

PRINT ORDER

You are hereby authorized to manufacture and ship the following described product in accordance with the purchase order and specifications indicated.

DEPARTMENT DPA/ARMY/COE/BUF		REQ. NO.		DATE 10/13/04		PURCHASE ORDER NO.		PRINT ORDER NO. 179		
CONTRACTOR ARHENS GRAPHICS				JACKET NO. 602-803		ESTIMATED COST		SHIP/DEL DATE 10/18/04		
TITLE ODOT 200400953 pt				OBJECT CLASS		STATE CODE		CONTR'S CODE 020717		
PROOFS		SETS		DATE DUE TO GOV'T		DAYS GOV'T WILL HOLD		RETURN DATE TO CONTR.		
Galley				//				//		
Page				//				//		
Blues				//				//		
APPROPRIATION CHARGEABLE 4404 Regulatory				BILLING ADDRESS CODE (BAC)		QUANTITY 87		PROGRAM NO. 5200-S		
COMPOSITION Phototype Cold Type Hot Metal				QUALITY LEVEL		TRIM SIZE				
MATERIAL FURNISHED TO CONTRACTOR Manuscript Halftones Line Illus. Camera Copy Negatives Binders Other										
TEXT STOCK 20LB WHITE				COVER STOCK		NO. OF TEXT PAGES (Including Blanks) approx 27		FOLD-IN STOCK		
FOUR COLOR PROCESS PRINTG. COLOR OF INK Cover 1 2 3 4 Text Cover Text black				COVER PRINTS 1 2 3 4 approx 27		FOLD-INS/FORMS Face Only Face & Back		STRIP-INS		NEGATIVES (No. Required)
1 ULC		Sew		Band units of		Drill round holes _____" in diameter on _____ side _____ inches c. to c.				
Saddle		Trim 4 Sides		Shrink Film Wrap units of		Center of holes _____ inches from _____ edge of sheet				
Side		Perf. on Fold		Other		Pads of _____ sheets/sets each. Pad on the _____ *side. Chipboard required.				
Perfect		Adhesive Strip				Pack _____ per shipping container. <input type="checkbox"/> Pallets required.				
DISTRIBUTION				RETURN NEGS. TO GPO FOR STORAGE		NO <input type="checkbox"/> YES <input type="checkbox"/>		RETURN ORIG. AND/OR NEGS. TO:		

PLEASE REPRODUCE 87 COPIES OF THE ATTACHED 27 PAGE DOCUMENT WITH THE FOLLOWING ATTRIBUTES:
 FORMAL A8.5X11 HEAD TO HEAD
 STAPLE, UPPER LEFT CORNER
 COLLATE

Departmental Authority (Signature and Title)		Purchase Obligation		DATE SENT TO CONTRACTOR //	
--	--	---------------------	--	--------------------------------------	--

CONTRACTOR TO COMPLETE BOTTOM PORTION AND MAIL ENTIRE FORM TO: COMPTROLLER-FME, FINANCIAL MANAGEMENT SERVICE, U.S. GOVERNMENT PRINTING OFFICE, WASHINGTON, D.C. 20401

Contractor Invoice No. _____ Date Prepared **//** _____
 Date of Delivery/Shipment **//** _____ Discount Terms _____

ARTICLES OR SERVICES	QUANTITY	UNIT PRICE		AMOUNT
		COST	PER	
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
TOTAL				\$0.00

IF ADDITIONAL SPACE IS REQUIRED, USE STD. FORM 1034, 1035, OR ATTACH YOUR INVOICE.

I CERTIFY THAT THE MATERIAL, GOODS, OR SERVICES HAVE BEEN DELIVERED /SHIPPED ON THE DATE INDICATED ABOVE AND THAT PAYMENT OR CREDIT HAS NOT BEEN RECEIVED.



Public Notice

Applicant:

Ohio Department of
Transportation

Date:

Published: October 18, 2004

Expires: November 16, 2004

**U.S. Army Corps
of Engineers**

Buffalo District **CELRB-TD-R RE: 2004-00953 (1)** **Section: OH 404**

In Reply Refer To:

**Application for Permit under Authority of
Section 404 of the Clean Water Act (33 U.S.C. 1344).**

The Ohio Department of Transportation, 1980 West Broad Street, Columbus, Ohio 43223, has applied for Department of the Army authorization to perform work in wetlands and tributaries of the Muskellunge Creek. The project is located along a 2.75 mile corridor of State Route 53, from North Street to the eastbound Ohio Turnpike overpass, in the City of Fremont, Sandusky County, Ohio.

Department of the Army authorization is required to fill 0.36 acre of wetlands, permanently impact 3,163 linear feet of unnamed tributary, and temporarily impact 125 linear feet of stream. The majority of stream impacts are in a stream that is contained within a highway ditch. Approximately 25 linear feet of Stream 1 will be culverted with a 48" pipe, 85 linear feet of Muskellunge Creek will be impacted by widening a bridge, and 3,053 linear feet Streams 2 and 3 will be impacted by road deepening, widening, filling, and/or grading.

As mitigation for the unavoidable loss of federally jurisdictional wetlands, ODOT proposes to purchase 0.54 credits from the Blue Heron Reserve Wetland Mitigation Bank. As mitigation for the unavoidable loss of stream, ODOT proposes to restore a portion of the Sandusky River at the site where St. Johns dam was recently removed, located south of County Road 6, in Seneca Township, Seneca County, Ohio.

The applicant's stated purpose is to improve the traffic capacity of the existing two lane highway by widening the road and bridges to four lanes.

A letter of jurisdictional determination was issued in Action 0 of this file. Two wetlands totaling 0.38 acre and several jurisdictional streams were verified on the property.

Location and details of the above described work are shown on the attached maps and drawings.

Questions pertaining to the work described in this notice should be directed to Pauline D. Thorndike, who can be contacted by calling (716) 879-4237, or by e-mail at: pauline.d.thorndike@usace.army.mil

The following authorization(s) may be required for this project:

Water Quality Certification (or waiver thereof) from the Ohio Environmental Protection Agency.

Phase I and Phase II historic and archaeological survey reports were prepared in 1993. ODOT subsequently coordinated with Ohio SHPO, and received concurrence on October 18, 1993 that the project will not affect or use land from any significant archaeological properties.

In addition, available evidence indicates that the proposed work will not affect a species proposed or designated by the U.S. Department of the Interior as threatened or endangered, nor will it affect the critical habitat of any such species.

This notice is promulgated in accordance with Title 33, Code of Federal Regulations, parts 320-330. Any interested party desiring to comment on the work described herein may do so by submitting their comments, in writing, so that they are received no later than 4:30 pm on the expiration date of this notice.

Comments should be sent to the U. S. Army Corps of Engineers, 1776 Niagara Street, Buffalo, New York 14207, and should be marked to the attention of Pauline D. Thorndike, or by e-mail at: pauline.d.thorndike@usace.army.mil. A lack of response will be interpreted as meaning that there is no objection to the work as proposed.

Comments submitted in response to this notice will be fully considered during the public interest review for this permit application. All written comments will be made a part of the administrative record which is available to the public under the Freedom of Information Act. The Administrative Record, or portions thereof may also be posted on a Corps of Engineers internet web site. Due to resource limitations, this office will normally not acknowledge the receipt of comments or respond to individual letters of comment.

Any individual may request a public hearing by submitting their written request, stating the specific reasons for holding a hearing, in the same manner and time period as other comments.

Public hearings for the purposes of the Corps permit program will be held when the District Commander determines he can obtain additional information, not available in written comments, that will aid him in the decision making process for this application. A Corps hearing is not a source of information for the general public, nor a forum for the resolution of issues or conflicting points of view (witnesses are not sworn and cross examination is prohibited). Hearings will not be held to obtain information on issues unrelated to the work requiring a permit, such as property ownership, neighbor disputes, or the behavior or actions of the public or applicant on upland property not regulated by the Department of the Army. Information obtained from a public hearing is given no greater weight than that obtained from written comments. Therefore, you should not fail to make timely written comments because a hearing might be held.

The decision to approve or deny this permit request will be based on an evaluation of the probable impact, including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among these are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and in general, the needs and welfare of the people.

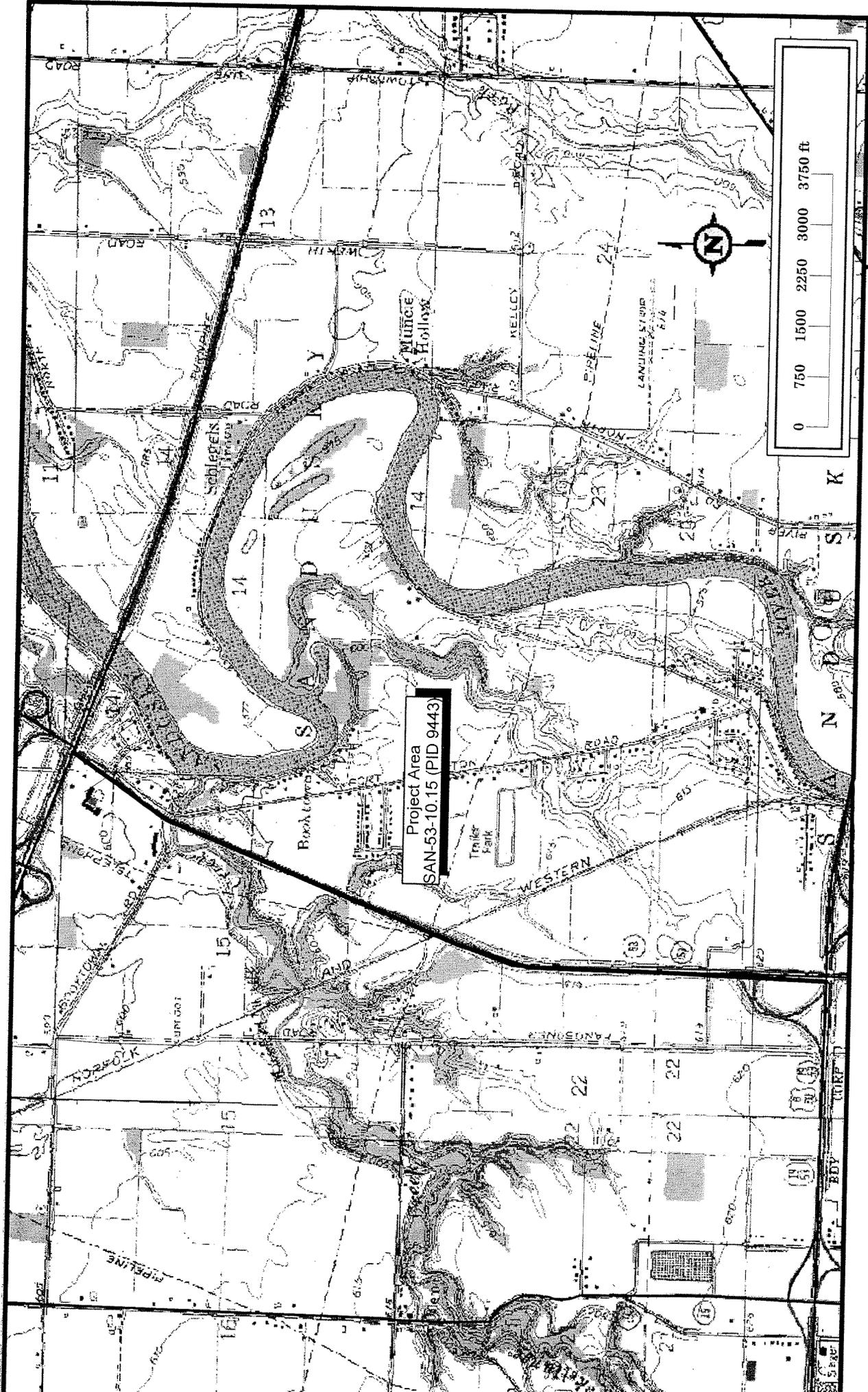
The Corps of Engineers is soliciting comments from the public; Federal, state and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the

preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

SIGNED

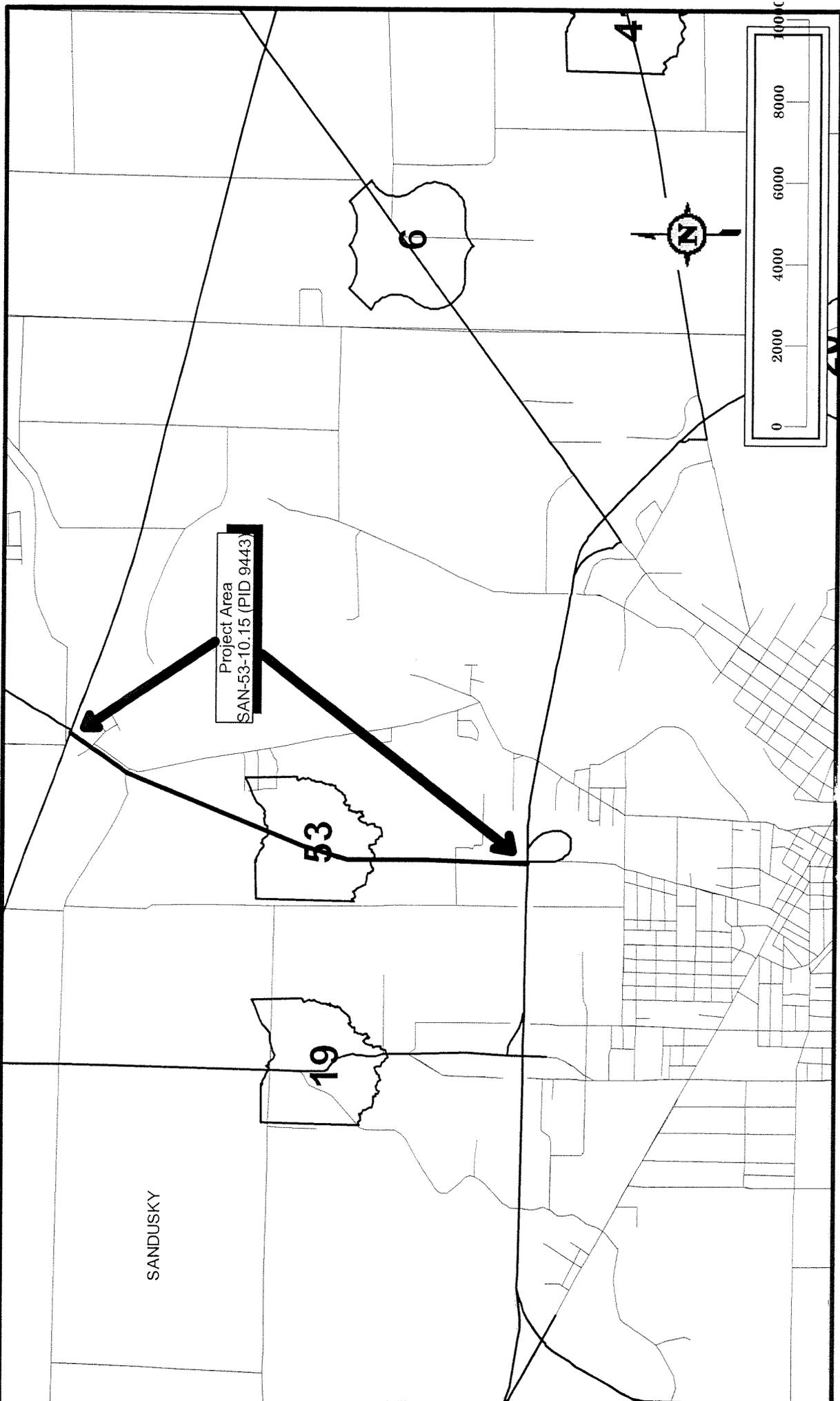
Thomas C. Switala
Chief, Regulatory Branch

NOTICE TO POSTMASTER: It is requested that this notice be posted continuously and conspicuously for 30 days from the date of issuance.



