FOR ANY QUESTIONS PLEASE CONTACT ODOT DISTRICT 2 REAL ESTATE AT 419-353-8131

DESIGN DESIGNATION:

CURRENT ADT (1992) ------- 1,230
DESIGN YEAR ADT (2012) --- 1,850
D. H. V. (2012) ---------- 185
D (DIRECTIONAL) ---------- 55%
T (TRUCK) ---------------- 2%
V (DESIGN SPEED) --------- 55 MPH.
V (LEGAL SPEED) ---------- 55 MPH.
HIGHWAY SYSTEM -- SECONDARY (RURAL)
FUNCTIONAL CLASSIFICATION- MAJOR COLLECTOR

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

WOOD COUNTY
WOO-65-04.84
OHIO
FHWA REGION 5
STP-395 (10)
FEDERAL PROJECT
STATE JOB #023250 (PID #5760)
0/1

STP-395 (10)
R/W ONLY

WOO-65-4.84

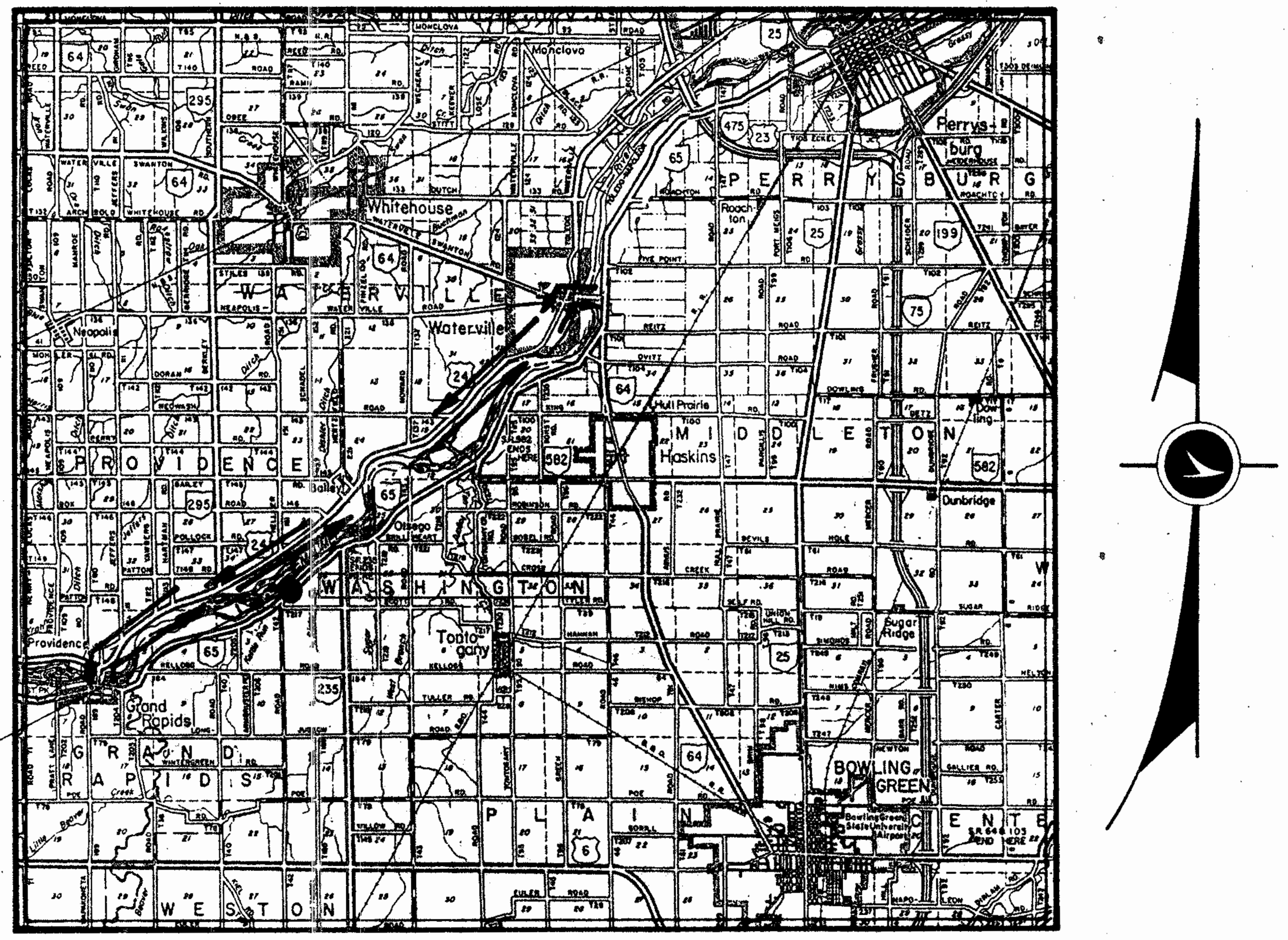
WASHINGTON TWP.

