

LOCATION AND OWNERSHIP MAP

**NOTICE TO LANDOWNERS OR CONTRACTORS**  
 PRIOR TO START OF CONSTRUCTION THE OWNER OF THE PIPELINE OR OTHER IMPROVEMENT LINE MUST BE NOTIFIED OF THE PENDING CONSTRUCTION, GIVING THE DATE AND TIME SUCH WORK IS SCHEDULED TO BEGIN. THE PROPERTY OWNER OR THE CONTRACTOR IS RESPONSIBLE FOR GIVING THIS NOTICE.

DRAINAGE AREA --- 385 ACRES  
 LAND USE --- GENERAL FARMING  
 SOIL TYPE --- TOLEDO, FULTON HOYTVILLE  
 LAND SLOPE --- 0 - 2 %  
 TYPE DRAINAGE --- SURFACE & TILE  
 DESIGN COEFFICIENT --- Q<sub>6</sub> CURVE

**LEGEND** Done

PROPOSED DRAINAGE	---
HIGHWAYS	====
ACRES IN WATERSHED	00 A.
PIPE LINE	---
WATERSHED BOUNDARIES	
SECTION LOCATION	0 0 0 0

**HYDRAULIC CALCULATION**

CHANNEL FLOW  $V = \frac{1.485}{N} R^{2/3} S^{1/2}$

REACH	STA. TO STA.	11+80	25+00	0+00
DRAINAGE AREA (A <sub>0</sub> )		385	303	243
Q <sub>6</sub> FLOW (CFS)		59	49	39
"N"		.04	.04	.04
SLOPE - S (F/FT)		.0008	.0005	.0008
S - 1/2		.0283	.0224	.0283
Q/S <sup>1/2</sup> = KD		2085	2135	1378
KD VALUE USED		2172	2293	1421
SIDE SLOPE		1 1/2 : 1	1 1/2 : 1	1 1/2 : 1
BOTTOM WIDTH (FT)		3'	3.0'	3.0'
DEPTH (FT)		4.0	4.1	3.3
AREA (SQ. FT)		36.00	37.53	26.25
VELOCITY = Q/A (FPS)		1.64	1.31	1.49

**CULVERTS**

HEAD LOSS IN FEET  $H = \frac{V^2}{2g} (1 + KE + KPL)$

STATION	11+14	44+56
DRAINAGE AREA (A <sub>0</sub> )	110	303
Q <sub>6</sub> FLOW (CFS)	18.5	49
DIAMETER (IN.)	30"	36"
TYPE	C.I.P.	C.I.P.
"N"	.013	.013
LENGTH (FT)	26'	24'
X - SECTIONAL AREA (SQ. FT)	4.91	7.07
KP	.0092	.0072
KPL	.2392	.1730
KE	.5	.5
VELOCITY (FPS)	3.76	6.94
HEAD LOSS	0.38	1.25

- BM<sup>#1</sup> - TOP OF N. END OF 8" TILE AT BEGINNING OF DITCH STA. 0+00  
M.S.L. ELEV. 595.9
- BM<sup>#2</sup> - TOP OF SPIKE IN E. TAP ROOT OF 18" TREE ON S. LINE OF E. PAULE FARM W. SIDE OF DITCH STA. 6+20  
M.S.L. ELEV. 599.93
- BM<sup>#3</sup> - TOP OF N. END OF 30" CAST IRON SEWER USED FOR FARM DRIVE E. PAULE STA. 11+40  
M.S.L. ELEV. 596.91
- BM<sup>#4</sup> - TOP OF N. END OF 4" IRON CASING S. SIDE OF DITCH 30' W. OF F. BENCH FARM STA. 18+17  
M.S.L. ELEV. 595.83
- BM<sup>#5</sup> - TOP OF N. END OF 10" TILE S. SIDE OF DITCH 1420' W. OF LICKERT HARDER RD. STA. 30+31  
M.S.L. ELEV. 594.22
- BM<sup>#6</sup> - CHISELED N.W. CORNER OF W. HEAD WALL OF 3' CULVERT UNDER LICKERT HARDER RD. STA. 44+52  
M.S.L. ELEV. 596.40
- BM<sup>#7</sup> - TOP OF 6" IRON PIPE S. SIDE OF DITCH 600' E. OF LICKERT HARDER RD. STA. 50+91  
M.S.L. ELEV. 592.88
- BM<sup>#8</sup> - TOP OF SPIKE IN S.E. TAP ROOT OF TREE OF N.W. CORNER OF TURN OF DITCH OF POMRENKE & PETER FARMS STA. 65+00  
M.S.L. 594.28

