME TELEPHONE CO.
GUERNEY-MUSKINGUM ELEC. COOP. INC.

CHESTER SLASOR & MARGARET SLASOR

Twp. Rd. 277 Reloc.
CURVE DATA
P.I. 50+20.55
Δ = 22° 51' 52" Lt.
D_c = 1° 30'
R = 3,819.72
L = 1524.30
T = 772.43
E = 77.32

See Sheet No 269 for Twp. Rd. 277 Reloc.

US 40
CURVE DATA
P.I. 150+56.95
Δ = 22° 51' 52" Lt.
D_c = 1° 30'
R = 3819.72'
L_s = 200
L_c = 1324.30'
T_s = 872.51'
E_s = 77.76'
θ_s = 1° 30'

P.K. in 3" Walnut
P.K. in 4" Walnut
P.K. in 12" Elm
I.P.
P.I. Sta 159+08.74
Const. Limits
R/W
LA
Twp. Rd. 277 Reloc.
CHESTER SLASOR & MARGARET SLASOR
A.R. SEEBACH SR. & BESSIE L. SEEBACH
Ex. Dr. to be abandoned
St. Torte Dr.
Cr. Gravel Dr.
Ex. Shed
Conc. Footer No Bldg.
Water Well
2½ Conc. Walk
Septic Tank
4" Drain Tile
Ex. U.S. 40
Tacked Hub 2' from Power Pole
Tacked Hub in Bank
P.I. 150+56.95
Mon. Found.
B.M. 206-B Elev. 943.10
M.S. in telephone pole
98' Lt. Sta. 151+15
MATCH LINE FOR REMOVAL 152+50
SEE SHEET NO 293
Begin G.R.
Const. Limits
LA R/W

1-D 770'-6" M6.4(h) +50 Inv. 909.14
2-D +70, 104' Lt. 8" Inv. 909.14
1-G 245-6
1-W 207'-6" M6.4(h) 10'-6" F-1 To drilled Water Well
3-D 253'-6" M6.4(h) 10'-6" F-1 Inv. 925.00
4-D 172'-6" M6.4(h) 10'-8" F-1 +50 Inv. 927.60 24"-12" Ex. C.M.P. 924.28 Inv.
1-R 317'-6" M6.4(h) 10'-6" F-1 +00, 140' Rt. Inv. 918.99 140'-5" @ 12½%
147' Rt.
5-D 348'-6" +00 Inv. 910.45
2-G 534'-6"
G-D +50 Inv. 909.94
1-H 465'-6" M6.4(h) +50 End M6.4(h) Inv. 913.56
1-J 295'-6" M6.4(h) +75 End M6.4(h) 918.32 +50 Inv. 914.53
1-K 528'-6" +75 End M6.4(h) Inv. 913.47 +50 915.68

Excavation 60,113 C.Y.
Emb. 106,663 C.Y.
Emb. +12% 119,663 C.Y.
Seeding 31,707 S.Y.
Emb. as per E-102 2,296 C.Y.

P.V.I. 148+00 1200' V.C. E.B. LANES EL. 939.43
P.V.I. 146+25 1600' V.C. W.B. LANES Elev. 944.19
-2.72%
6" Underdrains 2.75' Below E.P.
6" Underdrain 4.5' Below E.P.
P.V.I. 162+25 800' V.C. Elev. 900.67
Ex. Ground

	E.P. PROFILE	W.B. PROFILE	E.B. & W.B. PROFILE
150	932.17	931.98	945.8
151	931.71	931.53	944.4 (+77)
	931.24	931.07	935.8 (+96)
	930.75	930.59	936.0
	930.25	930.10	936.1 (+05)
	929.73	929.59	936.0 (+16)
152	929.20	929.07	942.0 (+27)
	928.65	928.53	942.7
	928.10	927.99	943.3 (+17)
	927.52	927.43	943.1 (+14)
153	926.93	926.85	941.9 (+26)
	926.33	926.26	940.7
	925.72	925.66	
154	925.09	925.06	
	924.44	924.41	
	923.78	923.76	
	923.11	923.10	
155	922.43	922.83	939.2
	921.73	921.75	937.8 (+11)
156			938.4 (+82)
			895.6 (+98)
			889.9
			892.1 (+05)
			891.9 (+05)
			895.9 (+40)
157			894.5 (+30)
			894.9 (+49)
			889.9
			888.2 (+24)
158			879.6
			876.4 (+82)
159			874.8
			874.0 (+ 08.74)
160			868.7

+00, 14"ø C.B. Grate 923.57 Inv. 15" 920.57 Inv. 6" 921.32
+50 Inv. 927.60
+50 Inv. 926.32
+25.39 Lt. 918.88
+50.63 Lt. 918.53
916.16
+50.53 Lt. 917.25
+50 Inv. 913.56
+75 Inv. 913.47
+50 915.68
+50 914.53
+50 Inv. 913.56
+75 Inv. 918.32
+50 Inv. 909.94
+00 Inv. 910.45

TREE REMOVAL
150+00 to 160+00

Size	Nº Trees
12" to 18"	126
18" to 24"	18
24" to 30"	3
30" to 36"	1

ESTIMATED QUANTITIES

SHEET NO.	STATION TO STATION	UNITS		
1-D	154+00 to 155+50	Lt.		
2-D	156+75 to 158+43	Lt.		
3-D	150+40 to 152+00, 180' Rt.	Rt.		
4-D	151+00 to 152+50	Rt.		
5-D	159+90 to 160+00	℄		
6-D	154+75 to 160+00	Rt.		
1-G	157+00 to 160+00	Lt.	300	
2-G	155+25 to 160+00	Rt.	475	
1-R	150+00 to 152+50	Rt.		
1-W	As Indicated	Lt.		
	150+00 to 160+00 W.B.	Lt.		
	150+00 to 160+00 W.B.	Rt.		
	150+00 to 160+00 E.B.	Lt.		
	150+00 to 160+00 E.B.	Rt.		

SHEET NO.								
1-10	L-10	Sod.	S.Y.	166	115			649
1-10	1-10	Dumped Rock Ch. Prot.	C.Y.	96	145			194
1-2	Masonry		C.Y.	0.26	2	168		0.3
1-5	Class F-A		C.Y.			96	300	
1-5	Class I-3	M 44/44	6" L.F.	245	770			1655
			6" L.F.	248	672			2459
				528	528			
				534	489			
1-1	Class F-A		6" L.F.	10				30
			8" L.F.		10			20
				10				
				20	10			
1-1	Class J-1		15" L.F.	140				140
1-15	Special	Drilled Well Abandoned	Nº ø					
3'd			E.A.					
2-A			L.F.					
1-8	C.B. E-8	Removal of Existing Pav't	S.Y.					
	E-12	Pipe Removed 15" ø Under	L.F.					
	L-120	Jute Matting	S.Y.		133			142
					9			
						7.10	24.	24
To Summary								775

150+00 to 160+00

FED. ROAD DIVISION	STATE	PROJECT
2	OHIO	

48
638

GUERNSEY COUNTY GUE-40-17.37

TWP. RD. 277 RELOC.
CURVE DATA
P.I. 63+92.78
Δ 72°29'52" Lt.
D 42°00'00"
R 136.42'
T 100.03'
L 172.61
E 32.74'
CHESTER - SLASOR
MARGARET SLASOR Cons't Limits

P.K. in 8" Locust
16.08'
20.66'
P.K. in post
I.P.
19.47'
P.K. in post.
P.O.T. 163+85.17

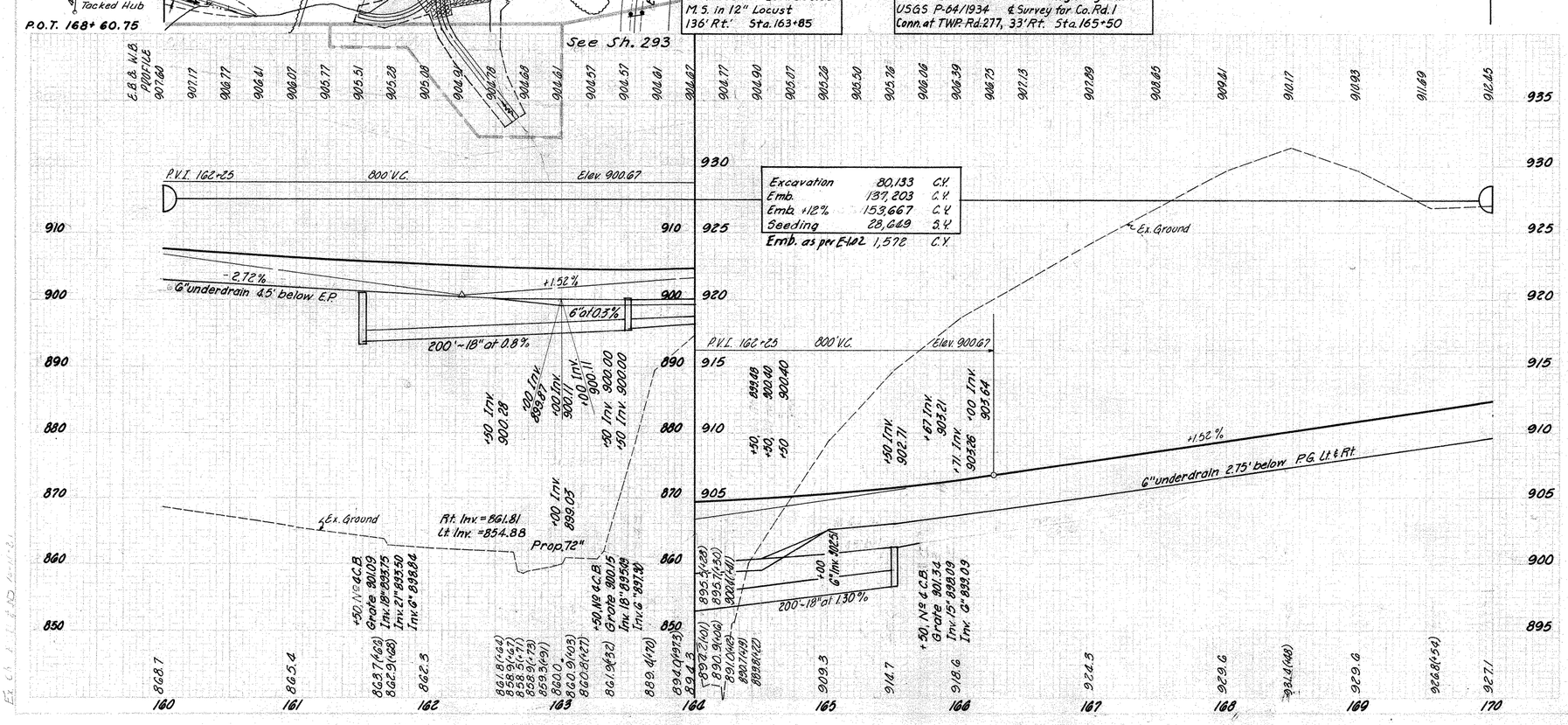
See Sheet No 266 for Twp. Rd 277 Reloc.
See Sheet No 270 for Culvert Quantities
HOWARD FULLER
P.T. 64+65.90
P.C. 62+92.75
R/W
Cons't Limits
N 76°25'11"E
TWP. Rd. 277 Reloc.
LA
LA-R/W
Construction Limits
STRUCTURE No GUE-40-1880
STATION 162+84.50
PROPOSED 72" CULVERT
SEE SHEET No 583
End G.R.
+50 155' Lt.
+50, 1275' Lt. Inv. 881.80
+50 Inv. 900.28
+00, 90' Lt. 8" Inv. 899.77
+50, 97' Lt. 8" Inv. 902.95
23'-6" M 6.4(h) 10'-8" F-1
433'-6" M 6.4 (h)
+00, 6"x6" Tee Inv. 899.87
+100'-6" at 0.4%
117'-6"
+67 Inv. 903.21
+00 Inv. 900.11
+50, 6"x6" Tee Inv. 900.00
+50 Inv. 900.40
+71 Inv. 903.26
461'-6" M 6.4(h) 10'-6" F-1
+00, 6"x6" Tee Inv. 899.03
+50 899.48
+00, 91' Rt.
+00, Begin M-6.4(h) Inv. 902.51
500'-6" M-6.4(h)
+71 6"-60° Bend Inv. 903.26
+50, Inv. 900.40 30'-6"
+00, Begin M 6.4 (h) Inv. 902.51
67'-6" M-6.4(h)
+50, 6"x6" Tee Inv. 900.00
2'-6"-10'-6" F-1
100'-6" at 0.4%
200'-18" at 0.87% Class E-1
200'-18" at 1.30% Class E-1
Survey & Construction
B.M. 207-A Elev. 869.50
M.S. in 7" Walnut
183' Rt. Sta. 160+16
B.M. 208-A Elev. 903.83
M.S. in 12" Locust
136' Rt. Sta. 163+85
B.M. 208 Elev. 899.90 Highway Datum
USGS P-64/1934 & Survey for Co. Rd. 1
Conn. at TWP. Rd. 277, 33' Rt. Sta. 165+50
To be abandoned
See Sh. 293

TREE REMOVAL
160+00 TO 170+00

SIZE	NO. TREES
12"to 18"	18
24"to30"	1

N

P.K. in 8" Locust
18" Locust
Tacked Hub
I.P.
Tacked Hub
P.O.T. 165+32.46
Tacked Hub
I.P.
Tacked Hub
Tacked Hub
P.O.T. 168+60.75


P.V.I. 162+25
800' V.C.
Elev. 900.67
-2.72%
+1.52%
6" underdrain 4.5' below E.P.
6" at 0.5%
200'-18" at 0.8%
Ex. Ground
Rt. Inv. = 861.81
Lt. Inv. = 854.88
Prop. 72"
+50 Inv. 900.28
+00 Inv. 900.11
+00 Inv. 899.87
+00 Inv. 900.00
+50 Inv. 900.40
+00 Inv. 899.03
+50, No 4 C.B. Grate 900.15 Inv. 18" 895.68 Inv. 6" 897.10
+50, No 4 C.B. Grate 901.34 Inv. 15" 898.09 Inv. 6" 899.09
+50, No 4 C.B. Grate 900.09 Inv. 18" 893.33 Inv. 21" 893.50 Inv. 6" 898.84
+50, No 4 C.B. Grate 901.09 Inv. 18" 893.75 Inv. 21" 893.50 Inv. 6" 898.84
+50, Inv. 902.71
+67 Inv. 903.21
+71 Inv. 903.26
+00 Inv. 903.64
+00 6" Inv. 902.5
+00
200'-18" at 1.30%
6" underdrain 2.75' below P.G. Lt. & Rt.
E.B. & W.B. Prof. 907.80 907.17 908.77 908.41 908.07 907.77 907.51 907.23 907.08 907.09 907.08 907.08 907.08

GUERNSEY COUNTY GUE-40-17.37

UTILITIES
Guernsey Muskingum Electric Co.

HOWARD FULLER

EDWARD BUGOS & GRACE ANITA BUGOS

Sec. 8 Sec. 15

P.K.'s in fence posts. 17.49 5.31' I.P. 21.02'

P.O.T. 175+69.44

P.K.'s in fence posts. 26.50 11.25' I.P. 9.59'

P.O.T. 179+13.76

I.P. Buried "G" 28.08' Post 28.01' 35.62' Post Corner Post

P.I. 5+38.66 RAMP "G"

TREE REMOVAL
170+00 to 180+00

Size	No. Trees
24" to 30"	1

RAMP "G" CURVE DATA
P.I. 5+38.66
Δ = 12°43'02" Rt.
D = 1°30'
R. = 3819.72'
T. = 425.66'
L. = 847.81'
E. = 23.64'

B.M. 209-A Elev. 927.61
M.S. in Power pole
278 Rt. Sta. 178+41

STRUCTURE No. GUE-40-1939
Station 177+73
Proposed 27" Culvert
See Sheet No. 644

Excavation 35607 C.Y.
Embankment 44,637 C.Y.
Embankment +12% 49,993 C.Y.
Seeding 24,505 S.Y.
Emb. as per E-102 492 C.Y.

+1.52%
6" at 0.29%
+00 Inv. 917.30
+50 Inv. 917.83
+75 Inv. 918.05
+50 Rt. No. 5 C.B. Grate 920.80 Inv. 5 918.13
+71 Inv. 919.67
+77, Inv. 919.76
+73, Inv. 919.70
6" Underdrains 4.5' below E.P.
Ex. Ground
Lt. Invert 902.07
Lt. Invert 891.90
Prop. 27"

E.P. & W.B. PROFILE
912.85 913.21 913.97 916.73 915.49 916.25 917.01 917.77 918.53 919.29 920.05 920.81 921.57 922.33 923.09 923.85 924.61 925.37 926.13 926.89 927.65

STATION TO STATION

1-0	177+93 to 179+25	Lt.
2-0	177+80 to 179+10	Both
3-0	177+73 (Culvert)	Both
4-0	176+79.80 Rt. to 5+79.28 Rt. "G"	Rt.
5-0	178+65 ± Approx. 882' Rt.	Rt.
1-6	177+50 to 172+25	Lt.
2-6	176+00 to 180+00	Lt.

170+00 to 177+73	W.B.	Lt.
177+63 to 180+00	W.B.	Lt.
170+00 to 177+67	W.B.	Rt.
177+80 to 180+00	W.B.	Rt.
170+00 to 177+67	L.B.	Lt.
177+50 to 180+00	L.B.	Lt.
170+00 to 6+00	"G"	Rt.
178+25 to 180+00	L.B.	Rt.

ESTIMATED QUANTITIES

ITEM NO.	UNITS	Stand 2-A L.F.	No. 4 Ea.	No. 5 Ea.	No. 6 Ea.	Jute Matting S.Y.	Class A-1 M-6.6 (d) 27" L.F.
1-10	L.S.						
1-10	Dumped Rock Ch. Prot. C.Y.						
1-2	Masonry C.Y.						
1-10	6" P.C. S.Y.						
1-5	C.I.P. Riprap						
1-5	Class F-3 Walls 6" L.F.						
1-1	Class F-4 Walls 18" L.F.						
1-1	Class F-1 6" L.F.						
1-1	Class F-1 8" L.F.						
1-1	Class J-1 18" L.F.						
1-1	Class J-1 15" L.F.						
1-1	Class J-1 12" L.F.						
1-15	Stand 2-A L.F.						
1-8 CB.	No. 4 Ea.						
1-8 CB.	No. 5 Ea.						
1-8 CB.	No. 6 Ea.						
1-120	Jute Matting S.Y.						
	Class A-1 M-6.6 (d) 27" L.F.						

| | | | | | |

FED. HWY. DIVISION	STATE	PROJECT	
2	OHIO		

50
G38

GUERNSEY COUNTY GUE-40-17.37

P.K. in 6" Oak
37.11'
14.87'
I.P.
13.45'
P.K. in 6" Ash
P.K. in 5" Ash
P.O.T. 187+41.85

19.54'
11.59'
P.K.'s in fence posts
I.P.
11.25'
P.O.T. 189+68.08

B.M. 210-A Elev. 923.61
M.S. in Power Pole
244' Rt. Sta. 185+64

STRUCTURE No. GUE-40-1950
Station 183+49
Proposed 24" Culvert
See Sheet No. 467 for Profile

EDWARD BUGOS
GRACE ANITA BUGOS

HOWARD FULLER

Sec. 8 / Sec. 13

LA R/W

Construction Limits

1-G 2-D 3-D V-D

180+11.5 149' Lt.
Inv. 24" 896.00
Type "B" H.W.

185+48
136' Lt.

185+38
86' Lt.

+00 Inv. 930.47

+00 Begin M6.4(h)
Inv. 932.56
175'-6" M6.4(h) @ 0.3%

+75 Inv. 933.09
125'-6" M6.4(h) @ 0.3%

700'-6"

Sec. 8 / Sec. 13

180 181 182 N 76°25'11"E 183 184 185 186 187 188 189 190

℄ Survey & Construction

41'-24"

6.42%

2-12" 30-6" 8-4"to6"

12' 28

P.T. 10+94.88

RAMP "G"

East Bound Rest Area
@ ℄
N 76°25'11"E

6-8" 4-8"to12"

AC 5+82.13

RAMP "H"

N 65°32'50"E

P.T. 7+99.55

13.8+(73.5')

Sec. 13 M.L. 18

WALTER BROCK
CLARA BROCK

M.L. 17
M.L. 16

RAMP "H" CURVE DATA

P.I. G+01.17	P.I. 10+87.13
Δ = 10°52'15"	Δ = 9°40'38"
D = 5°00'	D = 3°30'
R = 1145.92'	R = 1637.02'
L = 217.42'	L = 213.62'
T = 109.04'	Ls = 150.00'
E = 5.18'	Lc = 126.49'
	Es = 6.25'

13+00.32' Lt.
Inv. 24"-915.59

HOWARD FULLER

GUERNSEY SOIL CONSERVATION DISTRICT

TREE REMOVAL
180+00 to 190+00

Size	No. Trees
12" to 18"	26
18" to 24"	4

E.B. & W.B. PROFILE

927.63 928.41 929.17 929.93 930.69 931.08 931.42 931.77 932.10 932.41 932.72 933.01 933.28 933.54 933.79 934.02 934.24 934.44 934.64 934.81 935.02

940 935 930 925 920 915 910 905 900

926.4 (22.2 (46.5) 920.5 917.2 913.8 907.0 (137) 905.0 (192) 901.4 (193) 901.4 (195) 904.1 (197) 904.8 905.8 (117) 909.6 (169) 912.0 914.0 (151) 916.8 (188) 919.8 923.1 (138) 933.7 (167) 939.7 941.4 (134) 949.4 952.0 (119) 951.3 (122) 954.7 (133) 955.5 (138) 956.7 (145) 963.6 970.0 (147) 978.5 980.2 (120) 986.4 (132) 987.7 (162) 988.2 (+25.64) 988.0

180 181 182 183 184 185 186 187 188 189 190

965 960 955 950 945 940 935 930 925

Ex. Ground

+1.52%

P.V.I. 191+00 1800' V.C. Elev. 944.37

6" Underdrains 4.5' below E.P.

Prop. 24"
Lt. Inv. 896.00
Rt. Inv. 915.59

+00 Inv. 930.47

+00 Begin M6.4(h)
Inv. 932.56

+75 Inv. 933.09

6" M6.4(h) at 0.30%

Excavation	105,132 C.Y.
Embankment	68,708 C.Y.
Embankment +12%	76,998 C.Y.
Seeding	25,451 S.Y.
Emb. as per E-1.02	1,173 C.Y.

ESTIMATED QUANTITIES

REF NO.	STATION TO STATION	SIDE	
	UNITS		
1-0	180+65 to 184+25	Lt.	
2-D	185+38 to 185+40	Lt.	
3-D	182+11.5, 68'Lt. to 15+40	diff.	
	52'Lt. Ramp "G"		
1-6	180+00 to 184+00	Lt.	400
	180+00 to 190+00 W.B.	Lt.	
	180+00 to 190+00 M.B.	Rt.	
	180+00 to 190+00 E.B.	Lt.	
	180+00 to 190+00 E.B.	Rt.	

Class A-1 (16-4001)

	SEE SHEET NO.				
1-10	L-10	Sod	S.Y.	118	467
1-10		Dumped Rock Ch. Prot	C.Y.	101	
				23	15.9
1-2		Masonry	C.Y.		0.41

Class 1-3 (16-4061)

		6"	L.F.	300	118
		12"	L.F.	300	138
		18"	L.F.	300	0.4
		24"	L.F.	700	412
		30"	L.F.	700	400
		36"	L.F.	700	412
		42"	L.F.	700	400
		48"	L.F.	700	412
		54"	L.F.	700	400
		60"	L.F.	700	412
		66"	L.F.	700	400
		72"	L.F.	700	412
		78"	L.F.	700	400
		84"	L.F.	700	412
		90"	L.F.	700	400
		96"	L.F.	700	412
		102"	L.F.	700	400
		108"	L.F.	700	412
		114"	L.F.	700	400
		120"	L.F.	700	412
				2800	1200

Class A-1 (16-4061)

		24"	L.F.		412
1-15		Stand 2-A	L.F.		400

(16-8081-3)
1-I

to Summary

180+00 to 190+00

P.K. in 6" Oak
P.K. in 12" Oak
18.00
I.P.
P.K. in 12" Oak
P.O.T. 193+04.59

UTILITIES
Home Telephone Co.
Guernsey Muskingum Electric Co.

GUERNSEY SOIL CONSERVATION DISTRICT

EDWARD BUGOS & GRACE ANN BUGOS

SEC. 17 T-13-N R-11-W

Const'n Limits

LA/RW

1-D

2-D

1-6

3-D

N

150'-6" M.G.4(h) at 0.3% +50 Inv. 932.25

850'-6" M.G.4(h)

+40

+00 End M.G.4(h) Inv. 921.35

Inv. 918.42

100'-6"

Survey & Construction

750'-6" M.G.4(h)

450'-6" M.G.4(h) 10'-6" F-1

475.6"x6" Tee Inv. 927.62

+00 End I-3 Inv. 928.12

Begin I-3, +75 Inv. 927.12

+00 End M.G.4(h) Inv. 921.06

125'-6" M.G.4(h) at 0.3%

RAMP "H"

14

N 75°13'34"E 15.28 -12" at 100%

327'-6" M.G.4(h)

+25 Inv. 930.53

3G.4'-6" M.G.4(h) 10'-8" F-1

+42 Inv. 927.51

18+68 Inv. 928.00

15+57.29 Rt. 8" Inv. 927.21

195+65 126.5' Rt. Inv. 926.29

Ex. US 40 to be abandoned

203

202

201

200

99

98

97

Ex. R/W

Begin I-6 +00

Co. Rd. #1 Reloc. #1

N-75°42'13"-E

100

Limits

See Sheet No 297 for Co. Rd. 1 Reloc. 1

Const'n

Ex. R/W

ELIZABETH M. WALLACE

R/W

Existing Pav't. Removal Quantities Carried with C.R. 1 Reloc. 1

Co. Rd. 1 Reloc. 1
CURVE DATA
P.I. 99+04.26
Δ = 17°26'59" Rt.
D = 3°30'
R = 1637.02'
T = 251.23
L = 498.56'
E = 19.17

10" RCP 18" deep

P.C. 96+53.03

195+65 176' Rt.

18" Conc.

TREE REMOVAL 190+00 to 200+00

Size	No. Trees
12" to 18"	192
18" to 24"	54
24" to 30"	13
30" to 36"	8

WALTER BROCK
CLARA BROCK

SEC. 10 T-13-N R-11-W

MATCH LINE SHEET NO 487

HARVEY W. BROCK & VERNA BROCK

B.M. 211 Elev. 897.491
M.S. in 16" Walnut
300' Rt. Sta. 198+36

Ex. US 40

Sh.

E.B. & W.B. 1800 V.C.

935.67 933.59 935.20 935.60 935.28 935.15 935.00 934.86 934.67 934.48 934.28 934.06 933.83 933.59 933.33 933.06 932.77 932.47 932.16 931.83 931.68 931.13 930.78 930.37 929.97 929.56 929.14 928.69 928.24 927.77 927.29 926.79 926.28 925.78 925.22 924.66 924.10 923.52 922.92 922.31 921.69

Ex. Ground

Excavation	524,864	C.Y.
Emb.	1,666	C.Y.
Emb. +12%	1,866	C.Y.
Seeding	40.109	S.Y.
Emb. as per E-1.02	3,312	C.Y.

15+50 No. 6 C.B. Grate 930.40 Inv. 12" 928.20 Inv. 6" 927.00

15+34 Lt.

P.V.I. 191+00

1800 V.C.

Elev. 924.37

+1.52%

-2.52%

15+25, 15.17 Lt. No. 6 C.B. Grate 930.12 Inv. 12" 926.65 Inv. 6" 927.00

100' End M.G.4(h) Inv. 921.35

+50 Inv. 918.42

6"

45' below E.P.

G" M.G.4(h) at 0.5%

+50 Inv. 932.25

G" M.G.4(h) 2.75' below E.P.

+25 Inv. 927.62

9880 9888.1(+30) 9885.8(+25) 9884.1 9889.9(+25) 9887.7(+33) 9873.3(+32) 9873 9879.0 (+18) 9880.9(+20) 9888 9888.7(+36) 9888.1(+29) 9876.8(+32) 9880.1(+37) 9878.2 9887.7(+16) 9881.1(+39) 9878.8(+19) 9873 9890.0(+23) 9887.8 9882.2(+20) 9886.2 9885.1(+17) 9874.0(+26) 9877.7(+33) 9881.1(+61) 9864.7 9883.2(+45) 9884 9869.7(+27) 9850.8(+32) 9849.8(+39) 9848.5(+52) 9848.0(+58) 9835.7(+39) 9832.7 9830.4(+27) 9827.2(+43) 9818.6 9813.1(+30) 9814.3

190 191 192 193 194 195 196 197 198 199 200

1000 990 980 970 960 950 940 930 920

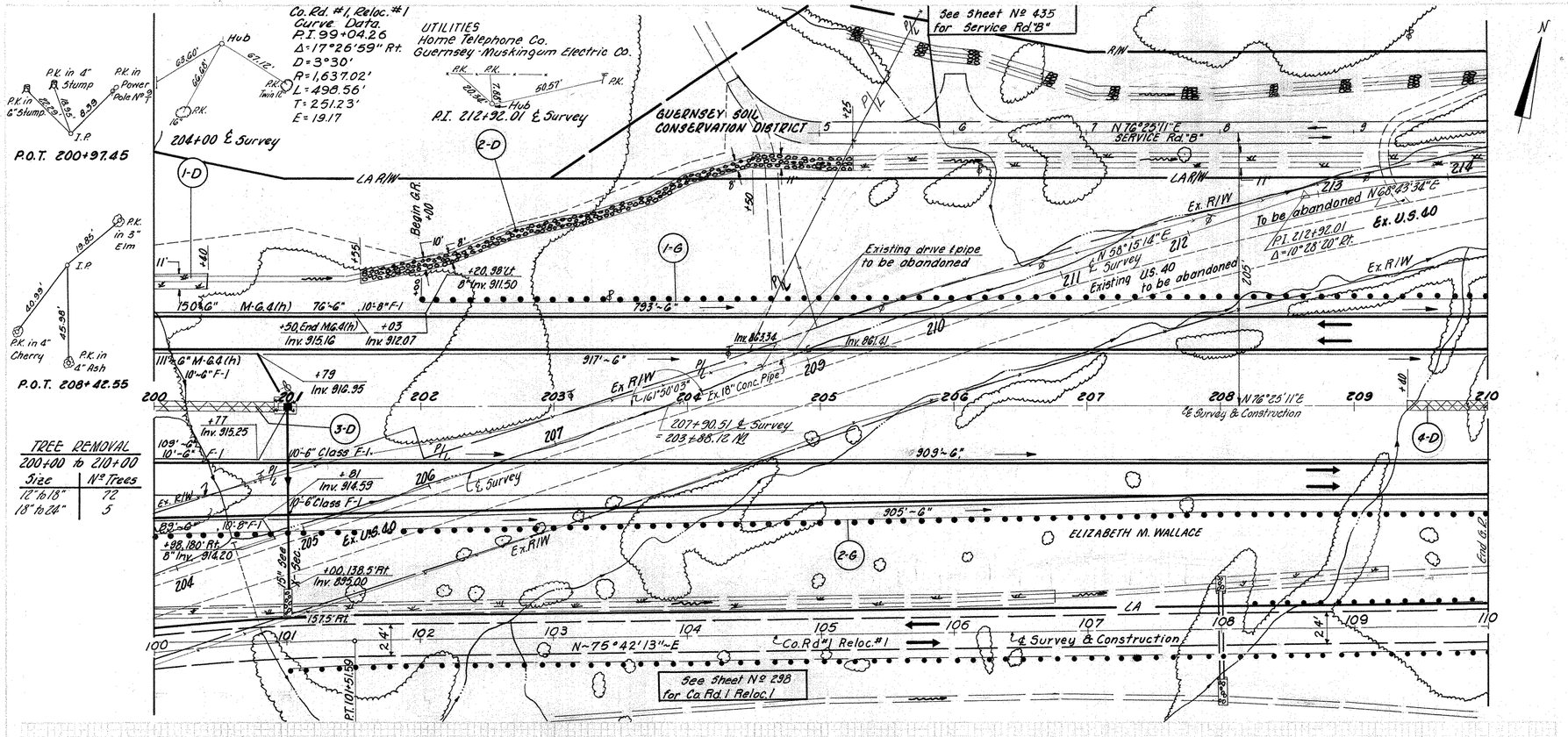
Sh.

ESTIMATED QUANTITIES

SEE SHEET NO.	STATION TO STATION	UNITS	
	1-D 189+70 to 200+00		
	2-D 193+40 to 200+00		
	3-D 195+50 "H" to 195+65		
	1-6 198+00 to 200+00		
	190+00 to 200+00 W.B.		
	190+00 to 200+00 E.B.		
	190+00 to 198+00 E.B.		
	11+00 Rt. "H" to 15+57		
	15+25 to 200+00 E.B.		
	to Summary		

| SEE SHEET NO. | ITEM | UNIT | | |

GUERNSEY COUNTY GUE-40-17.37



| | | |

FED. RD. DIVISION 2 | STATE OHIO | PROJECT | 53 / 638

GUERNSEY COUNTY GUE-40-17.37

STRUCTURE NO. GUE-40-1975
STATION 212+00
PROPOSED 42" CULVERT
SEE SHEET NO. 545

See Sheet Nº 436 for Service Rd. "B"

ELIZABETH M. WALLACE

UTILITIES
Home Telephone Co.

Ex. Twp. Rd. 638

Cumberland Milestone 168 (Do not disturb)

Ex. U.S. 40

SERVICE RD. "B"

Ex. R/W

Ex. 5'x5' Box Culvert

Ex. Pavt. Removal Quantities carried with Service Rd. "B"

Const. Limits?

P.O.T. 214+25.45
Ex. Pavt. to be abandoned

Tacked Hub
24.08'
Tacked Hub
36.53'
I.P.
13.19'
Tacked Hub

P.K. in 5" Locust
11.15'
I.P.
339°
11.75'
P.K. in 6" Locust
P.K. in 10" Walnut
P.C. 218+36.31

TREE REMOVAL
210+00 to 220+00

Size	Nº Trees
12" to 18"	65
18" to 24"	8

1-D: 109'-6" | 10'-8" F-1 | +77 Inv. 890.05 | +78 Inv. 890.02 | +79 Inv. 890.00 | 319'-6"
2-D: 111'-6" | 10'-8" F-1 | +79 Inv. 890.00 | 917'-6"
3-D: 219+40
1-G: 908'-6"
+88.89 Lt. 6" Inv. 889.37
+88 Inv. 889.77
+90.89 Rt. Inv. 885.10
122.5' Rt.
113'-5" @ 120°
318'-6"
+00 Inv. 884.43
+00 Begin M64(h) Inv. 883.66
250'-6" M64(h)
+50 End M64(h) Inv. 877.36
+00 Inv. 874.35
350'-6"
600'-6" M64(h)

CO. RD. #1 RELOC #1 CURVE DATA
P.I. 115+00.00
Δ = 3°17'42" Rt.
D = 0°30'
R = 11,459.15'
T = 329.59
L = 659.00
E = 4.74

US 40 Curve Data
P.I. = 222+87.92
Δ = 2°15'28" Rt.
D = 0°15'
R = 22,918.31'
T = 451.61'
L = 903.11'
E = 4.45

Co. Rd. #1 Reloc #1
N-75°42'13"-E 112.2'
N-78°59'55"-E 118
ELIZABETH M. WALLACE
Drive to be abandoned
Ex. Field Drive
P.C. 111+70.41
P.T. 118+29.41
& Survey & Construction
N 76°25'11"E

B.M. 212 Elev. 849.17
P.K. in S.E. corner conc. headwall
146' Lt. Sta. 210+65

See Sheet Nº 298 for Co. Rd. 1, Reloc. Nº 1

E.B. & W.B. PROFILE

6" Underdrains 4.5' below E.P.
+88 Inv. 889.77
+77 Inv. 890.05
+78 Inv. 890.02
+79 Inv. 890.00
6" Underdrains 4.5' below E.P.
-2.52%
6" @ 0.77%
+00 Inv. 884.43
Ex. Ground
+00 Beg. M64(h) Inv. 883.66
6" M64.4(h) 2.75' below E.P.
6"; 4.5' below E.P.
+50 End M64(h) Inv. 871.36
+00 Inv. 874.35
6" M64.4(h) 2.75' below E.P.
6' Underdrains 4.5' below E.P.
+00 Inv. Grate 889.55 Inv. 15" 886.55 Inv. 6" 887.30
No. 4C.B.
Rt Inv. = 8699
Lt. Inv. = 839.0
Prop. 42"

Excavation	79,977	C.Y.
Emb	109,302	C.Y.
Emb +12%	122,418	C.Y.
Seeding	27,284	S.Y.

Emb. as per E-1.02 793 C.Y.

210	859.4	859.23	858.7 (16') 858.2 (21') 858.0 (24') 858.0 (24') 858.0 (24

GUERNSEY COUNTY GUE-40-17.37

UTILITIES
Home Telephone Co.
East Ohio Gas Co.

ELIZABETH M. WALLACE

THE EAST OHIO GAS COMPANY

HOWARD C. MOORE & MARGARET E. MOORE

Billboard

Ex. R/W

Ex. U.S. 40

Ex. 12" C.M.P.

Ex. Vent Pipe

Ex. 6"x3"x18" deep D.R. Chan. Prot.

146.5' Lt.

221+00, 140.5' Lt.
Inv. 838.30

Ex. Field Drive
Drive to be abandoned

Ex. 24" Gas Line

Construction Limits

RICHARD C. FRAME

Tacked Hub
Tacked Hub
Tacked Hub
P.I. 222+87.92
P.K. in 4" Ash
P.I.
P.K. in 4" Ash
P.K. in 3" Ash
P.T. 227+39.42

TREE REMOVAL
220+00 to 230+00

Size	Nº Trees
12" to 18"	3
18" to 24"	3
36" to 42"	1

+00.89 Lt
8" Inv. 861.65
+77
Inv. 864.85
+88
Inv. 862.05
+79
Inv. 864.80
+00
Inv. 864.27
+82
Inv. 862.20
+00 End M64 (h)
Inv. 868.54
+00.102' Rt
8" Inv. 861.59
+63.137' Rt
Inv. 820.82
15.5' Rt.
+00
Inv. 844.11
+00
Inv. 844.11

202'-6"
10'-8" F-1
809'-6"
109'-6"
10'-6" F-1
820'-6"
111'-6"
10'-6" F-1
817'-6"
109'-6"
10'-8" F-1
812'-6"
100'-6" @ 4.27%
100'-6" @ 3.69%
100'-6" @ 3.38%

See Sheet Nº 33 for Guard Rail Details

See Sheet Nº 36 for U-Turn Median Opening Details and Quantities

℄ Survey & Construction

Main ℄ Curve Data
PI = 222+87.92
Δ = 2°15'28" Rt.
D = 0°15'
R = 22,918.31
T = 451.61'
L = 903.11'
E = 4.45'

N 78°25'11"E
N 78°40'39"E
N 78°59'55"E 126

Co. Rd. Nº1 Reloc. Nº1

See Sheet Nº 300 for Co. Rd. Nº1, Reloc. 1

B.M. 213 Elev. 824.70
M.S. in 24" Ash
142' Lt. Sta. 224+22

Const. Limits

1-D 2-D 3-D 1-6 2-6 3-6

Begin C.R.

See X-Sect.

15" 24" 30" 36"

2'-4" 2'-4"

M.L. 17 M.L. 12

E.B. & W.B. PROFILE

6" Underdrains 4.5' Below E.P.

-2.52%

-2.32%

-00 Ind. M64 (h) Inv. 868.54

+77 Inv. 864.85

+79 Inv. 864.80

+00 Inv. 864.27

+82 Inv. 862.20

+88 Inv. 862.05

-00 Inv. 844.11

6" @ 3.69%
6" @ 3.38%

Ex. Ground

Begin C.R. Granular borrow

22+00.2' Lt. No. 4 C.B.
Grate 864.67
Inv. 15" 861.35
Inv. 6" 862.42

221+80. See X-Sect.

22+63.20' Rt. No. 4 C.B.
Grate 847.38
Inv. 15" 844.38

	Exc.	7,775.7	C.Y.
	Emb	204,569	C.Y.
	Emb +12%	229,117	C.Y.
	Seeding	25,757	S.Y.
	Emb. as per E-1.02	26	C.Y.

871.29 870.03 868.77 867.51 866.25 866.99 863.73 862.47 861.21 859.95 858.69 857.43 856.17 854.91 853.65 852.39 851.13 849.87 848.61 847.35 846.09

872.6 867.0(+32) 862.4 857.7(+51) 853.7(+75) 847.9 837.0(+68) 831.3 829.7(+13) 829.2(+42) 828.4(+44) 828.8(+64) 828.8(+83) 827.4(+98.2) 826.7 824.4 822.4 821.1 820.3 819.8(+19) 819.6(+81) 819.6 820.5(+85) 820.4

220 221 222 223 224 225 226 227 228 229 230

ESTIMATED QUANTITIES

ITEM NO.	STATION TO STATION	SIDE	UNITS
1-D	220+00 to 221+00	146.5' Lt.	
2-D	227+00 to 228+63	155' Rt.	
3-D	229+45 to 229+60		
1-6	220+00 to 230+00	Lt.	1000
2-6	222+00 to 230+00	Rt.	800
3-6	227+75± to 230+00	Lt & Rt.	75
	220+00 to 222+00 W.B.	Lt.	
	221+92 to 230+00 W.B.	Lt.	
	220+00 to 221+00 W.B.	Rt.	
	220+81 to 230+00 W.B.	Rt.	
F-1	220+00 to 221+00 E.B.	Lt.	
F-3	220+63 to 230+00 E.B.	Lt.	
	220+00 to 222+00 E.B.	Rt.	
	221+86 to 230+00 E.B.	Rt.	

I-15	I-15	F & C.B.			
Stand	2-A Barrier	Nº 4		1	1
	2-A G.R.				
	2-A L.F.		Ea.		

I-120					
	Water Matting	15"	L.F.	80	87
			S.Y.	133	63
				44	

I-10	I-10				
I-2	Masonry Dumped Rock Chan. Prot.	Sod	S.Y.	145	175
			C.Y.	1	6
			C.Y.	025	026

F-5									
	Class F-3	Class F-3 Class Ed. 6'-60" 15"x19" Bends (116.416)	Ea.	2	2				4
		6" Bends	Ea.						
			L.F.	1	1				4089
				202	809				
				109	920				
				111	917				
				209	812				

I-1									
	Class F-4	M-64 (c)	15"	L.F.	57				
		8"	15"	L.F.	61				
						10			20
						10			20
						10			118
						10			20

I-1									
	Class J-1	Curbe Matting	15"	L.F.	175				29
					145				7
					145				0.5
					118				4
									4
									4

MICROFILMED
JUL 25 1985

FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO		

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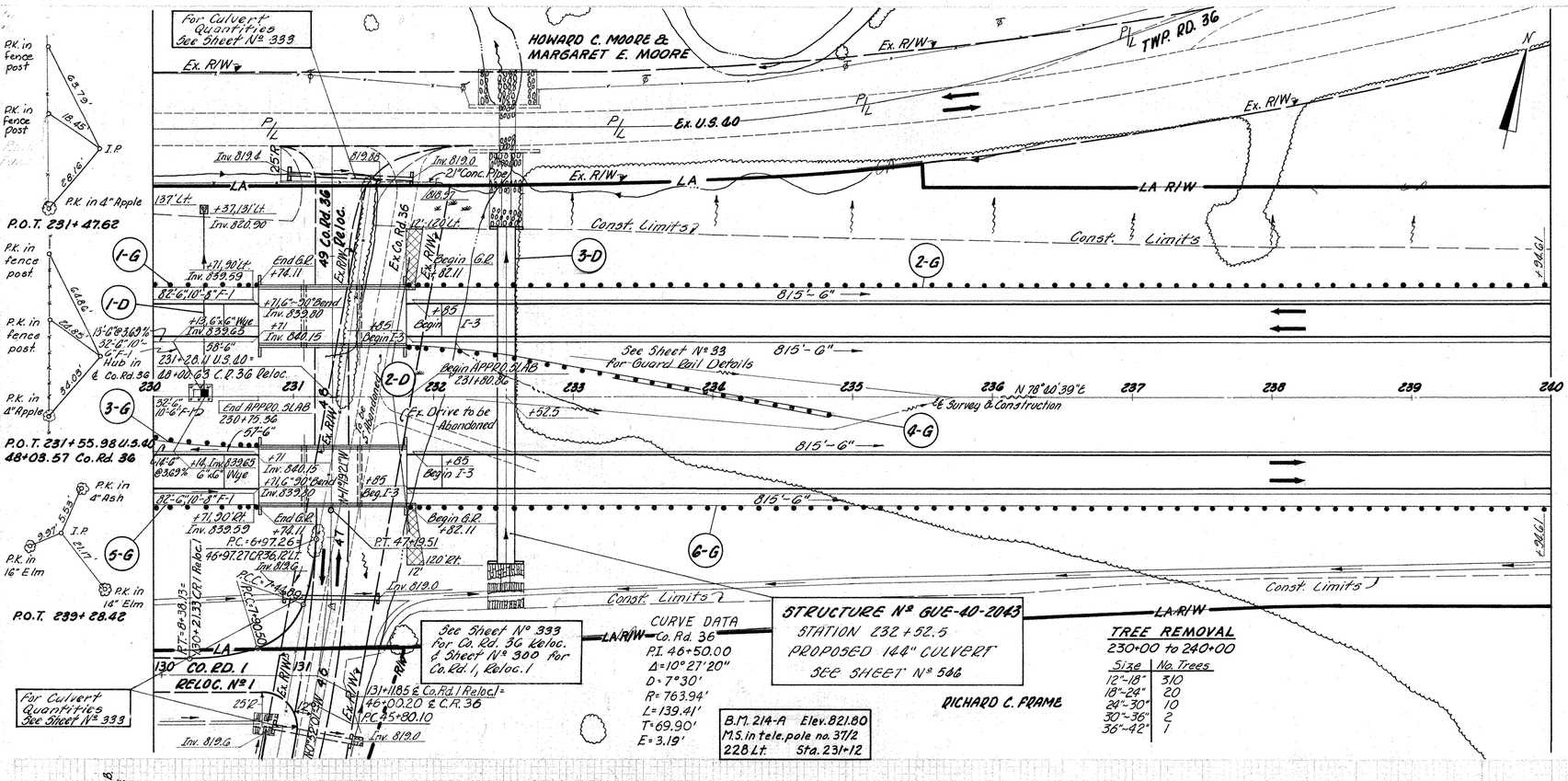
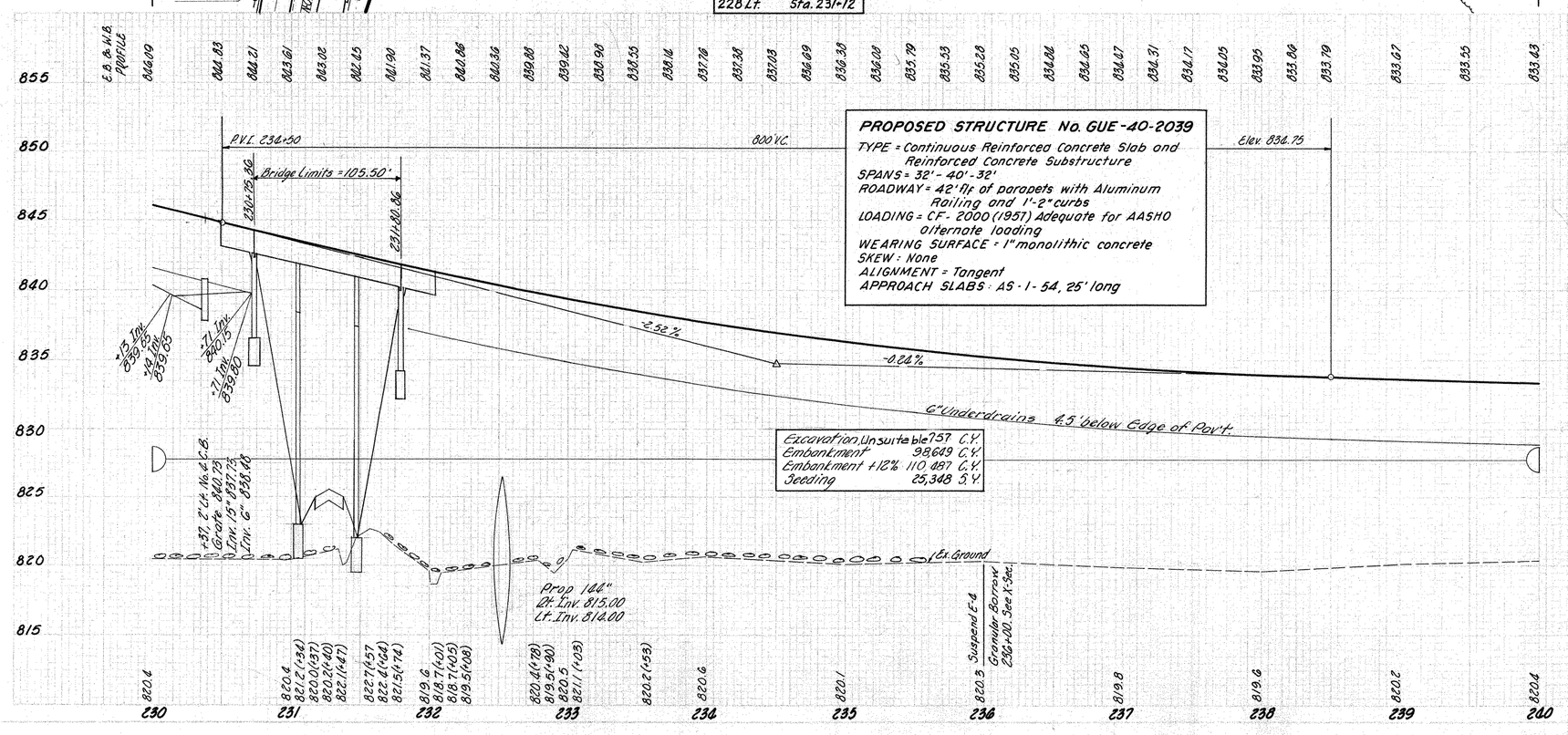
GUERNSEY COUNTY GUE-40-17.37





UTILITIES

HOME TELEPHONE CO.

ESTIMATED QUANTITIES

REF. SHEET NO.	STATION TO STATION	ROAD SIDE	Class I-1 Class A-1 6a. W=6.4(6) 1-3 144" L.F.	Class F-4 15" L.F.	Class F-4 8" 15" N=6.4(6) L.F.	Class I-3 6" L.F.	Class I-3 Class A-4 15" 30° N=6.4(6) 2x9 2aM 2aM Eu.	Class I-3 Eu.	I-5 Stand Type 2-9 Barrier No 4 L.F. Eu.	I-10 L-10 Masonry Dumped Rock Chan Pro C.Y.	I-10 L-10 Sod Chan Pro S.Y.	I-10 E-3 Channel Exc. C.Y.	I-10 E-3 Riprap 6" P.C. Slab S.Y.	I-15 I-10 L-10 Special Slope Prot. S.Y.	I-15 I-10 L-10 E-3 Class 13 Concrete Eu.	
1-0	230+37 to 131'Lt.	Lt.														
2-0	As shown	Lt. & Rt.														
3-0	232+52.5 (Culvert)	Lt. & Rt.														
1-G	230+00 to 230+74.11	Lt.	75													
2-G	231+82.11 to 239+34.61	Lt.	8125													
3-G	230+00 to 230+74.11	Rt.	75													
4-G	231+82.11 to 234+82±	Lt. & Rt.	150													
5-G	230+00 to 230+74.11	Rt.	75													
6-G	231+82.11 to 239+34.61	Rt.	812.5													
	230+00 to 230+71 W.B.	Lt.														
	230+00 to 230+17 W.B.	Rt.														
	231+85 to 240+00 W.B.	Lt. & Rt.														
	230+00 to 230+71 E.B.	Lt.														
	230+00 to 230+71 E.B.	Rt.														
	231+85 to 240+00 E.B.	Lt. & Rt.														
	TO SUMMARY		2000	150*	1	88	91	132								
			242	44	10	10	2	2								
			3630	44	20	20	2	2								
			86													

* Non-participation by Federal

E-1 550 10
1 -I

230+00 to 240+00

FED. AID PROJECT | STATE | PROJECT
2 | OHIO

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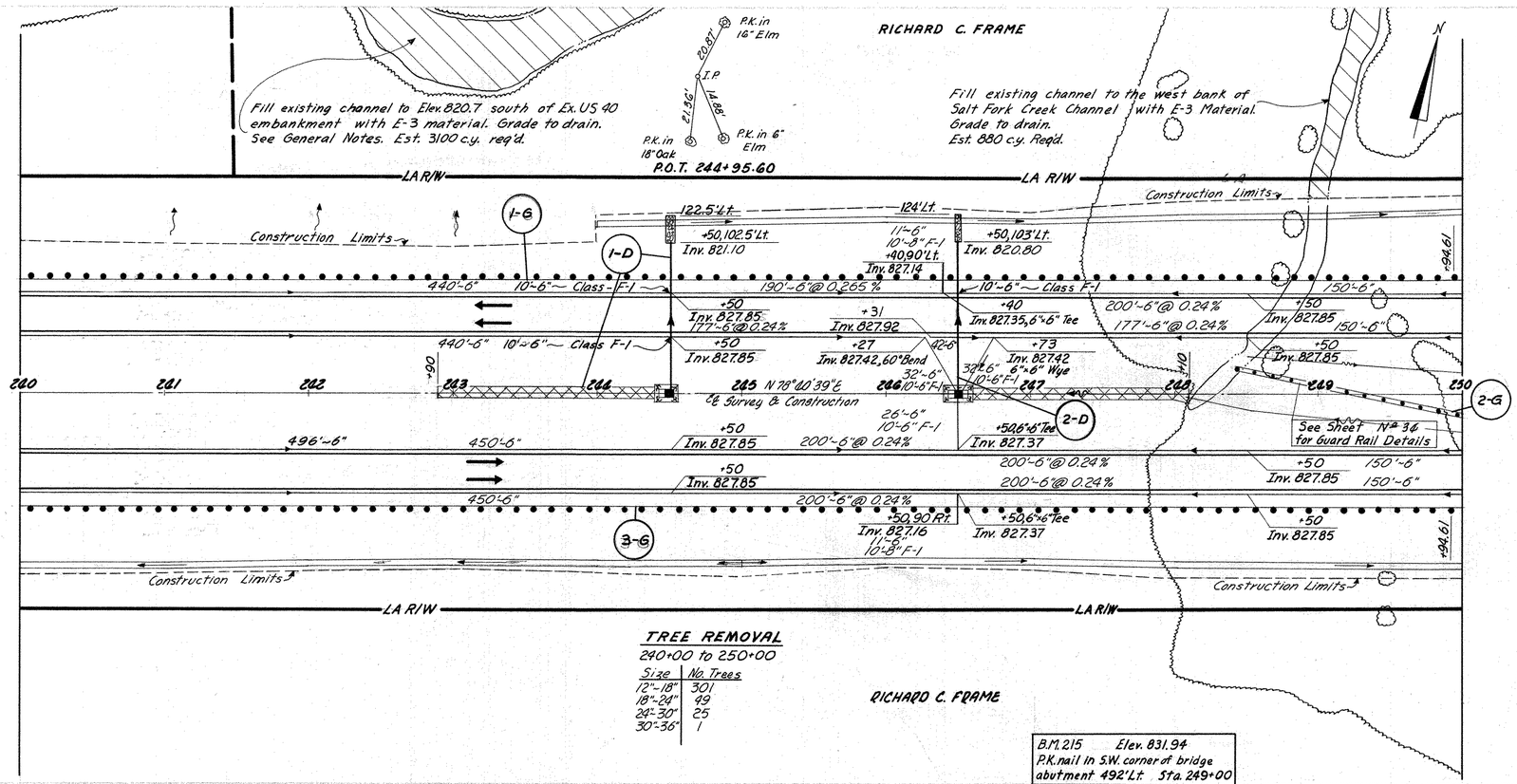
G38

GUERNSEY COUNTY GUE-40-17.37



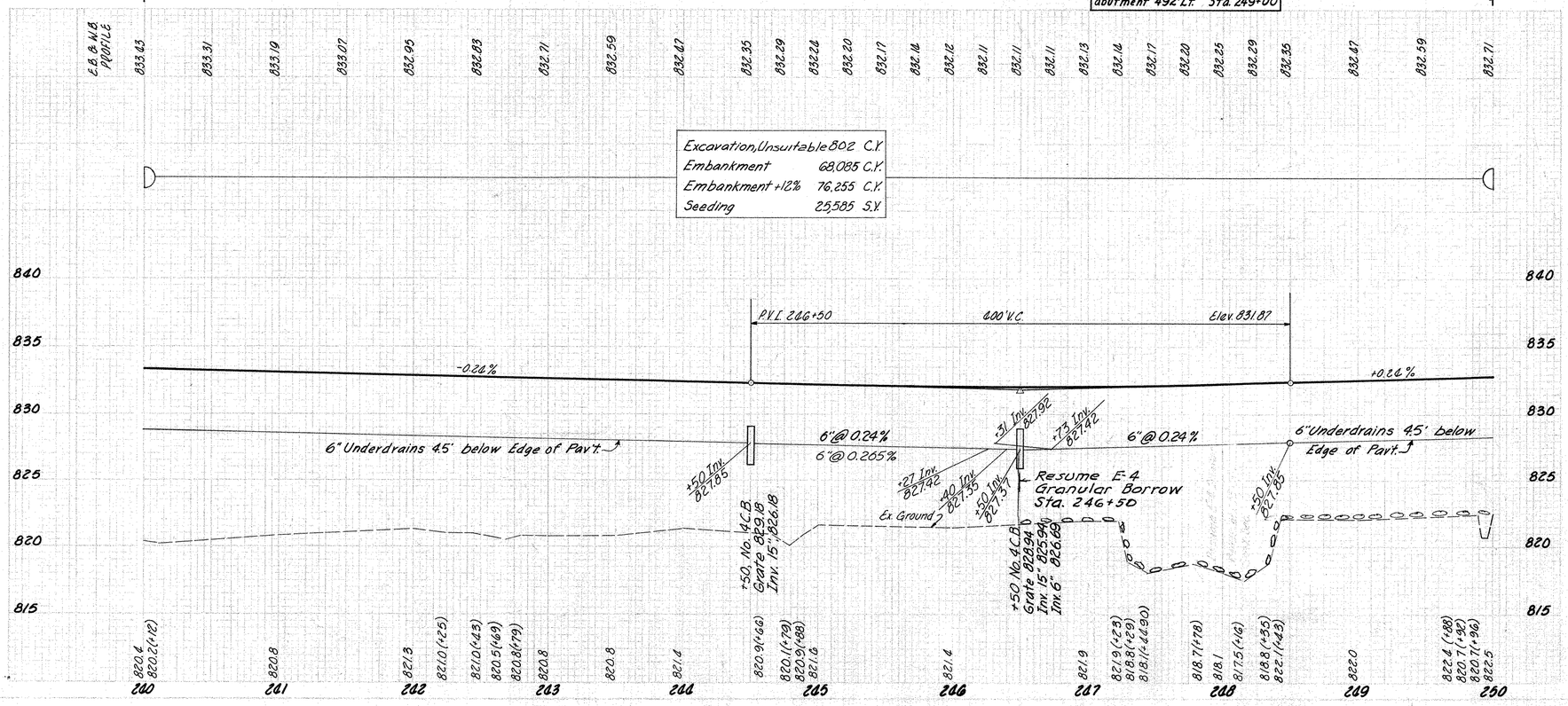
TREE REMOVAL

240+00 to 250+00

Size	No. Trees
12"-18"	301
18"-24"	99
24"-30"	25
30"-36"	1

RICHARD C. FRAME

B.M. 215 Elev. 831.94
P.K. nail in S.W. corner of bridge abutment 492'Lt. Sta. 249+00



ESTIMATED QUANTITIES

| ITEM NO. | SECTION TO STATION | SHEET NO. | UNITS | | |

MICROFILMED
JUL 25 1985

FED. AID PROJECT	STATE	PROJECT	
	OHIO		

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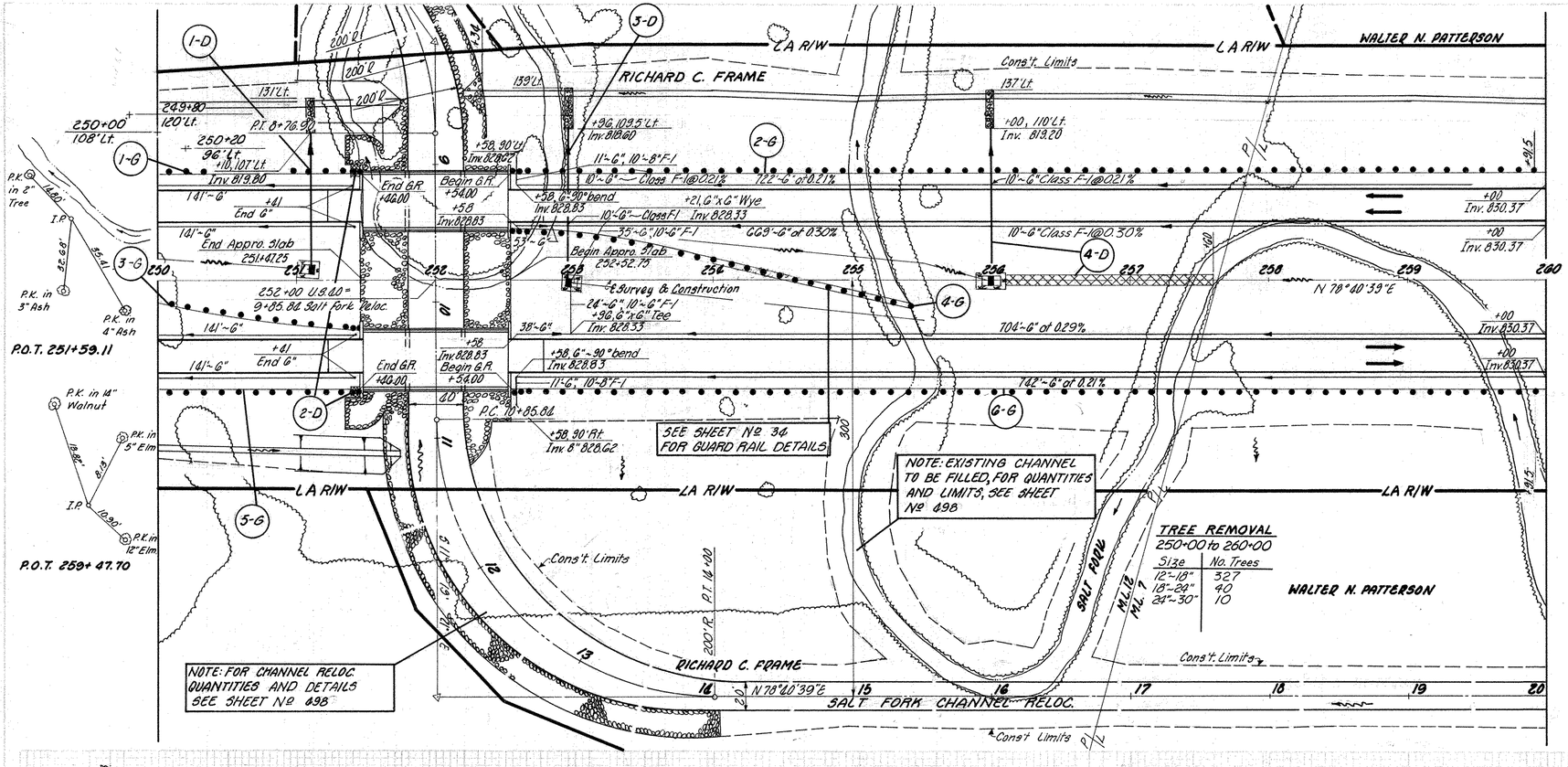
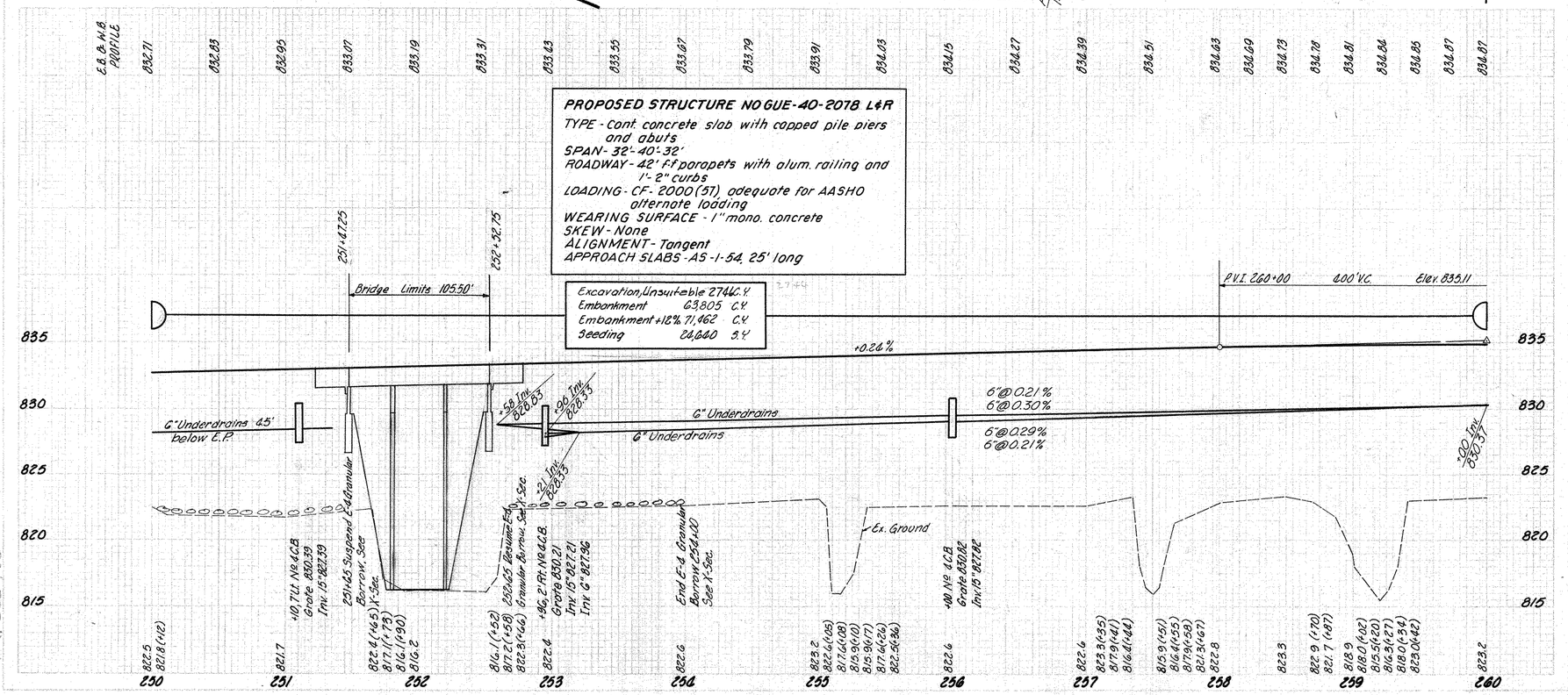
GUERNSEY COUNTY GUE-40-17.37





PROPOSED STRUCTURE NO GUE-40-2078 L&R

TYPE - Cont. concrete slab with capped pile piers and abuts
SPAN - 32'-40'-32'
ROADWAY - 42' f.f. parapets with alum. railing and 1'-2" curbs
LOADING - CF-2000(51) adequate for AASHO alternate loading
WEARING SURFACE - 1" mono. concrete
SKEW - None
ALIGNMENT - Tangent
APPROACH SLABS - AS-1-54, 25' long

Excavation, Unsuitable	2746 C.Y.
Embankment	63,805 C.Y.
Embankment +12%	71,462 C.Y.
Seeding	24,060 S.Y.

TREE REMOVAL
250+00 to 260+00

Size	No. Trees
12"-18"	327
18"-24"	40
24"-30"	10

ESTIMATED QUANTITIES

SEE SHEET NO.	ITEM	STATION TO STATION	UNITS	1-10 L-10 Sod	1-10 L-10 Masonry Dumped Rock Chan. Prot.	1-2 L-10 Class "A" Masonry Concrete	1-5 F-5 Class F-3 Class "A" Concrete Pipe Culvert 24"	1-5 F-5 Class F-3 Class "A" Concrete Pipe Culvert 30"	1-5 F-5 Class F-3 Class "A" Concrete Pipe Culvert 36"	1-5 F-5 Class F-3 6" C.I.P.	1-1 Class F-4 Water Gate (6") 8" L.F.	1-1 Class F-4 Water Gate (6") 12" L.F.	L-10 L-120 Special Berm & Ditch Pad	L-10 L-120 Jute Matting	1-5 I-5 F&C.B. Stand. Type No 4	1-5 I-5 F&C.B. C-A Barrier	1-1 Class J-1 15"
				S.Y.	C.Y.	C.Y.	EA.	EA.	EA.	L.F.	L.F.	L.F.	S.Y.	S.Y.	EA.	L.F.	L.F.
				188	185	185											
				145	145	18											
				8	10	9											
				026	026	026											
				2	2	2											
										1							
										1							
										1

FED. RD. DIVISION: 2 | STATE: OHIO | PROJECT: | 58 / 638

GUERNSEY COUNTY GUE-40-17.37

P.K. in Post
223'
P.K. in Post
7.90'
I.P.
15.28°
P.K. in 16" Elm

P.O.T. 264+22.22

LA R/W — WALTER N. PATTERSON — LA R/W
Const. Limits
1-D, 2-D, 3-D, 4-D, 1-G, 2-G, 1-R

+50, 1055' Lt. Inv. 821.10
131' Lt.
+50, 104.5' Lt. Inv. 821.50
+60, 39.1' Lt. Inv. 828.62
127.0' Lt.
+50, 104.0' Lt. Inv. 821.90
130.0' Lt.
740'-6" at 0.205%
10"-6" Class F-1 @ 0.205%
11'-6", 10'-8" F-1
185'-6" at 0.24%
65'-6"
+60, 6"x6" Tee Inv. 828.83
10'-6" Class F-1
+50 Inv. 829.29
+31 Inv. 829.05
+00 Inv. 830.37
717'-6" at 0.20%
10'-6" Class F-1 @ 0.20%
+27.60° Bend Inv. 828.91
42'-6"
+73 Inv. 828.55
172'-6" at 0.42%
32'-6", 10'-6" F-1
45'-6"
260 261 N 78°40'39"E 262 263 264 265 266 267 268 269 270
C.E. Survey & Construction
750'-6" at 0.21%
200'-6" at 0.24%
50'-6"
+50, 6"x6" Tee Inv. 828.81
26'-6", 10'-6" F-1
+50, 90° Rt. Inv. 828.60
+91.5
Const. Limits
LA R/W
Const. Limits
SALT FORK
B.M. 216 Elev. 824.90
M.S. in 30" Ash
289' Lt. Sta. 265+46
100' R 1-R 265+00, 227.5' Rt.
S-24 Remove Ex. Bridge Timber Pony Truss
WALTER N. PATTERSON
N 78°40'39"E 21 SALT FORK CHANNEL RELOC. 23 24 25
P.C. 23+88.66

Note:
Fill existing Salt Fork to top of banks. Use excavation from relocation for fill. Omit compaction requirements & grade to drain outside of const. limits.

Note:
Fill to Elev. 823.5 outside roadway embankment with E-3 material. Grade to drain. See General Notes. Est. 3521 C.Y. req'd

Note: For Channel Reloc. quantities and details See Sheet No 498

TREE REMOVAL
260+00 to 270+00

Size	No. Trees
12"-18"	168
18"-24"	4

E.P. & W.B. PROFILE
834.87 834.87 834.86 834.84 834.81 834.78 834.74 834.69 834.63 834.51 834.39 834.27 834.15 834.03 833.91 833.79 833.73 833.68 833.64 833.61 833.58 833.56 833.55 833.55 833.55 833.56 833.58 833.61 833.64 833.68 833.73 833.79 833.91

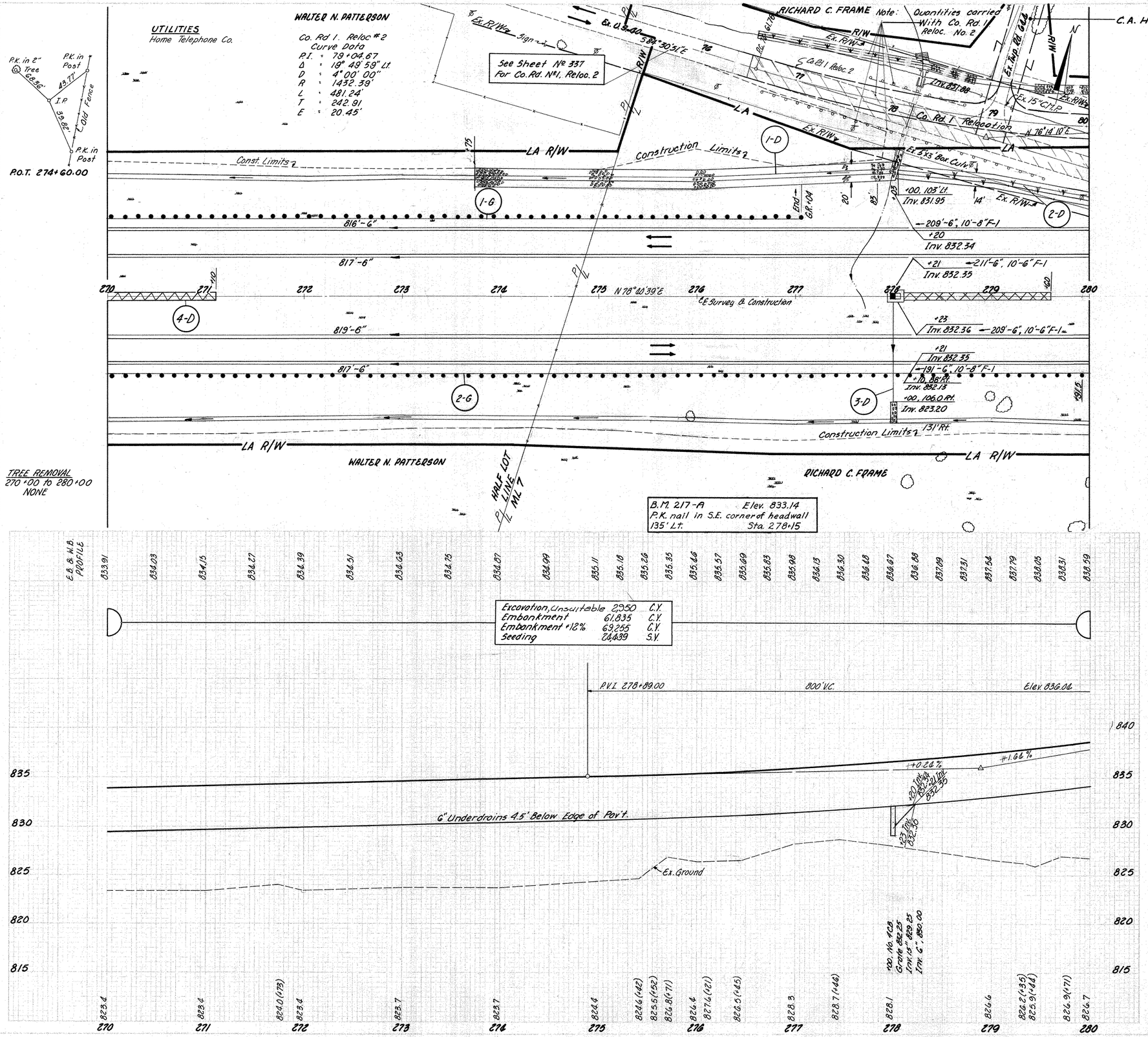
Excavation, Unsuitable 3234 C.Y.
Embankment 62,827 C.Y.
Embankment +12% 70,366 C.Y.
Seeding 26,929 S.Y.

P.V.I. 260+00 400' V.C. Elev. 835.11
P.V.I. 267+50 400' V.C. Elev. 833.31
-0.26%
+0.26%
6" underdrains
+30 Inv. 830.37
+27 Inv. 828.91
+3 Inv. 828.05
+50 Inv. 828.81
+50 Inv. 828.83
+73 Inv. 828.55
+50 Inv. 828.29
Ex. Ground
+50, Nº 4 C.B. Grate 830.62 Inv. 15" 827.62
+50, Nº 4 C.B. Grate 830.38 Inv. 15" 827.38 Inv. 6" 828.13
+50, Nº 4 C.B. Grate 830.62 Inv. 15" 827.62
840 835 830 825 820 815
260 261 262 263 264 265 266 267 268 269 270
823.2 823.3 823.8 (+.75) 823.5 (.69) 823.4 (-.94) 823.3 (-.98) 823.4 823.1 823.6 823.3 (.67) 823.4 (-.77) 823.5 (-.89) 823.0 (.93) 823.3 (.64) 823.5 823.6 823.4 (-.51) 823.8 823.4 (-.05) 823.2 (-.27) 823.3 (-.31) 823.4 823.3 823.4

ESTIMATED QUANTITIES

| ITEM | SIZE | STATION TO STATION | UNITS | | |

GUERNSEY COUNTY GUE-40-17.37



ESTIMATED QUANTITIES

| SHEET NO. | STATION TO STATION | UNITS | | |

MICROFILMED
JUL 25 1985

PUBLIC INFORMATION DIVISION	STATE	PROJECT
2	OHIO	

GO
G38

GUERNSEY COUNTY GUE-40-1737

P.K. in Tel. Pole
P.K. in Tel. Pole
72.96'
I.P.
65.02'
3.81'
P.K. in Post

P.O.T. 283+02.36

P.K. in 10" Elm
39.28
16.52'
6.02
I.P.
P.K. in Fence Post

P.O.T. 89+75.00 Co. Rd. #1 Reloc. # 2
P.O.T. 51+94.00 Co. Rd. #301

P.K. in 14" Elm.
P.K. in 3" Cherry
18.46'
17.78'
12.25'
P.K. in 5" Elm.
I.P.

289+75, ℄ US 40 = 50+00.00, Co. Rd. #301

UTILITIES
HOME TELEPHONE CO.

CO. RD. 1- RELOC 2
CURVE DATA
PI 79+00.67
Δ = 19°18'59" Lt.
D = 8°00'
R = 1432.39'
T = 262.91'
L = 481.26'
E = 20.65'

TREE REMOVAL
280'00 to 290'00

Size	No Trees
12"-18"	74
18"-24"	6

ROGER D. DAVIS & MURRIEL J. DAVIS

Construction Limits
R/W
℄
P.T. 81+43.00
51'
14'
Ex. R/W
Ex. Sign
Existing Asphalt to be removed with C.R.1, Reloc. 2
Ex. U.S. 40
Ex. R/W
℄
Co. Rd. No. 1 Reloc. No. 2
See Sheets Nº 337-338 for Co. Rd. Nº1, Reloc. No. 2
P.C. 84+55.90
11'
+50
+75
+25
696'-6"
Inv. 834.96
696'-6"
Ex. 834.10
To be abandoned
16" C.I.P.
Ex. U.S. 40 to be abandoned
709'-6"
709'-6"
Ex. R/W
Ex. R/W
Bulkhead exist 18" pipe ends with 8" Brick wall. Cost of bulkheads to be included in price bid for E-1
+00, 122.5' Rt.
Inv. 828.00
Construction Limits
B.M. 218 Elev. 828.04
M.S. in 16" Walnut
15' Lt. Sta. 48+30 CR. 301
LA R/W
RICHARD C. FRAME
141.5' Rt.

CO. RD. 1- RELOC. 2
CURVE DATA
PI 87+01.08
Δ = 2°26'29" Rt.
D = 0°30'
R = 11459.16'
T = 244.18
L = 488.28
E = 2.60'

51+94.00, C.R. 301 Reloc.
89+75.00 C.R. 1 Reloc. #2

P.T. 89+44.18
Begin C.R. 61.5
+50
10'
+45
Inv. 846.59
300'-6" M-64 (h)
00, 6"-90° Bend
+00, 6"-6" Tee
Inv. 844.29
300'-6" M-64 (h)
40'-0" F-1
26'-6" M-64 (h)
+60
Resurvey & Construction
+23
Inv. 845.22
309'-6"
287+25
Inv. 845.22
292'-6"
10'-6" F-1
10'-6" F-1
10'-6" F-1
+10.91 Rt.
8" Inv. 844.89 M.S.
Inv. 833.85
Inv. 833.38
+00, 122.5' Rt.
Inv. 828.00
141.5' Rt.
2.5'x5' Box Culvert
+20
END C.R. 290+04
289+75 U.S. 40 = 50+00 C.R. 301 Reloc. 10'-6" F-1
See Sheet Nº 357 for Co. Rd. 301 Reloc.
N 11°19'21" W
Co. Rd. 301 Reloc.
Co. Rd. 49

1-D
2-D
3-D
4-D
1-R
2-R
2-6
1-6

E-8 610 S.Y.
Remove Ex. Asphalt Pav't. 287+00-289+20

E.& N.B. PROFILE
838.59 838.88 839.18 839.49 839.81 840.15 840.49 840.84 841.21 841.59 841.97 842.37 842.78 843.20 843.62 844.06 844.52 845.01 845.52 846.06 846.58 847.10 847.70 848.32 848.94 849.58 850.16 850.93 851.80 852.20 852.59 852.97 853.33 853.68 854.02

PROPOSED STRUCTURE NO. GUE.-40-2151
TYPE: Continuous steel beam with reinforced concrete deck and substructure.
SPANS: 57'-0", 81'-6", 81'-6", 57'-0" ℄ brg.
ROADWAY - 24'-0" f/f 2'-3" safety curbs and concrete parapets with alum. railing.
LOADING - CF-30 (1957)
WEARING SURFACE - ½" mono. concrete
SKEW - None
ALIGNMENT - Tangent
APPROACH SLAB - 25'-0"

P.V.I. 278+89.00
800 V.C.
Elev. 836.08
+1.66%
+00
Inv. 846.59
6" Underdrains 2.75' below E.P.
6" Underdrains 4.5' below E.P.
6" Underdrains 4.5' below E.P.
+23
Inv. 845.22
Ex. Ground
P.V.I. 296+00
1500' V.C.
Elev. 864.10

Excavation	16,481	CY
Embankment	52,389	CY
Embankment +12%	58,900	CY
Seeding	26,606	SY
Emb. as per E-1.02	124	C.Y.

Inv. 842.67
Inv. 15" 841.92
Inv. 6" 844.32
100, No. 4 C.B. Grate 844.32

280 281 282 283 284 285 286 287 288 289 290
825 830 835 840 845 850 855 860

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	SIDE	STATION TO STATION		SEE SHEET NO.
I-10	L-10 Sod	S.Y.			350	190
I-10	T-10 Dumped Rock Chan Prot.	C.Y.			210	
					110	
					123	
					6	
J-5	T-2 Class F-4 Masonry (M-64) (c)	C.Y.			2	865
		EA.			0.26	
	J-5 Class F-3 (M-64) (h)	EA.			2	6
		EA.			1	0.3
		EA.			1	2
		EA.			1	1
		EA.			1	1
		EA.			1	1
		EA.			1	1
		EA.			1	1
	Class F-3 (M-64) (h)	L.F.			1392	341
		EA.			1	2
	6"	L.F.			626	626
	8"	L.F.			1418	
		EA.			1	
		L.F.			309	
		L.F.			292	
F-1	Class F-4 (M-64) (c)	C.Y.			38	38
	6"	L.F.			40	40
	15"	L.F.			20	20
		L.F.			10	10
J-1	Class J-1	15" L.F.			98	88
L-120	Jute Matting	S.Y.			186	186
I-8	Removal of C.B.	EA.			1	1
I-15	Stand. 2-A.	L.F.			87.5	
S-24	Removal of Ex. Structure	S.Y.			10.25	
E-8	Removal of Ex. Pav't.	S.Y.			610	
I-8	160.4 C.B.	EA.			1	
S-24	Lump	L.F.			420	
					445	
1-0	280+00 to 282+25		Lt.			
2-0	283+50 to 285+75		Lt.			
3-0	288+45 to 289+90		Lt.			
4-0	285+75 to 288+00		Rt.			
1-6	289+67.5 to 290+49.0		Lt.			
2-6	279+91.5 to 290+04		Rt.			
1-R	287+00 to 289+20		Rt.			
2-R	As Indicated		Rt.			
Class J-3 1-J	280+00 to 286+98		Lt. & Rt.			
	287+00 to 290+00		Lt. & Rt.			
	280+00 to 287+28		Lt. & Rt.			
	287+00 to 290+00		Lt.			
	287+10 to 290+00		Rt.			

TO SUMMARY

1100.00 Lump G10 1

280+00 to 290+00

Tacked Hub — 58.69' — Tacked Hub — 31.0' — I.P — 23.0' — Tacked Hub
P.O.T. 291+65.95

P.K. in post — 29.12' — I.P — 28.87' — P.K. in post — 14.58'
P.O.T. 295+41.07

P.K. in 16" Locust — 42' — 20' — Tacked Hub — 40.21' — Tacked Hub — 50' — I.P — 20' — Tacked Hub
P.O.T. 299+66.98

Fr. Barn

ROGER D. DAVIS & MURRIEL J. DAVIS

TREE REMOVAL
290+00 to 300+00

SIZE	Nº TREES
12" to 18"	23
30" to 36"	1

R/W — Const Limits — R/W

CO. RD. 1 RELOC. Nº 2 — N 78°40'39" E — L.A.

SEE SHEET Nos 338 & 339 FOR CO. RD. Nº 1 RELOC. 2

1-G

400'-6" M-6.4(h) — 200'-6" M-6.4(h) at 0.24% — 250'-6" M-6.4(h) at 0.25% — 150'-6" M-6.4(h)

+00 Inv. 854.79 — +00 Inv. 855.27 — +50 Inv. 854.65

290 291 292 293 294 295 296 297 298 299 300

N 78°40'39" E — C.E. Survey & Construction

ROGER D. DAVIS & MURRIEL J. DAVIS

Ex. R/W — Const Limits — L.A. R/W — Ex. R/W — L.A.

1-D — 2-D — Culvert to remain in place

B.M. 219-A Elev. 840.69
M.S. in tele. pole
240' Rt. Sta. 299+40

E.P. & W.B. PROFILE

| | | |

MICROFILMED
JUL 25 1985

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

G2
G38

GUERNSEY COUNTY GUE-40-17.37

UTILITIES
HOME TELEPHONE CO.
GUERNSEY MUSKINGUM ELECTRIC CO.

SEE SHEET Nos 339 & 340 FOR CO. RD. No. 1 RELOC. 2

TEMP. CROSSOVER "G" SEE SHEET 340 FOR DETAILS & QUANTITY

CO. RD. 1 - RELOC. 2
CURVE DATA
PI. 108+38.29
Δ = 23°30'30" Lt
D = 5°00'
R = 1146.92'
T = 239.83'
L = 472.83'
E = 24.83

TREE REMOVAL
300+00 to 310+00

SIZE	No. TREES
12" to 18"	90
18" to 24"	5
24" to 30"	1

ROGER D. DAVIS & MURRIEL J. DAVIS

Drilled Well

CO. RD. 1 RELOC. 2

Ex. Twp. Rd. 643

Ex. R/W

R/W

Const. Limits

Pav't Removed with Co. Rd. 1 Reloc. 2

Culvert & dumped rock Quantities with Co. Rd. 1 Reloc. 2

2.5'x5' Box Culvert

LA R/W

Ex. U.S. 40

15" Ex. C.I.P. With 5'x3' Conc. Headwalls

To be Abandoned

Plug

Inv. 832.68

Inv. 832.27

Inv. 832.25

Inv. 880.07

N 78°40'39" E Survey & Construction

N 55°02'09" E

N 78°40'39" E

P.K.'s in Fence Posts
16.69'
47.61
I.P.
16-10

P.O.T. 304+97.53

SEE TWP. RD. 289 CONNECTOR

B.M. 220 Elev. 829.45
M.S. in 20" Hickory
248' Rt. Sta. 305+84

1-D, 2-D, 1-R, 1-G, 2-G, 3-D

200'-G' M-G4(h) +00 End M-G4(h) Inv. 851.51 +50 Inv. 849.09 +75 Inv. 847.20

196'-G" .10"-8" F-1 +00 Inv. 849.76 +77 Inv. 847.17

150'-G" M-G4(h) +50 End M-G4(h) Inv. 852.12 259'-G" .10"-G" F-1

50'-G" M-G4(h) +50 End M-G4(h) Inv. 853.18 361'-G" .10"-G" F-1

+00 End M-G4(h) Inv. 853.63 +00 Inv. 850.93 401'-G" .10"-8" F-1

+00 Begin G.R. +50 Inv. 851.63

+90.98 Lt 8" Inv. 846.85

+00, 12 Lt. Inv. 15" 840.30

+00 Begin G.R.

+00, 88 Rt. 8" Inv. 846.10

+89 Inv. 846.98

+79 Inv. 847.14

540'-G" G5'-G" at 0.53% .10"-G" F-1 +00 Inv. 838.20

544'-G" +25 Inv. 838.60 G5'-G" at 0.53% .10"-G" F-1 +00 Inv. 838.20

542'-G" G5'-G" at 0.53% .10"-G" F-1 +00 Inv. 838.20

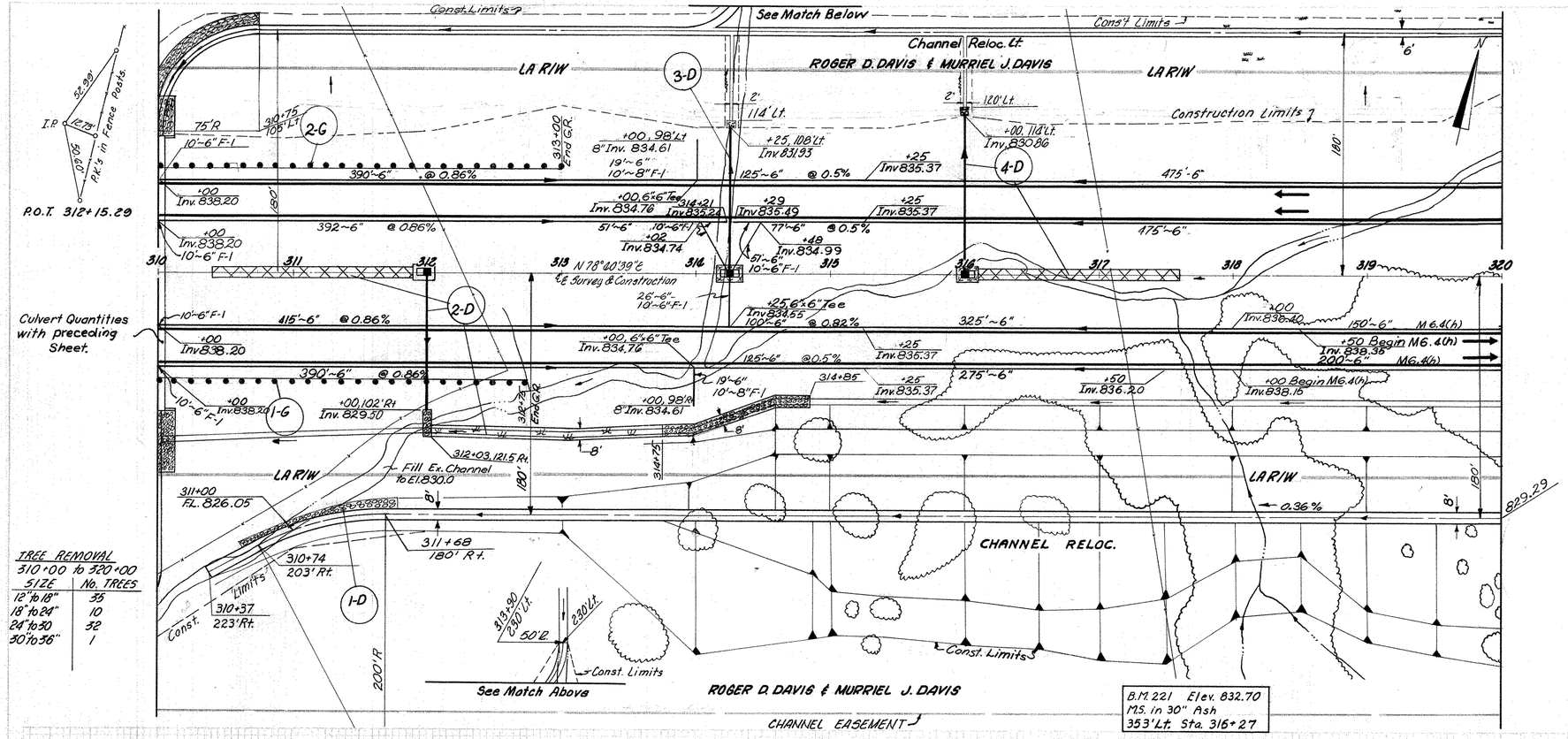
532'-G" F-3 G5'-G" at 0.53% .10"-G" F-1 +00 Inv. 838.20

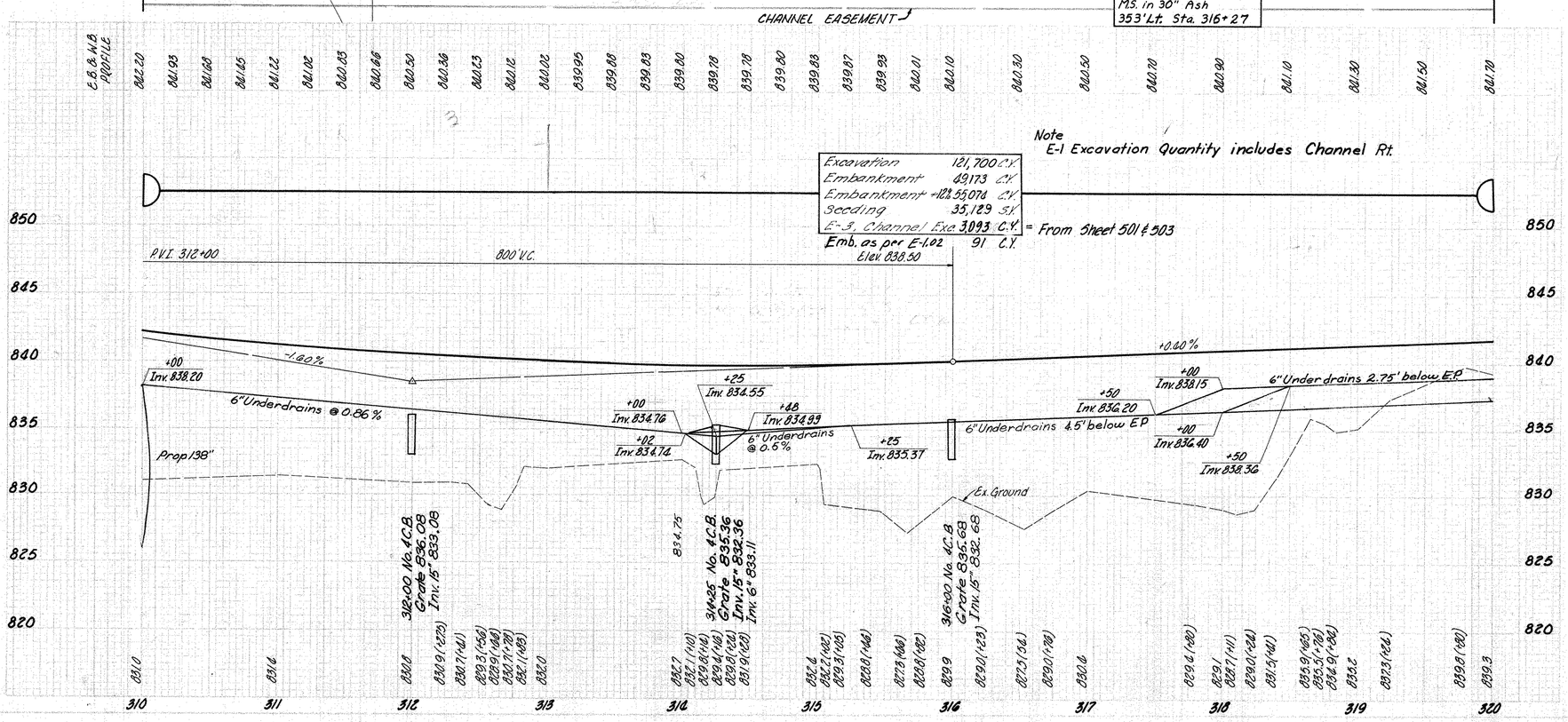
+25 Inv. 838.60

+25 Inv. 838.60

+25 Inv. 838.60

GUERNSEY COUNTY GUE-40-17.37





ESTIMATED QUANTITIES

| SHEET | SYSTEM | STATION | | |

I.P. Survey Ton. 1
P.K. in 16" Dead Elm
P.K. in 4" Thorn Tree
P.K. in 4" Thorn Tree
P.C. 321+64.55
Tacked Hub
Tacked Hub
100.00'
100.00'
90°
I.P.
Tan 2
420.15' from fence to P.I.
P.I. 328+34.74

Const. Limits
ROGER D. DAVIS & MURRIEL J. DAVIS
CHANNEL RELOC. CT.
LA R/W
WILLS TWP.
CLIFFORD TWP.
623'-6"
618'-6"
397'-6", 10'-8" F-1
409'-6", 10'-6" F-1
+00.113' Lt.
Inv. 838.87
+10.99' Lt.
Inv. 839.37
+27
Inv. 839.71
+22
Inv. 839.69
N 78°40'39" E
N 82°01'39" E
℄ Survey & Construction
320 321 322 323 324 325 326 327 328 329 330
+00 End MG4(h)
Inv. 840.95
500'-6" MG4(h)
100'-6"
+00 6"x6" Double Tee
Inv. 839.30
+00
Inv. 840.00
300'-6"
50'-6" Class A-1 MG.6(b) or MG.8(b) 10'-6" F-1
100'-6" at 0.70%
+50
Inv. 839.45
+00 8"x6" Tee
Inv. 839.00
400'-6"
+50
Inv. 839.75
P.C. 321+64.55
180'
LA R/W
8'
0.36%
CHANNEL RELOC
829.29
832.89
Z-D
I-D
+10
+30
11'
180'
10
8'
17.3%
TREE REMOVAL
320+00 to 330+00

SIZE	No. TREES
12" to 18"	95
18" to 24	13
24" to 30"	16
30" to 36"	1

ROGER D. DAVIS & MURRIEL J. DAVIS
Channel Easement 1
Construction Limits
Quarter Section Line - Sec. 31
CLARENCE J. SUTTON & PEARL R. SUTTON
ROGER D. DAVIS & MURRIEL J. DAVIS
Channel Easement 1
MAIN ℄ CURVE DATA
P.I. 328+34.74
Δ = 3°21'00" Rt.
D = 0°15'
R = 22918.31'
T = 670.19'
L = 1340.00'
E = 9.80'
B.M. 222 Elev. 836.05
M.S. in 18" Ash
56' Lt. Sta. 326+16

* For Class H.3 Pipe
⊕ For Class A-1 Pipe

E.G. & W.B. PROFILE
841.70 842.10 842.30 842.50 842.70 842.90 843.10 843.30 843.50 843.70 843.90 844.10 844.30 844.50 844.70 844.90 845.10 845.30 845.50 845.70
865 860 855 850 845 840 835 830 825
320 321 322 323 324 325 326 327 328 329 330
839.3 838.6(1.8) 843.2(+4.6) 848.4 849.7(+1.37) 852.1(+4.55) 852.3(+6.85) 849.6 846.5(+0.8) 845.2(+2.25) 846.6(+4.32) 850.2(+4.7) 853.7(+8.7) 852.4(+8.7) 852.2 851.7(+7.38) 851.4(+9.9) 852.3(+16.5) 852.3(+7.7) 845.0 838.5(+2.8) 834.4(+4.1) 832.4(+4.7) 830.5(+4.8) 829.3(+4.9) 828.5(+4.1) 829.3(+4.9) 830.5(+4.7) 831.5(+12.1) 833.7(+8.8) 835.0 836.0(+0.8) 836.0(+5.6) 834.5(+5.9) 836.3(+6.2) 838.0 326+00 No. 4 C.B. Grate 839.68 Inv. 15 836.68 Inv. 6 837.43 836.6 837.0 839.4(+0.4) 838.8 837.5(+0.4) 837.5(+0.4) 836.2

Note:
E-1 Excavation Quantity Includes Channel Rt.

Excavation	207,188 C.Y.
Embankment	44,699 C.Y.
Embankment +12%	50,063 C.Y.
Seeding	35,707 S.Y.
E-3 Channel Exc.	2073. C.Y. = Total from Sheet 502
Emb. as per E-1.02	817 C.Y.

+0.40%
+00 End MG4(h) Inv. 840.95
+00 Inv. 839.60
+27 Inv. 839.71
+22 Inv. 839.69
+00 Inv. 840.00
+50 Inv. 839.75
+50 Inv. 839.45
+00 Inv. 839.30
6" Underdrains 2.75' below E.P. (M6.4(h))
6" Underdrains 4.5' below E.P.
Ex. Ground
6" Underdrains 4.5' below Edge of Pav't.

ESTIMATED QUANTITIES

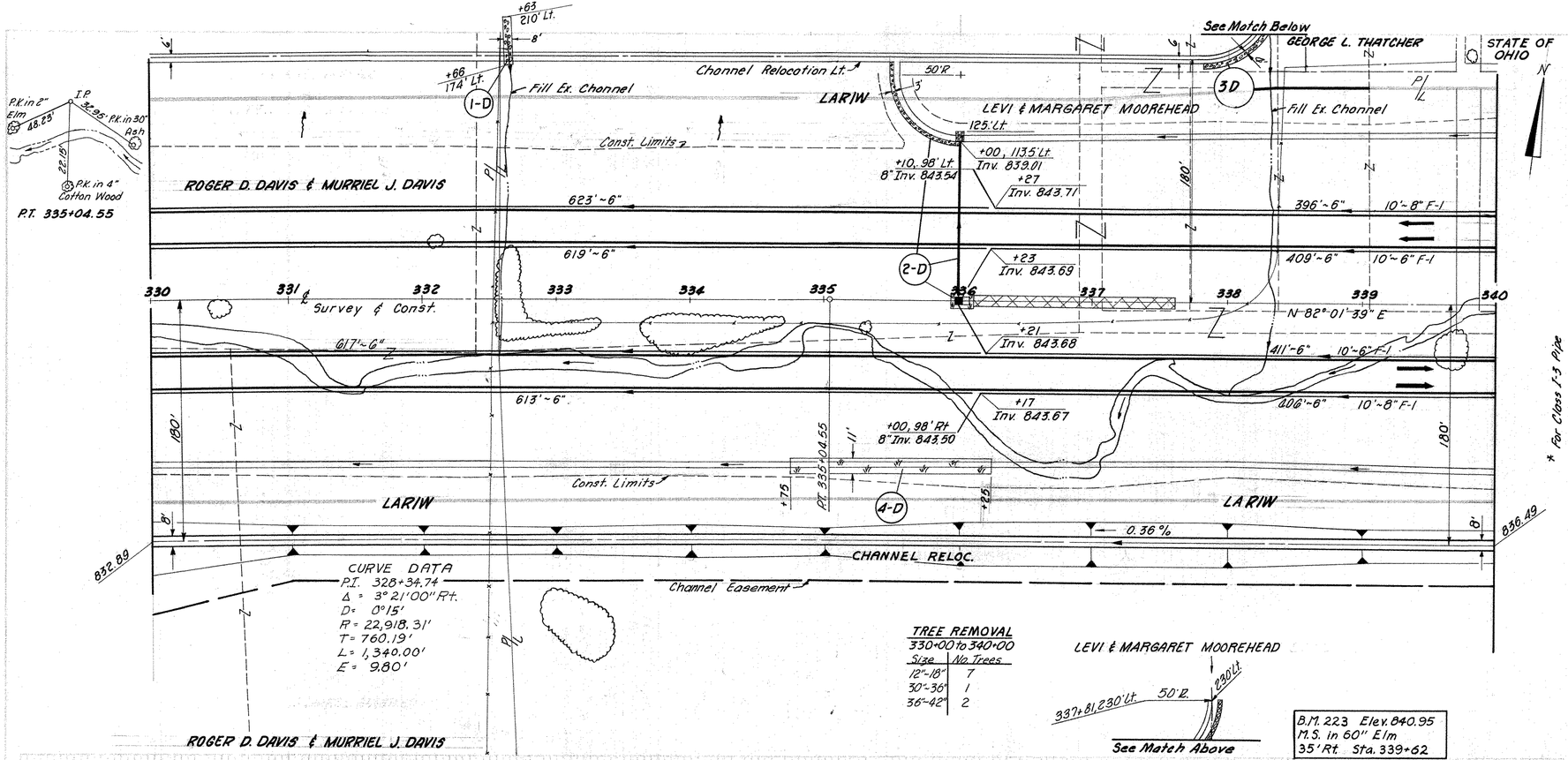
						SEE SHEET NO.
I-10	L-10	Sod	S.Y.	14.5	218	
I-10	I-10	Dumped Masonry Rock	C.Y.	2		89
I-2			C.Y.	0.26		2
I-5	Double 6" Bend		Ea.			85
	" 9"x9" 22½°					2 *
	" 9"x9"					1
Class Ext. Class I-3 (M6.4(h))	6"		L.F.			1 @
	8" (M6.6(h))		L.F.	10	1020	1 @
	6"		L.F.		1027	5047
	6"		L.F.	10	500	1000
	6"		L.F.		500	
	6"		L.F.	10	500	
	6"		L.F.		500	
I-1 Class A-1 (M6.6(b) or M6.8(b))	6"		L.F.			20
				50		10
						50
						50
L-120	Jute Matting		S.Y.	133		133
E-3			C.Y.	9		9
I-3 C.B.	No 4		Ea.	1		1

UNITS		
I-D	325+85 to 327+60	Lt.
Z-D	329+30 to 329+50	Rt.
	320+00 to 330+00 W.B.	Lt.
	320+00 to 330+00 W.B.	Rt.
	320+00 to 330+00 E.B.	Lt.
	320+00 to 330+00 E.B.	Rt.

I-1, I-3

to Summary

320+00 to 330+00



FED. ROAD DIV. NO.	STATE	PROJECT	
2	OHIO		

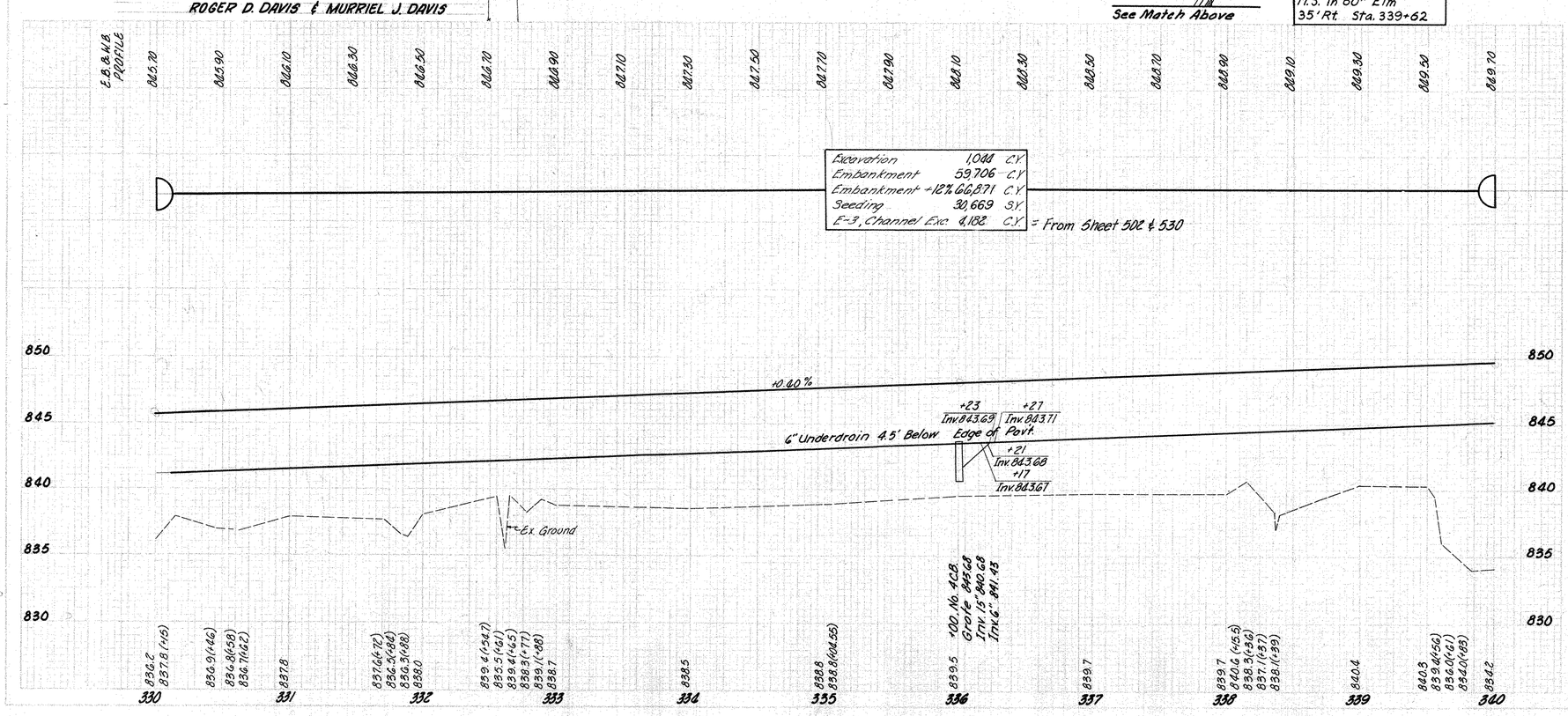
65
G38

GUERNSEY COUNTY GUE-40-17.37

ESTIMATED QUANTITIES

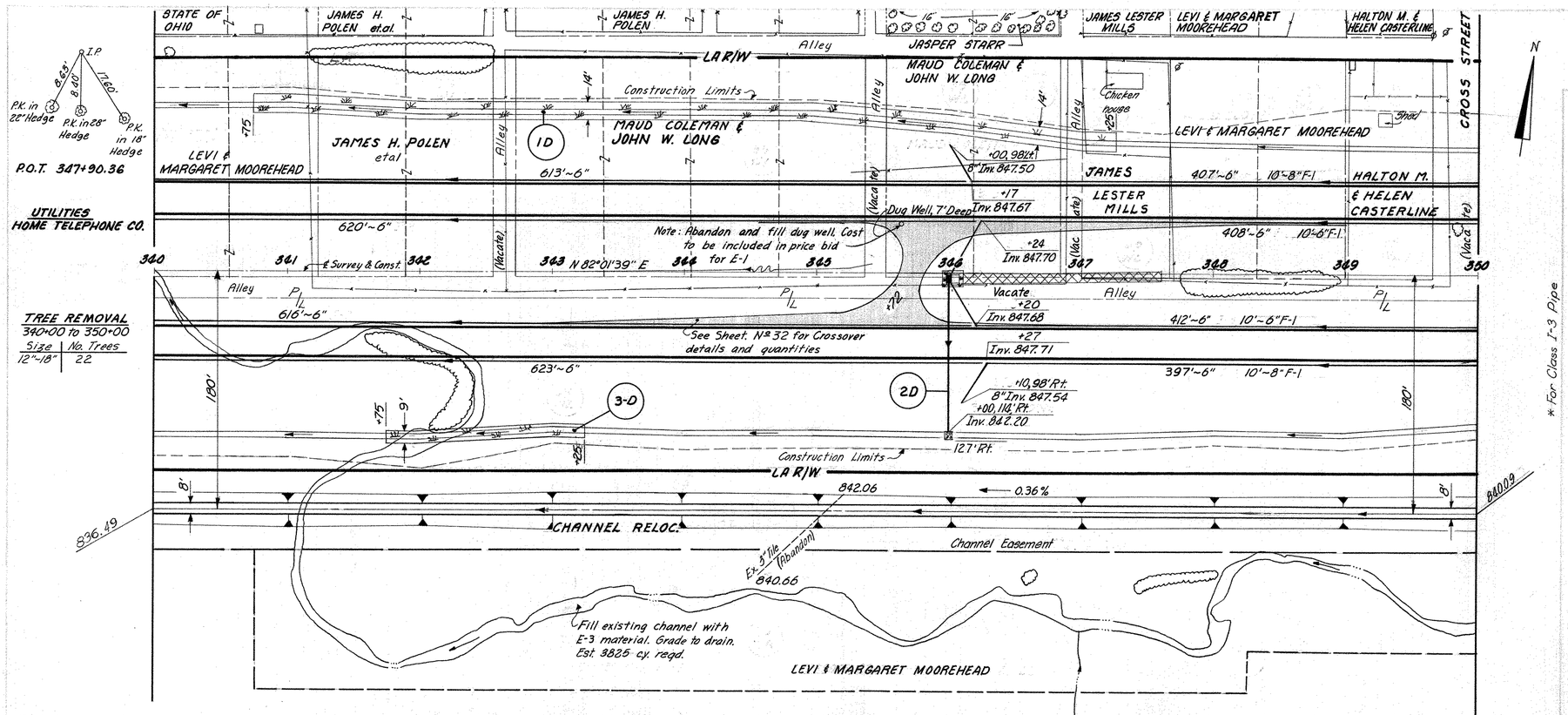
ITEM	EXTENSION	SUPPL. DESCRIPTION	UNITS	SIDE	STATION TO STATION	SEE SHEET NO.
I-1	Class A	32"-66"		Lt.		
1-0	Metric	6"		Lt.		
2-0		6"	LF.	Lt.	330+00 to 340+00	W.B.
3-0		LF.	LF.	Rt.	330+00 to 340+00	W.B.
4-0	Class I-3		LF.	Lt.	330+00 to 340+00	E.B.
I-2	Masonry Rock. Chan. Prot.		C.Y.	Rt.	330+00 to 340+00	E.B.
I-10	Dumped		C.Y.			
L-10	Sod		S.Y.			
1-5	pvsp .09"		Ea.			
I-8 C.B.	No 4		Ea.			
L-1-20	Class J-1	15"	LF.			
	Jute Matting		S.Y.			

ITEM	EXTENSION	UNITS	330+00 to 340+00	TO SUMMARY
I-1	Class A	32"-66"		
1-0	Metric	6"	1019	1019
2-0		6"	1028	1028
3-0		LF.	1019	1019
4-0	Class I-3		1094	1094
I-2	Masonry Rock. Chan. Prot.	C.Y.	0.28	0.3
I-10	Dumped	C.Y.	19	54
L-10	Sod	S.Y.	184	193
1-5	pvsp .09"	Ea.	4	4 *
I-8 C.B.	No 4	Ea.	1	1
L-1-20	Class J-1	15" LF.	114	114
	Jute Matting	S.Y.	133	133



330+00 to 340+00

GUERNSEY COUNTY GUE-40-17.37



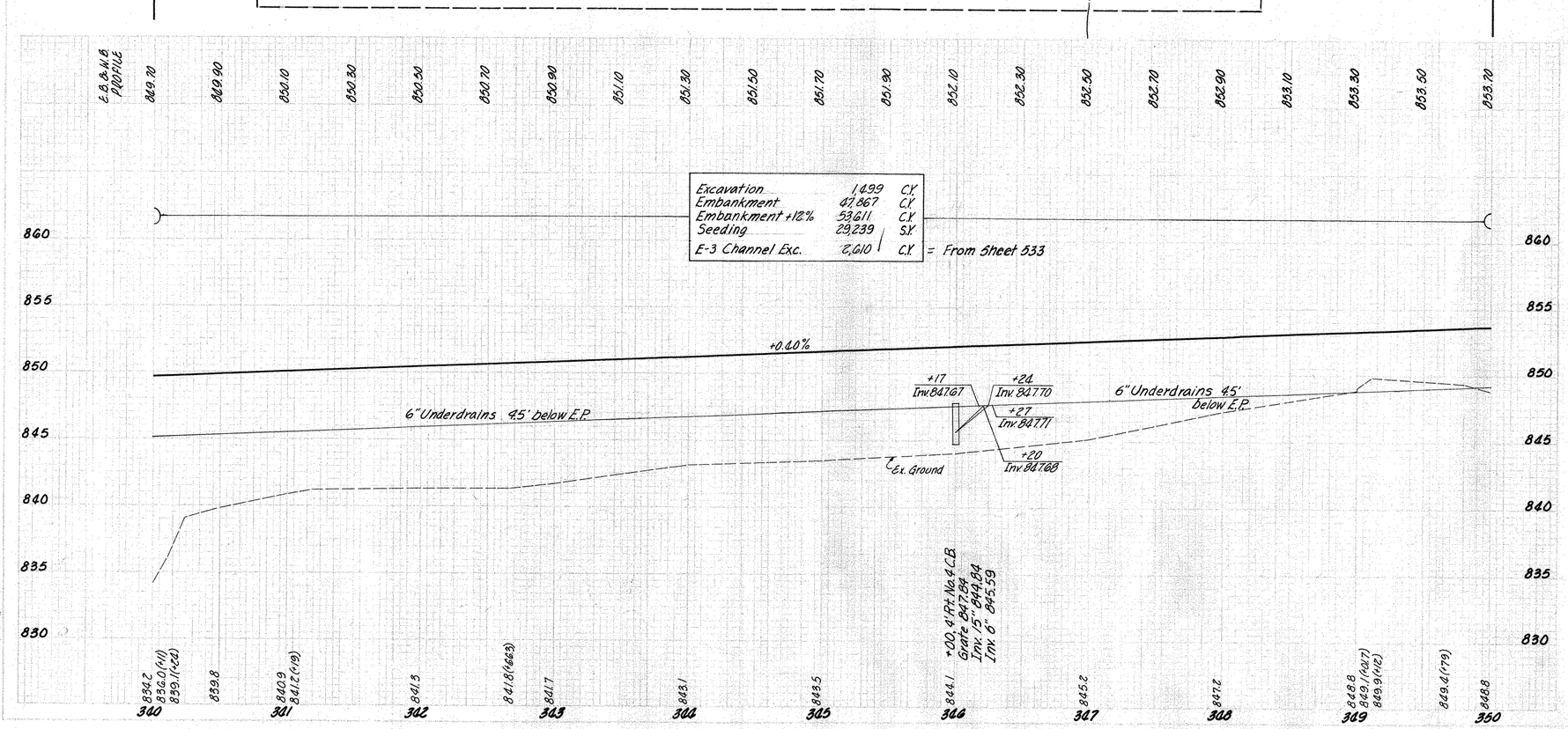
* For Class I-3 Pipe

I-1									
I-2	Class I-10	Masonry	Dumped Rock	90d Chan. Prot.	S.Y.	1012	145	150	225
				C.Y.	C.Y.	0.26	0	0	1177
I-5	*	spuaq .09..9			Ea.				4 *
Class I-3	Class I-3								
	6" L.F.					1020			20
	8" L.F.	M-86(c)				1022			20
	6" L.F.					1023			20
						1020			4096

L-120	Class J-1	Jute Matting			15" S.Y.	L.F.			114
						133			133
FdCB	Ned				Ea.	1			1

UNITS			
1-D	340+25 to 342+25	LT.	
2-D	345+95 to 347+60	RT.	
3-D	341+25 to 343+25	RT.	
	340+00 to 350+00	WB.	LT.
	340+00 to 350+00	WB.	RT.
	340+00 to 350+00	EB.	LT.
	340+00 to 350+00	EB.	RT.

TO SUMMARY



340+00 to 350+00

GUERNSEY COUNTY GUE-40-1737

P.K. in 18" Willow
41.32' DITCH
P.K. in 12" Ash
I.P.
19.39'
11.00'
P.K. in 18" Ash
P.C. 351+48.63

CHARLES D. WHITECELL
JACK ANKROM
ALLEN BLACK
36" CMP EMMA ANKROM
JESSE E. TOUVELL
WILLIAM L. & DOROTHY M. LAVENDER
ROBERT ARNOLD
Cross Sheet
Fr.
G.R.
2-D
4-G
2-G
1-D
1-R
1-G
3-D
3-G
1-A
US-40
Curve Data
P.I. = 309+27.24
Δ = 17°38'43" Lt.
D = 0°30'
Q = 11,459.16
T = 1,778.61'
L = 3,529.06'
E = 137.21'
LAR/W
Coast Limits
+00. 38' Lt. 8" Inv. 851.08
+17 Inv. 851.30
404'-6"
10'-8" F-1
611'-6"
616'-6"
409'-6"
10'-6" F-1
Remove Ex. Structure, Steel Beams, Wooden Deck, & Stone 354 Abutments
+21 Inv. 851.68
351+66.5 ℄ Survey & Construction
+23 Inv. 851.69
431'-6"
10'-6" F-1
N 82° 01' 39" E
388'-6"
ROBERT ARNOLD
+27 Inv. 852.09
424'-6"
10'-8" F-1
600'-6"
+10. 97' Rt. 8" Inv. 851.88
+00. 112' Rt. Inv. 847.60
50' R
Construction Limits
180'
0.36%
0.55%
CHANNEL RELOC.
LEVI & MARGARET MOOREHEAD
MAMIE WEST
℄ Channel Easement
840.09
840.45
841.05
845.45
See Sheet No. 548 for D.I.C.P. Details
TREE REMOVAL
350+00 to 360+00
Size | No. Trees
12"-18" | 26
18"-24" | 2
See Channel x-Sec Sheet No. 535 For Elevations
43+49
T-Type Turnaround
8"B-19 Stabilized with Calcium Chloride 16.4 C.Y.
Special 73.6 S.Y.
N
* For Class I-3 Pipe

B.M. 224 Elev. 846.77
M.S. in 12" Walnut
131 Rt. Sta. 352+16

Structure No. Gue-40-2237
Station 351+66.5
Proposed 60" Culvert
See Sheet No. 548

B.M. 224-A Elev. 879.85
M.S. in root of 24" Elm stump
18' Lt. Sta. 39+35 CR 15 @

E.G. & W.B. PROFILE
353.70 353.90 354.10 354.30 354.50 354.70 354.90 355.10 355.30 355.50 355.70 355.90 356.10 356.30 356.50 356.70 356.90 357.10 357.30 357.50 357.70

Excavation	4325 C.Y.
Embankment	36,252 C.Y.
Embankment +12%	40,602 C.Y.
Seeding	29,178 S.Y.
E-3 Channel Exc.	4,110 ✓ C.Y. = From Sheet 536

+0.60%
6" Underdrain 4.5' below E.P.
6" Underdrains @ 4.5' below E.P.
+121 Inv. 851.69
+23 Inv. 851.69
+17 851.30
+27 Inv. 851.88
+00. No. 4 CB Grate 851.68 Inv. 15" 843.68 Inv. 6" 843.43
Ex. Ground
2-Prop. 60" Rt Inv = 841.0 Lt Inv = 846.0
860 855 850 845 840 835
848.8 849.4 (.25) 850.6 850.0 (.40) 847.7 (.47) 847.8 (+0.63) 847.9 (.53) 848.1 (+.72) 848.3 (.54) 850.0 (+.78) 848.0 (.62) 850.4 849.4 847.4 848.2 847.9 (.42) 848.9 850.2 (+.71) 851.1 (+.78) 850.2 (-.72) 851.1 (-.64) 850.1 (+.74) 851.2 (+.69) 850.1 (+.75) 850.8 (+.95) 849.9 849.1 (.41) 848.9 (+.17) 849.4 (+0.83) 848.8 (+.10) 848.1 (+.11) 848.1 (+.12) 849.9 849.7 850.4 850.6 (+.18) 850.8
350 351 352 353 354 355 356 357 358 359 360

Prod. checked 1 Tr. & Dr.
Checked by R.C.T. 10-23-64
Quantity sheet checked by R.C.T. 10-28-64

ESTIMATED QUANTITIES

| ITEM | SIDE | STATION TO STATION | UNITS | | |

GUERNSEY COUNTY GUE-40-17.37

RAMP "A"
CURVE DATA
P.I. 16+50.01
Δ = 1°30'00"
D_c = 0°30'
R = 11459.16'
T = 150.01'
L = 300.00'

LA R/W

Const. Limits

1D

24' 15' 26' 22' 20' 20' 22' 20'

+00, 116' Lt.
8" Inv. 855.84

+17
Inv. 855.93

412'-6"

361+38.34 Lt.

454'-6" @ 0.25%, 10'-8" F-1

PCC. 368+00 91.15' Ramp "A"

41.5 Rt.

+30, 28' Rt.
12" Inv. 855.80
30° Inv. G

Inv. G 855.74
150'-G @ 0.5%

855.00 17

3D

RAMP "A"

50'-12" Cl. "A-1"

51'-G" @ 0.5%

144'-6"

10'-6" F-1

+04
Inv. 856.40

+55.6" Wye
Inv. 856.25

409'-6"

10'-6" F-1

P.I. 369+27.24

P.K.'s in Post

P.K. in G" Apple Stump

0.08'

13.19'

52.15'

I.P. deep

Match Line See Sheet 538

N

* For Class I-5 Pipe

614'-6"

Temporary Road

+21
Inv. 855.68

2D

Abandoned Drive

℄, Survey & Construction

1-2 1A

600'-6"

N 82°01'39" E

602'-6"

180'

+23
Inv. 855.69

Dc = 4°

436'-6"

10'-6" F-1

P.I. 366+27
55' Rt.

+24
Inv. 856.05

+25 "C"
Inv. 856.69

22'-6"

101'-6" of 0.24%

8 N 74°16'14" E

9 RAMP "C"

N 80°32'19" E 10

277'-6"

+00, 122' Rt.
Inv. 851.61

+10, 105' Rt.
8" Inv. 855.98

131' Rt.

10"-8" F-1

18'-6"

Ramp "C"

Const. Limits

N 64°22'56" E

102'

8'

LA R/W

CHANNEL RELOC.

0.55%

845.45

851.0

850.40

367+00, 78.47' Rt. Ramp "C"

P.R.C. 7.00

CHANNEL EASEMENT

MAMIE WEST

Fill existing channel with E-3 material Grade to drain. See General Notes Est. 875 C.Y. Req'd.

Ex. Field Drive

360 361 362 363 364 365 366 367 368 369 370

TREE REMOVAL
360+00 to 370+00

Size	No. Trees
12"-18"	7

LEGEND

Temp. Pavement

B.M. 225 Elev. 854.85
M.S. in 14" Locust
143' Lt. Sta. 361+96

US 40
CURVE DATA
P.I. 369+27.24
Δ = 17°38'43" Lt.
D = 0°30'
R = 11,459.16'
T = 1,778.61'
L = 3,529.06'
E = 137.21'

RAMP "C"
CURVE DATA
P.I. 9+09.14
Δ = 69°16'05'
D_c = 1°30'
R = 3819.72'
T = 209.14'
L = 417.87'
E = 5.72'

E.B. & W.B. PROFILE

857.70 857.90 858.10 858.30 858.50 858.70 858.90 859.10 859.30 859.50 859.70 859.90 860.10 860.30 860.50 860.70 860.90 861.10 861.30 861.50 861.70

870 865 860 855 850 845 840

Excavation	4,907	C.Y.
Embankment	39,554	C.Y.
Embankment +12%	44,300	C.Y.
Seeding	28,898	S.Y.
E-3 Channel Exc.	7,575	C.Y.

* From Sheet 538

+0.60%

+112 Inv. 855.93

4.5' Below E.P.

6" Underdrain 4.5' Below E.P.

Transition

6" 4.5' Below E.P.

6" Underdrain 4.5' Below E.P. Taper Lt.

+24 Inv. 856.05

6" @ 0.24%

+21 Inv. 855.68

Ex. Ground

6" Underdrain @ 0.25% Taper Lt.

6" Underdrain 4.5' Below. Rt. E.P. "C"

12" at 1.0%

+55 Inv. 856.25

6" Underdrain @ 0.5% Ramp "A" Rt.

'00, No 4 C.B. Grate 855.68 Inv. 852.68 Inv. 6" 855.48

'17-50, 16.16' Lt. No. 6 C.B. Grate 860.41 Inv. L.2 E. 858.90, Inv. 12" W 856.15 Inv. 6" 856.15

'17-00, 12.50 Lt. No. 6 C.B. Grate 860.47 Inv. 12" 857.00

850.8 851.2 (+82) 850.1 849.9 (+09) 850.7 (+98) 848.3 (+10) 851.6 (+46) 847.1 (+23) 843.1 (+33) 852.5 (+75) 851.8 (+78) 851.6 (+81) 852.1 (+84) 851.7 (+40) 852.1 (+19) 849.2 (+94) 849.1 852.1 (+21) 852.5 (+19) 851.4 (+93) 851.4 (+98) 852.4 853.4 (+04) 852.9 852.9 (+20) 849.0 (+25) 847.0 (+29) 849.0 (+36) 853.2 (+48) 853.4 854.5 855.5 (+015) 854.9 855.8 855.8 853.9 (+21) 855.7

360 361 362 363 364 365 366 367 368 369 370

ESTIMATED QUANTITIES

ITEM	SIZE	STATION TO STATION	UNITS	TOTAL	SUMMARY
E-B	L-10				
Pav't. Removal	Jute Matting		S.Y.	1,220	1,220
T-70 T-8 C.B.	Class A-1				
9"	M-6.01(a) or M-6.01(b)		L.F.	1,220	1,220
9"	No 4	1-2	Ea.	2	2
9"	No 6	1-2	Ea.	1	1
		2-3			
		3-0			
		1-R			
		1-A			
		1-2	360+00 to 370+00	Lt.	133
		2-3	365+95 to 367+80	Rt.	
		3-0	17+00 to 17+50 "A"	Rt. & Lt.	2
		1-R	350+75 to 367+50	Rt. & Lt.	1220
		1-A	360+25 to 367+50	Rt. & Lt.	1220
		1-2	360+00 to 370+00	Lt.	133
		2-3	365+95 to 367+80	Rt.	
		3-0	17+00 to 17+50 "A"	Rt. & Lt.	2
			360+00 to 368+00 "A"	Lt.	
			16+00 to 18+00 "A"	Rt.	
			368+04 to 370+00 "A"	Lt.	
			360+00 to 370+00 "A"	Rt.	
			360+00 to 370+00 C.B.	Lt.	
			360+00 to 370+00 C.B.	Rt.	
E-3	L-10				
Masonry Dumped Rock Chan. Prot.	S.Y.			2106	2121
	C.Y.			217	224
	C.Y.			0.30	0.5
	C.Y.			0.23	
E-2	L-10				
Masonry Dumped Rock Chan. Prot.	S.Y.			14.5	14.5
	C.Y.			3	3
	C.Y.			0.5	0.5
I-5					
* Wye "9" x 9"	Ea.			1	1
* Wye "9" x 9"	Ea.			1	1
* Pipe 09" 9"	Ea.			1	2 * 3 *
Class I-5					
6"	L.F.			866	4290
Class F-A W-6.01(a)				150	
8"	L.F.			195	
6"	L.F.			1023	
				1036	
				1020	
				10	30
				10	
				10	
Class J-1					
18"	L.F.			122	122

360+00 to 370+00

FED. RD. DIVISION | STATE | PROJECT
2 | OHIO | G9 G38

GUERNSEY COUNTY GUE-40-17.31

SEE SHEET Nº 394 FOR RAMP "A"

RAMP "A" CURVE DATA
P.I. 16+50.01 P.I. 12+72.68
Δ=1°30'00" Δ= 11°24'12"
D_c=0°30' D_c=2°30'
R=11459.16' R=2291.83'
T=150.01' T=228.82'
L=300.00' L=456.14'

US 40 Curve Data
P.I. = 369+27.24
Δ = 17°38'43" Lt.
D = 0°30'
R = 11,459.16'
T = 1,778.61'
L = 3,528.06'
E = 137.21'

Ramp "A"

Const. Limits

Ft. Field Dr.

To be Abandoned

P.C. 10+43.86

N 59°40'25" E

Quantities 14 Carried on Sheet Nº 394

N 71°04'37" E

3 R.C.P. 30" N 12°30' W

MAMIE WEST

100'-6"

40'9"-6" M-G d(h)

505'-6"

511'-6"

507'-6"

510'-6"

513'-6"

710'-6", 20'-6" F-1

10'-6" F-1

+00 Inv. 856.82

+00 Begin M-G d(h) Inv. 858.97

+15 Inv. 858.88

94'-18" at 1.93%

+21 Inv. 859.28

200'-21" at 0.80% Class E-1

122'-24" at 0.88%

+23 Inv. 859.42

372+00 Begin I-3 Inv. 6" 859.08

+00 6"x6" Tee Inv. 858.78

100'-6" @ 0.3%

+02 Begin I-3 Inv. 858.46

End I-3+00.16 Rt. Inv. 858.54

90'-6" 10'-6" F-1

62'-12" @ 0.5%

95'-6"

+00 End I-3 0.5 Deep

G 4°22'56" E

15+00, 98' Lt.

+28, 6"60° Wye Inv. 857.96

125'-6", 10'-8" F-1

+00.5 355.7 Rt. 12" Inv. 857.90 Type E H.W.

+10.34 Rt. 8" Inv. 857.90

Match Line Sta 374+00

See Sht 394

Pipe Quan. carried with Sht 394

13+02.80 Rt. Inv. 36" 853.5 Type "C" H.W.

MAMIE WEST

14 N 80°32'19" E

15

16 Ramp "C" 17

18

19

20

SEE SHEET Nº 402 FOR RAMP "C"

Sec. 31 Sec. 25

TREE REMOVAL
370+00 to 380+00

SIZE	Nº TREES
12" to 18"	23
18" to 24"	3
24" to 30"	1
30" to 36"	2
36" to 42"	1

JOHN RAYMOND BROTHERS & JENNIE M. BROTHERS

RAMP "C" CURVE DATA
P.I. 9+09.14
Δ=6°16'05"
D_c=1°30'
R=3819.72'
T=209.14'
L=417.87'
E=5.72'

0.50%

CHANNEL RELOC.

LA

102'

200' R

Construction Limits

CHANNEL EASEMENT 1

200' R

B.M. 22.6 Elev. 858.81
M.S. in 12" Elm
28' Rt. Sta. 374+17

N

E.B. & W.B. PROFILE

E.B. PROFILE W.B. PROFILE

Excav.	16690 C.Y.
Emb.	19,742 C.Y.
Emb. +12%	22,111 C.Y.
Seeding	16,355 S.Y.

Emb. as per E-1.02 176 C.Y.

P.V.I. 378+00 800' V.C. E.B. Lanes Elev. 864.90

P.V.I. 380+00 800' V.C. W.B. Lanes Elev. 865.70

E.B. Lanes +1.76% W.B. Lanes +0.40%

+0.60%

+00 Begin M-G d(h) Inv. 858.97

M-G d(h) 2.75' below E.P.

6" Underdrains 45' below

222'-28" at 0.80%

132'-36" at 0.70%

45' below E.P.

200'-21" at 0.80%

6" Underdrain 45' below E.P.

45' below E.P.

+00 Inv. 856.82

+00.95' Rt. No. 5 C.B. (Mod) Grate 860.91 Inv. 24" 854.43 Inv. 36" 854.43 Inv. 6" 858.06

+00.95' Lt. No. 5 C.B. (Mod.) Grate 860.95 Inv. 18" 857.74 Inv. 6" 856.57

+00.1' Lt. No. 4 C.B. Grate 858.16 Inv. 18" 855.93 Inv. 24" 855.93 Inv. 6" 856.93

+00.3' Lt. No. 4 C.B. Grate 860.53 Inv. 21" 857.28 Inv. 6" 858.28

+00.79' Rt. No. 6 C.B. Grate 862.70 Inv. 12" 858.20 Inv. 6" 858.20

14+50.18 63' Lt. No. 6 C.B. Grate 861.32 Inv. 12" 857.25

ESTIMATED QUANTITIES

	SEE SHEET NO.	I-1	I-5		I-3			I-3			I-10	I-2	I-120		I-8 C.B.			I-8 C.B.			I-10			
		Class	Class		Class			Class FA																	
		E-1	60° Bend		6"x6" Tee			Yoke(h)																	
		24" L.F.	6" Ea.		6" Ea.			6" L.F.	8" L.F.		Jute Matting S.Y.	Masonry C.Y.	Jute Matting S.Y.		Nº 4 Ea.	Nº 5 Ea.	Nº 6 Ea.	Nº 4 Ea.	Nº 5 Ea.	Nº 6 Ea.	Dumped Rock Channel Protection C.Y.			
1-D	230			11																					
2-D	230,233																								
3-D				29																					
4-D				833																					
5-D				542																					

SEE SHEET NO. 394 FOR RAMP "A"

SR. 513 TAN N 2° 30' 05" E

N-59°40'25"-E 6

RAMP "A" 5

MAMIE WEST

18+50.51 Ramp "B" 49+41.00 SR 513 Reloc.

4+55.54 Ramp "A" = 49+38.00, SR 513 Reloc.

Begin Approach Slab Sta. 48+45.37

Abandon

P.K. in 16" Maple

P.K. in 18" Beech

P.K. in Post

Ditch

P.I.

P.T. 386+77.69

+67 Beg. G.R.

1007'-6"

946'-6"

800'-6"

Sta 46+97.58 - SR 513 Sta 382+09.80 - U540

N 64° 22' 56" E

Existing 14'x 5.8' Wood & Stone Bridge

+57 Begin G.R.

End Approach Slab Sta. 45+47.55

SR. 513 TAN N 76° 56' 04" W

Ex. Pvt. Dr.

Abandon

RAMP "C"

JOHN RAYMOND BROTHERS & JENNIE M. BROTHERS

EMMA GEORGE & MARGARET BALES

WILLIAM E. & ALICE GEORGE

RAMP "B" CURVE DATA
P.I. 8+14.78
Δ = 9°25'20"
D_c = 1°30'
R = 3819.72'
T = 314.78
L = 628.15'
E = 12.95'

RAMP "D" CURVE DATA
P.I. 9+25.92
Δ = 13°46'14"
D_c = 2°30'
R = 2291.83'
T = 276.74'
L = 550.82'
E = 16.65'

P.T. 11+20.15

P.C. 6+49.18

Ex. 10'x6' Box Culvert

Ex. Inv. 867.08

Ex. R/W 7

Ex. U.S. 40

Const. Limits

Removal with T.R. 35

871.27

870.98

48" Conc. Pipe

Conc. Bank

869.52

871.96

Pvt Removal with T.R. 35 Reloc.

2-R 13+00 Lt. "B" Removal of portion of structure S-22 Lump See Sht. "549"

3-R 10+50, Lt "B", Removal of existing structure S-24 Lump. See sht. "549"

SEE SHEET NO. 395 for RAMP "B"

SEE SHEET NO. 395 for RAMP "D"

SEE SHEET NO. 396 for SR. 513 RELOC.

1-D

1-G

2-G

2-D

1-R 381+90 Rt. Removal of Exist. Structure S-24 Lump

3-D

4-D

+00 Begin M-G.4(h) Inv. 879.75

20'-6" F-1

160'-6" M-G.4(h)

180'-6" M-G.4(h)

+00 Inv. 876.13

+00 Inv. 876.24

+00 Begin M-G.4(h) Inv. 879.75

+84 Inv. 883.26

+00 Begin M-G.4(h) Inv. 879.75

+00 Inv. 879.43

+00 Inv. 876.24

+50.6 "90° Bend Inv. 877.99

+50.76 Lt. 6" 90° bend

+50.6 "90° Bend Inv. 877.92

6" @ 1.44%

+70 Inv. 880.02

50'-6" M6.4(h) 10'-6" F-1

65'-6" M6.4(h) 10'-6" F-1

See Sht. "549" for Pipe Tap

Fr.

Shed

389+30

10+00 Match Line For Quantities

10+00 Match Line For Quantities

N 49° 25' 05" E

N 65° 11' 18" E

T. M 18"

50'R

See Culvert Sht. No. 540

B.M. 227 Elev. 884.95
M.S. in Power pole
262' Lt. Sta. 380+63

B.M. 228-D (U.S.C. & G.S. M-64) Brass Disc on NW Wingwall of Bridge on U.S. 40 at S.R. 513 South. 226' Lt. Sta. 389+72
Elevation 876.71 (These Plans) = 876.81 (GUE-40-23.88, BEL-40-0.00)

B.M. 228 Elev. 870.70
M.S. in 24" dead tree
139' Lt. Sta. 386+78

TREE REMOVAL
380+00 to 390+00

Size	No. TREES
12"-18"	43
18"-24"	14
30"-36"	1

UTILITIES
Guernsey-Muskingum Electric Coop. Inc.

E.B. PROFILE W.B. PROFILE

P.V.I. 392+25 800' V.C. Elev. 889.98

P.V.I. 378+00 800' V.C. Elev. 864.90

P.V.I. 380+00 800' V.C. W.B. Lanes Elev. 865.70

+1.76% E.B. Lanes 2

+1.76% W.B. Lanes 2

6" Underdrain 4.5' below E.P.

6" Underdrain 4.5' below E.P.

6" Underdrains 4.5' below E.P.

6" Underdrain 2.75' below E.P.

2.75' below E.P.

Ex. Ground

20'-15" @ 21.45%

Inv. 872.30

Prop 15'-6" x 9'-5"

PROPOSED STRUCTURE No. GUE 40-2326

TYPE: Continuous steel beam with reinforced concrete deck and substructure.
SPANS: 60'-0" 86'-9", 86'-9" 60'-0" % bearings along ℄ S.R. 513
ROADWAY: 28'-0" f/f 2'-3" safety curbs with concrete parapets and aluminum railings.
LOADING: CF 130 (1957)
WEARING SURFACE: 3/4" monolithic concrete.
SKEW: 19° 32' 00" Lt. Forward from Reference chord
ALIGNMENT: 4° 45' Curve Rt.
APPROACH SLAB: 25'-0" long
SUPERELEVATION: 0.06 ft. per ft.

Excavation	12,062	CY
Embankment	45,513	CY
Embarkment + 12%	50,974	CY
Seeding	19,794	SY

Emb. as per E-1.02 182 C.Y.

STRUCTURE NO. GUE-40-2340
Station 389+30
Proposed 15'-6" x 9'-5" Pipe Arch
See Sheet No 549

EXIST. STRUCTURE GU. 40-231
Type: Concrete Slab Bridge
Clear Span: 28'-0"
Width: 44'-6"
Skew: 30° L.F.

STATE OHIO | FAP NO. | SHEET NO. 2 | TOTAL SHEETS 70 | 638

GUERNSEY COUNTY GUE-40-17.37

MICROFILMED JUL 25 1985

ESTIMATED QUANTITIES

| ITEM | SIDE | STATION TO STATION | UNITS | | SEE SHEET NO. | | |

GUERNSEY COUNTY GUE-40-17.37

Hub 28.18' | Conc. Paved Ditch | I.P. | 29.59' | Hub | 28.59' | Hub

See Twp. Rd. #35 Sheet No 623 for Removal up to Sta. 390+00

Picked up with T.R. 35

390+00-400+00 Lt. Removal of Ex. Pav't. E-8 2951 S.Y. Removal of Ex. 24" C.M.P. E-12 94' L.F.

2-R Removal of ex. Paved Gutter

Ex. 24"

Ex. P.G.

Begin 6.0% 8.00

Ex. U.S. 40

RAMP "B" CURVE DATA
P.I. 8+14.78
Δ = 9°25'20"
D_c = 1° 30'
R = 3819.72'
T = 314.784'
L = 628.15'
E = 12.95

395+00, 78' Lt. = P.C. 5+00 Ramp "B"

Construction Limits

DOROTHY D. FANTA & LAWRENCE H. HADLEY

Sec. 26 Sec. 25

CHANNEL RELOC.

LA Ex. R/W

R/W

15'

Billboard

P.O.T. 392+80.36
20'-6" @ 1.44%

RAMP "B"

Ex. Gutter to be removed under E-1

N 73°10'16" E 8

N 64°22'56" E

1010'-6"

6

7

Scarify Pav't. 50' Lt. to 108' Lt. Cost to be included under E-1

392+20 End E-3
Inv. 879.00

PI = 392+00, 42' Lt.

1000'-6" M-G.4(h)

Ex. Paved Gutter to be Removed under E-1

UTILITIES
HOME TELEPHONE CO

390 391 392 393 394 395 396 397 398 399 400

1-A 1-D 3-B 100' R

N 64°22'56" E 395±

℄ Survey & Construction

TEMP. Road "O" SEE SHEET 244 FOR TEMP. PROFILE. TEMP. CULVERT REQ'D.

LA Ex. R/W 7

PI = 394+00, 42' Rt.

498'-6" M 64 (h)

498

Ramp Match Line See Sheet No. 395

N 63° 11' 19" E 11

13 RAMP "D" 14

1000'-6" M 64 (h)

10

Mon. (Fnd.)

LA - Ex. R/W

TREE REMOVAL 390+00 to 400+00

SIZE	NO. TREES
18" To 24"	3

WILLIAM & ALICE GEORGE

HARLAN E. MARKEE & VIRGIE L. MARKEE

RAMP "D" CURVE DATA
P.I. 9+25.92
Δ = 13°46'14"
D_c = 2° 30'
R = 2291.83'
T = 276.74'
L = 550.82'
E = 16.65

15.00 Ramp "D" = 395+00 ABUT'M ℄

Ex. S.R. 513

Ex. R/W 1

Pt. 12+00 Ramp "D"

Construction Limits

Scarify Pavt. 190' Rt. to 218' Rt. Cost to be included under E-1

B.M. 228-A Elev. 945.891
M.S. in 48" White Oak
42.1' Rt. Sta. 36+71, S.R. 513 Reloc.

1-G

LEGEND
TEMP. Pavement

E.B. PROFILE W.B. PROFILE

P.V.I. 392+25 800' V.C.

P.V.I. 396+38 800' V.C.

E.B. Lanes

W.B. Lanes

Ex. Ground

Elev. 889.98

Elev. 894.53

Excav.	239,169 C.Y.
Embank.	3,930 C.Y.
Embank. +12%	4,402 C.Y.
Seeding	39,250 S.Y.
Emb. as per E-1.02	2,109 C.Y.

+3.50% E.B. Lanes 2

+1.76%

+3.50%

E.B. Lanes 2

2.75' below E.P.

6" Underdrains 2.75' below E.P.

6" Underdrains 2.75' below E.P. Taper "D"

6" Underdrain 2.75' below E.P.

6" Underdrain 4.5' below E.P. Ramp "B" Rt.

6" Underdrain 4.5' below E.P.

W.B. Lanes 2

+1.76%

+1.76% W.B. Lanes 2

+4.00%

6" Underdrain 4.5' below E.P. Taper Lt.

888.0 888.5 (+39) 888.2 (+15) 887.8 (+24) 886.5 (+33) 885.6 (+36) 887.3 (+53) 885.5 (+39) 888.0 (+40) 891.9 917.9 (+57) 915.2 920.5 (+31) 923.0 (+55) 923.2 (+64) 925.5 (+73) 924.7 (+90) 925.8 (+38) 923.2 (+38) 921.0 (+71) 918.0 916.5 (+20) 915.6 (+57) 912.9 (+71) 910.5 (+80) 909.5 909.1 (+31) 910.4 (+64) 912.5 913.6 914.1 910.6 (+58) 911.2 912.8 (+27) 914.4 (+16) 916.4 (+54) 917.4

390 391 392 393 394 395 396 397 398 399 400

915 910 905 900 895 890 885 875

ESTIMATED QUANTITIES

BER MK.	STATION TO STATION	SIDE		E-12 Removal of exist. pipe over 6"	E-8 Removal of exist. pav't. S.Y.	E-8 Removal of exist. Gutter L.F.	L-120 Jute Matting S.Y.	T-70 9" S.Y.	T-15 Strand L.F.	T-15 2-A L.F.	
	UNITS			L.F.	S.Y.	L.F.	S.Y.	S.Y.			
1-A	393+00							383			
1-D	390+85, 218' Rt.	Rt.	12.5								
2-G	8+00 to 10+00	2"	Rt. 1375								
1-D	390+00 to 391+15										102
1-R	390+00 to 400+00		Lt.								
2-R	390+00 to 391+30		Lt.								
3-R	393+00		Lt. Rt.								
	10+00 8" to 400+00		Lt.	94	2951	1000					
	390+00 to 390+20 Lt. (Mill)		Lt.		86	1000					
	390+00 to 400+00 Rt. (Mill)		Lt.			1000					
	390+00 to 400+00 Lt. (2R)		Rt.			498					
	390+00 to 394+98 Rt. (2R)		Rt.		383	1000					
	10+00 12" to 400+00 Rt. (2R)		Rt.	94	332	86	1030	3198	86	102	

E-1

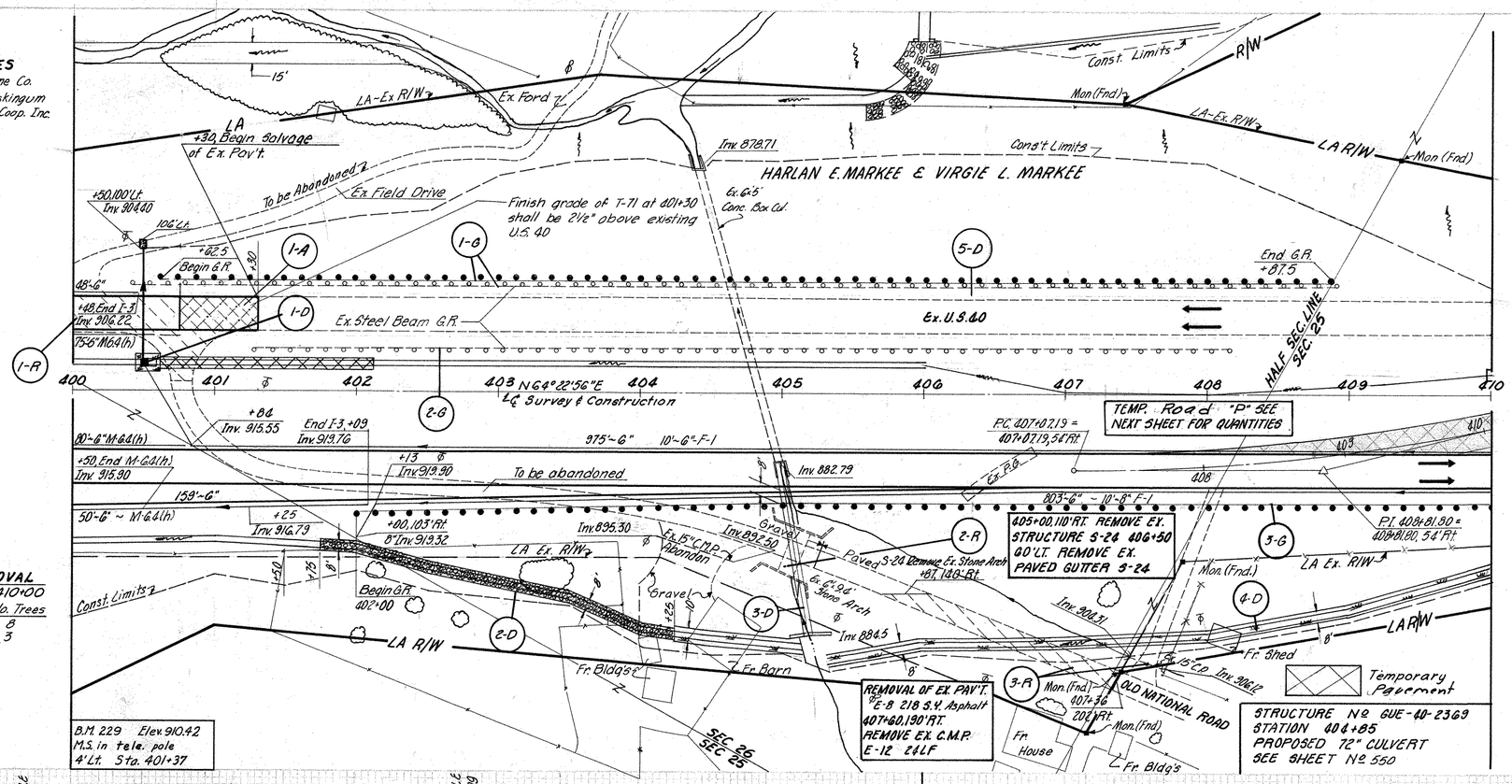
TOTALS PAGE 10 SUMMARY 150 383 102

390+00 to 400+00

FED. RD. DIVISION	STATE	PROJECT		72
2	OHIO			638

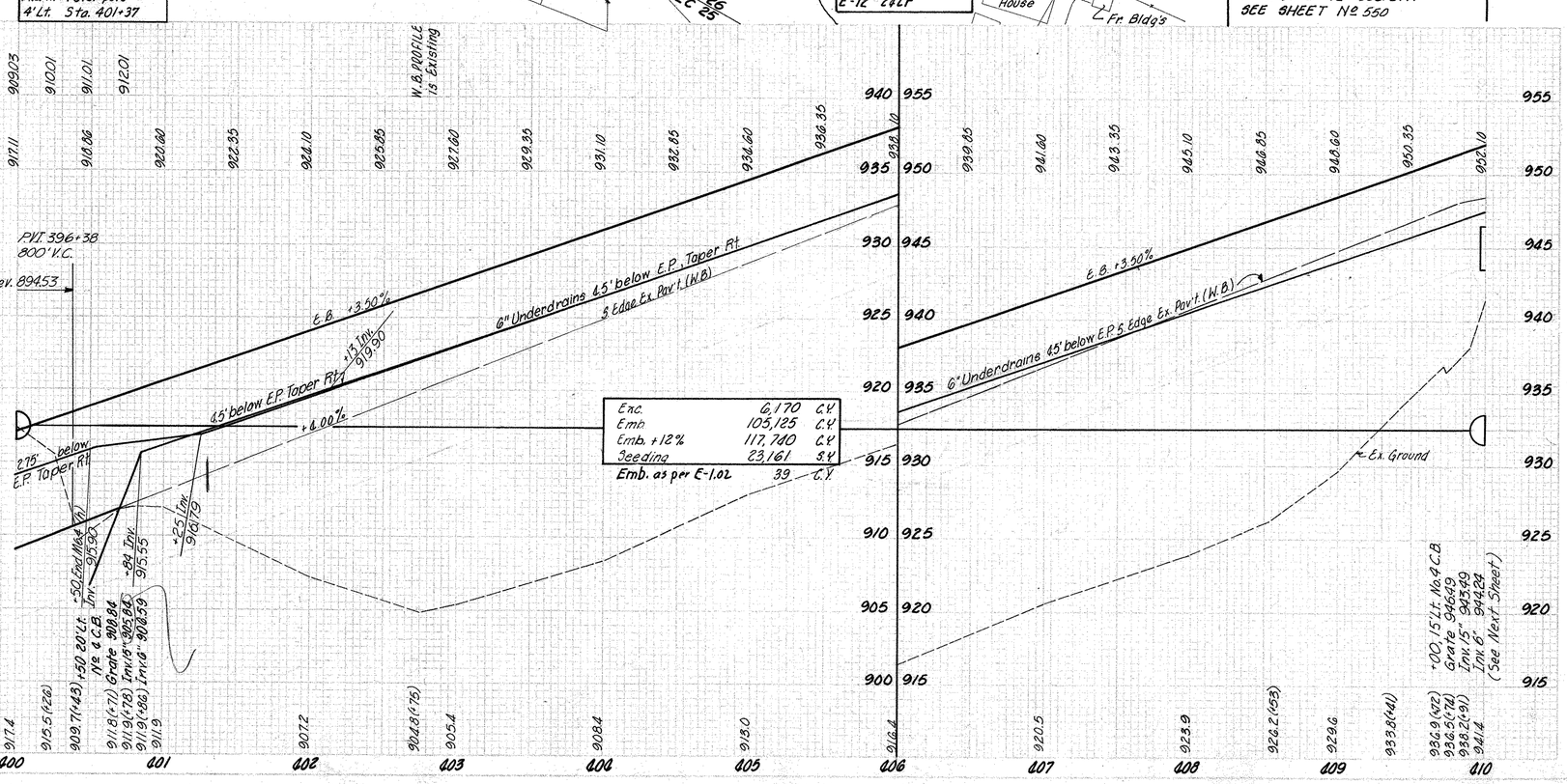
GUERNSEY COUNTY GUE-40-17.37

UTILITIES
Home Telephone Co.
Guernsey Muskingum Electric Coop. Inc.



TREE REMOVAL
400+00 to 410+00

Size	No. Trees
12"-18"	8
18"-24"	3



ESTIMATED QUANTITIES

ITEM NO.	SIDE	STATION TO STATION	I-1 Class J-1 15" L.F.	I-5 Class A-1 W.648/8-7 gage 72" L.F.	I-5 Stand. 2A L.F.	I-15 Removal & Rebuilt L.F.	I-15 R.C.B. No. 4 Ea.	S-22 Removal of portion of Existing Structure LUMP	E-8 Removal of Existing Pav't. S.Y.	E-12 Pipe Removal & Cover Under L.F.	L-120 Jute Matting S.Y.	T-71 9" S.Y.	I-5 Class F-4 W.648/6 6" L.F.	I-5 Class F-4 W.648/10 8" L.F.	I-5 5-24 Removal of Existing Bend & Closed 3-Structure LUMP	I-9 Stone Under drain N2 C.Y.	I-2 Masonry C.I. "C" C.Y.	I-10 Dumped Rock Channel Prot C.Y.	L-10 Sod S.Y.	SEE SHEET NO.
		UNITS																		
1-B		400+25 to 408+75																		
2-B		401+28 to 408+35																		
3-B		402+00 to 410+00																		
1-A		400+25 to 401+30																		
1-D		400+80, 20' Lt. to 108' Lt.																		
2-D		401+75 to 405+15																		
3-D		401+85 GUE-40-23.69																		
4-D		405+33 to 410+00																		
5-D		400+75 to 409+13 (W.B.)																		
1-A		400+00 to 401+30																		
2-A		405+00, 10' Rt. 404+50, 40' Rt.																		
3-A		405+87 to 407+36																		
		400+00 to 400+43 Lt. (W.B.)																		
		400+00 to 400+25 Rt. (W.B.)																		
		400+80 to 410+00 Lt. (E.B.)																		
		400+80 to 410+43 Rt. (E.B.)																		
		402+00 to 410+00 Rt. (E.B.)																		
		TO SUMMARY	80	122	825	850	1	Lump	483	24	133		487	975	1	120	22	422	550	649
						897.5			218				75	159			5.8	100		
					800							147	80	50			14.5	14.5		
														10				2		
														10						
			80	122	1625	1537.5	1	Lump	701	24	133	147	1005	1005	1	120	22.3	116	542	
													205	205						
													2	2						
													10	10						

FED. R.D. DIVISION 2 | STATE OHIO | PROJECT | 73 G38

GUERNSEY COUNTY GUE-40-17.37

UTILITIES
Guernsey-Muskingum Electric Coop. Inc.

P.O.T. 410+83.26
Ex. R/W 1
P.K. in Tacked Hub
P.K. in Power Pole 2069
P.K. in Tacked Hub
26.35'
20.22'
24.44'
I.P.
See Twp. Rd. 35 for Scarifying Note.
Ex. R/W 1
Ex. TR. 35
42'
Ex. Edge Pav't.
Along Extension of Longitudinal Joint of TWP. Rd. 35
END WORK AT 416+52.50 Ft. 958.73
P.O.T. 411+75.79
LA R/W
LA Ex. R/W 1
Twp. Rd. 35
Mon (Fnd)
411+75.67 Lt. Mon. Fnd
Remove Ex. Conc. Approach Pav't. E-8, 121 SY.
Ex. LA 1
1R
3D
1D
1A
1G
2D
2G
2-2
Const. Limits
P.I. 413+29.65
413+18.21, 54' Lt.
Ex. Field Dr. to be Closed
Proposed 30" Culvert to be built by others
P.T. 414+08.83 54' Lt.
24"
91' Lt. 966.35
Ex. 15"
Future Construction Limits
HARLAN E. MARKEE & VIRGIE L. MARKEE
Cumberland Milestone 164
Ex. U.S. 40
Dc. 4°
P.C. 411+55.04
Temp. Pipe
Prop. 4" P.
Temp. Crossover "P"
Dc. 4°00'
P.T. 410+54.63
29'-6"
N 64° 22' 56" E Back
N 62° 09' 06" E Ahead
4/7 N 62° 09' 06" E 4/8
℄ Survey & Construction
Ex. 6"x2" Hdwl.
Ex. DG
Inlet to be built by others
+10
250'-6" M6.4(h)
150'-6"
+50 Inv. 963.35
+00 End 6" Inv. 965.10
+00 Begin M6.4(h) Inv. 952.85
+50 End M6.4(h) Inv. 961.60
+50 Inv. 963.35
+00 End 6" Inv. 965.10
121'-6" 10'-8" F-1
104'-6" 10'-8" F-1
+33 948.16
40'-6"
+14 Inv. 947.47
+02, 90' Rt.
8" Inv. 947.02
+00, 101.5' Rt. Inv. 15" 941.00
10'
+00 Begin M6.4(h)
+02, 90' Rt.
Inv. 952.85
LA Ex. R/W 1
Mon. (Fn'd)
End G.R.
+75
+50 End M6.4(h)
Inv. 961.60
Mon. (Fn'd)
Begin G.R.
+25
+00 End 6" Inv. 965.10
LA Ex. R/W 1
80'
LA R/W
HARLAN E. MARKEE & VIRGIE L. MARKEE
415+00 END PROJECT
S.L.M. 23.88
I-70-7(10)187
1153' Rt. Inv. 932.60
Future Const. Limits
LA R/W

NOTE:
Marker will be furnished and erected on the Left by State Forces prior to acceptance of this improvement.

NOTE:
For the proposed typical Section in the adjoining pavement, See typical Section "E".

TREE REMOVAL
410+00 to 420+00

Size	No. Trees
18"-24"	2

LEGEND
Temp. Pavement

B.M. 230 Elev. 970.74
P.K. nail in top of G.R. Post
32' Lt. Sta. 415+00

415+00 PROFILE GRADE EQUATION
E.B. 969.60 Back = 969.71 Ahead
W.B. 968.76 Back = 968.86 Ahead

E.B. PROFILE
100.15' Lt. 110.4 CB.
Grade 946.49
Inv. 15" 943.49
Inv. 6" 944.24
6" Underdrain 4.5' Below E.P.
E.B. +3.50%
S. Edge Ex. Pav't. (W.B.)
6" Underdrains 2.75' below E.P.
+3.50%
S. Edge Pav't. (W.B.)
Profile E.B. N. Edge
Ex. Ground
F.L. Lt. Ex. 966.28
F.L. Rt. Ex. 968.85
955' Lt. Inv. 948.16

Excavation	28,232	C.Y.
Embankment	18,871	C.Y.
Embankment +12%	21,136	C.Y.
Seeding	14,223	S.Y.

Emb. as per E-1.02 8/7 C.Y.

Sta.	E.B. Profile	Ex. Ground
410	932.10	941.1 (104) 943.4 (104)
411	953.85	955.8 (157) 961.1 (180)
412	955.60	962.8
413	957.35	967.4
414	959.10	971.0
415	960.85	974.3
416	962.60	970.3 (138) 8/7 965.2 (182) 965.5
417	964.35	955.5 (137) 955.9
418	966.10	961.1
419	967.85	965.6
420	969.60	972 (155) 971.5 (160) 973.5 (166) 982.6 997.2

ESTIMATED QUANTITIES

SHEET NO.	ITEM	DESCRIPTION	UNIT	STATION TO STATION	SIDE	TOTALS TO SUMMARY
255	L-10	Sod	S.Y.			150 / 1374 / 1253
75						
14.5						
75						
	I-2	Masonry Dumpers Rock Chkn. Prof.	C.Y.			
0.28						
1.7	I-10	Dumpers	C.Y.			
2						
90						
	I-9	Stone Underdrain Wye Cl. "C"	L.F.			
75						
0.3						
2						
	I-5	Class I-3 Mitre 6'-80° Bend	Ea.			
		Class I-3	L.F.			
		8"	L.F.			
		6"	L.F.			
1						
250						
250						
		Class F-4	L.F.			
		8"	L.F.			
		6"	L.F.			
10						
10						
264						
300						
564						
300						
2						
10						
10						
	L-120	Jute Matting	S.Y.			135 / 117
135						
117						
		Class J-1				
		15"	L.F.			
	I-15	Stand.				
		2A	L.F.			
	E-8	Removal of Exist. Pav't.	S.Y.			
	I-70					
		9"	S.Y.			
	I-8	CB.				
		No. 4	Ea.			
				1-A 407+00 Rt. to 415+00 Lt.	Lt. & Rt.	1253
				1-G 410+00 to 410+75	Rt.	75
				2-G 414+25 to 415+00	Rt.	75
				1-D 410+00 to 411+60	Lt. & Rt.	1
				2-D 410+00 to 410+80	Rt.	
				3-D 408+75 to 415+00	Lt.	
				1-R 411+75.67 Lt.	Lt.	121
				2-R 407+00 Rt. to 415+00 Lt.	Lt. & Rt.	1253

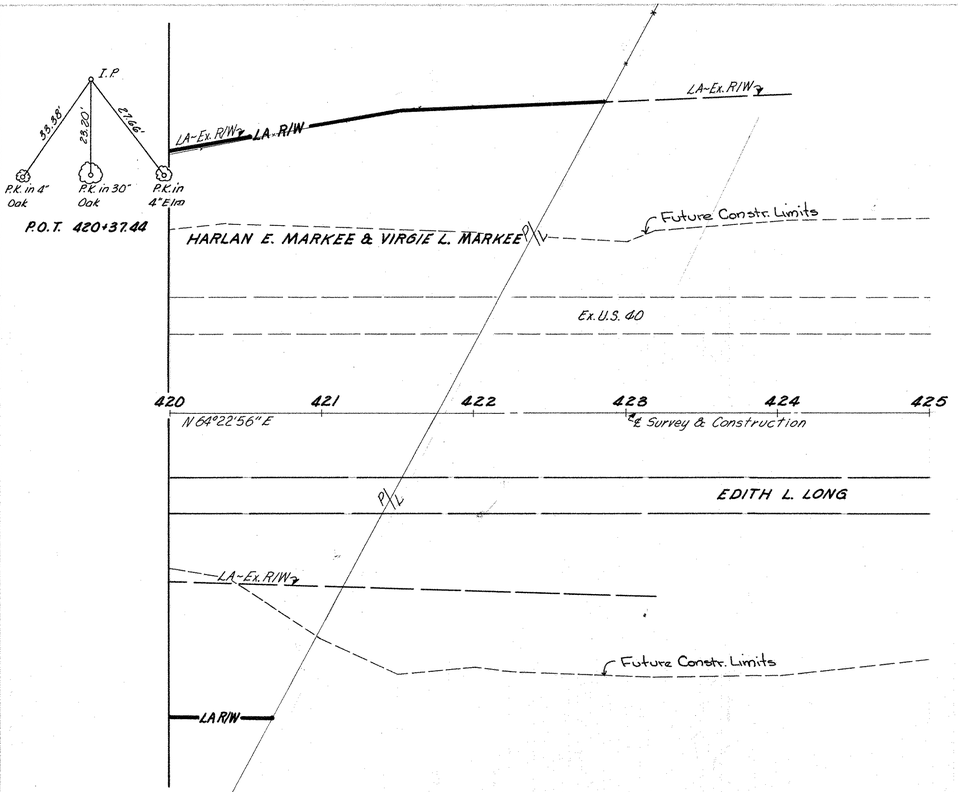
410+00 to 415+00 (EB) Lt.
410+00 to 415+00 (EB) Rt.

410+00 to 420+00

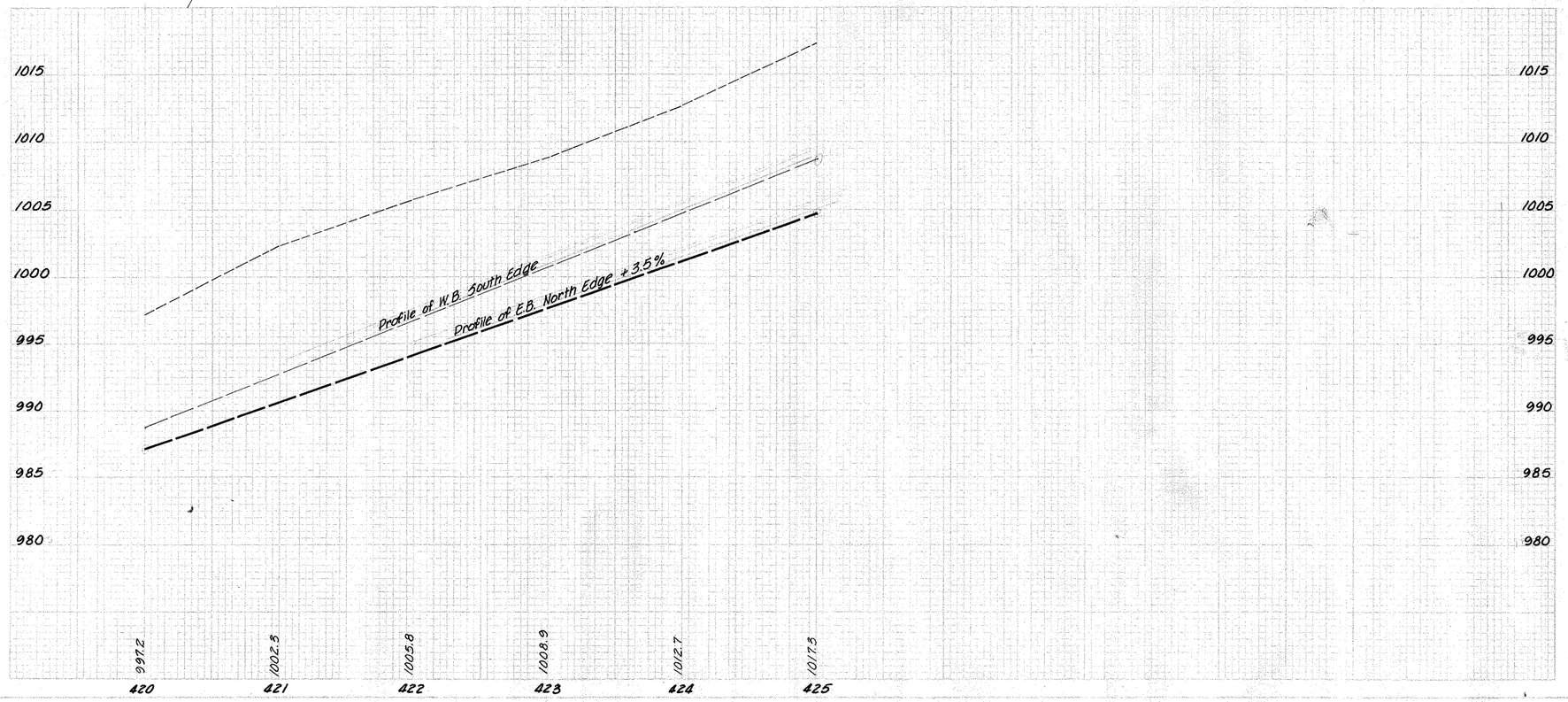
FED. HWY. DIVISION	STATE	PROJECT	
2	OHIO		

74
638

GUERNSEY COUNTY GUE-40-17.37



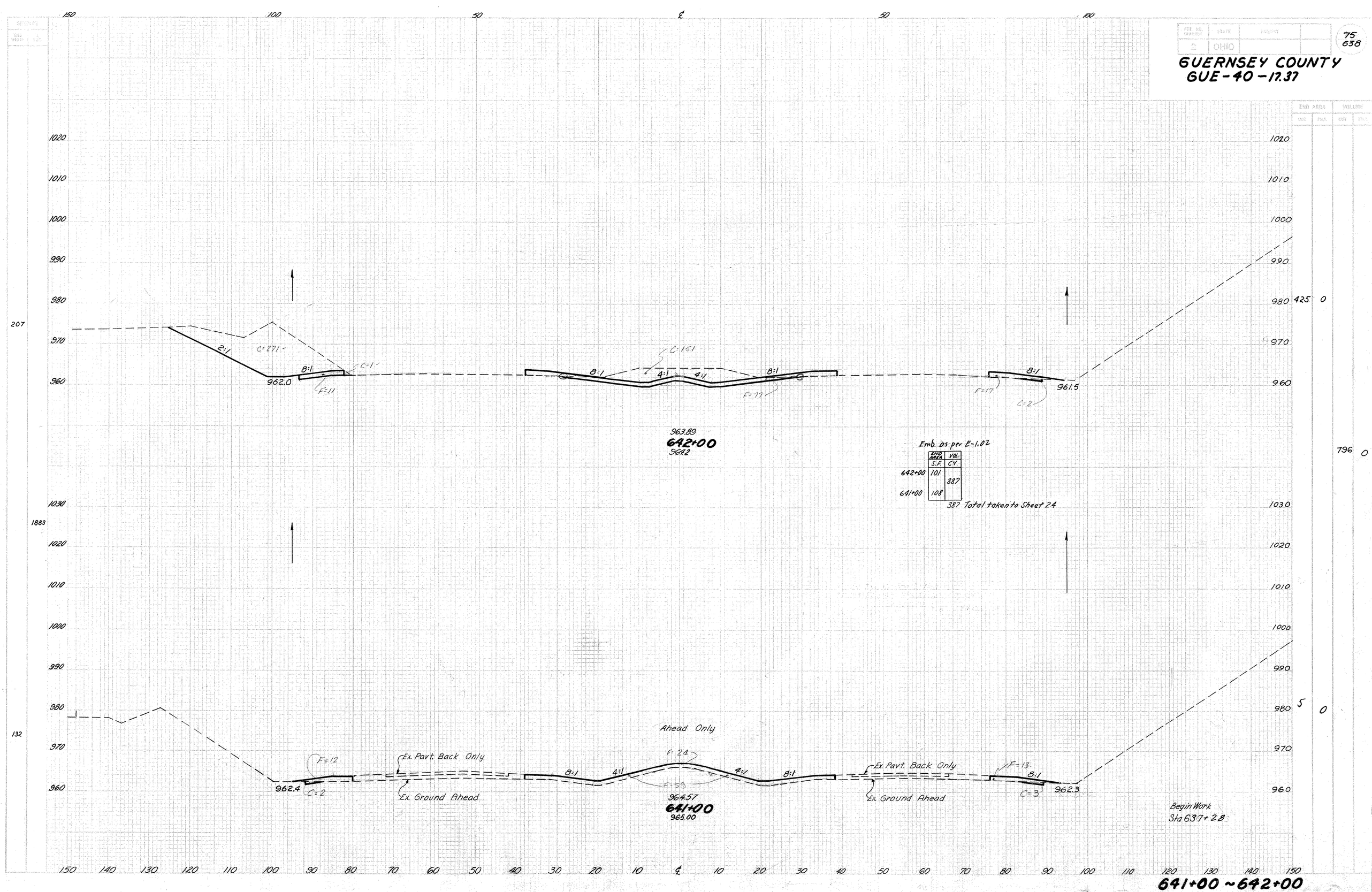




ESTIMATED QUANTITIES

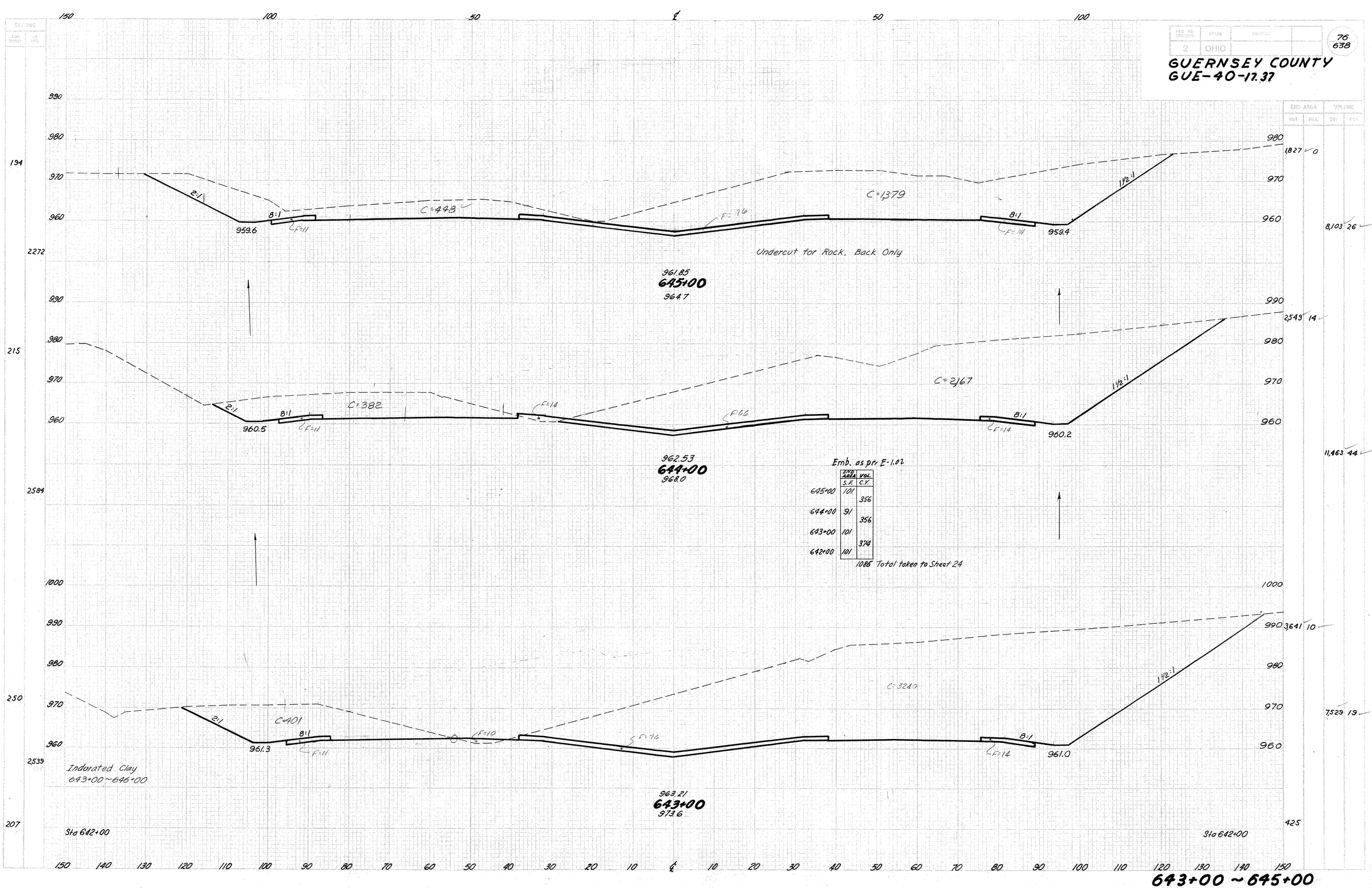
REF NO.	STATION TO STATION	SIDE	
			TOTALS

420+00 to 425+00



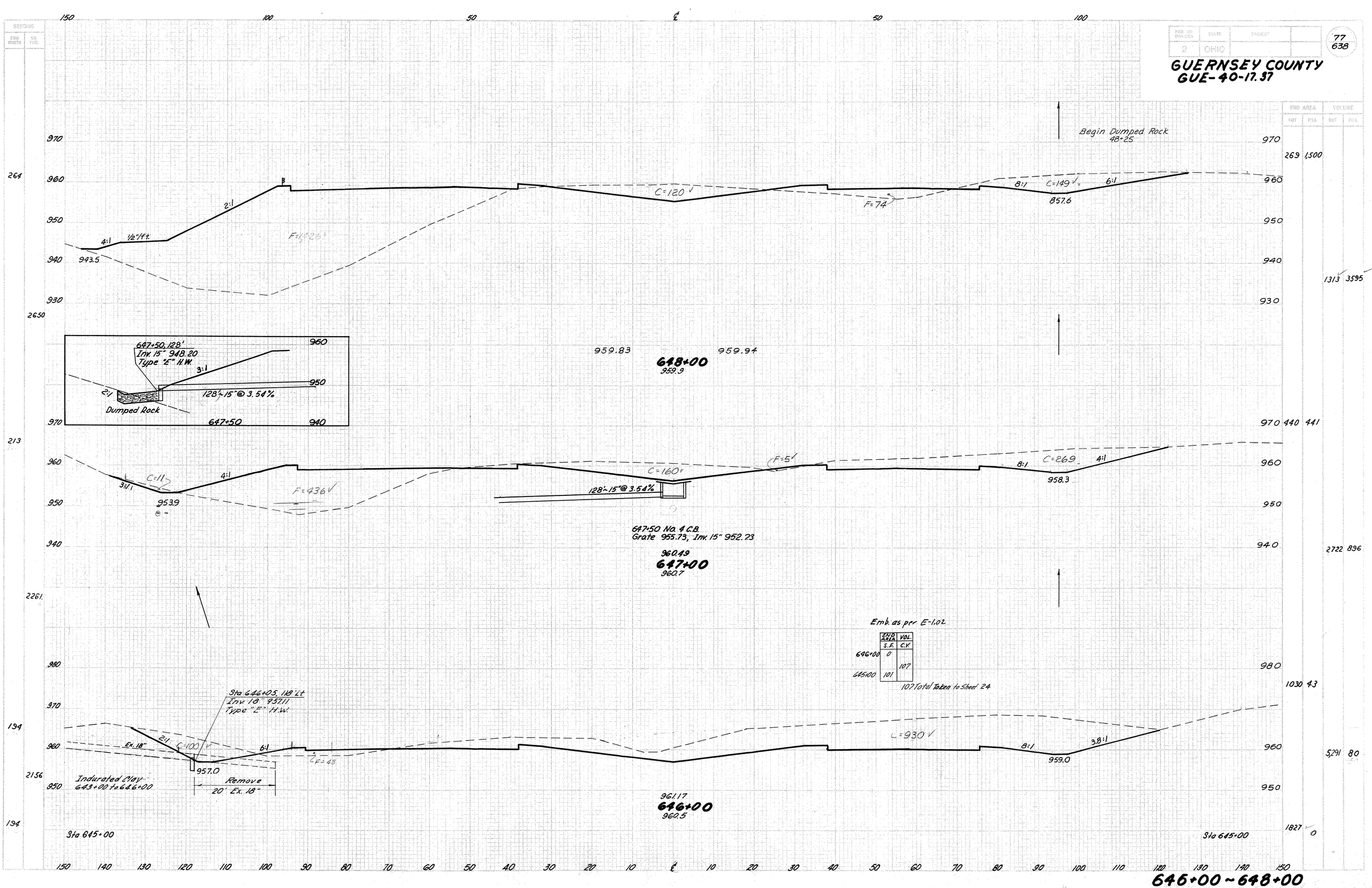
75
638
2
OHIO
GUERNSEY COUNTY
GUE-40-17.37
END AREA
VOLUME
CUT
FILL
207
1883
132
2:1
C=271
8:1
C=1
962.0
F=11
C=151
4:1
F=77
F=17
C=2
961.5
963.89
642+00
964.2
Emb. as per E-1.02
END AREA
VOL.
S.F.
CY.
642+00
101
387
641+00
108
387 Total taken to Sheet 24
425
0
796
0
5
0
F=12
C=2
962.4
Ex. Pavt. Back Only
Ex. Ground Ahead
Ahead Only
F=24
F=59
964.57
641+00
965.00
F=13
C=3
962.3
Begin Work
Sta 637+28

641+00 ~ 642+00



2 OHIO
76
638
GUERNSEY COUNTY
GUE-40-17.37
END AREA
VOLUME
CUT
FILL
C=448
C=1,379
2:1
8:1
F=11
F=76
F=14
959.6
959.4
1½:1
Undercut for Rock, Back Only
961.85
645+00
964.7
C=382
C=2,167
960.5
960.2
962.53
644+00
968.0
Emb. as per E-1.02
645+00 101 356
644+00 91 356
643+00 101 374
642+00 101
1086 Total taken to Sheet 24
C=401
C=3240
F=10
961.3
961.0
Indurated Clay
643+00~646+00
963.21
643+00
973.6
Sta 642+00
1,827 0
8,103 26
2,549 14
11,463 44
3,641 10
7,529 19

643+00 ~ 645+00



GUERNSEY COUNTY
GUE-40-17.37
77
638
Begin Dumped Rock
48+25
C=120
F=74
C=149
857.6
943.5
1/2"/ft.
4:1
2:1
8:1
6:1
647+50, 128'
Inv. 15" 948.20
Type "E" H.W.
128'~15" @ 3.54%
Dumped Rock
647+50
959.83
959.94
648+00
959.9
C=11
953.9
F=436
C=160
F=5
C=269
958.3
647+50 No. 4 C.B.
Grate 955.73, Inv. 15" 952.73
960.49
647+00
960.7
Emb. as per E-1.02
107 Total Taken to Sheet 24
Sta 646+05, 118' Lt.
Inv. 18" 957.11
Type "E" H.W.
Ex. 18"
C=100
957.0
F=43
C=930
959.0
Indurated Clay
643+00 to 646+00
Remove
20' Ex. 18"
961.17
646+00
960.5
Sta 645+00

646+00 ~ 648+00

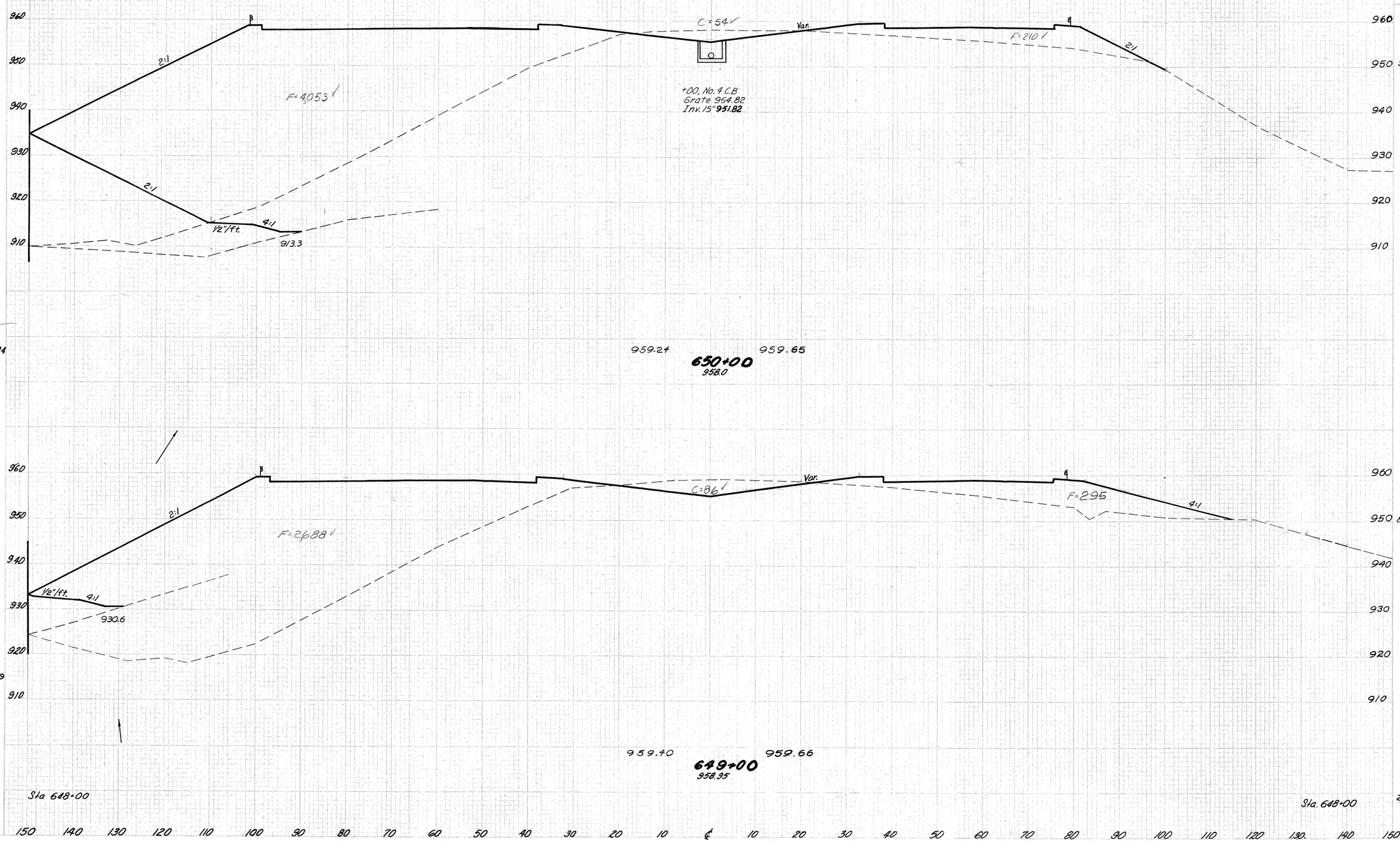
FED. ROAD DIV. REGION	STATE	PROJECT	
2	OHIO		

78
638

GUERNSEY COUNTY
GUE-40-17.37

SEEDING

END AREA		VOLUME	
CUT	FILL	CUT	FILL



3/9

54 4263

259 13413

3444

301

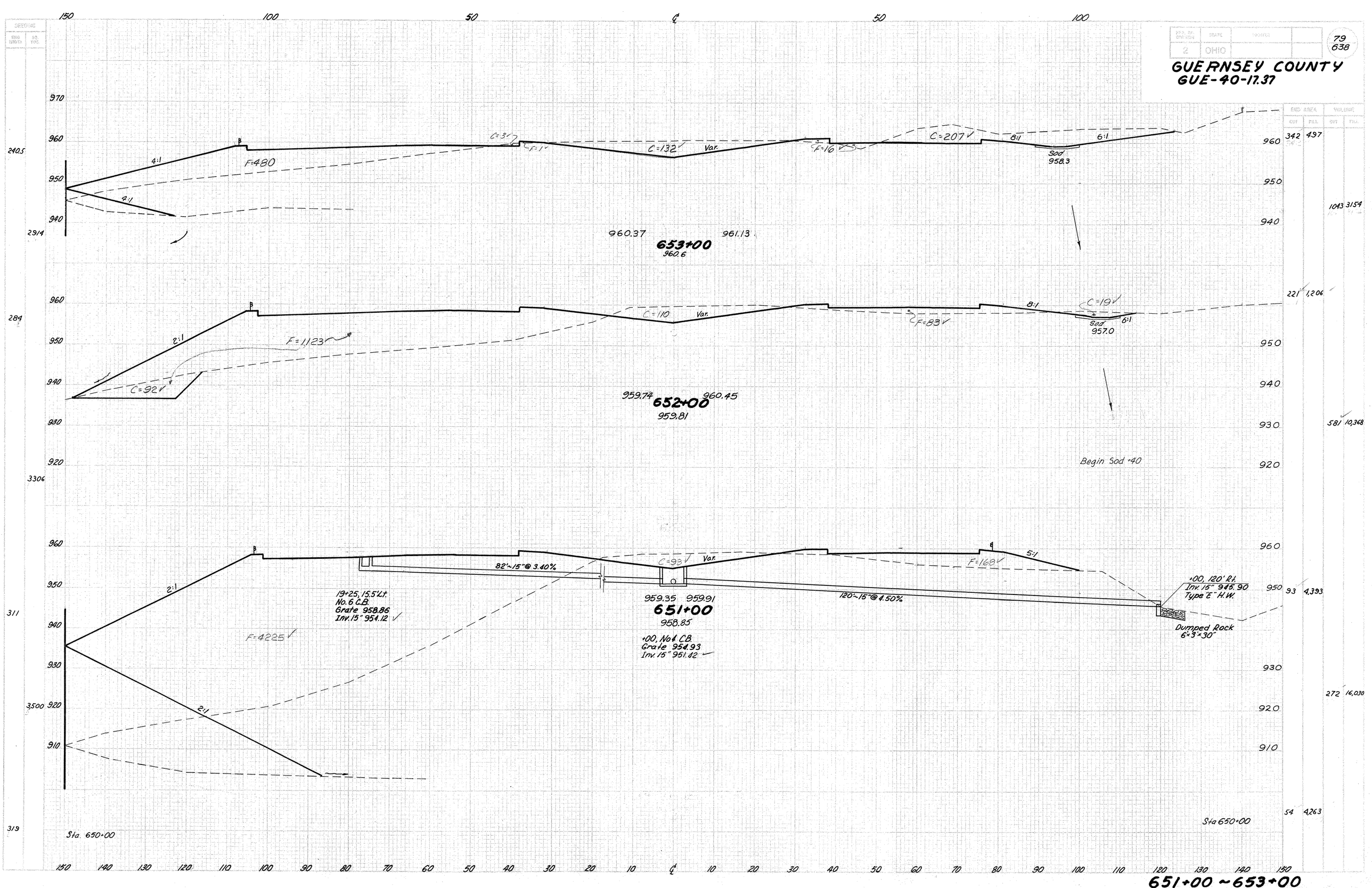
86 2983

3139

657 8301

264

269 1,500



2
OHIO
79
638
GUERNSEY COUNTY
GUE-40-17.37
END AREA
VOLUME
CUT
FILL
653+00
960.37
961.13
960.6
F=480
C=132
Var.
C=207
Sod
958.3
652+00
959.74
960.45
959.81
C=110
F=1,123
C=92
F=83
C=19
Sod
957.0
Begin Sod +40
651+00
959.35
959.91
958.85
82'~15"@ 3.40%
120'~15"@ 4.50%
19+25, 15.5'Lt.
No. 6 C.B.
Grate 958.86
Inv. 15" 954.12
+00, No 4 C.B.
Grate 954.93
Inv. 15" 951.42
+00, 120' Rt.
Inv. 15" 945.90
Type "E" H.W.
Dumped Rock
6"x3"x30"
F=4225
F=168
Sta. 650+00
Sta 650+00

651+00 ~ 653+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

80
638

GUERNSEY COUNTY
GUE-40-17.37

SEEDING

END WIDTH	SQ. YDS.
199	
2081	
1755	
1981	
181	
220	
2508	
2315	
2622	
2405	

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
657+00	13		24	
656+00	0		26	
655+00	19		141	
654+00	62		115	
653+00	0			

306 Total taken to Sheet 24

Emb. as per E-1.02

Indurated Clay
654+00 ~ 93+00

End median undercut with 0 area at 655+00

654+00 ~ 657+00

FED. AID DIVISION	STATE	PROJECT	
2	OHIO		

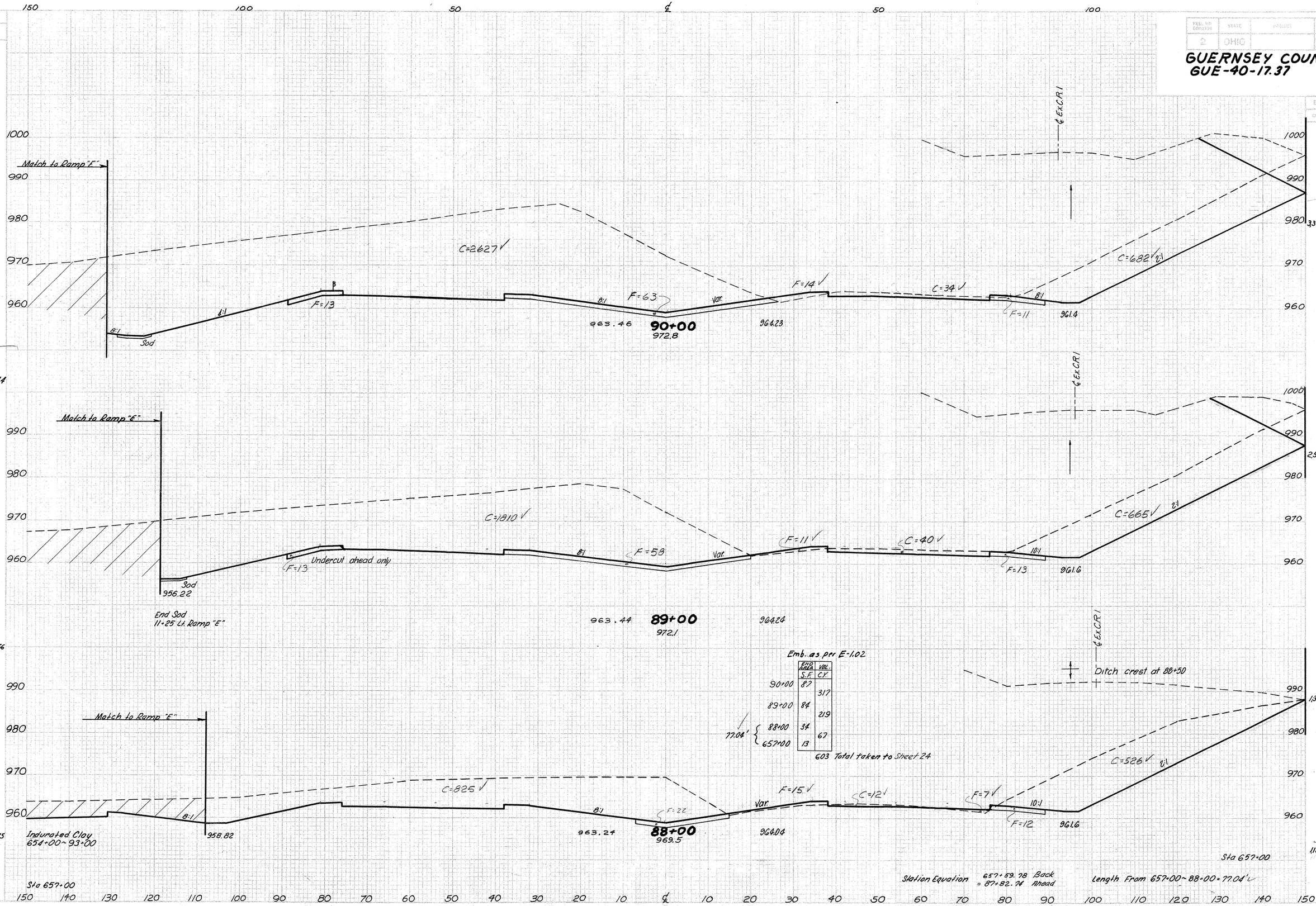
81
638

GUERNSEY COUNTY
GUE-40-17.37

SEEDING

END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



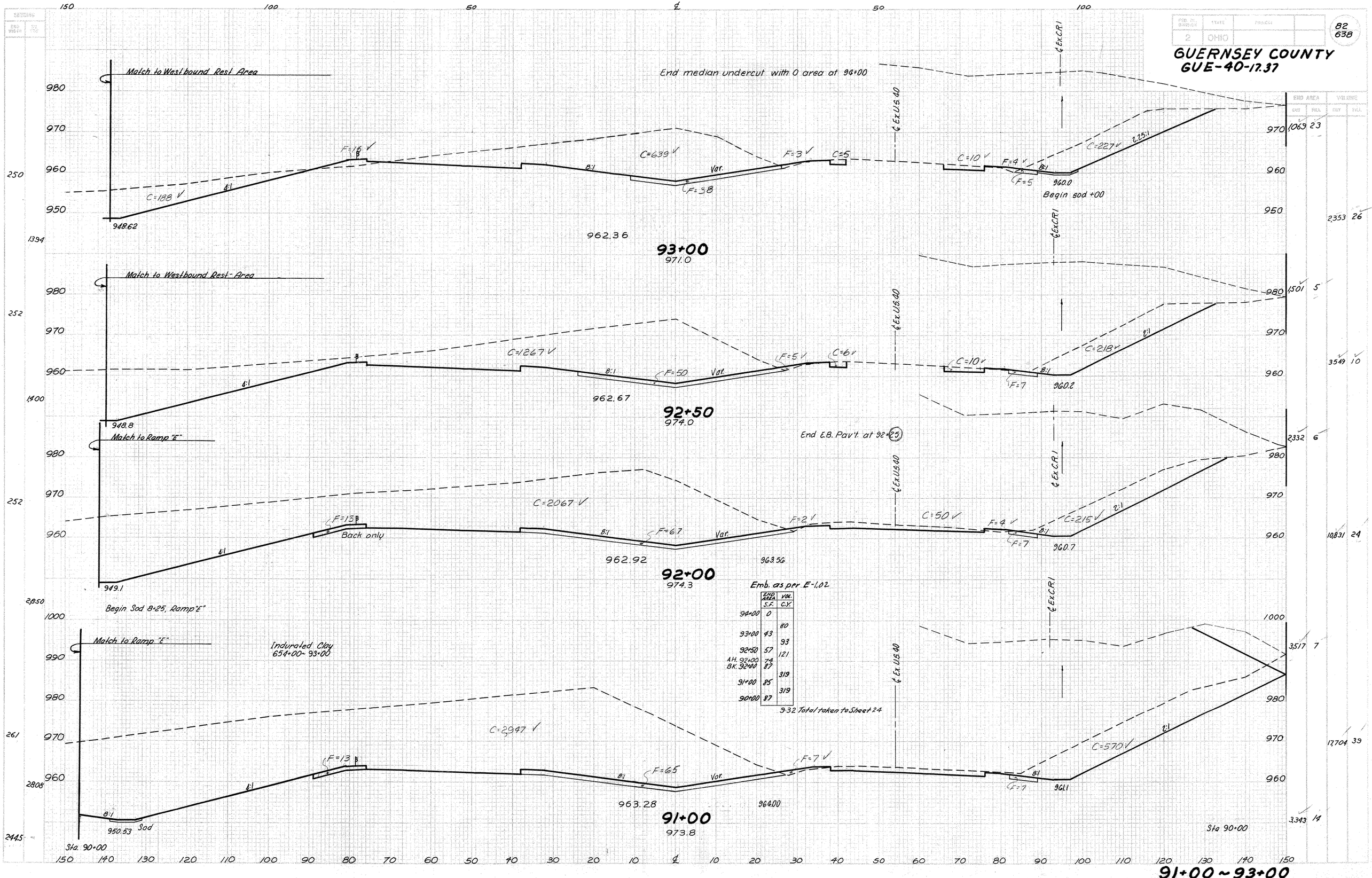
Emb. as per E-1.02

	END AREA S.F.	VOL. C.Y.
90+00	87	317
89+00	84	219
88+00	34	67
657+00	13	

77.04' {

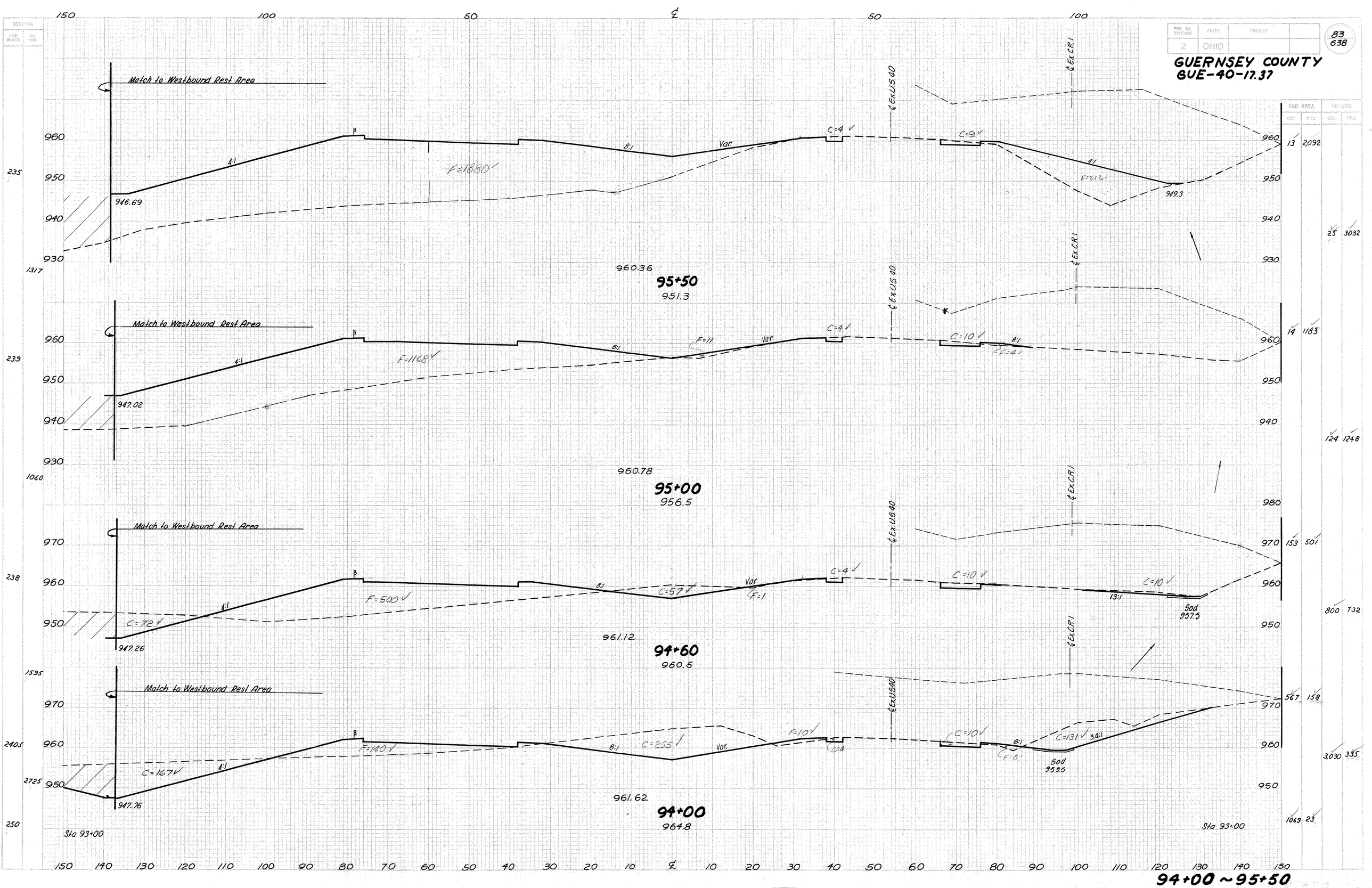
603 Total taken to Sheet 24

88+00 ~ 90+00



2 OHIO
82
638
GUERNSEY COUNTY
GUE-40-17.37
Match to Westbound Rest Area
End median undercut with 0 area at 94+00
C=188
F=16
C=639
F=38
F=3
C=5
C=10
F=4
F=5
C=227
Begin sod +00
948.62
962.36
93+00
971.0
Match to Westbound Rest-Area
C=1267
F=50
F=5
C=6
C=10
F=7
C=218
948.8
962.67
92+50
974.0
Match to Ramp "E"
End E.B. Pav't. at 92+25
C=2067
F=13
Back only
F=67
F=2
C=50
F=4
F=7
C=215
949.1
962.92
963.56
92+00
974.3
Begin Sod 8+25, Ramp "E"
Emb. as per E-1.02
END AREA S.F. VOL. C.Y.
94+00 0
80
93+00 43
93
92+50 57
121
AH. 92+00 74
BK. 92+00 87
319
91+00 85
319
90+00 87
9:32 Total taken to Sheet 24
Match to Ramp "E"
Indurated Clay
654+00~93+00
C=2947
F=13
F=65
F=7
C=570
963.28
964.00
91+00
973.8
950.53
Sod
Sta. 90+00
Sta 90+00
END AREA CUT FILL
VOLUME CUT FILL
1,069 23
2,353 26
1,501 5
3,549 10
2,332 6
10,831 24
3,517 7
17,704 39
3,343 14

91+00 ~ 93+00



FED. RD. DIVISION 2
STATE OHIO
PROJECT
83
638
GUERNSEY COUNTY
GUE-40-17.37
END AREA
VOLUME
CUT
FILL
Match to Westbound Rest Area
℄ Ex. U.S. 40
℄ Ex. C.R. 1
F=1880
946.69
949.3
960.36
95+50
951.3
F=1168
947.02
960.78
95+00
956.5
F=500
947.26
961.12
94+60
960.5
F=140
947.76
961.62
94+00
964.8
Sta 93+00
13 2,092
25 3032
14 1183
124 1248
153 501
800 732
567 158
3,030 335
1069 23
94+00 ~ 95+50

SEEDING	
SEED WIDTH	SQ. YDS.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

84
638

GUERNSEY COUNTY
GUE-40-17.37

END AREA		VOLUME	
CUT	FILL	CUT	FILL

150 100 50 ℄ 50 100

Match to Ramp "F"

Begin Sod 22+75 Ramp "F"

960 950 940 930 920 910 900

4:1

B

8:1

Var.

C=4

℄ Ex. US 40

C=10

F=49

5:1

Sod

945.42

850.9

F=5430

959.10

97+00

945.8

Catch Basin 96+72.5
Elev. 944.30

End Sod 22+25 Ramp "F"

Match to Westbound Rest Area

4:1

B

8:1

Var.

C=4

℄ Ex. US 40

C=10

4:1

F=47

Sod

946.36

850.5

F=2622

959.94

96+00

948.8

Sta. 95+50

Sta. 95+50

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

96+00 ~ 97+00

229	2569	14	5,539
		52	15,200
233.5	1,301	14	2,669
		25	4,908
235		13	2032

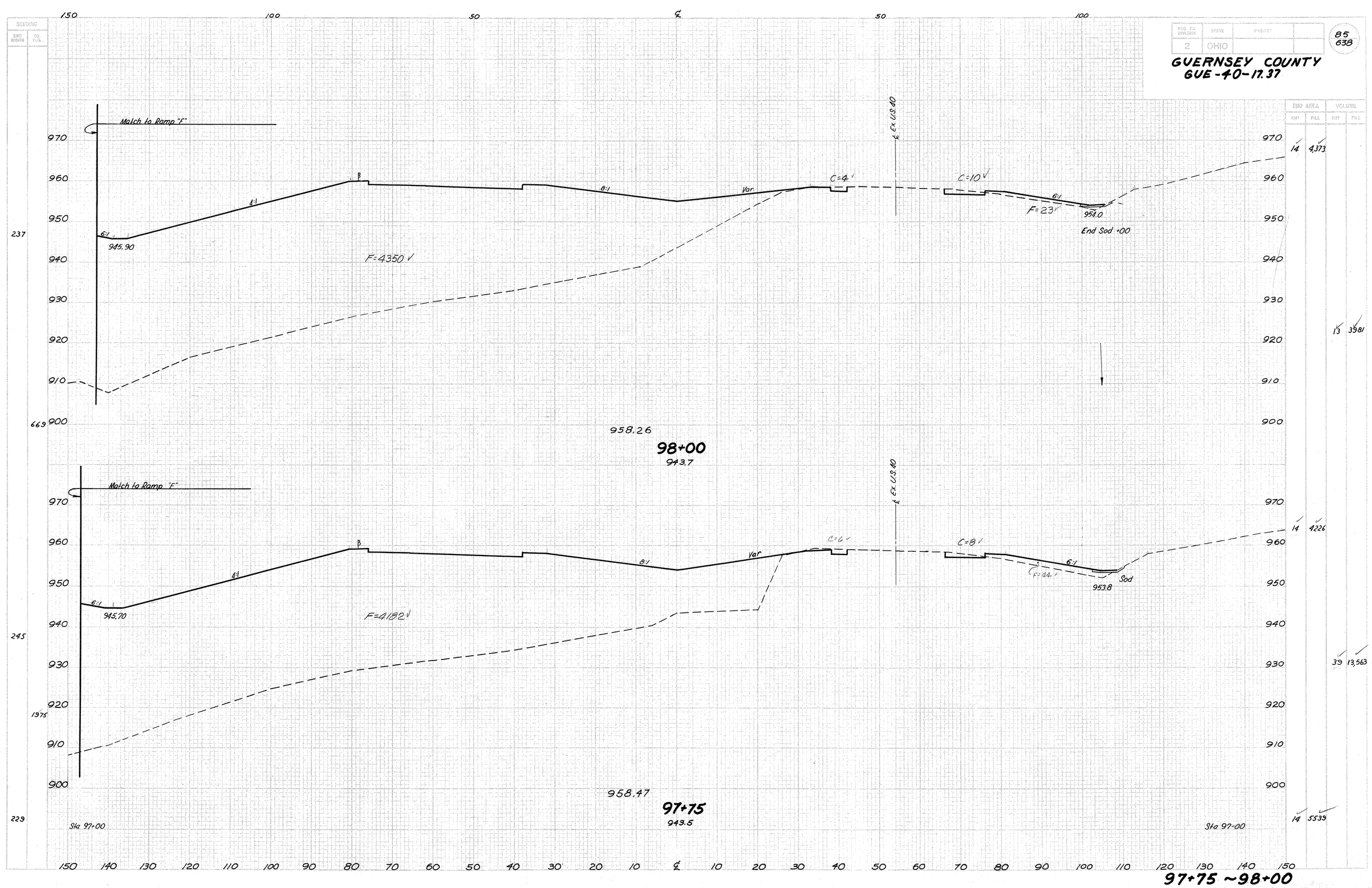
SEEDING	
END WIDTH	SQ. YDS.
237	
669	
245	
1975	
229	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
	14		4,373
		13	3981
	39		13,563
	14		4226
	14		5539

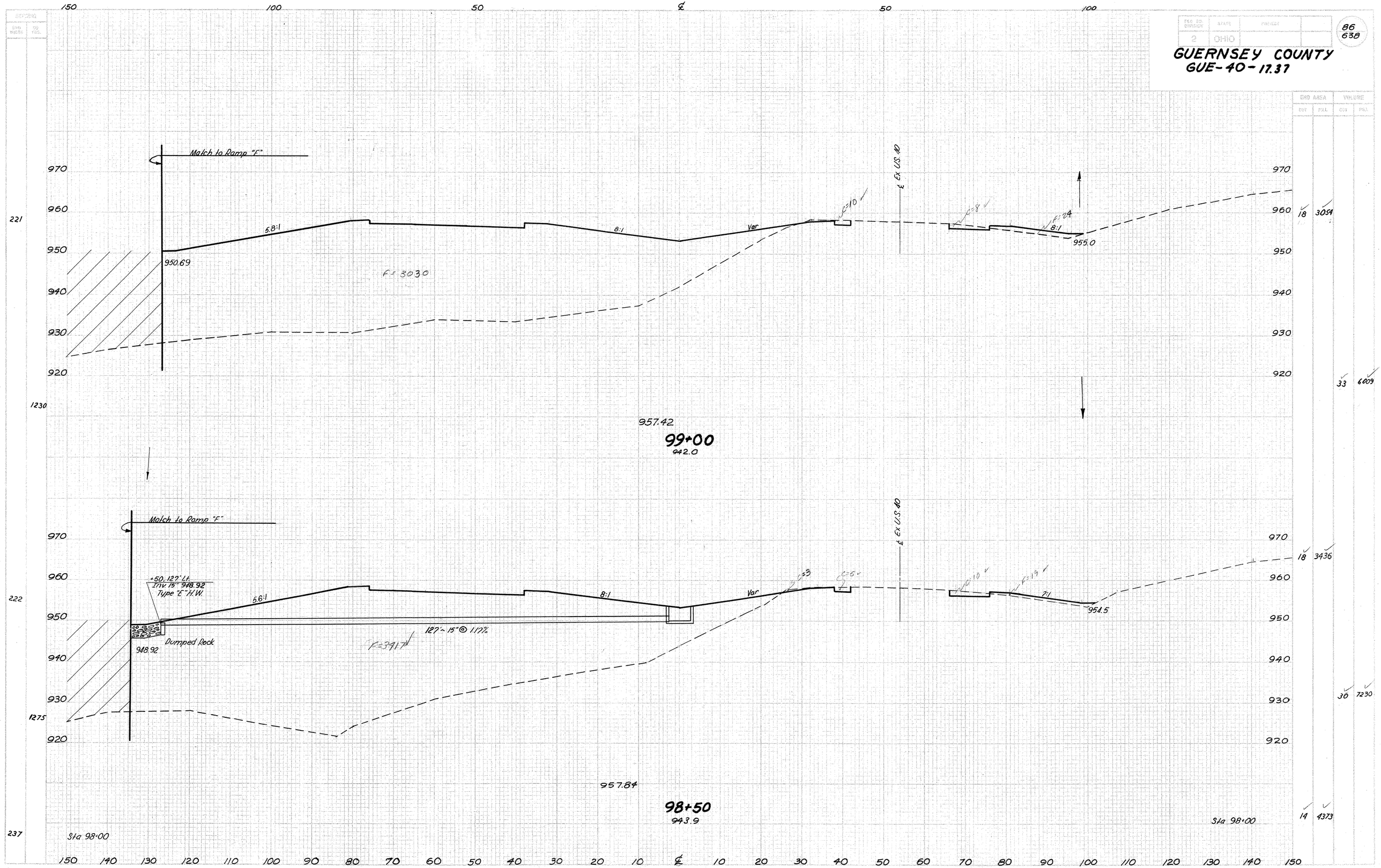
DIST. & DIVISION	STATE	PROJECT	
2	OHIO		

85
638

GUERNSEY COUNTY
GUE-40-17.37



97+75 ~ 98+00

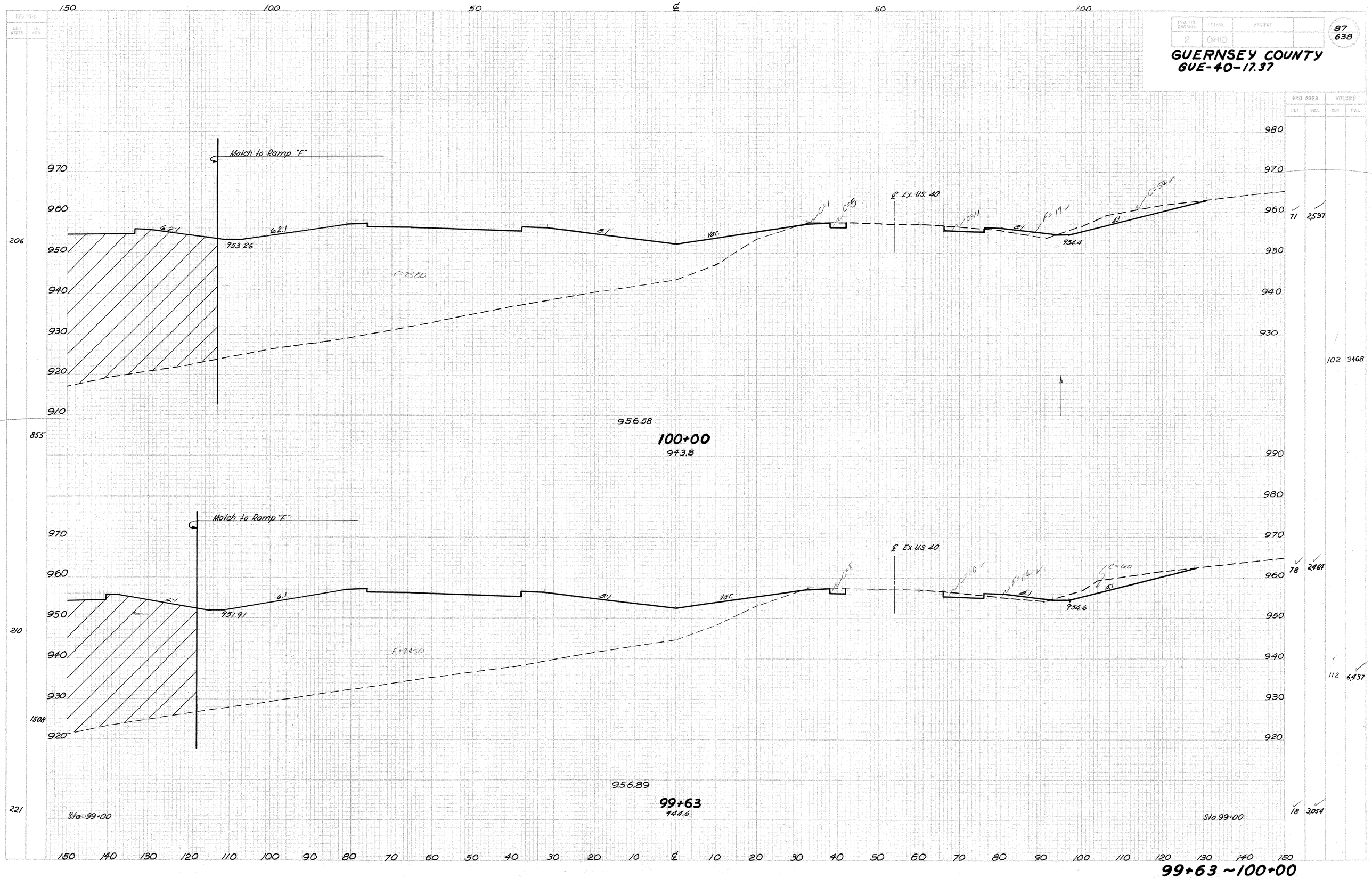


2
OHIO
86
638
GUERNSEY COUNTY
GUE-40-17.37
Match to Ramp "F"
5.8:1
8:1
Var
950.69
955.0
F=3030
957.42
99+00
942.0
Match to Ramp "F"
+50, 127' Lt.
Inv. 15" 948.92
Type "E" H.W.
5.6:1
8:1
Var
127'~15" @ 1.17%
Dumped Rock
948.92
954.5
957.84
98+50
943.9
Sta 98+00
Sta 98+00
221
222
237
1230
1275
18
3054
33
6009
18
3436
30
7230
14
4373
98+50 ~ 99+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

87
638

GUERNSEY COUNTY
GUE-40-17.37



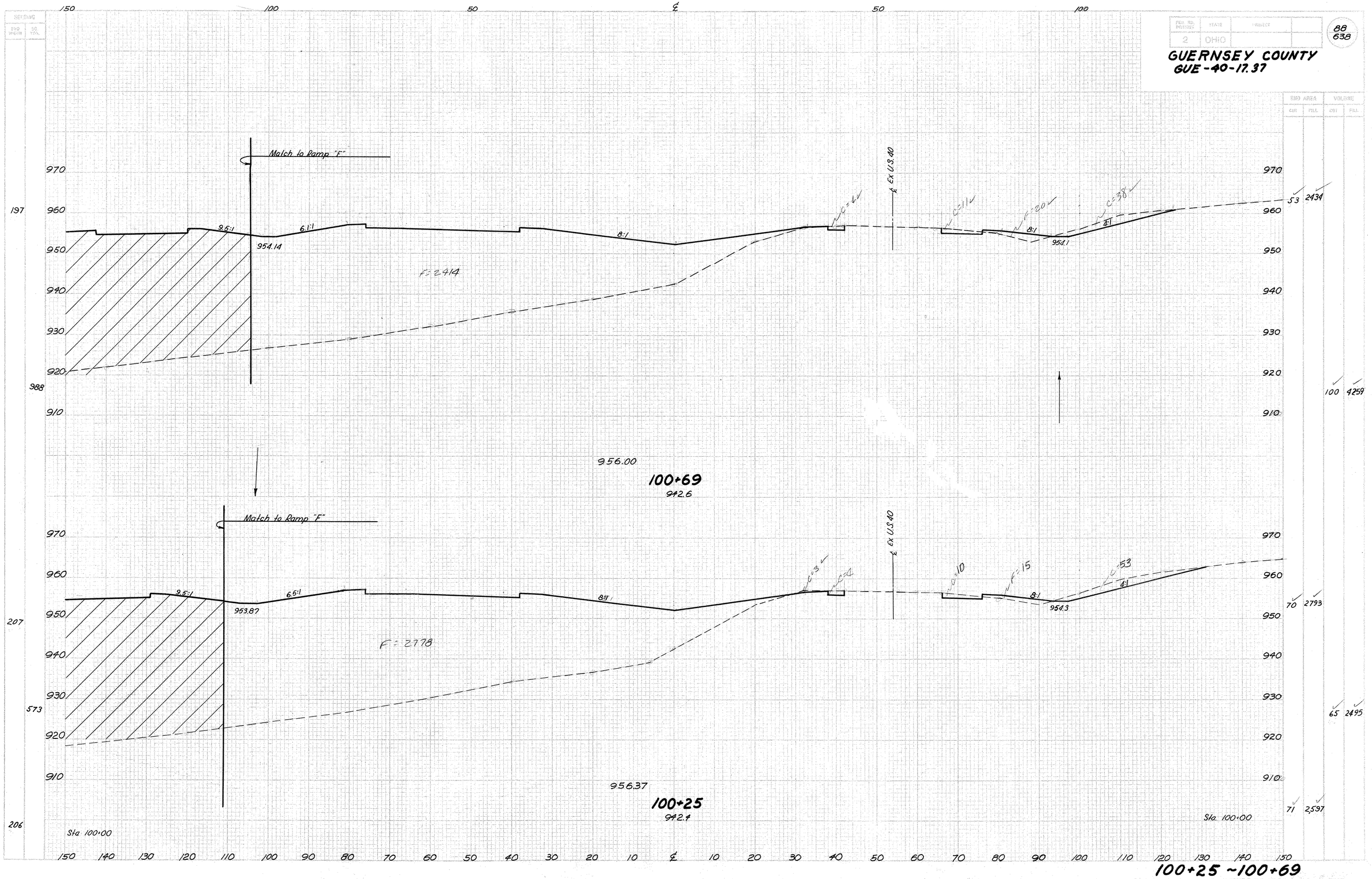
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
71	2,597		
		102	3468
78	2,464		
		112	6,437
18	3,054		

99+63 ~ 100+00

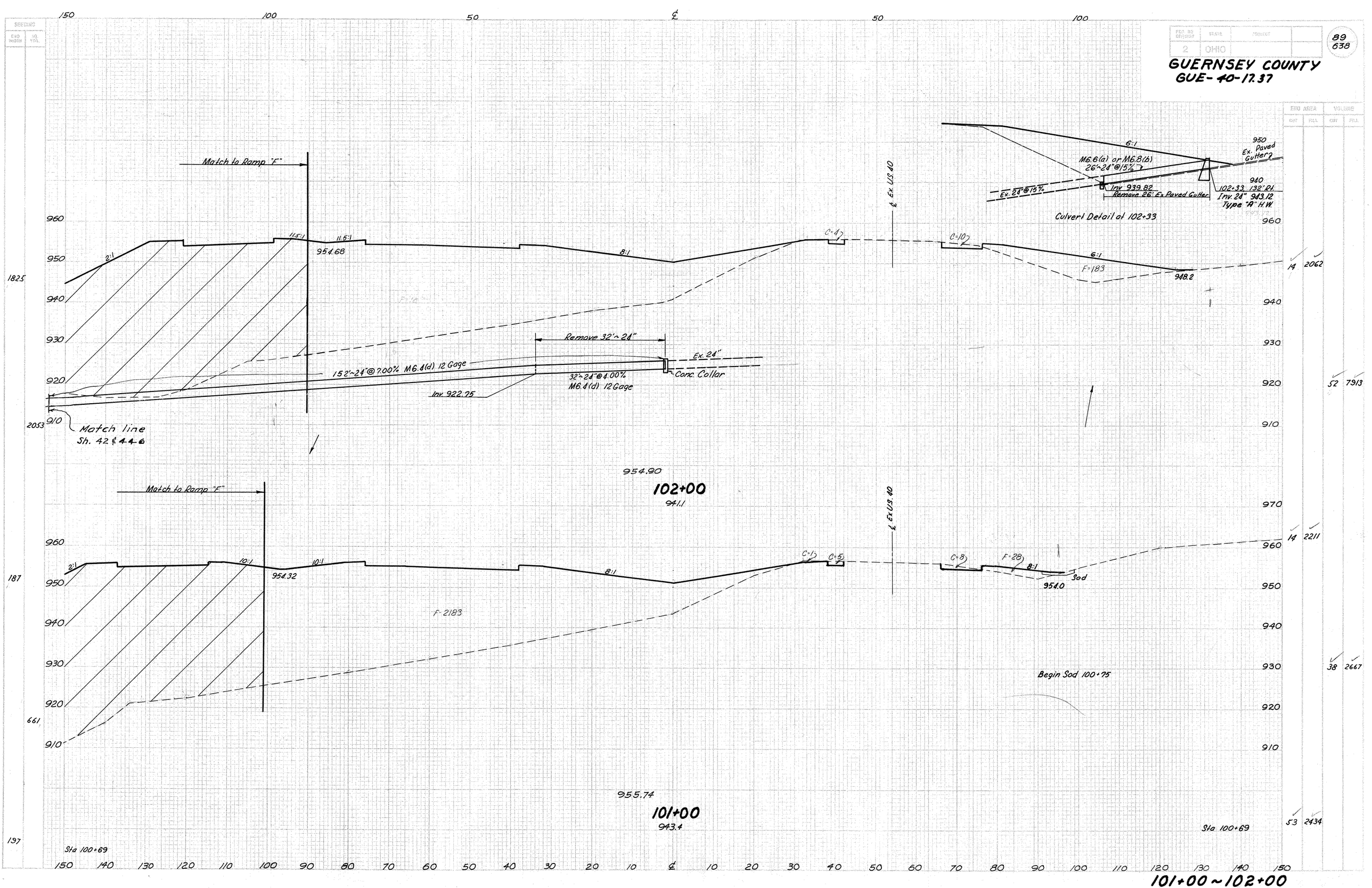
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

88
638

GUERNSEY COUNTY
GUE-40-17.37

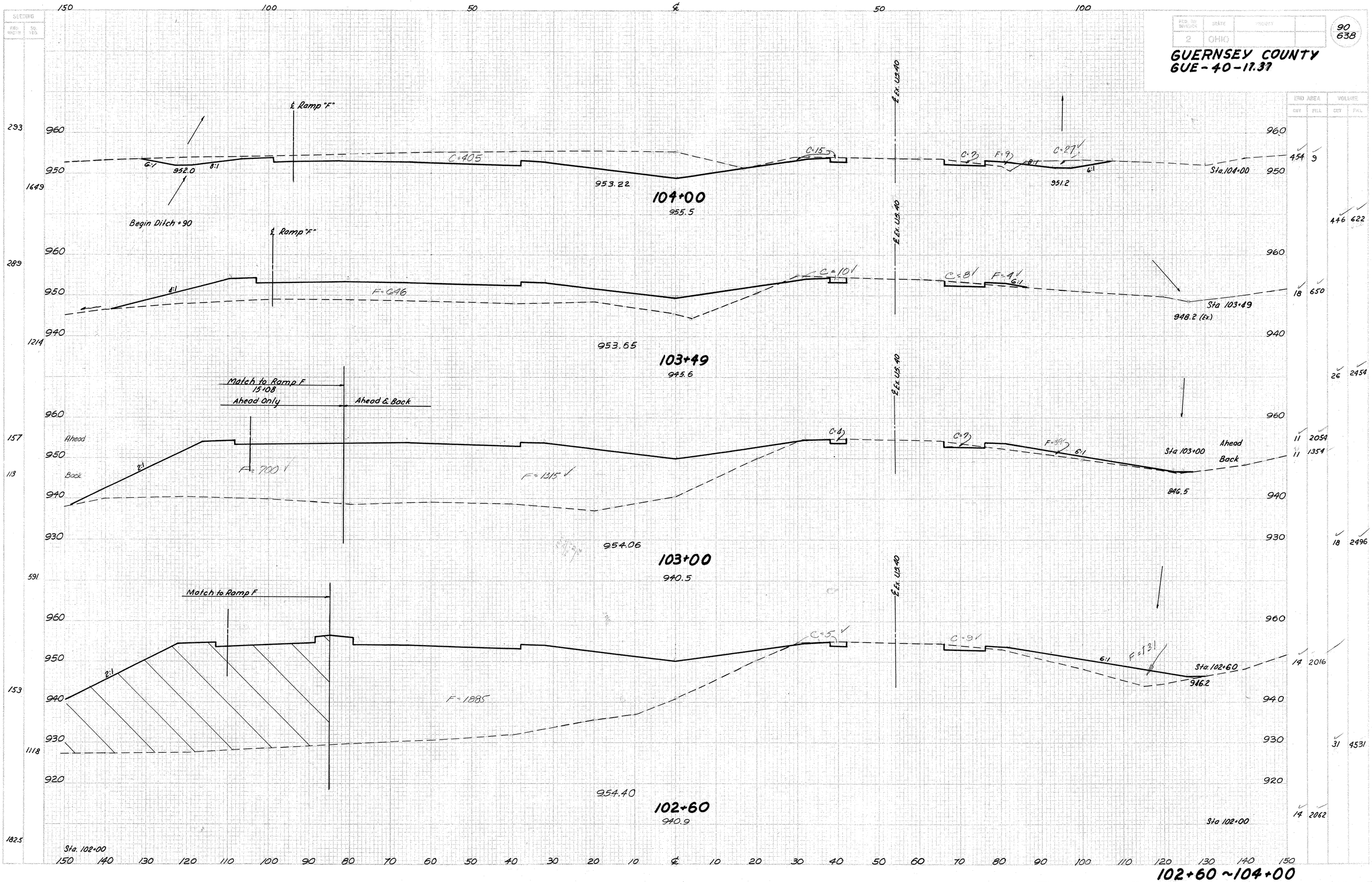


100+25 ~100+69



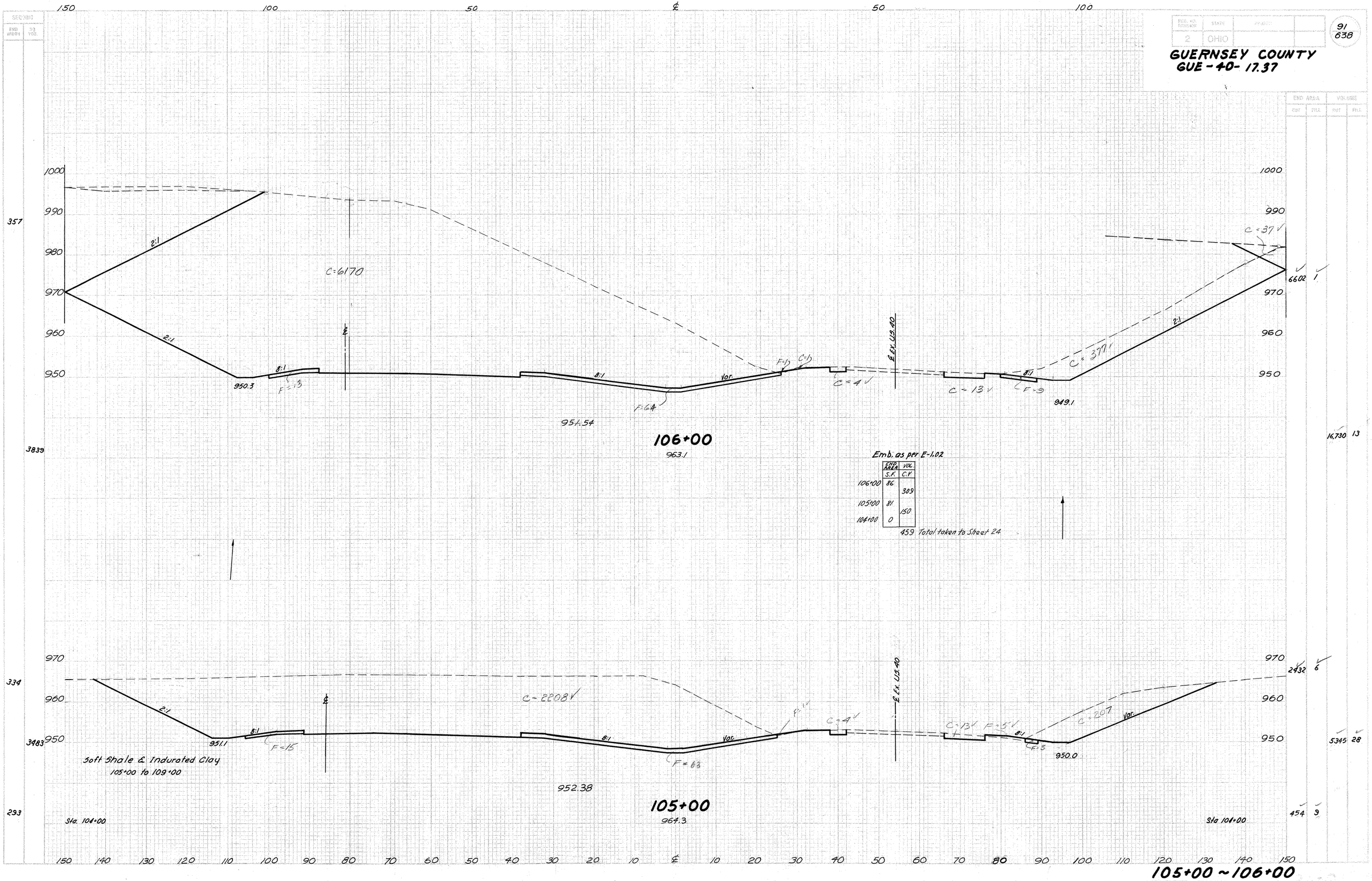
2 OHIO
89
638
GUERNSEY COUNTY
GUE-40-17.37
Match to Ramp "F"
954.68
2:1
11.5:1
11.5:1
8:1
C=4
C=10
6:1
F=183
948.2
℄ Ex. US 40
Remove 32'~24"
Ex. 24"
152'~24" @ 7.00% M6.4(d) 12 Gage
32'~24" @ 4.00% M6.4(d) 12 Gage
Conc. Collar
Inv. 922.75
Match line
Sh. 42 & 44-6
954.90
102+00
941.1
Match to Ramp "F"
954.32
10:1
10:1
8:1
C=1
C=5
C=8
F=28
8:1
954.0
Sod
F-2183
Begin Sod 100+75
955.74
101+00
943.4
Sta 100+69
Sta 100+69
M6.6(a) or M6.8(b) 26'~24" @ 15%
Ex. 24" @ 15%
Inv. 939.82
Remove 26' Ex Paved Gutter
950
Ex. Paved Gutter
940
102+33 132' Rt.
Inv. 24" 943.12
Type "A" H.W.
Culvert Detail at 102+33
1825
2053
187
661
197
14 2062
52 7913
14 2211
38 2667
53 2434

101+00 ~ 102+00

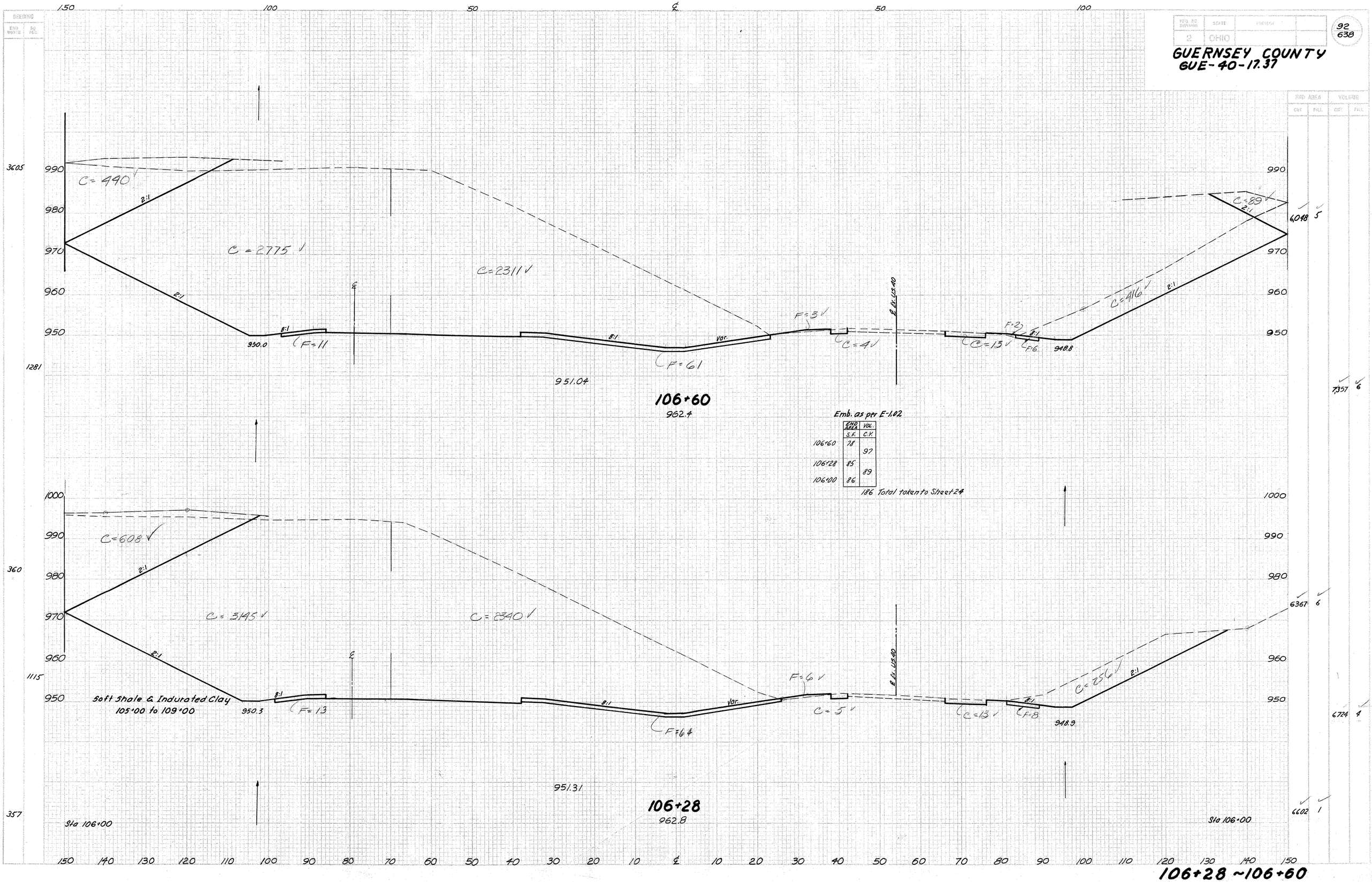


2 OHIO
90
638
GUERNSEY COUNTY
GUE-40-17.37
END AREA
VOLUME
CUT
FILL
℄ Ramp "F"
℄ Ex. US 40
C=405
C=15
C=7
F=9
C=27
6:1
8:1
952.0
953.22
951.2
Sta.104+00
104+00
955.5
Begin Ditch +90
F=646
C=10
C=8
F=4
4:1
Sta 103+49
948.2 (Ex.)
953.65
103+49
945.6
Match to Ramp F
15+08
Ahead Only
Ahead & Back
Ahead
Back
2:1
F=700
F=1315
C=4
C=7
F=39
Sta 103+00
846.5
954.06
103+00
940.5
Match to Ramp F
C=5
C=9
F=131
Sta.102+60
946.2
F=1885
954.40
102+60
940.9
Sta 102+00
Sta. 102+00

102+60 ~ 104+00



2 OHIO
91
638
GUERNSEY COUNTY
GUE-40-17.37
150 100 50 ℄ 50 100
1000 990 980 970 960 950
2:1
C=6170
8:1
F=13
950.3
F=64
951.54
Vor.
F=1
C=1
C=4
℄ Ex. US 40
C=13
F=9
949.1
C=377
C=37
6602 1
16,730 13
106+00
963.1
Emb. as per E-1.02
END AREA S.F. | VOL. C.Y.
106+00 86 | 309
105+00 81 | 150
104+00 0
459 Total taken to Sheet 24
970 960 950
2:1
951.1
F=15
C=2208
F=63
C=4
C=13
F=5
F=3
C=207
950.0
2432 6
5345 28
Soft Shale & Indurated Clay
105+00 to 109+00
952.38
105+00
964.3
Sta. 104+00
Sta 104+00
454 9
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150
105+00 ~ 106+00



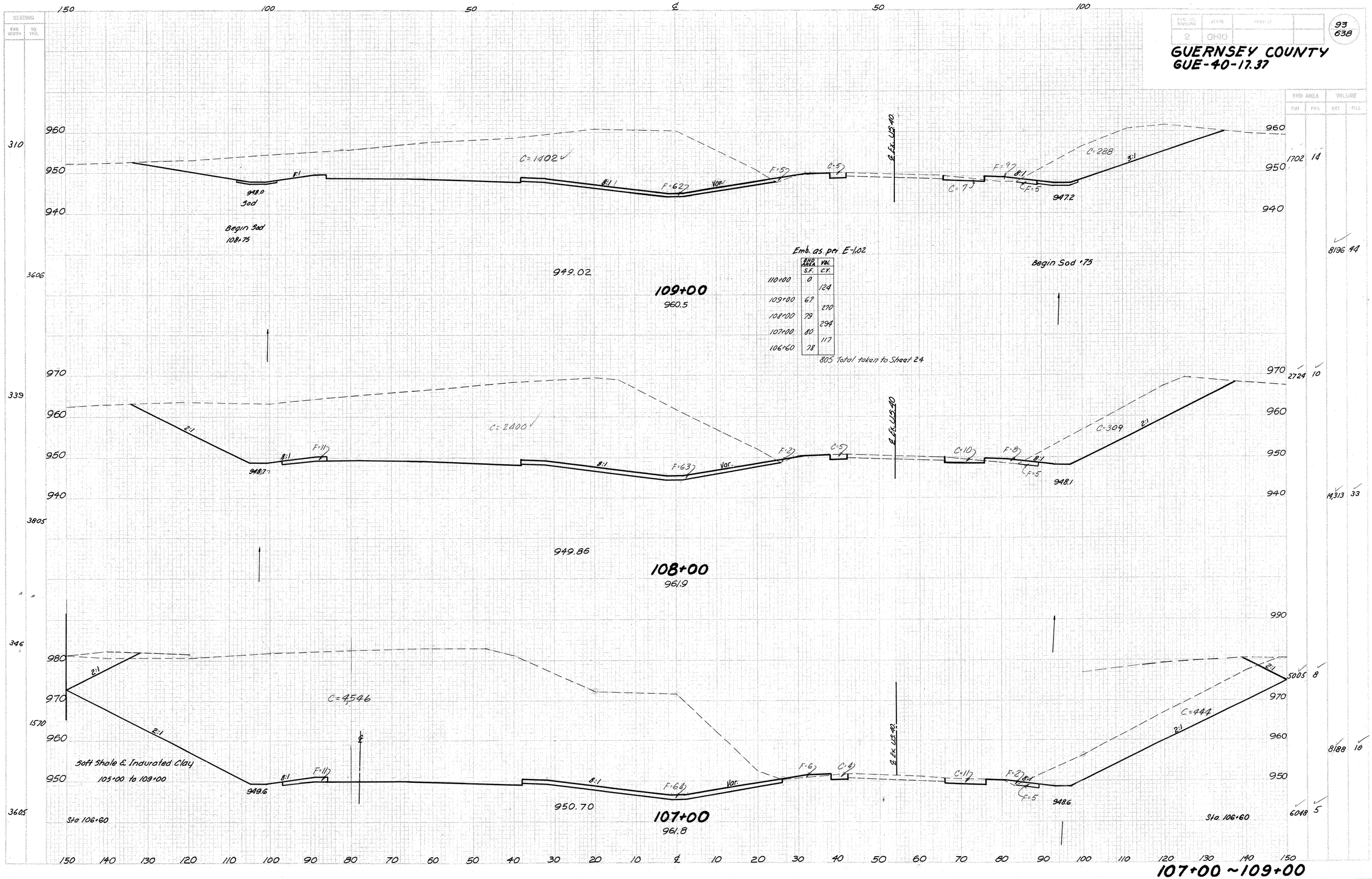
GUERNSEY COUNTY
GUE-40-17.37
92
638
C=440
C=2775
C=2311
C=89
C=416
C=4
C=13
F=11
F=61
F=3
F=2
F=6
950.0
948.8
951.04
106+60
962.4
Emb. as per E-1.02
END AREA S.F. VOL. C.Y.
106+60 78 97
106+28 85 89
106+00 86
186 Total taken to Sheet 24
C=608
C=3145
C=2340
C=256
C=5
C=13
F=13
F=64
F=6
F=8
950.3
948.9
951.31
106+28
962.8
Soft Shale & Indurated Clay
105+00 to 109+00
Sta 106+00
Sta 106+00
6,048 5
7,357 6
6367 6
6724 4
6602 1

106+28 ~106+60

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

93
638

GUERNSEY COUNTY
GUE-40-17.37

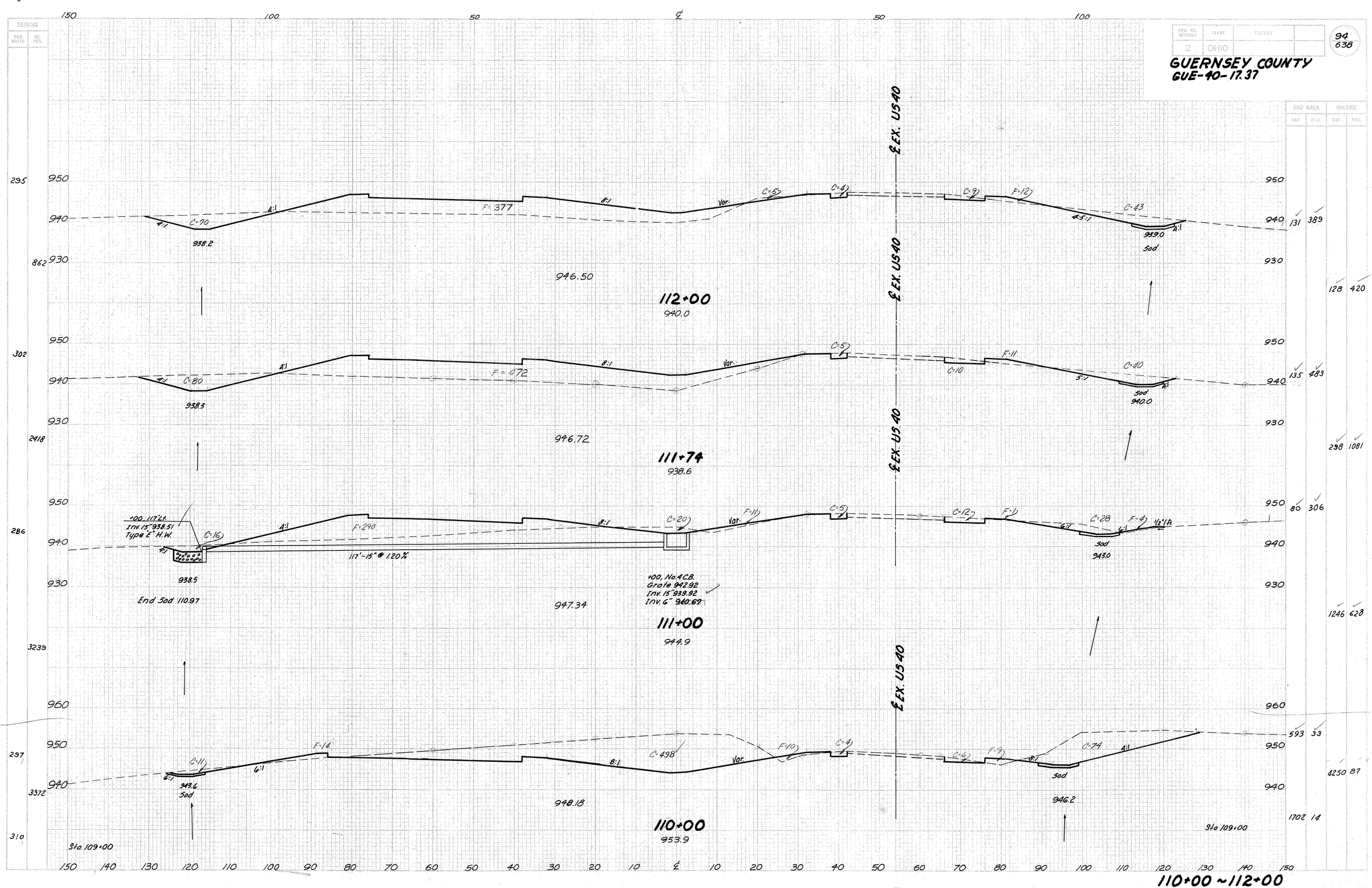


Emb. as per E-1.02

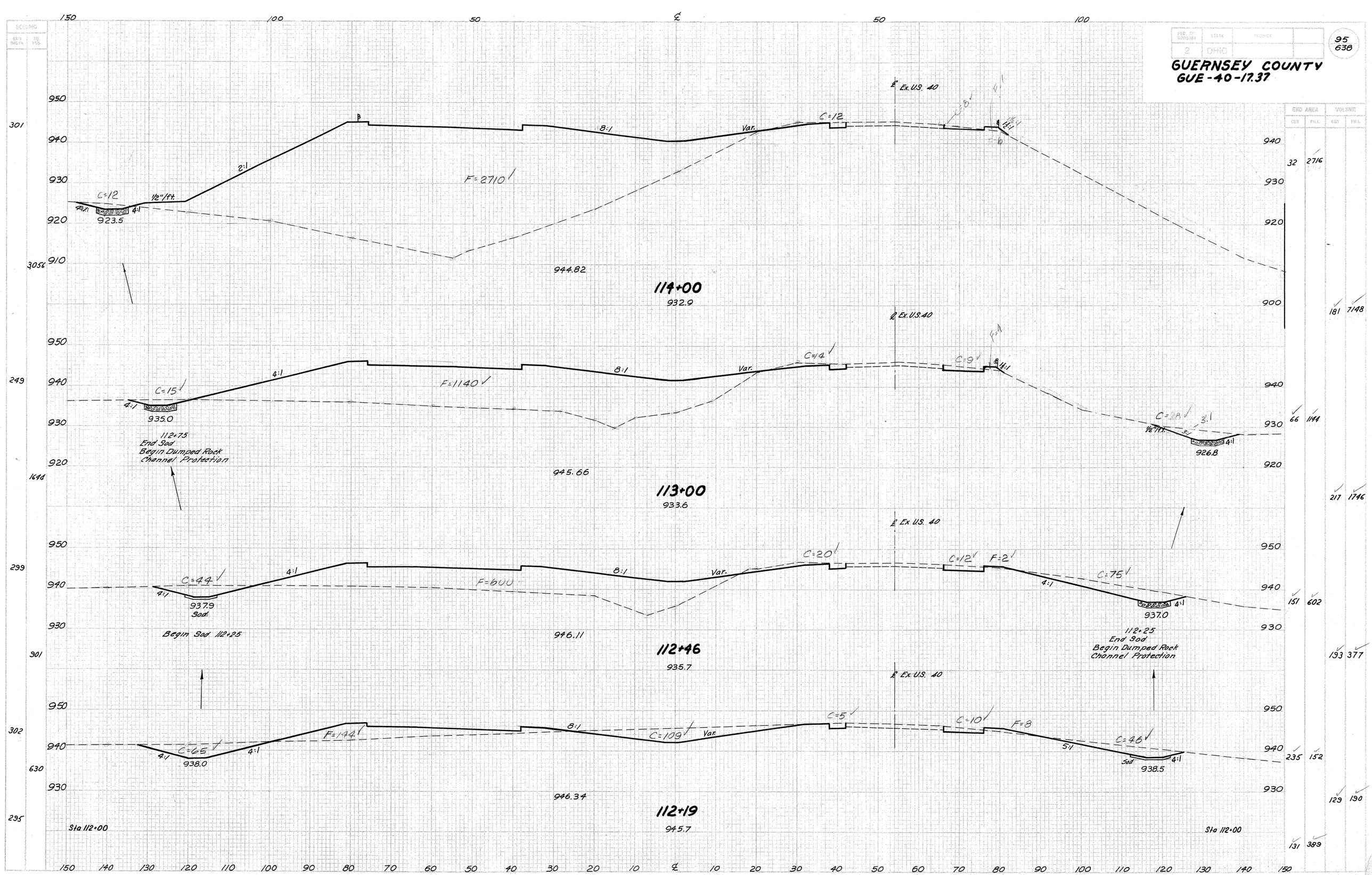
	END AREA S.F.	VOL C.Y.
110+00	0	
		124
109+00	67	
		270
108+00	79	
		294
107+00	80	
		117
106+60	78	

805 Total taken to Sheet 24

107+00 ~ 109+00

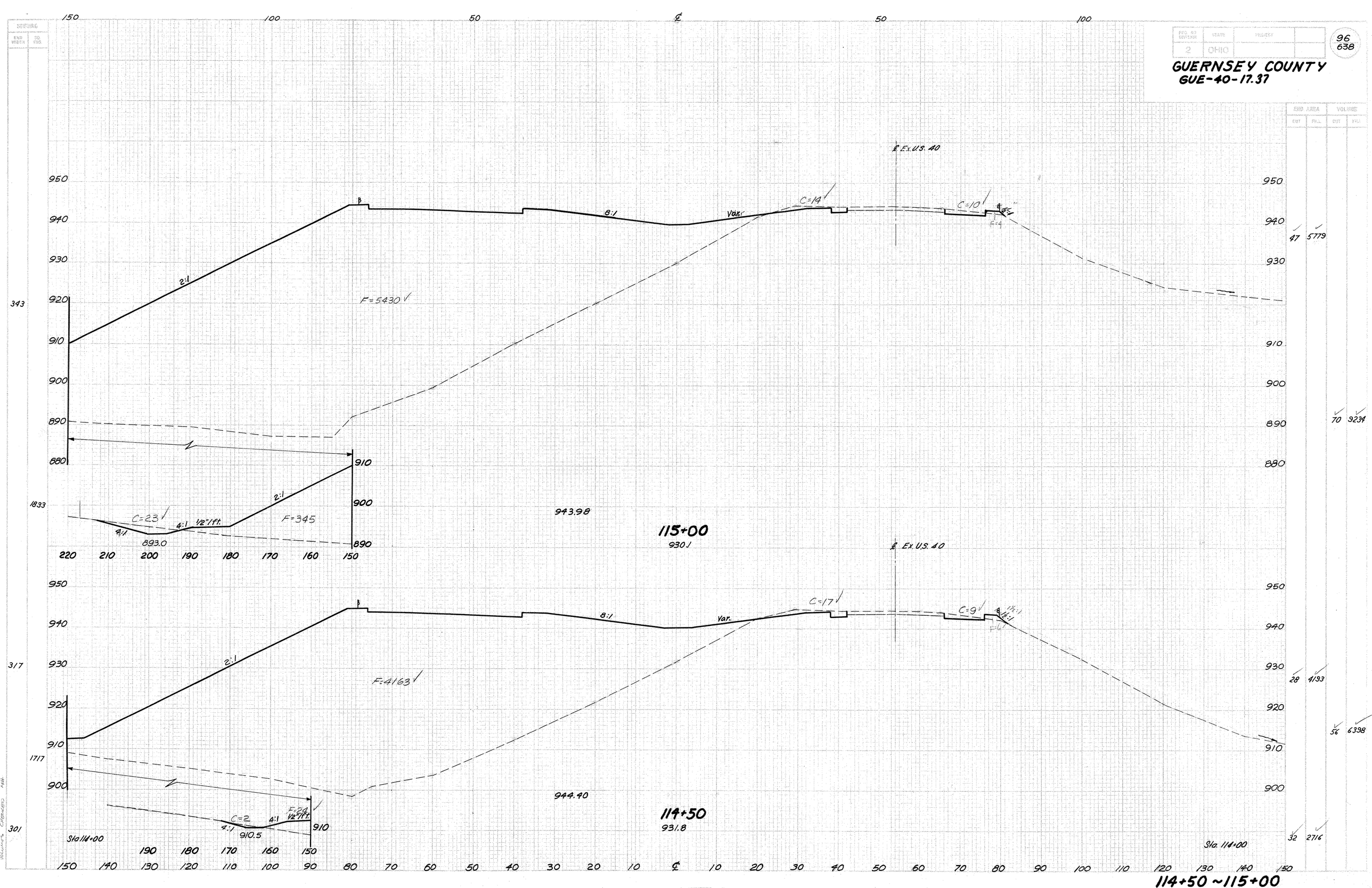


FED. RD. DIVISION 2
STATE OHIO
PROJECT
94
638
GUERNSEY COUNTY
GUE-40-17.37
SEEDING
END WIDTH
SQ. YDS.
END AREA
VOLUME
CUT
FILL
℄ EX. US 40
112+00
940.0
946.50
111+74
938.6
946.72
111+00
944.9
947.34
110+00
953.9
948.18
Sta. 109+00
+00, 117' Lt.
Inv. 15" 938.51
Type "E" H.W.
117'-15" @ 1.20%
+00, No. 4 C.B.
Grate 942.92
Inv. 15" 939.92
Inv. 6" 940.67
End Sod 110.97
Sod
110+00 ~ 112+00



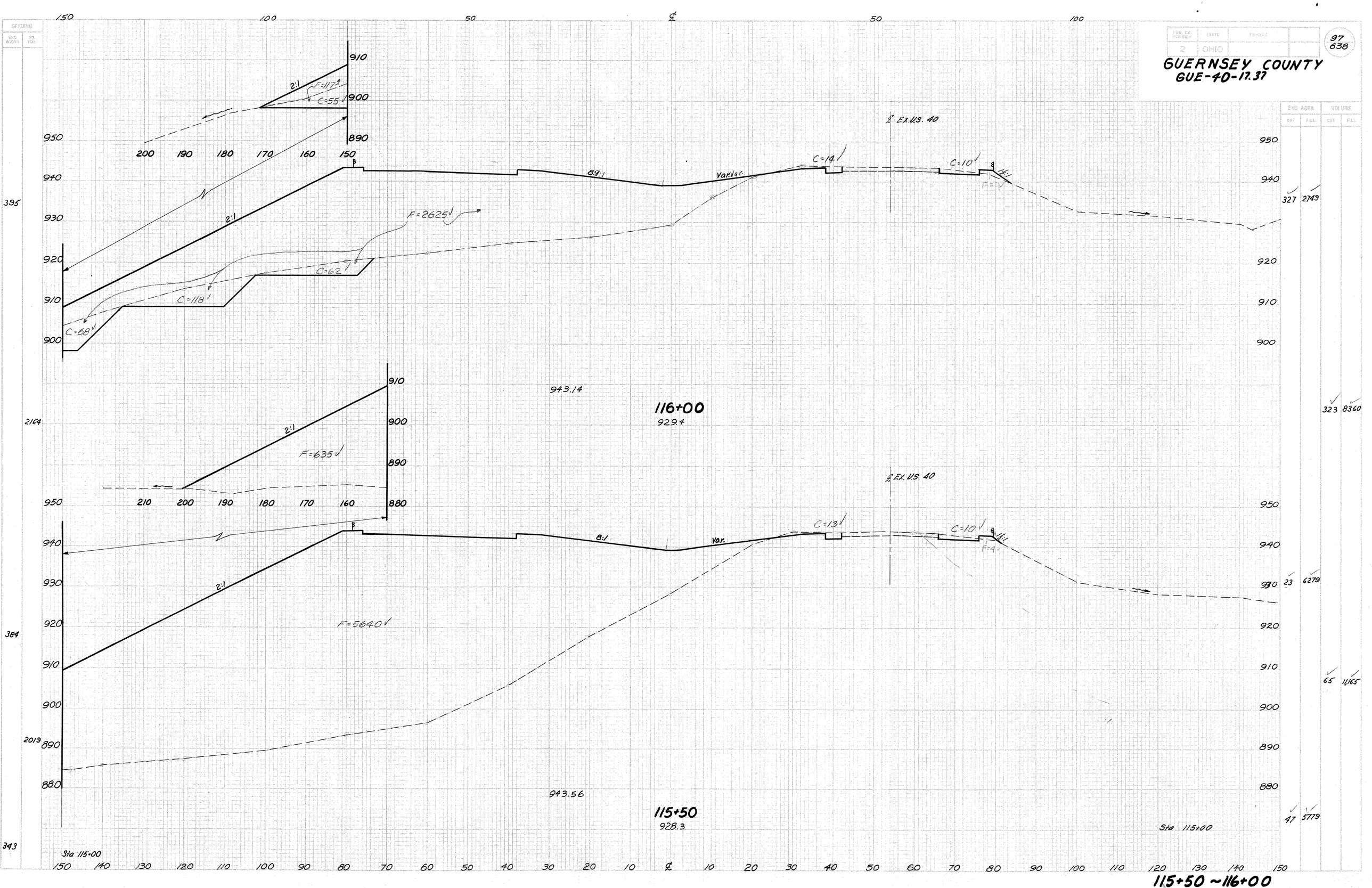
FED. RD. DIVISION 2
STATE OHIO
PROJECT
95
638
GUERNSEY COUNTY
GUE-40-17.37
END AREA
VOLUME
CUT
FILL
Ex. U.S. 40
114+00
932.9
944.82
F=2710
C=12
1/2"/ft.
923.5
2:1
8:1
Var.
113+00
933.6
945.66
F=1140
C=15
935.0
4:1
112+75
End Sod
Begin Dumped Rock
Channel Protection
C=14
C=9
C=28
926.8
112+46
935.7
946.11
F=600
C=44
937.9
Sod
Begin Sod 112+25
C=20
C=12
F=2
C=75
937.0
112+25
End Sod
Begin Dumped Rock
Channel Protection
112+19
945.7
946.34
F=144
C=65
938.0
C=109
C=5
C=10
F=8
C=46
938.5
Sod
Sta 112+00

112+19 ~ 114+00



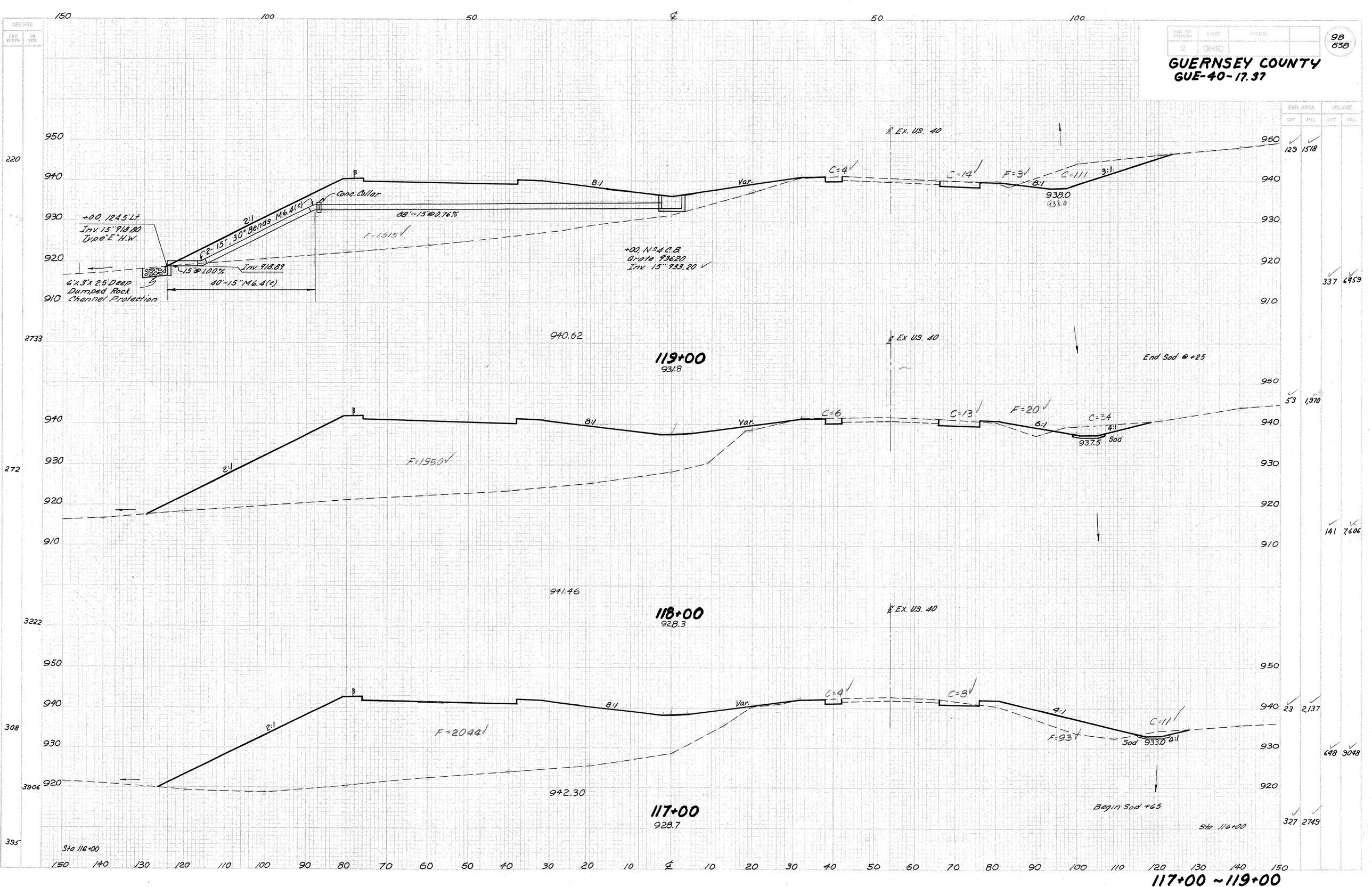
FED. RD. DIVISION 2
STATE OHIO
PROJECT
96
638
GUERNSEY COUNTY
GUE-40-17.37
END AREA
VOLUME
CUT
FILL
℄ Ex. U.S. 40
2:1
8:1
Var.
C=14
C=10
F=5430
C=23
4:1
1/2"/ft.
F=345
893.0
943.98
115+00
930.1
C=17
C=9
F=4163
C=2
F=24
910.5
944.40
114+50
931.8
Sta 114+00
343
1833
317
1717
301
47
5779
70
9234
28
4193
56
6398
32
2716

114+50 ~ 115+00



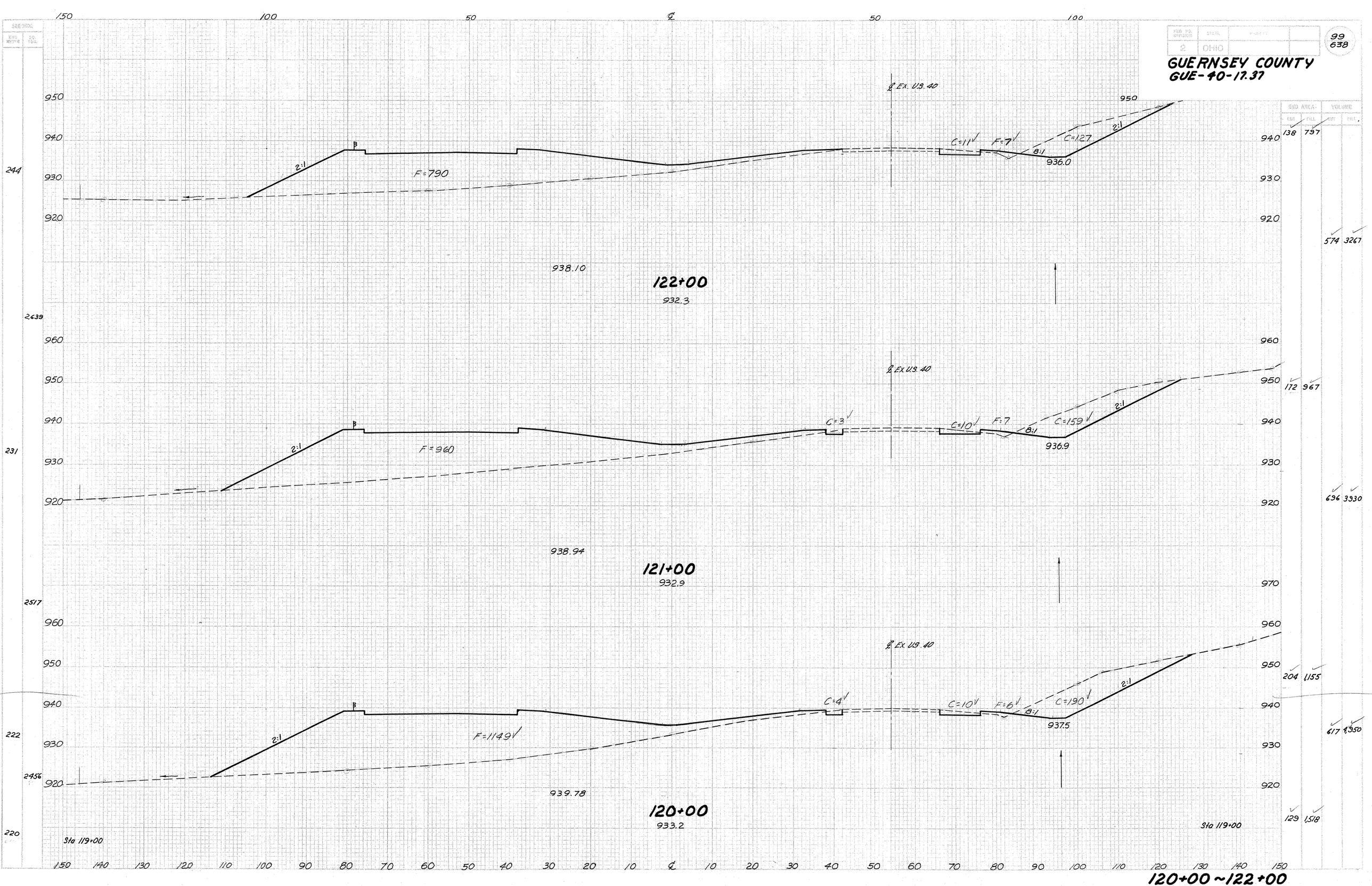
GUERNSEY COUNTY
GUE-40-17.37
97
638
2
OHIO
℄ EX. U.S. 40
F=117
C=55
2:1
8:1
Var.Var.
C=14
C=10
F=2625
C=62
C=118
C=68
943.14
116+00
929.4
F=635
C=13
C=10
F=5640
943.56
115+50
928.3
Sta 115+00
327
2749
323
8360
23
6279
65
11,165
47
5779

115+50 ~ 116+00



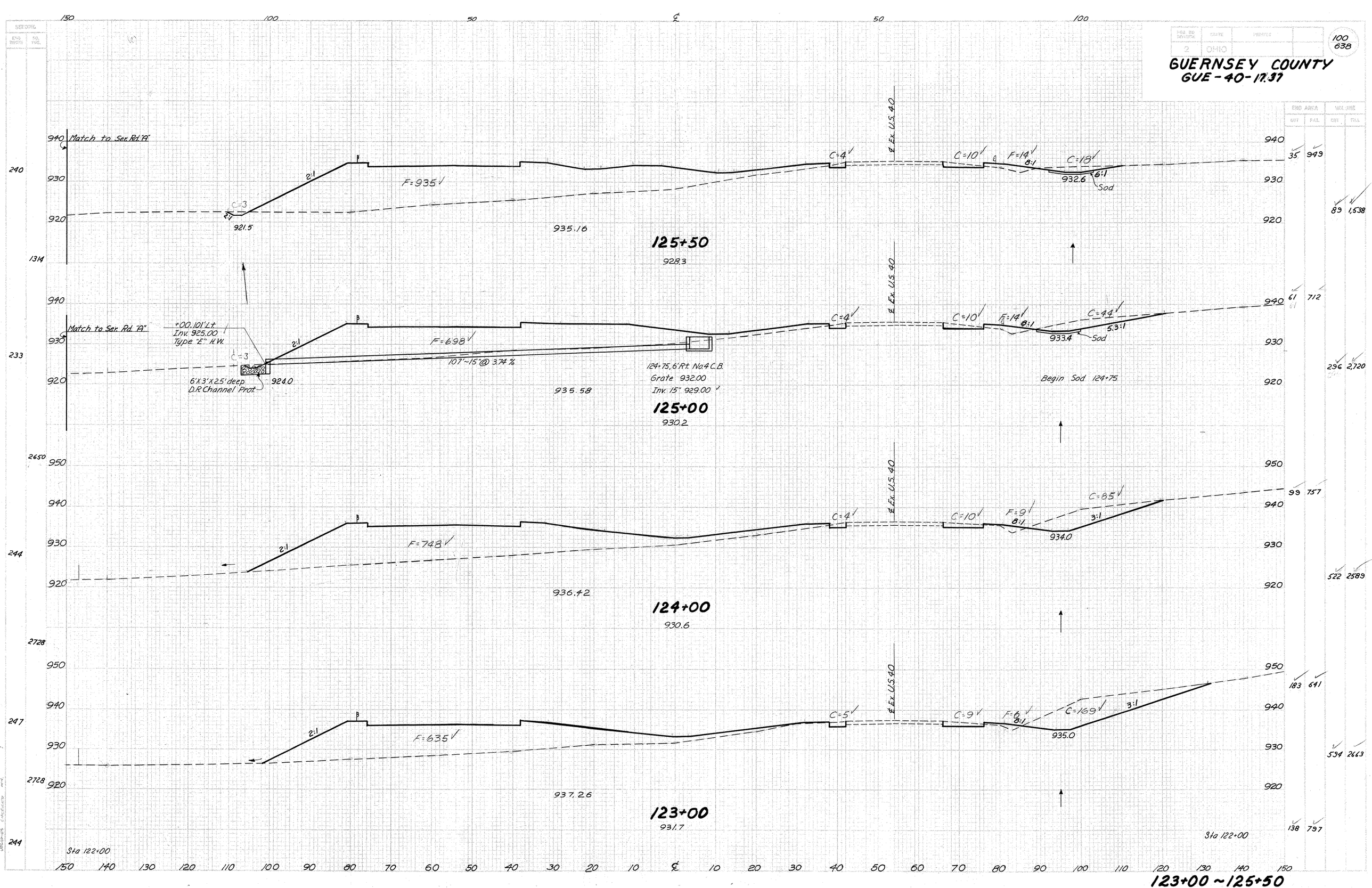
2 OHIO
98
638
GUERNSEY COUNTY
GUE-40-17.37
END AREA
VOLUME
CUT
FILL
CUT
FILL
℄ Ex. US. 40
+00, 124.5' Lt.
Inv. 15" 918.80
Type "E" H.W.
2-15", 30° Bends M6.4(c)
Conc. Collar
88'-15" @ 0.76%
F=1515
15" @ 1.00%
Inv. 918.89
40'-15" M6.4(c)
6'x3'x2.5' Deep
Dumped Rock
Channel Protection
+00, No 4 C.B.
Grate 936.20
Inv. 15" 933.20
8:1
Var.
C=4
C=14
F=3
C=111
3:1
938.0
938.0
940.62
119+00
931.8
End Sod @ +25
C=6
C=13
F=20
C=34
4:1
937.5
Sod
F=1950
941.46
118+00
928.3
C=4
C=8
C=11
F=93
Sod 933.0
4:1
F=2044
942.30
117+00
928.7
Begin Sod +65
Sta 116+00
Sta 116+00
220
2733
272
3222
308
3906
395
129 1518
337 6959
53 1,970
141 7,606
23 2,137
648 9048
327 2749

117+00 ~ 119+00



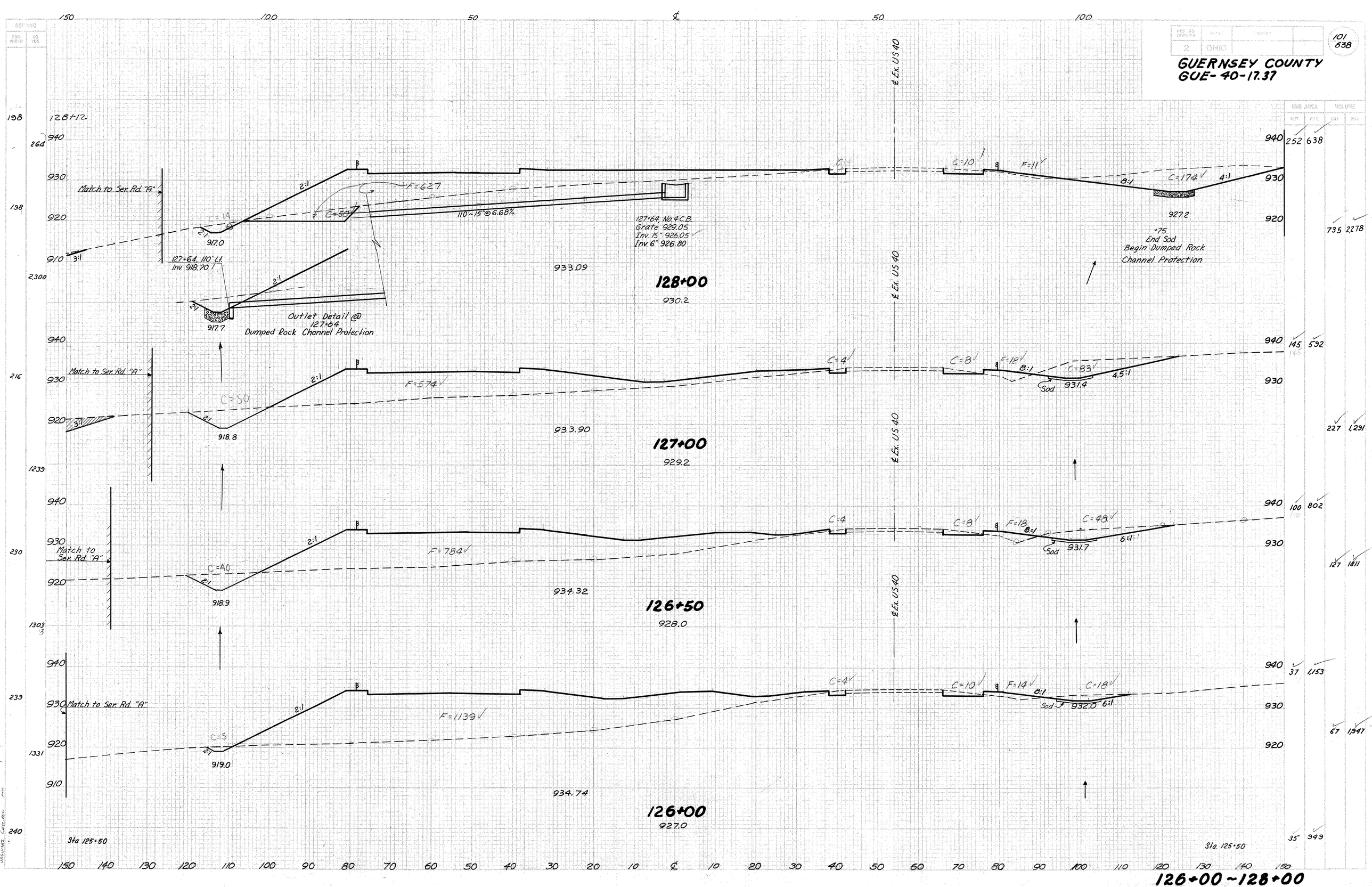
FED. RD. DIVISION 2
STATE OHIO
99
638
GUERNSEY COUNTY
GUE-40-17.37
END AREA
VOLUME
CUT
FILL
℄ EX. U.S. 40
F=790
C=11
F=7
C=127
936.0
938.10
122+00
932.3
F=960
C=3
C=10
F=7
C=159
936.9
938.94
121+00
932.9
F=1149
C=4
C=10
F=6
C=190
937.5
939.78
120+00
933.2
Sta 119+00
244
2639
231
2517
222
2456
220
138
797
574
3267
172
967
696
3930
204
1,155
617
4,950
129
1,518

120+00 ~ 122+00



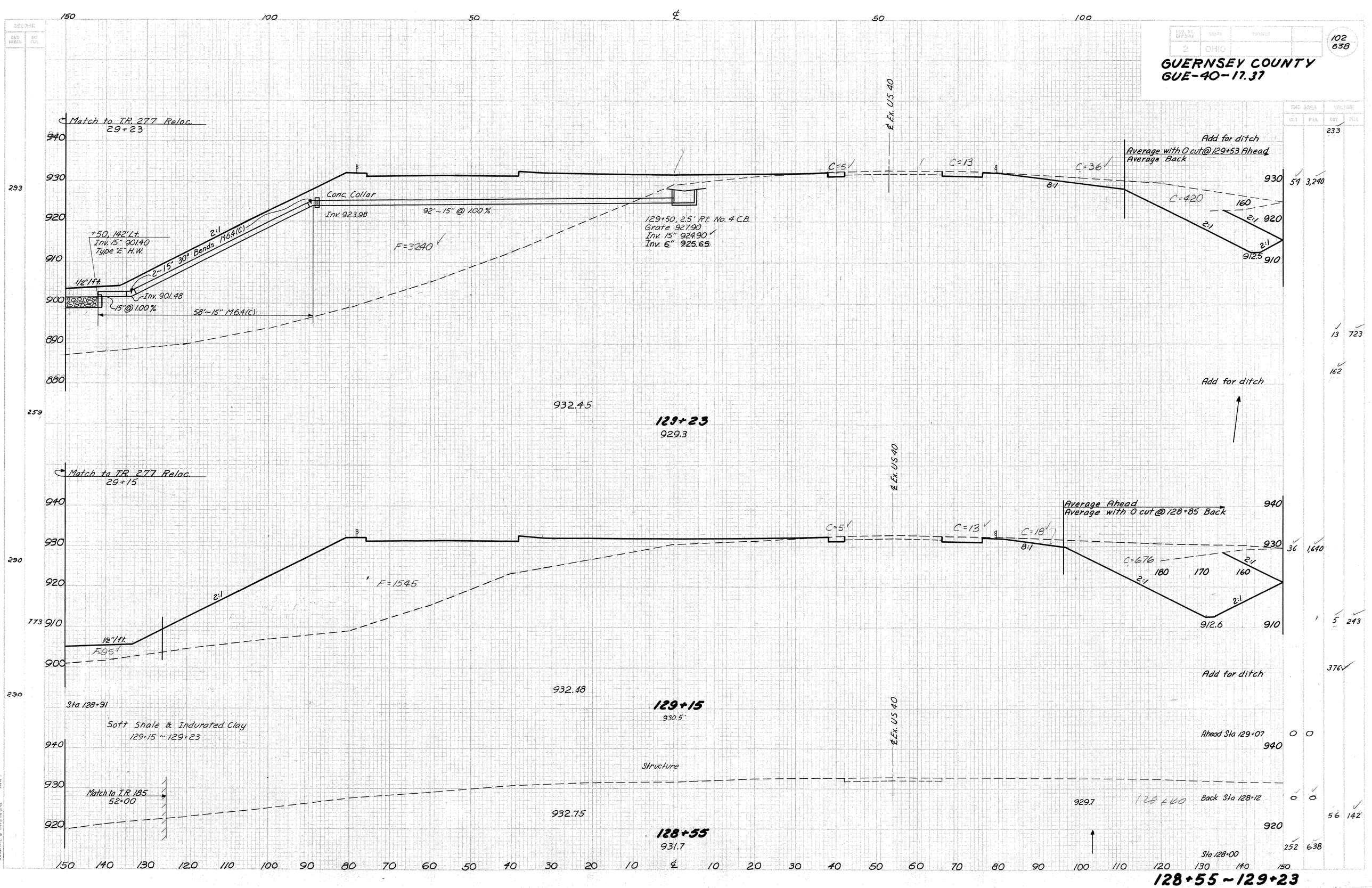
GUERNSEY COUNTY
GUE-40-17.37
100
638
Match to Ser. Rd. "A"
F=935
C=3
2:1
921.5
935.16
C=4
C=10
F=14
8:1
C=18
6:1
932.6
Sod
℄ Ex. U.S. 40
125+50
928.3
Match to Ser. Rd. "A"
+00.101' Lt.
Inv. 925.00
Type "E" H.W.
F=698
107'~15" @ 3.74 %
6'X3'X2.5' deep
D.R. Channel Prot.
924.0
935.58
124+75, 6' Rt. No.4 C.B.
Grate 932.00
Inv. 15" 929.00
C=44
5.3:1
933.4
Begin Sod 124+75
125+00
930.2
F=748
936.42
C=85
3:1
934.0
124+00
930.6
F=635
937.26
C=5
C=9
F=6
C=169
935.0
123+00
931.7
Sta 122+00
Sta 122+00
35 949
89 1,538
61 712
296 2,720
99 757
522 2589
183 641
534 2663
138 797

123+00 ~ 125+50



2 OHIO
101
638
GUERNSEY COUNTY
GUE-40-17.37
128+12
Match to Ser. Rd. "A"
2:1
F=627
C=14
C=50
110'~15" @ 6.68%
917.0
3:1
127+64, 110' Lt.
Inv. 918.70
Outlet Detail @
127+64
Dumped Rock Channel Protection
917.7
127+64, No. 4 C.B.
Grate 929.05
Inv. 15" 926.05
Inv. 6" 926.80
933.09
128+00
930.2
C=10
F=11
8:1
C=174
4:1
927.2
+75
End Sod
Begin Dumped Rock
Channel Protection
℄ Ex. US 40
C=4
C=8
F=18
8:1
C=83
4.5:1
Sod
931.4
F=574
C=50
918.8
933.90
127+00
929.2
C=4
C=8
F=18
8:1
C=48
6:1
Sod
931.7
F=784
C=40
918.9
934.32
126+50
928.0
C=4
C=10
F=14
8:1
C=18
6:1
Sod
932.0
F=1139
C=5
919.0
934.74
126+00
927.0
Sta 125+50
Sta. 125+50
END AREA
VOLUME
252 638
735 2,278
145 592
227 1,291
100 802
127 1811
37 1,153
67 1,947
35 949

126+00 ~ 128+00



GUERNSEY COUNTY
GUE-40-17.37
102
638
Match to T.R. 277 Reloc.
29+23
Conc. Collar
Inv. 923.98
92'~15" @ 1.00%
+50, 142' Lt.
Inv. 15" 901.40
Type "E" H.W.
2~15" 30° Bends M64(C)
1/2"/ft.
Inv. 901.48
15" @ 1.00%
58'~15" M64(C)
F=3240
129+50, 2.5' Rt. No. 4 C.B.
Grate 927.90
Inv. 15" 924.90
Inv. 6" 925.65
℄ Ex. US 40
C=5
C=13
C=36
C=420
Add for ditch
Average with 0 cut @ 129+53 Ahead
Average Back
8:1
2:1
160
912.5
932.45
129+23
929.3
Match to T.R. 277 Reloc.
29+15
F=1545
F=95
C=18
C=676
180
170
160
912.6
Average Ahead
Average with 0 cut @ 128+85 Back
932.48
129+15
930.5
Sta 128+91
Soft Shale & Indurated Clay
129+15 ~ 129+23
Structure
Match to T.R. 185
52+00
932.75
128+55
931.7
929.7
Ahead Sta 129+07
Back Sta 128+12
Sta 128+00
128+55 ~ 129+23

SEEDING	
SQ. YDS.	
282	
1639	
368	
2571	
293	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
13	6156		
25	11177		
14	5915		
97	13,055		
54	3,240		

PROJECT DIVISION	STATE		
2	OHIO		

103
638

GUERNSEY COUNTY
GUE-40-17.37

150 100 50 ℄ 50 100

℄ Ex. US 40

Match to T.R. 277 Reloc.
30+50

930 920 910 900 890 880 870

2:1

1/2"/ft.

F=6150

C=4

C=9

1½:1

932.22

130+50

916.8

Match to T.R. 277 Reloc.
30+00

C=4

C=10

2:1

F=172

F=5740

932.25

130+00

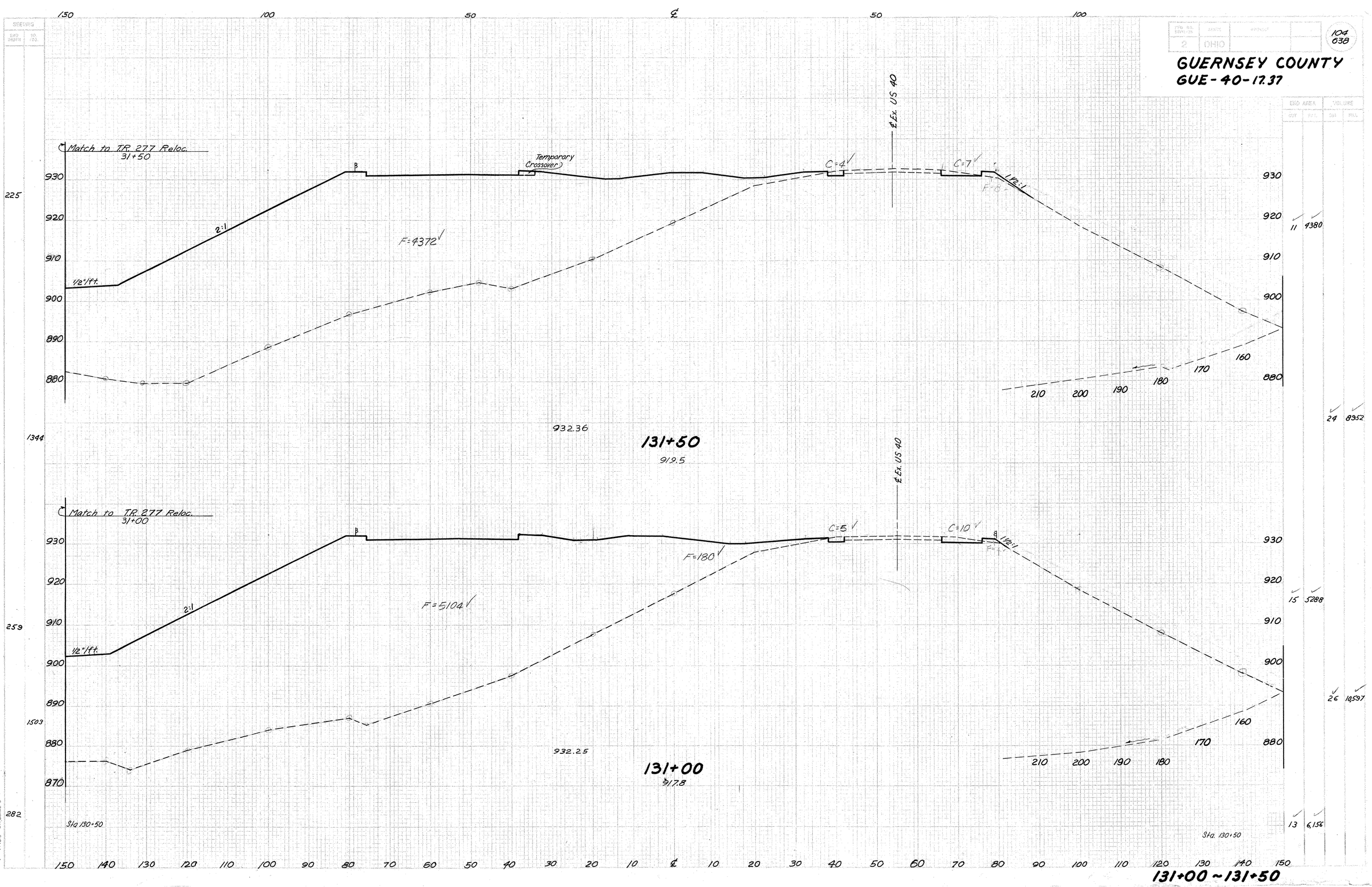
916.5

Sta 129+23

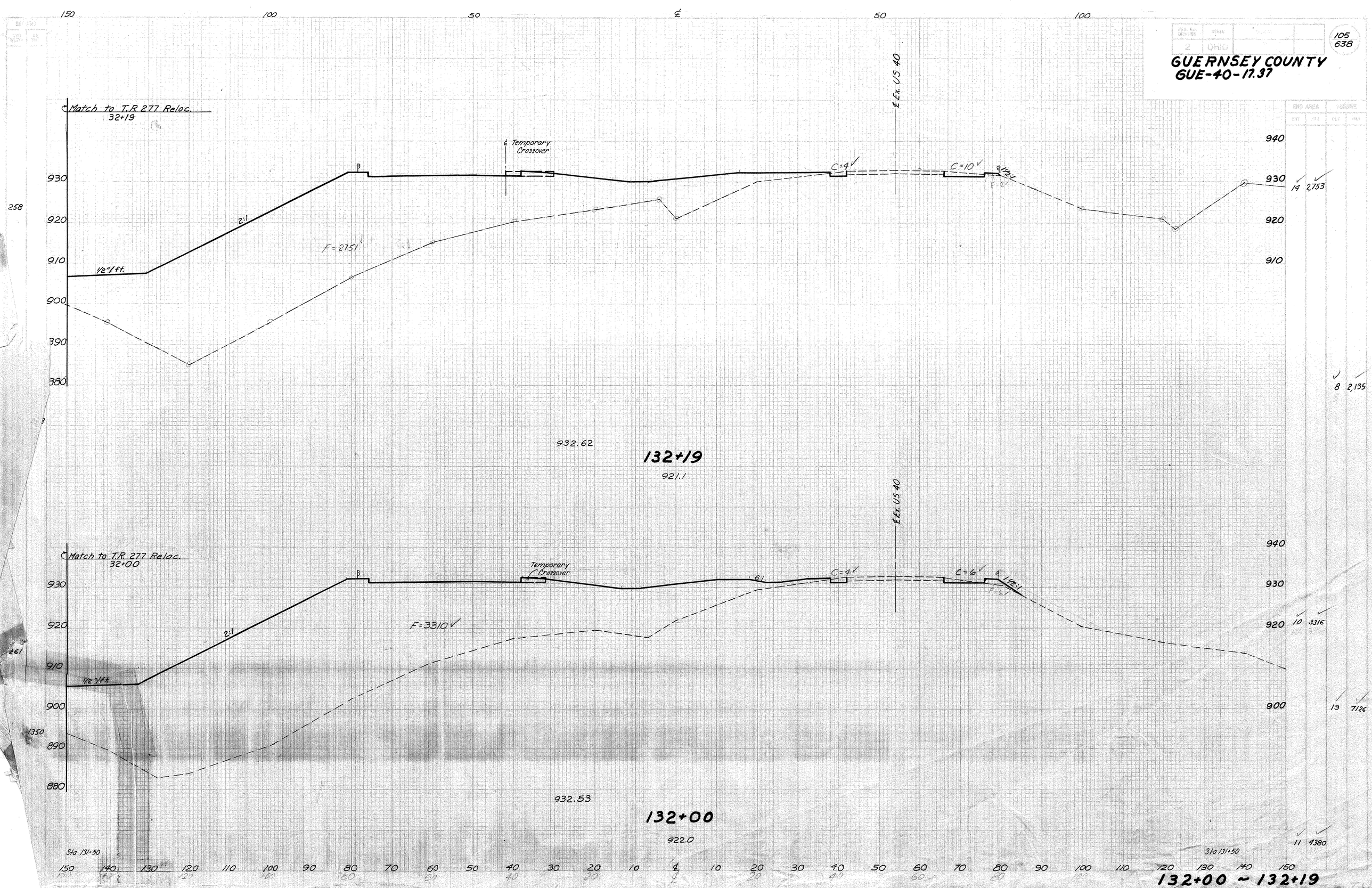
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

Sta 129+23

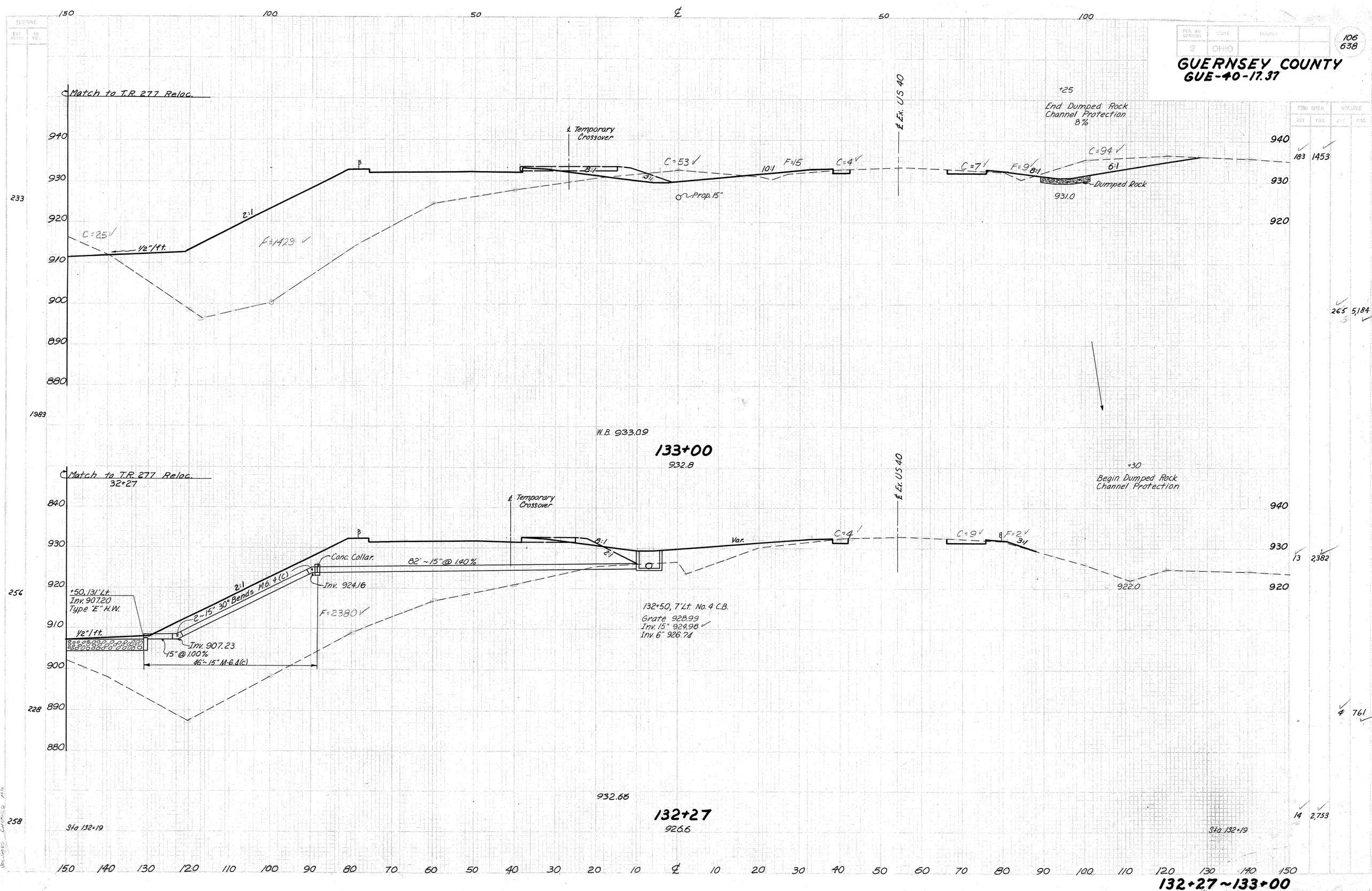
130+00 ~ 130+50



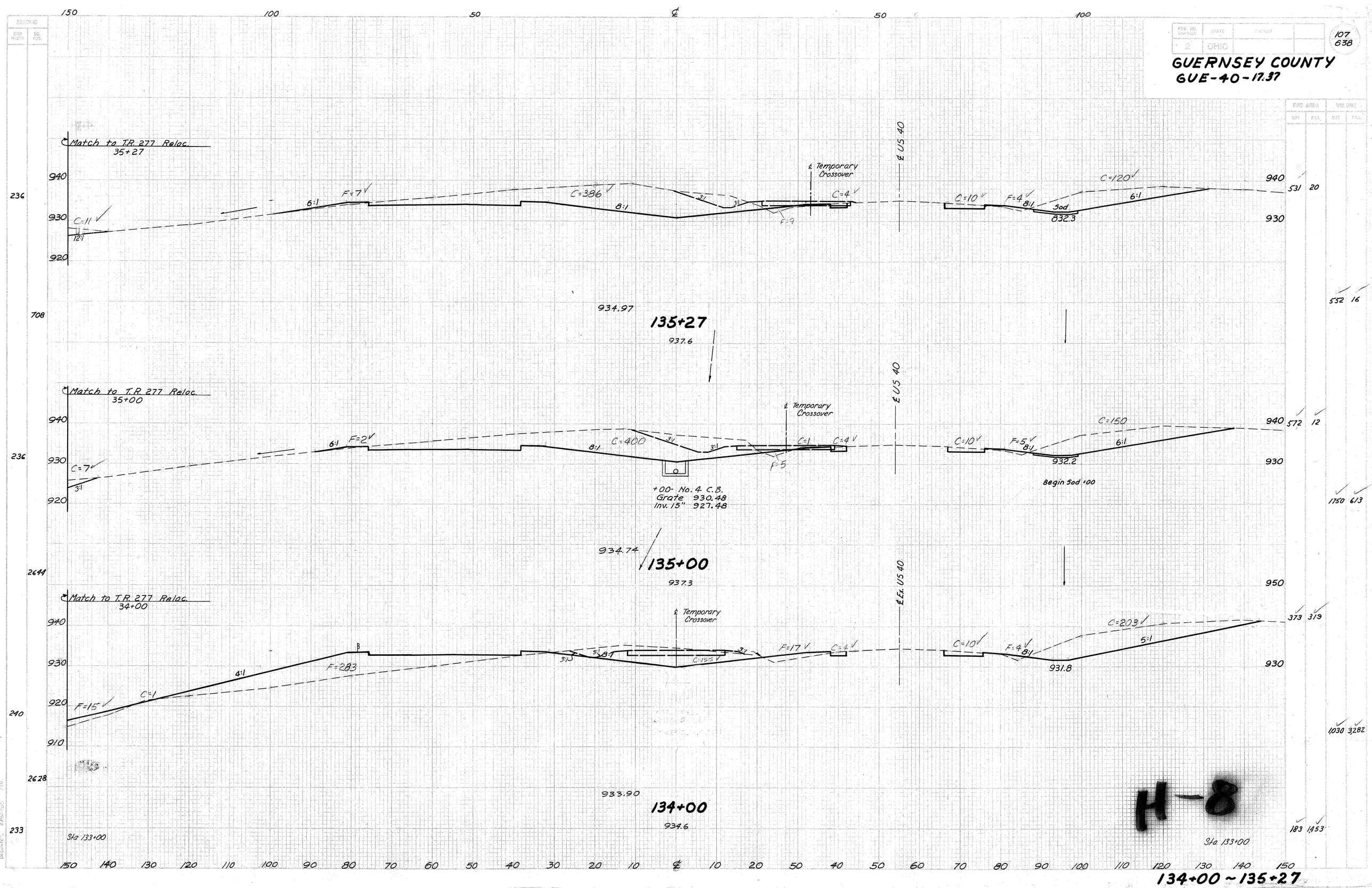
104
638
GUERNSEY COUNTY
GUE-40-17.37
Match to T.R. 277 Reloc.
31+50
Temporary Crossover
C=4
C=7
1½:1
2:1
1/2"/ft.
F=4372
℄ Ex. US 40
932.36
131+50
919.5
Match to T.R. 277 Reloc.
31+00
C=5
C=10
F=180
F=5104
1/2"/ft.
2:1
932.25
131+00
917.8
Sta 130+50
Sta. 130+50
225
1344
259
1503
282
11 4380
24 8952
15 5288
26 10,597
13 6,156
131+00 ~ 131+50



105
638
GUERNSEY COUNTY
GUE-40-17.37
Match to T.R. 277 Reloc.
32+19
℄ Temporary Crossover
℄ Ex. US 40
C=4
C=10
1½:1
F=2751
2:1
1/2"/ft.
932.62
132+19
921.1
Match to T.R. 277 Reloc.
32+00
Temporary Crossover
℄ Ex. US 40
C=4
C=6
1½:1
F=3310
2:1
1/2"/ft.
932.53
132+00
922.0
Sta 131+50
Sta 131+50
14 2,753
8 2,135
10 3316
19 7126
11 4380
132+00 ~ 132+19

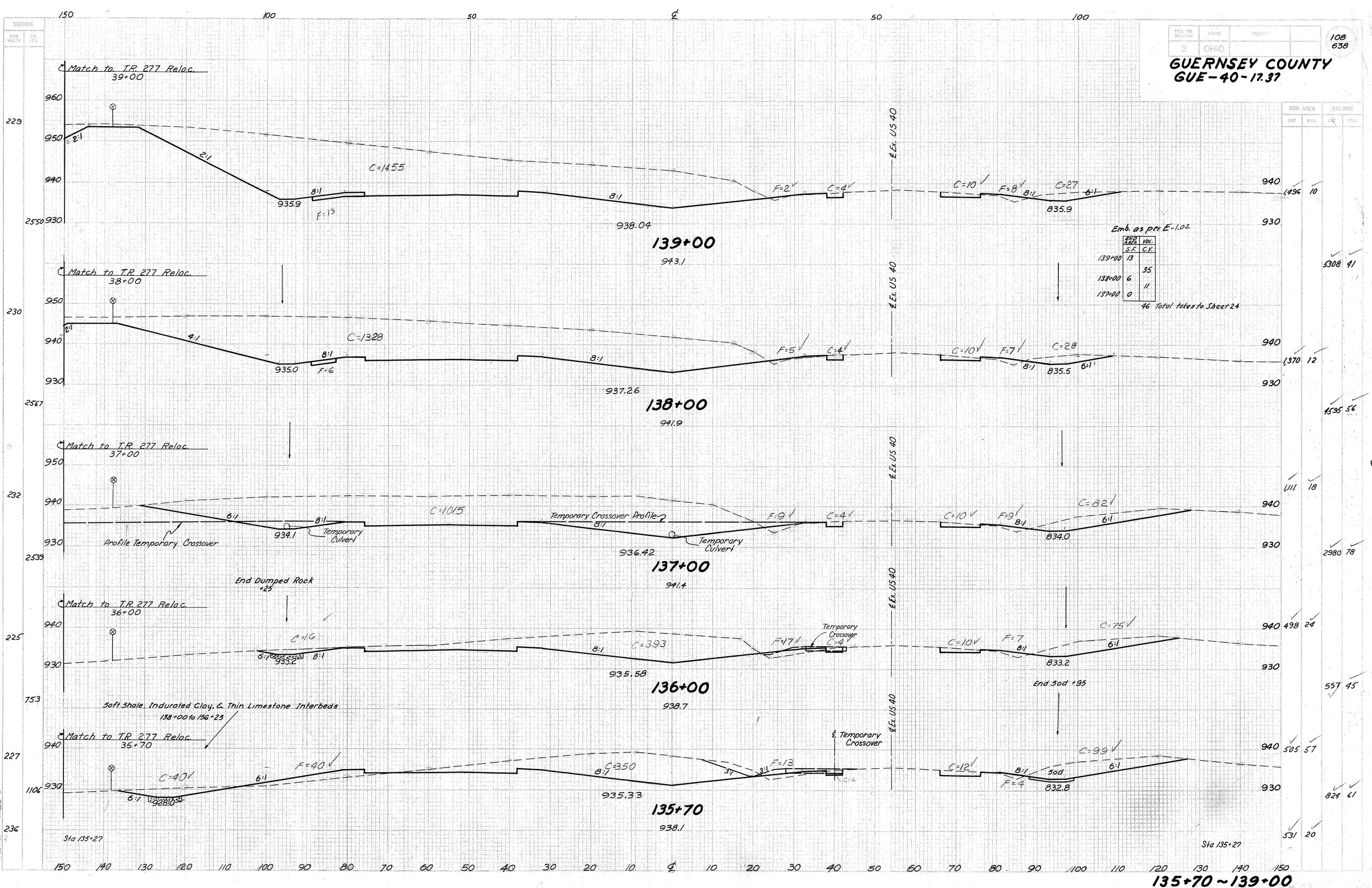


GUERNSEY COUNTY
GUE-40-17.37
106
638
Match to T.R. 277 Reloc.
℄ Temporary Crossover
℄ Ex. US 40
+25
End Dumped Rock Channel Protection 8%
C=25
1/2"/ft.
2:1
F=1429
C=53
8:1
3:1
10:1
F=15
C=4
C=7
F=9
8:1
C=94
6:1
Dumped Rock
931.0
Prop. 15"
W.B. 933.09
133+00
932.8
Match to T.R. 277 Reloc.
32+27
+30
Begin Dumped Rock Channel Protection
Var.
C=4
C=9
F=2
3:1
Conc. Collar.
82'~15" @ 1.40%
Inv. 924.16
2~15" 30° Bends M6.4(C)
+50, 131' Lt.
Inv. 907.20
Type "E" H.W.
1/2"/ft.
Inv. 907.23
15" @ 1.00%
46'~15" M-6.4(C)
F=2380
132+50, 7' Lt. No. 4 C.B.
Grate 928.99
Inv. 15" 924.98
Inv. 6" 926.74
922.0
932.66
132+27
926.6
Sta 132+19
Sta 132+19
132+27~133+00

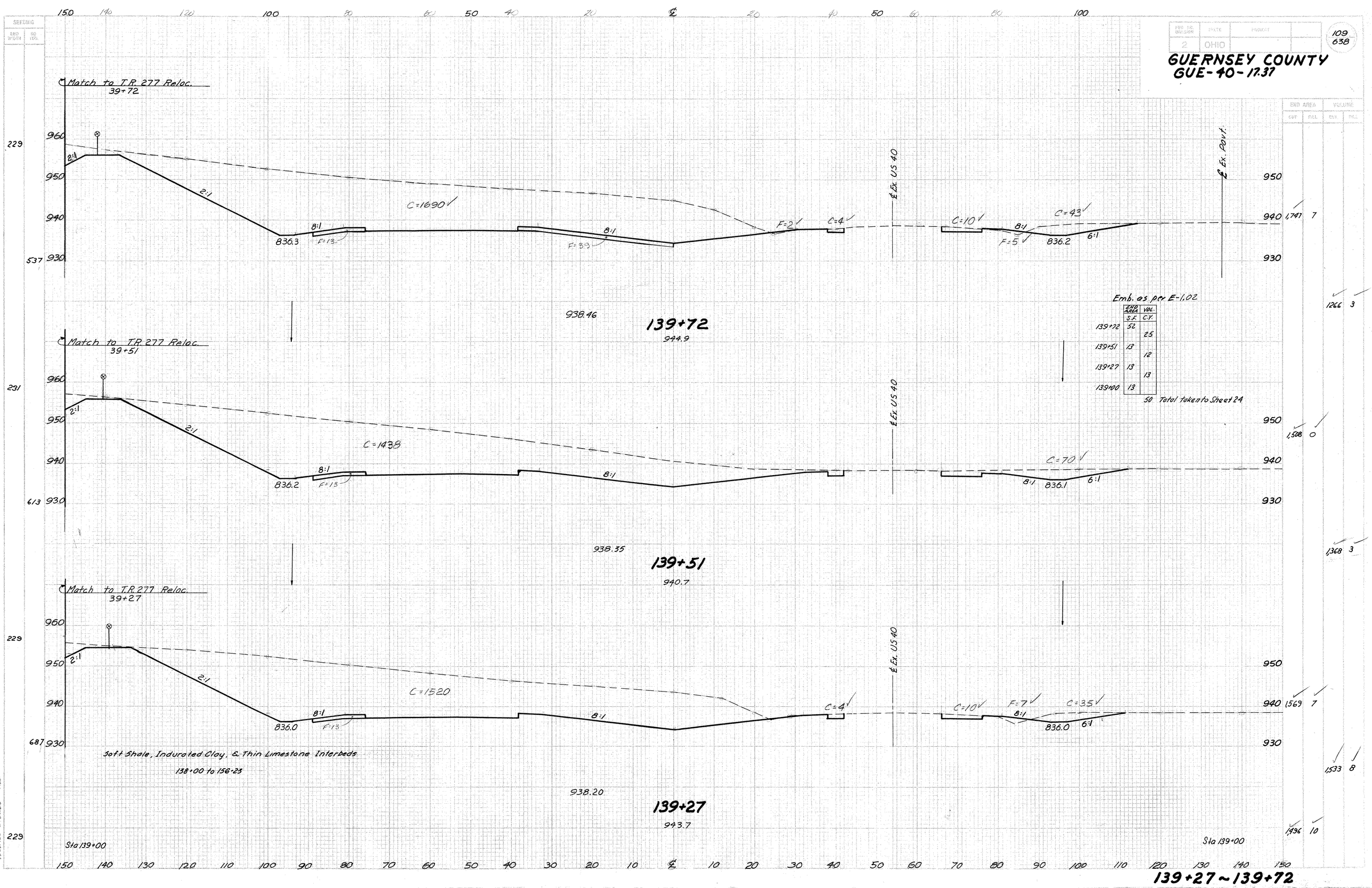


107
638
2
OHIO
GUERNSEY COUNTY
GUE-40-17.37
Match to T.R. 277 Reloc.
35+27
Match to T.R. 277 Reloc.
35+00
Match to T.R. 277 Reloc.
34+00
℄ Temporary Crossover
℄ US 40
℄ Ex. US 40
C=11
12:1
6:1
F=7
C=386
8:1
3:1
F=9
C=4
C=10
F=4
8:1
Sod
832.3
C=120
6:1
934.97
135+27
937.6
C=7
3:1
6:1
F=2
C=400
8:1
3:1
F=5
C=1
C=4
C=10
F=5
8:1
932.2
C=150
6:1
+00- No. 4 C.B.
Grate 930.48
Inv. 15" 927.48
Begin Sod +00
934.74
135+00
937.3
F=15
C=1
4:1
F=283
3:1
8:1
C=155
F=17
C=4
C=10
F=4
8:1
931.8
C=203
5:1
933.90
134+00
934.6
Sta 133+00
Sta 133+00
H-8

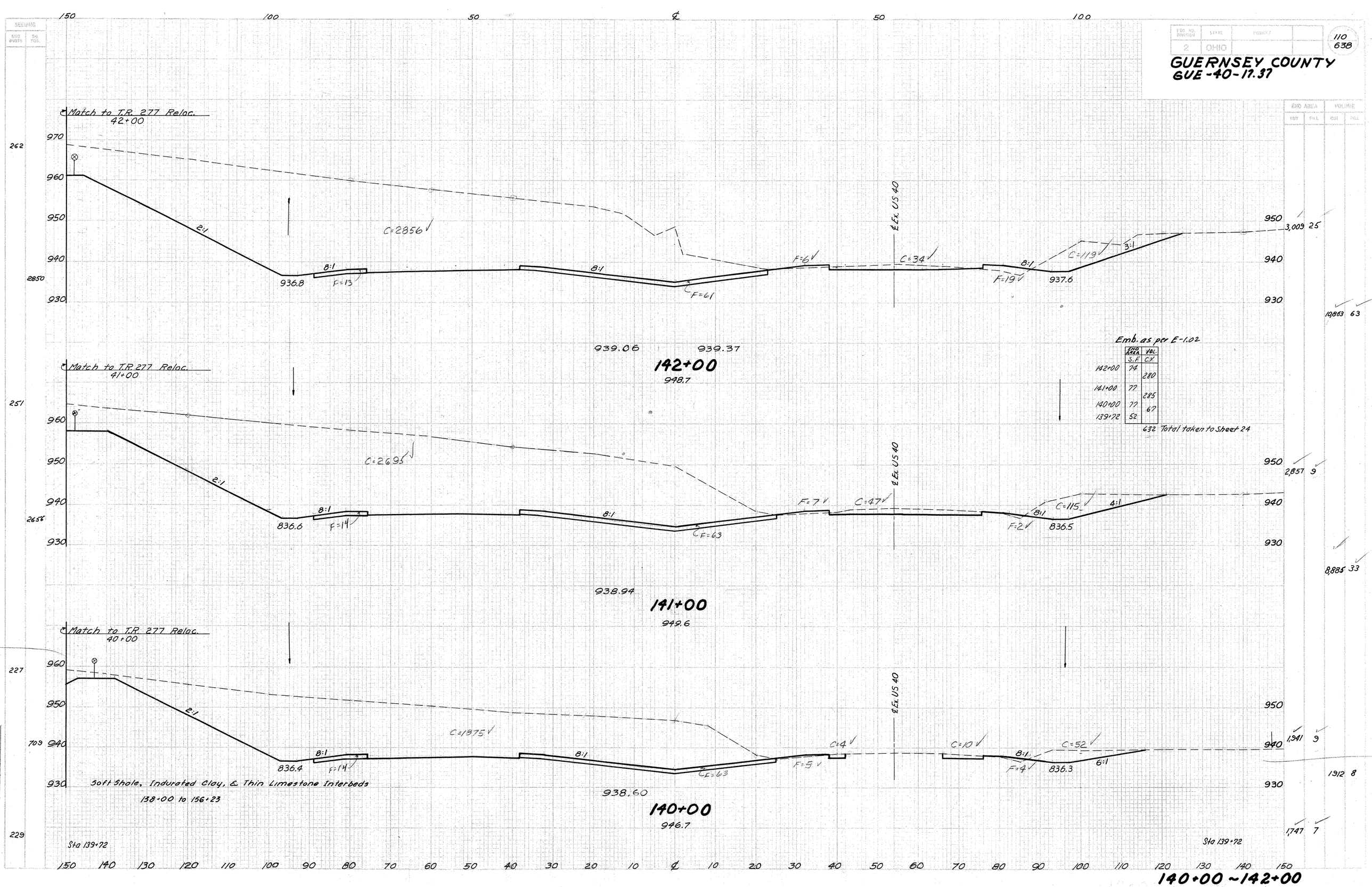
134+00 ~ 135+27



GUERNSEY COUNTY
GUE-40-17.37
108
638
Match to T.R. 277 Reloc.
39+00
C=1455
935.9
938.04
139+00
943.1
Match to T.R. 277 Reloc.
38+00
C=1328
935.0
937.26
138+00
941.9
Match to T.R. 277 Reloc.
37+00
C=1015
Temporary Crossover Profile
Profile Temporary Crossover
Temporary Culvert
934.1
936.42
137+00
941.4
End Dumped Rock +25
Match to T.R. 277 Reloc.
36+00
C=16
C=393
935.58
136+00
938.7
Temporary Crossover
End Sod +95
Soft Shale, Indurated Clay, & Thin Limestone Interbeds
138+00 to 156+23
Match to T.R. 277 Reloc.
35+70
C=40
C=350
935.33
135+70
938.1
Sta 135+27
℄ Ex. US 40
℄ Temporary Crossover
Emb. as per E-1.02
46 Total taken to Sheet 24
135+70 ~ 139+00



FED. RD. DIVISION 2
STATE OHIO
PROJECT
109
638
GUERNSEY COUNTY
GUE-40-17.37
Match to T.R. 277 Reloc.
39+72
C=1690
836.3
F=13
F=39
F=2
C=4
C=10
F=5
C=43
836.2
℄ Ex. US 40
℄ Ex. Pavt.
938.46
139+72
944.9
Match to T.R. 277 Reloc.
39+51
C=1438
836.2
F=13
C=70
836.1
938.35
139+51
940.7
Match to T.R. 277 Reloc.
39+27
C=1520
836.0
F=13
C=4
C=10
F=7
C=35
836.0
Soft Shale, Indurated Clay, & Thin Limestone Interbeds
138+00 to 156+23
938.20
139+27
943.7
Sta 139+00
Sta 139+00
Emb. as per E-1.02
END AREA S.F. VOL. C.Y.
139+72 52 25
139+51 13 12
139+27 13 13
139+00 13
50 Total taken to Sheet 24
1,747 7
1266 3
1,508 0
1,368 3
1,569 7
1,533 8
1,496 10
139+27 ~ 139+72



Emb. as per E-1.02

	END AREA S.F.	VOL. C.Y.
142+00	74	
		280
141+00	77	
		285
140+00	77	
		67
139+72	52	

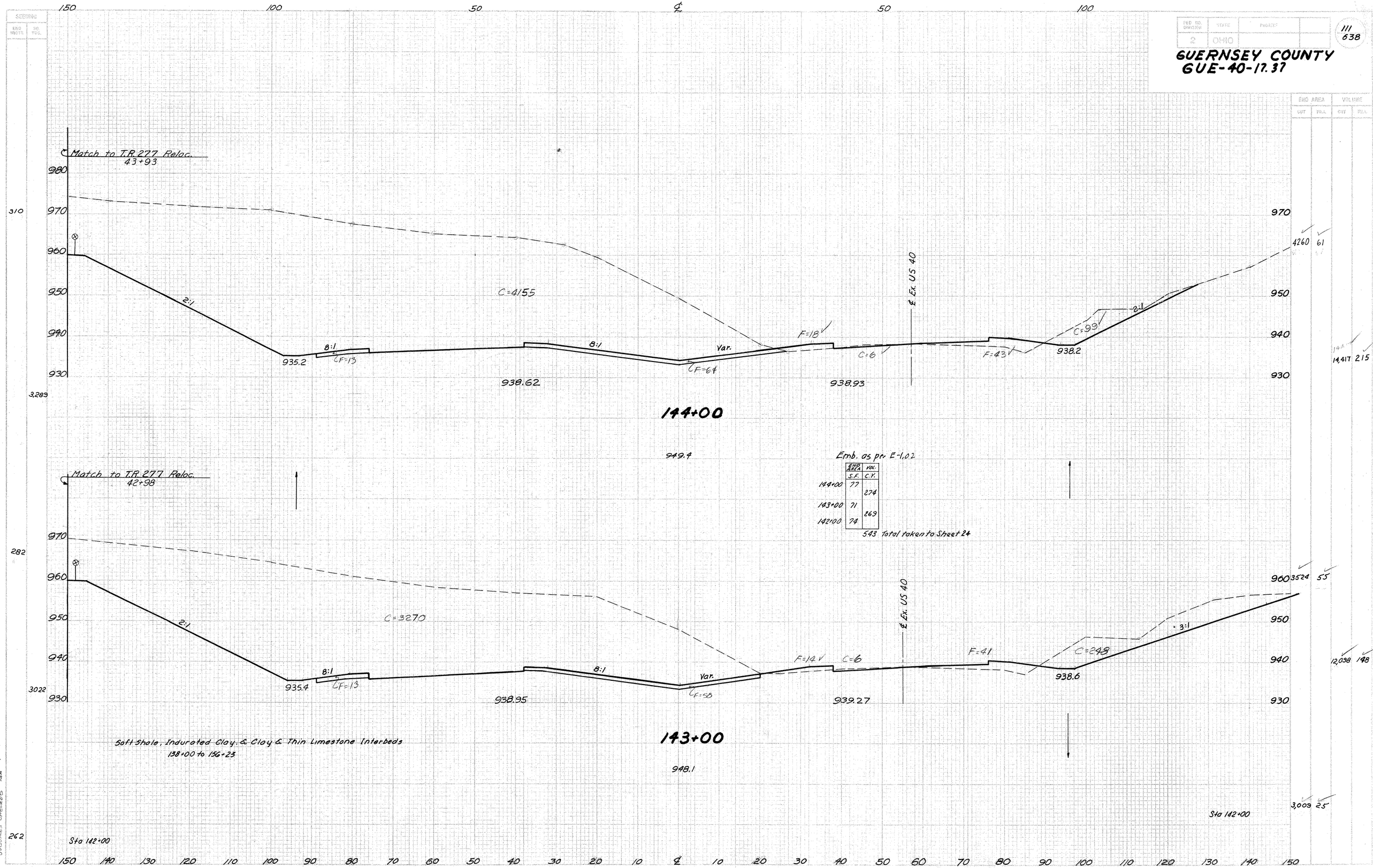
632 Total taken to Sheet 24

140+00 ~ 142+00

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

111
638

GUERNSEY COUNTY
GUE-40-17.37

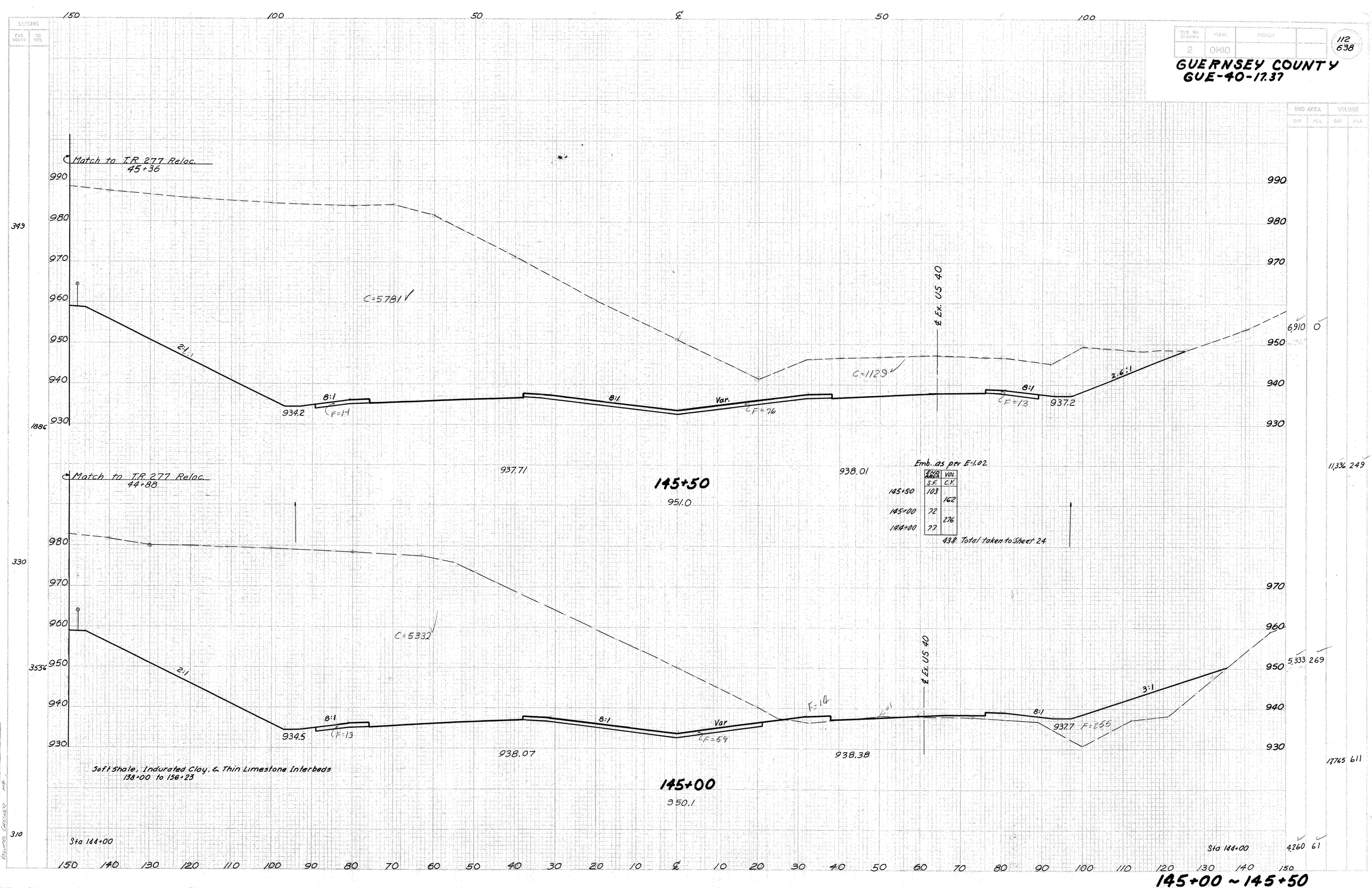


Emb. as per E-1.02

	END AREA S.F.	VOL. C.Y.
144+00	77	
		274
143+00	71	
		269
142+00	74	

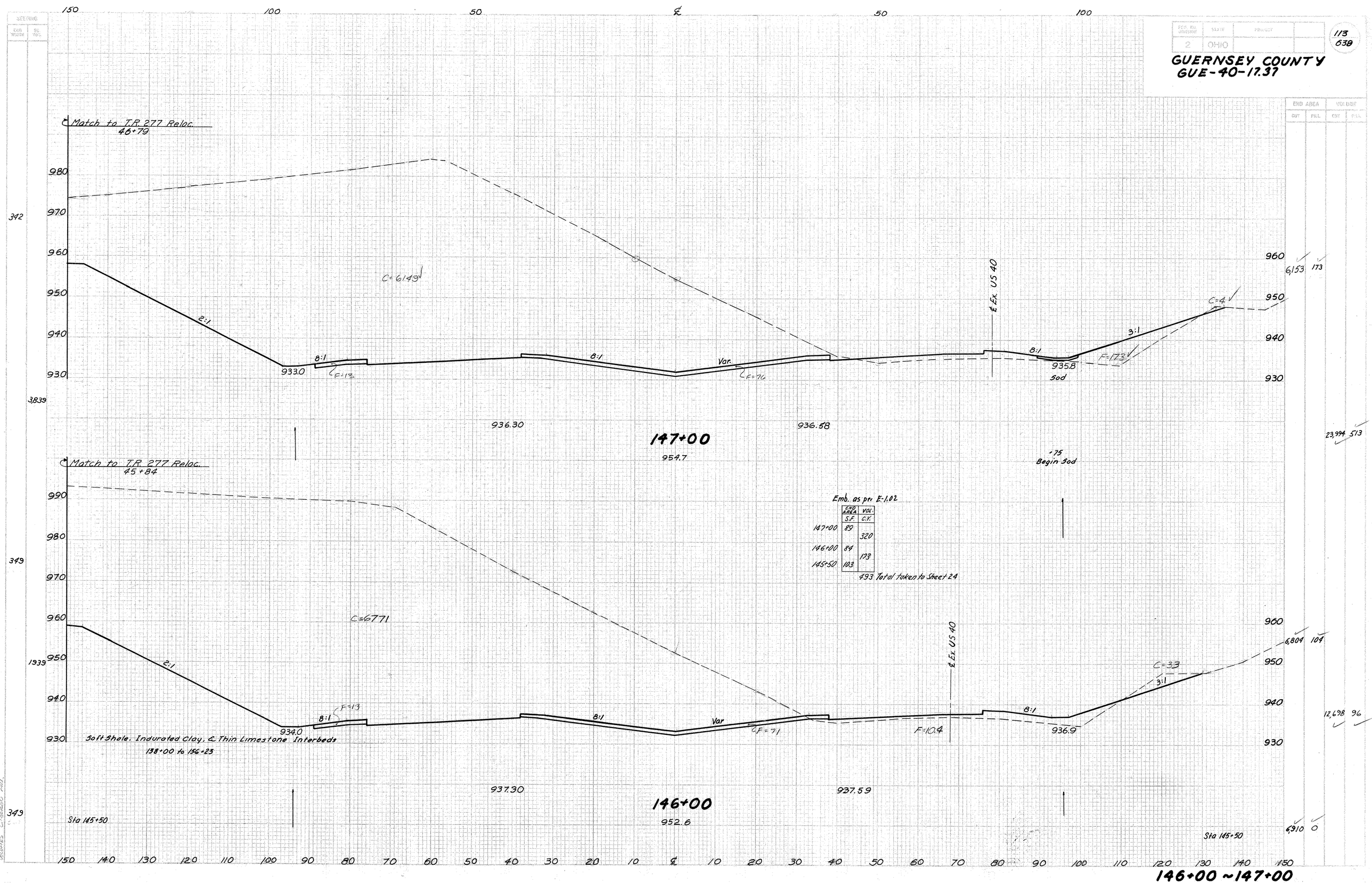
543 Total taken to Sheet 24

143+00 ~ 144+00



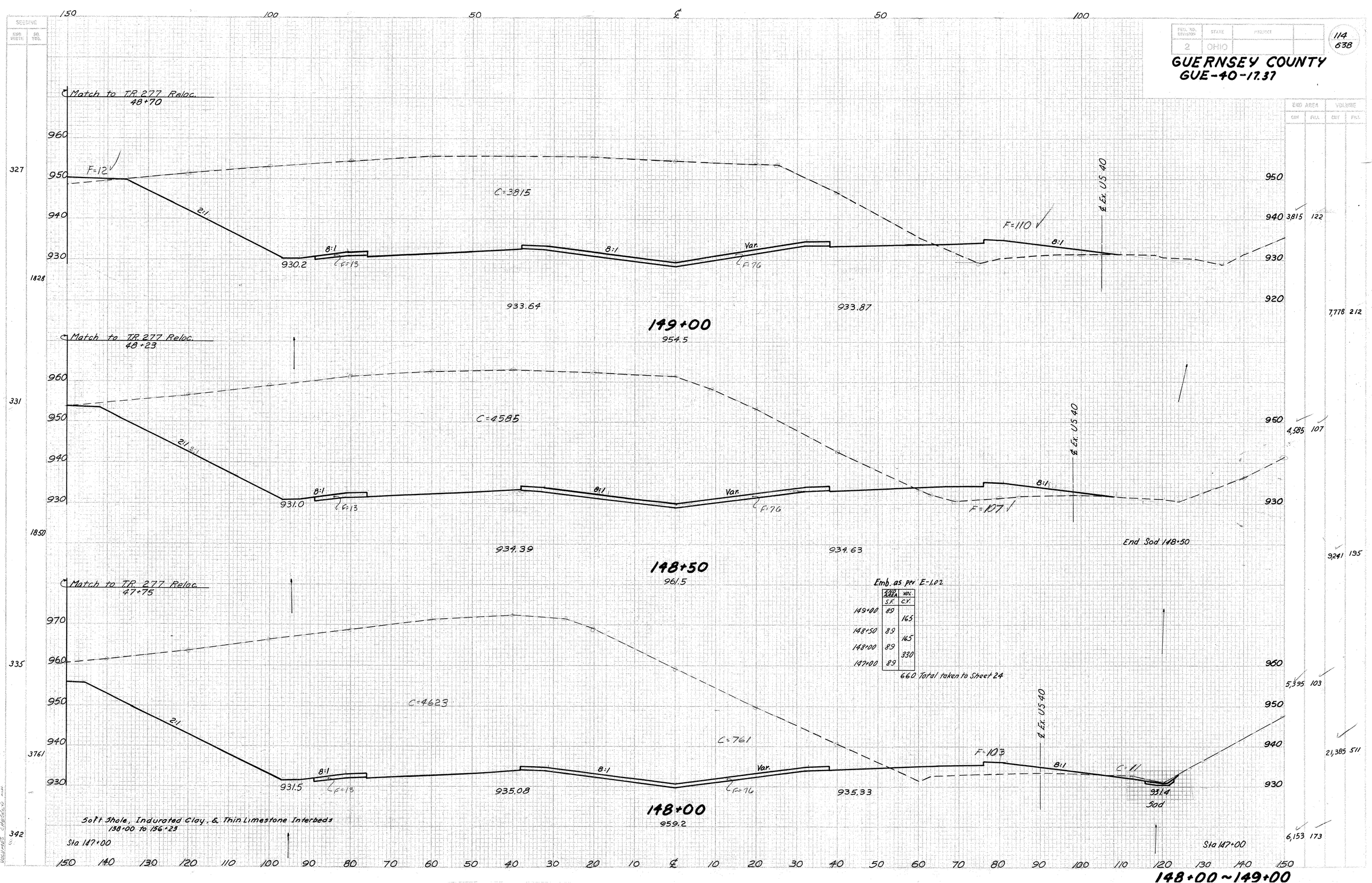
2 OHIO
112
638
GUERNSEY COUNTY
GUE-40-17.37
Match to T.R. 277 Reloc.
45+36
C=5781
2:1
8:1
934.2
F=14
8:1
Var.
F=76
C=1129
℄ Ex. US 40
8:1
F=13
937.2
2.6:1
6,910 0
11,336 249
937.71
938.01
145+50
951.0
Emb. as per E-1.02
END AREA S.F. VOL. C.Y.
145+50 103
162
145+00 72
276
144+00 77
438 Total taken to Sheet 24
Match to T.R. 277 Reloc.
44+88
C=5332
2:1
8:1
934.5
F=13
8:1
Var
F=69
F=14
℄ Ex. US 40
8:1
937.7 F=255
3:1
5,333 269
17,765 611
938.07
938.38
Soft Shale, Indurated Clay, & Thin Limestone Interbeds
138+00 to 156+23
145+00
950.1
Sta 144+00
Sta 144+00
4,260 61
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

145+00 ~ 145+50



GUERNSEY COUNTY
GUE-40-17.37
113
638
Match to T.R. 277 Reloc.
46+79
C=6149
2:1
8:1
933.0
F=13
Var.
F=76
℄ Ex. US 40
935.8
Sod
3:1
C=4
F=173
936.30
936.58
147+00
954.7
+75
Begin Sod
Match to T.R. 277 Reloc.
45+84
C=6771
934.0
F=71
F=10.4
936.9
C=33
Soft Shale, Indurated Clay, & Thin Limestone Interbeds
138+00 to 156+23
937.30
937.59
146+00
952.6
Sta 145+50
Sta 145+50
Emb. as per E-1.02
END AREA S.F. VOL. C.Y.
147+00 89
320
146+00 84
173
145+50 103
493 Total taken to Sheet 24
342
349
349
3,839
1939
6,153 173
23,994 513
6,804 104
12,698 96
6,910 0

146+00 ~ 147+00



Emb. as per E-1.02

	END AREA S.F.	VOL. C.Y.
149+00	89	
		165
148+50	89	
		165
148+00	89	
		330
147+00	89	

660 Total taken to Sheet 24

FED. HWY. DIVISION	STATE	PROJECT	
2	OHIO		

115
638

GUERNSEY COUNTY
GUE-40-17.37

SEEDING

END WIDTH	SQ YDS.
296	
298	
1667	
302	
3433	
316	
3572	
327	

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
3,764	0		
		6608	0
3,372	0		
		4830	81
		1899	88
		8590	415
		2795	136
		12,319	478
		3815	122

Match to T.R. 277 Relac.
51+57

950 / 940 / 930 / 920

2:1 — 2:1 — 924.5 — 8:1 — C=13 — 8:1 — C=2055 ✓ — 927.99 — +00, No. 4 C.B. Grate 923.57 Inv. 15" 920.57 ✓ Inv "6" 921.32 — **152+00** 941.7 — Var. — C=76 — C=1697 ✓ — 928.10 — 140' ~ 15" at 12.0% Class J-1 — F=4.8 — 6:1 — +00, 160' Rt. Inv. 15" 918.89 Type "E" HW — 4:1 — 918.88 — Sod

940 / 930 / 920 / 910

C=12 ✓ — 4:1 — 920 — 150 — 160

Match to T.R. 277 Relac.
51+09

950 / 940 / 930 / 920

2.2:1 — 925.8 — 8:1 — C=13 — 8:1 — C=196.0 ✓ — 929.07 — **151+50** 942.7 — Var. — C=76 — C=1412 ✓ — 929.20 — F=3.1 — 6:1 — F=1 ✓ — 923.0 — Sod

940 / 930 / 920

Match to T.R. 277 Relac.
50+61

940 / 930 / 920

1/2" / ft. — F=1.8 ✓ — 2.9:1 — 926.6 — 8:1 — C=13 — 8:1 — C=1830 ✓ — 930.10 — **151+00** 936.0 — Var. — C=59 — 930.25 — F=70 — 6:1 — C=14 ✓ — 4:1 — Sod — 924.0 — Sod

940 / 930 / 920

Emb. as per E-1.02

Begin Sod 151+00

Match to T.R. 277 Relac.
49+66

950 / 940 / 930 / 920

1/2" / ft. — F=5.9 — 2.4:1 — 928.6 — 8:1 — F=1.3 — 8:1 — C=2795 — 931.98 — **150+00** 945.8 — Var. — F=7.6 — 932.17 — F=7.7 ✓ — 6:1

950 / 940 / 930 / 920

Soft Shale, Indurated Clay, & Thin Limestone Interbeds
138+00 ~ 156+23

END AREA S.F.	VOL. C.Y.
152+00 137	
	238
151+50 120	
	178
151+00 72	
	298
150+00 89	
	330
149+00 89	

1044 Total taken to Sheet 24

℄ Ex. US 40

℄ Ex. US 40

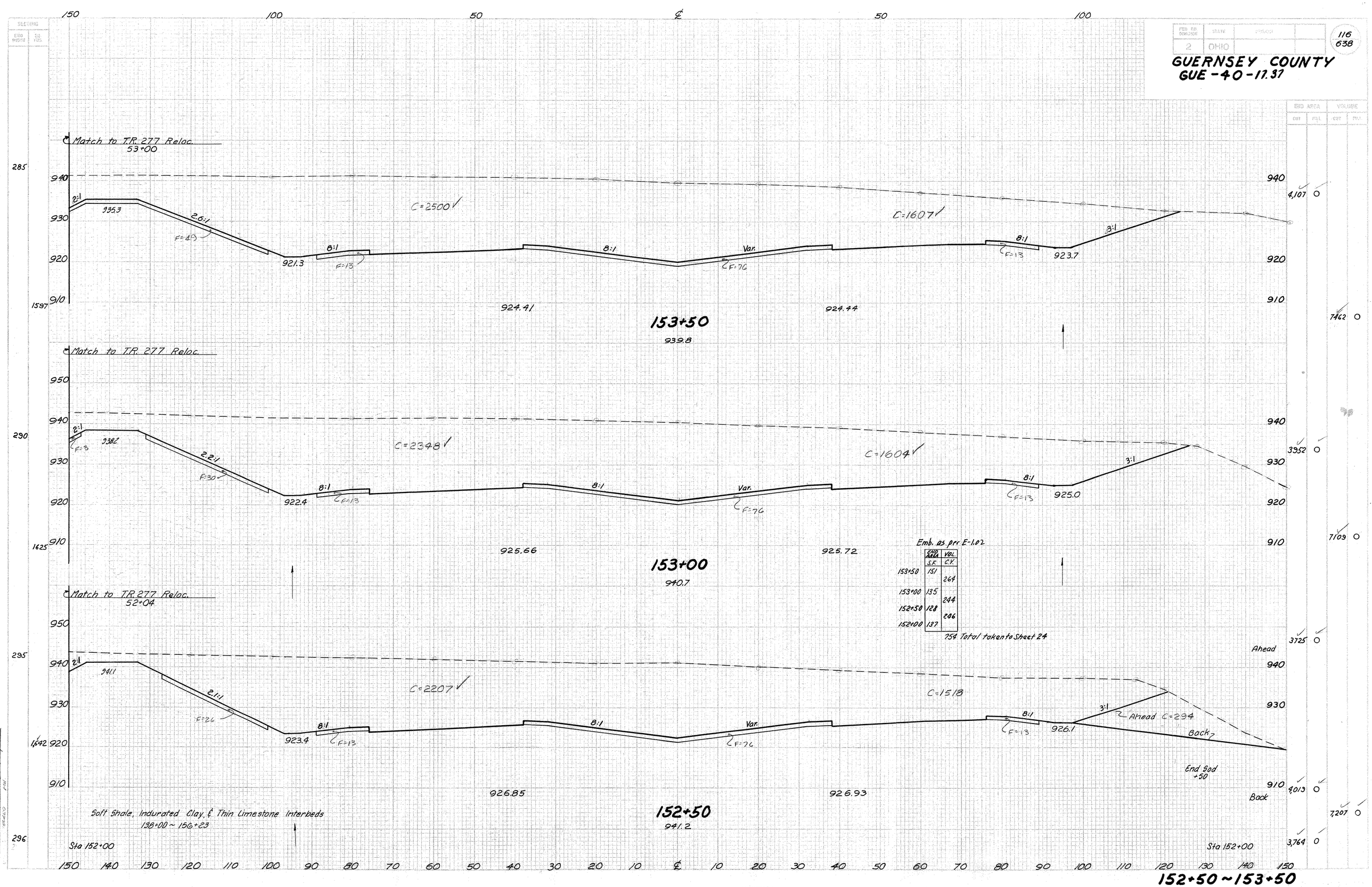
Sta 149+00

Sta 149+00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

150+00 ~ 152+00

VOLUMES CHECKED AM



Emb. as per E-1.02

	END AREA S.F.	VOL. C.Y.
153+50	151	
		264
153+00	135	
		244
152+50	128	
		246
152+00	137	

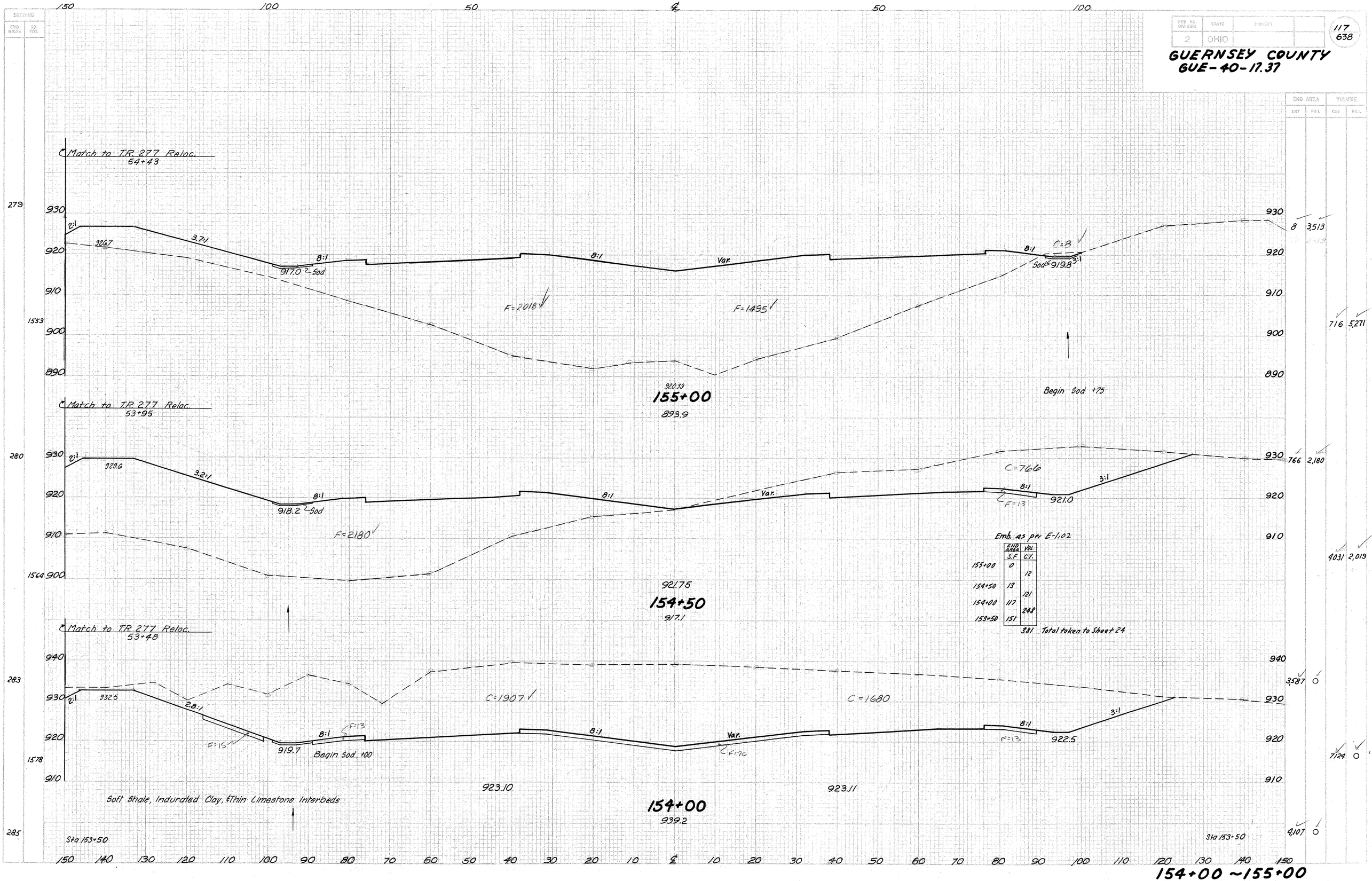
754 Total taken to Sheet 24

152+50 ~ 153+50

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

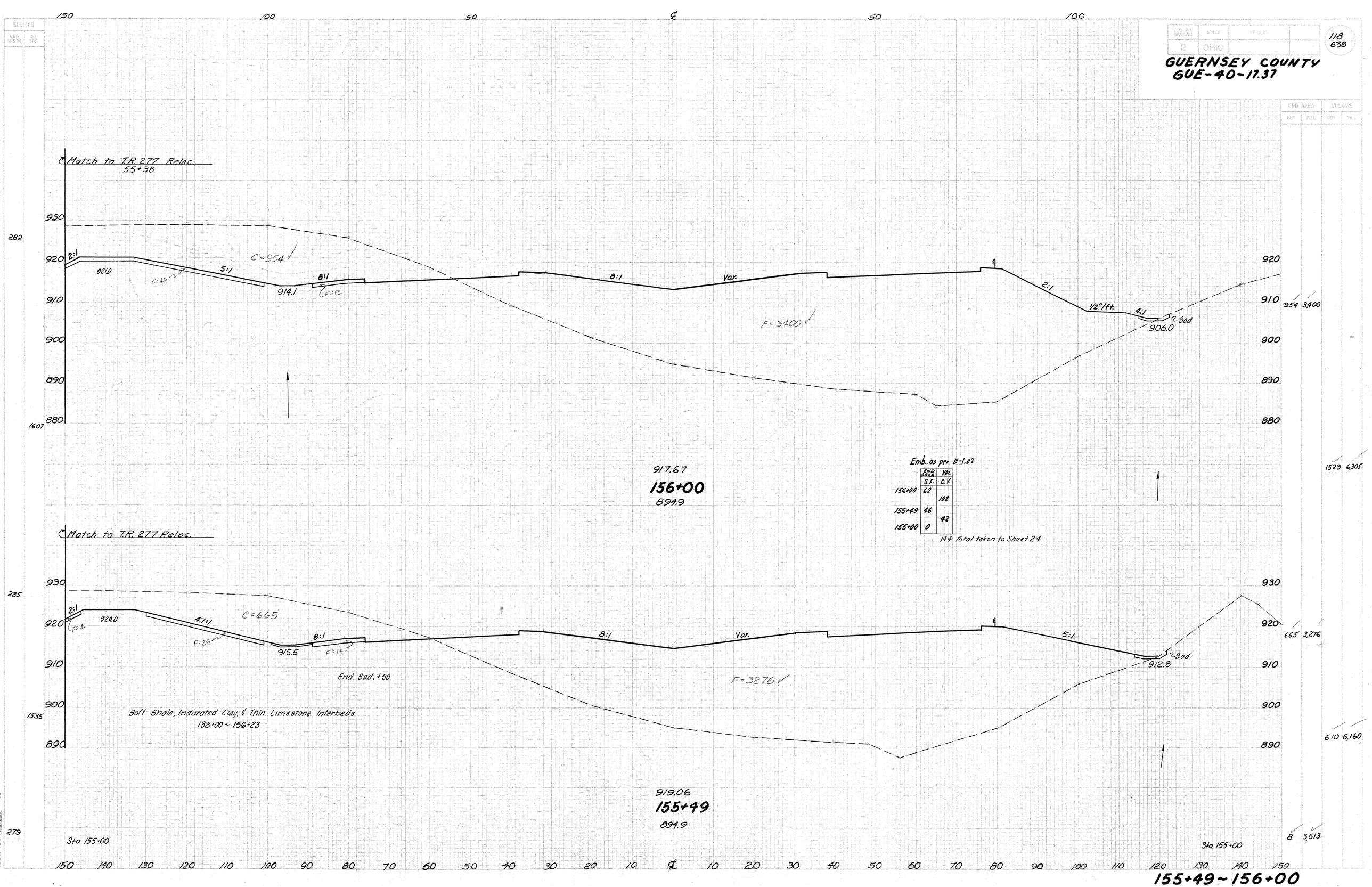
117
638

GUERNSEY COUNTY
GUE-40-17.37



	END AREA S.F	VOL. C.Y.
155+00	0	
		12
154+50	13	
		121
154+00	117	
		248
153+50	151	
		381

154+00 ~ 155+00



2 OHIO
118
638
GUERNSEY COUNTY
GUE-40-17.37
Match to T.R. 277 Reloc.
55+38
930
920
910
900
890
880
282
1607
2:1
921.0
5:1
C=954
914.1
8:1
F=13
8:1
Var.
F=3400
2:1
1/2"/ft.
4:1
906.0
Sod
954 3,400
917.67
156+00
894.9
Emb. as per E-1.02
END AREA S.F. VOL. C.Y.
156+00 62
102
155+49 46
42
155+00 0
144 Total taken to Sheet 24
1529 6,305
Match to T.R. 277 Reloc.
285
1535
279
2:1
924.0
4.1:1
C=665
F=29
915.5
8:1
F=13
8:1
Var.
F=3276
5:1
912.8
Sod
End Sod, +50
Soft Shale, Indurated Clay, & Thin Limestone Interbeds
138+00 ~ 156+23
665 3,276
610 6,160
919.06
155+49
894.9
Sta 155+00
Sta 155+00
8 3,513
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

155+49 ~ 156+00

SEEDING	
SQ. YDS.	