WOOD COUNTY

CONVENTIONAL SIGNS

County Line
Township Line
Section Line
Corporation Line ... or ...
Fence Line (existing) ... (proposed)
Center Line 352 353
Trees, Stumps, (to be removed)
Utility Poles: Telephone, Power, Light.
Limited Access (only) LA
Right of Way (only) RW
Limited Access & Right of Way LA & RW
Existing Right of Way
Property Line ... (in existing fence)
Railroad ... or
Guardrail (existing) ... (proposed)

INDEX OF SHEETS



WOO-65-4.84
BEGIN PROJECT
STA. 255+50.00
END PROJECT
STA. 256+00.00

LOCATION MAP

SCALE IN MILES
0 1 2 4 6 8

Portion to be improved
State & Federal Routes
Detour

UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
Call···800-362-2764 (Toll free)
OHIO UTILITIES PROTECTION SERVICE

NON-MEMBERS
MUST BE CALLED DIRECTLY

SCALES

Plan 0' 20' 40'
Profile: Horizontal 0' 20' 40' Vertical 0' 5' 10'
Cross Section: Horizontal 0' 5' 10' Vertical 0' 5' 10'

SUPPLEMENTAL SPECIFICATIONS	

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS				

1991 SPECIFICATIONS

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

I hereby approve these plans and declare that the making of this improvement will REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY & THAT DETOURS WILL BE PROVIDED AS INDICATED ON THE PLANS.

NAME OF ACQUIRING AGENCY: *STATE OF OHIO*

Approved ______
Date ______ *ASSISTANT DEPUTY DIRECTOR OF REAL ESTATE*

Approved ______
Date ______ Director, Department of Transportation

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

______ DIVISION ADMINISTRATOR ______ DATE

N.& A. REF. NO. M-89-17

Plan Prepared By:
PATRICK NG & ASSOCIATES
ENGINEERS ~ SURVEYORS
419 GOULD ST.
BOWLING GREEN, OHIO

SEAL

Project: *WOO-65-04.84*
Date of Letting ______ 199_, **Contract No.** ______
LD0300 Rev. 1-1-81

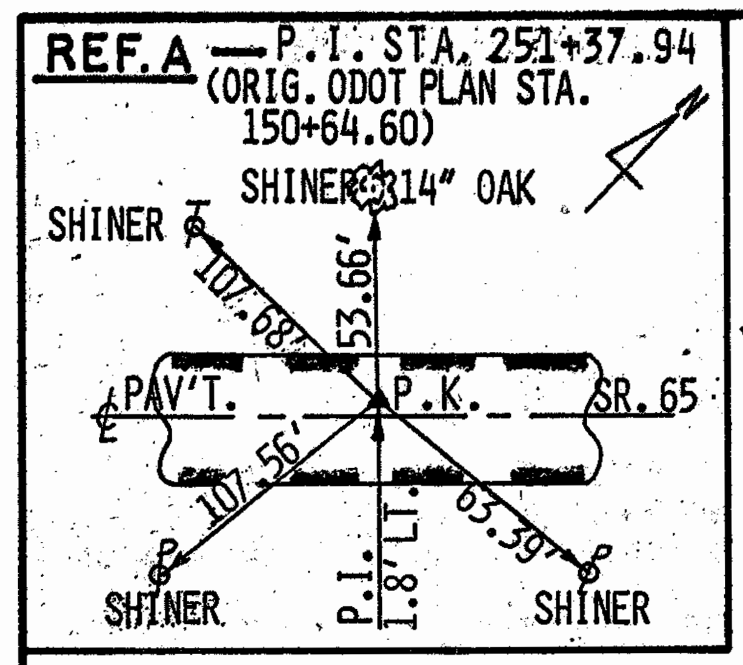
R8065 #9

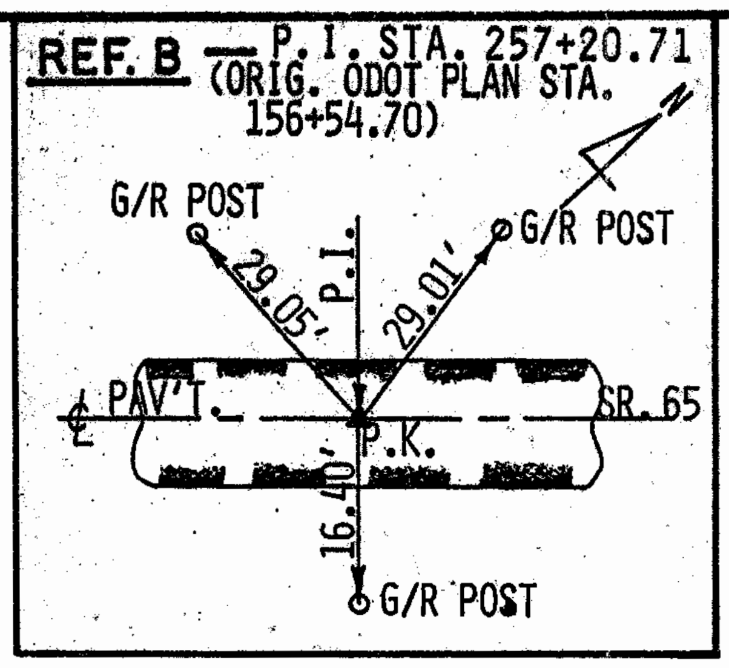
FHWA REGION	STATE	PROJECT		
5	OHIO			12/12