USGS MAP
 Fremont East/West, Linsey and Weightman's Grove Quads
 Ohio Department of Transportation
 SR 53 in Sandusky County, Ohio
 SAN-53-10.15 (PID 9443)

OHIO DEPARTMENT OF TRANSPORTATION
 SAN-53-10.15 PID 9443
 D/A Processing No. 2004-00953(1)
 Sandusky County, Ohio Quad: FREMONT EAST
 Sheet 1 of 24 LOCATION MAP



SANDUSKY

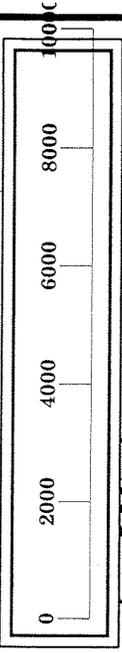
Project Area
SAN-53-10.15 (PID 9443)

19

53

6

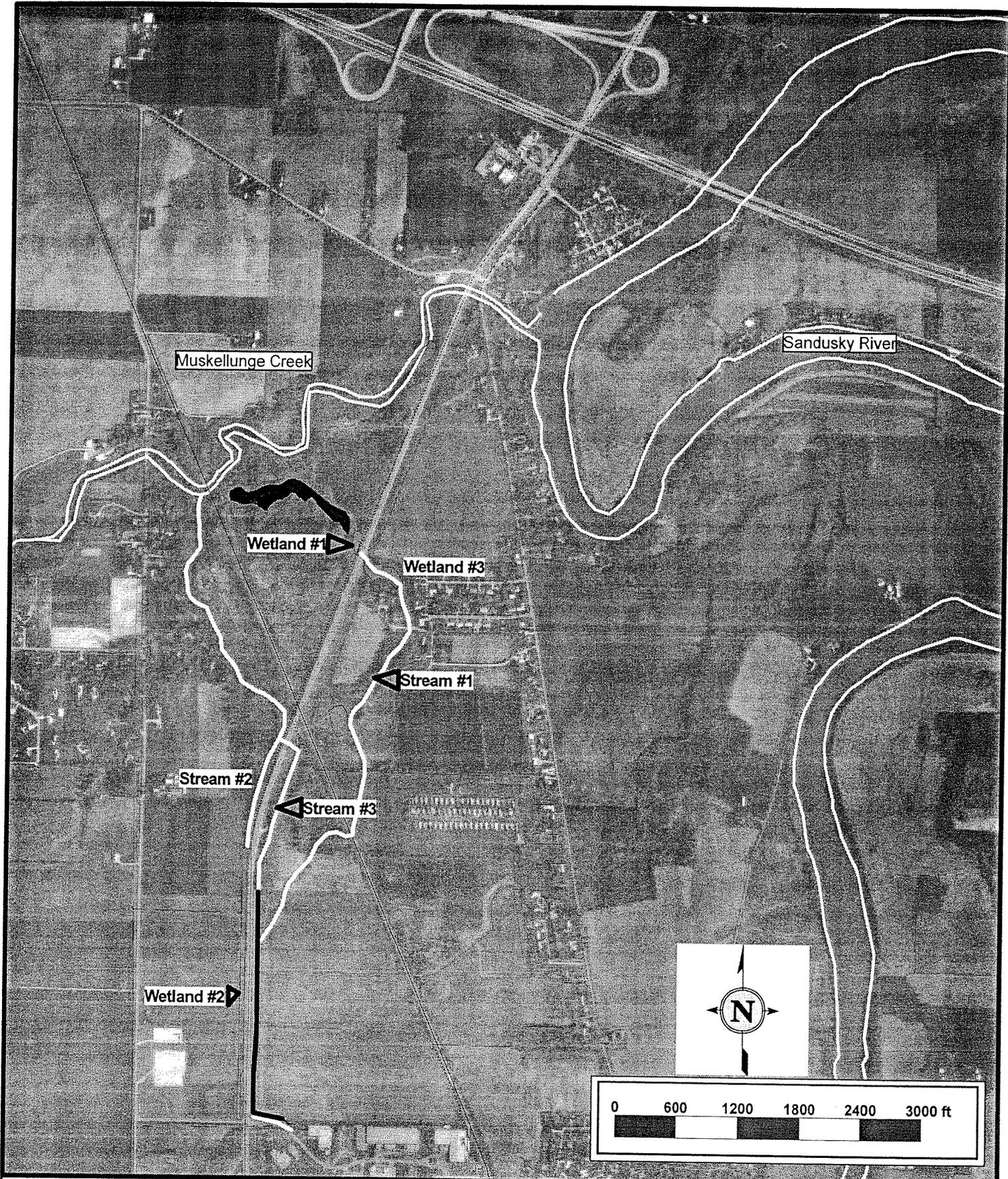
4



PROJECT LOCATION MAP

Ohio Department of Transportation
SR 53 in Sandusky County, Ohio
SAN-53-10.15 (PID 9443)

OHIO DEPARTMENT OF TRANSPORTATION
SAN-53-10.15 PID 9443
D/A Processing No. 2004-00953(1)
Sandusky County, Ohio Quad: FREMONT EAST
Sheet 2 of 24 LOCATION MAP

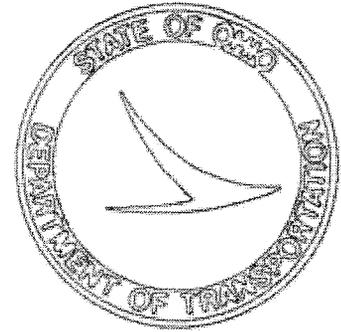
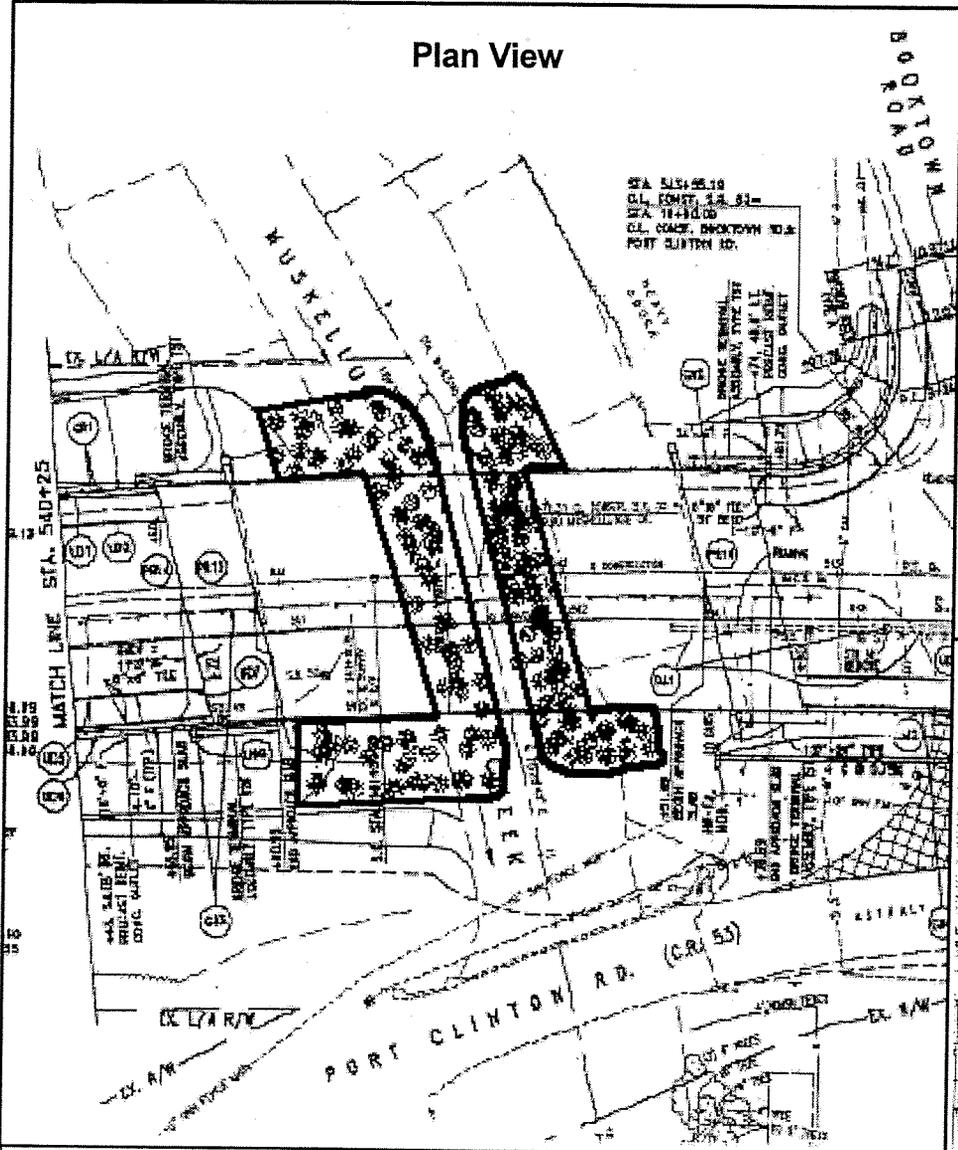


LOCATION MAP FOR STREAMS AND WET

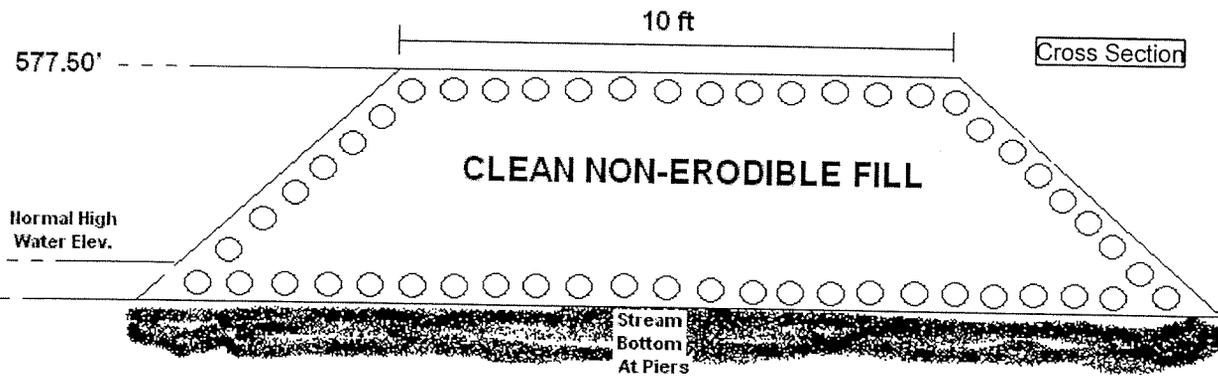
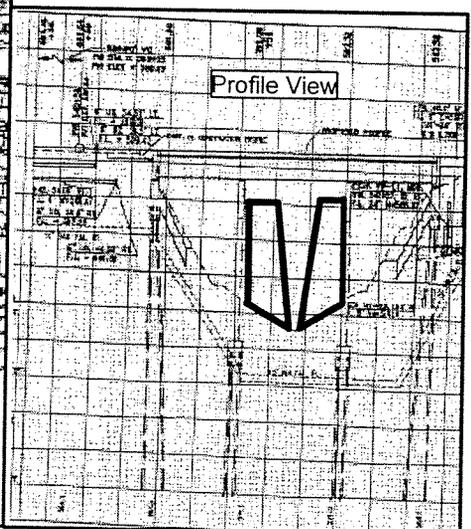
Ohio Department of Transportation
 SR 53 in Sandusky County, Ohio
 SAN-53-10.15 (PID 9443)

ODOT SAN-53-10.15 PID 9443
 D/A Processing No. 2004-00953(1)
 Sandusky County, Ohio Quad: FREMONT EAST
 Sheet 3 of 24
 STREAM & WETLAND LOCATION MAP

Plan View



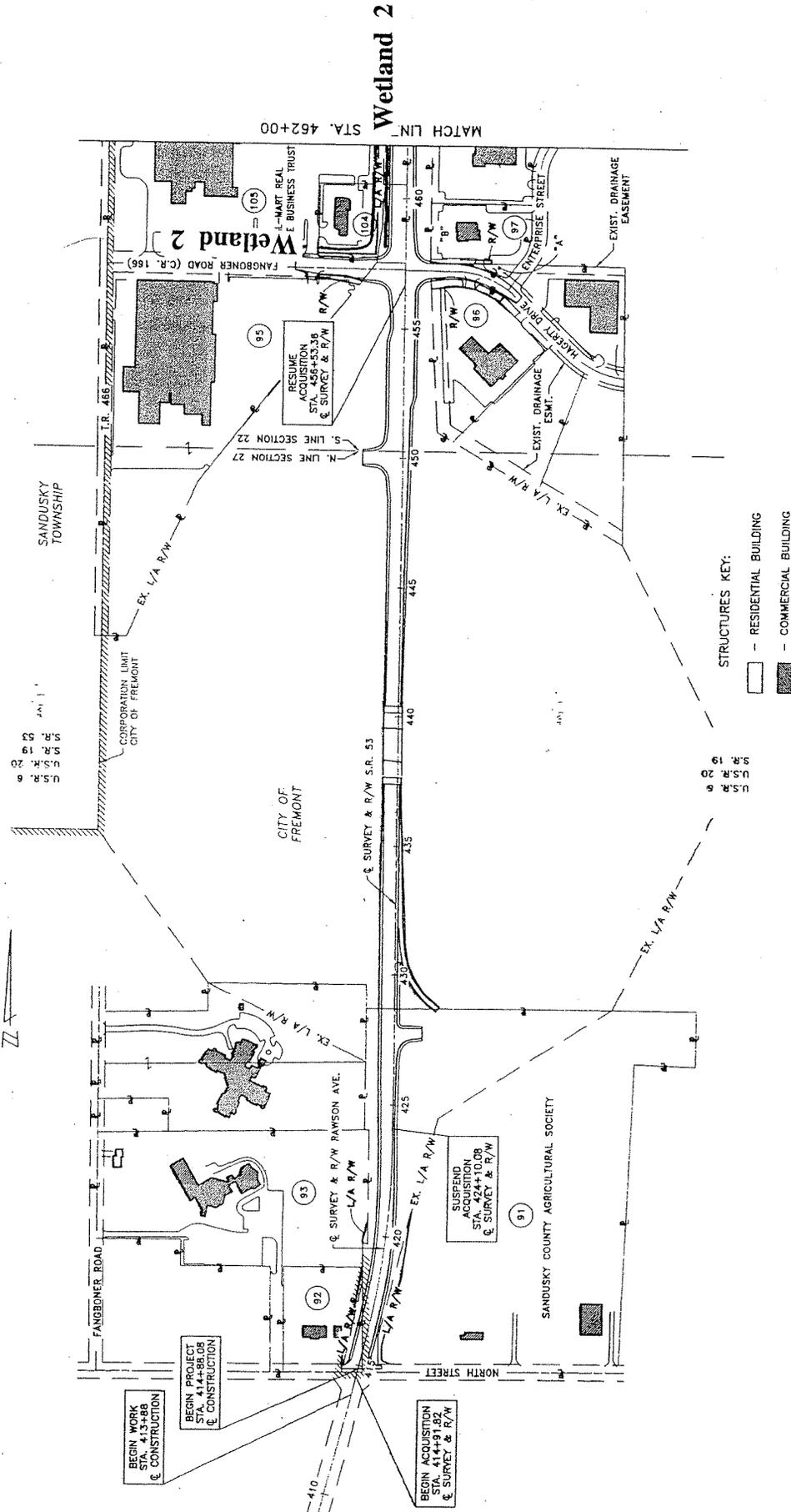
Profile View



TEMPORARY ACCESS FILL PLAN AND PRO

Ohio Department of Transportation
 SR 53 in Sandusky County, Ohio
 SAN-53-10.15 (PID 9443)