CHIEF, PLAN DIVISION	STATE	PROJECT	
2	OHIO		

119
638

GUERNSEY COUNTY
GUE-40-17.37

END AREA		VOLUME	
CUT	FILL	CUT	FILL

Match to TR 277 Rel
57+29

Match to T.R. 277 Reloc.
56+34

Match to TR 277 Reloc.
55+60

268 | 2,944 | 262 | 2336 | 284 | 723 | 282

910 900 890 880 920 930

C=14 ✓ 4:1 4:1 1/2"/ft. 2:1 8:1 Var. 8:1 2:1

8.9.9.0

F=2200 F=2950 ✓

912.23
158+00
879.6

C=191 ✓ 4:1 4:1 1"/ft.

190 180 875.5 160

205 5,150 | 1,326 16,937

C=511 ✓ 2:1 6:1 8:1 8:1 Var. 2:1 1/2"/ft. 4:1

915.3 911.5 902.0

F=49 F=3996 ✓

511 3,996

+75 Begin Dumped Rock Channel Part

914.95
157+00
889.9

C=985 ✓ 2:1 6:1 8:1 8:1 Var. 2:1 1/2"/ft. 4:1

912.7 913.5 902.5 Sod

F=49 F=13 F=3654

985 3,654 | 826 3004 | 554 3,400 | 2,134 10,908

Soft Shale, Indurated Clay, & Thin Limestone Interbeds
138+00 ~ 156+23

917.04
156+23
895.8

Sta. 156+00 Sta 156+00

156+75
End Sod & Begin
Dumped Rock Channel Part

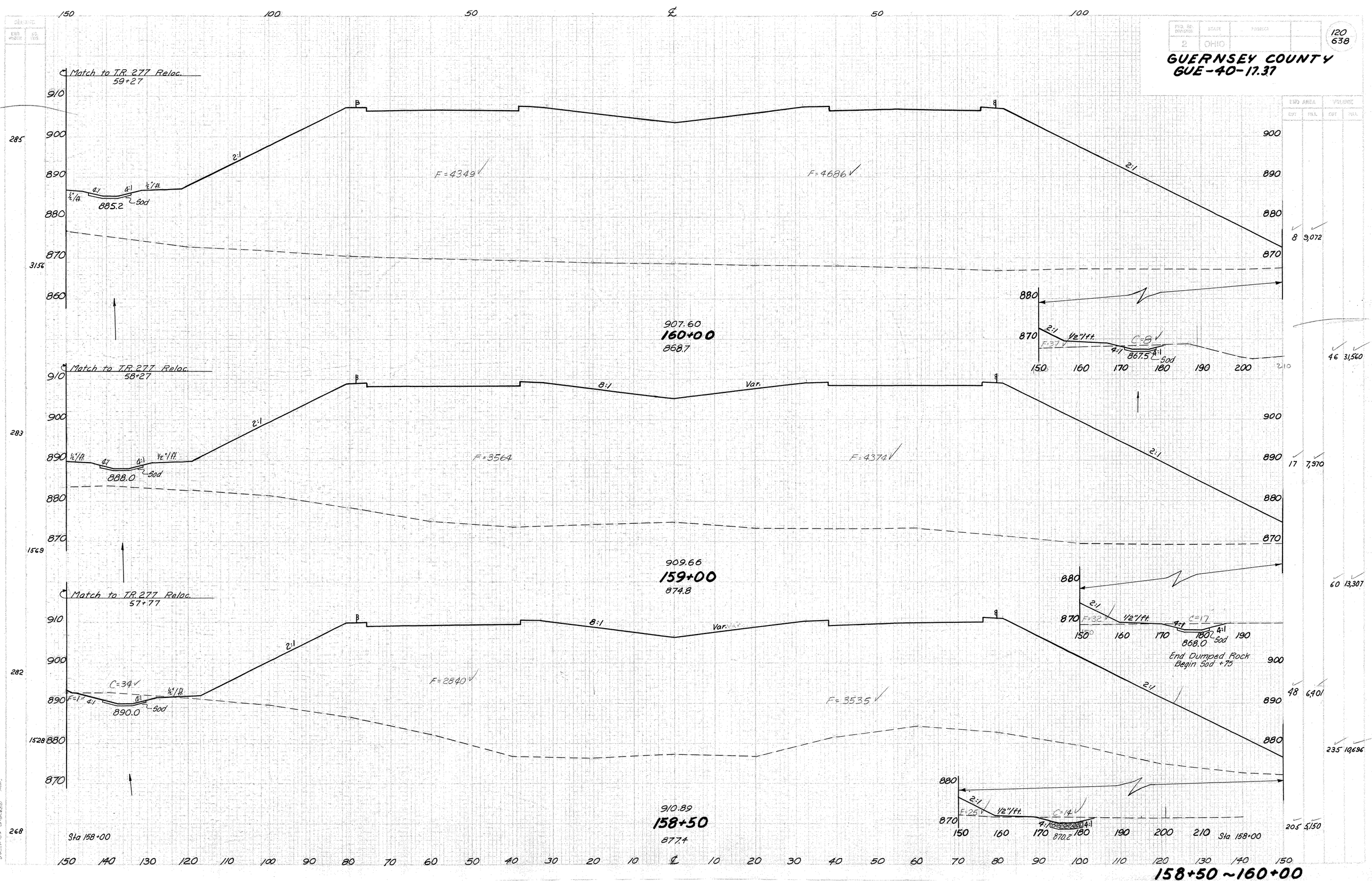
Emb. as per E-1.02

	END AREA S.F.	VOL. C.Y.
158+00	0	91
157+00	49	159
156+23	62	53
156+00	62	

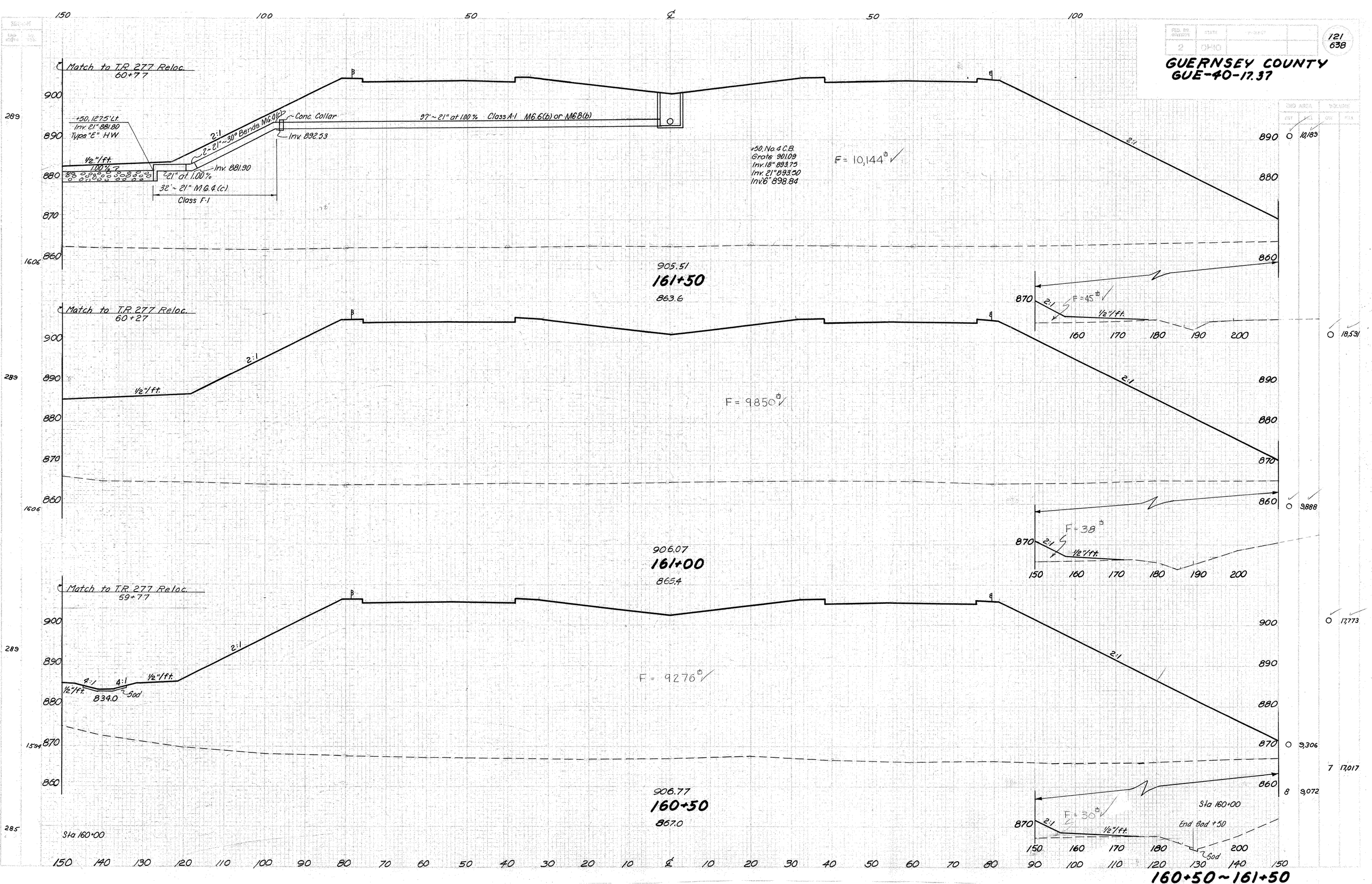
303 Total taken to Sheet 24

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

156+23 ~ 158+00



FED. RD. DIVISION 2
STATE OHIO
120
638
GUERNSEY COUNTY
GUE-40-17.37
END AREA
VOLUME
Match to T.R. 277 Reloc.
59+27
F=4349
F=4686
885.2
Sod
907.60
160+00
868.7
Match to T.R. 277 Reloc.
58+27
F=3564
F=4374
888.0
Sod
909.66
159+00
874.8
Match to T.R. 277 Reloc.
57+77
F=2840
F=3535
890.0
Sod
End Dumped Rock
Begin Sod +75
910.89
158+50
877.4
Sta 158+00
8 9,072
46 31,560
17 7,970
60 13,307
48 6,401
235 10,696
205 5,150
158+50 ~ 160+00



121
638
GUERNSEY COUNTY
GUE-40-17.37
Match to T.R. 277 Reloc.
60+77
+50, 127.5' Lt.
Inv. 21" 881.80
Type "E" HW
1/2"/ft.
1.00%
2:1
2~21"~30° Bends M6.4(c)
Conc. Collar
Inv. 892.53
Inv. 881.90
21" at 1.00%
32'~21" M6.4(c)
Class F-1
97'~21" at 1.00% Class A-1 M6.6(b) or M6.8(b)
+50, No. 4 C.B.
Grate 901.09
Inv. 18" 893.75
Inv. 21" 893.50
Inv. 6" 898.84
F = 10,144
905.51
161+50
863.6
F = 45
1/2"/ft.
Match to T.R. 277 Reloc.
60+27
F = 9850
906.07
161+00
865.4
F = 38
Match to T.R. 277 Reloc.
59+77
4:1
834.0
Sod
F = 9276
906.77
160+50
867.0
F = 30
Sta 160+00
End Sod +50
Sta 160+00
10,189
18,591
9,888
17,773
9,306
17,017
9,072

160+50~161+50

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

122
638

GUERNSEY COUNTY
GUE-40-17.37

SEEDING

END WIDTH	SQ. YDS.

FED. HIGHWAY DIVISION	STATE	PROJECT	
2	OHIO		

123
638

GUERNSEY COUNTY

GUE-40-17.37

SECTIONS

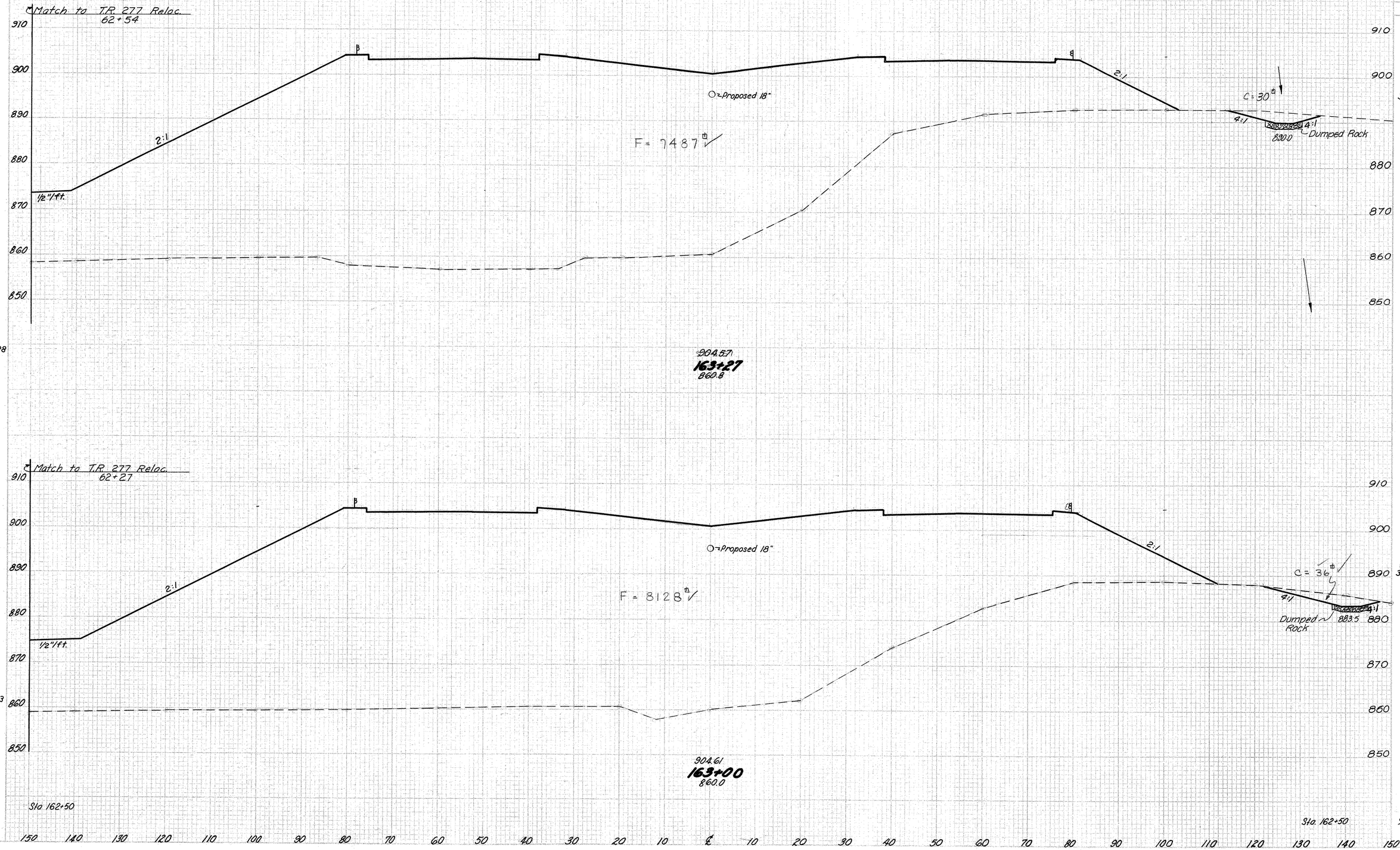
END WIDTH	SQ. YDS.
272	
280	
1583	
828	
290	

END AREA

CUT	FILL
30	7487
33	7808
36	8,128
42	17,324
9	10,582

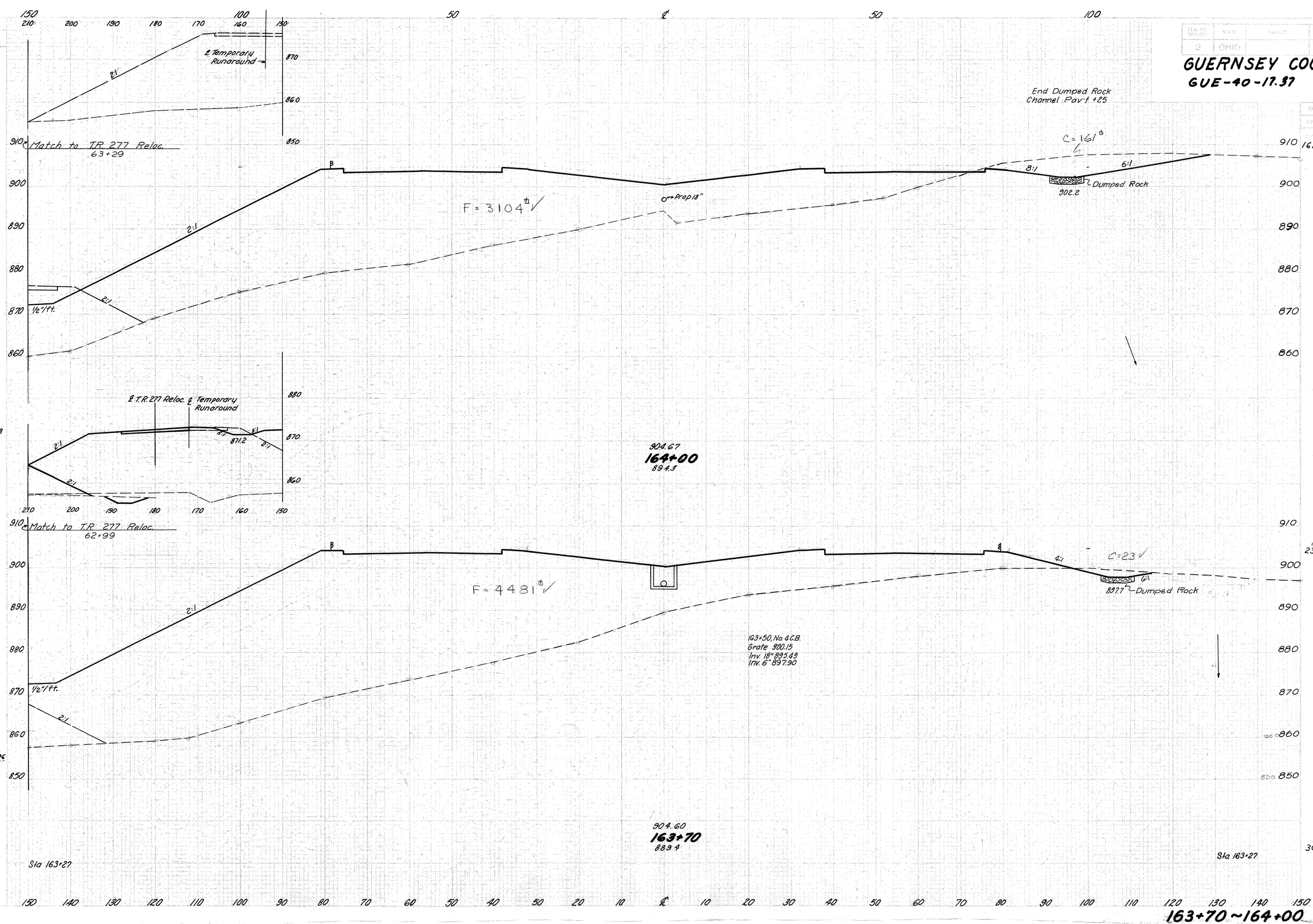
VOLUME

CUT	FILL

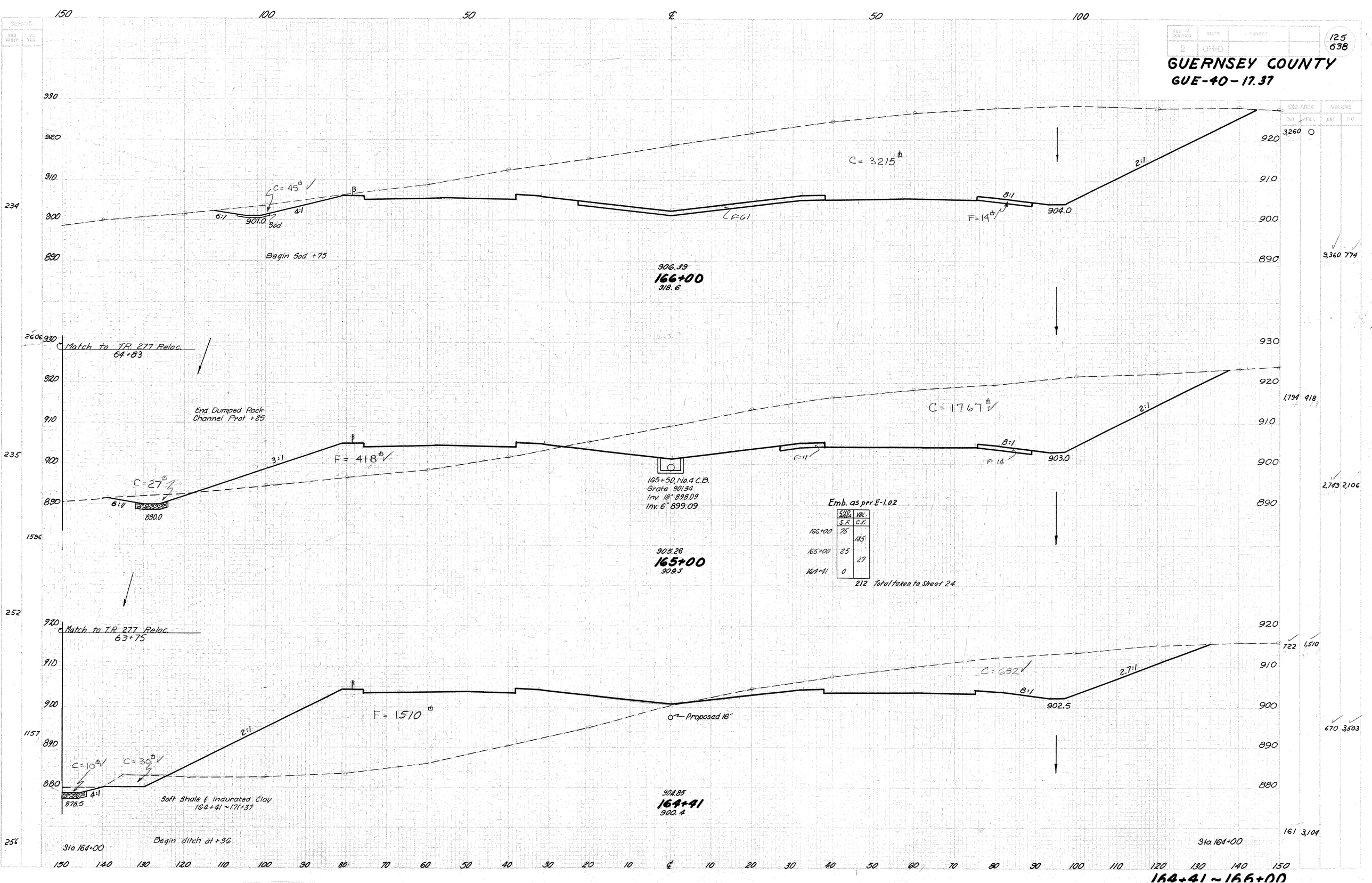


163+00 ~ 163+27

GUERNSEY COUNTY
GUE-40-17.37



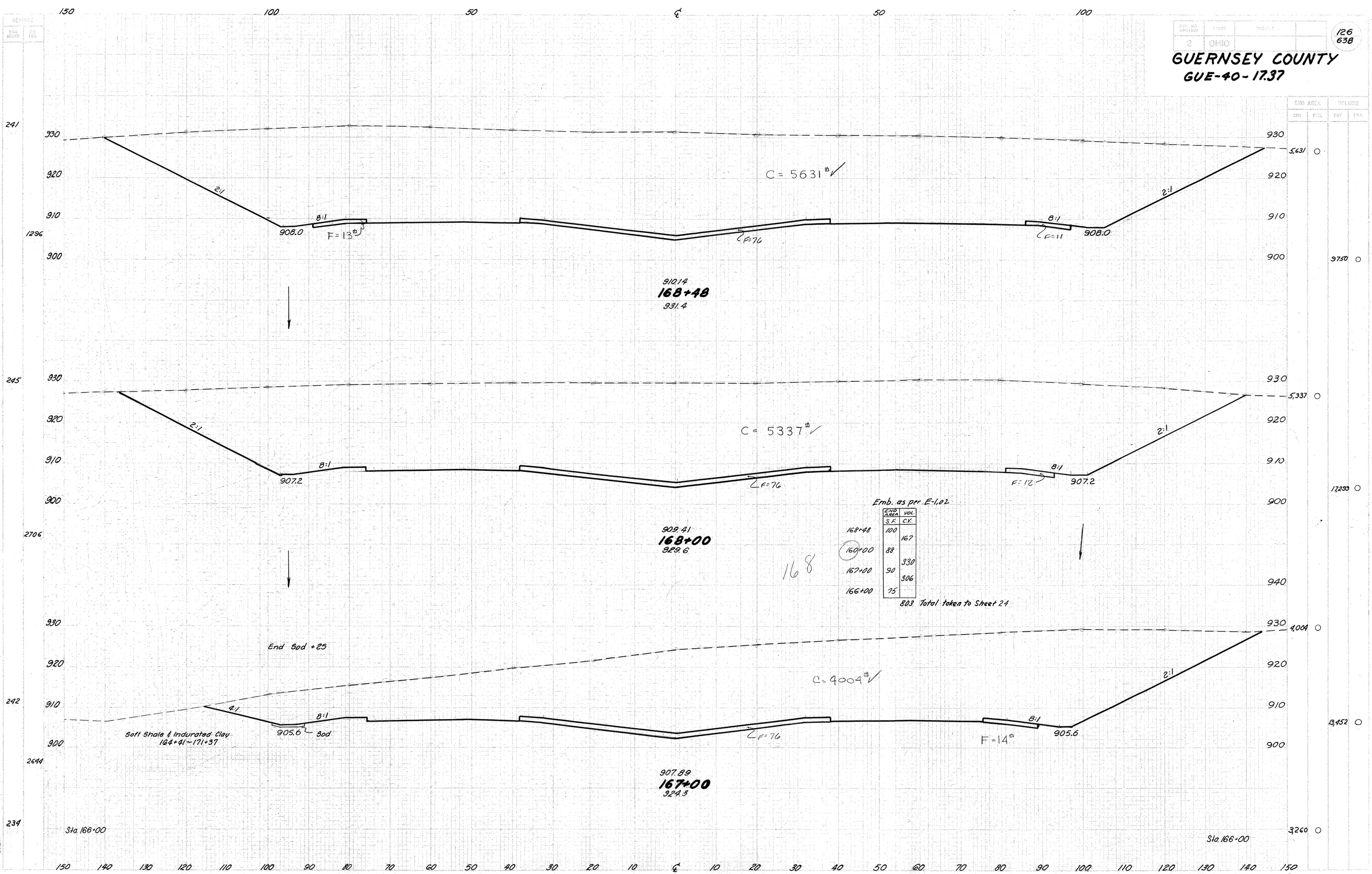
163+70 ~ 164+00



2 OHIO
125
638
GUERNSEY COUNTY
GUE-40-17.37
C= 3215
C= 45
6:1
901.0
Sod
4:1
F=61
F=14
8:1
904.0
2:1
Begin Sod +75
906.39
166+00
918.6
Match to T.R. 277 Reloc.
64+83
End Dumped Rock
Channel Prot +25
C= 1767
3:1
F= 418
C=27
6:1
890.0
165+50, No.4 C.B.
Grate 901.34
Inv. 18" 898.09
Inv. 6" 899.09
F=11
F=14
8:1
903.0
2:1
905.26
165+00
909.3
Emb. as per E-1.02
END AREA S.F. VOL. C.Y.
166+00 75
185
165+00 25
27
164+41 0
212 Total taken to Sheet 24
Match to T.R. 277 Reloc.
63+75
C= 682
2.7:1
8:1
902.5
F= 1510
Proposed 16"
2:1
C=10
C=30
4:1
878.5
Soft Shale & Indurated Clay
164+41 ~ 171+37
904.85
164+41
900.4
Begin ditch at +36
Sta 164+00
Sta 164+00
3,260 0
9,360 774
1,794 418
2,749 2,106
722 1,510
670 3,503
161 3,104

164+41 ~ 166+00

GUERNSEY COUNTY
GUE-40-17.37



	END AREA S.F.	VOL. C.Y.
168+48	100	
		167
160+00	88	
		330
167+00	90	
		306
166+00	75	

167+00 ~ 168+48

GUERNSEY COUNTY
GUE-40-17.37

END AREA: CUT | FILL
VOLUME: CUT | FILL

150 100 50 ℄ 50 100

930 / 920 / 910 / 900

C = 3321 ✓

6:1 → 910.4 → 8:1 → F=76 → 8:1 → 910.7 → 2:1

3,321

Emb. as per E-1.02

	END AREA S.F.	VOL. C.Y.
170+30	87	
		97
170+00	87	
		160
169+54	101	
		202
169+00	101	
		195
168+48	100	

654 Total taken to Sheet 24

912.91
170+30
926.4

3766

930 / 920 / 910

C = 3458 ✓

6:1 → 910.2 → 8:1 → F=76 → 912.45 → 8:1 → 910.3 → 2:1

170+00
927.1

3,458

6,592

930 / 920 / 910

C = 4281 ✓

2.8:1 → 909.3 → 8:1 → F=14 → 911.75 → F=76 → 8:1 → 909.6 → 2:1

169+54
926.8

4,281

9,521

930 / 920 / 910

C = 5240 ✓

2:1 → 908.5 → 8:1 → F=14 → 910.93 → F=76 → 8:1 → 908.7 → 2:1

Soft Shale & Indurated Clay
164+41 ± 171+37

169+00
929.6

5,240

10,963

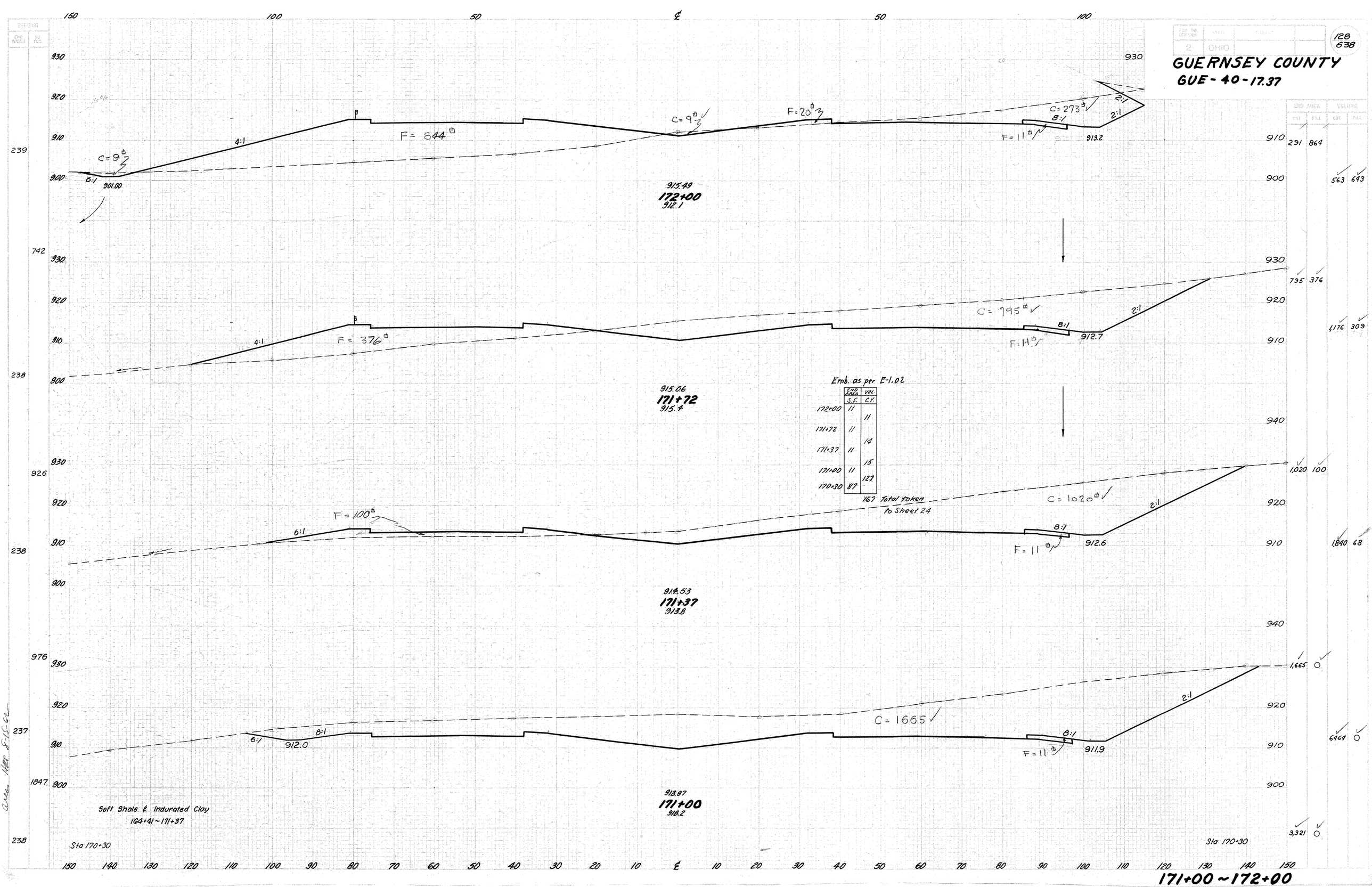
Sta 168+48

Sta 168+48

5,631

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140

169+00 ~ 170+30



GUERNSEY COUNTY
GUE-40-17.37
128
638
2 OHIO
C=9
6:1
901.00
4:1
F=844
C=9
F=20
C=273
8:1
2:1
F=11
913.2
915.49
172+00
912.1
F=376
C=795
912.7
915.06
171+72
915.4
F=100
C=1020
912.6
914.53
171+37
913.8
C=1665
912.0
911.9
913.97
171+00
918.2
Soft Shale & Indurated Clay
164+41 ~ 171+37
Sta 170+30
Emb. as per E-1.02
END AREA S.F. | VOL. C.Y.
172+00 11
11
171+72 11
14
171+37 11
15
171+00 11
127
170+30 87
167 Total taken to Sheet 24
END AREA CUT FILL
VOLUME CUT FILL
291 864
563 643
795 376
1,176 309
1,020 100
1,840 68
1,665 0
6464 0
3,321 0
171+00 ~ 172+00

GUERNSEY COUNTY
GUE-40-17.37

End median fill with 0 area at 175+00

C = 2420

F = 11

6:1 8:1 916.1 2:1 8:1 916.1

918.53
174+00
922.1

Begin fill with 0 area at 173+20

C = 1489

6:1 8:1 915.0 8:1 2:1 915.0

Emb. as per E-1.02

	END AREA S.F.	VOL. C.Y.
174+00	55	
		83
173+19	0	
172+16	0	
		3
172+00	11	

86 Total taken to Sheet 24

917.30
173+19
923.2

C = 1093

6:1 8:1 914.8 8:1 2:1 914.8

917.01
173+00
920.9

Soft Shale & Indurated Clay
174+00 ~ 175+00

C = 14

F = 850

C = 239

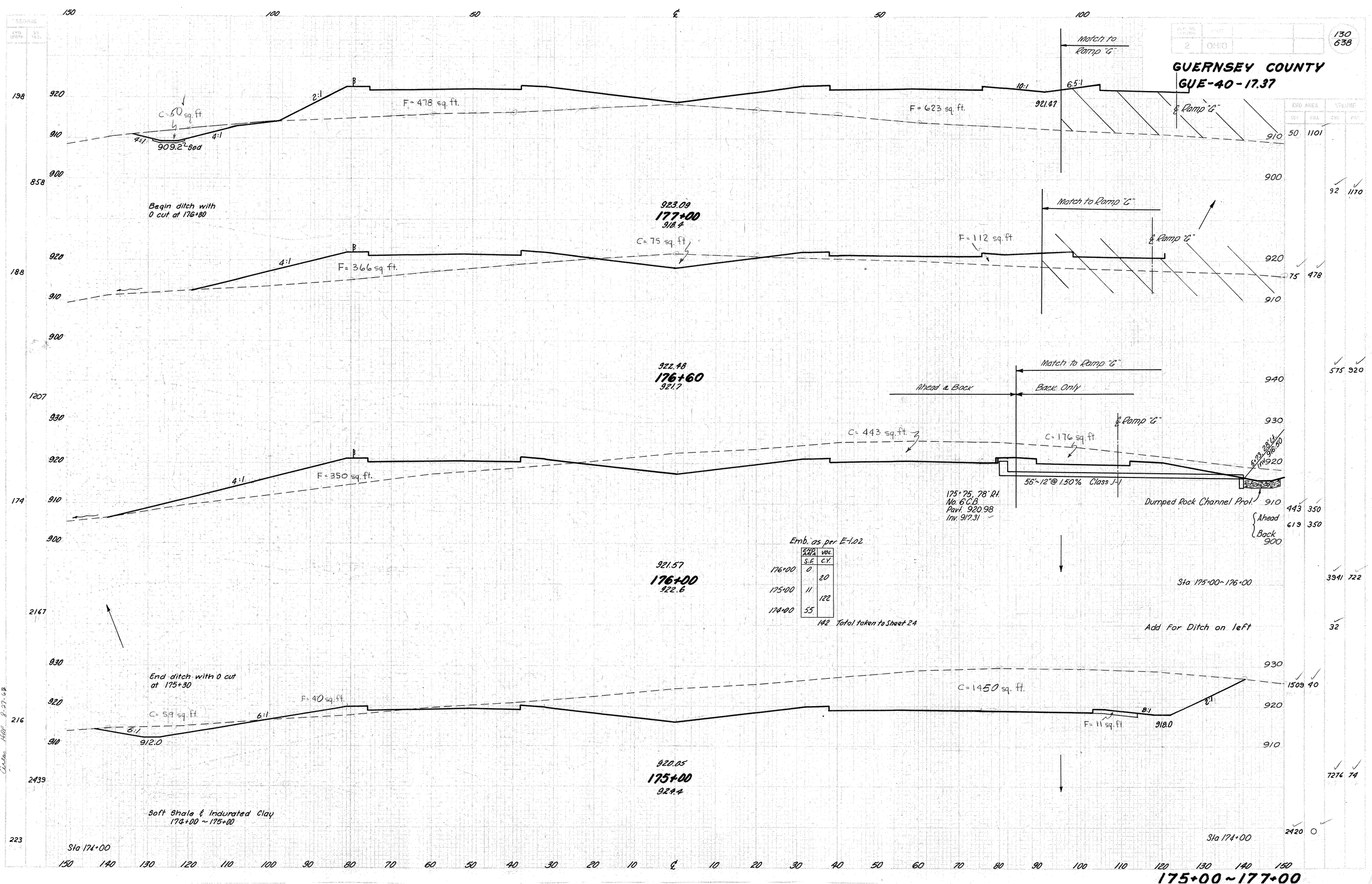
6:1 902.0 4:1 8:1 913.3 2:1

915.73
172+16
909.9

Sta 172+00 Sta 172+00

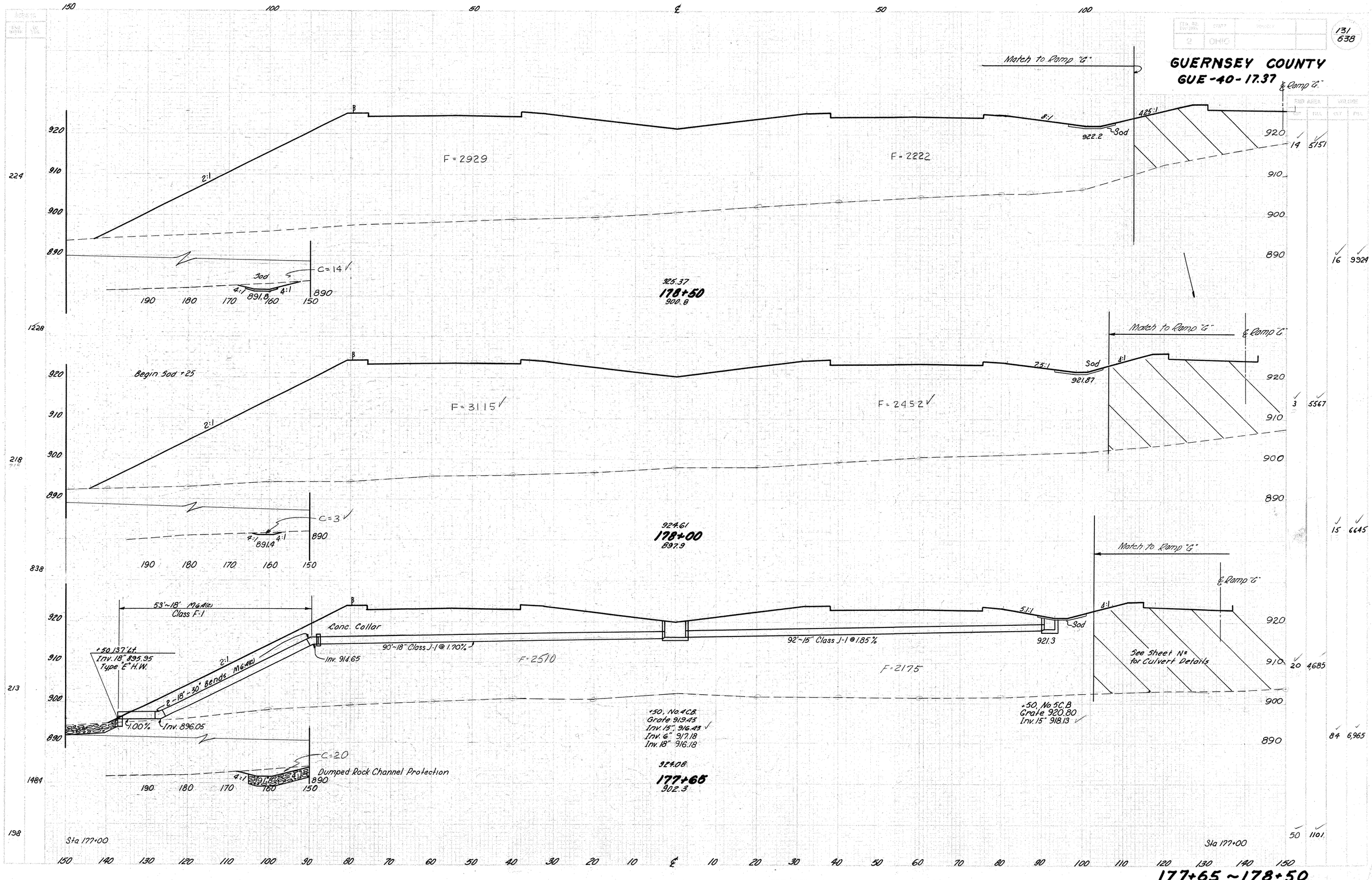
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

172+16 ~ 174+00



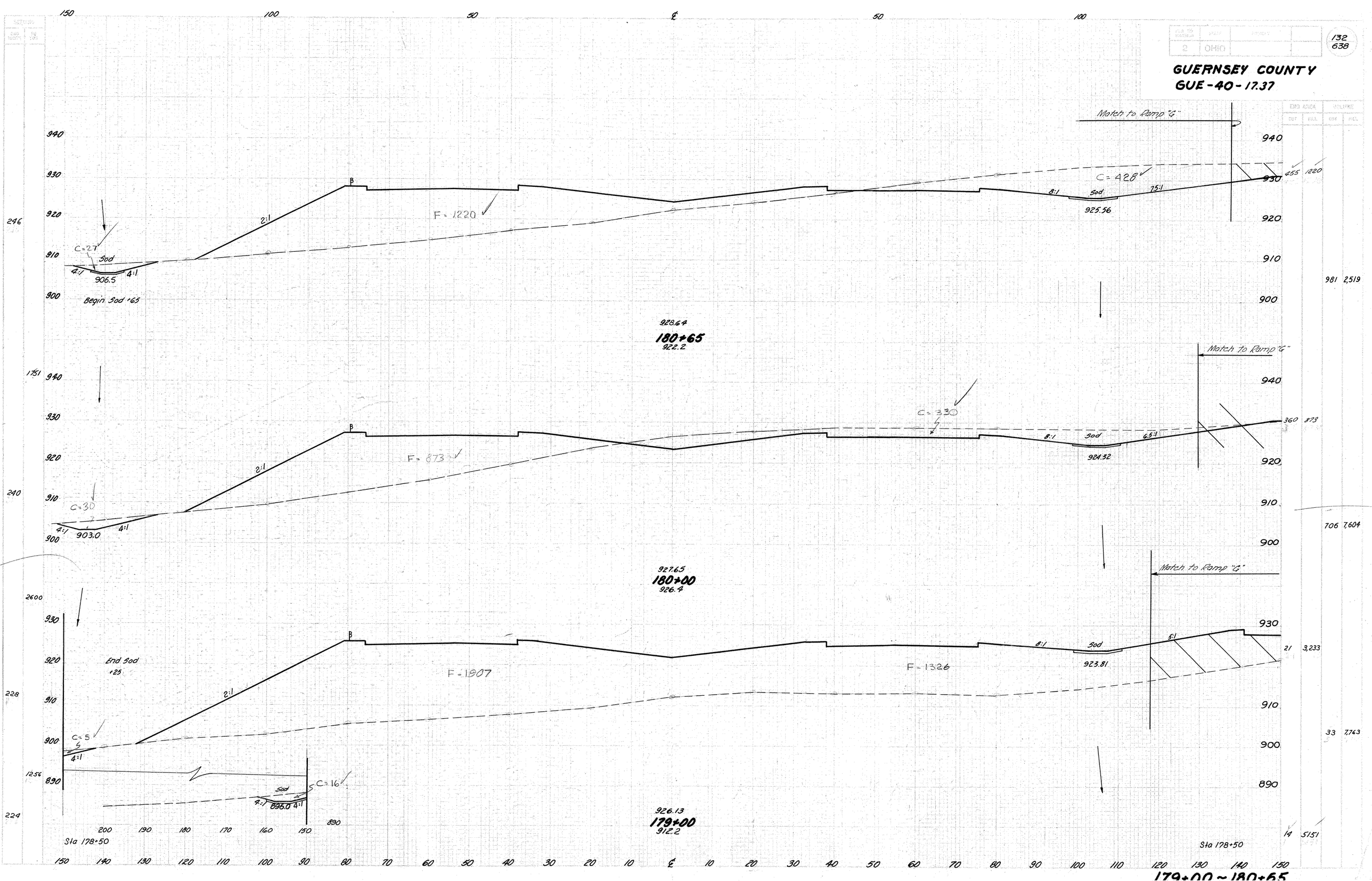
GUERNSEY COUNTY
GUE-40-17.37
130
638
Match to Ramp "G"
℄ Ramp "G"
F = 478 sq. ft.
F = 623 sq. ft.
C = 50 sq. ft.
909.2 Sod
921.47
Begin ditch with 0 cut at 176+80
923.09
177+00
918.4
C = 75 sq. ft.
F = 366 sq. ft.
F = 112 sq. ft.
922.48
176+60
921.7
Ahead & Back
Back Only
C = 443 sq. ft.
C = 176 sq. ft.
F = 350 sq. ft.
56'~12" @ 1.50% Class J-1
175+75, 78' Rt.
No. 6 C.B.
Pavt. 920.98
Inv. 917.31
Dumped Rock Channel Prot.
Ahead
Back
Emb. as per E-1.02
END AREA S.F. VOL. C.Y.
176+00 0
20
175+00 11
122
174+00 55
142 Total taken to Sheet 24
921.57
176+00
922.6
Sta 175+00~176+00
Add For Ditch on left
End ditch with 0 cut at 175+30
C = 59 sq. ft.
F = 40 sq. ft.
C = 1450 sq. ft.
F = 11 sq. ft.
912.0
918.0
920.05
175+00
924.4
Soft Shale & Indurated Clay
174+00 ~ 175+00
Sta 174+00

175+00~177+00

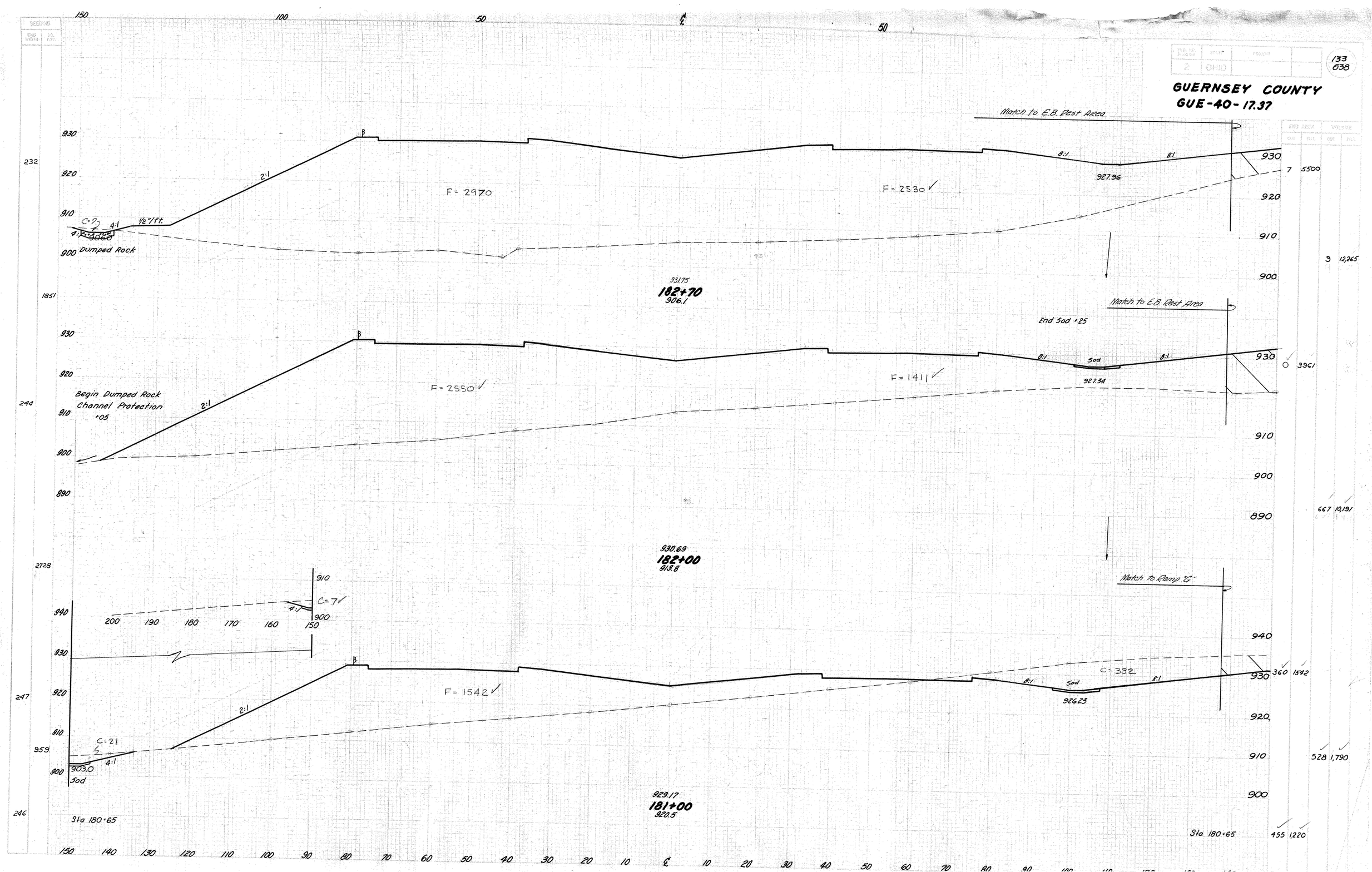


131
638
GUERNSEY COUNTY
GUE-40-17.37
Match to Ramp "G"
℄ Ramp "G"
F=2929
F=2222
2:1
8:1
4.25:1
922.2
Sod
C=14
4:1
891.8
925.37
178+50
900.8
Begin Sod +25
F=3115
F=2452
2.5:1
921.87
C=3
891.4
924.61
178+00
897.9
53'~18' M6.4(c)
Class F-1
Conc. Collar
+50 137' Lt.
Inv. 18" 895.95
Type "E" H.W.
2-18"-30" Bends M6.4(c)
90'~18" Class J-1 @ 1.70%
Inv. 914.65
F=2510
92'~15" Class J-1 @ 1.85%
F=2175
5.1:1
921.3
See Sheet No for Culvert Details
1.00%
Inv. 896.05
+50, No. 4 C.B.
Grate 919.43
Inv. 15" 916.43
Inv. 6" 917.18
Inv. 18" 916.18
+50, No 5 C.B
Grate 920.80
Inv. 15" 918.13
C=20
Dumped Rock Channel Protection
924.08
177+65
902.3
Sta 177+00
14 5151
16 9924
3 5567
15 6645
20 4,685
84 6,965
50 1101

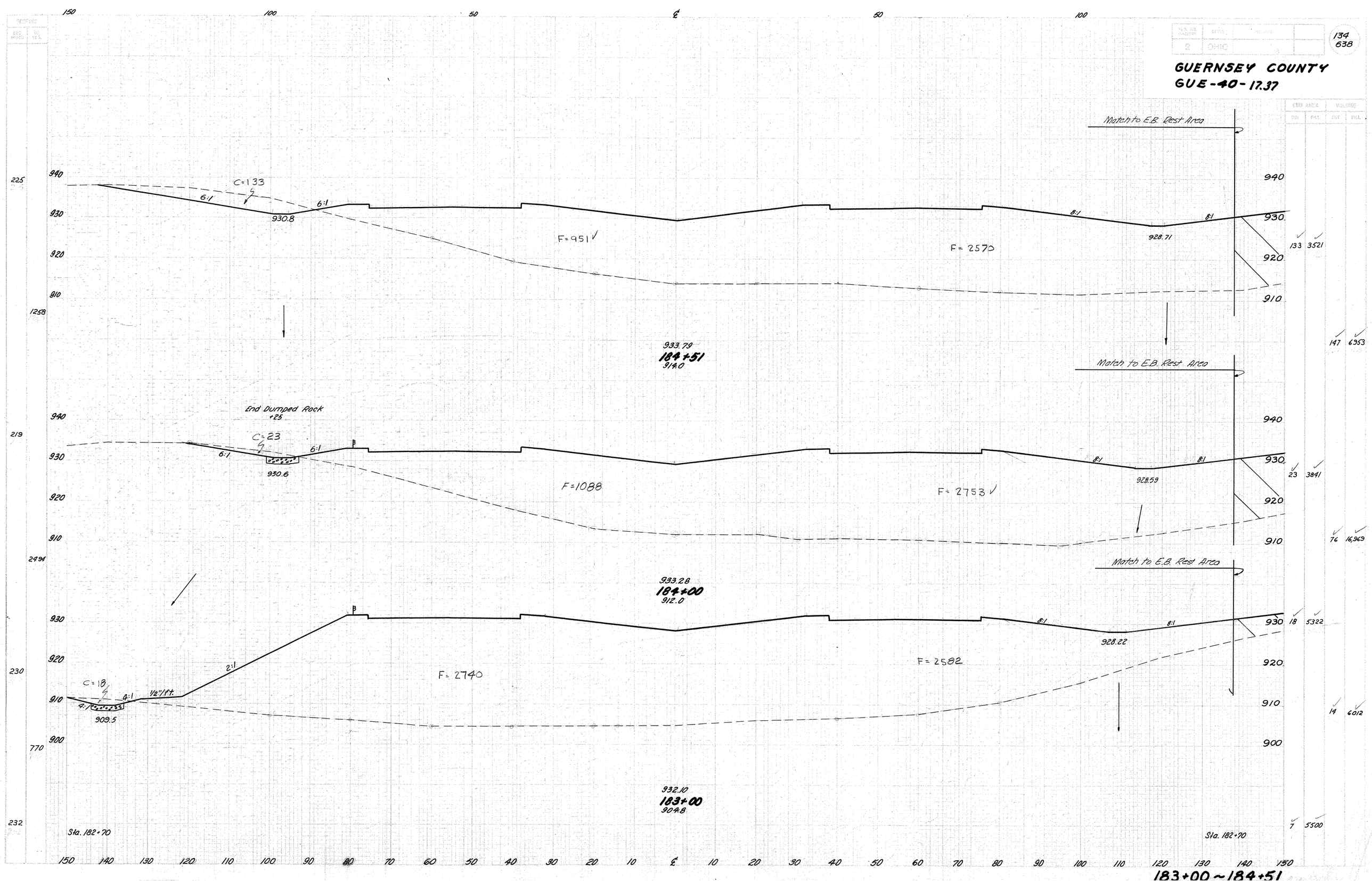
177+65 ~ 178+50



2 OHIO
132
638
GUERNSEY COUNTY
GUE-40-17.37
Match to Ramp "G"
C=27
Sod
4:1
906.5
4:1
Begin Sod +65
2:1
F=1220
C=428
8:1
Sod
75:1
925.56
455 1220
928.64
180+65
922.2
1751
C=30
903.0
F=873
C=330
8:1
Sod
6.5:1
924.32
360 873
927.65
180+00
926.4
2600
End Sod
+25
C=5
4:1
F=1907
F=1326
8:1
Sod
5:1
923.81
21 3,233
1256
C=16
Sod
896.0
926.13
179+00
912.2
Sta 178+50
14 5151
981 2,519
706 7,604
33 7,763
179+00 ~ 180+65



133
038
GUERNSEY COUNTY
GUE-40-17.37
Match to E.B. Rest Area
F= 2970
F= 2530
927.96
Dumped Rock
906.0
931.75
182+70
906.1
Match to E.B. Rest Area
End Sod +25
F= 2550
F= 1411
927.34
Begin Dumped Rock
Channel Protection
+05
930.69
182+00
913.8
Match to Ramp "G"
F= 1542
C= 332
926.23
903.0
Sod
929.17
181+00
920.5
Sta 180+65
Sta 180+65



134
638
GUERNSEY COUNTY
GUE-40-17.37
Match to E.B. Rest Area
C=133
6:1
930.8
F=951
F=2570
8:1
928.71
933.79
184+51
914.0
End Dumped Rock
+25
C=23
930.6
F=1088
F=2753
928.59
933.28
184+00
912.0
C=18
4:1
1/2"/ft.
2:1
909.5
F=2740
F=2582
928.22
932.10
183+00
904.8
Sta. 182+70
133 3521
147 6953
23 3841
76 16,969
18 5322
14 6012
7 5500
183+00 ~ 184+51

GUERNSEY COUNTY
GUE-40-17.37

END AREA VOLUME
CUT FILL CUT FILL

150 100 50 ℄ 50 100

207 790 211 2411 223 1220 225

950 940 930 920 910

C=263 2:1 8:1 933.0 F=5 C=709 Match to Ramp "H" 866:1 F=76 929.33

950 940 930 920

972 81

935.17
186+34
941.4

1024 224

C=102 4:1 8:1 C=1 932.8 F=105 F=10 C=551 Match to Ramp "H" 9:1 F=160 929.22

940 930 920

654 275

934.97
186+00
939.7

910

1,220 5893

Match to E.B. Rest Area

C=5 6:1 8:1 931.0 F=1083 F=1824 8:1 8:1 928.83

940 930 920 910

5 2907

125 5833

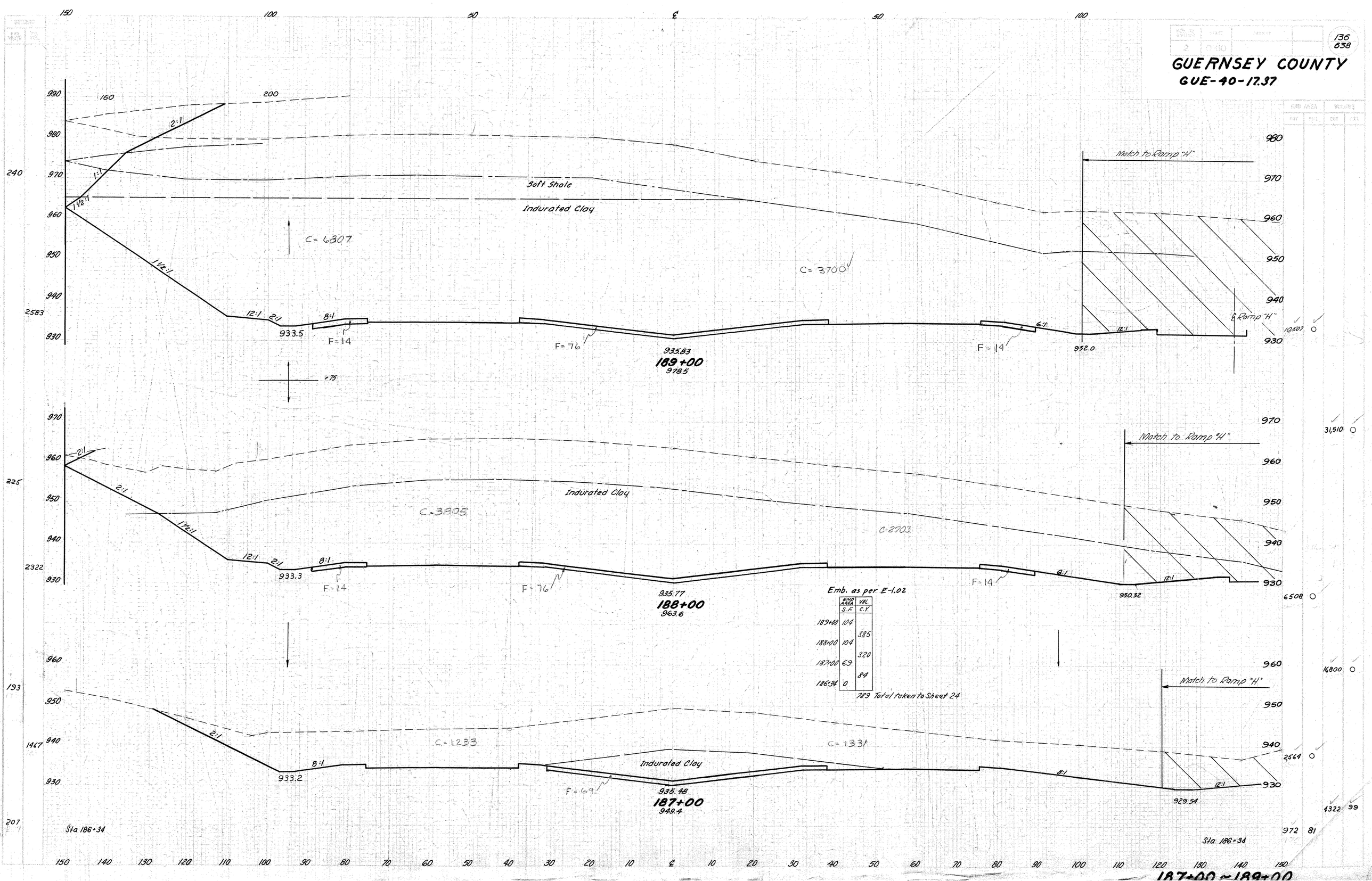
934.24
185+00
919.8

133 3521

Sta 184+51 Sta. 184+51

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

185+00 ~ 186+34



136
638
GUERNSEY COUNTY
GUE-40-17.37
Soft Shale
Indurated Clay
C= 6307
C= 3700
Match to Ramp "H"
℄ Ramp "H"
933.5
F=14
F=76
935.83
189+00
978.5
932.0
10,507
31,510
Indurated Clay
C=3805
C=2703
933.3
935.77
188+00
963.6
930.32
6508
Emb. as per E-1.02
789 Total taken to Sheet 24
C=1233
C=1331
933.2
F=69
935.48
187+00
949.4
929.54
16,800
2564
4322
99
972
81
Sta 186+34
Sta. 186+34
187+00 ~ 189+00

GUERNSEY COUNTY
GUE-40-17.37

150 100 50 ℄ 50 100

1010 1000 990 980 970 960 950 940 930

270

200 250

2:1

1:1

C=2055

Soft Shale

1½:1

Indurated Clay

C=8228

C=4671

1½:1

12:1 2:1 8:1

933.2

F=13

F=76

935.67

190+00

988.0

Match to Ramp "H"

8:1 8:1

F=14

933.87

℄ Ramp "H"

1000 990 980 970 960 950 940 930

14,954

1408

Emb. as per E-1.02

	END AREA S.F.	VOL. C.Y.
190+00	103	
		184
189+52	104	
		200
189+00	104	

384 Total taken to Sheet 24

24,956

1000 990 980 970 960 950 940 930

2:1 200

1:1

1½:1

Soft Shale

Indurated Clay

C=8879

C=4242

1½:1

12:1 2:1 8:1

933.3

F=14

F=76

935.78

189+52

986.4

Match to Ramp "H"

6.33:1 11:1

F=14

932.8

℄ Ramp "H"

1000 990 980 970 960 950 940 930

258

1439

13,121

22,753

10,507

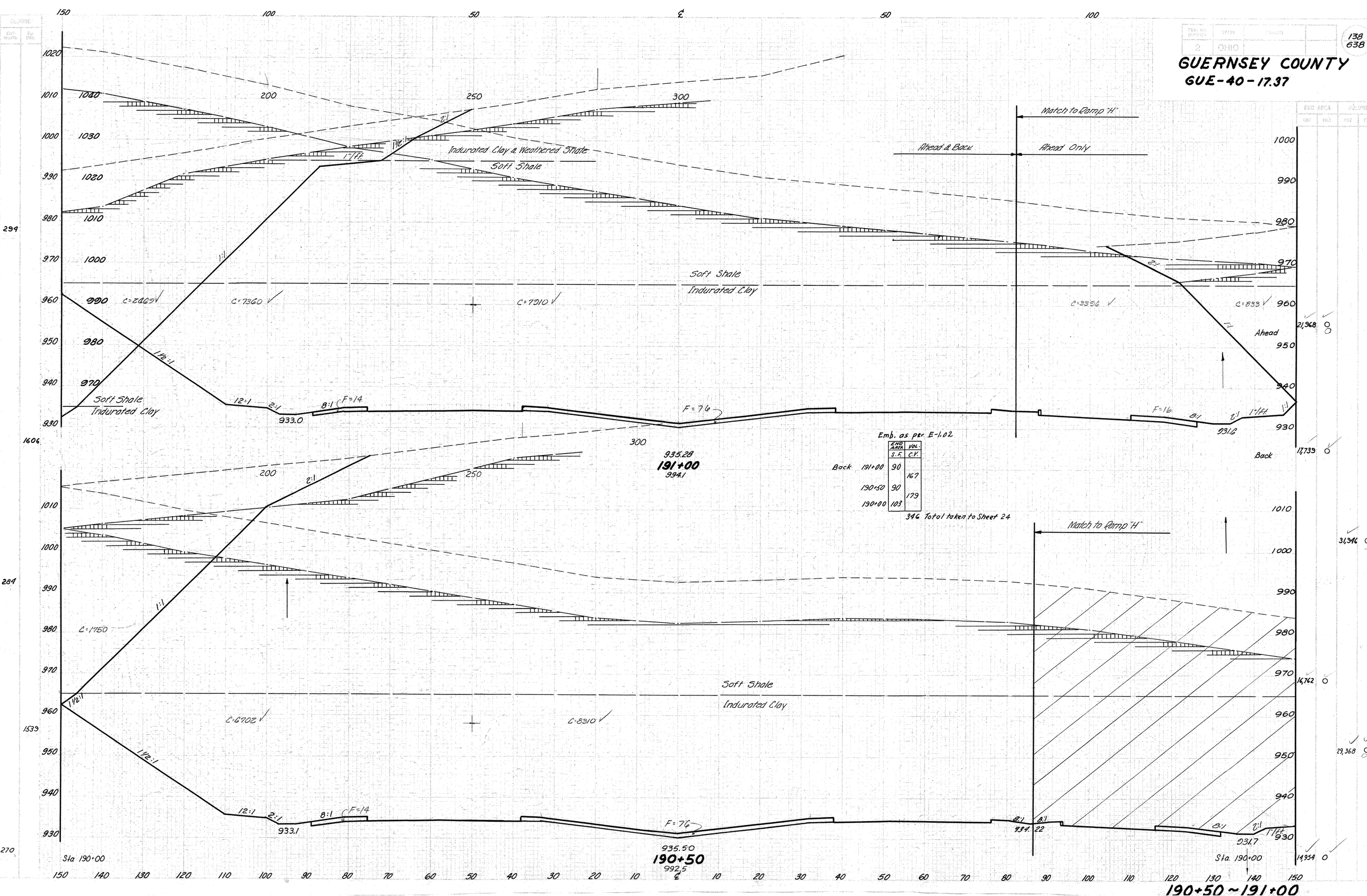
240

Sta 189+00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

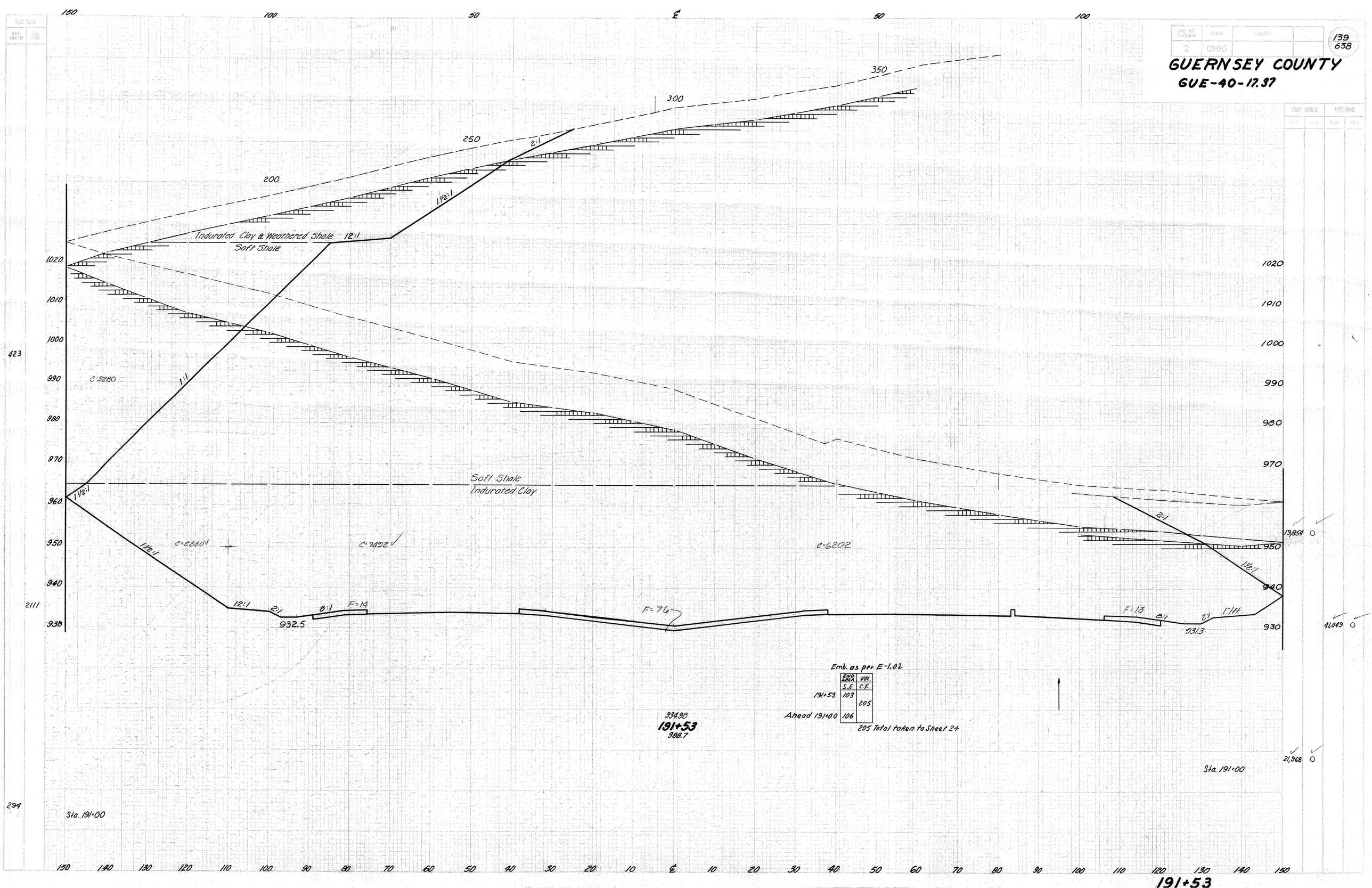
Sta 189+00

189+52 ~ 190+00

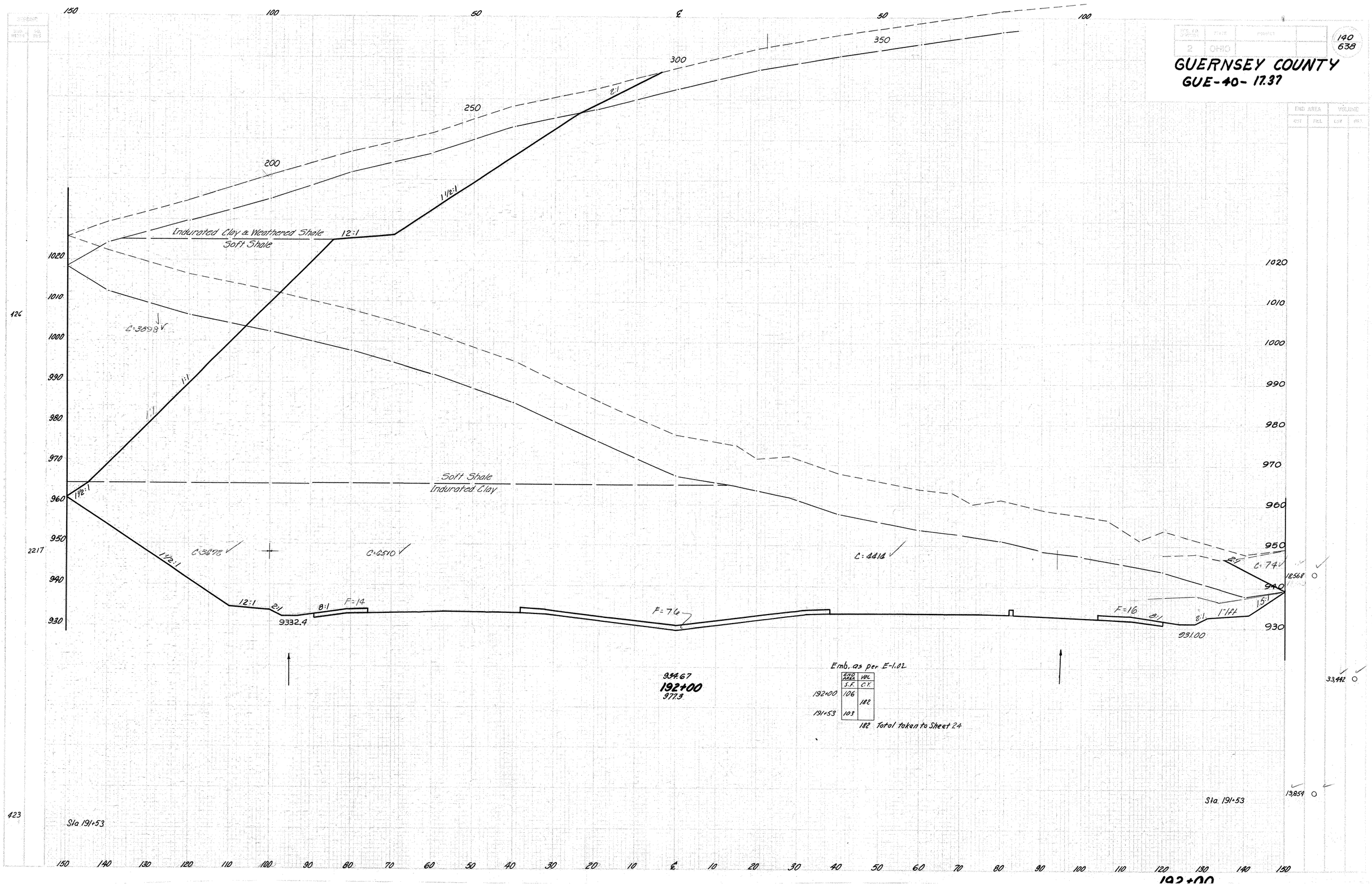


GUERNSEY COUNTY
GUE-40-17.37
138
638
Match to Ramp "H"
Ahead & Back
Ahead Only
Indurated Clay & Weathered Shale
Soft Shale
Soft Shale
Indurated Clay
C=2469
C=7360
C=7910
C=3396
C=833
Ahead
Back
F=14
F=76
F=16
933.0
931.6
935.28
191+00
994.1
Emb. as per E-1.02
END AREA S.F. VOL. C.Y.
Back 191+00 90
190+50 90 167
190+00 103 179
346 Total taken to Sheet 24
Match to Ramp "H"
C=1750
C=6702
C=8310
933.1
934.22
931.7
935.50
190+50
992.5
Sta 190+00
Sta 190+00
21,968
17,739
31,946
16,762
29,368
14,954

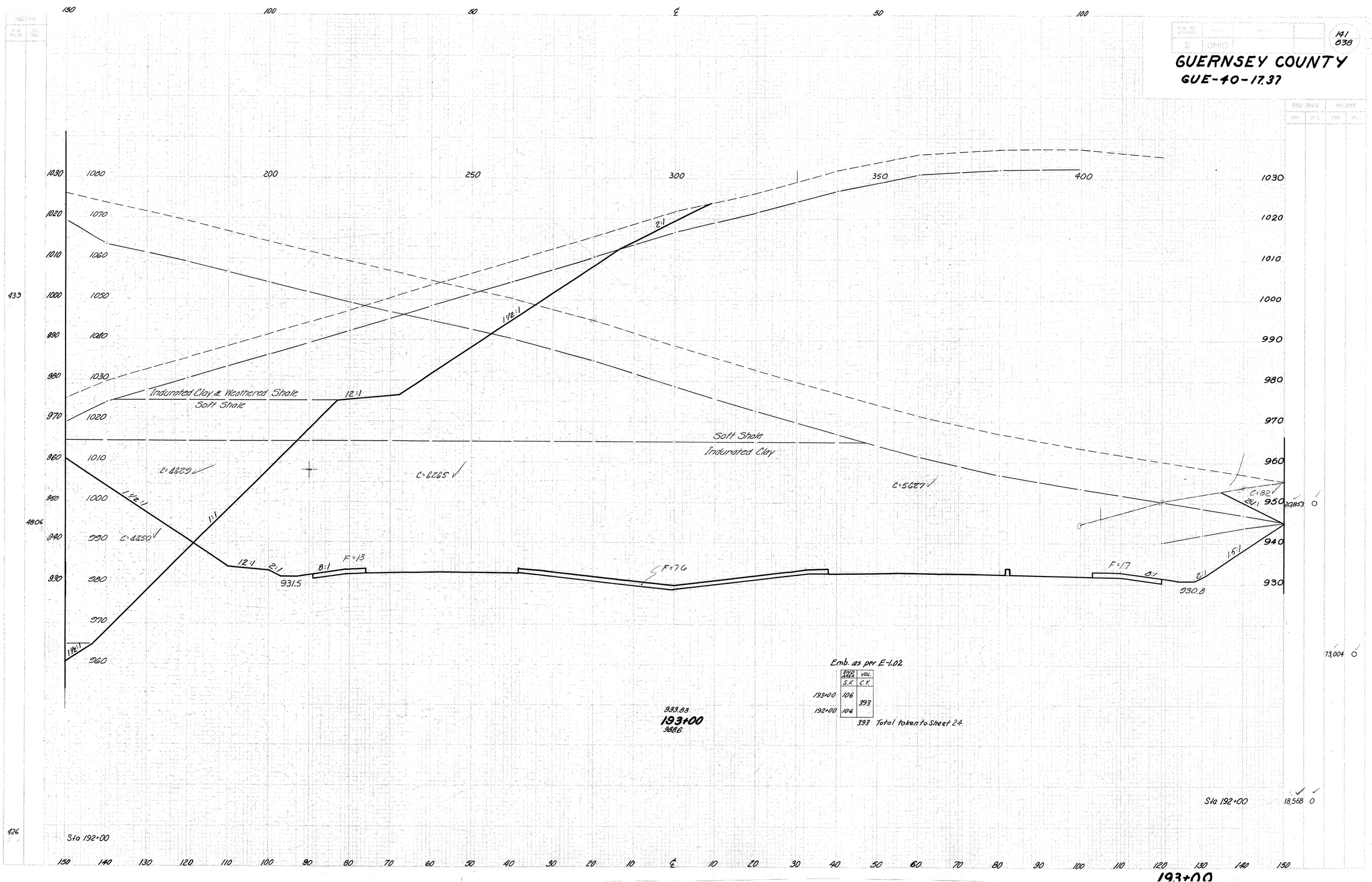
190+50 ~ 191+00



2 OHIO
139
638
GUERNSEY COUNTY
GUE-40-17.37
END AREA
VOLUME
350
300
250
200
2:1
1½:1
Indurated Clay & Weathered Shale 12:1
Soft Shale
1:1
C=3280
Soft Shale
Indurated Clay
C=2880
C=7492
C=6202
12:1
2:1
8:1
F=14
F=76
F=18
932.5
931.3
1"/ft.
1020
1010
1000
990
980
970
960
950
940
930
423
2111
294
19,854
41,049
21,968
Emb. as per E-1.02
END AREA S.F.
VOL. C.Y.
191+53 103
205
Ahead 191+00 106
205 Total taken to Sheet 24
934.98
191+53
988.7
Sta. 191+00
Sta. 191+00
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150
191+53



2 OHIO
140
638
GUERNSEY COUNTY
GUE-40- 17.37
END AREA
VOLUME
Indurated Clay & Weathered Shale
Soft Shale
Soft Shale
Indurated Clay
C=3898
C=3678
C=6510
C=4414
C=74
F=14
F=76
F=16
9332.4
931.00
934.67
192+00
977.3
Emb. as per E-1.02
END AREA
VOL
S.F.
C.Y.
192+00
106
182
191+53
103
182 Total taken to Sheet 24
Sta. 191+53
Sta. 191+53
18,568
33,442
19,854
426
423
2217



141
638
GUERNSEY COUNTY
GUE-40-17.37
Indurated Clay & Weathered Shale
Soft Shale
Soft Shale
Indurated Clay
C=4629
C=6265
C=5627
C=4250
C=82
F=13
F=76
F=17
931.5
930.8
933.83
193+00
988.6
Emb. as per E-1.02
END AREA
VOL.
S.F.
C.Y.
193+00 106
192+00 106
393
393 Total taken to Sheet 24
Sta 192+00
Sta 192+00
20,853
73,004
18,568

142
638

GUERNSEY COUNTY
GUE-40-17.37

END AREA		VOLUME	
CUT	FILL	CUT	FILL

150 100 50 ℄ 50 100

200 250 300 350 400

2:1

1½:1

12:1

Indurated Clay & Weathered Shale

Soft Shale

1020 1010 1000 990 980 970 960 950 940 930

1:1

1½:1

C=3370 ✓

Soft Shale

Indurated Clay

1½:1 C=2649 ✓

C=7125 ✓

C=5769 ✓

2:1 C=120 ✓

19,033

12:1 2:1 8:1 F=13 ✓ 931.0

F=77 ✓

F=14 ✓ 8:1 2:1 1'Lft. 1.5:1 930.6

42,103

Emb. as per E-1.02

	END AREA S.F.	VOL. C.Y.
193+57	104	222
193+00	106	

222 Total taken to Sheet 24

933.25
193+57
928.1

20,853

Sta 193+00

Sta 193+00

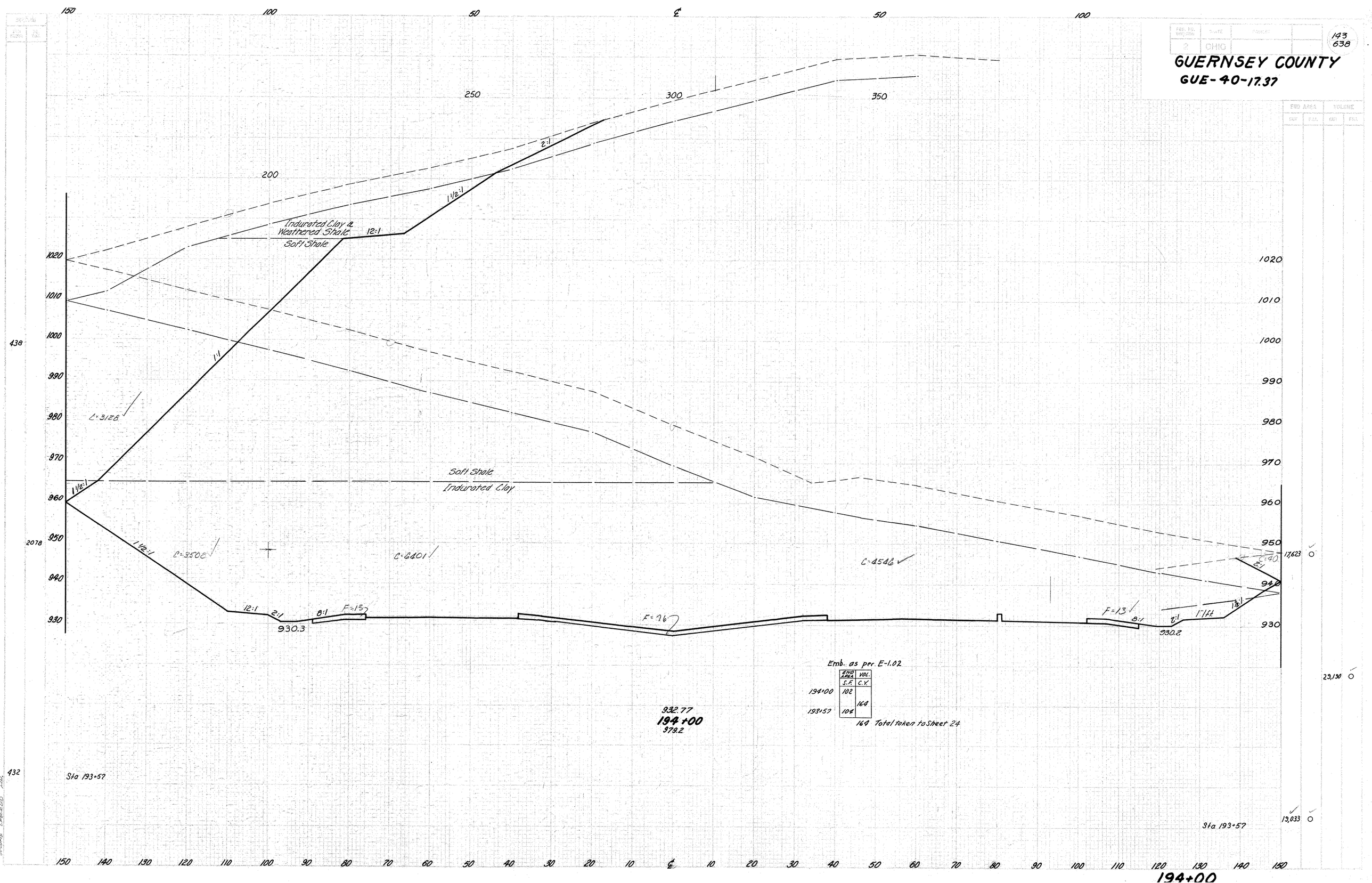
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

193+57

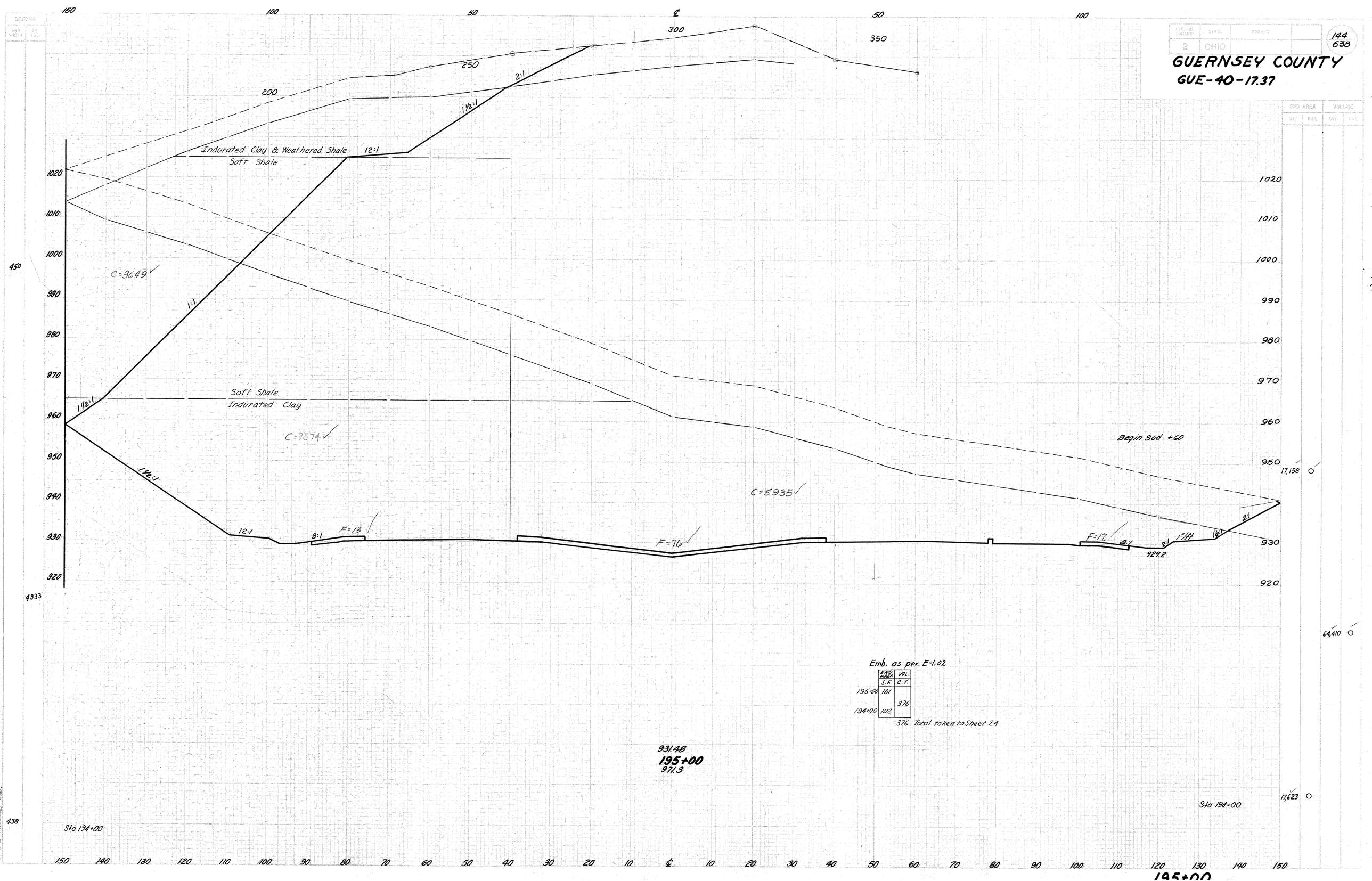
432

2758

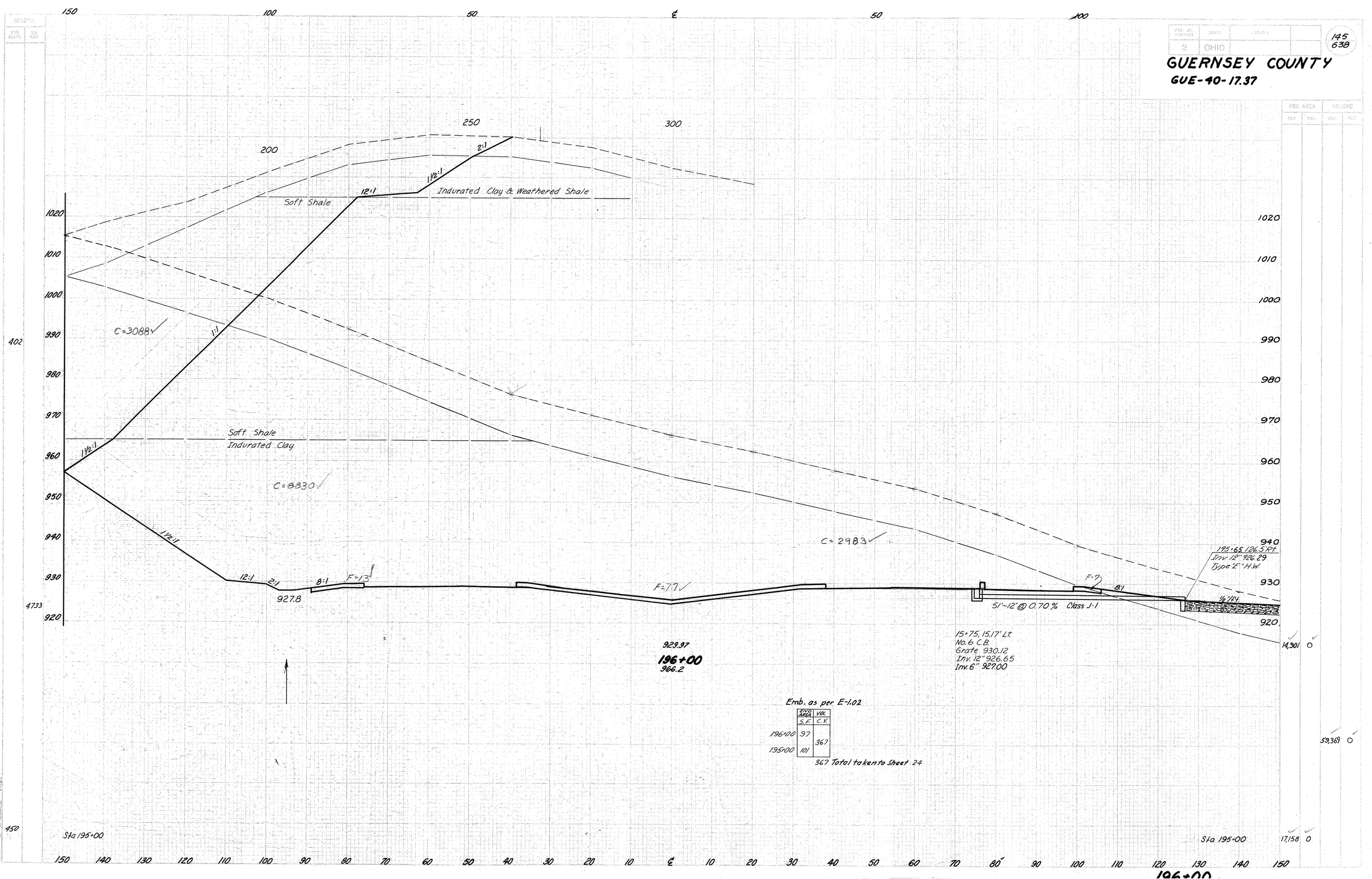
439



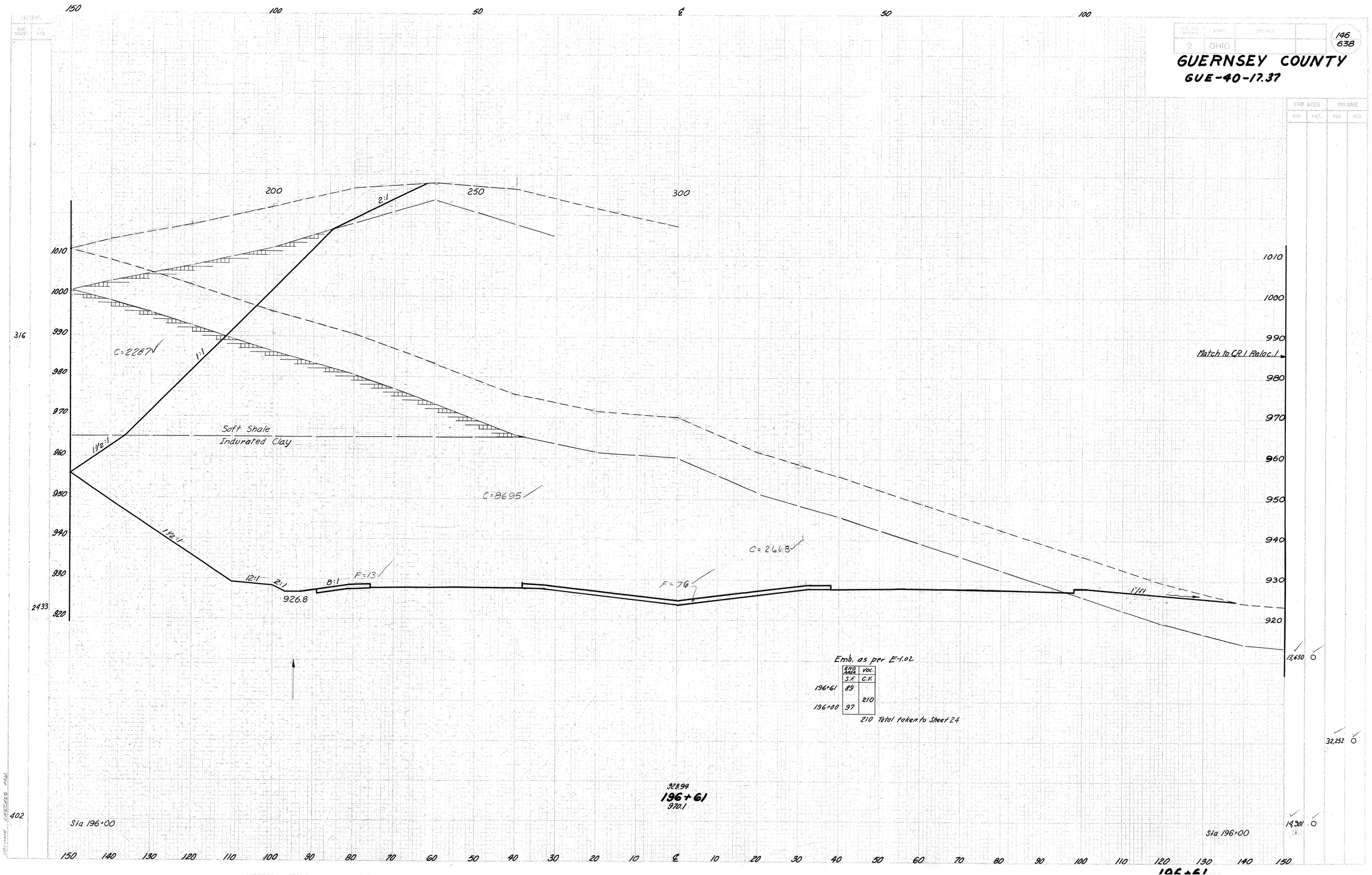
143
638
GUERNSEY COUNTY
GUE-40-17.37
Indurated Clay & Weathered Shale
Soft Shale
Soft Shale
Indurated Clay
C=3128
C=3508
C=6401
C=4546
C=40
F=13
F=26
F=13
930.3
930.2
932.77
194+00
979.2
Emb. as per E-1.02
END AREA S.F. VOL. C.Y.
194+00 102
164
193+57 104
164 Total taken to Sheet 24
Sta 193+57
Sta 193+57
17,623
29,190
19,033
194+00



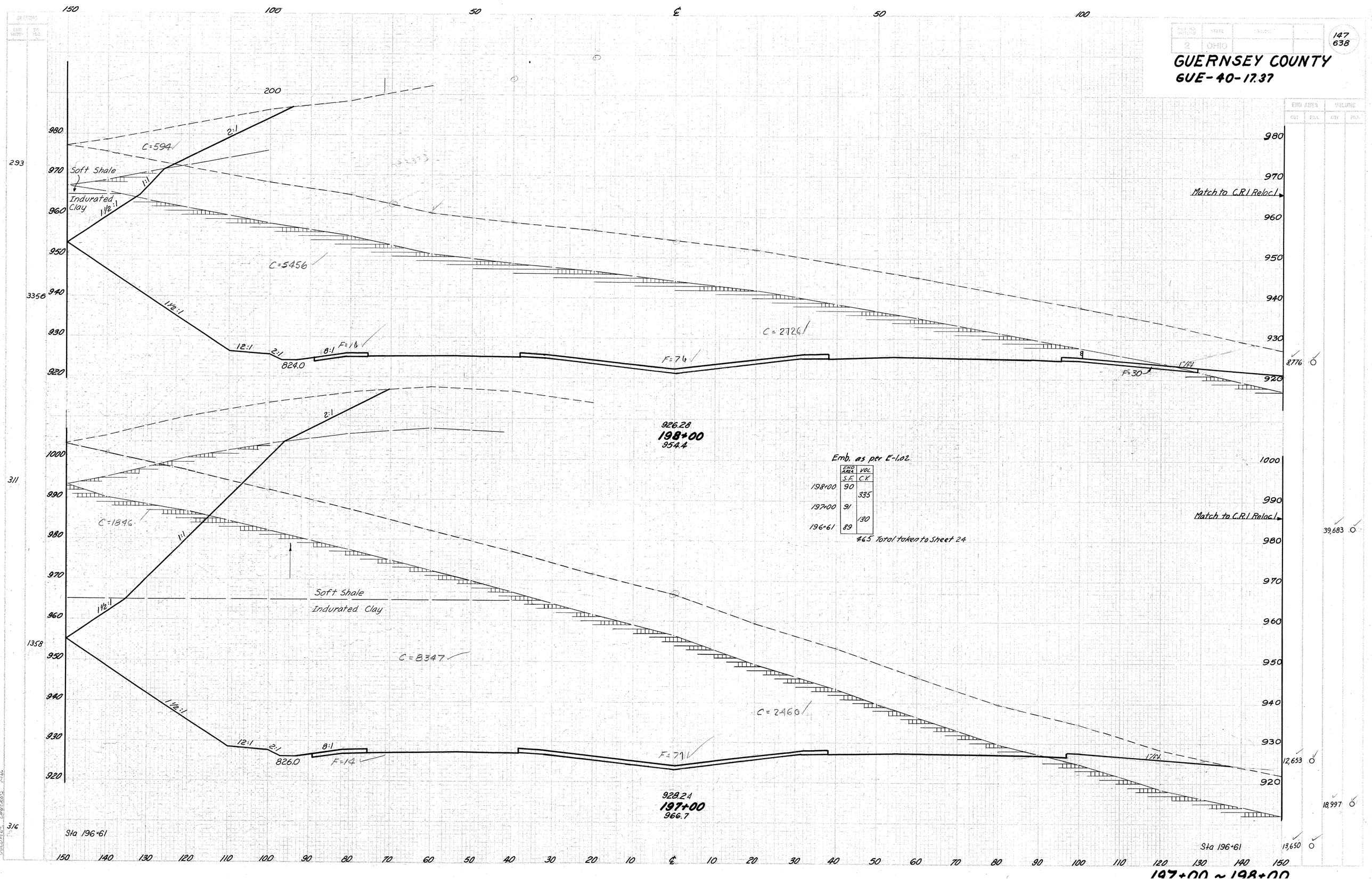
144
638
GUERNSEY COUNTY
GUE-40-17.37
Indurated Clay & Weathered Shale
Soft Shale
Soft Shale
Indurated Clay
C=3649
C=7574
C=5935
F=13
F=76
F=12
Begin Sod +60
929.2
Emb. as per E-1.02
END AREA S.F.
VOL. C.Y.
195+00 101
194+00 102
376
376 Total taken to Sheet 24
931.48
195+00
971.3
Sta 194+00
Sta 194+00
17,158
64,410
17,623



2
OHIO
145
638
GUERNSEY COUNTY
GUE-40-17.37
Soft Shale
Indurated Clay & Weathered Shale
Soft Shale
Indurated Clay
C=3088
C=8830
C=2983
F=13
F=7.7
F=7
927.8
51'-12" @ 0.70% Class J-1
195+65, 126.5' Rt.
Inv. 12" 926.29
Type "E" H.W.
15+75, 15.17' Lt.
No. 6 C.B.
Grate 930.12
Inv. 12" 926.65
Inv. 6" 927.00
929.97
196+00
966.2
Emb. as per E-1.02
END AREA S.F. VOL C.Y.
196+00 97 367
195+00 101
367 Total taken to Sheet 24
Sta 195+00
Sta 195+00
14,901 0
59,369 0
17,158 0



2 OHIO
146
638
GUERNSEY COUNTY
GUE-40-17.37
END AREA
VOLUME
150
100
50
℄
50
100
200
250
300
2:1
1:1
1½:1
1½:1
12:1
2:1
8:1
F=13
F=76
C=2287
C=8695
C=2668
Soft Shale
Indurated Clay
926.8
1/ft
Match to CR 1 Reloc. 1
316
2433
402
1010
1000
990
980
970
960
950
940
930
920
13,650
32,252
14,901
Emb. as per E-1.02
END AREA
VOL.
S.F.
C.Y.
196+61
89
210
196+00
97
210 Total taken to Sheet 24
928.94
196+61
970.1
Sta 196+00
Sta 196+00
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
℄
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150



147
638
2 OHIO
GUERNSEY COUNTY
GUE-40-17.37
Soft Shale
Indurated Clay
C=594
C=5456
C=2726
C=1846
C=8347
C=2460
F=16
F=76
F=30
F=14
F=71
824.0
826.0
926.28
198+00
954.4
928.24
197+00
966.7
Match to C.R.1 Reloc.1
Sta 196+61
Emb. as per E-1.02
END AREA S.F. VOL. C.Y.
198+00 90
335
197+00 91
130
196+61 89
465 Total taken to Sheet 24
8,776
39,683
12,653
18,997
13,650

197+00 ~ 198+00

CO. NO.	STATE	SHEET NO.	TOTAL SHEETS
2	OHIO		

148
638

GUERNSEY COUNTY
GUE-40-17.97

SECTIONS		END AREA		VOLUME	
SHEET NUMBER	TO SHEET	CUT	FILL	CUT	FILL

Begin Sod
+70

2:1
1½:1
12:1 Indurated Clay
8:1
920.5
F=14
C=1300
F=90
C=293
8 1'/ft
Match to C.R.1 Reloc.1
4:1
1½'/ft
103.7
F=200 sq.ft.
1543 290

922.92
199+50
918.6

Emb. as per E-1.02

Station	End Area S.F.	Volume C.Y.
199+50	14	76
199+00	68	293
198+00	90	369

Total taken to Sheet 24

200
2:1
2:1
C=1690
1½:1
Indurated Clay
12:1
2:1
8:1
922.0
F=10
C=1353
F=54
C=831
8 1'/ft
Match to C.R.1 Reloc.1
5062 268
3924
23518
8776

924.10
199+00
932.7

Sta 198+00

Sta 198+00

940 930 920 910 900 890 880 960 950 940 930 920 910 900 890

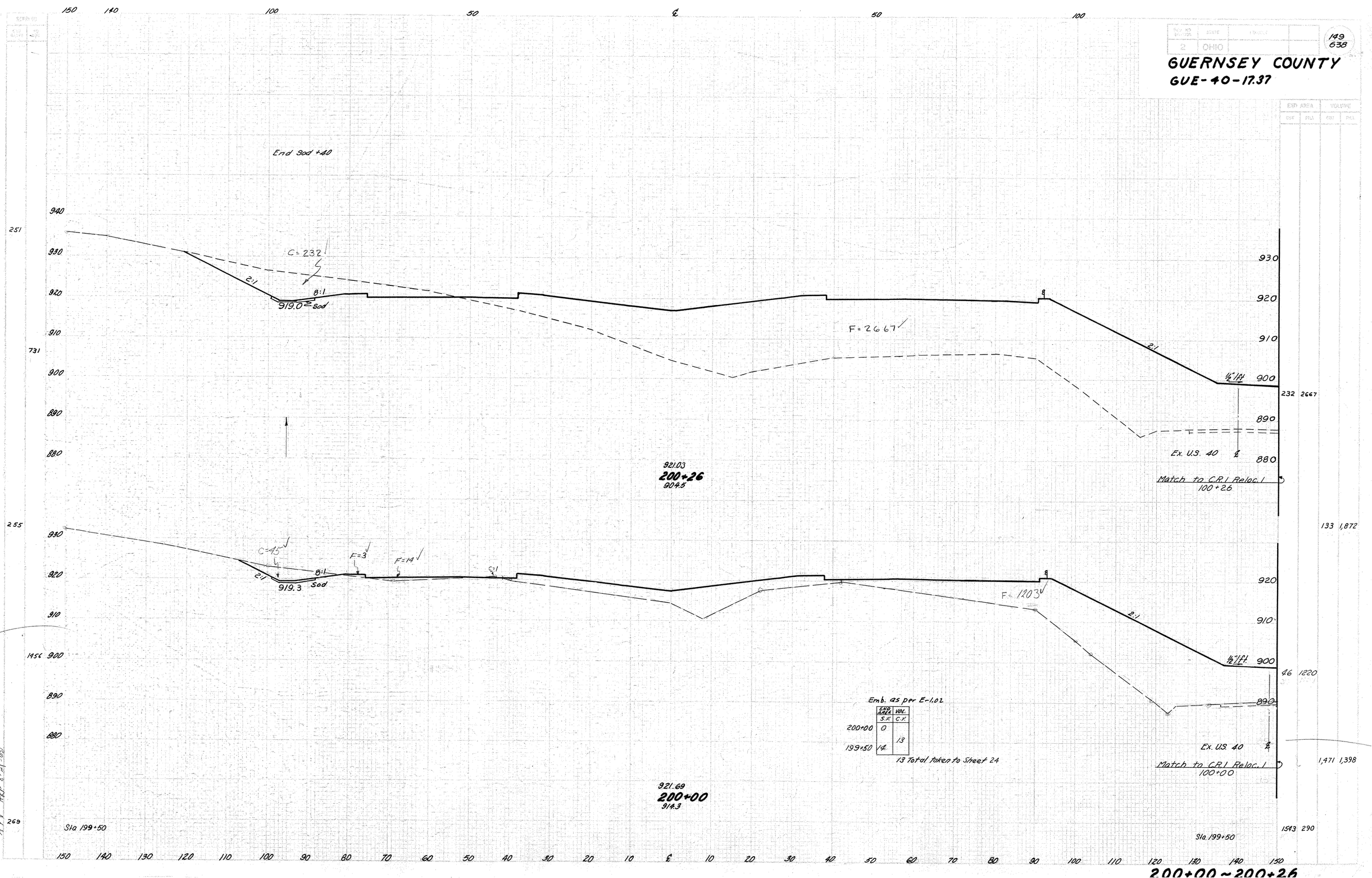
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

100+00 to 199+50

269
1531
282
3194
293

CKD BY
T.A.C.
11/1/82

LEG. ACCEPTED AS TO FORM
11/14/82



2 OHIO
149
638
GUERNSEY COUNTY
GUE-40-17.37
End Sod +40
C=232
2:1
8:1
919.0 Sod
F=2667
2:1
½"/ft
Ex. U.S. 40
Match to C.R.1 Reloc. 1
100+26
921.03
200+26
904.5
C=45
F=3
F=14
2:1
8:1
919.3 Sod
F=1203
2:1
½"/ft
Ex. U.S. 40
Match to C.R.1 Reloc. 1
100+00
921.69
200+00
914.3
Sta 199+50
Sta. 199+50
Emb. as per E-1.02
END AREA S.F. VOL. C.Y.
200+00 0
199+50 14
13
13 Total taken to Sheet 24
251
731
255
1456
269
232 2667
133 1,872
46 1220
1,471 1,398
1543 290
200+00 ~ 200+26

GUERNSEY COUNTY
GUE-40-17.37

END AREA CUT FILL | VOLUME CUT FILL

2425 571

940 930 920 910 900 890 880

2:1 | 8:1 | 917.0 | C = 2047 sq. ft. | F = 14 sq. ft | F = 65 sq. ft. | F = 2 sq. ft

+00, Nº 4 C.B.
Grate 914.75
Inv. 15" 911.75
Inv. 6" 912.50

100 - 15" @ 1.60 %
Class J-1

Conc. Collar
Inv. 910.15

42' - 15" M 6.4 (C)
Class F4

2 - 15" - 30° Bends M 6.4 (C)

F = 2051 sq. ft.

Inv. 895.09
15" @ 100 %

℄ Ex. U.S. 40

201+00, 138.5' Rt.
Inv. 15" 895.00
Type "E" H.W.

Match to C.R.1 Reloc.1
101+00

2047 2053

919.17
201+00
927.1

Emb. as per E-1.02

	END AREA S.F.	VOL. C.Y.
201+00	59	
		43
200+79	52	
		51
200+26	0	

94 Total taken to Sheet 24

1520 1556

247 1466 251

940 930 920 910 900 890 880

2:1 | 8:1 | 917.5 | C = 1862 sq. ft. | F = 14 sq. ft. | F = 33 sq. ft.

Indurated Clay
200+79 ~ 201+42

F = 1949

2:1 | ½"/Ft. →

℄ Ex. US 40

Match to C.R.1 Reloc.1
100+79

1862 1949

919.70
200+79
925.4

Sta. 200+26

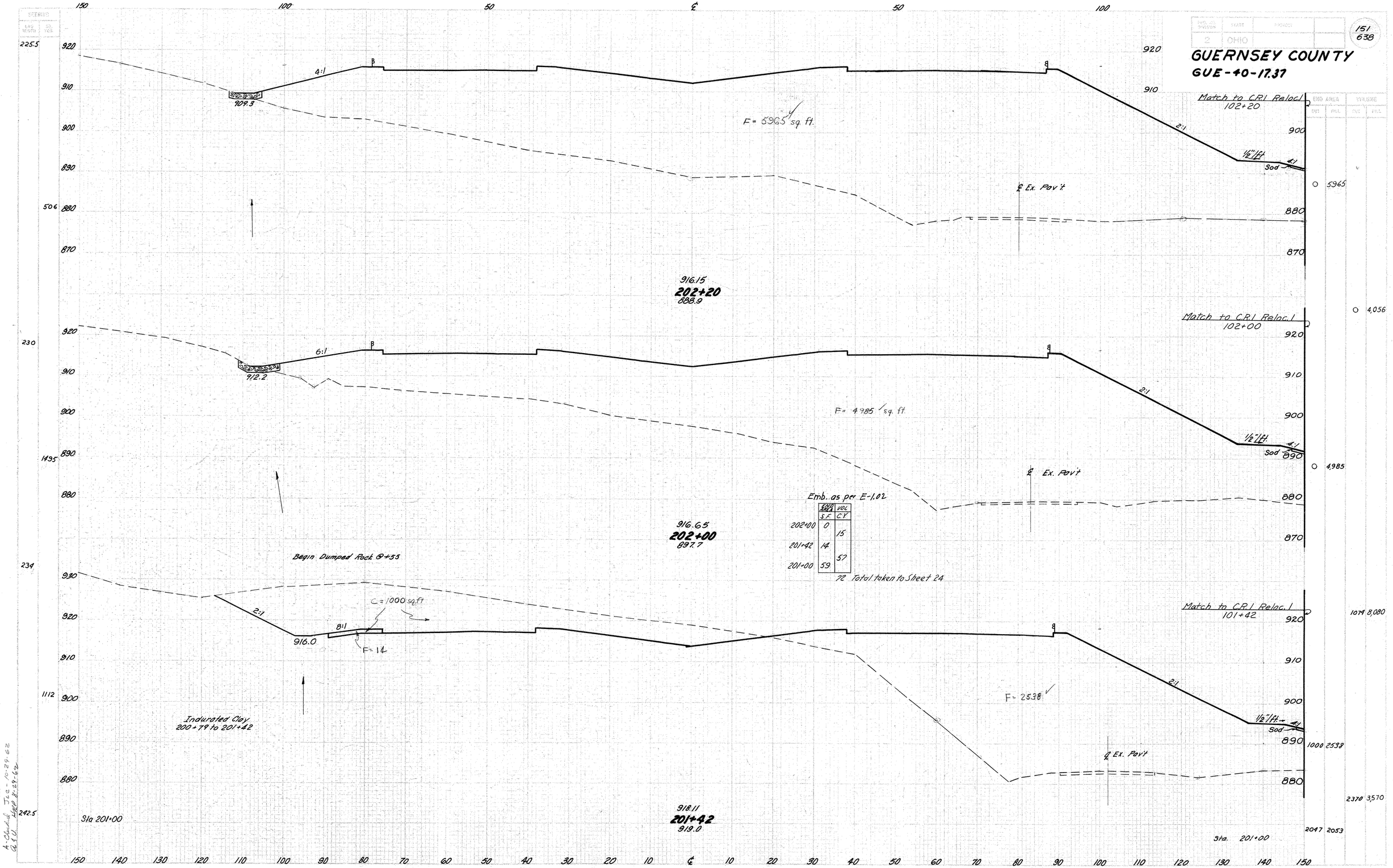
Sta 200+26

2055 1530 232 2667

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

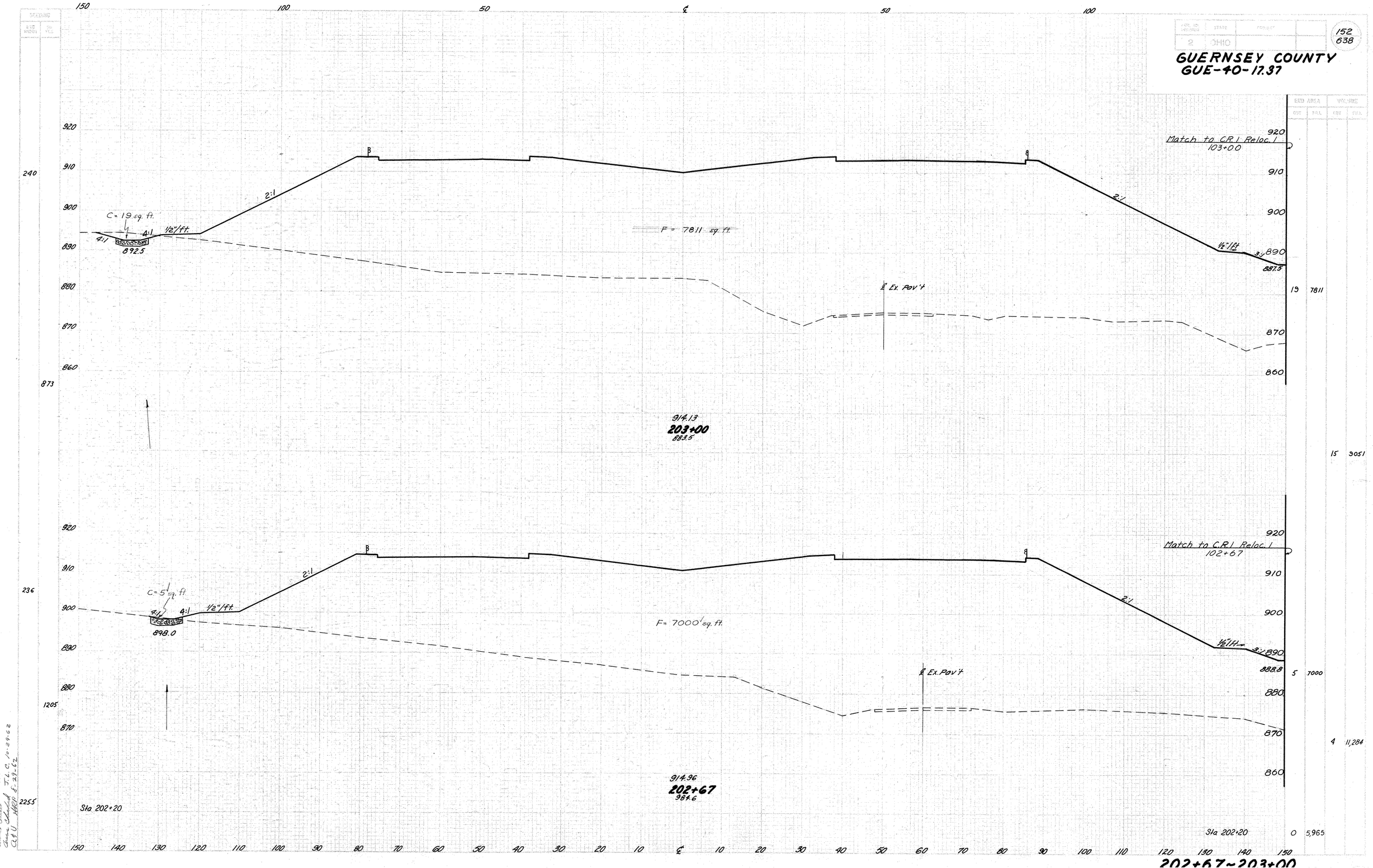
200+79 ~ 201+00

SEE DRAWING TRANSMITTAL Nº 2
Volume Checked and Plans Checked JCA 10-29-62
A.E.V. [illegible] 8-28-62

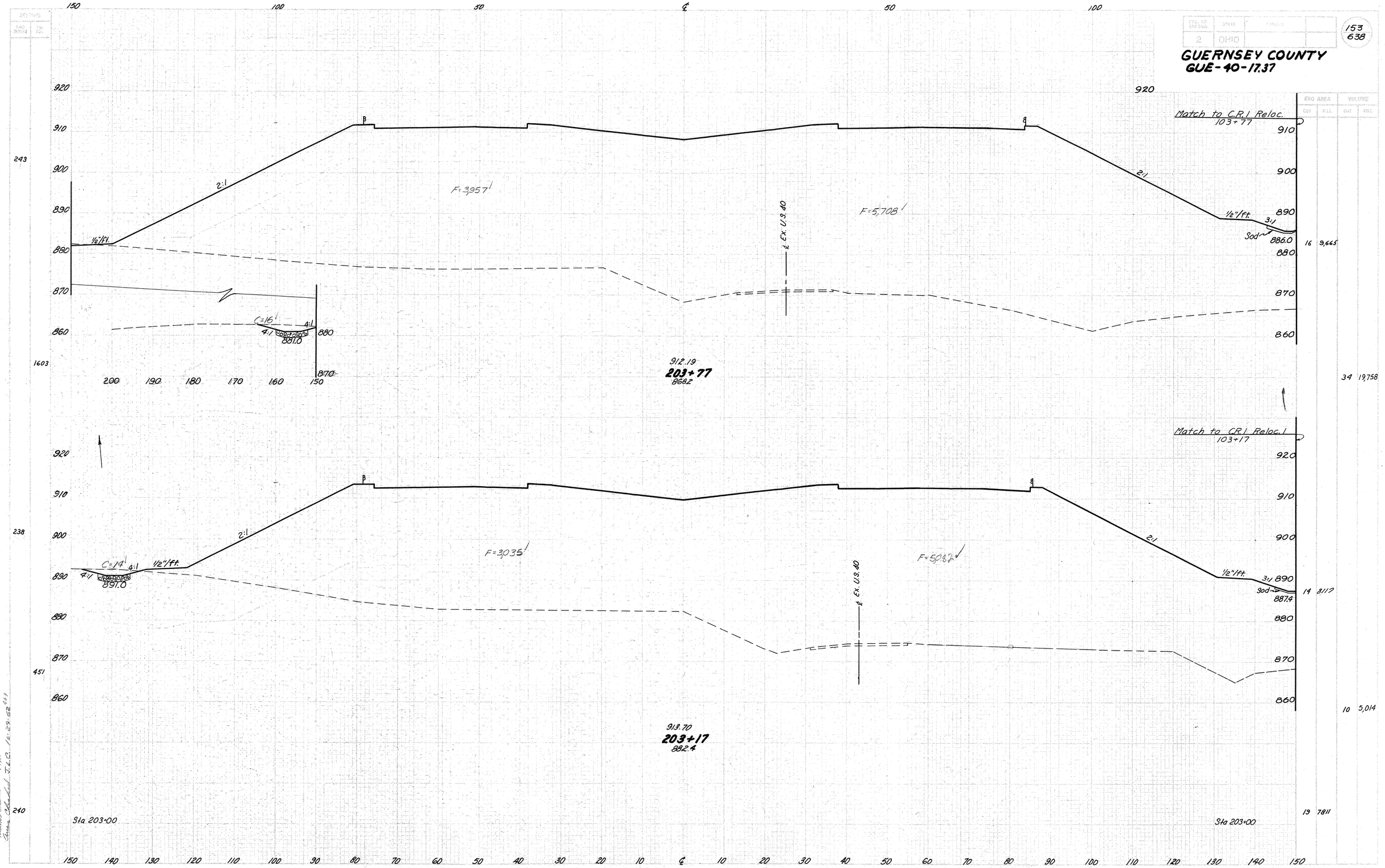


151
638
2 OHIO
GUERNSEY COUNTY
GUE-40-17.37
Match to C.R.1 Reloc.1
102+20
Match to C.R.1 Reloc.1
102+00
Match to C.R.1 Reloc.1
101+42
F= 5965 sq. ft.
F= 4985 sq. ft.
F= 2538
C= 1000 sq. ft
F= 14
4:1
2:1
6:1
8:1
1/2"/ft.
Sod
℄ Ex. Pav't
909.3
912.2
916.0
916.15
202+20
888.9
916.65
202+00
897.7
918.11
201+42
919.0
Begin Dumped Rock @+55
Indurated Clay
200+79 to 201+42
Sta 201+00
Sta. 201+00
Emb. as per E-1.02
END AREA S.F. VOL C.Y.
202+00 0
15
201+42 14
57
201+00 59
72 Total taken to Sheet 24
225.5
506
230
1495
234
1112
242.5
5965
4,056
4,985
1074 8,080
1000 2538
2370 3,570
2047 2053

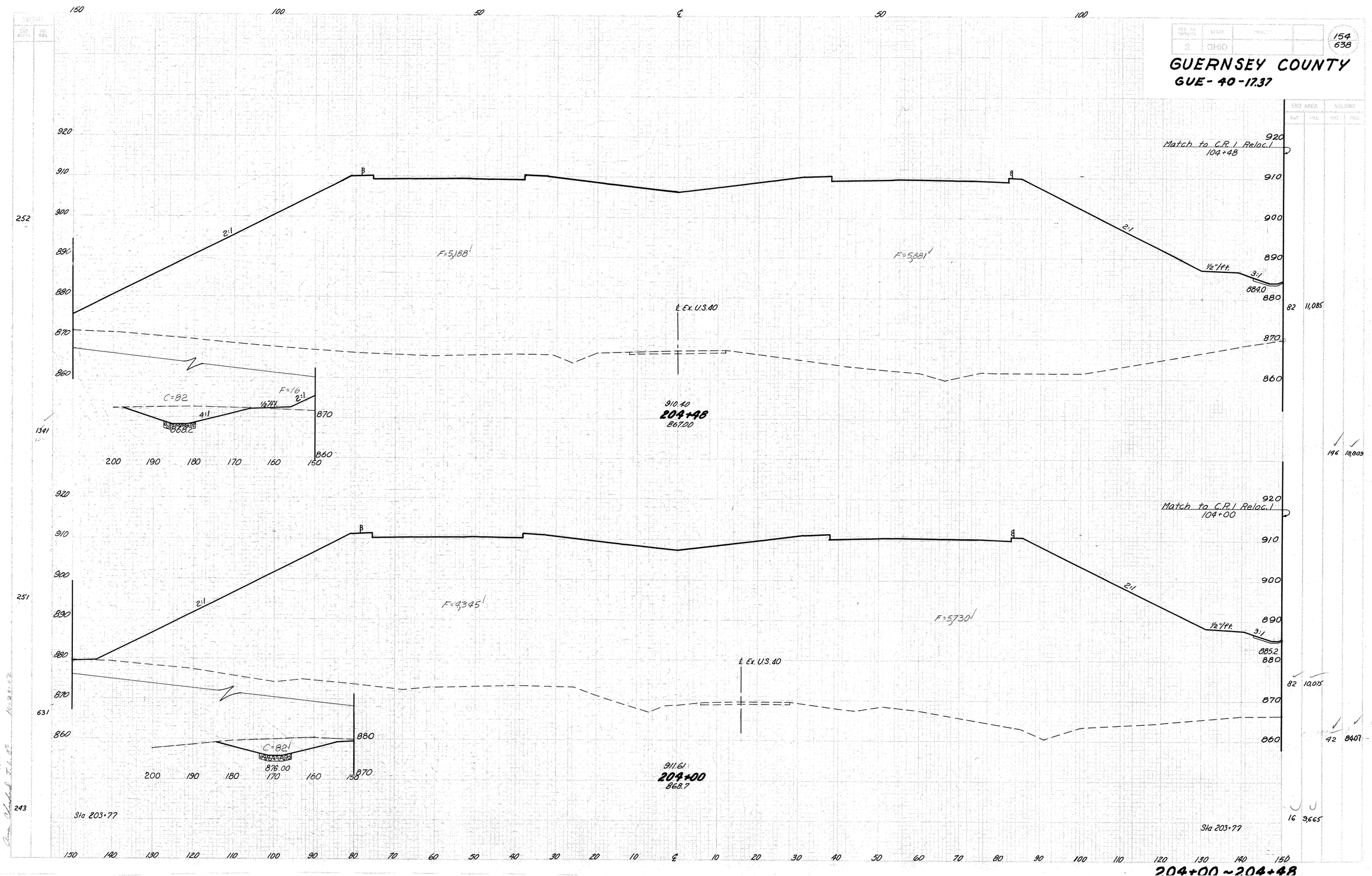
201+42 ~ 202+20



2 OHIO
152
638
GUERNSEY COUNTY
GUE-40-17.37
Match to C.R.1 Reloc. 1
103+00
C = 19 sq. ft.
4:1
1/2"/ft.
2:1
892.5
F = 7811 sq. ft.
℄ Ex. Pav't
887.5
19 7811
914.13
203+00
883.5
15 9051
Match to C.R.1 Reloc. 1
102+67
C = 5 sq. ft.
898.0
F = 7000 sq. ft.
888.8
5 7000
4 11,284
914.96
202+67
984.6
Sta 202+20
0 5,965
202+67~203+00

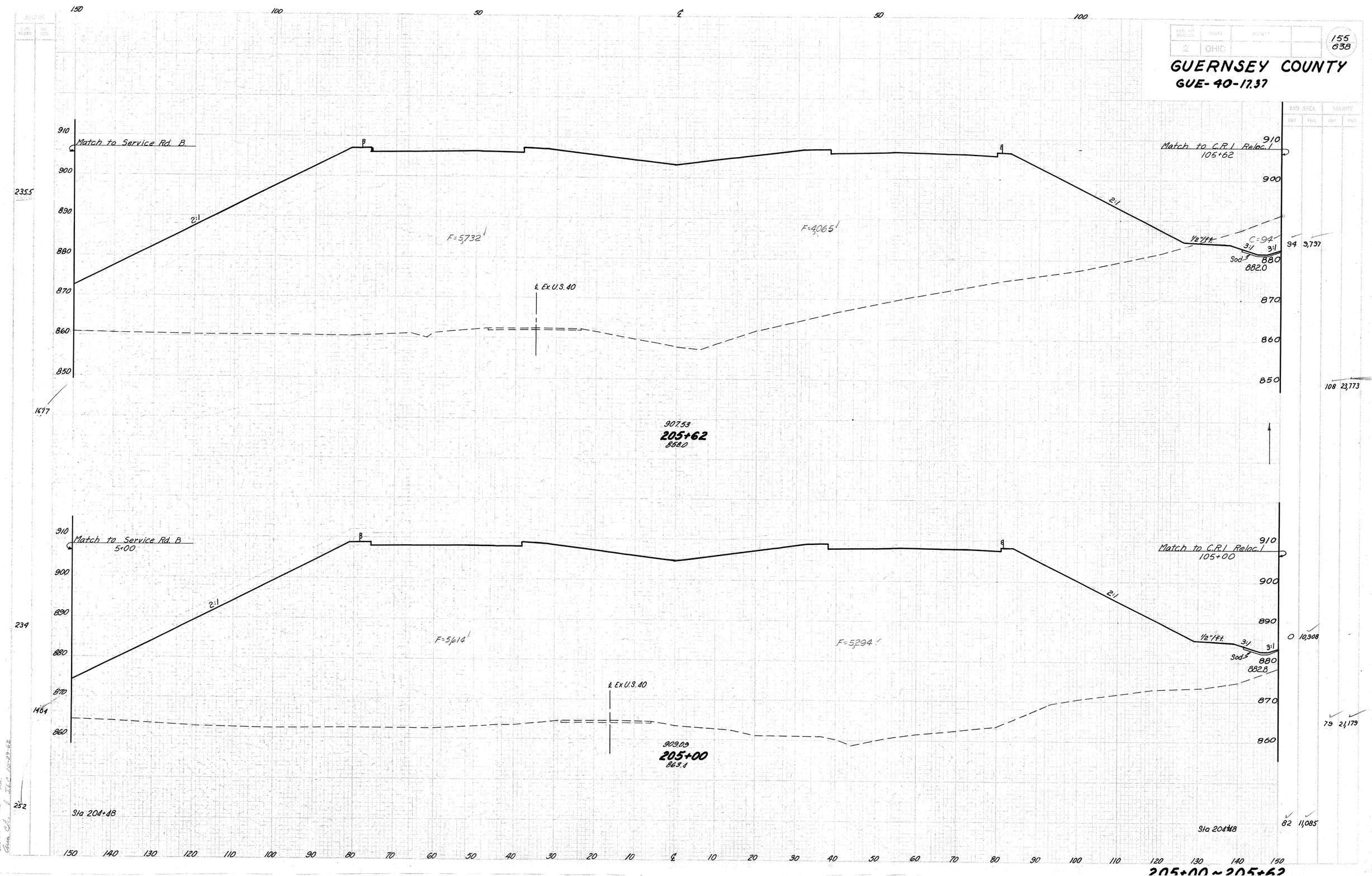


2 OHIO
153
638
GUERNSEY COUNTY
GUE-40-17.37
Match to C.R.1 Reloc.
103+77
F=3,957
F=5,708
2:1
1/2"/ft.
3:1
Sod
886.0
C=16
4:1
881.0
912.19
203+77
868.2
Match to C.R.1 Reloc.
103+17
F=3,035
F=5,082
C=14
891.0
887.4
913.70
203+17
882.4
Sta 203+00
243
1603
238
451
240
16 9,665
34 19,758
14 8,117
10 5,014
19 7,811
203+17 ~ 203+77



2 OHIO
154
638
GUERNSEY COUNTY
GUE-40-17.37
Match to C.R.1 Reloc.1
104+48
2:1
F=5,188
F=5,881
1/2"/ft.
3:1
884.0
℄ Ex. U.S.40
910.40
204+48
867.00
C=82
F=16
4:1
868.2
1341
252
82 11,085
146 18,809
Match to C.R.1 Reloc.1
104+00
F=4,345
F=5,730
885.2
C=82
876.00
911.61
204+00
868.7
Sta 203+77
251
631
243
82 10,075
42 8407
16 9,665

204+00 ~ 204+48



155
638
2
OHIO
GUERNSEY COUNTY
GUE-40-17.37
Match to Service Rd. B.
Match to C.R.1 Reloc.1
105+62
2:1
F=5,732
F=4,065
1/2"/ft.
C=94
3:1
Sod
882.0
94 9,797
108 23,773
℄ Ex. U.S. 40
907.53
205+62
858.0
Match to Service Rd. B
5+00
Match to C.R.1 Reloc.1
105+00
F=5,614
F=5,294
882.8
0 10,908
909.09
205+00
863.4
79 21,179
82 11,085
Sta 204+48
235.5
1677
234
1404
252
205+00 ~ 205+62

STATE	PROJECT	
2 OHIO		

156
638

GUERNSEY COUNTY
GUE-40-17.37

CND AREA		VOLUME	
CUT	FILL	CUT	FILL
227	8,923		
434	15,660		
264	13,542		
39	9797		

150 100 50 ℄ 50 100

910 900 890 880 870 860 850

Match to Service Rd. B

2:1

F=5893'

F=3030'

2:1

Match to C.R.1 Reloc.1
106+46

C=227'

1/2"/ft.

3:1

3:1

30d

881.1

1210

237

905.41
206+46
862.3

910 900 890 880 870 860 850

Match to Service Rd. B
6+00

2:1

F=5872'

F=3588'

2:1

Match to C.R.1 Reloc.1
106+00

C=282'

1/2"/ft.

3:1

3:1

30d

881.5

282 9,960

236.5

396

Shale & Indurated Clay
206+00~208+00

906.57
206+00
858.5

235.5

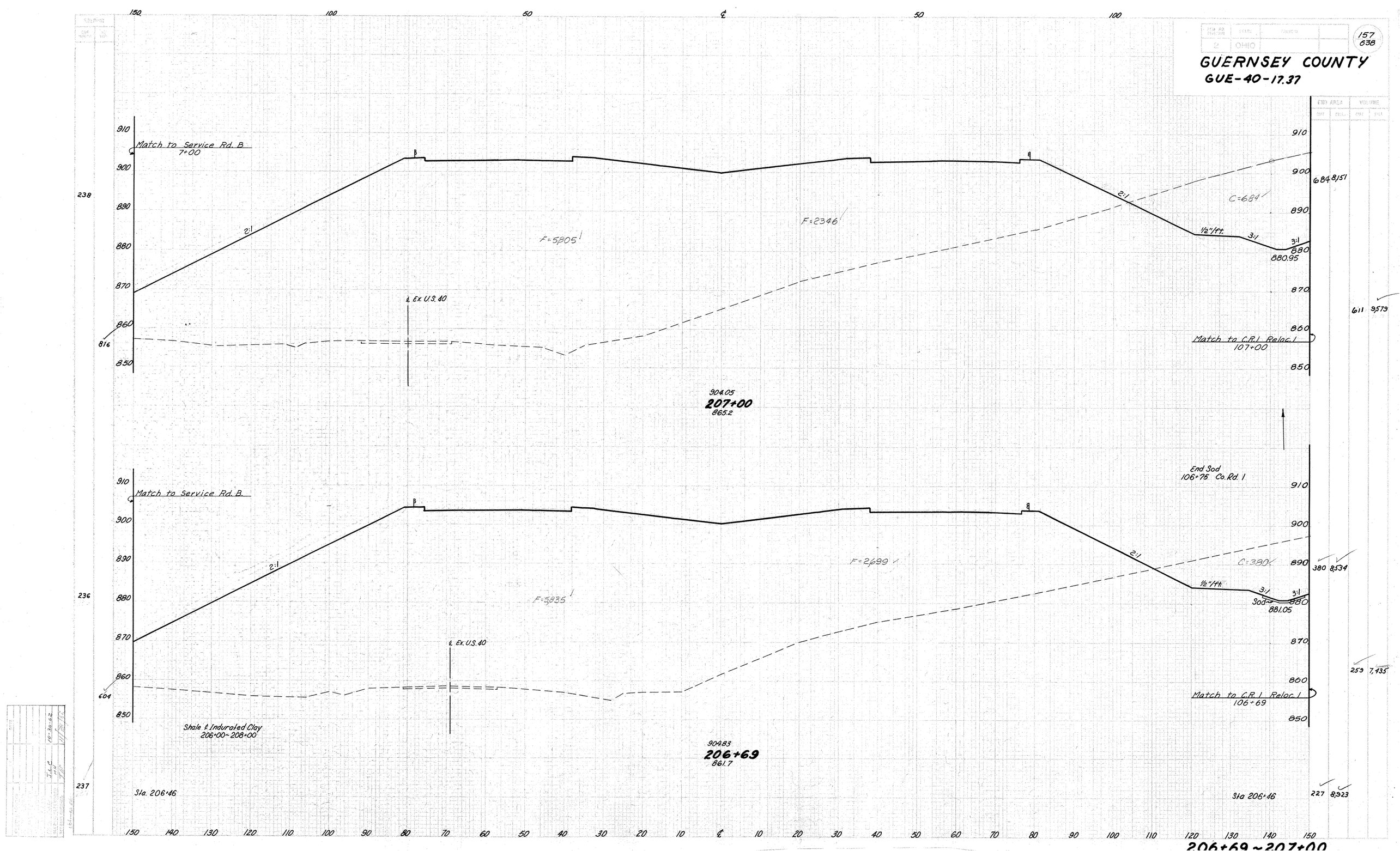
Sta 205+62

Sta 205+62

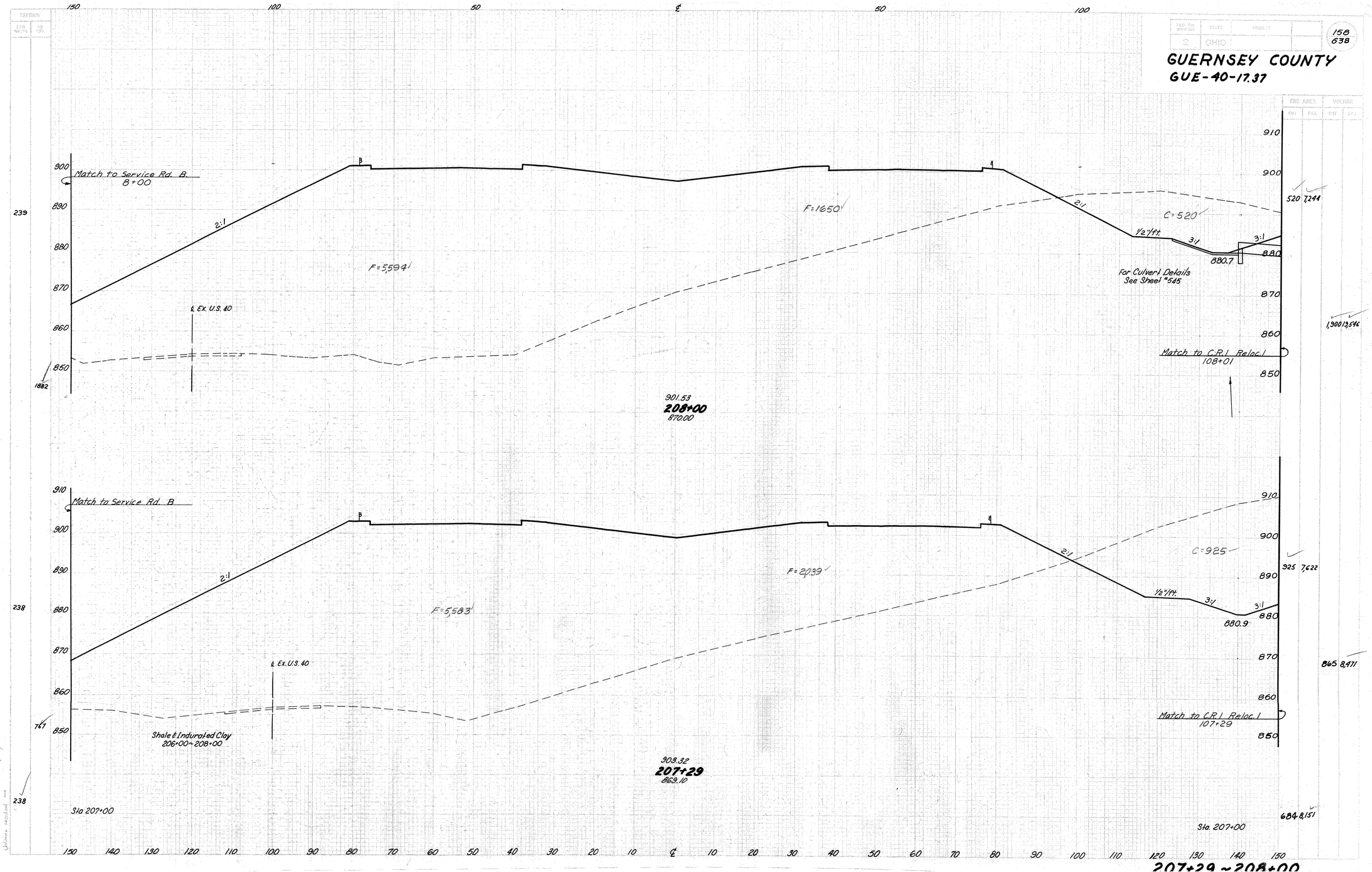
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

206+00~206+46

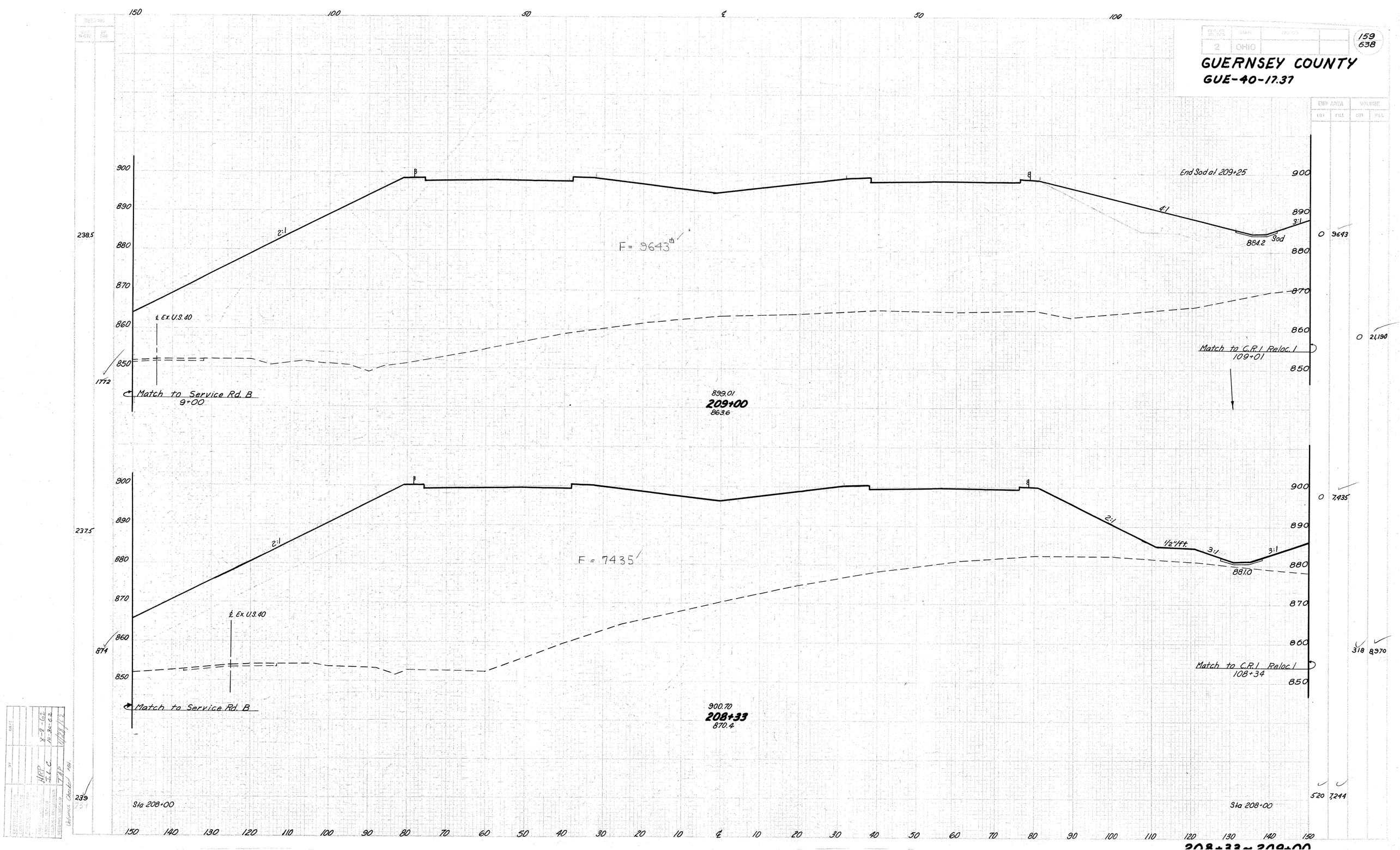
| | | |



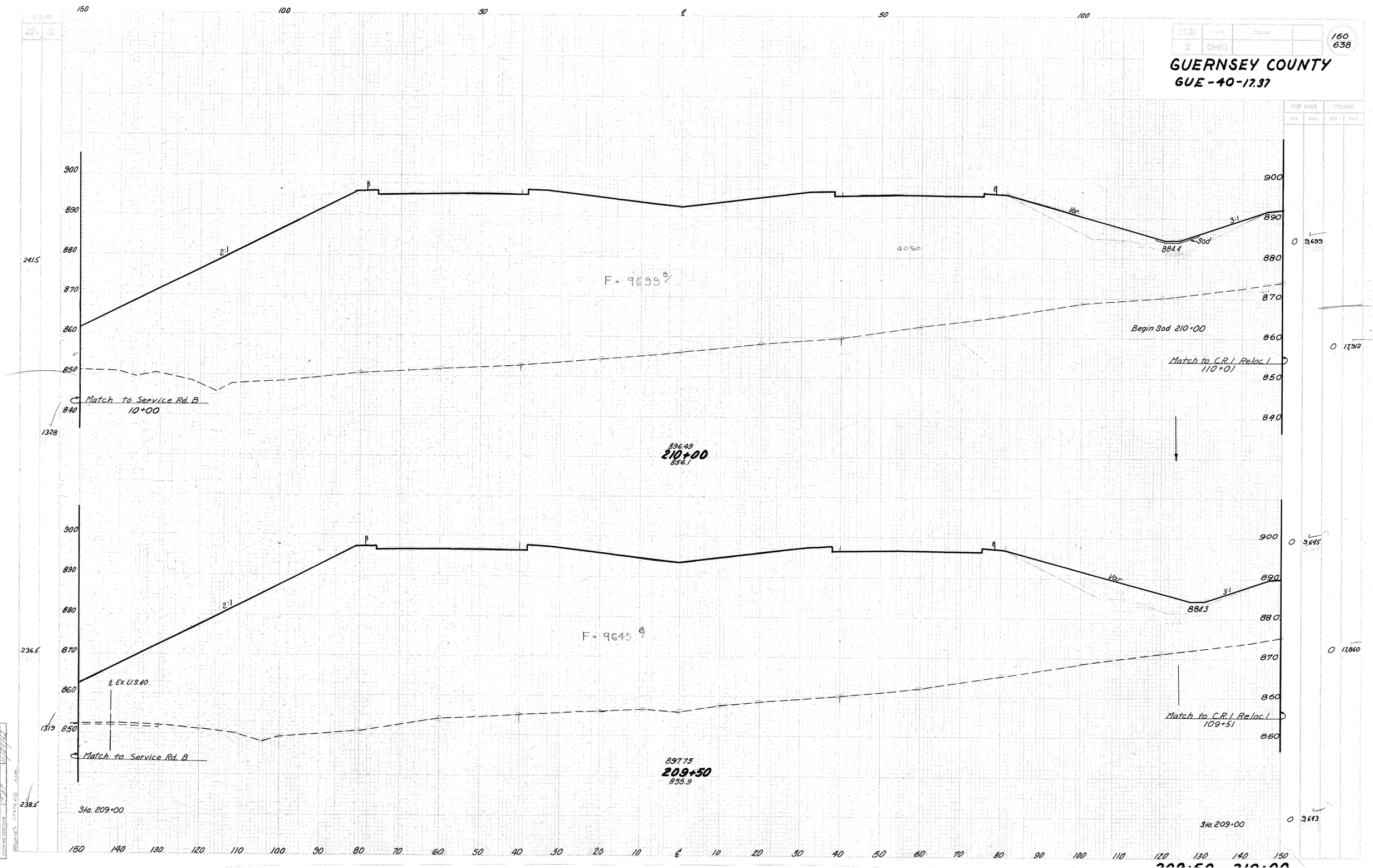
157
638
GUERNSEY COUNTY
GUE-40-17.37
Match to Service Rd. B
7+00
2:1
F=5,805
F=2346
C=684
1/2"/ft.
3:1
880.95
℄ Ex. U.S. 40
Match to C.R.1 Reloc.1
107+00
904.05
207+00
865.2
End Sod
106+75 Co. Rd. 1
Match to Service Rd. B.
F=5,835
F=2,699
C=380
Sod
881.05
Match to C.R.1 Reloc.1
106+69
Shale & Indurated Clay
206+00~208+00
904.83
206+69
861.7
Sta. 206+46
Sta 206+46
238
236
237
816
604
684 8,151
611 9,579
380 8,534
259 7,435
227 8,923
206+69~207+00



2 OHIO
158
638
GUERNSEY COUNTY
GUE-40-17.37
END AREA
VOLUME
Match to Service Rd. B
8+00
2:1
F=5,594
F=1650
C=520
1/2"/ft.
3:1
880.7
For Culvert Details
See Sheet #545
℄ Ex. U.S. 40
Match to C.R.1 Reloc.1
108+01
901.53
208+00
870.00
520 7,244
1,900 19,546
Match to Service Rd. B
2:1
F=5,583
F=2,039
C=925
1/2"/ft.
3:1
880.9
℄ Ex. U.S. 40
Shale & Indurated Clay
206+00~208+00
Match to C.R.1 Reloc.1
107+29
903.32
207+29
869.10
925 7,622
865 8,471
684 8,151
Sta 207+00
Sta. 207+00
207+29 ~ 208+00



2 OHIO
159
638
GUERNSEY COUNTY
GUE-40-17.37
END AREA
VOLUME
CUT FILL CUT FILL
End Sod at 209+25
2:1
4:1
3:1
884.2
Sod
F = 9643
℄ Ex. U.S. 40
Match to Service Rd. B
9+00
Match to C.R.1 Reloc. 1
109+01
899.01
209+00
863.6
238.5
1772
0 9643
0 21,190
2:1
1/2"/ft.
3:1
3:1
881.0
F = 7435
℄ Ex. U.S. 40
Match to Service Rd. B
Match to C.R.1 Reloc. 1
108+34
900.70
208+33
870.4
237.5
874
239
0 7,435
318 8,970
520 7,244
Sta 208+00
Sta 208+00
208+33 ~ 209+00

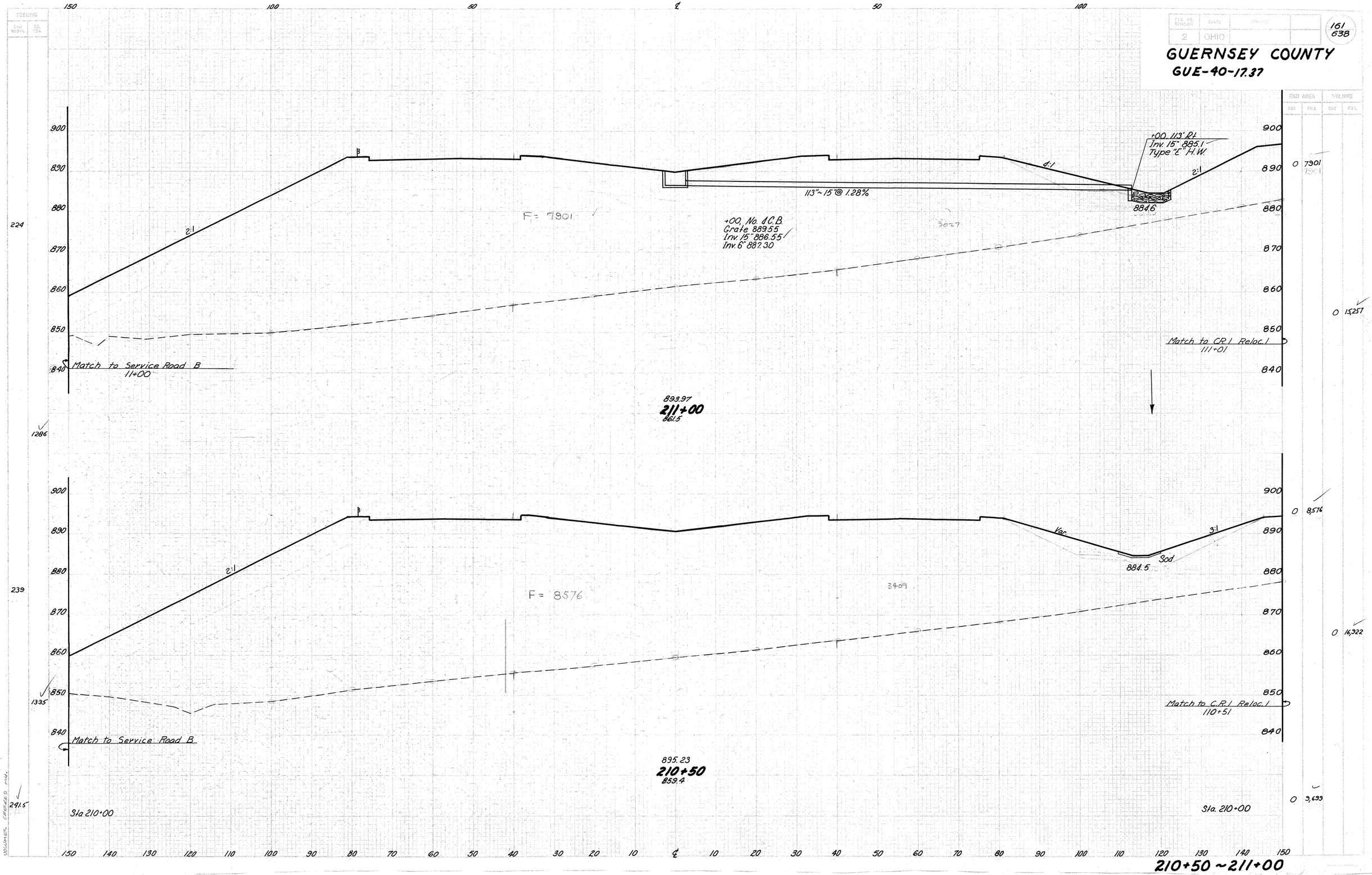


2
OHIO
160
638
GUERNSEY COUNTY
GUE-40-17.37
END AREA
VOLUME
CUT
FILL
F = 9699
2:1
3:1
Var.
Sod
884.4
4050
Begin Sod 210+00
Match to C.R.1 Reloc.1
110+01
Match to Service Rd. B
10+00
896.49
210+00
856.1
F = 9645
884.3
Match to C.R.1 Reloc.1
109+51
Match to Service Rd. B
897.75
209+50
855.9
Sta. 209+00
Sta. 209+00
0 9,699
0 17,912
0 9,645
0 17,860
0 9,643
241.5
1328
236.5
1319
238.5

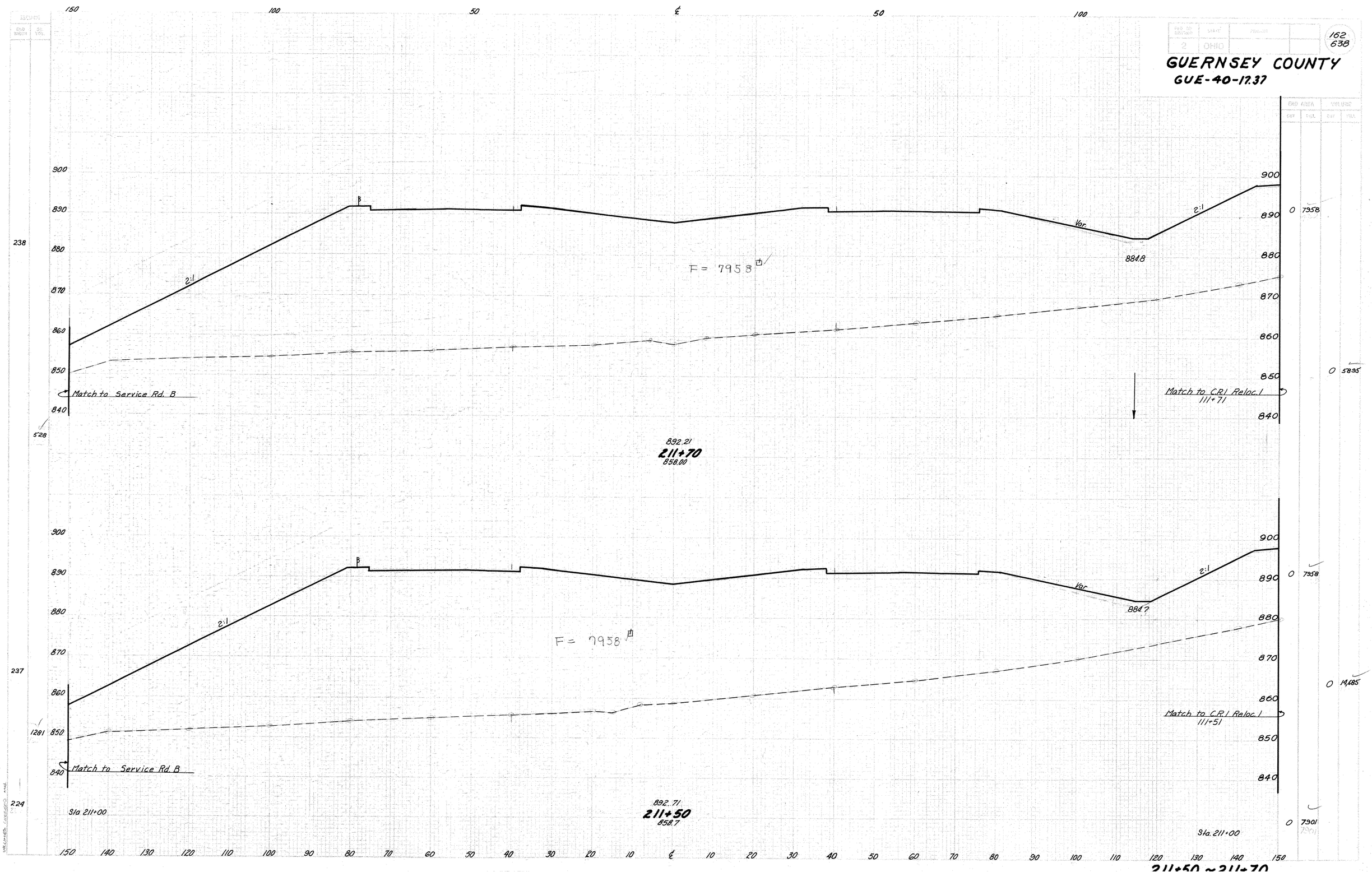
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

161
638

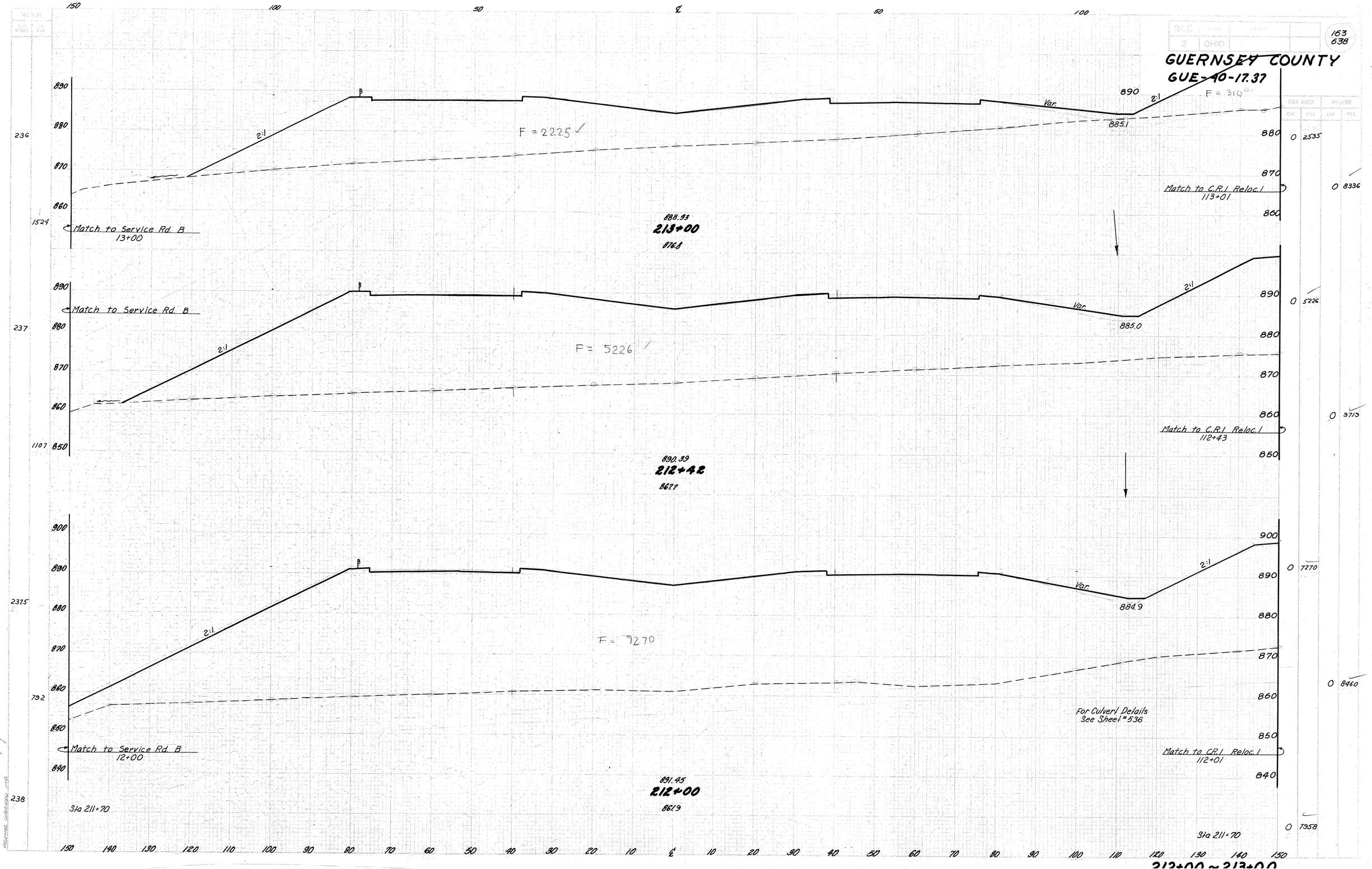
GUERNSEY COUNTY
GUE-40-17.37



210+50 ~ 211+00



162
638
GUERNSEY COUNTY
GUE-40-17.37
2
OHIO
F= 7958
Var.
2:1
884.8
Match to Service Rd. B
Match to C.R.1 Reloc.1
111+71
892.21
211+70
858.00
F= 7958
Var.
2:1
884.7
Match to Service Rd. B
Match to C.R.1 Reloc.1
111+51
892.71
211+50
858.7
Sta 211+00
Sta. 211+00
0 7958
0 5895
0 7958
0 14,685
0 7901
238
237
224
528
1281
211+50 ~ 211+70



163
638
GUERNSEY COUNTY
GUE-40-17.37
F = 2225
F = 310
Var.
2:1
885.1
Match to Service Rd. B
13+00
888.93
213+00
876.8
Match to C.R.1 Reloc.1
113+01
F = 5226
885.0
Match to C.R.1 Reloc.1
112+43
890.39
212+42
867.7
F = 7270
884.9
For Culvert Details
See Sheet #536
Match to Service Rd. B
12+00
Match to C.R.1 Reloc.1
112+01
891.45
212+00
861.9
Sta 211+70
Sta 211+70
212+00 ~ 213+00

GUERNSEY COUNTY
GUE-40-17.37

150 100 50 ℄ 50 100

ENG AREA | VOLUME
CUT | FILL | CUT | FILL

930 920 910 900 890 880 870 860

Match to Service Rd. B
14+00

233

1266

2:1 F=180 C=107 B

F=63

C=1902 C=2614

F=14 8:1

884.0

2:1 1"/ft.

7623 180

5128 511

Match to C.R.1 Reloc.1
114+01

886.41
214+00
900.3

Emb. as per E-1.02

	SURF. AREA S.F.	VOL. C.Y.
214+00	77	73
213+51	3	3
213+00	0	

76 Total taken to Sheet 24

910 900 890 880 870 860

Match to Service Rd. B

232

2:1 F=372 C=69 B

C=959

8:1 F=3

885.2

2:1 1"/ft.

1028 372

Match to C.R.1 Reloc.1
113+52

971 2795

Begin bench with 0 cut at 213+10

1326

Shale & Indurated Clay
213+51 ~ 221+00

882.64
213+51
882.6

236

Sta 213+00

Sta 213+00

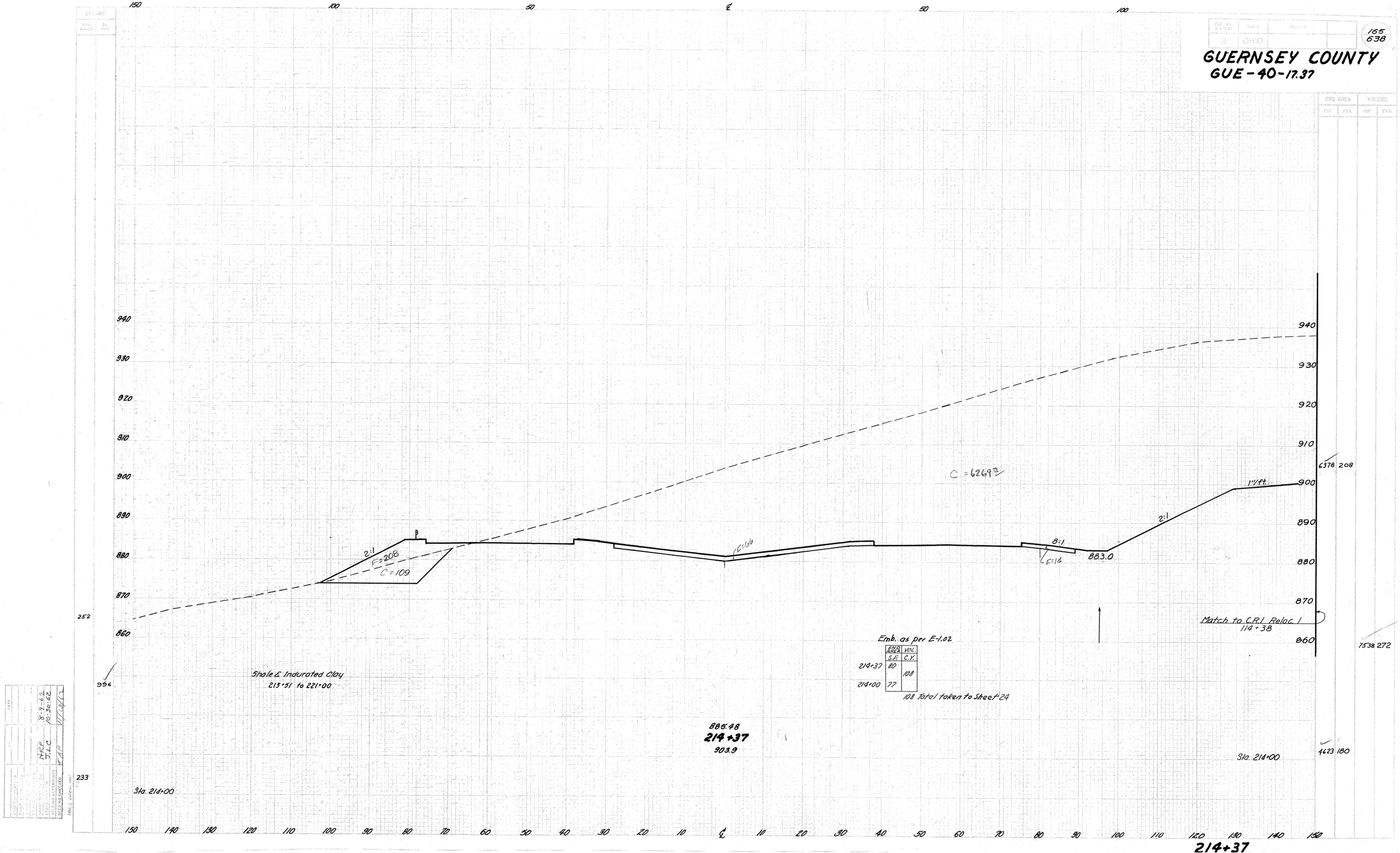
0 2535

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

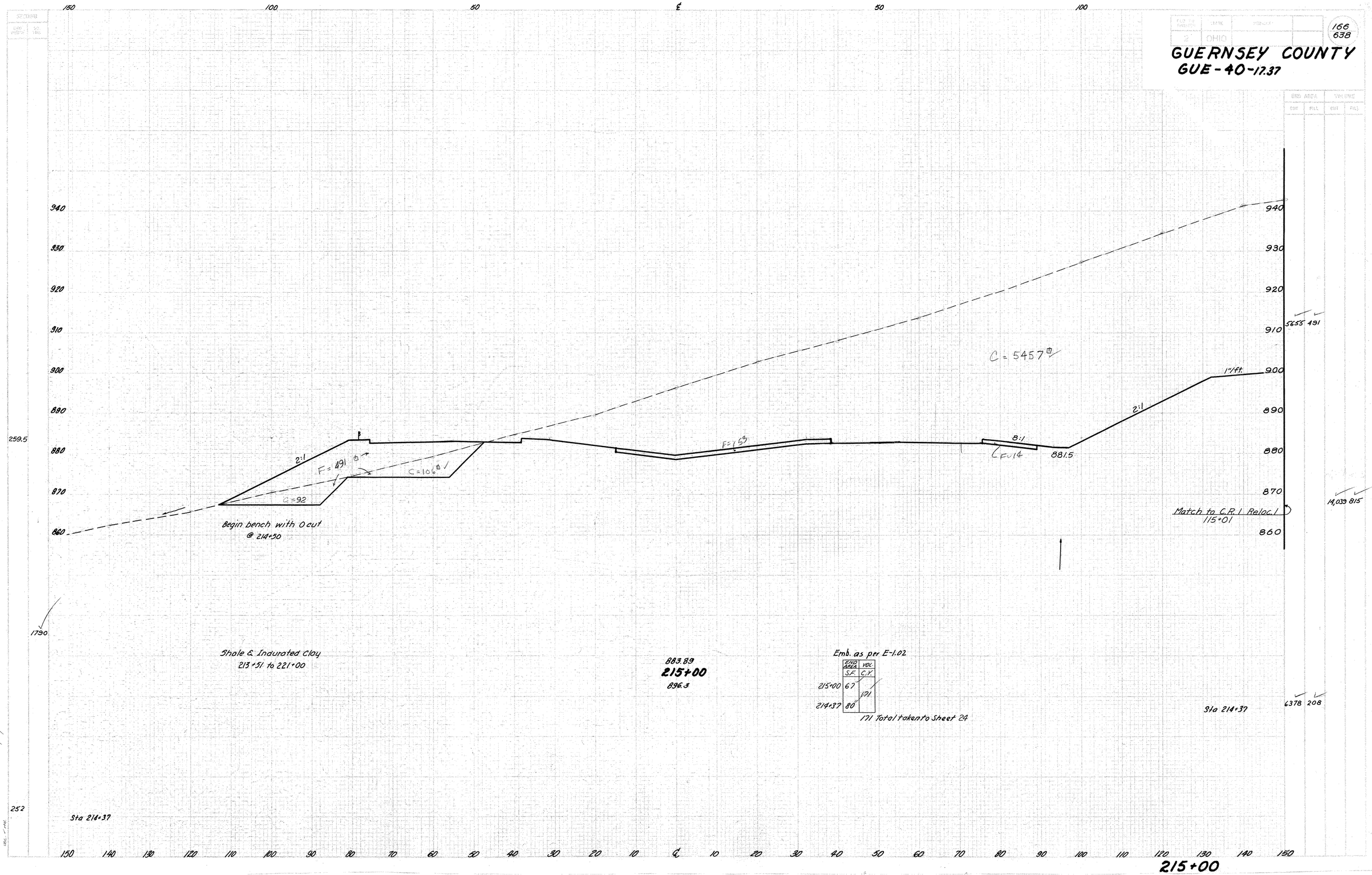
213+51 ~ 214+00

DESIGN REVISED	DATE	BY
EXISTING REVISED		
EXISTING CHECKED		
TENTATIVE REVISED	12-6-62	HSP
TENTATIVE CHECKED	12-26-62	TLC
LANES, DELINEATORS	1/18/63	AJP
AREAS CHECKED		
QUANTITIES DETERMINED		
SECOND CHECKED		

UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE HORIZONTAL



165
638
GUERNSEY COUNTY
GUE-40-17.37
2
OHIO
END AREA
VOLUME
CUT
FILL
940
930
920
910
900
890
880
870
860
C = 6269 ft
2:1
F=208
C=109
F=66
8:1
F=14
883.0
2:1
1"/ft.
6378 208
7538 272
4623 180
Match to C.R.1 Reloc. 1
114+38
Emb. as per E-1.02
END AREA
VOL.
S.F.
C.Y.
214+37
80
108
214+00
77
108 Total taken to Sheet 24
Shale & Indurated Clay
213+51 to 221+00
885.48
214+37
903.9
Sta. 214+00
Sta. 214+00
252
233
996
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
214+37



166
638
GUERNSEY COUNTY
GUE-40-17.37
C = 5457
1"/ft.
2:1
8:1
881.5
F = 491
C = 106
C = 92
F = 153
Begin bench with 0 cut
@ 214+50
Match to C.R. 1 Reloc. 1
115+01
Shale & Indurated Clay
213+51 to 221+00
883.89
215+00
896.3
Emb. as per E-1.02
END AREA
VOL.
S.F.
C.Y.
215+00 67
171
214+37 80
171 Total taken to Sheet 24
Sta 214+37
5655 491
14,039 815
6378 208
259.5
252
1790
215+00

APPD. NO. DIVISION	STATE	PROJECT	
2	OHIO		

167
638

GUERNSEY COUNTY
GUE-40-17.37

SOUNDING

ZERO POINT	AS SHOWN

END AREA

CUT	FILL

VOLUME

CUT	FILL

150 100 50 ℄ 50 100

940 930 920 910 900 890 880 870 860 850

256

1718

2:1

F = 808 ✓

C = 79 ✓

C = 105 ✓

C = 5166 ✓

F = 30

8:1

F = 14

880.1

2:1

1'/ft.

950 930 920 910 900 890 880 870 860 850

5350 808

12,228 1494

5255 491

Match to C.R.I Reloc.1
115+60

Sta. 215+00

Shale & Indurated Clay
213+51 to 221+00

Emb. as per E-1.02

	END AREA S.F.	VOL. C.Y.
215+60	44	
		124
215+00	67	

124 total taken to Sheet 24

882.38
215+60
885.6

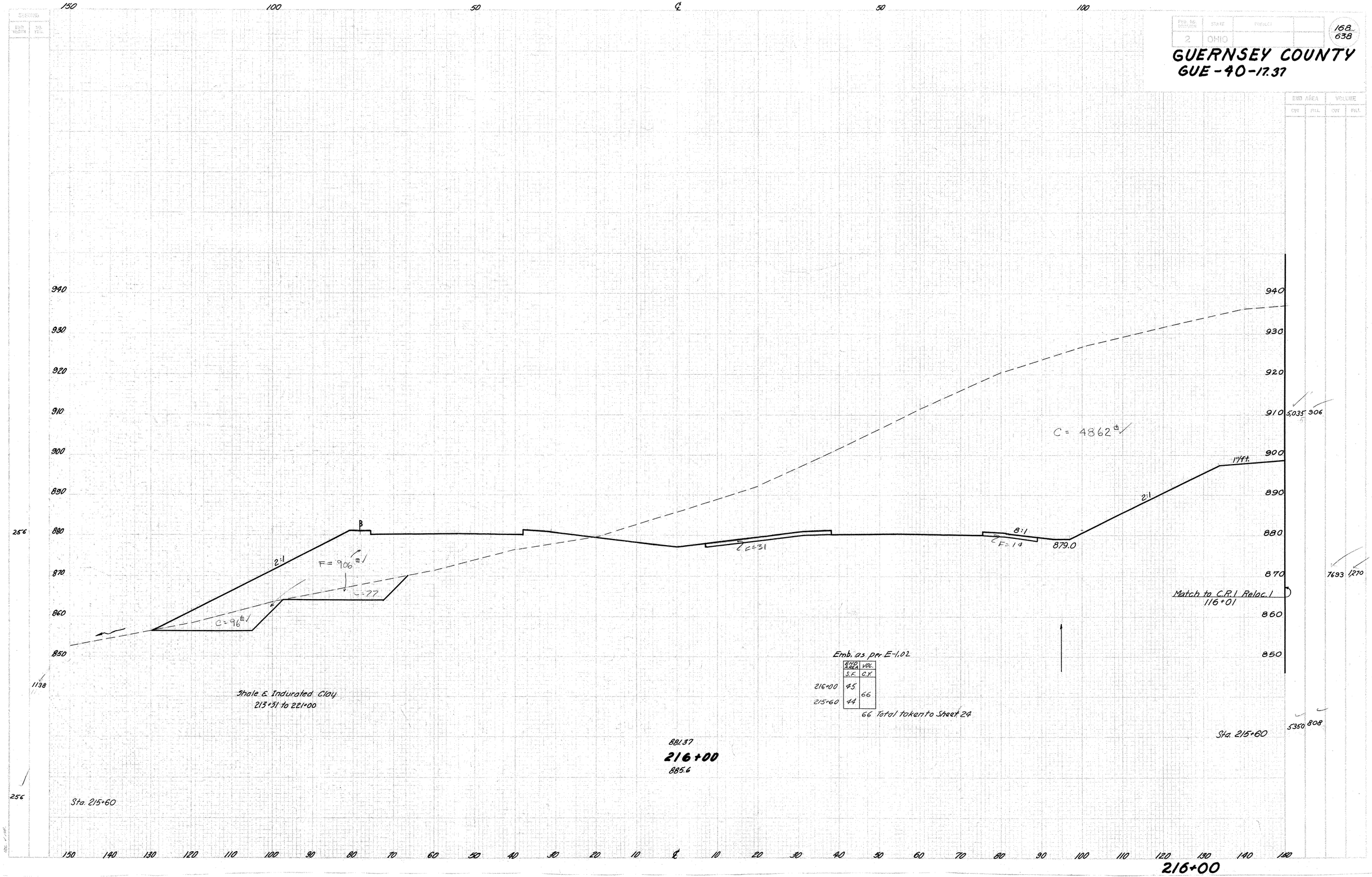
253.5

Sta 215+00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

215+60

DATE					



2 OHIO
168
638
GUERNSEY COUNTY
GUE-40-17.37
END AREA
VOLUME
CUT
FILL
C = 4862
1"/ft.
2:1
8:1
879.0
F=14
F=31
F=906
C=77
C=96
Match to C.R.1 Reloc.1
116+01
Emb. as per E-1.02
216+00 45 66
215+60 44
66 Total taken to Sheet 24
Shale & Indurated Clay
213+51 to 221+00
881.37
216+00
885.6
Sta. 215+60
Sta. 215+60
5,035 906
7693 1,270
5350 808
1138
256
256

216+00

SHEET NO.	STATE	PROJECT	
2	OHIO		

169
638

GUERNSEY COUNTY
GUE-40-17.37

END AREA		VOLUME	
CUT	FILL	CUT	FILL

2058 1320

4595 1982

6965 1660

5035 906

Emb. as per E-1.02

	END AREA S.F.	VOL. C.Y.
216+86	14	31
216+43	25	56
216+00	45	

87 Total taken to Sheet 24

879.20
216+86
879.5

880.20
216+43
882.2

Begin bench with 0 cut @ 216+00

Sta. 216+00

Shale & Indurated Clay
213+51 to 221+00

Match to C.R.1 Relocated
116+97

Match to C.R.1 Relocated
116+44

Sta. 216+00

C = 1799

C = 3459

F = 1220

F = 1168

C = 73

C = 98

C = 99

C = 81

F = 11

F = 14

2:1

8:1

1"/ft.

1"/ft.

876.9

878.0

257

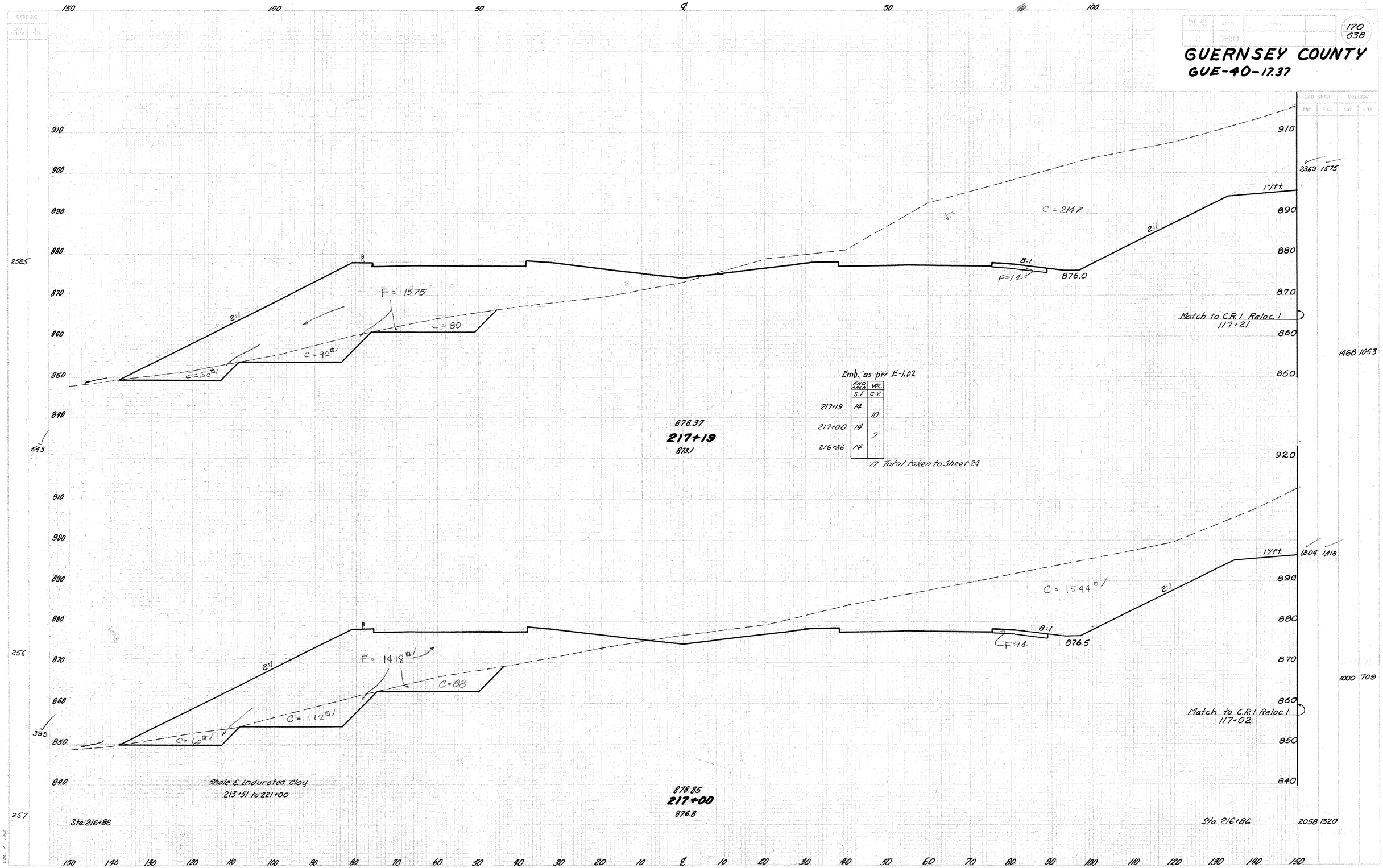
258

256

1230

1228

3712 1168



170
638
GUERNSEY COUNTY
GUE-40-17.37
2 OHIO
Emb. as per E-1.02
END AREA S.F. VOL. C.Y.
217+19 14 10
217+00 14 7
216+86 14
17 Total taken to Sheet 24
878.37
217+19
873.1
878.85
217+00
876.8
Shale & Indurated Clay
213+51 to 221+00
Sta. 216+86
Match to C.R.1 Reloc.1
117+21
Match to C.R.1 Reloc.1
117+02
F = 1575
C = 80
C = 92
C = 50
C = 2147
F = 1418
C = 88
C = 112
C = 60
C = 1544
F = 14
2:1
8:1
1"/ft.
876.0
876.5
2369 1575
1468 1053
1804 1418
1000 709
2058 1320
2585
543
256
399
257

217+00 ~ 217+19

SHEET NO.	STATE	PROJECT	
2	OHIO		

171
638

GUERNSEY COUNTY
GUE-40-17.37

SHEET NO.	STATE	PROJECT	
2	OHIO		

171
638

GUERNSEY COUNTY
GUE-40-17.37

EXIST. WIDTH	SUPERELEVATION

END AREA: CUT | FILL
VOLUME: CUT | FILL

150 100 50 ℄ 50 100

900 890 880 870 860 850 840

251

2:1

P

F = 3019 ☐/

C = 89 ☐/

C = 66 ☐/

C = 24

8:1

C = 14

874.0

C = 1335 ☐/

2:1

1"/ft.

Match to C.R.1 Reloc.
118+02

1512 2019

1283 2,000

Emb. as per E-1.02

	END AREA S.F.	VOL. C.Y.
218+00	14	
		13
217+75	14	
		29
217+19	14	

92 total taken to Sheet 24

876.33
218+00
868.3

699 910 900 890 880 870 860 850 840

252.5

2:1

P

F = 2300 ☐/

C = 50 ☐/

C = 34 ☐/

C = 29 ☐

8:1

C = 14

874.8

C = 1147 ☐/

2:1

1"/ft.

Match to C.R.1 Reloc.
117+77

1590

1260 2300

3764 4013

2369 1575

Shale & Indurated Clay
213+91 to 221+00

876.96
217+75
866.1

Sta. 217+19

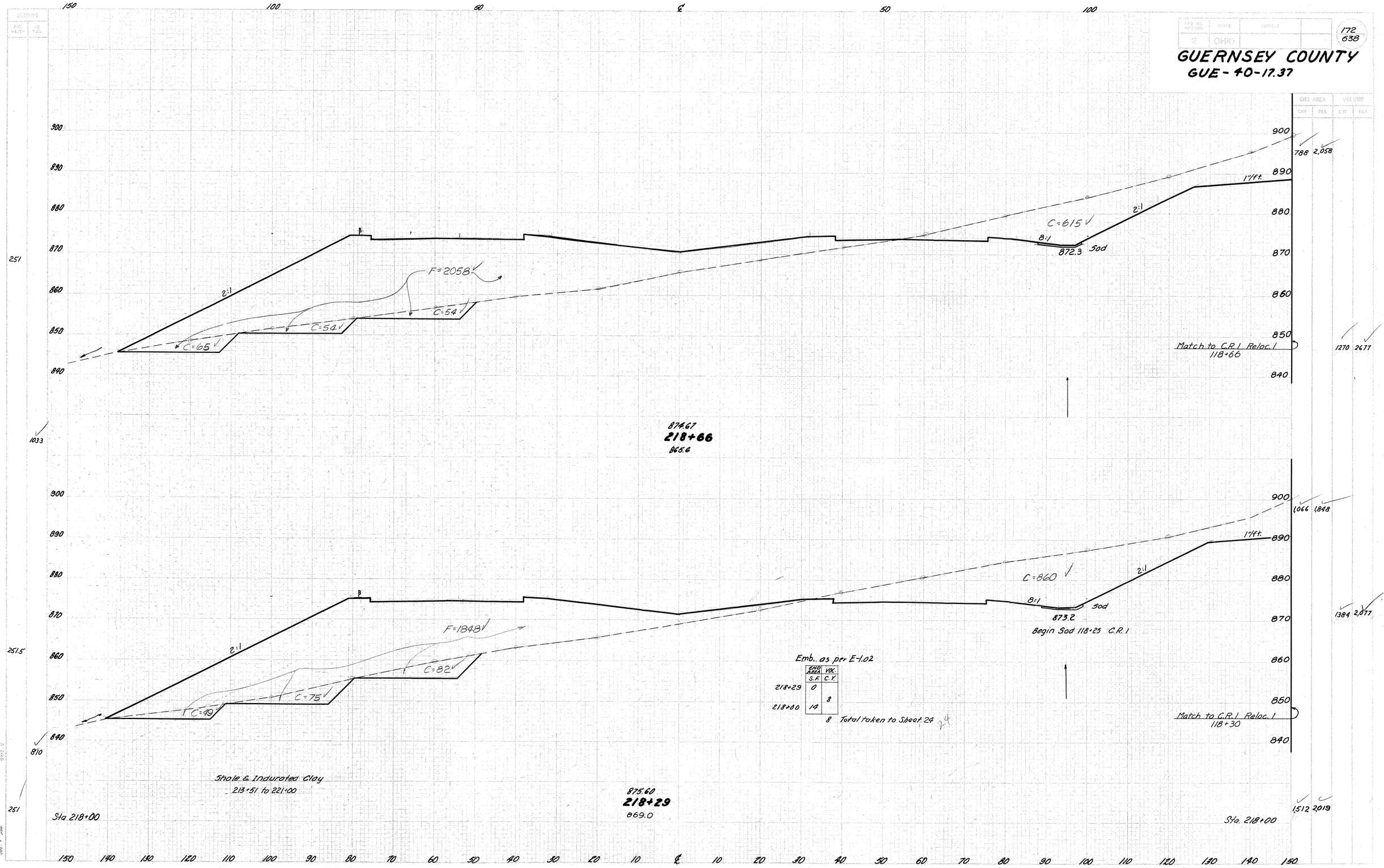
Sta. 217+19

258.5

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

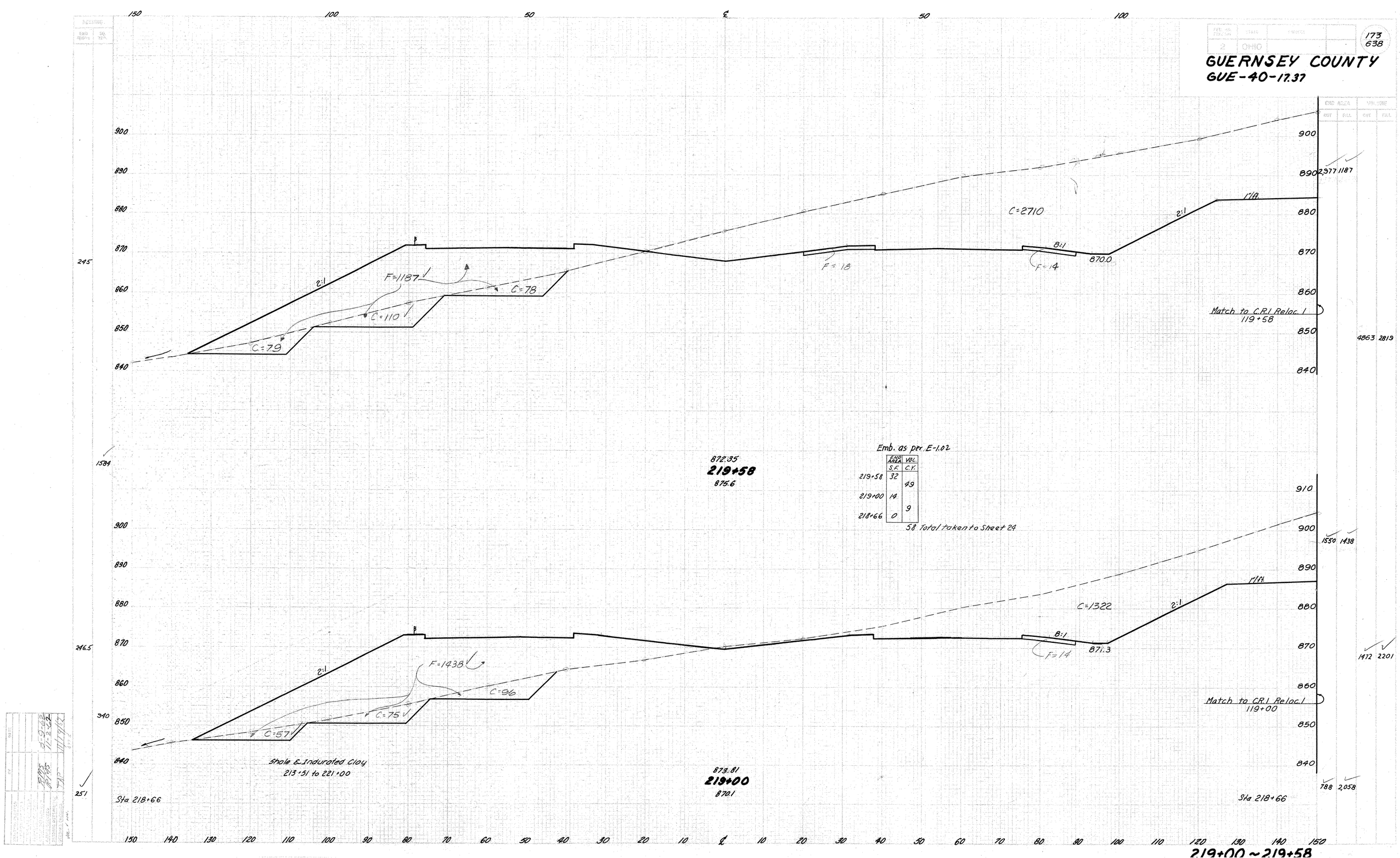
217+75 ~ 218+00

HEAD	X-8-62		
DES			
CAD			



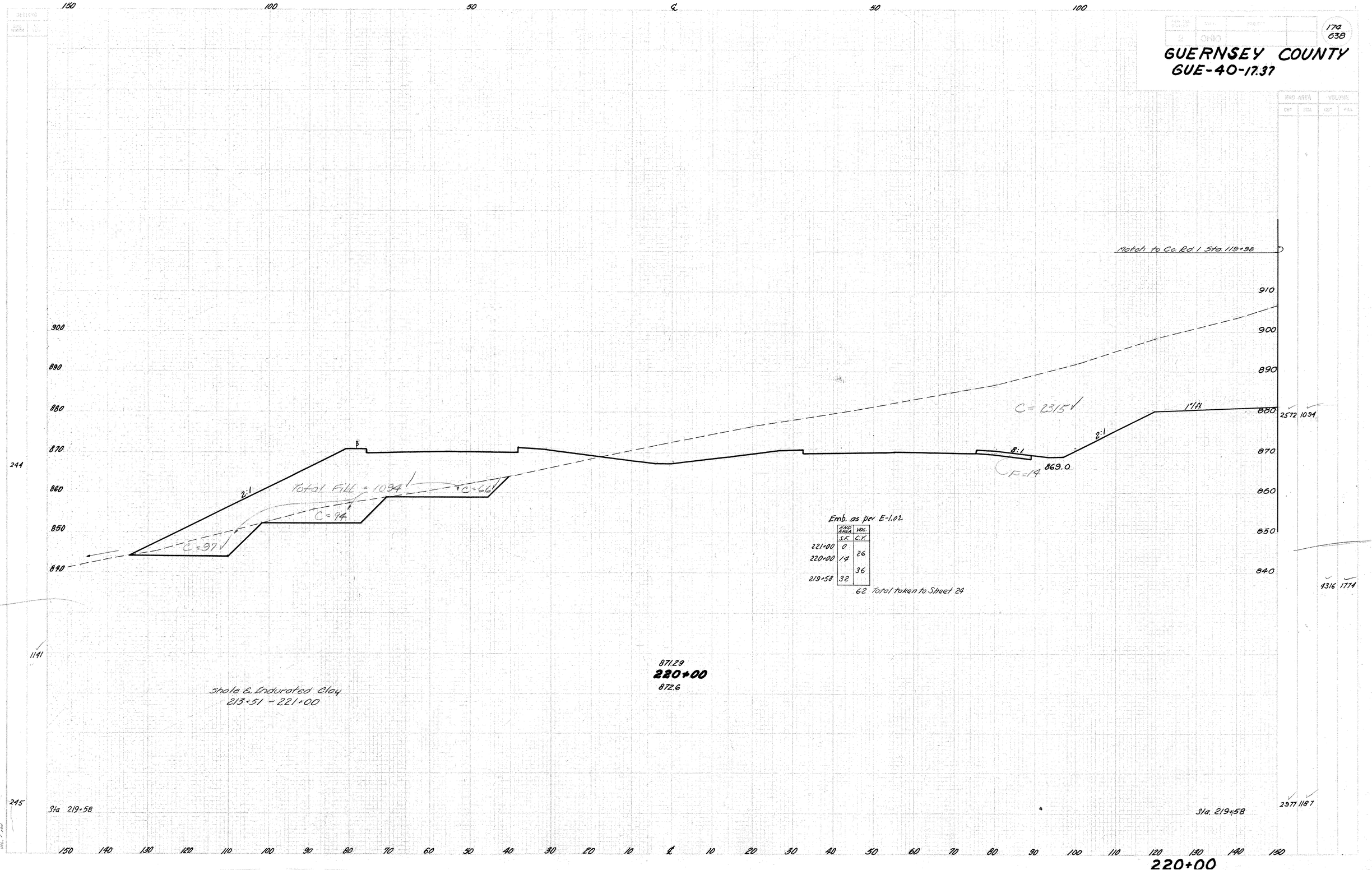
172
638
GUERNSEY COUNTY
GUE-40-17.37
END AREA
VOLUME
CUT
FILL
2:1
F=2058
C=65
C=54
C=54
C=615
8:1
872.3
Sod
1"/ft.
788
2,058
Match to C.R.1 Reloc.1
118+66
1270
2677
874.67
218+66
865.6
1033
C=860
8:1
873.2
Sod
Begin Sod 118+25 C.R.1
1,066
1,848
1384
2,077
F=1848
C=49
C=75
C=82
Emb. as per E-1.02
END AREA S.F.
VOL. C.Y.
218+29 0
218+00 14
8
8 Total taken to Sheet 24
Match to C.R.1 Reloc.1
118+30
Shale & Indurated Clay
213+51 to 221+00
875.60
218+29
869.0
Sta 218+00
Sta. 218+00
1,512
2,019
251
251.5
810

218+29 ~ 218+66

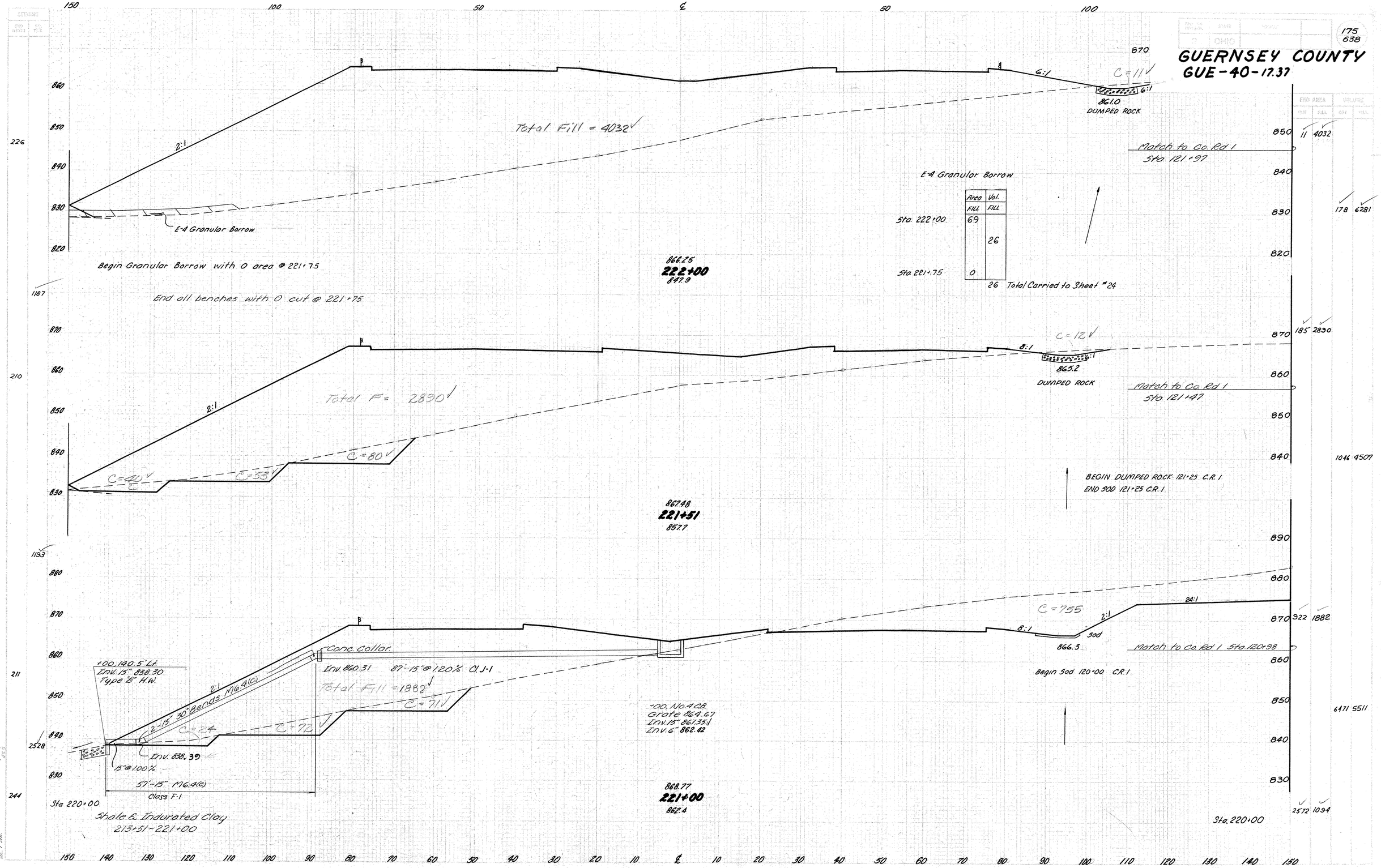


173
638
GUERNSEY COUNTY
GUE-40-17.37
2 OHIO
150 100 50 ℄ 50 100
900 890 880 870 860 850 840
245
2:1
F=1187
C=78
C=110
C=79
F=18
C=2710
8:1
F=14
870.0
2:1
1"/ft.
Match to C.R.1 Reloc. 1
119+58
2,977 1187
4863 2819
1584
872.35
219+58
875.6
Emb. as per E-1.02
END AREA S.F. VOL. C.Y.
219+58 32
49
219+00 14
9
218+66 0
58 Total taken to Sheet 24
910 900 890 880 870 860 850 840
246.5
340
251
F=1438
C=96
C=75
C=57
C=1322
8:1
F=14
871.3
2:1
1"/ft.
Match to C.R.1 Reloc. 1
119+00
1550 1438
1472 2201
788 2,058
Shale & Indurated Clay
213+51 to 221+00
873.81
219+00
870.1
Sta 218+66
Sta 218+66
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

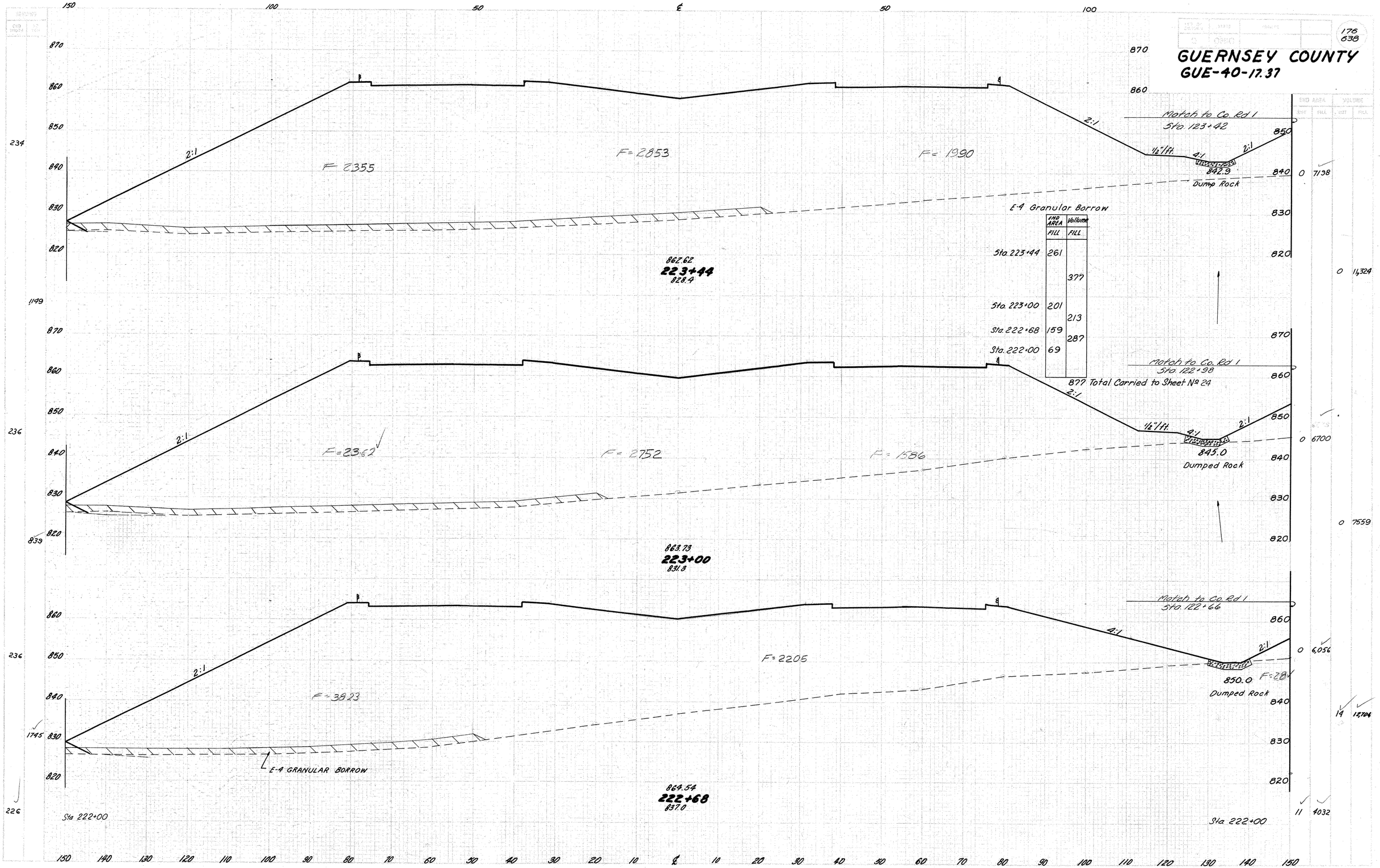
219+00 ~ 219+58



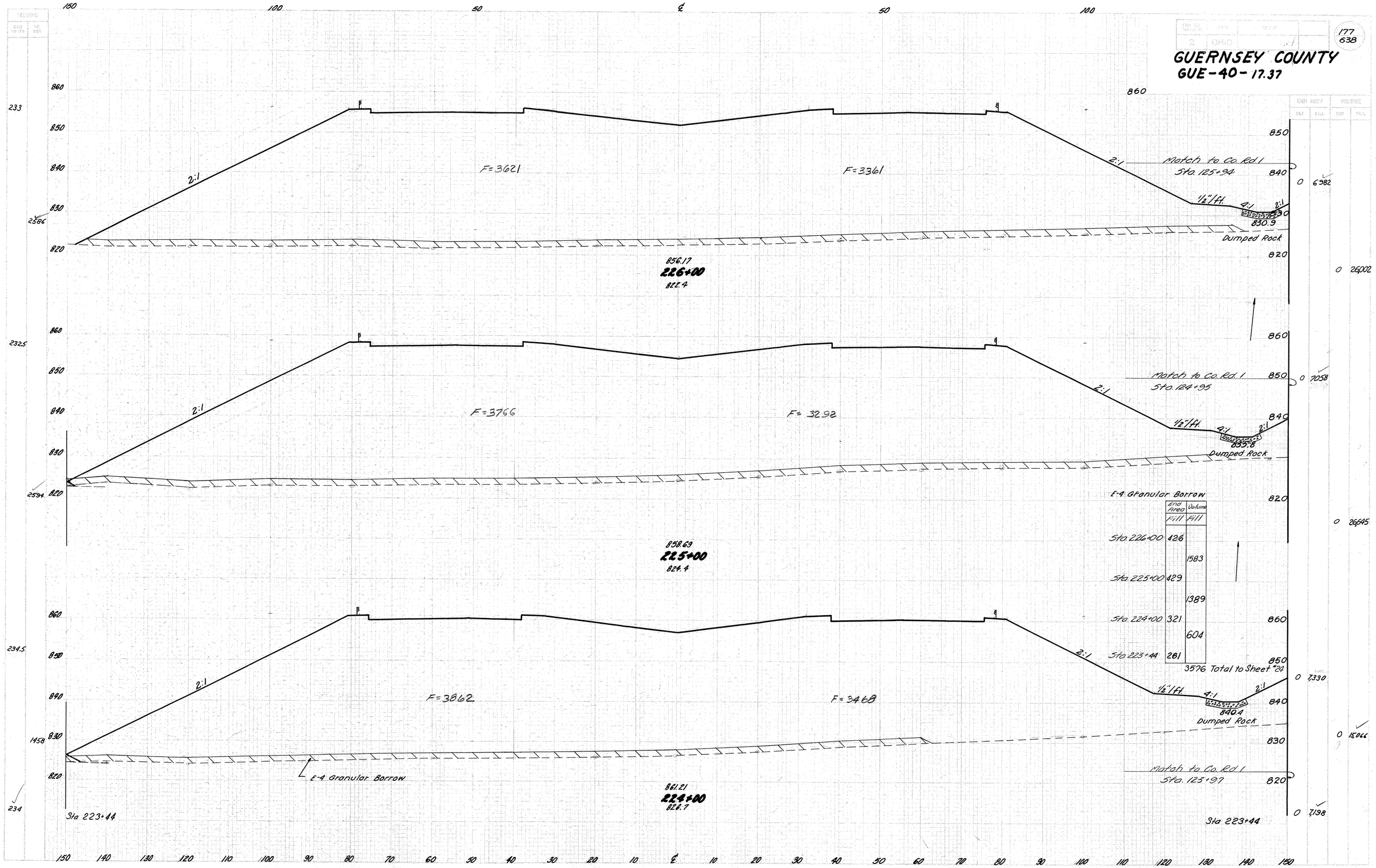
174
638
GUERNSEY COUNTY
GUE-40-17.37
Match to Co. Rd. 1 Sta. 119+98
910
900
890
880
870
860
850
840
244
245
1141
2572 1094
4316 1774
2977 1187
C = 2315
1"/ft.
2:1
8:1
869.0
F=14
Total Fill = 1094
C=66
C=94
C=97
Emb. as per E-1.02
END AREA S.F. | VOL. C.Y.
221+00 0
220+00 14 | 26
219+58 32 | 36
62 Total taken to Sheet 24
871.29
220+00
872.6
Shale & Indurated Clay
213+51 - 221+00
Sta 219+58
Sta. 219+58
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150
220+00



175
638
GUERNSEY COUNTY
GUE-40-17.37
Total Fill = 4032
2:1
E-4 Granular Borrow
Begin Granular Borrow with 0 area @ 221+75
End all benches with 0 cut @ 221+75
866.25
222+00
847.9
C=11
6:1
861.0
DUMPED ROCK
Match to Co. Rd 1
Sta. 121+97
E-4 Granular Borrow
Area Vol.
FILL FILL
Sta. 222+00 69
26
Sta. 221+75 0
26 Total Carried to Sheet #24
Total F= 2890
C=12
8:1
865.2
DUMPED ROCK
Match to Co. Rd 1
Sta. 121+47
C=40
C=53
C=80
BEGIN DUMPED ROCK 121+25 C.R.1
END SOD 121+25 C.R.1
867.48
221+51
857.7
C=755
24:1
Sod
866.3
Match to Co. Rd 1 Sta. 120+98
Begin Sod 120+00 C.R.1
Conc. Collar
Inv. 860.31
87'-15" @ 1.20% Cl. J-1
Total Fill = 1882
+00, 140.5' Lt.
Inv. 15" 838.30
Type "B" H.W.
2-15" 30° Bends M6.4(c)
C=24
C=72
C=71
Inv. 838.39
15" @ 1.00%
57'-15" M6.4(c)
Class F-1
+00, No. 4 C.B.
Grate 864.67
Inv. 15" 861.35
Inv. 6" 862.42
868.77
221+00
862.4
Sta. 220+00
Shale & Indurated Clay
213+51 - 221+00
Sta. 220+00
221+00 ~ 222+00

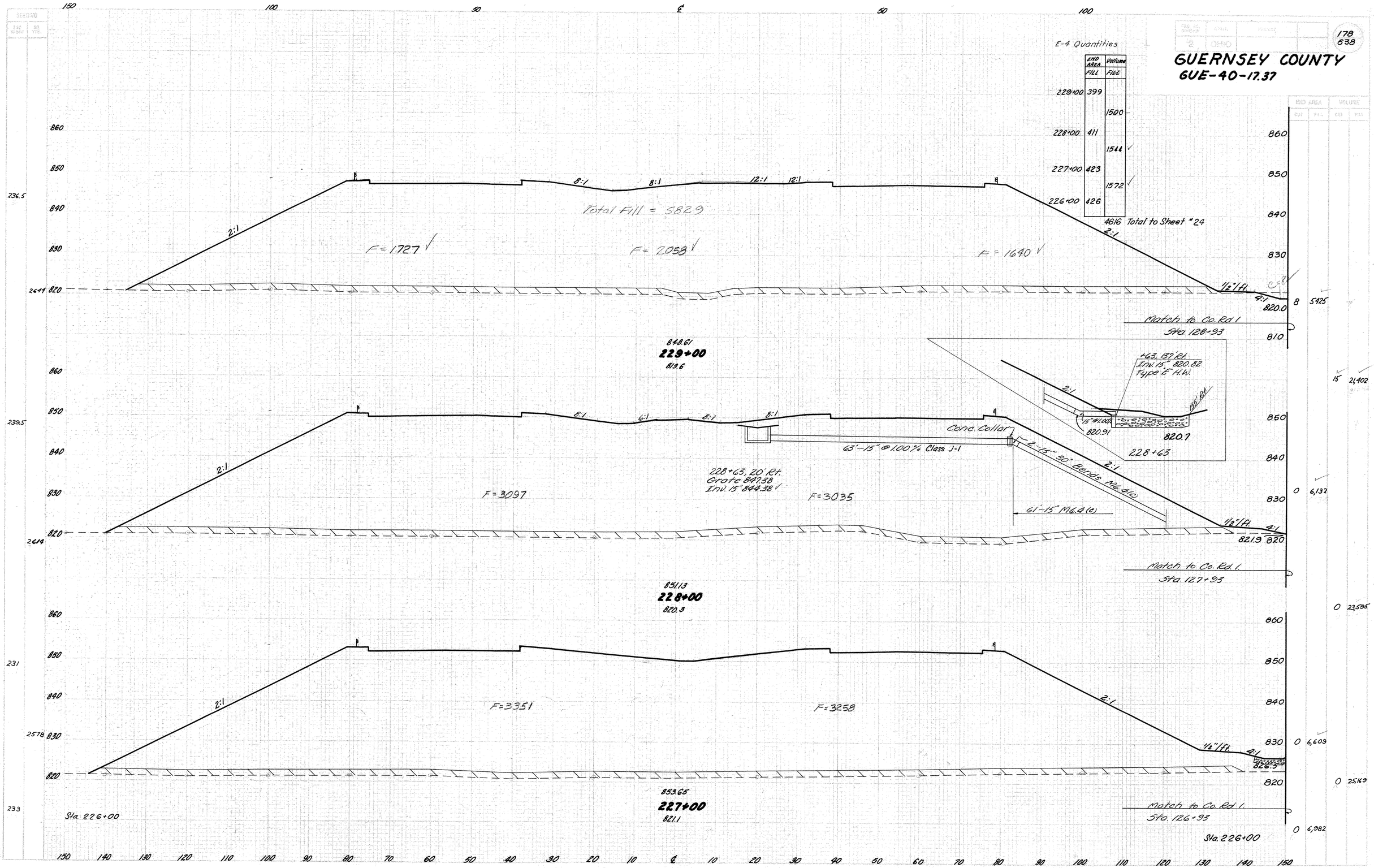


GUERNSEY COUNTY
GUE-40-17.37
176
638
Match to Co. Rd 1
Sta. 123+42
F=2355
F=2853
F=1990
2:1
1/2"/ft.
4:1
842.9
Dump Rock
E-4 Granular Borrow
END AREA FILL
Volume FILL
Sta. 223+44 261
377
Sta. 223+00 201
213
Sta. 222+68 159
287
Sta. 222+00 69
877 Total Carried to Sheet No 24
862.62
223+44
828.4
Match to Co. Rd 1
Sta. 122+98
845.0
Dumped Rock
F=2362
F=2752
F=1586
863.73
223+00
831.8
Match to Co. Rd 1
Sta. 122+66
F=2205
F=3823
850.0
Dumped Rock
E-4 GRANULAR BORROW
864.54
222+68
837.0
Sta 222+00
Sta 222+00
0 7198
0 11,324
0 6700
0 7559
0 6,056
14 12,704
11 4032
222+68 ~ 223+44



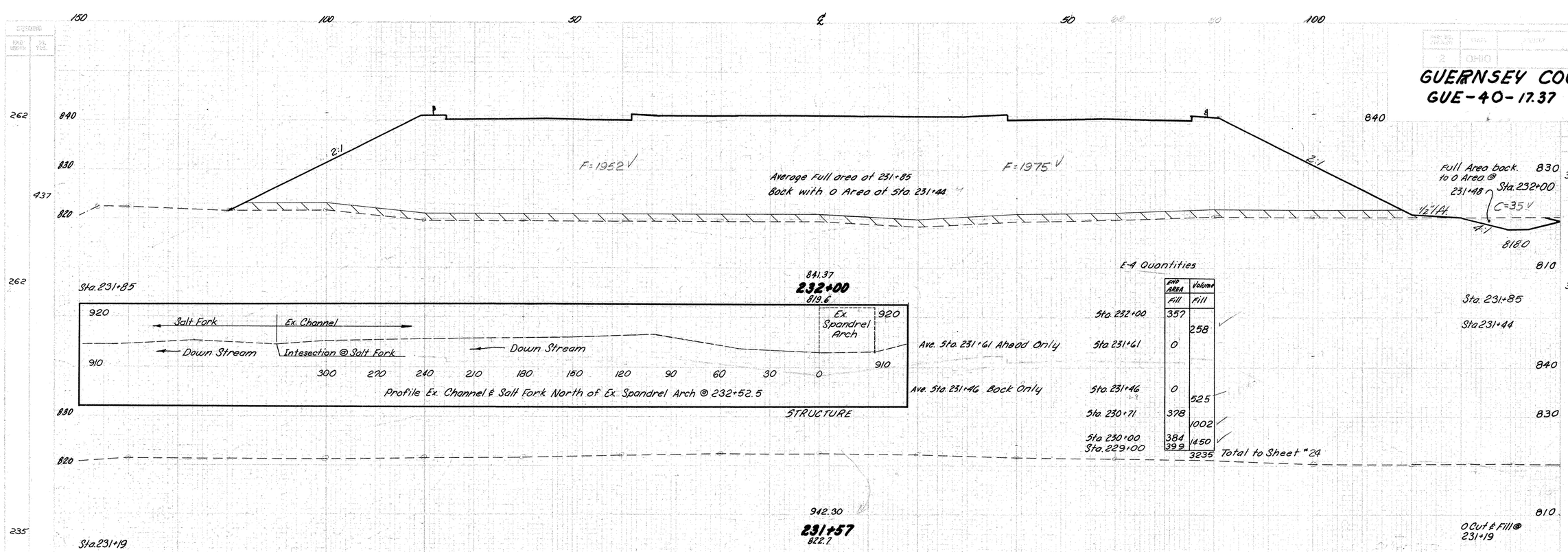
177
638
GUERNSEY COUNTY
GUE-40-17.37
F=3621
F=3361
2:1
Match to Co. Rd. 1
Sta. 125+94
1/2"/ft.
4:1
830.9
Dumped Rock
856.17
226+00
822.4
F=3766
F=3292
Match to Co. Rd. 1
Sta. 124+95
835.8
Dumped Rock
858.69
225+00
824.4
E-4 Granular Borrow
End Area Fill
Volume Fill
Sta. 226+00 426
1583
Sta. 225+00 429
1389
Sta. 224+00 321
604
Sta. 223+44 261
3576 Total to Sheet #24
F=3862
F=3468
840.4
Dumped Rock
E-4 Granular Borrow
Match to Co. Rd. 1
Sta. 123+97
861.21
224+00
826.7
Sta 223+44
Sta 223+44
0 6982
0 26002
0 7058
0 26645
0 7330
0 15066
0 7198

224+00 ~ 226+00



GUERNSEY COUNTY
GUE-40-17.37
178
638
E-4 Quantities
END AREA FILL
Volume FILL
229+00 399
1500
228+00 411
1544
227+00 423
1572
226+00 426
4616 Total to Sheet #24
Total Fill = 5829
F=1727
F=2058
F=1640
2:1
8:1
12:1
1/2"/ft.
4:1
Match to Co. Rd 1
Sta. 128+93
848.61
229+00
819.6
+63, 137' Rt.
Inv. 15" 820.82
Type "E" H.W.
155' Rt.
15" @ 1.00%
820.91
820.7
228+63
Conc. Collar
63'-15" @ 1.00% Class J-1
2-15" 30° Bends M6.4(c)
61'-15" M6.4(c)
228+63, 20' Rt.
Grate 847.38
Inv. 15" 844.38
F=3097
F=3035
821.9
Match to Co. Rd. 1
Sta. 127+93
851.13
228+00
820.3
F=3351
F=3258
826.5
853.65
227+00
821.1
Sta. 226+00
Match to Co. Rd. 1
Sta. 126+93
Sta. 226+00
8 5425
15 21,402
0 6,132
0 23,595
0 6,609
0 25,169
0 6,982
227+00 ~ 229+00

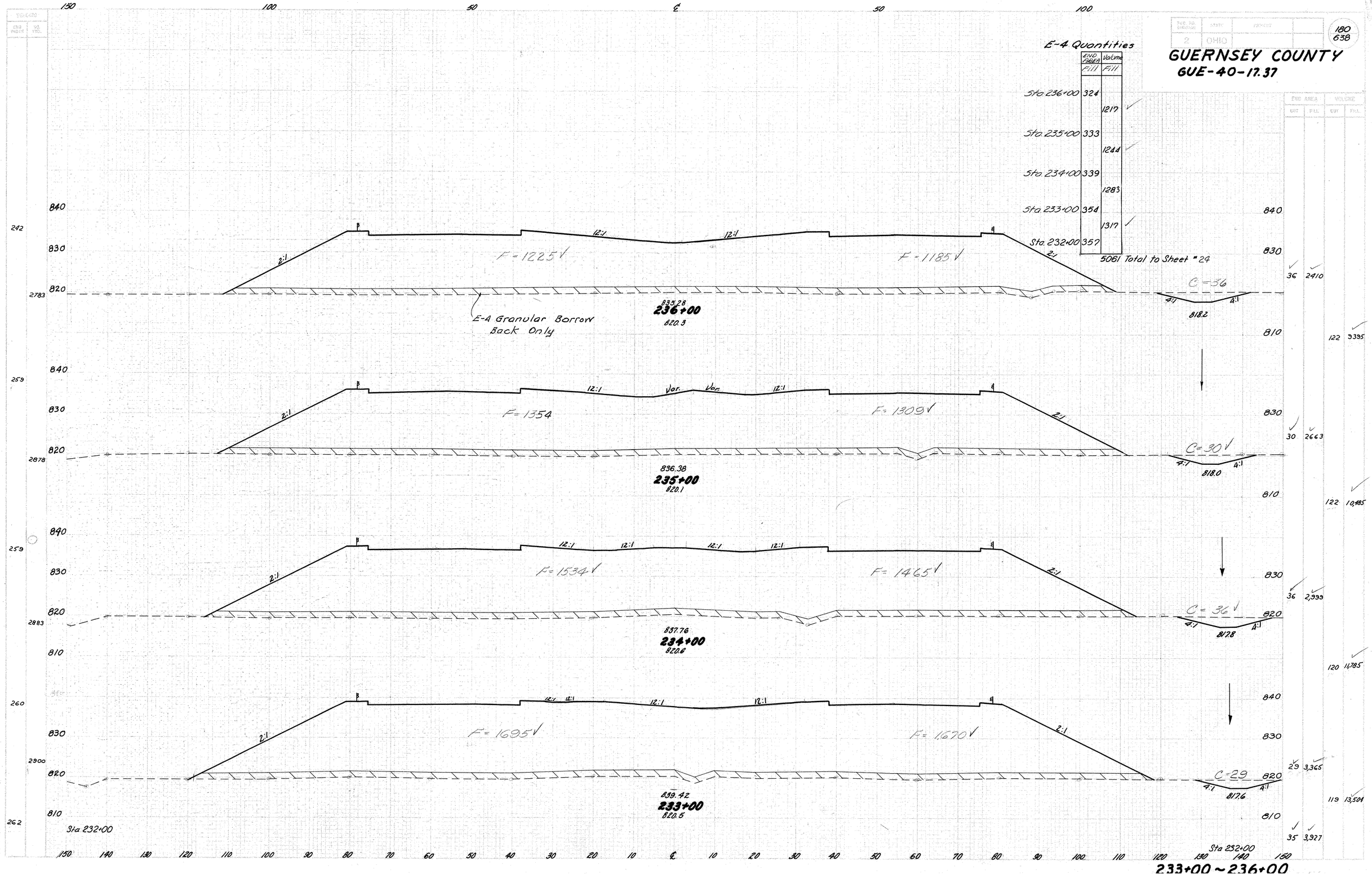
GUERNSEY COUNTY
GUE-40-17.37



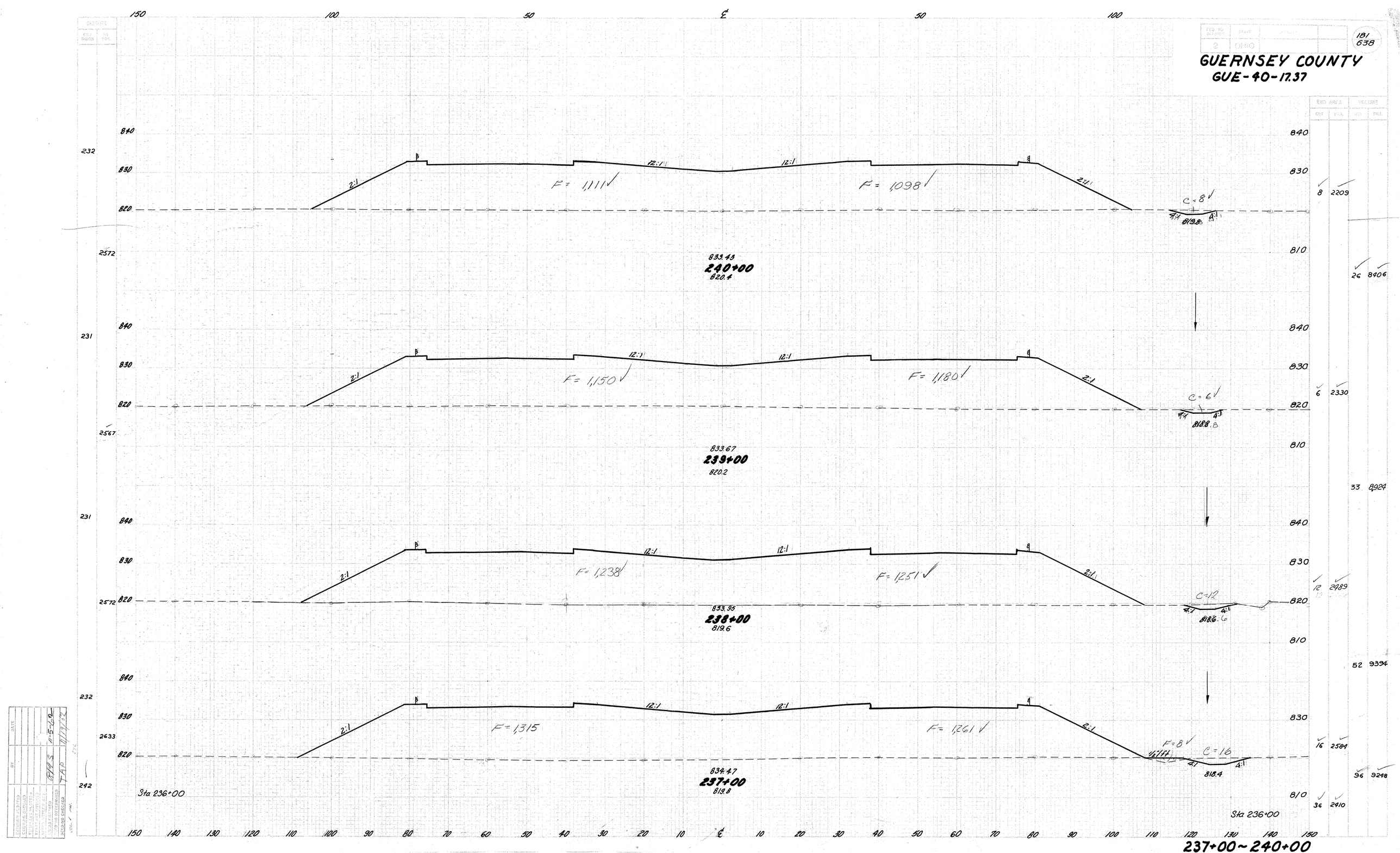
	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	35	3927		
			20	2182
	35	3927		
			27	2982
	0	0		
	0	0		
			7	0
			0	4659
			13	12344
			10	4729
			33	18804
			8	5425

230+00 ~ 232+00

Checked AMS-11-5-62



GUERNSEY COUNTY
GUE-40-17.37
180
638
E-4 Quantities
END AREA Fill
Volume Fill
Sta. 236+00 324
1217
Sta. 235+00 333
1244
Sta. 234+00 339
1283
Sta. 233+00 354
1317
Sta. 232+00 357
5061 Total to Sheet #24
F=1225
F=1185
C=36
E-4 Granular Borrow Back Only
835.28
236+00
820.3
818.2
F=1354
F=1309
C=30
836.38
235+00
820.1
818.0
F=1534
F=1465
C=36
837.76
234+00
820.6
817.8
F=1695
F=1670
C=29
839.42
233+00
820.5
817.6
Sta 232+00
233+00 ~ 236+00



GUERNSEY COUNTY
GUE-40-17.37
181
638
F= 1,111
F= 1,098
C=8
833.43
240+00
820.4
F= 1,150
F= 1,180
C=6
833.67
239+00
820.2
F= 1,238
F= 1,251
C=12
833.95
238+00
819.6
F= 1,315
F= 1,261
F=8
C=16
834.47
237+00
819.8
Sta 236+00
Sta 236+00
237+00~240+00

GUERNSEY COUNTY
GUE-40-17.37

182
638

2 OHIO

150 100 50 ℄ 50 100

840 / 830 / 820 / 810

2:1 — 12:1 — 12:1 — 2:1 — 4:1 — 4:1

F = 914 ✓ F = 888 ✓ C = 17 ✓ 820.6

Begin Ditch 00 820.2

832.47
244+00
821.4

F = 921 ✓ F = 979 ✓ C = 6 ✓ 820.4

832.71
243+00
820.8

F = 973 ✓ F = 955 ✓ C = 8 ✓ 820.2

832.95
242+00
821.3

F = 1023 F = 1069 C = 9 ✓ 820.0

833.19
241+00
820.8

Sta. 240+00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

241+00 ~ 244+00

SECTIONS		AREA		VOLUME	
2nd WIDTH	2nd TOT.	CUT	FILL	CUT	FILL
231	2561	✓17	✓1802	43	6889
230	2561	✓6	✓1920		
231	2561	✓8	✓1928		
		✓31	✓7445		
230	2567	✓9	✓2092		
232		✓8	✓2209	✓31	✓7965
				✓26	✓7126

150 100 50 ℄ 50 100

STATE OHIO — 2 — 183 638

GUERNSEY COUNTY
GUE-40-17.37

GRID AREA CUT / FILL — VOLUME CUT / FILL

229 2536 231 2567 231 2567 231

840 830 820 810

C=33 — 4:1 — 819.4 — 4:1 — 1½"/ft — 2:1 — F 753 — 12:1 — 12:1 — 768 — 2:1 — C=22 — 4:1 — 820.4 — 4:1

F=296

832.25
248+00
818.1

Sta 249+00 Left
Fill Existing Channel, to Elev 820.
w/ E-3 taken from Channe Relocation.
435 L.F. $\frac{66 \times 435}{27}$ = 1063 Cu. Yds.

C=9 — 4:1 — 819.6 — 4:1 — 1½"/ft — 2:1 — F=962 — 12:1 — 12:1 — F=828 — 2:1 — C=11 — 4:1 — 820.6 — 4:1

F=105

832.13
247+00
821.9

E-4 Granular Borrow - 0 Area @ 246+50

E-4 Quantities

Grid Areas Fill	Volume Fill
Sta 248+00 295	
	741
Sta 247+00 105	
	97
Sta 246+50 0	

838 Total to Sheet #24

246+50, 103' Lt
Inv. 15" 820.80
Type E HW.

C=16 — 4:1 — 819.8 — 4:1 — 2:1 — 15" Reinf. Conc. Pipe (C) — Conc. Collar — F=910 — 12:1 — 12:1 — F=860 — 2:1 — F=8 — G=2 — 820.8

15" @ 1.00%
Inv. 820.88
17'-15" M6.4(c)

86'-15" @ 1.00%

+50, No 4 CB.
Grate 828.94
Inv. 15" 825.94
Inv. 6" 826.69

832.12
246+00
821.4

244+50, 102.5' Lt
Inv. 15" 821.10
Type E HW.

C=11 — 4:1 — 820.0 — 4:1 — 1½"/ft — 2:1 — 15" Reinf. Conc. Pipe (C) — Conc. Collar — 87'-15" @ 1.60% — F=982 — 12:1 — 12:1 — F=907 — 2:1 — C=25 — 820.0

15" @ 1.00%
Inv. 821.19
16'-15" M6.4(c)

832.27
245+00
821.6

244+50, No 4 CB.
Grate 829.18
Inv. 15" 826.18

Sta. 244+00 to 246+00 Left
Fill Existing Channel, to Elev 820.7.
w/ E-3 Material taken from
Channel Relocation.
470 L.F. $\frac{178 \times 470}{27}$ = 3099 Cu Yds

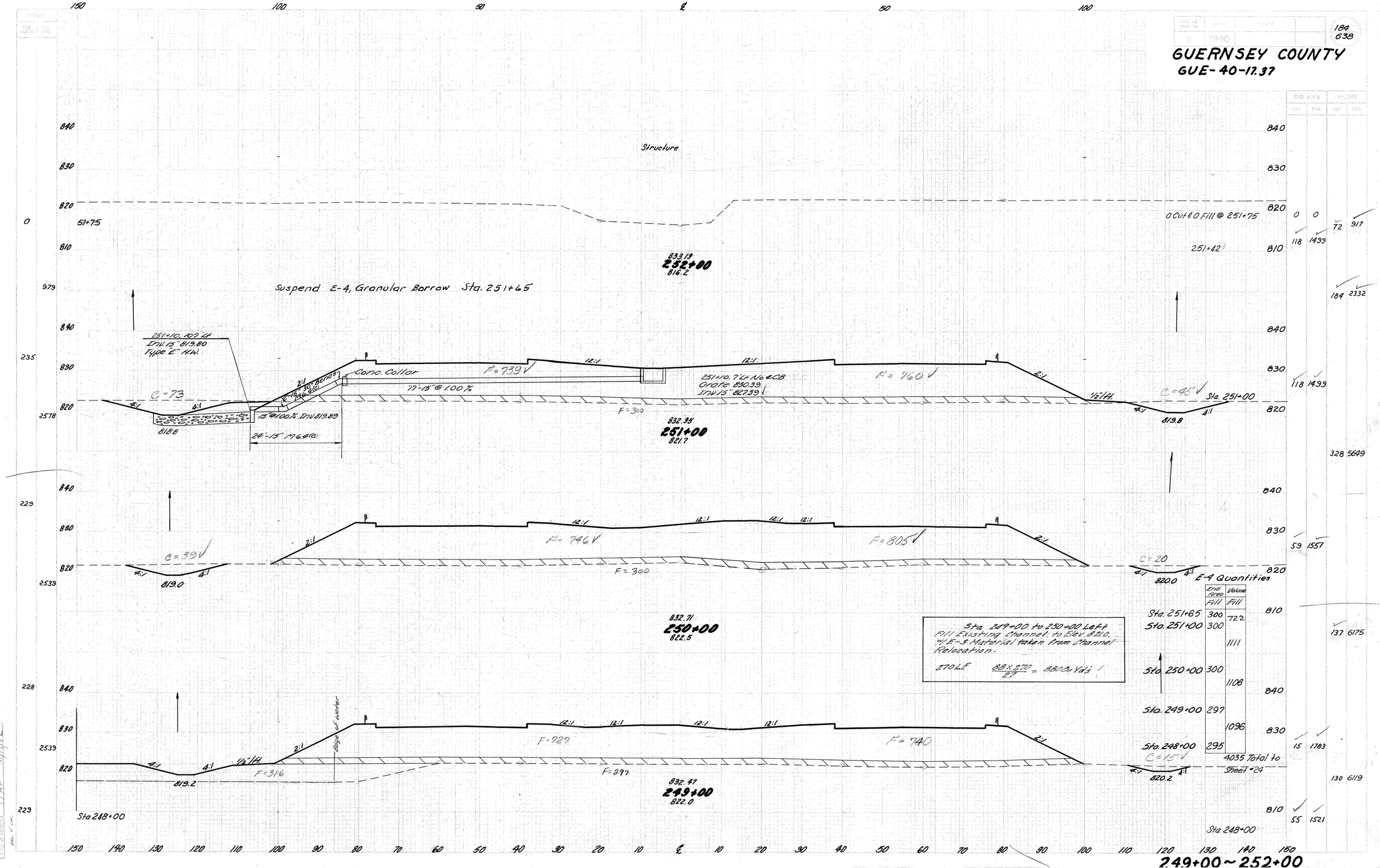
Sta 244+00

55 1521 — 137 6132 — 19 1790 — 69 6608 — 18 1778 — 100 6791 — 36 1889 — 98 6835 — 17 1802

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 31 40 50 60 70 80 90 100 110 120 130 140 150

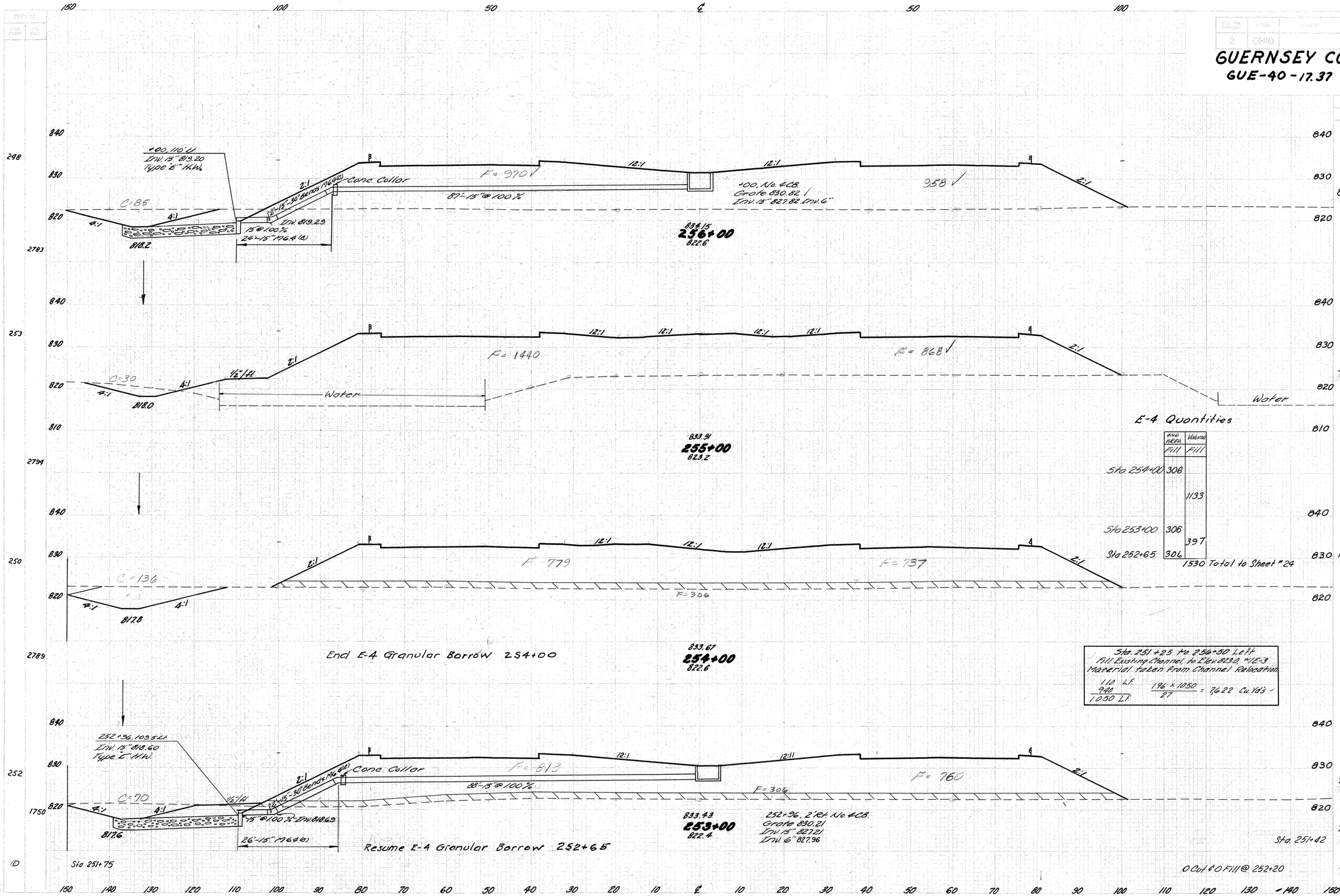
245+00 to 248+00

DESIGN DETAILED — DRAWN — CHECKED — QUANTITIES COMPUTED — CHECKED — QUANTITIES CHECKED — FINAL INSPECTION — DATE — BY — DATE — BY — DATE — BY



184
638
GUERNSEY COUNTY
GUE-40-17.37
Structure
51+75
0 Cut & 0 Fill @ 251+75
251+42
833.19
252+00
816.2
Suspend E-4, Granular Borrow Sta. 251+65
251+10, 107' Lt.
Inv. 15" 819.80
Type "E" H.W.
Conc. Collar
77'-15" @ 1.00%
15" @ 1.00% Inv. 819.89
24'-15" M64(a)
251+10, 7' Lt. No. 4 CB
Grate 830.39
Inv. 15" 827.39
C=73
F=739
F=760
C=45
Sta. 251+00
F=300
832.95
251+00
821.7
C=39
F=746
F=805
C=20
819.0
820.0
832.71
250+00
822.5
Sta. 249+00 to 250+00 Left
Fill Existing Channel to Elev. 821.0,
w/ E-3 Material taken from Channel
Relocation.
270 L.F. 88 x 270 / 27 = 880 Cu. Yds.
Edge of water
F=727
F=740
F=316
F=297
C=15
819.2
820.2
832.47
249+00
822.0
Sta 248+00
E-4 Quantities
End Area Fill
Volume Fill
Sta. 251+65 300
Sta. 251+00 300
722
1111
Sta. 250+00 300
1108
Sta. 249+00 297
1096
Sta. 248+00 295
4035 Total to Sheet #24
0 0
118 1499
72 917
184 2332
118 1499
328 5649
59 1557
137 6175
15 1783
130 6119
55 1521
249+00 ~ 252+00

GUERNSEY COUNTY
GUE-40-17.37



GUERNSEY COUNTY

GUE-40-17.37

150 100 50 ℄ 50 100

END AREA CUT FILL | VOLUME CUF FILL

253 — 840 / 830 / 820 — 2:1, 4:1, 4:1, 12:1, 12:1, 2:1 — F=43, F=1015, F=1000 — 8190 — 834.87 **260+00** 823.2 — 43 2015 — 196 7534

2781

247.5 — 840 / 830 / 820 / 810 — 2:1, 4:1, 4:1, 12:1, 12:1, 2:1 — C=63, F=1088, F=965, Water — 8188 — 834.81 **259+00** 818.9 — 63 2053 — 252 7746

2758

249 — 840 / 850 / 840 / 830 / 820 — 2:1, 4:1, 4:1, 12:1, 12:1, 2:1 — C=13, F=1155, F=975, Water — 8186 — 834.63 **258+00** 822.8 — 73 2130

2717

240 — 840 / 830 / 820 — 2:1, 4:1, 4:1, 12:1, 12:1, 2:1 — C=92, F=995, F=1015 — 8184 — 834.39 **257+00** 822.6 — 306 7667 — 92 2010 — 328 7293 — 85 1928

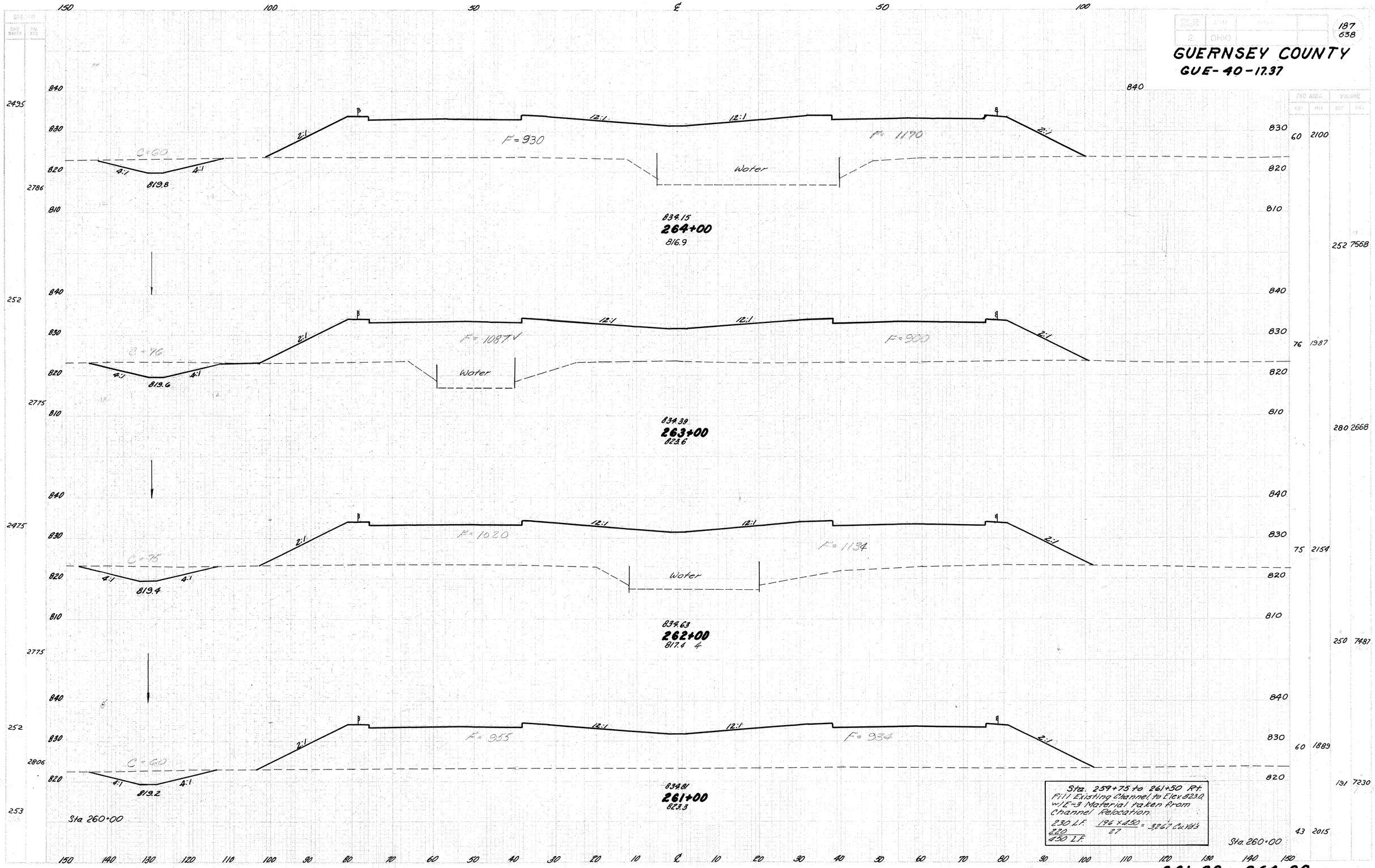
248 — Sta 256+00

to Elev 8230
Sta. 255+25 to 257+25 Rt.
Fill Existing Channel to Elev. 8230. w/E-3 Material taken from Channel Relocation.
225 LF
207
432 LF
196 × 432 / 27 = 3136 Cu. Yds
256+00

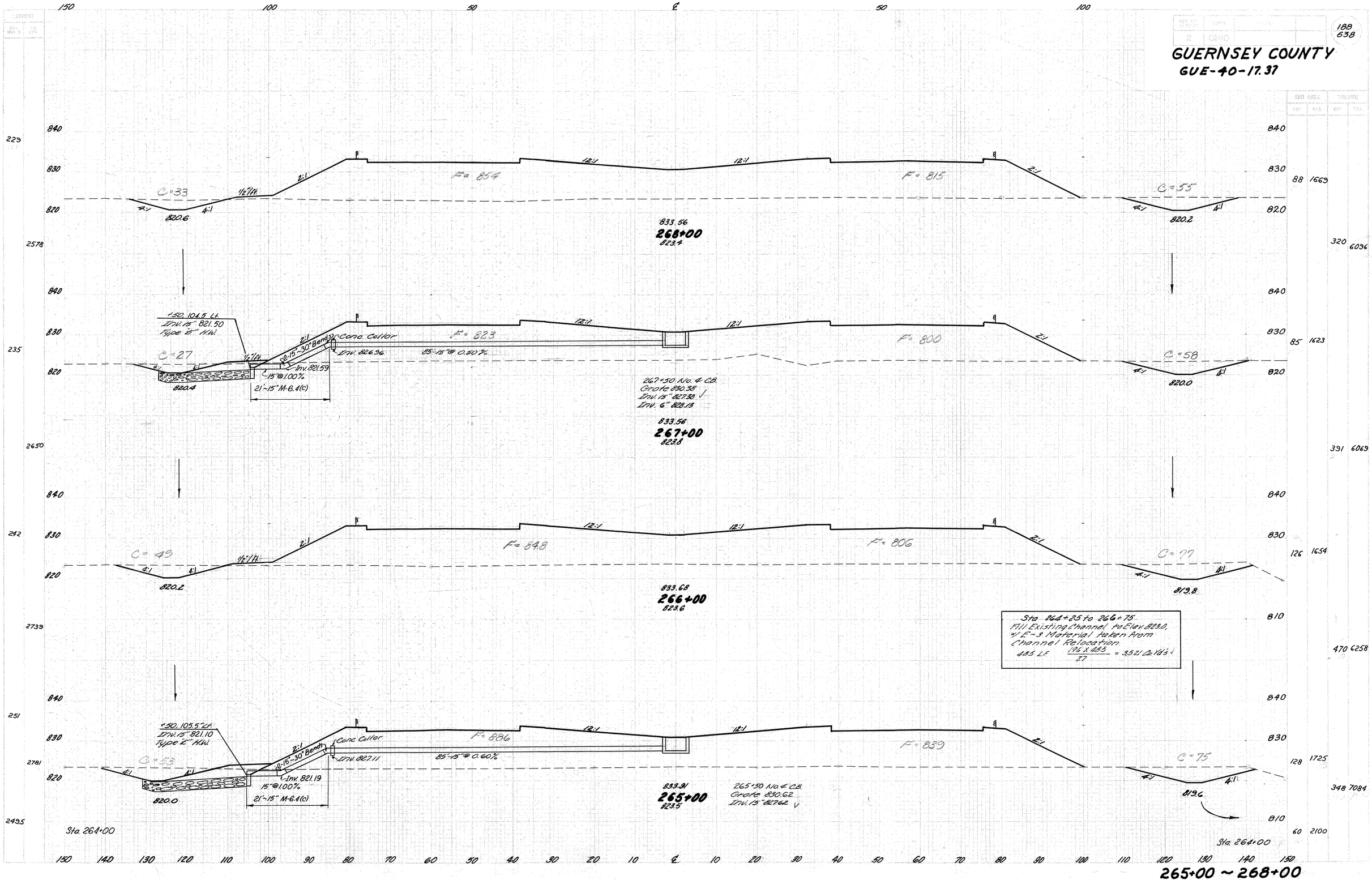
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

257+00 ~ 260+00

BY	DATE

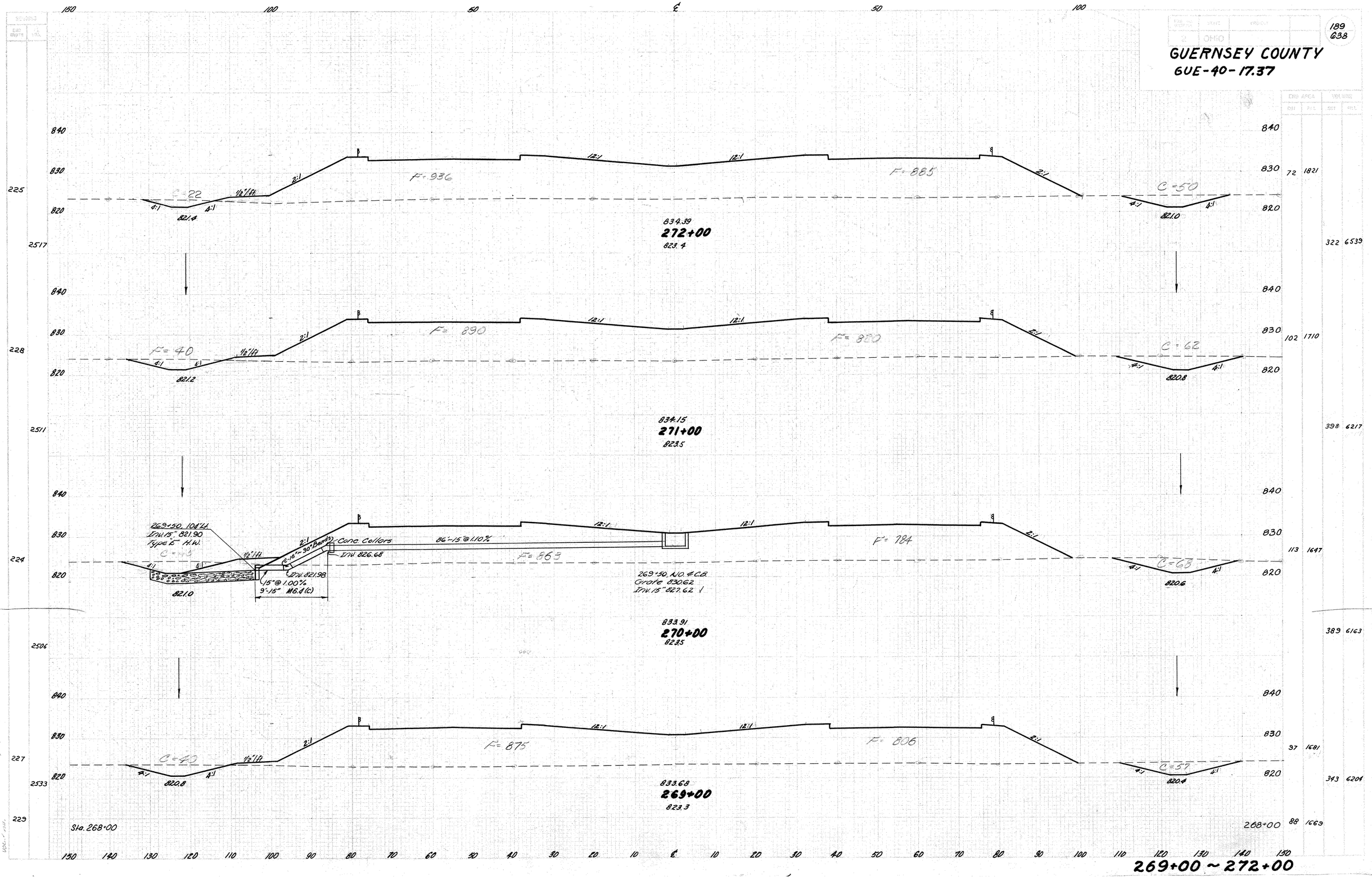


GUERNSEY COUNTY
GUE-40-17.37
187
638
C=60
F=930
F=1170
Water
834.15
264+00
816.9
C=76
F=1087
F=900
834.39
263+00
823.6
C=75
F=1020
F=1134
834.63
262+00
817.4
C=60
F=955
F=934
834.81
261+00
823.3
Sta. 260+00
Sta. 259+75 to 261+50 Rt.
Fill Existing Channel to Elev. 823.0
w/E-3 Material taken from
Channel Relocation.
230 L.F.
220
450 L.F.
196 × 450 / 27 = 3,267 Cu.Yd's
261+00 ~ 264+00

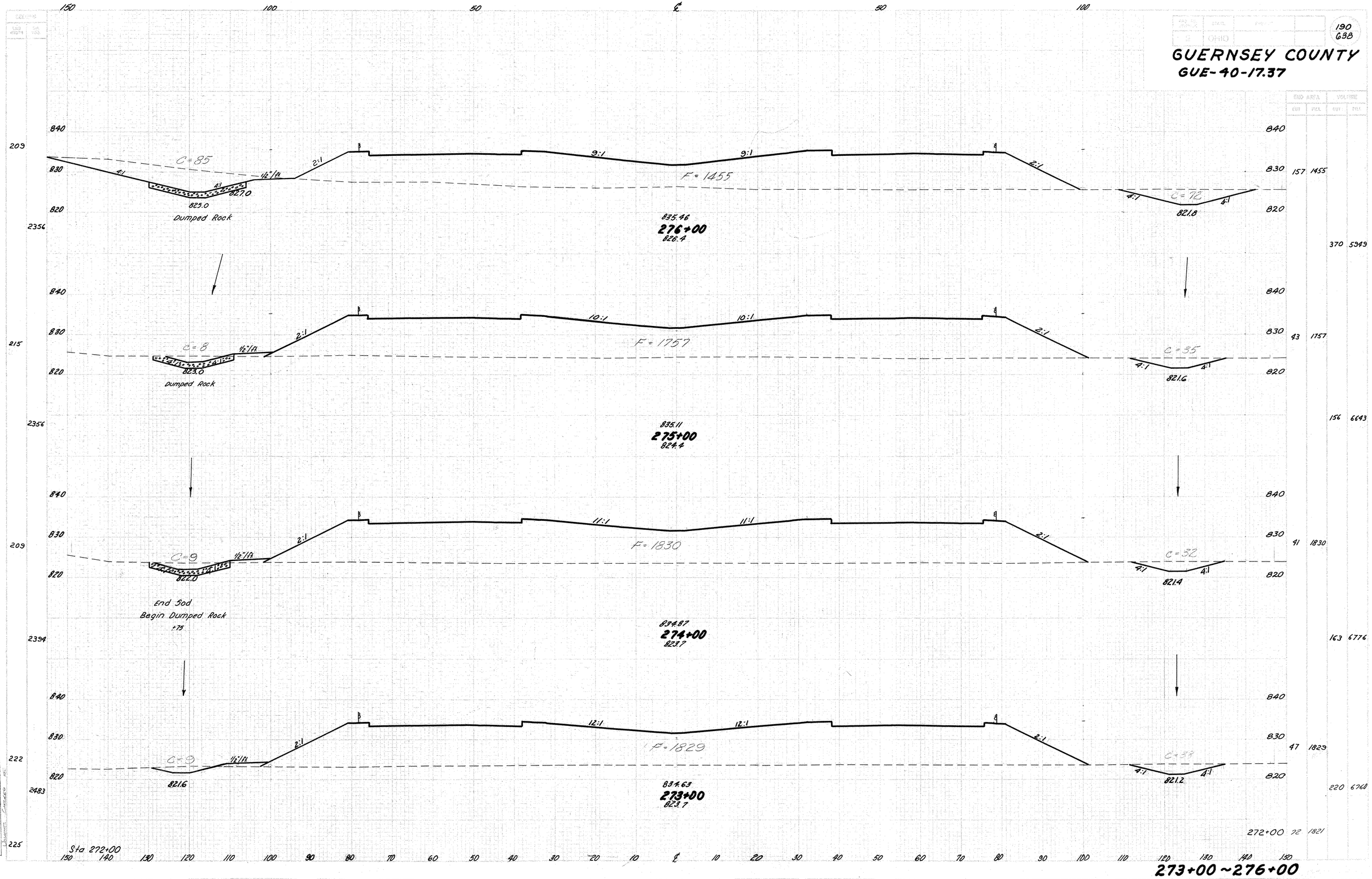


GUERNSEY COUNTY
GUE-40-17.37
188
638
C=33
F=854
F=815
C=55
820.6
820.2
833.56
268+00
823.4
+50, 104.5 Lt.
Inv. 15" 821.50
Type "E" H.W.
C=27
F=823
F=800
C=58
Conc. Collar
Inv. 826.96
85'-15" @ 0.50%
2-15"~30° Bends
Inv. 821.59
15" @ 1.00%
21'-15" M-6.4(c)
820.4
267+50 No. 4 C.B.
Grate 830.38
Inv. 15" 827.38
Inv. 6" 828.13
833.56
267+00
823.8
C=49
F=848
F=806
C=77
820.2
819.8
833.68
266+00
823.6
Sta. 264+25 to 266+75
Fill Existing Channel to Elev. 823.0,
w/ E-3 Material taken from
Channel Relocation.
485 L.F. 196 X 485 / 27 = 3,521 Cu. Yds.
+50, 105.5" Lt.
Inv. 15" 821.10
Type "E" H.W.
C=53
F=886
F=839
C=75
Conc. Collar
Inv. 827.11
85'-15" @ 0.60%
2-15"~30° Bends
Inv. 821.19
15" @ 1.00%
21'-15" M-6.4(c)
820.0
833.91
265+00
823.5
265+50 No. 4 C.B.
Grate 830.62
Inv. 15" 827.62
819.6
Sta. 264+00
Sta. 264+00

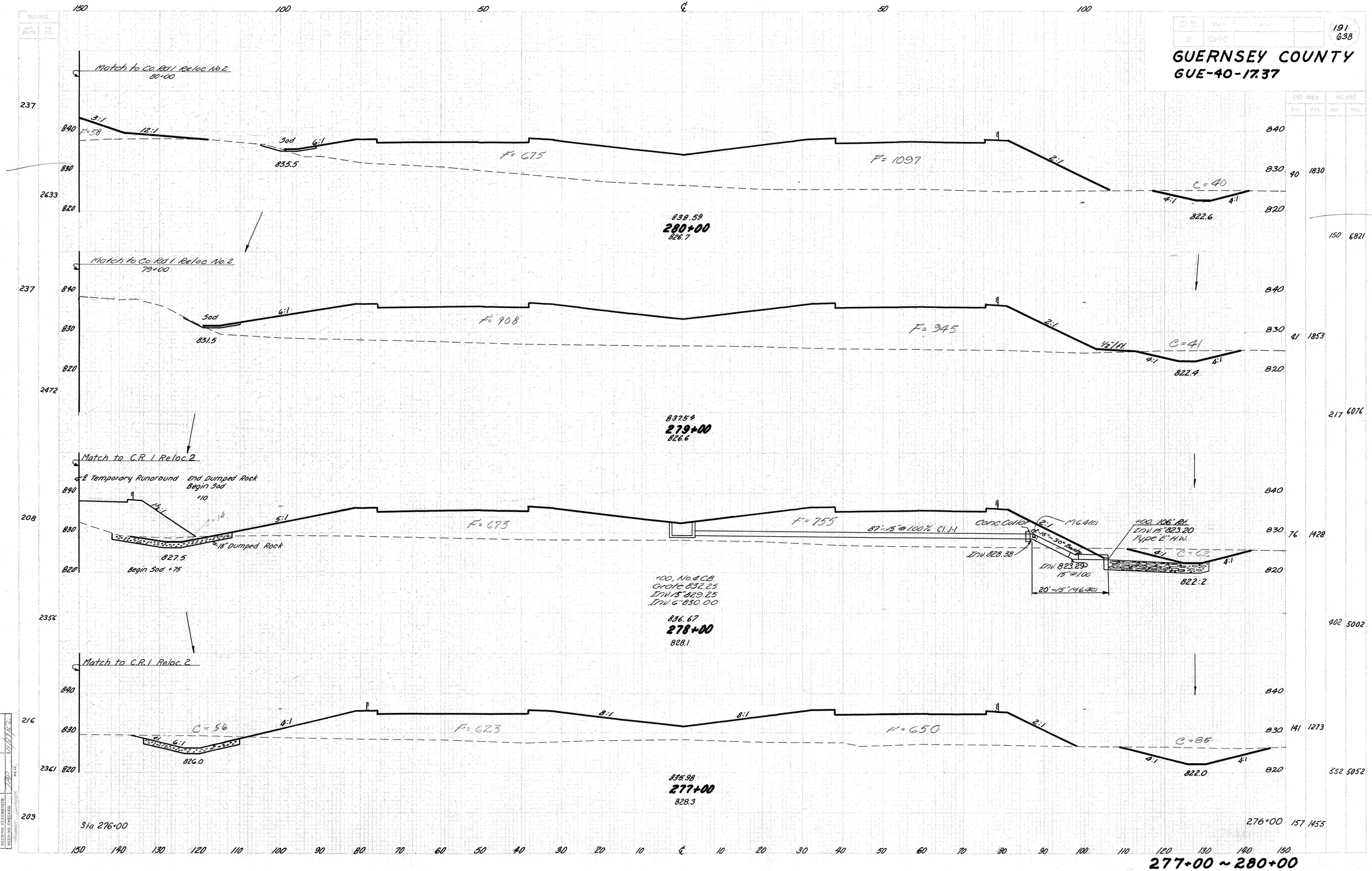
265+00 ~ 268+00



GUERNSEY COUNTY
GUE-40-17.37
189
638
F=936
F=885
C=22
C=50
834.39
272+00
823.4
F=890
F=880
F=40
C=62
834.15
271+00
823.5
269+50, 104' Lt.
Inv. 15" 821.90
Type "E" H.W.
Conc. Collars
86'-15" @ 1.10%
Inv. 826.68
Inv. 821.98
15" @ 1.00%
9'-15" M6.4(C)
F=863
F=784
269+50, NO. 4 C.B.
Grate 830.62
Inv. 15" 827.62
C=68
833.91
270+00
823.5
F=875
F=806
C=40
C=57
833.68
269+00
823.3
Sta. 268+00
268+00
269+00 ~ 272+00



GUERNSEY COUNTY
GUE-40-17.37
190
638
C=85
F=1455
C=72
835.46
276+00
826.4
Dumped Rock
C=8
F=1757
C=35
835.11
275+00
824.4
Dumped Rock
C=9
F=1830
C=32
834.87
274+00
823.7
End Sod
Begin Dumped Rock
+75
C=9
F=1829
834.63
273+00
823.7
Sta 272+00
273+00 ~ 276+00

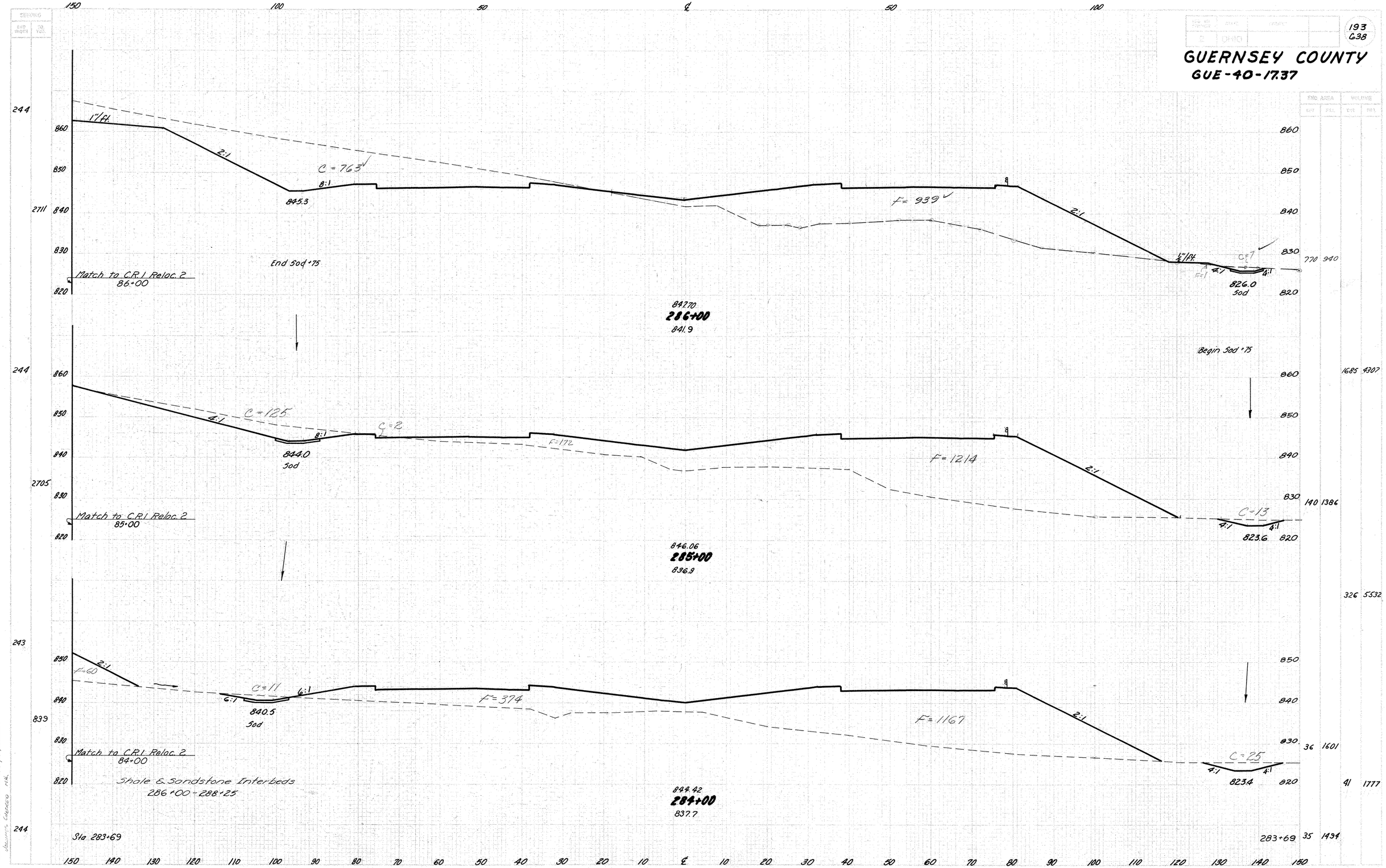


191
638
GUERNSEY COUNTY
GUE-40-17.37
Match to Co. Rd 1 Reloc No. 2
80+00
F=58
3:1
12:1
Sod
6:1
835.5
F=675
F=1097
2:1
C=40
4:1
822.6
838.59
280+00
826.7
Match to Co Rd 1 Reloc No. 2
79+00
Sod
6:1
831.5
F=908
F=945
2:1
1/2"/ft.
C=41
4:1
822.4
837.54
279+00
826.6
Match to C.R. 1 Reloc. 2
℄ Temporary Runaround
End Dumped Rock
Begin Sod
+10
1½:1
C=14
5:1
18" Dumped Rock
827.5
Begin Sod +75
F=673
F=755
87'-15" @ 1.00% Cl. J-1
Conc. Collar
2:1
M6.4(c)
2'-15"-30° Bends
Inv. 828.38
Inv. 823.29
15" @ 1.00
20'-15" M6.4(c)
+00, 106' Rt.
Inv. 15" 823.20
Type "E" H.W.
4:1
C=62
4:1
822.2
+00, No. 4 C.B.
Grate 832.25
Inv. 15" 829.25
Inv. 6" 830.00
836.67
278+00
828.1
Match to C.R. 1 Reloc. 2
C=56
4:1
6:1
826.0
F=623
8:1
8:1
F=650
2:1
C=85
4:1
822.0
835.98
277+00
828.3
Sta 276+00
276+00
237
2633
237
2472
208
2356
216
2361
209
40 1830
150 6821
41 1853
217 6076
76 1428
402 5002
141 1273
552 5052
157 1455
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

277+00 ~ 280+00

GUERNSEY COUNTY
GUE-40-17.37

| | | |



193
638
GUERNSEY COUNTY
GUE-40-17.37
1"/ft.
2:1
C=763
8:1
845.3
F=939
2:1
1/2"/ft.
C=7
4:1
4:1
826.0
Sod
End Sod +75
Match to C.R.1 Reloc. 2
86+00
847.70
286+00
841.9
Begin Sod +75
C=125
4:1
8:1
C=2
844.0
Sod
F=172
F=1214
2:1
C=13
4:1
4:1
823.6
Match to C.R.1 Reloc. 2
85+00
846.06
285+00
836.9
F=60
2:1
C=11
6:1
6:1
840.5
Sod
F=374
F=1167
2:1
C=25
4:1
4:1
823.4
Match to C.R.1 Reloc. 2
84+00
Shale & Sandstone Interbeds
286+00 - 288+25
844.42
284+00
837.7
Sta 283+69
283+69
244
2711
2705
243
839
244
770 940
1685 4307
140 1386
326 5532
36 1601
41 1777
35 1494
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

284+00 ~ 286+00

SEEDING
END AREA: CUT S.F. | FILL S.F.
VOLUME: CUT C.Y. | FILL C.Y.

STATE: OHIO | PROJECT: | SHEET NO. 2 | TOTAL SHEETS: 194 | 638

GUERNSEY COUNTY
GUE-40-1737

150 100 50 ℄ 50 100

245 | 1364 | 246 | 1359 | 244

870 860 850 840 830 820

1" / Ft. — 2:1 — C = 1170 — 8:1 — 848.0 — F = 13 — 2:1 — F = 807 — C = 50 — 1/2" / Ft.

Match to C.R.1 Reloc 2
87+50

850.16
287+50
845.6

Emb. as per E-1.02

	END AREA S.F.	VOL. C.Y.
287+50	13	
287+00	7	19
286+50	0	7

26 Total taken to Sheet 24

End Ditch @ +50
137.5' Rt.

1220 807

1" / Ft. — 2:1 — C = 863 — 8:1 — 847.2 — F = 7 — F = 743 — 88'-15" @ 100% — Conc Collar — Inv 841.04 — 2'-6"-30"-36" CMP Flared End — +00, 122.5' Rt. Inv 15" 828.00 Type E (1A) — C = 33 — 1/2" / Ft. — 4:1 — Inv 828.09 15" @ 1.00% — 827.5 — 38'-15" M 16.4(c) — End Sod @ +97

Match to C.R.1 Reloc. 2
87+00

+00 No. 4 CB.
Grate 844.92
Inv. 15" 841.92
849.34
287+00
844.8

896 743

1" / Ft. — 2:1 — C = 601 — 8:1 — 846.4 — F = 805 — 2:1 — C = 24 — 1/2" / Ft. — 4:1 — Sod — 826.2

Match to C.R.1 Reloc. 2
86+50

Shale & Sandstone Interbeds
286+00 – 288+25

848.52
286+50
844.0

Sta 286+00

1409 1434 | 625 805 | 1292 1616 | 770 940

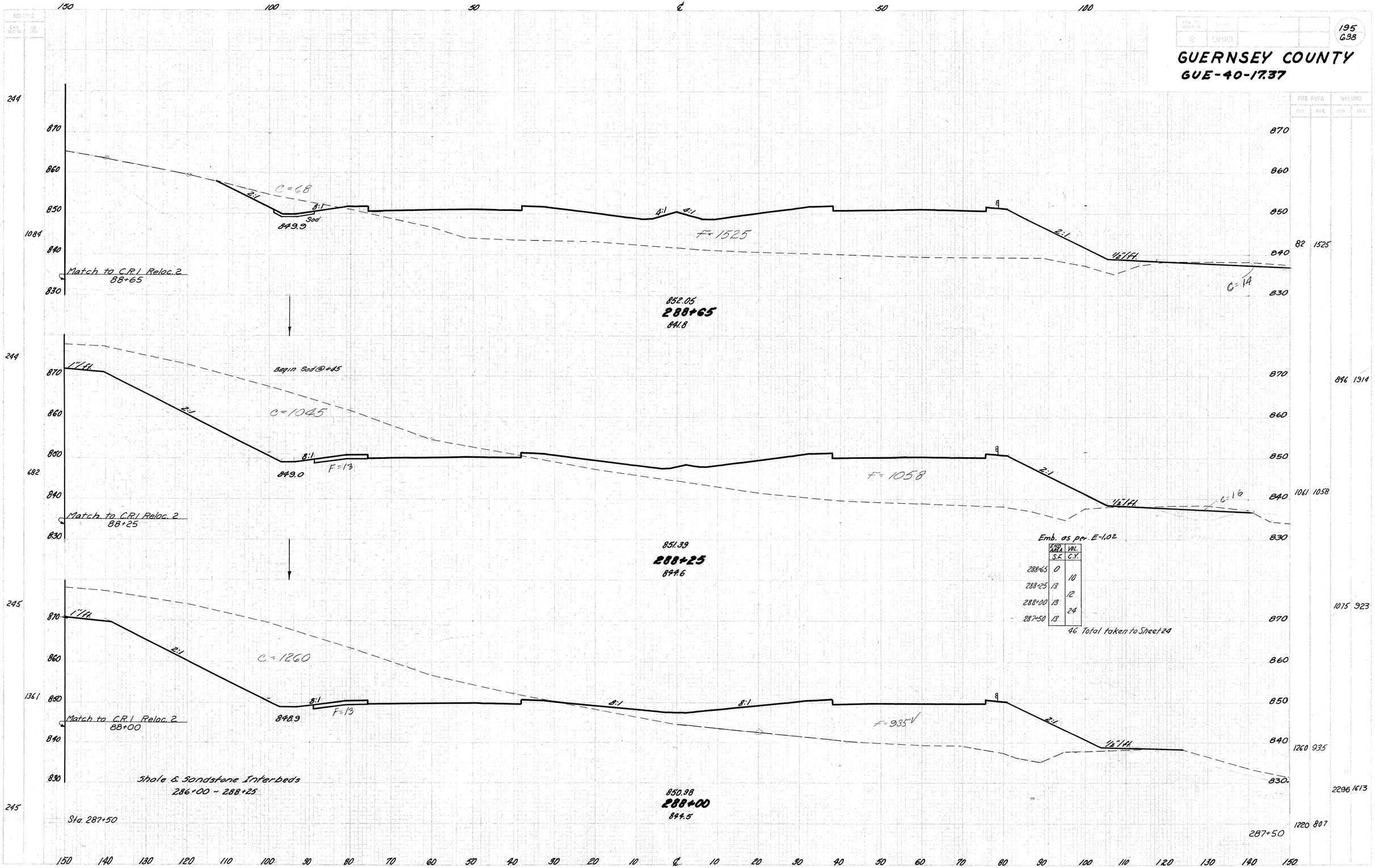
Sta 286+00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

286+50 ~ 287+50

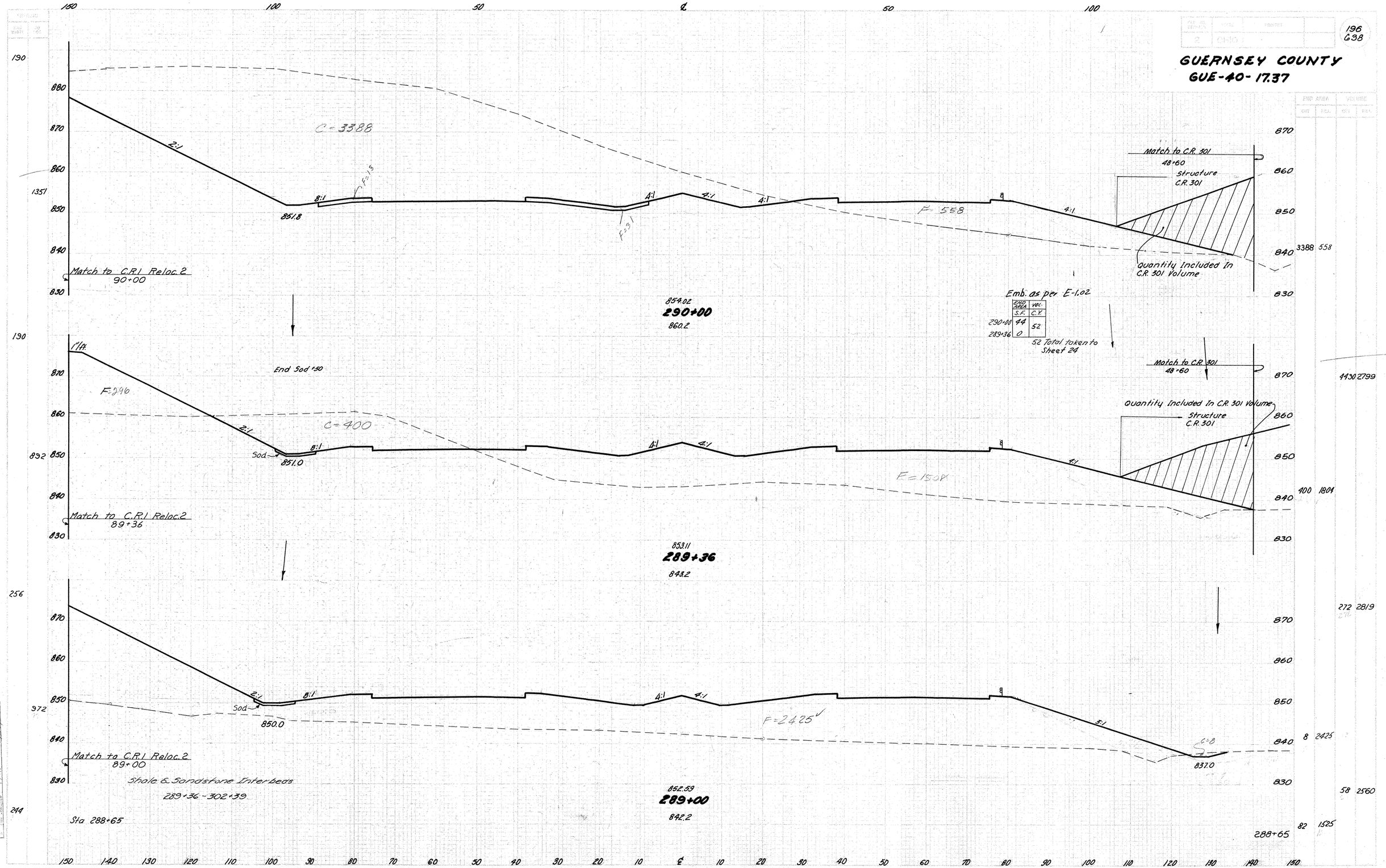
1960 1936

DESIGNED BY: TSB | DRAWN BY: TSB | CHECKED BY: | DATE: 2-26-92
EXISTING PLOTTED | EXISTING TRACED | REVISED PLOTTED | REVISED TRACED | CHECKED | APPROVED

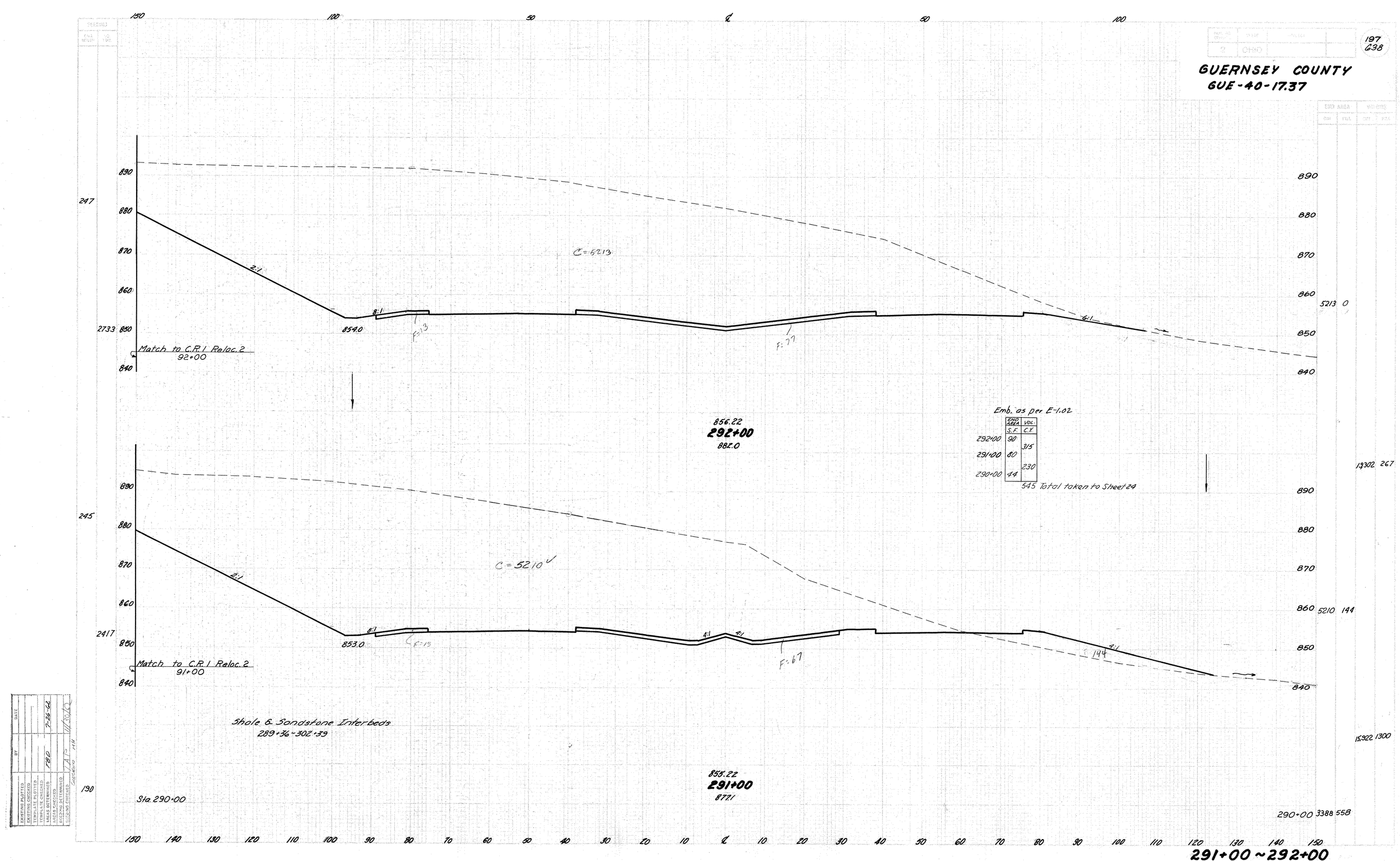


195
638
GUERNSEY COUNTY
GUE-40-17.37
C=68
2:1
8:1
Sod
849.9
4:1
4:1
F=1525
2:1
1/2"/ft.
C=14
Match to C.R.1 Reloc. 2
88+65
852.05
288+65
841.8
Begin Sod @ +45
1"/ft.
C=1045
2:1
8:1
849.0
F=13
F=1058
2:1
1/2"/ft.
C=16
Match to C.R.1 Reloc. 2
88+25
851.39
288+25
844.6
1"/ft.
C=1260
2:1
8:1
848.9
F=13
8:1
8:1
F=935
2:1
1/2"/ft.
Match to C.R.1 Reloc. 2
88+00
Shale & Sandstone Interbeds
286+00 ~ 288+25
850.98
288+00
844.5
Sta. 287+50
287+50
Emb. as per E-1.02
END AREA S.F. VOL. C.Y.
288+65 0
10
288+25 13
12
288+00 13
24
287+50 13
46 Total taken to Sheet 24

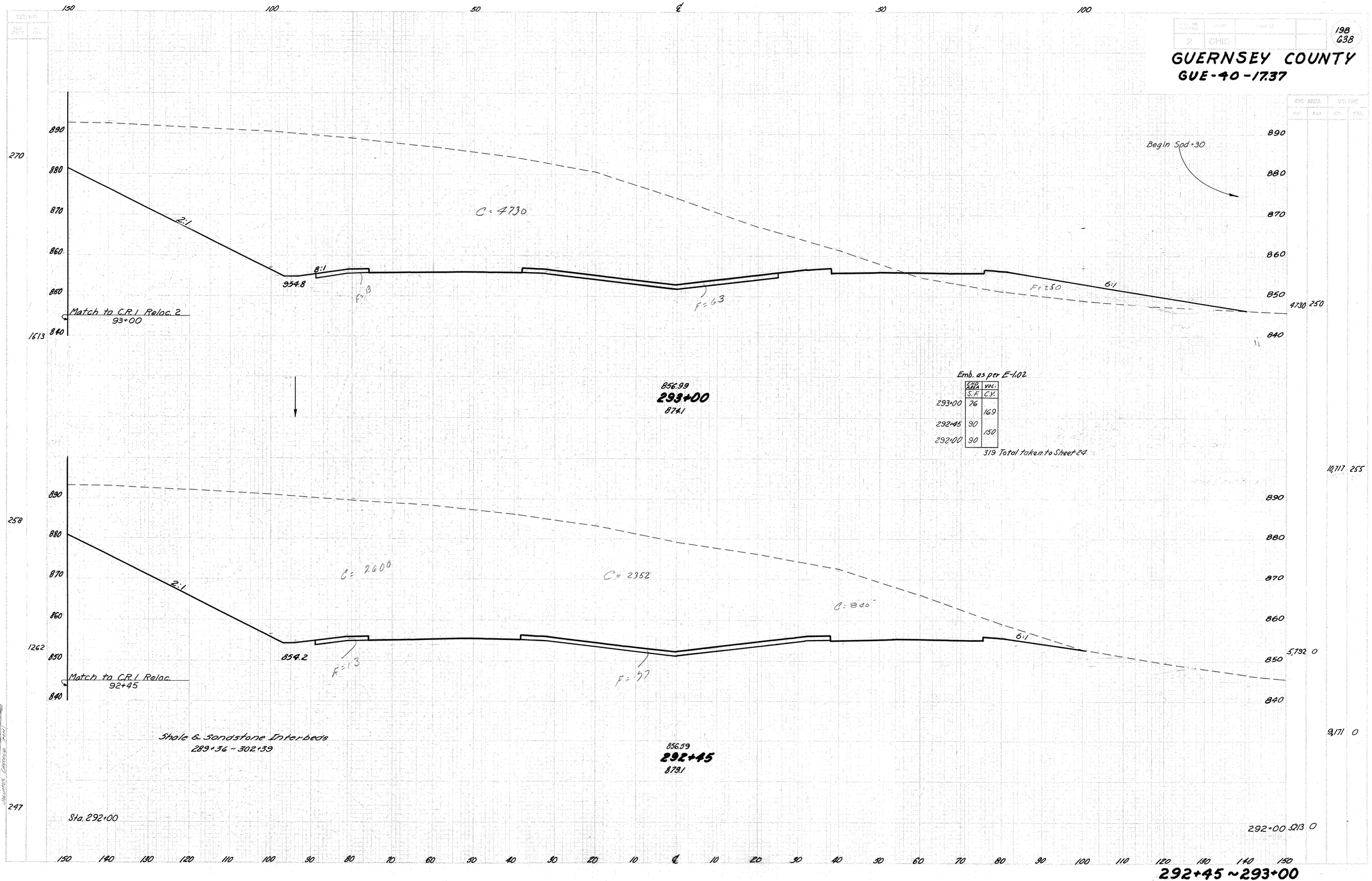
288+00 ~ 288+65



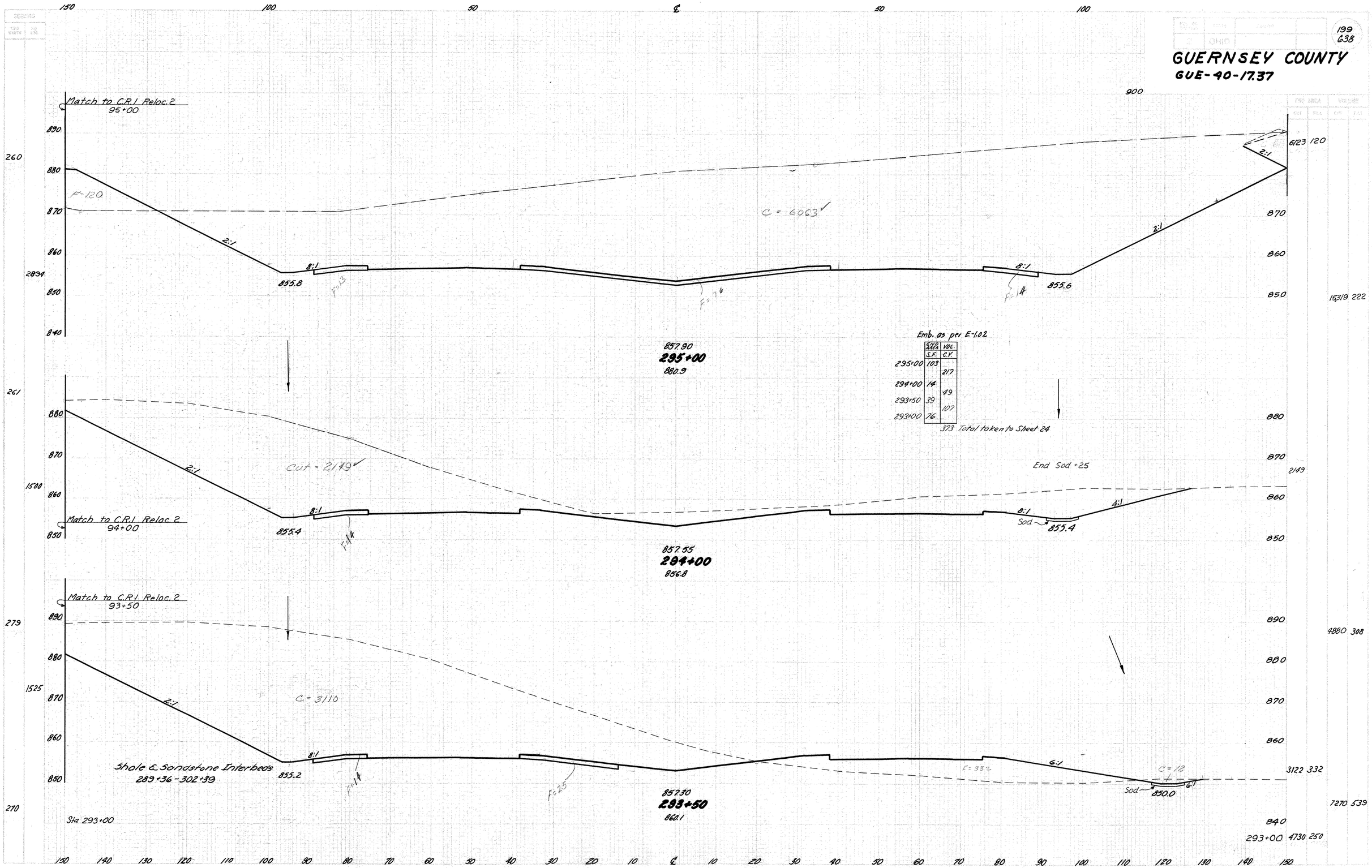
GUERNSEY COUNTY
GUE-40-17.37
196
638
C=3388
2:1
8:1
F=13
851.8
F=31
4:1
F=558
Match to C.R.1 Reloc.2
90+00
Match to C.R. 301
48+60
Structure
C.R. 301
Quantity Included In
C.R. 301 Volume
3388 558
854.02
290+00
860.2
Emb. as per E-1.02
END AREA S.F. VOL. C.Y.
290+00 44 52
289+36 0
52 Total taken to Sheet 24
1"/ft.
End Sod +50
F=296
C=400
Sod
851.0
F=1508
Match to C.R.1 Reloc.2
89+36
Match to C.R. 301
48+60
Quantity Included In C.R. 301 Volume
Structure
C.R. 301
4430 2799
400 1804
853.11
289+36
843.2
F=2425
Sod
850.0
C=8
837.0
Match to C.R.1 Reloc.2
89+00
Shale & Sandstone Interbeds
289+36 - 302+39
852.59
289+00
842.2
Sta 288+65
288+65
272 2819
8 2425
58 2560
82 1525
289+00 ~ 290+00



197
638
GUERNSEY COUNTY
GUE-40-17.37
150
100
50
℄
50
100
247
890
880
870
860
2733 850
840
2:1
8:1
854.0
F=13
C=5213
F=77
6:1
Match to C.R.1 Reloc.2
92+00
5213 0
856.22
292+00
882.0
Emb. as per E-1.02
END AREA S.F.
VOL. C.Y.
292+00 90
315
291+00 80
230
290+00 44
545 Total taken to Sheet 24
19,302 267
245
890
880
870
860
2417
850
840
2:1
8:1
853.0
F=13
C=5210
4:1
4:1
F=67
144
4:1
Match to C.R.1 Reloc.2
91+00
5210 144
Shale & Sandstone Interbeds
289+36~302+39
15,922 1300
855.22
291+00
877.1
190
Sta. 290+00
290+00 3388 558
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150
291+00 ~ 292+00

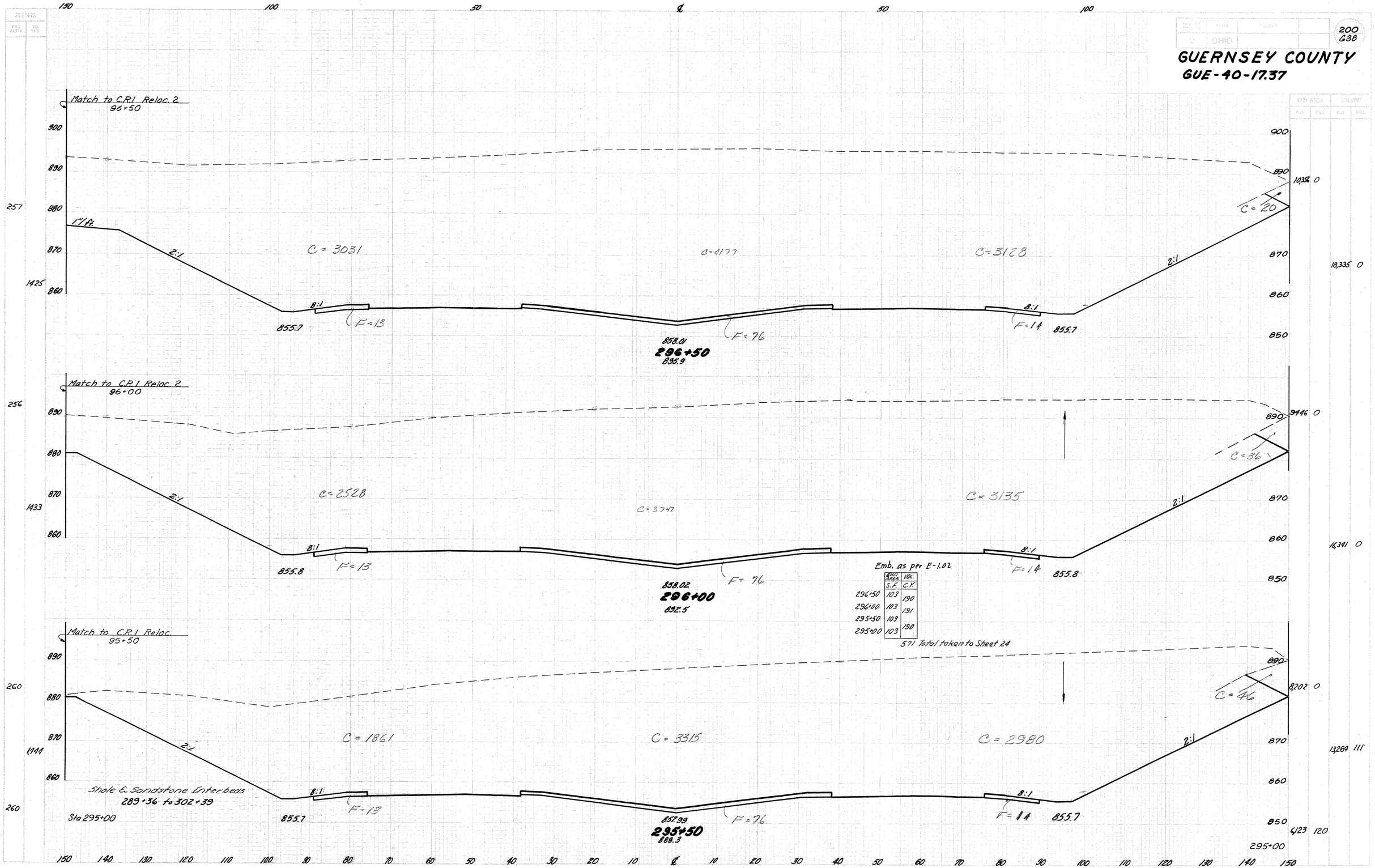


GUERNSEY COUNTY
GUE-40-17.37
198
638
Begin Sod+30
C=4730
2:1
8:1
6:1
954.8
F=13
F=63
F=250
Match to C.R.1 Reloc. 2
93+00
856.99
293+00
874.1
Emb. as per E-1.02
ENG AREA S.F.
VOL. C.Y.
293+00 76
169
292+45 90
150
292+00 90
319 Total taken to Sheet 24
C=2600
C=2352
C=840
854.2
F=13
F=57
Match to C.R.1 Reloc.
92+45
Shale & Sandstone Interbeds
289+36 - 302+39
856.59
292+45
879.1
Sta. 292+00
292+00
292+45 ~ 293+00



GUERNSEY COUNTY
GUE-40-17.37
199
638
Match to C.R.1 Reloc. 2
95+00
F=120
C = 6063
2:1
8:1
855.8
855.6
857.90
295+00
880.9
Emb. as per E-1.02
END AREA S.F. VOL. C.Y.
295+00 103
217
294+00 14
49
293+50 39
107
293+00 76
373 Total taken to Sheet 24
Cut = 2149
End Sod +25
Match to C.R.1 Reloc. 2
94+00
855.4
Sod
857.55
294+00
856.8
Match to C.R.1 Reloc. 2
93+50
C = 3110
Shale & Sandstone Interbeds
289+36 - 302+39
855.2
857.30
293+50
860.1
Sta 293+00
C = 12
850.0
6:1
293+00 4730 250
293+50 ~ 295+00

GUERNSEY COUNTY
GUE-40-17.37

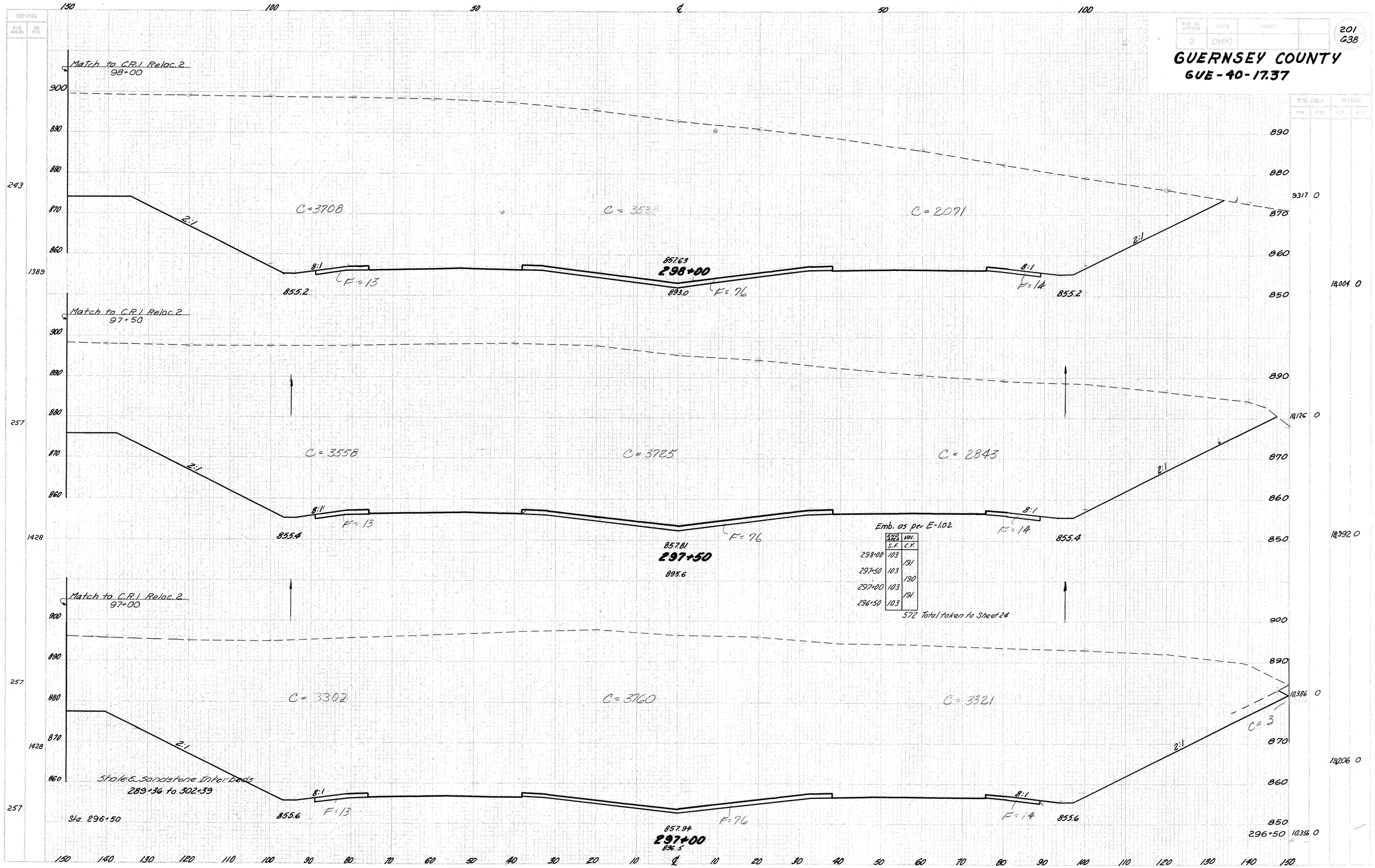


Emb. as per E-1.02

	END AREA S.F.	VOL. C.Y.
296+50	103	190
296+00	103	191
295+50	103	190
295+00	103	

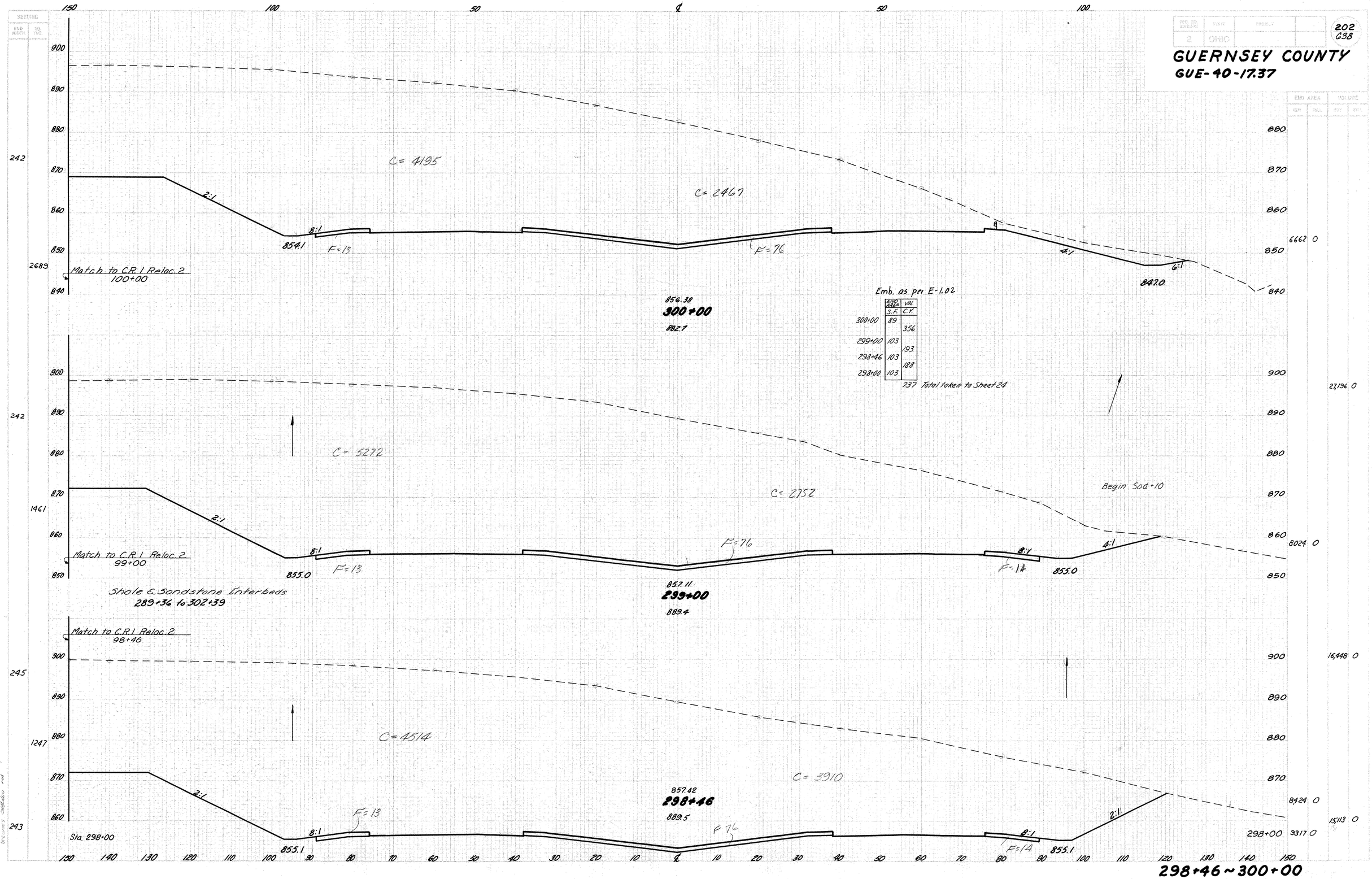
571 Total taken to Sheet 24

295+50 ~ 296+50

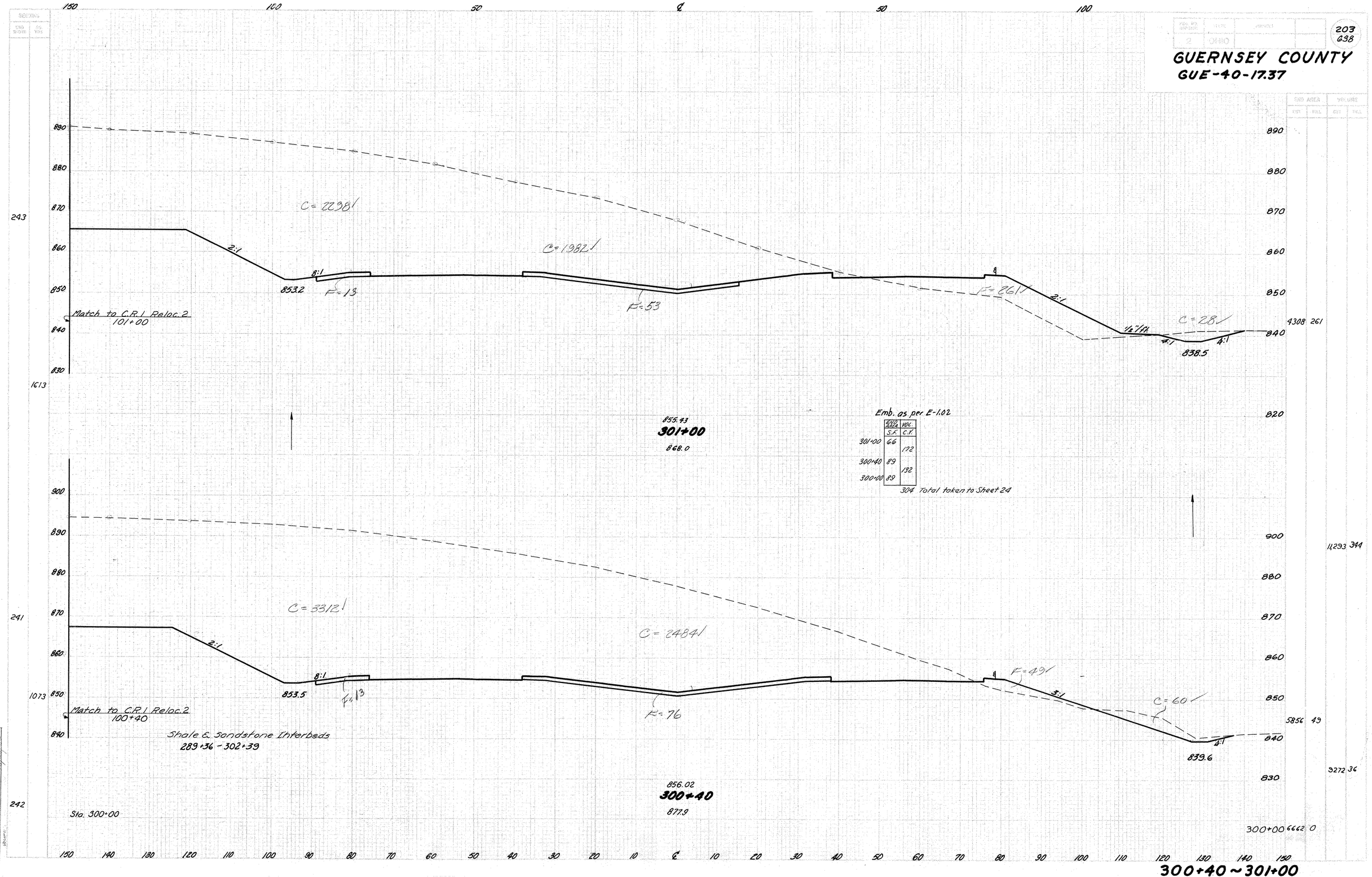


201
G38
GUERNSEY COUNTY
GUE-40-17.37
Match to C.R.1 Reloc.2
98+00
C=3708
C=3538
C=2071
2:1
8:1
F=13
F=76
F=14
857.63
298+00
855.2
893.0
855.2
9317 0
18,004 0
Match to C.R.1 Reloc.2
97+50
C=3558
C=3725
C=2843
855.4
857.81
297+50
895.6
855.4
10,126 0
18,992 0
Emb. as per E-1.02
572 Total taken to Sheet 24
Match to C.R.1 Reloc.2
97+00
C=3302
C=3760
C=3321
C=3
Shale & Sandstone Interbeds
289+36 to 302+39
Sta. 296+50
855.6
857.94
297+00
896.5
855.6
10,386 0
19,206 0
296+50 10,356 0

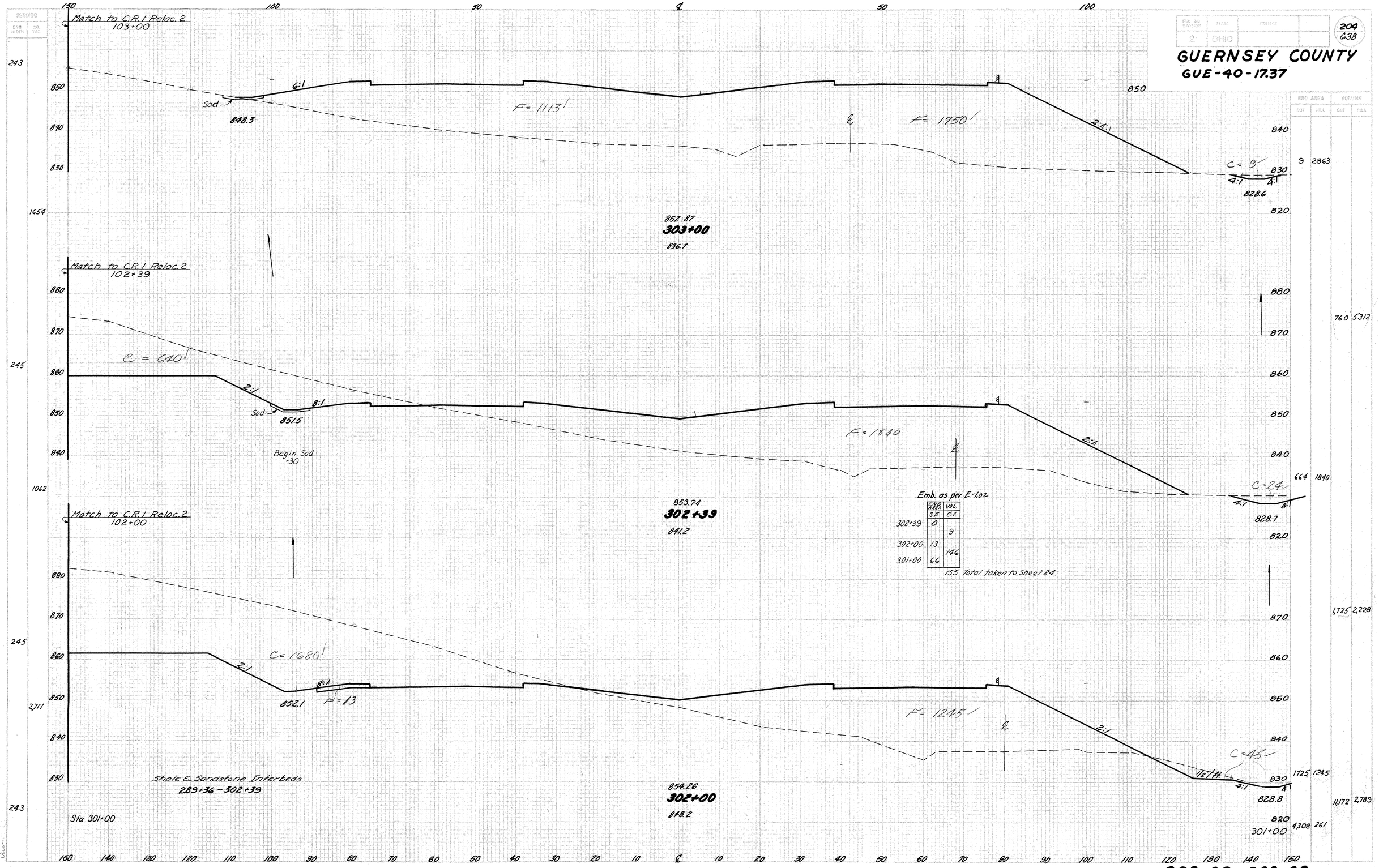
297+00 ~298+00



202
C38
GUERNSEY COUNTY
GUE-40-17.37
C= 4195
C= 2467
2:1
8:1
854.1
F=13
F=76
4:1
6:1
847.0
Match to C.R.1 Reloc. 2
100+00
856.38
300+00
882.7
Emb. as per E-1.02
END AREA S.F. | VOL C.Y.
300+00 89
356
299+00 103
193
298+46 103
188
298+00 103
237 Total taken to Sheet 24
C= 5272
C= 2752
Begin Sod +10
Match to C.R.1 Reloc. 2
99+00
855.0
F=13
F=76
F=14
855.0
857.11
299+00
889.4
Shale & Sandstone Interbeds
289+36 to 302+39
Match to C.R.1 Reloc. 2
98+46
C=4514
C= 3910
857.42
298+46
889.5
Sta. 298+00
855.1
F=13
F 76
F=14
855.1
2:1
8:1
242
2689
1461
245
1247
243
6662 0
27,196 0
8024 0
16,448 0
8424 0
15,113 0
298+00 9317 0
298+46 ~ 300+00



203
638
GUERNSEY COUNTY
GUE-40-17.37
C=2298
C=1982
C=28
2:1
8:1
853.2
F=13
F=53
F=261
1/2"/ft.
4:1
838.5
Match to C.R.1 Reloc.2
101+00
855.43
301+00
868.0
Emb. as per E-1.02
301+00 66 172
300+40 89 132
300+00 89
304 Total taken to Sheet 24
C=3312
C=2484
F=49
3:1
C=60
853.5
F=13
F=76
839.6
Match to C.R.1 Reloc.2
100+40
Shale & Sandstone Interbeds
289+36 - 302+39
856.02
300+40
877.9
Sta. 300+00
300+00 6662 0
300+40 ~ 301+00



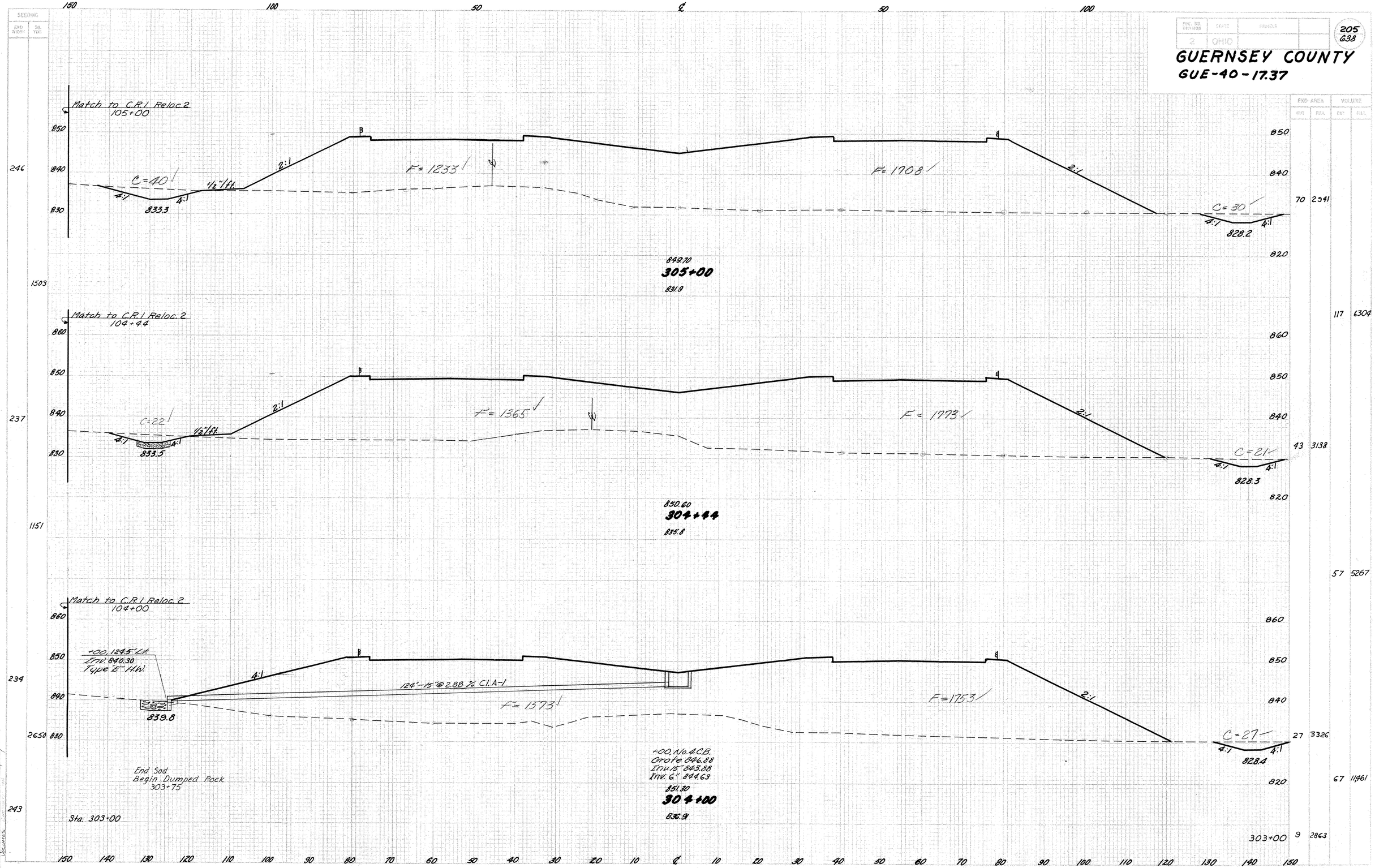
Emb. as per E-1.02

	END AREA S.F.	VOL. C.Y.
302+39	0	
		9
302+00	13	
		146
301+00	66	

155 Total taken to Sheet 24

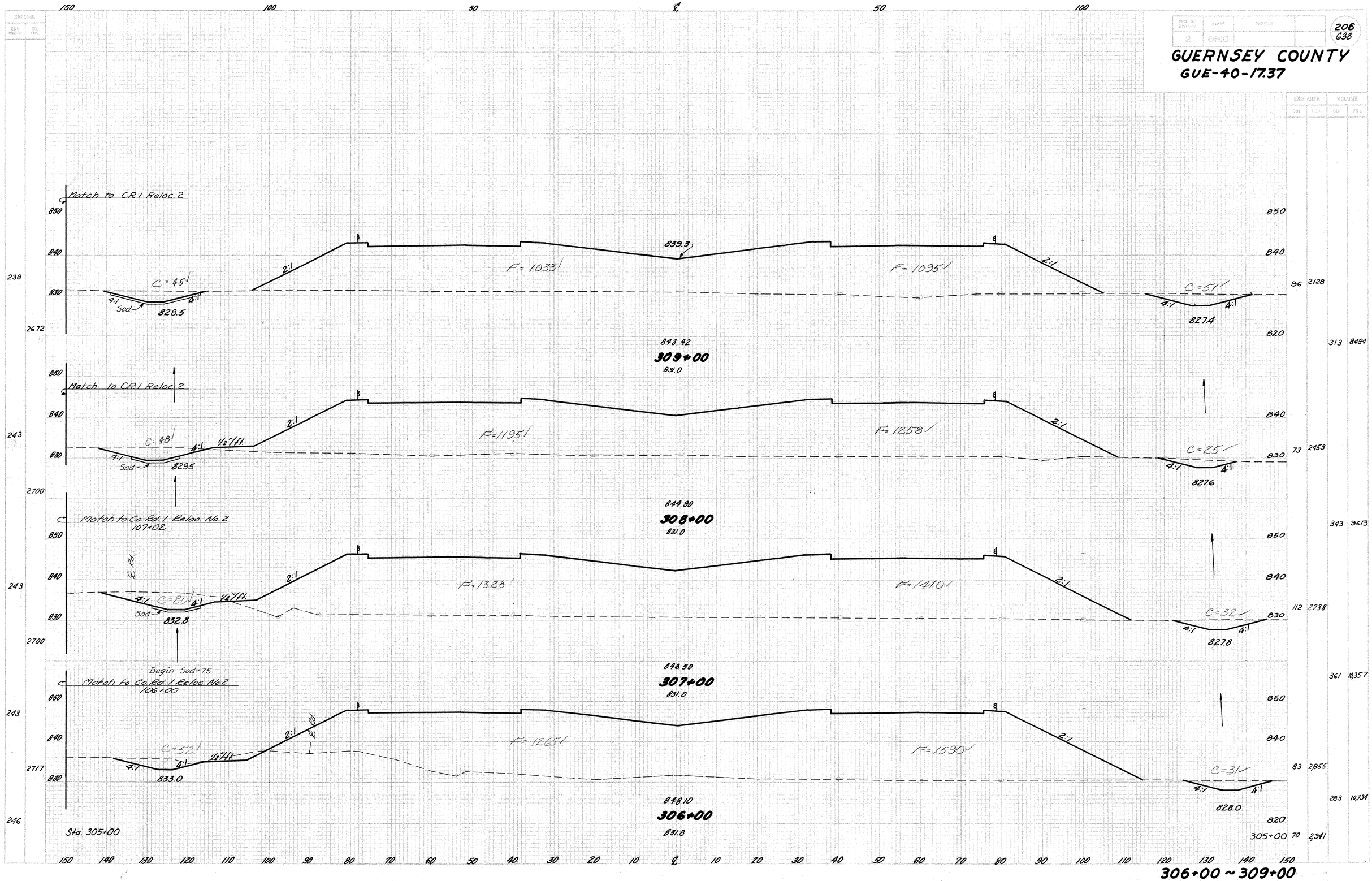
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
9	2863		
		760	5312
664	1840		
		1,725	2,228
1725	1245		
		11,172	2,789
4,308	261		

302+00 ~ 303+00



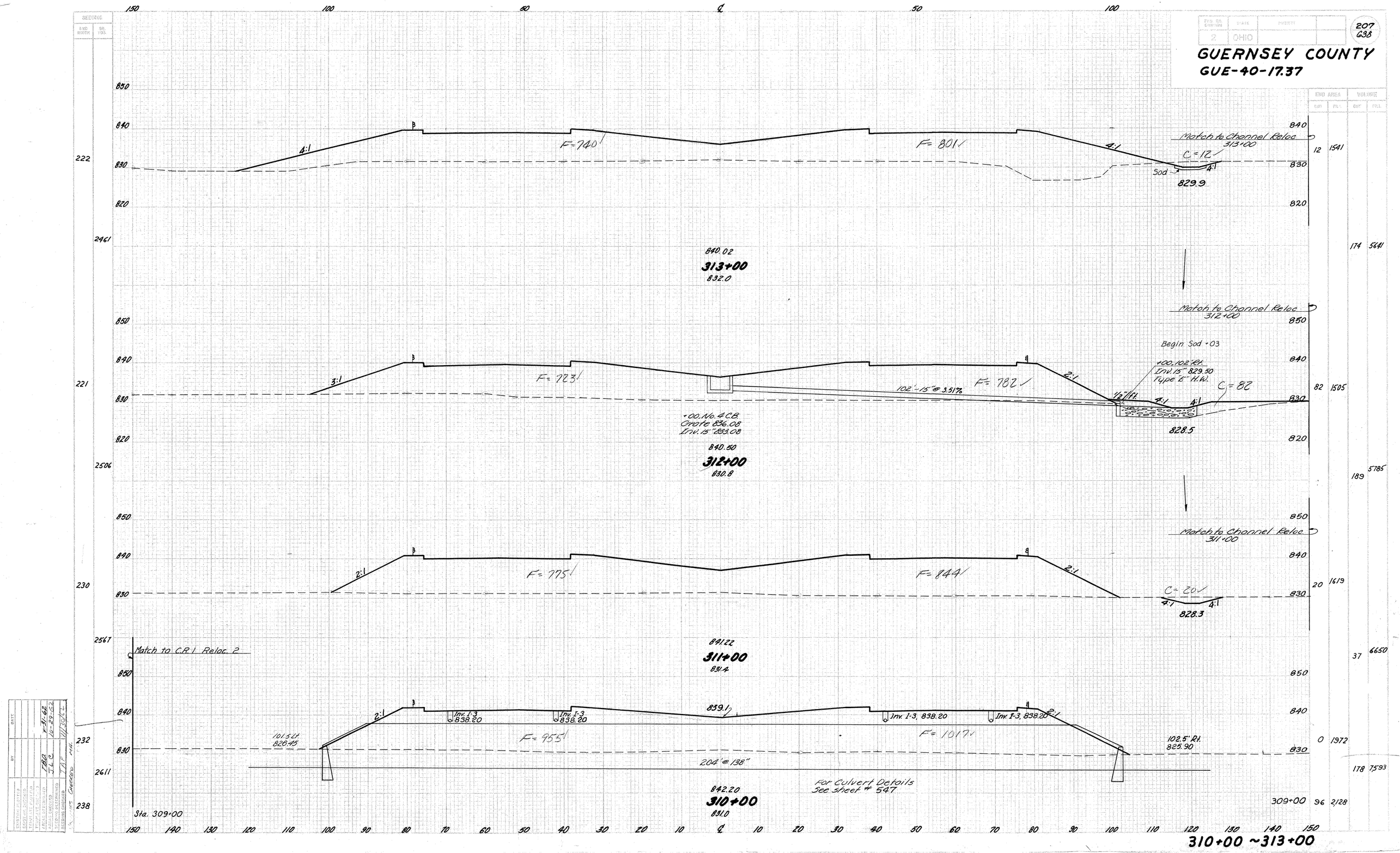
205
638
GUERNSEY COUNTY
GUE-40-17.37
Match to C.R.1 Reloc.2
105+00
C=40
1/2"/ft.
4:1
2:1
833.3
F=1233
F=1708
C=30
828.2
849.70
305+00
831.9
Match to C.R.1 Reloc.2
104+44
C=22
833.5
F=1365
F=1773
C=21
828.3
850.60
304+44
835.8
Match to C.R.1 Reloc.2
104+00
+00, 124.5' Lt.
Inv. 840.30
Type "E" H.W.
839.8
124'-15" @ 2.88 % Cl. A-1
F=1573
F=1753
C=27
828.4
End Sod
Begin Dumped Rock
303+75
+00, No. 4 C.B.
Grate 846.88
Inv. 15" 843.88
Inv. 6" 844.63
851.30
304+00
836.91
Sta. 303+00
246
1503
237
1151
234
2650
243
70 2941
117 6304
43 3138
57 5267
27 3326
67 11,461
9 2863
303+00

304+00 ~ 305+00



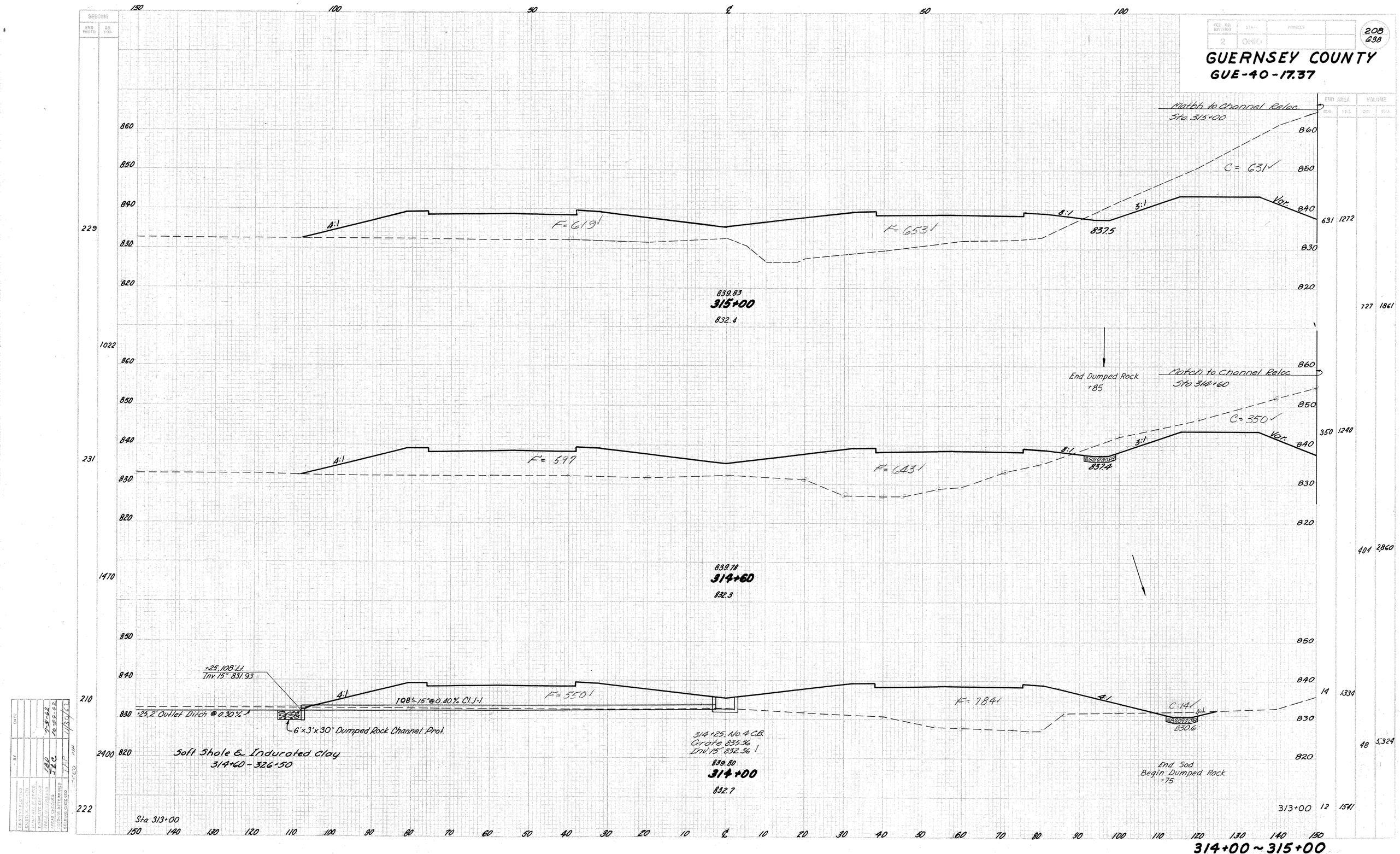
206
638
GUERNSEY COUNTY
GUE-40-17.37
Match to C.R.1 Reloc. 2
C=45
F=1033
F=1095
839.3
828.5
827.4
843.42
309+00
831.0
Match to C.R.1 Reloc. 2
C=48
F=1195
F=1258
829.5
827.6
844.90
308+00
831.0
Match to Co. Rd. 1 Reloc. No. 2
107+02
C=80
F=1328
F=1410
832.8
827.8
Begin Sod+75
846.50
307+00
831.0
Match to Co. Rd. 1 Reloc. No. 2
106+00
C=52
F=1265
F=1590
833.0
828.0
848.10
306+00
831.8
Sta. 305+00
305+00

306+00 ~ 309+00



207
638
2 OHIO
GUERNSEY COUNTY
GUE-40-17.37
SEEDING
END WIDTH
SQ. YDS.
END AREA
VOLUME
CUT
FILL
F=740
F=801
4:1
Match to Channel Reloc 313+00
C=12
Sod
829.9
840.02
313+00
832.0
Match to Channel Reloc 312+00
Begin Sod +03
+00, 102' Rt.
Inv. 15" 829.50
Type "E" H.W.
3:1
F=723
F=782
2:1
102'-15" @ 3.51%
1/2" Ft.
C=82
+00, No. 4 C.B.
Grate 836.08
Inv. 15" 833.08
828.5
840.50
312+00
830.8
Match to Channel Reloc 311+00
F=775
F=844
C=20
828.3
841.22
311+00
831.4
Match to C.R.1 Reloc. 2
839.1
Inv. I-3 838.20
101.5' Lt. 828.45
F=955
F=1017
102.5' Rt. 825.90
204' @ 138"
For Culvert Details See sheet # 547
842.20
310+00
831.0
Sta. 309+00
309+00
222
2461
221
2506
230
2567
232
2611
238
12 1541
174 5641
82 1505
189 5785
20 1619
37 6650
0 1972
178 7593
96 2128

310+00 ~313+00



GUERNSEY COUNTY
GUE-40-17.37
208
638
Match to Channel Reloc.
Sta. 315+00
C= 631
F= 619
F= 653
837.5
839.83
315+00
832.4
End Dumped Rock
+85
Match to Channel Reloc.
Sta. 314+60
C= 350
F= 597
F= 643
837.4
839.78
314+60
832.3
+25, 108' Lt.
Inv. 15" 831.93
+25, 2' Outlet Ditch @ 0.30%
108'-15" @ 0.40% Cl. J-1
F= 550
F= 784
C= 14
830.6
6'x3'x30' Dumped Rock Channel Prot.
Soft Shale & Indurated Clay
314+60 - 326+50
314+25, No. 4 C.B.
Grate 835.36
Inv. 15" 832.36
839.80
314+00
832.7
End Sod
Begin Dumped Rock
+75
Sta 313+00
313+00