THIS DITCH PLAN HAS BEEN APPROVED BY  
*John G. Papcum* 8/25/66  
 OTTAWA COUNTY ENGINEER DATE

**SPECIFICATIONS**

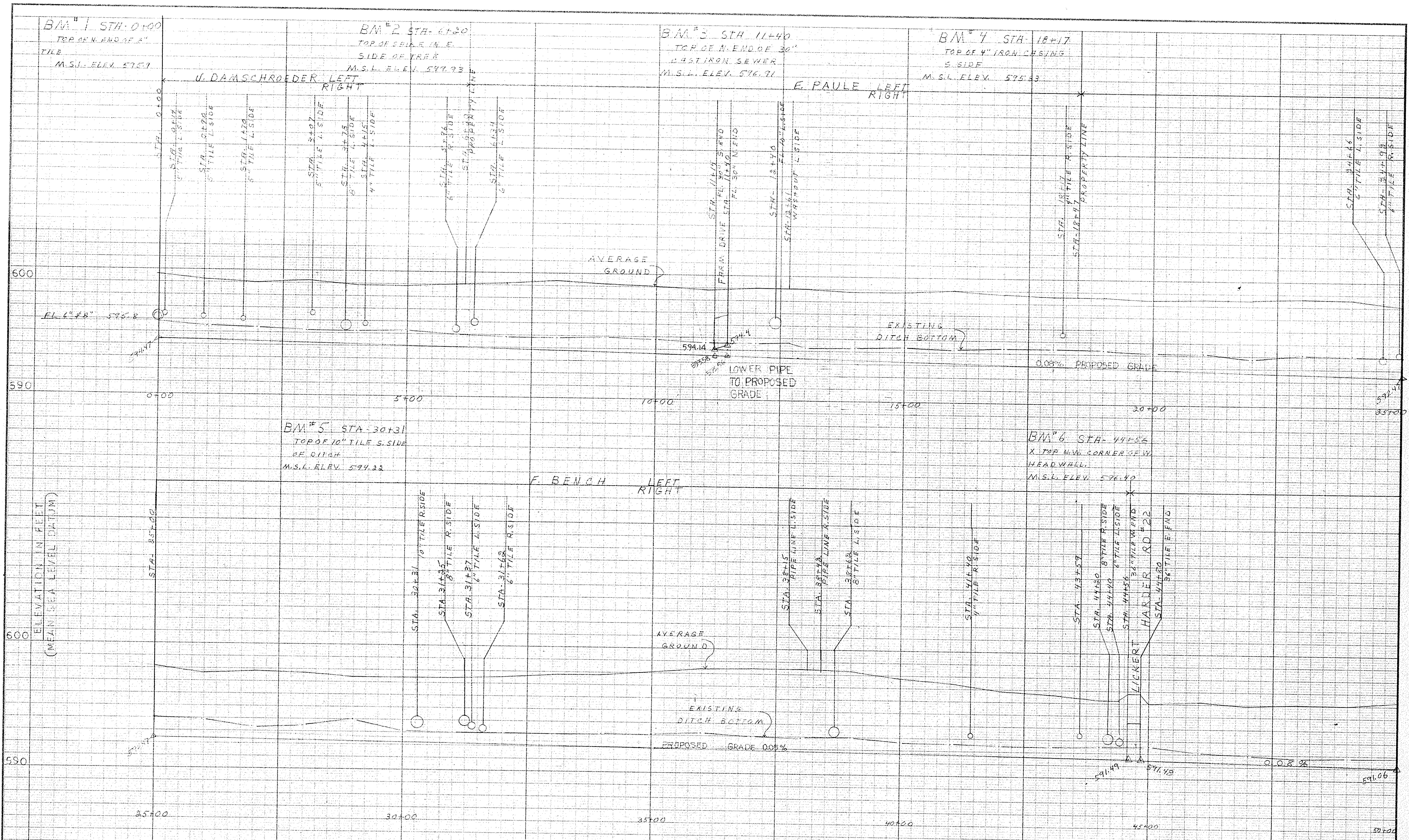
<b>I EXCAVATION</b>	A. BOTTOM WIDTH: THE BOTTOM WIDTH SHALL BE THREE (3') FEET BETWEEN STA. 0+00 AND STA. 68+51.	<b>V TILE OUTLETS:</b>	OPENINGS SHALL BE PROVIDED FOR SURFACE WATER INLETS.	<b>LOCATION -</b> S. 1/2 OF SEC. 2 S.W. 1/4 SEC. 1 R 14 E. T 7N. HARRIS TOWNSHIP. OTTAWA COUNTY, OHIO.
	B. BANK SLOPES: THE DITCH BANKS ARE TO BE CONSTRUCTED TO AT LEAST 1 1/2 FOOT HORIZONTAL TO 1 FOOT VERTICAL.	<b>VI SURFACE WATER OUTLETS:</b>	LAND OWNERS SHALL PROTECT THEIR TILE OUTLETS WITH A SECTION OF CONTINUOUS RIGID PIPE AND RODENT GUARD.	<b>SURVEYED -</b> D. SOMMER D. OPPER 3-2-66
	C. ALIGNMENT: THE CENTERLINE OF THE IMPROVEMENT SHALL BE APPROXIMATELY THE CENTERLINE OF THE EXISTING DITCH.	<b>VII DITCH BANK SEEDING</b>	WHEREVER A LATERAL OR SURFACE DITCH ENTERS THE MAIN DITCH AT A HIGHER ELEVATION PROTECTION FROM EROSION SHOULD BE PROVIDED.	<b>REFERENCE -</b> NOTES ON FILE IN OTTAWA COUNTY SOIL & WATER CONSERVATION OFFICE. JOB CLASS "II"