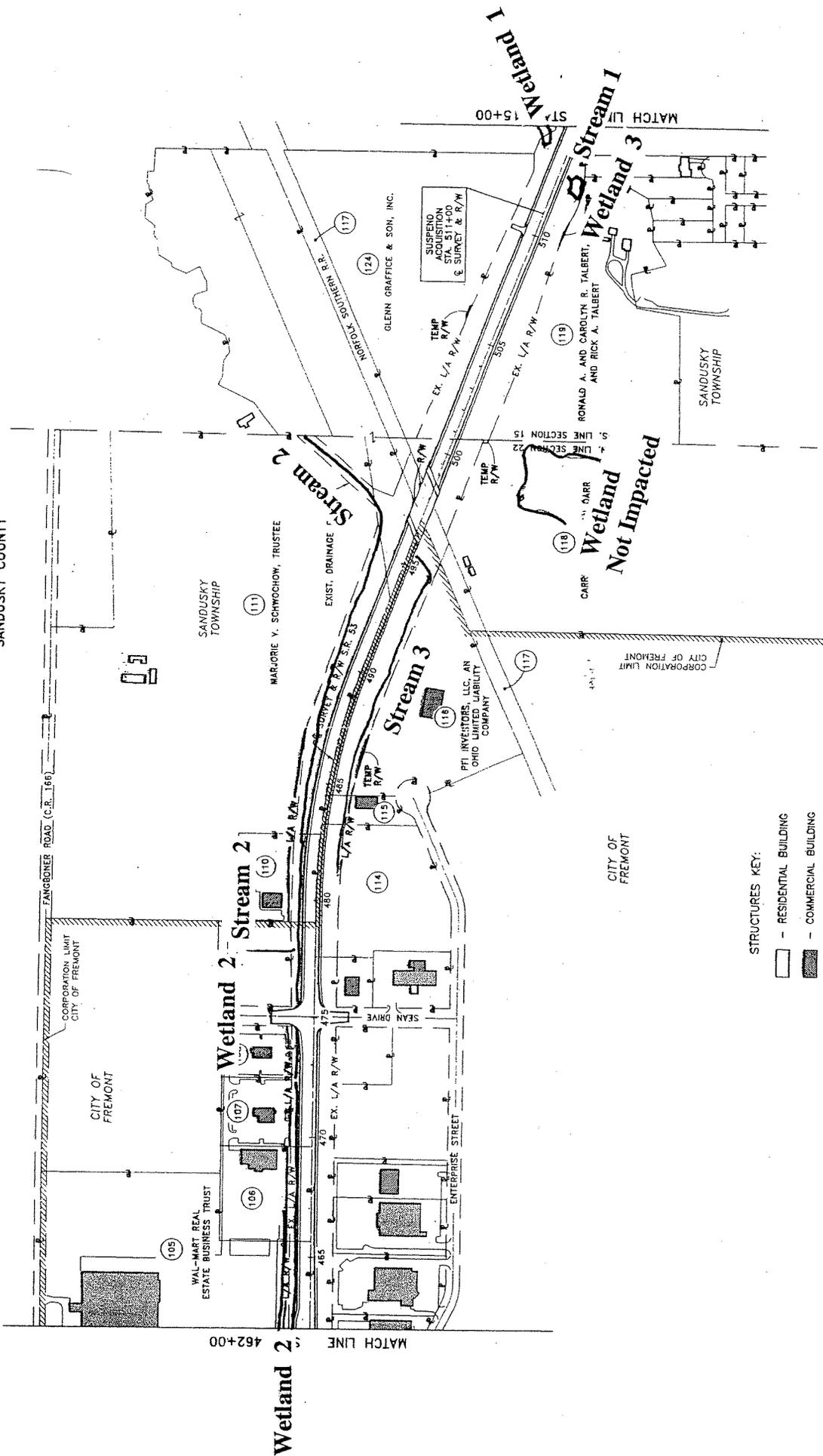
OHIO DEPARTMENT OF TRANSPORTATION
 SAN-53-10.15 PID 9443
 D/A Processing No. 2004-00953(1)
 Sandusky County, Ohio Quad: FREMONT EAST
 Sheet 4 of 24 TEMPORARY FILLS



OHIO DEPARTMENT OF TRANSPORTATION
 SAN-53-10.15 PID 9443
 D/A Processing No. 2004-00953(1)
 Sandusky County, Ohio Quad: FREMONT EAST
 Sheet 5 of 24 STA. 413+88 to 462+00

PROJECT PLAN SHEETS
 Ohio Department of Transportation
 SR 53 in Sandusky County, Ohio
 SAN-53-10.15 (PID 9443)

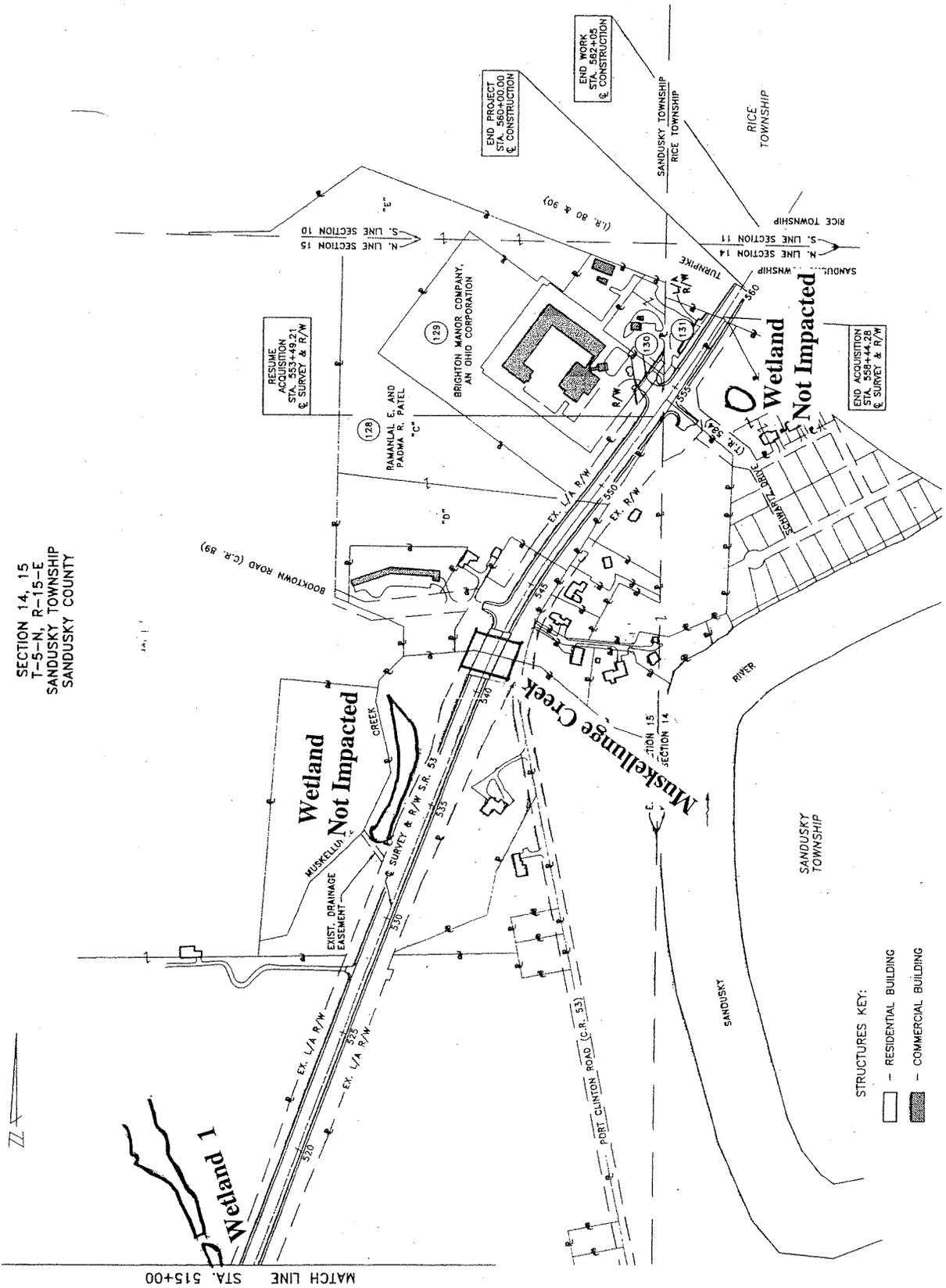
SECTION 15, 22
 T-5-N, R-15-E
 SANDUSKY TOWNSHIP
 CITY OF FREMONT
 SANDUSKY COUNTY



OHIO DEPARTMENT OF TRANSPORTATION
 SAN-53-10.15 PID 9443
 D/A Processing No. 2004-00953(1)
 Sandusky County, Ohio Quad: FREMONT EAST
 Sheet 6 of 24 STA. 462+00 to 515+00

PROJECT PLAN SHEETS
 Ohio Department of Transportation
 SR 53 in Sandusky County, Ohio
 SAN-53-10.15 (PID 9443)

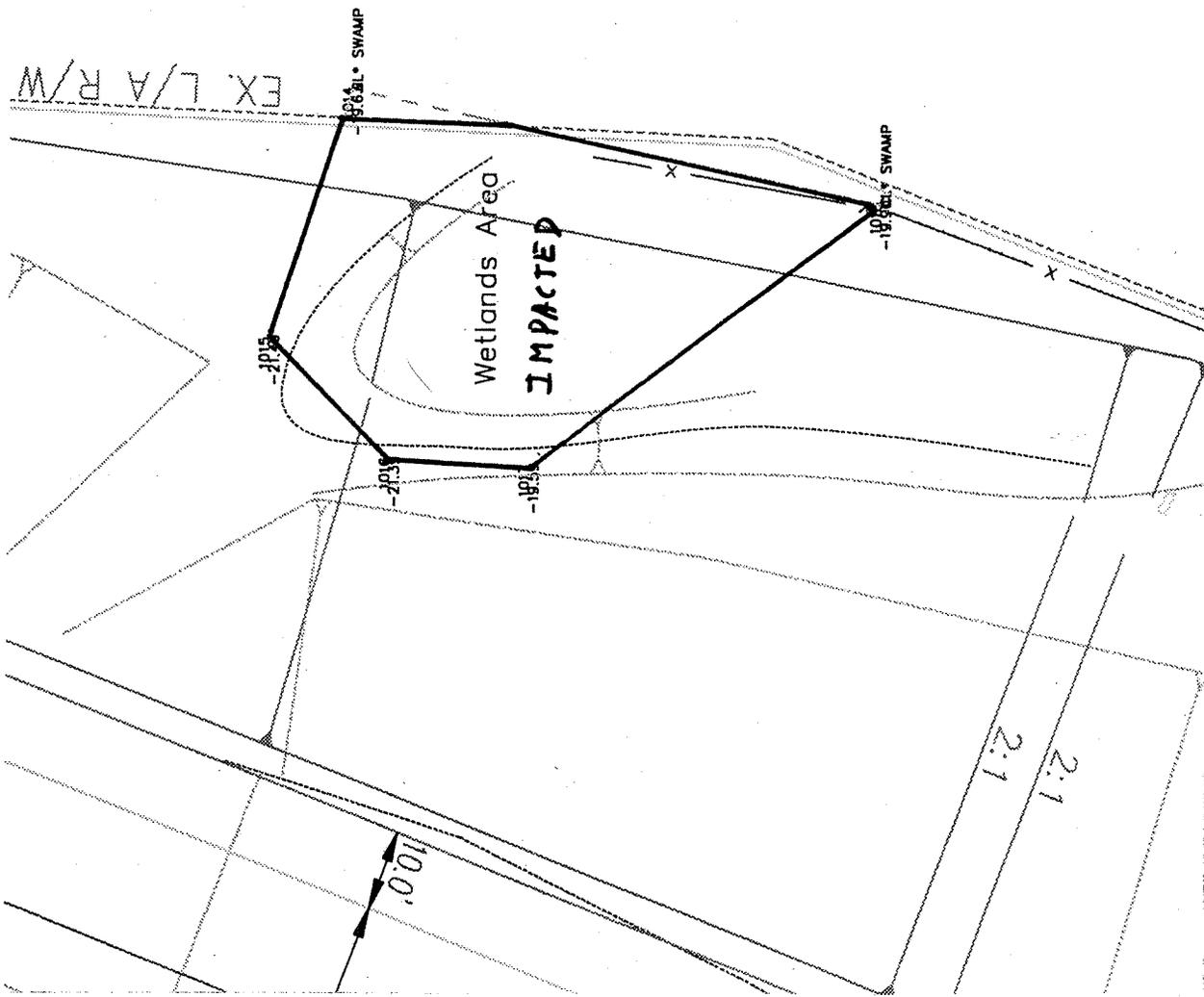
SECTION 14, 15
 T-5-N, R-15-E
 SANDUSKY TOWNSHIP
 SANDUSKY COUNTY



STRUCTURES KEY:
 [Symbol] - RESIDENTIAL BUILDING
 [Symbol] - COMMERCIAL BUILDING

OHIO DEPARTMENT OF TRANSPORTATION
 SAN-53-10.15 PID 9443
 D/A Processing No. 2004-00953(1)
 Sandusky County, Ohio Quad: FREMONT EAST
 Sheet 7 of 24 STA. 515+00 to 560+00