WOOD COUNTY
WOO-65-4.84
STATE JOB NO. 023250
PID NO. 5760

R/W ONLY

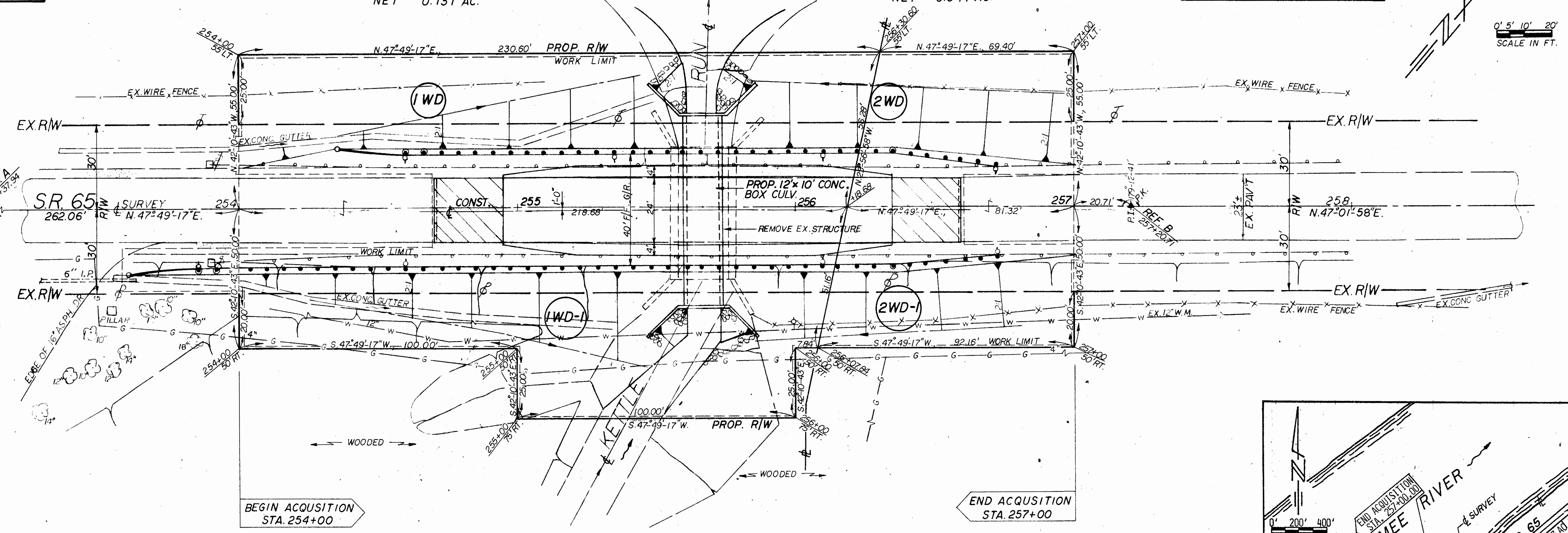
1/1





① ROBERT BETTINGER, INC. (31.230 AC.)
T.B.A. 1WD 0.287 AC.
P.R.O. 0.156 AC.
NET 0.131 AC.

② NANCY J. NICHOLS (57.800 AC.)
T.B.A. 2WD 0.096 AC.
P.R.O. 0.055 AC.
NET 0.041 AC.



BEGIN ACQUSITION
STA. 254+00

END ACQUSITION
STA. 257+00

① SOUTH OF S.R. 65
ROBERT BETTINGER, INC.
T.B.A. 1WD-1 0.300 AC.
P.R.O. 0.151 AC.
NET 0.149 AC.

② SOUTH OF S.R. 65
NANCY J. NICHOLS
T.B.A. 2WD-1 0.101 AC.
P.R.O. 0.059 AC.
NET 0.042 AC.

W. 1/2, FRAC. SEC. 35, T. 6 N., R. 9 E., WASHINGTON TWP., WOOD COUNTY

NOTE:
DATA FOR THESE PARCELS ARE BASED ON A SURVEY REFERENCE TO THE RECORDER PER J. R. LEWANDOWSKI, SURVEY #27723, AUGUST, 1980.

UTILITIES & PUBLIC SERVICES

TYPE	NAME/ADDRESS/PHONE
PHONE	GTE NORTH, 300 W. GYPSY LANE RD., BOWLING GREEN, OHIO 43402 TEL: (419)354-9449
POWER	TOLEDO EDISON, P.O. BOX 507, 400 3RD ST., DEFIANCE, OHIO 43512 TEL: 1-800-341-2015
WATER	VILLAGE OF GRAND RAPIDS 17348 3RD ST., GRAND RAPIDS, OHIO 43522 TEL: (419)832-5305
GAS	SUBURBAN FUEL GAS CO. 274 E. FRONT ST., CYGNET, OHIO 43413 TEL: (419)655-2345