	D. TOTAL EXCAVATION: TOTAL EXCAVATION CONSISTS OF 4428 CUBIC YARDS OF EARTH OVER 6851 LINEAL FEET OF DITCH.	<b>VIII CULVERTS AND BRIDGES</b>	THE DITCH BANKS WILL BE SEEDED IMMEDIATELY AFTER EACH DAYS WORK TO TALL FESCUE (KENTUCKY 31 OR ALTA) AT THE RATE OF 25 LBS. PER ACRE. A MINIMUM OF 500 LBS. OF 10-10-10 FERTILIZER OR EQUIVALENT WILL BE APPLIED. 3 ACRES OF DITCH BANK SEEDING WILL BE REQUIRED.	
	E. EXCESS YARDAGE: NO EXTRA COMPENSATION WILL BE PAID FOR SUCH EXCAVATION IN EXCESS OF YARDAGE HEREIN ESTIMATED.		EXISTING CULVERTS AND BRIDGES WILL BE CLEANED AND THE INVERTS (FLOWLINE) LOWERED TO CORRESPOND TO THE PROPOSED DITCH GRADE. STA. 11+14 STA. 44+56 (SHALL BE REPLACED WITH A LARGER CULVERT TO PROVIDE GOOD AGRICULTURAL DRAINAGE. 48" REINFORCED CONCRETE)	
<b>II CLEARING:</b>	ALL TREES AND/OR BRUSH WHICH WOULD INTERFERE WITH THE EXCAVATION OPERATION MUST BE CLEARED FROM THE DITCH RIGHT-OF-WAY AHEAD OF THE DRAGLINE OPERATION			
<b>III BERM WIDTHS:</b>	FOUR (4) FEET WIDE FOR DITCH UP TO FOUR (4) FOOT DEPTH SIX (6) FEET WIDE FOR FOUR (4) TO SIX (6) FOOT DEPTH TEN (10) FEET FOR DITCH OVER SIX (6) FOOT DEPTH.			
<b>IV SPOIL BANKS:</b>	EXCAVATED MATERIALS SHOULD BE DEPOSITED AND SPREAD ALONG ONE OR BOTH SIDES OF THE DITCH AS DETERMINED. 3:1 ON CHANNEL SIDE AND 4:1 ON FIELD SIDE NOT TO EXCEED ONE FOOT ABOVE AVERAGE GROUND			

