

SPECIAL PROVISIONS

WATERWAY PERMITS CONDITIONS

C-R-S: SCI-823-6.81 – Tree Removal

PID: 97636

Date: 3/25/2014

Special Provisions: SCI-823-6.81, PID 97636 Tree Removal

1. Waterway Permit Time Restrictions:

Complete all work in streams, wetlands, and ponds associated with tree clearing activities in accordance with this Special Provisions by May 18, 2017 in accordance with the 401 Water Quality Certification (WQC).

For work on streams, wetlands, and ponds, the Department will consider the Contractor's submission of an extension to the waterway permit expiration date based on project constraints. In order to be considered, the Contractor must submit a justification to the Department's Project Manager at least eight (8) months prior to the expiration date of the first permit that expires which is the 401 WQC.

The Department's Project Manager will submit the request for a time extension to ODOT - Office of Environmental Services- Waterway Permits Unit at (614)466-7100, for consideration and coordination with the USACE and/or Ohio EPA.

2. Deviations from Permitted Construction Activities

No deviation from the requirements for work in streams, wetlands, and ponds depicted in this Special Provisions may be made unless a modification has been submitted to ODOT and approved by the appropriate agencies (e.g., USACE, Ohio EPA, USCG, ODNR, and USFWS).

For emergency situations resulting in unanticipated impacts to streams, wetlands, and ponds provide notification (verbal or written) to the Department's Project Manager as soon as possible following discovery of the situation. Written notification to the Department's Project Manager and notification to the ODOT- Office of Environmental Services- Waterway Permits Unit must be made within 24 hours.

For non-emergency situations, notify the Department's Project Manager in writing for submission to the ODOT- Office of Environmental Services- Waterway Permits Unit, at (614)466-7100, for consideration and coordination with the appropriate agencies. Notification must be made at least two months prior to planned non-permitted activities. Consideration of the requested deviation is at the discretion of the Director and must be coordinated with the appropriate regulatory agencies.

3. In-Stream Work Restrictions

Work in the following sensitive streams is further restricted as follows:

Stream Name /Description	Location	Work restriction dates (No in-stream work permitted)
Stream 17-1-1	STA 519+50	None
Stream 17 a/b	STA 539+00	None
Stream 17 c	CR 28 Ramp C-D	None
Stream 17c-1	CR 29 Ramp C-D	None
Stream 17 d	CR 28 STA 10+75	None
Stream 18 (Long Run)	STA 484+50	April 15 to June 30
Stream 18-1	STA 473+50	None
Stream 18b	STA 465+25	None
Stream 19	STA 485+50 to 490+50	None
Stream 19-1	STA 504+53	None
Stream 20	STA 443+50	None
Stream 20-1	STA 434+00	None

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Stream 20-2	STA 449+25	None
Stream 21	STA 404+00	None
Stream 21a	STA 410+50	None
Stream 22a/b	STA 375+00	None
Stream 22a-1	TR 234 R C STA 381+70	None
Stream 23K	STA 364+50	None
Stream 24-1	STA 353+88	None

In-stream work has been defined as the placement and/or removal of fill materials (temporary or permanent) below ordinary high water of a stream. Examples of “fill” include (but are not limited to) bridge piers, abutments, culverts, rock channel protection, vegetation debris, scour protection, and temporary work pads/crossings.

Fills (such as temporary work pads) placed within a stream identified in the above table outside of the work restriction dates can continue to be worked from during the work restriction dates, but cannot be expanded, removed, or otherwise modified (below ordinary high water) until once again outside of the work restriction dates.

4. Materials:

Materials utilized in or adjacent to streams, wetlands, and ponds on this Project for permanent fill or bank protection shall consist of suitable material free from toxic contaminants in other than trace quantities. Broken asphalt is specifically excluded.

Cadmium, chromium, arsenate (CCA), creosote, and other pressure treated lumber shall not be used in structures that are placed in wetlands and streams.

5. Cultural Resources:

If archeological sites or human remains are discovered, cease all work in the immediate area and notify the Engineer who will immediately contact the Office of Environmental Services–Cultural Resource Section (614-466-7100) and the Ohio Historic Preservation Office.

In the event of human remains are discovered the Engineer shall also contact the Scioto County Sherriff’s Office at (740) 354-7566.

6. Water Resource Demarcation:

All streams, wetlands, and ponds indicated on the plans that are not authorized for impact shall be demarcated in the field as per SS 832 prior to site disturbance. The demarcation shall remain in place and be maintained throughout the tree clearing process. .

The following wetlands are authorized for impact in their entirety: Wetland 1 (0.141 acre), Wetland 2/3 (0.517 acre), Wetland 4 (0.089 acre), Wetland W8WL8 (0.02 acre), Wetland 6 (0.018 acre), Wetland 7 (0.108 acre), Wetland 8 (0.028 acre), Wetland 13 (0.233 acre), Wetland 14 (0.01 acre), Wetland 15 (0.014 acre), Wetland 19 (0.180 acre), Wetland W9WL4 (0.029 acre), Wetland 22 (0.344 acre), Wetland 24 (0.069 acre), Wetland 26 (0.483 acre), Wetland 28 (0.101 acre), Wetland 30 (0.011 acre), Wetland 31 (0.027 acre), Wetland 33 (0.021 acre), Wetland 34 (0.013 acre). **See attached Figures 3 – 70 and**

Table C-C.

Only portions of the following wetlands are authorized for impact, and the remaining area is to be demarcated and not disturbed: Wetland W8WL6 (0.221 acre of 0.290 acre), Wetland 5/W8WL7 (0.066 acre of 0.104 acre), Wetland 9 (0.073 acre of 0.081 acre), Wetland 12 (0.811 acre of 1.233 acres), Wetland 16 (0.036 acre of 0.048 acre), Wetland 17 (0.001 acre of 0.094 acre), Wetland 18/W9WL2 (0.038 acre of 0.054 acre), Wetland 20 (0.062 acre of 0.089 acre), Wetland 21 (0.082 acre of 0.085 acre), Wetland 29 (0.001 acre of 0.029 acre), Wetland 32 (0.019 acre of 0.049 acre), Wetland 35 (no impacts authorized, total size=0.092 acre). **See attached Figures 3 – 70 and Table C-C.**

For authorized stream and pond impacts, **see attached Table C-A and Table C-B.**

7. Spill containment:

Provide and maintain an oil spill kit with a minimum capacity of 65 gallons. The oil spill kit shall contain:

- 6 - 3 in. X 8 ft. Oil only socks
- 4 - 18 in. X18 in. Oil only pillows
- 2 - 5 in. X 10ft. Booms
- 50 - 16in. X 20 in. Oil only pads
- 10 - Disposable bags
- 1 - 65 Gallon drum with lid
- 25 pounds of granular oil absorbent

The oil spill kit shall be located within 150 feet of any equipment working in a stream, wetland, and ponds. The oil spill kit shall be maintained for the life of the contract. Any materials utilized during the project will be replaced within 48 hours.

8. Waterway Permits:

The Individual 404 permit (USACE #: 2011-00646-OHR) and Individual 401 Water Quality Certification (Ohio EPA #: 113859) have been authorized for Phase 1 of SCI-823-0.00 PID 19145. These authorizations include 31 wetlands (totaling 3.893 acres), 19 streams (totaling 9,525 linear feet) and five (5) ponds (totaling 2.7 acres). A copy of the 404 and 401 permits shall be kept at the work Site at all times and made available to all members of the Developer team, including Contractors and subcontractors.

The 404 permit is effective starting: 11-20-2012 and expires: 12-31-2022.

The 401 Water Quality Certification is effective starting: 5-18-2012 and expires: 5-18-2017.

The 404 permit is only valid with a valid 401 WQC. The Department's Project Manager must submit a request to extend the 401 WQC a minimum of eight (8) months prior to the expiration of the 401 WQC.

9. Project Inspection:

Inspection of Work may include inspection by representatives of other government agencies or railroad corporations that pay a portion of the cost of the Work or regulate the Work through State and Federal law. Comments from the representatives of these agencies shall be directed to the Engineer. Please forward a copy to ODOT Office of Environmental Services. Waterway Permits Unit (614-466-7100).

10. Temporary Access Fills (Stream and River Crossings and Fills):

Definitions:

Hydraulic Opening

The cross sectional area allowing an unimpeded discharge equal to twice the highest monthly flow without producing a rise in the backwater above the Ordinary High Water Mark (OHWM)*.

Standard Temporary Discharge

The hydraulic opening is to provide for a discharge equal to twice the *highest monthly flow* without producing a rise in the backwater above the OHWM shall be known as the Standard Temporary Discharge. The U.S. Geologic Service publication "Techniques for estimating Selected Streamflow Characteristics of Rural Unregulated Streams in Ohio" provides equations that estimate monthly flow for Ohio Waterways These flows are also available in a web application by USGS StreamStats, (<http://water.usgs.gov/osw/streamstats/ohio.html>).

Average Monthly Flow

The average monthly flow represents the estimated "normal" flow.

Temporary Access Fills (TAFs)

In Streams and Rivers may include, but are not limited to, causeways, cofferdams (as described by other items of work), access pads, temporary bridges, etc. The Contractor will make every attempt minimize disturbance to water bodies, stream banks, stream beds, and approach sections during the construction, maintenance, and removal of the TAFs. Fording of streams and rivers is prohibited. Construct TAFs in such a manner that will maintain flows, minimize upstream flooding, and avoid overtopping the TAFs on a regular basis. ***TAFs shall be designed and constructed so that the hydraulic opening provides capacity for a discharge equal to twice the highest monthly flow without producing a rise in the backwater above the Ordinary High Water Mark (OHWM)*.***

Do not exceed an overall length of temporary impacts reported in Table C-A.

Requirements:

21 calendar days prior to the initiation of any in-stream work, provide the Engineer with working drawings that include:

- Plan view drawing (200 scale or less) showing the location of all jurisdictional temporary fill proposed for use on the project
- Scaled Cross section and profile drawing showing the OHWM and the proposed compliant hydraulic opening.
- A description of the installation and staging of all temporary jurisdictional fill over the life of the contract.
- A description of the removal of all jurisdictional temporary fill and restoration of the channel and all areas impacted by the jurisdictional temporary fill.
- A schedule outlining the timing of the placement and removal of all TAFs.
- Have an Ohio Registered Engineer prepare, sign, seal and date the working drawings. Have a second Ohio Registered Engineer check, sign, seal and date the working drawings. The preparer and checker are two different Engineers. Include the following statement on the working drawings:
"These working drawings were prepared in compliance with the terms of the 404 and 401 Permits and all contract documents."
- Include supporting hydraulic calculations developed by the engineer(s) who sealed the working drawings.

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- Do not begin in-stream work until the Engineer has accepted the working drawings.

If the OHWM is not shown on the plans, the Department will establish the OHWM based on the definition of OHWM (as defined in SS 832) or the peak discharge from the 2 year event, using the method described in the most current version of the Department's Location and Design Manual Volume II.

If the Contractor proposes a TAFs which does not provide for the Standard Temporary Discharge (discharge equal to twice the highest monthly flow without producing a rise in the backwater), the Contractor is required to coordinate the request for the contractor's proposed TAFs with the Engineer and the ODOT Office of Environmental Services (OES). The Department makes no guarantee to grant the request. The contractor's proposed TAFs request will be coordinated by OES with the U.S. Army Corps of Engineers and the Ohio Environmental Protection Agency, as appropriate.

In addition to the requirements described in SS 832, supply the Engineer/OES with the following:

1. A plan and Profile showing the temporary access fill(s) with the OHWM.
2. Cross section showing the hydraulic opening and the anticipated discharge flow.
3. A restoration plan for the area affected by the temporary access fill(s).
4. A schedule outlining the timing of the placement and removal of the temporary access fill(s)

The time frame allowed for the coordination of the contractor's proposed TAF will be a minimum of 60 days. Installation of any jurisdictional fill without a 404 Permit authorized by the USACE is strictly prohibited. All direct coordination with the USACE and/or OEPA will be performed through OES.

Temporary Access Fills Construction and Payment:

Begin planning and installing causeways and access fills as early in construction as possible to avoid conflicts with 404/401 permits or other environmental commitments that have been included in the construction plans.

Temporary Access Fills (TAFs) in Streams and Rivers may include, but are not limited to, causeways, cofferdams, access pads, temporary bridges, etc. Make every attempt minimize disturbance to water bodies, stream banks, stream beds, and approach sections during the construction, maintenance, and removal of the TAFs. Make every attempt to minimize disturbance to water bodies during construction, maintenance and removal of the causeway and access fills. Construct the causeway and access fills as narrow as practical. Install in-stream conduits parallel to the stream banks. Make the causeway and access fills in shallow areas rather than deep pools where possible. Minimize clearing, grubbing, and excavation of stream banks, bed, and approach sections. Construct the causeway and access fills as to not erode stream banks or allow sediment deposits in the channel.

Prior to the initiation of any in-stream work, establish a monument upstream of proposed temporary crossing or temporary construction access fill to visually monitor the water elevation in the waterway where the fill is permitted. Maintain the monument throughout the project. Provide a visual mark on the monument that identifies the elevation 1 foot above the OHWM. If the OHWM is not shown on the plans, the Department will establish the OHWM based on the definition of OHWM (SS 832.02) or the peak discharge from the 2 year event, using the method described in the most current version of the Department's Location and Design Manual Volume II.

Ensure that the monument can be read from the bank of the waterway. Have this elevation set and certified by an Ohio Registered Surveyor.

Temporary access fills placed by the contractor above the OHWM are not subject to the 404/401 permit constraints. All costs associated with furnishing and maintaining the above referenced monument is incidental to the work.

Should the water elevation of the waterway, exceed the elevation 1 foot above OHWM, the Department

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will compensate the Contractor for repair of any resulting damage to the permitted temporary access fill up to the elevation of 1 foot above the OHWM, except as noted. Follow the requirements in Item 502 for Structures for Maintaining Traffic and in Item 503 for Cofferdams and any modifications to these items as shown in the plans. The Department will not pay for repair and maintenance of temporary access structures that are related to the construction access fill.

Should the water elevation of the waterway exceed the elevation shown on the monument, the Department will recognize this event as an excusable, non-compensable delay in accordance with Section 108.06 of the Construction & Materials Specifications.

Construct the causeway and fills, not including cofferdams and temporary bridges, to a water elevation at least 1 foot (0.3 m) above the OHWM. If more than one-third the width of the stream is filled, then use culvert pipes to allow the movement of aquatic life. Ensure that any ponding of water behind the causeway and access fills will not damage property or threaten human health and safety.

The following minimum requirements apply to TAFs where culverts are used.

- A. Furnish culverts on the existing stream bottom.
- B. Avoid a drop in water elevation at the downstream end of the culvert.
- C. Furnish a sufficient number of culverts in addition to stream openings to providing a discharge equal to twice the highest monthly flow without producing a rise in the backwater above the OHWM.
- D. Furnish culverts with a minimum diameter of 18 inches (0.5 m)...

For all fill and surface material placed in the channel, around the culverts, or on the surface of the causeway and access fills furnish clean, non-erodible, nontoxic dumped rock fill, Type B, C, or D, as specified in C&MS 703.19.B. Extend rock fill up the slope from original stream bank for 50 feet (10 m) to catch and remove erodible material from equipment.

When the work requiring the TAFs is complete all portions of the TAFs (including all rock and culverts) will be removed in its entirety. The material will not be disposed in other waters of the US or isolated wetland. The stream bottom affected by the causeway and access fills will be restored to its pre-construction elevations. The TAFs will not be paid as a separate item but will be included by the Contractor as part of the total project cost.

Unless specific Temporary Access Fills compensation is included in the plans, all environmental protection and control associated with the 404/401 permit activities, including but not limited to Temporary Access Fills, are incidental to the work within the boundaries of the 404/401 permit or as otherwise identified in the 404/401 permit application.

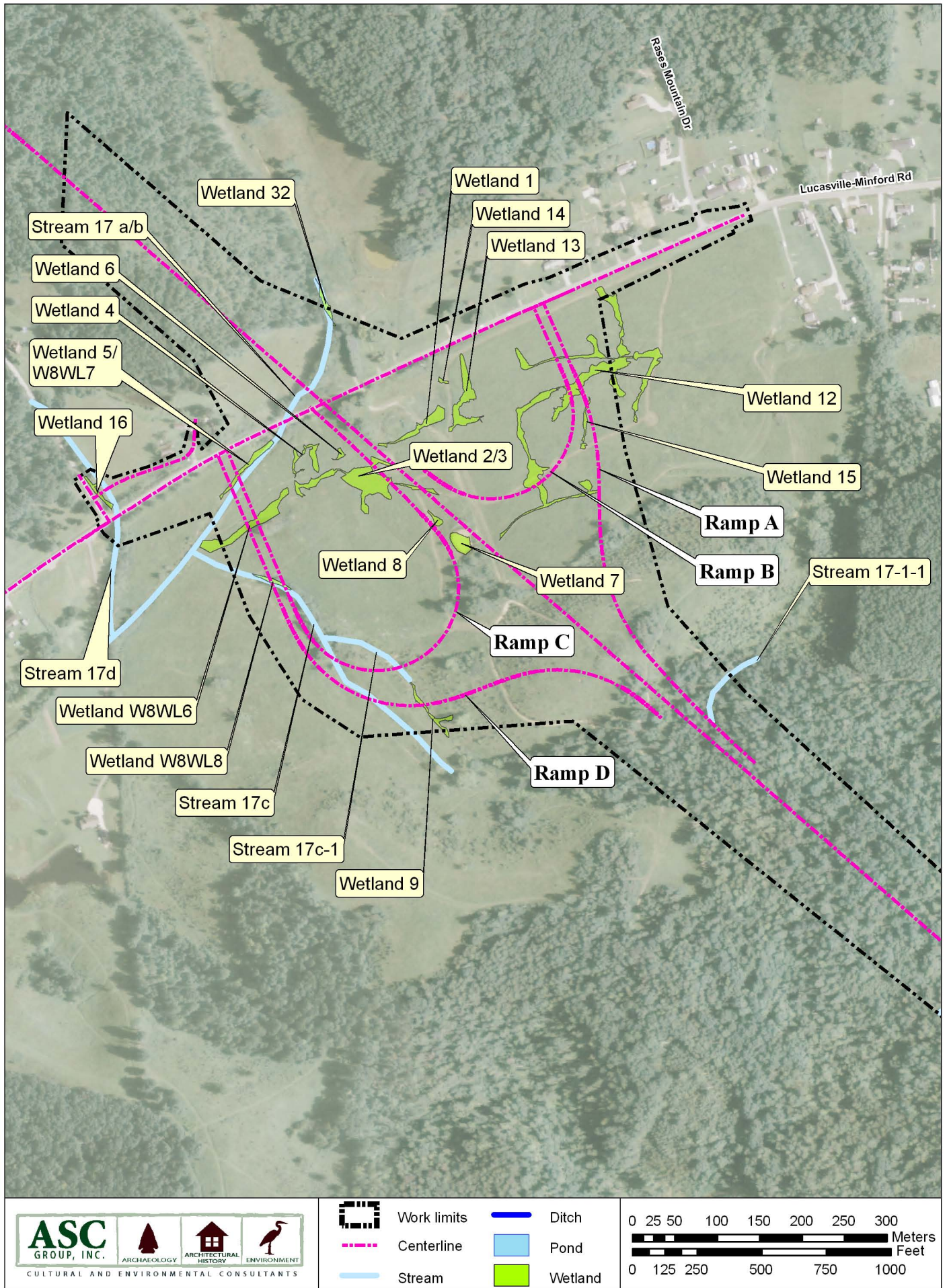


Figure 2. Survey results.

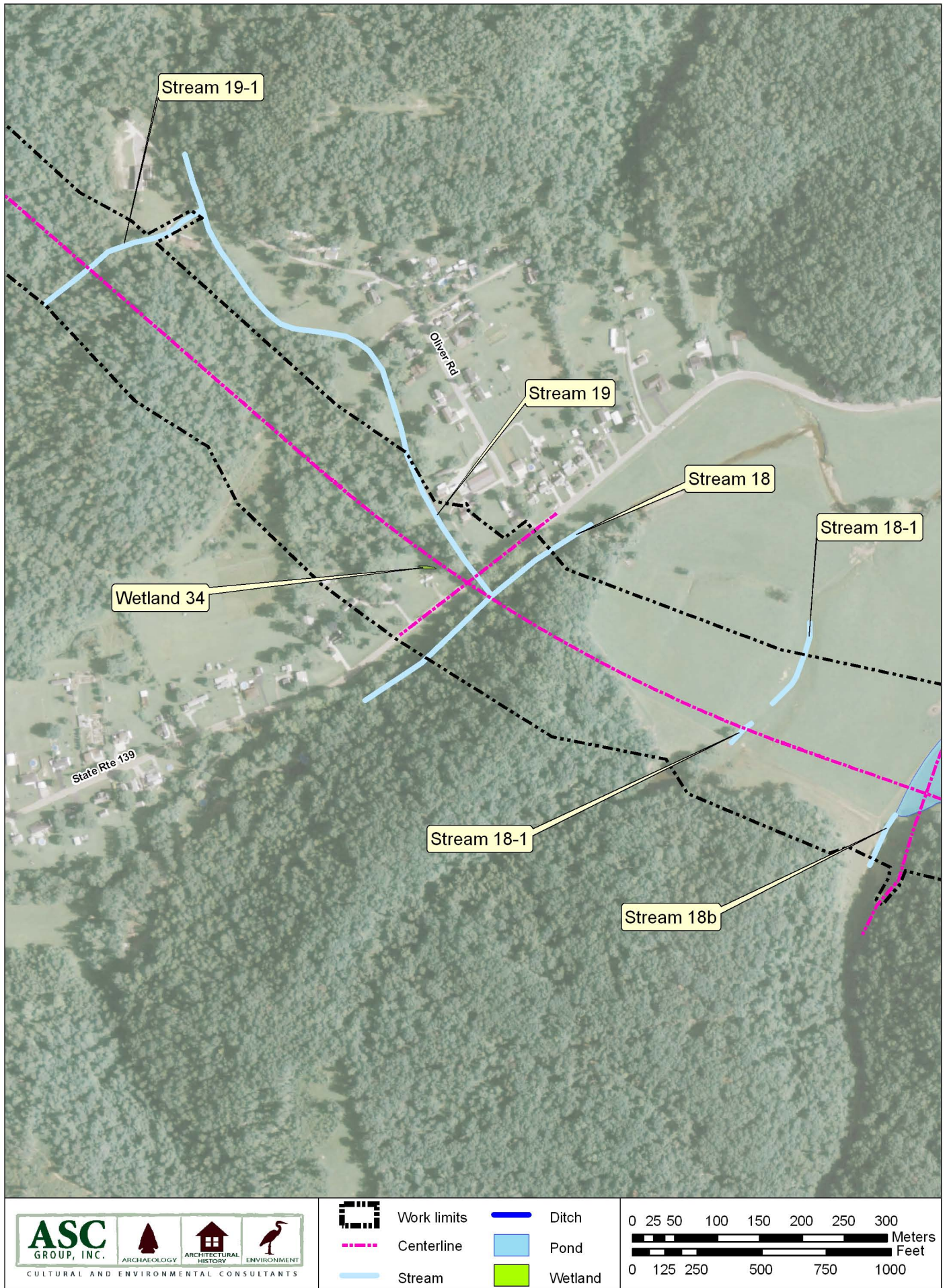


Figure 2. Survey results.

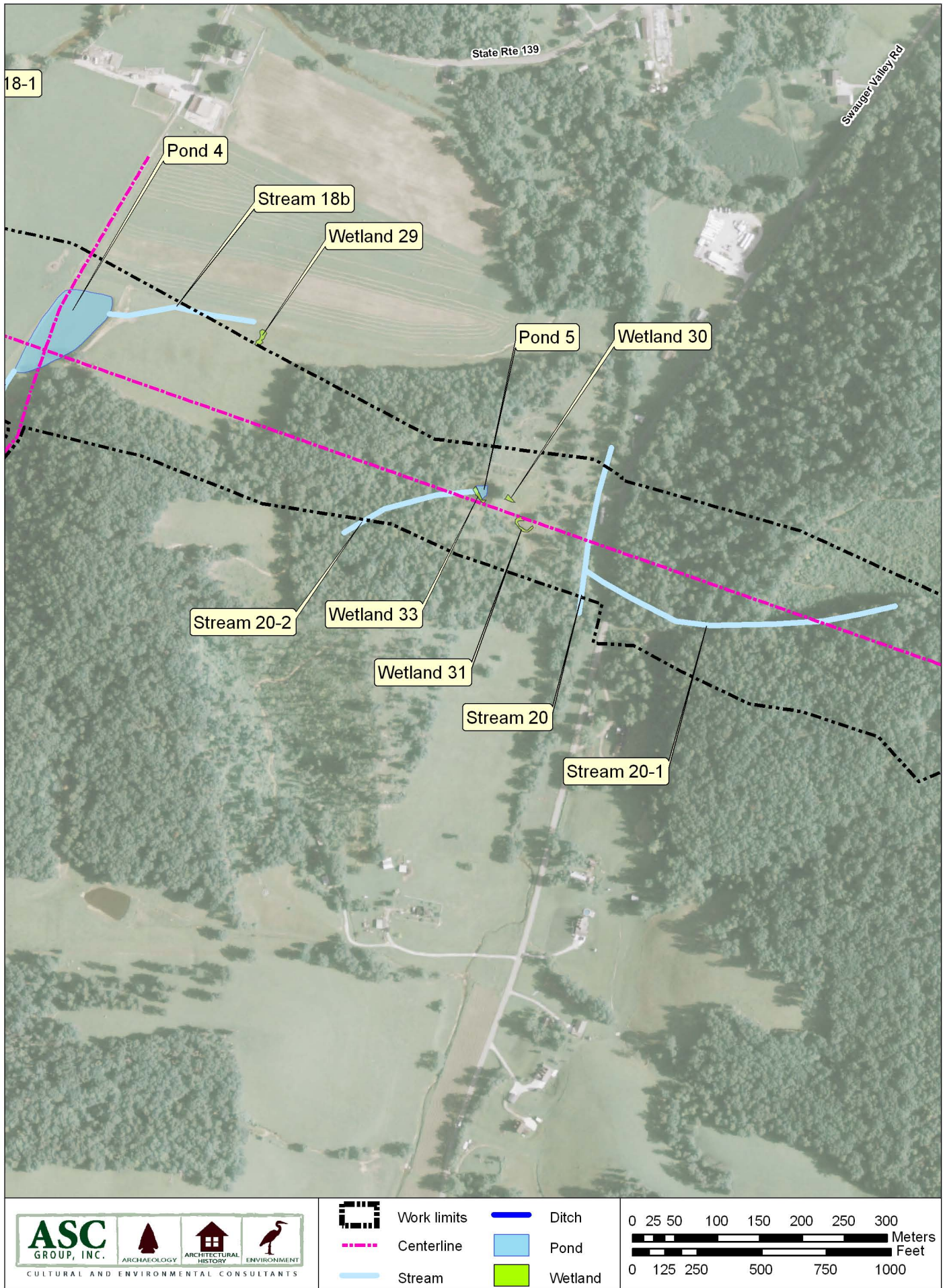


Figure 2. Survey results.

Figure 2, Sheet 3 of 6

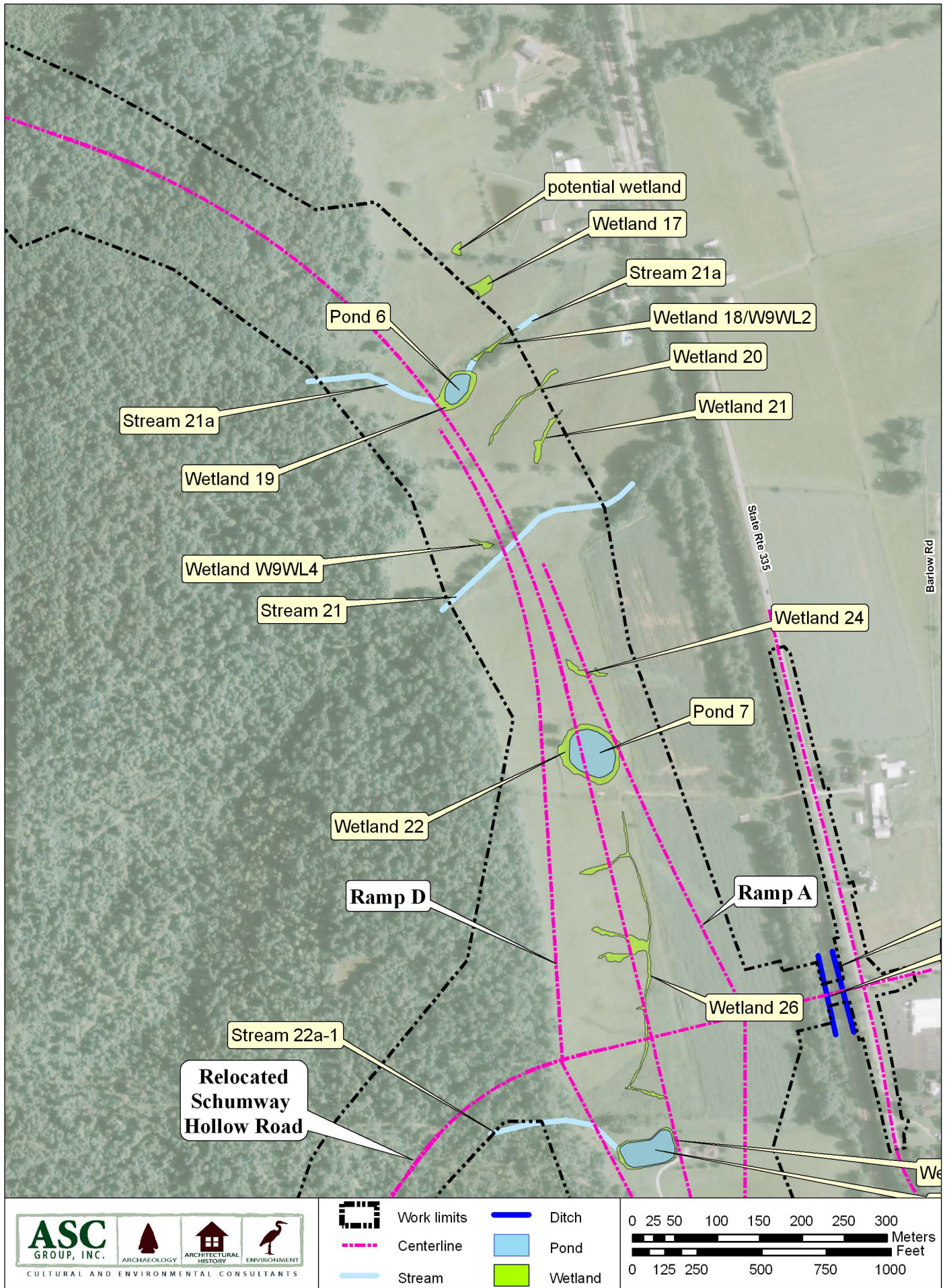


Figure 2. Survey results.

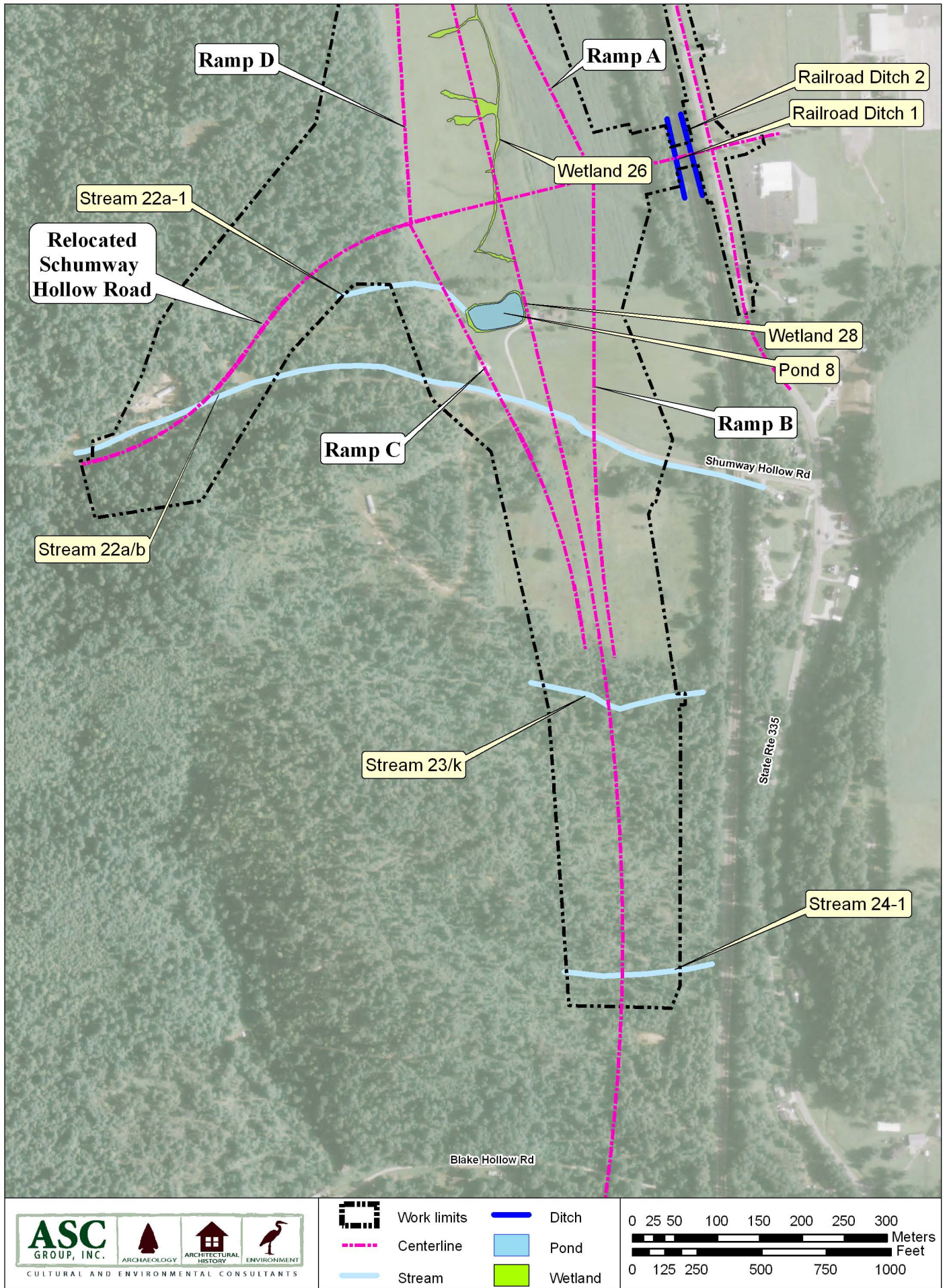
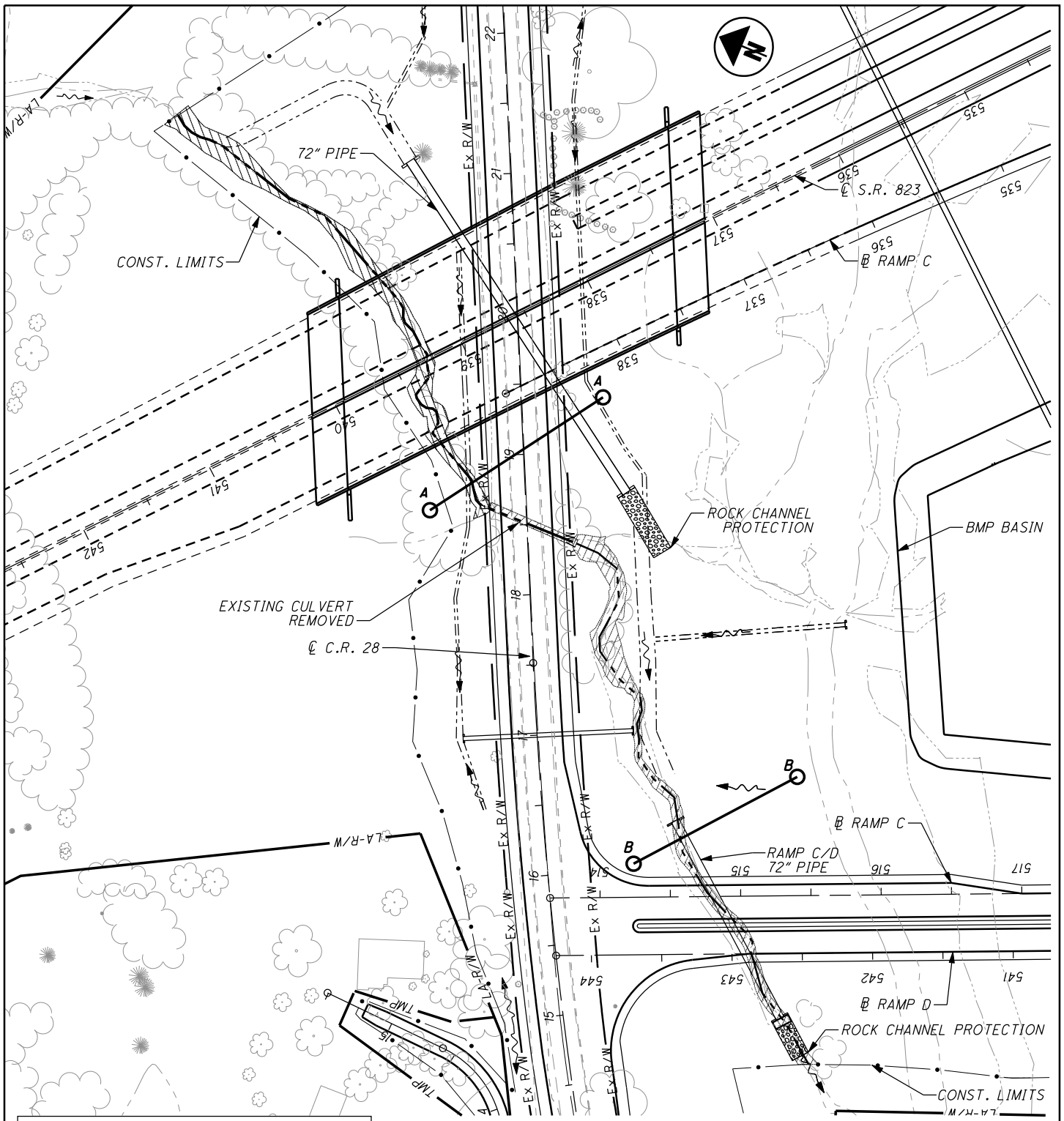


Figure 2. Survey results.