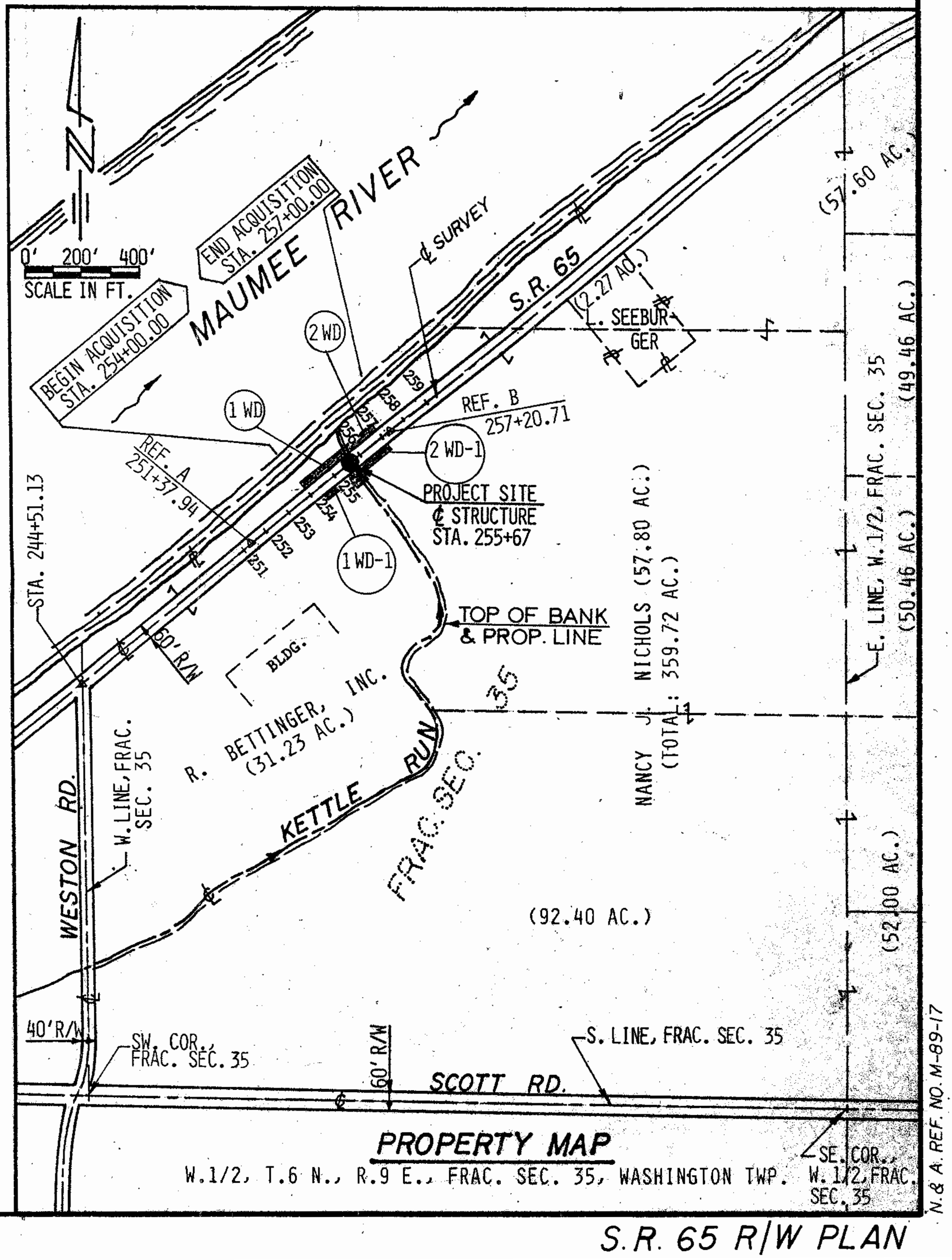
NOTE: THE LOCATION OF UNDERGROUND UTILITIES SHOWN ON THE PLAN ARE AS OBTAINED FROM THE OWNERS OF THE UTILITIES AS REQUIRED BY SEC. 153.64 OF THE OHIO REVISED CODE.

REVISION	DATE	REMARKS
1	7-22-92	PAR. 2WD CHANGED NAME
1-A	7-31-92	CHANGE PROP. LINE

PLAN COMPLETION: 3/92

RIGHT-OF-WAY SUMMARY: W. 1/2, T. 6 N., R. 9 E., FRAC. SEC. 35, WASHINGTON TWP., WOOD COUNTY

PAR. NO.	OWNERS	AUDITOR NO.	DEED RECORD		DEED AREA (AC.)	TOTAL PRO (AC.)	TOTAL TAKE (AC.)	PRO IN TAKE (AC.)	NET TAKE (AC.)	RESIDUE (AC.)	LEFT RIGHT	REMARKS	AS ACQUIRED	
			VOL.	PAGE									BOOK	PAGE
1WD	ROBERT BETTINGER, INC.	V72-609-3500-00-015.500	655	143	31.230	0.790	0.287	0.156	0.131		LT.		671	1028
1WD-1						0.790	0.300	0.151	0.149	29.370	RT.		671	1027
2WD	NANCY J. NICHOLS	V72-609-3500-00-013.000	616	111	359.720	1.481	0.096	0.055	0.041		LT.		671	574
2WD-1						1.315	0.101	0.059	0.042	356.841	RT.		671	576



PROPERTY MAP
W. 1/2, T. 6 N., R. 9 E., FRAC. SEC. 35, WASHINGTON TWP.