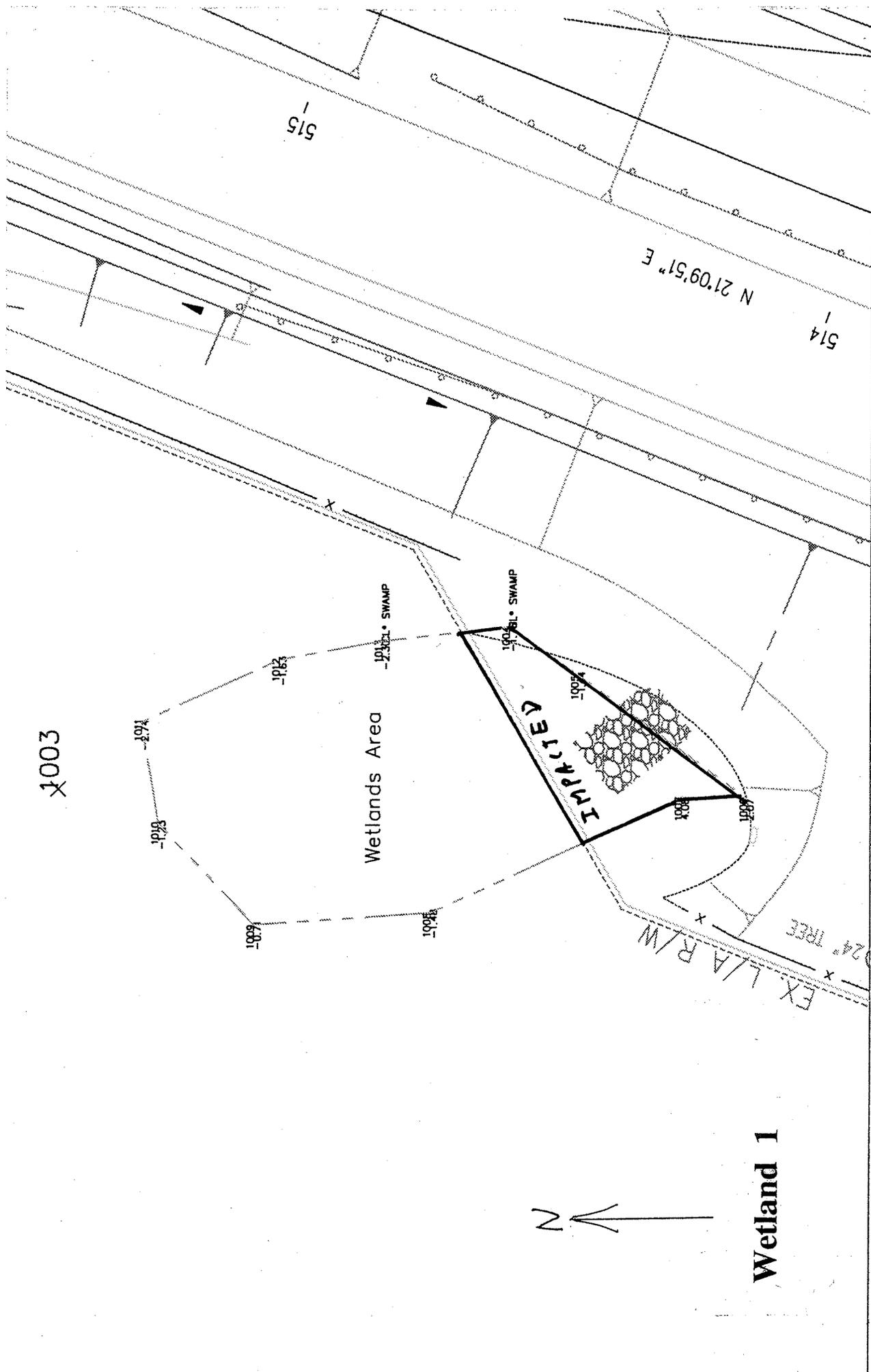
PROJECT PLAN SHEETS
 Ohio Department of Transportation
 SR 53 in Sandusky County, Ohio
 SAN-53-10.15 (PID 9443)



Wetland 3

OHIO DEPARTMENT OF TRANSPORTATION
 SAN-53-10.15 PID 9443
 D/A Processing No. 2004-00953(1)
 Sandusky County, Ohio Quad: FREMONT EAST
 Sheet 8 of 24 WETLAND 3 IMPACTS

PROJECT PLAN SHEETS
 Ohio Department of Transportation
 SR 53 in Sandusky County, Ohio
 SAN-53-10.15 (PID 9443)

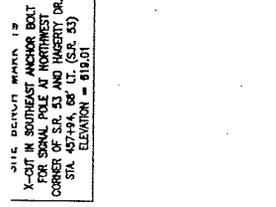


ITEM 202, PAVEMENT REMOVED

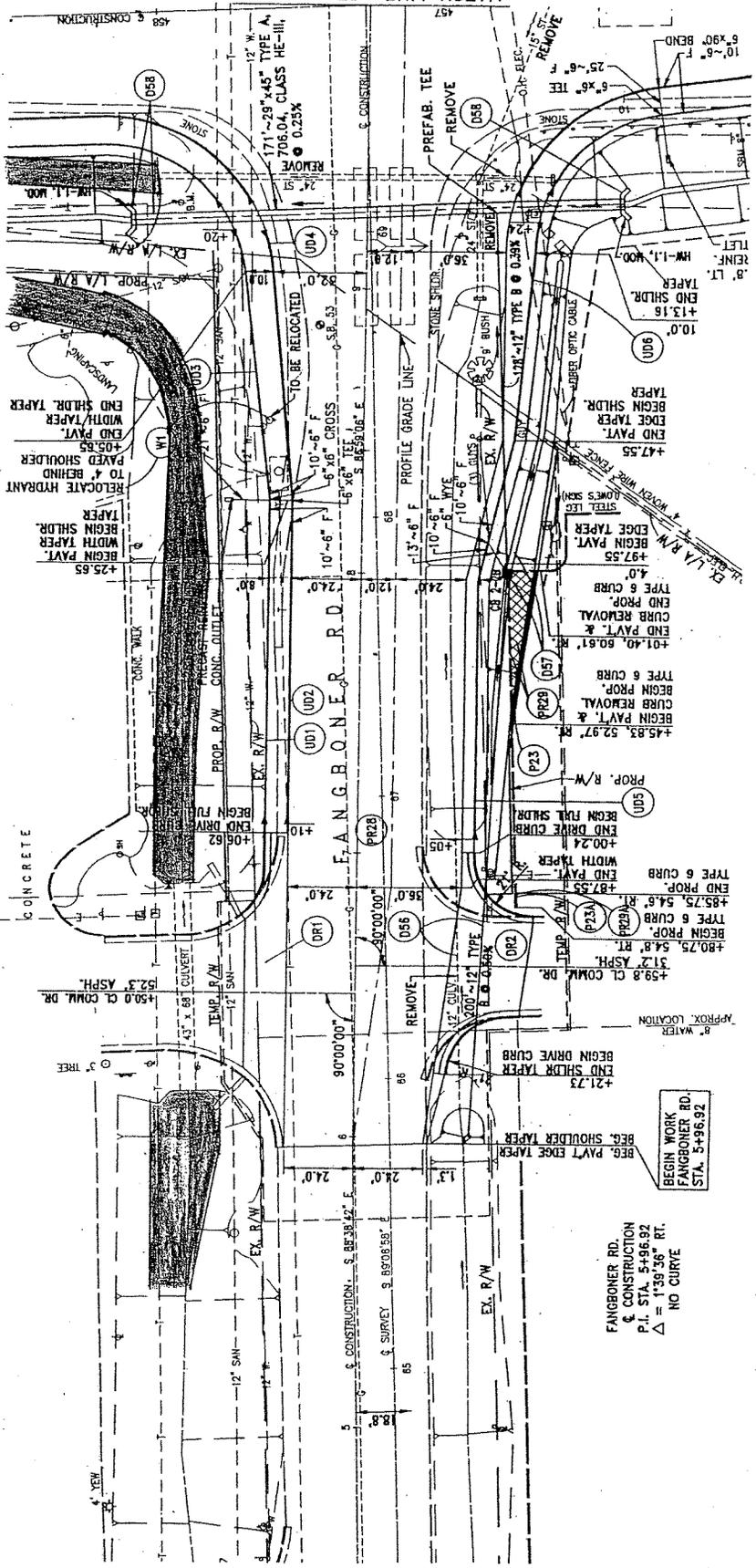
CROSS REFERENCES

SHEET	FOR:
71-74	PAVEMENT QUANT., (P)
75-78	PAVEMENT REMOVAL QUANT., (R)
79-82	DRIVEWAY QUANT., (D)
83-84	DRAINAGE QUANT., (O)
85-87	UNDERDRAIN QUANT., (U)
88-91	WATER WORK NT., (W)
92-95	STATE ROUTE P&P
96-99	FANGBONER SECTIONS
100-103	INTERSECTION
104-107	CULVERT DE
108-111	HW-1.1, MO
112-115	DETAILS

No impacts



Wetland 2



SEE SHEET 204A FOR PROFILE

FANGBONER RD.
& CONSTRUCTION
P.I. STA. 5+96.92
 $\Delta = 1^{\circ}38'36''$ RT.
NO CURVE

PLAN
STA. 5+96.92 TO STA. 10+00 FANGBONER RD.

SAN-53-10.15

204
394

MATCH LINE STA. 10+00
STATE ROUTE 53
SEE SHEET 205

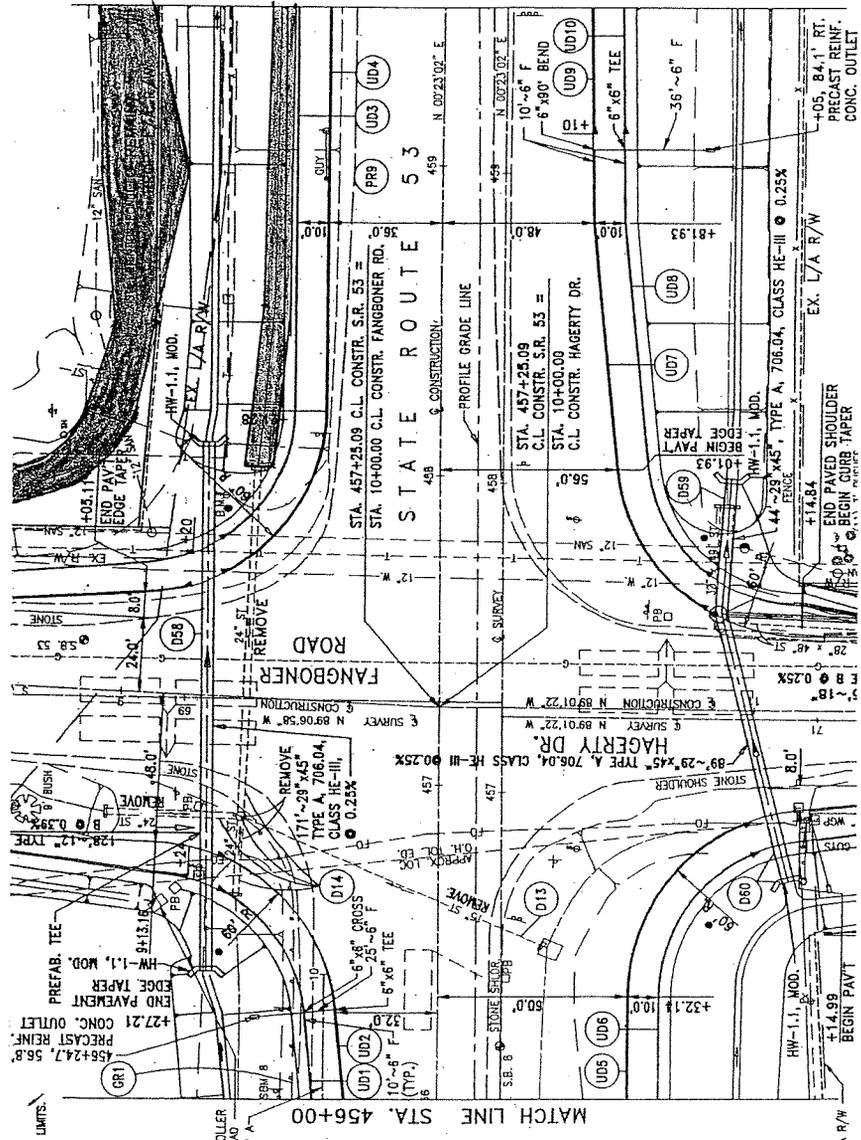
OHIO DEPARTMENT OF TRANSPORTATION
SAN-53-10.15 PID 9443
D/A Processing No. 2004-00953(1)
Sandusky County, Ohio Quad: FREMONT EAST
Sheet 11 of 24 WETLAND 2 IMPACTS

PROJECT PLAN SHEETS

Ohio Department of Transportation
SR 53 in Sandusky County, Ohio
SAN-53-10.15 (PID 9443)

LEGEND
 PROPOSED SIGNAL POLE

RIGHT-OF-WAY BEYOND SHEET LIMITS



No Impact
Wetland 2

Wetland 2 - Impacted

PLAN AND PROFILE
 STA. 456+00 TO STA. 459+50

CHECKED
 E.O.T.
 THY

SCALE IN FEET
 HORIZONTAL
 VERTICAL

SITE BENCH MARK 8
 BOX CUT IN CONCRETE BASE OF
 EAST END OF S.E. CORNER
 STA. 488+01.50' LT.
 ELEVATION = 617.94'

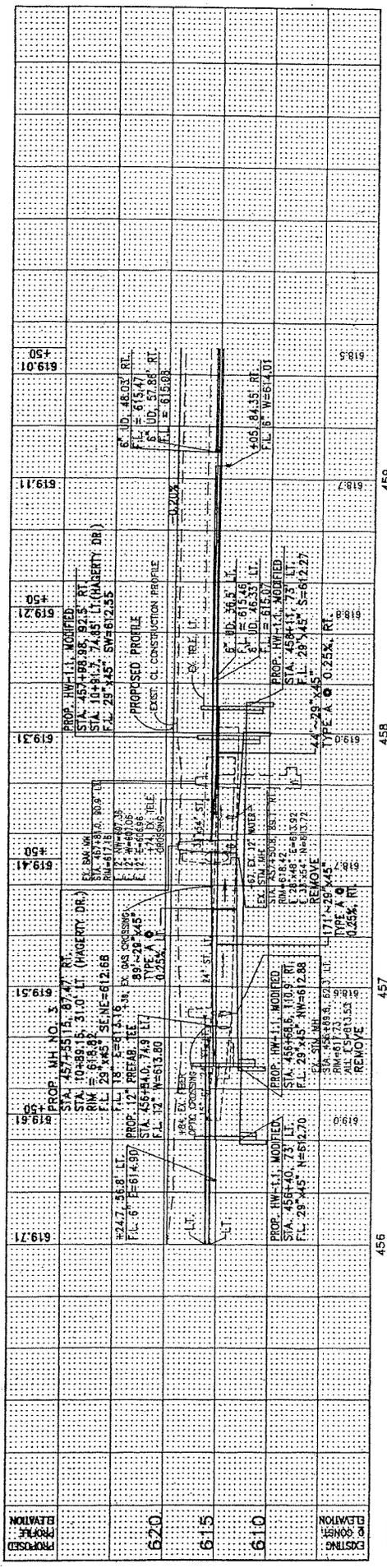
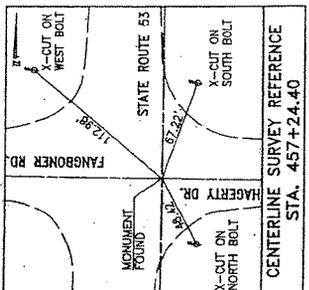
SITE BENCH MARK 9
 BOX CUT ON TOP OF SOUTHEAST
 CORNER OF CONCRETE RETAINMENT
 STA. 457+02.18' RT.
 ELEVATION = 618.53'

SITE BENCH MARK 19
 X CUT IN SOUTHEAST ANCHOR BOLT
 FOR SIGNAL POLE AT INTERSECTION
 CORNER OF S.E. 53 AND HAGERLY DR.
 STA. 457+94.00' LT.
 ELEVATION = 619.01'

MATCH LINE STA. 456+00

CROSS REFERENCES

SEE SHEET FOR:	CROSS REFERENCES
71-74	PAVEMENT QUANT.
75	PAVEMENT REMOVAL QUANT.
83-84	DRAINAGE QUANT.
85-87	UNDERDRAIN QUANT.
87A	GUARDRAIL QUANT.
204-204A	FANGBOMER RD. PLAN & PROFILE
205-205A	HAGERLY DR. PLAN & PROFILE
227	INTERSECTION DETAIL
238	HW-1.1, MODIFIED DETAILS
346	FENCE WORK
277	SIDEWALK WORK