**DITCH IMPROVEMENT SCHLEGEL DITCH OTTAWA COUNTY, OHIO.**

**U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE**

Designed by H. FIEDMAIER	Date 6/66	Approved by Richard R. Nagel	Title Civil Engineer
Drawn DONALD OPPER	Date 5/25/66	Checked R. Nagel	Date 6/66
Traced		Sheet No. 1 of 5	Drawing No. OH-1-83-66-8





**DITCH IMPROVEMENT  
SCHLEGEL DITCH  
OTTAWA COUNTY, OHIO.**

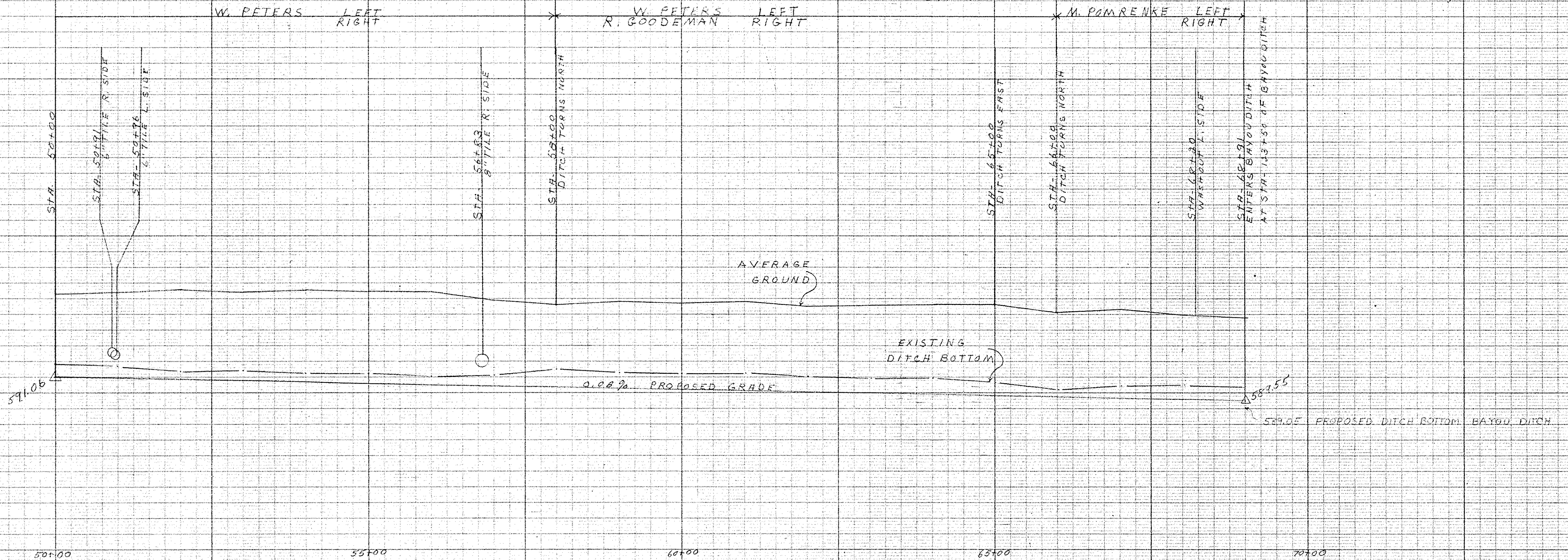
**U. S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE**