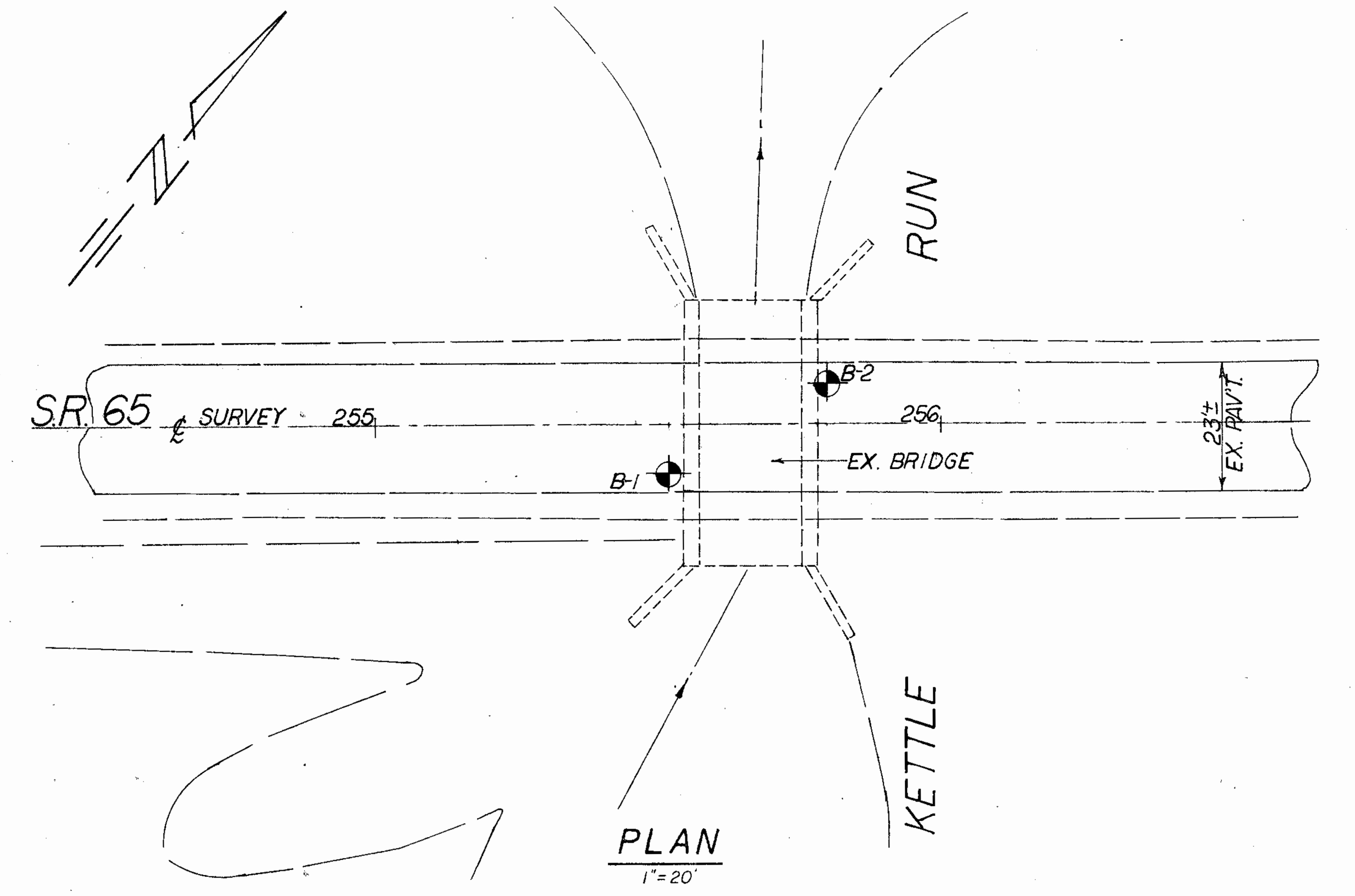
N. & A. REF. NO. M-89-17

S.R. 65 R/W PLAN

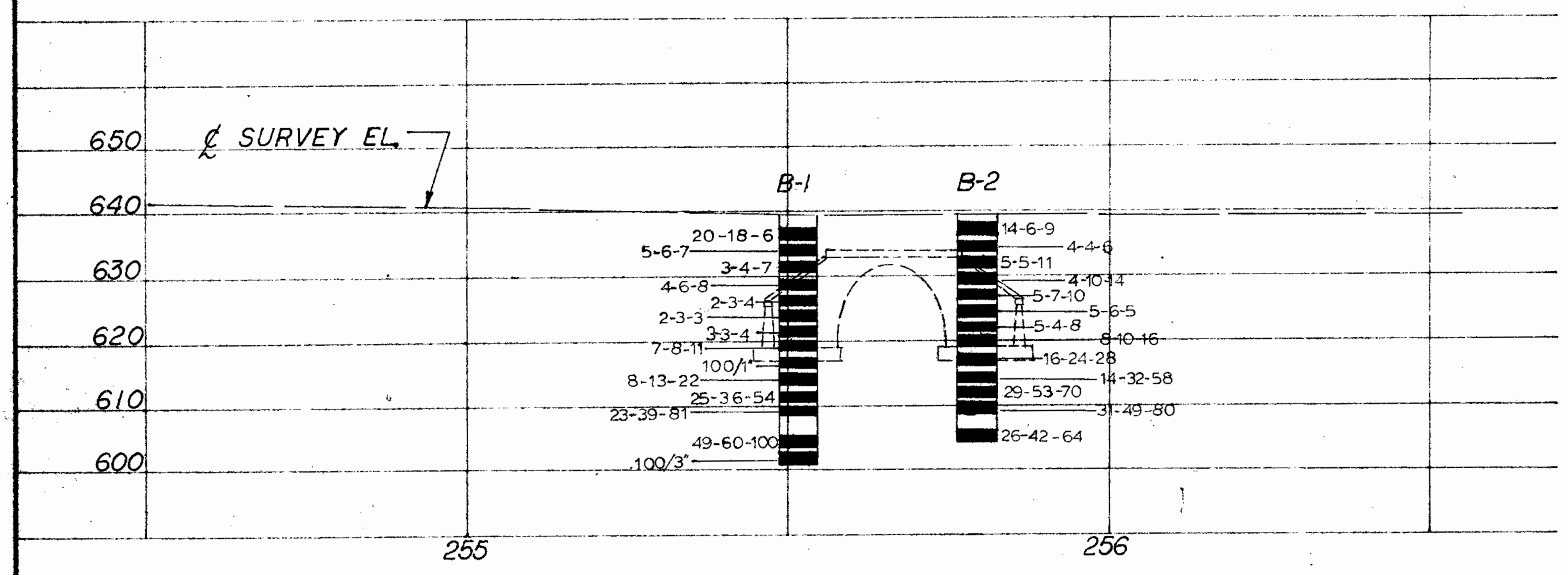
FHWA REGION	STATE	PROJECT	
5	OHIO	STP-395(10)	