OHIO DEPARTMENT OF TRANSPORTATION
 SAN-53-10.15 PID 9443
 D/A Processing No. 2004-00953(1)
 Sandusky County, Ohio Quad: FREMONT EAST
 Sheet 12 of 24 WETLAND 2 IMPACTS

PROJECT PLAN SHEETS
 Ohio Department of Transportation
 SR 53 in Sandusky County, Ohio
 SAN-53-10.15 (PID 9443)

101
 394

456

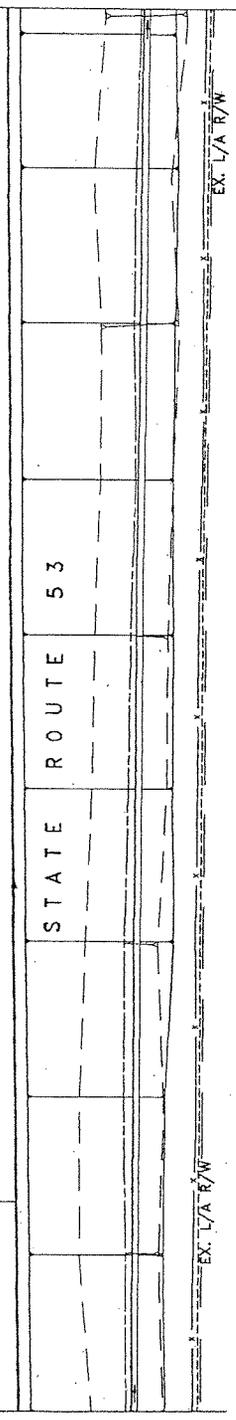
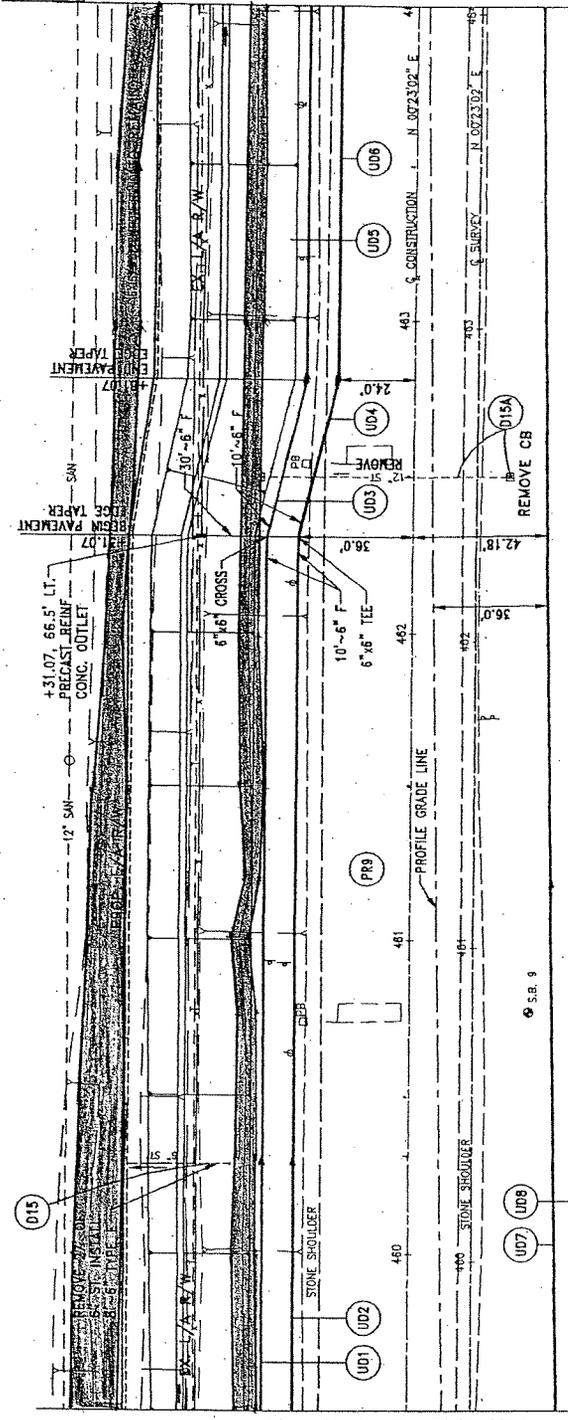
457

458

459



WETLAND 2
 Wetland 2
 Impacted



CROSS REFERENCES	
SEE SHEET FOR:	
71-74	PAVEMENT QUANT.
75	PAVEMENT REMOVAL QUANT.
83-84	DRAINAGE QUANT.
85-87	UNDERDRAIN QUANT.
346	FENCE WORK

PROPOSED ELEVATION	EXISTING ELEVATION	STATION
619.01	618.01	459+50
618.91	618.91	459+50
618.71	618.71	460+00
618.61	618.61	460+50
618.51	618.51	461+00
618.41	618.41	461+50
618.31	618.31	462+00
618.21	618.21	462+50
618.11	618.11	463+00
617.9	617.9	463+50
617.5	617.5	464+00

PROJECT PLAN SHEETS

Ohio Department of Transportation
 SR 53 in Sandusky County, Ohio
 SAN-53-10.15 (PID 9443)

OHIO DEPARTMENT OF TRANSPORTATION
 SAN-53-10.15 PID 9443
 D/A Processing No. 2004-00953(1)
 Sandusky County, Ohio Quad: FREMONT EAST
 Sheet 13 of 24 WETLAND 2 IMPACTS

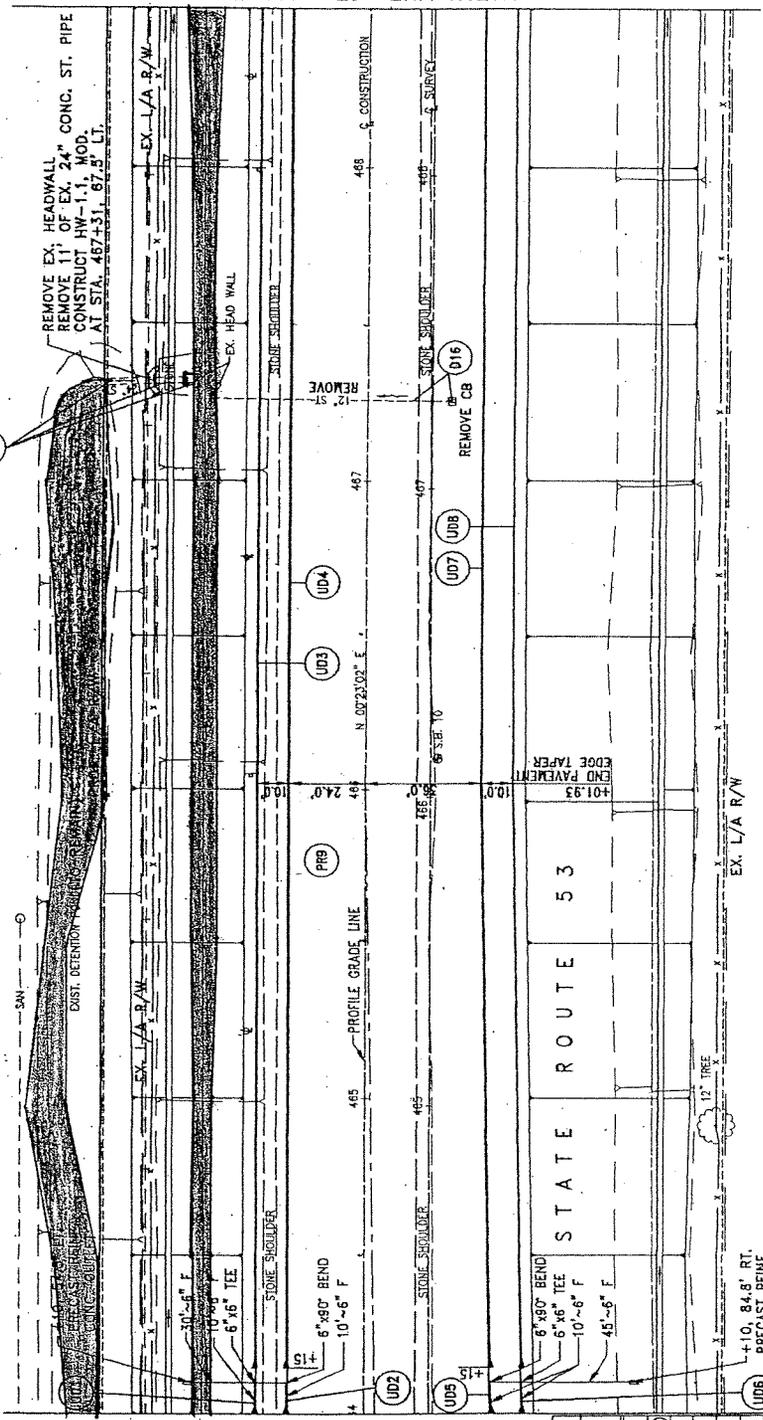
SITE BENCH MARK 17
 BOX CUT ON SOUTHEAST CORNER OF
 HEADWALL ON WEST SIDE OF S.R. 53
 ACROSS FROM "STAPLES" STORE
 STA. 467+30.57' LT.
 ELEVATION = 615.10

Wetland 2
 Impacted

PLAN AND PROFILE
 STA. 464+00 TO STA. 468+50

SAN-53-10.15

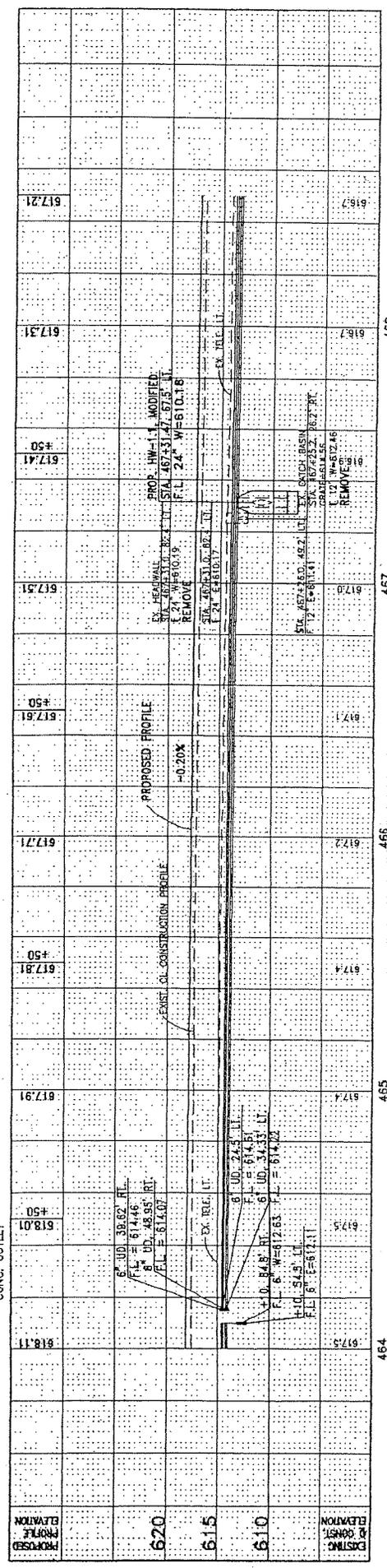
103
 39.1



MATCH LINE STA. 464+00

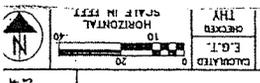
MATCH LINE STA. 468+50

SEE SHEET FOR:	CROSS REFERENCES
71-74 PAVEMENT QUANT.	
75 PAVEMENT REMOVAL QUANT. (6)	
83-84 DRAINAGE QUANT. (1)	
85-87 UNDERDRAIN QUANT. (1)	
237 HW-1.1, MODIFIED DETAILS	
347 FENCE WORK	



OHIO DEPARTMENT OF TRANSPORTATION
 SAN-53-10.15 PID 9443
 D/A Processing No. 2004-00953(1)
 Sandusky County, Ohio Quad: FREMONT EAST
 Sheet 14 of 24 WETLAND 2 IMPACTS

PROJECT PLAN SHEETS
 Ohio Department of Transportation
 SR 53 in Sandusky County, Ohio
 SAN-53-10.15 (PID 9443)



BOX CUT ON SOUTHEAST CORNER OF HEADWALL ON WEST SIDE OF S.R. 53
 APPROXIMATE STAKE STORE
 ST. 474.37 LT.
 ELEVATION = 613.10

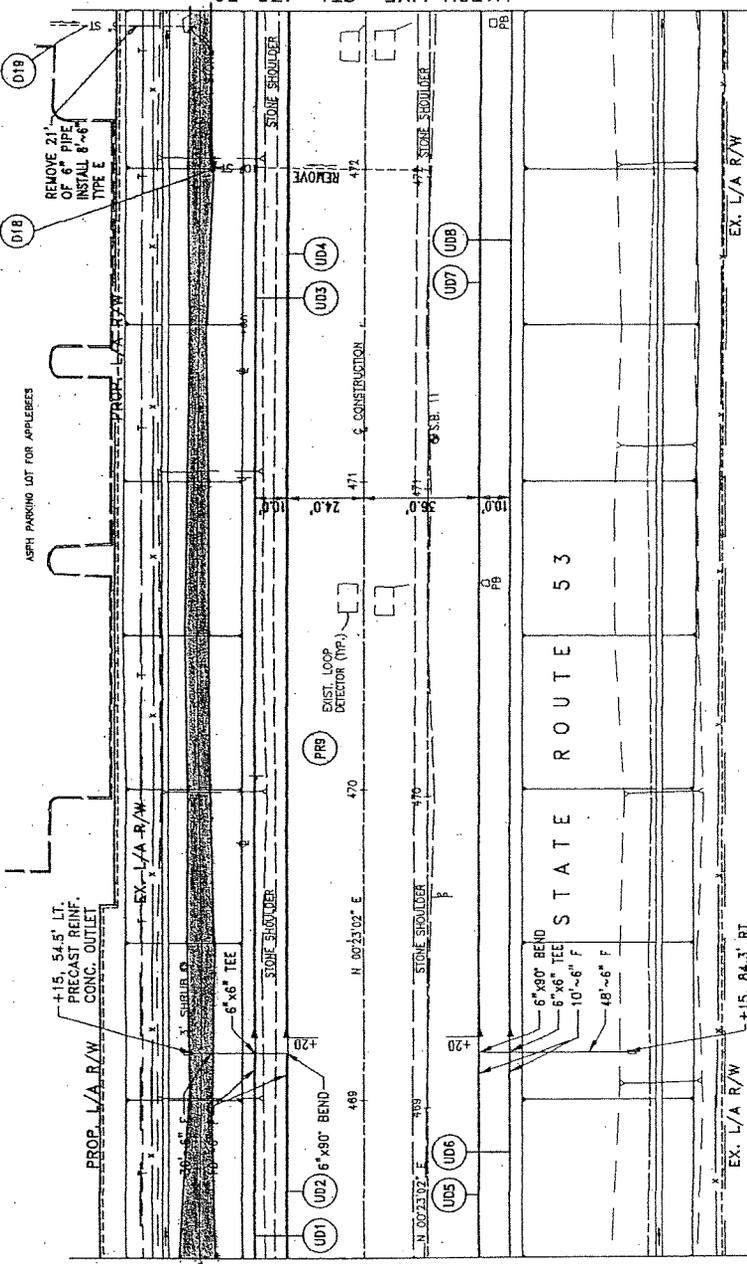
PLAN AND PROFILE
 STA. 468+50 TO STA. 472+50