314+00 ~ 315+00

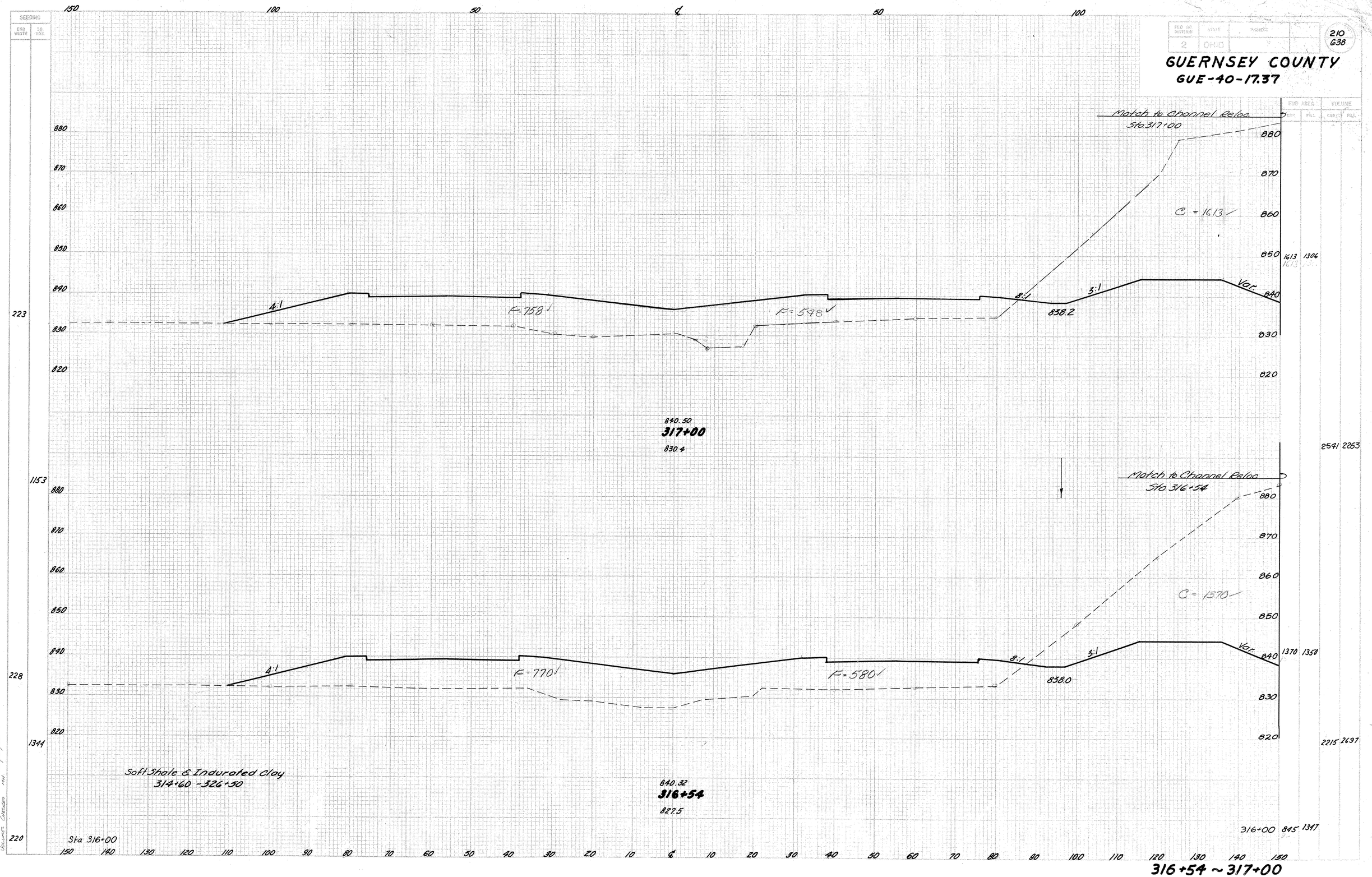
SEEDING	
END WIDTH	SQ. YDS.
220	
228	
229	

FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO		

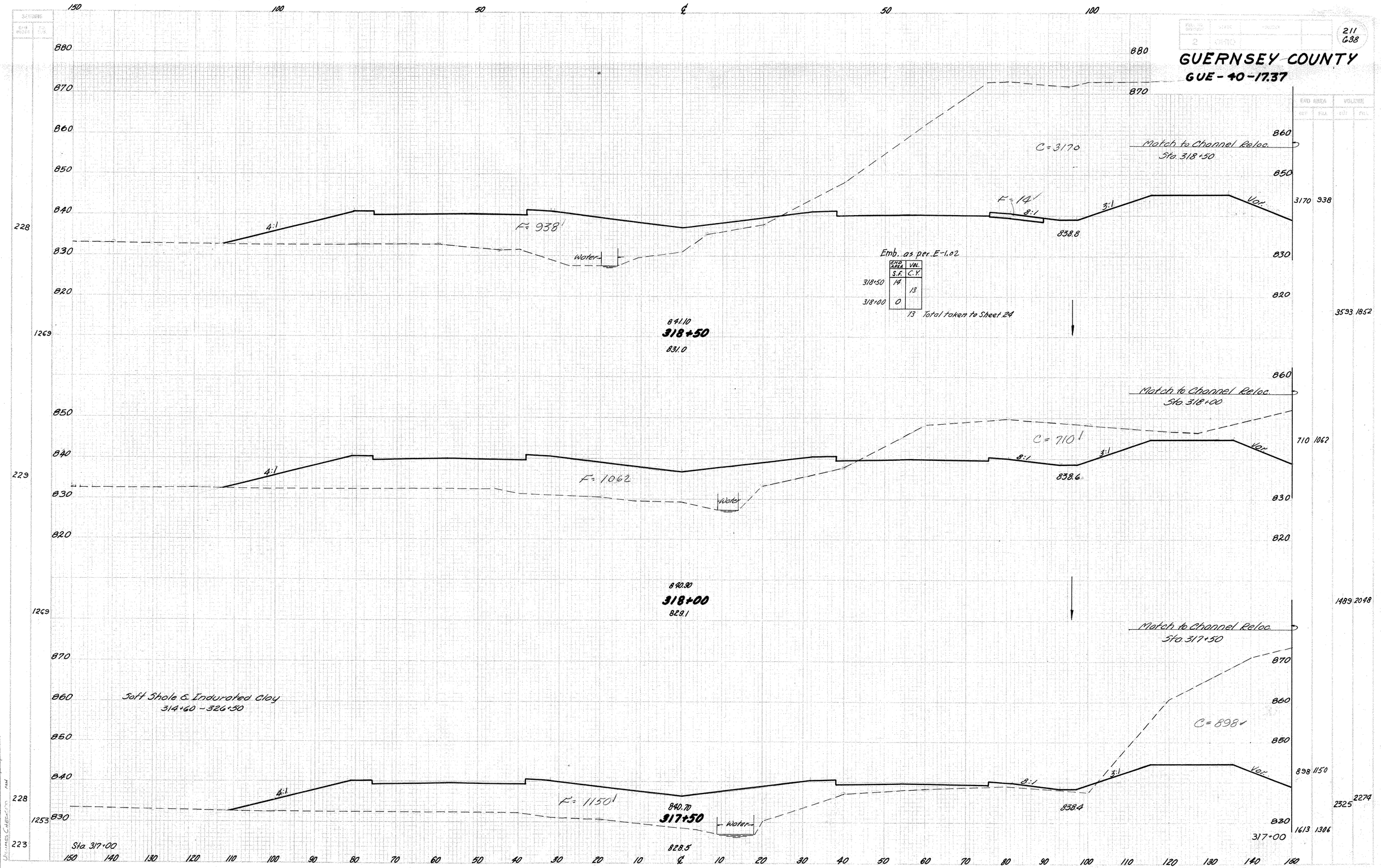
209
638

GUERNSEY COUNTY
GUE-40-17.37

END AREA		VOLUME	
CUT	FILL	CUT	FILL
1016		1493	
1016		1493	
1016		1493

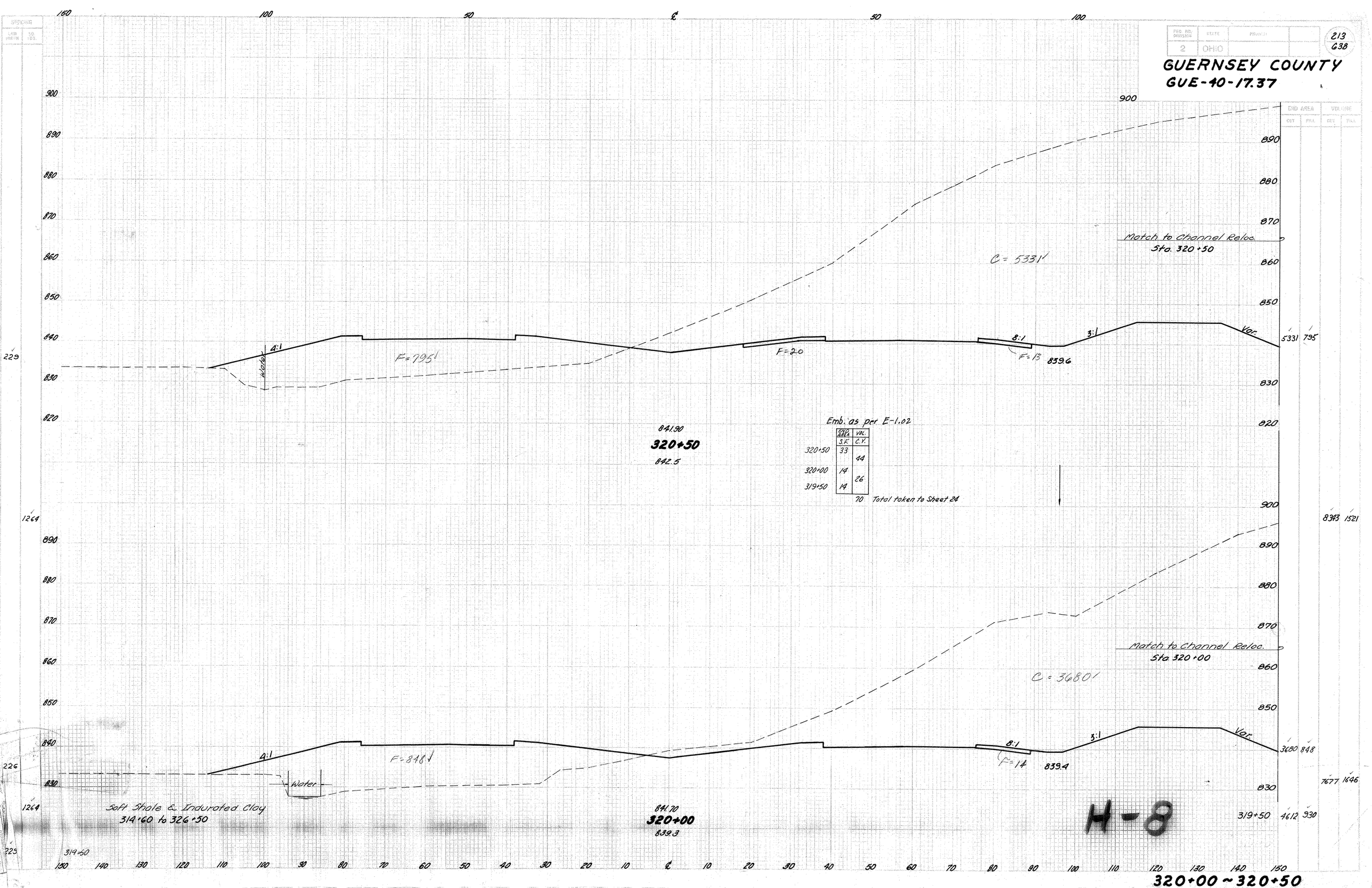


GUERNSEY COUNTY
GUE-40-17.37
210
G38
Match to Channel Reloc.
Sta. 317+00
C = 1613
4:1
F = 758
F = 548
8:1
3:1
Var.
838.2
840.50
317+00
830.4
Match to Channel Reloc.
Sta. 316+54
C = 1370
F = 770
F = 580
838.0
Soft Shale & Indurated Clay
314+60 - 326+50
840.32
316+54
827.5
Sta 316+00
316+00
223
1153
228
1344
220
1613 1306
2541 2263
1370 1350
2215 2697
845 1347
316+54 ~ 317+00



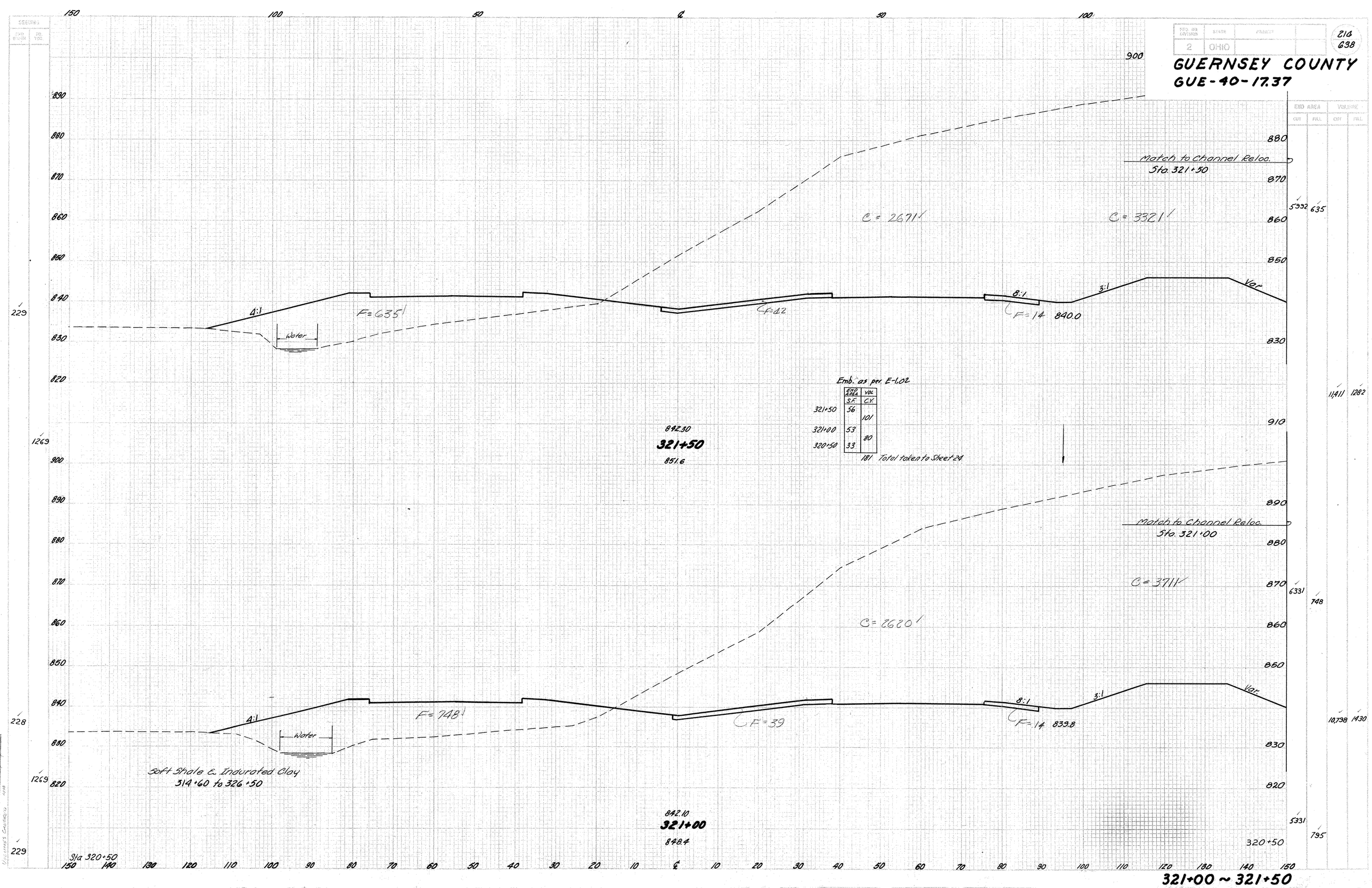
211
G38
GUERNSEY COUNTY
GUE-40-17.37
Match to Channel Reloc.
Sta. 318+50
C=3170
F=14
8:1
3:1
Var.
4:1
F=938
Water
838.8
Emb. as per E-1.02
END AREA
VOL.
S.F.
C.Y.
318+50
14
13
318+00
0
13 Total taken to Sheet 24
841.10
318+50
831.0
Match to Channel Reloc.
Sta. 318+00
C=710
F=1062
838.6
840.90
318+00
829.1
Match to Channel Reloc.
Sta. 317+50
Soft Shale & Indurated Clay
314+60 - 326+50
C=898
F=1150
840.70
317+50
828.5
838.4
Sta. 317+00
317+00
3170 938
3593 1852
710 1062
1489 2048
898 1150
2325 2274
1613 1306
228
229
223
1269
1253

317+50 ~ 318+50



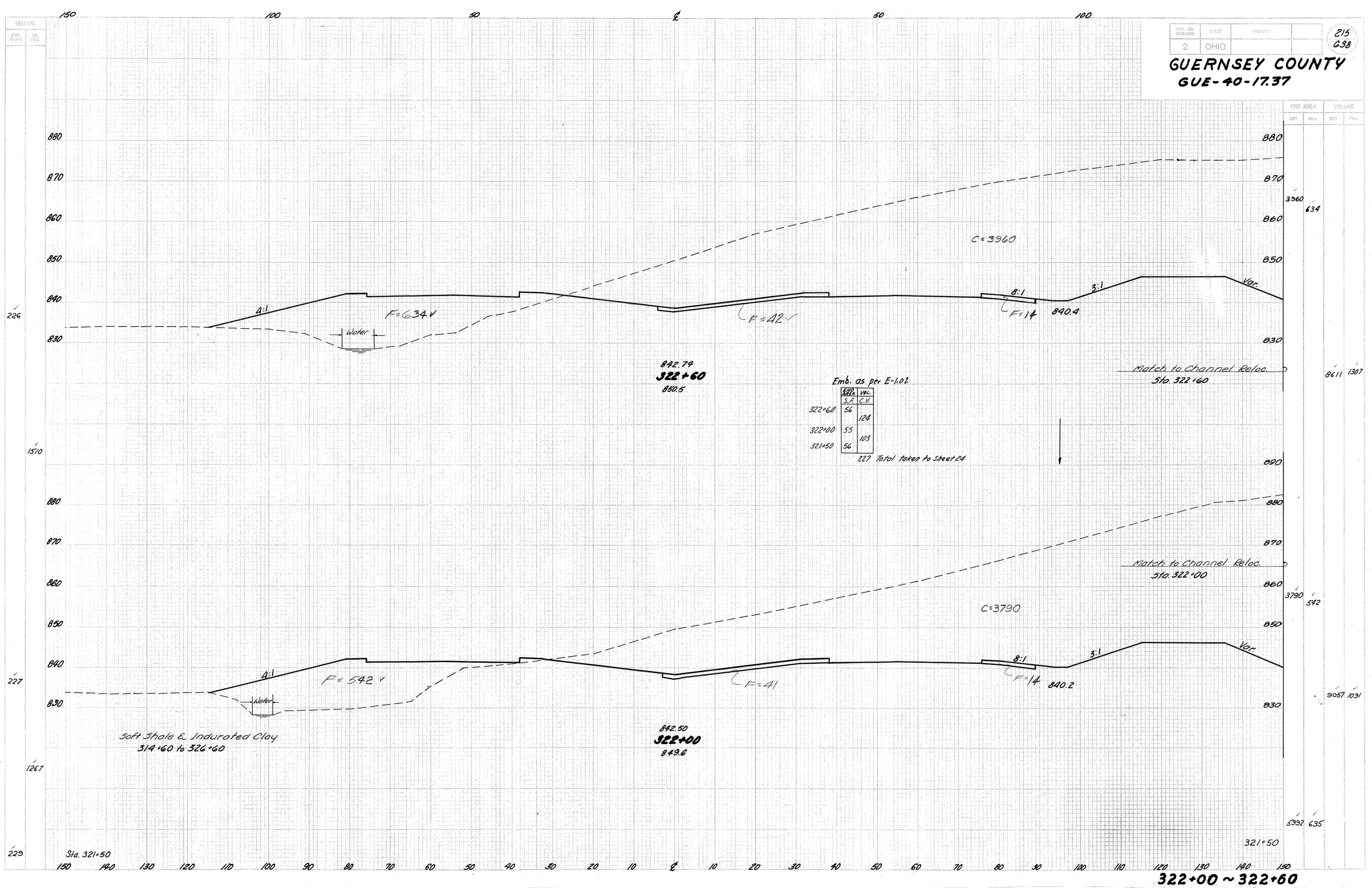
FED. RD. DIVISION 2
STATE OHIO
213
638
GUERNSEY COUNTY
GUE-40-17.37
Match to Channel Reloc.
Sta. 320+50
C = 5331'
F = 795'
F = 20
F = 13
839.6
4:1
8:1
3:1
Var.
Water
841.90
320+50
842.5
Emb. as per E-1.02
END AREA S.F. VOL. C.Y.
320+50 33
44
320+00 14
26
319+50 14
70 Total taken to Sheet 24
Match to Channel Reloc.
Sta. 320+00
C = 3680'
F = 848'
F = 14
839.4
Water
Soft Shale & Indurated Clay
314+60 to 326+50
841.70
320+00
839.3
319+50
H-8

320+00 ~ 320+50



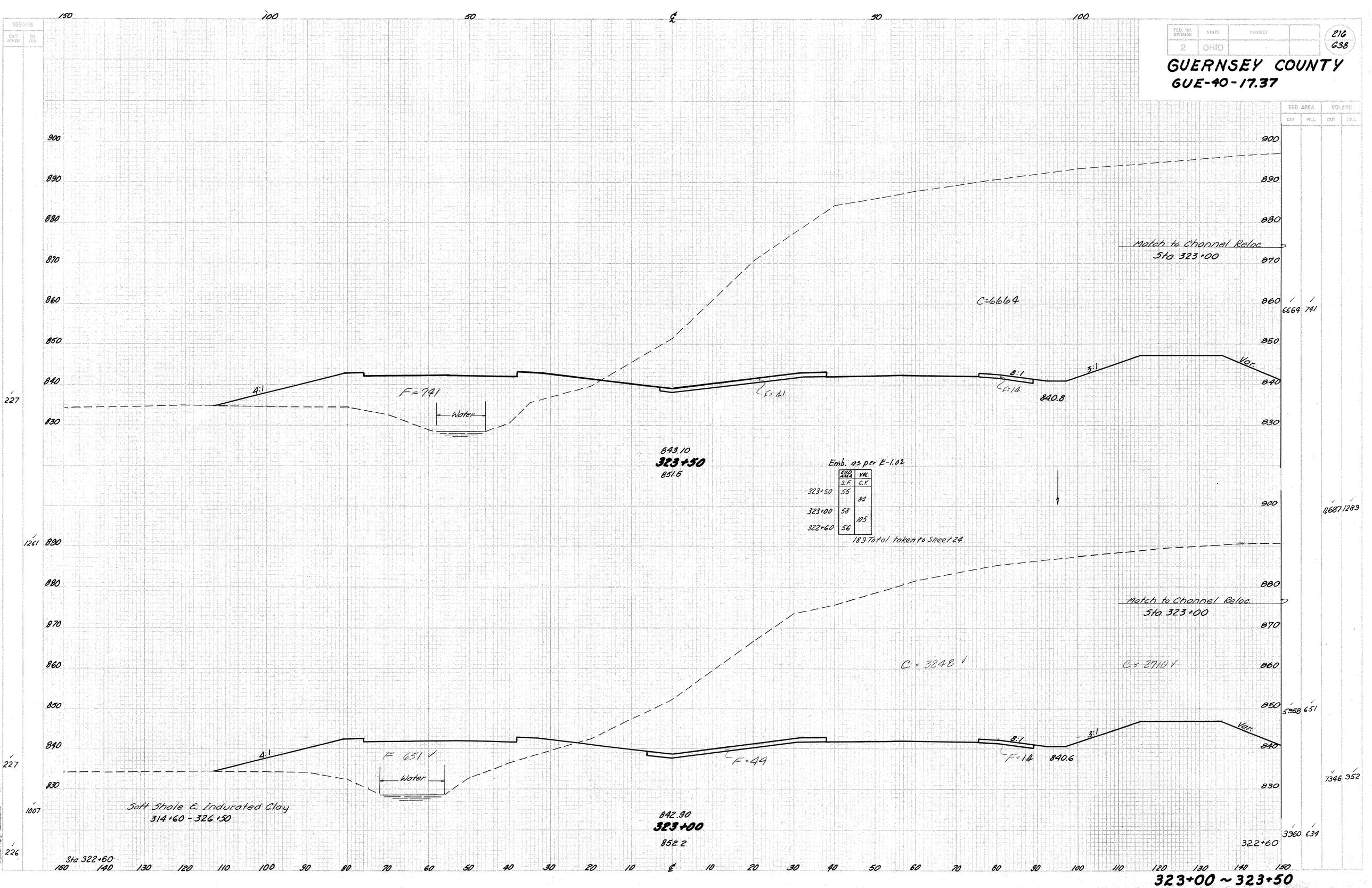
2 OHIO
214
638
GUERNSEY COUNTY
GUE-40-17.37
Match to Channel Reloc.
Sta. 321+50
C = 2671
C = 3321
4:1
F = 635
Water
F = 42
8:1
F = 14
840.0
3:1
Var.
Emb. as per E-1.02
END AREA S.F. | VOL C.Y.
321+50 56
101
321+00 53
80
320+50 33
181 Total taken to Sheet 24
842.30
321+50
851.6
Match to Channel Reloc.
Sta. 321+00
C = 3711
C = 2620
4:1
F = 748
Water
F = 39
8:1
F = 14
839.8
3:1
Var.
Soft Shale & Indurated Clay
314+60 to 326+50
842.10
321+00
848.4
Sta 320+50
320+50
5992
635
11,411
1282
6331
748
10,798
1430
5331
795
229
1269
228
1269
229

321+00 ~ 321+50



FED. RD. DIVISION 2
STATE OHIO
PROJECT
215
638
GUERNSEY COUNTY
GUE-40-17.37
END AREA
VOLUME
CUT
FILL
C=3960
4:1
F=634
Water
F=42
8:1
F=14
840.4
3:1
Var.
842.74
322+60
850.5
Match to Channel Reloc.
Sta. 322+60
Emb. as per E-1.02
END AREA S.F.
VOL. C.Y.
322+60 56
124
322+00 55
103
321+50 56
227 Total taken to Sheet 24
C=3790
4:1
F=542
Water
F=41
8:1
F=14
840.2
3:1
Var.
842.50
322+00
849.6
Soft Shale & Indurated Clay
314+60 to 326+60
Match to Channel Reloc.
Sta. 322+00
Sta. 321+50
321+50
3960
634
8611
1307
3790
542
9057
1091
5992
635
226
1510
227
1267
229

322+00 ~ 322+60



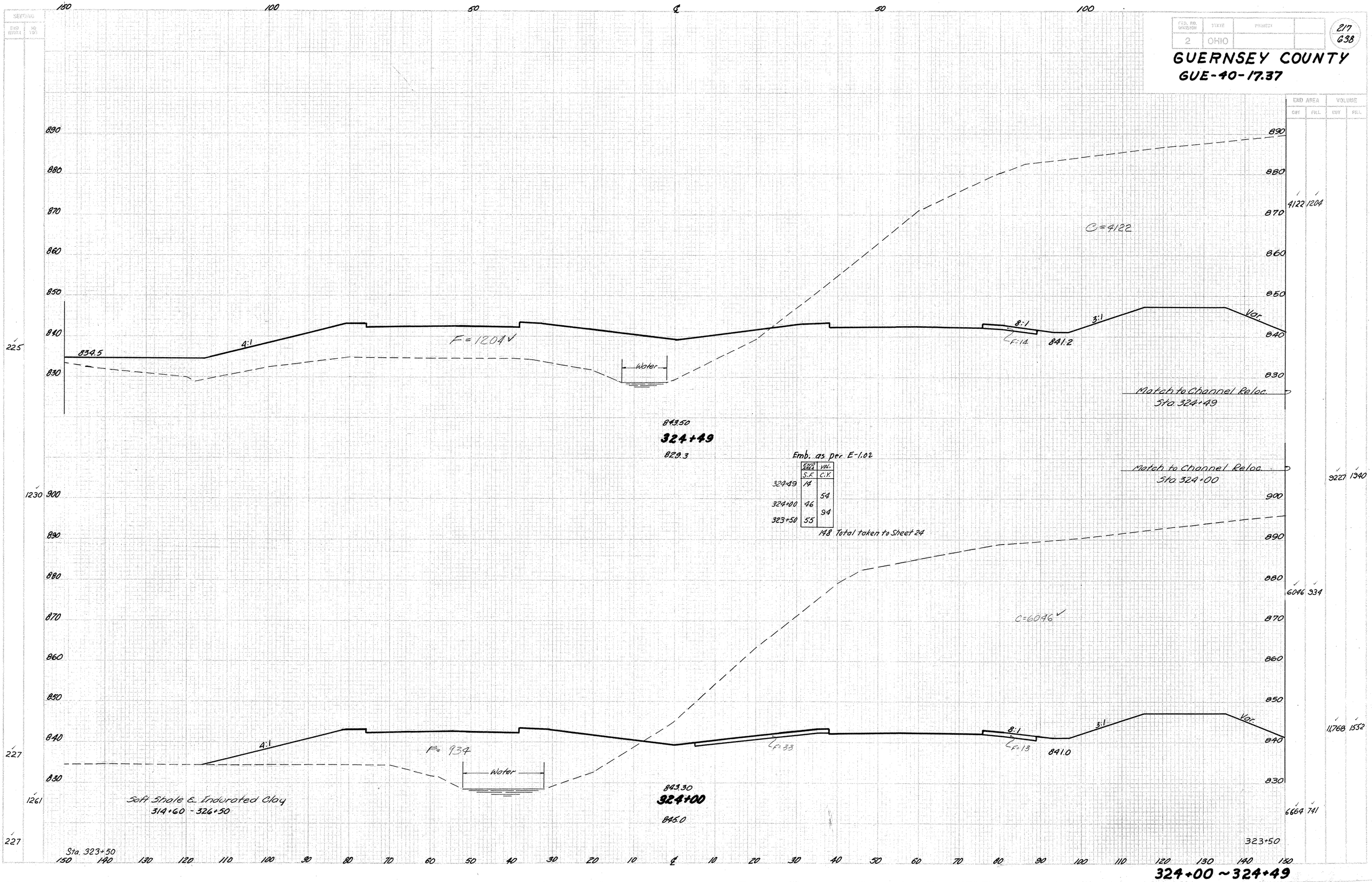
FED. RD. DIVISION 2
STATE OHIO
PROJECT
216
638
GUERNSEY COUNTY
GUE-40-17.37
END AREA
VOLUME
CUT
FILL
Match to Channel Reloc.
Sta. 323+00
C=6664
F=741
Water
4:1
F=41
F=14
8:1
3:1
Var.
840.8
843.10
323+50
851.5
Emb. as per E-1.02
END AREA S.F.
VOL. C.Y.
323+50 55
84
323+00 58
105
322+60 56
189 Total taken to Sheet 24
C=3248
C=2710
F 651
F=44
F=14
840.6
Soft Shale & Indurated Clay
314+60 - 326+50
842.90
323+00
852.2
Sta 322+60
322+60
6664 741
11,687 1289
5958 651
7346 952
3960 634

323+00 ~ 323+50

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

217
638

GUERNSEY COUNTY
GUE-40-17.37



	END AREA S.F.	VOL. C.Y.
324+49	14	
		54
324+00	46	
		94
323+50	55	

148 Total taken to Sheet 24

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
4122	1204		
		9227	1940
6046	934		
		11,768	1552
6664	741		

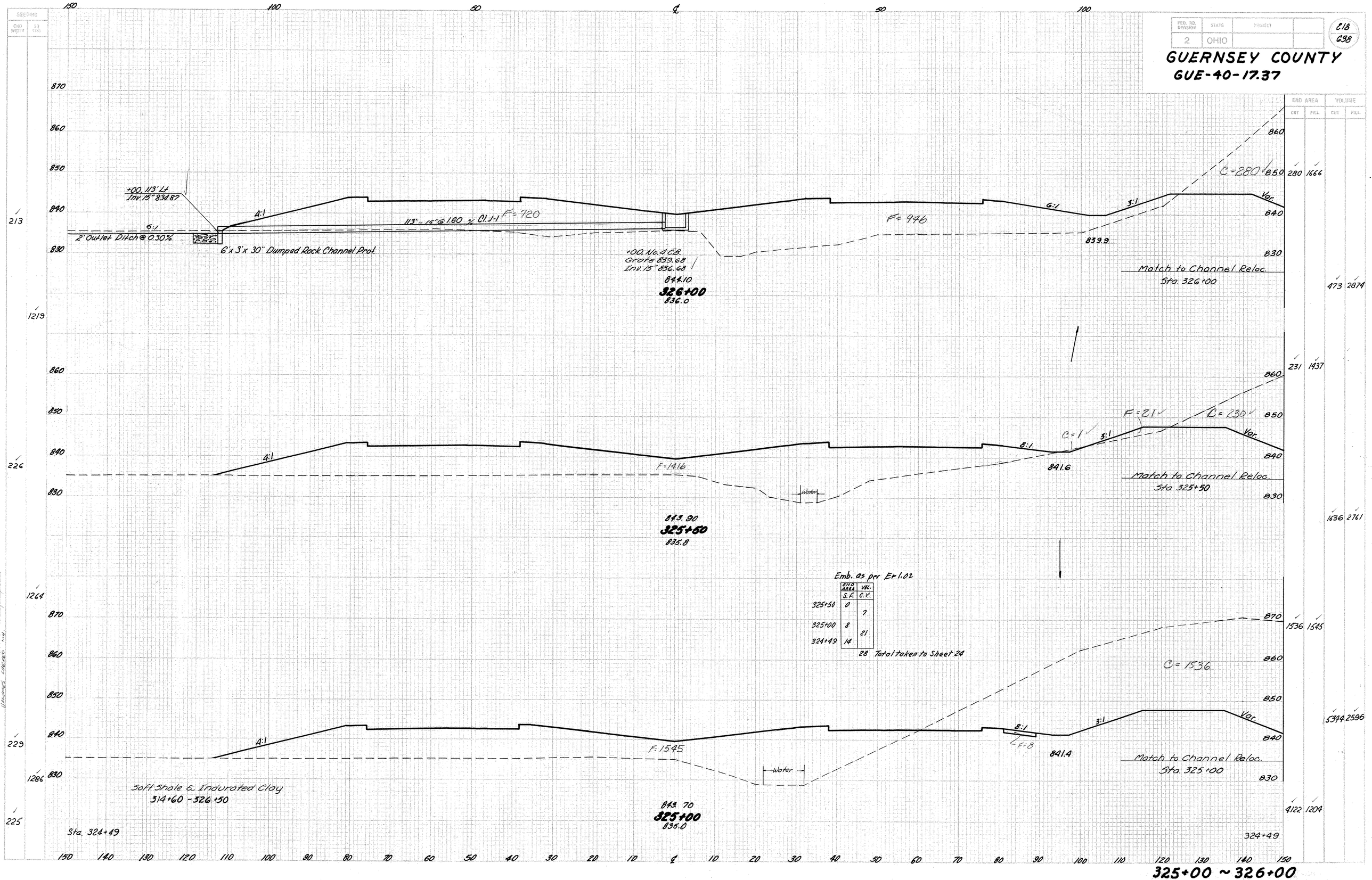
225 1230 227 1261 227

324+00 ~ 324+49

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

218
638

GUERNSEY COUNTY
GUE-40-17.37

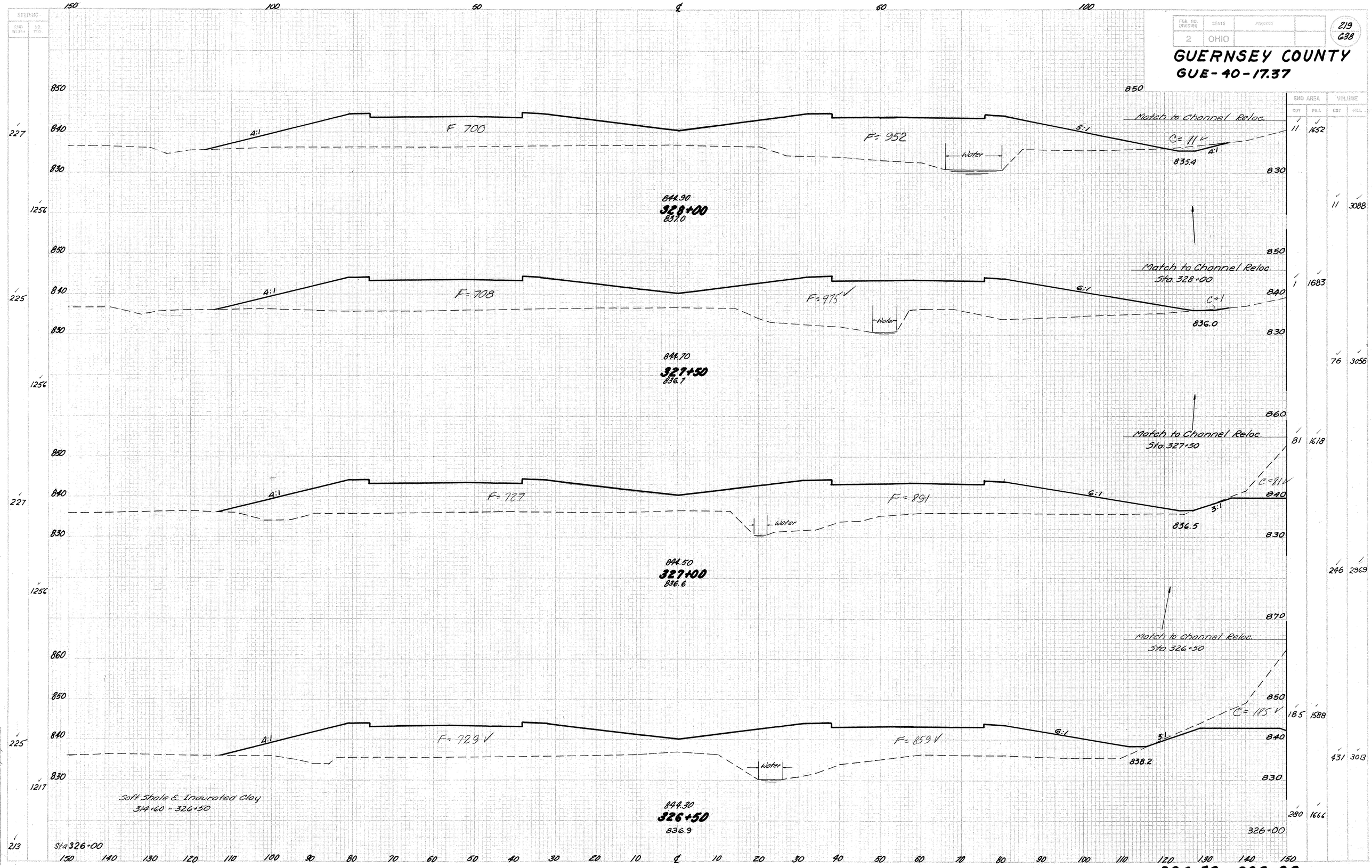


325+00 ~ 326+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

219
638

GUERNSEY COUNTY
GUE-40-17.37



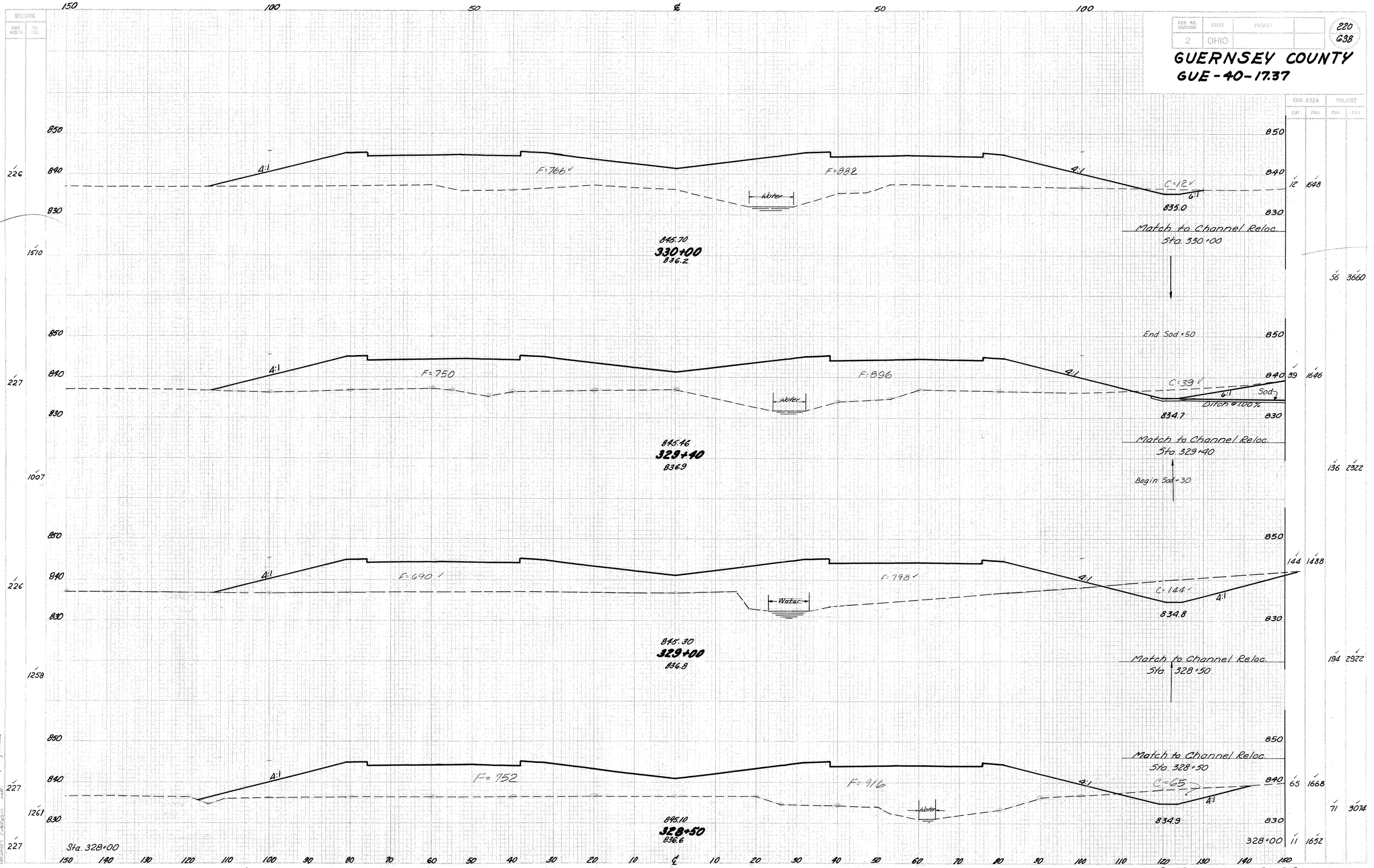
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
11	1652		
		11	3088
1	1683		
		76	3056
81	1618		
		246	2969
185	1588		
		431	3013
280	1666		

326+50 ~ 328+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

220
638

GUERNSEY COUNTY
GUE-40-17.37

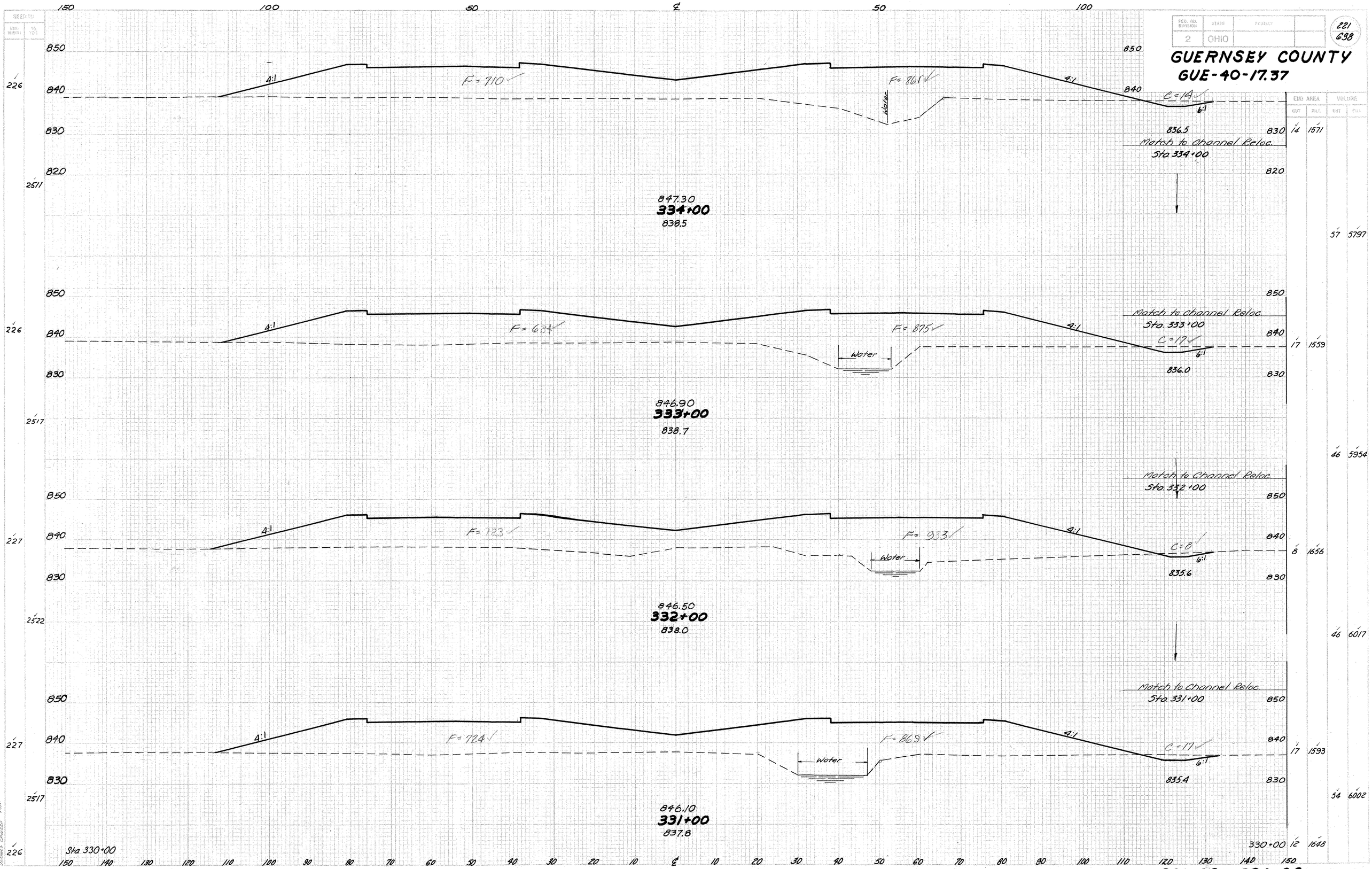


328+50 ~ 330+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

221
638

GUERNSEY COUNTY
GUE-40-17.37



331+00 ~ 334+00

PRO. NO. DIVISION	STATE	PROJECT	
2	OHIO		

222
C38

GUERNSEY COUNTY
GUE-40-17.37

SEEDING

END WIDTH	NO. YDS

150 100 50 ℄ 50 100

850 / 840 / 830

---

233 ft

C=31 ✓ 6:1 — 4:1 — F=705 ✓ — F=914 ✓ — 4:1 — C=18 ✓ 6:1

838.4 — 838.2

Water

2550 ft

848.90
338+00
838.7

Match to Channel Reloc.
Sta. 338+00

GND AREA: CUT 45 — VOLUME: CUT 1619

VOLUME: CUT 122 — PILL 5973

---

226 ft

C=20 ✓ — 4:1 — F=685 ✓ — F 921 ✓ — 4:1 — C=1 ✓ 6:1

838.2 — Water — 838.0

2967 ft

848.50
337+00
838.7

Match to Channel Reloc.
Sta. 337+00

GND AREA: CUT 21 — VOLUME: CUT 1606

VOLUME: CUT 152 — PILL 5862

End Sod+25

---

218 ft

+00.11 35 Lt
Inv. 15" 839.01
Type E" H.W.
C=24 ✓ — 4:1 — F=661 ✓ — 114'-15" @ 1.16% CMP-1 — F=898 ✓ — 4:1 — C=37 ✓

6:1 — 838.0 — Dumped Rock Channel Prot. — water — Sod — 6:1 — 837.8

2456 ft

100' No. 4 C.B.
Grate 843.68
Inv 15" 840.68

848.10
336+00
839.5

Match to Channel Reloc.
Sta. 336+00

GND AREA: CUT 61 — VOLUME: CUT 1559

VOLUME: CUT 150 — PILL 5804

---

224 ft

4:1 — F=700 ✓ — F=875 ✓ — 4:1 — C=20 ✓

Water — Sod — 6:1 — 836.8

2500 ft

847.70
335+00
838.8

Begin Sod+75

Match to Channel Reloc.
Sta. 335+00

GND AREA: CUT 20 — VOLUME: CUT 1575

VOLUME: CUT 63 — PILL 5826

---

226 ft

Sta 334+00

334+00 14 1571

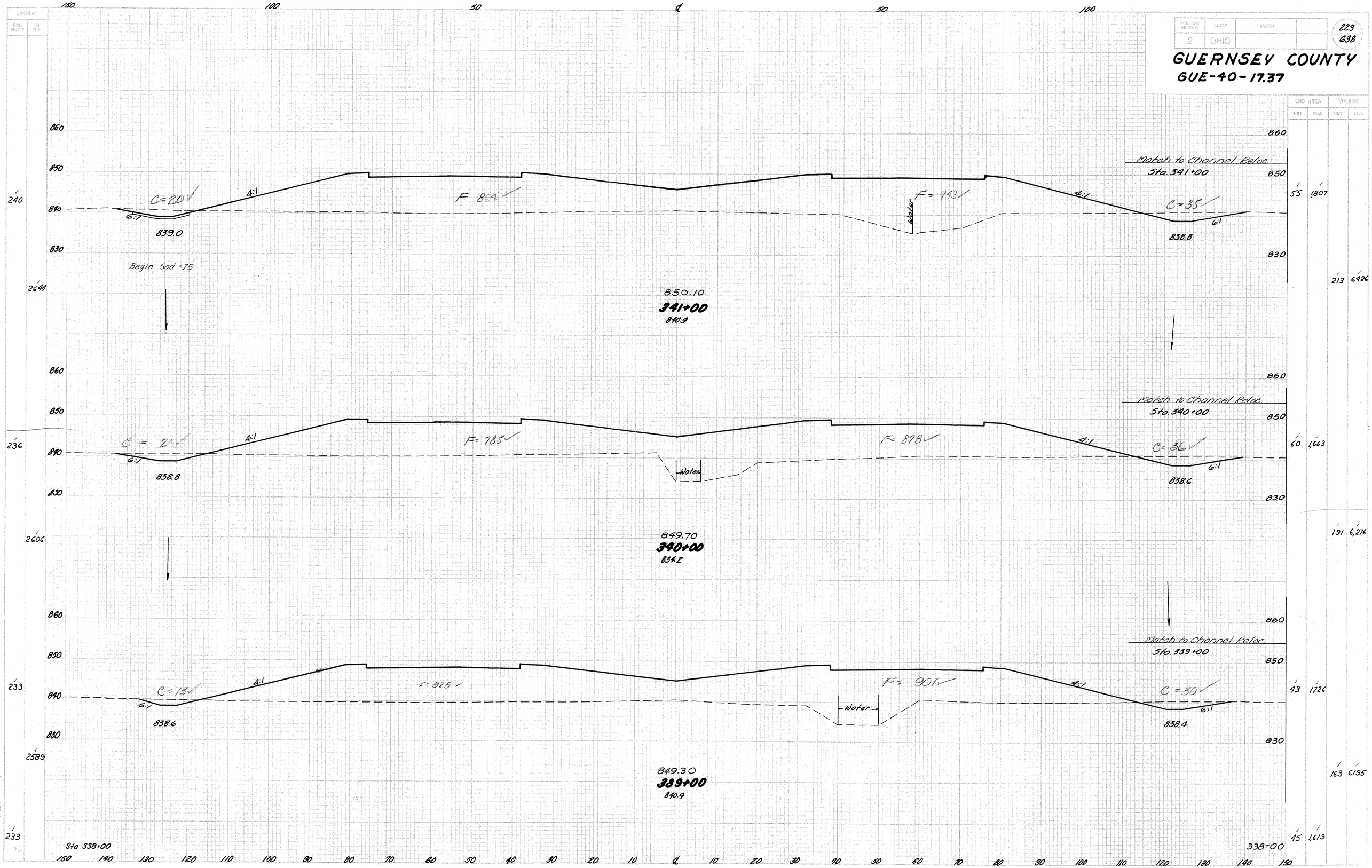
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

335+00 ~ 338+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

223
638

GUERNSEY COUNTY
GUE-40-17.37



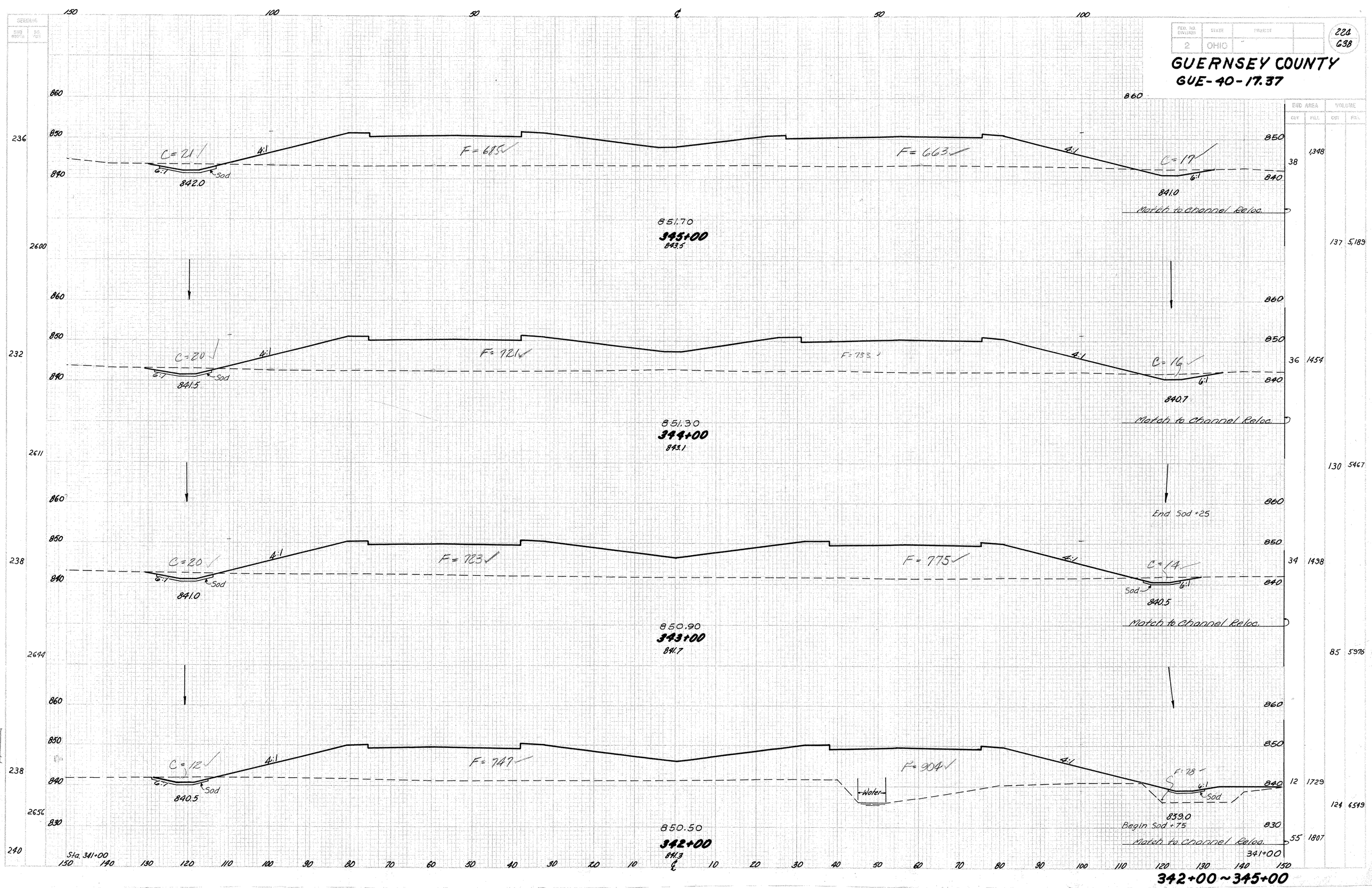
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
55	1,807		
		213	6426
60	1,663		
		191	6,276
43	1726		
		163	6195
45	1,619		

339+00 ~ 341+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

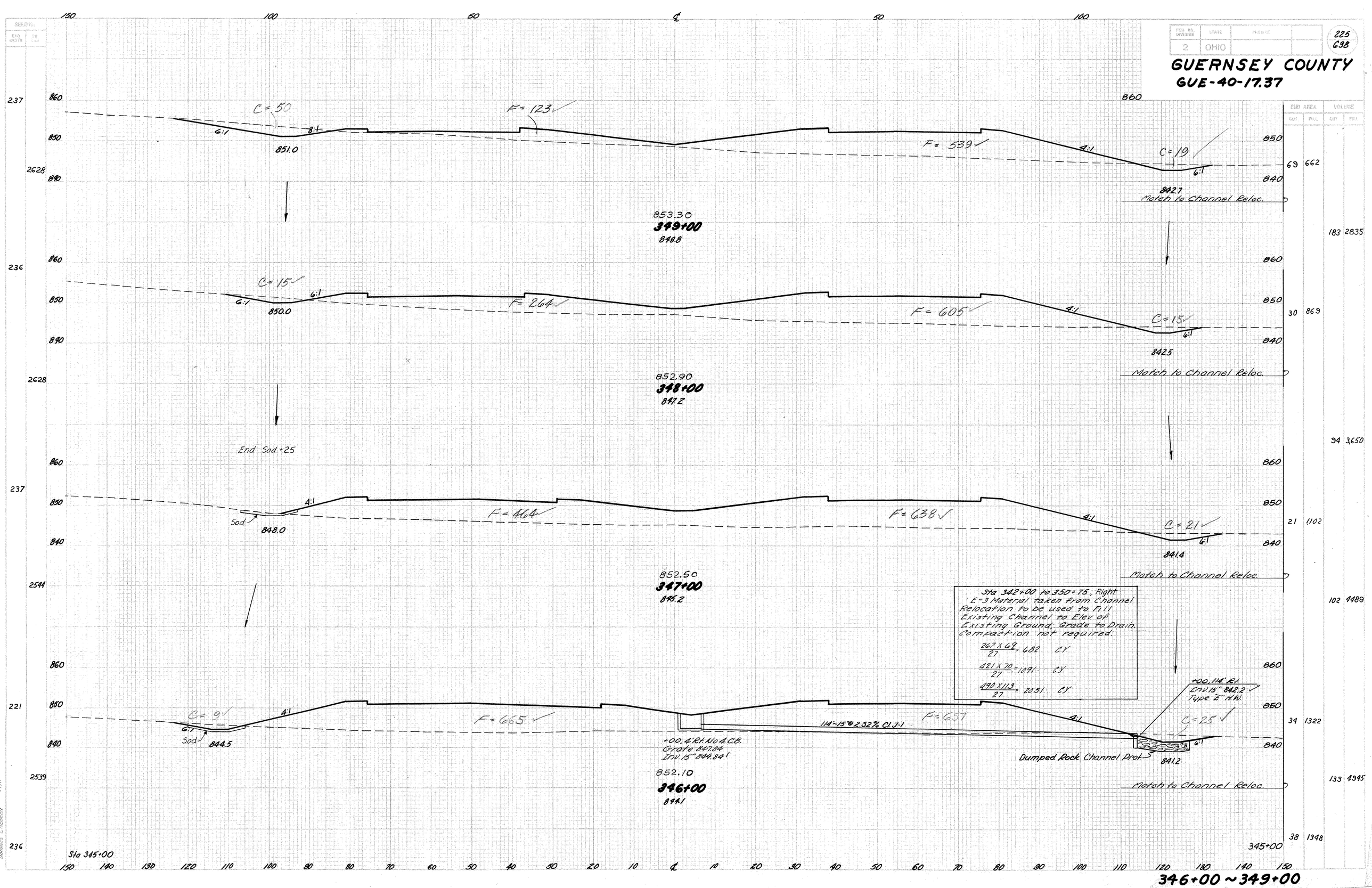
224
638

GUERNSEY COUNTY
GUE-40-17.37



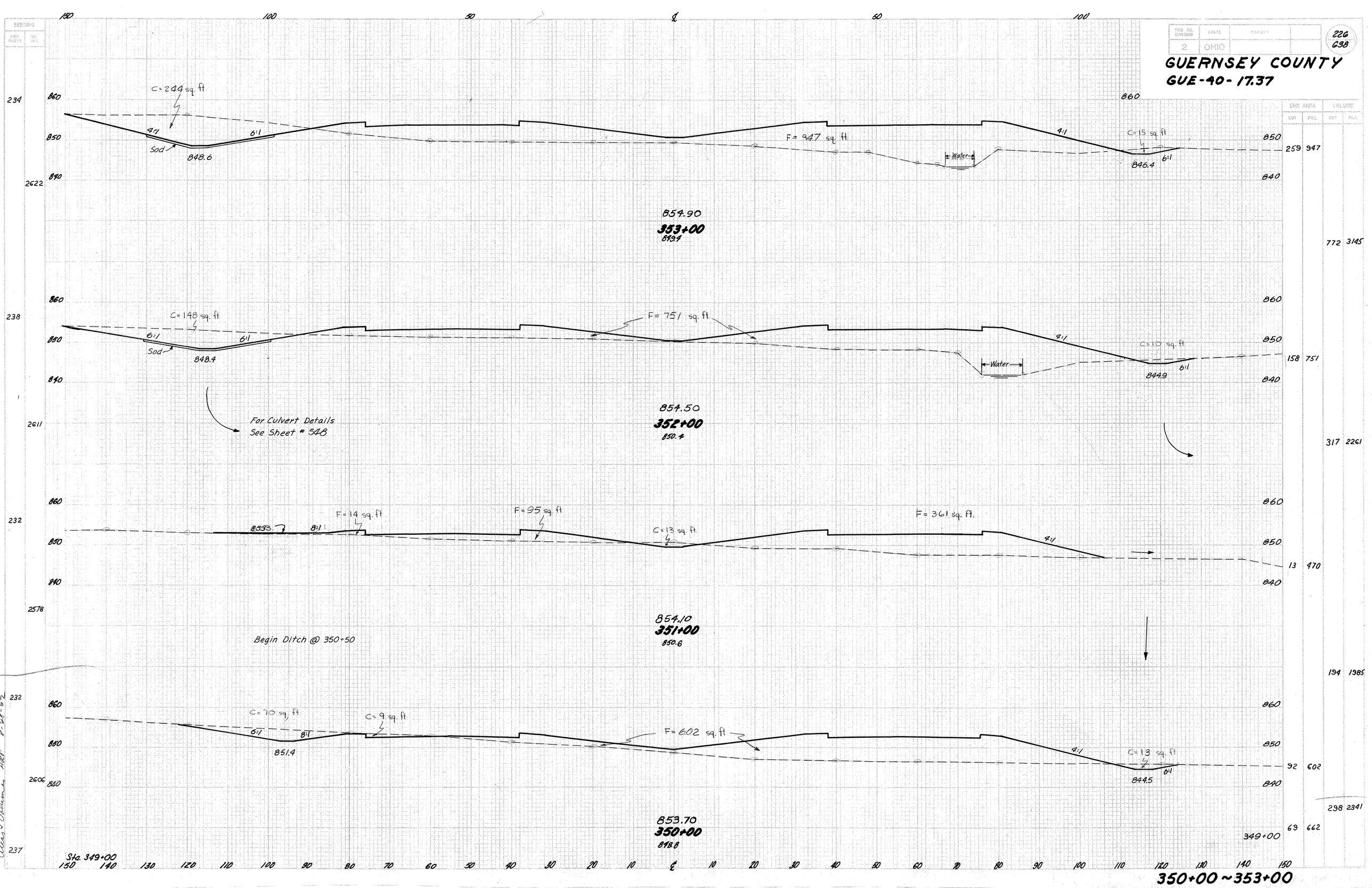
Station	End Area Cut	End Area Fill	Volume Cut	Volume Fill
236	38	1,348		
2600			137	5,189
232	36	1454		
2611			130	5467
238	34	1498		
2644			85	5976
238	12	1729		
2656			124	6549
240	55	1807		

342+00 ~ 345+00



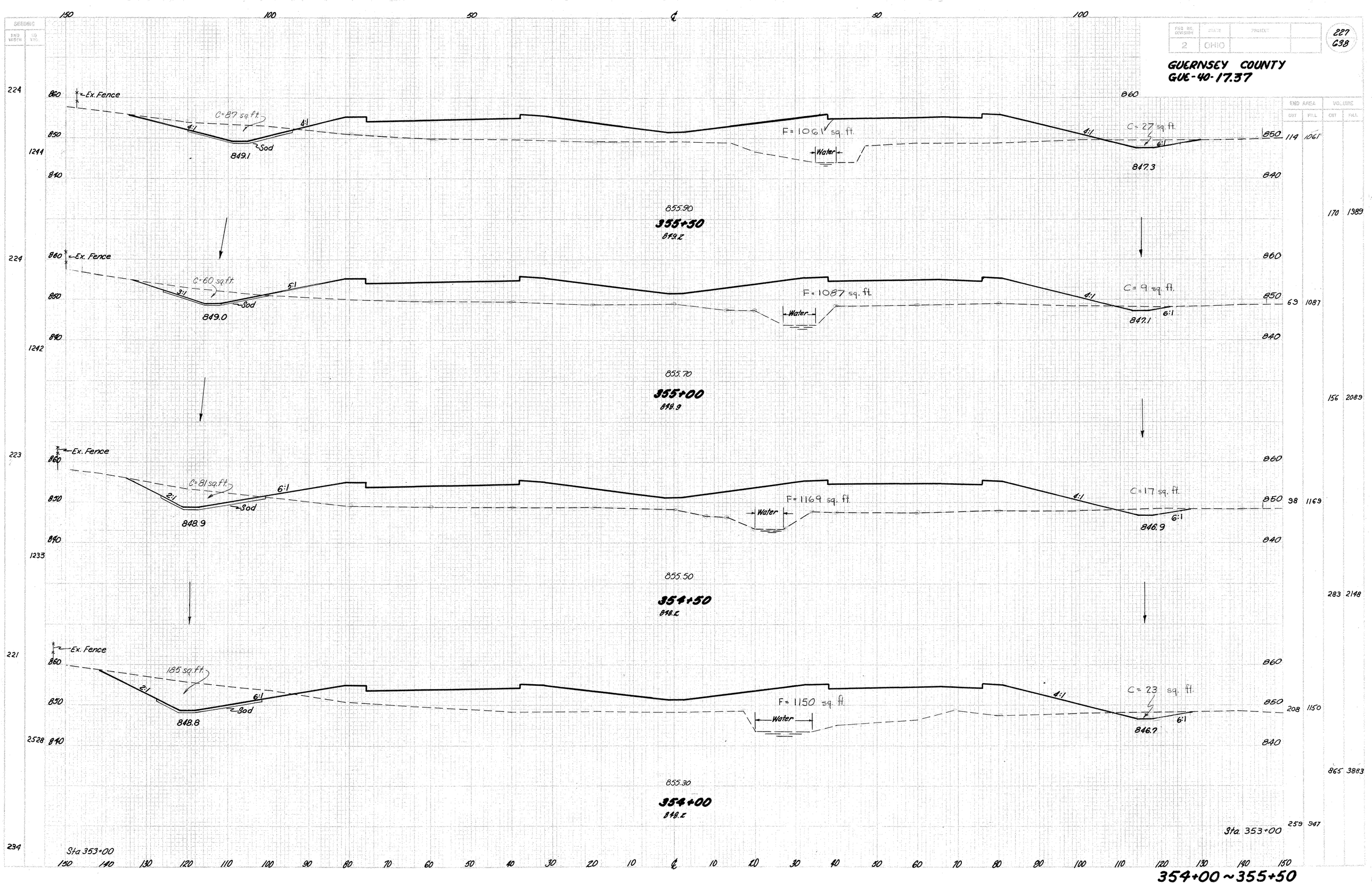
FED. RD. DIVISION 2
STATE OHIO
225
638
GUERNSEY COUNTY
GUE-40-17.37
END AREA
VOLUME
C = 50
F = 123
6:1
8:1
851.0
F = 539
4:1
C = 19
6:1
842.7
Match to Channel Reloc.
853.30
349+00
848.8
C = 15
6:1
6:1
850.0
F = 264
F = 605
4:1
C = 15
6:1
842.5
Match to Channel Reloc.
852.90
348+00
847.2
End Sod +25
4:1
Sod
848.0
F = 464
F = 638
4:1
C = 21
6:1
841.4
Match to Channel Reloc.
852.50
347+00
845.2
Sta 342+00 to 350+75, Right
E-3 Material taken from Channel
Relocation to be used to Fill
Existing Channel to Elev of
Existing Ground; Grade to Drain.
Compaction not required.
267 X 69 / 27 = 682 C.Y.
421 X 70 / 27 = 1091 C.Y.
490 X 113 / 27 = 2051 C.Y.
C = 9
6:1
Sod
844.5
4:1
F = 665
+00, 4' Rt. No 4 C.B.
Grate 847.84
Inv. 15" 844.84
114'-15" @ 2.32% Cl. J-1
F = 657
4:1
+00, 114' Rt.
Inv. 15" 842.2
Type "E" H.W.
C = 25
6:1
Dumped Rock Channel Prot.
841.2
852.10
346+00
844.1
Match to Channel Reloc.
Sta 345+00
345+00
69 662
183 2835
30 869
94 3,650
21 1,102
102 4489
34 1322
133 4945
38 1348

346+00 ~ 349+00



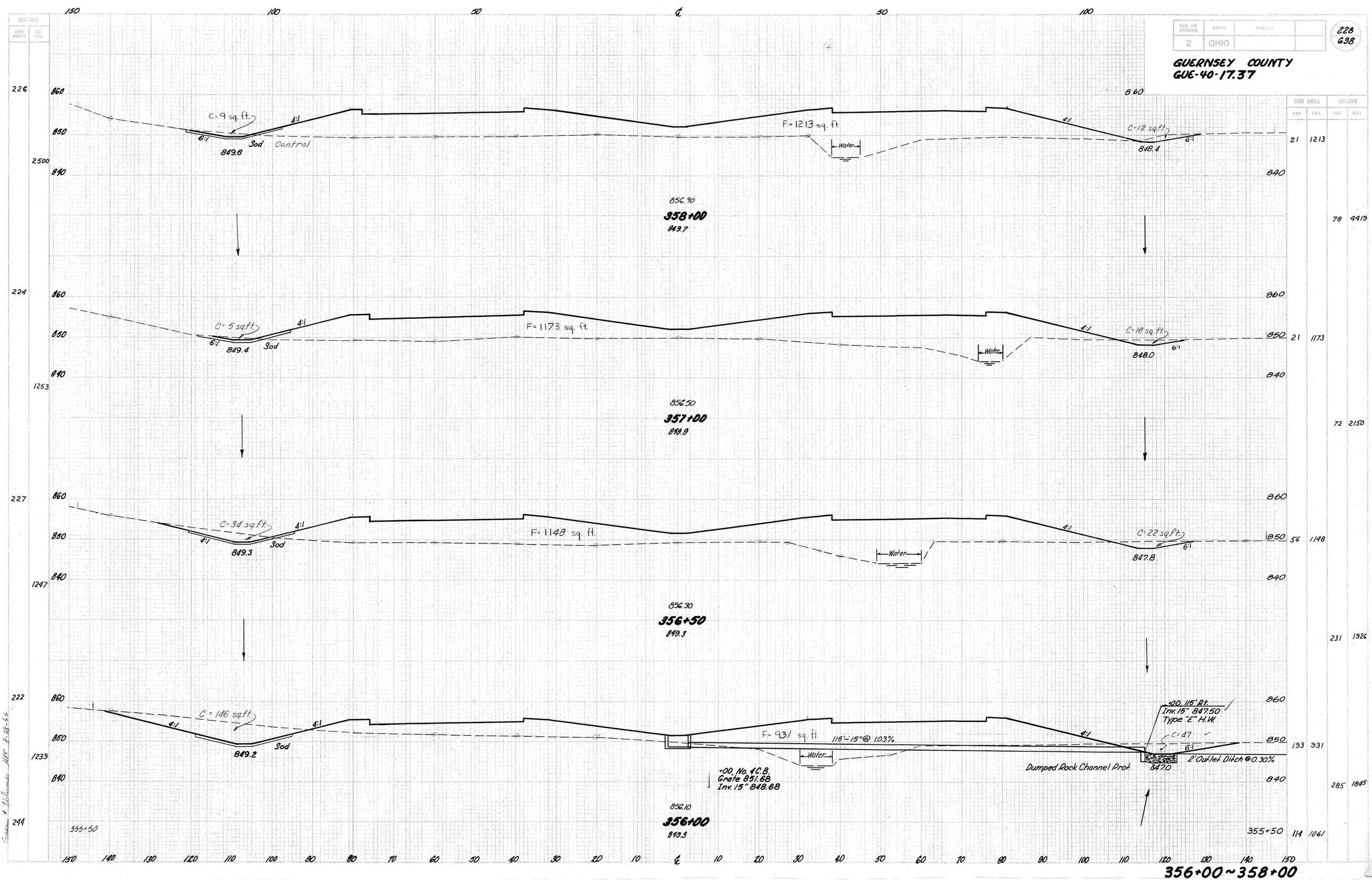
FED. RD. DIVISION 2
STATE OHIO
226
638
GUERNSEY COUNTY
GUE-40-17.37
END AREA
VOLUME
CUT
FILL
C=244 sq. ft
4:1
6:1
Sod
848.6
F=947 sq. ft
Water
C=15 sq. ft
846.4
854.90
353+00
849.4
C=148 sq. ft
848.4
F=751 sq. ft
C=10 sq. ft
844.9
For Culvert Details
See Sheet # 548
854.50
352+00
850.4
F=14 sq. ft
8:1
F=95 sq. ft
C=13 sq. ft
F=361 sq. ft.
854.10
351+00
850.6
Begin Ditch @ 350+50
C=70 sq. ft
C=9 sq. ft
851.4
F=602 sq. ft
C=13 sq. ft
844.5
853.70
350+00
848.8
Sta. 349+00
349+00
259 947
772 3145
158 751
317 2261
13 470
194 1985
92 602
298 2341
69 662

350+00 ~ 353+00



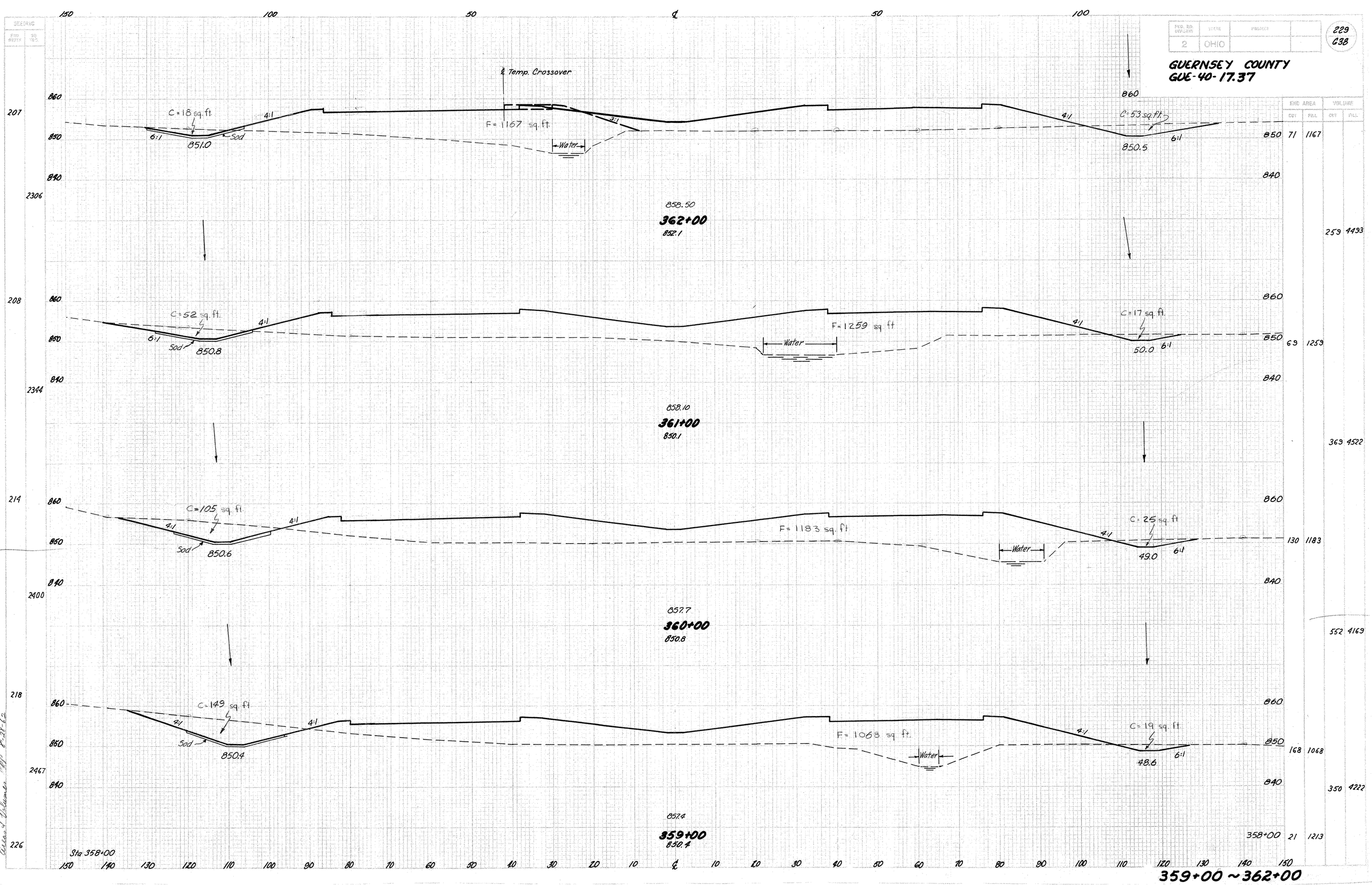
SEEDING
END WIDTH
SQ. YDS.
REG. NO. DIVISION
2
STATE
OHIO
PROJECT
227
638
GUERNSEY COUNTY
GUE-40-17.37
END AREA
VOLUME
CUT
FILL
Ex. Fence
C=87 sq. ft.
4:1
Sod
849.1
F=1061 sq. ft.
Water
C=27 sq. ft.
6:1
847.3
855.90
355+50
849.2
C=60 sq. ft.
3:1
5:1
849.0
F=1087 sq. ft.
C=9 sq. ft.
847.1
855.70
355+00
848.9
C=81 sq. ft.
2:1
848.9
F=1169 sq. ft.
C=17 sq. ft.
846.9
855.50
354+50
848.2
185 sq. ft.
848.8
F=1150 sq. ft.
C=23 sq. ft.
846.7
855.30
354+00
848.2
Sta. 353+00
224
1244
1242
223
1233
221
2528
234
114 1061
170 1989
69 1087
156 2089
98 1169
283 2148
208 1150
865 3883
259 947

354+00 ~ 355+50

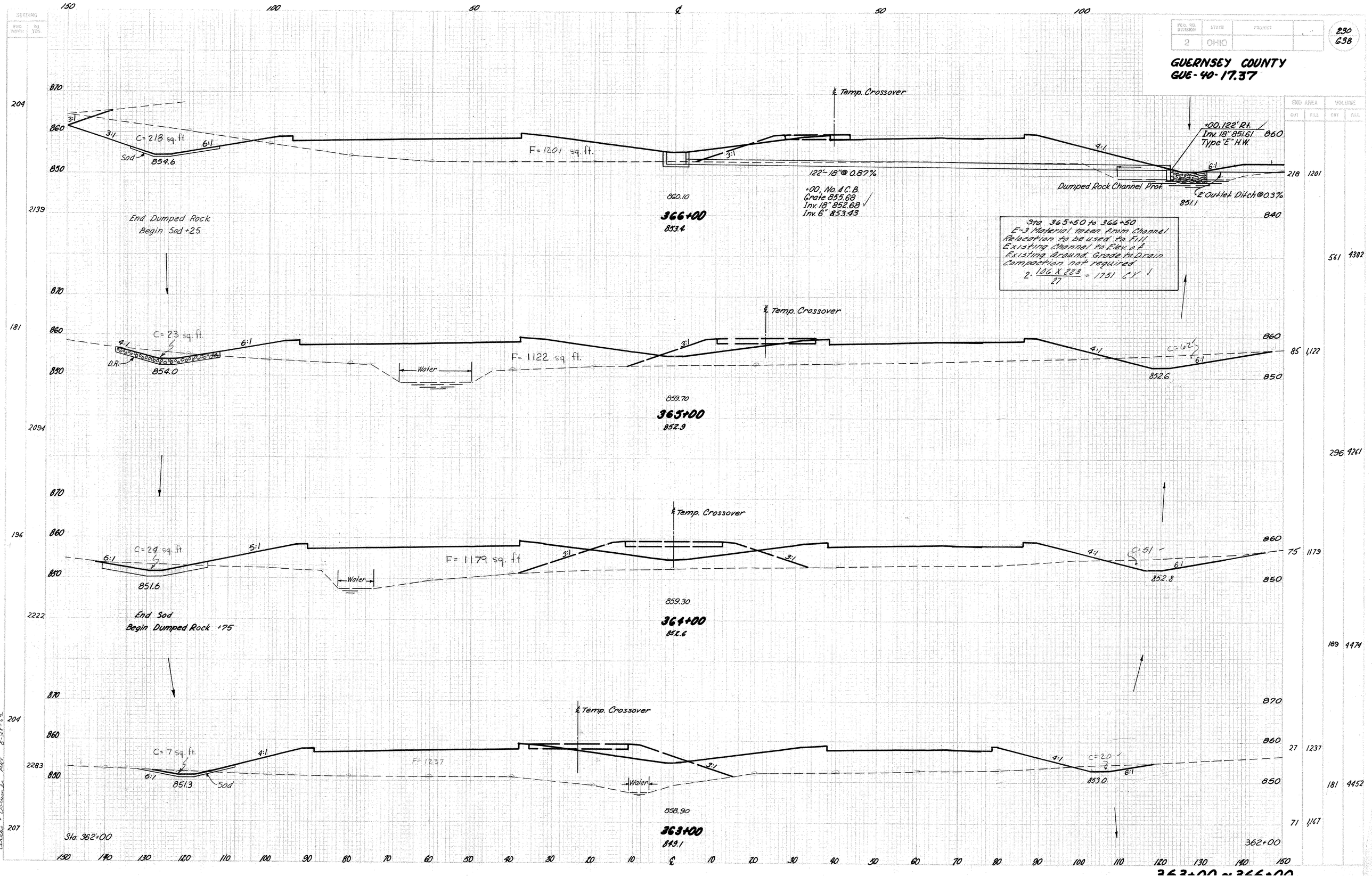


FED. RD. DIVISION 2
STATE OHIO
228
638
GUERNSEY COUNTY
GUE-40-17.37
SECTION
END WIDTH
NO. YDS.
END AREA
VOLUME
CUT
FILL
226
2500
224
1253
227
1247
222
1239
244
C=9 sq. ft.
4:1
6:1
849.6
Sod
Control
F=1213 sq. ft.
Water
C=12 sq. ft.
848.4
856.90
358+00
849.7
C=5 sq. ft.
849.4
F=1173 sq. ft.
C=18 sq. ft.
848.0
856.50
357+00
849.9
C=34 sq. ft.
849.3
F=1148 sq. ft.
C=22 sq. ft.
847.8
856.30
356+50
849.3
C=146 sq. ft.
849.2
F=931 sq. ft.
115'~15" @ 1.03%
+00, No. 4 C.B.
Grate 851.68
Inv. 15" 848.68
+00, 115' Rt.
Inv. 15" 847.50
Type "E" H.W.
C=47
Dumped Rock Channel Prot.
847.0
2' Outlet Ditch @ 0.30%
856.10
356+00
849.9
355+50
21 1213
78 4419
21 1173
72 2150
56 1148
231 1926
193 931
285 1845
114 1061
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

356+00~358+00



FED. RD. DIVISION 2
STATE OHIO
PROJECT
229
G38
GUERNSEY COUNTY
GUE-40-17.37
SEEDING
END WIDTH
SQ. YDS.
END AREA
VOLUME
CUT
FILL
℄ Temp. Crossover
C=18 sq. ft.
F=1167 sq. ft.
C=53 sq. ft.
851.0
850.5
Sod
Water
858.50
362+00
852.1
C=52 sq. ft.
F=1259 sq. ft.
C=17 sq. ft.
850.8
50.0
858.10
361+00
850.1
C=105 sq. ft.
F=1183 sq. ft.
C=25 sq. ft.
850.6
49.0
857.7
360+00
850.8
C=149 sq. ft.
F=1068 sq. ft.
C=19 sq. ft.
850.4
48.6
857.4
359+00
850.4
Sta 358+00
358+00
207
2306
208
2344
214
2400
218
2467
226
71 1167
259 4493
69 1259
369 4522
130 1183
552 4169
168 1068
350 4222
21 1213
359+00 ~ 362+00

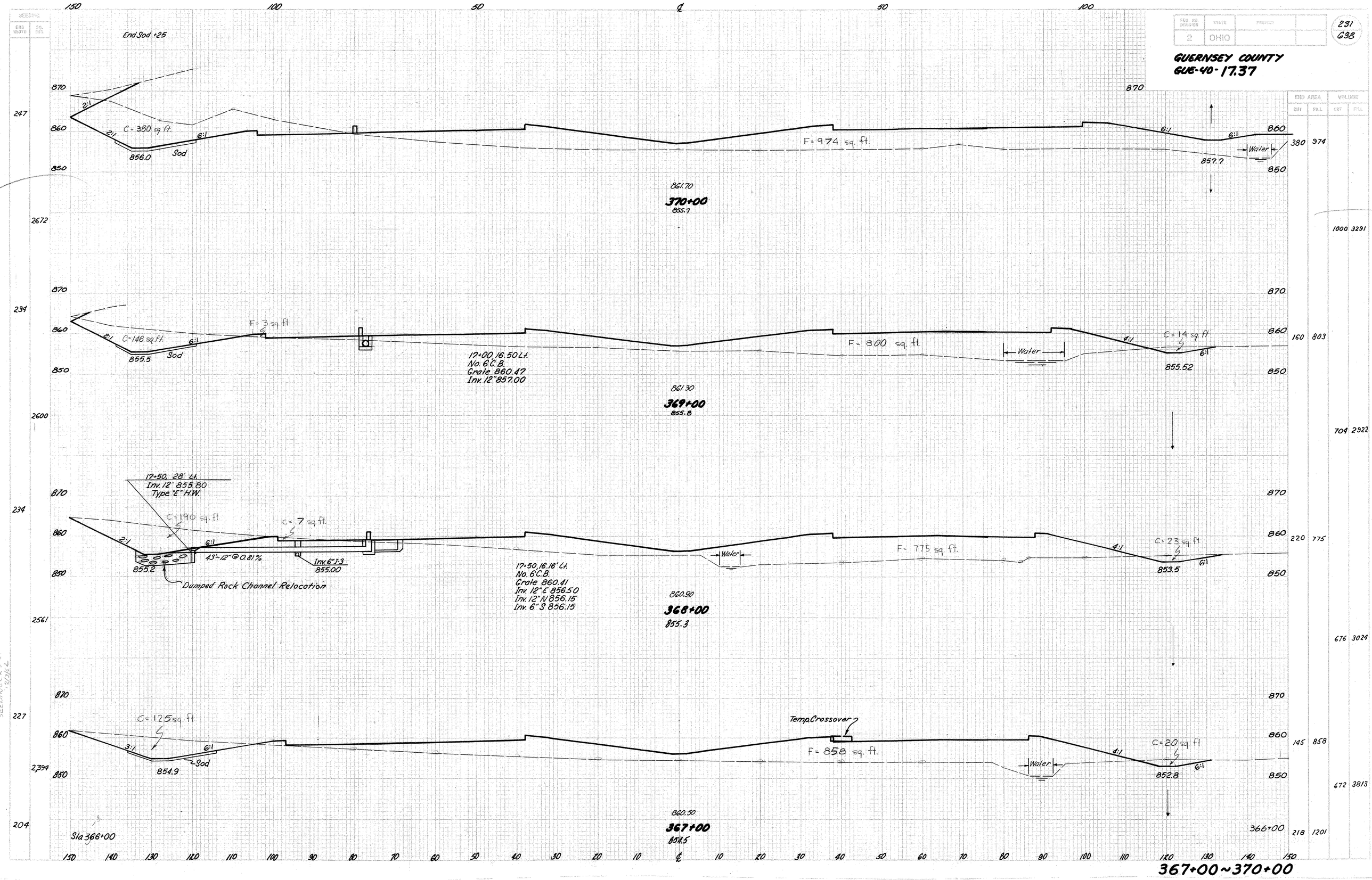


FED. RD. DIVISION 2
STATE OHIO
PROJECT
230
638
GUERNSEY COUNTY
GUE-40-17.37
END AREA
VOLUME
CUT
FILL
℄ Temp. Crossover
C=218 sq. ft
Sod
854.6
F=1201 sq. ft.
122'-18" @ 0.87%
+00, No. 4 C.B.
Grate 855.68
Inv. 18" 852.68
Inv. 6" 853.43
+00, 122' Rt.
Inv. 18" 851.61
Type "E" H.W.
Dumped Rock Channel Prot.
2' Outlet Ditch @ 0.3%
851.1
860.10
366+00
853.4
End Dumped Rock
Begin Sod +25
Sta. 365+50 to 366+50
E-3 Material taken from Channel Relocation to be used to Fill Existing Channel to Elev. of Existing Ground. Grade to Drain Compaction not required
2 · 106 X 223 / 27 = 1751 C.Y.
C=23 sq. ft.
D.R.
854.0
F=1122 sq. ft.
Water
C=62
852.6
859.70
365+00
852.9
C=24 sq. ft
851.6
F=1179 sq. ft
C=51
852.8
859.30
364+00
852.6
End Sod
Begin Dumped Rock +75
C=7 sq. ft.
851.3
Sod
F=1237
C=20
853.0
858.90
363+00
849.1
Sta. 362+00
362+00
218 1201
561 4302
85 1,122
296 4261
75 1179
189 4474
27 1237
181 4452
71 1,167
363+00 ~ 366+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

231
638

GUERNSEY COUNTY
GUE-40-17.37



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
380	974		
		1000	3291
160	803		
		704	2922
220	775		
		676	3024
145	858		
		672	3813
218	1201		

367+00~370+00

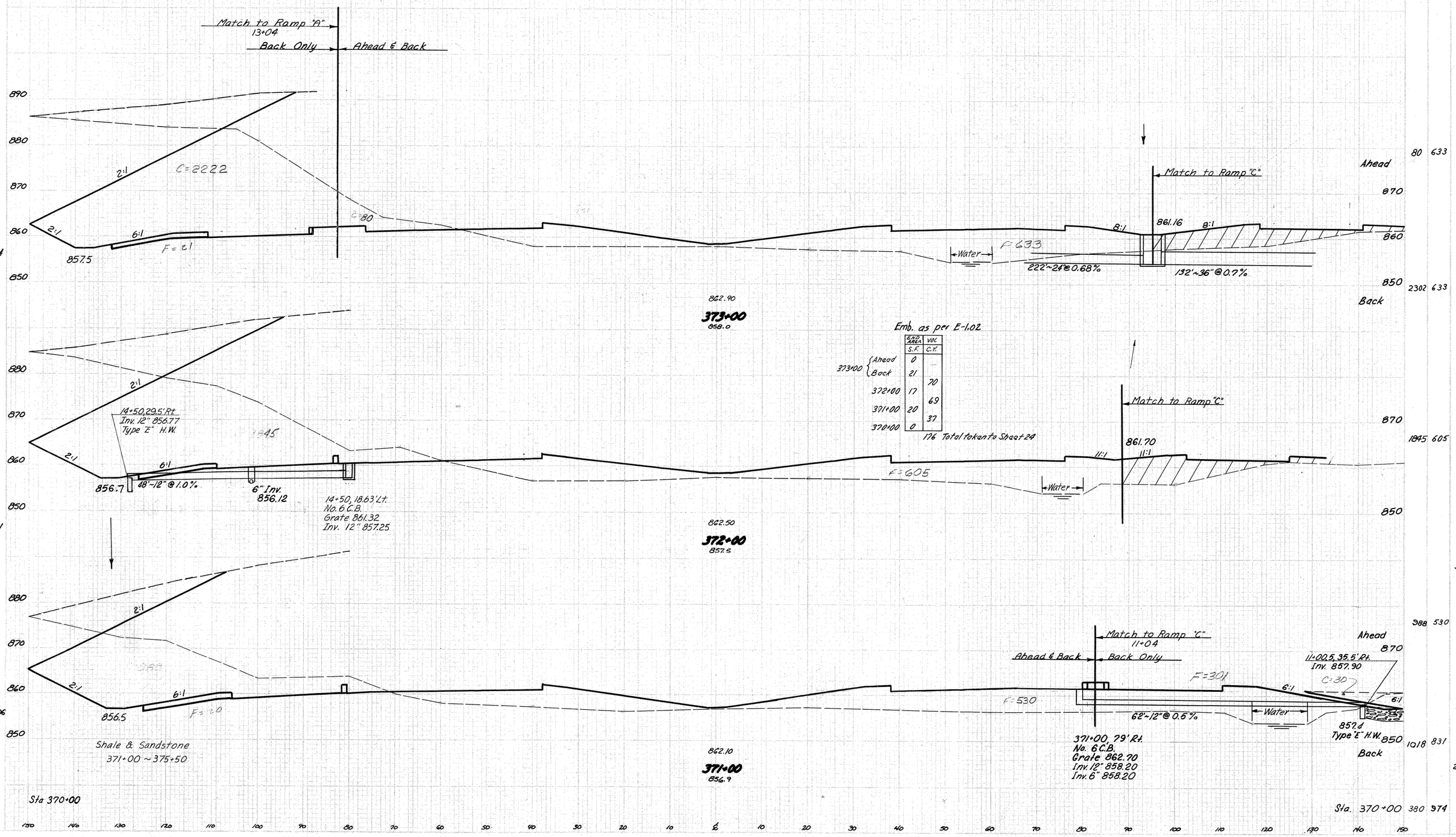
SHEDDING

SHD WIDTH	SHD SLOPE

FED. AID DIVISION	STATE	PROJECT		SHEET NO.	TOTAL SHEETS
2	OHIO			232	638

GUERNSEY COUNTY
GUE-40-17.37

END AREA		VOLUME	
CUT	FILL	CUT	FILL

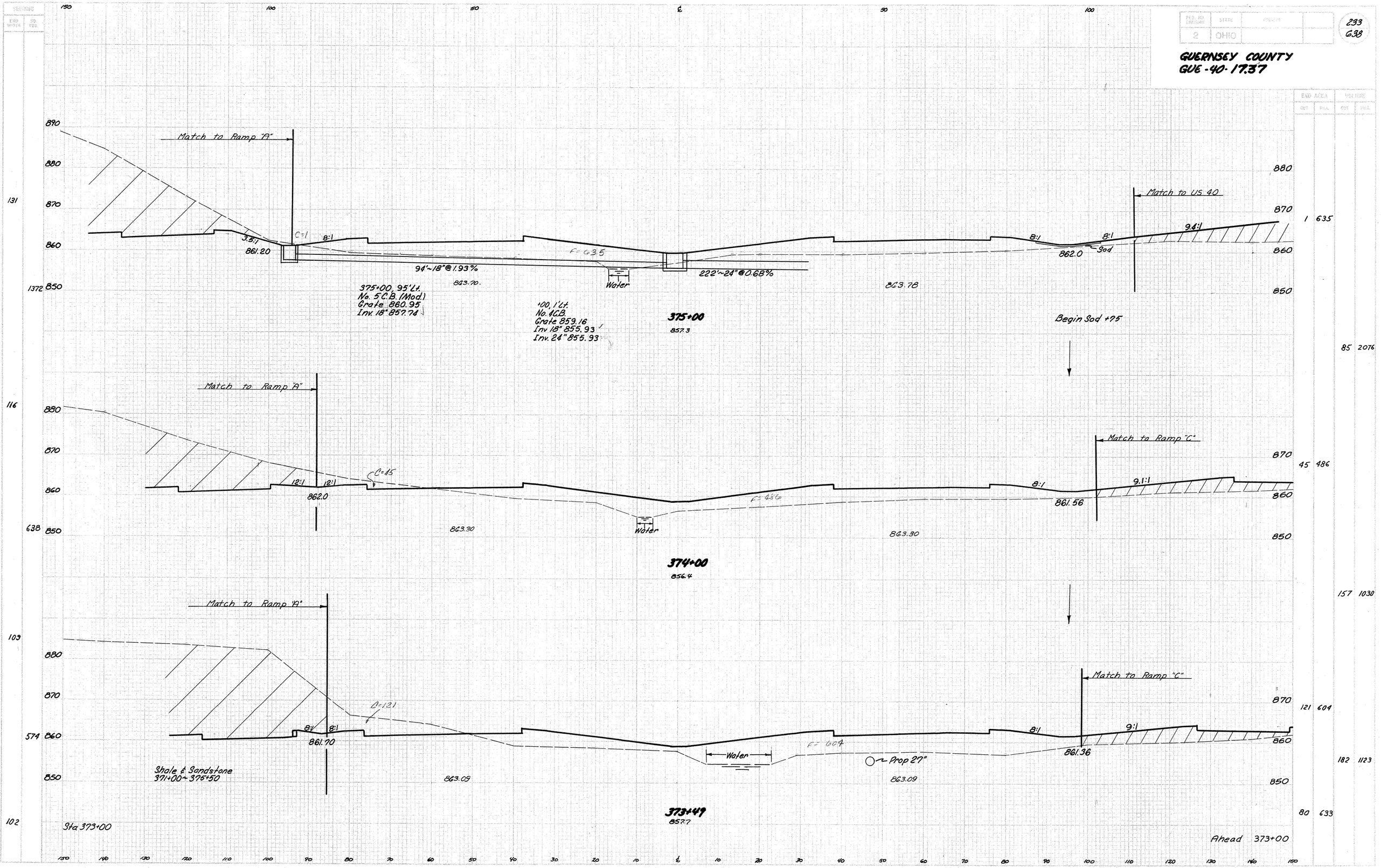


371+00 ~ 373+00

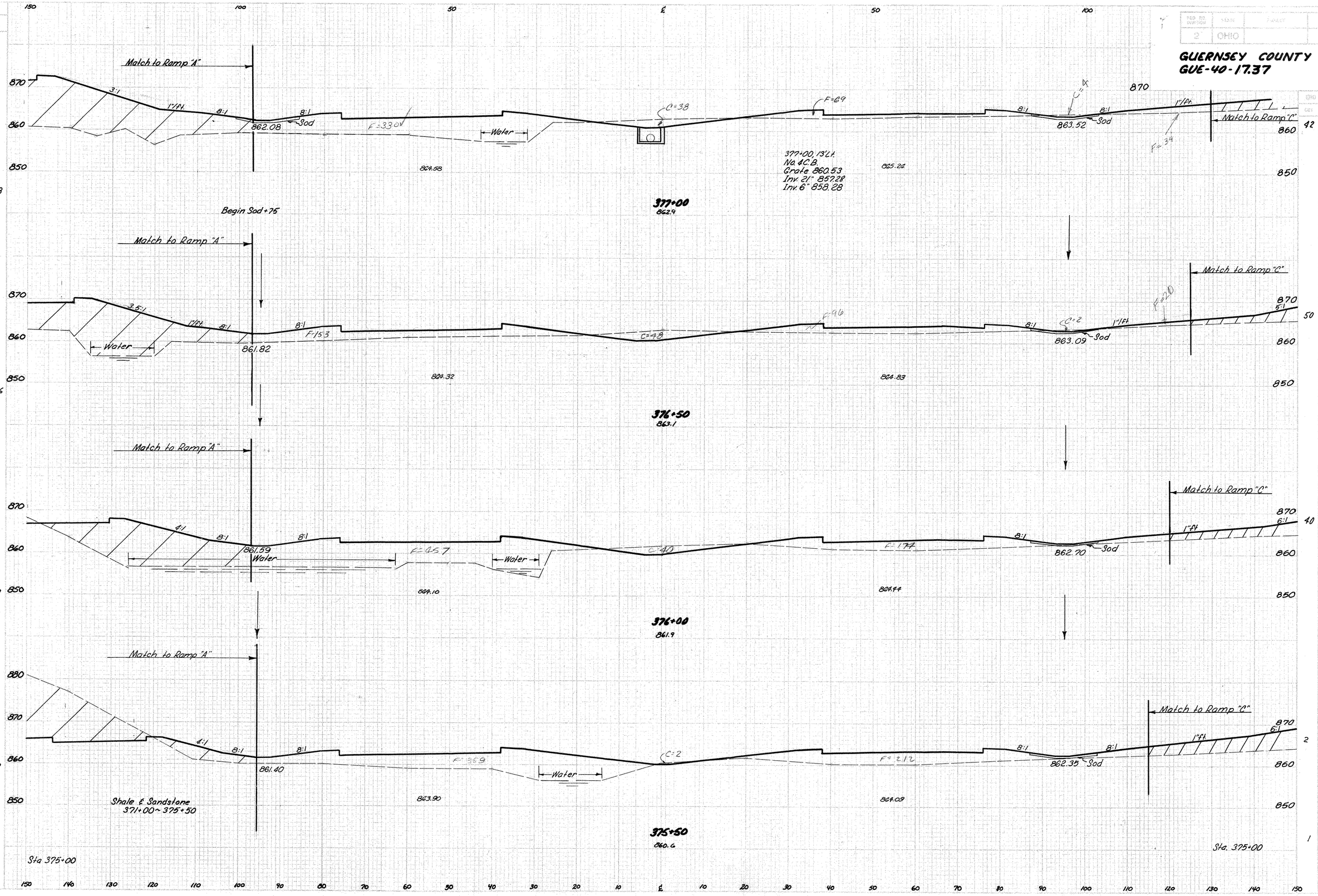
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

233
638

GUERNSEY COUNTY
GUE-40-17.37

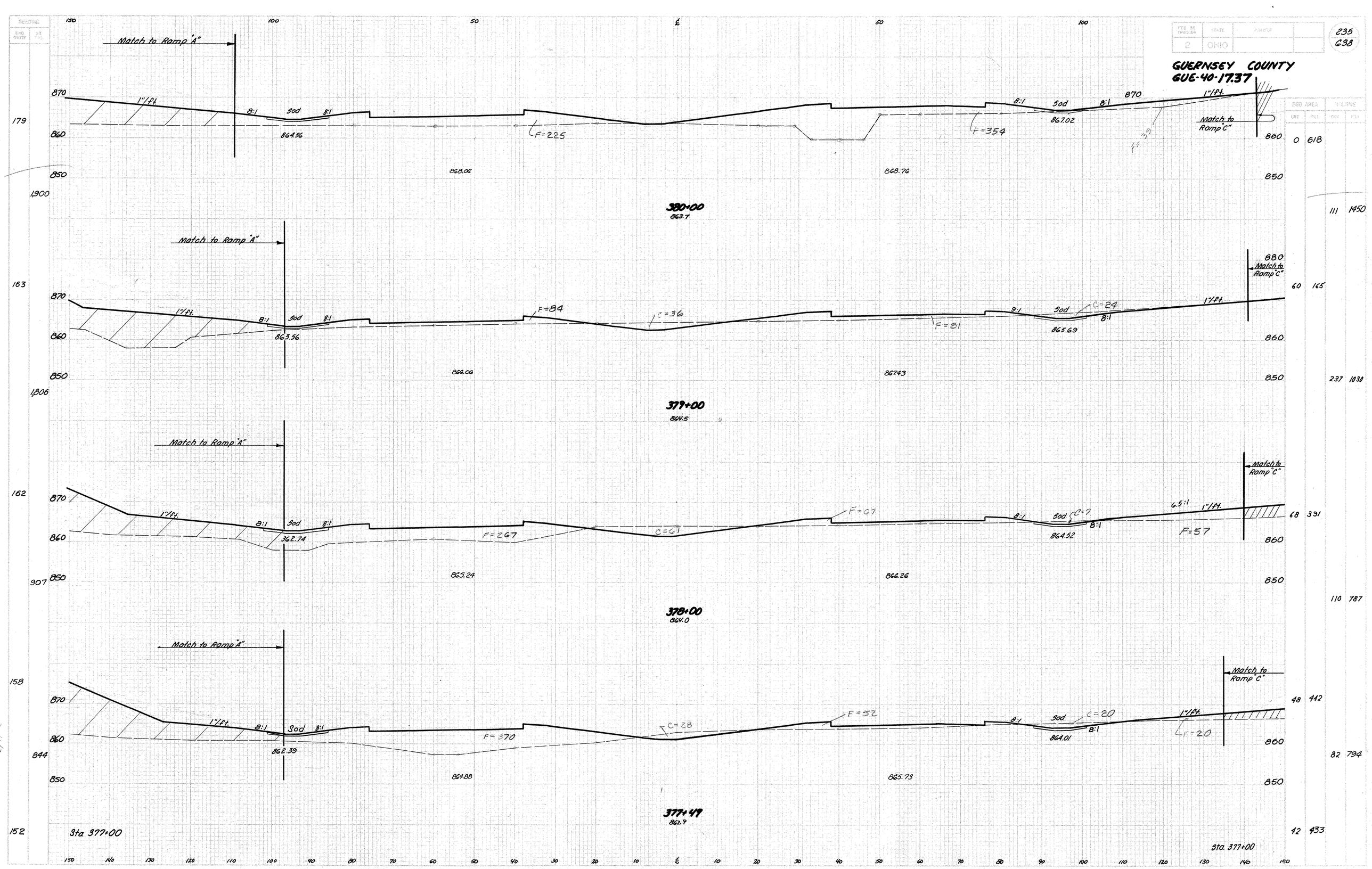


373+49~375+00



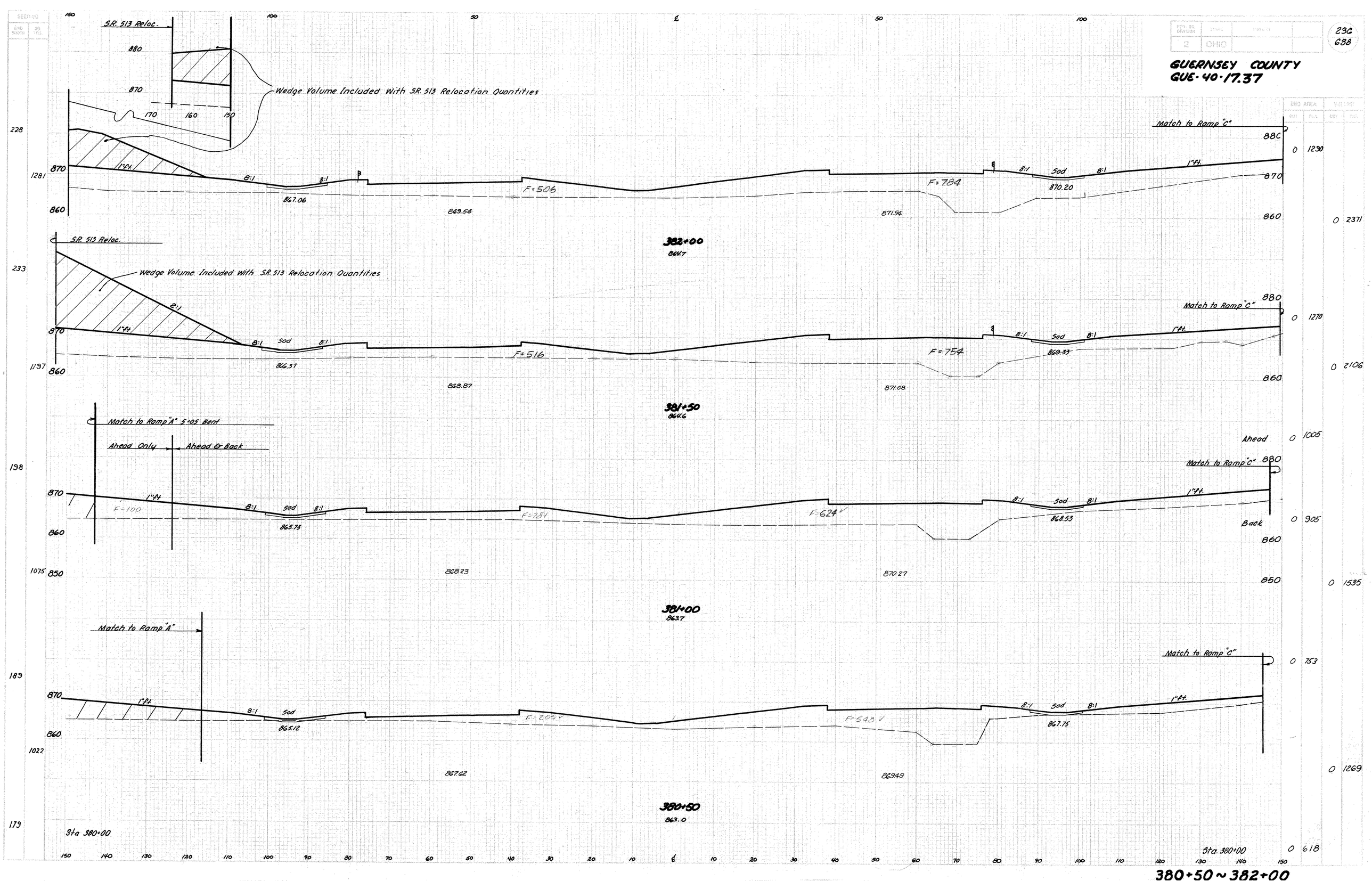
GUERNSEY COUNTY
GUE-40-17.37
234
638
Match to Ramp "A"
Match to Ramp "C"
Begin Sod+75
377+00, 13' Lt.
No. 4 C.B.
Grate 860.53
Inv. 21" 857.28
Inv. 6" 858.28
377+00
862.9
376+50
863.1
376+00
861.9
375+50
860.6
Water
Sod
Shale & Sandstone
371+00~375+50
Sta 375+00
Sta. 375+00

375+50 ~ 377+00



FED. RD. DIVISION 2
STATE OHIO
235
638
GUERNSEY COUNTY
GUE-40-17.37
Match to Ramp "A"
Match to Ramp "C"
1"/ft.
8:1
Sod
F=225
F=354
F=39
864.56
867.02
868.06
868.76
380+00
863.7
F=84
C=36
F=81
C=24
863.56
865.69
866.06
867.43
379+00
864.5
F=267
C=61
F=67
C=7
F=57
6.5:1
362.74
864.52
865.24
866.26
378+00
864.0
F=370
C=28
F=52
C=20
F=20
862.39
864.01
864.88
865.73
377+49
862.9
Sta. 377+00

377+49 ~ 380+00



GUERNSEY COUNTY
GUE-40-17.37
2
OHIO
23C
638
S.R. 513 Reloc.
Wedge Volume Included With S.R. 513 Relocation Quantities
Match to Ramp "C"
F=506
F=784
Sod
8:1
1"ft.
867.06
869.56
871.94
870.20
382+00
864.7
S.R. 513 Reloc.
Wedge Volume Included With S.R. 513 Relocation Quantities
2:1
F=516
F=754
866.37
868.87
871.08
869.33
381+50
864.6
Match to Ramp "A" 5+05 Bent
Ahead Only
Ahead & Back
F=100
F=281
F=624
865.73
868.23
870.27
868.53
Ahead
Back
381+00
863.7
Match to Ramp "A"
F=205
F=548
865.12
867.62
869.49
867.75
380+50
863.0
Sta 380+00
Sta. 380+00
0 1290
0 2371
0 1270
0 2106
0 1005
0 905
0 1535
0 753
0 1269
0 618

380+50 ~ 382+00

FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO		

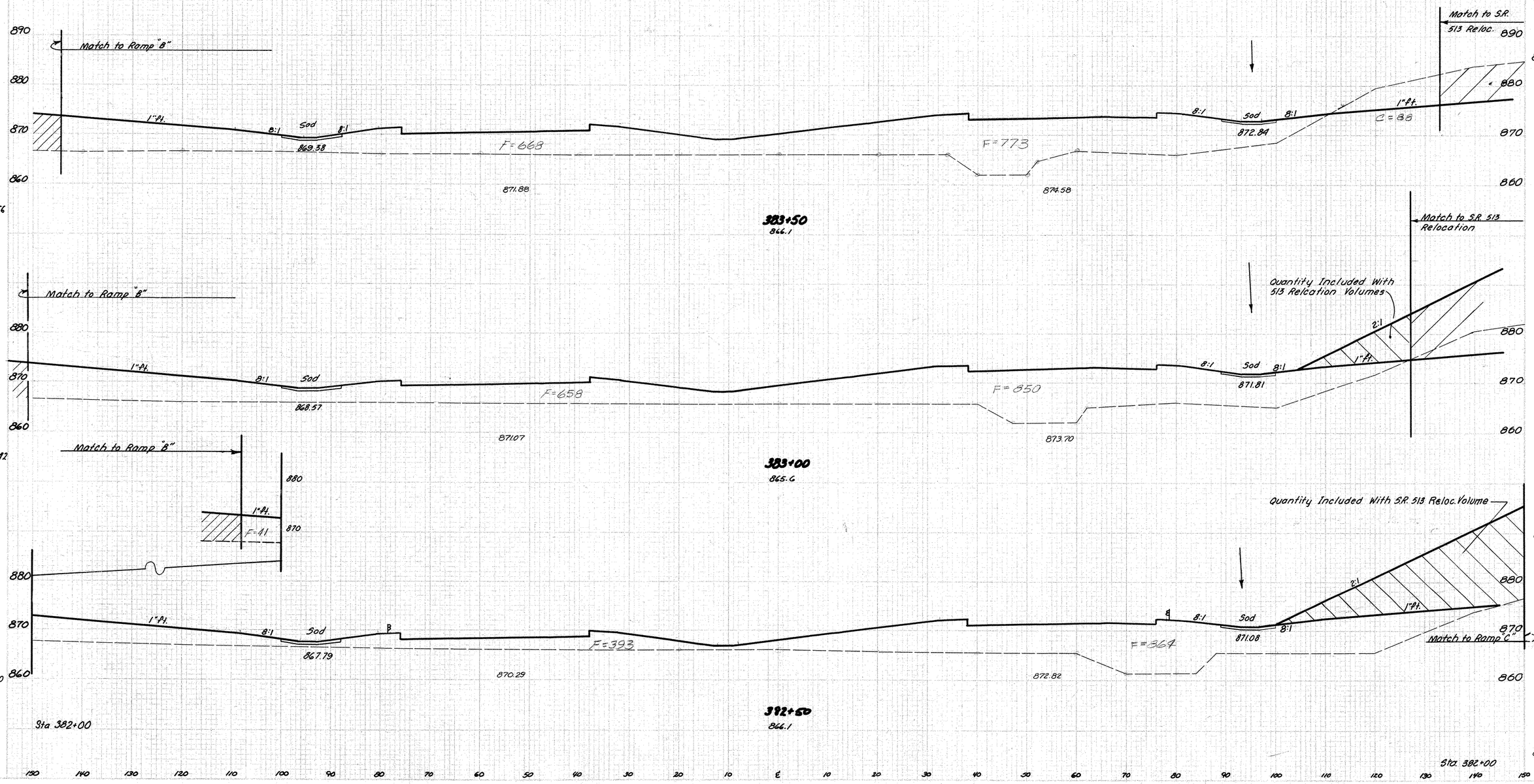
237
638

GUERNSEY COUNTY
GUE-40-17.37

SEEDING

END AREA		VOLUME	
CUT	FILL	CUT	FILL

150 100 50 ℄ 50 100



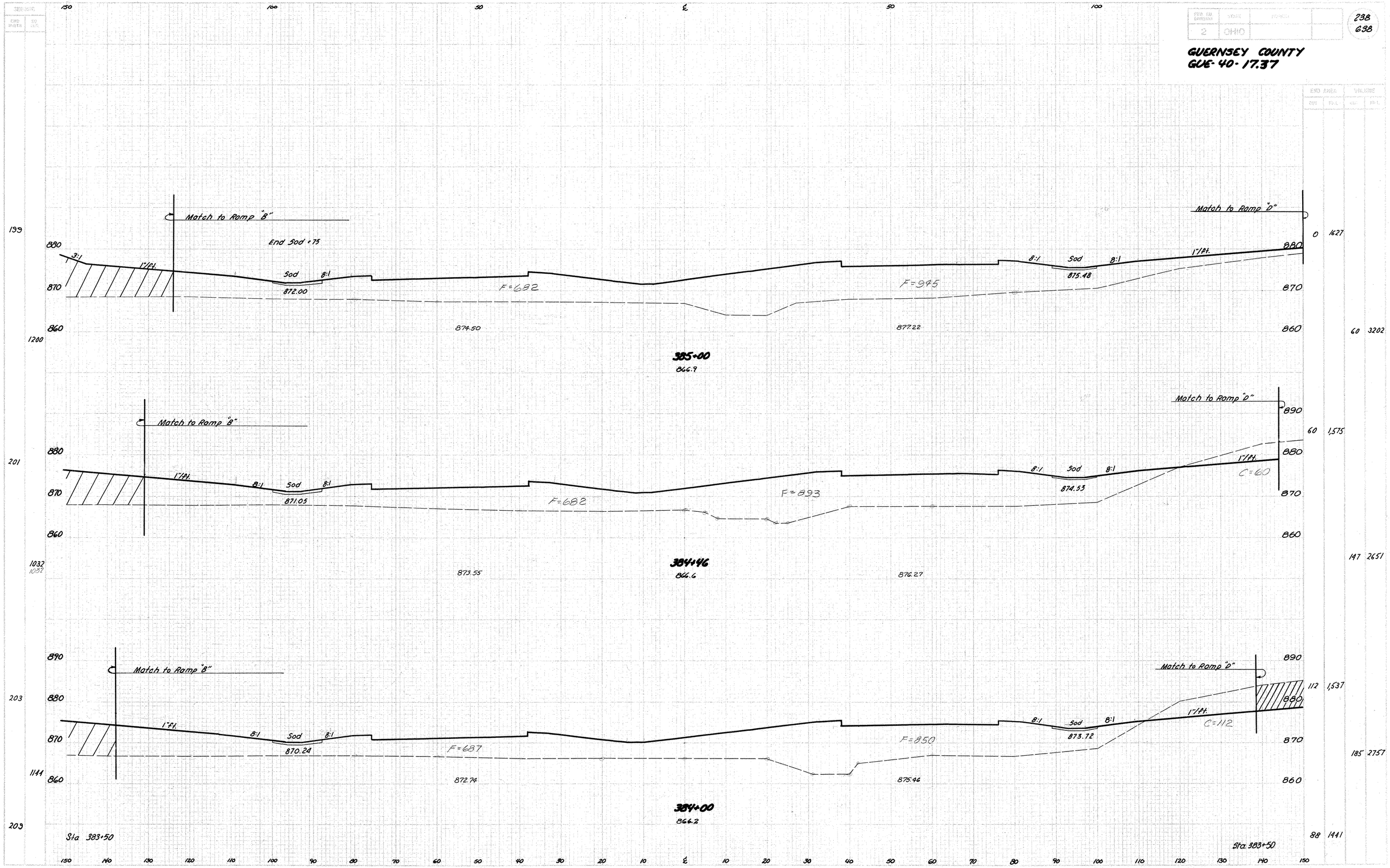
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

382+50 ~ 383+50

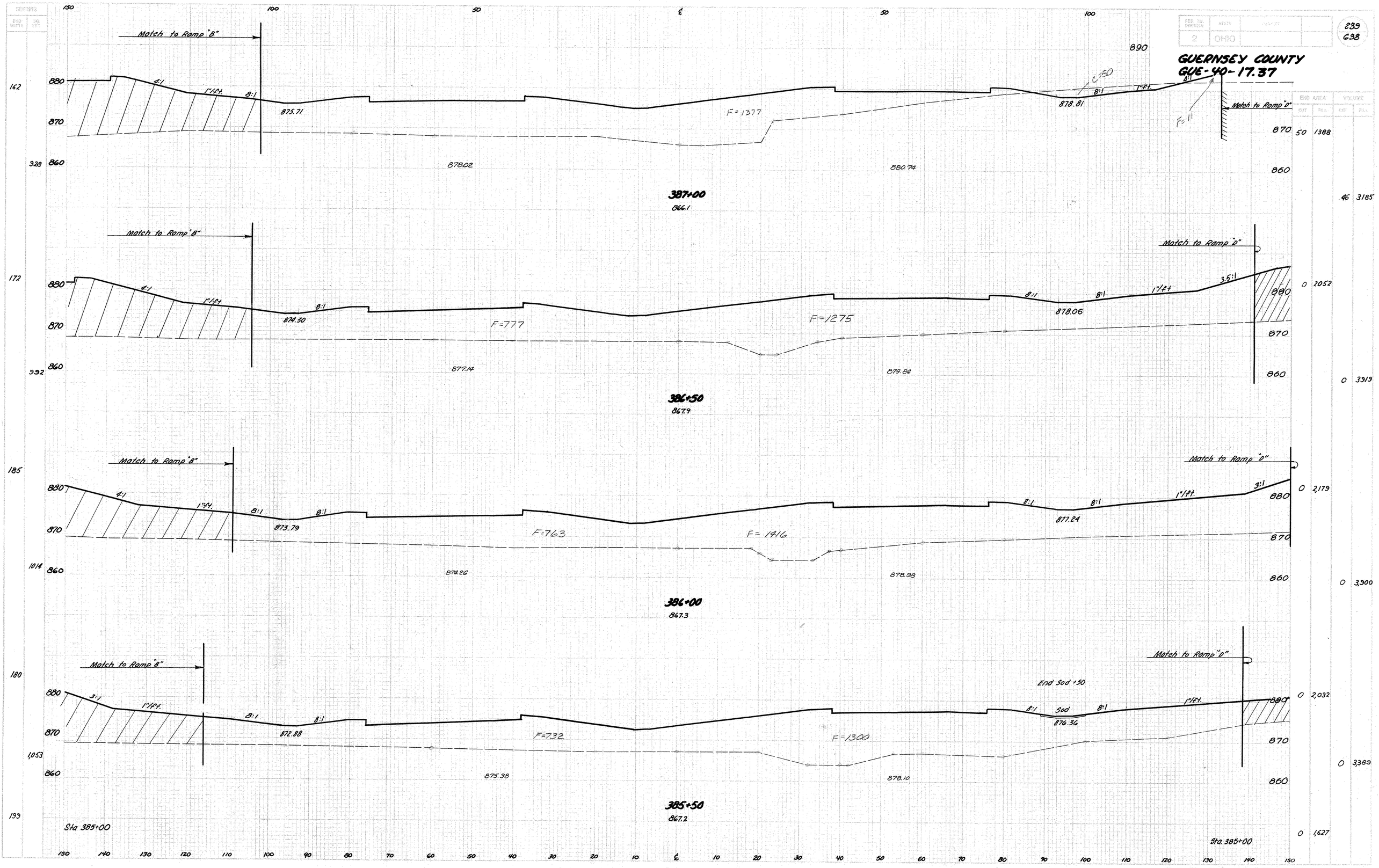
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

238
638

GUERNSEY COUNTY
GUE-40-17.37



384+00 ~ 385+00

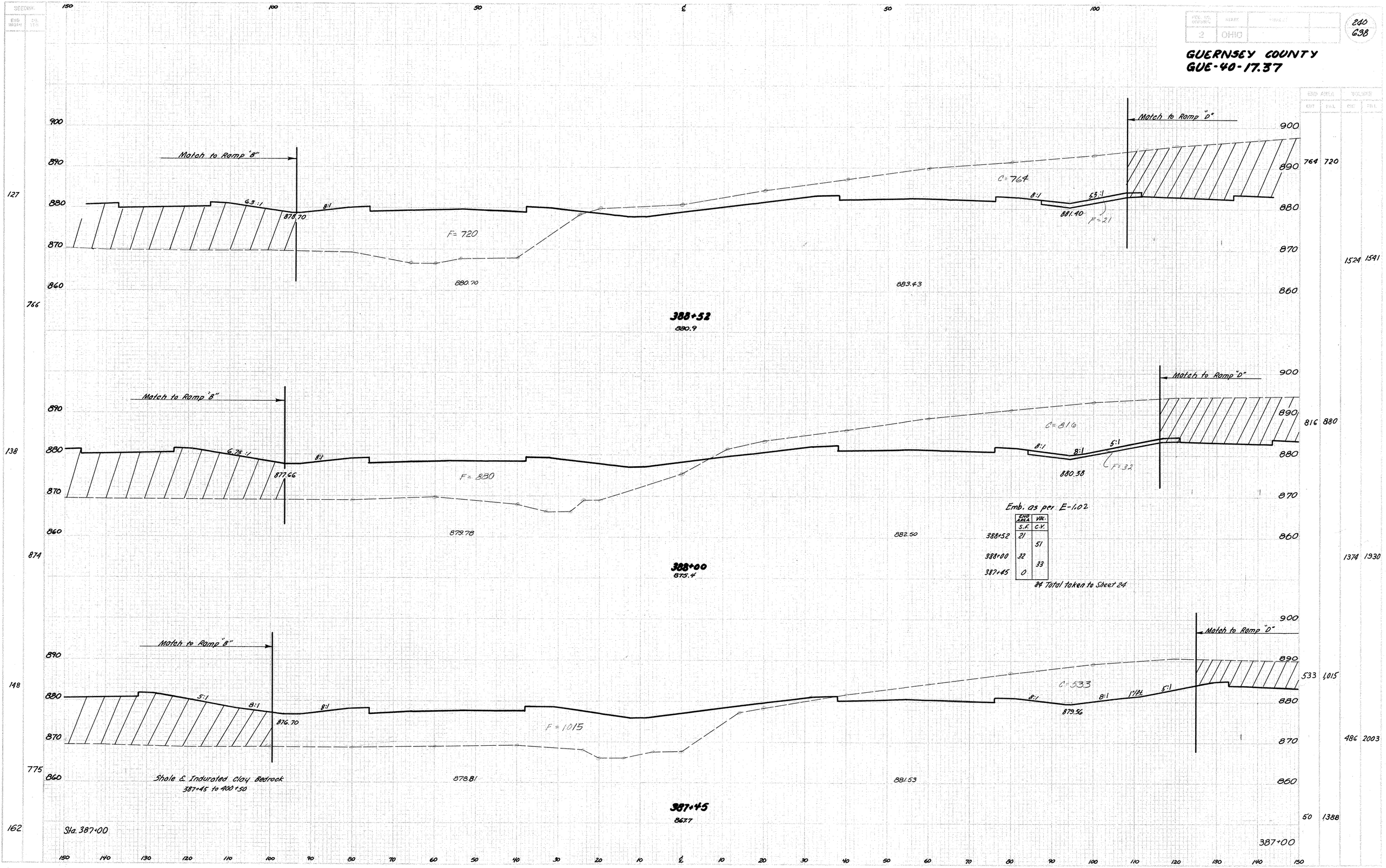


FED. RD. DIVISION 2
STATE OHIO
239
638
GUERNSEY COUNTY
GUE-40-17.37
Match to Ramp "B"
Match to Ramp "D"
4:1
1"/ft.
8:1
875.71
878.02
F=1377
880.74
878.81
C=50
F=11
387+00
866.1
874.30
877.14
F=777
879.86
F=1275
878.06
3.5:1
386+50
867.9
873.79
876.26
F=763
878.98
F=1416
877.24
3:1
386+00
867.3
872.88
875.38
F=732
878.10
F=1300
876.36
End Sod +50
Sod
385+50
867.2
Sta 385+00
162
928
172
992
185
1014
180
1,053
199
50 1388
46 3185
0 2052
0 3919
0 2,179
0 3,900
0 2,032
0 3,389
0 1,627

385+50~387+00

FED. RD. DIVISION 2 | STATE OHIO | PROJECT | 240 638

GUERNSEY COUNTY
GUE-40-17.37



Emb. as per E-1.02

	END AREA S.F.	VOL. C.Y.
388+52	21	
		51
388+00	32	
		33
387+45	0	

84 Total taken to Sheet 24

	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
127	764	720		
766			1524	1541
138	816	880		
874			1374	1930
148	533	1,015		
775			486	2003
162	50	1388		

387+45 ~ 388+52

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

221
638

GUERNSEY COUNTY
GUE-40-17.37

SECTIONS		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
				1030	180
				1338	289
				1240	324
				2480	744
				1781	1013
				764	720

150 100 50 ℄ 50 100

910 900 890 880 870

35

Match to Ramp "B"

883.70

F=180

883.04

C=1090

Match to Ramp "D"

8:1 6:1

F=10

884.75

886.03

389+85

888.3

828.3

322
322

910 900 890 880 870

92

Match to Ramp "B"

1½"/ft. 1½"/ft.

883.40

F=324

882.99

20'-15" M.G.A(W) at 21.45%

Inv. 872.3

Proposed 15'-6"x 9'-5" at 389+30

885.39

C=1240

Match to Ramp "D"

8:1 6:1

F=15

883.70

Emb. as per E-1.02

END AREA S.F.	VOL. C.Y.
389+85 10	14
389+54 15	39
389+00 24	40
388+52 21	

93 Total taken to Sheet 24

389+54

889.4

389+55, 12'Lt.
No. 4 C.B.
Grate 879.59
Inv. 12" 876.59

624

900 890 880 870 860

116

Match to Ramp "B"

8:1 8:1

879.75

F=420

881.54

C=1240

Match to Ramp "D"

8:1 6:1

F=24

882.70

884.32

Shale & Induroted Clay Bedrock
387+45 to 400+50

648

389+00

888.6

127

Sta 388+52

388+52

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

389+00 ~ 389+85

SEE HRG

END AREA		VOLUME	
CUT	FILL	CUT	FILL

SHT. NO.	STATE	PROJECT	
2	OHIO		

262
G38

GUERNSEY COUNTY
GUE-40-17.37

150 100 50 E 50 100

910 900 890 880 870

C=1 6:1 F=146 C=357 C=1632 2:1 8:1 2:1 F=14

359 884.23 887.51 884.95 882.6 4568 293

C=24 6:1 6:1 876.5

200 190 180 170 160 150

2138

390+53
887.3'

Emb. as per E-1.02

Sta	Area S.F.	Vol. C.Y.
390+53	14	
Ahead	30	43
390+00 Back	8	
	10	5

48 Total taken to Sheet 24

Full Section 390+00 Ahead

2640 152

910 900 890 880 870

Match to Ramp "B" 10+01
Ahead Only
Ahead & Back
Ahead & Back
Match to Ramp "D" 10+00
Ahead Only

367 Ahead Only

C=926 C=1690 2:1

6:1 F=127 F=25 8:1 8:1 F=8 F=6 F=16 2:1

Shale & Indurated Clay

926 25

Back Only C=24 8:1 6:1 876.0

84 149 95

883.30 886.35 882.6

390+00
888.0'

Back 390+00

Shale & Indurated Clay Bedrock
387+45 to 400+50

560 57

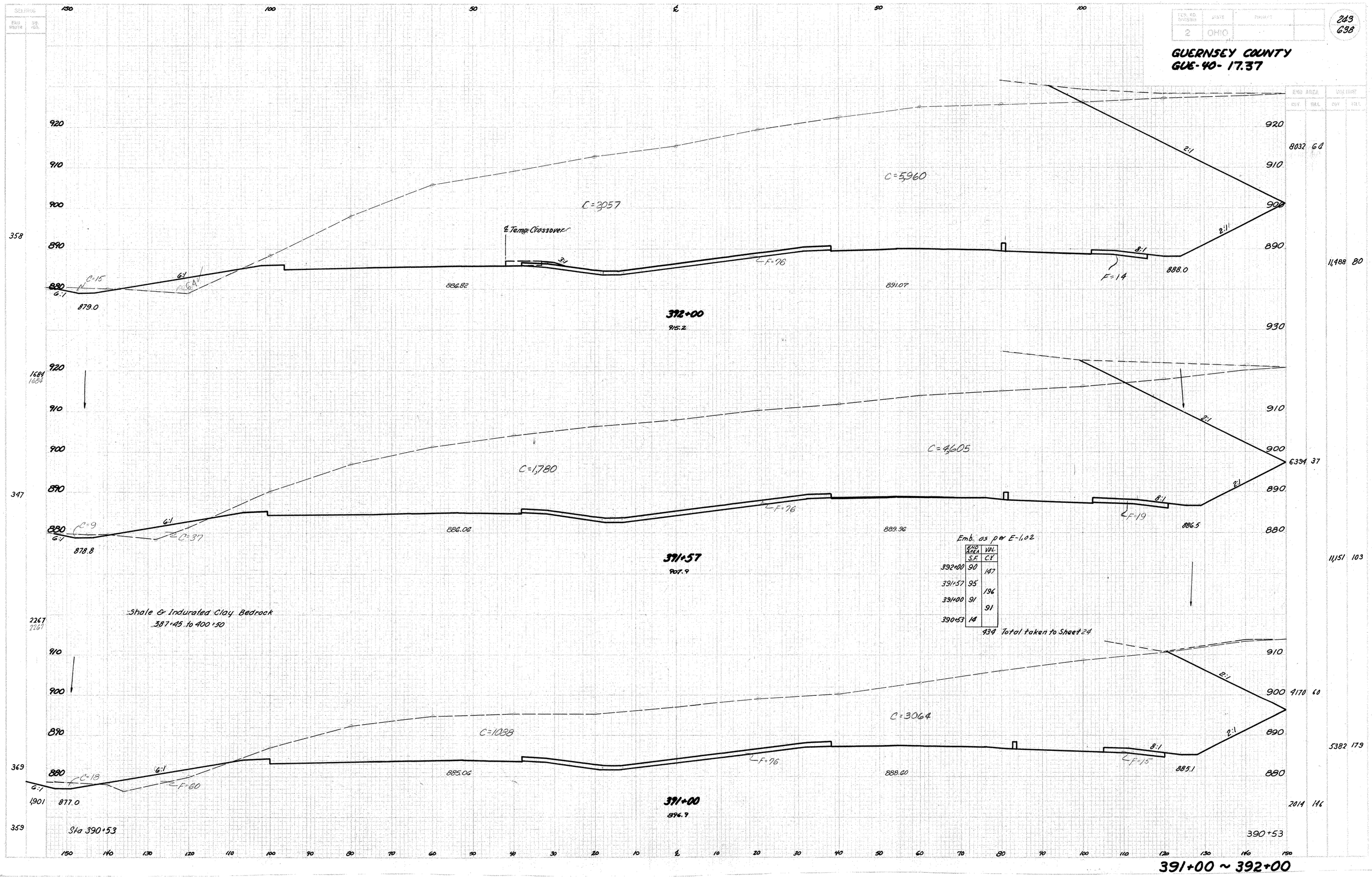
Sta 389+85

1030 180

389+85

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 E 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

390+00 ~ 390+53

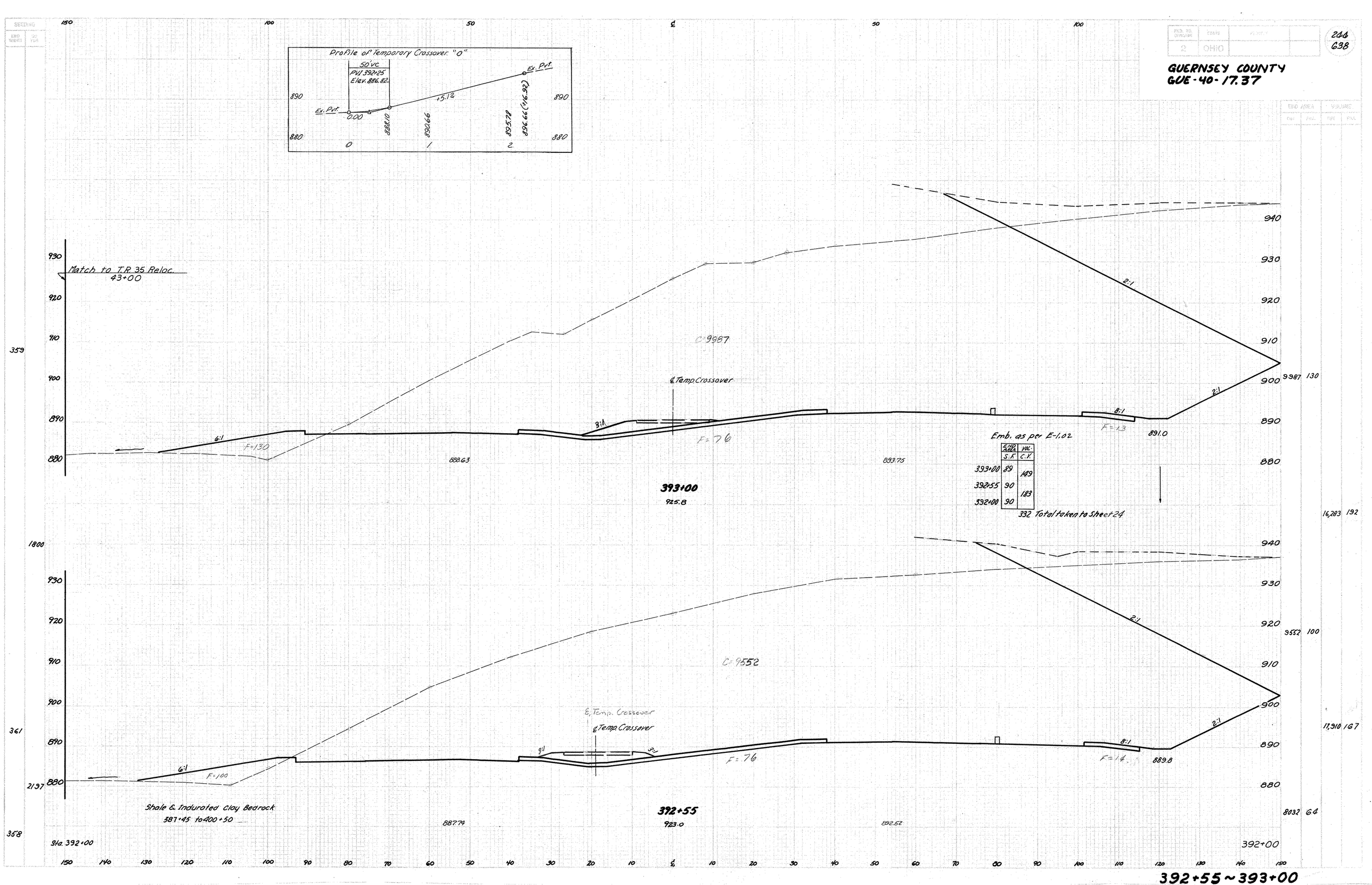


Emb. as per E-1,02

	END AREA S.F.	VOL. C.Y.
392+00	90	
		147
391+57	95	
		196
391+00	91	
		91
390+53	14	

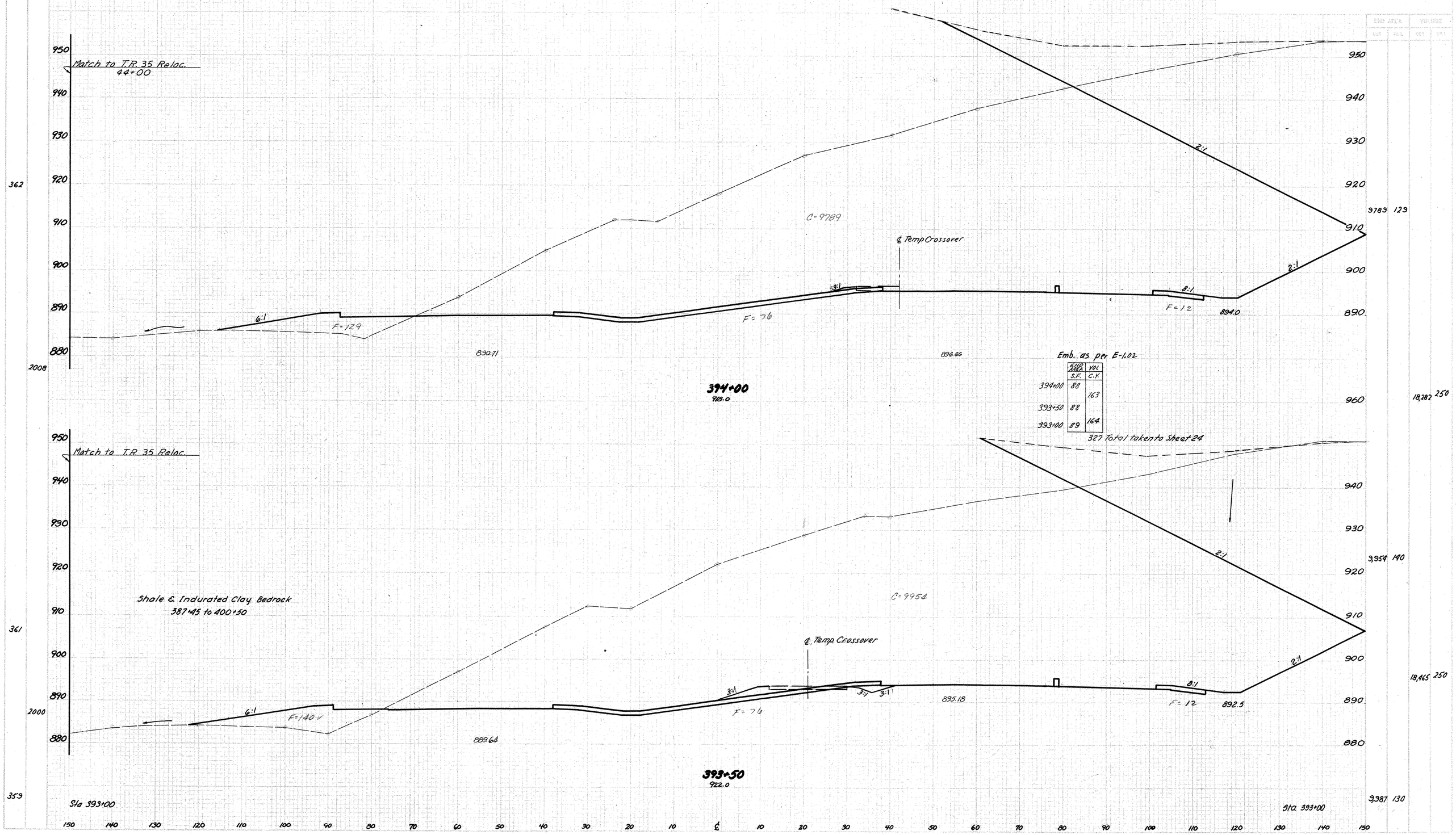
434 Total taken to Sheet 24

391+00 ~ 392+00



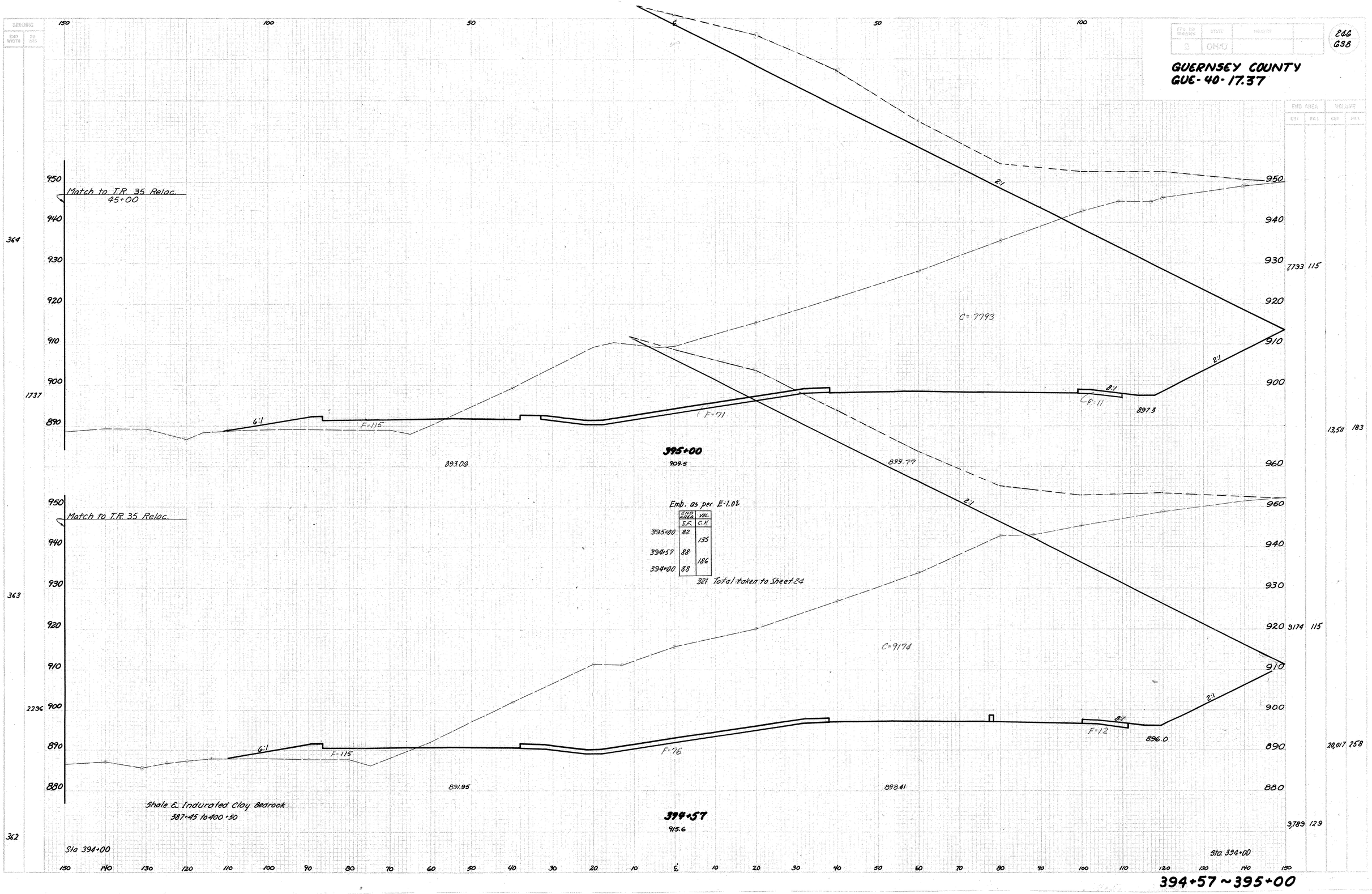
244
638
2 OHIO
GUERNSEY COUNTY
GUE-40-17.37
Profile of Temporary Crossover "0"
50'vc
PVI 392+25
Elev. 886.82
Ex. Pvt.
0.00
888.10
890.66
895.78
896.66 (+16.92)
+5.12
Match to T.R. 35 Reloc.
43+00
C=9987
℄ Temp. Crossover
6:1
F=130
3:1
F=76
8:1
F=13
2:1
888.63
893.75
891.0
393+00
925.8
Emb. as per E-1.02
END AREA S.F. | VOL. C.Y.
393+00 89 149
392+55 90 183
392+00 90
332 Total taken to Sheet 24
C=9552
℄ Temp. Crossover
F=100
F=76
F=14
889.8
Shale & Indurated Clay Bedrock
387+45 to 400+50
392+55
923.0
887.74
892.52
Sta. 392+00
392+00
392+55 ~ 393+00

GUERNSEY COUNTY
GUE-40-17.37



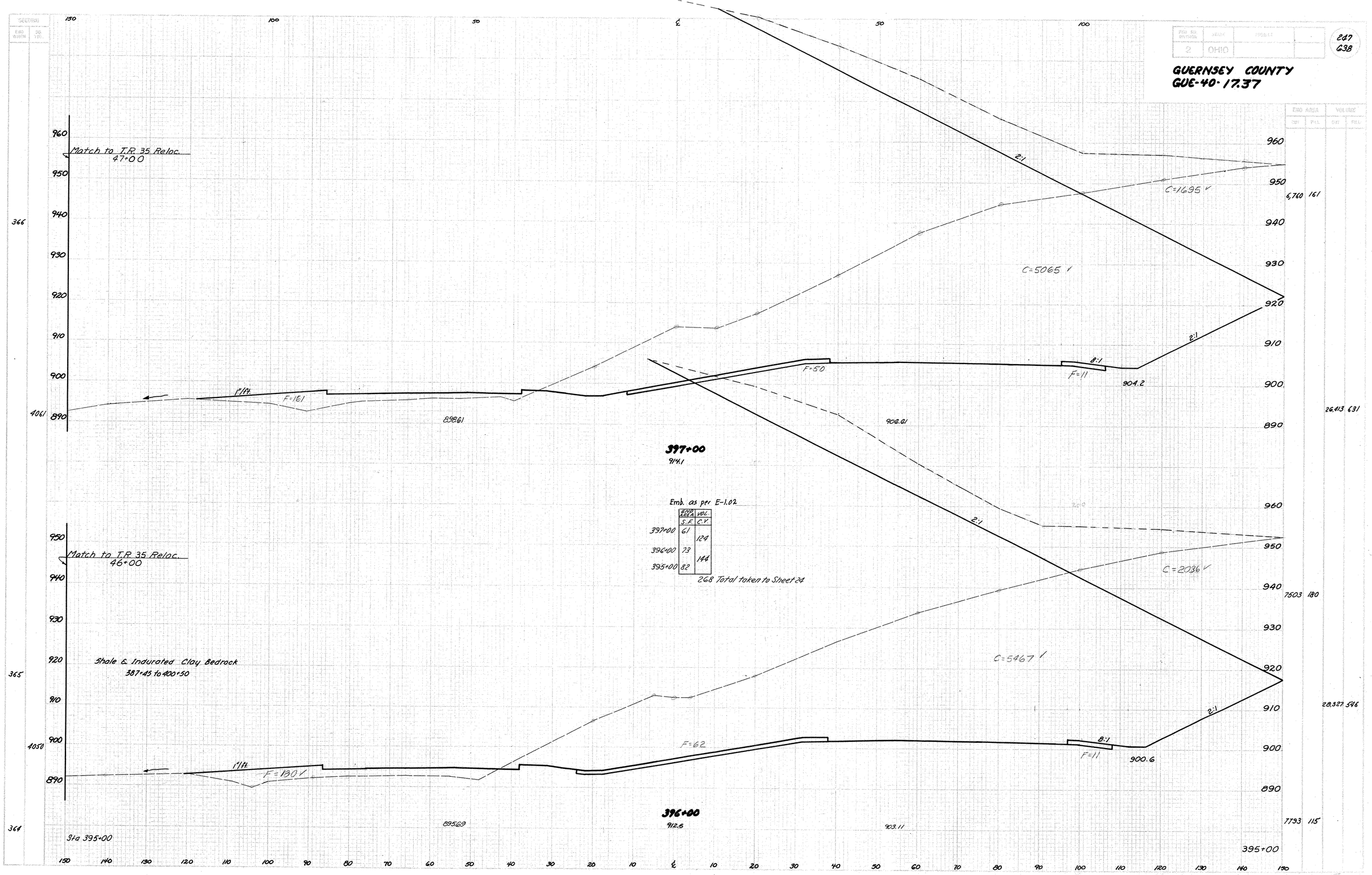
	END AREA S.F.	VOL C.Y.
394+00	88	
		163
393+50	88	
		164
393+00	89	

393+50 ~ 394+00



GUERNSEY COUNTY
GUE-40-17.37
246
638
Match to T.R. 35 Reloc.
45+00
Match to T.R. 35 Reloc.
C=7793
C=9174
F=115
F=71
F=11
F=12
F=76
6:1
8:1
2:1
893.06
899.77
897.3
891.95
898.41
896.0
395+00
909.5
394+57
915.6
Emb. as per E-1.02
END AREA S.F. | VOL. C.Y.
395+00 82
135
394+57 88
186
394+00 88
321 Total taken to Sheet 24
Shale & Indurated Clay Bedrock
387+45 to 400+50
Sta 394+00
Sta 394+00
7,793 115
13,511 183
9,174 115
20,017 258
9,789 129
364
363
362
1737
2296

394+57 ~ 395+00

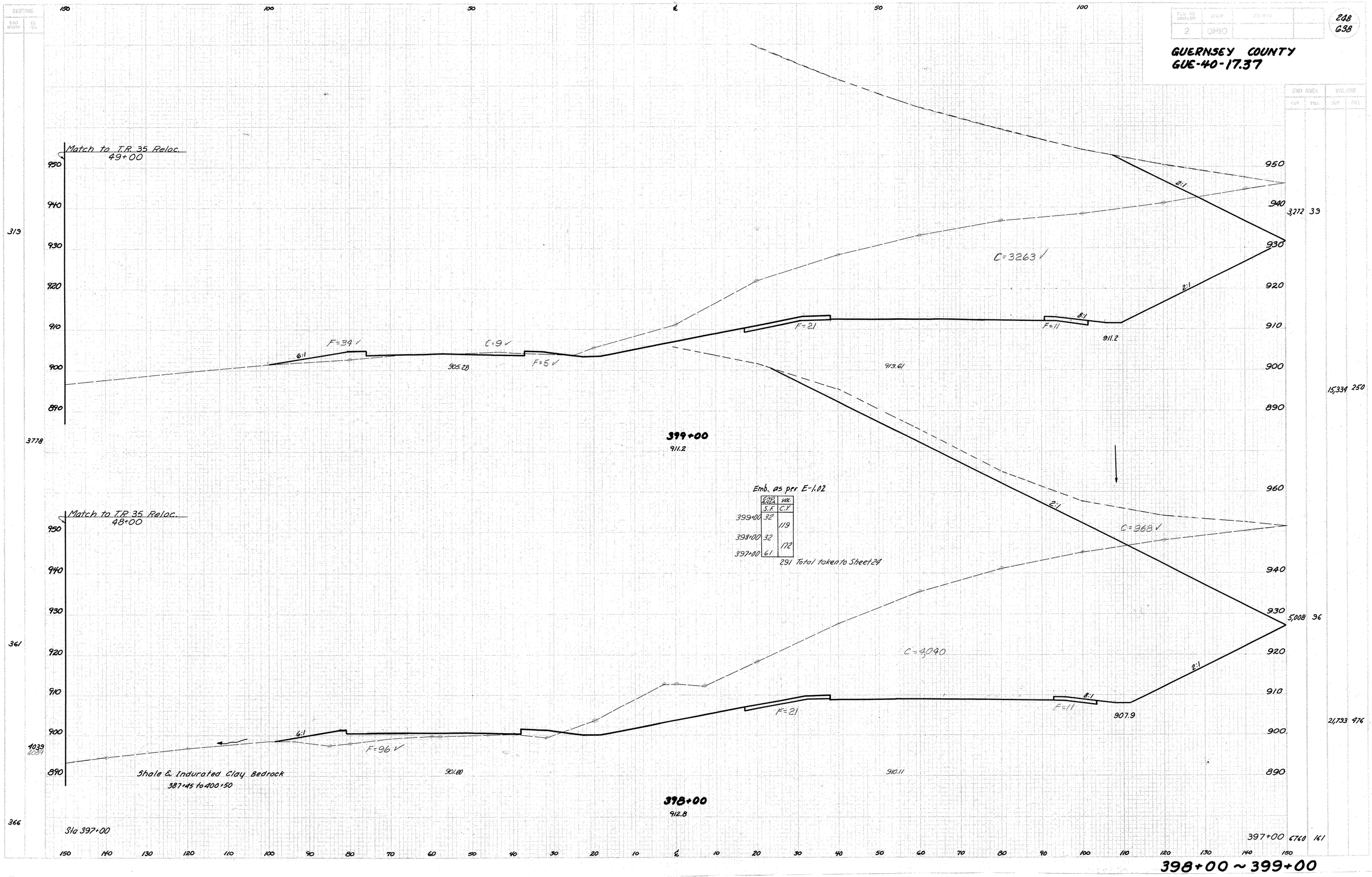


Emb. as per E-1.02

	END AREA S.F.	VOL. C.Y.
397+00	61	
		124
396+00	73	
		144
395+00	82	

268 Total taken to Sheet 24

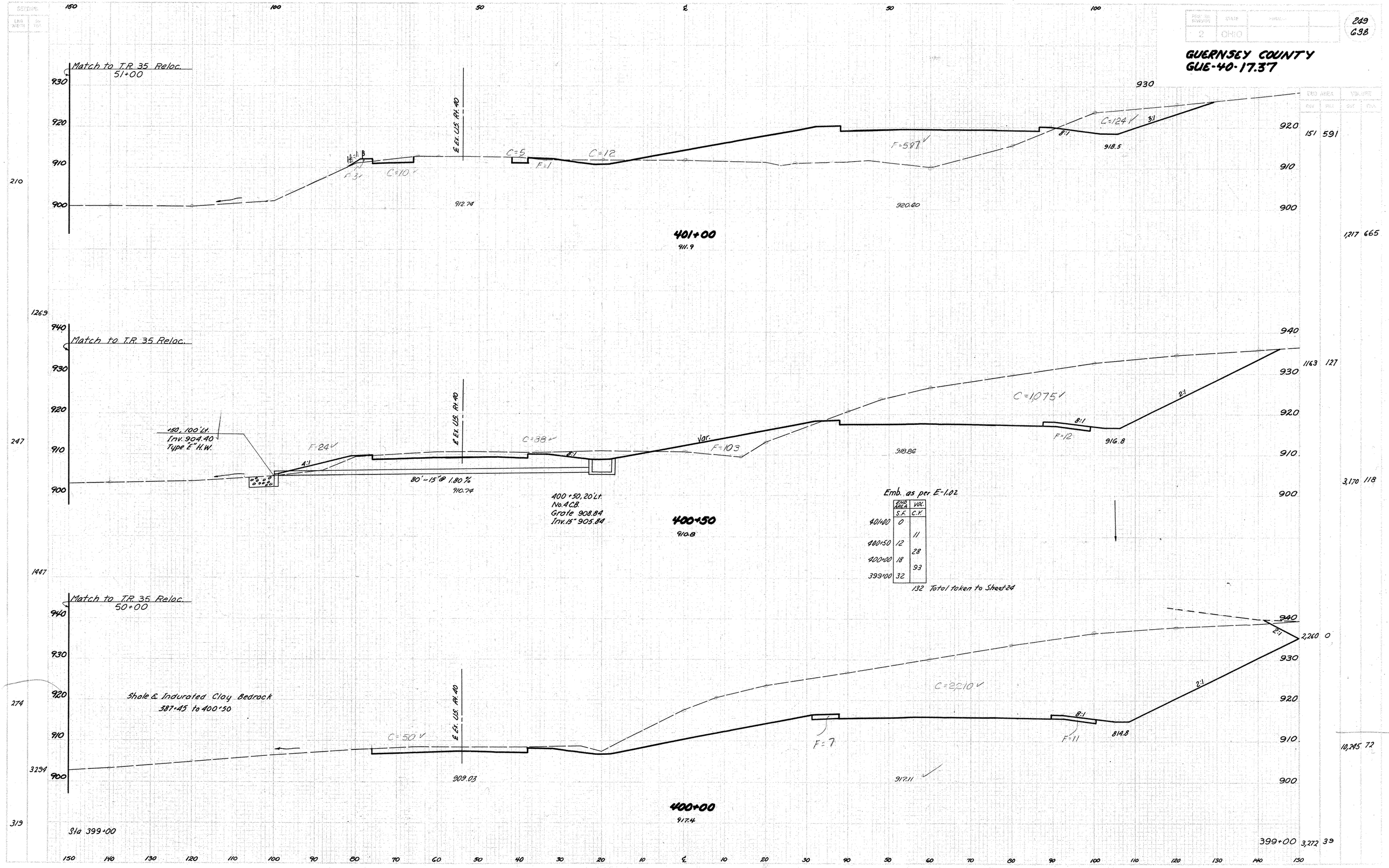
396+00 & 397+00



2 OHIO
248
638
GUERNSEY COUNTY
GUE-40-17.37
Match to T.R. 35 Reloc.
49+00
Match to T.R. 35 Reloc.
48+00
399+00
911.2
398+00
912.8
Sta 397+00
Emb. as per E-1.02
END AREA S.F. VOL. C.Y.
399+00 32
119
398+00 32
172
397+00 61
291 Total taken to Sheet 24
C=3263
C=968
C=4040
F=34
F=5
F=21
F=11
F=96
6:1
8:1
2:1
905.28
913.61
911.2
901.80
910.11
907.9
Shale & Indurated Clay Bedrock
387+45 to 400+50
3,272 39
15,334 250
5,008 96
21,793 476
6760 161
319
3778
361
4039
366

398+00 ~ 399+00

GUERNSEY COUNTY
GUE-40-17.37



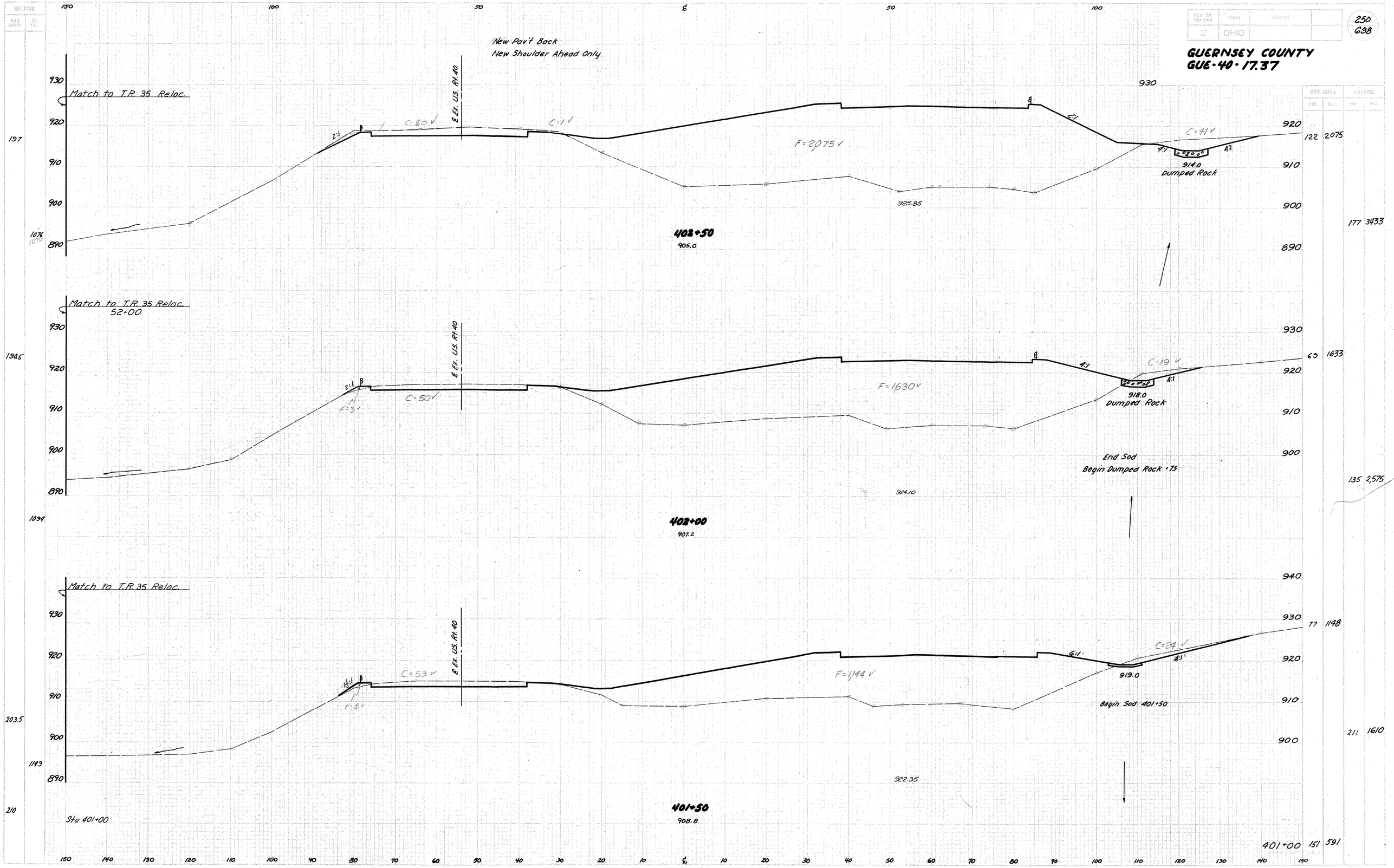
Emb. as per E-1.02

	END AREA S.F.	VOL. C.Y.
401+00	0	
		11
400+50	12	
		28
400+00	18	
		93
399+00	32	

132 Total taken to Sheet 24

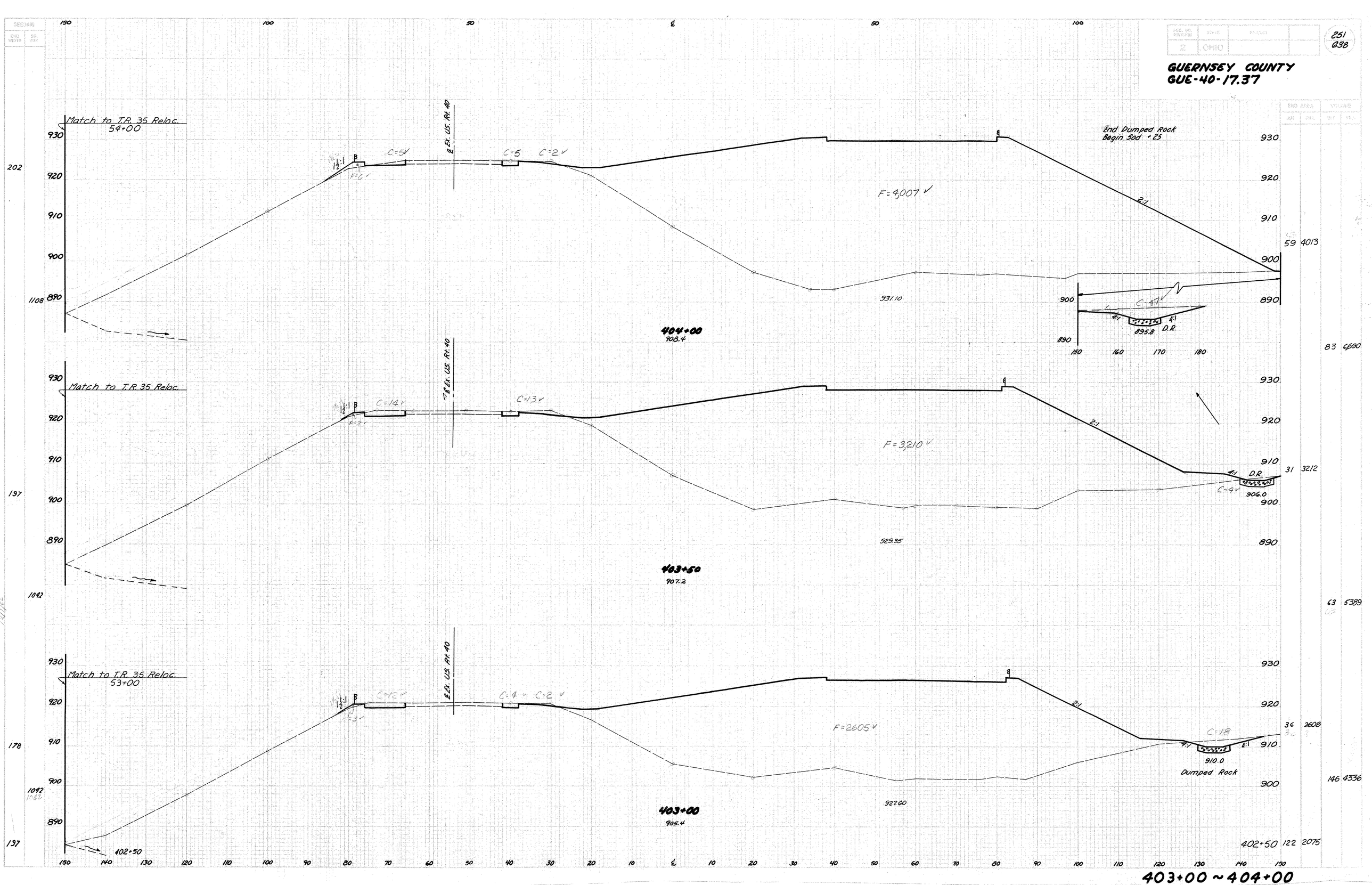
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
151	591		
		1,217	665
1163	127		
		3,170	118
2,260	0		
		10,245	72
3,272	39		

400+00~401+00



FED. RD. DIVISION 2
STATE OHIO
250
638
GUERNSEY COUNTY
GUE-40-17.37
New Pav't Back
New Shoulder Ahead Only
Match to T.R. 35 Reloc.
℄ Ex. U.S. Rt. 40
C=80
C=1
F=2075
C=41
914.0
Dumped Rock
925.85
402+50
905.0
Match to T.R. 35 Reloc.
52+00
C=50
F=1630
C=19
918.0
Dumped Rock
End Sod
Begin Dumped Rock +75
924.10
402+00
907.2
Match to T.R. 35 Reloc.
C=53
F=1144
C=24
919.0
Begin Sod 401+50
922.35
401+50
908.8
Sta 401+00
401+00

401+50 ~ 402+50



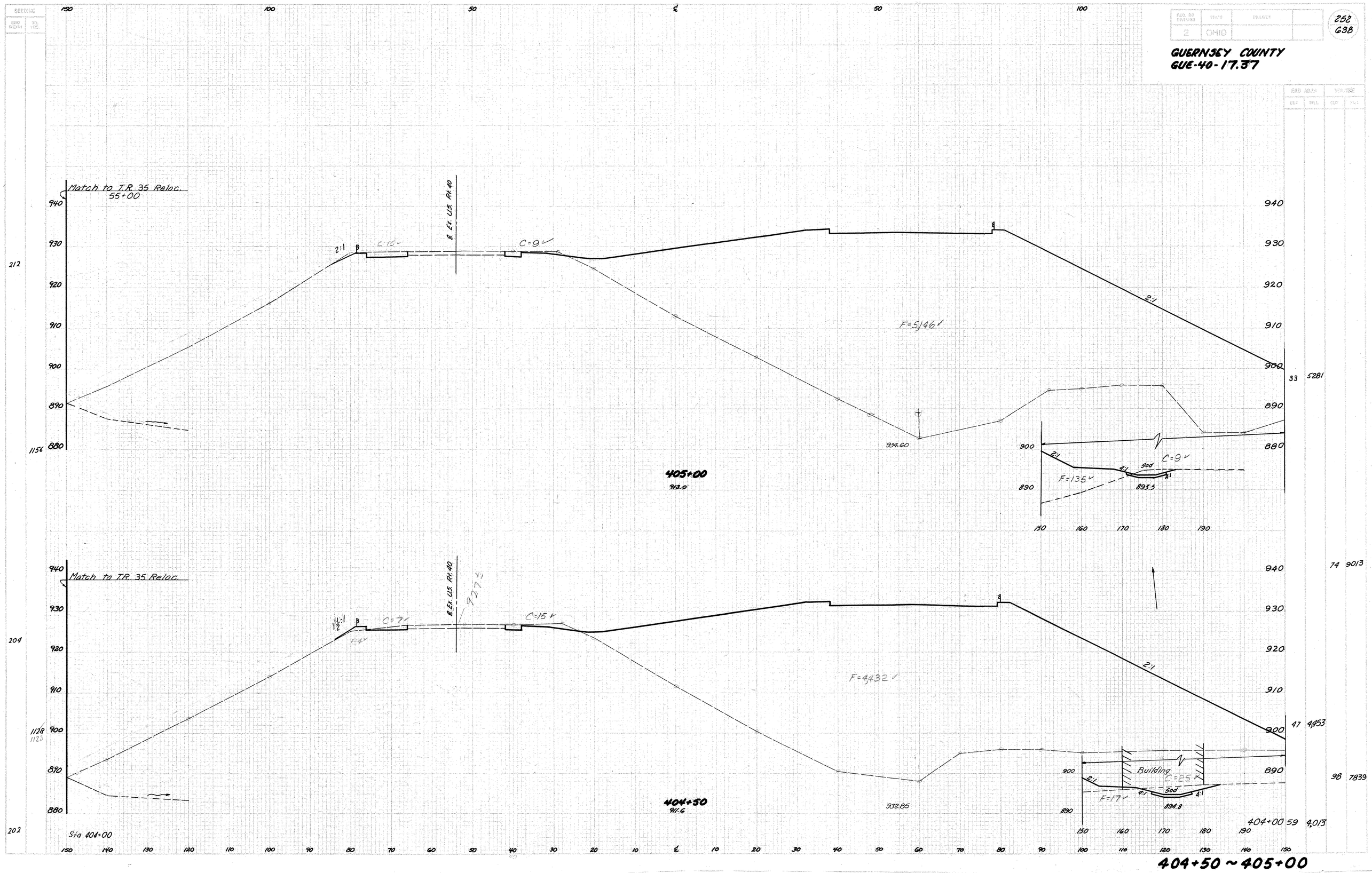
251
638
2
OHIO
GUERNSEY COUNTY
GUE-40-17.37
Match to T.R. 35 Reloc.
54+00
℄ Ex. U.S. Rt. 40
End Dumped Rock
Begin Sod +25
C=5
C=5
C=2
F=4,007
2:1
931.10
C=47
4:1
895.8
D.R.
404+00
908.4
Match to T.R. 35 Reloc.
℄ Ex. U.S. Rt. 40
C=14
C=13
F=3,210
2:1
4:1
D.R.
C=4
906.0
929.35
403+50
907.2
Match to T.R. 35 Reloc.
53+00
℄ Ex. U.S. Rt. 40
C=12
C=4
C=2
F=2605
2:1
C=18
4:1
910.0
Dumped Rock
927.60
403+00
905.4
402+50
59 4013
83 6690
31 3212
63 5389
36 2608
146 4336
122 2075
202
1108
197
1042
178
1042
197

403+00 ~ 404+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

252
638

GUERNSEY COUNTY
GUE-40-17.37



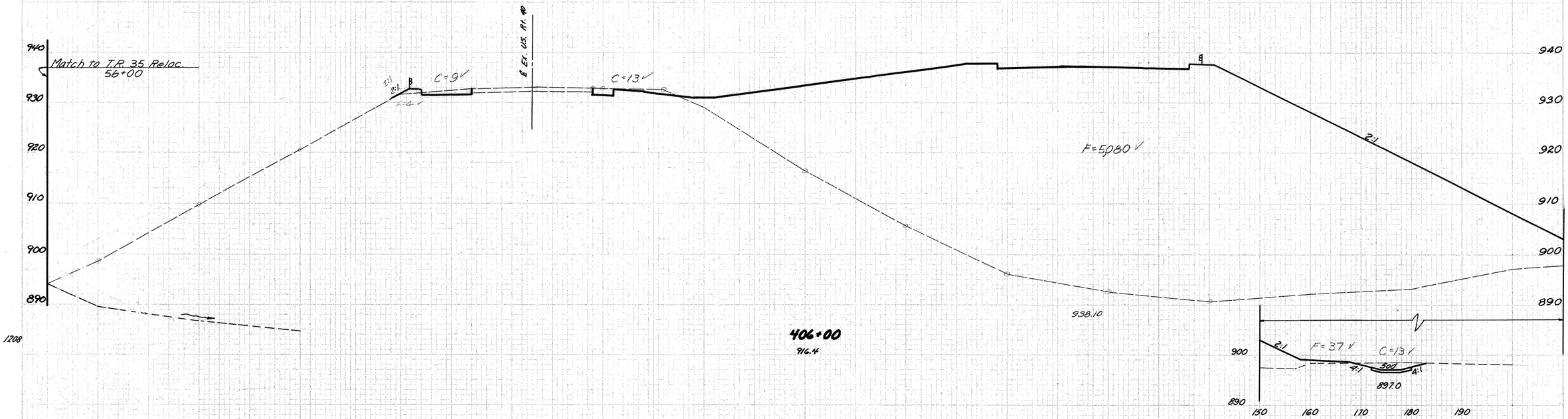
404+50 ~ 405+00

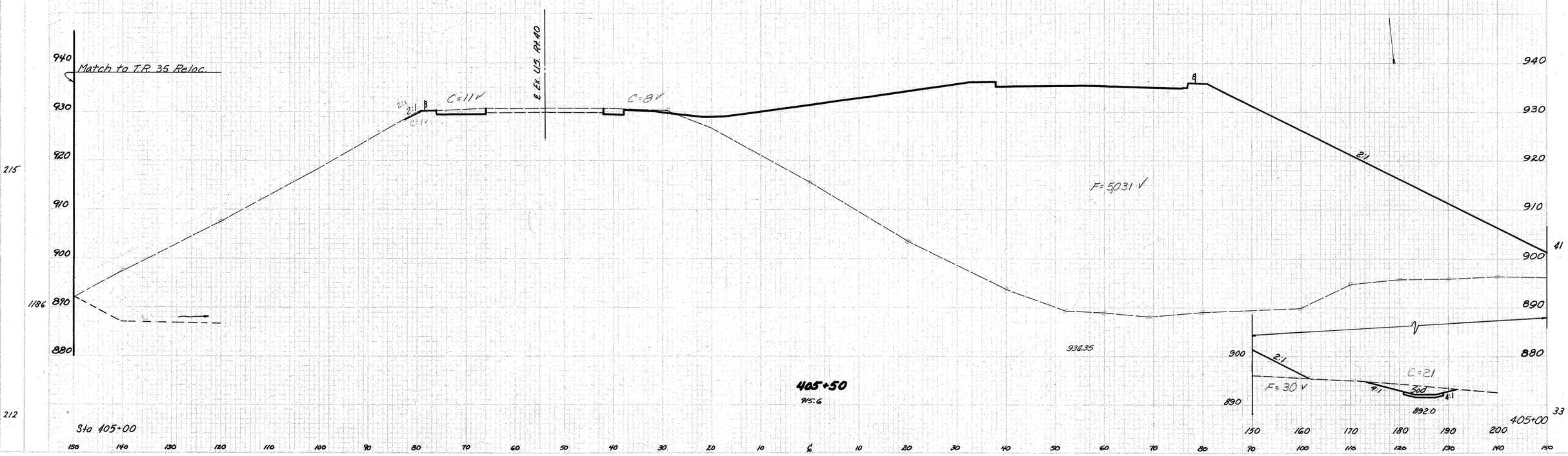
SHEET NO.	STATE	PROJECT	
2	OHIO		

653
638

GUERNSEY COUNTY
GUE-40-17.37

END AREA		VOLUME	
CUT	FILL	CUT	FILL





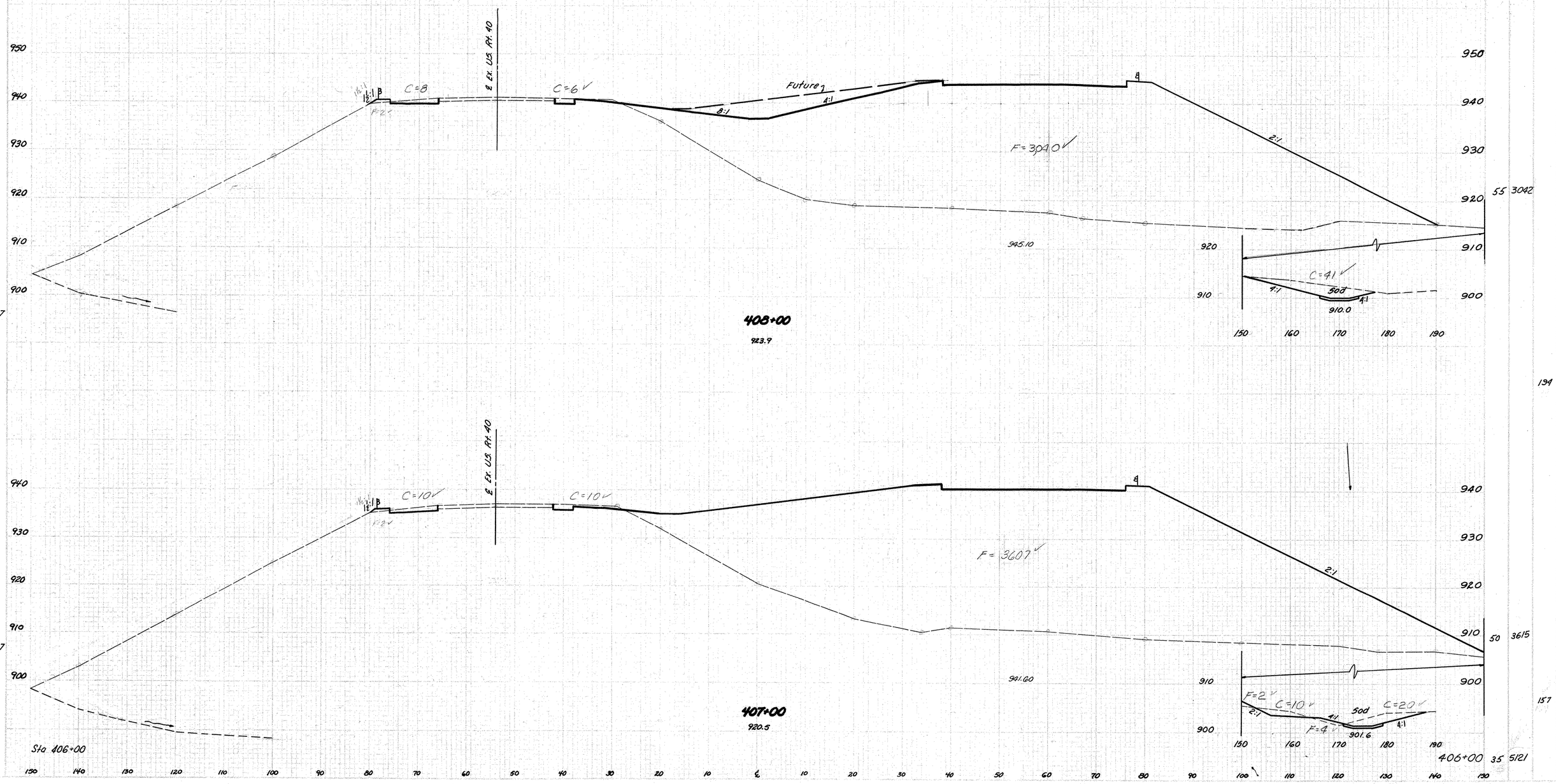
405+50 ~ 406+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

254
G38

GUERNSEY COUNTY
GUE-40-17.37

SECTIONS		END AREA		VOLUME	
END POINTS	SQ. FEET	CUT	FILL	CUT	FILL



407+00 ~ 408+00

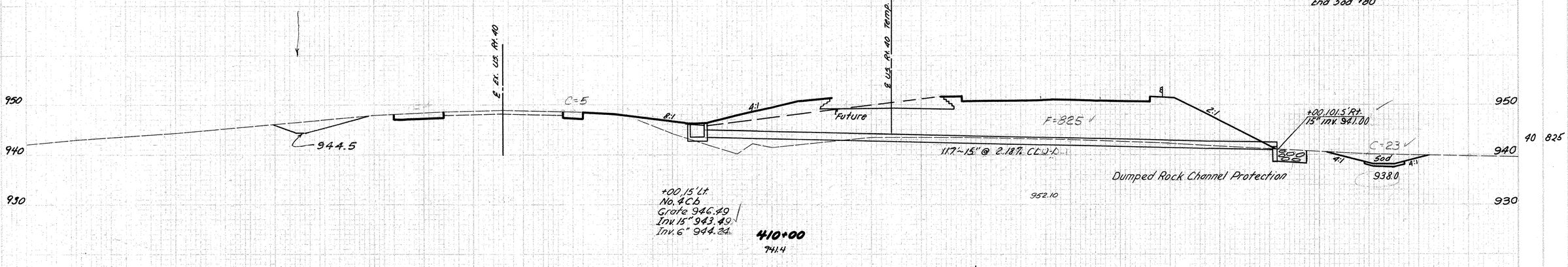
SECTIONS	
END WIDTH	NO. YDS

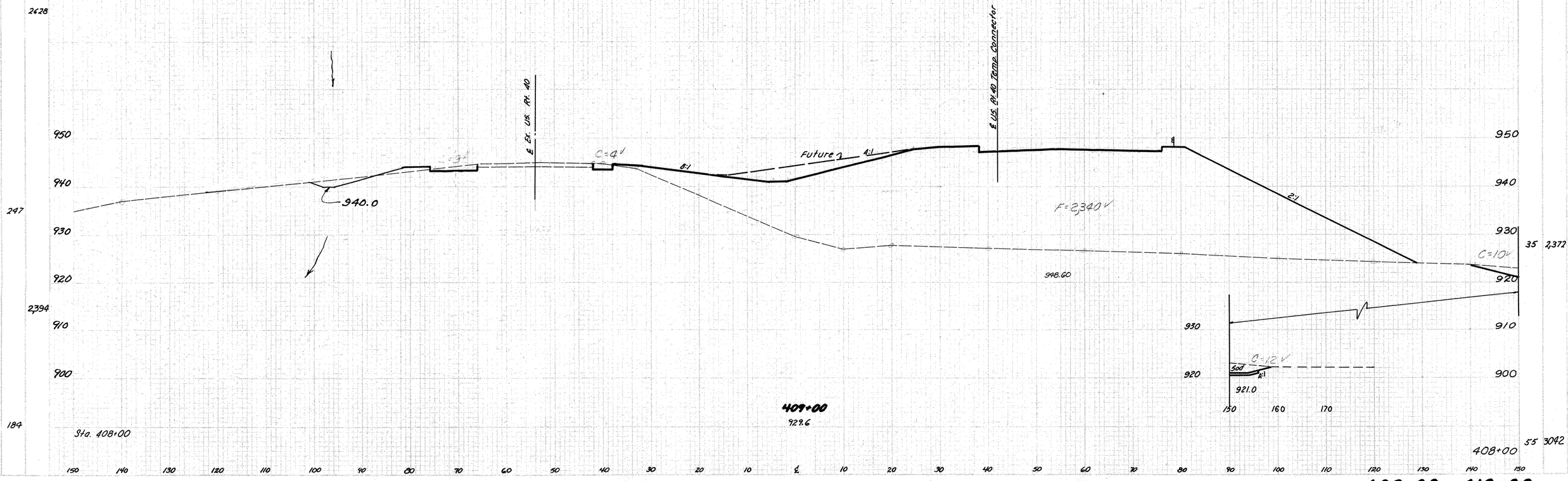
FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

255
638

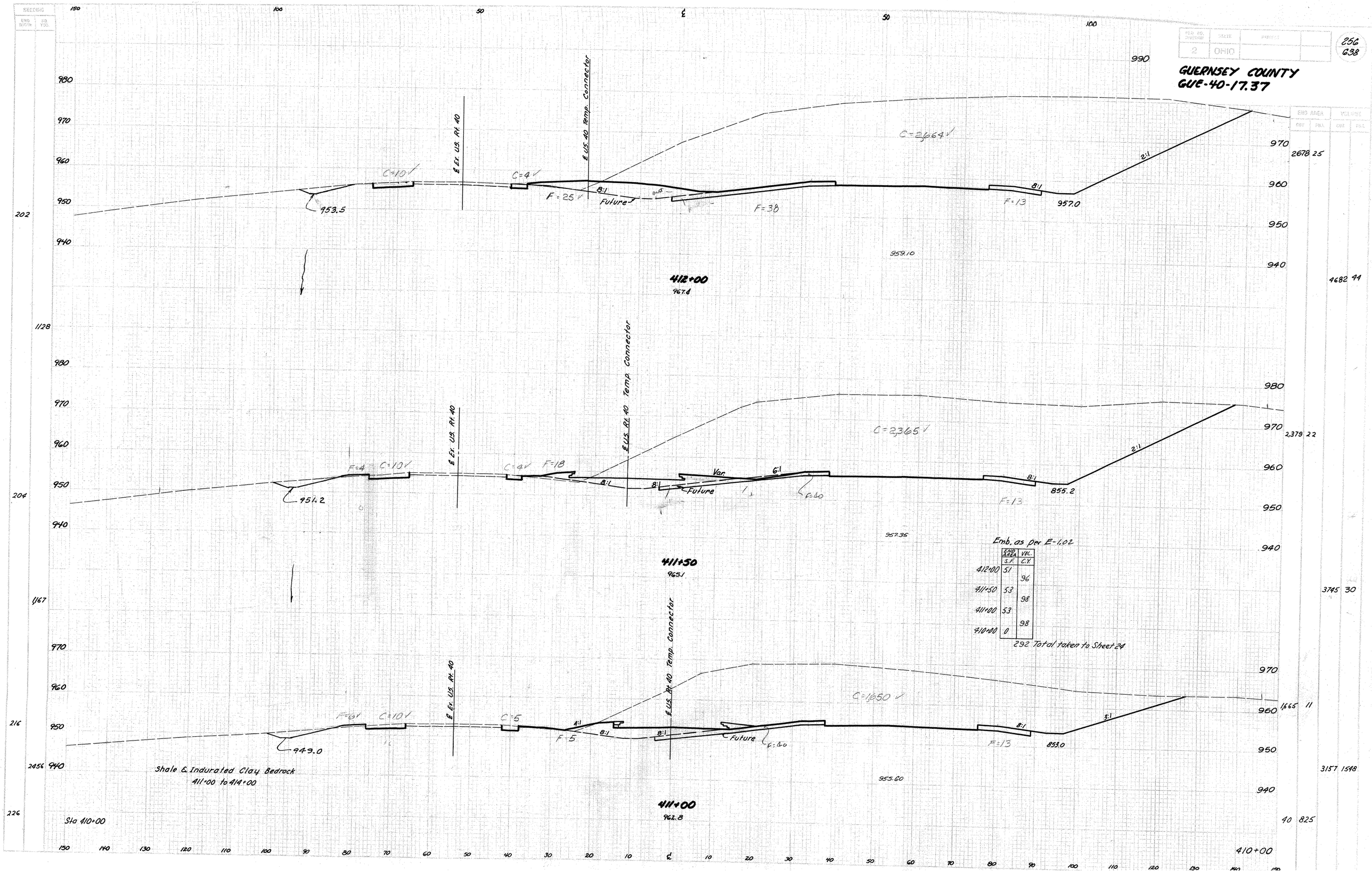
GUERNSEY COUNTY
GUE-40-17.37

END AREA		VOLUMES	
CUT	FILL	CUT	FILL





409+00 ~ 410+00



GUERNSEY COUNTY
GUE-40-17.37
256
638
2
OHIO
412+00
967.4
411+50
965.1
411+00
962.8
Sta 410+00
410+00
Shale & Indurated Clay Bedrock
411+00 to 414+00
Emb. as per E-1.02
292 Total taken to Sheet 24

FED. ROAD DIV. NO.	STATE	PROJECT		257 638
2	OHIO			

GUERNSEY COUNTY
GUE-40-17.37

SECTIONS

END AREA S.F.	SQ. YDS.

END AREA S.F. CUT	END AREA S.F. FILL	VOL. C.Y. CUT	VOL. C.Y. FILL

414+00

971.3

Average with 0 Cut @ 414+75

Ex. US Rt. 40

C=590

C=5

F=5

C=10 V

F=44

8:1

10:1

8:1

F=40

F=3 V

C=34 V

6:1

6:1

966.10

961.5

970 960 950

202

639 52

5554 159

413+00

971.0

Ex. US Rt. 40

C=2,345

2:1

8:1

C=10 V

F=26 V

4:1

C=5

F=8

10:1

8:1

F=72

F=13

960.1

962.60

980 970 960 950

204

2360 34

Emb. as per E-1.02

	END AREA S.F.	VOL. C.Y.
414+00	40	
		231
413+00	85	
		126
412+50	51	
		94
412+00	51	

451 Total taken to Sheet 24

4700 54

990

412+50

968.9

Ex. US Rt. 40

C=8,700 V

2:1

F=11 V

C=10 V

4:1

C=6

F=12

Future 10:1

8:1

8:1

F=38

F=13

959.0

960.85

980 970 960 950 940

1131

203

2716 23

4995 44

Shale & Indurated Clay Bedrock
411+00 to 414+00

1125

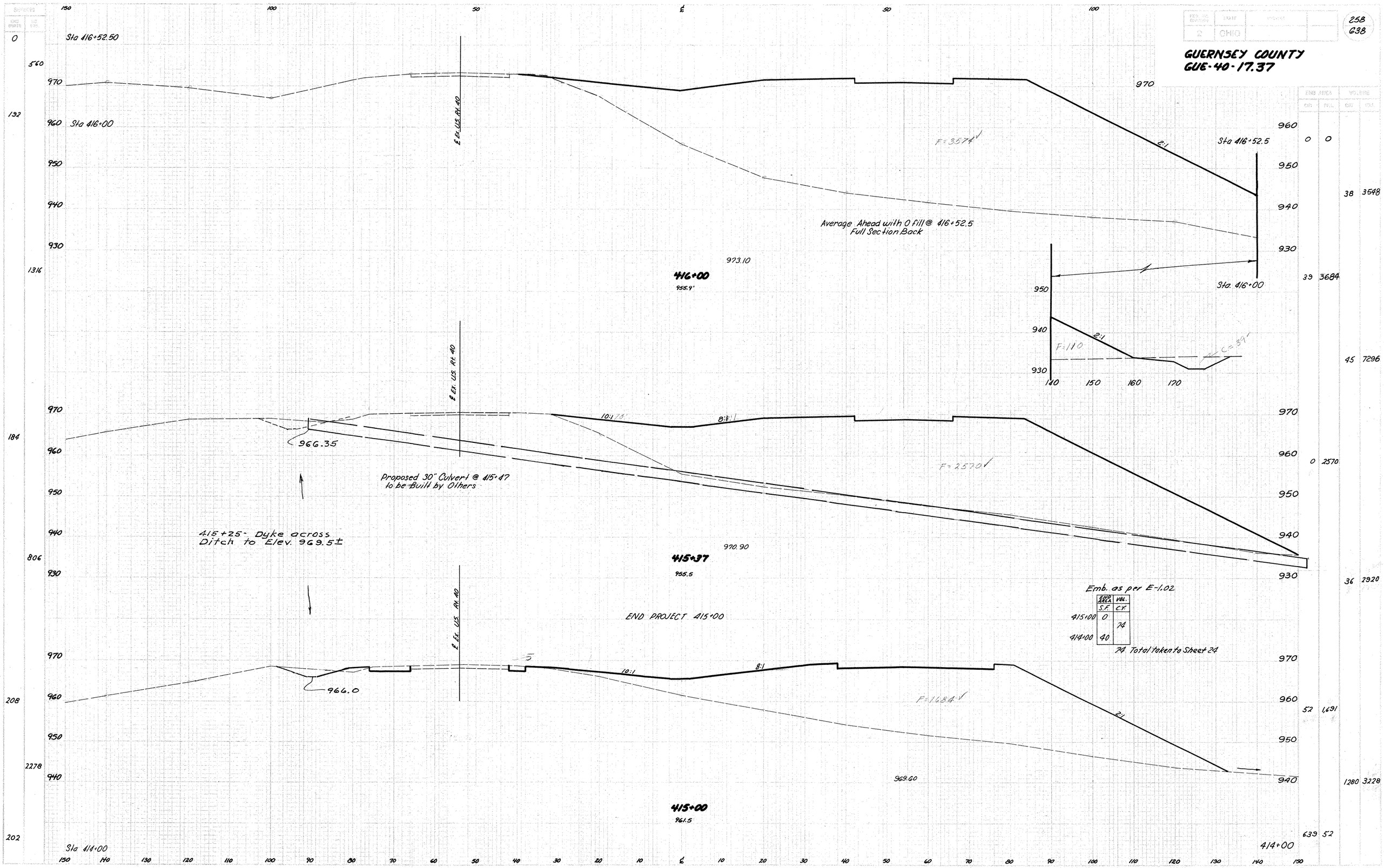
202

Sta 412+00

412+00 2678 25

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

412+50 ~ 414+00



GUERNSEY COUNTY
GUE-40-17.37
258
638
Sta 416+52.50
Sta 416+00
Sta 416+52.5
Sta. 416+00
Average Ahead with 0 fill @ 416+52.5
Full Section Back
973.10
416+00
955.9'
F=3574
F=110
966.35
Proposed 30" Culvert @ 415+47
to be Built by Others
415+25 - Dyke across
Ditch to Elev. 969.5±
970.90
415+37
955.5
F=2570
END PROJECT 415+00
966.0
F=1684
969.60
415+00
961.5
Sta 414+00
414+00
Emb. as per E-1.02
END AREA S.F. VOL. C.Y.
415+00 0
74
414+00 40
74 Total taken to Sheet 24
415+00 ~ 416+00

STATE OHIO

259
G38

GUERNSEY COUNTY
GUE-40- 17.37

150 100 50 ℄ 50 100

℄ Ex. U.S. Rt. 40

980 970 960 950 940

417+00
961.1

℄ Ex. U.S. Rt. 40

980 970 960 950 940 930

End Work
416+52.50

416+50
958.5

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140

416+50 ~ 417+00

See Sheet No. 44 for U.S. 40 Plan and Profile
See Sheet No. 265 for T.R. 277 Reloc. & Ser. Road "A"

FED. ROAD DIV. NO. 2 | STATE OHIO | PROJECT | 260 638
GUERNSEY COUNTY GUE-40-17.37

SEE SHEET NO. 263
MICROFILMED
JUL 25 1985

745

E-D Removal of Excl. Pvmt. 5.4

745

T.R. 185 — P.O.T. 50+73.90 — P.I. 53+52.20 — P.C. 51+73.46

UTILITIES
Guernsey Muskingum Elect. Coop. Inc.
Home Telephone Co.

Remove 50 L.F. Existing G.R.

CHARLES WILLIAM REED

WILLIAM T. BADGER
MARY E. BADGER

BEGIN WORK & PAVEMENT 46+86.91

50+00 Co. Rd. 1
46+57.11 Twp. Rd. 185

2 Hy. Fr. Res.

To be abandoned

Ex. Gravel Drive

Ex. C.B., Grate 928.82 (to remain)

Const. Limits

Existing 18" C.M.P.

Inv. 914.94

Inv. 928.00

Inv. 899.06

Paved gutter (Ex.)

Ex. Steel Beam

Ex. R/W

Ex. Co. Rd. 1

Ex. L.A. R/W

L.A. R/W

Ex. Gravel Drive

Ex. L.A. R/W

Ex. C.B. Grate 928.82

Inv. 928.23

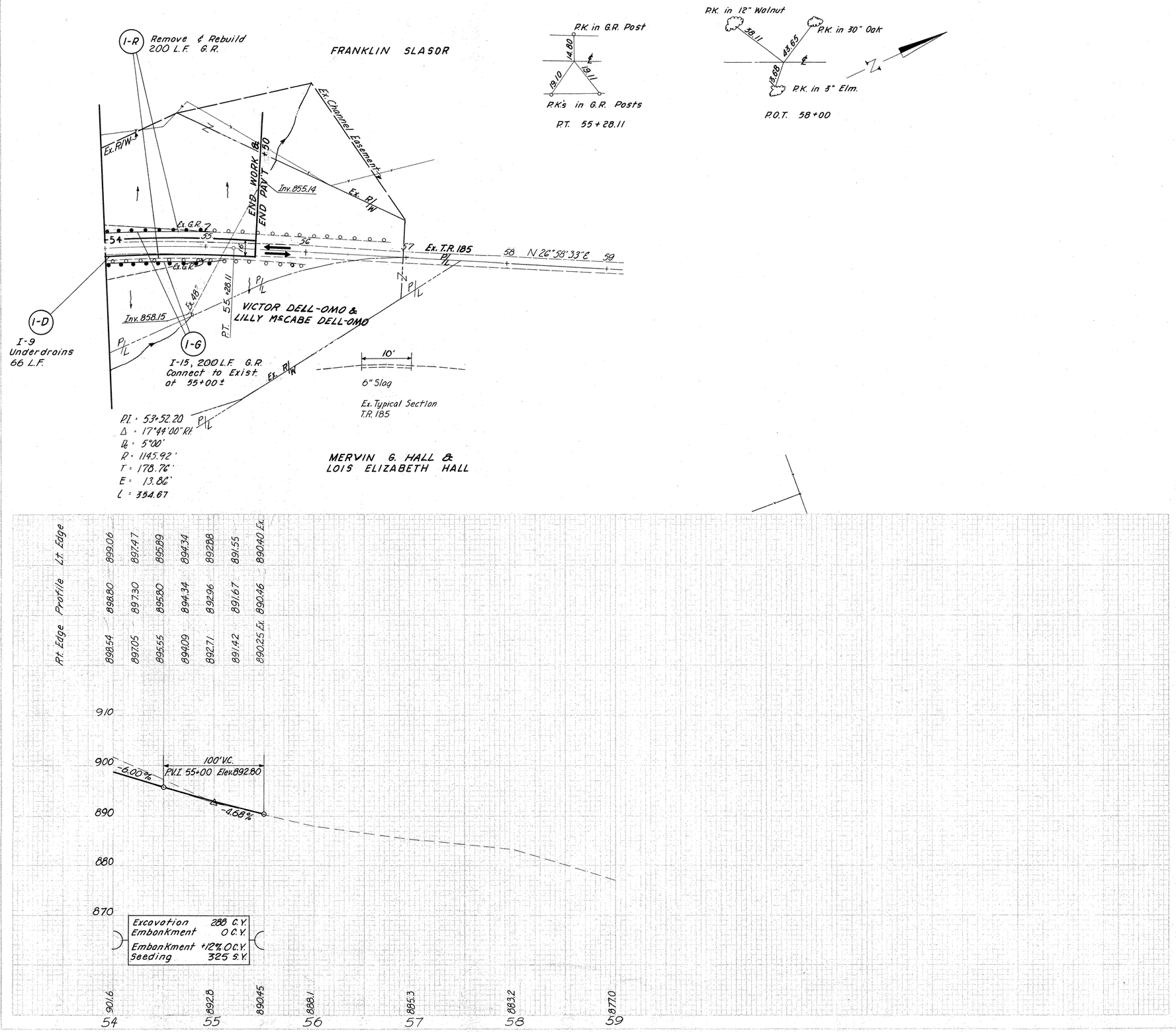
Inv. 917.24

Ex. Steel Beam

Ex. R/W

Ex. L.A. R/W

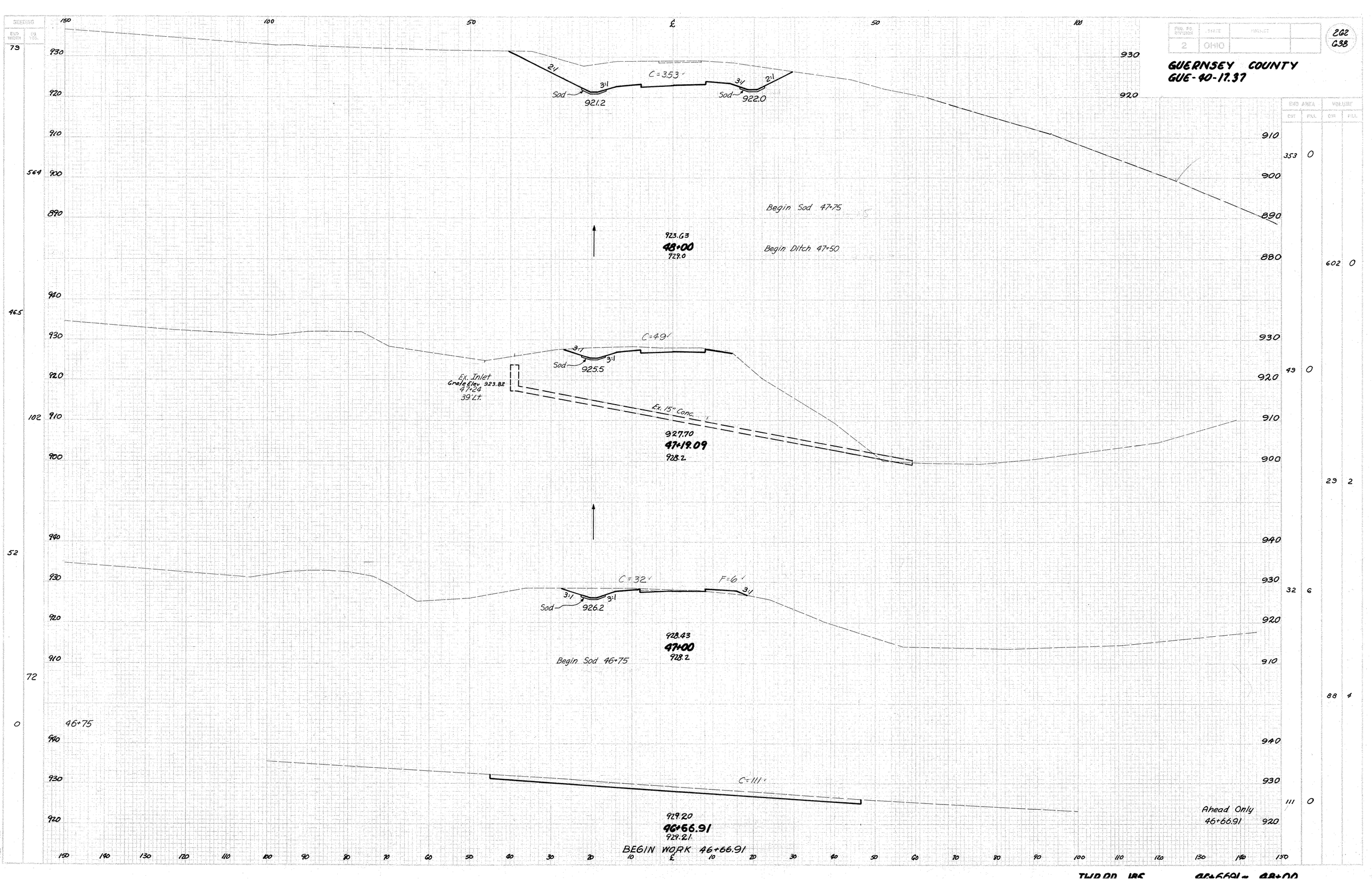
GUERNSEY COUNTY GUE-40-17.37



ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	I-9 No. 2 Stone Under-drains L.F.	I-15 Type 2-A Guard Rail L.F.	I-15 Guard Rail Removed & Rebuilt L.F.
1-D	54+00 to 55+50	L&R	66		
1-G	54+00 to 55+00±	L&R		200	
1-R	54+00 to 55+00±	L&R			200
TOTALS			66	200	200

Twp. Rd. 185 54+00 to 59+00

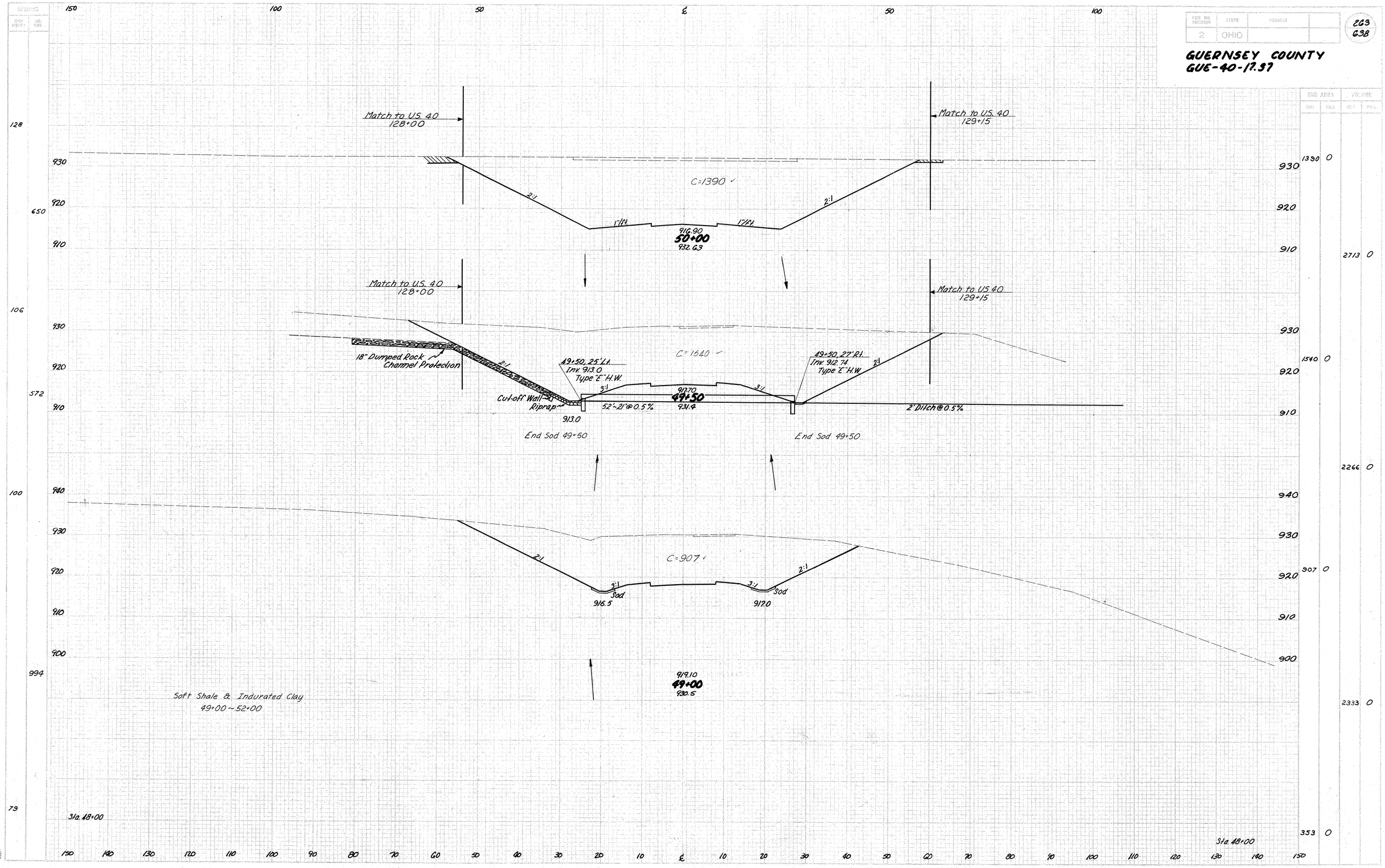


FED. RD. DIVISION 2
STATE OHIO
PROJECT
262
638
GUERNSEY COUNTY
GUE-40-17.37
SEEDING
END WIDTH
SQ. YDS.
END AREA
VOLUME
CUT
FILL
C=353
2:1
3:1
Sod
921.2
922.0
Begin Sod 47+75
923.63
48+00
929.0
Begin Ditch 47+50
C=49
925.5
Ex. Inlet
Grate Elev 923.82
47+24
39' Lt.
Ex. 15" Conc.
927.70
47+19.09
928.2
C=32
F=6
926.2
928.43
47+00
928.2
Begin Sod 46+75
46+75
C=111
929.20
46+66.91
929.21
BEGIN WORK 46+66.91
Ahead Only
46+66.91
79
564
465
102
52
72
0
353 0
602 0
49 0
29 2
32 6
88 4
111 0

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

263
638

GUERNSEY COUNTY
GUE-40-17.37



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
1390	0		
		2713	0
1540	0		
		2266	0
907	0		
		2333	0
353	0		

TWP. RD. 185 49+00 ~ 50+00

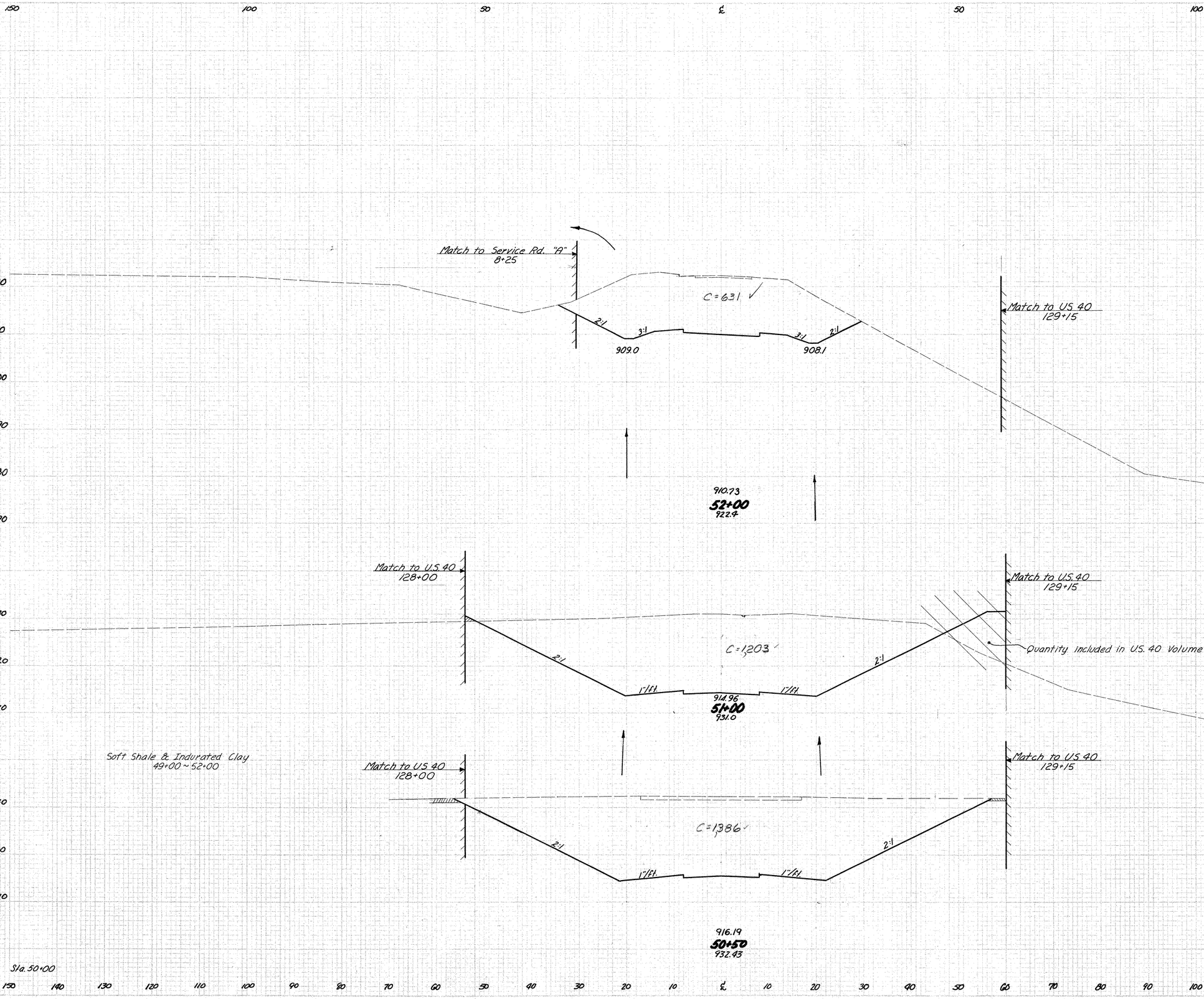
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

264
638

GUERNSEY COUNTY
GUE-40-17.37

SEEDING

END WIDTH	SQ. YDS.
71.5	
98.6	
106	
58.9	
106	
65.0	
12.8	



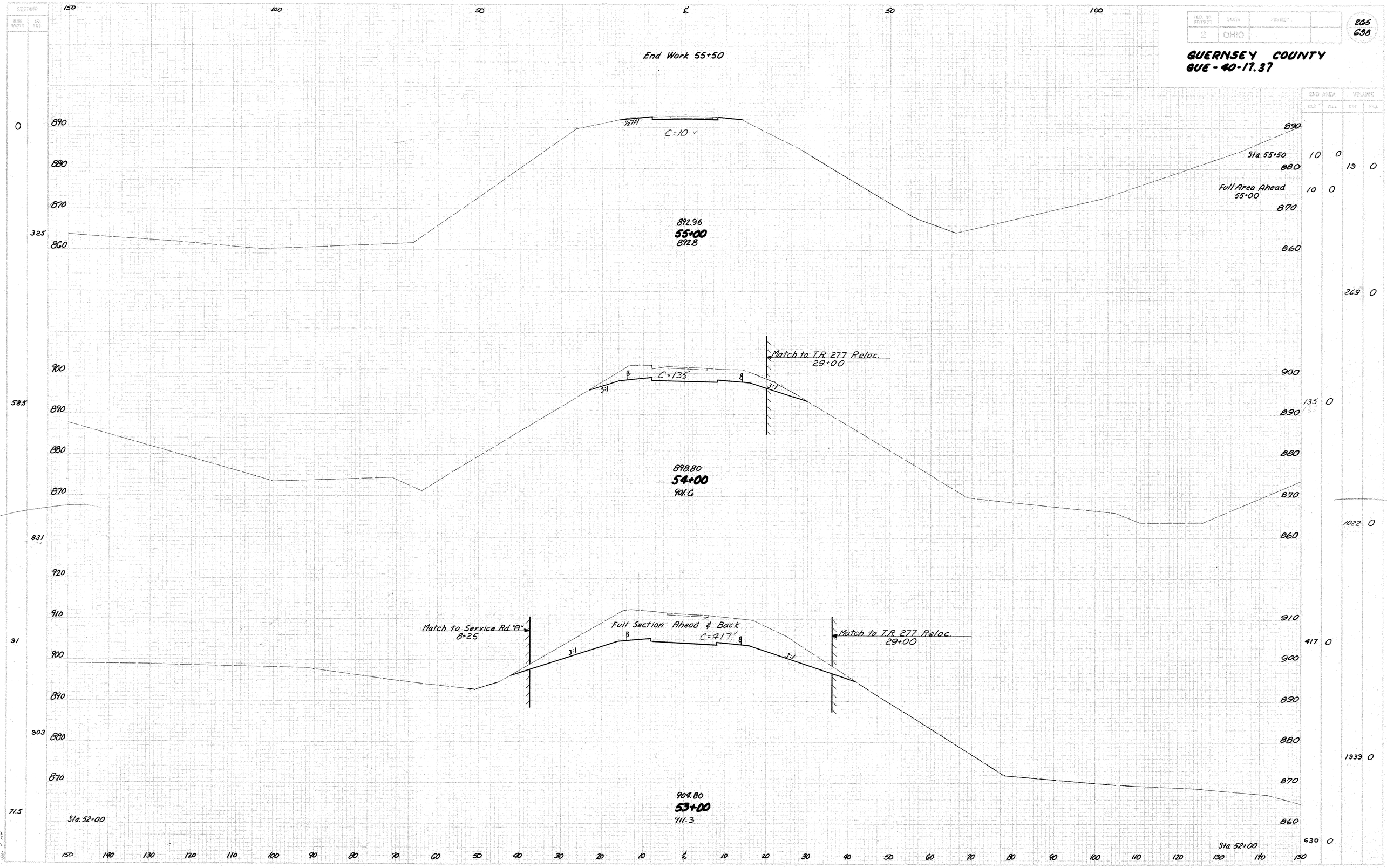
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
630	0		
		3335	0
1203	0		
		2338	0
1386	0		
		2571	0
1390	0		

TWP. RD. 185 50+50 ~ 52+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

265
638

GUERNSEY COUNTY
GUE-40-17.37



TWP. RD. 185 53+00 - 55+00

VICTOR DELL-OMO &
LILLY McCABE DELL-OMO

GUERNSEY COUNTY GUE-40-17.37

Post
22.30'
I.P.
2.60'
32.60'
Twin 18"Walnut
Service Rd. "A"
P.O.T. 4+70

1-A 5+50
12' TYPE 2 FIELD DRIVE
8' Lt. to 23' Lt.
6" B-19, 7.5 C.Y.

30" Oak
22.31
6.58
16"Walnut
I.P.
23.73'
18"Walnut
Service Rd. "A"
P.I. = 6+71.21

SERVICE RD. "A" CURVE DATA
P.I = 5+99.44
Δ = 28°14'38"
D = 46°
T = 31.34
L = 61.40
E = 3.88

P.I = 6+71.21
Δ = 37°01'45"
D = 46°
T = 41.71
L = 80.50
E = 6.79

5-D 6+15
D.A. 1 Ac. Q10 = 3.3 cfs
I-1, 82'-15" Class A-1
2 TYPE HW-E Headwalls
I-2, 0.52 C.Y. Masonry
I-10, 6 C.Y. D. Rock Channel Prof.

TR 185 CURVE DATA
P.I. 53+52.20
Δ = 17°44'00" Rt.
D = 5°00'
R = 1145.92'
T = 178.76'
L = 354.67'
E = 13.86'

3-D 8+10
D.A. 1 Ac Q10 = 3.3 cfs
I-1, 78'-15" Class A-1
2-TYPE HW-E Headwalls
I-2, 0.52 C.Y. Masonry
I-10, 9 C.Y. D. Rock Channel Prof.

1-D
I-9 Underdrains
38 L.F.

1-G
I-15
137.5 L.F. G.R.
SEE SHEET Nº 260 FOR TWP. RD. 185

2-A 5+50
12' TYPE 2 RES. DRIVE
8' Rt. to 40' Rt.
8" B-19, 19.3 C.Y.
Stabilized with Calcium Chloride 86.8 S.Y.

4"Elm
5"Elm
4"Elm
I.P.
13.11'
13.02'
6.69'
Service Rd. "A"
P.I. = 5+99.44

G.R. Post
12.27
I.P. buried 8"
13.08'
17.68'
G.R. Post
G.R. Post
Service Rd. "A"
P.O.T. = 8+74.52

4+85
D.A. 2 Ac., Q10 6 cfs
I-1, 48'-15" Class A-1
M-6.6 (a) or M-6.8 (b)
2 TYPE HW-E HEADWALLS
I-2, 0.52 C.Y. Masonry

4+88.16 "A" = 125+00, 241' Lt. ℍ

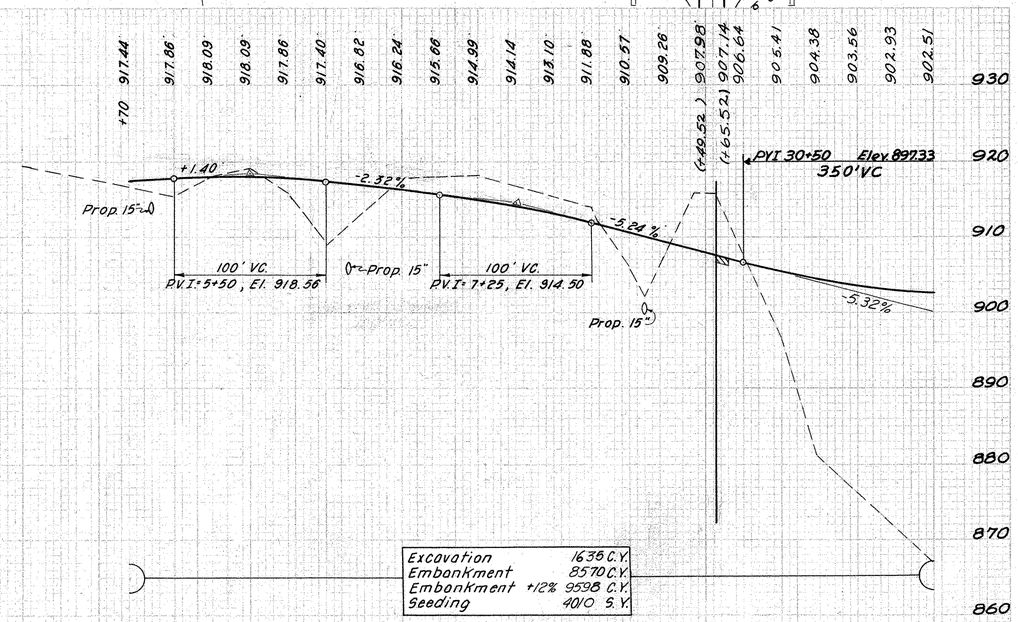
6-D
BEGIN WORK 4+70
+85.21' Lt. Inv. 912.48
1-A
Blk & Fr. Barn
5-D
+15.47' Lt. Inv. 900.80
SERVICE RD. "A"
15" @ 4%
15" @ 10%
+10.50' Lt. Inv. 882.80
2-G
I-15 150 L.F. G. Roil
3-D
FRANKLIN SLASOR
END WORK 8+49.52
Ex. R/W
TR 185
BEGIN WORK 28+65.52
Beg. G.R. 53.00' TR 185
6+54.72 S.R.P.T. on Tangent
MARGARET D. HOSFELD
+85.21' Rt. Inv. 914.40
Privy
Well
2-A
7-D
B.M. 205-A Elev. 925.22
M.S. in 18" Ash
112' Lt. Sta. 127+29
LA R/W
I-9, 140 L.F. Stone Underdrains (No. 2)
2-Sty. Fr. Res.
Fr. Shed
+15.35' Rt. Inv. 909.00
Beg. 900
End 900
L-10, 83 S.Y. 900
4-D
+10.50' Rt. Inv. 904.80
80.46' on Tangent
P.C. 51+73.44
52+53.96 TR 185 = 28+57.52 TR 277 B = 8+57.52 Sev. Rd. A
S 80°42'57" E
TR 277 R, e/oc.
2-D
L-10 39 S.Y. 900
Construction Limits
To be Abondoned
Billboard
Ex. R/W
C.L. Survey & Construction
SEE US 40 P&P SHEET Nº 44
Ex. U.S. 40
50+73.90 TR 185 = 128+54.85 US 40
SEE SHEET Nº 267

ESTIMATED QUANTITIES

REF NO	STATION TO STATION	SIDE	I-1 Class A-1 M-6.8 (b) or M-6.6 (b) 15" or M-6.4 (a) L.F.	I-2 Masonry C.Y.	I-9 Stone Underdrains (No. 2) L.F.	I-10 Dumped Rock Channel Prof. C.Y.	I-10 L-10 Guard Rail 2-A L.F.	I-15 Special Guard Rail 2-A L.F.	I-15 Calcium Chloride S.Y.	8-19 6" C.Y.	8-19 8" Stabilized CR S.Y.	SEE SHEET NO.
	UNITS		L.F.	C.Y.	L.F.	C.Y.	S.Y.	L.F.	L.F.	C.Y.	S.Y.	
1-A	5+50	Lt.			38				868	7.5	19.3	
2-A	5+50	Rt.										
1-D	28+65 to 30+00	Rt. L.		0.52		9	39	27				271
2-D	29+53 to 30+00	Rt.										
3-D	8+10 to 8+25	Rt. L.				6	03	27				271
4-D	7+00 to 8+25	Rt.										
5-D	6+15	Rt. L.		0.52	140							
6-D	4+85	Rt. L.	78	0.52								
7-D	4+70 to 8+49	Rt. L.	82									
1-G	53+00 T.R. 185 Rt. to 30+00	Lt.						137.5				
2-G	6+00 ℄ 8+00	Lt.						150				

1-A	5+50	Lt.			38				868	7.5	19.3	
2-A	5+50	Rt.										
1-D	28+65 to 30+00	Rt. L.		0.52		9	39	27				271
2-D	29+53 to 30+00	Rt.										
3-D	8+10 to 8+25	Rt. L.				6	03	27				271
4-D	7+00 to 8+25	Rt.										
5-D	6+15	Rt. L.		0.52	140							
6-D	4+85	Rt. L.	78	0.52								
7-D	4+70 to 8+49	Rt. L.	82									
1-G	53+00 T.R. 185 Rt. to 30+00	Lt.						137.5				
2-G	6+00 ℄ 8+00	Lt.						150				
			160	1.56	178	15	122	2875		7.5	19.3	

1-A	5+50	Lt.			38				868	7.5	19.3	
2-A	5+50	Rt.										
1-D	28+65 to 30+00	Rt. L.		0.52		9	39	27				271
2-D	29+53 to 30+00	Rt.										
3-D	8+10 to 8+25	Rt. L.				6	03	27				271
4-D	7+00 to 8+25	Rt.										
5-D	6+15	Rt. L.		0.52	140							
6-D	4+85	Rt. L.	78	0.52								
7-D	4+70 to 8+49	Rt. L.	82									
1-G	53+00 T.R. 185 Rt. to 30+00	Lt.						137.5				
2-G	6+00 ℄ 8+00	Lt.						150				
			160	1.56	178	15	122	2875		7.5	19.3	



Excavation	1636 C.Y.
Embankment	8570 C.Y.
Embankment +12%	9598 C.Y.
Seeding	4010 S.Y.

SERVICE ROAD "A" & TWP. RD. 277 RELOC. 28+65.52 ~ 30+00

U.S. RTE. NO.	STATE	PROJECT	
2	OHIO		

267
638

GUERNSEY COUNTY GUE-40-17.37

I-1, 41'-21" Class A-1
52'-21" Class F-1 M-6.4(c)
I-2, 0.36 C.Y. Masonry
I-8, 1 No. 5 C.B. (Mod.)
I-10, 4.5 C.Y. D.R. Channel Prot.
I-5, 2-30° Bends Class F-1 M-6.4 (c)

L-10, 27 S.Y. Sod
I-10, 384 C.Y. Dumped Rock Channel Protection

L-10, 467 S.Y. Sod
I-10, 167 C.Y. Dumped Rock Channel Protection

39+40
8' Lt. to 75' Lt.
Type 2 Field Dr.
6" B-19, 19.1 C.Y.

I-1
44'-18" Class F-1

I-15, 150 L.F. Guard Rail

STRUCTURE GUE-40-18.50
STA. 130+65 ℄
PROP. 54" CULVERT
SEE SHEET No. 542

VICTOR DELL-OMO & LILLY McCABE DELL-OMO

MERVIN G. HALL
LOIS ELIZABETH HALL

37+00, 8' Rt. to 222' Rt.
Temporary Road using T-10
T-10 160 C.Y.
I-4 3.2 Tons

75' Lt. 12" End D.P. Ex. Field Drive ±40
Begin Sod ±60
Shed
Frame Barn
39+60 Inv. 848.00
39+16 - 19.5' Lt. Inv. 846.3
44'-18" @ 3.06%

150.67 Lt. Inv. 876.0
End 6' Rail 37+30±
13' Lt.
See X-Sect No. 15
Springs
Construction Limits
37+00 T.R. 277
0+00 Temp. Rd. "C"
5.80°42'57"E
Twp. Rd. 277 Reloc.
℄ Construction
R/W
Ex. R/W
Ex. LA
LA

I-9 Underdrains
360 L.F.

Temp. Pipe
Temporary Pipe
TEMPORARY ROAD "C"
Be Abandoned
180'
35' R
36+57 43' Rt. 79' Rt.
37+43 43' Rt. 79' Rt.
137+00 US 40 ℄ 1+80 Temp. Rd. "C"
136+57 7' Rt.
137+43 7' Rt.
℄ Survey & Construction
Ex. 4'x4' Box Culvert
Ex. 12" CMP
Ex. U.S. 40
SEE U.S. 40 P&P SHEET No. 45
SEE SHEET No. 266
SEE SHEET No. 268
FRANKLIN SLAZOR

B.M. 206-A Elev. 936.63
M.S. in 8" E Tm
151' Rt. Sta. 138+09 US 40

945.33 946.80 948.20 949.55 950.83 952.05 953.20

902.51 902.30 902.28 902.47 902.86 903.45 904.24 905.23 906.43 907.83 909.33 912.33 915.33 918.33 921.33 924.33 927.33 930.33 933.33 936.33 939.33 942.33

+6.00%
P.V.I. 44+50 Elev. 981.33
1200' V.C.
P.V.I. 30+50 350' V.C. Elev. 897.33
-5.32%
+6.00%

+50, 22' Rt. No. 5 C.B. (Mod.) Grate 899.25 Inv. 21" 895.80
Proposed 54"

870.5 876.0 890.3 906.3 912.4 (+19) 914.8 (+27) 923.8 922.9 925.2 927.9 (-27) 932.1 (-70) 932.9 936.4 945.8 955.0 957.2 (+27) 958.9 (-51) 960.7 (+72) 961.5

37+00 ℄ T.R. 277 ℄ Reloc. 936.33 936.68 +0.18% Prop. ℄ Ex. U.S. 40 +22 936.46
TEMPORARY ROAD "C"

Excavation	11322 C.Y.
Embankment	11606 C.Y.
Embankment +12%	12999 C.Y.
Seeding	6976 S.Y.

ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	I-1 Class A-1 MB.4(c) 54" 54" L.F.	I-1 Class F-1 MB.4(c) 18" L.F.	I-1 Class F-1 21" L.F.	I-2 Masonry C.Y.	I-8 No. 5 C.B. Ea.	I-10 Dumped Rock Channel Prot. C.Y.	I-15 2-A Guard Rail L.F.	I-9 No. 2 Stone Underdra. L.F.	B-19 6" C.Y.	L-10 Sod S.Y.	I-10 Traffic Compact. Calcium Surface Chloride Course C.Y.	I-4 Tons	I-5 30° Bends Class F-1 2" Eo	S-22 Removal of Partial Structure Lump	SEE SHEET NO.	
1-A	39+40, 8' Lt. to 75' Lt.	L															273	
2-A	37+00, 8' Rt. to 222' Rt.	R															278	
1-D	30+50 to 40+00	L & R			52 41	0.36	1	45			19.1		160	3.2	2		542	
2-D	30+00 to 40+00	L						384				27						
3-D	30+00 to 40+00	R						167				467						
4-D	39+16 to 39+60	L		44														
5-D	30+00 to 40+00	L & R								360								
1-G	30+00 to 31+50	L							150									
6-D	30+22 ±	L & R	152 40			0.92		13.3								Lump		

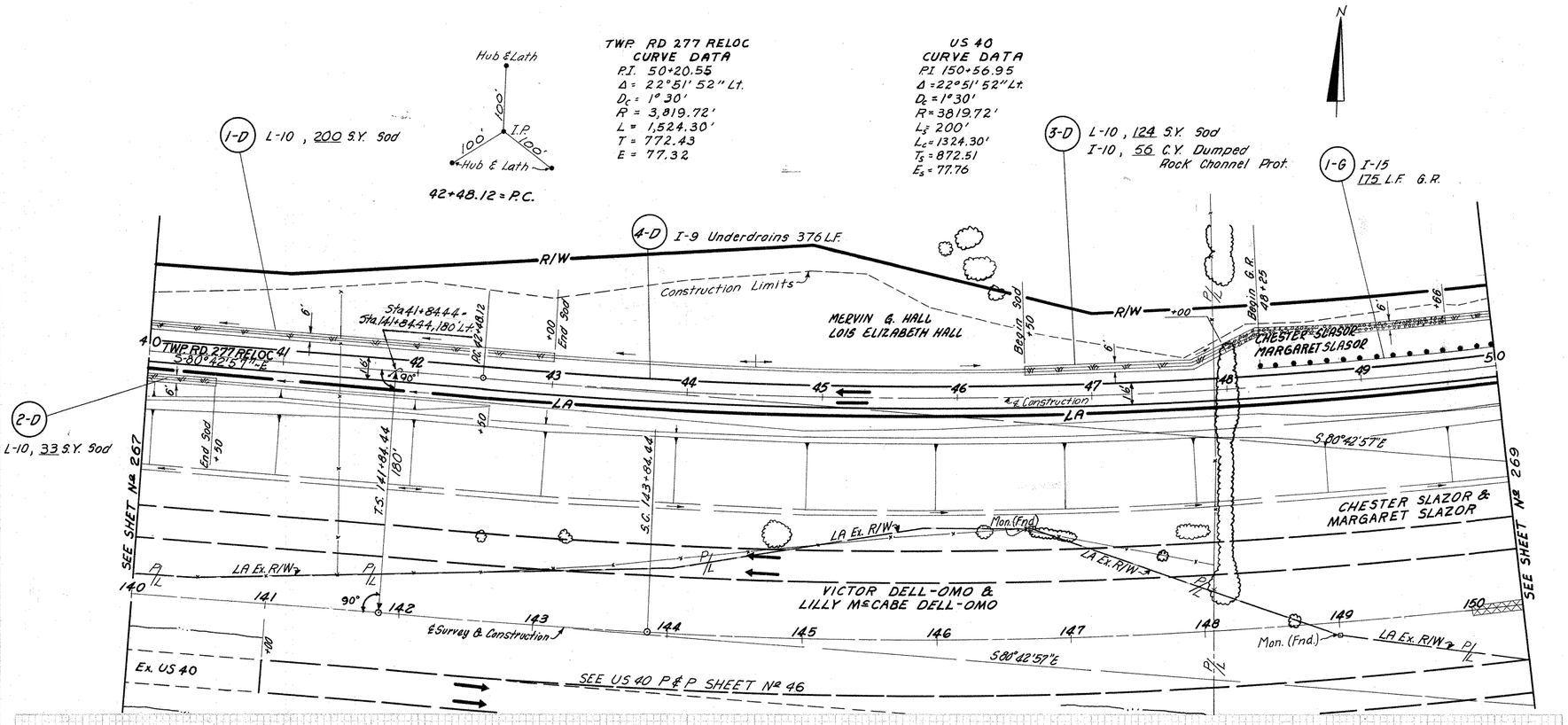
Shop Strutted
Shop Elongated

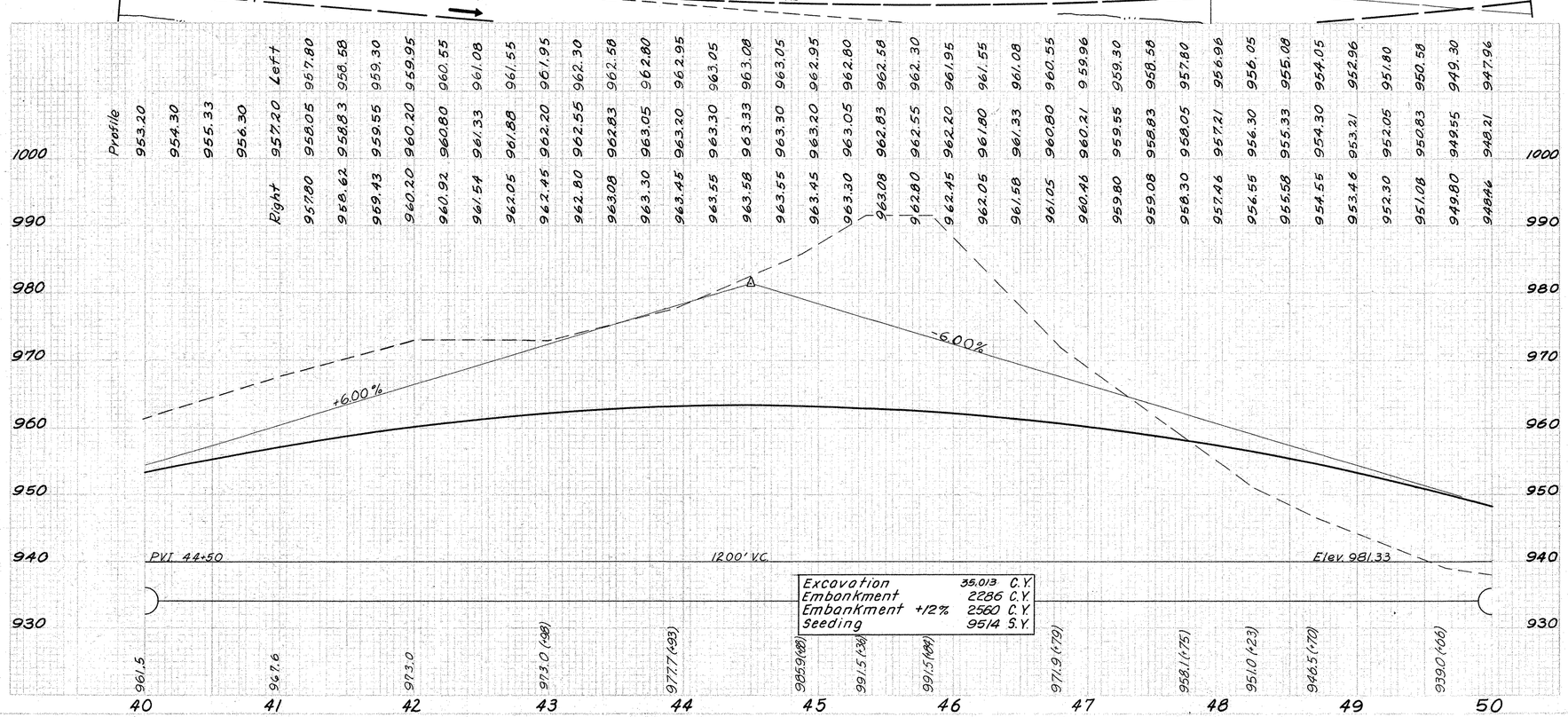
Twp. Rd. 277 Reloc. 30+00-40+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

268
638

GUERNSEY COUNTY GUE-40-17.37





Excavation	35,013 C.Y.
Embankment	2286 C.Y.
Embankment +12%	2560 C.Y.
Seeding	9514 S.Y.

ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	I-9 No. 2 Sod Under-drains L.F.	I-10 Dumped Rock Channel Prot. C.Y.	I-15 No. 2 & Cable L.F.	L-10 Sod S.Y.
1-D	40+00 to 43+00	L				200
2-D	40+00 to 40+50	R				33
3-D	46+50 to 50+00	L		56		124
4-D	40+00 to 50+00	L&R	376			
1-G	48+25 to 50+00	L			175	
			376	56	175	357

Twp. Rd. 277 Reloc. 40+00~50+00

FED. ROAD DIVISION	STATE	PROJECT		SHEET NO.
2	OHIO			269 638

GUERNSEY COUNTY GUE-40-17.37

SEE SHEET NO.

1-D
I-1
65 L.F. 18" Class F-1
L-10 45 S.Y. Sod.

1-A 50+96.5
8 Lt. to 68' Lt.
Type 2 Combined Drive & Mailbox Approach
8"-B-19, 30.8 C.Y. Stabilized with Calcium Chloride).
Calcium Chloride 138.5 S.Y.

TWP RD 277 RELOC CURVE DATA
P.I. 50+20.55
Δ = 22° 51' 52" Lt.
D_c = 1° 30'
R = 3,819.72'
L = 1,524.30'
T = 772.43'
E = 77.32'

US 40 CURVE DATA
P.I. 150+56.95
Δ = 22° 51' 52" Lt.
D_c = 1° 30'
R = 3819.72
L_s = 200'
L_c = 1324.30
T_s = 872.51
E_s = 77.76

3-D L-10, 590 S.Y. Sod.
I-10, 15 C.Y. Dumped Rock Channel Protection.

P.K. in 16" Walnut
P.K. in 14" Walnut
I. Pin
P.K. in 5" Walnut
P.T. 57+72.42

CHESTER SLAZOR
MARGARET SLAZOR

B.M. 206-B Elev. 943.10
M.S. in telephone pole
98' Lt. Sta. 151+15

+69.46' Lt.
Inv. 934.17

+27.73' Lt.
Inv. 931.12

End G. Rail 30+80

Elm Drive

62' Lt.

12" C.M.P.

1-G
I-15
50 L.F. G. Rail.

Ex. Inv. 934.17

65'-18" @ 12%

N 84° 30'

12'+40 Begin Slope 30+80

6' Slope 32+30

53+00

R/W

Construction Limits

12'

End G.R. 55+00

End Sod 55+40

Begin D. Rock 8'

P.I. Sta. 57+72.42

12'

R/W

8'

22'

50 51 52 53 54 55 56 57 58 59 60

16'

+96.5

LA

4" Construction

TWP. RD. 227 RELOC.

N 78° 25' 11" E

1-R
E-12
Remove 65 L.F. 12" C.M.P.

Inv. 942.45 12" C.M.P.

A.R. SEEBACH SR.
BESSIE L. SEEBACH

9' Stone Dr.

Inv. 942.24

To Be Abandoned

Ex. Gravel Dr.

Ex. Shed

2 1/2" Conc. Walk

Conc. Footer No Bldg.

Water Well

4" Drain Tile

4" Drain Tile

Septic Tank

1 Sty. Bk. Res.

N 76° 25' 11" E

LA Ex. R/W

C.S. 157+08.74

S.T. 159+08.74

22'

9'

10.5'

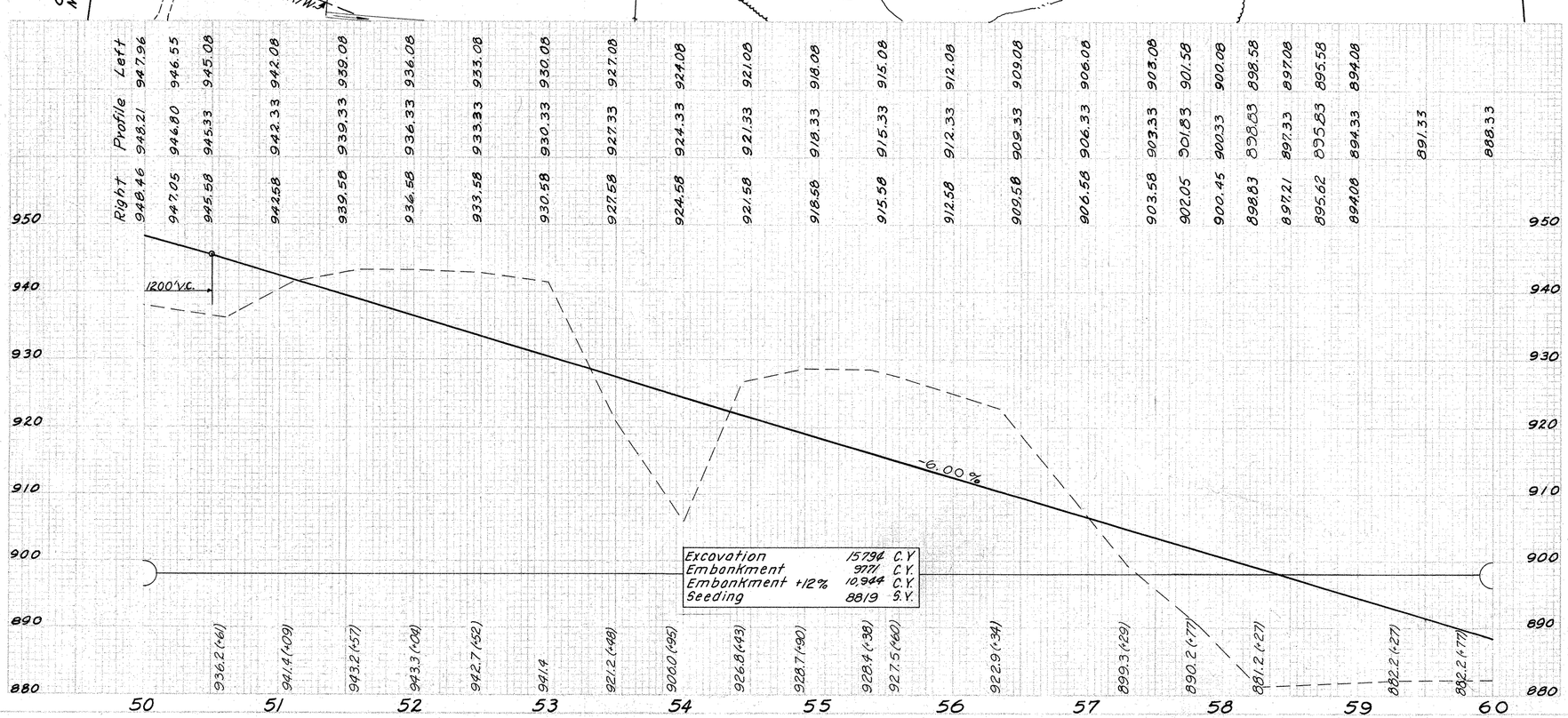
SEE SHEET No 268

SEE SHEET No 270

CHESTER SLAZOR & MARGARET SLAZOR

151 152 153 154 155 & Survey & Const'g 156 157 158 159 160

SEE US 40 P&P SHEET No 47



Excavation 15794 C.Y.
Embankment 9771 C.Y.
Embankment +12% 10,944 C.Y.
Seeding 8819 S.Y.

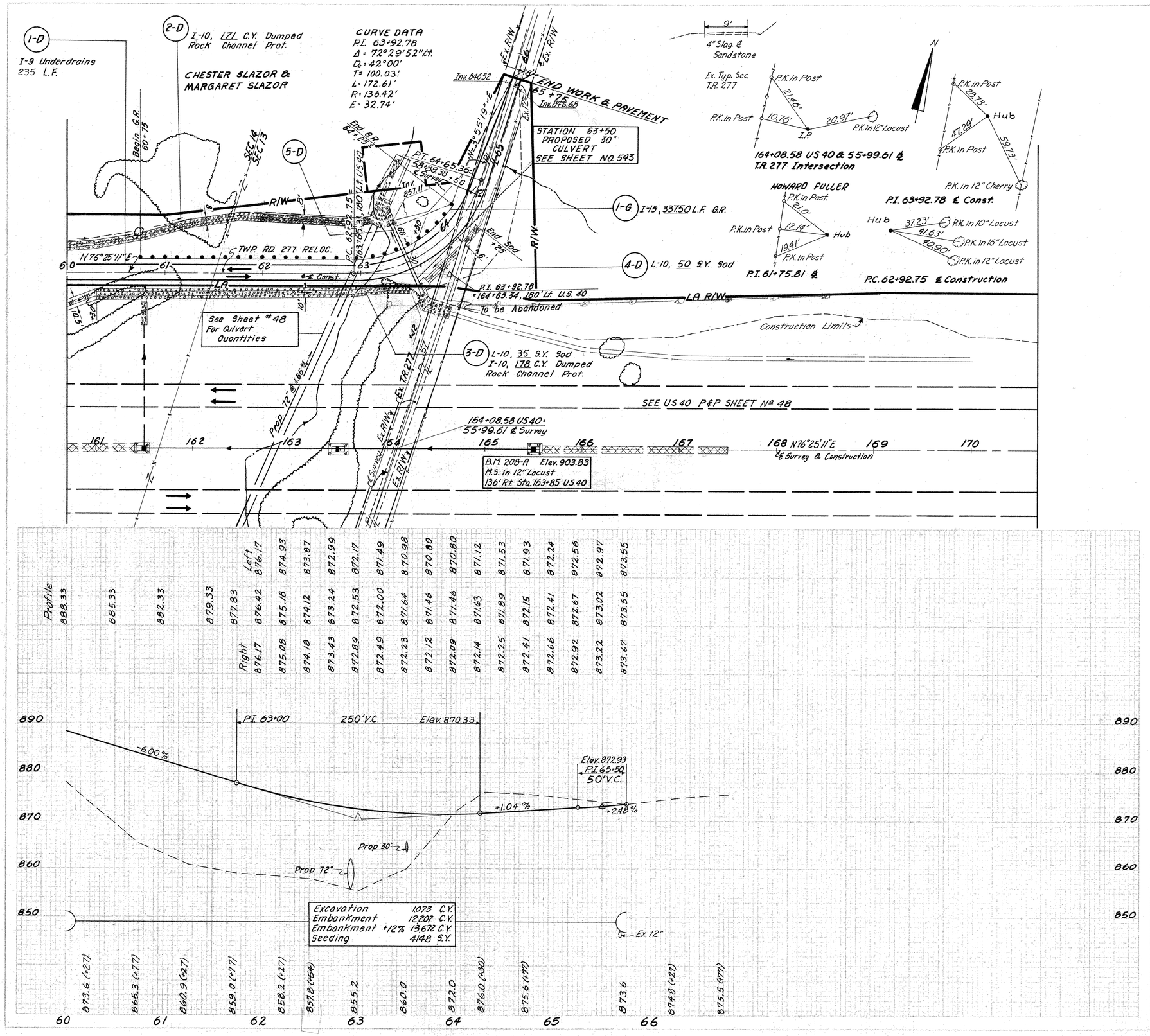
Special Calcium Chloride S.Y. 138.5 138.5

ESTIMATED QUANTITIES

REF. NO.	SIDE	STATION TO STATION	I-10 Dumped Rock Channel Prot. C.Y.	I-15 Type 2 3'-Cable G.R. L.F.	L-10 Sod S.Y.	E-12 Pipe Removed 15" & Under L.F.	B-19 8% Stab. C.Y.	I-9 No. 2 Stone Underdr. L.F.	I=1 Class F-1 18" L.F.	
1-A		50+96.5, 8' to 68' Lt.					30.8			
1-D	L.	50+00 to 51+27							65	
2-D	L.	52+00 to 60+00	249		391					
3-D	R.	52+50 to 60+00	15		590					
4-D	L & R	50+00 to 60+00						384		
1-G	L.	50+00 to 50+50		50						
2-G	L.	52+50 to 55+00		250						
1-R	L.	50+89 to 51+27				65				
TOTALS			264	300	1027	65	30.8	384	65	138.5

Twp. Rd. 277 Reloc. 50+00 ~ 60+00

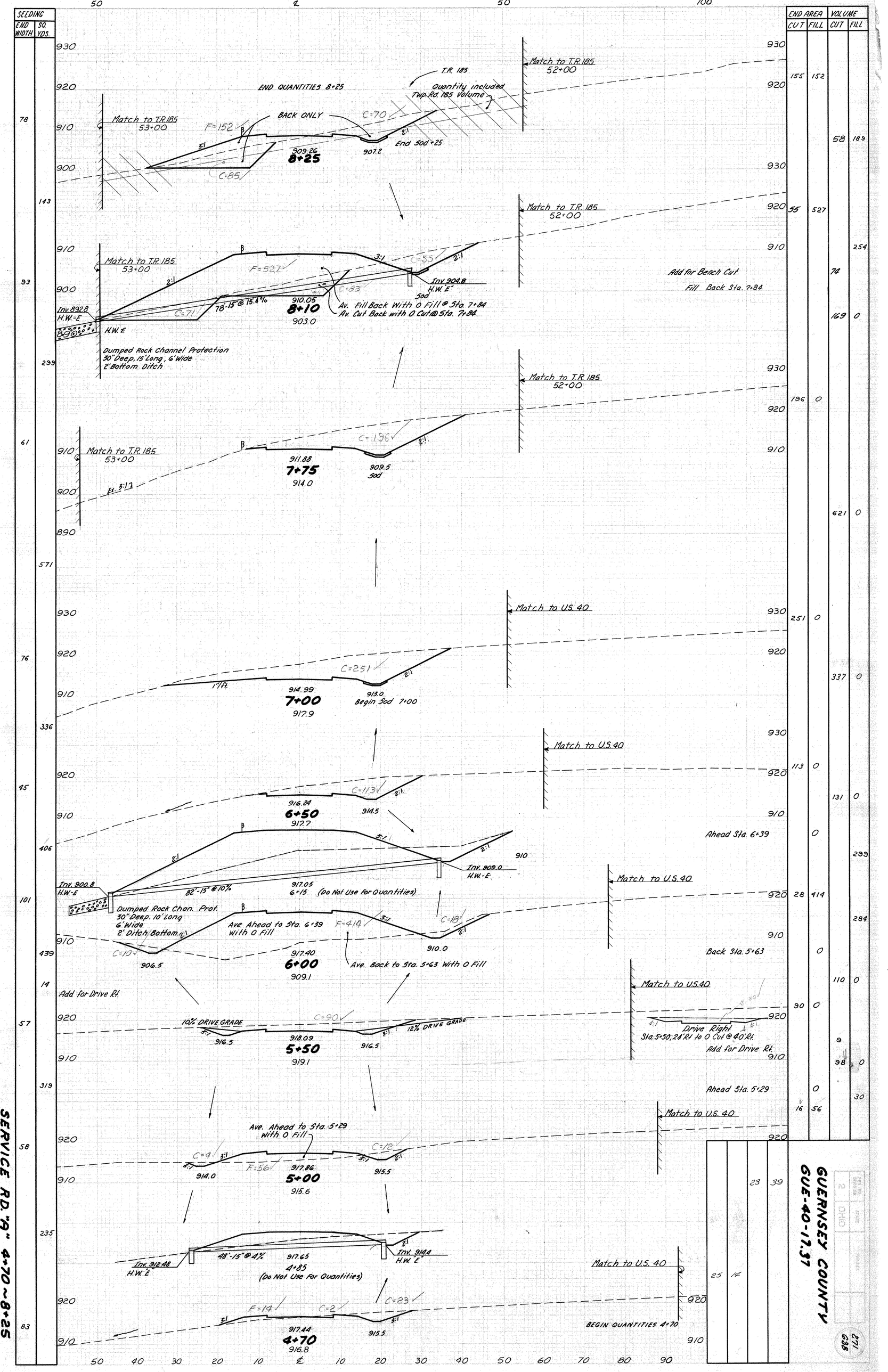
GUERNSEY COUNTY GUE-40-17.37



ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	I-9 No. 2 Stone Underdrains L.F.	I-10 Dumped Rock Channel Prot. C.Y.	I-15 No. 2 G.R. 3-Cable L.F.	L-10 Sod S.Y.	I-1 Class A-1 M-6.4 (d) 30" L.F.	I-10 Riprap 6" R.C. Slab C.Y.	I-2 Masonry S.Y.	SEE SHEET NO.
1-D	60+00 to 65+75	L&R	235							
2-D	60+00 to 63+10±	L		171						
3-D	60+00 to 63+42	R		178		35				
4-D	63+60± to 64+25	R				50				
5-D	63+50 to 64+50	L&R		27.8			68			
1-G	60+75 to 64+25±	L			337.5					
TOTALS			235	376.8	337.5	85	68	1.02	22.2	543

Twp. Rd. 277 Reloc. 60+00~65+75


SEEDING
END WIDTH
SQ. YDS.
END AREA
CUT
FILL
VOLUME
CUT
FILL
END QUANTITIES 8+25
T.R. 185
Quantity included Twp. Rd. 185 Volume
Match to T.R. 185 52+00
Match to T.R. 185 53+00
BACK ONLY
F=152
C=70
C=85
909.26
8+25
907.2
End Sod +25
Match to T.R. 185 52+00
Match to T.R. 185 53+00
F=527
C=55
C=83
C=71
78-15" @ 15.4%
910.05
8+10
903.0
Inv. 904.8 H.W. E
Sod
Inv. 892.8 H.W.-E
H.W. E
Av. Fill Back With 0 Fill @ Sta. 7+84
Av. Cut Back with 0 Cut @ Sta. 7+84
Dumped Rock Channel Protection
30" Deep, 15' Long, 6' Wide
2' Bottom Ditch
Add for Bench Cut
Fill Back Sta. 7+84
Match to T.R. 185 52+00
Match to T.R. 185 53+00
C=196
911.88
7+75
914.0
909.5
Sod
Ex. 3:1
Match to U.S. 40
C=251
914.99
7+00
917.9
913.0
Begin Sod 7+00
Match to U.S. 40
C=113
916.24
6+50
917.7
914.5
Ahead Sta. 6+39
Inv. 909.0 H.W.-E
Inv. 900.8 H.W.-E
82'-15" @ 10%
917.05
6+15
(Do Not Use For Quantities)
Dumped Rock Chan. Prot.
30" Deep, 10' Long
6' Wide
2' Ditch Bottom
Ave. Ahead to Sta. 6+39 with 0 Fill
F=414
C=18
C=10
906.5
917.40
6+00
909.1
910.0
Ave. Back to Sta. 5+63 With 0 Fill
Back Sta. 5+63
Add for Drive Rt.
Match to U.S. 40
10% DRIVE GRADE
C=90
916.5
918.09
5+50
919.1
916.5
12% DRIVE GRADE
Drive Right
Sta. 5+50, 24' Rt to 0 Cut @ 40' Rt.
Add for Drive Rt.
Ahead Sta. 5+29
Match to U.S. 40
Ave. Ahead to Sta. 5+29 with 0 Fill
C=4
C=12
F=56
914.0
917.86
5+00
915.6
915.5
Inv. 912.48 H.W. E
48'-15" @ 4%
917.65
4+85
(Do Not Use For Quantities)
Inv. 914.4 H.W. E
Match to U.S. 40
F=14
C=2
C=23
917.44
4+70
916.8
915.5
BEGIN QUANTITIES 4+70
78
143
93
299
61
571
76
336
45
406
101
439
14
57
319
58
235
83
155
152
58
189
55
527
254
74
169
0
196
0
621
0
251
0
337
0
113
0
131
0
0
299
28
414
284
0
110
0
90
0
9
98
0
0
30
16
56
23
39
25
14
50
40
30
20
10
10
20
30
40
50
60
70
80
90
SERVICE RD. "A" 4+70 ~ 8+25
GUERNSEY COUNTY
GUE-40-17.37
2
OHIO
271
638

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

272
638

GUERNSEY COUNTY
GUE-40-17.37

SEEDING

ENG. WIDTH	SQ. YDS
95	
198	
60	
83	
0	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	1480		
		0	794
0	385		
		0	180
0	0		

Match to US 40
129+23
910
900
890
880
902.0
3:1
3:1
½:1
2:1
F=1480

904.46
29+23
881.2
Match to US 40
910
900
890
903.4
3:1
3:1
½:1
2:1
F=385

905.41
29+00
896.6
0 Fill @ 28+75

Sta. 28+75

Begin Work at Sta. 28+65.32

350 300 250 200

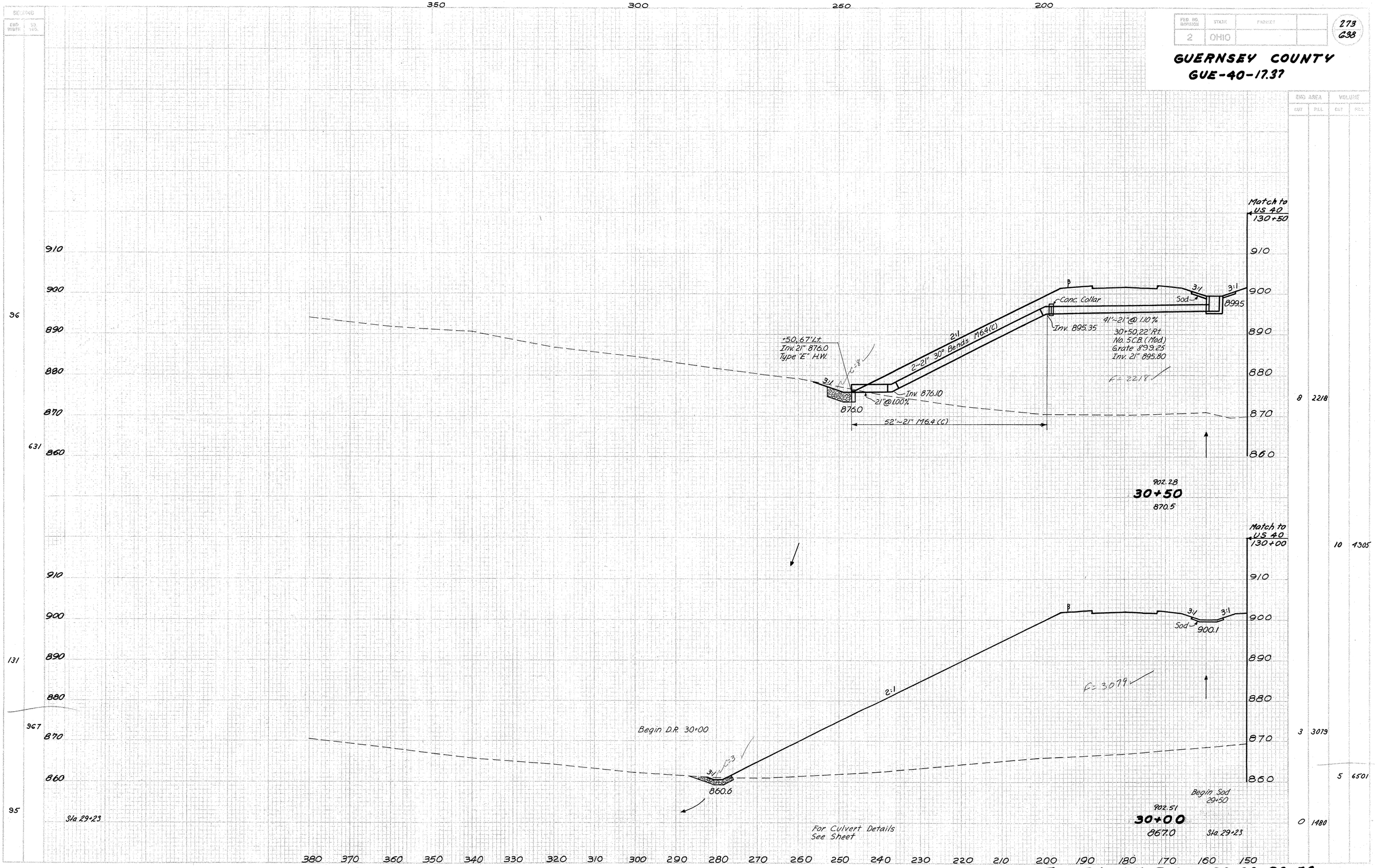
380 370 360 350 340 330 320 310 300 290 280 270 260 250 240 230 220 210 200 190 180 170 160 150

Twp. Rd. 277 Reloc. 29+00 ~ 29+23

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

273
638

GUERNSEY COUNTY
GUE-40-17.37



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
8	2218		
		10	4305
3	3079		
		5	6501
0	1480		

Twp. Rd. 277 Reloc. 30+00~30+50

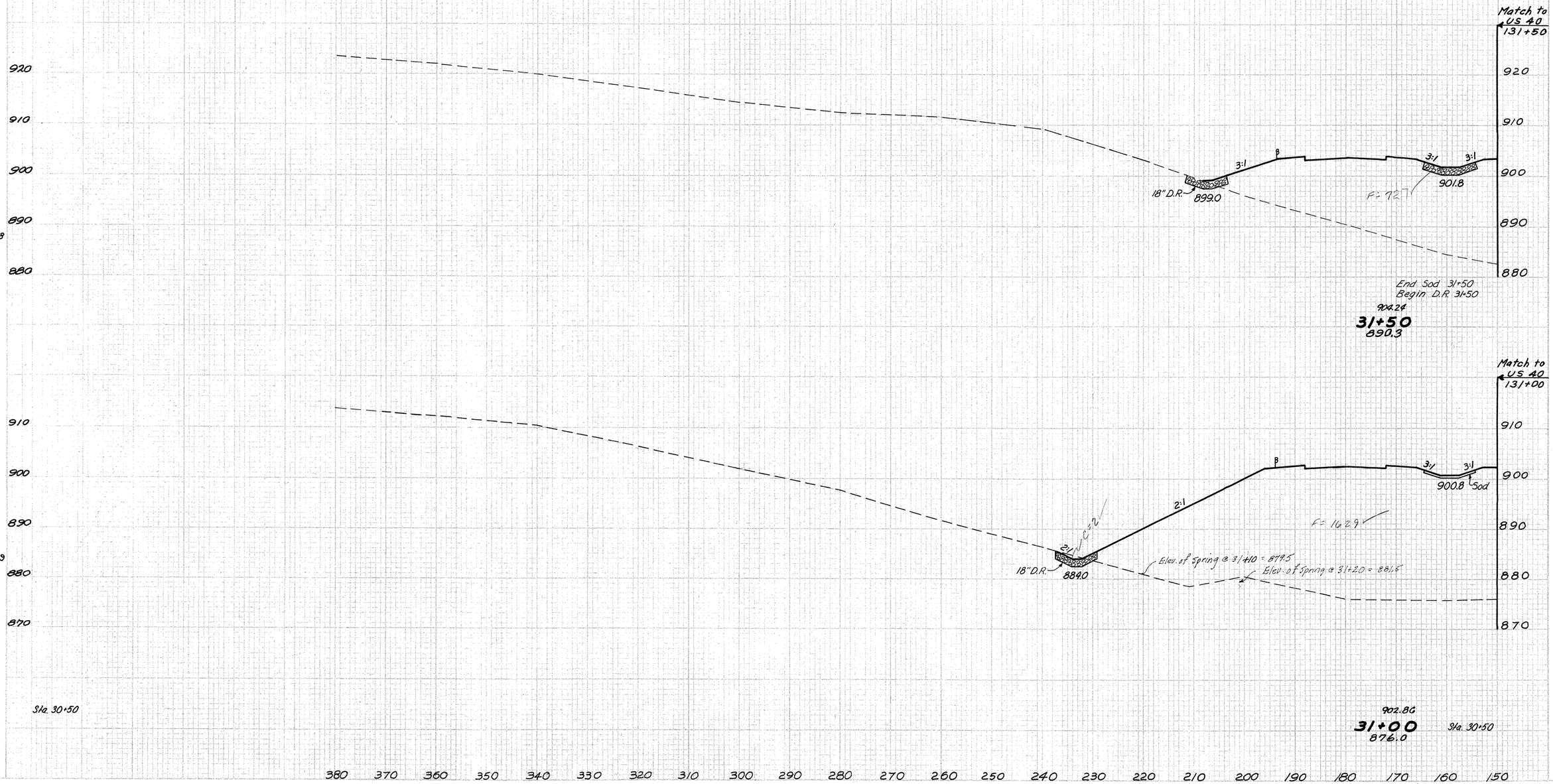
FED. AID DIVISION	STATE	PROJECT	
2	OHIO		

274
G38

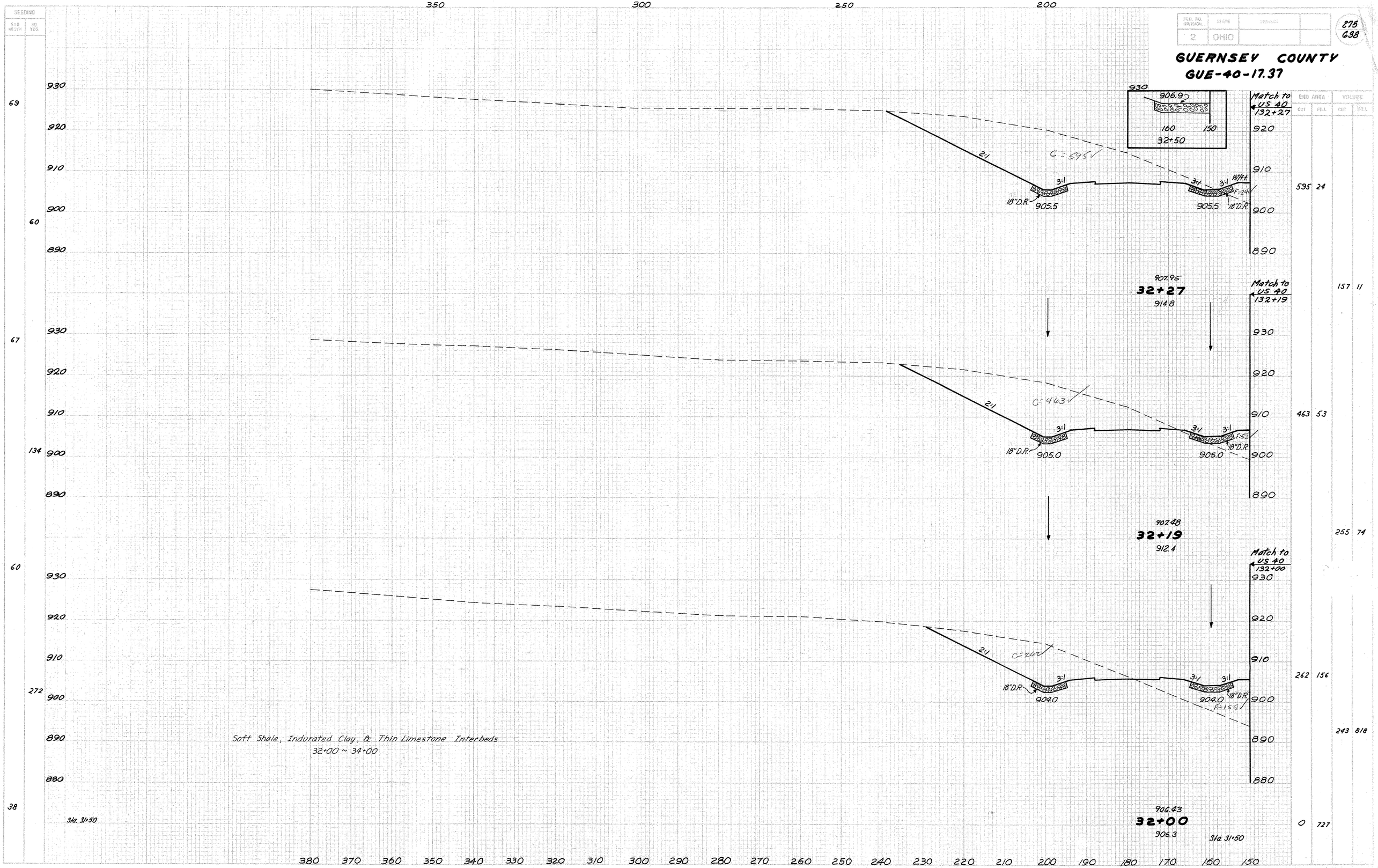
GUERNSEY COUNTY
GUE-40-17.37

SIDEHILL	
END SECTION	SQ. YDS.
38	
328	
489	
36	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		0	727
		2	2182
		2	1629
		9	3562
		8	2218



Twp. Rd. 277 Reloc. 31+00~31+50

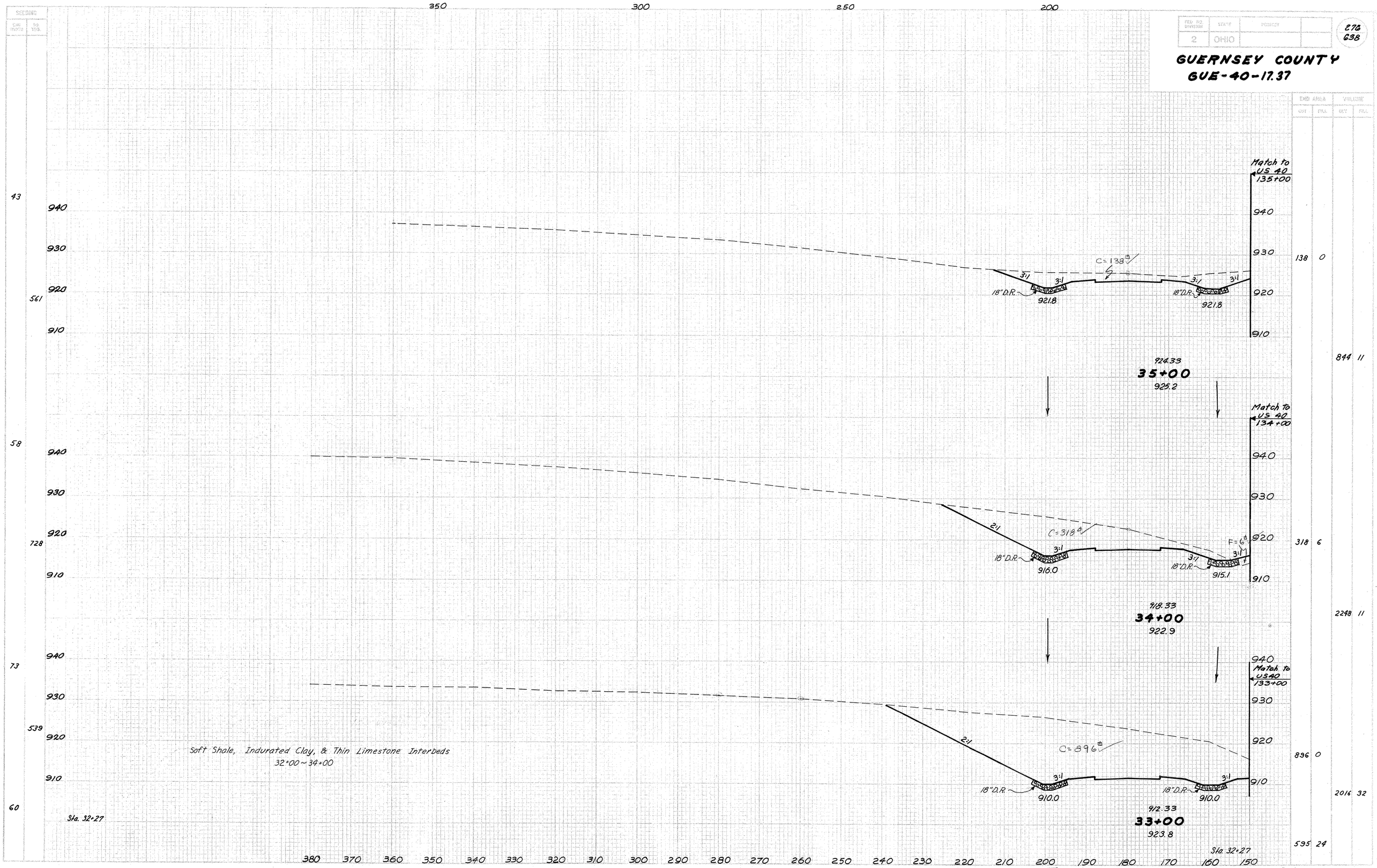


Twp. Rd. 277 Reloc. 32+00 ~ 32+27

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

276
638

GUERNSEY COUNTY
GUE-40-17.37



Twp. Rd. 277 Reloc. 33+00~35+00

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

277
638

GUERNSEY COUNTY
GUE-40-17.37

SEECMG			END AREA		VOLUME	
END WIDTH	SQ YDS		CUT	FILL	CUT	FILL
53	594	Match to US 40 137+00				
		950				
		940				
		930	119	0		
		C=119 Profile Temporary Crossover +0.18%				
		2:1 2:1 3:1 3:1 2:1 Sod 18"D.R.				
		934.0 933.8				
		936.33				
		37+00 936.4			604	0
		Match to US 40 136+00				
		950				
54	180	940				
		930	207	0		
		C=207 2:1 3:1 3:1 3:1 Sod 18"D.R.				
		928.0 928.0			246	0
		930.33				
		36+00 932.9				
		Match to US 40 135+70				
54	237	940				
		930	235	0		
		C=235 2:1 3:1 3:1 3:1 Sod 18"D.R.				
		926.1 926.1			316	0
		928.53				
		35+70 932.1				
		Match to US 40 135+27				
45	132	940				
		End D.R. 35+35 Begin Sod 35+35				
		930	162	0		
		C=162 3:1 3:1 3:1 3:1 18"D.R. 18"D.R.				
		923.8 923.8			150	0
		925.95				
		35+27 927.9				
43		Sta. 35+00			Sta. 35+00	138 0

350 300 250 200

360 350 340 330 320 310 300 290 280 270 260 250 240 230 220 210 200 190 180 170 160 150

Twp. Rd. 277 Reloc. 35+27~37+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

278
698

GUERNSEY COUNTY
GUE-40-17.37

SECONDS

END WIDTH	50 YDS
72	
192	
89	
69	
192	
59	
628	
54	
594	
53	

350 300 250 200

960
950

Add for Drive

Section "A-A"
C= 293'
2:1 3:1 3:1 2:1
960
950
Average with 0 cut back to 27' Lt.
Average with 0 cut ahead to 72' Lt.

Profile of 18" Pipe @ 39+40
39+16, 19.5' Lt.
Inv. 846.3
39+60, 19.5' Lt.
Inv. 848.00
44'-18" @ 3.86%

Field Drive @ 16.00%
"A" "A"
2:1
C= 542'
3:1 2:1
Sod
948.5
950.88
39+51
958.9
Match to US 40
139+51
960
950
Add for Drive

Match to US 40
139+27
960
950
2:1
C= 514'
3:1 2:1
Sod
947.3
949.65
39+27
957.2

End D.R. 39+16

Match to US 40
139+00
960
950
2:1
C= 459'
3:1 3:1 2:1
18" D.C.
945.9
Sod
945.9
948.20
39+00
955.0

Match to US 40
138+00
950
940
2.6:1
C= 264'
3:1 3:1 2:1
18" D.R.
940.0
Sod
940.0
942.33
38+00
945.8

Sta. 37+00

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
542	0		
		469	0
		102	0
514	0		
		487	0
459	0		
		1339	0
264	0		
		709	0
119	0		

360 350 340 330 320 310 300 290 280 270 260 250 240 230 220 210 200 190 180 170 160 150

Twp. Rd. 277 Reloc. 38+00~39+51

DIST. NO. DIVISION	STATE	PROJECT		279
2	OHIO			238

GUERNSEY COUNTY
GUE-40-17.37

SEEDING

END SHEAR	SQ. YDS.
99	1067
93	904
69.5	225
75	171
72	

350 300 250 200

990 980 970 960 950

Match to US 40 142+00

End Ditch 42+50

C = 1048

2:1 3:1 Sod 958.0 3:1 2:1

960.20 958.0

42+00 973.0

Match to US 40 141+00

C = 770

2:1 3:1 Sod 954.9 3:1 2:1 954.9

957.20

41+00 967.6

Match to US 40 140+00

End Sod 40+50

C = 575

2:1 3:1 Sod 951.0 3:1 Sod 951.0

953.20

40+00 961.5

Match to US 40 139+72

Building

C = 668

2:1 3:1 Sod 948.9 3:1 Sod 948.9

951.91

39+72 960.7

Begin Sod 39+60

Sta. 39+51

Soft Shale, Indurated Clay, & Thin Limestone Interbeds
39+72 ~ 46+79

Sta. 39+51

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		1048	0
		3366	0
		770	0
		2491	0
		575	0
		645	0
		668	0
		471	0
		542	0

380 370 360 350 340 330 320 310 300 290 280 270 260 250 240 230 220 210 200 190 180 170 160 150

TWP. RD. 277 RELOC. 39+72 ~ 42+00

FED. ROAD SECTION	STATE	PROJECT	
2	OHIO		

280
G38

GUERNSEY COUNTY
GUE-40-17.37

SEEDING

END NORTH	SQ. YDS.
	127
	1280
	115.5
	1106
	94
	1051
	99

END AREA CUT	END AREA SKL.	VOLUME CUT	VOLUME FILL
		2150	0
		6206	0
		1378	0
		4046	
		922	0
		3575	0
		1048	0

Match to US 40 ← 145+00

1010 / 1000 / 990 / 980 / 970 / 960

C = 2150

961.0

963.26
44+88
985.9

Match to US 40 ← 144+00

C = 1378

960.90

963.17
43+93
977.7

960.2

Match to US 40 ← 143+00

End Sod 43+00

C = 922

Sod 960.0

962.17
42+98
973.0

Sta. 42+00

Soft Shale, Indurated Clay & Thin Limestone Interbeds
39+72 ~ 46+79

380 370 360 350 340 330 320 310 300 290 280 270 260 250 240 230 220 210 200 190 180 170 160 150

Twp. Rd. 277 Reloc. 42+98 ~ 44+88

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

281
638

GUERNSEY COUNTY
GUE-40-17.37

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
48	635	80	0	1515	0
71	881	772	0	5105	0
96	589	2130	0	4280	0
125	672	2685	0	4298	0
127		2150	0		

Match to US 40 148+00
970
960
950
C=13 Ⓒ
C=12 Ⓒ
C=55 Ⓒ
3:1
3:1
Sod
955.8
958.05
47+75
958.1

980
970
960
Match to US 40 147+00
C=772 Ⓒ
2:1
3:1
Sod
958.5
960.71
46+79
971.9
3:1
½":1'
Begin Sod 46+50

1000
990
980
970
960
Match to US 40 146+00
C=2130 Ⓒ
2:1
3:1
960.2
962.43
45+84
991.5
3:1
½":1'

1000
990
980
970
960
Match to US 40 145+50
C=2685 Ⓒ
2:1
3:1
960.9
962.96
45+36
991.5
3:1
½":1'
959.3
Sta. 44+88

Soft Shale, Indurated Clay & Thin Limestone Interbeds
39+72 ~ 46+79

Sta. 44+88

380 370 360 350 340 330 320 310 300 290 280 270 260 250 240 230 220 210 200 190 180 170 160 150

Twp Rd 277 Relocated 45+36 ~ 47+75

REG. RD. DIVISION	STATE	PROJECT	
2	OHIO		

282
G38

GUERNSEY COUNTY
GUE-40-17.37

SEEDING

SEED WIDTH	SQ. YDS.
92	
408	
31	
61	
665	
65	
693	
65	
337	
64	
299	
48	

350 300 250 200

Drive Section @ A-A
Average with Cout @ 57' Lt.

Add for drive

68' Lt. End Drive

Ex. 12" C.M.P.

Profile of Res. Drive
50+96.5

Begin Ditch 51+00

Add for Drive

Ex. 12" C.M.P. @ 5%
Inv. 934.17 @ 50+66, 45' Lt.

941.79
51+09
941.4

944.67
50+61
936.2

938.6

950.02
49+66
939.0

943.0

954.51
48+70
946.5

947.5

956.37
48+23
951.0

940.0

Begin Dumped Rock 48+00

Sta. 47+75

Match to US 40 151+50
Match to US 40 151+00
Match to US 40 150+00
Match to US 40 149+00
Match to US 40 148+50

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
37	3		
		33	340
			18
0	380		
		10	1578
6	517		
		32	1577
12	370		
		19	514
10	220		
		80	195
80	0		

380 370 360 350 340 330 320 310 300 290 280 270 260 250 240 230 220 210 200 190 180 170 160 150

Sta. 47+75

Twp. Rd. 277 Reloc. 48+23 ~ 51+09

SEEDING	
END WIDTH	SQ. YDS
68	
	360
67	
	337
62	
	411
92	

PRO. NO. DIVISION	STATE	PROJECT	
2	OHIO		

COS G38

GUERNSEY COUNTY
GUE-40-17.37

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		605	0
		360	0
		475	0
		663	0
		287	0
		288	3
		37	3

Match to US 40
153+00
950
940
930
920
910

C = 605 CY
3:1 2:1 B 2:1 3:1 Sod
931.0
931.8
933.21
52+52
942.7
Begin Sod 52+50

Match to US 40
152+50
950
940
930
920
910

C = 475 CY
2:1 3:1 3:1 2:1
934.0
934.2
936.09
52+04
943.3

Match to US 40
152+00
950
940
930
920
910

C = 287 CY
2:1 3:1 2:1 3:1
936.6
937.1
938.91
51+57
943.2
Begin Ditch 51+50

Soft Shale, Indurated Clay & Thin Limestone Interbeds
52+52 ~ 56+34

Sta. 51+09

400 390 380 370 360 350 340 330 320 310 300 290 280 270 260 250 240 230 220 210 200 190 180 170 160 150

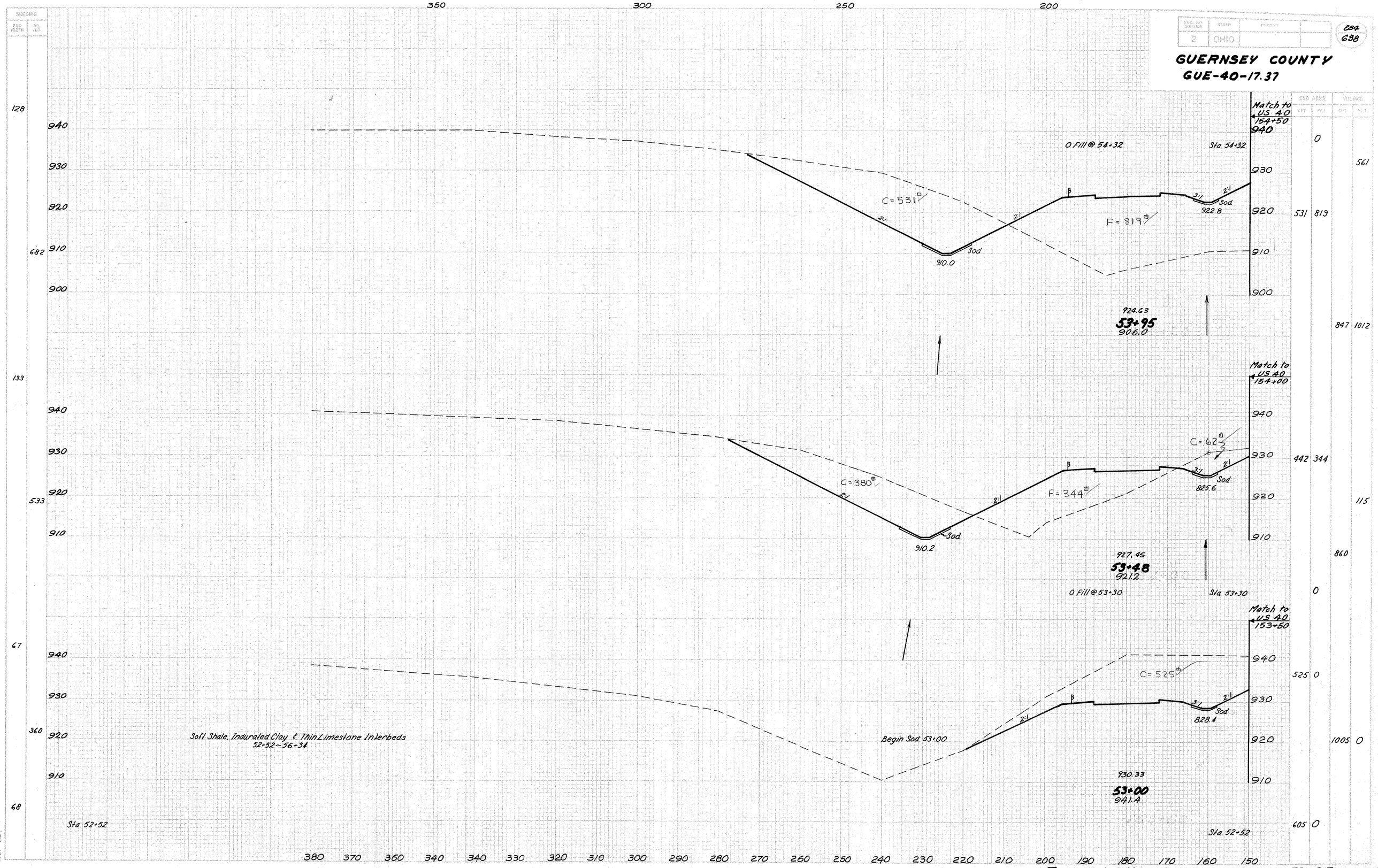
Sta. 51+09

Twp Rd 277 Relocated 51+57 ~ 52+52

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

284
638

GUERNSEY COUNTY
GUE-40-17.37



Twp. Rd. 277 Reloc. 53+00~53+95

FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO		

285
G38

GUERNSEY COUNTY
GUE-40-17.37

SEEDING

END WIDTH	SQ. FDS.
103	
584	
116	
616	
120	
661	
128	

400 350 300 250 200

940 930 920 910 900

Match to US 40 ← 156+00

C = 1264 cy

2:1 3:1 Sod 909.4

3:1 2:1 Sod 914.2

9/6.05
55+38
928.4

Match to US 40 ← 155+49

C = 1300 cy

2:1 3:1 Sod 909.6

3:1 2:1 Sod 912.0

918.93
54+90
928.7

Match to US 40 ← 155+00

C = 966 cy

F = 4 cy

2:1 2:1 Sod 909.8

3:1 2:1 Sod 920.0

921.75
54+43
926.8

Soft Shale, Indurated Clay & Thin Limestone Interbeds
52+52 ~ 56+34

Sta. 53+95

Sta. 54+32

Sta. 53+95

400 390 380 370 360 350 340 330 320 310 300 290 280 270 260 250 240 230 220 210 200 190 180 170 160 150

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
1264	0		
		2279	0
1300	0		
		1972	3
966	4		
		1331	1
531	0		

Twp. Rd. 277 Reloc. 54+43 ~ 55+38

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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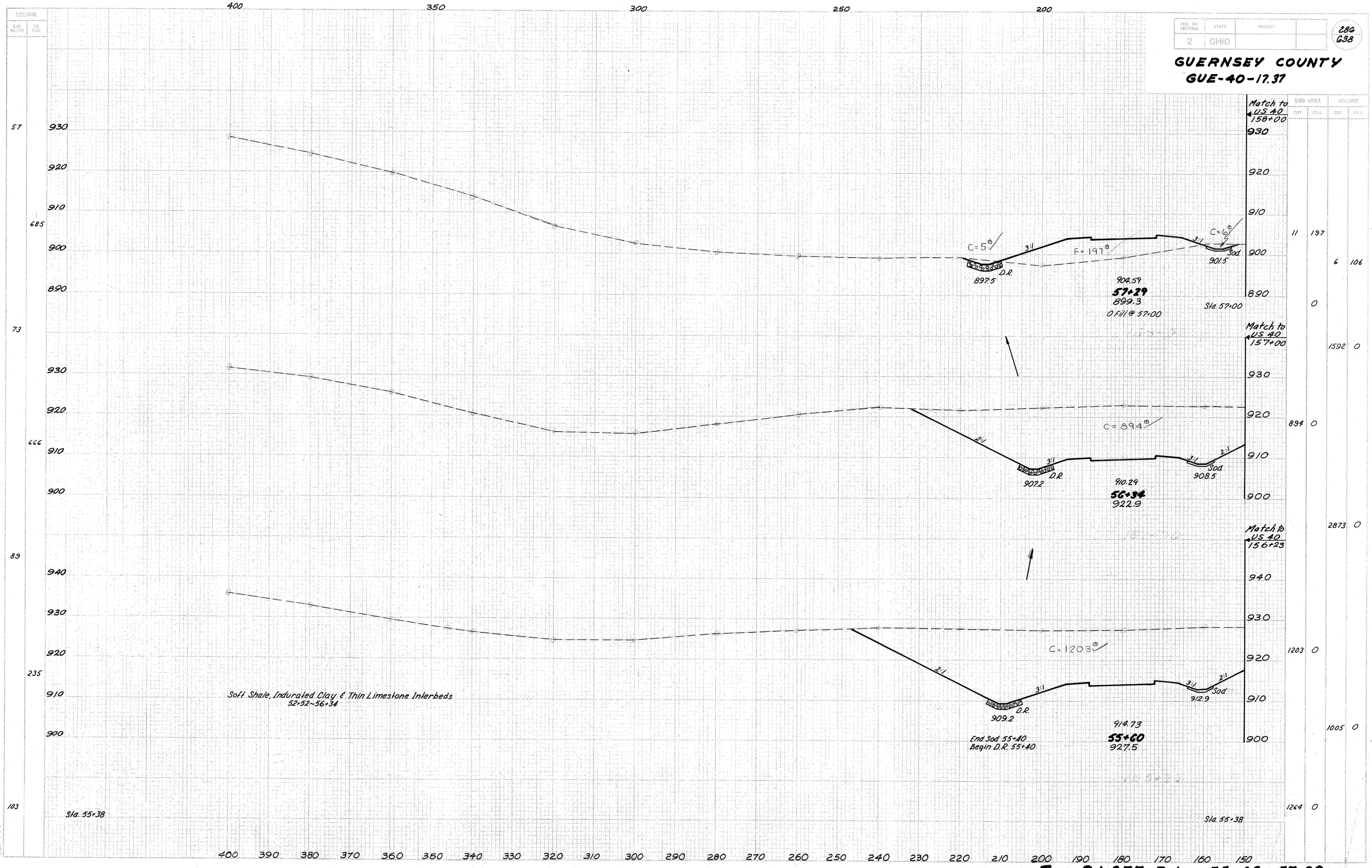
638

GUERNSEY COUNTY
GUE-40-17.37



Twp. Rd. 277 Reloc. 55+60 ~ 57+29

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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638

GUERNSEY COUNTY
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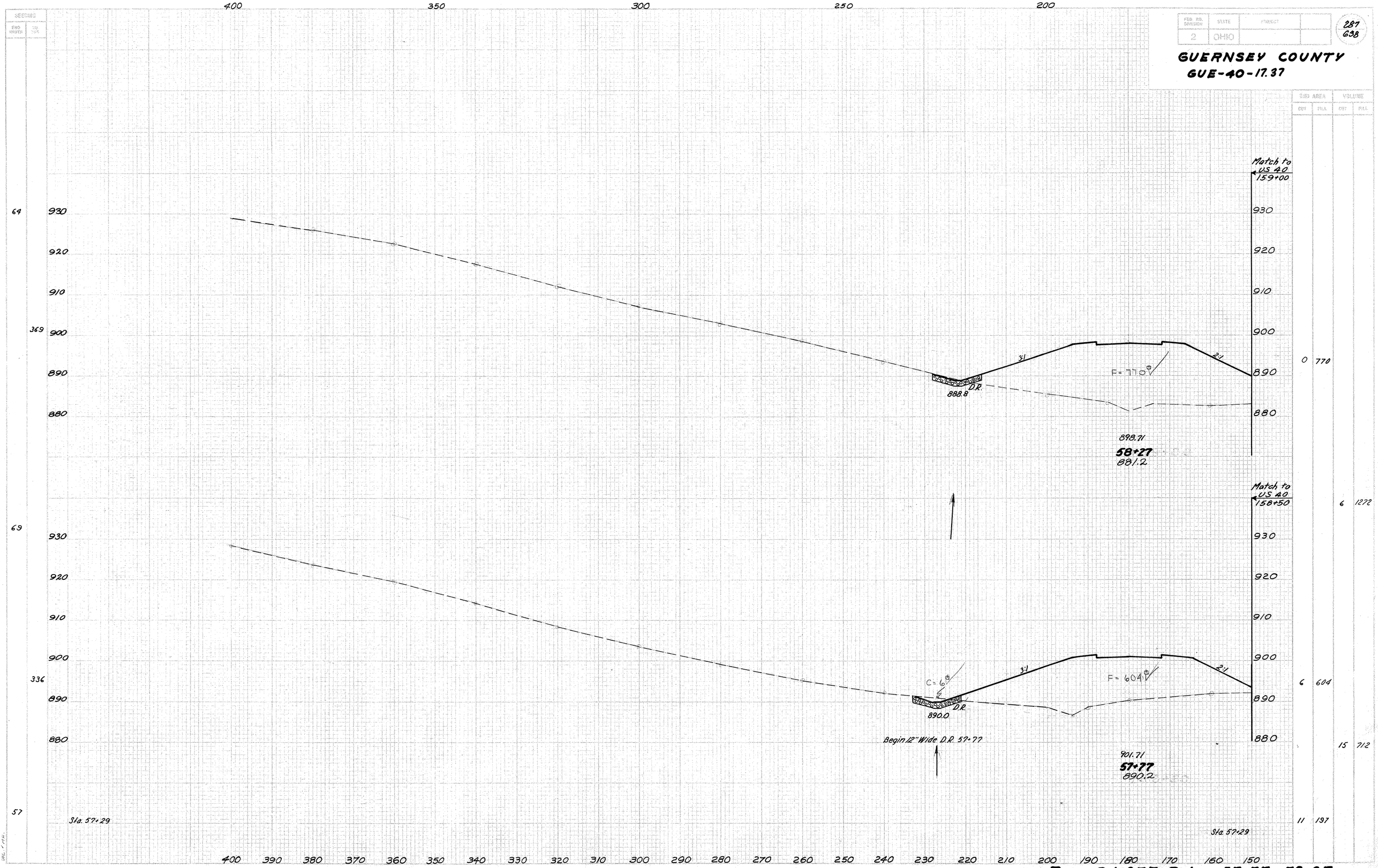

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
0	770		
		6	1272
6	604		
		15	712
11	197		

Twp. Rd. 277 Reloc. 57+77~58+27

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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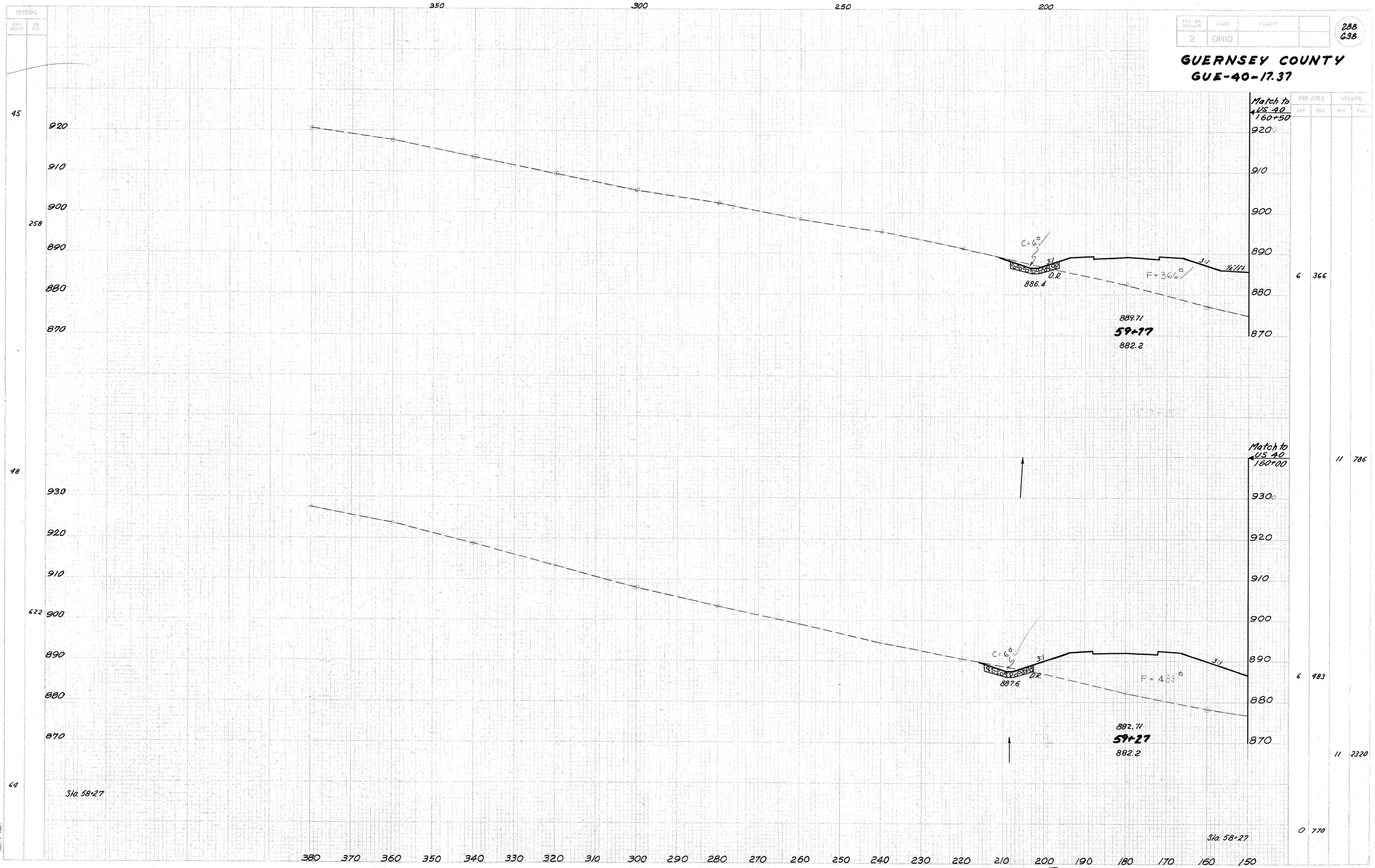
638

GUERNSEY COUNTY
GUE-40-17.37



Twp. Rd. 277 Reloc. 59+27~59+77

FED. ROAD DIVISION	STATE	PROJECT
2	OHIO	

GUERNSEY COUNTY
GUE-40-17.37

SEEDING END WIDTH	SEEDING SQ YDS
64	322
52	289
52	269
45	

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
5	1175		
		9	1951
5	932		
		8	1486
4	673		
		9	962
6	366		

880.71
61+27
860.9
Match to US 40 161+00

883.71
60+77
865.3
Match to US 40 161+00

886.71
60+27
873.6
Sta. 59+77

End Sod 60+30
Begin D.R. 60+30

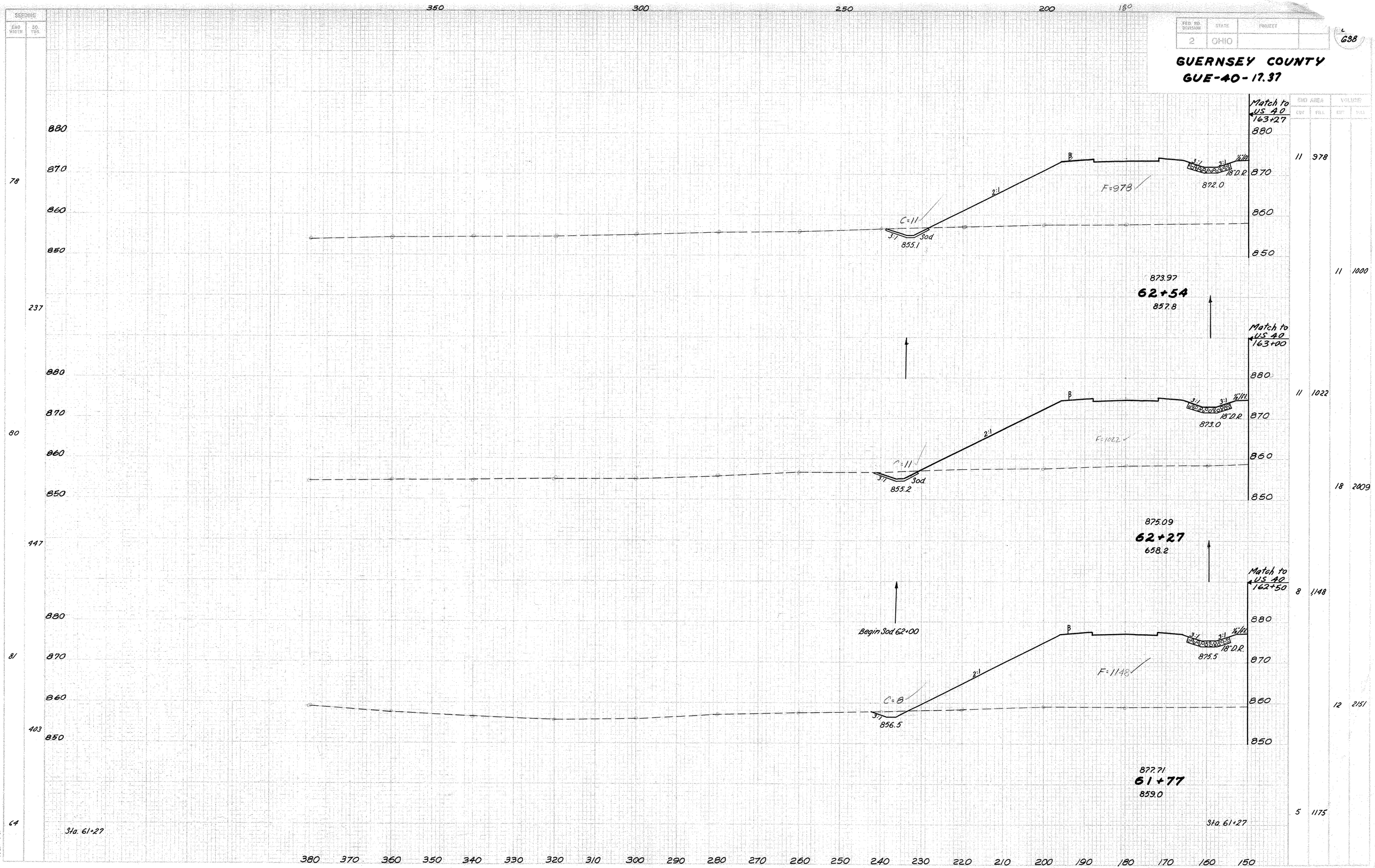
Sta. 59+77

Twp. Rd. 277 Reloc. 60+27 ~ 61+27

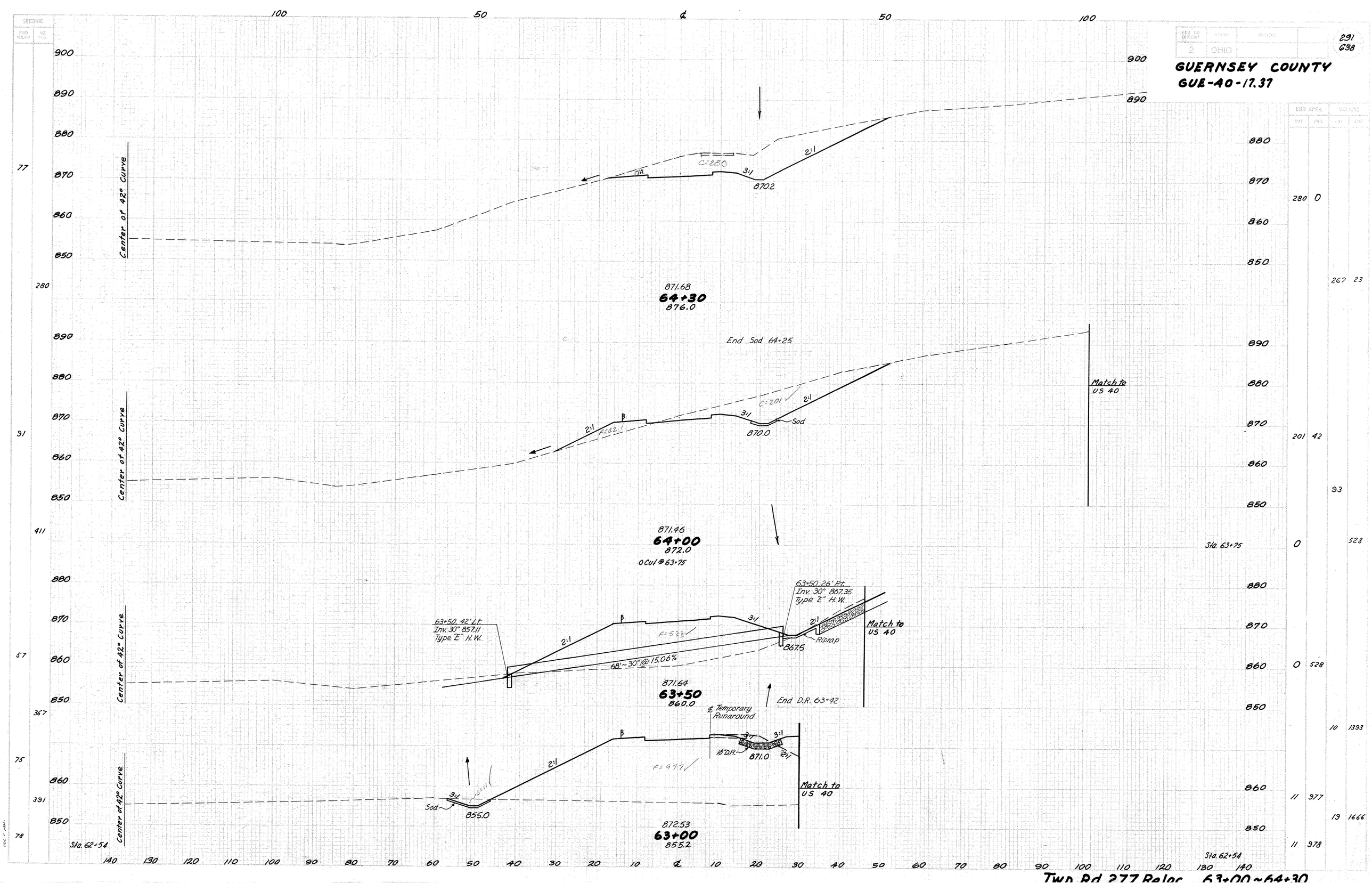
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

638

GUERNSEY COUNTY
GUE-40-17.37



Twp. Rd. 277 Reloc. 61+77 ~ 62+54



GUERNSEY COUNTY
GUE-40-17.37
291
638
Center of 42° Curve
871.68
64+30
876.0
870.2
C=280
3:1
2:1
End Sod 64+25
Match to US 40
870.0
Sod
C=201
871.46
64+00
872.0
0 Cut @ 63+75
Sta. 63+75
63+50, 42' Lt.
Inv. 30" 857.11
Type "E" H.W.
63+50, 26' Rt.
Inv. 30" 867.35
Type "E" H.W.
Riprap
867.5
68'~30" @ 15.06%
871.64
63+50
860.0
End D.R. 63+42
℄ Temporary Runaround
18" D.R.
871.0
855.0
872.53
63+00
855.2
Sta. 62+54
Twp Rd 277 Reloc 63+00~64+30

SEEDING	
GRD WIDTH	SQ YDS

REG NO DIVISION	STATE	PROJECT	
2	OHIO		

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GUERNSEY COUNTY
GUE-40-17.37

END AREA		VOLUME	
CUT	FILL	CUT	FILL

End Work & Pavt. 65+75

150 100 50 ℄ 50 100

890 880 870 860 850

873.55
65+75
873.6

872.17
64+77
875.6

℄=6

℄=21

1':1A 3:1 2:1 870.6

0 359 66 373 77

Sta. 64+30

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

890 880 870 860 850

65+75 Back Only

6 0 194 0 217 0 432 0 280 0

Sta 64+30

Twp. Rd. 277 Reloc. 64+77~65+75

GUERNSEY COUNTY GUE-40-17.37

UTILITIES
Home Telephone Co.
Guernsey Muskingum Elect. Coop. Inc.

N

LA R/W

CHANNEL EASEMENT

see Sheet 48

Ex. LA R/W

CHESTER SLASOR
MARGARET SLASOR

Mon. (Fnd)

I-15, 12.5 L.F. G.R.

2-G

N 3° 57' 31" W

N 3° 30' 19" W

Legend
Removal of Existing Pavement
Scarify

18'

1" Bit Mat.
5" Coarse Stone & Gravel
Ex. Typ. Sec. Co. Rd. #1

Tacked Hub
30.93'
30.48'
46.13'
P.K. in 8" Poplar
P.K. in 14" Poplar
P.K. in Post
P.O.T. 165+27.86 ℄
Field Drive

HOWARD FULLER

1-A
166+16
9' Lt. to 42' Lt.
Type 2 Field Dr.
6" B-19, 11.5 C.Y.

Ex. R/W

TWP RD 277 ℄

Inv. 875.01

Scarify Exist. T.R. 277 as shown Cost to be included in price bid for E-1

12" Min.
Inv. 881.43

18" Conc.

Ex. 24"

42" Lt.

MATCH LINE SEE BELOW

1-R
E-8, Remove 5,002 S.Y. Existing Pav't.

4-R
Cumberland
Milestone 169

2-R
I-15
Removed & Rebuilt
250 L.F. G.R.
Ex. Steel Beam

Ex. US 40

LA Ex. R/W

2-A
165+63
9' Rt. to 50' Rt.
Type 2 Field Dr.
6" B-19, 13.7 C.Y.

Inv. 873.51
Ex. 12"

Inv. 893.61
15" Conc. Pipe

BEGIN WORK +00
BEGIN PAV'T

160 161 ℄ Construction 162 Ex. Co. Rd. #1 163 164 165 166 167 168 169 170

N-74° 30' 59"-E

160 Inv. 895.55 161 162 ℄ Survey 163 164 165 166 167 168 169 170

U.S. G.S. P-64

12" C.M.P.

Ex. 3'x3' Box Culvert

1-R
(See Quantity above)

I-15
Removed & Rebuilt
312.5 L.F. G.R.

3-R

Sta. 50+16.55 ℄ Twp. Rd 277
Sta. 165+95.76 ℄ Const. Co. Rd. #1

Ex. Field Dr.
897.3

HOWARD FULLER

Ex. Steel Beam

Connect Proposed G.R. to Exist.

LA Ex. R/W

MATCH LINE Rt. 152+50 ℄
SEE SHEET NO. 47

MATCH LINE Lt. 160+00
THIS SHEET

1-G
I-15, 250 L.F. G.R.

B.M. 208 Elev. 889.90
U.S.G.S. P-64 / 1934
33 Rt. Sta. 165 + 50

Profile

Left	Right
895.24	903.19
895.30	904.37
895.36	905.65
895.48	906.94
895.67	908.28
895.93	
896.25	
896.65	
897.11	
897.66	
898.27	
898.93	
899.67	
900.49	
901.37	
902.31	903.33
903.39	904.41
905.57	906.73
906.47	907.52
907.54	

Excavation	353 C.Y.
Embankment	23 C.Y.
Embankment +/2%	26 C.Y.
Seeding	2/395 S.Y.

P.V.I. 167+40.72 — 400' V.C. — Elev. 895.82

+0.24% +4.66%

Ex. 15"

Ex. 3'×3'

910 900 890

160	161	162	163	164	165	166	167	168	169	170
897.27	897.54	897.81	897.67	897.51	897.25	896.80	896.21	895.68	895.29	895.24
										895.22 (HT)
										895.4
										895.5 (.09)
										894.9 (.46)
										894.5 (.71)
										894.0 (.98)
										893.8 (1.08)
										893.6 (1.18)
										893.4 (1.28)
										893.38 (1.00)
								895.28	896.37	897.67
								899.0	900.69	902.85
								905.13	907.54	

ESTIMATED QUANTITIES

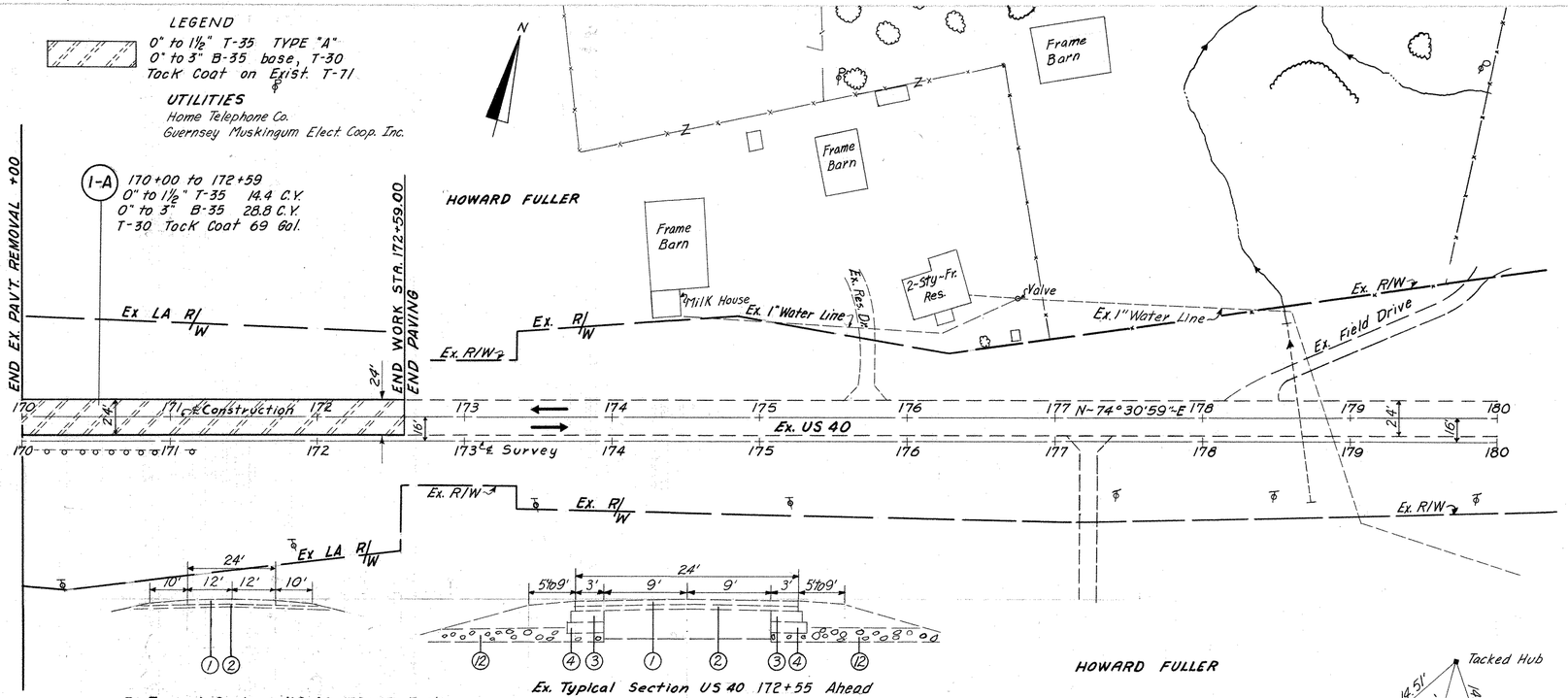
REF NO	STATION TO STATION	SIDE	I-15 2-A Guard Rail L.F.	I-15 Guard Rail Removed & Rebuilt L.F.	B-19 6" C.Y.	E-8 Removal (Disposal of Exist. Pav't. S.Y.	I-9 No. 2 Stone Under-drains L.F.	E-8 Removal & Storage EA.
1-A	166+16, 9' Lt. to 42' Lt.	L.			11.5			
2-A	165+63, 9' Rt. to 50' Rt.	R.			13.7			
1-G	166+00± to 168+50±	R.	250					
2-G	AS INDICATED		12.5					
1-R	AS INDICATED			250		5,002		
2-R	" "			312.5			480	1
3-R	" "	L						
4-R	163+33, 122' Lt.							1
1-D	165+00 to 170+00							
TOTALS			262.5	562.5	25.2	5,002	480	1

Co. Rd. 1 Connection At Twp. Rd. 277 160+00~170+00

GUERNSEY COUNTY GUE-40-17.37

LEGEND
0" to 1½" T-35 TYPE "A"
0" to 3" B-35 base, T-30
Tack Coat on Exist. T-71

UTILITIES
Home Telephone Co.
Guernsey Muskingum Elect. Coop. Inc.



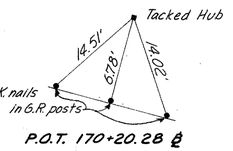
Ex. Typical Section US 40 172+55 Back

① T-71 9" Reinforced Portland Cement Conc. Pavement
② 55-112 4" Classified Embankment Material Blanket Course (Modified)

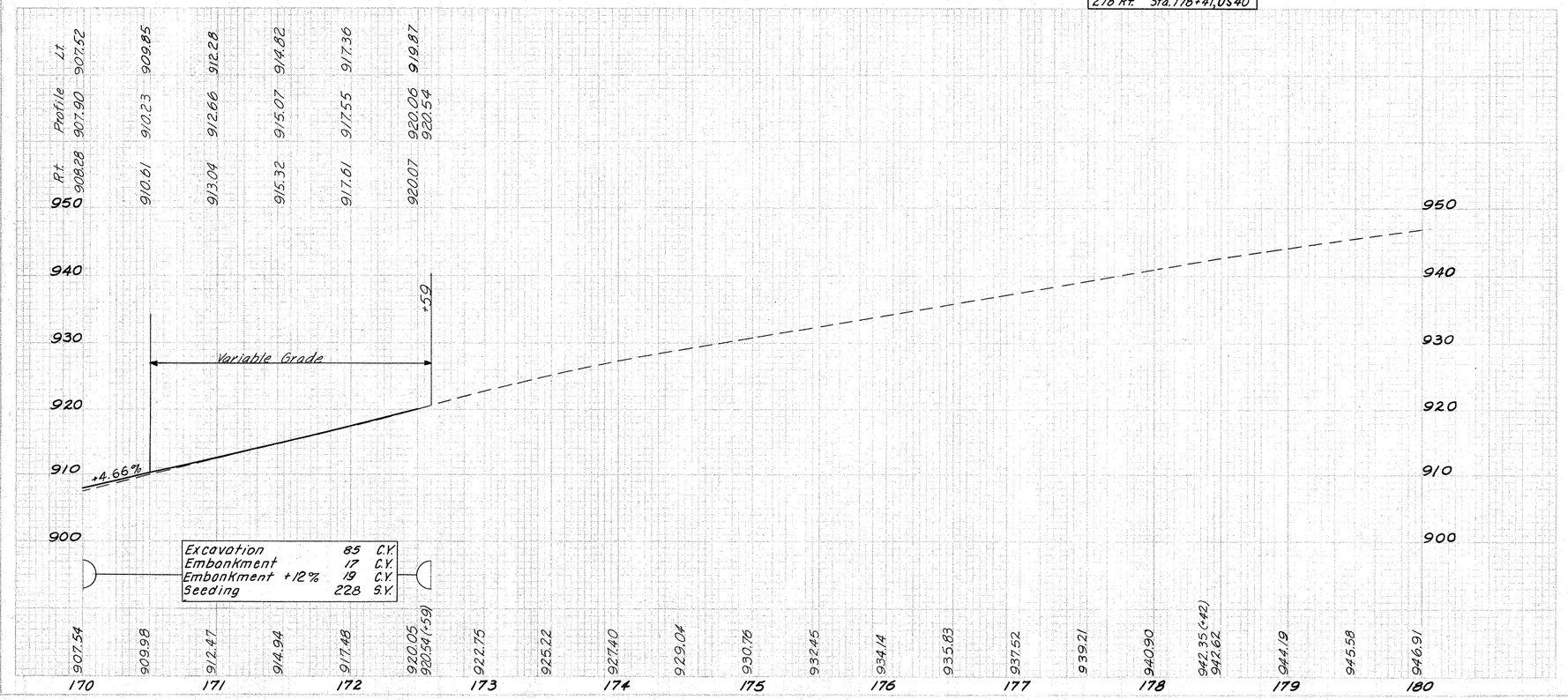
Ex. Typical Section US 40 172+55 Ahead

① Item T-35 1¼" Asphaltic Conc. Surface Course (Type A)
② Item B-35 1¼" minimum Asphaltic Conc. Leveling Course
③ Item B-35 3" Asphaltic Conc. Leveling Course
④ Item B-35 3" Asphaltic Conc. Base Course
⑫ Item I-9 Stone Underdrain №2

B.M. 209-A Elev. 927.61
M.S. in power pole
27.8 Rt. Sta. 178+41, US40



P.O.T. 170+20.28 ℄

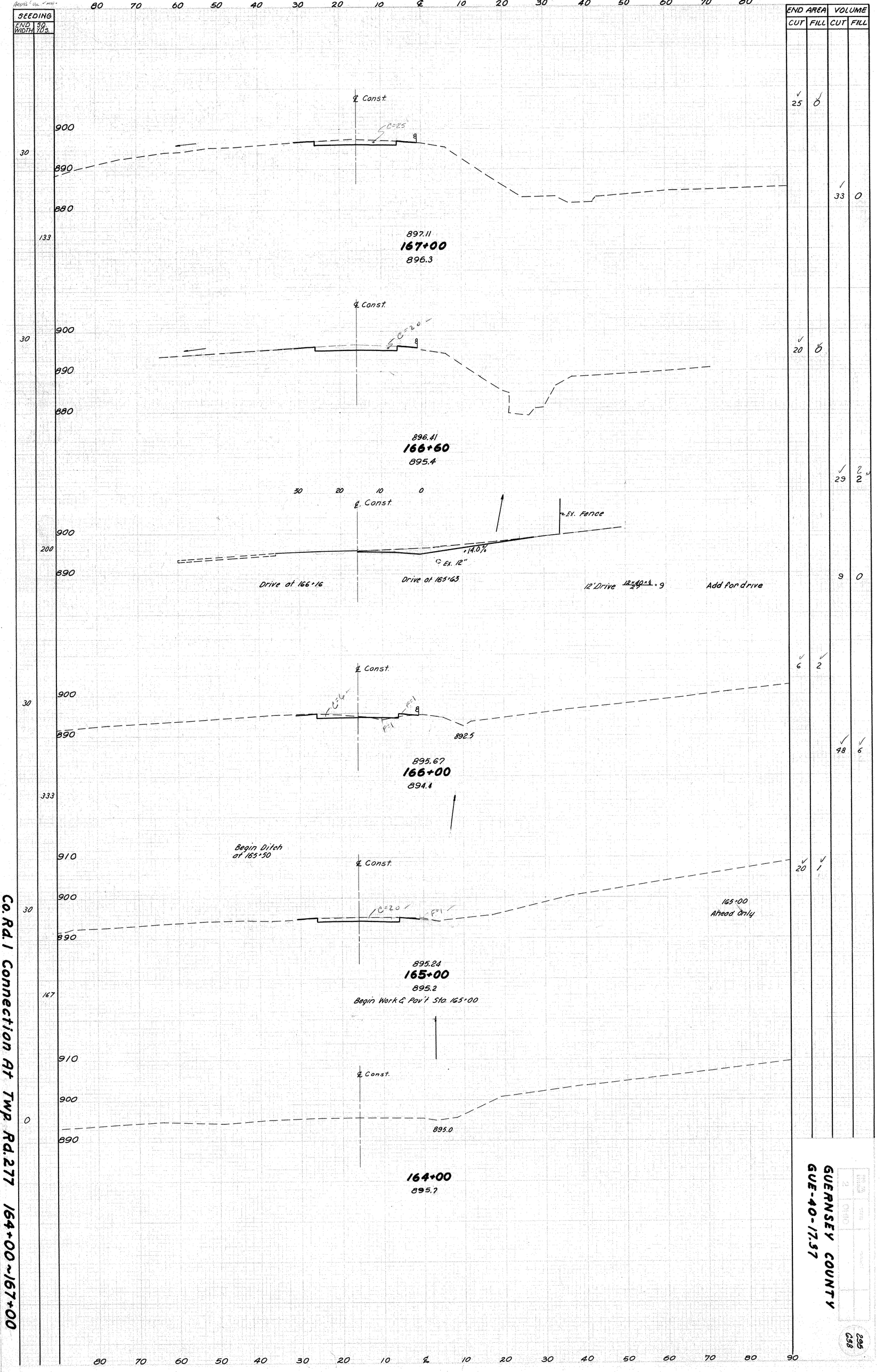


Excavation	85	C.Y.
Embankment	17	C.Y.
Embankment +12%	19	C.Y.
Seeding	228	S.Y.

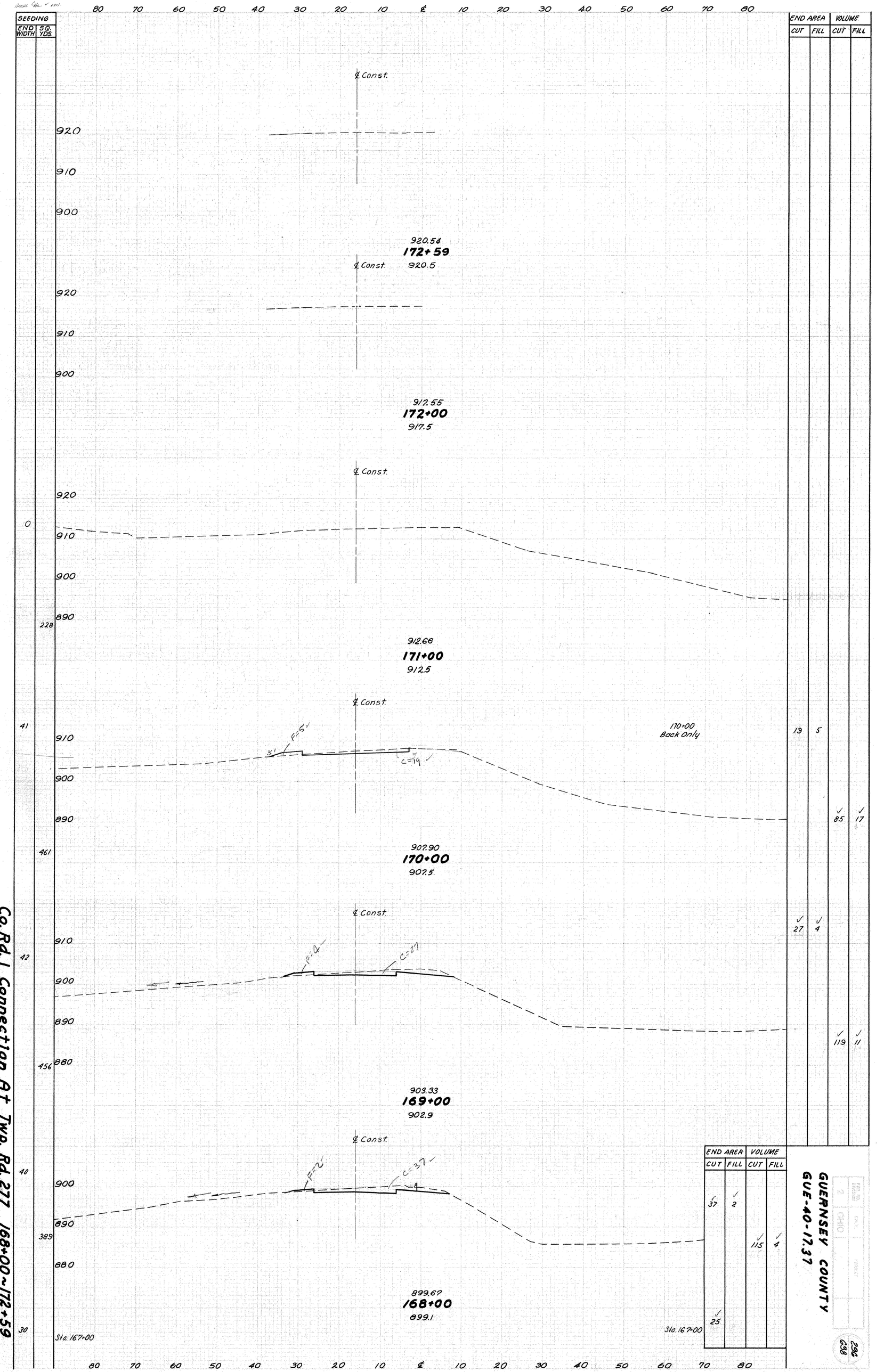
ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	T-35 0"to1⅛" TYPE "A" C.Y.	B-35 0"to3" Asphal. Base Course C.Y.	T-30 Tack Coat Gal.
I-A	170+00 to 172+59	L&R	14.4	28.8	69
			14.4	28.8	69

Co. Rd. 1 Connection At Twp. Rd. 277 170+00~180+00



SEEDING
END WIDTH
SQ. YDS.
END AREA
CUT
FILL
VOLUME
CUT
FILL
℄ Const.
C=25
897.11
167+00
896.3
℄ Const.
C=20
896.41
166+60
895.4
℄ Const.
Ex. Fence
14.0%
Ex. 12"
Drive at 166+16
Drive at 165+63
12' Drive
Add for drive
℄ Const.
C=6
F=1
892.5
895.67
166+00
894.4
Begin Ditch at 165+50
℄ Const.
C=20
F=1
165+00 Ahead Only
895.24
165+00
895.2
Begin Work & Pav't Sta. 165+00
℄ Const.
895.0
164+00
895.7
Co. Rd. 1 Connection At Twp. Rd. 277 164+00~167+00
GUERNSEY COUNTY
GUE-40-17.37
295
C38



SEEDING
END WIDTH
SQ. YDS.
END AREA
CUT
FILL
VOLUME
CUT
FILL
℄ Const.
920.54
172+59
920.5
917.55
172+00
917.5
912.66
171+00
912.5
170+00
Back Only
907.90
170+00
907.5
903.33
169+00
902.9
899.67
168+00
899.1
Sta. 167+00
Sta. 167+00
0
228
41
461
42
456
40
389
30
19
5
85
17
27
4
119
11
37
2
115
4
25
Co. Rd. 1 Connection At Twp. Rd. 277 168+00~172+59
GUERNSEY COUNTY
GUE-40-17.37
296
638

P.K. 486' P.K. 1623' Conc. Water Tank
POT. 196+29.38
6.P. 4725' Hub
P.K.
P.K. in Sign Post
6360'
P.K. 16" 6612' Hub
204+00
P.K. in Twin 12"
LA R/W
P/L
LA R/W
GUERNSEY SOIL CONSERVATION DISTRICT
ML 17
ML 16

LEGEND
- Removal of Existing Pov't.
- 0" to 2" T-35, Surface Course Type "C"
- Temporary Road

See US 40 P&P Sheet Nos. 51 & 52
℄ Survey & Construction
3-A 96+50 to 96+84 0" to 2" T-35 1.3 C.Y.
Point on Forward Tang. of Co. Rd. 1 Rel. #1 is 180 Ft. of Sta. 197+00
BEGIN PAVEMENT +84
BEGIN WORK 95+10
2-A
P.I. 95+35 96.85 45 10.77 Lt.
P.T. 96+34.70
Inv. 90348
Ex. R/W
Ex. 18" Conc. Pipe
Inv. 899.03
P.C. 95+35
Ex. R/W
Fr. Garage
Ex. US 40
N 60°02'14" E
N 58°15'14" E
℄ Survey
Dc=11°
Dc=8°30'
Tangent Ed. "E"
P.I. 99+02.70 99+01.45 Left Tan. Line Ck. Rel. 2
P.T. 99+52.52
P.C. 98+52.70
Inv. 88178
20' T. 100+09.85 Tan. Line C.R. 1 Reloc. 2
Inv. 88178
Prop. 15" Ex. R/W
205' ℄ Survey N 58°15'14" E
18" Conc. Pipe To Be Abandoned
Exist. US 40 to be abandoned
Ex. C.B.
Inv. 879.04
99' C.R. #1 Reloc. #1 99' ℄ Construction
N-76°25'11" E
N-75°42'13" E
38' Rt.
Const. Limits
ELIZABETH M. WALLACE
R/W
B.M. 211 Elev. 897.49 M.S. in 16" Walnut 300' Rt. Sta. 198+36, US 40
HARVEY W. BROCK & VERNA BROCK
ML 17 ML 16

1-D L-10 192 S.Y. Sod
1-G I-15, 100 L.F. G.R.
2-D I-9 Underdrains 220 L.F.
1-R E-8 Remove Exist. Asphalt Pav't. from 96+84 to 98+00 309 S.Y.
1-A 98+00 12' Rt. to 38' Rt. Type 2 Field Dr. 6" B-19, 10 C.Y.
2-R I-16 Abandon Exist C.B. (Bulkhead North & South End of Ex. 18" Pipe at Headwall with 8" brick wall, cost of Bulkhead to be included in price bid for E-1)

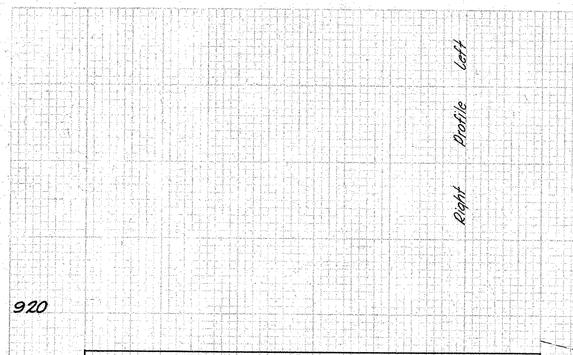
Ex. Typical Section ~ US 40

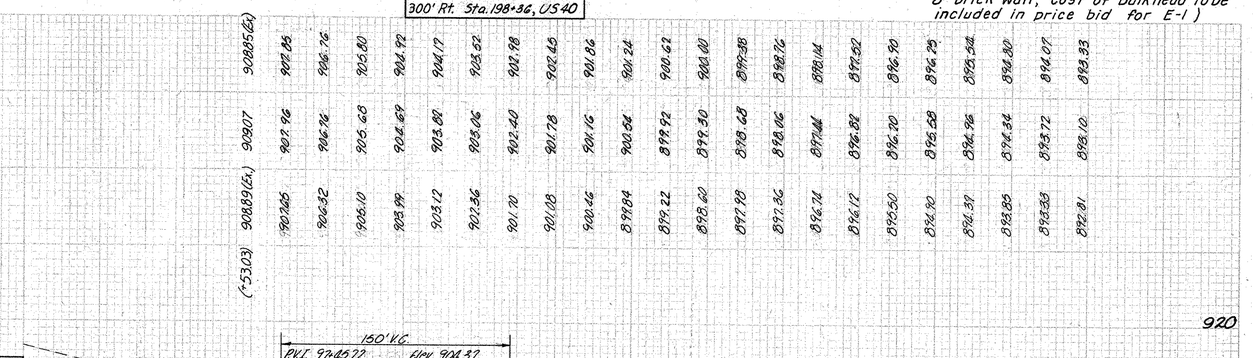
6'to10' 2' 10' 24' 10' 2' 6'to10'
8" W.B. Macadam (Surface Treated)
12 4 3 1 2 3 4 12

UTILITIES
Guernsey Muskingum Elect. Coop. Inc.
Home Telephone Company

1 Item T-35 1 1/4" Asphaltic Concrete Surface Course (Type A)
2 Item B-35 1 1/4" minimum Asphaltic Concrete Leveling Course
3 Item B-35 3" Asphaltic Concrete Leveling Course
4 Item B-35 3" Asphaltic Concrete Base Course
12 Item I-9 Stone Underdrain, No. 2

CURVE DATA
CO. RD. #1 RELOC. #1
P.I. 99+04.26
Δ = 17°26'59"
D_c = 3°30'
R = 1,637.02'
L_c = 498.56'
T_c = 251.23'
E = 19.17

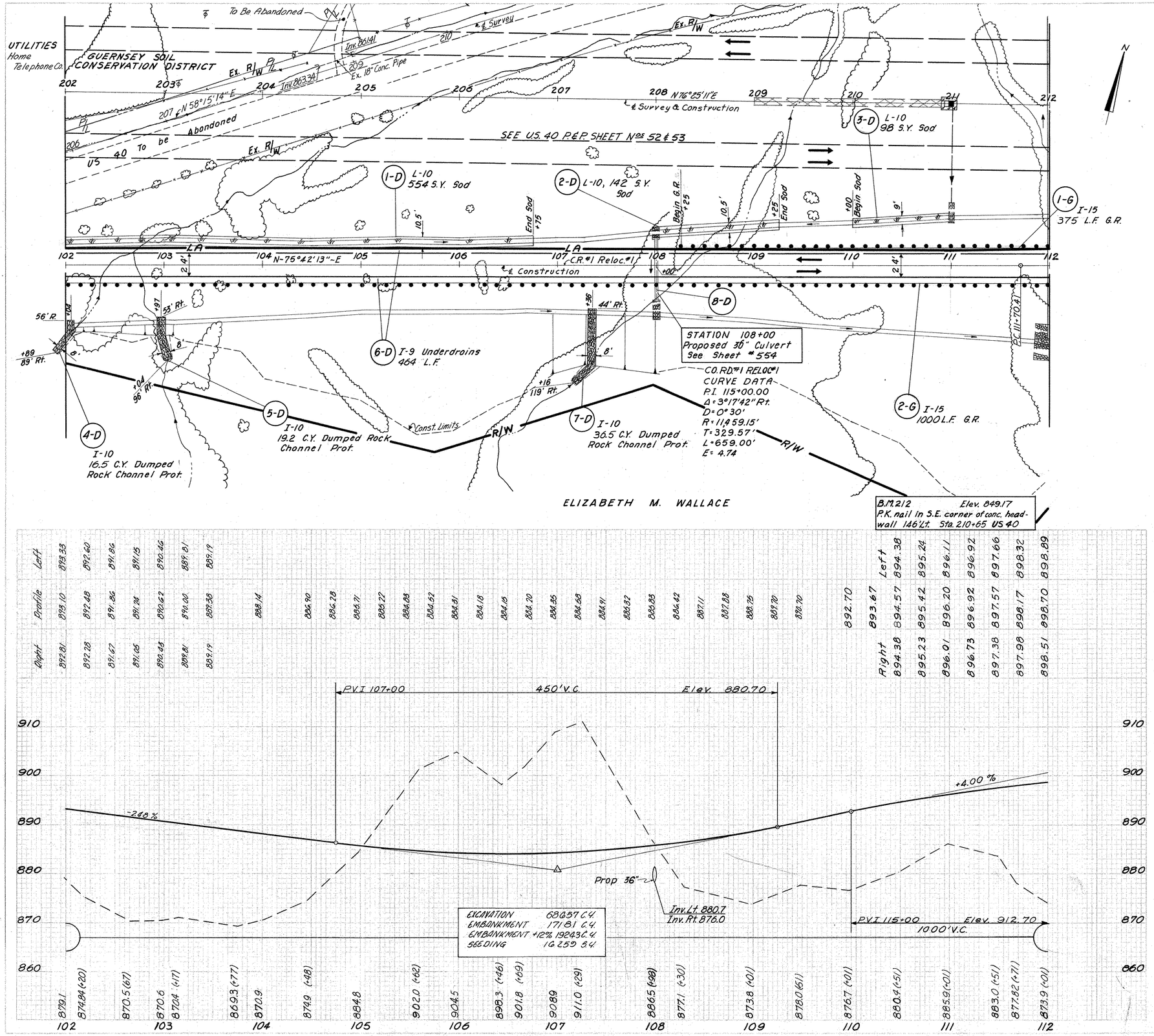




EXCAVATION 208 C.Y.
EMBANKMENT 7344 C.Y.
EMBANKMENT +12% 8225 C.Y.
SEEDING 3095 S.Y.

| | | |

GUERNSEY COUNTY GUE-40-17.37

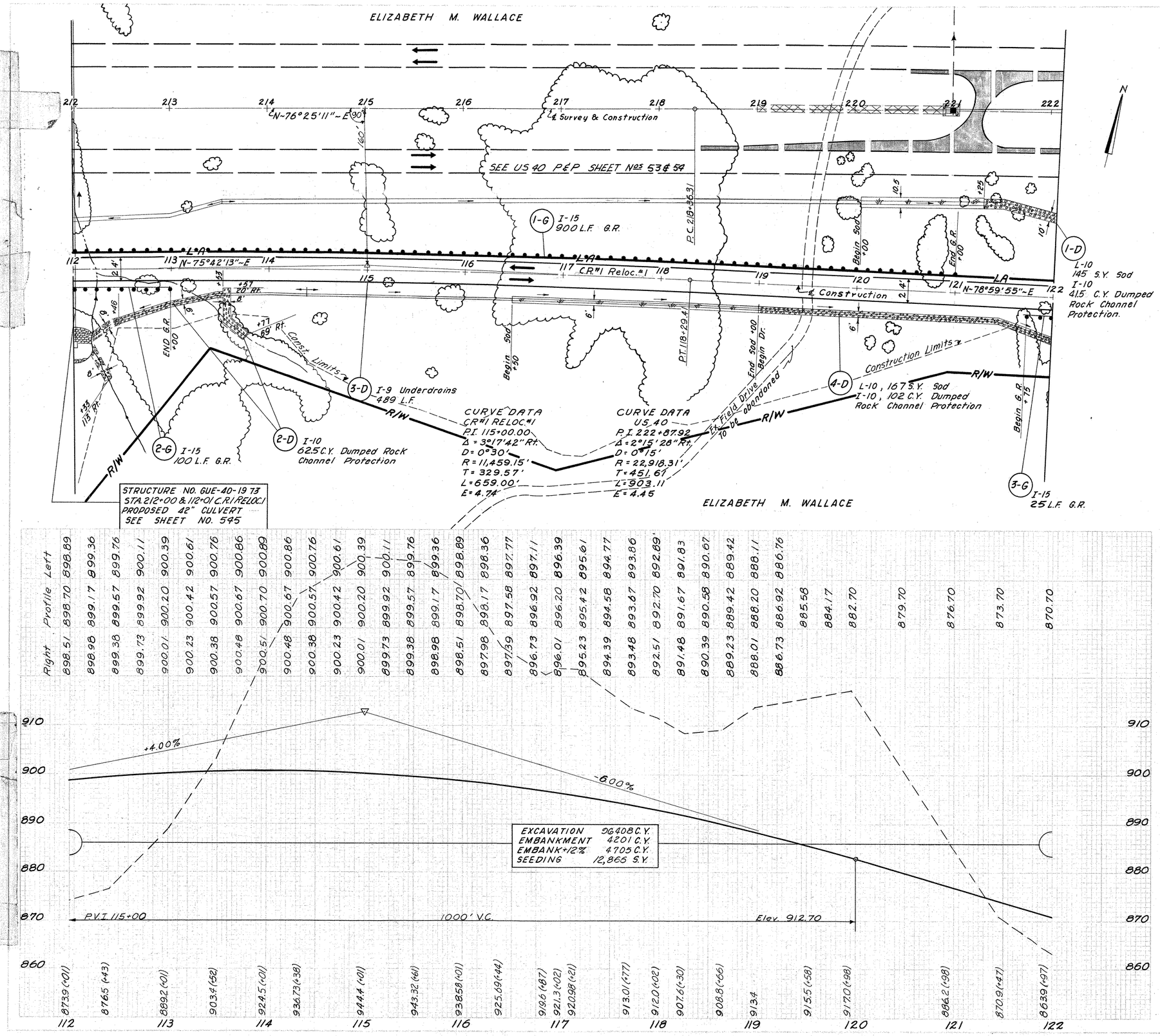


ESTIMATED QUANTITIES

Item	Station to Station	Side	I-2 Masonry C.Y.	I-9 No 2 Stone Under-drains L.F.	I-10 Dumped Rock Channel Prot. C.Y.	I-10 Riprap R.C. Slab S.Y.	I-15 Type 2-A G.R. L.F.	L-10 Sod S.Y.	I-1 Class A-1 M6:4(d) 36" L.F.	Sheet No.
UNITS										
1-D	102+00 to 106+75	L						554		554
2-D	108+03 to 109+25	L						142		
3-D	110+00 to 110+98	L						98		
4-D	102+04 to 101+89, 89' Rt.	R			16.5					
5-D	102+97 to 103+04, 96' Rt.	R			19.2					
6-D	102+00 to 112+00	L&R		464						
7-D	107+36 to 107+16, 119' Rt.	R.			36.5					
8-D	108+00 (Culvert)	L&R	1.18		10	11.3			66	554
1-G	108+25 to 112+00	L					375			
2-G	102+00 to 112+00	R					1000			
TOTALS			1.18	464	82.2	11.3	1375	794	66	

County Road 1 Reloc. No. 1 102+00 ~112+00

GUERNSEY COUNTY GUE-40-17.37



ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	I-9 No. 2 Stone Under-drains L.F.	I-10 Dumped Rock Channel Prot. C.Y.	I-15 TYPE 2A Guard Rail L.F.	L-10 Sod S.Y.
1-D	120+00 to 122+00	L.		41.5		145
2-D	112+46 to 113+77, 69' Rt.	R.		62.5		
3-D	112+00 to 122+00	L & R.	489			
4-D	116+50 to 122+00	R.		102		167
1-G	112+00 to 121+00	L.			900	
2-G	112+00 to 113+00	R.			100	
3-G	121+75 to 122+00	R.			25	

489 206 1025 312

County Road 1 Reloc. No. 1 112+00 ~ 122+00

GUERNSEY COUNTY GUE-40-17.37

RICHARD C. FRAME

N~76°25'11"~E △ 223 — 224 — 225 — 226 — 227 — 228 — 229 — 230 — 231 — 232 — 233

℄ Survey & Construction

N~78°40'39"~E

231+28.11 US 40 = 48+80.63 C.R. 36 Reloc.