WOOD COUNTY
WOO-65-4.84

NOTE - ALL AVAILABLE SOIL AND BEDROCK INFORMATION WHICH CAN BE CONVENIENTLY SHOWN ON THE STRUCTURE FOUNDATION INVESTIGATION SHEETS HAS BEEN SO REPORTED. ADDITIONAL SUBSURFACE INVESTIGATIONS MAY HAVE BEEN MADE TO STUDY SOME SPECIAL ASPECT OF THE PROJECT. COPIES OF THIS DATA, IF ANY, MAY BE INSPECTED IN THE DISTRICT DEPUTY DIRECTOR'S OFFICE, THE BUREAU OF TESTS AT 1600 W. BROAD ST., THE PAVEMENT AND SOILS SECTION OF THE BUREAU OF LOCATION AND DESIGN OR IN THE BRIDGE BUREAU AT 25 S. FRONT ST., COLUMBUS, OHIO.



PLAN
1"=20'



ELEVATION
HOR. 1"=20'
VERT. 1"=20'

PARTICLE SIZE DEFINITIONS

	12"		3"		2.0 mm		0.42 mm		0.074 mm		0.005 mm	
Boulders	|	Cobbles	|	Gravel	|	Coarse Sand	|	Fine Sand	|	Silt	|	Clay
					No. 10 Sieve		No. 40 Sieve		No. 200 Sieve			

GENERAL INFORMATION

DRIVE SAMPLE/PRESS SAMPLE/CORE BORINGS

DRIVE SAMPLE BORINGS ARE MADE BY MEANS OF A MECHANICALLY-POWERED ROTARY-TYPE DRILLING MACHINE, EMPLOYING A 2" O.D., 1-3/8" I.D. SPLIT SPOON SAMPLING DEVICE, AT 2½ AND/OR 5-FOOT DEPTH INTERVALS, DRIVEN BY MEANS OF A 140 LB. DROP-HAMMER WITH A FREE FALL OF 30 IN. THE NUMBER OF BLOWS REQUIRED TO DRIVE THE SAMPLING DEVICE 18 IN. IS CONSIDERED THE STANDARD PENETRATION TEST.

DRIVE/PRESS SAMPLE BORINGS ARE MADE BY MEANS OF A MECHANICALLY-POWERED ROTARY-TYPE DRILLING MACHINE, EMPLOYING A 2" O.D., 1-3/8" I.D. SPLIT SPOON SAMPLING DEVICE AND 3" O.D. THIN WALL PRESS SAMPLING DEVICE. THE PRESS SAMPLER IS ADVANCED BY CONTINUOUS UNIFORM PRESSURE, APPLIED BY THE DRILLING MACHINE.

CORE BORINGS ARE MADE BY MEANS OF A MECHANICALLY-POWERED ROTARY-TYPE DRILLING MACHINE, EMPLOYING A NMX CORE BARREL WITH INDUSTRIAL DIAMOND CUTTING HEAD.

THE BORING LOG SHEETS DISPLAY A GRAPHIC PLOT OF THE INFORMATION OBTAINED, INCLUDING DEPTH AND ELEVATION OF THE SAMPLE, TYPE OF SAMPLE, THE STANDARD PENETRATION TEST READINGS IN THREE 6-IN. INCREMENTS, DEPTH AND ELEVATION OF PRESS SAMPLES, FIELD NUMBER ASSIGNED TO SAMPLE, SAMPLE DESCRIPTION - BASED ON LABORATORY TESTS UTILIZING THE CASAGRANDE A C CLASSIFICATION SYSTEM AND GRADATION, PLASTICITY AND MOISTURE CONTENT DETERMINATIONS. RESULTS OF STRENGTH AND CONSOLIDATION TESTING, IF PERFORMED ON UNDISTURBED SAMPLES, WILL APPEAR GRAPHICALLY ON SEPERATE ENCLOSURES. ROCK SAMPLES ARE DISPLAYED ON THE LOG SHEETS INCLUDING DEPTH AND ELEVATION OF THE SAMPLE, AMOUNT OF RECOVERY AND A VISUAL CLASSIFICATION BASED ON TYPE, COLOR, DEGREE OF HARDNESS, GRAIN SIZE, DETERIORATION, BEDDING, ACID REACTION AND OTHER QUALIFYING FACTORS.