SAN-53-10.15

104
394

Wetland 2

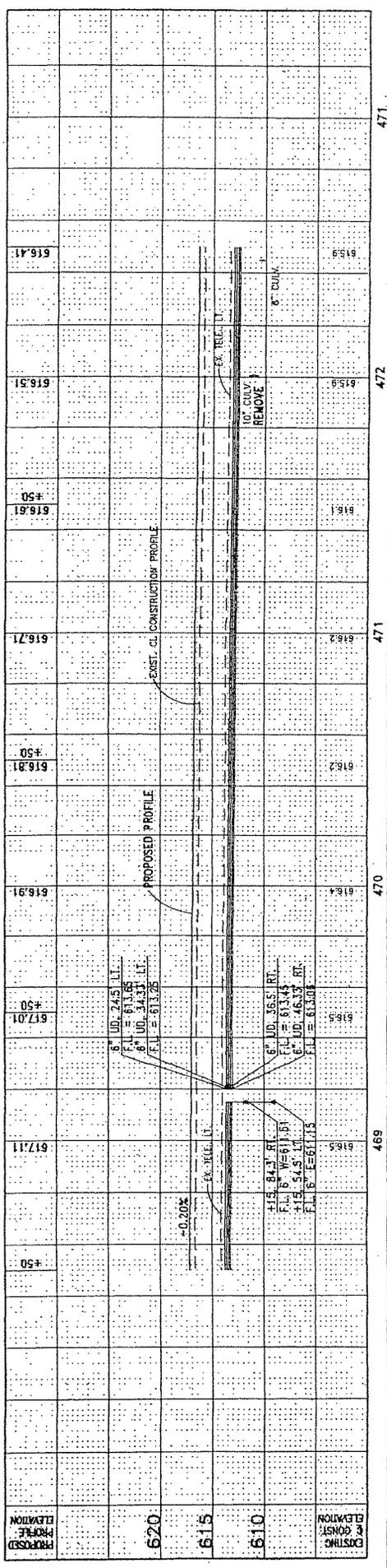
MATCH LINE STA. 472+50



MATCH LINE STA. 468+50

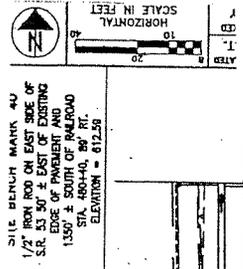
CROSS REFERENCES	
SEE SHEET FOR:	
71-74	PAVEMENT QUANT.
75	PAVEMENT REMOVAL QUANT., (P)
83-84	DRAINAGE QUANT., (D)
85-87	UNDERDRAIN QUANT., (U)
347	FENCE WORK

STATE ROUTE 53



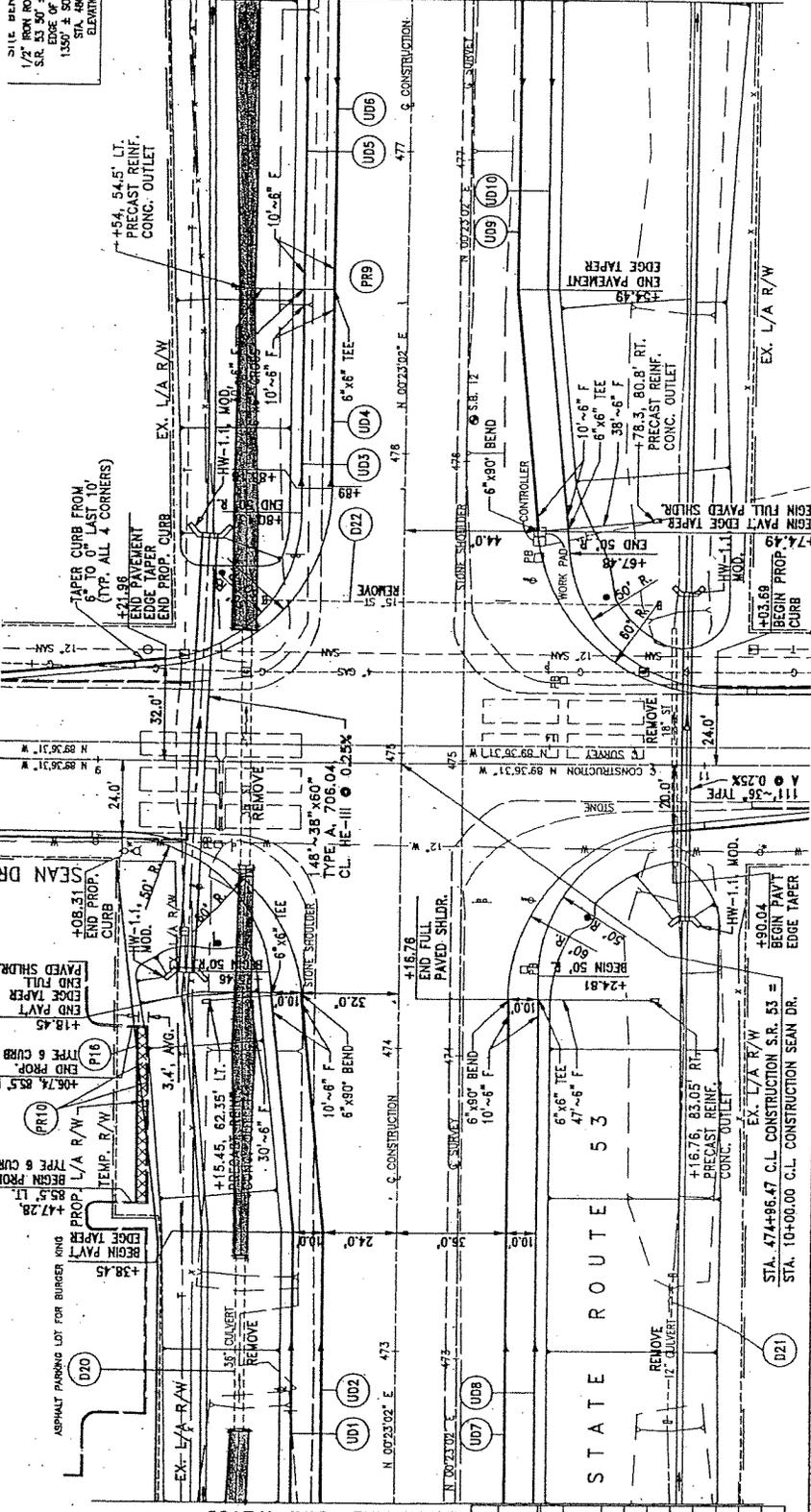
OHIO DEPARTMENT OF TRANSPORTATION
 SAN-53-10.15 PID 9443
 D/A Processing No. 2004-00953(1)
 Sandusky County, Ohio Quad: FREMONT EAST
 Sheet 15 of 24 WETLAND 2 IMPACTS

PROJECT PLAN SHEETS
 Ohio Department of Transportation
 SR 53 in Sandusky County, Ohio
 SAN-53-10.15 (PID 9443)



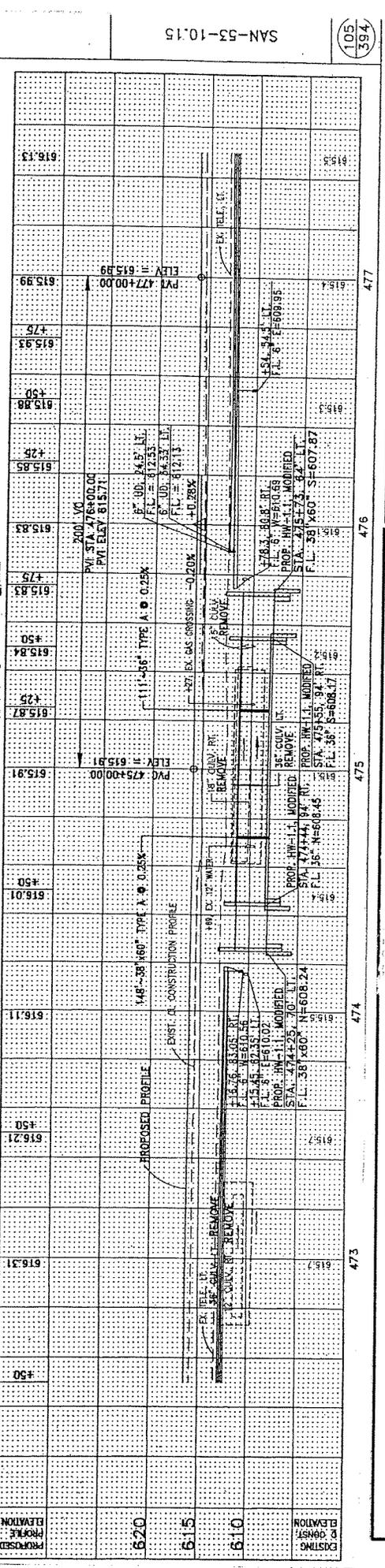
Wetland 2

MATCH LINE STA. 472+50
 PLAN AND PROFILE
 STA. 472+50 TO STA. 477+50



ITEM	DESCRIPTION
202	ITEM 202 PAVEMENT REMOVED
	PROPOSED SIGNAL POLE

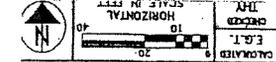
CROSS REFERENCES	SEE SHEET FOR:
1-74	PAVEMENT QUANT.
75	PAVEMENT REMOVAL QUANT.
3-84	DRAINAGE QUANT.
5-87	UNDERDRAIN QUANT.
95-207	SEAN DR. PLAN & PROFILE
228	INTERSECTION DETAIL
33-234	CULVERT DETAILS
238	HW-1.1, MODIFIED DETAILS
348	FENCE WORK
277	SIDEWALK WORK



PROJECT PLAN SHEETS

Ohio Department of Transportation
 SR 53 in Sandusky County, Ohio
 SAN-53-10.15 (PID 9443)

OHIO DEPARTMENT OF TRANSPORTATION
 SAN-53-10.15 PID 9443
 D/A Processing No. 2004-00953(1)
 Sandusky County, Ohio Quad: FREMONT EAST
 Sheet 16 of 24 WETLAND 2 IMPACTS



1/2" FROM ROAD ON WEST SIDE OF
 S.R. 53 ABOUT 50' EAST OF EXISTING
 EDGE OF PAVEMENT AND
 1350' ± SOUTH OF RAILROAD
 STA. 480+40, 86' RT.
 ELEVATION = 816.03

1/2" FROM ROAD ON EAST SIDE OF
 S.R. 53 ABOUT 50' WEST OF EXISTING
 EDGE OF PAVEMENT AND
 1350' ± SOUTH OF RAILROAD
 STA. 480+40, 86' RT.
 ELEVATION = 812.99

CONSTRUCTION CURVE DATA
 P.L. = STA. 485+13.28
 Δ = 20°46'49" RT.
 D = 200'00"
 R = 2864.79'
 L_s = 240'00"
 L_c = 799.01'
 T_s = 645.42'
 E_s = 48.61'
 S.C. = STA. 481+07.84
 S.T. = STA. 489+06.85

CONSTRUCTION CURVE DATA
 P.L. = STA. 488+12.39
 Δ = 20°46'49" RT.
 D = 200'00"
 R = 2864.79'
 L_s = 300'00"
 L_c = 478+36.89
 T_s = 574.78+36.89
 E_s = 49.09'
 S.C. = STA. 481+07.84
 S.T. = STA. 491+75.91

CONSTRUCTION CURVE DATA
 P.L. = STA. 485+13.28
 Δ = 20°46'49" RT.
 D = 200'00"
 R = 2864.79'
 L_s = 240'00"
 L_c = 799.01'
 T_s = 645.42'
 E_s = 48.61'
 S.C. = STA. 481+07.84
 S.T. = STA. 489+06.85

CONSTRUCTION CURVE DATA
 P.L. = STA. 488+12.39
 Δ = 20°46'49" RT.
 D = 200'00"
 R = 2864.79'
 L_s = 300'00"
 L_c = 478+36.89
 T_s = 574.78+36.89
 E_s = 49.09'
 S.C. = STA. 481+07.84
 S.T. = STA. 491+75.91

CONSTRUCTION CURVE DATA
 P.L. = STA. 485+13.28
 Δ = 20°46'49" RT.
 D = 200'00"
 R = 2864.79'
 L_s = 240'00"
 L_c = 799.01'
 T_s = 645.42'
 E_s = 48.61'
 S.C. = STA. 481+07.84
 S.T. = STA. 489+06.85

CONSTRUCTION CURVE DATA
 P.L. = STA. 488+12.39
 Δ = 20°46'49" RT.
 D = 200'00"
 R = 2864.79'
 L_s = 300'00"
 L_c = 478+36.89
 T_s = 574.78+36.89
 E_s = 49.09'
 S.C. = STA. 481+07.84
 S.T. = STA. 491+75.91

CONSTRUCTION CURVE DATA
 P.L. = STA. 485+13.28
 Δ = 20°46'49" RT.
 D = 200'00"
 R = 2864.79'
 L_s = 240'00"
 L_c = 799.01'
 T_s = 645.42'
 E_s = 48.61'
 S.C. = STA. 481+07.84
 S.T. = STA. 489+06.85