Figure 2, Sheet 5 of 6



Figure 2. Survey results.



PLAN

LEGEND

- PROPOSED DITCH
- STREAM IMPACT LENGTH
- OHWM

PLAN SCALE: 1" = 100'
 CULVERT PROFILE: 1" = 100'
 CROSS SECTION: 1" = 20'

LENGTH OF IMPACT:	831 LF
AREA EXCAVATED OR FILLED:	0.188 ACRES
EXCAVATION BELOW OHW:	64 CY
FILL BELOW OHW:	220 CY
EXISTING CULVERT	
LENGTH OF IMPACT:	67 LF
AREA FILLED:	0.008 ACRES
FILL BELOW OHW:	8 CY

PROPERTY OWNERS:
 STATE OF OHIO



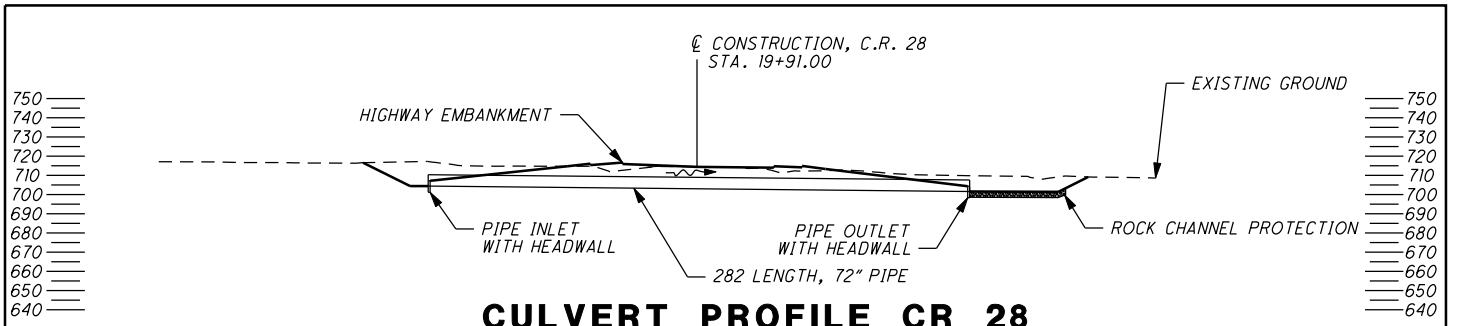
**IMPACTS AT
 STREAM 17A/B**

OHIO DEPARTMENT OF TRANSPORTATION
 S.R. 823 BYPASS IN SCIOTO COUNTY

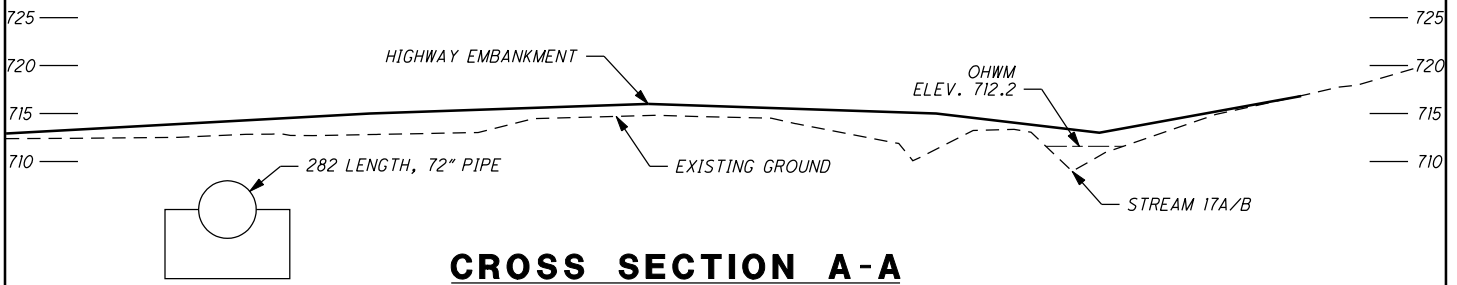
U.S. Army Corps of Engineers 404 Permit and OEPA Section 401 Water Quality Certification Application

DATE: 09/13/2011

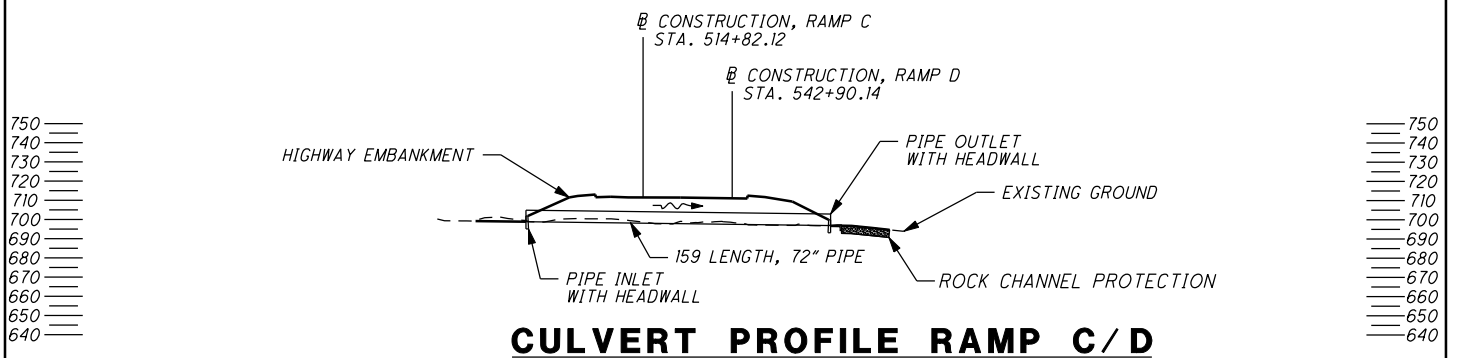
FIGURE 3-1



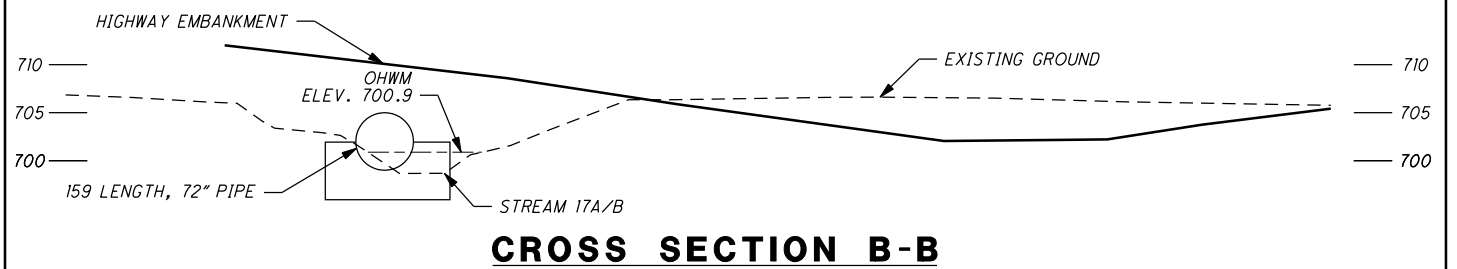
CULVERT PROFILE CR 28



CROSS SECTION A-A



CULVERT PROFILE RAMP C/D



CROSS SECTION B-B



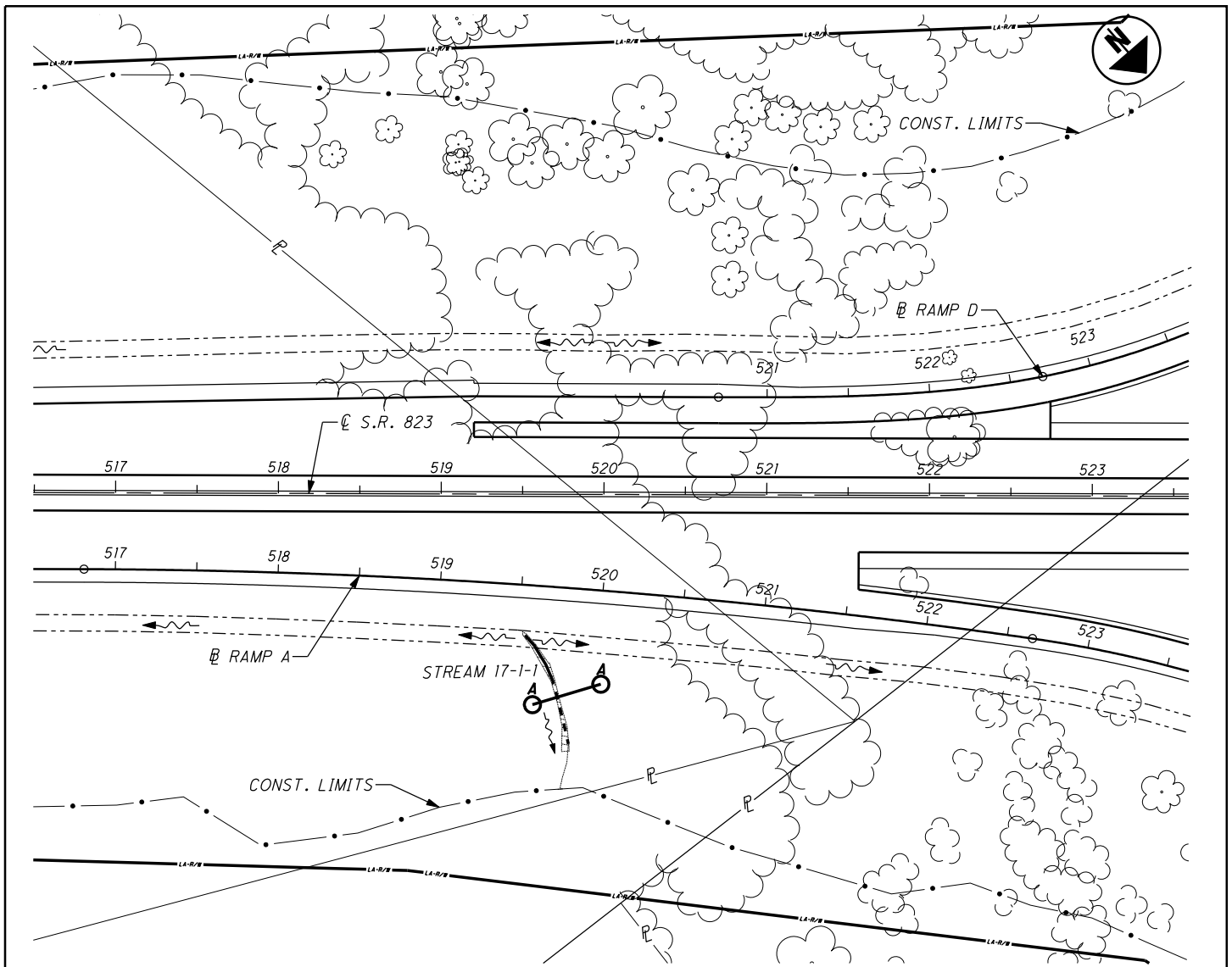
**IMPACTS AT
STREAM 17A/B**

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 823 BYPASS IN SCIOTO COUNTY

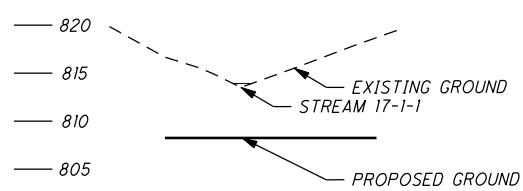
U.S. Army Corps of
Engineers 404 Permit
and OEPA Section 401
Water Quality
Certification
Application

DATE: 09/13/2011

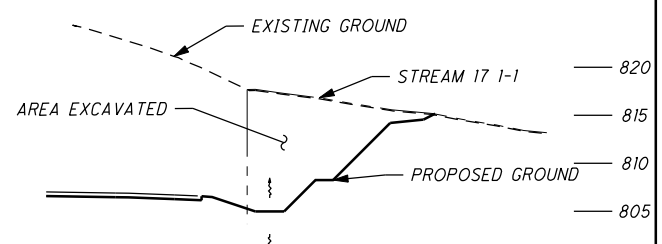
FIGURE 3-1A



PLAN



CROSS SECTION



STREAM PROFILE

CROSS SECTION SR 823

LENGTH OF IMPACT: 73 LF
 AREA EXCAVATED OR FILLED: 0.005
 EXCAVATION BELOW OHW: 183 CY
 FILL BELOW OHW: 0 CY

PROPERTY OWNERS:
 STATE OF OHIO

--- PROPOSED DITCH
 - - - - - STREAM IMPACT LENGTH
 ▨ OHWM
 PLAN SCALE: 1" = 100'
 CROSS SECTION: 1" = 20'



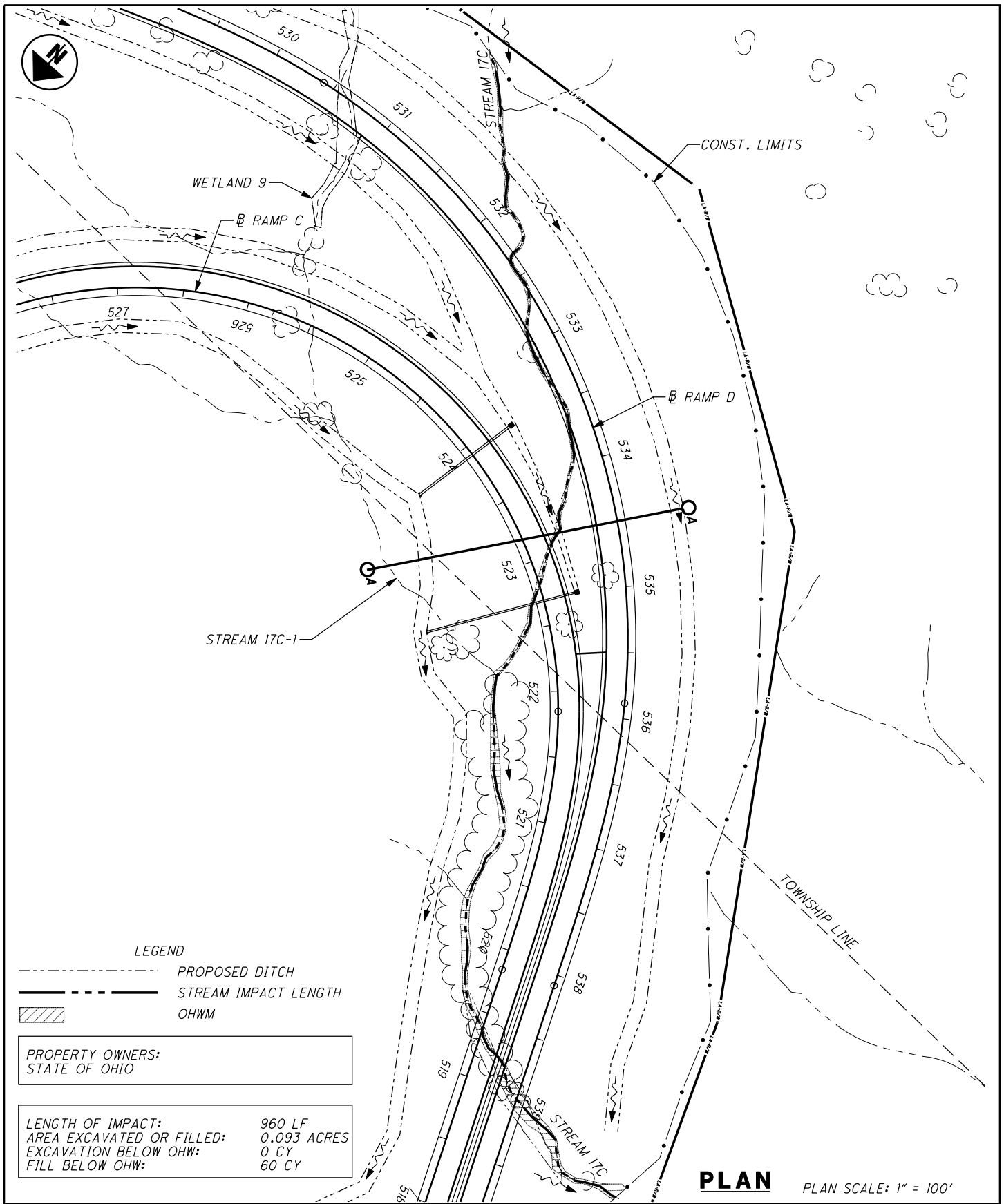
**IMPACTS AT
 STREAM 17-1-1**

OHIO DEPARTMENT OF TRANSPORTATION
 S.R. 823 BYPASS IN SCIOTO COUNTY

U.S. Army Corps of Engineers 404 Permit and OEPA Section 401 Water Quality Certification Application

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FIGURE 3-2



LEGEND

--- PROPOSED DITCH

--- STREAM IMPACT LENGTH

▨ OHWM

PROPERTY OWNERS:
STATE OF OHIO

LENGTH OF IMPACT:	960 LF
AREA EXCAVATED OR FILLED:	0.093 ACRES
EXCAVATION BELOW OHW:	0 CY
FILL BELOW OHW:	60 CY

PLAN PLAN SCALE: 1" = 100'



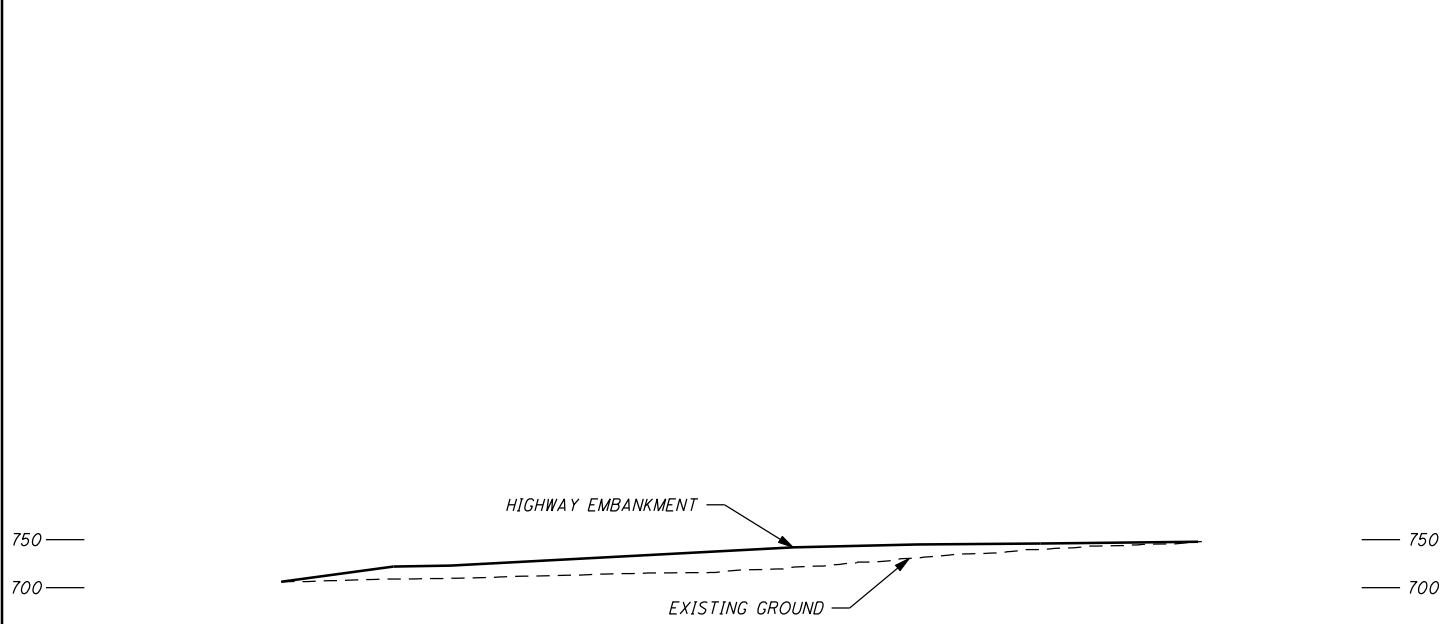
IMPACTS AT STREAM 17C

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 823 BYPASS IN SCIOTO COUNTY

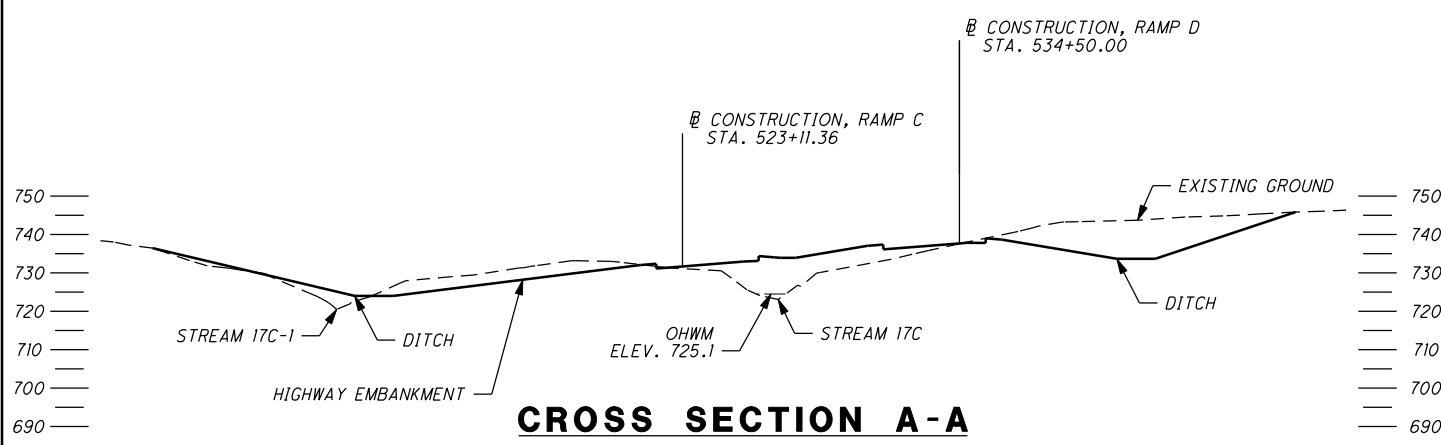
U.S. Army Corps of Engineers 404 Permit and OEPA Section 401 Water Quality Certification Application

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FIGURE 3-3



STREAM 17C PROFILE



CROSS SECTION A-A

STREAM 17C PROFILE: 1" = 200'
 CROSS SECTION: 1" = 50'



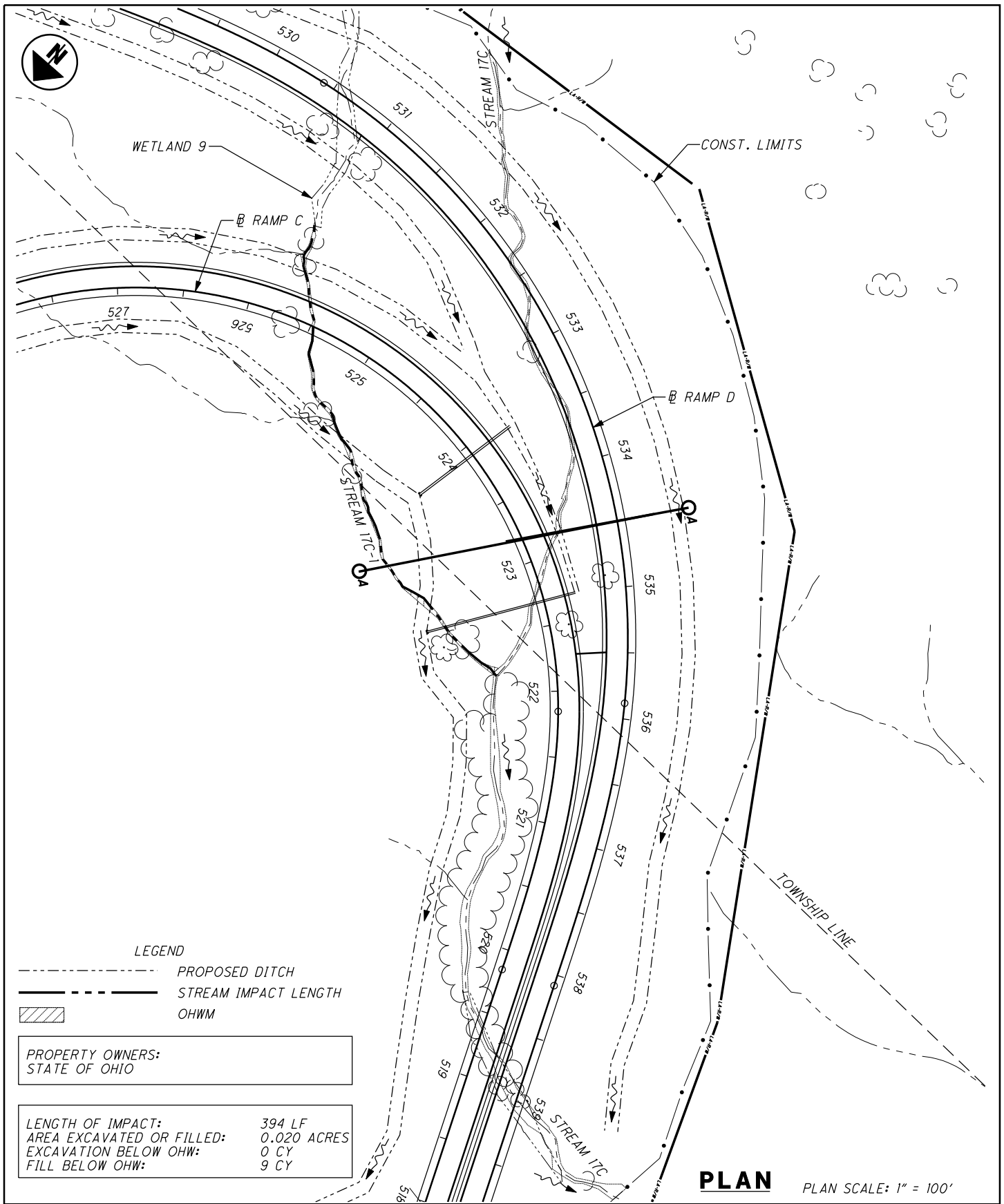
**IMPACTS AT
 STREAM 17C**

OHIO DEPARTMENT OF TRANSPORTATION
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 Engineers 404 Permit
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**FIGURE
 3-3A**



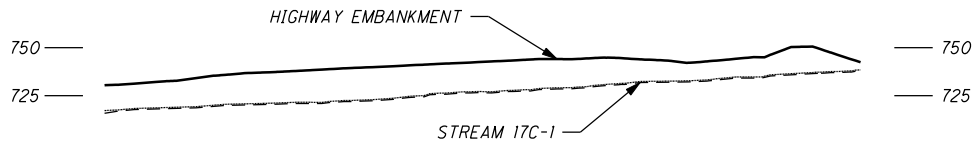
IMPACTS AT STREAM 17C-1

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 823 BYPASS IN SCIOTO COUNTY

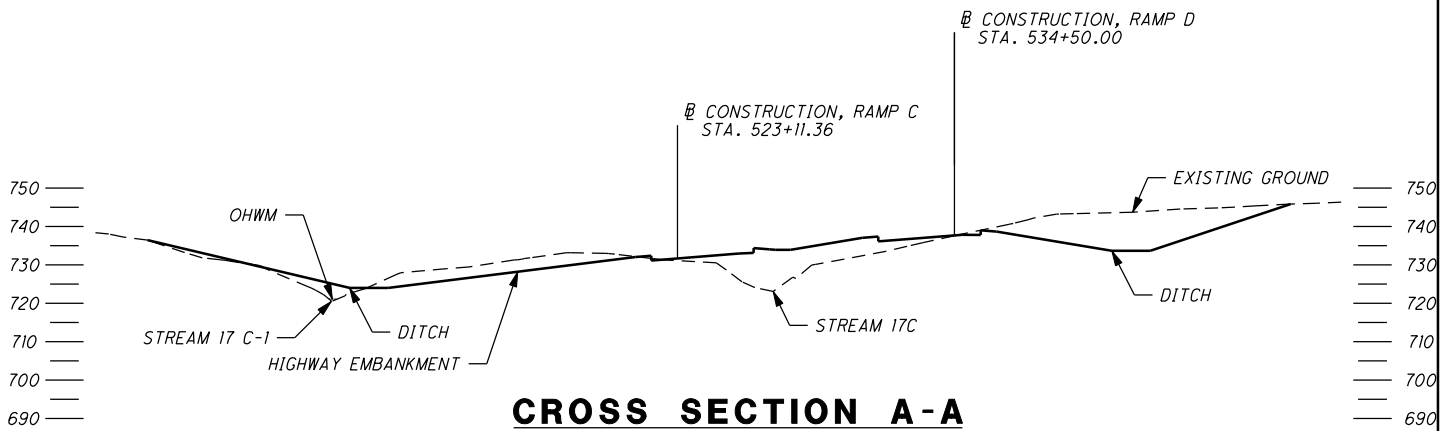
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and OEPA Section 401
Water Quality
Certification
Application

DATE: 09/13/2011

FIGURE 3-4



STREAM 17C-1 PROFILE



CROSS SECTION A-A

STREAM 17C PROFILE: 1" = 100'
CROSS SECTION: 1" = 50'



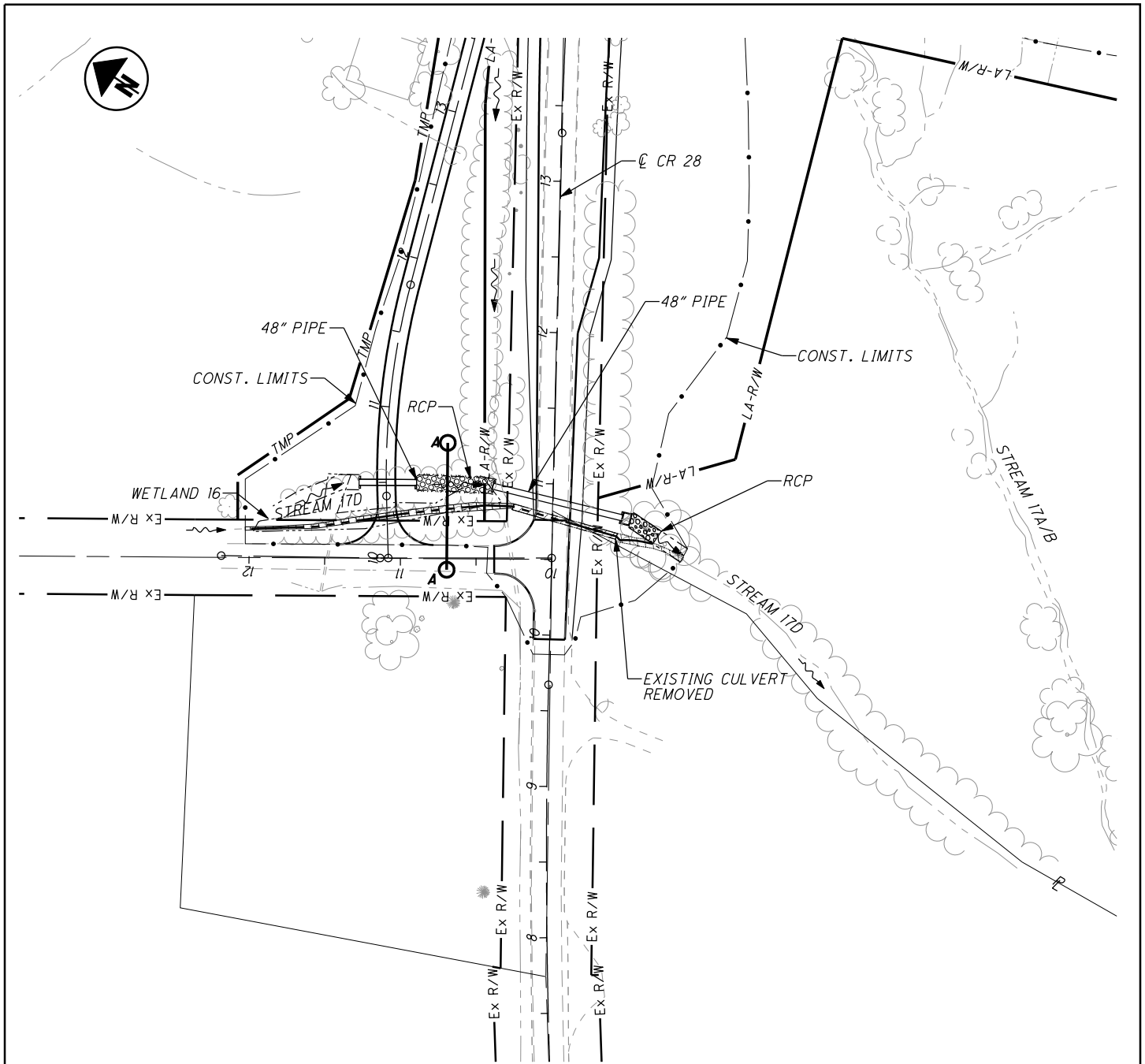
**IMPACTS AT
STREAM 17C-1**

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 823 BYPASS IN SCIOTO COUNTY

U.S. Army Corps of
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and OEPA Section 401
Water Quality
Certification
Application

DATE: 09/13/2011

**FIGURE
3-4A**



PLAN

LEGEND

- PROPOSED DITCH
- STREAM IMPACT LENGTH
- ▨ OHWM

STREAM 17D

PROPERTY OWNERS:
ANGELA S YEAGLE
STATE OF OHIO

LENGTH OF IMPACT:	223 LF	EXISTING CULVERT	
AREA EXCAVATED OR FILLED:	0.097 ACRES	LENGTH OF IMPACT:	71 LF
EXCAVATION BELOW OHW:	123 CY	AREA FILLED:	0.008 ACRES
FILL BELOW OHW:	105 CY	FILL BELOW OHW:	6 CY

PLAN SCALE: 1" = 100'



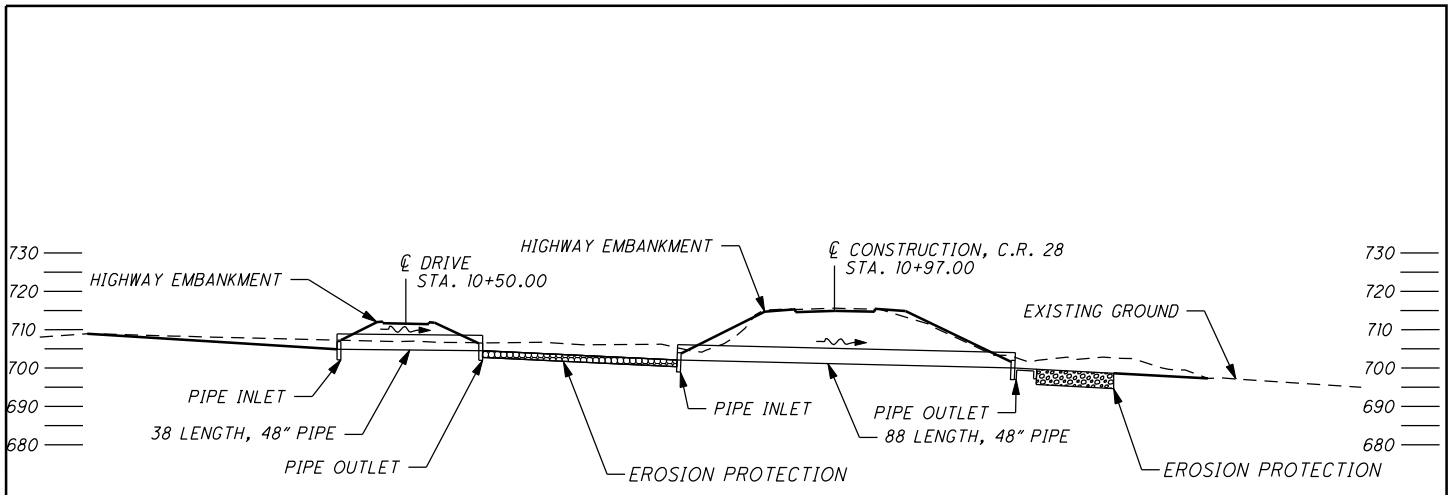
**IMPACTS AT
STREAM 17D**

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 823 BYPASS IN SCIOTO COUNTY