AT DEPTHS WHERE MATERIALS ARE BOULDERY OR GRAVELLY TO THE EXTENT THAT THE SAMPLER CAN NOT BE UTILIZED, A WASH SAMPLE IS PROCURED AND VISUALLY CLASSIFIED, IN ORDER TO DETERMINE THE GENERAL CHARACTERISTICS OF THE MATERIAL. THESE SAMPLES ARE NOT CONSIDERED SUFFICIENTLY REPRESENTATIVE TO WARRANT LABORATORY TESTING.

GEOLOGY OF THE SITE

THE STRUCTURE IS LOCATED IN A LAKE DEPOSIT AREA OF NW. OHIO. THE SOIL DEPOSITS PRIMARILY CONSIST OF COHESIVE & GRANULAR SOILS OVERLYING DUNDEE LIMESTONE & DOLOMITE ASSOCIATED WITH THE DEVONIAN AGE.

EXPLORATION

TWO (2) EXPLORATORY BORINGS WERE MADE BY MEANS OF A TRUCK MOUNTED ROTARY DRILLING RIG UTILIZING 3 3/4" I.D. HOLLOW STEM AUGER & ROLLER BIT PROCEDURES BEYOND 30 FT. TO DEPTHS OF 38.3 & 35.0 FT. THE TESTING BORINGS WERE DRILLED ON FEB. 1, 1990.

INVESTIGATION FINDINGS & OBSERVATIONS

BASED ON THE INFORMATION DEVELOPED DURING THE COURSE OF THIS INVESTIGATION, IT APPEARS THE SUBSOIL CONDITIONS AT THE SITE ARE GENERALLY UNIFORM. THE SITE IS BLANKETED WITH ASPHALT CONC., CONCRETE AND CRUSHED STONE APPROX. 18" THICK. EXISTING GRADES INDICATE A FILL LAYER OF APPROX. 9' IN THICKNESS CONSISTING OF A BROWN SILTY CLAY THAT APPEARS TO HAVE BEEN PLACED AS AN ENGINEERED FILL. BENEATH THIS A STRATUM OF SILTY CLAY WAS ENCOUNTERED TO BORING TERMINATION. A LAYER OF ORGANICS WAS ENCOUNTERED IN BORING #1 FROM 8.5' TO 10', INDICATING THE APPROX. ORIGINAL GROUND SURFACE. THE NATURAL MATERIAL INCREASES IN CONSISTENCY WITH DEPTH. EACH BORING INDICATED ONE STRATUM VARIATION FROM THE ABOVE. IN BORING #1 A LAYER OF COBBLES WAS ENCOUNTERED FROM 20' TO 23'. IN BORING #2 A LAYER OF LOOSE SILTY SAND WAS FOUND AT A DEPTH OF 16' TO 18'. COBBLES AND/OR BOULDERS MAY BE ENCOUNTERED IN ANY OF THE SILTY CLAYS DUE TO THE NATURE OF THESE SOILS AND MAY CAUSE DIFFICULTIES DURING FOUNDATION CONSTRUCTION.

THE PAVEMENT CORES REVEALED 4" TO 5" OF ASPHALT PAVEMENT, 6" OF CONC. PAVEMENT AND 7" TO 8" OF CRUSHED STONE SUBBASE. GROUNDWATER WAS NOT ENCOUNTERED IN ANY TESTING BORINGS TO A DEPTH OF 30' (EL. 609.0) DURING THE BORING OPERATION.

****

SOIL BORING LOG

DATE STARTED: 2-1-90
DATE COMPLETED: 2-1-90
BORING NO. B-1
SAMPLER TYPE: S.S. ; DIA. 2"
STATION: 255+52
OFFSET: 9' RIGHT OF ℄ SURVEY
WATER ELEV. DRY
SURFACE ELEV. 639.31'

ELEV.	DEPTH IN FEET	STD. PENETRATION N	DESCRIPTION	SAMPLE NO. & TYPE OF SAMPLE	NATURAL WATER CONTENT (%)	IN-PLACE DRY DENSITY (PCF)	PARTICLE SIZE DISTRIBUTION GRAVEL (%)	COARSE SAND (%)	FINE SAND (%)	SILT (%)	CLAY (%)	COLLOIDS (%)	ATTERBERG LIMITS LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	GROUP DESIGNATION & INDEX (AASHTO)
	0		① ② ③													
636.8	2	26	④	LS-1	3.2											
	4															
634.3	6	13	STIFF BROWN SILTY CLAY WITH FINE TO COARSE SAND & GRAVEL	LS-2	16.8		5	7	14	31	43		32	19	13	A-6a
631.8	8	11		LS-3	17.4	114.2										
629.3	10	14	MED. TO STIFF BROWN TO GREY SILTY CLAY, TRACE OF FINE TO COARSE SAND & FINE GRAVEL (POSSIBLE FILL)	LS-4	23.4											
626.8	12	7		LS-5	20.5	110.5										
624.3	14	6		LS-6	18.5	113.2										
	16															
621.8	18	7		LS-7	17.6	119.0	2	3	7	32	56		39	18	21	A-6a
619.3	20	19	VERY STIFF BROWN SILTY CLAY W. SAND & GRAVEL	LS-8	18.8	119.7										
616.8	22	100/1"	COBBLES	LS-9												
	24															
614.3	26	35	HARD TO VERY HARD BROWN TO GREY CLAYEY SILT WITH TRACE TO SOME SAND AND GRAVEL	LS-10	12.4	126.1	3	8	15	35	39		28	16	12	A-6b
611.8	28	90		LS-11	9.7											
609.3	30	120		LS-12	10.1	126.8										
	32															
	34	150/8"														
604.3	36			LS-13	9.0	138.8										
601.0	38	100/3"		LS-14	8.0											
	40		END OF BORING													