52.5

SEE US 40 P&P SHEET Nos 54 & 55

SEE SHEET Nº 334 FOR RADII DETAILS

(1-D) I-10, 350 C.Y. Dumped Rock Channel Prot.

(1-G) I-15, 675 L.F. G.R.

P.T. 227+39.42

Ex. 24" Gas Line

BEGIN G.R. +25

10' +65

9'

END G.R. +00

+50

P.T. 43+39.13 30°21'33" CR/ Reloc.1

P.C. 6+97.26 46+97.27 CR 36

P.T. 47+39.51

Prop. 24"

See Sheet # 546 for Culvert details

LA — L°A — LA — LA R/W

122 — 123 — 124 — 125 N~78°59'55"E 126 — 127 — 128 — 129 — 130 — 131

131+11.85 ℄ CR°1 Reloc °1 = 46+00.20 ℄ C.R. 36

P.C. 45+80.10

2.4' — CR °1 Reloc. °1 — ℄ Construction — 2.4' — +64

N

6' — 9' — Construction Limits — 9' — 10.5' — 12'

Prop. 36"

℄ Survey & Construction

R/W — R/W — END ROCK BEGIN SOD +25 — END GP +00 — END SOD +25 — End Pavement ℄ R/W — End Work. 130+99 — R/W

+00

ELIZABETH M. WALLACE

CURVE DATA
US 40
P.I. 222+87.92
Δ = 2°15'28" Rt.
D = 0°15'
R = 22,918.31'
T = 451.61'
L = 903.11
E = 4.45

(3-D) I-9 Underdrains 412 L.F.

(2-G) I-15 700 L.F.G.R.

(2-D) L-10 116 S.Y. Sod
I-10 267 C.Y. Dumped Rock Channel Prot.

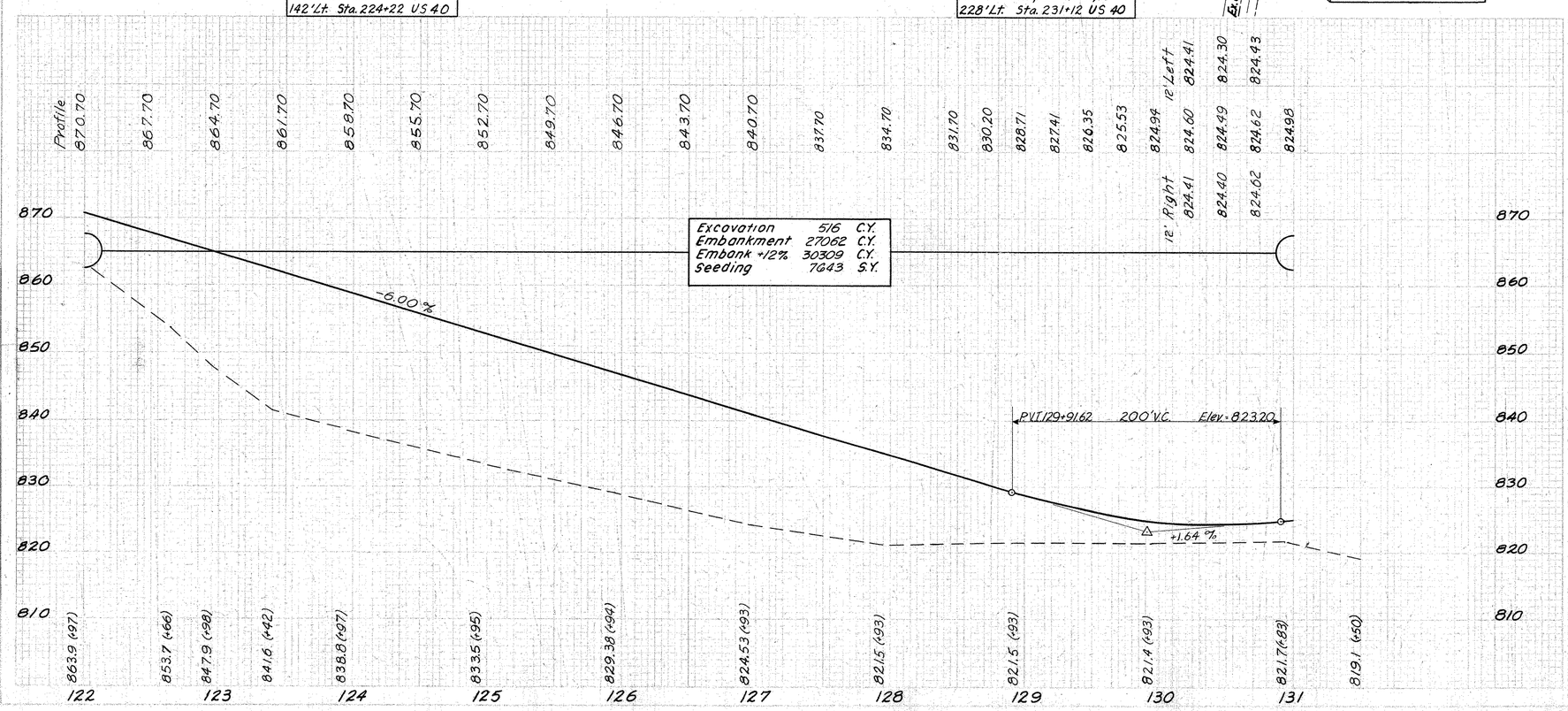
CURVE DATA
Co.Rd. 36
P.I. 46+50.00
Δ = 10°27'20"
D = 7°30'
R = 763.94'
L = 139.41'
T = 69.90'
E = 3.19'

SEE SHEET Nº 333 FOR C.R. 36 RELOC.

B.M. 213 Elev. 824.70
M.S. in 24" Ash
142' Lt. Sta. 224+22 US 40

RICHARD C. FRAME

B.M. 214-A Elev. 821.80
M.S. in tele. pole no 37/2
228' Lt. Sta. 231+12 US 40



ESTIMATED QUANTITIES

SHEET NO.	STATION TO STATION	SIDE	I-9 No. 2 stone under-drains L.F.	I-10 Dumped Rock Channel Prot. C.Y.	I-15 Type 2A G.R. L.F.	L-10 Sod S.Y.
1-D	122+00 to 129+00	L		350		
2-D	122+00 to 129+25	R		267		116
3-D	122+00 to 130+99	L&R	412			
1-G	122+25 to 129+00	L			675	
2-G	122+00 to 129+00	R			700	
			412	617	1375	116

County Road 1 Reloc. No. 1 122+00 ~ 131+11.85

SEEDING

END WIDTH	SQ. YDS.
39	

FED. AID DIVISION	STATE	PROJECT	
5	OHIO		

301
638

GUERNSEY COUNTY
GUE-40-17.37

END AREA		VOLUME	
CUT	FILL	CUT	FILL
34	4		

150 100 50 ℄ 50 100

930
920
910
900

Match to US 40
Ahead Only

℄ Temporary Connector
F=4
3:1
C=34
907.1

Ahead Only
907.52
96+84
909.06

96+50 Begin Work

℄ Temporary Connector
907.0

96+00
911.74

Ahead Only

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

Co Rd #1 Reloc #1 96+00 ~96+55

SEEDING	
END WIDTH	SQ. YDS.
73	
639	
14	
42	
472	
68	
43	
34	

DIST. NO.	STATE	FAILURES	
2	OHIO		

302
G38

GUERNSEY COUNTY
GUE-40-17.37

150 100 50 ℄ 50 100

Match to US 40

℄ Temporary Connector

½"/ft

4:1 3:1

898.6

30Gal/ft

F=39'

3:1 ½"/ft

900.54
99+00
894.2

Match to US 40

Add for Drive

℄ Temporary Connector

3:1

902.30

900.2

F=100'

A A

3:1 8"/ft

903.06
98+00
900.3

Match to US 40

℄ Temporary Connector

F=4'

3:1

903.9

SC=62'

3:1 3:1

904.6

906.76
97+00
906.7

Sta. 96+84

Sta. 96+84

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

Add for drive

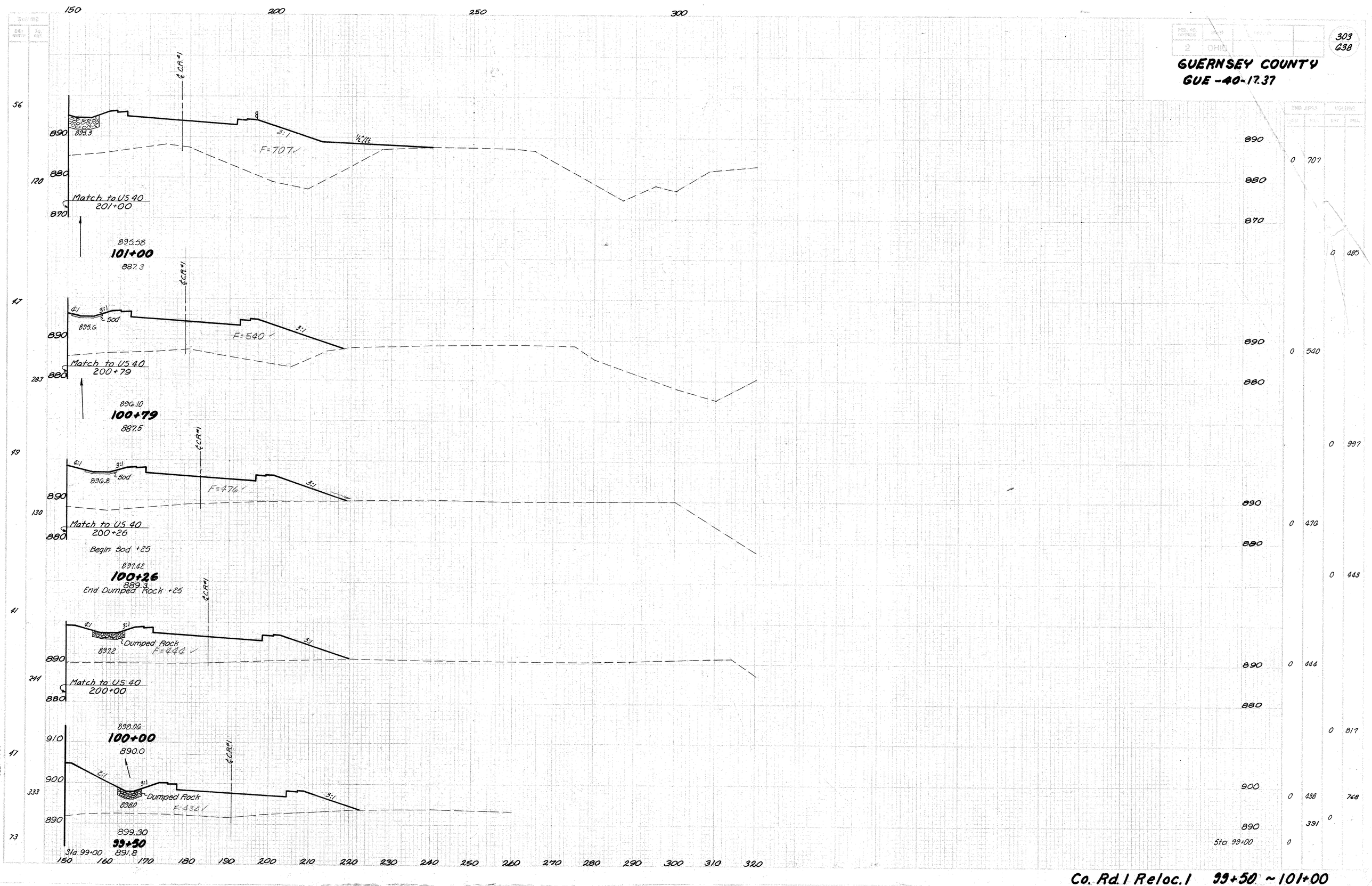
F=28'

Drive Section A-A at 23

Ave. Full Section Ahead with 0 Fill at +36
Ave. Full Section Back with 0 Fill at +18

END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	391		
0	303	0	10
0	100		
115	193		
62	4		
28	2		
34	4		

Co. Rd. #1 Reloc. #1 97+00 ~ 99+00

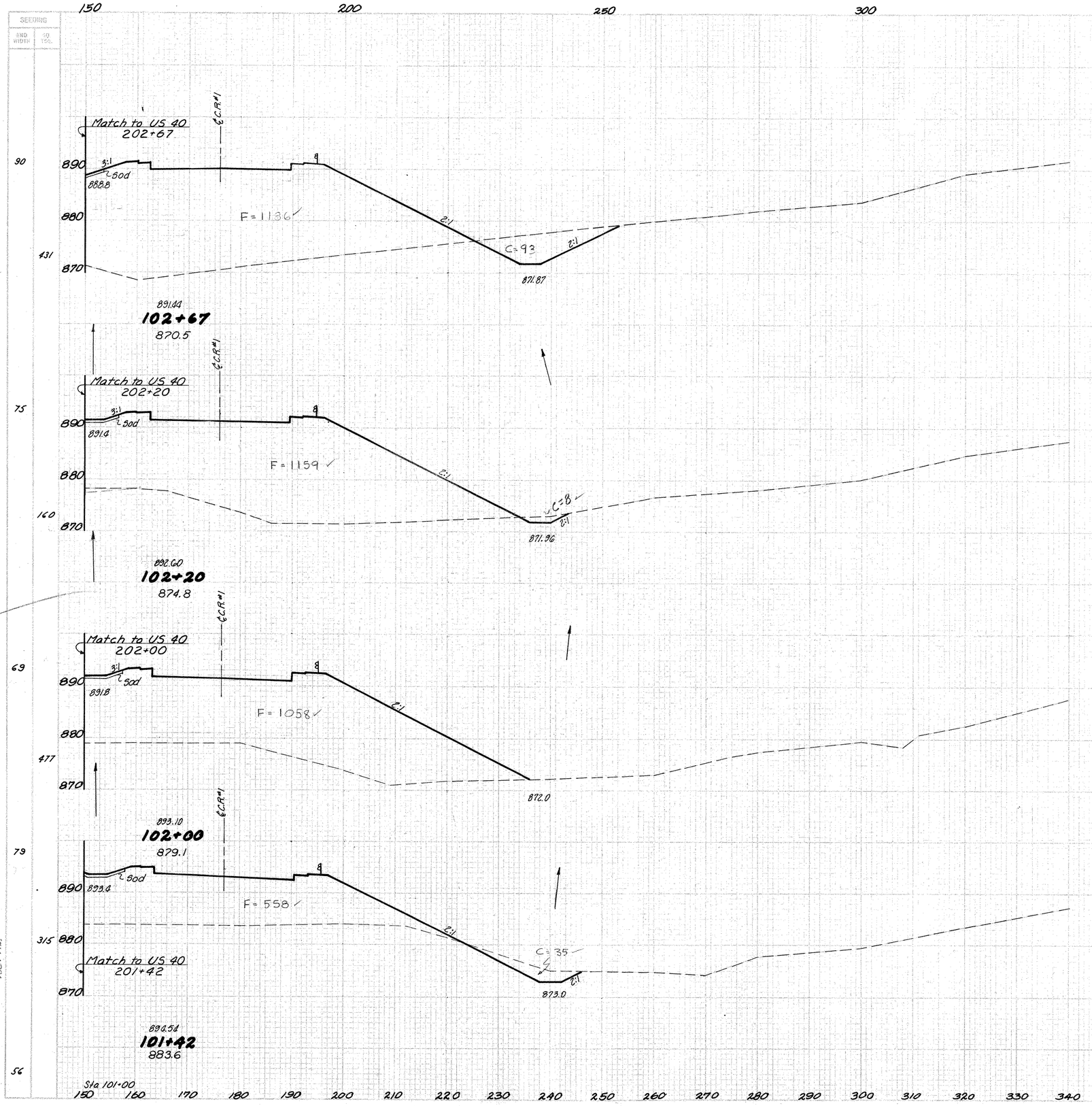


GUERNSEY COUNTY
GUE-40-17.37
303
638
Match to US 40
201+00
895.58
101+00
887.3
F=707
Match to US 40
200+79
896.10
100+79
887.5
F=540
Match to US 40
200+26
Begin Sod +25
897.42
100+26
889.3
End Dumped Rock +25
F=476
Dumped Rock
897.2
F=444
Match to US 40
200+00
898.06
100+00
890.0
Dumped Rock
898.0
F=438
899.30
99+50
891.8
Sta 99+00
Co. Rd. 1 Reloc. 1 99+50 ~ 101+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

304
638

GUERNSEY COUNTY
GUE-40-17.37



	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
90	93	1186		
431			88	2041
75	8	1159		
160			3	821
69	0	1058		
477			38	1736
79	35	558		
315			27	984
56	0	707		

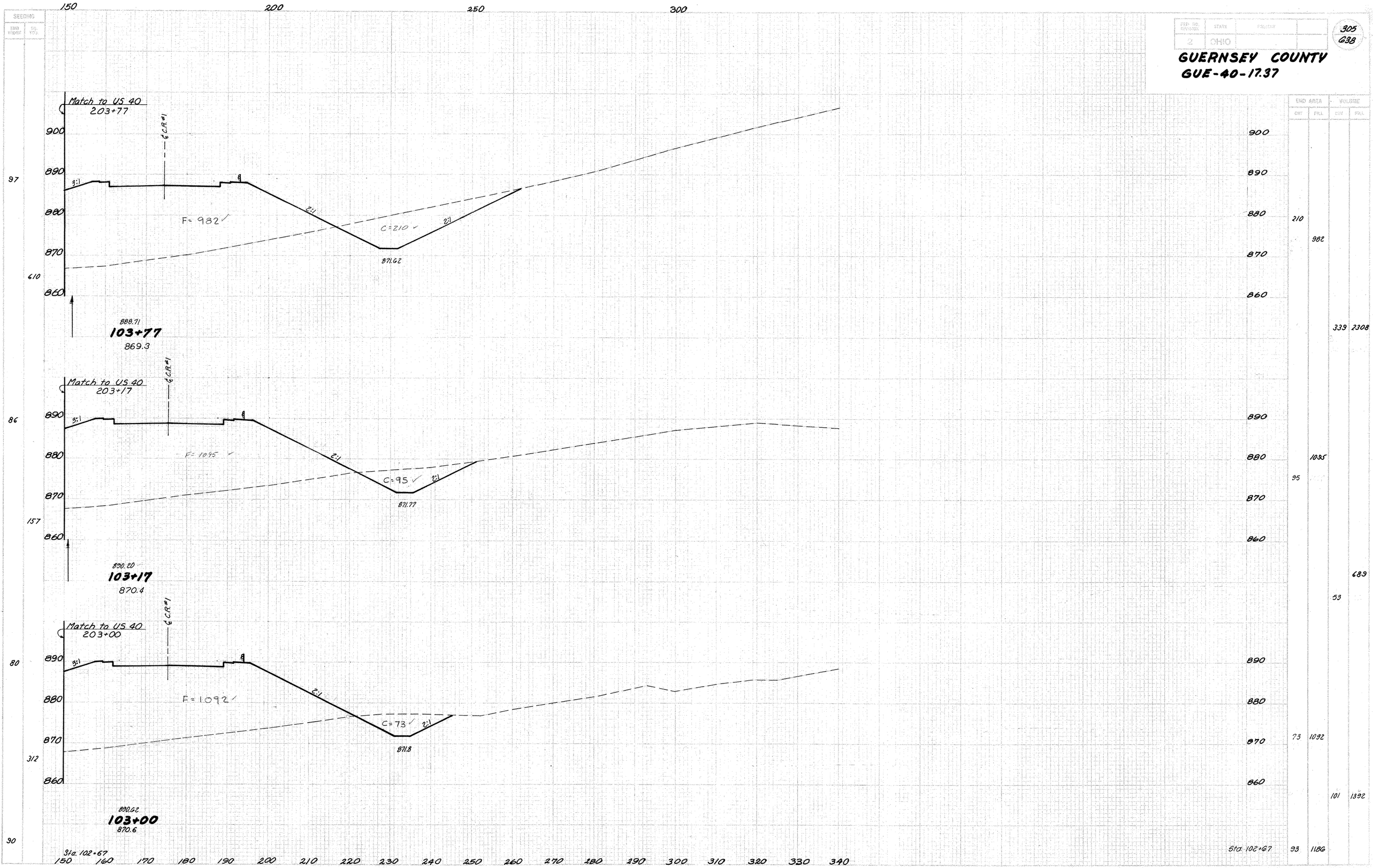
Sta 101+00

Co. Rd. 1 Reloc. 1 101+42~102+67

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

305
638

GUERNSEY COUNTY
GUE-40-17.37



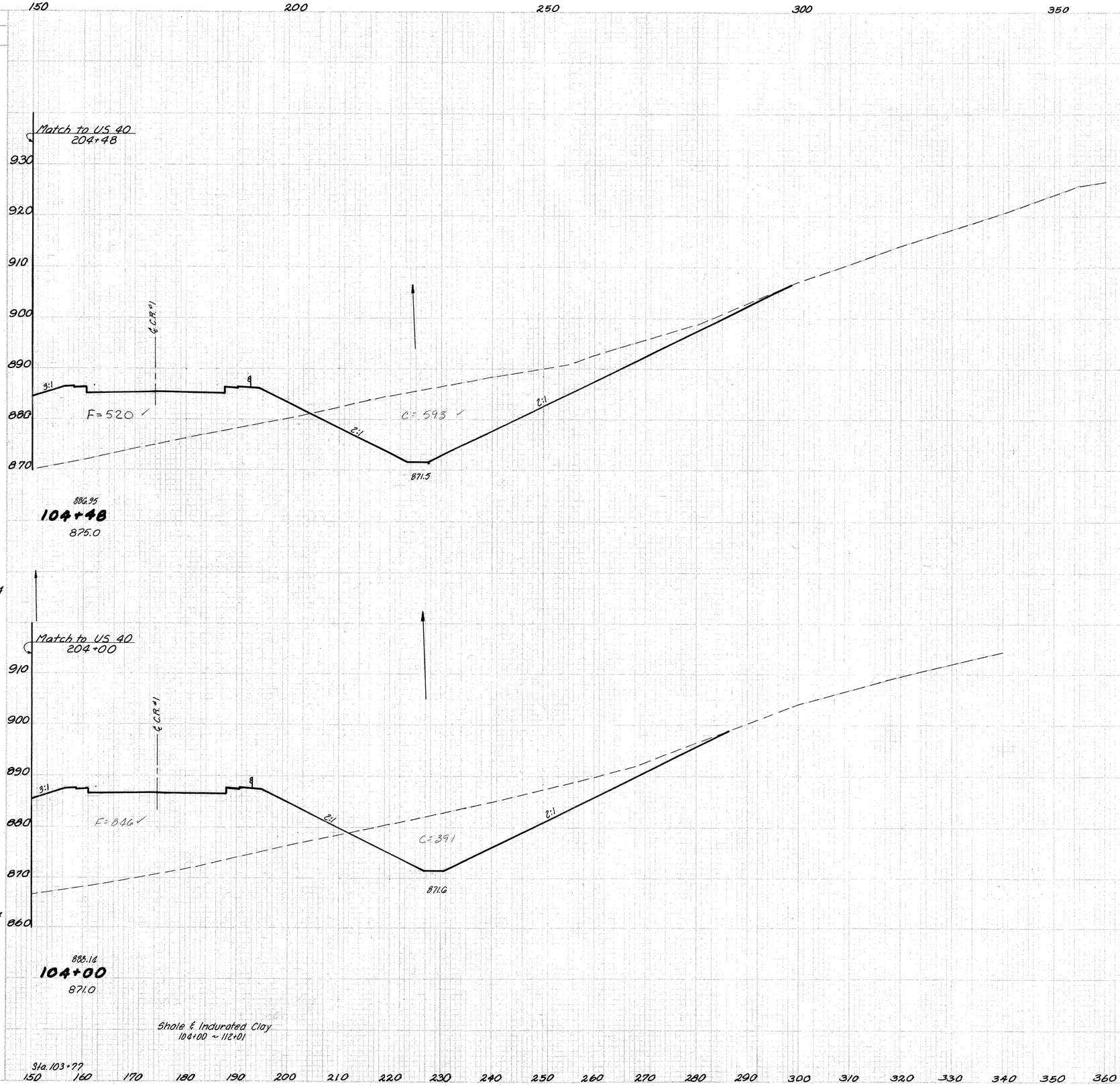
Co. Rd. 1 Reloc. 1 103+00~103+77

SEEDING	
END WIDTH	SQ. YDS.
139	
125	
97	

FED. DIV.	STATE	PROJECT	
2	OHIO		

306
G38

GUERNSEY COUNTY
GUE-40-17.37



END AREA		VOLUME	
CUT	FILL	CUT	FILL
593		520	
391		846	
201		982	

875
1214
252
779
Sta. 103+77

Co. Rd. 1 Reloc. 104+00 ~ 104+48

SEEDING
END WIDTH | SQ. YDS.

PROJECT NO. SECTION	STATE	PROJECT	
2	OHIO		

307
G38

GUERNSEY COUNTY
GUE-40-17.37

END AREA: CUT | FILL
VOLUME: CUT | FILL

Match to US 40
205+62

940 930 920 910 900 890 880

C = 4776

3:1 — ℄ C.R. #1 — B — 2:1 — 2:1

884.67
105+62
902.0

871.3

4776 | 0

7810 | 69

940 930 920 910 900 890 880

1178

Match to US 40
205+00

940 930 920 910 900 890 880 870

C = 2026

F = 60'

3:1 — ℄ C.R. #1 — B — 2:1 — 2:1

150

885.71
105+00
884.8

871.4

835

2026 | 60

2522 | 358

Shale & Indurated Clay
104+00 ~ 112+01

593 | 520

139

Sta. 104+48

Sta. 104+48

150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400

Co. Rd. 1 Reloc. 1 105+00 ~ 105+62

FED. DIV.	STATE	PROJECT	
2	OHIO		

308
638

GUERNSEY COUNTY
GUE-40-17.37

SEEDING

END WIDTH	SQ. YDS.



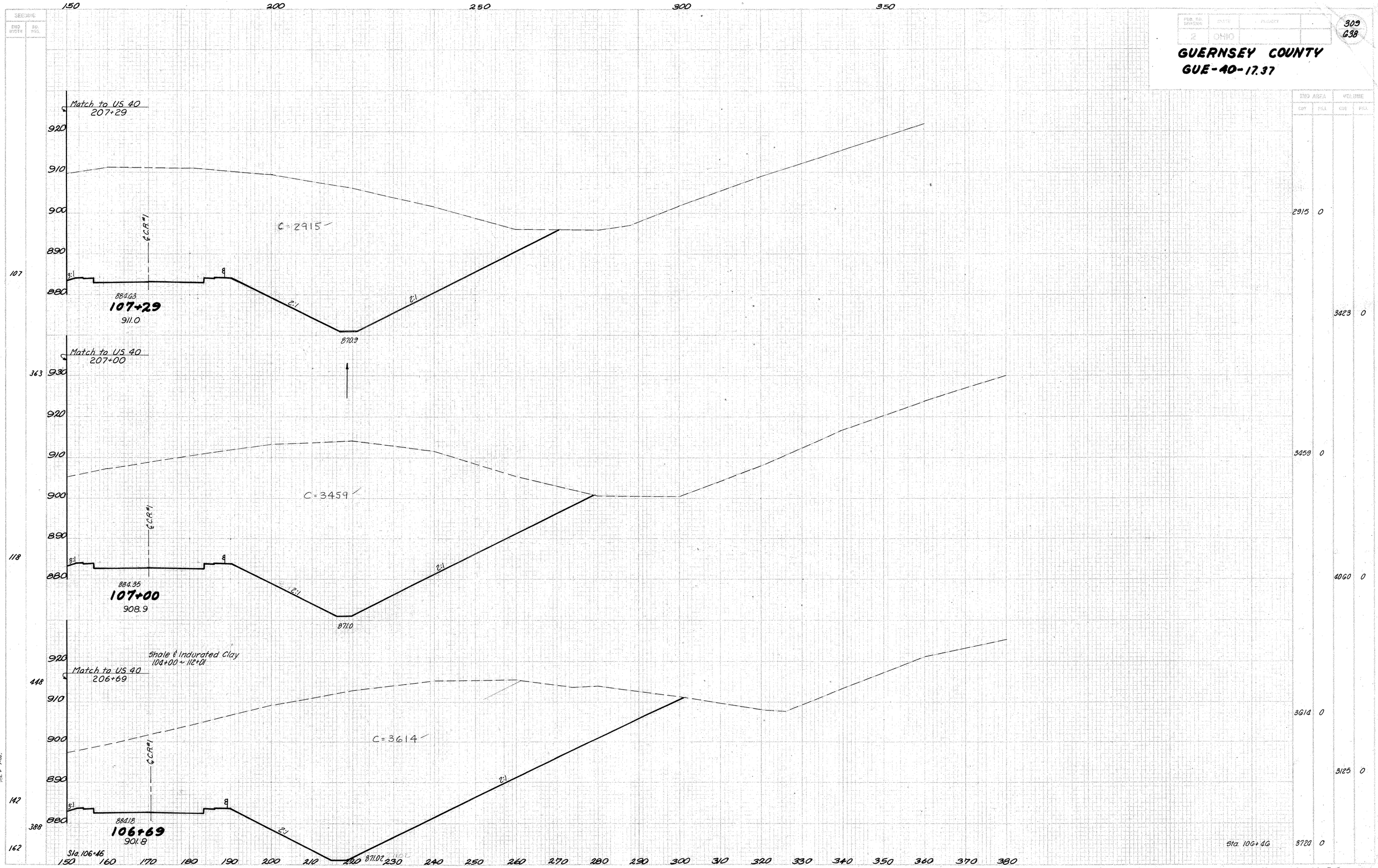
END AREA		VOLUME	
CUT	FILL	CUT	FILL
3724	0		
		7401	
			0
4965	0		
6855	0		
4776	0		

Co. Rd. 1 Reloc. 1 106+00 ~ 106+46

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

309
638

GUERNSEY COUNTY
GUE-40-17.37



Co. Rd. 1 Reloc. 1 106+69 ~ 107+29

SEEDING	
SEND WIDTH	SQ YDS

FED. AID PROJECT	STATE	PROJECT	
2	OHIO		

310
638

GUERNSEY COUNTY
GUE-40-17.37

END AREA		VOLUMES	
CUT	FILL	CUT	FILL
		672	305
		843	199
		708	20
		2915	0

Match to U.S. 40
208+33

C.C.R. #1

F=30'

C=672

2:1

2:1

870.7

880.66
108+34
872.1

Match to U.S. 40
208+00

For Culvert Details
See Sheet "

C.C.R. #1

C=83'

F=20'

C=625

2:1

2:1

885.85
108+01
886.5

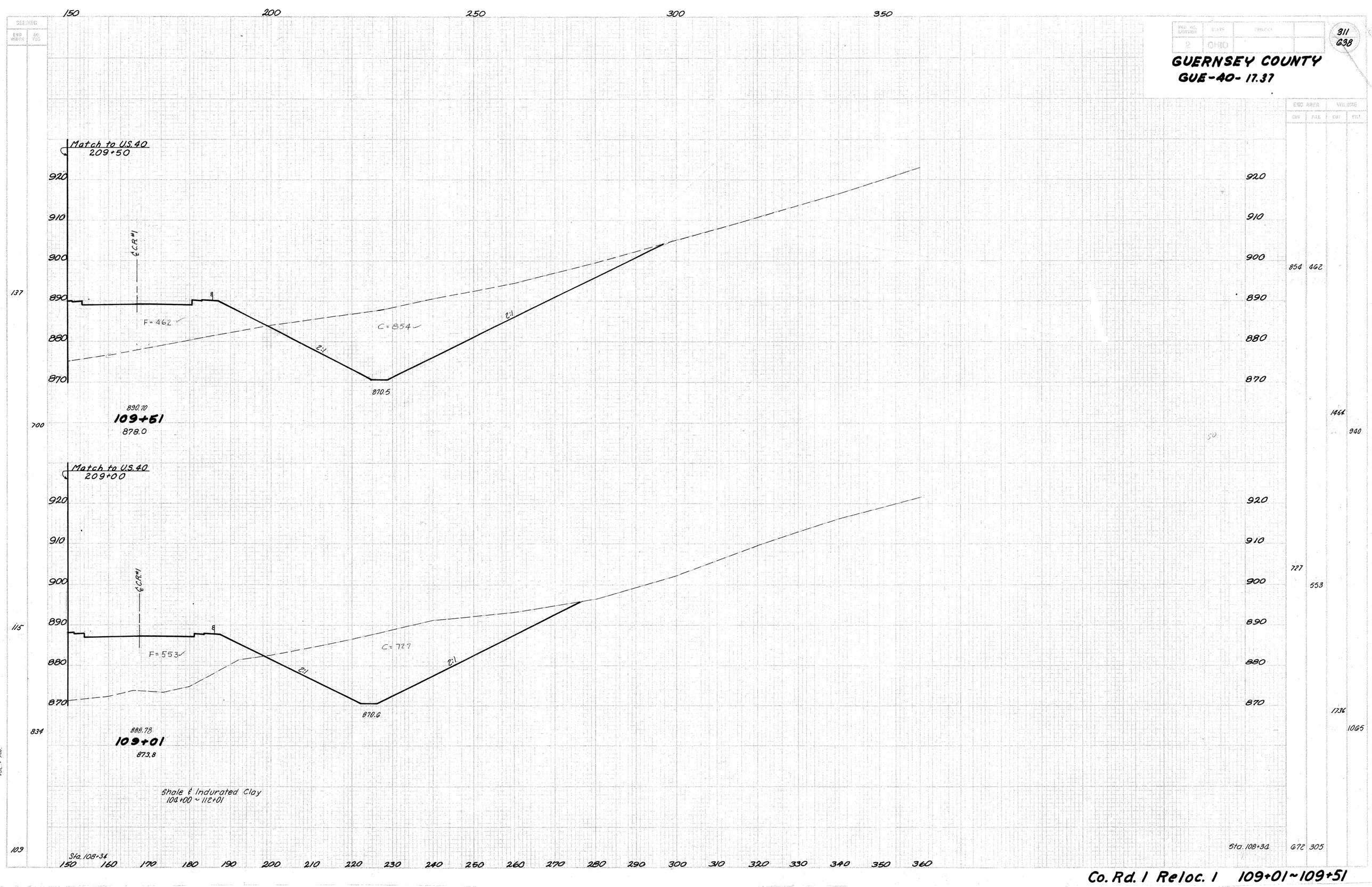
870.8

Shale & Indurated Clay
104+00 ~ 112+01

Sta. 107+29

Sta. 107+29

Co. Rd. 1 Reloc. 1 108+01 ~ 108+34

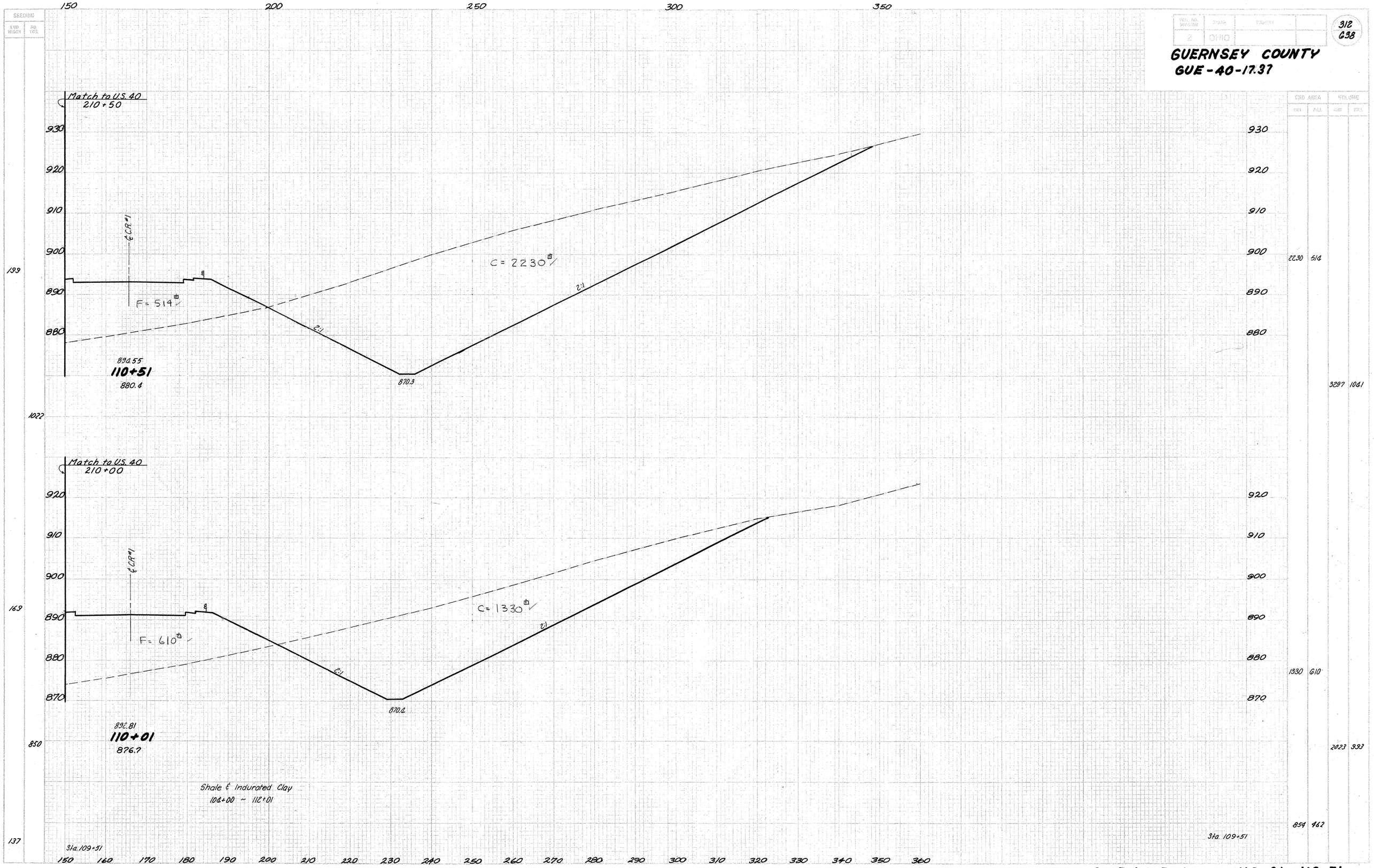


Co. Rd. 1 Reloc. 1 109+01~109+51

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

312
638

GUERNSEY COUNTY
GUE-40-17.37



Co. Rd. 1 Reloc. 1 110+01 ~ 110+51

FED. RD. DESIGN	STATE	PROJECT
2	OHIO	

GUERNSEY COUNTY
GUE-40-17.37

END AREA		VOLUME	
CUT	FILL	CUT	FILL

Match to U.S.40
211+50

940 930 920 910 900 890 880

℄ C.R. #1

F = 445 ft

℄

2:1

2:1

C = 3870

889.57
111+51
883.0

870.3

3870 445

7035 689

Match to U.S.40
211+00

940 930 920 910 900 890 880

℄ C.R. #1

F = 299 ft

℄

2:1

2:1

C = 3728

889.17
111+01
885.9

Shale & Indurated Clay
104+00 ~ 112+01

870.2

3728 299

5517 753

Sta. 110+51

2230 514

Sta. 110+51
150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360

Co. Rd. 1 Reloc. 1 111+01 ~ 111+51

FED. AID DIVISION	STATE	PROJECT	
2	OHIO		

314
638

GUERNSEY COUNTY
GUE-40-17.37

SEEDING

END WIDTH	SQ. YDS

END AREA		VOLUME	
CUT	FILL	CUT	FILL
1398	1228		
		1136	
		2654	
3019	816		
		2551	467
3870	685		

Match to US 40
212+00

930
920
910
900
890
880
870

℄ C.R. #1

For culvert details
see sheet #536

F = 1228

2:1

C = 1398

2:1

Inv. 863.9

℄ Riprap

898.71
480'-42" at 6.44%
112+01
873.9

804

Match to US 40
211+70

940
930
920
910
900
890
880
870

Shale & Indurated Clay
104+00 ~ 112+01

℄ C.R. #1

F = 816

C = 3019

2:1

2:1

898.14
111+71
877.8

272

609

276

Sta. 111+51

150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360

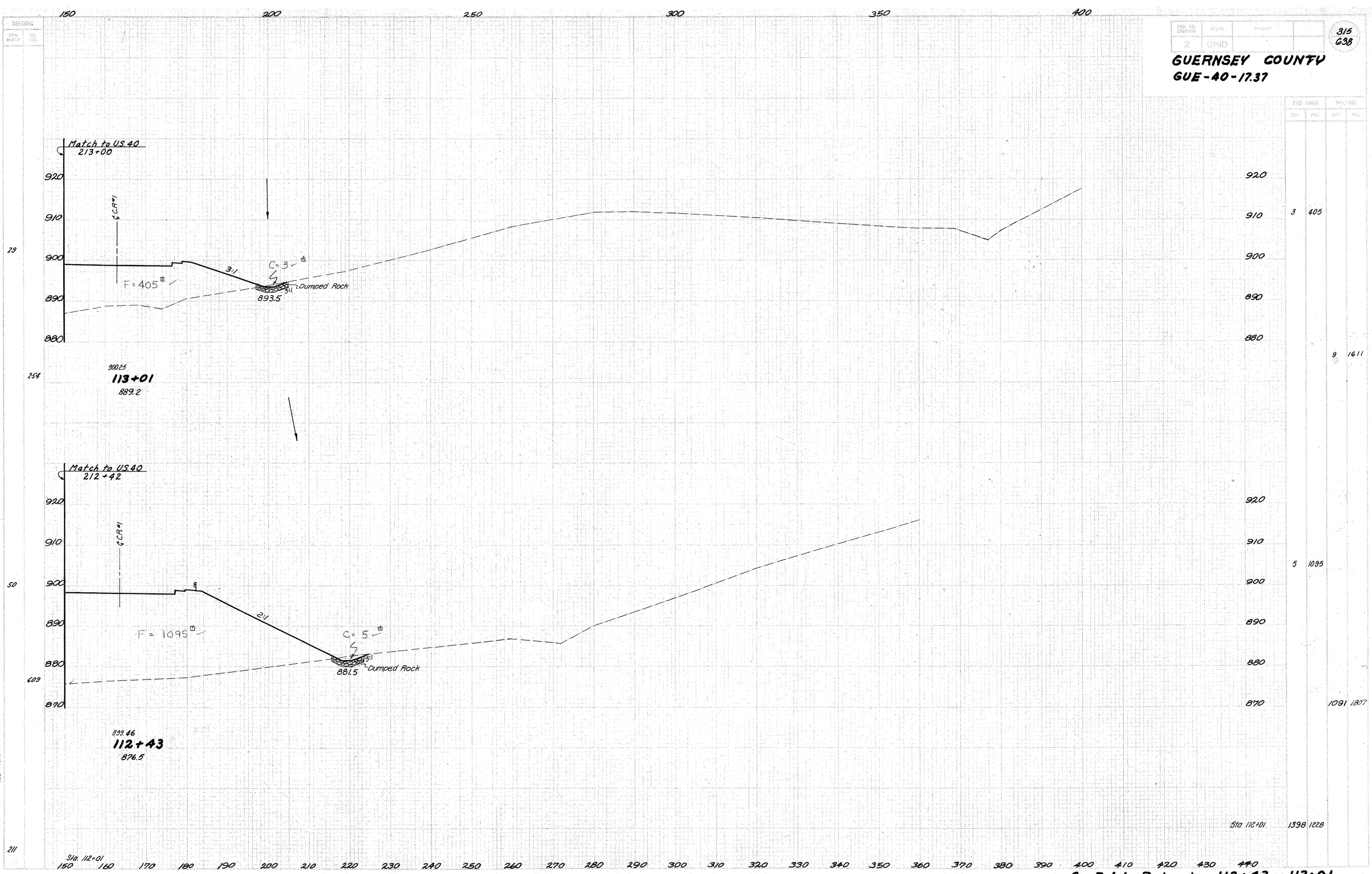
Sta 111+51

Co. Rd. 1 Reloc. 1 111+71 ~ 112+01

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

315
638

GUERNSEY COUNTY
GUE-40-17.37



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
3	405		
		9	1611
5	1095		
		1091	1807
Sta 112+01		1398	1228

Co. Rd. 1 Reloc. 1 112+43 ~ 113+01

SECTIONS	
BENT PIERS	SQ. TUBE

REV. NO.	DATE	REMARKS
2	CH-0	

316
038

GUERNSEY COUNTY
GUE-40-17.37

Match to U.S. 40
214+00

950 940 930 920 910 900 890 880

℄ C.R. #1

C = 1570 ft

2:1

3:1

897.5

900.70
114+01
924.5

288

Match to U.S. 40
213+51

940 930 920 910 900 890 880

℄ C.R. #1

C = 239 ft

3:1 3:1

℄ Dumped Rock
897.3

187

900.58
113+52
903.4

Shale & Indurated Clay
114+01 ~ 120+88

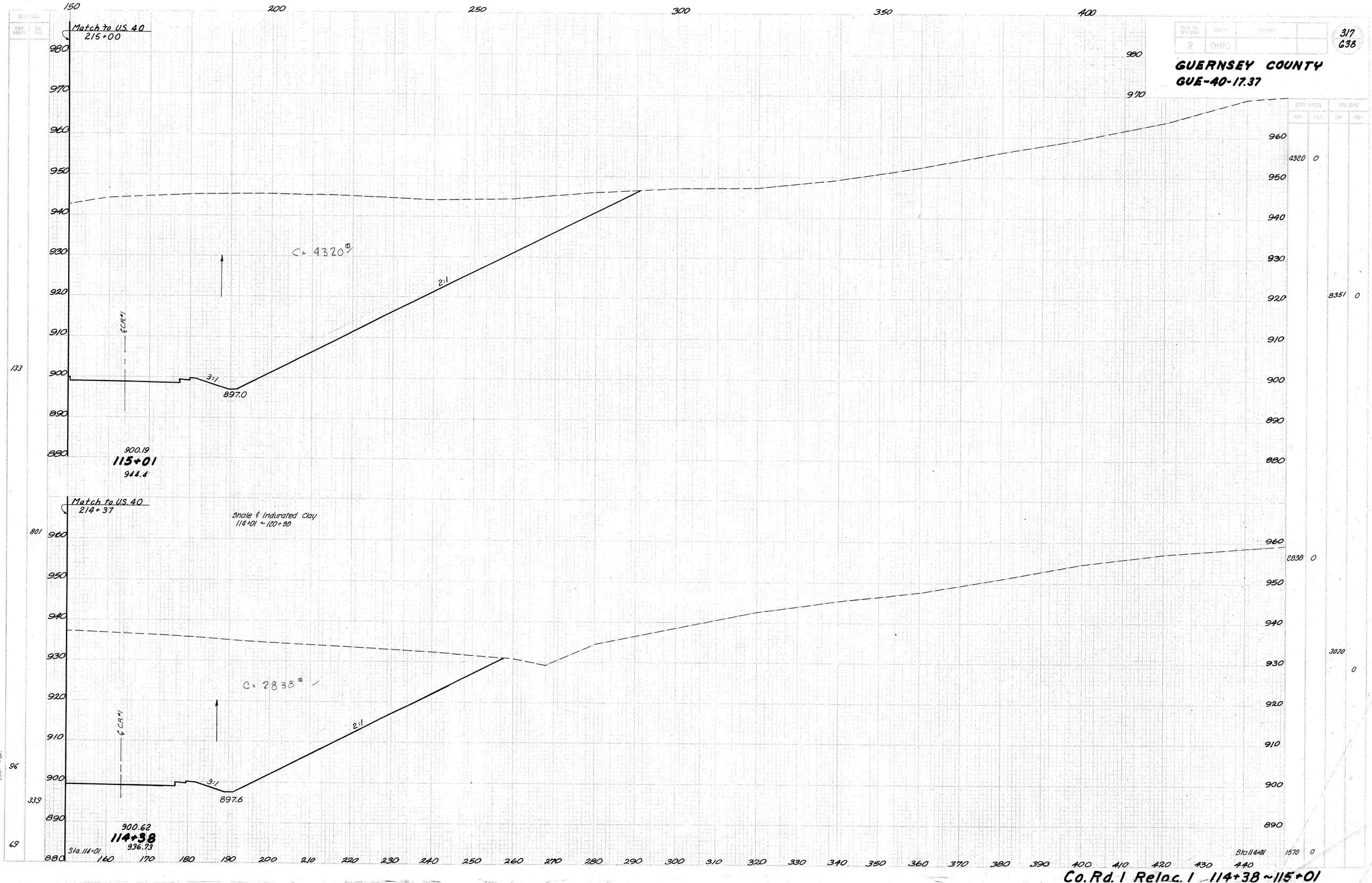
37

29

Sta. 113+01
150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400 410 420 430 440

	AREA		VOLUME	
	CUT	FILL	CUT	FILL
950				
	1570	0		
940				
930				
920				
910				
	1642	0		
900				
890				
880				
940				
	239	0		
930				
920				
910			228	383
900				
890				
880				
Sta 113+01			3	405

Co. Rd. 1 Reloc. 1 113+52 ~ 114+01



GUERNSEY COUNTY
GUE-40-17.37
317
638
Match to U.S. 40
215+00
C= 4320#
2:1
3:1
897.0
900.19
115+01
944.4
Match to U.S. 40
214+37
Shale & Indurated Clay
114+01 ~ 120+98
C= 2838#
2:1
3:1
897.6
900.62
114+38
936.73
Sta. 114+01
Sta. 114+01
4320 0
8351 0
2838 0
3020 0
1570 0
Co. Rd. 1 Reloc. 1 114+38 ~ 115+01

318
G38

GUERNSEY COUNTY
GUE-40-17.37

Match to U.S. 40
215+60

C = 4789'

2:1

3:1

℄ C.R. 4

896.6

899.40
113+61
943.3

Shale & Indurated Clay
114+01 ~ 120+98

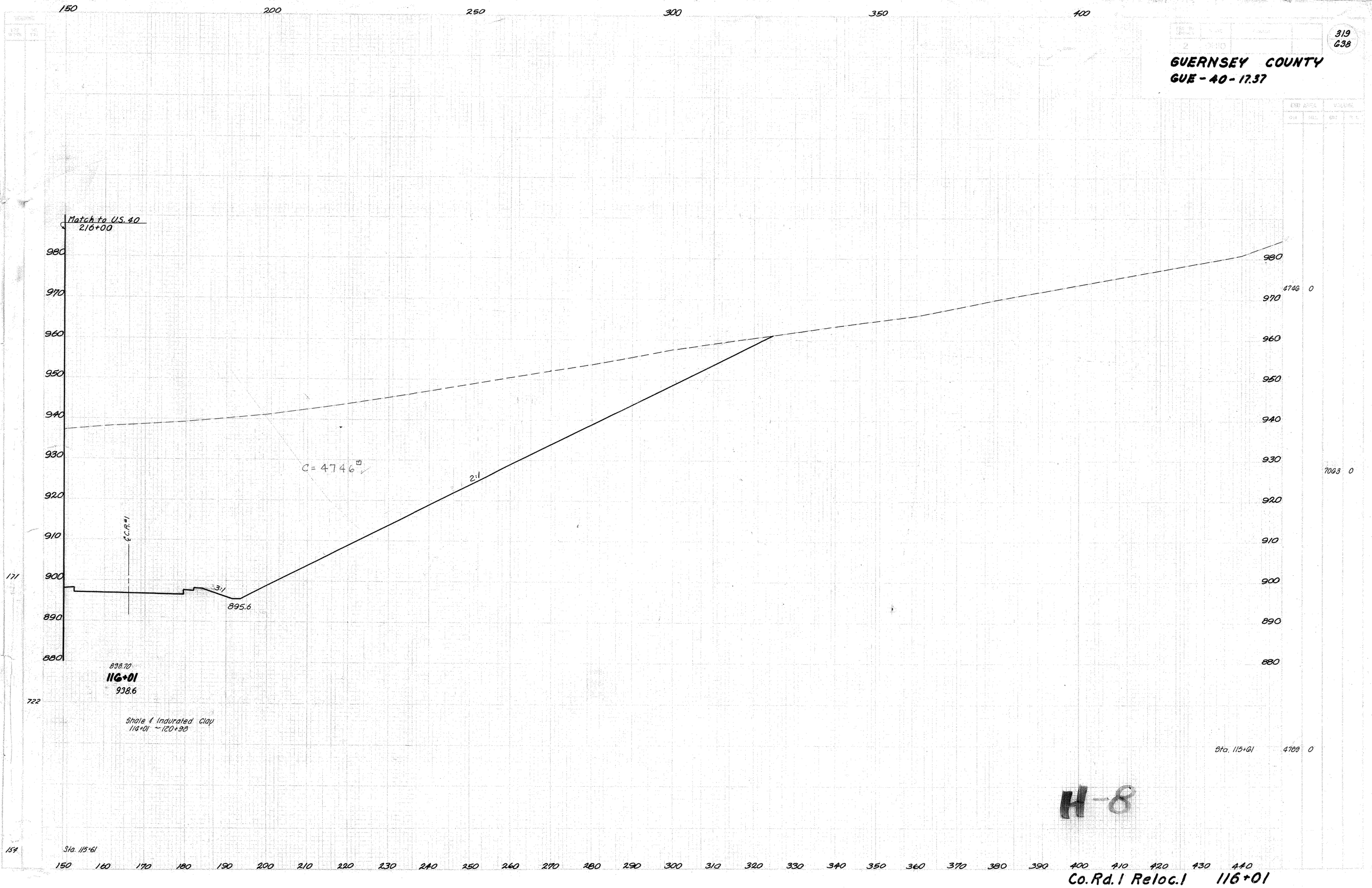
4789 0

10,121 0

Sta 115+01 4320 0

Sta 115+01

Co. Rd. 1 Reloc. / 115+61



319
638
GUERNSEY COUNTY
GUE-40-17.37
Match to U.S. 40
216+00
C = 4746
2:1
3:1
895.6
898.70
116+01
938.6
Shale & Indurated Clay
114+01 ~ 120+98
Sta. 115+61
4746 0
7063 0
4789 0
H-8
Co. Rd. 1 Reloc. 1 116+01

150 200 350 300 350 400

FED. ROAD NUMBER | STATE | COUNTY | SHEET NO.
2 | OHIO | | 320 G38

GUERNSEY COUNTY
GUE-40-17.37

END AREA CUT FILL | VOLUME CUT FILL

Match to US 40
216+43

990 980 970 960 950 940 930 920 910 900 890 880 870

4317 0

7217 0

4746 0

℄ CR-1

C = 4317 ft

2:1

3:1

894.5

897.72
116+44
925.70

182 843 171

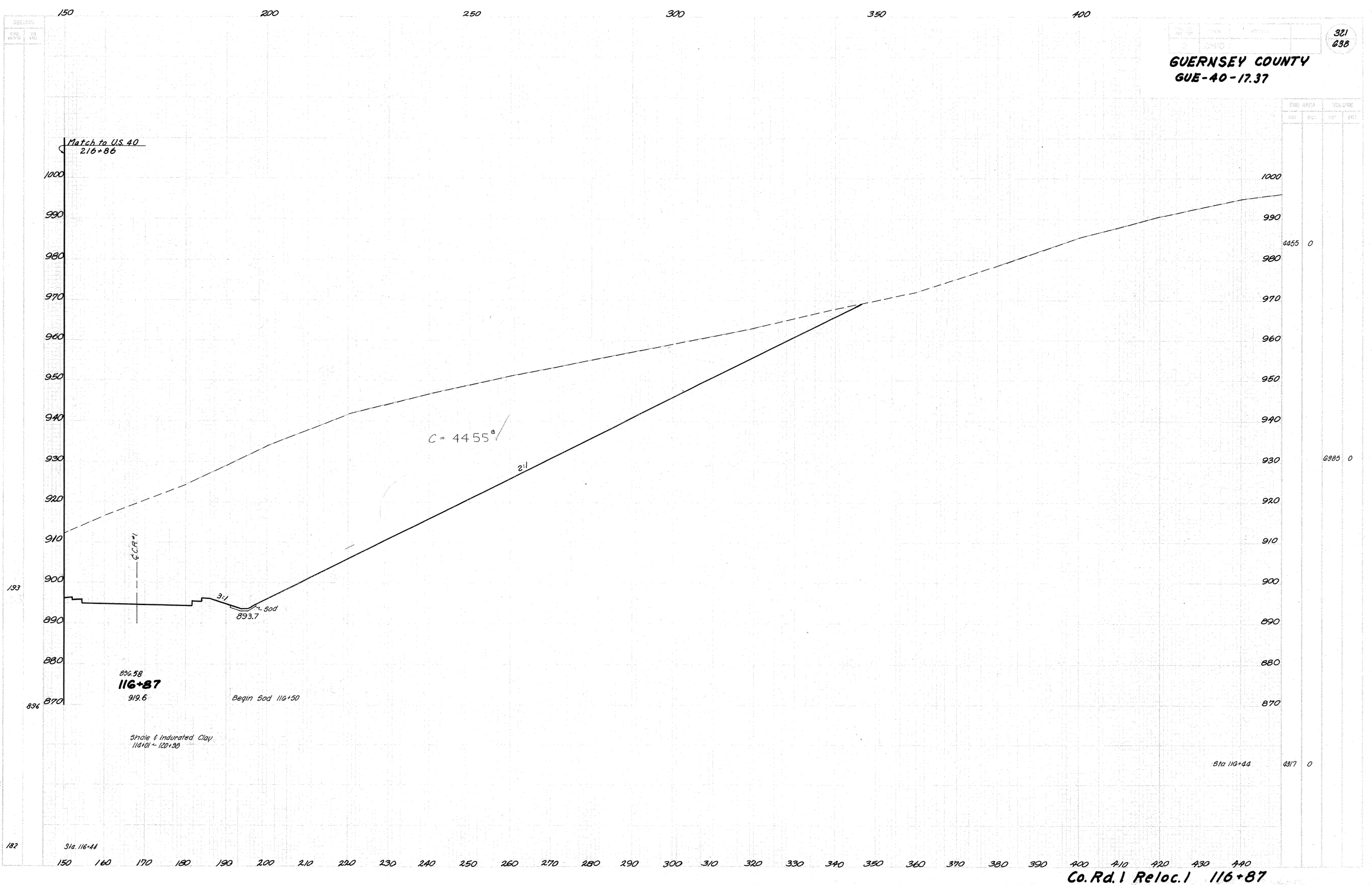
Shale & Indurated Clay
114+01 ~ 120+98

Sta. 116+01

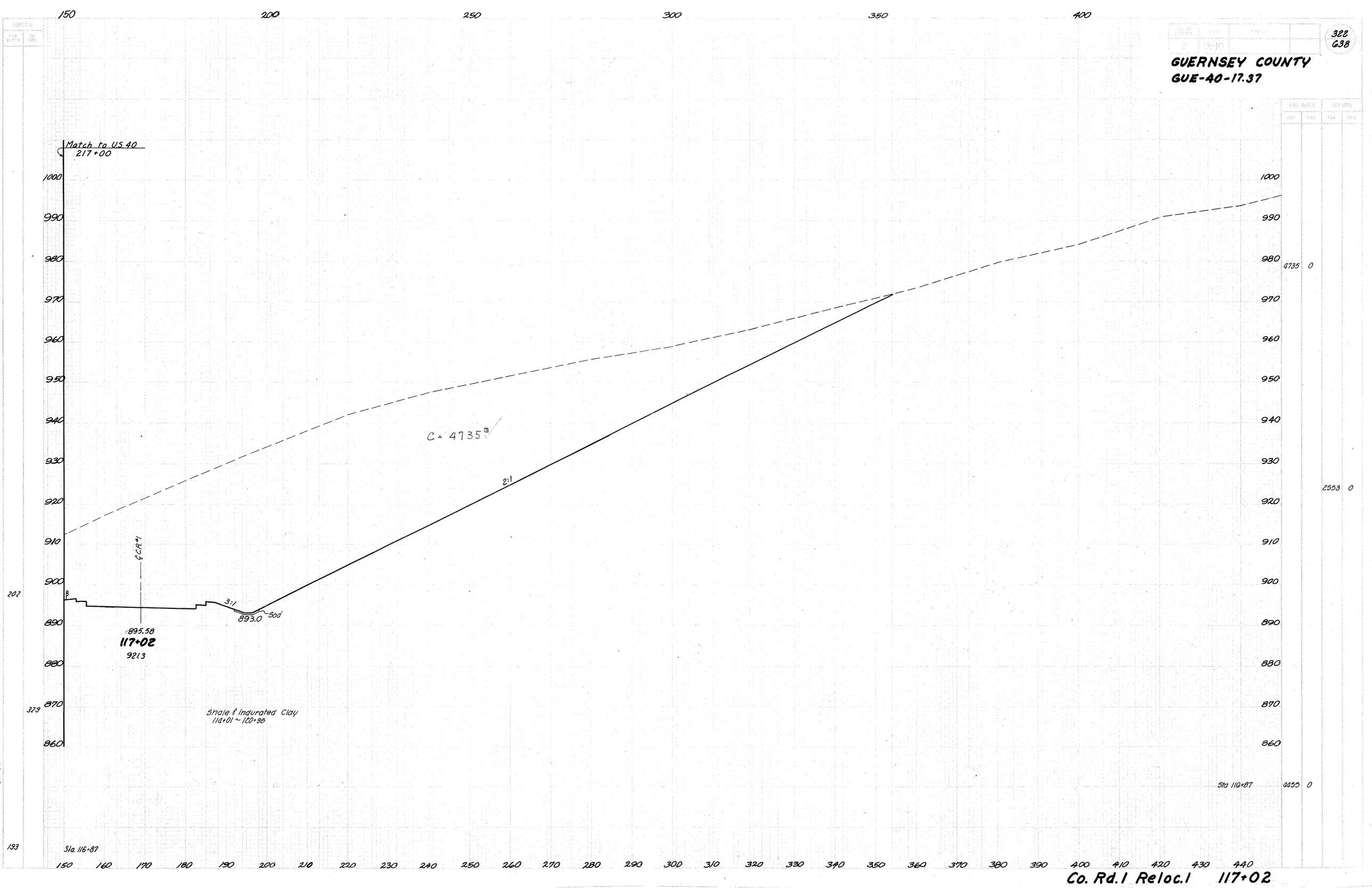
Sta. 116+01

150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400 410 420 430 440

Co. Rd. 1 Reloc. 1 116+44



321
638
GUERNSEY COUNTY
GUE-40-17.37
Match to U.S. 40
216+86
C = 4455
2:1
3:1
Sod
893.7
896.58
116+87
919.6
Begin Sod 116+50
Shale & Indurated Clay
114+01 ~ 120+98
Sta. 116+44
4455 0
6985 0
4317 0
Sta 116+44
Co. Rd. 1 Reloc. 1 116+87



Co. Rd. 1 Reloc. 1 117+02

150 200 250 300 350 400

FED. RD. DISTRICT 2 | STATE OHIO | PROJECT

323
G38

GUERNSEY COUNTY
GUE-40-17.37

SECTION: END WIDTH | END YDS.

CUM AREA: CUT | FILL — VOLUME: CUT | FILL

Match to U.S. 40
217+19

990 980 970 960 950 940 930 920 910 900 890 880 870 860

C = 4472 ft

2:1

℄ CR 41

3:1

Sod

892.5

835.54
117+21
921.0

Shale & Indurated Clay
114+01 ~ 120+98

202 476 202

Sta 117+02

CUM AREA CUT 4472 0 | 3240 0 | Sta 117+02 4735 0

150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400 410 420 430 440

Co. Rd. 1 Reloc. 117+21

GUERNSEY COUNTY
GUE-40-17.37

END AREA: CUT | FILL — VOLUMES: CUT | FILL

Match to U.S. 40
217+75

C = 3353

2:1

3:1

4-Bod

℄ C.R. #1

893.59
117+77
913.0

Shale & Indurated Clay
114+01 ~ 120+98

3353 0

8115 0

Sta 117+21 44.72 0

960 950 940 930 920 910 900 890 880 870 860

176 1176 202

Sta. 117+21

150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400 410 420 430 440

Co. Rd. 1 Reloc. 1 117+77

GUERNSEY COUNTY
GUE-40-17.37

Match to US 40
218+00

960
950
940
930
920
910
900
890
880
870
860

C=3140 ✓

2:1

3:1

℄ C.R. 41

β

889.7

Sod

892.62
118+02
912.0

Shale & Indurated Clay
114+01 ~ 120+98

Sta 117+77

END AREA — VOLUME
CUT FILL CUT FILL

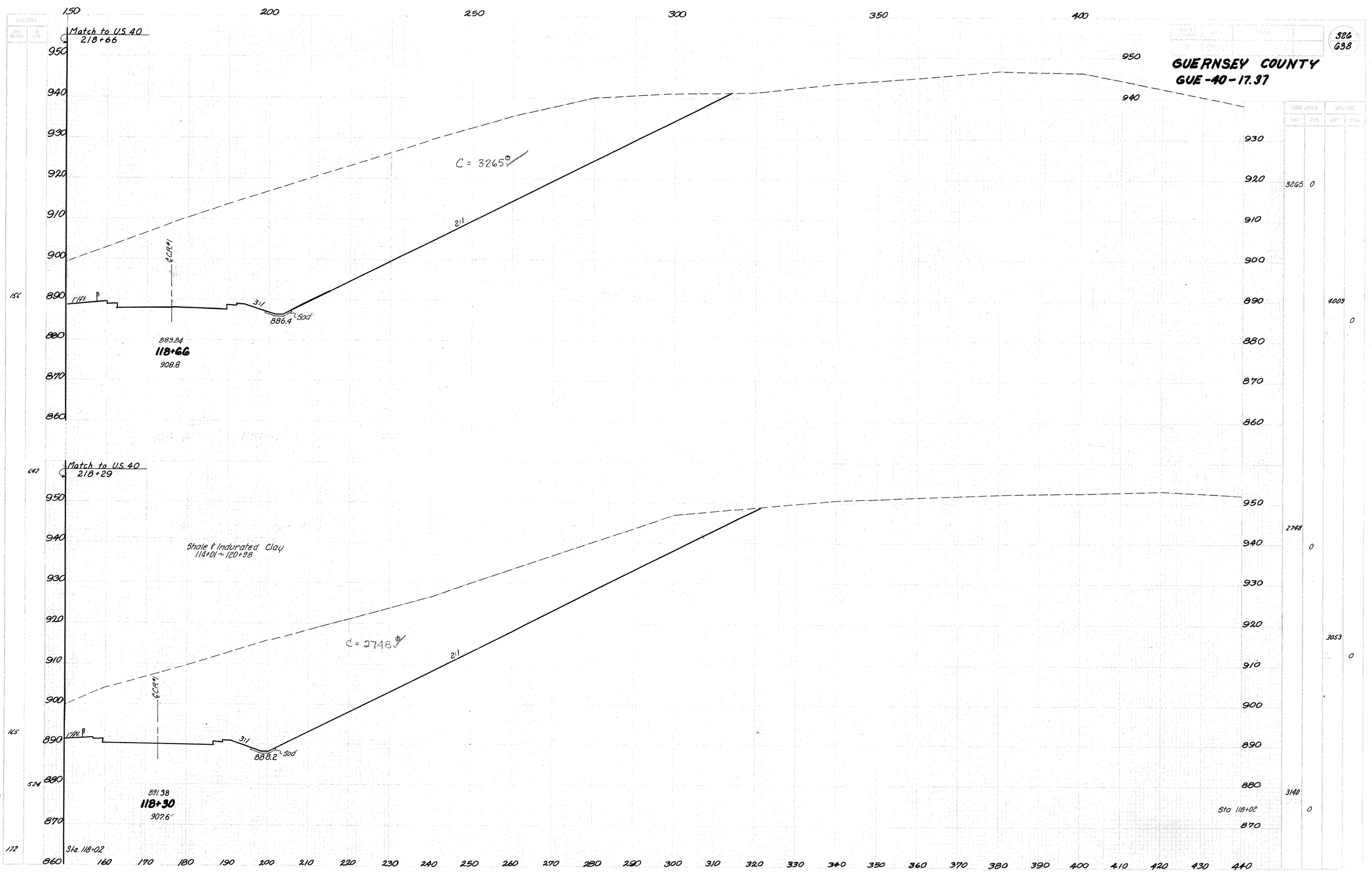
960 — 3140 — 0
950
940
930 — 3006 — 0
920
910
900
890
880
870
860

3353 — 0

Sta 117+77

150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400 410 420 430 440

Co Rd 1 Reloc L 118+02

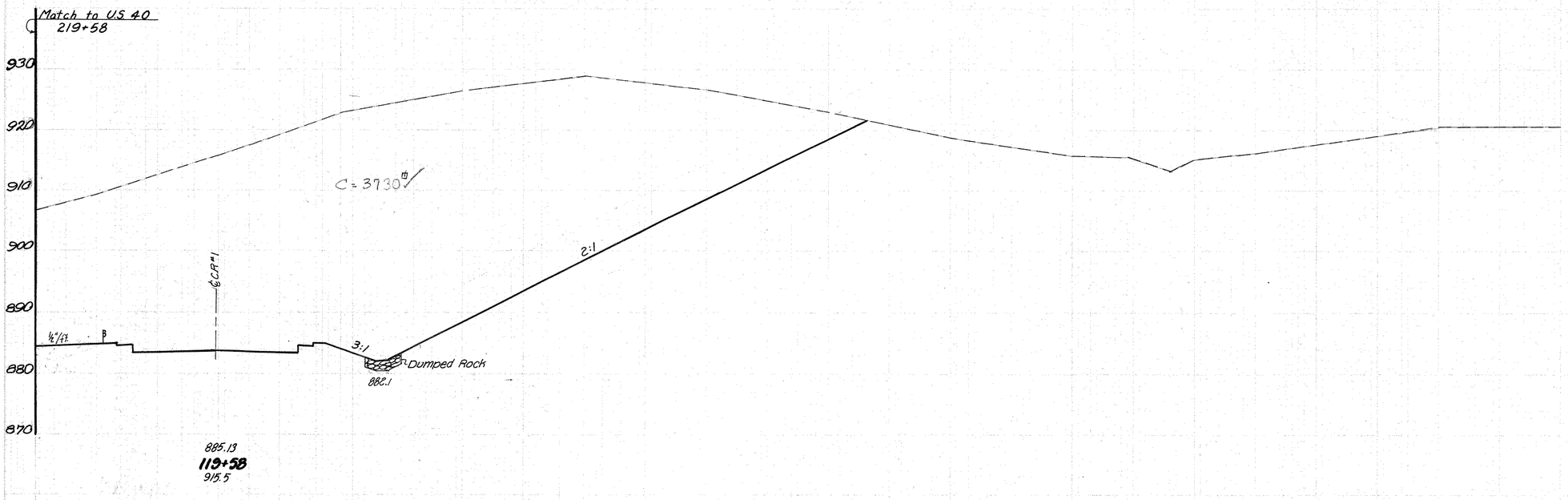


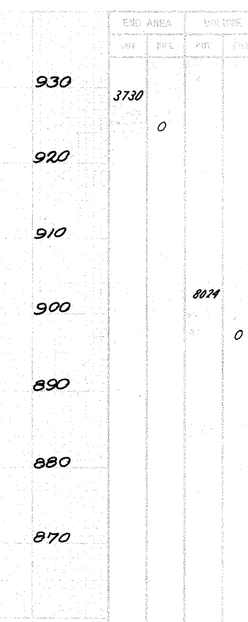
GUERNSEY COUNTY
GUE-40-17.37
326
638
Match to U.S. 40
218+66
C = 3265
2:1
3:1
886.4
Sod
889.84
118+66
908.8
Match to U.S. 40
218+29
Shale & Indurated Clay
114+01 ~ 120+98
C = 2748
2:1
3:1
888.2
Sod
891.38
118+30
907.6
Sta. 118+02
Sta 118+02
3265 0
4009
0
2748
0
3053
0
3140
0
Co. Rd. 1 Reloc. 1 118+30 ~ 118+66

150 200 250 300 350 400

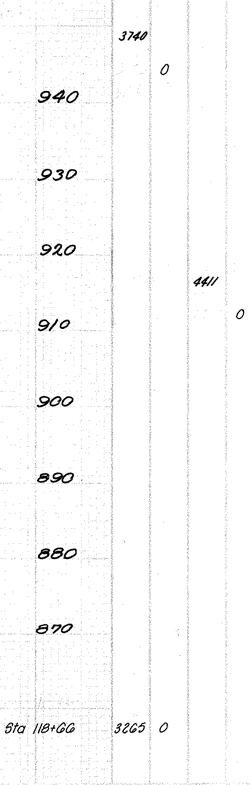
327
G38

GUERNSEY COUNTY
GUE-40-17.37





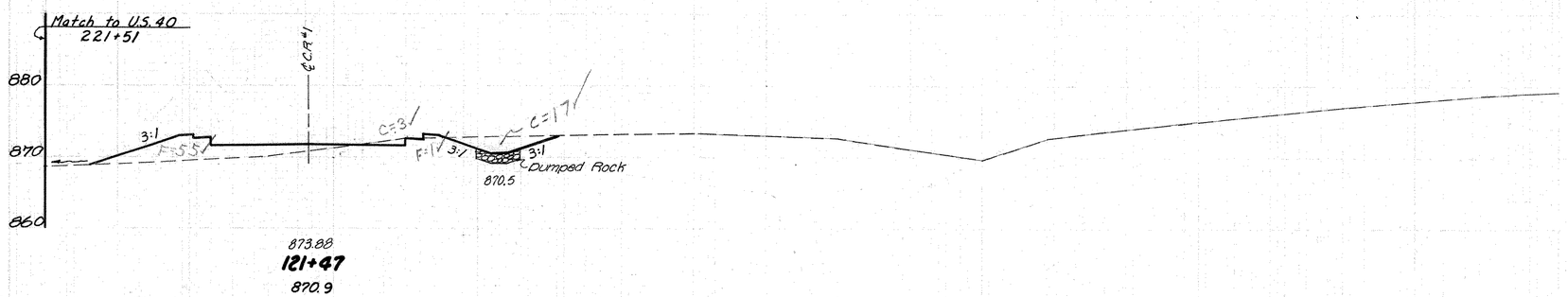


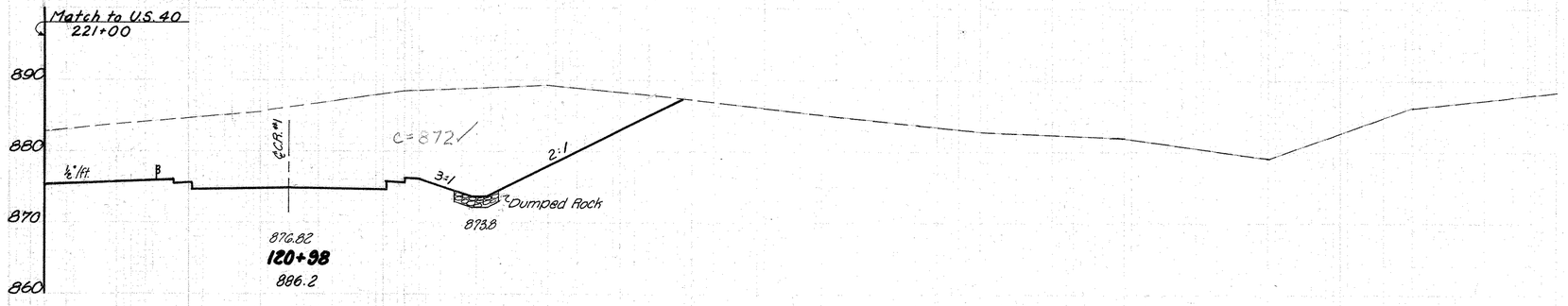


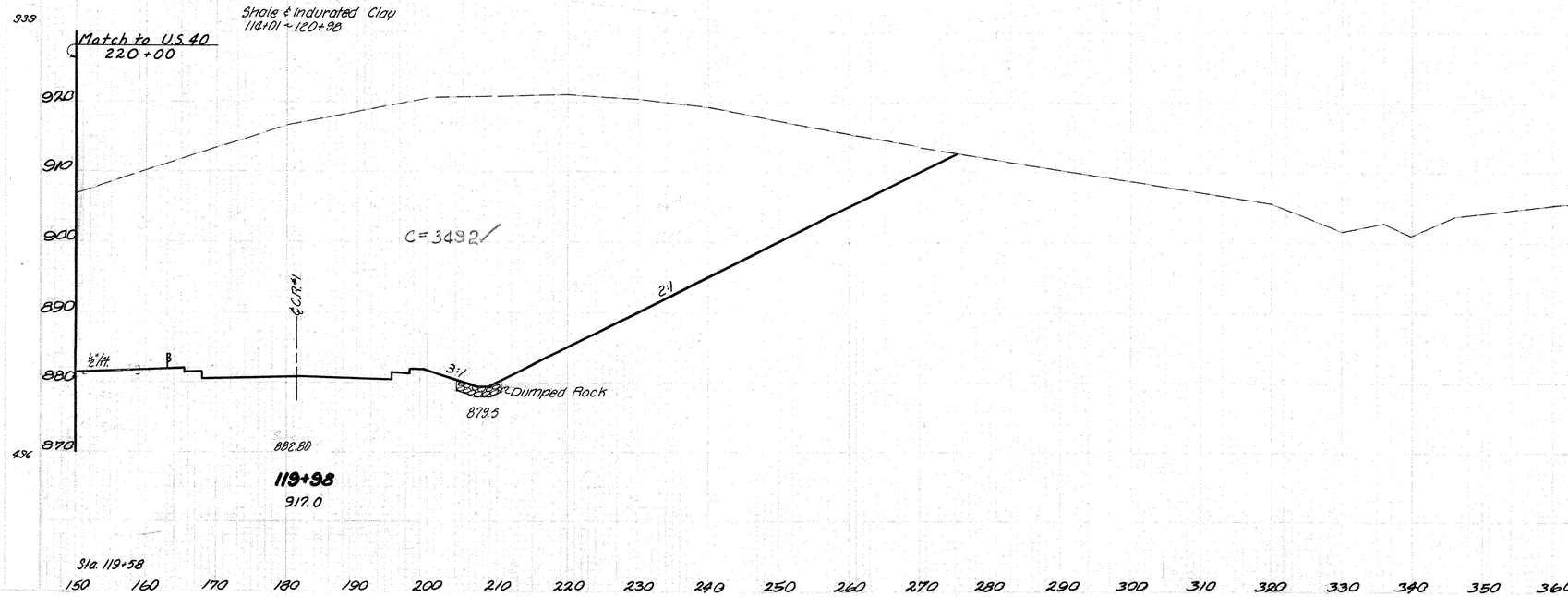
Co. Rd. 1 Reloc. 1 119+00 ~ 119+58

328
C38

GUERNSEY COUNTY
GUE-40-17.37



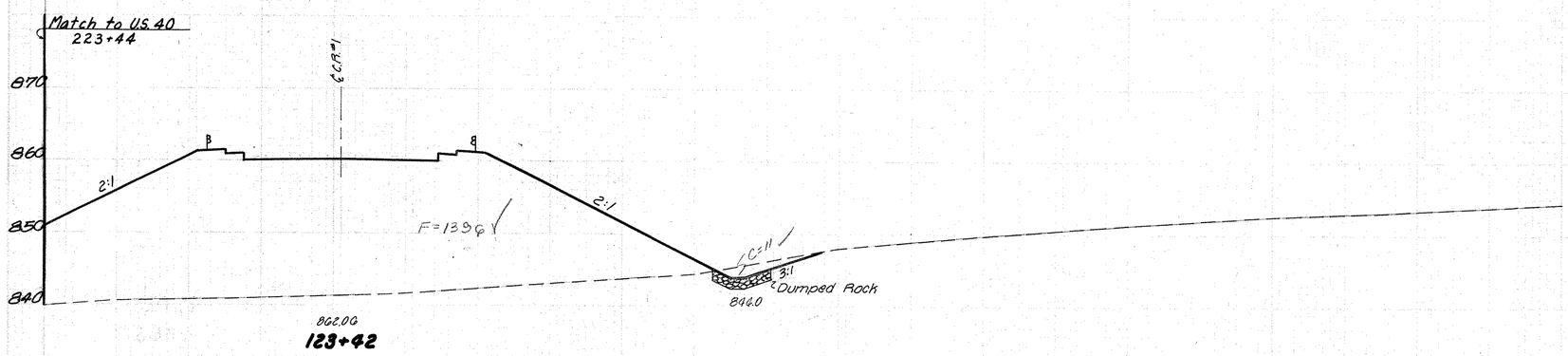


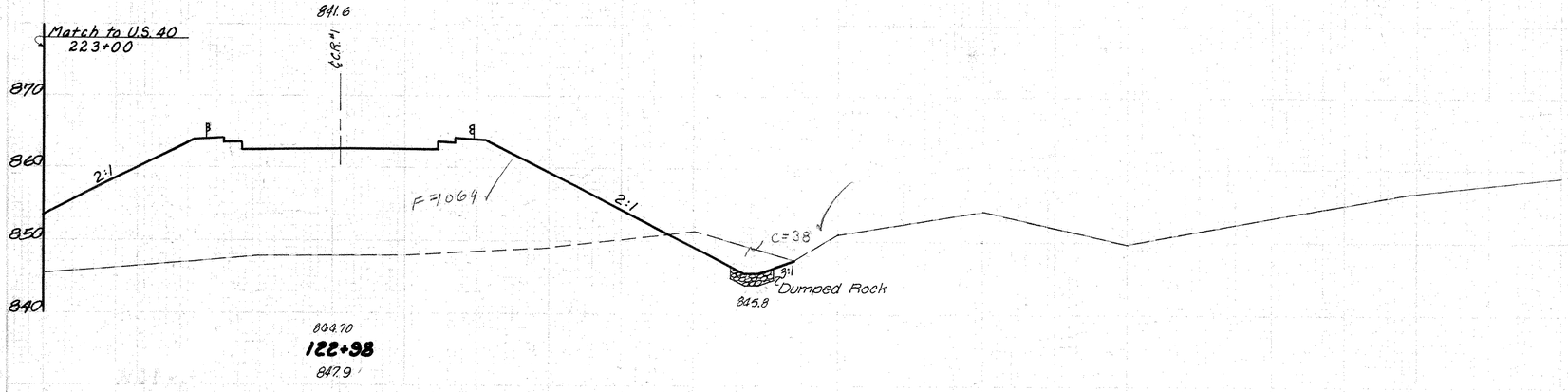


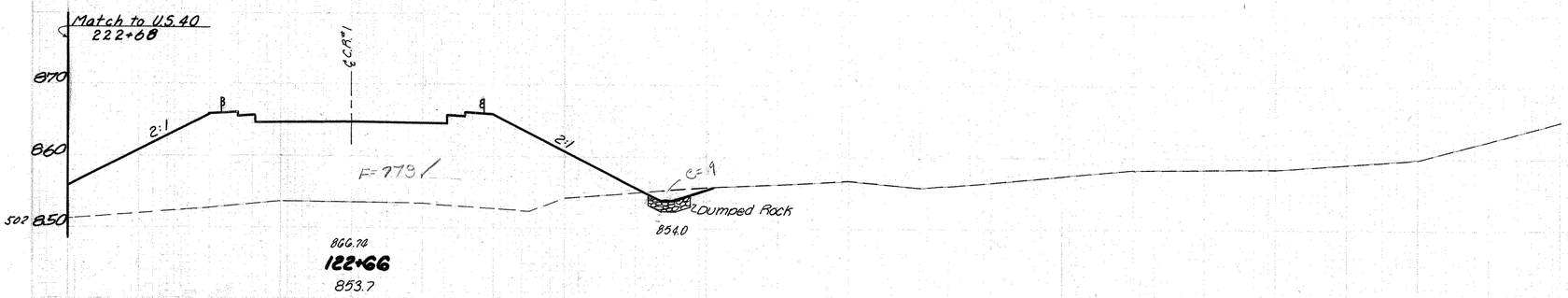
	EARTH AREA		VOLUME	
	CUT	FILL	CUT	FILL
880		56		
	20			
870				
860				
			809	51
890	872			
		0		
880				
870			8082	
				0
860				
920	3492			
		0		
910				
900				
			5350	
890				0
880				
870				
	3230			
Sta 119+58		0		

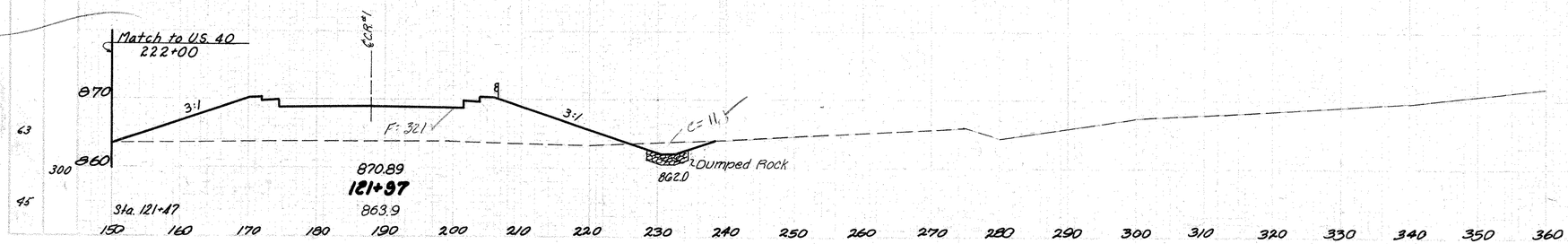
Co. Rd. 1 Reloc. 119+98 ~ 121+47

150 200 250 300 350









150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360

329
C38

GUERNSEY COUNTY
GUE-40-17.37

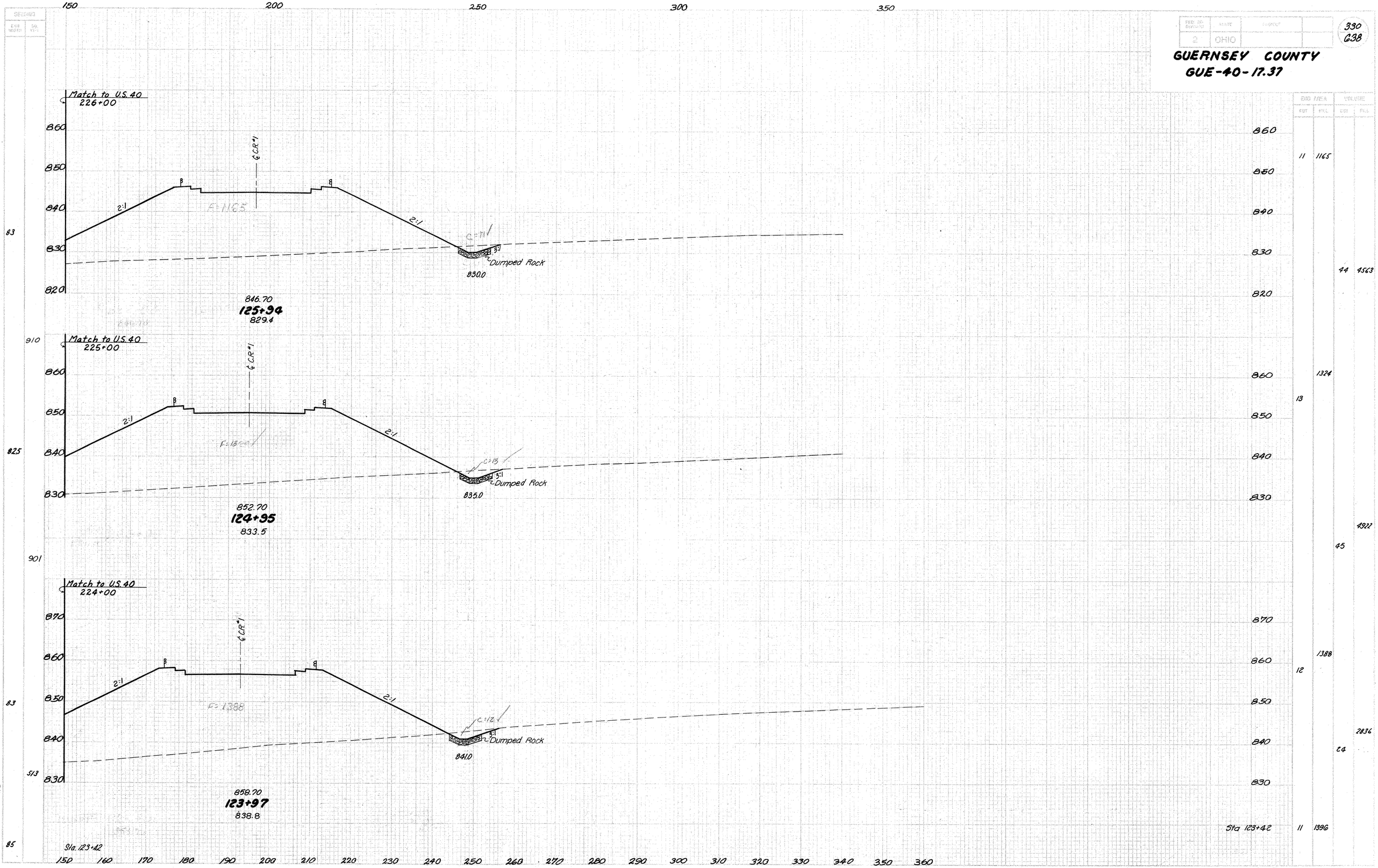
	END AREA CUT	END AREA FILL	SQUARE CUT	SQUARE FILL
870				
860				
850				
	11	139	G	
840				
			40	2003
870				
860				
850				
	38	106	9	
840				
				1095
			28	
870				
				779
860	9			
850				1406
			26	
	11	321		
				349
			29	
870				
860			56	
Sta 121+47	20			

Co. Rd. 1 Reloc. 121+97~123+42

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

330
638

GUERNSEY COUNTY
GUE-40-17.37



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
11	1165		
		44	4563
	1324		
13			
			4922
		45	
	1388		
12			
			2836
		24	
11	1396		

Co. Rd. 1 Reloc. 1 123+97 ~ 125+94

FED. RD. DIV. NO.	STATE	PROJECT	
2	OHIO		

331
G38

GUERNSEY COUNTY
GUE-40-17.37

SEEDING

END WIDTH	SQ. YDS

SECTIONS	
END AREA	VOLUME

FED. R. DIVISION	STATE	COUNTY	
2	OHIO		

332
G38

GUERNSEY COUNTY
GUE-40-17.37

END AREA		VOLUME	
CUT	FILL	CUT	FILL

MICROFILMED
JUL 25 1985

FED. AID PROJECT NO.	STATE	PROJECT
2	OHIO	

333
638

GUERNSEY COUNTY GUE-40-17.37

N

P.K. in 4" Elm. — 47.85 — Hub Buried 2" — 23.07 — P.K. in 4" Thorn

P.O.T. 42+81.02

P.K. in 8" Elm. — 37.62' — P.K. in Post. — 28.54' — 28.56' — P.K. in 6" Elm. — 52.01' — P.K. in 4" Elm. — 42.22' — 42.18' — P.K. in 14" Elm. — 41.92' — P.K. in 14" Elm. — 19.69' — 8.86' — P.K. in 2" Elm

P.C. 45+80.10 — Hub — P.I. 46+50.00 — Hub — P.T. 47+19.51 — Hub

SEE SHEET Nº 300 FOR CO. Rd. 1, Reloc.1

STATION 49+57.5
PROPOSED 27" CULVERT
SEE SHEET No. 546

UTILITIES
Home Telephone Co.

RICHARD C. FRAME

STATION 45+60.5
PROPOSED 36" CULVERT
SEE SHEET No. 546

STATION 46+56.6
PROPOSED 24" CULVERT
SEE SHEET No. 546

2-A: 43+25 to 45+50
8" B-19, 98 C.Y.
Stabilized with Calcium Chloride. 439 S.Y.
E-1 Comp. Subgrade 439 S.Y.

1-A: 45+25, 11.43' Rt. to 40' Rt.
TYPE 2 Field Dr.
6" B-19 10.5 C.Y.

2-D

3-D

4-D

5-D: I-9 Underdrains 312. L.F.

1-R: E-12 Remove Ex. 21" Conc. Pipe

Ex. C.R. 36

Ex. R/W

BEGIN WORK & PAY'T. 43+25

Construction Limits

℄ C.R. 36 Reloc.

℄ Survey & Construction

℄ C.R. 1 Reloc. 13+11.85
46+00.20 ℄ C.R. 36

48+00.63 ℄ C.R. 36 Reloc. =
231+28.11 ℄ US 40 Survey

Ex. 72" Pipe to be abandoned

Culvert Quantities with Mainline Culvert carried

SEE SHEET Nº 334 FOR DETAILS ON CR 36

SEE US 40 P&P SHEET Nº 55

Scarify Exist Pav't. From U.S. 40 fill limits to exist U.S. 40. Cost to be included in price bid for E-1

49+81.36 CR 36 END WORK & PAV'T.

Ex. 21" Conc. Pipe

Spandrel Stone Arch 12' Span

Existing US 40

HOWARD C. MOORE

14'
6" Crushed Stone & Slag
Ex. Typ. Section C.R. 36

CURVE DATA
P.I. 46+50.00
Δ = 10°27'20"
D = 7°30'
R = 763.94'
L = 139.41'
T = 69.90'
E = 3.19'

LEGEND
B-19, 8" Aggregate Base Course Stabilized with Calcium Chloride.
Scarify exist. Pav't.

B.M. 214-B. Elev. 824.80
M.S. in 14" Walnut
23' Rt. Sta. 40+91

B.M. 214 Elev. 823.77
P.K. nail in S.W. corner of bridge abutment
180' Lt. 232+25 US 40

PROPOSED STRUCTURE No. GUE-40-2038
TYPE = Continuous Reinforced Concrete Slab and Reinforced Concrete Substructure
SPANS = 32'-40'-32'
ROADWAY = 42' f/f of parapets with Aluminum Railing and 1'-2" curbs
LOADING = CF-2000 (1957) Adequate for AASHO alternate loading
WEARING SURFACE = 1" monolithic concrete
SKEW = None
ALIGNMENT = Tangent
APPROACH SLABS = AS-1-54, 25' Long

Excavation	97 C.Y.
Embankment	2240 C.Y.
Embankment +/2%	2509 C.Y.
Seeding	2101 S.Y.

+0.6% — -0.8% — 100' V.C. — P.V.I. 48+00 Elev. 826.37

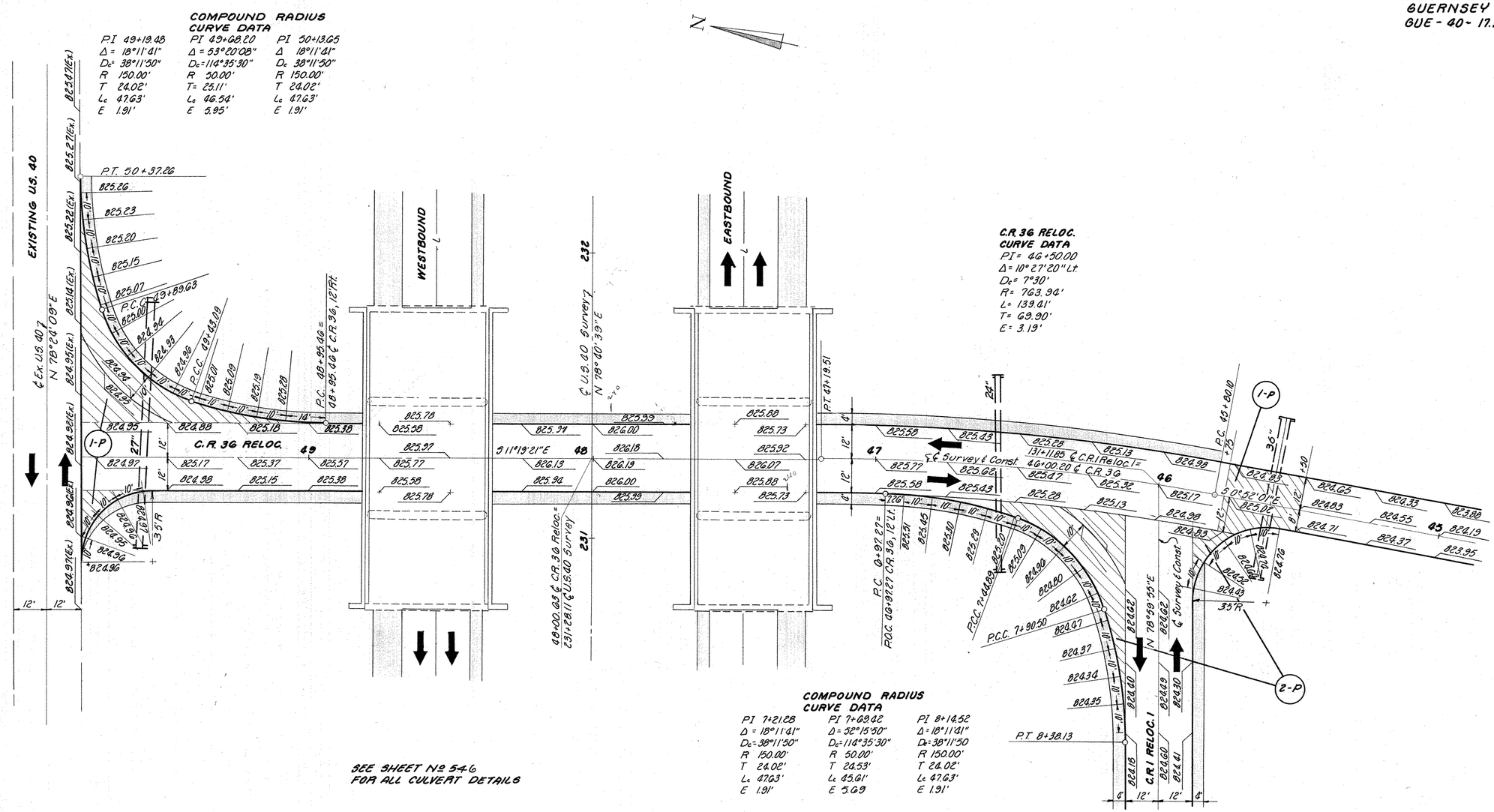
Prop 36" Inv. 819.0 Rt. — Prop 24" Inv. 819.0 Rt. — Prop 27" Inv. 819.0 Rt.

| | | |

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

336
638

GUERNSEY COUNTY
GUE - 40 - 17.37



SEE SHEET Nº 546
FOR ALL CULVERT DETAILS

PAVEMENT QUANTITIES

Ref. Nº	T-35 1"	B-35 1 1/2"	B-21 5" Courses	T-30 Prime	B-19 6"	I-22 5"	I-18	Special Cal Chloride	E-1 Comp. Subgr.
Units	C.Y.	C.Y.	C.Y.	Gals.	C.Y.	C.Y.	C.Y.	S.Y.	S.Y.
1-P	5.6	8.4	28	80.9	3.4	2.8	1.6	11.5	31.7
2-P	3.2	5.0	16.8	48.4	20.2	16.8	9	6.3	18.3
TOTALS	8.8	13.4	44.8	129.3	54.2	44.8	25	17.8	50.0

PAVEMENT DETAILS C.R 36 RELOC.

FED. AID DIVISION	STATE	PROJECT	
2	OHIO		

335
G38

GUERNSEY COUNTY
GUE-40-17.37

SEEDING		END AREA		VOLUME	
END WIDTH	SQ YDS	CUT	FILL	CUT	FILL
2.5	25	0	131	0	411
2	294	0	91	0	378
51	650	0	113	26	343
66	650	14	72	52	189
51	212	14	30	19	42
0		0	0		

Match to US.40
F=131
Quantity Included in US.40 Volume
826.19
48+00
820.9

Match to US.40
Match to US.40
Quantity Included in US.40 Volume
F=91
825.77
47+00
822.1

46+53, 36.5' Lt.
Inv. 819.6
Culvert @ 46+56.6
46+59, 33.5' Rt.
Inv. 819.0
70'-24" @ 8%
Match to US.40
3:1
3:1
F=113
Quantity Included in C.R. #1 Reloc. #1 Volume
825.17
46+00
822.6

Full Area Ahead to Sta. 45+51
3:1
3:1
3:1
3:1
LC=14'
F=70'
820.0
824.57
45+00
822.5

LC=14'
SC=30'
3:1
3:1
3:1
821.0
823.37
44+00
823.0

Sta. 43+25
Begin Work & Pav't at Sta. 43+25
43+00

Co. Rd. 36 Reloc. 43+00 - 48+00

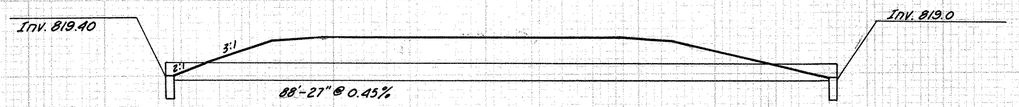
SEEDING	
SEED WIDTH	SEED VOL.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

336
638

GUERNSEY COUNTY
GUE-40-17.37

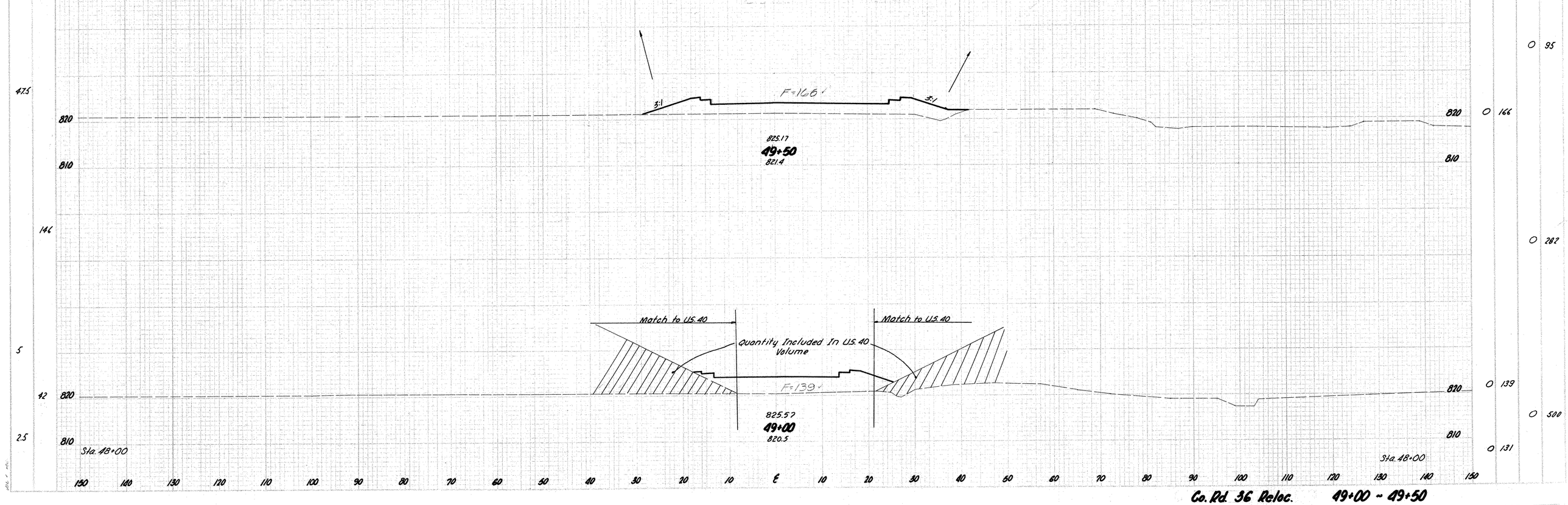
END AREA		VOLUME	
CUT	FILL	CUT	FILL



Culvert Detail @ 49+37.5

End Work & Pav't. at Sta. 49+81.36
0 Cut & Fill at 49+81

Sta. 49+81 — 0 — 0

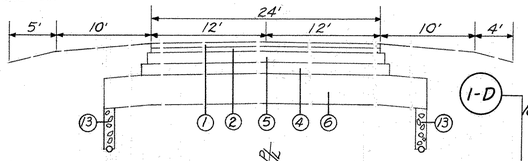


Co. Rd. 36 Reloc. 49+00 - 49+50

PCR RD. DIVISION	STATE	PROJECT		SHEET NO.	TOTAL SHEETS
2	OHIO			337	638

GUERNSEY COUNTY GUE-40-17.37

UTILITIES
Home Telephone Co.



① Item T-35, 1¼" Asphaltic Concrete Surface Course (Type A)
② Item B-35, 1¼" minimum Asphaltic Concrete Leveling Course
④ Item B-35, 3" Asphaltic Concrete Base Course
⑤ Item B-35, 3" Asphaltic Concrete 2nd Base Course
⑥ Item SS-1,2 8" Classified Embankment Material
⑬ Item I-4, 6" Underdrain
Ex. Typical Section US 40

RICHARD C. FRAME

Guard Rail P.K. 290'

CA.RD1 - RELOC.2
CURVE DATA
P.I. 79+06.67
Δ = 19°18'59" Lt.
Q = 6°00'
D = 1432.39'
T = 262.91'
L = 681.28'
E = 20.85'

Hub 42.49' 4.14'S

P.K. in G.R. Posts
50+00
℄ Survey Ex. US 40

STA. 78+19, C.R. 1 & 50+37.5
TWP. RD 644 Proposed 36"
& 68"x43" Culverts
SEE SHEET NO. 551

CA. HALL ET AL
Ex. R/W
T.R. 644
Ex. R/W
N 73°40'E 32'

1-A 78+98.76
Type I Driveway
50+12 to 50+43
5" B-19 11.6 C.Y.
T-35, 2-1" Courses
Type "C" 4.6 C.Y. T-30 Prime 33.1 Gal.
50+43 to 51+40
8" B-19 28.8 C.Y. Stabilized with Calcium Chloride 129 S.Y.

2-R E-12, Remove
32 L.F. Ex. 15" C.M.P.

Structure Coal. Reloc. 2
Station 78+19
Proposed 68"x43" Culvert
See Sheet No. 551

Structure Twp. Rd. 644
Station 50+37.5
Proposed 36" Culvert
See Sheet No. 551

50+00 T.R. 644
= 78+98.76

8' Cut off wall

2-3/4" Fr. Res.

Ex. 15" C.M.P.

Inv. 83394
Inv. 82950
Inv. 83456

5'x3' Box Culvert
Ex. Tension Plate C.R.

Ex. Typ. Sec. T.R. 644
9" Slag-Clay

Construction Limits

Exist US. 40 to be abandoned

15" C.I.P.

Ex. R/W

N 76°14'10" E

N 78°00'39" E

N

ROGER D. DAVIS
MURRIEL J. DAVIS

3-D L-10, 83 S.Y. Sod
I-10, 13.3 S.Y. Riprap
I-10, 78 C.Y. Dumped Rock Channel Prot.

4-D L-10, 42 S.Y. Sod
I-10, 22 C.Y. Dumped Rock Chan. Prot.

3-G I-15
200 L.F. G.R.

4-G I-15
200 L.F. G.R.

5-D I-9 Underdrains
374 L.F.

3-R E-8, Remove
1530 S.Y.
Ex. Pov't. Asph.

1-D L-10
162 S.Y. Sod

2-A 76+00 to 76+50
0" to 1" T-35 1.9 C.Y.
0" to 3½" B-35 6.5 C.Y.

1-G I-15
75 L.F. G.R.

2-D

3-A

2-G I-15
75 L.F. G.R.

5-G

BEGIN PAV'T 76+50

BEGIN WORK 74+50

Beg. G.R. 75+00

End G.R. 76+00

Beg. G.R. 80+00

End G.R. 80+00

Beg. Sod 76+50

Beg. Sod 80+00

Temporary Road As shown

Ex. R/W

Construction Limits

Ex. Survey 80

℄ Survey

℄ Construction

℄ Survey & Construction

Sign

Hub

P.K.

45+00
℄ Survey Ex. US 40

Note: Guard Rail included in price bid for item I-3

WALTER N. PATTERSON

LEGEND
Temporary Road
0" to 1" T-35 TYPE "A"
0" to 3½" B-35 Asphaltic Concrete Leveling Course
Removal of Exist. Pov't.

SEE US 40 P&P SHEET Nos 59,60

HALF SOT LINE ML 7

RICHARD C. FRAME

U.S. 40

B.M. 217-A Elev. 833.14
P.K. nail in S.E. corner of headwall
135' Lt. Sta. 278+15

Excavation	1598 C.Y.
Embankment	4841 C.Y.
Embankment +12%	5422 C.Y.
Seeding	3960 S.Y.

350' V.C.
P.V.I. 79+00.00
P.V.I. El. 839.38'
-0.50%
+6.00%

Ex. 5'x3'

Ft Edge Profile Lt Edge	841.45 (Ex)	841.22	841.02	840.98	840.86	840.88	840.93	840.98	841.02	841.06	841.12	841.26	841.48	841.79	842.17	842.64	843.19	843.82	844.54	845.33	846.21	847.17	848.14	849.04	849.91	850.78	851.64	852.51	853.38	854.29	855.22	856.19	857.38	858.19
Ft Edge Profile Rt Edge	841.45 (Ex)	841.22	841.12 (Ex)	840.98	840.83	840.69	840.54	840.40	840.29	840.27	840.33	840.47	840.69	841.00	841.38	841.85	842.40	843.03	843.75	844.54	845.42	846.38	847.38	848.38	849.38	850.38	851.38	852.38	853.38	854.38	855.38	856.38	857.38	858.19

	842.12	841.94	841.14	840.42	839.42	838.5	838.5	846.5	847.5	843.9	845.0 (±69)	848.2
	75+00	75+00	76+00	77+00	78+00	79+00	80+00	81+00	82+00	83+00		84+00

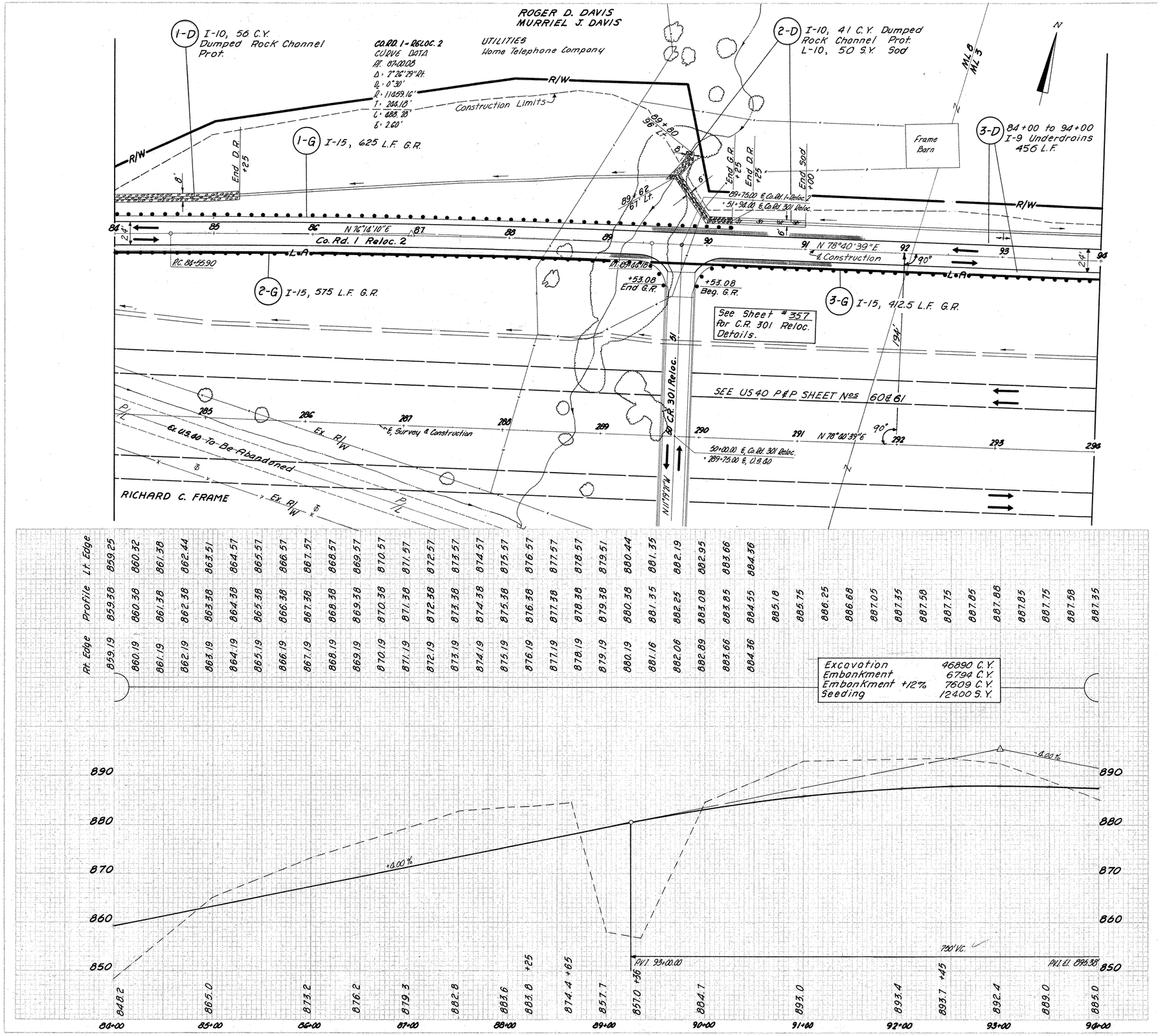
ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	T-35 0" to 1" Type A 1" Courses C.Y.	B-35 0" to 3½" Asphal. Conc. Type "C" Leveling C.Y.	B-35 5" C.Y.	B-19 8" Stabil-ized C.Y.	I-9 No. 2 Stone Under-drains L.F.	L-10 Sod S.Y.	I-1 Class A-1 36" L.F.	I-1 Class M-6.7 (0) 68"x 43" L.F.
1-A	78+98.76	L.	1.9	6.5	11.6	28.8				
2-A	76+00 to 76+50	L&R.								
3-A	As Indicated	R.								
1-D	76+50 to 78+13.5	L.						162	56	16
2-D	78+13.5 to 79+30 ±	L&R.								
3-D	79+30 ± to 82+25	L.						83		
4-D	83+00 to 84+00	R.						42		
5-D	76+50 to 84+00	L&R.					374			
1-G	78+00 to 78+75	L.								
2-G	77+75 to 78+50	R.								
3-G	82+00 to 84+00	L.								
4-G	82+00 to 84+00	R.								
5-G	76+83 to 79+50	L&R.								
2-R	"	L.								
3-R	76+50 to 82+00	R.								
			1.9	6.5	11.6	28.8	374	287	56	16

REF. NO.	STATION TO STATION	SIDE	I-15 Remove & Disposal L.F.	T-20 Removal of Exist. Pov't. S.Y.	E-8 Riprap G.F.C. Slab S.Y.	I-10 Dumped Rock Channel Prot. C.Y.	I-15 Type E-4 S.F.	I-2 Mas-onry C.Y.	I-15 Type E-4 L.F.	E-12 Remove Ex. Pipe Under. L.F.	T-30 Special Calcium Chloride Coat. S.Y.	T-30 Prime Coat Gal.
1-A	78+98.76	L.										
2-A	76+00 to 76+50	L&R.		258								
3-A	As Indicated	R.										
1-D	76+50 to 78+13.5	L.										
2-D	78+13.5 to 79+30 ±	L&R.				73						
3-D	79+30 ± to 82+25	L.				78						
4-D	83+00 to 84+00	R.				22						
5-D	76+50 to 84+00	L&R.										
1-G	78+00 to 78+75	L.					75					
2-G	77+75 to 78+50	R.					75					
3-G	82+00 to 84+00	L.					200					
4-G	82+00 to 84+00	R.					200					
5-G	76+83 to 79+50	L&R.								32		
2-R	"	L.										
3-R	76+50 to 82+00	R.										
			350	258	1530	29		0.79			129	33.1
			350	258	1530	133		0.79			129	33.1

Co. Rd. 1 - Reloc. 2 76+00 to 84+00

FED. RD. DIVISION 2 | STATE OHIO | PROJECT | 338 / 638
GUERNSEY COUNTY GUE-40-17.37



ESTIMATED QUANTITIES

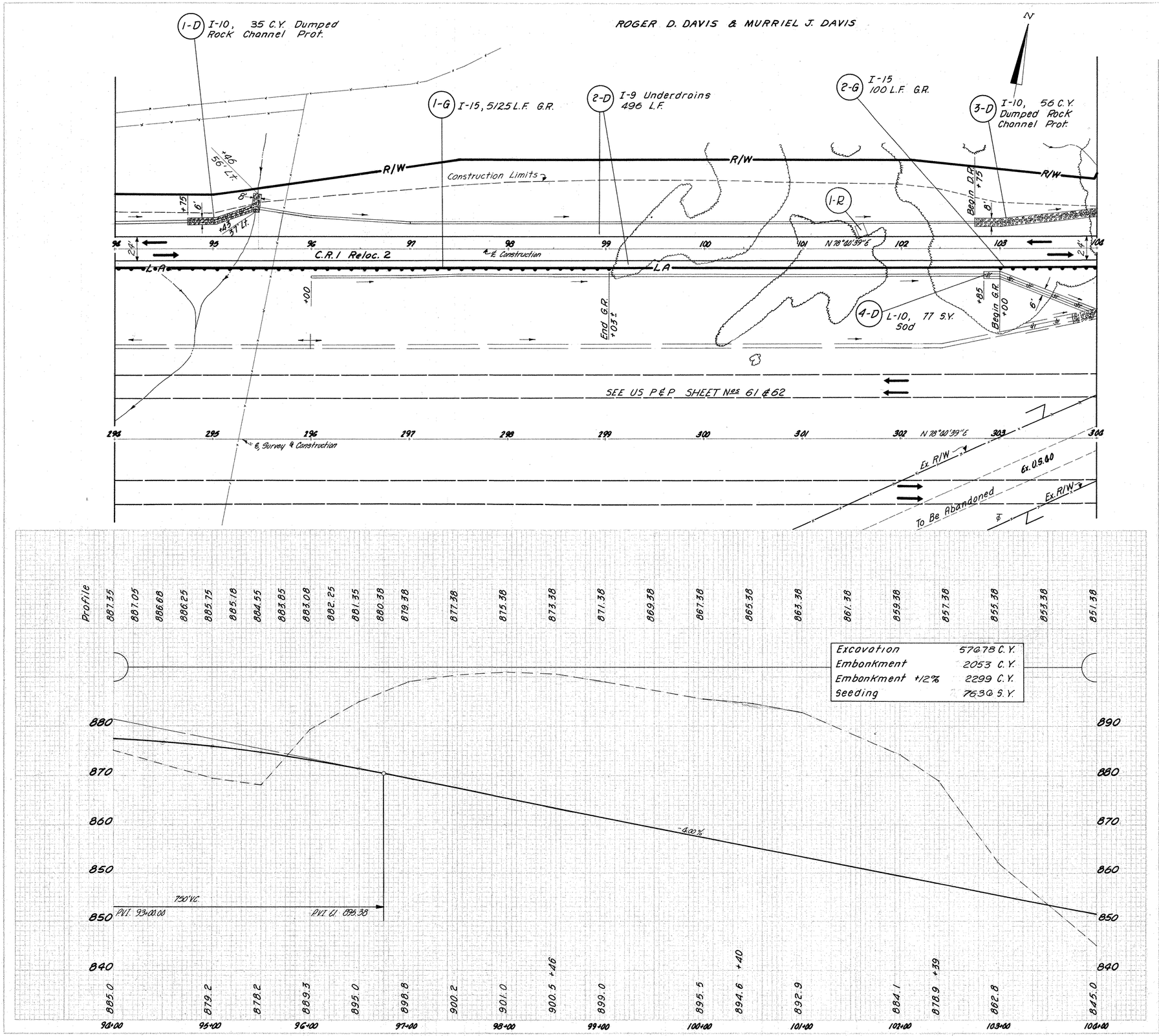
REF. NO.	STATION TO STATION	SIDE	I-9 No. 2 Stone Under drains L.F.	I-10 Dumped Rock Channel Prot. C.Y.	I-15 TYPE 2-A G.R. L.F.	L-10 Sod S.Y.
1-D	84+00 to 85+25	L.		56		
2-D	89+80, 96' Lt. to 91+00	L.		41		50
3-D	84+00 to 94+00	L.&R.	456			
1-G	84+00 to 90+25				625	
2-G	84+00 to 51+53.08 C.R. 301				575	
3-G	51+53.08 C.R. 301 to 94+00				412.5	
TOTALS			456	97	1612.5	50

Co. Rd. 1 - Reloc. 2 84+00 to 94+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

339
638

GUERNSEY COUNTY GUE-GO- 17.37



ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	I-9 No. 2 Stone Under-drains L.F.	I-10 Dumped Rock Channel Prot. C.Y.	I-15 TYPE 2-A G.R. L.F.	L-10 Sod S.Y.	Special Drilled Well Abandoned EA.
1-D	94+75 to 95+47, 67' Lt.	L.		31			
2-D	94+00 to 104+00	L&R	496				
3-D	102+75 to 104+00	L.		56			
4-D	102+85 to 103+95±	R.				77	
1-G	94+00 to 99+03±	R			512.5		
2-G	103+00 to 104+00	R.			100		
1-R	101+60, 20' Lt.	L.					1
TOTALS			496	87	612.5	77	1

Co. Rd. 1 - Reloc. 2 94+00 to 104+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		340 638

GUERNSEY COUNTY GUE-00-17.37

ROGER D. DAVIS MURRIEL J. DAVIS

1-A 105+11 Type 1 Driveway & Mailbox Approx. 51+27 to 51+64 5" B-19 135 C.Y. T-35, 2-1" Courses Type "C" 5.4 C.Y. 51+64 to 52+75 8" B-19, 33 C.Y. Stabilized with Calcium Chloride) 148 S.Y.

1-D 104+00 to 107+65 I-10 D.R. C.P. 137 C.Y. I-10 Riprap (6" R.C. Slab) 133 S.Y. I-1, 68'-27° Class C-1

1-G I-15 87.5 L.F. G.R.

2-G I-15 500 L.F. G.R.

3-G I-15, 50 L.F. G.R.

2-A 104+50 Temporary "G" Road using T-10 T-10, 139 C.Y. I-4, 2.8 Tons

4-G I-15 100 L.F. G.R.

2-D 107+75 to 108+25 L-10, 42 S.Y. Sod

2-R 105+71 to 111+00 E-8, Remove 1475 S.Y. Exist. Pov't. Asphalt

1-R 5-24, Remove Ex. 2.5'x3' Box Culvert.

3-A 111+00 to 111+75 0" to 1" T-35, 1.4 C.Y. 0" to 2½" B-35, 3.5 C.Y.

4-A Temporary Road "I" as shown

4-D I-9, No. 2 Stone Underdrains 344 L.F.

3-D STATION 107+82 PROPOSED 60" CULVERT SEE SHEET NO. 547

NOTE: Guard Rail included in price bid for I-3

SEE US P&P SHEET No 62

Existing Typical Section US 40

(1) Item T-35 1¼" Asphaltic Concrete Surface Course (Type A)
(2) Item B-35 1¼" minimum Asphaltic Concrete Leveling Course
(3) Item B-35 3" Asphaltic Concrete Leveling Course
(4) Item B-35 8" Asphaltic Concrete Base Course
(12) Item I-9 Stone Underdrain No 2

Co. Rd. 1 - Reloc. 2
P.C. 108+38.29 = US-40, 308+38.29, 194' Lt.
Δ = 23°38'30" Lt.
D = 6°00'
R = 1145.92'
T = 239.83'
L = 472.83'
E = 24.83'

P.O.T. 312+36 ℄ of Survey

P.I. 320+78.09 ℄ of Survey

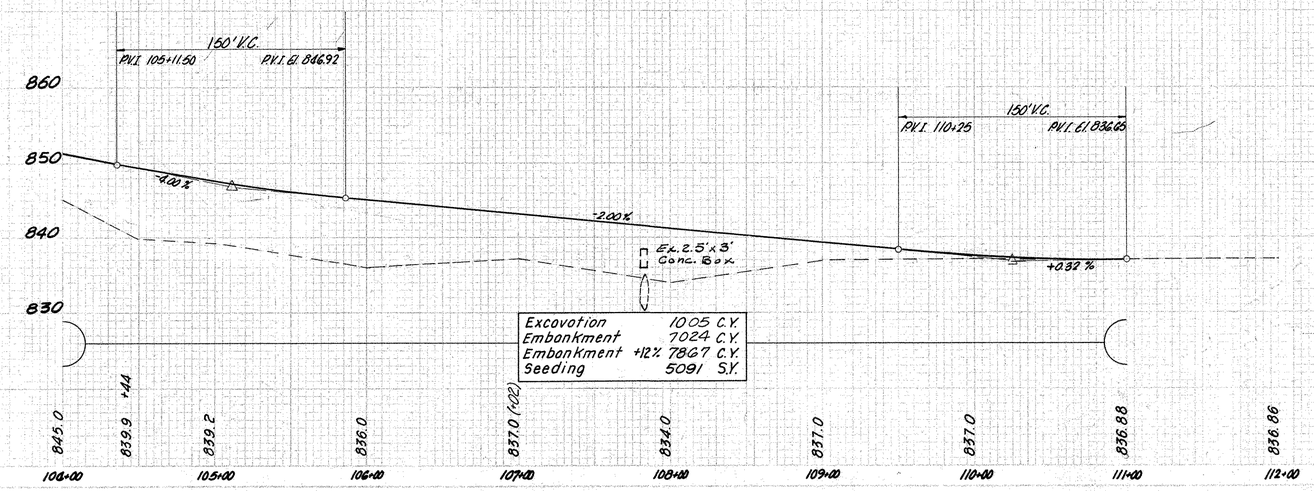
END WORK 113+50

END PAVT. 111+00

Construction Limits

LEGEND
Temporary Road
Removal of Exist. Pov't.
0" to 1" T-35, TYPE "A" 0" to 2½" B-35 Asphaltic Concrete Leveling Course

UTILITIES
Home Telephone Co.
Guernsey Muskingum Elect. Coop. Inc.



ESTIMATED QUANTITIES

PER NO.	STATION TO STATION	SIDE	T-35 0" to 1" TYPE "A" (1" Course) C.Y.	T-35 2 (1" Course) TYPE "C" C.Y.	B-35 0" to 2½" Asphalt Conc. Level. C.Y.	B-19 5" C.Y.	B-19 8" Stabilized C.Y.	T-9 No. 2 Stone Underdrains L.F.	L-10 Sod S.Y.	I-1 Class A-1 M-6.6 (0) 27" L.F.	I-1 Class A-1 M-6.6 (0) 60" L.F.
1-A	105+11	L.									
2-A	104+50	R.		5.4		13.6	33				
3-A	111+00 to 111+75	R.	1.4		3.5						
4-A	As Shown										
1-D	104+00 to 107+65	L								68	
2-D	107+75 to 108+25	L							42		
3-D	107+82	L & R							7		82
4-D	104+00 to 111+00	L & R						344			
1-G	As Shown	L									
2-G	104+00 to 109+00	R.									
3-G	As Shown	L									
4-G	107+25 to 108+25	L									
1-R	As Shown	L & R									
2-R	105+71 to 111+00	L & R									

	SEE SHEET NO.	I-4 5-24 Removal	I-10 Traffic Compact. Calcium Chloride Surface C.Y.	I-10 Dumped Rock Channel (6" R.C. Slab) C.Y.	I-10 Riprap (6" R.C. Slab) S.Y.	I-15 Chann. Remove Ex. S.Y.	E-8 2-A Exist. G.R. Pov't. L.F.	E-3 Mas-onry Repair C.Y.	I-2 Mas-onry Repair S.Y.	T-20
		Lump	2.8				100		700	
			139		13.3					3.5
				137						
		1								
		353								
		547		47	44			3.72		
						87.5				
						500				
						50				
						100				
							1475			
		2.8	139	184	57.3	731.5	2175	20	3.72	700
		Lump	2.8	139	57.3	731.5	2175	20	3.72	700
		49	344	68	33	13.5	3.5	5.4	1.4	
		82	148							

Co. Rd. 1 - Reloc. 2 106+00 to 111+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

341
C38

GUERNSEY COUNTY
GUE-40-17.37

SEEDING

END WIDTH	SQ. YDS.
	122
	34
	556
	66
	650
	51
	283
	0

Add for T.R. 644

Inv. 833.5 — Inv. 835.0

39.5' — 26.5'

F=7A

56'-36" @ 2.78%
Drive pipe @ 50+37 T.R. 644

Add For T.R. 644

Ex. 845.3
Ex. 845.20
842.38 +26.38
840.20
839.05
838.96
839.81 +26.38
840.64 +12.57
PVI 50+76.58
100' V.C.
Elev. 836.98
-5.72%
+11.2%
Q5 Prop. 36"
52+00
51+00
50+00
Profile T.R. 644

℄ Temporary Runaround
3:1
F=8A
MATCH LINE -US 40- Sta. 279+00
841.38
79+00
838.5

℄ Temporary Runaround
C=8A
C=3.3
F=4
Sod
832.2
MATCH LINE -US 40- Sta. 278+00, 150' Lt.

840.33
78+00
839.42
℄ Temporary Runaround
MATCH POINT - US 40 - 150' Lt. Sta. 277+00
Average Ahead
Full Section Back to 76+50

834.7
Begin Sod 76+50
840.54
77+00
840.4
℄ Temporary Runaround
2:1

Begin Pavt. at Sta. 76+50
Back 76+50

841.12 Ex.
76+00
841.1
MATCH POINT - US 40 - 150' Lt. Sta. 276+00

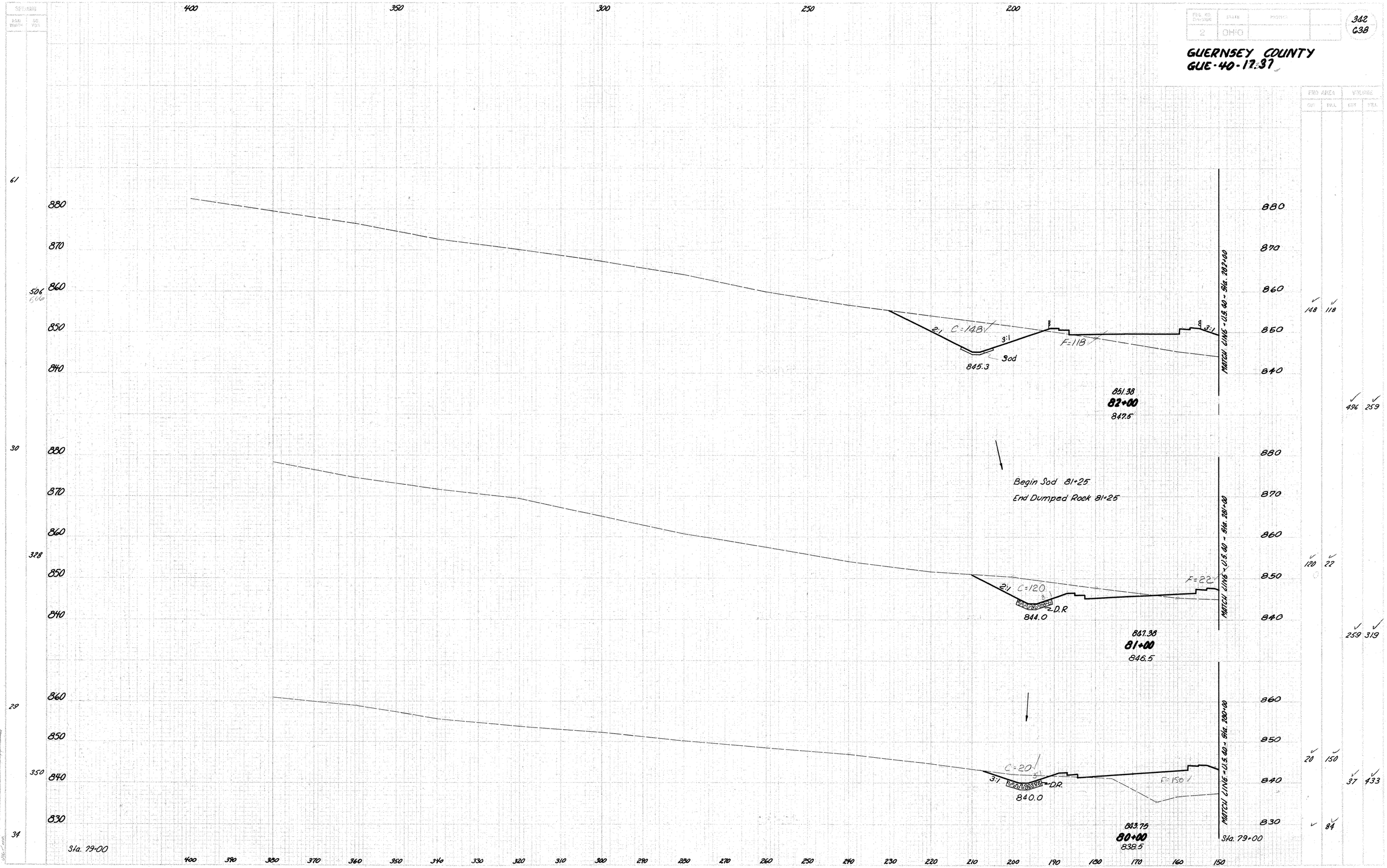
END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
			168
0	84		
		163	187
88	17		
		239	46
41	8		
		76	15
41	8		

Co. Rd. 1 Relocation 76+00 ~ 79+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

342
638

GUERNSEY COUNTY
GUE-40-17.37



Co. Rd. 1 Reloc. 2 80+00~82+00

FED. ES. DIVISION	STATE	PROJECT	
2	OHIO		

343
G38

GUERNSEY COUNTY
GUE-40-17.37

SEEDING

SQ. YARDS	SQ. YDS.
97	
828	
52	
183	
54	
426	
57	
656	
61	

End Dumped Rock 85+25

C=972 ✓

2:1 2:1 3:1 F=11 ✓

D.R.

855.3

863.38
85+00
865.0

MATCH LINE - U.S. 40 - Sta. 288+00

C=9 ✓ 2:1 2:1 F=573 ✓

D.R.

851.5

859.38
84+00
848.2

MATCH LINE - U.S. 40 - Sta. 285+69

C=11 ✓ 2:1 2:1 F=670 ✓

D.R.

846.2

858.14
83+69
845.0

Begin Dumped Rock 83+50
End Sod 83+50

Shale & Sandstone Interbeds
84+94 ~ 89+36

MATCH LINE - U.S. 40 - Sta. 283+00

C=9 ✓ 2:1 2:1 F=573 ✓

3:1 Sod

845.5

Begin Sod 83+00
End Sod 82+25

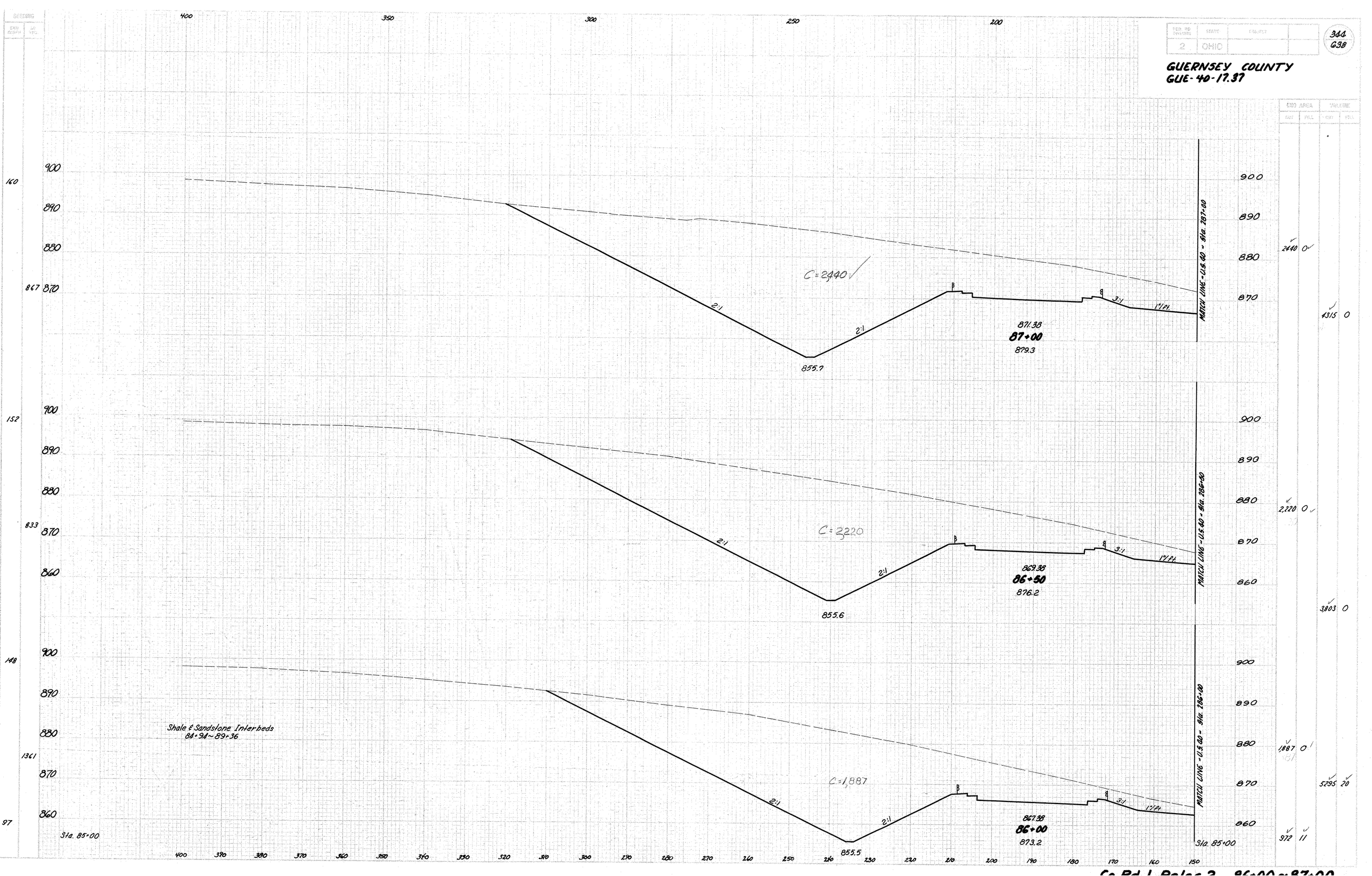
855.38
83+00
843.9

Sta. 82+00

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
9.72 ✓	11		
		1817 ✓	1082 ✓
9 ✓	573 ✓		
		11 ✓	714 ✓
11 ✓	670 ✓		
		26 ✓	1588 ✓
9 ✓	573 ✓		
		291 ✓	1280 ✓
148 ✓	118 ✓		

Sta. 82+00

Co. Rd. 1 Reloc. 2 83+00 ~ 85+00



FED. RD. DIVISION 2
STATE OHIO
PROJECT
344
638
GUERNSEY COUNTY
GUE-40-17.37
END AREA
VOLUME
CUT
FILL
C=2,440
2:1
2:1
3:1
1"/ft.
855.7
871.38
87+00
879.3
MATCH LINE - U.S. 40 - Sta. 287+00
C=2,220
855.6
869.38
86+50
876.2
MATCH LINE - U.S. 40 - Sta. 286+50
C=1,887
855.5
867.38
86+00
873.2
MATCH LINE - U.S. 40 - Sta. 286+00
Shale & Sandstone Interbeds
84+94 ~ 89+36
Sta. 85+00
Sta. 85+00
2440 0
4315 0
2,220 0
3,803 0
1,887 0
5295 20
972 11

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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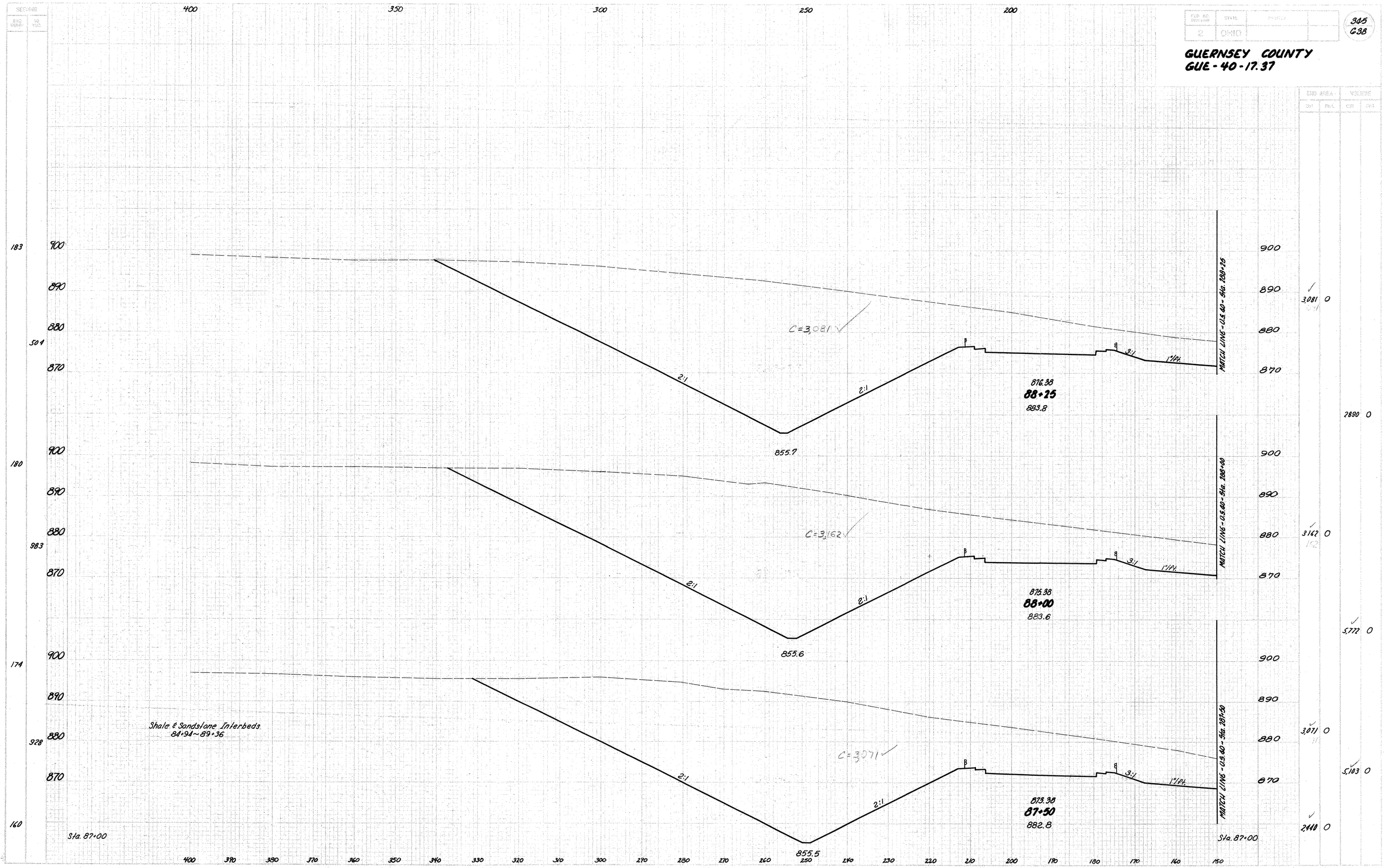
638

GUERNSEY COUNTY
GUE-40-17.37



Co. Rd. 1 Reloc. 2 87+50 ~ 88+25

FED. RD. DIV. NO.	STATE	PROJECT	
2	OHIO		

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638

GUERNSEY COUNTY
GUE-40-17.37

SEEDING

END SHEET	30 LBS.
180	
736	
188	
735	
190	
828	
183	

EARTH AREA		VOLUME	
CUT	FILL	CUT	FILL
785	1789		
		1691	2201
1751	1512		
		2805	1138
2576	244		
		4190	181
3181	0		

400 350 300 250 200

C=785 2:1 2:1 F=1,789 3:1 1"/ft

856.0

800.81
89+36
857.0

MATCH LINE - U.S. 40 - Sta. 289+36

C=1,751 2:1 2:1 F=1,512 3:1 1"/ft

855.9

879.38
89+00
857.7

MATCH LINE - U.S. 40 - Sta. 288+00

C=2,576 2:1 2:1 F=244 3:1 1"/ft

855.8

877.98
88+65
874.4

MATCH LINE - U.S. 40 - Sta. 288+65

Shale & Sandstone Interbeds
84+94 ~ 89+36

Sta. 88+25

400 390 380 370 360 350 340 330 320 310 300 290 280 270 260 250 240 230 220 210 200 190 180 170 160 150

Co. Rd. 1 Reloc. 2 88+65 ~ 89+36

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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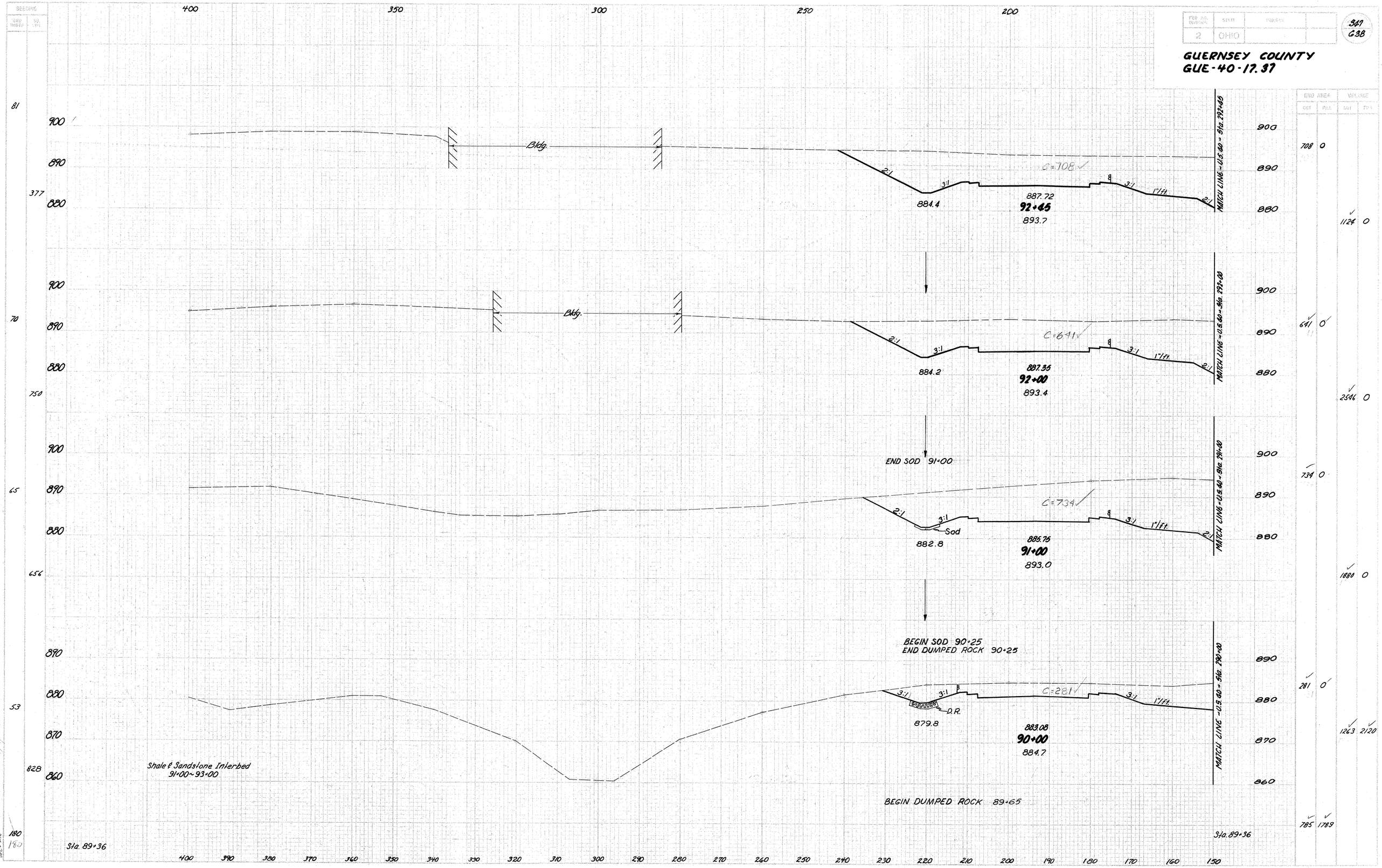
G38

GUERNSEY COUNTY
GUE-40-17.37



Co. Rd. 1 Reloc. 2 90+00 ~ 92+45

END AREA SHEET	STATE	PROJECT	
2	OHIO		

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G38

GUERNSEY COUNTY
GUE-40-17.37

END AREA		VOLUME	
CUT	FILL	CUT	FILL
13	443		
42	56	102	924
290	0	308	52
792	0	565	0
1296	0	708	0

End Dumped Rock 95+40

Begin Dumped Rock 94+75

MATCH LINE - U.S. 40 - Sta. 295+00

MATCH LINE - U.S. 40 - Sta. 294+40

MATCH LINE - U.S. 40 - Sta. 293+50

MATCH LINE - U.S. 40 - Sta. 293+00

Shale & Sandstone Interbeds
91+00 ~ 93+00

Sta. 92+45

Co. Rd. 1 Reloc. 2 93+00~95+00

DIST.	STATE	PROJECT	
5	OHIO		

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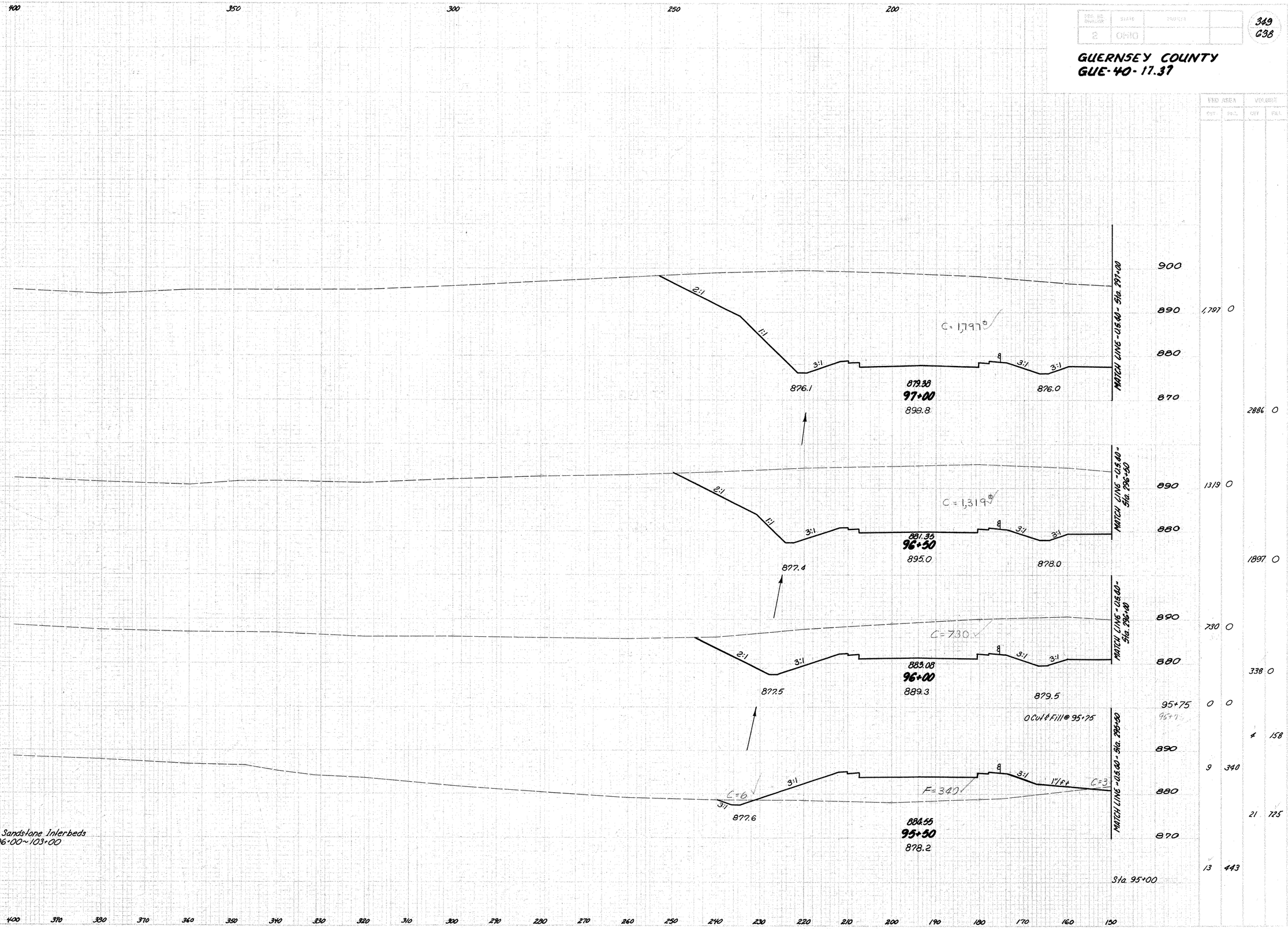
G38

GUERNSEY COUNTY
GUE-40-17.37

SECTION		AREA		VOLUME	
LINE WIDTH	SLOPE	CUT	FILL	CUT	FILL
72					
408					
75					
425					
78					
411					
70					
339					
52					



Co. Rd. 1 Reloc. 2 95+50 ~ 97+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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G38

GUERNSEY COUNTY
GUE-40-17.37

SEEDING

END WIDTH	SQ. YDS.
72	371
73	406
73	403
72	

400 350 300 250 200

910 900 890 880 870

C=2,570

MATCH LINE - US 40 - Sta. 98+46

870.5 873.54 870.5
98+46
900.6

END AREA CUT | FILL — VOLUME CUT | FILL

2,570 0

4240 0

910 900 890 880 870

C=2407

MATCH LINE - US 40 - Sta. 98+00

872.2 875.38 872.2
98+00
901.0

2,407 0

4278 0

910 900 890 880 870

C=2,159

MATCH LINE - US 40 - Sta. 97+50

874.4 877.38 874.2
97+50
900.2

2,159 0

3663 0

1797 0

Shale & Sandstone Interbeds
96+00~103+00

Sta. 97+00

Sta. 97+00

400 390 380 370 360 350 340 330 320 310 300 290 280 270 260 250 240 230 220 210 200 190 180 170 160 150

Co. Rd. 1 Reloc. 2 97+50~98+46

SEEDING

SEED WIDTH	SQ. YDS
72	
324	
74	
817	
73	
435	
72	

FED. AID DISTRICT	STATE	PROJECT	
2	OHIO		

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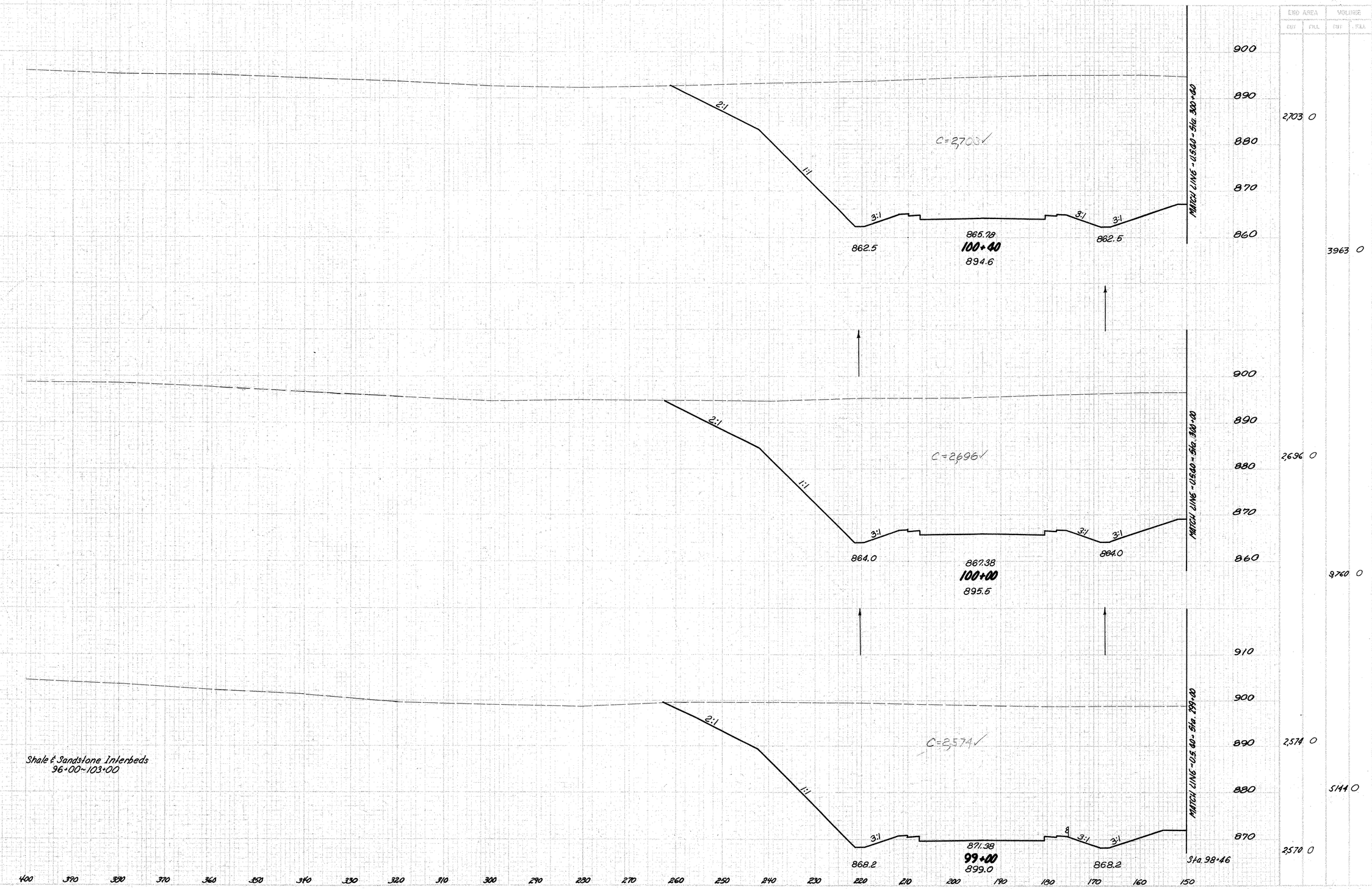
C38

GUERNSEY COUNTY
GUE-40-17.37

END AREA		VOLUME	
CUT	FILL	CUT	FILL
2,703	0		
		3963	0
2,696	0		
		9760	0
2,574	0		
		5144	0
2,570	0		



Co. Rd. 1 Reloc. 2 99+00~100+40

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

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638

GUERNSEY COUNTY
GUE-40-17.37

SECTIONS		END AREA		VOLUME	
END WIDTH	SO YDS	CUT	FILL	CUT	FILL
73					
312		1,780	0		
			60		
				2,968	0
71					
789		2,330	0		
				9315	0
71					
477		2,700	0		
				6004	0
72		2,703	0		

Begin Sod 102+85

2:1 1:1 3:1 3:1 3:1

C=1,780

854.8 857.82 854.8

102+39 878.9

MATCH LINE - 102+39 - 96+00

C=2,330

856.0 859.38 856.0

102+00 884.1

MATCH LINE - 102+00 - 96+00

C=2,700

860.2 863.38 860.2

101+00 892.9

MATCH LINE - 101+00 - 96+00

Sta. 100+40

Shale & Sandstone Interbeds
96+00 ~ 103+00

400 390 380 370 360 350 340 330 320 310 300 290 280 270 260 250 240 230 220 210 200 190 180 170 160 150

Co. Rd. 1 Reloc. 2 101+00 ~ 102+39

SEEDING
END AREA | VOLUME
END WIDTH | NO. TONS | CUT | FILL | CUT | FILL

400 350 300 250 200

FED. NO. DIVISION | STATE | PROJECT
2 | OHIO

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GUERNSEY COUNTY
GUE-40-17.37

202 Add for T.R. 643

101+59, 36.5' Lt.
Inv. 839.0

34' 34'

850

105+22, 36.5' Lt.
838.50

F=91

840

68'-27" @ 0.74%

51+55
Section of T.R. 643

(Ex) 855.0

851.91 849.23 847.62 847.06 847.13 847.21 847.28 847.26.83

℄ Co.Rd.1 Reloc."2

860
850
840
830

P.V.I. 52+34.93 Elev. 846.93
75' V.C.

+12.4%

-0.32%

53+00 52+00 51+00

Prop 27"~

Profile Twp. Rd. 643

57 860 850 840 367 830

Add for T.R. 643

2:1 F=403 2:1

847.65
105+00
839.2

MATCH LINE-US 40 - Sta 305+00

End Ditch 101+59

End Dumped Rock 101+44
Begin Riprap

61 860 850 840 296 830

℄ Twp. Rd. 643

C=10 2:1 3:1 D.R. 840.5

F=52 2:1

849.62
101+44
839.9

MATCH LINE-US 40 - Sta 304+44

60 860 850 650 840

Shale & Sandstone Interbeds
96+00~103+00

C=12 3:1 3:1 D.R. 845.0

F=266

MATCH LINE-US 40 - Sta 304+00

851.38
104+00
845.0

0 Cut & Fill @ 103+50

57 870 860 441 850

C=546 2:1 3:1 3:1 3:1 Sod

852.0 855.38 852.2

Begin Dumped Rock 102+75

103+00
862.8

Begin Sod 102+85

MATCH LINE-US 40 - Sta 303+00

73 Sta. 102+39

400 390 380 370 360 350 340 330 320 310 300 290 280 270 260 250 240 230 220 210 200 190 180 170 160 150

	CUT	FILL
	0	243
	0	403
		959
	0	
		3
	10	522
		18 642
	12	266
		11 246
103+50	0	0
		506 0
	546	
		2628 0
102+39	1780	0

Co. Rd. 1 Reloc. 2 103+00~105+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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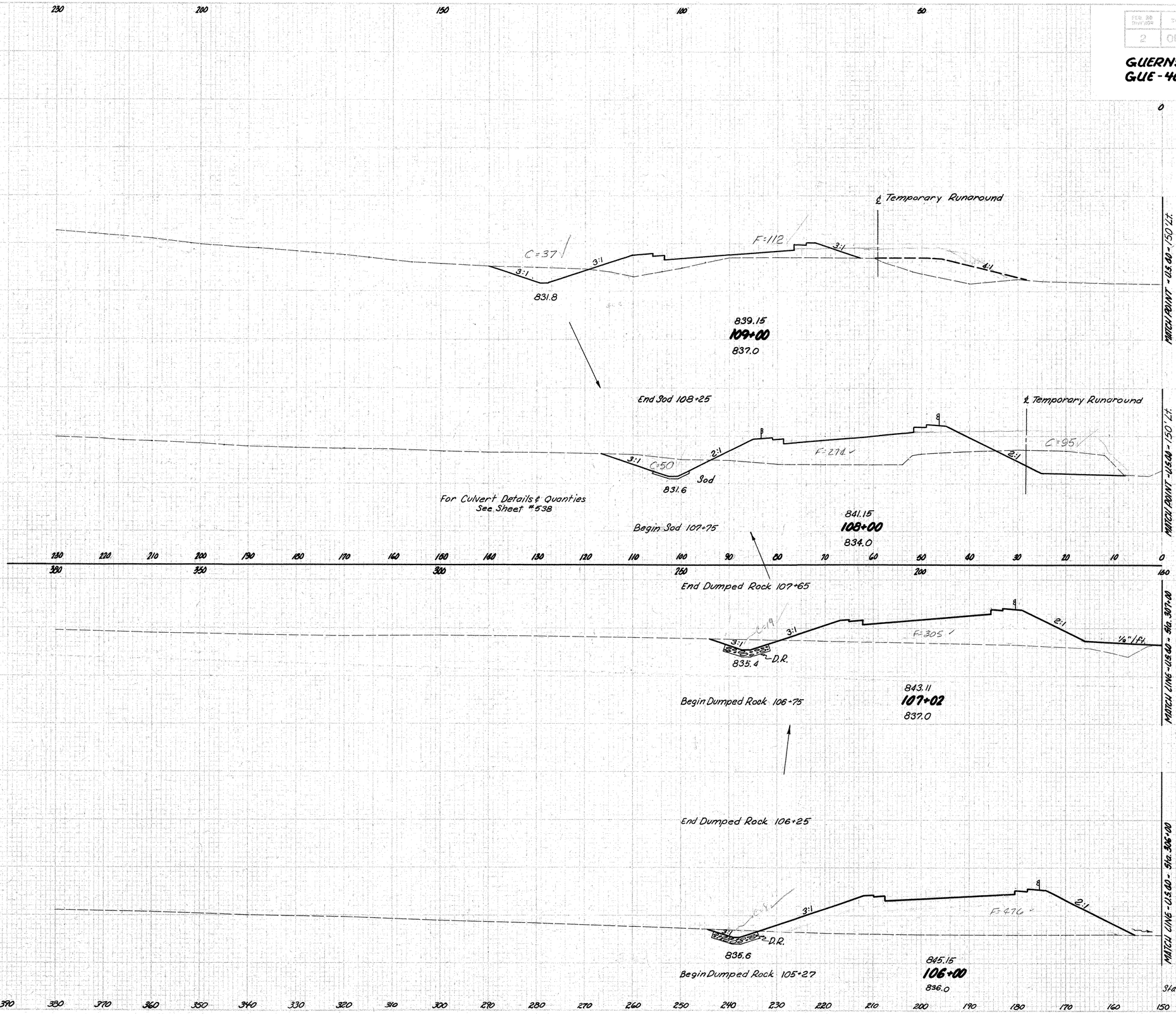
C38

GUERNSEY COUNTY
GUE-40-17.37

SEEDING

END WIDTH	SQ. YDS.
67	883
92	866
67	771
69	700
57	



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
37	112		
		337	715
145	274		
		298	1051
19	305		
		51	1475
8	476		
		22	1628
8			
		103	

Co. Rd. 1 Reloc. 2 106+00 ~ 109+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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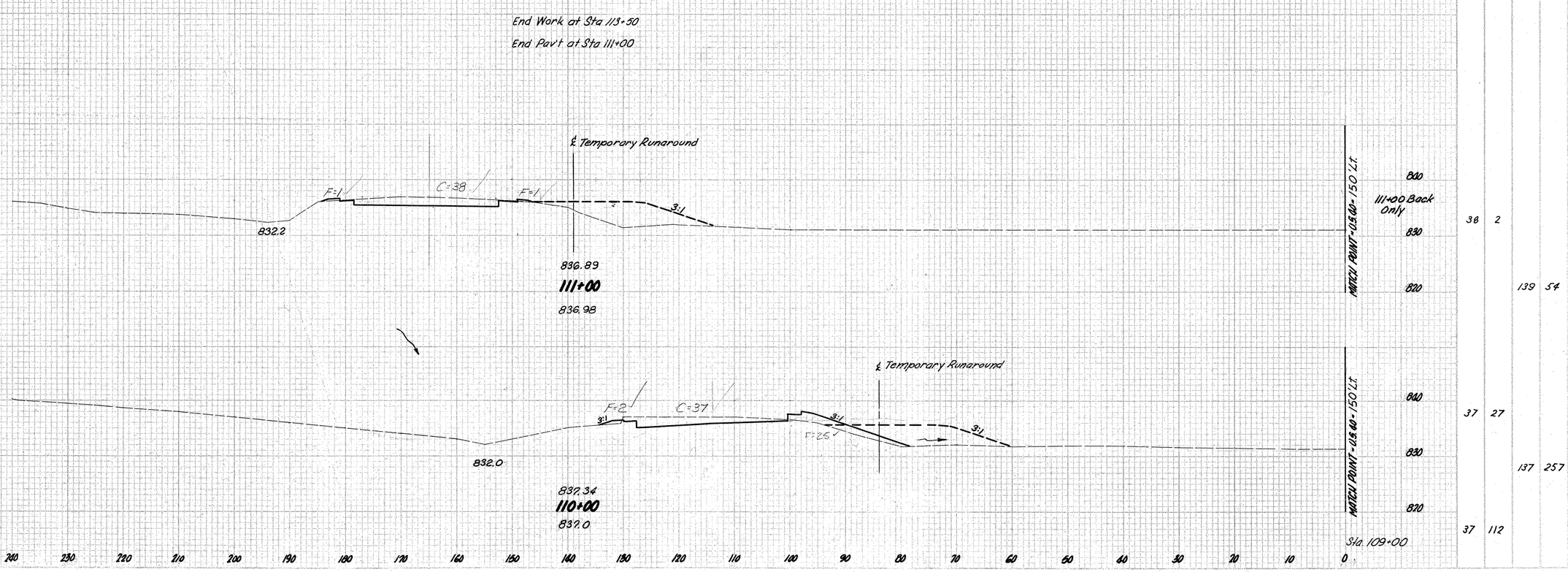
G38

GUERNSEY COUNTY
GUE-40-17.37

SEEDING	
C&D WIDTH	SQ. YDS.
26	
389	
44	
617	
67	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
38	2		
		139	54
37	27		
		137	257
37	112		



Co. Rd. 1 Reloc. 2 110+00 ~ 111+00

FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO		

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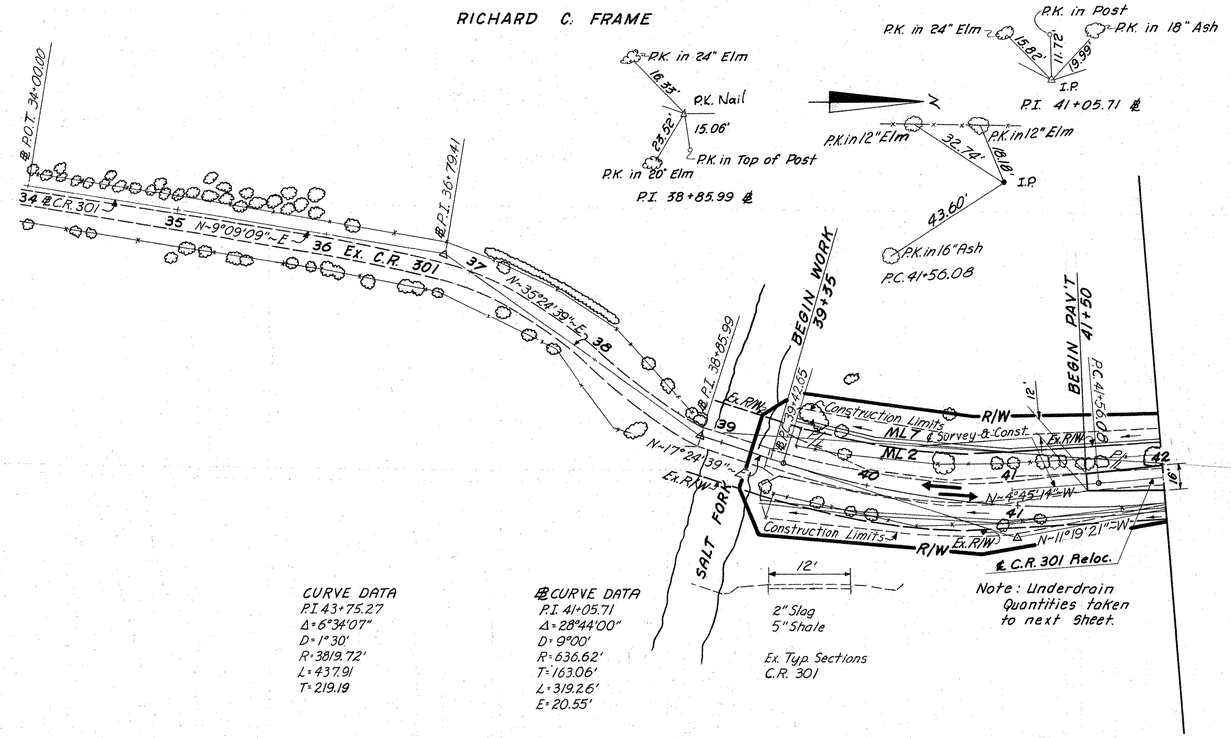
638

GUERNSEY COUNTY GUE-40-17.37

RICHARD C. FRAME

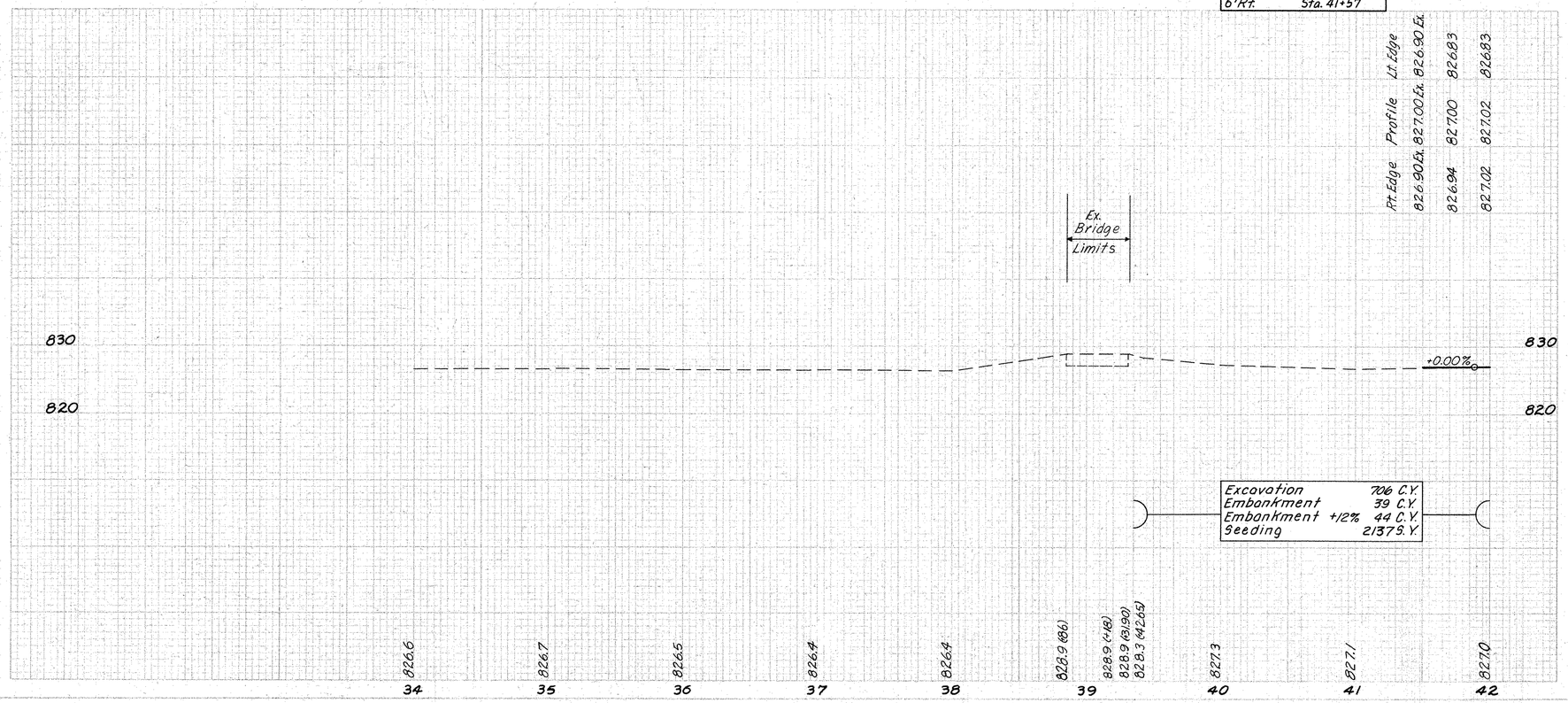


CURVE DATA
P.I. 43+75.27
Δ = 6°34'07"
D = 1°30'
R = 3819.72'
L = 437.91
T = 219.19

℄ CURVE DATA
P.I. 41+05.71
Δ = 28°44'00"
D = 9°00'
R = 636.62'
T = 163.06'
L = 319.26'
E = 20.55'

FREDA HOUSE

B.M. 218-A Elev. 827.73
M.S. in 18" Ash
6' Rt. Sta. 41+57



Excavation	706 C.Y.
Embankment	39 C.Y.
Embankment +12%	44 C.Y.
Seeding	213 S.Y.

ESTIMATED QUANTITIES

SEE SHEET NO.

REF NO.	STATION TO STATION	SIDE	TOTALS

C.R. 301 Reloc. 34+00 ~ 42+00

UTILITIES
Home Telephone Company

P.K. in 6" Elm
P.K. in 12" Stump
P.K. in T" Elm
P.I. 43+75.27

P.K.'s
P.K. in 48" Elm
P.T. 45+93.99

RICHARD C. FRAME

Exist. Pav't. Removal Quantity carried with Nº

CURVE DATA
P.I. 41+05.71
Δ = 28°44'00"
D = 9°00'
R = 636.62'
T = 163.06'
L = 319.26'
E = 20.55'

I-G I-15 450 L.F. G.R.
47+50 C.R. 301 = 89+75 T.R. 289

2-D 2.5'x5 Box Culvert
L-10, Special Berm & Slope Prot. 152 S.Y.

889 G.R. Lt. +38.92
End G.R. +46.62
Construction Limits
Exist. U.S. 40 to be abandoned within Limits shown
Begin Approach Slab Sta. 48+34.25
Ex. R/W
N-4°45'14"-W
N-11°19'21"-W
℄ of Survey
℄ Const.
+97 End G.R.
End Approach Slab Sta. 48+59.25
Ex. C.R. 301
Construction Limits
Ex. R/W
Ex. U.S. 40
ML 8
ML 3
ML 2
50+00.00 C.R. 301 Reloc. = 289+75.00 U.S. 40
Exist. Pav't Removal & Sod Quantities carried with T.R. 289
Ex. Pav't. to be scorified as shown Cost to be included in price bid for Item E-1.

CURVE DATA
P.I. 43+75.27
Δ = 6°34'07"
D_c = 1°30'
R = 3819.72'
L = 437.91
T = 219.19
P.I. 43+75.27
Begin G.R. +97
PT 42+69.91 ℄ C.R. 301

SEE SHEET Nº 361 FOR TWP. RD. 289 CONN.

TWP. RD. 289 CONN.
16" C.I.P.
Inv. 835.33
Prop. 18" Culvert
Inv. 837.80
8" to 12"

1-D 41+50 to 48+34.25 I-9 Underdrains 304 L.F.
2-G I-15 300 L.F. G.R.

Legend
Scarify Ex. Pavement

B.M. 218 Elev. 828.04
M.S. in 16" Walnut
15' Lt. Sta. 48+30

FREDA HOUSE

ROGER D. & MURRIEL J. DAVIS

End Approach Slab Sta. 51+65.75
Begin Approach Slab Sta. 51+40.75
51+94.00 C.R. 301 Reloc. 89+75.00 C.R. 1 Reloc. 2

CO. RD. 1 ~ Reloc. 2
CURVE DATA
P.I. 87+00.08
Δ = 2°26'29" Rt.
D = 0°30'
R = 11459.16'
T = 244.20'
L = 488.28'
E = 2.60'
Note:- Guard Rail Quantities carried with C.R. 1 Reloc. 2

END PAVT. WORK 51+65.75

℄ Survey & Construction
SEE US 40 P & P SHEET Nos 60 & 61
SEE SHEET Nº 338 FOR CO. RD. 1, RELOC. 2

N-78°40'39"-E

P.K. in 10" Elm
P.K.'s in Fence Posts
51+94.00

MICROFILMED JUL 25 1985

FED. ROAD DIVISION 2 | STATE OHIO | PROJECT | 357 / 638

GUERNSEY COUNTY GUE-40-17.37

SEE SHEET NO.

ESTIMATED QUANTITIES

ITEM	TYPE	SIDE	STATION TO STATION	QUANTITY
I-10	Special Berm & Slope Prot.			S.Y. 152
I-15	2-A G.R.			L.F. 450
I-9	36" Under-drains			L.F. 304
		Lt.	41+50 to 48+34.25	304
		Rt.		
1-D	As shown	Lt.		
2-D		Rt.		152
1-G		Lt.	43+96.92 to 48+48.92	450
2-G		Rt.	43+97 to 46+97	300

304 750 152

Rt. Edge Profile	Lt. Edge
827.02	826.83
827.30	826.93
827.75	827.27
828.26	827.76
828.93	828.43
829.76	829.26
830.75	830.25
831.86	831.49
833.12	832.88
834.62	834.38
836.28	836.04
838.11	837.87
840.09	839.85
842.09	841.85
844.09	843.85
846.09	845.85
848.03	847.85
849.97	849.85
851.91	851.85
853.85	853.85
855.97	853.97
859.97	
863.97	
867.97	
871.95	
873.77	
875.38	
876.80	
878.00	
879.01	
879.81	
880.41	
880.82	
881.57	
882.05 (882)	

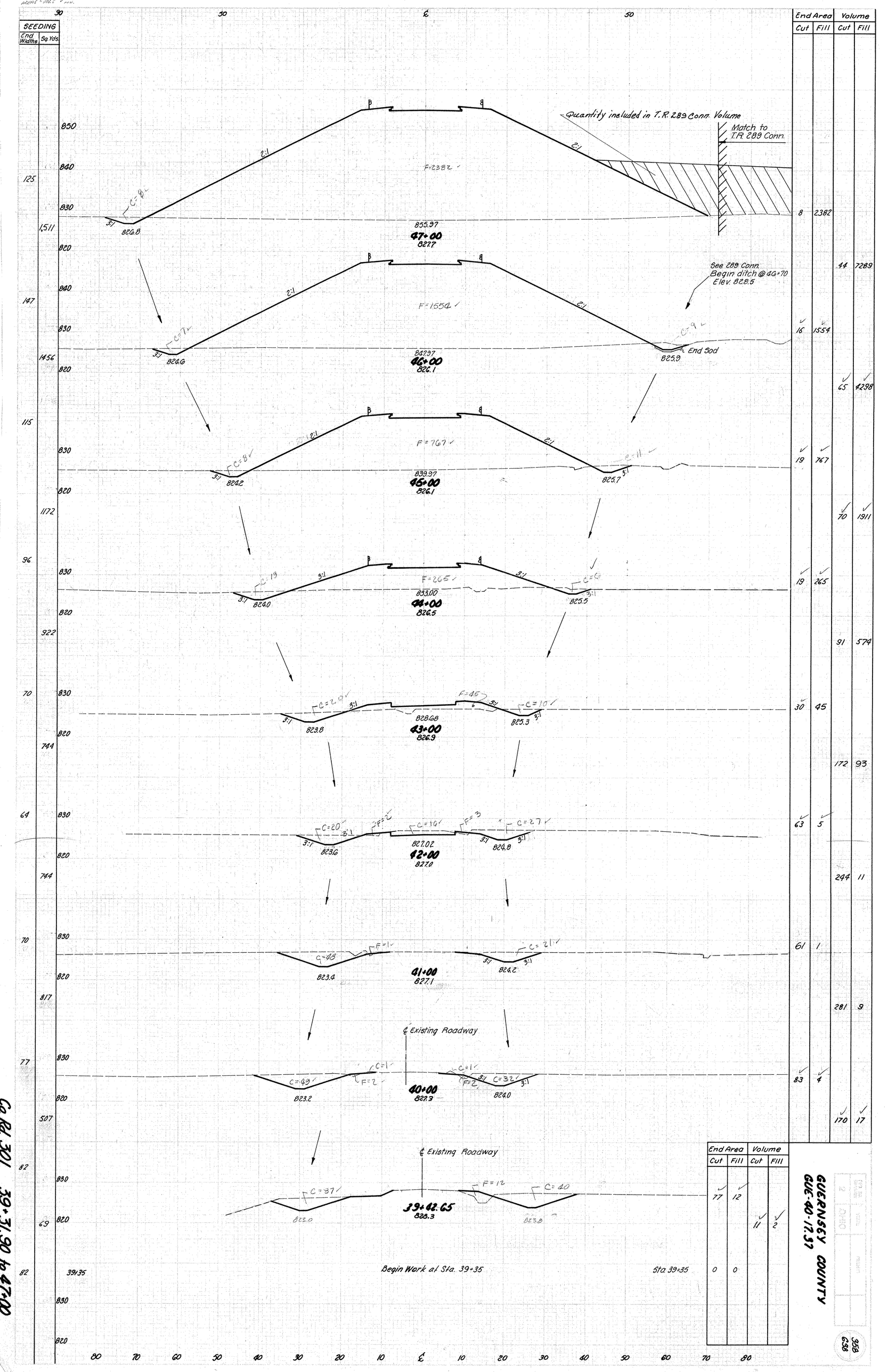
Bridge Limits 281.50'
Sta. 48+59.25
Sta. 51+40.75
+1.50 %
+8.00 %
+0.00 %
300' V.C.
P.V.I. 43+37.90
Elev. 827.00
200' V.C.
Elev. 879.17
P.V.I. 49+90.00
16'-6" Act. Vert. Cl.
See Sheet Nº 13 For Special Embankment Construction.

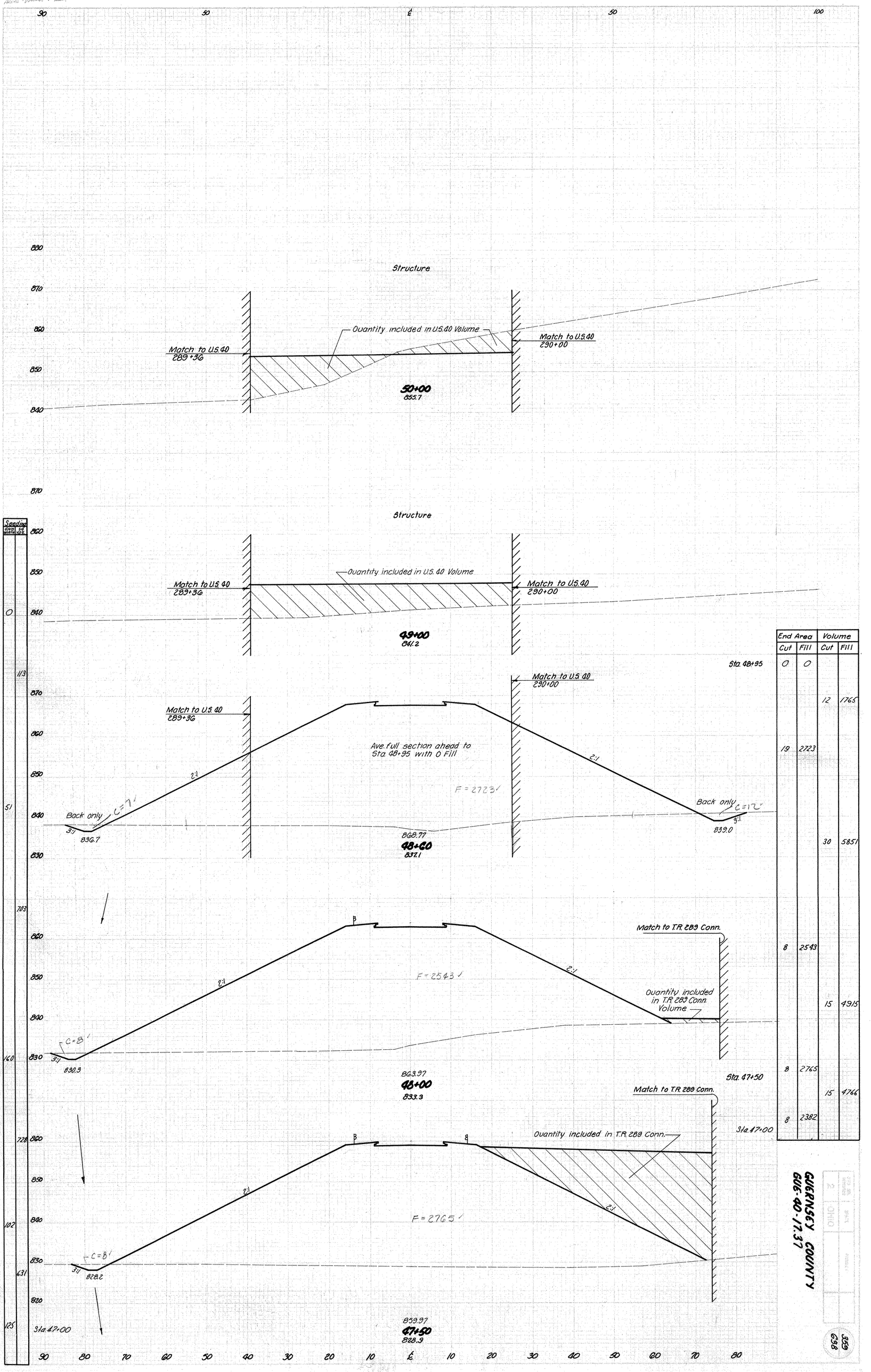
Excavation	514 C.Y.
Embankment	31462 C.Y.
Embankment +12%	35237 C.Y.
Seeding	7980 S.Y.

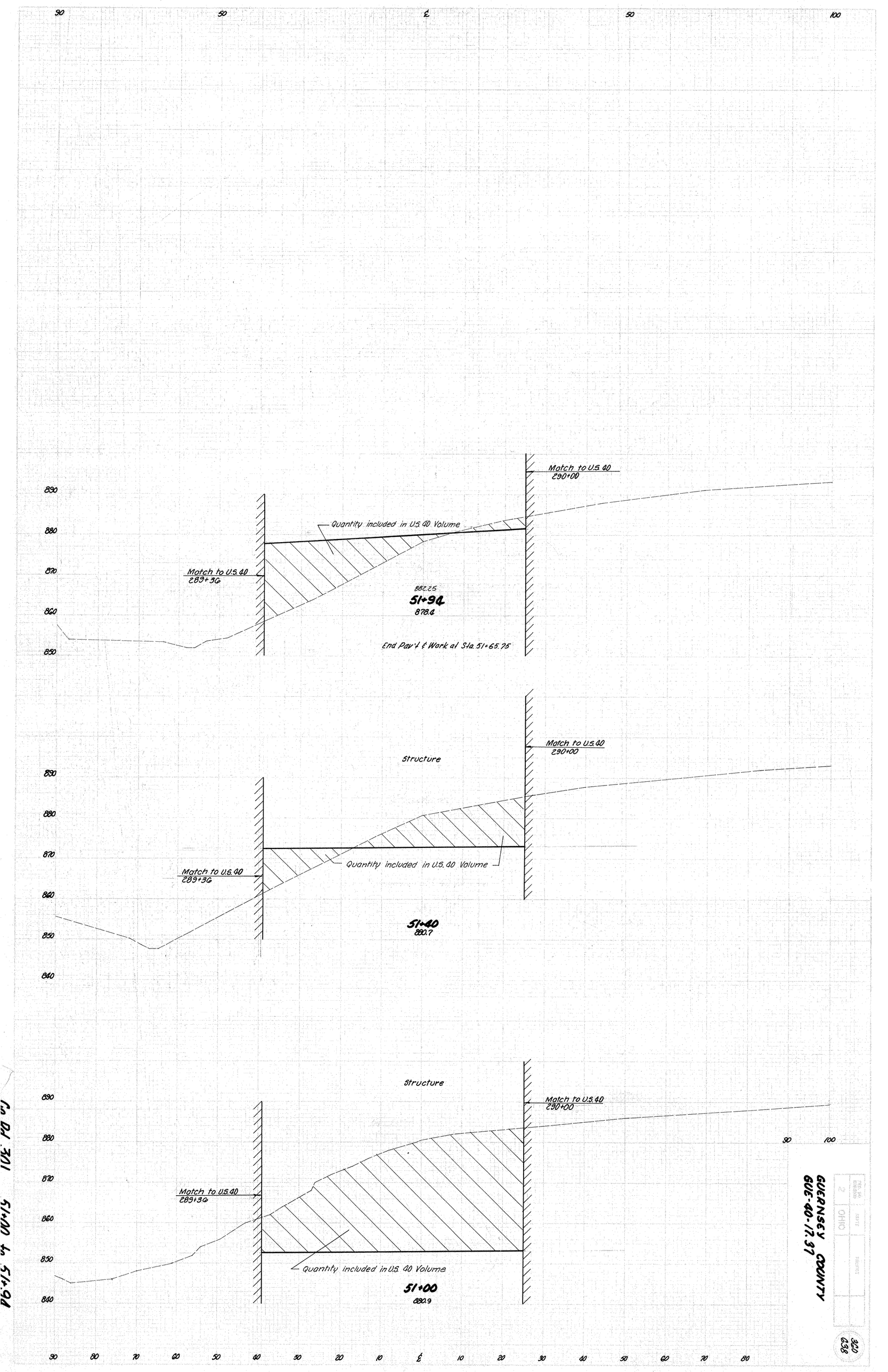
PROPOSED STRUCTURE NO. GUE.-40-2151

TYPE: Continuous steel beam with reinforced concrete deck and substructure.
SPANS - 57'-0", 81'-6", 81'-6", 57'-0" ℄ brg.
ROADWAY - 24'-0" + 2'-3" safety curbs and concrete parapets with alum. railing.
LOADING - CF-30 (1957)
WEARING SURFACE - 1/2" mono. concrete
SKEW - None
ALIGNMENT - Tangent.
APPROACH SLAB - 25'-0"

C.R. 301 Reloc. 42+00 ~ 51+94.00


SEEDING
End Widths
Sq Yds.
End Area
Cut
Fill
Volume
Cut
Fill
Quantity included in T.R. 289 Conn. Volume
Match to T.R. 289 Conn.
See 289 Conn. Begin ditch @ 46+70 Elev. 828.5
End Sod
47+00
46+00
45+00
44+00
43+00
42+00
41+00
40+00
39+82.65
℄ Existing Roadway
Begin Work at Sta. 39+35
Sta. 39+35
GUERNSEY COUNTY
GUE-40-17.37
Co Rd 301 39+37.90 to 47+00


Structure
Match to U.S.40
289+36
Quantity included in U.S.40 Volume
Match to U.S.40
290+00
50+00
855.7
Structure
Match to U.S.40
289+36
Quantity included in U.S.40 Volume
Match to U.S.40
290+00
49+00
841.2
Match to U.S.40
289+36
Match to U.S.40
290+00
Ave. full section ahead to Sta. 48+95 with 0 Fill
F = 2723'
2:1
2:1
Back only
C=7'
3:1
836.7
Back only
C=12'
3:1
839.0
838.77
48+00
837.1
Match to T.R. 289 Conn.
F = 2543'
2:1
2:1
Quantity included in T.R. 289 Conn. Volume
C=8'
3:1
830.9
838.37
48+00
833.3
Match to T.R. 289 Conn.
Quantity included in T.R. 289 Conn.
F = 2765'
2:1
2:1
C=8'
3:1
828.2
839.97
47+50
828.9
Sta. 48+95
Sta. 47+50
Sta. 47+00
Seeding and Mulching Sq. Yds.
0
113
51
703
140
728
102
631
125
End Area
Cut
Fill
Volume
Cut
Fill
0
0
12
1765
19
2723
30
5851
8
2543
15
4915
8
2765
15
4766
8
2382
Co. Rd. 301
47+50 to 50+00
GUERNSEY COUNTY
GUE-40-17.37
DHHC
2
359
638



Co Rd. 301 51+00 to 51+94

GUERNSEY COUNTY
GUE-40-17.37

REV. NO.	SHEET	PROJECT
2	OHIO	

360
638

290 291 292 293 294 295 296 297 298

ROGER D. DAVIS & MURRIEL J. DAVIS

UTILITIES
Home Telephone Co.
Guernsey-Muskingum Electric Coop. Inc.
SEE US 40 P&P SHEET No. 61

Survey ℄ Const

295+73.82 US 40 ℄
48+55.67 C.R. 301

PK PK 51 22.69 27.38' PK Hub

(1-G) I-15 562.5 LF Guard Rail
(2-D) I-9 Underdrains (No.2) 120 L.F.
(1-R) 92+00± Rt. & Lt. E-12 Remove 74' Ex. 16" C.I.P. 5-24 Remove Endwalls & Collars
(1-A) Transition from Normal Section @ 93+00 to Superelevated Section @ 94+50 0" to 1½" T-35 (Type-A), 0" to 1½" B-35 Leveling 11.4 C.Y. 0" to 3" B-35 Base, 5.7 C.Y.

Ex. R/W
48+55.67 C.R. 301 = 295+73.82 ℄ Survey
ML 8 ML 7
P/L
Beg. ℄ Rail +46.92
LA
Fence Posts
47.53 69.62 35.00
I.P. 89+75 T.R. 289 = 47+50 C.R. 301
89+75 T.R. 289 47+50 C.R. 301
35' R
Beg. G.R. +97
89+83 BEGIN WORK 301 RELOC.
R/W
SEE SHEET No. 357 FOR CO. RD. 301 RELOC.
T.R. 289 P.O.T. 93+01.55 M.S.
41.33 43.32
Fence Post Fence Post
N 11° 19' 21" W
C.R. 301 Ex. C.R. 301
ML 7 ML 2 Ex. R/W
RICHARD C. FRAME

Const. Limits
Ex. 4-5 40
S 84° 25' 08" E
298
18" @ 0.5%
End G.R.
TWP. RD. 289 CONN. N 81° 32' 20" E
Ex. Inv. 835.33
40' Rt. Inv. 835.00
Old Pavement
Const Limits R/W
8" to 12"
Dug Well
1½ Sty Frame
Mail Boxes
Gravel Drive
Billboard
Res. Dr. (Dirt & Gravel)
Fr. Shed
Fr. House
Fr. Shed
Corn Crib
Fr. Shed
Fr. Barn
W.H. BLACK
TWP. RD. 289
C.H. GILMORE & A.M. GILMORE
FREDA HOUSE

Ex. 18" Inv. 835.40
40 Lt. Inv. 837.80
Ex. R/W
P.I. 298+61.16 US 40 ℄
Ex. Underdrain to remain in place
298+61.16
Ex. R/W
LA R/W
(2-R) 90+30 Lt. to 94+50 Lt. as shown Remove Ex. Asphalt Pav't. E-8, 860 S.Y.
94+50 END PAV'T. & WORK
37+85.64 (T.P. 289) +300+00, 28.6' Rt. ℄
R/W
P.I. 301+70.22 US 40 ℄
301+70.22
℄ Survey
N 85° 51' 13" E
303+50 ℄
303 304 305
95' Rt.
45' Rt.
15' 2' 10'
3:1
5' 10'
Ex. R/W
(3-A) 303+50 ℄ Rt. 12' Type 2 Field Drive 45' Rt. to 111' Rt. ℄ 6" B-19, 19 C.Y.
111' Rt.
(3-G)
(3-R) Remove Ex. Asphalt Pav't. E-8, 635 S.Y. 306
See Sta 300+00 ℄
ROGER D. DAVIS MURRIEL J. DAVIS
(2-G) I-15 25 L.F. Guard Rail
W.H. BLACK
Conc. Blk. Gas Station
Septic Tank
Conc. Blk. Cabins

Scarify Existing Gravel Pav't as shown. Cost to be included in price bid for Item E-1.

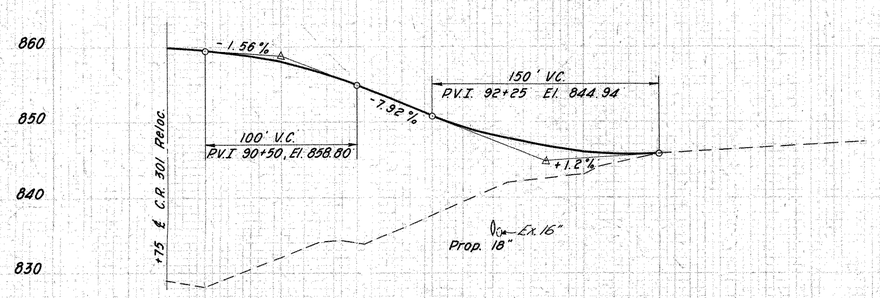
34.80' PK in Metal Post
Hub
30.85'
PK in Edge Rd.
18.41'
PK in L. Rd.
US 40

(1-D) 91+90 DA. 33 Ac. Q10 = 10 cfs. 1-1, 80'-18" Class A-1 M-6.6(b) or M-6.8(b) 2-2, 2 TYPE HW-E Headwalls 0.6 C.Y. Masonry L-10, 146 S.Y. Sod
(2-A) 93+00 Rt. 12' Type 2 Res. Dr. 5" B-19, 10 C.Y. 2" T-35 (1" Courses) 4 C.Y.

LEGEND
0" to 1½" T-35 (Type-A), 0" to 1½" B-35 Leveling, & 0" to 3" B-35 Base

B.M. 218 Elev. 828.04, M.S. in 16" Walnut 15' Lt. Sta. 48+30
B.M. 219-A Elev. 840.69, M.S. in Telephone Pole, 299+40, 240' Rt.

Excavation	621	C.Y.
Embankment	8943	C.Y.
Embankment +12%	10016	C.Y.
Seeding	3213	S.Y.



859.97 859.58 858.99 858.00 856.62 854.84 852.86 850.88 849.09 847.68 846.65 846.00 845.73 845.85
828.9 828.2 830.9 834.0 842.0 844.0 845.8 848.4 847.0
90 91 92 93 94

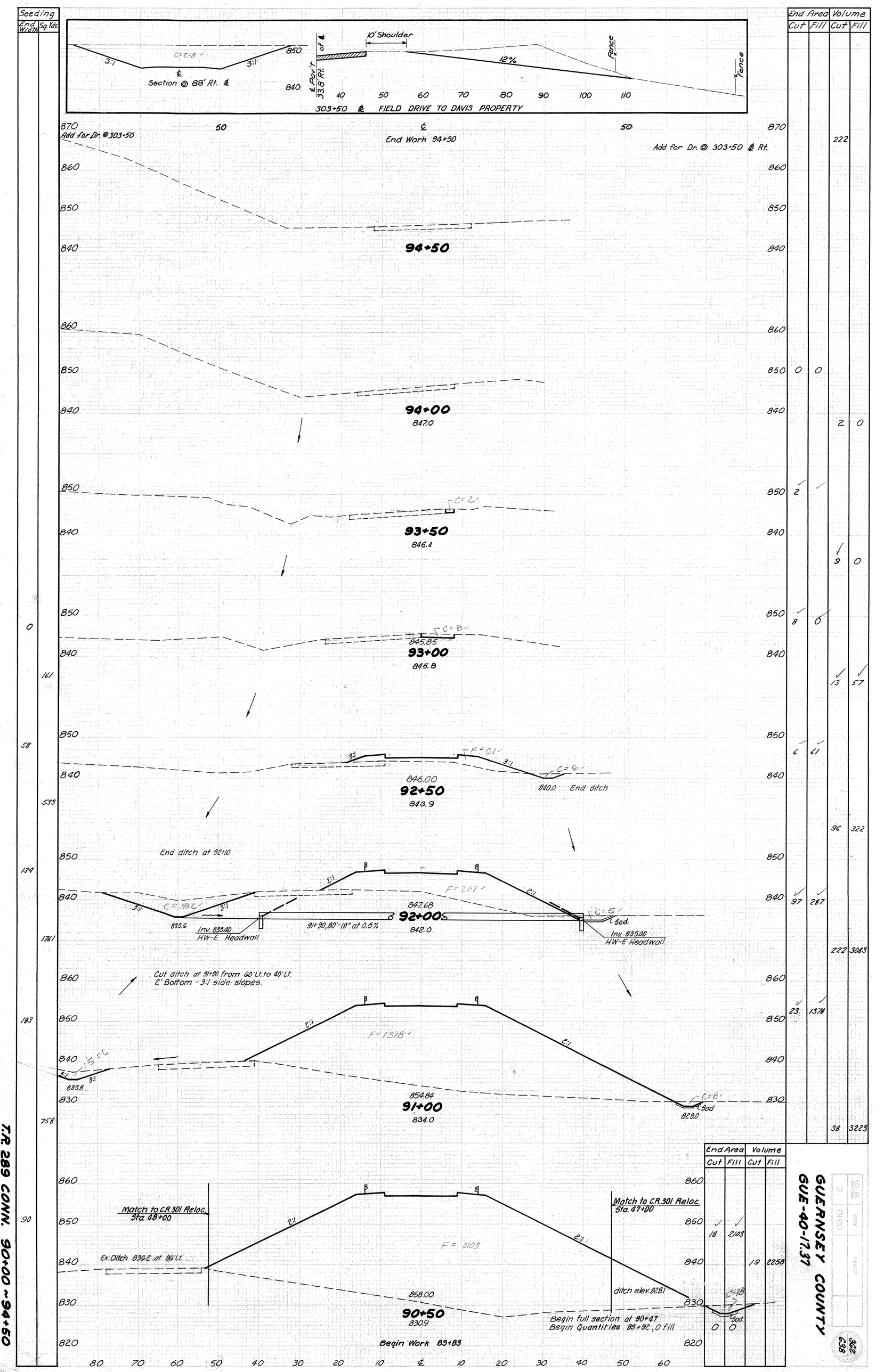
ESTIMATED QUANTITIES

REF NO.	STATION TO STATION	SIDE	E-12 Removal of Ex. Pipe Over 15" L.F.	5-24 Removal of Ex. Structure Lump	I-15 Guard Rail 2-A L.F.	L-10 Sod S.Y.	I-9 Stone Under-drains No. 2 L.F.	B-19 6" Masonry C.Y.	I-2 C.Y.
	UNITS								
1-A	93+00 to 94+50	Rt & L							5.7
2-A	93+00 ℄	Rt.							
3-A	303+50 ℄	Rt.							
1-D	91+90	Rt & L.							
2-D	89+83 to 93+00	Rt & L.					80		
1-G	48+46.92 to 92+18	Lt.							
	& 46+97 to 92+25	Rt.							
2-G	303+15 ℄	Rt.							
3-G	303+87 ℄	Rt.							
1-R	92+00±	Rt & L.							
2-R	90+30 to 94+50	Lt.						860	
3-R	As Indicated							635	

			74	1	562.5	25	25		
			362						
			146						
			120						
			19						

T-1 A-1 M-6.6(b) or M-6.8(b), 18" or M-6.4(c) L.F.	E-8 Removal of Ex. Asph. Pav't. S.Y.	B-19 5" C.Y.	T-35 2-1" Courses Type "C" C.Y.	B-35 0" to 1½" 0" to 3" Type A Leveling Base C.Y.	B-35 0" to 1½" 0" to 3" Leveling Base C.Y.	
					5.7	5.7
			4.0	11.4		11.4
						5.7
80						
1495	860	10	4.0			
80	635					

TWP. RD. 289 CONN.


Seeding
End Area
Volume
Cut
Fill
Sq. Yds.
Width
C=218'
3:1
3:1
℄
850
840
Section @ 88' Rt. ℄
℄ of ℄
33.8' Rt.
10' Shoulder
12%
Fence
Fence
40
50
60
70
80
90
100
110
303+50 ℄ FIELD DRIVE TO DAVIS PROPERTY
870
Add for Dr. @ 303+50
50
℄
End Work 94+50
50
Add for Dr. @ 303+50 ℄ Rt.
860
850
840
94+50
860
850
840
94+00
847.0
850
C=2'
840
93+50
846.1
850
C=8'
845.85
840
93+00
845.8
850
3:1
F=61'
3:1
C=6'
840
846.00
92+50
843.9
840.0 End ditch
End ditch at 92+10
850
840
2:1
2:1
F=287'
3:1
3:1
C=9'
847.68
92+00
842.0
C=5'
Sod
835.6
Inv. 835.00
HW-E Headwall
91+90, 80'-18" at 0.5%
Inv. 835.00
HW-E Headwall
Cut ditch at 91+90 from 60' Lt. to 40' Lt.
2' Bottom - 3:1 side slopes.
860
850
840
830
2:1
2:1
F=1378'
3:1
3:1
C=15'
835.8
854.84
91+00
834.0
C=8'
Sod
829.0
860
850
840
830
820
Match to C.R. 301 Reloc.
Sta. 48+00
2:1
2:1
F=2103
Ex. Ditch 836.2 at 96' Lt.
858.00
90+50
830.9
Begin Work 89+83
Match to C.R. 301 Reloc.
Sta. 47+00
ditch elev. 828.1
C=18'
Sod
Begin full section at 90+47
Begin Quantities 89+92, 0 fill
80
70
60
50
40
30
20
10
℄
10
20
30
40
50
60
0
161
58
533
194
1761
183
758
90
End Area
Cut
Fill
Volume
Cut
Fill
222
2
0
2
0
9
0
8
0
13
57
6
61
96
322
97
287
222
3083
23
1378
38
3223
18
2103
19
2258
0
0
T.R. 289 CONN. 90+00 ~ 94+50
GUERNSEY COUNTY
GUE-40-17.37
OHIO
STATE
ADDED
DELETED
368
638

FED. HIGHWAY DIVISION	STATE	PROJECT		SHEET NO.	TOTAL SHEETS
2	OHIO			363	638

GUERNSEY COUNTY GUE-40-17.37

UTILITIES
Home Telephone Co.

17'
3½" Black Top
10" Slag
Ex. S.R. 513 Typ. Section

ROBERT M. SMITH

P.K.
66.55'
Mine Spike
78.06'
46.64'
P.K. in End Post
P.K.
P.C. 18+50.13

P.K. in Post
32.41'
30.08'
P.K.
44.53'
P.K.
P.O.T. 15+40.31

Ex. Dirt & Gravel Twp. Rd. 288
Ex. R/W
N 63°30'51" E
12' Field Drive & Gate
Ex. R/W
Ex. R/W
Ex. S.R. 513
N 0°47'11" E
Ex. R/W
Ex. R/W
Ex. R/W

FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO		

364
G38

GUERNSEY COUNTY GUE-40-17.37

Utilities
Home Telephone Company

Tree Removal
21+00 to 31+00

Size	No. Trees
12"-18"	2
18"-24"	4
24"-30"	1

(1-D) 22+00 to 26+00 Lt.
L-10, 260 S.Y. Sod

JOHN RAYMOND BROTHERS & JENNIE M. BROTHERS

(3-D) 30+00 to 31+00 Lt.
Dumped Rock Channel Prot.
I-10, 44 C.Y.

P.K. in 8" Walnut
P.K. in 14" Hickory
22.71'
21.57'
I.P.
24.96'
P.K. in 14" Cherry

S.R. 513 Reloc. Curve Data
D.: 25°09.65'
Δ: 77°43'15" Lt.
D_a: 7°01'00"
R: 810.31'
T: 659.32'
L: 1110.30'
E: 232.65'

P.I. 25+09.65

Construction Limits

0+00 Connection
23+50

0+00 End Sod Rt. & Lt. Where Shale Beg.

(2-D) 21+00 to 31+00
Stone Underdrains (No. 2)
I-9, 360 L.F.

90° Tan. To Curve

℄ S.R. 513 RELOC.

℄ Survey & Construction

Beg. Sod +00

+00 Construction Limits

See Sheet No. 373 for Profile

(5-D) 25+00 to 26+00 Rt.
L-10, 67 S.Y. Sod

Ex. R/W

(6-D) 23+80 Rt.
Dumped Rock Chan. Prot.
I-10, 4 C.Y.

N 0°47'11" E
NW QUARTER SEC. 25
NE QUARTER SEC. 25

N 76°56'04" W

HOWARD HENDERSON & LUELLA HENDERSON

P.K. in 20" Walnut
P.K. in 18" Walnut
36.20'
24.69'
I.P.
58.49'
P.K. in 24" Walnut
P.T. 29+60.43

Beg. Dumped Rock Where Shale Ends

(1-G) 30+50 to 31+00
Rt. & Lt.
I-15, 100 L.F. G.R.

Woods

18" Walnut
24" Walnut
18" Walnut
24" Walnut
18" Walnut
I-16", 1-10" Ash
14" Elm

N 76°56'04" W

Ex. R/W

(4-D) 30+00 to 31+00 Rt.
Dumped Rock Chan. Prot.
I-9, 44 C.Y.

Ex. S.R. 513

Mail box

12' Tar & Gravel drive

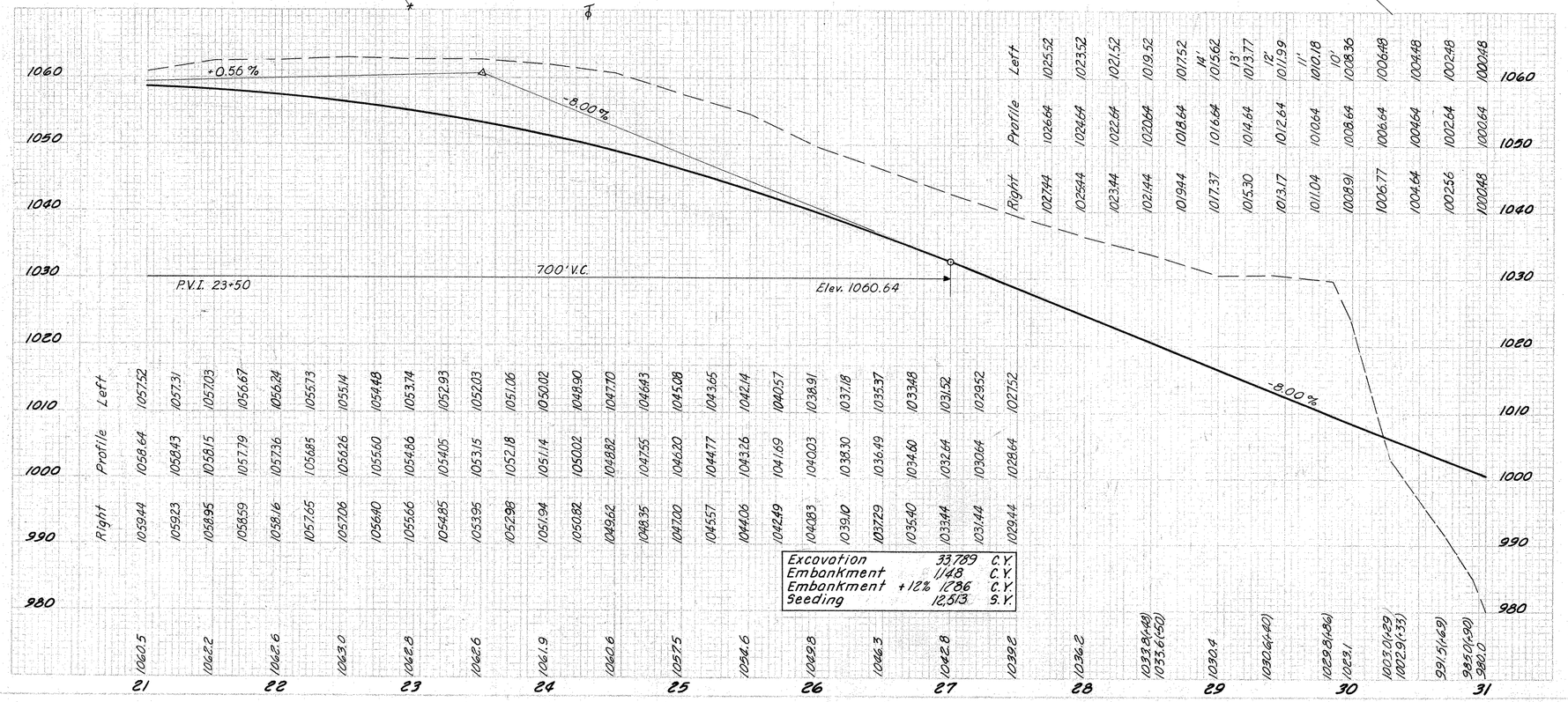
JOHN RAYMOND BROTHERS & JENNIE M. BROTHERS

Legend
Scarify

Ex. Pav't to be scarified from 20+75 Rt. to ditch @ 23+40 ± Rt. Cost to be included in price bid for Item E-1

(1-A) 23+50 Rt.
Type 1 Driveway & Mail Box Approach
from 0+10 to 1+48
5" B-19 40 C.Y.
2" T-35 (1" Courses) 15.8 C.Y.

DUANE E. ATWOOD & MARGARET E. ATWOOD



Sta.	Right Profile	Left Profile
21	1059.44 / 1060.5	1057.52
22	1059.23 / 1062.2	1058.43 / 1057.31
23	1058.95 / 1062.6	1058.15 / 1057.03
24	1058.59 / 1062.6	1057.79 / 1056.67
25	1058.16 / 1062.6	1057.36 / 1056.24
26	1057.65 / 1060.8	1056.85 / 1055.73
27	1057.06 / 1057.5	1056.26 / 1055.14
28	1056.40 / 1054.6	1055.60 / 1054.48
29	1055.66 / 1039.8	1054.86 / 1053.74
30	1054.85 / 1046.3	1054.05 / 1052.93
31	1053.95 / 1042.8	1053.15 / 1052.03
	1052.98 / 1036.2	1052.18 / 1051.06
	1051.94 / 1033.8(+48) 1033.6(+50)	1051.14 / 1050.02
	1050.82 / 1030.4	1050.02 / 1048.90
	1049.62 / 1030.6(+40)	1048.82 / 1047.70
	1048.35 / 1029.8(+86) 1023.1	1047.55 / 1044.643
	1047.00 / 1003.0(+29) 1002.9(+33)	1046.20 / 1045.08
	1044.57 / 991.5(+69)	1044.77 / 1043.65
	1044.06 / 985.0(+90) 980.0	1043.26 / 1042.14
	1042.49 / 1033.8(+48) 1033.6(+50)	1041.69 / 1040.57
	1040.83 / 1030.4	1040.03 / 1038.91
	1039.10 / 1030.6(+40)	1038.30 / 1037.18
	1037.29 / 1029.8(+86) 1023.1	1036.49 / 1035.37
	1035.40 / 1003.0(+29) 1002.9(+33)	1034.60 / 1033.48
	1033.44 / 991.5(+69)	1032.64 / 1031.52
	1031.44 / 985.0(+90) 980.0	1030.64 / 1029.52
	1029.44 / 1027.52	

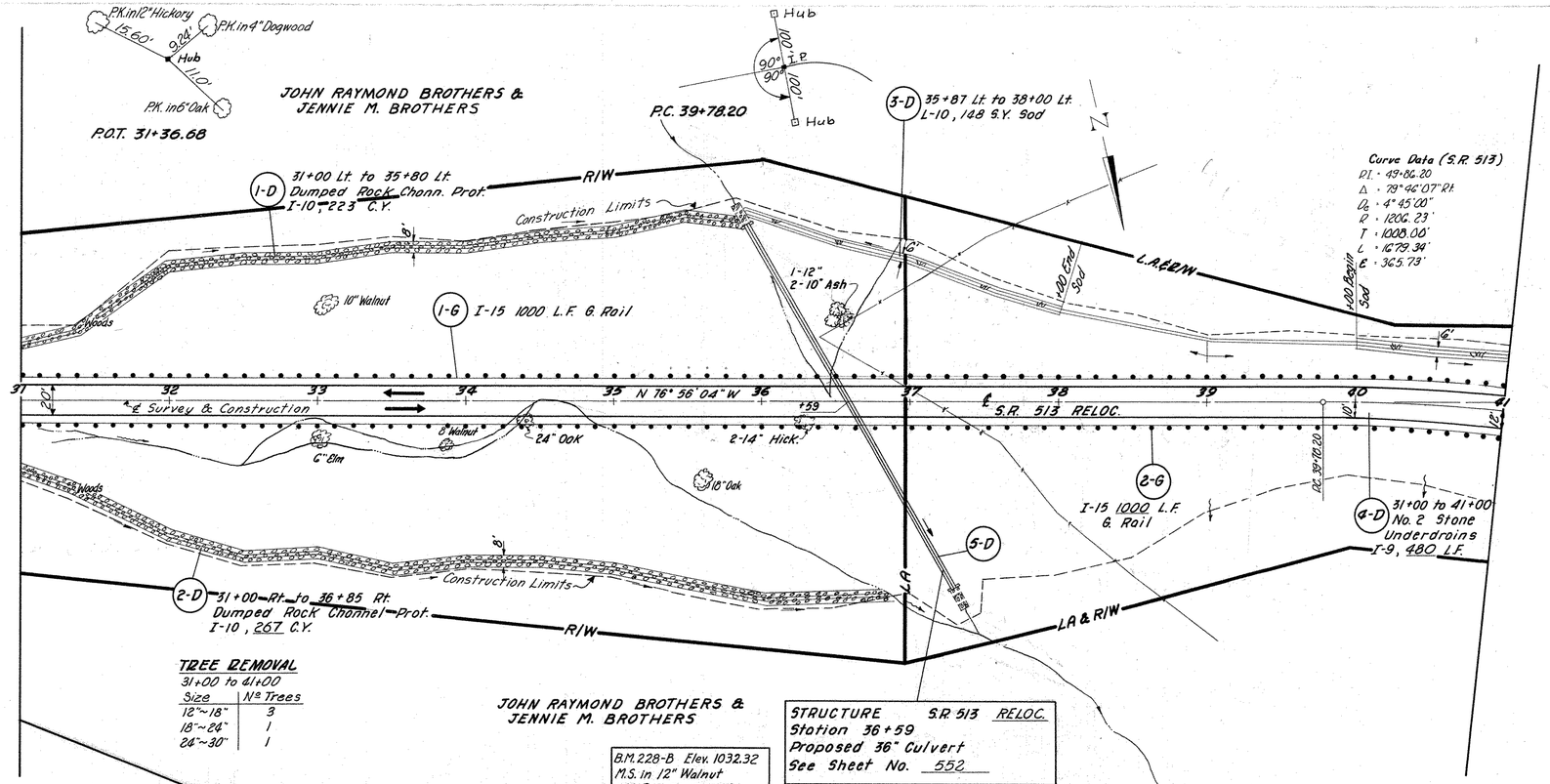
Sta.	Right Profile	Left Profile
21	1027.44	1026.64 / 1025.52
22	1025.44	1024.64 / 1023.52
23	1023.44	1022.64 / 1021.52
24	1021.44	1020.64 / 1019.52
25	1019.44	1018.64 / 1017.52
26	1017.37	1016.64 / 1015.62
27	1015.30	1014.64 / 1013.77
28	1013.17	1012.64 / 1011.99
29	1011.04	1010.64 / 1010.18
30	1008.91	1008.64 / 1008.36
31	1006.77	1006.64 / 1006.48
	1004.64	1004.64 / 1004.48
	1002.56	1002.64 / 1002.48
	1000.48	1000.64 / 1000.48

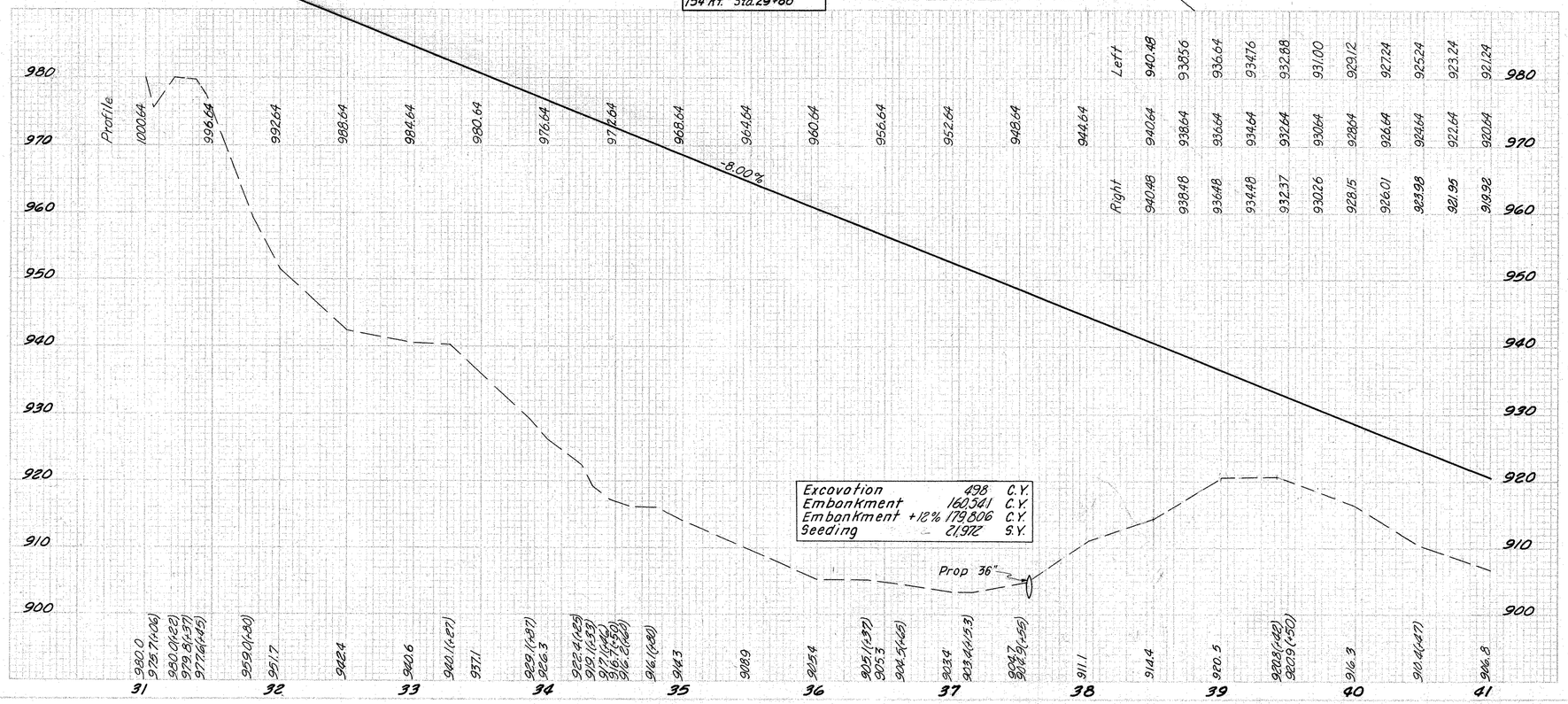
ESTIMATED QUANTITIES

SEE SHEET NO.	ITEM NO.	STATION TO STATION	SIDE	T-35 8-19 2-1" Courses Type "C" C.Y.	I-9 Stone Under-drains No. 2 L.F.	I-10 Dumped Rock Channel Prot. C.Y.	L-10 Sod S.Y.	I-15 Guard Rail 2'-A L.F.
		UNITS						
	1-A	23+50	Rt.	15.8 40				
	1-D	22+00 to 26+00	Lt.				260	
	2-D	21+00 to 31+00	R.&L.		360			
	3-D	30+00 to 31+00	Lt.			44		
	4-D	30+00 to 31+00	Rt.			44		
	5-D	25+00 to 26+00	Rt.				67	
	6-D	23+80	Rt.			4		
	1-G	30+50 to 31+00	R.&L.					100
	TOTALS	Non-Participation by Federal		15.8 40	360	92	327	100

21+00 to 31+00 S.R. 513 RELOC.

GUERNSEY COUNTY GUE-40-17.37





Excavation	498	C.Y.
Embankment	160,541	C.Y.
Embankment +12%	179,806	C.Y.
Seeding	21,972	S.Y.

ESTIMATED QUANTITIES

| ITEM NO. | STATION TO STATION | SIDE | UNITS | | |

FED. HIG. DIVISION 2 | STATE OHIO | PROJECT 306 638

GUERNSEY COUNTY GUE-40-17.37

MICROFILMED JUL 25 1985

Existing Pavement to be scorified Cost to be included in price bid for Item E-1.

Note: Full-Participation Limits Sta. 42+50 to Sta. 50+80

* Non-Participation by Federal

JOHN RAYMOND BROTHERS & JENNIE M. BROTHERS

UTILITIES
Guernsey-Muskingum Electric Coop. Inc.

RAMP "C" CURVE DATA
P.I. = 21+93.65
Δ = 27°26'14"
Dc = 12°
R = 477.46
T = 116.56
L = 228.64
E = 14.02

41+00 to 42+79 Lt. L-10, 127 S.Y. Sod

I-15, 150 L.F. G. Rail

46+97.58 S.R. 513 Reloc. = 382+09.80 US 40
P.I. 23+05.73

N. 76°56'04"-W 2398.05 Ramp C 48+00 S.R. 513 Reloc.

P.I. 49+86.20

P.K. 63.50

P.K. in 30" Sycamore

P.K. in 4" Sycamore

Structure removed with ℄ Quantities

SEE US 40 P&P SHEET Nº 10

MAMIE WEST

I-15, 150 L.F. G. Rail

6+100 "A" T.R.

4+55.54 Ramp "A" 49+38.00 S.R. 513 Reloc.

RAMP "A" N. 22°50'03" E.

29+45 47' Rt.

29+95 47' Rt.

31+53.40 T.R. 35 50+490 S.R. 513 Reloc. N. 72°23'40" E.

Abandoned L.A.

Ex. R/W

Ex. U.S. 40

Ex. Res. Drive

42 S.R. 513 Reloc.

42+50 100% State participation

I-15, 487.50 L.F. Guard Rail

I-9 Stone Underdrains (No. 2) 160 L.F.

SEE SHEET Nos 394, 395 FOR SR 513 INTERCHANGE RAMP DETAILS & QUANT.

RAMP "D" 3+345 Ramp "D" 44+00 S.R. 513 Reloc.

+46 Beg G.R.

+21.5 End G.R.

+64 Beg G.R.

+39 End G.R.

+59 Beg G.R.

+85.5 Beg G.R.

US 40 CURVE DATA
P.I. 369+27.24
Δ = 17°38'43" Lt.
Dc = 0°30'
R = 11459.16'
T = 1778.61'
L = 3529.06'
E = 137.21'

S.R. 513 Reloc. CURVE DATA
P.I. 49+86.20
Δ = 79°46'07" Rt.
Dc = 4°45'
R = 1206.23'
T = 1008.00'
L = 1679.34'
E = 365.73'

T.R. 35 CURVE DATA
P.I. 34+09.96
Δ = 9°52'20"
Dc = 5°
R = 1145.92'
T = 98.97'
L = 197.44'
E = 4.27'

RAMP "B" 18+50.51 Ramp "B" 49+41.00 S.R. 513 Reloc.

Guard Rail removed with T-R-35 Quantities

Sod quantity with T-R-35 Reloc.

TWP. RD. 35 Reloc.

Ex. Shed

Steel Beam G.R.

JOHN RAYMOND BROTHERS & JENNIE M. BROTHERS

WILLIAM E. & ALICE GEORGE

EMMA GEORGE & MARGARET BALES

JAMES H. HAGUE & BETTY LEE HAGUE

4+93 to 7+46 Temporary Road using T-10 Aggregate T-10, 380 C.Y. I-4, 7.6 Tons.

Legend: Scarify

STRUCTURE S.R. 513 RELOC.
Station 43+05
Proposed 126" Culvert
See Sheet No. 553

B.M. 228-A Elev. 945.89
M.S. in 48" White Oak
421' Rt. Sta. 36+71

B.M. 227 Elev. 884.95
M.S. in power pole
262' Lt. Sta. 380+63

SEE SHEET Nº 423 FOR TWP. RD. 35 RELOC.

Survey

Ex. R/W

Prop. R/W

L.A.-Ex. R/W

P/L

Ex. Fence

Ex. Gas Line

Ex. Power Line

Ex. Tel. Line

Ex. Water Line

Ex. Gas Valve

Ex. Water Valve

Ex. Manhole

Ex. Tel. Pedestal

Ex. Power Pole

Ex. Guy Anchor

Ex. Tel. Manhole

Ex. Tel. Riser

Ex. Tel. Box

Ex. Tel. Cable

Ex. Tel. Conduit

Ex. Tel. Duct

Ex. Tel. Vault

Ex. Tel. Pole

Ex. Tel. Guy

Ex. Tel. Anchor

Ex. Tel. Line

Ex. Tel. Wire

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

367
C38

GUERNSEY COUNTY GUE-40-17.37

J.M. TODD &
EDNA G. TODD

JOHN D. KERSHAW &
KATHERINE M. KERSHAW

Ex. Pavt. to be scarified from Ex. U.S. 40 to slope intercept of S.R. 513 Reloc. Cost to be included in price bid for Item E-1

55+75
12' TYPE 2 Res. Drive
10' Lt. to 30' Lt.
5" B-19, 99 C.Y.
2" T-35 (1"Courses) 40 C.Y. Type "C"
30' Lt. to 70' Lt.
8" B-19, 118 C.Y. Stabilized with Calcium Chloride 53 S.Y.

2-A

P.I. 49+86.20
S.R. 513 Reloc.
P.I. 53+60.20
P.I. 55+58.93
℄ Runaround
31.69'
93.62'
℄ S.R. 513
290.00'
P.T. 56+57.54

CURVE DATA TEMP RUNAROUND

PI = 53+60.20	PI = 55+58.93	PI = 58+33.59	PI = 58+71.39
Δ = 9°10'01"	Δ = 10°55'40"	Δ = 35°08'33"	Δ = 34°52'12"
Dc = 10°00'	Dc = 10°00'	R = 40.00'	R = 60.00'
R = 572.96'	R = 572.96'	T = 19.00'	T = 20.00'
T = 45.93'	T = 54.64'	L = 36.80'	L = 38.61'
L = 91.67'	L = 108.94'		

Ex. R/W
SECTION 31
R/W
℄ N 2°50'03" E
Ex. R/W
SECTION 25
Ex. S.R. 513
Ex. Field Dr. To be abandoned
8" M.P.
P.I. 54+05.94
P.C. 55+04.23
+75
12'
P.T. 56+18.23
SEC. 31
SEC. 32
Construction Limits
+00 End Sod
℄ Survey ℄ S.R. 513 Const. RELOC.
Ex. R/W
+50
Construction Limits
S.R. 513 Reloc.
Curve Data
PI: 49+86.20
Δ: 79°40'07" Rt.
Dc: 4°45'00"
R: 1206.23'
T: 1005.00'
L: 1679.34'
E: 365.73'
24.67'
P.K. in Cor. Post
Hub
30.87'
51.22'
P.K. in Post
P.T. 56+57.54
WILLIAM E. & ALICE GEORGE
P.C. 56+57.54
SEC. 25
SEC. 26
16'
2" Tar & Gravel
5" Gravel & Clay
S.R. 513
Ex. Typ. Section

1-A 54+20 to 58+60
Temporory Road "M"
using T-10 Aggregate
T-10, 330 C.Y.
I-4, 6.6 Tons.
D. MAHLON SMITH &
ESTA B. SMITH

P.C. 58+14.59
END PAV'T.
END WORK 58+30
+51.39 P.R.C.
P.T. +80 80' Rad
Ex. R/W
N 2°50'03" E
SEC. 32
SEC. 26
60
℄ Const.
℄ Survey
Ex. R/W
61
58+18, 36' Rt.
S.R. 513 Reloc.
Ex. Swale
Ex. 15" C.M.P.
To remain in place

1-D
51+00 to 53+00 Lt.
L-10, 136 S.Y. Sod

UTILITIES
Guernsey-Muskingum Electric Coop. Inc.

2-D 51+00 to 54+00 Rt.
L-10, 196 S.Y. Sod

LEGEND
Scarify
Temp. Road

3-D 51+00 to 58+50
I-9, 240 L.F.

P.K.
22.64'
M.S.
22.45'
35.44'
P.K.
P.K. in Post
P.O.T. 60+38.88

JAMES H HAGUE &
BETTY LEE HAGUE

PROFILE TEMPORARY ROAD

906.10 (Ex.) 905.20 904.75 904.48 904.57 904.84 904.97 904.83 904.27 903.71 903.15 902.59 902.18 901.51 900.71 900.11 899.91 899.91 (Ex.)

-1.80%
50' V.C.
PVI 54+00
Elev. 904.30
+1.07%
50' V.C.
PVI 54+75
Elev. 905.11
-1.12%
50' V.C.
PVI 57+25
Elev. 902.31
-3.20%
50' V.C.
PVI 58+00
Elev. 899.91
0.00%

53 54 55 56 57 58 59

| | | |

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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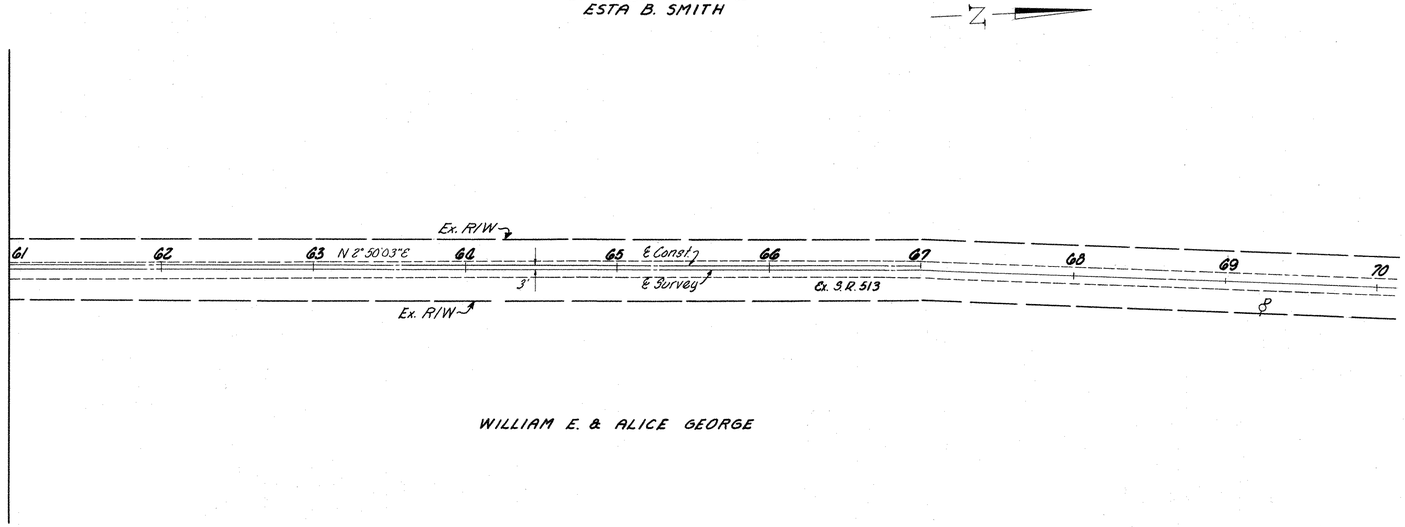
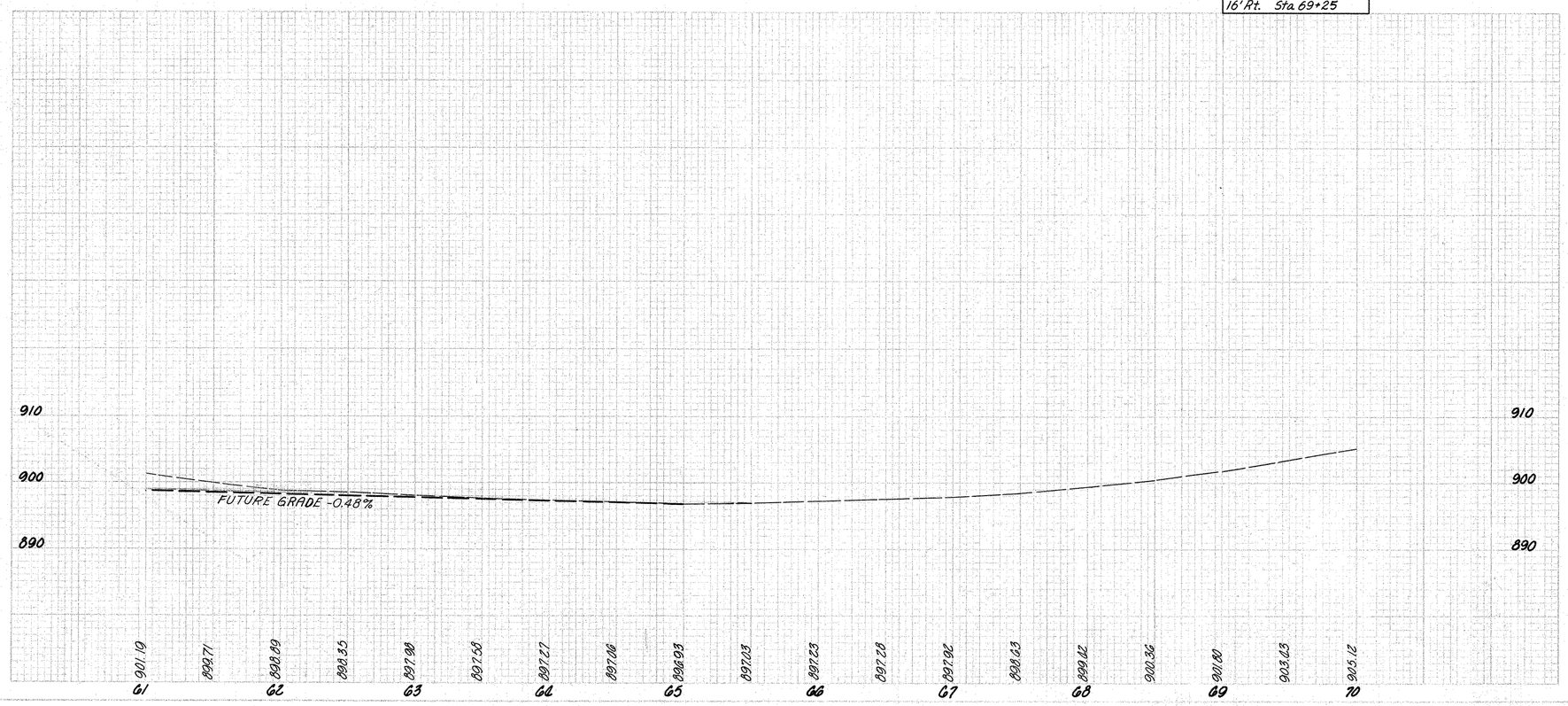
GUERNSEY COUNTY GUE-40-17.37

D. MAHLON SMITH &
ESTA B. SMITH



WILLIAM E. & ALICE GEORGE

B.M. 227-A Elev. 901.29
M.S. in power pole #94
16' Rt. Sta. 69+25



ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE

61+00 to 70+12.13 S.R. 513 RELOCATION

SHEET NO.	STATE	PROJECT
2	OHIO	

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GUERNSEY COUNTY
GUE-40-17.37

SHEET	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
72	8	29		
328			35	35
46	30	9		
175			48	14
			4	9
17	22	6		
			59	13
161	42	8		
41			39	7
114				
0	0	0		

Res. Dr. @ 2.0%

℄ Temporary Runaround

F=16 F=13 C=8

1055.8

1058.16
19+50
1057.12

C=8 F=5 C=22 F=4

1056.0

1054.5

1057.11
19+00
1057.02

Profile of T.R. 288

+0.50% +7.74%

Proposed 18"

49+00 50+00 51+00

F=6 C=22

1055.55
18+50
1055.51

18+12.5, 25' Lt.
Inv. 18" 1051.9
Type E" H.W.

18+48.5, 25' Lt.
Inv. 18" 1052.2
Type E" H.W.

3:1 3:1

46'-18" @ 1.74%

Culvert Detail @ T.R. 288

C=15 F=8 C=27

1051.2

Average Area Ahead Only

1053.47
18+00
1053.44

BEGIN WORK 17+50

Add for T.R. 288

Sta 17+50

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

S.R. 513 Reloc. 18+00 ~ 19+50

FED. DIV.	STATE	PROJECT	
2	OHIO		

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GUERNSEY COUNTY
GUE-40-17.37

SCHEDULING

END AREA		VOLUME	
CUT	FILL	CUT	FILL

150 100 50 ℄ 50 100

104 503

1080 1070 1060 1050

2:1 C=343 5:1 1055.1 F=68 5:1 C=10 5:1 1051.7

353 68

1058.64
21+00
1060.5

77 425

1080 1070 1060 1050

2:1 C=108 5:1 1055.7 F=82 5:1 C=7 5:1 1053.4

115 82

1058.82
20+50
1057.0

146 138

76 411

1070 1060 1050

C=34 1056.0 F=68 ℄ Temporary Runaround C=19 5:1 5:1 1053.5

53 68

56 90

SILT CLAYS & SHALE
21+00 ~ 29+00

1058.69
20+00
1055.7

72

Sta. 19+50

Sta. 19+50

8 29

435 138

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

S.R. 513 Reloc. 20+00 ~ 21+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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GUERNSEY COUNTY
GUE-40-17.37

SIDEHILL

END WIDTH	SIDE FILL
98	633
130	650
104	

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		660	0
		1133	3
		563	3
		353	68
		848	66

150 100 50 ℄ 50 100

1090 1080 1070 1060 1050 1040

2:1 V=660✓ 3:1 3:1 1054.1 Sod 3:1 3:1 1056.7

1057.36
22+00
1062.6

2:1 C=55✓ 3:1 1053.0 3:1 C=12✓ F=3✓ 3:1 1049.0

SILT CLAYS & SHALE
21+00 ~ 29+00

1058.15
21+50
1062.2

Sta. 21+00 Sta. 21+00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

S.R. 513 Reloc. 21+50 ~ 22+00

SEEDING	
END WIDTH	SQ YDS
109	
	603
108	
	572
98	

FED. NO. DIVISION	STATE	PROJECT	
2	OHIO		

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GUERNSEY COUNTY
GUE-40-17.37

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		900	0
		1549	0
		773	0
		1327	0
		660	0

150 100 50 ℄ 50 100

1090 1080 1070 1060 1050 1040

2:1 C = 900 3:1 3:1 3:1 3:1

1051.6 1053.8

1054.86
23+00
1062.8

1090 1080 1070 1060 1050 1040 1030

2:1 C = 773 3:1 3:1 3:1 3:1

1053.5 1055.4

Silt Clays & Shale
21+00 - 29+00

50d

1056.26
22+50
1063.0

Sta. 22+00 Sta. 22+00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

S.R. 513 Reloc. 22+50 ~ 23+00

FED. HWY. DIVISION	STATE	PROJECT		373 638
2	OHIO			

GUERNSEY COUNTY
GUE-40-17.37

SEEDING	
END WIDTH	SQ. YDS.
295	283
72	356
56	98
56	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
1190	0		
2092	0	172	113
1015	0	1773	0
800	0		

1053.15 / **23+50** / 1062.6

1051.19 / **24+00** / 1061.9

Sta. 23+00

Sta. 23+00

Silt Clay & Shale
21+00 - 29+00

Add For Conn.

Add for Service Rd Conn.

Connection to Existing S.R. 513
Excavation included with connection

Profile, Connection to Existing S.R. 513

See Above for Elevation

Full section back to 0+35

CONN. OF EX. TO PROP. S.R. 513

P.V.I. 40+00.00 — 50' V.C. — P.V.I. EL. 1056.35

P.V.I. 1+21.37 — 50' V.C. — P.V.I. EL. 1046.58

+8.00 / -12.00 / -0.40

S.R. 513 Reloc. 23+50 ~ 24+00

FED. RD. DIVISION	STATE	PROJECT		374
2	OHIO			638

GUERNSEY COUNTY
GUE-40-17.37

SEEDING

END WIDTH	SQ YDS
106	618
117	686
130	714
127	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
1020	0	2019	0
1160	0	2297	0
1320	0	2324	0
1190	0		

1070 1060 1050 1040

2:1 5:1 3:1 2:1

C = 1020

1040.0 1042.4

1043.26
25+50
1054.6

1080 1070 1060 1050 1040

2:1 5:1 3:1 2:1

C = 1160

1043.1 1045.2

1046.20
25+00
1057.5

1080 1070 1060 1050 1040

SILT CLAYS & SHALE
21+00 - 29+00

2:1 5:1 3:1 2:1

C = 1320

1045.4 1047.8

1048.82
24+50
1060.6

Sta. 24+00 Sta. 24+00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

S.R. 513 Reloc. 24+50 ~ 25+50

FED. RD. DIVISION	STATE	PROJECT		375
2	OHIO			638

GUERNSEY COUNTY
GUE-40-17.37

SEGMENTS

END WIDTH	CUT	FILL
100	547	
97	544	
99	569	
106		

END AREA

CUT	FILL
855	0
840	0
827	0
1020	0

VOLUME

CUT	FILL
1570	0
1544	0
1710	0

150 100 50 ℄ 50 100

1050 1040 1030 1060 1070

C=855 ✓

2:1 3:1 1029.6 3:1 1031.6 2:1

1032.64
27+00
1042.8

F=840 ✓

2:1 3:1 1033.0 3:1 1035.8 2:1

1036.49
26+50
1046.3

C=827 ✓

2:1 3:1 1037.1 3:1 1039.2 2:1

SILT CLAYS & SHALE
21+00 - 29+00

END SOD RT. & LT. WHERE SHALE BEGINS IN DITCH STA. 26+00 ±

1040.03
26+00
1049.8

Sta. 25+00 Sta. 25+00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

S.R. 513 Reloc. 26+00 ~ 27+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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GUERNSEY COUNTY
GUE-40-17.37

SEEDING

END WIDTH	SQ. YDS.
119	639
111	594
103	564
100	

150 100 50 ℄ 50 100

1050 1040 1030 1020 1010

C=1205

2:1 3:1 3:1 2:1

1017.8 1017.6

1020.6d
28+50
1033.6

1050 1040 1030 1020

C=1050

2:1 3:1 3:1 2:1

1021.6 1023.6

1024.6d
28+00
1036.2

1050 1040 1030 1020

C=901

2:1 3:1 3:1 2:1

1025.5 1027.6

SILT CLAYS, SHALE, & SANDSTONE
21+00 to 29+00

1028.6d
27+50
1039.2

Sta. 27+00 Sta. 27+00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
0		1205	0
0		2088	0
0		1807	0
0		1626	0
0		855	0
0		901	0

S.R. 513 Reloc. 27+50 ~ 28+50

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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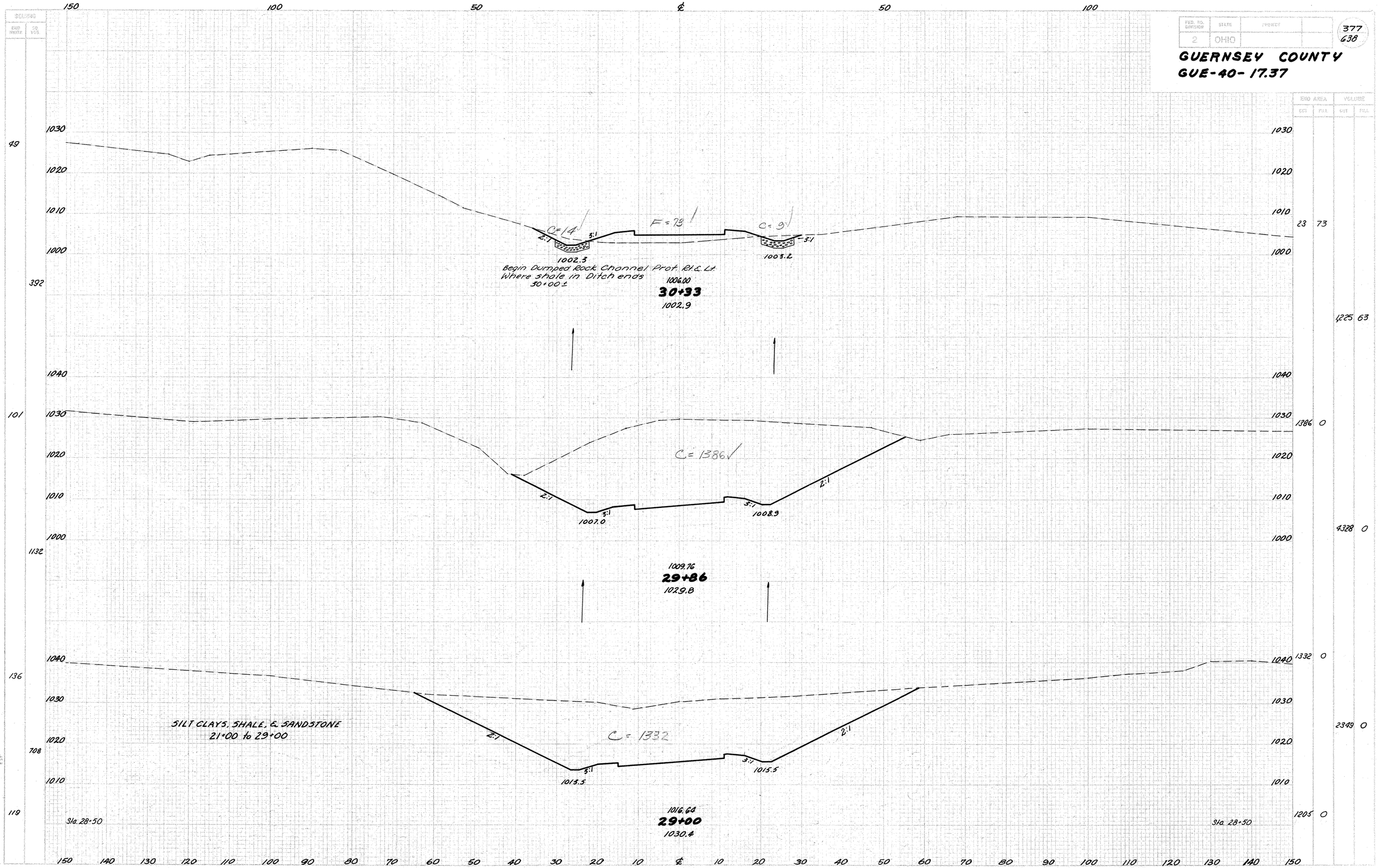
638

GUERNSEY COUNTY
GUE-40-17.37



S.R. 513 Reloc. 29+00 ~ 30+33

FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO		

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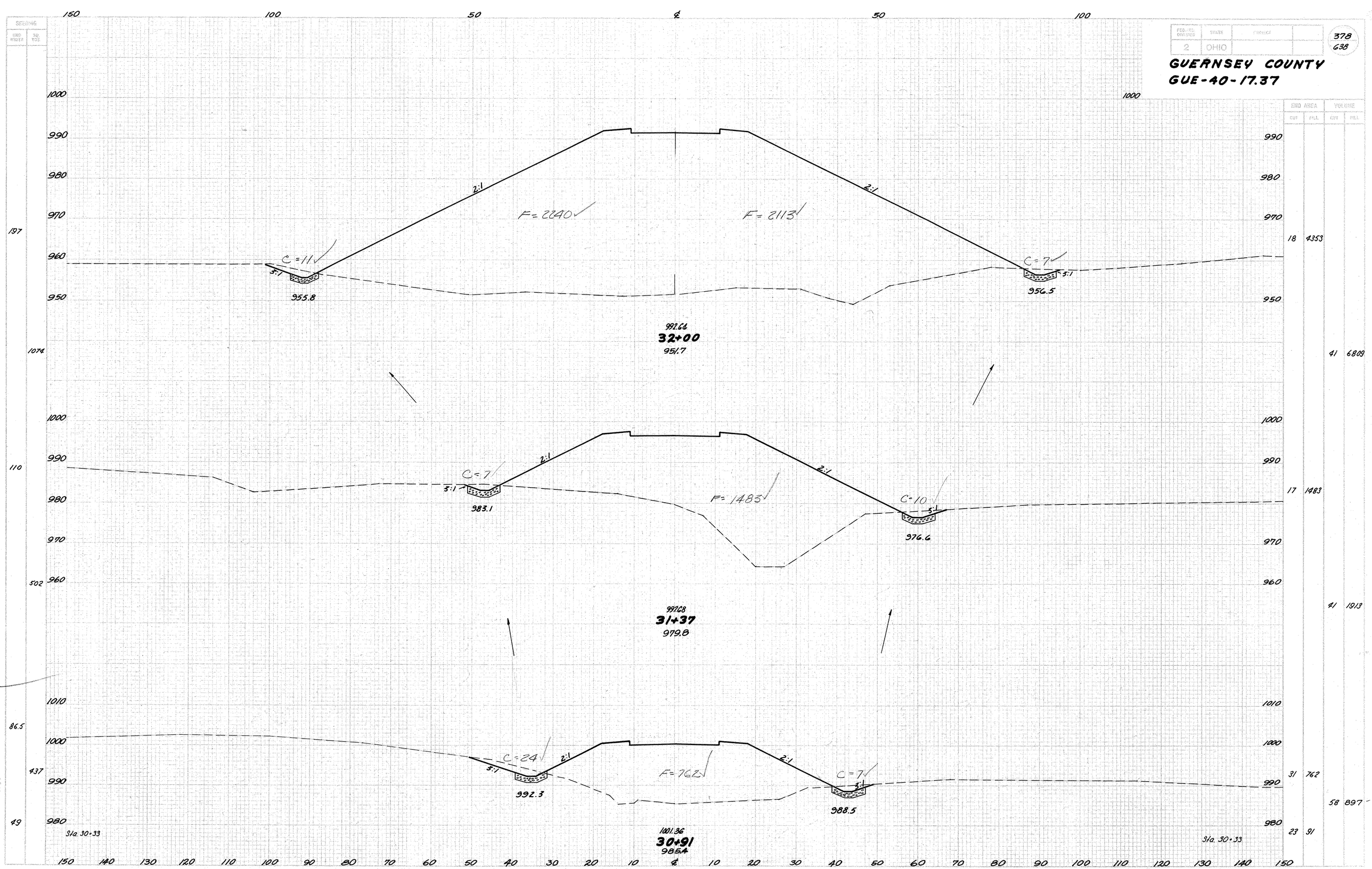
638

GUERNSEY COUNTY
GUE-40-17.37

SEEDING

STA	END WIDTH	SQ. YDS.
32+00	197	1074
31+37	110	502
30+91	86.5	437
Sta. 30+33	49	

STA	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
32+00				
	18	4353		
			41	6809
31+37				
	17	1483		
			41	1913
30+91				
	31	762		
			58	897
Sta. 30+33	23	91		



S.R. 513 Reloc. 30+91 ~ 32+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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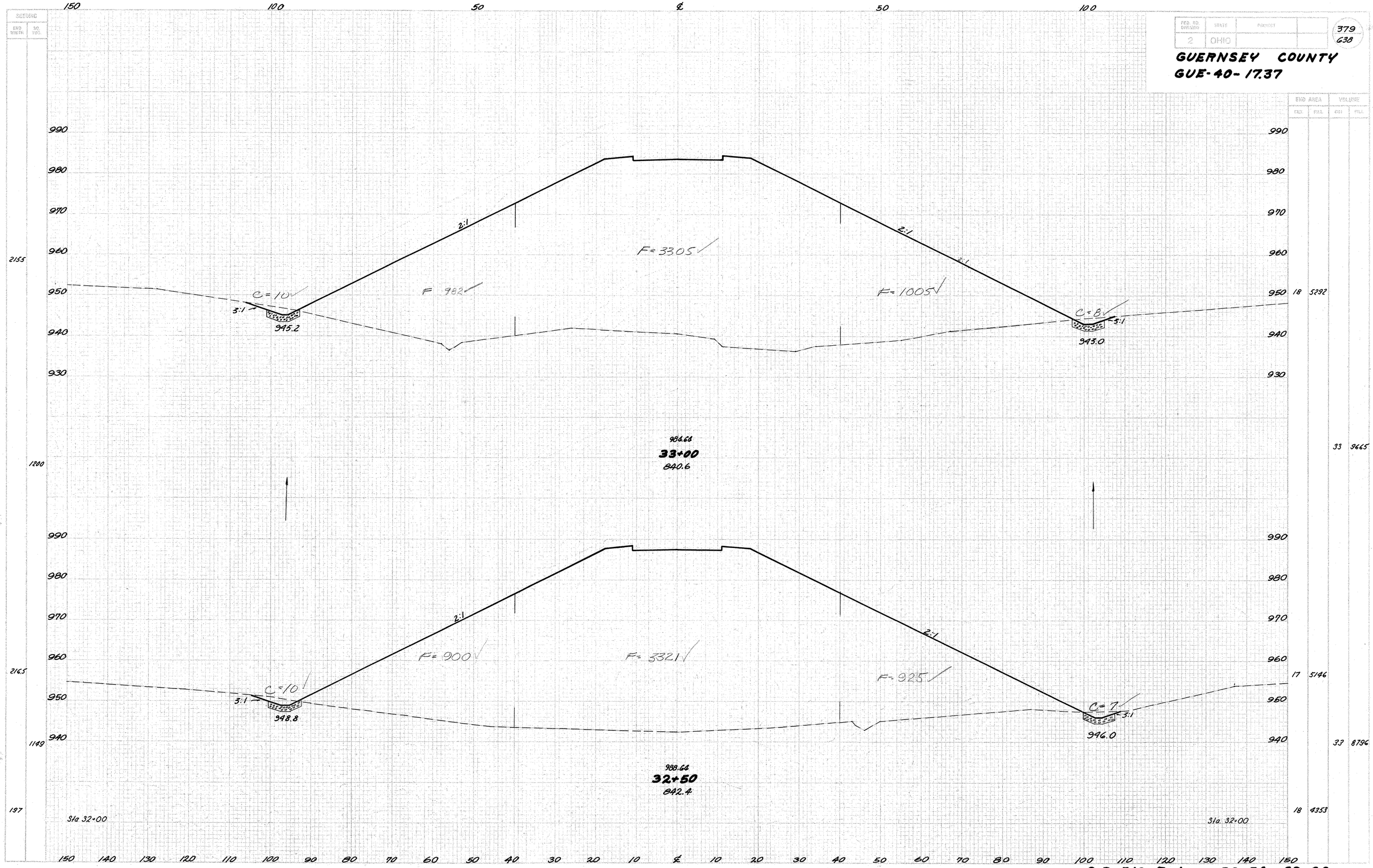
GUERNSEY COUNTY
GUE-40-17.37



S.R. 513 Reloc. 32+50 ~ 33+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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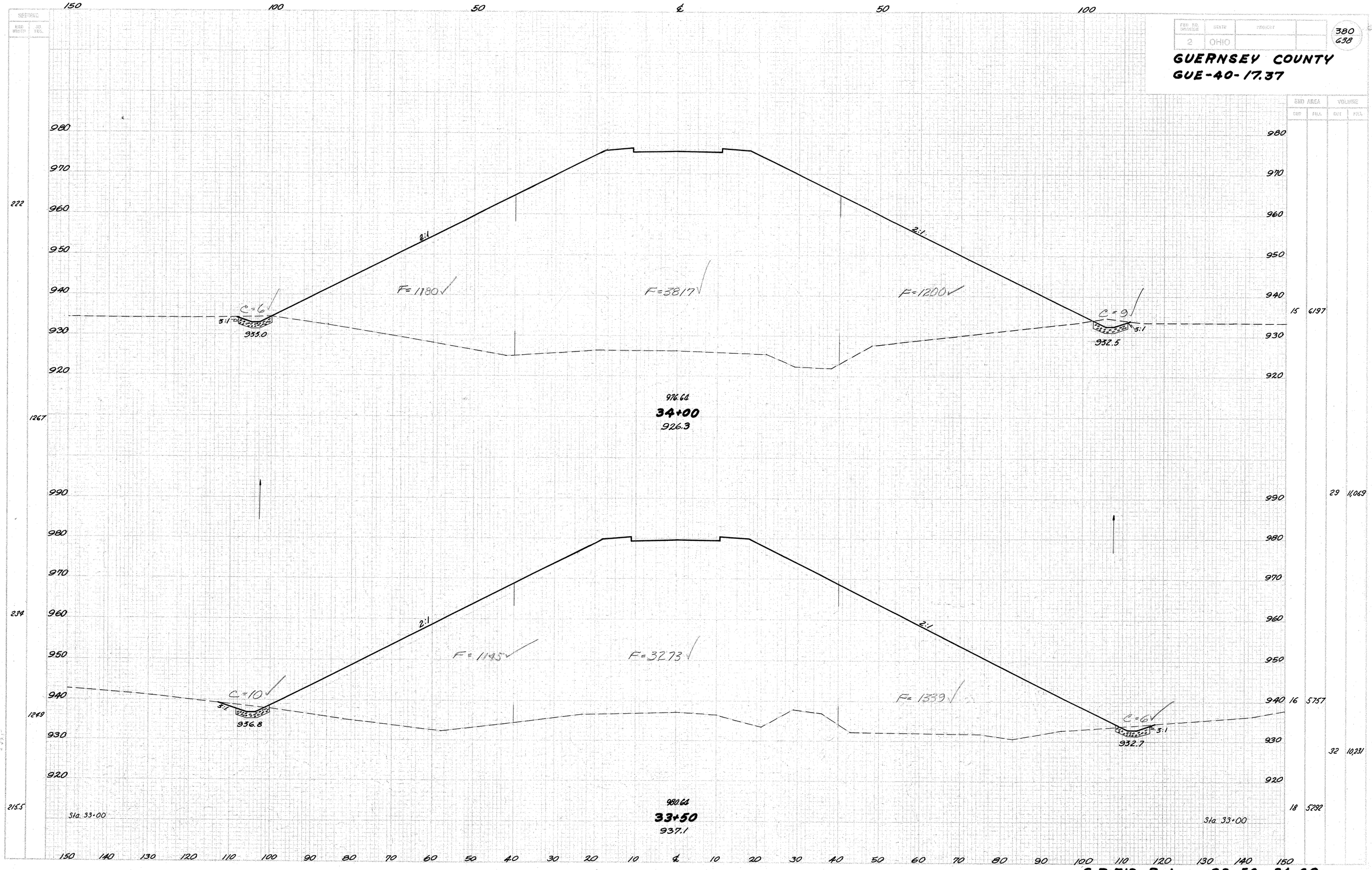
GUERNSEY COUNTY
GUE-40-17.37



S.R. 513 Reloc. 33+50 ~ 34+00

FED. HG DIVISION	STATE	PROJECT	
2	OHIO		

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GUERNSEY COUNTY
GUE-40-17.37

SECTIONS	
END WIDTH	SQ. YDS.
242	1322
234	1267
222	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		14	6958
		27	12,456
		15	6494
		28	14,751
		15	6197

150 100 50 ℄ 50 100

970 960 950 940 930 920 910

2:1 2:1

F = 3423 ✓ F = 3535 ✓

C = 8 ✓ C = 6 ✓

3:1 3:1

919.7 921.5

968.68
35+00
914.3

980 970 960 950 940 930 920 910

2:1 2:1

F = 3352 ✓ F = 3142 ✓

C = 7 ✓ C = 8 ✓

3:1 3:1

925.5 928.0

972.62
34+50
916.7

Sta. 34+00 Sta. 34+00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

S.R. 513 Reloc. 34+50 ~ 35+00

FED. RD. DIVISION	STATE	COUNTY	
2	OHIO		

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GUERNSEY COUNTY
GUE-40-17.37

BEGIN

END WIDTH	CB TYPE
278	
1500	
1400	
242	

END AREA		VOLUME	
CUT	FILL	CUT	FILL

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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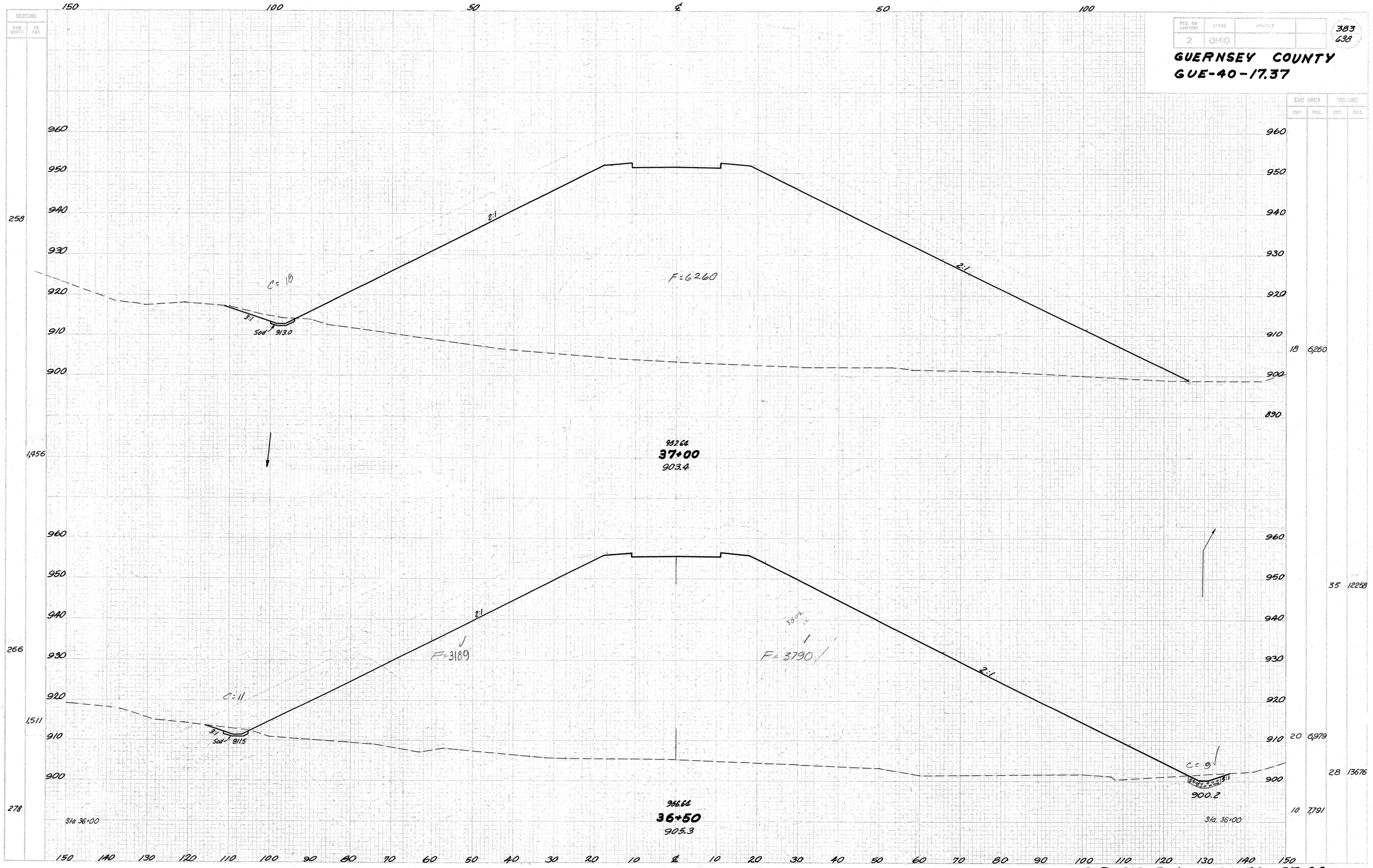
GUERNSEY COUNTY
GUE-40-17.37



S.R. 513 Reloc. 36+50 ~ 37+00

FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO		

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GUERNSEY COUNTY
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SECOND

END AREA		VOLUME	
CUT	FILL	CUT	FILL

150 100 50 ℄ 50 100

950
940
930
920
910
900
890

195
1,142
216
1,317
258

C=4
3:1 Sod
922.5
End Sod @ 100
F=3676
2:1
4 3676

908.68
38+00
911.1

C=7
3:1 Sod
918.5
F=1940
F=3161
2:1
7 5,101

SILT CLAYS
37+50

908.68
37+50
904.7

10 8/27
23 10,519
18 6,260

Sta. 37+00
Sta. 37+00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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GUERNSEY COUNTY
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SEEDING

END WIDTH	SQ. YDS.
127	833
173	1022
195	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		4	1180
		10	3319
		7	2905
		10	5631
		4	3676

150 100 50 ℄ 50 100

950 940 930 920 910 900 890

C=4 F=410 ✓ F=770 ✓ 2:1 3:1 924.5

936.64
39+00
920.5

C=7 F=795 F=1610 ✓ 2:1 3:1 924.0

940.64
38+50
914.4

Sta. 38+00 Sta. 38+00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

S.R. 513 Reloc. 38+50 ~ 39+00

SEEDING

END AREA		VOLUME	
CUT	FILL	CUT	FILL

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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GUERNSEY COUNTY
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150 100 50 ℄ 50 100

97

940
930
920
910
900

C=3
2:1
F=712
2:1
918.5
Begin Sod 100

928.61
40+00
916.3

578

	3	712

111

940
930
920
910
900
890
880

C=10
2:1
F=757
2:1
3:1
921.6

661

12		1,360
10		757
13		1,794

127

932.66
39+50
920.9

Sta. 39+00

Sta. 39+00

4		1,180

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

S.R. 513 Reloc. 39+50 ~ 40+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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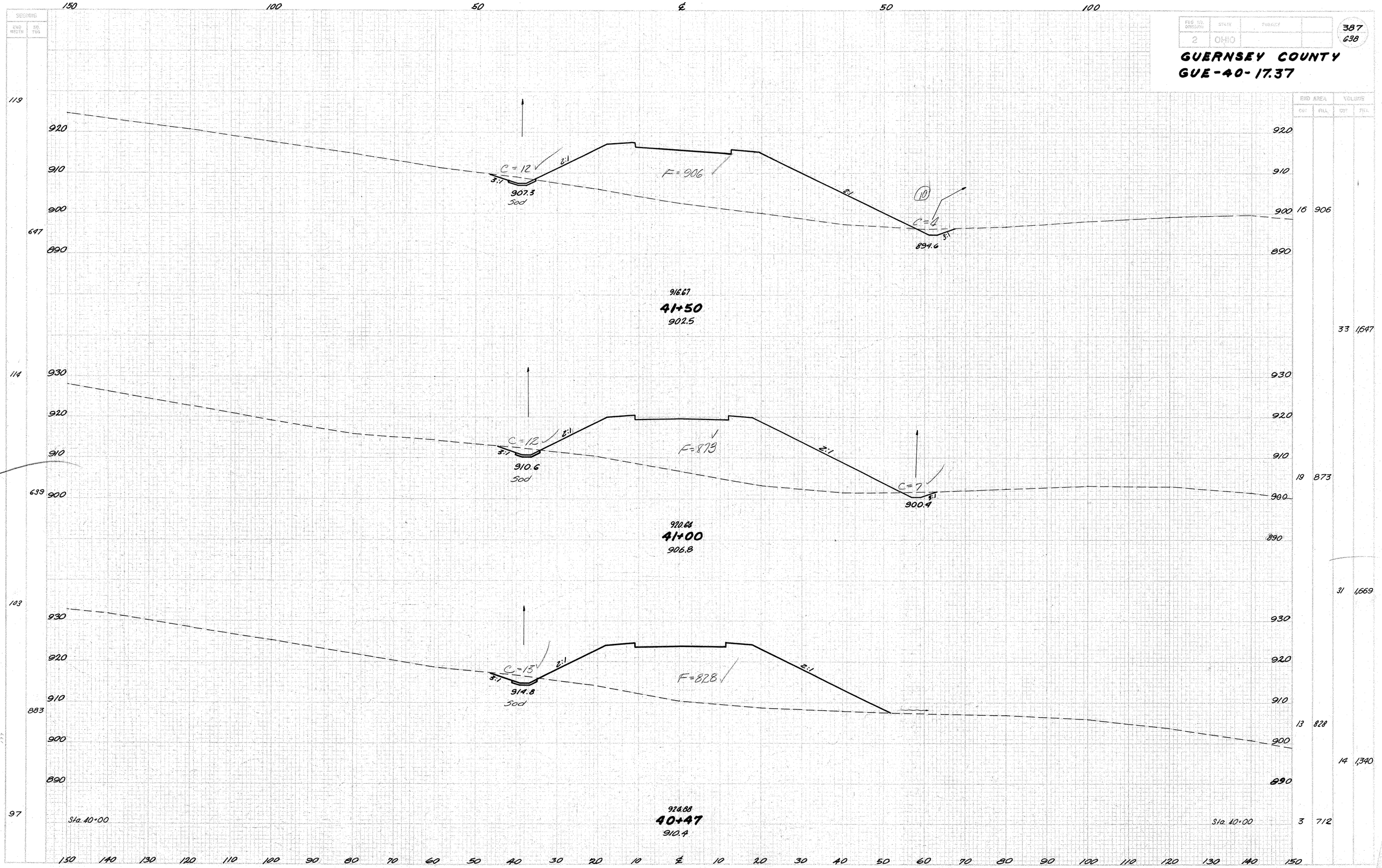
GUERNSEY COUNTY
GUE-40-17.37



S.R. 513 Reloc. 40+47~41+50

FED. ROAD DIVISION	STATE	PROJECT		388 638
2	OHIO			

GUERNSEY COUNTY
GUE-40-17.37

SEEDING		END AREA		VOLUME	
FED. WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
39	Ahead				
74	Back				
396					
84					
56	42+50 AHEAD FULL PARTICIPATION				
561	42+50 BACK STATE PARTICIPATION				
118					
658					
119	Sta. 41+50				

150 100 50 ℄ 50 100

910 / 900 / 890 / 880

Match to Ramp "D"

2:1 F=343 ✓ 28 F=120 Back Only 2:1 54

End Sod 1+79

906.55
43+00
897.5

Ahead 0 343
Back 0 120

5 509

C=6 ✓ 2:1 F 491 ✓ 2:1 3.7

900.8

Match to Ramp "D" 6 491

42+50 AHEAD FULL PARTICIPATION 3 135
42+50 BACK STATE PARTICIPATION 29 1347

909.29
42+55
899.7

920 / 910 / 900 / 890

C=25 ✓ 2:1 F=964 ✓ 2:1 5:1

902.8
Sod

Match to Ramp "D" 25 964

912.97
42+00
897.2

38 1731

Sta. 41+50 16 906

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

S.R. 513 Reloc. 42+00 ~ 43+00

PROJECT NUMBER	STATE	PROJECT	
2	OHIO		

389
638

GUERNSEY COUNTY
GUE.-40-17.37

SEEDING END WIDTH	SEEDING SQ. YDS.
68	135
83.5	311
124	134
96	643
34	406
39	

Match to Ramp "C"
2:1
F=1311
Quanity Included in Ramp "C" Volume
896.16
45+43
876.2
Match to U.S. Rt. 40
Quantity Included In U.S. Rt. 40 Volume

Match to Ramp "C"
2:1
F=1149
Quanity Included In Ramp "C" Volume
896.94
45+27
880.0
2:1
C=32
Match to U.S. Rt. 40

Match to Ramp "C"
2:1
F=791
897.69
45+00
884.5
C=309
Match to U.S. Rt. 40

Match to Ramp "C"
2:1
F=745
898.04
44+89
885.8
Ahead & Back
C=130
Match to Ramp "D"
Sta. 3+58, 100.5' Lt.
Ahead Only
C=346
Match to Ramp "D"
& U.S. Rt. 40
Ahead
Back

Match to Ramp "C"
F=824
901.46
44+00
893.3
Match to Ramp "D"
Sta 13+00
Sta. 13+00

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
0	1311		
9	729		
32	1149		
		170	970
309	791		
		160	258
476	475		
130	745		
		214	2586
0	824		
		0	2161
0	343		

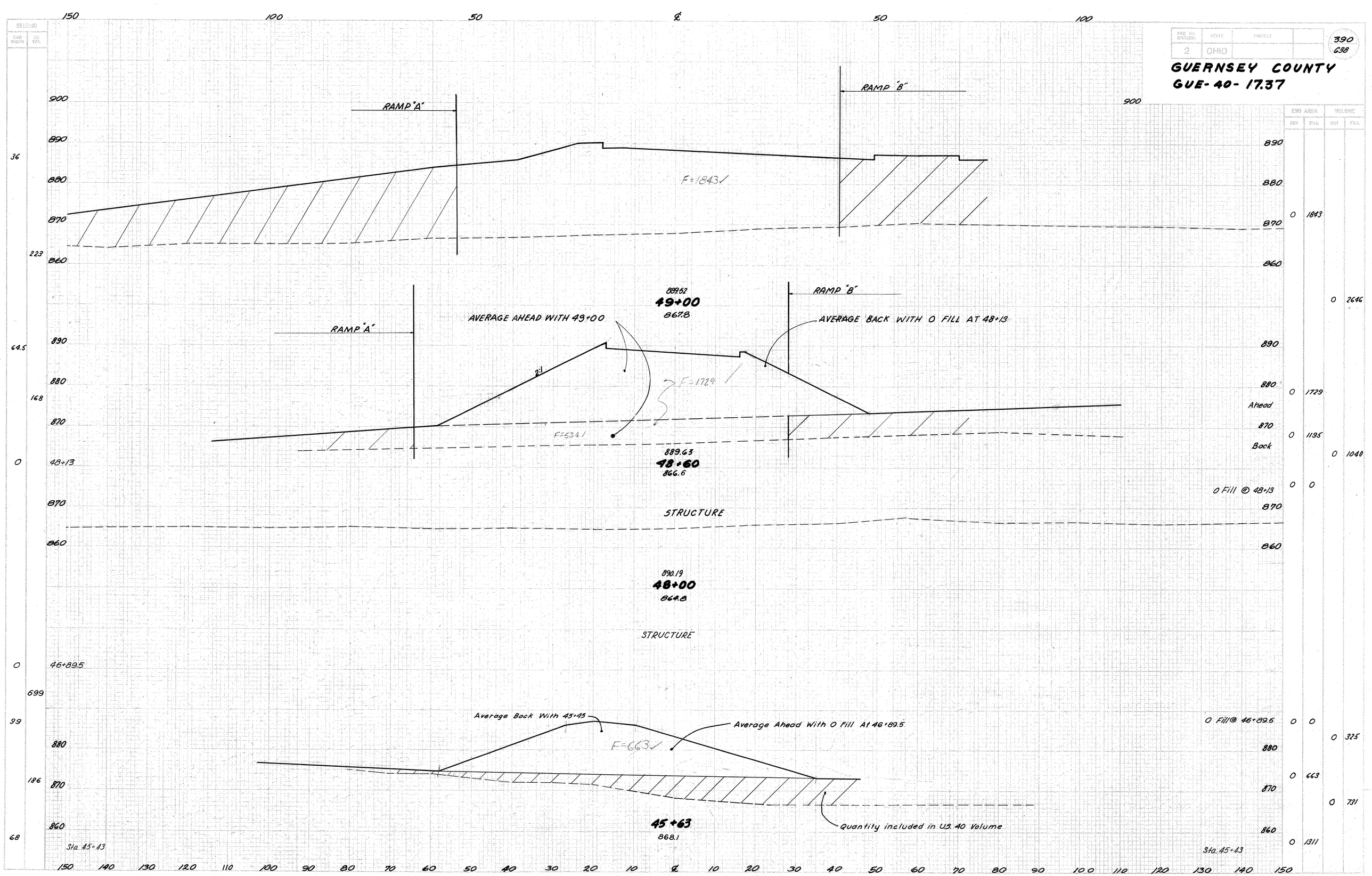
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

S.R. 513 RELOC. STA. 44+00 to STA. 45+43

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

390
C38

GUERNSEY COUNTY
GUE-40-17.37



S.R. 513 Reloc. 45+63 ~ 49+00

SEEDING	
END WIDTH	SQ. YDS.

PRO. SQ. DIVISION	STATE	PROJECT	
2	OHIO		

391
698

GUERNSEY COUNTY
GUE-40-17.37

150 100 50 ℄ 50 100

62.5 900 890 880

C=744 ✓

891.0 5:1 Sod — 3:1 — 5:1 889.3 Sod

AVERAGE WITH 0 CUT AT 50+57

132 50+80 STATE PARTICIPATION
181 50+80 FULL PARTICIPATION

892.12
51+00
894.9

50+80 AHEAD STATE PARTICIPATION
50+80 BACK FULL PARTICIPATION

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
744	0		
		237	46
		355	68

56 900 890 880

MATCH TO TWP. RD. 35 RELOC.
31+00, 16' LT.

AVERAGE WITH 0 FILL AT 50+62

F=123 ✓

MATCH TO TWP. RD. 35 RELOC.
32+00, 34' LT.

900			
890	0	123	
880			
		42	157
50+35	0		

283

890.98
50+50
889.0

46 900 890 880

AHEAD INCLUDED WITH TWP. RD. 35 RELOC.
BACK INCLUDED WITH RAMP "A"

AHEAD AND BACK

AVERAGE WITH 0 CUT AT 50+35

C=36 ✓

F=46 ✓

MATCH TO TWP. RD. 35 RELOC.
32+00, 14.5' RT.

AVERAGE WITH 0 CUT AT 49+85

900			23
Ahead	36	46	
890			
	36	46	
Back			
880			
		11	0
49+85	0		

237

890.16
50+00
889.3

53 900 890 880

MATCH TO RAMP "A"
5+05, 19.5 RT.

VAR.

F=1120 ✓

8:1

MATCH TO RAMP "B"
18+01, 30' RT.

VAR.

900			0 928
890			
	0	1/20	
880			
			0 3/28
870			
	0	1843	

282

36

889.73
49+57
879.4

Sta. 49+00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

Sta. 49+00

S.R. 513 Reloc. 49+57 ~ 51+00

FED. ROD. DIVISION	STATE	PROJECT		392
2	OHIO			698

GUERNSEY COUNTY
GUE-40-17.37

SEEDING

LIME TONS	SO. TNS

Add for Drive

Section "A-A"
Average back with 0 cut @ 30.5 Lt.
Average ahead with 0 cut @ 70.0' Lt.

PROFILE
FIELD DRIVE AT 55+75

℄ Temporary Runaround

Sta. 55+00 — 900.81 — 905.4
Sta. 54+00 — 899.51 — 902.5
Sta. 53+00 — 897.24 — 899.2
Sta. 52+00 — 896.68 — 902.5

	EMB AREA		VOLUME	
	CUT	FILL	CUT	FILL
Add for drive				
370	0		155	0
			478	0
266	0			
			891	0
			215	0
			1593	0
Ahead 645				
Back 790	0			
			2841	0
			764	0

SILT CLAYS
52+00 to 57+00

S.R. 513 Reloc. 52+00 ~ 55+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

393
638

GUERNSEY COUNTY
GUE-40-17.37

SEEDING

END WIDTH	SQ. YDS.
52	313
605	814
86	956
86	939

END AREA		VOLUME	
CUT	FILL	CUT	FILL
30	0	22	0
49	1		
		117	4
77	3		
400	0	883	6
489	0	1,646	0
370	0	1,591	0

Inv. 897.31
Ex. 15" C.M.P. @ 58+90

899.93
59+00
899.93

Back and Ahead to 58+90 — Back Only

End Work 58+90

℄ Temporary Runaround

C=30 C=19 F=1

897.7

899.92
58+50
899.92

To Swale

℄ Temporary Runaround

Var. 3:1 5:1 C=66 F=3 C=11 3:1 5:1

898.0 897.0

900.16
58+00
900.45

℄ Temporary Runaround

Var. 2:1 3:1 C=400 3:1 2:1

898.8 898.5

900.64
57+00
904.9

56'25

℄ Temporary Runaround

Var. 2:1 5:1 C=489 3:1 8:1

899.8 898.5

901.09
56+00
907.2

SILT CLAYS
52+00 to 57+00

Sta. 55+00

Sta. 58+90 Ahead Back

Sta. 55+00

S.R. 513 Reloc. 56+00 ~ 59+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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638

GUERNSEY COUNTY
GUE - 40 - 17.37

RAMP "A" CURVE DATA
P.I. 16+50.01
Δ = 1° 30' 00"
Dc = 0° 30'
R = 11,459.16'
L = 300.00'
T = 150.01'

RAMP "A" CURVE DATA
P.I 12+72.68
Δ 11° 24' 12"
Dc 2° 30'
R 2291.83'
L 456.14'
T 228.82'

RAMP "C" CURVE DATA
P.I = 9+09.14
Δ = 6° 16' 05" Rt.
Dc = 1° 30' 00"
R = 3819.72'
T = 209.14'
Lc = 417.87'
E = 5.72'

S.R. 513 CURVE DATA
P.I= 49+86.20
Δ= 78° 16' 07"
D= 4° 45' 00"
R = 1206.23'
T= 1008.00'
L= 1679.34'
E 365.73'

RAMP "C" CURVE DATA
P.I = 21+93.65
Δ = 27° 20' 14"
Dc = 12° 00' 00"
R = 477.46'
T= 116.56'
L= 228.64'

SEE SHEET No 623 FOR TWP. RD. 35 RELOC.

SEE SHEET No 386 FOR S.R. 513 RELOC.

RAMP "A" COORDINATES			
	STATION	NORTH	EAST
	4+55.54	17,310.216	57,329.662
P.C.	10+43.80	17,013.158	56,821.645
P.I.	12+72.68	16,897.618	56,624.132
P.C.C.	15+00.00	16,823.411	56,407.072
P.I.	16+50.01	16,774.763	56,265.773
P.C.C.	18+00.00	16,729.847	56,122.644
	368+00.00 U.S.40	16,642.475	56,148.081
	382+09.80 U.S.40	17,118.658	57,474.080

RAMP "C" COORDINATES			
	STATION	NORTH	EAST
	367+00.00 U.S.40	16,614.940	56,051.945
P.R.C.	7+00.00	16,539.872	56,073.112
P.I.	9+09.14	16,596.572	56,274.424
P.T.	11+17.87	16,630.951	56,480.723
P.C.	20+77.09	16,788.630	57,426.893
P.I.	21+91.21	16,807.790	57,541.864
P.T.	23+05.73	16,877.709	57,635.073
	23+88.05	16,927.192	57,700.904

ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	I-15 Guard Rail Type 2-A	I-8 Catch Basin No 6	I-2 Masonry	I-10 Dumped Rock Channel Prot.	L-10 Sod	I-5 Class I-3 60°bend 6"	I-5 Class A-1 90°bend 6"	I-1 Class J-1 MGG(a)or MGB(b) 12"	I-1 Class J-1 MGG(a)or MGB(b) 36"	I-1 Class A-1 MGG(a)or MGB(b) 6"	Class I-3 6"	Class F-1 MGGb 8"	Class F-1 MGGb 6"
			L.F.	Ea.	C.Y.	C.Y.	S.Y.	Ea.	Ea.	L.F.	L.F.	L.F.			
1-G	5+18 to 9+16.5 Ramp "A"	Rt.	400												
2-G	17+46.5 to 23+40.0 Ramp "C"	Lt.	612.5												
3-G	16+00 "C" to 63+00 Lt. S.R. 513		862.5												
1-D	13+02 Ramp "C"	Lt & Rt.			8.00						132				
2-D	14+50 Ramp "A"	Lt & Rt.		1	0.23					48					
3-D	7+00 to 9+50 Ramp "A"	Rt.				51	178								
I-1 I-3	5+07 to 9+00 Ramp "A"	Rt.						1					400	10	
	8+89 to 16+00 Ramp "A"	Rt.											711		
	12+00 to 17+12 Ramp "C"	Rt.											502		10
	17+00 "C" to 44+95 Lt. S.R. 513	Lt & Rt.						2	2			21	696	20	
	TOTALS TO SUMMARY		1875	1	8.23	51	178	3	2	48	132	21	2309	30	10

S.R. 513 INTERCHANGE PLAN - RAMPS "A" & "C"

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

395
638

GUERNSEY COUNTY
GUE-40-17.37

SEE SHEET No 423 FOR TWP. RD. 35 RELOC

EX. 10'x6' BOX CULVERT FOR DETAILS SEE SHEET No 549

SEE SHEET No 366 FOR S.R. 513 RELOC.

R/W
Ex. R/W
TWP RD. 35 RELOC
OLD NATIONAL ROAD
LA-Ex.R/W
Const Limits
LA
RAMP "B"
RAMP "D"
Culvert & Rock Quantities with US40
Ex. US 40
To be removed. Quantities carried with Main line.
Type 6 Curb
Type LA Curb
MATCH LINE SEE SHEET #71
S.R. 513
RELOC.
LA-Ex.R/W
LA-R/W
CHANNEL EASEMENT
Ex. SR 513
Proved ditch
Hub
PK in 14" Pear
5" Locust
18" Rear

49+69.5 S.R. 513
End 1-3
Inv. 884.62

18+50.51, ℄ Ramp "B" = 49+41.00, ℄ S.R. 513 Reloc.

392+09.80 US 40 = 46+97.58, S.R. 513 RELOC.

3+13.45, ℄ RAMP "D" = 44+00, ℄ S.R. 513 RELOC.

43+16 SR 513 Begin 6" Inv. 900.43

+00 Beg. G.R.

End G.R. +9.75

Begin G.R. +15 ±

End G.R. +0.0

End G.R. +7.5

658'-6" 4.5' below edge of Pavt

392'-6", 4.5' below Edge of Pavt

0.56%

+00 Inv. 876.87
8-6 at 00.00 Rt.

+25.20 Rt. Inv. 876.57
12-5 6"16 Tee
Inv. 876.66

+00 Inv. 881.13

8+00 Begin M6.4(h)
6" Inv. 880.80
+81.67 6"16 Tee
Inv. 880.68

+81.17 Rt. 8" Inv. 880.60

+25 6" Inv. 880.05

P.T. 11+28.15

P.T. 306+17.89

P.T. 12+00

P.C. 5+00 RAMP "B" = 395+00, 18° Lt.

395+00, 91°/ft = 15+00 Ramp

P.I. 8+14.78 Ramp "B"

P.I. 9+25.92 Ramp "D"

24.10
14.30
9.80
15'

72.31'
29.31'
75.60

CURVE DATA S.R. 513 RELOC.

P.I. 49+86.20
Δ 79°46'07"
D 4°45'
R 1206.23'
T 1008.00'
L 1679.34'
E 365.73'

RAMP "B" CURVE DATA

P.I. 8+14.78
Δ 9°25'20"
Dc 1°30'
R 3819.72'
T 314.78'
L 628.15'
E 12.95'

RAMP "D" CURVE DATA

P.I. 9+25.92
Δ 13°06'14"
Dc 2°30'
R 2291.83'
T 276.74'
L 550.82'
E 16.65'

RAMP "B" COORDINATES			
	STATION	NORTH	EAST
	395+00 US40	17667.828	58641.665
P.C.	5+00.00	17738.160	58607.740
P.I.	8+14.78	17802.060	58323.903
P.T.	11+28.15	17514.260	58021.607
	18+50.51	17312.781	57327.913

RAMP "D" COORDINATES			
	STATION	NORTH	EAST
	3+13.45	16927.196	57700.911
P.C.	6+49.18	17145.600	57955.890
P.I.	9+25.92	17325.629	58166.067
P.T.	12+00.00	17450.457	58413.062
P.O.T.	15+00.00	17585.774	58680.809
	395+00, US40	17667.828	58641.665

ESTIMATED QUANTITIES

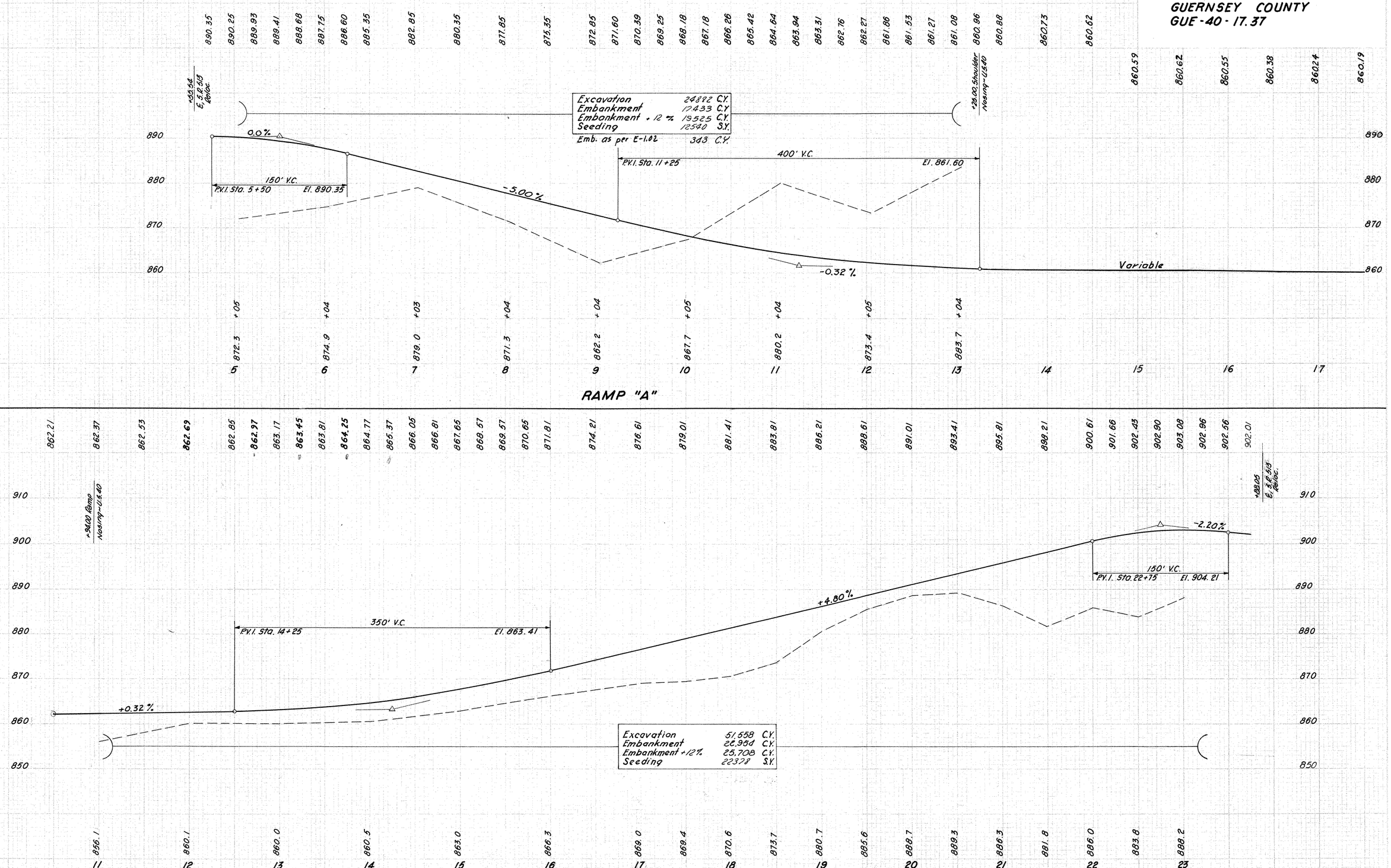
REF. NO	STA TO STA	Side	I-15 Type 2-A G.R.	L-10 Sod	I-5 Class F-1 6"x6" Tee	I-5 Class I-3 6"x6" Tee	I-1 Class F-1 M-6.4 (c) 8"	I-1 Class I-3 6"	I-1 Class I-3 M-6.4 (h) 6"
	UNITS		L.F.	S.Y.	EA.	EA.	L.F.	L.F.	L.F.
1-D	As Shown	Lt		11					
2-D	8+00 "D" to 390+44.5	Rt.		224					
1-G	13+15 ± to 17+85 ± "B"	Lt.	450						
2-G	9+97.5 to 12+97.5 "B"	Rt.	300						
3-G	43+00 Rt. S.R. 513 to 9+75 ± "D"	Rt.	675						
4-G	3+25 ± Lt to 6+48 ± Lt. "D"	Lt.	337.5						
I-1 Class I-3	43+16 Rt. S.R. 513 RELOC. to 10+00 "D"	Rt.			1		10	492	205
	10+00 "B" to 49+69.5 Rt. S.R. 513 RELOC.	Rt.				1	10	865	
	TOTALS TO SUMMARY		1762.5	235	1	1	20	1357	205

S.R. 513 INTERCHANGE PLAN - RAMPS "B" & "D"

FED. REG. DIVISION	STATE	PROJECT	
2	OHIO		

396
638

GUERNSEY COUNTY
GUE-40-17.37



RAMP "A"

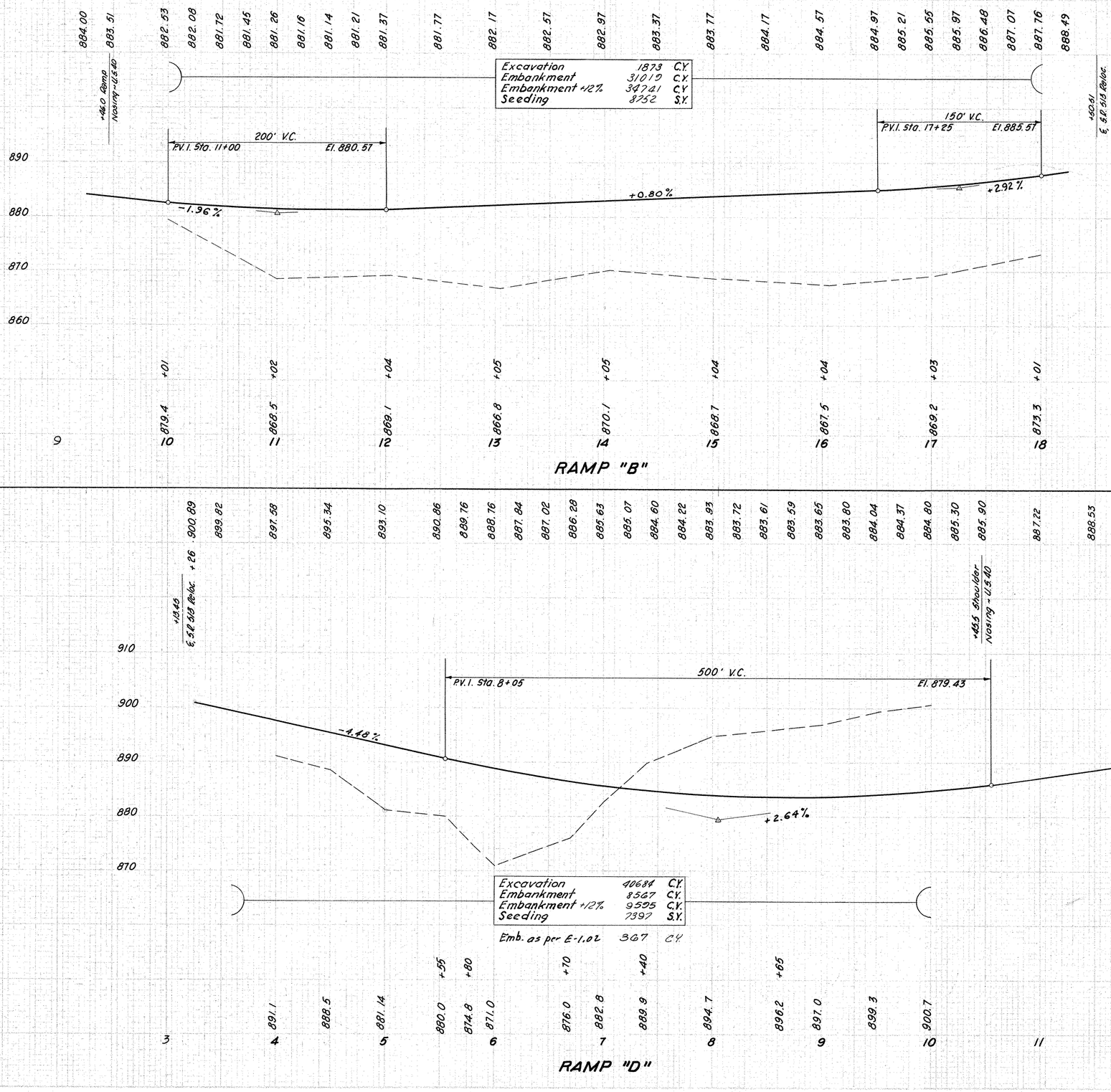
RAMP "C"

RAMPS "A" and "C" Profiles

FED. RD. DIV. NO.	STATE	PROJECT	
2	OHIO		

397
638

GUERNSEY COUNTY
GUE-40-17.37



RAMP "B"

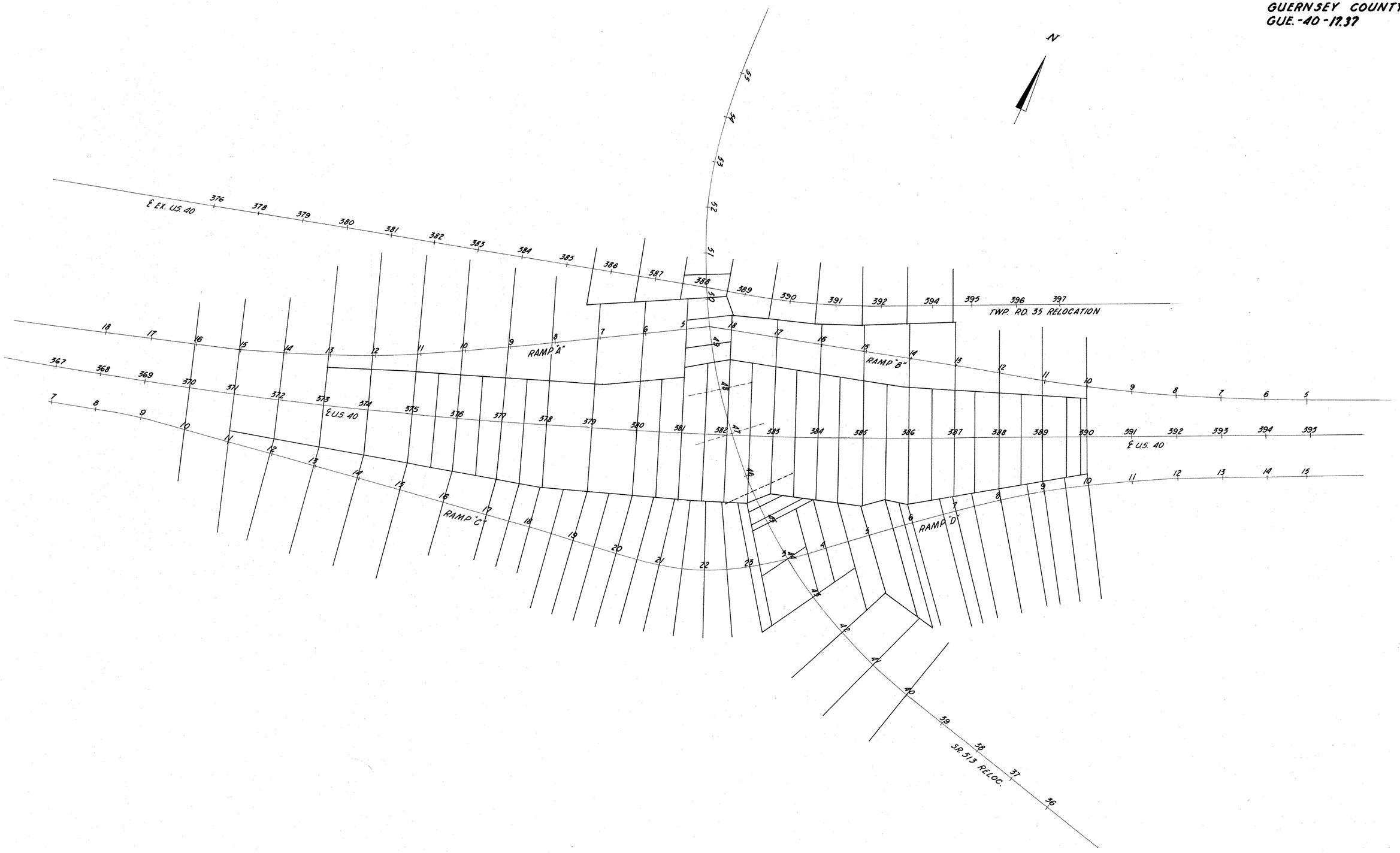
RAMP "D"

RAMPS "B" and "D" Profiles

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

398
638

GUERNSEY COUNTY
GUE.-40-17.37



CROSS SECTION LAYOUT SHEET

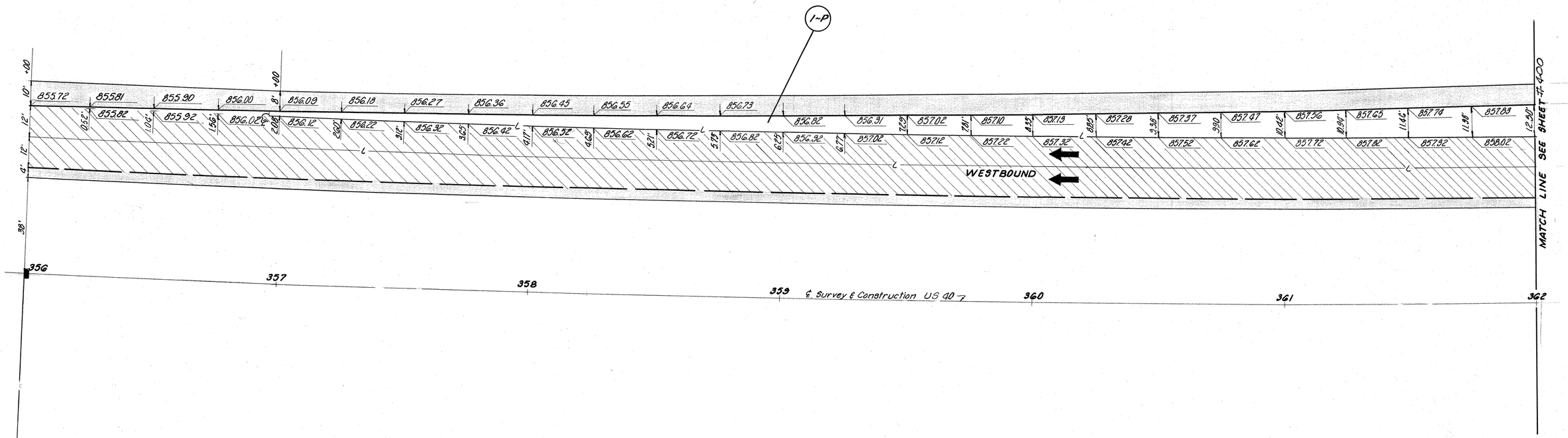
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

399
G38

GUERNSEY COUNTY
GUE-40-17.37

N

US 40
CURVE DATA
PI 360+27.24
Δ 17°38'43"Lt
D_c 0°30'
R 11459.16'
T_c 1778.61'
L_c 3529.06'
E 137.21'



PAVEMENT QUANTITIES

Ref No	T-71 9"	T-31 No 6 Agg.	T-31 Bit. Mat.	B-21 2-3" Courses	B-112	6" I-22 Grading "A" or "B"	E-1 Comp. S.G.
Units	S.Y.	C.Y.	Gals.	C.Y.	C.Y.	C.Y.	S.Y.
1-P	416	44	136.1	91 ✓	65 ✓	160	961
TOTALS	416	44	136.1	91	65	160	961

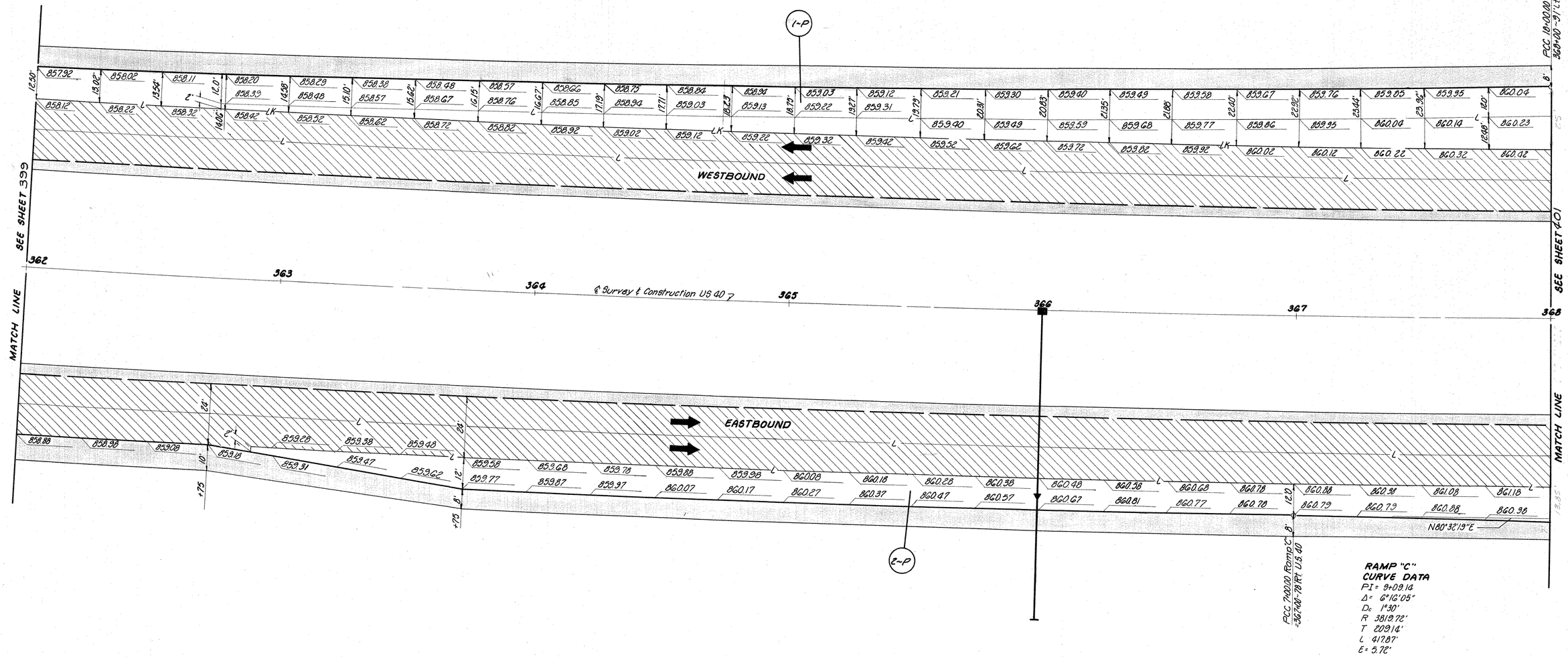
PAVEMENT DETAILS 356 ~ 362

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

GUERNSEY COUNTY
GUE-40-17.37

400
638

US 40
CURVE DATA
PI 369+27.24
Δ 17°38'43" Lt.
D_c 0° 30'
R 11459.16'
T_c 1778.61'
L 3529.06'
E 137.21'



RAMP "C"
CURVE DATA
PI = 9+09.14
Δ = 6°16'05"
D_c 1°30'
R 3819.72'
T 209.14'
L 417.87'
E = 5.76'

PAVEMENT QUANTITIES

Ref. Nº	T-71 9"	T-31 Nº 9 Agg.	T-31 Bit. Mat.	B-21 6"	B-112	6.I-22 Grading "A" or "B"	E-1 Comp. S.G.
Units	S.Y.	C.Y.	Gals.	C.Y.	C.Y.	C.Y.	S.Y.
1-P	1250	63	133.3	89	44	297	1783
2-P	648	38	118.1	79	39	187	1119
TOTALS	1898	8.1	251.4	168	83	484	2902

PAVEMENT DETAILS 362-368

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

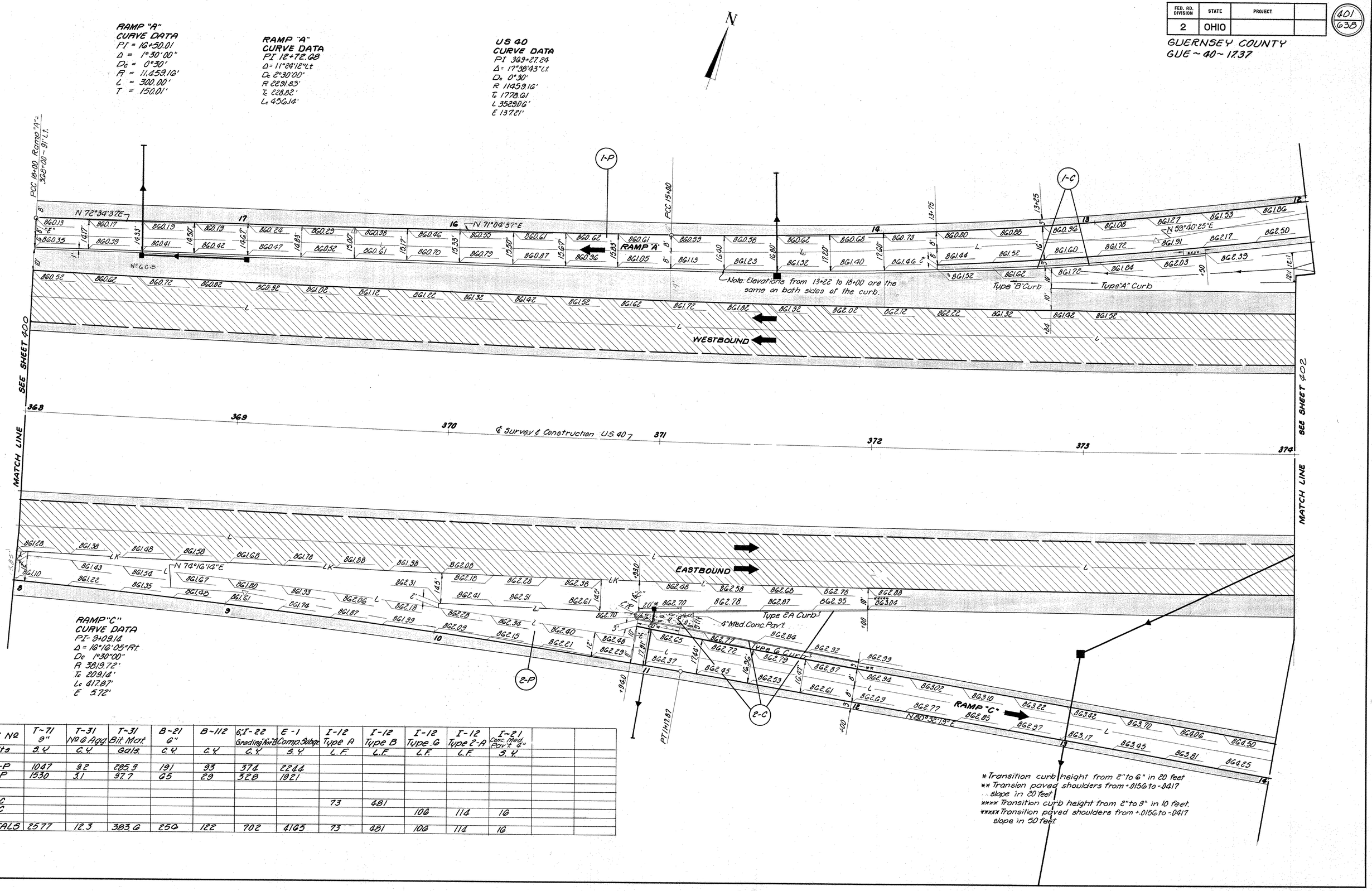
401/638

GUERNSEY COUNTY
GUE ~ 40 ~ 17.37

RAMP "A" CURVE DATA
PI = 16+50.01
Δ = 1°30'00"
Dc = 0°30'
R = 11,459.16'
L = 300.00'
T = 150.01'

RAMP "A" CURVE DATA
PI 12+72.68
Δ = 11°24'12" Lt.
Dc 2°30'00"
R 2291.83'
Tc 228.82'
Lc 456.14'

US 40 CURVE DATA
PI 369+27.24
Δ = 17°38'43" Lt.
Dc 0°30'
R 11459.16'
Tc 1778.61
L 3529.06'
E 137.21'



RAMP "C" CURVE DATA
PI - 9+09.14
Δ = 16°16'05" Rt.
Dc 1°30'00"
R 3819.72'
Tc 209.14'
Lc 417.87'
E 5.72'

Ref. No	T-71 9"	T-31 No 6 Agg.	T-31 Bit. Mat.	B-21 6"	B-112	6;I-22 Grading "A" or "B"	E-1 Comp. Subgr.	I-12 Type A	I-12 Type B	I-12 Type 6	I-12 Type 2-A	I-21 Conc. Med. Pav't. 4"		
Units	S.Y.	C.Y.	Gals.	C.Y.	C.Y.	C.Y.	S.Y.	L.F.	L.F.	L.F.	L.F.	S.Y.		
1-P	1047	9.2	285.9	191	93	374	2244							
2-P	1530	3.1	97.7	65	29	328	1921							
1-C								73	481					
2-C										106	114	16		
TOTALS	2577	12.3	383.6	256	122	702	4165	73	481	106	114	16		

* Transition curb height from 2" to 6" in 20 feet
** Transion paved shoulders from +.0156 to -.0417 slope in 20 feet.
**** Transition curb height from 2" to 9" in 10 feet.
***** Transition paved shoulders from +.0156 to -.0417 slope in 50 feet.

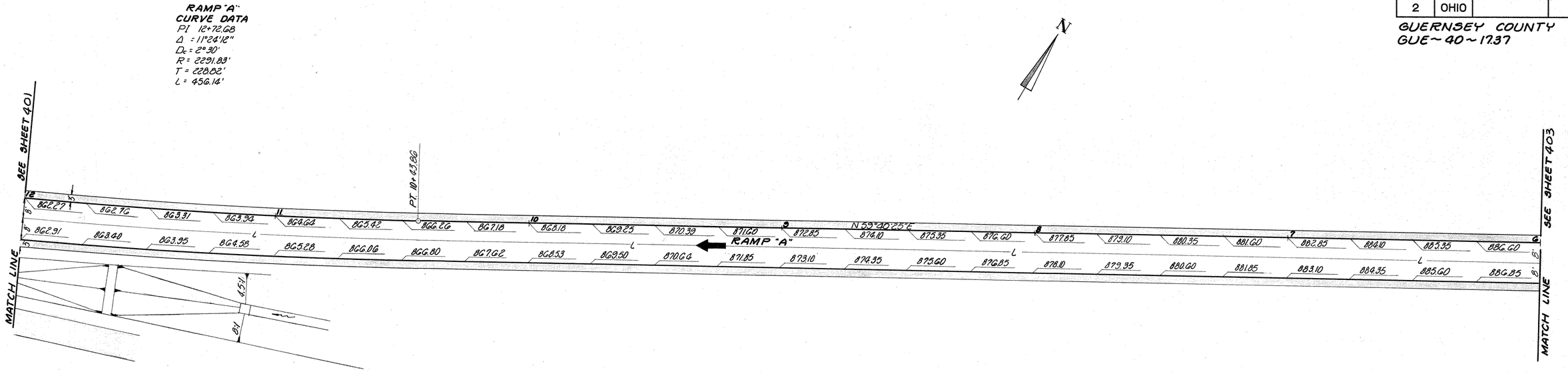
PAVEMENT DETAILS 368 - 374

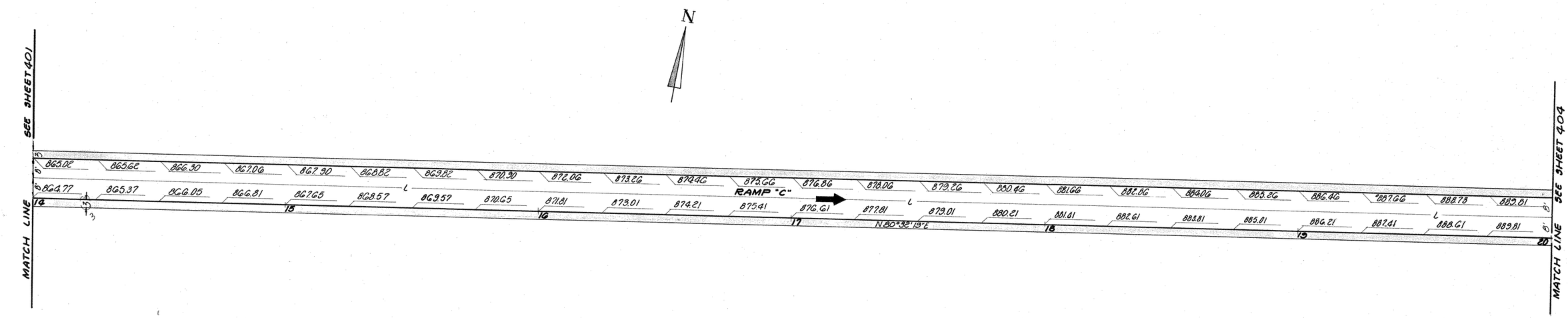
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

402
638

GUERNSEY COUNTY
GUE~40~17.37

RAMP "A"
CURVE DATA
PI 12+72.68
Δ = 11°24'12"
D_c = 2°30'
R = 2291.83'
T = 228.82'
L = 456.14'





PAVEMENT QUANTITIES

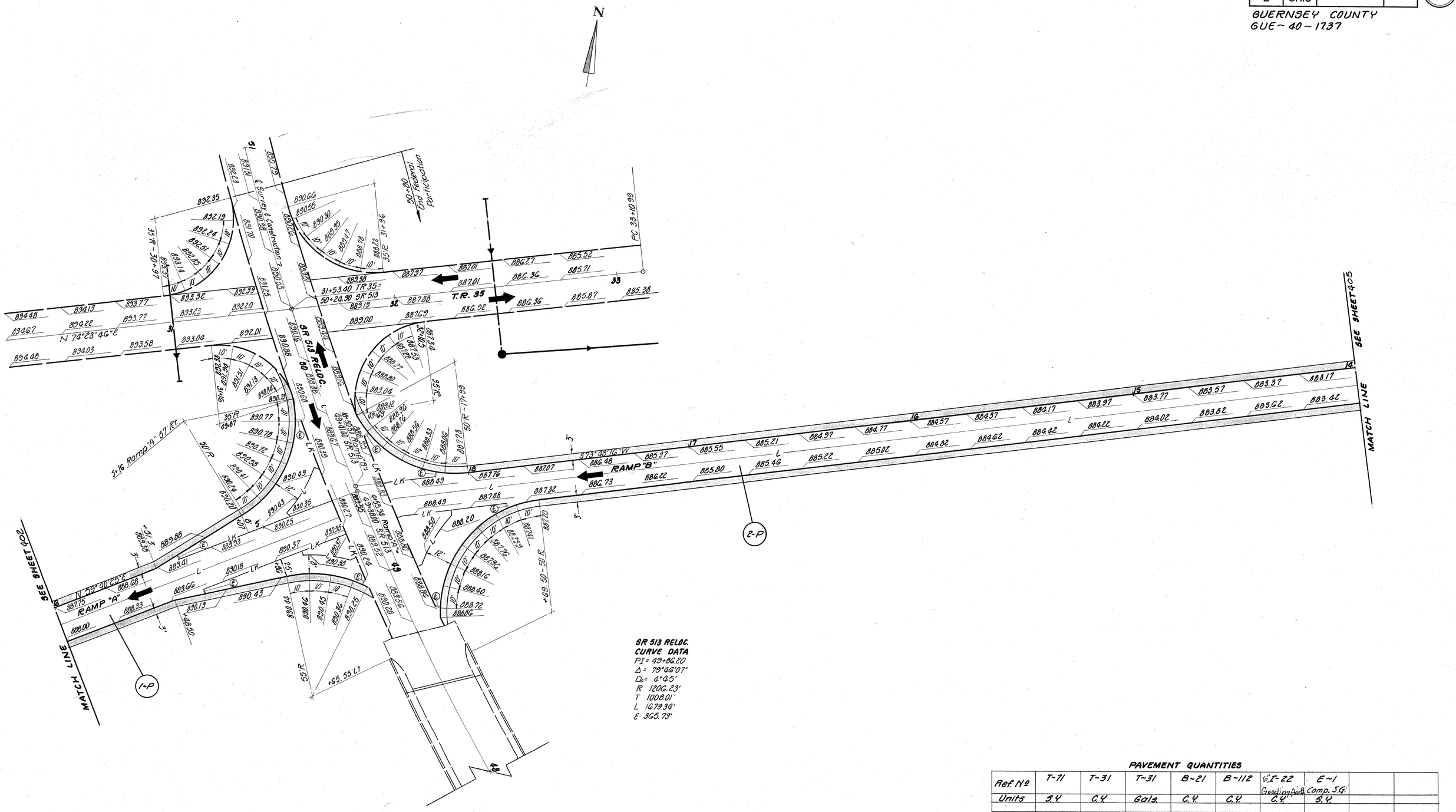
Ref. Nº	T-71 8"	T-31 Nº 6 Agg.	T-31 Bit. Mat.	B-21 8"	B-112	6" I-22 Grading A or B	E-1 Comp. S.G.		
Units	S.Y.	C.Y.	Gals.	C.Y.	C.Y.	C.Y.	S.Y.		
1-P	1067	32	100.0	67	25	244	1667		
2-P	1067	32	100.0	67	25	244	1667		
TOTALS	2134	6.4	200.0	134	50	488	2334		

PAVEMENT DETAILS RAMPS "A" & "C"

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

403
638

GUERNSEY COUNTY
GUE~40~1737



PAVEMENT QUANTITIES

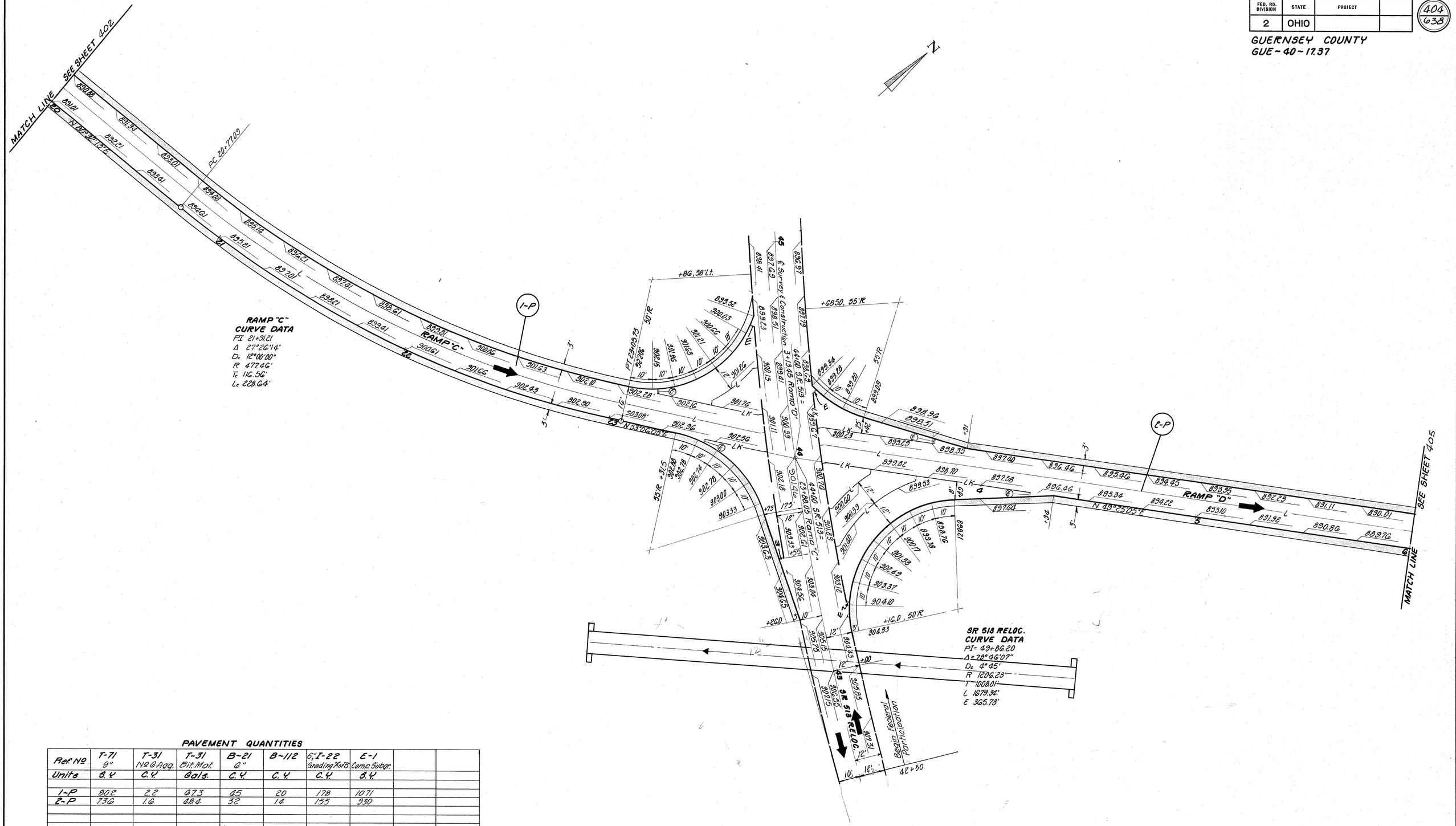
Ref. Nº	T-71	T-31	T-31	B-21	B-112	6"I-22 Grading A or B	E-1 Comp. S.G.		
Units	S.Y.	C.Y.	Gals.	C.Y.	C.Y.	C.Y.	S.Y.		
1-P	414	0.8	25.4	17	7	86	315		
2-P	905	2.4	76.0	51	19	202	1209		
TOTALS	1319	3.2	101.4	68	26	288	1724		

PAVEMENT DETAILS ~ RAMPS "A" & "B"

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

404
638

GUERNSEY COUNTY
GUE-40-17.37



RAMP "C" CURVE DATA
PI 21+91.21
Δ 27°26'14"
Dc 12°00'00"
R 477.46'
Tc 116.56'
Lc 228.64'

SR 513 RELOC. CURVE DATA
PI= 49+86.20
Δ=79°46'07"
Dc 4°45'
R 1206.23'
T 1008.01'
L 1679.34'
E 365.73'

PAVEMENT QUANTITIES

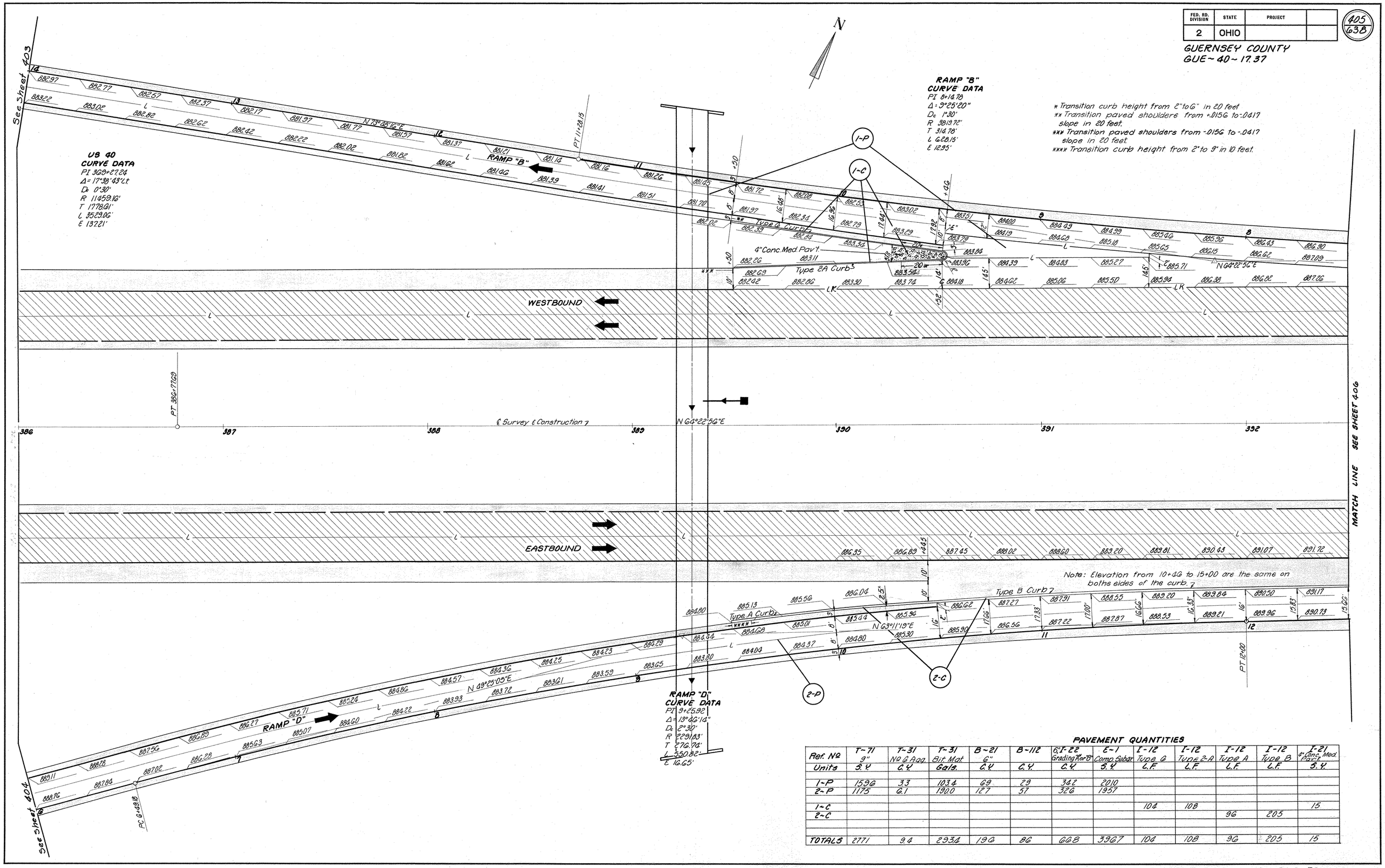
Ref. No	T-71 9"	T-31 No 6 Agg.	T-31 Bit. Mat.	B-21 6"	B-112	6", I-22 Grading "A" or "B"	E-1 Comp. Subgr.		
Units	S.Y.	C.Y.	Gals.	C.Y.	C.Y.	C.Y.	S.Y.		
1-P	802	2.2	67.3	45	20	178	1071		
2-P	736	1.6	48.4	32	14	155	930		
TOTALS	1538	3.8	115.7	77	34	333	2001		

PAVEMENT DETAILS~RAMPS C & D

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

405
638

GUERNSEY COUNTY
GUE~40~17.37



PAVEMENT QUANTITIES

Ref. No	T-71 9"	T-31 No 6 Agg.	T-31 Bit. Mat.	B-21 6"	B-112	6" I-22 Grading "A" or "B"	E-1 Comp. Subgr.	I-12 Type 6	I-12 Type 2-A	I-12 Type A	I-12 Type B	I-21 4" Conc. Med. Pav't.
Units	S.Y.	C.Y.	Gals.	C.Y.	C.Y.	C.Y.	S.Y.	L.F.	L.F.	L.F.	L.F.	S.Y.
1-P	1596	33	103.4	69	29	342	2010					
2-P	1175	6.1	190.0	127	57	326	1957					
1-C								104	108			15
2-C										96	205	
TOTALS	2771	9.4	293.4	196	86	668	3967	104	108	96	205	15

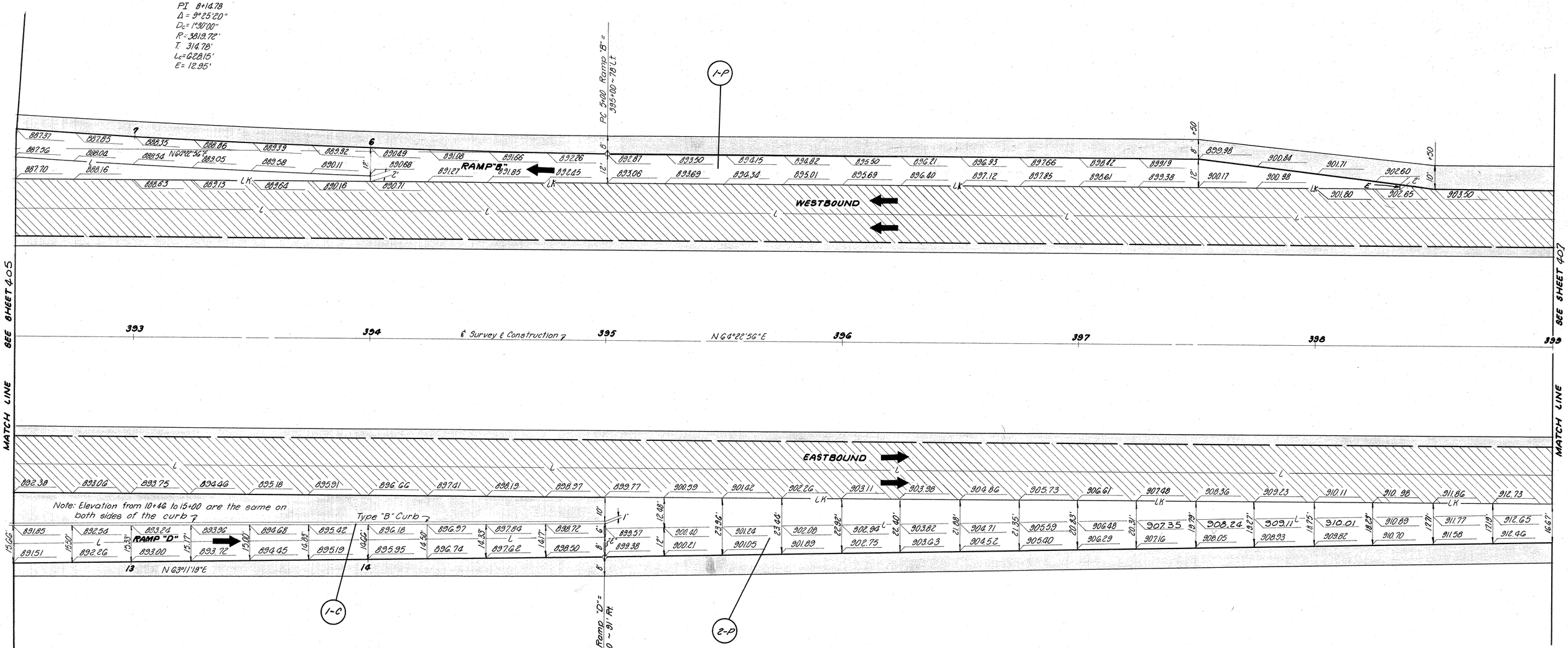
PAVEMENT DETAILS 386+00~392+50

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

406
638

GUERNSEY COUNTY
GUE~40~17.37

RAMP "B"
CURVE DATA
PI 8+14.78
Δ = 9°25'20"
D_c = 1°30'00"
R = 3819.72'
T. 314.78'
L_c = 628.15'
E = 12.95'



PAVEMENT QUANTITIES

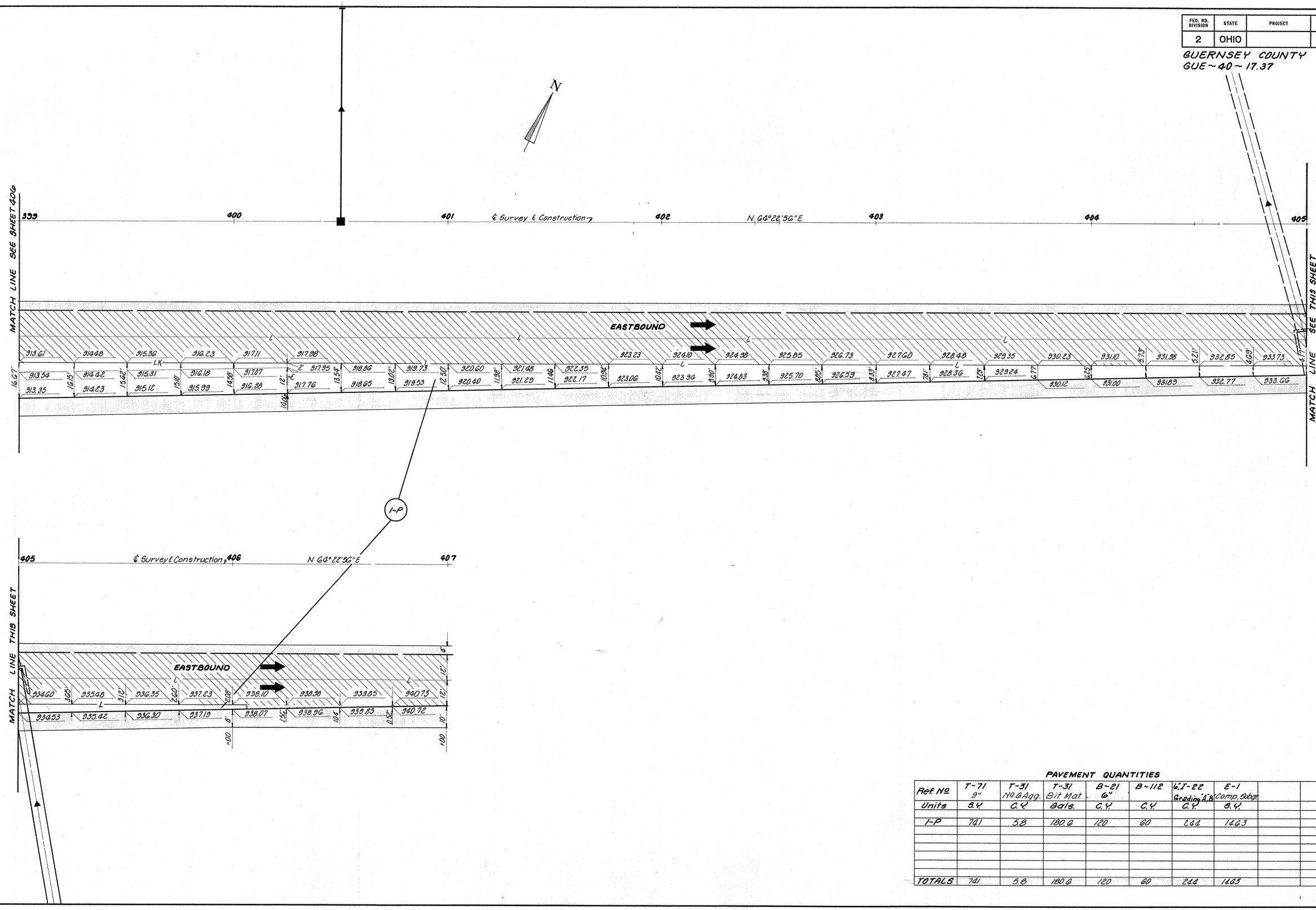
Ref. No	T-71 9"	T-31 No 6 Agg	T-31 Bit. Mat	B-21 6"	B-112	6" I-22 Grading No B"	E-1	I-12 Type B	
Units	S.Y.	C.Y.	Gals.	C.Y.	C.Y.	C.Y.	S.Y.	L.F.	
1-P	832	61	1282	85	63	224	1344		
2-P	1338	70	2176	145	72	373	2235		
1-C								250	
TOTALS	2170	111	3456	230	115	597	3579	250	

PAVEMENT DETAILS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

407
638

GUERNSEY COUNTY
GUE~40~17.37



PAVEMENT QUANTITIES

Ref No	T-71 9"	T-31 No 8 Agg.	T-31 Bit. Mat.	B-21 6"	B-112	6.I-22 Grading A, B	E-1 Comp. Subgr.		
Units	S.Y.	C.Y.	Bals.	C.Y.	C.Y.	C.Y.	S.Y.		
1-P	741	5.8	180.6	120	60	244	1463		
TOTALS	741	5.8	180.6	120	60	244	1463		

PAVEMENT DETAILS 339~407

SEEDING

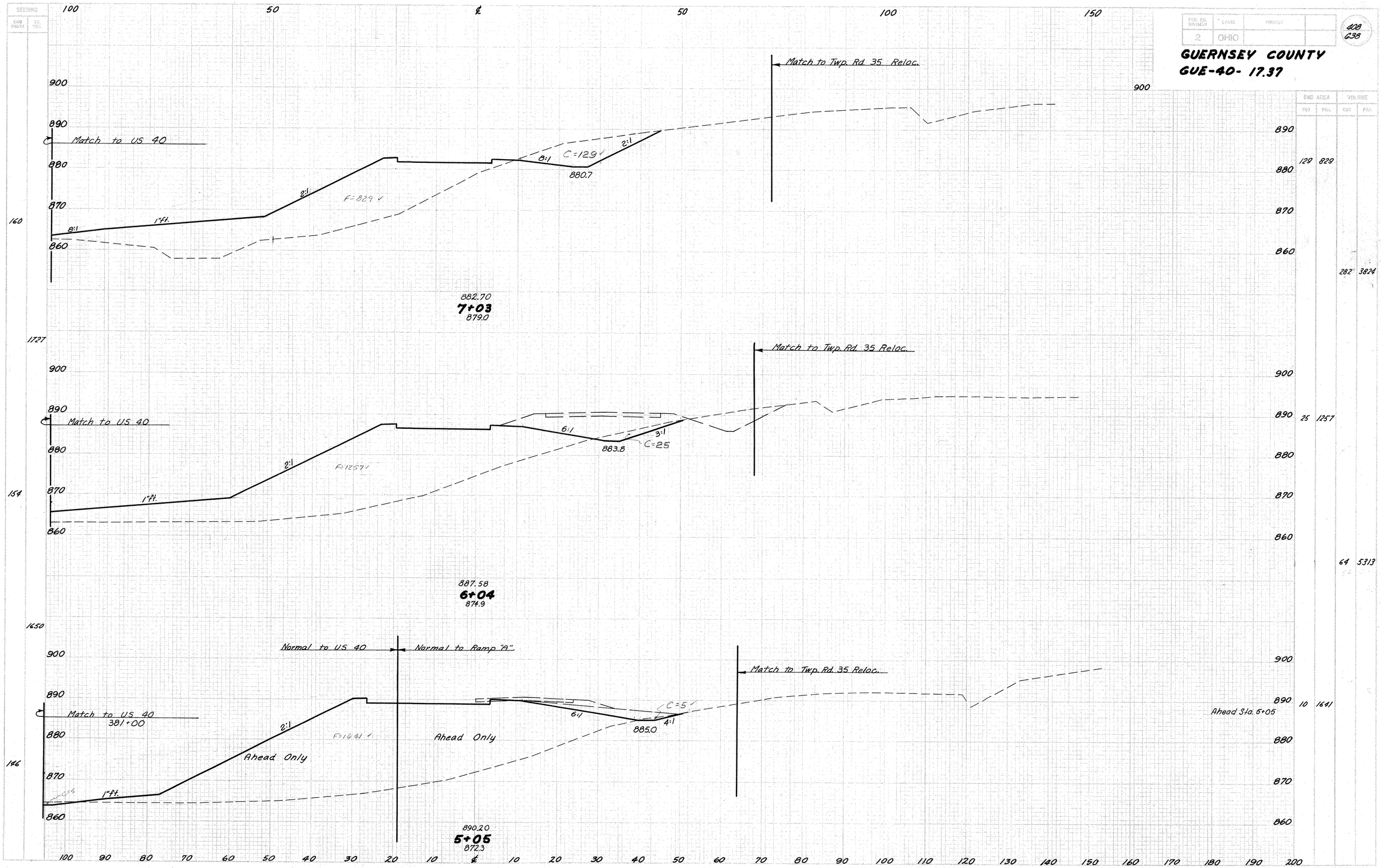
END WIDTH	SQ. YDS.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

409
438

GUERNSEY COUNTY
GUE-40- 17.37

END AREA		VOLUME	
CUT	FILL	CUT	FILL
129	829		
282	3824		
25	1257		
64	5313		
10	1641		



RAMP "A" 5+05 ~ 7+03

SEEDING

END AREA	SQ. YDS.