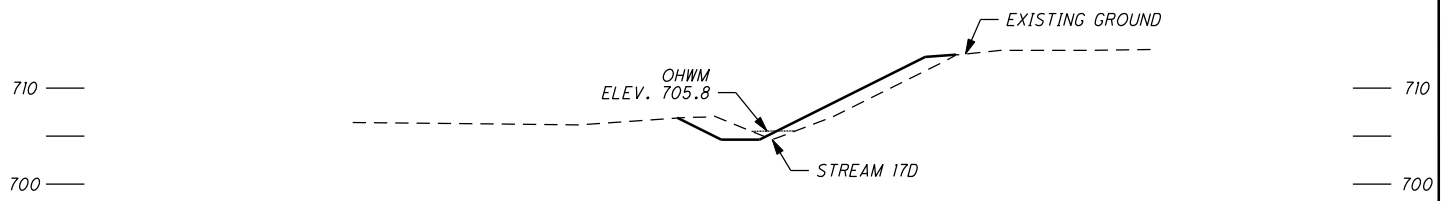
U.S. Army Corps of
Engineers 404 Permit
and OEPA Section 401
Water Quality
Certification
Application

DATE: 09/13/2011

FIGURE 3-5



CULVERT PROFILE



CROSS SECTION A-A STREAM 17D

CULVERT PROFILE: 1" = 50'
 CROSS SECTION: 1" = 20'



**IMPACTS AT
 STREAM 17D**

OHIO DEPARTMENT OF TRANSPORTATION
 S.R. 823 BYPASS IN SCIOTO COUNTY

U.S. Army Corps of
 Engineers 404 Permit
 and OEPA Section 401
 Water Quality
 Certification
 Application

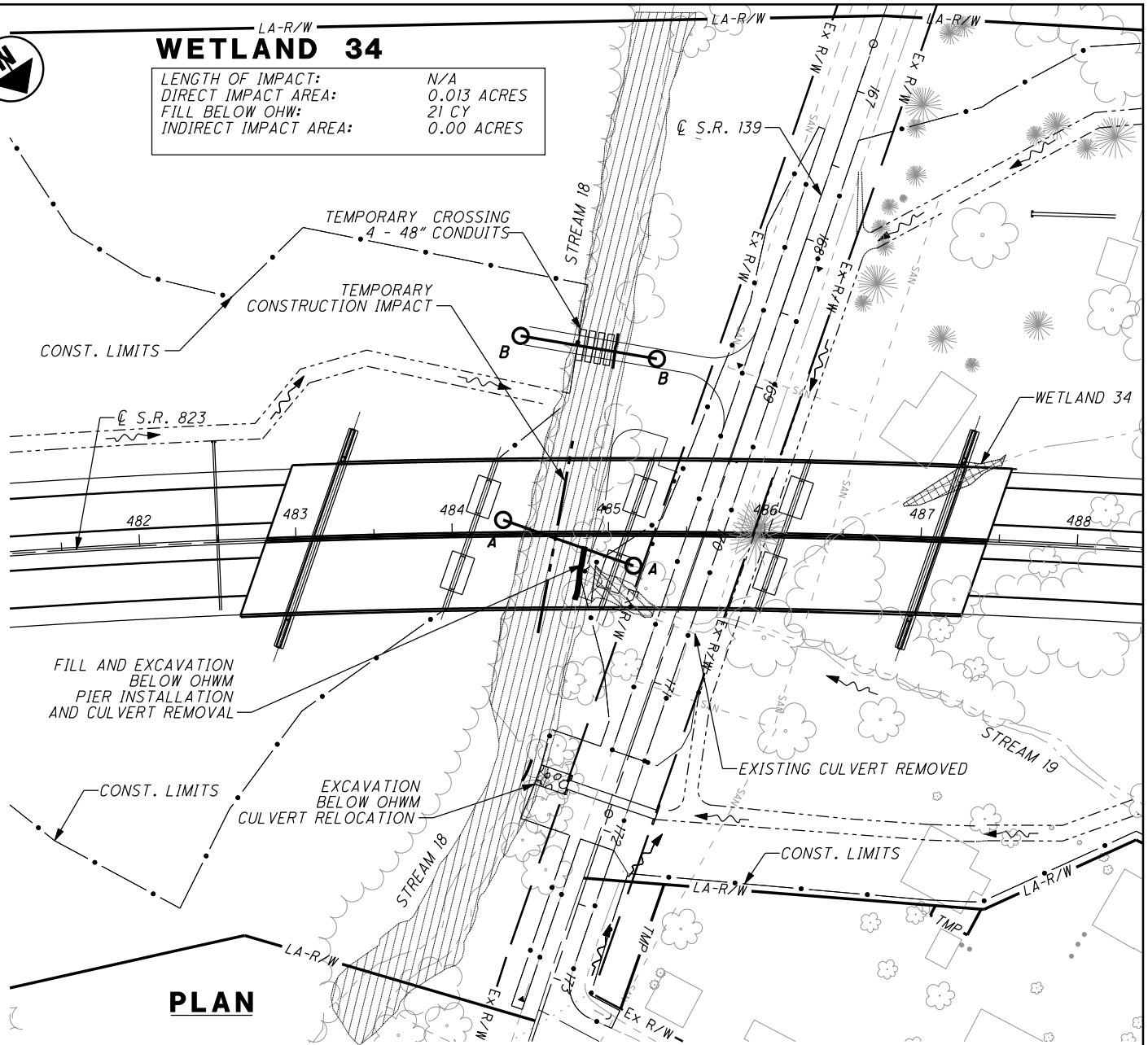
DATE: 09/13/2011

**FIGURE
 3-5A**



WETLAND 34

LENGTH OF IMPACT: N/A
 DIRECT IMPACT AREA: 0.013 ACRES
 FILL BELOW OHW: 21 CY
 INDIRECT IMPACT AREA: 0.00 ACRES



PLAN

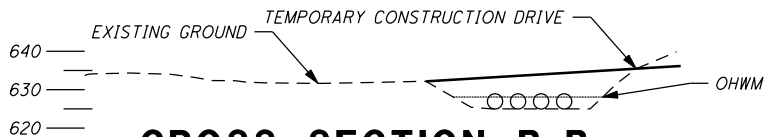
LEGEND

- - - - - PROPOSED DITCH
- — — — — STREAM IMPACT LENGTH
- ▨ OHWM

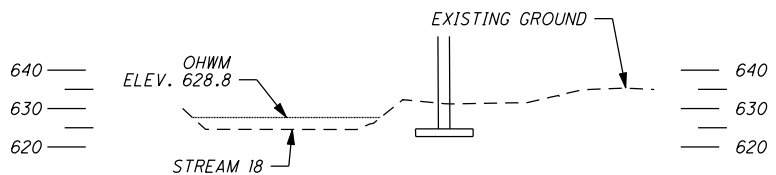
PROPERTY OWNERS:
 JOSEPH AND CRYSTAL PRESTON J/S
 ROBERT TROWBRIDGE

LENGTH OF IMPACT: 55 LF
 AREA EXCAVATED OR FILLED: 0.019 ACRES
 EXCAVATION BELOW OHW: 10 CY
 FILL BELOW OHW: 37 CY

TEMPORARY IMPACT
 LENGTH: 150 LF
 AREA EXCAVATED OR FILLED: 0.146 ACRES
 FILL BELOW OHW: 914 CY



CROSS SECTION B-B



CROSS SECTION A-A

PLAN SCALE: 1" = 100'
 CROSS SECTION: 1" = 50'



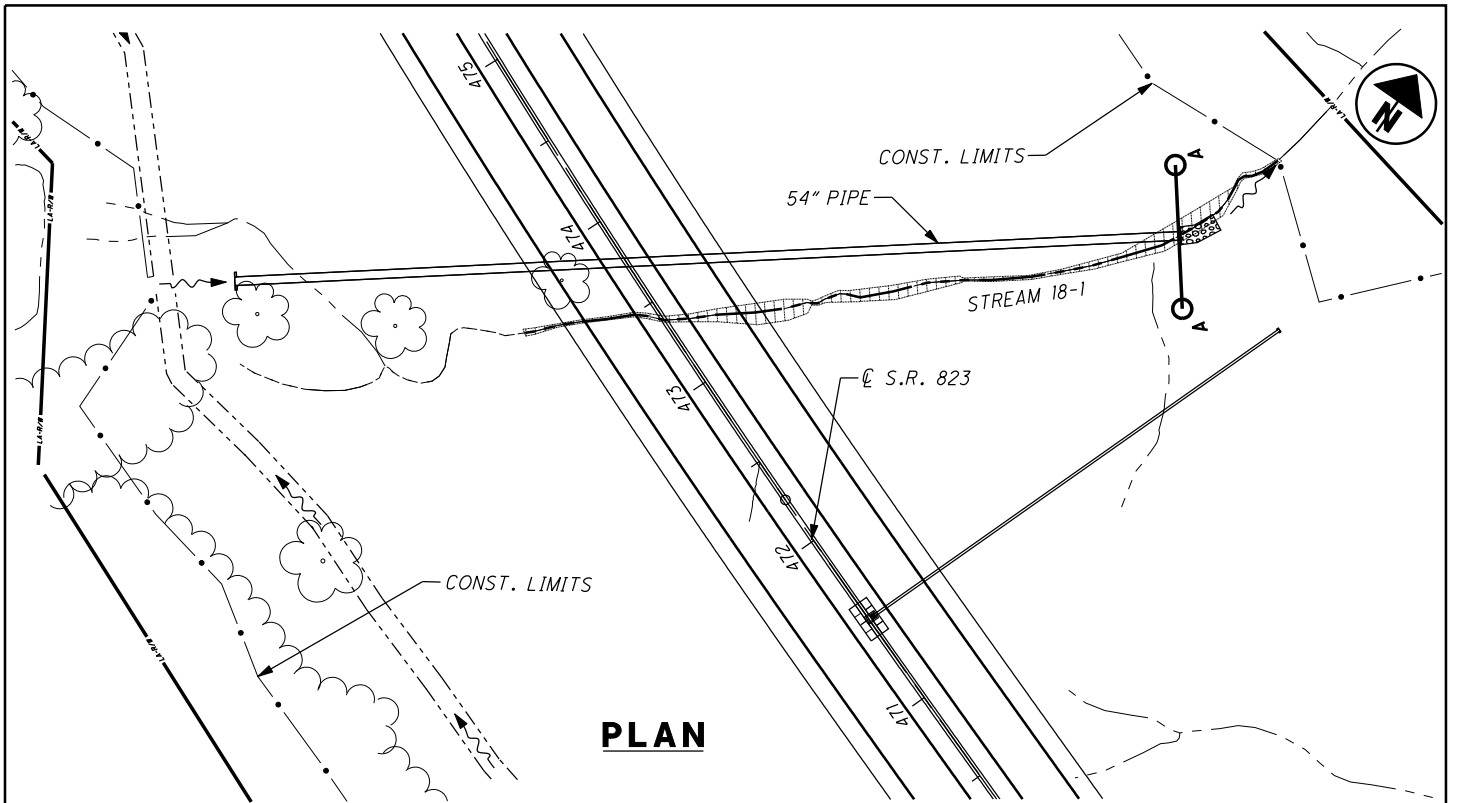
IMPACTS AT STREAM 18 WETLAND 34

OHIO DEPARTMENT OF TRANSPORTATION
 S.R. 823 BYPASS IN SCIOTO COUNTY

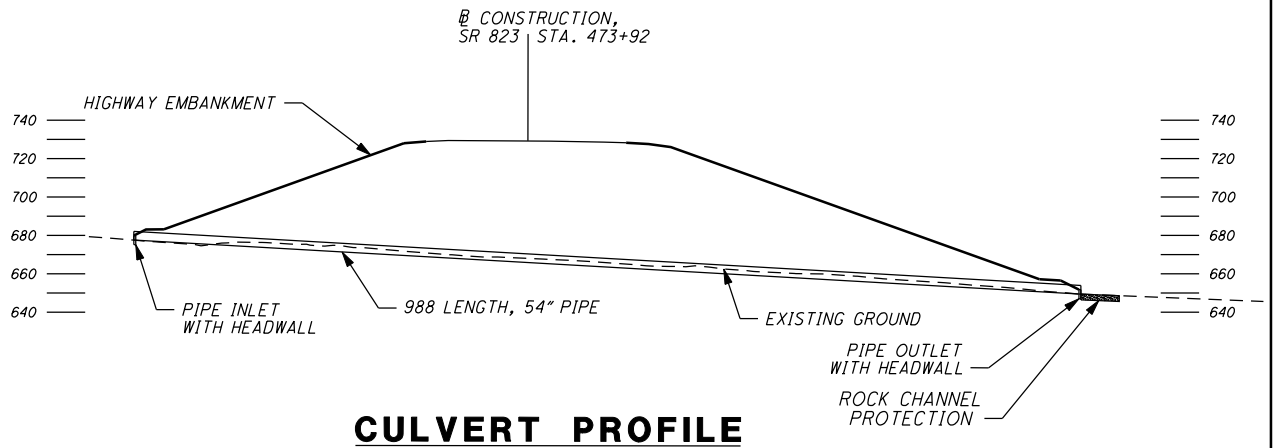
U.S. Army Corps of
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 Certification
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FIGURE 3-6



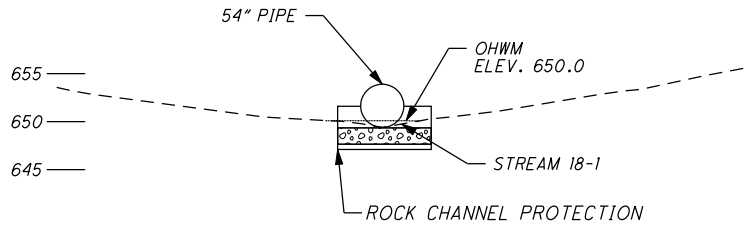
PLAN



CULVERT PROFILE

- LEGEND**
- PROPOSED DITCH
 - - - - - STREAM IMPACT LENGTH
 - ▨ OHWM

PROPERTY OWNERS:	
STATE OF OHIO KENNETH R RASE	
LENGTH OF IMPACT:	417 LF
AREA EXCAVATED OR FILLED:	0.051 ACRES
EXCAVATION BELOW OHW:	12 CY
FILL BELOW OHW:	32 CY



CROSS SECTION A-A

PLAN SCALE: 1" = 100'
 CULVERT PROFILE: 1" = 100'
 CROSS SECTION: 1" = 20'



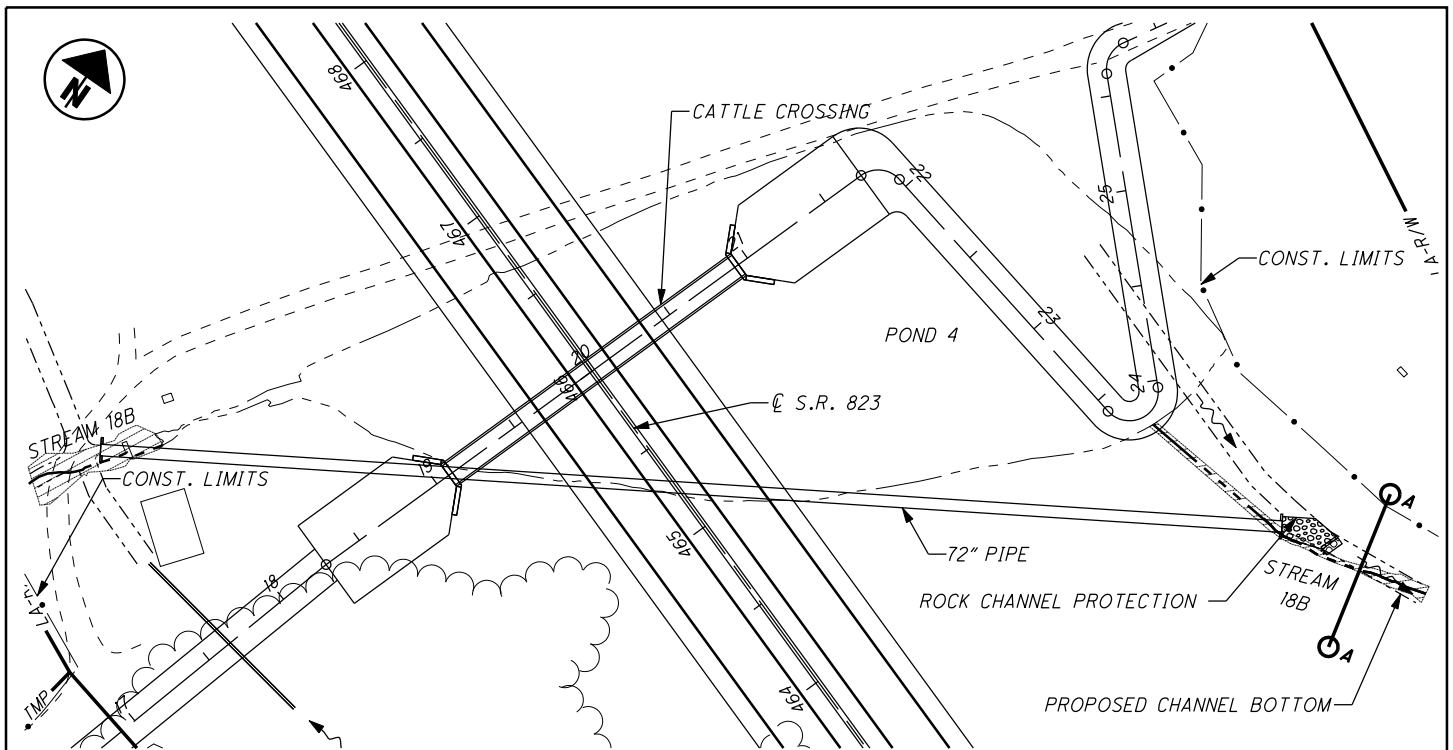
**IMPACTS AT
 STREAM 18-1**

OHIO DEPARTMENT OF TRANSPORTATION
 S.R. 823 BYPASS IN SCIOTO COUNTY

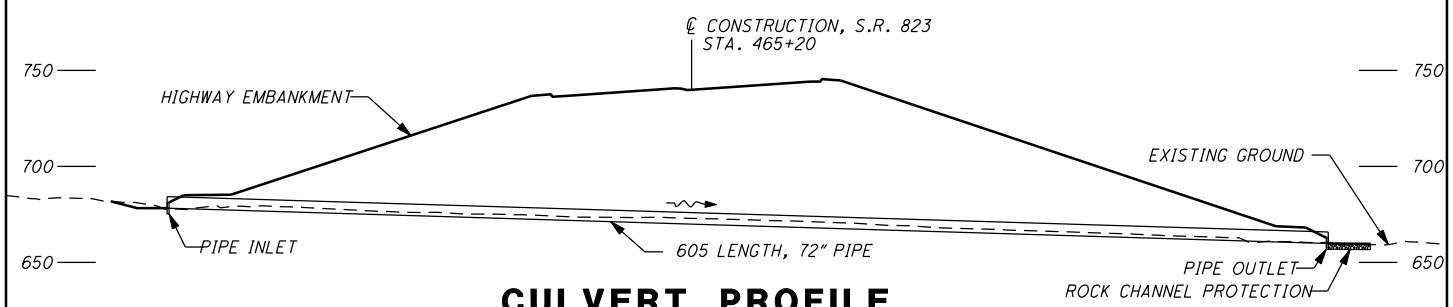
U.S. Army Corps of
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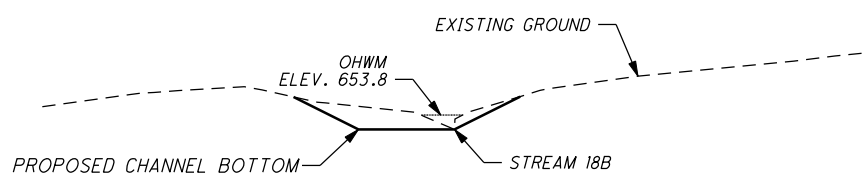
FIGURE 3-7



PLAN



CULVERT PROFILE



CROSS SECTION A-A

- LEGEND**
- PROPOSED DITCH
 - - - - - STREAM IMPACT LENGTH
 - ▨ OHWM

PROPERTY OWNERS: KENNETH R RASE	
LENGTH OF IMPACT:	244 LF
AREA EXCAVATED OR FILLED:	0.052 ACRES
EXCAVATION BELOW OHW:	60 CY
FILL BELOW OHW:	56 CY

PLAN SCALE: 1" = 100'
CROSS SECTION: 1" = 20'



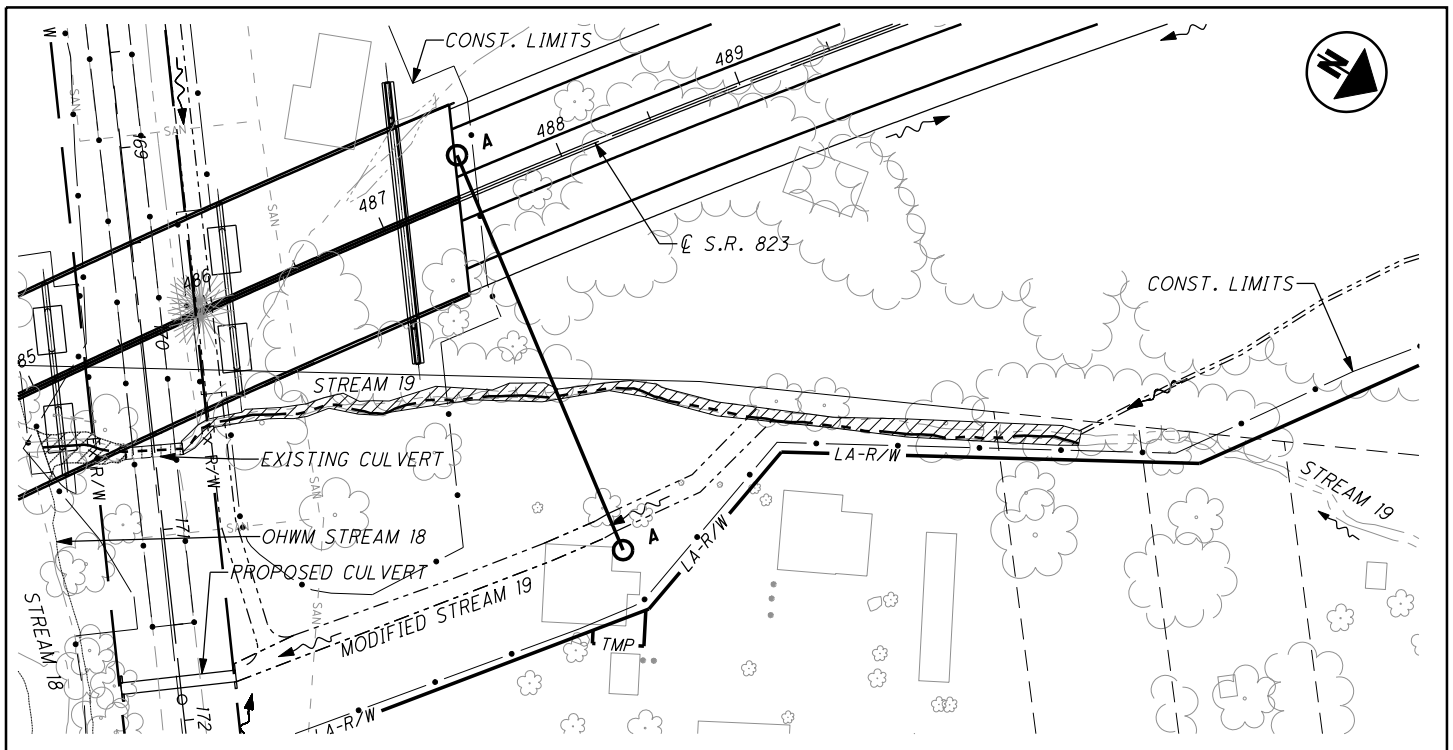
**IMPACTS AT
STREAM 18B**

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 823 BYPASS IN SCIOTO COUNTY

U.S. Army Corps of
Engineers 404 Permit
and OEPA Section 401
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Application

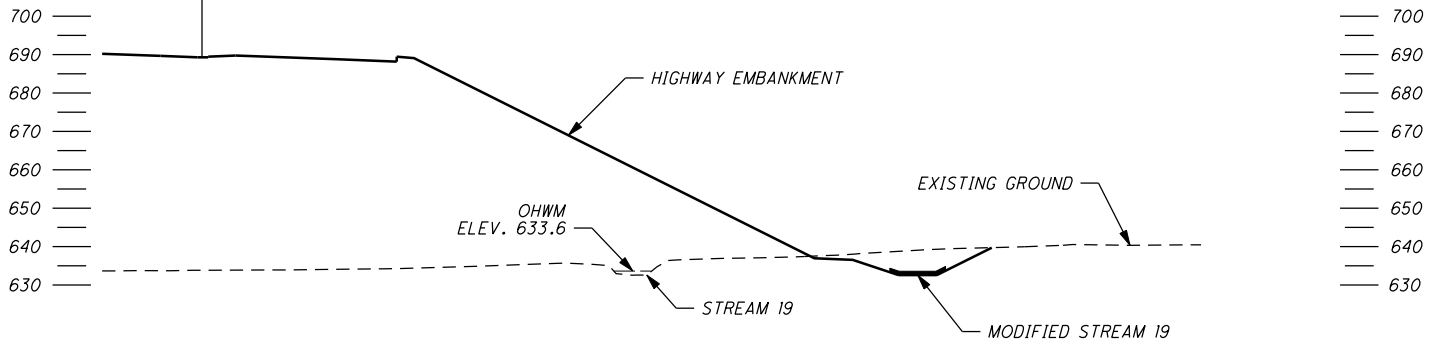
DATE: 09/13/2011

FIGURE 3-8



PLAN

⊕ CONSTRUCTION, C.R. 823
STA. 487+50.00

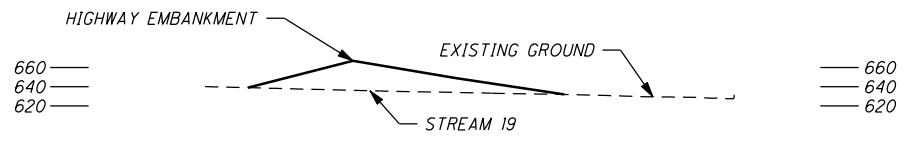


CROSS SECTION A-A

LEGEND

- PROPOSED DITCH
- - - STREAM IMPACT LENGTH
- ▨ OHWM

PROPERTY OWNERS: JOSEPH AND CRYSTAL PRESTON J/S JOSEPH D AND BETH A WEEKLY J/S	
LENGTH OF IMPACT: AREA EXCAVATED OR FILLED: EXCAVATION BELOW OHW: FILL BELOW OHW:	500 LF 0.110 ACRES 121 CY 143 CY
EXISTING CULVERT LENGTH OF IMPACT: AREA FILLED: FILL BELOW OHW:	30 LF 0.004 ACRES 8 CY



STREAM 19 PROFILE

PLAN SCALE: 1" = 100'
 CROSS SECTION: 1" = 50'
 STREAM PROFILE: 1" = 200'



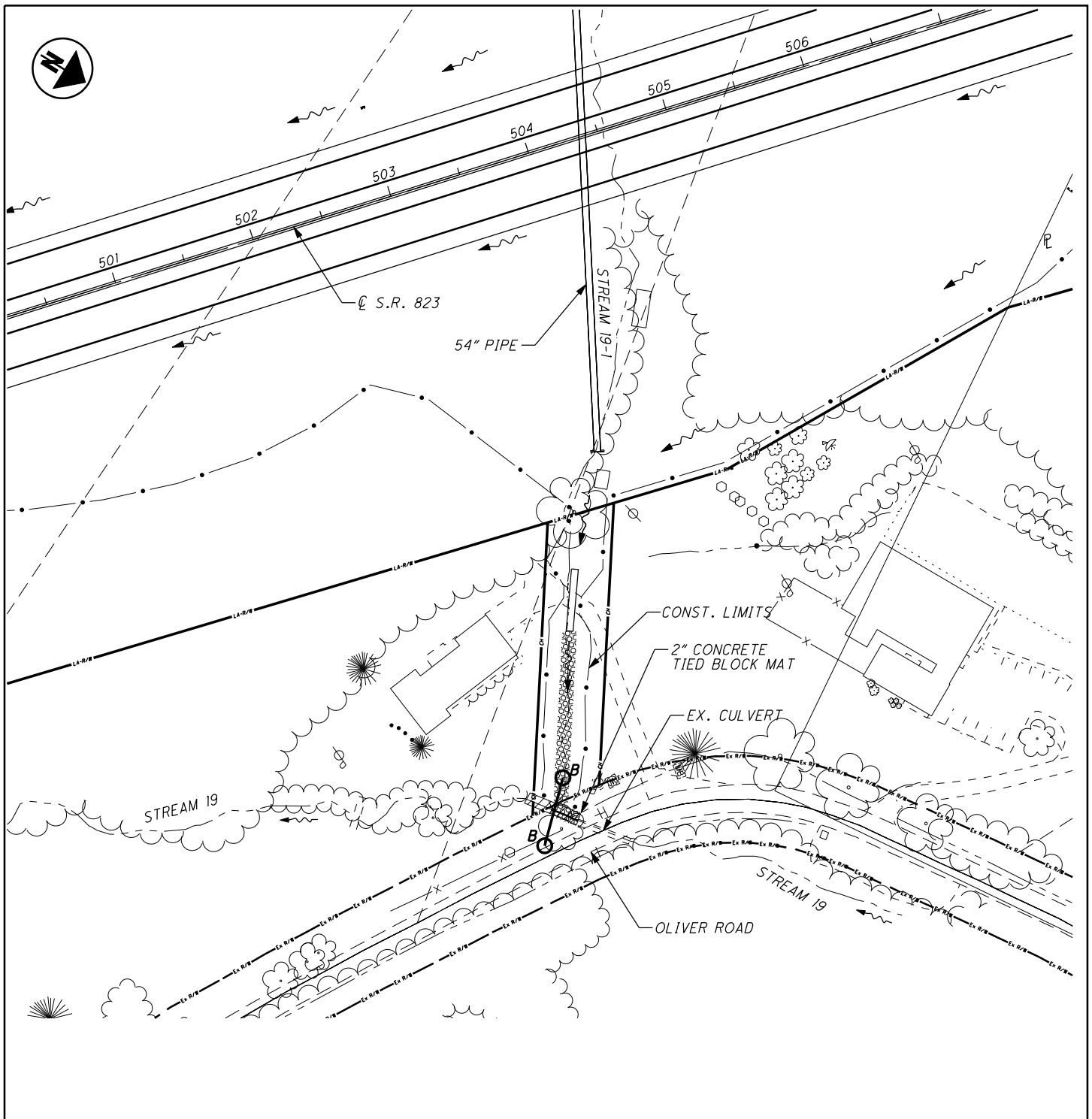
**IMPACTS AT
STREAM 19**

OHIO DEPARTMENT OF TRANSPORTATION
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FIGURE 3-9



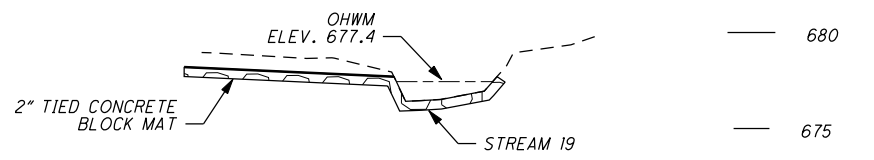
LEGEND

--- PROPOSED DITCH

--- STREAM IMPACT LENGTH

▨ OHWM

PROPERTY OWNERS:
ELMER JR AND VIRGINIA L. OLIVER



STREAM 19 CROSS SECTION PLAN SCALE: 1" = 100'
CROSS SECTION: 1" = 50'



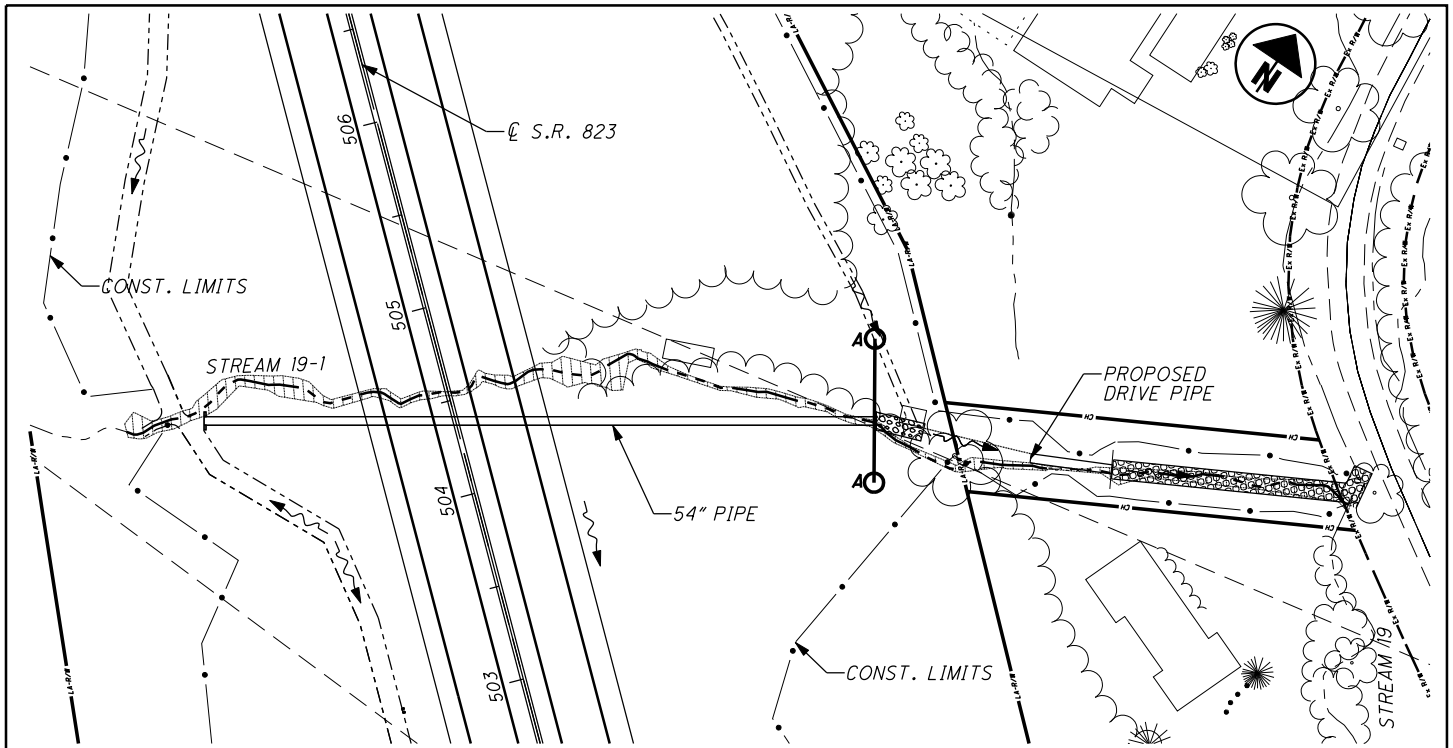
**IMPACTS AT
STREAM 19**

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 823 BYPASS IN SCIOTO COUNTY

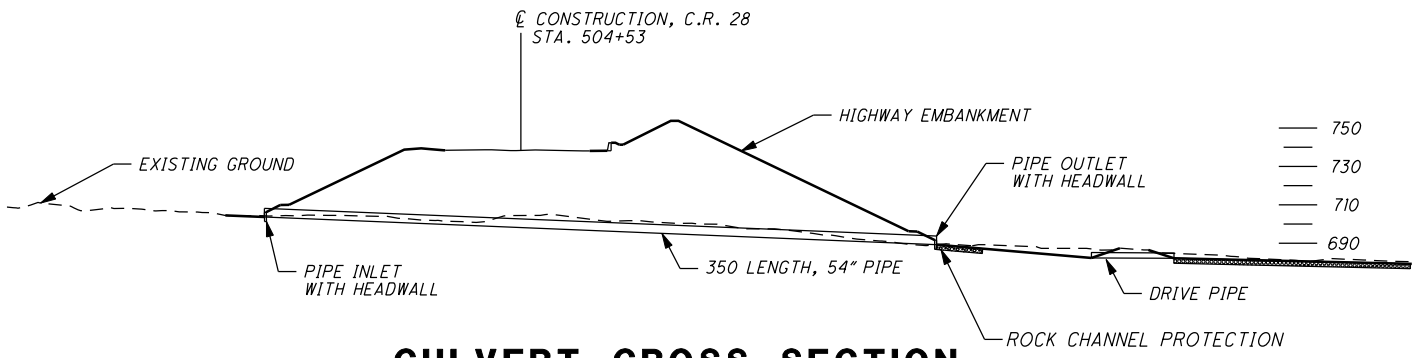
U.S. Army Corps of
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**FIGURE
3-9A**