NOTE:
1. 4" THICK ASPHALT
2. 6" THICK CONCRETE
3. 8" THICK CRUSHED STONE
4. STIFF DARK BROWN CLAY WITH ROCK FRAGMENTS, SAND & GRAVEL. (POSSIBLE FILL)

SOIL BORING LOG

DATE STARTED: 2-1-90
DATE COMPLETED: 2-1-90
BORING NO. B-2
SAMPLER TYPE: S.S. ; DIA. 2"
STATION: 255+80
OFFSET: 7' LEFT OF ℄ SURVEY
WATER ELEV. DRY
SURFACE ELEV. 639.53'

ELEV.	DEPTH IN FEET	STD. PENETRATION N	DESCRIPTION	SAMPLE NO. & TYPE OF SAMPLE	NATURAL WATER CONTENT (%)	IN-PLACE DRY DENSITY (PCF)	PARTICLE SIZE DISTRIBUTION GRAVEL (%)	COARSE SAND (%)	FINE SAND (%)	SILT (%)	CLAY (%)	COLLOIDS (%)	ATTERBERG LIMITS LIQUID LIMIT (%)	PLASTIC LIMIT (%)	PLASTICITY INDEX (%)	GROUP DESIGNATION & INDEX (AASHTO)
	0		① ② ③													
637.0	2	15	MED. TO STIFF BROWN SILTY CLAY WITH TRACE TO SOME SAND & GRAVEL (POSSIBLE FILL)	LS-1	16.7	111.0	4	7	13	32	44		33	16	17	A-6b
	4															
634.5	6	10		LS-2	16.8	113.7										
632.0	8	16		LS-3	18.3	108.3	2	7	17	30	44		39	19	20	A-7-6
629.5	10	24	STIFF TO VERY STIFF BROWN SILTY CLAY WITH SOME SAND & GRAVEL (POSSIBLE FILL)	LS-4	14.3	118.8										
627.0	12	17		LS-5	16.9	100.9										
	14															
624.5	16	11		LS-6	16.5	99.1										
622.0	18	12	④	LS-7	20.9	107.4										
619.5	20	26	VERY STIFF BROWNISH GREY SILTY CLAY TO CLAYEY SILT W. TRACE OF SAND & GRAVEL	LS-8	17.8	112.9	5	6	9	30	30		35	20	15	A-6a
617.0	22	52		LS-9	15.5	120.1										
	24															
614.5	26	90	VERY HARD GREY SILTY CLAY WITH LITTLE SAND AND GRAVEL (HARDPAN)	LS-10	11.8	126.1	2	6	11	37	44		34	17	17	A-6b
612.0	28	123		LS-11	13.2	124.6										
609.5	30	129		LS-12	10.9	128.5	9	7	13	30	41		29	16	13	A-6a
	32															
	34															
604.5	36	106	END OF BORING	LS-13	10.7	130.7										

NOTE:
1. 5" THICK ASPHALT
2. 6" THICK CONCRETE
3. 7" CRUSHED STONE
4. LOOSE BROWN SILTY SAND W. SOME CLAY & GRAVEL.

LEGEND

◓	Auger Boring Location-Plan View.
⊕	Press And/Or Drive Sample And/Or Core Boring Location-Plan View.
TR	Top Of Rock
▀	Capped Pile
▙	Footing
▀	Footing On Pile
├┤	Horizontal Bar On Boring Log Indicates The Depth the Sample Was Taken.
X/Y/Z	Figures Besides The Boring Log In Profile Indicate The Number Of Blows For Standard Penetration Test.

X = Number Of Blows For First 6 in.
Y = Number Of Blows For Second 6 in.
Z = Number Of Blows For Third 6 in.

W——	Indicates Free Water Elevation.
▼——	Indicates Static Water Elevation.

SYMBOLS OF ROCK TYPES

■	Coal	▨	Weathered Sandstone
▥	Weathered Mudstone	⋮	Sandstone
▨	Mudstone	▦	Leached Dolomite
◩	Weathered Shale	▤	Dolomite
▤	Shale	▦	Leached Limestone
▦	Claystone	▤	Limestone
▭	Siltstone	▚	Boulders or Cobbles

1/1

PATRICK NG & ASSOCIATES
ENGINEERS ~ SURVEYORS
BOWLING GREEN, OH.

TOLEDO TESTING LABORATORY
ENGINEERS - CHEMISTS - GEOLOGISTS
TOLEDO, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. WOO-65-0484
OVER KETTLE RUN

DRAWN	CHECKED	REVIEWED	APPROVED	DATE
C.F.	G.F.	P.N.		MAR.,90

N. & A. REF. NO. M-89-17