SHEET NO.	STATE	PROJECT	
2	OHIO		

409
638

GUERNSEY COUNTY
GUE-40-17.37

END AREA		VOLUME	
CUT	FILL	CUT	FILL
1268	393		
		2800	2162
15	763		
		354	2630
176	657		
		571	2779
129	879		

100 50 ℄ 50 100 150

890 880 870 860 850

163

Match to US 40

8:1 8:1 4:1 6:1 2:1

861.59 860.5

C = 1268

F = 393

Emb. as per E-1.02

	END AREA S.F.	VOL. C.Y.
10+05	26	49
9+04	0	

49 Total taken to Sheet 24

1571

Shale & Sandstone
10+05 ~ 13+04

867.97
10+05
867.7

890 880 870 860 850

117

Match to US 40

8:1 8:1 1"ft. 3:1 6:1 6:1

862.08 866.5

F = 703

1422

872.65
9+04
862.2

900 890 880 870 860

139

Match to US 40

8:1 1"ft. 2:1 8:1 2:1

875.5

C = 1264

F = 657

1644

160

Sta. 7+03

877.65
8+04
871.3

Sta. 7+03

100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200

RAMP "A" 8+04 ~ 10+05

SHEETING	
END AREA	VOL.

FED. ROAD DIV. NO.	STATE	SHEET NO.	
2	OHIO		

410
C38

GUERNSEY COUNTY
GUE-40-17.37

END AREA		VOLUME	
CUT	FILL	CUT	FILL

Volume Ahead Included With US 40

Match to US 40
373+00

C=2225

Back Only

6:1

F=21

2:1

857.5

This Section Normal to US 40

861.03
13+04
883.7

L-3 Quantities

	END AREA S.F.	VOL. C.Y.
13+04	23	86
12+05	24	103
11+04	31	105
10+05	26	

294 Total taken to Sheet 24

116

1287

2225 2

6893 0

Match to US 40

C=1535

8:1

8:1

861.50

F=24

6:1

2:1

858.5

118

1535 0

Shale & Sandstone
10+05 ~ 13+04

862.15
12+05
873.4

1496

7478 0

Match to US 40

C=2463

8:1

4.5:1

861.20

F=31

6:1

2:1

859.5

154

1743

163

2463 0

6840 721

1268 393
1268 513

Sta. 10+05

Sta. 10+05

864.53
11+04
880.2

100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200

RAMP "A" 11+04 ~ 13+04

SEALING

END AREA		VOLUME	
CUT	FILL	CUT	FILL

FED. ROAD DIVISION 2 | STATE OHIO | SHEET | TOTAL SHEETS | 411 G38

GUERNSEY COUNTY
GUE-40-17.37

---

100 50 ℄ 50 100 150

Match to US 40 — 8:1 — 873.76 — 1"ft. — 3:1 — F=1165 — 8:1 — Match to Twp. Rd. 35 Reloc. — C=62 — 8:1 — 874.5

890 880 870 — 120 — 1372

883.01
14+05
870.1

Match to US 40 — 8:1 — 8:1 — 875.71 — 1"ft. — 4:1 — F=1197 — 8:1 — Match to Twp. Rd. 35 Reloc. — C=151 — 8:1 — 872.1

890 880 870 860 — 127 — 1319

882.21
13+05
866.8

Average Ahead with 0 cut @ 16'

℄ — C=22 — 2:1 — 2:1 — 866.70

37+29, 35' Rt. T.R. 35 Reloc.

Match to US 40 — 8:1 — 5.75:1 — 877.66 — F=780 — Average Ahead with 13+05 Average Back — Average Ahead with Ditch Sec. 37+24, 35' Rt. (129') Average Back — Var. — ℄ — C=155 — 2:1 — 866.97

890 880 870 — 108 — 1162

881.40
12+04
869.1

Match to US 40 — 8:1 — 8:1 — 879.75 — F=685 — Var. — ℄ — C=173 — 2:1 — 866.84

890 880 870 — 97 — 926

881.25
11+02
868.5

Match to US 40 — Ahead Only — F=132 — 6:1 — C=21 — 6:1 — 876.0 — This Section Normal to US 40

890 880 870 — 68

882.51
10+01
879.4

For Culvert Details See Sheet #

---

100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
62	1165		
		395	4374
151	1197		
		283	3698
		963	
		155	780
		619	2767
		173	685
		363	1528
21	132		
		Ahead	

RAMP "B" 10+01 ~ 14+05

SEEDING
SIG WIDTH 36 SIG TOE

100 50 ℄ 50 100 150

SHEET	STATE	PROJECT	NO.
2	OHIO		

612
638

GUERNSEY COUNTY
GUE-40- 17.37

END AREA: CUT | FILL — VOLUME: CUT | FILL

64

Match to US 40

Volume Ahead Included With S.R. 513 Reloc.

Match to Twp. Rd. 35 Reloc.

890 / 880 / 870 / 860

8:1 — 1"/ft. — Var. — 8:1 — 884.0 — 8:1

F=1420

Back Only

784

887.76
18+01
873.3

END AREA 0 1420 — VOLUME 0 4824

80

Match to US 40

Match to Twp. Rd. 35 Reloc.

890 / 880 / 870 / 860

8:1 — 2:1 — 1"ft. — 8:1 — 882.0 — 8:1

F=1238 ✓

924

885.59
17+03
869.2

END AREA 0 1238 — VOLUME 0 4715

88

Match to US 40

Match to Twp. Rd. 35 Reloc.

890 / 880 / 870 / 860

8:1 — 2.5:1 — 1"ft. — 4:1 — 876.2 — 3:1

F=1334 ✓

884.60
16+04
867.5

END AREA 0 1334 — VOLUME 50 4735

101

Match to US 40

Match to Twp. Rd. 35 Reloc.

890 / 880 / 870 / 860

8:1 — 872.0 — 3:1 — 1"ft. — 6:1 — 875.9 — 5:1

F=1223 ✓

1215

883.80
15+04
868.7

END AREA 27 1373 — VOLUME 163 4378

120

Sta. 14+05

100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200

Sta. 14+05

END AREA 62 1165

RAMP "B" 15+04 ~ 18+01

SEEDING

END WIDTH	SQ. YDS.
154	
1656	
144	
1678	
158	
1706	
149	
1471	
129	

FED. AID PROJECT	STATE	PROJECT	
2	OHIO		

413
638

GUERNSEY COUNTY
GUE-40-12.37

END AREA		VOLUME	
CUT	FILL	CUT	FILL
328	301		
		1157	978
297	227		
		1222	741
363	173		
		1376	604
380	153		
		1343	762
381	279		
		1163	540
220	0		

100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200

Match to U.S. 40
8:1 8:1 9.4:1 G:1 G:1
862.04
F=301
862.5
867.65
15+00
863.0
2:1 2:1
1:1 1:1
Shale & Sandstone
853.5

Match to U.S.40
8:1 10.5:1 G:1 G:1
861.56
F=227
861.0
864.77
14+00
860.5
2:1 2:1
1:1 1:1
Shale & Sandstone
853.0

Match to U.S.40
861.16
2:1 8:1 6:1
F=173
860.0
222'-24" @ 0.68%
373+00, 95' Rt.
No. 5 C.B. Mod.
Grate 860.91
Inv. 24" 854.43
Inv. 36" 854.43
132'-36" @ 0.70% M6.6 (a) or M6.8 (b) Cl. J-1
J-1
863.17
13+00
860.0
2:1 2:1
852.5
13+02, 90' Rt.
Inv. 36" 853.5
Type "C" H.W.

Match to U.S.40
11:1 11:1
861.70
F=153
6:1 6:1
859.7
Shale & Sandstone
11+00 ~ 12+00
862.69
12+00
860.1
End Sod Sta 12+00
2:1 2:1
852.0

Match to U.S. 40
371+00
12" Inv.
858.20
Ahead only
60'-12" @ 0.6%
This section is normal to U.S.40
Volume back is included with U.S. 40
Length of volume ahead = 95.3 ft.
Begin Sod Sta. 11+07
Length ahead from 11+00 to 12+00 = 80 ft.
100 LF 36" Cl. J-1
Inv. 857.00
Type "C" H.W.
0:1
2' Outlet Ditch @ 0.30%
Dumped Rock Channel Prot.
857.40
862.37
11+04
856.1
Length of Volume Back = 104.5'
2:1 2:1
851.5
Channel at 370+00

RAMP "C" 11+04 ~ 15+00

SPACING

END WIDTH | NO. STA.

FED. HWY. DIVISION 2 | STATE OHIO | PROJECT

414
638

GUERNSEY COUNTY

GUE-40-17.37

END AREA: CUT | FILL — VOLUME: CUT | FILL

100 50 ℄ 50 100 150

890 / 880 / 870 / 860

Match to U.S.40 — 1"/ft. — 3:1 — 6:1 — 2:1 — 1:1 — 2:1

141 — F=886 — C=876 — Shale & Sandstone

881.41
18+00
870.6
855.0

880 876 886 — 870 — 860 1367 1503

769

Match to U.S.40 — 1"/ft — 3.5:1 — 6:1 — 2:1 — 1:1 — 2:1

136 — F=737 — C=600 — Shale & Sandstone

879.01
17+50
869.4
854.75

890 — 880 600 737 — 870 — 860 1055 1233

747 767

Match to U.S.40 — 1"/ft. — 4:1 — 6:1 — 2:1 — 1:1 — 2:1

133 — F=594 — C=539 — Shale & Sandstone

876.61
17+00
869.0
854.5

890 539 594 — 880 — 870 — 860 1741 1926

1544

Match to U.S.40 — 1"/ft — 6:1 — 6:1 — 1½"/ft. — 2:1 — 2:1

145 — F=446 — C=401 — Shale & Sandstone

871.81
16+00
866.3
854.0

890 401 446 — 880 — 870 — 860 1350 1382

1661 154

Sta. 15+00 — Sta. 15+00

100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 60 70 80 90 100

328 301

DES.	CHK.	DATE
AMS	A.M.S.	4-7-62
AMS	A.M.S.	5-3-62
T.M.P.		11/28/62
T.M.P.		4/9/63

RAMP "C" 16+00 ~ 18+00

SEEDING

END WIDTH	SQ. YDS.
186	
173	
158	
150	
141	

FED. DIVISION	STATE	PROJECT	
2	OHIO		

415
638

GUERNSEY COUNTY
GUE-40-17.37

END AREA		VOLUME	
CUT	FILL	CUT	FILL
2384	106		
4153	238		
2101	151		
3486	488		
1663	376		
2762	1111		
1320	824		
2034	1584		
876	886		

100 50 ℄ 50 100

891.01
20+00
888.7

Match to U.S. 40
1"/ft.
C=261
2:1
F=106
6:1
Shale & Sandstone
C=2123
1:1
1:1
2:1
856.0

888.61
19+50
885.6

Match to U.S. 40
1"/ft.
2.3:1
F=151
C=101
6:1
Shale & Sandstone
C=2090
1:1
1:1
2:1
855.75

886.21
19+00
880.7

Match to U.S. 40
1"/ft.
2.5:1
F=376
6:1
Shale & Sandstone
C=1963
1:1
1:1
2:1
855.5

883.81
18+50
873.7

Match to U.S. 40
1"/ft.
3:1
F=824
6:1
Shale & Sandstone
C=1320
1:1
1:1
2:1
855.25

Sta 18+00

130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

Sta 18+00

RAMP "C" 18+50 ~20+00

SEEDING	
END AREA	YD. YDS.

FED. ROUTE NUMBER	STATE	PROJECT	
2	OHIO		

416
638

GUERNSEY COUNTY
GUE-40-17.37

END AREA		VOLUME	
CUT	FILL	CUT	FILL

150 100 50 ℄ 50 100

Length of fill = 47 ft.

900
890
Match to U.S. 40
880
232
870
1"/ft.
2:1
F=1315
3.5:1
Shale & Sandstone
C=1868
1:1
1:1
2:1
900
890
1868 1315
880
870
3636 2328
900.61
22+00
886.0
852.0

Length of fill = 45 ft.

1261
900
890
Match to U.S. 40
880
222
870
1"/ft.
2:1
F=1978
4:1
Shale & Sandstone
C=1517
1:1
1:1
2:1
900
1517 1478
890
880
3653 1786
870
898.21
21+50
881.8
856.75

Length of fill = 46 ft.

1203
900
890
Match to U.S. 40
880
211
870
1"/ft.
F=34
C=60 Average Ahead 23'
2:1
F=584
5:1
Shale & Sandstone
C=1860
1:1
1:1
2:1
900
1920 618
890
880
4253 773
870
895.81
21+00
886.3
856.5
Residence

1131
900
890
Match to U.S. 40
880
196
1056
870
C=125 1"/ft.
F=21
2:1
F=196
6:1
Shale & Stone
C=2218
1:1
1:1
1:1
1:1
2:1
900
2347 217
890
880
4381 299
870
2384 106
893.41
20+50
889.3
856.25
186
Sta. 20+00
Sta. 20+00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

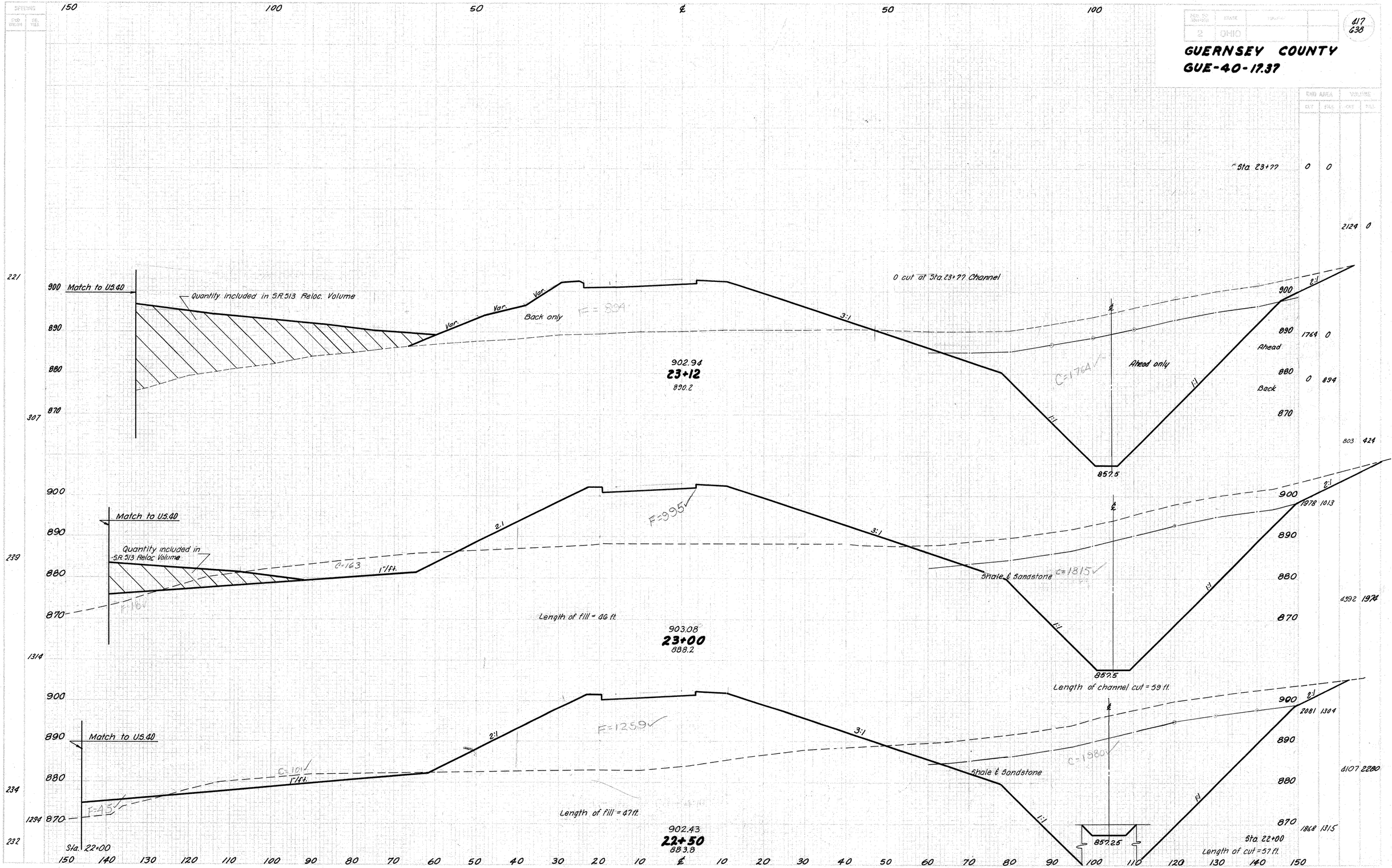
RAMP "C" 20+50 ~ 22+00

SHEET NO.	STATE	PROJECT	
2	OHIO		

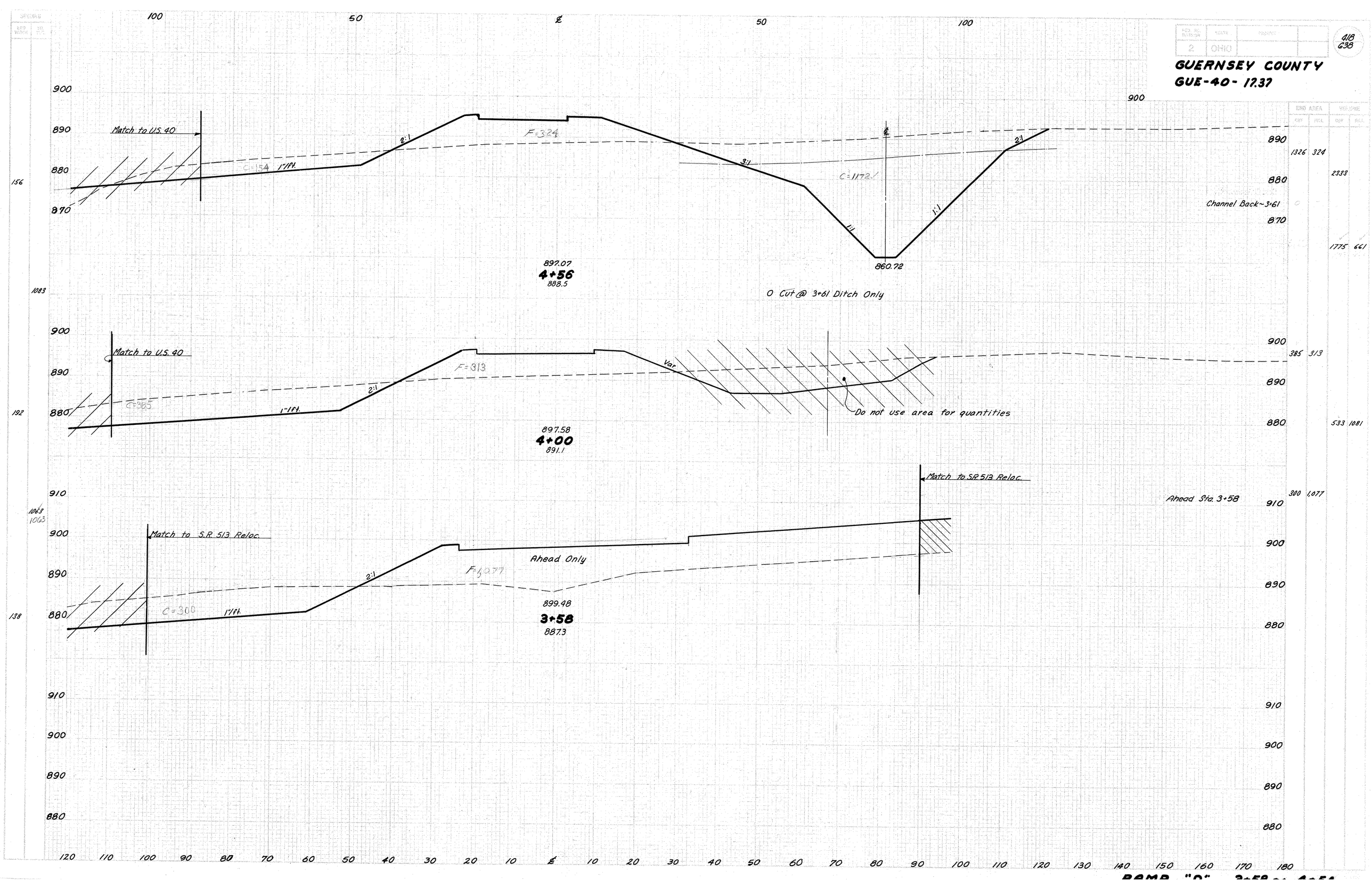
617
638

GUERNSEY COUNTY
GUE-40-17.37

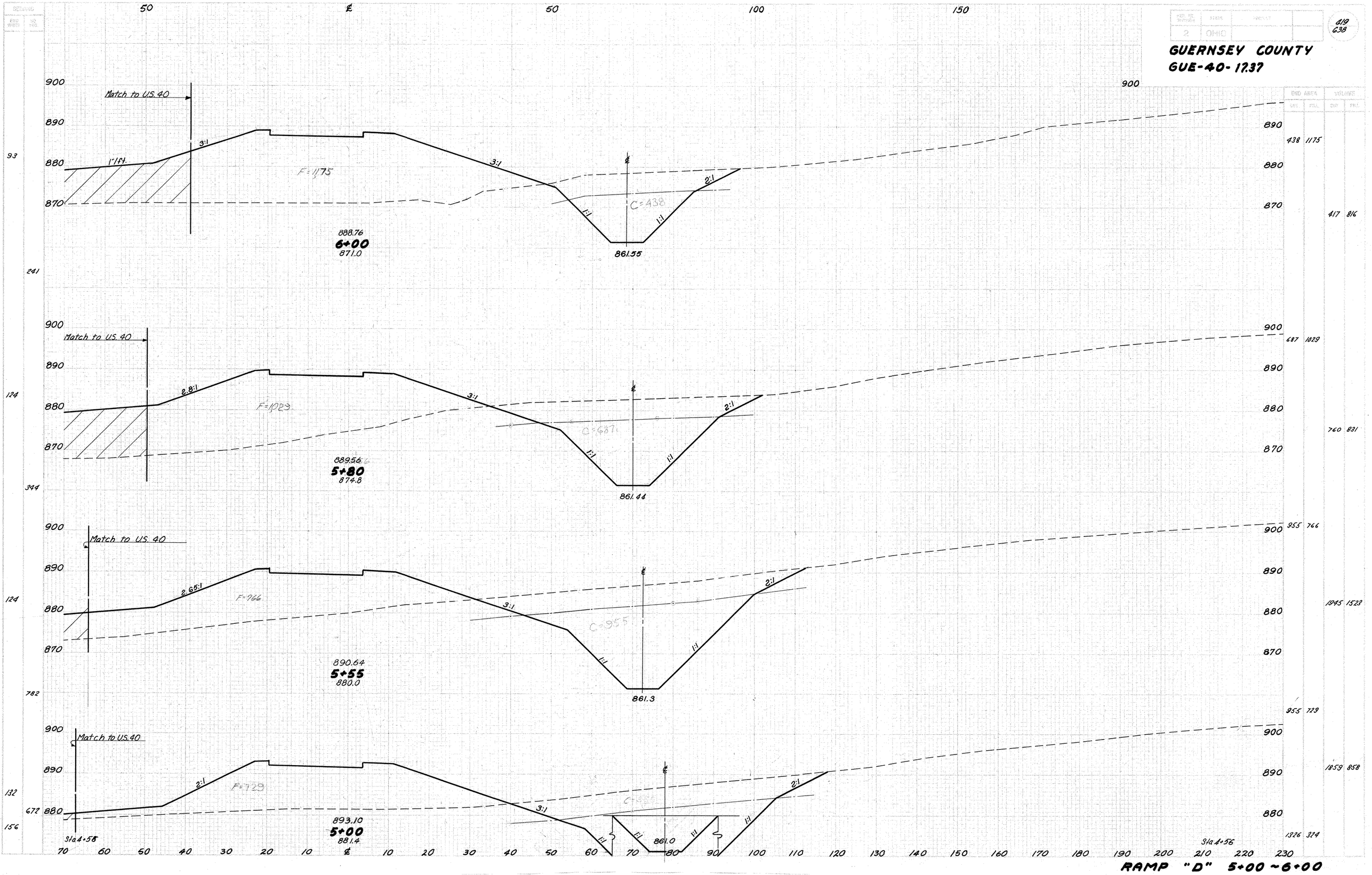
BY	DATE
EXISTING PLOTTED	RMS 4-22-66
EXISTING CHECKED	RMS 5-3-66
TEMPLATE ADOPTED	DJ 5-7-66
TEMPLATE CHECKED	
LINES & GRADES SET	
RIGHT OF WAY DETERMINED	
SECTIONS CHECKED	WP



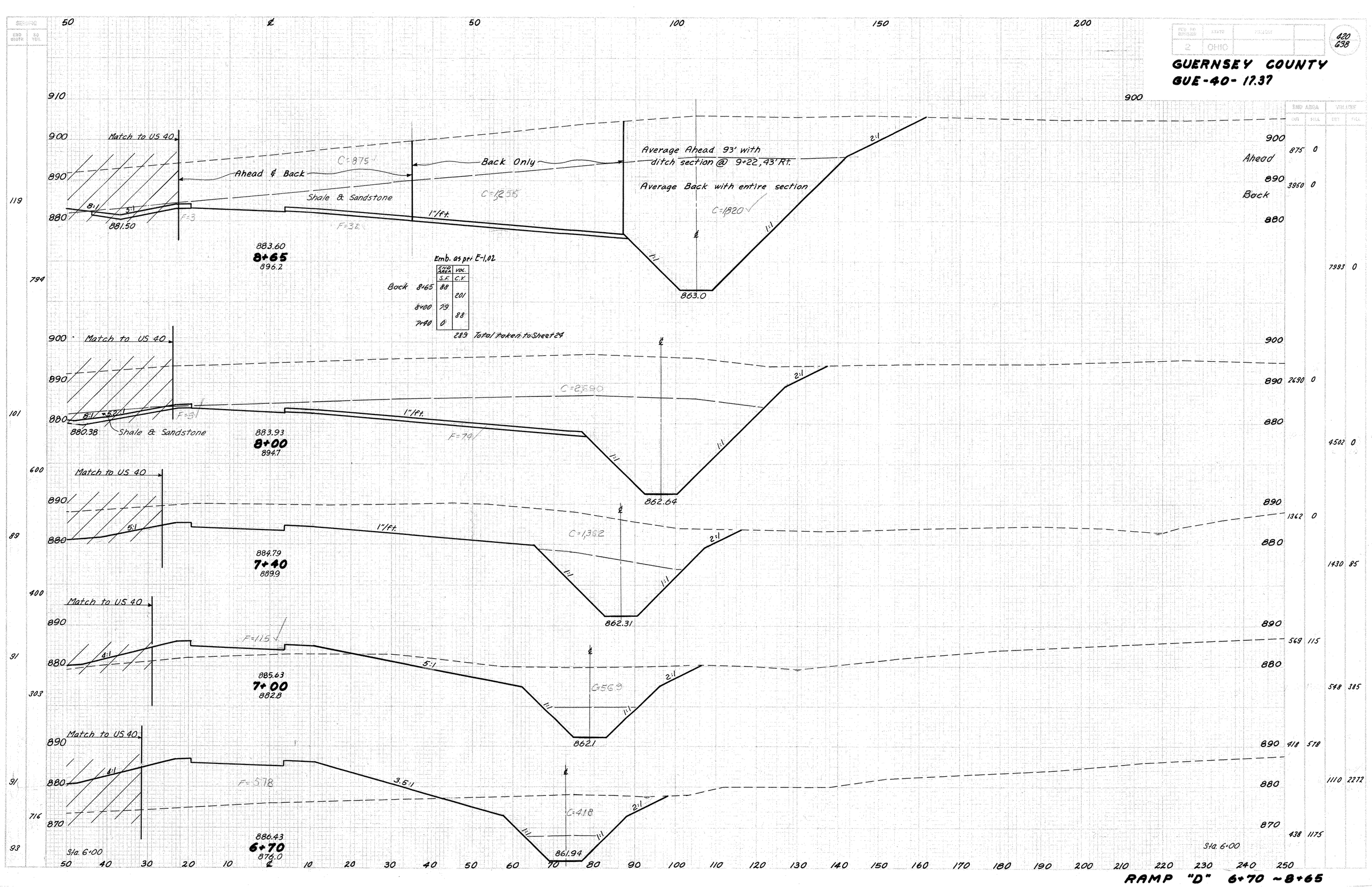
RAMP "C" 22+50 ~ 23+12



2
OHIO
418
638
GUERNSEY COUNTY
GUE-40- 17.37
Match to U.S. 40
F=324
C=154
1"/ft.
2:1
3:1
1:1
C=1172
897.07
4+56
888.5
860.72
0 Cut @ 3+61 Ditch Only
Channel Back~3+61
1326 324
2333
1775 661
Match to U.S. 40
F=313
C=385
Var
Do not use area for quantities
897.58
4+00
891.1
385 313
533 1081
Match to S.R. 513 Reloc.
Ahead Sta. 3+58
300 1,077
Match to S.R. 513 Reloc.
Ahead Only
F=1,077
C=300
899.48
3+58
887.3
156
1083
192
1063
138



GUERNSEY COUNTY
GUE-40-17.37
419
638
Match to U.S. 40
F=1175
C=438
888.76
6+00
871.0
861.55
F=1029
C=687
889.56
5+80
874.8
861.44
F=766
C=955
890.64
5+55
880.0
861.3
F=729
893.10
5+00
881.4
861.0
Sta 4+58
Sta 4+56
END AREA
VOLUME
CUT
FILL
438 1175
417 816
687 1029
760 831
955 766
1945 1523
955 729
1859 858
1326 324
RAMP "D" 5+00 ~ 6+00



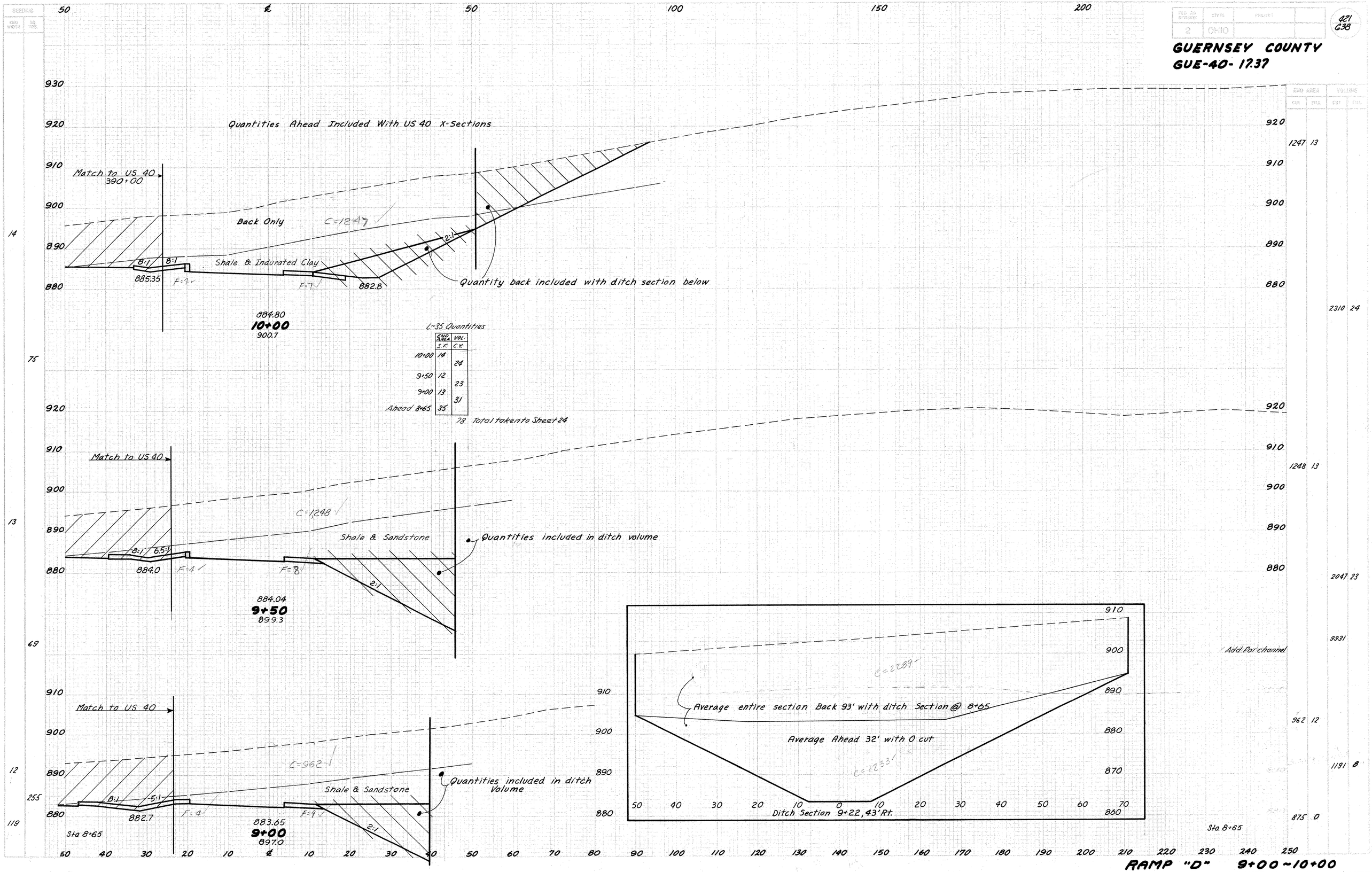
Emb. as per E-1,02

	END AREA S.F.	VOL. C.Y.
Back 8+65	88	
		201
8+00	79	
		88
7+40	0	

289 Total taken to Sheet 24

	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
Ahead	875	0		
Back	3950	0		
			7993	0
	2690	0		
			4502	0
	1362	0		
			1430	85
	569	115		
			548	385
	418	578		
			1110	2272
	438	1175		

RAMP "D" 6+70 ~ 8+65



GUERNSEY COUNTY
GUE-40-17.37
421
638
Quantities Ahead Included With US 40 X-Sections
Match to US 40
390+00
Back Only
C=1247
Shale & Indurated Clay
8:1
8:1
885.35
F=2
F=7
882.8
2:1
Quantity back included with ditch section below
884.80
10+00
900.7
L~35 Quantities
END AREA S.F.
VOL. C.Y.
10+00 14
24
9+50 12
23
9+00 13
31
Ahead 8+65 35
78 Total taken to Sheet 24
Match to US 40
C=1248
Shale & Sandstone
Quantities included in ditch volume
8:1
6.5:1
884.0
F=4
F=8
2:1
884.04
9+50
899.3
Match to US 40
C=962
Shale & Sandstone
Quantities included in ditch Volume
8:1
5:1
882.7
F=4
F=9
2:1
883.65
9+00
897.0
Sta 8+65
C=2289
Average entire section Back 93' with ditch Section @ 8+65
Average Ahead 32' with 0 cut
C=1233
Ditch Section 9+22, 43' Rt.
Add for channel
Sta 8+65
1247 13
2310 24
1248 13
2047 23
9931
962 12
1191 8
875 0
RAMP "D" 9+00~10+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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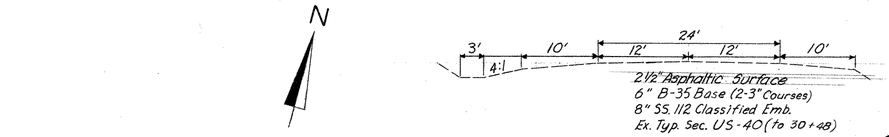
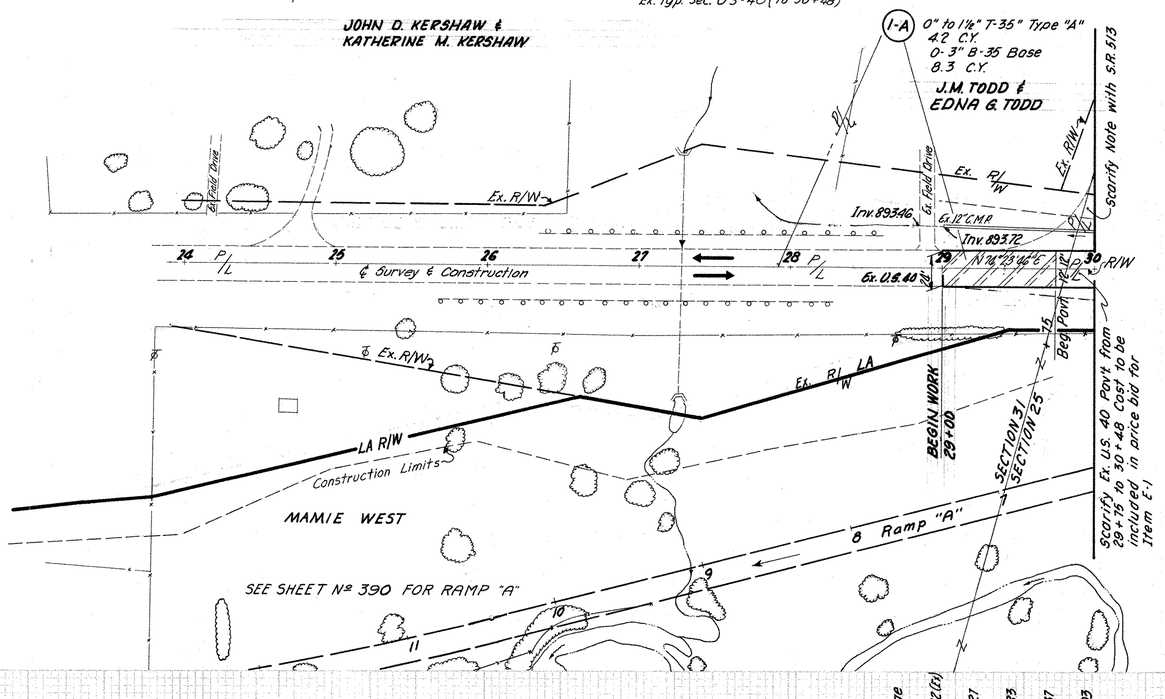
GUERNSEY COUNTY GUE-60-17.37

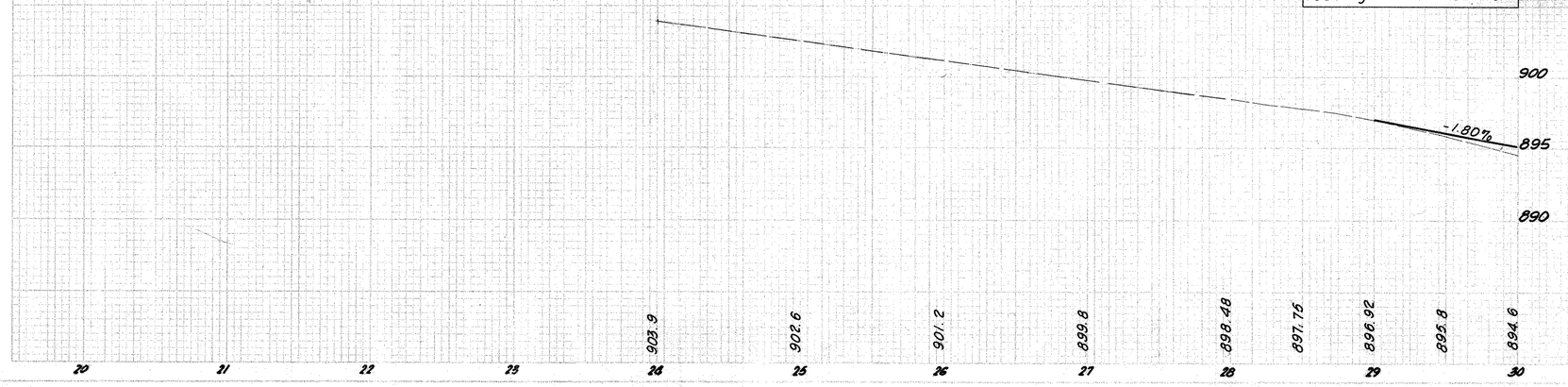
0-1½" T-35 (Type "A")
0-3" B-35 Base





		Lt edge	Profile	Rt. edge
29+00		896.72(Ex)	896.92(Ex)	896.75(Ex)
29+15		896.27	896.47	896.29
29+50		895.83	896.02	895.84
29+75		895.37	895.57	895.38
30+00		894.93	895.12	894.93

Excavation	250 C.Y.
Embankment	7 C.Y.
Embankment +12%	8 C.Y.
Seeding	666 S.Y.



ESTIMATED QUANTITIES

SIDE	STATION TO STATION	T-35 0"-1½" TYPE "A" C.Y.	B-35 0" to 3" Base Course C.Y.
	UNITS		
Rt.	29+00 to 29+75	4.2	8.3
	TOTALS	4.2	8.3

Twp. Rd. 35 Reloc 20+00 to 30+00

J.M. TODD & EDNA G. TODD

SEE SHEET No 366 FOR S.R. 513 RELOCATION

24'
12' 12'
9"-T-71 Pavement
Ex. Typical Section
Ex. US 40, 30+98 Ahead

Ex. R/W
SEC. 31
SEC. 25
Ex. R/W

1-D 3+00 to 32+45 Lt. L-10, 117 S.Y. Sod

To be abandoned

78° 23' 16" Tan. to Curve

End Sod Quant. Rt & Lt. See S.R. 513 Reloc.

UTILITIES
Home Telephone Co.

2-D 31+00
D.A. = 0.8 Ac. Q10 = 2.9 cfs.
I-1, 52'-15" Class A-1
M-6.6(a) or M6.8(b)
2 Type HW-E Head walls
I-2 0.52 C.Y. Masonry

P.K. in Tele. pole
P.K. in end G.R. post
P.K. in top of corner post
P.O.T. 30+44.61

MAMIE WEST

1-G 31+00 to 37+75 I-15 Guard Rail Removed & Rebuilt 675 L.F.

Ramp '1A'

1-R 32+45 30' Rt. S-24 Remove Ex. C.B.

3-D 32+45 to 34+10
I-1, 158'-18" Class E-1
HW-E Headwall
I-2, 0.3 C.Y. Masonry
I-8, 1 No. 1 M.H.
I-10, 43 C.Y. D. Rock Ch. P.

5-D 30+00 to 36+40
I-9, 220 L.F.

4-D 35+90 to 36+08
I-1, 18'-8" Class B-1
I-8, 1, 2-2-B C.B.

2-A 36+40 to 36+75
0" to 2" T-35, 2.5 C.Y.
36+05 to 36+75
1¼" T-35 2.2 C.Y.
T-30, Prime Coat 27 Gal.
6"-B-19, 11 C.Y.
5" I-22, 8.3 C.Y.

1-A 33+01 Lt.
12' Type 2 Res. Drive & Mail Box Approach
12' Lt. to 32' Lt.
5" B-19, 12 C.Y.
2" T-35 (1" Courses) 4.6 C.Y. Type "C"
32' Lt. to 60' Lt.
8"-B-19, 8.3 C.Y. Stabilized with calcium chloride 428 S.Y.

3-G 36+72 to 37+72 Rt. I-15, 100 L.F. G. Rail

2-R 30+48 to 40+00 Rt. as shown
Remove Ex. Pov't including Approach
E-8, 2760—S.Y.

2-G Ex. US 40 @ Culvert
1-15 Guard Rail Removed & Rebuilt
100 L.F.

Feathered Area
0-2" T-35 Type "A"

1¼" T-35 Type "A"
T-30, 0.4 gal/sq.
6"-B-19
5" I-22

Remove Ex. Pov't

24'
10 Bit Seal Coat
.24 Crushed Stone
.80 Sand Stone
Ex. Typical Section
Old National Road

P.I. 35+08.43
P.K. in tele. pole
Hub
P.K. in post
P.K. in G.R. post

S.R. 513 RELOC. CURVE DATA
P.I. 49+86.20
Δ = 79°46'07"
D = 4°45'
R = 1206.23'
T = 1008.00'
L = 1679.34'
E = 365.73'

TWP. RD. 35 RELOC. CURVE DATA
P.I. 34+09.96
Δ = 9°52'10"
D = 5°00'
R = 1145.92'
T = 98.97'
L = 197.44'
E = 4.27'

P.I. 34+09.96 P.K.
19.65 23.70 19.70
P.K. in top of G.R. posts

P.C. 33+10.99 P.K.
19.70 23.65
P.K. in top of G.R. posts

WILLIAM E. & ALICE GEORGE

JAMES H. HAGUE & BETTY LEE HAGUE

EMMA GEORGE & MARGARET BALES

Fr. Barn
Fr. Res.
Ex. Res. Dr.
Ex. 8" Conc.
Inv. 881.32
Ex. 8" Tile to Remain
Ex. 8" Tile to remain
Ex. 10" Tile
Ex. 4" Basement Drain
Basement House
2-8H Ex. C.B.
Frame Res. & Store
Ex. 4"
Ex. Conc. Walk
LA-Ex. R/W
Construction Limit
F.L. Ex. 8" (N) 815.48
F.L. Prop 8" (E) 814.93
Pt. 35+08.43

TWP. RD. 35 RELOC. Ex. 8" 814.24

Old National Road
N 64° 21' 26" E
Survey & Const't Wire G.R.
12" CMP
Ex. 9'x6' Box Culvert
End G.R.
Ex. C.B. to be removed
Steel Beam G.R.
158'-18" Cl. E-1
Inv. 873.76
P.I. 34+00.38 Rt.
Inv. 18" 875.38 H.W.-E Headwall
To be abandoned
Quantities Carried with 4-D See Culvert Detail Sht. 549
Ex. Res. Drive (To be abandoned)
Ex. 8" Tile @ 3.85%
Ex. 9'x6' Box Culvert
Ex. 8" Tile
Ex. Inv. 867.08
Ex. Inv. 870.70
Ex. 24" dead tree
Ex. Inv. 867.08
Ex. 24" Tile
Ex. 24" Tile
Ex. 24" Tile

GUERNSEY COUNTY GUE-60-17.37

UTILITIES
Home Telephone Co.
Guernsey Muskingum Elect. Coop. Inc.

P.K. in top of Post Wheel
P.K. Nail
P.K. in G.R. Post
P.K. in G.R. Post
19.91
21.62
13.13
P.I. 41+32.51

16'
.10 Bit Seal Coat
.24 Crushed Stone
.80 Sand Stone
Ex. Typical Section Old National Road

N

LEGEND
Scarify

SECTION 26
SECTION 25
36" Elm
Ex. Elec. Drive
Ex. 24" Metal Pipe Drive
Ex. 12" C.M.P.
Inv. 874.43
Inv. 873.95
6" C.I.P.
Ex. 10" Wood Post
Inv. 872.63
LA-Ex R/W
Inv. 873.68
Ex. 16" C.I.P.
Inv. 872.00
Ex. Wire C.R.
Inv. 872.48
C. 16" C.I.P.
Inv. 870.90
Ex. Old National Road
R/W
Scarify Ex. Pav't. as shown
Construction Limits
R/W
Inv. 871.16
Inv. 874.01
CHANNEL RELOCATION
48'
15'
48+00 Ahead
LA-Ex. R/W
LA
Billboard
N 64° 31' 26" E
N 64° 29' 56" E
℄ Const.
℄ R/W

1-D DOROTHY D. FANTA & LAWRENCE H. HADLEY

2-D 44+20 to 50+00
L-10, 774 S.Y. Sod

3-D 44+00 to 50+00
I-9, 192 L.F.

WILLIAM E. & ALICE GEORGE

HARLAN E. MARKEE & VIRGIE L. MARKEE

To be abandoned
Ex. U.S. 40
Ex. Pav't. Removed with ℄
Ramp 18'
LA Ex. R/W
Westbound Lane

STRUCTURE T.R.35 RELOC.
Station 44+25
Proposed 36" Culvert
See Sheet No. 534

SEE SHEET No. 395 FOR RAMP "B" S.R. 513 INTER.

BM 228-D Elev. 874.71
U.S. 65 M-69-N.W. corner of bridge abutment on U.S. 40 at S.R. 513 South 226' Lt. Sta. 389+72

BM 231 Elev. 897.87
M.S. in power pole 2047/9 26' Rt. Sta. 62+25 T.R. 35 Reloc.

Profile

876.79 (Ex) 876.96 877.13 877.30 877.47 877.64 877.81 878.00 878.23 878.50 878.81 879.14 879.47 879.80 880.13 880.46 880.19 881.12 881.45 881.78 882.11 882.44 882.77 883.10 883.43

Excavation	1869 C.Y.
Embankment	1729 C.Y.
Embankment +12%	1936 C.Y.
Seeding	5334 S.Y.

100' V.C.
P.V.I. 46+00
P.V.I. El. 878.15
+0.68 %
+1.32 %
Ex. 16"
Ex. 16"
Prop. 36"

890 885 880 875 870

875.7 875.9 876.1 876.2 876.79 878.4 879.9 (+.88) 878.5 876.3 (+.42) 877.8 880.4 (+1.5) 877.5 (+.30) 876.8 873.0 (+.49) 876.4 (+.95) 876.4 873.3 (+.28) 877.2 (+.59) 877.8

40 41 42 43 44 45 46 47 48 49 50

ESTIMATED QUANTITIES

SHEET NO.	STATION TO STATION	SIDE	ITEM	UNITS	1-D 44+25 to 50+00 Rt.	2-D 44+20 to 50+00 Lt.	3-D 44+00 to 50+00 Rt.
E-3			Channel Exc.	C.Y.	37		37
I-9			Stone Underdrains No. 2	L.F.	192		192
L-10			Sod	S.Y.		774	774
I-2			Masonry M-66.0 or M-66.1 Class A-1	C.Y.		1.18	1.18
I-1				L.F.		52	52

Twp. Rd. 35 Reloc. 40+00 to 50+00

Drawer 9

PER RD DIVISION	STATE	SECTION	
2	OHIO		

425
638

GUERNSEY COUNTY GUE-40-17.37

DOROTHY D. FANTA &
LAWERENCE H. HADLEY

P.K. in old fence post.
Hub
P.K. in Post
P.K. in Post.
85.89'
84.90'
94.73'

P.C. 56+62.22

T.R. 35 RELOC.
CURVE DATA
P.I. 59+96.21
Δ = 60°28'42"
D = 10°00'
R = 572.96'
T = 333.99'
L = 604.78'
E = 90.04'

Tacked Hub
Hub
Tacked Hub
16.73'
6.65'
22.74'
Tacked Hub
P.I. 59+96.21

HARLAN E. MARKEE &
VIRGIE L. MARKEE

1-A
54+50 Lt.
12' Type 2 Field Dr.
8' Lf. to 118' Lf.
6" B-19, 29 C.Y.

Ex. Field Dr.

1-D 50+00 to 54+00
L-10, 533 S.Y.

1-G 55+44 to 56+44 Rt.
55+56 to 56+56 Lt.
I-15, 200 L.F. G. Rail

3-D 50+00 to 60+00
I-9, 360 L.F.

4-D 56+12 to 60+00 Rt.
L-10, 730 S.Y. / Sod

2-D

I-15
Guard Rail
3 Wire
L.F.

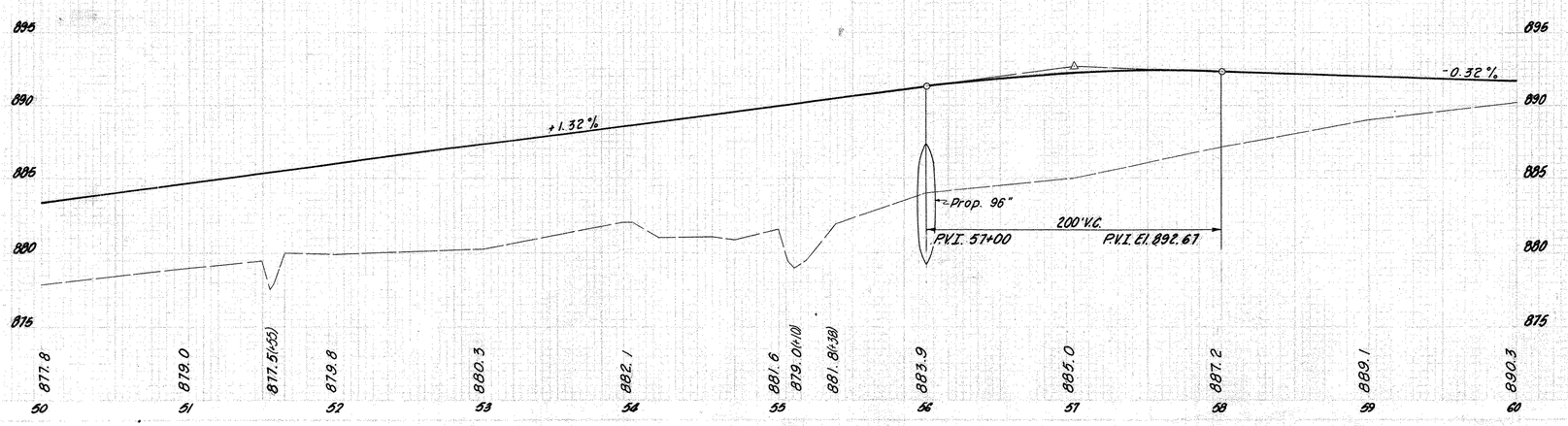
R/W
Construction Limits
End 50'
50' R
55+00
95' Lt.
G.R. Beg.
+56 Beg
+44 Beg G.R.
PC. 56+62.22
15'
+00
+40
16'
16'
8'
48'
100' R.
52+15
148' Rt.
52+81
13' Rt.
Shed
6" Cherry
N 64° 22' 56" E
53 & Const
57 TWP RD. 35 RELOC.
N 64° 22' 56" E
N 3° 50' 16" E
51+31.50
LA Ex. R/W
LA
LA R/W
Ex. R/W
Mon. (found)
LA Ex. R/W
Half Section Line
Construction Limits
(Abandon)
Ex. 5'x6' Box
HARLAN E. MARKEE &
VIRGIE L. MARKEE

B.M. 229 Elev. 910.42
M.S. in tele. pole
4' Lt. Sta. 401+37 US 40

STRUCTURE T.R. 35 RELOC.
Station 56+00
Proposed 96" Culvert
See Sheet No. 550

	Lt. edge	Profile	Rt. edge
50		883.43	889.78
51		883.76	890.14
		884.09	890.57
		884.42	891.02
		884.75	891.46
52		885.08	891.87
		885.41	892.25
		885.74	892.56
		886.07	892.79
53		886.40	892.92
		886.73	892.97
		887.06	892.96
		887.39	892.91
54		887.72	892.83
		888.05	892.75
		888.38	892.67
		888.71	892.59
55		889.04	892.51
		889.37	892.43
		889.70	892.35
56		890.03	892.27
		890.36	
		890.69	
		891.02	
		891.35	
57		891.65	
		891.91	
		892.11	
		892.26	
58		892.36	
		892.41	
		892.40	
		892.35	
59		892.27	
		892.19	
		892.11	
		892.03	
		891.95	
60		891.87	
		891.79	
		891.71	

Excavation	3231 C.Y.
Embankment	10217 C.Y.
Embankment +12%	11443 C.Y.
Seeding	10510 S.Y.
E-3 Exc.	604 C.Y.



| ESTIMATED QUANTITIES | | |

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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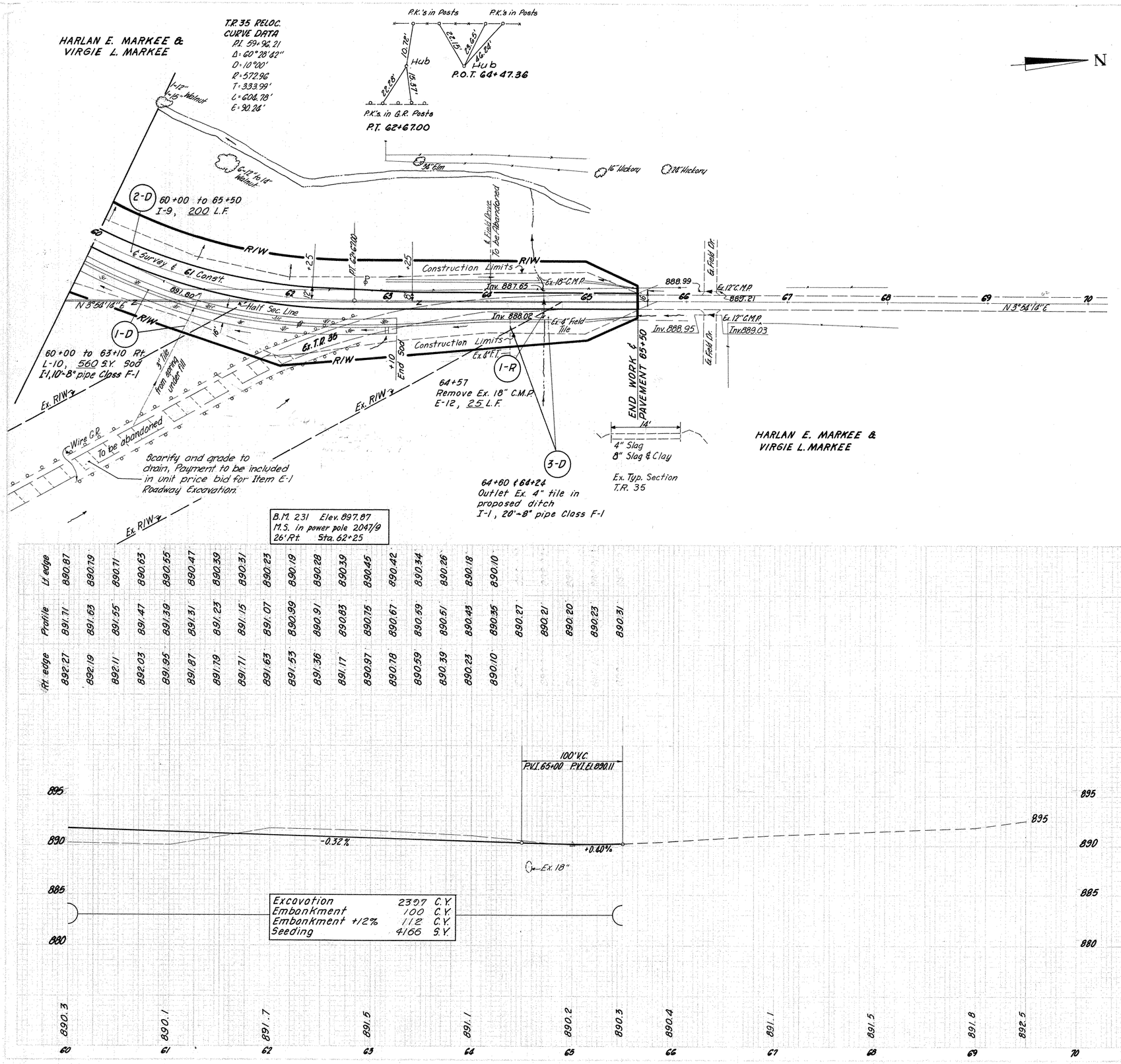
GUERNSEY COUNTY GUE-40-17.37



ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	I-9 Stone Underdrains No. 2 L.F.	L-10 Sod S.Y.	E-12 Pipe Removal over 15" L.F.	I-1 Class F-1 8" L.F.
	Units					
1-D	60+00 to 63+10	Rt.		560		10
2-D	60+00 to 65+50	R.&L.	200			20
3-D	64+60 & 64+24	Rt.				
1-R	64+57	R.&L.			25	
2-R	Ex. T.R. 35	R.&L.				

SEE SHEET NO. 433

Twp. Rd. 35 Reloc. 60+00 to 70+00

FED. AID PROJECT	STATE	PROJECT	
2	OHIO		

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GUERNSEY COUNTY
GUE-40-17.37

END AREA		VOL. CUBIC YDS.	
CUT	FILL	CUT	FILL

Volume Ahead Included With S.R. 513 Reloc. Quantities

31+00, 23.5' Lt.
Inv. 890.00
Type "E" H.W.

Match to Ramp "A"

31+00, 26.5' Rt.
Inv. 889.48
Type "E" H.W.

Back Only

Sta. 31+00 Back

66 | 900 | 890 | 633 | 880

2:1 | 3:1 | 3:1 | 3:1 | 6:1 | 6:1

890.0

52'-15" @ 1.00%

893.23
31+00
891.9

22 37

102 76

48 | 910 | 900 | 890 | 533 | 880

3:1 | 3:1

893.0

895.12
30+00
894.6

33 4

187 7

48 | 910 | 900 | 890 | 880

Ahead Only

3:1 | 3:1

892.8

896.92
29+00
896.92

68 0

63 0

133 | 900 | 890

Begin Part @ Sta. 29+00
Begin Ditch @ Sta 28+50 Lt.

28+50

0 0

0 | 900 | 890 | 880

28+50

28+00
898.48

Match to Ramp "A"

Match to Ramp "A"

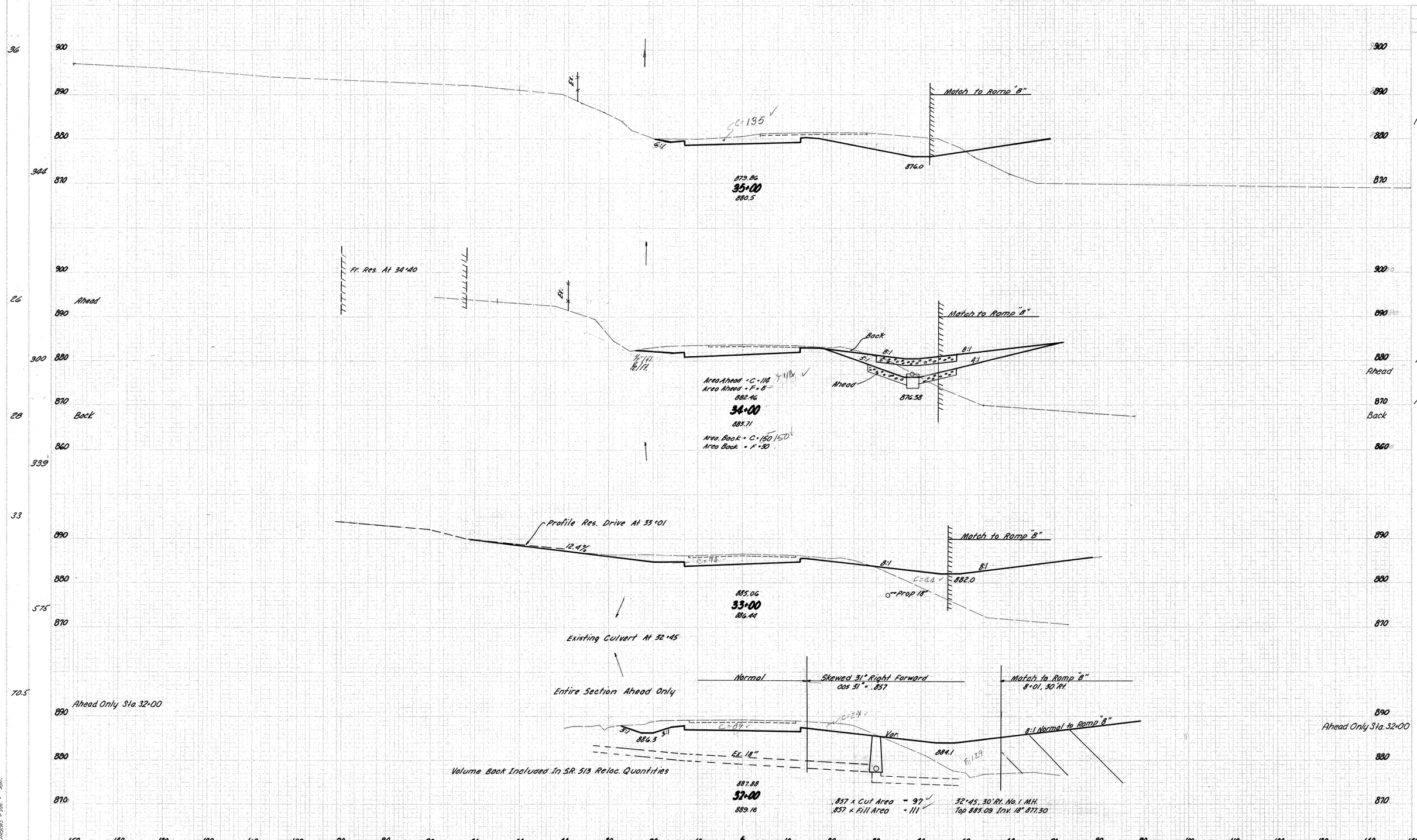
120 110 100 90 80 70 60 50 40 30 20 10 E 10 20 30 40 50 60 70 80 90 100 110 120

Twp. Rd. 35 Reloc. 28+00 - 31+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

428
638

GUERNSEY COUNTY
GUE-40-17.37



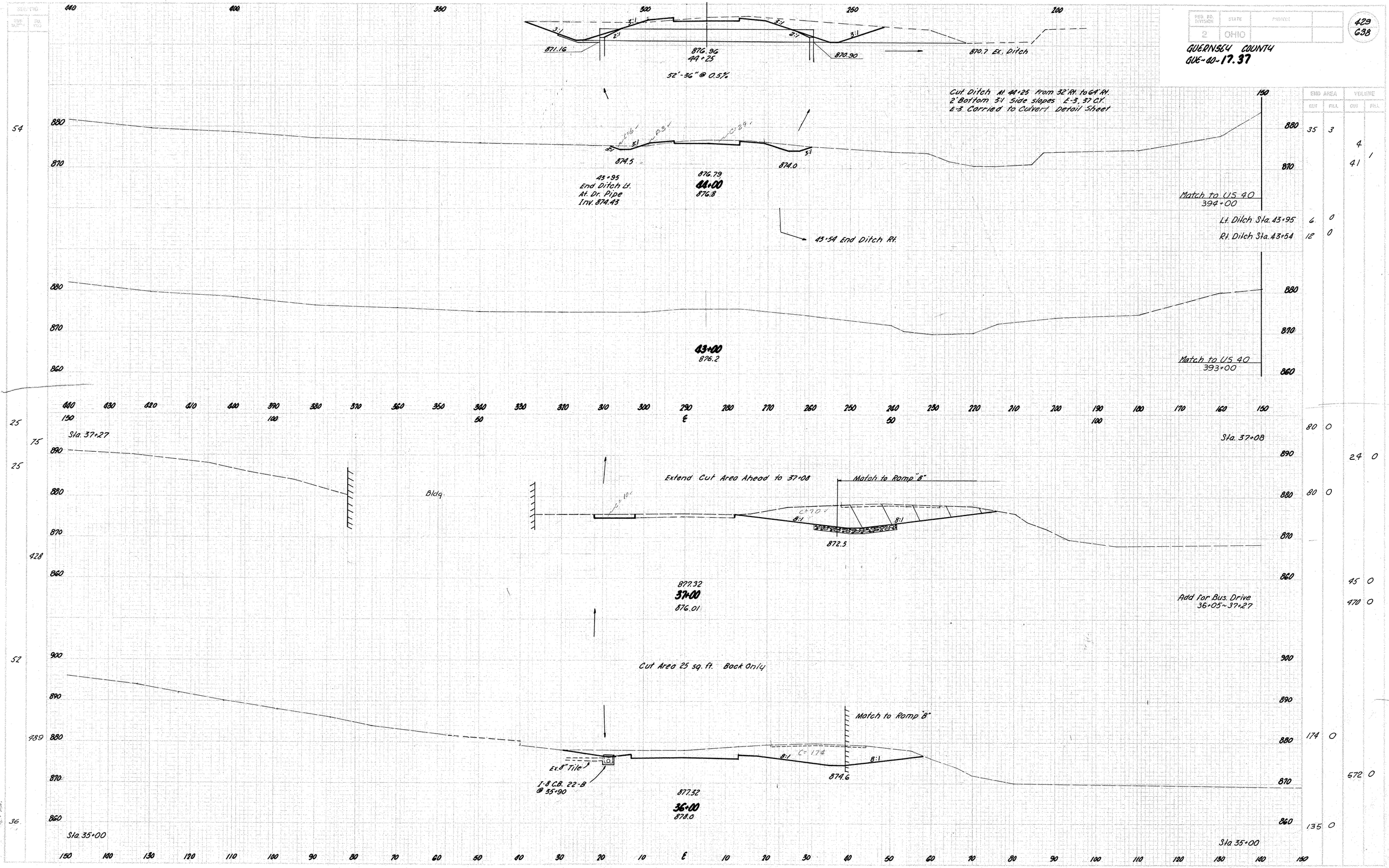
	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	135	0		
			461	15
	114	8		
	150	30		
			452	137
	94	44		
			354	287
	97	111		

Twp. Rd. 35 Reloc. 32+00 ~ 35+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

429
638

GUERNSEY COUNTY
GUE-40-17.37

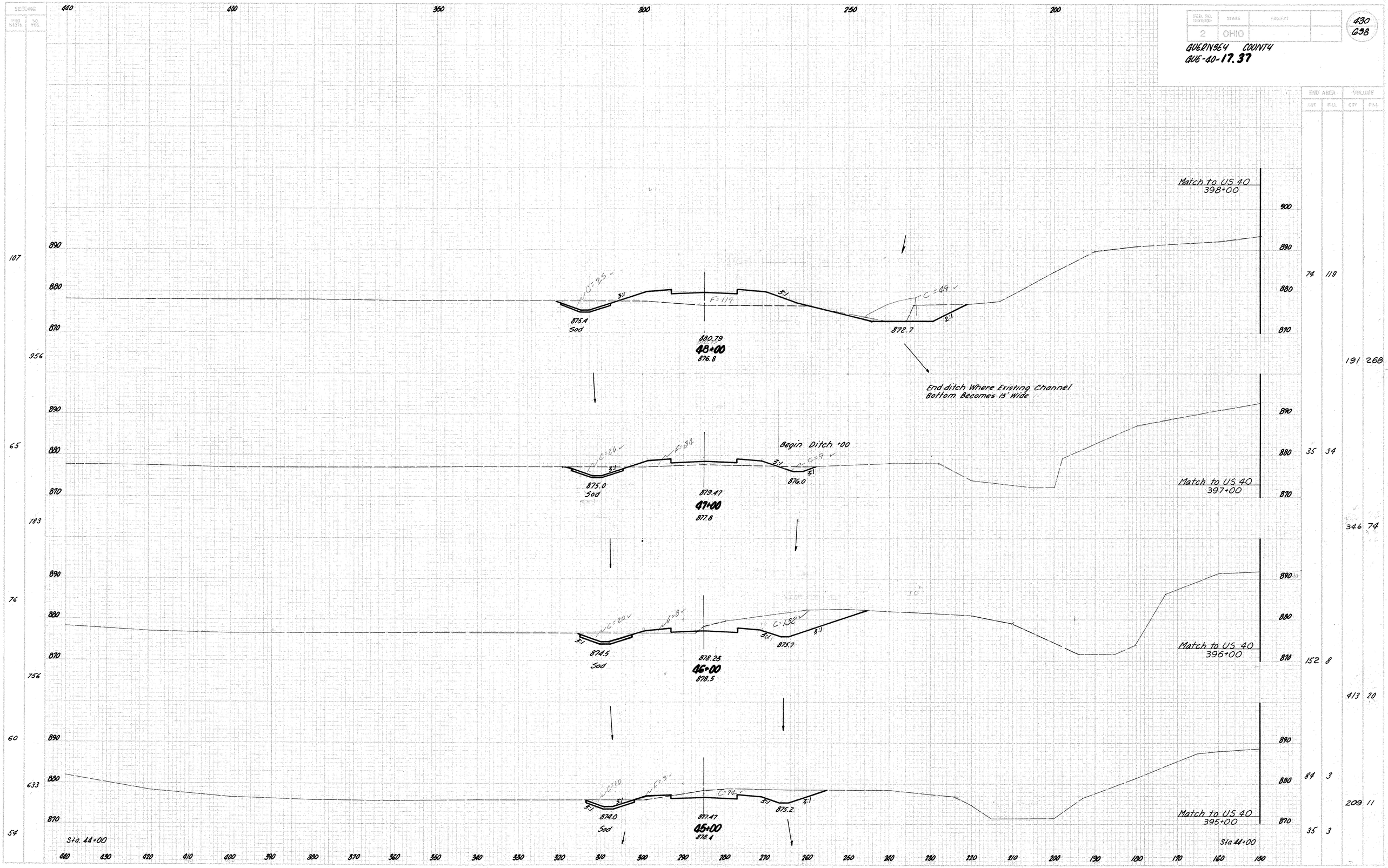


Twp. Rd. 35 Reloc. 36+00 ~ 44+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

430
638

GUERNSEY COUNTY
GUE-40-17.37



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
74	119		
		191	268
35	34		
		346	74
152	8		
		413	20
84	3		
		209	11
35	3		

Twp. Rd. 35 Reloc. 45+00 - 48+00

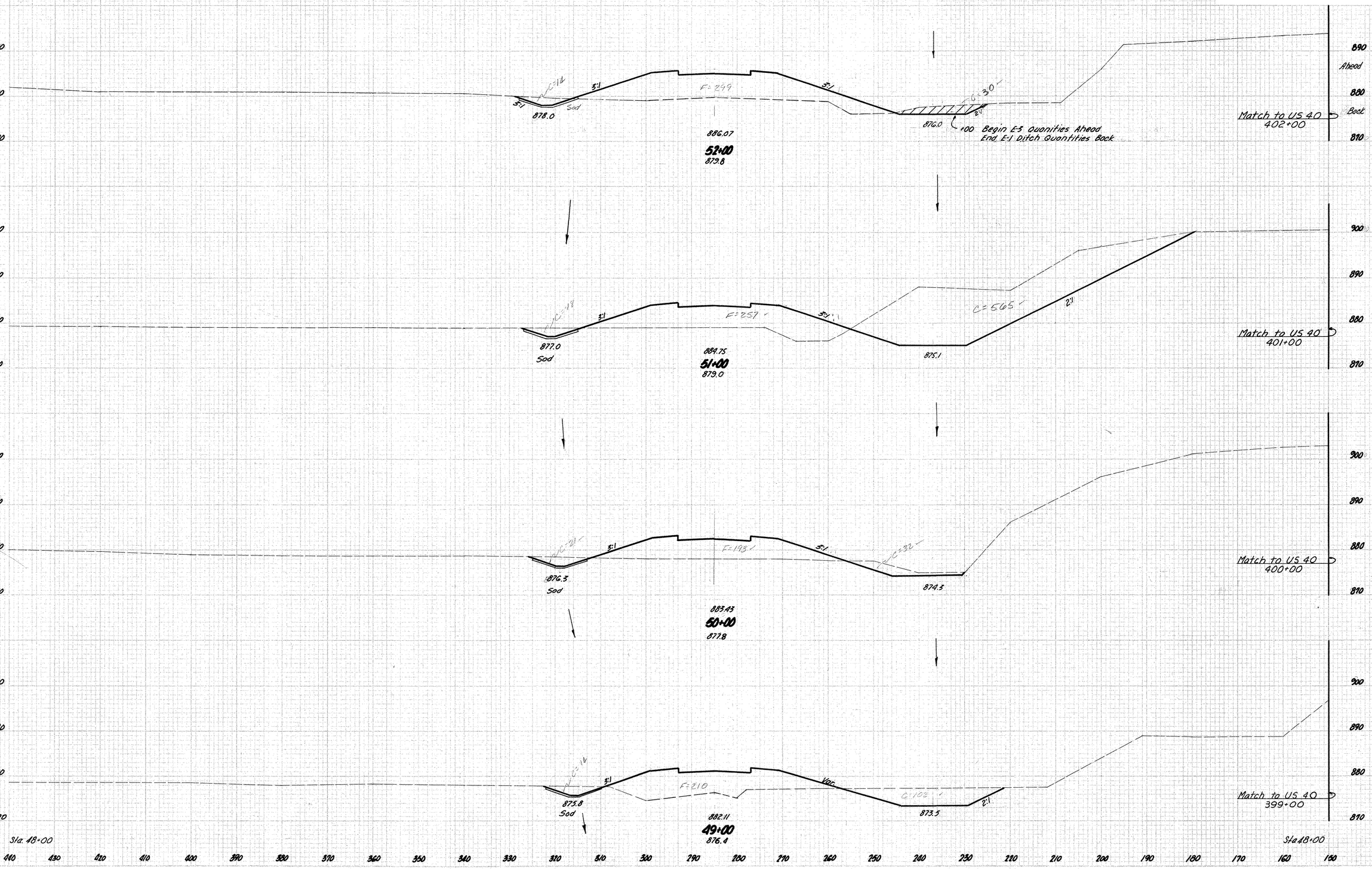
SEEDING

END WIDTH	SQ. YDS
96	
	1422
160	
	1456
102	
	1089
94	
	1117
107	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

431
C38

GUERNSEY COUNTY
GUE-40-17.37



END AREA		VOLUME	
CUT	FILL	CUT	FILL
Ahead 14	299		
Back 30	299		
		1135	1030
583	257		
		1178	833
53	193		
		313	746
116	210		
		352	609
74	119		

Twp. Rd. 35 Reloc. 49+00 - 52+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

432
638

GUERNSEY COUNTY
GUE-40-17.37

SEEDING		END AREA		VOLUME	
END WIDTH	SQ YDS	CUT	FILL	CUT	FILL
94		48	330		
1022				104	1402
90		8	427		
961				33	1315
165					442
83					
928		10	283		
84				46	1089
1000		15	305		
96		14	299	54	1119

Average Full Section 117'
Channel Reloc. @ North End of Culvert. (Sta. 56+00)

End Sod @ 56+12
For Culvert Details See Sheet #550

Match to US 40
406+00

Match to US 40
405+00

E-3, Average Full Ditch Section Ahead 125'
℄ Channel Reloc.

Average Back to Sta. 54+75 with 0 Cut

Add for Drive

Field Drive 54+50

Field Dr. Section A-A @ 319' Lt.
Ave. Full Section Ahead to 402 With 0 Fill
Ave. Full Section Back to 298 With 0 Fill

Match to US 40
404+00

Average Ahead to Sta. 54+25 with 0 Cut

Sod

Match to US 40
403+00

E-3		
Sta.	End Area	Volume
125' Ahead	6.0	
55+00	6.0	27.8
54+00	1.5	13.9
53+00	2.8	8.0
52+00	3.0	10.7
TOTAL		60.4

Total Carried to Culvert Detail Sheet #550

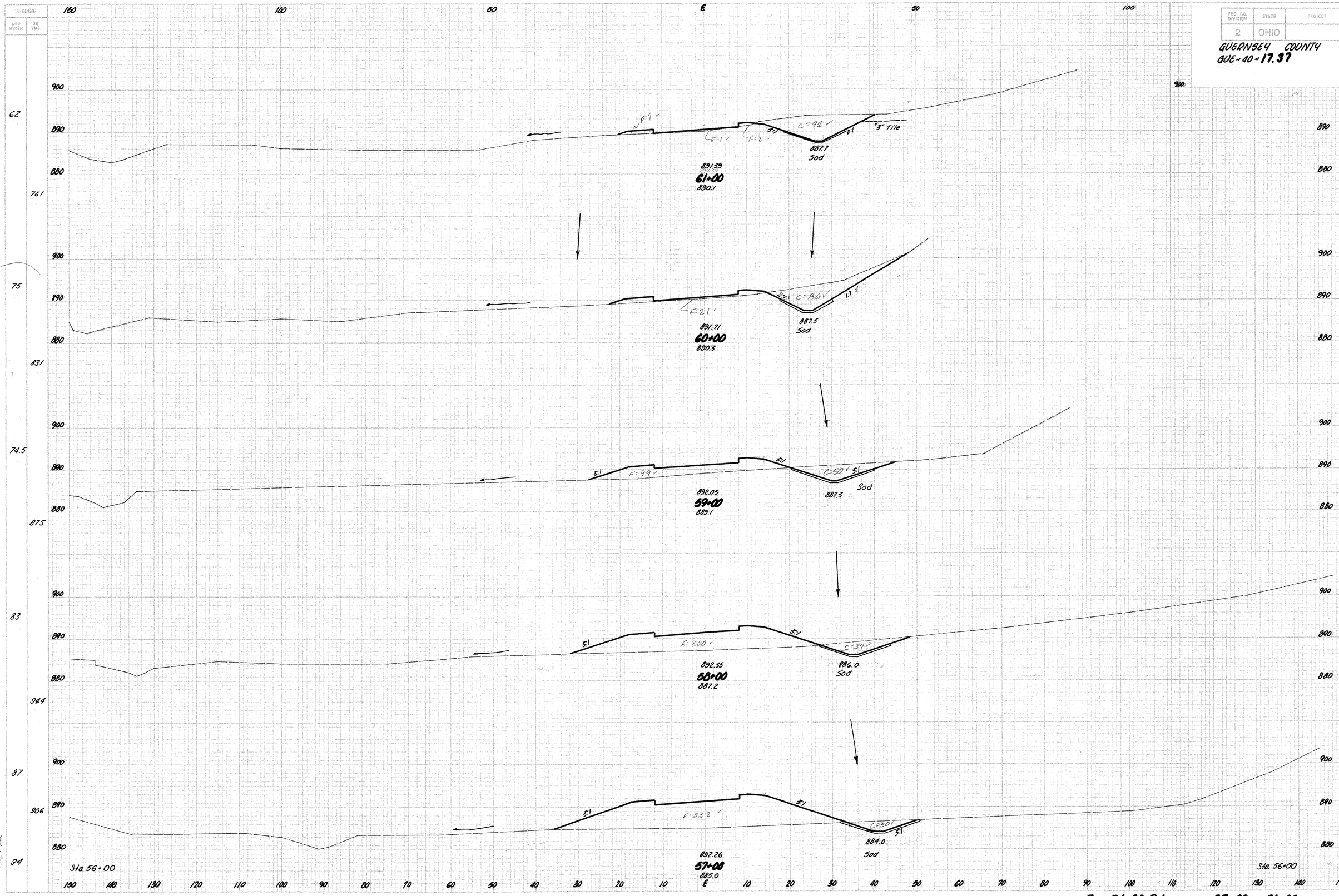
Sta. 52+00

Twp. Rd. 35 Reloc. 53+00 ~ 56+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

433
638

GUERNSEY COUNTY
GUE-40-17.37



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
94	10		
		333	57
86	21		
		252	222
50	99		
		161	554
37	200		
		124	985
30	332		
		144	1226
48	330		

Twp. Rd. 35 Reloc. 57+00 ~ 61+00

FED. RD DIVISION	STATE	PROJECT	
2	OHIO		

434
638

GUERNSEY COUNTY
GUE-40-17.37

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
0	361	65+50	0	0	
62	694	65+00	75	6	69 / 291	6 / 11
63	728	64+00	82	0	437	2
68	828	63+00	154	1	689	4
81	794	62+00	218	1	578	20
62		Sta. 61+00	94	10		

End Work 65+50

890.31
65+50
890.3

Average Back Only

888.0 — 888.1

890.20
65+00
890.2

Ditch @ 64+57, 887.6

887.8 — 887.9

890.43
64+00
891.1

888.5 End Ditch — 887.7 Sod

890.75
63+00
891.5

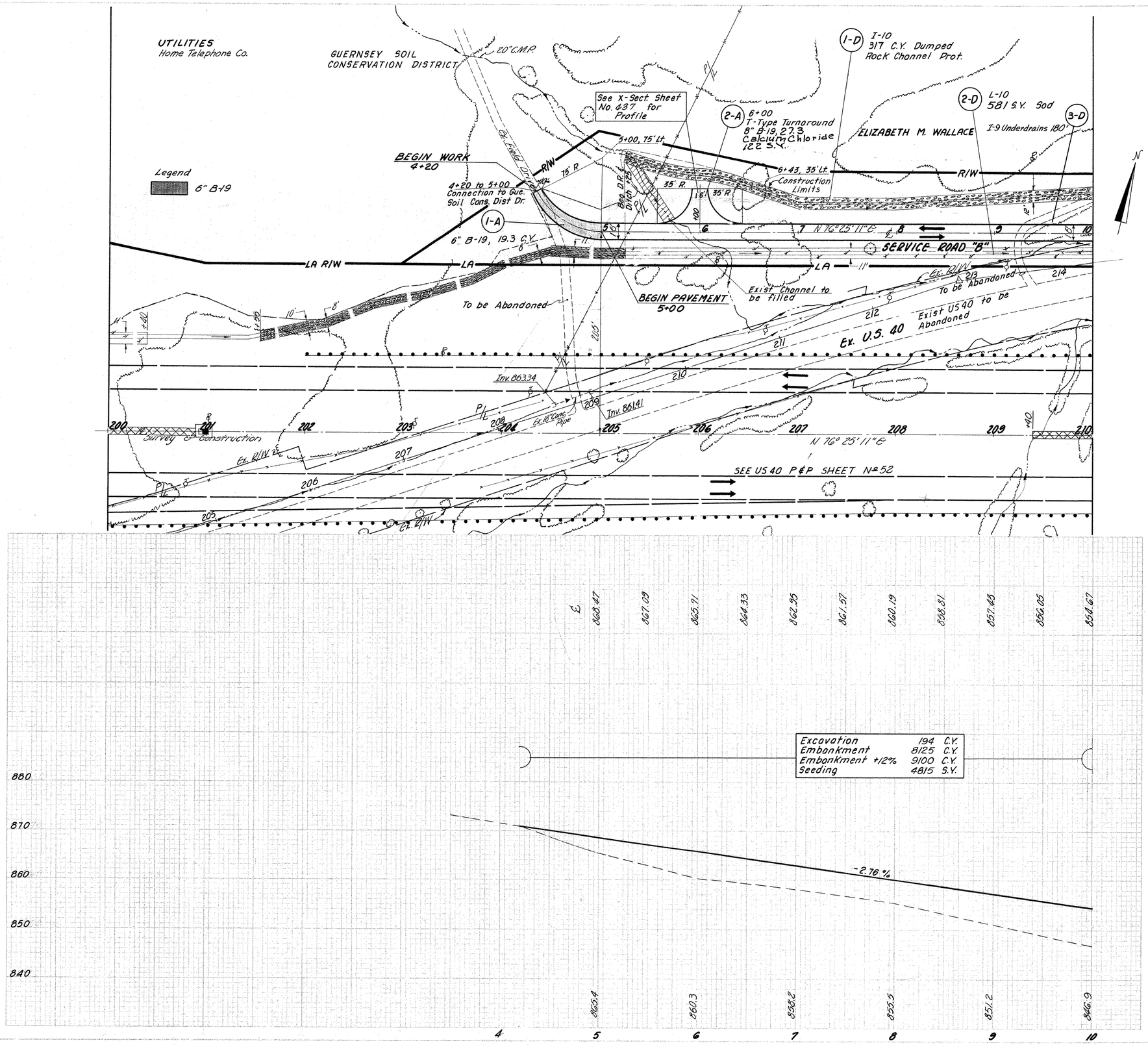
887.5

891.07
62+00
891.7

Two. Rd. 35 Reloc. 62+00 - 65+00

FED. RD. DIVISION 2 | STATE OHIO | PROJECT | 435 G38

GUERNSEY COUNTY GUE-40-17.37



ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	L-10 Sod S.Y.	I-10 Dumped Rock Chan. Prot. C.Y.	B-19 6" Aggregate Base Course C.Y.	B-19 8" Aggregate Base Course Stabilized C.Y.	I-9 No. 2 Stone Underdrains L.F.	Special Calcium Chloride S.Y.
1-D	5+25 to 10+00	L		317				
2-D	5+25 to 10+00	R	581					
3-D	5+00 to 10+00	R&L					180	
1-A	4+20 to 5+00 Dr. Conn.				19.3			
2-A	T-Turnaround 6+00	L				27.3		122
TOTALS			581	317	19.3	27.3	180	122

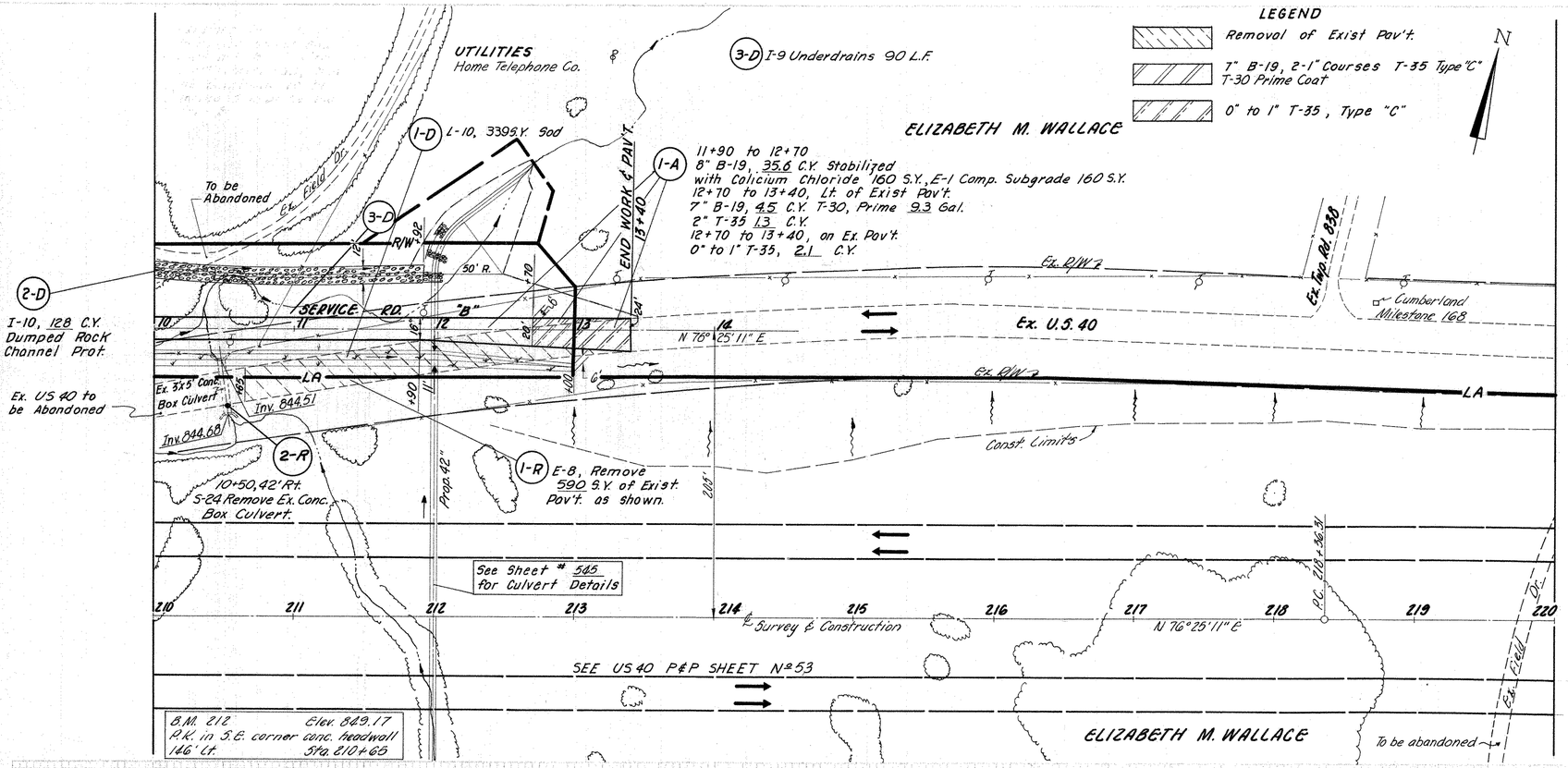
SEE SHEET NO. 437

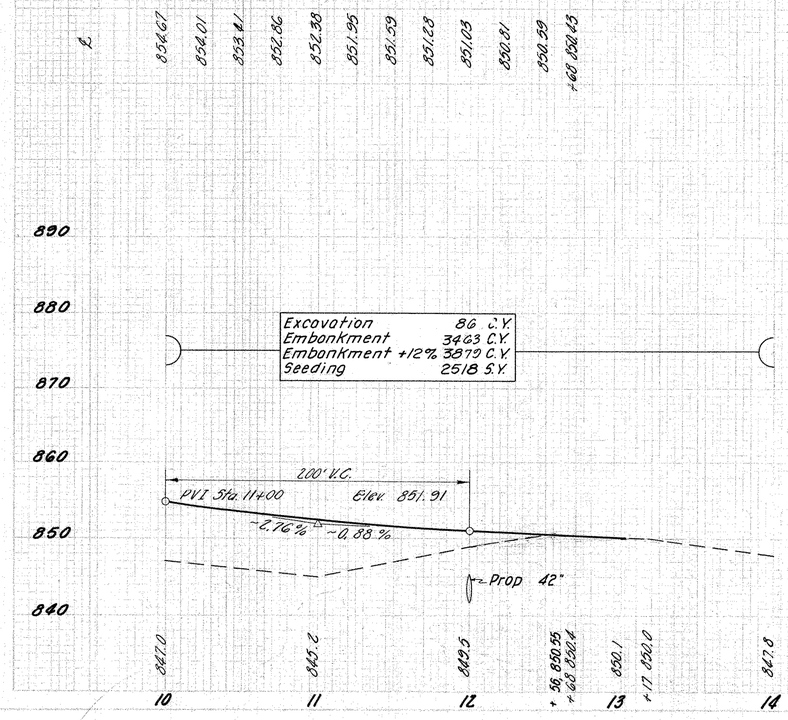
STA 4+20 to 10+00 SERVICE ROAD "B"

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

436
638

GUERNSEY COUNTY GUE-40-17.37



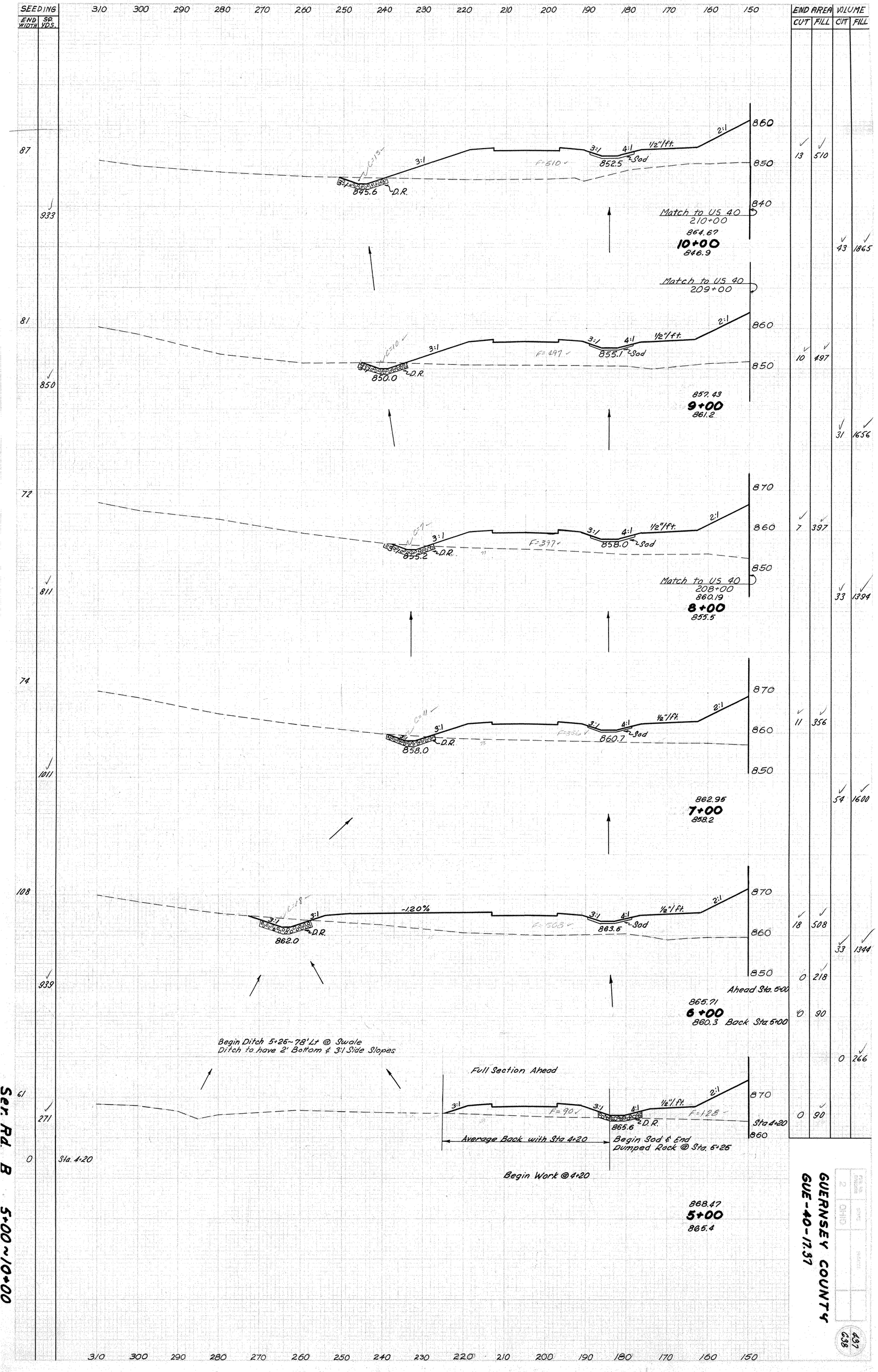


ESTIMATED QUANTITIES

NEW NO.	SEE SHEET NO.	STATION TO STATION	T-35 0" to 1" Type "C" C.Y.	T-35 2" Courses Type "C" C.Y.	B-19 8" Stabilized C.Y.	B-19 7" C.Y.	E-8 Removal of Exist. Pav't. S.Y.	L-10 Sod S.Y.	I-10 Dumped Rock Chan. Prot. C.Y.
1-A		11+90 to 13+40	2.1	1.3	35.6	4.5			
1-D		10+00 to 13+00						339	
2-D		10+00 to 11+92							128
3-D		10+00 to 12+70							
1-R		As shown					590		
2-R		10+50, 42' Rt.							
			2.1	1.3	35.6	4.5	590	339	128

			Special E-1 C.Y.	I-9 L.F.	T-30 Prime Coat Gal.	S-24 Removal of Ex. Structure Lump
			Calcium Compacted Under-Chloride Subgrade drains No. 2 S.Y.			
1-A	11+90 to 13+40	L&R	160		9.3	
1-D	10+00 to 13+00	R		90		
2-D	10+00 to 11+92	L				1 Lump
3-D	10+00 to 12+70	L&R				
1-R	As shown	R				
2-R	10+50, 42' Rt.					
			160	90	9.3	1 Lump

STA. 10+00 to 13+40 SERVICE ROAD "B"


SEEDING
END WIDTH
SQ. YDS.
310 300 290 280 270 260 250 240 230 220 210 200 190 180 170 160 150
END AREA
CUT
FILL
VOLUME
CUT
FILL
87
933
81
850
72
811
74
1011
108
939
61
271
0
Sta. 4+20
Ser. Rd. B 5+00 ~ 10+00
Match to US 40
210+00
864.67
10+00
846.9
Match to US 40
209+00
852.43
9+00
861.2
Match to US 40
208+00
860.19
8+00
855.5
862.95
7+00
858.2
865.71
6+00
860.3
Back Sta. 5+00
Ahead Sta. 5+00
868.47
5+00
865.4
Begin Work @ 4+20
Begin Ditch 5+26 ~ 78' Lt @ Swale
Ditch to have 2' Bottom & 3:1 Side Slopes
Full Section Ahead
Average Back with Sta 4+20
Begin Sod & End Dumped Rock @ Sta. 6+25
-1.20%
1/2"/ft.
Sod
D.R.
13 510 43 1865
10 497 31 1656
7 397 33 1394
11 356 54 1600
18 508 33 1344
0 218
0 90 0 266
0 90
GUERNSEY COUNTY
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437
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SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

310 300 290 280 270 260 250 240 230 220 210 200 190 180 170 160 150

Match to US 40
214+00

870
860
850
840

14+00
847.8

10

Sta. 13+40

End Work 13+40

13+40 | 0 | 0

Match to US 40
213+00

870
860
850
840

End Sod
13+00

℄ Ex. U.S. 40

3:1

F=17 C=1

73

1 | 13

1 | 17

23

13+00
850.1

7 | 509

567

860
850
840

℄ Ex. U.S. 40

C=3 3:1 4:1 2:1 1/2"/ft.

Sod 848.9

F=115

Inv. 839.0

2:1

F=143

480'-42" @ 6.44%

839.0

3 | 258

79

See Culvert Sheet #536 for E-3

D.R.C.P. 30" Deep

See Sheet #536
For Culvert Details

Match to US 40
212+00

851.03
12+00
849.5

30 | 1237

917

860
850
840

2:1

1/2"/ft.

3:1 4:1

Sod

C=13 2:1

F=410

850.3

13 | 410

86

961

Sta. 10+00

842.0 D.R.

13 | 510

48 | 1704

Match to US 40
211+00

87

Sta. 10+00

852.38
11+00
845.2

Ser. Rd. B 11+00 ~ 14+00

GUERNSEY COUNTY
GUE-40-17.37

		SHEET NO.	SHEETS
		2	
		OHIO	STATE
			PROJECT

438
238

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

(439 638)

GUERNSEY COUNTY
GUE -40 -17.37

REST AREAS GENERAL NOTES

'REST AREA TREE PROTECTION

AREAS OTHER THAN THE PARKING LOTS, SHALL NOT BE USED FOR STORAGE OF MATERIALS, PARKING OF EQUIPMENT, OR VEHICLES OR FOR THE LOCATION OF CONSTRUCTION BUILDINGS OF ANY KIND DURING CONSTRUCTION. EQUIPMENT SHALL NOT BE OPERATED OVER TREE ROOT AREAS WHEN THE GROUND IS SOFT THEREBY AVOIDING DEEP RUTTING, SOIL COMPACTION AND DESTRUCTION OF ROOT SYSTEMS. TREES THAT ARE TO BE SAVED WILL BE MARKED. ALL OTHERS SHALL BE REMOVED. TREES MARKED TO BE SAVED THAT ARE DAMAGED BEYOND REPAIR BY DESTRUCTION OF MORE THAN 50 PER CENT OF ROOT AREAS OR 30 PER CENT OF THE CIRCUMFERENCE OF BARK AREAS ON INDIVIDUAL TREES SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE. REPLACEMENTS SHALL BE IN QUANTITY SUFFICIENT TO COMPENSATE FOR SHADED AREAS LOST AND SHALL BE COMPLETED AS PER L-16 WITH THE CONTRACTOR FURNISHING AND PLANTING TREES OF THE SIZE AND VARIETY DIRECTED BY THE ENGINEER.
IN LIEU OF "BOXING FOR TREE PROTECTION AS REQUIRED BY G-7, E-1 AND STANDARD DRAWING L-1, SNOW FENCE SHALL BE USED TO PROHIBIT ACCESS TO TREE ROOT AREAS OF INDIVIDUAL TREES AND TREE GROUPS. THE ROOT AREAS ARE EQUAL IN SIZE TO THE SPREAD OF THE TREE BRANCHES.

ITEM SPECIAL

PARK TABLES, ROADSIDE TOILET AND STORAGE UNIT, CHARCOAL GRILL AND SERVING TABLE SHALL INCLUDE ALL EXCAVATION AND BACK-FILL, FURNISHING, HAULING AND PLACING ALL MATERIALS AND ALL LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE ITEMS AS DETAILED ON THE PLAN OR AS SHOWN ON THE PERTINENT STANDARD CONSTRUCTION DRAWINGS AND GENERAL NOTES.
THEY SHALL BE PLACED AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

TOPSOIL FOR "L" ITEMS

THIS SHALL BE OBTAINED FROM STOCKPILES PROVIDED BY E-1. AREAS INDICATED ON THE PLANS FOR THESE ITEMS SHALL BE PREPARED AS PLANTING BEDS, EXCAVATED TO A DEPTH OF 12 INCHES AND BACK-FILLED WITH A MIXTURE OF 1/3 TOPSOIL, 1/3 SAND AND 1/3 PEAT MOSS. THIS MIXTURE SHALL BE USED FOR L-14 AND L-16 ITEMS ALSO. ***PAYMENT FOR ALL THE ABOVE OPERATIONS INCLUDING FURNISHING, MIXING AND PLACING TOPSOIL, SAND, AND PEAT MOSS SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE PERTINENT "L" ITEMS.***

ITEM L-5 REMOVAL OF TREES AND STUMPS IN REST AREAS

TREES, STUMPS AND CLUMPS OF BRUSH THAT ARE NOT MARKED TO BE SAVED ARE TO BE REMOVED. WITHIN THE REST AREAS ONLY THOSE TREES INDICATED BY THE ENGINEER SHALL BE REMOVED. CARE SHALL BE EXERCISED BY THE CONTRACTOR IN PERFORMACE OF THIS WORK SO THAT NO DAMAGE IS DONE TO TREES INDICATED BY THE ENGINEER TO BE SAVED.

CLEARING AND GRUBBING SHALL BE DONE IN ACCORDANCE WITH SECTION E-1.22 EXCEPT IN AREAS WHERE TREES OR STUMPS ARE TO BE REMOVED WITHIN THE TREE ROOT AREAS OF TREES THAT ARE TO REMAIN. IN SUCH AREAS REMOVAL SHALL BE BY CUTTING TO A MINIMUM DEPTH OF 8 INCHES BELOW FINISH GRADE WITH A STUMP CHIPPER OR SIMILAR EQUIPMENT.

THE LUMP SUM BID FOR ITEM L-5, REMOVAL OF TREES AND STUMPS IN REST AREAS, SHALL CONSTITUTE FULL PAYMENT FOR THIS ITEM.

ITEM L-17 PRUNING EXISTING TREES

ALL TREES WITHIN THE REST AREAS THAT ARE INDICATED TO BE SAVED BY THE ENGINEER SHALL BE PRUNED IN ACCORDANCE WITH ITEM L-17 AND IN ADDITION TO L-17 REQUIREMENTS, LOW LIMBS SHALL BE REMOVED TO OBTAIN SEVEN (7) FOOT CLEARANCE ABOVE THE GROUND AS DIRECTED. THE NUMBER AND SIZE OF TREES TO BE PRUNED MAY BE ESTIMATED FROM INFORMATION SHOWN RELATIVE TO EXISTING TREES AND THE PERCENTAGE TO BE REMOVED.

THE STATE WILL NOT BE RESPONSIBLE FOR ANY VARIATIONS FOUND DURING CONSTRUCTION. THE LUMP SUM BID FOR ITEM L-17, PRUNING EXISTING TREES SHALL CONSTITUTE FULL PAYMENT FOR THIS ITEM AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

ITEM SPECIAL - WELL SHELTER - METHOD OF MEASUREMENT
The well shelter and all appurtenances as detailed, shall be considered as one unit. The number of units to be paid for shall be the number of each unit, listed and estimated separately, complete and accepted.
— BASIS OF PAYMENT —
The work included in this item shall be paid for at the contract unit price bid fore each "ITEM SPECIAL - WELL SHELTER" complete and accepted.

ITEM L-9 SEEDING AND PROTECTING REST AREAS

THE SEED BED SHALL BE PREPARED TO PROVIDE A SMOOTH SURFACE FOR A GOOD LAWN. FINE GRADING IS TO ELIMINATE HUMPS OR DEPRESSIONS THAT WOULD INTERFERE WITH MOWING WITH A 24 INCH MOWER. ALL STONE AND DEBRIS LARGER THAN 1 INCH IN DIAMETER SHALL BE REMOVED FROM THE SURFACE AND THE AREAS SHALL BE LOOSENED TO A DEPTH OF 2 INCHES BEFORE SEEDING.

TOP SOIL SALVAGED AS PER E-1 SHALL BE USED IN FINISH GRADING OVER THE TREE ROOT AREAS TO AVOID DAMAGE BY GRADING OR TILLAGE EQUIPMENT. IT SHALL BE USED AS DIRECTED TO FILL DEPRESSIONS TO OBTAIN EXTRA SMOOTH FINE GRADING AND TO PROVIDE A MINIMUM DEPTH OF 3 INCHES OF TOPSOIL FOR THE REST AREA LAWNS. WHERE IT IS NOT NECESSARY TO CHANGE GRADES, TOPSOIL PLACEMENT WILL NOT BE REQUIRED. PLACED TOPSOIL WILL BE PAID FOR UNDER ITEM L-3

THE SEED MIXTURE SHALL BE AS FOLLOWS:
45% KENTUCKY BLUE GRASS
35% ILLAHEE FESCUE
20% REDTOP

ITEM L-3 PLACING STOCKPILED TOPSOIL

THE TOPSOIL SHALL BE PLACED TO A DEPTH OF 3 INCHES ON ALL AREAS WHERE GRADING IS REQUIRED IN REST AREAS AS SHOWN ON THE CROSS SECTIONS AND BY THE CONTOUR ON THE PLANS.
IT SHALL BE PLACED AT VARIABLE DEPTHS NECESSARY TO OBTAIN SMOOTH GRADES OVER THE TREE ROOT AREAS AND AREAS WHERE TREES, STUMPS, BOULDERS AND STONE PILES ARE REMOVED. MAXIMUM DEPTH OVER TREE ROOT AREAS SHALL BE 3 INCHES. FERTILIZER FOR THIS ITEM IS INCLUDED IN L-9 QUANTITIES.

ITEM L-6 ROADSIDE CLEANUP MODIFIED

THIS ITEM IS ESTIMATED FOR PERFORMANCE ON ALL EARTH AREAS OUTSIDE THE EXCAVATED OR FILLED AREAS WITHIN THE REST AREAS AS DIRECTED. TREE PRUNING AND REMOVAL OF TREES AND STUMPS WILL BE DONE UNDER OTHER ITEMS. IN ADDITION TO THE SPECIFIED REQUIREMENTS OF L-6 THE FOLLOWING WORK SHALL BE PERFORMED.
AREAS OUTSIDE THE TREE ROOT AREAS SHALL BE FITTED AND GRADED TO OBTAIN DRAINAGE AWAY FROM ALL STRUCTURES AND TO PREVENT PONDING AT ANY POINT. ALL ROUGH UNEVEN AREAS INCLUDING FENCE ROWS SHALL BE GRADED TO ELIMINATE HUMPS OR DEPRESSIONS THAT WOULD INTERFERE WITH A 24 INCH MOWER. FENCE SHALL BE REMOVED FROM TREES AND THE TREE TRUNKS REPAIRED. BOULDERS SHALL BE REMOVED AND DISPOSED OF OR BURIED TO A MINIMUM DEPTH OF 2 FEET. STONE PILES SHALL BE REMOVED AND DISPOSED OF OR BURIED TO A MINIMUM DEPTH OF 2 FEET.
THE LUMP SUM BID FOR ITEM L-6 ROADSIDE CLEANUP MODIFIED SHALL CONSTITUTE FULL PAYMENT FOR THIS ITEM AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

~~PRESSURE WATER SYSTEM~~

~~METHOD OF MEASUREMENT: THE "ITEM SPECIAL, PRESSURE WATER SYSTEM" AND ALL APPURTENANCES DETAILED AND SPECIFIED ON THE PLANS SHALL BE CONSIDERED AS ONE UNIT. THE NUMBER OF UNITS TO BE PAID FOR SHALL BE THE NUMBER OF EACH UNIT, LISTED AND ESTIMATED SEPARATELY, COMPLETE AND ACCEPTED.~~
~~BASIS OF PAYMENT: THE WORK INCLUDED IN THIS ITEM SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE BID FOR EACH "ITEM SPECIAL, PRESSURE WATER SYSTEM" COMPLETED AND ACCEPTED, WHICH PRICE AND PAYMENT SHALL CONSTITUTE FULL COMPENSATION FOR FURNISHING, PREPARING, PLACING AND INSTALLING ALL MATERIALS, AND FOR ALL LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM AS SHOWN ON THE PLANS.~~

ITEM SPECIAL -
TOILET & STORAGE
Method of measurement: The "Item Special, Toilet & Storage Unit" and all appurtenances as detailed & specified on the plans and in accordance with Standard Drawings RRA 4-A, 4-B, and 4-C SHALL BE CONSIDERED AS ONE UNIT. THE NUMBER OF UNITS TO BE PAID FOR SHALL BE THE NUMBER OF EACH UNIT, LISTED AND ESTIMATED SEPARATELY, COMPLETE AND ACCEPTED.

BASIS OF PAYMENT

THE WORK INCLUDED IN THIS ITEM SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE BID FOR EACH "ITEM SPECIAL, TOILET & STORAGE UNIT" COMPLETE AND ACCEPTED, WHICH PRICE AND PAYMENT SHALL CONSTITUTE FULL COMPENSATION FOR FURNISHING, PREPARING PLACING AND INSTALLING ALL MATERIALS, AND FOR ALL MATERIALS, AND LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM AS SHOWN AND SPECIFIED ON THE PLANS.

~~AEROBIC SEWAGE TREATMENT PLANT - SEE DETAILS ON PLANS~~

~~METHOD OF MEASUREMENT~~

THE AEROBIC SEWAGE TREATMENT PLANT AND ALL APPURTENANCES AS DETAILED AND SPECIFIED ON THE PLANS SHALL BE CONSIDERED AS ONE UNIT. THE NUMBER OF UNITS TO BE PAID FOR SHALL BE THE NUMBER OF EACH UNIT, LISTED AND ESTIMATED SEPARATELY, COMPLETE AND ACCEPTED

BASIS OF PAYMENT

THE WORK INCLUDED IN THIS ITEM SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE BID FOR EACH ITEM SPECIAL, AEROBIC SEWAGE TREATMENT PLANT COMPLETED AND ACCEPTED, WHICH PRICE AND PAYMENT SHALL CONSTITUTE FULL COMPENSATION FOR ALL EXCAVATION AND BACK-FILL AND FOR FURNISHING, HAULING AND PLACING ALL MATERIALS, AND FOR ALL LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM.

BITUMINOUS JOINTS

BITUMINOUS JOINTS FOR SEWERS (SANITARY) AS CALLED FOR IN THESE PLANS SHALL BE BITUMINOUS COMPRESSION TYPE SUCH AS SLIP SEAL OR AN APPROVED EQUAL.

GALVANIZED PIPE

THE 2" GALVANIZED PIPE CALLED FOR ON THIS PLAN SHALL MEET THE REQUIREMENTS OF SEC. M-6.9 AND SEC. M-7.4 (A) OF THE SPECIFICATIONS.

GENERAL NOTES CONCERNING THE BUILDINGS

THE BUILDINGS ARE TO BE CONSTRUCTED AT THE LOCATIONS AND ELEVATIONS SHOWN ON THE PLANS. EXCAVATING AND BACKFILLING SHALL BE AS SPECIFIED UNDER E-1. AGGREGATE FOR SUBGRADE UNDER FLOORS SHALL BE AS SPECIFIED UNDER B-15.

- CONCRETE WORK -

CONCRETE WORK

NOTE: "A" THE CONTRACTOR FOR THIS WORK IS REFERRED TO INSTRUCTIONS TO BIDDERS AND GENERAL CONDITIONS AS A PART OF THIS CONTRACT.

1. EXTENT OF WORK

(A) THE CONTRACTOR SHALL FURNISH ALL EQUIPMENT, MATERIAL, LABOR AND SERVICES NECESSARY TO FORM, PLACE, FINISH AND CURE ALL PLAIN AND REINFORCED CONCRETE REQUIRED FOR THE COMPLETION OF THE BUILDING, AS SHOWN ON THE PLANS AND AS HEREINAFTER SPECIFIED. DRIVES ARE NOT INCLUDED IN THIS WORK.

ITEM SPECIAL - "MOTORIST'S SERVICES SHELTER"
Method of Measurement: The "Item Special - MOTORIST'S SERVICES SHELTER" and all Appurtenances as detailed and specified on the plans shall be considered as one unit. The number of units to be paid for shall be the number of each unit, listed and estimated separately, complete and accepted.

BASIS OF PAYMENT
The work included in this item shall be paid for at the contract unit price bid for each "ITEM SPECIAL, MOTORIST'S SERVICES SHELTER" complete and accepted, which price and payment shall constitute full compensation for furnishing, preparing placing and installing all materials, and for all materials, and labor, equipment, tools and incidentals necessary to complete this item as shown and specified on the plans.

REST AREAS-ROADSIDE TOILETS AND STORAGE UNIT

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CARPENTRY AND MISCELLANEOUS (CONTINUED)

4. INSULATION

A. PROVIDE AND INSTALL 4" FIREPROOF MINERAL WOOL ENCASED BLANKET IN ENTIRE CEILING OF BUILDING AND 2" FIREPROOF MINERAL WOOL ENCASED BLANKET ON ALL WALLS AND PARTITIONS OF THE BUILDING. ACCEPTABLE MANUFACTURERS: CELOTEX CORP., CHICAGO, ILLINOIS, ARMSTRONG AND JOHNS-MANVILLE OR APPROVED EQUAL.

5. INSULATION VENTS

A. ROOF JOIST SPACE VENTILATION WILL DISCHARGE INTO ROOF VENTS - SEE DETAIL.

6. TOILET PARTITIONS

A. PROVIDE AND INSTALL ALL OVERHEAD-BRACED METAL TOILET PARTITIONS COMPLETE WITH HARDWARE. PARTITIONS TO BE GALVANIZED AND BONDERIZED PANELS AT LEAST 1" THICK WITH A BAKED-ON ENAMEL FINISH. COLOR TO BE SELECTED. ACCEPTABLE MANUFACTURERS: MILLS COMPANY, CLEVELAND, OHIO, HENRY WEIS MANUFACTURING CO., ELKHART, IND., INDIANA, STEEL PRODUCTS MFG. CO., CHICAGO, ILLINOIS, OR SANYMETAL PRODUCTS CO. INC., CLEVELAND, OHIO.

7. TOILET ROOM ACCESSORIES

A. FURNISH AND INSTALL FOUR (4) 16" × 24" CHROME EDGED MIRRORS AS INDICATED ON DRAWINGS. PARKER CO., MIAMI CAREY OR HALLMACK OR APPROVED EQUAL.

8. GLAZING

A. GLAZE ALL WINDOWS, FURNISHING GLAZING CLIPS FOR WINDOWS.

B. TOILET ROOM WINDOWS SHALL HAVE 1/8" HAMMERED GLASS. GLASS SHALL BE EITHER "L.O.F." OR "BLUE RIDGE" OR "MISSISSIPPI GLASS CO." OR "J. MERRILL RICHARDS," BOSTON, MASS.

C. ALL GLAZING SHALL BE DONE WITH APPROVED GLAZING COMPOUND AS MANUFACTURED BY DICKS-PONTIUS, KUHLS, PERCORA, PITTSBURGH OR TREMCO.

D. GLASS IN METAL WINDOWS SHALL BE BEDDED, CLIPPED AND FACE GLAZED.

E. LEAVE ALL GLASS UNBROKEN AND CLEAN AT COMPLETION OF STRUCTURE.

9. CAULKING

A. CAULK AROUND METAL WINDOWS AND EXTERIOR DOOR FRAMES IN A THOROUGH MANNER, USING THE FIRST QUALITY GUN-GRADE COMPOUND OF THEMCO, PERCORA, KUHL'S OR EQUAL. FOLLOW GUN WITH HAND PRESSURE TOOL WHEREVER NECESSARY FOR FIRST CLASS JOB.

B. REMOVE ALL STAINS FROM CAULKING AT ONCE, FROM SILLS, FRAMES ETC.

10. FINISH HARDWARE

A. SEE "DOOR HARDWARE SCHEDULE" ON PLANS.

B. HARDWARE AS MANUFACTURED BY: STANLEY, GLYNN-JOHNSON, RUSSELL AND ERWIN, CORBIN, SARGENT, YALE AND TOWNE, MCKINNEY, HAGER OR EQUAL WILL BE ACCEPTABLE.

C. ALL LOCK CYLINDERS SHALL BE KEYED ALIKE, AND MASTERKEYED. FURNISH 2 KEYS FOR EACH LOCK.

D. FINISH FOR LOCKSETS SHALL BE AS SHOWN.

E. INSTALL FINISH HARDWARE NEATLY AND ACCURATELY AND SO THAT IT OPERATES EASILY, QUIETLY AND PROPERLY.

F. LOCKS, TRIM, ETC., SHALL BE FITTED PRIOR TO START OF PAINTER'S WORK, BUT SHALL NOT BE PERMANENTLY INSTALLED UNTIL PAINTER'S WORK IS COMPLETED.

ELECTRICAL

1. NOTES

A. THE CONTRACTOR FOR THIS WORK IS REFERRED TO "INSTRUCTIONS TO BIDDERS AND GENERAL CONDITIONS" AS A PART OF THIS CONTRACT.

B. THIS CONTRACTOR SHALL CAREFULLY READ THE SPECIFICATIONS OF ALL BRANCHES OF WORK PERTAINING TO THE BUILDING SO THAT HE MAY BE FULLY INFORMED AS TO THE WORK TO BE DONE BY EACH CONTRACTOR.

C. THIS CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK OF THE OTHER CONTRACTORS IN ORDER TO AVOID DELAY AND INTERFERENCE IN CARRYING OUT THE GENERAL CONSTRUCTION OF THE PROJECT.

D. THE SUBMISSION OF A BID FOR THIS BRANCH OF WORK SIGNIFIES THAT THE CONTRACTOR HAS EXAMINED THE DRAWINGS AND SPECIFICATIONS FOR ALL BRANCHES OF WORK FOR THE PROJECT AND HAS VISITED THE SITE AND IS ACQUAINTED WITH ALL CONDITIONS WHICH MAY IN ANY WAY WHATSOEVER AFFECT THE EXECUTION OF THE WORK.

E. WHERE A MATERIAL OR METHOD IS DESCRIBED BY PERFORMANCE DATA ONLY, ANY PRODUCT OR METHOD MEETING SUCH REQUIREMENTS MAY BE USED. WHERE MORE THAN ONE BRAND NAME IS SPECIFIED, THE FIRST NAME IS THE PRODUCT WHOSE DIMENSIONS AND PERFORMANCE CHARACTERISTICS WERE USED IN THE DESIGN. THE OTHER NAMED PRODUCTS MAY BE USED BUT WITH THE UNDERSTANDING THAT IF CHANGES TO THE BUILDING ARE REQUIRED BECAUSE OF DIMENSIONS OR CHARACTERISTICS OF THAT PRODUCT, ANY ADDITIONAL COST SHALL BE A PART OF THE BID.

F. IN CASE ANY CONFLICT DEVELOPS BETWEEN DRAWINGS AND SPECIFICATIONS, SAME SHALL BE REFERRED BY THE CONTRACTOR TO THE ENGINEER FOR DECISION AS TO METHOD AND/OR MATERIAL.

2. EXTENT OF WORK

A. THE CONTRACTOR FOR THIS WORK SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT AND INSTALL COMPLETE ALL ELECTRIC WORK AS HEREINAFTER SPECIFIED AND AS SHOWN ON THE PLANS FOR THE TWO REST AREAS.

B. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE AND SPECIAL REGULATIONS OF THE STATE FIRE MARSHALL AND THE STATE DEPARTMENT OF WORK-SHOPS AND FACTORIES.

C. ALL MATERIAL SHALL BE NEW AND CONFORM WITH THE STANDARDS OF THE UNDERWRITER'S LABORATORIES, INC WHEREVER SUCH STANDARDS HAVE BEEN ESTABLISHED AND SHALL FULFILL THE NORMAL REQUIREMENTS FOR SATISFACTORY WORKMANSHIP.

3. INSPECTION

A. ALL WORK SHALL BE INSPECTED BY THE ELECTRICAL INSPECTION BUREAU, INC., OR ANY APPROVED ELECTRICAL INSPECTION AGENCY WHICH GUARANTEES ITS WORK.

B. UPON COMPLETION OF THE WORK THE CONTRACTOR SHALL FURNISH TO THE ENGINEER, A CERTIFICATE OF INSPECTION AND APPROVAL FROM SAID BUREAU OR AGENCY BEFORE FINAL PAYMENT ON CONTRACT WILL BE ALLOWED.

C. FEE FOR INSPECTION SHALL BE PART OF THIS CONTRACT.

4. SERVICE

A. SERVICE SHALL BE SINGLE PHASE, 60 CYCLES, 110/220 VOLTS A.C., 3 TO 2 WIRE DISTRIBUTION FOR LIGHTS AND SMALL MOTORS.

5. SERVICE ENTRANCE CONDUCTORS

A. THE CONTRACTOR SHALL FURNISH AND INSTALL TWO 1/c NO. 2 AWG CONDUCTORS FROM A 100 A. FUSED SWITCH AT THE SERVICE POLE AT EACH SITE, THROUGH 2" GALVANIZED STEEL CONDUIT TO THE TRANSFORMER DISCONNECT SWITCH IN THE UTILITY BUILDING AT EACH SITE.
THIS ITEM SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM, S-25, 1/c No. 2 AWG. Service Entrance Cable" (See sheets No. 443 and 445.)

6. Telephone Service Conduit.

A. THE CONTRACTOR SHALL FURNISH AND INSTALL AN 1½" CONDUIT FROM THE TELEPHONE SERVICE POLES TO THE Motorist's Service Building. S-25 Item, 1½" galv. conduit. CONDUIT SHALL TERMINATE IN AN L.B. CONDULET AND EXTEND THRU THE TELEPHONE STAND WITH A ¾" × 4" NIPPLE. A GALVANIZED PULL WIRE SHALL BE LEFT IN THE CONDUIT. Payment included in 1½" galvanized Conduit, Direct Burial. (Spec. M-106.11). See Sheet No. 445.

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ELECTRICAL (CONTINUED)

7. PANELBOARD

A. PANEL BOARD SHALL BE DESIGNED FOR A SINGLE PHASE, 3 WIRE 120/240 V. A-C SYSTEM WITH 30 AMPS. MAIN RATING.

B. OVERCURRENT PROTECTIVE DEVICES SHALL BE AS SHOWN ON ELECTRICAL CONTROLS SCHEMATIC DIAGRAM. SEE SHEET NO. 490

C. CABINET SHALL BE SINGLE DOOR TYPE AND PANEL OF SQUARE D, GENERAL ELECTRIC OR BULLDOG MAKE.

D. CABINET SHALL BE OF SURFACE TYPE, CONSTRUCTED OF CODE GAGE STEEL AND GALVANIZED OR PAINTED WITH AN APPROVED PROTECTIVE PAINT OR LACQUER. CABINET SHALL BE PROVIDED WITH WIRING GUTTERS AT TOP, BOTTOM AND SIDES. FRONT SHALL HAVE CODE GAGE METAL TRIM AND DOOR.

E. DOOR SHALL BE PROVIDED WITH CYLINDER TYPE LOCK AND THREE KEYS SHALL BE DELIVERED TO THE ENGINEER.

8. HEATING UNITS AND CONTROLS

A. THIS CONTRACTOR SHALL PROVIDE AND INSTALL WHERE SHOWN, 3 ELECTRIC HEATING UNITS FOR EACH TOILET ROOM.

B. EACH UNIT SHALL HAVE A RATING OF 1500 WATTS AND BE TYPE H AS MADE BY CHROMALOX, OR NO. 690-32 INDEECO FOR 240 VOLTS, SINGLE PHASE, 60 CYCLES, A.C.

C. THE GROUP OF THREE IN EACH TOILET ROOM SHALL BE CONTROLLED BY A PROPER TYPE THERMOSTAT AND SWITCH BOTH LOCATED WHERE SHOWN.

9. PHOTOELECTRIC CONTROL SWITCH

A. LIGHTING CIRCUIT DESIGN SHALL PROVIDE MANUAL BY-PASS SWITCHING FOR LOBBY CIRCUIT AND TOILET ROOMS CIRCUIT IN ADDITION TO AUTOMATIC PHOTO ELECTRIC CONTROL.

B. CONTROL SWITCH SHALL BE A G.E. CATALOG N° 6420G016 OR APPROVED EQUAL.

C. SWITCH SHALL BE MOUNTED ON ROOF AT POINT DIRECTED.

10. WIRE AND WIRING

A. WIRE SHALL BE RUBBER COVERED GRADE RHW NON-METALLIC SHEATH CABLE OF TYPE NMC AND BEAR UNDERWRITER'S LABEL.

B. ALL WIRING SHALL BE RUN CONCEALED. Thin wall type conduit (EMT) (Fed. Spec. WW-C-563).

C. WIRE SHALL NOT BE SPLICED ANYWHERE EXCEPT IN OUTLET BOXES. ALL SPLICE JOINTS SHALL BE CAREFULLY MADE, CLEANED, SOLDERED AND TAPED WITH SCOTCH NO. 33 ELECTRICAL TAPE.

D. NO WIRE LESS THAN NO. 12 AWG SHALL BE USED. WIRE SIZE FOR LONG RUNS SHALL BE SUCH SIZE THAT THE DROP IN POTENTIAL TO THE FARTHEST OUTLET SHALL NOT EXCEED 2 % UNDER MAXIMUM LOAD.

E. NO JOISTS OR BEAMS SHALL BE NOTCHED TO RUN WIRES. [illegible] SHALL AND WIRES [illegible]

F. RUNS OF CABLES BETWEEN OUTLET BOXES SHALL BE PROPERLY SUPPORTED OR STRAPPED IN PLACE.

G. CABLE SHALL ENTER BOXES THROUGH A KNOCKOUT AND SHALL BE CLAMPED TO THE BOX IF NOT SUPPORTED WITHIN 8" OF BOX.

11. OUTLET BOXES AND FITTINGS

A. ALL LIGHT AND SWITCH OUTLET BOXES SHALL BE OF HEAVY PRESSED GALVANIZED STEEL OF A STANDARD MAKE AND OF SIZE, SHAPE, USAGE, AND CONNECTIONS.

B. OUTLETS FOR LIGHT FIXTURES SHALL BE 4" SQUARE OR OCTAGONAL.

C. WHERE TWO OR MORE SWITCHES ARE SHOWN AT ONE POINT, GANG OUTLET BOXES SHALL BE USED.

12. SWITCHES

A. ALL SWITCHES SHALL BE FLUSH TYPE TUMBLE SWITCHES, GENERAL ELECTRIC NO. 2842 OR APPROVED EQUAL AS MADE BY ARROW-HART AND HEGMAN, PASS AND SEYMOUR, BRYANT OR HUBBELL.

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·GENERAL LIGHTING NOTES·

TRADE NAMES

Throughout these plans, the use of trade names for electrical lighting equipment is meant to be descriptive only. Comparable products of other electrical firms are acceptable if accessories and main members are compatible with one another and serve the intended purpose.

PULL BOXES

Pull boxes shall be ~~centrifugally~~ precast as shown on the details. Finish grade around pull boxes shall be at least one inch (1") below the top of the pull box.

GALVANIZED STEEL CONDUIT

Galvanized steel conduit shall be rigid standard NEC conduit of sizes indicated. Ends of steel conduit exposed in pole bases and pull boxes are to be provided with insulating bushings. Where bends are necessary, factory ells or appropriate fittings will be used whenever possible. Field bends will be made with hickeys or hydraulic benders only. ~~Conduit shall comply with Federal Specification No.WW-C-581g~~. *Conduit shall comply with Supplemental State of Ohio Specification M-106.11-Galvanized inside and outside after threading and the inside and outside shall be treated with an approved Enamel Coating.*

MERCURY VAPOR LAMPS

Lamps shall be 250 watt and 400 watt as appropriate clear mercury vapor General Electric type H250A37-5 and H400A33-1 or Westinghouse H37-5KB and H33-ICD mercury lamp or an approved equal.

MERCURY VAPOR BALLASTS

Ballasts for street lighting luminaires shall be built-in 230/460 volt, 60 cycle, low temperature regulator type for 400 watt lamps. Ballasts for Picnic Area lights shall be 230/460 volt, 60 cycle,-20°F temperature regulator type for 250 watt lamps and shall be installed in pole transformer base.

CABLE - *600 Volt*

(a) Service Entrance Cable - Service entrance cable shall be 1/c No.2 G.E. No.SI-58006, Okonite Co., or approved equal.

(b) Roadway & Picnic Lighting.

Direct burial and in-conduit below ground cable shall be sizes shown, stranded copper, single conductor, 600 volt, insulated rubber covered GE Special #SI-58089 (Insulation 4/64", Jacket 3/64") Versatol Geoprene or approved equal by General Cable or Anaconda. *FAA-L-824-Type A.*

SPLICES No splices will be allowed except in manholes, lamp standard bases, or junction boxes. No separate payment will be allowed for splicing. Include with circuit cable for pay.

SPLICING MATERIALS

(a) Insulating Tape & Sheathing Tape, Cable Manufacturer's recommendations.
(b) Compression Connector in Standards, Burndy Type YO-C, Thomas & Betts, or approved equal.
(c) Esna Connector kits style 82 fused (Type KTK, 4 Amp. Fuse) & style 83 unfused shall be used for cable connections in all standards.
(d) Esna Connector kits style 51 or 84 shall be used for all Pull Box cable connections.

LAMP WIRING

Lamp and standard wire shall be 600 volt #12 RHW Type SI 58006 as manufactured by General Electric or approved equal by General Cable or Anaconda. Connections and fusing shall be as shown on the details.

CIRCUITS

Circuits shall be 460 volt single phase two wire multiple. All circuits shall be tested to the satisfaction of the engineer to demonstrate that they are free from short circuits and grounds.

STREET LIGHTING LUMINAIRES

Luminaires shall be General Electric type M400, Westinghouse type OV-25 or Line Material Unistyle with ASA light distribution types as indicated on Plans.

PICNIC AREA LUMINAIRE

Luminaires shall be General Electric type PMA-115, *Line Material or* a pproved equal with *I.E.S. Type III distribution* types as indicated on plane.

CABLE MARKERS

The contractor shall furnish and install concrete markers (see detail) as shown on the plans and at each deviation from the normal trench parallel to the roadway and as may be required to indicate deviation from normal straight runs to avoid obstacles. Cost of the markers shall be included in the unit price bid for cable.

TRENCHING (Direct Burial Cable Only)

Trench shall be provided for all underground cable at the locations and in conformity to the design, details and dimensions shown on the plans.

Trench for cable may be excavated manually or with mechanical trenching equipment. Trench walls shall be essentially vertical so that a minimum of shoulder surface is disturbed. Any deviation from the plan line of trench must be approved by the Project Engineer.

Trench bottom shall be smooth and free of coarse aggregate. Minimum width of trench bottom shall be eight inches for two cables. Minimum depth shall be 24 inches.

Bedding material shall consist of clean commercial grade sand conforming to the requirements of Item M-2, Section M-2.1 Sand. Depth of trench at cable crossover point shall be increased three inches.

Cable trench shall be located as shown on the plans.

Trenches shall not be excessively wet or contain pools of water during backfilling operations. Trenches in the shoulder area, between the paved berm and the guardrail, shall be backfilled in layers specified and shall be compacted with mechanical tampers to density specified under Item E-1, Roadway Excavation and Embankment, Table 11, Condition I.

Payment for trenches shall be included in the contract unit price bid. Per lineal foot of cable price shall include excavation, backfill, restoration, guardrail removel and replacement, disposal of surplus material, removal of rock, sand and graded backfill, and for all preparation, labor, equipment, tools and incidentals necessary to complete this work.

RESTORATION (If Applicable)

All areas disturbed by excavation required for installation of cable trench, pull boxes, ducts, lighting standard foundations, control center foundations, service poles, storing of excavated earth and other materials, cable laying and other work shall be restored to its original condition.

RESTORATION (Continued)

Where sod is established, it shall be carefully stripped and replaced as soon as backfilling is completed. Backfilling of area where sod is removed shall be stopped at a depth equal to the thickness of the sod to be used with proper allowance for settlement.

Paved areas shall be placed in a manner equivalent to original surface or as detailed on the plans. The contractor shall be held responsible for maintaining all disturbed surfaces and replacements until final acceptance.

No separate payment shall be made for restoration. The cost of restoration shall be included in the unit price bid for installation of roadway lighting system items which require excavation or otherwise cause existing ground surface to be disturbed.

GROUNDING

All service equipment, lighting standards or sign structures shall be properly grounded in accordance with N.E.C. requirements. 5/8" X 8' copperclad ground rods with approved exothermal type connection and #4 solid bare wire shall be used unless otherwise noted. Rod connections shall be painted with two coats of Glyptal insulating enamel after installation. Resistance to ground shall not exceed 25 OHMS.

SERVICE POLE - POWER - *and TELEPHONE*

The contractor shall furnish and install power service *& telephone* poles as detailed, complete ~~with service equipment and controller~~ as shown on ~~the typical detail for Electric Service Poles~~ Sheet No 492

~~Poles shall be A.S.A. Class 4,35' - 0" southern yellow pine, creosote treated.~~

The contractor shall furnish and install all equipment and appurtenances shown on service pole.

The contractor shall contact the Utility Companies serving the area and verify ~~metering~~ requirements and pole locations.

The contractor shall furnish & install an 1½" conduit from the telephone service poles to the Motorist's Service buildings. S-25 item "1½" galvanized conduit." Conduit shall terminate in an L.B. condulet & extend thru the telephone stand with a 3/4"x4" nipple. A galvanized pull wire shall be left in the conduit. Payment included in 1½" Galvanized Conduit.

Payment shall be made on the basis of unit price bid and shall include all materials, labor, and use of equipment necessary to complete these items.

Guy Wire will only be permitted in the park areas if guy wire is covered with Guy Wire Protector.

LUMINAIRE STANDARD LOCATIONS

Location of island and ramp standards shall be as shown on plans.

Picnic area standards are shown in approximate locations and are subject to final location by the Project Engineer and Landscape Architect.

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GENERAL LIGHTING NOTES

LIGHT POLES

Light poles shall be tapered steel poles, the shaft shall be fabricated from not less than #11 Manufacturers Standard Gauge, hot rolled, basic open hearth, carbon steel. It shall have only one longitudinal, automatically, electrically welded joint and shall have no intermediate transverse joints or welds. Only one length of steel sheet shall be used, which shall be formed into a continuously true tapered shaft, having a taper of approximately .14" per foot.

Shaft shall be cold worked after welding with sufficient pressure to develop a minimum yield strength of 48,000 psi, and to flatten the weld to a true tapered tube of uniform thickness throughout (including the weld area), without flat spots and without finish grinding.

Light poles manufactured by means other than that specified above shall be made of not less than 11 Manufacturers Standard Gauge steel with a minimum yield strength of 48,000 pounds per square inch, meet the permanent set and deflection values tabulated herein and otherwise meet the requirements of these specifications. ~~All such poles shall be shot blasted to remove mill scale and weld slag preparatory to painting.~~

Light poles shall be capable of withstanding loadings (applied 18" from top of pole) without exceeding the permanent set and deflection (measured in inches 18" from top of pole) as tabulated for the respective pole sizes.

Pole Size 11 GA.)	Elast. Def'l In/ 100 Lb	@2/3 Yld.Str. Load 18" From Top	Total Def'l	Perm Set	@Yld.Str. Load 18" From Top	Total Def'l	Perm. Set
6.5"x3.9"x18'-3"	1.16	564	7.04	.50	845	11.28	1.48
8"x3.87"x29'-6"	3.32	517	17.66	.50	776	28.84	3.08
9.0"x4.87"x29'-6"	2.16	659	14.73	.50	989	24.00	2.64

Each pole shall be fitted with a "J" hook, pole top (of same physical design interchangeable with those now in use by system maintenance agency) and ornamental anchor bolt covers.

Anchor base poles shall be fitted with 4" x 6-1/2" reinforced hand hole, locking steel cover and 1/2"-13 grounding nut welded to inside of pole opposite hand hole. Locate hand hole on field side of ground mounted poles. ~~For bridge mounted poles, locate center line of hand hole 17" above pole base on roadway side of pole. Locate grounding nut 18" above pole base.~~

ANCHOR BOLT Brg. Bolt Circle	Proj'n above Found.	MAX. ARM LENGTHS (Single or Double	MTG. HGT.
15"	3"	-	21'-3"
11"	2⅝"	10'-0"	32'-6"
12.5"	3"	15'-0"	32'-6"

Anchor bases shall be one-piece cast steel conforming to ASTM Designation A27, Grade 65-35, having a minimum yield of 35,000 psi and scalloped top flange shall be secured to the lower end of the shaft by two continuous electric arc welds. The base shall telescope the shaft and the one weld shall be on the inside of the base at the end of the shaft, while the other weld shall be on the outside at the top of the base. The two welds shall be not less than 1/2" apart. The welded connection shall develop the full strength of the adjacent shaft section to resist bending action.

The base shall be provided with four (4) holes to receive the anchor bolts, four (4) holes for ventilation located in the body of the base directly behind each anchor bolt hole, and four (4) tapped holes for attaching the ornamental covers.

Transformer bases for 6.0" thru 8.0" base diameter poles shall be fabricated steel, 20" high, 13" square at top and 16" square at bottom. The sides shall be not less than No. 7 Manufacturers Standard Gauge steel SAE 1015 hot rolled semi-killed, modified to AISI carbon range, with yield point 30,000 psi, minimum, and tensile strength 52,000 psi minimum. The top and bottom plates shall be made of 3/4" minimum thick steel plate SAE 1023, hot rolled, semi-killed, modified to AISI carbon range, with a yield point of 30,000 psi, and a tensile strength of 52,000 psi. The door opening shall be approximately 8-1/2" x 9-7/8" x 13-1/4" and the door shall be secured in place by an approved locking device. After complete assembly, the base shall be shot blasted to remove all mill scale and weld slag. Each base shall be provided with four 3/4" thick loose steel plate anchor clips to fasten the base down to the anchor bolts. Clips shall conform to specification for 3/4" plates. The transformer base shall fasten to the shaft anchor base by means of four 1" diameter galvanized hex head machine bolts and nuts per ASTM Specification A-307.

Transformer bases shall have 1/2"-13 tapped hole in base plate for grounding connection. Locate door opening on field side of base unless site conditions dictate otherwise.

Four (4) high grade steel anchor rods, each fitted with a hex nut shall be furnished. Each anchor bolt shall have an "L" bend at the bottom end and be threaded at the top end. Threaded ends and all nuts shall be galvanized with galvanizing extending no more than 2" beyond thread. The anchor bolts shall be capable of resisting at yield strength stress the bending moment of the shaft at its yield strength stress. Anchor bolts shall be fabricated from Steel, AISI C1035, hot rolled special quality, minimum yield strength 46,000 psi. This specification is identical to ASTM A107, Grade 1035 Special Quality.

The bracket arm assembly shall consist of an upper and lower member securely joined by means of vertical strut or struts. The upper and lower members shall be standard steel pipe of 2" I.P.S. ASTM-120 Schedule 40 or larger as required. The pole end of the arm of both members shall have a steel fitting welded to it, which will permit the positioning of the arm on the pole plate and shall be held only by gravity while the arm is secured to the pole by two cap screws per fitting. All arms shall be arranged to accommodate a 2" slip fitter. Fitting and pole plate shall be similar to those now in use by the agency maintaining the system to provide for interchangeability of arms.

Bracket arms and their related pole attachment devices shall sustain a vertical load of 250 lbs. applied within 3" of the luminaire end of the support without collapse or rupture of any portion of the pole assembly.

The bracket arms and their related pole attachment devices shall sustain a vertical load of 100 lbs. applied within 3" of the luminaire end of the support and with the support attached to a rigid structure. The vertical deflection shall not exceed 5-1/2" of the support length. This includes a maximum allowance of 1/2 of 1% of the support length for testing methods and permanent set.

The bracket arms and their related pole attachment devices shall sustain a transverse horizontal load of 50 lbs. applied within 3" of the luminaire end of the support with the support attached to a rigid structure. The horizontal deflection shall not exceed 5% of the support length and the pole attachment devices shall not develop any looseness within the specified loading range. This test shall be conducted with a vertical load of 30 lbs. on the support.

Deflection shall be defined as the total transverse displacement of the longitudinal centerline of the shaft or luminaire support at the point of test load application between its initially unloaded and fully loaded position.

The top elevation of ground mounted pole foundations shall be set to provide the specified mounting height of luminaires above the top of pavement.

~~Poles shall be given two shop coats of paint and two finish green or aluminum coats of paint as per Sec. S-25.~~

GALVANIZING

All steel standards shall be hot dipped galvanized after fabrication in accordance with the requirements of Section M-7.4(d). After erection, standard shall be inspected for scratches in the galvanized surfaces. Such scratches shall be given two coats of a zinc-rich base paint. Second coat shall be applied after first coat has completely dried.

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* for class A-1 pipe
** for class I-3 pipe

ESTIMATED DRAINAGE QUANTITIES FOR SHEET No. 446

■ With slip seal

REF. No.	STATION TO STATION	SIDE	I-15 Stand Type 2-A G.R.	I-8 Inlet Nº 2-6	I-8 Inlet Nº 2-8	I-8 C. Basin Nº 2-3 (mod)	I-8 C. Basin Nº 5	I-8 MH Nº 1	I-10 Dumped Rock Channel Prot.	L-10 Sod	I-2 Masonry	I-5 6"-30° 6"-45° 6"-60° bend**	I-1 Class A-1 MG.6(b) or MG.8(b) 6"	I-1 Class A-1 MG.6(a) or MG.8(b) 27"	I-1 Class A-1 MG.6(a) or MG.8(b) 12"	I-1 Class A-1 MG.6(a) or MG.8(b) 15"	I-1 Class A-1 MG.6(a) or MG.8(b) 27"	I-1 Class A-1 MG.6(c) 27"	I-1 Class A-1 MG.6(c) 24"	I-1 Class E-4 MG.6(c) 12"	I-1 Class E-4 M-4.8(b) 4"■	I-1 Class E-4 MG.6(c) 12"	I-1 Class E-4 MG.6(c) 15"	I-1 Class F-4 MG.6(c) 6"	I-1 Class F-4 MG.6(c) 8"	I-1 Class F-4 MG.6(c) 6"	I-1 Class I-3 MG.6(k) 6"	I-8 Catch Basin No. 2-3 (mod)
	UNITS		L.F.	Ea.	Ea.	Ea.	Ea.	Ea.	C.Y.	S.Y.	C.Y.	Ea.	Ea.	L.F.		L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	Ea.
1-G	16+100, Rt. "F" to 22+37.79 Rt. "F"	Rt.	675																										
1-D	17+15 "F" to 10+50 "F"	Rt.								216																				
2-D	15+90, 94' Rt. to 126' Rt.	Rt.							23		0.81								62											
3-D	21+11 "F"	Lt. & Rt.							5.6		0.47			109																1
4-D	20+75 to 22+25 "F"	Lt.								130																				
5-D	21+16.05, 48' Lt. to 22+70, 35' Rt. "F"	Lt. & Rt.			1											112							26						
6-D	22+29 to 25+25 "F"	Rt.		3	2										147						158									
7-D	24+41 to 25+94 "F"	Rt.							⊗ 8.1																					
8-D	25+10 ℄ to 8+12.5 "E"	Rt.				1	⊗ 1		⊗ 1.7	65	⊗ 0.23									⊗102		⊗140								
9-D	8+25 "E" to 11+25 "E"	Lt.								258																				
10-D	20+15 to 20+85 "F"	Rt.										[1]						126												1
11-D	20+00 to 20+15 "F"	Rt.															26													
12-D											⊗0.15 ⊗										82 ⊗									
I-3, I-1	16+00 Rt. to 21+61.05 Lt. "F"	Lt. & Rt.										2		21				Cl. F-4 M-64(a) 12 Ga.							10		563			
	21+22 to 22+44.5	Rt.																							20		135			
	22+39 to 23+71 35' Rt.	Rt.																							20		110			
	22+56 to 24+21 10' Rt.	Rt.																							10		155			
	23+75 to 25+21 35' Rt.	Rt.																							10		130			
	24+25 to 26+10.5 10' Rt.	Rt.																							10		176			
	25+25 to 26+10.5 35' Rt.	Rt.																							10		85			
	8+26 "E" to 11+75 "E"	Lt.										1														10		348		
	11+75 Lt "E" to 13+00 Rt "E"	Lt. & Rt.										2		21														125		
	Totals to Summary		675	3	3		1		28.6	669	0.88	4	1	42	109	147	112	26	126	62		158	26	90	10	1330	473	2	
	⊗ Totals to Summary							1	9.8		0.38										102	82	140							

⊗ No Federal Participation

[1] 27"-20° Bend Class F-4.

LEGEND FOR PLANTING	SHEET No. 451 Non Part.	451 Part.	472 Non Part.	472 Part	454 Non Part.	454 Part	455 Non Part.	455 Part	475 Non Part.	475 Part	476 Non Part.	476 Part	Non Part. Total	Part Total	Project Total	Item	Unit	Code 7221 DESCRIPTION
A	600	~~600~~											600	~~600~~	600	L-12	Each	Euonymus f. coloratus (Purpleleaf Euonymus) 18"-24" B-B, 11"
B									169		173			342	342	L-13	Each	Chaenomeles lagenaria (Common Japanese Fl. Quince) 2'-3' B-B, 11"
C						117		117		48		72		354	354	L-13	Each	Cotoneaster divaricata (Spreading Cotoneaster) 2'-3' B-B, 11"
D						112		116						228	228	L-13	Each	Euonymus alatus (Winged Euonymus) 2'-3' B-B, 11"
E		26		26										52	52	L-13	Each	Euonymus f. Vegetus (Bigleaf Wintercreeper) 18"-24" B-B, 11"
F		40		32										72	72	L-13	Each	Juniperus horizontalis Plumosa (Andorra Juniper) 2½'-3' B-B, 15"
H	8	~~548~~	8	~~417~~									16	~~975~~	25	L-14	Each	Acer rubrum (Red Maple) 1½"-1¾" B-B 22"
J			~~10~~	~~10~~									10	~~10~~	10	L-14	Each	Acer rubrum (Red Maple) 5"-6" B-B 52"
K	3	~~14~~											3	~~14~~	4	L-14	Each	Acer saccharum (Sugar Maple) 1½"-1¾" B-B, 22"
L	2	~~2~~	3	~~3~~									5	~~5~~	5	L-14	Each	Aesculus glabra (Ohio Buckeye) 1¾"-2" B-B 22"
M	2	~~27~~	10	~~414~~									12	~~618~~	18	L-14	Each	Fraxinus americana (White Ash) 2"-2½" B-B 24"
N	5	~~5~~	5	~~27~~									10	~~217~~	12	L-14	Each	Quercus borealis (rubra) (Northern Red Oak) 1¾"-2" B-B 22"
O			3	~~3~~		0		0		0		0	3	~~339~~	39	L-14	Each	Malus hopa (Hopa Flowering Crab) 4'-5' B-B 14"
P			1	+		0		0		7		8	1	~~308~~	31	L-14	Each	Malus sargenti (Sargent Crabapple) 3'-4' B-B 12"
Q						10		5						15	15	L-14	Each	Malus spectabilis (Chinese Crabapple) 4'-5' B-B 14"
R										5		10		15	15	L-14	Each	Malus loensis plena (Prairie Flowering Crab.) 4'-5' B-B 14"
		388		745										1133	1133	L-3	Sq. Yd.	Placing Stockpiled Topsoil, as per plan
		Lump		Lump										Lump	Lump	L-6	Lump	Roadside Clean-up (Modified) as per plan
		Lump		Lump										Lump	Lump	L-17	Lump	Pruning Existing Trees as per plan
		1427										1392		2819	2819	I-25	Lin. Ft.	Rest Area Fence
	18		18										28		28	Special	Each	Picnic Tables with concrete slab
	5		5										10		10	Special	Each	Charcoal Grill Serving Table
	1		1										2		2	Spec.	EA.	Well Shelter.
	1		1										2		2	Spec.	EA.	Motorists' Services Shelter.
		Lump		Lump										Lump	Lump	L-125	Lump	Parking Lot Stall Marking
	1		1										2		2	Special	Each	Roadside Toilet and Storage Unit
			Lump										Lump		Lump	Special	Lump	Steel Canopy,
	100												100		100	I-15	L.F.	Pedestrian Railing, as per plan

TYPE CODE 7221
100 % STATE PARTICIPATION

DESCRIPTION — LIGHTING

E.B. Rest Area	W.B. Rest Area	Total	Item	Unit	
4	6	10	S-25	Each	STREET LIGHT STANDARD, ANCHOR BASE, 10 FT. SINGLE BRACKET ARM, POLE WIRING, LAMP, BALLAST & 400 WATT LUMINAIRE, TYPE II DIST. AS PER PLAN.
12	11	23	S-25	Each	STREET LIGHT STANDARD, ANCHOR BASE, 15 FT. SINGLE BRACKET ARM, POLE WIRING, LAMP, BALLAST & 400 WATT LUMINAIRE, TYPE II DIST. AS PER PLAN.
4	4	8	S-25	Each	PICNIC AREA LAMP STANDARD, TRANSFORMER BASE, POLE WIRING, LAMP, BALLAST & 250 WATT LUMINAIRE, TYPE III DIST. AS PER PLAN.
2	2	4	S-25	Each	PULL BOX AS PER PLAN.
520	780	1300	S-25	L.F.	WIRE-DIRECT BURIAL & IN CONDUIT BELOW GROUND # 4 AWG. (Lighting Cable)
9100	8730	17830	S-25	L.F.	WIRE DIRECT BURIAL & IN CONDUIT BELOW GROUND # 8 AWG. (Lighting Cable)
1330	1190	2520	S-25	L.F.	1½" CONDUIT-GALVANIZED RIGID STEEL, Direct Burial. (M-106.11)
90	90	180	S-25	L.F.	1½" CONDUIT-GALVANIZED RIGID STEEL, CONCRETE ENCASED. (Under Pavement)
1	1	2	S-25	Each	POWER POLE WITH LIGHT CONTROLLER AND SERVICE SWITCH AS PER PLAN.
3	3	6	S-25	Each	STREET LIGHT STANDARD, ANCHOR BASE, 15 FT. TWIN BRACKET ARM, POLE WIRING, LAMPS, BALLASTS & 400 WATT LUMINAIRES, TYPE II DIST. AS PER PLAN.
1	1	2	S-25	Each	Telephone Service Pole.
700	600	1300	S-25	L.F.	1/c No. 2 600 Volt Service Entrance Cable.
340	290	630	S-25	L.F.	2" Conduit-Galv. Rigid Steel, Direct Burial. (M-106.11) for Service Entrance Cable.
4	4	8	S-25	Each	Foundations with 15" Bolt Circle.
4	6	10	S-25	Each	Foundations with 11" Bolt Circle.
15	14	29	S-25	Each	Foundations with 12½" Bolt Circle.

Quantities for "E" & "F" have been included in the general summary and are to be placed at the direction of the Engineer.

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REST AREAS - DRAINAGE SUB SUMMARY; LIGHTING & ROADWAY GENERAL SUMMARY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

446
638

GUERNSEY COUNTY
GUE-40-17.37

PI = 20+36.52
Ramp "F"

P.O.T. 26+30.41
Baseline

P.I 10+04.34
Ramp "E"

Ex. U.S. 40

Prop. 27"

Ex. 24"

Ex. P.C.

Sheet No. 2 of 6 Sheets

Ex. P.G.

SEE U.S. 40 P&P SHEET No. 41

℄ Survey & Const.

LA-Ex. R/W

MATCH LINE SEE SHEET No. 42

Begin G.R. 16+00

RAMP "F"

N 88° 27' 24" W

2'-6" Class A-1 M.6.6(b) or M.6.8(b) 3%

85, 6" 90° bend Inv. 950.06

2+61.65, 68 Lt. No. 2-3 C.B. Grate 948.30 Inv. 15" 941.66 Inv. 21" 938.49 Inv. 6" 940.00

22+56, 10' Rt. No. 2-8 Inlet Pav't 948.08 Inv. 15" 942.46 Inv. 6" W 942.31

24+25, 10' Rt. No. 2-G Inlet Pav't 949.41 Inv. 12" 943.78 Inv. 6" W 945.08

24+21 End I-3 6" Inv. 945.06

+10.5 End I-3 6" Inv. 946.27

P.O.T. 7+87.88 Ramp "E" ℄ 20+30.41, 10' Lt. 8"Inv. 949.25 8"Inv. 949.25 8:25

P.C. 8+37.88

8+38 6" 60° bend 6" Inv. 949.45

9-D

RAMP "E"

S 75° 09' 01" W

S 58° 37' 14" W

348'-6", M-6.6(h) 10'-8" F-1

21'-6" CLA M 6.6(b) or 12 M-6.8(b)

125'-6" M-6.6(h)

+75.6" 90° Bend 6" Inv. 957.75

(abandon)

P.T. 11+68.48

T.S. 12+90.80

SEE U.S. 40 P&P

MATCH LINE SHEET No. 40

+75.6" 90° Bend 6" Inv. 957.99

LA R/W

90+00 245' Lt.

8+125.5 G' Rt. No. 5 C.B. (Mod.) Grate 948.60 Inv. 12" 945.93

End G.R.

RAMP "E" CURVE DATA
P.I = 10+04.34
Δ = 16° 31' 47"
D = 5° 00'
T = 166.45'
L = 330.59'
R = 1145.92'
E = 12.03'

End Rest Area Fence

1-D

2-D

3-D

4-D

5-D

6-D

7-D

8-D

10-D

11-D

12-D

1-G

15+46, 101' Lt. Inv. 24" 910.01 Type "E" H.W.

+50 Inv. 951.47

+85, 6" 90° bend Inv. 950.70

135'-6" at 0.57%

210'-6", 10'-6" F-1

+10 60° bend Inv. 946.06

2'-7" Δ

109'-M-6.6(b) W 68.00

27"-20° Bend F-4

+22, Begin I-3 Inv. 946.30

112'-15" at 0.71%

+33.17 Rt Begin I-3 22 Inv. 944.03

155'-6", 10'-6" F-4 at 0.98%

26'-15" at 0.5%

105'-12" at 0.6%

91'-6", 10'-6" F-4

55'-12" @ 0.51%

136'-6", 10'-6" F-4 at 0.98%

176'-6", 10'-6" F-4 at 0.68%

103'-12" at 0.7%

85'-6", 10'-6" F-4 at 0.89%

+10.5' 15" Rt 6" Inv. 945.85

8+125.5 G' Rt. No. 5 C.B. (Mod.) Grate 948.60 Inv. 12" 945.93

18'-6" 10'-6" F-4

23+11 End I-3 6" Inv. 944.65

Well Shelter

25+21 End I-3 6" Inv. 945.15

25+25.35' Rt. No. 2-8 Inlet Pav't 943.30 Inv. 12" 943.50 Inv. 6" 945.00

140'-12" at 4.05% Class E-4

22+29.46' Rt. No. 2-G Inlet Pav't 948.28 Inv. 12" 943.28 Inv. 6" 943.99

22+37.79' Rt. Inv. 944.65

22+48.54' Rt. Inv. 944.45

22+70.35' Rt. No. 2-G Inlet Pav't 948.30 Inv. 12" 942.82 Inv. 15" 942.57 Inv. 6" 943.97 (E) Inv. 6" 943.97 (W)

23+75.35' Rt. No. 2-8 Inlet Pav't 948.78 Inv. 12" 943.50 (E) Inv. 6" 944.65 (W)

24+09 177' Rt.

24+72 200' Rt.

6' 23

18" deep D.R.C.P.

Special Pedestrian Guard Rail

25+94.172' Rt. No. 1 M.H. Top 945.00 Inv. 6" 940.77 Inv. 12" 940.27

102'-12" at 19.87% M.6.6(c) Class D-1

25+10.229' Rt. Inv. 12" 920.00 Type "E" H.W. 1-10 I.C.Y. D.R.C.P. 1-2 Masonry 0.23 C.Y.

~NOTE~
All items behind the rear curb of the parking lot are not participating except the lighting and the screening shrubbery.
~~trees~~ and the earthwork.

RAMP "F" CURVE DATA
P.I = 13+91.21
Δ = 3° 24' 30"
D = 0° 30'
T = 341.21'
L = 682.22'
R = 1145.916'
E = 5.08'

125' R

LA R/W

CHANNEL EASEMENT

18+00 265' Rt.

101+00 650 Lt.

99+00 355' Lt.

Begin Rest Area Fence

98+00 575' Lt.

90+235 579' Lt.

Rest Area Fence

LA R/W

HETTIE HAZEL BELL
MARY HELEN WEINERT
EMMA CYRICA BOND

JOHN G. LAUGHMAN &
WILMA M. LAUGHMAN

STRUCTURE No. GUE-40-17.84
STATION 96+05
PROPOSED 27" CULVERT
SEE SHEET No. 540

Approx. No. of trees outside of Const'l Limits & within West Bound Rest Area R/W Limits.

SIZE	NO.
2" to 18"	110
18" to 24"	10
24" to 30"	11

PROFILE 8-D

Existing 102'-12" at 19.87% Class D-1 M.6.6(c)

Prop'd 140'-12" at 4.05% Class E-1

25+10.229 Rt. Inv. 12" 920.00

25+94.172 Rt. No. 1 M.H. Top 945.00 Inv. 6" 940.77 Inv. 12" 940.27

8+125.5G Rt. No. 5 C.B. (Mod.) Grate 948.60 Inv. 12" 945.93

960 940 920 900

950 940 930

0 50 100 150 200 250 300

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SECTION A-A

4'-0" Rounding

FRONT ELEVATION

PEDESTRIAN RAIL

Rails shall be wooden poles meeting the requirements of Sec. M-8.4 except that all diameters shall be greater than 9" and less than 13".

Rails shall be notched 2" to 4" deep to receive the tops of posts. Notches shall not be more than 1/8" longer than the top dimension of the post.

Posts shall be round wood guard rail posts meeting the requirements of Sec. M-8.5. Posts shall be cut off with the side facing the parking lot 1" lower than the rear side.

Rails and posts shall be pressure treated with pentachlorophenol in accordance with Sec. M-8.5.

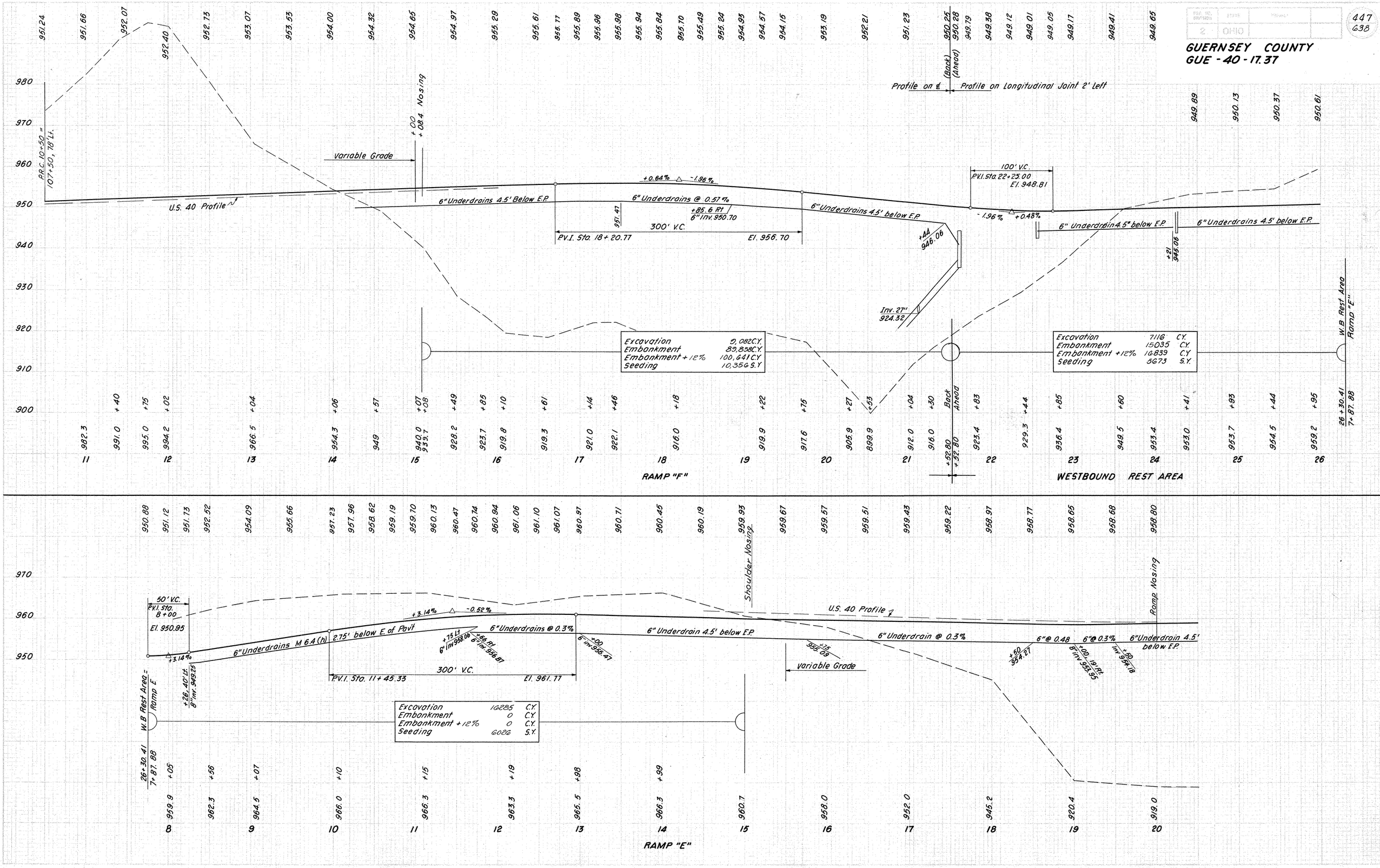
19'-3" 3" 1'-10½" 8'-0" ℄ 2" Min. 18'-9" 8'-0" ℄ 0:2 W/W 9.9

WESTBOUND REST AREA

FED. NO. | STATE | PROJECT
2 | OHIO

447
638

GUERNSEY COUNTY
GUE - 40 - 17.37



WESTBOUND REST AREA Ramps "F" and "E" Profiles

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

448
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GUERNSEY COUNTY
GUE-40-17.37

641+55 U.S.40 15-21ML-II
643+75 U.S.40 15-21ML-II
645+85 U.S.40 15-21ML-II
647+95 U.S.40 15-21ML-II
649+95 U.S.40 15-21ML-II
652+05 U.S.40 15-21ML-II
654+15 U.S.40 15-21ML-II

LA R/W

2-#10-2-2"C.
2-#4-1½"C.
2-#8-1½"C.
2-#4-1½"C.
2-#4-1½"C.
Well
Includes in lump Sum Toilet Bldg. for payment
2-#10 Motorist's Service PIC.
TOILET & STORAGE
21'
155'
115'
43'
1½" Tele. Conduit
PULLBOX
PULLBOX
2-#8-1½"C.
2-#8

13+75 RAMP "E" 10-21ML-II
11+50 RAMP "E" 10-21ML-II
9+30 RAMP "E" 10-21ML-II
25+90 RAMP "F" TWIN (15-21ML-II)
24+25 RAMP "F" TWIN (15-21ML-II)
22+60 RAMP "F" TWIN (15-21ML-II)
21+15 RAMP "F" 10-21ML-II
18+95 RAMP "F" 10-21ML-II
16+75 RAMP "F" 10-21ML-II
103+50 U.S.40 15-21ML-II
105+50 U.S.40 15-21ML-II
107+50 U.S.40 15-21ML-II
109+70 U.S.40 15-21ML-II

641 642 643 644 645 646 647 648 649 650 651 652 653 654 655
655 656 657 88 89 90 91 92 93 94 95 96 97 98 99 100 101
101 102 103 104 105 106 107 108 109 110

-L E G E N D-

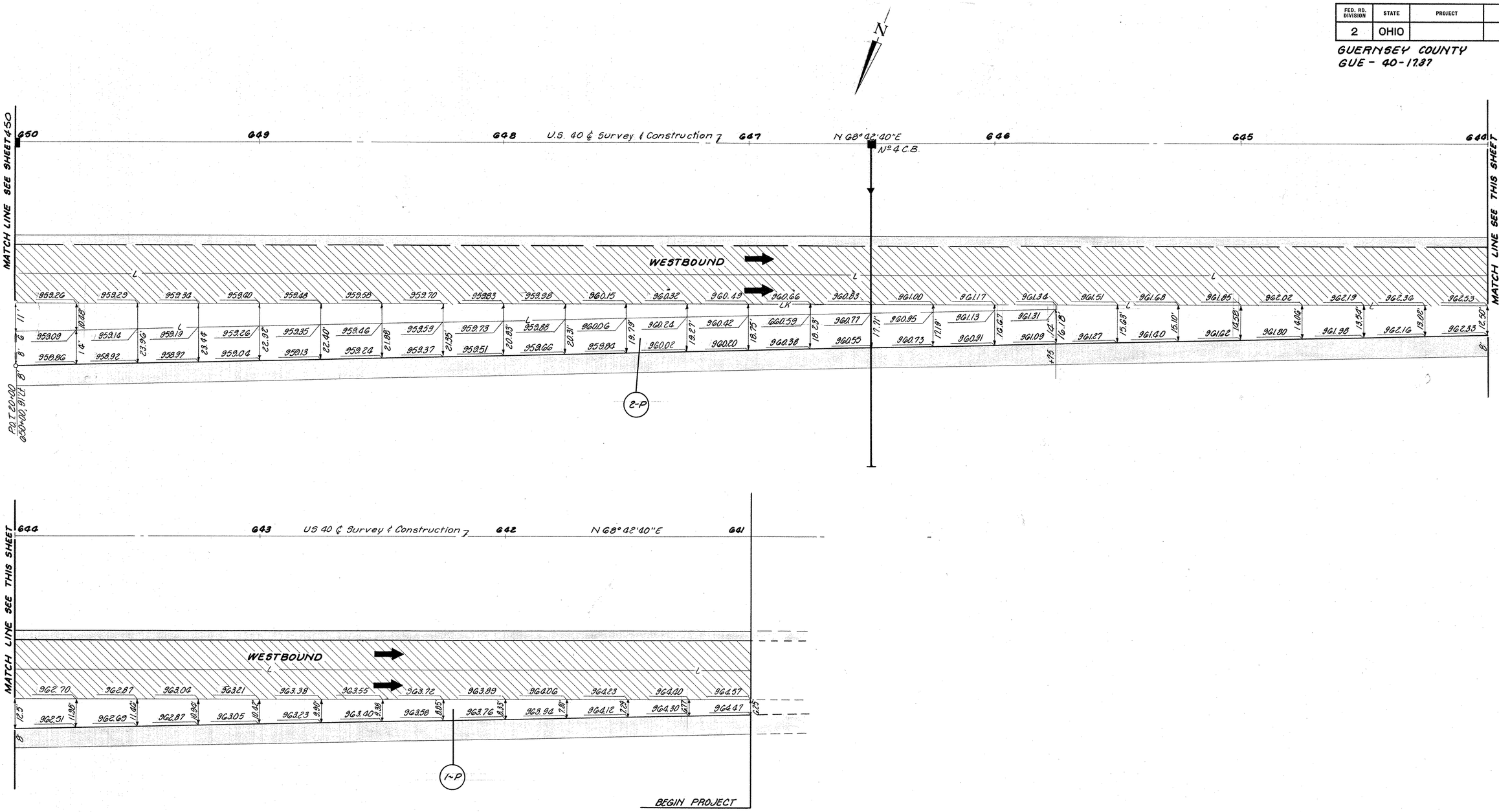
- STEEL LIGHT STANDARD, ANCHOR BASE, WITH SINGLE OR TWIN BRACKET ARM, FOUNDATION, LUMINAIRE, LAMP, BALLAST AND POLE WIRING
- TELEPHONE SERVICE POLE AND CONDUIT
- PICNIC AREA STEEL LIGHT STANDARD, ANCHOR BASE, FOUNDATION, LUMINAIRE, LAMP, BALLAST & POLE WIRING
- POWER POLE WITH LIGHT CONTROLLER
- DIRECT BURIAL CABLE (Roadway Lighting)
- CABLE IN CONDUIT (Island & Picnic Lighting)
- CABLE IN CONDUIT, CONCRETE ENCASED - Under Pavement.
- Service Entrance Cable.

· WEST BOUND REST AREA · LIGHTING PLAN ·

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

443
638

GUERNSEY COUNTY
GUE - 40-17.37



PAVEMENT QUANTITIES

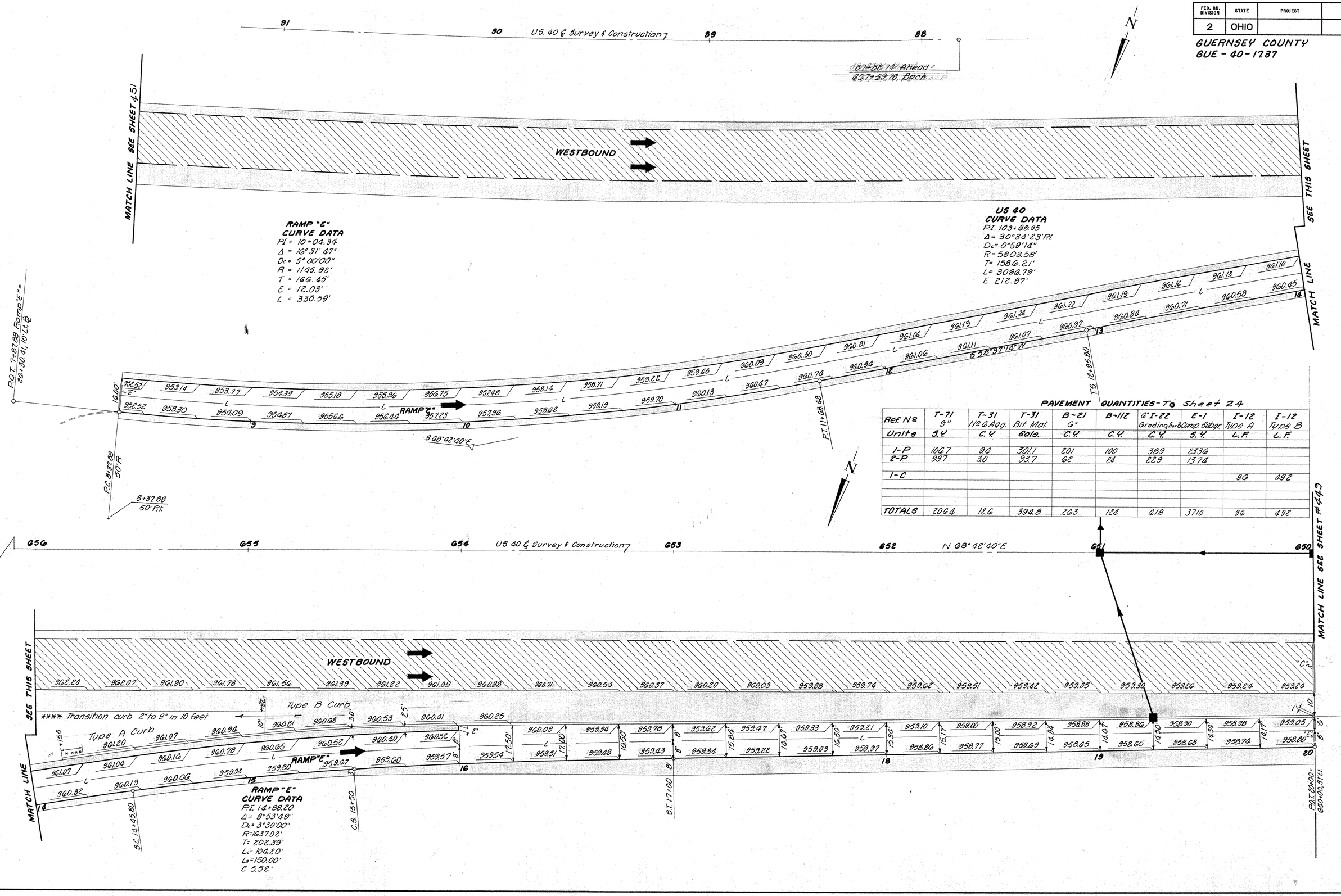
Ref. Nº	T-71 9"	T-31 Nº 8 Agg.	T-31 Bit. Mat.	B-21 6"	B-112	I-22, 6" Grading A or B	E-I Comp. Subgr.		
Units	S.Y.	C.Y.	Gals.	C.Y.	C.Y.	C.Y.	S.Y.		
1-P	313	2.1	66.7	44	22	97	579		
2-P	1250	4.3	133.3	89	44	297	1783		
TOTALS	1563	6.4	200.0	133	66	394	2362		

PAVEMENT DETAILS - RAMP "E"

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

450/638

GUERNSEY COUNTY
GUE - 40 - 17.37



PAVEMENT QUANTITIES - To Sheet 24

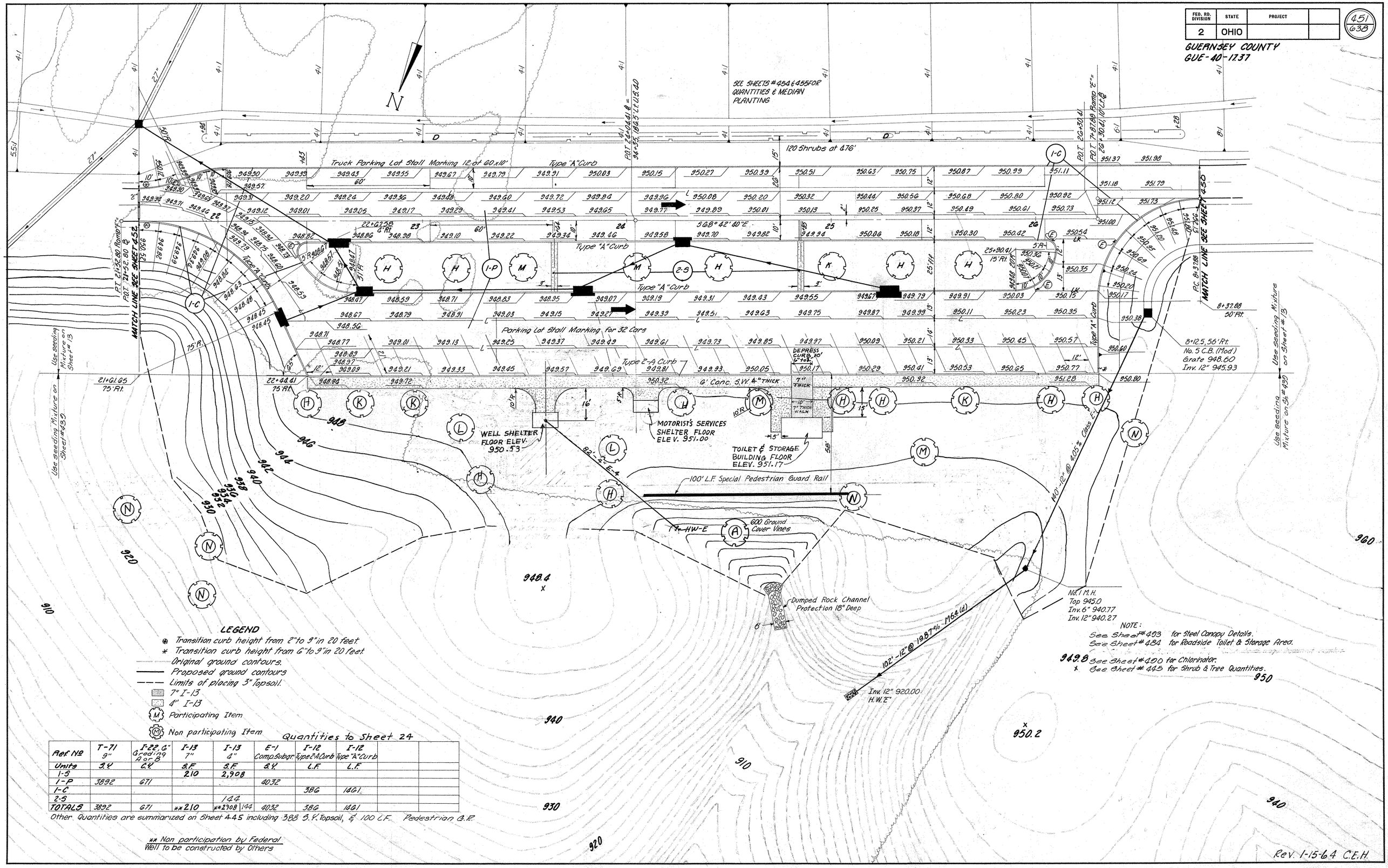
Ref. Nº	T-71 9"	T-31 Nº 2 Agg.	T-31 Bit. Mat.	B-21 6"	B-112	C&I-22 Grading A or B	E-1 Comp. Subgr.	I-12 Type A	I-12 Type B
Units	S.Y.	C.Y.	Bbls.	C.Y.	C.Y.	C.Y.	S.Y.	L.F.	L.F.
1-P	1067	96	301.1	201	100	389	2330		
2-P	997	30	93.7	62	24	229	1374		
1-C								90	492
TOTALS	2064	126	394.8	263	124	618	3710	90	492

PAVEMENT DETAILS - RAMP "E"

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

451
638

GUERNSEY COUNTY
GUE-40-17.37



NOTE:
See Sheet #493 for Steel Canopy Details.
See Sheet #484 for Roadside Toilet & Storage Area.
949.8 See Sheet #490 for Chlorinator.
x See Sheet #445 for Shrub & Tree Quantities.

LEGEND

- ⊛ Transition curb height from 2" to 9" in 20 feet.
- * Transition curb height from 6" to 9" in 20 feet.
- Original ground contours.
- Proposed ground contours
- Limits of placing 3" Topsoil.
- 7" I-13
- 4" I-13
- (M) Participating Item
- (M) Non participating Item

Quantities to Sheet 24

Ref. No	T-71 9"	I-22, 6" Grading A or B	I-13 7"	I-13 4"	E-1 Comp. Subgr.	I-12 Type 2-A Curb	I-12 Type "A" Curb		
Units	S.Y.	C.Y.	S.F.	S.F.	S.Y.	L.F.	L.F.		
1-S			210	2,908					
1-P	3892	671			4032				
1-C						386	1461		
2-S				144					
TOTALS	3892	671	**210	**2908 | 144	4032	386	1461		

Other Quantities are summarized on Sheet 445 including 388 S.Y. Topsoil, & 100 L.F. Pedestrian G.R.

** Non participation by Federal
Well to be constructed by Others

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PAVEMENT DETAILS ~ WEST BOUND REST AREA

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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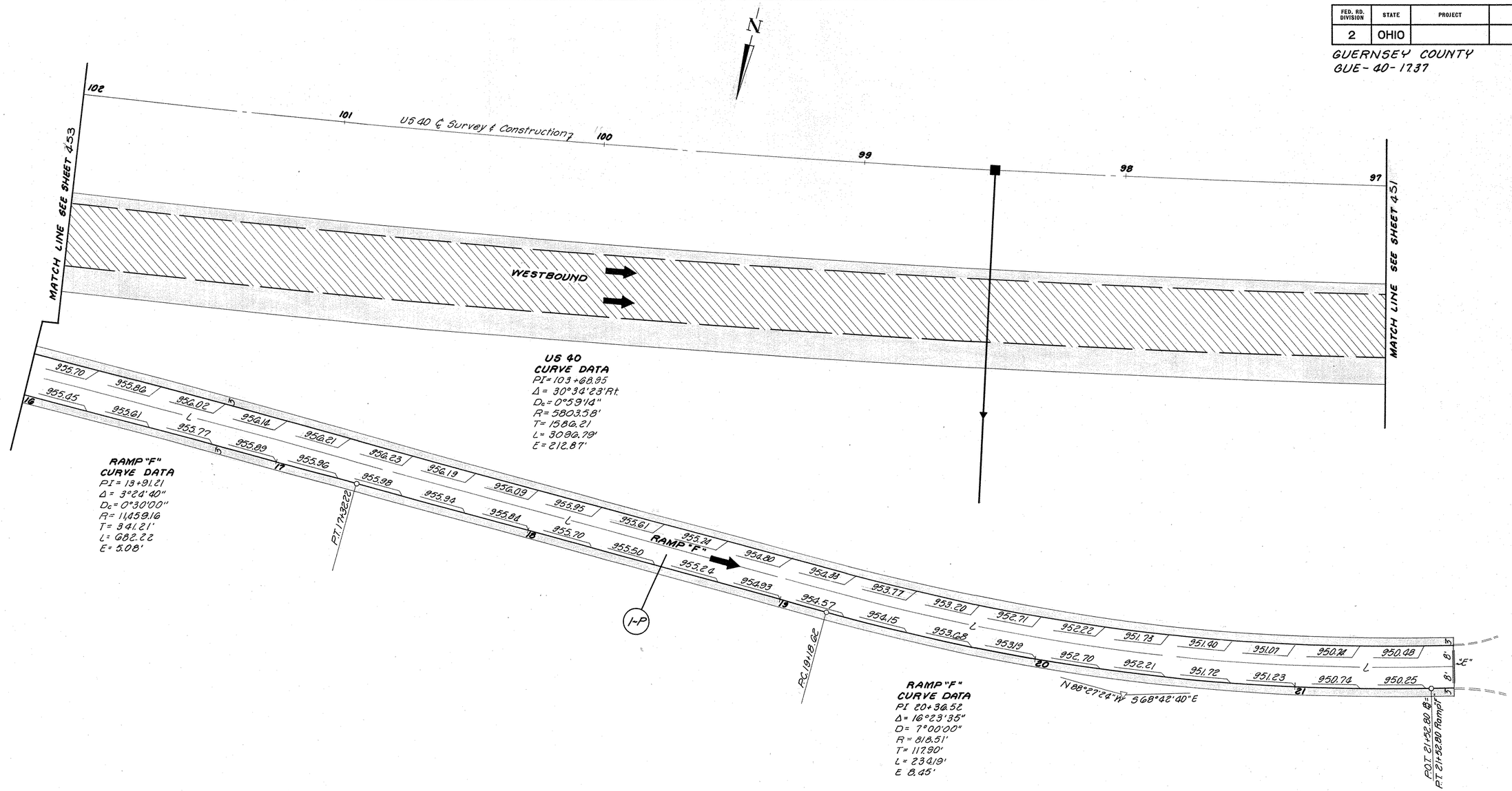
GUERNSEY COUNTY
GUE-40-1737



RAMP "F"
CURVE DATA
PI = 20+30.52
Δ = 16°23'35"
D = 7°00'00"
R = 818.51'
T = 117.90'
L = 234.19'
E = 8.45'

PAVEMENT QUANTITIES

Ref. No	T-71	T-31	T-31	B-21	B-112	I-22,6" Grading A or B	E-1		
Units	S.Y.	C.Y.	Gals.	C.Y.	C.Y.	C.Y.	S.Y.		
1-P	997	3.0	93.5	62	23	229	1371		
TOTALS	997	3	93.5	62	23	229	1371		

PAVEMENT DETAILS RAMP "F"

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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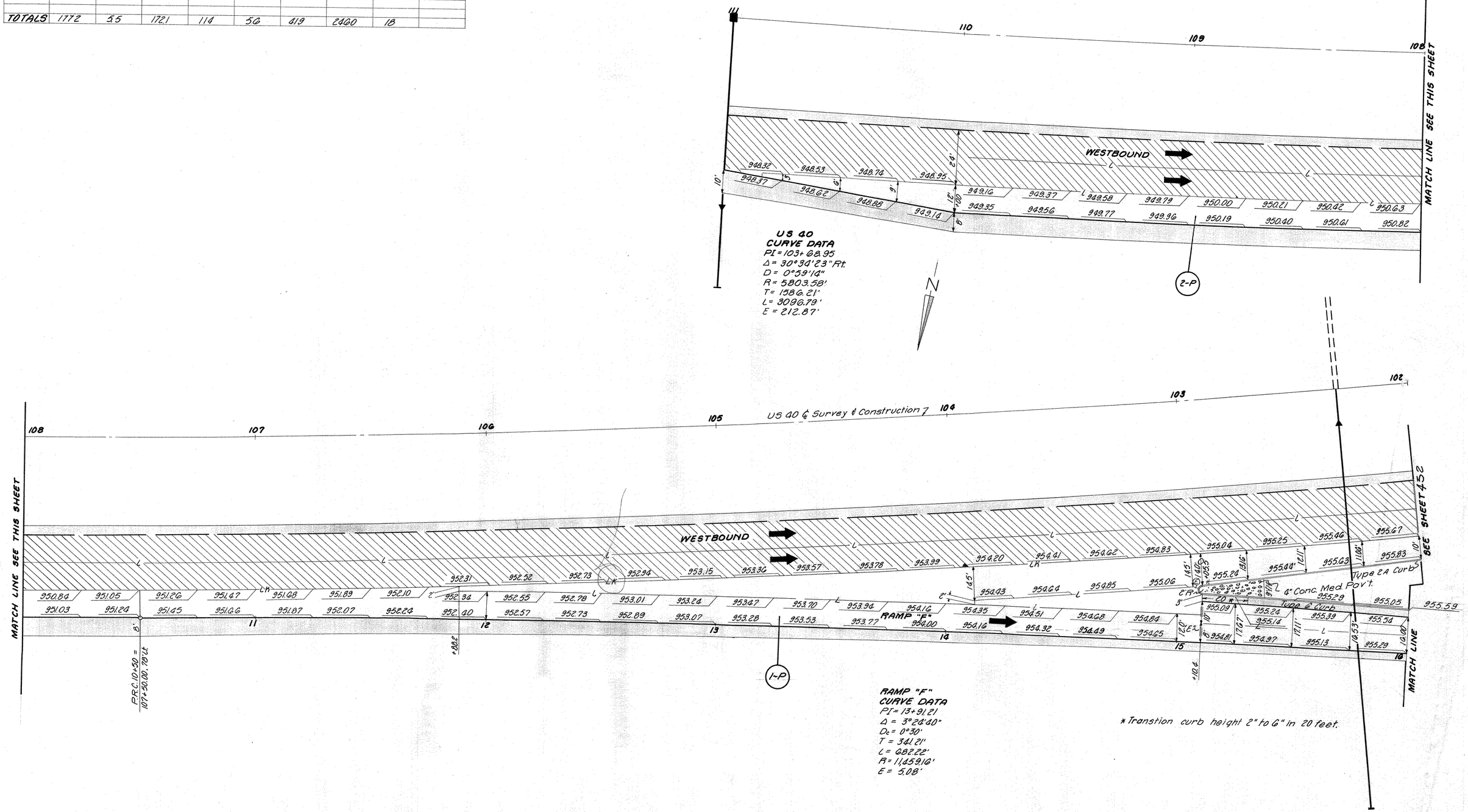
638

GUERNSEY COUNTY
GUE-40-17.37

PAVEMENT QUANTITIES

Ref. No	T-71 9"	T-31 No 6 Agg.	T-31 Bit. Mat.	B-21 6"	B-112	I-22.6 Grading A or B	E-1 Comp. Subgr.	I-21 6"	
Units	S.Y.	C.Y.	Gals.	C.Y.	C.Y.	C.Y.	S.Y.	S.Y.	
1-P	1439	3.3	102.6	68	33	317	1849	18	
2-P	333	2.2	69.5	46	23	102	611		
TOTALS	1772	5.5	172.1	114	56	419	2460	18	



FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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GUERNSEY COUNTY
GUE-40-17.37

N

℄ Westbound Rest Area ℄

RAMP "E"

PT 11+68+48

58 Shrubs @ 228'
D

15'

WESTBOUND

MATCH LINE - SEE THIS SHEET

18 Shrubs of 68'
D

℄ Survey ℄ Const. -U.S.-40 ℄

18 Shrubs of 68'
D

39 Shrubs of 152'
C

MATCH LINE - SEE SHEET 435

EASTBOUND

Ex. U.S. 40

18 Shrubs of 68'
D

39 Shrubs of 152'
C

℄ U.S. 40 SURVEY & CONST

39 Shrubs of 152'
C

87+82.74 Ahead =
657+59.78 Back

MATCH LINE - SEE THIS SHEET

NOTE:
Quantities taken to Sheet # 445

℄ Proposed U.S. 40

MEDIAN PLANTING
Shrubs.....8'-0" OC.
Trees.....15'-0" OC.

WESTBOUND REST AREA PLANTING PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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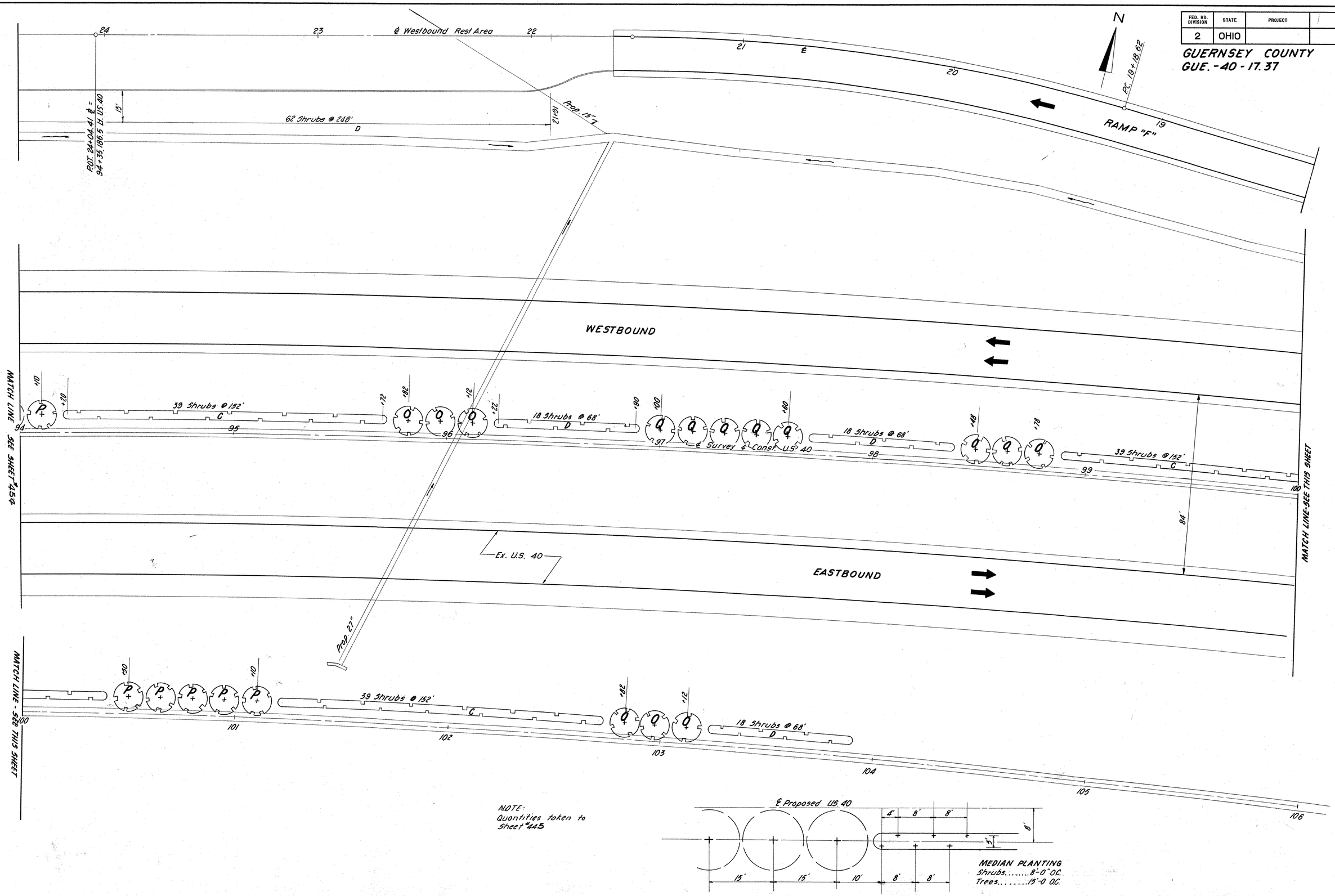
GUERNSEY COUNTY
GUE.-40-17.37



WESTBOUND REST AREA PLANTING PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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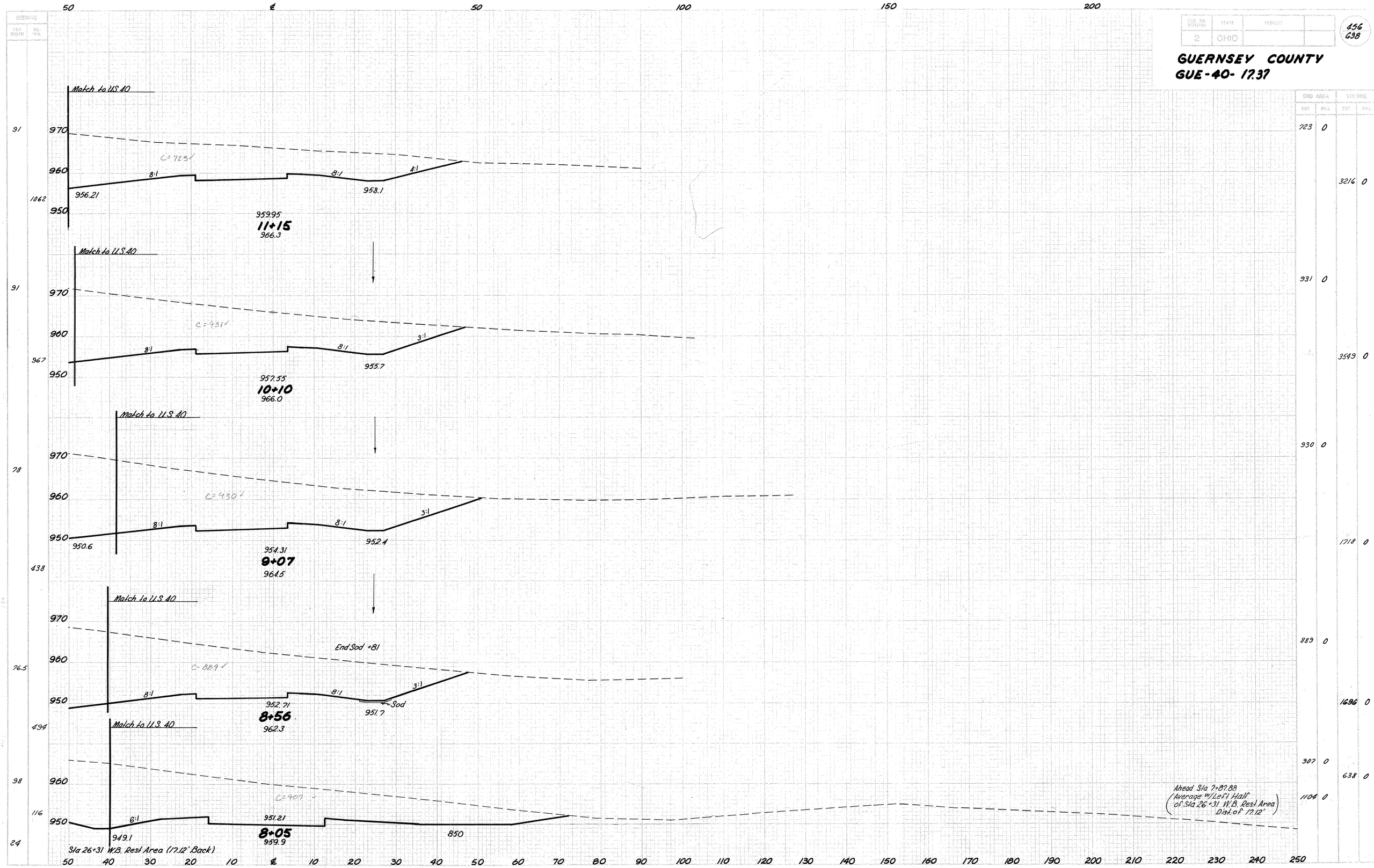
GUERNSEY COUNTY
GUE-40- 17.37



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
723	0		
		3216	0
931	0		
		3549	0
930	0		
		1718	0
889	0		
		1696	0
907	0		
		638	0
1104	0		

RAMP "E" 8+05 ~ 11+15

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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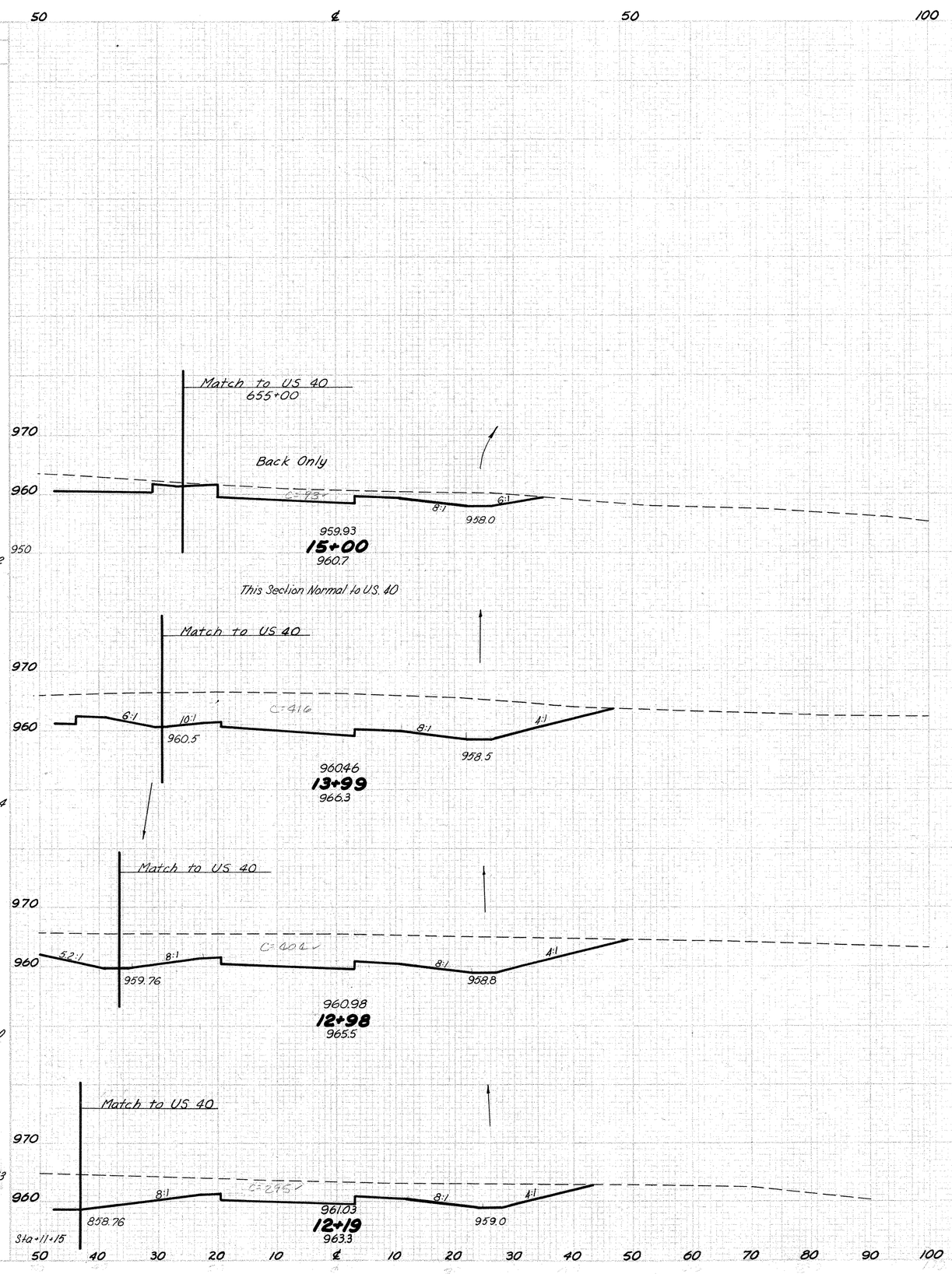
GUERNSEY COUNTY
GUE-40-17.37

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
48	572		93	0	
					952 0
64	774		416	0	
					1534 0
74	650		404	0	
					1022 0
74	953		295	0	
					1960 0
91		Sta 11+15	723	0	



RAMP "E" 12+19 ~ 15+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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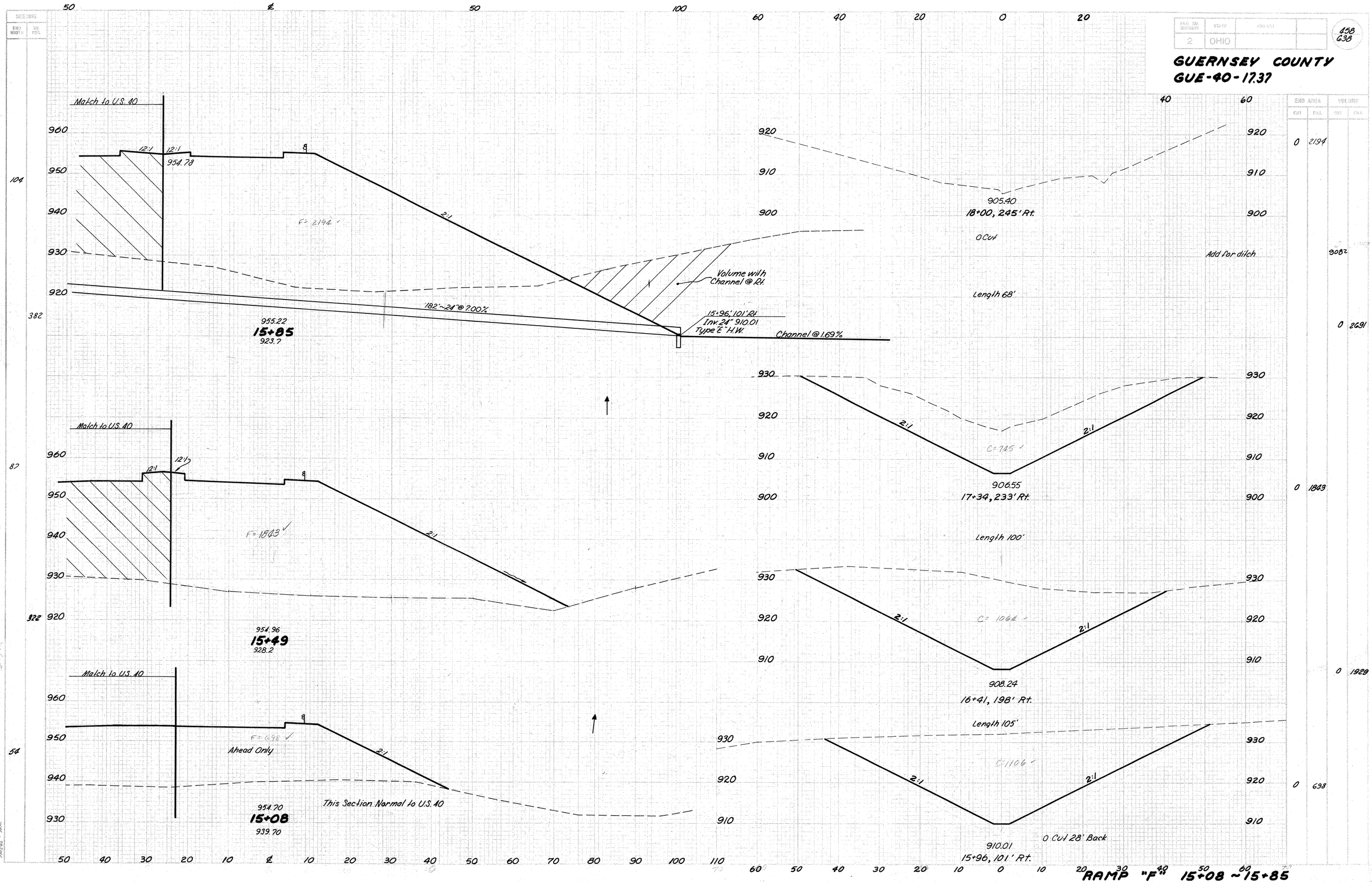
638

GUERNSEY COUNTY
GUE-40-17.37



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
0	2194		
		9082	
		0	2691
0	1843		
		0	1929
0	698		

RAMP "F" 15+08 ~ 15+85

FED. NO. DIVISION	STATE	PROJECT	
2	OHIO		

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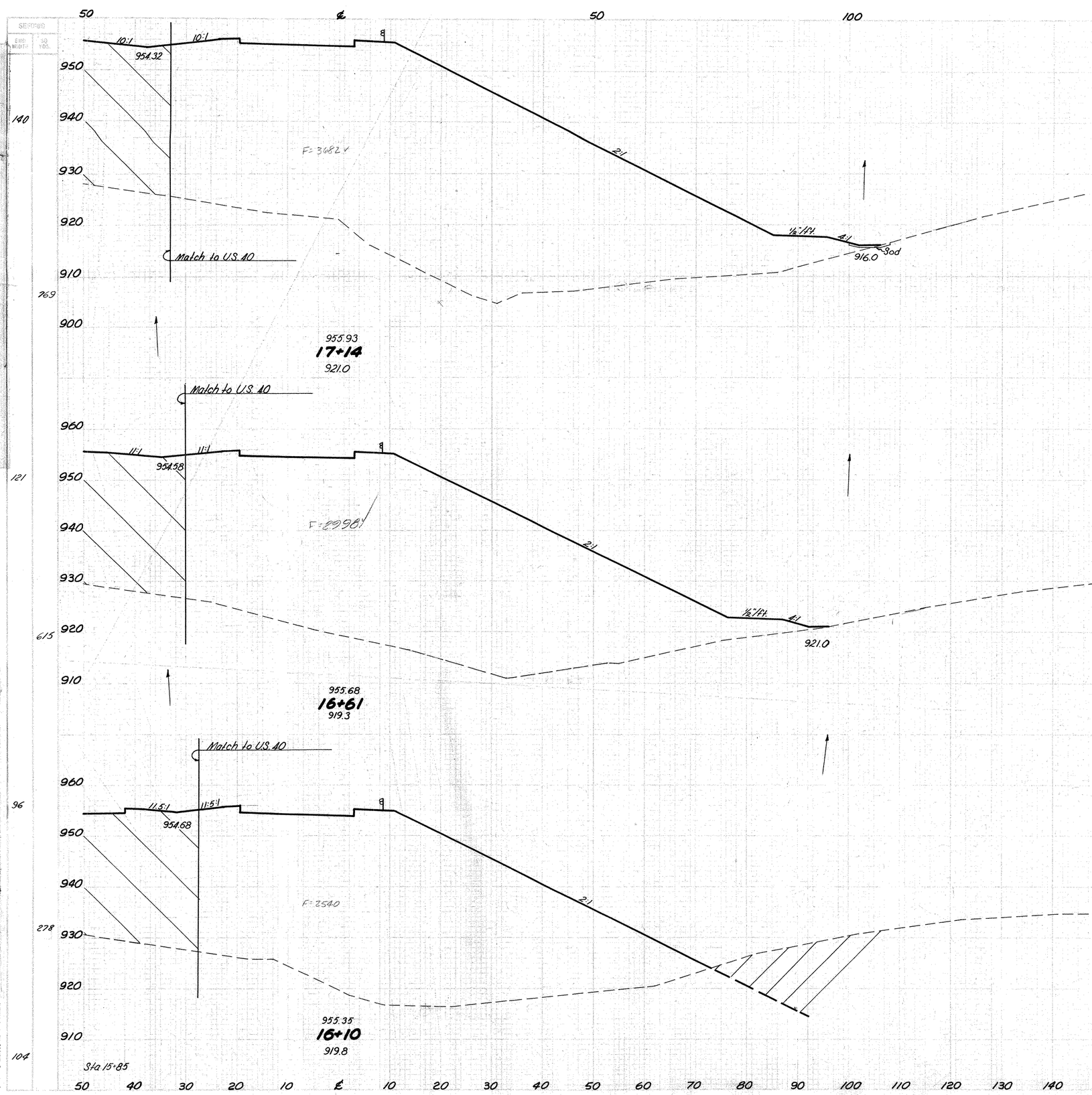
G38

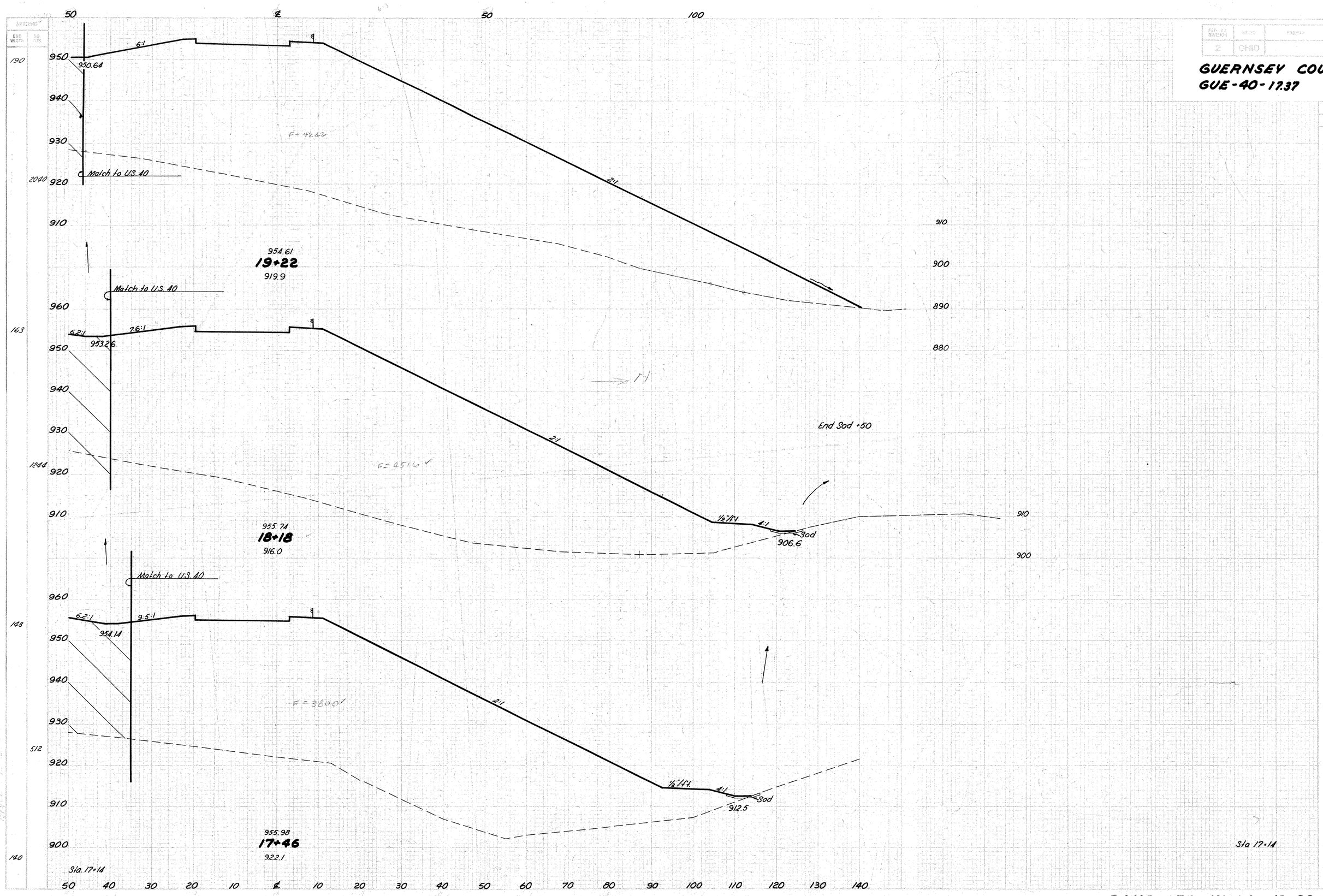
GUERNSEY COUNTY
GUE-40-17.37



END AREA		MID-ORD	
CUT	FILL	CUT	FILL
0	3682		
		0	6556
0	2998		
		0	5230
0	2540		
		0	2192
0	2194		

Sta 15+85

RAMP "F" 16+10 ~ 17+14



FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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GUERNSEY COUNTY
GUE-40-17.37

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
0	4242		
		0	16,868
0	4516		
		0	11,088
0	3800		
		0	4434
0	3682		

RAMP "F" 17+46 ~ 19+22

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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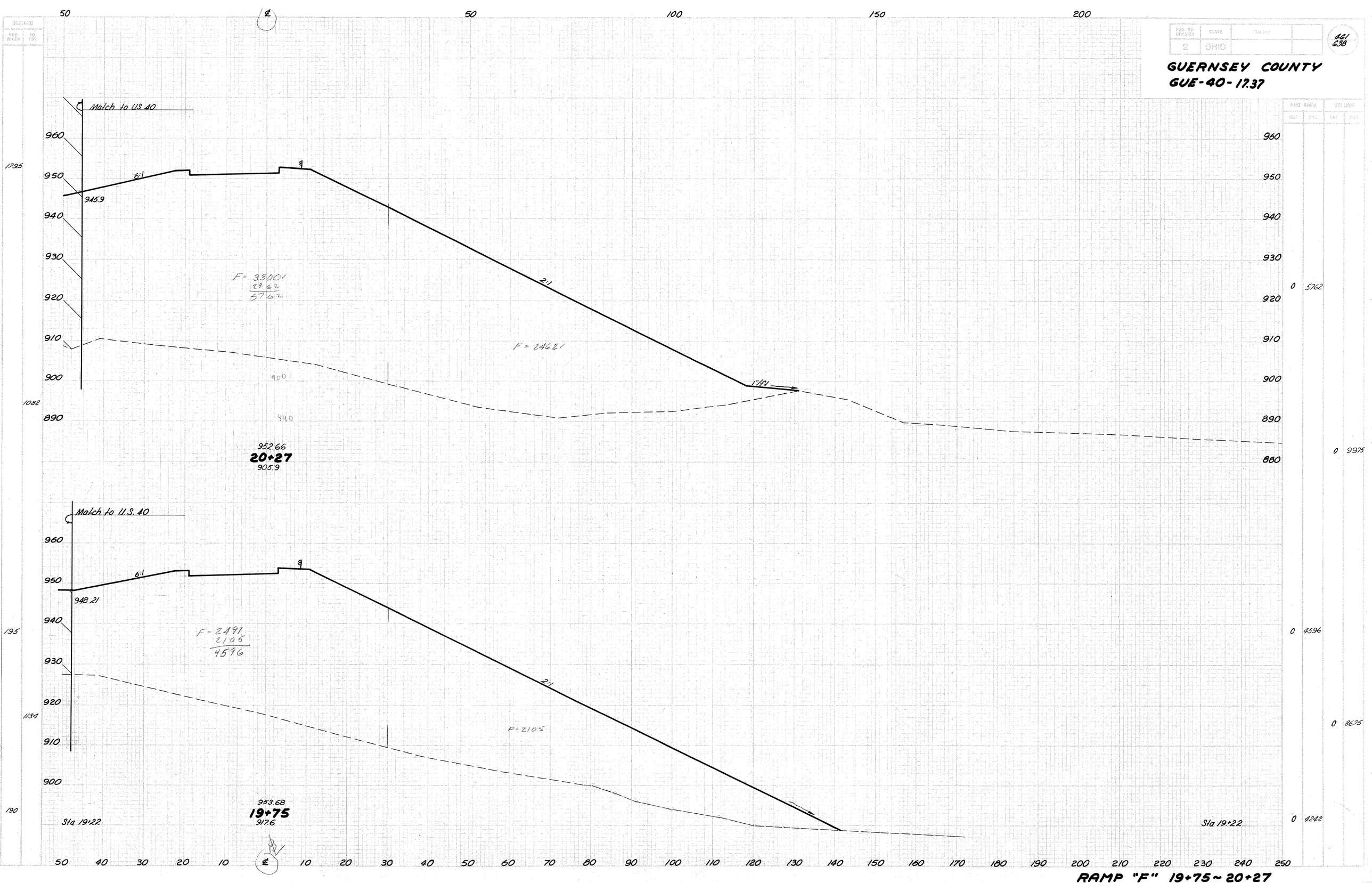
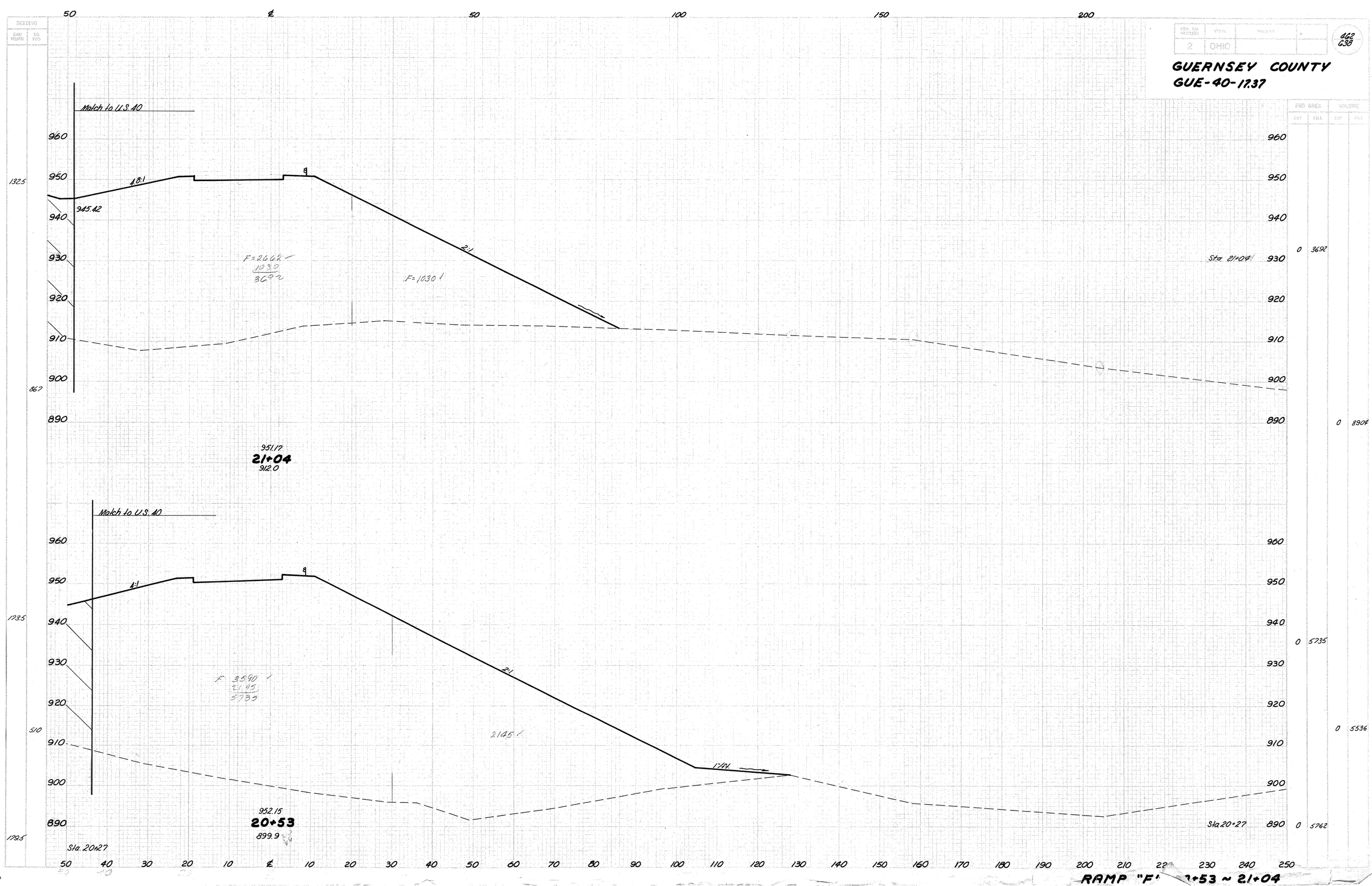
638

GUERNSEY COUNTY
GUE-40-17.37



RAMP "F" 19+75 ~ 20+27



FED. RD. DIVISION
2
STATE
OHIO
462
638
GUERNSEY COUNTY
GUE-40-17.37
SEEDING
END WIDTH
SQ. YDS.
END AREA
VOLUME
CUT
FILL
Match to U.S. 40
4.8:1
2:1
945.42
F=2662
1030
3692
F=1030
Sta. 21+04
951.17
21+04
912.0
Match to U.S. 40
4:1
2:1
F 3590
2145
5735
2145
1:4
952.15
20+53
899.9
Sta. 20+27
Sta. 20+27
0 3692
0 8904
0 5735
0 5536
0 5762
132.5
86.7
173.5
51.0
179.5
RAMP "F" 20+53 ~ 21+04

FED. HWY. DIVISION	STATE	PROJECT	
2	OHIO		

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G38

GUERNSEY COUNTY
GUE-40-17.37

SEEDING

END WIDTH	SQ. YDS.
143	
96	
106	
132.5	
810	
595	
345	

50 ℄ 50 100 150 200

Match to U.S. 40
4:1
F= 2571
6:1
1½:1 Fl.
942.04
22+44
929.3
930
920
910
900

Match to U.S. 40
4:1
F= 2252.1
2:1
942.62
21+83
923.4
950
940
930
920
910

Match to U.S. 40
P.O.T. 21+52.80 WB Rest Area Baseline (Ahead)
= P.T. 21+52.80 Ramp "F" (Back)
5.5:1
F= 3140.1
2:1
950.64
21+30
916.0
960
950
940
930
920
910
900
Sta. 21+04

END AREA — CUT / FILL — VOLUME — CUT / FILL

930 — 0 2571
920
910
950 — 0 5449
940
930
920 — 0 2252
910 — 0 2802
900
21+52.80, Ahead & Back — 0 2758
950 — 0 2490
940
930 — 0 3140
920 — 0 3290
910
900 — 0 3692
Sta. 21+04

50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250

RAMP "F" & WESTBOUND REST AREA 21+30 ~ 22+44

FED. AID DIVISION	STATE	PROJECT	
2	OHIO		

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GUERNSEY COUNTY
GUE-40-17.37

SECTIONS		END AREA		VOLUME	
END WASTE	END FILL	CUT	FILL	CUT	FILL
167	520	412	975	446	630
167	626	447	248	112	
108	402	546	41	254	219
73	879	805	134	556	130
138	640	0	1480	285	2242
157		0	3076	0	2571

Match to US.40
960
950
940
930
910
920
3.5:1
O=300'
F=3
C=112'
F=760'
2:1
C&F=125'
90°
7.5
C&F=90'
949.98
24+69
952.4

Match to US.40
960
950
940
910
930
920
4:1
O=447'
F=3
F=262'
2:1
1½"/ft.
949.82
24+41
953.0

Match to US.40
960
950
940
930
920
4:1
O=346'
F=3
1½"/ft.
F=95'
5:1
949.65
24+00
953.1

Match to U.S.40
960
950
940
930
950
6"
4:1
F=33'
F=3
O=204'
Proposed Building
Floor Elev. 950.53
F=40'
5:1
949.42
23+60
949.5

Match to US.40
960
950
940
930
950
940
930
4:1
F=1480'
1½"/ft.
2:1
1½"/ft.
949.07
22+85
936.4

Add for Bench Cut

Sta.22+11

50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250

Sta.22+11

WESTBOUND REST AREA 22+85 ~ 24+69

SCALE	
ERO WIDTH	CR. TOPS
24	
54	
268	
80	
459	
82	
419	
66	
311	
167	

FED. AID DIVISION	STATE	PROJECT	
2	OHIO		

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638

GUERNSEY COUNTY
GUE-40-17.37

Ahead 8+05 Ramp "E" (17.12' Ahead)

Back

Ahead Only
Average with Sta 8+05
a Distance of 17.12'

Match to US 40

C=1104'

C=196'

6:1

½"/Ft.

1"/Ft.

Full Section Back

950.88
26+31
960.3

Match to US 40

C=1040'

4:1

F-3

950.56
25+95
959.2

Match to US 40

F-3

C=670'

4:1

950.31
25+44
954.5

Match to US 40

F=3

C=550'

4:1

F=18'

950.07
24+93
953.7

Sta. 24+69

Ahead Sta 8+05 Ramp "E"
(17.12' Ahead)

Add for Bench Cut
@ Sta. 24+69

ERO AREA CUT	ERO AREA FILL	VOLUME CUT	VOLUME FILL
1104	0		
1300	0		
		1560	4
1040	6		
		1615	11
620	6		
		1152	85
550	21		
		524	443
		112	
629	975		

WESTBOUND REST AREA **24+93 ~26+31**

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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638

GUERNSEY COUNTY
GUE-40-17.37

* Class A-1 pipe
** Class I-3 pipe

ESTIMATED DRAINAGE QUANTITIES FOR SHEET 467

■ With slip seals

REF. No.	STATION TO STATION	SIDE	I-15	I-8 Inlets			I-8 C.B.	I-8 M.H.			L-10	I-2	I-5		I-1											
															Class A-1				D-4	Class E-4		Class F-4			Class I-3	
			Stand. Type C-A G.R.	No. 2-6	No 2-8	No. 2-10	No. 2-3 (Mod)		No. 2 (Mod)		Sod	Masonry	6'-0" Bends*	6'-0" Bends*	MG.6(b) or MG.8(b)	6"	MG.6(a) or MG.8(a) 12"	MG.6(c) or MG.8(c) 24"	24"	12"	M-6.8(a) 4" ■	MG.4(c) 6"	8"	MG.6(c) 6"	MG.6(h) 6"	
	UNITS		L.F.	Ea.	Ea.	Ea.	Ea.		Ea.		SY	CY	Ea.	Ea.	L.F.		L.F.		L.F.	L.F.		L.F.	L.F.	L.F.	L.F.	
1-G	G+40 "G" to 8+54 "G"	Rt.	212.5																							
1-D	5+75 "G" to 10+08	Rt.									336															
2-D	7+68 "G" to 12+33 E.B. RA	Lt.									610															
3-D	11+28 Lt to 11+85 Rt.	Lt & Rt.		3								0.23					109			56						
4-D	15+09 Rt. E.B. RA to 5+75 Lt "H"	Lt & Rt.			2	1											157									
5-D	15+00 Lt E.B. RA to 5+96 R "H"	Lt & Rt.					1 ⊗		1			0.27⊗							150	116⊗						
7-D	5+93 "H" to G+94 "H"	Rt.									147															
8-D												0.15⊗									70⊗					
	G+00 "G" to 9+50 "G"	Rt.												1									10	368		
	9+50 "G" Rt. Lt to 10+94.68	Lt & Rt.											2		21									141		
	10+94.68 Lt to 11+75 Lt G.B. RA	Lt																				20		58		
	11+75 Lt to 15+00 E.B. RA	Lt.																				20		305		
	15+00 Lt to 8+75 "H"	Lt.																				10		174	173	
	8+75 Lt to 11+00 Rt.	Lt & Rt.											2									21			225	
	11+55 Rt to 15+26 Rt.	Rt.																				40		352		
	Totals to Summary		212.5	3	2	1			1		1093	0.23	4	1	21		266		150	56		111	10	1398	398	
	⊗ Totals to Summary						1					0.42							116		70					

I-1 C/I I-3

⊗ Non-Participation by Federal

EAST BOUND REST AREA

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

467
G.38

GUERNSEY COUNTY
GUE-40-17.37

DRAINAGE STRUCTURE GUE-40-1950		
STA 183+48		
DESIGN INFORMATION		
DA	Q_{10}	
9 Ac	23 cfs	
TYPE HEADWALL TYPE "B"		
ESTIMATED QUANTITIES		
I-1	116'~24" cl. E-1, 159.24" M.G.G(c) cl. A-1	
	412'~24" M.G.4(d) cl. A-1	
I-2	60 C.Y.	
I-10	139. C.Y.	
L-10	2 S.Y.	

N

6"Willow Stump
6"Willow
I.P.
S 62° E
7.03'
24.0'
14"W. Cherry
15+46 ℄

12"Willow
87.73'
I.P.
58.0'
16"W. Cherry
69.73'
buried G"

PK nails used
Fence post
78.52'
I.P.
buried G"
54.19'
67.40'
6" dead Elm
6" Oak

10"Walnut
15.03'
I.P.
24.50'
12"Oak
14.56'
8"Walnut

RAMP "H"
P.I = 10+87.13

SEC. 8
M.L. 17

SEC. 8
SEC. 13

Post
77.51'
I.P. buried G"
89.71'
99.60'
Post
Post

RAMP "G"
P.R.C. 9+60.81

HOWARD FULLER

182+11.5, 149' Lt.
Inv. 24" 899.00
Type "B" H.W.

25' Dumped Rock Channel
Prof. 30" Deep

STRUCTURE No GUE-40-1950
STATION 183+49
PROPOSED 28" CULVERT

L.A. R/W

RAMP "H"
P.C. = 5+82.13

RAMP "H"
T.S. 8+73.51

6" Oak
6" dead Elm

412'~24" at 4.75%

EDWARD BUGOS
GRACE ANITA BUGOS

GUERNSEY SOIL CONSERVATION DISTRICT

176 177 178 179 180 181 N 76°25'11"E 182 183 +49 184 185 186 187 188 189 190 191

STRUCTURE No GUE-40-1939
STATION 177+77
PROPOSED 27"
SEE SHEET #344

℄ Survey & Constr.

11+28.83' Lt.
Inv. 12" 926.50
Type "E" H.W.

11+75.26' Lt.
No 2-6 Inlet
Pav't 932.15
Inv. 12" S 928.21
Inv. 12" W 927.03
Inv. G" 928.00

15+00.32' Lt.
No 2 M.H. W/o Drop Pipe
Top 932.36
Inv. 24" 915.59
Inv. 12" 925.29

5+75.16' Lt.
No 2-8 Inlet
Pav't 931.35
Inv. 12" 926.25
Inv. G" 928.42

15+00.26' Lt.
No 2-8 Inlet
Pav't 931.77
Inv. 12" 925.36

100 gallon water trough

2-D

50'-6" at 0.68%

7.3 18'-G" 10'-6" F-1

+40

+50, 6" Wye
G" Inv. 917.30

+37.27' Rt.
8" Inv. 917.06

1-G

8' 8' 5.4

RAMP "G"

+50, G" 90° bend
Inv. 925.78

PRC. 9+60.81

101'-G" at 1.28%

+94.68 Begin I-3
G" Inv. 927.59

P.O.T. 10+94.68 Ramp "G"

23'-6" 10'-6" Fl

5G'~12" at 0.5%

33'-G" at 1.16%
10'-6" F-1

12'

12.33

11+71 End I-3
Inv. 928.00

+00
G" Inv. 928.26

Inv G" 927.66

4-D

115'-G", 10'-6" F-1 at 0.3%

180'-G", 10'-6" F-1

7'-12" at 1.00%

83'-12" at 1.0%

61'~G", 10'~6" F-1 at 0.3%

67'~12" at 0.60%

P.O.T. 5+32.13 ℄ Ramp "H"
185+37.96, 176.5' Rt.

12 13 N 76° 25' 11"E 14 15

3-D

62'~12" at 1.00%

15+20 End I-3
G" Inv. 928.50
61'~12" at 4.16%

20'-G" 10'-6" F-1 at 0.3%

110'-G", 16'-6" F-1

194'-6", 10'~6" F-1

22'-6" 10'-6" F at 0.3%

+00
G" Inv. 928.32

P.C. 5+82.13

113'-G" 10'-6" F-1 at 0.3%

RAMP "H"

+00
G" Inv. 928.79

173'~G" M-6.4(h)

8 21'-G" F-1

N 65°32'56"E

P.T. 7+99.55

+75.90° Bend
G" Inv. 930.28

175'~G" M.G.4(h) at 0.4%

+75.90° Bend
G" Inv. 930.35

+50
Inv. 931.05

M.G.4(h) at 0.3%

50'-G"

9 10 11

M.L. 17
M.L. 18

P.I. 10+87.13 =
190+86.49, 101, 10' Rt.

SEC. 10-23.51

SEC. 13
M.L. 16

13.9-73.51

WALTER BROCK & CLARA BROCK

Spring
24" Tile on end

1-D

+50
6" 90° bend
Inv. 925.69

LA R/W

P.I. 10+28.02 =
180+194.3, 186.5' Rt.

N 89°08'13"E

21'-6" Class A-1 M.6.6(b) or M.6.6(a)

10' 10'

Well Shelter

11+28, 25.5' Lt.
No 2-G Inlet
Pav't 931.93
Inv. 12" 926.75
Inv. G" 927.50

11+35, Begin I-3
6" Inv. 928.94

11+85.35' Rt.
No 2-G Inlet
Pav't 933.16
Inv. 12" 928.83
Inv. G" 928.83

HW-E
70'-4" E-4

8-D

15+04.35' Rt.
No 2-10 Inlet
Pav't 932.73
Inv. G" 928.40
Inv. 12" 927.90

7-D

5+71. End I-3
G" Inv. 927.07
P.O.T. 15+46 ℄ =
185+37.96, 186.5' Rt. U.S. 40

N 76° 25' 11"E

159'-24" at 4.66%

10'

5+93.95' Rt.
No 2-3 C.B. (Mod.) W/o Side Inlets
Grate 926.75
Inv. 24" 923.00
Inv. G" 925.20

5-D

116'-24" at 3.08%

RAMP "H"
CURVE DATA
PI 6+91.17
D_c 5°00'
Δ 10°52'15"
R 1145.92'
T 109.04'
L 217.42'
E 5.18'

RAMP "H"
CURVE DATA
PI 10+87.13
Δ: 9°40'38"
D: 5°30'
R: 1037.02'
T_s: 213.62'
L_s: 150.00'
L_c: 126.49'
E_s: 6.43'

RAMP "G"
CURVE DATA
PI 5+38.66
Δ = 12°43'02"
D: 1°30'
R 3819.72'
T: 425.66'
L: 847.81'
E: 23.64'

RAMP "8"
CURVE DATA
PI 10+28.02
Δ = 12°43'02"
D_c 9°30'
R: 630.11
T: 67.21
L: 133.87
E: 3.73

Begin Rest Area Fence

End Rest Area Fence

Ex. R/W

Ft. House

HARVEY W. BROCK
VERNA BROCK

5+96, 23' Rt.
Inv. 24" 926.58 (Ex.)

Ex. 18"

Ex. 84'

HOWARD FULLER

Rest Area Fence

LA

Ex. U.S. 40

~ NOTE ~
All Items behind the curb of the parking lot are non-participating except the Lighting and the screening shrubbery ~~Trees~~ and the ~~curbwork~~.

Dowel Holes and Dowels shall be constructed in accordance with the requirements of Sec. 5-23. Included for payment with Item I-2

3'-6" 3'-0" Dowels 6" 6" 1" Ex. 2'-0" Ex. H.W.

Dowels ¾" ø x 1'~6" at each corner dowled into old headwall 8" Dowel Holes 1¼" dia. x 9" deep

940 930 920 910
0 50 100 150 200 250 300 32

32.1
Inv. 24" 932.40 (Ex)
412'~24" at 4.75% M.G.4(d) class A-1 or M-6.6(d)
182+11.5, 149' Lt.
Inv. 24" 899.00
Type "B" H.W.
159'-24" at 4.66% class A-1 M.G.G(c) or M-6.4(d)
15+00.32' Lt.
No 2 M.H. W/o drop pipe
Top 932.36
Inv. 24" 915.59
Inv. 12" 925.29
116'-24" at 3.08% class D-A
5+93.95' Rt.
No 2-3 C.B. W/o Side Inlets
Grate 926.75
Inv. 24" 923.00
Inv. G" 925.20
Ex. 24"
Conc. Collar
930 920 910 900 890
720 660 600 540 480 420 360 300 240 180 120 60 0

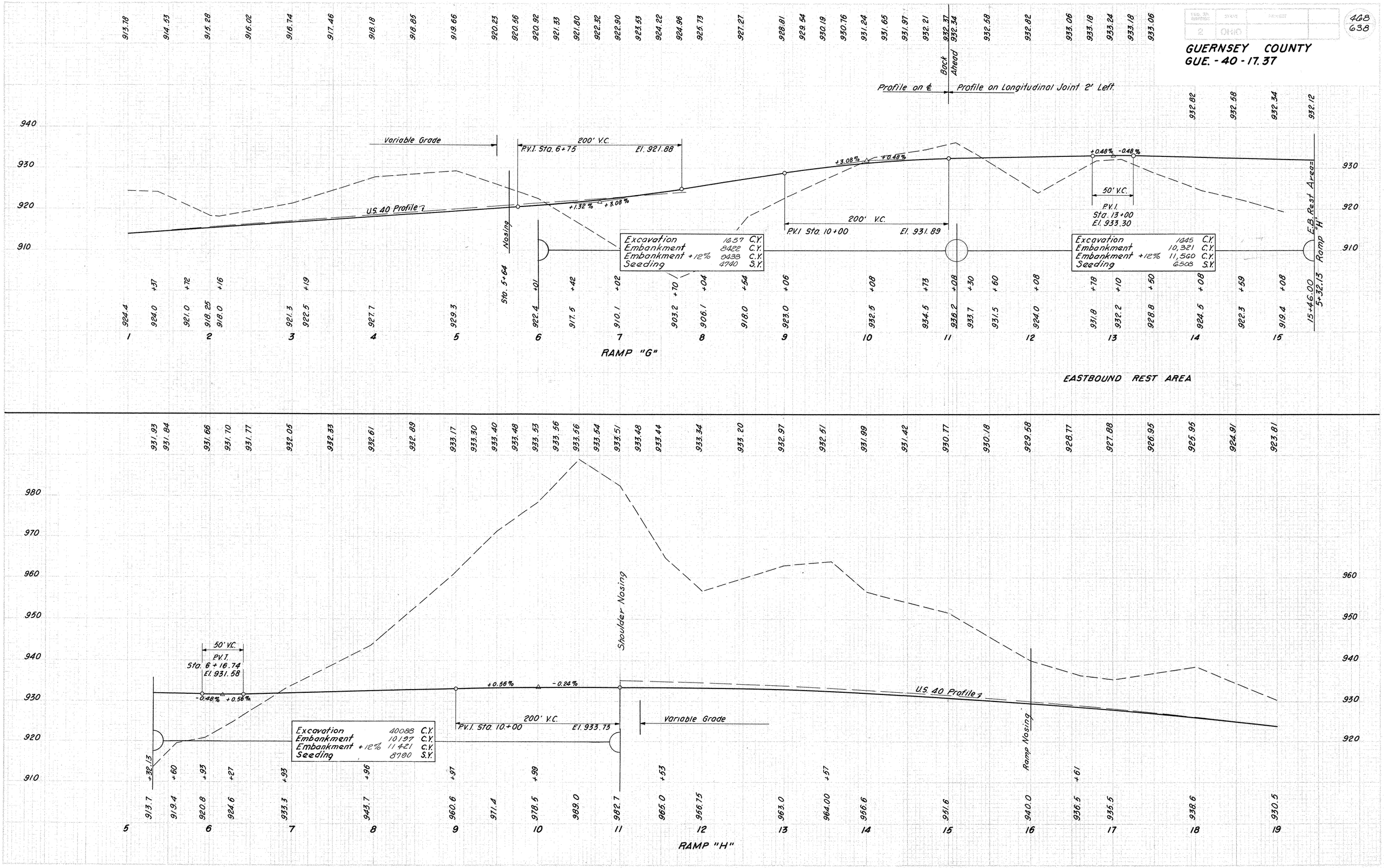
Rev. 1-15-64 C.E.H.

EASTBOUND REST AREA

FED. SA. PROJECT	STATE	PROJECT	
2	OHIO		

468
638

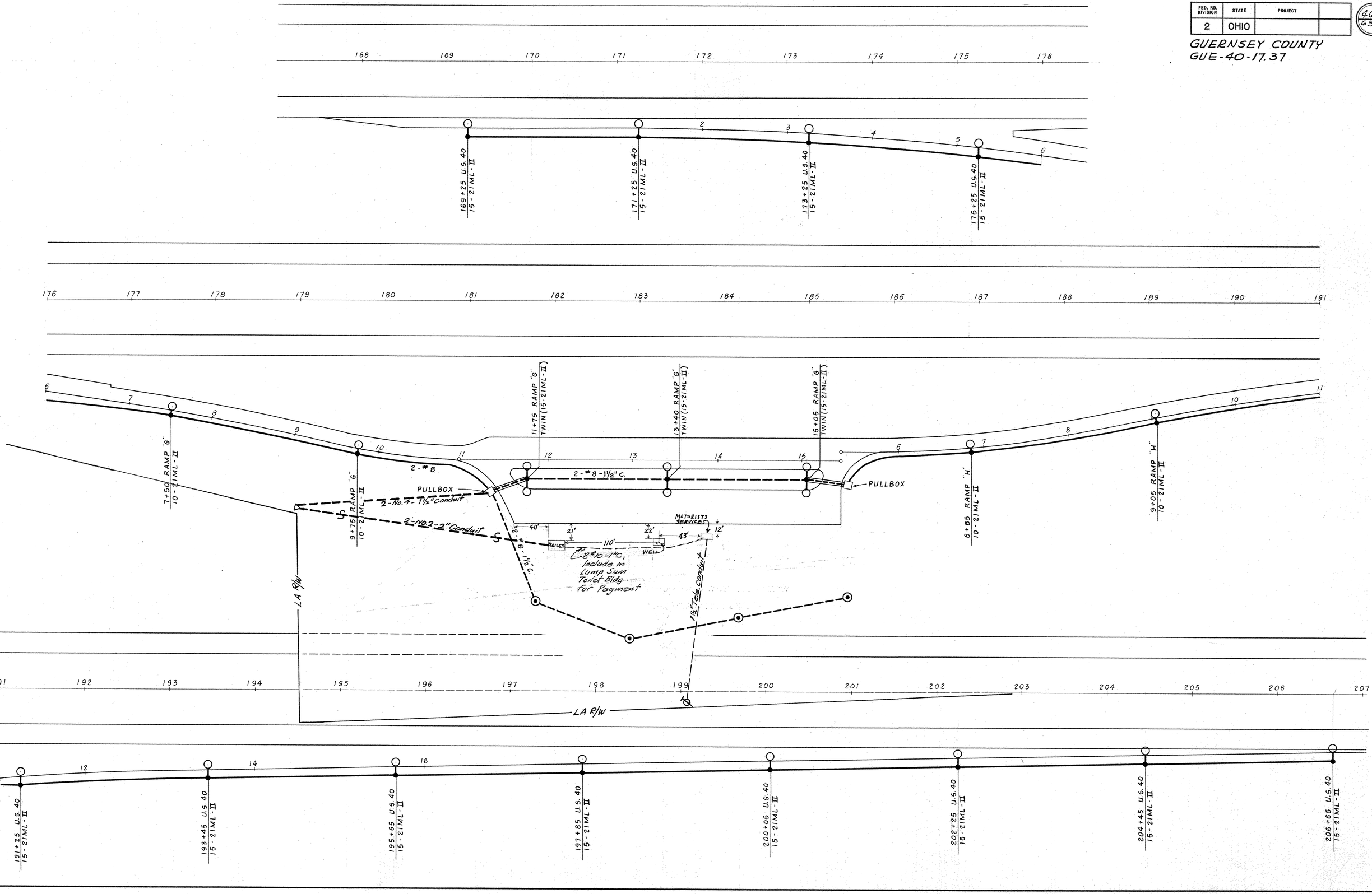
GUERNSEY COUNTY
GUE. - 40 - 17.37



FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

469
638

GUERNSEY COUNTY
GUE-40-17.37

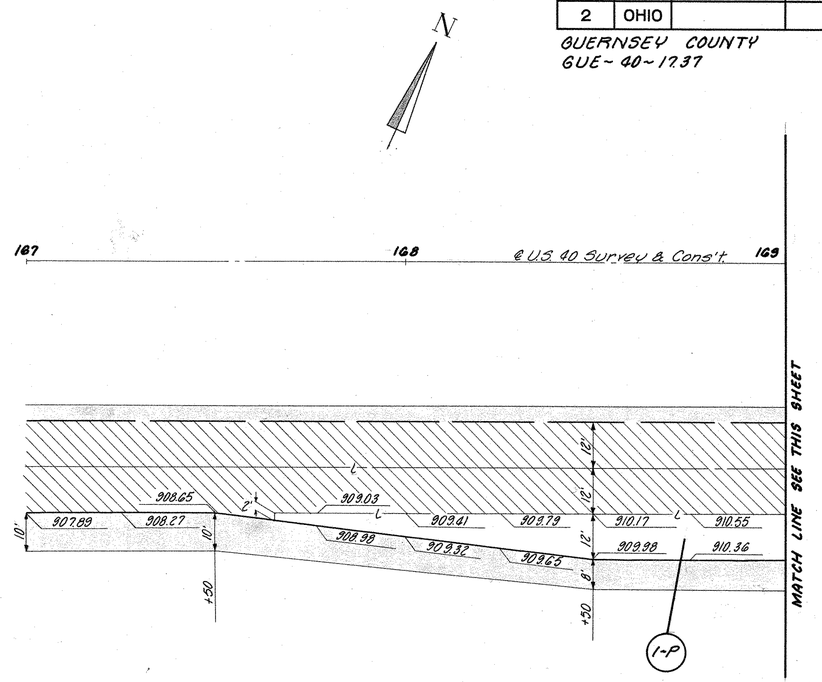


· EAST BOUND REST AREA · LIGHTING PLAN ·

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

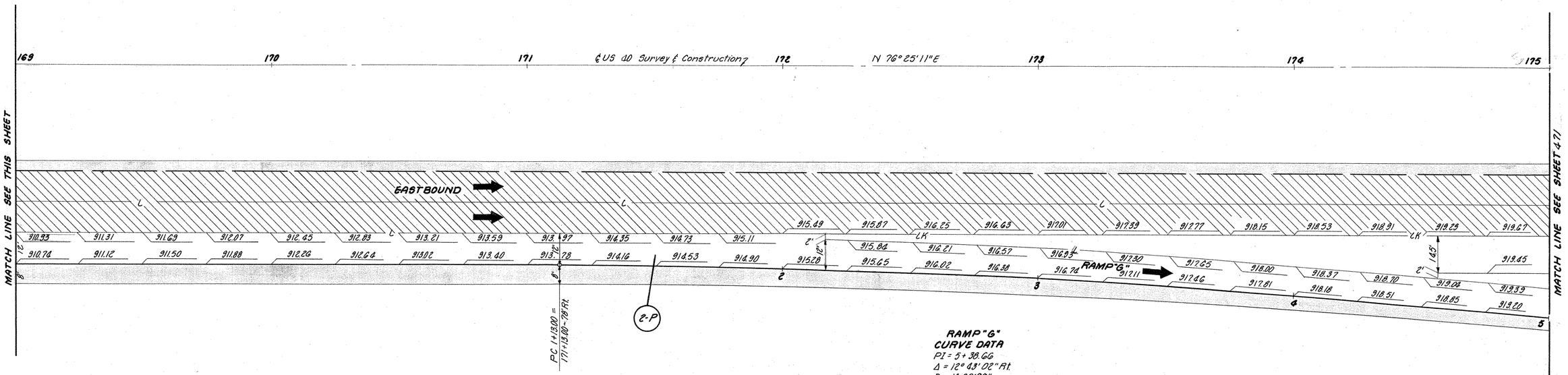
GUERNSEY COUNTY
GUE-40-17.37

470
638



PAVEMENT QUANTITIES

Ref. No	T-71 9"	T-31 No 8 Agg.	T-31 Bit. Mat.	B-21 6"	B-112 6"	I-22,6" Grading A or B	E-1 Comp. Subgr.		
Units	S.Y.	C.Y.	Gals.	C.Y.	C.Y.	C.Y.	S.Y.		
1-P	133	1.2	361	24	12	40	278		
2-P	1112	3.7	1449	77	38	262	1572		
TOTALS	1245	4.9	1810	101	50	308	1850		



RAMP "G"
CURVE DATA
PI = 5+38.66
Δ = 12° 43' 02" Rt.
D = 1° 30' 00"
R = 3819.72'
T = 425.66'
L = 847.81'
E = 23.64'

PAVEMENT DETAILS ~ RAMP "G"

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

471/638

GUERNSEY COUNTY
GUE~40~17.37

N

175 176 177 ℄ U.S. 40 Survey & Construction ? 178 N 76°25'11"E 179 180 181

MATCH LINE SEE SHEET 470

MATCH LINE SEE SHEET 472

EASTBOUND

920.05 920.43 920.81 921.18 921.57 921.95 922.33 922.71

5+66.23'Lt = 175+67.82'Rt.

919.83 920.21 920.59 920.98 921.37 921.77 922.16 922.55

Conc. Med. Pav't. Type 2-A Curb

919.75 920.09 920.47 920.84 921.19 921.59 922.06 922.62

Type G Curb

919.66 919.90 920.23 920.56 920.92 921.33 921.80 922.32 922.90 923.53 924.22 924.96 925.73 926.50 927.27 928.04 928.81 929.54 930.19 930.76 931.24 931.65 931.97 932.21

N 89°08'13"E

RAMP "G"

P.R.C. 9+60.81

P.O.T. 10+94.68 ℄ = P.T. 10+94.60 Ramp "G"

50' R

N 76°25'11"E

10+94.68 Ramp "G" 66' Lt.

10+79.08 Ramp "G" 75' Rt.

1-P

*Transition curb height from 2" to 6" in 20 feet.
**Transition paved shoulders from +.0156 to -.0417 slope in 50 feet.
*****Transition paved shoulders from -.0156 to -.0417 slope in 20 feet.

⊛Transition curb height from 2" to 9" in 20 ft.

RAMP "G" CURVE DATA
Δ 12°43'02"
D 1°30'
R 3819.72'
T 423.66'
L 847.81'
E 23.64'

RAMP "G" CURVE DATA
PI = 10+28.02
Δ = 12°43'02" Lt.
D_c 9°30'00"
R 603.11'
T_c 67.21'
L_c 133.87
E 3.73'

PAVEMENT QUANTITIES

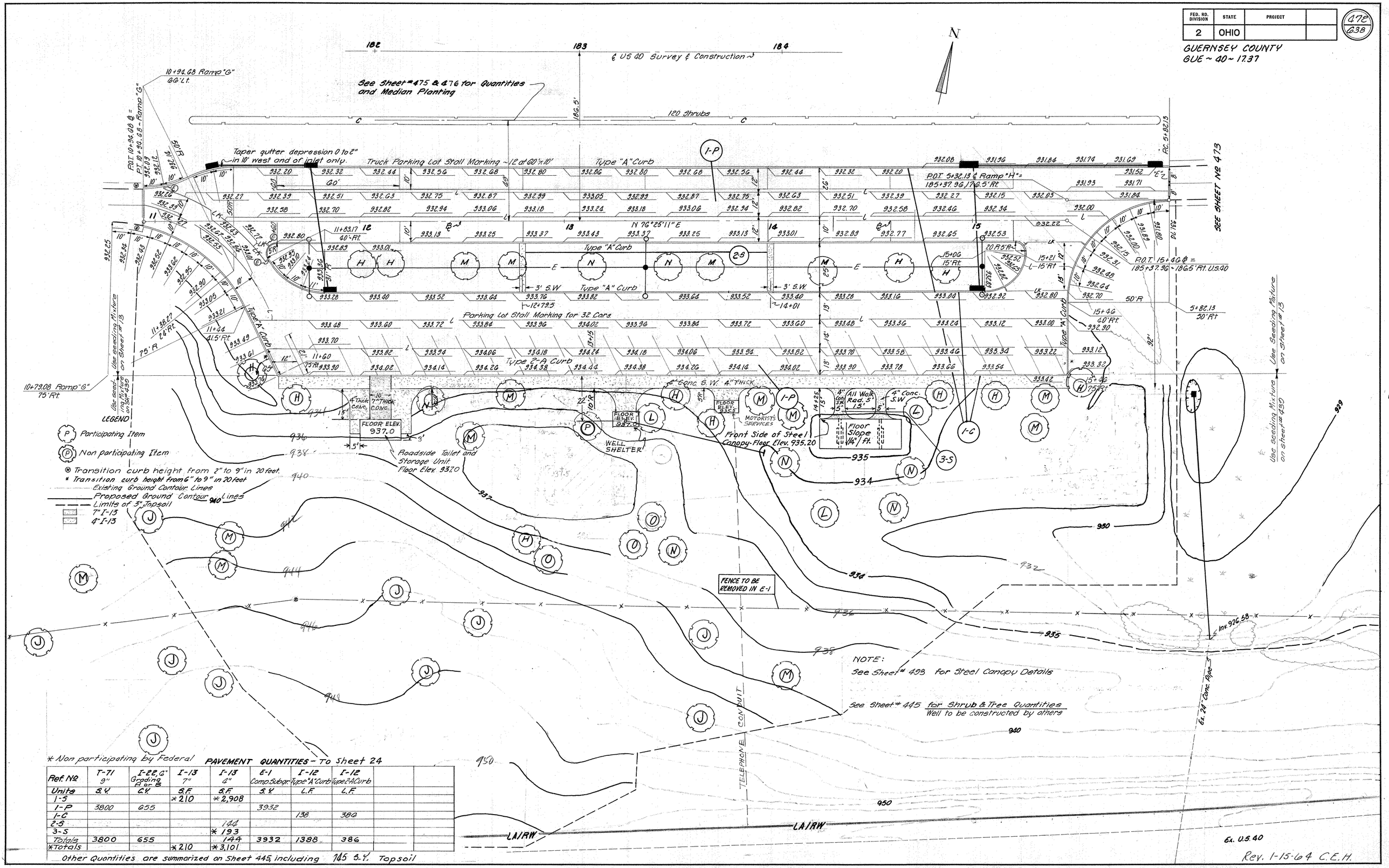
Ref. N2	T-71 9"	T-31 N2 6 Agg.	T-31 Bit. Mat.	B-21 6"	B-112	I-22, G Grading A or B	I-12 Type 2-A	I-12 Type G	E-1	I-21 4" Conc. Med. Pav't.	
Units	S.Y.	C.Y.	Gals.	C.Y.	C.Y.	C.Y.	L.F.	L.F.	S.Y.	S.Y.	
1-P	1371	3.2	97.6	65	26	302	114	109	1761	17	
TOTALS	1371	3.2	97.6	65	26	302	114	109	1761	17	

PAVEMENT DETAILS ~ RAMP "G"

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

472
638

GUERNSEY COUNTY
GUE ~ 40 ~ 17.37



* Non participating by Federal

PAVEMENT QUANTITIES - To Sheet 24

Ref. No	T-71 9"	I-22, 6" Grading A or B	I-13 7"	I-13 4"	E-1 Comp. Subgr.	I-12 Type "A" Curb	I-12 Type 2-A Curb		
Units	S.Y.	C.Y.	S.F.	S.F.	S.Y.	L.F.	L.F.		
1-S			*210	*2,908					
1-P	3800	655			3932				
1-C						138	386		
2-S				144					
3-S				*193					
Totals	3800	655		144	3932	1388	386		
*Totals			*210	*3,101					

Other Quantities are summarized on Sheet 445, including 145 S.Y. Topsoil

Rev. 1-15-64 C.E.H.

PAVEMENT DETAILS - EASTBOUND REST AREA

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

473
638

GUERNSEY COUNTY
GUE-40-17.37

N

186 187 188 189 US 40 & Survey & Construction Z 190 N 76°25'11"E 191 192

MATCH LINE SEE SHEET 472

MATCH LINE SEE THIS SHEET

EASTBOUND

L

935.40 935.28 935.15 935.00 934.84

10' +.05 10' -.50

Transition curb height from 2" to 9" in 10 feet Type A Curb Type B Curb

934.44 934.38 934.31 934.17

934.36 934.28 934.21 934.10

934.31 934.49 933.43 933.44 933.39

934.49 934.44 934.36 934.30 934.32 934.47 934.51 934.32 934.36 934.54

934.11 934.01 934.20 934.32 933.88 933.57 933.80 933.56 933.53 933.56

933.31 933.03 933.17 933.30 933.40 933.48

933.03 932.76 932.89 932.75 932.61

932.49 932.21 932.61 931.97 931.82

932.21 931.97 931.91 931.77 931.70 931.66

932.05 932.19 932.33 932.47 931.91 931.54 931.40 931.26 931.18 931.28

931.77 931.66 931.70

N 76°25'11"E △ N 65°32'56"E

RAMP "H"

RAMP "H" CURVE DATA
PI = Q+91.17
D_c = 5°00'00"
Δ = 10°52'15"
R = 1145.92'
T = 109.04'
L = 217.42'
E = 5.18'

RAMP "H" CURVE DATA
PI = 10+87.13
D_c = 3°30'00"
Δ = 9°40'38"
R = 1637.02'
T = 213.62'
L_s = 150.00'
L_c = 126.49'
E = 6.43'

P.T. 7+99.55

P.C. 5+82.13

T.S. 9+23.51

S.C. 10+23.51

S.C. 11+50.00

1-C

1-P

2-P

PAVEMENT QUANTITIES

Ref. Nº	T-71	T-31	T-31	B-21	B-112	F-22.6" Grading A or B	I-12	I-12	E-1
Units	S.Y.	C.Y.	Gals.	C.Y.	C.Y.	C.Y.	L.F.	L.F.	S.Y.
1-P	1098	4.7	184.7	98	63	283			1097
2-P	1198	8.0	250.3	167	83	374			2244
1-C							158	94	
2-C								400	
TOTALS	2296	12.7	397.0	265	126	657	158	494	3941

193 194 U.S. 40 & Survey & Construction Z 195 N 76°25'11"E 196 197 198

5+82.13
50' Rt.

SEE THIS SHEET

MATCH LINE SEE SHEET 474

EASTBOUND

L

934.07 934.48 934.28 934.06 933.83 933.59 933.33 933.06 932.77 932.47 932.16 931.83 931.48 931.13 930.76 930.37 929.97 LK 929.56 929.14 928.69 928.24 927.77 927.29 926.79

934.03 933.96 933.85 933.66 933.45 933.22 932.99 932.75 932.50 932.23 931.94 931.65 931.33 931.00 930.66 930.40 930.12 929.77 "E" 929.37 928.96 928.51 928.07 927.61 927.14 926.65

933.34 933.28 933.20 933.10 932.97 932.74 932.51 932.26 931.99 931.70 931.42 931.10 930.77 930.43 930.18 929.30 929.58 929.18 928.77 928.32 927.86 927.42 926.95 926.46

17.50' 17.00' 16.50' 16.00' 15.83' 15.67' 15.50' 15.33' 15.17' 15.00' 14.84' 14.67' 14.50' 14.34' 14.17' 10' 8' 12' 23.36' 23.44' 22.92' 22.40' 21.88' 21.35' 20.85'

N°G.C.B. N°G.C.B.

RAMP "H"

MATCH LINE

12 14 15 16

ST. 13+00

2-P

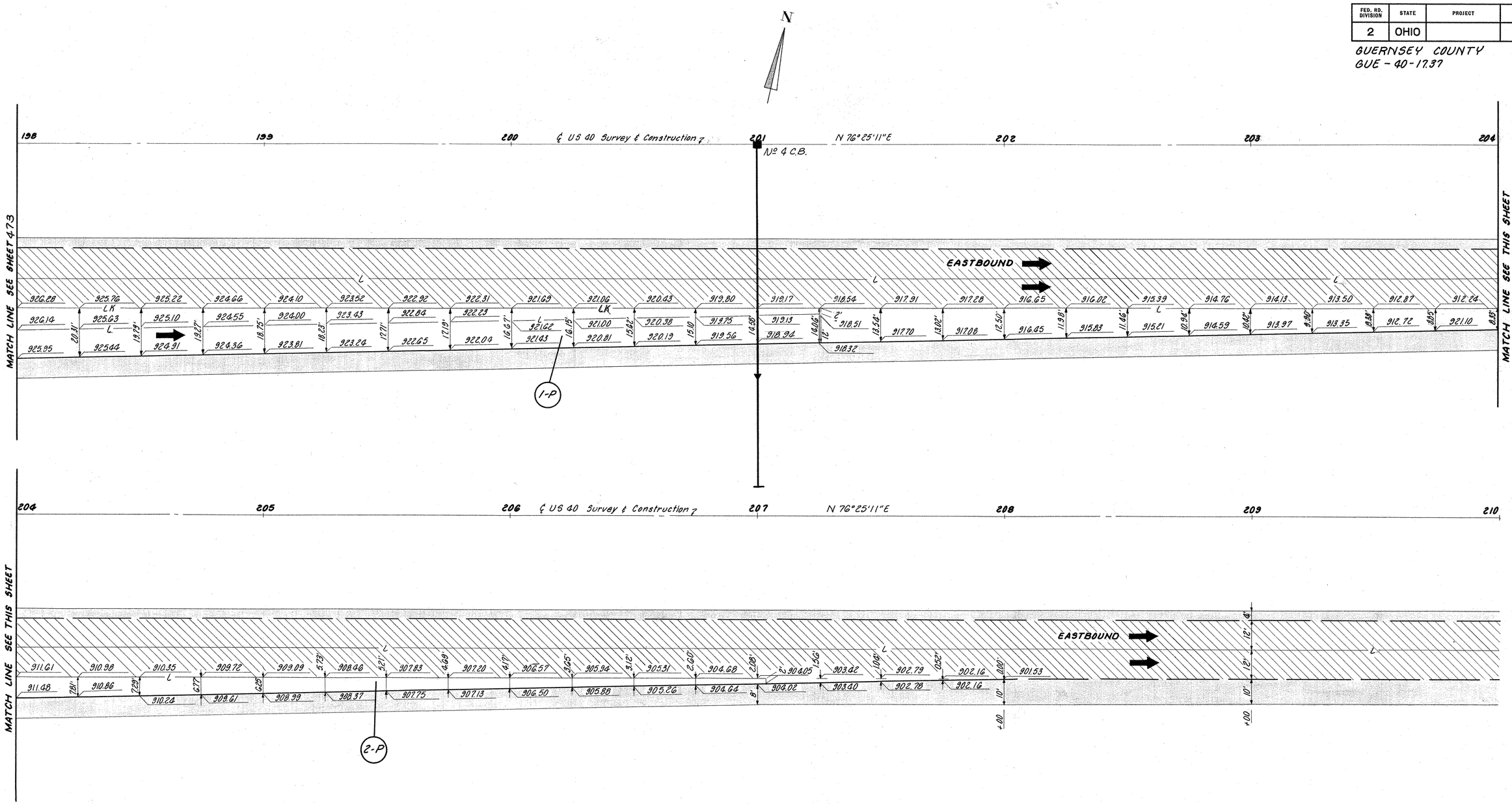
10-100 Ramp "H"
196+00 - 91 Aft.

PAVEMENT DETAILS - RAMP "H"

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

474
638

GUERNSEY COUNTY
GUE - 40 - 17.37



PAVEMENT QUANTITIES

Ref. Nº	T-71 9"	T-31 Nº 6 Agg.	T-31 Bit. Mat.	B-21 6"	B-112	I-22.6 Grading A or B	C-1 Comp. Subgr.		
Units	S.Y.	C.Y.	Gals.	C.Y.	C.Y.	C.Y.	S.Y.		
1-P	972	4.3	133.3	89	44	251	1505		
2-P	185	2.9	91.6	61	31	92	552		
TOTALS	1157	7.2	224.9	150	75	343	2057		

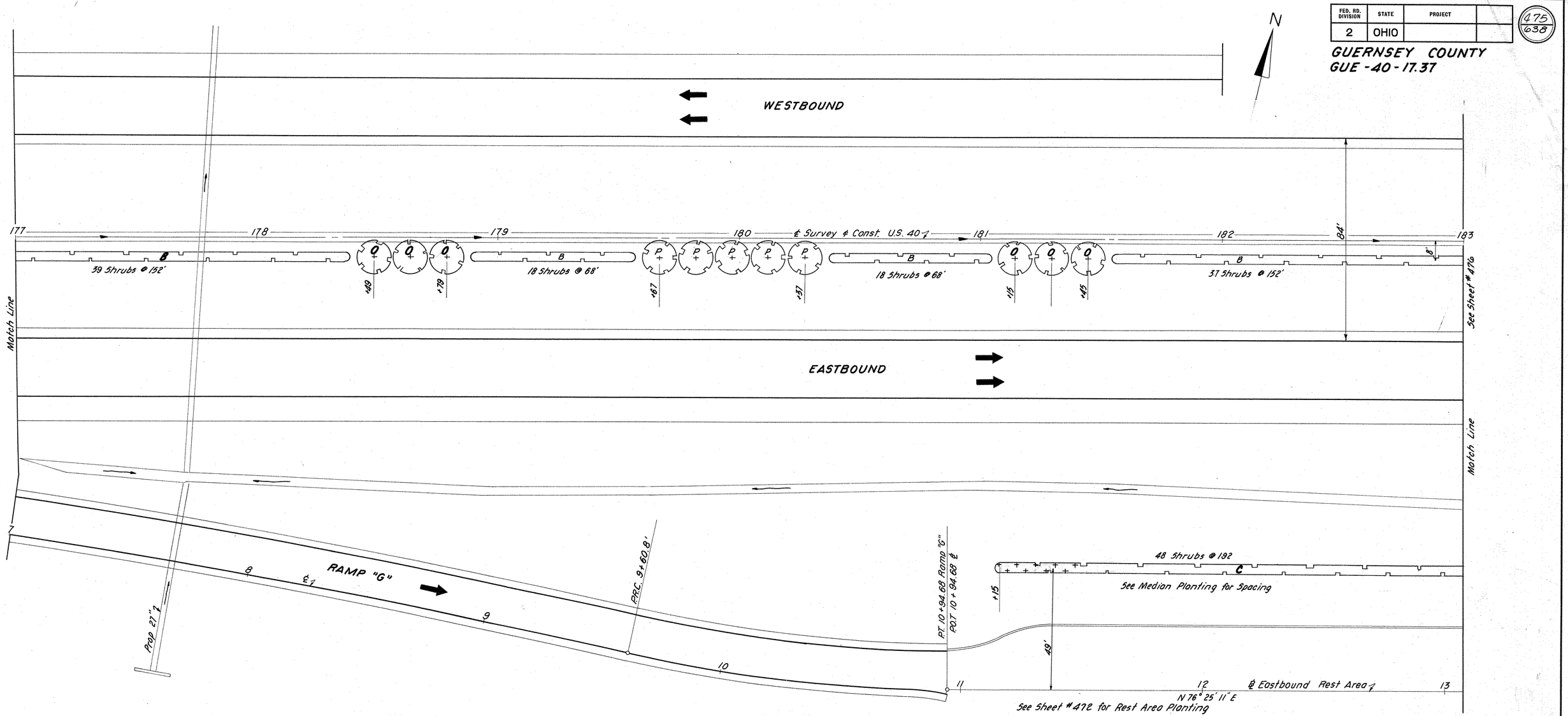
976.873

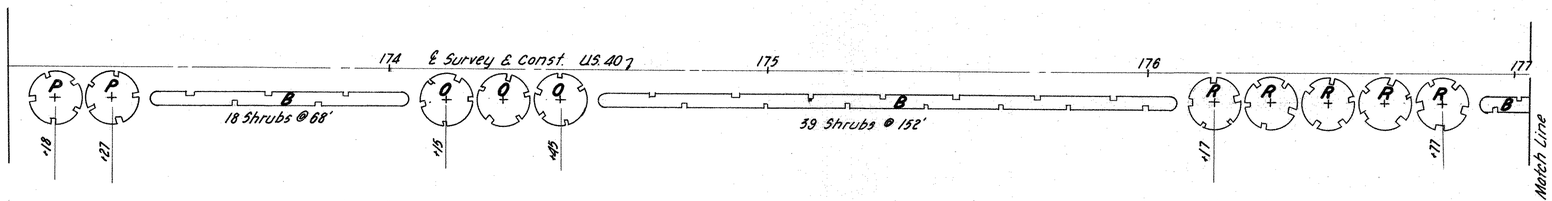
PAVEMENT DETAILS 198-210

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

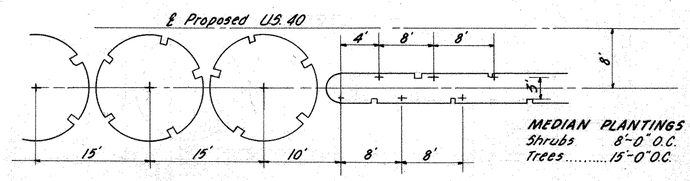
475/638

GUERNSEY COUNTY
GUE -40 - 17.37





NOTE:
Quantities taken to Sheet # 445



EASTBOUND REST AREA PLANTING PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

476/638

GUERNSEY COUNTY
GUE-40-17.37

N

WESTBOUND

EASTBOUND

183 184 185 186 ℄ Survey ℄ Const U.S. 40 187 188 189

B 2 Shrubs @ 8'

R R R R R +17 +77

B 39 Shrubs @ 152'

Q Q Q +49 +79

B 18 Shrubs @ 68'

P P P P P +67 +27

B 18 Shrubs @ 68'

Q Q Q +15 +45

B

SEE SHEET #475

Match Line

72 Shrubs @ 28½'
C
See Median Planting for Spacing

49'

14 ℄ Eastbound Rest Area 15
See Sheet #472 for Rest Area Planting

PC. 5+82.13

RAMP "H"

℄

PT. 7+99.55

TS. 8+73.51

6 7 9

189 190 191 192 193 194

Match Line

B 39 Shrubs @ 152'

R R R R R +17 +77

B 39 Shrubs @ 152'

Q Q Q +49 +79

B 18 Shrubs @ 68'

P P P +87 +87

Prop. 24" Pipe

NOTE:
Quantities taken to Sheet #445

℄ PROPOSED U.S. 40

8' 8' 8'

15' 15' 10' 4' 8' 8'

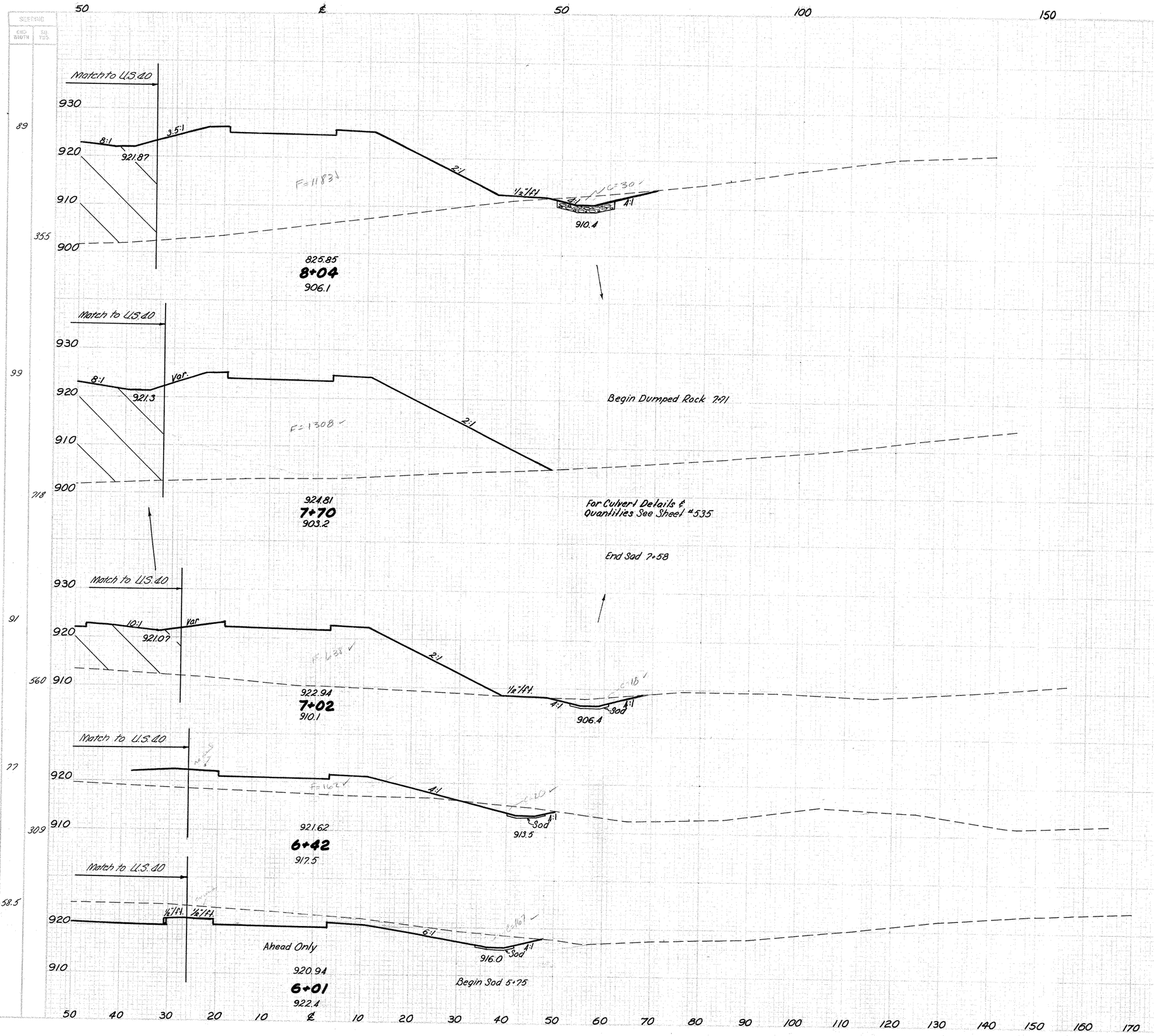
MEDIAN PLANTINGS
Shrubs ..... 8'-0" O.C.
Trees ..... 15'-0" O.C.

EASTBOUND REST AREA PLANTING PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

477
638

GUERNSEY COUNTY
GUE-40-17.37



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
30	1183		
		19	1568
0	1308		
		22	2451
18	638		
		42	889
20	162		
		142	123
167	0		

SEEDING

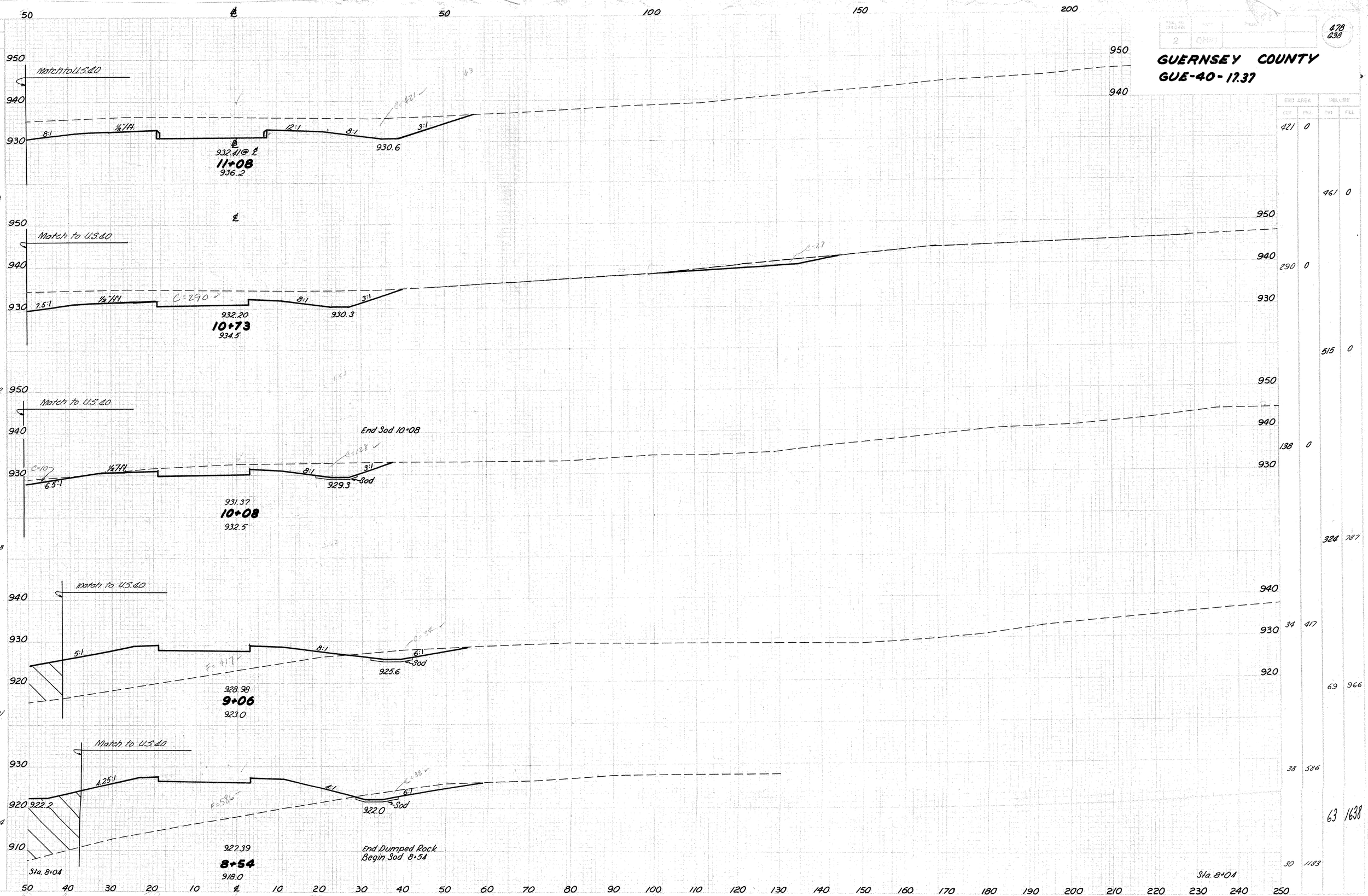
END WIDTH	SY YDS
93	
333	
78	
562	
775	
898	
81	
501	
92.5	
504	
89	

SHEET NUMBER 2 OF 2 SHEETS

478
638

GUERNSEY COUNTY
GUE-40-17.37

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
421	0		
		461	0
290	0		
		515	0
198	0		
		324	787
34	417		
		69	966
38	586		
		63	1638
30	1183		

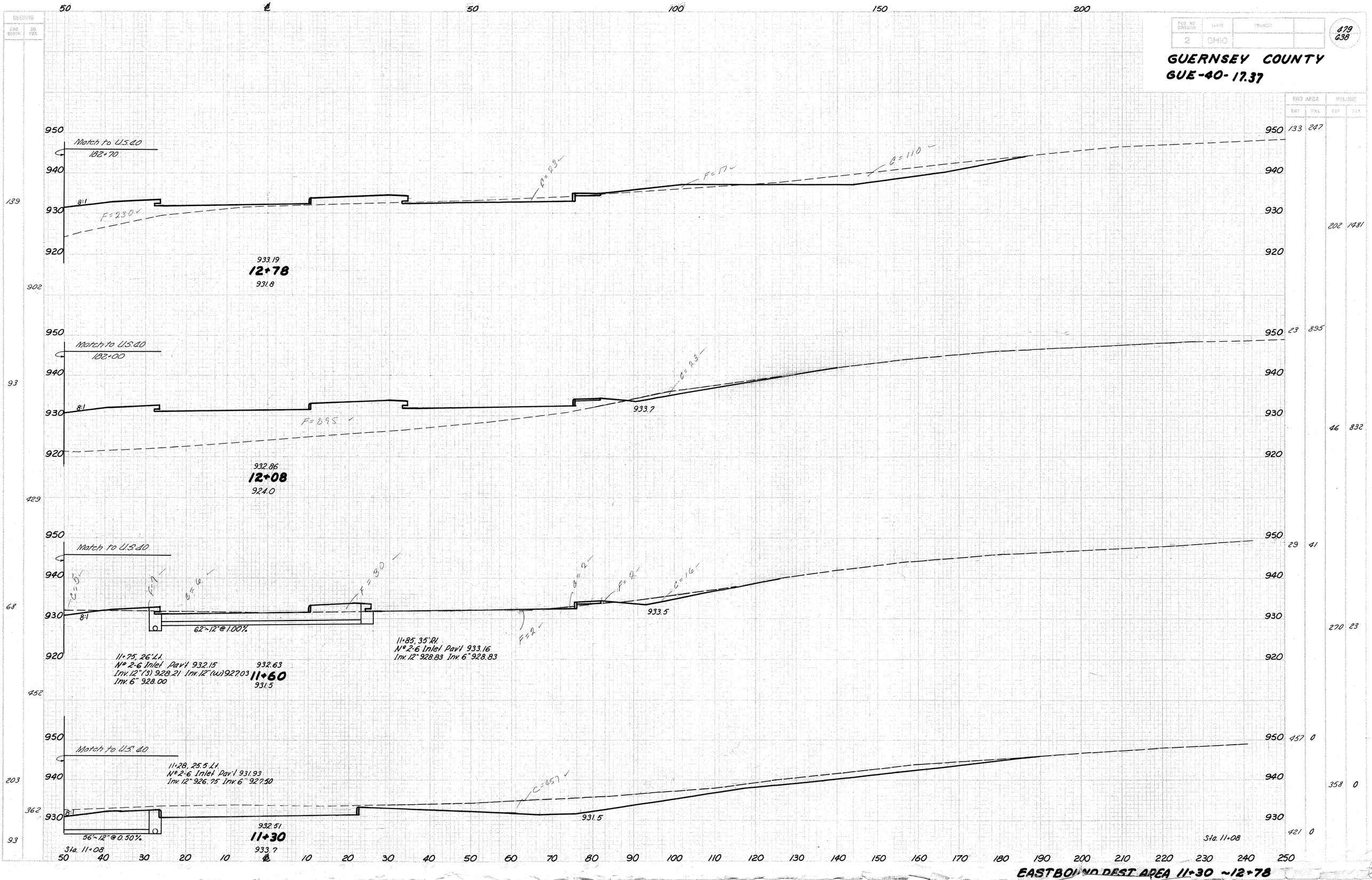


RAMP "G" 8+54 ~ 11+08

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

479
638

GUERNSEY COUNTY
GUE-40-17.37



EASTBOUND DEST AREA 11+30 ~12+78

SEEDING	
END WIDTH	SQ. YDS.
1175	
897	
212	
1167	
200	
1231	
182	
636	
104	
432	
139	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

480
638

GUERNSEY COUNTY
GUE-40-17.37

END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	1415		
		100	2834
110	1267		
		284	2274
190	1140		
		264	1966
56	690		
		42	874
0	490		
		79	937
133	247		

Match to U.S. 40
185+00
8:1
930
920
910
61'-12" @ 4.17%
15+00, 26' Lt.
No 2-8 Inlet Pav't 931.79
Inv. 12" 925.36
Inv. 6" 927.46
F=1115
A12'-24" @ 4.75%
159'-24" @ 4.66%
15+00, 32' Lt.
No 2 M.H. w/o drop pipe
Top. 932.36 Inv. 24" 915.59
Inv. 12" 925.29
932.30
15+08
919.4
F=300
15+04, 35' Rt.
No 2-10 Inlet Pav't 932.73
Inv. 6" 928.40 Inv. 12" 927.90
930
920

940
Match to U.S. 40
184+51
8:1
930
920
910
F=955
F=312
C=110
932.54
14+59
922.3
930
920
910

Match to U.S. 40
184+00
940
8:1
930
920
F=1140
C=190
932.78
14+08
924.5
940
930
920

Match to U.S. 40
940
8:1
930
920
F=580
F=110
A/C=34
933.06
13+50
928.8
940
930
920

950
Match to U.S. 40
940
8:1
930
F=135
933.23
13+10
932.20
Sta. 12+78
Proposed Bldg.
S.W.
F=192
F=180
F=85
950
940
930
Sta. 12+78

50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250

EASTBOUND REST AREA 13+10 ~ 15+08

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

CB1
C38

GUERNSEY COUNTY
GUE-40-17.37

SEEDING

END WIDTH	SQ. YDS.
	2275
	1650
	2225
	885
	246
	253
	165
	461
	131.5
	526
	1175

50 ℄ 50 100 150 200

Match to U.S. 40

940 / 930 / 920

CB1 12:1 929.34 — C=31 F=1 — 6:1 — 6:1 928.2 — C=24

F=315

932.01
6+93
933.3

Match to U.S. 40

940 / 930 / 920

11:1 929.33

F=620

6:1 6:1 927.1

F=490

931.69
6+27
924.6

Match to U.S. 40

940 / 930 / 920

10:1 929.22

F=1119

159'~24" @ 4.66%

116'~24" @ 3.08%

F=620

931.69
5+93
920.8

5+93, 95' Rt.
N°2-3 CB (mod) w/o side inlets
Grate 926.75 Inv. 24" 923.00
Inv. 6" 925.20

Match to U.S. 40

940 / 930 / 920

9.2:1

Proposed Building
(Chlorinator)

F=1100

F=810

5+75, 16' Lt.
N°2-8 Inlet
Par V 931.35 Inv. 12" 926.25
Inv. 6" 928.42

931.85
5+60
919.4

Match to U.S. 40

940 / 930 / 920 / 910

8.8:1

Average Ahead to Sta. 5+60

F=480

F=1415

Full Section Back to
15+08 E.B. Rest Area

931.90
5+32
913.7

Sta. 15+08 E.B. Rest Area (38.00')

50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250

END AREA CUT	END AREA FILL	VOLUMES CUT	VOLUMES FILL
342	316		
			418 1743
		0	1110
		0	1394
		0	1739
		0	2108
		0	1710
		0	1620
		0	1415
Ahead			
		0	1895
Back			
		0	2329
		0	1415

Sta. 15+08 (38.00')

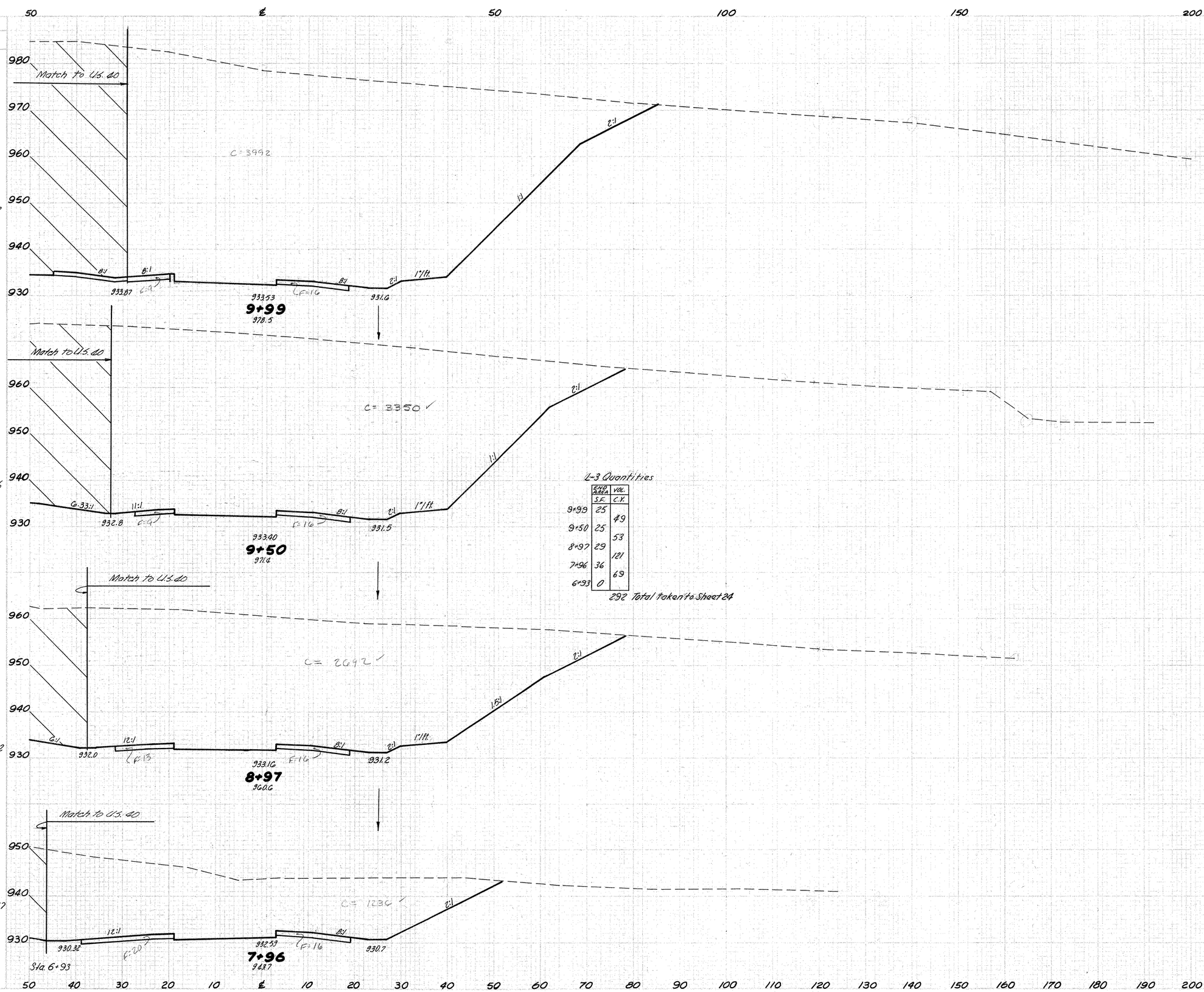
RAMP "H" 5+32 ~ 6+93

SEEDING	
END WIDTH	SQ. YDS.
76	
452	
90	
536	
92	
962	
79.5	
1757	
227.5	

FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO		

482
638

GUERNSEY COUNTY
GUE-40-17.37



L-3 Quantities

	END AREA	VOL.
	S.F.	C.Y.
9+99	25	
		49
9+50	25	
		53
8+97	29	
		121
7+96	36	
		69
6+93	0	

292 Total Taken to Sheet 24

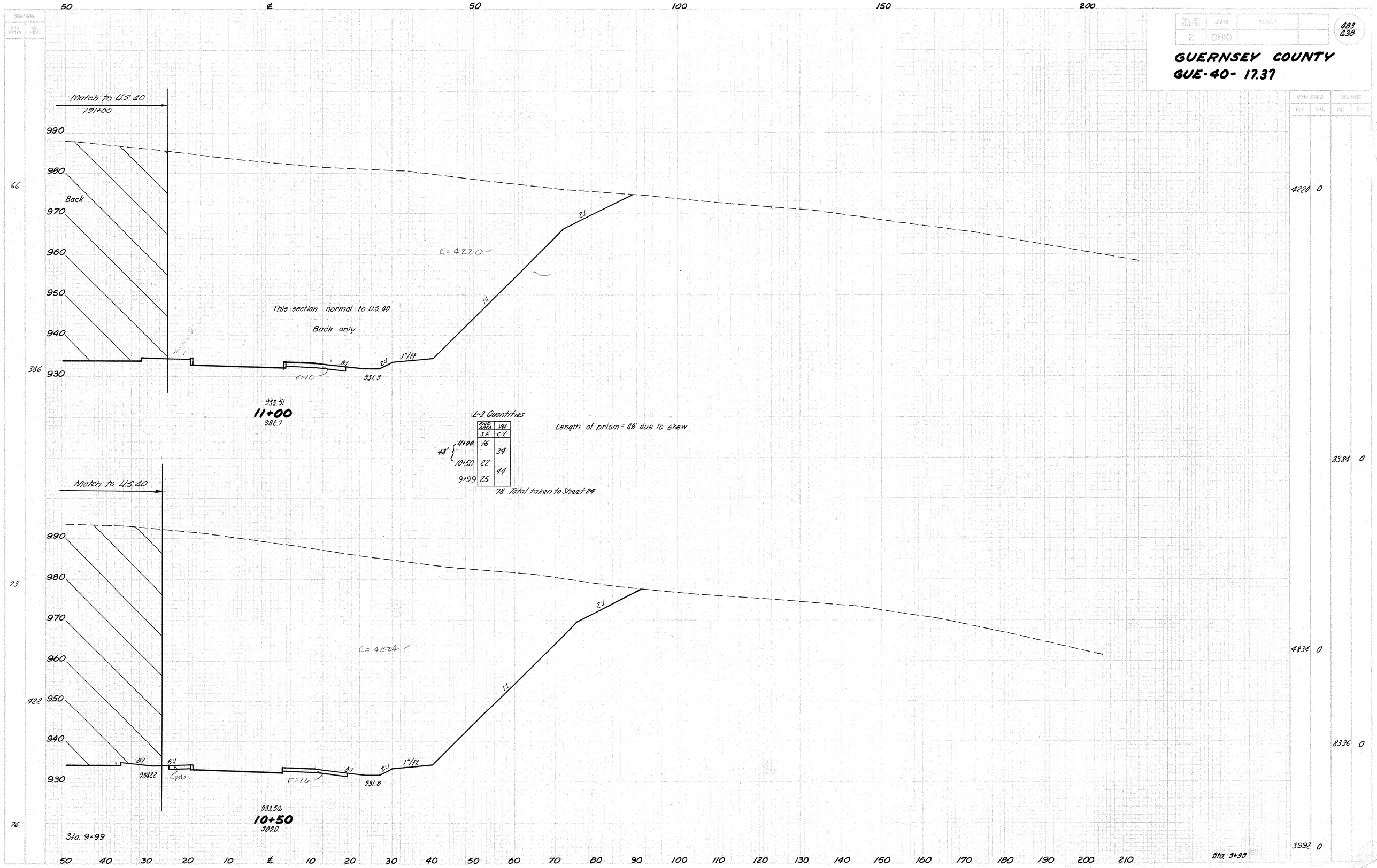
	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	3992	0		
			6663	0
	3350	0		
			5930	0
	2692	0		
			7347	0
	1236	0		
			3010	603
	342	316		

RAMP "H" 7+96 ~ 9+99

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

483
638

GUERNSEY COUNTY
GUE-40- 17.37



L-3 Quantities

	END AREA S.F.	VOL. C.Y.
48' 11+00	16	
		34
10+50	22	
		44
9+99	25	

78 Total taken to Sheet 24

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
4220	0		
		8384	0
4834	0		
		8336	0
3992	0		

RAMP "H" 10+50 ~ 11+00

GUE-40-17-37

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638

NOTES:

① ALL STRUCTURAL LUMBER SHALL BE NUMBER 1 SOUTHERN YELLOW PINE, STD. K.D., S4S OR CONSTRUCTION GRADE DOUGLAS FIR, STD. K.D. S4S. ALL TRIM SHALL BE "C" GRADE S4S, STD. K.D. S.Y.P. OR D. FIR.

② SIDING SHALL BE 1"X6" PATTERN 116 "V" TYPE.

③ INTERIOR SIDING SHALL BE TEXTURE ONE-ELEVEN EXTERIOR GRADE DOUGLAS FIR PLYWOOD. ⅜-INCH GROOVES SHALL BE SPACED 4" O.C. (SEE ALSO NOTE 7.)

④ ROOF MATERIAL SHALL BE HIGH LIGHT TRANSMISSION TYPE TRANSLUCENT FIBERGLAS, .060" THICK, 2½-INCH CORRUGATIONS, SMOOTH FINISH, LIGHT GREEN COLOR AS MANUFACTURED BY THE ALSYNITE COMPANY OF AMERICA. NAIL ALONG RAFTERS & BRIDGING AT APPROX. 12" O.C. WITH ALUMINUM SCREW SHANK NAILS WITH NEOPRENE WASHERS ATTACHED.

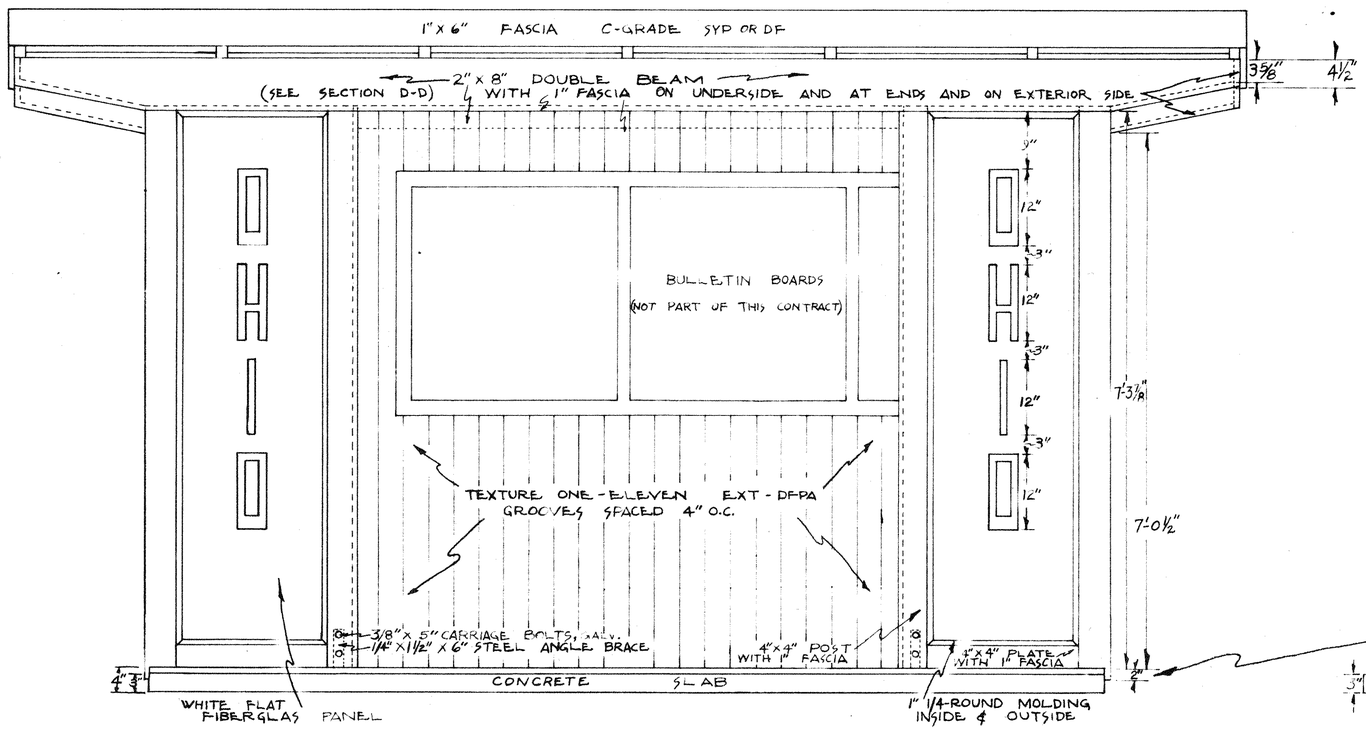
⑤ FRONT ELEVAION PANELS SHALL BE FLAT PATTERN, WHITE COLOR, SMOOTH FINISH, (SEE NO 4).

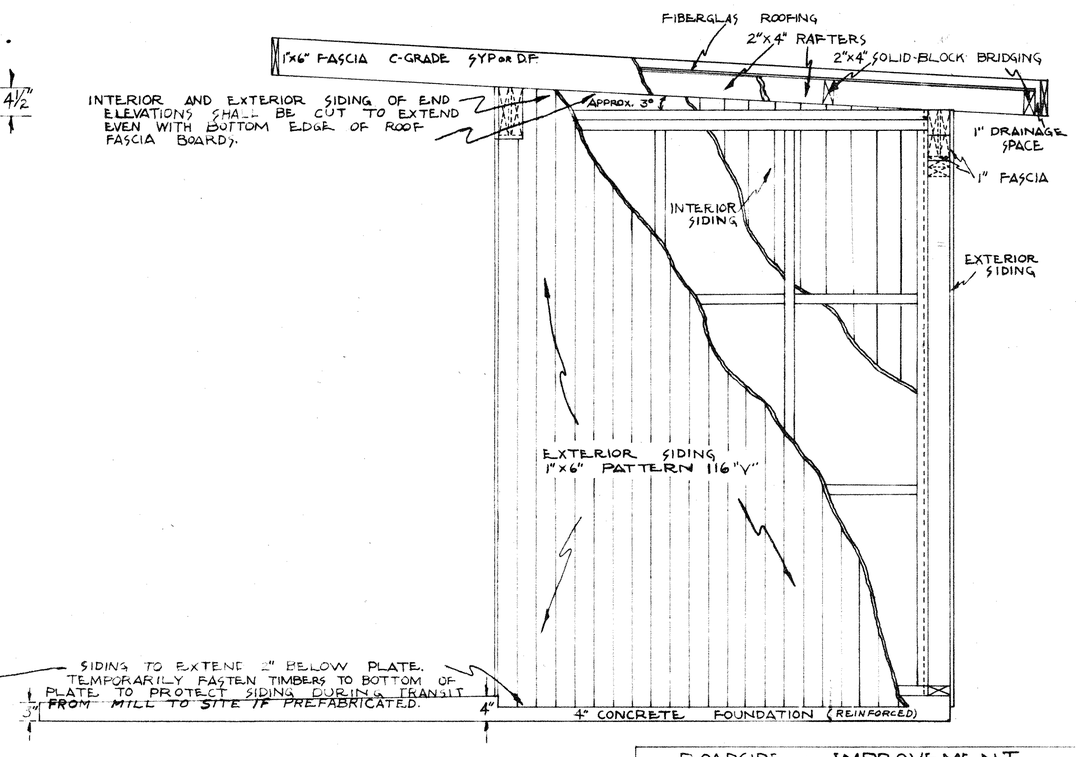
⑥ ALL NAILS WILL BE ALUMINUM OR HOT GALV. DIPPED NAILS.

⑦ INTERIOR WALL PANELS SHALL BE CUT TO SIZE AT THE MILL AND LATER INSTALLED ON THE SITE AFTER THE STRUCTURE HAS BEEN ANCHORED TO CONCRETE PAD WHEN STRUCTURE IS PREFABRICATED OFF JOB SITE.

⑧ ALL LETTERS AND SIGNS NOT A PART OF THIS CONTRACT.

⑨ ALL LUMBER SHALL BE TREATED IN ACCORDANCE WITH THE REQUIREMENT FOR PENTA-CHLOROPHENOL TREATMENT, SEC. M-8.3.





ROADSIDE IMPROVEMENT
OHIO DEPARTMENT OF HIGHWAYS

MOTORIST'S SERVICES SHELTER

DATE
10-25-60
11-23-60
8- 6-63

STANDARD CONSTRUCTION DRAWING

SCALE: 1" = 1'

DESIGNED: RDB APPROVED: [illegible]

Mega-Flex Tracing.

GUE-40-17.37

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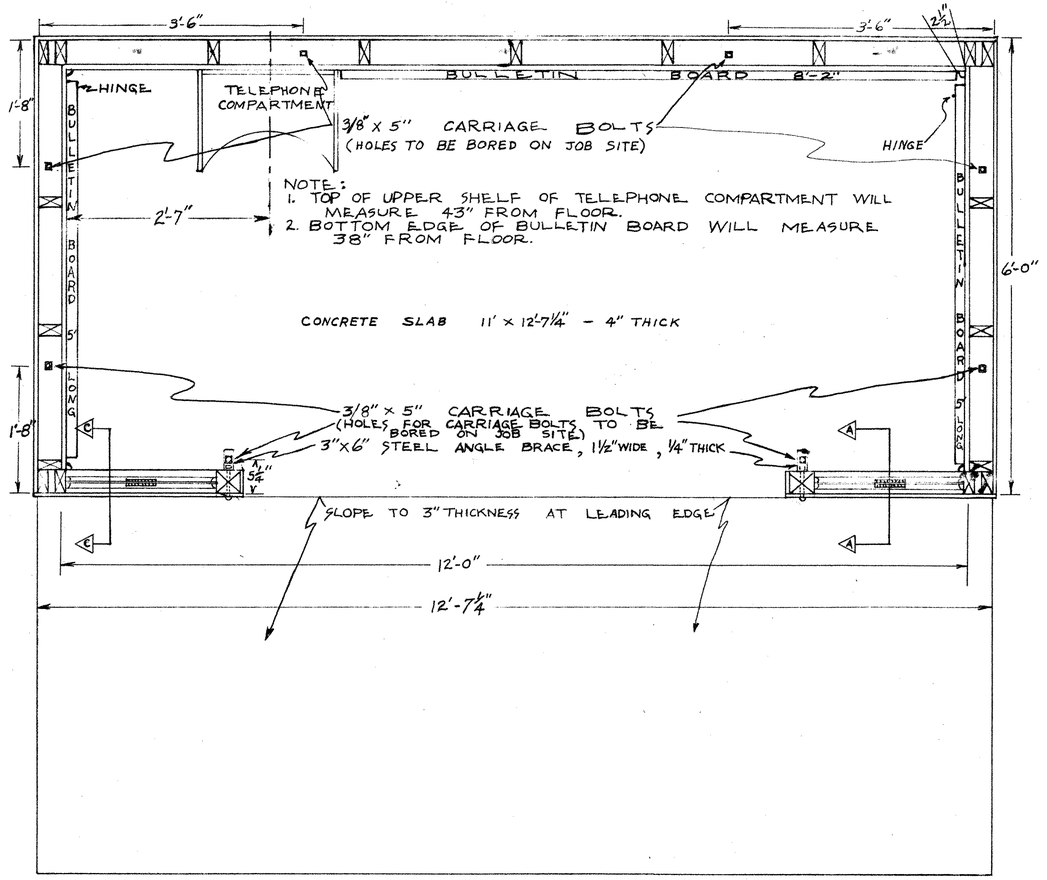
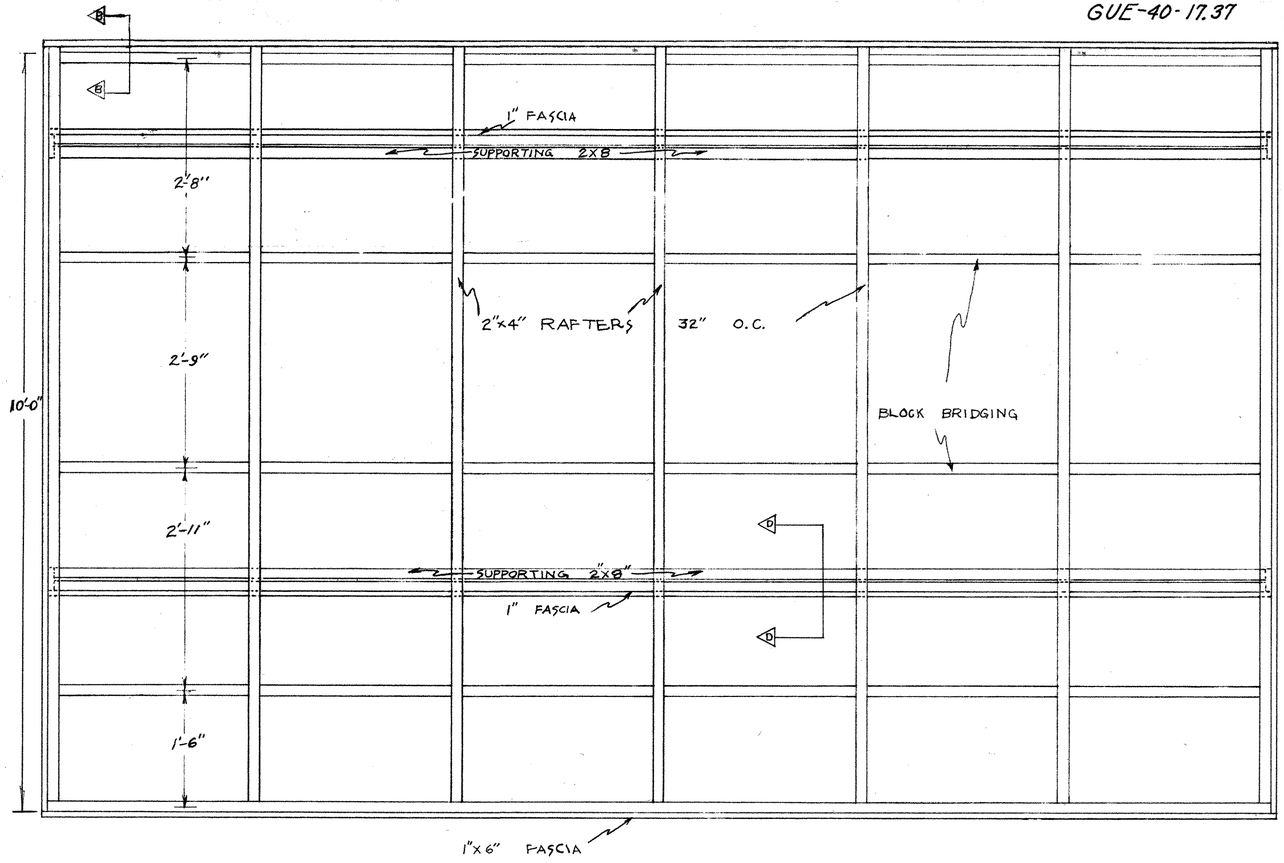
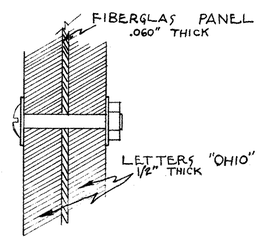


PLAN

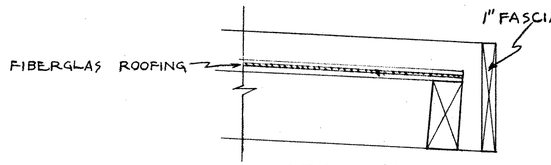


SCALE : 1" = 1'

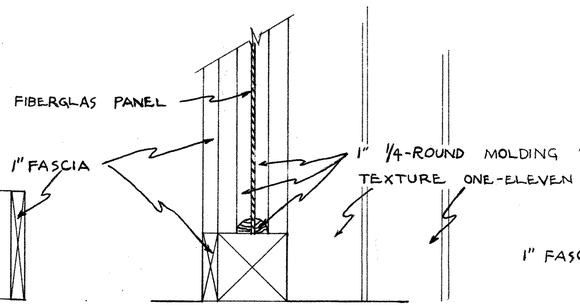
ROOF FRAMING PLAN



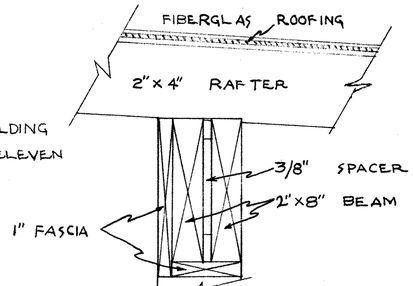
SECTION A-A
INSTALLATION OF LETTERS ON FIBERGLAS PANEL
FULL SCALE



SECTION B-B
ROOF DRAINAGE DETAIL
SCALE: 3" = 1'



SECTION C-C
FRONT PANEL DETAIL
SCALE: 3"=1'



SECTION D-D
BEAM CONSTRUCTION DETAIL
SCALE: 3"=1'

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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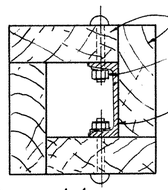
GUE-40-17.37



PLAN VIEW OF POST CONSTRUCTION
Scale 3"=1'-0"

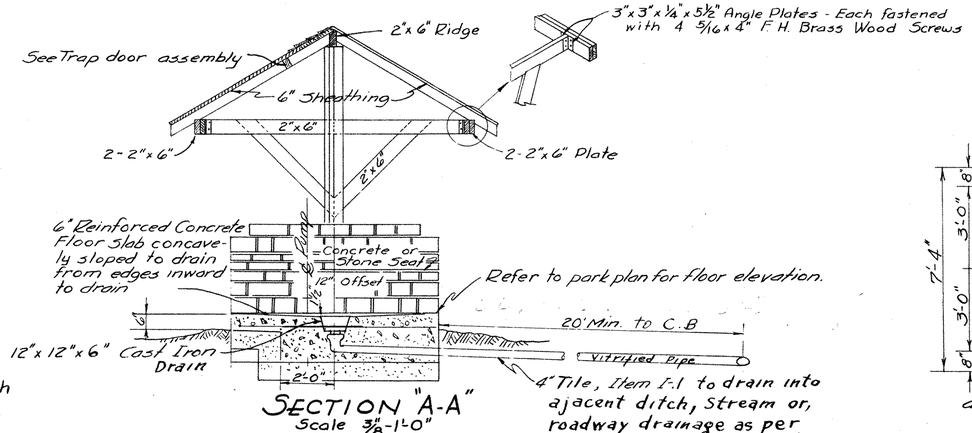
1 pc. 1"x3"x8' - Trap door cleats
1 " 2"x4"x2' - Trap door framing

ESTIMATED BILL OF MATERIALS

4 pcs. 2"x6"x10' - Cross members for roof and angular supports
5 " 2"x6"x14' - Ridge & plate for roof
8 " 2"x4"x14' - Roof rafters
4 " 2"x6"x16' - Boxing around Channel iron, for column supports
2 " 6"x6"x10' - Wood posts (alternate column supports)
2 " 5½"-7" O.D. x 11'- Used well casing (alt. column supports)
28 " 1"x6"x14' - Roof sheathing
2 " 1"x3"x14' - Facia boards
10 bundles - 16" - Random width wood shingles, grade xxxxx cedar.

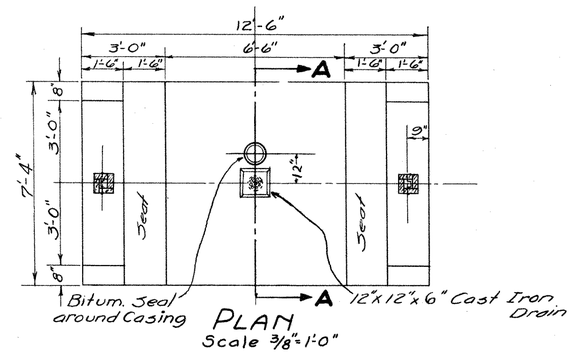
Hardware

24 each ⅜"x3" - Carriage bolts in column supports
4 " ½"x11" - C-Bolts, column & braces
4 " ½"x9" - C-Bolts, column & cross-arms
4 " ½"x5" - C-Bolts, braces & cross-arms
1 " 12x12x6" Cast Iron Drain Bowl
1 " 14' - Copper or Aluminum Ridge Roll
2 pcs. (11 lin. ft. each) - Channel iron
8 ea. 3"x3"x¼"x5½" - Angle plates
46 " 5/16"x4" - F. H. brass wood screws
2 " 2½" - Screen door hooks - complete
4 " ½"x15" (2" spread) - U-Bolts, alternate with used well casing posts.

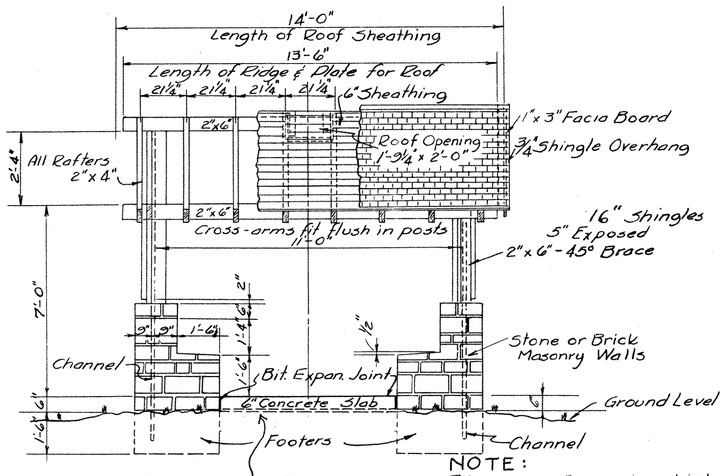


SECTION "A-A"
Scale ⅜"-1'-0"

4" Tile, Item I-1 to drain into ajacent ditch, Stream or, roadway drainage as per plan. Tile to be encased in Concrete to 6' beyond well Shelter. Cost of encasement Shall be included in cost of 4" Storm Sewer, Item I-1.



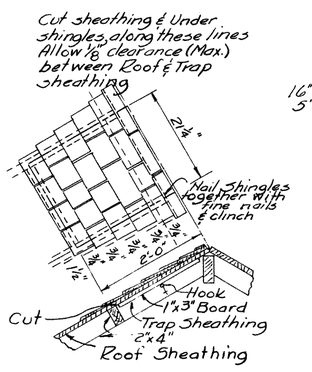
PLAN
Scale ⅜"=1'-0"



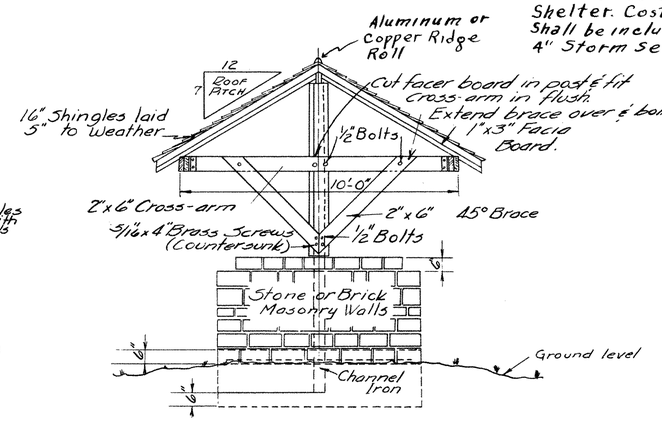
See Well & Pump Platform for slab detail

ELEVATION
Scale ⅜"=1'-0"

NOTE: Bituminous Expansion Joint will not be necessary if concrete well slab is placed integral with footers for Well Shelter.



DETAIL OF TRAP DOOR
Scale ¾"=1'-0"



ELEVATION
Scale ⅜"=1'-0"

NOTES

All outside vertical surface joints shall be raked to a depth of ¼" to ½".

All stone masonary shall comply with specification for Item 5-20. No masonary, stone or brick shall be painted.

Brick shall be size number 3 or 4, made from clay and comply with specification for Item 1-8.

The posts constructed from 2"x6" boards shall be fastened with suitable nails, also 5/16"x4" brass screws at 24" intervals.

All lumber shall be 545, Std., K.D., #1 common and better, Southern Yellow Pine or Douglas Fir.

All lumber and shingles be treated in accordance with the requirements for "Pentachlorophenol Treatment," Sec. M-8.3.

Concrete shall be Class "C" and constructed in accordance with the requirements of Item 5-1 of the Specifications.

Reinforcing steel in 6" reinforced concrete floor slab shall be ¾" steel rods spaced 12" apart O.C. both ends. Reinforcing steel not required in footers, nor in 8" walls or 4" floor slab of compartment.

Large sized washers shall be used with all bolts, one at each end; a lock washer shall also be used at the nut end. Bolts shall be cut off ¼" beyond the nut & then hammered. All bolt holes shall be soaked with 5% Pentachlorophenol Solution, thoroughly before inserting bolts.

Bolts shall be good quality Hot Galvanized, Cadmium Plated or, Copper Bearing.

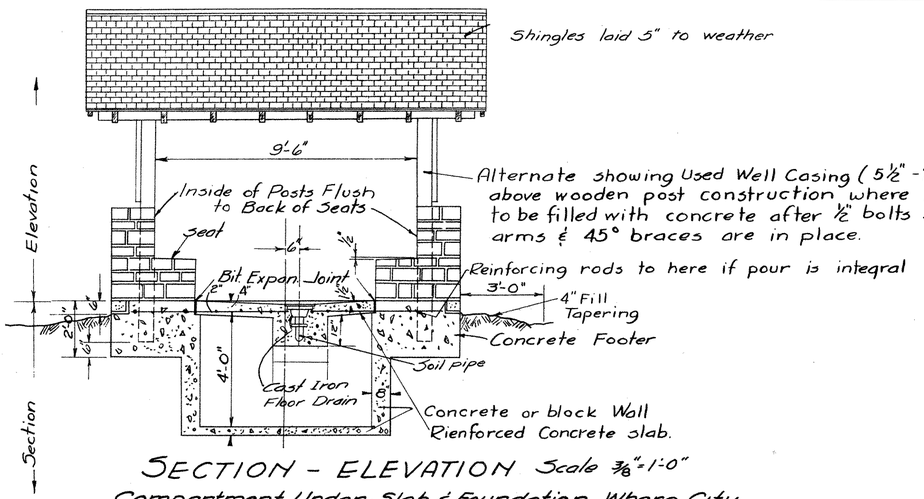
In all shelters containing a well & pump these are offset from center of 6" concrete slab, and trap door is built into roof of shelter as shown. all to allow for drawing of pump and/or casing, In the event repairs have to be made.

Should local conditions warrent, drainage of excess ground water from compartment beneath fountain; it shall be carried off either by gravity flow or sump drains as required, by topography of the individual park area affected.

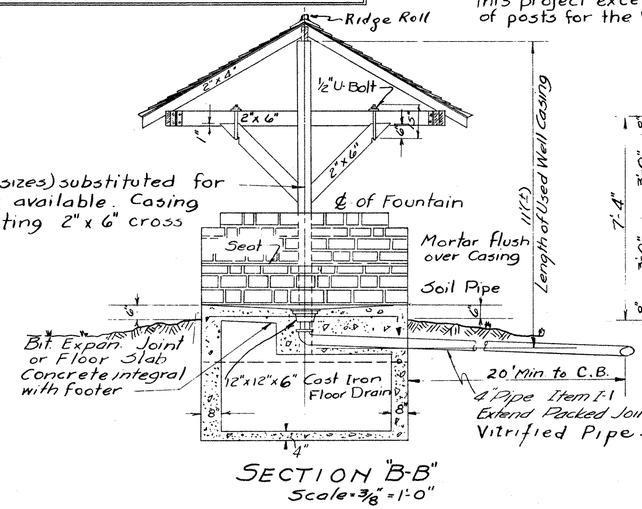
Aggregate subbase for concrete slab shall meet the requirements of Item I-22 Subbase, Grading "C" or "D."

This Well Shelter Design is the "TRADE MARK" of the Roadside Parks in Ohio. It will be erected as Standard.

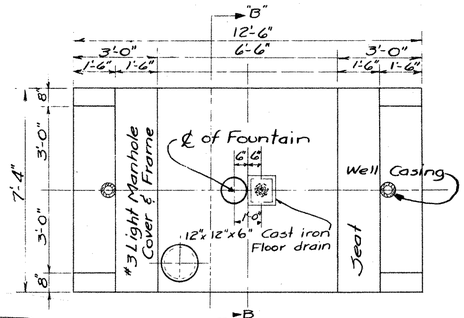
NOTE: Details below this line do not apply to this project except for alternate design of posts for the Well Shelter.



SECTION - ELEVATION
Scale ⅜"=1'-0"
Compartment Under Slab & Foundation Where City Water is Used To Allow Repairing



SECTION "B-B"
Scale = ⅜"=1'-0"



PLAN
Showing Used Well Casing Posts
Scale ⅜"=1'-0"

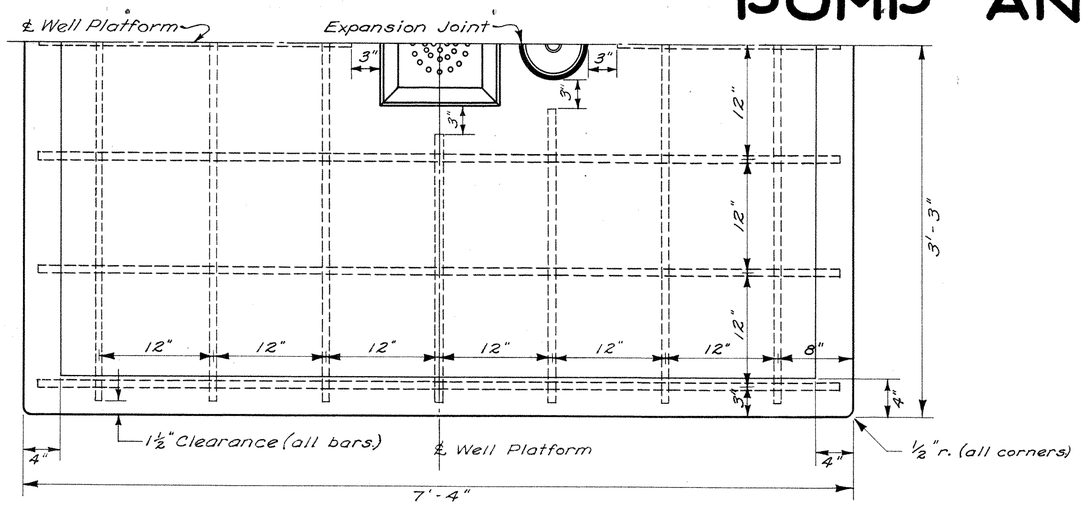
STATE OF OHIO
DEPARTMENT OF HIGHWAYS
WELL SHELTERS
ROADSIDE PARKS
Jan. 1958

DESIGNED	TRACED	APPROVED
C.A.W.	R.C.B.	K.J.G.

PUMP AND PLATFORM

GUE-40-17.37

487
638



PLATFORM
HALF-PLAN VIEW

BILL OF MATERIALS*

Hand Drinking Fountain Type Pump (Including pump cylinder.)
Class "C" Concrete.
12"x12"x6" Cast Iron Drain Bowl.
4" Pipe Encased.

3/4" ϕ REINFORCING STEEL	
QUANTITY	LENGTH
1	2'-0"
1	2'-9"
2	2'-4"
2	2'-7"
5	6'-3"
6	7'-1"

* Payment included in Unit Price Bid for "Item Special Well Shelter, Pump and Platform."

NOTES

The location of 4" Storm Sewer shall be as furnished on Rest Area plan.

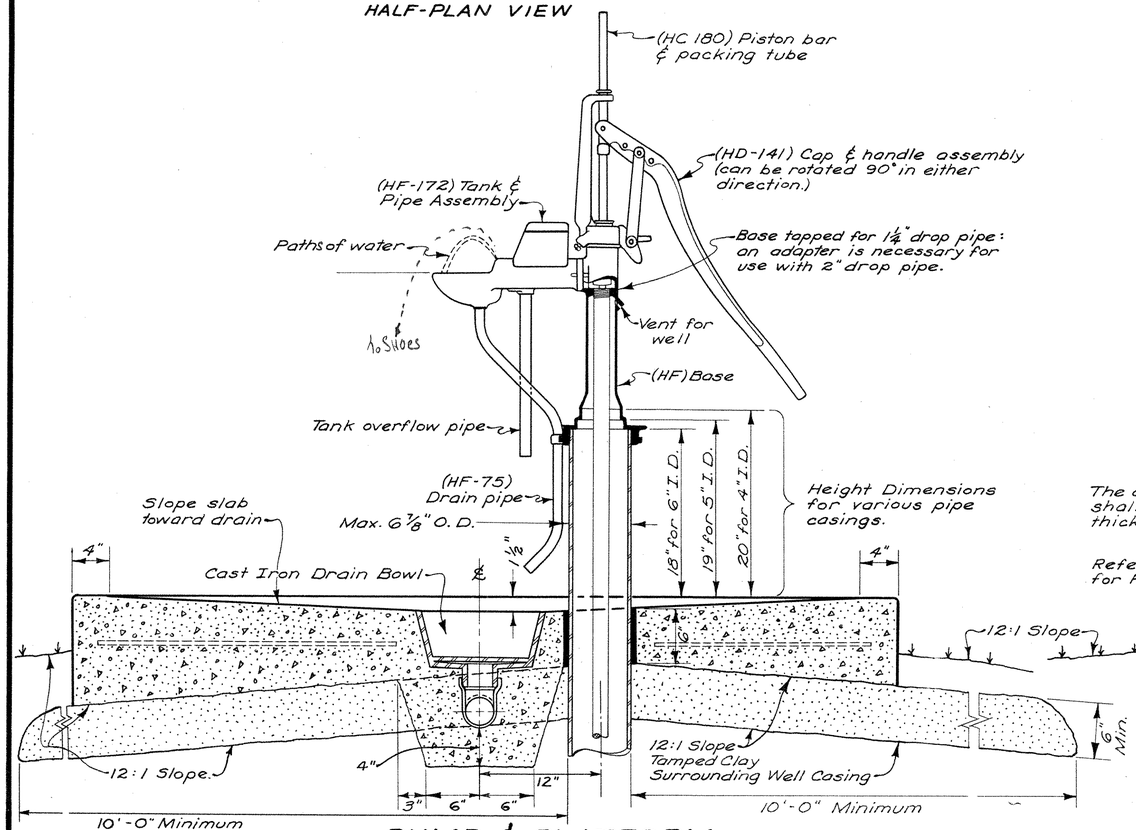
Floor Slab may be poured integral with the Well Shelter Footer. (See detailed drawing of Well Shelter.)

Hand Drinking Fountain Type Pump shall be Model 1-HF as manufactured by Baker Manufacturing Company, Evansville, Wisconsin, or an approved equal.

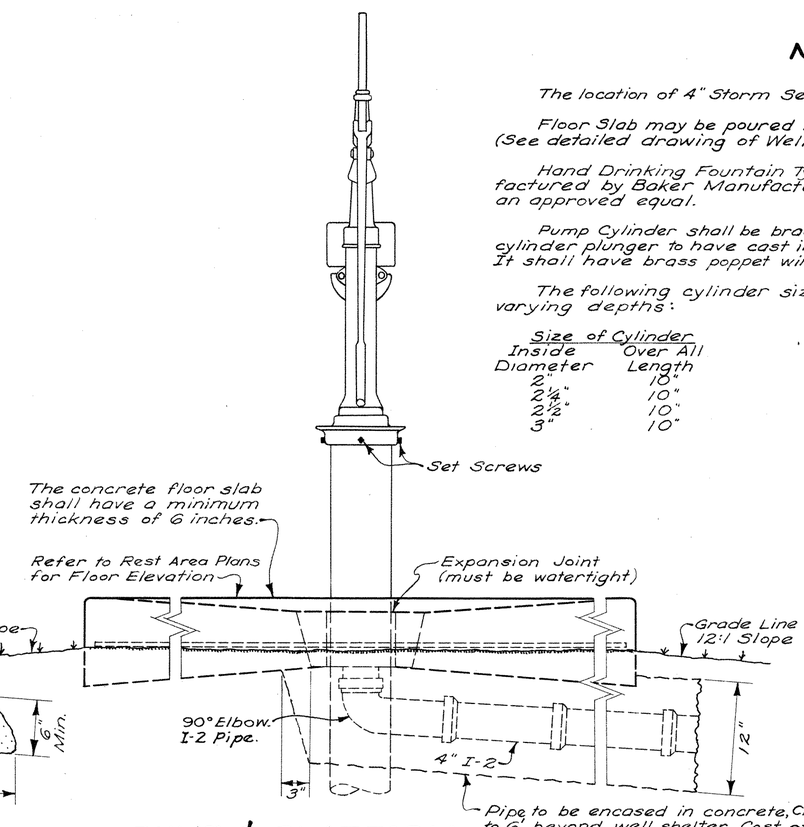
Pump Cylinder shall be brass body cylinder or brass lined. The cylinder plunger to have cast iron cage, brass follower and valve seat. It shall have brass poppet wing valve with rubber facing and steel stem.

The following cylinder sizes shall be used for wells of varying depths:

Size of Cylinder		Depth of Cylinder Setting
Inside Diameter	Over All Length	
2"	10"	175' – 200'
2¼"	10"	150' – 175'
2½"	10"	75' – 150'
3"	10"	25' – 75'



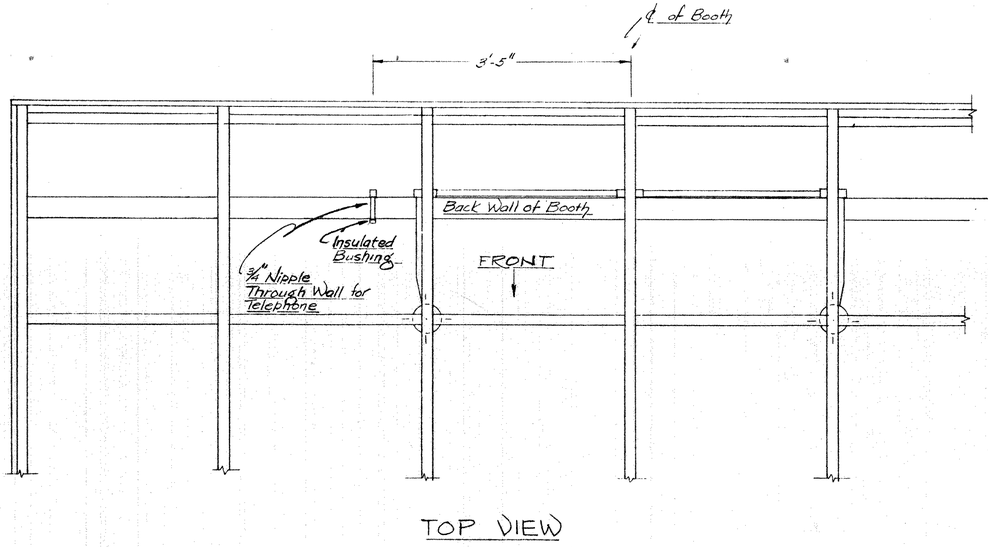
PUMP & PLATFORM
SIDE ELEVATION



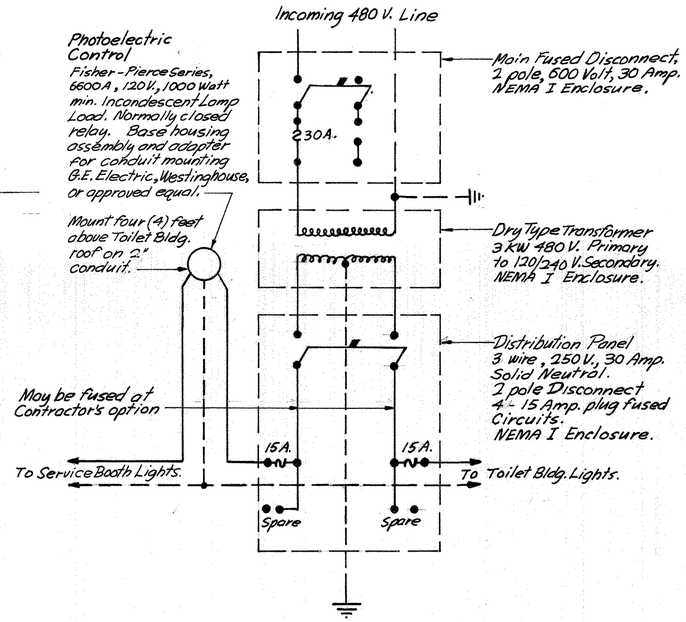
PUMP & PLATFORM
REAR ELEVATION

GUE-40-17.37

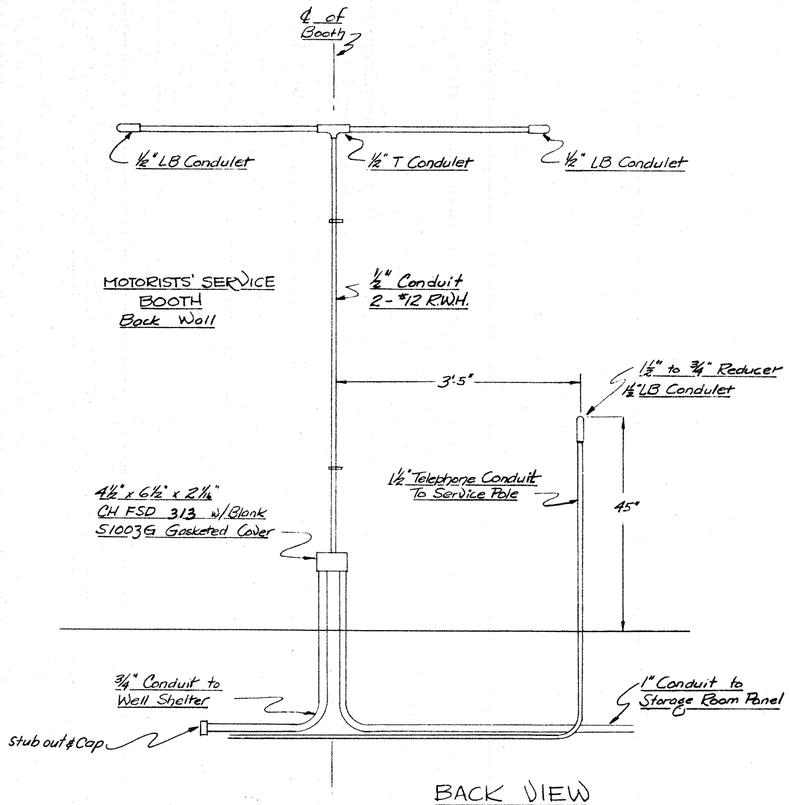
490
638



TOP VIEW

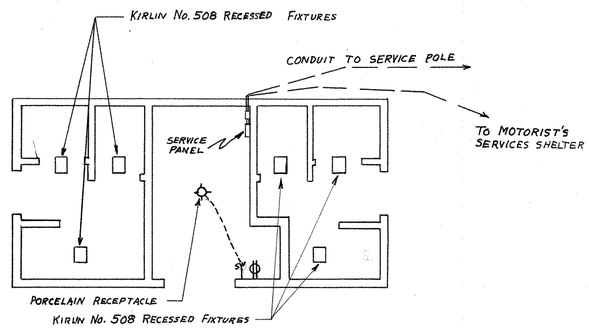


Schematic Diagram
Service Entrance Transformer & Distribution Panel in Toilet Bldg. (No Scale)
Included with Toilet Building for payment.



BACK VIEW

SERVICE BOOTH LIGHTING DETAILS.



TOILET LIGHTING PLAN

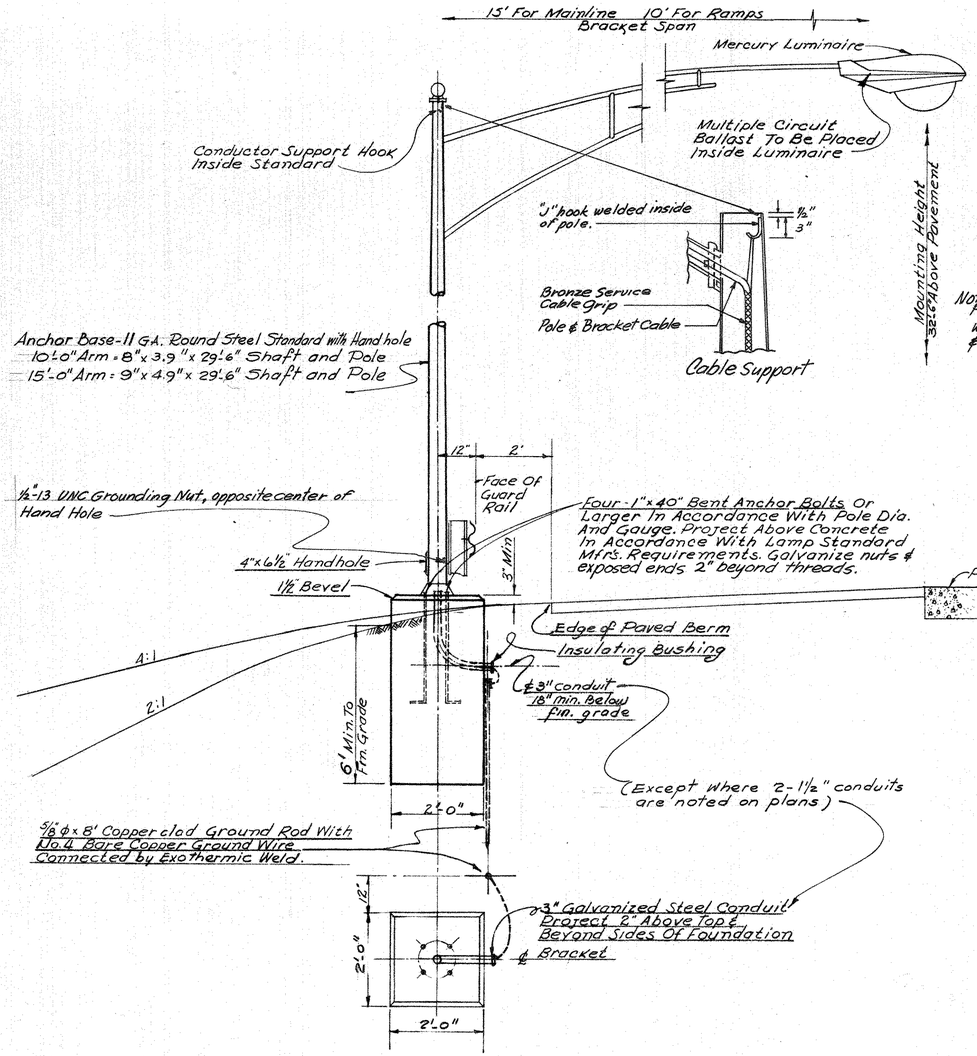
LIGHTING PLAN DETAILS
ROAD SIDE REST AREA

SCALE NONE
DATE
APPROVED
ENGINEER OF TRAFFIC

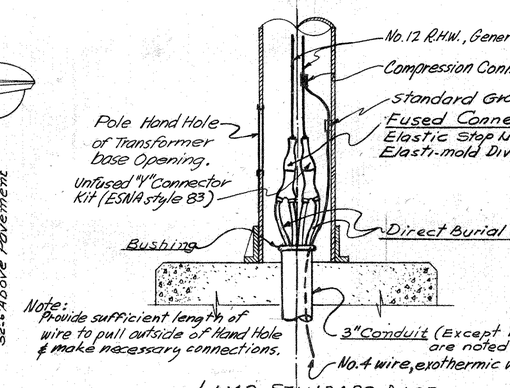
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

101/638

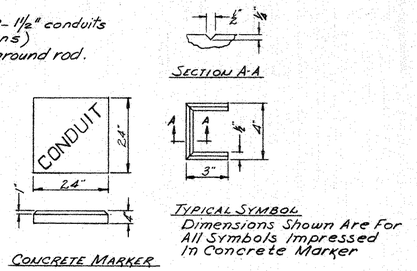
GUERNSEY COUNTY
GUE-40-17.37



LAMP STANDARD & FOUNDATION DETAIL - ANCHOR BASE TYPE



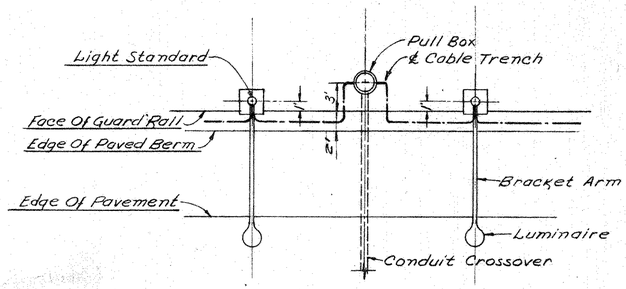
LAMP STANDARD BASE CONNECTION DETAIL.
NO SCALE
(Anchor Base & Transformer Base)



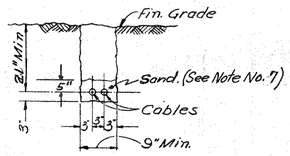
Dimensions Shown Are For All Symbols Impressed In Concrete Marker

Note: Impress The Word "CONDUIT" In The Top Of Concrete Marker Using Letters Of The Type & Dimension As Per Detail

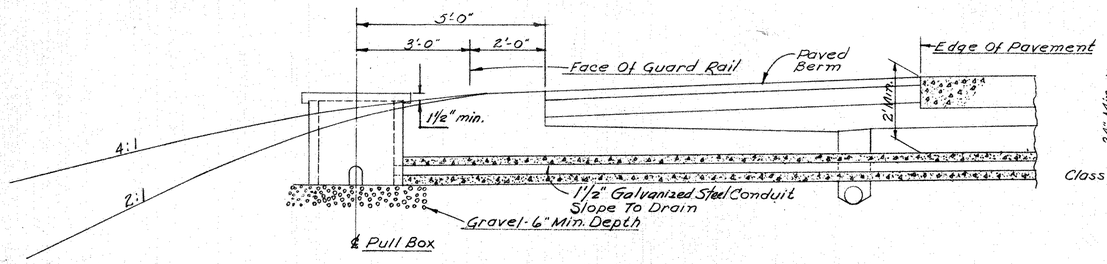
MARKER DETAILS



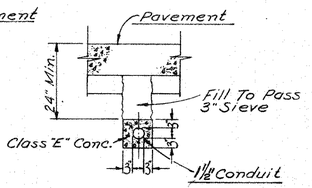
CABLE & PULL BOX LOCATION

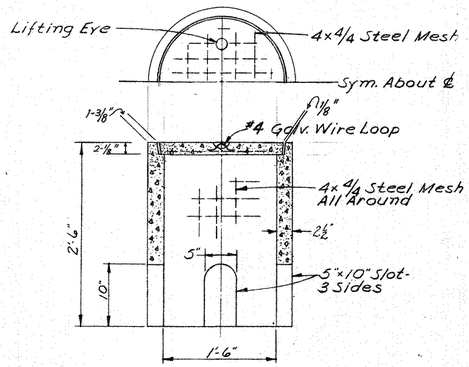


TYPICAL CABLE TRENCH



TYPICAL CONDUIT CROSSOVER DETAIL





PULL BOX DETAIL

NOTES

(1) Foundation For Lamp Standard Shall Be Poured-In-Place Concrete. The Lower Portion May Be Poured In A 2'-0" Diameter Or 2'-0" Square Hole Without Forms. The Top Portion Shall Be Formed 2'-0" Square For At Least 1'-0" Deep, Or A Minimum Of 0'-6" Below Finished Grade. Foundation Depth: Minimum-6'-0", Additional Depth May Be Required Depending On Local Soil Conditions.