PLAN



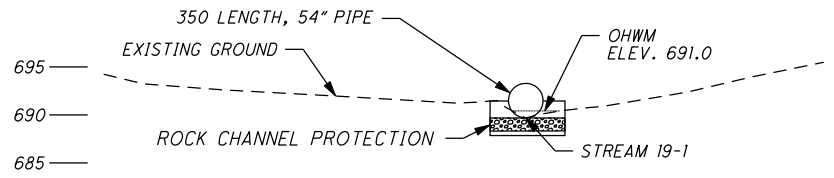
CULVERT CROSS SECTION

LEGEND

- PROPOSED DITCH
- STREAM IMPACT LENGTH
- ▨ OHWM

PROPERTY OWNERS:
 JOSEPH AND CRYSTAL PRESTON J/S
 JOSEPH D AND BETH A WEEKLY J/S

LENGTH OF IMPACT: 662 LF
 AREA EXCAVATED OR FILLED: 0.105 ACRES
 EXCAVATION BELOW OHW: 84 CY
 FILL BELOW OHW: 59 CY



CROSS SECTION A-A

PLAN SCALE: 1" = 100'
 CROSS SECTION: 1" = 50'
 CULVERT PROFILE: 1" = 100'



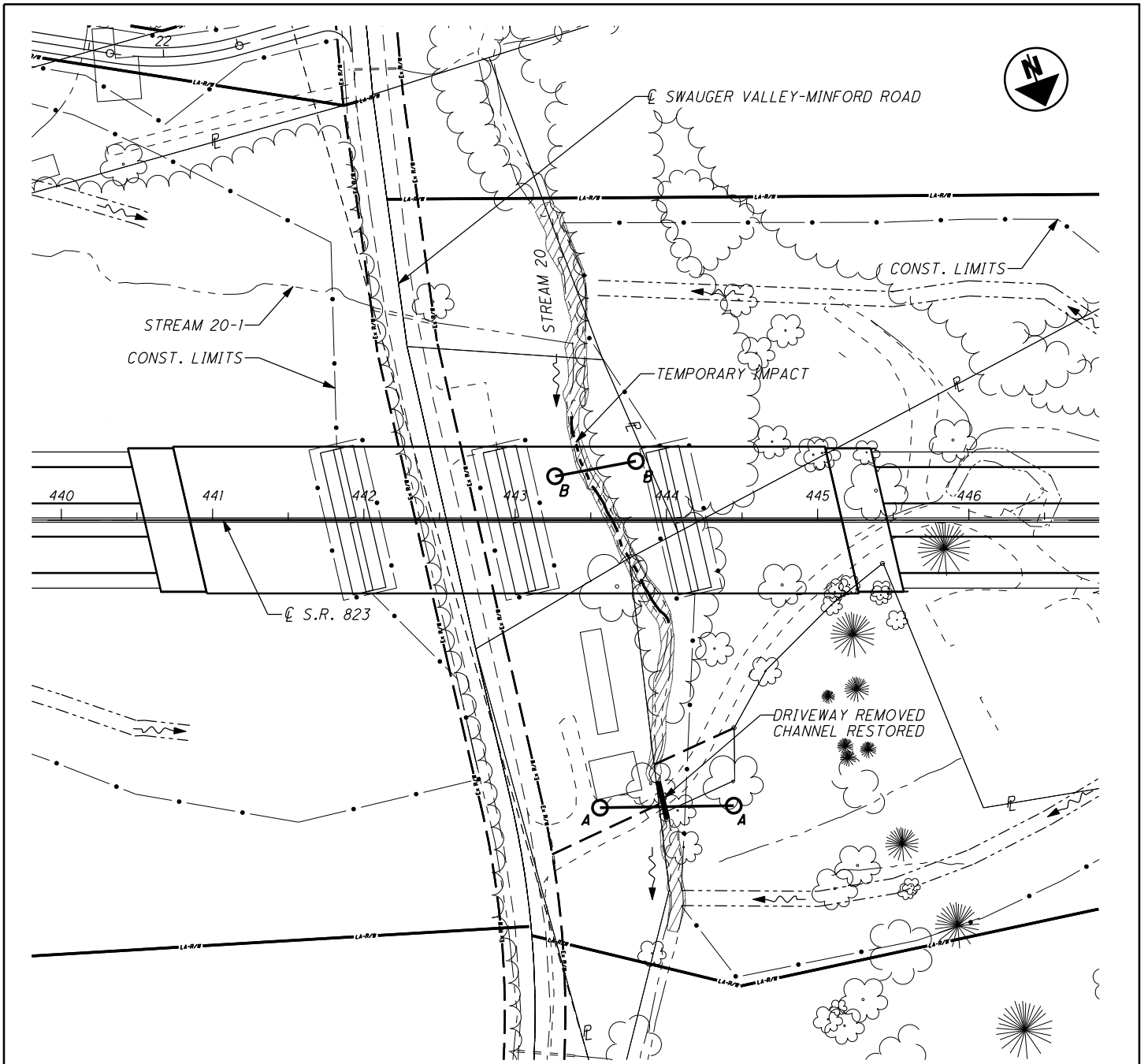
**IMPACTS AT
 STREAM 19-1**

OHIO DEPARTMENT OF TRANSPORTATION
 S.R. 823 BYPASS IN SCIOTO COUNTY

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FIGURE 3-10



PLAN

LEGEND

- PROPOSED DITCH
- STREAM IMPACT LENGTH
- ▨ OHWM

PROPERTY OWNERS:
 STATE OF OHIO
 CHARLES SMITH, JOAN SMITH AND MICHAEL CONKEL

LENGTH OF IMPACT:	23 LF	TEMPORARY	
AREA EXCAVATED OR FILLED:	0.004 ACRES	LENGTH OF IMPACT:	150 LF
EXCAVATION BELOW OHW:	10 CY	AREA EXCAVATED OR FILLED:	0.110 ACRES
FILL BELOW OHW:	0 CY	FILL BELOW OHW:	261 CY

PLAN SCALE: 1" = 100'



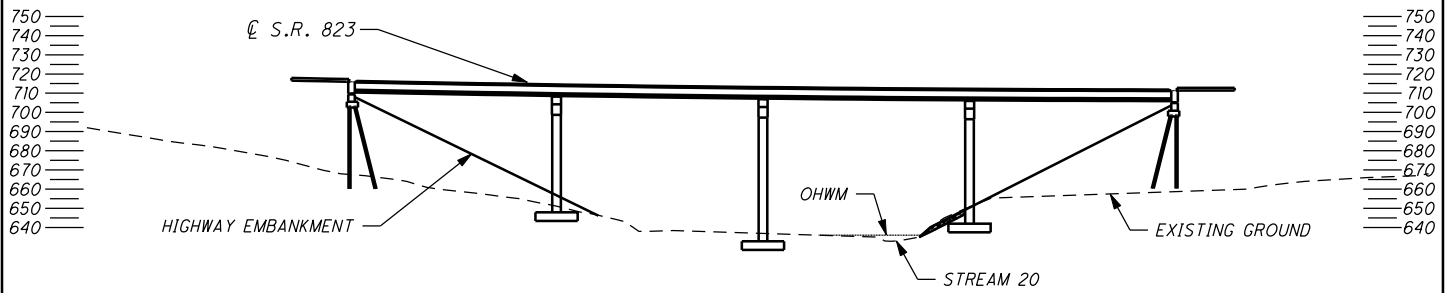
**IMPACTS AT
 STREAM 20**

OHIO DEPARTMENT OF TRANSPORTATION
 S.R. 823 BYPASS IN SCIOTO COUNTY

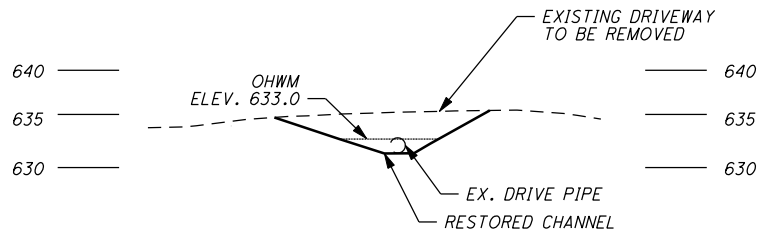
U.S. Army Corps of
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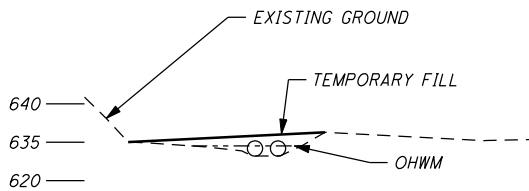
FIGURE 3-11



BRIDGE PROFILE



**CROSS SECTION A-A
DRIVEWAY PROFILE**



CROSS SECTION B-B

BRIDGE PROFILE: 1" = 100' H
 BRIDGE PROFILE: 1" = 20' V
 DRIVEWAY PROFILE: 1" = 20'



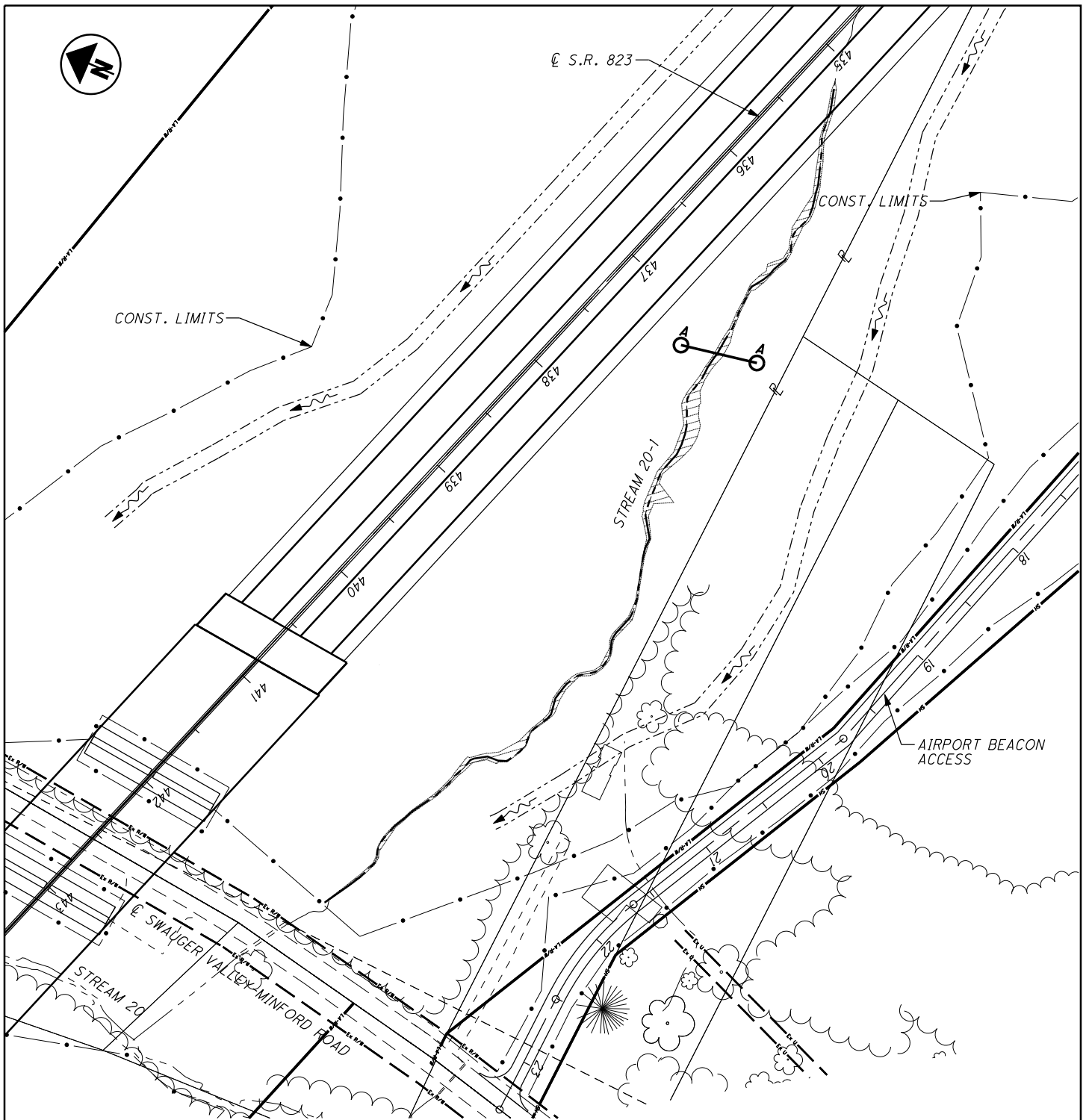
**IMPACTS AT
STREAM 20**

OHIO DEPARTMENT OF TRANSPORTATION
 S.R. 823 BYPASS IN SCIOTO COUNTY

U.S. Army Corps of
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 Water Quality
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**FIGURE
3-11A**



PLAN

PROPERTY OWNERS:	
STATE OF OHIO	
TIMOTHY AND AMBER SPARKS	
PATRICIA ADAMS	
DAVID SAMSON	
LENGTH OF IMPACT:	720 LF
AREA EXCAVATED OR FILLED:	0.068 ACRES
EXCAVATION BELOW OHW:	0 CY
FILL BELOW OHW:	30 CY

LEGEND	
	PROPOSED DITCH
	STREAM IMPACT LENGTH
	OHWM

PLAN SCALE: 1" = 100'



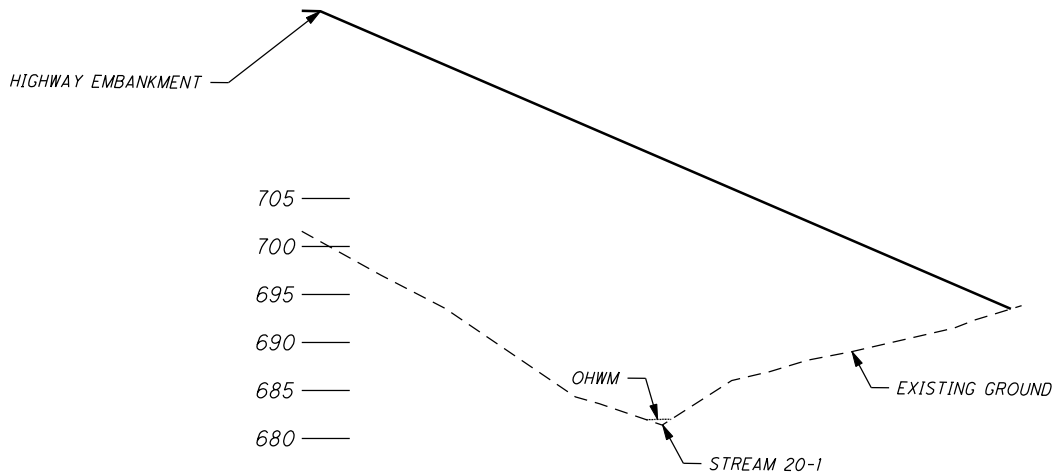
**IMPACTS AT
STREAM 20-1**

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 823 BYPASS IN SCIOTO COUNTY

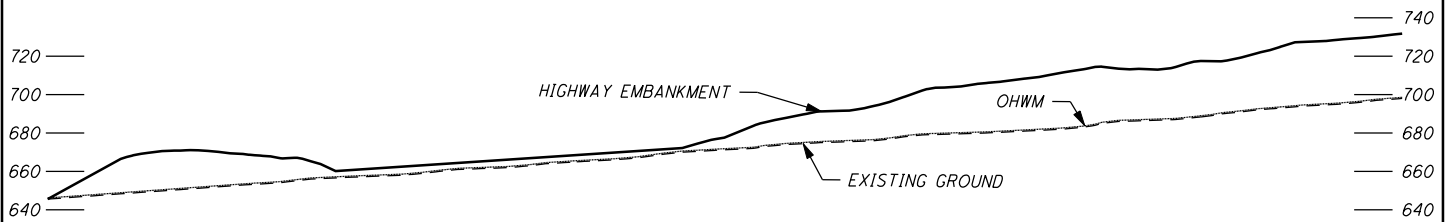
U.S. Army Corps of Engineers 404 Permit
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FIGURE 3-12



CROSS SECTION A-A



STREAM 20-1 PROFILE

STREAM PROFILE: 1" = 100' H
 STREAM PROFILE: 1" = 100' V
 STREAM CROSS SECTION: 1" = 20'



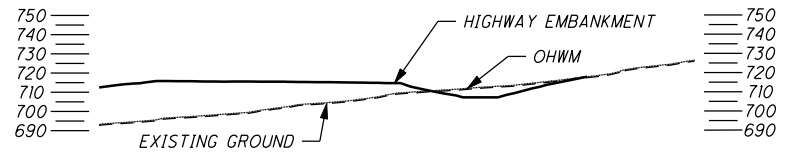
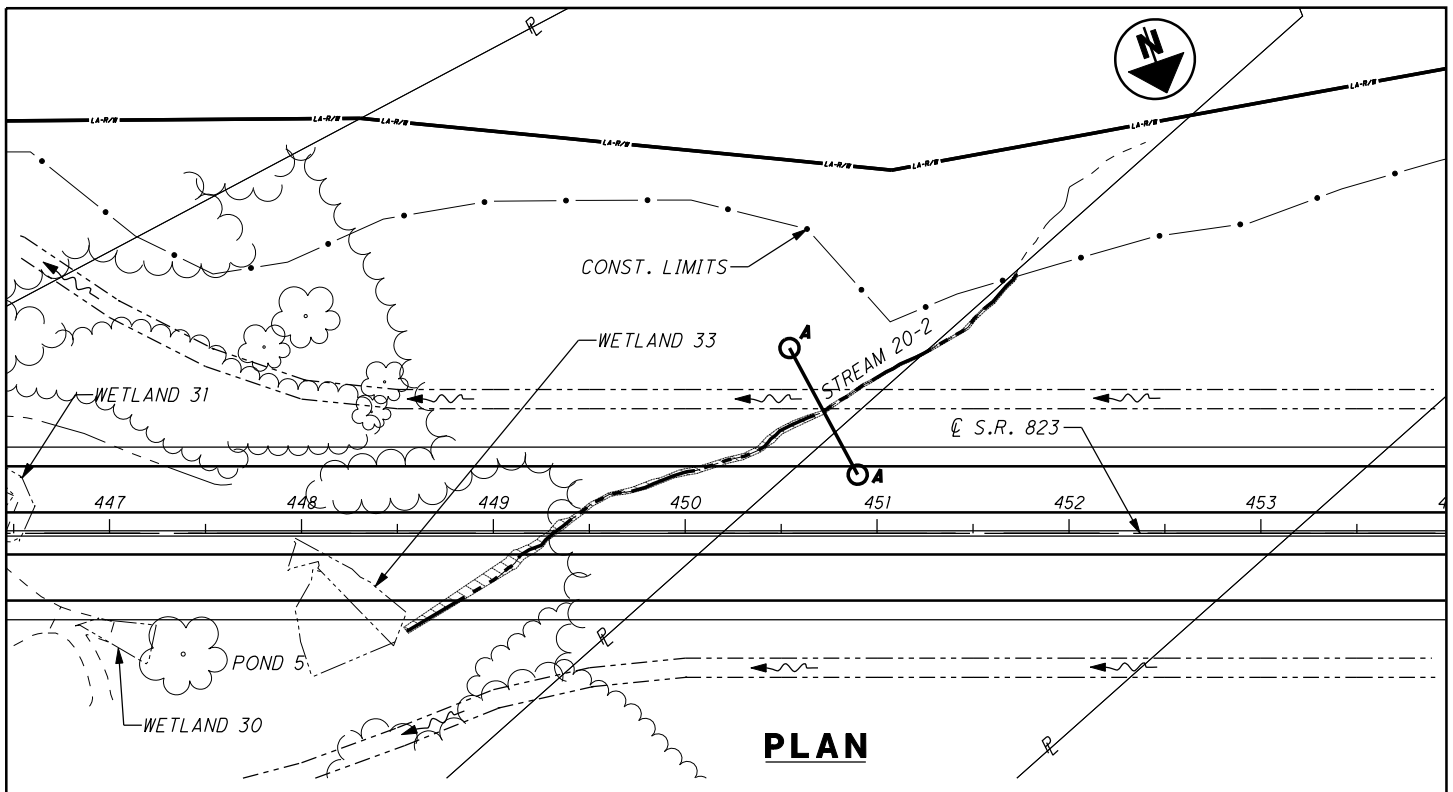
**IMPACTS AT
 STREAM 20-1**

OHIO DEPARTMENT OF TRANSPORTATION
 S.R. 823 BYPASS IN SCIOTO COUNTY

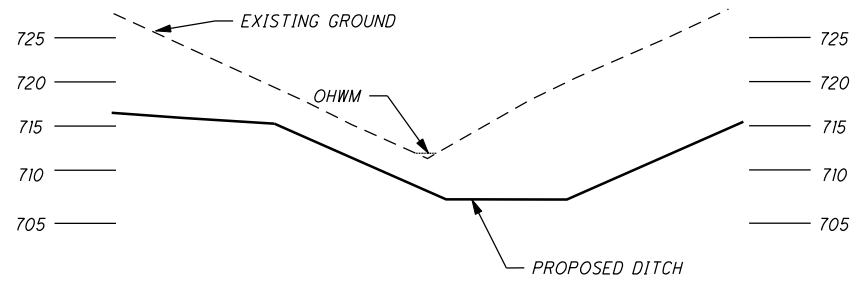
U.S. Army Corps of
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**FIGURE
 3-12A**



STREAM 20-2 PROFILE



CROSS SECTION A-A

PROPERTY OWNERS: STATE OF OHIO	
LENGTH OF IMPACT:	375 LF
AREA EXCAVATED OR FILLED:	0.027 ACRES
EXCAVATION BELOW OHW:	17 CY
FILL BELOW OHW:	7 CY

LEGEND

	PROPOSED DITCH
	STREAM IMPACT LENGTH
	OHWM

PLAN SCALE: 1" = 100'
 PROFILE SCALE: 1" = 100'
 CROSS SECTION SCALE: 1" = 20'



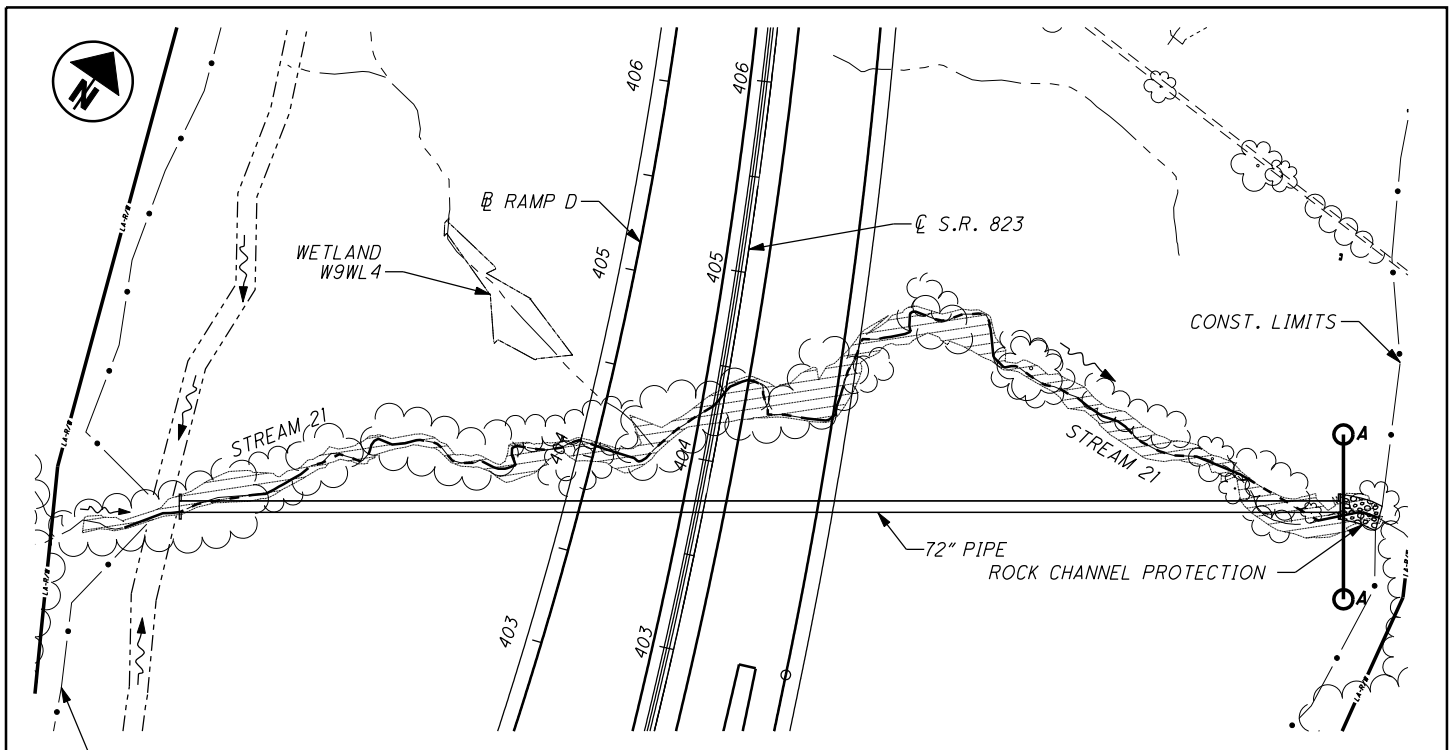
**IMPACTS AT
STREAM 20-2**

OHIO DEPARTMENT OF TRANSPORTATION
 S.R. 823 BYPASS IN SCIOTO COUNTY

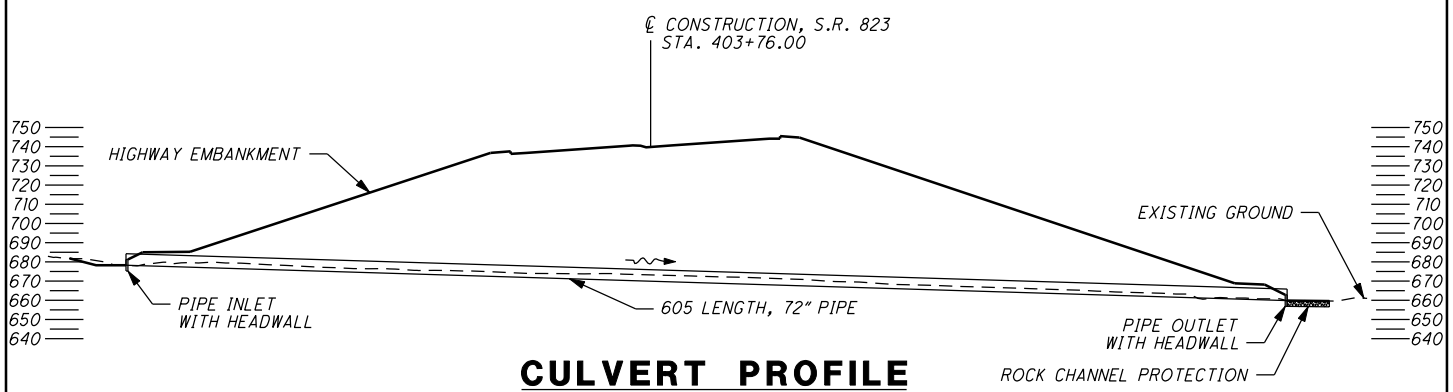
U.S. Army Corps of
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FIGURE 3-13



PLAN



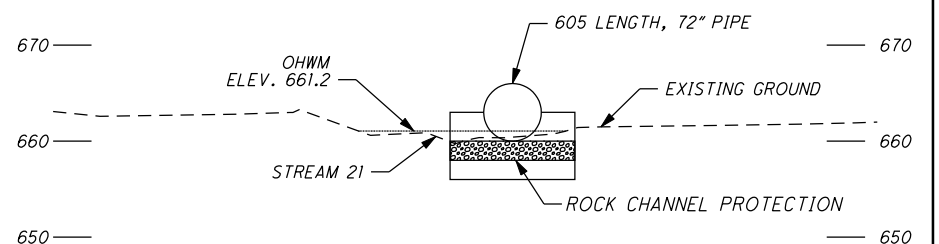
CULVERT PROFILE

LEGEND

- PROPOSED DITCH
- - - - - STREAM IMPACT LENGTH
- ▨ OHWM

PROPERTY OWNERS:
 MCKENZIE GERTRUDE B TRUSTEE
 GERTRUDEB MCKENZIE REVOCABLE TRUST

LENGTH OF IMPACT:	802 LF
AREA EXCAVATED OR FILLED:	0.218 ACRES
EXCAVATION BELOW OHW:	20 CY
FILL BELOW OHW:	263 CY



CROSS SECTION A-A

PLAN SCALE: 1" = 100'
 CULVERT PROFILE: 1" = 100' H
 CROSS SECTION: 1" = 20'



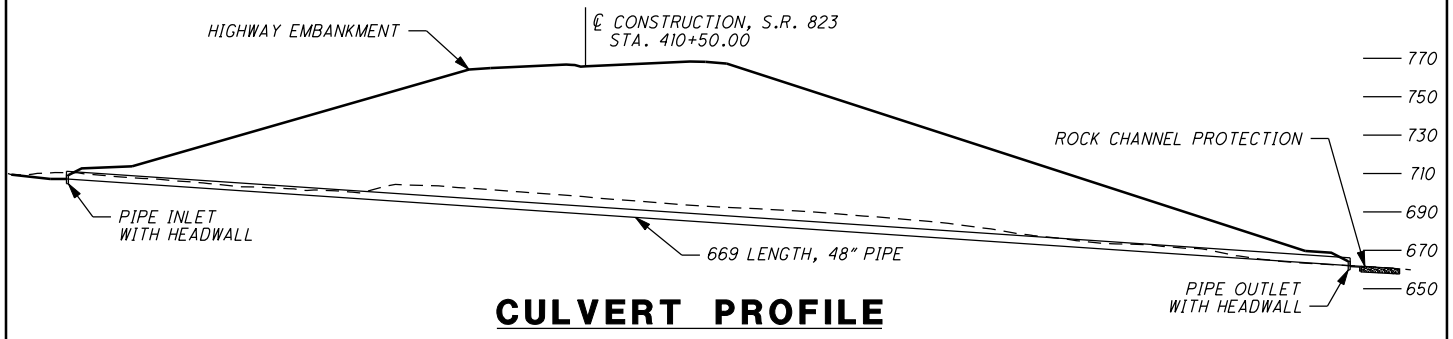
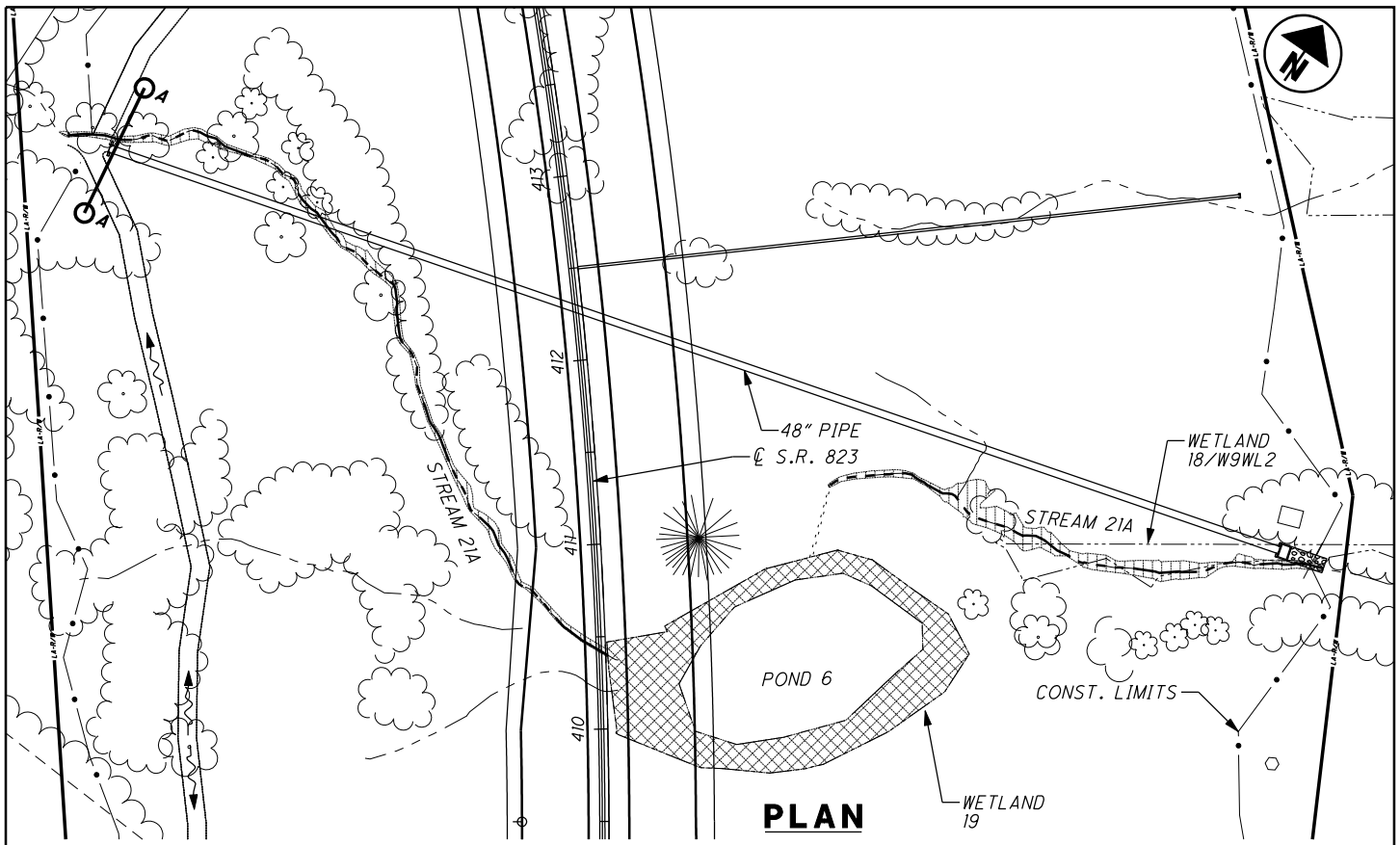
**IMPACTS AT
 STREAM 21**

OHIO DEPARTMENT OF TRANSPORTATION
 S.R. 823 BYPASS IN SCIOTO COUNTY

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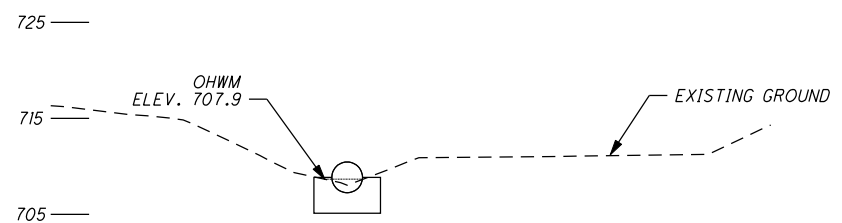
FIGURE 3-14



- LEGEND**
- PROPOSED DITCH
 - - - - - STREAM IMPACT LENGTH
 - ▨ OHWM

PROPERTY OWNERS:
 MCKENZIE GERTRUDE B TRUSTEE
 GERTRUDEB MCKENZIE REVOCABLE TRUST

LENGTH OF IMPACT:	745 LF
AREA EXCAVATED OR FILLED:	0.043 ACRES
EXCAVATION BELOW OHW:	45 CY
FILL BELOW OHW:	30 CY



PLAN SCALE: 1" = 100'
 CULVERT PROFILE: 1" = 100' H
 CROSS SECTION: 1" = 20'