Designed <i>H. RIFDMAIER</i>	Date 6/66	Approved by <i>Richard B. Nagel</i>
Drawn DONALD OFFER	Date 6/7/66	Title Civil Engineer
Traced		
Checked <i>R. Nagel</i>	Sheet No 2 of 5	Drawing No OH-1-83-66-8



BM<sup>#</sup> 7 STA- 50+71  
 TOP OF 6" IRON PIPE S.  
 SIDE DITCH  
 M.S.L. ELEV. 592.28

BM<sup>#</sup> 8 STA. 65+00  
 TOP OF SPIKE IN S.E. CORNER  
 FOOT OF IRON N.W. CORNER  
 OF DITCH  
 M.S.L. ELEV. 597.28

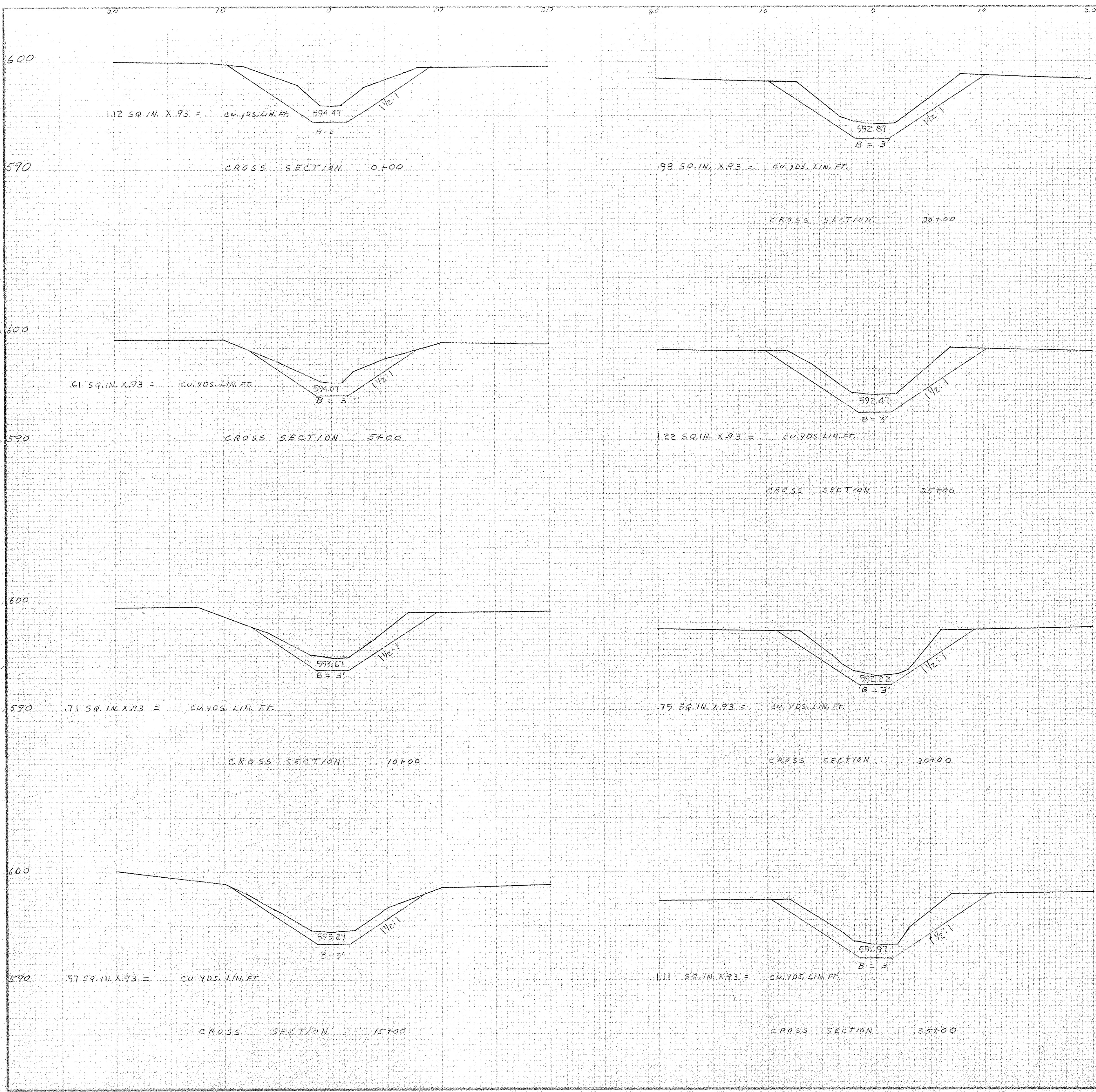


DITCH IMPROVEMENT  
 SCHLEGEL DITCH  
 OTTAWA COUNTY, OHIO.

U. S. DEPARTMENT OF AGRICULTURE  
 SOIL CONSERVATION SERVICE

Designed H. FIEDLER	Date 4/16/66	Approved by Richard R. Nagel
Drawn DONALD OFFER	Title Civil Engineer	
Traced		
Checked R. Nagel		Sheet No. 3 of 5
		Drawing No. OH-1-83-66-8