(2) Pull Box Shall Be M-6.6(b) steel reinforced concrete pipe-modified, as Detailed. For extra deep pull-boxes use 24" Reinforced Concrete Pipe, modified.

(3) Pull Box Cover Shall Be Precast Concrete, Steel Reinforced. Provide Two Galvanized Lifting Eyes, Recessed Flush With Top Of Cover. Conform With Section M.1 For Air Entrained Portland Cement.

(4) Crossover Conduit Shall Be 1½" Nominal Diameter Galvanized Steel Conduit, Encased in not less than 3" of concrete.

(5) Foundation Conduit Shall Be Standard Weight (U.E.C.) Rigid Galvanized Steel Conduit. Conduit Shall Project 2" Above The Top & 2" Beyond The Sides Of The Foundation. Both Ends Of The Conduit Shall Be Capped Until Light Standards & Electrical Conductors Are Installed. Steel Conduit Ends Shall Be Provided With Fiber Bushings When Conductors Are Installed

(6) Light Standards Shall Be Fabricated Steel-Anchor Base Type. For Detailed Specifications see Notes. Bracket Arms Shall be 2" O.D.

(7) Back Filling and compacting: Bed 3" and Back Fill 5" abve top of cable with unwashed sand meeting the following grading requirements:

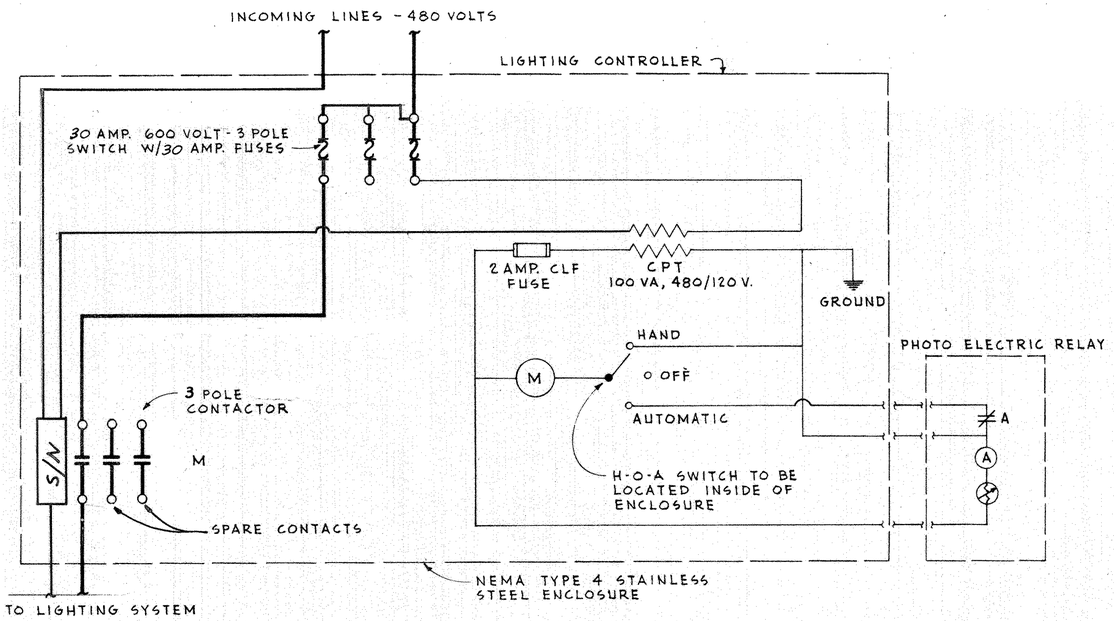
Sieve No.	Percent Passing
4	100 %
8	70 - 100 %
50	5 - 60 %
200	0 - 20 %

Back Fill remainder of trench in accordance with Sec. I-1.07 Type 1 Except that the material in the first 4" above the sand back fill shall contain no pieces larger than 2".

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

402/638

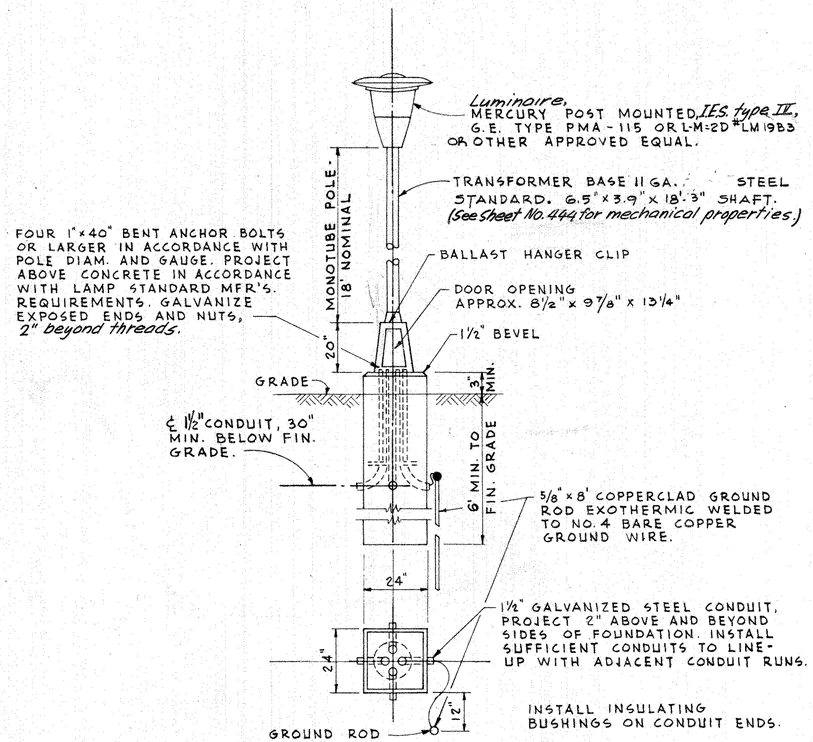
GUERNSEY COUNTY
GUE-40-17.37



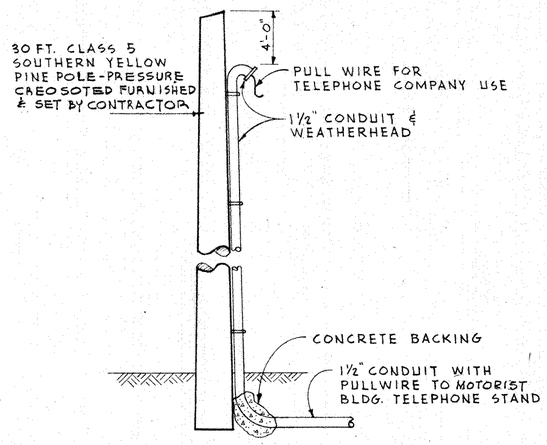
· WIRING DIAGRAM ·

-NOTES-

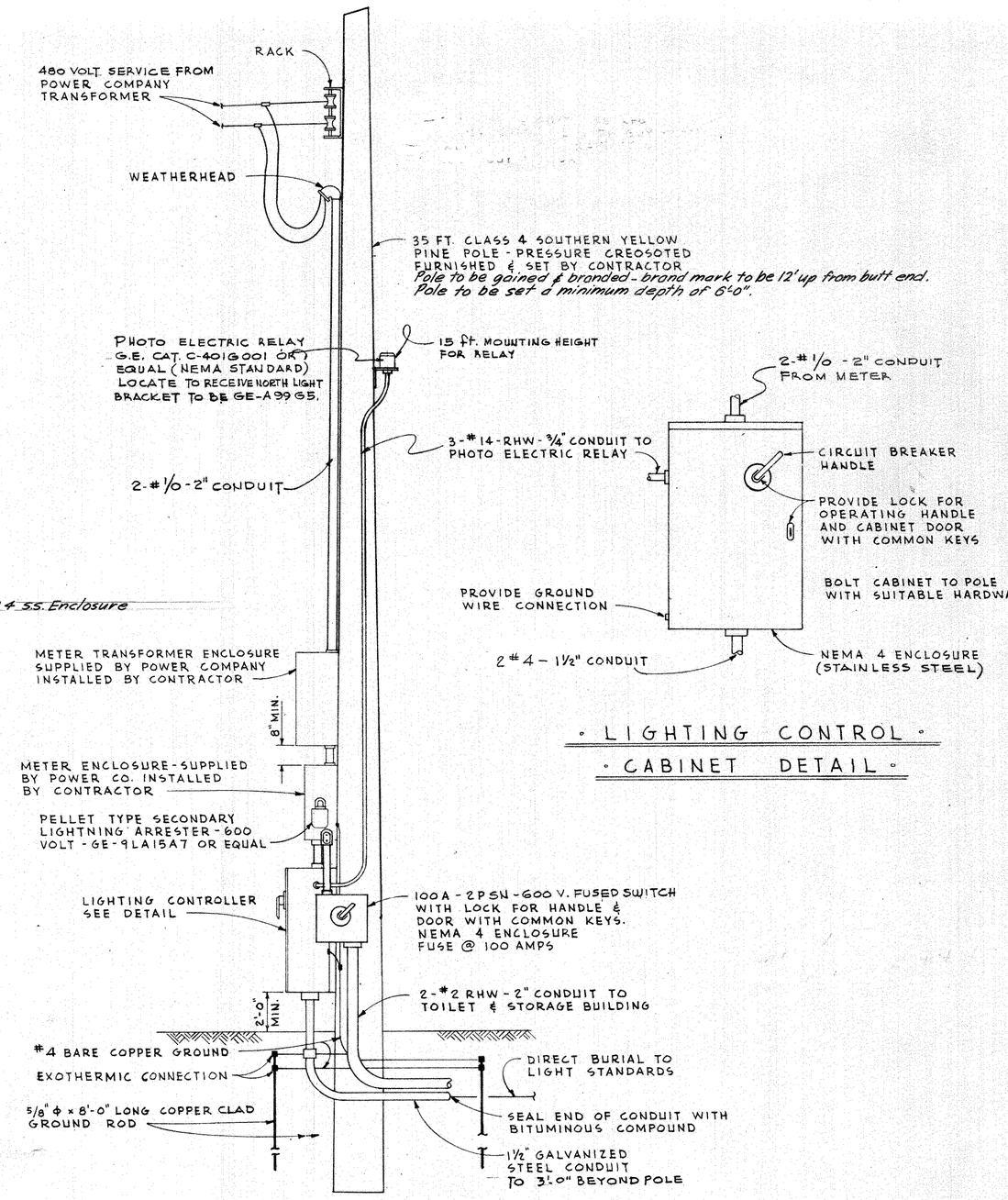
1. LIGHTING CONTROL TO BE A *600 Volt 30 Amp. 3 Pole, NEMA 4 S.S. Enclosure fused disconnect & lighting contactor* AS MANUFACTURED BY CUTLER HAMMER, SQUARE D, OR GENERAL ELECTRIC.
2. CONTROL STRUCTURE TO BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC SAFETY CODE FOR CLASS "B" CONSTRUCTION.



· PICNIC AREA STANDARDS ·



· TELEPHONE SERVICE POLE ·



· LIGHTING CONTROL · · CABINET DETAIL ·

· CONTROL STRUCTURE DETAIL ·

FED. RD DIVISION	STATE	PROJECT	
2	OHIO		

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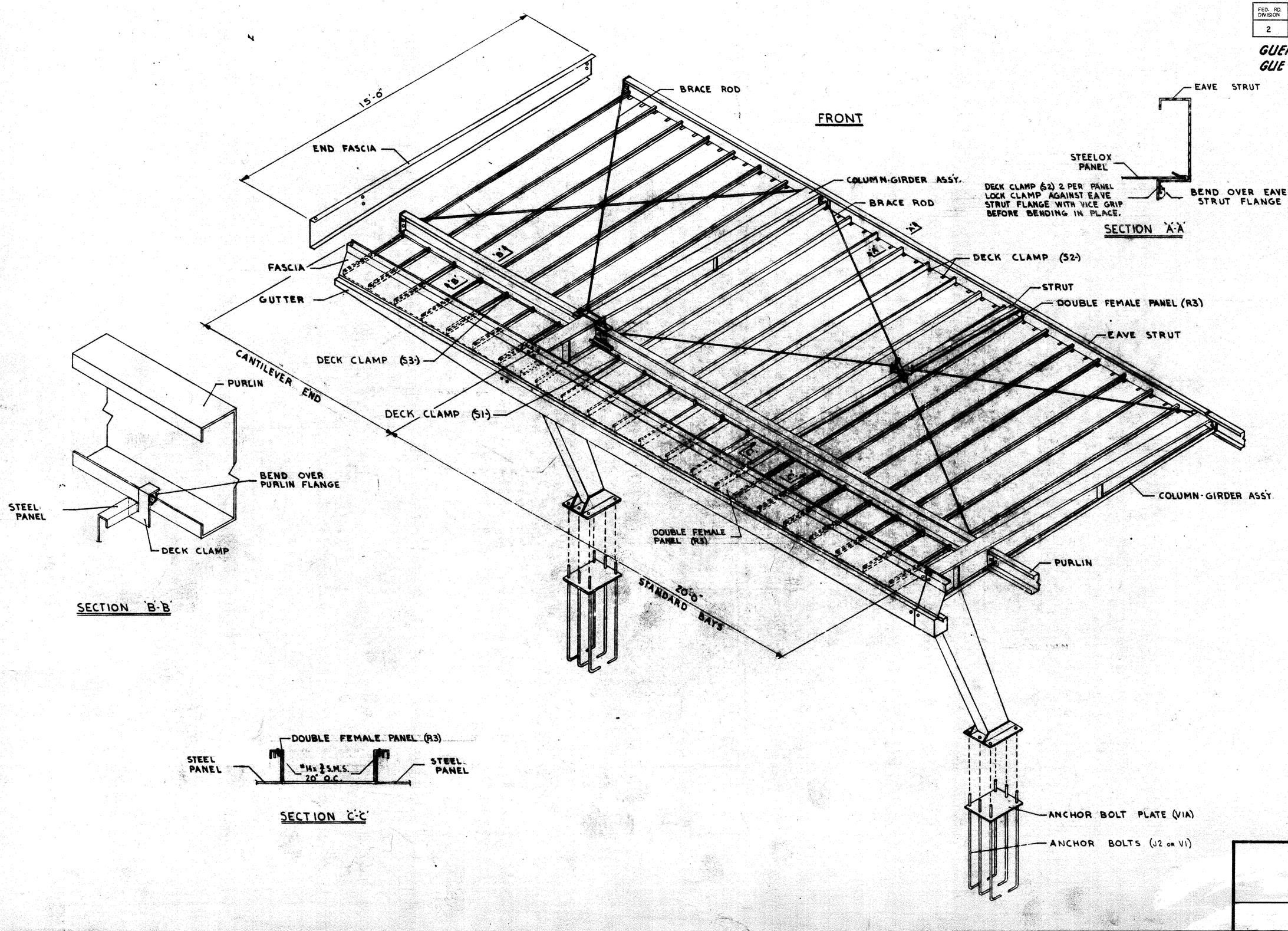
GUERNSEY COUNTY
GUE-40-17.37



SECTION A-A

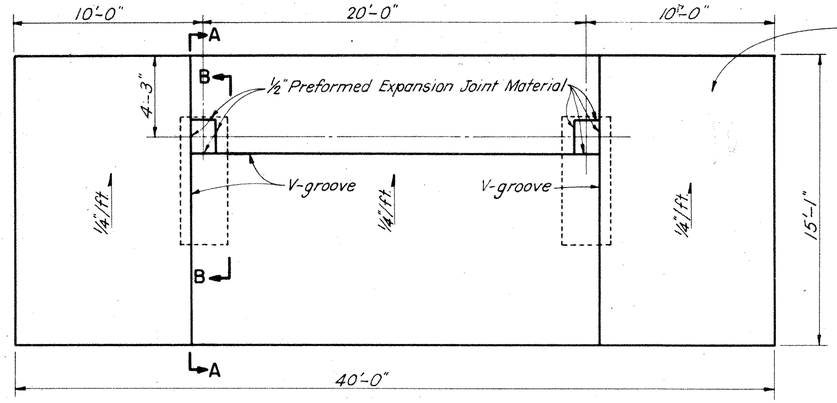
SECTION B-B

SECTION C-C

STEEL CANOPY

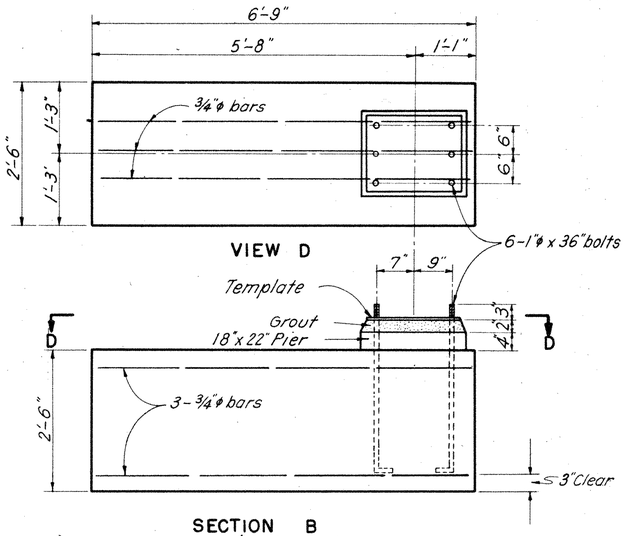
DATE	4-19-61
DRAWN	DCF
CHECKED	
APPROVED	
SCALE	
REVISED	

4-7146



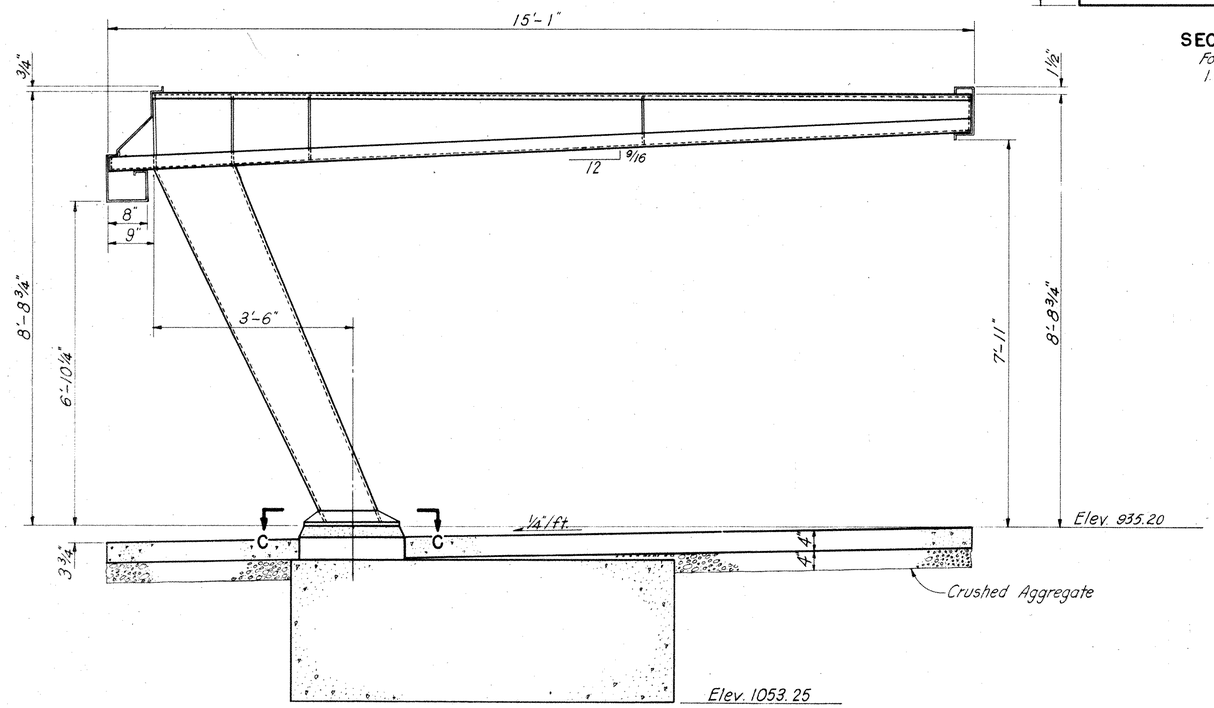
Type "A" Mesh Fabric (O.S.H.D. Specifications) or ½" min. ϕ Bars @ 12" O.C. (Both ways.) Outside clearance 2".

PLAN

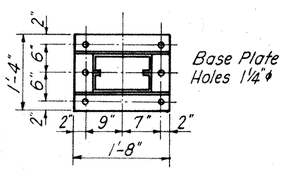


SECTION B

Foundation Contains 1.6 Cu. Yds. Concrete



SECTION A



SECTION C

NOTES:

These specifications cover the material for and the fabrication of steel buildings so designed and constructed as to be weathertight and easily erected.

The materials furnished shall include the applicable framing and bracing, roofing, anchor bolts, fasteners, for the canopy. All materials shall be new, unused and free from defects and imperfections; and fabricated in a workmanlike manner.

The canopy shall be the design of a manufacturer regularly engaged in the fabrication of pre-engineered structures conforming in whole or in part, as specified hereafter, to the Metal Building Manufacturer's Association "Code of Standard Practices".

In case of discrepancy between drawings, proposals and specifications; the provisions of the proposals and specifications shall govern.

All foundation anchor bolts shall be of black steel, unpainted, and of proper size to adequately resist all applicable design loads at base of the frames and walls. They shall be positioned by the foundation contractor according to the dimensions and locations shown on the anchor bolt layout.

All high strength bolts shall be black unpainted and shall conform to the tentative specifications for steel machine bolts and nuts and tap bolts, ASTM Designation A-325 as amended to date. All other bolts shall be in accordance with tentative specification for steel machine bolts and nuts and tap bolts, ASTM Designation A-307 as amended to date. All fasteners other than those previously specified shall be cadmium plated.

Roof covering shall be 16" wide non-embossed panels with 3" minimum depth interlocking ribs of not less than 24 gage aluminum-coated steel. The panel is to be one piece from front to rear and applied with the ribs upstanding and parallel to the roof slope.

All frames shall be either cold-formed shapes or built-up shapes of welded plate construction. Material for all structural member 3/16" and thicker shall be uncoated hot-rolled steel conforming to ASTM Designation A-7 of current issue. Material for all uncoated steel structural members less than 3/16" thick shall have a minimum yield strength of 37,000 p.s.i.

All roof covering and fascia shall be of steel having a minimum yield point of 37,000 p.s.i., and the protective coating as previously specified shall conform to the following applicable specification:

> Aluminum-coated... by hot dip method, uniformly on both sides with commercially pure aluminum that may be saturated with iron. Minimum weight of coating by triple spot test shall be .75 ounce determined in accordance with Specification MIL-S-4174-A, dated January 7, 1959.

All steel members which are not aluminum coated shall be painted as called out in the O.S.H.D. Specifications Sec. S-8.04, S-8.05.

Concrete shall be Class "C" and constructed in accordance with the requirements of Item S-1 of the Specifications.

Aggregate subbase for concrete slab shall meet the requirements, Item I-22 Subbase, Grading "A" or "B".

Basis of Payment: The lump sum bid for the Steel Canopy as per plan, shall include all materials, labor, equipment, including the excavation and materials for the foundation and floor slab, and incidentals necessary to complete the item according to the plans.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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GUERNSEY COUNTY
GUE-40-17.37

STEEL CANOPY

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

GUERNSEY COUNTY
GUE-40-17.37

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638

CURVE DATA
P.I. = 647+01.80
P.I. = 652+29.56
Δ = 13°54'00"
D_c = 4°00'
R = 1432.39'
T = 174.61'
L = 347.50'

Co. Rd. 13

Ex. Paved Gutter

Westbound ~ U.S. 40

P.I. 652+29.56 = 652+18.70, 54 Lt.

N63°42'40"E

P.I. 652+18.70 = 652+18.70, 54 Rt.

Ex. G.R.

N63°42'40"E

P.I. 646+07.19 = 646+07.19, 54 Rt.

N63°42'40"E

N58°08'40"E

P.I. 647+81.80 = 647+81.80, 54 Lt.

Ex. 5'-3" Conc. Box Culvert

Ex. U.S. 40

Eastbound ~ U.S. 40

Co. Rd. 1

646 647 648 649 650 651 652 653 654

Profile Temp. Crossover

(-R)	959.70
	959.93
	959.84
	959.75
	959.66
	959.57
	959.48
	959.39
	959.30
	959.21
	959.12
	959.03
	959.03
	959.13
	959.28
	959.88
	959.60
	959.63

50 V.C.
P.V.I. 650+68
Elev. 958.97

-0.36 %

+0.50 %

960
955
950

TEMPORARY CROSSOVER "B"

646 647 648 649 650 651 652 653 654

CURVE DATA
P.I. 132+20.00
P.I. 135+93.50
Δ = 16°41'57"
D_c = 5°00'
R = 1145.92'
T = 168.19'
L = 334.03'

Ex. Twp. Rd. 277 Reloc.

S 80°42'57"E

P.I. 132+20.00 = 132+20.00, 54 Lt.

Westbound ~ U.S. 40

D_c = 5°

P.I. 130+51.83 = 130+51.83, 54 Lt.

Ex. 18" R.C.P.

P.I. 135+93.50 = 135+80.00, 54 Lt.

Ex. U.S. 40

Ex. G.R.

Ex. 4'x4' Box Culvert

130 131 132 133 134 135 136 137 138

Profile Temp. Crossover

	932.61 (Ex.)
	932.87
	933.25
	933.63
	934.01
	934.39
	934.77
	935.15
	935.53 (Ex.)

+0.76 %

940
935
930

TEMPORARY CROSSOVER "D"

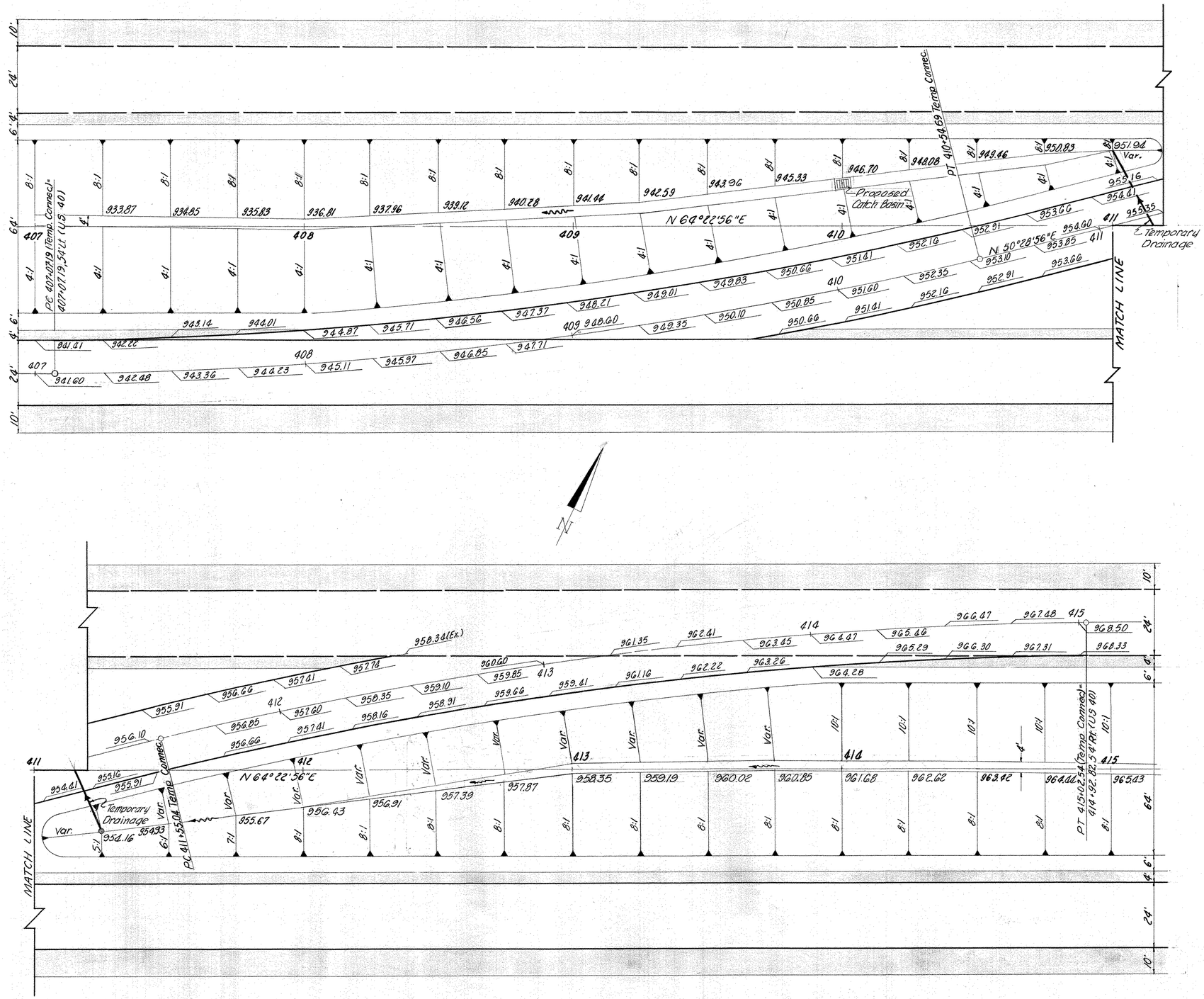
130 131 132 133 134 135 136 137

Temporary Crossover ~ "B" & "D"

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

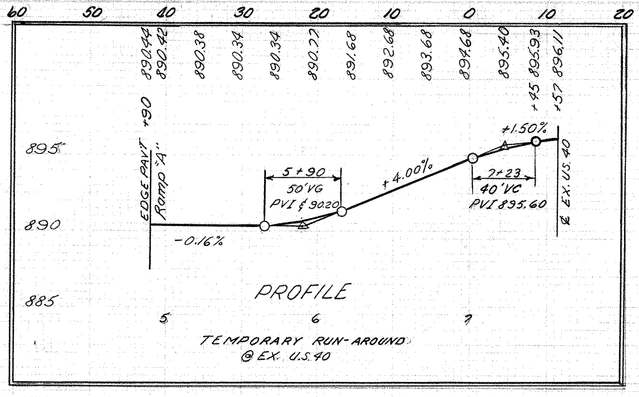
GUERNSEY COUNTY
GUE-40-17.37

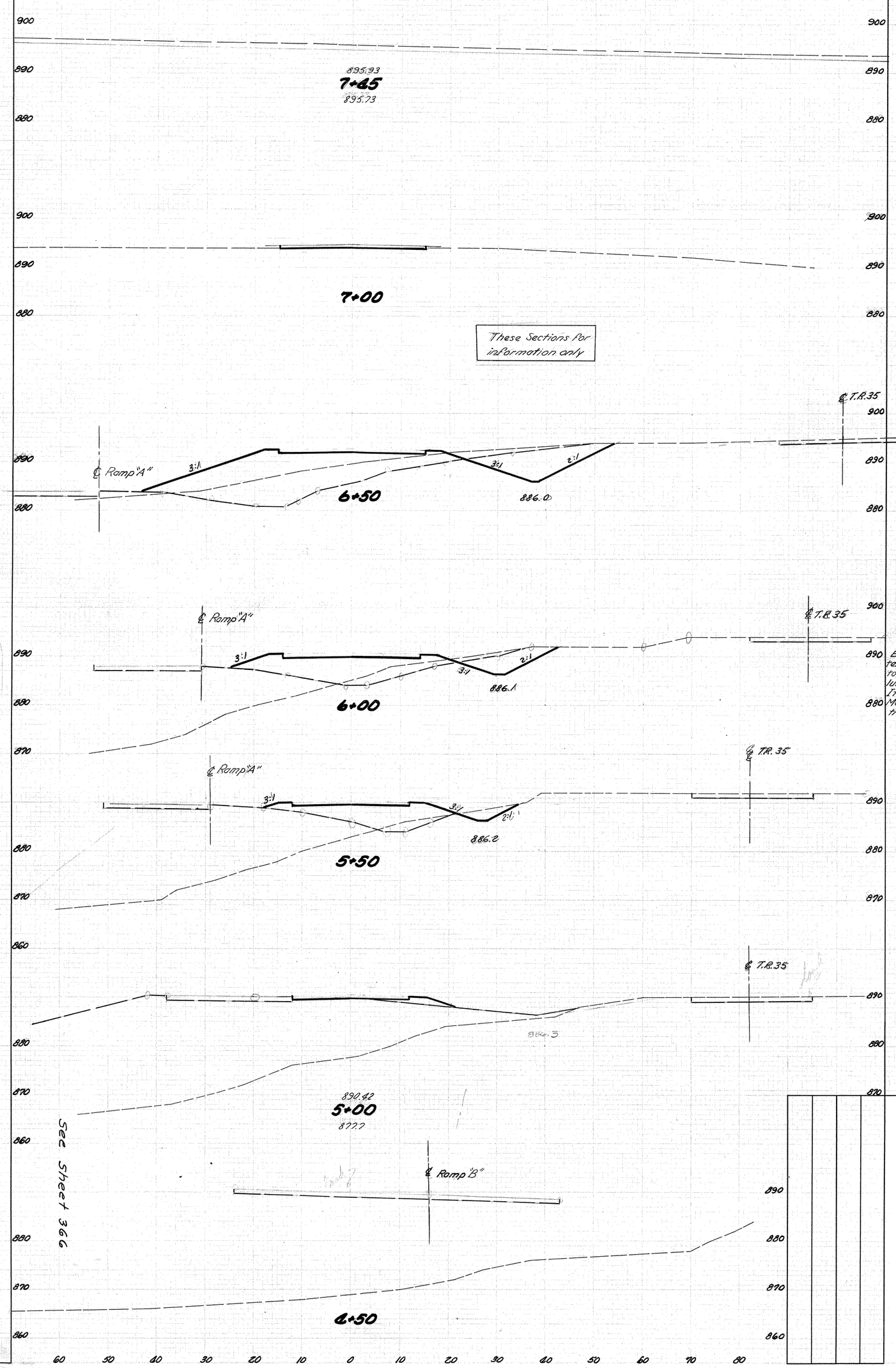
496
638



TEMPORARY CONNECTION US 40

Seeding End Width	Seeding Sq Yds	End Area Cut	End Area Fill	Volume Cut	Volume Fill





Earthwork for temporary road to be included in lump sum bid for Item S-15 Maintenance of traffic

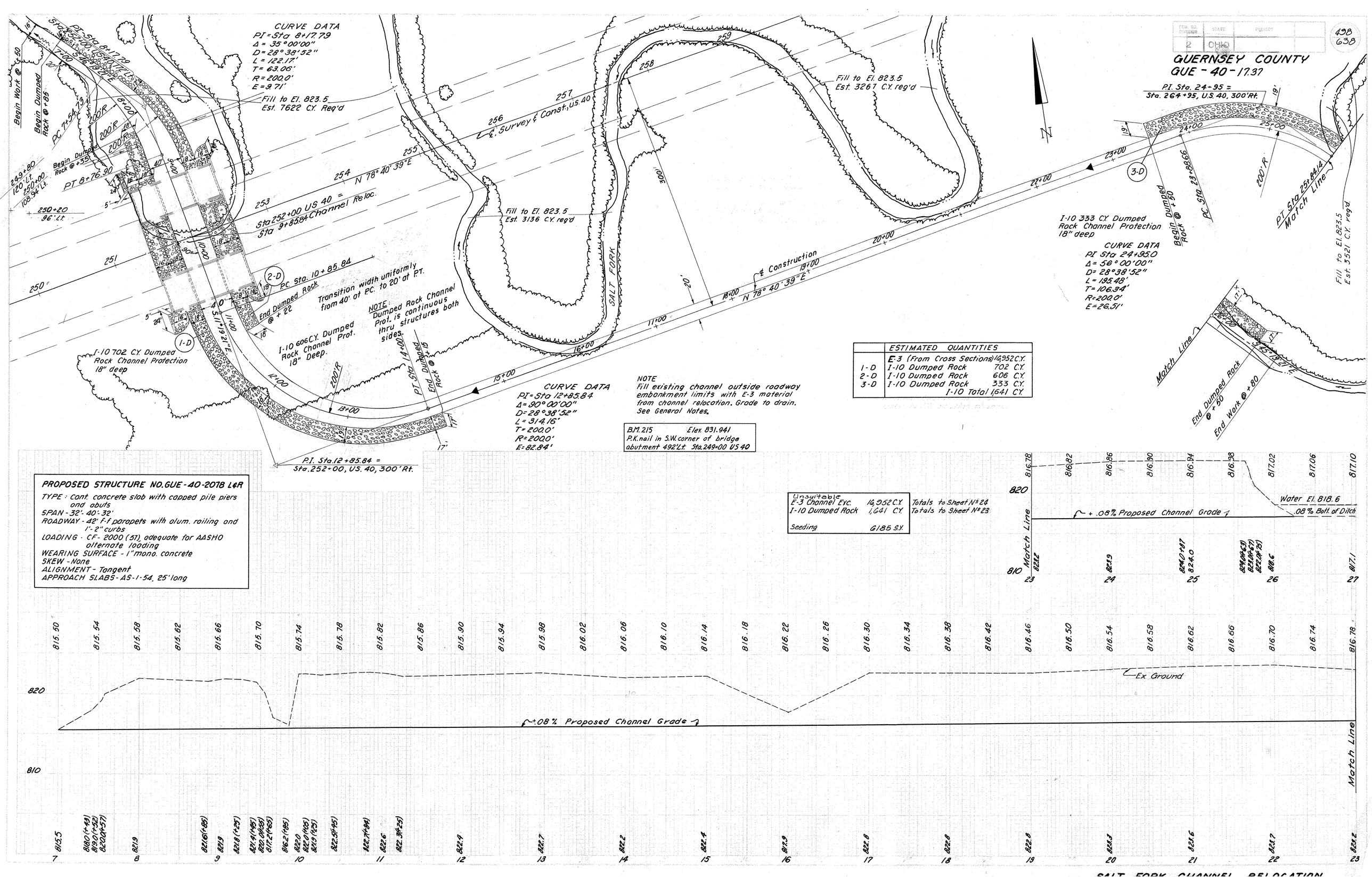
TEMPORARY RUNAROUND ROAD "X"

GUERNSEY COUNTY
GUE-40-17.37

OHIO

DESIGNED	
DRAWN	
CHECKED	
QUANTITIES	

697
638



	ESTIMATED QUANTITIES	
	E-3 (From Cross Sections)	16,952 C.Y.
1-D	I-10 Dumped Rock	702 C.Y.
2-D	I-10 Dumped Rock	606 C.Y.
3-D	I-10 Dumped Rock	333 C.Y.
	I-10 Total	1,641 C.Y.

NOTE
Fill existing channel outside roadway embankment limits with E-3 material from channel relocation. Grade to drain. See General Notes.

B.M. 215 Elev. 831.941
P.K. nail in S.W. corner of bridge abutment 492' Lt. Sta. 249+00 US 40

PROPOSED STRUCTURE NO. GUE-40-2078 L&R

TYPE: Cont. concrete slab with capped pile piers and abuts
SPAN - 32'-40'-32'
ROADWAY - 42' f-f parapets with alum. railing and 1'-2" curbs
LOADING - CF-2000 (57), adequate for AASHO alternate loading
WEARING SURFACE - 1" mono. concrete
SKEW - None
ALIGNMENT - Tangent
APPROACH SLABS - AS-1-54, 25' long

Unsuitable		
E-3 Channel Exc.	16,952 C.Y.	Totals to Sheet No 24
I-10 Dumped Rock	1,641 C.Y.	Totals to Sheet No 23
Seeding	6185 S.Y.	

SALT FORK CHANNEL RELOCATION

FED. ROAD. PROJ. NO.	STATE	PROJECT	SHEET NO.
2	OHIO		499 G38

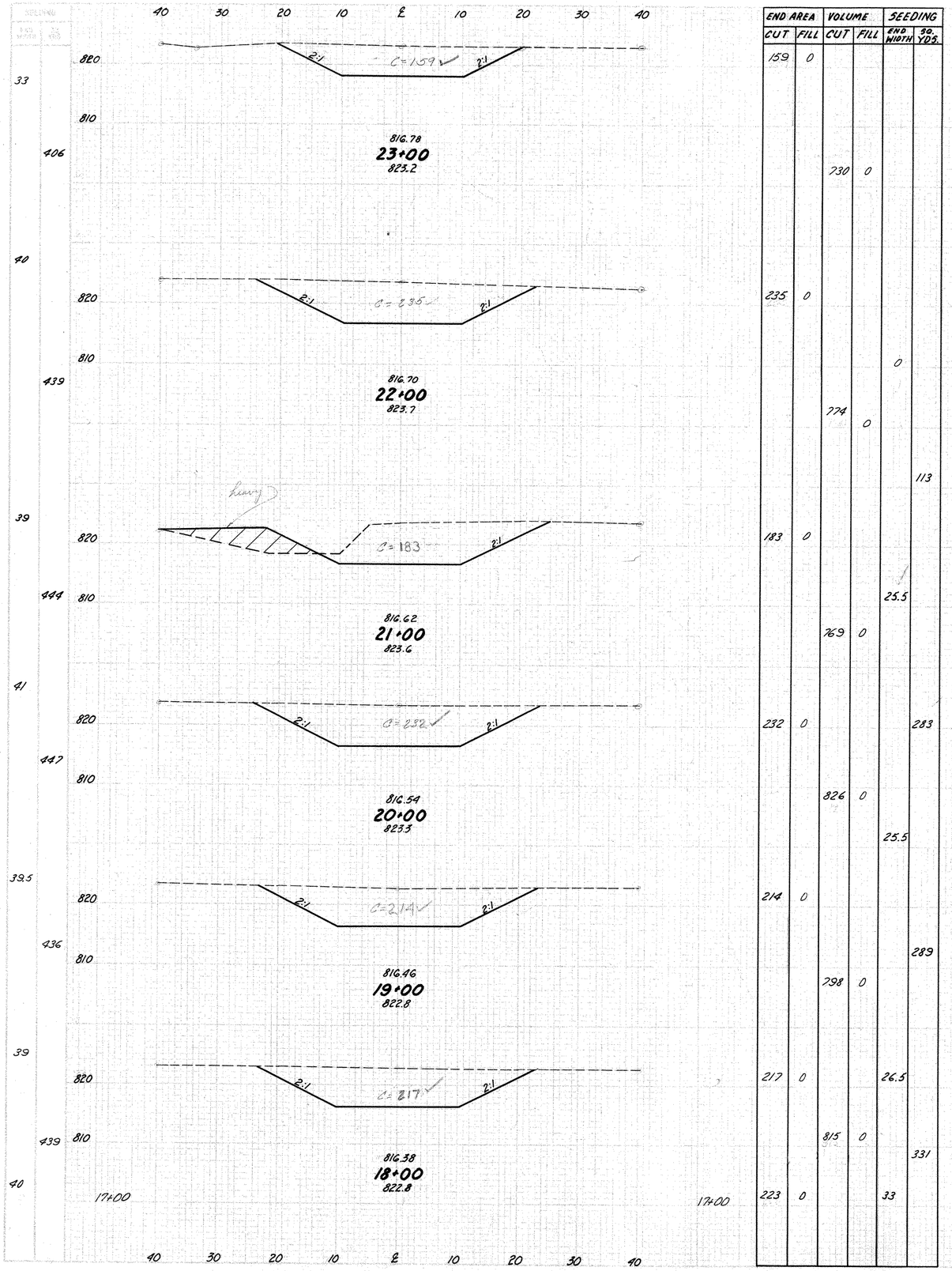
GUERNSEY COUNTY
GUE-40-17.37

	END AREA		VOLUME		SEEDING	
	CUT	FILL	CUT	FILL	END WIDTH	SQ. YDS.
815.82 11+00 822.6	355	0				
			1306	0	40	
815.74 10+00 822.0	350	0				538
			1263	0	57	
815.66 9+00 821.9	332	0				527
			1100	0	38	
815.58 8+00 821.9	262	0				344
			565	0	24	
815.5 7+00 815.5	43	0				272
			40	0	25	
6+50 815.5	0	0			24	272
					0	133
816.30 17+00 822.8	223	0				
			639	0	40	
816.22 16+00 817.9	122	0				538
			600	0	57	
816.14 15+00 822.4	202	0				527
			748	0	38	
816.06 14+00 822.2	202	0				344
			994	0	24	
815.98 13+00 822.7	335	0				272
			1319	0	25	
815.90 12+00 822.4	377	0				272
			1356	0	24	
11+00	355	0				133

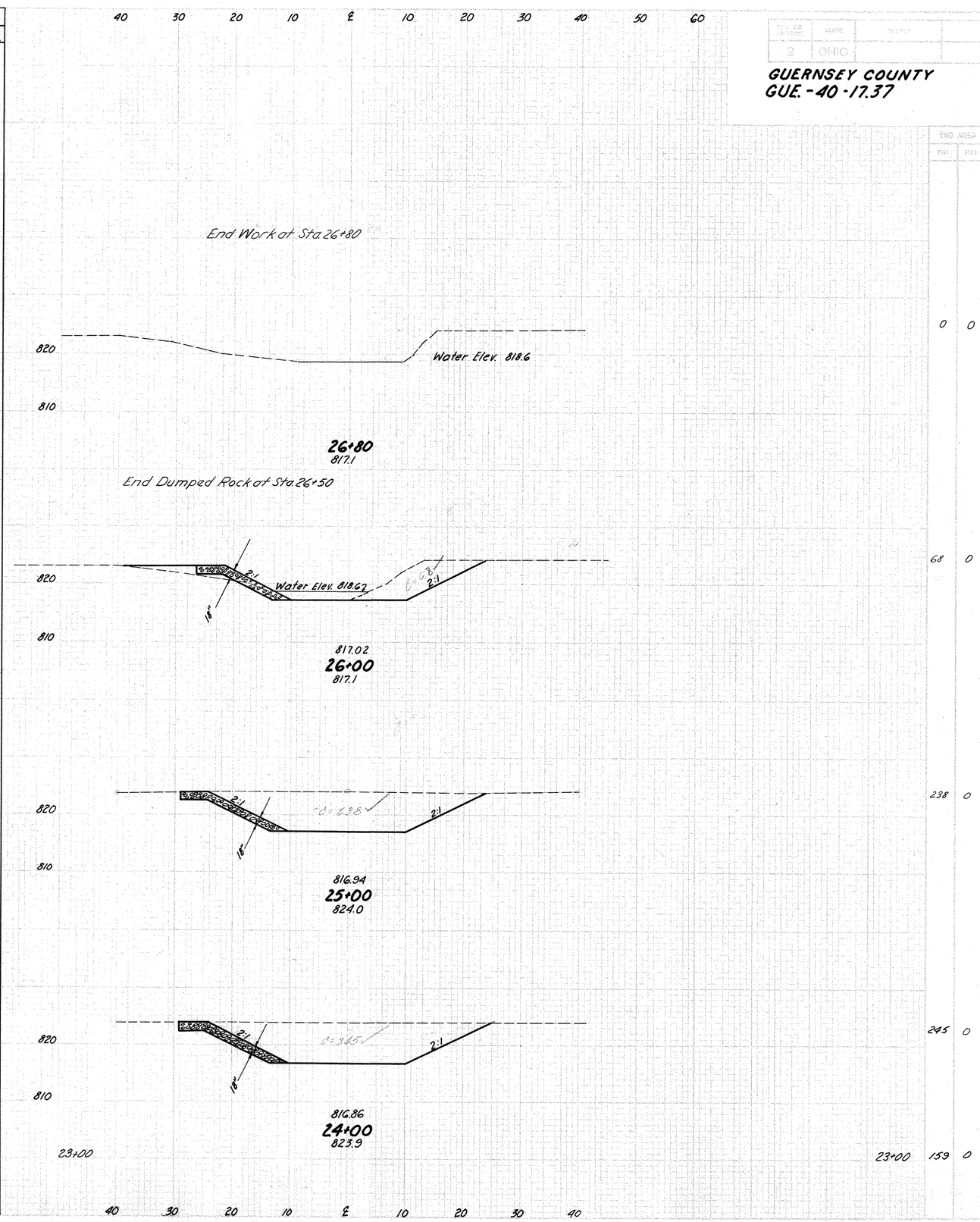
SALT FORK CHANNEL RELOCATION 6+50 to 17+00

FED. RD. DIVISION	STATE	COUNTY	
2	OHIO		

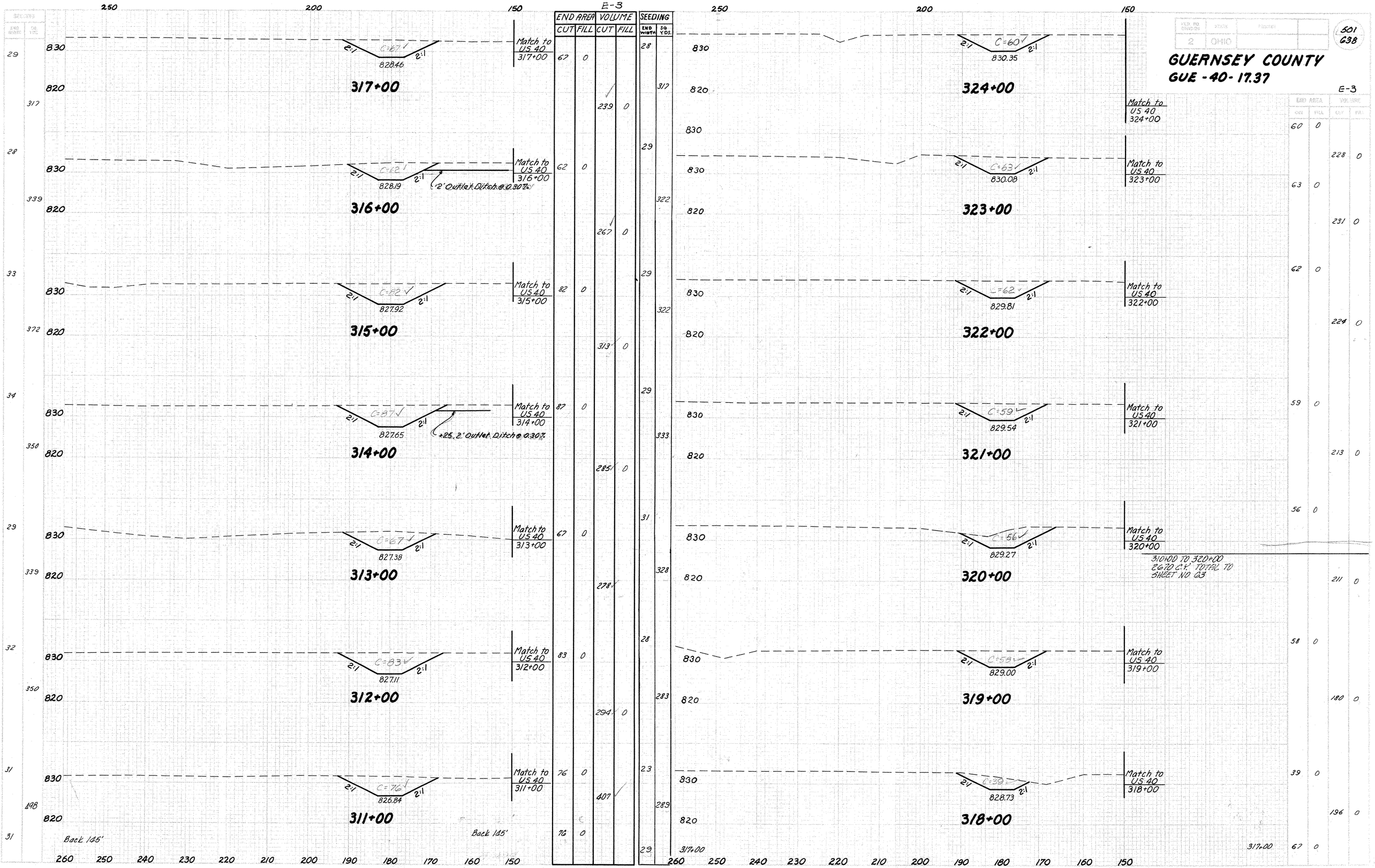
GUERNSEY COUNTY
GUE.-40-17.37



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL	SEEDING END WIDTH	SEEDING SQ. YDS.
159	0				
		730	0		
235	0				
				0	
		774	0		
					113
183	0				
				25.5	
		769	0		
232	0				283
		826	0		
				25.5	
214	0				
					289
		798	0		
217	0			26.5	
		815	0		
					331
223	0			33	



SALT FORK CHANNEL RELOCATION 18+00 to 26+80



FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

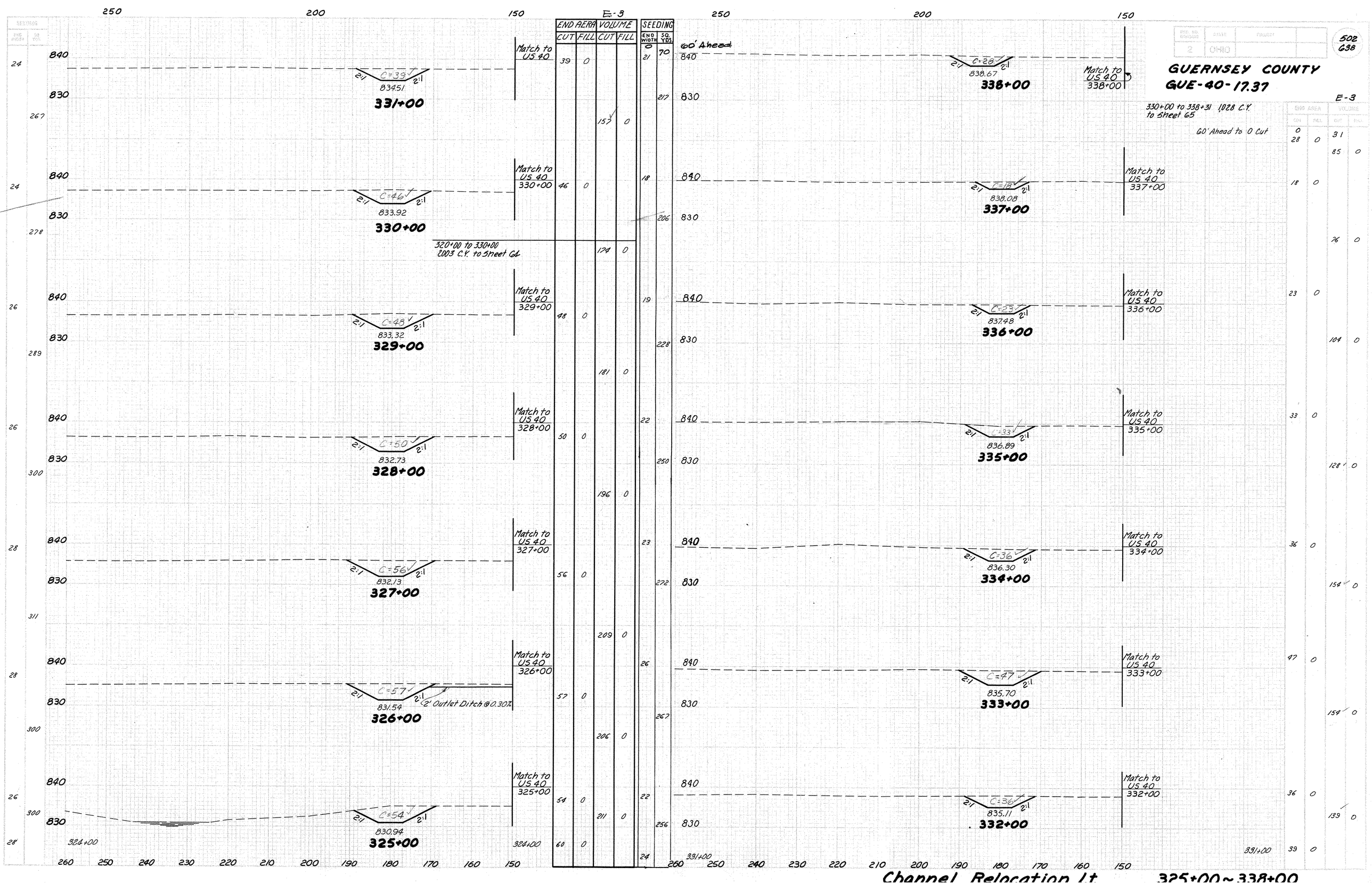
501
638

GUERNSEY COUNTY
GUE-40-17.37

E-3

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
60	0		
		228	0
63	0		
		231	0
62	0		
		224	0
59	0		
		213	0
56	0		
		211	0
58	0		
		180	0
39	0		
		196	0
67	0		

Channel Relocation Lt. 311+00 ~ 324+00

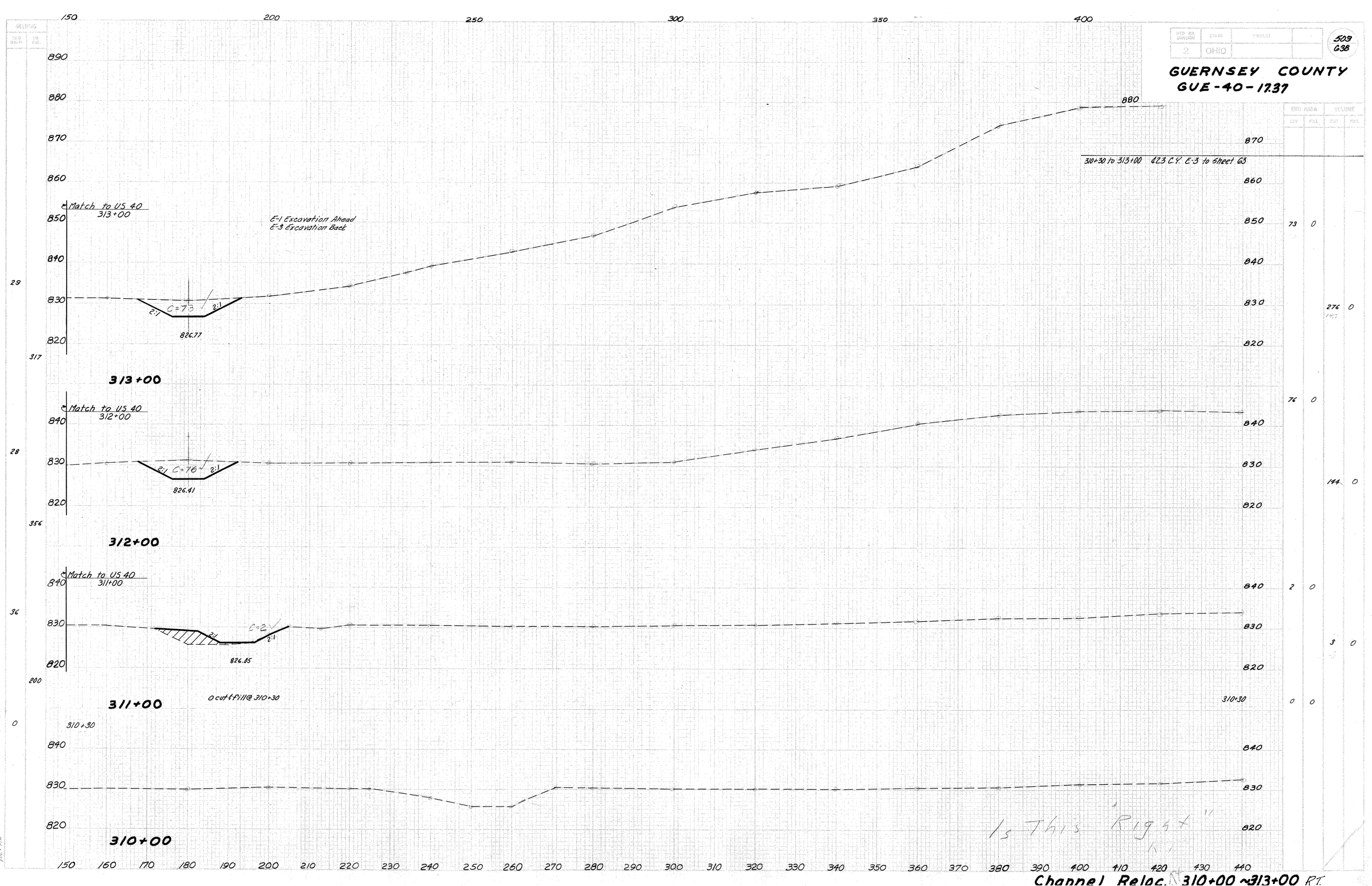


END AERA CUT	END AERA FILL	VOLUME CUT	VOLUME FILL
39	0		
		157	0
46	0		
		174	0
48	0		
		181	0
50	0		
		196	0
56	0		
		209	0
57	0		
		206	0
54	0		
		211	0
60	0		

SEEDING END WIDTH	SEEDING SQ. YDS.
0	
21	70
	217
18	
	206
19	
	228
22	
	250
23	
	272
26	
	267
22	
	256
24	

END AERA CUT	END AERA FILL	VOLUME CUT	VOLUME FILL
0		31	
28	0		
		85	0
18	0		
		76	0
23	0		
		104	0
33	0		
		128	0
36	0		
		154	0
47	0		
		154	0
36	0		
		139	0
39	0		

Channel Relocation Lt. 325+00 ~ 338+00

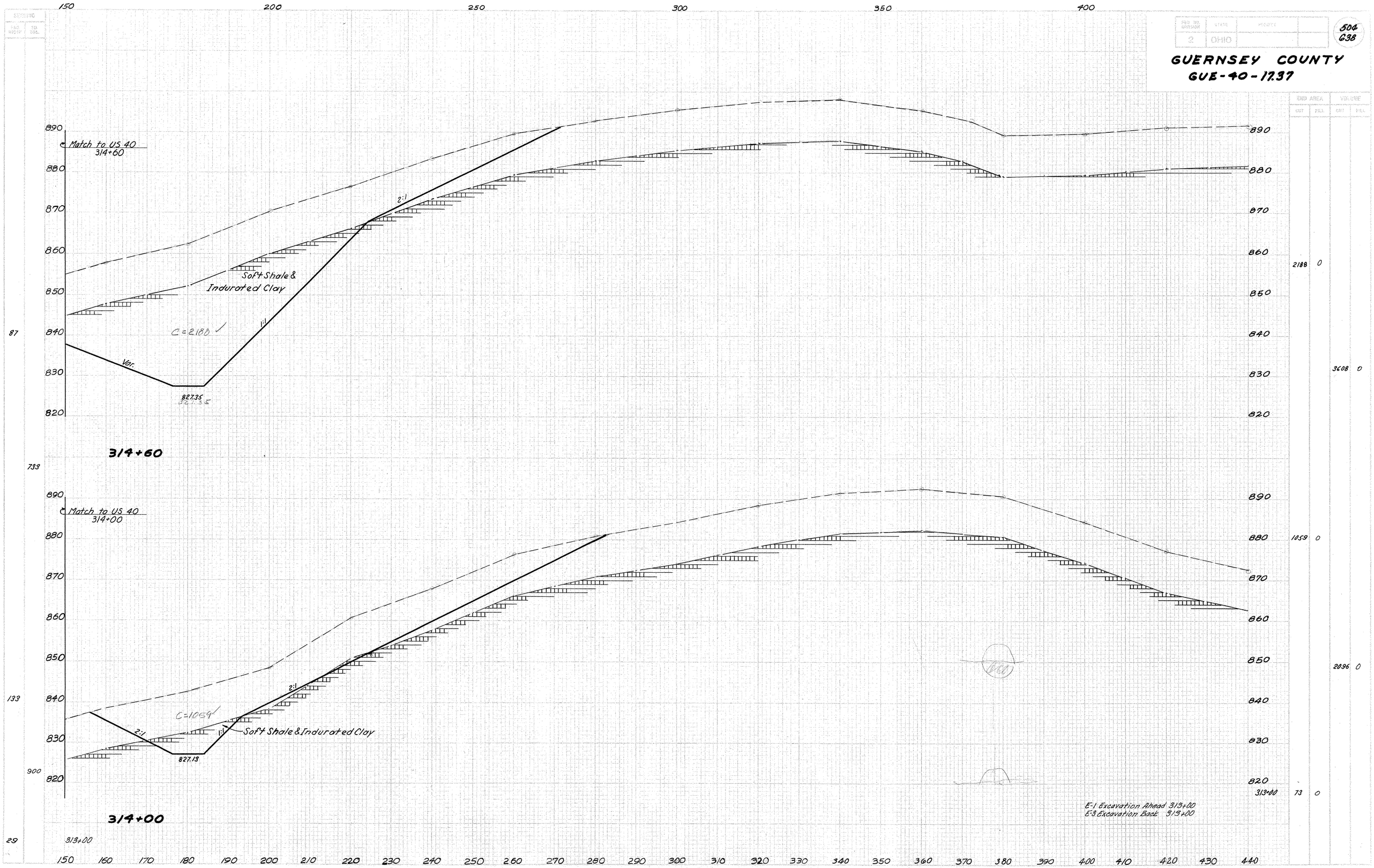


503
638
GUERNSEY COUNTY
GUE-40-17.37
Match to US 40
313+00
E-1 Excavation Ahead
E-3 Excavation Back
C=73
2:1
826.77
313+00
Match to US 40
312+00
C=76
826.41
312+00
Match to US 40
311+00
C=2
826.05
311+00
0 cut & fill @ 310+30
310+30
310+00
310+30 to 313+00 423 C.Y. E-3 to Sheet 63
Is This "Right"
Channel Reloc. 310+00 ~ 313+00 RT.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

504
638

GUERNSEY COUNTY
GUE-40-17.37



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
2188	0		
		3608	0
1059	0		
		2096	0
73	0		

87
733
133
900
29

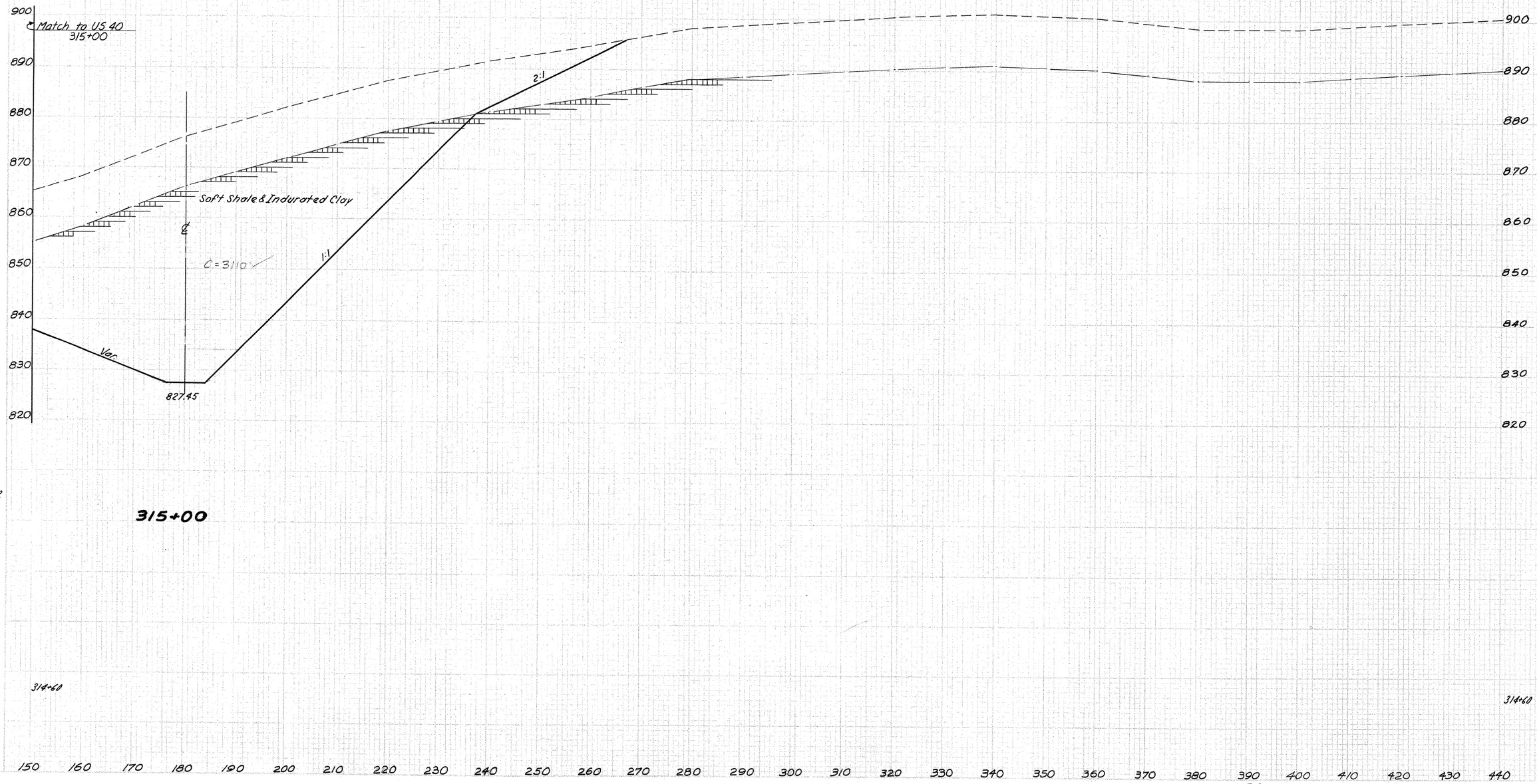
Channel Reloc. 314+00 ~ 314+60 R.T.

FED. DIV.	STATE	PROJECT	
2	OHIO		

505
G38

GUERNSEY COUNTY
GUE-40-17.37

END AREA		VOLUME	
CUT	FILL	CUT	FILL



Channel Relocation 315+00 RT

SEEDING

END WIDTH	SQ. YDS.

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

506
638

GUERNSEY COUNTY
GUE-40-17.37

CUT	FILL	CUT	FILL

150 200 250 300 350 400

910
900
890
880
870
860
850
840
830
820

Match to US 40
315+40

2:1

Soft Shale &
Indurated Clay

1:1

℄

C = 3155

Var.

827.63

3155 0

4641 0

3110 0

65

293

67

315+40

315+40

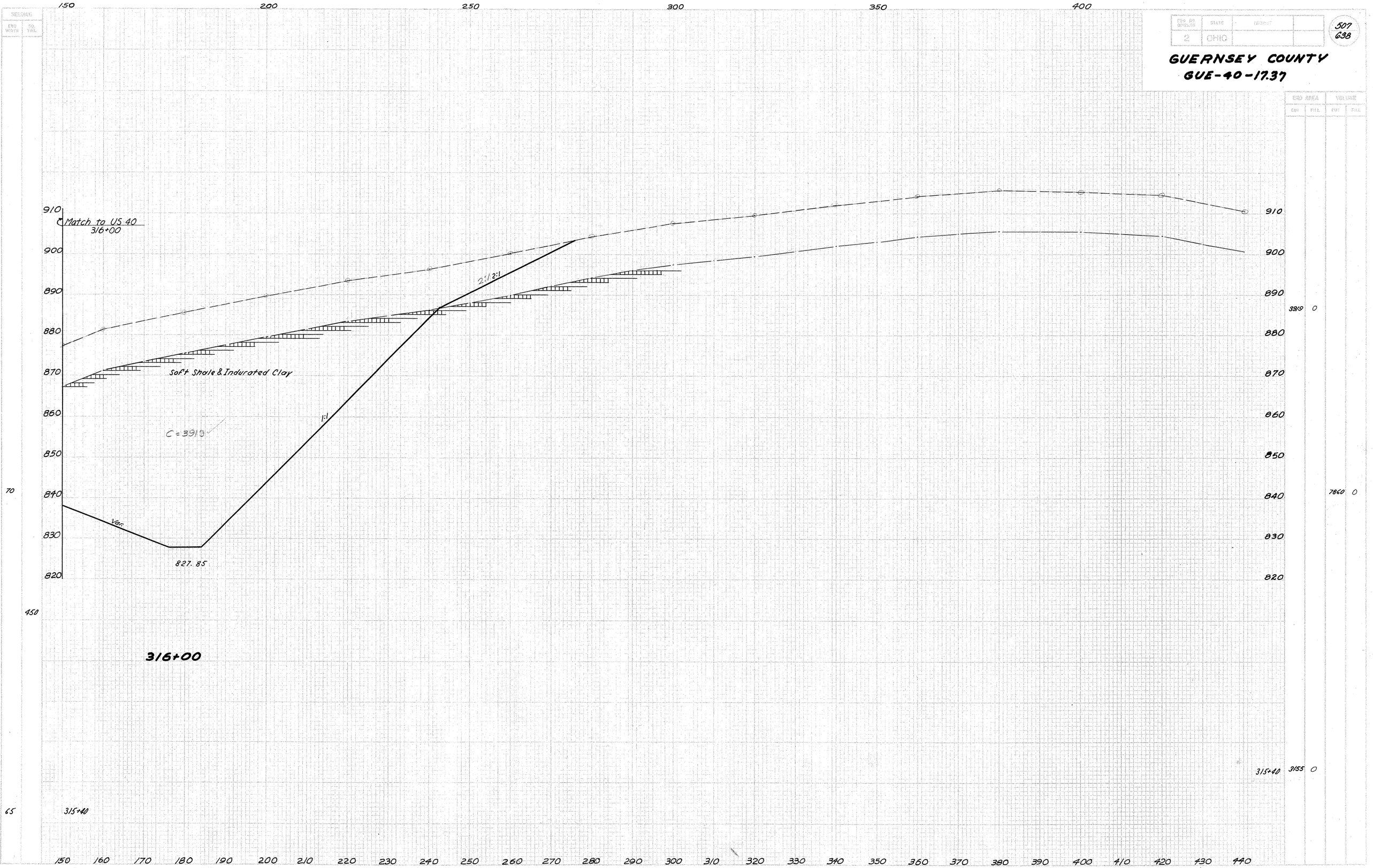
150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400 410 420 430 440

Channel Relocation RT

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

507
638

GUERNSEY COUNTY
GUE-40-17.37



Channel Reloc. 316+00 RT.

SEEDING

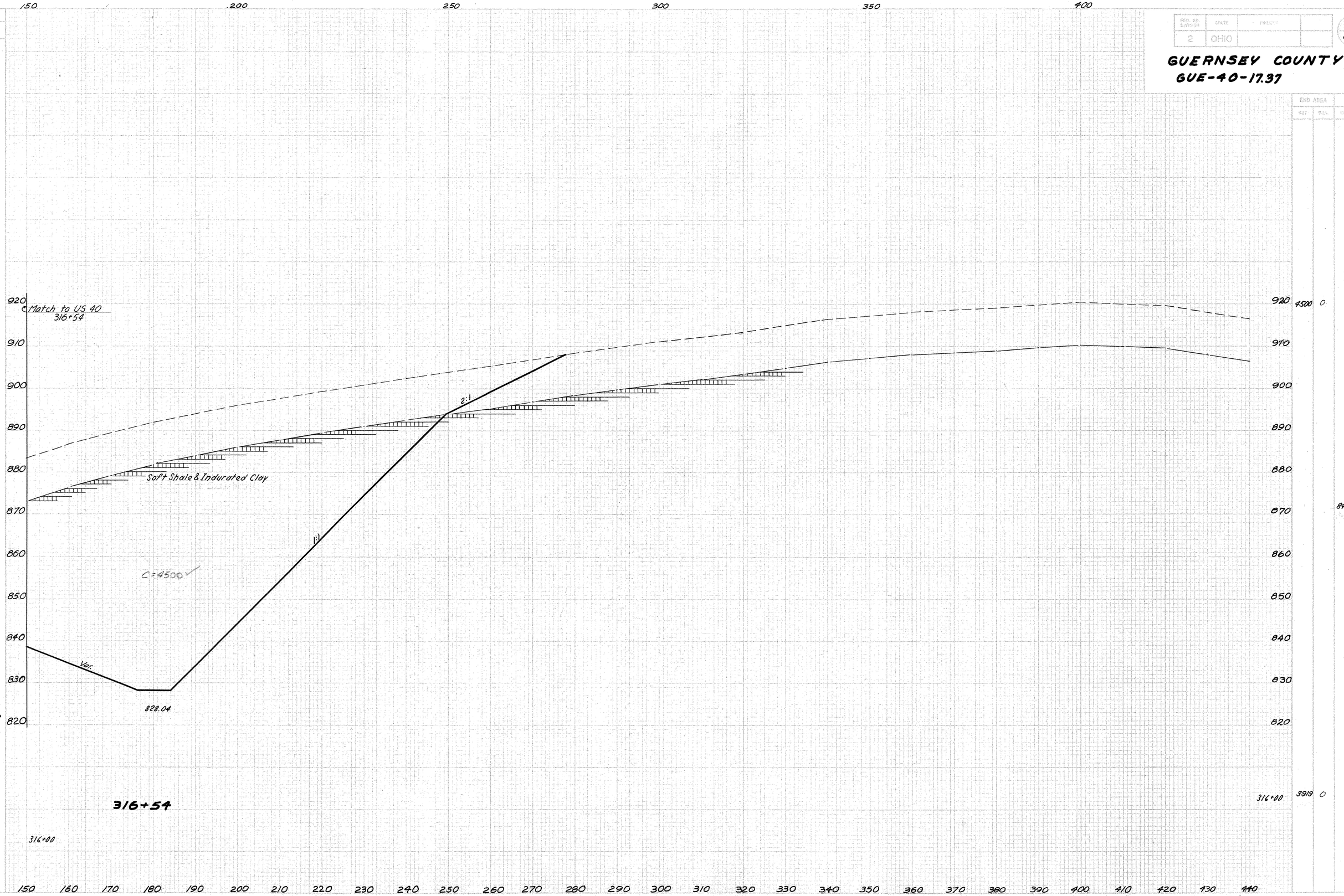
END WIDTH	SQ. YDS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

508
G38

GUERNSEY COUNTY
GUE-40-17.37

END AREA		VOLUME	
CUT	FILL	CUT	FILL

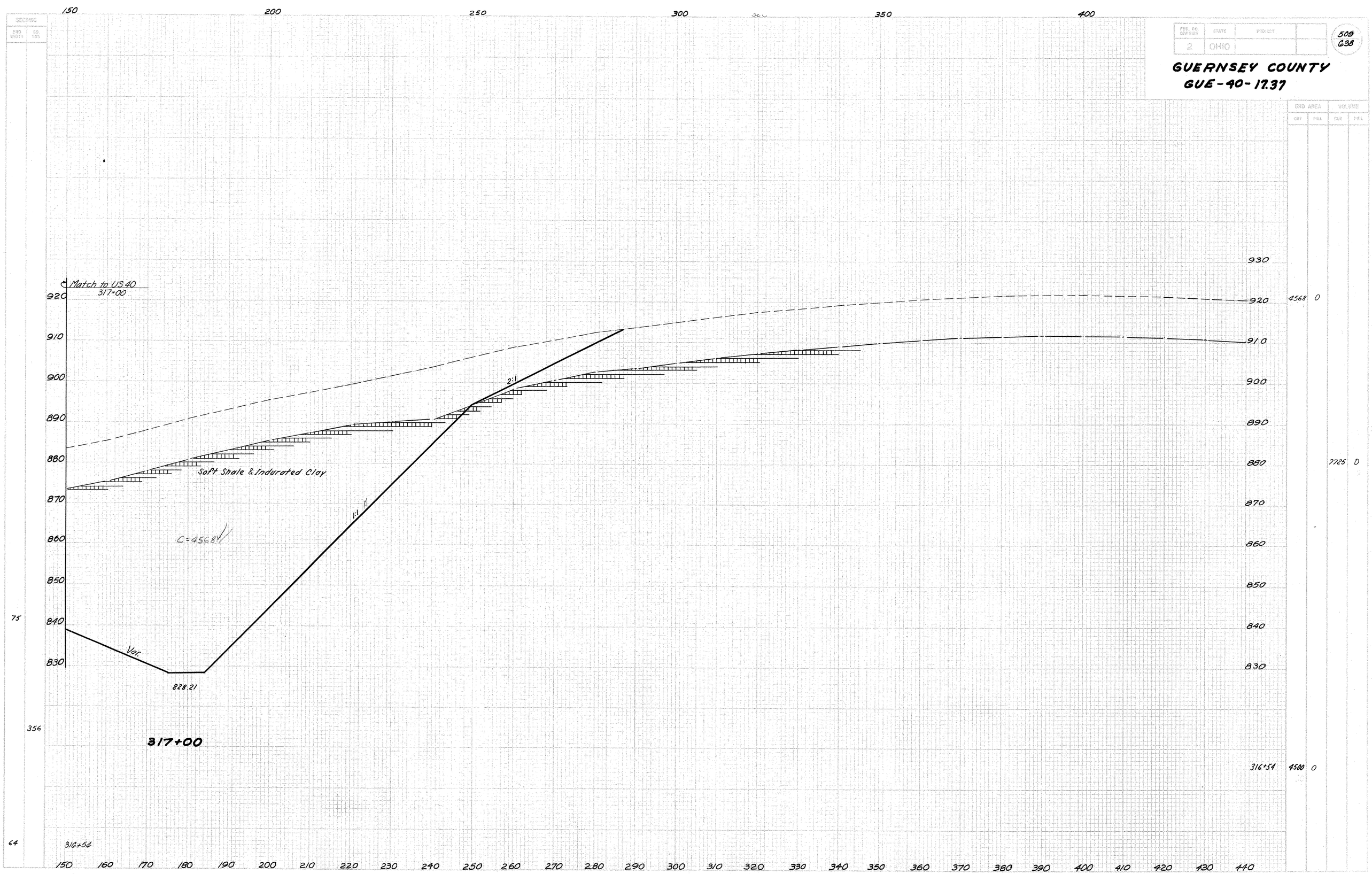


Channel Reloc. 316+54 Rt.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

509
638

GUERNSEY COUNTY
GUE-40-17.37



	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
920	4568	0		
880			7725	0
316+54	4500	0		

Channel Reloc. 317+00 Rt

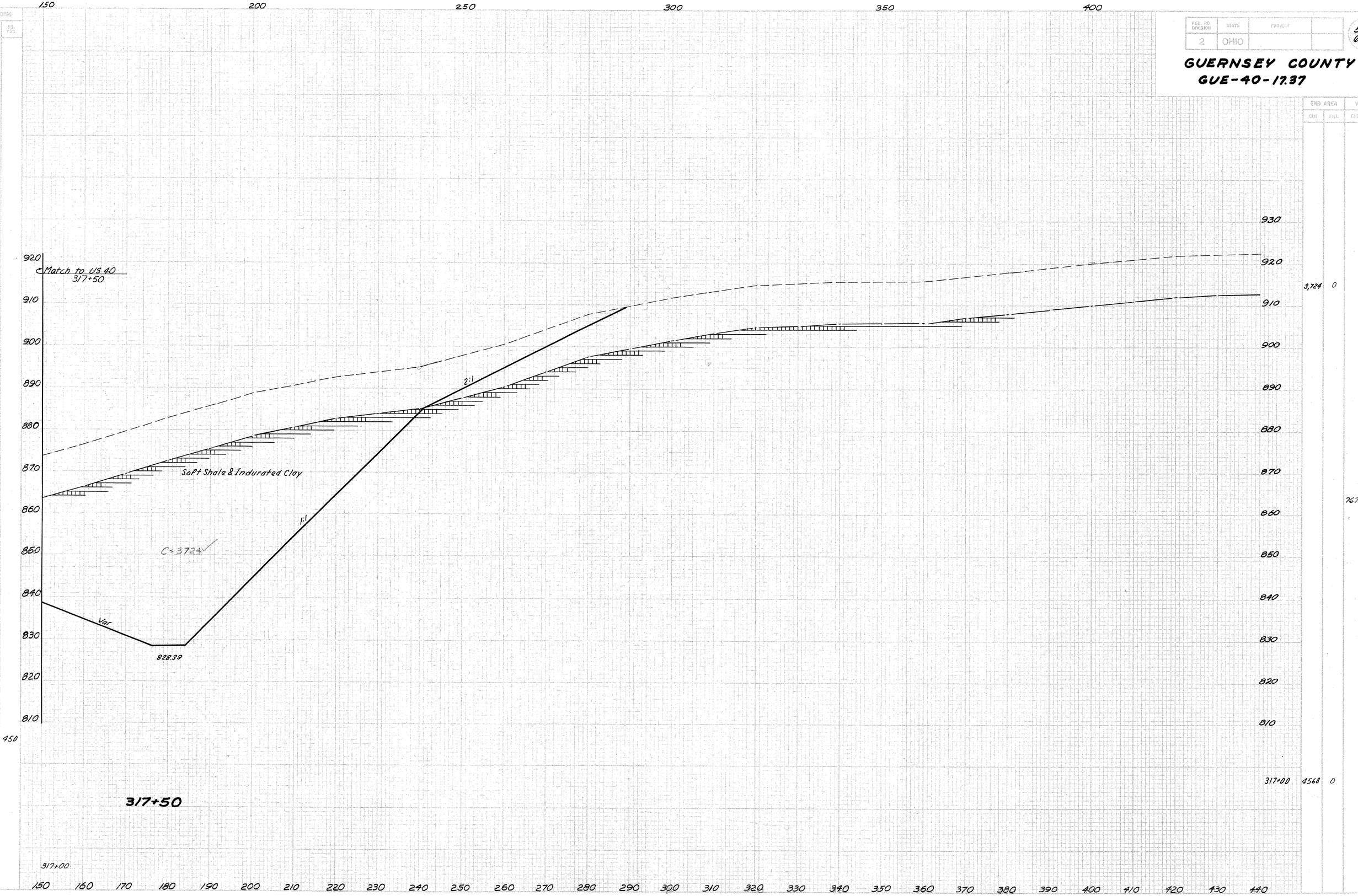
SECTION	
END WIDTH	SQ. YDS.

FED. HG DIVISION	STATE	PROJECT	
2	OHIO		

510
638

GUERNSEY COUNTY
GUE-40-17.37

END AREA		VOLUME	
CUT	FILL	CUT	FILL



Channel Reloc. 317+50 Rt

SECTIONS

END WIDTH	SQ. YDS.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

511
038

GUERNSEY COUNTY
GUE-40-17.37

END AREA		VOLUME	
CUT	FILL	CUT	FILL
1662	0		
4987	0		
3724	0		

Match to US 40
318+00

Soft Shale & Indurated Clay

C = 1662 ✓

Var.

828.57

2:1

1:1

318+00

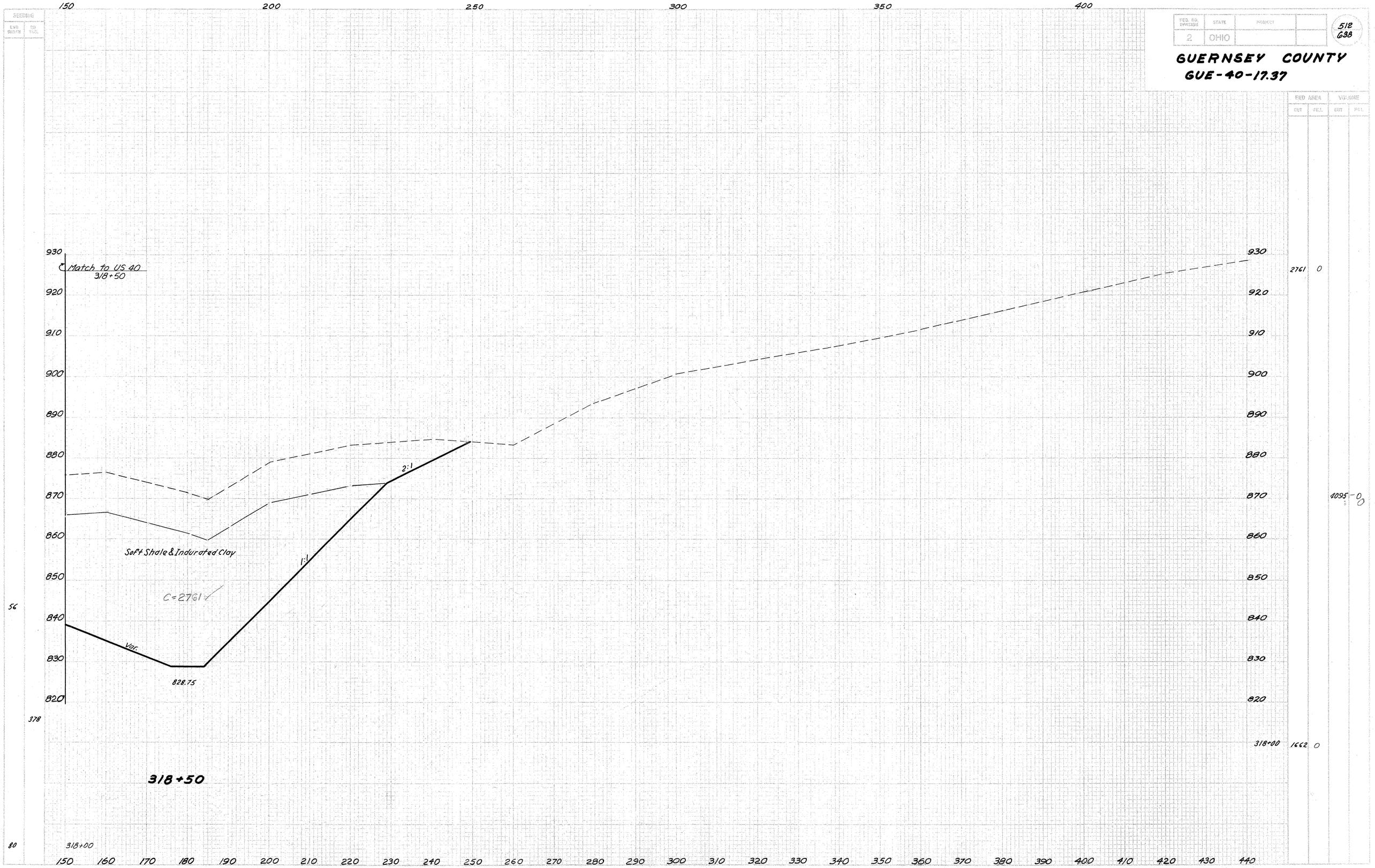
317+50

Channel Reloc. 318+00 Rt.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

512
638

GUERNSEY COUNTY
GUE-40-17.37



Channel Reloc. 318+50 Rt.

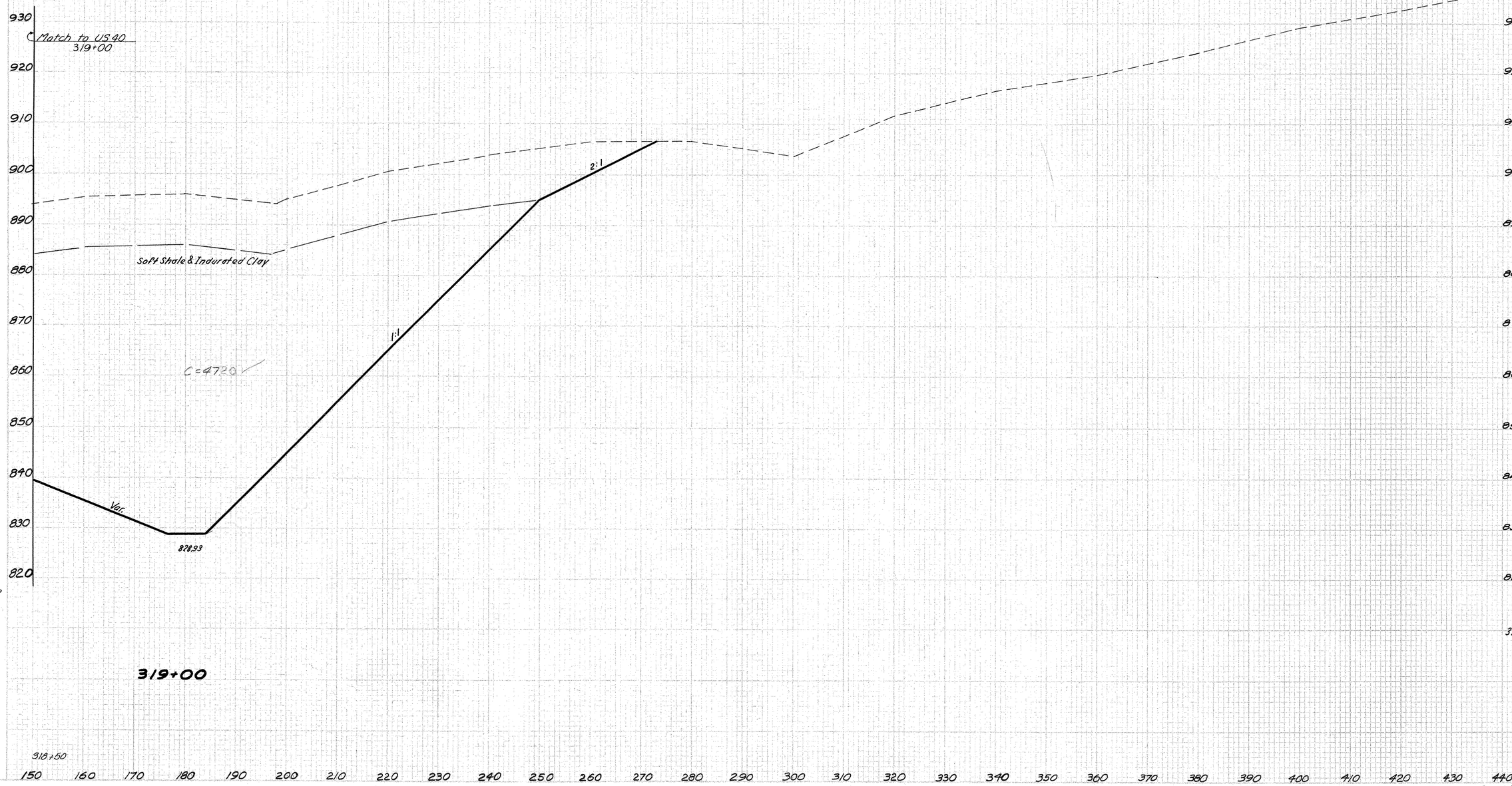
SEEDING

END AREA		VOLUME	
CUT	FILL	CUT	FILL

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

513
G38

GUERNSEY COUNTY
GUE-40-17.37



Channel Reloc. 319+00 Rt.

FED. AID DIVISION	STATE	PROJECT	
2	OHIO		

510
638

GUERNSEY COUNTY
GUE-40-17.37

END AREA		VOLUME	
CUT	FILL	CUT	FILL

150 200 250 300 350 400

940 930 920 910 900 890 880 870 860 850 840 830 820

Match to US 40
319+50

Soft Shale & Indurated Clay

2:1

1:1

C = 5809

Var.

829.11

950 940 930 920 910 900 890 880 870 860 850 840 830 820

5809 0

9750 0

4720 0

319+00

59

331

60

319+00

150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400 410 420 430 440

319+50

Channel Reloc. 319+50 Rt.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

515
G38

GUERNSEY COUNTY
GUE-40-17.37

END AREA		VOLUME	
CUT	FILL	CUT	FILL
5746	0		
10,700	0		
5809	0		

313+00 to 320+00, 82,410 C.Y. E-1 Exc. to Sheet G3

Match to US 40
320+00

2:1

1:1

Soft Shale & Indurated Clay

C = 5746

Ver.

823.29

320+00

3/9/50

3/9/50

Channel Reloc. 320+00 Rt.

64

342

59

BORINGS	
END STATION	SO VOL.

FED. RD. DIV. NO.	STATE	PROJECT	
2	OHIO		

516
638

GUERNSEY COUNTY
GUE-40-17.37

END AREA		VOLUME	
CUT	FILL	CUT	FILL

150 200 250 300 350 400

950 940 930 920 910 900 890 880 870 860 850 840 830 820

Match to US 40
320+50

Soft Shale & Indurated Clay

2:1

C=57.50

1:1

Var.

960 950 940 930 920 910 900 890 880 870 860 850 840 830 820

5750 0

10,645 0

320+00 5,746 0

65

359

64

320+50

320+00

150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400 410 420 430 440 450

Channel Reloc. 320+50 Pt

SEEDING	
END POINT	SQ. YDS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

517
638

GUERNSEY COUNTY
GUE-40-17.37

END AREA		VOLUME	
CUT	FILL	CUT	FILL
		5,527	0
		14,442	0
		5,750	0

Match to US 40
321+00

Soft Shale & Indurated Clay

C = 5527

2:1

1:1

16'

829.65

321+00

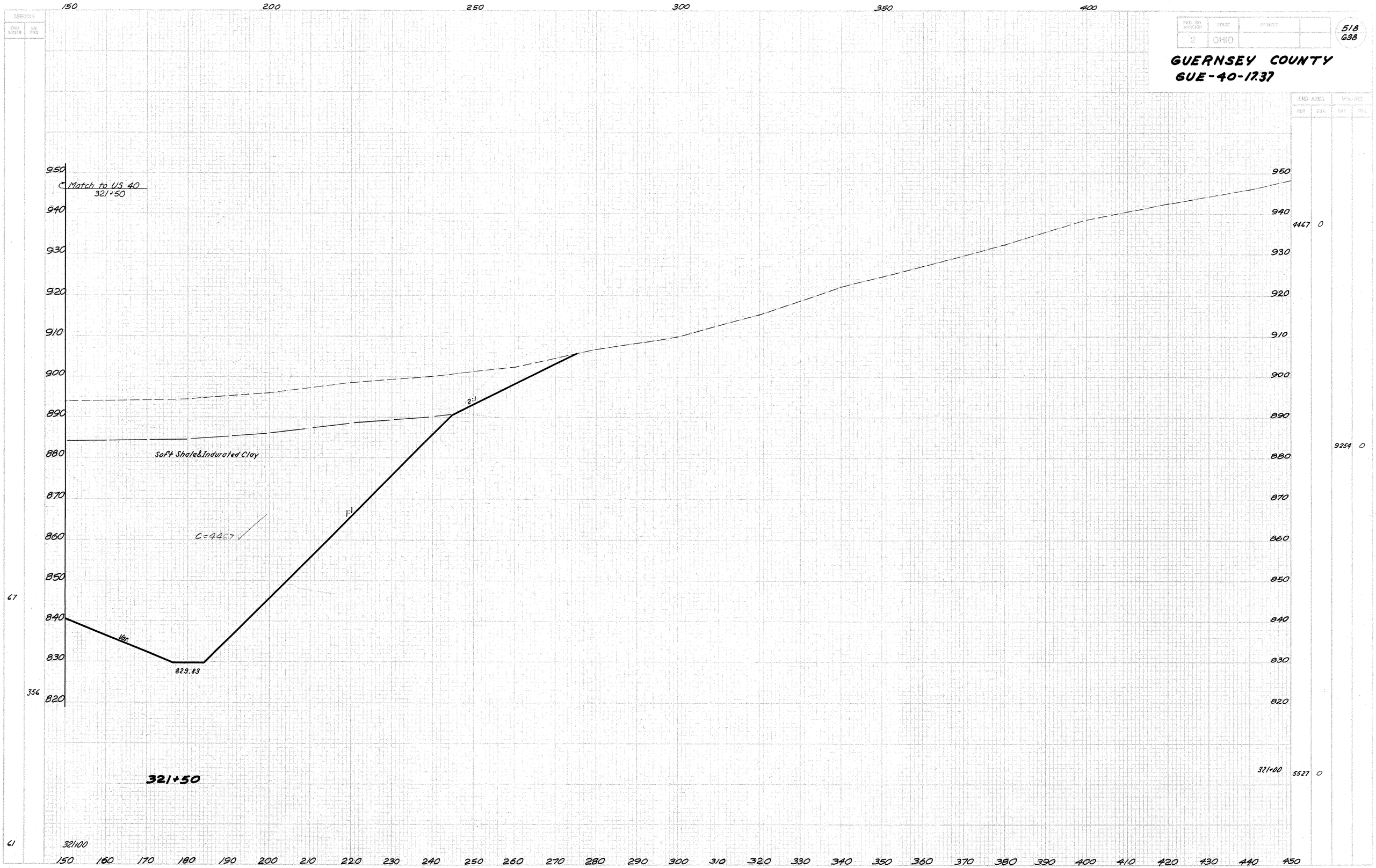
320+50

Channel Reloc. 321+00 Rt

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

518
638

GUERNSEY COUNTY
GUE-40-17.37



Channel Reloc. 321+50 Rt.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

519
638

GUERNSEY COUNTY
GUE-40-17.37

SEEDING

END	NO.
3259	0
7154	0
4467	0

END AREA		VOLUME	
CUT	FILL	CUT	FILL

Match to US 40
322+00

Soft Shale & Indurated Clay

C=3259

2:1

1:1

Var.

830.01

322+00

321+50

82

414

67

321+50

150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400 410 420 430 440 450

Channel Reloc. 322+00 Rt.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

520
G38

GUERNSEY COUNTY
GUE-40-17.37

SEEDING

FED YARDS	SQ. YDS

END AREA		VOLUME	
CUT	FILL	CUT	FILL
3010	0		
		6965	0
3259	0		

150 200 250 300 350 400

940 930 920 910 900 890 880 870 860 850 840 830 820

Match to US 40
322+60

2:1

Soft Shale & Indurated Clay

1:1

3010 ✓

Var.

830.23

85

557

82

322+60

322+00

150 160 170 180 190 200 210 220 230 240 250 260 276 280 290 300 310 320 330 340 350 360 370 380 390 400 410 420 430 440 450

Channel Reloc. 322+60 Rt.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

521
638

GUERNSEY COUNTY
GUE-40-17.37

BEDDING

END WIDTH	SQ. YDS.

END AREA		VOLUMES	
CUT	FILL	CUT	FILL

150 200 250 300 350 400

940
930
920
910
900
890
880
870
860
850
840
830
820

Match to US 40
323+00

Soft Shale & Indurated Clay

C = 40.2 ✓

2:1

1:1

Var.

830.37

72

349

85

323+00

322+60

150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 300 320 330 340 350 360 370 380 390 400 410 420 430 440

940
930
920
910
900
890
880
870
860
850
840
830
820

4020 0

5208 0

322+60 3010 0

Channel Reloc. 323+00 Rt

SEEDING	
SEED WIDTH	SQ. YDS.

FED. DIV. DIVISION	STATE	PROJECT	
2	OHIO		

522
638

GUERNSEY COUNTY
GUE-40-12.37

END AREA		VOLUME	
CUT	FILL	CUT	FILL
4750	0		
8121	0		
4020	0		

Match to US 40
323+50

Soft Shale & Indurated Clay

2:1

1:1

C=4750

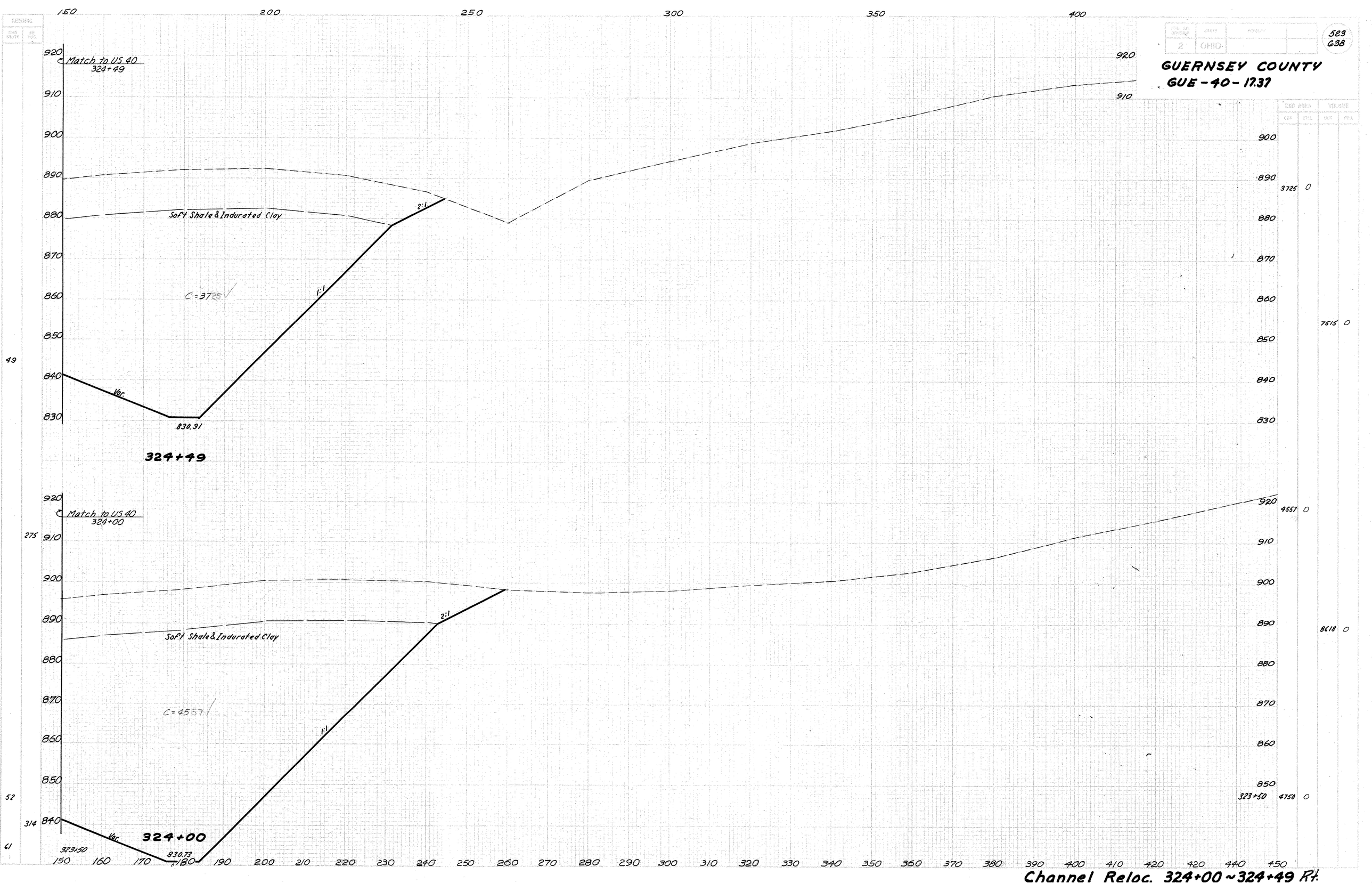
Var.

830.55

323+50

323+00

Channel Reloc. 323+50 Rt.



Channel Reloc. 324+00 ~ 324+49 Rt.

FED. ROUTE NUMBER	STATE	PROJECT		SHEET NO.
2	OHIO			524 638

GUERNSEY COUNTY
GUE-40-17.37

150 200 250 300 350 400

910
900
890
880
870
860
850
840
830

Match to US 40
325+50

Soft Shale & Indurated Clay

2:1

1:1

Veg.

831.27

63

325+50

END AREA		VOLUME	
CUT	FILL	CUT	FILL
2940	0	4806	0

900
890
880
870
860
850
840
830

910
900
890
880
870
860
850
840
830

Match to US 40
325+00

539

Soft Shale & Indurated Clay

C = 2250

2:1

1:1

Veg.

831.09

510

131

325+00

49

320+49

2250	0	
5643	0	
324+49	3725	0

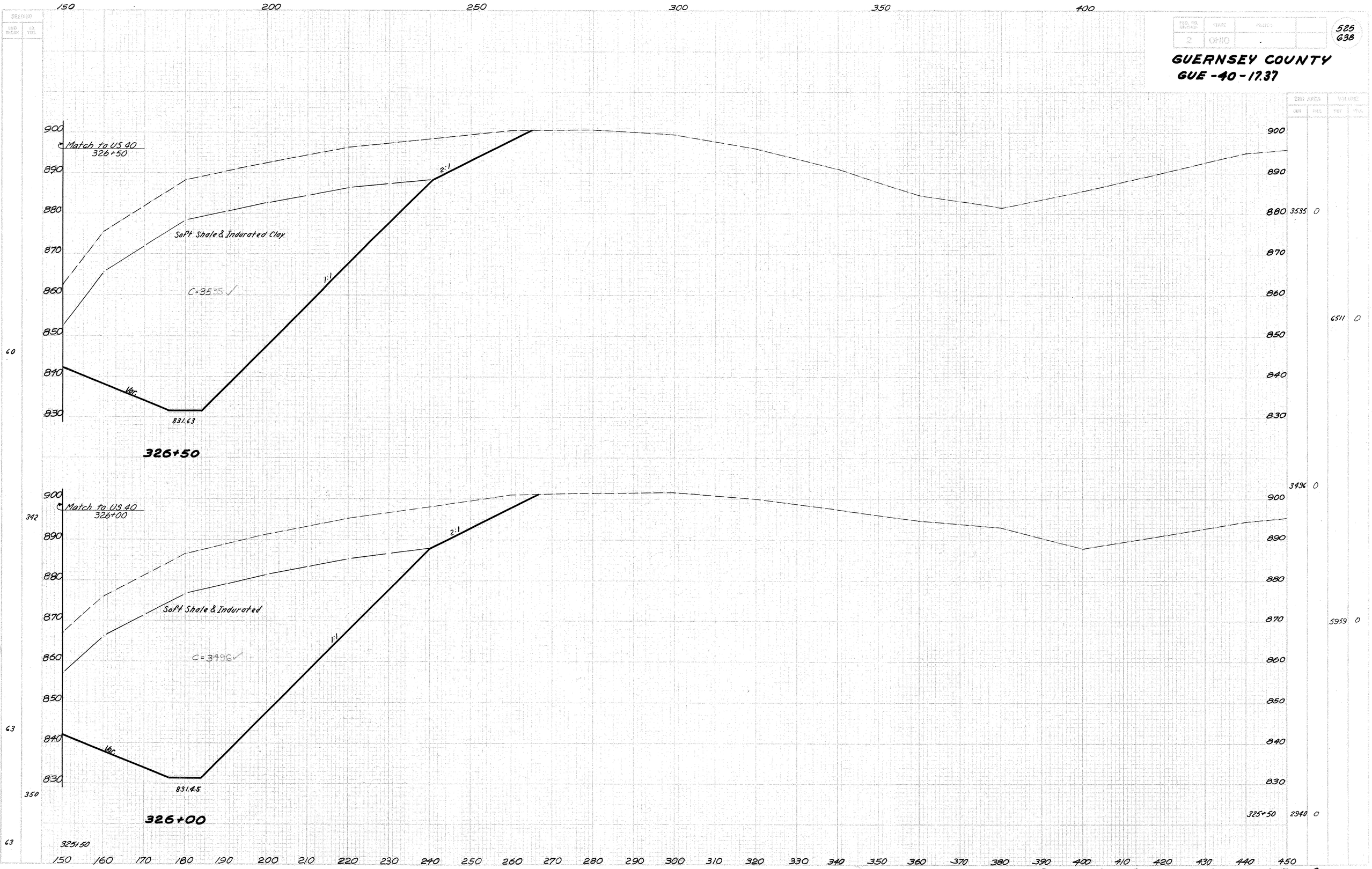
150 160 170 180 170 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400 410 420 430 440 450

Channel Reloc. 325+00 ~ 325+50 Rt

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	.	

525
638

GUERNSEY COUNTY
GUE-40-17.37

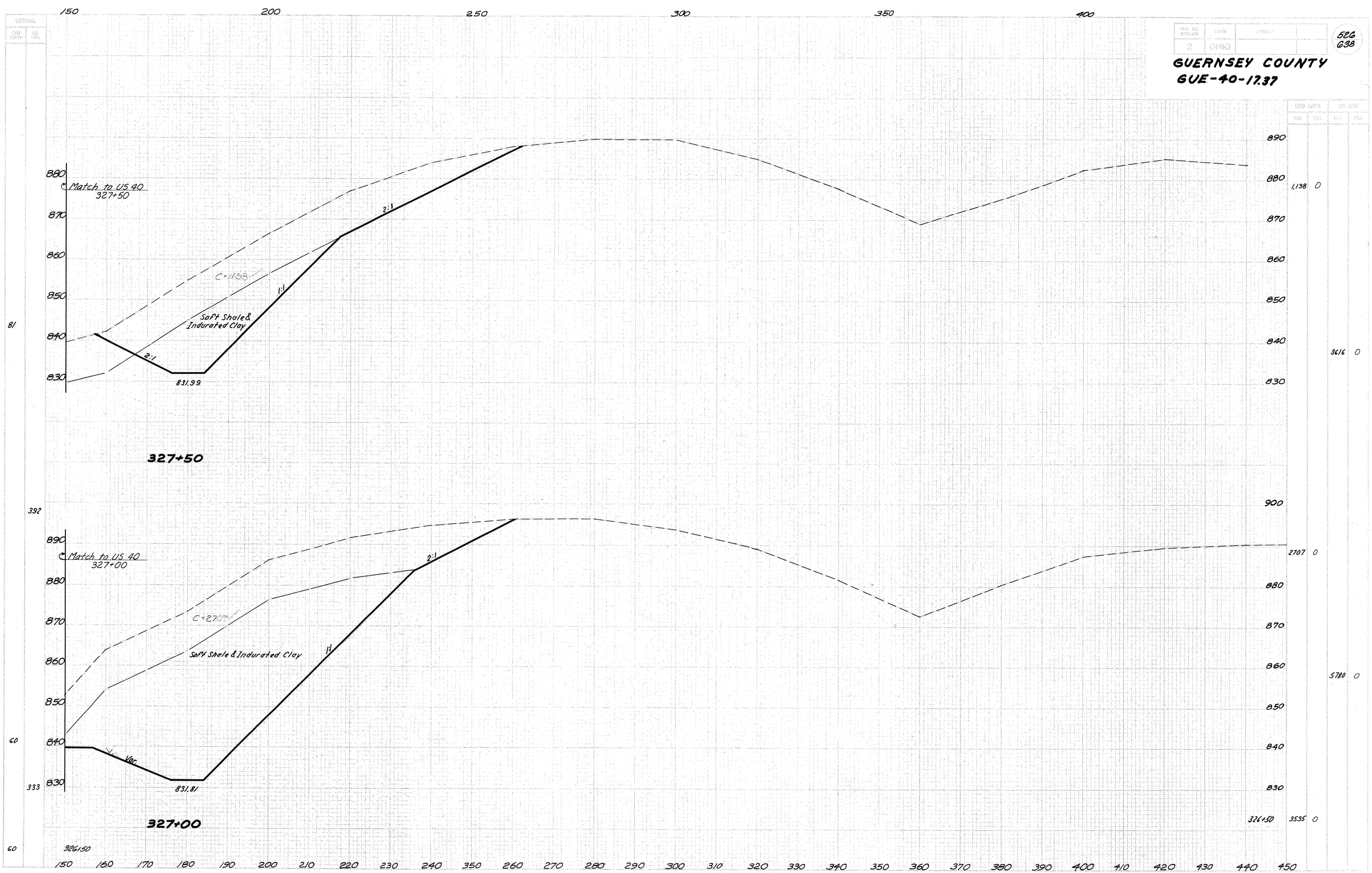


Channel Reloc. 326+00 ~ 326+50 Rt.

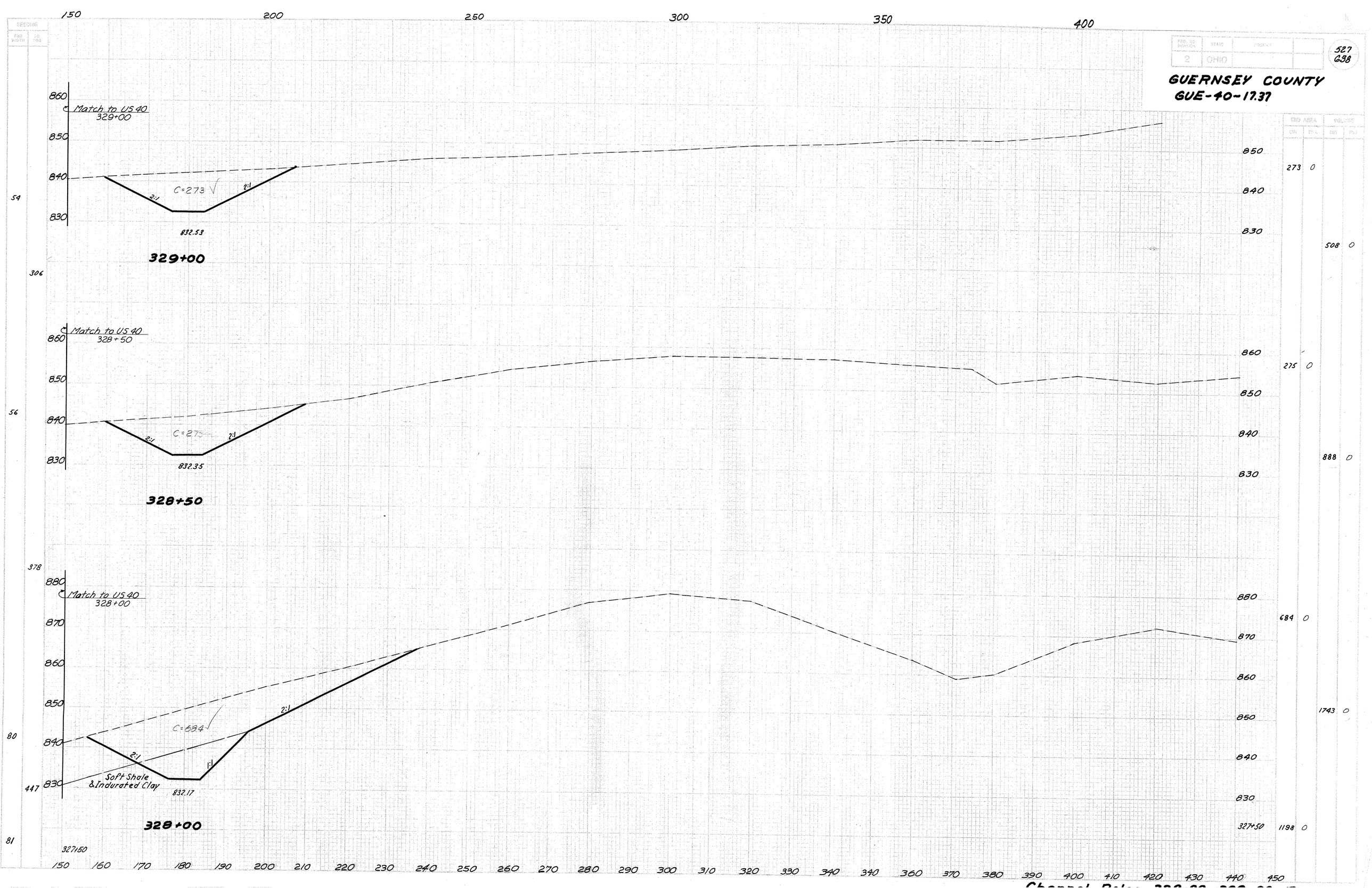
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

526
638

GUERNSEY COUNTY
GUE-40-17.37



Channel Reloc. 327+00~327+50 Rt.



FED. RD. DIVISION 2
STATE OHIO
527
638
GUERNSEY COUNTY
GUE-40-17.37
Match to US 40
329+00
C=273
2:1
832.53
329+00
Match to US 40
328+50
C=275
832.35
328+50
Match to US 40
328+00
C=684
Soft Shale
& Indurated Clay
832.17
328+00
327+50
273 0
508 0
275 0
888 0
684 0
1743 0
1198 0

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

528
G38

GUERNSEY COUNTY
GUE-40-17.37

150 200 250 300 350 400

SEEDING END WIDTH	SEEDING SQ. YDS.
26	289
26	389
44	327
54	240
54	

Match to US 40
332+00
850
840
830
C=53
2:1 2:1
833.61

332+00

Match to US 40
331+00
850
840
830
C=56
2:1 2:1
833.25

331+00

Match to US 40
330+00
850
840
830
C=183
2:1 2:1
832.89

E-3 Channel Excavation Ahead
E-1 Excavation Back

330+00

Match to US 40
329+40
860
850
840
830
C=262
2:1 2:1
Ditche 1.00%
832.67

329+40

329+00

150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400 410 420

	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
840	53	0		
830			202	0
850	56	0		
840				
830			443	0

320+00 to 330+00, 110,266 C.Y. E-1 EXC. to Sheet 64

850	183	0	
840			494	0
830			
860	262	0	
850			396	0
840			
830			
329+00	273	0	

Channel Relocation 329+40 to 332+00 P1

FED RD DIVISION	STATE	PROJECT	
2	OHIO		

529
638

GUERERNSEY COUNTY
GUE-40-17.37

GEORG

END WIDTH	SQ. YDS.
37	
339	
24	
289	
28	
289	
24	
278	
26	

150 200 250 300 350 400

Match to US 40
336+00

850
840
830

24 C=126 2:1

835.05

336+00

850

Match to US 40
335+00

840
830

24 C=45 2:1

834.69

335+00

850

Match to US 40
334+00

840
830

24 C=46 2:1

834.33

334+00

850

Match to US 40
333+00

840
830

24 C=47 2:1

833.97

333+00

332+00

150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360

	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
840	126	0		
830			317	0
850	45	0		
840			169	0
830				
850	46	0		
840			172	0
830				
850	47	0		
840			185	0
830				
332+00	53	0		

Channel Relocation 333+00 to 336+00 Rt

SEEDING	
END WIDTH	30' MIN.

PROJ. NO.	STATE	PROJECT	
2	OHIO		

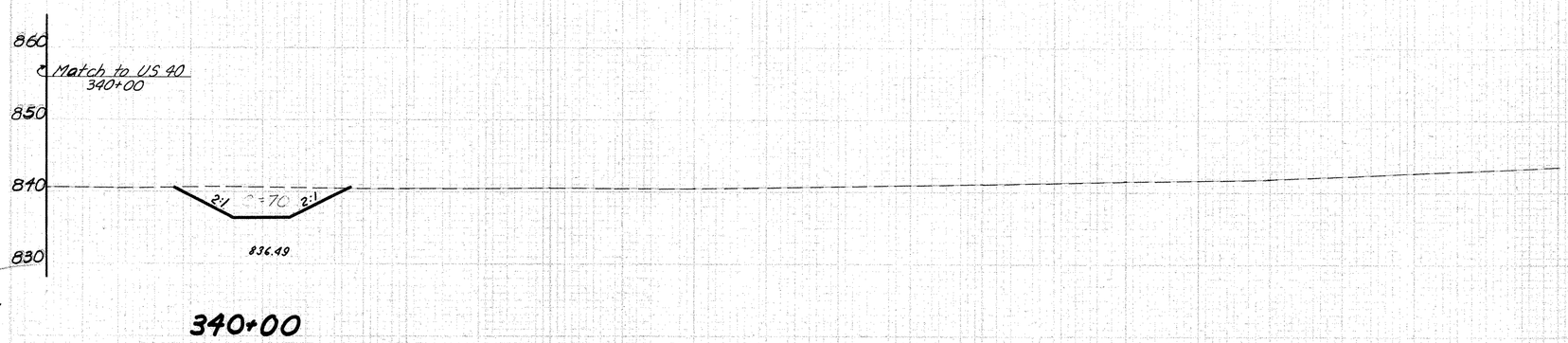
530
G38

GUERNSEY COUNTY

GUE-40-17.37

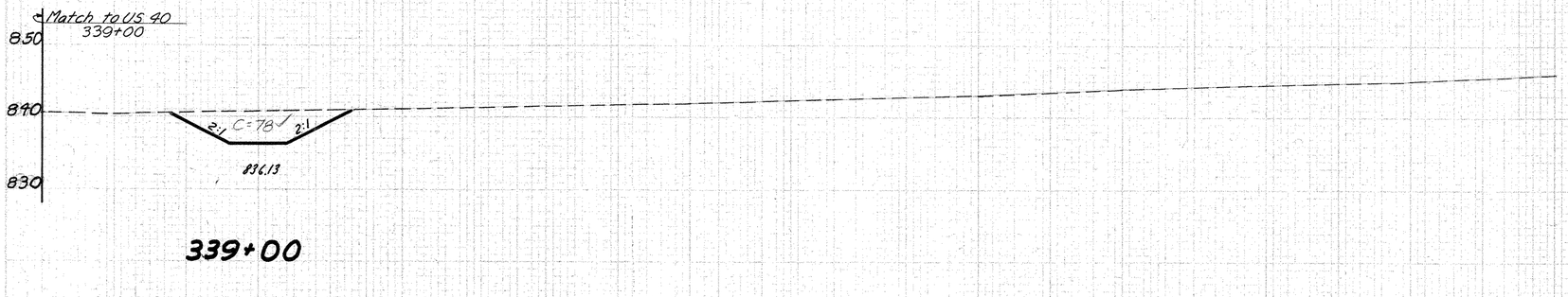
END AREA		VOLUME	
CUT	FILL	CUT	FILL

330+00 to 340+00, 3154 C.Y. E-3
to Sheet G5



340+00

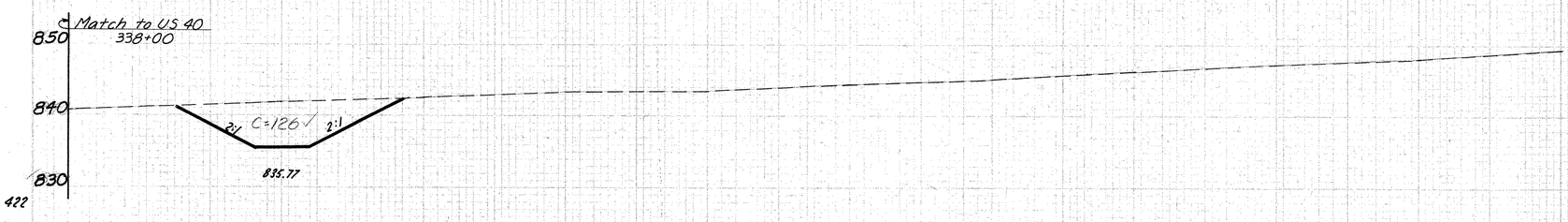
70 0



339+00

78 0

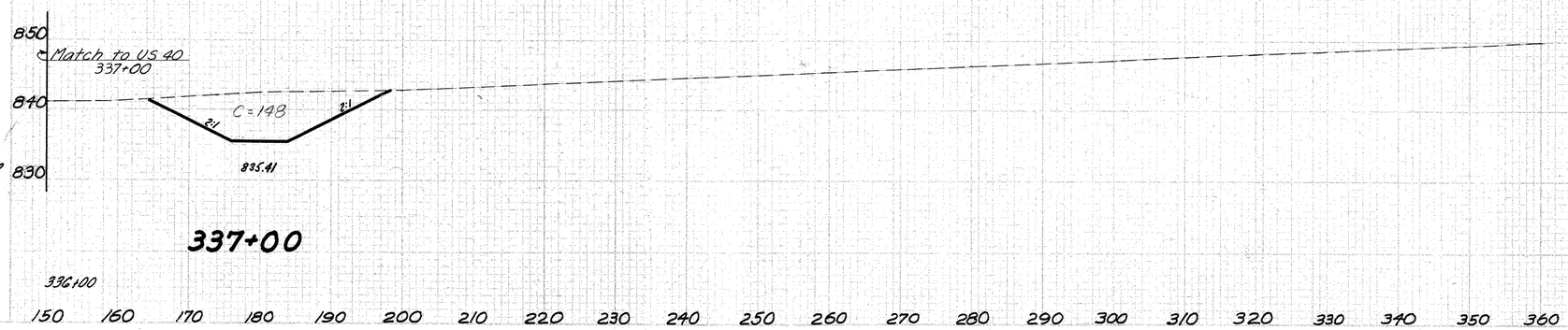
274 0



338+00

126 0

507 0



337+00

148 0

507 0

126 0

150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360

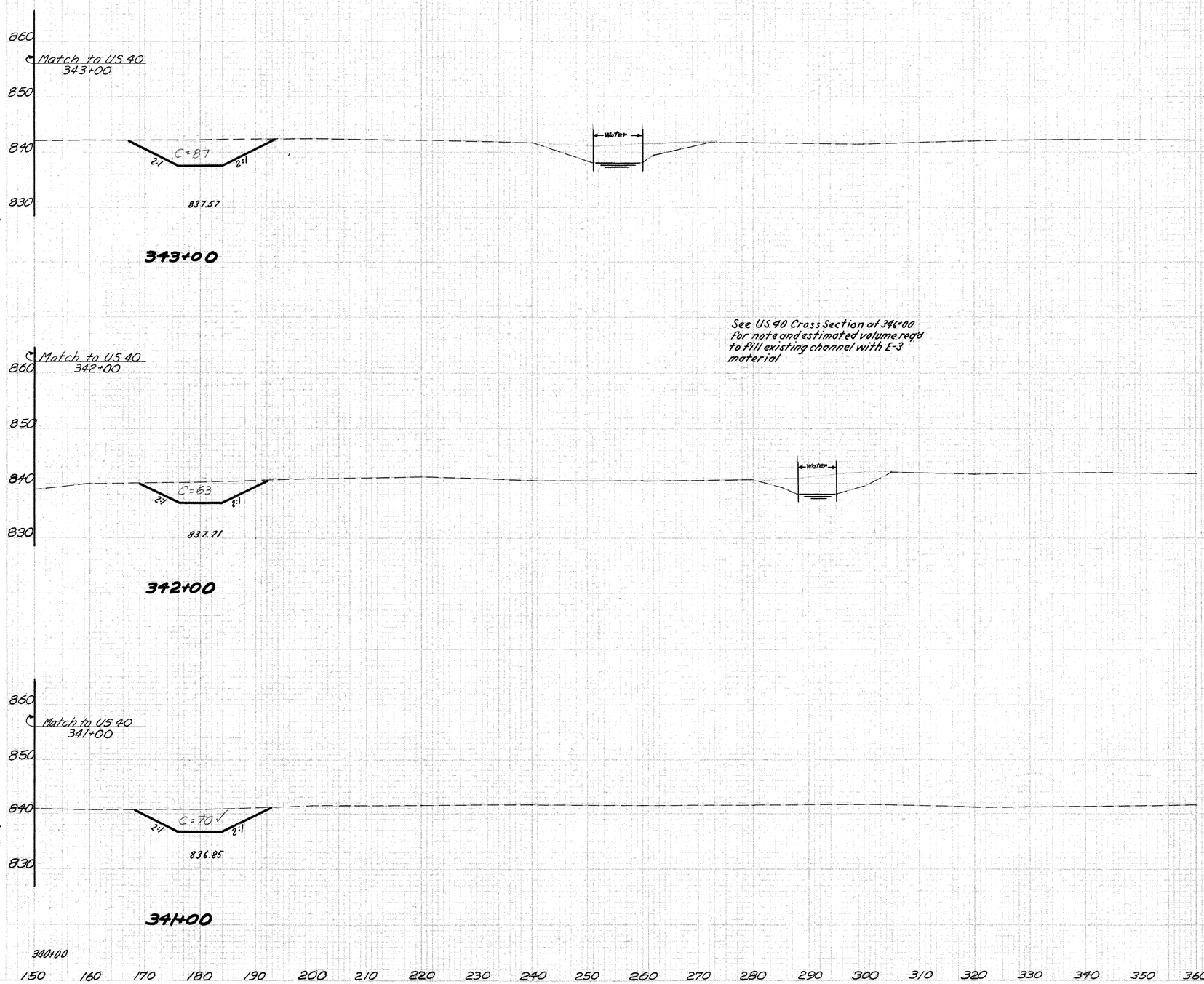
Channel Reloc. 337+00 ~ 340+00 Rt.

DIST. NO. DIVISION	STATE	PROJECT	
2	OHIO		

531
638

GUERNSEY COUNTY
GUE-40-17.37

	ENG. AREA		VOLUME	
	CUT	FILL	CUT	FILL
343+00	87	0	278	0
342+00	63	0	246	0
341+00	70	0	259	0
340+00	70	0		

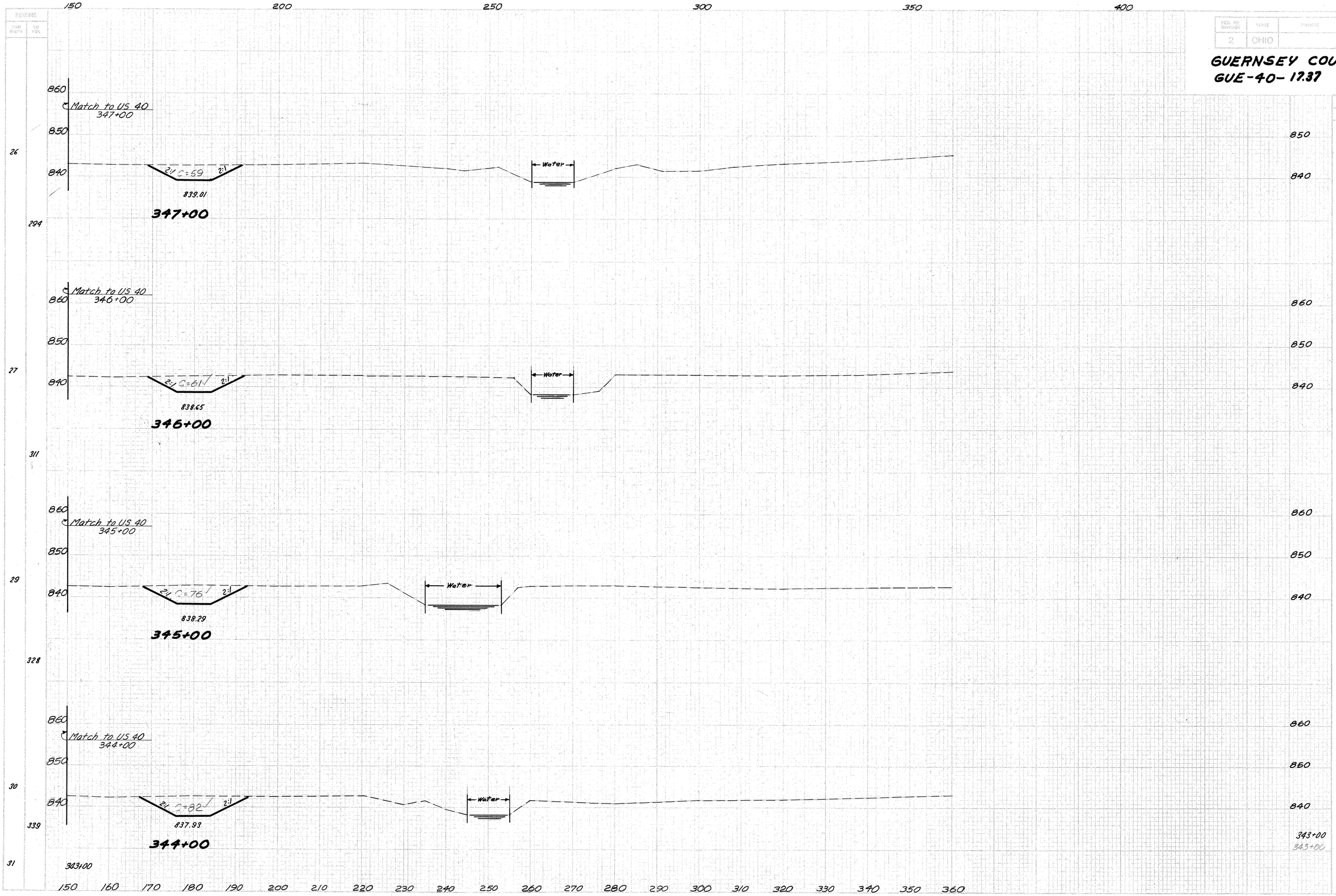


Channel Reloc. 341+00 ~ 343+00 Rt.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

532
638

GUERNSEY COUNTY
GUE-40-17.37



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
59	0		
		222	0
61	0		
		254	0
76	0		
		293	0
82	0		
		313	0
87	0		

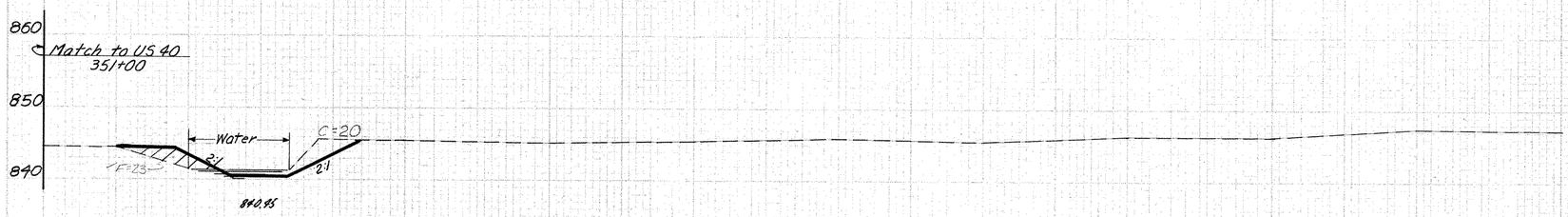
Channel Reloc. 344+00~347+00 Rt.

SHEETING	
END AREA	VOLUME

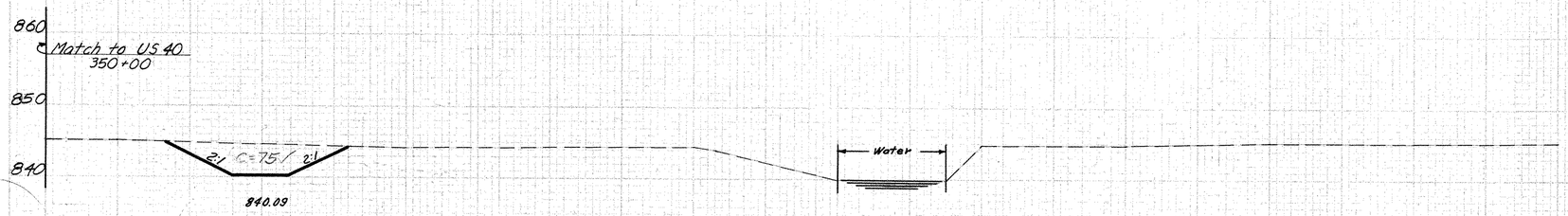
FED. RD. DIVISION	STATE	FISCAL YEAR	
2	OHIO		

533
G.38

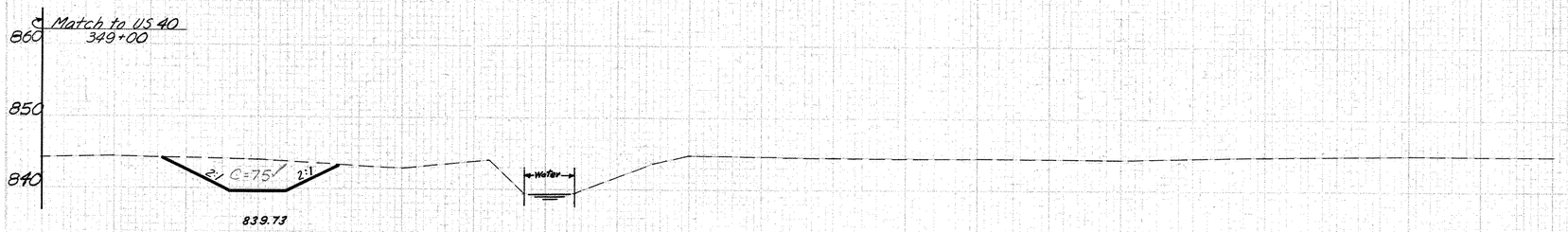
GUERNSEY COUNTY
GUE-40-17.37



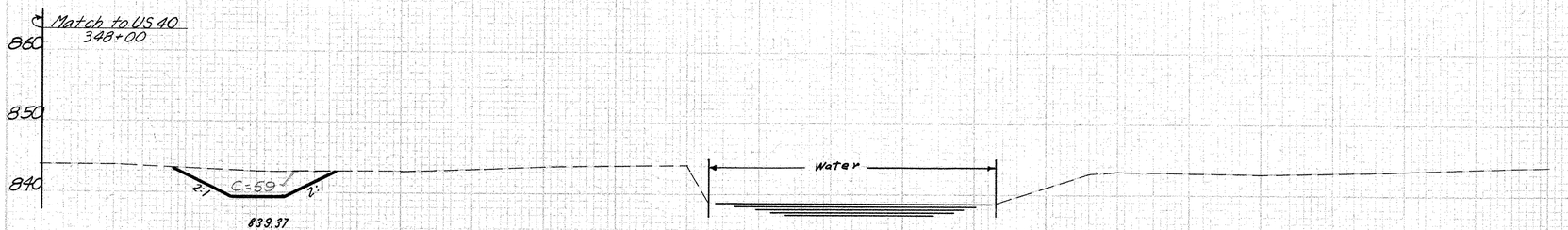
351+00



350+00



349+00



348+00

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
850	20	0		
840				
			176	0

340+00 to 350+00, 2,610 C.Y. E-3
to Sheet 66

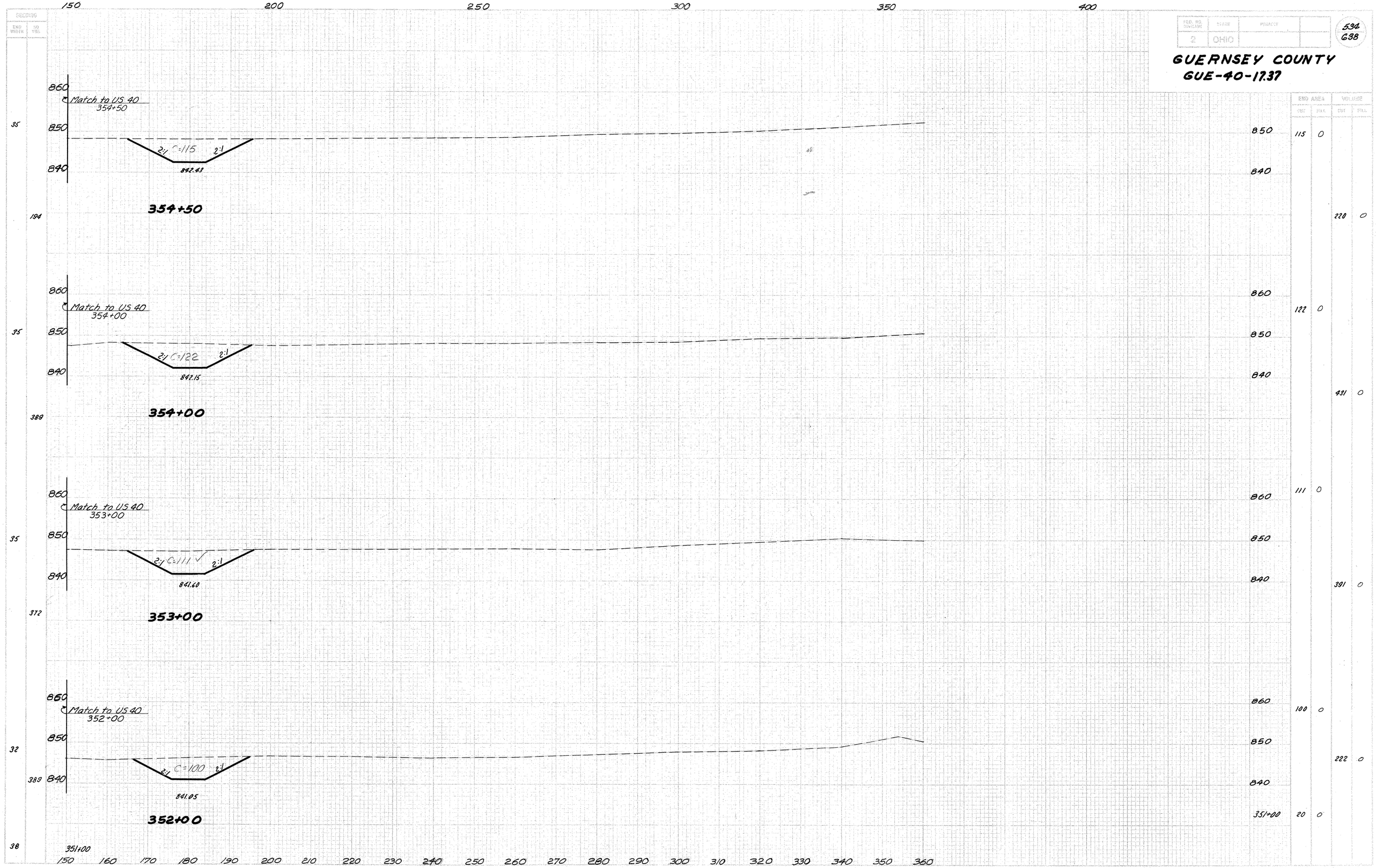
860	75	0		
850				
840			278	0
860	75	0		
850				
840			248	0
860	59	0		
850			219	0
840				
347+00	59	0		

Channel Relocation 348+00 to 354+00 Rt.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

534
638

GUERNSEY COUNTY
GUE-40-17.37



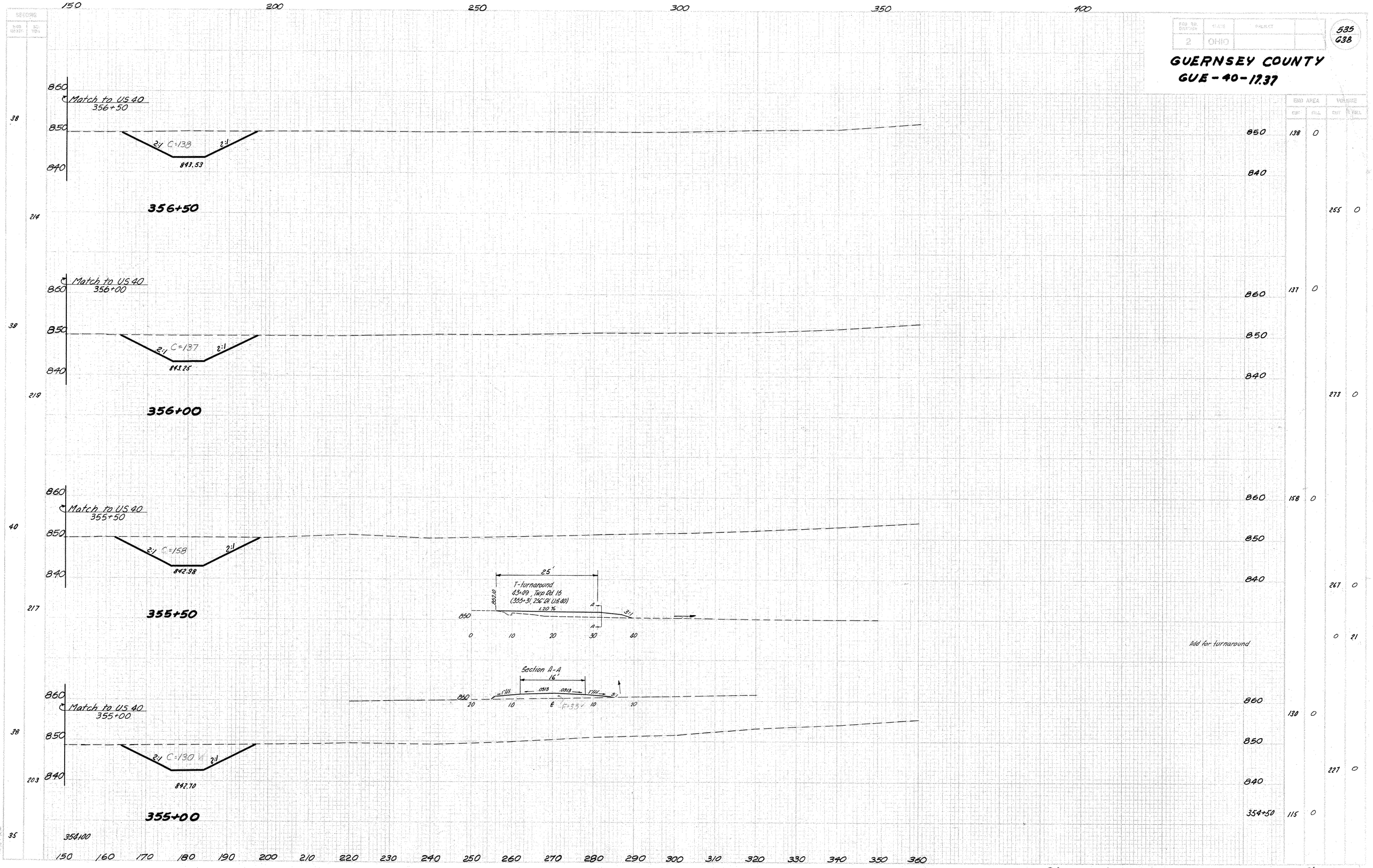
	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
850	115	0		
840				
			220	0
860	122	0		
850				
840				
			431	0
860	111	0		
850				
840			391	0
860	100	0		
850				
840			222	0
351+00	20	0		

Channel Reloc. 352+00~354+50 Rt.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

535
638

GUERNSEY COUNTY
GUE-40-17.37



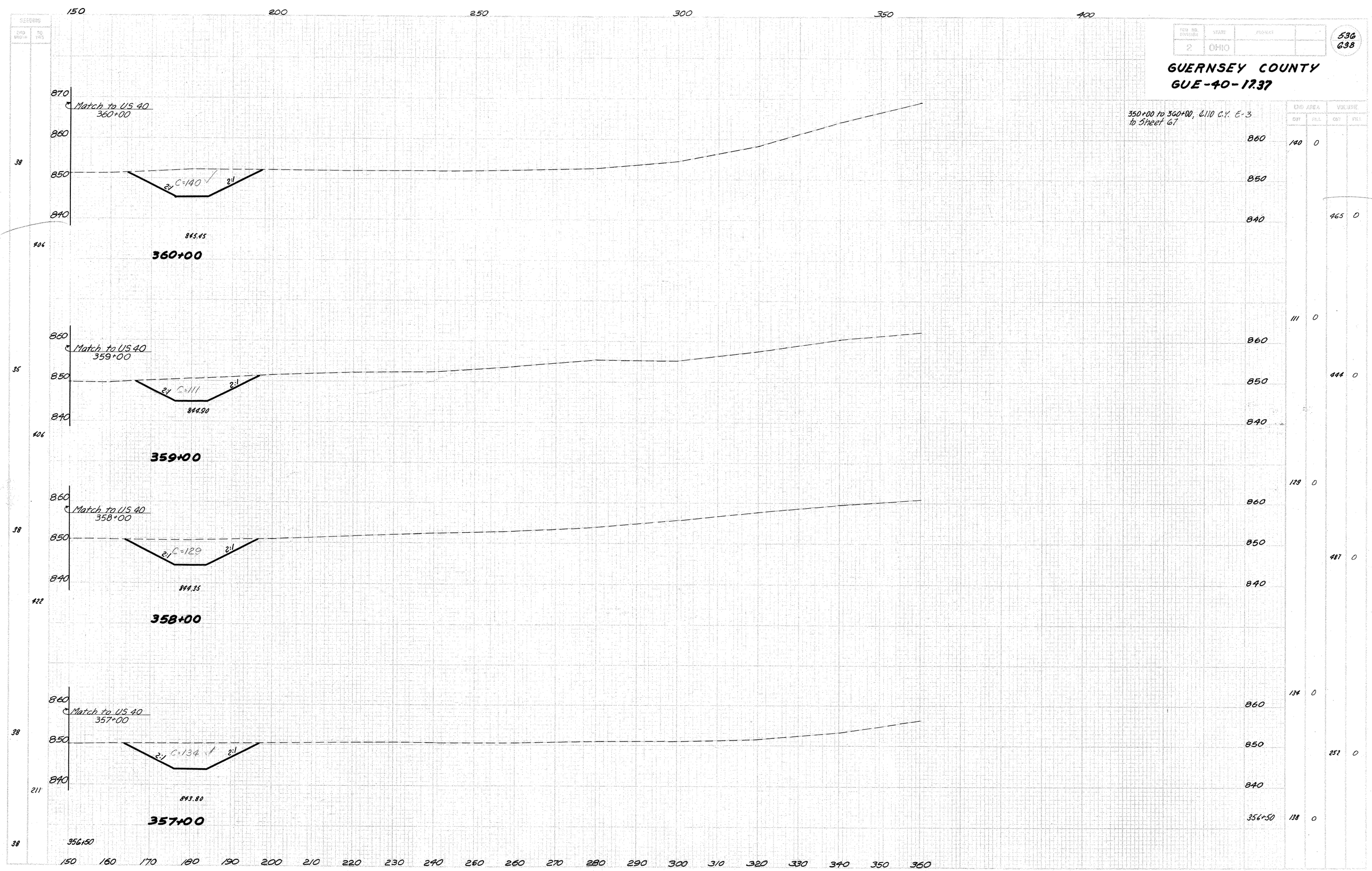
Station	End Area Cut	End Area Fill	Volume Cut	Volume Fill
850	138	0		
840				
			255	0
860	137	0		
850				
840				
			273	0
860	158	0		
850				
840				
			267	0
			0	21
860				
	130	0		
850				
840				
			227	0
354+50	115	0		

Channel Reloc. 355+00 ~ 356+50 Rt.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

536
638

GUERNSEY COUNTY
GUE-40-17.37



350+00 to 360+00, 4110 C.Y. E-3 to Sheet 67

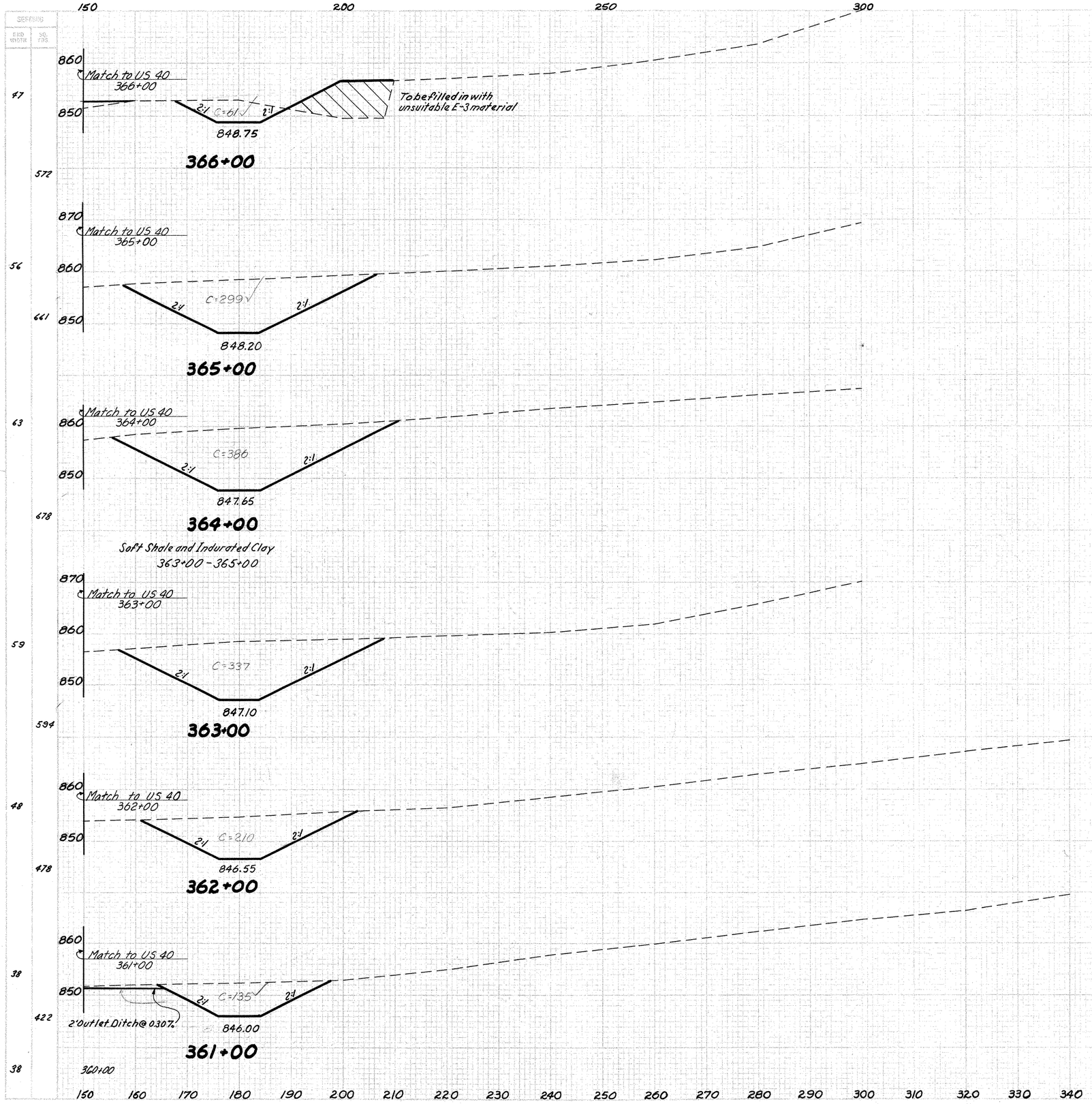
	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
860	140	0		
850				
840			465	0
860	111	0		
850			444	0
840				
860	129	0		
850			487	0
840				
860	134	0		
850			252	0
840				
356+50	138	0		

Channel Reloc. 357+00 ~ 360+00 Rt.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

537
638

GUERNSEY COUNTY
GUE-40-17.37



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
47		61	0		
	572			667	0
56		299	0		
	661			1,269	0
63		386	0		
	678			1339	0
		337	0		
59				1013	0
	594	210	0		
48				639	0
	478	135	0		
38				509	0
	422	360+00 140	0		
38					

Channel Reloc. 361+00 ~ 366+00 Rt.

PROJECT DIVISION	STATE	PROJECT	
2	OHIO		

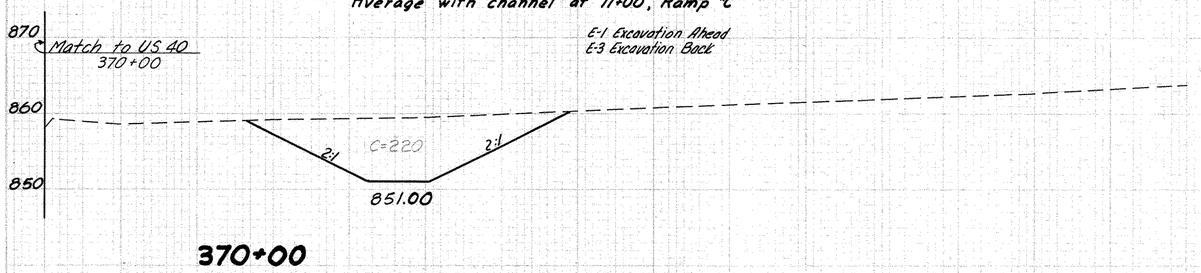
538
638

GUERNSEY COUNTY
GUE-40-17.37

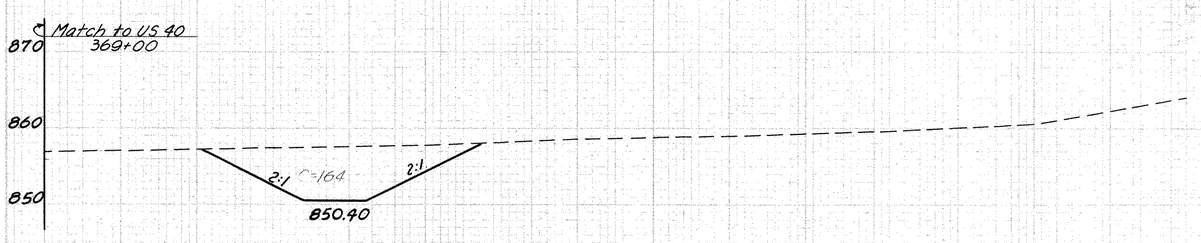
360+00 to 370+00, 7575 C.Y. E-3
Sheet 6B

Average with channel at 11+00, Ramp "C"

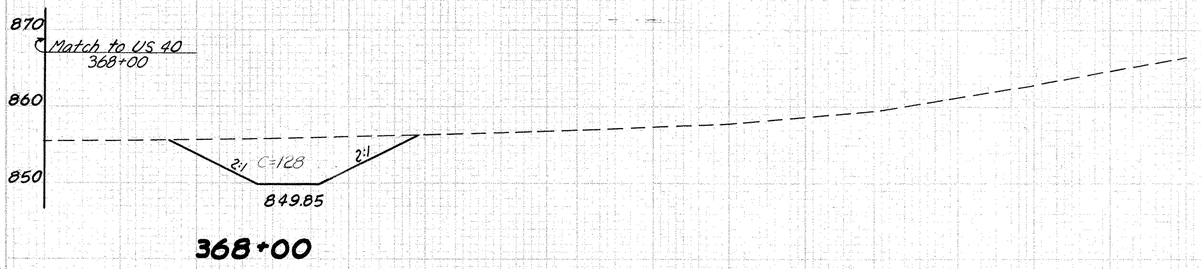
E-1 Excavation Ahead
E-3 Excavation Back



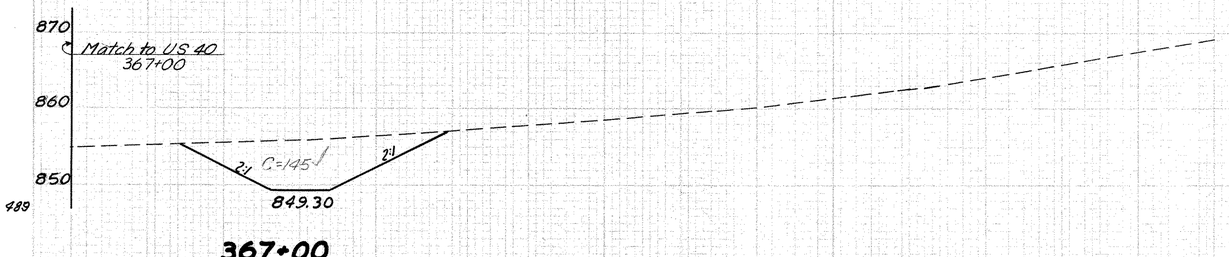
370+00



369+00



368+00



367+00

366+00

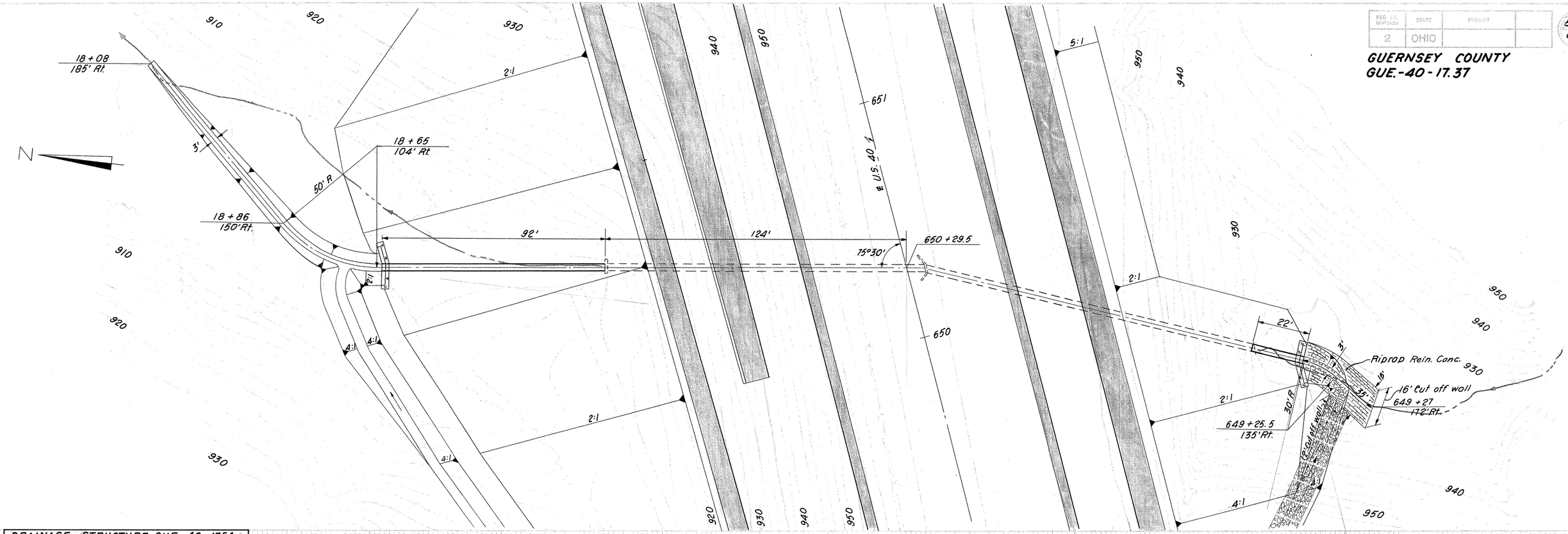
	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
370+00	220	0		
			711	0
369+00	164	0		
			541	0
368+00	128	0		
			506	0
367+00	145	0		
			381	0
366+00	61	0		

Channel Reloc. 367+00 ~ 370+00 Rt.

FED. HWY. DIVISION	STATE	PROJECT	
2	OHIO		

539
638

GUERNSEY COUNTY
GUE.-40-17.37

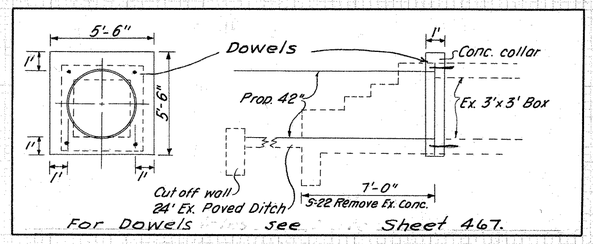


DRAINAGE STRUCTURE GUE-40-1754	
STA. 650+29.5	
DESIGN INFORMATION	
DA	Q50
62 Ac.	118 cfs.
TYPE HEADWALL TYPE "B"	
ESTIMATED QUANTITIES	

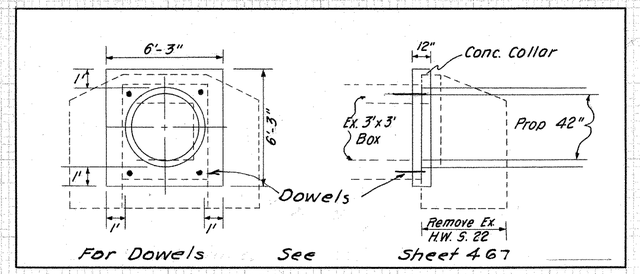
I-1 92'-42" M64(d)8 gage, 22'-42" M6.6(a)
I-2 18 C.Y.
I-10 Riprap, 6" Rein. Conc. Slab 57 Sq. Yd.

L-10 7 Sq. Yd.
S-22 Removal - Portions of structures 2 (lump)

Elongation of C.M.P.
The 42" corrugated metal pipe shall be shop deformed to produce and maintain a 5% vertical elongation.



For Dowels see Sheet 467.



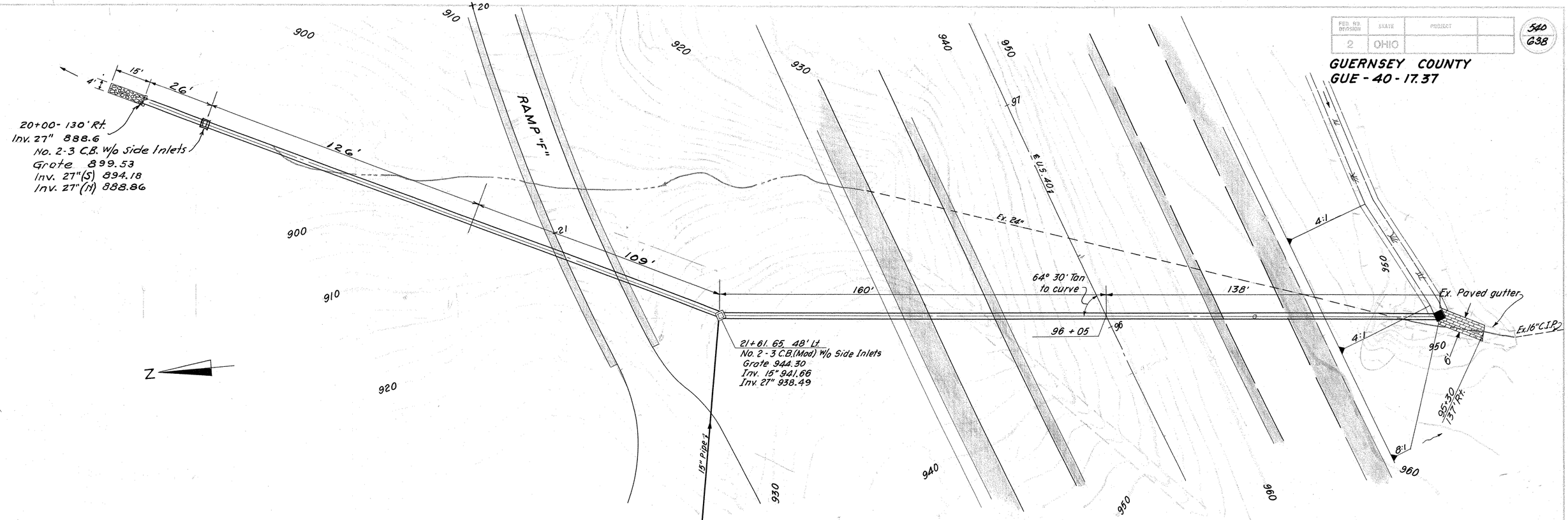
For Dowels See Sheet 467

CULVERT DETAILS STA. 650+29.5

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

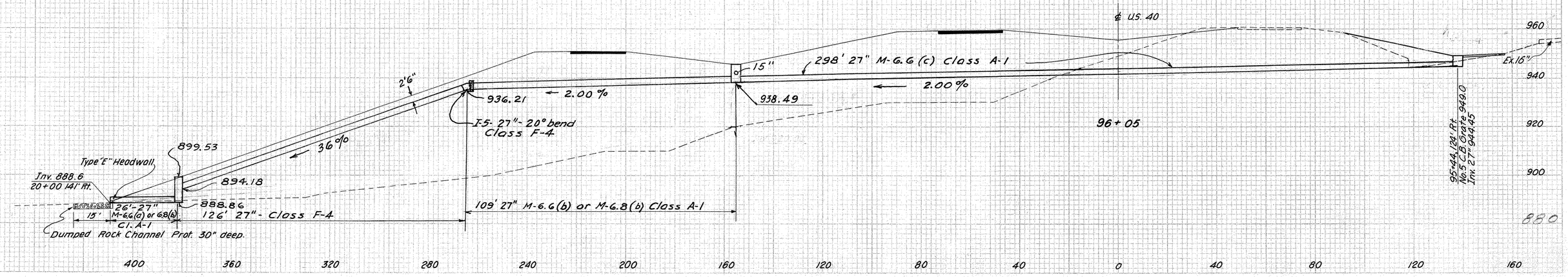
540
638

GUERNSEY COUNTY
GUE - 40 - 17.37



DRAINAGE STRUCTURE Nº GUE-40-1784		
Sta 96 + 05		
DESIGN INFORMATION		
DA	Q_{50}	
19 Ac.	53 cfs.	
TYPE HEADWALL TYPE "E"		
ESTIMATED QUANTITIES		

I-1 298'-27" M-6.6(c), 109'-27" M-6.6(b) or M-6.8(b)
26'-27" M-6.6(a) or M-6.8(b), Class A-1; 126'-27" Class F-4
I-2 047
I-10 5.6 C.Y. Dumped Rock Channel Prot.
I-10 12 S.Y. Riprap, 6" Rein. Conc. Slab.
I-8, 2 No. 2-3 C.B. (Mod) w/o Side Inlets
I-8, 1 No. 5 C.B. (Mod.)
I-5, 1 27"x 20° Bend, Class F-4.

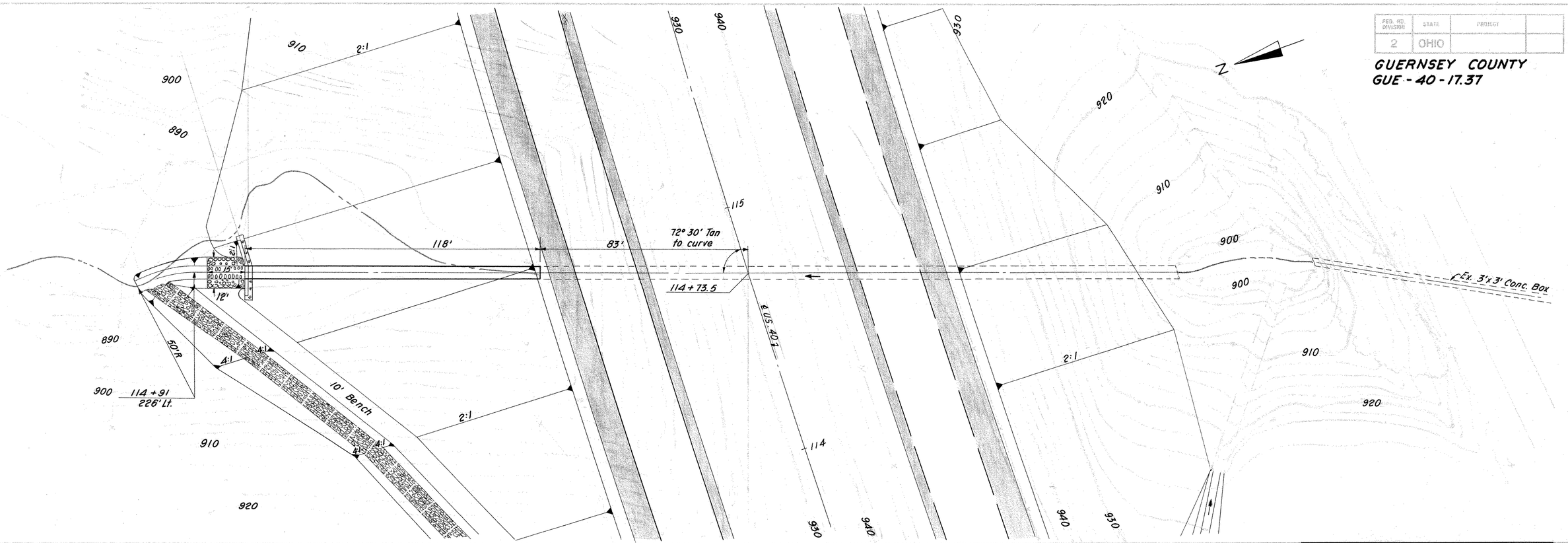


CULVERT DETAILS Sta. 96 + 05

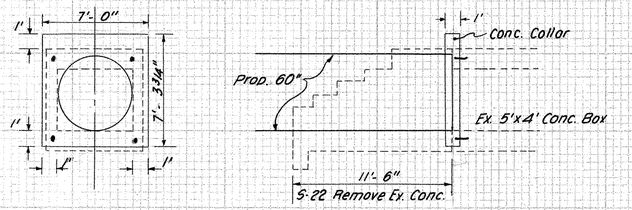
FED. HIG. DIVISION	STATE	PROJECT		
2	OHIO			

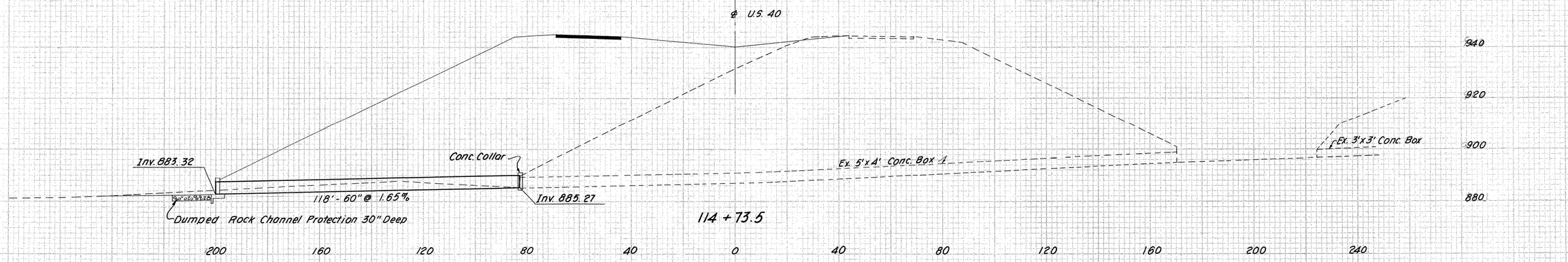
541
G38

GUERNSEY COUNTY
GUE-40-17.37



DRAINAGE STRUCTURE GUE-40-1820
STA 114+73.5
DESIGN INFORMATION
DA: 69 Ac. — Q_{50}: 127 cfs.
TYPE HEADWALL HW-B
ESTIMATED QUANTITIES
I-1 118'~60" M6.4(a) 10-8 qaqe Class A-1
I-2 16 C.Y.
I-10 16.5 C.Y. Dumped Rock Channel Prot.
L-10 47 S.Y.
S-22 Lump Removal of Portions of Ex. Structure
For Dowels see Sh. 467



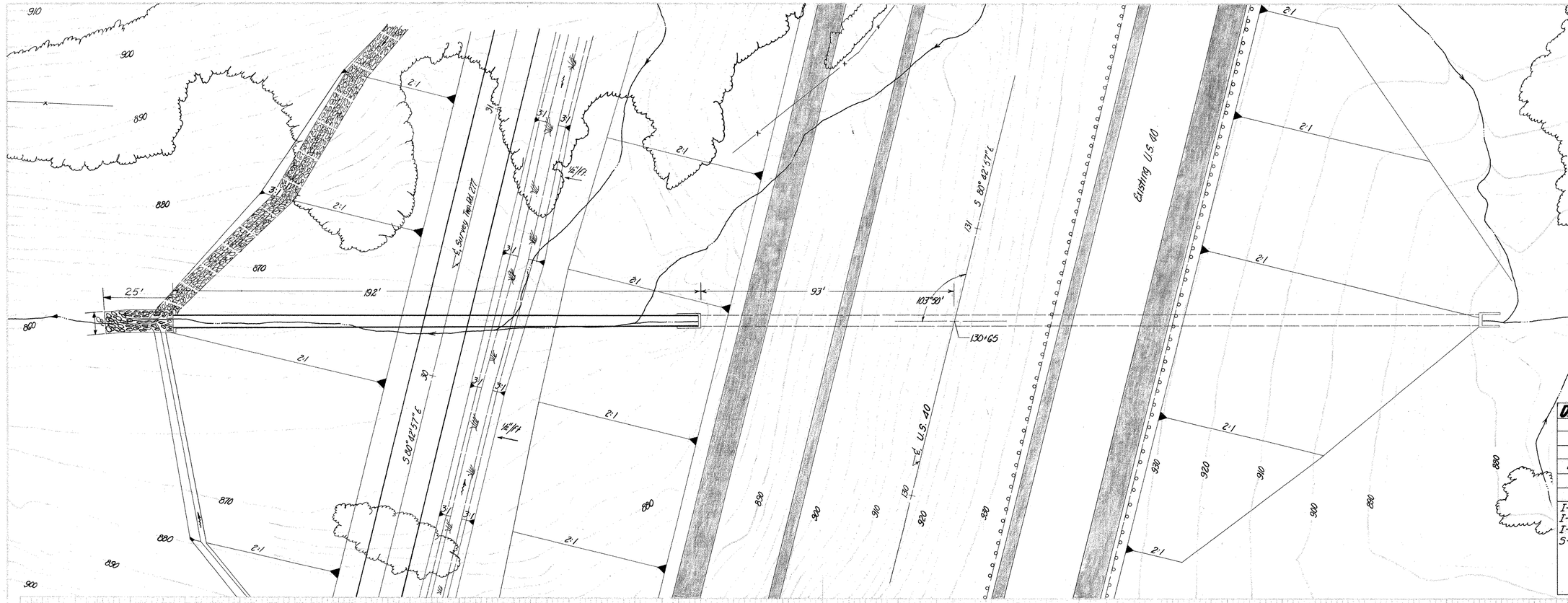


CULVERT DETAILS Sta. 114+73.5

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

502
638

GUERNSEY COUNTY
GUE-40-17.37



DRAINAGE STRUCTURE NO. GUE-40-1850

STATION 130+65

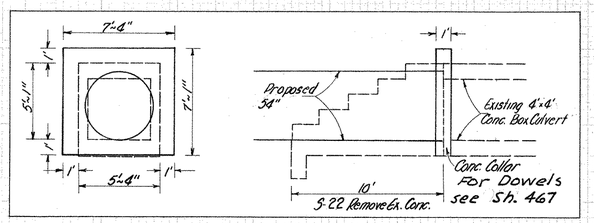
DESIGN INFORMATION

DA	Q 50	
125 ac.	182 cfs	

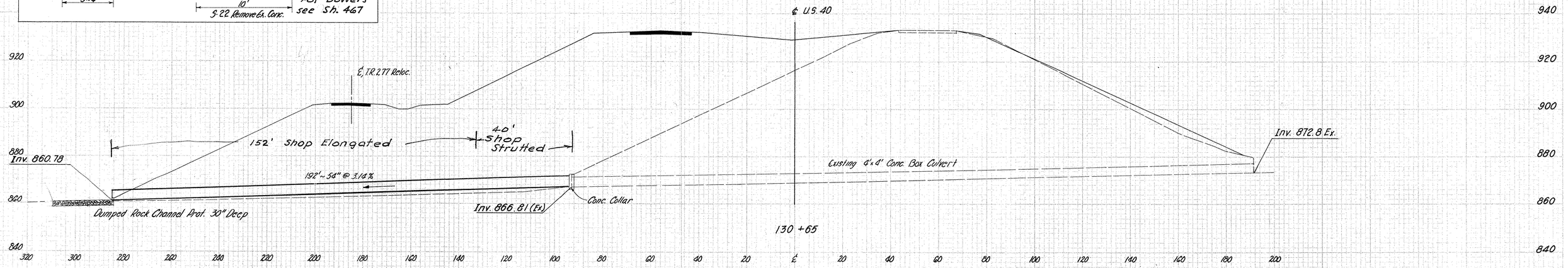
TYPE HEADWALL TYPE "E"

ESTIMATED QUANTITIES

I-1 192'~54" M 64 (d) 8 gage C I A-1
I-2 0.96 C.Y.
I-10 18.5 C.Y. Dumped Rock Channel Prot.
S-22 Lump Removal of Portions of Ex. Structure



~ Elongation and Wire Strutting of C.M.P. ~
The 54" corrugated metal pipe shall be shop elongated or shop strutted as indicated to produce and maintain a 5% vertical elongation.
The struts shall be removed after the backfill is placed and the fill consolidated, or as directed by the engineer.

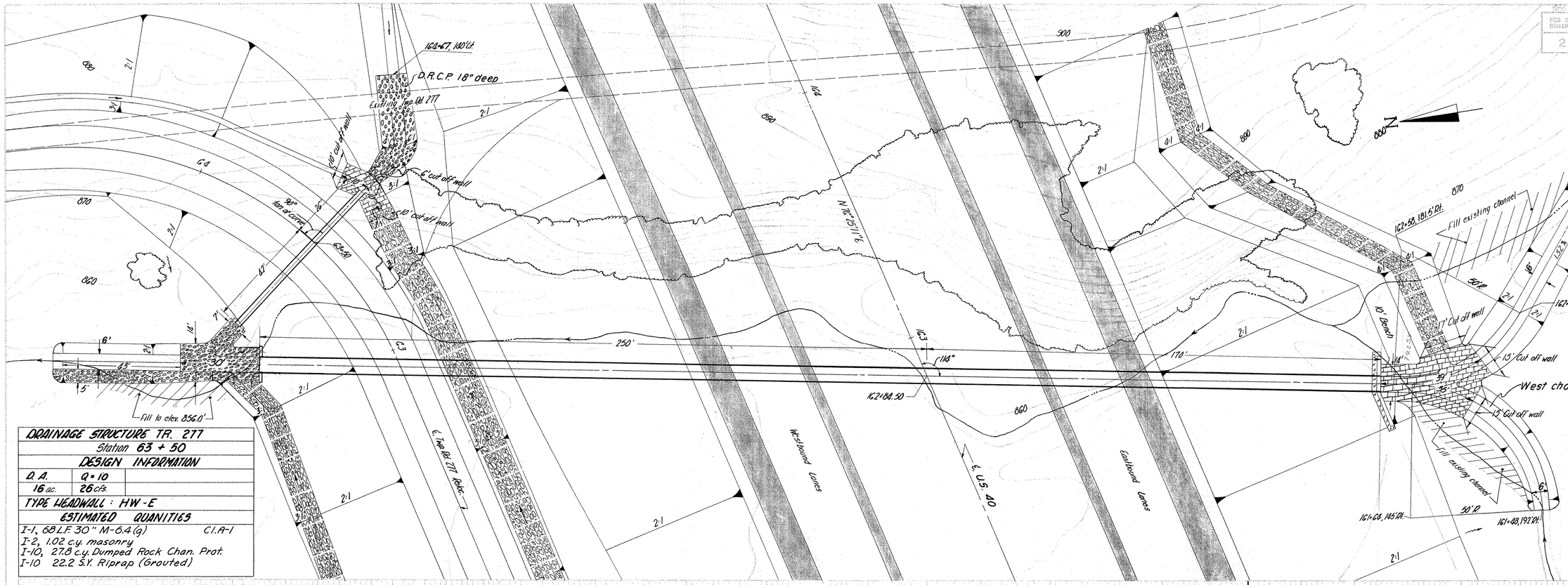


CULVERT DETAILS 130+65

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

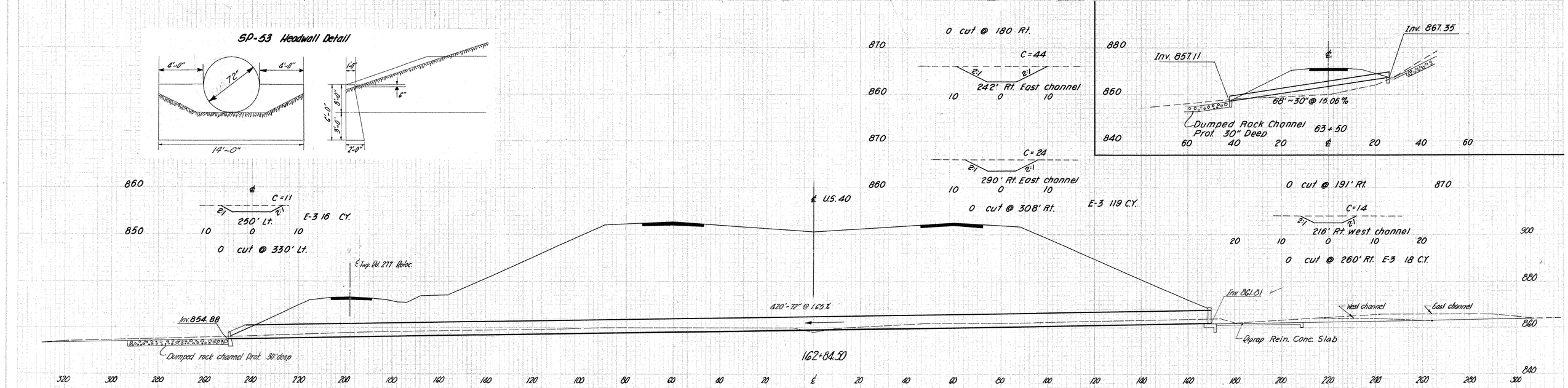
543
G38

GUERNSEY COUNTY
GUE-40-17.37



DRAINAGE STRUCTURE TR. 277		
Station 63 + 50		
DESIGN INFORMATION		
D.A.	Q = 10	
16 ac.	26 cfs.	
TYPE HEADWALL : HW-E		
ESTIMATED QUANITIES		
I-1, 68 L.F. 30" M-6.4 (g)		Cl. A-1
I-2, 1.02 c.y. masonry		
I-10, 27.8 c.y. Dumped Rock Chan. Prot.		
I-10 22.2 S.Y. Riprap (Grouted)		

DRAINAGE STRUCTURE GUE-40-1880		
Station 162+84.50		
DESIGN INFORMATION		
D.A.	Q = 50	
248 ac.	288 cfs.	
TYPE HEADWALL : Type "B" & S.P. 53		
ESTIMATED QUANITIES		
I-1 420'-72" M6.4 (g) 8-7 gage Cl. A-1		
I-2 21 C.Y.		
I-10, 66.7 C.Y. Dumped Rock Channel Prot.		
I-10, 79.2 S.Y. Riprap, Rein. Conc. Slab.		
E-3, 153 C.Y.		
L-10, 8 S.Y.		

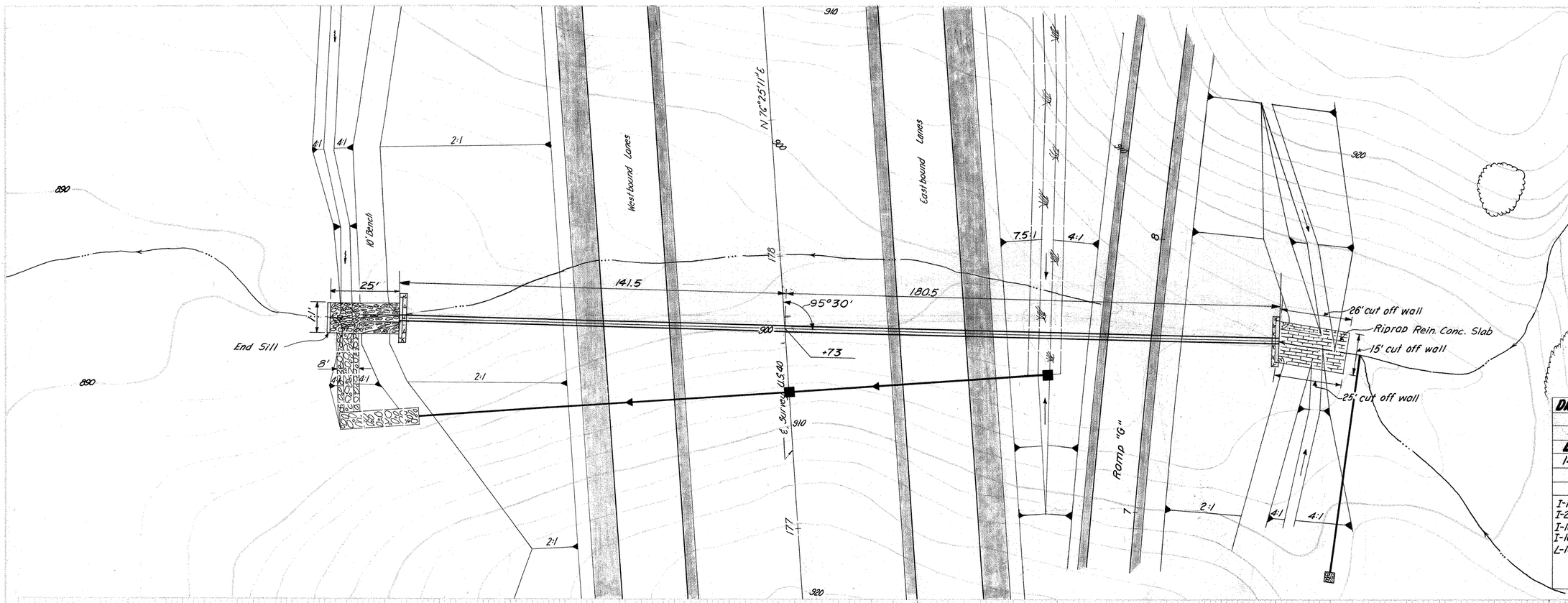


CULVERT DETAILS 162+84.50

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

544
G38

GUERNSEY COUNTY
GUE-40-17.37



DRAINAGE STRUCTURE NO. GUE-40-1839
STA. 177+73

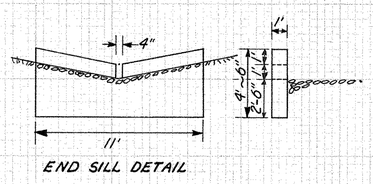
DESIGN INFORMATION

DA	Q 50
14 ac.	45 c.f.s

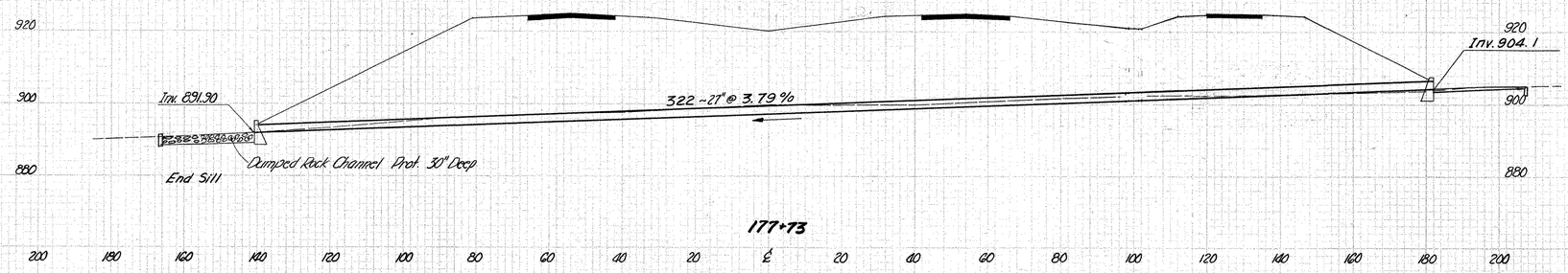
TYPE HEADWALL Type "A"

ESTIMATED QUANTITIES

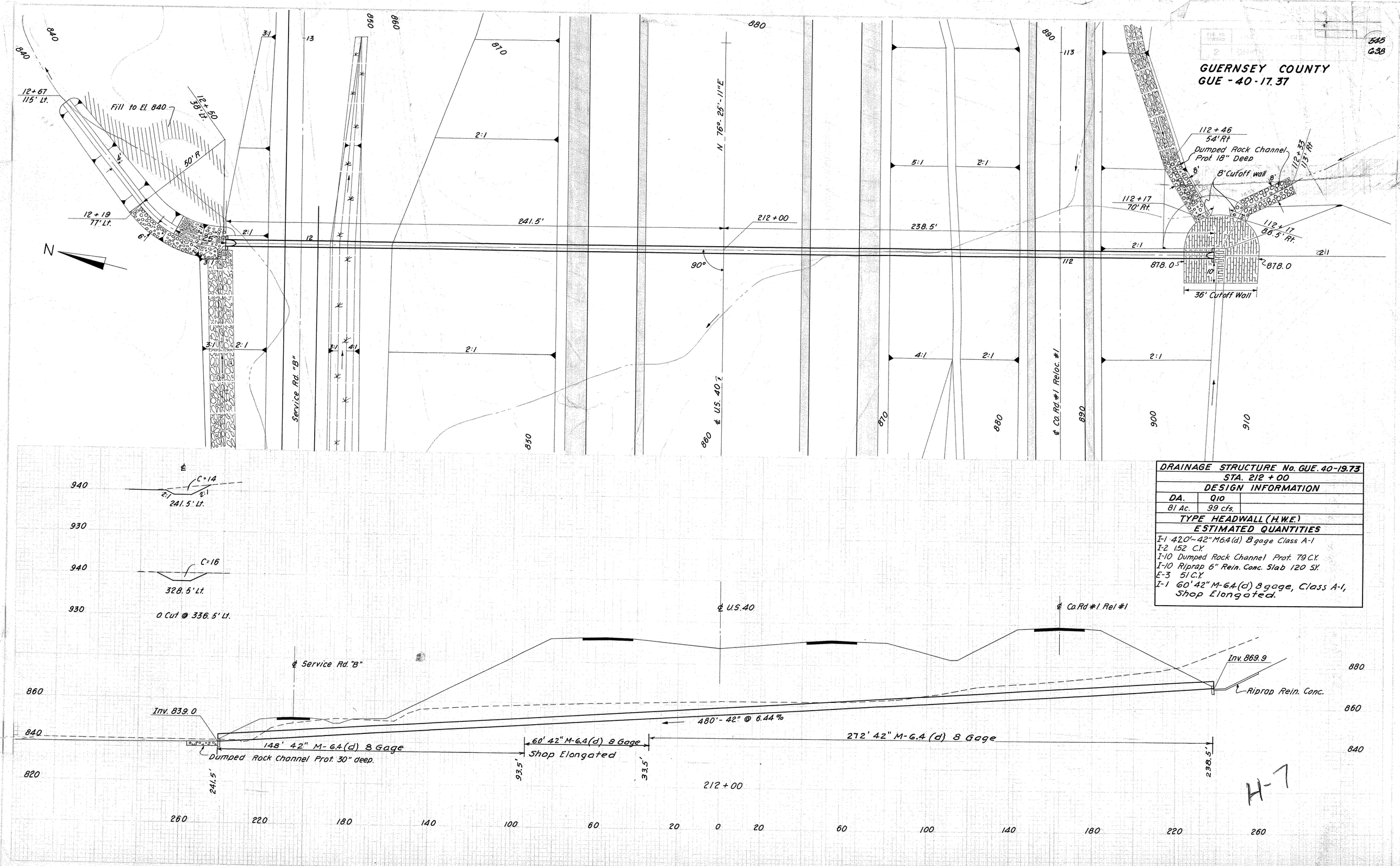
I-1, 322~27" M6.6(d) Class A-1
I-2, 9.0 C.Y.
I-10, 25.4 C.Y. Dumped Rock Channel Prot
I-10, 42.5 S.Y. Riprap, 6" Rein. Conc. Slab
L-10, 6.8 S.Y.



END SILL DETAIL



CULVERT DETAILS 177+73



DRAINAGE STRUCTURE No. GUE. 40-19.73		
STA. 212 + 00		
DESIGN INFORMATION		
DA.	Q10	
81 Ac.	99 cfs.	
TYPE HEADWALL (H.W.E.)		
ESTIMATED QUANTITIES		
I-1 42.0'-42" M6.4(d) 8 gage Class A-1		
I-2 1.52 C.Y.		
I-10 Dumped Rock Channel Prot. 79 C.Y.		
I-10 Riprap 6" Rein. Conc. Slab 120 S.Y.		
E-3 51 C.Y.		
I-1 60' 42" M-6.4(d) 8 gage, Class A-1, Shop Elongated.		

CULVERT DETAILS 212 + 00

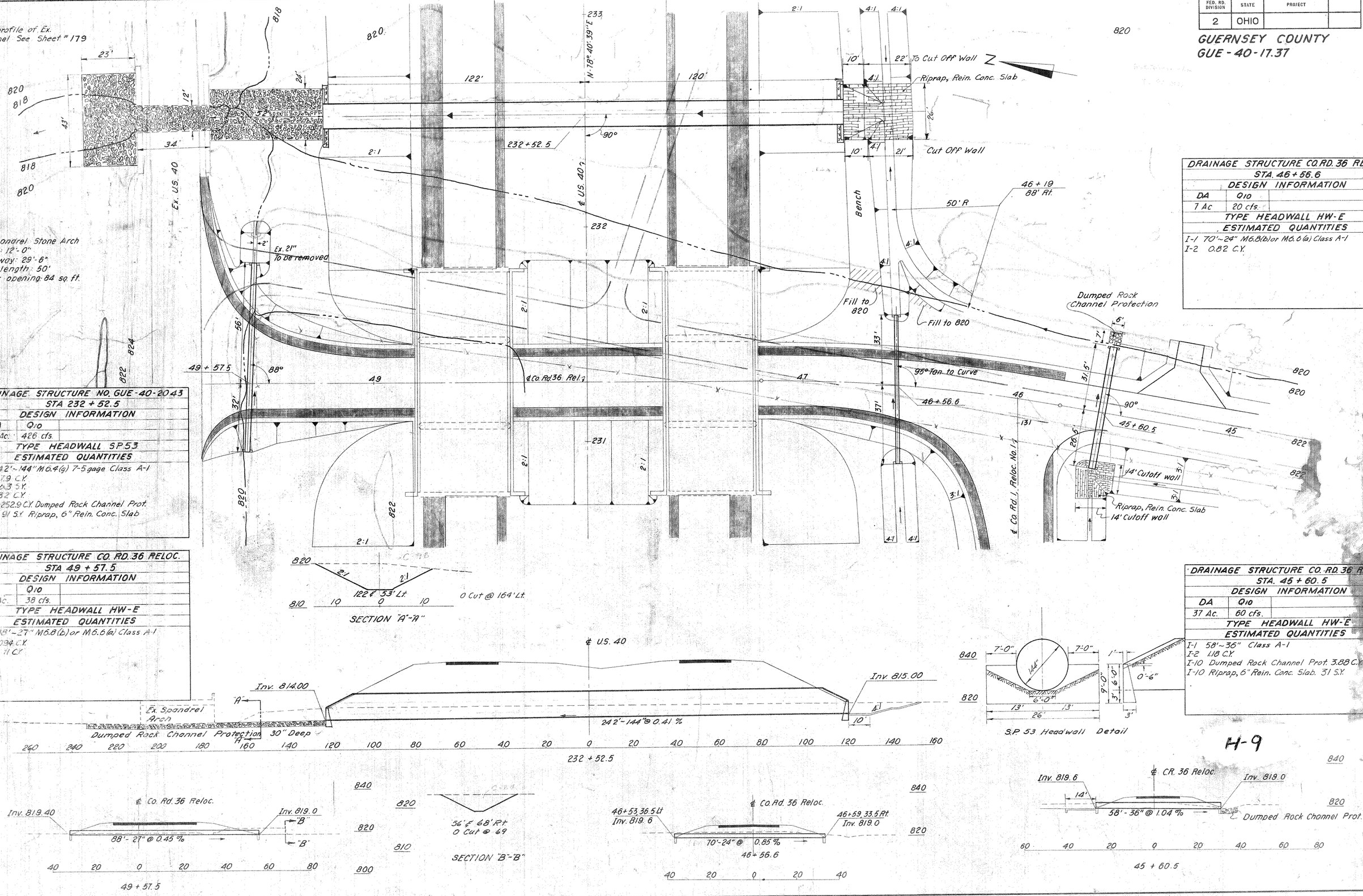
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

54C
63B

GUERNSEY COUNTY
GUE-40-17.37

Note:
For profile of Ex.
Channel See Sheet # 179

Ex. Spandrel Stone Arch
Span: 12'-0"
Roadway: 29'-6"
Rail length: 50'
Water opening: 84 sq. ft.



DRAINAGE STRUCTURE NO. GUE-40-2043
STA 232+52.5
DESIGN INFORMATION
DA: Q10
754 Ac.: 426 cfs.
TYPE HEADWALL SP53
ESTIMATED QUANTITIES
I-1 242'-144" M6.4(g) 7-5 gage Class A-1
I-2 17.9 C.Y.
I-10 6.3 S.Y.
E-3 13.2 C.Y.
I-10 252.9 C.Y. Dumped Rock Channel Prot.
I-10 91 S.Y. Riprap, 6" Rein. Conc. Slab

DRAINAGE STRUCTURE CO. RD. 36 RELOC.
STA 49+57.5
DESIGN INFORMATION
DA: Q10
19 Ac.: 38 cfs.
TYPE HEADWALL HW-E
ESTIMATED QUANTITIES
I-1 88'-27" M6.8(b) or M6.6(a) Class A-1
I-2 0.94 C.Y.
E-3 11 C.Y.

DRAINAGE STRUCTURE CO. RD. 36 RELOC.
STA. 46+56.6
DESIGN INFORMATION
DA: Q10
7 Ac.: 20 cfs.
TYPE HEADWALL HW-E
ESTIMATED QUANTITIES
I-1 70'-24" M6.8(b) or M6.6(a) Class A-1
I-2 0.82 C.Y.

DRAINAGE STRUCTURE CO. RD. 36 RELOC.
STA. 45+60.5
DESIGN INFORMATION
DA: Q10
37 Ac.: 60 cfs.
TYPE HEADWALL HW-E
ESTIMATED QUANTITIES
I-1 58'-36" Class A-1
I-2 1.18 C.Y.
I-10 Dumped Rock Channel Prot. 3.88 C.Y.
I-10 Riprap, 6" Rein. Conc. Slab. 31 S.Y.

S.P. 53 Headwall Detail

H-9

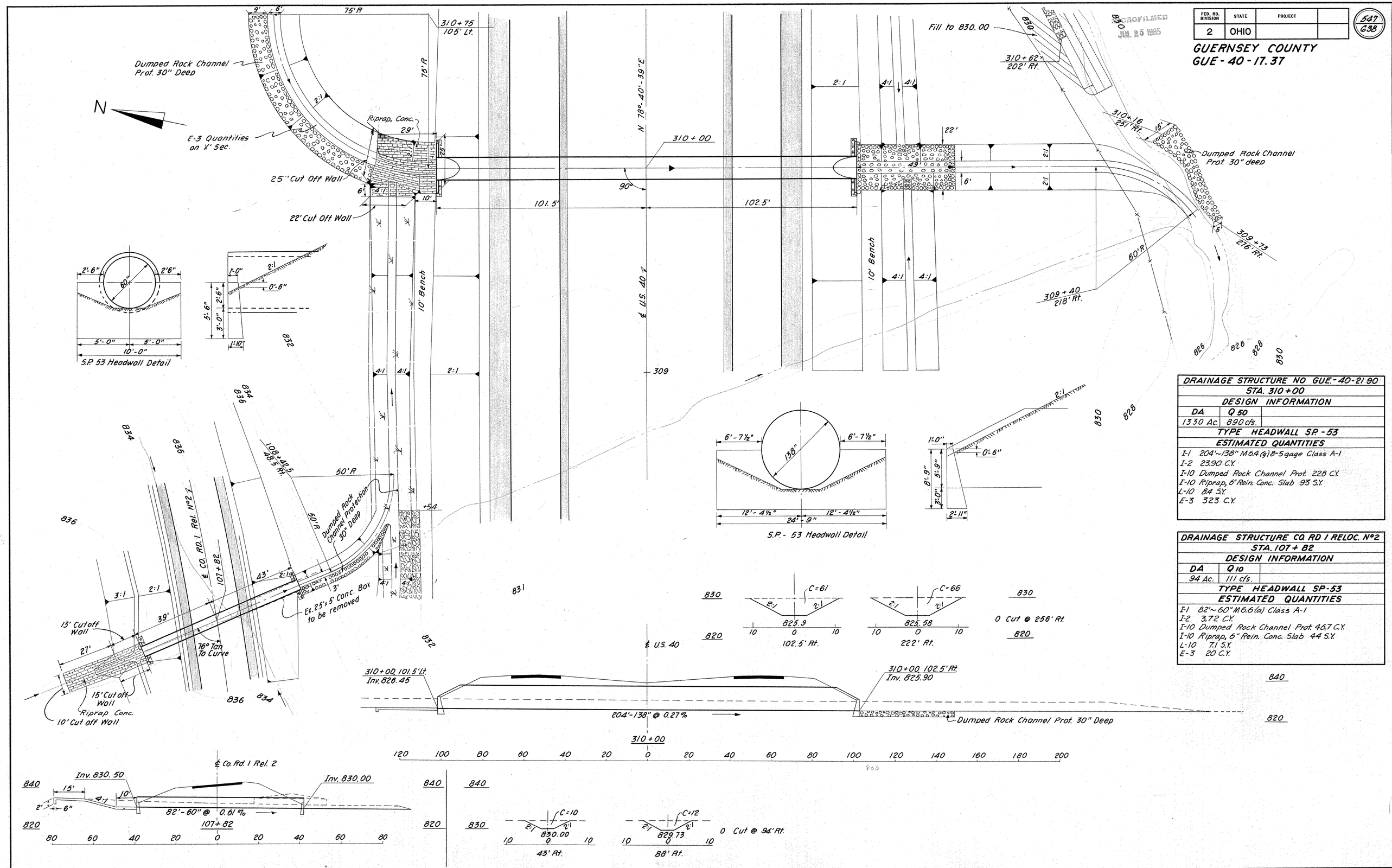
CULVERT DETAILS STA 232+52.5

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

547
638

GUERNSEY COUNTY
GUE-40-17.37

MICROFILMED
JUL 25 1985



DRAINAGE STRUCTURE NO GUE.-40-21 90	
STA. 310+00	
DESIGN INFORMATION	
DA	Q 50
1330 Ac.	890 cfs.
TYPE HEADWALL SP-53	
ESTIMATED QUANTITIES	
I-1 204'~138" M6.4(g) 8-5 gage Class A-1	
I-2 23.90 C.Y.	
I-10 Dumped Rock Channel Prot. 228 C.Y.	
I-10 Riprap, 6" Rein. Conc. Slab 93 S.Y.	
L-10 8.4 S.Y.	
E-3 323 C.Y.	

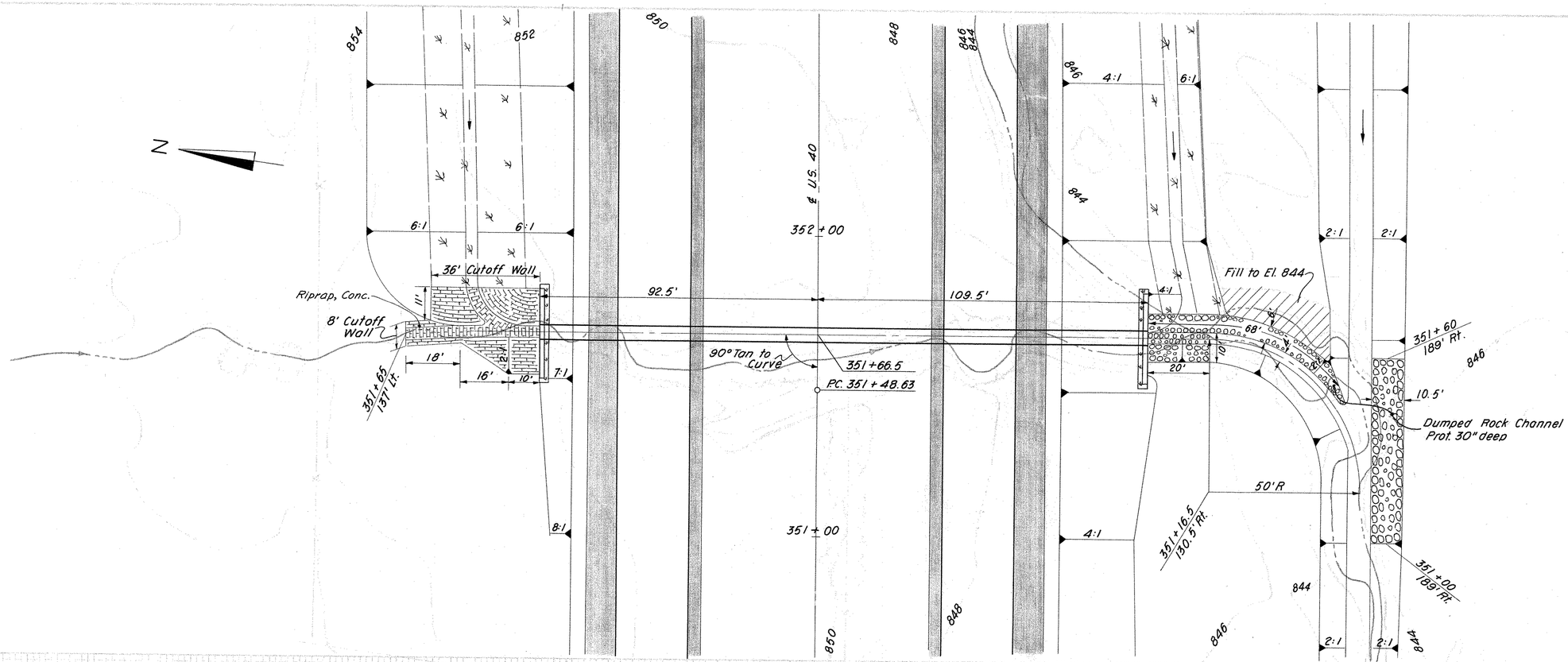
DRAINAGE STRUCTURE CO. RD 1 RELOC. No 2	
STA. 107+82	
DESIGN INFORMATION	
DA	Q 10
94 Ac.	111 cfs.
TYPE HEADWALL SP-53	
ESTIMATED QUANTITIES	
I-1 82'~60" M6.6(a) Class A-1	
I-2 3.72 C.Y.	
I-10 Dumped Rock Channel Prot. 46.7 C.Y.	
I-10 Riprap, 6" Rein. Conc. Slab 44 S.Y.	
L-10 7.1 S.Y.	
E-3 20 C.Y.	

CULVERT DETAILS 310+00

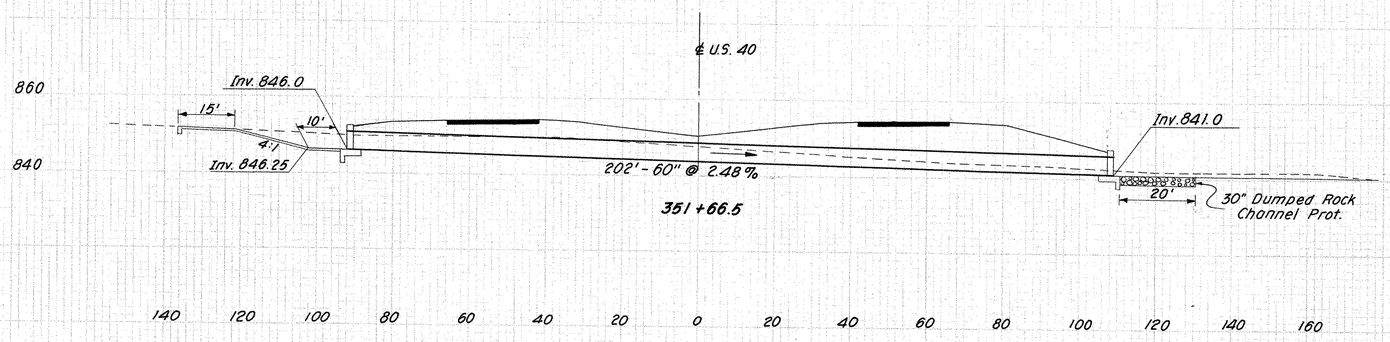
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

548
638

GUERNSEY COUNTY
GUE. 40 - 17.37



DRAINAGE STRUCTURE No. GUE. 40-2237		
STA. 351 + 66.5		
DESIGN INFORMATION		
DA	Q 50	
149 Ac.	182 c.f.s.	
TYPE HEADWALL (H.W.C)		
ESTIMATED QUANTITIES		
I-1 202'~60" M6.4(g) 10-10 Gage Class A-1		
I-2 44 C.Y.		
I-10 Dumped Rock Channel Prot. 114 C.Y.		
I-10 Riprap, 6" Rein. Conc. Slab 104 S.Y.		
L-10 12 S.Y.		



CULVERT DETAILS STA. 351 + 66.5

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

549
638

MICROFILMED
JUL 25 1985

GUERNSEY COUNTY
GUE - 40 - 17.37

EXISTING STRUCTURE GU. 40-231
Type: Concrete Slab Bridge
Clear Span: 23'-0"
Width: 44'-6"
Skew: 30° LF
Waterway Area below 875.2: 159 S.F.

DRAINAGE STRUCTURE NO. GUE-40-2340
STA. 389 + 30
DESIGN INFORMATION

DA	Q-50
1333 Ac.	850 cfs.

TYPE HEADWALL SP. 53
ESTIMATED QUANTITIES
I-1 3.18'~15'-6"x9'-5" M 6.4(g) I-1 Gage Class G-1
I-2 22.76 C.Y.
I-10 Dumped Rock Channel Prot. 90 C.Y.
I-10 Riprap, 6" Rein. Conc. Slab 291 S.Y.
L-10 7 S.Y.
S-22 Removal of Portions of Structures
S-24 Removal of Structures

EXISTING STRUCTURE
PORTION TO BE REMOVED
Type: Concrete Slab Top Culvert
Clear Span: 9'-0"
PORTION TO REMAIN IN PLACE
Type: Concrete Slab Bridge
Span: 10'-0"
Width: 34'-6" flr concrete railings

NOTE:
Remove Existing Structure above top of footings S-24 Lump Sum.

E-3 Quantities on X' Sec.

Remove existing concrete above 2:1 slope line Place 6" minimum thickness cap in accordance with Items S 2.04 - 2.06 of the specifications. Cost to be included in the price bid for Item S-22

SECTION "A"

SECTION B-B

SP. 53 HEADWALL DETAIL

STUB DETAIL

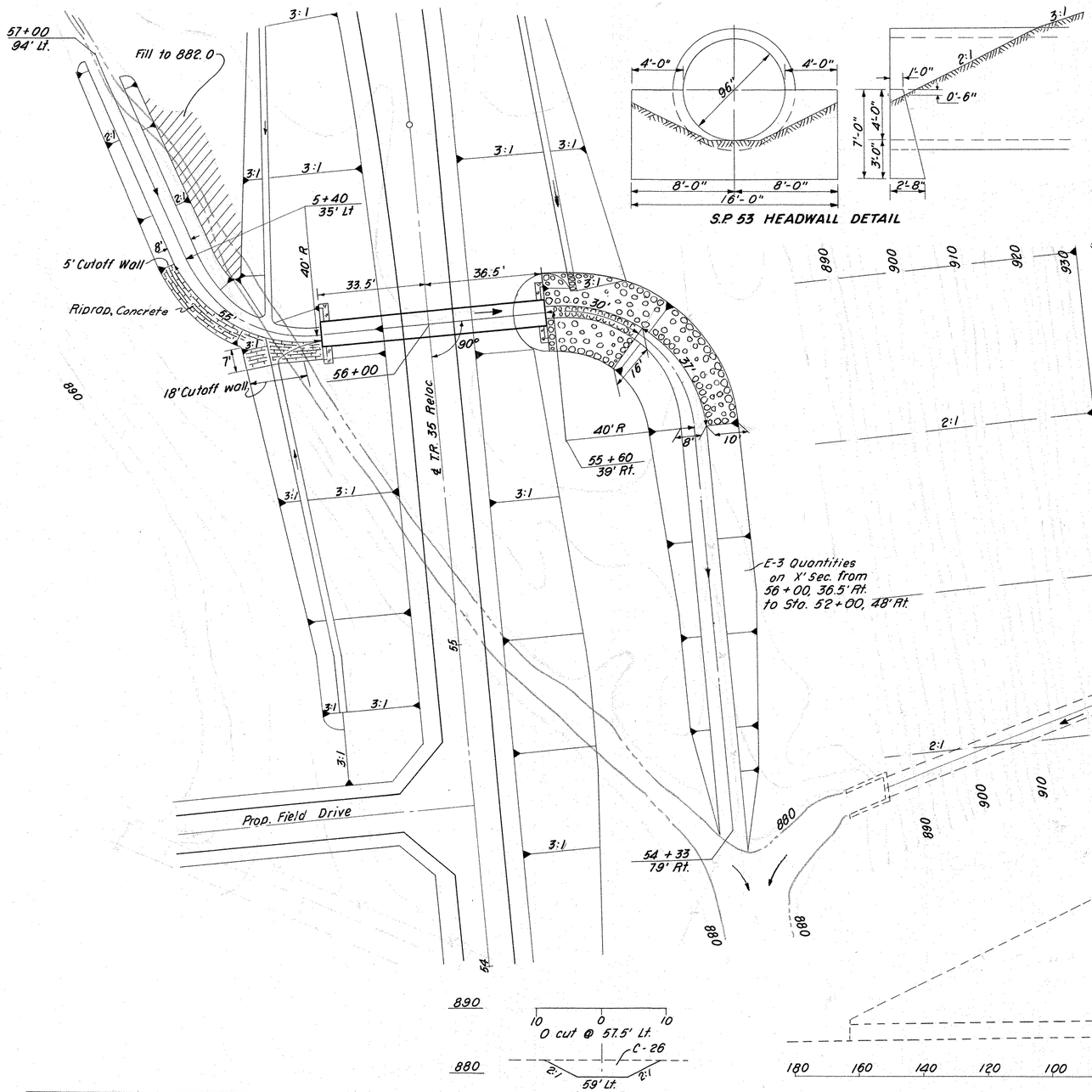
Ex. Conc. Box. 37+30 T.R. 35 Reloc.

CULVERT DETAILS STA. 389+30

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

550
638

GUERNSEY COUNTY
GUE-40-17.37



DRAINAGE STRUCTURE TWP RD. 35 Reloc. STA. 56+00	
DESIGN INFORMATION	
DA	Q10
816 Ac.	452 cfs.
TYPE HEADWALL SP-53	
ESTIMATED QUANTITIES	
I-1 70'~96" M6.6(a) Class A-1	
I-2 8.4 C.Y.	
I-10 Dumped Rock Channel Prot. 107 C.Y.	
I-10 Riprap, 6" Rein. Conc. Slab 42 S.Y.	
L-10 43 S.Y.	
E-3 59 C.Y. Lt. of Culvert	
E-3 604 C.Y. Rt. of Culvert (from x-sections)	

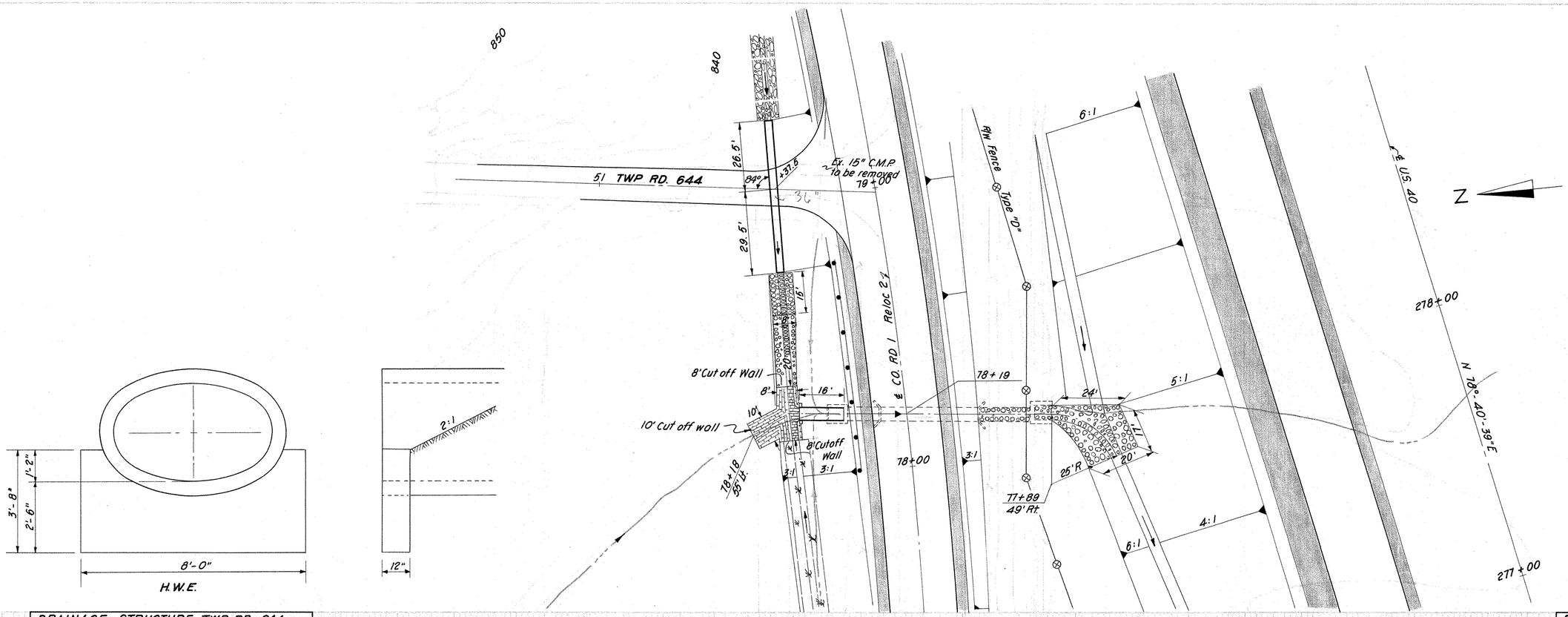
DRAINAGE STRUCTURE No. GUE-40-2369 STA. 404+85	
DESIGN INFORMATION	
DA	Q50
255 Ac.	296 cfs.
TYPE HEADWALL HW-B	
ESTIMATED QUANTITIES	
I-1 122'~72" M64(g) 8-7 gage Class A-1	
I-2 22 C.Y.	
L-10 5.8 S.Y.	
S-22 Lump	

CULVERT DETAILS STA. 404+85

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

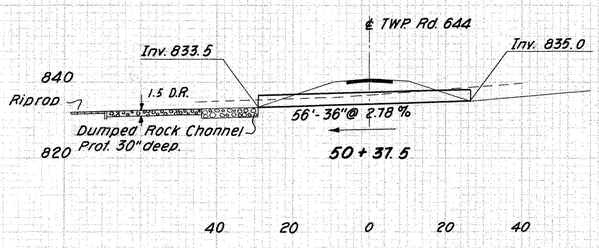
551
638

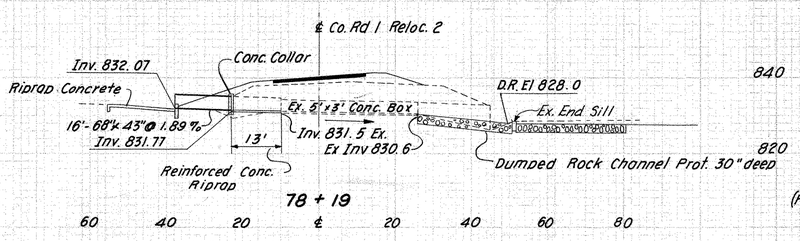
GUERNSEY COUNTY
GUE - 40 - 17.37

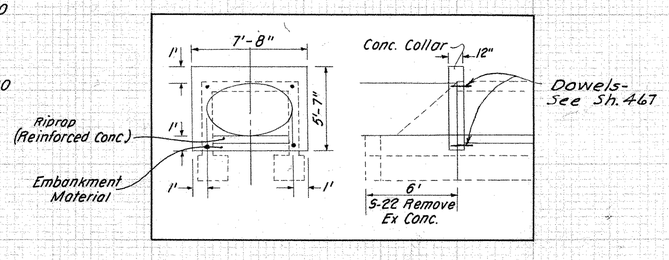


DRAINAGE STRUCTURE TWP. RD 644		
STA 50 + 37.5		
DESIGN INFORMATION		
DA	Q10	
26 Ac.	46 cfs	
ESTIMATED QUANTITIES		
I-1 56'-36" Class A-1		
I-10 Dumped Rock Channel Prot. 20 C.Y.		

DRAINAGE STRUCTURE Co. Rd. No1 Rel. No. 2		
STA. 78 + 19		
DESIGN INFORMATION		
DA	Q10	
117 Ac.	123 cfs	
TYPE HEADWALL (H.W.E)		
ESTIMATED QUANTITIES		
I-1 16'-68"x43" M67.1(a) Class G-1		
I-2 0.79 C.Y.		
I-10 Dumped Rock Channel Prot. 53 C.Y.		
I-10 Riprap, 6" Rein. Conc. Slab 23 S.Y.		
S-22- Lump		





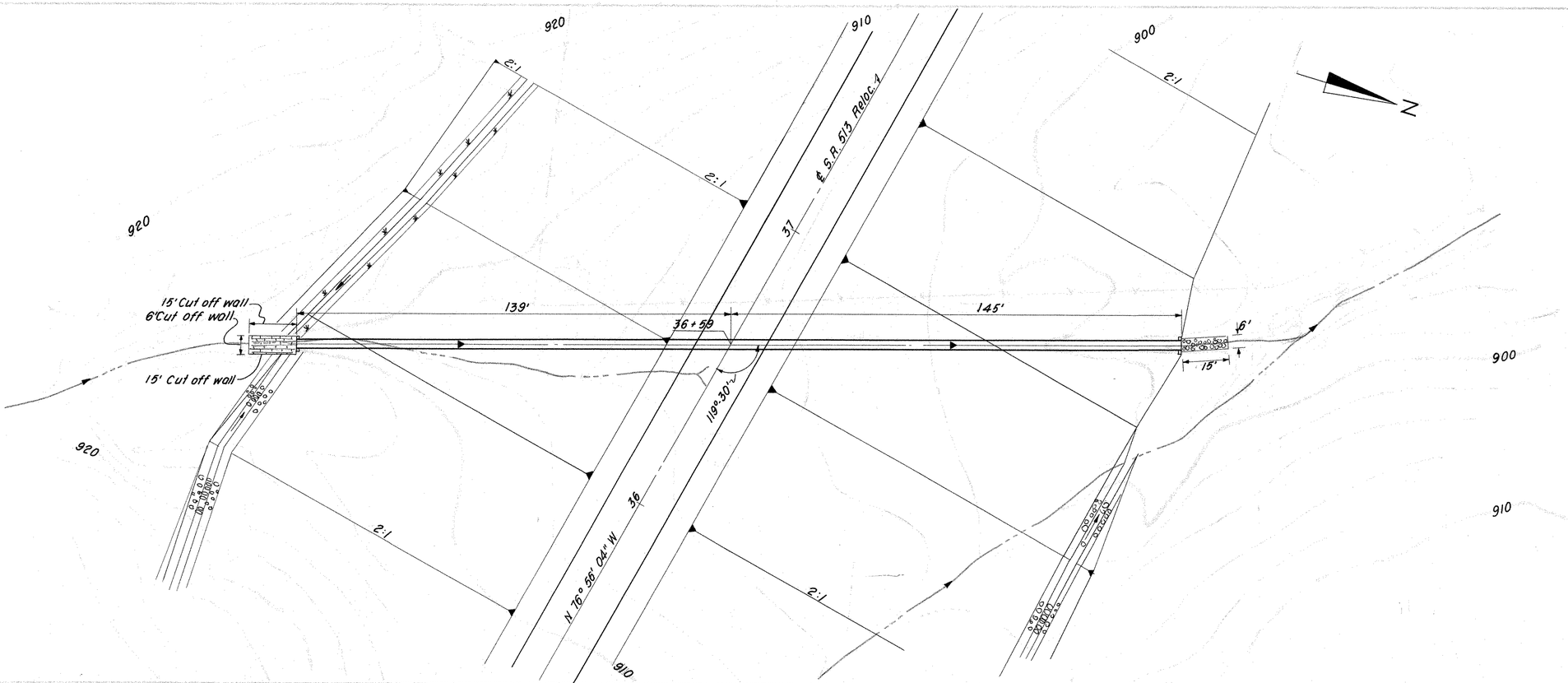


CULVERT DETAILS STA. 78 + 19 CO. RD 1 Reloc. 2

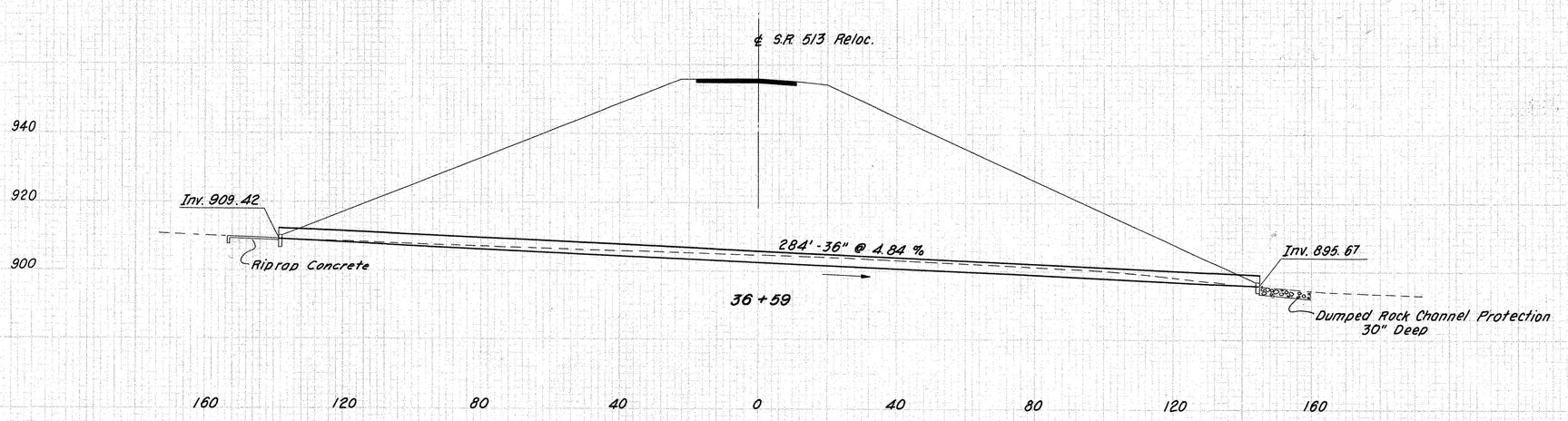
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

552
628

GUERNSEY COUNTY
GUE-40-17.37



DRAINAGE STRUCTURE S.R. 513 RELOC.		
STA. 36 + 59		
DESIGN INFORMATION		
DA	Q10	
39 Ac.	60 cfs.	
TYPE HEADWALL H.W.E		
ESTIMATED QUANTITIES		
I-1 284'-36" M64(d) 8 gage Class A-1		
I-2 1.18 C.Y.		
I-10 Dumped Rock Channel Protection 8.33 C.Y.		
I-10 Riprap, 6" Rein. Conc. Slab 10 S.Y.		



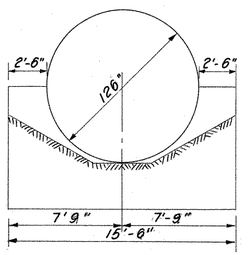
CULVERT DETAILS STA. 36+59 S.R. 513 Reloc.

MICROFILMED
JUL 25 1985

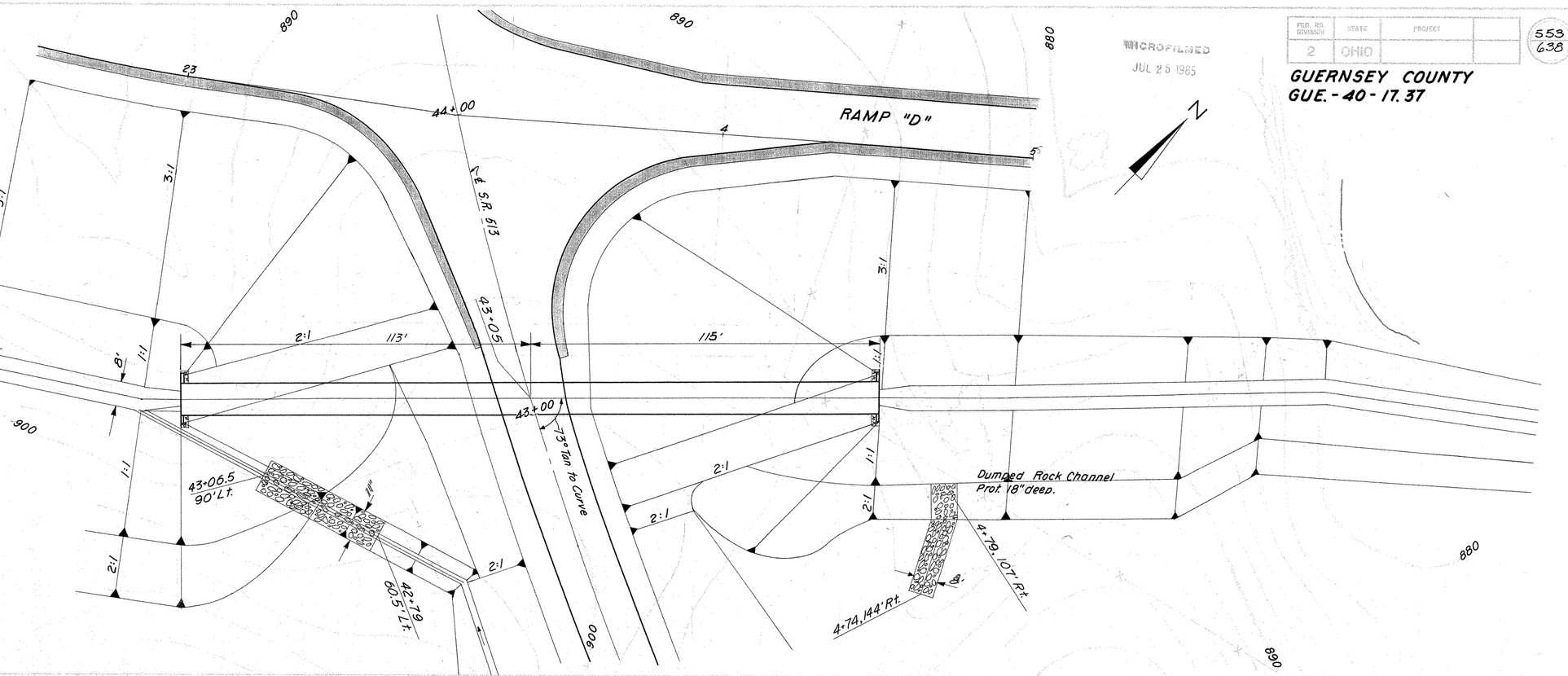
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

553
638

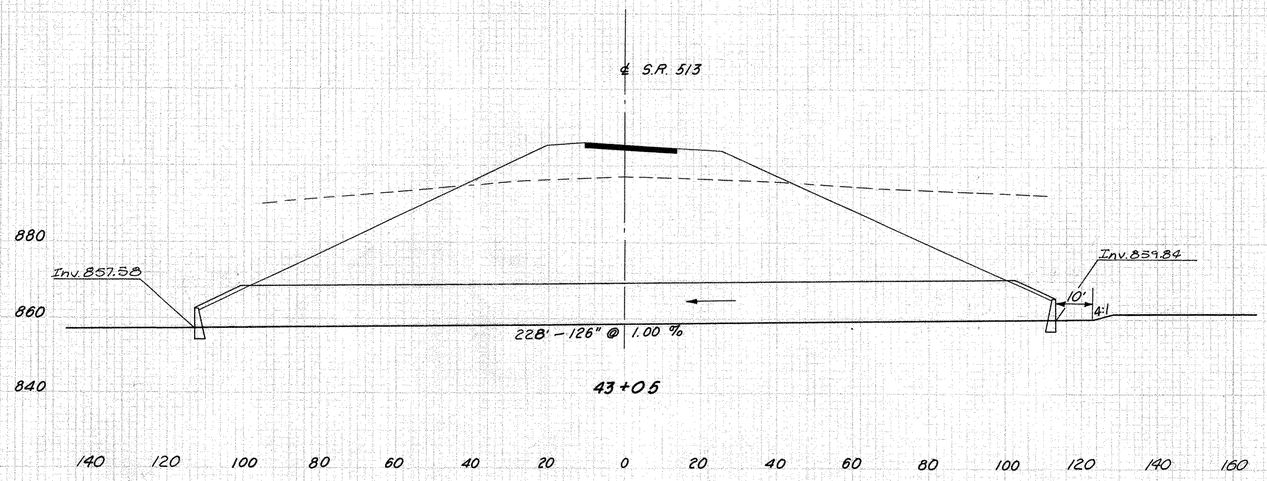
GUERNSEY COUNTY
GUE.-40-17.37



S.P. 53 HEADWALL DETAIL



DRAINAGE STRUCTURE SR 513 Reloc.		
STA. 43+05		
DESIGN INFORMATION		
DA	Q50	
1360 Ac.	870 c.f.s.	
TYPE HEADWALL SP. 53		
ESTIMATED QUANTITIES		
I-1	228'-126" M64 (g) 3-1 gage Class A-1	
I-2	11.78 C.Y.	
I-10	Dumped Rock Channel Prot. 42 C.Y.	
L-10	4 S.Y.	

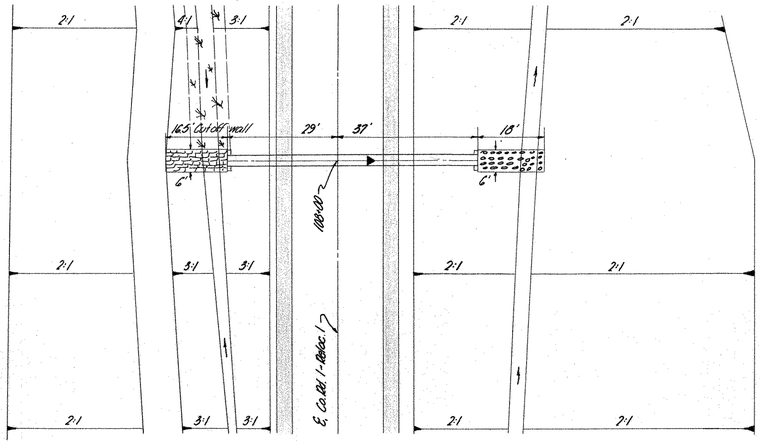


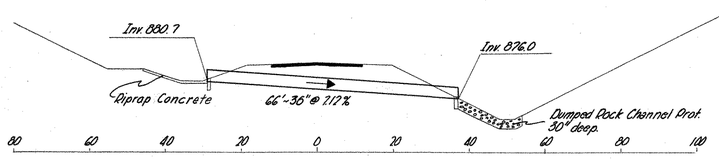
CULVERT DETAILS SR. 513 Reloc. STA. 43+05

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

554
C38

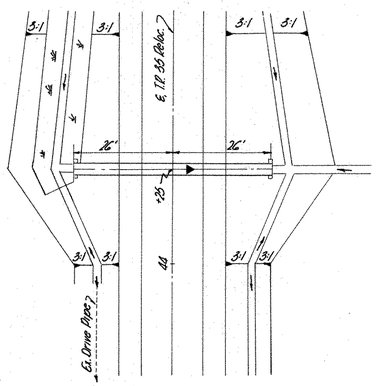
GUERNSEY COUNTY
GUE-40- 17.37





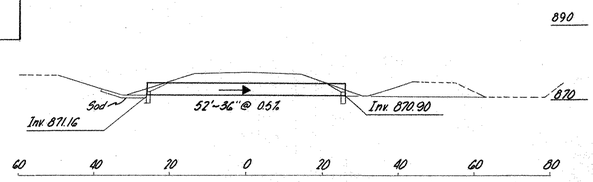
DRAINAGE STRUCTURE Co. Rd. #1 Reloc. #1		
STA. 100+00		
DESIGN INFORMATION		
DA	Q 10	
12 Ac.	27 cfs.	
TYPE HEADWALL H.W.-E.		
ESTIMATED QUANTITIES		

I-1 66'-36" Class A-1 (M-6.4(c))
I-2 1.18 C.Y. Masonry
I-10 11.3 S.Y. Riprap, 6" Rein. Conc. Slab
I-10 10.0 C.Y. D.R.C.P.



DRAINAGE STRUCTURE T. R. 35		
STA. 44+28		
DESIGN INFORMATION		
DA	Q_{10}	
19.5	38 cfs.	
TYPE HEADWALL ~ "E"		
ESTIMATED QUANTITIES		

I-1 52'-36" Class I-A Pipe M-6.6(a) or M-6.8(b)
I-2 1.18 C.Y. Masonry
E-3 37 C.Y. (see X-S)



CULVERT DETAILS

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

555
G38

GUERNSEY COUNTY
GUE-40-17.37

MICROFILMED
JAN 25 1985

GENERAL NOTES

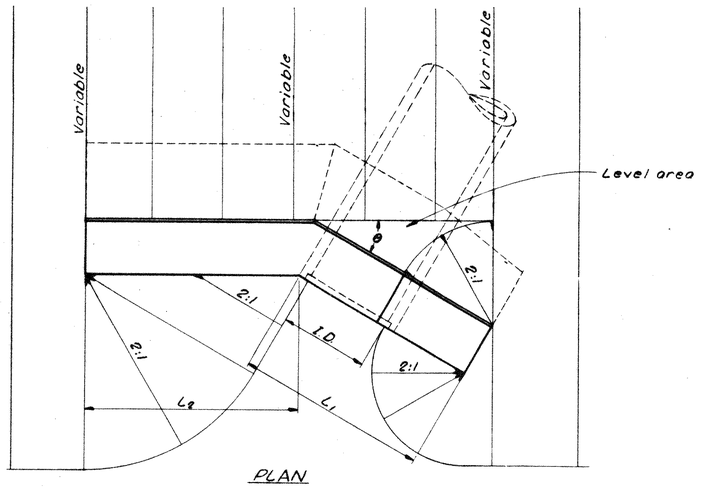
Footing width is based on an allowable foundation bearing pressure of 2600 pounds per square foot.

N.S. indicates Near Side.

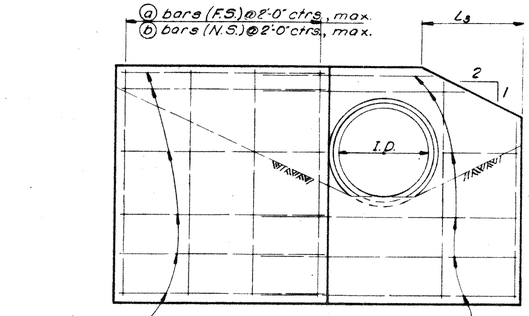
F.S. indicates Far Side.

Quantities listed are for one wall.

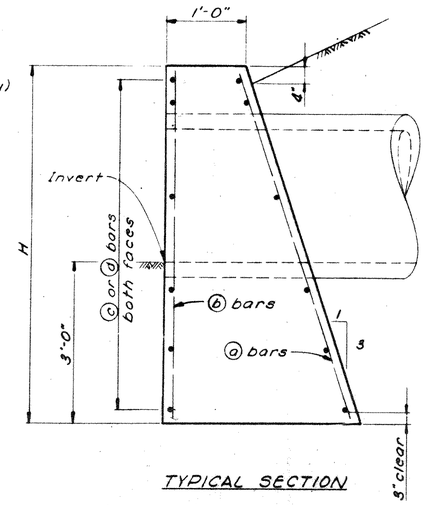
Headwall shall be placed such that dimension L_1 is perpendicular to the pipe.



PLAN

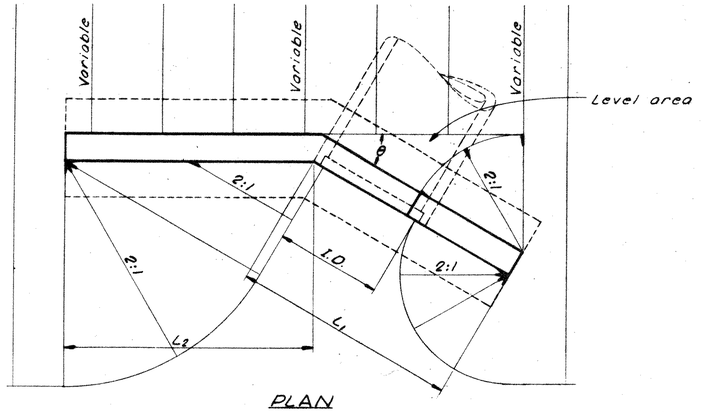


DEVELOPED ELEVATION

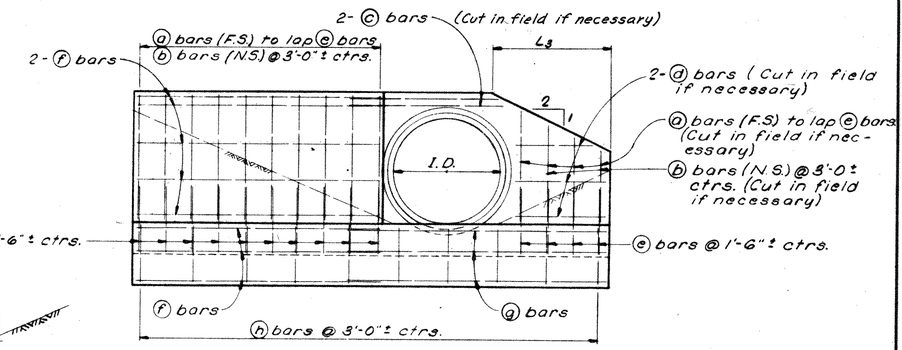


TYPICAL SECTION

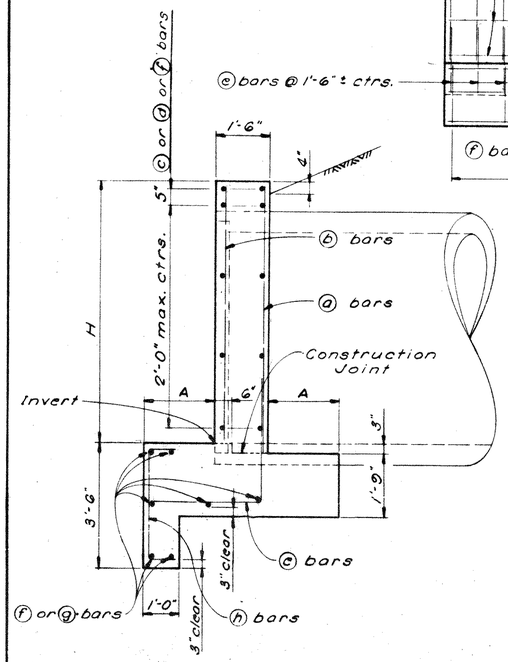
TYPE B-1



PLAN



DEVELOPED ELEVATION



TYPICAL SECTION

TYPE B-2

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

HEADWALL DETAILS

GUERNSEY COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
FWD	FWD					

STRUCTURE Nº GUE-40-1754 Lt.

TYPE	B-2
Pipe Size (I.D.)	42"
θ	15°
H	4'~9"
L_1	8'~10"
L_2	7'~1"
L_3	2'~5"
A	1'~3"
Concrete (C.Y.)	9
Reinf. Steel (Lb.)	476

REINFORCING STEEL

Bar	Size	Nº	Type	Length	B	C	D	Weight	Shape
a	6	10		4'~10"				72	st.
b	5	5		4'~7"				24	st.
c	5	4	1	9'~4"	1'~11"	7'~5"		39	bt.
d	5	6		4'~3"				27	st.
e	6	10	2	5'~7"	2'~5"	3'~4"		84	bt.
f	5	17		6'~11"				123	st.
g	5	7	1	10'~7"	1'~11"	8'~8"		77	bt.
h	5	7	3	4'~1"	8"	3'~0"	8"	30	bt.

STRUCTURE Nº GUE-40-1754 Rt.

TYPE	B-2
Pipe Size (I.D.)	42"
θ	28°
H	4'~9"
L_1	7'~3"
L_2	7'~11"
L_3	3'~10"
A	1'~3"
Concrete (C.Y.)	9
Reinf. Steel (Lb.)	452

REINFORCING STEEL

Bar	Size	Nº	Type	Length	B	C	D	Weight	Shape
a	6	10		4'~10"				72	st.
b	5	5		4'~7"				24	st.
c	5	4	1	6'~4"	1'~11"	4'~5"		26	bt.
d	5	6		2'~8"				17	st.
e	6	10	2	5'~7"	2'~5"	3'~4"		84	bt.
f	5	17		7'~9"				137	st.
g	5	7	1	9'~0"	1'~11"	7'~1"		66	bt.
h	5	6	3	4'~1"	8"	3'~0"	8"	26	bt.

STRUCTURE Nº GUE-40-1820 Lt.

TYPE	B-2
Pipe Size (I.D.)	60"
θ	17°~30'
H	6'~4"
L_1	11'~10"
L_2	10'~8"
L_3	4'~2"
A	1'~9"
Concrete (C.Y.)	16
Reinf. Steel (Lb.)	690

REINFORCING STEEL

Bar	Size	Nº	Type	Length	B	C	D	Weight	Shape
a	6	13		6'~5"				125	st.
b	5	7		6'~2"				45	st.
c	5	4	1	10'~7"	1'~11"	8'~8"		44	bt.
d	5	6		5'~6"				34	st.
e	6	13	2	6'~1"	2'~11"	3'~4"		119	bt.
f	5	17		10'~6"				186	st.
g	5	7	1	13'~7"	1'~11"	11'~8"		99	bt.
h	5	9	3	4'~1"	8"	3'~0"	8"	38	bt.

STRUCTURE Nº GUE-40-1880 Rt.

TYPE	B-2
Pipe Size (I.D.)	72"
θ	24°
H	7'~5"
L_1	13'~5"
L_2	13'~4"
L_3	5'~10"
A	2'~0"
Concrete (C.Y.)	21
Reinf. Steel (Lb.)	880

REINFORCING STEEL

Bar	Size	Nº	Type	Length	B	C	D	Weight	Shape
a	6	15		7'~6"				169	st.
b	5	8		7'~3"				60	st.
c	5	4	1	10'~6"	1'~11"	8'~7"		44	bt.
d	5	8		5'~11"				49	st.
e	6	15	2	6'~4"	3'~2"	3'~4"		143	bt.
f	5	19		13'~2"				261	st.
g	5	7	1	15'~2"	1'~11"	13'~3"		111	bt.
h	5	10	3	4'~1"	8"	3'~0"	8"	43	bt.

STRUCTURE Nº GUE-40-2369 Rt.

TYPE	B-2
Pipe Size (I.D.)	72"
θ	10°
H	7'~5"
L_1	16'~5"
L_2	12'~3"
L_3	2'~10"
A	2'~0"
Concrete (C.Y.)	22
Reinf. Steel (Lb.)	962

REINFORCING STEEL

Bar	Size	Nº	Type	Length	B	C	D	Weight	Shape
a	6	16		7'~6"				180	st.
b	5	9		7'~3"				68	st.
c	5	4	1	16'~6"	1'~11"	14'~7"		69	bt.
d	5	8		8'~11"				74	st.
e	6	16	2	6'~4"	3'~2"	3'~4"		152	bt.
f	5	19		12'~1"				239	st.
g	5	7	1	18'~2"	1'~11"	16'~3"		133	bt.
h	5	11	3	4'~1"	8"	3'~0"	8"	47	bt.

STRUCTURE Nº GUE~40~1950 Lt.

TYPE	B-1
Pipe Size (I.D.)	24"
θ	42°~30'
H	6'~6"
L_1	4'~2"
L_2	7'~0"
L_3	3'~3"
A	~0~
Concrete (C.Y.)	6
Reinf. Steel (Lb.)	225

REINFORCING STEEL

Bar	Size	Nº	Type	Length	B	C	D	Weight	Shape
a	5	7		6'~6"				47	st.
b	5	7		6'~2"				45	st.
c	5	10	1	5'~11"	1'~11"	4'~0"		62	bt.
d	5	10		6'~10"				71	st.

STRUCTURE Nº

TYPE	
Pipe Size (I.D.)	
θ	
H	
L_1	
L_2	
L_3	
A	
Concrete (C.Y.)	
Reinf. Steel (Lb.)	

REINFORCING STEEL

Bar	Size	Nº	Type	Length	B	C	D	Weight	Shape

STRUCTURE Nº

TYPE	
Pipe Size (I.D.)	
θ	
H	
L_1	
L_2	
L_3	
A	
Concrete (C.Y.)	
Reinf. Steel (Lb.)	

REINFORCING STEEL

Bar	Size	Nº	Type	Length	B	C	D	Weight	Shape

STRUCTURE Nº

TYPE	
Pipe Size (I.D.)	
θ	
H	
L_1	
L_2	
L_3	
A	
Concrete (C.Y.)	
Reinf. Steel (Lb.)	

REINFORCING STEEL

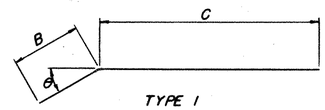
Bar	Size	Nº	Type	Length	B	C	D	Weight	Shape

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

556 638

GUERNSEY COUNTY
GUE-40-17.37

BENDING DIAGRAM



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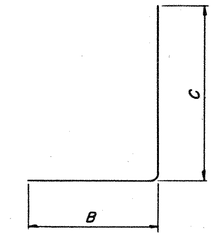

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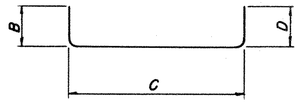

TYPE 3

REPLACEMENT STEEL

Bar Size	Nº	Length	Shape
5	1	5'~7"	st.
6	1	5'~11"	st.

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CONSULTING ENGINEERS
COLUMBUS, OHIO

HEADWALL DIMENSIONS and ESTIMATED QUANTITIES

GUERNSEY COUNTY

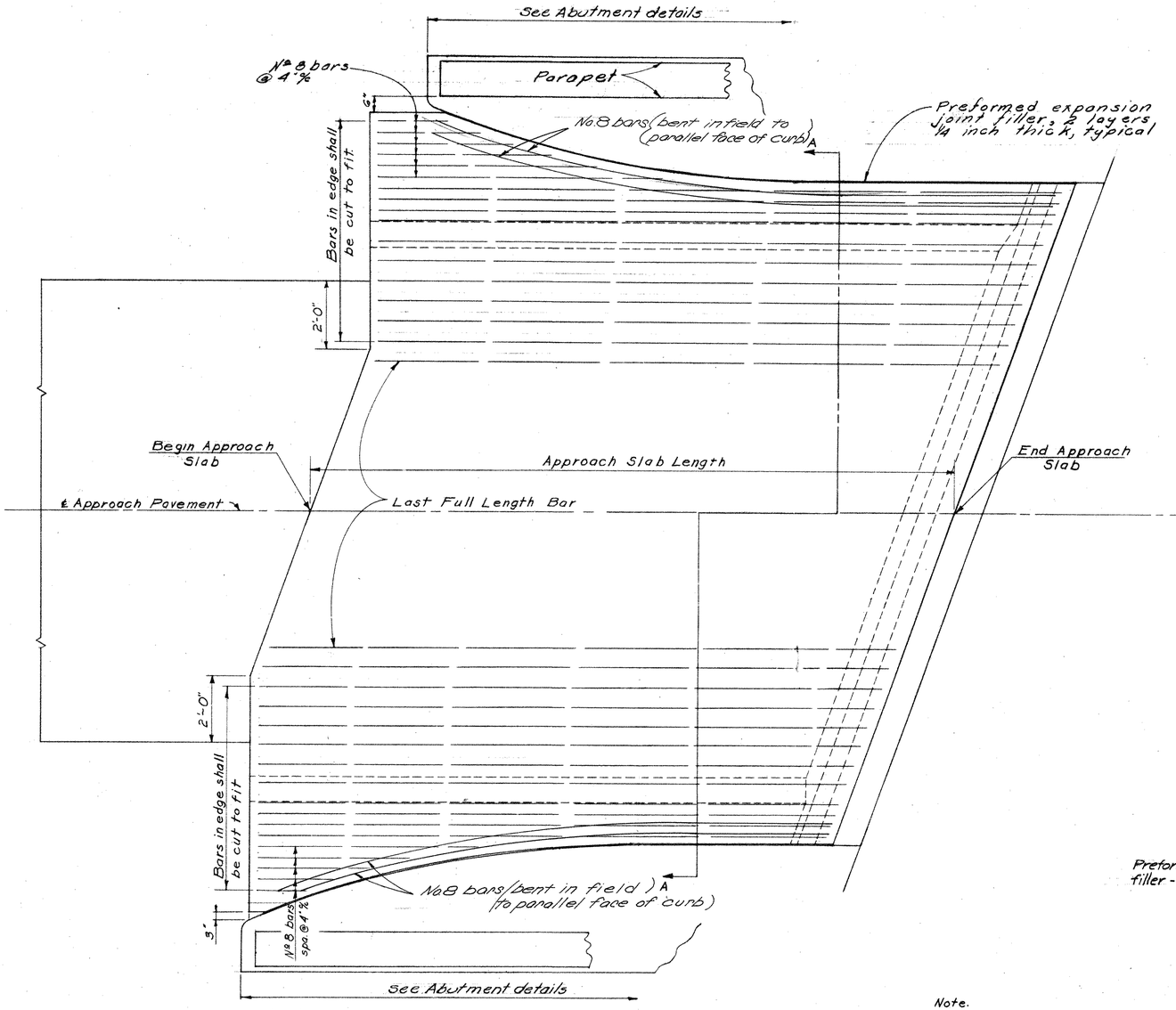
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.RF			G.W.J.			

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

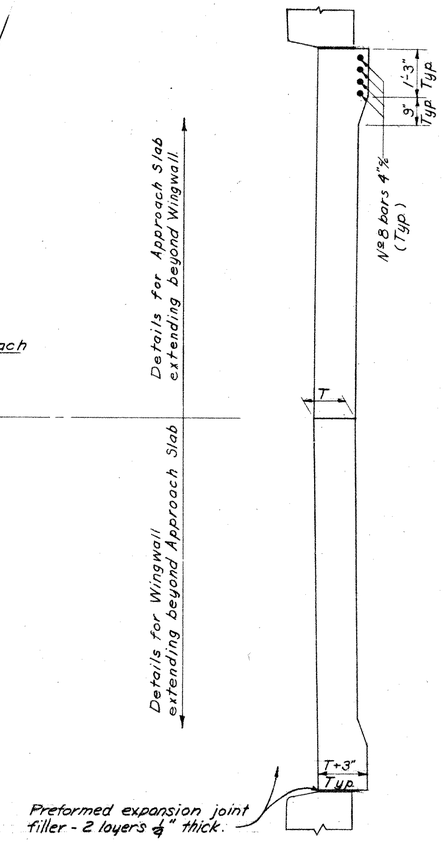
557
638

GUERNSEY COUNTY
GUE-40-17.37

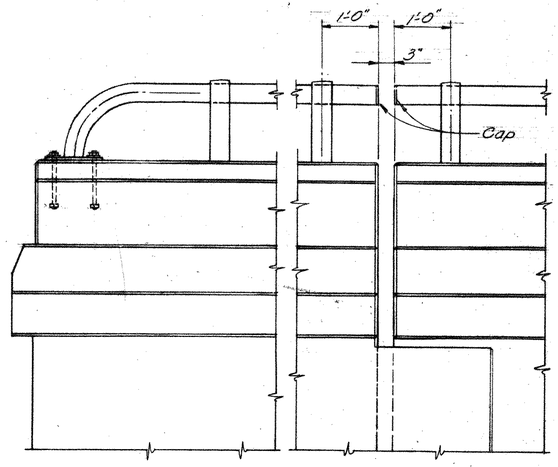
MICROFILMED
JUL 25 1985



PLAN



SECTION A-A



ELEVATION

Note.

Transverse Steel shall be placed parallel to the skew and cut to fit.

Reference shall be made to Standard Drawing AS 1-54 revised 7-5-62 for details not shown.

Preformed Expansion Joint Filler shall be included with the approach slab for payment.

I-22, the same thickness as on the approach roadway, shall be used under the entire area of the approach slab.

CONTINUOUS STEEL BEAM BRIDGE END RAILING DETAILS

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

COMMON DETAILS

GUERNSEY COUNTY

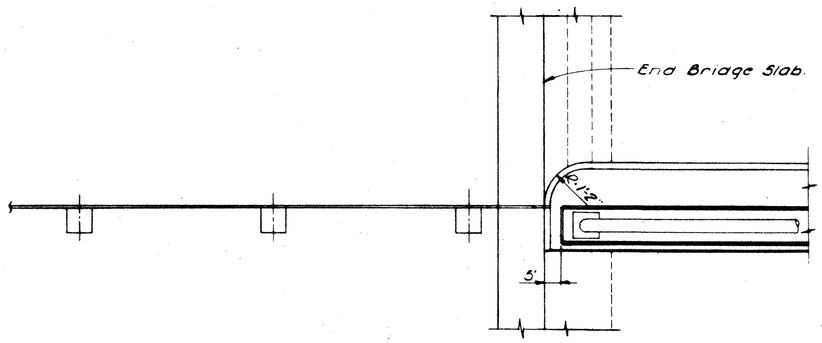
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISI
				TLU	2-12-63	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

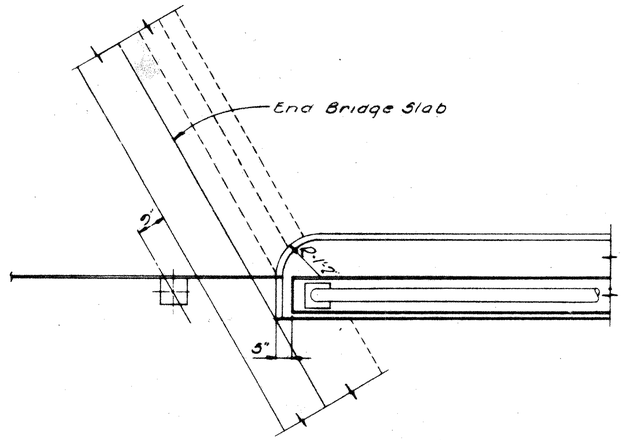
558
638

MICROFILMED
JUL 25 1985

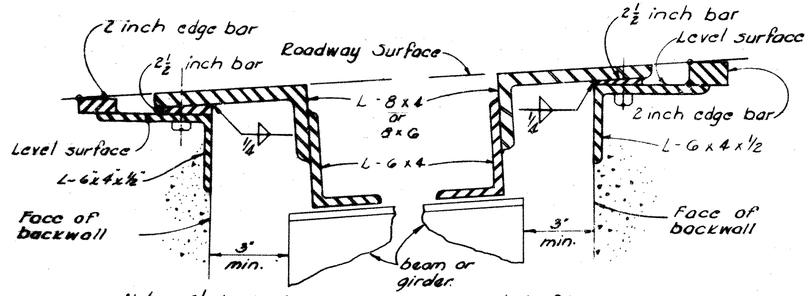
GUERNSEY COUNTY
GUE -40-17.37



PARTIAL PLAN



PARTIAL PLAN



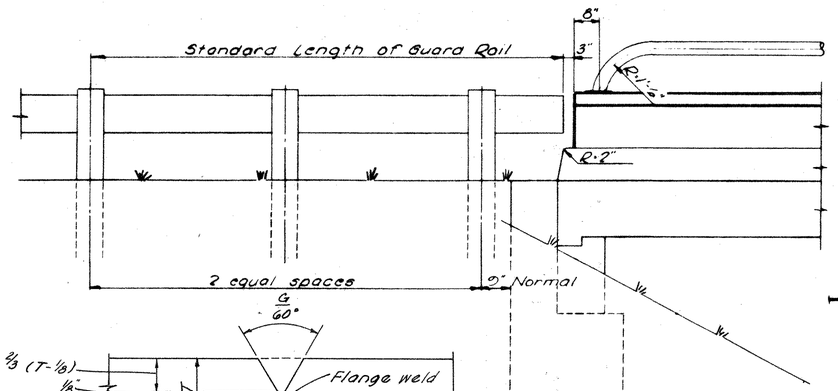
Notes: 2½ inch bar shall be beveled to fit slope of roadway surface. Minimum thickness shall be ¼" inch.

Thickness of the 2 inch edge bar shall be determined by slope of roadway surface.

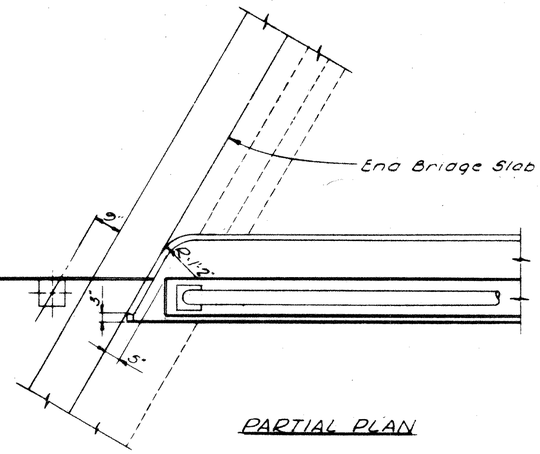
For additional details see section C-C, Standard Drawing CSB-2-56, sheet 2

END FINISH DETAIL

(To be used only where the roadway profile gradient at the end finish exceeds 2%.)

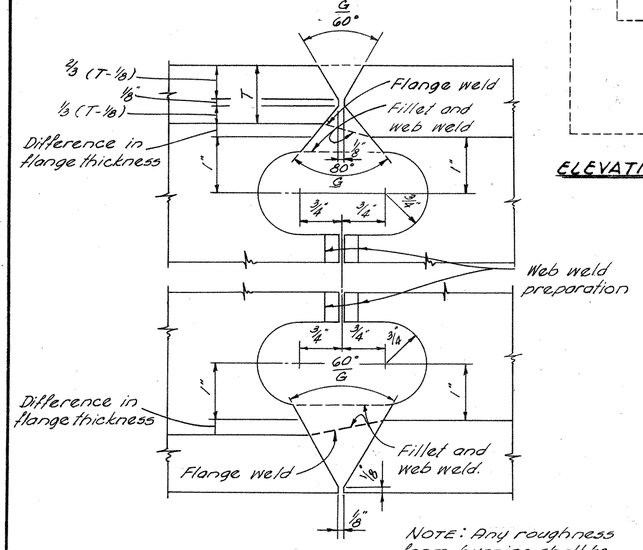


ELEVATION



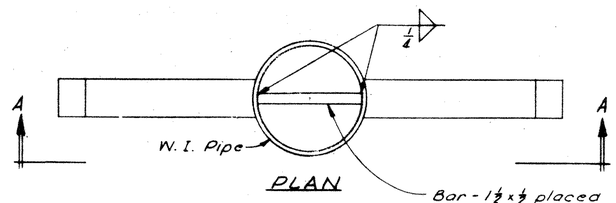
PARTIAL PLAN

CURB and PARAPET DETAILS for CONCRETE SLAB STRUCTURES with STRAIGHT WINGWALLS

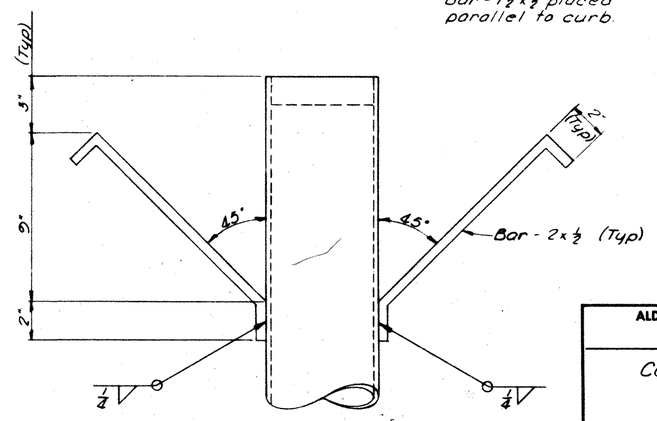


Note: Any roughness from burning shall be removed by grinding.

END PREPARATION of ROLLED BEAMS for FIELD WELDING



PLAN



VIEW A-A

SCUPPER DETAILS for CONCRETE SLAB STRUCTURES

(6" dia. or larger)

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

COMMON DETAILS

GUERNSEY COUNTY

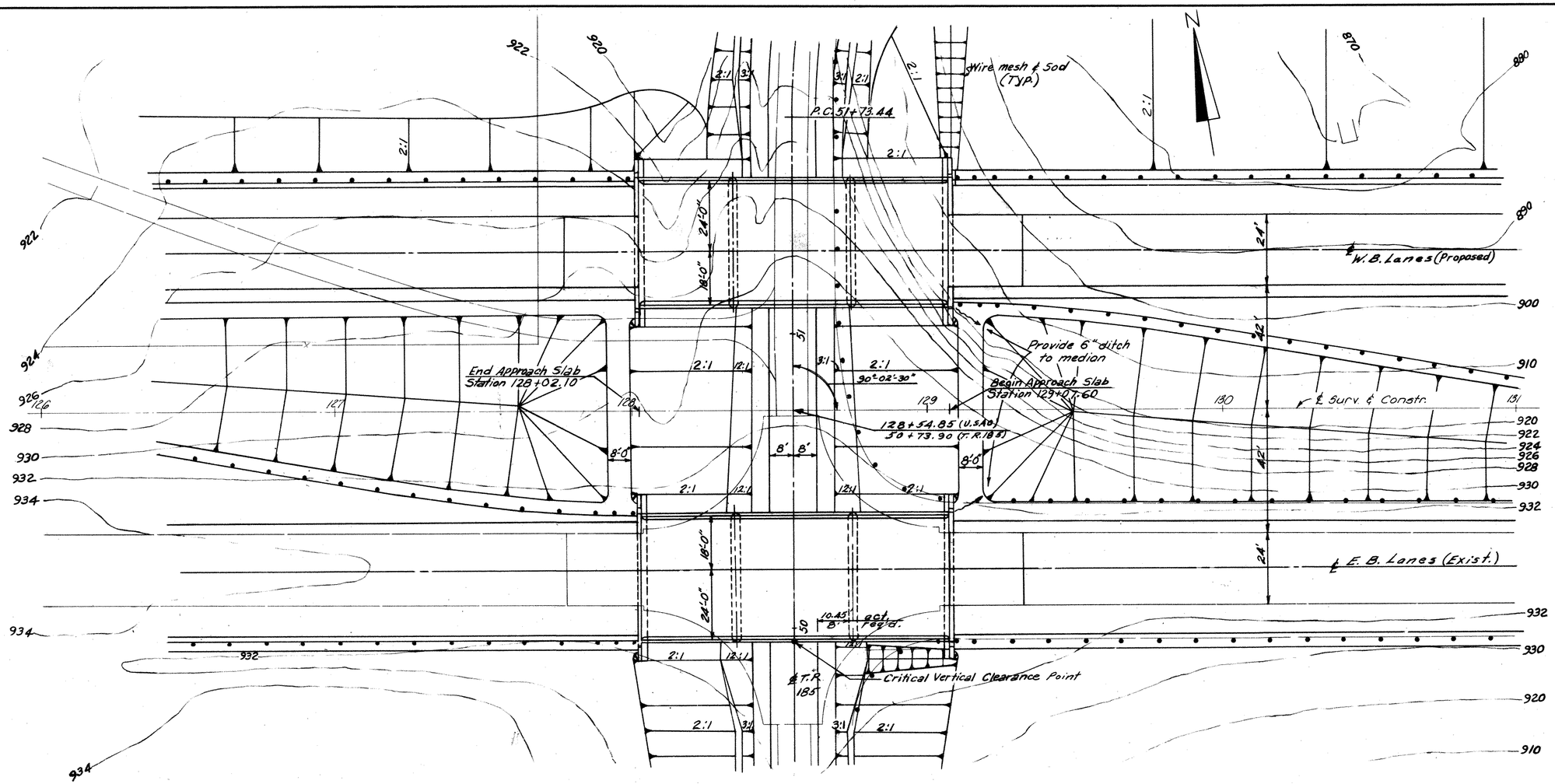
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
FWA	FWA			TLU	2-12-63	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

559
638

MICROFILMED
JUL 25 1966

GUERNSEY COUNTY
GUE-40-17.37



PLAN

Elevations Along Profile Grade			
Stations	E. Bound	W. Bound	E. Bound
126+00	934.78	934.74	–
127+00	933.99	933.90	–
128+00	933.16	933.09	933.17
129+00	932.55	932.53	932.54
130+00	931.89	932.25	–
131+00	931.91	932.25	–
	Existing Elevations	Proposed Elevations	Proposed Elevations

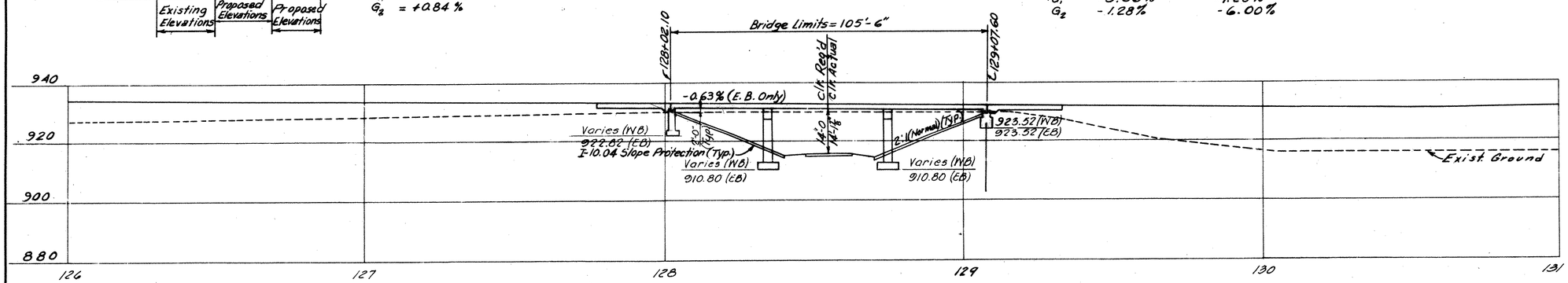
VERTICAL CURVE DATA OF US-40
(For West Bound Lanes only)

P.V.I. = 130+50
V.C. = 600 ft
Elev. = 930.96
Corr. = 1.26
P.G. = 932.22
G_1 = -0.84 %
G_2 = +0.84 %

VERTICAL CURVE DATA TR 185

PVI	49+10.30	51+25.00
VC	150'	200'
Elev.	918.05	915.30
Corr.	+0.71'	-1.18'
P.G.	918.76	914.12
G_1	-5.06%	-1.28%
G_2	-1.28%	-6.00%

Note:
All piles shall be 10 BP42
Estimated average pile length shall be:
E.B. Abut. – 12'
W.B. Abut. – varies from 25' to 45'



PROFILE ALONG ℄ U.S. 40

PROPOSED TWIN STRUCTURES

TYPE : Continuous Reinforced Concrete Slab and Reinforced Concrete Substructure
SPANS : 32' – 40' – 32' (℄ Bearings)
ROADWAY : 42' f/f of parapets with Aluminum Railing and 1'-2" curbs
LOADING : CF-2000 (1957) Adequate for AASHO alternate loading
WEARING SURFACE : 1" monolithic concrete
SKEW : None
ALIGNMENT : Tangent
APPROACH SLABS : AS-1-54, 25' long

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

SITE PLAN

BRIDGE No. GUE-40-1845 L&R
U.S. 40 over T.R. 185

GUERNSEY COUNTY

STA. 128+02.10
STA. 129+07.60

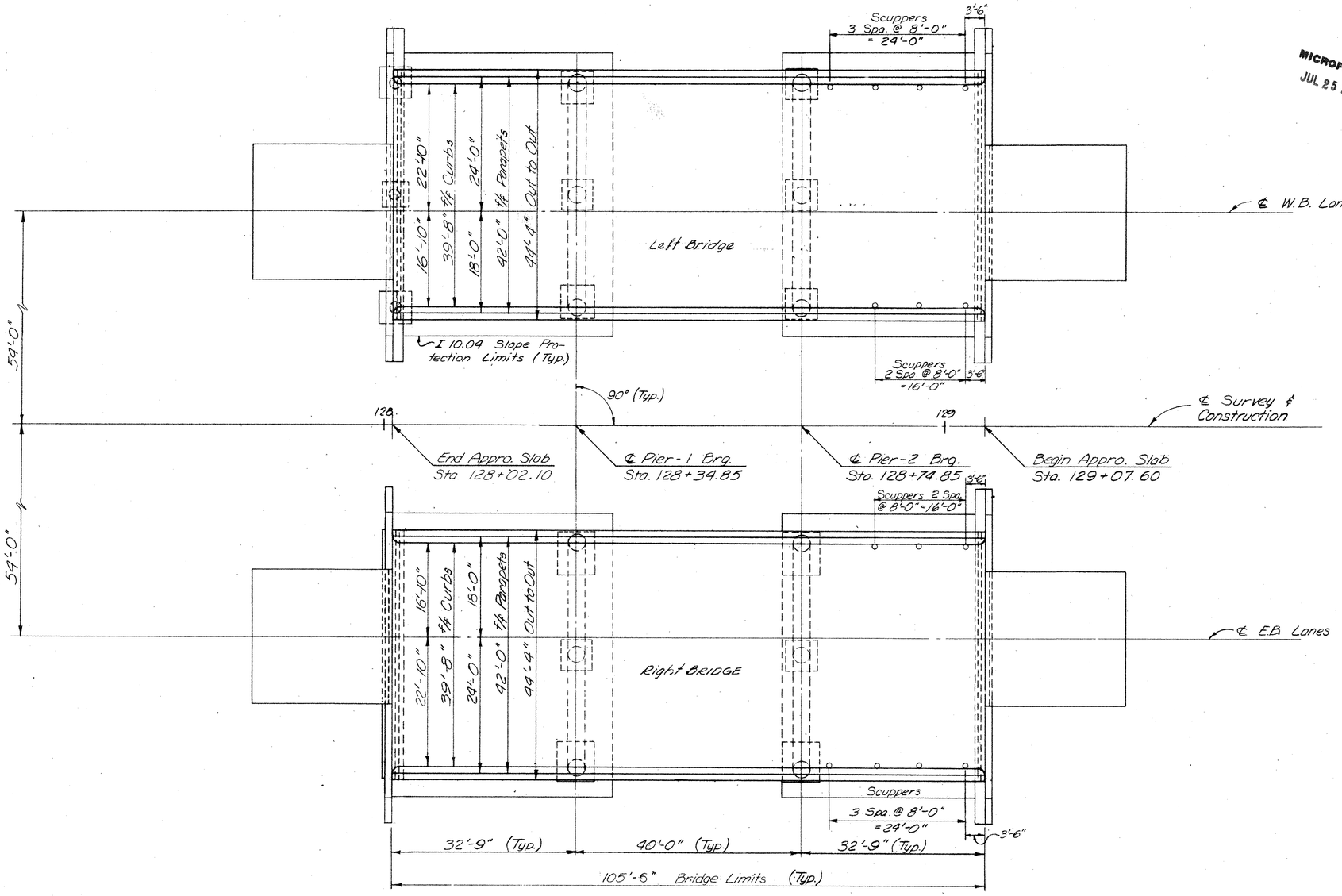
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.T.	R.T.	J.C.W.	T.L.V.	T.L.V.	2-11-69	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

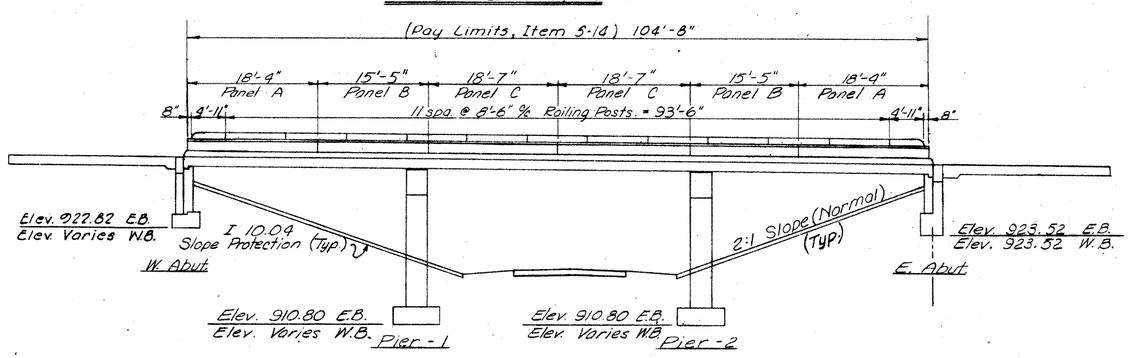
560
630

GUERNSEY COUNTY
GUE-40-1737

MICROFILMED
JUL 25 1985



GENERAL PLAN



GENERAL ELEVATION

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

GENERAL PLAN & ELEVATION

BRIDGE NO. GUE-40-1845 L&R

U.S. 40 OVER T.R. 185

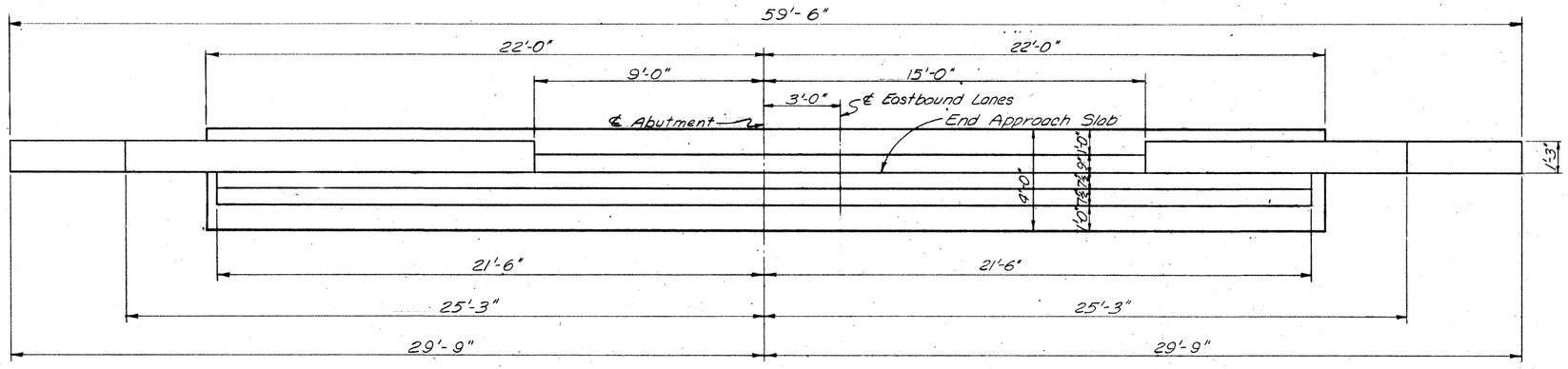
GUERNSEY COUNTY STA. 128+02.10 STA. 129+07.60

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
FWD	DWH		GEA	TLU	2-11-63	

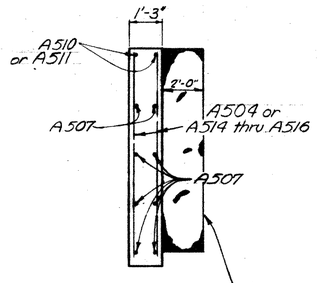
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

561
638

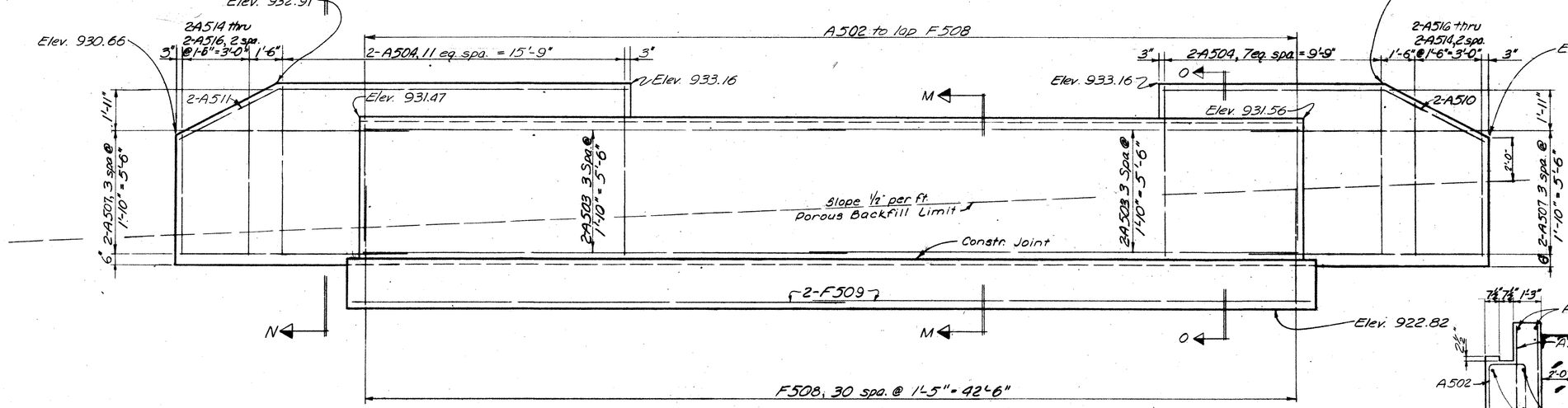
GUERNSEY COUNTY
GUE - 40 - 17.37



PLAN

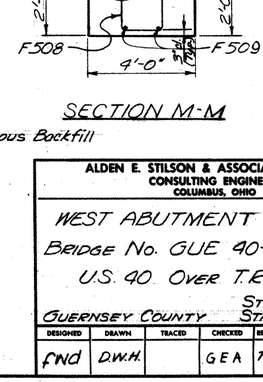


SECTION N-N

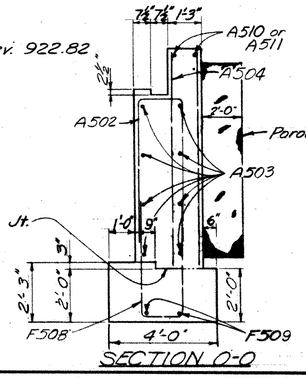


ELEVATION

Note: Porous backfill shall extend upward to the approach slab or stabilized shoulder and to the surface of the earth shoulders and outward to the surface of the embankment slopes. Excavation, therefor, in excess of that required for construction of the abutment, shall be considered as paid for in the bid price per cu. yd. paid for porous backfill.



SECTION M-M



SECTION O-O

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

WEST ABUTMENT
BRIDGE NO. GUE 40-1895 R
U.S. 40 OVER T.R. 185
STA. 128+02.10
GUERNSEY COUNTY STA. 129+07.60

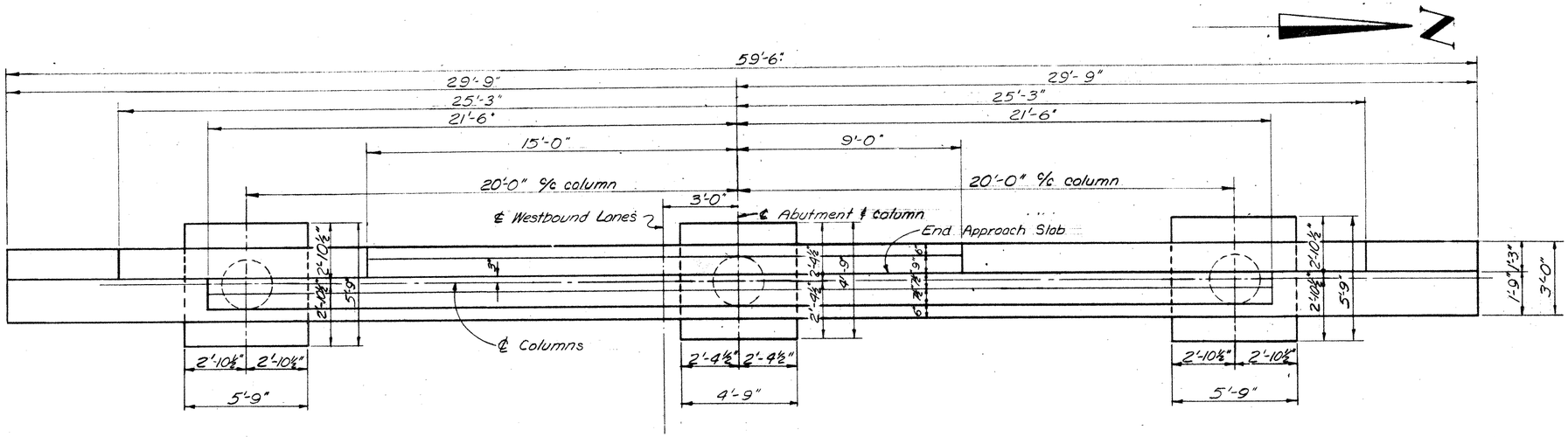
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
FND	D.W.H.		GEA	TLU	2-14-63	

MICROFILMED
JUL 25 1985

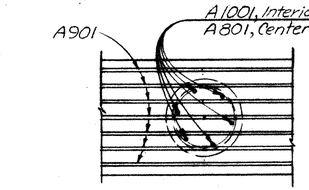
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

562
638

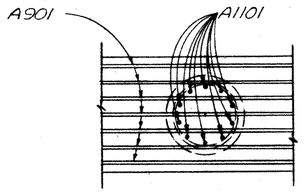
GUERNSEY COUNTY
GUE-90-17.37



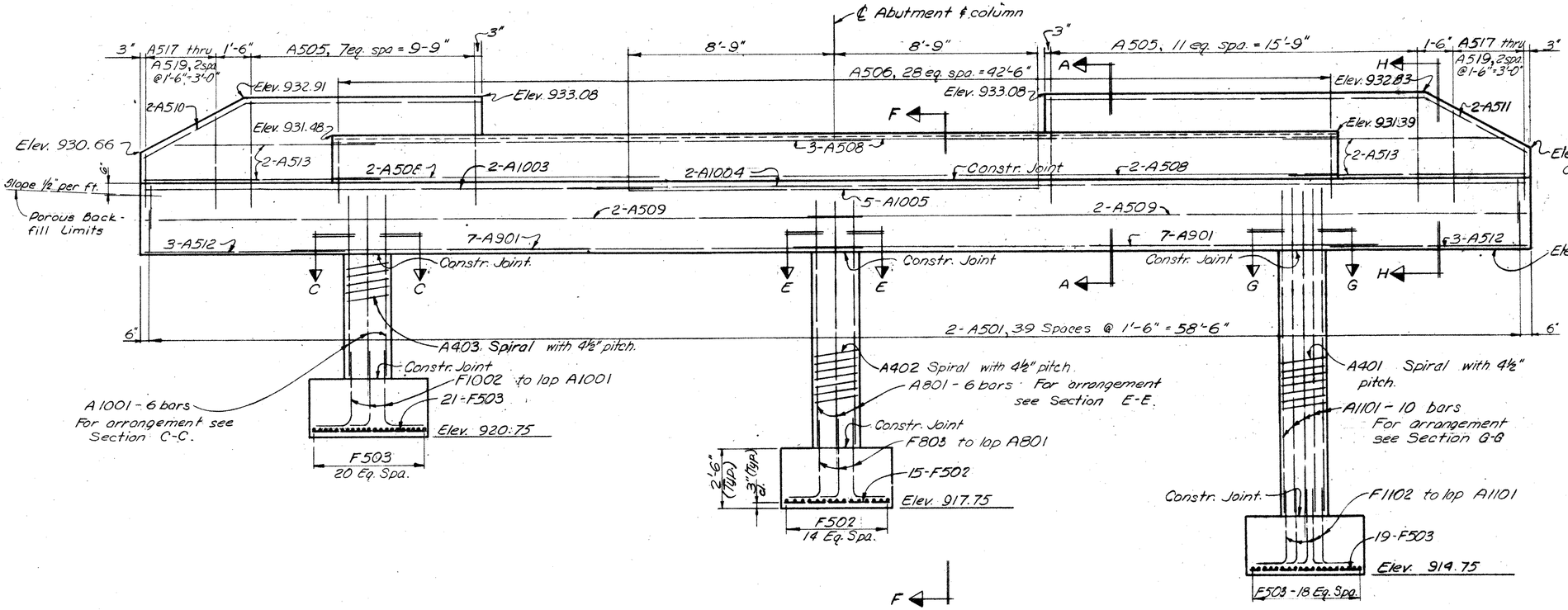
PLAN



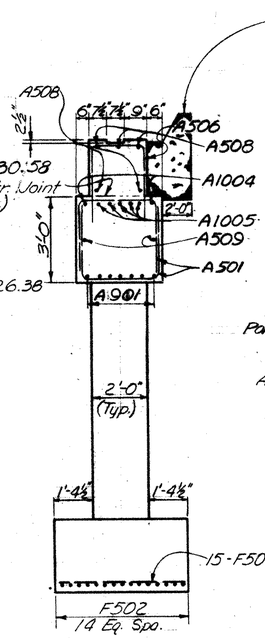
SECTIONS C-C & EE



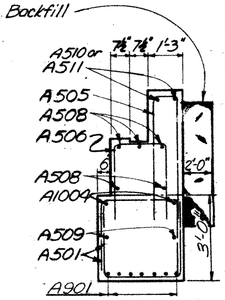
SECTION G-G



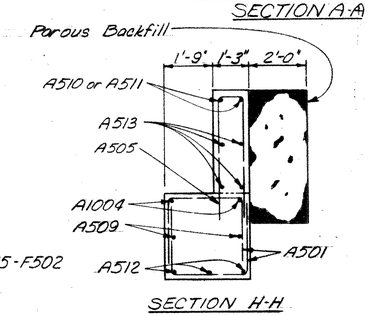
ELEVATION



SECTION F-F



SECTION A-A



SECTION H-H

NOTE:
Concrete above footings shall be Class "C"
For additional notes see Sheet 561

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

WEST ABUTMENT
BRIDGE NO. GUE 90-1845 L
U.S. 90 OVER T.R. 185
STA. 128+02.10
GUERNSEY COUNTY STA. 129+07.60

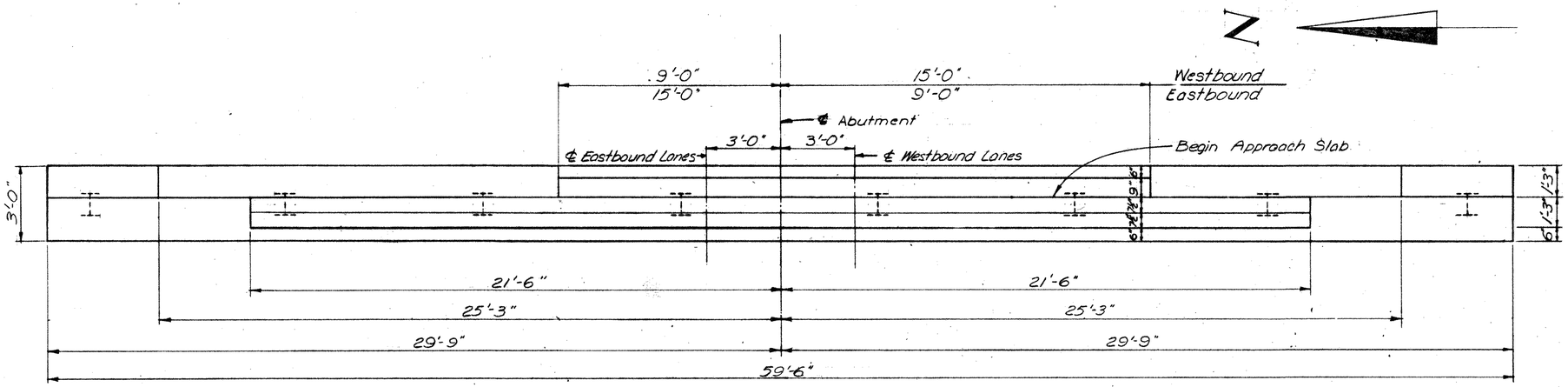
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
PWD	DWH		GEA	TLU 2-11-63		

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

563
630

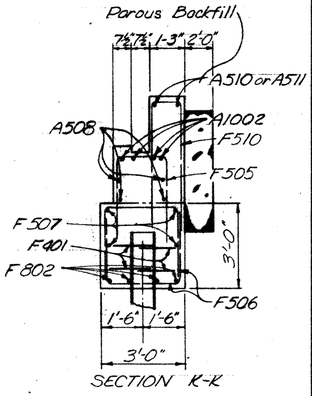
GUERNSEY COUNTY
GUE-40-17.37

MICROFILMED
JUL 25 1965

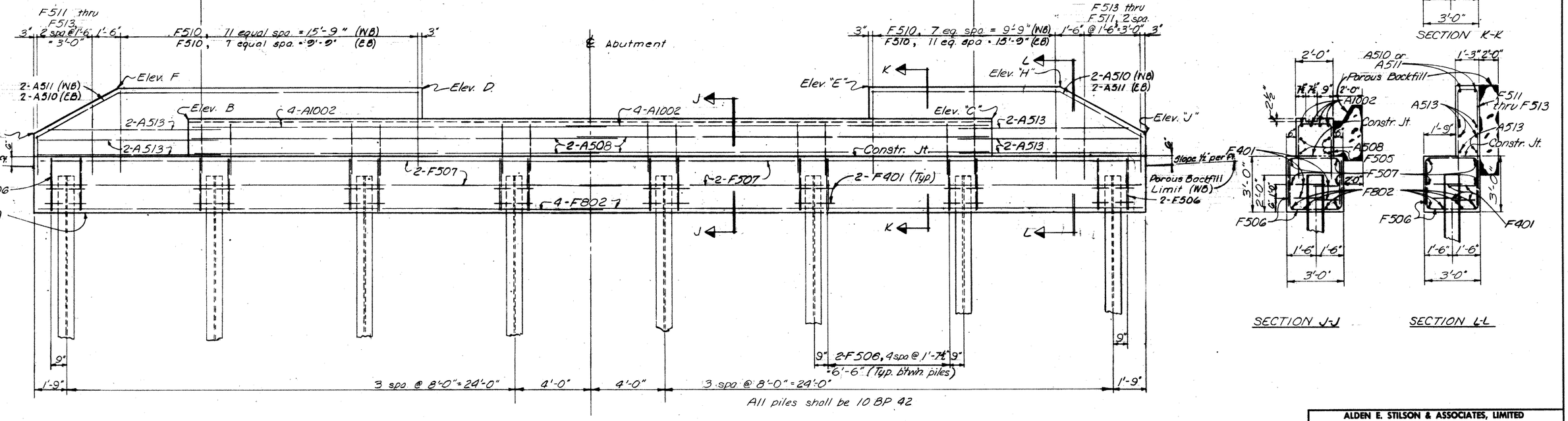


PLAN

Elev.	Eastbound	Westbound
A	923.52	923.52
B	930.89	930.81
C	930.80	930.90
D	932.49	932.50
E	932.49	932.50
F	932.33	932.25
G	930.08	930.00
H	932.24	932.34
J	929.99	930.09



SECTION K-K



All piles shall be 10 BP 42

ELEVATION

SECTION J-J

SECTION L-L

Note:
For additional notes see Sheet 561
WB indicates Westbound
EB indicates Eastbound

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

EAST ABUTMENTS
BRIDGE NO. GUE 90 1895 L&R
U.S. 90 OVER T.R. 185
GUERNSEY COUNTY
STA. 128+02.10
STA. 129+07.60

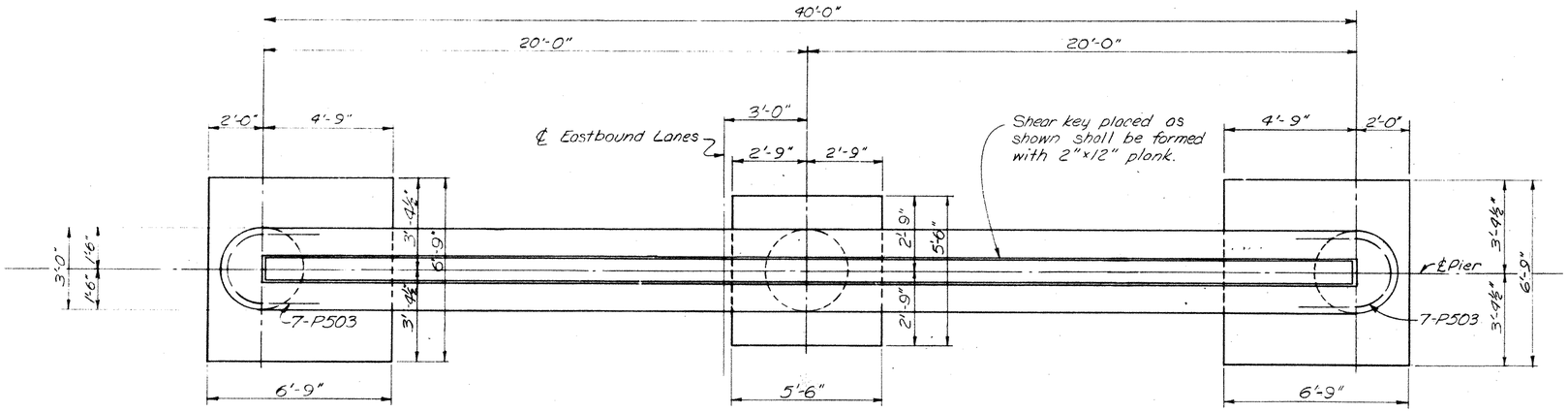
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
FND	DWH		GEA	TLU	2-1-63	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

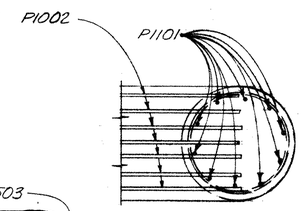
564
638

GUERNSEY COUNTY
GUE - 40 - 17.37

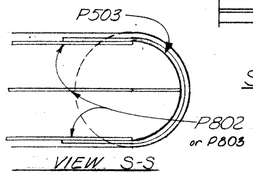
MICROFILMED
JUL 25 1963



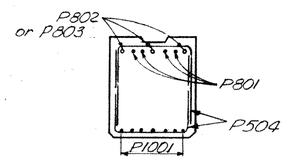
PLAN



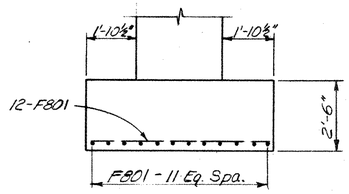
SECTION R-R

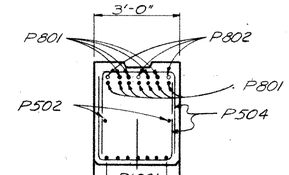


VIEW S-S

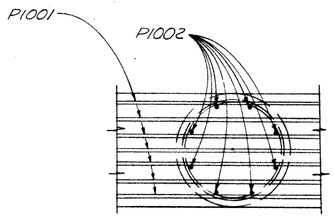


SECTION P-P

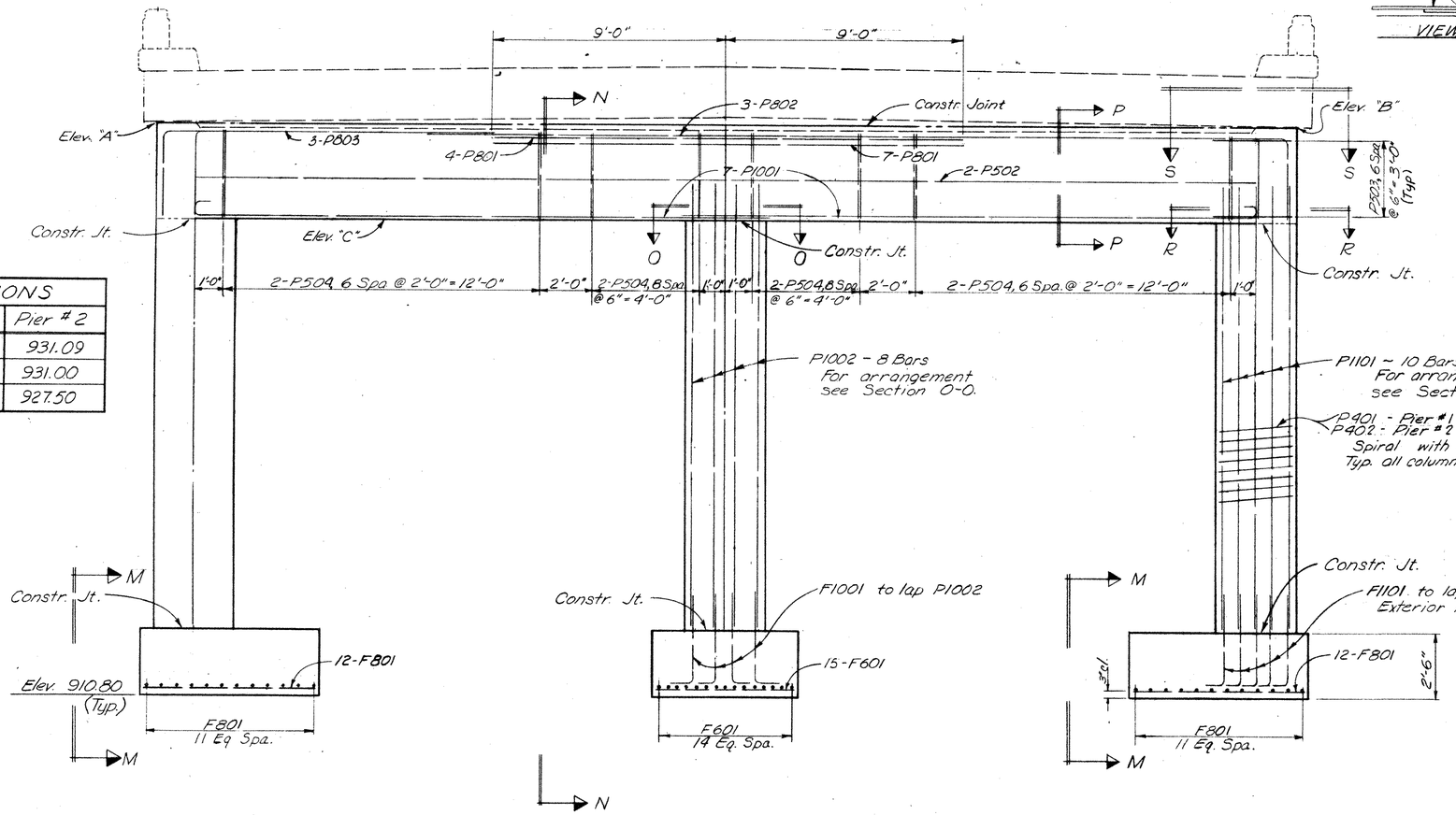




VIEW M-M

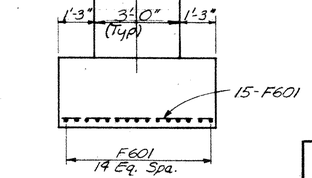


SECTION O-O



ELEVATION

ELEVATIONS		
	Pier # 1	Pier # 2
A	931.34	931.09
B	931.25	931.00
C	927.75	927.50



SECTION N-N

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

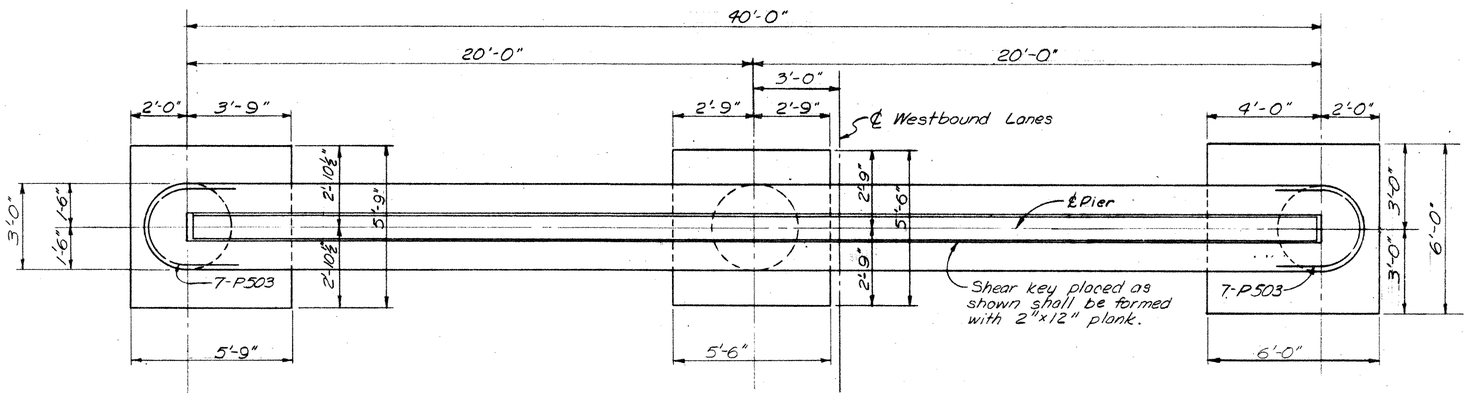
PIERS 1 & 2
BRIDGE NO. GUE - 40 - 1845 R
U.S. 40 OVER T.R. 185
STA. 128+02.10
GUERNSEY COUNTY STA. 129+07.60

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
fwd	DWH		GEA	TLU 2-11-63		

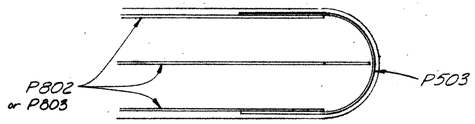
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

565
638

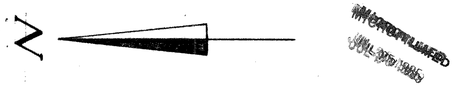
GUERNSEY COUNTY
GUE-40-17.37

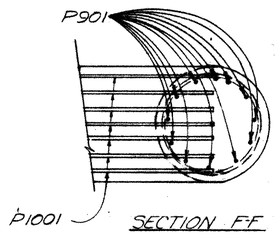


PLAN

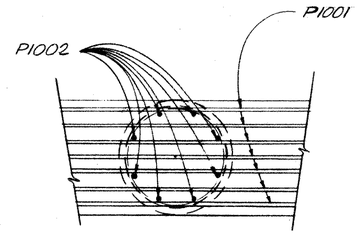


VIEW H-H

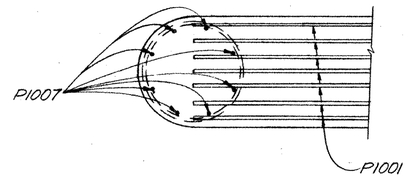




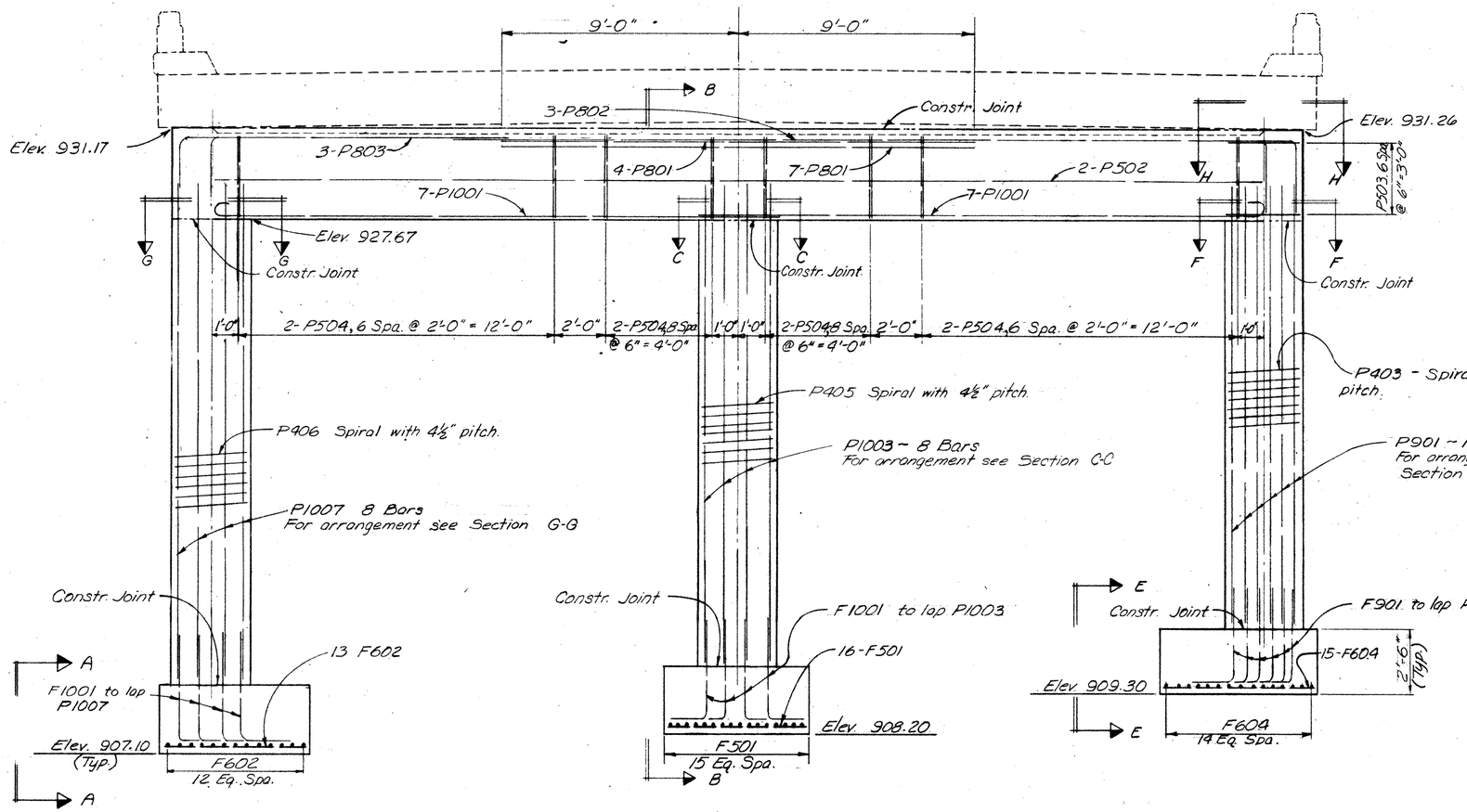
SECTION F-F



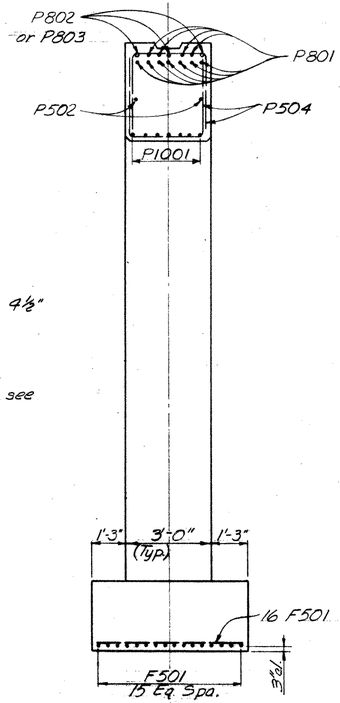
SECTION C-C



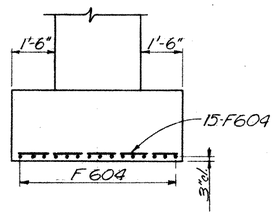
SECTION G-G



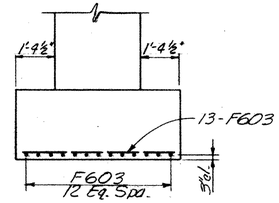
ELEVATION



SECTION B-B



VIEW E-E



VIEW A-A

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

PIER #1

BRIDGE NO. GUE-40-1845 L
U.S. 40 OVER T.R. 185
STA. 128+02.10
GUERNSEY COUNTY STA. 129+07.60

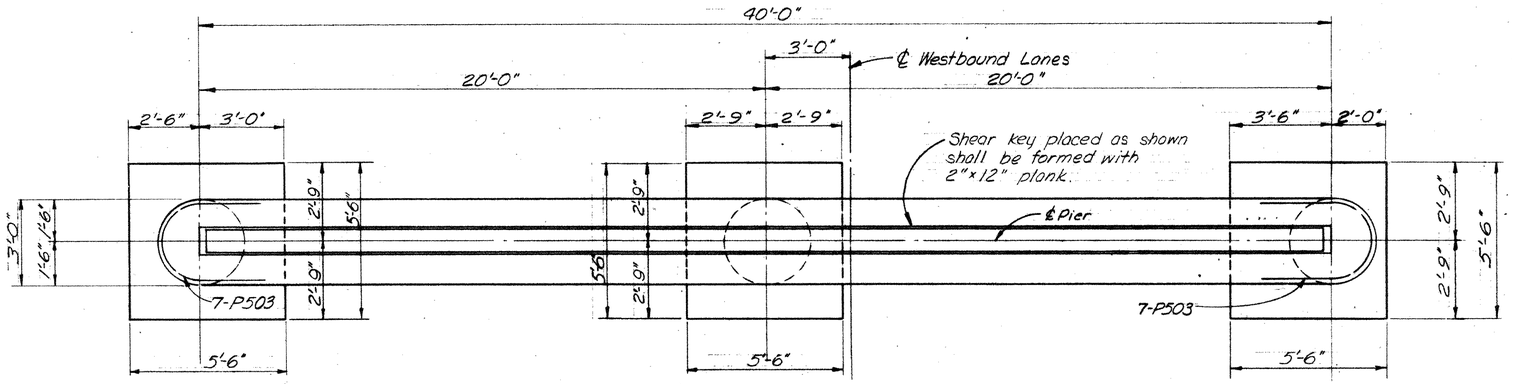
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
FWA	DWH		GEA	TLU	2-11-63	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

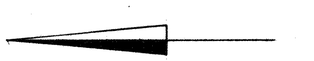
566
638

GUERNSEY COUNTY
GUE-40-17.37

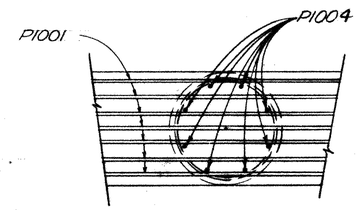
MICROFILMED
JUL 25 1985



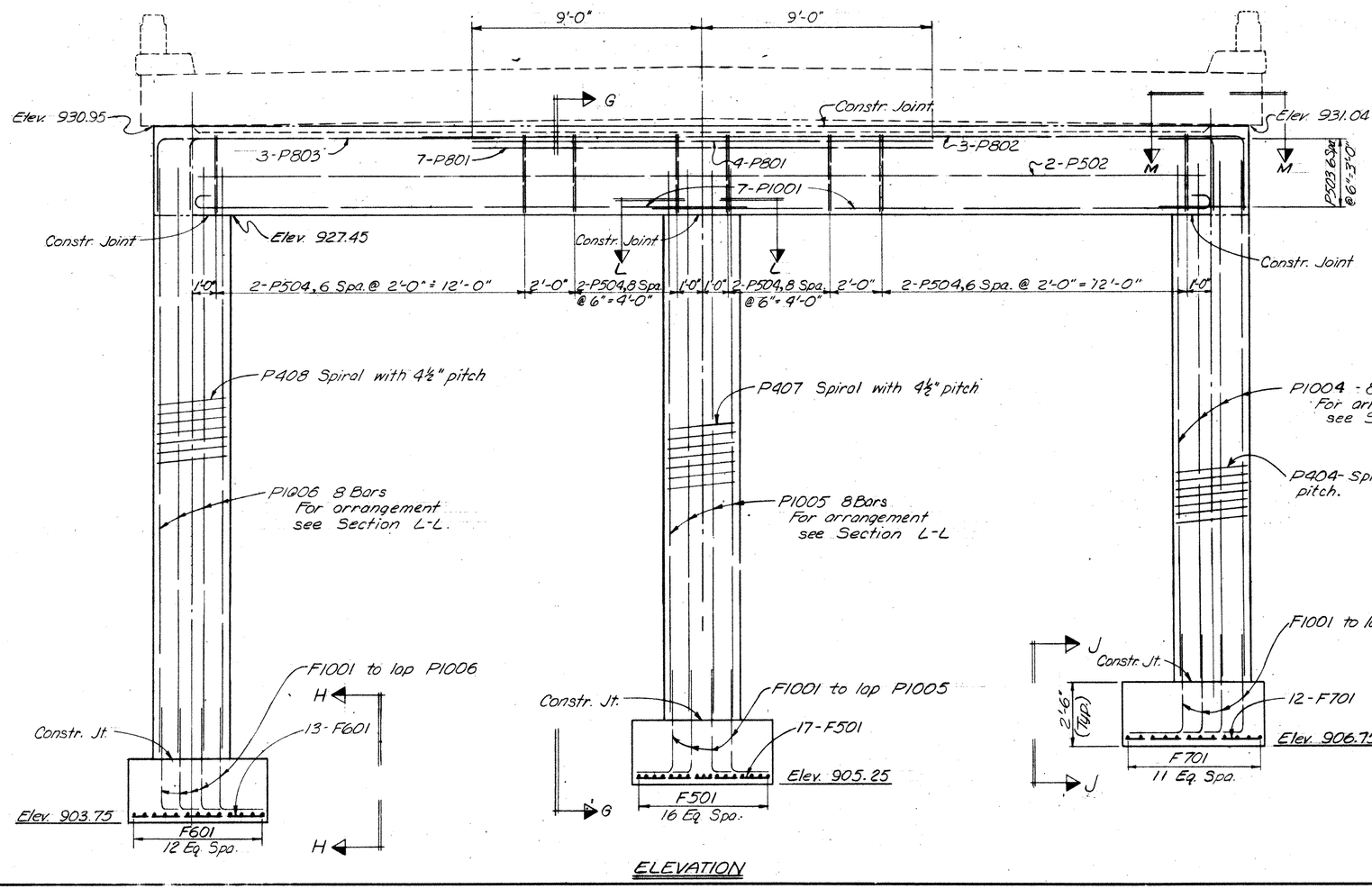
PLAN



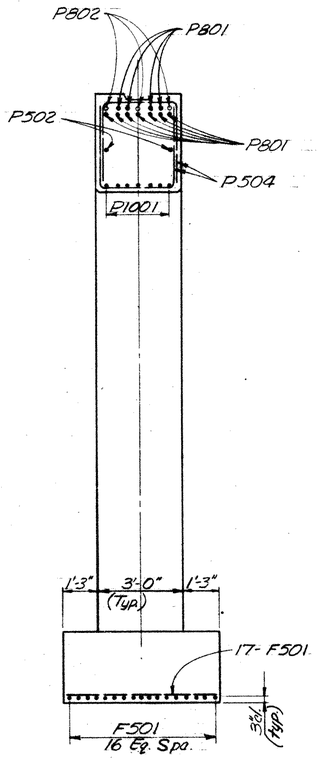
VIEW M-M



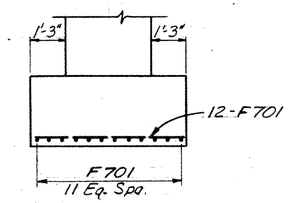
SECTION L-L



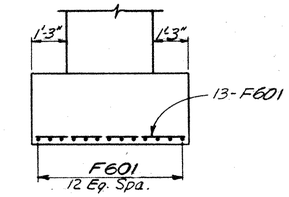
ELEVATION



SECTION G-G



VIEW J-J



VIEW H-H

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

PIER # 2

BRIDGE NO. GUE 90-1895 L.

U.S. 90 OVER T.R. 185

GUERNSEY COUNTY STA. ~~128+02.10~~ STA. 129+07.60

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
FWD	DWH		GEA	TLU	2-11-63	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

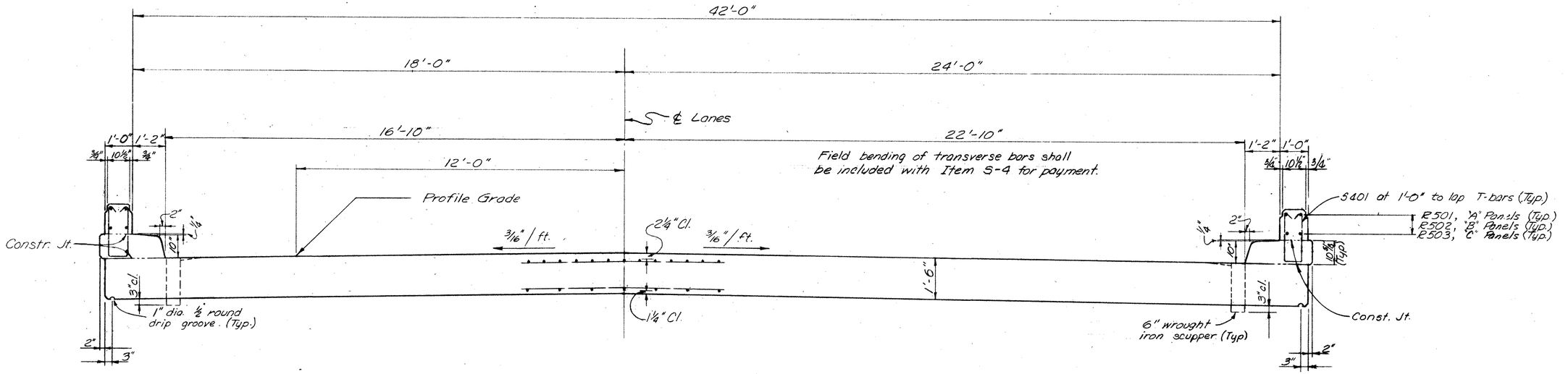
567
638

GUERNSEY COUNTY
GUE-40-17.37

MICROFILMED
JUL 25 1985

Note:
For additional size and placement of reinforcing steel and details, see Standard Drawing CS-2-54.
Slab thickness shown includes 1" monolithic concrete wearing surface.

Concrete parapet shall be included with Item S-14 for payment.



TRANSVERSE SECTION

Type "A" Railing not shown.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

TRANSVERSE SECTION
BRIDGE NO. GUE. 40-1845 L&R
U.S. 40 OVER T.R. 185
STA. 128+02.10
GUERNSEY COUNTY STA. 129+07.60

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
FWD	DWH		GEA	TLU	2-11-63	

MICROFILMED
JUL 25 1985

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

568
638

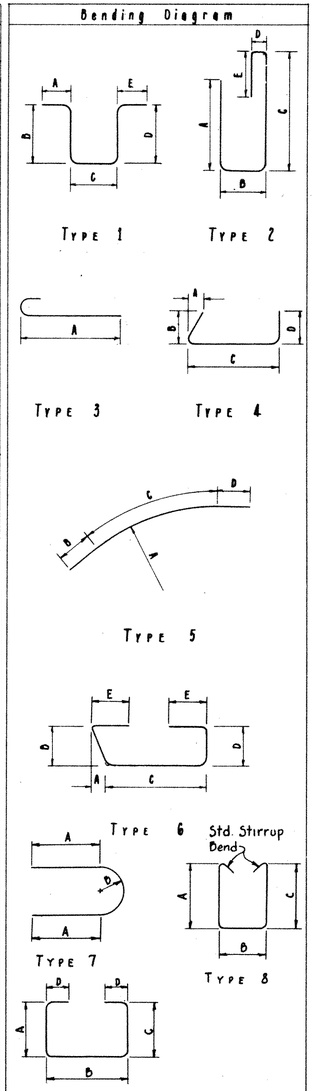
GUERNSEY COUNTY
GUE 40-17.37

REINFORCING STEEL LIST

Mark	No	Length	Weight	Type	"A"	"B"	"C"	"D"	"E"	Shape
			SUPERSTRUCTURE							
A1068	246	37-2	39,343							st.
B1068	72	27-3	8,443	3	25-10					bt.
C1068	72	24-2	7,487	3	22-9					bt.
D1068	36	24-4	3769							st.
E1068	36	18-8	2892							st.
F1068	164	27-5	19,398							st.
G1068	80	12-5	4274							st.
H1068	80	8-10	3041							st.
J601	84	20-5	2576							st.
K601	42	17-2	1083							st.
M701	388	22-11	18,175							st.
N601	268	22-9	9158							st.
O501	12	21-2	265							st.
P501	24	23-2	580							st.
R501	32	18-0	*							st.
R502	32	15-1	*							st.
R503	32	18-3	*							st.
R968	40	22-0	2992							st.
S401	420	5-2	1450	8	2-1	0-6	2-1			bt.
S501	500	5-6	2869	9	1-8	1-8	1-8	0-6		bt.
T501	500	2-9	1434	1		0-8	1-8	0-8		bt.
					PIERS					
F501	66	5-2	356							st.
F601	86	5-2	667							st.
F602	26	5-5	212							st.
F603	30	5-8	255							st.
F701	24	5-2	253							st.
F801	96	6-5	1645							st.
F901	12	6-0	245	1	1-3	5-0				bt.
F1001	56	6-5	1546	1	1-5	5-4				bt.
F1101	40	7-0	1488	1	1-8	5-8				bt.
P502	8	40-0	334							st.
P503	56	7-3	423	7	1-7	1-3½				bt.
P504	256	8-9	2336	1		3-2	2-8	3-2		bt.
P801	44	18-0	2115							st.
P802	12	35-4	1132	1	3-0	32-7				bt.
P803	12	15-4	491	1	3-0	12-7				bt.
P901	12	18-9	765							st.
P1001	56	23-0	5542	3	21-7					bt.
P1002	16	17-3	1188							st.
P1003	8	19-11	686							st.
P1004	8	21-2	729							st.
P1005	8	22-9	783							st.
P1006	8	24-2	832							st.
P1007	8	21-0	723							st.
P1101	40	17-3	3666							st.
					ABUTMENTS					
F401	64	5-4	228	1		1-11	1-9	1-11		bt.
F502	30	4-5	138							st.
F503	80	5-5	452							st.

Mark	No	Length	Weight	Type	"A"	"B" CONT'D.	"C"	"D"	"E"	Shape
			ABUTMENTS							
F505	54	9-11	559	1		4-3	1-8	4-3		bt.
F506	148	7-1	1093	1		2-4	2-8	2-4		bt.
F507	16	30-5	508							st.
F508	31	8-7	278	1		3-7	1-8	3-7		bt.
F509	4	22-8	95							st.
F510	40	14-8	612	1		7-0	0-11	7-0		bt.
F511	4	10-4		1		4-10	0-11	4-10		bt.
thru		varies by 1-6	148		by	varies 0-9	by	varies 0-9		
F513	4	13-4		1		6-4	0-11	6-4		bt.
F802	16	30-10	1317							st.
F803	6	5-7	89	1	1-2	4-8				bt.
F1002	6	6-5	166	1	1-5	5-4				bt.
F1102	10	7-0	372	1	1-8	5-8				bt.
A501	80	7-5	619	1		2-6	2-8	2-6		bt.
A502	31	13-5	434	1		6-0	1-8	6-0		bt.
A503	16	22-2	370							st.
A504	40	7-9	323							st.
A505	20	9-10	205	1		4-7	0-11	4-7		bt.
A506	29	7-7	229	1		3-1	1-8	3-1		bt.
A507	16	9-8	161							st.
A508	26	22-1	599							st.
A509	4	30-5	127							st.
A510	8	14-10	124	6	4-4	2-3	10-0			bt.
A511	8	20-10	174	6	4-4	2-3	16-0			bt.
A512	6	9-3	68							st.
A513	32	9-9	325							st.
A514	4	5-6								st.
thru	by	varies 0-9	78							
A516	4	7-0								st.
A517	2	5-6		1		2-5	0-11	2-5		bt.
thru	by	varies 1-6	44		by	varies 0-9	by	varies 0-9		
A519	2	8-6		1		3-11	0-11	3-11		bt.
A801	6	8-7	138							st.
A901	14	23-4	1111							st.
A1001	6	5-7	144							st.
A1002	16	22-11	1578							st.
A1003	2	29-6	211							st.
A1004	2	37-10	326							st.
A1005	5	17-6	377							st.
A1101	10	11-7	615							st.
			REPLACEMENT STEEL							
RE401	1	5-3								st.
RE501	1	5-7								st.
RE601	1	5-11								st.
RE701	1	6-2								st.
RE801	1	6-6								st.
RE901	1	6-10								st.
RE1001	6	7-2								st.
RE1101	1	7-6								st.
			REPLACEMENT STEEL FOR SPIRALS							
RE402	1	5-3		5	1-3½		5-3			bt.

Bending Diagram



NOTE:
In the reinforcing steel bar marks, the first digit where three digits are used and the first two where four are used is the bar number which indicates the size of the bar.

ESTIMATED QUANTITIES FOR TWO BRIDGES

ITEM	TOTAL	UNIT	DESCRIPTION	ABUT.	PIER	SUPERS.	GENERAL
E-2	384	Cu. Yds.	Unclassified Excavation	258	26		
E-2	75	Cu. Yds.	Rock Excavation	13	62		
S-1	546	Cu. Yd.	Class "C" Concrete, Superstructure.			546	
S-1	118	Cu. Yd.	Class "C" Concrete, Pier Caps and Columns.		118		
S-1	33	Cu. Yd.	Class "C" Concrete, Abut. above Footing (W. Abut. W.B.)	33			
S-1	48	Cu. Yd.	Class "E" Concrete, Footings (Piers & W. Abut. W.B.)	8	40		
S-1	126	Cu. Yd.	Class "E" Concrete, Abut. (W. Abut. E.B. & E. Abut's.)	126			
S-4	175,874	Lbs.	Reinforcing Steel.	14,669	32,026	129,179	
S-14	418.67	Lin. Ft.	Railing (Aluminum Railing & Supports & Concrete Parapets).			418.67	
S-16	Lump	Sum	First Test Pile	Lump			
S-18	376	Lin. Ft.	Steel Piles, 10 BP 42	376			
S-29	104	Cu. Yd.	Porous Backfill	104			
S-29	14	Each	Scuppers, 6" ϕ wrought iron pipe.			14	
I-10	890	Sq. Yd.	Crushed Aggregate Slope Protection				890
S101	546	Each	Water-Reducing, Set-Retarding Admixture			546	
E-R	Lump	Sum	Cofferdams, Cribs and Sheeting				Lump

SPIRALS CONT'D.							
Mark	No	Length	Core	Pitch	Turns	Spacers	Weights
P404	1	18-2	32	4½	51	4	330
P405	1	16-11	32	4½	48	4	311
P406	1	18-1	32	4½	51	4	330
P407	1	19-9	32	4½	56	4	363
P408	1	21-2	32	4½	59	4	382

* HORIZONTAL PARAPET REINFORCING
THESE BARS ARE INCLUDED WITH THE RAILING FOR PAYMENT.

SPIRALS - HOT ROLLED

Mark	No	Length	Core	Pitch	Turns	Spacers	Weight
A401	1	9-1	20	4½	27	4	117
A402	1	6-1	20	4½	19	4	81
A403	1	3-1	20	4½	11	4	46
P401	3	14-6	32	4½	42	12	813
P402	3	14-3	32	4½	41	12	795
P403	1	15-10	32	4½	45	4	290

SPIRALS
THE "LENGTH" SHOWN IN THE STEEL LIST FOR THE SPIRAL BARS IS THE DISTANCE FROM THE TOP OF THE FOOTING TO THE BOTTOM OF THE PIER CAP.
THE NO. OF TURNS SHOWN IN THE STEEL LIST FOR THE SPIRAL BARS IS THE "LENGTH" DIVIDED BY THE PITCH, PLUS 3 TURNS (TOTAL NUMBER OF CLOSED COILS), EXPRESSED AS THE NEAREST WHOLE NUMBER.
SPIRAL REINFORCING BARS SHALL NOT HAVE DEFORMATIONS BUT SHALL IN OTHER RESPECTS CONFORM TO ITEM S-4, 1½ CLOSED COILS SHALL BE PROVIDED AT THE ENDS OF EACH SPIRAL UNIT. FOUR STEEL CHANNEL, TEE OR ANGLE SPACERS, WEIGHING APPROXIMATELY 0.68 LB. PER LIN. FT. OF SPACER, SHALL BE PROVIDED FOR EACH SPIRAL UNIT. THEY SHALL BE EQUALLY SPACED ALONG THE PERIPHERY OF THE COIL. THE NUMBER OF POUNDS OF THESE SPACERS, BASED ON 0.68 LB. PER LIN. FT., WILL BE PAID FOR AS REINFORCING STEEL AND IS INCLUDED IN THE TABULATED QUANTITY OF SPIRAL BARS.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

REINFORCING STEEL LIST & ESTIMATED QUANTITIES
BRIDGE NO. GUE 40-1845 L&R
U.S. 40 OVER T.R. 185
GUERNSEY COUNTY STA. 128+02.10 STA. 129+07.60

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
FWD	DWH		GEA	TLU	2-11-63	

FED. RD DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

569
638

GUERNSEY COUNTY
GUE-40-17.37

MICROFILMED
JUL 25 1985

REFERENCES:

Standard Drawings:

Railing Details, Type A	- AR-1-57, Revised 4-2-62
Superstructure Details	- CS-2-54, Revised 2-2-59
Approach Slab Details	- AS-1-54, Revised 7-5-62
Supplemental Specification:	- S-101, Dated 7-12-62

Common Details:

Curb & Parapet Details	- Sheet 557
Scupper Details	- Sheet 557

DESIGN SPECIFICATIONS: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated 9-1-57, together with revisions thereof dated 2-21-58 & 5-1-62.

FOUNDATION SOUNDINGS: Foundation design and foundation quantites are based on a study of rod soundings and soil samplings and soundings made at the site. This sounding information may be inspected in the office of the Bureau of Bridges in Columbus or in an abridged form in the Division Office, but the State assumes no responsibility for the accuracy thereof.

EMBANKMENT: The embankment for the east abutment of the W.B. Lanes shall be placed and compacted up to the finished spill-thru slope and to the level of the subgrade for a distance of 200 feet back of the abutment, after which excavation shall be made for the abutment. After the pedestals have been constructed for the west abutment of the W.B. Lanes the earth fill shall be placed and compacted up to the elevation of the earth at the face of the abutment, after which excavation shall be made for the abutment cap.

EXCAVATION QUANTITY includes the removal of fill material required for the construction of the abutments.

SURFACE FINISH OF CONCRETE: The requirements of Section S-1.22, Rubbed Finish, shall apply to the following exposed concrete surfaces:

a. The entire superstructure except the top and bottom surfaces of roadways and curbs.

b. All surfaces of piers and abutments which will be exposed upon completion of the construction except the face of spill-thru abutments.

MACHINE FINISH: The concrete bridge deck shall be finished by the use of a finishing machine.

CRUSHED AGGREGATE SLOPE PROTECTION shall be provided under the structure as indicated on the General Plan.

TRAFFIC MAINTENANCE: Traffic shall be maintained as indicated on the Roadway Plans.

FOUNDATION BEARING PRESSURE: Pier footings are designed for a maximum bearing pressure of 10 tons per square foot and the west abutment footings for 10 tons per square foot.

FOOTINGS shall extend a minimum of 3 inches into undisturbed rock or to the elevation shown, whichever is lower.

PILES shall be driven using a hammer with an energy rating of not less than 11,000 ft. lb. to firm contact with rock. If the length of penetration is approximately equal to the depth of rock according to the bridge foundation investigation report, the firm contact shall be considered as attained when the capacity according to the formula in Sec. S-18.05 is not less than the following value for a pile hammer of the indicated energy rating:

50 tons per pile using an 11,000 ft. lb. hammer
45 tons per pile using a 15,000 ft. lb. hammer.