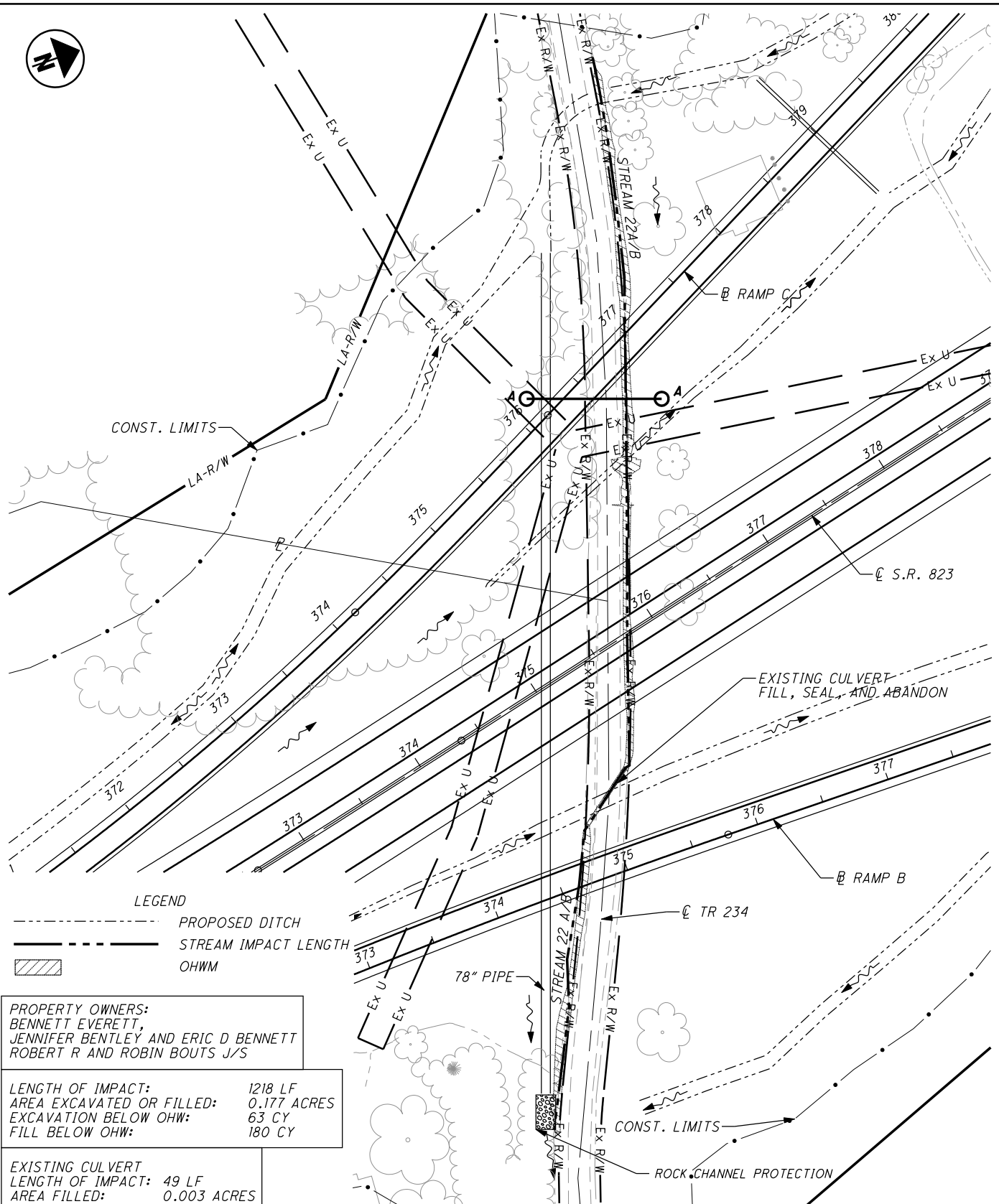
**IMPACTS AT
 STREAM 21A**

OHIO DEPARTMENT OF TRANSPORTATION
 S.R. 823 BYPASS IN SCIOTO COUNTY

U.S. Army Corps of Engineers 404 Permit and OEPA Section 401 Water Quality Certification Application

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FIGURE 3-15



LEGEND

- PROPOSED DITCH
- STREAM IMPACT LENGTH
- OHWM

PROPERTY OWNERS:
 BENNETT EVERETT,
 JENNIFER BENTLEY AND ERIC D BENNETT
 ROBERT R AND ROBIN BOUTS J/S

LENGTH OF IMPACT: 1218 LF
 AREA EXCAVATED OR FILLED: 0.177 ACRES
 EXCAVATION BELOW OHW: 63 CY
 FILL BELOW OHW: 180 CY

EXISTING CULVERT
 LENGTH OF IMPACT: 49 LF
 AREA FILLED: 0.003 ACRES
 FILL BELOW OHW: 6 CY

PLAN

PLAN SCALE: 1" = 100'



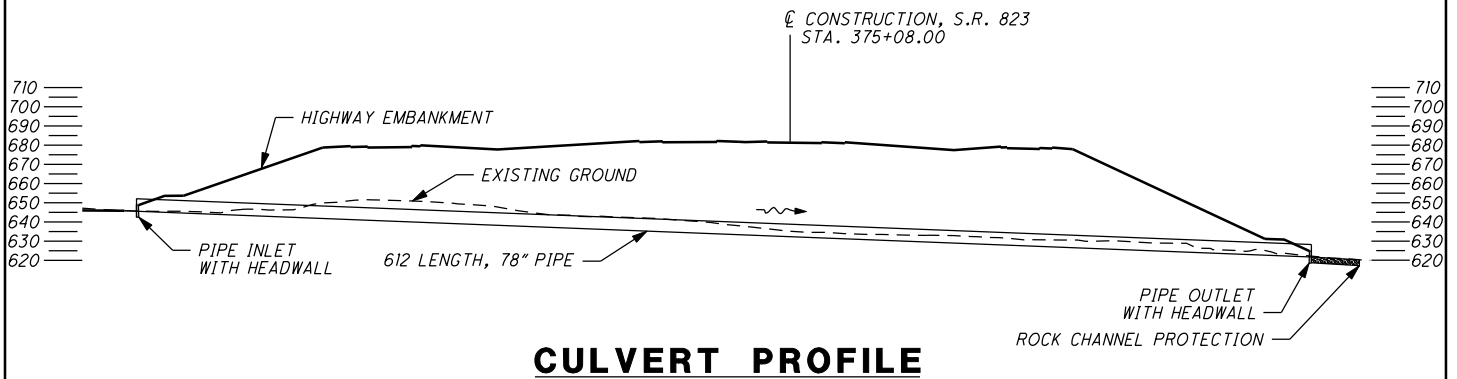
**IMPACTS AT
 STREAM 22 A/B
 DOWNSTREAM**

OHIO DEPARTMENT OF TRANSPORTATION
 S.R. 823 BYPASS IN SCIOTO COUNTY

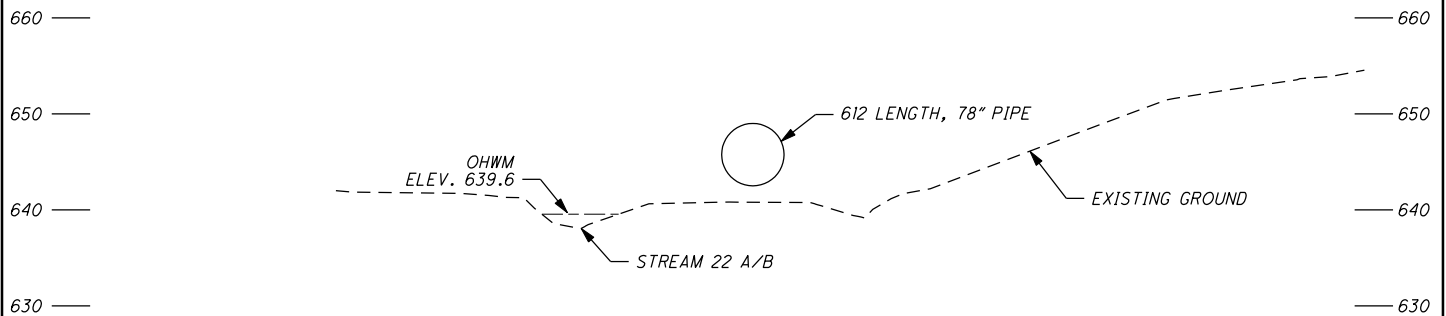
U.S. Army Corps of Engineers 404 Permit and OEPA Section 401 Water Quality Certification Application

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FIGURE 3-16



CULVERT PROFILE



CROSS SECTION A-A

CULVERT PROFILE: 1" = 100'
 CROSS SECTION: 1" = 20'



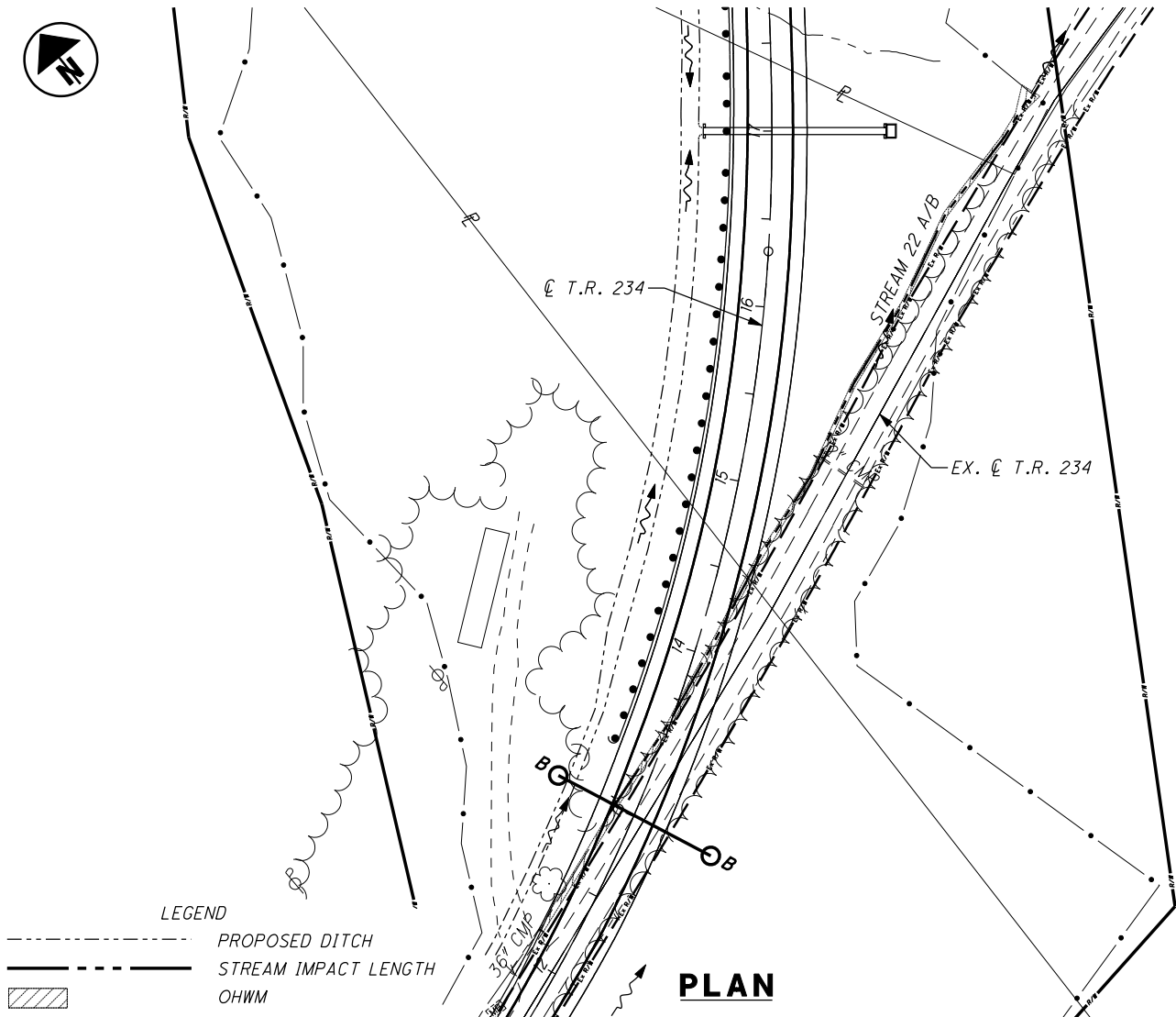
**IMPACTS AT
 STREAM 22A/B**

OHIO DEPARTMENT OF TRANSPORTATION
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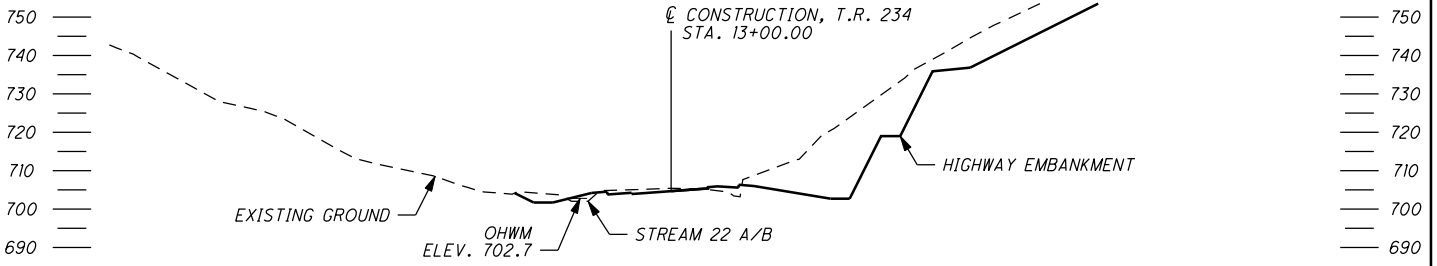
DATE: 09/13/2011

**FIGURE
 3-16A**

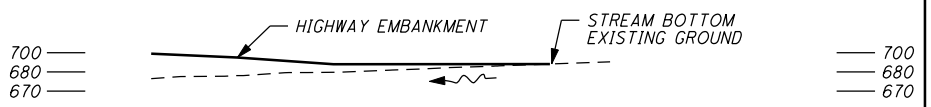


LEGEND
 - - - - - PROPOSED DITCH
 - - - - - STREAM IMPACT LENGTH
 [Hatched Box] OHWM

PLAN



CROSS SECTION B-B



STREAM 22 A/B PROFILE

PROPERTY OWNERS:
 ROBERT LEE AND STELLA FAULKNER J/S
 ROBERT R AND ROBIN BOUTS J/S

PLAN SCALE: 1" = 100'
 CROSS SECTION: 1" = 50'
 STREAM PROFILE: 1" = 100'



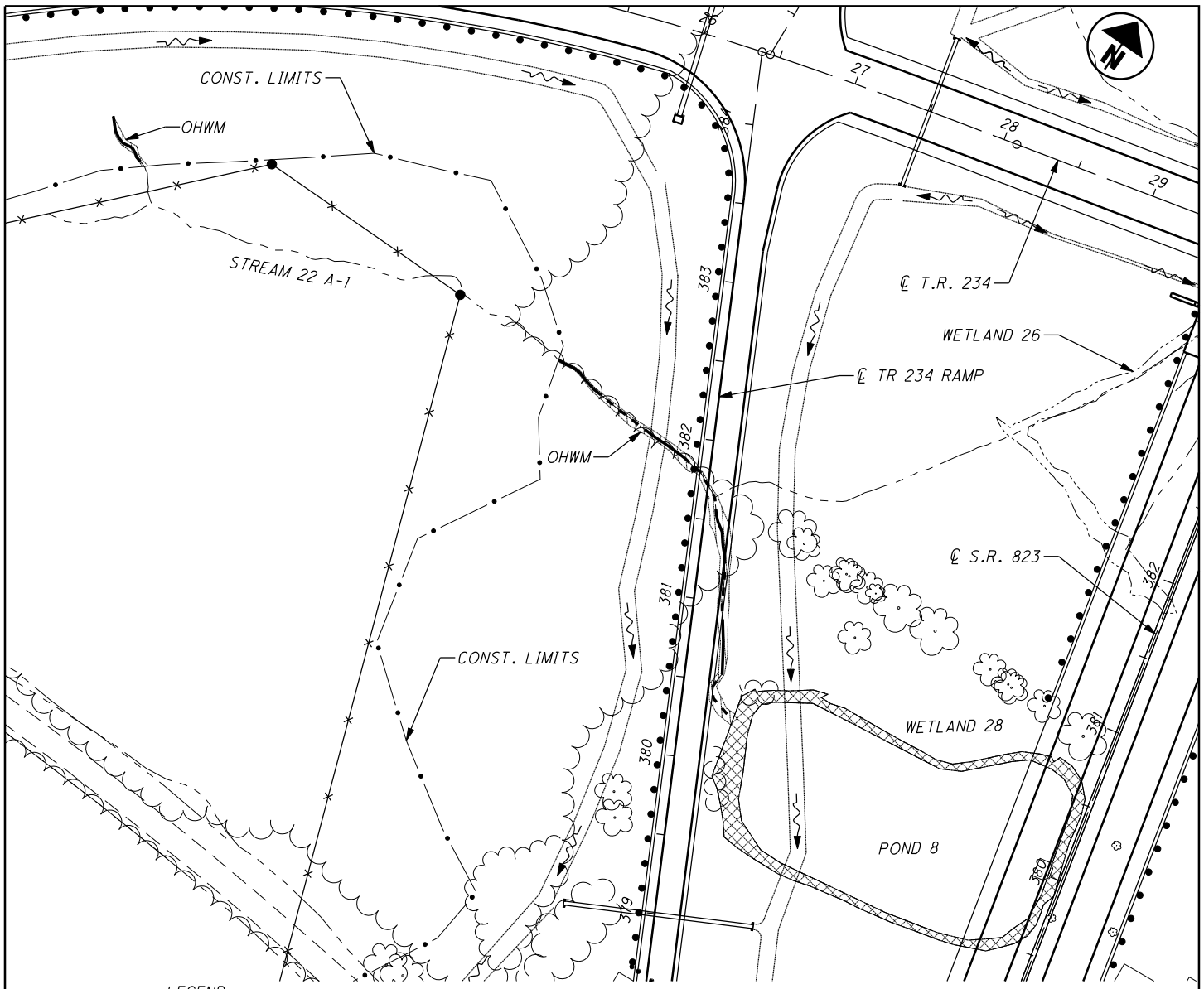
**IMPACTS AT
 STREAM 22 A/B
 UPSTREAM**

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 S.R. 823 BYPASS IN SCIOTO COUNTY

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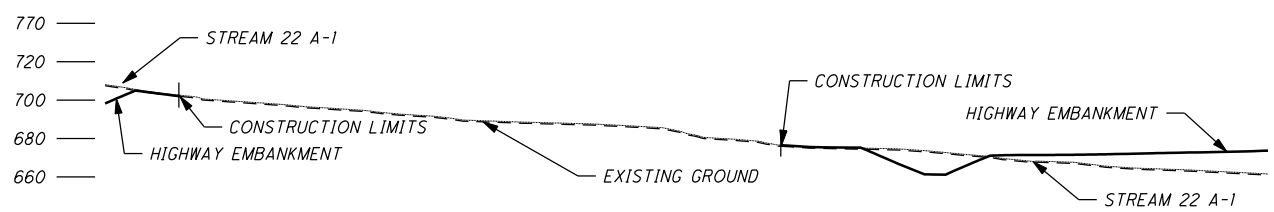
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**FIGURE
 3-16B**



LEGEND

- PROPOSED DITCH
- STREAM IMPACT LENGTH
- OHWM



STREAM PROFILE

LENGTH OF IMPACT:	318 LF	PROPERTY OWNERS:	STATE OF OHIO
AREA EXCAVATED OR FILLED:	0.036 ACRES		ROBERT R AND ROBIN BOUTS
EXCAVATION BELOW OHW:	94 CY		
FILL BELOW OHW:	15 CY		

PLAN SCALE: 1" = 100'
STREAM PROFILE: 1" = 50'



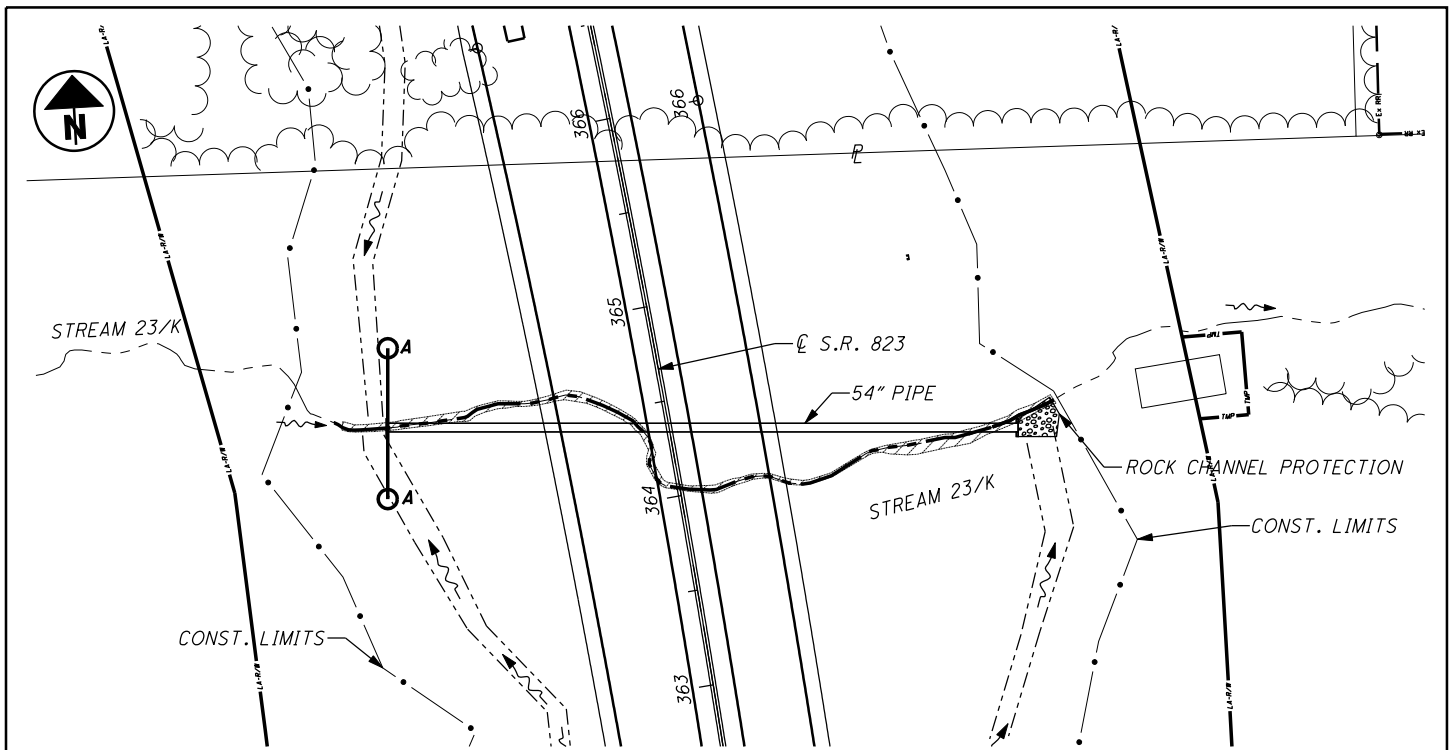
**IMPACTS AT
STREAM 22 A-1**

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 823 BYPASS IN SCIOTO COUNTY

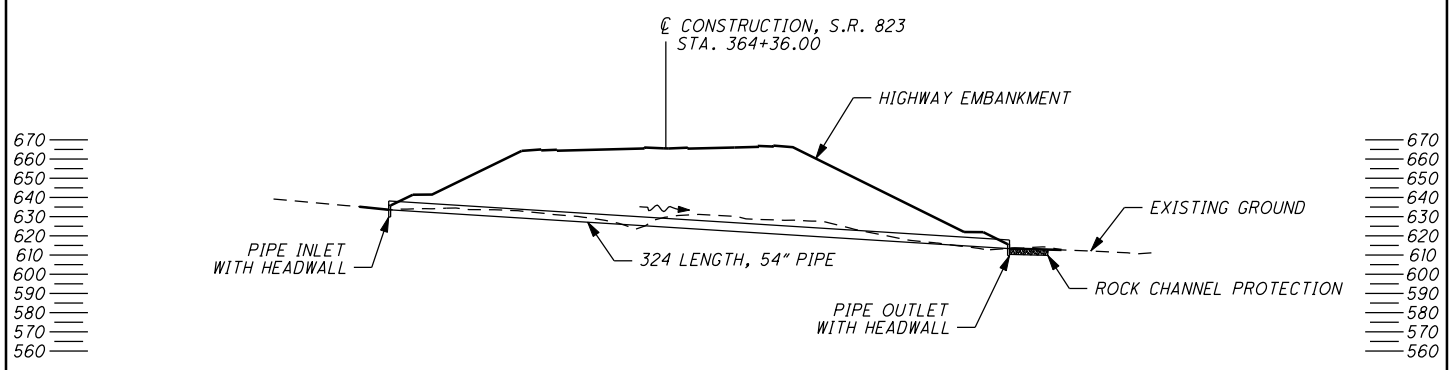
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FIGURE 3-17



PLAN



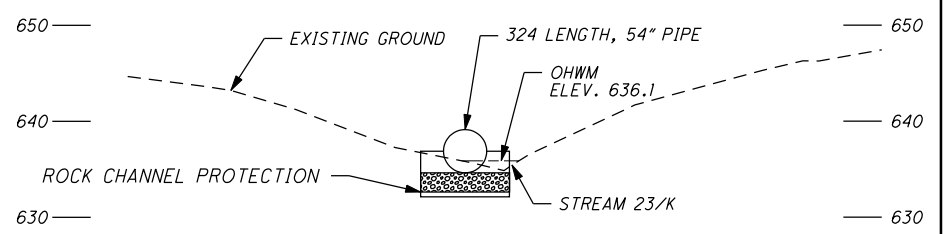
CULVERT PROFILE

LEGEND

- PROPOSED DITCH
- - - - - STREAM IMPACT LENGTH
- ▨ OHWM

PROPERTY OWNERS:
MARY ANNETTE CORIELL

LENGTH OF IMPACT:	415 LF
AREA EXCAVATED OR FILLED:	0.048 ACRES
EXCAVATION BELOW OHW:	23 CY
FILL BELOW OHW:	75 CY



CROSS SECTION A-A

PLAN SCALE: 1" = 100'
 CULVERT PROFILE: 1" = 100'
 CROSS SECTION: 1" = 20'



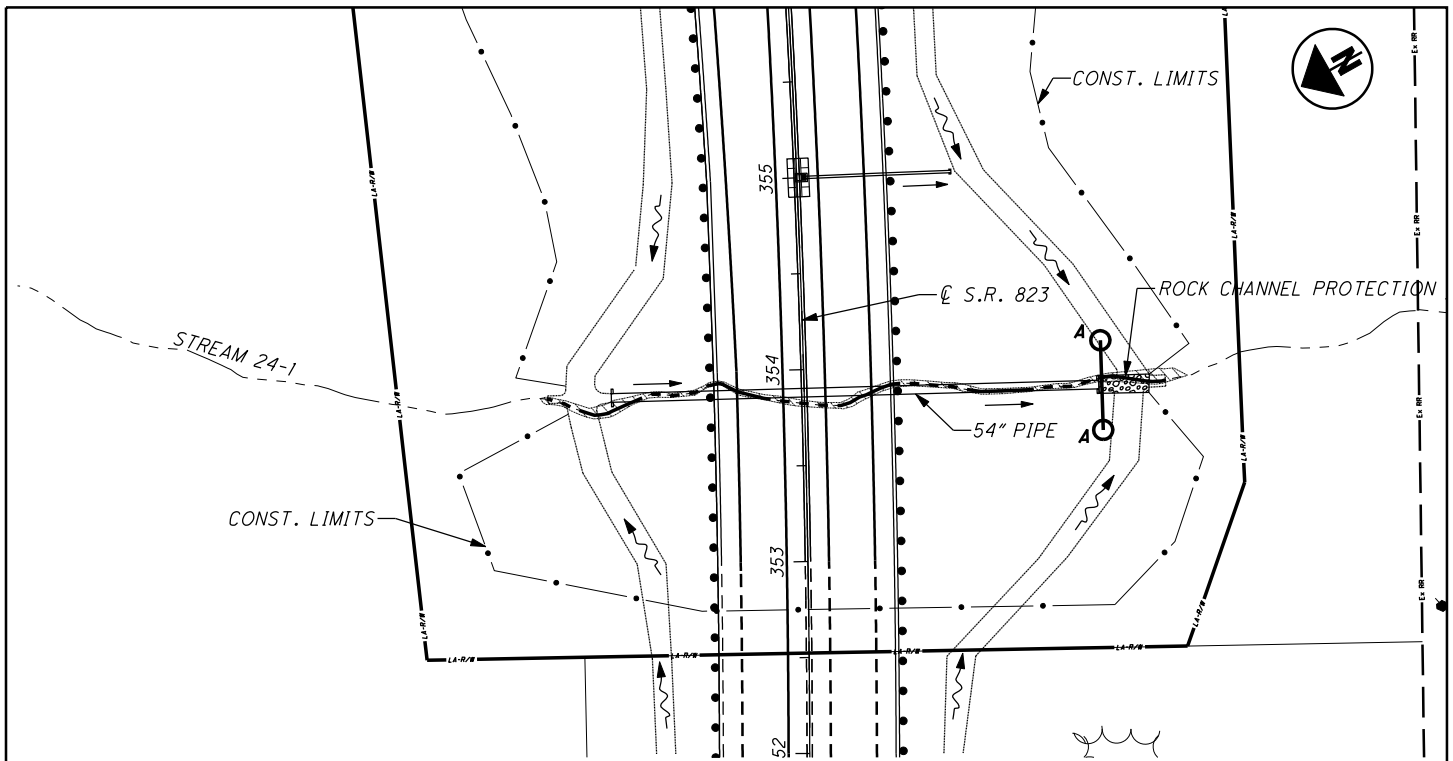
**IMPACTS AT
 STREAM 23/K**

OHIO DEPARTMENT OF TRANSPORTATION
 S.R. 823 BYPASS IN SCIOTO COUNTY

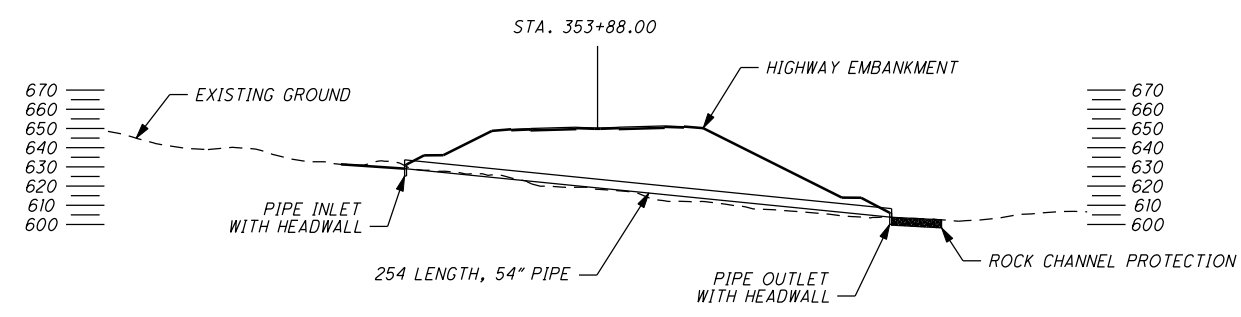
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FIGURE 3-18



PLAN

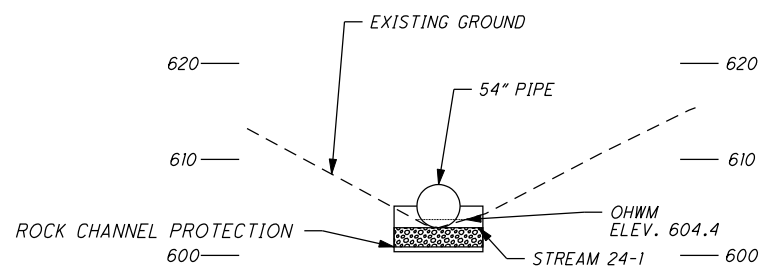


CULVERT PROFILE

- LEGEND**
- PROPOSED DITCH
 - - - - - STREAM IMPACT LENGTH
 - ▨ OHWM

PROPERTY OWNERS:
VICTOR D AND ELSIE A KNORE J/S

LENGTH OF IMPACT: 333 LF
 AREA EXCAVATED OR FILLED: 0.081 ACRES
 EXCAVATION BELOW OHW: 47 CY
 FILL BELOW OHW: 32 CY



CROSS SECTION A-A

PLAN SCALE: 1" = 100'
 CULVERT PROFILE: 1" = 100'
 CROSS SECTION: 1" = 20'



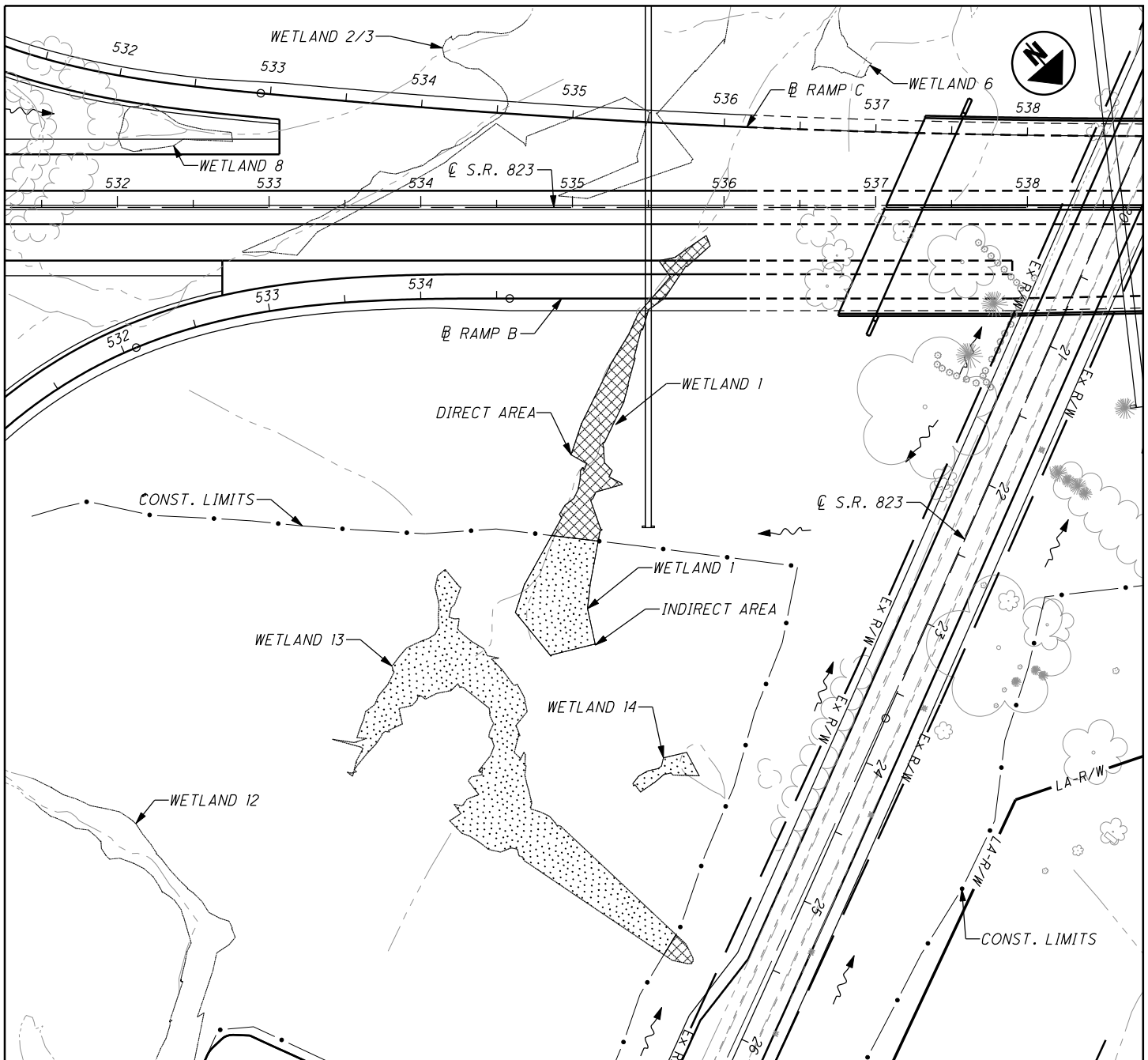
**IMPACTS AT
STREAM 24-1**

OHIO DEPARTMENT OF TRANSPORTATION
 S.R. 823 BYPASS IN SCIOTO COUNTY

U.S. Army Corps of
 Engineers 404 Permit
 and OEPA Section 401
 Water Quality
 Certification
 Application

DATE: 09/13/2011

FIGURE 3-19



PLAN

PLAN SCALE: 1" = 100'

LEGEND

- DIRECT AREA
- INDIRECT AREA

PROPERTY OWNERS:
STATE OF OHIO

WETLAND 1	
LENGTH OF IMPACT:	N/A
DIRECT IMPACT AREA:	0.072 ACRES
FILL BELOW OHW:	115 CY
INDIRECT IMPACT AREA:	0.069 ACRES