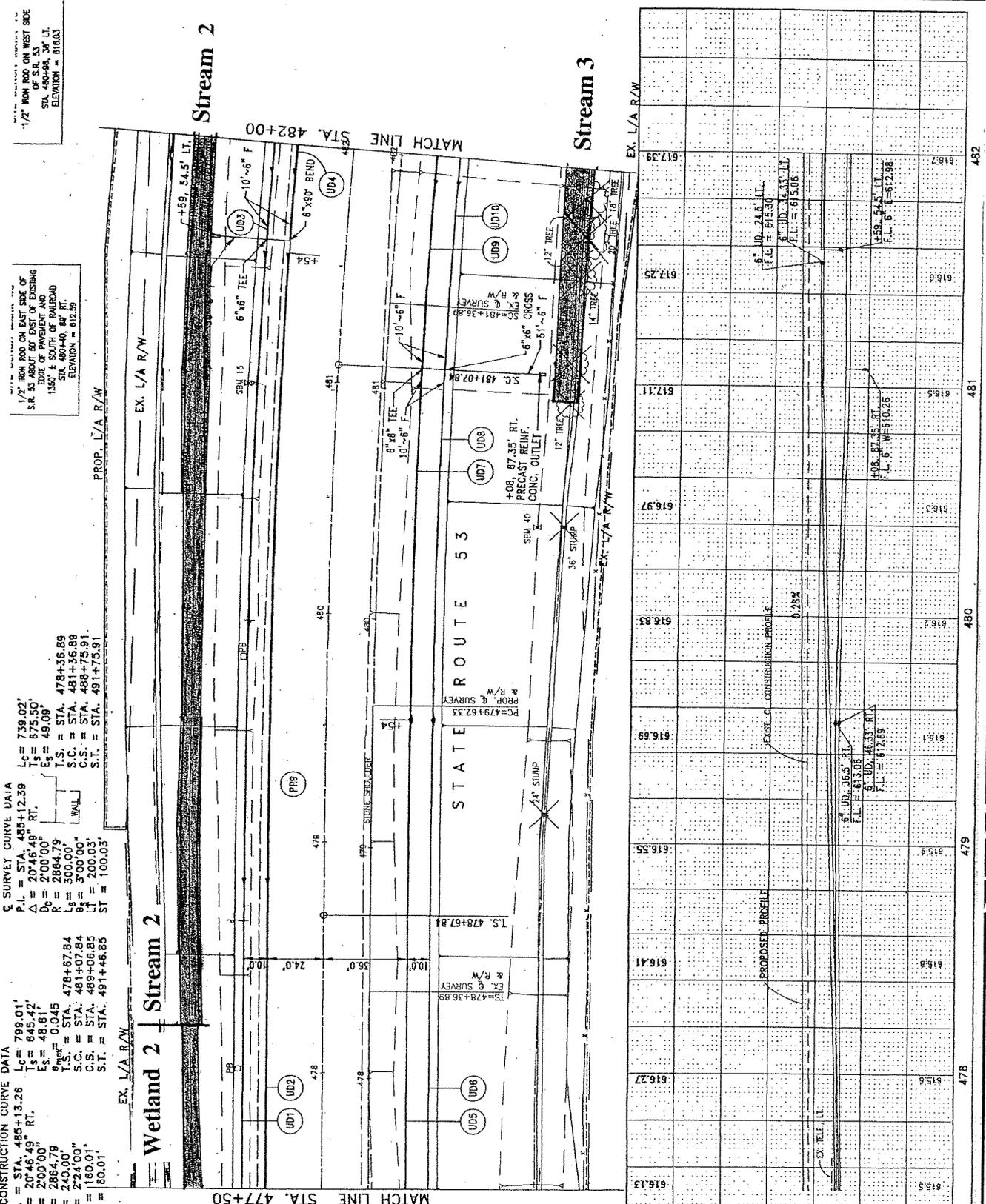
CONSTRUCTION CURVE DATA
 P.L. = STA. 488+12.39
 Δ = 20°46'49" RT.
 D = 200'00"
 R = 2864.79'
 L_s = 300'00"
 L_c = 478+36.89
 T_s = 574.78+36.89
 E_s = 49.09'
 S.C. = STA. 481+07.84
 S.T. = STA. 491+75.91

CONSTRUCTION CURVE DATA
 P.L. = STA. 485+13.28
 Δ = 20°46'49" RT.
 D = 200'00"
 R = 2864.79'
 L_s = 240'00"
 L_c = 799.01'
 T_s = 645.42'
 E_s = 48.61'
 S.C. = STA. 481+07.84
 S.T. = STA. 489+06.85

PLAN AND PROFILE
 STA. 477+50 TO STA. 482+00

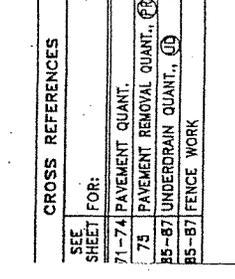
SAN-53-10.15

106
394



CROSS REFERENCES

SEE SHEET FOR:	
71-74 PAVEMENT QUANT.	(P)
85-87 UNDERDRAIN QUANT.	(U)
85-87 FENCE WORK	



CENTERLINE SURVEY REFERENCE
 STA. 478+36.89 T.S.

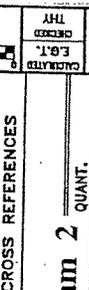
PROPOSED ELEVATION	816.13	816.27	816.41	816.55	816.69	816.83	816.97	817.11	817.25	817.39
EXISTING ELEVATION	815.0	815.6	816.3	816.9	817.5	818.1	818.7	819.3	819.9	820.5

OHIO DEPARTMENT OF TRANSPORTATION
 SAN-53-10.15 PID 9443
 D/A Processing No. 2004-00953(1)
 Sandusky County, Ohio Quad: FREMONT EAST
 Sheet 17 of 24 STREAM 2 & 3 IMPACTS

PROJECT PLAN SHEETS
 Ohio Department of Transportation
 SR 53 in Sandusky County, Ohio
 SAN-53-10.15 (PID 9443)

1/2" IRON ROD ON EAST SIDE OF S.R. 53
 STA. 491+77, 121' RT.
 ELEVATION = 812.02

SITE BENCH MARK 12
 1/2" IRON ROD ON WEST SIDE OF
 S.R. 53 2' FROM GUARDRAIL AND
 150' S. SOUTH OF RAILROAD BRIDGE
 STA. 483+95, 37' LT.
 ELEVATION = 836.61



CALCULATED
 E.G.T.
 CHECKED
 THY

PLAN
 STA. 491+00 TO STA. 495+00

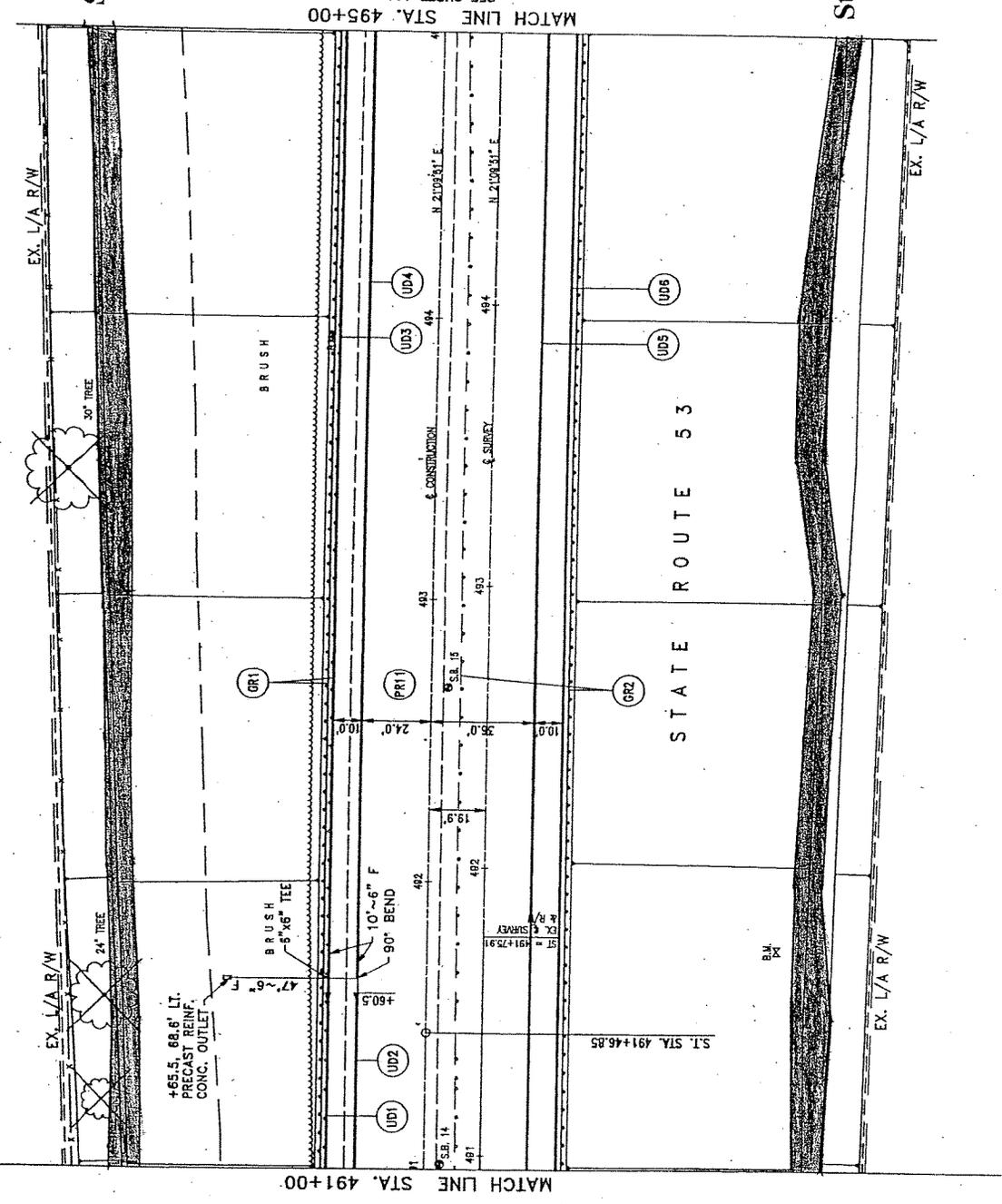
CROSS REFERENCES

SEE	Stream 2
75	PAVEMENT REMOVAL QUANT., (P)
85-87	UNDERDRAIN QUANT., (U)
87A	GUARDRAIL QUANT., (G)
348	FENCE WORK

Stream 2 QUANT.

Stream 3 QUANT.

Stream 3



1/2" IRON ROD ON EAST SIDE OF S.R. 53
 STA. 491+77, 121' RT.
 ELEVATION = 812.02



CALCULATED
 E.G.T.
 CHECKED
 THY

PLAN
 STA. 491+00 TO STA. 495+00

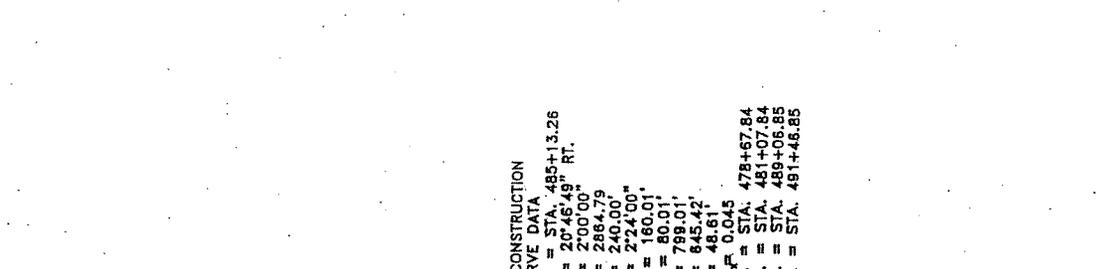
CROSS REFERENCES

SEE	Stream 2
75	PAVEMENT REMOVAL QUANT., (P)
85-87	UNDERDRAIN QUANT., (U)
87A	GUARDRAIL QUANT., (G)
348	FENCE WORK

Stream 2 QUANT.

Stream 3 QUANT.

Stream 3



1/2" IRON ROD ON EAST SIDE OF S.R. 53
 STA. 491+77, 121' RT.
 ELEVATION = 812.02



CALCULATED
 E.G.T.
 CHECKED
 THY

PLAN
 STA. 491+00 TO STA. 495+00

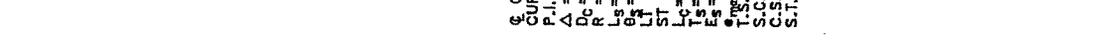
CROSS REFERENCES

SEE	Stream 2
75	PAVEMENT REMOVAL QUANT., (P)
85-87	UNDERDRAIN QUANT., (U)
87A	GUARDRAIL QUANT., (G)
348	FENCE WORK

Stream 2 QUANT.

Stream 3 QUANT.

Stream 3



CONSTRUCTION
 CURVE DATA
 P.I. = STA. 485+13.26
 Δ = 20°45'49" RT.
 Dc = 2'00'00"
 R = 2884.79
 Lc = 240.00'
 Ls = 2724'00"
 Tc = 180.01'
 Lp = 798.01'
 Lq = 645.42'
 E1 = 48.61'
 E2 = 0.045'

T.S. = STA. 478+67.84
 S.C. = STA. 481+07.84
 C.S. = STA. 489+08.85
 S.T. = STA. 491+48.85

SEE SHEET 110 FOR PROFILE

OHIO DEPARTMENT OF TRANSPORTATION
 SAN-53-10.15 PID 9443
 D/A Processing No. 2004-00953(1)
 Sandusky County, Ohio Quad: FREMONT EAST
 Sheet 20 of 24 STREAM 2 & 3 IMPACTS

PROJECT PLAN SHEETS
 Ohio Department of Transportation
 SR 53 in Sandusky County, Ohio
 SAN-53-10.15 (PID 9443)

109
 394

1/4" = 10' HORIZONTAL SCALE IN FEET

DATE: 10/15/10

THY: []

EG.I.: []

SCALE: 1" = 10'

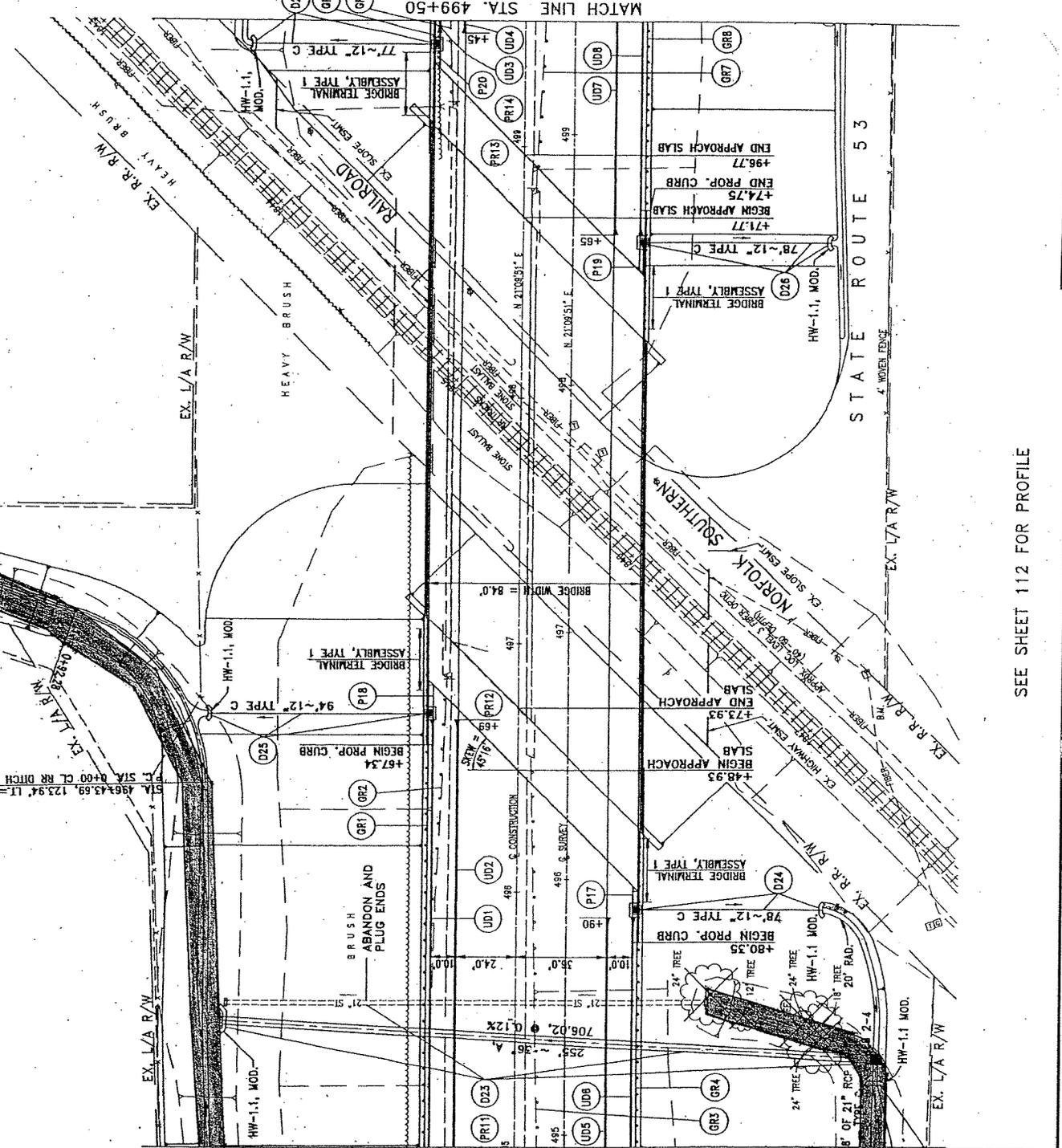
1/4" = 10' HORIZONTAL SCALE IN FEET

DATE: 10/15/10

THY: []