If the energy rating of the hammer is between the ratings as shown above, the required formula capacity shall be determined by interpolation. The design load is 30 tons per pile.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

GENERAL NOTES

BRIDGE NO. GUE-40-1845 L & R.
U.S. 40 OVER T.R. 185
STA. 128+02.10
GUERNSEY COUNTY STA. 129+07.60

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
				TLU	2-20-63	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

570
638

GUERNSEY COUNTY
GUE-40-17.37

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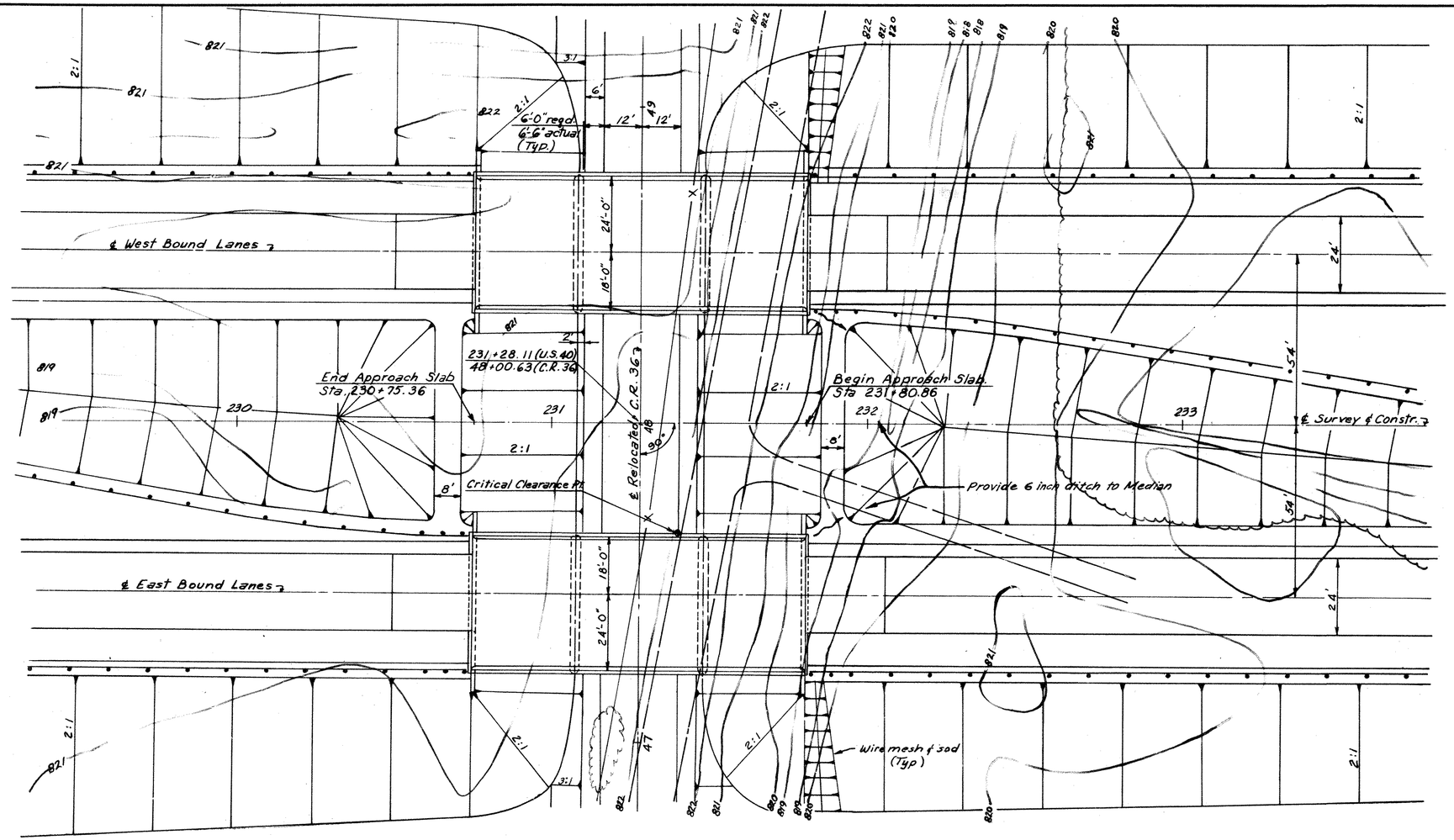
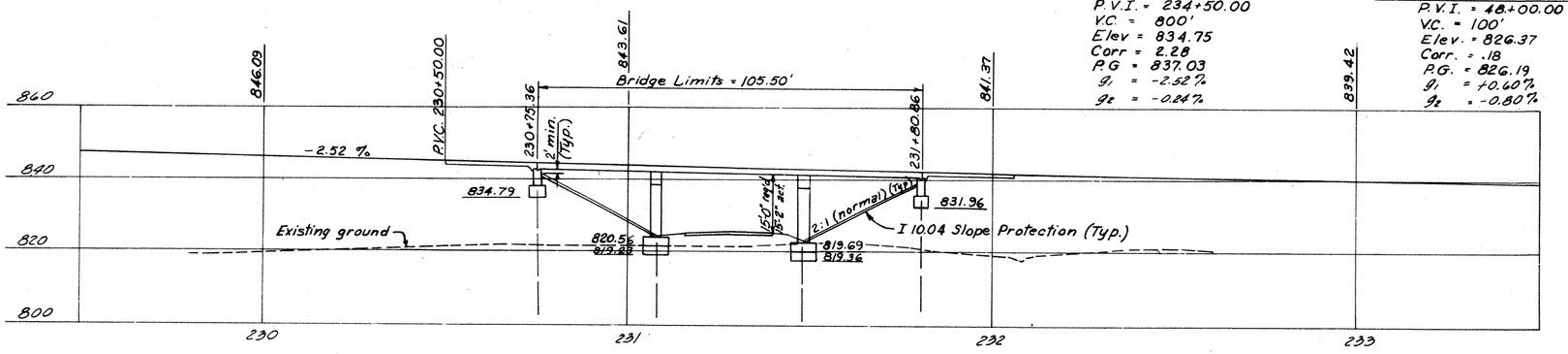
JUL 25 1985



PLAN

PROPOSED STRUCTURE

TYPE : Continuous Reinforced Concrete Slab and Reinforced Concrete Substructure ~
SPANS: 32' ~ 40' ~ 32' ~
ROADWAY: 42' f/f of parapets with Aluminum Railing and 1'-2" curbs. ~
LOADING: CF-2000(1957) Adequate for AASHO alternate loading ~
WEARING SURFACE: 1" monolithic concrete ~
SKEW: None ~
ALIGNMENT: Tangent ~
APPROACH SLABS: AS-1-54, 25' long ~



PROFILE ALONG ℄ U.S. 40

VERTICAL CURVE DATA ~ U.S.40
P.V.I. = 234+50.00
V.C. = 800'
Elev = 834.75
Corr = 2.28
P.G = 837.03
g_1 = -2.52 %
g_2 = -0.24 %

VERTICAL CURVE DATA ~ C.R. 36
P.V.I. = 48+00.00
V.C. = 100'
Elev. = 826.37
Corr. = .18
P.G. = 826.19
g_1 = +0.60 %
g_2 = -0.80 %

NOTE:
All piles shall be 12 BP 53 steel piles.
Estimated average pay length for abutments is 55' and for piers is 40'.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

SITE PLAN
BRIDGE Nº GUE-40-2039 L℄R
U.S. 40 over C.R. 36
GUERNSEY COUNTY
Sta. 230+75.36
Sta. 231+80.86

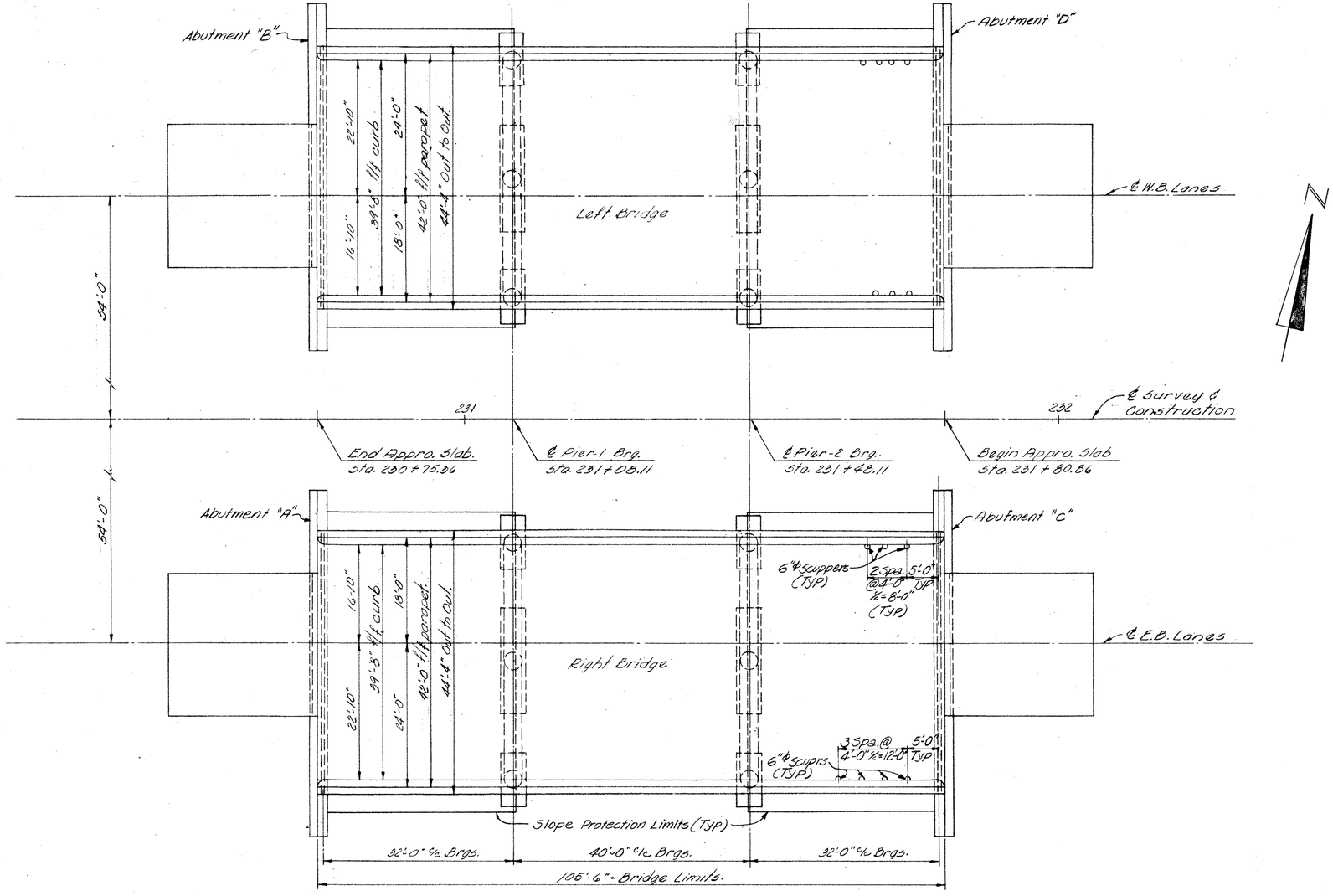
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
Pardo	Pardo	J.C.W.	fwd	TLU	2-11-63	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

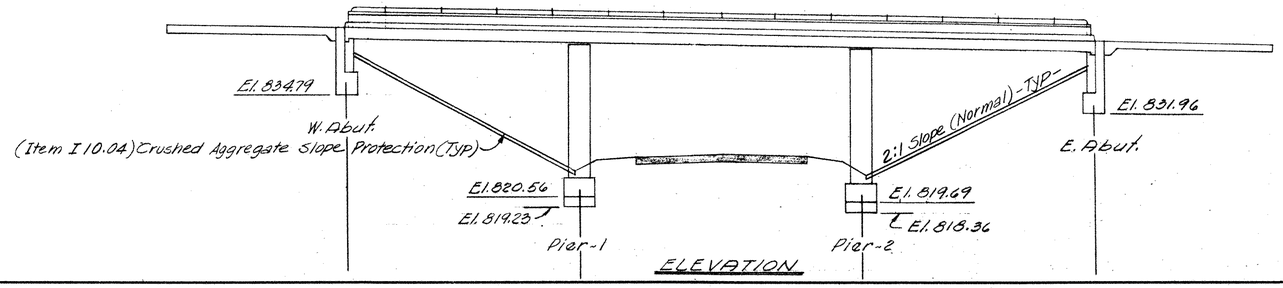
571/638

MICROFILMED
JUL 25 1985

GUERNSEY COUNTY
GUE-40-17.37



PLAN



ELEVATION

Note:
For railing details, See Sheet 574

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

GENERAL PLAN & ELEVATION
BRIDGE No. GUE-40-2039 L & R
U.S 40 OVER C.R 36
GUERNSEY COUNTY STA. 230+75.36
STA. 231+80.86

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.T.	BDB		BETTIN	TLU	2-11-63	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

572
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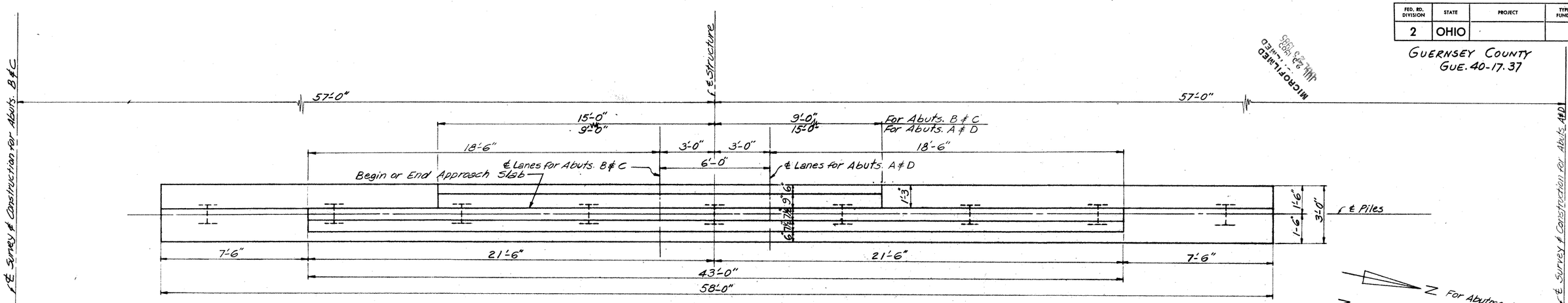
GUERNSEY COUNTY
GUE.40-17.37

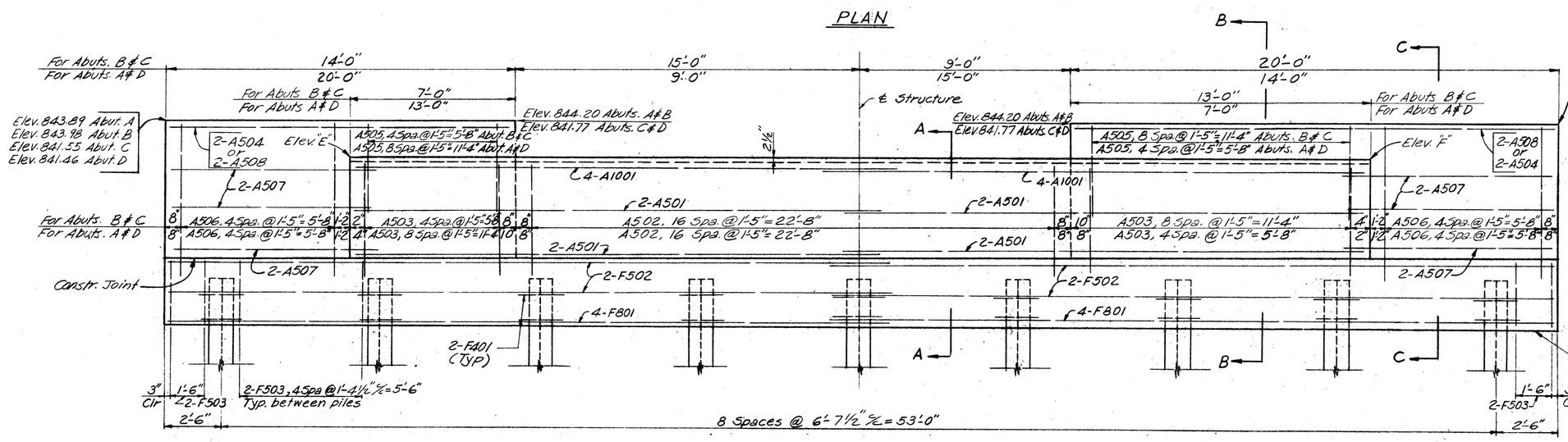
MICROFILMED JUL 29 1995

℄ Survey & Construction for Abuts. B & C

℄ Survey & Construction for Abuts. A & D

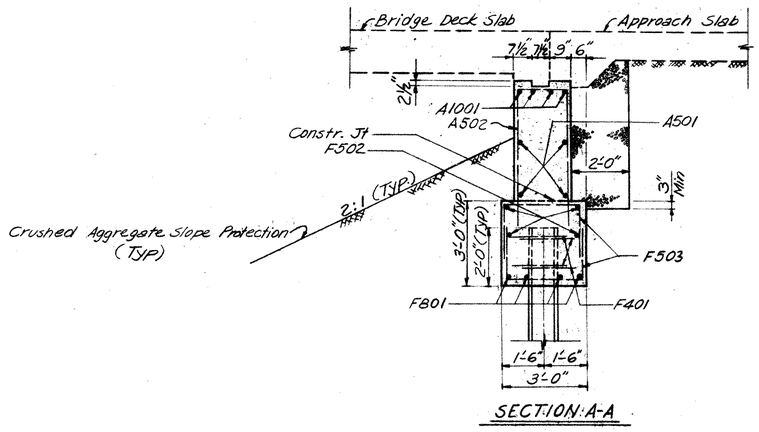


PLAN

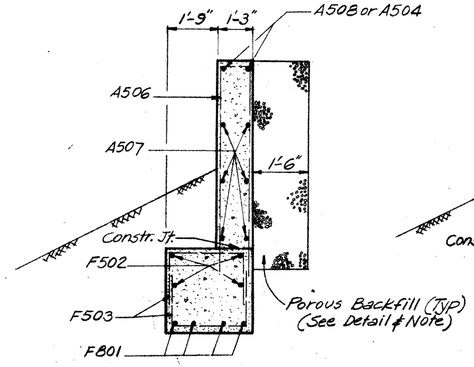


Location		E	F	G
E.B. Lanes	Abutment A	842.48	842.57	834.79
	Abutment C	840.18	840.09	831.96
W.B. Lanes	Abutment B	842.57	842.48	834.79
	Abutment D	840.09	840.18	831.96

ELEVATION



SECTION A-A



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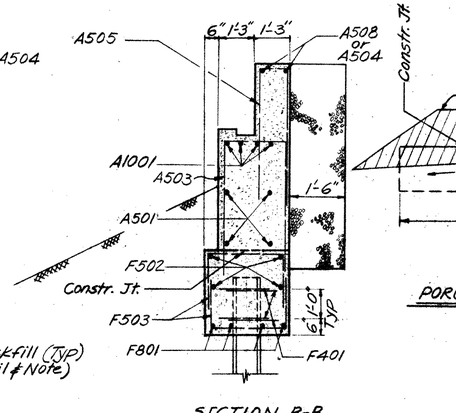

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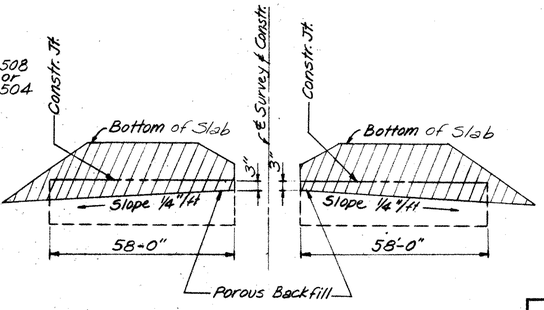


POROUS BACKFILL DETAIL BEHIND ABUTMENTS (See the Note)

Notes:

Porous Backfill 2'-0" thick full length of Abutment and wing shall extend upward to bottom of slab and to the surface of the earth shoulders & outward to the surface of the outside embankment slope. Excavation therefor, in excess of that required for the construction of the abutments, shall be considered as paid for in the bid price per Cu-Yd paid for porous backfill

For location of Abutments A, B, C, & D See Sheet No. 571

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

ABUTMENT DETAILS

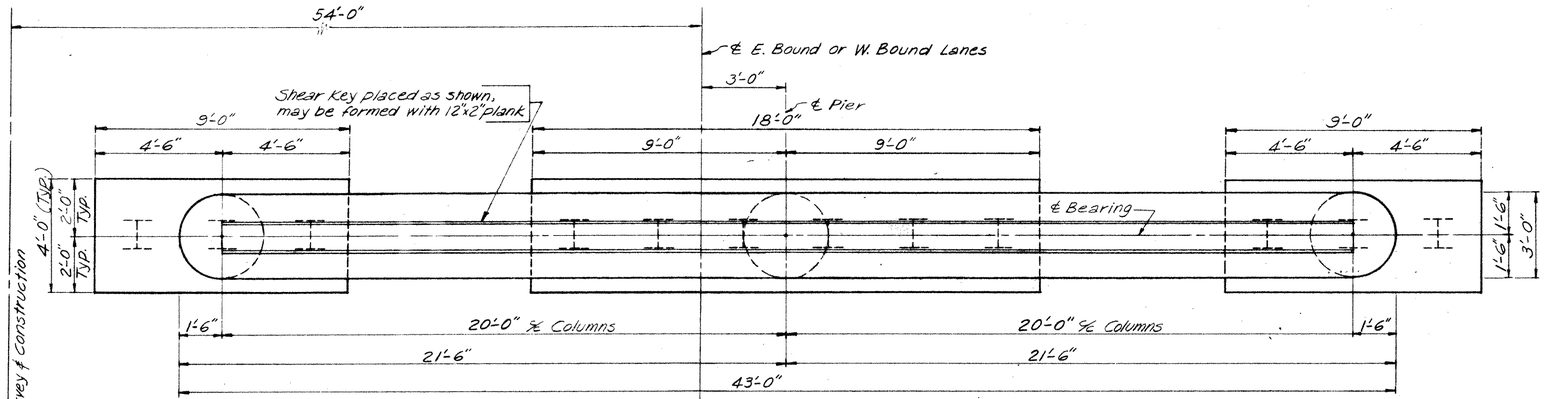
BRIDGE NO. GUE-40-2039 L & R
U.S. 40 OVER C.R.-36
GUERNSEY COUNTY
STA. 230+75.36
STA. 231+80.86

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.T.	R.T.		GETTIN	TLU	2-11-63	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

573
638

GUERNSEY COUNTY
GUE. 40-17.37



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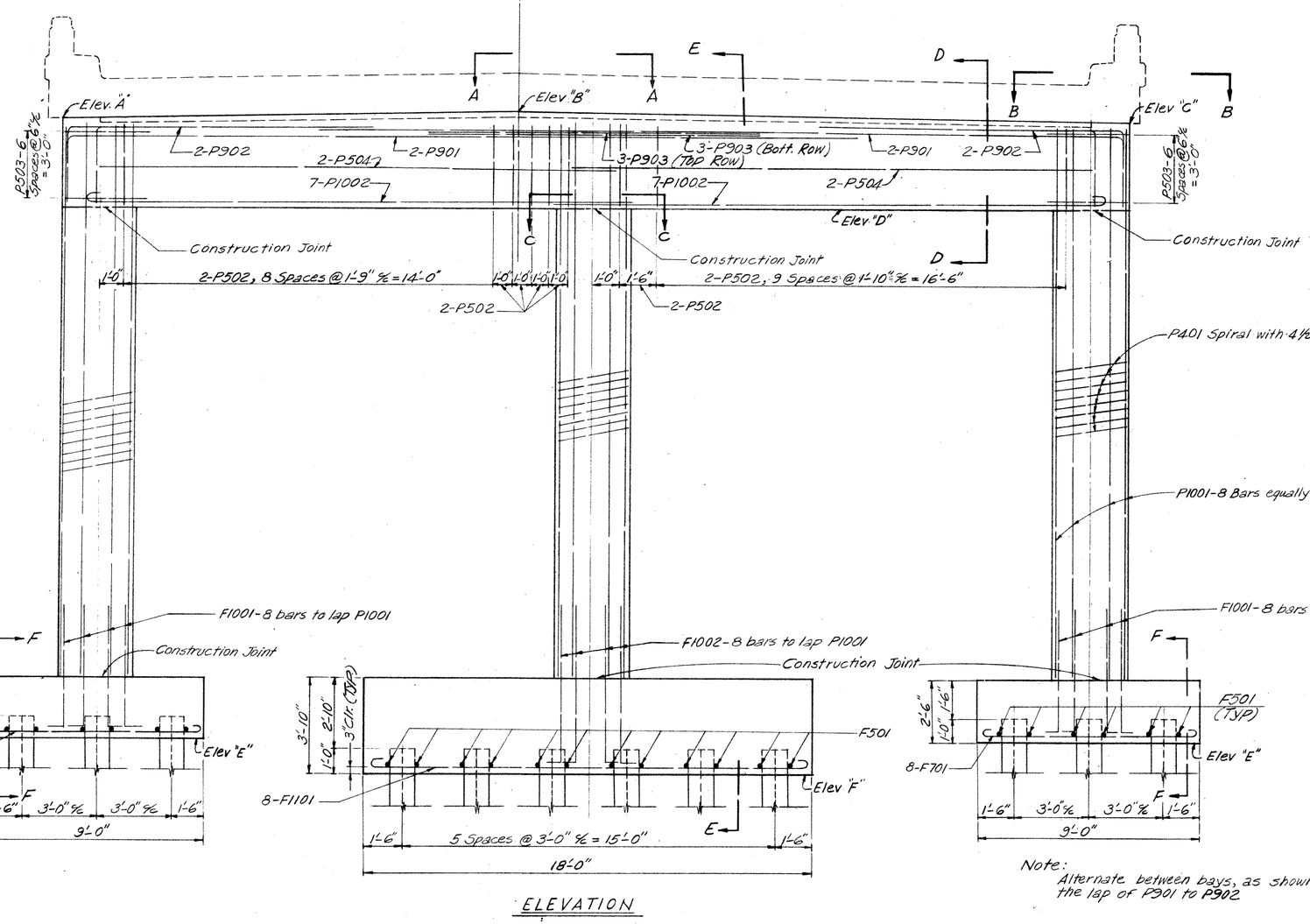
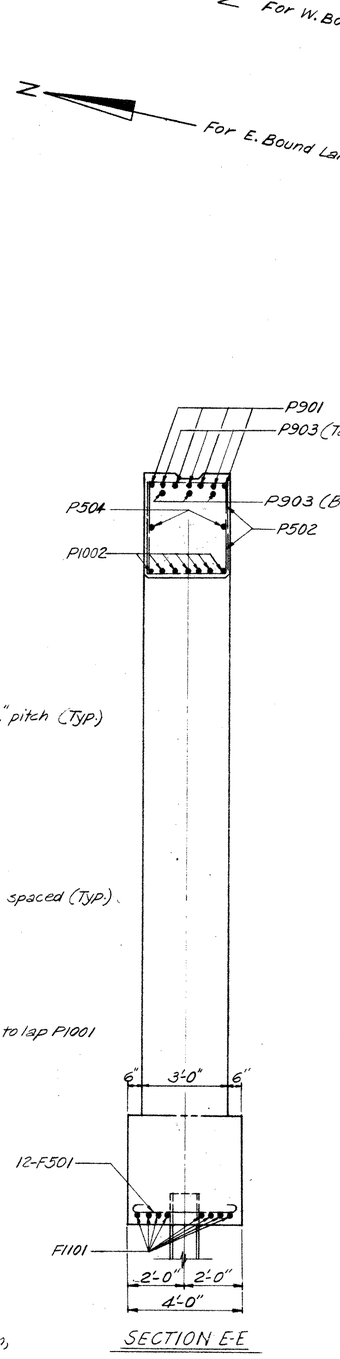


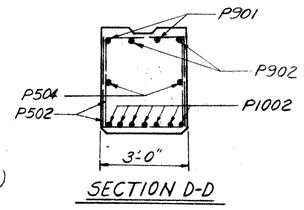
ELEVATION

Note:
Alternate between bays, as shown, the lap of P901 to P902

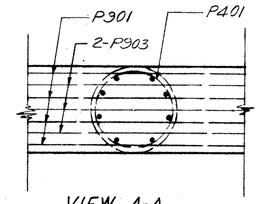


SECTION E-E

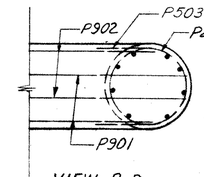
ELEVATIONS							
	Location	A	B	C	D	E	F
E.B. & W.B.	Pier 1	841.81	842.11	841.71	838.21	820.56	819.23
	Pier 2	840.89	841.19	840.79	837.29	819.69	818.36



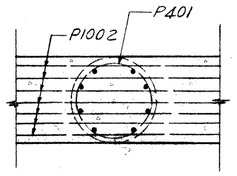
SECTION D-D



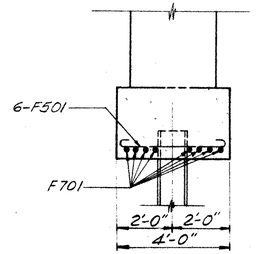
VIEW A-A



VIEW B-B



SECTION C-C



SECTION F-F

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

PIER DETAILS

BRIDGE NO. GUE-40-2039 L & R
U.S. 40 OVER C.R.-36

GUERNSEY COUNTY

STA. 230+75.36
STA. 231+80.86

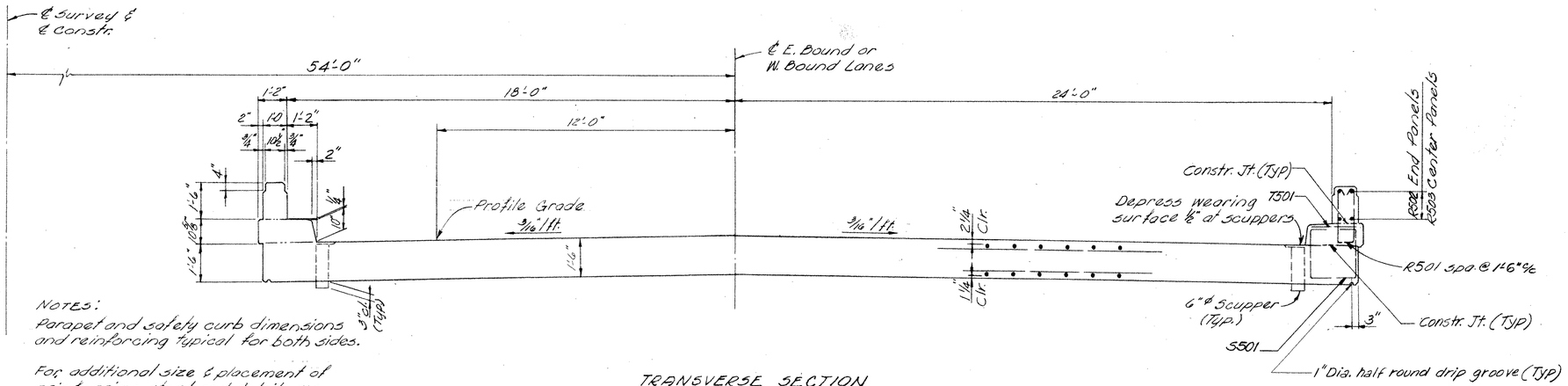
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.T.	R.T.		HETTIN	TZU	2-11-63	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

57A
638

GUERNSEY COUNTY
GUE-40-17.37

MICROFILMED
JUL 25 1985



NOTES:
Parapet and safety curb dimensions and reinforcing typical for both sides.

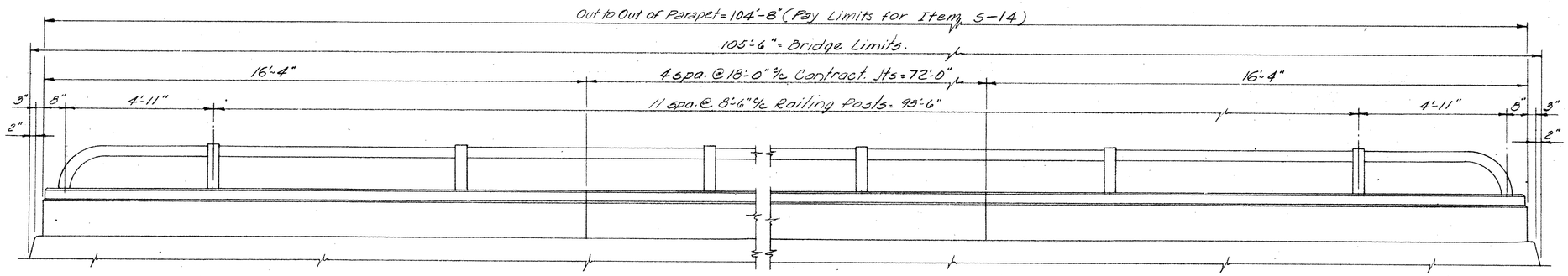
For additional size & placement of reinforcing steel and details see std. dwg. CS-2-54.

Slab thickness shown includes 1" monolithic concrete wearing surface.

Concrete parapets are included under S-14 for payment.

Type "A" aluminum railing not shown.

TRANSVERSE SECTION



RAILING ELEVATION
(Typical for E. & W. Bound Lanes)

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

SUPERSTRUCTURE DETAILS
BRIDGE No-GUE-40-2039 L & R
U.S. 40 OVER C.R. 36
GUERNSEY COUNTY
STA 230+75.36
STA-231+80.86

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.T.	BRB		BETTIN	TLU	2-11-63	

FED. RD DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

575
638

GUERNSEY COUNTY
GUE-40-17-37

MICROFILMED
JUL 25 1985

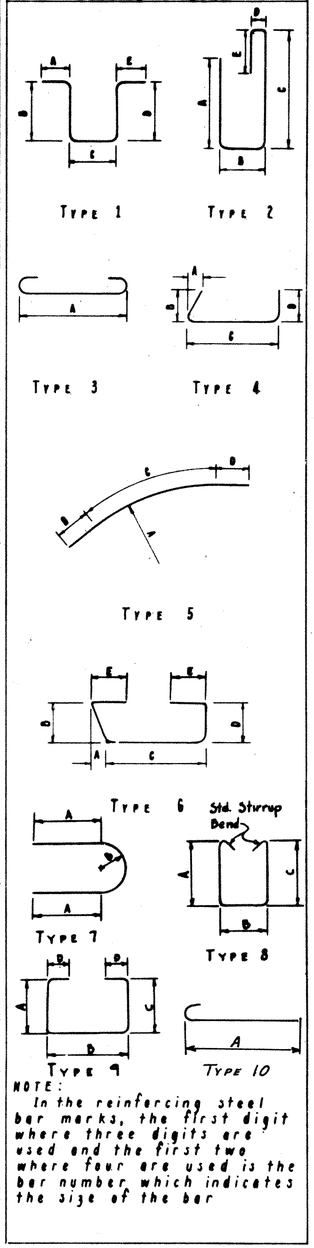
REINFORCING STEEL LIST

Mark	Nº	Length	Weight		Shp

Mark	Nº	Length	Weight	Type	"A"	"B"	"C"	"D"	"E"	Shp
SUPERSTRUCTURE										
A1068	246	37-2	39,343							st
B1068	72	27-1	8391	10	25-10					bt
C1068	72	24-0	7436	10	22-9					bt
D1068	36	24-4	3769							st
E1068	36	18-8	2892							st
F1068	164	27-5	19,348							st
G1068	80	12-5	4274							st
H1068	80	8-10	3041							st
R968	40	22-0	2992							st
M701	194	43-6	17,249							st
J601	84	20-5	2576							st
K601	42	17-2	1083							st
N601	134	43-6	8755							st
0501	12	21-2	265							st
P501	24	23-2	580							st
R501	276	5-7	1607	8	2-2	0-8	2-2			bt
R502	32	16-0	*							st
R503	64	17-8	*							st
S501	500	6-0	3129	9	1-11	1-8	1-11	0-6		bt
T501	500	1-8	870							st
PIERS										
P1001	96	18-1	7470							st
P1002	56	23-6	5663	10	22-1					bt
P901	16	35-6	1931	4			32-9	3-0		bt
P902	16	15-6	843	4			12-9	3-0		bt
P903	24	13-4	1088							st
P504	16	20-10	348							st
P502	192	8-9	1752	9	3-2	2-8	3-2			bt
P503	56	7-3	424	7	1-7	1-3½				bt
F1101	32	20-10	3542	3	17-8					bt
F1001	64	6-5	1767	4			5-4	1-5		bt
F1002	32	7-9	1067	4			6-8	1-5		bt
F701	64	10-4	1352	3	8-8					bt
F501	96	4-10	484	3	3-8					bt

Mark	Nº	Length	Weight	Type	"A"	"B"	"C"	"D"	"E"	Shp
ABUTMENTS										
A1001	32	23-5	3224							st
A501	32	22-8	757							st
A502	68	13-5	952	9	6-0	1-8	6-0			bt
A503	56	13-11	813	9	6-0	2-2	6-0			bt
A504	8	13-8	114							st
A505	56	8-7	501	9	4-0	0-11	4-0			bt
A506	40	16-6	688	9	7-11	0-11	7-11			bt
A507	48	8-0	401							st
A508	8	19-8	164							st
F801	32	30-1	2570							st
F502	32	29-8	990							st
F503	352	6-9	2478	9	2-2	2-8	2-2			bt
F401	144	4-11	473	9	2-0	1-2	2-0			bt
REPLACEMENT STEEL										
RE1101	1	7-6								st
RE1001	6	7-2								st
RE901	1	6-10								st
RE801	1	6-6								st
RE701	1	6-2								st
RE601	1	5-11								st
RE501	1	5-7								st
RE401	1	5-3								st
REPLACEMENT STEEL FOR SPIRALS										
RE402	1	5-3		5	1-4		5-3			bt

Bending Diagram



NOTE:
In the reinforcing steel bar marks, the first digit where three digits are used and the first two where four are used is the bar number which indicates the size of the bar

ESTIMATED QUANTITIES For Two Bridges.

Item	Total	Unit	Description	Abut.	Pier	Supers.	General
E-2	432	Cu-Yd	Unclassified Excavation	264	168		
S-1	546	Cu-Yd	Class "C" Concrete – Superstructure			546	
S-1	114	Cu-Yd	Class "C" Concrete – Pier caps & Columns		114		
S-1	69	Cu-Yd	Class "E" Concrete – Pier Footings.		69		
S-1	198	Cu-Yd	Class "E" Concrete – Abutments	198			
S-4	172,794	Lbs	Reinforcing Steel	14,125	31,069	127,600	
S-14	418.67	Lin-Ft	Railing (Aluminum Railing & Supports & Concrete parapets)			418.67	
S-16	Lump	Sum	First Test Pile				Lump
S-18	3900	Lin-Ft	Steel piles – 12 BP53	1980	1920		
S-29	114	Cu-Yd	Porous Backfill	114			
S-29	28	Each	Scuppers, 6" ϕ Wrought Iron Pipe			28	
I-10	826	Sq. Yd.	Crushed Aggregate Slope Protection				826
5101	546	Each	Water-reducing, Set-retarding Admixture				546

* HORIZONTAL PARAPET REINFORCING THESE BARS ARE INCLUDED WITH THE RAILING FOR PAYMENT.

SPIRALS - NOT ROLLED

Mark	Nº	Length	Core	Pitch	Turns	Spacers	Weight
P401	12	15-1	32	4½	43	48	3338

SPIRALS
THE "LENGTH" SHOWN IN THE STEEL LIST FOR THE SPIRAL BARS IS THE DISTANCE FROM THE TOP OF THE FOOTING TO THE BOTTOM OF THE PIER CAP.
THE NO. OF TURNS SHOWN IN THE STEEL LIST FOR THE SPIRAL BARS IS THE "LENGTH" DIVIDED BY THE PITCH, PLUS 3 TURNS (TOTAL NUMBER OF CLOSED COILS), EXPRESSED AS THE NEAREST WHOLE NUMBER
SPIRAL REINFORCING BARS SHALL NOT HAVE DEFORMATIONS BUT SHALL IN OTHER RESPECTS CONFORM TO ITEM S-4
1½ CLOSED COILS SHALL BE PROVIDED AT THE ENDS OF EACH SPIRAL UNIT
FOUR STEEL CHANNEL , TEE OR ANGLE SPACERS, WEIGHING APPROXIMATELY 0.68 lb. PER Lin. Ft. OF SPACER SHALL BE PROVIDED FOR EACH SPIRAL UNIT, THEY SHALL BE EQUALLY SPACED ALONG THE PERIPHERY OF THE COIL. THE NUMBER OF POUNDS OF THESE SPACERS, BASED ON 0.68 lb. PER Lin. Ft. WILL BE PAID FOR AS REINFORCING STEEL, AND IS INCLUDED IN THE TABULATED QUANTITY OF SPIRAL BARS

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

REINFORCING STEEL LIST AND ESTIMATED QUANTITIES
BRIDGE Nº GUE-40-2039 L&R
US 40 OVER CR 36
GUERNSEY COUNTY Sta. 230+75.36 Sta. 231+80.86

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.T.		J.C.W.	GETTIN	T.L.U.	2-11-63	

FED RD DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

576
638

GUERNSEY COUNTY
GUE-40-17.37

MICROFILMED
JUL 23 1963

REFERENCES:

Standard Drawings:

Railing Details, Type A	- AR-1-57, Revised 4-2-62
Superstructure Details	- CS-2-54, Revised 2-2-59
Approach Slab Details	- AS-1-54, Revised 7-5-62
Supplemental Specification:	- S-101, Dated 7-12-62
Common Details:	
Curb & Parapet Details	- Sheet 557
Scupper Details	- Sheet 557

DESIGN SPECIFICATIONS: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated 9-1-57, together with revisions thereof dated 2-21-58 and 5-1-62.

FOUNDATION SOUNDINGS: Foundation design and foundation quantities are based on a study of rod soundings and soil samplings and soundings made at the site. This sounding information may be inspected in the office of the Bureau of Bridges in Columbus or in an abridged form in the Division Office, but the State assumes no responsibility for the accuracy thereof.

EMBANKMENT: The embankment shall be placed and compacted up to the finished spill-thru for a distance of 200 feet back of the abutments. The piles at the piers and abutments shall not be driven until the embankment has been in place for a minimum period of 90 days.

EXCAVATION QUANTITY includes the removal of fill material required for the construction of the piers and abutments.

SURFACE FINISH OF CONCRETE: The requirements of Section S-1.22, Rubbed Finish, shall apply to the following exposed concrete surfaces:

a. The entire superstructure except the top and bottom surfaces of roadways and curbs.

b. All surfaces of piers and abutments which will be exposed upon completion of the construction except the face of spill-thru abutments.

MACHINE FINISH: The concrete bridge deck shall be finished by the use of a finishing machine.

CRUSHED AGGREGATE SLOPE PROTECTION shall be provided under the structure as indicated on the General Plan.

TRAFFIC MAINTENANCE: For details of traffic maintenance, see Roadway Plans.

PILES shall be driven with a hammer of not less than 11,000 foot pounds per blow to firm contact with rock. If the length of penetration is approximately equal to the depth of rock according to the bridge foundation investigation report, the firm contact shall be considered as attained when the capacity according to the formula in Sec. S-18.05 is not less than the following value for a pile hammer of the indicated energy rating:

50 tons per pile using an 11,000 ft. lb. hammer
45 tons per pile using a 15,000 ft. lb. hammer

If the energy rating of the hammer is between the ratings as shown above, the required formula capacity shall be determined by interpolation. The design load is 45 tons per pile.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

GENERAL NOTES
BRIDGE No. GUE-40-2039 L&R.
U.S. 40 OVER C.R. 36

STA. 230 + 75.36
GUERNSEY COUNTY STA. 231 +80.86

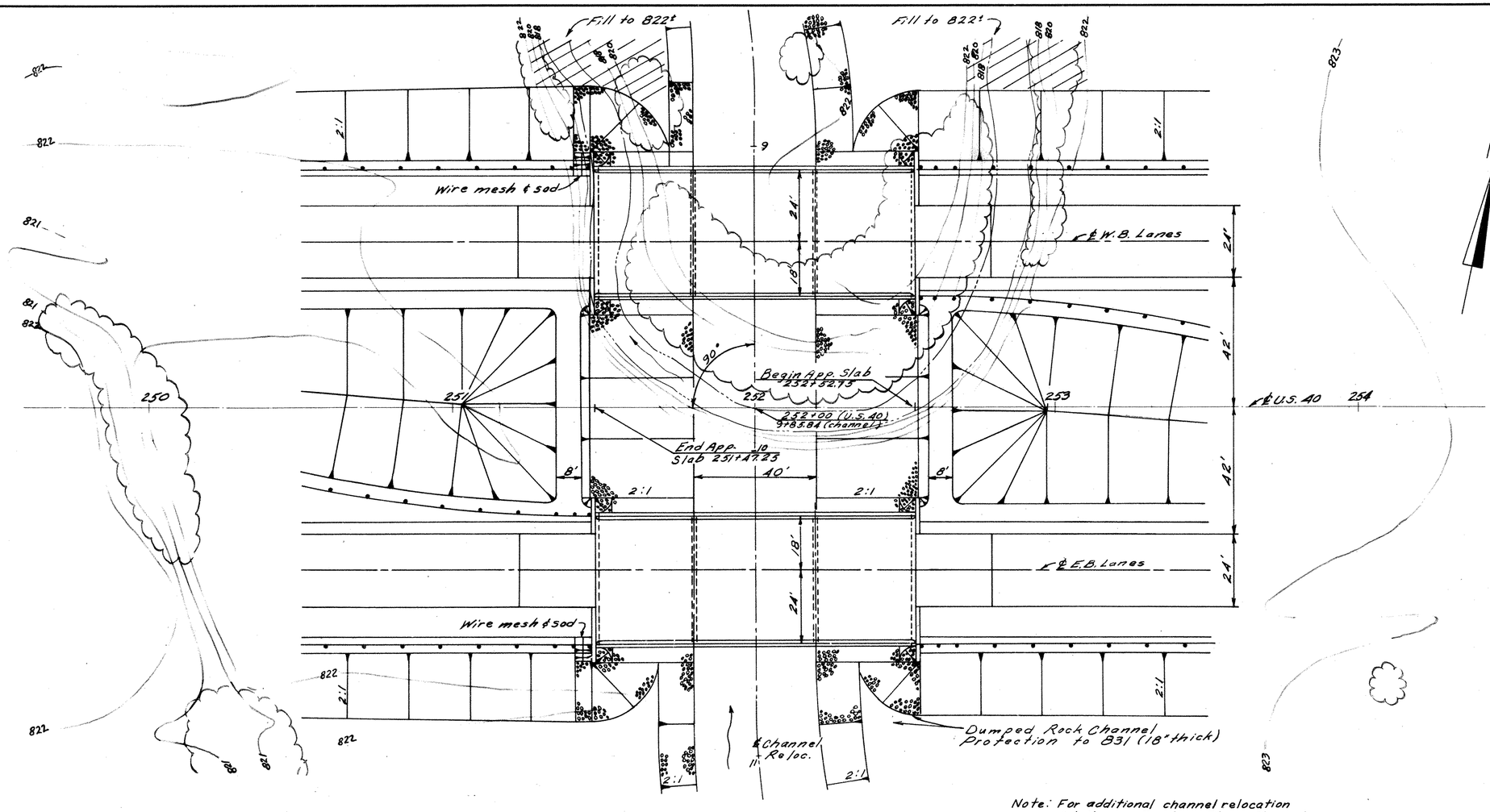
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
				TLU	2-20-63	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

577
638

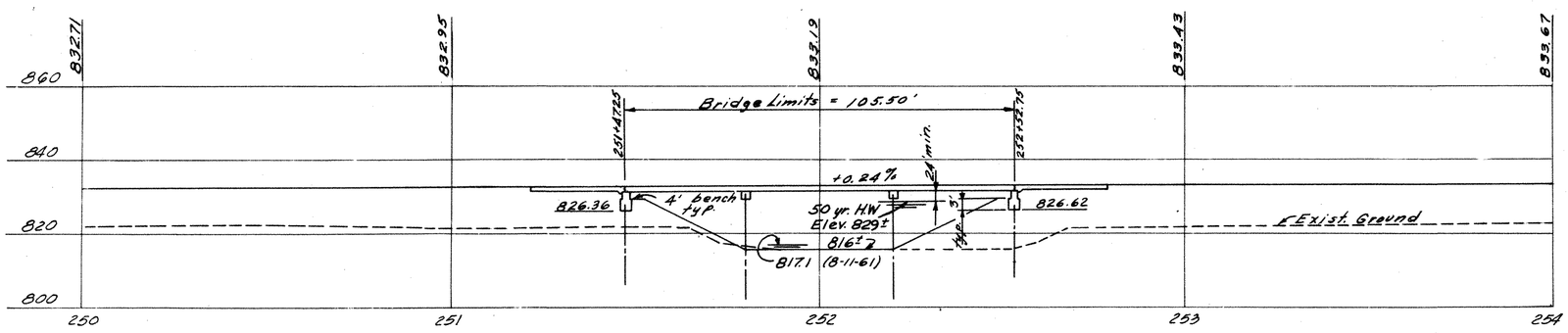
GUERNSEY COUNTY
GUE-40-17.37

MICROFILMED
JUL 23 1985



PLAN

Note: For additional channel relocation details, see Roadway Plans. Channel excavation and protection are included with Roadway Quantities.



PROFILE ALONG ℄ U.S. 40

PROPOSED STRUCTURE

Type - Cont. concrete slab with capped pile piers and abuts.

Span - 32'-40'-32'

Roadway - 42' f-f parapets with alum. railing and 1'-2" curbs.

Loading - CF-2000(57), adequate for AASHO alternate loading

Wearing Surface - 1" mono. concrete

Skew - None

Alignment - Tangent

App. Slabs - AS-1-54, 25' long

Drainage Information

Drainage Area = 32 sq. mi.
50 yr. "Q" = 5300 cfs.
50 yr. High Water = 829±
2 yr. High Water = 827±
Effective Opening = 835 sq. ft. below 829

All piles shall be 12BP53 steel piles. Estimated average paylengths are 42 ft. for the abutments & 44 ft. for the piers.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

SITE PLAN
BRIDGE NO. GUE-40-2078LER
US 40 OVER SALT FORK
GUERNSEY CO. STA. 251+47.25
252+32.75

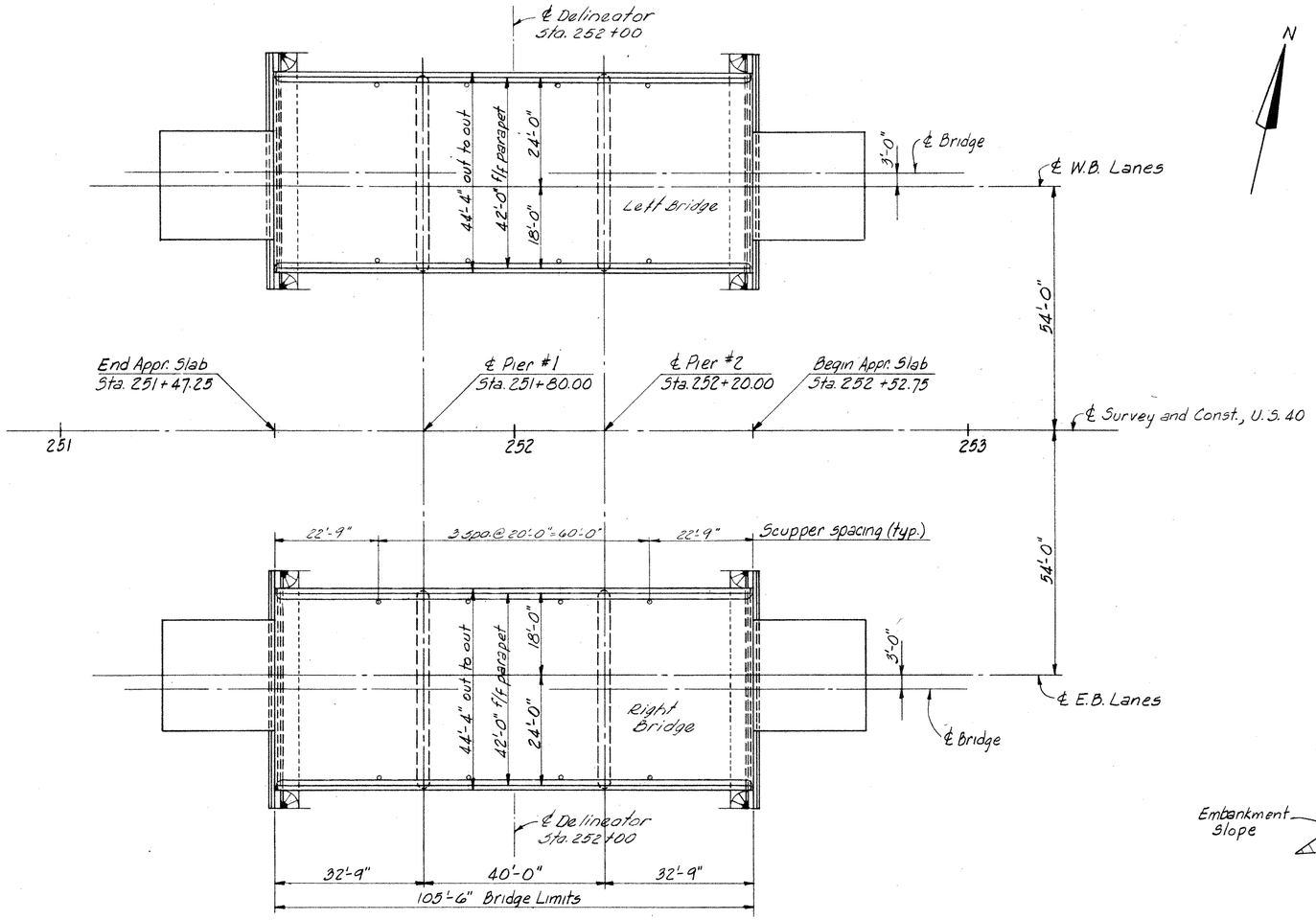
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
TLU	TLU	J.C.W	fwd	TLU	2-11-63	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

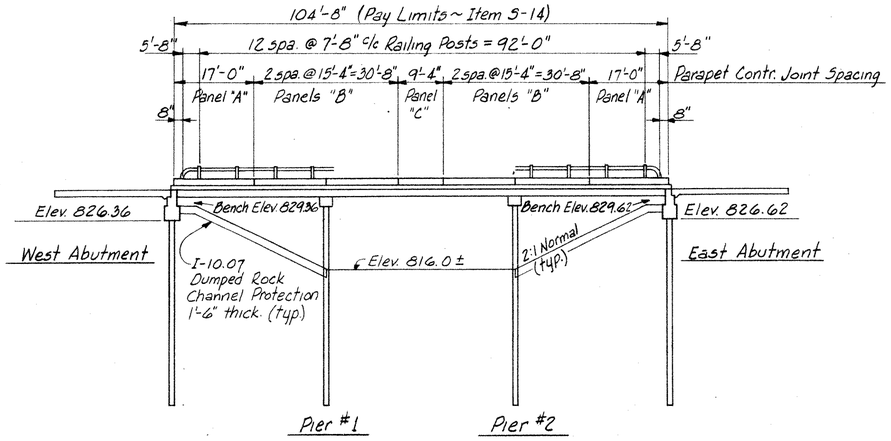
578
638

MICROFILMED
JUL 25 1985

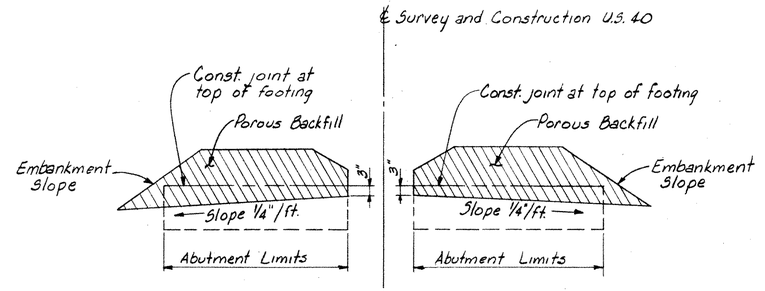
GUERNSEY COUNTY
GUE-40-17.37



GENERAL PLAN



ELEVATION



POROUS BACKFILL DETAIL

Note- Porous backfill shall extend upward to the approach slab and to the bottom of the stabilized shoulder and to the surface of the earth shoulders, and outward to the surface of the embankment slopes. Excavation therefor, in excess of that required for construction of the abutments, shall be considered as paid for in the bid price per cubic yard paid for porous backfill.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

GENERAL PLAN & ELEVATION

BRIDGE Nº GUE-40-2078 L&R
U.S. 40 OVER SALT FORK
STA. 251+47.25
GUERNSEY COUNTY 252+52.75

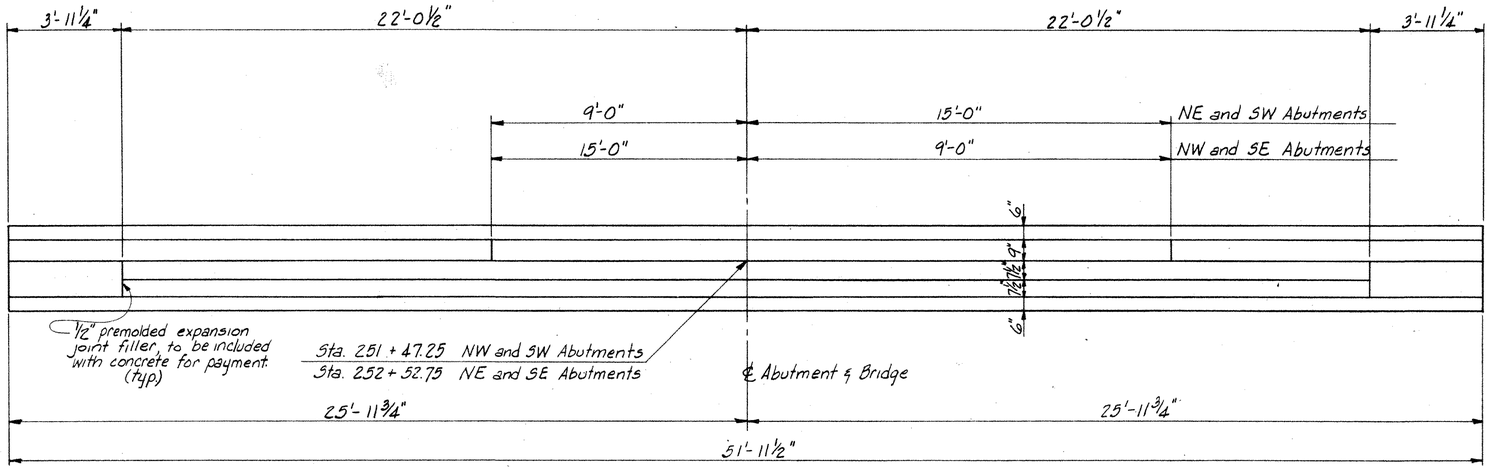
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HT	HT		FWD	TLU	2-11-63	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

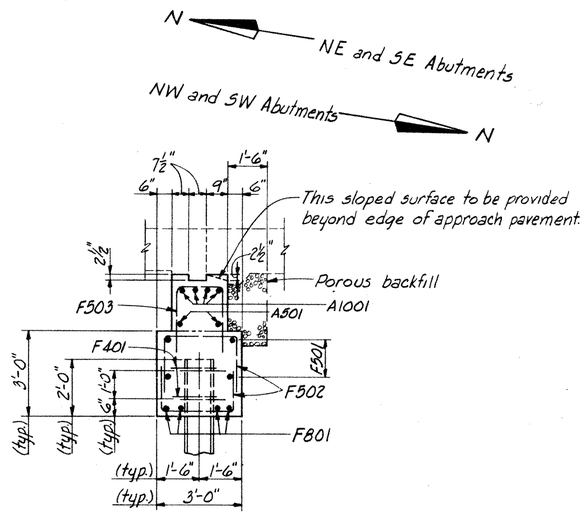
579
638

GUERNSEY COUNTY
GUE-40-17.37

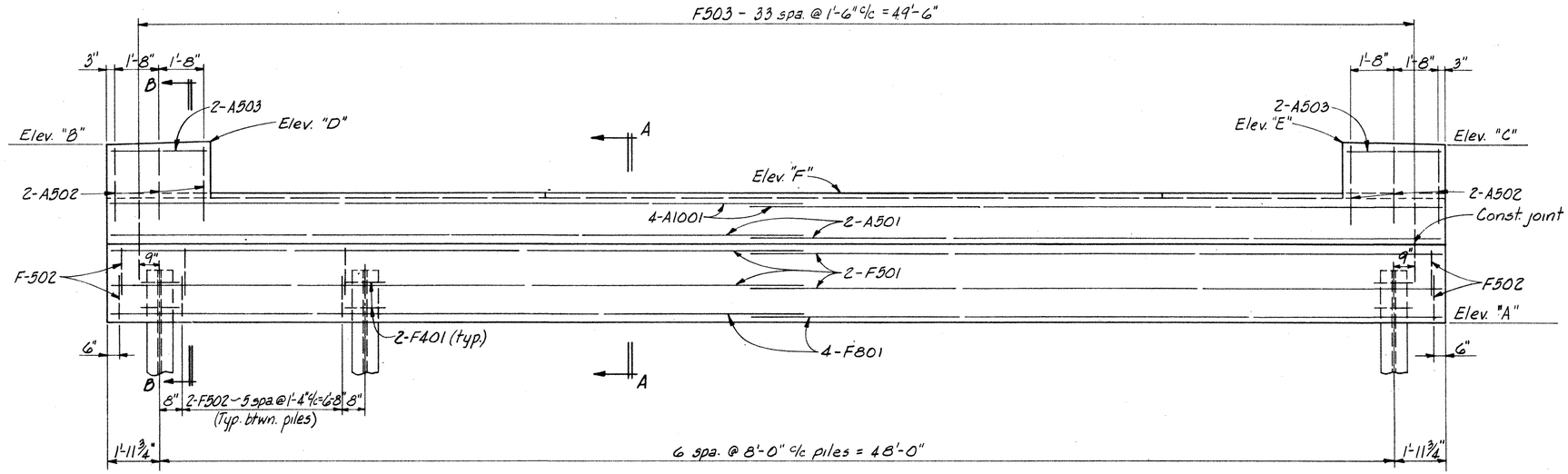
MICROFILMED
JUL 25 1985



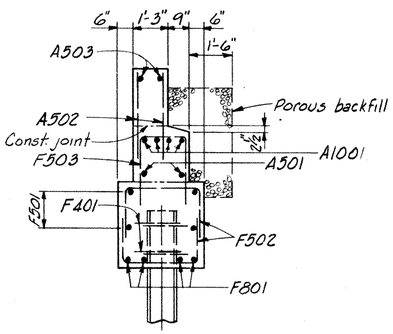
PLAN



SECTION A-A



ELEVATION



SECTION B-B

TABLE of ELEVATIONS						
	A	B	C	D	E	F
NW Abutment	826.36	832.89	832.80	832.95	832.86	831.36
NE Abutment	826.62	833.06	833.15	833.12	833.21	831.62
SE Abutment	826.62	833.15	833.06	833.21	833.12	831.62
SW Abutment	826.36	832.80	832.89	832.86	832.95	831.36

NOTE -

All piles shall be 12BP53 steel bearing piles.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

ABUTMENT DETAILS

BRIDGE Nº GUE-40-2078 L&R
U.S. 40 OVER SALT FORK
STA. 251 + 47.25
GUERNSEY COUNTY 252 + 52.75

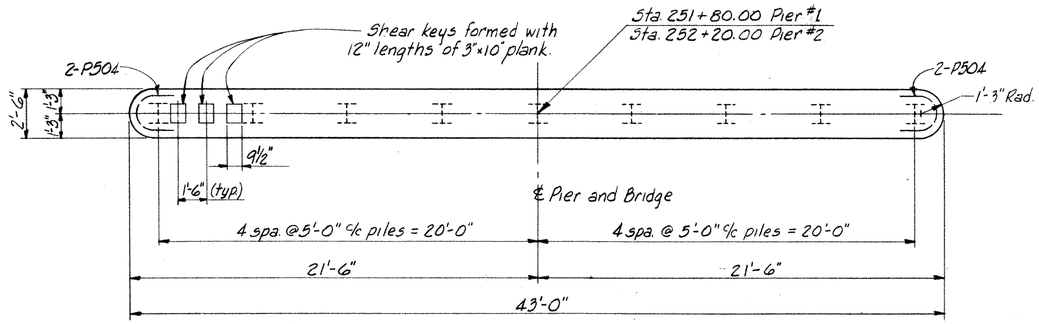
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HT	HT		FWD	TLU	2-11-63	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

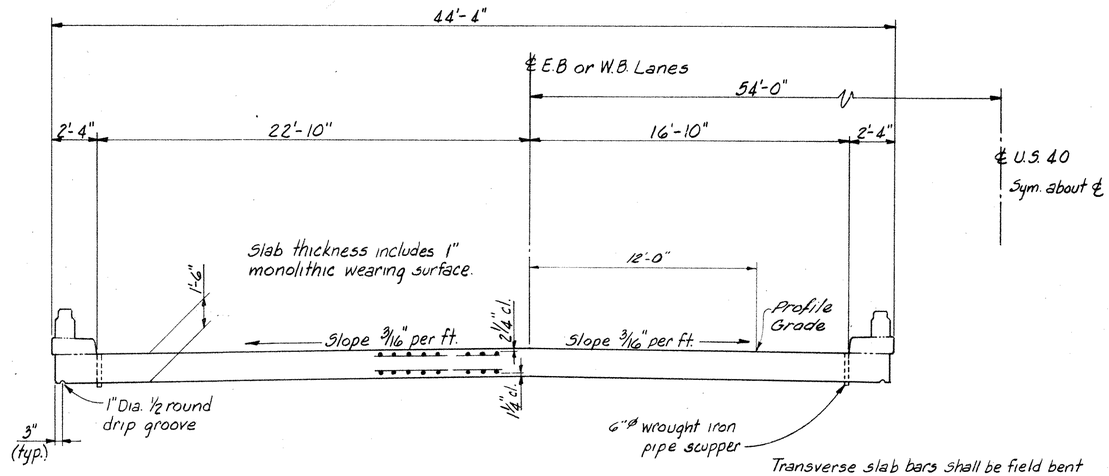
580
6.33

GUERNSEY COUNTY
GUE - 40 - 17.37

MICROFILMED
JUL 25 1985

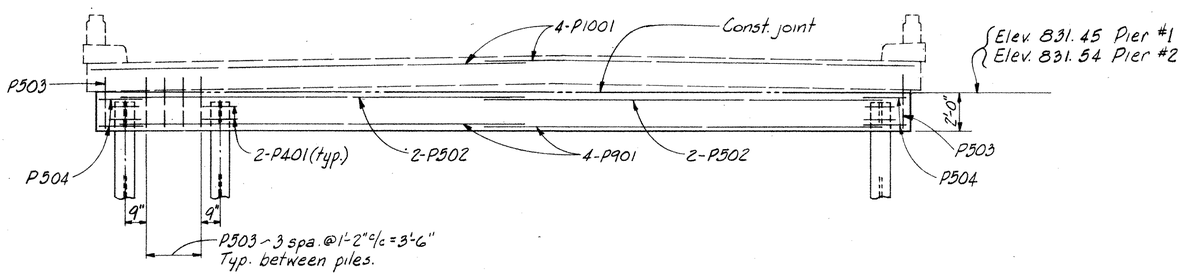


PLAN

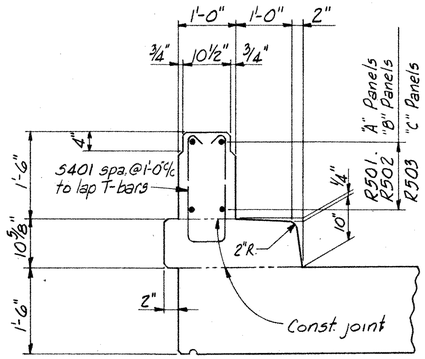


TRANSVERSE SECTION

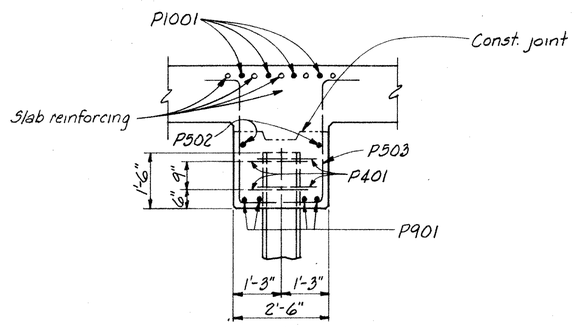
Transverse slab bars shall be field bent to fit roadway crown. Cost is included in Item 5-4.



PIER ELEVATION



PARAPET AND CURB DETAIL



TYPICAL SECTION THRU PIER CAP

NOTE -

For additional superstructure details see Std. Dwg. CS-2-54.

All piles shall be 12 BP53 steel bearing piles.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

PIER AND SUPERSTRUCTURE DETAILS
BRIDGE Nº GUE-40-2078 L&R
U.S. 40 OVER SALT FORK
STA. 251+47.25
GUERNSEY COUNTY 252+52.75

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HT	HT		fwd	TLU	2-11-63	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

581
638

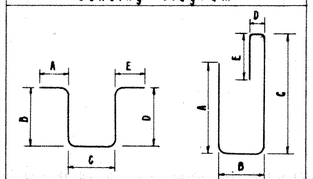
MICROFILMED
JUL 25 1965

GUERNSEY COUNTY
GUE-40-17.37

REINFORCING STEEL LIST

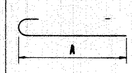
Mark	No	Length	Weight	Type	"A"	"B"	"C"	"D"	"E"	Shape
		ABUTMENTS								
A501	16	26-6	442							St.
A502	48	3-0	150							St.
A503	16	3-7	60							St.
A1001	32	27-4	3764							St.
F401	112	5-5	405	1		1-11	1-9	1-11		Bt.
F501	32	26-6	884							St.
F502	304	6-7	2087	1		2-1	2-8	2-1		Bt.
F503	136	7-11	1123	1		3-3	1-8	3-3		Bt.
F801	32	27-1	2314							St.
		PIERS								
P401	144	5-5	521	1		1-11	1-9	1-11		Bt.
P504	16	6-4	106	7	1-7	11½				Bt.
P502	16	21-1	352							St.
P503	136	9-0	1277	1	0-10	2-10	2-2	2-10	0-10	Bt.
P901	32	21-8	2357							St.
P1001	32	23-6	3236							St.
		SUPERSTRUCTURE								
A1068	246	37-2	39,343							St.
B1068	72	27-3	8,443	3	25-10					Bt.
C1068	72	24-2	7487	3	22-9					Bt.
D1068	36	24-4	3769							St.
E1068	36	18-8	2892							St.
F1068	164	27-5	19,340							St.
G1068	80	12-5	4274							St.
H1068	80	8-10	3041							St.
J601	84	20-5	2576							St.
K601	42	17-2	1083							St.
M701	388	22-11	18,175							St.
N601	268	22-9	9158							St.
O501	12	21-2	265							St.
P501	24	23-2	580							St.
R501	32	16-8	*							St.
R502	64	15-0	*							St.
R503	16	9-0	*							St.
R968	40	22-0	2992							St.
S401	412	5-2	1422	8	2-1	0-6	2-1			Bt.
S501	500	6-0	3129	9	1-11	1-8	1-11	0-6		Bt.
T501	500	2-9	1434	1		0-8	1-8	0-8		Bt.
		REPLACEMENT STEEL								
RE401	1	5-3								St.
RE501	1	5-7								St.
RE601	1	5-11								St.
RE701	1	6-2								St.
RE801	1	6-6								St.
RE901	1	6-10								St.
RE1001	5	7-2								St.

Bending Diagram



Type 1

Type 2



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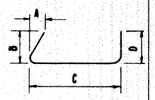

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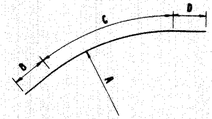

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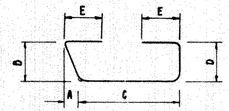

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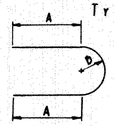
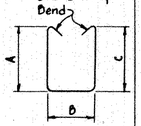


Type 7

Std. Stirrup Bend



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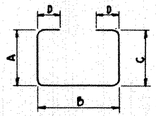


Type 9

NOTE:
In the reinforcing steel bar marks, the first digit where three digits are used and the first two where four are used is the bar number which indicates the size of the bar.

ESTIMATED QUANTITIES (For Two Bridges)

ITEM	TOTAL	UNIT	DESCRIPTION	ABUT.	PIER	SUPERS.	GENERAL
E-2	210	Cu.Yds	Unclassified Excavation	210			
S-1	550	Cu.Yds	Class "C" Concrete, Superstructure			550	
S-1	32	Cu.Yds	Class "C" Concrete, Pier Caps		32		
S-1	114	Cu.Yds	Class "E" Concrete, Abutments	114			
S-4	148,489	Lbs.	Reinforcing Steel	11,229	7849	129,411	
S-14	418.67	Lin.Ft.	Railing (Aluminum railing & supports & concrete parapets)			418.67	
S-16	Lump	Sum	First test pile				Lump
S-18	2760	Lin.Ft.	Steel Piles (12BP53)	1176	1584		
S-29	16	Each	Scuppers, 6" Wrought Iron Pipe			16	
S-29	45	Cu.Yds.	Porous Backfill	45			
3101	550	Each	Water-reducing, set-retarding admixture			550	
I-127	2	Each	Delineator, Type A-1, Bracket Mounted.				

* HORIZONTAL PARAPET REINFORCING
THESE BARS ARE INCLUDED WITH THE RAILING FOR PAYMENT.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

REINFORCING STEEL LIST & ESTIMATED QUANTITIES
BRIDGE No. GUE-40-2078 L&R
U.S. 40 OVER SALT FORK

GUERNSEY COUNTY
STO 251+47.25
252+52.75

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HT	JJV.		pwd	TLU	2-11-63	

MICROFILMED
JUL 25 1985

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

582
638

GUERNSEY COUNTY
GUE-40-17.37

REFERENCES:

Standard Drawings:

Railing Details, Type A	- AR-1-57, Revised 4-2-62
Superstructure Details	- CS-2-54, Revised 2-2-59
Approach Slab Details	- AS-1-54, Revised 7-5-62
Supplemental Specifications:	- I-127, Revised 1-15-62
	- S-101, Dated 7-12-62

Common Details:

Curb & Parapet Details	- Sheet 55.7
Scupper Details	- Sheet 55.7

DESIGN SPECIFICATIONS: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated 9-1-57, together with revisions thereof dated 2-21-58 and 5-1-62.

FOUNDATION SOUNDINGS: Foundation design and foundation quantities are based on a study of rod soundings and soil samplings and soundings made at the site. This sounding information may be inspected in the office of the Bureau of Bridges in Columbus or in an abridged form in the Division Office, but the State assumes no responsibility for the accuracy thereof.

EMBANKMENT: The embankment shall be placed and compacted up to the finished spill-thru slope and to the level of the subgrade for a distance of 200 feet back of the abutments prior to driving the piles for the piers or abutments. The abutment piles shall not be driven until the embankment has been in place for a minimum period of 30 days.

EXCAVATION QUANTITY includes the removal of fill material required for the construction of the abutments.

MACHINE FINISH: The concrete bridge deck shall be finished by the use of a finishing machine.

PILES shall be driven with a hammer of not less than 11,000 foot pounds per blow to firm contact with rock. If the length of penetration is approximately equal to the depth of rock according to the bridge foundation investigation report, the firm contact shall be considered as attained when the capacity according to the formula in Sec. S-18.05 is not less than the following value for a pile hammer of the indicated energy rating:

60 tons per pile using an 11,000 ft. lb. hammer
50 tons per pile using a 15,000 ft. lb. hammer

If the energy rating of the hammer is between the ratings as shown above, the required formula capacity shall be determined by interpolation. The design load is 40 tons per pile.

DELINEATORS: For delineator mounting details, see Roadway Plans.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

GENERAL NOTES
BRIDGE NO. GUE-40-2078 L & R.
U.S. 40 OVER SALT FORK
GUERNSEY COUNTY
STA. 251+47.25
STA. 252+52.75

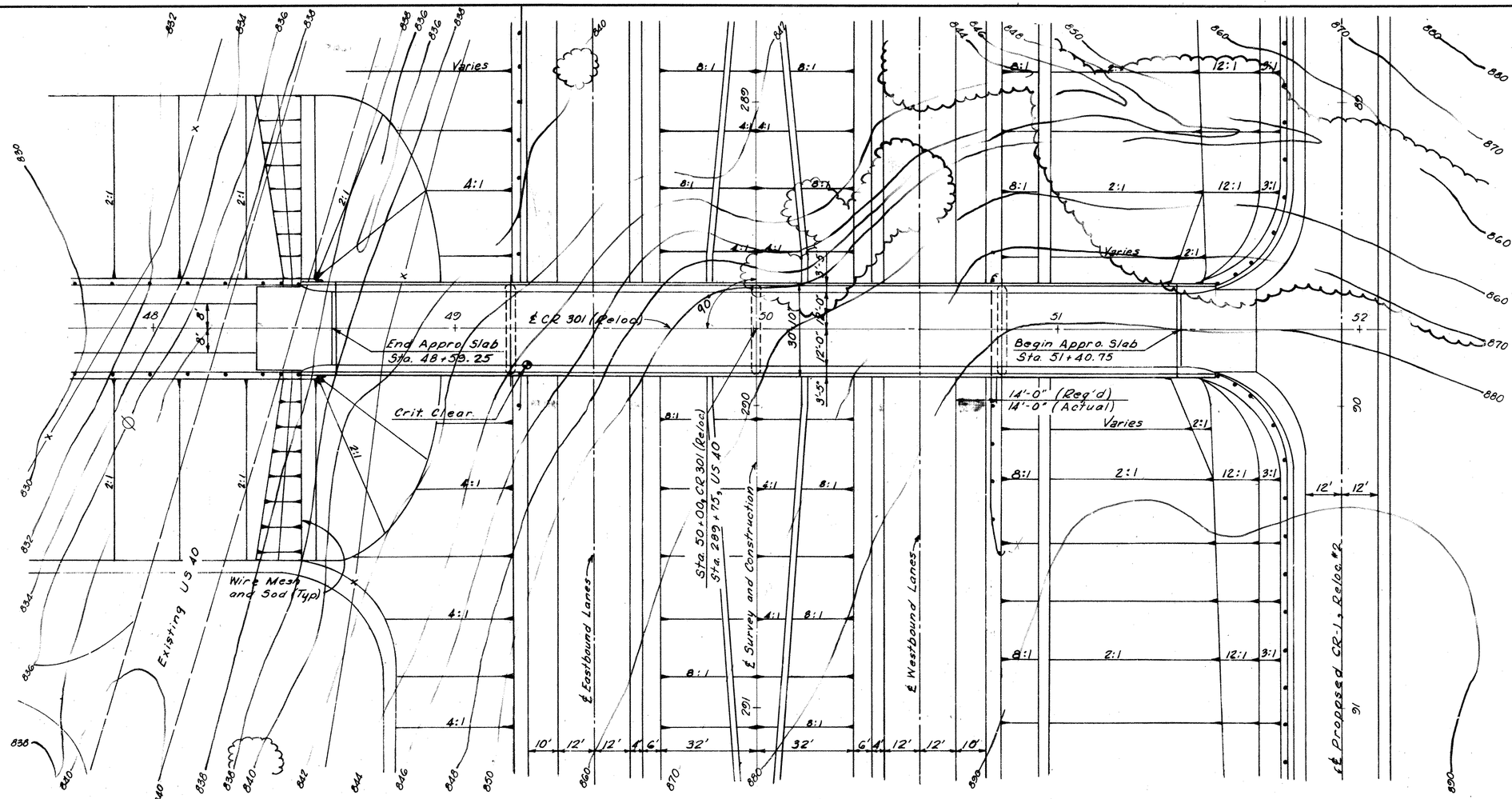
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
				TLU	2-20-63	

MICROFILMED
JUL 25 1985

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

583
638

GUERNSEY COUNTY
GUE-40-17.37



PLAN

PROPOSED STRUCTURE

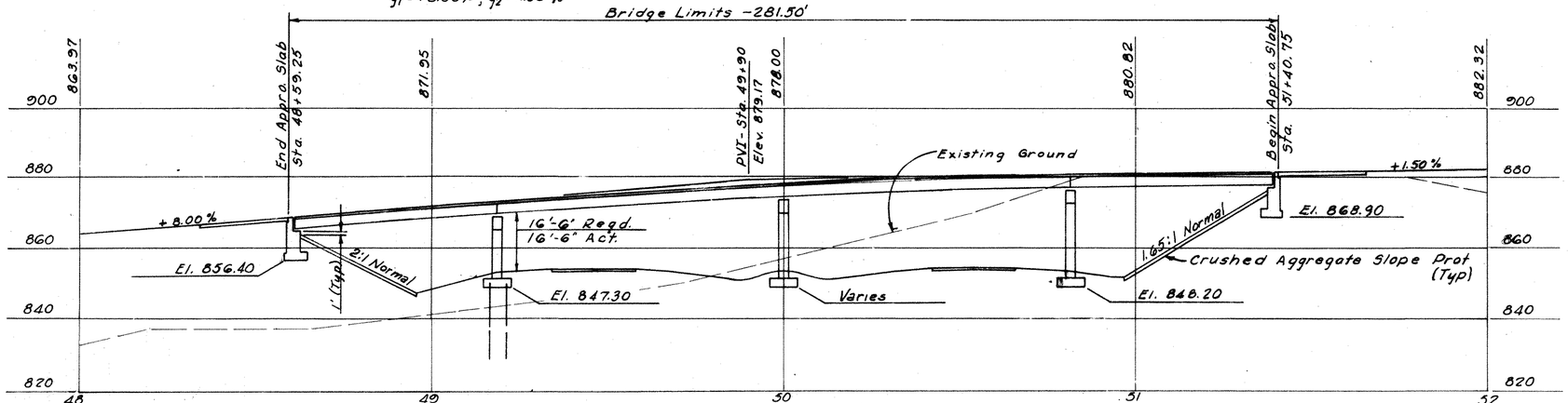
Type: Continuous steel beam with reinforced concrete deck and substructure.
Spans: 57'-0", 81'-6", 81'-6", 57'-0" ℄c brg.
Roadway: 24'-0" ᵗ/ₚ 2'-3" safety curbs and concrete parapets with alum. railing.
Loading: CF-30 (1957)
Wearing Surface: 1/2" mono. concrete.
Skew: None
Alignment: Tangent
Approach Slab: 25'-0" See Sheet 557

CURVE DATA — US 40.

PVI - 296+00
VC - 1500'
Elev - 864.10
Corr - 6.08'
P.G. - 858.02

CURVE DATA - CR 301

PVI - 49+90
VC - 200'
Elev - 879.17'
Corr. - 1.62'
P.G - 877.55
g_1 = +8.00%; g_2 = +1.50%



PROFILE ALONG ℄ CR 301 (Reloc.)

Piling at Pier #1 shall be 12BP53 steel piles. Estimated average pay length is 37 feet.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

SITE PLAN
BRIDGE Nº GUE 40-2151
US 40 under CR 301 (Reloc.)
GUERNSEY COUNTY STA 289+75.00

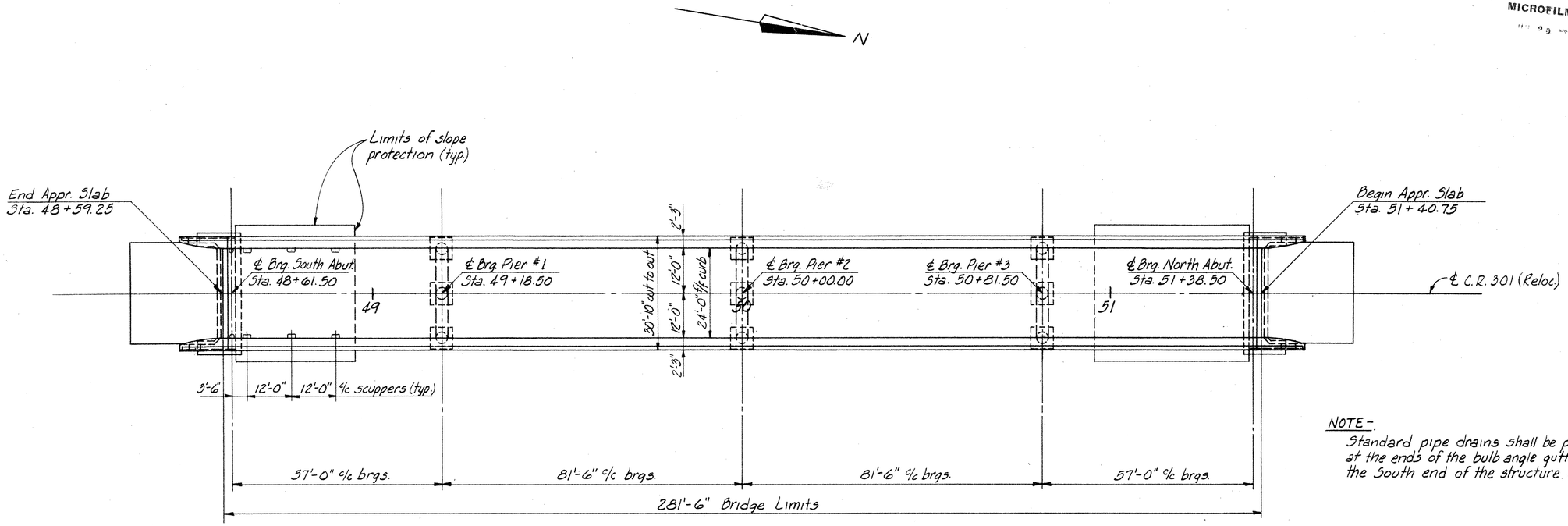
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
fwd	fwd	J.C.W.	Pardo	TLV	2-11-63	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

584/638

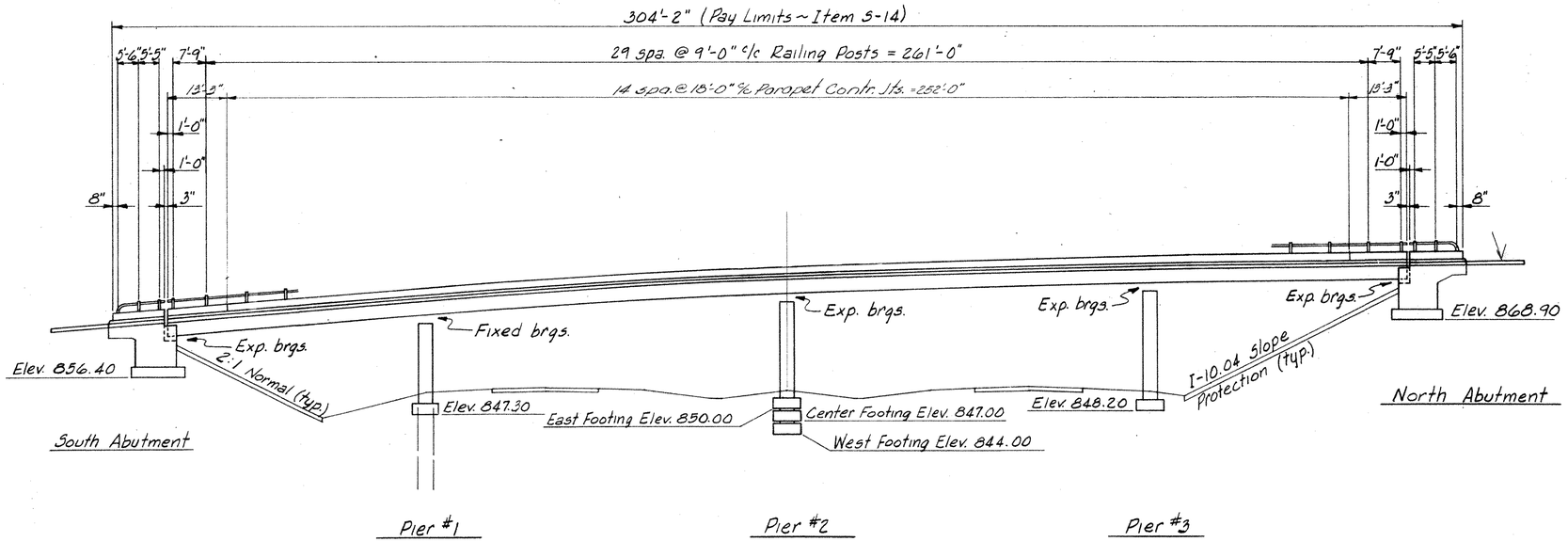
MICROFILMED

GUERNSEY COUNTY
GUE-40-17.37



GENERAL PLAN

NOTE-
Standard pipe drains shall be provided at the ends of the bulb angle gutters at the South end of the structure only.



GENERAL ELEVATION

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

GENERAL PLAN & ELEVATION

BRIDGE Nº GUE-40-2151
U.S. 40 UNDER C.R. 301 (RELOC.)

GUERNSEY COUNTY STA. 289+75.00

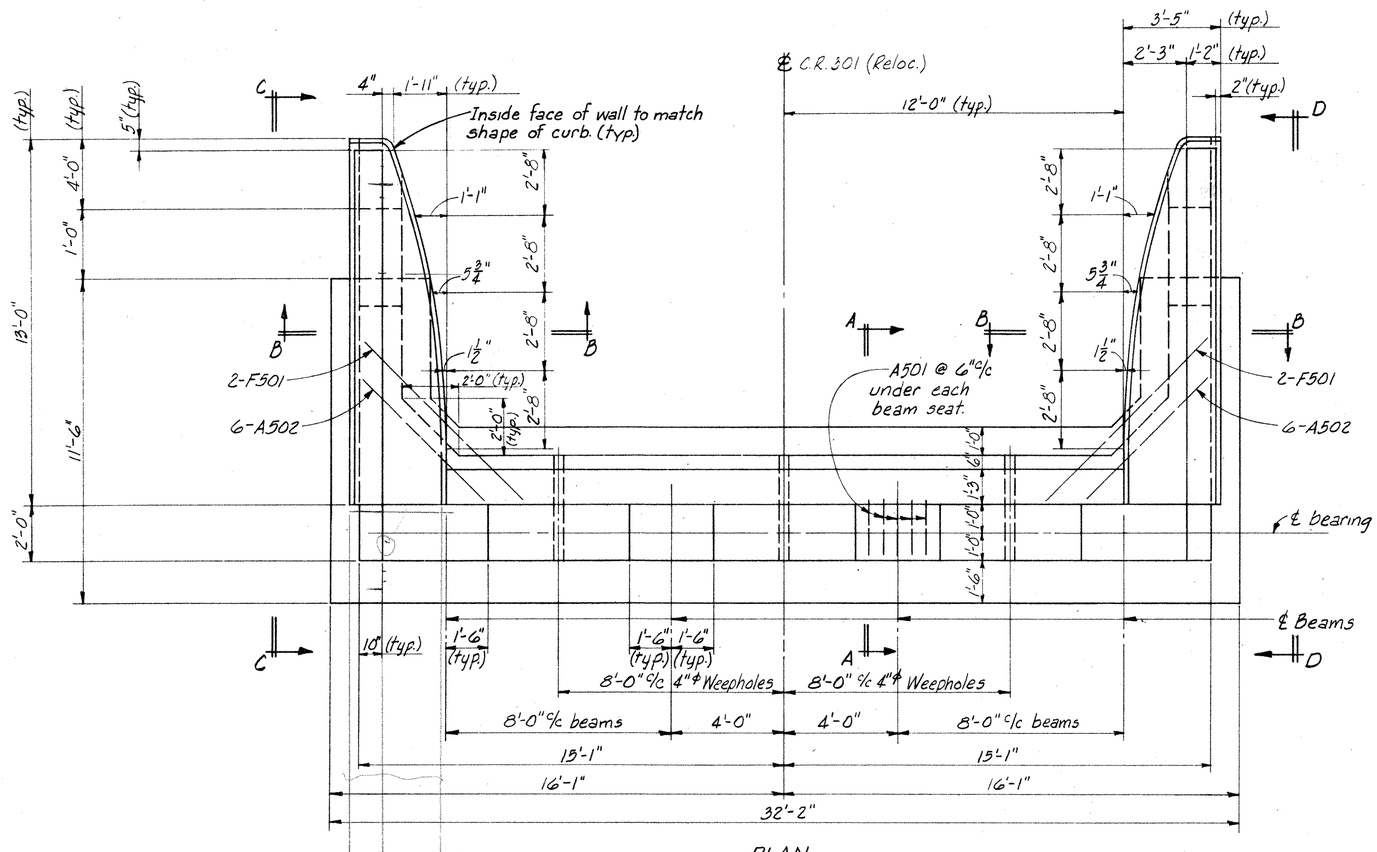
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HT	HT		GEA	TLJ	2-11-63	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

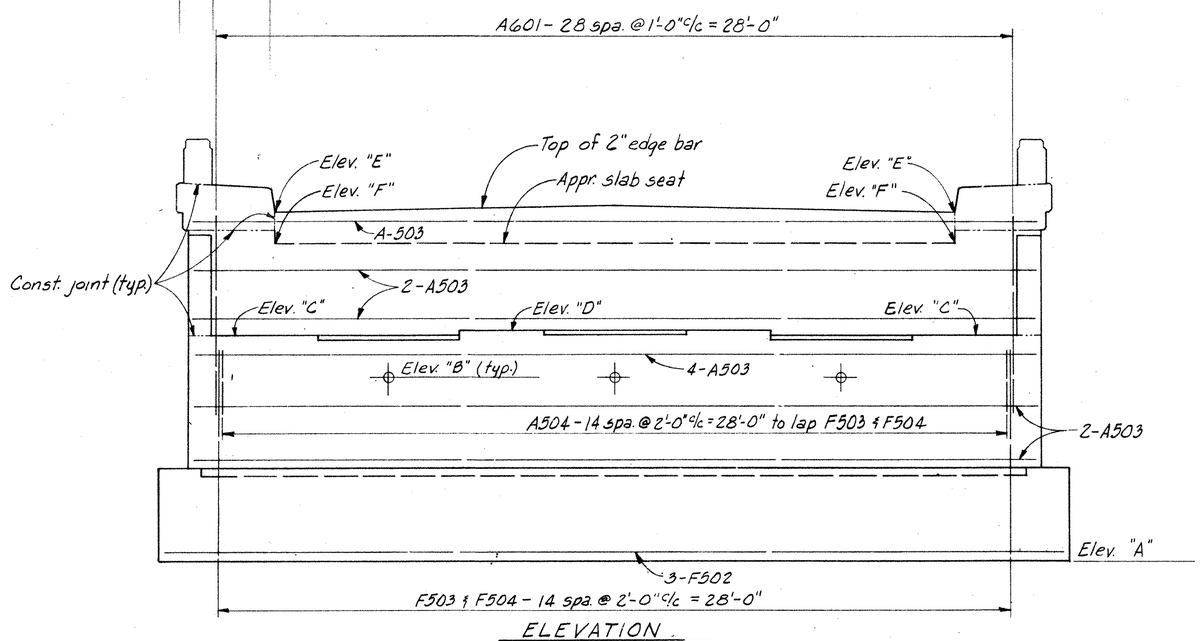
585
639

MICROFILMED
JUL 25 1985

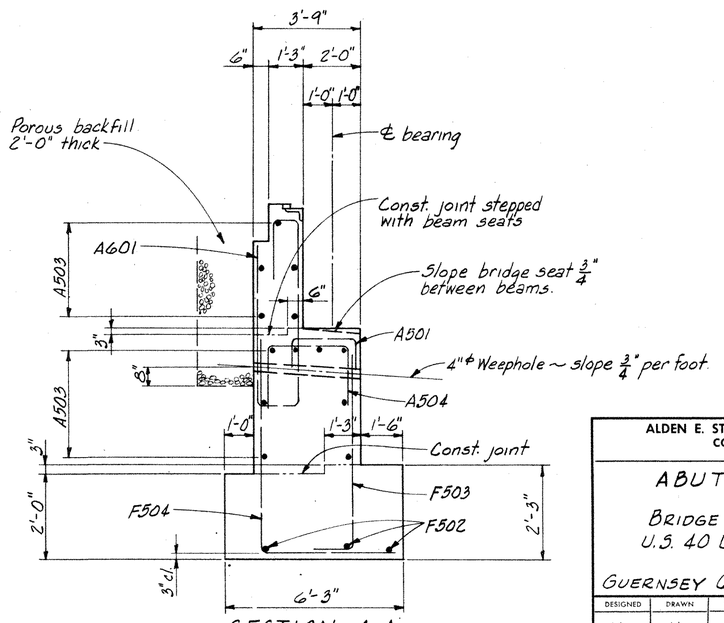
GUERNSEY COUNTY
GUE-40-17.37



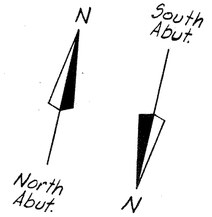
PLAN



ELEVATION



SECTION A-A



NOTES -

Backwall - Top of backwall shall conform to the crown of the superstructure deck.

For additional details and notes see sheet Nº 586.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

ABUTMENT DETAILS

BRIDGE Nº GUE-40-2151
U.S. 40 UNDER C.R. 301 (Reloc.)

GUERNSEY COUNTY STA. 289+75.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HT	HT		GEA	TLJ	2-11-63	

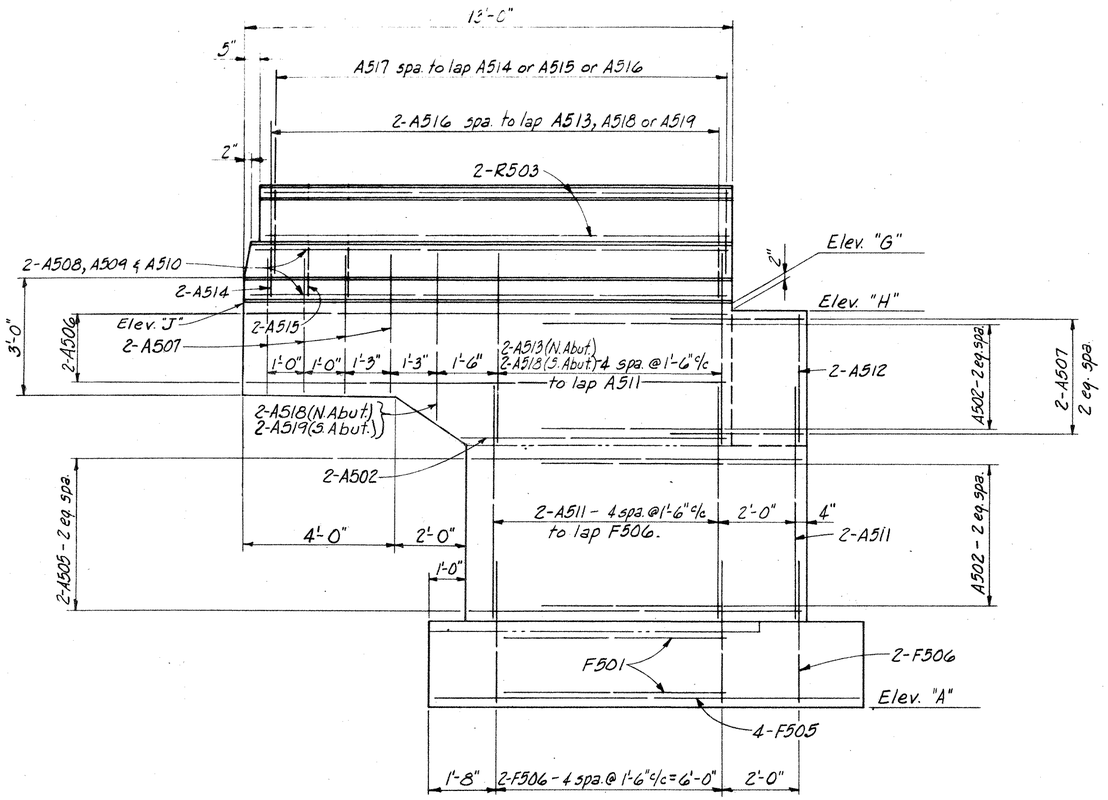
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

586
638

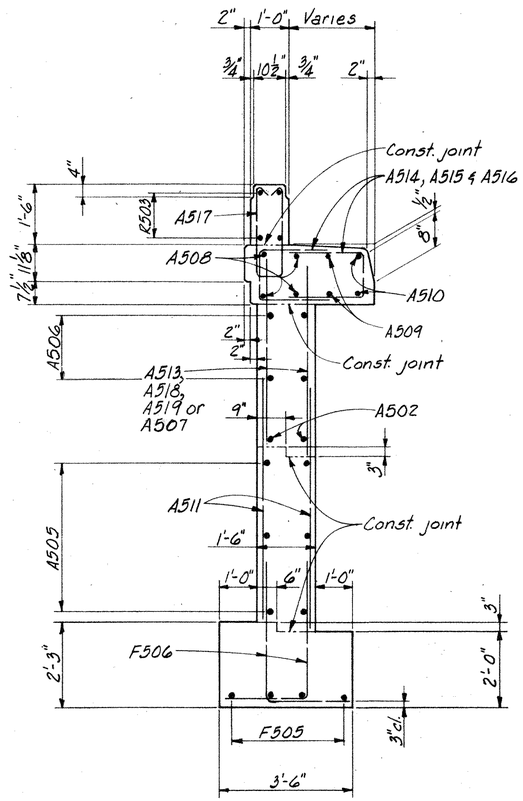
MICROFILMED
JUL 25 1985

GUERNSEY COUNTY
GUE-40-17.37

TABLE OF ELEVATIONS									
	A	B	C	D	E	F	G	H	J
North Abutment	868.90	875.33	876.83	876.95	881.23	879.91	880.55	880.35	880.75
South Abutment	856.40	862.82	864.32	864.44	868.58	867.19	867.95	867.94	866.91



VIEW C-C
(View D-D similar)



SECTION B-B

NOTES-

Porous Backfill-
Porous backfill as shown shall be placed between the inside face of the wingwalls and shall extend vertically to the bottom of the I-22. Excavation, therefor, in excess of that amount required for construction of the abutments shall be considered as paid for in the bid price per cubic yard for porous backfill.

Parapets-
Concrete parapets are included with Item 5-14 for payment

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

ABUTMENT DETAILS

BRIDGE NO GUE-40-2151
U.S. 40 UNDER C.R. 301 (RELOC.)

GUERNSEY COUNTY STA. 289+75.00

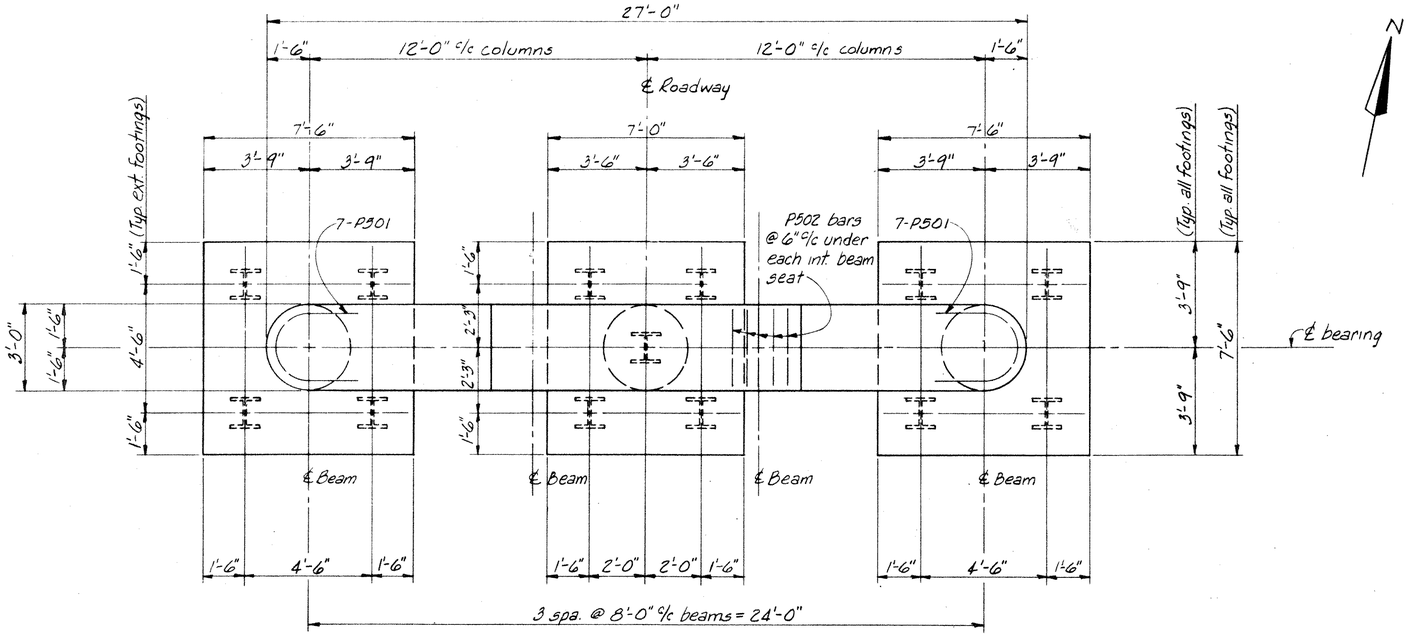
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HT	HT		GEA	TLU	2-11-63	

MICROFILMED
JUL 25 1985

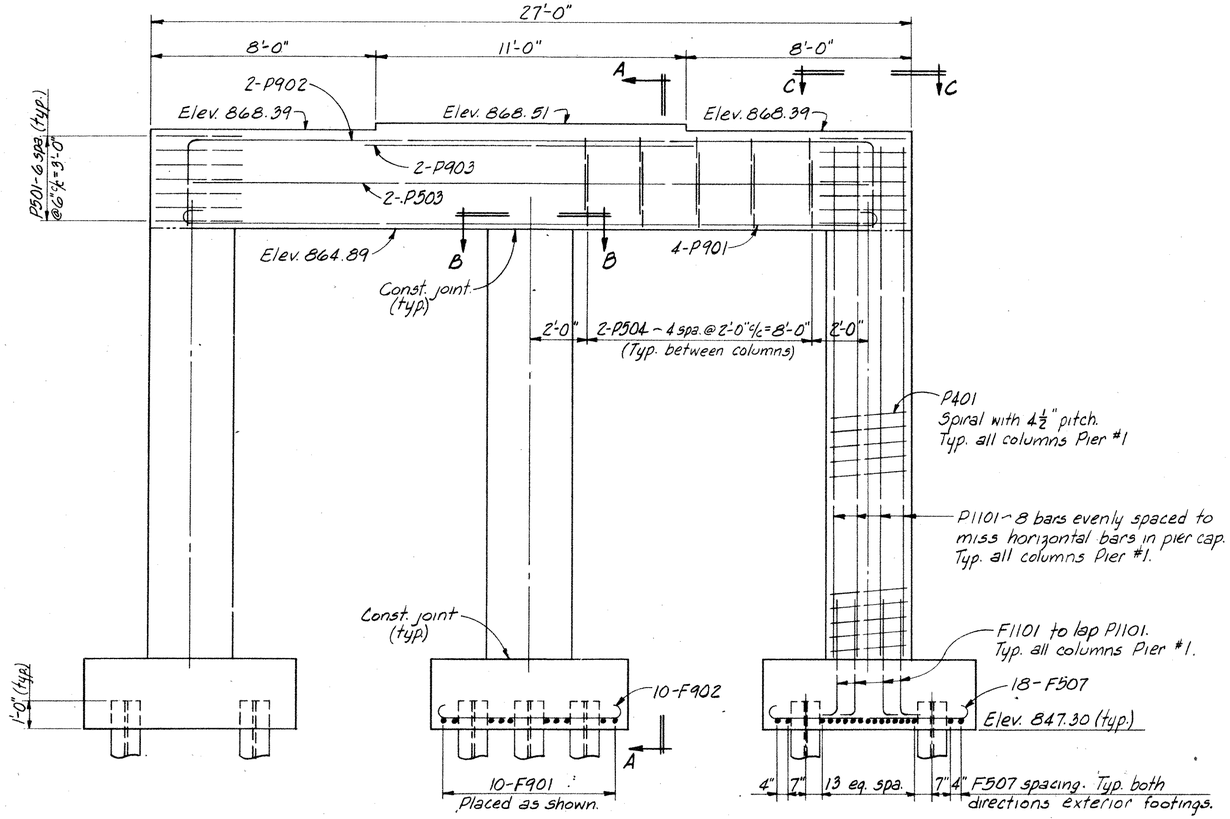
FED. DIV.	STATE	PROJECT	TYPE FUNDS
2	OHIO		

587
638

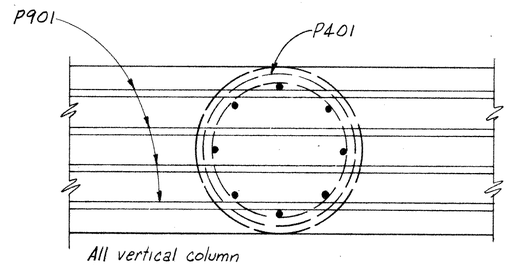
GUERNSEY COUNTY
GUE-40-17.37



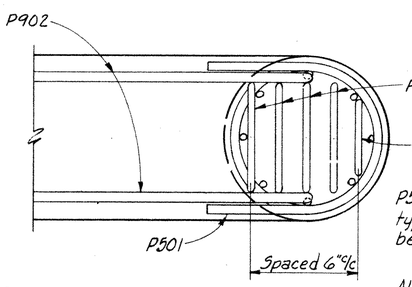
PLAN



ELEVATION



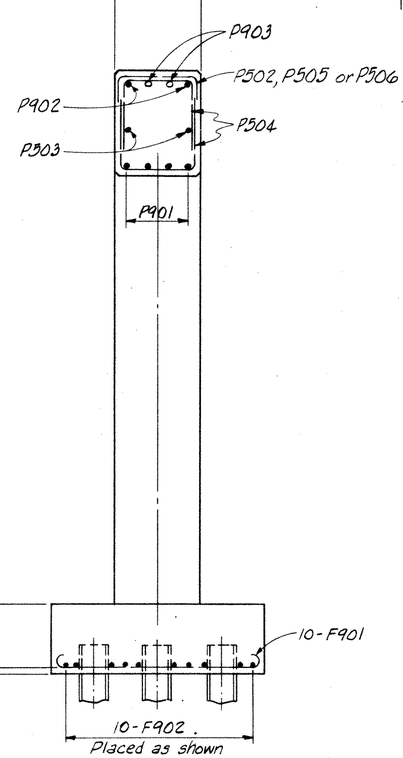
SECTION B-B



P505 and P506 bars typical for exterior beam seats.

All vertical column bars are P1101

VIEW C-C



SECTION A-A

NOTES

PILES - All piles shall be 12BP53 steel bearing piles

BRIDGE SEAT REINFORCING - Special care shall be taken in placing reinforcing steel in the vicinity of bridge seat so as to avoid interference with the drilling of anchor bar holes.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

PIER #1

BRIDGE Nº GUE-40-2151
U.S. 40 UNDER C.R. 301 (RELOC.)

GUERNSEY COUNTY STA. 289+75.00

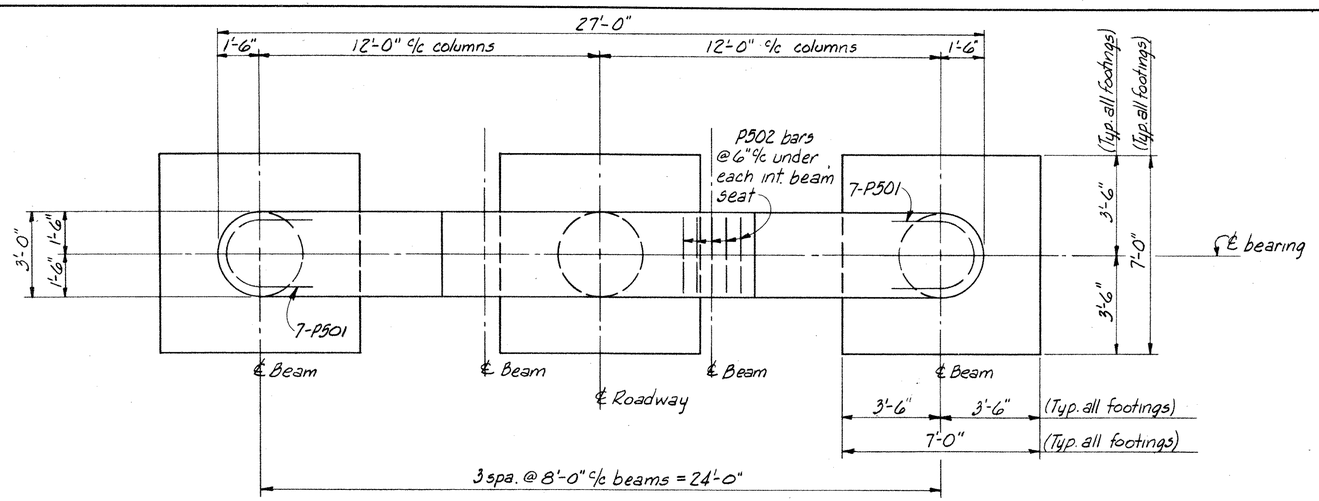
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HT	HT		GEA	TLU 2-11-63		

MICROFILMED
JUL 25 1985

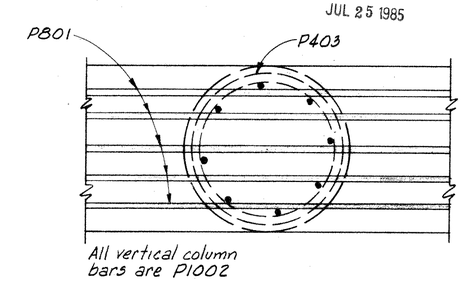
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

588
6.38

GUERNSEY COUNTY
GUE-40-17.37

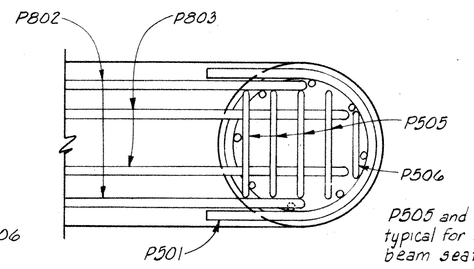


PLAN



All vertical column bars are P1002

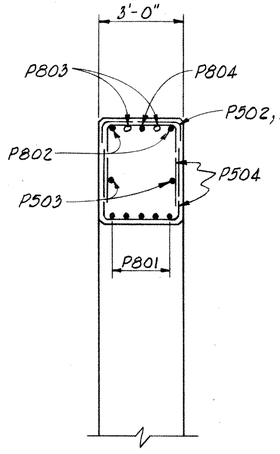
SECTION E-E



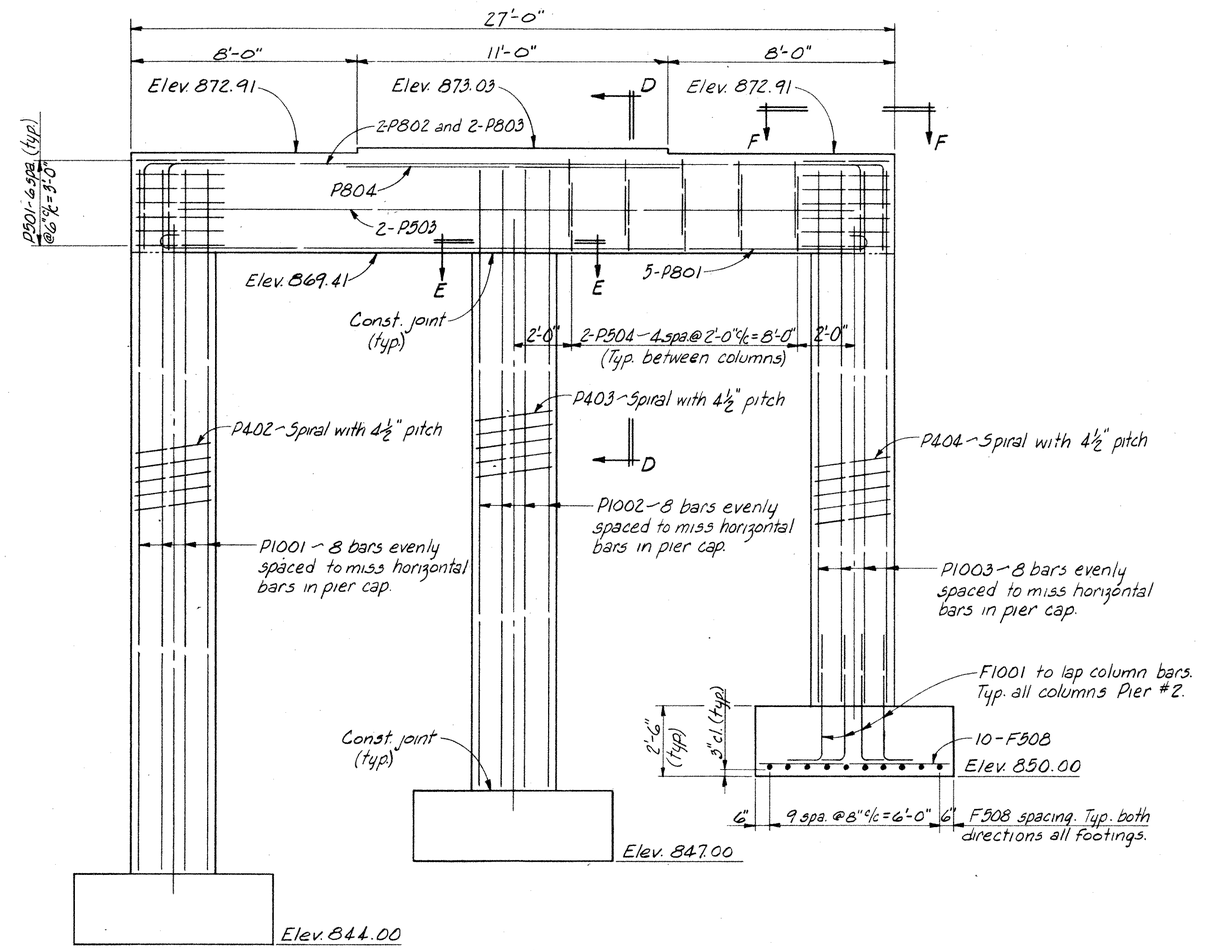
P505 and P506 bars typical for exterior beam seats.

All vertical column bars are P1003.

VIEW F-F



SECTION D-D



ELEVATION

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

PIER #2

BRIDGE Nº GUE-40-2151
U.S. 40 UNDER C.R. 301 (RELOC.)

GUERNSEY COUNTY STA. 289+75.00

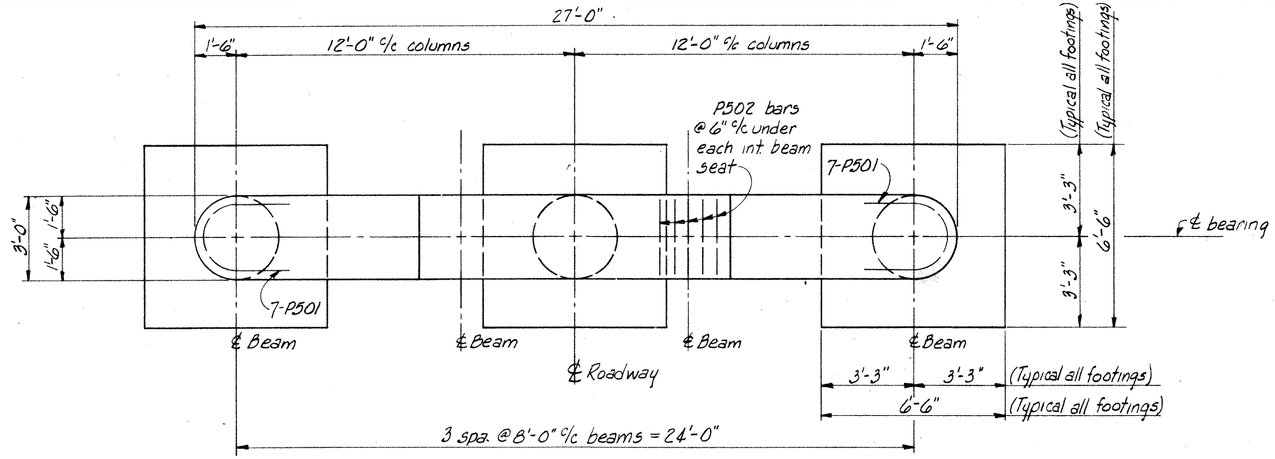
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HT	HT		GEA	TLU	2-11-63	

MICROFILMED
JUL 25 1985

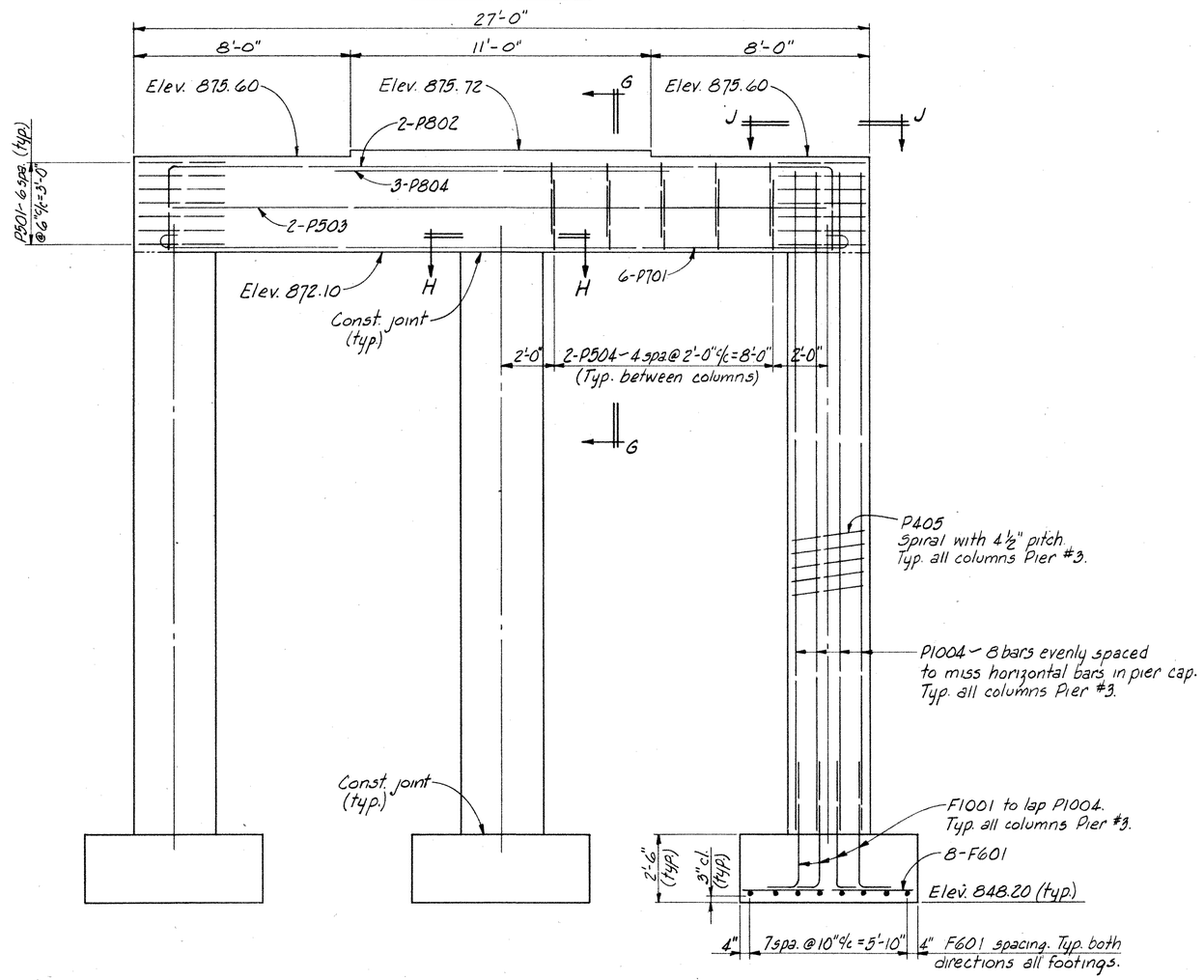
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

583
638

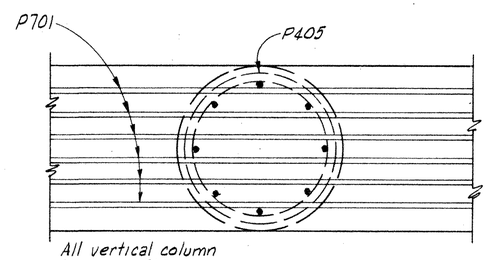
GUERNSEY COUNTY
GUE-40-17.37



PLAN

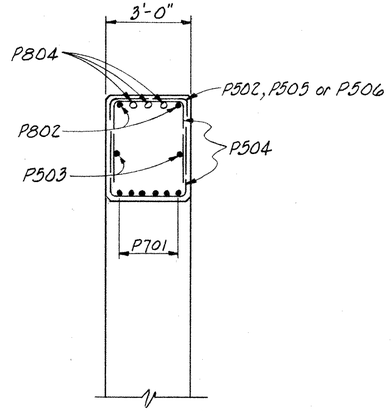


ELEVATION

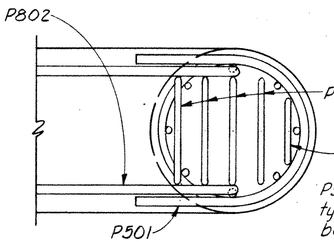


All vertical column bars are P1004

SECTION H-H



SECTION G-G



P505 and P506 bars typical for exterior beam seats.

All vertical column bars are P1004.

VIEW J-J

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

PIER #3

BRIDGE Nº GUE-40-2131
U.S. 40 UNDER C.R. 301 (RELOC.)

GUERNSEY COUNTY STA. 289+75.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HT	HT		GEA	TLU	2-11-63	

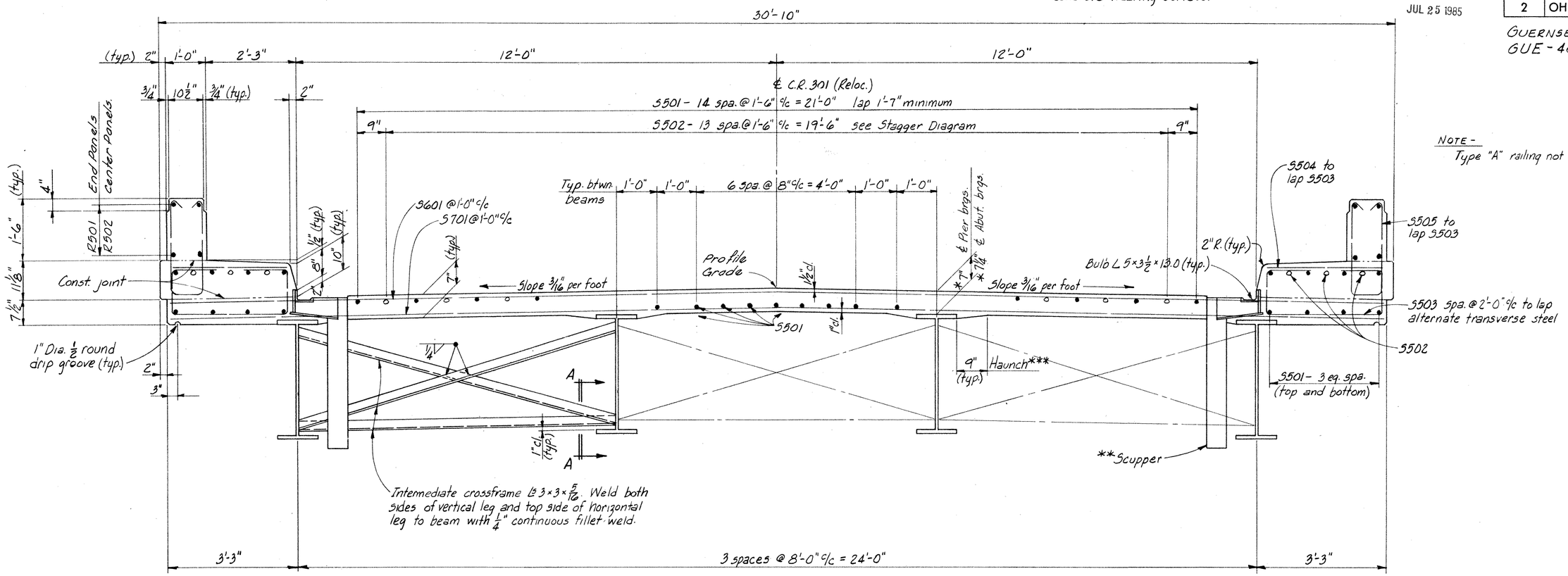
MICROFILMED
JUL 25 1985

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

530
638

GUERNSEY COUNTY
GUE-40-17.37

7" slab thickness includes ½" monolithic concrete wearing surface.



NOTE -
Type "A" railing not shown.

TRANSVERSE SECTION
(Safety curb and parapet reinforcing typical for both sides)

* This dimension is from the top of the slab to the top of the flange of the beam and is the nominal dimension. The quantity of deck concrete to be paid for shall be based on this dimension even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade.

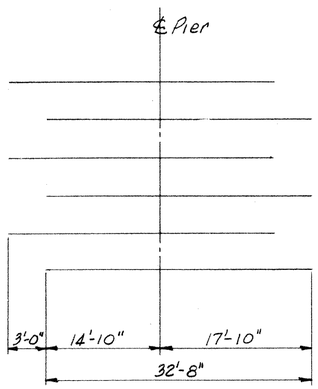
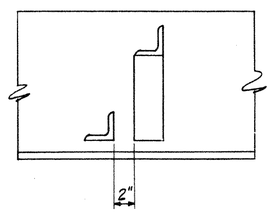


DIAGRAM SHOWING STAGGER OF 5502 BARS OVER PIERS



SECTION A-A

NOTES -

Concrete parapet is included with Item S-14 for payment.

** Use scupper shown on CSB-2-56 for monolithic wearing surface and beam flanges 12⅞" or less.

*** Deck Slab Haunch - The haunch in the deck slab adjacent to the top of the steel beams, which is shown as 9" wide, may vary from this dimension with a minimum of 6" and a maximum of 12". Maximum slope of haunch shall be one vertical to four horizontal. Payment for deck slab concrete shall be based on the 9" width.

Transverse bars shall be field bent to fit crown. Cost is included in Item S-4.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

SUPERSTRUCTURE DETAILS

BRIDGE Nº GUE-40-2151
U.S. 40 UNDER C.R. 301 (RELOC.)

GUERNSEY COUNTY STA. 289+75.00

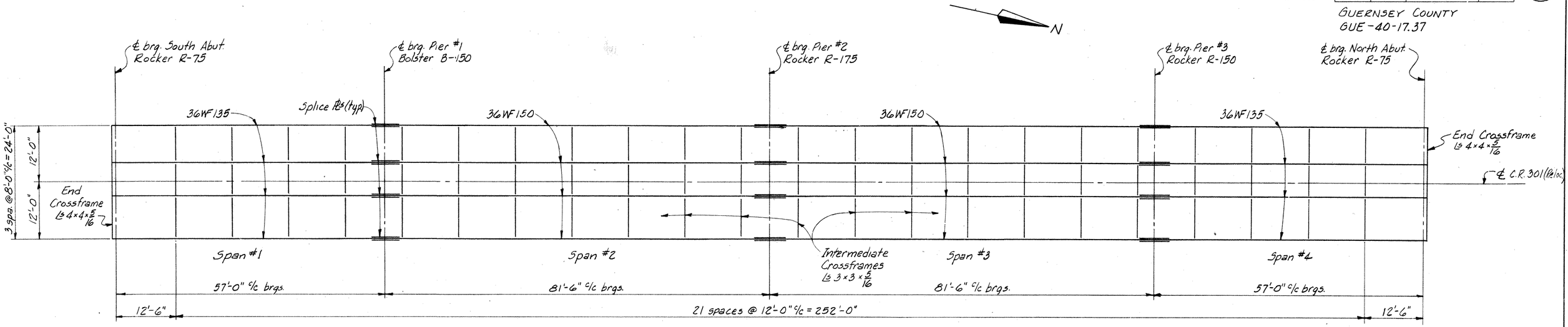
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HT	HT		GEA	TZU	2-11-83	

MICROFILMED
JUL 25 1985

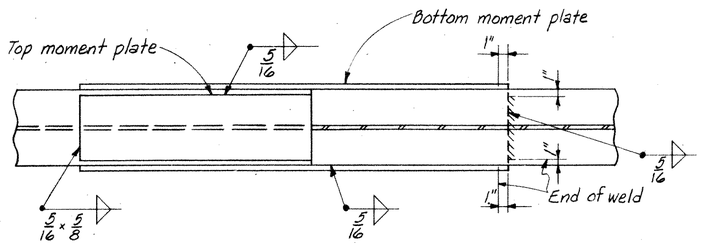
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

591
638

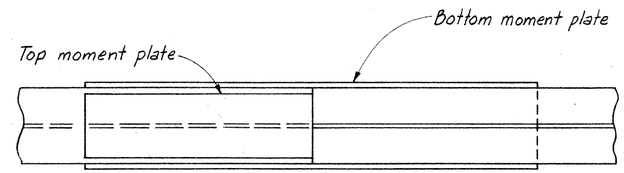
GUERNSEY COUNTY
GUE-40-17.37



FRAMING PLAN

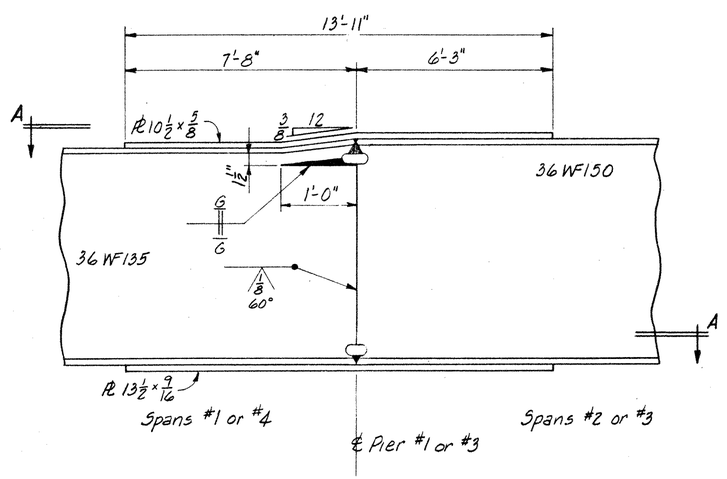


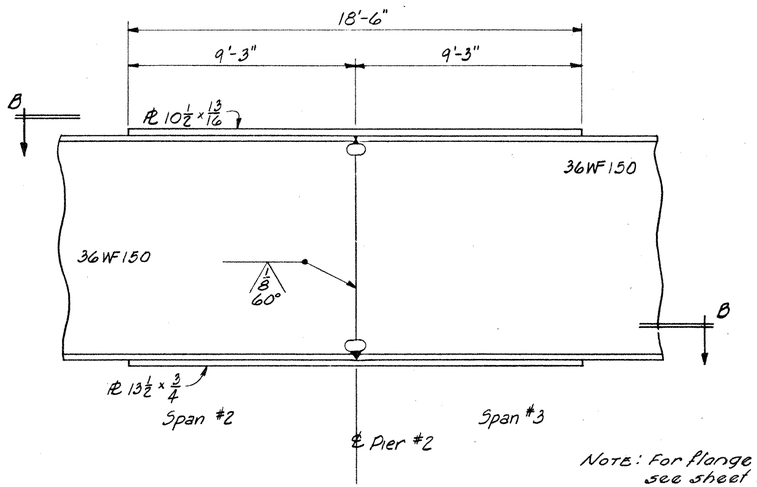
SECTION A-A



(All welds same as shown in Sect. A-A)

SECTION B-B





Note: For flange weld preparation see sheet 557.

BEAM SPLICE DETAILS

DEFLECTION and CAMBER

Location	Span #1		Spans #2 and #3		Span #4	
	Ext.	Int.	Ext.	Int.	Ext.	Int.
Defl. due to wgt. of steel	1/16	1/16	1/8	1/8	1/16	1/16
Defl. due to remaining D.L.	5/16	3/16	13/16	5/8	5/16	3/16
Vert. Curve convexity	13/16	13/16	3 1/4	3 1/4	1/16	1/16
Total	1 3/16	1 1/16	4 3/16	4	7/16	5/16
Req'd. shop camber	1 1/8	1 1/8	4 1/8	4 1/8	0	0

BEAM SPLICE WELDING PROCEDURE

(1) Raise end of beam 2" at Pier #2.

(2) Butt weld beam flanges and web at Pier #1 using the following sequence: make one pass on each flange, then two on the web; repeat, using one pass at each location, until welds are completed.

(3) Weld top and bottom flange moment plates at Pier #1.

(4) Lower end of beam at Pier #2.

(5) Make splice at Pier #2 and Pier #3 in the same manner, raising the end of the beam 3" at Pier #3 and ¾" at the North Abutment.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

FRAMING PLAN AND SUPERSTRUCTURE DETAILS

BRIDGE Nº GUE-40-2151
U.S. 40 UNDER C.R. 301 (RELOC.)

GUERNSEY COUNTY STA. 289+75.00

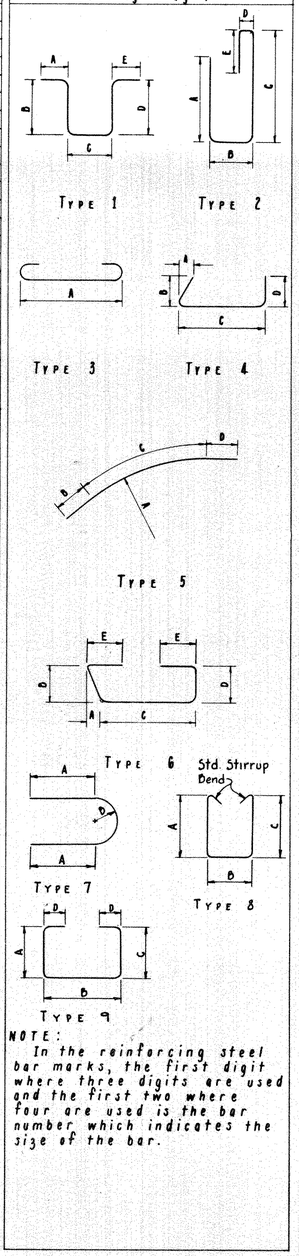
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HT	HT		GEA	TLU	2-11-63	

REINFORCING STEEL LIST

Mark	Nº	Length	Weight	Type	"A"	"B"	"C"	"D"	"E"	Shape
				ABUTMENTS						
A501	90	9-11	205	1		1-6	2-2	1-6		bt.
A502	32	6-0	200							st.
A503	26	29-10	809							st.
A504	30	6-8	209	1		1-9	3-5	1-9		bt.
A505	29	8-8	217							st.
A506	16	12-8	211							st.
A507	56	3-5	200							st.
A508	16	12-6	209							st.
A509	8	9-1	76							st.
A510	8	12-6	104	***						bt.
A511	98	7-6	376							st.
A512	8	3-4	28							st.
A513	20	4-7	96							st.
A514	8	2-9	23	1		0-11	1-2	0-11		bt.
A515	8	3-5	29	1		1-3	1-2	1-3		bt.
A516	64	4-1	273	1		1-7	1-2	1-7		bt.
A517	90	5-3	219	8	2-1	0-6	2-1			bt.
A518	24	4-5	111							st.
A519	4	3-9	16							st.
A601	58	15-6	1350	2	4-10	1-5	6-2	0-11	2-10	bt.
F501	8	8-0	67							st.
F502	6	31-10	199							st.
F503	30	7-9	242	1		7-5	0-6			bt.
F504	30	12-0	375	1		7-3	4-11			bt.
F505	16	11-2	186							st.
F506	48	5-7	280	1		3-7	2-2			bt.
					PIERS					
P501	92	7-3	318	7	1-7	1-3½				bt.
P502	30	5-5	170	1		1-6	2-8	1-6		bt.
P503	6	24-0	150							st.
P504	60	8-9	548	1		3-2	2-8	3-2		bt.
P505	24	5-1	127	1		1-6	2-4	1-6		bt.
P506	6	4-5	28	1		1-6	1-8	1-6		bt.
P701	6	26-0	319	3	24-4					bt.
P801	5	26-6	354	3	24-4					bt.
P802	4	29-10	319	1		3-2	24-0	3-2		bt.
P803	2	31-10	170	1		3-2	26-0	3-2		bt.
P804	4	12-0	128							st.
P901	4	26-10	365	3	24-4					bt.
P902	2	29-10	203	1		3-2	24-0	3-2		bt.
P903	2	12-6	85							st.
P1001	8	25-10	889							st.
P1002	8	22-10	786							st.
P1003	8	19-10	683							st.
P1004	24	24-4	2513							st.
P1101	24	18-1	2306							st.
F507	72	8-4	626	3	7-2					bt.
F508	60	6-8	417							st.
F601	48	6-2	445							st.
F901	10	9-8	329	3	7-2					bt.
F902	10	9-2	312	3	6-8					bt.

Mark	Nº	Length	Weight	Type	"A"	"B"	"C"	"D"	"E"	Shape
				PIERS CONT'D.						
F1001	98	6-5	1325	1		5-4	1-5			bt.
F1101	24	7-0	893	1		5-8	1-8			bt.
				SUPERSTRUCTURE						
S501	522	32-5	17649							st.
S502	60	32-8	2044							st.
S503	280	5-7	1630	9	1-2	2-9	1-2	0-6		bt.
S504	280	2-9	803							st.
S505	280	5-3	1533	8	2-1	0-6	2-1			bt.
S601	280	30-2	12,687							st.
S701	280	30-2	17,265							st.
				PARAPETS						
R501	16	12-11	*							st.
R502	112	17-8	*							st.
R503	16	12-3	*							st.
				REPLACEMENT STEEL						
RE501	2	5-7								st.
RE601	1	5-11								st.
RE701	1	6-2								st.
RE801	1	6-6								st.
RE901	1	6-10								st.
RE1001	1	7-2								st.
RE1101	1	7-6								st.
				REPLACEMENT STEEL FOR SPIRALS						
RE401	1	5-3		5	1-3½		5-3			bt.

Bending Diagram



NOTE:
In the reinforcing steel bar marks, the first digit where three digits are used and the first two where four are used is the bar number which indicates the size of the bar.

SPIRALS - HOT ROLLED							
Mark	Nº	Length	Core	Pitch	Turns	Spacers	Weight
P401	3	15-1	32	4½	43	12	839
P402	1	22-11	32	4½	64	4	415
P403	1	19-11	32	4½	56	4	363
P404	1	16-11	32	4½	48	4	311
P405	3	21-5	32	4½	60	12	1167

SPIRALS

THE "LENGTH" SHOWN IN THE STEEL LIST FOR THE SPIRAL BARS IS THE DISTANCE FROM THE TOP OF THE FOOTING TO THE BOTTOM OF THE PIER CAP.

THE NO. OF TURNS SHOWN IN THE STEEL LIST FOR THE SPIRAL BARS IS THE "LENGTH" DIVIDED BY THE PITCH, PLUS 3 TURNS (TOTAL NUMBER OF CLOSED COILS), EXPRESSED AS THE NEAREST WHOLE NUMBER.

SPIRAL REINFORCING BARS SHALL NOT HAVE DEFORMATIONS BUT SHALL IN OTHER RESPECTS CONFORM TO ITEM S-4, 1½ CLOSED COILS SHALL BE PROVIDED AT THE ENDS OF EACH SPIRAL UNIT. FOUR STEEL CHANNEL, TEE OR ANGLE SPACERS, WEIGHING APPROXIMATELY 0.68 LB. PER LIN. FT. OF SPACER, SHALL BE PROVIDED FOR EACH SPIRAL UNIT. THEY SHALL BE EQUALLY SPACED ALONG THE PERIPHERY OF THE COIL. THE NUMBER OF POUNDS OF THESE SPACERS, BASED ON 0.68 LB. PER LIN. FT., WILL BE PAID FOR AS REINFORCING STEEL AND IS INCLUDED IN THE TABULATED QUANTITY OF SPIRAL BARS.

MICROFILMED
JUL 25 1985

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

592
608

GUERNSEY COUNTY
GUE-40-17.37

ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	ABUT.	PIER	SUPERS.	GENERAL
E-2	251	Cu.Yds.	Unclassified Excavation	138	113		
E-2	65	Cu.Yds.	Rock and Shale Excavation.	43	22		
S-1	252	Cu.Yds.	Class "C" Concrete Superstructure.			252	
S-1	76	Cu.Yds.	Class "C" Concrete, Pier Caps & Columns.		76		
S-1	79	Cu.Yds.	Class "E" Concrete, Footings.	38	41		
S-1	87	Cu.Yds.	Class "E" Concrete, Abutments above Footings.	87			
S-4	77,819	Lbs.	Reinforcing Steel	6310	17,898	53,611	
S-7	199,200	Lbs.	Structural Steel			199,200	
S-8	199,200	Lbs.	Field Painting of Structural Steel.			199,200	
S-14	608.33	Lin.Ft.	Railing (Alum. Rail & Supports & Conc. Parapets.)	30.33		558	
S-16	Lump	Sum	First Test Pile				Lump
S-18	480	Lin.Ft.	Steel Piles (12BP53).		480		
S-29	18	Cu.Yds.	Porous Backfill	18			
S-29	6	Each	Scuppers, including supports			6	
I-10	342	Sq.Yds.	Crushed Aggregate Slope Protection				342
S-101	252	Each	Water Reducing, Set-Retarding Admixture.			252	

*** Field Bend. Cost Included With Item S-4.

* HORIZONTAL PARAPET REINFORCING
THESE BARS ARE INCLUDED WITH THE RAILING FOR PAYMENT.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

Reinforcing Steel List & Estimated Quantities
Bridge No. GUE-40-2151
U.S. 40 Under C.R. 301 (Reloc.).
GUERNSEY COUNTY Sta. 289+75.00

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HT	DWH		GEA	TCW	2-11-63	

MICROFILMED
JUL 25 1985

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

593
438

GUERNSEY COUNTY
GUE-40-17.37

REFERENCES:

Standard Drawings:

End Finish and End Cross Frame Details	- CSB-2-56,	Sheets 2 & 3 Revised 2-2-59
Gutter and Scupper Details	- CSB-2-56,	Sheets 2 & 3 Revised 2-2-59
Railing Details Type A	- AR-1-57,	Revised 4-2-62
Rocker and Bolster Details	- RB-1-55,	Revised 2-2-59
Approach Slab Details	- AS-1-54,	Revised 7-5-62
Supplemental Specification:	- S-101,	Dated 7-12-62

Common Details:

Approach Slab Details	- Sheet 558
Railing Details	- Sheet 558
End Dam Details	- Sheet 557

DESIGN SPECIFICATIONS: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated 9-1-57, together with revisions thereof dated 2-21-58 and 5-1-62.

FOUNDATION SOUNDINGS: Foundation design and foundation quantities are based on a study of rod soundings and soil samplings and soundings made at the site. This sounding information may be inspected in the office of the Bureau of Bridges in Columbus or in an abridged form in the Division office, but the State assumes no responsibility for the accuracy thereof.

WELDING of structural steel shall be Class "A" except as otherwise shown. Any welds shown as field welds may be, at the option of the Contractor, made in the shop. Class "B" welding shown thus:



CONTINUOUS BEAM SHOP ASSEMBLY: Reference shall be made to paragraph 4, Section S-7.12 of the Construction and Material Specifications. For the purpose of checking the fit-up of weld joint preparation, only two adjacent beams need be shop assembled at a time in their correct unloaded position. All beams shall be assembled and match marked.

CONTINUOUS BEAM SPLICES: If beams having depths differing by more than 1/8" are to be spliced by butt welding, the depth of the smaller depth beam shall be increased by splitting the web longitudinally at a distance of 1-1/2" below the bottom of the top flange and for a distance sufficient to allow the flange to be bent up at a slope of not more than 3/8" per foot, after which the split in the web shall be completely welded with full depth penetration and ground flush.

EMBANKMENT: The embankment for the south abutment shall be placed and compacted up to the finished spill-thru slope and to the level of the subgrade for a distance of 200 feet back of the abutment prior to construction of the abutment. For special compaction requirements in the abutment area, see the Roadway Plans. The embankment for US 40 shall be placed a minimum of 6 inches above the footer elevation of Pier 1 prior to pile driving. The Engineer shall place hubs in the CR 301 embankment and make periodic observations to determine the extent of the settlement. The abutment construction shall not be initiated until 90 days after the completion of the embankment.

EXCAVATION QUANTITY includes the removal of fill material required for the construction of the piers and abutments.

SURFACE FINISH OF CONCRETE: The requirements of Sec. S-1.22, Rubbed Finish, shall apply to the following exposed concrete surfaces:

a. The entire superstructure except the top and bottom surfaces of roadways and safety curbs.

b. All surfaces of piers and abutments which will be exposed upon completion of the construction except bridge seats, backwalls, and the face of spill-thru abutments between outside beams.

CONCRETE DECK PLACING: In order to facilitate water curing of the concrete in the deck slab, the placing of concrete shall progress up grade. The slab may be placed in sections between transverse construction joints which are parallel to the transverse slab bars and are located near the center of any span.

MACHINE FINISH: The concrete bridge deck shall be finished by the use of a finishing machine.

CRUSHED AGGREGATE SLOPE PROTECTION shall be provided under the structure as indicated on the General Plan.

TRAFFIC MAINTENANCE: For details of traffic maintenance, see Roadway Plans.

FOUNDATION BEARING PRESSURE: Pier 2 & 3 footings are designed for a maximum bearing pressure of 4 tons per square foot and abutment footings for 2.5 tons per square foot.

PIER 2 & 3 FOOTINGS shall extend a minimum of 3 inches into undisturbed rock or to the elevation shown, whichever is lower.

PILES shall be driven with a hammer of not less than 11,000 foot pounds per blow to firm contact with rock. If the length of penetration is approximately equal to the depth of rock according to the bridge foundation investigation report, the firm contact shall be considered as attained when the capacity according to the formula in Sec. S-18.05 is not less than the following value for a pile hammer of the indicated energy rating:

65 tons per pile using an 11,000 ft. lb. hammer
60 tons per pile using a 15,000 ft. lb. hammer

If the energy rating of the hammer is between the ratings as shown above, the required formula capacity shall be determined by interpolation. The design load is 45 tons per pile.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

GENERAL NOTES
BRIDGE NO. GUE-40-2151
U.S. 40 UNDER C.R. 301 (RELOC.)

GUERNSEY COUNTY STA. 289+75.00

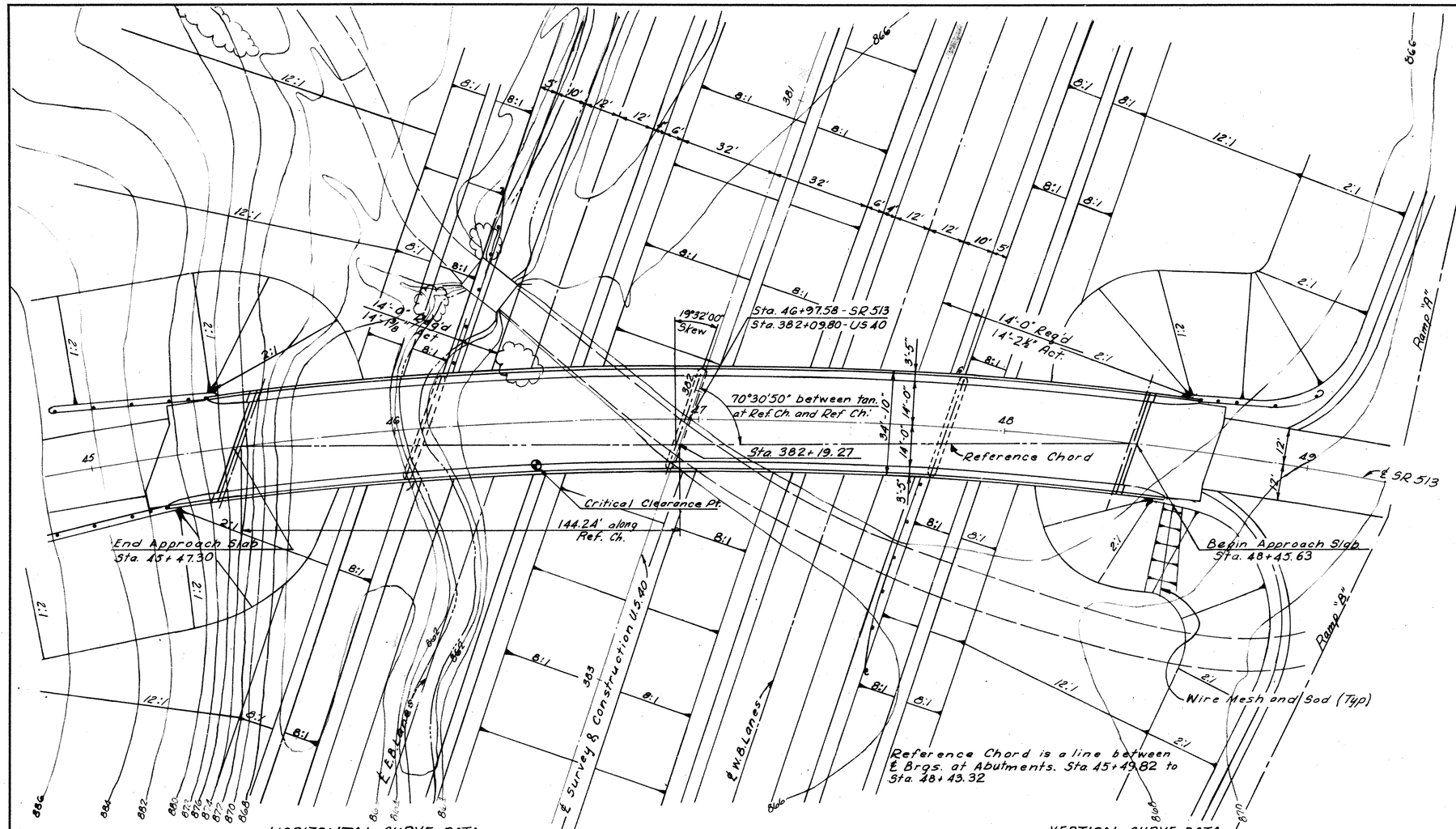
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
				TLU	2-20-63	

MICROFILMED
JUL 25 1985

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

594
638

GUERNSEY COUNTY
GUE - 40 - 17.37



PROPOSED STRUCTURE

TYPE: Continuous steel beam with reinforced concrete deck and substructure.
SPANS: 60'-0", 86'-9", 86'-9", 60'-0" c/c bearings along ℄ SR 513.
ROADWAY: 28'-0" f/f 2'-3" safety curbs with concrete parapets and aluminum railings.
LOADING: CF 130 (1957)
WEARING SURFACE: ¾" monolithic concrete.
SKEW: 19°32'00" Lt. Forward from Reference Chord.
ALIGNMENT: 4°45' Curve Rt.
APPROACH SLAB: 25'-0" long, See Sheet 557
SUPERELEVATION: 0.06 ft. per ft.

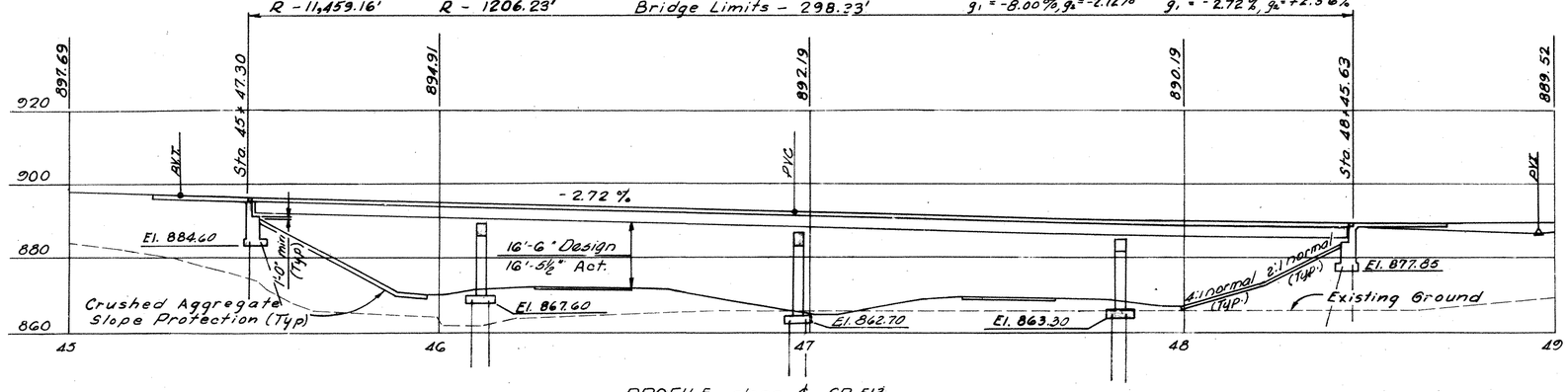
HORIZONTAL CURVE DATA

US 40	SR 513
PI-Sta. 369+27.24	PI-Sta. 49+86.20
Δ - 17°38'43" Lt	Δ - 79°46'07" Rt.
D_c - 0°30'	D_c - 4°45'
T - 1778.61'	T - 1008.00'
L_c - 3529.06'	L_c - 1679.34'
R - 11,459.16'	R - 1206.23'

VERTICAL CURVE DATA

SR 513		US 40 - E.B. LANES	US 40 - W.B. LANES
PVI - Sta. 43+29.70	PVI - Sta. 48+95.30	PVI - Sta 378+00.00	PVI - Sta. 380+00.00
V.C. - 400'	V.C. - 400'	V.C. - 800'	V.C. - 800'
Elev. - 902.26	Elev. - 886.88	Elev. - 864.90	Elev. - 865.70
Corr. - 2.64'	Corr. - 2.64'	Corr. - 1.36'	Corr - 1.36'
P.G - 904.90	P.G. - 889.52	P.G. - 866.26	P.G - 867.06
g_1 = -8.00%, g_2 = -2.72%	g_1 = -2.72%, g_2 = +2.56%		

PLAN



PROFILE along ℄ SR 513

All piles shall be 10BP42. Estimated average pay length shall be as follows:
South Abutment 13' to 21'
Pier #1 - 14'
Piers #2 & #3 - 12'
North Abutment - 25'

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

SITE PLAN

BRIDGE Nº GUE 40-2326
US 40 under S.R. 513

GUERNSEY COUNTY STA 382+09.80

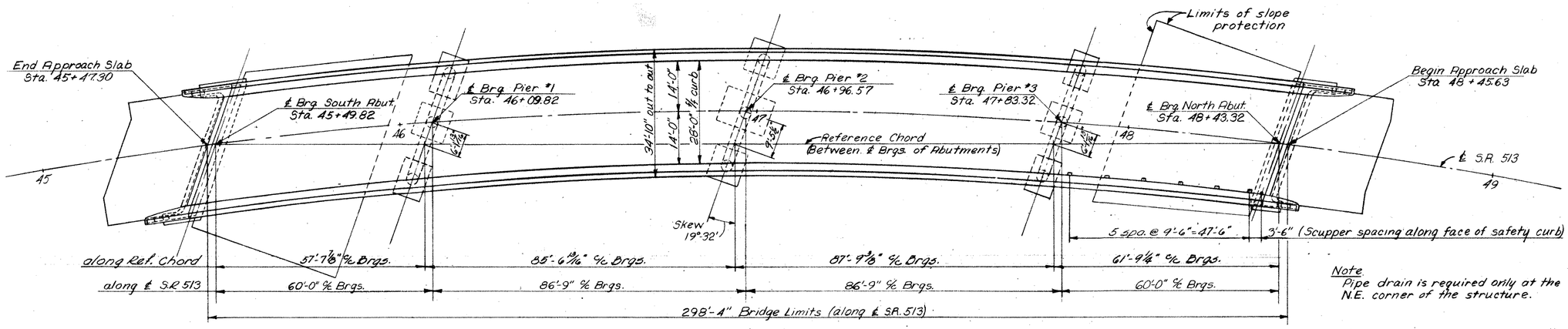
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
fwd	fwd	J.C.W.	Pardo	TLV	2-11-63	

MICROFILMED
JUL 25 1985

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

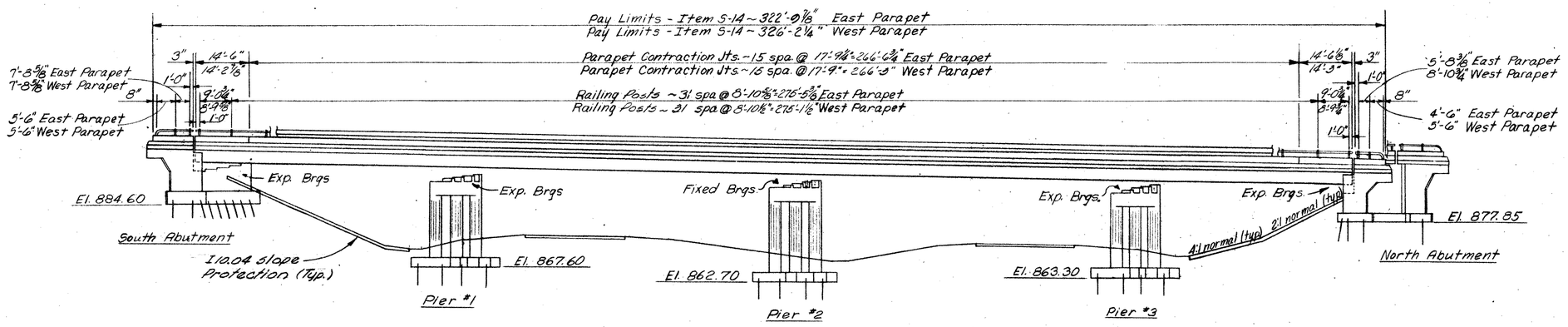
595
458

GUERNSEY COUNTY
GUE-40-17.37



Note
Pipe drain is required only at the N.E. corner of the structure.

GENERAL PLAN



GENERAL ELEVATION

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

GENERAL PLAN & ELEVATION

BRIDGE Nº GUE 40-2326
US 40 under SR 513

GUERNSEY COUNTY STA. 382+09.80

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HT	J.C.W.		fwd	TLU	2-1-63	

MICROFILMED
JUL 25 1985

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

596
638

GUERNSEY COUNTY
GUE-40-17.37

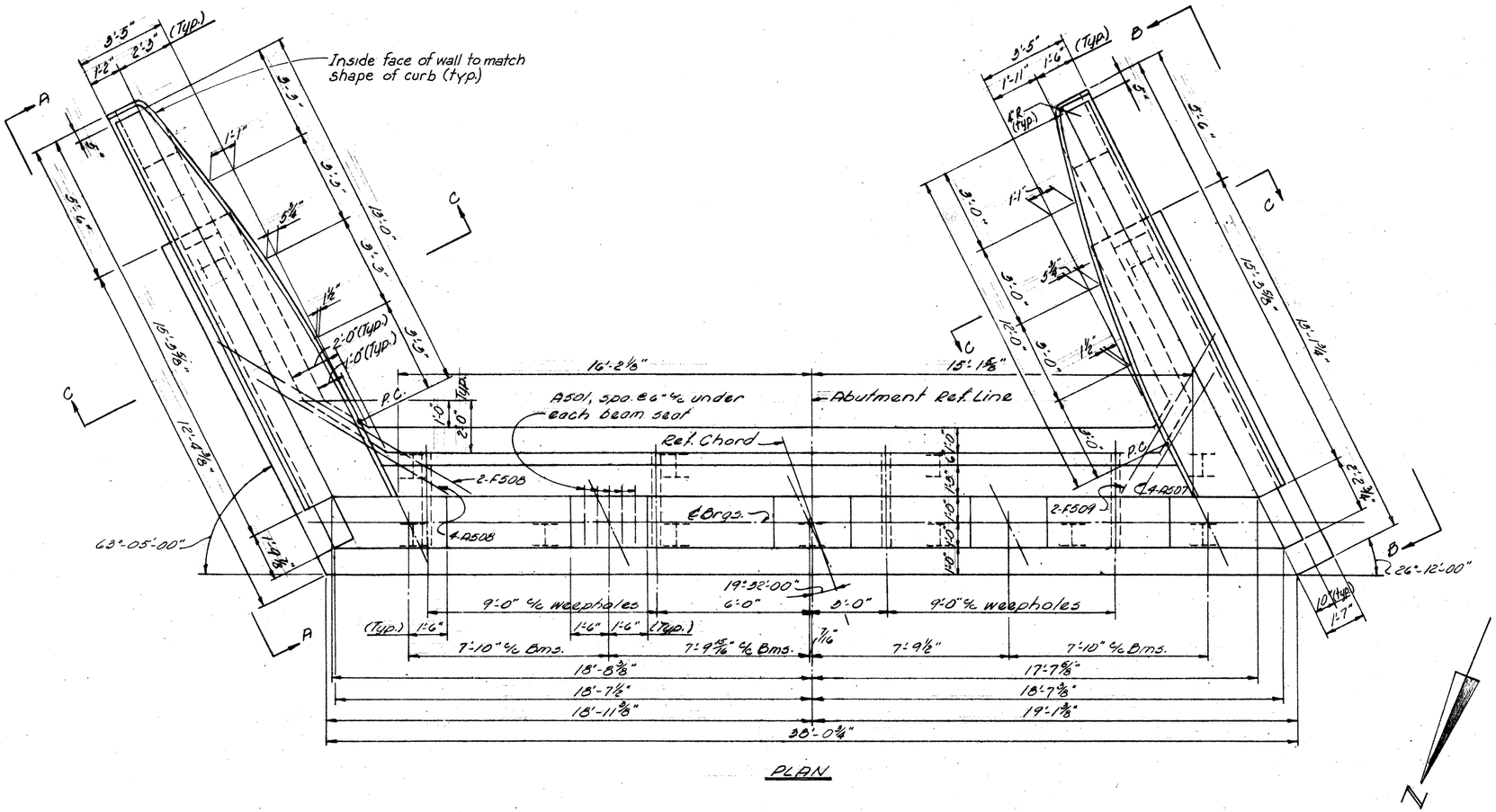
NOTES:

Elevations marked with an asterisk are to top of 2" edge bar at face of curb.

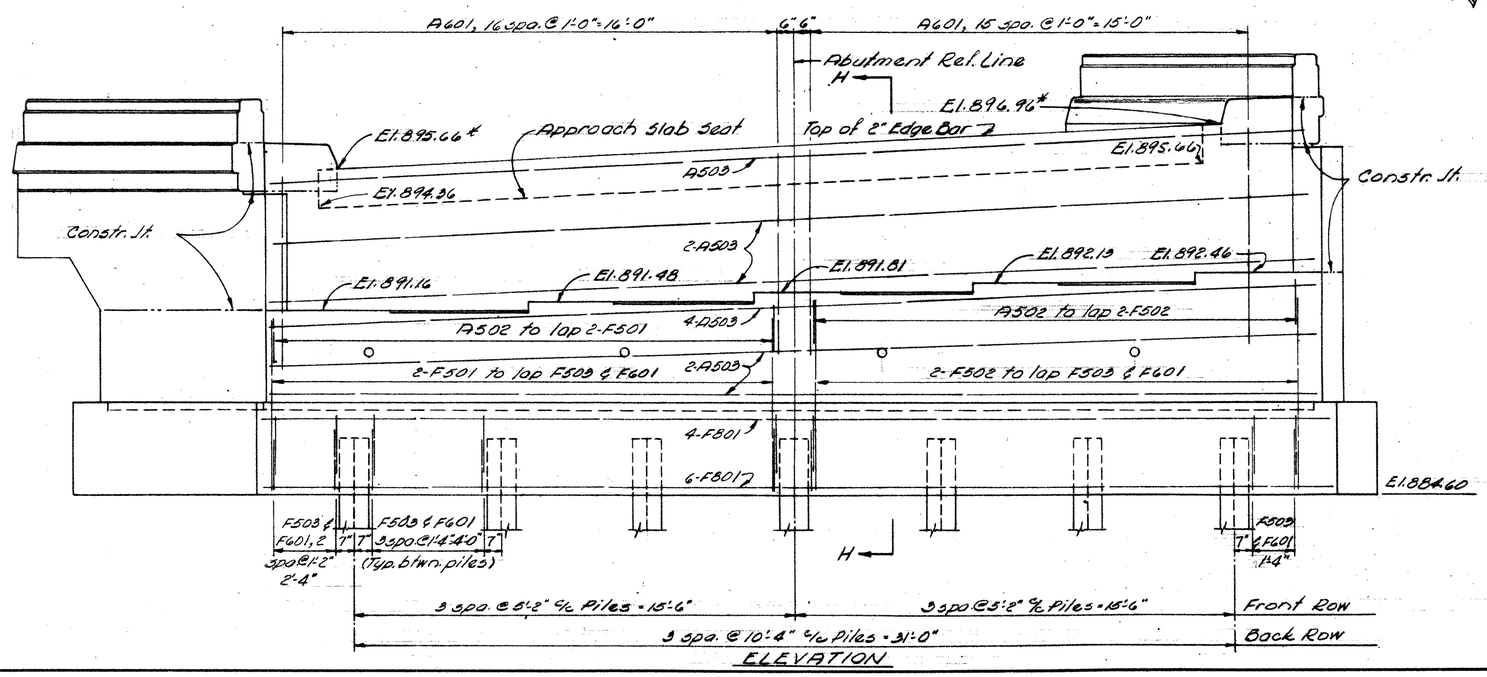
Porous backfill shall extend upward to the approach slab or curb for the full width of the abutment. Excavation therefor, in excess of that required for construction of the abutment, shall be considered as paid for in the bid price per cuyd. paid for porous backfill.

All piling shall be 10BP42 steel piles. Batter entire front row.

For additional sections, views and notes see sheet 598



PLAN



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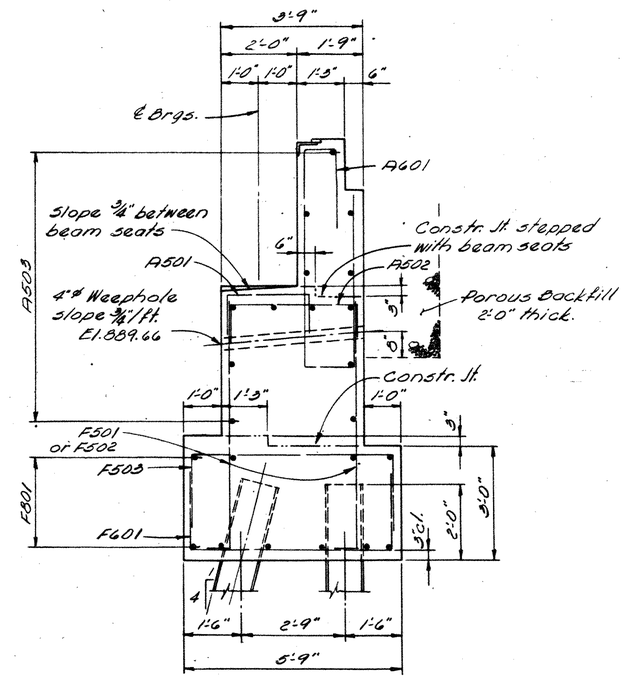


SECTION H-H

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

SOUTH ABUTMENT
BRIDGE NO. GUE-40-2326
U.S. 40 under S.R. 513
GUERNSEY COUNTY
STA. 382+09.80

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HT	BDB		FWD	TLU	2-11-63	

MICROFILMED
JUL 25 1985

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

597
(638)

GUERNSEY COUNTY
GUE-40-17.37

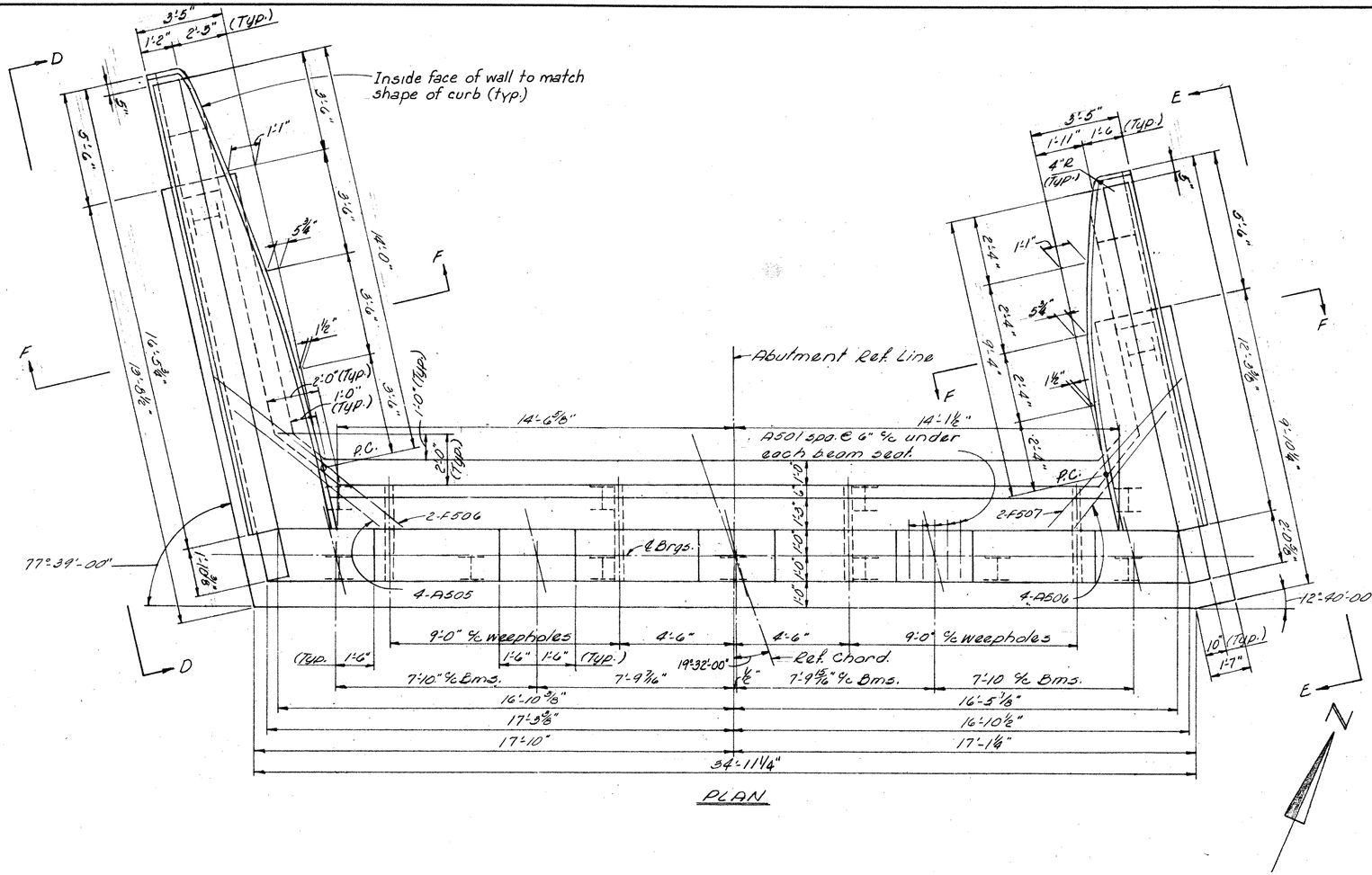
NOTES:

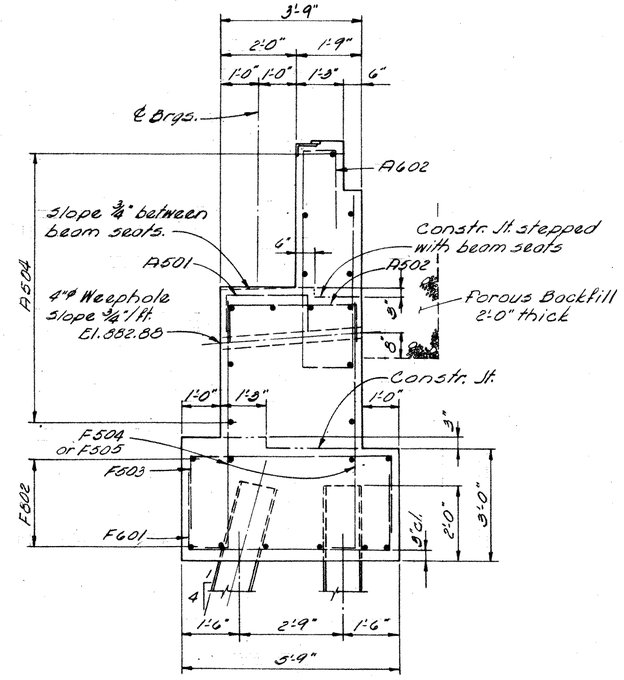
Elevations marked with an asterisk are to top of 2" edge bar at face of curb.

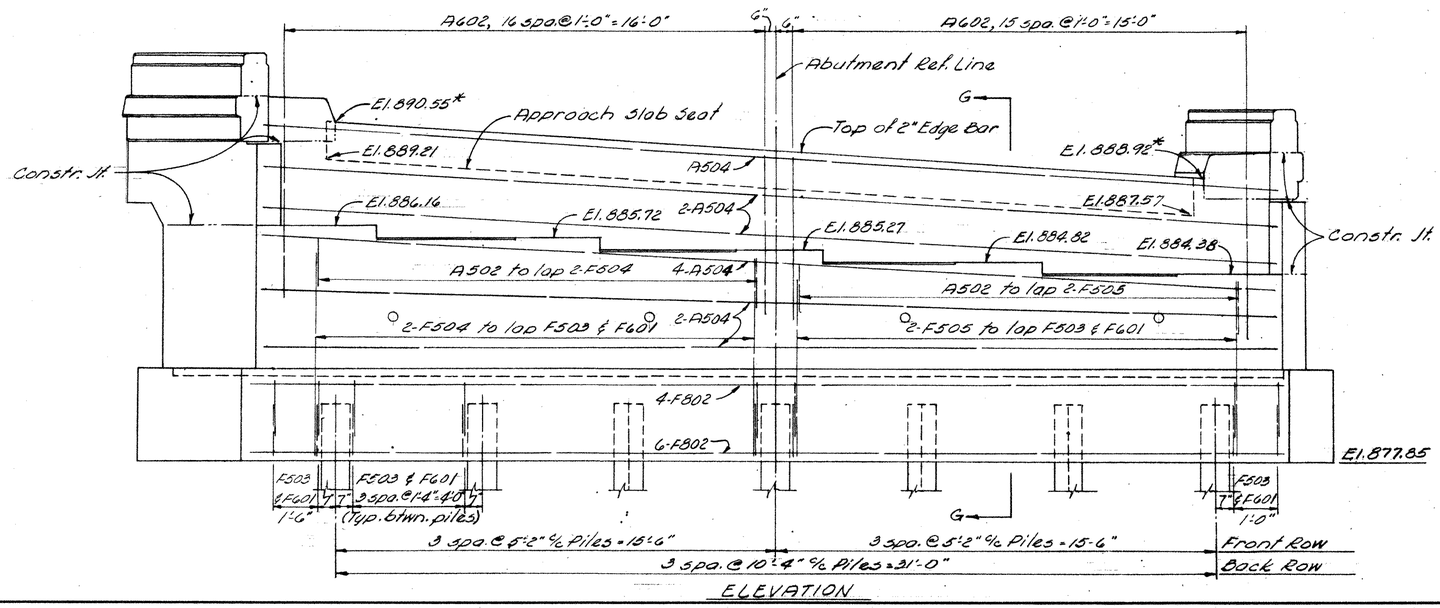
Porous backfill shall extend upward to the approach slab or curb for the full width of the abutment. Excavation therefor, in excess of that required for construction of the abutment, shall be considered as paid for in the bid price per cu.yd. paid for porous backfill.

All piling shall be 10BP42 steel piles. Batter entire front row.

For additional sections, views and notes see sheet 598







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COLUMBUS, OHIO

NORTH ABUTMENT
BRIDGE NO. GUE-40-2926
U.S. 40 under S.R. 513
GUERNSEY COUNTY
STA. 382+09.80

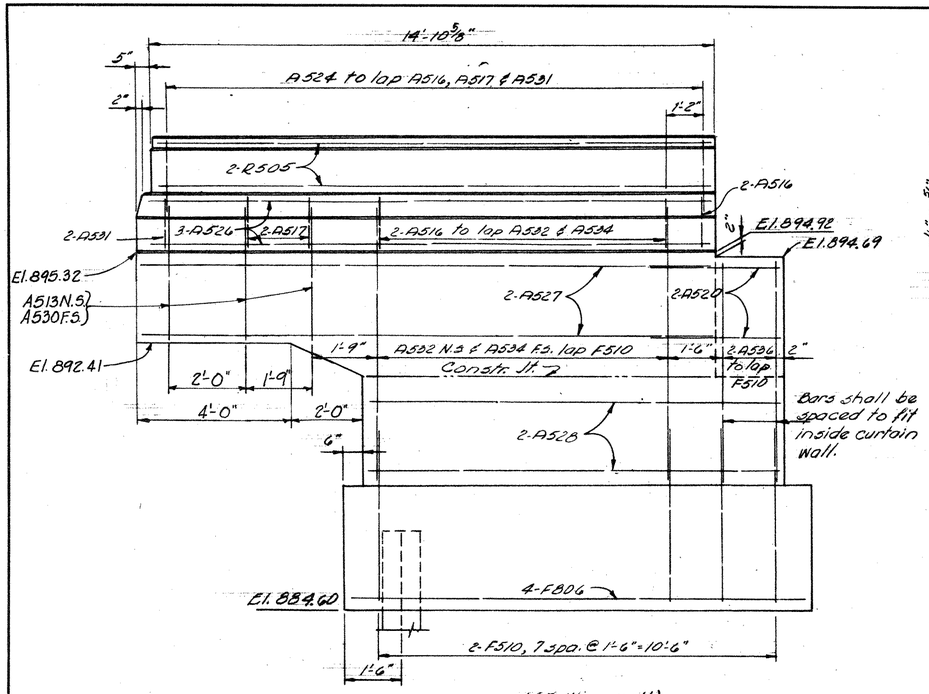
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HT	BAB		FWA	JLU	2-11-63	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

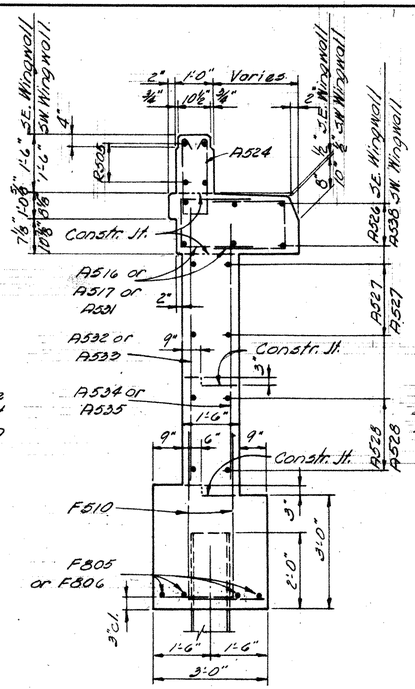
598
638

GUERNSEY COUNTY
GUE-40-17.37

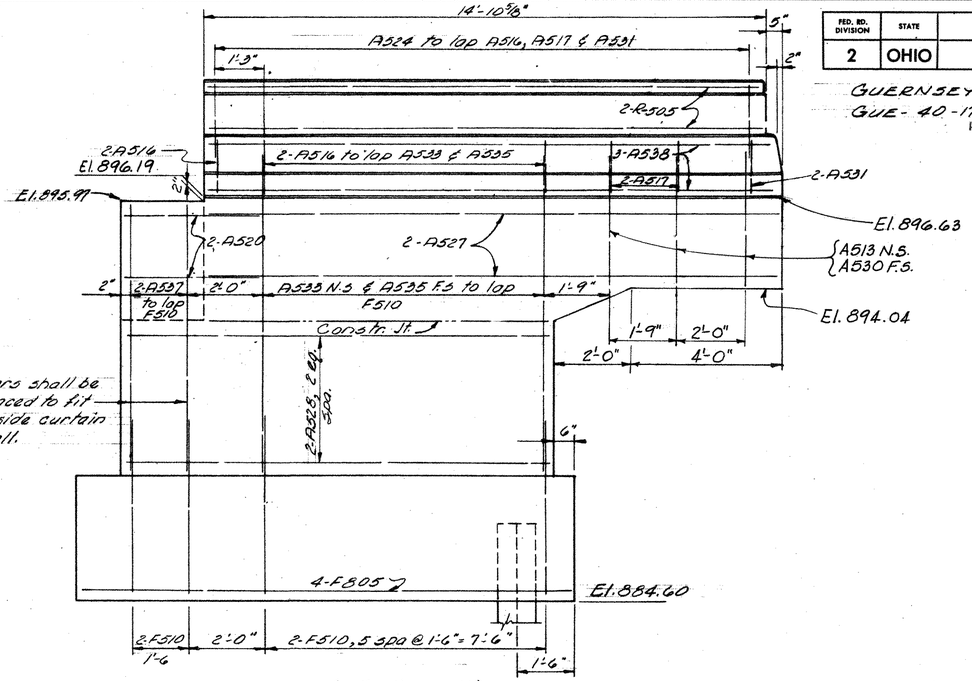
MICROFILMED
JUL 25 1985



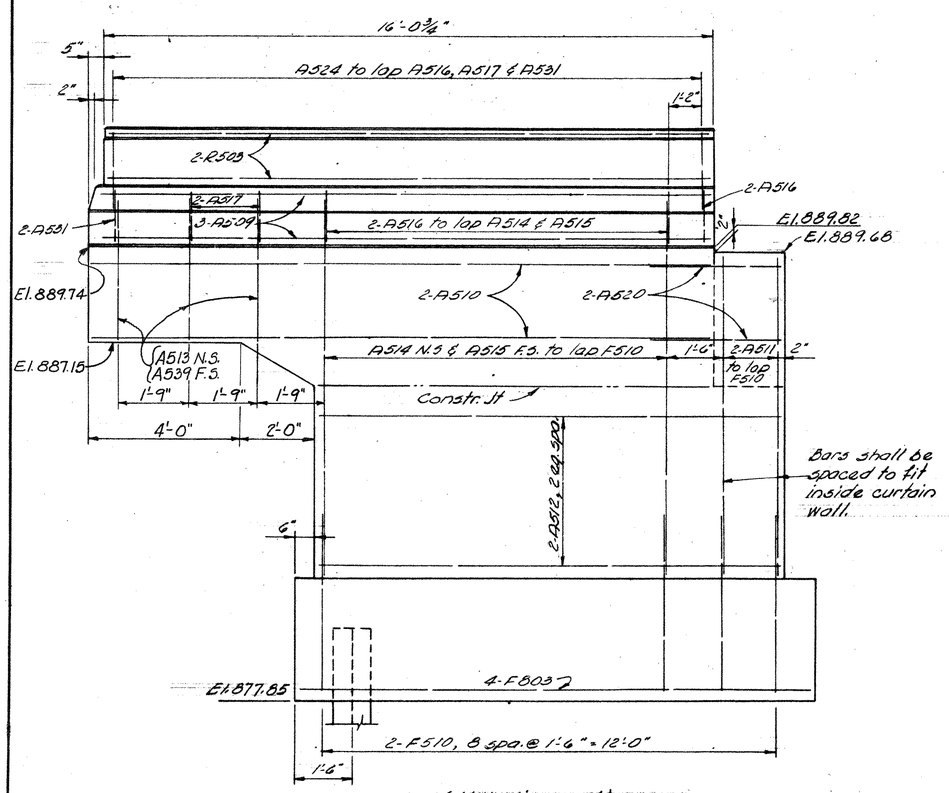
(SE. Wingwall)
VIEW A-A



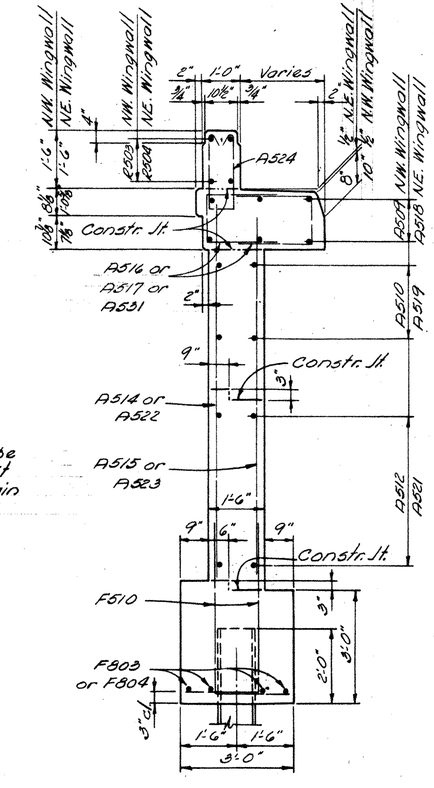
SECTION C-C



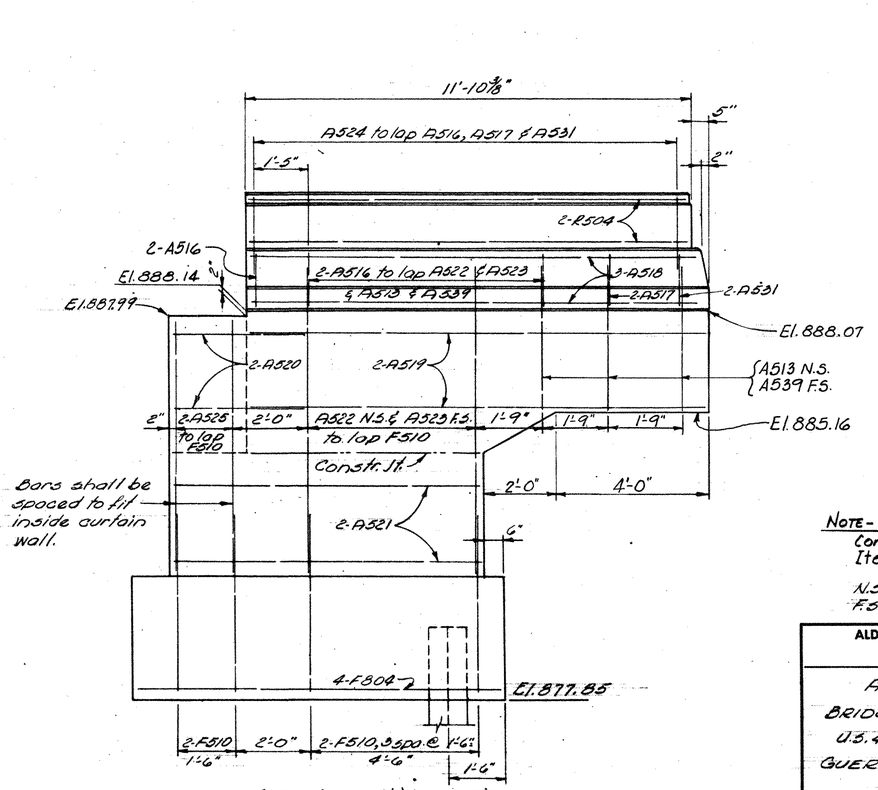
(SW. Wingwall)
VIEW B-B



(NW Wingwall)
VIEW D-D



SECTION F-F



(NE. Wingwall)
VIEW E-E

Note-
Concrete parapets are included with Item 3-14 for payment.

N.S. indicates near side.
F.S. indicates far side.

ALDEN E. STILSON & ASSOCIATES, LIMITED
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COLUMBUS, OHIO

ABUTMENT DETAILS
BRIDGE No. GUE-40-2326
U.S. 40 under S.R. 513
GUERNSEY COUNTY
STA. 382 + 09.80

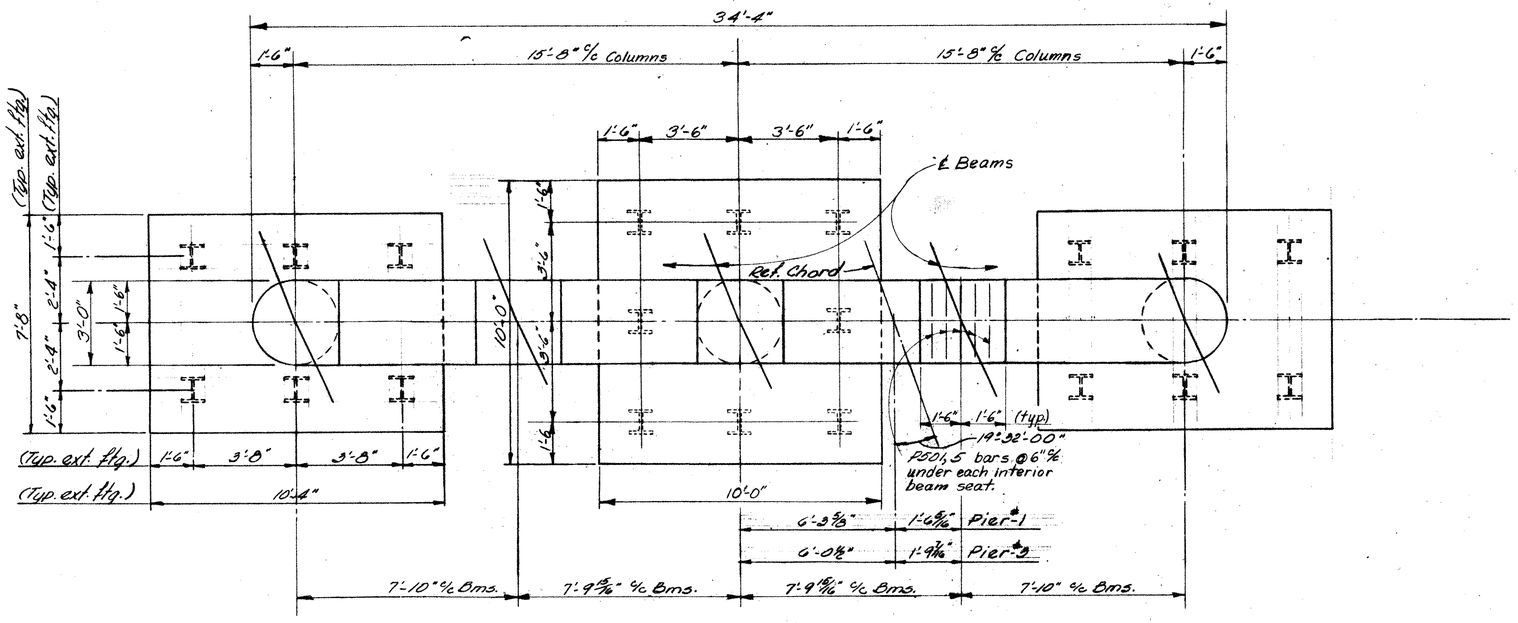
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HT	BDB		FWD	TLU	2-11-63	

MICROFILMED
JUL 25 1985

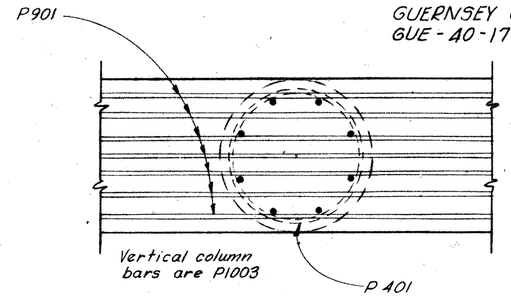
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

599/638

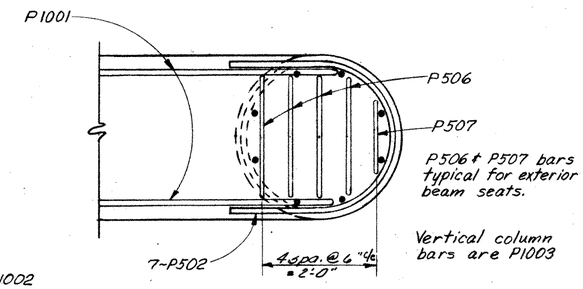
GUERNSEY COUNTY
GUE-40-17.37



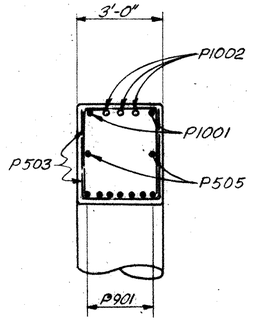
PLAN



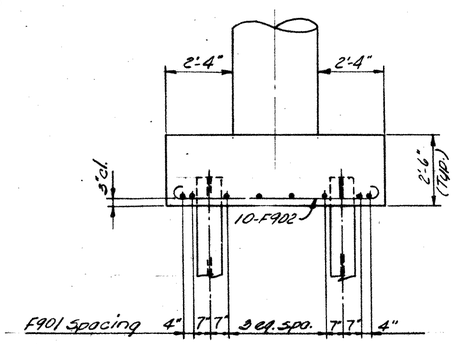
SECTION C-C



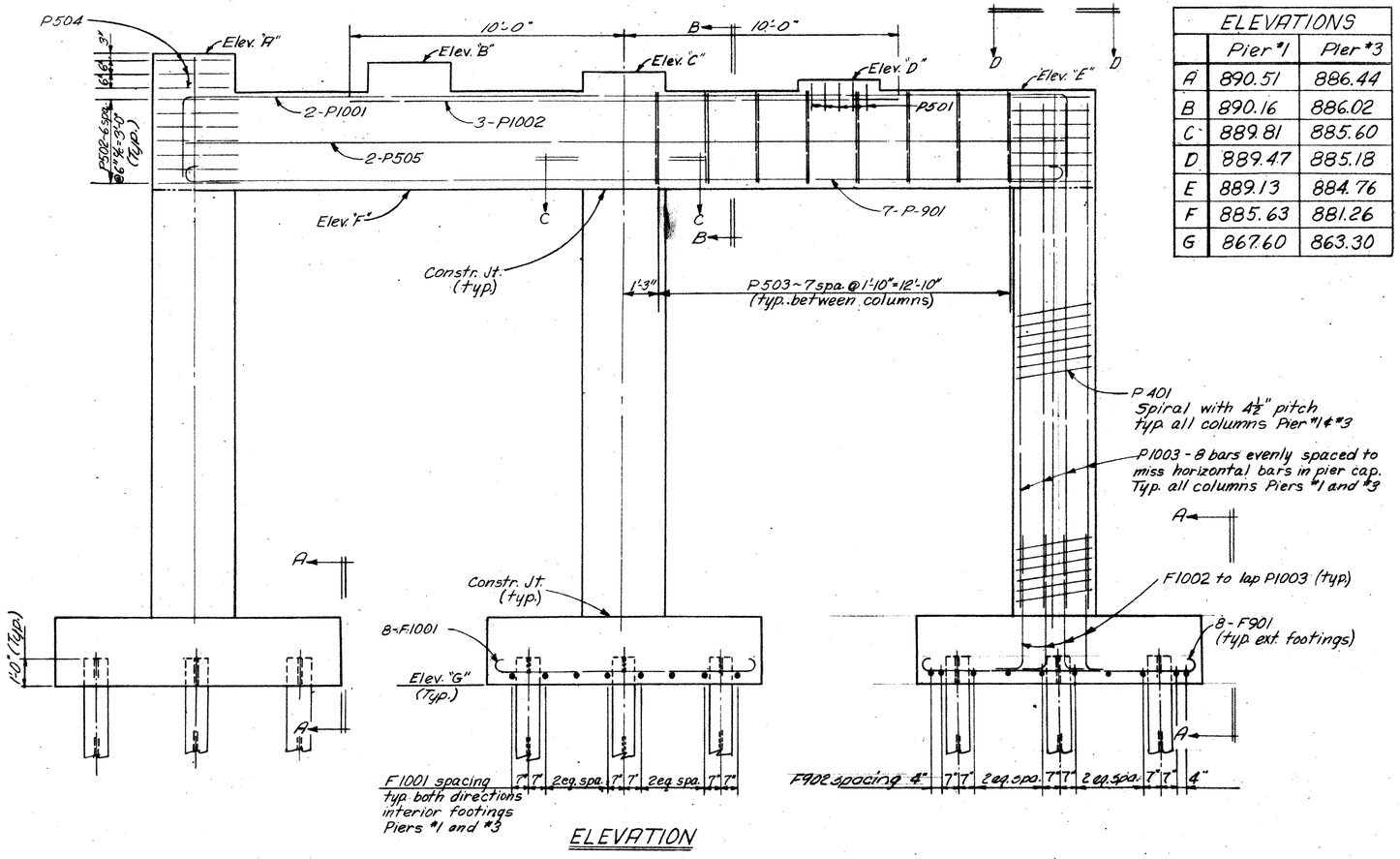
VIEW D-D



SECTION B-B



VIEW A-A



ELEVATION

ELEVATIONS		
	Pier #1	Pier #3
A	890.51	886.44
B	890.16	886.02
C	889.81	885.60
D	889.47	885.18
E	889.13	884.76
F	885.63	881.26
G	867.60	863.30

NOTE - All piles shall be 10 BP 42 steel piles.

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PIERS #1 & #3

BRIDGE Nº GUE 40-2326
US 40 under SR 513

GUERNSEY COUNTY STA 382+09.80

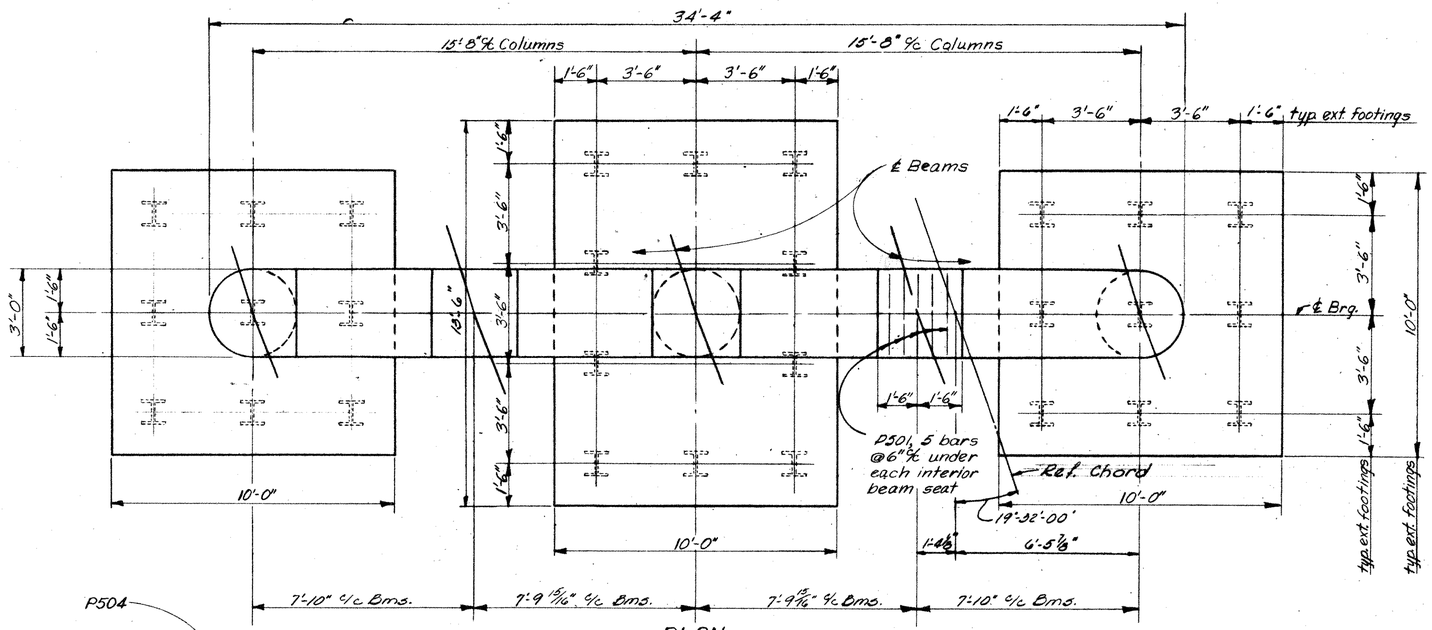
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HT	J.C.W.		fwd	TLV	2-11-63	

MICROFILMED
JUL 25 1963

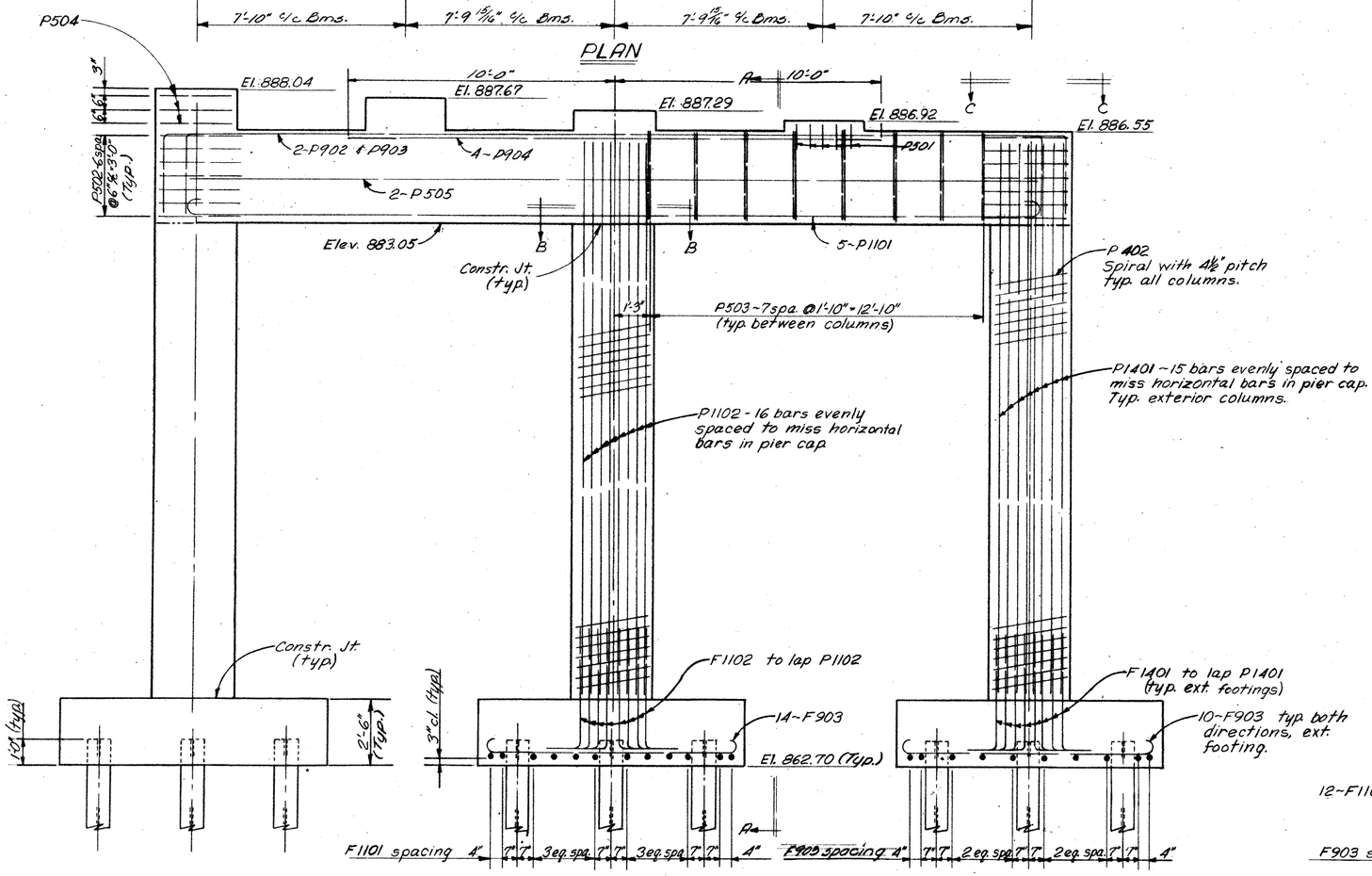
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

600
638

GUERNSEY COUNTY
GUE-40-17.37

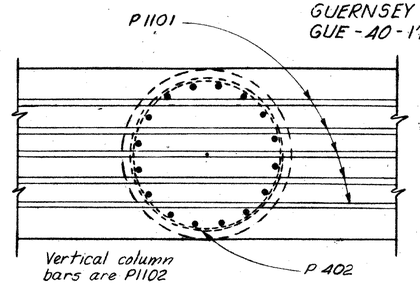


PLAN

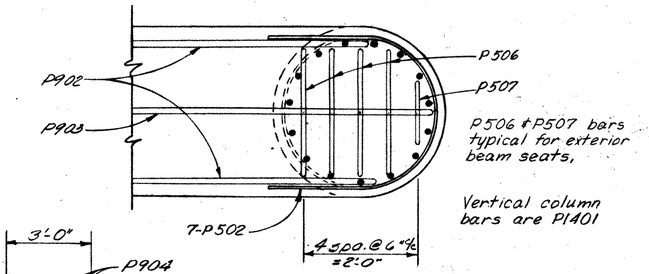


ELEVATION

N



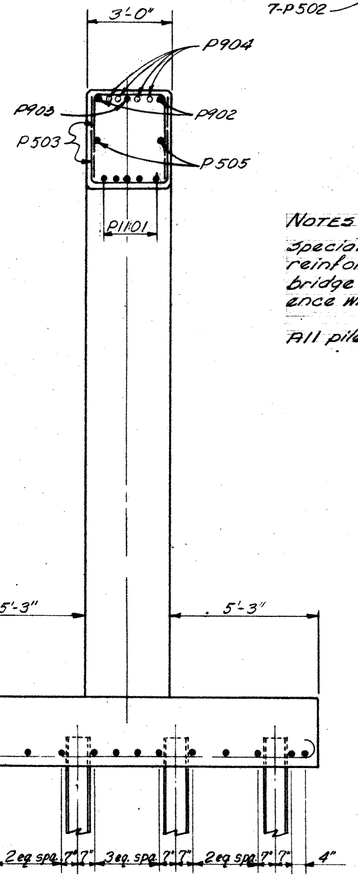
SECTION B-B



P506 & P507 bars typical for exterior beam seats.

Vertical column bars are P1401

VIEW C-C



SECTION A-A

NOTES:

Special care shall be taken in placing reinforcing steel in the vicinity of the bridge seat so as to avoid interference with the drilling of anchor bar holes.

All piles shall be 10BP42 steel piles

ALDEN E. STILSON & ASSOCIATES, LIMITED
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COLUMBUS, OHIO

PIER #2

BRIDGE No. GUE 40-2326
US 40 under SR 513

GUERNSEY COUNTY STA. 382+09.80

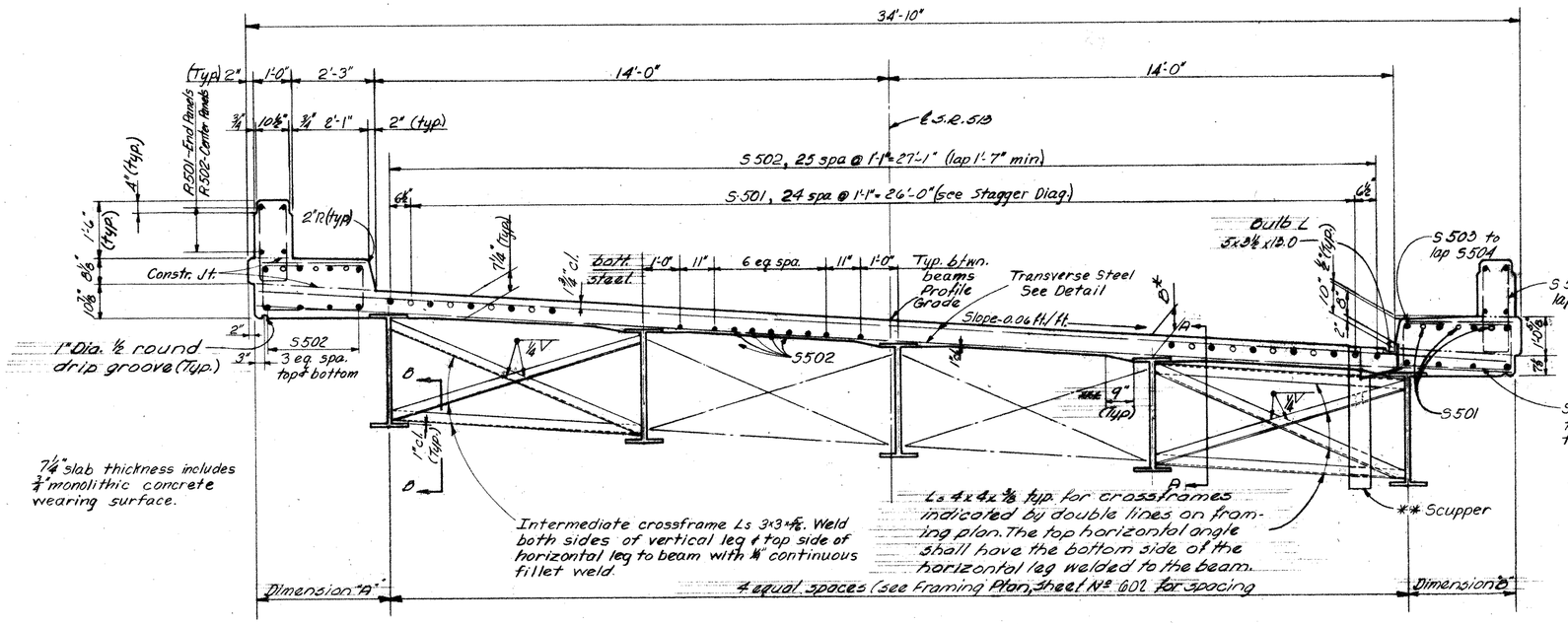
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HT	J.C.W.		FWA	TLV	2-11-63	

MICROFILMED
JUL 25 1985

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

601
6.38

GUERNSEY COUNTY
GUE-40-17.37



TRANSVERSE SECTION

(Safety curb and parapet reinforcing typical for both sides.)

B* - 7⅞" ℄ Pier Brgs.
8⅜" ℄ S. Abut. Brgs.
8" ℄ N. Abut. Brgs.

* This is the nominal dimension. The quantity of deck concrete to be paid for shall be based on this dimension even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade.

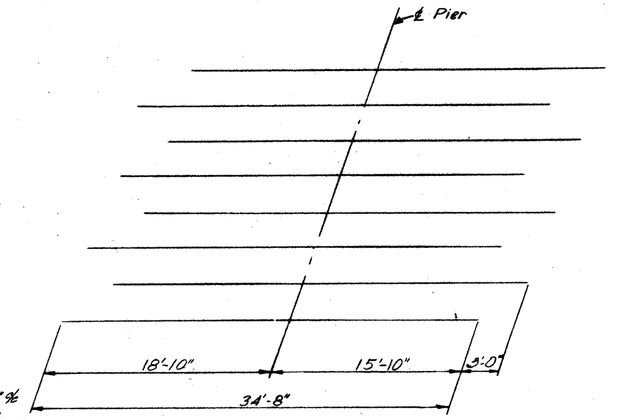
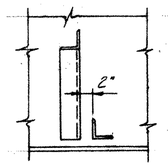
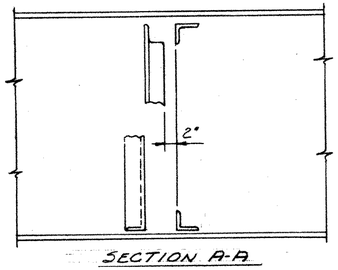


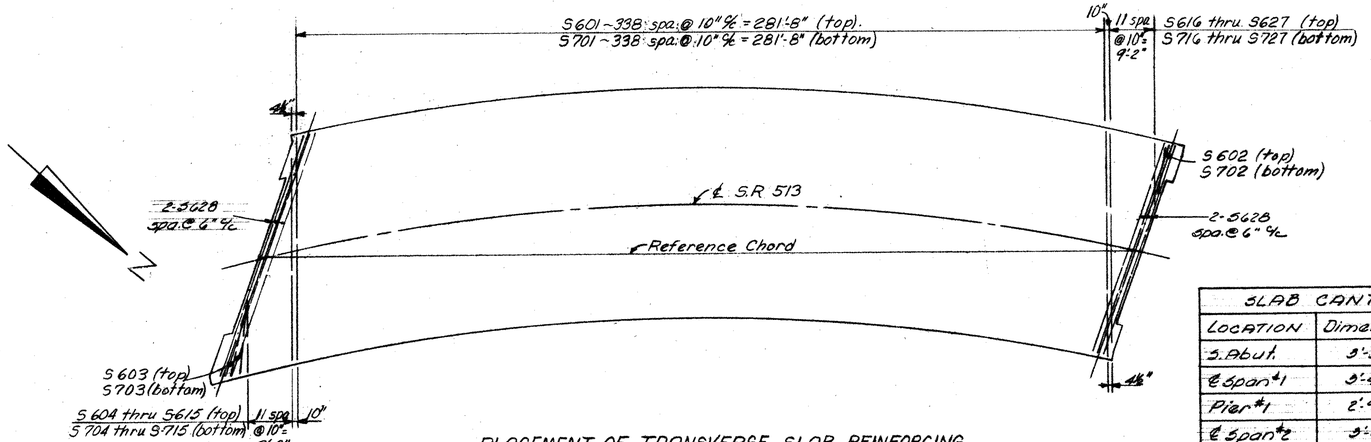
DIAGRAM SHOWING STAGGER OF S 501 BARS OVER PIERS



SECTION B-B



SECTION A-A



PLACEMENT OF TRANSVERSE SLAB REINFORCING

Note: Transverse bars are placed normal to Reference Chord.

SLAB CANTILEVERS		
LOCATION	Dimen. "A"	Dimen. "B"
S. Abut.	3'-3"	3'-2⅜"
℄ Span #1	3'-4½"	2'-9⅞"
Pier #1	2'-9"	3'-0½"
℄ Span #2	3'-6⅛"	1'-10⅜"
Pier #2	2'-9"	2'-2¾"
℄ Span #3	3'-3½"	2'-4½"
Pier #3	2'-3"	2'-0⅝"
℄ Span #4	2'-5⅛"	1'-7⅞"
N. Abut.	2'-0"	1'-11⅛"

NOTES:

Concrete parapet is included with Item S-14 for payment.

** Use scupper shown on CSB-2-56 for monolithic wearing surface and beam flanges 12⅛" or less.

*** Deck Slab Haunch - The haunch in the superelevated deck slab adjacent to the top of the steel beams, which is shown as 9" wide, may vary from this dimension between the limits of 6" and 12" on the low side and between 9" and 12" on the high side. Except on the high side, the maximum slope at haunch shall be one vertical to four horizontal. Payment for deck slab concrete shall be based on the 9" width.

All transverse dimensions shown in Transverse Section are normal to the ℄ of S.R. 513.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

SUPERSTRUCTURE DETAILS

BRIDGE No. GUE 40-2326
US 40 under SR 513

GUERNSEY COUNTY STA. 382+09.80

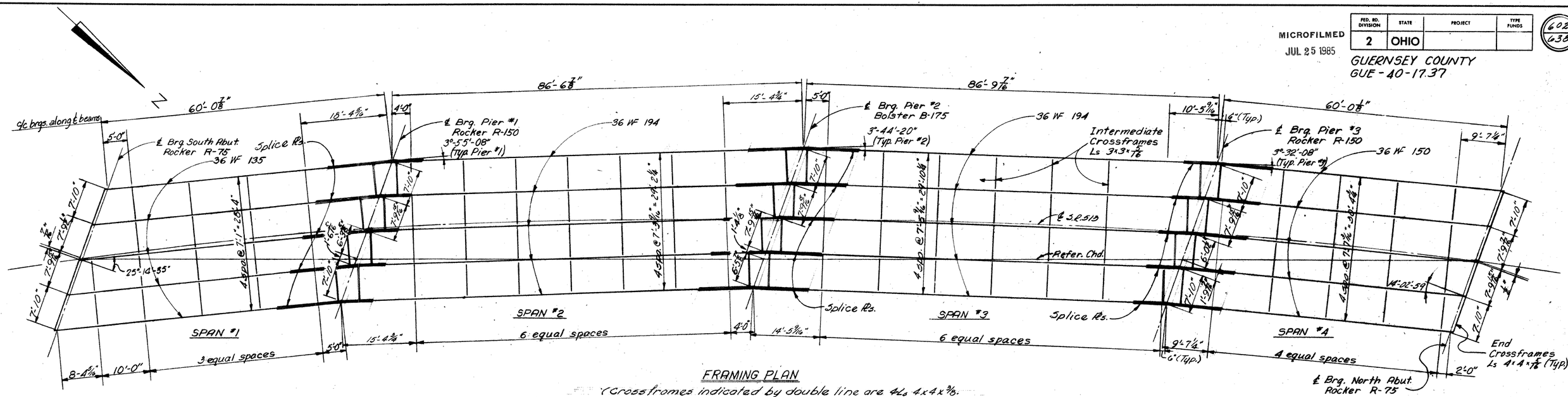
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HT	J.C.W.		FWD	TLU	2-14-63	

MICROFILMED
JUL 25 1985

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

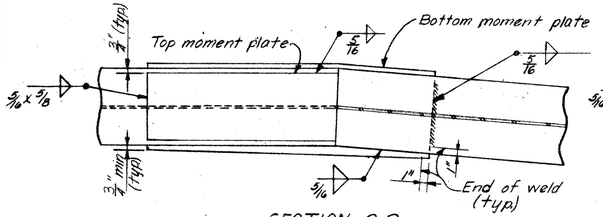
602
630

GUERNSEY COUNTY
GUE-40-17.37

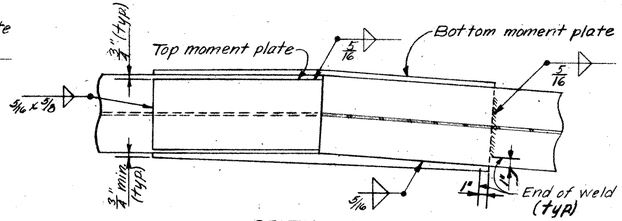


FRAMING PLAN

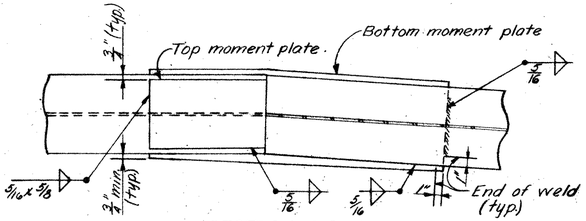
(Crossframes indicated by double line are 4Ls 4x4x3/8. See Transverse Section, Sheet No 601 for details.)



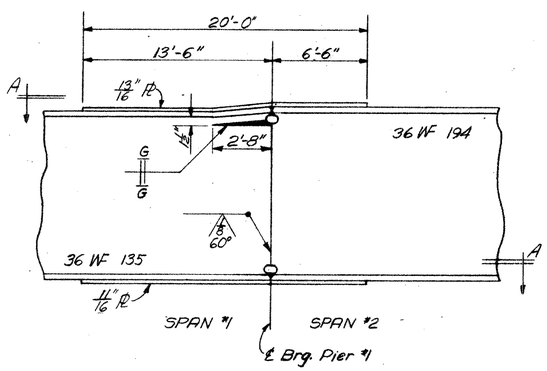
SECTION A-A

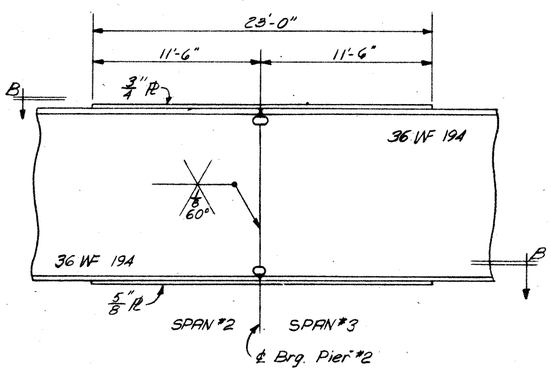


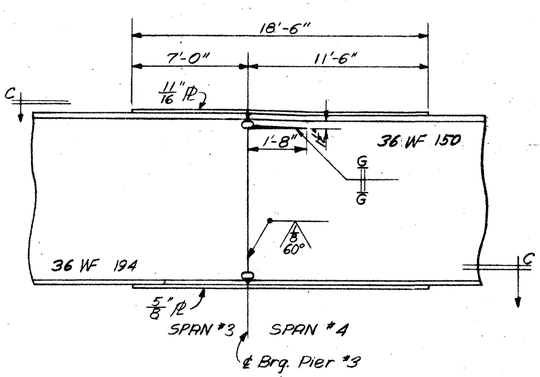
SECTION B-B



SECTION C-C







BEAM SPLICE DETAILS

(Moment ℄ lengths shown are along ℄ of beams)

NOTE:
For flange weld preparation see sheet 557

DEFLECTION AND CAMBER

Location	Span #1			Span #2			Span #3			Span #4		
	West Ext.	Int.	East Ext.	West Ext.	Int.	East Ext.	West Ext.	Int.	East Ext.	West Ext.	Int.	East Ext.
Defl. due to w.f. of Stl.	0	0	0	3/16	3/16	3/16	3/16	3/16	3/16	1/16	1/16	1/16
Defl. due to remain D.L.	3/8	1/4	7/16	13/16	9/16	9/16	15/16	9/16	11/16	3/16	1/4	3/16
Vert. curve convex.	0	0	0	0	0	0	-1/2	-1/2	-1/2	-1/16	-1/16	-1/16
Horiz. curve convex.	-1/8	-1/8	-1/8	-3/16	-3/16	-3/16	-1/16	-1/16	-1/16	-5/16	-5/16	-5/16
Total	1/4	1/8	5/16	7/16	3/16	3/16	-1/16	-1/16	-1/16	-3/4	-1/16	-3/4
Req'd shop camber	0	0	0	0	0	0	-1/4	-1/4	-1/4	-3/4	-3/4	-3/4

BEAM SPLICE WELDING PROCEDURE

(1) Raise end of beam 2 1/2" at Pier #2.

(2) Butt weld beam flanges and web at Pier #1 using the following sequence: make one pass on each flange, then two on the web; repeat, using one pass at each location, until welds are completed.

(3) Weld top and bottom flange moment plates at Pier #1.

(4) Weld crossframes indicated by double line in Framing Plan.

(5) Lower end of beam at Pier #2.

(6) Make splice at Pier #2 and Pier #3 in the same manner, raising the end of the beam 3 3/4" at Pier #3 and 1" at the North Abutment.

NOTES

Intermediate crossframes shall be placed normal to the beams in each span.

Rockers and bolsters shall be placed normal to the reference chord at all substructures.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

FRAMING PLAN AND SUPERSTRUCTURE DETAILS
BRIDGE No. GUE 40-2326
US 40 under SR 513

GUERNSEY COUNTY STA. 382+09.80

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HT	J.C.W.		FWA	TLW	2-14-63	

REINFORCING STEEL LIST

Mark	Nº	Length	Weight		Shp.

Mark	Nº	Length	Weight	Type	"A"	"B"	"C"	"D"	"E"	Shp.
			ABUTMENTS							
A501	50	4-11	256	1		1-6	2-2	1-6		bf.
A502	56	8-2	477	1		2-6	3-5	2-6		bf.
A503	13	36-11	501							sf.
A504	13	33-10	459							sf.
A505	4	7-0	29							sf.
A506	4	6-0	25							sf.
A507	4	5-6	23							sf.
A508	4	8-9	37							sf.
A509	6	16-1	101	***						sf.
A510	4	16-1	67							sf.
A511	4	8-3	34							sf.
A512	6	12-0	75							sf.
A513	12	3-10	48							sf.
A514	7	10-3	75							sf.
A515	7	9-7	70							sf.
A516	56	4-0	234	1		1-7	1-1	1-7		bf.
A517	14	3-4	49	1		1-3	1-1	1-3		bf.
A518	6	11-5	71	***						sf.
A519	4	11-11	50							sf.
A520	16	3-8	61							sf.
A521	4	7-11	33							sf.
A522	4	8-7	36							sf.
A523	4	7-9	32							sf.
A524	39	4-11	200	8	1-11	0-6	1-11			bf.
A525	4	6-8	28							bf.
A526	6	14-11	93	***						sf.
A527	8	14-11	124							sf.
A528	10	11-0	115							sf.
A530	6	3-7	22							sf.
A531	8	2-8	22	1		0-11	1-1	0-11		bf.
A532	6	8-8	54							sf.
A533	6	10-4	65							sf.
A534	6	8-1	51							sf.
A535	6	9-3	58							sf.
A536	4	6-8	28							sf.
A537	4	7-11	33							sf.
A538	6	14-8	92	***						sf.
A539	6	3-7	22							sf.
A601	33	16-1	797	2	5-1	1-5	6-5	0-11	2-10	bf.
A602	33	15-11	789	2	5-0	1-5	6-4	0-11	2-10	bf.
F501	28	6-6	190	1	6-2	0-6				bf.
F502	28	7-1	207	1	6-9	0-6				bf.
F503	56	10-4	604	1		2-7	5-5	2-7		bf.
F504	28	7-4	214	1	7-0	0-6				bf.
F505	28	6-5	187	1	6-1	0-6				bf.
F506	2	10-0	21							sf.
F507	2	8-0	17							sf.
F508	2	11-0	23							sf.
F509	2	7-0	15							sf.
F510	62	6-4	410	1	1-11	4-7				bf.
F601	56	10-3	862	1		2-7	5-5	2-7		bf.
F801	10	37-8	1006							sf.
F802	10	34-7	923							sf.
F803	4	13-4	142							sf.
F804	4	9-6	101							sf.
F805	4	12-9	136							sf.
F806	4	12-0	128							sf.
				PIERS						
P501	45	7-11	372	1		2-9	2-8	2-9		bf.
P502	36	7-3	272	7	1-7	1-3½				bf.
P503	96	8-9	876	1		3-2	2-8	3-2		bf.
P504	9	6-9	63	7	1-4	1-3½				bf.
P505	6	31-3	196							sf.
P506	24	8-5	211	1		3-2	2-4	3-2		bf.

Mark	Nº	Length	Weight	Type	"A"	"B"	"C"	"D"	"E"	Shp.
			PIERS (Continued)							
P507	6	7-9	48	1		3-2	1-8	3-2		bf.
P901	14	33-9	1607	3	31-3					bf.
P902	2	37-1	252	1		3-2	31-3	3-2		bf.
P903	1	39-7	135	1		3-2	33-9	3-2		bf.
P904	4	20-0	272							sf.
P1001	4	37-0	637	1		3-2	31-3	3-2		bf.
P1002	6	20-0	516							sf.
P1003	48	18-6	3821							sf.
P1101	5	34-5	914	3	31-3					bf.
P1102	16	20-0	1700							sf.
P1401	30	20-10	4781							sf.
F901	32	12-6	1360	3	10-0					bf.
F902	40	9-10	1937	3	7-4					bf.
F903	54	12-2	2234	3	9-8					bf.
F1001	32	12-6	1721	3	9-8					bf.
F1002	48	6-5	1325	1	1-5	5-4				bf.
F1101	12	16-4	1041	3	13-2					bf.
F1102	16	7-0	595	1	1-8	5-8				bf.
F1401	30	8-5	1932	1	2-5	6-6				bf.
			SUPERSTRUCTURE							
S501	93	34-8	3363							sf.
S502	624	38-2	24,840							sf.
S503	352	2-9	1010							sf.
S504	352	5-5	1989	9	1-1	2-9	1-1	0-6		bf.
S505	352	4-11	1805	8	1-11	0-6	1-11			bf.
S601	339	34-2	17397							sf.
S602	1	6-10	10							sf.
S603	2	7-4	22							sf.
S604 thru	1	8-0 Var. by 2-1	351							sf.
S615	1	30-11								sf.
S616 thru	1	30-8 Var. by 2-2	338							sf.
S627	1	6-10								sf.
S628	12	34-11	629							sf.
S701	339	34-2	23,675							sf.
S702	1	7-1	14							sf.
S703	2	7-7	31							sf.
S704 thru	1	8-0 Var. by 2-1	477							sf.
S715	1	30-11								sf.
S716 thru	1	30-8 Var. by 2-2	460							sf.
S727	1	6-10								sf.
			PARAPET							
R501	16	13-11	*							sf.
R502	120	17-5	*							sf.
R503	4	15-8	*							sf.
R504	4	11-6	*							sf.
R505	8	14-6	*							sf.
			REPLACEMENT STEEL for SPIRALS							
RE401	1	5-3		5	1-3½		5-3			bf.

Mark	Nº	Length			Shp.
		REPLACEMENT STEEL			
RE501	3	5-7			sf.
RE601	2	5-11			sf.
RE701	2	6-2			sf.
RE801	1	6-6			sf.
RE901	1	6-10			sf.
RE1001	1	7-2			sf.
RE1101	1	7-6			sf.
RE1401	1	8-3			sf.

SPIRALS - HOT ROLLED

Mark	Nº	Length	Core	Pitch	Turns	Spacers	Weight
P401	6	15-6	32	4½	44	24	1709
P402	3	17-10	32	4½	51	12	989

SPIRALS

THE "LENGTH" SHOWN IN THE STEEL LIST FOR THE SPIRAL BARS IS THE DISTANCE FROM THE TOP OF THE FOOTING TO THE BOTTOM OF THE PIER CAP.

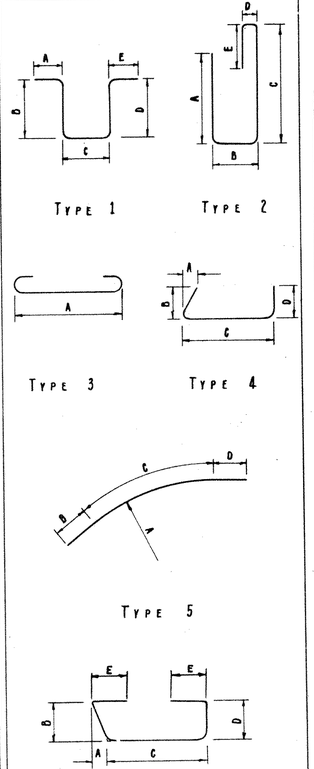
THE NO. OF TURNS SHOWN IN THE STEEL LIST FOR THE SPIRAL BARS IS THE "LENGTH" DIVIDED BY THE PITCH, PLUS 3 TURNS (TOTAL NUMBER OF CLOSED COILS), EXPRESSED AS THE NEAREST WHOLE NUMBER

SPIRAL REINFORCING BARS SHALL NOT HAVE DEFORMATIONS BUT SHALL IN OTHER RESPECTS CONFORM TO ITEM S-4

1½ CLOSED COILS SHALL BE PROVIDED AT THE ENDS OF EACH SPIRAL UNIT

FOUR STEEL CHANNEL, TEE OR ANGLE SPACERS, WEIGHING APPROXIMATELY 0.68 lb. PER Lin. Ft. OF SPACER SHALL BE PROVIDED FOR EACH SPIRAL UNIT, THEY SHALL BE EQUALLY SPACED ALONG THE PERIPHERY OF THE COIL. THE NUMBER OF POUNDS OF THESE SPACERS, BASED ON 0.68 lb. PER Lin. Ft. WILL BE PAID FOR AS REINFORCING STEEL, AND IS INCLUDED IN THE TABULATED QUANTITY OF SPIRAL BARS

Bending Diagram



NOTE:
In the reinforcing steel bar marks, the first digit where three digits are used and the first two where four are used is the bar number which indicates the size of the bar

MICROFILMED
JUL 25 1985

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

603 / 638

GUERNSEY COUNTY
GUE-40-17.37

ESTIMATED QUANTITIES

Item	Total	Unit	Description	Abut.	Pier	Supers.	General	
E-2	326	Cu.Yd.	Unclassified Excavation	196	130			
5-1	303	Cu.Yd.	Class "C" concrete, superstructure			303		
5-1	80	Cu.Yd.	Class "C" concrete, Pier Caps & Columns		80			
5-1	89	Cu.Yd.	Class "E" concrete, Abutments above Ftgs.	89				
5-1	139	Cu.Yd.	Class "E" concrete, Footings	60	79			
5-4	117949	Lbs.	Reinforcing Steel	10,622	30,916	76,411		
5-7	312,200	Lbs.	Structural Steel			312,200		
5-8	312,200	Lbs.	Field painting of structural steel			312,200		
5-14	649.01	Lin.Ft.	Railing (Alum. railing & supports & conc. parapets)	57.70		591.21		
5-16	Lump	Sum	First Test Pile				Lump	
5-18	1400	Lin.Ft.	10BP42 Steel Piles	540	860			
5-29	30	Cu.Yd.	Porous Backfill	30				
5-29	6	Each	Scuppers including supports			6		
I-10	542	Sq.Yd.	Crushed Aggregate Slope Protection				542	
5101	303	Each	Water-reducing, set-retarding admixture			303		

*** Field bend where necessary. Cost is included with Item 5-4.

* HORIZONTAL PARAPET REINFORCING
THESE BARS ARE INCLUDED WITH THE RAILING FOR PAYMENT. Field bend where necessary.

Bars indicated by F1401 & P1401 are Nº 14s and shall be of intermediate or hard grade conforming to ASTM A-408.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

REINFORCING STEEL LIST and ESTIMATED QUANTITIES

BRIDGE No. GUE-40-2326
U.S. 40 under S.R. 513
GUERNSEY COUNTY STA. 382+09.80

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED . DATE	REVISED
HT	BJB		fwd	TLU 2.11.63	

MICROFILMED
JUL 25 1985

FED RD DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

GUA 238

GUERNSEY COUNTY
GUE-40-17.37

REFERENCES:

Standard Drawings:

End Finish and End Cross Frame Details	- CSB-2-56,	Sheets 2 & 3 Revised 2-2-59
Gutter and Scupper Details	- CSB-2-56,	Sheets 2 & 3 Revised 2-2-59
Railing Details Type A	- AR-1-57,	Revised 4-2-62
Rocker and Bolster Details	- RB-1-55,	Revised 2-2-59
Approach Slab Details	- AS-1-54,	Revised 7-5-62
Supplemental Specification	- S-101,	Dated 7-12-62

Common Details:

Approach Slab Details	- Sheet 558
Railing Details	- Sheet 558
End Dam Details	- Sheet 557

DESIGN SPECIFICATIONS: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated 9-1-57, together with revisions thereof dated 2-21-58 and 5-1-62.

FOUNDATION SOUNDINGS: Foundation design and foundation quantities are based on a study of rod soundings and soil samplings and soundings made at the site. This sounding information may be inspected in the office of the Bureau of Bridges in Columbus or in an abridged form in the Division Office, but the State assumes no responsibility for the accuracy thereof.

WELDING of any structural steel shall be Class "A" except as otherwise shown. Any welds shown as field welds may be, at the option of the Contractor, made in the shop. Class "B" welding shown thus:



CONTINUOUS BEAM SHOP ASSEMBLY: Reference shall be made to paragraph 4, Section S-7.12 of the Construction and Material Specifications. For the purpose of checking the fit-up of weld joint preparation, only two adjacent beams need be shop assembled at a time in their correct unloaded position. All beams shall be assembled and matth marked.

CONTINUOUS BEAM SPLICES: If beams having depths differing by more than 1/8" are to be spliced by butt welding, the depth of the smaller depth beam shall be increased by splitting the web longitudinally at a distance of 1½" below the bottom of the top flange and for a distance sufficient to allow the flange to be bent up at a slope of not more than 3/8" per foot, after which the split in the web shall be completely welded with full depth penetration and ground flush.

EMBANKMENT: The embankment shall be placed and compacted up to the finished spill-thru slope and to the level of the subgrade for a distance of 200 feet back of the abutments, after which excavation shall be made for the abutments. The embankment under the abutments shall be free of rocks larger than 4". The embankment around pier 1 shall be completed to 6 inches above the bottom of footers, after which the excavation shall be made for the pier 1 footers.

EXCAVATION QUANTITY includes the removal of fill material required for the construction of the piers and abutments.

SURFACE FINISH OF CONCRETE: The requirements of Sec. S-1.22, Rubbed Finish, shall apply to the following exposed concrete surfaces:

a. The entire superstructure except the top and bottom surfaces of roadways and safety curbs.

b. All surfaces of piers and abutments which will be exposed upon completion of the construction except bridge seats, backwalls, and the face of spill-thru abutments between outside beams.

CONCRETE DECK PLACING: In order to facilitate water curing of the concrete in the deck slab, the placing of concrete shall progress up grade. The slab may be placed in sections between transverse construction joints which are parallel to the transverse slab bars and are located near the center of any span.

MACHINE FINISH: The concrete bridge deck may be finished by the use of a finishing machine.

CRUSHED AGGREGATE SLOPE PROTECTION shall be provided under the structure as indicated on the General Plan.

TRAFFIC MAINTENANCE: For details of traffic maintenance, see Roadway Plans.

PILES shall be driven with a hammer of not less than 11,000 foot pounds to firm contact with rock. If the length of penetration is approximately equal to the depth of rock according to the bridge foundation investigation report, the firm contact shall be considered as attained when the capacity according to the formula in Sec. S-18.05 is not less than the following value for a pile hammer of the indicated energy rating:

65 tons per pile using an 11,000 ft. lb. hammer
60 tons per pile using a 15,000 ft. lb. hammer

If the energy rating of the hammer is between the ratings as shown above, the required formula capacity shall be determined by interpolation. The design load is 30 tons per pile.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

GENERAL NOTES
BRIDGE NO. GUE-40-2326
U.S. 40 UNDER S.R. 513

GUERNSEY COUNTY STA. 382+09.80

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
				TLU	2-20-63	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	I-70-7(10)187	

604-A 638

I-70-7(10)187

GUERNSEY COUNTY
GUE-40-17.37

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
GUE-40-17.37
VILLAGE OF OLD WASHINGTON
WILLS AND OXFORD TOWNSHIPS
GUERNSEY COUNTY

CONVENTIONAL SIGNS

Limited Access R/W	LA R/W
Center Line	
Corporation Line	
Existing R/W	
Proposed R/W	R/W
Temporary Easement	
Property Line	PL
Fence Line	
Gas Line	G G
Existing Sewer	
Proposed Sewer	
Proposed Manholes	
Existing Catch Basins	
Proposed Catch Basins	
Catch Basins Abandoned	
Catch Basins Removed	
Power Pole	
Telephone Pole	
Trees	
Existing Guard Rail	
Proposed Guard Rail	

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LINE DATA

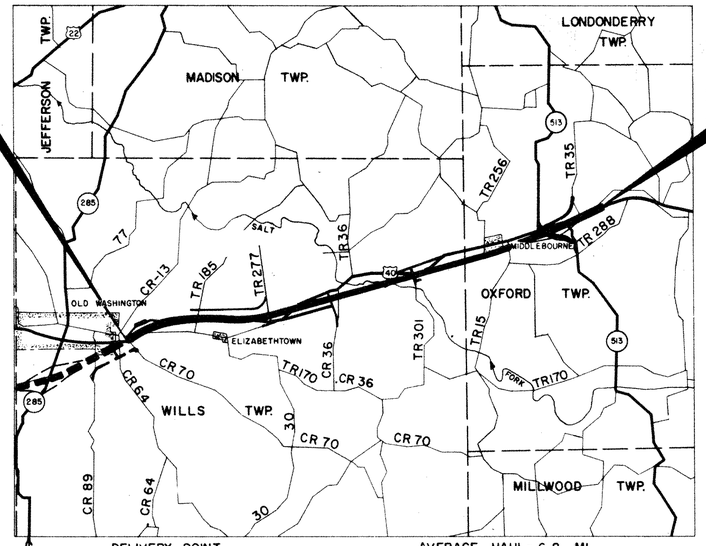
Begin Project	Sta. 641+00.00	
Station Equation	Sta. 657+59.78	Back=
	Sta. 87+82.74	Ahead
End Project	Sta. 415+00.00	
Net Length of Project	34,377.04 L.F.	=6.510 Miles
Begin Work	Sta. 641+28.00	
Station Equation	Sta. 657+59.78	Back=
	Sta. 87+82.74	Ahead
End Work	Sta. 416+52.50	
Main Line Length of Work	34,901.54 L.F.	

WORK ADDITIONS

Twp. Rd. 185	Sta. 46+66.91	to 55+50.00	=	883.09 L.F.
Co. Rd. 36 (Reloc.)	Sta. 43+25.00	to 49+81.36	=	656.36 L.F.
Co. Rd. 301 (Reloc.)	Sta. 39+35.00	to 51+65.75	=	830.75 L.F.
S.R. 513 (Reloc.)	Sta. 17+50.00	to 58+90.00	=	4140.00 L.F.
Twp. Rd. 35 (Reloc.)	Sta. 57+31.50	to 65+50.00	=	818.50 L.F.
Length of Work Additions			=	7728.70 L.F.
Net Length of Work			=	42630.24 L.F. =8.073 Miles

BEGIN PROJECT
I-70-7(10)187
STA 641+00
SLM 17.37

END PROJECT
I-70-7(10)187
STA. 415+00
SLM. 23.88



N

LORE CITY
1.5 MILES

DELIVERY POINT
LORE CITY
BALTIMORE AND OHIO R.R.

AVERAGE HAUL- 6.8 MI.

LOCATION MAP

0 1 2 3
SCALE OF MILES

PORTION TO BE IMPROVED
STATE HIGHWAYS
OTHER HIGHWAYS

SCALE

PLAN AND PROFILE	0'	50'	100'
PAVEMENT DETAILS	0'	20'	40'
CROSS SECTIONS	0'	10'	20'

"LIMITED ACCESS"

1963 SPECIFICATIONS

This improvement is especially designed for thru traffic and has been declared a Limited Access Highway or Freeway by action of the Director of Highways, in accordance with the provisions of Sec. 5511.02 of the Revised Code of Ohio.

The Standard Specifications of the State of Ohio, Department of Highways, including changes and supplemental specifications listed in the proposal, shall govern this improvement.

The Right of Way for this improvement will be provided by the State of Ohio.

I hereby approve these plans and declare that the making of this improvement will not require the closing of the highway to traffic except as noted in the General Notes and that provisions for the maintenance and safety of traffic will be as set forth on these plans and estimates.

Approved _____
Date _____ Division Deputy Director

Approved _____
Date _____ Engineer of Bridges

Approved _____
Date _____ Engineer of Location & Design

Approved _____
Date _____ Deputy Director of Design & Construction

Approved _____
Date _____ Deputy Director of Right of Way

Approved _____
Date _____ Deputy Director of Planning & Programming

Approved _____
Date _____ First Assistant Director

Approved _____
Date _____ Director of Highways

PLANS PREPARED BY
ALDEN E. STILSON & ASSOCIATES, Limited
CONSULTING ENGINEERS
245 NORTH HIGH STREET
COLUMBUS, OHIO
FOR
STATE OF OHIO

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
APPROVED

DIVISION ENGINEER _____ DATE

FILE NUMBER	GUERNSEY COUNTY GUE-40-17.37
	DATE OF LETTING
	CONTRACT NUMBER

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

605/638

GUERNSEY COUNTY
GUE-40-17.37
LOCATION PLAN

1/34

CENTER LINE SURVEY PLAT

GUE 40-17.37

WILLS TWP R.1W, T.2N, U.S.M.L. 16&17 & SEC'S 8,13,14,&15

GUERNSEY COUNTY

0 400 800 1200 1600

SCALE: 1"=400'

LIMITED ACCESS

Received ____ at ____
Recorded ____
Plat Book ____ Page ____
Signed ____
Recorder, Guernsey County
Fee: ____

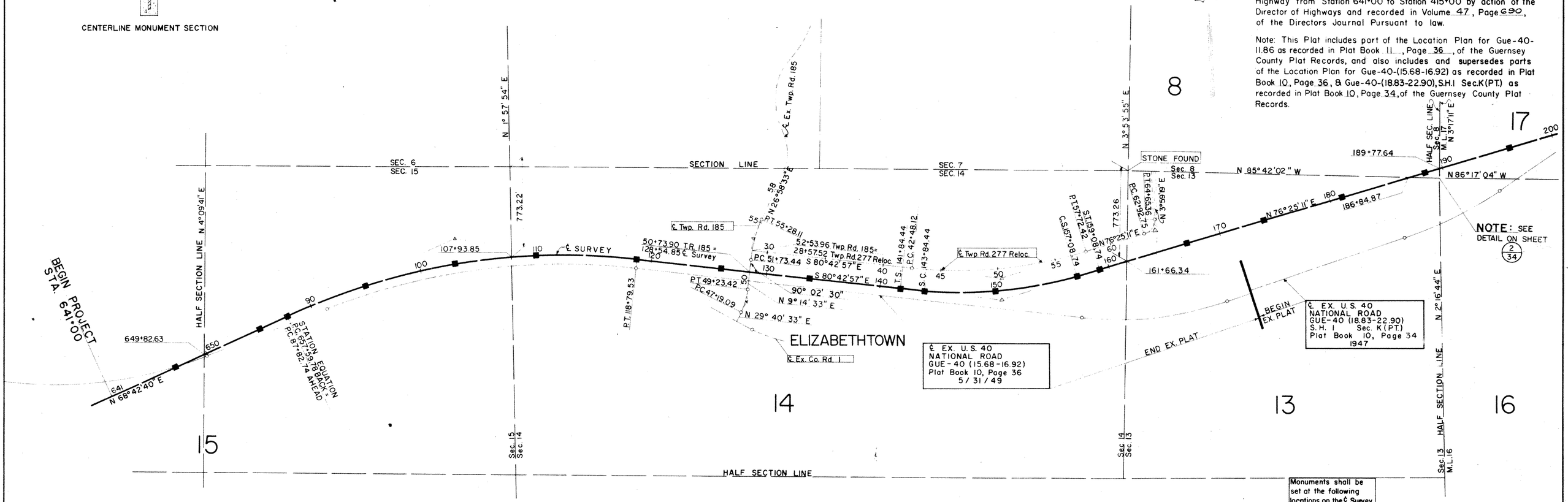
Note:
This instrument prepared by the Ohio Department of Highways under the Supervision of Signed: James T. Hood
Registered Engineer Nº 14456
Registered Surveyor Nº 3766
Resident Division Deputy Director
Date: March 4, 1963

Note: This improvement has been declared a Limited Access Highway from Station 641+00 to Station 415+00 by action of the Director of Highways and recorded in Volume 47, Page 690, of the Directors Journal Pursuant to law.

Note: This Plat includes part of the Location Plan for Gue-40-11.86 as recorded in Plat Book 11, Page 36, of the Guernsey County Plat Records, and also includes and supersedes parts of the Location Plan for Gue-40-(15.68-16.92) as recorded in Plat Book 10, Page 36, & Gue-40-(18.83-22.90), S.H.1 Sec.K(PT.) as recorded in Plat Book 10, Page 34, of the Guernsey County Plat Records.

GROUND ELEVATION
See note on Sheet No. 12

CENTERLINE MONUMENT SECTION



NOTE: SEE DETAIL ON SHEET 2/34

Monuments shall be set at the following locations on the ℄ Survey	
P.O.T.	647+00
P.O.T.	655+00
P.C.	87+82.74
P.O.C.	95+00
P.O.C.	103+00
P.O.C.	110+00
P.T.	118+79.53
P.O.T.	126+00
P.O.T.	133+75
T.S.	141+84.44
S.C.	143+84.44
P.O.C.	150+00
C.S.	157+08.74
S.T.	159+08.74
P.O.T.	167+00
P.O.T.	174+00
P.O.T.	181+00
P.O.T.	188+50
P.O.T.	196+00

℄ SURVEY CURVE DATA
P.I. 103+68.95
Δ =30°34'23"
D_c =0°59'14"
R =5803.58'
L =3096.79'
T =1586.21'
E =212.87'

℄ SURVEY CURVE DATA
P.I. 150+56.95
Δ =22°51'52"
D_c =1°30'
R =3819.72'
L_c =1324.30'
L_s =200'
θ_s = 1° 30'
T_s = 872.51'
X_s = 199.99'
Y_s = 1.75'
E_s = 77.76'

TWP. RD. 185 CURVE DATA
P.I. 48+22.35
Δ =20°26'00"
D_c =10°00'
R =572.96'
L =204.33'
T =103.26'
E =9.23'

TWP. RD. 185 CURVE DATA
P.I. 53+52.20
Δ =17°44'00"
D_c =5°00'
R =1145.92'
L =354.67'
T =178.76'
E =13.86'

TWP. RD. 277 RELOC. CURVE DATA
P.I. 50+20.55
Δ =22°51'52"
D_c =1°30'
R =3819.72'
L =1524.30'
T =772.43'
E =77.32'

TWP. RD. 277 RELOC. CURVE DATA
P.I. 63+92.78
Δ =72°29'52"
D_c =42°00'
R =136.42'
L =172.61'
T =100.03'
E =32.74'

■ MONUMENT SYMBOL
● MONUMENT ASSEMBLY SYMBOL

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

606/638

2/34

GUERNSEY COUNTY
GUE-40-17.37
LOCATION PLAN

CENTER LINE SURVEY PLAT

GUE-40-17.37

WILLS TWP.

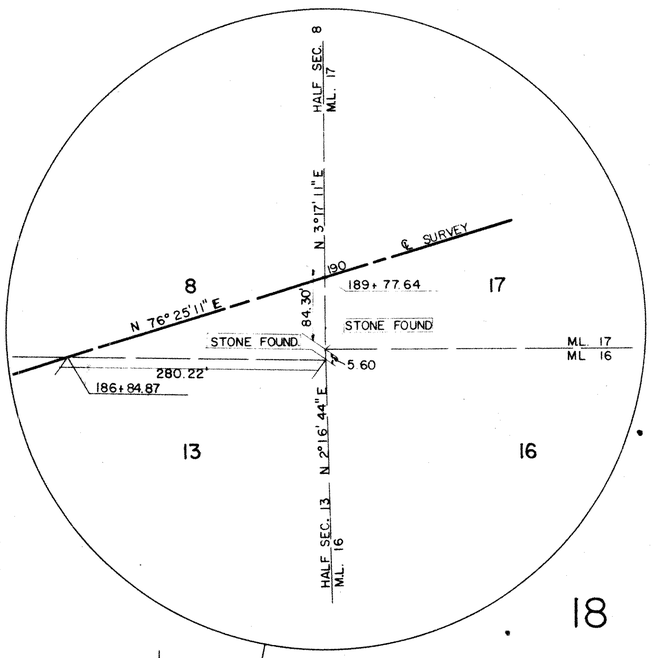
R. 1W, T. 2N, USML Nº'S 2,3,7,8,12,13,16,17, & SEC'S 8 & 13

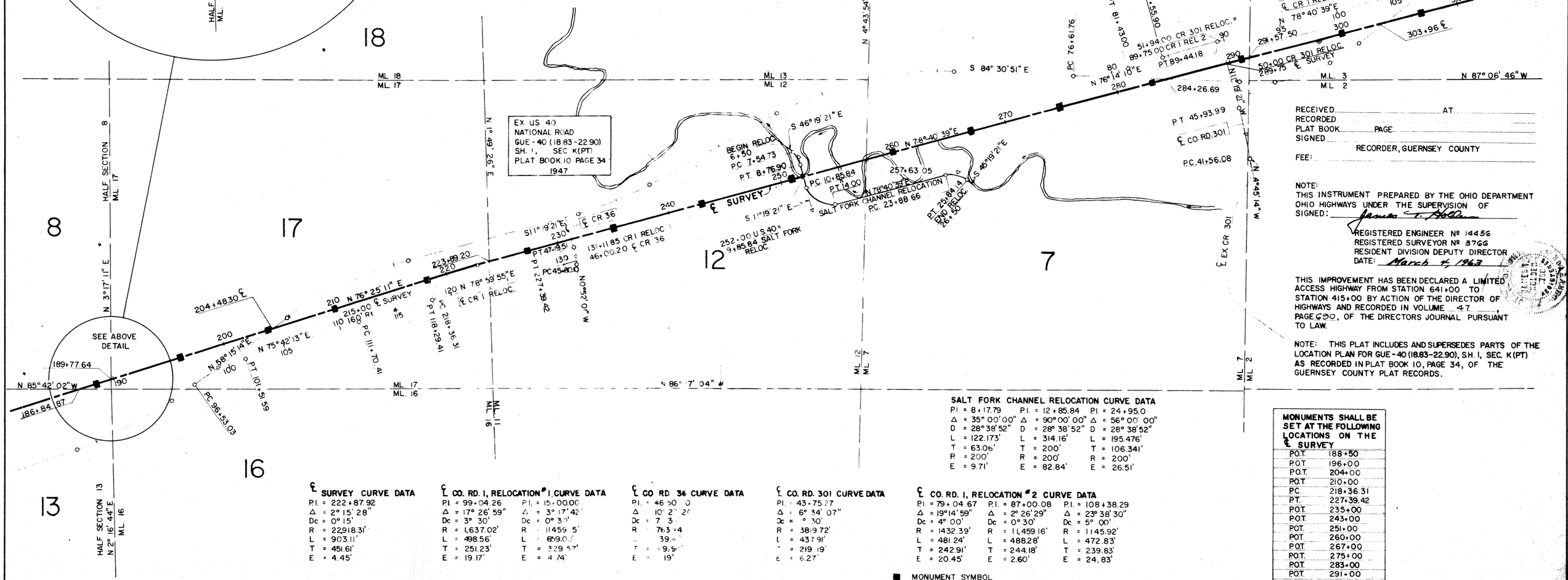
GUERNSEY COUNTY

0 400 800 1200 1600

SCALE: 1" = 400'

LIMITED ACCESS





RECEIVED ____ AT ____
RECORDED ____
PLAT BOOK ____ PAGE ____
SIGNED ____
RECORDER, GUERNSEY COUNTY
FEE: ____

NOTE:
THIS INSTRUMENT PREPARED BY THE OHIO DEPARTMENT OHIO HIGHWAYS UNDER THE SUPERVISION OF
SIGNED: James C. Holden
REGISTERED ENGINEER Nº 14456
REGISTERED SURVEYOR Nº 3766
RESIDENT DIVISION DEPUTY DIRECTOR
DATE: March 4, 1963

THIS IMPROVEMENT HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY FROM STATION 641+00 TO STATION 415+00 BY ACTION OF THE DIRECTOR OF HIGHWAYS AND RECORDED IN VOLUME 47, PAGE 690, OF THE DIRECTORS JOURNAL PURSUANT TO LAW.

NOTE: THIS PLAT INCLUDES AND SUPERSEDES PARTS OF THE LOCATION PLAN FOR GUE-40 (18.83-22.90), SH. 1, SEC. K(PT) AS RECORDED IN PLAT BOOK 10, PAGE 34, OF THE GUERNSEY COUNTY PLAT RECORDS.

℄ SURVEY CURVE DATA
P.I. = 222+87.92
Δ = 2° 15' 28"
Dc = 0° 15'
R = 22,918.31'
L = 903.11'
T = 451.61'
E = 4.45'

℄ CO. RD. 1, RELOCATION #1 CURVE DATA

P.I. = 99+04.26	P.I. = 15+00.00
Δ = 17° 26' 59"	Δ = 3° 17' 42"
Dc = 3° 30'	Dc = 0° 3' 0"
R = 1,637.02'	R = 11459.5'
L = 498.56'	L = 659.0'
T = 251.23'	T = 329.57'
E = 19.17'	E = 4.74'

℄ CO RD 36 CURVE DATA
P.I. = 46+50.0
Δ = 10° 2' 20"
Dc = 7° 3'
R = 763.4'
L = 39.4'
T = 9.9'
E = 19'

℄ CO. RD. 301 CURVE DATA
P.I. = 43+75.27
Δ = 6° 34' 07"
Dc = 9° 30'
R = 3819.72'
L = 437.91'
T = 219.19'
E = 6.27'

℄ CO. RD. 1, RELOCATION #2 CURVE DATA

P.I. = 79+04.67	P.I. = 87+00.08	P.I. = 108+38.29
Δ = 19°14' 59"	Δ = 2° 26' 29"	Δ = 23° 38' 30"
Dc = 4° 00'	Dc = 0° 30'	Dc = 5° 00'
R = 1432.39'	R = 11,459.16'	R = 1145.92'
L = 481.24'	L = 488.28'	L = 472.83'
T = 242.91'	T = 244.18'	T = 239.83'
E = 20.45'	E = 2.60'	E = 24.83'

SALT FORK CHANNEL RELOCATION CURVE DATA

P.I. = 8+17.79	P.I. = 12+85.84	P.I. = 24+95.0
Δ = 35° 00' 00"	Δ = 90° 00' 00"	Δ = 56° 00' 00"
D = 28° 38' 52"	D = 28° 38' 52"	D = 28° 38' 52"
L = 122.173'	L = 314.16'	L = 195.476'
T = 63.06'	T = 200'	T = 106.341'
R = 200'	R = 200'	R = 200'
E = 9.71'	E = 82.84'	E = 26.51'

■ MONUMENT SYMBOL
● MONUMENT ASSEMBLY SYMBOL

MONUMENTS SHALL BE SET AT THE FOLLOWING LOCATIONS ON THE ℄ SURVEY

P.O.T.	188+50
P.O.T.	196+00
P.O.T.	204+00
P.O.T.	210+00
P.C.	218+36.31
P.T.	227+39.42
P.O.T.	235+00
P.O.T.	243+00
P.O.T.	251+00
P.O.T.	260+00
P.O.T.	267+00
P.O.T.	275+00
P.O.T.	283+00
P.O.T.	291+00
P.O.T.	300+00
P.O.T.	307+00
P.O.T.	315+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

607
638

GUERNSEY COUNTY
GUE-40-17.37
LOCATION PLAN

3
34

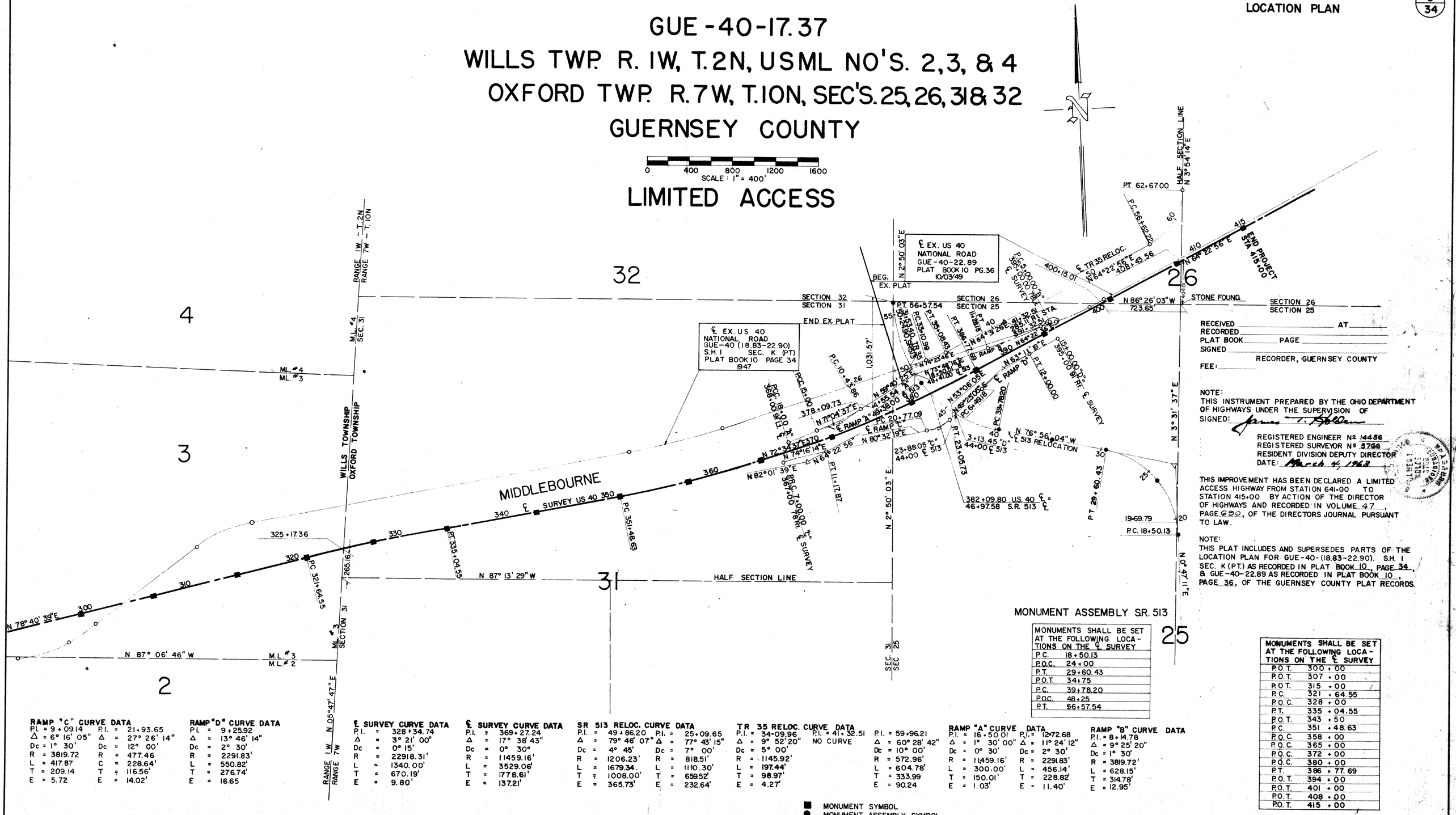
CENTER LINE SURVEY PLAT

GUE-40-17.37

WILLS TWP. R. 1W, T. 2N, USML NO'S. 2, 3, & 4
OXFORD TWP. R. 7W, T. 1ON, SEC'S. 25, 26, 31 & 32
GUERNSEY COUNTY

0 400 800 1200 1600
SCALE: 1" = 400'

LIMITED ACCESS



NOTE:
THIS INSTRUMENT PREPARED BY THE OHIO DEPARTMENT OF HIGHWAYS UNDER THE SUPERVISION OF
SIGNED: James T. Holden
REGISTERED ENGINEER № 14456
REGISTERED SURVEYOR № 5766
RESIDENT DIVISION DEPUTY DIRECTOR
DATE: March 4, 1963

THIS IMPROVEMENT HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY FROM STATION 641+00 TO STATION 415+00 BY ACTION OF THE DIRECTOR OF HIGHWAYS AND RECORDED IN VOLUME 47, PAGE 690, OF THE DIRECTORS JOURNAL PURSUANT TO LAW.

NOTE:
THIS PLAT INCLUDES AND SUPERSEDES PARTS OF THE LOCATION PLAN FOR GUE-40-(18.83-22.90). S.H. 1 SEC. K (PT.) AS RECORDED IN PLAT BOOK 10, PAGE 34, & GUE-40-22.89 AS RECORDED IN PLAT BOOK 10, PAGE 36, OF THE GUERNSEY COUNTY PLAT RECORDS.

MONUMENT ASSEMBLY SR. 513

MONUMENTS SHALL BE SET AT THE FOLLOWING LOCATIONS ON THE ℄ SURVEY	
P.C.	18+50.13
P.O.C.	24+00
P.T.	29+60.43
P.O.T.	34+75
P.C.	39+78.20
P.O.C.	48+25
P.T.	56+57.54

MONUMENTS SHALL BE SET AT THE FOLLOWING LOCATIONS ON THE ℄ SURVEY	
P.O.T.	300 + 00
P.O.T.	307 + 00
P.O.T.	315 + 00
P.C.	321 + 64.55
P.O.C.	328 + 00
P.T.	335 + 04.55
P.O.T.	343 + 50
P.C.	351 + 48.63
P.O.C.	358 + 00
P.O.C.	365 + 00
P.O.C.	372 + 00
P.O.C.	380 + 00
P.T.	386 + 77.69
P.O.T.	394 + 00
P.O.T.	401 + 00
P.O.T.	408 + 00
P.O.T.	415 + 00

RAMP "C" CURVE DATA
P.I. = 9+09.14
Δ = 6° 16' 05"
Dc = 1° 30'
R = 3819.72
L = 417.87
T = 209.14
E = 5.72

RAMP "D" CURVE DATA
P.I. = 21+93.65
Δ = 27° 26' 14"
Dc = 12° 00'
R = 477.46
C = 228.64'
T = 116.56'
E = 14.02'

℄ SURVEY CURVE DATA
P.I. = 328+34.74
Δ = 3° 21' 00"
Dc = 0° 15'
R = 22918.31'
L = 1340.00'
T = 670.19'
E = 9.80'

℄ SURVEY CURVE DATA
P.I. = 369+27.24
Δ = 17° 38' 43"
Dc = 0° 30'
R = 11459.16'
L = 3529.06'
T = 1778.61'
E = 137.21'

SR 513 RELOC. CURVE DATA
P.I. = 49+86.20
Δ = 79° 46' 07"
Dc = 4° 45'
R = 1206.23'
L = 1679.34'
T = 1008.00'
E = 365.73'

P.I. = 25+09.65
Δ = 77° 43' 15"
Dc = 7° 00'
R = 818.51'
L = 1110.30'
T = 659.52'
E = 232.64'

TR 35 RELOC. CURVE DATA
P.I. = 34+09.96
Δ = 9° 52' 20"
Dc = 5° 00'
R = 1145.92'
L = 197.44'
T = 98.97'
E = 4.27'

P.I. = 41+32.51
NO CURVE

P.I. = 59+96.21
Δ = 60° 28' 42"
Dc = 10° 00'
R = 572.96'
L = 604.78'
T = 333.99
E = 90.24

RAMP "A" CURVE DATA
P.I. = 16+50.01
Δ = 1° 30' 00"
Dc = 0° 30'
R = 11459.16'
L = 300.00'
T = 150.01'
E = 1.03'

P.I. = 12+72.68
Δ = 11° 24' 12"
Dc = 2° 30'
R = 2291.83'
L = 456.14'
T = 228.82'
E = 11.40'

RAMP "B" CURVE DATA
P.I. = 8+14.78
Δ = 9° 25' 20"
Dc = 1° 30'
R = 3819.72'
L = 628.15'
T = 314.78'
E = 12.95'

■ MONUMENT SYMBOL
● MONUMENT ASSEMBLY SYMBOL

SUMMARY OF ADDITIONAL R/W REQUIRED

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

GUERNSEY COUNTY
GUE-40-17.37
LIMITED ACCESS R/W

GDB GJB

4
34

PARCEL NO.	OWNER	DEED RECORDED BOOK	PAGE	AREA	TO BE ACQUIRED LAND	BLDGS	RESIDUE LEFT	RIGHT	P. R. O.	R/W SHEET NO.	REMARKS
7-WL	The Board of County Comms. et al	4	12	0.062	0.032	No			0.03	8	
8-WL	James Loughmon	160	544	0.25	0.35	Yes		37.16	2.26	8E9	
8-X	" "	161	416	0.19	0.05					8	
		236	67	39.36							
9-WL	John G. Laughmon & Wilma M. Loughmon	247	101	36.48	10.05	No	20.56		5.76	8E9	
9-X	" " " " " " "				0.11					8	
10-WL	Hettie Hazel Bell, et al	241	64	80	7.19	No	15.24(L)	48.88	7.59	9E10	
10-X	" " " " "				1.10					9E10	
11-WL	Margoret D. Hosfeld	242	178	288	4.39	No	209.07	65.46	7.01	10E11	
11-X	" " "				0.07					10E11	
12-WL	Franklin Slosor	188	390	15	1.35	No	9.10		3.87	11E12	
12-WD	" "				0.68					11	
13-WL	William T. Bodger & Mary E Bodger	240	198			No				11E12	Not Req'd.
14-LA	Della L. Buchanon	247	46	10.07		No		10.07		12	LA Only
14 A	Victor Dell-Omo & Lilly McCabe Dell-Omo	193	451	9.93						11-13	NOT. Req'd.
										12	
15-WL	Mervin G. Holl & Lois Elizabeth Holl	221	397	35.9	5.31	Yes	27.21			12E13	
15-WD	" " " " " " "				3.38					12E13	
15-WA	" " " " " " "									12	
16-WL	A. R. Seeboch Sr. & Bessie L. Seeboch	234	80	1.87	1.87	Yes				13	
17-WL	Chester Slosor & Margoret Slosor	245	198	90.98	1.38	No	76.16	1.91		13	
17A-WL	" " " " "				8.14				0.14	13E14	
17-WD	" " " " "				2.87				0.08	13E14	
17-X	" " " " "				0.08					14	
17-Y	" " " " "				0.20					14	
17-S	" " " " "				0.04					13	
18-WL	Howard Fuller	196	154	153	2.25	No	9.92	118.32	2.23	14E15	
18-WD	" "				0.20				0.08	14	
19-WL	Edward Bugos & Grace Anito Bugos	203	108	180	2.78	No	157.22			15E16	
20-WL	Walter Brock & Cloro Brock	246	52	1.10	0.51	Yes		0.59		15E16	
21-WL	Harvey W. Brock & Verna Brock	216	44	82.47	0.32	No		82.15		16	
22-WL	Guernsey Soil Conservation District	233	508	78	12.28	No	65.72			15-17	
22-WA	" " " "	"	"							16E17	

(L) Indicates residual lands that are landlocked.

PARCEL NO.	OWNER	DEED RECORDED BOOK	PAGE	AREA	TO BE ACQUIRED LAND	BLDGS	RESIDUE LEFT	RIGHT	P. R. O.	R/W SHEET NO.	REMARKS
23-WL	Elizobeth M. Wallace	175	117	155	13.49	No	106.05	21.67	2.69	16-18	
23-WD	" " "				8.93				0.56	16-18	
23 A-WD	" " "				1.16				0.35	17	
23-X	" " "				0.12					17	
24-WL	Richard C. Frame	206	1	150.49	23.94	No	23.60	97.84	0.47	18-20	Also Owns 26
24-WD	" " "				1.78				0.34	18	
24-X	" " "				2.12					20	
24-Y	" " "				0.40					20	
24-WA	" " "									19E20	
24 A-WA	" " "									20	
25-WL	Walter N. Patterson	225	482	250	12.15	No	59.94	173.89(L)		20E21	
25-X	" " "				4.02					20E21	
25-WA	" " "									21	
26-WL	Richard C. Frome	206	1	112.4	6.16	Yes	11.24	90.22	1.31	21E22	Also Owns 24
26-WD	" " "				1.55				0.57	22	
26 B-WD	" " "				0.54				1.01	21E22	
26 A-WD	Fredo House	149	337	50	0.29	No		48.83	0.88	22	
26 A-WA	" "	198	19							22	
26 C-WD	C.A. Hall et al	210	57	100.21	0.07	No	100.10		0.04	21	
		235	523								
27-WL	Roger D. Davis & Murriel J. Davis	251	171	141.54	32.16	Yes	62.28	24.68	2.73	22-25	
27-WD	" " " " " " "				6.73				0.55	22-24	
27 A-WD	" " " " " " "								0.58	22	
27-X	" " " " " " "				3.27					23-25	
27-Y	" " " " " " "				8.35					23-25	
27-T	" " " " " " "				0.21					24	
27-WA	" " " " " " "									23	
28-X	Clarence J. Sutton & Pearl R. Sutton	234	364	154.36	0.26	No		154.10		24E25	
29 WL	Levi & Margoret Moorehead	253	327	52.46	8.99	No	2.36	36.14		25-27	
29 A-WL	" " " "	253	363		0.50					25E26	
29 B-WL	" " " "				0.50					26	Owns Lots 45E46
29-X	" " " "				0.85					25	
29-Y	" " " "				3.12					25-27	
29-WA	" " " "									26	
31-X	George L. Thatcher	186	279	0.50	0.03	No	0.47			25	
32	State of Ohio	156	560							25E26	Not Req'd
33-WL	James H. Polen et al	237	13	2.02	0.50	No	1.52			26	Owns Lots 95-100 Inclusive
34	Jasper Starr	218	306							26	Not Req'd.
35-WL	Maud Coleman & John W. Long	239	472	1.51	1.51	No				26	
		254	250								
36-WL	James Lester Mills	230	340	0.50	0.25	Yes	0.25			26	Owns Lot #47

PARCEL NO.	OWNER	DEED RECORDED BOOK	PAGE	AREA	TO BE ACQUIRED LAND	BLDGS	RESIDUE LEFT	RIGHT	P. R. O.	R/W SHEET NO.	REMARKS
38-WL	Holton M. & Helen Casterline	182	547	0.50	0.25	Yes	0.25			26	Owns Lot #44
39-WL	Robert Arnold	232	16	2.65	2.65	No				26E27	
40	Charles O. Whitesell et al	234	481							26	Not Req'd.
41	Jack Ankrom	202	339							26	Not Req'd.
42	Emma Ankrom et al	232	268							26	Not Req'd.
43	Allen Block	137	67							26	Not Req'd.
44	Jesse E Touvell	235	291							26E27	Not Req'd.
		234	250								
45-WL	William L. & Dorothy M. Lovender	249	124	3.06	1.08	No	1.98			27	
46-WL	Mamie West	187	212	90.65	20.19	No	7.53	58.81	0.25	27E28	
46-X	" "				3.80				0.05	27E28	
46-WA	" "									27	
47-WD	J.M. Todd & Edna G. Todd	213	168	3.12	0.14	No	2.83		0.15	34	
47-WA	" " " " " " "									34	
48-WL	John Raymond Brothers & Jennie M. Brothers	219	231	80.82	9.09	Yes	0.54	60.61	0.57	28E29&33	
48-WD	" " " " " " "				8.46				0.79	32E33	
48-X	" " " " " " "				1.16					28	
48-A	Robert M. Smith	119	544							32	Not Req'd.
49-WL	William E. & Alice George	160	204	49.76	9.10	Yes	28.61	3.34	6.82	28E29	
49-WD	" " " " "	182	208 302		1.19				0.69	28E34	
49-X	" " " " "	186	198		0.01					29	
		208	78								
		211	142								
49 A-WD	D. Mahlon Smith & Esta B. Smith	195	479	155.19	0.14	No	154.95		0.10	34	
		215	371								
49 B-WA	James H. Hague & Betty Lee Hague	219	258							28	
49 C-WL	Emma George & Margoret Boles	190	593	2.65		No	1.06		1.59	28E29	
50-WL	Dorothy D Fanta & Lowrence H. Hadley	254	331	52.39		No	50.97		0.19	29	
50-WD	" " " " " " "	237	575		1.05				0.16	29E30	
50-X	" " " " " " "				0.02					29	
51-WL	Harlan E. Markee & Virgie L. Markee	174	410	157.96	3.75	Yes	100.99	32.67(L)	1602	29-31	
51-WD	" " " " " " "	177	598		3.91				0.50	29-31	
51-X	" " " " " " "	191	229		0.12					30	
51-WA	" " " " " " "	203	492							30	
		219	370								
		236	186								
52	Howard Henderson & Luella Henderson	242	351							32E33	Not Req'd
52 A-WD	Duane E Atwood & Margoret E Atwood	245	630	102.5	0.04	NO		101.99	0.47	32	
53	Martha L. Collins	240	424	0.50		NO		0.50(L)		30	
54	James Hague & Betty Lee Hague	235	324	36.75		NO		36.75(L)			NOT SHOWN ON R/W PLANS
55	Edith L. Long	224	371	49.37		NO	42.46	6.91(L)		31	
56	James W. Long & Edith L. Long	235	113			Not Shown On R/W Plans					Not Req'd.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

G09
C38

5
34

GUERNSEY COUNTY
GUE-40-17.37
LIMITED ACCESS R/W

I-70-7(10)187
SLM 17.37

HALF SECTION LINE-15

Co. Rd. 13

John G. Laughman & Wilma M. Laughman
Residue 20.56 Ac.

Residue 13.68 Ac.
LANDLOCKED

SEC. 6 SEC. 7

Residue 204.07 Ac.

Franklin Slusser
Residue 9.10 Ac.

Marvin G. Hall & Lois Elizabeth Hall
Residue 27.21 Ac.

Chester Slusser & Margaret Slusser
Residue 76.16 Ac.

SEC. 8
SEC. 13

Residue 9.92 Ac.

Edward Bugos & Grace Anita Bugos
Residue 157.22 Ac.

SEC. 8
M.L. 17

Twp Rd 105

Twp Rd 177

Twp Rd 277 Rd.

Twp Rd 120

Co Rd 1

Co Rd 2

Cap Line

BEGIN WORK
631+26

BEGIN PROJECT
641+00

OLD WASHINGTON
U.S. 60

Ex. L.A. R/W 7

Ex. L.A. 67

Ex. R/W 7

Ex. R/W

L.A. R/W

Ex. L.A. R/W

Ex. L.A. 67

Ex. R/W 7

L Co Rd 1 Ex R/W 7

V.C. & Melanie Mercer

Service Road "A"

L.A. R/W

Ex. L.A. R/W 7

Ex. L.A. 67

Ex. R/W 7

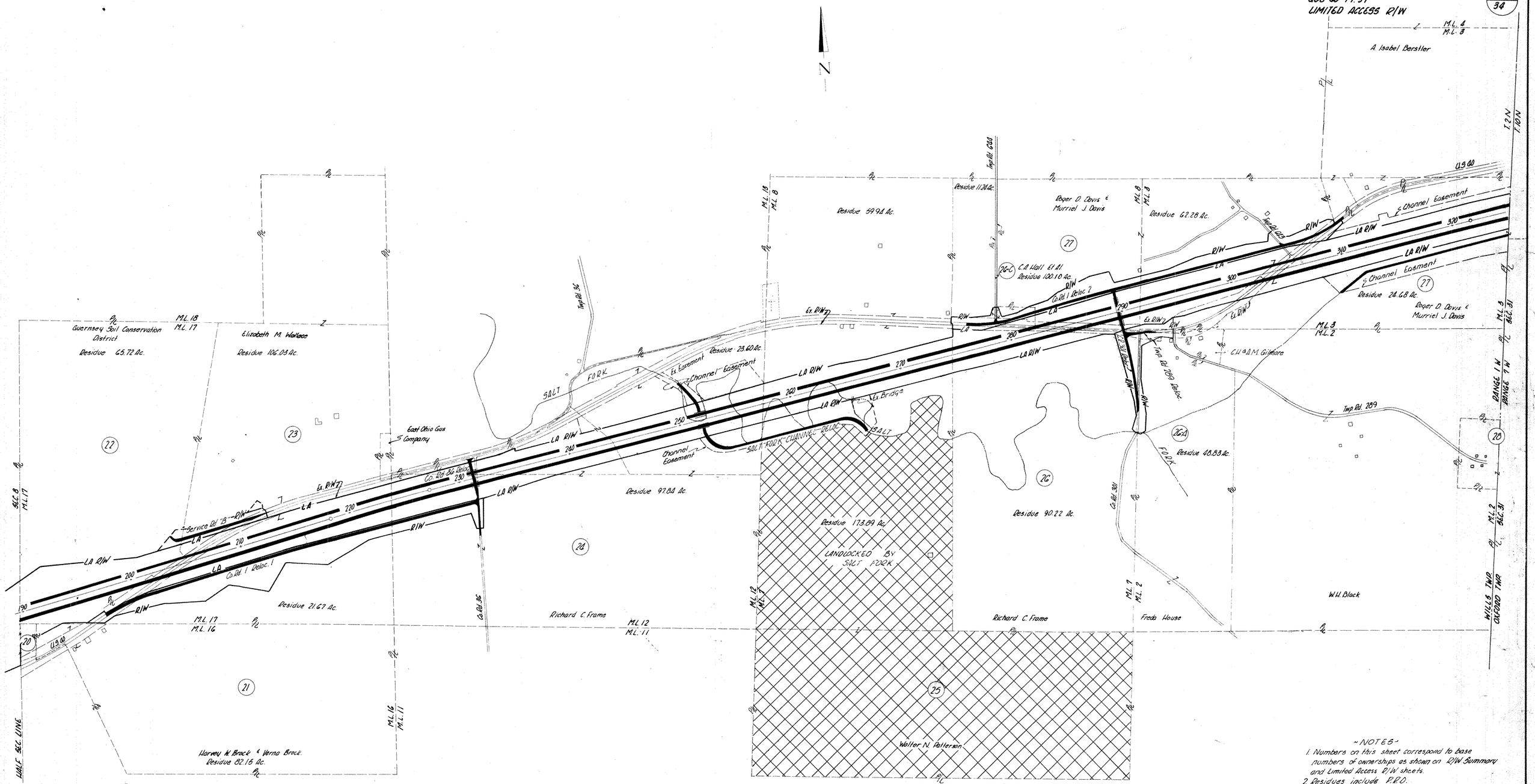
Ex. R/W

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

610
638

GUERNSEY COUNTY
GUE-40-17.37
LIMITED ACCESS R/W

6
34



~NOTES~
1. Numbers on this sheet correspond to base numbers of ownerships as shown on R/W Summary and Limited Access R/W sheets.
2. Residues include P.R.D.

SCALE
1" = 400'

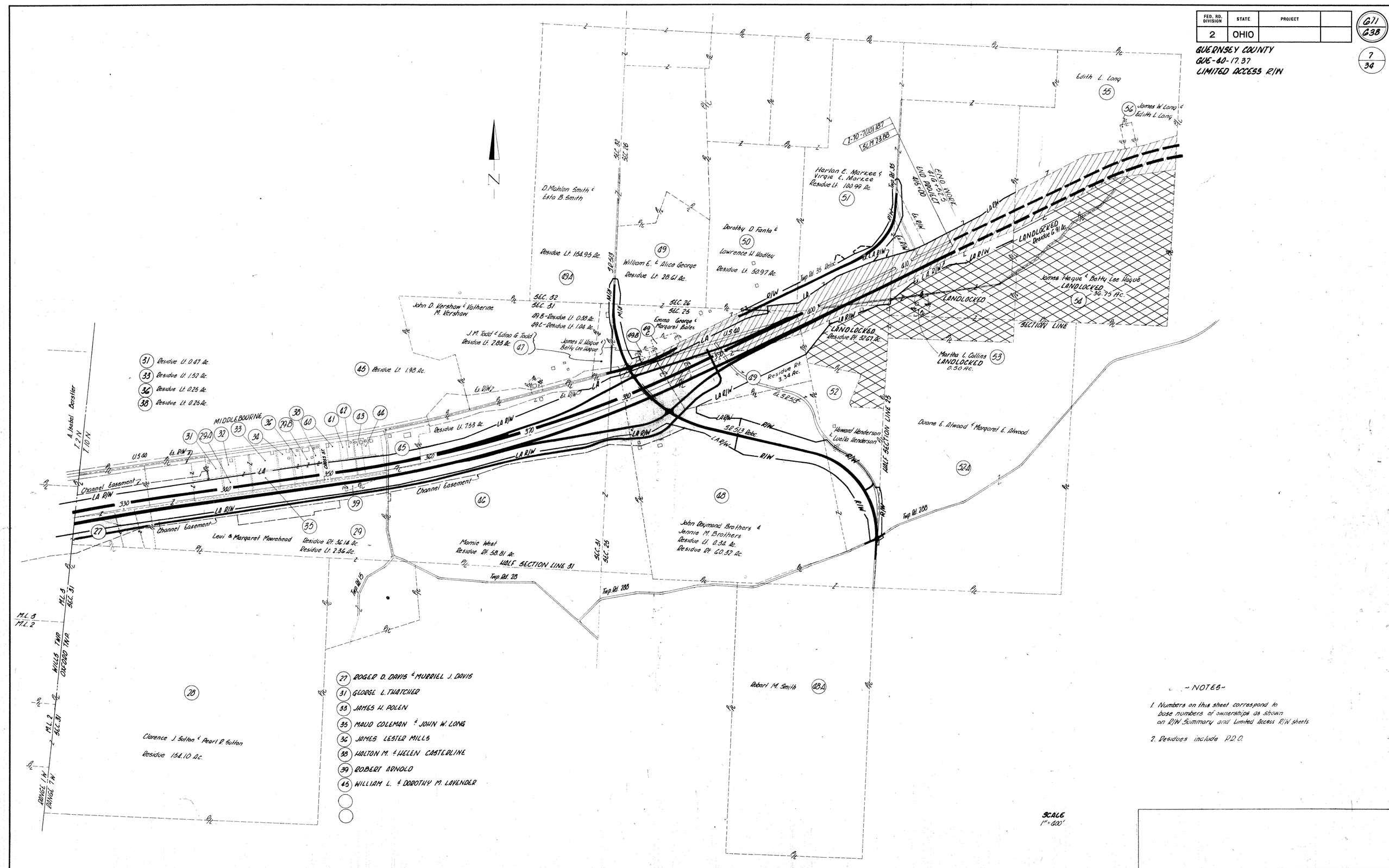
PROPERTY PLAN 190+00 to 325+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

671
638

7
34

GUERNSEY COUNTY
GUE-40-17.37
LIMITED ACCESS R/W



~NOTES~

1. Numbers on this sheet correspond to base numbers of ownerships as shown on R/W Summary and Limited Access R/W sheets.
2. Residues include P.R.O.

PROPERTY PLAN 325+00 to 415+00

I-25 Woven Wire Fence	
R/W Sheet No.	L.F.
8	2879
9	2044
10	2956
11	3118
12	3079
13	3021
14	3005
15	2017
16	3075
17	3000
18	2997
19	3014
20	3020
21	3002
22	2945
23	3000
24	3005
25	3000
26	3004
27	2991
28	3018
29	3029
30	3022
31	~
32	~
33	1333
34	~
Total to Gen. Sum.	71393 *

* Not part of this Contract. Will be constructed by others.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

612
638

8
34

GUERNSEY COUNTY
GUE-40-17.37
LIMITED ACCESS R/W

UTILITIES
Home Telephone Company
Ohio Power Company

Guernsey County - Wills Twp
Sec. 15, T.2 N., R.1 W., U.S.M.L.

JAMES LAUGHMAN
(8 WL) = 0.35 Ac.±, P.R.O. = 2.26 Ac.±
(8 X) = 0.03 Ac.±

JOHN G. LAUGHMAN & WILMA M. LAUGHMAN
(9 WL) = 10.05 Ac.±, P.R.O. = 5.78 Ac.±
(9 X) = 0.11 Ac.±

BOARD OF COUNTY COMMISSONERS ETAL
(7 WL) = 0.03 Ac.±, P.R.O. = 0.03 Ac.±

CURVE DATA RAMP "E"
℄ P.I. 14+98.20
Δ = 8°53'49"
D_c = 3°30'
R = 1637.02'
T = 202.39'
E = 5.52'
L_t = 104.20'
L_s = 150.00'
X_c = 149.97'
Y_c = 2.29'

THE GUERNSEY COUNTY AGRICULTURAL ASSOCIATION

D.B. 34, P. 382	5-10-86
D.B. 34, P. 384	8-24-86
D.B. 46, P. 146	10-21-92
D.B. 64, P. 103	7-20-01
D.B. 227, P. 535	9-9-54

and others

Right of Way to here acquired for GUE-40-11.86

Exhibition Hall

Ex. R/W

℄ Conn. Line

Ex. U.S. 40

Ex. Co. Rd. 13

Ex. Co. Rd. 70

Ex. Co. Rd. #1

Ex. L.A.

Ex. 18" Conc. Pipe

+39.19 Lt. C.P.A.

+30.00 Lt. C.P.A.

+28.15 Lt. A.P.A.

+83.11 Lt. A.P.A.

+84.16 Lt. A.P.A.

+00.17 Lt. A.P.A.

BEGIN PROJECT STA. 661+00

Washington Township

Village of Old Washington

℄ Survey & Construction

N 68°02'20" E

Dug Well 32' Deep 5'x5' Conc. Slab

Ex. G.R.

Ex. P.G.

Ex. 12" V.S.P.

Ex. 24" V.S.P.

Ex. 16" C.M.P.

Ex. Field Drive

Cumberland → Milestone 171

Proposed 42" Culvert

Type 2 Fence Crossing

Billboard

Fr. Shed

2-S-Fr. Barn.

1-S-Fr. Barn

Construction Limits

L.A. R/W

L.A.-Ex. R/W

Ex. R/W

W.B. US 40

E.B. US 40

HALF SECTION LINE

HALF SECTION 16

RAMP "E"

S 67°31'03" W

N 04°09'41" E

N 19°41'E

P.O.T. 650+00.09 Rt.

649+61.41 257.05' Lt.

650+50 240.41' Lt.

651+08.03 263.50' Lt.

652+00 300' Lt.

652+00 266.01 Lt.

651+57.75 220.32' Lt.

653+00 150' Lt.

650+57.90 175.14' Lt.

650+63.52 169.96' Lt.

650+89.25 146.24' Lt.

651+94.73 19.85' Lt.

647+61.98 Lt. 12.00' Rt.

647+39.05 133.61' Rt.

647+52.58 148.03' Rt.

647+13.98 163.84' Rt.

647+11.28 164.82' Rt.

647+92.96 71.30' Rt.

648+09.83 76.22' Rt.

648+60.25 19.5' Rt.

649+07 60' Rt.

649+22.6 99.99' Rt.

649+50 167.50' Rt.

649+03.36 166.77' Rt.

649+03.36 195.0' Rt.

649+50.00 195.0' Rt.

652+13.45 141.61' Rt.

652+11.61 171.55' Rt.

658+16.46 144.78' Rt.

Y= 1949.86
Δ = 3°22'54"
Arc = 115.08
Chord = 115.06

R = 1949.86 Δ = 5°58'08"
Arc = 203.20' Chord = 203.05

R = 1979.86' Δ = 8°34'08"
Arc = 297.83' Chord = 297.55'

ST. 17+00

C.S. 15+50

Limits

JOHN G. LAUGHMAN & WILMA M. LAUGHMAN
D.B. 267, P. 101 10-4-60

JAMES LAUGHMAN
D.B. 160, P. 544 9-30-29
D.B. 161, P. 416 11-16-32
D.B. 236, P. 67 6-15-56

G.C. & ANNA M. STILLION
D.B. 176, P. 657 6-6-39

GEORGE & ESTELLA MARGARET LONG
D.B. 166, P. 65 9-15-25

PRYSE DUNIGAN
D.B. 216, P. 387 10-17-69

OLIVE LAUGHMAN
D.B. 267, P. 100 11-11-60

(45 A) Acquired from Pryse Dunigan, Hilda Mae Dunigan, James Laughman & The Board of County Commissioners of Guernsey County
Com. Pl. Court Case #19536 7-18-49

(45 B) Acquired from Pryse Dunigan, Hilda Mae Dunigan, James Laughman & The Board of County Commissioners of Guernsey County
Com. Pl. Court Case #19536 7-18-49

(44 A) Acquired from The Guernsey County Agricultural Assoc.
D.B. 218, P. 50 5-28-49

(44 B) Acquired from The Guernsey County Agricultural Assoc.
D.B. 218, P. 50 5-28-49

(45) Acquired from Pryse Dunigan & Hilda Mae Dunigan
Com. Pl. Court Case #19527 7-15-49

(46 B) Acquired from James F. Laughman
D.B. 218, P. 69 5-26-49

(47) Acquired from Charles B. Laughman
D.B. 218, P. 63 5-19-49

(47 A) Acquired from Charles B. Laughman
D.B. 218, P. 63 5-19-49

(47 B) Acquired from Charles B. Laughman
D.B. 218, P. 63 5-19-49

(47 X) Acquired from Charles B. Laughman
Misc. 4, P. 36 5-19-49

(46) Acquired from Maude Laughman
D.B. 218, P. 66 6-16-49

(46 A) Acquired from Maude Laughman
D.B. 218, P. 66 6-16-49

(48 B) Acquired from Maude Laughman
D.B. 218, P. 66 6-16-49

(5) Acquired from John F. Laughman
D.B. 1, P. 286 7-16-32

(6) Acquired from Charles Laughman
D.B. 1, P. 283 7-16-32

(10) Acquired from John Laughman
D.B. 1, P. 286 7-16-32

REV.	DATE	DESCRIPTION	BY

640+00 to 655+00 R/W

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

613
638

9
34

GUERNSEY COUNTY
GUE-60-17.37
LIMITED ACCESS R/W

RAMP "E" CURVE DATA
P.I. 14+98.20
Δ = 8°53'49"
D_a = 3° 30'
R = 1637.02'
T = 202.39'
E = 5.52'
L_c = 104.20'
L_s = 150.00'
X_c = 149.97'
Y_c = 2.29'

CURVE DATA
P.I. 10+04.34
Δ = 16°31'47"
D_a = 5°00'
R = 1145.92'
T = 166.45'
E = 12.03'
L = 330.59'

UTILITIES
Home Telephone Co.

Guernsey County ~ Wills Twp.
Sec. 13, T.2 N., R.1 W. U.S.M.L.

+85.0, 576' Lt. C.P.A.
90+23.50 378 Lt.
LA R/W
APA
96+15.37 565.36' Lt.
+08.578' Lt C.P.A.
98+00 575 Lt.

SEE SHEET #440 FOR REST AREA

PROPOSED CURVE DATA MAIN ℄
P.I. = 103+68.95
Δ = 30°34'23" Rt.
D = 0°59'14"
R = 5803.58'
L = 3096.79'
T = 1586.21'
E = 212.87'

HETTIE HAZEL BELL
MARY HELEN WEINERT
EMMA CYRICA BOND
D.B.201, P.66 9-11-57

RAMP "F" CURVE DATA
P.I. 20+36.52
Δ = 16°23'35"
D = 7°00'
R = 818.51'
T = 117.90'
E = 8.45'
L = 234.19'

+08.358' Lt C.P.A.
99+00 355' Lt.
27" Pipe
Proposed
Ex. 21+52.80 ℄ RAMP "F"
LA R/W

JOHN G. LAUGHMAN &
WILMA M. LAUGHMAN
D.B. 267, P.101 10-4-60

90+00 245' Lt.
+02.243' Lt. C.P.A.
9 WL
N

WESTBOUND REST AREA

655+00 180' Lt.
657+59.78 Back = 87+82.74 Ahead
LA R/W
Limits
Construction
S 12°-9580
SC 14+45.80
S 58° 37'14" W
S 75°-09'-01" W
P.T. 11+68.48
P.C. 8+37.88
P.O.T. 7+87.88 Ramp "E" 26°30'41", 101' Lt. ℄
13 RAMP "E"
Ex. Field Drive
To Be Abandoned
+00.178' Lt. APA
15 14 12 11 10 9 8 26 25 ℄ 24 23 22 21 20 RAMP "F" 19
N 88°27'24" W
94+70.35 70.70' Lt.
96+29.83 91.00 Lt.
96+75.41 111.00' Lt.
LA-Ex. R/W's
91+90.24 46' Lt.
657+59.78 Back = 87+82.74 Ahead
LA-Ex. R/W
N 68° 02' 00" E
℄ Survey & Construction
Sign
Ex. P.G.
Proposed 27" Pipe
Ex. G.R.
659 656 657 88 89 90 91 92 93 94 95 96 97 98 99 100
Ex. U.S. 40
RC 8+71 12° 63' 30" 5728 Rad. Back
RC 8+76 12° 63' 30" 5728 Rad. Ahead
441.90
8 WL
43
Construction
Limits
Ex. L.A.B.2
85+98 151' Rt.
89+87.29 178' Rt.
Ex. L.A.B.2
LA
656+77.40 169.85' Rt.
Ex. Co. Rd. 1
Ex. G.R.
Ex. R/W
Ex. R/W's
Ex. G.R.2
Ex. P.G.
Construction
Limits
125' 10" Rt. APA
96+25 166' Rt.
98+19 171' Rt.
LA R/W
Billboard
Ex. R/W's
Ex. Co. Rd. 1
12
49
10 X
10 WL

10	Acquired from Robert M. Laughman Vol. 1, P.289 7-15-32
42	Acquired from Charles B. Laughman D.B.218, P.63 5-19-69
43	Acquired from Hulda Dunnigan Et. Al. D.B.218, P.33 5-21-69
45	Acquired from Maude Laughman D.B.218, P.66 6-16-69
48 A	Acquired from Maude Laughman D.B.218, P.66 6-16-69
49	Acquired from Robert M. Laughman D.B.218, P.77 5-17-69
49 A	Acquired from Robert M. Laughman D.B.218, P.77 5-17-69

JAMES LAUGHMAN
D.B. 160, P.544 9-30-29
D.B. 161, P.416 11-16-32
D.B. 236, P.67 6-16-56

Hettie Hazel Bell
Mary Helen Weinert
Emma Cyrica Bond

10 WL = 7.19 Ac. ± PRO. = 7.59 Ac. ±

10 X = 1.10 Ac. ±

HETTIE HAZEL BELL
MARY HELEN WEINERT
EMMA CYRICA BOND
D.B.201, P.66 9-11-57

REV.	DATE	DESCRIPTION	BY

655+00 to 100+00 R/W

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

614/638

10/34

GUERNSEY COUNTY
GUE-40-17.37
LIMITED ACCESS R/W

SEE SHEET #440 FOR REST AREA

MATCH LINE SEE BELOW

RAMP "F" CURVE DATA
P.I. 13+91.21
Δ = 3°24'40"
D_a = 0°30'
R = 11459.16'
T = 341.21'
L = 682.22'
E = 5.08'

UTILITIES
Guernsey Muskingum Elec. Coop. Inc.
Home Telephone Co.
Guernsey County – Wills Twp.
Sec. 16 & 15, T.2 N. R.1W, U.S.M.L.

HETTIE HAZEL BELL
MARY HELEN WEINERT
EMMA CYRICA BOND
D.B.261, P.66 9-11-57

(49) Acquired from Robert M. Laughman D.B.218, P.77 5-17-49

(49 X) Acquired from Robert M. Laughman Misc. 4, P.38 5-16-49

(50) Acquired from Michael W. Bugos & Margaret D. Bugos Com. Pl. Court Case #19,537 7-26-49

MARGARET D. HOSFELD
D.B.242, P.178 9-4-57

HETTIE HAZEL BELL
MARY HELEN WEINERT
EMMA CYRICA BOND
D.B.261, P.66 9-11-57

V.L. MERCER
MELANIE MERCER
D.B.216, P.40 6-5-48
D.B.217, P.536 9-2-50

MARGARET D. HOSFELD

(11 WL) = 4.39 Ac. ± PRO. 7.01 Ac. ±

(11 X) = 0.07 Ac. ±

PROPOSED CURVE DATA
P.I. = 103+68.95
Δ = 30°36'23" Rt.
D = 0°59'16"
R = 5803.58'
L = 3096.79'
T = 1586.21'
E = 212.87'

SEE R/W SHEET #9

MATCH LINE SEE ABOVE

REV.	DATE	DESCRIPTION	BY

100+00 to 115+00 R/W

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

GUERNSEY COUNTY
GUE-60-17.37
LIMITED ACCESS R/W

G15
G38

11
34

(14) Acquired from Frank M. Creighton Vol. I, Page 291 7-15-32

(15) Acquired from Mary M. Cunningham Vol. I, Page 293 7-18-32

(50) Acquired from Michael W. Bugos & Margaret O. Bugos Com. Pl. Court case #19537 7-16-49

(51) Acquired from Franklin Slasor D.B. 218, Page 100 5-24-49

(51/A) Acquired from Franklin Slasor D.B. 218, Page 100 5-24-49

(51/B) Acquired from Franklin Slasor D.B. 218, Page 100 5-24-49

(51/X) Acquired from Franklin Slasor Misc. Rec. 6, Page 37 5-24-49

(52/A) Acquired from Victor Dell-Omo & Lilly McCabe Dell-Omo D.B. 218, P. 42 5-25-49

UTILITIES
Guernsey-Muskingum Elec. Coop Inc.
Home Telephone Co.

FRANKLIN SLASOR
D.B. 188, P. 390 9-24-43

VICTOR DELL-OMO & LILLY McCABE DELL-OMO
D.B. 193, P. 431 12-6-44

MERVIN G. HALL
LOIS ELIZABETH HALL
D.B. 721, P. 390 6-28-54

Guernsey County - Wills Twp.
Sec. 14, T.2N. R.1W. U.S.M.L.

CURVE DATA
TWP. RD. 185
P.I. 53+52.20
Δ = 17°44'00" RT.
D = 5°00'
R = 1145.92'
T = 178.76'
L = 354.67'
E = 13.86'

CURVE DATA
TWP. RD. 185
P.I. 48+22.35
Δ = 20°26'00" LT.
D = 10°00'
R = 572.96'
T = 103.26'
L = 204.33'
E = 9.23'

SERVICE RD "A" CURVE DATA

P.I. = 5+99.44	P.I. = 6+71.21
Δ = 28°14'38"	Δ = 37°01'45"
D = 46°	D = 46°
T = 31.34	T = 41.71
L = 61.40	L = 80.50
E = 3.88	E = 6.79
R = 124.56'	R = 124.36'

MARGARET O. HOSFELD
D.B. 242, P. 178 9-4-57

FRANKLIN SLASOR
D.B. 188, P. 390 9-24-43

MATCH LINE TO INSERT

Construction Limits

Type 2 Fence Crossing

Proposed 60" Pipe

115+25 260' Lt.

115+75 260' Lt.

115+75 220' Lt.

+75.21 Rt. A.P.A.

LA R/W

119+00 150' Lt.

+00.148' Lt. A.P.A.

115+23.98 136' Lt.

LA-Ex. R/W

116+58.70 26.00' Lt.

Ex. G.R.

Ex. U.S. 40

P.I. 118+79.33

+69.190' Rt. A.P.A.

R = 818.80
Δ = 27° 53' 42"
Arc. 398.5' Chord 394.62

118+72 199' Rt.

LA

Ex. C.L.

Ex. R/W

Δ = 45° 43'
D = 7° 00'
R = 818.60'

122+03 212' Rt.

Ex. C.L.

Ex. R/W

MARGARET O. HOSFELD
D.B. 242, P. 178 9-4-57

FRANKLIN SLASOR

(12 WD) = 0.68 Ac. ±

(12 WL) = 1.35 Ac. ± P.R.O. = 3.87 Ac. ±

U.S. 40
PROPOSED CURVE DATA
P.I. = 103+68.95
Δ = 30° 30' 23" Rt.
D = 0° 59' 16"
R = 5803.58'
L = 3096.79'
T = 1586.21'
E = 212.87'

REV.	DATE	DESCRIPTION	BY

124+76.71 275' Lt.

Blk & Fr. Barn

15"

S 37°-35'-30" E

SERVICE RD.

PRC 6+28.50

PT 7+10.00

(12 WD)

15"

124+84.92 210' Lt.

Privy

+90.5 C.P.A. +148' Lt.

Wall 2.5ft

Fr. Res.

124+92.50 150' Lt.

+90.5 C.P.A. +110' Lt.

124+97.30 112' Lt.

+90.128' Lt. A.P.A.

To Be Abandoned

Billboard

Ex. Res. Drive

L.A-Ex. R/W

125+08.81 21.00' Lt. 82°47'55"

To Be Abandoned

Ex. Res. Drive

(11 WL)

(50)

(51)

(13)

(14)

(15)

Construction Limits

Ex. C.L.

Ex. R/W

Ex. C.L.

Ex. R/W

Ex. C.L.

Ex. R/W

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

G16
G38

12
34

GUERNSEY COUNTY
GUE-40-17.37
LIMITED ACCESS R/W

Guernsey County-Willg Twp.
Sec 16 T.C.N. R.1W. U.S.M.L.

(51) Acquired from Franklin Slosar
D.B. 218, P. 100 5-26-69

(52) Acquired from Victor Dell-Omo
& Lilly McCabe Dell-Omo
D.B. 218, P. 82 5-25-69

(52A) Acquired from Victor Dell-Omo
& Lilly McCabe Dell-Omo
D.B. 218, P. 82 5-25-69

UTILITIES
Guernsey-Muskingum Elec. Coop. Inc.
Home Telephone Co.

NOTE:
Existing Parcels 52 & 52A
are still retained by Victor Dell-Omo, ET AL.

MATCH LINE TO INSERT
SEE PREVIOUS SHEET

VICTOR DELL-OMO &
LILLY McCABE DELL-OMO
D.B. 193, P. 431 12-6-46

MERVIN G. HALL
LOIS ELIZABETH HALL
D.B. 221, P. 397 6-28-54

U.S. 40
PROPOSED CURVE DATA
P.I. = 130+56.95
Δ = 22°51'52" Lt.
D = 1°30'
R = 3819.72'
Ls = 200.00'
Lc = 1324.30'
θs = 1°30'
Is = 872.51'
Ks = 199.99'
Ys = 1.75'
Es = 77.76'

CURVE DATA
Twp. Rd. 277 Reloc.
P.I. 50+20.55
Δ = 22° 51' 52" Lt.
D = 1° 30'
R = 3,819.72'
T = 772.43'
L = 1526.30'
E = 77.32'

Proposed CMP
Proposed 54"
30+62.26
198 Lt.
(51)
12-A
Springs
30+74
Twp. Rd. 277 Reloc.
130+00
168' Lt.
130+75.40, 168.0' Lt. =
130+75.40, 12' Rt.
130+80
111' Lt.
Ex. L.A.
Ex. G.R.
Sign
130+104.5
131
132
133
134
135
136
137
S 80°42'57" E
138
139
Ex. P.G.
140
141
142
143
144
145
Ex. U.S. 40
Ex. 12" C.M.P.
Ex. 12" C.M.P.
Ex. 12" C.M.P.
Ex. 4'x4' Box Culvert
(52)
12-A
Construction Limits
132+32
169' Rt.
LA R/W
P/L
L.A.~Ex. R/W's
130+58.5
202' Rt.
131+00
209' Rt.
Type 2 Fence Crossing
Type 2 Fence Crossing
+00 287' Rt.
C.P.A.
(13)
WILLIAM T. BADGER
MARY E. BADGER
D.B. 240, P. 196 12-2-57
Ex. R/W
Ex. Co. Rd. 1
DELLA L. BUCHANAN
D.B. 267, P. 66 6-1-60
MERVIN G. HALL
LOIS ELIZABETH HALL
(15 WL) = 3.31 Ac. ±
(15 WD) = 3.38 Ac. ±
(15 WA)
(15 WD)
(15 WL)
(15 WA)
R/W
34+00
60' Lt.
39+10
90' Lt.
39+10
63.66' Lt.
39+70
90' Lt.
39+70
64.07' Lt.
41+00
60' Lt.
Frame Barn
Gate
Existing Field Drive
TO BE CLOSED
Existing access point
139+32 Actual
139+50 (Deed)
Form access only
P.C. 42+48.12
42+48.12, 12' Rt.
142+48.57, 167.94' Lt.
R = 3831.72' Δ = 8°-08'-58"
Arc = 545.01' Chord = 544.55'
Gate L.A.~Ex. R/W's
140+46
16' Lt.
Ex. L.A.~Ex. R/W's
P.C. 163+80.46
P.T. 168+25.47
144+101.52
48.79' Lt.
145+00
APA
140+46
149' Rt.
TO BE CLOSED
Existing access point
139+82 Actual
139+50 (Deed)
Farm access only
Existing Resident Drive
ACCESS CLOSURE ONLY
VICTOR DELL-OMO &
LILLY McCABE DELL-OMO
D.B. 193, P. 431 12-6-46
(52)
(14 LA)
CEMETERY
Fireplace
Shed
Shed
ELIZABETHTOWN
Fr.
Fr.
Fr.
Fr. House
Fr. Crib
Barn

REV.	DATE	DESCRIPTION	BY

130+00 to 145+00 R/W

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

617
638

13
34

GUERNSEY COUNTY
GUE-80-17.37
LIMITED ACCESS R/W

Guernsey County-Wills Twp.
Sec. 16, T.2 N. R.1 W. U.S.M.L.

UTILITIES
Guernsey-Muskingum Elec. Coop. Inc.
Home Telephone Co.

CURVE DATA
Twp. Rd. 277 Reloc.
P.I. 50+20.55
Δ = 22° 51' 52" Lt.
D = 1° 30'
R = 3,819.72'
L = 1,524.30'
T = 772.43'
E = 77.32'

U.S. 40
PROPOSED CURVE DATA
P.I. 150+56.95
Δ = 22° 51' 52" Lt.
D = 1° 30'
R = 3819.72'
Ls = 200.00'
Lc = 1324.30'
θs = 1° 30'
Ts = 872.51'
Xs = 199.99'
Ys = 1.75'
Es = 77.76'

CHESTER SLASOR
MARGARET SLASOR
D.B. 265, P. 198 9-5-59

MERVIN G. HALL
LOIS ELIZABETH HALL
D.B. 221, P. 397 6-28-56

VICTOR DELL-OMO & LILLY McCABE DELL-OMO
D.B. 193, P. 431 12-6-48

DELLA C. BUCHANAN
D.B. 287, P. 46 6-1-60

A.R. SEEBACH SR.
BESSIE L. SEEBACH
D.B. 234, P. 80 7-5-56

HAROLD SARCHET
PATRICIA SARCHET
D.B. 221, P. 215 1-8-53

HAROLD BURDETTE
MARIE E. BURDETTE
D.B. 229, P. 197 1-22-54

CHESTER SLASOR
MARGARET SLASOR
D.B. 265, P. 198 9-5-59

CEMETERY

Construction Limits

Ex. U.S. 40

Ex. Res. Drive

Twp. Rd. 277 Reloc.

Ex. Gravel Dr.

9 Storie Dr.

Fr. Shed

Conc. Footer No Bldg.

Water Well

Septic Tank

Survey & Construction

Ex. Channel Easement

Ex. P.G.

Ex. G.R.

Ex. 60'

Por't. To Be Removed

Ex. 12" CMP

Mon. (Fnd.) 93°57'18" Ton to Curve

Mon. Found 154+19.33 158.83

Mon. (Fnd.)

P.I. 57+72.42

Construction Limits

R/W

L.A.

L.A.-Ex. R/W

L.A.-Ex. R/W2

C.L. 157+08.74

(52) Acquired from Victor Dell-Omo & Lilly McCabe Dell-Omo D.B. 218, P. 42 5-25-49

(53) Acquired from Lea H. Shipman & Erma S. Herndon D.B. 218, P. 104 5-28-49 5-31-49

(53 X) Acquired from Lea H. Shipman & Erma S. Herndon Misc. Rec. 6, P. 39 5-31-49

(54) Acquired from Parmer & Helen M. Moore D.B. 218, P. 80 5-19-49

(17 WL) = 1.38 Ac. ±

(17 WD) = 2.87 Ac. ± P.R.O. = 0.08 Ac. ±

(17A WL) = 8.14 Ac. ± P.R.O. = 0.14 Ac. ±

(17 S) = 0.04 Ac. ±

(17 X) = 0.06 Ac. ±

(17 Y) = 0.20 Ac. ±

(16 WL) = 1.87 Ac. ±

REV	DATE	DESCRIPTION	BY

145+00 to 160+00 R/W

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

618
638

14
34

GUERNSEY COUNTY
GUE-40-17.34
LIMITED ACCESS R/W

CHESTER SLASOR
MARGARET SLASOR
D.B. 265, P. 198 9-5-59

Stone (Found.)

63+95.70 ...
125.20 Lt.

Sec. 18
Sec. 19

17 X

64+84.31
71.84 Lt.

P.T. 64+65.30

64+50
30 Lt.

64+29.77
50.60 Lt.

65+25 Match Line

63
64
65

M/W

T.R. 277 Reloc.
CURVE DATA
P.I. 63+92.78
Δ = 72°29'52" Lt.
D_c = 42°00'
R = 136.42'
T = 100.03'
E = 32.74'
L = 172.61'

Guernsey County - Wills Twp.
Sec. 13 & 14, T.2 N. R.1 W, U.S.M.L.

N

65+75
4' Rt.

65+75
18' Rt.

End Work
65+75

65+75
10' Lt.

℄ Survey
Ex. R/W

Ex. R/W

65+25 Match Line

HOWARD FULLER
D.B. 196, P. 158, 6-22-65

R/W

61+00
60 Lt.

61+71.95
68.24' Lt.

63+25.16
82.01' Lt.

17 WD

PC. 62+92.75
163°55'31" (BC)

64+29.77
50.60 Lt.

18 WD

Twp. Rd. 277 Reloc.
N 76°25'11" E

60
61
62
63

L.A.

165+50
150 Lt.

168+50
160 Lt.

L.A.R/W

162+19.24
168 Lt.

17A WL

+44
166' Lt.
APPA.

164+44
168' Lt.

+50
168' Lt.
APPA.

18 WL

Construction Limits

Proposed 72" Pipe Culvert

℄ located

72°31'16"

72°29'52"

160 161 162 163 166 165 166 N 76°25'11" E 167 168 169 170 171 172 173 174 175

164+08.58 US 40 *
55+99.61 TWP. RD. 277

℄ Survey & Construction

81'20

Spoils

N 76°25'11" E

RAMP "G"

1 2 3 4 5

P.C. 1+13.00
171+13.00-BK

84.8
360.37

160' Rt.
+00.158' Rt.
APPA.

161+25
200 Rt.

163+62
158' Rt.

+00.158' Rt.
APPA.

163+55
190' Rt.

L.A.R/W

165+00
160' Rt.

200' Rt.
160+00

161+03.36
200 Rt.

161+25
215 Rt.

161+85
215 Rt.

17 Y

163+00
205 Rt.

CHESTER SLASOR
MARGARET SLASOR
D.B. 265, P. 198 9-5-59

162+35
285 Rt.

L.A.~Ex. R/W

Mon. (Fnd.)

P/L

53

54

R=2814.4'
(BK-AH)

R=331'
(BK-AH)

56 A

53 A

31 A

Cumberland
Milestone 169

Ex. L.A.B.

Ex. U.S. 40

Ex. G.R.

Ex. 36"

Ex. 33' R/W

Ex. TR. 277

℄ R/W

Begin work 165+00

Ex. Co. Rd. 1

162 163 164 165 166 167 168 169 170 171 172 173

12' CMP

Box Culvert

Ex. 3'-3"

Ex. G.R.

℄ Construction

171 N 70°30'59" E

CO. RD. #1 CONNECTION

℄ Survey

31

Ex. R/W

58

L.A.~Ex. R/W

HOWARD FULLER
D.B. 196, P. 158 6-22-65

(31) Acquired from Aaron Patterson
Vol. 1, P. 295 7-15-32

(31 A) Acquired from Eugenia Patterson
Vol. 189, P. 244 6-30-43

(40) Acquired from Howard Fuller
D.B. 208, P. 641 10-22-47

(53) Acquired from Lee H. Shipman & Erma J. Herndon
D.B. 218, P. 104 5-26-49
5-31-49

(53 A) Acquired from Lee H. Shipman & Erma S. Herndon
D.B. 218, P. 104 5-26-49
5-31-49

(54) Acquired from Parmar & Helen M. Moore
D.B. 218, P. 80 5-18-49

(56) Acquired from Howard Fuller
D.B. 218, P. 65 6-15-49

(56 A) Acquired from Howard Fuller
D.B. 218, P. 65 6-15-49

UTILITIES
Guernsey - Muskingum Elec. Coop. Inc.
Home Telephone Co.

RAMP "G"
CURVE DATA
P.I. 5+38.66
Δ = 12°43'02" Rt.
D_c = 1°30'
R = 3819.72'
T = 425.66'
L = 847.81'
E = 23.64'

HOWARD FULLER
D.B. 196, P. 158 6-22-65

End Existing
Limited Access

Frame Barn

Frame Barn

Milk House

Water Line

2-Sty.-Fr. Res.

Ex. R/W

End work 172+59

Ex. U.S. 40

Ex. R/W

REV.	DATE	DESCRIPTION	BY

160+00 to 175+00 R/W

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

610 / 638

15 / 34

GUERNSEY COUNTY
GUE-40-17.37
LIMITED ACCESS ℄/W

SEC. 14 - Stone (Fnd.) | SEC. 13

UTILITIES
Guernsey-Muskingum Elec. Coop. Inc.
Home Telephone Co.

Guernsey County - Wills Twp
Sec. 8 & 13, M.L. 16 & 17, T. 2 N., R. 1 W. U.S.M.L.

HOWARD FULLER
D.B. 196, P. 154, 6-22-45

EDWARD BUGOS
GRACE ANITA BUGOS
D.B. 203, P. 108, 7-25-46

SEC. 8
SEC. 13

Pt. Was established by two L Monuments found on this line.

N

LA R/W

175+00 160' Lt.

+00.58' Lt. APA.

Swale

177+50 180' Lt.

+50.78' Lt. APA

181+26.91 180' Lt.

+24.01' Rt. APA

18 WL

Proposed 24" Culvert

N 85°42'02" W

3°30'00"

+00.48' Lt. APA

185+70.65
69.79 Lt.

EDWARD BUGOS
GRACE ANITA BUGOS
D.B. 203, P. 108 7-25-46

187+00 150' Lt.

Construction Limits

19 WL

GUERNSEY SOIL CONSERVATION DISTRICT
D.B. 233, P. 508 11-12-55

175 176 177 178 179 180 181 N 76°25'11" E 182 183 184 185 186 187 188 189 190

℄ Survey & Construction

88°00'

P.I. 5+38.66
=175+38.66, 78' Rt.

100°05'

100 gallon water trough

Proposed 27" Pipe Culvert

17°52'47"

186+84.87

21°05'

189+51.56
86.03' Rt.

189+53.18
80.67' Rt.

22 WL

SEC. 8
M.L. 17

Big Stone (Fnd.)
Pt. on Line

GUERNSEY SOIL CONSERVATION DISTRICT
D.B. 233, P. 508 11-12-55

M.L. 16

Chicken House Fr.

20 WL

WALTER BROCK
CLARA BROCK
D.B. 246, P. 52, 3-31-59

5 6 7 8 9 10 11 12 13 14 15 16

N 89°08'13" E

RAMP "G"

RAMP "G" CURVE DATA
P.I. 5+38.66
Δ = 12°43'02" Rt.
D_c = 1°30'
R = 3819.72'
T = 425.66'
L = 847.81'
E = 23.64

RAMP "G" CURVE DATA
P.I. 10+28.02
Δ = 12°43'02" Lt.
D = 9°30'
R = 603.11'
T = 67.21'
L = 133.87'
E = 3.73'

P.I. 10+28.02
=180+19.43, 186.5' Rt.

179+00 230' Rt.

P.I. 10+94.68 Ramp "G"
P.O.T. 10+94.68 ℄

P.R.C. 9+60.01

EASTBOUND REST AREA

P.O.T. 5+32.13 ℄ Ramp "H"
185+37.96, 176.5' Rt.

P.O.T. 15+46.68 ℄ =
185+37.96, 186.5' Rt. US 40

P.C. 5+82.13

P.I. 7+99.55

RAMP "H"

P.I. 6+91.17 =
186+97.00, 176.5' Rt.

RAMP "H" CURVE DATA
P.I. 6+91.17
Δ = 10°52'15"
D_c = 5°00'
R = 1145.92'
T = 109.04'
L = 217.42'
E = 5.18'

P.I. 10+87.13
Δ = 9°40'38"
D_c = 3°30'
R = 1,637.02'
L_c = 126.49'
L_s = 150.00'
T_s = 213.62'
E_s = 6.43'
Θ_s = 2°37'30"
X_c = 149.97'
Y_c = 2.29'

189+05.08
250' Rt.

SEC. 16

Fr. House

Frame Barn

Spring - 24" Tile on end

182+48' Lt. APA

Roadside Rest Area

Construction Limits

Ex. R/W

Ex. Drive

I.P. Fnd.

Ex. 15"

Ex. U.S. 40

Ex. C & G

Ex. Gas Line

Valve

1" Water Line

Ex. field drive

125' to barn

179+00 494.07' Rt.

+02.40' Lt. APA

185+16.15
473.61' Rt.

189+49.54
445.49' Rt.

+02.43' Rt. APA

R = 3284.59' Δ = 5°50'20"
Arc = 334.73' Chord = 334.58'

40

41

42

43

43 A

41 i

42 i

Acquired from Howard Fuller Et Ux.
D.B. 208, P. 661
10-22-47

Acquired from Howard Fuller Et. Ux.
D.B. 215, P. 357
6-10-48

Acquired from Ralph Taylor & Margaret Taylor
D.B. 208, P. 660
11-10-47

Acquired from Thomas Clark Frome & Inez Frame Patterson
D.B. 209, P. 411
11-8-47
11-12-47

HOWARD FULLER
18 WL = 22.25 Ac. ±, P.R.O. = 2.23 Ac. ±
18 WD = 0.20 Ac. ±, P.R.O. = 0.08 Ac. ±
EDWARD BUGOS
GRACE ANITA BUGOS
19 WL = 2.78 Ac. ±

THOMAS CLARK FRAME
WALTER N. PATTERSON
D.B. 168, P. 204 2-7-27
D.B. 225, P. 482 9-6-52

REV	DATE	DESCRIPTION	BY

175+00 to 190+00 R/W

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

G20
G38

16
34

Guernsey County ~ Wills Twp
M.L. 16 & 17, T.2 N. R.1 W. U.S.M.L.
Sec. 8, T.2 N., R.1 W. U.S.M.L.

GUERNSEY COUNTY
GUE~40~17.37
LIMITED ACCESS R/W

EDWARD BUAOS
GRACE ANITA BUAOS
D.B. 209, P. 108
7-25-46

UTILITIES
Guernsey Muskingum Elec. Coop. Inc.
Home Telephone Co.

GUERNSEY SOIL
CONSERVATION DISTRICT
D.B. 233, P. 508 11-12-55

N

190+59.09
260.8 Lt.

192+75
340' Lt.

+20, 338' Lt.
A.P.A.

Construction Limits

LA R/W

201+00
170' Lt.

205+00
305' Lt.

+00, 168' Lt.
A.P.A.

Ex. Field Drive

204+46.16
41.40' Lt.

Ex. Field Drive

SEC. 8
M.L. 17

190 191 192 193 194 195 196 197 198 N 76°25'11" E 199 200 201 202 203 204 205

℄ Survey & Construction

P.I. 10+87.13 RAMP "H" =
190+86.49, 101.70' Rt.
℄ U.S. 40

P.O.T. 16+00 RAMP "H" =
196+00, 91' Rt. ℄ U.S. 40

203+91
Ex. R/W 2

Ex. 16" Conc. Pipe

200+95
15.5' Rt.

202+05
38.52' Rt.

Ex. R/W 2

EX. U.S. 40

Ex. R/W 2

10 11 12 RAMP "H" 13 N 75°13'34" E 14 15 16

M.L. 17

M.L. 16

C.S. 11-50

S.T. 13-00

780+76 Ct.
175.04' Rt.

+20.34, 193' Rt.
A.P.A.

Construction Limits

105+3.20' Rt.
C.P.A.

192+76
340' Rt.

197+08.50
209' Rt.

197+09.54
274.40' Rt.
= 97+09.54, 18' Lt.

100+86.80
18' Lt.

201+51.18, 158.84' Rt.
= 101+51.99, 18' Lt.

100 Ex. R/W 2

101 102 103 ℄ Co. Rd. #1 Reloc. #1 104 105

℄ Survey & Construction N~75°42'13"~E

WALTER BROCK
CLARA BROCK
D.B. 246, P. 32, 3-31-59

1,637.02' 238' Rt.
A.P.A. RAMP "H"

CURVE DATA
P.I. 10+87.13
D_c = 3°30'
D_s = 2°57'30"
Δ = 9°40'38"
R_c = 1,637.02'
T_s = 213.62'
L_s = 150.00'
L_c = 126.49'
E_s = 6.43'

190+63.07
240' Rt.

194+79.50
249.54' Rt.

Ex. R/W 2

P.C. 96+53.03

97 N 56°15'14" E

97+60.61
36.35' Rt.

Ex. R/W 2

Construction Limits

R/W

PT. 101+51.99

102.00
100' Rt.

EX. U.S. 40

196+60.06
300.78' Rt.

Ex. R/W 2

I.P. Fnd.

Ex. 18"

Gar.

Dec.

Barn

Ex. G.D.

Ex. R/W 2

Ex. field drive

R = 1655.02'
Arc. = 447.11'
Δ = 15°28'43"
Chord = 446.75'

CURVE DATA
Co. Rd. #1 Reloc. #1
P.I. 99+04.26
Δ = 17°26'59" Rt.
D = 3°30'
R = 1,637.02'
L = 498.56'
T = 251.23'
E = 19.17'

ELIZABETH M. WALLACE
D.B. 175, P. 117 12-29-37

M.L. 17
M.L. 16

S 86°17'08" E

WALTER BROCK
CLARA BROCK
20 WL = 0.51 Ac. ±

HARVEY W. BROCK
VERNA BROCK
21 WL = 0.32 Ac. ±

GUERNSEY SOIL
CONSERVATION DISTRICT
22 WL = 12.28 Ac. ±
22 WA

HARVEY W. BROCK
VERNA BROCK
D.B. 216, P. 44 1-14-49

41 Acquired from Ralph Taylor & Margaret Taylor
D.B. 208, P. 280 11-10-87

42 Acquired from Thomas Clark Frame & Inez Frame Patterson
D.B. 209, P. 411 11-8-87
11-12-87

THOMAS CLARK FRAME
WALTER N. PATTERSON
D.B. 148, P. 204 2-7-27
D.B. 225, P. 282 9-6-52

REV.	DATE	DESCRIPTION	BY

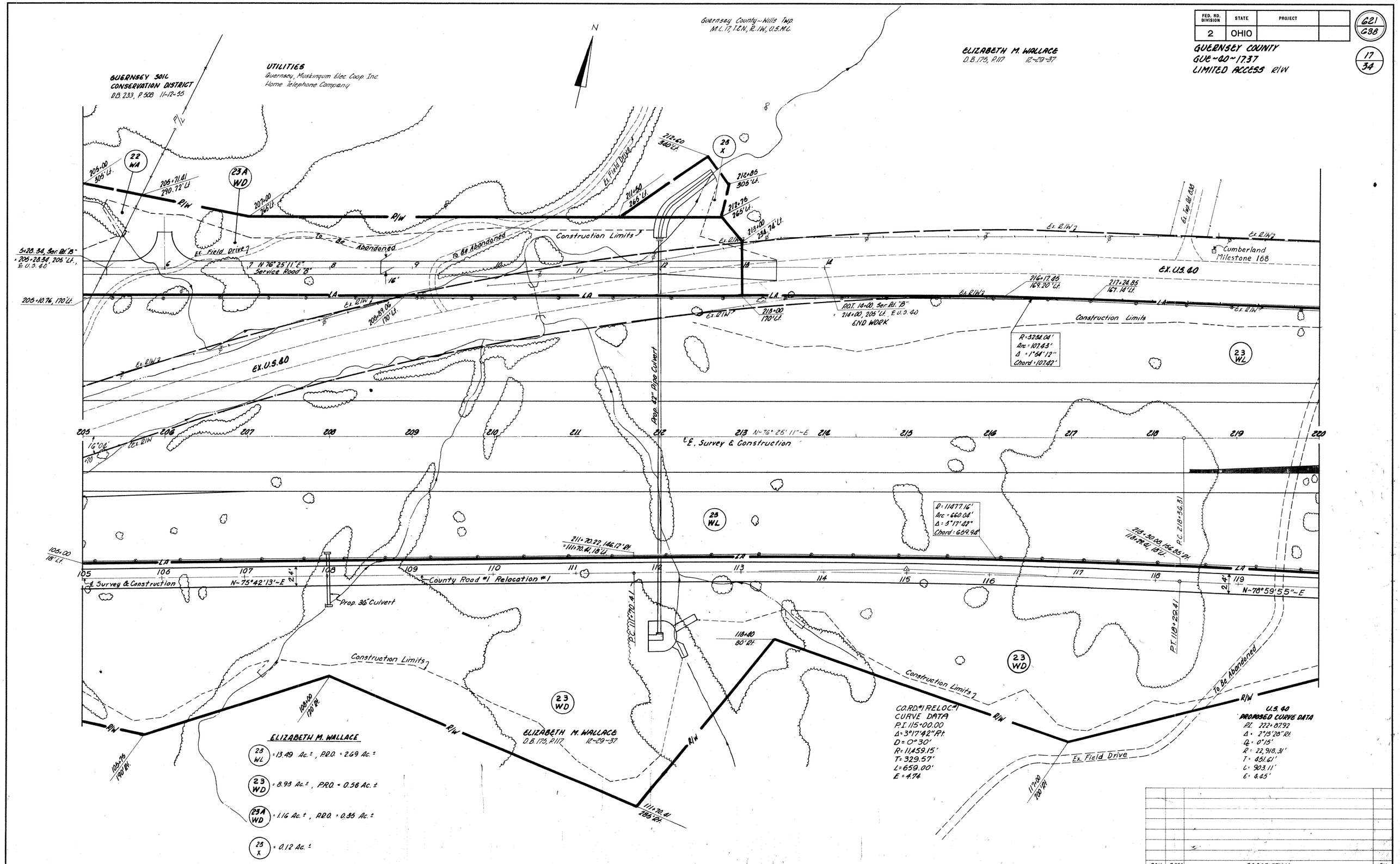
190+00 to 205+00 R/W

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

621
638

17
34

GUERNSEY COUNTY
GUE-40-17.37
LIMITED ACCESS R/W



ELIZABETH M. WALLACE

23 WL = 13.49 Ac.±, P.R.O. = 2.69 Ac.±

23 WD = 8.93 Ac.±, P.R.O. = 0.56 Ac.±

23A WD = 1.16 Ac.±, P.R.O. = 0.35 Ac.±

23 X = 0.12 Ac.±

REV.	DATE	DESCRIPTION	BY

205+00 to 220+00 R/W

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

622
638

18
34

GUERNSEY COUNTY
GUE-40-17.37
LIMITED ACCESS R/W

UTILITIES
The East Ohio Gas Co.
Guernsey-Muskingum Elec. Coop. Inc.
Home Telephone Co.

Guernsey County Wills Twp.
M.L. 12 & 17, T.2 N., R. 1 W., U.S.M.L.

US 40
CURVE DATA
P.I. 222+87.92
Δ = 2°15'28" Rt.
D = 0°15'
R = 22,918.91'
T = 451.61'
L = 903.11'
E = 4.45'

N

ELIZABETH M. WALLACE
D.B. 175, P. 117 12-29-37

HOWARD C. MOORE & MARGARET E. MOORE
D.B. 224, P. 396 2-16-53

Δ = 6° 04' 54"
R = 2904.79'
Arc. = 308.34'
Ch = 308.19'

THE EAST OHIO GAS COMPANY
D.B. 236, P. 201 9-16-57

M.L. 17
M.L. 12

Billboard

Ex. R/W

Ex. U.S. 40

Ex. 12" C.M.P.

L.A.

Ex. Vent Pipe

224+26.88
151.94' Lt.

To be abandoned Ex. Field Drive

23 WL

+89.20 Rt.

+28.36, 148' Lt. C.P.A.

Proposed 27" Pipe

25°

2-1" W.L.

Construction Limits

+08.48 Lt. C.P.A.

+75.36, 86' Lt.
End Fence

4.9

P.C. 49+89.89

P.T. 50+37.26

P.C. 49+43.09

P.C. 48+95.46

Type 2 Fence Crossing

+42.32
153.22' Lt.

+80.86, 86' Lt.
Begin Fence

Pipe

Ex. Trap

To Be Abandoned

220 221 222 223 224 225 226 227 228 229 N-78°40'39"-E 230 231 232 233 234 235

75° 58' 41"
Tan. to Curve

Survey & Construction

231+28.11 ℄ US 40 =
48+00.63 CR 36 Reloc.

24" Ex. Gas Line

24 WL

P.T. 227+39.42

+75.36, 87' Rt.
End Fence

+80.86, 87' Rt.
Begin Fence

P.C. 6+97.26
46+97.27 CR 36, 12'R

P.T. 47+19.51

Prop. 24" Pipe

Type 2 Fence Crossing
+08.179.32' Rt.
C.P.A.

230+07.06, 181.32' Rt.
130+00, 18' Lt.

131+11.85, CR #1 Reloc. =
46+00.20, CR 36 ℄
Type 2 Fence Crossing
+80.86, 178' Rt.
C.P.A.

231+78, 180' Rt.
48+27.14, 55.88' Rt.

223+45.34, 174.26' Rt.
123+41.28, 18' Lt.

L.A.

L.A. R/W

121 122 123 124 125 126 127 128 129 130

N-78°59'55"-E

Co. Rd. #1 Reloc. #1

N-78°59'55"-E

℄ Survey & Construction

24'

23 WD

24 WD

P.C. 45+80.10

Proposed 36" Pipe

121+00
80' Rt.

237.18

Construction Limits

R/W

R/W

Ex. R/W

Prop Field Drive

123+18.97
80' Rt.

130+52.10 80' Rt.
45+10.93, 45' Lt.

ELIZABETH M. WALLACE
D.B. 175, P. 117 12-29-37

M.L. 17
M.L. 12

RICHARD C. FRAME

24 WL = 23.94 Ac.± P.R.O. = 0.47 Ac.±

24 WD = 1.78 Ac.± P.R.O. = 0.34 Ac.±

24 X = 2.12 Ac.±

24 Y = 0.40 Ac.±

24 WA 24 A WR

RICHARD C. FRAME
D.B. 206, P. 1 8-26-46

Ex. R/W 1

4.3

Ex. CR 36

Ex. R/W 1

44+00
40' Lt.

+75
30' Lt.

+75
30' Rt.

(1-X) Acquired from Thomas C. Frome
Hwy. Eas. Rec. 1, P. 278 3-14-32

CURVE DATA
C.R. 36 RELOCATION
P.I. = 46+50.00
Δ = 10° 27' 20"
Pc. = 7° 30'
R = 763.94'
T = 69.90'
L = 139.41'
E = 3.19'

REV.	DATE	DESCRIPTION	BY

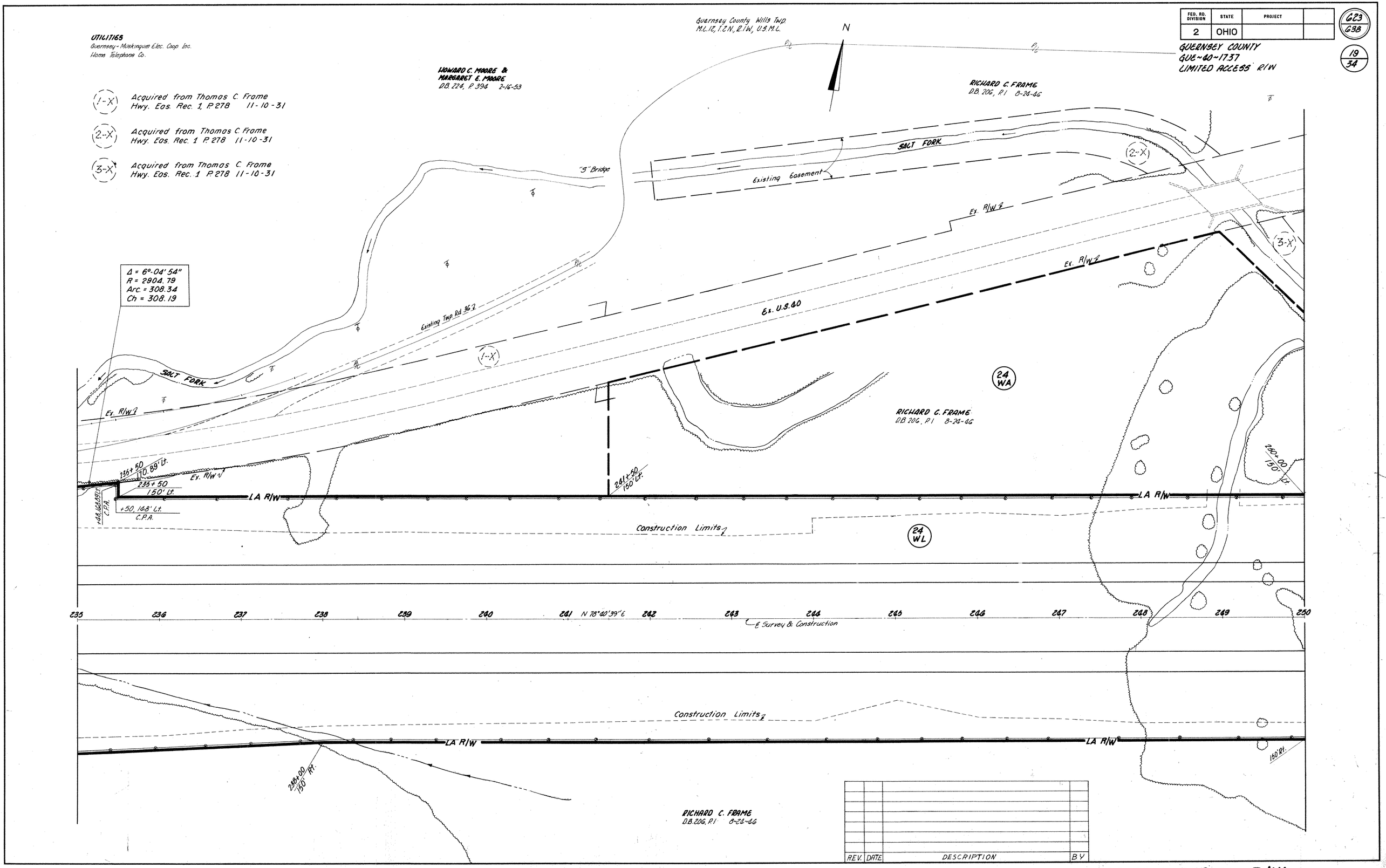
220+00 to 235+00 R/W

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

623
638

GUERNSEY COUNTY
GUE~40~17.37
LIMITED ACCESS R/W

19
34



REV.	DATE	DESCRIPTION	BY

235+00 to 250+00 R/W

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

G24 / G38

20 / 34

GUERNSEY COUNTY
GUE-40-19.99
LIMITED ACCESS R/W

Guernsey County, Wills Twp.
M.L. 7 & 12, T. 2 N., R/W, U.S.M.L.

N

RICHARD C. FRAME
D.B. 206, P. 1 8-24-46

WALTER N. PATTERSON
D.B. 225, P. 482 9-4-52

M.L. 12
M.L. 7

250 | 251 | 252 | 253 | 254 | 255 | 256 | 257 | 258 | 259 | 260 | 261 | 262 | 263 | 264 | 265

(3-X)

250+98.53
337.71' Lt.

251+15
351.34' Lt.

257+00
420' Lt.

24-A WA

250+69.20
313.61' Lt.

24 Y

24 WA

251+00
240' Lt.

P.T. 8+17.79
L = 152.00
Δ = 35°00'00" Rt.
T = 78.06'
E = 7.46'
S 46° 19' 21" E

P.C. 7+56.79

250+00
150' Lt.

LA R/W

200' R

251+00
156.67 Lt.

+47.25 Lt. C.P.A.

P.T. 8+76.90

+47.25, 85' Lt.
End Fence

+52.75, 85' Lt.
Begin Fence

252+50
166.69' Lt.

+52.75, 165' Lt. C.P.A.

253+00
170' Lt.

CHANNEL-RELOC.
CURVE DATA
P.I. 8+17.79
Δ = 35°00'00" Rt.
D = 28°38'52"
R = 200.00'
L = 122.17'
T = 63.06'
E = 9.71'

24 WL

258+11.97
170' Lt.

+63.05

LA R/W

265+00
170' Lt.

Construction Limits ℄

+52.30

+00.168' Lt. A.P.A.

25 WL

252+00.00 U.S. 40 =
9+85.84 Channel Reloc.

N-78° 40' 39"-E

73°56'45"

℄ Survey ℄ Construction

+47.25, 85' Lt.
End Fence

+47.25, 148' Rt.
C.P.A.

Const. Limits ℄

P.C. 10+85.84

+52.75, 140' Lt.
C.P.A.

+52.75, 85' Lt.
Begin Fence

254+00
100' Rt.

Construction Limits ℄

Existing bridge.
Timber pony truss
not passable

150' Rt.

LA R/W

LA R/W

251+50
150' Rt.

24 X

SALT FORK

257+49.88
150' Rt.

CHANNEL RELOC.
CURVE DATA
P.I. 24+95.00
Δ = 56°00'00"
D = 28°38'52"
R = 200.00'
L = 195.48'
T = 106.34'
E = 26.51'

25 X

P.I. 24+95.00 =
264+95 U.S. 40, 300' Rt.

CHANNEL RELOC.
CURVE DATA
P.I. 12+85.84
Δ = 90°00'00"
D = 28°38'52"
R = 200.00'
L = 314.16'
T = 200.00'
E = 82.84'

S-11° 19' 21"-E

200' R

P.T. 14+00.00

251+85
240' Rt.

252+50
305' Rt.

P.I. 12+85.84 =
252+00, 300' Rt.
U.S. 40

253+35
340' Rt.

Salt Fork Channel Relocation ℄

N-78° 40' 39"-E

Channel Easement ℄

Channel Easement ℄

256+65.20
340' Rt.

M.L. 12
M.L. 7

P.C. 23+88.66

264+00
340' Rt.

264+75
370' Rt.

WALTER N. PATTERSON

25 WL = 12.15 Ac. ±

25 X = 4.02 Ac. ±

25 WA

(3-X) Acquired from Thomas C. Frome
Hwy. Eas. Rec. 1, P. 278 11-10-31

RICHARD C. FRAME
D.B. 206, P. 1 8-24-46

WALTER N. PATTERSON
D.B. 225, P. 482 9-4-52

Rev.	Date	Description	By
	8/10/62	Sheet Redrawn	

Sta. 250+00 to 265+00 R/W

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

G25
G38

21
34

GUERNSEY COUNTY
GUE-40-17.37
LIMITED ACCESS R/W

43 Acquired from Richard C. Frame D.B. 208, P. 638 11-28-47

44 Acquired from Elizabeth I. Williams D.B. 208, P. 637 10-20-47

Guernsey County, Wills Twp.
M.L. 7&8, T.C.N., R.1W, U.S.M.L.

UTILITIES
Home Telephone Co.

CURVE DATA
Co. Rd. 1 - Reloc. 2
P.I. 79+04.67
Δ = 19°14'59"
D_c = 4°00'
R = 1432.39'
T = 242.91'
L = 481.24'
E = 20.45'

N

RICHARD C. FRAME
D.B. 206, P. 1 8-26-46

30' R/W owned by
C.A. Hall, et. al.
D.B. 210, P. 57
D.B. 235, P. 523

WALTER N. PATTERSON
D.B. 225, P. 482 9-6-52

75+12.66
60 Lt.

S 84°30'51" E

75+41.26

Ex. R/W

Stone (deed)

77+00
59.37' Lt.

Ex. R/W's

R/W

43

75+12.66

75

76

50

PC. 76+61.76

Ex. U.S. 40

26B WD

Pro. 36" Pipe Culvert

78

Ex. R/W

LA

LA R/W

275+41.04, 227.28' Lt.
75+40.99, 40.00' Rt.

275+17.12
150' Lt.

277+61.97, 150' Lt.
77+70.71, 53.92' Rt.

79+11.52
138.69' Lt.

26C WD

78+70
70' Lt.

44

Ex. TWP. RD. 664

79+43.97
132.58' Lt.

79+65
50' Lt.

50' Lt.
80+00

150' Lt.
280+00

79+11.5
24' Rt.

78+82
18' Rt.

263+00
170' Lt.

262+00
150' Lt.

+00, 168' Lt.
A.P.A.

+00, 148' Lt.
A.P.A.

LA R/W

Construction Limits ℄

25 WL

+50, 138' Lt.
A.P.A.

123.88'

273°54'

275°50'03"

265 266 267 268 269 270 N-78°40'39"-E 271 272 273 274 275 276 277 278 279 280

℄ Survey & Construction

26 WL

265+25
150' Rt.

150' Rt.

LA R/W

Construction Limits ℄

LA R/W

LA R/W

267+00
150' Rt.

274+30.52
150' Rt.

279+00
160' Rt.

Trail

265+25
280' Rt.

25 X

SALT FORK

25 WA

Channel Relocation

267+00
400' Rt.

266+40
450' Rt.

265+65
500' Rt.

WALTER N. PATTERSON
D.B. 225, P. 482 9-6-52

SALT FORK

Half Cut Line M.L. 7

RICHARD C. FRAME

26 WL = 6.16 Ac. ± P.R.O. = 1.31 Ac. ±

26 WD = 1.35 Ac. ± P.R.O. = 0.57 Ac. ±

26B WD = 0.54 Ac. ± P.R.O. = 1.01 Ac. ±

RICHARD C. FRAME
D.B. 206, P. 1 8-26-46

C.A. HALL ETAL

26C WD = 0.07 Ac. ± P.R.O. = 0.04 Ac. ±

REV.	DATE	DESCRIPTION	BY

265+00 to 280+00 R/W

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

G26
G38

22
34

GUERNSEY COUNTY
GUE-40-17.37
LIMITED ACCESS R/W

43 Acquired from Richard C. Frame D.B. 208, P.G38 11-28-67

43 A Acquired from Richard C. Frame D.B. 208, P.G38 11-28-67

45 Acquired from William E. Archer et.al D.B. 208, P.G35 10-31-67

46 Acquired from Freda House D.B. 208, P.G34 11-16-67

Guernsey County Wills Twp.
M.L.2,3,7&8, T.2N., R.1W., U.S.M.L.

N

88+00 165' Lt.

86+00 115' Lt.

84+00 Lt.

82+00.61 70' Lt.

81+00 80' Lt.

89+75 165' Lt.

90+00 55' Lt.

96+00 55' Lt.

Construction Limits

CURVE DATA
Co. Rd. 1 - Reloc. 2
P.I. 87+00.08
Δ = 2°26'29"
Dc = 0°30'
R = 11459.16'
T = 244.18'
L = 488.28
E = 2.60

R=1382.39'
Δ=5°24'00"
Arc=130.29'
Ch.=130.24'

RICHARD C. FRAME
D.B. 206, P.I
8-24-46

ROGER D. DAVIS
MURRIEL J. DAVIS
D.B. 251, P.171
6-1-61

Fr. Barn

R/W

LA

P.C. 84+55.90

281+36.27, 150.95' Lt.
81+35.13, 19.02' Rt.

82+71.72
45.10' Lt.

7-3½ Fr. Res.

26B WD

P.I. 84+45

N 76°14'10" E

Ç E, Co. Rd. 1 Reloc. 2

R = 11,440.16' Δ = 2° 26' 29" Arc = 487.47' CHORD = 487.43'

27 WD

27 WL

289+44.18, 175.43' Lt.
89+44.18, 19' Rt.

P.T. 89+55.90

90°00'00"

N 78°40'39" E

51+98.00 E, Co. Rd. 301 Reloc.
89+75 E, Co. Rd. 1 Reloc. 2

+50.16' Lt. End Fence

+50.16' Rt. Begin Fence

+50.163' Lt. A.P.A.

+50.163' Lt. R/W Fence

19' Rt.

200+32.83
82°51'46"
136.15' Lt.

+50.162' Lt. R/W Fence

284+36.85, 144.42' Lt.
89°55'90, 19' Rt.

+100.157' Lt. A.P.A.

280+25.75
80+25.94, 201' Rt.

43

282+25.75
61.15' Lt.

Ex. R/W

16" C.I.P.

163°09'55"

Ex. U.S. 40

2.5'x5' Box Culvert

105°06'35"

Ç E, Survey & Construction

50+00.00 C.R. 301 Reloc
=289+75.00 U.S. 40

Ex. R/W

48+48.16' Rt. Begin Fence

+73.08, 158' Rt. A.P.A.

291+73.08 160' Rt.

+137.68' Rt.

294+13.77 170' Rt.

Construction Limits

+137.68' Rt. C.P.A.

293+41.61, 200.11' Rt.

45

R/W

170' Rt.

160' Rt.

LA R/W

+20.36, 158' Rt. A.P.A.

288+20.36, 160' Rt.

+70.173' Rt. A.P.A.

288+70.00, 175.02' Rt.
48+24.98, 105' Lt.

48+00, 16' Lt. End Fence

47+50 (CR 301)
89+75 TR 285

288+99.98, 160' Rt.
48+00, 16' Lt.

ML 8
ML 7

43 A

291+02.53
205.59' Rt.

ML 3
ML 2

Ç Twp. Rd. 289 Reloc.

91

N 81°32'20" E

95

16" C.I.P.

87°08'19"

295+98.50
292.40' Rt.

Gravel

26A WD

Pass. 18" Dia. 291+75.00
325' Rt.

Oil Easement

293+87.31
327.44' Rt.

292+19.02
297.47' Rt.

Ex. LA

1½ Sty. Frame

Dug Well

26A WA

8" to 12"

Construction Limits

290+90.24
345' Rt.

292+70.00
345' Rt.

Billboard

C.U. GILMORE
A.M. GILMORE
D.B. 211, P.655

28' R/W Deed

W.H. BLACK
D.B. 163, P.425
D.B. 171, P.62

Ex. Twp. Rd. 289

Fr. Shed

Fr. Priv.

Fr. Shed

Fr. Shed

Fr. Corn Crib

Fr. Barn

FREDA HOUSE
26A WD = 0.29 Ac. ± P.R.O. = 0.88 Ac. ±
26A WA

FREDA HOUSE
D.B. 149, P.337 3-8-38
D.B. 198, P.19 8-9-46

UTILITIES
Home Telephone Company
Guernsey-Muskingum Elec. Coop. Inc.

RICHARD C. FRAME
D.B. 206, P.I&2, 8-24-46

CURVE DATA
Co. Rd. 301 Reloc.
P.I. 43+75.27
Δ = 6°34'07"
Dc = 1°30'
R = 3819.72'
L = 437.91'
T = 219.19'

P.T. 45+93.99

N 11°19'21" W

Ç E, Survey & Construction

45.00, 65' Lt.

290+20.72, 602.49' Rt.
44+00, 50.71' Rt.

MATCH LINE 44+00

Ex. 50' R/W
Guernsey County
Road Record
Petition Filed 5-3-38

39+34.67, 52.02' Lt.
39+38.31, 61.76' Lt.
39+45.23' Lt.
40+26.30' Lt.
Rc 41°56.00
42+00, 40' Lt.
39+19.45, 154.51' Lt.
39+30.15' Rt.
+24.77
N 4° 45' 14" W
42+00, 30' Rt.
40+75, 40' Rt.
R/W
Const. Limits
Ex. R/W
Ç E, Survey & Const.
Ex. Co. Rd. 301 Reloc.
MATCH LINE 44+00

26 WD
26A WD

CURVE DATA
Co. Rd. 301 Reloc.
P.I. 43+75.27
Δ = 6°34'07"
Dc = 1°30'
R = 3819.72'
L = 437.91'
T = 219.19'

FREDA HOUSE
D.B. 149, P.337 3-8-38
D.B. 198, P.19 8-9-46

REV.	DATE	DESCRIPTION	BY

280+00 to 295+00 R/W

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

627
638

23
34

45

Acquired from William E. Archer et al
D.B. 108, P. 635 10-31-47

UTILITIES
Guernsey-Muskingum Elec. Coop. Inc.
Home Telephone Co.

Guernsey County Wills Twp.
M.L. 2&3, T.2N., R.1W., U.S.M.L.

N

CO. RD. #1 RELOC #2
P.I. 108+38.29
Δ = 23°38' 30" Lt.
D = 5°00'
R = 1,145.92'
T = 239.83'
L = 472.83'
E = 24.83'

GUERNSEY COUNTY
GUE-40~ 17.51
LIMITED ACCESS R/W
℄

18' Right of Way
D.B. 164, Page 601
D.B. 240, Page 95

ROGER D. DAVIS
MURRIEL J. DAVIS
D.B. 251, P. 171 6-1-61

95+00 85' Lt.
97+50 90' Lt.
102+00 90' Lt.
104+35.89, 141.71' Lt.
104+50.17, 149.40' Lt.
105+30 70' Lt.
105+98.46 70' Lt.
110+00 70' Lt.