WETLAND 13	
LENGTH OF IMPACT:	N/A
DIRECT IMPACT AREA:	0.005 ACRES
FILL BELOW OHW:	8 CY
INDIRECT IMPACT AREA:	0.228 ACRES

WETLAND 14	
LENGTH OF IMPACT:	N/A
DIRECT IMPACT AREA:	0.000 ACRES
FILL BELOW OHW:	0 CY
INDIRECT IMPACT AREA:	0.010 ACRES



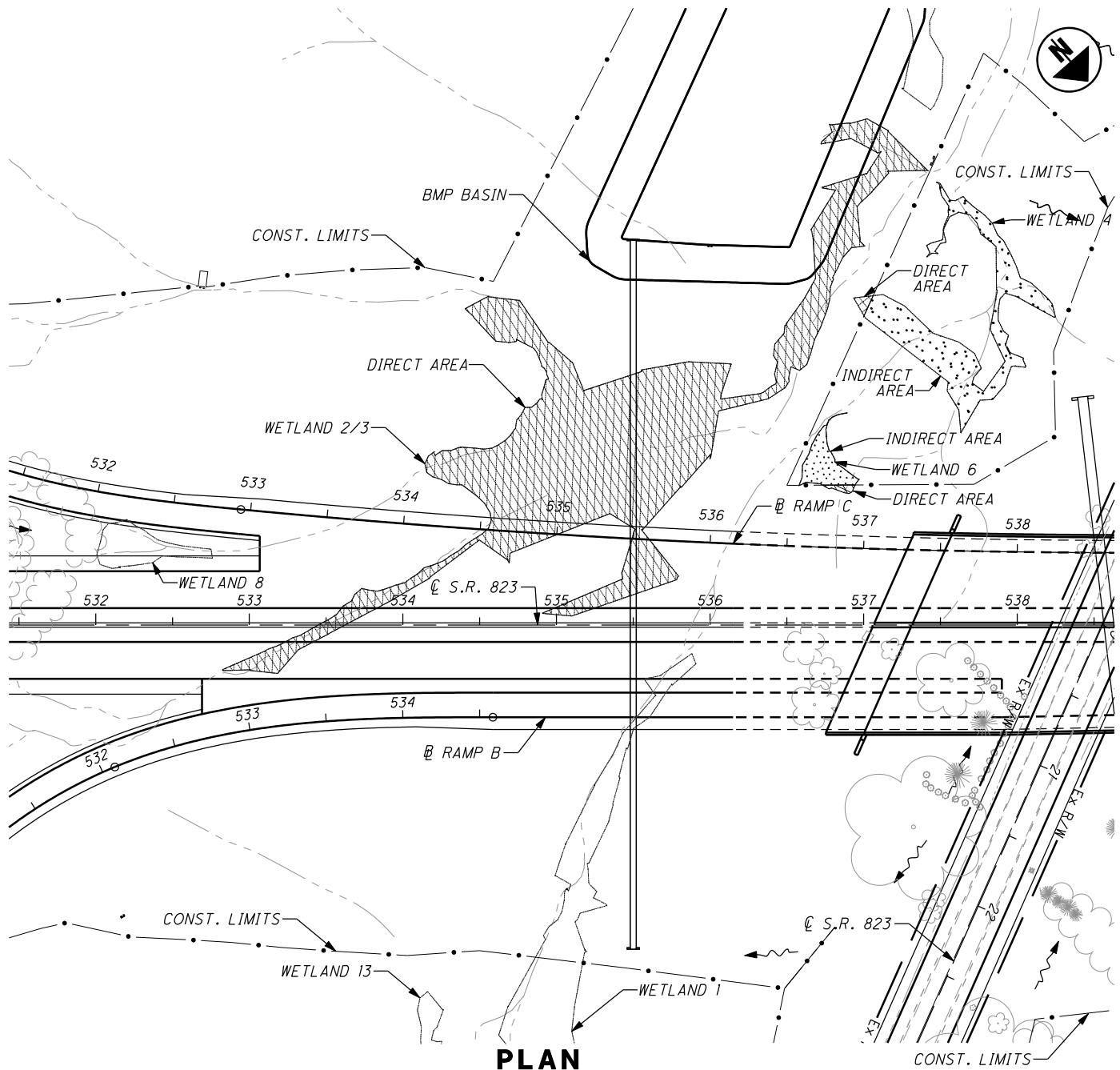
**IMPACT AT
WETLANDS 1, 13
AND 14**

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 823 BYPASS IN SCIOTO COUNTY

U.S. Army Corps of Engineers 404 Permit and OEPA Section 401 Water Quality Certification Application

DATE: 09/13/2011

FIGURE 3-20



PLAN

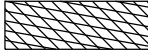
PLAN SCALE: 1" = 100'


WETLAND 6

PROPERTY OWNERS:
STATE OF OHIO

LENGTH OF IMPACT:	N/A
DIRECT IMPACT AREA:	0.002 ACRES
FILL BELOW OHW:	3 CY
INDIRECT IMPACT AREA:	0.016 ACRES

LEGEND

 DIRECT AREA

 INDIRECT AREA

WETLAND 2/3

LENGTH OF IMPACT:	N/A
DIRECT IMPACT AREA:	0.517 ACRES
FILL BELOW OHW:	834 CY
INDIRECT IMPACT AREA:	0.00 ACRES

WETLAND 4

LENGTH OF IMPACT:	N/A
DIRECT IMPACT AREA:	0.002 ACRES
FILL BELOW OHW:	3 CY
INDIRECT IMPACT AREA:	0.087 ACRES



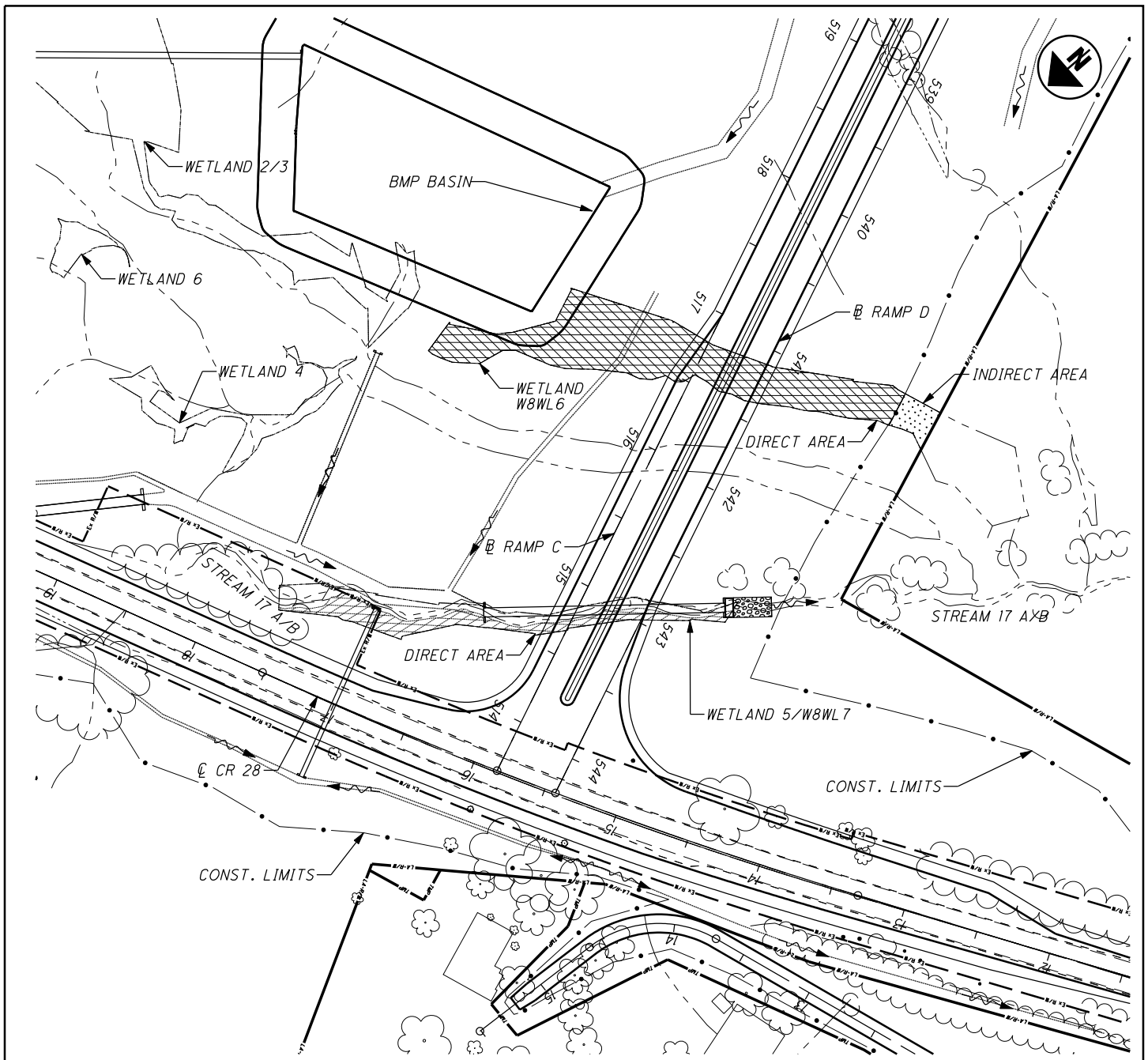
**IMPACTS AT
WETLANDS
2/3, 4 AND 6**

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 823 BYPASS IN SCIOTO COUNTY

U.S. Army Corps of Engineers 404 Permit and OEPA Section 401 Water Quality Certification Application

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FIGURE 3-21



PLAN

PLAN SCALE: 1" = 100'

PROPERTY OWNERS:
STATE OF OHIO

W8WL6

LENGTH OF IMPACT:	N/A
DIRECT IMPACT AREA:	0.207 ACRES
FILL BELOW OHW:	334 CY
INDIRECT IMPACT AREA:	0.014 ACRES

WETLAND 5 / W8WL7

LENGTH OF IMPACT:	N/A
DIRECT IMPACT AREA:	0.066 ACRES
FILL BELOW OHW:	107 CY
INDIRECT IMPACT AREA:	0.0 ACRES

LEGEND

- DIRECT AREA
- INDIRECT AREA



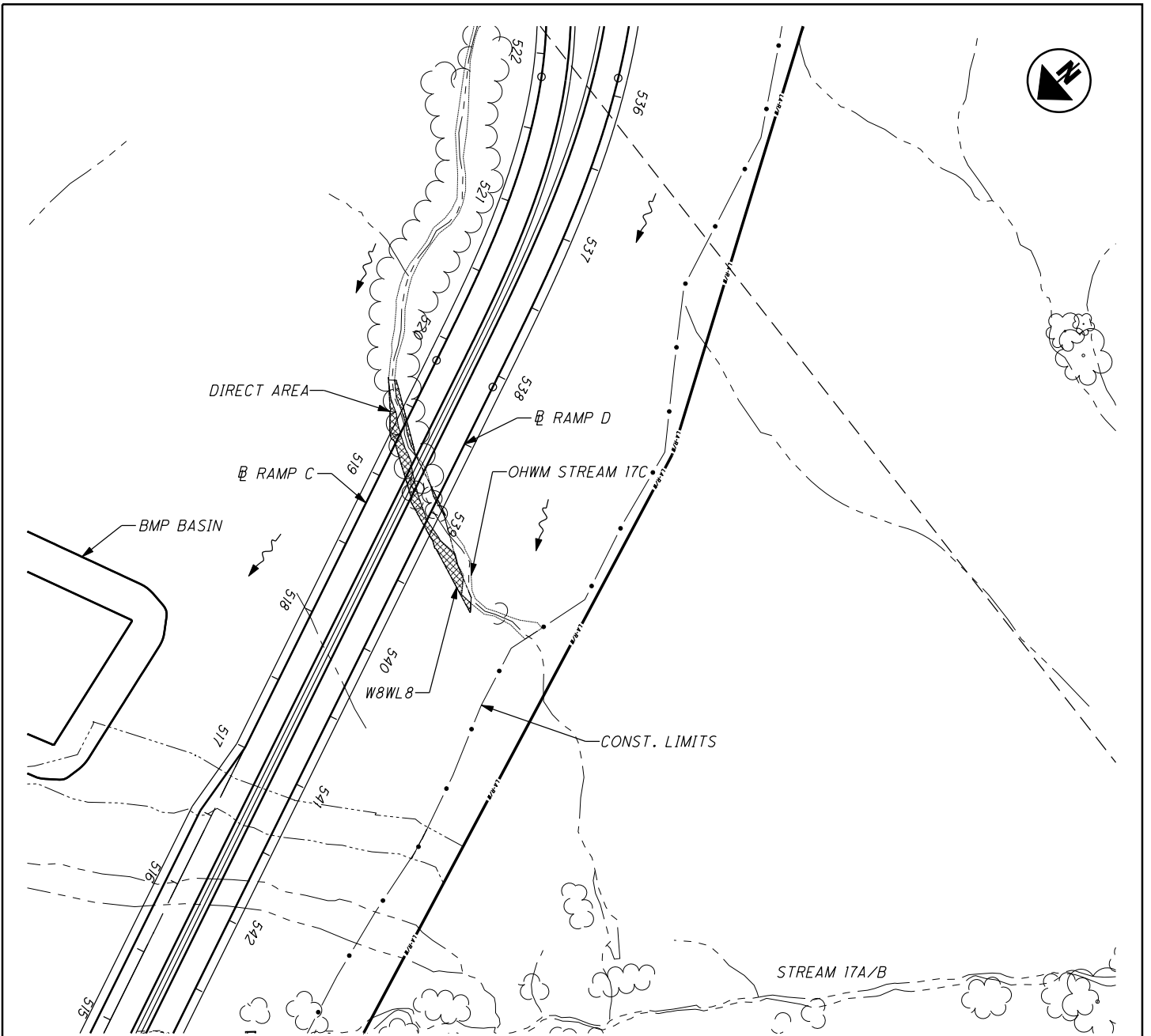
**IMPACTS AT
WETLAND 5 / W8WL7
AND W8WL6**

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 823 BYPASS IN SCIOTO COUNTY

U.S. Army Corps of Engineers 404 Permit and OEPA Section 401 Water Quality Certification Application

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FIGURE 3-22



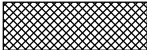
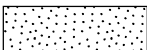
PLAN

PLAN SCALE: 1" = 100'

PROPERTY OWNERS:
STATE OF OHIO

LENGTH OF IMPACT: N/A
 DIRECT IMPACT AREA: 0.020 ACRES
 FILL BELOW OHW: 32 CY
 INDIRECT IMPACT AREA: 0.000 ACRES

LEGEND

-  DIRECT AREA
-  INDIRECT AREA



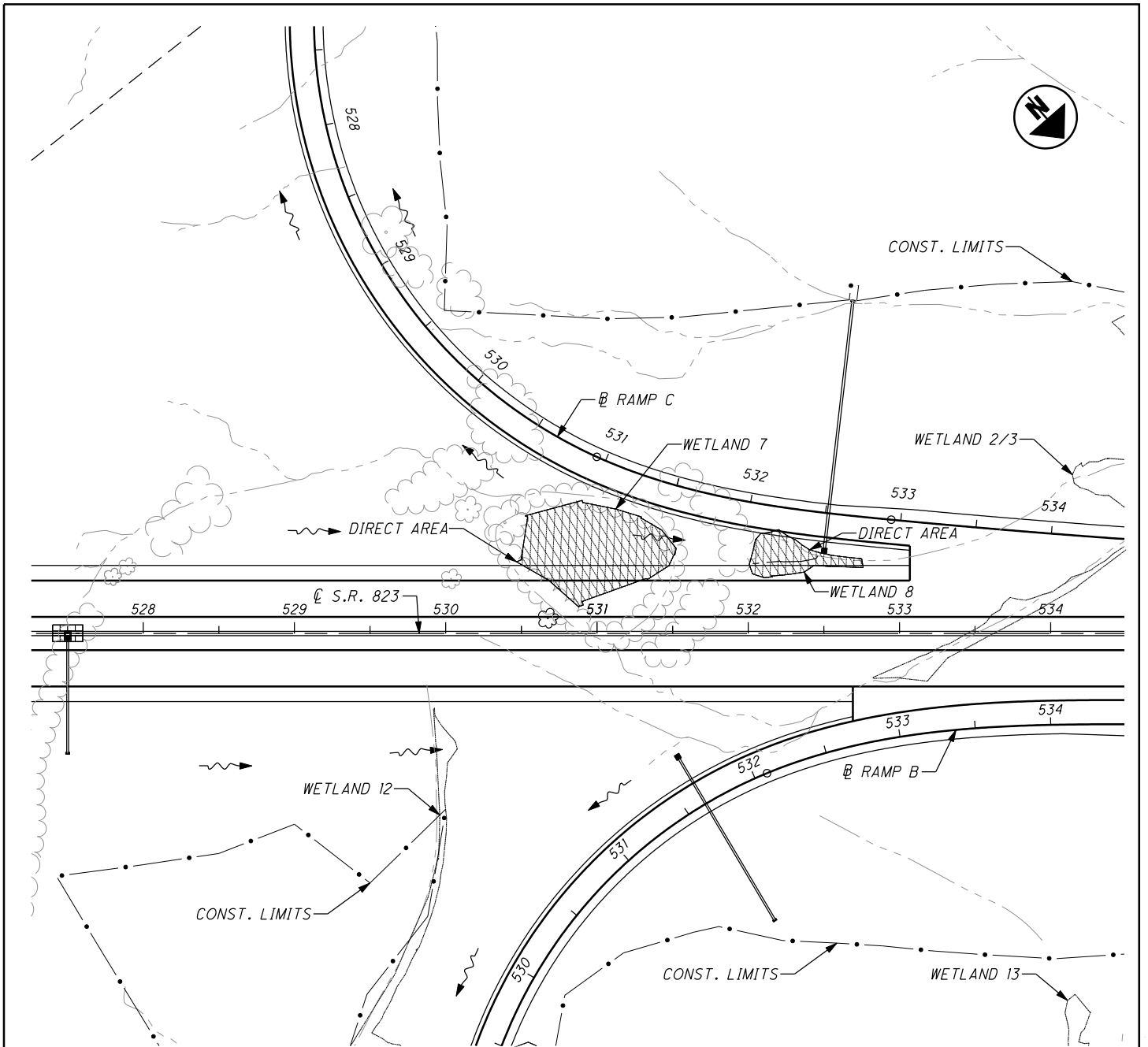
**IMPACTS AT
WETLAND
W8WL8**

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 823 BYPASS IN SCIOTO COUNTY

U.S. Army Corps of
Engineers 404 Permit
and OEPA Section 401
Water Quality
Certification
Application

DATE: 09/13/2011

FIGURE 3-23



PLAN

PLAN SCALE: 1" = 100'

WETLAND 7

LENGTH OF IMPACT:	N/A
DIRECT IMPACT AREA:	0.108 ACRES
FILL BELOW OHW:	174 CY
INDIRECT IMPACT AREA:	0.00 ACRES

PROPERTY OWNERS:
STATE OF OHIO

WETLAND 8

LENGTH OF IMPACT:	N/A
DIRECT IMPACT AREA:	0.028 ACRES
FILL BELOW OHW:	45 CY
INDIRECT IMPACT AREA:	0.00 ACRES

LEGEND

- DIRECT AREA
- INDIRECT AREA



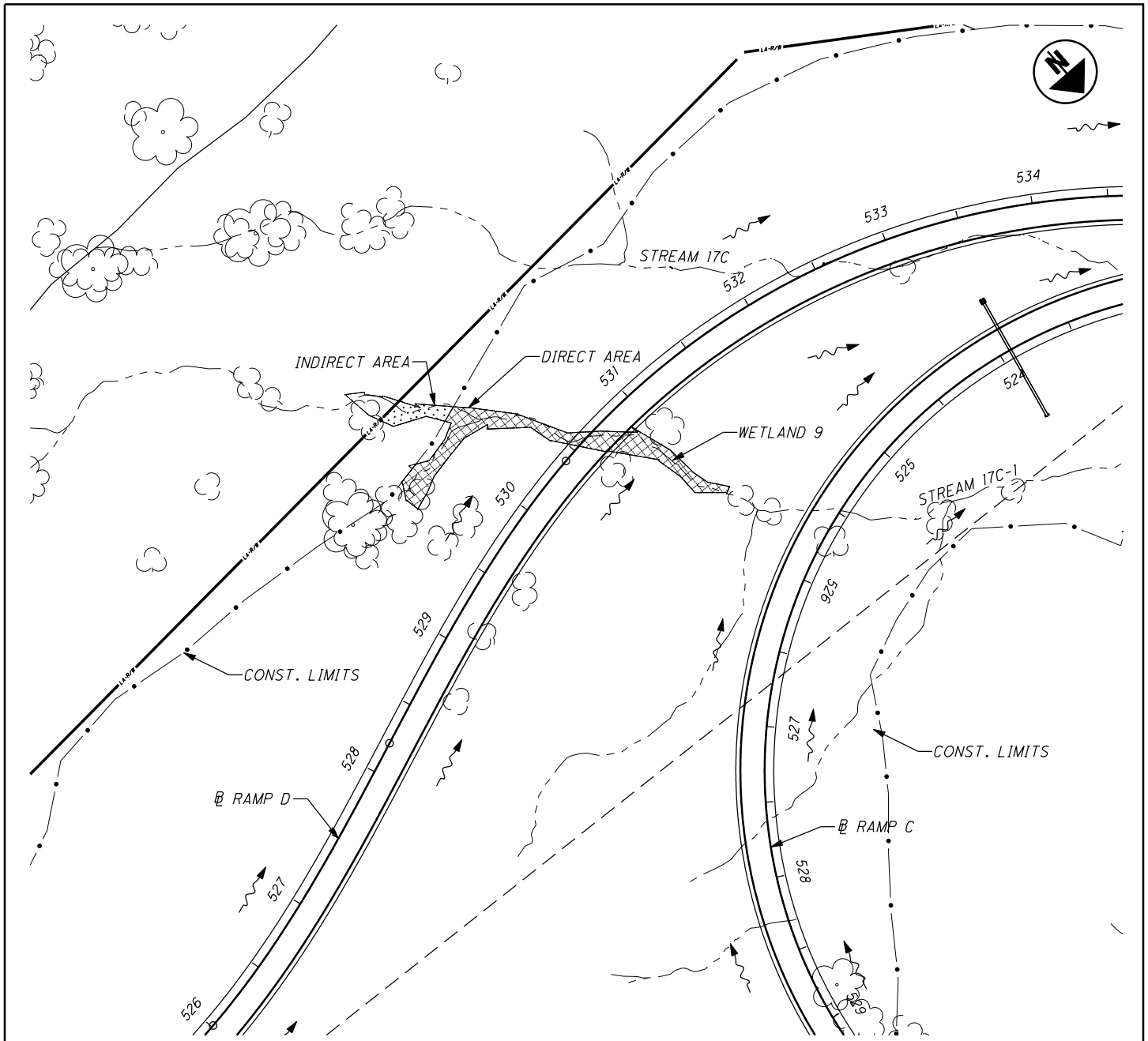
**IMPACTS AT
WETLANDS
7 AND 8**

OHIO DEPARTMENT OF TRANSPORTATION
69, 73 BYPASS, WASCIO COUNTY

U.S. Army Corps of Engineers 404 Permit and OEPA Section 401 Water Quality Certification Application

DATE: 09/13/2011

FIGURE 3-24



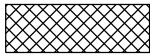
PLAN

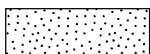
PLAN SCALE: 1" = 100'

PROPERTY OWNERS:
STATE OF OHIO

LENGTH OF IMPACT: N/A
 DIRECT IMPACT AREA: 0.063 ACRES
 FILL BELOW OHW: 102 CY
 INDIRECT IMPACT AREA: 0.010 ACRES

LEGEND

 DIRECT AREA

 INDIRECT AREA



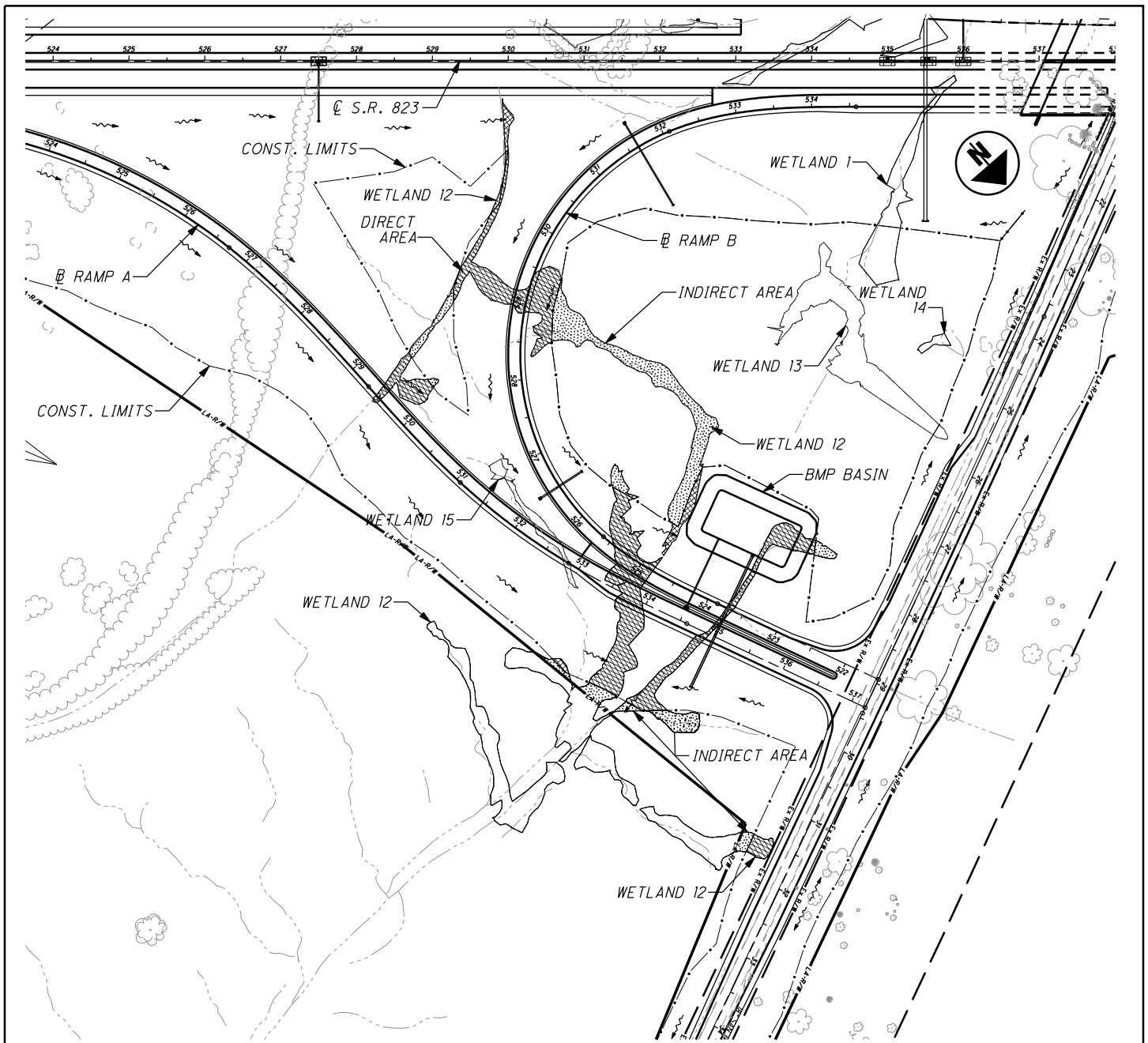
IMPACTS AT WETLAND 9

OHIO DEPARTMENT OF TRANSPORTATION
 S.R. 823 BYPASS IN SCIOTO COUNTY

U.S. Army Corps of Engineers 404 Permit and OEPA Section 401 Water Quality Certification Application

DATE: 09/13/2011

FIGURE 3-25




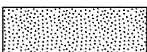
PLAN

PLAN SCALE: 1" = 200'

PROPERTY OWNERS:
STATE OF OHIO

LENGTH OF IMPACT: N/A
 DIRECT IMPACT AREA: 0.528 ACRES
 FILL BELOW OHW: 852 CY
 INDIRECT IMPACT AREA: 0.283 ACRES

LEGEND

-  DIRECT AREA
-  INDIRECT AREA

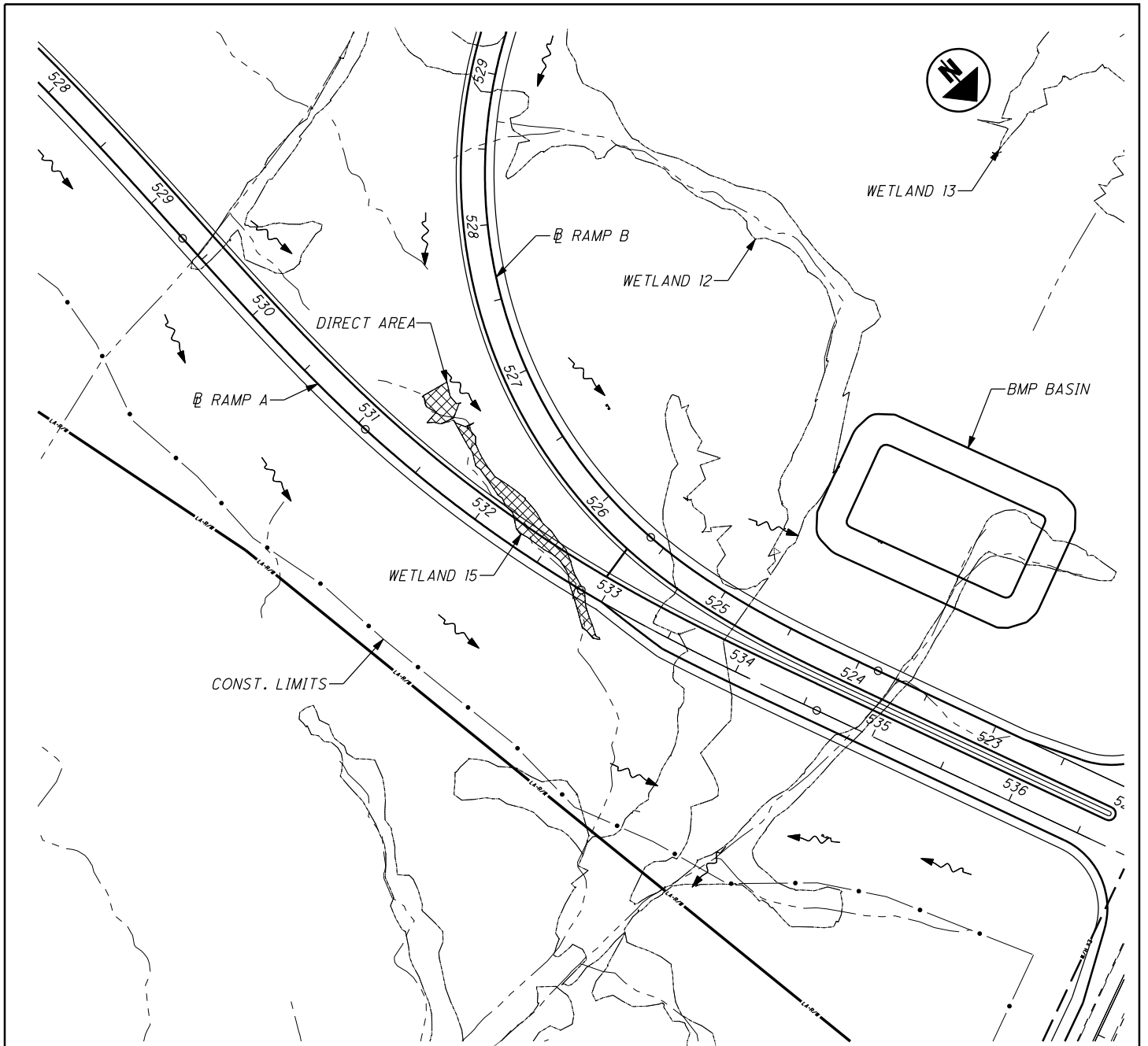


IMPACTS AT WETLAND 12

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 823 BYPASS IN SCIOTO COUNTY

U.S. Army Corps of Engineers 404 Permit and OEPA Section 401 Water Quality Certification Application

DATE: 09/13/2011




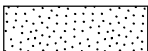
PLAN

PLAN SCALE: 1" = 100'

PROPERTY OWNERS:
STATE OF OHIO

LENGTH OF IMPACT: N/A
 DIRECT IMPACT AREA: 0.041 ACRES
 FILL BELOW OHW: 65 CY
 INDIRECT IMPACT AREA: 0.00 ACRES

LEGEND

-  DIRECT AREA
-  INDIRECT AREA



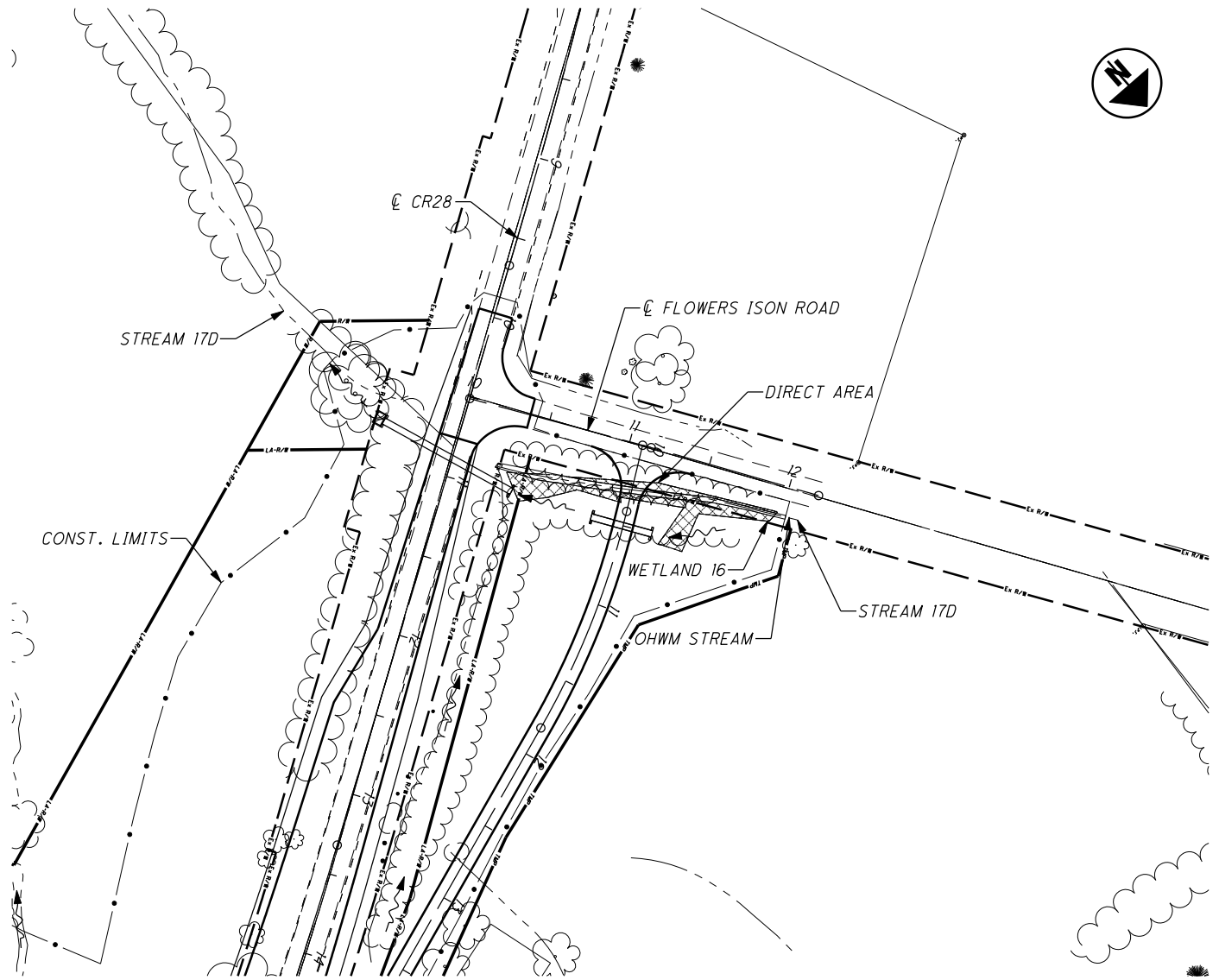
IMPACTS AT WETLAND 15

OHIO DEPARTMENT OF TRANSPORTATION
 S.R. 823 BYPASS IN SCIOTO COUNTY

U.S. Army Corps of Engineers 404 Permit and OEPA Section 401 Water Quality Certification Application

DATE: 09/13/2011

FIGURE 3-27



PLAN

PLAN SCALE: 1" = 100'

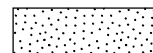
PROPERTY OWNERS:
STATE OF OHIO
ANGELA SUE YEAGLE

LENGTH OF IMPACT: N/A
DIRECT IMPACT AREA: 0.036 ACRES
FILL BELOW OHW: 58 CY
CUT BELOW OHW: 22 CY
INDIRECT IMPACT AREA: 0.00 ACRES

LEGEND



DIRECT AREA



INDIRECT AREA



IMPACTS AT WETLAND 16

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 823 BYPASS IN SCIOTO COUNTY

U.S. Army Corps of Engineers 404 Permit and OEPA Section 401 Water Quality Certification Application