EG.I.: []

SCALE: 1" = 10'



Stream 2

MATCH LINE STA. 495+00

SEE SHEET 109

Stream 3

MATCH LINE STA. 495+50

SEE SHEET 113

SEE SHEET FOR:	CROSS REFERENCES
71-74 PAVEMENT	75
75 PAVEMENT REMOVAL QUANT., (P)	76
76 DRAINAGE QUANT., (D)	77
77 UNDERDRAIN QUANT., (U)	78
78 GUARDRAIL QUANT., (G)	79
79 RAILROAD DITCH PLAN & PROFILE	80
80 CULVERT DETAIL	81
81 HW-1.1, MODIFIED DETAILS	82
82 BRIDGE PLAN	83

SEE SHEET 112 FOR PROFILE

OHIO DEPARTMENT OF TRANSPORTATION
 SAN-53-10.15 PID 9443
 D/A Processing No. 2004-00953(1)
 Sandusky County, Ohio Quad: FREMONT EAST
 Sheet 21 of 24 STREAM 2 & 3 IMPACTS

PROJECT PLAN SHEETS

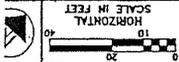
Ohio Department of Transportation
 SR 53 in Sandusky County, Ohio
 SAN-53-10.15 (PID 9443)

PLAN

STA. 495+00 TO STA. 499+50

SAN-53-10.15

111
394



PLAN AND PROFILE
 STA. 0+00 TO STA. 5+40.81 RAILROAD DITCH

PLAN AND PROFILE
 STA. 0+00 TO STA. 5+40.81 RAILROAD DITCH

PLAN AND PROFILE
 STA. 0+00 TO STA. 5+40.81 RAILROAD DITCH

PLAN AND PROFILE
 STA. 0+00 TO STA. 5+40.81 RAILROAD DITCH

PLAN AND PROFILE
 STA. 0+00 TO STA. 5+40.81 RAILROAD DITCH

PLAN AND PROFILE
 STA. 0+00 TO STA. 5+40.81 RAILROAD DITCH

PLAN AND PROFILE
 STA. 0+00 TO STA. 5+40.81 RAILROAD DITCH

PLAN AND PROFILE
 STA. 0+00 TO STA. 5+40.81 RAILROAD DITCH

PLAN AND PROFILE
 STA. 0+00 TO STA. 5+40.81 RAILROAD DITCH

PLAN AND PROFILE
 STA. 0+00 TO STA. 5+40.81 RAILROAD DITCH

PLAN AND PROFILE
 STA. 0+00 TO STA. 5+40.81 RAILROAD DITCH

PLAN AND PROFILE
 STA. 0+00 TO STA. 5+40.81 RAILROAD DITCH

PLAN AND PROFILE
 STA. 0+00 TO STA. 5+40.81 RAILROAD DITCH

PLAN AND PROFILE
 STA. 0+00 TO STA. 5+40.81 RAILROAD DITCH

PLAN AND PROFILE
 STA. 0+00 TO STA. 5+40.81 RAILROAD DITCH

PLAN AND PROFILE
 STA. 0+00 TO STA. 5+40.81 RAILROAD DITCH

PLAN AND PROFILE
 STA. 0+00 TO STA. 5+40.81 RAILROAD DITCH

PLAN AND PROFILE
 STA. 0+00 TO STA. 5+40.81 RAILROAD DITCH

PLAN AND PROFILE
 STA. 0+00 TO STA. 5+40.81 RAILROAD DITCH

PLAN AND PROFILE
 STA. 0+00 TO STA. 5+40.81 RAILROAD DITCH

PLAN AND PROFILE
 STA. 0+00 TO STA. 5+40.81 RAILROAD DITCH

PLAN AND PROFILE
 STA. 0+00 TO STA. 5+40.81 RAILROAD DITCH

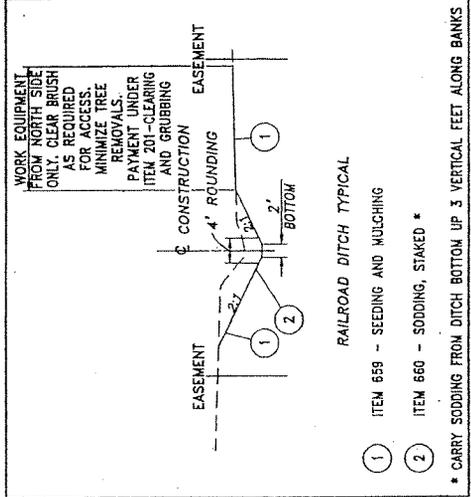
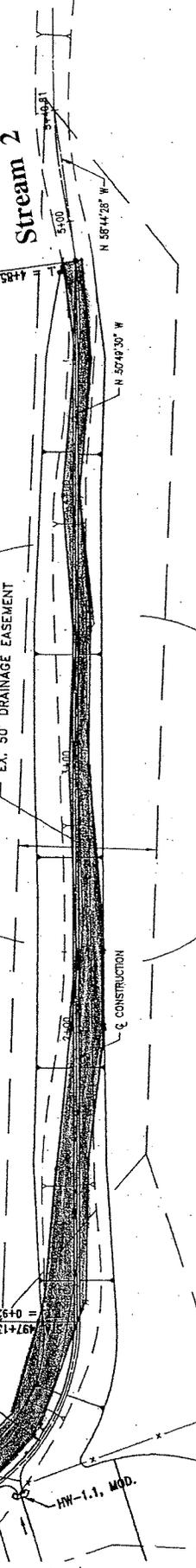
DITCH
 G CONSTRUCTION
 P.I. STA. 4+85.41
 $\Delta = 7^{\circ}05'55''$ LT.
 $\Delta = 7^{\circ}05'55''$ LT.
 NO CURVE

CONSTRUCTION RR DITCH
 CURVE DATA
 P.I. = STA. 0+53.00
 $\Delta = 70^{\circ}29'58''$ LT.
 $D_c = 76^{\circ}23'40''$
 $R = 75.00'$
 $T = 53.00'$
 $L = 92.28'$
 $E = -166.84'$
 P.C. = STA. 0+00.00
 P.T. = STA. 0+92.28

STA. 496+41.74, 188.91' LT.
 75° RAD.
 STA. 495+13.06, 175.72' LT.
 $0+92.28$ CL RR DITCH

EX. R/W
 EX. 50' DRAINAGE EASEMENT
 HEAVY BRUSH & SMALL DIAMETER TREES

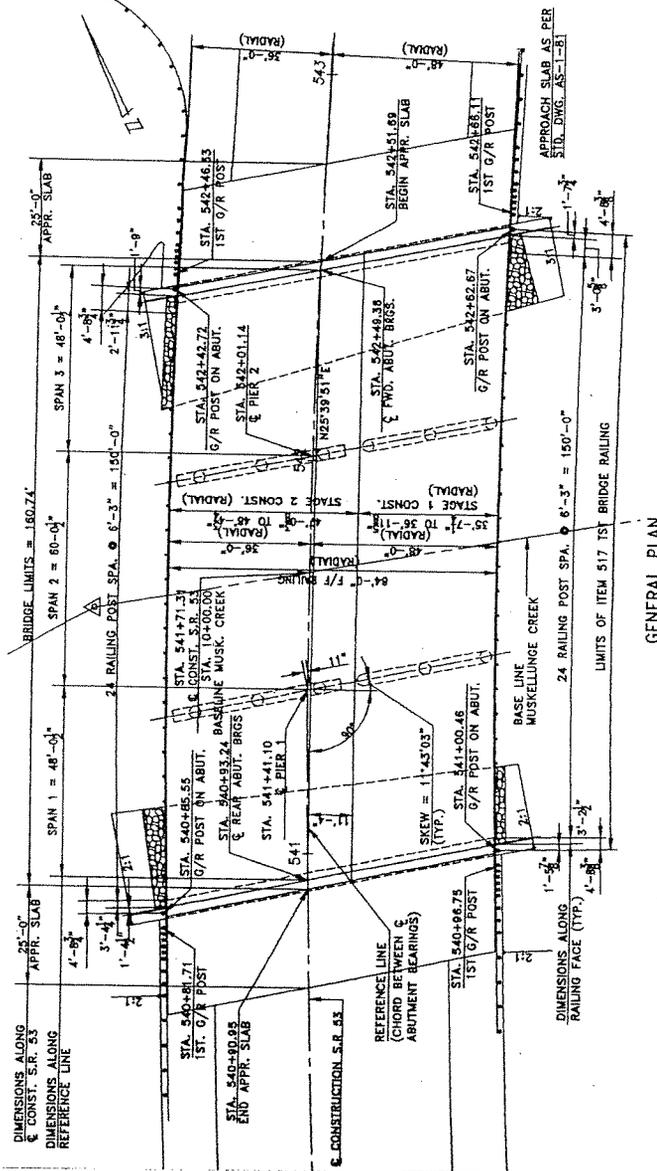
HEAVY BRUSH & SMALL DIAMETER TREES
 EX. R/W
 NORFOLK SOUTHERN RAILROAD



SEE SHEET 111 FOR S.R. 53 P & P

PROPOSED ELEVATION	POSTING ELEVATION	0	1	2	3	4	5
602.89	602.89						
602.50	602.50						
602.31	602.31						
602.12	602.12						
601.93	601.93						
601.74	601.74						
601.55	601.55						
601.36	601.36						
601.17	601.17						
600.97	600.97						
600.84	600.84						
600.6	600.6						
600.3	600.3						
599.9	599.9						
599.5	599.5						
599.1	599.1						
598.7	598.7						
598.3	598.3						
597.9	597.9						
597.5	597.5						
597.1	597.1						
596.7	596.7						
596.3	596.3						
595.9	595.9						
595.5	595.5						
595.1	595.1						
594.7	594.7						
594.3	594.3						
593.9	593.9						
593.5	593.5						
593.1	593.1						
592.7	592.7						
592.3	592.3						
591.9	591.9						
591.5	591.5						
591.1	591.1						
590.7	590.7						
590.3	590.3						
589.9	589.9						
589.5	589.5						
589.1	589.1						
588.7	588.7						
588.3	588.3						
587.9	587.9						
587.5	587.5						
587.1	587.1						
586.7	586.7						
586.3	586.3						
585.9	585.9						
585.5	585.5						
585.1	585.1						
584.7	584.7						
584.3	584.3						
583.9	583.9						
583.5	583.5						
583.1	583.1						
582.7	582.7						
582.3	582.3						
581.9	581.9						
581.5	581.5						
581.1	581.1						
580.7	580.7						
580.3	580.3						
579.9	579.9						
579.5	579.5						
579.1	579.1						
578.7	578.7						
578.3	578.3						
577.9	577.9						
577.5	577.5						
577.1	577.1						
576.7	576.7						
576.3	576.3						
575.9	575.9						
575.5	575.5						
575.1	575.1						
574.7	574.7						
574.3	574.3						
573.9	573.9						
573.5	573.5						
573.1	573.1						
572.7	572.7						
572.3	572.3						
571.9	571.9						
571.5	571.5						
571.1	571.1						
570.7	570.7						
570.3	570.3						
569.9	569.9						
569.5	569.5						
569.1	569.1						
568.7	568.7						
568.3	568.3						
567.9	567.9						
567.5	567.5						
567.1	567.1						
566.7	566.7						
566.3	566.3						
565.9	565.9						
565.5	565.5						
565.1	565.1						
564.7	564.7						
564.3	564.3						
563.9	563.9						
563.5	563.5						
563.1	563.1						
562.7	562.7						
562.3	562.3						
561.9	561.9						
561.5	561.5						
561.1	561.1						
560.7	560.7						
560.3	560.3						
559.9	559.9						
559.5	559.5						
559.1	559.1						
558.7	558.7						
558.3	558.3						
557.9	557.9						
557.5	557.5						
557.1	557.1						
556.7	556.7						
556.3	556.3						
555.9	555.9						
555.5	555.5						
555.1	555.1						
554.7	554.7						
554.3	554.3						
553.9	553.9						
553.5	553.5						
553.1	553.1						
552.7	552.7						
552.3	552.3						
551.9	551.9						
551.5	551.5						
551.1	551.1						
550.7	550.7						
550.3	550.3						
549.9	549.9						
549.5	549.5						
549.1	549.1						
548.7	548.7						
548.3	548.3						
547.9	547.9						
547.5	547.5						
547.1	547.1						
546.7	546.7						
546.3	546.3						
545.9	545.9						
545.5	545.5						
545.1	545.1						
544.7	544.7						
544.3	544.3						
543.9	543.9						
543.5	543.5						
543.1	543.1						
542.7	542.7						
542.3	542.3						
541.9	541.9						
541.5	541.5						
541.1	541.1						
540.7	540.7						
540.3	540.3						
539.9	539.9						
539.5	539.5						
539.1	539.1						
538.7	538.7						
538.3	538.3						

Muskellunge Creek



- WORK NOTES:**
1. REPLACE AND WHEN CONCRETE DECK. PROVIDE COMPOSITE DECK DESIGN WITH TWIN STEEL TUBE RAILINGS.
 2. REUSE EXISTING STEEL BEAMS.
 3. PROVIDE FIVE NEW LINES OF STEEL BEAMS FOR WIDENING.
 4. REPLACE EXISTING CROSSFRAMES.
 5. REPLACE EXISTING BEARINGS WITH ELASTOMERIC BEARINGS AT ABUTMENTS AND AT PIERS.
 6. PROVIDE NEW FULL-WIDTH, 25-FOOT LONG APPROACH SLABS.
 7. REPAIR AND PAINT EXISTING STEEL BEAMS.
 8. PAINT NEW STEEL BEAMS.
 9. MODIFY EXISTING ABUTMENTS TO SEMI-INTEGRAL TYPE.
 10. EXTEND EXISTING MODIFIED ABUTMENTS WITH NEW SEMI-INTEGRAL ABUTMENTS FOR WIDENING.
 11. PROVIDE NEW POROUS BACKFILL AND PIPE DRAINAGE BEHIND ABUTMENTS.
 12. EXTEND EXISTING PIERS WITH NEW COLUMNS AND FOOTINGS. PROVIDE NEW PIER CAP FULL LENGTH OF PIER.
 13. PROVIDE NEW ROCK CHANNEL SLOPE PROTECTION AT ABUTMENTS.
 14. CONCRETE REPAIR ABUTMENTS BY EPOXY INJECTION.
 15. EPOXY-URETHANE SEAL EDGES OF DECK, PIERS, AND ABUTMENTS.

OHIO DEPARTMENT OF TRANSPORTATION
 SAN-53-10.15 PID 9443
 D/A Processing No. 2004-00953(1)
 Sandusky County, Ohio Quad: FREMONT EAST
 Sh. 23 of 24 MUSKELLUNGE CREEK IMPACTS

PROJECT PLAN SHEETS
 Ohio Department of Transportation
 SR 53 in Sandusky County, Ohio
 SAN-53-10.15 (PID 9443)