R/W
Construction Limits
Ex. Twp. Rd. 643
CO. RD. 1 RELOC. 2
E. Survey
N 78°40'39" E
Drilled Well
105+11 51+14
305+98.46, 175' Lt.
105+98.46, 19' Rt.
Prop. 60" Pipe
N 55°02'09" E
2½' x 5' Box culvert
Const. Limits
LA R/W
Type 2 Crossing
Sign
Ex. R/W
Ex. U.S. 40
309+00, 150' Lt.
308+82.86, 81.61' Lt.
+82.86, 70.61' Lt.
D/W Fence
Culvert
Pipe

27 WD
27 WL
27 X

95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110

+50, 150' Lt. D/W Fence
100.59'
138.6'

295 296 297 N 78°40'39" E 298 299 300 301 302 303 304 305 306 307 308 309 310

E. Survey & Construction
+86.50
23°27'
23°40'
88.5'
+95" C.I.P.
Ex. R/W
Construction Limits
LA R/W
Type 2 Crossing
+50 170' Rt.
298+00 160' Rt.
16" Wtr. Line
301+63.36 160' Rt.
+00 150' Rt.
308+00 160' Rt.
Channel Easement
309+00 325' Rt.
Pipe
138.6'

45
27 WA
27 Y

297+45
+35 323' Rt.
+80 305' Rt.
297+80 340' Rt.
297+35 340' Rt.
Gravel
Buried Tanks
2-2000 gal
2-3000 gal
Conc. Apron
Conc. Blk. Filling Station
Buried Tank 1000 gal
Septic Tank
Conc. Blk. Cabins

C.H. GILMORE
A.M. GILMORE
D.B. 211, P. 655 9-15-48

W.H. BLACK
D.B. 163, P. 285 10-6-36
D.B. 171, P. 69 10-6-36

ROGER D. DAVIS
MURRIEL J. DAVIS
D.B. 251, P. 171 6-1-61

ROGER D. DAVIS & MURRIEL J. DAVIS

27 WL = 32.16 Ac. ± PRO. = 2.73
27 WD = 6.73 Ac. ± PRO. = 0.55
27A WD = 0 Ac ± PRO. = 0.58
27 X = 3.27 Ac. ±
27 Y = 8.35 Ac. ±
27 T = 0.21 Ac. ±
27 WA

R M.L. 3
M.L. 2

REV.	DATE	DESCRIPTION	BY

295+00 to 310+00 R/W

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

GUERNSEY COUNTY
GUE-40-17.37
LIMITED ACCESS R/W

628
638

24
34

UTILITIES
Home Telephone Co.
Guernsey Muskingum Elec. Coop. Inc.

A. ISABEL BERSTLER
D.B. 186, P. 592 2-4-44

Guernsey County Willg Twp.
M.L. 3, T. 2 N, R. 1 W, U.S. M.L.

STONE (Deed)
Cumberland
Milestone 166

N

Existing U.S. 40

Ex. R/W

Sign

END WORK
111+75

110+32.00
39.35 Lt.

PI 110+71.29

110+71.29

111 P/L

313+00
350 Lt.

Const. Limits

Temp. Const. Limits

27 T

110+17.48
1.26 Rt.

27 WD

310+74.05, 258.53 Lt.
310+71.29, 40 Lt.

311+00, 210 Lt.

ROGER D. DAVIS
MURRIEL J. DAVIS
D.B. 251, P. 171 4-1-61

A. ISABEL BERSTLER
D.B. 186, P. 592 2-4-44

314+00
255 Lt.

314+75
255 Lt.

100
210 Lt.

50' R

+75
210 Lt.

27 X

Channel Easement

321+64.55
210 Lt.

R = 23,128.31'
Δ 2°44'08"
Arc = 1104.30'
Chord = 1104.20'

310+00.86, 210 Lt. =
109+90.51, 53.51 Rt.

Channel Relocation
6' Bottom

6'

Construction Limits

Proposed Channel

L.A. R/W

Type 2 Crossing

R = 23,068.31'
Δ 2°44'05"
Arc = 1100.78'
Chord = 1100.69'

180'

+69.02

27 WL

Prop. 138" Culvert

310 311 312 313 314 315 316 317 N-78°40'39"-E 318 319 320 321 322 323 324 325

65°56'

100'

& Survey & Construction

321+64.55
150 Lt.

PC 321+64.55

+08,148.67
A.P.I.

+60
2,P.I.

130' Rt.

310+00
150 Rt.

Type 2 Crossing

L.A. R/W

180'

R = 22,768.31'
Δ 1°24'27"
Arc = 1089.14'
Chord = 1089.03'

150' Rt.

324+23.37
150 Rt.

310+74
203' Rt.

310+37
223' Rt.

200' R

Channel Relocation

324+92.38
254.46 Rt.

27 4

US 40
CURVE DATA
P.I. 328+34.74
Δ = 3°21'00" Rt.
D = 0°15'
R = 22,918.31
T = 670.19'
L = 1,340.00
E = 9.80'

321+64.55
325 Rt.

Channel Easement

28 X

323+00
340 Rt.

WELLS TOWNSHIP
OXFORD TOWNSHIP

310+00
325 Rt.

311+68
380' Rt.

324+17.75
336.77 Rt.

Town. 2 N
Range 1 W
Town. 10 N
Range 7 W

NE 3
Sec. 31

ROGER D. DAVIS
MURRIEL J. DAVIS
D.B. 251, P. 171 4-1-61

CLARENCE J. SUTTON
& PEARL R. SUTTON
D.B. 234, P. 364 4-28-58

REV.	DATE	DESCRIPTION	BY

310+00 to 325+00 R/W

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

620
638

25
34

GUERNSEY COUNTY
GUE-40-17.37
LIMITED ACCESS R/W

A. ISABEL BERSTLER
D.B. 186, P. 592 2-4-44

WALTER R. MITCHELL
SARAH B. MITCHELL
D.B. 210, P. 71 8-2-58

Guernsey County Oxford Twp
Sec. 31, T. 10 N. R. 7 W. The Seven Ranges

UTILITIES
Home Telephone Co.
Guernsey-Muskingum Elec. Coop. Inc.

N

Existing U.S. 40

Ex. R/W

ROGER D. DAVIS
MURRIEL J. DAVIS
D.B. 251 P. 171 4-1-61

LEVI & MARGARET MOOREHEAD
Vol. 253, P. 327 7-10-62
Vol 253, P. 363 7-24-62

GEORGE L. THATCHER
D.B. 186, P. 279
2-20-63

Wills Township Town. 2N
Oxford Township Town. 10N

Range 7W

M.L. S Sec. 31

Construction Limits

CHANNEL RELOCATION

LA R/W

Alley

Loading Ramp

Wall Shed

Garage

Channel Easement

CHANNEL RELOC. 7

Quarter Section Line - Sec. 31

E, Survey & Construction

N 78° 40' 39" E

N 82° 01' 39" E

P.I. 335+04.55

432.96' (Plat)

776.00'

638.26'

633.62'

365.18'

198.66

182.16

R = 23,128.31' Δ = 2° 44' 08"
Arc = 1104.30' CHORD = 1104.20'

R = 23068.31 Δ = 00°-36'-57"
ARC = 247.97' CHORD = 247.97'

R = 23,068.31' Δ = 2° 44' 03"
Arc = 1100.79' CHORD = 1100.69'

R = 22,768.31' Arc = 1089.14'
Δ = 2° 44' 27" CHORD = 1089.05'

R = 22768.31 Δ = 00°-36'-33"
Arc = 242.09' CHORD = 242.09'

R = 22,708.31 Δ = 00°-24'-30"
ARC = 161.90' CHORD = 161.90'

R = 22708.31 Δ = 00°-36'-10"
ARC = 238.94' CHORD = 238.94'

O.L. 1
O.L. 2
O.L. 3
O.L. 4
O.L. 5

U.S. 40
PROPOSED CURVE DATA
P.I. 328+34.74
Δ = 3° 21' 00" Rt.
D = 0° 15'
R = 22,918.31'
T = 670.19'
L = 1340.00'
E = 9.80'

LEVI & MARGARET MOOREHEAD
Vol. 253, P. 327 7-10-62
Vol. 253, P. 363 7-24-62

CLARENCE J. SUTTON & PEARL R. SUTTON
CLARENCE J. SUTTON & PEARL R. SUTTON
D.B. 234, P. 364 4-28-58

ROGER D. DAVIS
MURRIEL J. DAVIS
D.B. 251, P. 171 4-1-61

GEORGE L. THATCHER
(31 X) = 0.03 Ac. ±

CLARENCE J. SUTTON & PEARL R. SUTTON
(28 X) = 0.26 Ac. ±

LEVI & MARGARET MOOREHEAD
(29 WL) = 8.99 Ac. ±
(29 X) = 0.85 Ac. ±
(29 Y) = 3.12 Ac. ±
(29A WL) = 0.50 Ac. ±
(29B WL) = 0.50 Ac. ±
(29 WA)

REV.	DATE	DESCRIPTION	BY

325+00 to 340+00 R/W

UTILITIES
Home Telephone Co.
Guernsey-Muskingum Elec. Coop. Inc.

MIDDLEBOURNE

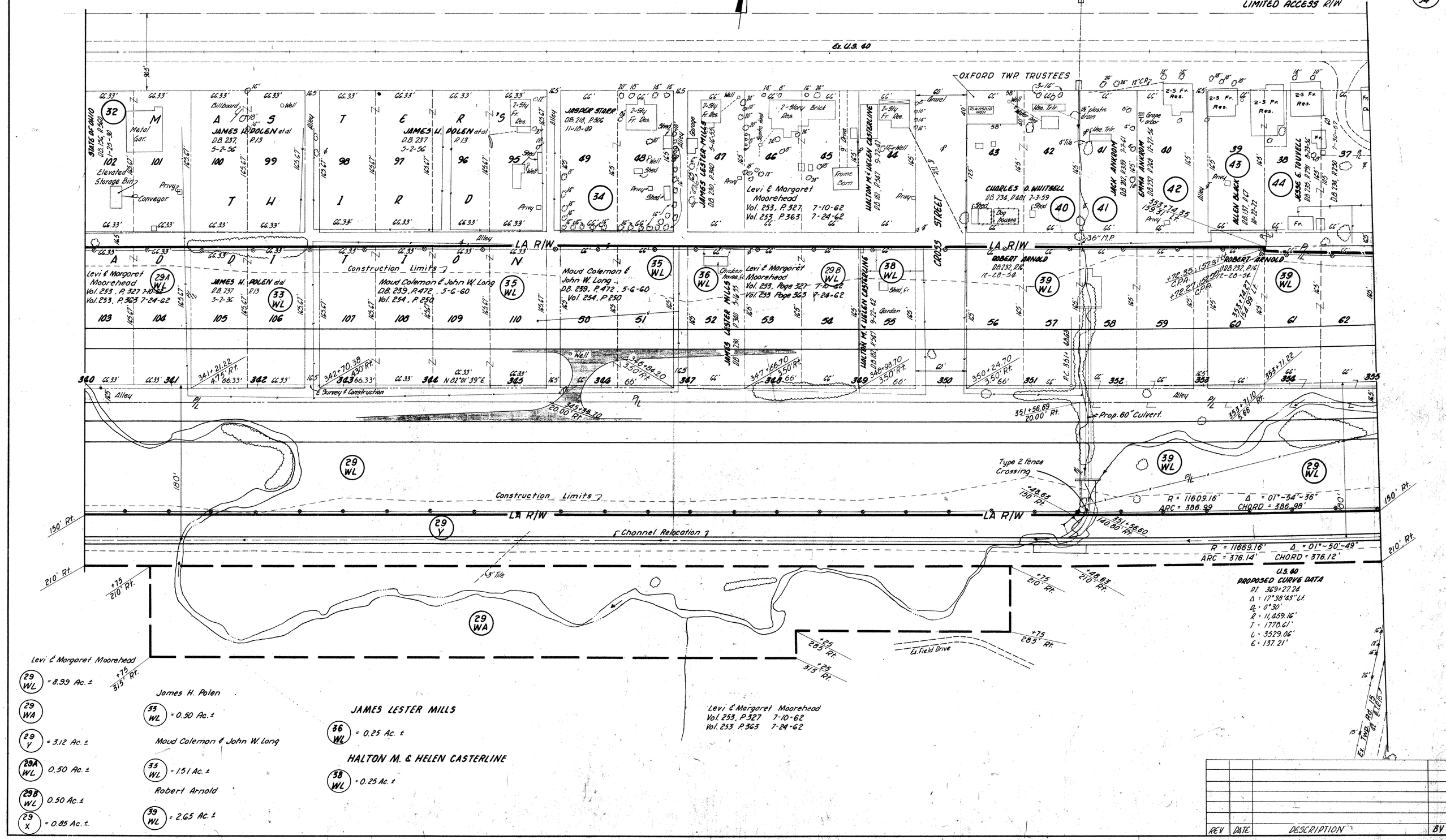
Guernsey County, Oxford Township
Sec. 31, T.10N., R.7W., The Seven Ranges

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

630/638

GUERNSEY COUNTY
GUE-40-17.37
LIMITED ACCESS R/W

26/34



Levi & Margaret Moorehead
29 WL = 8.99 Ac. ±
29 WA
29 Y = 3.12 Ac. ±
29A WL 0.50 Ac. ±
29B WL 0.50 Ac. ±
29 X = 0.85 Ac. ±

James H. Polen
33 WL = 0.50 Ac. ±

Moud Coleman & John W. Long
35 WL = 1.51 Ac. ±

Robert Arnold
39 WL = 2.65 Ac. ±

JAMES LESTER MILLS
36 WL = 0.25 Ac. ±

HALTON M. & HELEN CASTERLINE
38 WL = 0.25 Ac. ±

Levi & Margaret Moorehead
Vol. 253, P. 327 7-10-62
Vol. 253 P. 363 7-24-62

REV.	DATE	DESCRIPTION	BY

340+00 to 355+00 R/W

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

631
638

27
34

GUERNSEY COUNTY
GUE-40-17.37
LIMITED ACCESS R/W

UTILITIES
Home Telephone Company
Guernsey Muskingum Elec. Coop. Inc.

Guernsey County - Oxford Township
Sec. 31, T.10 N., R.7 W. The Seven Ranges

N

Ex. R/W

U.S. 40
PROPOSED CURVE DATA
P.I. 369+27.24
Δ = 17°38'43" Lt.
D_a = 0°30'
R = 11,459.16'
T = 1778.61'
L = 3529.06'
E = 137.21'

Ex. U.S. 40

Ex. G.R.

RAMP "A"
CURVE DATA
P.I. 16+50.01
Δ = 1°30'00"
D_a = 0°30'
R = 11459.16'
T = 150.01'
L = 300.00

Frame Church

Gravel

2-Story Brick Residence

1-S Block Motel (10 Units)

Parking (Gravel)

Dog well

Stone wall

Well

Septic tank

Septic tank

6" Soil pipe

Privy

21" Tile

Leaching bed

Brush

Ex. Field Drive

Ex. Field Drive

MAMIE WEST
D.B. 187 P. 212 3-2-43

WILLIAM L. & DOROTHY M. LAVENDER
D.B. 209, P. 124
11-22-60

JESSE E. TOLIVELL
D.B. 238, P. 250
7-30-57

ROBERT E. ARNOLD
D.B. 232, P. 16
12-28-54

LEVI L. MARQUET
MCCLELLAND
D.B. 233, P. 265
D.B. 239, P. 237
D.B. 253, P. 265
T. 40-02
T. 43-02

Co. Twp. Rd. 15

Abandoned

Construction Limit

Construction Limit

Construction Limit

LA R/W

LA R/W

LA R/W

LA R/W

CHANNEL RELOC.

Channel Easement

Ex. R/W

Ex. R/W

Ex. R/W

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

638
638

28
34

Guernsey County - Oxford Township
Sec. 25 & 31, T.10N., R.7W., The Seven Ranges

Cumberland Milestone 165

JOHN D. KERSHAW & KATHERINE M. KERSHAW
D.B. 254, P. 222
8-18-62

J.M. TODD & EDNA G. TODD
D.B. 213, P. 165
8-14-49

MAMIE WEST
D.B. 187, P. 212
3-2-43

WILLIAM E. & ALICE GEORGE

JAMES H. HAGUE & BETTY LEE HAGUE
D.B. 219, P. 236
3-14-51

EMMA GEORGES
MARGARET BALES
D.B. 180, P. 595
7-8-47

GUERNSEY COUNTY
GUE-40- 17.37
LIMITED ACCESS R/W

MATCH LINE TO SHEET #34 R/W

MATCH LINE TO R/W SHEET #33

Ex. 12" CMP

Ex. Field Drive

Fr. Barn

Fr.

Ex. R/W

Ex. Edge of Pvmt.

Ex. US 40

Ex. SR 513

Construction Limits

To Be Abandoned

Channel Easement

Construction Limits for Channel

Ex. Survey & Construction

LA R/W

L A

P.C. 33+10.99

Existing Access point (Deed)
Farm Crossing Only
384+95 (deed)
385+02 T.R. 35 (actual)

Begin existing Limited Access R/W

Existing Access point (Deed)
Farm Crossing Only
383+00 (Deed)
380+88.5 T.R. 35 (Actual)
TO BE CLOSED

Ramp "A"
Ramp "B"
Ramp "C"
Ramp "D"

Lots 20, 21, 22, 35, 36, and 37 vacated.

Sta 46+97.58 - SR 513
Sta 382+09.80 - US 40

Res. Drive

To be abandoned
Res. Drive

Basement Drain

Septic Tank

2-S-Log Res.

Fr. Shed

Privy

Fr. Corn Crib

Fr. Barn

Conc. Blk.

4" Tile ±

Ø 2-12" M.P.

Prop. 120" Culvert
Const Limits

Water Line From Spring

Ø 20" T.P.

Ø 12" T.P.

Ø 18" T.P.

Ø 15" T.P.

Ø 12" C.M.P.

Ø 24" C.M.P.

Ø 30" C.M.P.

Ø 36" C.M.P.

Ø 42" C.M.P.

Ø 48" C.M.P.

Ø 54" C.M.P.

Ø 60" C.M.P.

Ø 72" C.M.P.

Ø 84" C.M.P.

Ø 96" C.M.P.

Ø 108" C.M.P.

Ø 120" C.M.P.

Ø 132" C.M.P.

Ø 144" C.M.P.

Ø 156" C.M.P.

Ø 168" C.M.P.

Ø 180" C.M.P.

Ø 192" C.M.P.

Ø 204" C.M.P.

Ø

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

633
638

29
34

GUERNSEY COUNTY
GUE-40-17.37
LIMITED ACCESS R/W

MATCH LINE TO SHEET 34 R/W

BRIDGEWATER

EMMA GEORGE & MARGARET BALES
DB.190, P.593 7-8-47

2.5 Frame Res. & Store

10

US 40 CURVE DATA
P.I. 369+27.24
Δ = 17° 38' 43" Lt
D = 0° 30'
R = 11,459.16'
T = 1,778.61'
L = 3,529.06'
E = 137.21'

T.R. 35 CURVE DATA
P.I. 34+09.96
Δ = 9° 52' 20"
D = 5° 00'
R = 1145.92'
T = 98.97'
L = 197.44'
E = 4.27'

WILLIAM E. & ALICE GEORGE
DB.190, P.78 5-20-47
DB.162, P.206 6-15-36
DB.162, P.502 4-1-33

Guernsey County, Oxford Township
Sections 25 & 26, T 10 N, R 7 W, The Seven Ranges

Section 26
Section 25

DOROTHY D. FANTA & LAWRENCE H. HADLEY
D.B.231, P.572 5-31-57
DB. 234, P.331 10-8-57

35+08.43
40' Lt.

Mon F'nd

Ex. 80' R/W For Old National Road

Ex. 12" CMP.

Conc. Riprap

Ex. 16" C.I.P.

Prop. 36" Culvert

Ex. 16" C.I.P.

Type 2 Fence Crossing

Const. Limits

Ex. 24" CMP.

Ramp "B"

Ramp "D"

Ex. US-40

Ex. P.G.

To be abandoned

TO REMAIN IN EFFECT
Access eliminated except to north side of Old National Road
Parcel 51-A, DB 218, P.368
Parcel 51, DB 218, P.364

R = 533.69', Δ = 21° 37' 57"
Arc = 201.50', CHORD 200.30'

Channel Relocation

E TWP. RD. 35 RELOC.

Construction Limits

R/W

LA

LA-Ex. R/W

Billboard Mon. (Fn'd)

To be abandoned

Ex. 80' R/W

Ex. S.R. 513

Mon F'nd 398+26.41
117.02' Rt.

Mon F'nd 27.92' Rt.
386+76.05

Mon F'nd 142.96' Lt.
387+09.37

Mon F'nd 398+59.10

Prop. 15'-6"x9'-5" Culvert

Fr. Bldg.

Survey & Construction

Const. Limits

+52,135.44 Rt.
C.P.A.

+50,98' Rt.
C.P.A.

5=50 Ramp "D"
137.94' Rt.

61+50
100' Rt.

MATCH LINE TO R/W SHEET #33

Construction Limits
41 SR 513 Relocated 40

JOHN RAYMOND BROTHERS & JENNIE M. BROTHERS
D.B. 219, P.231 2-10-51

OL 5
WILLIAM E. & ALICE GEORGE
DB. 162, P.206 6-15-36
DB. 208, P. 78 5-20-47
DB. 162, P.502 4-1-33

OL 6

N-49° 25' 05"-E

N 64° 51' 26" E

N 64° 22' 56" E

S 64° 22' 56" W

N 86° 26' 03" W

N-64° 22' 56"-E

N-63° 11' 19"-E

90° 00'

78° 39' 04"

DOROTHY D. FANTA & LAWRENCE H. HADLEY
(50 WL) = 0.00 Ac.±, P.R.O. = 0.19 Ac.±
(50 WD) = 1.05 Ac.± P.R.O. = 0.16 Ac.±
(50 X) = 0.02 Ac.±

WILLIAM E. & ALICE GEORGE
D.B. 162, P.206 6-15-36
DB. 208, P. 78 5-20-47
D.B. 162, P.502 4-1-33

CURVE DATA

RAMP "B"	RAMP "D"
P.I. 8+16.78	P.I. 9+29.92
Δ = 9° 25' 20"	Δ = 13° 06' 14"
D = 1° 30'	D = 2° 30'
R = 3819.72'	R = 2291.83'
T = 314.78'	T = 270.74'
L = 628.15'	L = 524.82'
E = 12.95'	E = 16.65'

HARLAN E. MARKEE & VIRGIE L. MARKEE
(51 WL) = 3.61 Ac.±, P.R.O. = 16.02 Ac.±
(51 WD) = 3.91 Ac.±, P.R.O. = 0.50 Ac.±
(51 WA)
(51 X) = 0.12 Ac.±

HARLAN E. MARKEE & VIRGIE L. MARKEE
DB. 191, P.229 6-19-44

(51-A) Acquired from William E. & Alice George DB. 218, P.368 10-25-49
(51-X) Acquired from William E. & Alice George Misc. Rec. 4, P.67 10-25-49
(53) Acquired from Margaret Bales & Emma George
(54) Acquired from Burt J. Winland et ux DB. 218, P.386, 10-7-49
(55) Acquired from Russel Cunningham Civil action #19682 Common Pleas Court 1-9-50
(56) Acquired from Harlan E. & Virgie L. Markee DB. 218, P.371 10-14-49
(24) Acquired from W.E. & Alice George DB. 181, P.252 9-10-40

UTILITIES
U.S. ME TELEPHONE COMPANY
GUERNSEY-MUSKINGUM ELECTRIC COOP. INC.

REV.	DATE	DESCRIPTION	BY

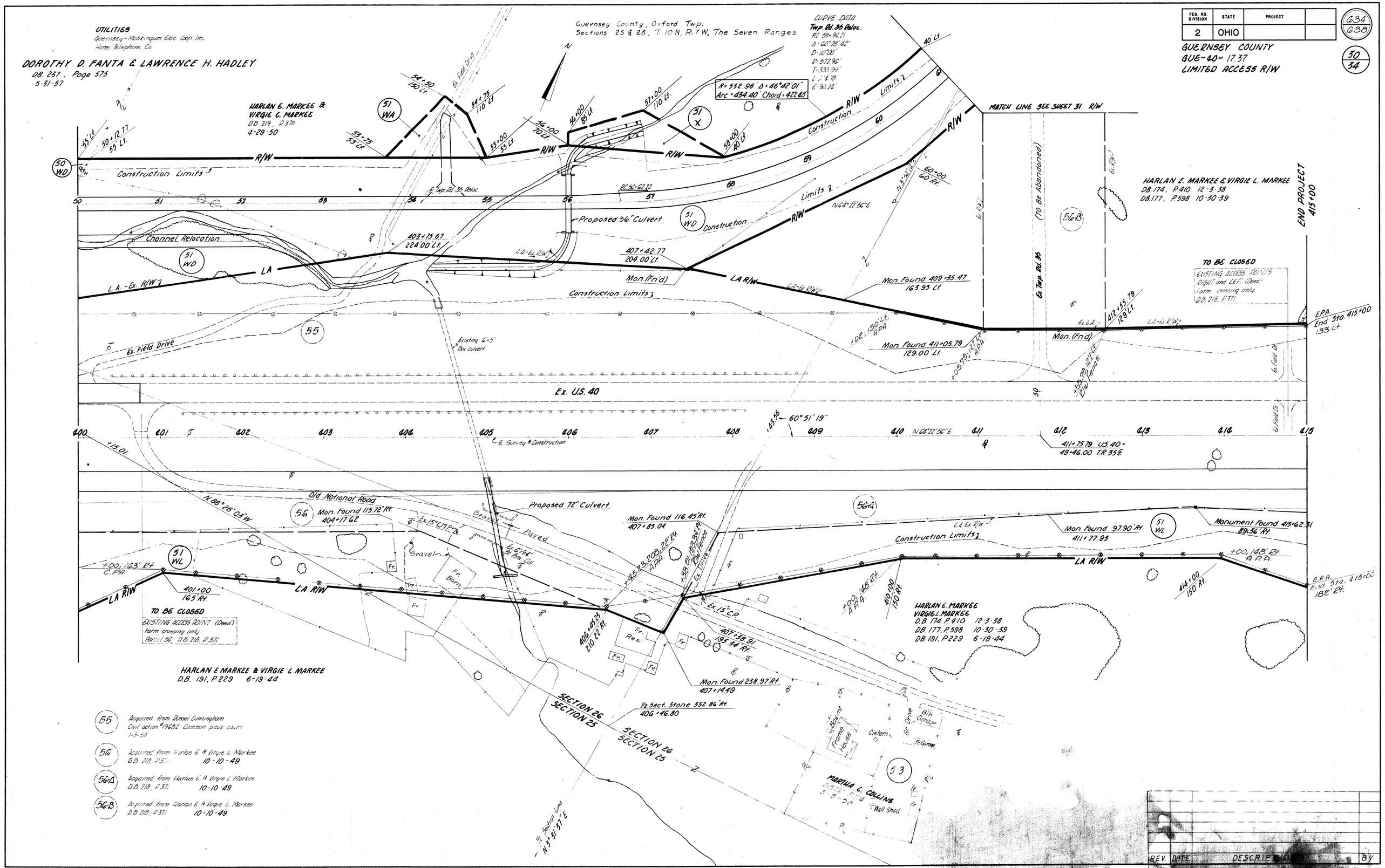
385+00 to 400+00 R/W

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

634
638

GUERNSEY COUNTY
GUE-40-17.37
LIMITED ACCESS R/W

30
34



55 Acquired from Russel Cunningham Civil action #19682 Common pleas court 1-9-50

56 Acquired from Harlan E. & Virgie L. Markee D.B. 218, P. 371 10-10-49

56-A Acquired from Harlan E. & Virgie L. Markee D.B. 218, P. 371 10-10-49

56-B Acquired from Harlan E. & Virgie L. Markee D.B. 218, P. 371 10-10-49

REV.	DATE	DESCRIPTION	BY

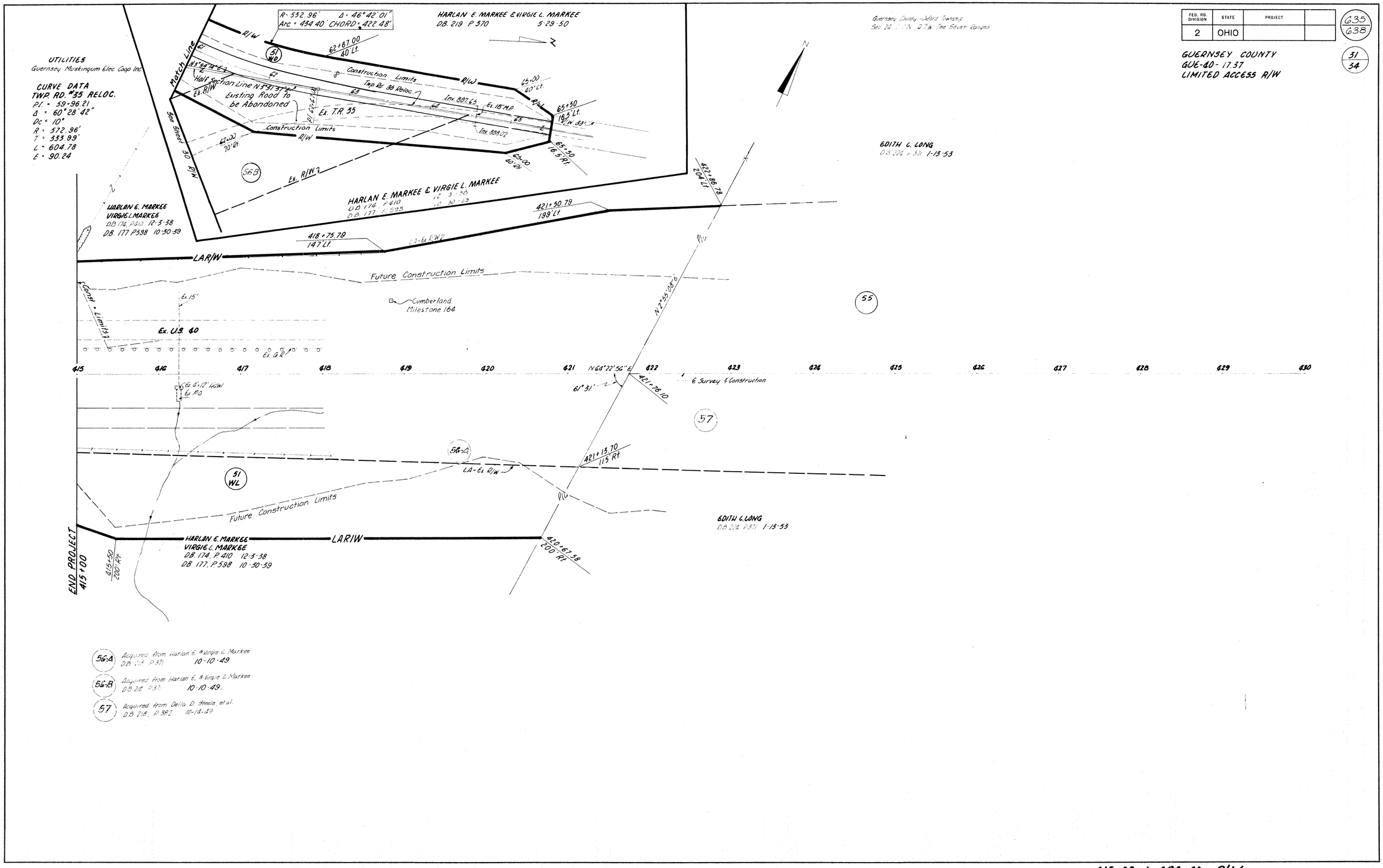
400+00 to 415+00 R/W

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

635
638

GUERNSEY COUNTY
GUE-40-17.37
LIMITED ACCESS R/W

31
34



56-A Acquired from Harlan E. & Virgie L. Markee D.B. 218, P. 371 10-10-49

56-B Acquired from Harlan E. & Virgie L. Markee D.B. 218, P. 371 10-10-49.

57 Acquired from Della D. Steele, et al. D.B. 218, P. 382 10-14-49

415+00 to 430+00 R/W

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

636
638

32
34

GUERNSEY COUNTY
GUE-40-17.37
R/W PLANS

Guernsey County, Oxford Township
Sec. 25 T 10 N., 2 Tw. The Seven Ranges

CURVE DATA
P.I. 25+09.65
Δ = 77°43'15"
Q = 7°00'
R = 818.51'
T = 659.52'
L = 1110.30'
E = 232.64'

UTILITIES
Home Telephone Company

48A
ROBERT M. SMITH
D.B. 119, P. 544
11-3-17

JOHN RAYMOND BROTHERS & JENNIE M. BROTHERS
D.B. 219, P. 231 2-10-51

MATCH LINE TO R/W SHEET #33

29+00, 100' Lt.

R = 718.51' Δ = 39°13'48"
Arc = 491.96' C.H. = 482.41'

Ex. S.R. 513 to be abandoned from here

R = 390.65 Δ = 19°01'15"
Arc = 129.69' C.H. = 129.09'

Ex. R/W
Ex. 60' R/W
N 0°47'11" E
15
16
17
17+50 19.23' Lt.
Ex. 12" CMP
Ex. Field Drive
Ex. Twp. Rd. 288
E. R/W 30'
18+45.97 57.04' Lt.
18+54.72 29.99' Lt.
P.C. 18+50.13
50.00 Tmp. Rd. 288
R & S Drive
19+50, 40' Lt.
20+50 65' Lt.
20+00 100' Lt.
R/W
Construction Limit
48 WD
Begin Work 17+50
17+50, 30' Rt.
18+44.40 14.71' Lt.
Ex. 9" DP
18+40, 30' Rt.
18+65.78 64.16' Rt.
18+80.99 30.60' Rt.
19+50
20+34.94 9.47' Lt.
19+69.79
20+36.08 14.34' Lt.
20+90.36
35'
30'
21
22
23
24
25
26
27
℄ Survey & Constr.
℄ Mail box
Res. Drive Gravel
1 Story Lined & Stone Res.
Septic tank
27+92.68 76.37' Rt.
27+91.30 107.67' Rt.
28+98.87 143.64' Rt.
25+97.03 91.66' Rt.
25+96.17 86.76' Rt.
23+87.35' Rt.
23+18.5, 35' Rt.
252
22
29+96, 81.2 Rt.
Ex. R/W
Inv. 1046.76
26+02.06 121.89' Rt.
52
21+64.66 96.75' Rt.
12" CMP
Inv. 1042.84
22+93.72 111.81' Rt.
R = 482.34', Δ = 16°21'53"
Arc = 137.76', C.H. = 137.30'
22+79.43 136.89' Rt.
N 76°46'18" W
R = 452.34' Δ = 45°45'51"
Arc = 361.30' C.H. = 351.77'
N 0°47'11" E
N 3°31'37" E
Tmp. Rd. 288
Ex. Twp. Rd. 288
Ex. R/W 33'
N. 72°11'07" E
P.I. 52+88.16
52A WD
53
54
Half section line Section 25
Mon (Ind.)
Mon (Ind.)

OUANE E. ATWOOD & MARGARET E. ATWOOD
D.B. 245, P. 630 11-26-60

52A WD = 0.04 Ac. ± ; PRO. = 0.47 Ac. ±

HOWARD HENDERSON & LUELLA HENDERSON
D.B. 242, P. 331 7-7-58

JOHN RAYMOND BROTHERS & JENNIE M. BROTHERS

48 WD = 8.46 Ac. ±, PRO. = 0.78 Ac. ±

48 WL = 9.09 Ac. ±, PRO. = 0.37 Ac. ±

48 Z = 1.16 Ac. ±

2 Acquired from Jennie M. Schultheiss
D.B. 181, P. 276 12-24-40

22 Acquired from J.W. & Edith Long
D.B. 181, P. 262 12-23-40

REV.	DATE	DESCRIPTION	BY

15+00 to 29+00 S.R. 513 Reloc. R/W

Guernsey County, Oxford Township
Sec. 25, T.10N, R.7W, The Seven Ranges

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

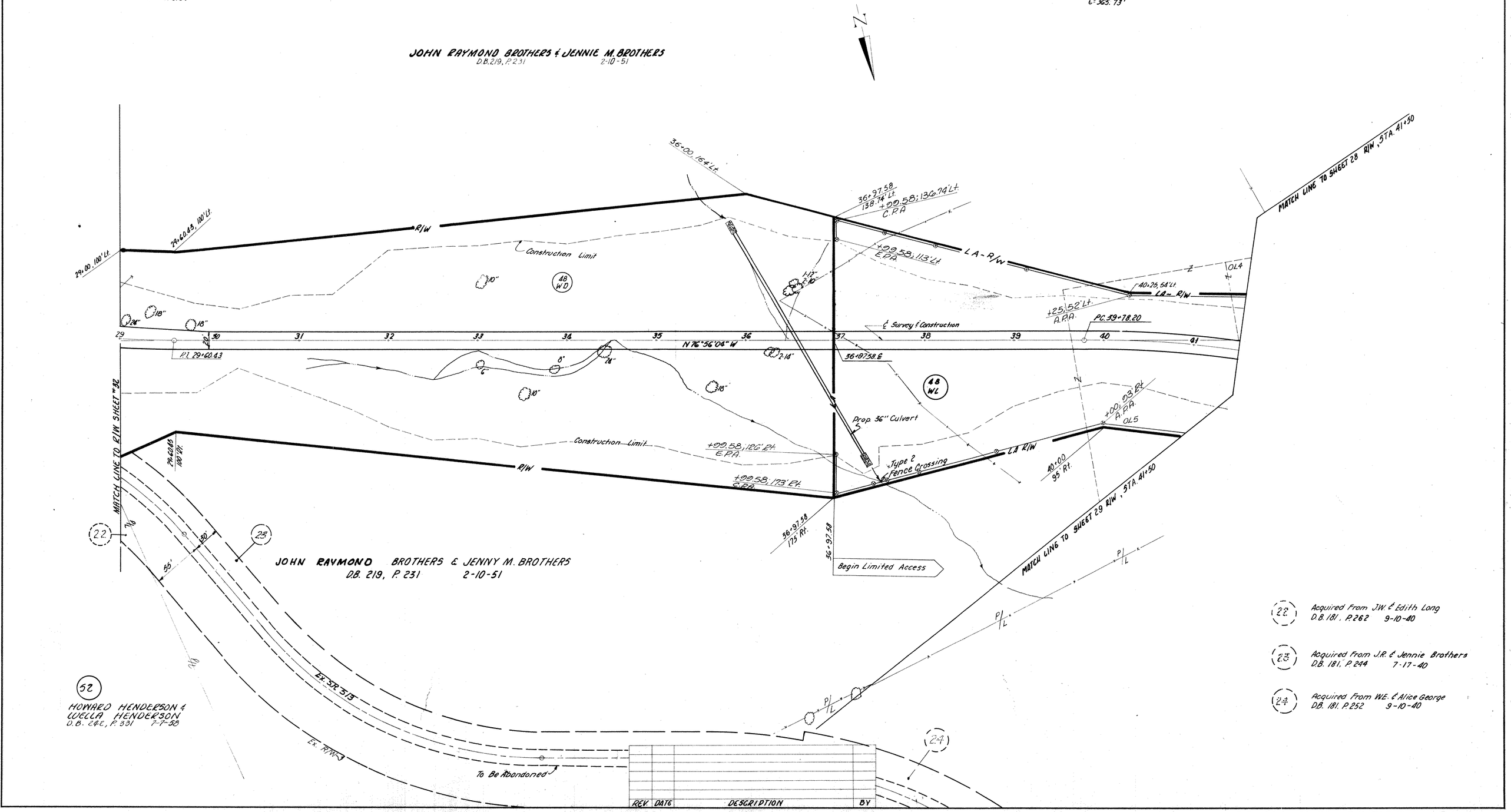
637
638

GUERNSEY COUNTY
GUE-40-17.37
LIMITED ACCESS R/W

33
34

CURVE DATA
P.I. 25+09.65
Δ = 77°43'15" Lt.
D_c = 7°00'
R = 818.51'
T = 659.52'
L = 1110.30'
E = 232.64

CURVE DATA
P.I. 49+86.20
Δ = 79°46'07" Rt.
D_c = 4°45'00"
R = 1206.23'
T = 1008.00'
L = 1679.34'
E = 365.73'



22 Acquired From J.W. & Edith Long
D.B. 181, P. 262 9-10-40

23 Acquired From J.R. & Jennie Brothers
D.B. 181, P. 244 7-17-40

24 Acquired From W.E. & Alice George
D.B. 181, P. 252 9-10-40

REV.	DATE	DESCRIPTION	BY

29+00 to 41+50 S.R. 513 Reloc R/W

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

GUERNSEY COUNTY
GUE-40-17.37
LIMITED ACCESS R/W

619
638

15
34

SEC.14 Stone (Fnd) | SEC.13

UTILITIES
Guernsey-Muskingum Elec. Coop. Inc.
Home Telephone Co.

HOWARD FULLER
D.B. 196, P.154, 6-22-45

EDWARD BUGOS
GRACE ANITA BUGOS
D.B. 203, P.108 7-25-46

Guernsey County - Wills Twp
Sec. 8 & 13, M.L. 16 & 17, T.1 N., R.1 W. U.S.M.L.

SEC. 8
SEC. 13

P.L. Was established by two L. Monuments found on this line.

N

175+00 160' Lt.
+00.158' Lt. A.P.A.
Swale
177+50 180' Lt.
+50.178' Lt. A.P.A.
181+26.91 180' Lt.
+28.01.178' Lt. A.P.A.
187+00 150' Lt.
+00.148' Lt. A.P.A.

LA R/W

Construction Limits

18 WL

Proposed 24" Culvert

℄ N 85°42'02" W 2

3°30'00"

185+70.65
69.79 Lt.

EDWARD BUGOS
GRACE ANITA BUGOS
D.B. 203, P.108 7-25-46

19 WL

GUERNSEY SOIL CONSERVATION DISTRICT
D.B. 233, P.508 11-12-55

22 WL

175 176 177 178 179 180 181 N 76°25'11" E 182 183 184 185 186 187 188 189 190

℄ Survey & Construction

17°52'47" ℄

178.22

186+84.87

88°09'

P.I. 5+38.66
=175+38.66, 78' Rt.

100°05'

21°05'

189+51.56
86.03' Rt.

189+53.18
80.67' Rt.

+34.90
23.80'

100 gallon water trough

Proposed 27" Pipe Culvert

5 6 N 89°08'13" E 7 8 9 10 11 12 13 N 76°25'11" E 14 15 6 7 8 N 65°32'56" E 9

RAMP "G"

RAMP "H"

Construction Limits

160' Rt.

P.O.T. 10+94.68 Ramp "G"
P.O.T. 10+94.68 ℄

P.C. 9+60.01

P.I. 10+28.02
=180+19.43, 186.5' Rt.

P.O.T. 5+32.13 ℄ Ramp "H"
185+37.96, 176.5' Rt.

P.O.T. 15+46 ℄ =
185+37.96, 186.5' Rt. US40

P.T. 7+99.55

P.I. 6+91.17 =
186+97.00, 176.5' Rt.

Chicken House Fr.

20 WL

WALTER BROCK
CLARA BROCK
D.B. 246, P.52, 3-31-59

RAMP "G" CURVE DATA
P.I. 5+38.66
Δ = 12°43'02" Rt.
D_c = 1°30'
R = 3819.72'
T = 425.66'
L = 847.61'
E = 23.64

RAMP "G" CURVE DATA
P.I. 10+28.02
Δ = 12°43'02" Lt.
D = 9°30'
R = 603.11'
T = 67.21'
L = 133.87'
E = 3.73'

RAMP "H" CURVE DATA
P.I. 10+87.13
Δ = 9°40'38"
D_c = 3°30'
R = 1,637.02'
L_c = 126.49'
L_s = 150.00'
T_s = 213.62'
E_s = 6.43'
Θ_s = 2°37'30"
X_c = 149.97'
Y_c = 2.29'

179+00 250' Rt.
+02.248' Rt. A.P.A.

189+05.08 250' Rt.
+03.08.248' Rt. A.P.A.

Spring - 24" Tile on end

Frame Barn

Fr. House

Valve

1" Water Line

Ex. field drive

Ex. R/W

Ex. 15"

I.P. Fnd.

+02.402.07 A.P.A.
179+00 494.07' Rt.

+02.254.44 A.P.A.
188+49.54 445.49' Rt.

R = 3284.59' Δ = 5°50'-20"
Arc = 334.73' Chord = 334.58'

185+16.15 173.61' Rt. ℄

EX. U.S. 40

Ex. G. 2

HOWARD FULLER
(18 WL) = 22.25 Ac.±, P.R.O. = 2.23 Ac.±
(18 WD) = 0.20 Ac.±, P.R.O. = 0.08 Ac.±
EDWARD BUGOS
GRACE ANITA BUGOS
(19 WL) = 2.78 Ac.±

(41) Acquired from Howard Fuller Et Ux. D.B. 215, P.357 — 6-10-48

(41A) Acquired from Howard Fuller Et Ux. D.B. 208, P.661 10-22-47

(41) Acquired from Ralph Taylor & Margaret Taylor D.B. 208, P.660 11-10-47

(42) Acquired from Thomas Clark Frame & Inez Frame Patterson D.B. 209, P.411 11-8-47 11-12-47

(40)

(42)

(43 WL)

THOMAS CLARK FRAME
WALTER N. PATTERSON
D.B. 168, P.104 2-7-27
D.B. 225, P.482 9-6-52

125' to barn

REV	DATE	DESCRIPTION	BY

175+00 to 190+00 R/W

GENERAL INFORMATION

INTRODUCTION

The project consists of the relocation of USR 40, approximately 6.4 miles in length, beginning immediately east of Old Washington, 1 mile west of Twp. Rd. 185, extending eastward, terminating 1500 feet east of SR 513. Between approximately stations 638+00 to 745+00, the project consists of the addition of the left lane; between stations 745+00 and 400+00, relocation; and, between approximately stations 400+00 to 415+00, the project consists of the addition of the right lane. Also included in this report are the profiles of the associated intersecting roads and the logs of borings taken in the vicinity of Relocated Twp. Rd. 277, County Road 1 (Relocation No. 1) and County Road 301.

The proposed grades indicate the following:

Mainline (USR 40) - cuts, ranging between 0 and 80 feet in depth at ditchlines, and fill embankments, ranging between 0 and 41 feet in height.

Twp. Rd. 185 - cuts, ranging between 0 and 24 feet in depth.

Relocated Twp. Rd. 277, County Road 1 (Relocation No. 1) and County Road 301 - no ground line or grade indicated.

SR 513 - cuts, ranging between 0 and 21 feet in depth at ditchline, and fill embankments, ranging between 0 and 60 feet in height.

GEOLOGY AND OBSERVATIONS OF THE PROJECT

The alignment incepts on the dissected upland peneplain area, descends onto the flood plain of Salt Fork Creek, crosses Salt Fork Creek, ascends the lower portion of the north valley wall, descends onto the flood plain of Salt Fork Creek, ascends the east valley wall and terminates on the upland portion. Several stratigraphic rock sections were observed and measured along the project. Also observed and noted were areas of poor surface drainage. Local bedrock consists of shale, sandstone, limestone and associated coal, clay and under clay of the Conemaugh formation, Pennsylvanian age.

EXPLORATION

The exploration was made by means of truck-mounted mechanical earth auger, hand auger (in areas of difficult access), and rotary type drill rigs, between October 15, 1961 and March 15, 1962. Also included in this report are the logs of drive sample-core borings made in conjunction with the foundation investigations.

INVESTIGATIONAL DISCLOSURES

Mainline (USR 40)

Borings disclosed that materials occurring immediately below proposed grade consist predominantly of sandy silts, silt clays and clays, in the A-4a, A-6 and A-7-6 classifications, generally having moisture contents in the lower portion of the plastic range, as well as sandstone, shale, and indurated clay bedrock.

It is anticipated bedrock will be encountered in the excavations at the following locations:

Stations 643+00 to 645+00 - right ditchline, backslope and grade, in shale and sandstone bedrock.

Stations 705+00 to 708+50 - left ditchline, backslope and grade, in shale and indurated clay bedrock.

Stations 730+00 to 731+00 - left ditchline, backslope and grade, in shale and sandstone bedrock.

Stations 734+00 to 739+00 - left ditchline, backslope and grade, in shale, sandstone, indurated clay and limestone bedrock.

Stations 740+00 to 751+00 - grades, both ditchlines and backslopes, in very weathered bedrock.

Stations 764+00 to 767+00 - right ditchline, backslope and grade, in very weathered bedrock.

Stations 767+00 to 769+50 - grades, both ditchlines and backslopes in very weathered bedrock.

Stations 769+50 to 771+50 - right ditchline, backslope and grade, in very weathered bedrock.

Station 774 - right ditchline and grade, in shale bedrock.

Stations 788+00 to 795+00 - both grades, ditchlines and lower portion of backslopes in indurated clay bedrock, shale, and sandstone in upper portion of left backslope.

Stations 795+00 to 798+00 - grades, left ditchline and lower portion of backslope, in indurated clay bedrock, and shale and sandstone in upper portion of backslope.

Stations 798+00 to 799+50 - left ditchline, backslope and grade, in shale, indurated clay and limestone bedrock.

Stations 200+70 to 201+25 - left ditchline, backslope and grade, in shale, indurated clay and limestone bedrock.

Stations 213+50 to 221+00 - right ditchline, backslope and grade, in shale bedrock.

Stations 226+00 to 230+50 - left ditchline and backslope in shale and sandstone bedrock.

Stations 290+00 to 295+00 - left ditchline, backslope and grade, in shale and sandstone bedrock.

Stations 295+00 to 298+80 - both grades, ditchlines and backslopes, in shale and sandstone bedrock.

Stations 298+10 to 302+25 - left ditchline, backslope and grade, in shale and sandstone bedrock.

Stations 319+00 to 325+00 - right ditchline, backslope and grade, in shale and indurated clay bedrock.

Stations 389+00 to 390+00 - right ditchline, backslope and grade, in shale bedrock.

Stations 390+00 to 391+00 - both grades and right ditchline in shale, right backslope in indurated clay bedrock.

Stations 394+00 to 400+50 - right ditchline, backslope and grade, in shale and indurated clay bedrock.

Stations 410+50 to 413+00 - right ditchline, backslope and grade, in very weathered bedrock.

Frost susceptible silt was encountered within three feet of grade at stations 617+00 and 283+50.

LEGEND FOR PROJECT-AVERAGE RESULTS OF TESTS- 1,135 SAMPLES TESTED

DESCRIPTION	H.R.B. CLASS	OHIO CLASS	% AGG	% C. SAND	% F. SAND	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	SAMPLES TESTED
Gravel and stone fragments	A-1-a(0)	A-1-a	65	12	10	7	6	25	1	14	6
Gravel and stone fragments with sand	A-1-b(0)	A-1-b	51	14	14	12	9	24	2	16	21
Coarse and fine sand	----	A-3a	0	5	66	12	17	NP	NP	29	1
Gravel and stone fragments with sand and silt	A-2-4(0)	A-2-4	40	13	16	18	13	25	4	16	50
Gravel and stone fragments with sand, silt and clay	A-2-6(2)	A-2-6	45	13	15	14	13	34	15	18	10
Sandy silt	A-4 (4)	A-4a	16	8	21	32	23	27	7	21	178
Silt	A-4 (8)	A-4b	2	2	9	55	32	29	8	23	53
Silt and Clay	A-6 (9)	A-6a	10	4	9	40	37	36	12	22	380
Silty clay	A-6(11)	A-6b	6	3	8	40	43	38	17	23	78
Elastic clay	A-7-5(15)	A-7-5	3	1	4	37	55	55	21	34	62
Clay	A-7-6(13)	A-7-6	3	2	4	40	51	46	22	26	236
Coal			VISUAL CLASSIFICATION								
Clay bedrock			VISUAL CLASSIFICATION								
Weathered indurated clay			VISUAL CLASSIFICATION								
Weathered shale			VISUAL CLASSIFICATION								8
Indurated clay			VISUAL CLASSIFICATION								
Shale			VISUAL CLASSIFICATION								34
Sandstone			VISUAL CLASSIFICATION								14
Limestone			VISUAL CLASSIFICATION								
Various other materials			VISUAL CLASSIFICATION								10

Sod and/or Topsoil =X' = Approximate depth.

Berm material.

Auger boring - plan view.

Drive sample and/or core boring - plan view.

Auger boring plotted to vertical scale only.

Drive sample and/or core boring plotted to vertical scale only.

Number of blows for "Standard Penetration" test.
X=number of blows for the first 6 inches.
Y=number of blows for the second 6 inches.

Water content nearly equal to or greater than liquid limit.

Indicates a non-plastic material with high water content

Free water

Static water level

B. Indicates broken rock interval.

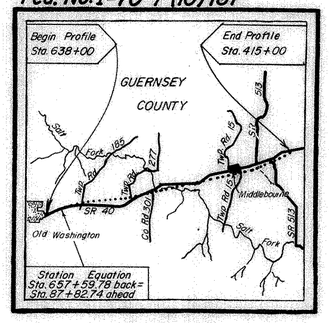
Note: Figures beside borings indicate water content in percent, e.g. *15*

SOIL PROFILE
GUERNSEY COUNTY
GUE-40-17.37
OHIO STATE HIGHWAY [illegible] LABORATORY

1 84

NOTE: INFORMATION SHOWN BY THIS SUBGR[illegible] FILE WAS OBTAINED SOLELY FOR USE IN ESTABLISHING DESIGN CONTROLS FOR THE PROJECT. THE STATE OF OHIO DOES NOT GUARANTEE THE ACCURACY OF THIS DATA AND IT IS NOT TO BE CONSTRUED AS A PART OF THE PLANS GOVERNING CONSTRUCTION OF THE PROJECT.

Fed. No. I-70-7 (10) 187



LOCATION MAP

Reconn.- C.J.K. 10/6/61

Auger - J.A.G., T.R.S., A.J.P., F.S., L.M.D., J.R.G., B.D.L. 10/15/61 to 1/25/62

Drilling -

Core - W.R.B., C.A.P., H.W.H., W.F.H., W.L.T. 10/25/62 to 3/15/62

Drafting - D.M., W.W., F.H.S., R.C.B., S.M.B., D.H.A., D.A. 4/18/62

INVESTIGATIONAL DISCLOSURES (Cont'd)

Embankment foundation materials are comprised of sandy silts, silts, silt clays and clays, in the A-4, A-6 and A-7-6 classifications. Somewhat compressible materials, having rather high moisture contents or moisture contents in the upper portion of the plastic range, containing various amounts of organic matter, were encountered between stations 205+50 and 209+50, 231+00 and 233+50, 318+00, 357+00 and 373+00 to 396+00.

Embankment foundation comprises shallow soil cover overlying sloping bedrock surface between approximately stations 619+00 and 653+00, 95+00 and 103+00, and 114+00 to 133+00.

Twp. Rd. 185

Materials occurring immediately below proposed grade consist of silt clays and clays, in the A-6 and A-7-6 classifications, and sandstone bedrock (between approximately stations 49+50 and 52+50).

SR 513

Borings disclose that materials occurring immediately below proposed grade consist of silt clays and clays, in the A-6 and A-7-6 classifications, having moisture contents below the plastic range, as well as shale and sandstone bedrock, encountered between approximately stations 24+00 and 30+00, and at station 51+50.

Embankment foundation materials consist of shallow silt clays and clays, in the A-6 and A-7-6 classifications.

H-7

H-8

SOIL PROFILE
GUERNSEY COUNTY
GUE-40-17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS OHIO

2
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SUMMARY OF SOIL TEST DATA
NOTE: NP shown in Liquid Limit and Plasticity Index columns indicate that the material is non-plastic.
*Denotes sample taken at or near grade.

STATION & OFFSET		DEPTH FROM-TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
647+00	CL	0.2-1.5	2	9	9	50	30	29	8	19	A-4b*
		1.5-2.5	3	6	10	36	37	30	11	18	A-6a*
650+00	18'Lt	0.4-3.0	0	1	2	34	63	38	15	20	A-6a*
		3.0-5.0	18	1	1	23	57	41	16	15	A-7-6
		5.0-9.0	37	3	2	25	33	30	15	15	A-6a
650+00	50'Rt	0.2-2.0	60	2	1	11	26	30	15	13	A-6a*
		2.0-4.0	52	1	2	15	30	39	11	16	A-6a
		4.0-10.0	35	2	2	28	33	30	15	16	A-6a
		10.0-15.0	47	3	2	20	28	41	17	12	A-7-6
		15.0-19.5	63	2	1	19	15	-	-	20	A-1-b
650+00	150'Rt	0.4-2.0	28	5	4	33	30	37	11	25	A-6a
		2.0-4.0	17	5	2	31	45	42	17	22	A-7-6
		4.0-5.0	Gray Clay w/Shale Fragments							30	Visual
653+00	75'Rt	0.0-1.5	44	4	16	20	16	29	9	12	A-4a*
653+20	75'Lt	0.0-1.5	Brown Broken Sandstone							6	Visual
90+00	40'Lt	0.3-3.0	4	4	4	28	60	58	23	29	A-7-5
		3.0-6.0	0	1	1	38	60	44	17	22	A-7-6
		6.0-13.0	0	0	0	40	60	46	15	19	A-7-6*
		13.0-17.0	33	3	3	18	43	36	11	18	A-6a*
		17.0-18.0	56	2	1	13	28	49	19	9	A-7-5*
		18.0-19.0	Gray Broken Shale							12	Visual
90+50	30'Rt	0.0-2.0	18	8	19	19	36	27	11	11	A-6a*
94+50	60'Lt	0.3-3.0	13	3	23	40	21	30	9	13	A-4a
		3.0-5.0	0	1	2	35	60	63	31	23	A-7-5
		5.0-6.0	43	7	4	28	18	32	11	14	A-6a
97+50	40'Rt	0.3-2.0	41	1	2	24	32	38	12	18	A-6a*
		2.0-7.0	18	2	1	36	43	42	16	20	A-7-6*
		7.0-10.0	11	2	1	40	46	39	11	20	A-6a
100+00	140'Lt	0.2-2.0	Gray Broken Shale							8	Visual
100+15	CL	0.2-3.5	19	5	5	44	27	40	16	19	A-6b
		3.5-5.0	47	10	5	24	14	30	8	11	A-4a
102+00	CL	0.3-2.0	39	2	2	25	32	46	16	15	A-6b
		2.0-3.0	0	1	3	47	49	49	18	24	A-7-5
		3.0-5.0	Brown Broken Shale							9	Visual
102+25	140'Lt	0.3-4.0	10	6	6	57	21	43	16	15	A-7-6
		4.0-6.0	Gray Broken Shale							6	Visual
104+00	50'Lt	0.2-4.5	0	0	1	38	61	52	24	24	A-7-6*
		4.5-10.0	30	1	1	38	30	36	13	16	A-6a*
		10.0-12.0	32	1	3	44	20	32	11	16	A-6a
104+00	90'Rt	0.3-3.0	0	0	1	36	63	61	30	25	A-7-5*
		3.0-5.0	0	1	2	36	61	45	18	23	A-7-6*
		5.0-6.0	19	4	2	33	42	50	17	31	A-7-5*
		6.0-10.0	35	5	7	36	17	42	18	36	A-7-6
111+00	CL	0.3-4.0	0	0	1	36	63	65	36	27	A-7-6*
		4.0-9.0	27	3	1	28	41	46	19	20	A-7-5
		9.0-12.0	23	1	2	45	29	46	18	18	A-6a
115+50	35'Rt	0.4-6.0	44	1	1	45	48	44	18	18	A-7-6*
		6.0-11.0	0	1	1	45	53	46	16	16	A-6a
		11.0-16.0	19	1	1	37	42	46	14	24	A-6a
		16.0-20.0	0	2	1	53	44	47	22	18	A-7-6
		20.0-21.0	5	6	5	45	36	38	11	23	A-6a
		21.0-25.0	Brown Broken Sandstone							14	Visual
120+00	90'Lt	0.6-3.5	0	1	2	52	45	50	24	25	A-7-6
		3.5-9.0	53	9	9	20	9	32	10	12	A-2-4
120+00	CL	0.3-5.0	0	1	1	60	38	53	25	24	A-7-6
		5.0-9.0	0	7	2	55	36	38	15	21	A-6a
		9.0-11.5	0	20	7	47	26	34	10	16	A-4a
		11.5-15.0	0	4	6	54	36	34	10	14	A-4b
125+15	CL	0.4-1.5	0	0	1	45	54	55	27	25	A-7-6
		1.5-4.0	3	1	2	52	42	37	10	18	A-4b
		4.0-7.0	42	15	6	27	10	30	10	7	A-4a
126+00	150'Lt	0.3-3.0	Brown Broken Sandstone							9	Visual
128+00	CL	0.3-2.0	0	3	9	53	35	34	11	21	A-6a*
		2.0-3.5	39	7	16	26	12	28	8	16	A-4a
130+50	35'Rt	0.6-6.0	15	1	2	44	38	39	13	19	A-6a
		6.0-12.0	0	3	4	45	50	44	17	15	A-7-6
		12.0-14.5	30	6	3	25	36	34	17	16	A-7-6
		14.5-20.0	19	2	3	37	39	37	13	16	A-6a
		20.0-25.0	7	3	3	37	53	46	19	16	A-7-6
		25.0-30.0	14	3	1	45	37	46	14	17	A-6a
133+00	200'Lt	0.3-4.0	Brown Broken Sandstone							7	Visual
		4.0-8.0	Brown Broken Sandstone							7	Visual
133+00	CL	0.3-5.0	17	4	5	29	45	39	15	13	A-6a*
		5.0-7.5	Brown Broken Shale							6	Visual

STATION & OFFSET		DEPTH FROM-TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
137+00	200'Lt	0.2-2.0	23	8	11	33	25	36	9	15	A-4a
		2.0-5.0	Brown Broken Shale							13	Visual
137+00	CL	0.3-3.0	0	0	1	44	55	58	28	26	A-7-5*
		3.0-9.0	53	8	4	22	13	34	10	8	A-2-4*
142+00	200'Lt	0.2-3.5	0	1	1	31	67	56	27	21	A-7-6
		3.5-10.0	0	1	1	48	50	44	15	18	A-7-6
		10.0-16.0	33	0	1	37	29	37	11	14	A-6a
		16.0-22.0	32	0	1	27	40	40	18	12	A-6b
		22.0-24.0	Brown Broken Shale							12	Visual
		24.0-27.0	Brown Broken Shale							10	Visual
142+00	10'Lt	0.3-5.0	0	2	4	53	41	45	13	16	A-7-6
		5.0-7.0	0	2	1	44	53	45	19	19	A-7-6
		7.0-11.0	39	3	3	32	23	43	18	15	A-7-6*
		11.0-15.0	0	2	4	50	44	45	11	14	A-6a*
		15.0-16.0	40	6	2	29	23	34	11	9	A-6a*
151+25	200'Lt	0.3-4.0	36	5	3	30	26	35	13	13	A-6a
		4.0-6.5	10	1	2	44	46	44	21	26	A-7-6
		6.5-10.0	22	5	3	32	38	38	12	15	A-6a
154+00	CL	0.2-2.0	28	4	12	47	9	29	6	11	A-4a
		2.0-5.0	44	3	3	31	22	34	11	13	A-6a
		5.0-7.5	0	0	1	51	48	61	35	31	A-7-6
		7.5-13.0	0	1	2	50	47	41	31	20	A-7-5
		13.0-15.0	0	3	3	56	38	46	20	27	A-7-6*
		15.0-18.5	Brown Broken Sandstone							7	Visual*
155+20	225'Lt	0.4-4.0	Brown Broken Shale							8	Visual
		4.0-8.0	Brown Broken Shale							7	Visual
		8.0-11.0	Brown Broken Shale							14	Visual
156+00	CL	0.3-6.0	16	6	18	34	26	28	6	13	A-4a
		6.0-7.0	23	2	1	33	41	44	15	17	A-7-6
		7.0-12.0	Brown Broken Shale							7	Visual
160+00	CL	0.4-5.0	0	4	22	36	38	38	15	22	A-6a
		5.0-9.0	20	9	11	25	35	37	15	16	A-6a
		9.0-12.0	10	5	6	50	29	30	8	13	A-4b
		12.0-15.0	Brown Broken Shale							8	Visual
		15.0-21.0	Brown Broken Shale							8	Visual
		21.0-25.0	Brown Broken Shale							5	Visual
160+00	150'Rt	0.4-3.0	0	2	10	44	47	44	21	25	A-7-6
		3.0-6.0	51	8	12	16	13	33	12	22	A-2-6
		6.0-8.0	18	9	8	37	28	38	11	15	A-6a
		8.0-14.5	17	3	5	50	25	27	6	9	A-4b
		14.5-16.0	Gray Broken Shale							9	Visual
162+00	150'Lt	0.4-5.0	0	2	12	32	54	36	23	23	A-7-6
		5.0-8.0	38	5	12	21	24	34	11	24	A-6a
		8.0-13.0	59	11	3	13	14	42	12	17	A-2-6
		13.0-17.0	29	4	3	34	30	36	17	10	A-6b
		17.0-18.0	Gray Broken Shale							10	Visual
162+00	160'Rt	0.4-2.0	0	5	9	45	41	44	15	21	A-7-6
		2.0-4.5	38	8	16	19	19	27	8	16	A-1a
		4.5-10.0	29	9	8	31	23	36	6	7	A-1a
		10.0-16.0	16	10	16	38	28	37	10	9	A-1a
		16.0-18.0	40	7	5	23	25	29	11	14	A-6a
		18.0-22.0	Gray Broken Shale							10	Visual
162+30	CL	0.3-3.0	0	1	9	38	52	46	17	31	A-6b
		3.0-6.0	62	3	13	5	17	31	13	20	A-2-6
		6.0-12.0	Gray Broken Shale							12	Visual
		12.0-18.0	Gray Broken Shale							11	Visual
		18.0-23.0	Gray Broken Shale							12	Visual
163+50	250'Lt	0.3-2.5	0	1	12	43	44	38	16	23	A-6b
		2.5-9.0	0	7	13	37	43	36	13	27	A-6a
		9.0-12.0	0	9	2	33	56	44	21	16	A-7-6
		12.0-15.5	26	2	3	35	34	38	16	15	A-6b
164+05	CL	0.0-1.5	Gray Broken Shale							5	Visual
168+50	CL	0.3-4.0	0	1	2	44	53	46	21	19	A-7-6
		4.0-6.5	Brown Clayey Silt and Limestone Fragments							10	Visual
171+75	100'Lt	0.4-3.0	0	6	6	54	34	38	13	23	A-6a
		3.0-7.0	0	5	7	45	43	38	15	20	A-6a
		7.0-10.5	0	23	15	36	26	30	10	13	A-4a
		10.5-12.0	19	5	3	32	41	61	35	15	A-7-6
172+00	CL	0.3-2.0	24	3	12	33	28	34	13	13	A-6a
		2.0-4.0	Brown Broken Shale							8	Visual
174+00	CL	0.2-2.0	0	1	3	31	65	34	14	25	A-6a
		2.0-7.5	23	8	13	31	25	36	6	11	A-4a*
176+50	CL	0.2-4.0	30	13	5	27	25	33	11	28	A-6a*
		4.0-10.0	Gray Broken Shale							10	Visual
177+65	100'Rt	0.4-2.0	0	5	8	38	35	34	12	23	A-6a
		2.0-6.0	21	10	7	36	36	35	17	23	A-6b
		6.0-9.0	37	4	3	35	21	30	11	15	A-6a
		9.0-10.0	Gray Broken Shale							6	Visual
177+90	130'Lt	0.3-2.0	0	4	4	51	41	38	15	26	A-6a
		2.0-3.0	Brown Broken Shale							3	Visual
180+00	CL	0.3-3.0	Brown Broken Shale							7	Visual*
		3.0-8.0	Brown Broken Shale							8	Visual

STATION & OFFSET		DEPTH FROM-TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
181+90	125'Lt	0.3-3.0	5	2	3	47	43	34	11	19	A-6a
		3.0-4.0	42	6	9	25	18	28	8	8	A-4a
181+15	90'Rt	0.0-4.0	0	6	7	38	49	35	24	27	A-7-6
		4.0-9.0	0	5	4	37	34	30	10	18	A-4b
		9.0-14.0	0	0	1	40	59	41	18	19	A-7-6
181+75	CL	0.0-5.0	25	2	6	32	35	41	19	21	A-7-6
		5.0-9.0	0	4	3	38	55	43	18	17	A-7-6
		9.0-10.0	5	14	14	37	30	37	12	13	A-6a
197+50	240'Rt	0.0-2.0	Brown Broken Shale							6	Visual
201+00	CL	0.4-1.5	0	3	22	33	43	34	15	22	A-6a
		1.5-3.5	0	3	23	37	37	26	6	15	A-4a
		3.5-4.0	0	6	29	17	48	26	11	14	A-6a
202+50	175'Rt	0.0-5.0	6	13	6	42	33	35	11	14	A-6a
		5.0-8.0	26	17	4	30	23	35	13	22	A-6a
		8.0-13.0	0	2	5	45	51	41	15	40	A-6a
		13.0-17.0	0	10	6	46	34	41	11	20	A-6a
		17.0-19.0	13	1	1	32	53	38	14	23	A-6a
205+50	CL	0.0-3.0	50	7	2	28	13	19	-	10	A-1-b
		3.0-6.0	15	10	15	28	32	39	13	21	A-6a
		6.0-8.0	40	16	6	26	12	31	7	45	A-4a
208+35	175'Rt	0.0-1.5	Gray Broken Shale							5	Visual
209+50	105'Lt	0.0-5.0	12	8	10	36	34	45	21	33	A-7-6
		5.0-7.0	13	14	8	33	32	42	11	25	A-6a
		7.0-13.0	0	9	7	35	49	39	15	20	A-6a
211+05	100'Lt	0.0-5.0	26	11	5	28	30	35	16	20	A-7-6
		5.0-10.0	39	13	8	27	23	31	9	20	A-6a
		10.0-15.0	39	14	8	27	25	33	9	23	A-1a
		15.0-20.0	21	14	6	30	29	34	13	19	A-6a
212+10	205'Rt	0.0-3.0	0	2	6	35	57	52	25	31	A-7-6
		3.0-8.0	15	2	5	46	32	44	11	12	A-6a
		8.0-11.0	32	10	6	27	25	29	11	7	A-6a
215+50	120'Lt	0.0-6.0	11	2	2	30	55	43	37	22	A-7-6
		6.0-12.0	4	8	8	36	44	34	11	9	A-6a
215+50	CL	0.0-4.0	15	9	4	32	40	35	11	17	A-6a*
		4.0-8.0	1	2	3	25	69	51	23	22	A-7-6*
		8.0-10.0	0	1	2	56	41	39	13	18	A-6a
		10.0-15.0	9	12	10	41	28	39	11	11	A-6a
217+50	120'Lt	0.0-3.0	29	11	6	27	27	39	11	12	A-6a
		3.0-8.0	51	12	8	17	12	32	12	6	A-2-6
217+50	CL	0.0-3.0	0	6	4	41	49	45	21	21	A-7-6
		3.0-5.0	0	2	1	29	68	48	38	27	A-7-6
		5.0-6.0	36	1	2	27	34	37	17	21	A-7-6
		6.0-12.0	16	1	3	36	44	39	17	14	A-6b
		12.0-14.0	3	1	3	47	46	39	13	11	A-6a
220+50	140'Lt	0.0-4.0	7	7	3	46	37	34	11	15	A-6a
		4.0-8.0	27	21	9	28	15	32	7	10	A-1a
220+50	CL	0.0-3.0	0	6	3	45	46	41	14	20	A-7-6
		3.0-8.0	16	2	2	36	44	53	25	36	A-7-6
		8.0-12.0	12	2	2	27	57	46	12	16	A-6a
221+00	162'Pt	0.0-1.0	Reddish-Brown Broken Shale							11	Visual
		1.0-5.5	Brownish-Gray Broken Shale							5	Visual
223+00	130'Lt	0.0-5.0	0	4	3	52	41	43	16	23	A-7-6
		5.0-10.0	0	0	1	71	28	45	16	30	A-6b
		10.0-15.0	0	0	1	52	47	43	16	26	A-7-6
		15.0-20.0	0	1	1	50	48	36	13	21	A-6a
225+00	140'Lt	0.6-1.5	7	0	2	37	54	45	17	36	A-7-5
		1.5-3.0	0	1	2	45	52	43	16	29	A-7-6
		3.0-7.0	0	2	2	45	51	43	21	22	A-7-6
		7.0-11.0	0	1	2	42	54	39	27	5	A-1b
		11.0-14.0	0	1	3	51	45	39	9	21	A-1b
		14.0-17.0	0	0	1	56	43	39	10	22	A-1b
		17.0-20.0	0	1	3	50	46	39	11	17	A-6a
225+00	CL	0.5-2.0	0	2	2	38	58	53	19	31	A-7-5
		2.0-5.0	0	0	0	44	56	44	18	32	A-7-6
		5.0-7.0	0	3	4	45	48	46	16	21	A-7-6
		7.0-10.0	0	4	4	45	45	45	17	19	A-6b
		10.0-15.0	6	1	1	45	45	35	13	12	A-6a
		15.0-20.0	15	10	5	31	39	31	11	16	A-6a
225+00	220'Pt	1.5-5.0	0	1	1	32	66	50	35	27	A-7-6
		5.0-11.0	0	0	6	45	49	44	11	19	A-6a
		11.0-15.0	14	10	5	42	29	33	11	21	A-6a
		15.0-21.0	22	16	4	32	26	33	11	18	A-6a
228+00	140'Lt	0.5-1.5	0	0	2	33	65	45	17	34	A-7-5
		1.5-4.0	0	1	3	39	57	45	20	29	A-7-6
		4.0-10.0	0	0	1	50	49	43	18	28	A-7-6
		10.0-12.0	0	3	13	35	49	41	11	26	A-1b
		12.0-14.0	0	0	1	36	63	38	7	29	A-1b
		14.0-18.0	0	2	4	55	39	38	6	18	A-1b
		18.0-21.5	25	13	25	19	18	NP	18	6	A-1a
		21.5-30.0	34	8	19	22	17	NP	NP	17	A-1a

@198+00 100'Lt.
198+00 CL — See column one, sheet numbs. 4

STATION & OFFSET		DEPTH FROM-TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
228+00	CL	0.5-1.5	0	0	1	45	54	46	20	27	A-7-6
		1.5-9.0	0	0	2	46	52	43	20	25	A-7-6
		9.0-13.0	0	0	1	56	43	35	15	24	A-6a
		13.0-16.0	0	1	3	53	43	32	13	20	A-6a
		16.0-20.0	22	4	6	36	32	32	11	18	A-6a
		20.0-26.0	16	12	20	29	21	26	7	15	A-1a
		26.0-32.0	47	11	14	14	14	24	4	16	A-2-4
228+00	200'Rt	0.5-2.0	0	0	2	43	55	44	16	21	A-7-6
		2.0-8.0	0	1	2	45	52	47	21	23	A-7-6
		8.0-15.0	34	3	4	33	26	34	12	17	A-6a
		15.0-21.5	26	2	5	33	34	30	11	19	A-6a
		21.5-30.0	6	3	5	44	45	36	14	20	A-6a
@@231+00	130'Lt	0.6-1.5	19	0	2	36	43	51	18	23	A-7-5
		1.5-2.5	0	2	3	29	66	47	26	32	A-7-5
		2.5-8.0	0	1	1	36	62	47	21	26	A-7-6
		8.0-11.5	14	0	1	20	65	63	26	30	A-7-5
		11.5-14.0	0	5	47	19	29	29	7	24	A-1a
		14.0-20.0	17	20	28	25	10	NP	NP	20	A-2-4
		20.0-25.0	29	14	29	18	15	23	3	16	A-2-4
		25.0-31.0	34	19	30	6	11	24	4	14	A-1-b
231+00	CL	0.6-2.0	0	1	1	39	59	46	19	33	A-7-5
		2.0-6.0	0	0	2	31	67	47	22	27	A-7-6
		6.0-10.0	0	1	6	46	45	45	23	27	A-7-6
		10.0-13.0	0	7	37	28	28	34	16	26	A-6b
		13.0-15.0	Brown Sandy Clayey Silt w/Gravel							23	Visual
		15.0-18.0	0	1	4	54	41	39	9	21	A-1b
		18.0-24.0	32	7	14	27	20	25	6	16	A-1a
		24.0-31.0	26	20	12	25	17	29	9	15	A-1a
231+00	180'Rt	0.6-1.5	0	1	2	59	38	44	14	25	A-7-5
		1.5-6.0	0	1	1	47	71	61	31	31	A-7-5
		6.0-11.5	0	1	2	9	47	45	30	16	A-6b
		11.5-14.0	15	1	1	18	60	67	40	15	A-7-6
		14.0-16.0	0	0	2	21	37	38	11	21	A-6a
		16.0-19.0	26	8	6	34	26	32	12	16	A-6a
		19.0-20.0	0	0	1	52	47	37	16	17	A-6b
232+00	CL	0.5-2.0	15	2	3	25	55	37	13	25	A-6a
		2.0-5.0	0	1	1	26	72	50	31	29	A-7-6
		5.0-9.0	0	2	8	43	47	35	18	26	A-6b
		9.0-12.0	0	1	11	46	42	37	14	27	A-6a
		12.0-16.0	25	15	11	22	23	36	5	16	A-1a
		16.0-18.0	0	2	7	47	44	28	11	17	A-6a
		18.0-20.0	Brown Clayey Silty Sand and Gravel							17	Visual
		20.0-27.0	29	14	18	19	20	23	6	15	A-1a
		27.0-30.0	30	11	11	33	15	NP	NP	12	A-1a
235+00	100'Lt	0.7-5.0	0	2	4	41	53	45	18	23	A-7-6
		5.0-8.0	0	2	27	40	31	32	12	26	A-6a
		8.0-12.0	0	2	29	39	30	28	11	33	A-6a
		12.0-15.0	13	5	24	31	27	27	7	17	A-1a
		15.0-20.0	37	14	16	11	22	24	7	17	A-2-4
235+00	120'Rt	0.5-2.0	0	2	4	26	68	45	17	26	A-7-5
		2.0-6.0	0	1	3	22	74	45	28	28	A-7-5
		6.0-12.0	0	1	1	33	65	56	27	26	A-7-6
		12.0-13.0	0	1	14	27	58	43	20	27	A-7-6
		13.0-14.0	Brown Sandy Clayey Silt w/Gravel							19	Visual
		14.0-21.0	18	16	12	26	28	25	8	12	A-1a
236+00	CL	0.7-5.0	0	1	2	51	46	39	17	16	A-6b
		5.0-9.0

SOIL PROFILE
GUERNSEY COUNTY
GUE-40-17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

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SUMMARY OF SOIL TEST DATA (Cont'd)
NOTE: NP shown in Liquid Limit and Plasticity Index columns indicate that the material is non-plastic.
*Denotes sample taken at or near grade.

STATION	OFFSET	DEPTH FROM-TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
243+25	CL	0.5-1.5	0	1							A-7-5
		1.5-5.0									A-6a
		5.0-9.0									A-7-6
		9.0-11.0									A-7-6
		11.0-13.0									A-7-6
		13.0-14.0									A-1-b
		14.0-28.0									A-2-4
		28.0-29.0									A-6b
		29.0-36.0									A-1a
		36.0-38.0									A-1a
244+00	100'Rt	0.6-2.0	0	2							A-7-5
		2.0-6.0		1							A-6a
		6.0-11.0		2							A-6b
		11.0-15.0		2							A-7-6
		15.0-22.0	39	16							A-2-4
		22.0-28.0	5	2							A-7-6
		28.0-31.0	0	1							A-1a
245+00	CL	0.5-5.0	0	2							A-1b
		5.0-9.0		1							A-6a
		9.0-11.0		1							A-6a
		11.0-12.0	0	3							A-7-6
		12.0-15.0	21	2							A-1a
		15.0-20.0	35	0							A-1b
245+50	110'Rt	0.6-5.5	0	1							A-6a
		5.5-9.0		1							A-6a
		9.0-12.0		1							A-1a
		12.0-14.0		1							A-1a
		14.0-15.0		1							A-1-b
		15.0-16.0	25	11							A-1a
		16.0-21.0	0	1							A-7-6
		21.0-22.0	0	2							A-1b
246+00	90'Lt	0.5-2.0	0	2							A-7-5
		2.0-5.0	0	1							A-1a
		5.0-9.0	0	1							A-1b
		9.0-11.0	0	1							A-7-6
		11.0-16.0	0	28							A-1a
		16.0-21.0	35	17							A-1-b
		21.0-31.0	35	0							A-1b
247+00	10'Rt	0.5-1.5	0	1							A-7-5
		1.5-4.0	0	2							A-7-6
		4.0-6.0	0	1							A-1b
		6.0-9.0	0	3							A-1a
		9.0-13.0	0	3							A-1a
		13.0-17.0	27	18							A-2-4
		17.0-22.0	35	18							A-2-4
248+00	100'Lt	0.5-1.5	0	0							A-1a
		1.5-4.0	0	1							A-1a
		4.0-6.0	0	1							A-1b
		6.0-9.0	0	1							A-1a
		9.0-13.0	0	3							A-1a
		13.0-17.0	27	18							A-2-4
		17.0-22.0	35	18							A-2-4
248+00	120'Rt	0.5-2.0	0	3							A-7-5
		2.0-4.0	0	1							A-6a
		4.0-11.0	0	1							A-7-6
		11.0-15.0		21							A-1a
		15.0-16.0		18							A-1a
		16.0-21.0		20							A-1-b
		21.0-24.0	0	1							A-7-6
249+00	130'Lt	0.5-1.5	0	1							A-7-5
		1.5-4.0	0	1							A-7-6
		4.0-6.0	0	1							A-1a
		6.0-10.0	0	2							A-6a
		10.0-12.0	0	3							A-6a
		12.0-19.0	38	15							A-2-4
		19.0-23.0	12	31							A-1a
249+25	125'Lt	0.5-2.0	0	1							A-7-5
		2.0-5.0	0	1							A-6a
		5.0-9.0	0	1							A-6a
		9.0-10.0	0	1							A-6a
		10.0-11.0	0	2							A-1a
		11.0-18.0	17	12							A-1a
251+00	200'Lt	0.5-2.0	0	0							A-1-
		2.0-4.5	0	0							A-1b
		4.5-9.0	0	0							A-1a
		9.0-13.0	0	0							A-1a
		13.0-19.0	15	0							A-1a
251+00	100'Rt	0.5-2.5	0	1							A-7-6
		2.5-9.0	0	2							A-1b
		9.0-11.0	0	0							A-1b
		11.0-13.0	0	0							A-1a
		13.0-15.0	23	0							A-1a
		15.0-20.0	38	0							A-1a
		20.0-28.0	33	0							A-1a
		28.0-29.0	22	1							A-1-a
		29.0-31.0	0	1							A-7-6

STATION	OFFSET	DEPTH FROM-TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
251+50	CL	0.5-2.0	0	1							A-7-5
		2.0-5.0	0	1							A-6a
		5.0-9.0	0	1							A-1b
		9.0-13.0	0	1							A-1a
		13.0-15.0	0	1							A-7-6
		15.0-19.0	0	1							A-1-b
		19.0-23.0	0	1							A-2-4
		23.0-27.0	0	11							A-1a
		27.0-31.0	0	12							A-2-4
		31.0-32.0	0	12							A-1-b
253+00	CL	0.5-2.0	0	1							A-7-6
		2.0-5.0	0	1							A-6a
		5.0-9.0	0	1							A-6a
		9.0-11.0	0	1							A-1a
		11.0-15.0	0	11							A-1a
		15.0-17.0	0	16							A-1a
		17.0-20.0	0	21							A-2-4
		20.0-22.0	0	13							A-7-6
		22.0-28.0	0	15							A-2-4
		28.0-32.0	0	15							A-1a
256+00	130'Lt	0.0-3.0	0	1							A-6a
		3.0-7.0	0	1							A-1a
		7.0-11.0	0	1							A-1a
		11.0-15.0	0	1							A-2-4
		15.0-19.0	0	1							A-1-b
		19.0-25.0	0	1							A-1a
256+00	CL	0.0-6.0	0	1							A-1b
		6.0-11.0	0	1							A-6a
		11.0-15.0	0	1							A-1a
		15.0-21.0	0	1							A-1a
		21.0-25.0	0	1							A-1b
256+00	100'Rt	0.0-6.0	0	1							A-1b
		6.0-10.0	0	1							A-1a
		10.0-15.0	0	1							A-1a
		15.0-20.0	0	1							A-1a
		20.0-25.0	0	1							A-6a
258+00	80'Lt	0.0-11.0	0	1							A-7-6
		11.0-7.0	0	1							A-1b
		7.0-11.0	0	1							A-1a
		11.0-15.0	0	1							A-1a
		15.0-20.0	0	2							A-1a
		20.0-25.0	0	2							A-6a
260+00	CL	0.0-6.0	0	1							A-1a
		6.0-10.0	0	1							A-1a
		10.0-15.0	0	2							A-1b
		15.0-20.0	0	2							A-1a
		20.0-25.0	0	2							A-7-6
260+50	150'Lt	0.0-6.0	0	1							A-6a
		6.0-10.0	0	1							A-1b
		10.0-15.0	0	2							A-6a
		15.0-18.0	0	2							A-6a
		18.0-22.0	0	2							A-6b
260+50	180'Rt	0.0-5.5	0	1							A-1b
		5.5-10.0	0	1							A-6a
		10.0-15.0	0	1							A-1a
		15.0-22.0	0	1							A-2-4
		22.0-27.0	0	1							A-1a
262+00	50'Lt	0.0-4.0	0	1							A-1b
		4.0-9.0	0	1							A-1a
		9.0-15.0	0	1							A-1a
		15.0-22.0	0	1							A-1a
		22.0-28.0	0	1							A-1a
264+00	150'Lt	0.0-5.0	0	1							A-6a
		5.0-9.0	0	1							A-1a
		9.0-13.0	0	1							A-6b
		13.0-16.0	0	1							A-1a
		16.0-21.0	0	1							A-1a
		21.0-26.0	0	1							A-6a
264+00	240'Rt	0.0-6.0	0	1							A-7-6
		6.0-11.0	0	1							A-7-6
		11.0-13.0	0	1							A-1a
		13.0-16.0	0	1							A-6a
		16.0-20.0	0	1							A-6a
264+50	50'Rt	0.0-6.0	0	1							A-6a
		6.0-11.0	0	1							A-1b
		11.0-20.0	0	1							A-1a
		20.0-26.0	0	1							A-6b
266+00	CL	0.0-6.0	0	1							A-6a
		6.0-11.0	0	1							A-1-a
		11.0-14.0	0	1							A-6b
		14.0-18.0	0	1							A-1a
		18.0-24.0	0	1							A-1a

STATION	OFFSET	DEPTH FROM-TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
266+00	150'Lt	0.5-5.0	0	1							A-7-6
		5.0-9.0		1							A-6a
		9.0-12.0		1							A-6a
		12.0-17.0		1							A-1a
		17.0-21.0		1							A-1a
		21.0-26.0		1							A-6a
266+00	CL	0.0-3.0	0	1							A-7-6
		3.0-9.0		1							A-6a
		9.0-11.0		1							A-2-4
		11.0-16.0		1							A-6a
		16.0-17.0		1							A-1a
		17.0-23.0		1							A-6a
266+00	130'Rt	0.0-5.0	0	1							A-6a
		5.0-9.0		1							A-6a
		9.0-12.0		1							A-6a
		12.0-15.0		1							A-1a
		15.0-21.0		1							A-1a
		21.0-26.0		1							A-1a
270+00	CL	0.5-5.0	0	1							A-6a
		5.0-9.0		1							A-6a
		9.0-11.0		1							A-1a
		11.0-14.0		1							A-1a
		14.0-16.0		1							A-1-b
		16.0-19.0		1							A-6a
		19.0-24.0		1							A-6a
272+00	120'Lt	0.0-3.0	0	1							A-7-6
		3.0-6.0		1							A-6a
		6.0-9.0		1							A-1a
		9.0-12.0		1							A-6a
		12.0-17.0		1							A-7-6
		17.0-22.0		1							A-6b
272+00	CL	0.5-3.0	0	1							A-6a
		3.0-9.0		1							A-1a
		9.0-13.0		1							A-6a
		13.0-15.0		1							A-6a
		15.0-18.0		Brown Sandy Clayey Silt W/Gravel							Visual
		18.0-23.0		1							A-6a
272+00	190'Rt	0.0-3.0	0	1							A-6a
		3.0-9.0		1							A-1a
		9.0-13.0		1							A-1a
		13.0-16.0		1							A-1a
		16.0-20.0		1							A-7-6
		20.0-26.0		1							A-6b
274+00	CL	0.0-3.0	0	1							A-7-6
		3.0-7.0		1							A-6a
		7.0-10.0		1							A-1a
		10.0-11.0		1							A-1a
		11.0-15.0		1							A-2-4
		15.0-17.0		1							A-6a
@275+00	CL	0.0-3.0	0	1							A-6a
		3.0-9.0		1							A-6a
		9.0-11.0		1							A-2-4
		11.0-15.0		1							A-6a
		15.0-17.0		1							A-1a
		17.0-19.5		1							A-6a
@276+00	100'Lt	0.3-2.0		1							A-6a
		2.0-7.0		1							A-7-6
		7.0-12.0		1							A-6b
		12.0-17.0		1							A-6a
		17.0-20.0		1							A-1a
276+00	CL	0.0-3.0	0	1							A-6a
		3.0-9.0		1							A-6a
		9.0-11.0		1							A-1a
		11.0-13.5		1							A-6a
		13.5-19.0		1							A-1a
276+00	40'Rt	0.5-5.0	0	3							A-6b
		5.0-8.0	0	0							A-1b
		8.0-10.0	0	0							A-1a
		10.0-13.0	0	0							A-1a
		13.0-15.5	0	1							A-6a
276+00	200'Rt	0.0-3.0	0	13							A-2-4
		3.0-7.0	0	1							A-6b
		7.0-9.0	0	1							A-6a
		9.0-13.0	0	1							A-1a
		13.0-19.5	0	1							A-1a
		19.5-21.0	0	1							A-1a
277+00	150'Rt	0.7-5.0	0	1							A-6a
		5.0-9.0	0	1							A-6a
		9.0-10.0	0	1							A-6a
		10.0-12.0	0	1							A-1a
		12.0-17.0	0	1							A-6b
		17.0-20.0	0	1							A-6b
277+00	200'Rt	0.0-4.0	0	1							A-6a
		4.0-9.0	0	1							A-1a
		9.0-11.0	0	1							A-6b
		11.0-13.0	0	1							A-6a
		13.0-16.0	0	1							A-6b
		16.0-20.0	0	1							A-6a

@274+00 75'Rt
274+00 150'Rt
275+00 75'Rt
275+00 150'Rt
— See column one, sheet number 4

STATION	OFFSET	DEPTH FROM-TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
277+00	250'Rt	0.0-2.0	0	1							A-6a
		2.0-6.0		1							A-6a
		6.0-9.0		1							A-6a
		9.0-13.0		1							A-1b
		13.0-18.0		1							A-6a
277+25	CL	0.0-5.0	0	1							A-6a
		5.0-15.0		1							A-6a
		15.0-19.0		1							A-1b
		19.0-24.0		1							A-6a
		24.0-28.0		1							A-1a
		28.0-29.5		1							A-6a
278+00	CL	0.0-5.5	0	1							A-6a
		5.5-9.0		1							A-6b
		9.0-15.0		1							A-1b
		15.0-16.0		1							A-1a
278+00	100'Rt	0.7-5.0	0	1							A-7-6
		5.0-10.0		1							A-1a
		10.0-15.0		1							A-6a
		15.0-16.0		1							A-1a
278+00	150'Rt	0.7-5.0	0	1							A-6a
		5.0-9.0		1							A-6a
		9.0-11.0		1							A-1a
		11.0-16.0		1							A-6a
278+00	200'Rt	0.7-5.0	0	1							A-7-6
		5.0-9.0		1							A-7-6
		9.0-13.0		1							A-7-6
		13.0-15.0		1							A-7-6
		15.0-20.0		1							A-7-6
278+00	250'Rt	0.0-2.0	0	1							A-6a
		2.0-9.0		1							A-6a
		9.0-13.0		1							A-6a
		13.0-15.0		1							A-6a
		15.0-16.0		1							A-6a
278+10	110'Lt	0.7-5.0	0	1							A-6a
		5.0-9.0		1							A-6a
		9.0-11.0		1							A-6a
		11.0-12.0		1							A-6a
279+00	CL	0.5-5.0	0	1							A-7-6
		5.0-9.0		1							A-6b
		9.0-12.0		1							A-6b
279+00	150'Rt	0.7-5.0	0	1							A-6a
		5.0-9.0		1							A-6b
		9.0-12.0		1							A-7-6
		12.0-13.0		1							A-7-6
		13.0-15.0		1							A-6a
		15.0-20.0		1							A-6a
279+00	200'Rt	0.7-5.0	0	1							A-7-
		5.0-9.0		1							A-6a
		9.0-11.0		1							A-6a
		11.0-16.0		1							A-6a
		16.0-20.0		1							A-6b
279+50	100'Rt	0.5-5.0	0	1							A-7-6
		5.0-10.0		1							A-7-6
		10.0-16.0		1							A-1b
		16.0-16.0		1							A-2-4
279+50	200'Rt	0.5-3.0	0	1							A-7-6
		3.0-9.0		1							A-6b
		9.0-11.5		1							A-7-6
		11.5-15.0		1							A-6a
		15.0-16.0		1							A-1b
		16.0-16.0		1							A-1-a
		16.0-16.0		1							A-6a
280+00	150'Lt	0.0-3.0	0	1							A-1a*
		3.0-9.0		1							A-6a*
		9.0-13.5		1							A-6b
		13.5-16.0		1							A-7-6
		16.0-16.0		1							A-7-6
280+00	CL	0.5-3.0	0	1							A-6a
		3.0-4.5		1							A-6a
		4.5-7.0		1							A-6a
		7.0-9.0		1							A-6a
		9.0-11.5		1							A-6a
		11.5-13.5		1							A-1a
		13.5-16.0		Gray Broken Shale							Visual

Continued on next sheet

SOIL PROFILE
GUERNSEY COUNTY
GUE-40-17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS OHIO

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SUMMARY OF SOIL TEST DATA (Cont'd)
NOTE: NP shown in Liquid Limit and Plasticity Index columns indicates that the material is non-plastic.
*Denotes sample taken at or near grade.

STATION	OFFSET	DEPTH FROM-TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SOIL CLASS.
200+00	150'Rt	0.5-2.0	0	1	3	34	62	50	18	34	A-7-5
		2.0-5.0	0	1	3	36	60	51	29	29	A-7-6
		5.0-8.0	0	1	3	40	56	50	34	28	A-7-6
		8.0-9.5	0	0	2	45	53	51	30	27	A-7-6
		9.5-11.0	0	0	4	47	49	39	20	28	A-6b
		11.0-14.0	0	0	5	56	39	34	12	28	A-6a
		14.0-16.0	Gray Silty Sand W/Gravel							13	Visual
		16.0-18.0	8	4	7	39	42	33	14	22	A-6a
200+00	200'Rt	0.5-1.5	0	0	3	35	62	46	16	30	A-7-5
		1.5-3.0	0	1	3	29	67	60	30	34	A-7-5
		3.0-8.0	0	1	5	39	55	40	27	25	A-7-6
		8.0-10.0	0	0	1	43	56	55	27	28	A-7-6
		10.0-13.0	0	0	11	50	39	32	11	27	A-6a
		13.0-15.0	64	5	8	12	11	25	5	20	A-1-b
		15.0-18.0	9	3	8	38	42	32	13	24	A-6a
200+00	250'Rt	0.8-2.0	0	1	4	32	63	54	20	37	A-7-5
		2.0-8.0	0	2	4	32	62	45	22	28	A-7-6
		8.0-12.0	3	0	4	40	53	61	35	30	A-7-6
		12.0-13.0	0	2	15	39	44	34	14	29	A-6a
		13.0-15.0	61	11	10	10	8	23	4	17	A-1-b
		15.0-18.0	7	4	6	45	38	34	15	21	A-6a
201+00	CL	0.5-6.5	0	4	3	36	57	55	30	25	A-7-6
		6.5-8.0	0	0	1	37	62	43	17	21	A-7-6
		8.0-10.0	0	2	2	58	38	34	14	13	A-6a
201+00	50'Rt	0.7-5.0	0	1	5	42	52	42	19	25	A-7-6
		5.0-7.0	0	1	13	49	37	42	25	29	A-7-6
		7.0-10.0	0	0	1	47	52	48	21	34	A-7-6
		10.0-13.0	0	0	1	42	57	41	12	37	A-7-6
		13.0-16.0	21	3	11	39	26	32	13	31	A-6a
		16.0-18.0	4	6	13	38	39	35	14	20	A-6a
201+00	150'Rt	0.7-5.0	0	1	2	54	43	44	23	27	A-7-6
		5.0-7.0	0	1	1	47	51	53	26	25	A-7-6
		7.0-11.0	0	0	13	28	59	30	11	23	A-6a
		11.0-12.0	14	8	27	21	30	27	8	33	A-4a
		12.0-13.0	6	7	21	40	26	31	13	28	A-6a
		13.0-15.0	0	3	4	61	32	37	18	22	A-6b
201+00	200'Rt	0.7-5.0	0	1	3	41	55	47	22	25	A-7-6
		5.0-7.0	0	0	3	42	55	46	19	26	A-7-6
		7.0-10.0	0	1	1	28	70	58	33	27	A-7-6
		10.0-11.0	0	0	5	49	46	43	19	24	A-7-6
		11.0-12.0	0	0	18	44	37	28	11	27	A-6a
		12.0-14.0	33	12	13	26	16	27	9	14	A-4a
		14.0-18.0	0	9	6	30	55	34	14	22	A-6a
201+00	250'Rt	0.7-2.0	0	2	5	24	60	48	16	31	A-7-5
		2.0-7.0	0	2	2	48	48	54	24	28	A-7-5
		7.0-9.0	0	0	1	29	70	54	31	33	A-7-6
		9.0-13.0	0	0	8	28	64	36	11	25	A-6a
		13.0-15.0	76	9	6	- 9 -		NP	NP	17	A-1-a
		15.0-16.0	3	3	2	52	40	34	13	24	A-6a
202+00	150'Rt	0.6-5.0	0	3	6	44	47	42	18	25	A-7-6
		5.0-8.0	0	0	4	48	48	46	21	30	A-7-6
		8.0-10.0	0	1	1	49	49	41	19	29	A-7-6
		10.0-12.0	0	0	2	48	50	45	15	30	A-7-5
		12.0-13.0	0	2	13	46	39	32	11	29	A-6a
		13.0-15.0	Gray Silty Sand W/Gravel							16	Visual
		15.0-17.0	0	3	4	44	49	36	14	20	A-6a
⊛190+00	100'Lt	0.5-1.5	22	3	8	21	46	47	23	24	A-7-6
		1.5-3.0	0	1	2	25	72	61	33	29	A-7-6
		3.0-4.0	17	1	1	24	57	50	20	20	A-7-6
⊛190+00	CL	0.5-2.5	0	1	3	36	60	49	22	30	A-7-6
		2.5-4.5	0	2	3	23	72	50	30	22	A-7-6
		4.5-5.0	0	1	4	40	55	37	13	16	A-6a
⊛274+00	75'Rt	1.0-7.0	0	0	10	53	37	26	12	22	A-6a
		7.0-9.0	0	0	29	41	30	29	7	25	A-4a
		9.0-10.5	0	0	40	29	31	24	6	26	A-4a
		10.5-13.0	0	0	5	36	59	45	22	35	A-7-6
⊛274+00	150'Rt	1.0-7.0	0	0	7	46	47	43	17	24	A-7-6
		7.0-12.5	0	1	29	37	33	26	8	30	A-4a
		12.5-13.0	0	2	11	49	38	34	14	26	A-6a
⊛275+00	75'Rt	1.1-6.0	0	1	5	38	56	45	20	30	A-7-6
		6.0-9.0	0	0	9	46	45	30	15	29	A-6a
		9.0-11.5	0	1	30	35	34	26	6	30	A-4a
		11.5-12.0	0	1	7	47	45	31	11	28	A-6a
		12.0-13.5	10	5	13	34	38	34	11	26	A-6a
⊛275+00	150'Rt	1.1-5.0	0	2	6	42	50	43	15	35	A-7-6
		5.0-9.5	0	1	25	39	35	32	11	29	A-6a
		9.5-11.0	0	0	43	29	28	29	7	39	A-4a
		11.0-13.0	0	5	66	12	17	NP	NP	29	A-3a
		13.0-14.0	21	13	31	17	18	20	17	29	A-2-4
202+00	200'Rt	0.8-4.0	0	2	4	46	48	41	17	25	A-7-6
		4.0-8.0	0	1	6	42	51	51	25	25	A-7-6
		8.0-9.0	0	1	4	45	50	47	25	24	A-7-6
		9.0-11.0	0	1	13	57	29	35	13	29	A-6a
		11.0-13.0	Gray Sandy Clayey Silt W/Stone Fragments							20	Visual
		13.0-17.0	0	4	5	41	50	36	14	23	A-6a
		17.0-20.0	0	5	5	39	51	39	17	24	A-6b
203+00	200'Rt	0.0-3.0	0	0	2	41	57	50	24	20	A-7-6
		3.0-8.0	0	2	6	42	48	49	27	30	A-7-6
		8.0-13.0	0	2	8	45	45	37	15	27	A-6a
		13.0-15.0	50	4	8	21	9	24	3	17	A-2-4
		15.0-20.0	12	4	6	44	34	36	14	25	A-6a
203+50	160'Lt	0.3-3.0	16	13	7	42	22	28	7	12	A-4a *
204+00	50'Rt	0.9-2.0	0	2	3	55	40	37	13	19	A-6a
		2.0-7.0	0	1	3	54	42	32	12	19	A-6a
		7.0-12.0	22	6	5	43	24	31	11	16	A-6a
		12.0-15.0	0	1	1	57	41	34	12	20	A-6a
		15.0-18.0	20	7	7	36	30	30	15	18	A-6a
204+00	175'Rt	0.0-3.0	0	1	7	30	62	64	29	53	A-7-5
		3.0-8.0	0	1	2	46	51	52	27	43	A-7-6
		8.0-12.0	0	9	10	42	39	33	13	23	A-6a
		12.0-14.0	44	9	10	21	16	29	9	18	A-4a
		14.0-18.0	0	[illegible]	4	45	46	41	20	28	A-7-6
		18.0-20.0	0	2	3	48	47	39	18	24	A-6b
*207+00	100'Lt	0.3-2.5	16	15	8	42	19	27	6	10	A-4a
207+65	80'Rt	0.3-2.0	0	0	5	54	35	34	14	19	A-6a
		2.0-3.0	0	2	2	60	36	30	8	29	A-4b
		3.0-5.0	0	1	3	52	44	36	12	21	A-6a
		5.0-7.0	0	2	5	47	46	41	19	23	A-7-6
		7.0-11.0	4	5	10	34	47	38	17	20	A-6b
		11.0-13.0	0	1	2	49	48	37	19	25	A-6b
		13.0-16.0	15	10	12	30	33	33	11	15	A-6a
208+35	320'Rt	0.0-5.0	0	0	11	47	42	38	15	21	A-6a
		5.0-9.0	0	0	2	53	45	42	19	30	A-7-6
		9.0-14.0	0	2	12	51	35	29	10	24	A-4b
		14.0-18.0	0	12	10	37	41	31	11	21	A-6a
208+70	80'Rt	0.2-2.0	0	1	4	57	38	52	15	62	A-7-5
		2.0-5.0	0	1	10	44	45	49	21	30	A-7-6
		5.0-6.0	1	3	12	43	41	34	11	31	A-6a
209+00	CL	0.2-4.0	0	4	6	62	28	64	29	55	A-7-5
		4.0-4.5	50	10	8	14	0	32	5	24	A-1-b
209+50	600'Rt	0.0-5.0	0	1	18	50	31	30	9	23	A-4b
		5.0-8.0	0	5	25	40	30	32	11	29	A-6a
		8.0-13.0	0	1	2	49	48	30	11	24	A-6a
		13.0-18.0	0	2	1	49	48	40	18	23	A-6b
		18.0-20.0	4	3	3	52	38	34	16	25	A-6b
203+50	100'Rt	0.3-5.0	10	14	9	42	25	27	5	9	A-4a
		5.0-9.0	0	7	6	57	30	27	8	20	A-4b
		9.0-12.0	0	2	2	33	63	53	26	31	A-7-6
		12.0-15.0	8	3	2	40	47	37	14	16	A-6a
208+50	30'Lt	0.0-6.0	24	2	15	35	24	28	3	14	A-4a
		6.0-12.0	26	8	14	29	23	30	7	10	A-4a
⊛205+00	100'Rt	0.0-5.0	0	0	2	44	50	44	20	31	A-7-6
		5.0-8.0	1	3	13	45	38	29	11	27	A-6a
		8.0-10.0	0	3	17	41	39	32	14	22	A-6a
⊛205+00	150'Rt	0.5-2.5	0	1	2	41	56	51	24	50	A-7-6
		2.5-4.0	0	0	1	32	67	51	24	30	A-7-6
		4.0-9.0	11	0	1	30	58	50	26	37	A-7-5
		9.0-12.0	0	0	2	37	61	36	14	27	A-6a
⊛202+00	100'Lt	0.0-4.0	64	8	6	10	12	35	9	13	A-2-4
		4.0-10.0	45	9	8	26	12	33	8	8	A-4a
⊛202+00	CL	0.0-7.0	54	3	8	20	15	30	7	9	A-2-4
⊛⊛230+00	100'Lt	0.5-2.0	0	0	3	25	72	59	23	45	A-7-5
		2.0-7.0	0	0	1	19	80	75	35	43	A-7-5
		7.0-10.0	0	0	3	33	64	53	27	35	A-7-6
⊛⊛230+00	CL	0.5-2.0	0	0	3	31	66	56	19	13	A-7-5
		2.0-7.0	0	0	1	15	84	72	38	43	A-7-5
		7.0-10.0	0	1	3	31	65	54	18	36	A-7-5
⊛⊛230+00	100'Rt	0.5-2.0	0	0	2	38	60	49	16	36	A-7-5
		2.0-7.0	0	0	1	22	77	61	32	36	A-7-6
		7.0-10.0	0	0	2	32	66	60	31	36	A-7-6
302+50	CL	0.4-3.0	4	5	5	47	39	36	12	7	A-6a
		3.0-9.0	0	0	3	35	59	51	26	21	A-7-6
		9.0-12.0	0	1	2	47	50	34	11	19	A-6a
304+60	150'Lt	0.4-4.0	0	6	6	55	33	27	4	23	A-4b
		4.0-8.0	11	2	5	44	38	27	17	23	A-6b
		8.0-12.0	0	1	11	51	37	31	11	23	A-6a
305+00	110'Rt	0.3-2.0	38	5	7	26	24	30	13	18	A-6a
		2.0-5.0	2	5	11	45	37	40	20	24	A-6b
		5.0-7.5	0	0	0	46	54	51	27	25	A-7-6
		7.5-11.0	37	2	7	29	18	30	11	17	A-6a
		11.0-15.0	0	2	4	53	41	29	11	19	A-6a
306+65	CL	0.3-6.0	0	1	8	47	44	35	12	20	A-6a
		6.0-11.0	0	2	17	41	40	33	11	26	A-6a
		11.0-15.0	8	7	9	44	32	31	12	19	A-6a
309+00	100'Lt	0.3-5.0	33	8	10	19	30	38	13	23	A-6a
		5.0-10.0	27	13	10	25	25	33	13	20	A-6a
310+00	200'Rt	0.3-2.0	0	2	5	39	54	41	15	24	A-7-6
		2.0-7.0	0	2	23	38	37	33	13	21	A-6a
		7.0-9.5	29	12	18	26	15	30	10	19	A-4a
		9.5-12.0	57	10	10	13	10	30	11	20	A-2-6
		12.0-15.0	23	8	6	33	30	28	11	17	A-6a
312+75	CL	0.2-3.0	0	1	31	41	27	29	12	31	A-6a
		3.0-6.0	0	9	2	53	36	28	5	22	A-4b
		6.0-11.0	42	12	13	18	15	27	9	22	A-2-4
		11.0-15.0	41	9	11	23	16	27	9	15	A-4a
313+50	200'Rt	0.2-3.0	15	9	5	40	31	33	11	16	A-6a *
		3.0-5.0	38	5	4	29	24	35	11	22	A-6a
		5.0-7.0	1	7	5	48	39	37	14	27	A-6a
		7.0-10.5	0	1	4	46	49	38	13	23	A-6a
		10.5-14.0	18	5	14	31	32	35	12	22	A-6a
		14.0-15.0	0	1	2	46	51	40	15	22	A-6a
314+20	CL	0.2-4.0	0	7	10	35	40	40	15	23	A-6a
		4.0-6.0	37	11	8	26	18	37	14	24	A-6a
		6.0-9.5	0	1	4	51	44	35	10	6	A-4b
		9.5-14.5	31	1	4	36	28	29	11	14	A-6a
315+25	100'Lt	0.3-2.0	0	1	5	53	41	39	15	20	A-6a
		2.0-5.0	0	1	11	56	32	35	12	25	A-6a
		5.0-8.0	2	33	52	1	12	35	12	27	A-2-6
		8.0-12.0	59	11	10	11	9	28	5	18	A-1-b
		12.0-15.0	28	4	3	35	30	35	12	20	A-6a
318+00	110'Lt	0.3-2.0	0	1	15	49	35	35	14	19	A-6a
		2.0-4.0	0	1	31	42	26	29	8	24	A-4a
		4.0-6.0	7	10	28	34	21	27	4	25	A-4a
		6.0-11.0	16	3	4	22	55	48	24	23	A-7-6
		11.0-12.0	0	2	4	30	64	49	25	24	A-7-6
		12.0-15.0	20	2	7	26	45	39	16	22	A-6b
318+00	CL	0.0-2.0	65	14	8	8	5	25	3	19	A-1-a
		2.0-3.0	4	10	2	34	50	43	20	29	A-7-6
		3.0-7.0	22	2	2	33	41	36	11	22	A-6a
320+60	CL	0.0-2.0	33	12	8	27	20			32	A-6a *
321+00	CL	0.3-2.0	0	0	7	51	42	37	12	18	A-6a
		2.0-5.0	0	1	25	38	36	32	13	21	A-6a
		5.0-6.5	0	4	5	41	50	54	24	32	A-7-6
		6.5-11.0	0	1	1	38	60	48	23	23	A-7-6
		11.0-14.0	0	2	8	32	58	40	18	21	A-6b
		14.0-15.0	28	5	12	15	40	29	11	10	A-6a
324+00		0.0-1.0	41	6	6	28	19	34	14	10	A-6a *
325+00	CL	0.4-2.0	0	2	32	40	26	27	5	19	A-4a
		2.0-4.0	0	1	30	33	36	30	8	29	A-4a
		4.0-7.0	0	0	2	34	64	47	19	31	A-7-6
		7.0-10.0	43	2	2	29	24	33	11	10	A-6a
		10.0-15.0	59	0	0	17	24	30	12	16	A-6a
328+50	CL	0.3-1.5	0	1	36	35	28	26	5	16	A-4a
		1.5-4.0	0	2	25	38	35	27	6	25	A-4a
		4.0-6.0	22	7	26	25	20	25	4	21	A-4a
		6.0-13.0	35	3	4	39	19	26	11	14	A-6a
		13.0-15.0	31	11	16	20	22	26	6	17	A-4a
328+50	100'Rt	0.3-4.5	23	7	3	37	30	31	11	16	A-6a *
		4.5-10.0	48	0	3	23	18	33	12	16	A-6a
		10.0-11.5	30	5	5	29	31	35	14	18	A-6a
		11.5-15.0	1	5	4	52	38	36	13	22	A-6a
332+00	100'Lt	0.3-1.5	0	0	7	55	38	32	9	19	A-4b
		1.5-5.0	0	2	20	38	40	30	11	19	A-6a
		5.0-8.0	40	9	13	22	16	30	10	18	A-4a
		8.0-14.0	58	5	9	18	10	25	6	20	A-2-4
		14.0-16.0	52	11	11	14	12	24	7	11	A-2-4
332+00	200'Rt	0.6-2.0	1	4	8	45	42	35	11	21	A-6a
		2.0-4.0	0	1	22	35	42	32	15	19	A-6a
		4.0-6.0	20	7	7	34	32	28	11	17	A-6a
		6.0-7.5	16	4	6	42	32	30	12	16	A-6a
		7.5-10.0	0	1	1	61	37	27	8	26	A-4b
		10.0-15.0	0	0	1	29	70	41	13	26	A-7-6
336+00	83'Rt	0.5-4.0	0	1	13	45	41	38	14	17	A-6a
		4.0-6.0	0	2	27	31	40	37	16	22	A-6b
		6.0-11.0	32	16	15	20	17	25	7	18	A-4a
		11.0-16.0	54	12	10	14	10	22	10	21	A-2-4
336+00	200'Rt	0.6-4.5	0	6	9	44	41	65	44	18	A-7-6
		4.5-10.0	15	10	7	34	34	35	14	16	A-6a
		10.0-15.0	18	15	8	32	27	31	13	21	A-6a
340+00	200'Rt	0.4-2.0	0	4	12	32	52	37	17	18	A-6b
		2.0-4.0	18	12	20	18	32	37	18	23	A-6b
		4.0-10.0	41	15	12	16	16	24	7	13	A-2-4
		10.0-15.0	42	13	15	18	12	22	5	11	A-2-4
340+10	10'Lt	0.3-3.0	0	1	26	39	34	32	12	21	A-6a
		3.0-8.0	31	16	21	14	18	26	4	10	A-2-4
		8.0-9.5	30	15	20	15	20	26	5	22	A-2-4
		9.5-15.0	33	7	14	22	24	30	12	20	A-6a
343+00	85'Lt	0.5-1.5	0	2	6	38	54	49	16	30	A-7-5
		1.5-5.0	0	4	3	41	52	38	21	23	A-6b
		5.0-9.0	0	1	16	52	31	28	7	23	A-4b
		9.0-13.0	0	0	3	53	44	42	18	28	A-7-6
		13.0-15.0	0	1	14	46	39	35	12	32	A-6a
		15.0-19.0	55	14	8	15	8	NP	NP	13	A-1-b
		19.0-23.0	14	9	23	30	24	21	6	17	A-4a
		23.0-29.0	0	1	1	41	57	33	12	27	A-6a
		29.0-32.0	22	15	30	16	17	NP	NP	20	A-2-4
		32.0-36.0	32	19	18	19	12	NP	NP	13	A-2-4
344+00	CL	0.3-4.0	0	2	19	45	34	31	11	18	A-6a
		4.0-10.0	42	10	14	17	17	34	15	23	A-2-6
		10.0-14.5	0	1	7	44	48	34	15	22	A-6a
		14.5-16.0	38	16	14	24	18	29	9	15	A-4a
344+00	200'Rt	0.3-4.5	0	1	12	49	38	37	14	24	A-6a
		4.5-7.0	33	12	19	16	20	31	13	19	A-6a
		7.0-11.0	44	15	12	17	12	20	5	16	A-2-4
		11.0-15.0	32	17	12	23	16	25	3	14	A-4a
346+00	32'Lt	0.3-6.0	0	2	5	48	45	44	22	18	A-7-6
		6.0-12.0	12	12	12	35	29	36	13	15	A-6a
		12.0-15.0	8	8	11	46	27	29	11	13	A-6a
348+00	200'Rt	0.3-3.0	0	1	10	52	37	37	13	19	A-6a
		3.0-9.0	16	8	19	28	29	34	13	22	A-6a
		9.0-12.0	41	14	13	19	13	26	6	13	A-2-4
		12.0-15.0	25	11	18	21	25	27	8	18	A-4a
352+00	CL	0.3-3.0	0	3	7	41	49	38	13	19	A-6a
		3.0-10.0	42	8	11	17	22	39	18	20	A-6b
		10.0-15.0	0	1	7	48	44	37	18	24	A-6b
352+00	200'Rt	0.4-4.0	0	1	16	42	41	37	12	10	A-6a
		4.0-8.0	37	14	15	20	14	28	7	11	A-2-4
		8.0-12.0	41	12	10	21	16	28	6	14	A-4a
		12.0-15.0	0	2	17	44	37	38	15	31	A-6a
357+00	110'Lt	0.3-4.0	0	1	19	36	44	60	20	47	A-7-5
		4.0-6.0	20	12	14	37	17	25	13	26	A-6a
		6.0-15.0	0	1	1	37	61	49	19	22	A-7-5
357+00	170'Rt	0.4-4.0	18	15	24	23	20	29	8	14	A-4a
		4.0-9.0	17	14	12	33	24	36	14	21	A-6a
		9.0-12.0	25	21	15	24	15	29	8	22	A-4a
		12.0-16.0	17	14	19	30	20	28	10	15	A-4a
360+00	CL	0.4-4.0	0	1	19	48	32	56	33	24	A-7-6
		4.0-7.0	21	13	18	29	19	32	10	24	A-4a
		7.0-10.0	48	14	10	18	10	26	4	17	A-2-4
		10.0-13.0	14	10	14	30	32	33	11	20	A-6a
		13.0-15.0	15	4	4	35	42	36	13	17	A-6a

SOIL PROFILE
GUERNSEY COUNTY
GUE-40-17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

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SUMMARY OF SOIL TEST DATA (Cont'd)
NOTE: NP shown in Liquid Limit and Plasticity Index columns indicates that the material is non-plastic.
*Denotes sample taken at or near grade

STATION	& OFFSET	DEPTH (Inches)	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% U.C.	SOIL CLASS.
			TAILLIFE								
320+60	CL	0.0-2.0	33	12	8	27	20	-	-	16	A-6a
321+00	CL	0.0-1.0	41	6	6	22	19	24	4	20	A-6a
321+00	100'Rt	0.0-2.0	0	6	14	28	49	47	15	22	A-7-5
321+00	CL	0.5-3.0	0	0	11	45	44	35	13	25	A-6a
		3.0-4.5	Brownish Gray Clayey Silty Sand With Stone Fragments							20	Visual
321+00	200'Rt	0.5-2.0	0	1	6	49	44	34	13	18	A-7-6*
		2.0-4.0	0	2	6	51	41	36	14	21	A-7-6*
321+00	CL	0.5-2.5	36	0	21	34	29	28	10	17	A-6a
		2.5-4.5	36	0	21	34	29	28	10	17	A-6a
321+00	200'Rt	0.5-2.0	11	10	15	15	19	13	2	12	A-2-4
322+00	CL	0.5-2.5	0	1	4	49	46	31	11	19	A-6a
		2.5-5.5	0	0	1	45	54	34	11	20	A-6a
		5.5-8.0	0	0	1	42	57	31	11	19	A-6a
322+00	100'Rt	0.5-3.0	11	8	16	33	32	32	11	18	A-6a
322+00	200'Rt	0.5-3.0	16	0	10	25	30	32	11	18	A-6a*
323+00	CL	0.0-2.5	0	1	4	45	50	30	10	20	A-6a*
		2.5-5.5	0	0	1	45	54	34	13	22	A-6a
323+00	50'Rt	0.0-2.0	0	0	3	34	63	45	15	25	A-7-6
		2.0-4.0	0	0	3	34	63	45	15	25	A-7-6
323+00	220'Rt	0.0-2.0	0	0	3	33	64	45	15	25	A-7-6
		2.0-4.0	0	0	3	33	64	45	15	25	A-7-6*
323+00	CL	0.0-2.5	0	0	3	42	55	35	13	22	A-6a*
		2.5-4.5	0	0	3	42	55	35	13	22	A-6a
323+00	100'Rt	0.0-2.0	0	0	3	35	62	43	15	23	A-6a
323+00	200'Rt	0.0-2.0	0	0	3	43	54	35	13	22	A-6a
324+50	200'Lt	0.0-3.0	0	0	6	46	48	34	11	21	A-6a*
		3.0-5.0	Brown Broken Sandstone								Visual
325+00	300'Rt	0.5-2.0	36	0	8	36	20	26	6	13	A-7-6
		2.0-4.0	36	0	8	36	20	26	6	13	A-7-6
325+00	320'Rt	0.5-3.0	17	0	10	33	40	29	10	20	A-6a
326+00	100'Lt	0.0-2.0	0	0	1	40	59	37	13	23	A-7-6
		2.0-5.5	0	0	1	40	59	37	13	23	A-7-6
		5.5-8.0	0	0	1	40	59	37	13	23	A-7-6
326+00	CL	0.0-2.5	18	0	3	35	44	30	10	19	A-6a
		2.5-4.5	18	0	3	35	44	30	10	19	A-6a

STATION	& OFFSET	DEPTH (Inches)	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% U.C.	SOIL CLASS.
			TAILLIFE (Cont'd)								
326+00	160'Rt	0.5-2.0	0	0	15	61	24	19	3	18	A-4b
		2.0-3.0	0	0	15	61	24	19	3	17	A-4a
327+00	200'Rt	0.5-1.5	0	5	15	29	51	36	15	21	A-6a
		1.5-2.0	Brown Broken Shale							9	Visual
329+00	CL	0.5-1.5	11	2	10	40	37	32	12	20	A-6a*
		1.5-3.0	0	0	7	43	50	34	11	20	A-6a*
329+50	170'Lt	0.0-5.0	0	0	8	38	54	7	4	9	A-2-4
		5.0-7.0	0	0	8	38	54	7	4	9	A-6a
		7.0-10.0	0	0	8	38	54	7	4	9	A-6a
		10.0-12.0	0	0	8	38	54	7	4	9	A-6a
		12.0-15.0	0	0	8	38	54	7	4	9	A-6a
		15.0-16.5	0	0	8	38	54	7	4	9	A-6a
		16.5-18.0	0	0	8	38	54	7	4	9	A-6a
		18.0-20.0	0	0	8	38	54	7	4	9	A-6a
		20.0-22.0	0	0	8	38	54	7	4	9	A-6a
330+00	CL	0.5-1.5	11	2	10	40	37	32	12	20	A-6a*
		1.5-3.0	0	0	7	43	50	34	11	20	A-7-6*
		3.0-4.5	Gray Broken Shale								Visual
330+00	100'Rt	0.0-2.0	0	0	1	40	59	37	13	23	A-7-6
		2.0-4.0	0	0	1	40	59	37	13	23	A-7-6
330+00	200'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	300'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	400'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	500'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	600'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	700'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	800'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	900'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	1000'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	1100'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	1200'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	1300'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	1400'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	1500'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	1600'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	1700'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	1800'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	1900'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	2000'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	2100'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	2200'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	2300'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	2400'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	2500'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	2600'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	2700'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	2800'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	2900'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	3000'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	3100'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	3200'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	3300'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	3400'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	3500'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	3600'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	3700'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	3800'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	3900'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	4000'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	4100'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	4200'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	4300'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	4400'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	4500'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	4600'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	4700'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	4800'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	4900'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	5000'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	5100'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	5200'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	5300'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	5400'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	5500'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	5600'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	5700'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	5800'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	5900'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	6000'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	6100'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	6200'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	6300'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	6400'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	6500'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	6600'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	6700'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	6800'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	6900'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	7000'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	7100'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	7200'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	7300'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	7400'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	7500'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	7600'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	7700'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	7800'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	7900'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	8000'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	8100'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	8200'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	8300'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	8400'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	8500'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	8600'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	8700'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	8800'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	8900'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	9000'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	9100'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	9200'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	9300'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	9400'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	9500'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	9600'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	9700'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	9800'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	9900'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	10000'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	10100'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	10200'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	10300'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	10400'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	10500'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	10600'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	10700'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	10800'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	10900'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	11000'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	11100'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	11200'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	11300'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	11400'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	11500'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	11600'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	11700'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	11800'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	11900'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	12000'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	12100'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	12200'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	12300'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	12400'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	12500'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	12600'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	12700'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	12800'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	12900'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	13000'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	13100'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	13200'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	13300'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	13400'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	13500'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	13600'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	13700'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	13800'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	13900'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	14000'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	14100'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	14200'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	14300'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	14400'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	14500'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	14600'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	14700'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	14800'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	14900'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	15000'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	15100'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	15200'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	15300'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	15400'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	15500'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	15600'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	15700'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	15800'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	15900'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	16000'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	16100'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	16200'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	16300'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	16400'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	16500'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	16600'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	16700'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	16800'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	16900'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	17000'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	17100'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	17200'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	17300'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	17400'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	17500'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	17600'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	17700'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	17800'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	17900'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	18000'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	18100'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	18200'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	18300'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	18400'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	18500'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	18600'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	18700'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	18800'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	18900'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	19000'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	19100'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	19200'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	19300'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	19400'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	19500'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	19600'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	19700'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	19800'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	19900'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A-6a
330+00	20000'Rt	0.5-2.0	0	0	3	43	54	35	13	22	A

SOIL PROFILE

GUERNSEY COUNTY

GUE - 40 - 17.37

OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

6
84

Co. Rd. 13

Existing USR 40

Existing Co. Rd. 70

Existing Westbound USR 40

Existing Eastbound USR 40

℄ Proposed USR 40

Spring approx. elev. 931.0'

Dug well

Station Equation — Sta. 657 + 59.78 Back = Sta. 87 + 82.74 Ahead

Max. 50' emb.

Max. 30' emb.

Max. 20' cut

Max. 90' cut

Max. 30' cut

Max. 40' emb.

Max. 8' emb.

Weeds

Woods

Pasture

Lawn

Weeds & Scrub brush

638 640 645 650 655 657 88 90 95 700

Note: Existing pavement has settled between stations 95 + 50 and 97 + 00.

CROSS SECTION INDEX	
Station	Sheet
650+00	27
651+00	27
653+00	28
90+00	29
97+75	29
100+00	30

℄ Sod=0.2 — 19 / 18 — Refusal

18' L.t. — 20 / 15 / 15 — Refusal

75' Rt. Sod=0.3' — 12 — Refusal

STATION EQUATION — Sta 657+59.78 Back = Sta 87+82.74 Ahead

40' Lt. Sod=0.3 — 29 / 22 / 19 — Refusal

30' Rt. — 18 / 11 — Refusal

B — 18 / 12 — Refusal

60' Lt. Sod=0.3 — 13 / 29 / 14 — Refusal

40' Rt. — 18 / 20 / 20

140' Lt. Sod=0.2 — B / B — Refusal

970 960 950 940 930 920 910

638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 88 89 90 91 92 93 94 95 96 97 98 99 100

SOIL PROFILE

GUERNSEY COUNTY

GUE - 40 - 17.37

OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

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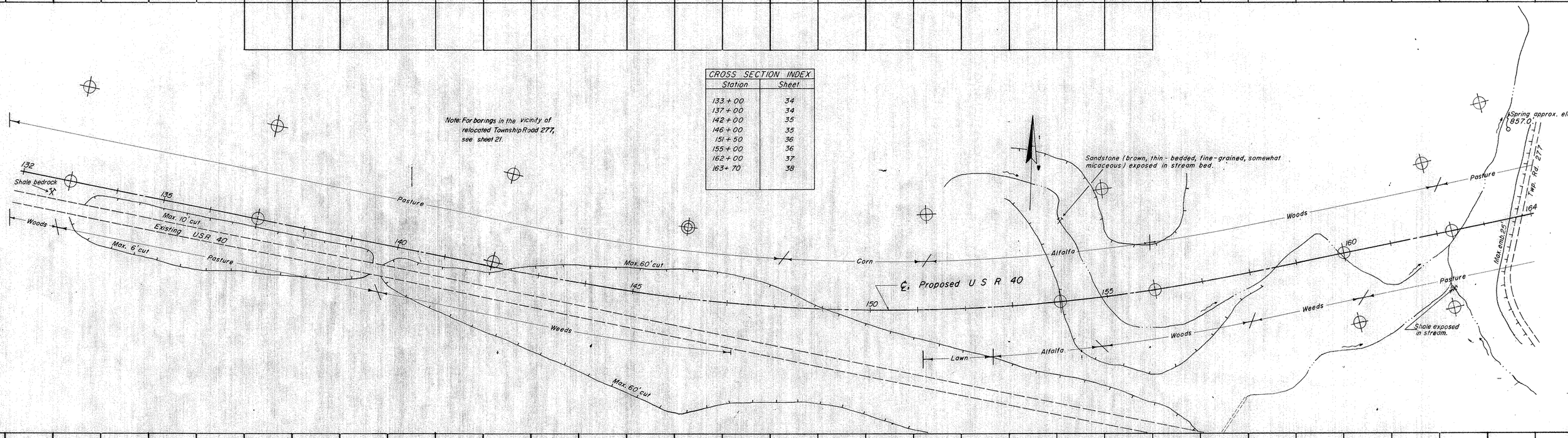
84

CROSS SECTION INDEX	
Station	Sheet
133 + 00	34
137 + 00	34
142 + 00	35
146 + 00	35
151 + 50	36
155 + 00	36
162 + 00	37
163 + 70	38

Note: For borings in the vicinity of relocated Township Road 277, see sheet 21.



SOIL PROFILE

GUERNSEY COUNTY

GUE - 40 - 17.37

OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

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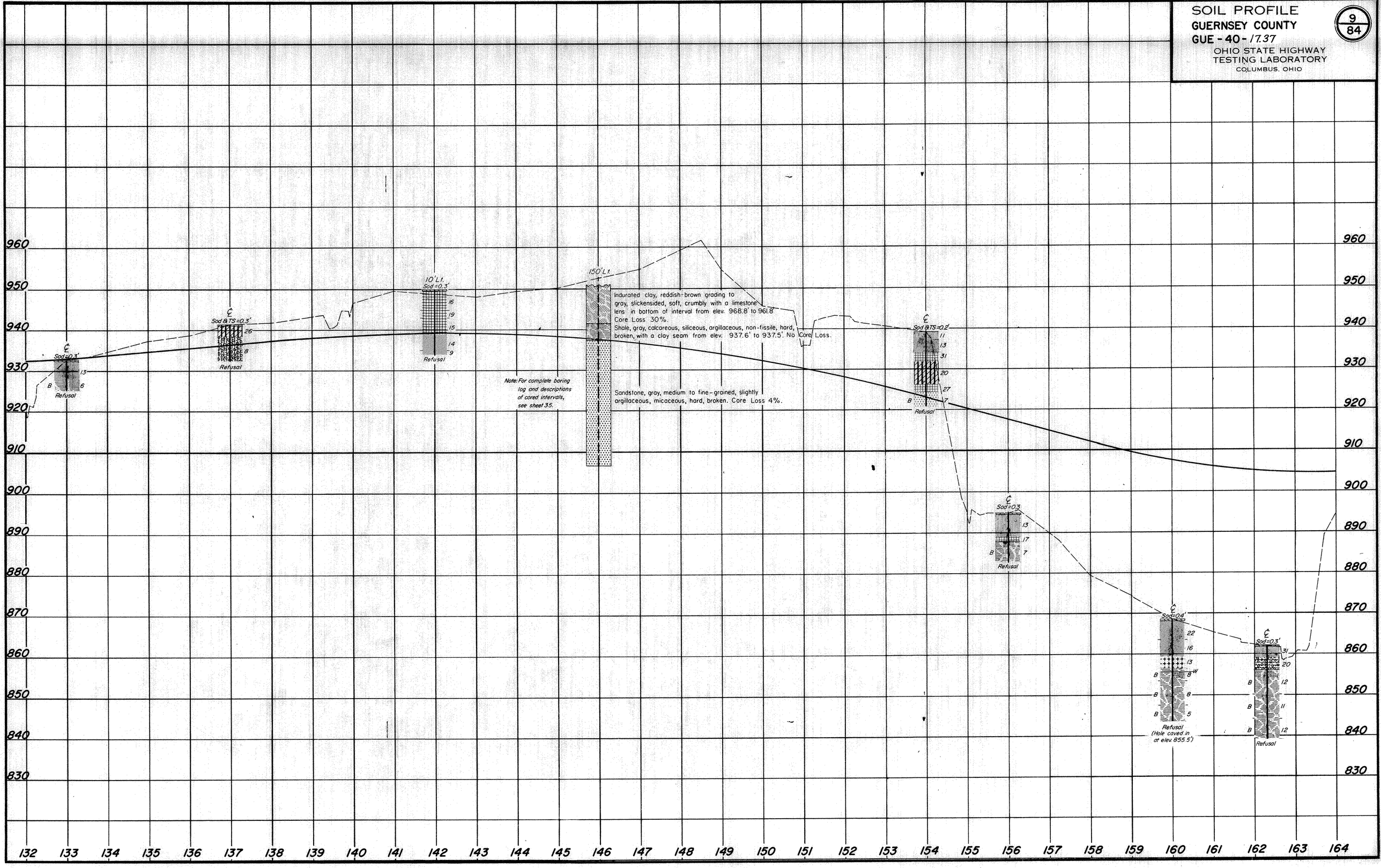
84



SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37

OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

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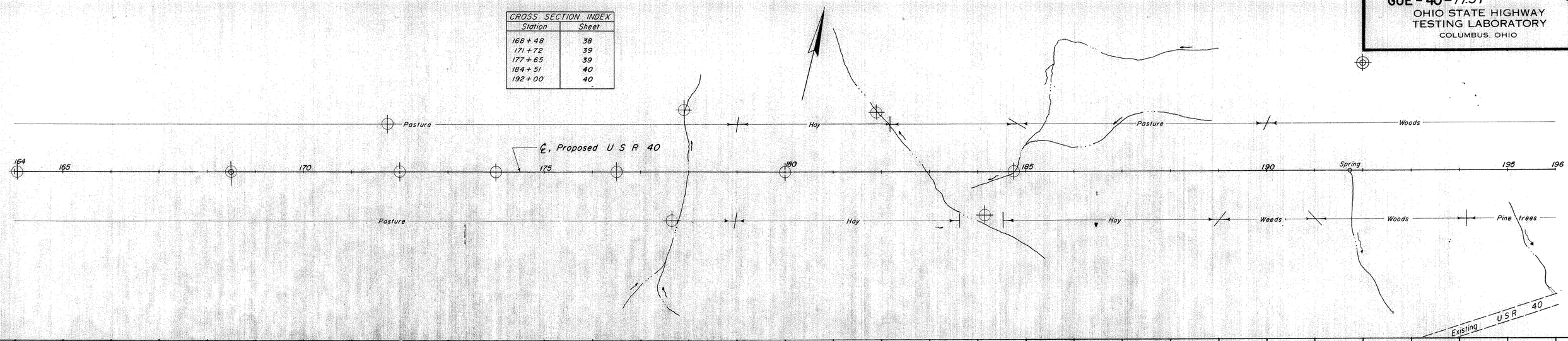
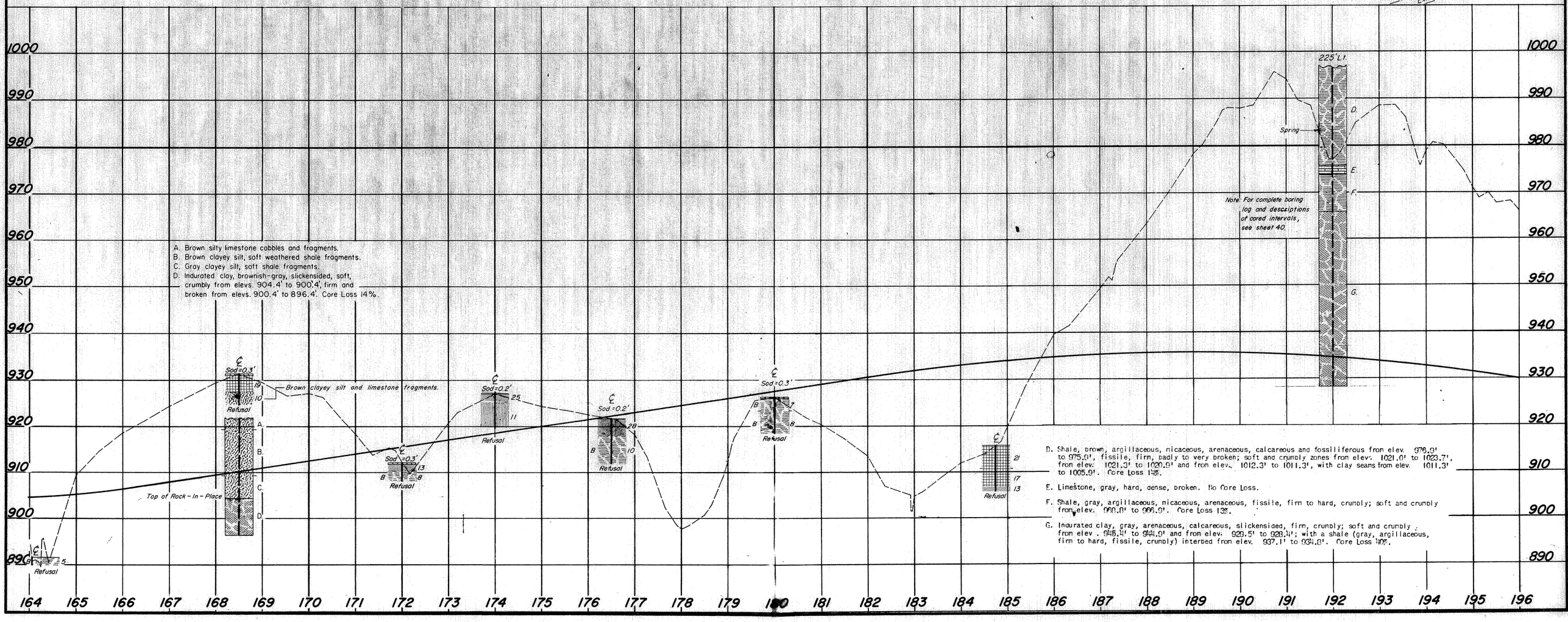
84

CROSS SECTION INDEX	
Station	Sheet
168 + 48	38
171 + 72	39
177 + 65	39
184 + 51	40
192 + 00	40





SOIL PROFILE
GUERNSEY COUNTY
GUE-40-1737

OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

7
84

Sta. 128+55, ℄, Proposed USR 40
Sta. 50+67, ℄, Proposed Twp. Rd. 185

Shale bedrock exposed at approx. elev. 875.0'

Note: For complete planview and profile of Twp. Rd. 185, see sheet 20.

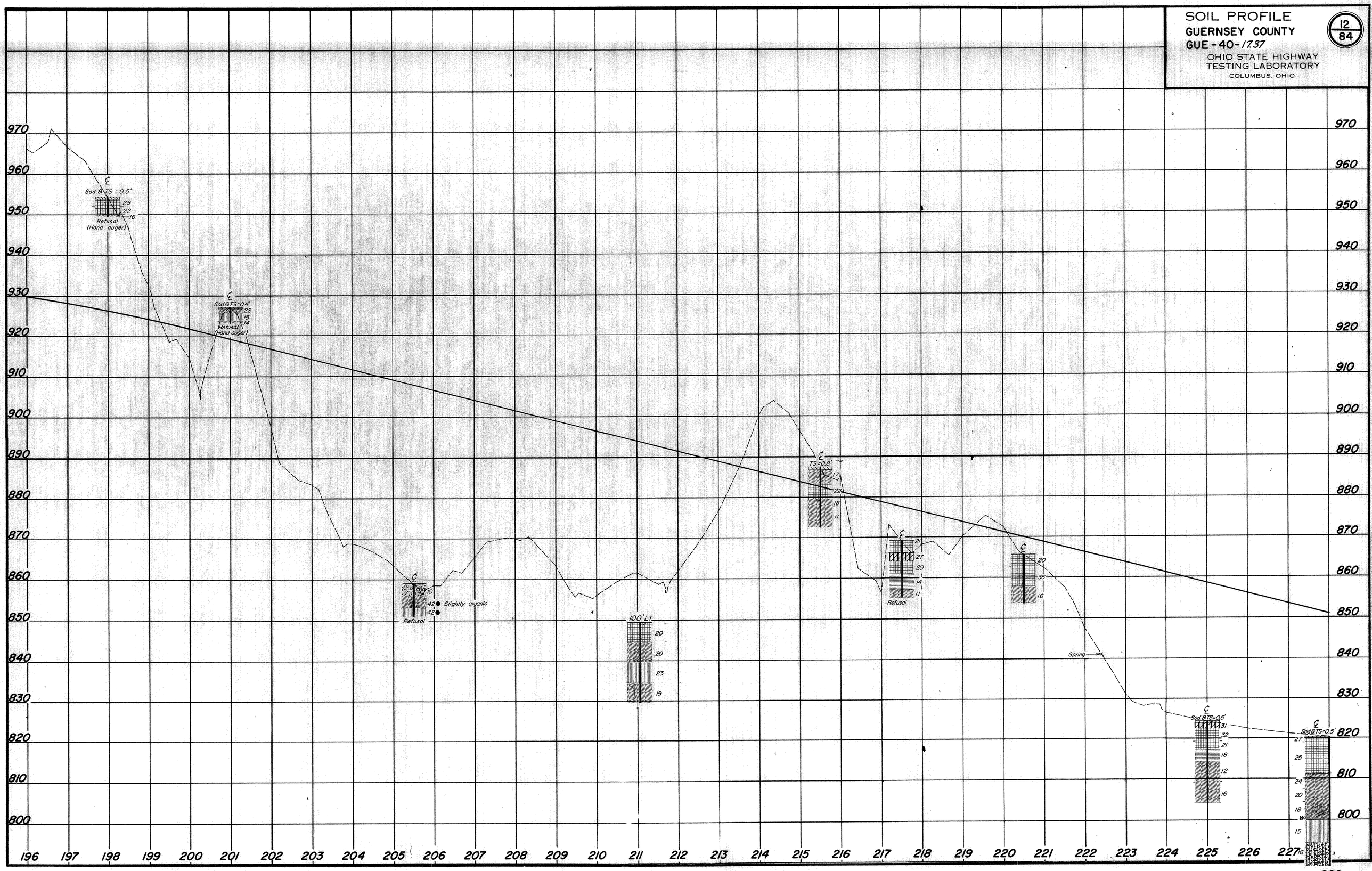
Note: For borings in the vicinity of relocated Township Road 277, see sheet 21.

Note: Existing pavement has settled between stations 102+00 and 103+00, 113+75 and 115+50, and 129+50 to 132+50.

CROSS SECTION INDEX	
Station	Sheet
102+00	30
104+00	31
106+28	31
115+50	32
120+00	32
126+00	33
130+50	33

960 950 940 930 920 910 900

100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132


SOIL PROFILE
GUERNSEY COUNTY
GUE-40-17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO
12
84
Sod & TS = 0.5'
Refusal
(Hand auger)
Sod & TS = 0.4'
Refusal
(Hand auger)
TS = 0.8'
Refusal
Slightly organic
Refusal
100' Lt.
Spring
Sod & TS = 0.5'
Sod & TS = 0.5'
970
960
950
940
930
920
910
900
890
880
870
860
850
840
830
820
810
800
196
197
198
199
200
201
202
203
204
205
206
207
208
209
210
211
212
213
214
215
216
217
218
219
220
221
222
223
224
225
226
227

SOIL PROFILE
GUERNSEY COUNTY
GUE-40-17.37

OHIO STATE HIGHWAY TESTING LABORATORY
COLUMBUS, OHIO

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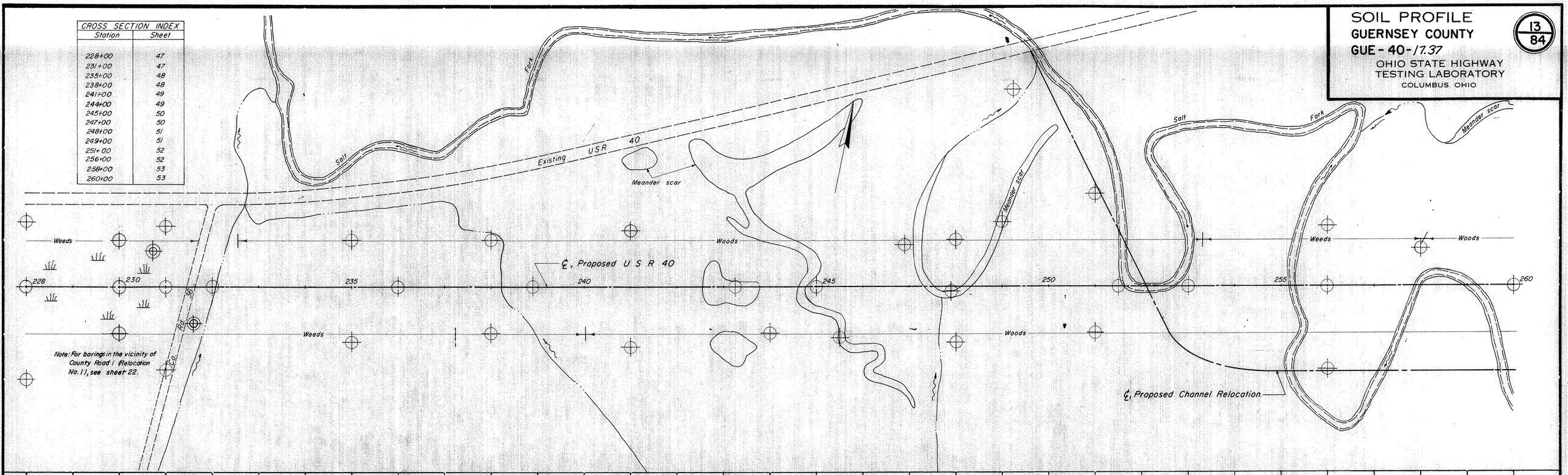
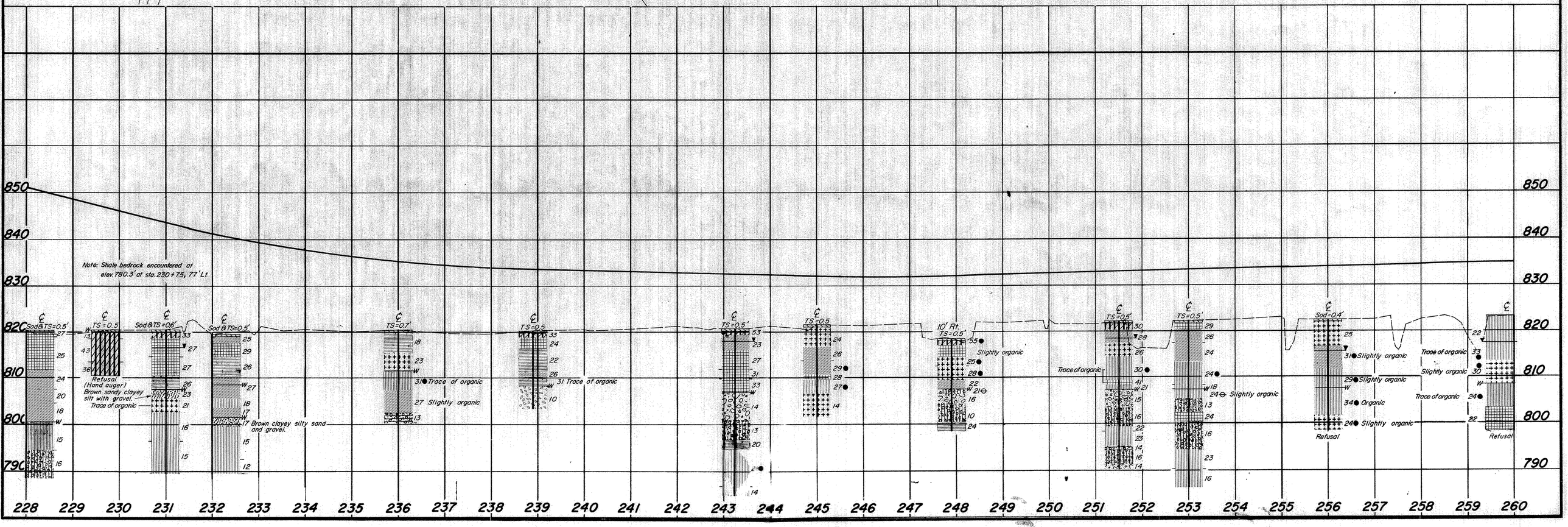
CROSS SECTION INDEX	
Station	Sheet
228+00	47
231+00	47
235+00	48
238+00	48
241+00	49
244+00	49
245+00	50
247+00	50
248+00	51
249+00	51
251+00	52
256+00	52
258+00	53
260+00	53

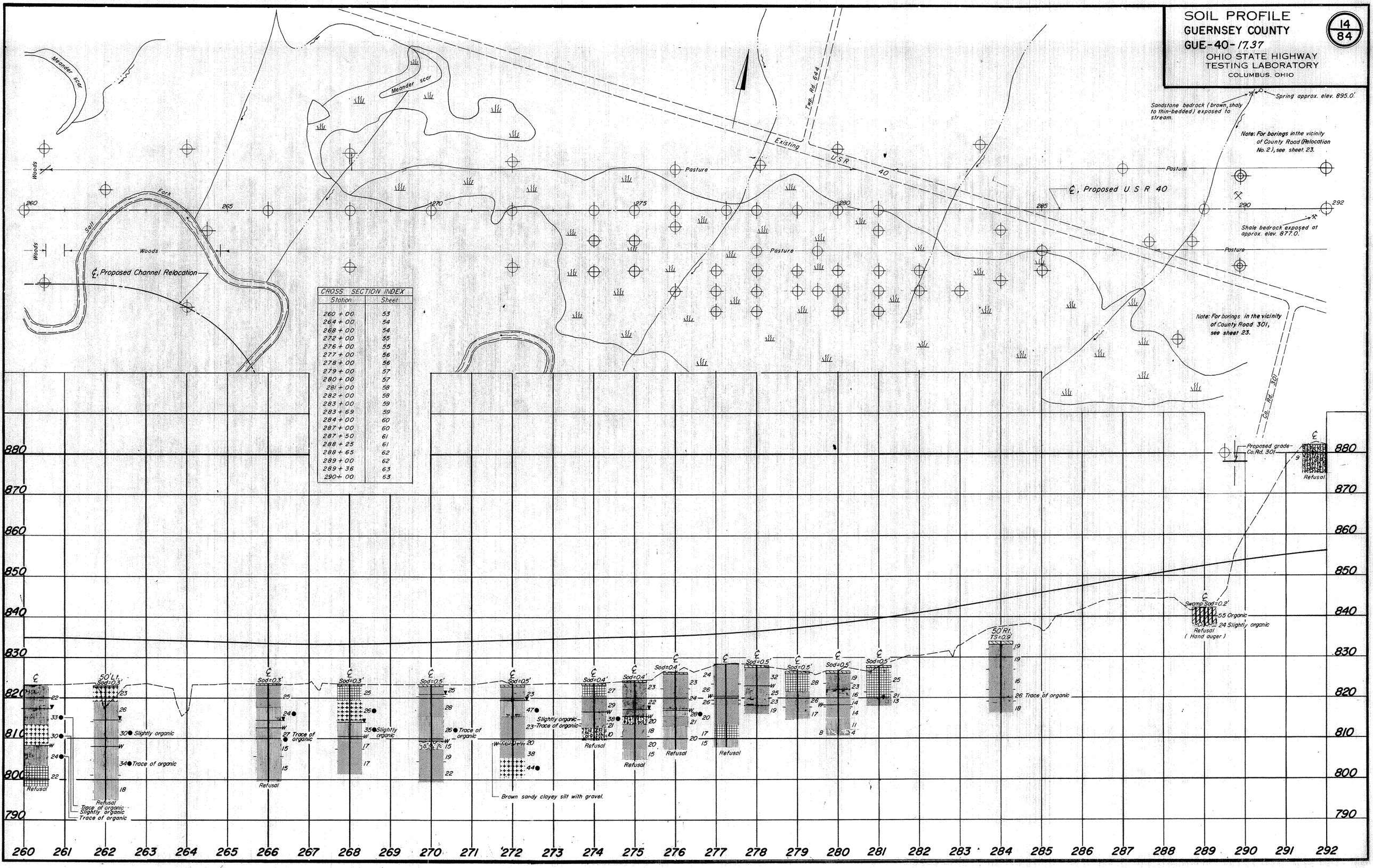




SOIL PROFILE
GUERNSEY COUNTY
GUE-40-17.37

OHIO STATE HIGHWAY TESTING LABORATORY
COLUMBUS, OHIO

14/84



CROSS SECTION INDEX	
Station	Sheet
260 + 00	53
264 + 00	54
268 + 00	54
272 + 00	55
276 + 00	55
277 + 00	56
278 + 00	56
279 + 00	57
280 + 00	57
281 + 00	58
282 + 00	58
283 + 00	59
283 + 69	59
284 + 00	60
287 + 00	60
287 + 50	61
288 + 25	61
288 + 65	62
289 + 00	62
289 + 36	63
290 + 00	63

SOIL PROFILE
GUERNSEY COUNTY
GUE-40-17.37

OHIO STATE HIGHWAY TESTING LABORATORY
COLUMBUS, OHIO

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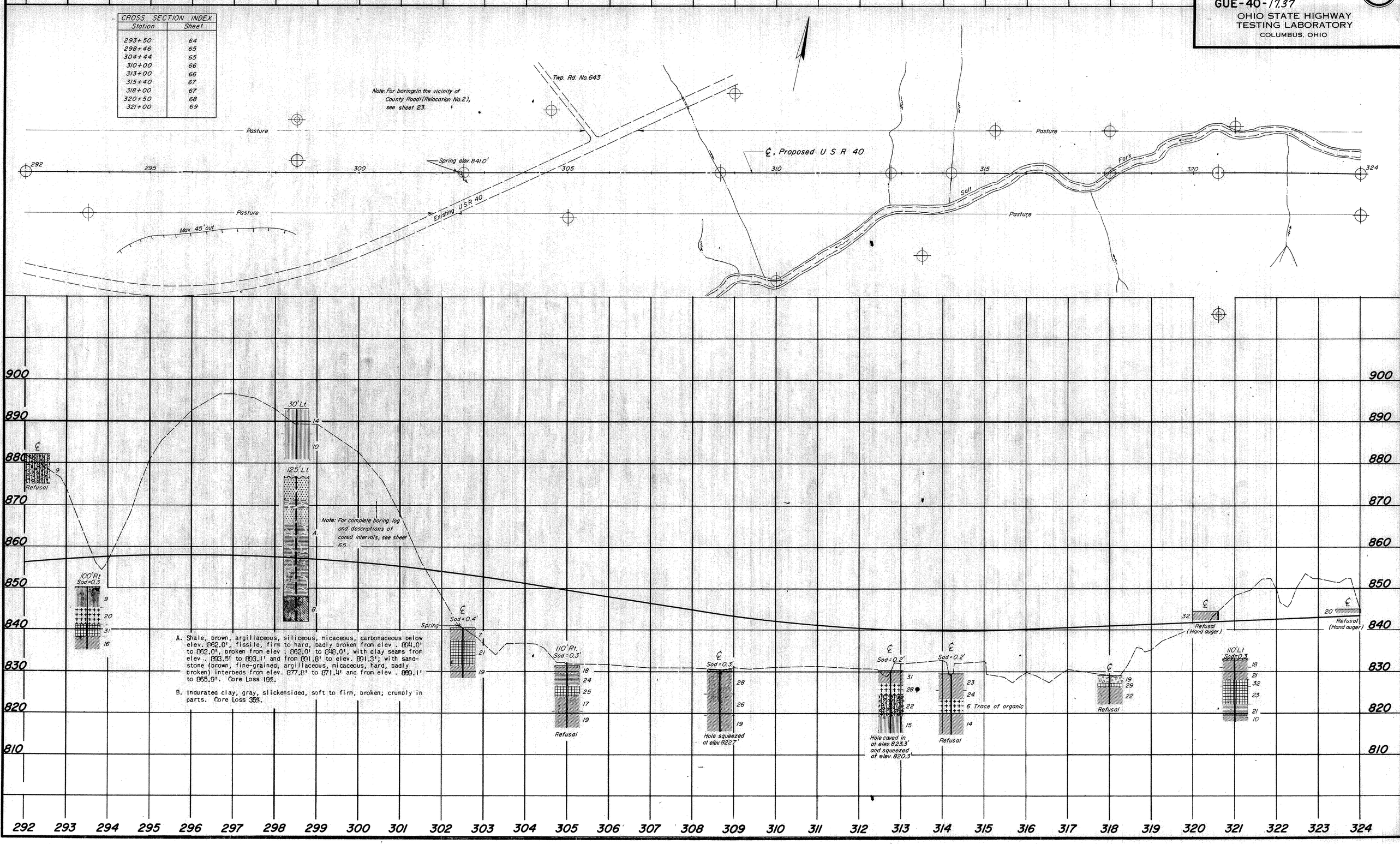
CROSS SECTION INDEX	
Station	Sheet
293+50	64
298+46	65
304+44	65
310+00	66
313+00	66
315+40	67
318+00	67
320+50	68
321+00	69



A. Shale, brown, argillaceous, siliceous, micaceous, carbonaceous below elev. 862.0', fissile, firm to hard, badly broken from elev. 894.0' to 862.0', broken from elev. 862.0' to 848.0', with clay seams from elev. 893.5' to 893.1' and from 891.8' to elev. 891.3'; with sandstone (brown, fine-grained, argillaceous, micaceous, hard, badly broken) interbeds from elev. 877.8' to 871.4' and from elev. 869.1' to 865.9'. Core Loss 19%.

B. Indurated clay, gray, slickensided, soft to firm, broken; crumbly in parts. Core Loss 35%.

SOIL PROFILE
GUERNSEY COUNTY
GUE-40-17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

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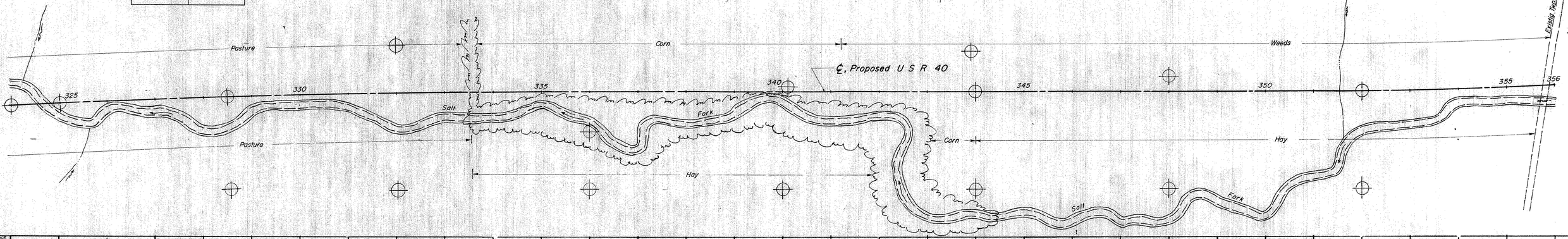
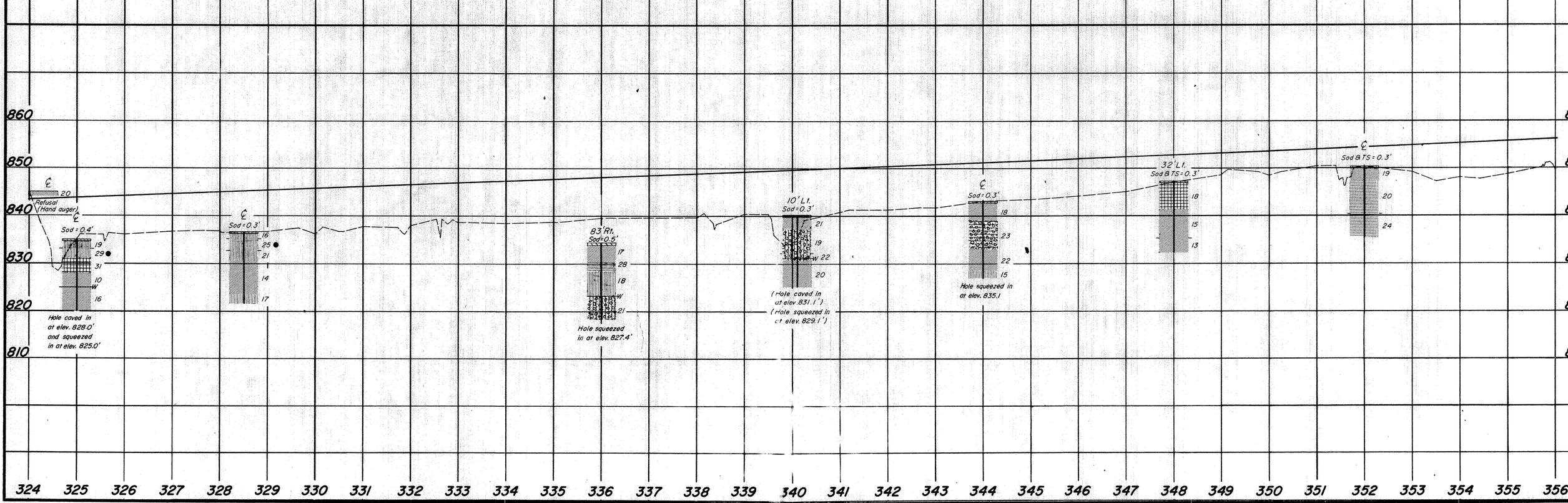
84

CROSS SECTION INDEX	
Station	Sheet
328+50	69
332+00	70
336+00	70
340+00	71
344+00	71
348+00	72
352+00	72





SOIL PROFILE

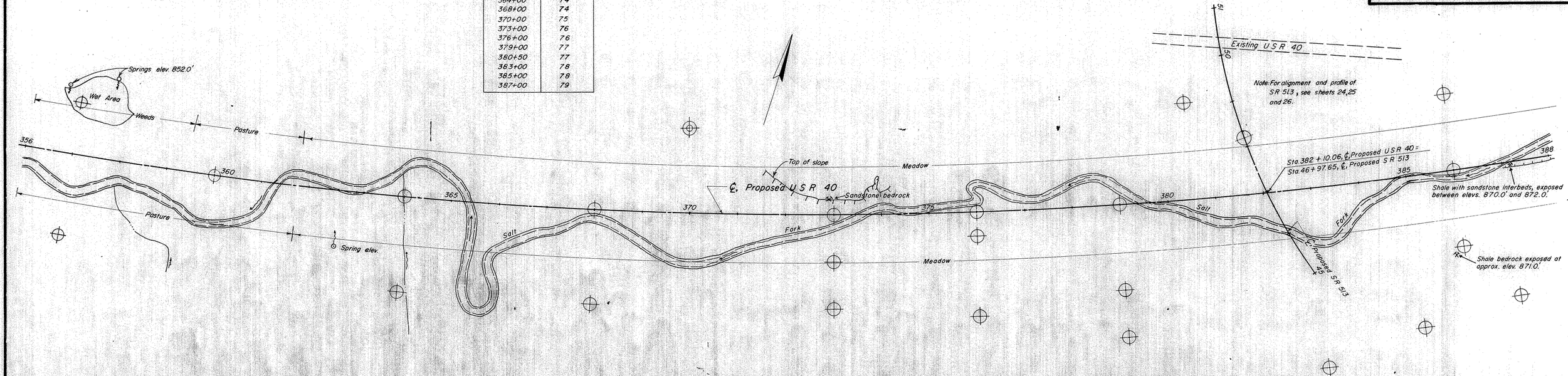
GUERNSEY COUNTY

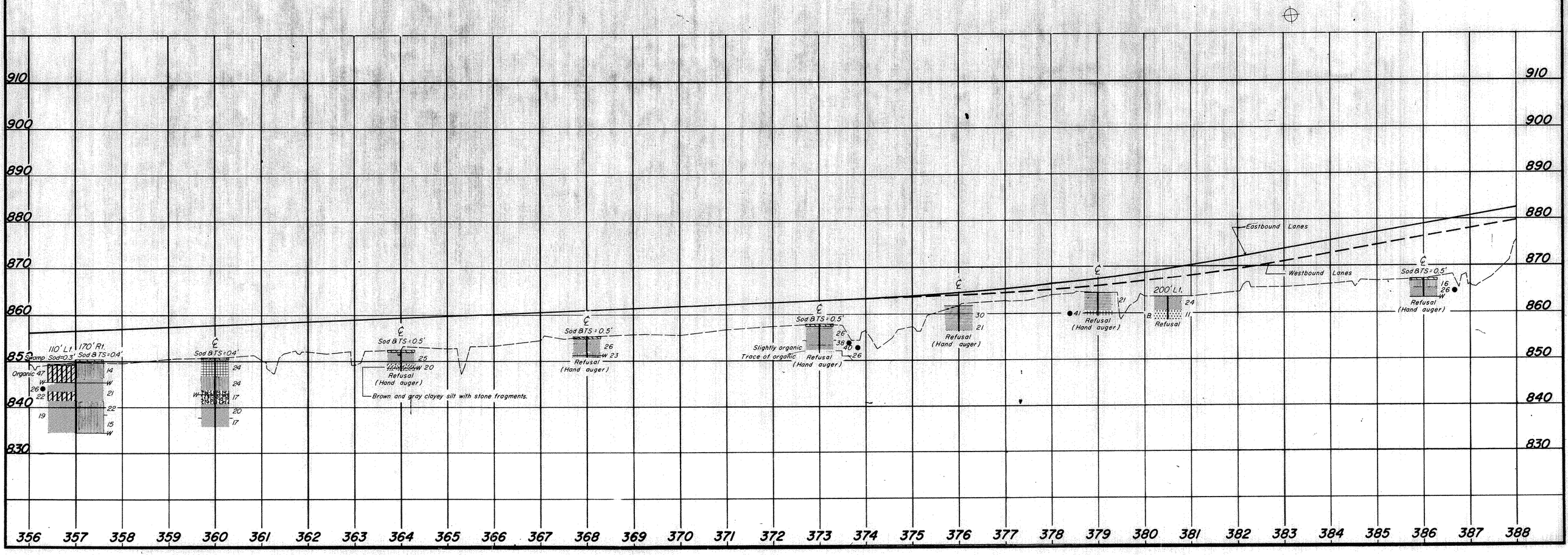
GUE - 40 - 17.37

OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

17
84

CROSS SECTION INDEX	
Station	Sheet
357+00	73
364+00	74
368+00	74
370+00	75
373+00	76
376+00	76
379+00	77
380+50	77
383+00	78
385+00	78
387+00	79

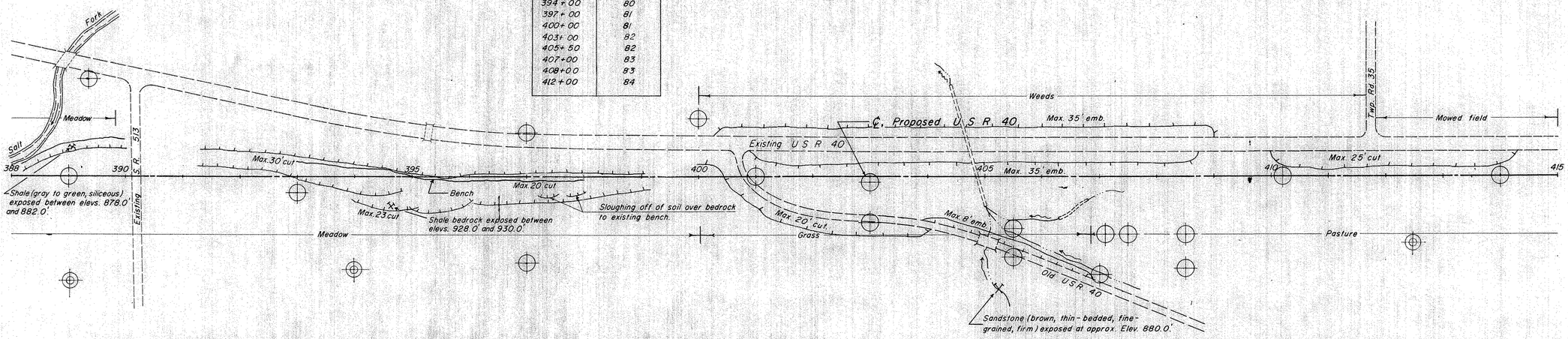




SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

18
84

CROSS SECTION INDEX	
Station	Sheet
389 + 00	79
394 + 00	80
397 + 00	81
400 + 00	81
403 + 00	82
405 + 50	82
407 + 00	83
408 + 00	83
412 + 00	84



SOIL PROFILE

GUERNSEY COUNTY

GUE-40-17.37

OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

19
84

970
960
950
940
930
920
910
900
890
880
870

℄ Sod & TS =0.4'
32
25
21
Refusal
(Hand auger)

℄ Sod & TS =0.4'
19
Refusal
(Hand auger)

28' Rt.
Sod =0.4'
23
18
19
11
11
Refusal

Eastbound Lanes

Westbound Lanes

℄ Sod & TS =0.5'
24
15
13
12
Refusal

100' Rt.
TS=1.0'
Refusal

10' Rt.
Sod & TS =0.4
13
20
17
9.8
Refusal

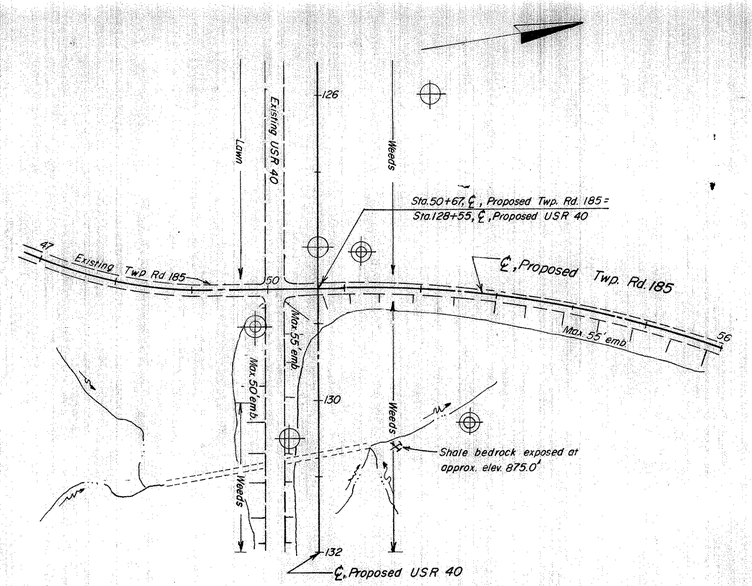
75' Lt.
8
6
Refusal

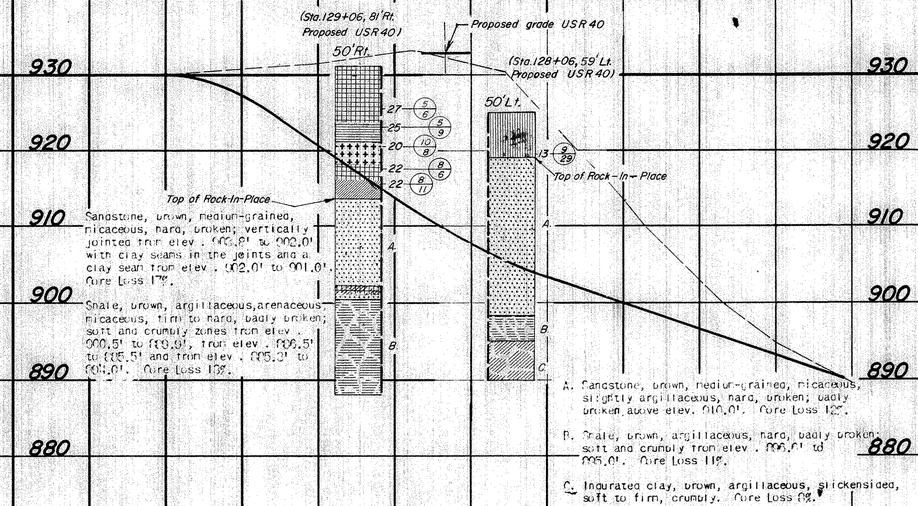
℄ Sod & TS =0.5'
27
23
Refusal
(Hand auger)

388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415

SOIL PROFILE
GUERNSEY COUNTY
GUE-40-17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

20
84





TOWNSHIP ROAD 185

46 47 48 49 50 51 52 53 54 55 56

SOIL PROFILE
GUERNSEY COUNTY
GUE-40-17.37

OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

21
84

990
980
970
960
950
940
930
920
910
900
890
880
870
860
850
840
830

(Sta. 146+00, 150' Lt.
Proposed USR 40)

A
Top of Rock-In-Place
B
C
D
E

Note: For descriptions of cored intervals
see cross section sta. 146+00
sheet 35.

(Sta. 142+00, 200' Lt.
Proposed USR 40)
Sod=0.2'
21
18
14
B 12
B 12
10
Refusal

(Sta. 151+25, 200' Lt.
Proposed USR 40)
13
26
15

(Sta. 155+20, 225' Lt.
Proposed USR 40)
Sod & TS =0.4'
B 8
B 7
B 14
Refusal

(Sta. 137+00, 200' Lt.
Proposed USR 40)
Sod=0.2'
15
B 13
Refusal

(Sta. 133+00, 200' Lt.
Proposed USR 40)
Sod=0.3'
B 7
B 7
Refusal

(Sta. 130+30, 200' Lt.
Proposed USR 40)
7/9
21
A
B.
C.
D.
E.
Top of Rock-In-Place

Note: For descriptions of cored intervals
see cross section sta. 130+50
sheet 33.

(Sta. 162+00, 150' Lt.
Proposed USR 40)
Sod=0.4'
29
24
17
W
18
B 10
Refusal
(Hole caved in
at elev. 852.0')

(Sta. 163+50, 250' Lt.
Proposed USR 40)
Sod=0.3'
29
27
18
15
Refusal
(Hole squeezed
in at elev. 849.7')

Logs of Borings

RELOCATED TOWNSHIP ROAD 277

Note: Boring plotted to vertical
scale only.

SOIL PROFILE
GUERNSEY COUNTY
GUE-40- 17.37
OHIO STATE HIGHWAY
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COLUMBUS, OHIO

22
84

940
930
920
910
900
890
880
870
860
850
840
830
820
810
800
790

(Sta. 197+50, 240' Rt.
Proposed USR 40)
B 6
Refusal

(Sta. 202+50, 175' Rt.
Proposed U.S.R 40)
14
22
40
W
20
23
Slightly organic
Refusal

(Sta. 205+75, 300' Rt.
Proposed U.S.R 40)
15 50/—
Note: For descriptions of cored intervals
see cross section sta. 205+62
sheet 42.

(Sta. 208+35, 175' Rt.
Proposed U.S.R 40)
B 5
Refusal
(Hand auger)

(Sta. 212+10, 205' Rt.
Proposed U.S.R 40)
31
12
7
Refusal

(Sta. 215+50, 300' Rt.
Proposed U.S.R 40)
A 6/9
41/50
B Top of Rock-In-Place
C
D
E
Note: For descriptions of cored intervals
see cross section sta. 215+60
sheet 44.

(Sta. 221+00, 162' Rt.
Proposed U.S.R 40)
B 11
B 5
Refusal

(Sta. 225+00, 220' Rt.
Proposed U.S.R 40)
Sod & TS = 1.5'
27
19
21
18
Hole squeezed
in at elev. 823.0'

(Sta. 228+00, 200' Rt.
Proposed U.S.R 40)
Sod & TS = 0.5'
21
22
17
19
W
20

(Sta. 231+00, 180' Rt.
Proposed U.S.R 40)
Sod & TS = 0.5'
25
34
25
45
34 Trace of organic
16
17

Logs of Borings

COUNTY ROAD 1 (Relocation No. 1)

Note: Borings plotted to vertical
scale only.

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OHIO STATE HIGHWAY
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23
84

900
890
880
870
860
850
840
830
820
810
800
790
780

(Sta. 298+50, 125' Lt.
Proposed USR 40)

21 — (15/21)
Top of Rock-In-Place

A

Note: For descriptions of cored intervals
see cross section sta. 298+46
sheet 65

B

(Sta. 283+50, 160' Lt.
Proposed USR 40)
Sod = 0.3'
12
Refusal
(Hand auger)

(Sta. 280+00, 150' Lt.
Proposed USR 40)
10
22
20
26
15
Refusal

(Sta. 304+60, 150' Lt.
Proposed USR 40)
Sod = 0.4'
22
22
22

(Sta. 309+00, 190' Lt.
Proposed USR 40)
Sod = 0.3'
23
20

Logs of Borings

COUNTY ROAD 1 (Relocation No. 2)

Note: Borings plotted to vertical
scale only.

(Sta. 289+50, 600' Rt.
Proposed USR 40)
23
29
24
23
25

(Sta. 288+35, 320' Rt.
Proposed USR 40)
21
30
24
21
Trace of organic

(Sta. 289+87, 140' Rt.
Proposed USR 40)
22 — (9/13)
21 — (13/18)
45 — (9/11) Slightly organic
24 — (13/17)
26 — (9/12) Slightly organic
21 — (16/32)
Top of Rock-In-Place
A

Note: For description of cored interval
see cross section sta. 289+36,
sheet 63

(Sta. 289+91, 81' Lt.
Proposed USR 40)
Top of Rock-In-Place

Note: For descriptions of
cored intervals, see
cross section sta.
290+00,
sheet 63

(Sta. 289+85, 32' Lt.
Proposed USR 40)
Rock Section
32' Lt.
Sandstone, brown, medium to thin-bedded,
fine-grained, firm.

Logs of Borings

COUNTY ROAD 301

Note: Borings plotted to vertical
scale only.

SOIL PROFILE

GUERNSEY COUNTY

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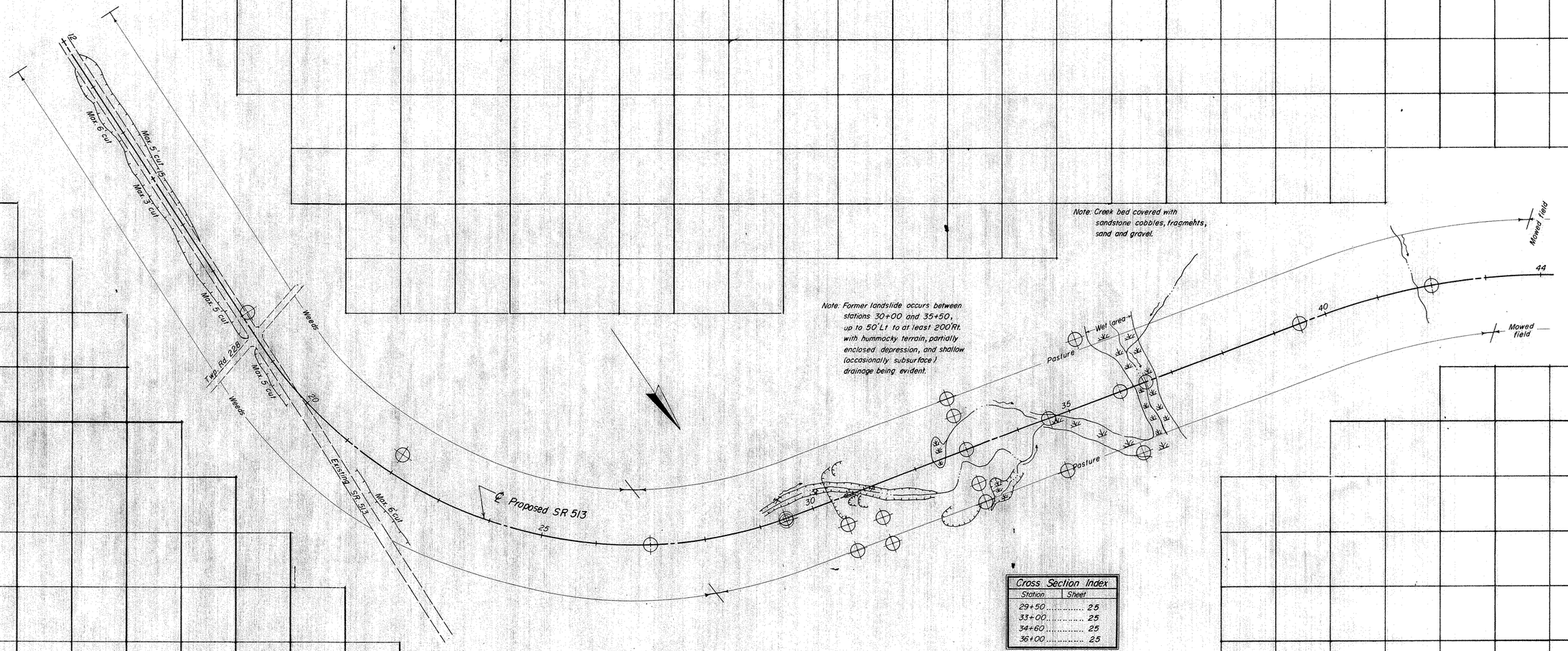
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

24
84



Note: Former landslide occurs between stations 30+00 and 35+50, up to 50' Lt to at least 200' Rt. with hummocky terrain, partially enclosed depression, and shallow (occasionally subsurface) drainage being evident.

Note: Creek bed covered with sandstone cobbles, fragments, sand and gravel.

Cross Section Index	
Station	Sheet
29+50	25
33+00	25
34+60	25
36+00	25

SR 513

SOIL PROFILE

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25
84

A. Brown sandy clay.

B. Shale, brown, argillaceous, arenaceous, micaceous, fissile, firm, broken. No Core Loss.

C. Sandstone, brown, medium-grained, micaceous, slightly argillaceous, hard, broken to badly broken. Core Loss 13%.

D. Shale, brown, argillaceous, arenaceous, micaceous, fissile, hard, badly broken; with sandstone (light-gray, fine-grained, micaceous, hard) lenses from elev. 1009.1 to 1008.3' and from elev. 1007.5' to 1006.5'. Core Loss 20%.

E. Indurated clay, red grading to brown, argillaceous, calcareous, slickensided, soft, crumbly to elev. 1000.5; firm and crumbly below elev. 1000.5. Core Loss 2%.

F. Shale, gray, argillaceous, pyritiferous, hard, broken. No Core Loss.

40' Lt.
12' Lt.
Refusal
Top of Rock-in-Place
Proposed grade
Approximate ground line
Refusal (Hand auger)
Cross Section Sta 36+00
Cross Section Sta. 34+60
Cross Section Sta. 33+00
Cross Section Sta. 29+50
Rock Section ℄ to 13 Rt.
50 Rt.
100 Rt.
60 Rt.
110 Rt.
Clay shale, red and brown, thin-bedded, weak, very badly broken.
Residium, brown clayey silt and sandstone fragments.
Sandstone, brown, fine-grained, thin-bedded, broken, medium firm
Rock Soil Section
For description of cored intervals, see profile of this sheet
TS = 0.5'

SR 513

SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37

OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

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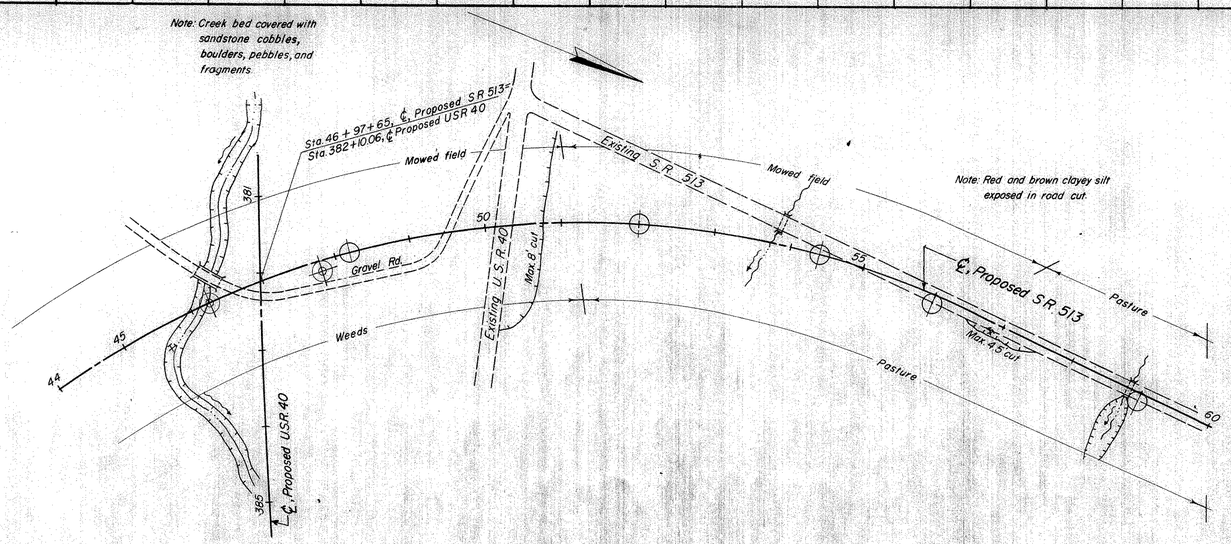
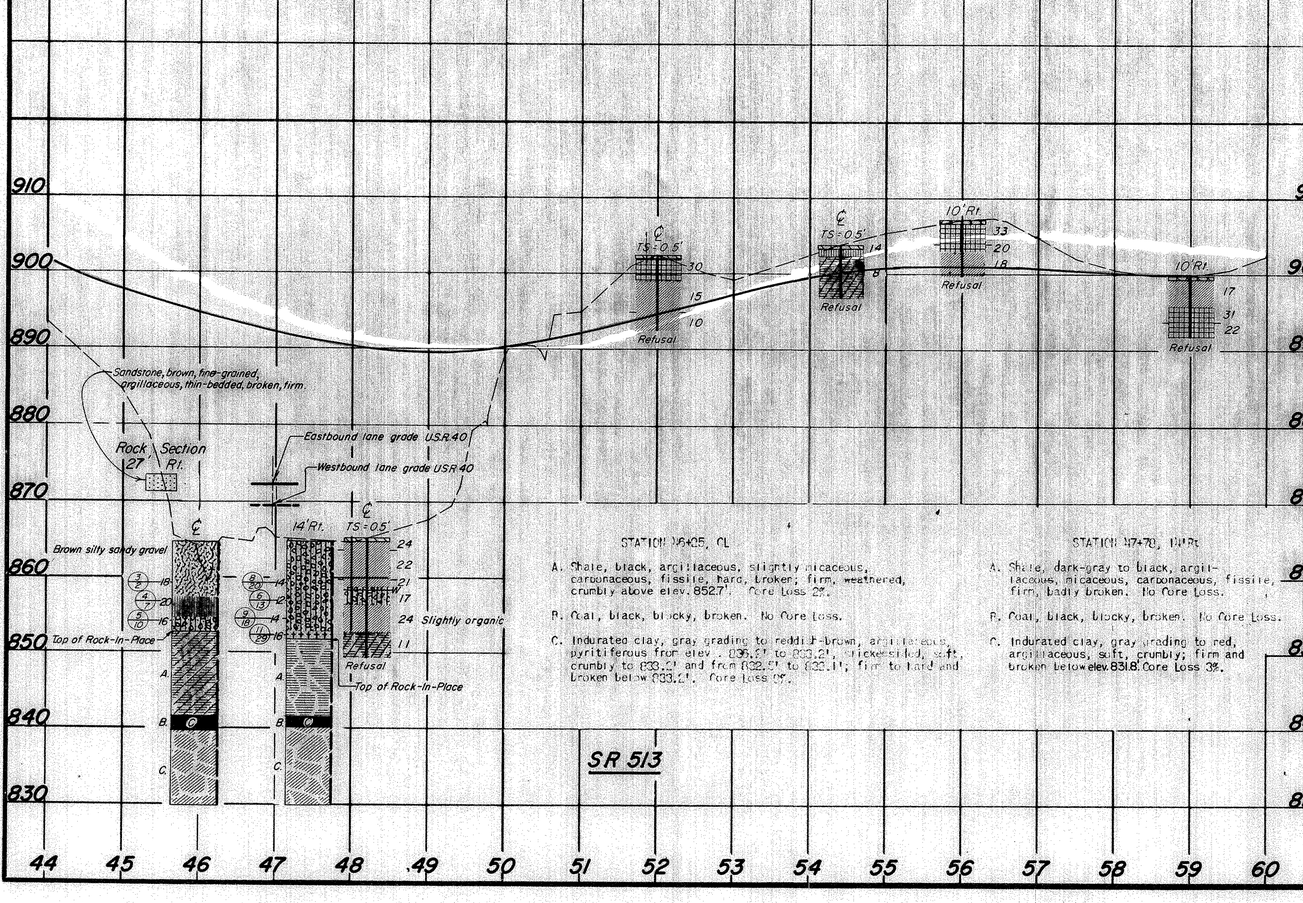
84





STATION 46+25, CL

A. Shale, black, argillaceous, slightly micaceous, carbonaceous, fissile, hard, broken; firm, weathered, crumbly above elev. 852.7'. Core Loss 2%.

B. Coal, black, blocky, broken. No Core Loss.

C. Indurated clay, gray grading to reddish-brown, argillaceous, pyritiferous from elev. 836.5' to 833.2', slickensided, soft, crumbly to 833.0' and from 832.5' to 833.1', firm to hard and broken below 833.1'. Core Loss 0%.

STATION 47+70, 14'Rt

A. Shale, dark-gray to black, argillaceous, micaceous, carbonaceous, fissile, firm, badly broken. No Core Loss.

B. Coal, black, blocky, broken. No Core Loss.

C. Indurated clay, gray grading to red, argillaceous, soft, crumbly; firm and broken below elev. 831.8. Core Loss 3%.

SOIL PROFILE
GUERNSEY COUNTY
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OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

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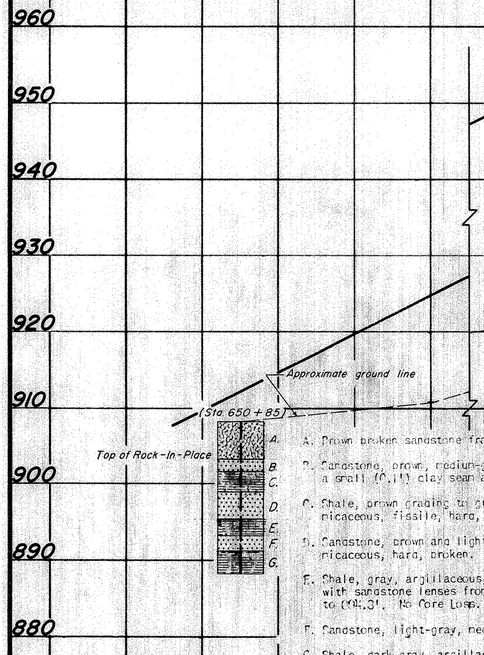
84

Cross Section Sta. 651+00



A. Brown broken sandstone fragments.

B. Sandstone, brown, medium-grained, argillaceous, micaceous, hard, broken, with a small (0.1') clay seam at elev. ([illegible]). Core loss 12%.

C. Shale, brown grading to gray, very siliceous, argillaceous, micaceous, fissile, hard, broken. Core loss 12%.

D. Sandstone, brown and light-gray, medium-grained, slightly argillaceous, micaceous, hard, broken. No core loss.

E. Shale, gray, argillaceous, siliceous, micaceous, fissile, hard, broken, with sandstone lenses from elev. (905.0' to 904.9' and from elev. (901.7' to (901.3'. No Core Loss.

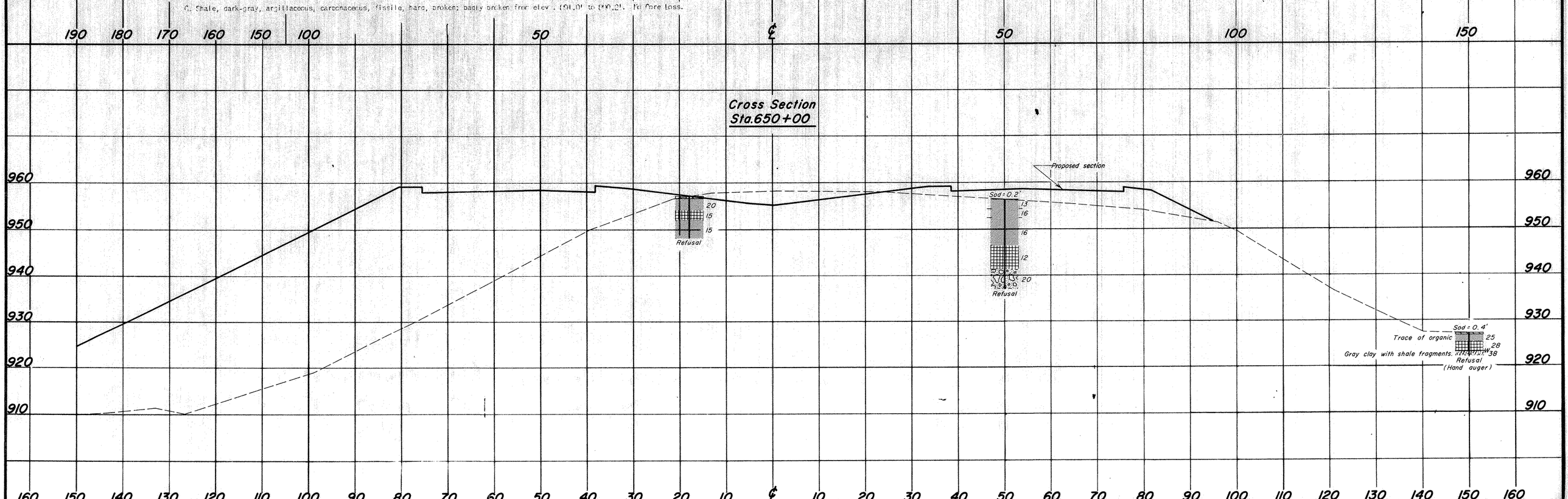
F. Sandstone, light-gray, medium-grained, slightly argillaceous, micaceous, hard, broken. No Core Loss.

G. Shale, dark-gray, argillaceous, carbonaceous, fissile, hard, broken; badly broken from elev. (901.0' to (900.2'. No Core loss.

960 950 940 930 920 910 900 890 880

190 180 170 160 150 100 50 ℄ 50 100 150

Cross Section Sta. 650+00



960 950 940 930 920 910

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37
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COLUMBUS, OHIO

28
84

Cross Section
Sta. 653+00

970
960
950
940

(Sta. 653+20)
8.6
Refusal

Sod-0.3
12
Refusal

Proposed section

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

SOIL PROFILE
GUERNSEY COUNTY
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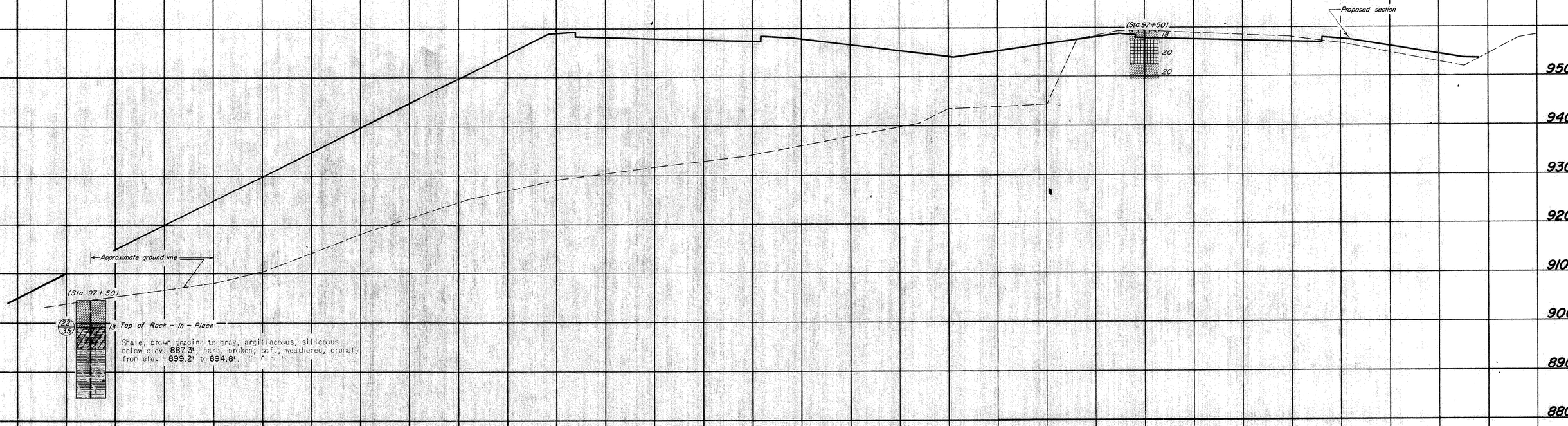
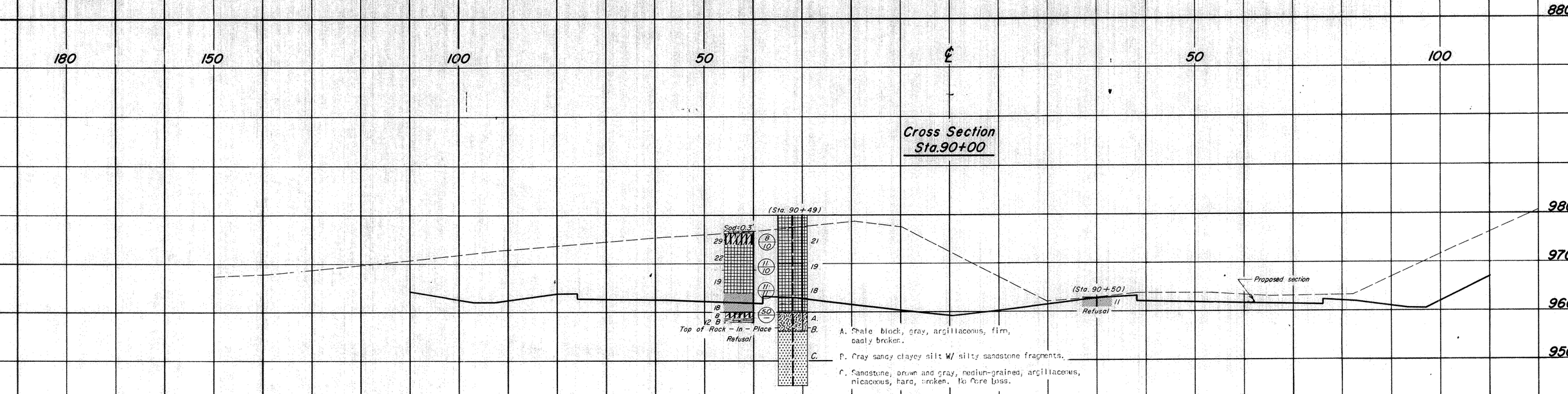
TESTING LABORATORY
COLUMBUS, OHIO

29
84

Cross Section Sta.97+75



Cross Section Sta.90+00



SOIL PROFILE
GUERNSEY COUNTY
GUE-40-17.37

OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

30
84

Cross Section Sta. 102+00

960
950
940
930
920
910

Proposed section

(Sta. 102+25)
Sod=0.3'
B 45 6
Refusal

Sod=0.3'
B 15 24 9
Refusal

150 100 50 ℄ 50 100 150

Cross Section Sta. 100+00

970
960
950
940
930
920
910

Proposed section

Sod=0.2'
8
Refusal

(Sta. 100+15)
Sod=0.2'
19 11
Refusal

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

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84

Cross Section Sta. 106+28

(Sta 106 + 30)

Top of Rock - In - Place

Brown Clay and Weathered Shale Fragments.

Shale, brown, siliceous, argillaceous, micaceous, hard, body broken; soft and crumbly from elev. 975.7' to 975.6'; with a clay seam from elev. 971.6' to 965.6'; with limestone and shale fragments and a limestone boulder and cobble. Core loss 23%.

Indurated clay, reddish-brown, slickensided, soft and crumbly. Core loss 9%.

Proposed section

1000
990
980
970
960
950
940

150 100 50 ℄ 50 100 150

Cross Section Sta. 104+00

Sod = 0.2'
24
16
16

Proposed section

Sod = 0.3'
25
23
31
36

970
960
950
940
930

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
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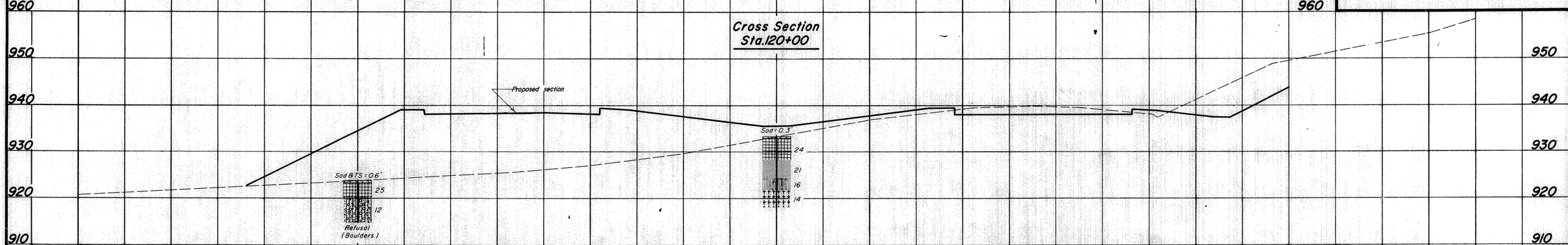
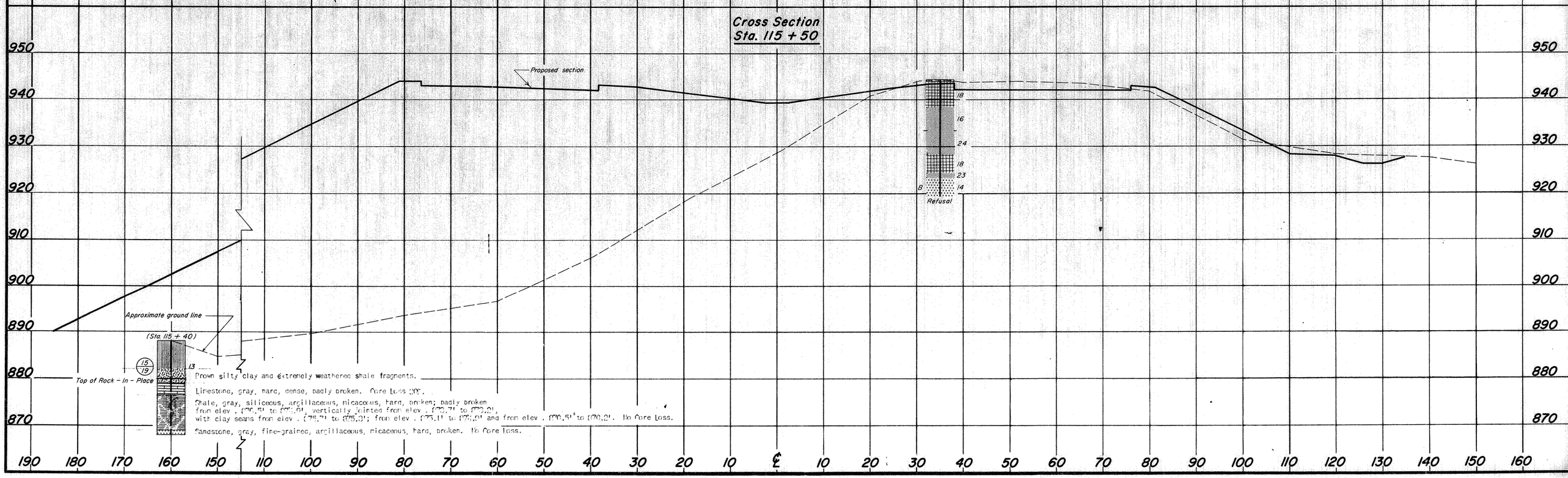
32
84

Cross Section Sta. 120+00



Cross Section Sta. 115 + 50



SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37

OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

33
84

Cross Section Sta. 130+50

Proposed section

19
15
18
16
16
17

Approximate ground line
(S16 130+30)

7/9 21

Brown and Gray Sandy Silty Clay W/ Shale Cobbles and Fragments and Sandstone Fragments.

Top of Rock – In – Place

Shale, gray, siliceous, argillaceous, carbonaceous, fissile, hard, broken; badly broken from elev. 855.0' to 850.0'. Core Loss 3%.

6 1

Coal, black, blocky, broken to badly broken. Core Loss 0%.

Indurated clay, gray, slickensided, firm, badly broken; soft and crumbly from elev. 845.0' to 840.0' and from 834.1' to 830.0'. Core Loss 10%.

Shale, gray, argillaceous, slickensided, fissile, hard, broken to badly broken. No Core Loss.

930 920 910 900 890 880 870 860 850 840 830

210 200 190 180 100 50 ℄ 50 100 150

Cross Section Sta. 126+00

Proposed section

Sod = 0.3

9 8

Refusal

940 930 920 910

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

SOIL PROFILE
GUERNSEY COUNTY
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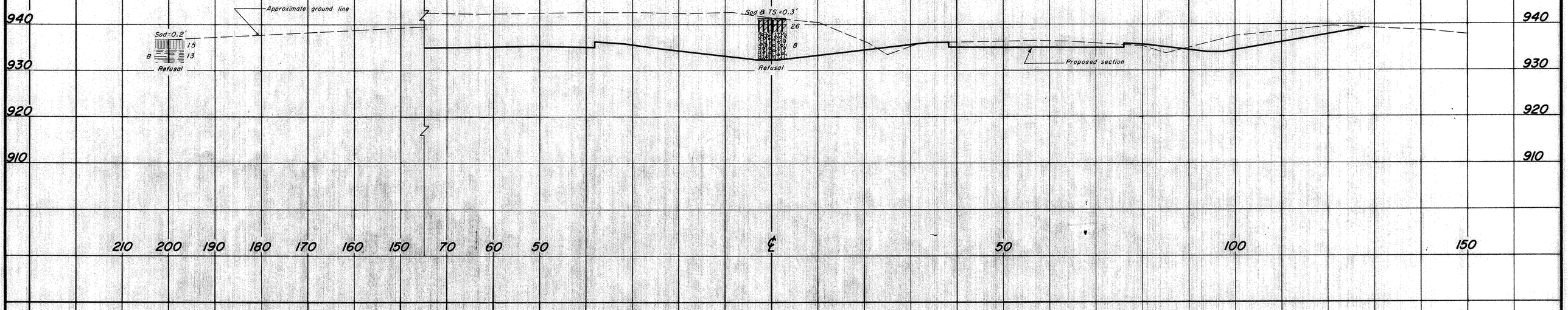
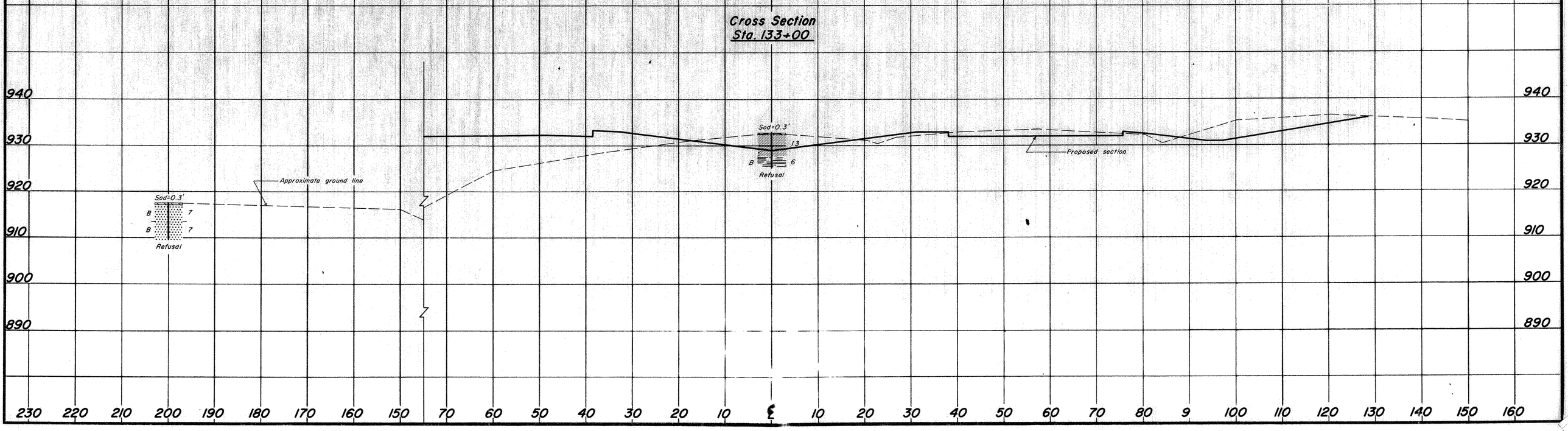
84

Cross Section Sta. 137+00



Cross Section Sta. 133+00



SOIL PROFILE
GUERNSEY COUNTY
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35
84

Brown silty clay w/ shale fragments.

Top of Rock - In - Place

Shale, brown, argillaceous, siliceous, micaceous, calcareous, fissile, hard, badly broken, with clay seams from elev. 995.5' to 995.2' and from elev. 991.7' to 991.5' and a limestone(gray, crystalline, hard, dense, broken) interbed from elev. 982.5' to 982.2' soft and crumbly from elev. 979.0' to 978.8'.

Indurated clay, reddish-brown grading to gray, slickensided, soft, crumbly with a limestone lens in bottom of interval from elev. 902.0' to 901.8'. Core loss 30%.

Shale, gray, calcareous, siliceous, argillaceous, non-fissile, hard, broken, with a clay seam from elev. 937.0' to 937.5'
No core loss.

Sandstone, gray, medium to fine-grained, slightly argillaceous, micaceous, hard, broken. Core Loss 1%.

Cross Section
Sta. 146+00

Proposed section

1000 990 980 970 960 950 940 930 920 910 900

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

Cross Section
Sta. 142+00

Approximate ground line

Sod=0.2'
21
18
14
12
B 12
B 10
Refusal

Sod=0.3'
16
19
15
14
9
Refusal

Proposed section

970 960 950 940 930

210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110

SOIL PROFILE

GUERNSEY COUNTY

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OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

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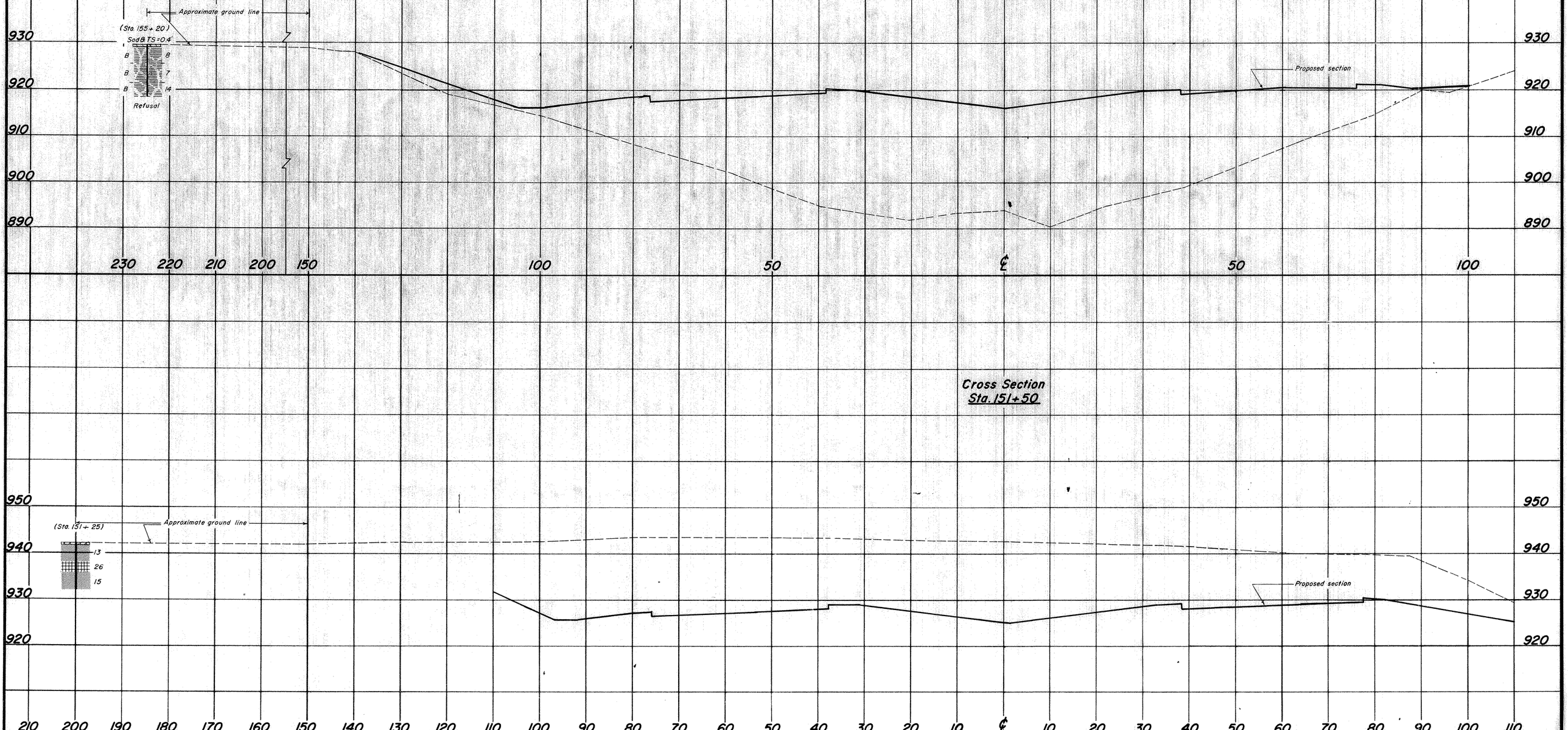
84

Cross Section Sta. 155+00



Cross Section Sta. 151+50

SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

37
84

Cross Section
Sta. 162 + 00

Proposed section

900
890
880
870
860
850
840
830

Sod = 0.4'
29
24
17
W
18
B 10
Refusal
(Hole caved in at elev. 850.0')

(Sta. 162 + 30)
Sod = 0.3'
31
20
B 12
B 11
B 12
Refusal

Sod = 0.4'
21
18
7
9
14
B 10
Refusal

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

SOIL PROFILE
GUERNSEY COUNTY
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COLUMBUS, OHIO

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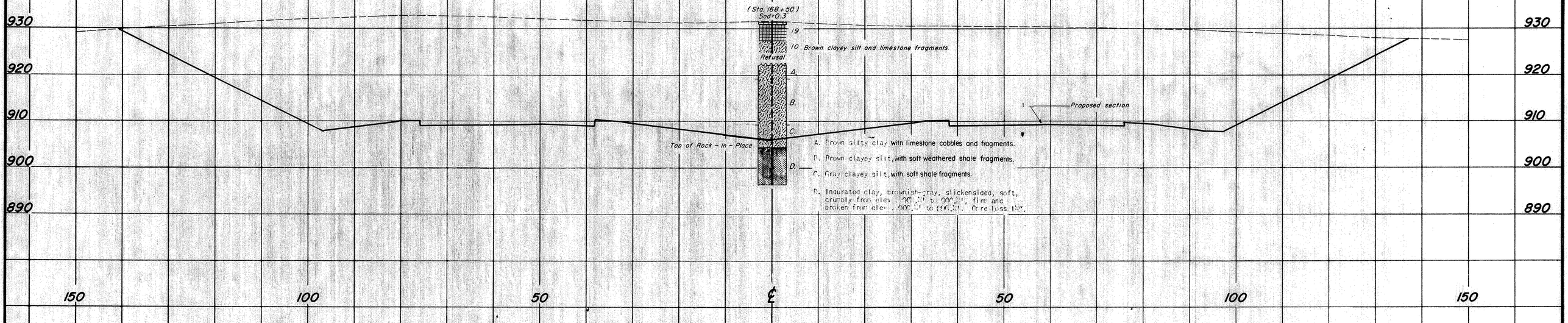
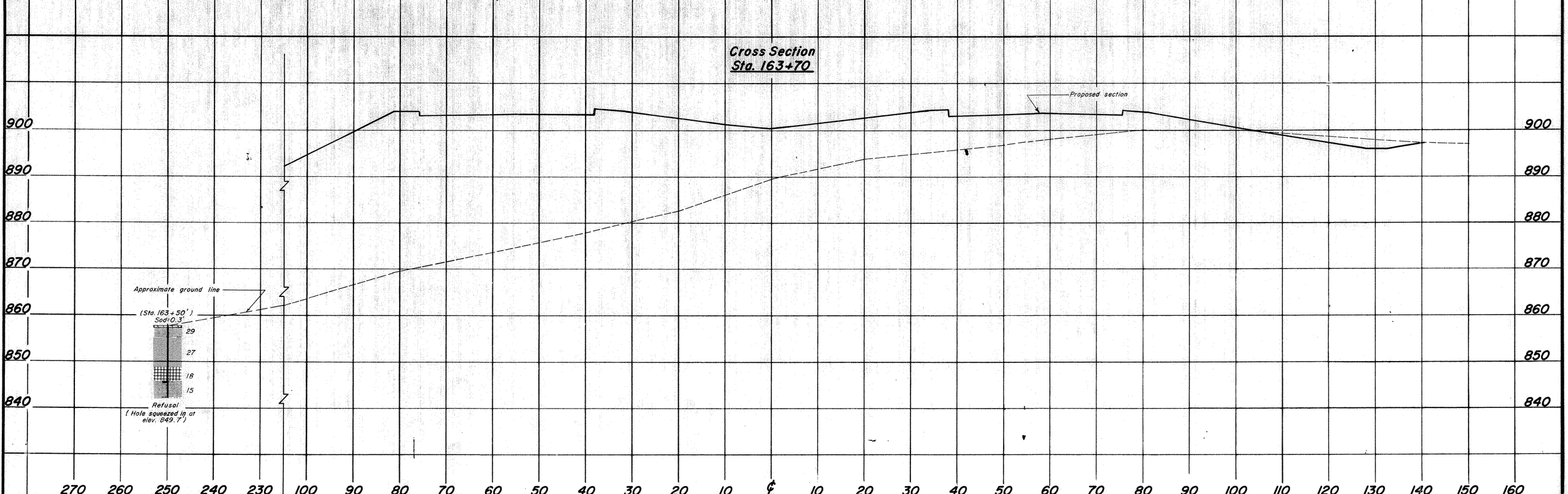
84

Cross Section Sta. 168+48



Cross Section Sta. 163+70



SOIL PROFILE
GUERNSEY COUNTY
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COLUMBUS, OHIO

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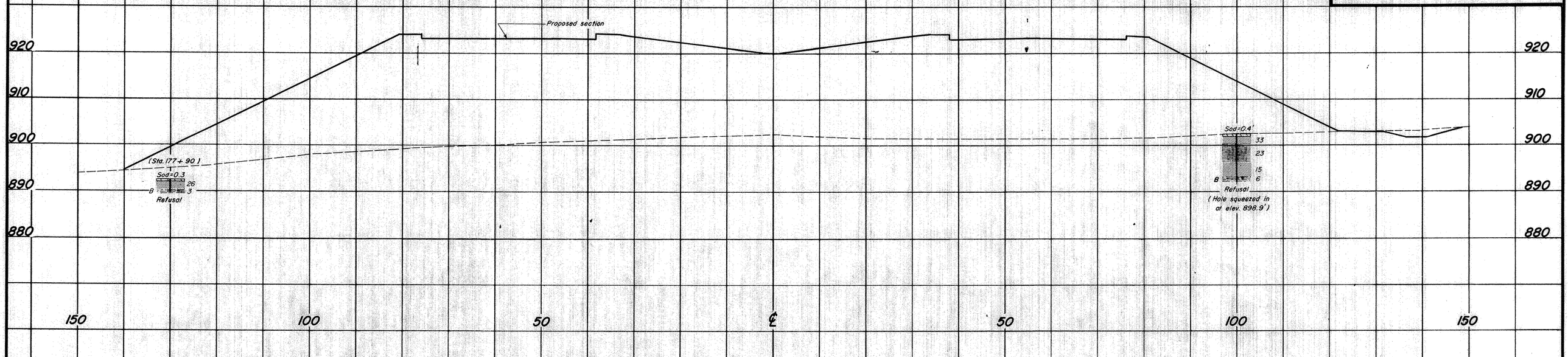
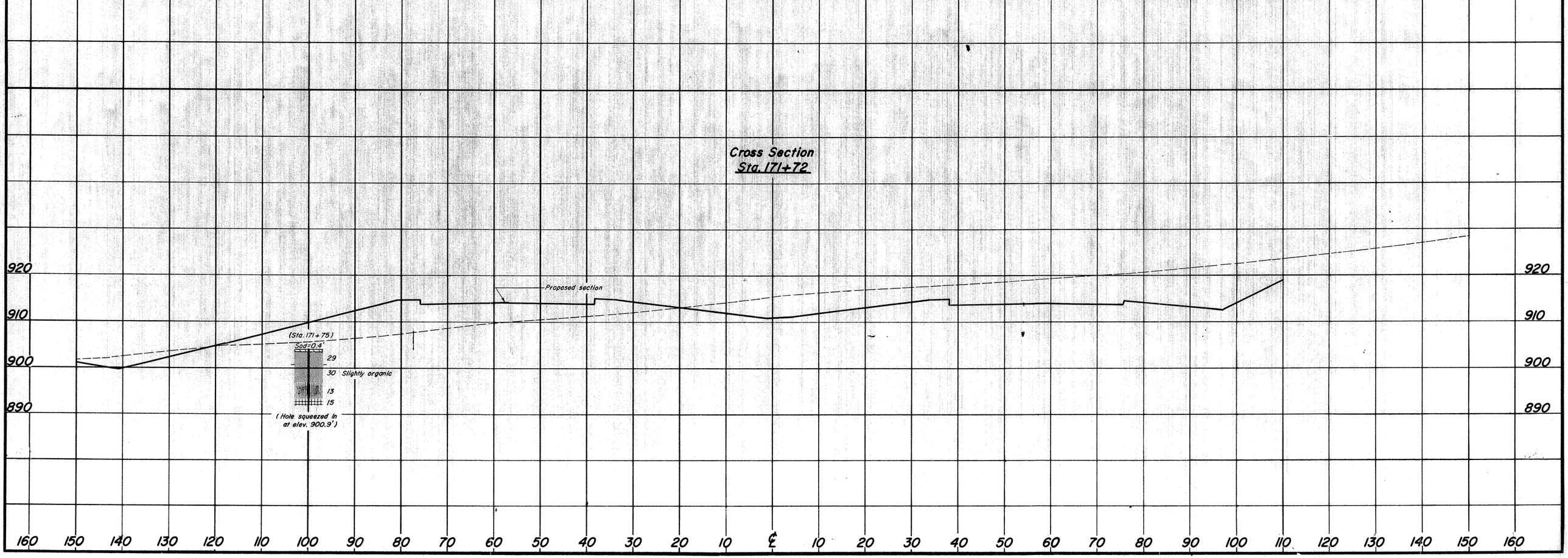
84

Cross Section Sta. 177+65



Cross Section Sta. 171+72



SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 1737

OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

40
84

Approximate ground line

Top of Rock - In - Place

Brown silty clay with soft shale fragments.

Shale, brown, argillaceous, micaceous, arenaceous, fissile, soft, weathered, crumbly. No Core Loss.

Indurated clay, reddish-brown, slickensided, soft, crumbly; firm from elev. 1030.0' to 1030.1' and from elev. 1029.3' to 1027.9'. Core Loss 3%.

Shale, brown, argillaceous, micaceous, arenaceous, calcareous and fossiliferous from elev. 976.9' to 975.9', fissile, firm, badly broken; soft and crumbly zones from elev. 1021.0' to 1020.7', from elev. 1021.3' to 1020.0' and from elev. 1012.3' to 1011.3', with a clay seam from elev. 1011.3' to 1005.0'. Core Loss 1%.

Limestone, gray, hard, dense, broken. No Core Loss.

Shale, gray, argillaceous, micaceous, arenaceous, fissile, firm to hard, crumbly; soft and crumbly from elev. 993.8' to 991.0'. Core Loss 13%.

Indurated clay, gray, arenaceous, calcareous, slickensided, firm, crumbly; soft and crumbly from elev. 995.1' to 994.0' and from elev. 989.5' to 988.3'; with a shale (gray argillaceous, firm to hard, fissile, crumbly) interbed from elev. 987.1' to 983.0'. Core Loss 10%.

Cross Section Sta. 192+00

Proposed section

Cross Section Sta. 184+51

Proposed section

(Sta. 184+75)
21
17
13
Refusal

(Sta. 184+15)
27
18
19
Refusal

SOIL PROFILE
GUERNSEY COUNTY
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84

Cross Section
Sta. 198+00

980
970
960
950
940
930
920

TS =0.5
24
29
26
Refusal
(Hand auger)

Sod & TS =0.5'
29
22
16
Refusal
Hand auger

Proposed section

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110

SOIL PROFILE
GUERNSEY COUNTY
GUE – 40 – 17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

42/84

Cross Section Sta. 205+62

Approximate ground line
(Sta. 205+75)
Top of Rock-in – Place
50/– 15

Shale, brown grading to gray; argillaceous, siliceous, micaceous, carbonaceous below elev. 893.4' fissile; hard, broken to badly broken, badly broken from elev. 919.0' to 915.0', soft and crumply from elev. 92[illegible].1' to 919.6' and from elev. 915.6' to 91[illegible].0', vertically jointed at irregular intervals to elev. 89[illegible].0'; with interbedded sandstone (light gray, fine-grained, argillaceous, micaceous, hard, broken) from elev. 899.6' to 898.9' and elev. 89[illegible].5' to 89[illegible].0'. Core Loss 16%.

Proposed section

(Sta. 205+50)
10
42 ● Slightly organic
42 ●
Refusal

930 920 910 900 890 880 870 860 850

100 50 ℄ 50 100 150 290 300 310

Cross Section Sta. 202+67

Proposed section

(Sta. 202+50)
14
22 W
40
Slightly organic
20
Slightly organic
23
Refusal

910 900 890 880 870 860 850

140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180

SOIL PROFILE

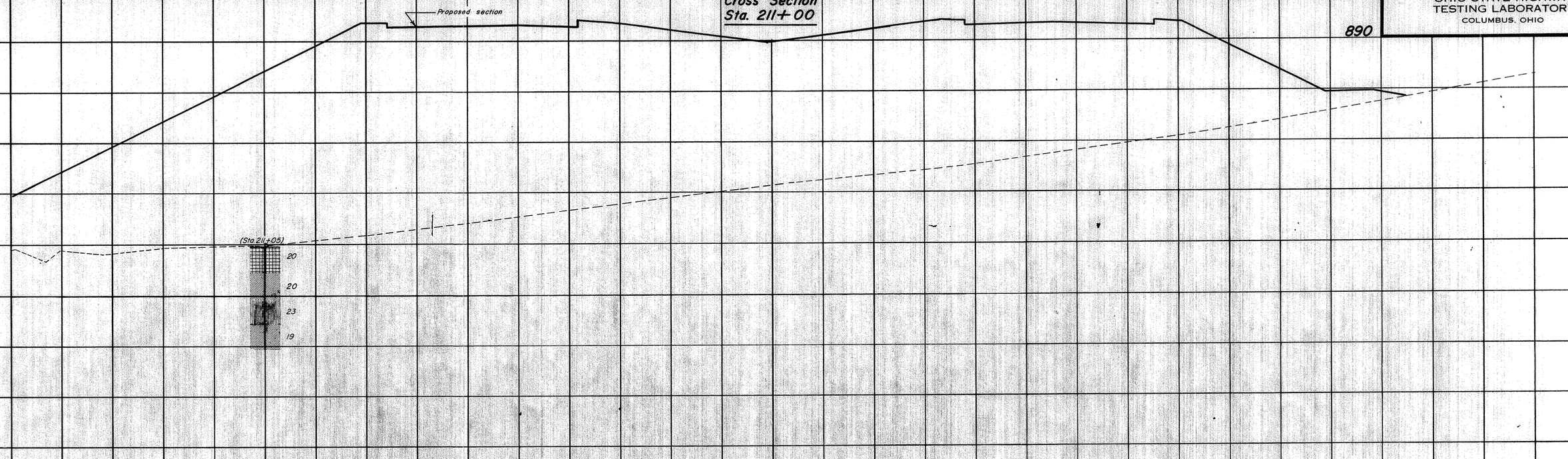
GUERNSEY COUNTY

GUE-40-17.37

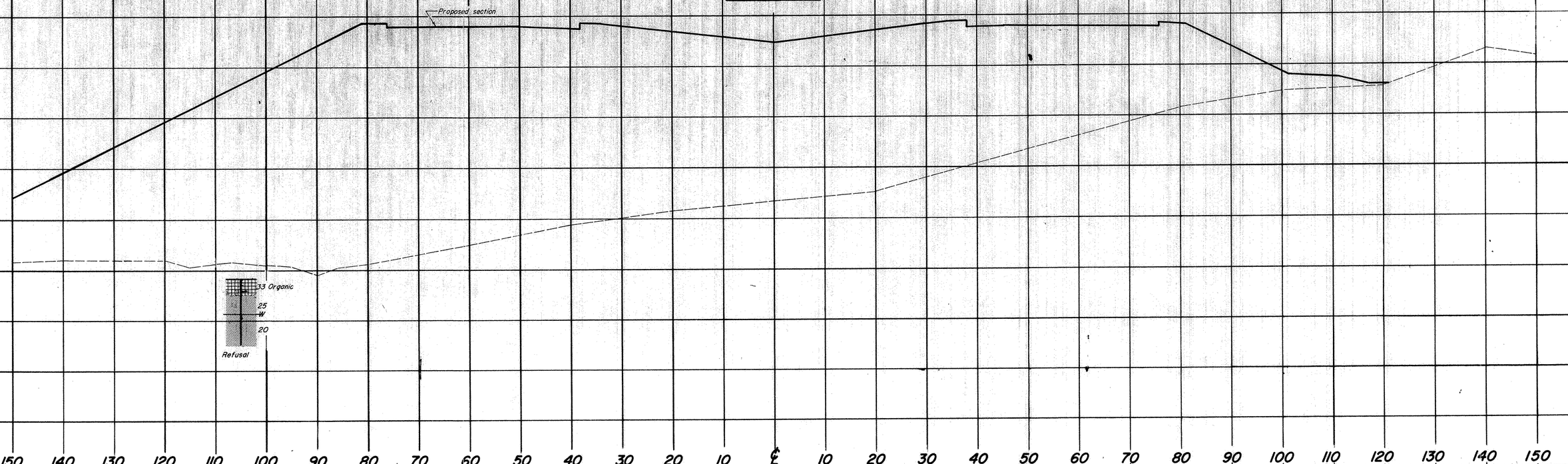
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

43
84

Cross Section Sta. 211+00



Cross Section Sta. 209+00

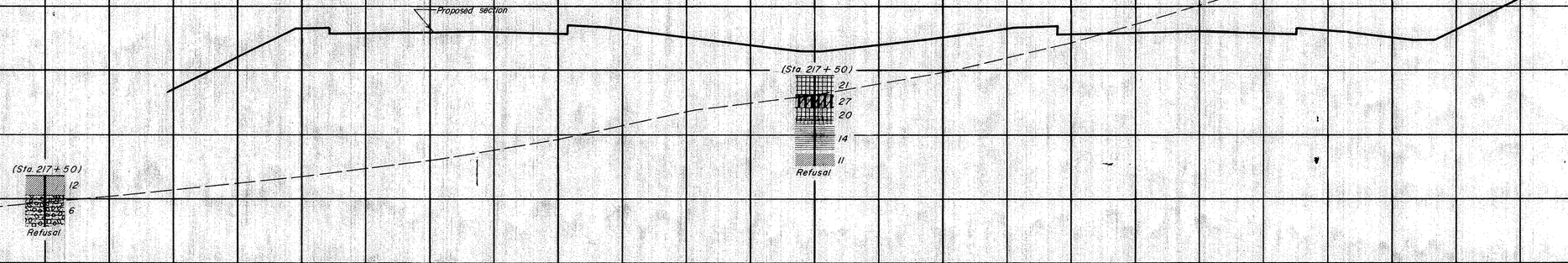


SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37

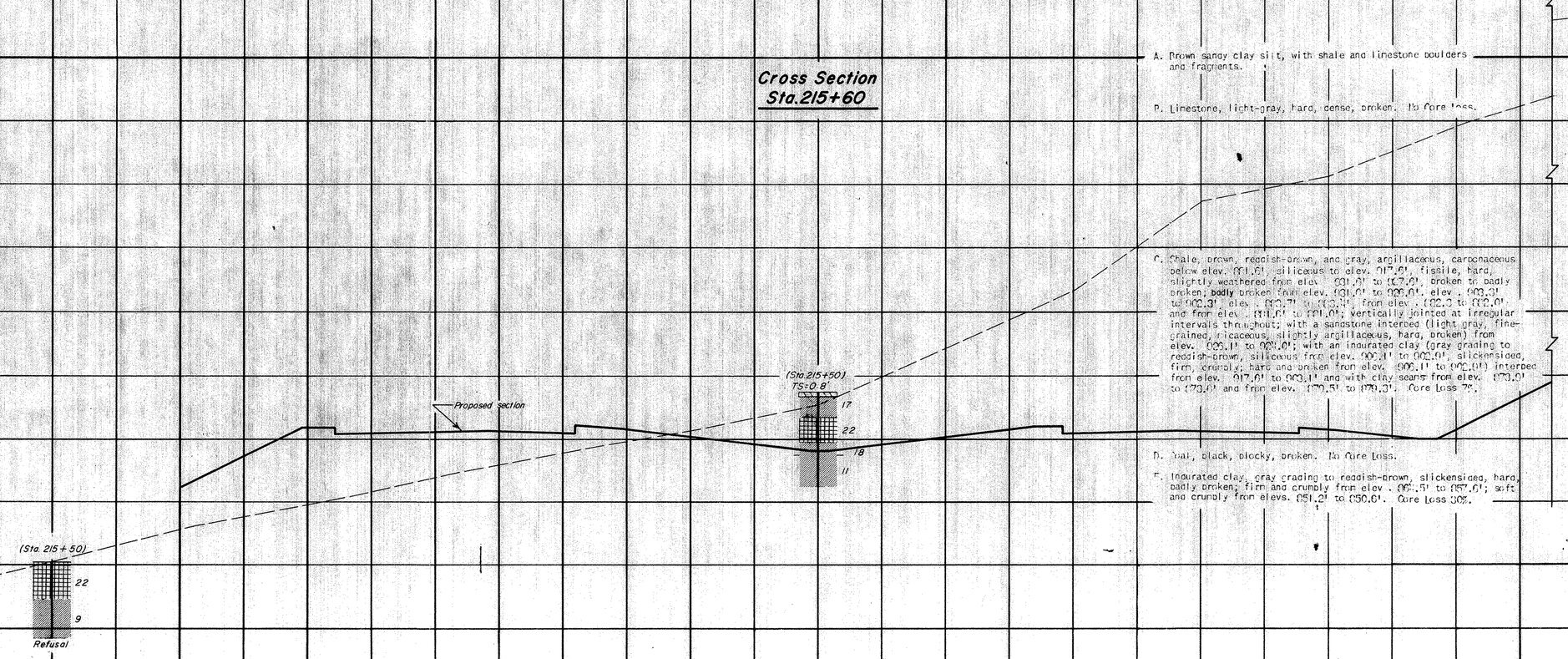
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

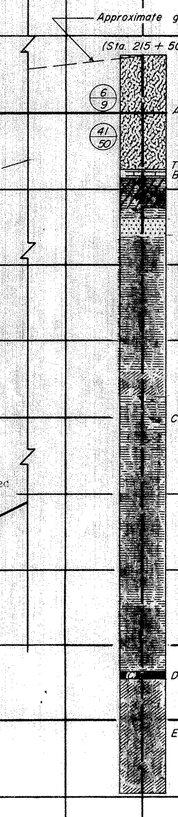
44
84

Cross Section Sta. 217+75



Cross Section Sta. 215+60





A. Brown sandy clay silt, with shale and limestone boulders and fragments.

B. Limestone, light-gray, hard, dense, broken. No Core Loss.

C. Shale, brown, reddish-brown, and gray, argillaceous, carbonaceous below elev. 891.6', siliceous to elev. 817.6', fissile, hard, slightly weathered from elev. 891.6' to 877.6', broken to badly broken; badly broken from elev. 891.6' to 888.6', elev. 883.3' to 882.3', elev. 880.7' to 880.4', from elev. 882.3 to 882.0' and from elev. 881.6' to 881.0'; vertically jointed at irregular intervals throughout; with a sandstone interbed (light gray, fine-grained, micaceous, slightly argillaceous, hard, broken) from elev. 888.1' to 884.0'; with an indurated clay (gray grading to reddish-brown, siliceous from elev. 882.1' to 882.0', slickensided, firm, crumbly, hard and broken from elev. 880.1' to 882.0') interbed from elev. 817.6' to 883.1' and with clay seams from elev. 878.9' to 878.6' and from elev. 879.5' to 879.3'. Core Loss 7%.

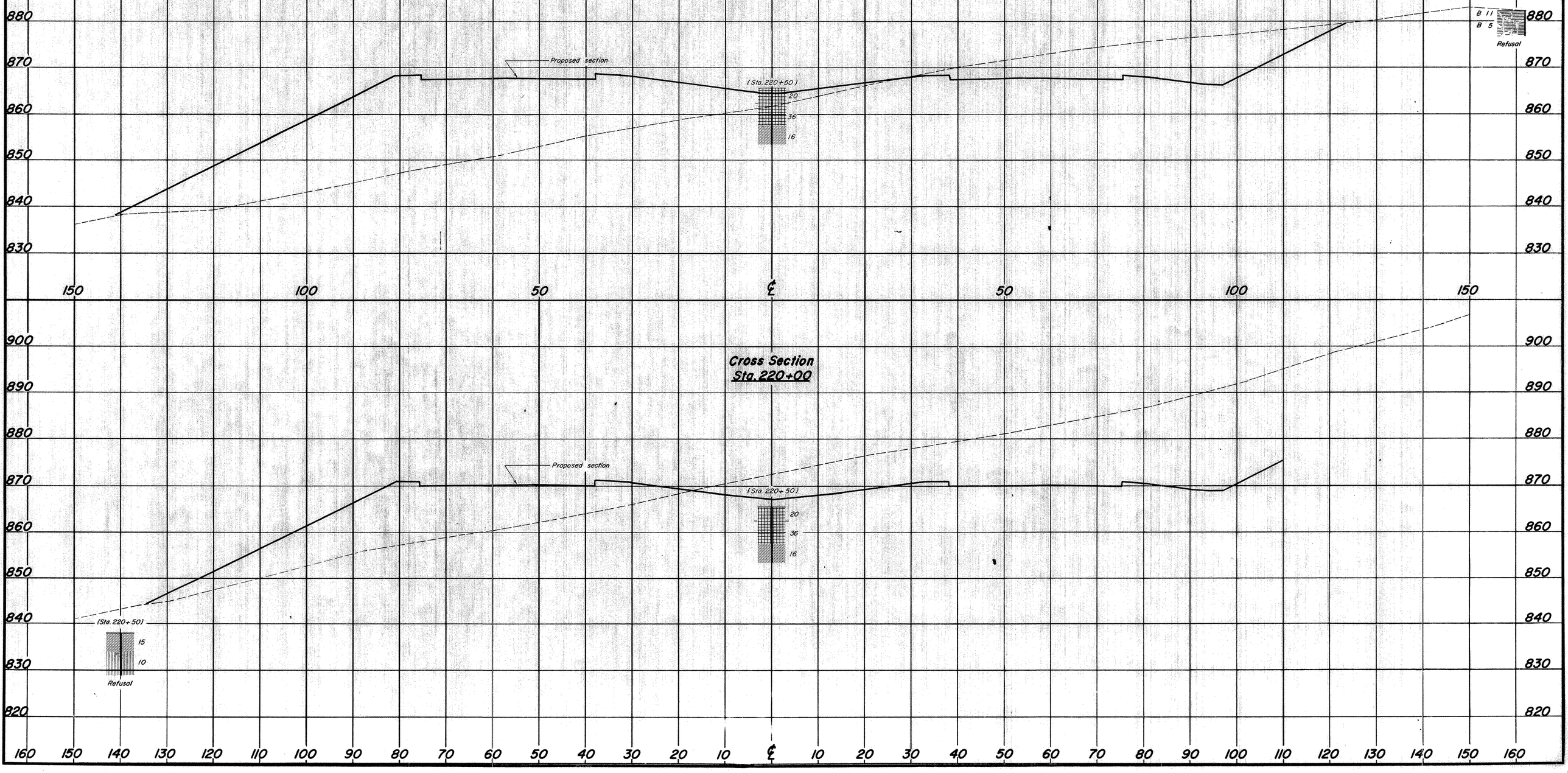
D. Coal, black, blocky, broken. No Core Loss.

E. Indurated clay, gray grading to reddish-brown, slickensided, hard, badly broken; firm and crumbly from elev. 857.5' to 857.0'; soft and crumbly from elevs. 851.2' to 850.6'. Core Loss 30%.

SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

45
84

Cross Section Sta. 221+00

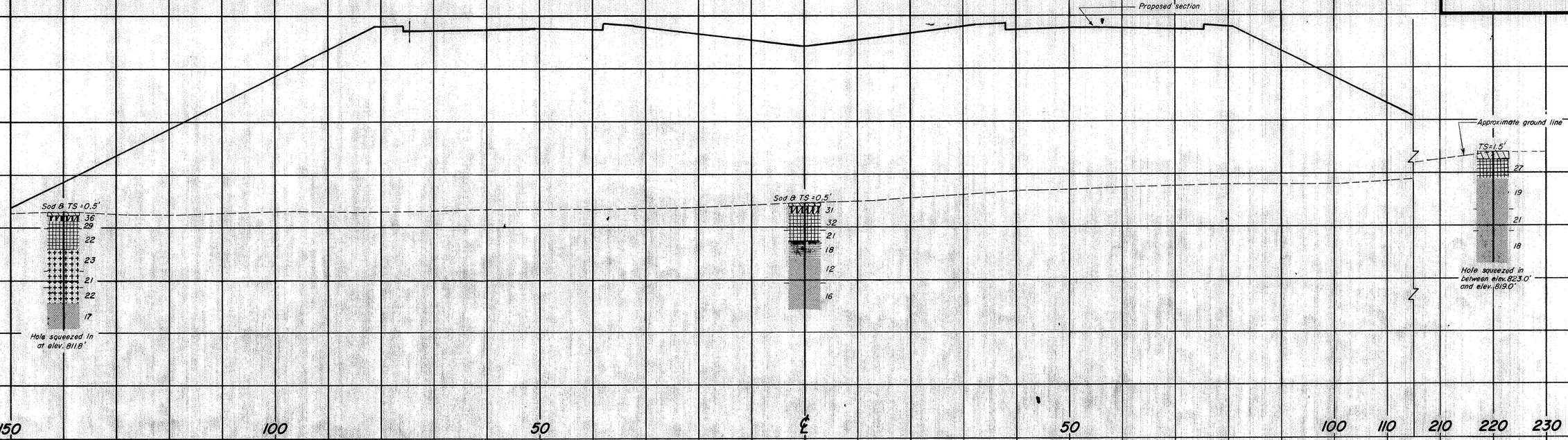


Cross Section Sta. 220+00

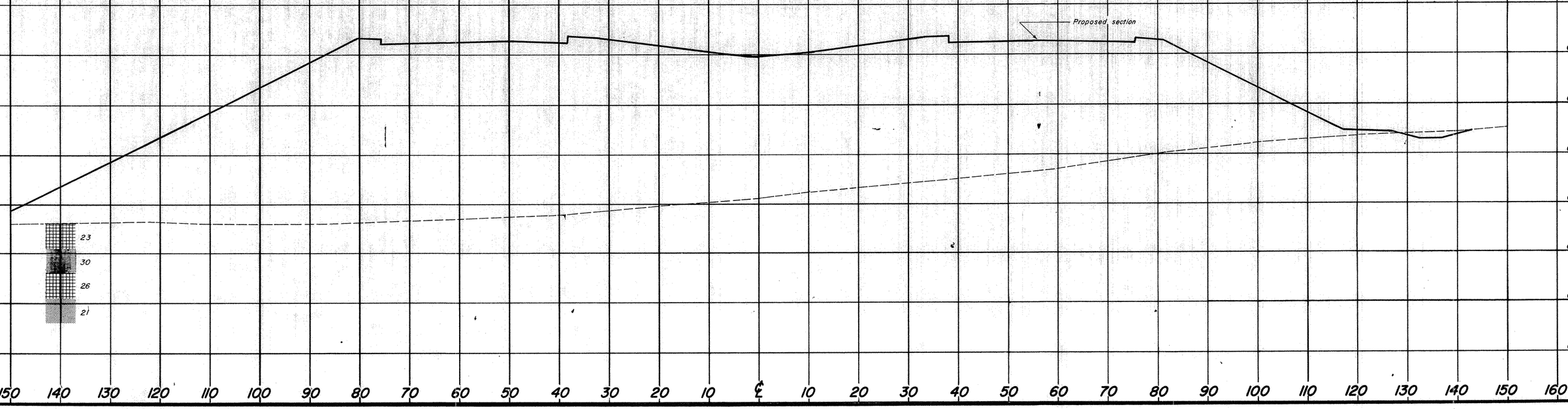
SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

46
84

Cross Section Sta. 225+00



Cross Section Sta. 223+00



SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

47
84

Cross Section Sta. 231+00

Proposed section

Approximate ground line

Sod B.T.S. = 0.6'

(Sta. 230+00) Sod = 0.5'

(Sta. 230+75)

(Sta. 231+60)

Refusal (Hand auger)

Trace of organic

Brown sandy clayey silt with gravel.

Top of Rock-In-Place

STATION 230+75, 77' Lt

A. Shale, gray, carbonaceous, fissile, firm, broken, with interbedded sandstone, gray, medium-grained, hard, comprised of 75% shale and 25% sandstone. Core loss 6%.

B. Sandstone, gray, medium-grained, firm. Core Loss 6%.

STATION 231+60, 77' Rt

A. Shale, dark-gray, argillaceous, micaceous, arenaceous, carbonaceous, fissile, firm to hard, broken; badly broken above elev. 777.0'; with shale sandstone lenses at irregular intervals from elev. 777.0' to 770.7'. No Core loss.

B. Sandstone, gray, medium-grained, micaceous, hard, broken. No Core loss.

Cross Section Sta. 228+00

Proposed section

Approximate ground line

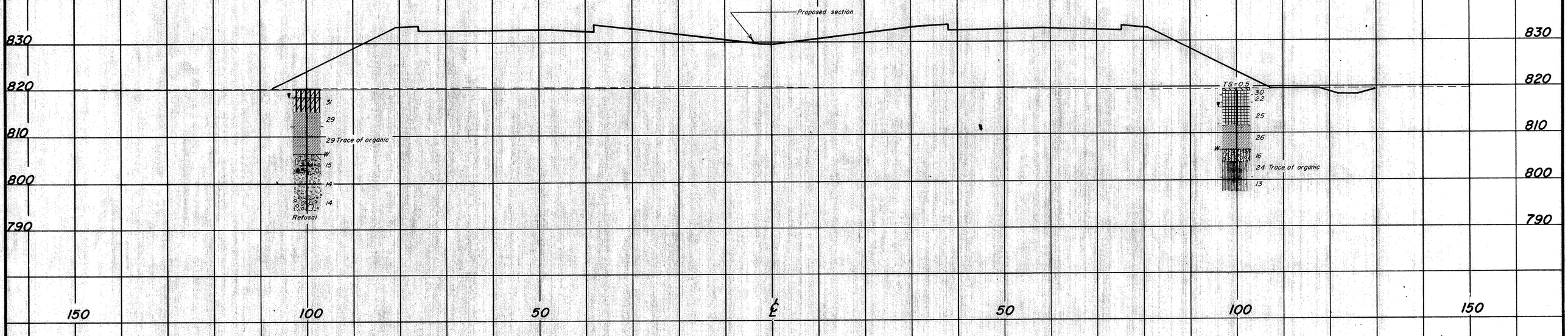
Sod B.T.S. = 0.5'

SOIL PROFILE
GUERNSEY COUNTY
GUE-40-17.37

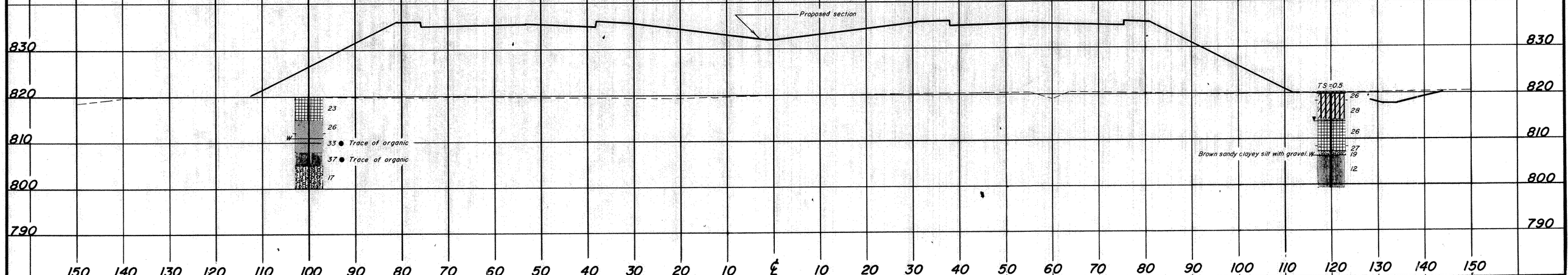
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

48
84

Cross Section Sta. 238+00



Cross Section Sta. 235+00



SOIL PROFILE

GUERNSEY COUNTY

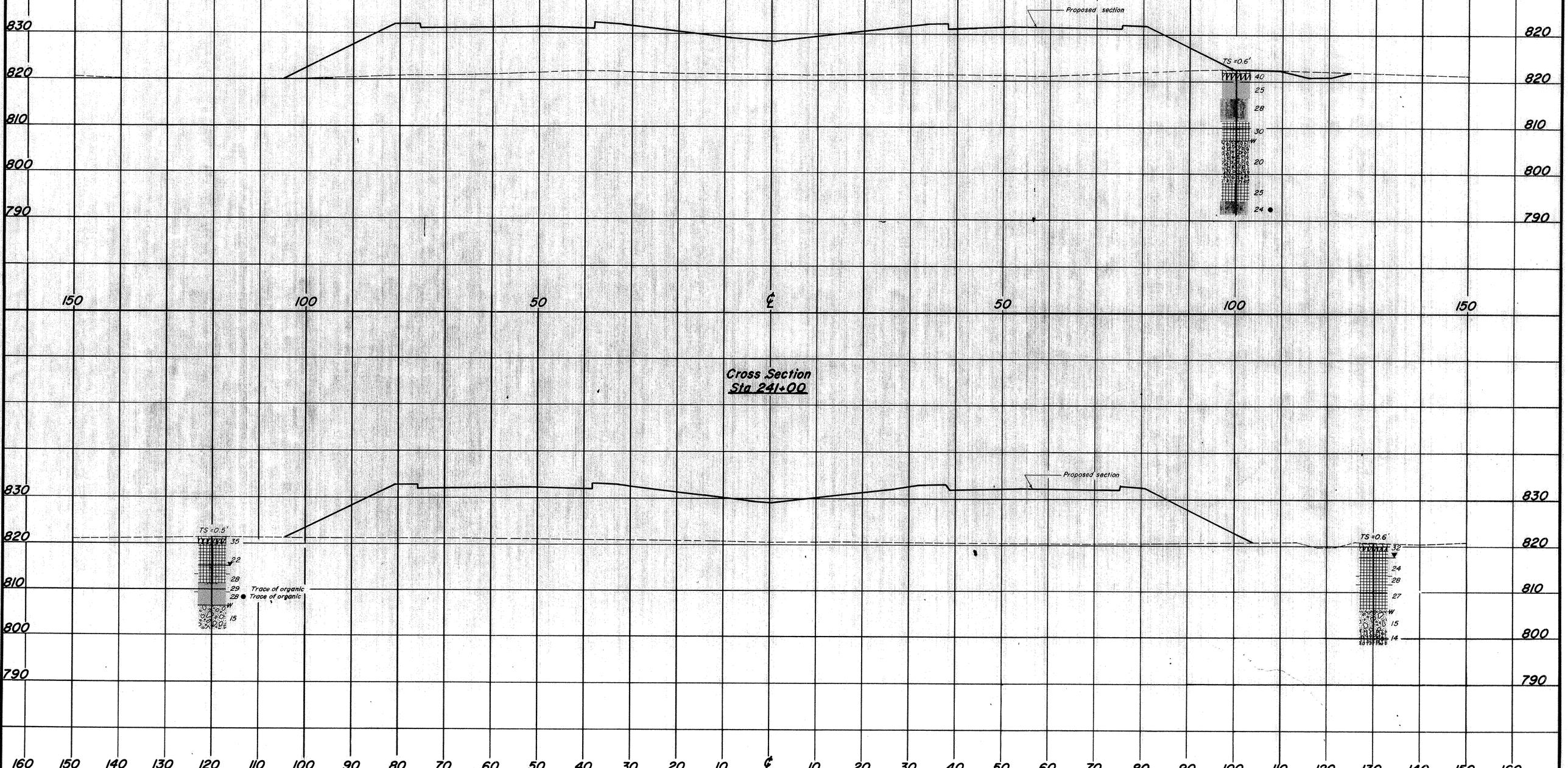
GUE - 40 - 17.37

OHIO STATE HIGHWAY TESTING LABORATORY

COLUMBUS, OHIO

49
84

Cross Section Sta. 244+00

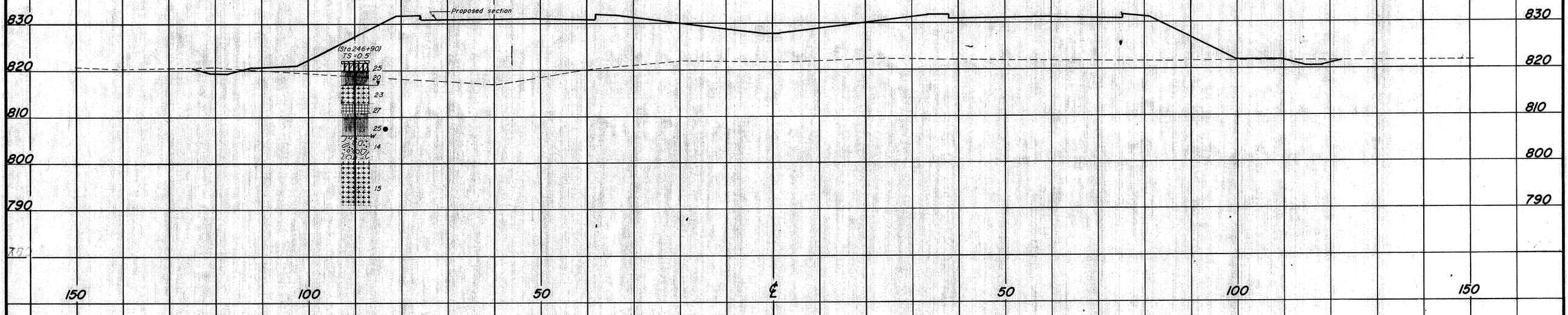


Cross Section Sta 241+00

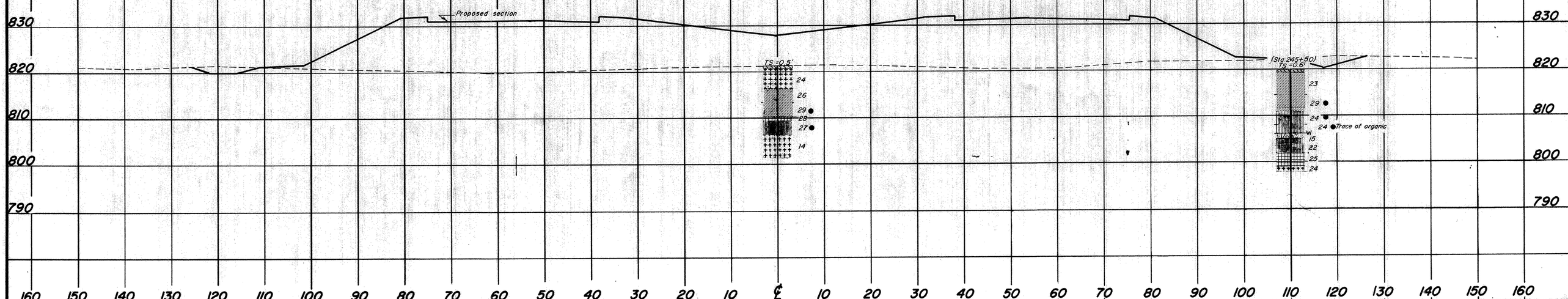
SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

50
84

Cross Section Sta. 247+00



Cross Section Sta. 245+00



SOIL PROFILE

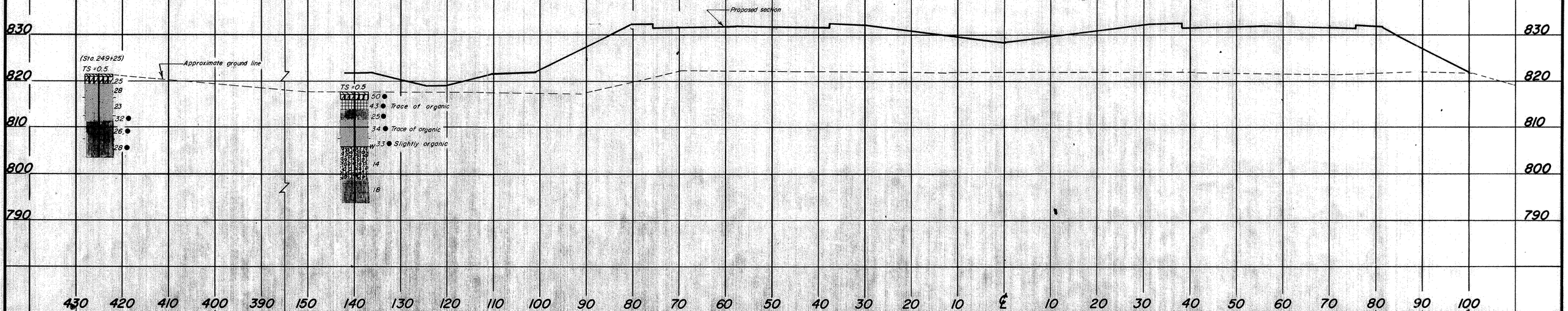
GUERNSEY COUNTY

GUE - 40 - 17.37

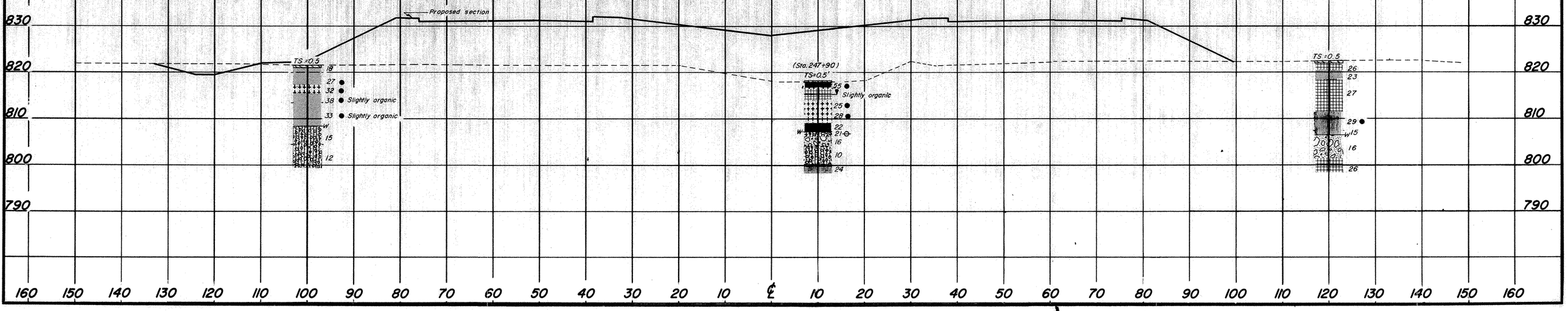
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

51
84

Cross Section Sta. 249+00



Cross Section Sta. 248+00

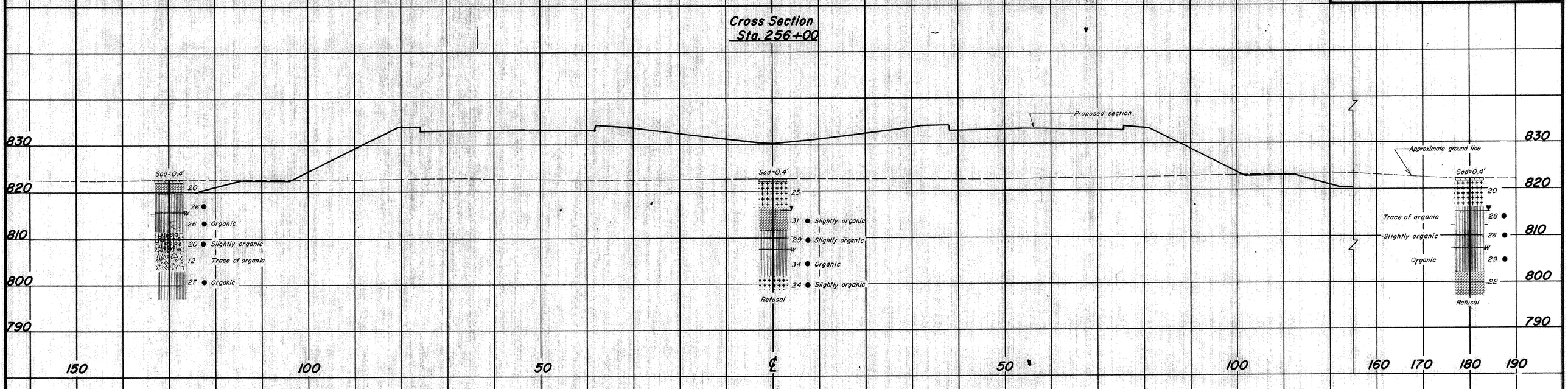


SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37

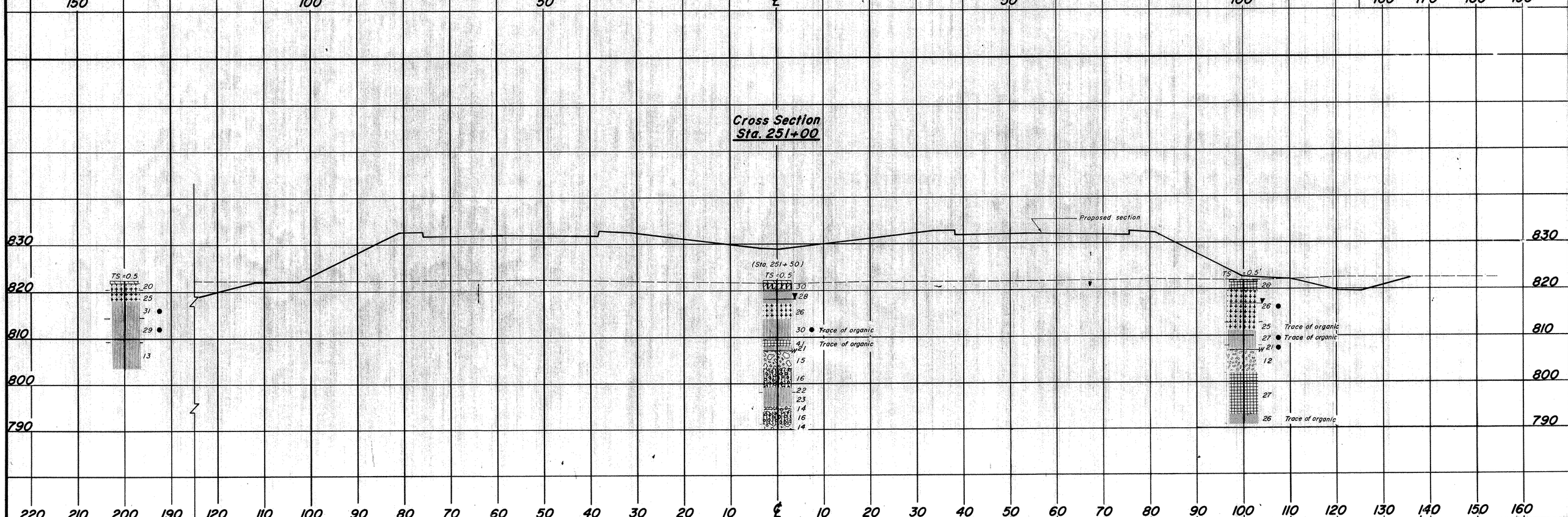
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

52
84

Cross Section Sta. 256+00



Cross Section Sta. 251+00

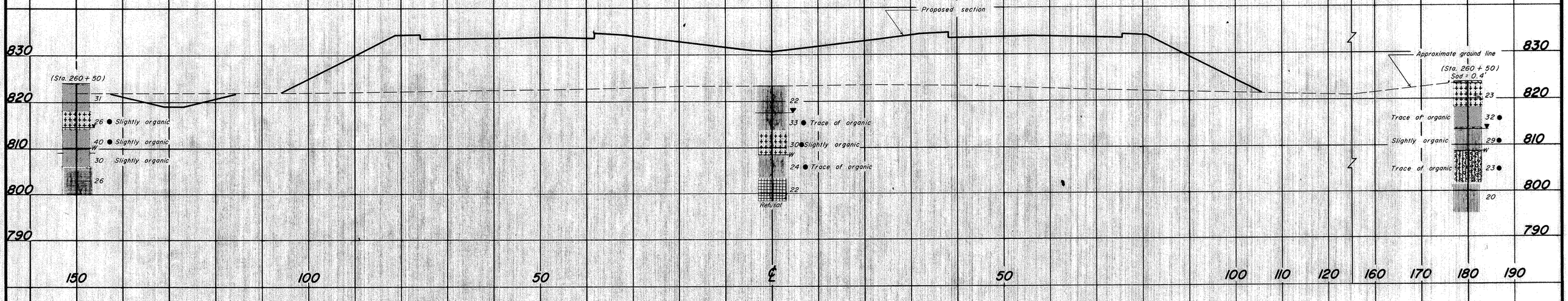


SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37

OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

53
84

Cross Section
Sta. 260 + 00

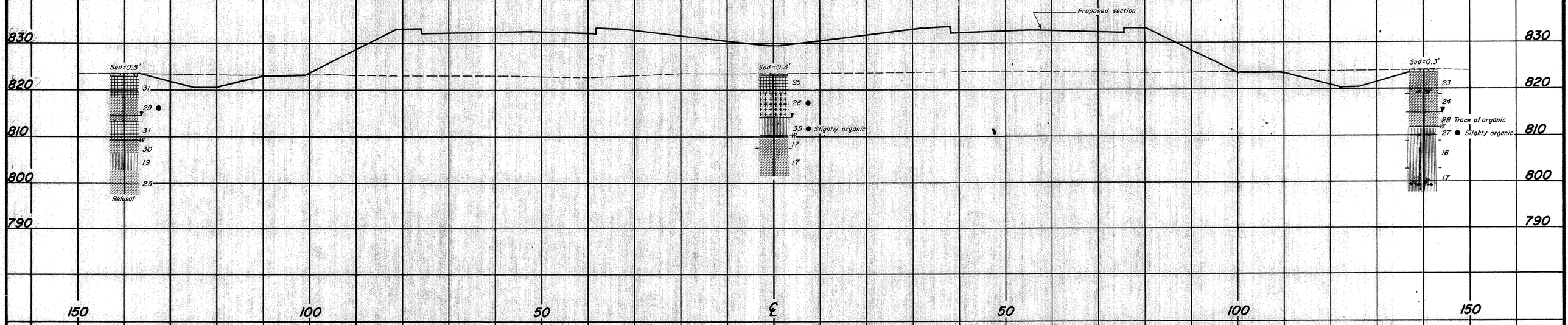


Cross Section
Sta. 258 + 00

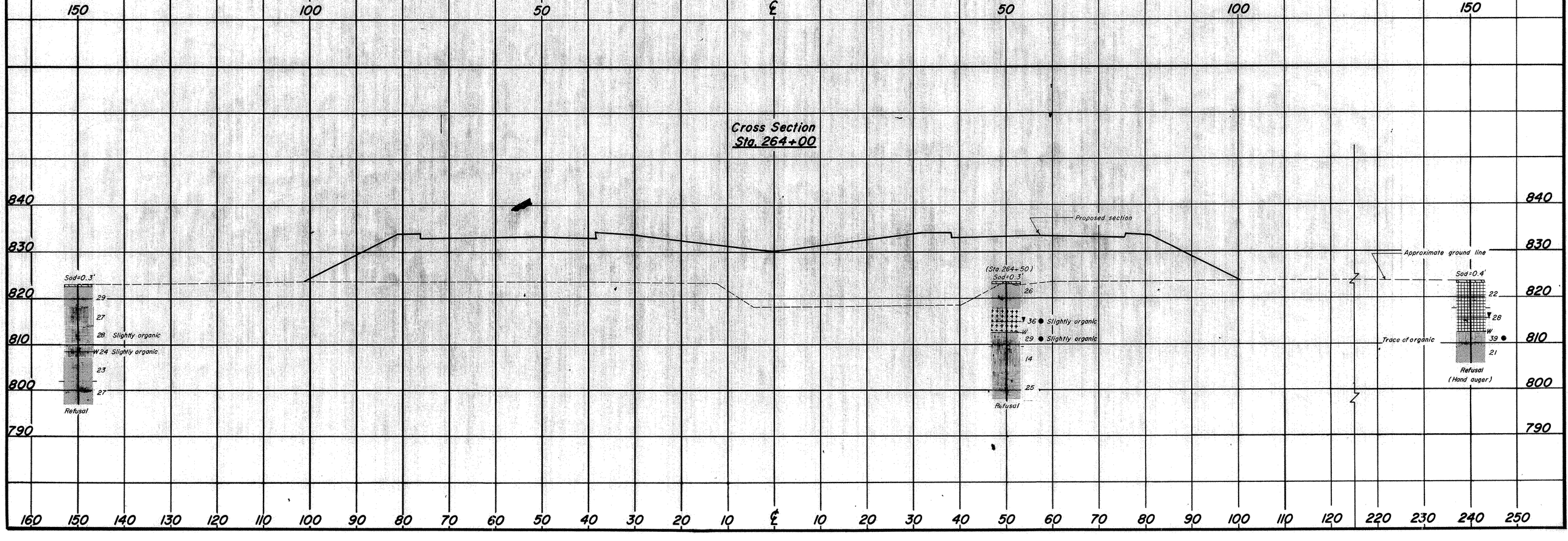
SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

54
84

Cross Section
Sta. 268+00



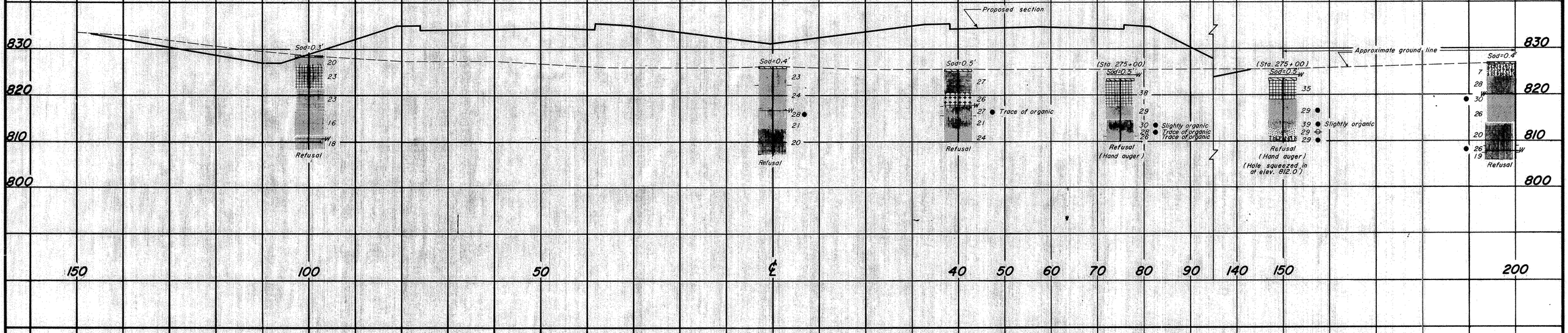
Cross Section
Sta. 264+00



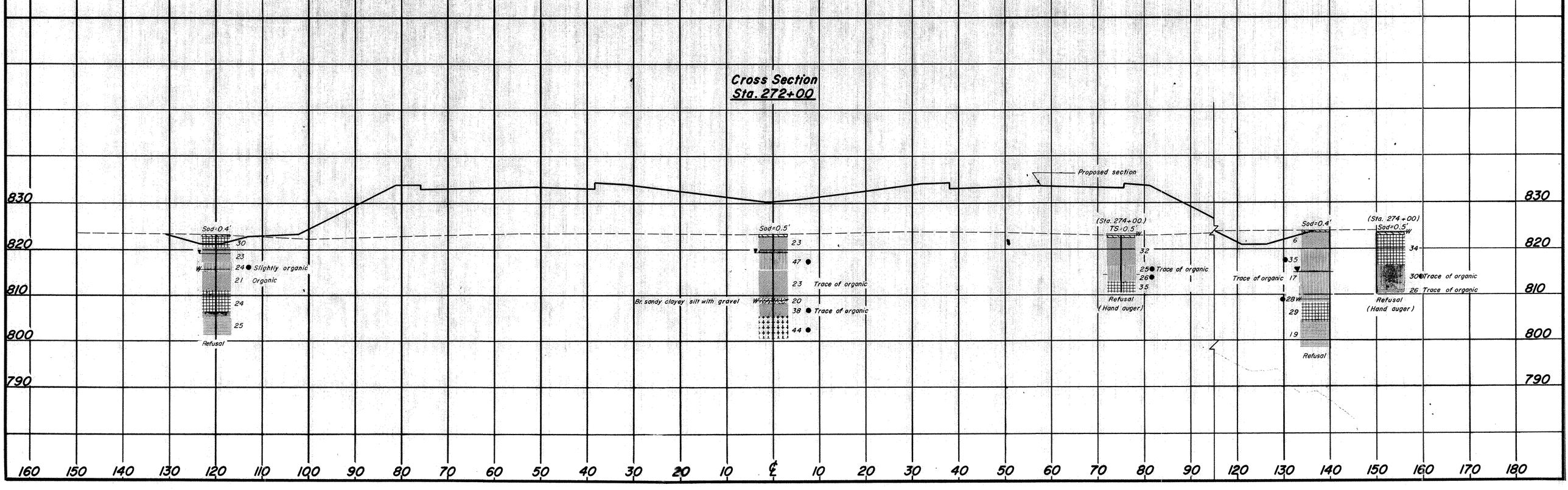
SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

55
84

Cross Section Sta. 276+00



Cross Section Sta. 272+00

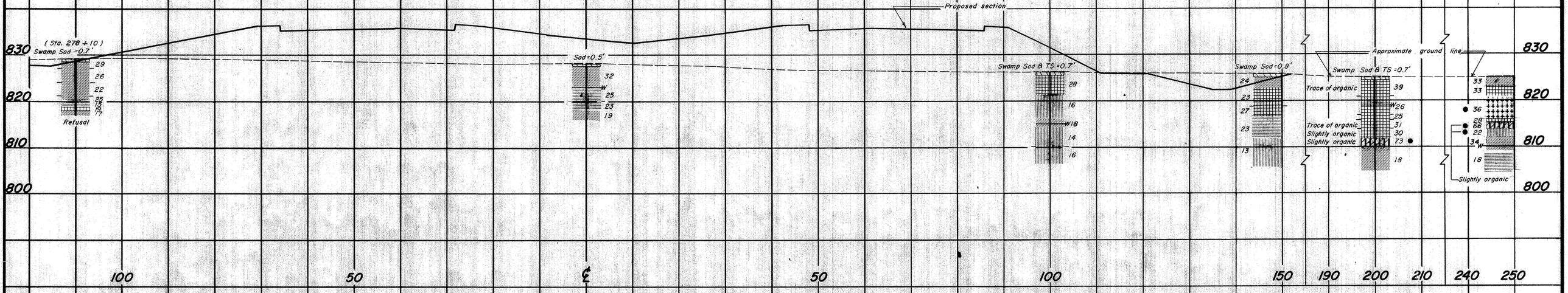


SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37

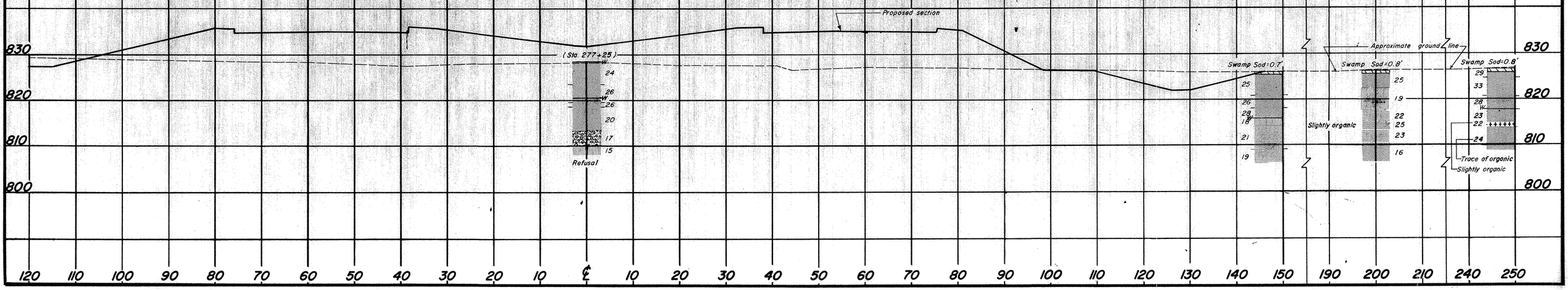
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

56
84

Cross Section Sta. 278+00



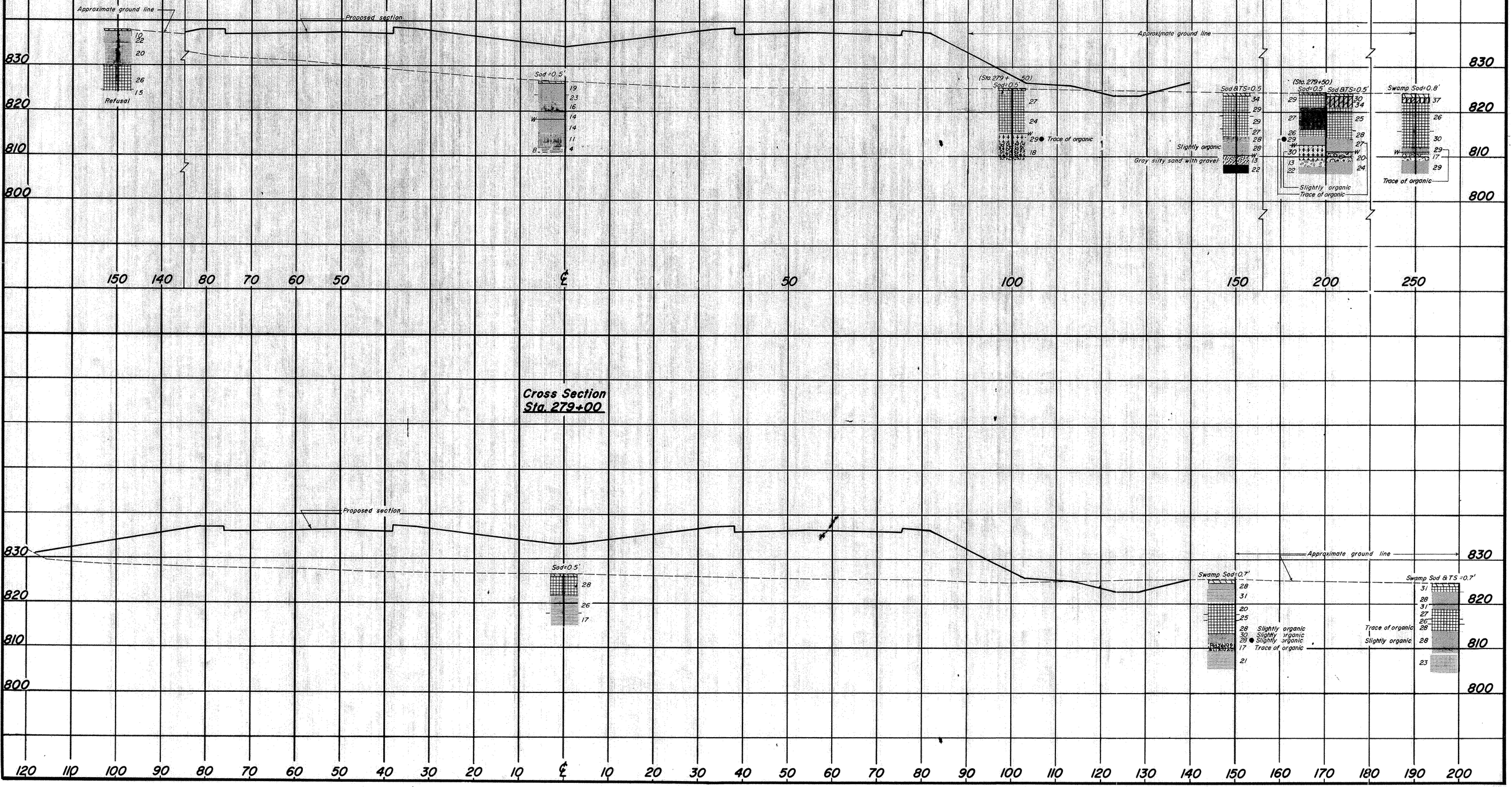
Cross Section Sta. 277+00



SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

57
84

Cross Section Sta. 280+00

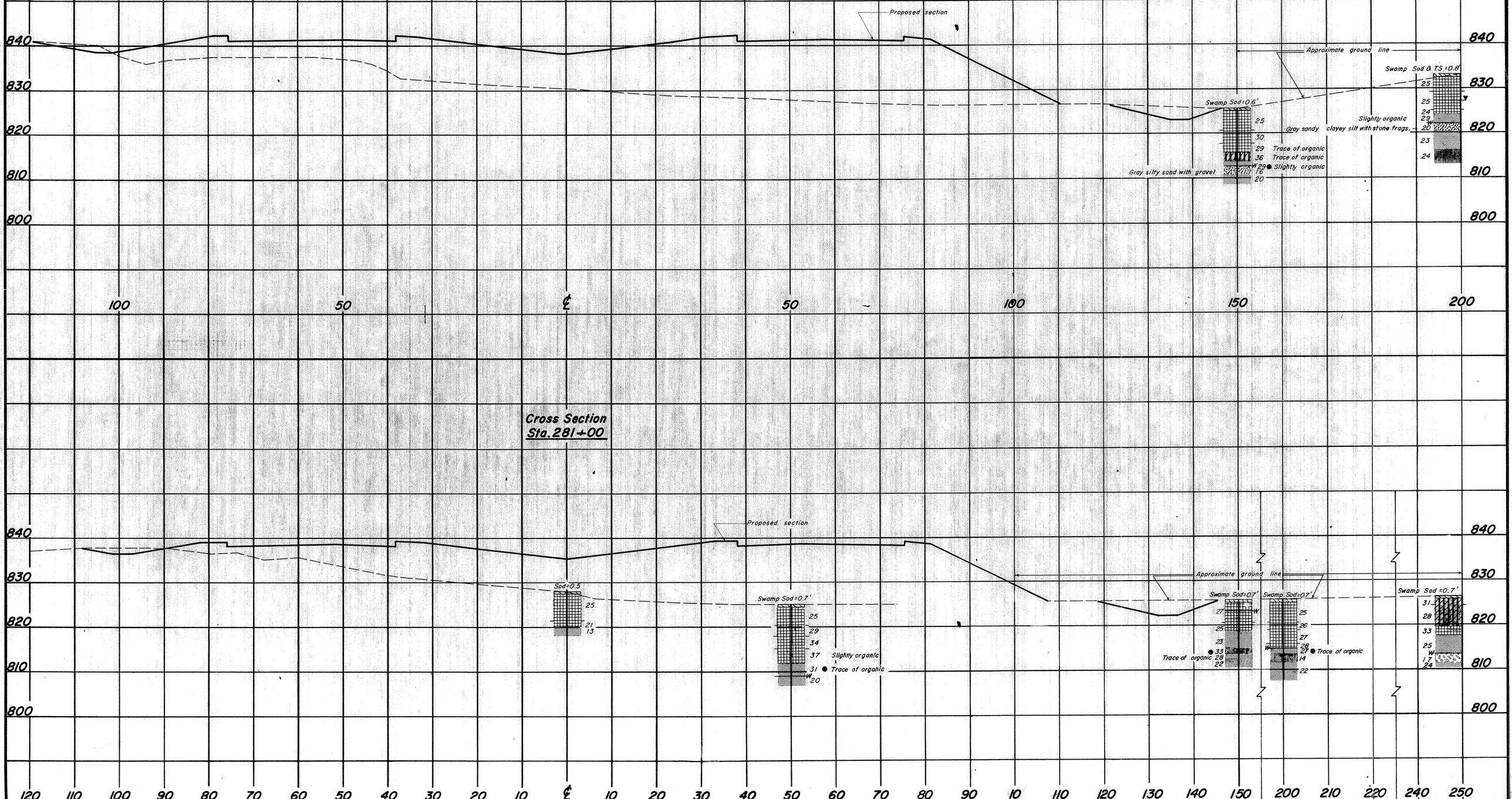


Cross Section Sta. 279+00

SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

58
84

Cross Section Sta. 282+00



Cross Section Sta. 281+00

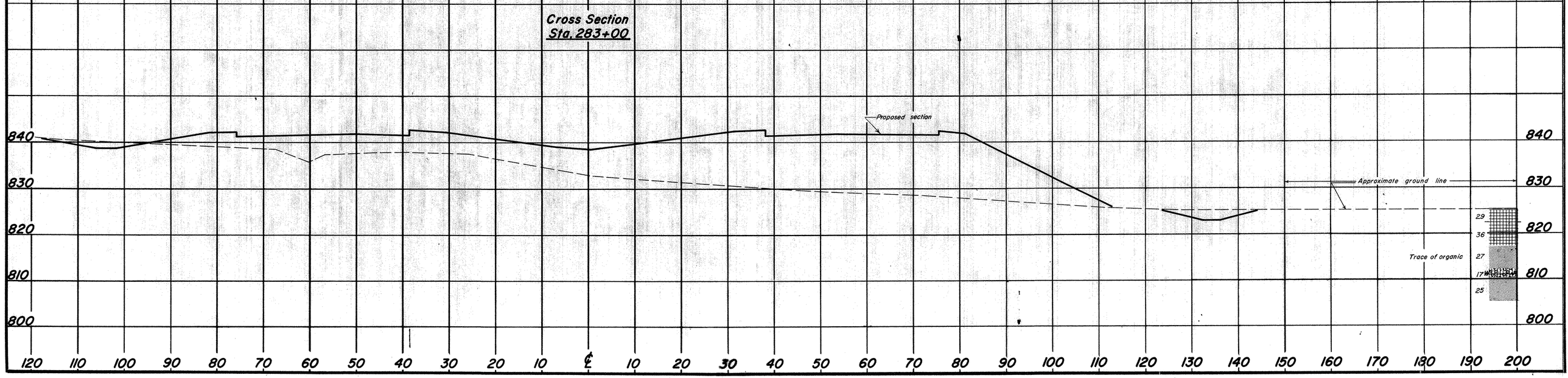
SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

59
60

Cross Section Sta. 283+69



Cross Section Sta. 283+00



SOIL PROFILE

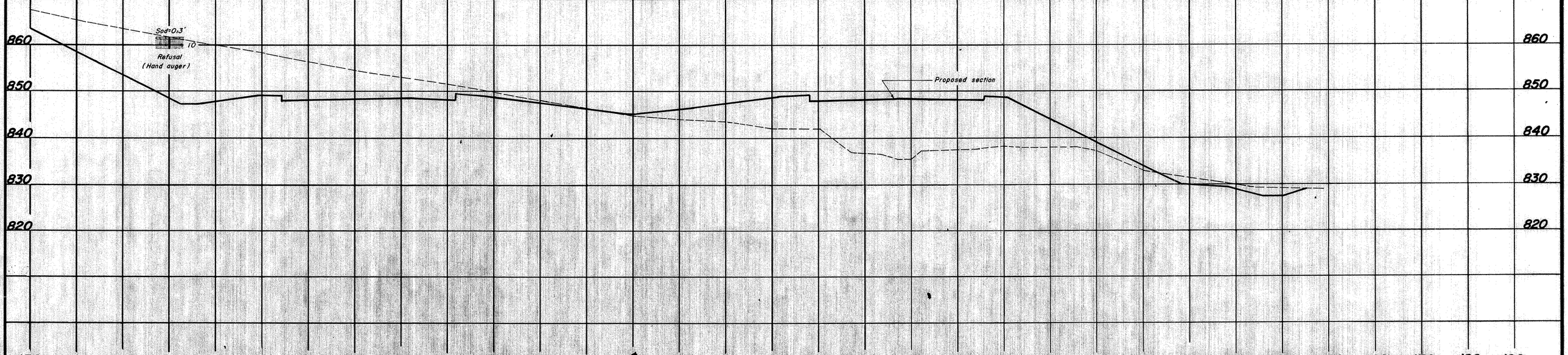
GUERNSEY COUNTY

GUE-40-17.37

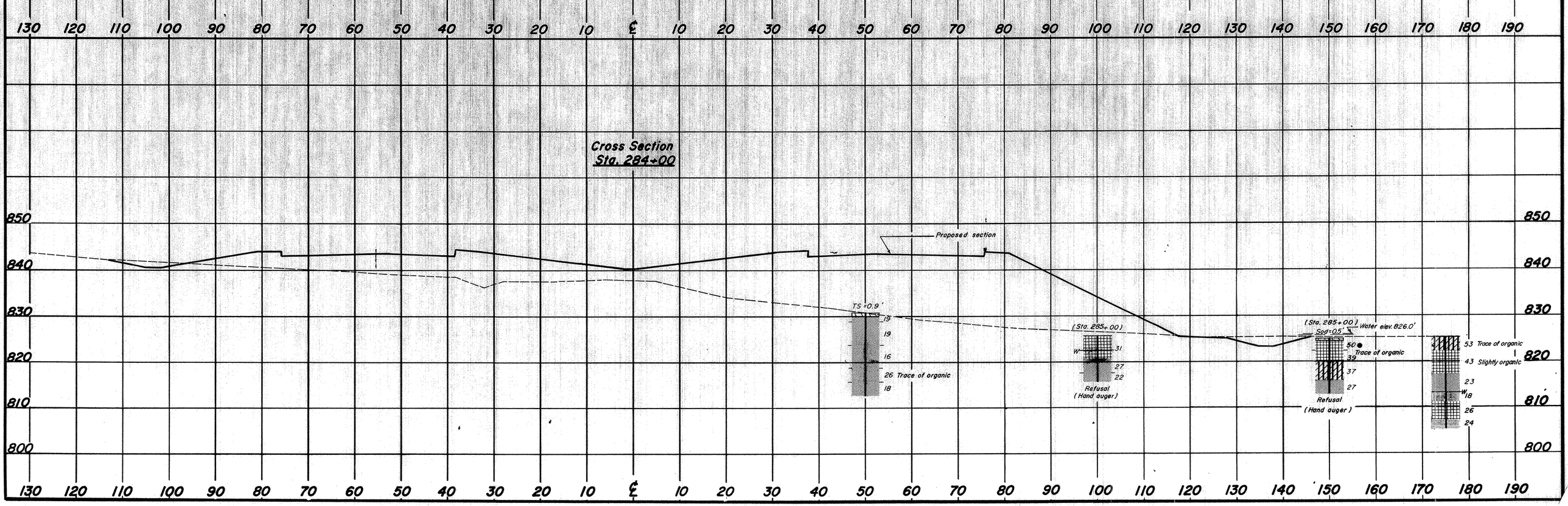
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

60
84

Cross Section Sta. 287+00



Cross Section Sta. 284+00



SOIL PROFILE

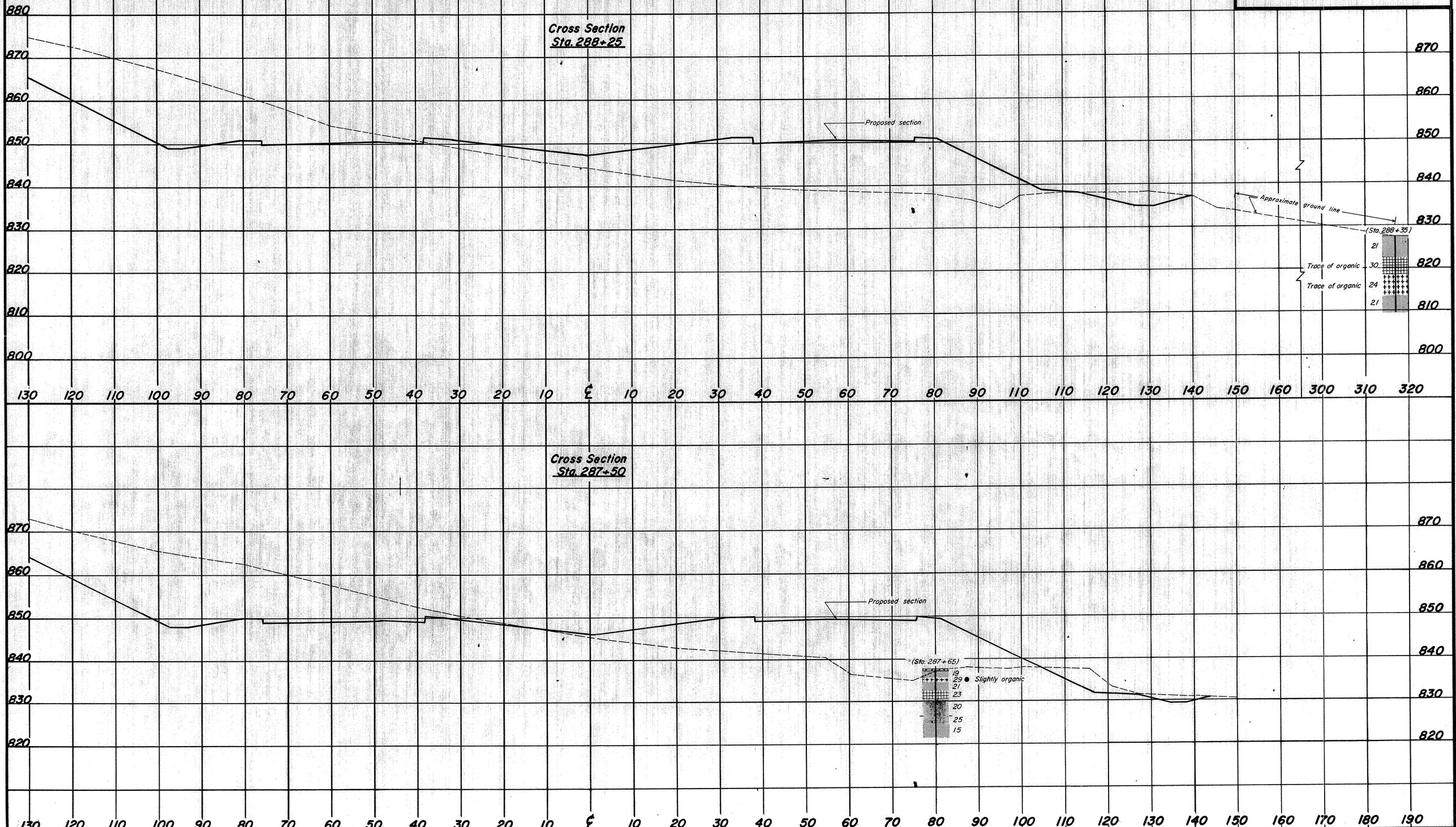
GUERNSEY COUNTY

GUE — 40 — 17.37

OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

61
84

Cross Section Sta. 288+25



Cross Section Sta. 287+50

SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

62
84

Cross Section Sta. 289+00

Proposed section

Swamp Sod=0.2'
55 Organic
24 Slightly organic
Refusal
(Hand auger)

850
840
830

150 100 50 ℄ 50 100 150

Cross Section Sta. 288+65

Proposed section

(Sta. 288+70)
Swamp Sod=0.2'
62 ● Slightly organic
39 Organic
31 ● Slightly organic
Refusal
(Hand auger)

860
850
840
830

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

SOIL PROFILE

GUERNSEY COUNTY
GUE-40-17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

63/84

Cross Section Sta. 290+00

(Sta 289+91)

Brown sandy silt

Top of Rock-In-Place

Shale, brown, siliceous, fissile, medium-firm, weathered, badly broken. No Core Loss.

Sandstone, brown, medium-grained, massive, broken. No Core Loss.

Shale, brown, siliceous, fissile, broken; interbedded with sandstone, gray, medium-grained, firm, massive, comprising 40% of interval. No Core Loss.

Shale, black, carbonaceous, firm, fissile, broken. No Core Loss.

Coal, black, broken. No Core Loss.

Indurated clay, dark-gray, soft, weathered, crumbly. Core Loss 0%.

Proposed section

Cross Section Sta. 289+36

Proposed section

(Sta 289+87)

2/13	22	
11/13	21	
9/17	45	Slightly organic
14/17	24	
9/12	26	Slightly organic
16/30	21	

Top of Rock-In-Place

A. Shale, gray, argillaceous, slightly micaceous, slightly arenaceous, fissile, hard, broken. Core Loss 5%.

Bottom of boring at elev. 787.6'

Approximate ground line

(Sta 289+50)

	23
	29
	24
	23
	25

SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

64
84

Cross Section
Sta. 293+50

(Sta. 292+00)

13
8
Refusal

Proposed section

Sod=0.3
9
20
31
16

890
880
870
860
850
840
830

100 50 ℄ 50 100 150 200

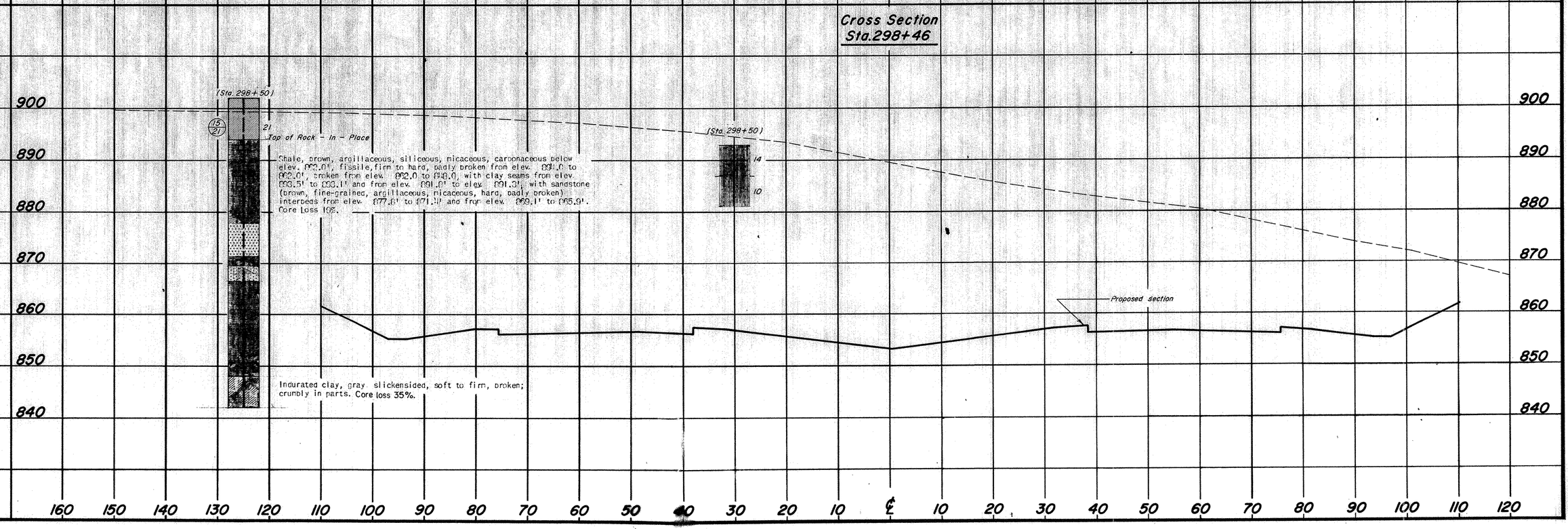
SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

65
84

Cross Section Sta.304 + 44



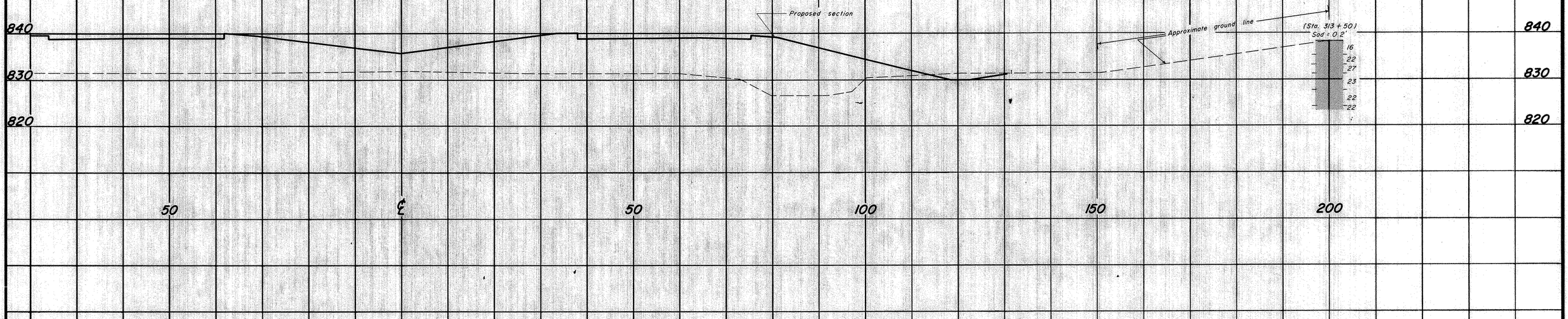
Cross Section Sta.298+46



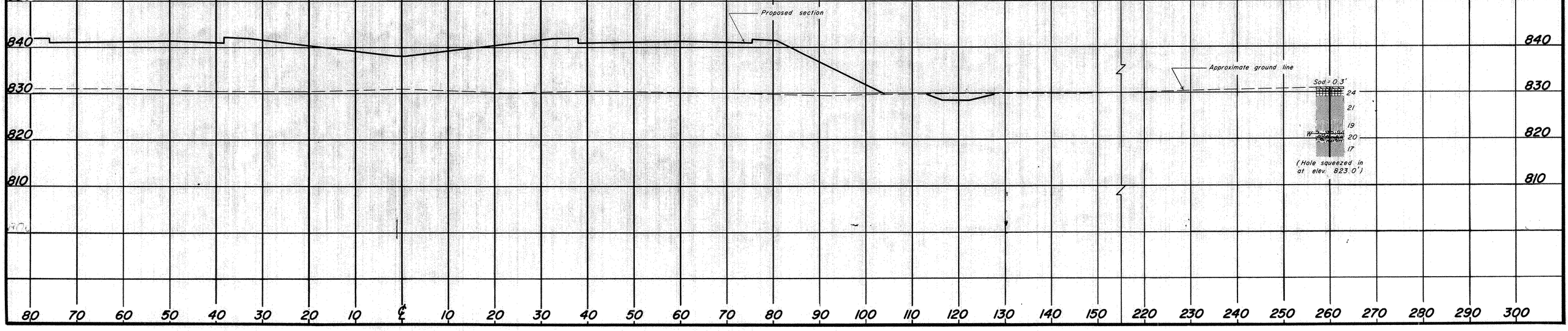
SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

66
84

Cross Section Sta. 313+00



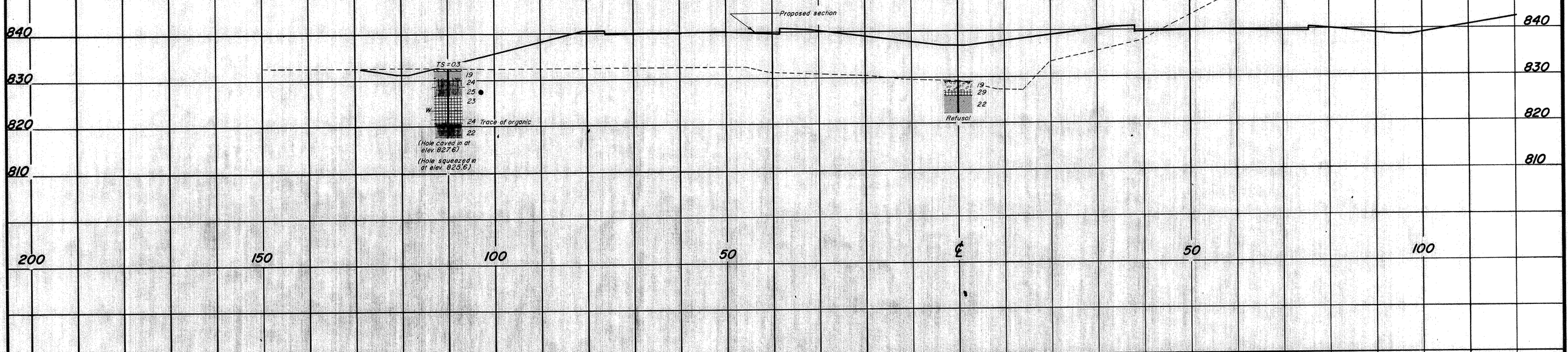
Cross Section Sta. 310+00



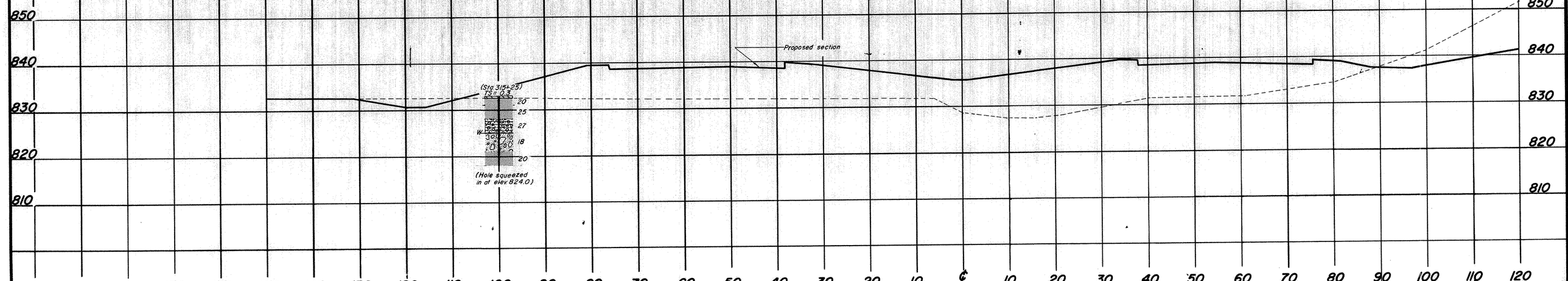
SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 -17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

67
84

Cross Section Sta. 318+00



Cross Section Sta. 315+40



SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 -17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

68/84

Cross Section
Sta. 320+50

930
920
910
900
890
880
870
860
850
840
830
820
810

100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 320 330 340 350 360 370 380

Approximate ground line
(Sta. 320+60)

9/11 20
8/12 28

Top of Rock - In - Place

Shale, brown, argillaceous, calcareous, arenaceous, hard, badly broken; badly broken from elev. 911.0' to 909.2', with a clay seam from elev. 909.0' to 908.5'. Core Loss 21%.

Indurated clay, gray, calcareous, arenaceous, hard, broken. No Core Loss.

Limestone, light-gray, hard, dense, broken with a clay seam from elev. 895.8' to 894.5'. No Core Loss.

Indurated clay, gray, calcareous, arenaceous, slickensided, hard, broken; badly broken from elevs. 890.0' to 892.0'; vertically jointed at irregular intervals from elev. 889.5' to 892.3', with a limestone (light-gray, hard, dense, broken) interbed from elev. 890.5' to 878.0'. No Core Loss.

Shale, dark-gray, carbonaceous, argillaceous, slightly micaceous, slightly arenaceous, fissile, hard, broken; badly broken from elev. 881.0' to 881.0'; vertically jointed from elev. 850.5' to 856.2', from elev. 853.5' to to 852.5', from elev. 842.7' to 841.5' and from elev. 840.5' to 832.7'. Core Loss 15%.

Coal, black, blocky, broken. No Core Loss.

Indurated clay, dark-gray grading to gray, grading to brown, argillaceous, calcareous in parts, hard, crumbly; broken from elev. 825.0' to 820.0'. Core Loss 11%.

(Sta 320+60)
32
Refusal
(Hand auger)

Proposed section

SOIL PROFILE

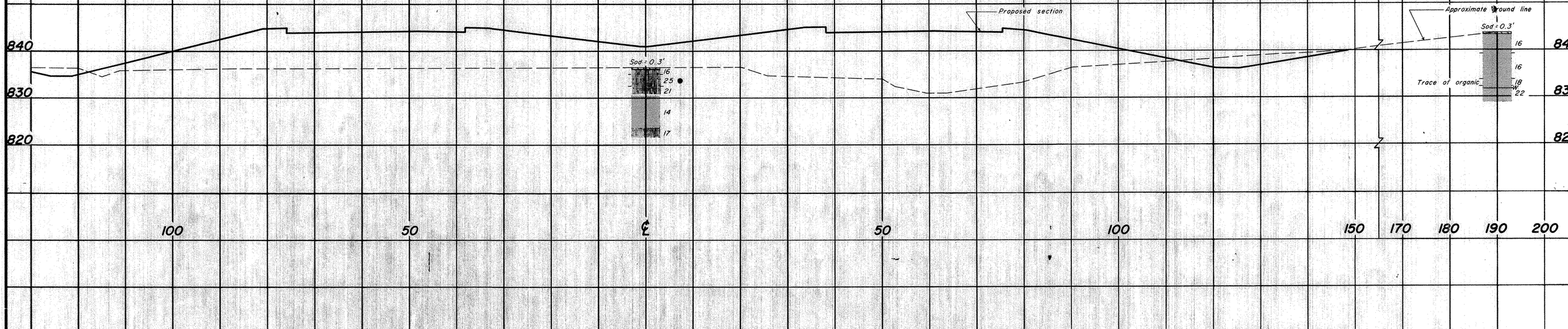
GUERNSEY COUNTY

GUE - 40 - 17.37

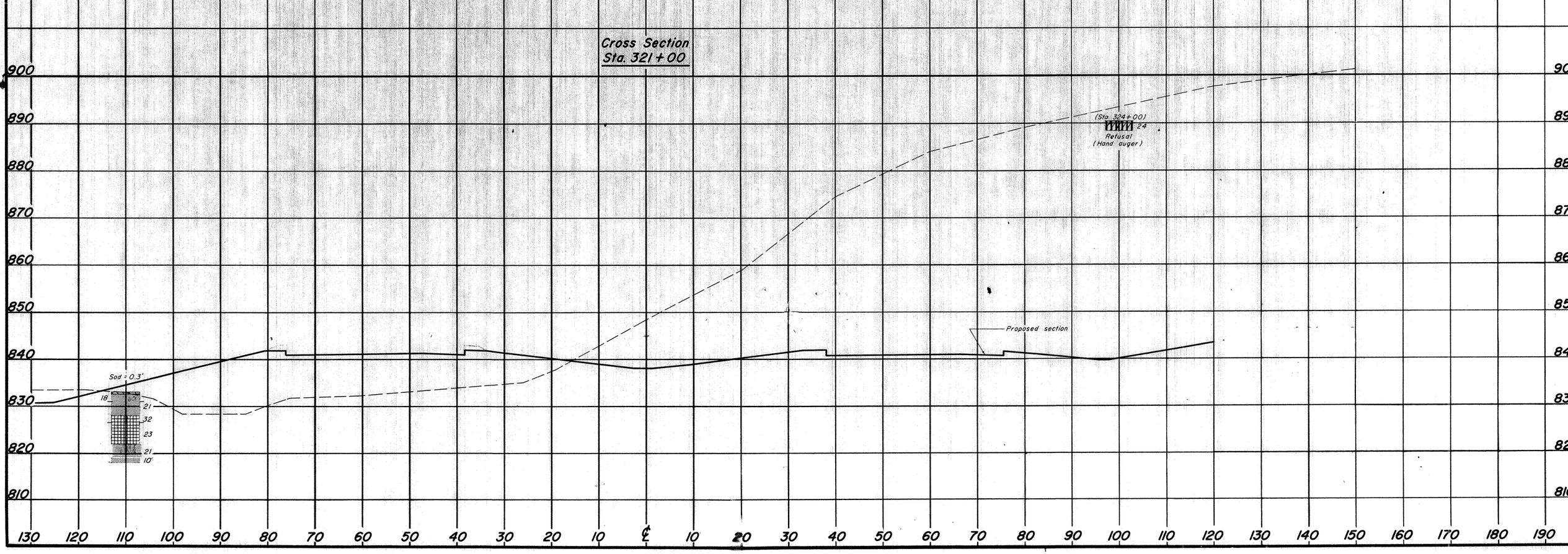
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

69
84

Cross Section Sta. 328 + 50



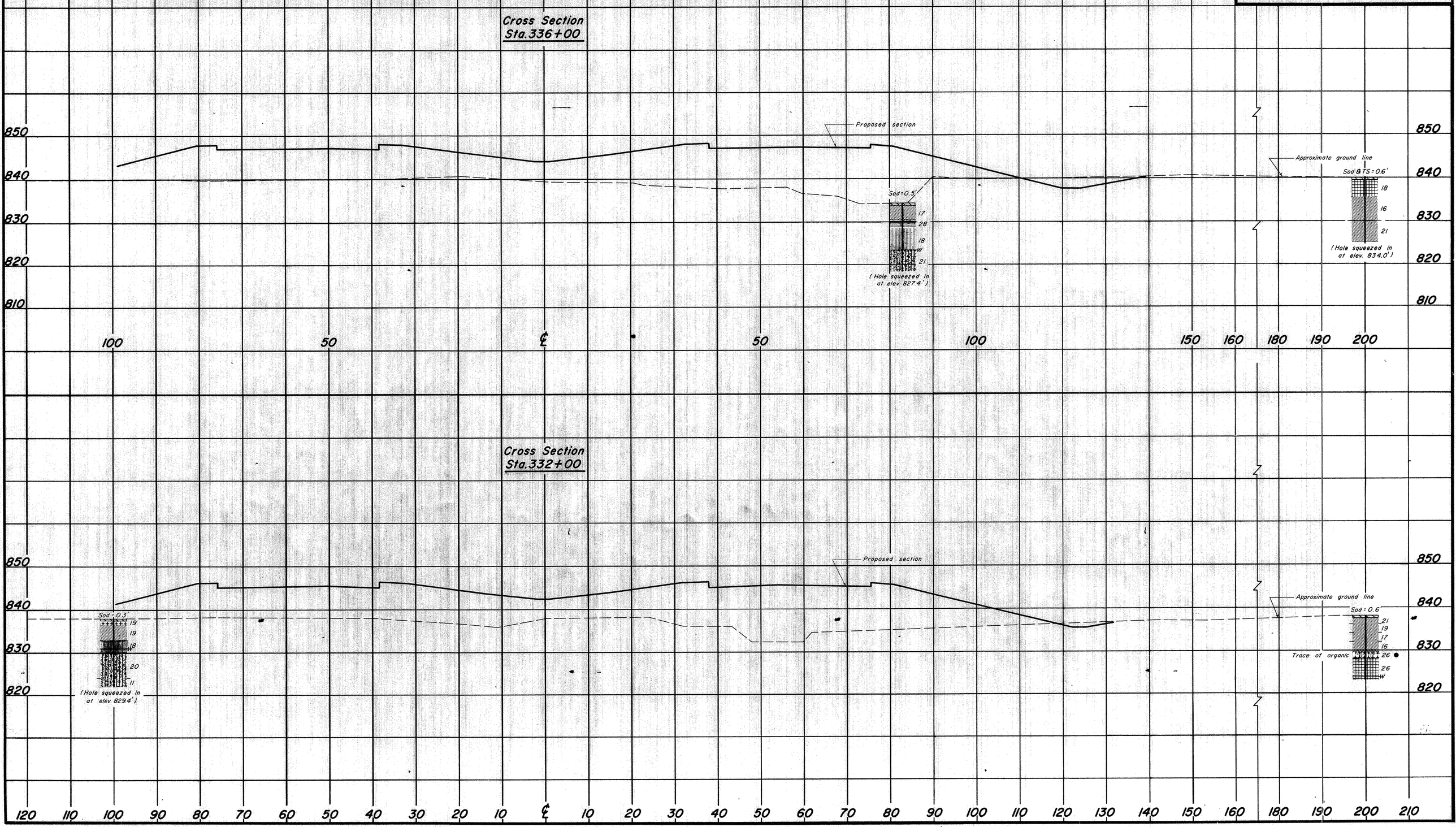
Cross Section Sta. 321 + 00



SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

70
84

Cross Section Sta. 336+00

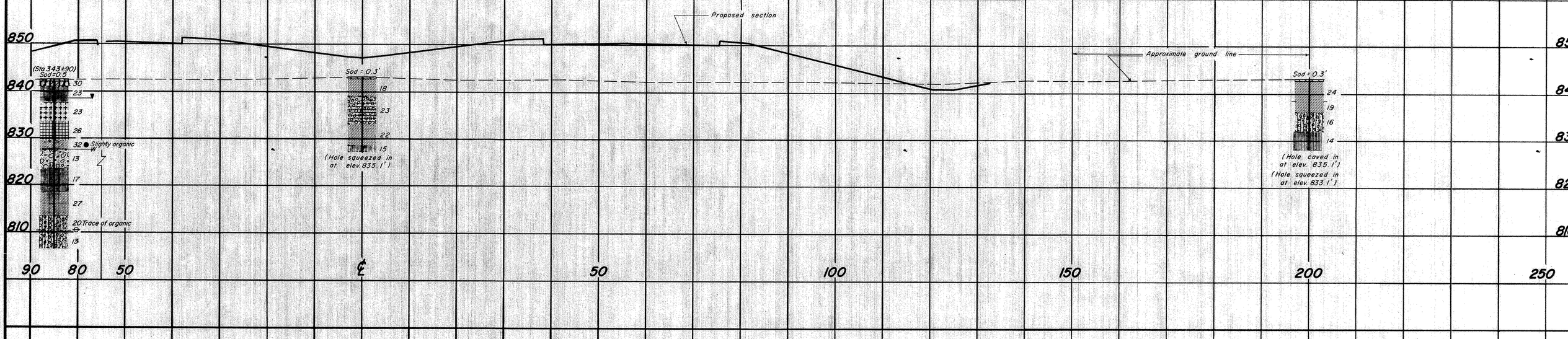


Cross Section Sta. 332+00

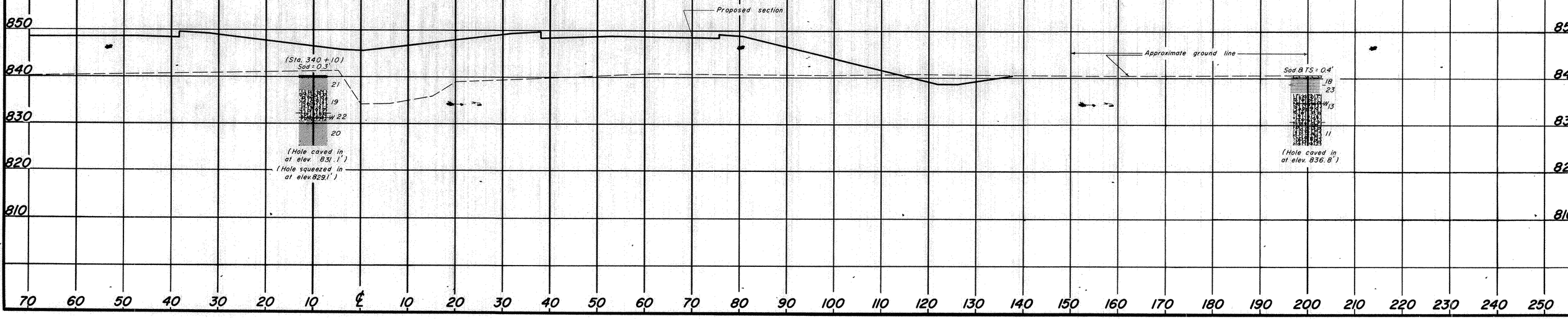
SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

71
84

Cross Section Sta. 344+00



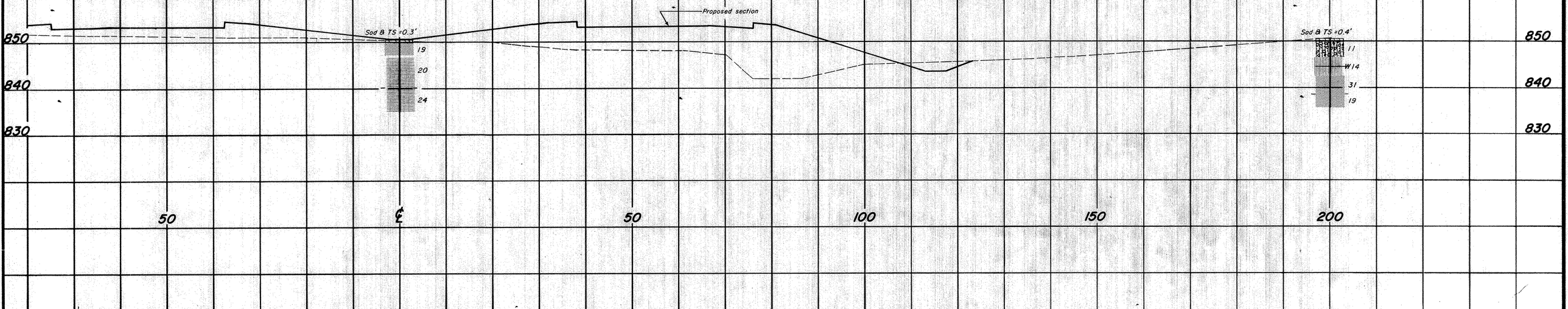
Cross Section Sta. 340+00



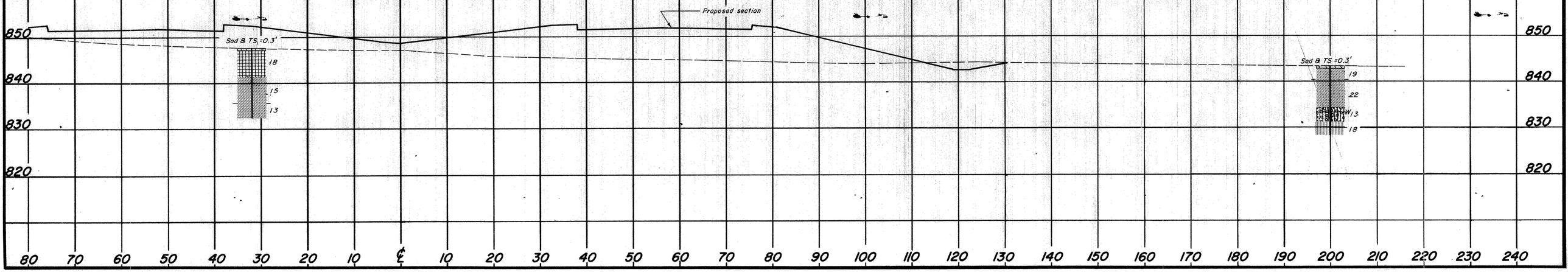
SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

72
84

Cross Section Sta. 352+00



Cross Section Sta. 348+00



SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

73
84

Cross Section
Sta. 357 + 00

Proposed section

Swamp Sod = 0.3'

47
W
26
22
19
organic

Sod & TS = 0.4+/-

14
W
21
22
15
W

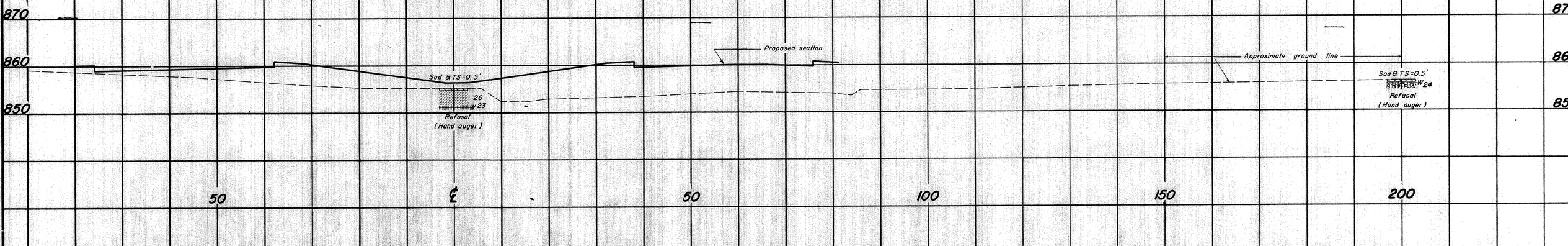
860
850
840
830

130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190

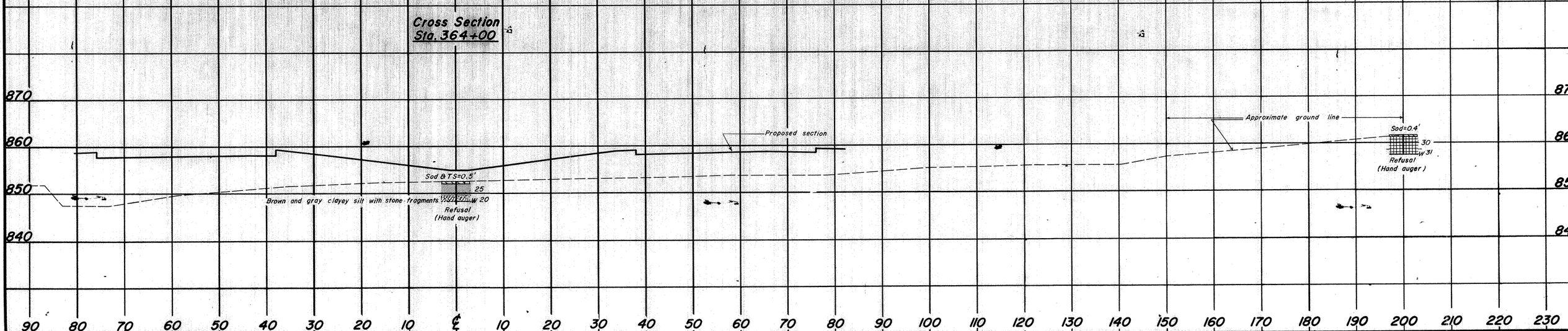
SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

74
84

Cross Section Sta. 368+00

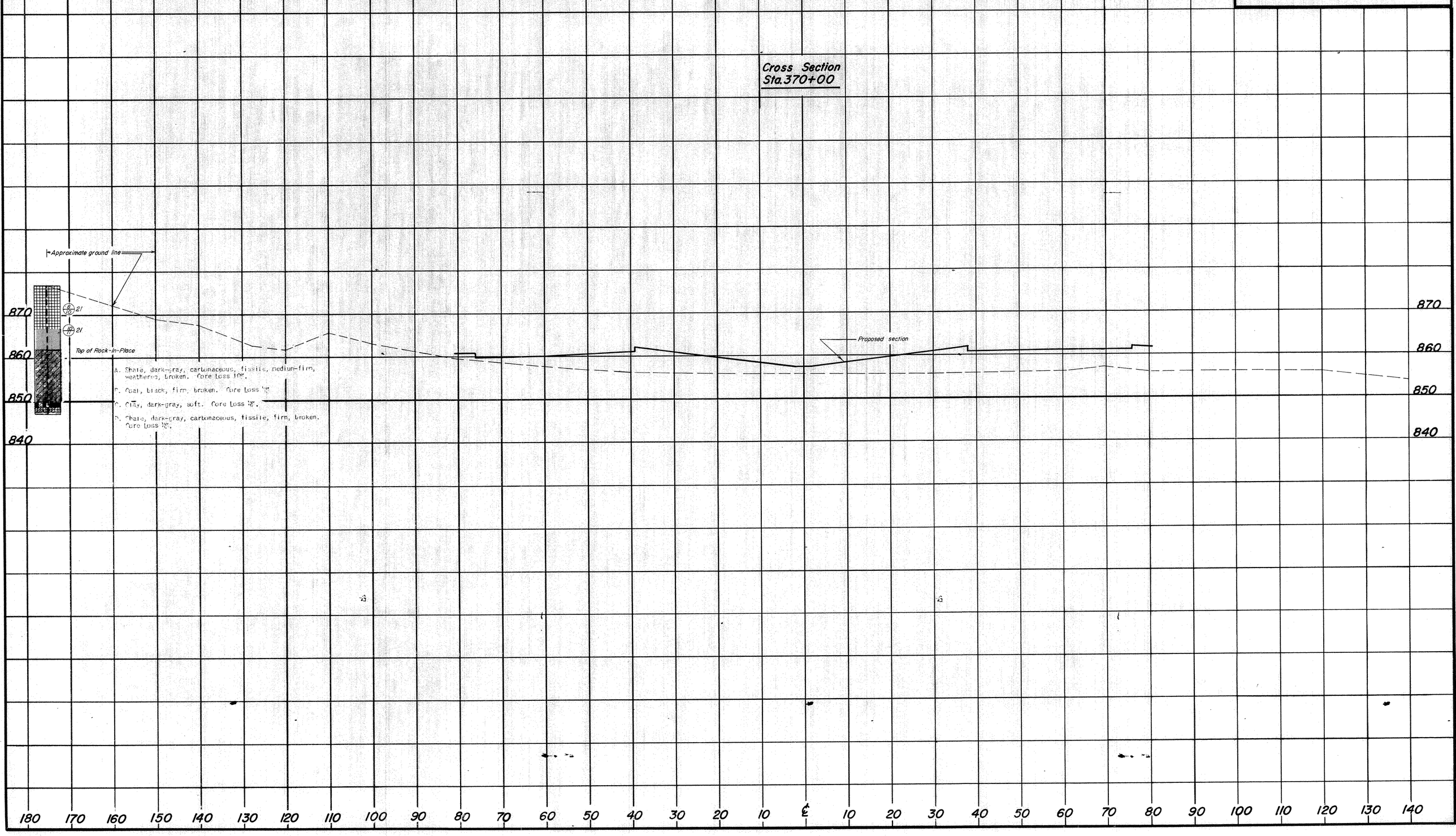


Cross Section Sta. 364+00



SOIL PROFILE
GUERNSEY COUNTY
GUE-40-17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

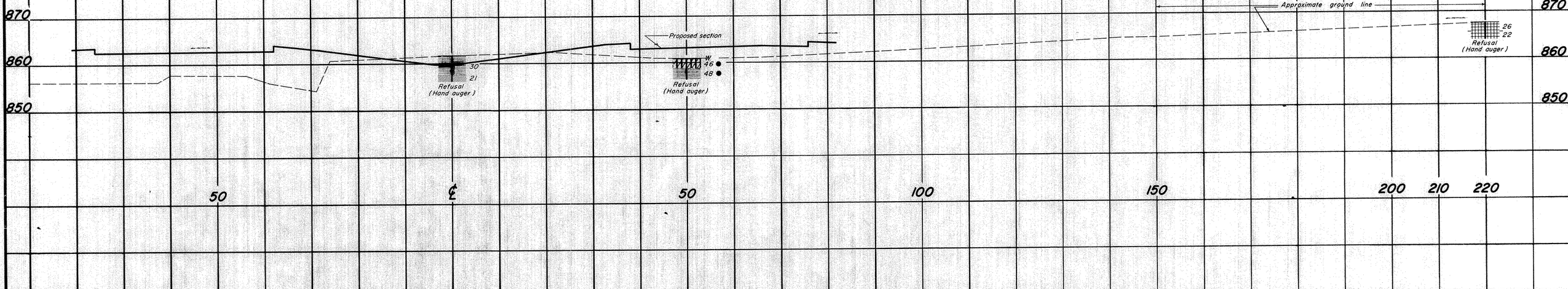
75/84



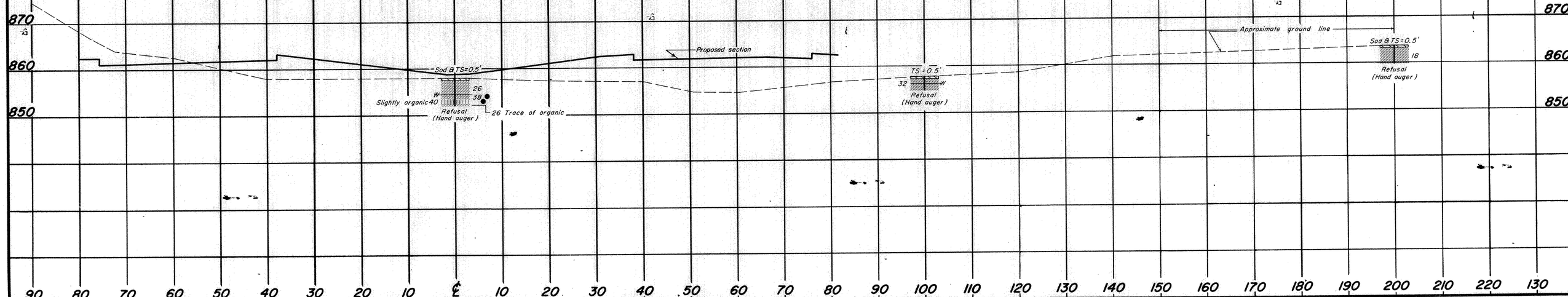
SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

76
84

Cross Section Sta.376+00



Cross Section Sta.373+00



SOIL PROFILE

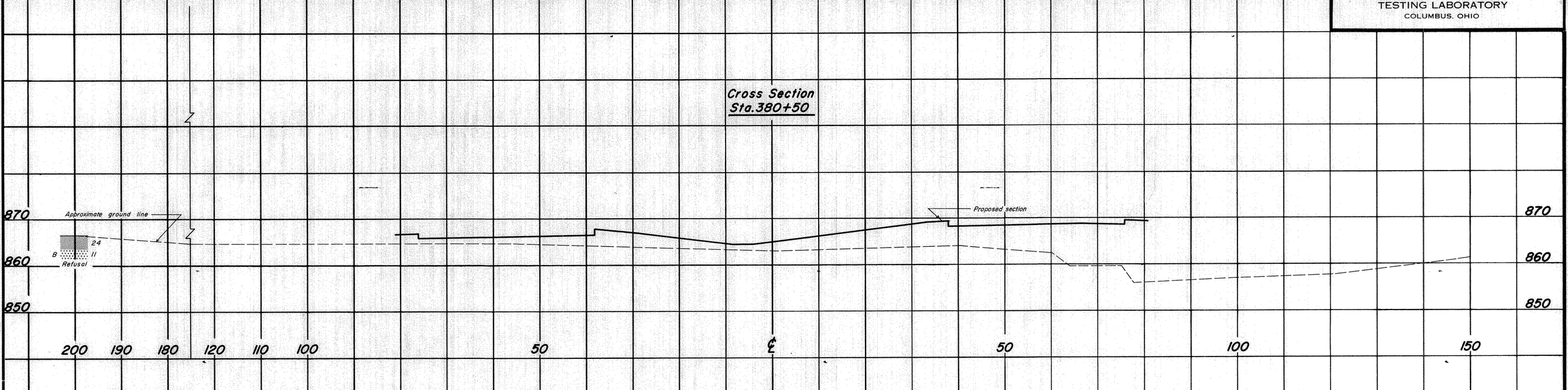
GUERNSEY COUNTY

GUE - 40 - 17.37

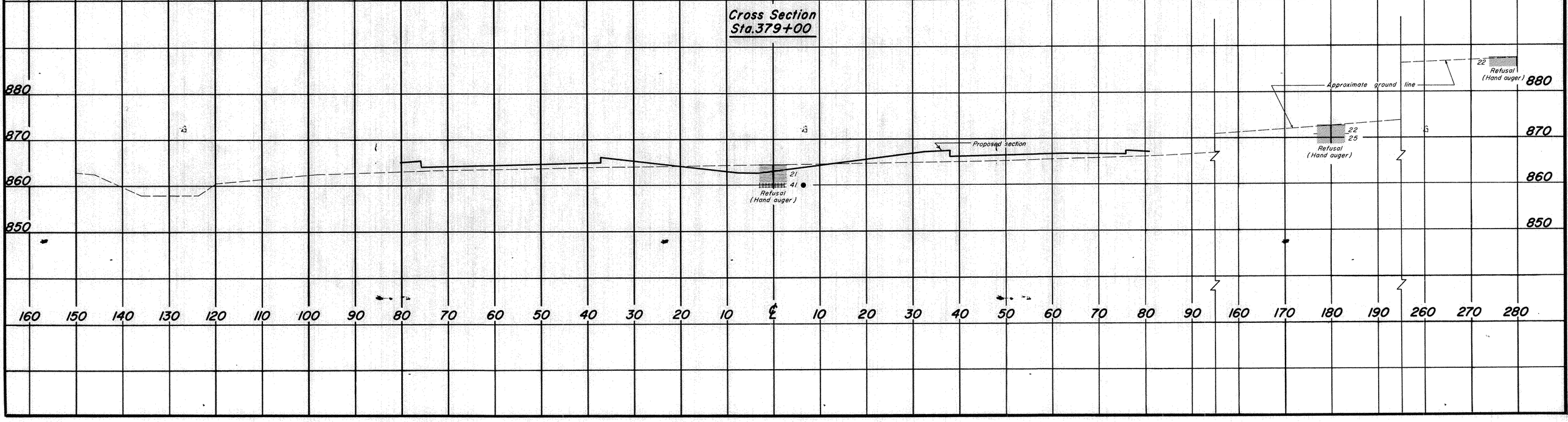
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

77
84

Cross Section Sta. 380+50



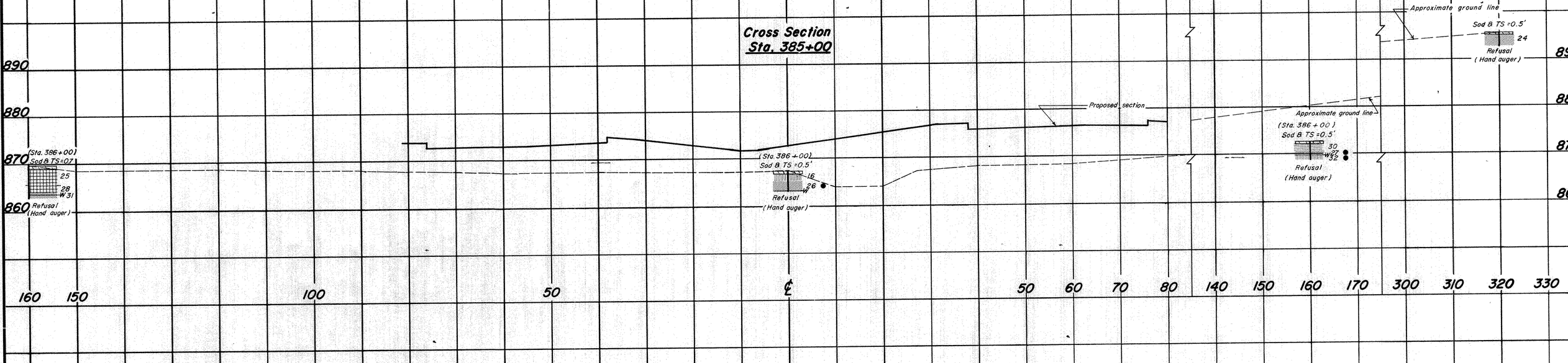
Cross Section Sta. 379+00



SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

78
84

Cross Section Sta. 385+00



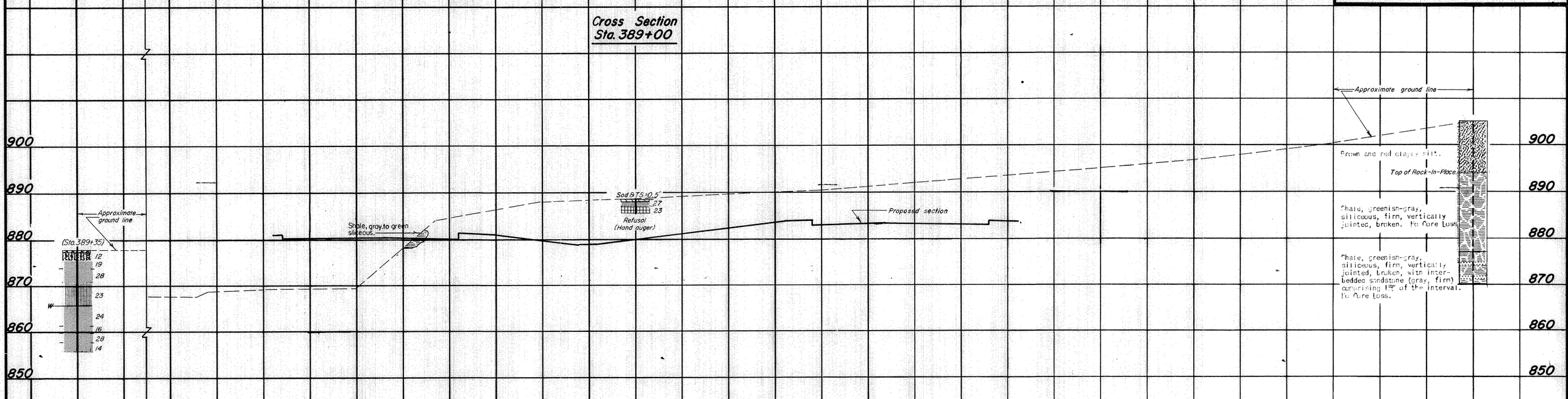
Cross Section Sta. 383+00

SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37

OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

79
84

Cross Section Sta. 389+00



Cross Section Sta. 387+00

SOIL PROFILE
GUERNSEY COUNTY
GUE-40-17.37

OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

80
84

Cross Section
Sta. 394+00

960
950
940
930
920
910
900
890
880

Approximate ground line

Brown sandy silty clay and sandstone fragments.

Brown and gray silty clay with sandy shale fragments.

Top of Rock-In-Place

Indurated clay, gray grading to purple, calcareous, argillaceous, slickensided, firm to hard, broken; badly broken from elev. 903.1' to 897.1'; soft weathered crumbly above elev. 916.6'. Core Loss 11%.

Shale, gray, argillaceous, micaceous very arenaceous, calcareous, hard, broken; badly broken from elev. 891.1' to 885.0'; vertically jointed from 893.1' to 885.9'. No Core Loss.

Proposed section

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 60 90 100 110 120 130 140 150 160 170

SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

81
84

Cross Section Sta. 400+00

Sod & TS =0.4
18
25
11
10
15
9
Refusal

Proposed section

930
920
910
900
890
880

150 100 50 ℄ 50 100 150

Cross Section Sta. 397+00

Sod & TS =0.4'
17
23
20
22
10
26

Proposed section

8 6
Refusal

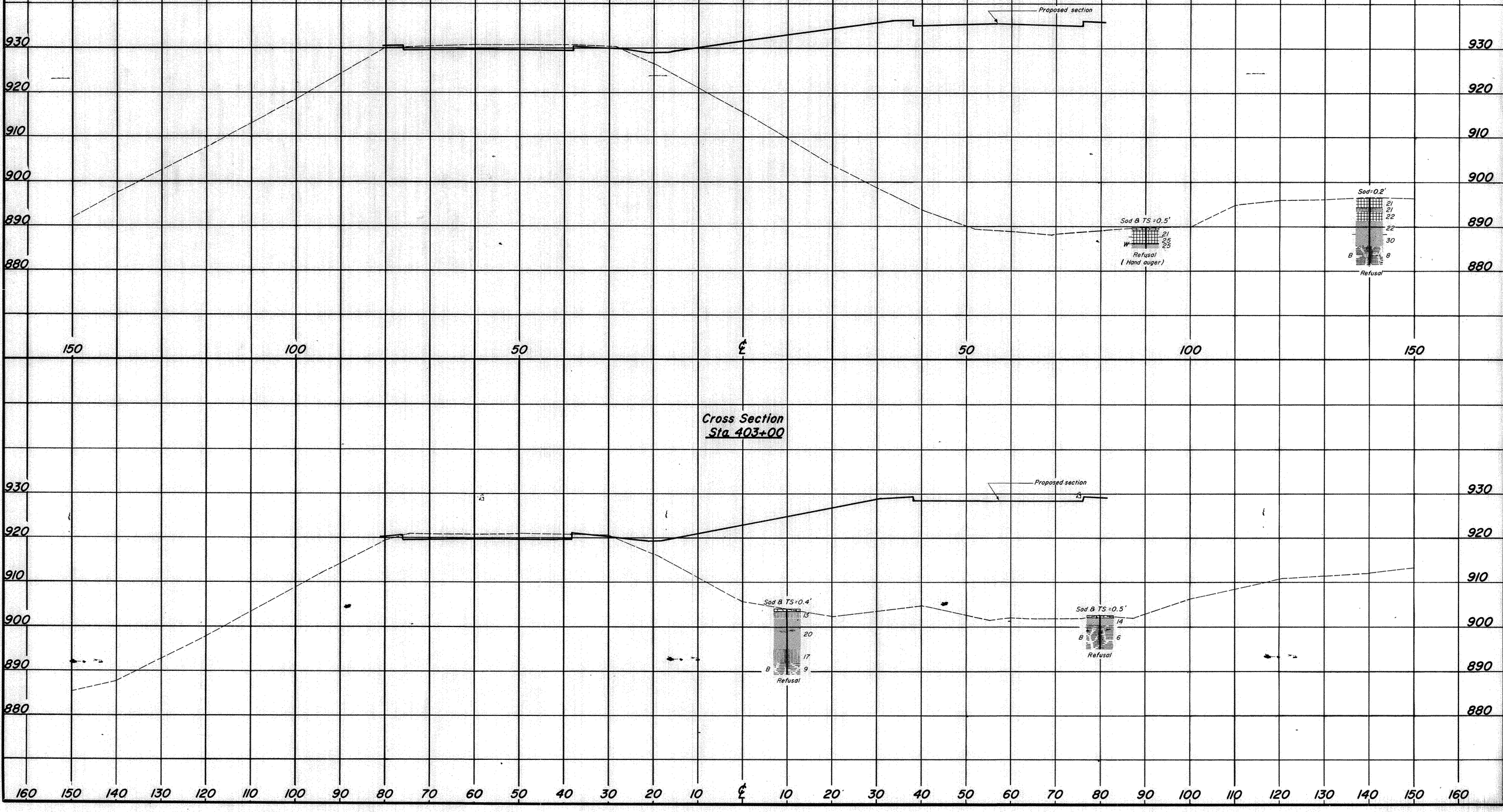
950
940
930
920
910
900
890

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

SOIL PROFILE
GUERNSEY COUNTY
GUE - 40 - 17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

82
84

Cross Section Sta. 405+50



Cross Section Sta 403+00

SOIL PROFILE

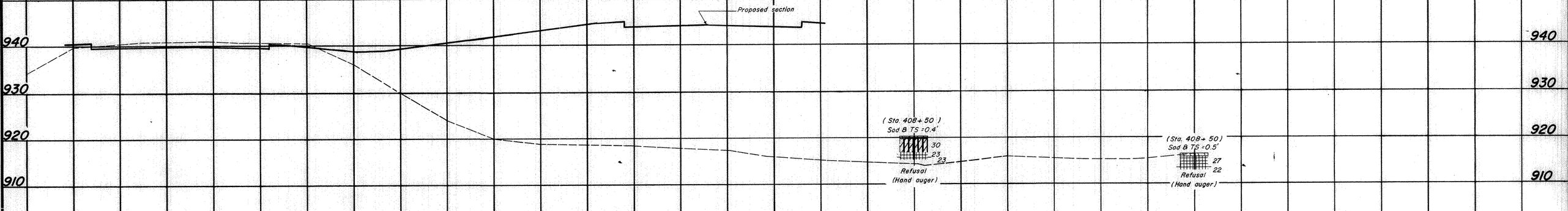
GUERNSEY COUNTY

GUE - 40 - 17.37

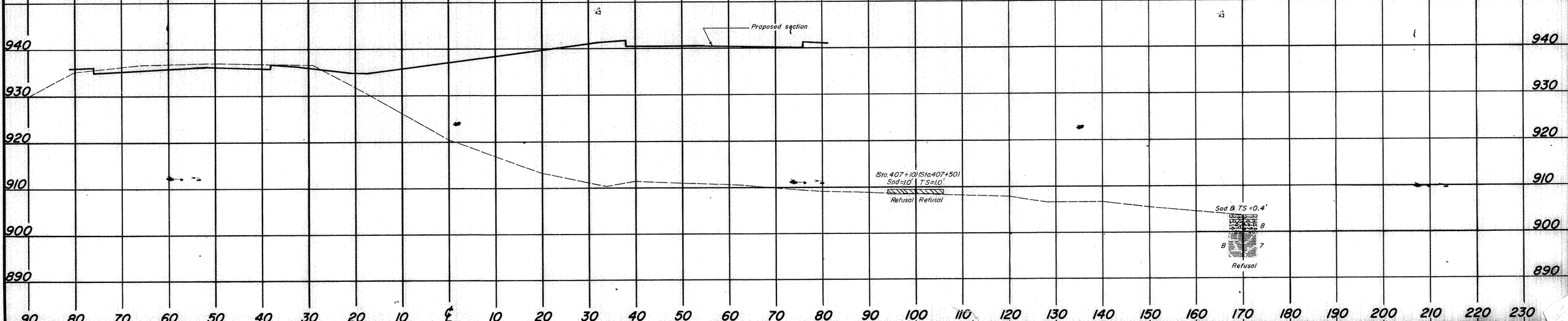
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

83
84

Cross Section Sta. 408+00



Cross Section Sta. 407+00



SOIL PROFILE
GUERNSEY COUNTY
GUE-40-17.37
OHIO STATE HIGHWAY
TESTING LABORATORY
COLUMBUS, OHIO

84/84

Cross Section
Sta. 412+50

980
970
960
950
940

Proposed section

Brown silty clay with weathered shale block, cobbles, fragments and sandstone cobbles.

15

Top of Rock-In-Place.

Indurated clay, reddish-brown, argillaceous, slickensided, firm, broken. Core loss 20%.

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140

H-7

1880