DATE: 09/13/2011

FIGURE 3-28



INDIRECT AREA
WETLAND 17

WETLAND 17

LENGTH OF IMPACT: N/A
DIRECT IMPACT AREA: 0.000 ACRES
FILL BELOW OHW: 0 CY
INDIRECT IMPACT AREA: 0.001 ACRES

STREAM 21A

CONST. LIMITS

INDIRECT AREA

DIRECT AREA

WETLAND 18/W9WL2

WETLAND 18/W9WL2

LENGTH OF IMPACT: N/A
DIRECT IMPACT AREA: 0.036 ACRES
FILL BELOW OHW: 58 CY
INDIRECT IMPACT AREA: 0.002 ACRES

OHWM
STREAM 21A

DIRECT AREA

POND 6

WETLAND 19

INDIRECT AREA

WETLAND 20

PLAN

DIRECT AREA

INDIRECT AREA

DIRECT AREA

WETLAND 21

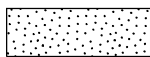
STREAM 21A

⊕ S.R. 823

LEGEND



DIRECT AREA



INDIRECT AREA

PROPERTY OWNERS:
STATE OF OHIO
DARREN AND KIMBERLY JENNINGS

PLAN SCALE: 1" = 100'

WETLAND 19

LENGTH OF IMPACT: N/A
DIRECT IMPACT AREA: 0.180 ACRES
FILL BELOW OHW: 290 CY
INDIRECT IMPACT AREA: 0.000 ACRES

WETLAND 20

LENGTH OF IMPACT: N/A
DIRECT IMPACT AREA: 0.058 ACRES
FILL BELOW OHW: 93 CY
INDIRECT IMPACT AREA: 0.004 ACRES

WETLAND 21

LENGTH OF IMPACT: N/A
DIRECT IMPACT AREA: 0.081 ACRES
FILL BELOW OHW: 130 CY
INDIRECT IMPACT AREA: 0.001 ACRES



IMPACTS AT WETLAND 17, 18/W9WL2, 19, 20 AND 21

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 823 BYPASS IN SCIOTO COUNTY

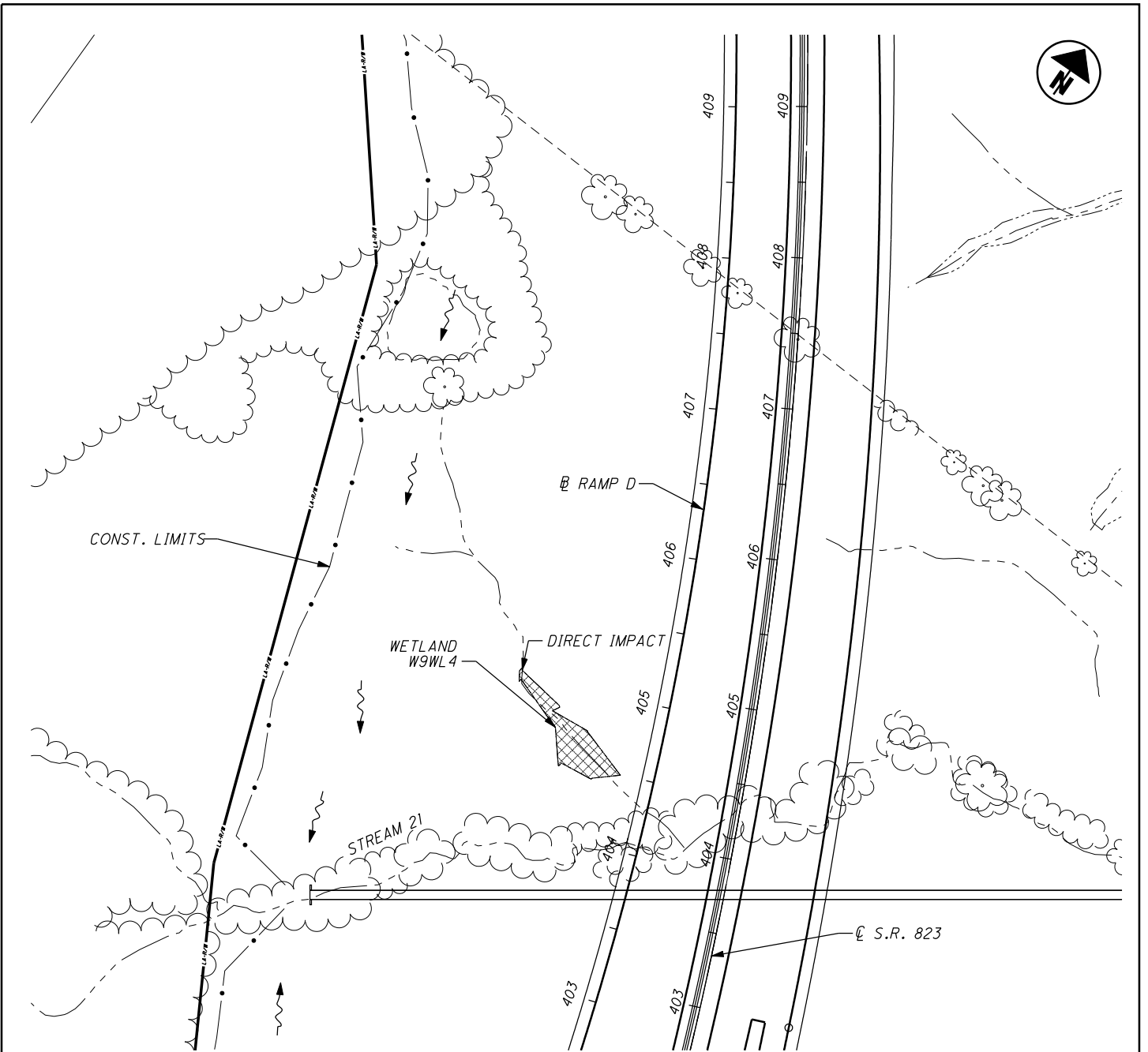
U.S. Army Corps of
Engineers 404 Permit
and OEPA Section 401
Water Quality
Certification
Application

DATE: 09/13/2011

FIGURE 3-29

2011-00646-OHR, SCI-823-0.00, PID: 19415

Plan Sheet 46 of 70 (Phase 1 Portsmouth Bypass)



PLAN

PLAN SCALE: 1" = 100'

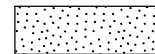
PROPERTY OWNERS:
 MCKENZIE GERTRUDE B TRUSTEE
 GERTRUDE B MCKENZIE REVOCABLE TRUST

LENGTH OF IMPACT: N/A
 DIRECT IMPACT AREA: 0.029 ACRES
 FILL BELOW OHW: 47 CY
 INDIRECT IMPACT AREA: 0.00 ACRES

LEGEND



DIRECT AREA



INDIRECT AREA



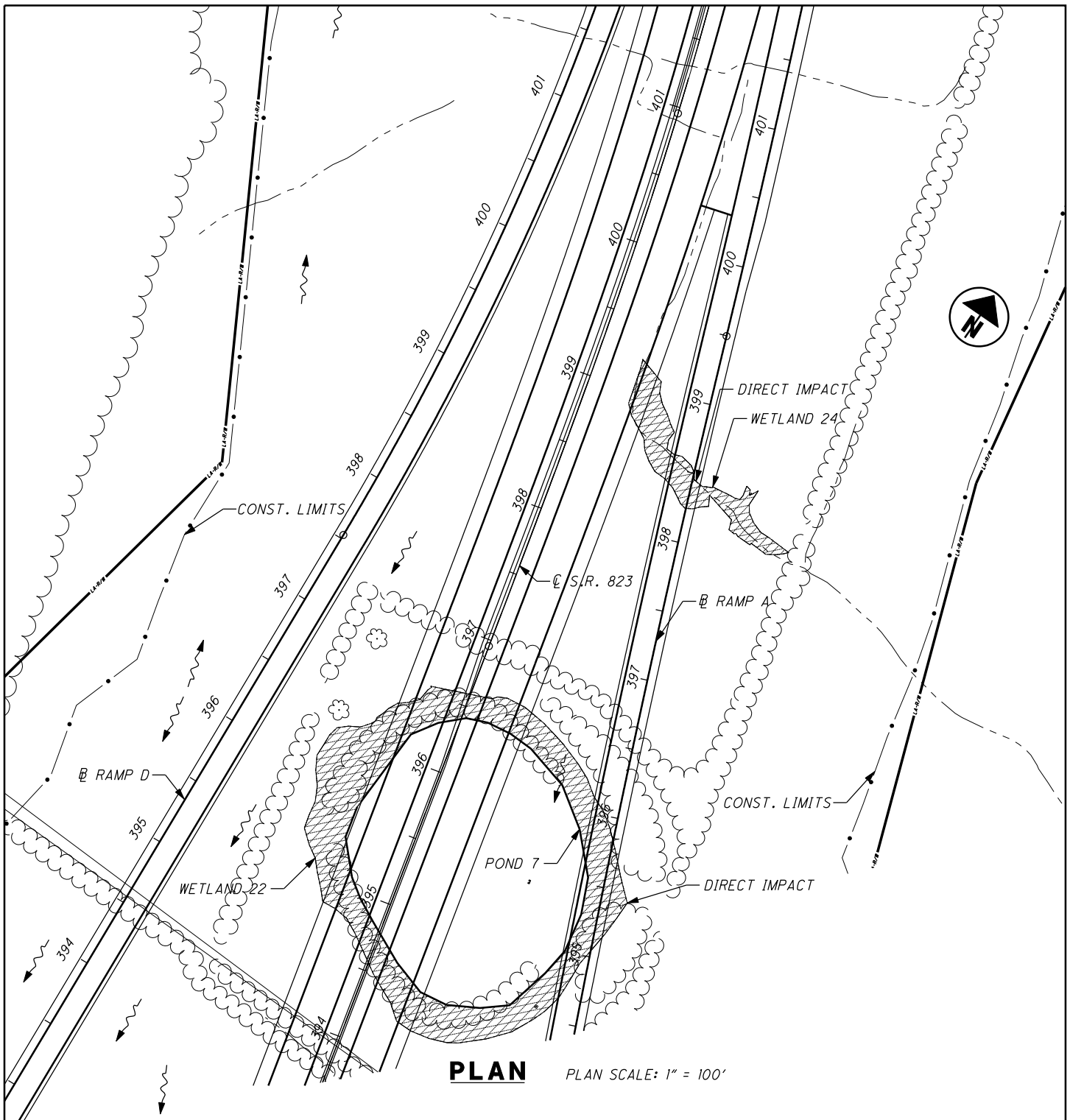
**IMPACTS AT
 WETLAND
 W9WL4**

OHIO DEPARTMENT OF TRANSPORTATION
 S.R. 823 BYPASS IN SCIOTO COUNTY

U.S. Army Corps of
 Engineers 404 Permit
 and OEPA Section 401
 Water Quality
 Certification
 Application

DATE: 09/13/2011

FIGURE 3-30




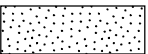
PLAN PLAN SCALE: 1" = 100'

PROPERTY OWNERS:
GERTRUDE B MCKENZIE

WETLAND 22		WETLAND 24	
LENGTH OF IMPACT:	N/A	LENGTH OF IMPACT:	N/A
DIRECT IMPACT AREA:	0.344 ACRES	DIRECT IMPACT AREA:	0.069 ACRES
FILL BELOW OHW:	555 CY	FILL BELOW OHW:	112 CY
INDIRECT IMPACT AREA:	0.00 ACRES	INDIRECT IMPACT AREA:	0.00 ACRES

LEGEND

 DIRECT AREA

 INDIRECT AREA



IMPACT AT WETLANDS 22 AND 24

U.S. Army Corps of Engineers 404 Permit and OEPA Section 401 Water Quality Certification Application

DATE: 09/13/2011

FIGURE 3-31



PLAN


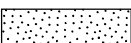
PLAN SCALE: 1" = 200'

PROPERTY OWNERS:
DARREN C AND KIMBERLY JENKINS

WETLAND 26

LENGTH OF IMPACT: N/A
 DIRECT IMPACT AREA: 0.483 ACRES
 FILL BELOW OHW: 780 CY
 INDIRECT IMPACT AREA: 0.00 ACRES

LEGEND

-  DIRECT AREA
-  INDIRECT AREA



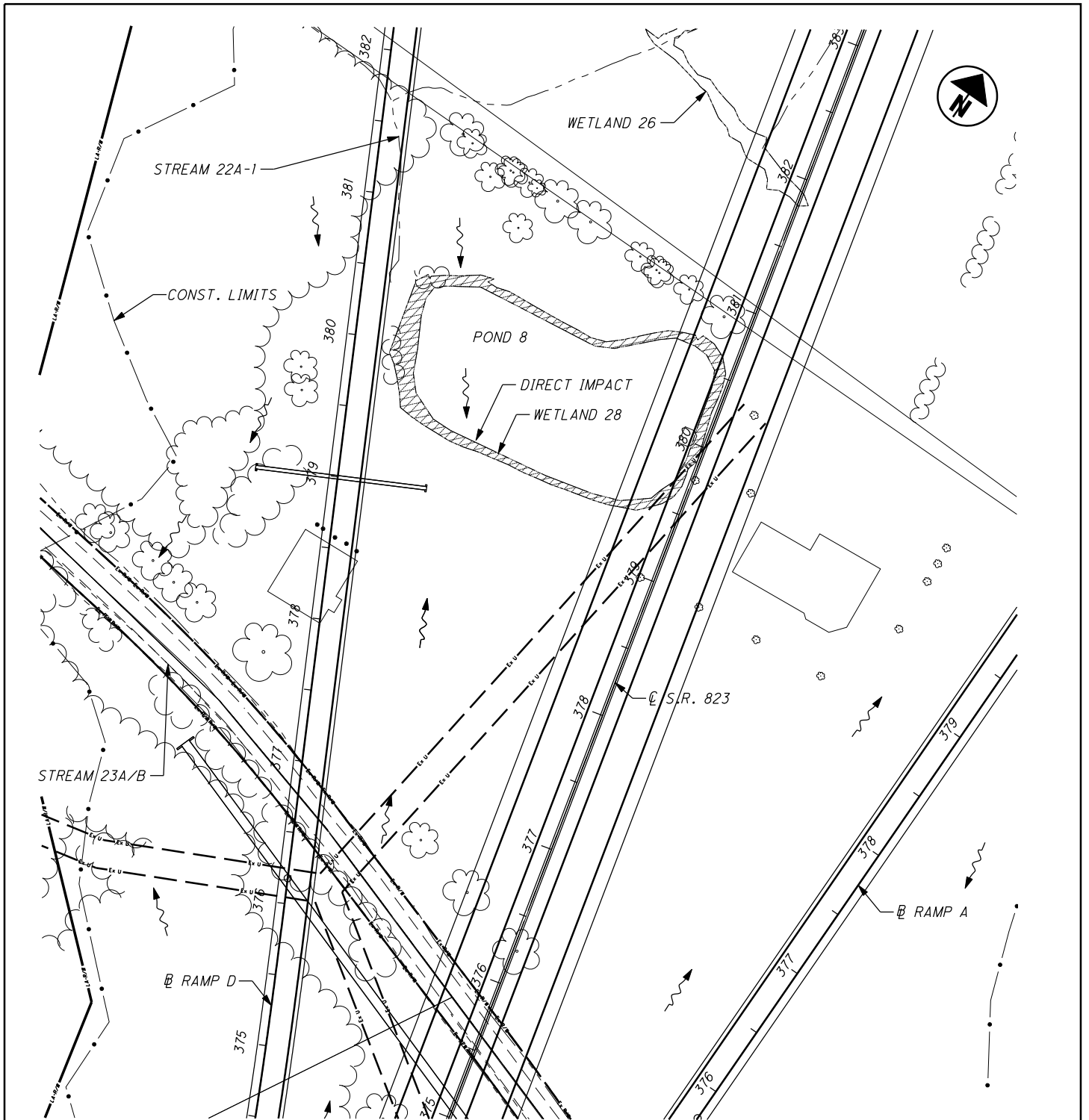
IMPACTS AT WETLAND 26

OHIO DEPARTMENT OF TRANSPORTATION
BY ROUTE 15415 SCIOTO COUNTY

U.S. Army Corps of Engineers 404 Permit and OEPA Section 401 Water Quality Certification Application

DATE: 09/13/2011

FIGURE 3-32





PLAN

PLAN SCALE: 1" = 100'

PROPERTY OWNERS:
DARREN C AND KIMBERLY JENKINS

LENGTH OF IMPACT:	N/A
DIRECT IMPACT AREA:	0.101 ACRES
FILL BELOW OHW:	162 CY
INDIRECT IMPACT AREA:	0.00 ACRES

LEGEND

-  DIRECT AREA
-  INDIRECT AREA

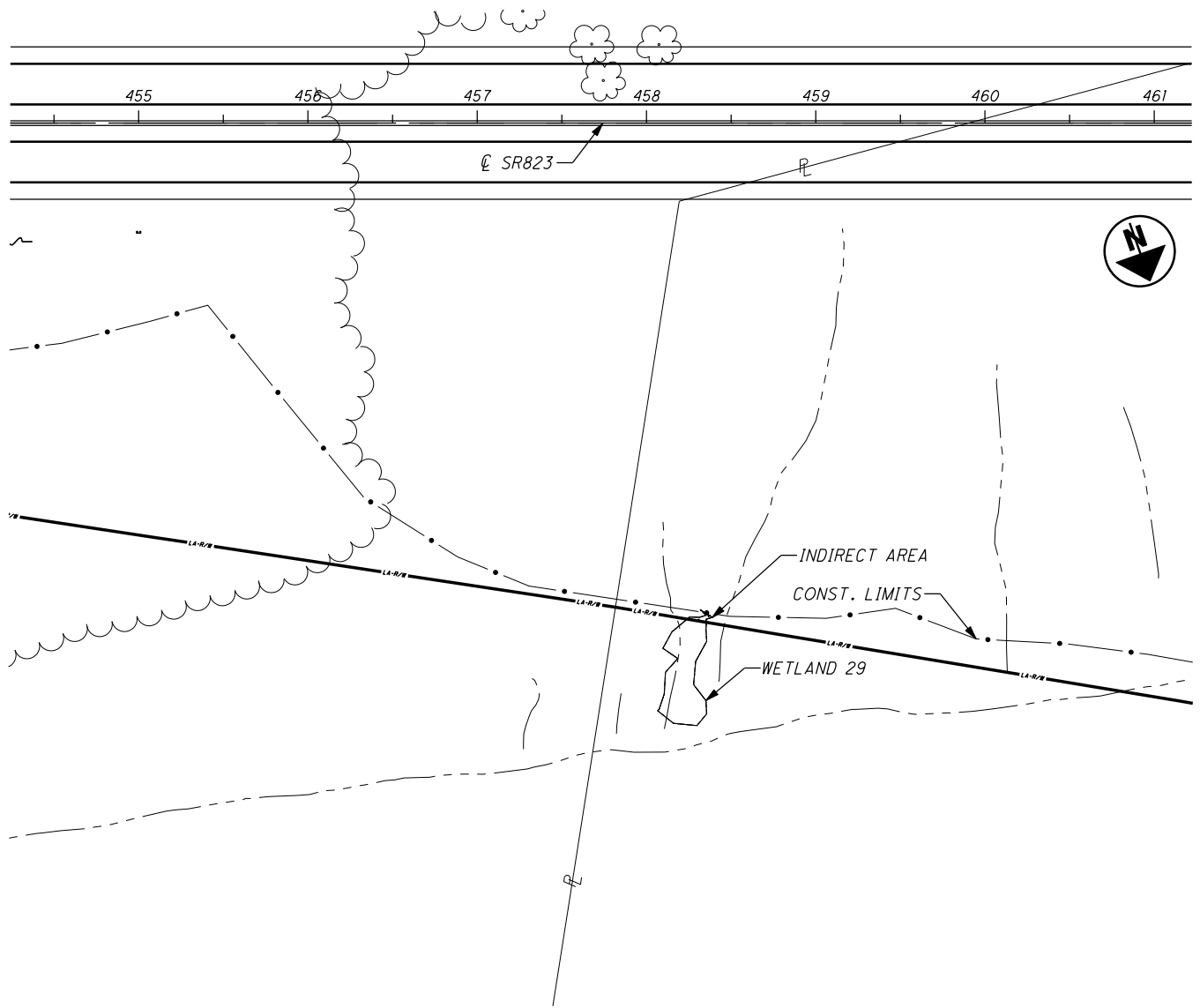


IMPACTS AT WETLAND 28

U.S. Army Corps of Engineers 404 Permit and OEPA Section 401 Water Quality Certification Application

DATE: 09/13/2011

FIGURE 3-33



PLAN

PLAN SCALE: 1" = 100'

PROPERTY OWNERS:
STATE OF OHIO
ANGELA SUE YEAGLE

LENGTH OF IMPACT: N/A
DIRECT IMPACT AREA: 0.00 ACRES
FILL BELOW OHW: 0 CY
INDIRECT IMPACT AREA: 0.001 ACRES

LEGEND



DIRECT AREA



INDIRECT AREA



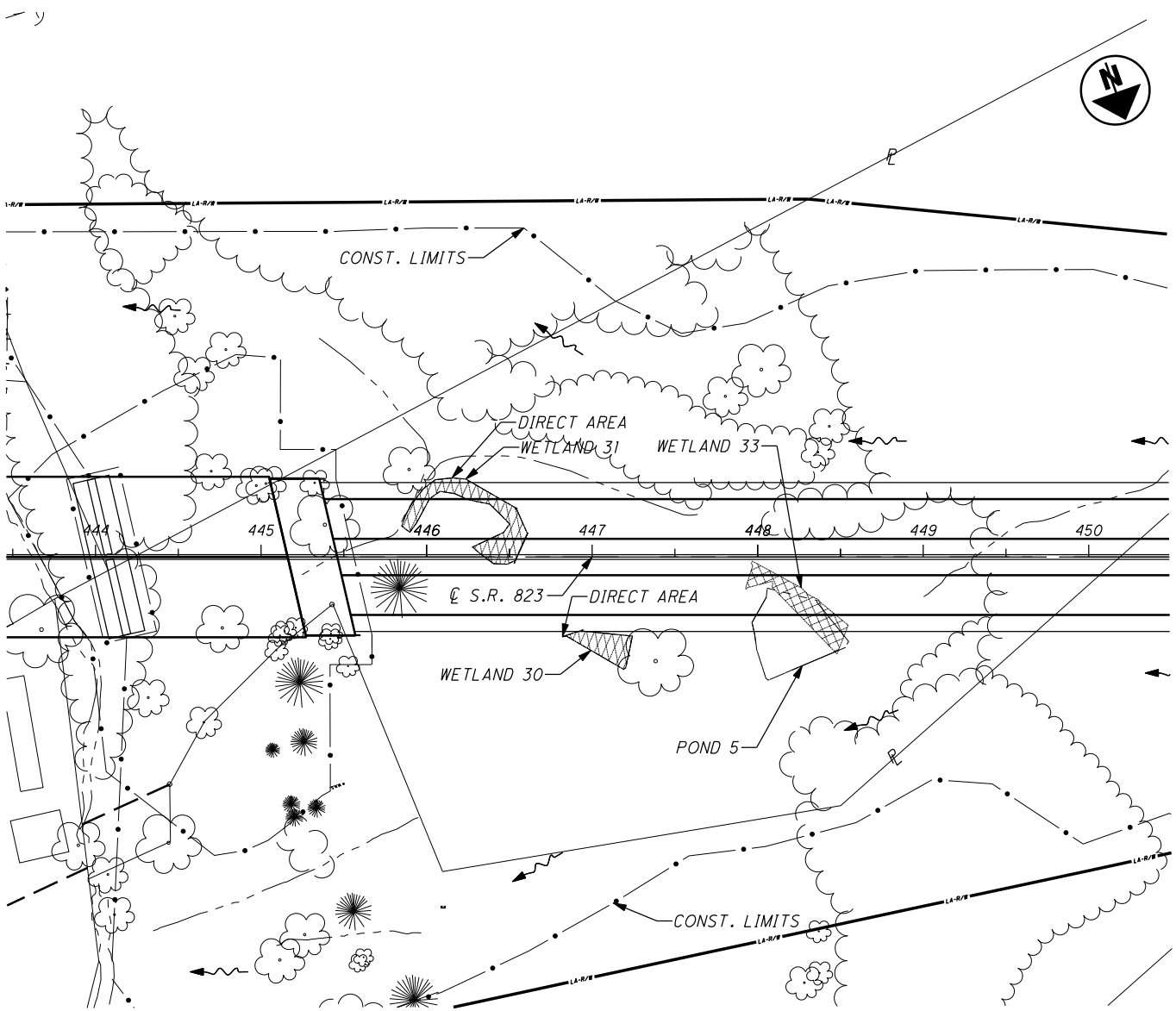
**IMPACTS AT
WETLAND 29**

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 823 BYPASS IN SCIOTO COUNTY

U.S. Army Corps of
Engineers 404 Permit
and OEPA Section 401
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Certification
Application

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FIGURE 3-34

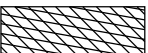



PLAN

PLAN SCALE: 1" = 100'

PROPERTY OWNERS:
STATE OF OHIO
ANGELA SUE YEAGLE

LEGEND

	DIRECT AREA
	INDIRECT AREA

WETLAND 30		WETLAND 31		WETLAND 33	
LENGTH OF IMPACT:	N/A	LENGTH OF IMPACT:	N/A	LENGTH OF IMPACT:	N/A
DIRECT IMPACT AREA:	0.011 ACRES	DIRECT IMPACT AREA:	0.027 ACRES	DIRECT IMPACT AREA:	0.021 ACRES
FILL BELOW OHW:	18 CY	FILL BELOW OHW:	44 CY	FILL BELOW OHW:	34 CY
INDIRECT IMPACT AREA:	0.00 ACRES	INDIRECT IMPACT AREA:	0.00 ACRES	INDIRECT IMPACT AREA:	0.00 ACRES



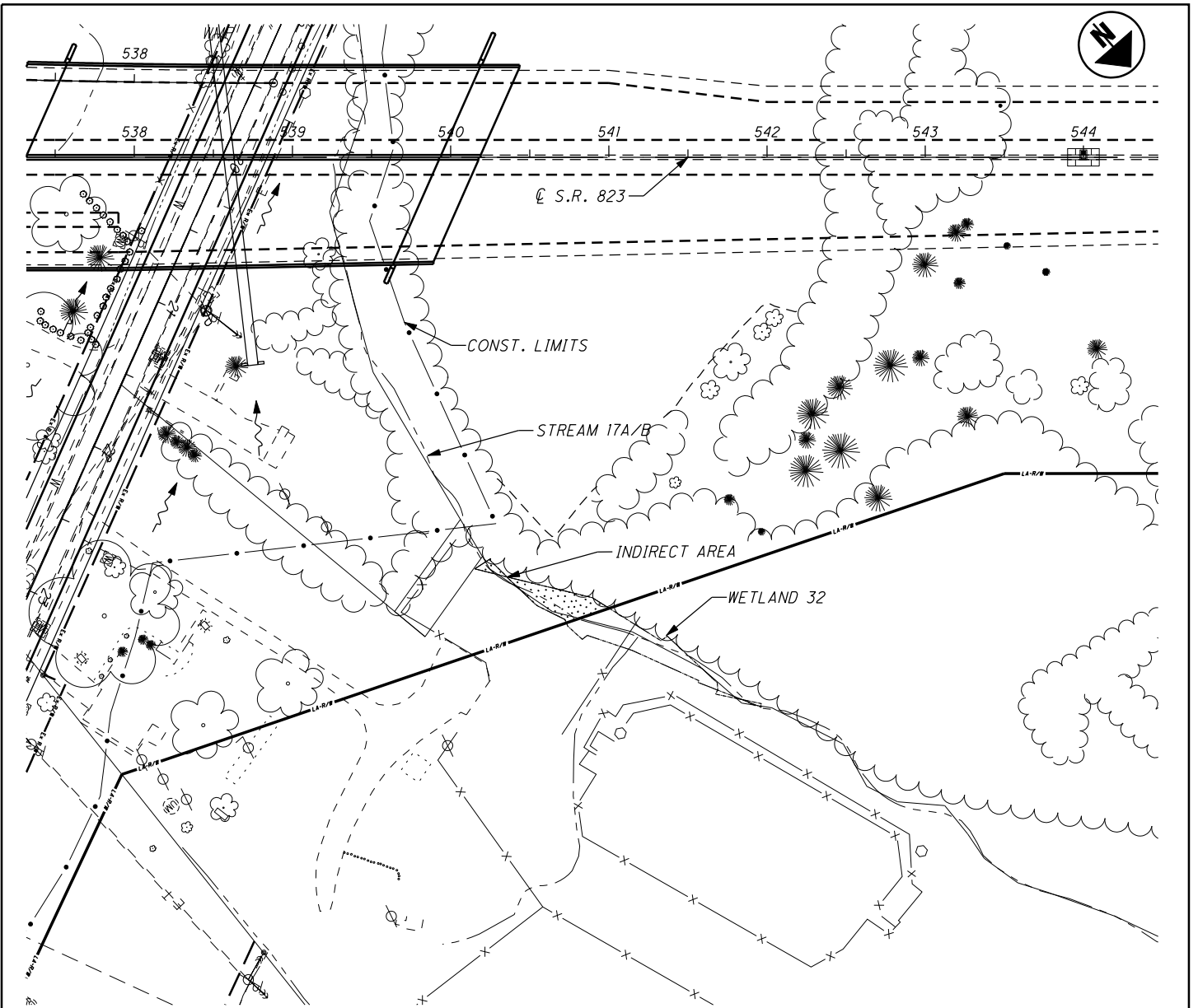
**IMPACTS AT
WETLANDS
WETLAND 30,
31, AND 33**

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 823 BYPASS IN SCIOTO COUNTY

U.S. Army Corps of
Engineers 404 Permit
and OEPA Section 401
Water Quality
Certification
Application

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FIGURE 3-35



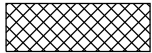
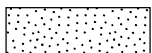
PLAN

PLAN SCALE: 1" = 100'

PROPERTY OWNERS:
STATE OF OHIO

LENGTH OF IMPACT: N/A
 DIRECT IMPACT AREA: 0.00 ACRES
 FILL BELOW OHW: 0 CY
 INDIRECT IMPACT AREA: 0.019 ACRES

LEGEND

	DIRECT AREA
	INDIRECT AREA



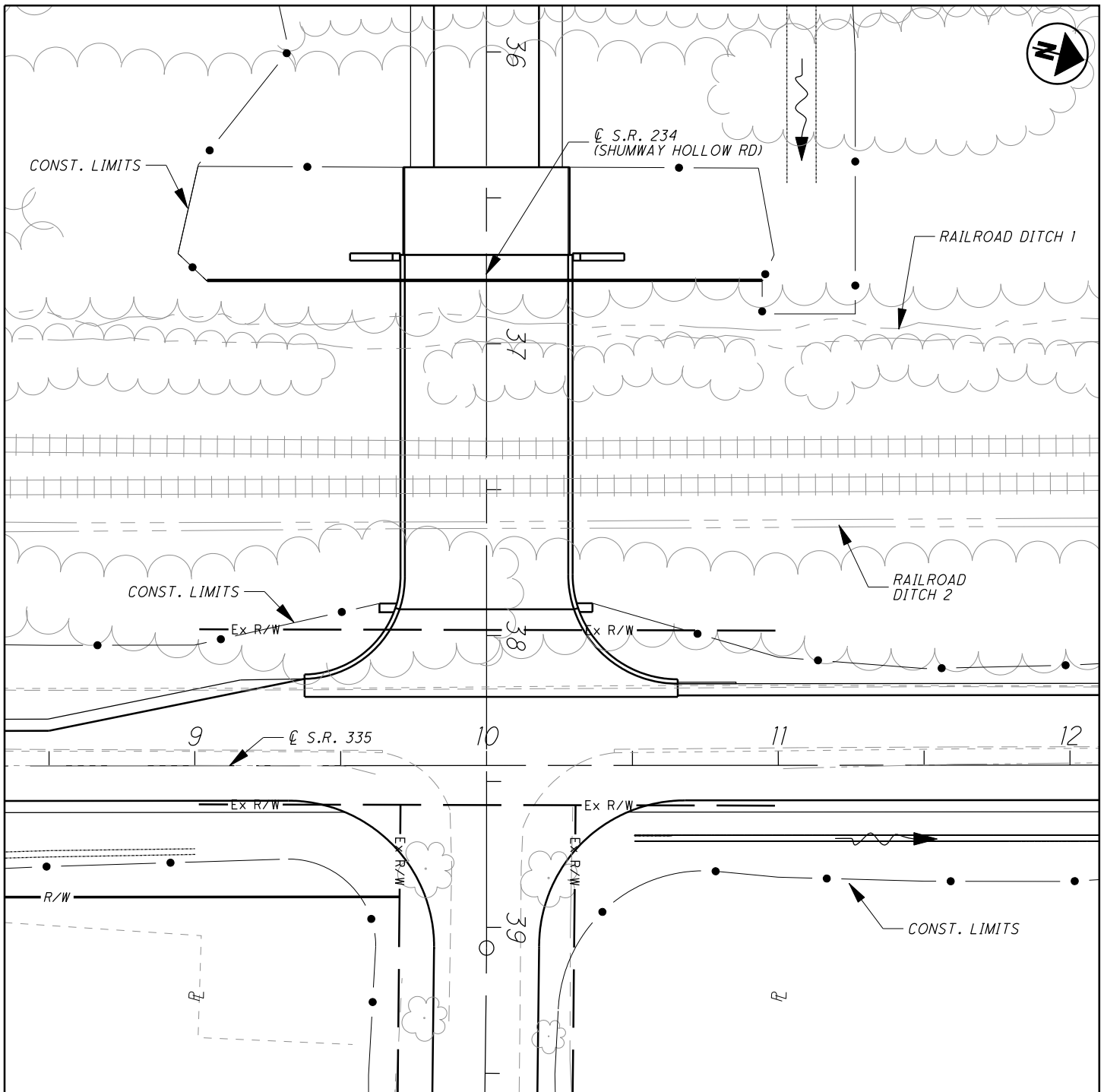
IMPACTS AT WETLAND 32

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 823 BYPASS IN SCIOTO COUNTY

U.S. Army Corps of Engineers 404 Permit and OEPA Section 401 Water Quality Certification Application

DATE: 09/13/2011

FIGURE 3-36



PLAN

PROPERTY OWNERS:	
CSX TRANSPORTATION	
LENGTH OF IMPACT:	0.0 LF
AREA EXCAVATED OR FILLED:	0.00 ACRES
EXCAVATION BELOW OHW:	0.0 CY
FILL BELOW OHW:	0.0 CY

PLAN SCALE: 1" = 50'



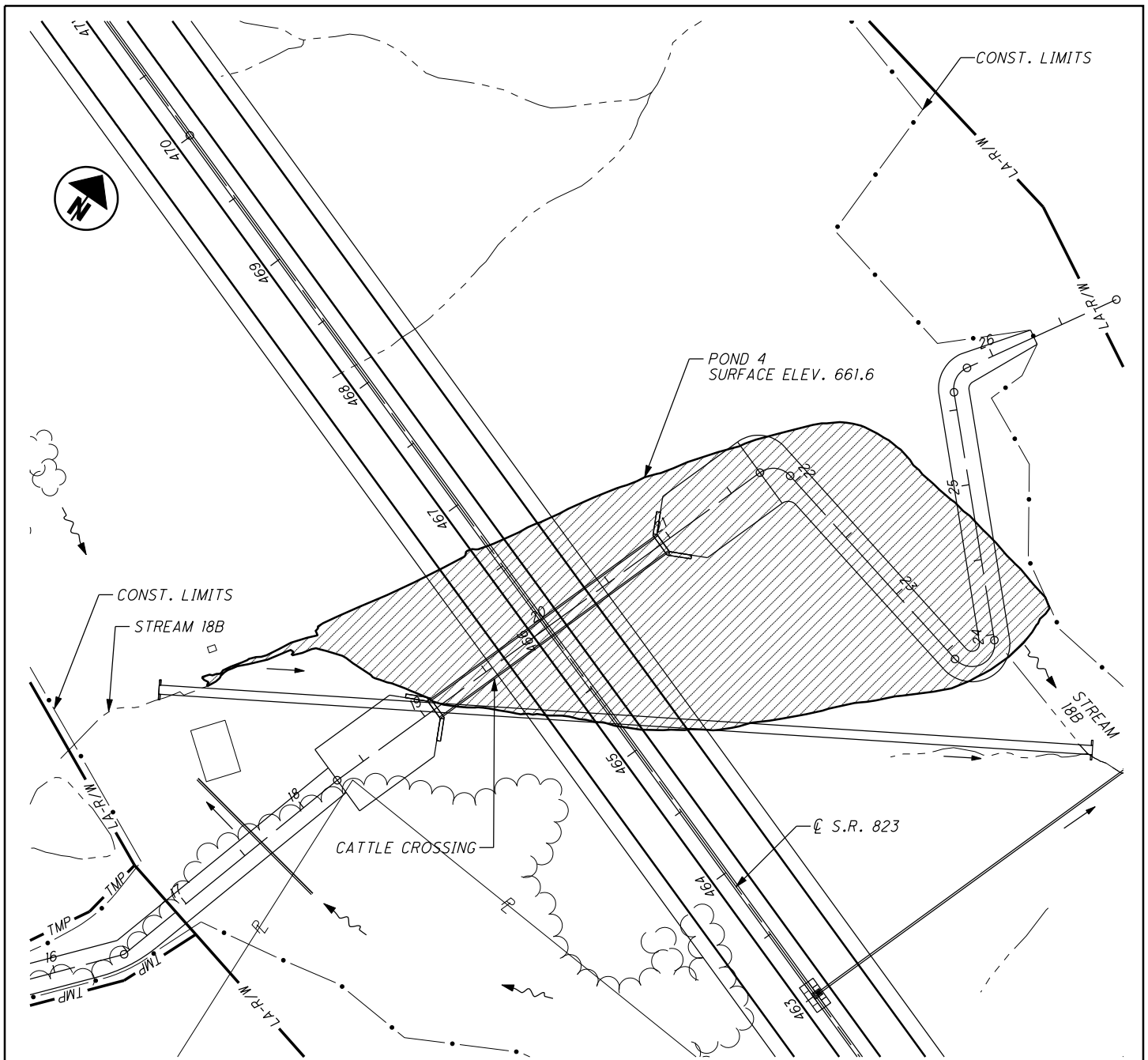
**IMPACTS AT
RR DITCHES
1 AND 2**

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 823 BYPASS IN SCIOTO COUNTY