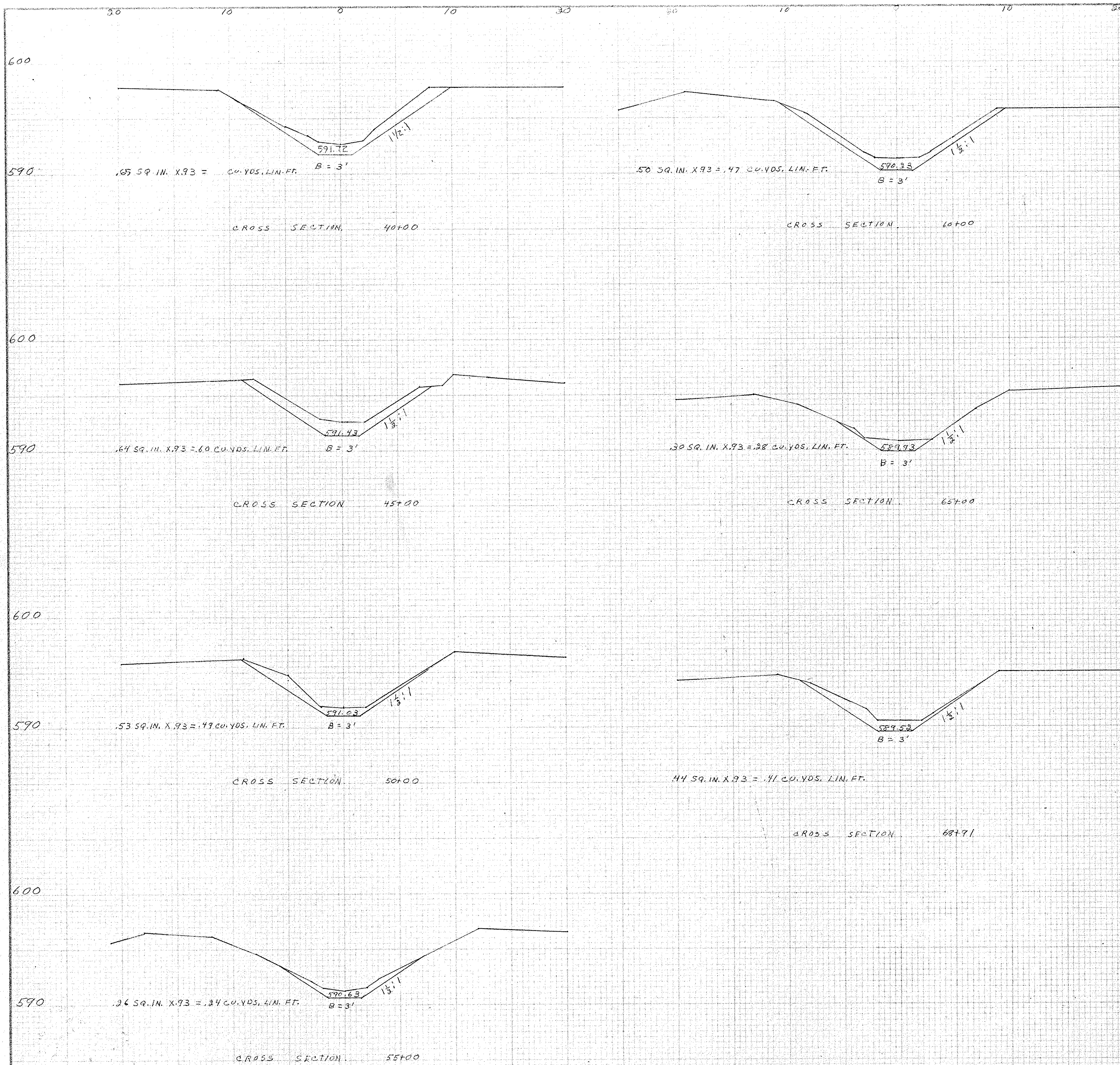




DITCH IMPROVEMENT  
 SCHLEGEL DITCH  
 OTTAWA COUNTY OHIO  
 U. S. DEPARTMENT OF AGRICULTURE  
 SOIL CONSERVATION SERVICE

Designed <i>H. RIERMAIER</i>	Date <i>4/66</i>	Approved by <i>Richard P. Nagel</i>
Drawn <i>DONALD OPEER</i>	Title <i>Civil Engineer</i>	
Traced	Sheet No. <i>4</i>	Drawing No.
Checked <i>Richard P. Nagel</i>	of <i>5</i>	OH-1-83-66-8





YARDAGE 1 1/2 : 1					
STATION	SQ. INCHES	CU. YDS. LIN. FT.	AVE. CU. YDS.	DISTANCE	CUBIC YARDS
0+00	1.12	1.04	.80	500	400
5+00	.61	.57	.61	500	305
10+00	.71	.66	.59	500	295
15+00	.57	.53	.72	500	360
20+00	.98	.91	1.02	500	510
25+00	1.22	1.13	.91	500	455
30+00	.75	.70	.87	500	435
35+00	1.11	1.03	.82	500	410
40+00	.65	.61	.61	500	305
45+00	.64	.60	.54	500	270
50+00	.53	.49	.36	500	180
55+00	.36	.34	.36	500	180
60+00	.50	.47	.38	500	190
65+00	.30	.28	.34	391	133
68+91	.44	.41			
TOTAL					4,428

DITCH IMPROVEMENT  
SCHLEGEL DITCH  
OTTAWA COUNTY OHIO

U. S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

Designed H. RIEDMAIER Date 6/66 Approved by Richard B. Nagel  
 Title Civil Engineer

Drawn DONALD OPPER 3/21/66  
 Title

Traced \_\_\_\_\_ Sheet 5 of 5 Drawing No. OH-1-83-66-8

Checked R. Nagel 6/66