U.S. Army Corps of Engineers 404 Permit and OEPA Section 401 Water Quality Certification Application

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FIGURE 3-37



PLAN

PROPERTY OWNERS:
KENNETH R RASE

LENGTH OF IMPACT: N/A
 AREA FILLED: 1.418 ACRES
 FILL BELOW OHW: 13,726 CY

LEGEND
 FILLED AREA

PLAN SCALE: 1" = 100'



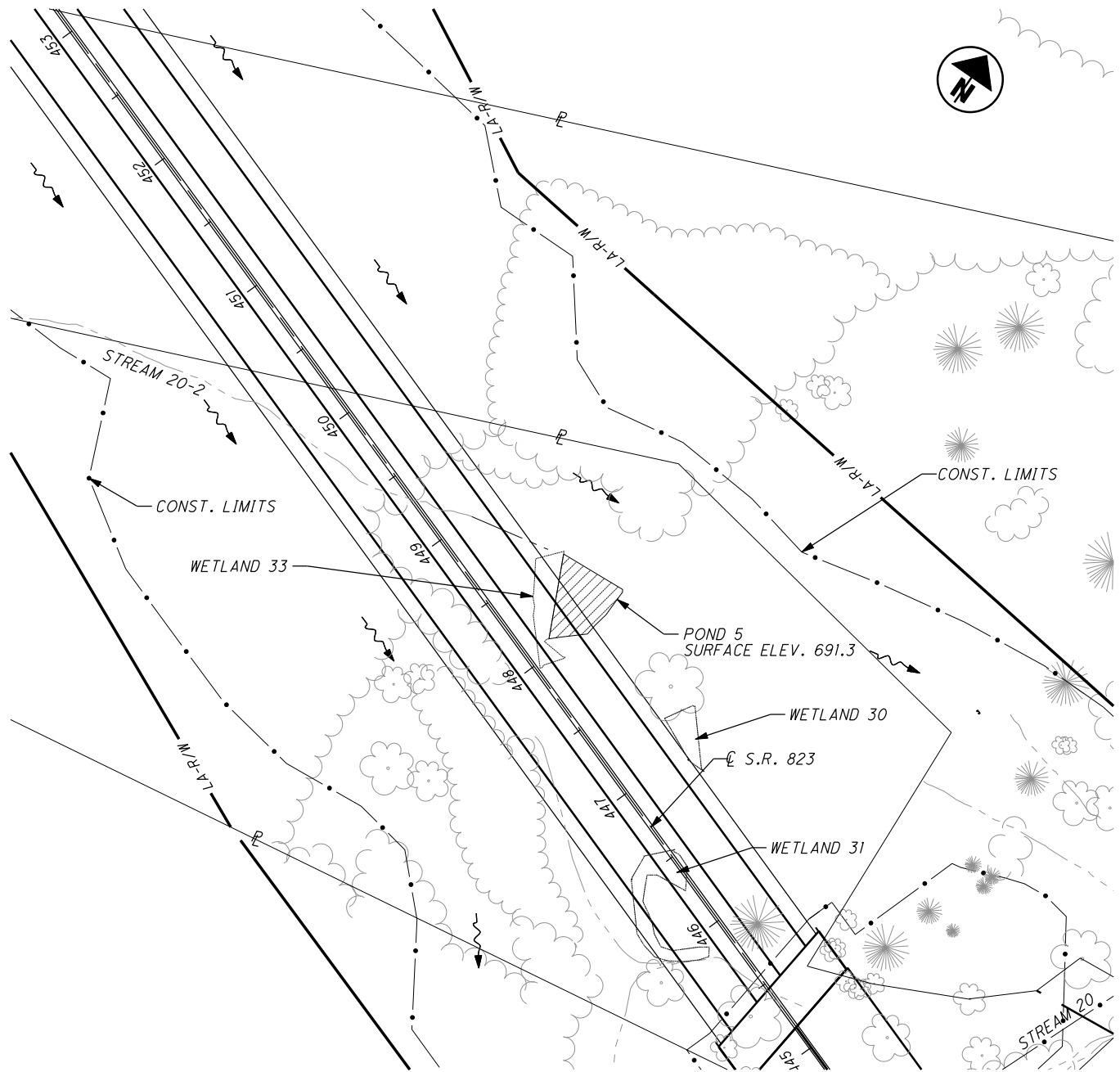
IMPACTS AT POND 4

OHIO DEPARTMENT OF TRANSPORTATION
 S.R. 823 BYPASS IN SCIOTO COUNTY

U.S. Army Corps of Engineers 404 Permit and OEPA Section 401 Water Quality Certification Application

DATE: 09/13/2011

FIGURE 3-38



PLAN

PROPERTY OWNERS:
STATE OF OHIO

LENGTH OF IMPACT: N/A
 AREA FILLED: 0.034 ACRES
 FILL BELOW OHW: 329 CY

LEGEND
 FILLED AREA

PLAN SCALE: 1" = 100'



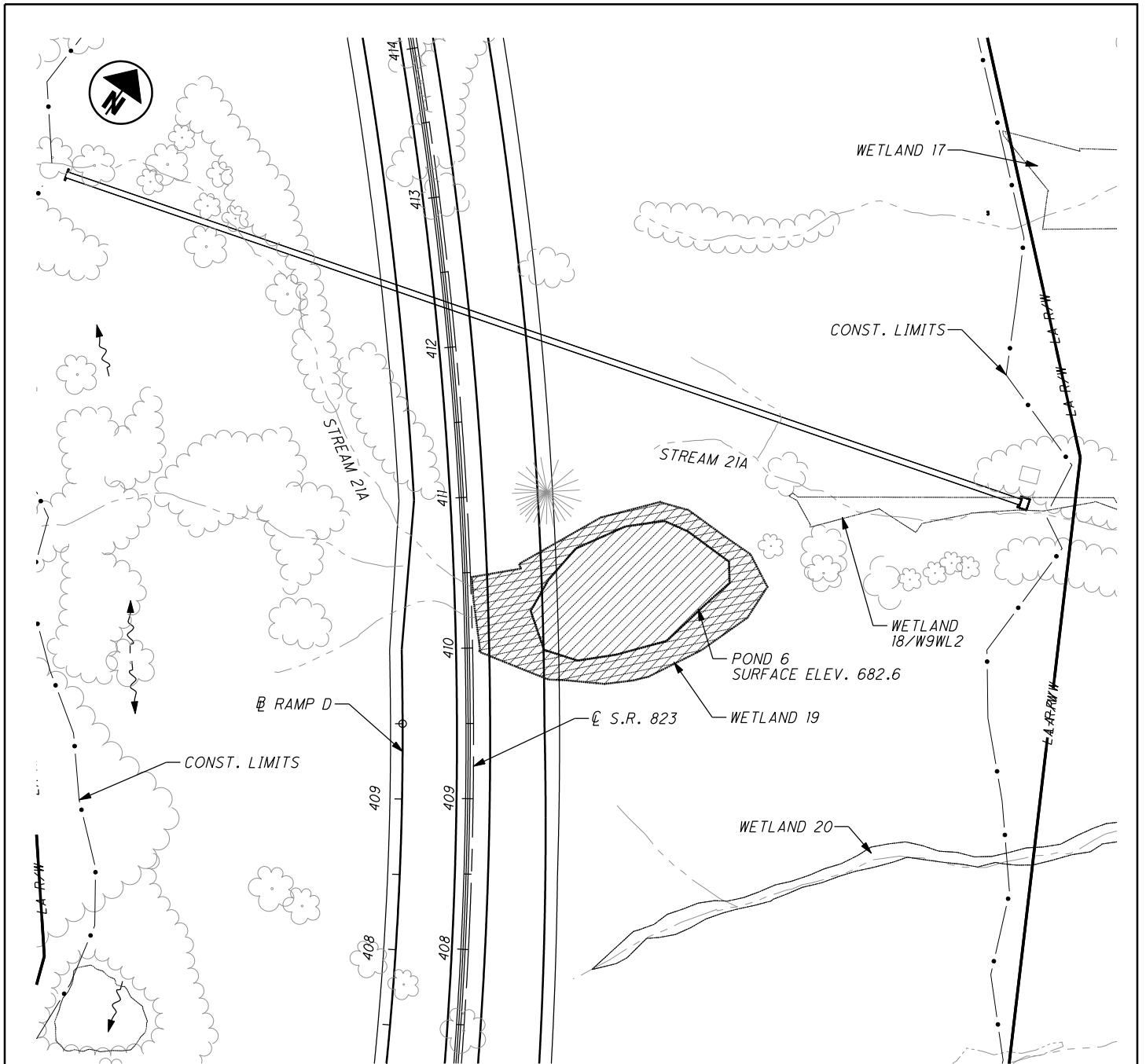
**IMPACTS AT
POND 5**

OHIO DEPARTMENT OF TRANSPORTATION
 S.R. 823 BYPASS IN SCIOTO COUNTY

U.S. Army Corps of
 Engineers 404 Permit
 and OEPA Section 401
 Water Quality
 Certification
 Application

DATE: 09/13/2011

FIGURE 3-39



PLAN

PROPERTY OWNERS:
DARREN C AND KIMBERLY JENKINS

LENGTH OF IMPACT: N/A
 AREA FILLED: 0.189 ACRES
 FILL BELOW OHW: 1,830 CY

LEGEND
 FILLED AREA

PLAN SCALE: 1" = 100'



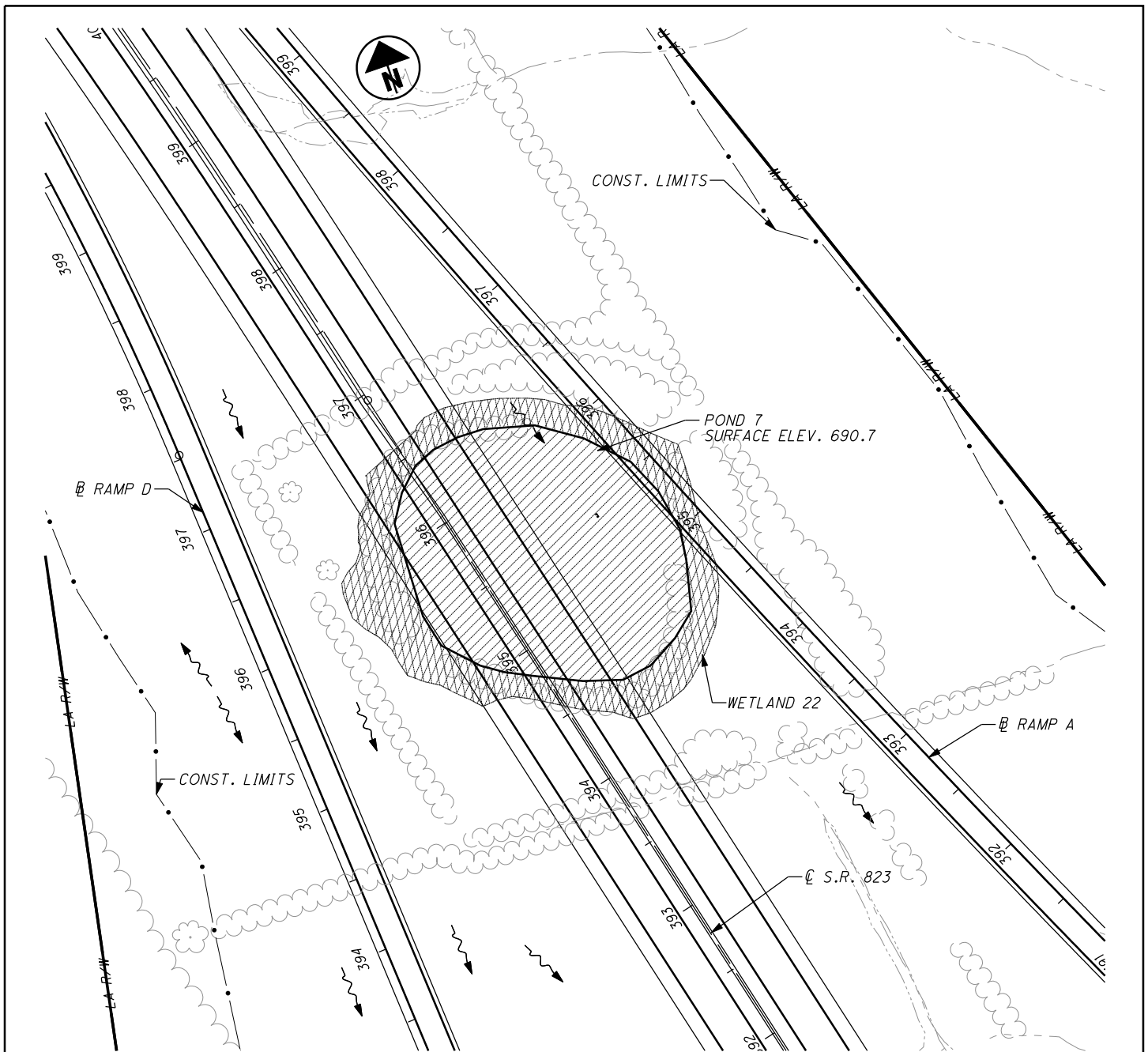
**IMPACTS AT
POND 6**

OHIO DEPARTMENT OF TRANSPORTATION
 S.R. 823 BYPASS IN SCIOTO COUNTY

U.S. Army Corps of Engineers 404 Permit and OEPA Section 401 Water Quality Certification Application

DATE: 09/13/2011

FIGURE 3-40



PLAN

PROPERTY OWNERS:
 MCKENZIE GERTRUDE B TRUSTEE
 GERTRUDE B MCKENZIE REVOCABLE TRUST

LENGTH OF IMPACT:	N/A
AREA EXCAVATED OR FILLED:	0.592 ACRES
FILL BELOW OHW:	5,731 CY

LEGEND
 FILLED AREA

PLAN SCALE: 1" = 100'



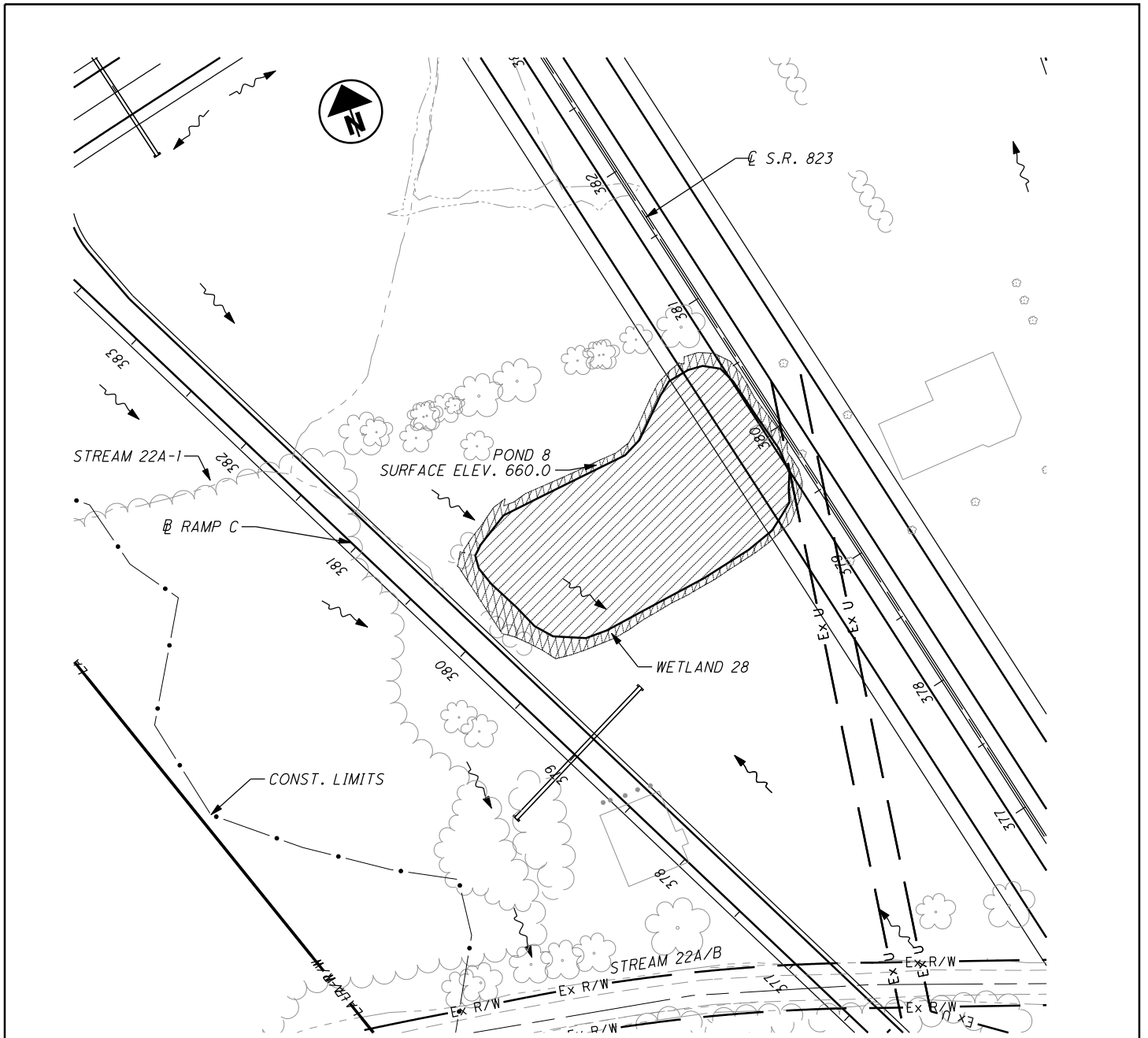
**IMPACTS AT
 POND 7**

OHIO DEPARTMENT OF TRANSPORTATION
 S.R. 823 BYPASS IN SCIOTO COUNTY

U.S. Army Corps of
 Engineers 404 Permit
 and OEPA Section 401
 Water Quality
 Certification
 Application

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FIGURE 3-41



PLAN

PROPERTY OWNERS:
ROBERT R AND ROBIN BOUTS J/S

LENGTH OF IMPACT: N/A
 AREA EXCAVATED OR FILLED: 0.467 ACRES
 FILL BELOW OHW: 4,521 CY

LEGEND
 FILLED AREA

PLAN SCALE: 1" = 100'



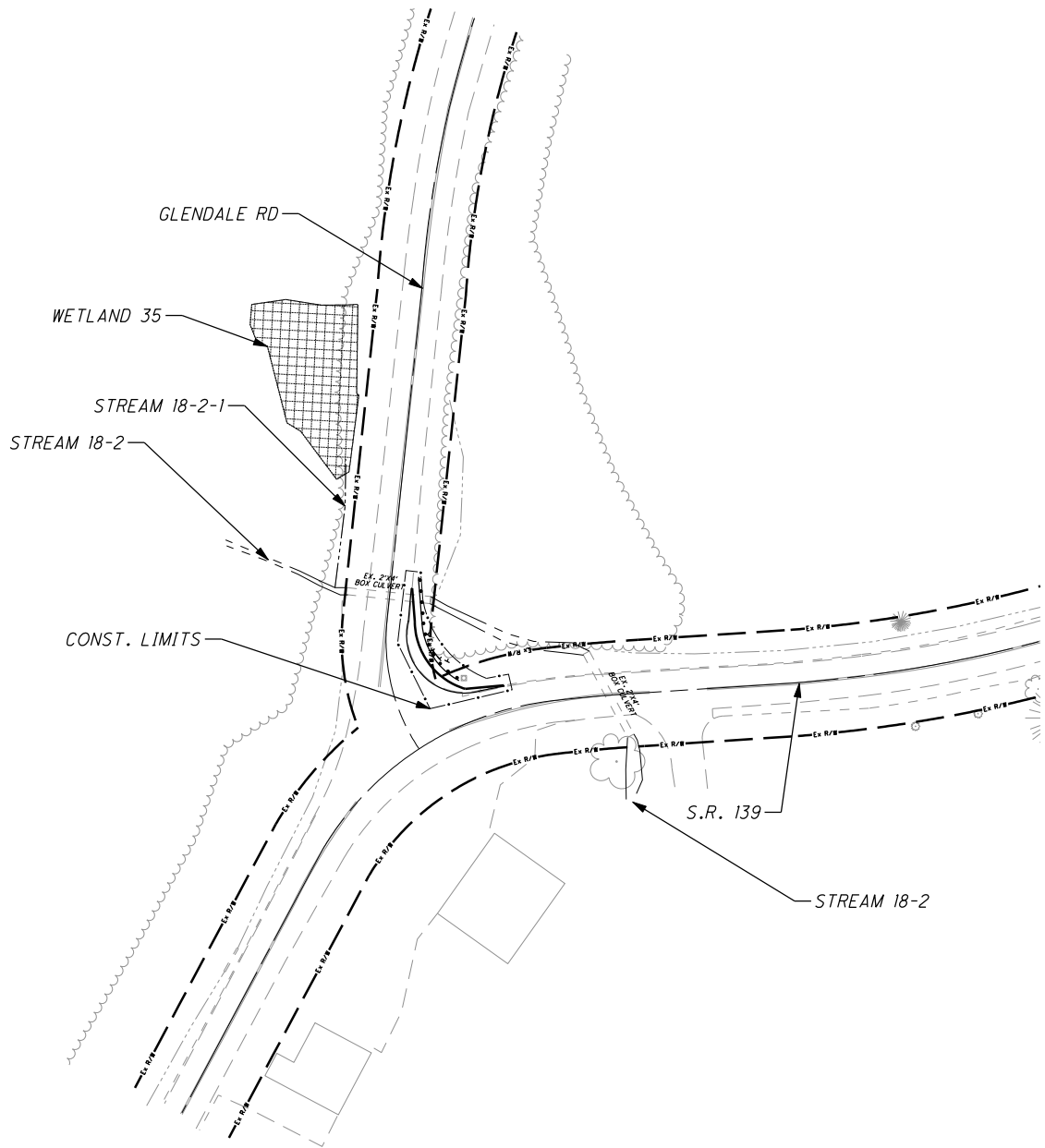
**IMPACTS AT
POND 8**

OHIO DEPARTMENT OF TRANSPORTATION
 S.R. 823 BYPASS IN SCIOTO COUNTY

U.S. Army Corps of
 Engineers 404 Permit
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 Application

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FIGURE 3-42



PLAN

 STREAM IMPACT LENGTH
 OHWM
 PLAN SCALE: 1" = 100'
 CROSS SECTION: 1" = 20'



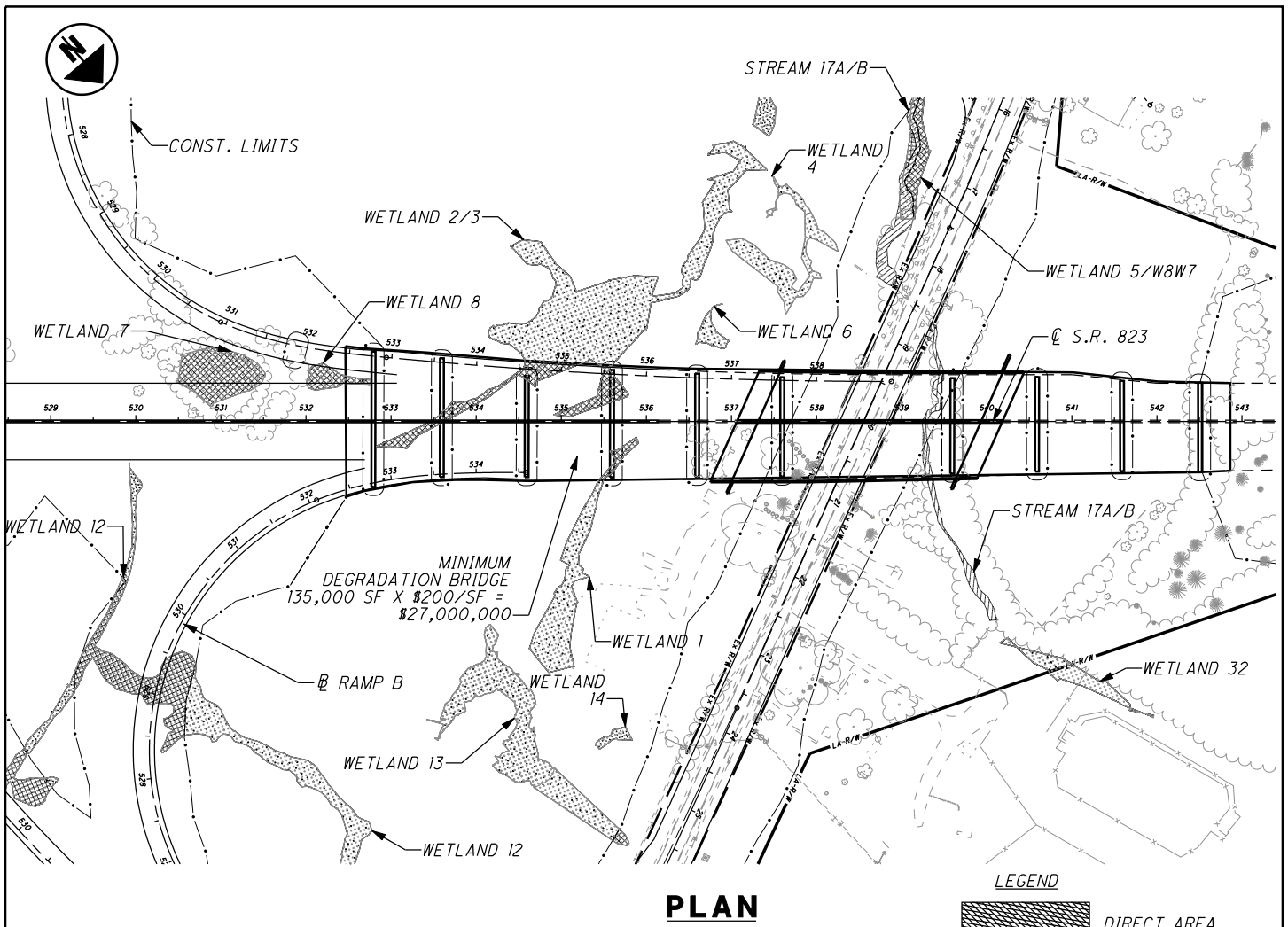
**NO IMPACTS AT
STREAM 18-2 AND 18-2-1
WETLAND 35**

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FIGURE 3-43



PLAN

LEGEND

- DIRECT AREA
- WETLAND WITHIN ROW

PROPERTY OWNERS:
STATE OF OHIO

PLAN SCALE: 1" = 200'

WETLAND 1

LENGTH OF IMPACT: N/A
DIRECT IMPACT AREA: 0.011 ACRES
WETLAND AREA WITHIN ROW: 0.129 ACRES

WETLAND 2/3

LENGTH OF IMPACT: N/A
DIRECT IMPACT AREA: 0.092 ACRES
WETLAND AREA WITHIN ROW: 0.425 ACRES

WETLAND 4

LENGTH OF IMPACT: N/A
DIRECT IMPACT AREA: 0.002 ACRES
WETLAND AREA WITHIN ROW: 0.087 ACRES

WETLAND 6

LENGTH OF IMPACT: N/A
DIRECT IMPACT AREA: 0.0 ACRES
WETLAND AREA WITHIN ROW: 0.016 ACRES

WETLAND 13

LENGTH OF IMPACT: N/A
DIRECT IMPACT AREA: 0.005 ACRES
WETLAND AREA WITHIN ROW: 0.228 ACRES

WETLAND 14

LENGTH OF IMPACT: N/A
DIRECT IMPACT AREA: 0.000 ACRES
WETLAND AREA WITHIN ROW: 0.010 ACRES



**MINIMUM DEGRADATION
WETLAND
1, 2/3, 4,
6, 13 AND 14**

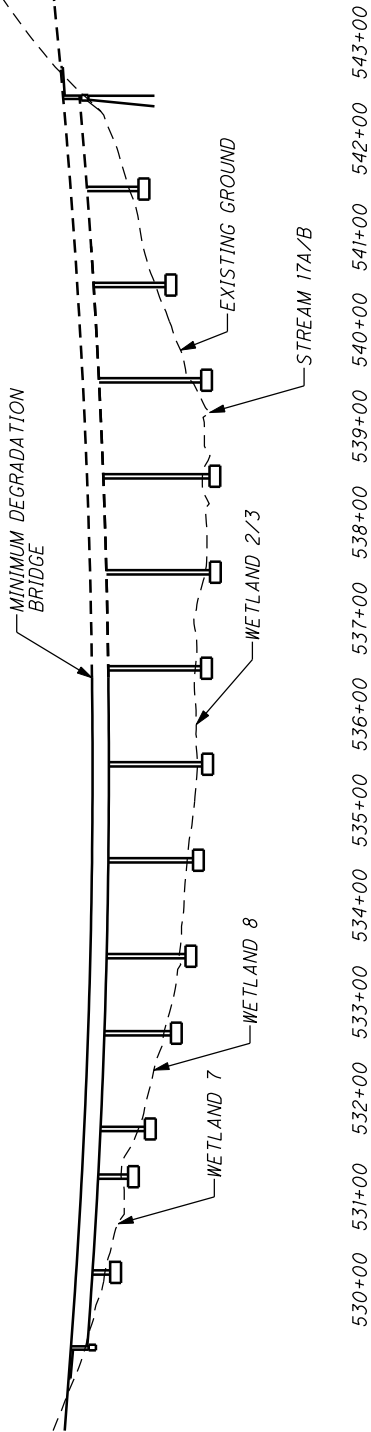
OHIO DEPARTMENT OF TRANSPORTATION
S.R. 823 BYPASS IN SCIOTO COUNTY

U.S. Army Corps of
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Water Quality
Certification
Application

DATE: 09/13/2011

FIGURE 4-1

855
845
835
825
815
805
795
785
775
765
755
745
735
725
715
705
695
685
675
665
655



PROFILE

S.R.823 PROFILE

PLAN SCALE: 1" = 200'



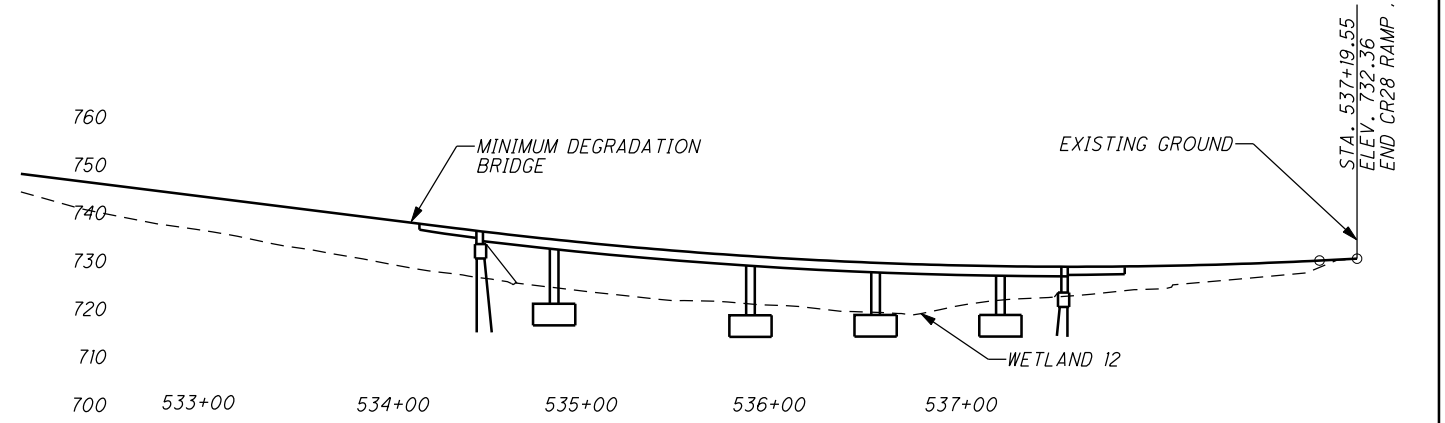
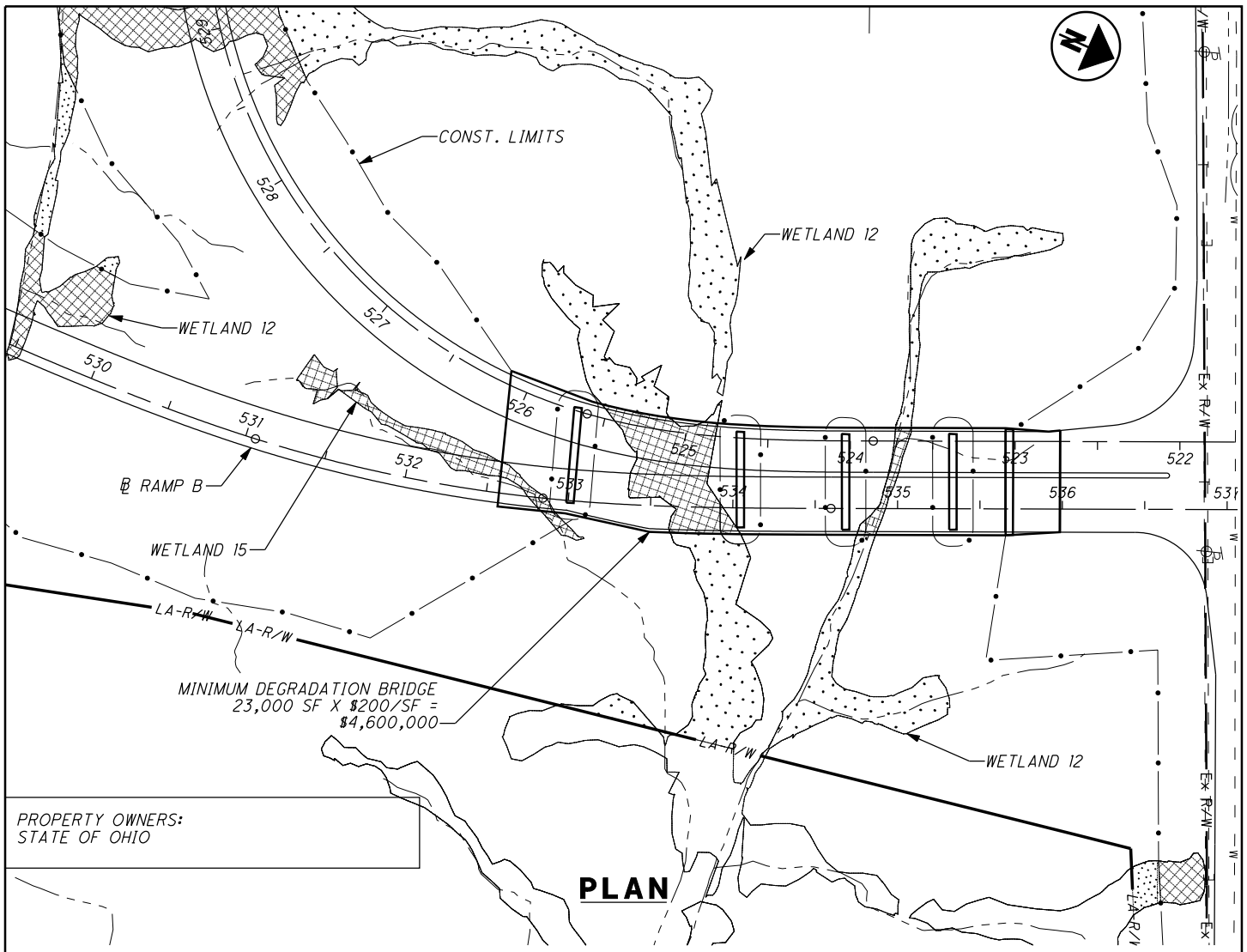
**MINIMUM DEGRADATION
WETLAND
1, 2/3, 4,
6, 13 AND 14**

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S.R. 823 BYPASS IN SCIOTO COUNTY

U.S. Army Corps of
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FIGURE 4-1A



PROFILE CR 28 RAMP A/B

WETLAND 12

LENGTH OF IMPACT:	N/A
DIRECT IMPACT AREA:	0.246 ACRES
WETLAND AREA WITHIN ROW	0.559 ACRES

PLAN SCALE: 1" = 100'

LEGEND

	DIRECT AREA
	AREA WITHIN ROW



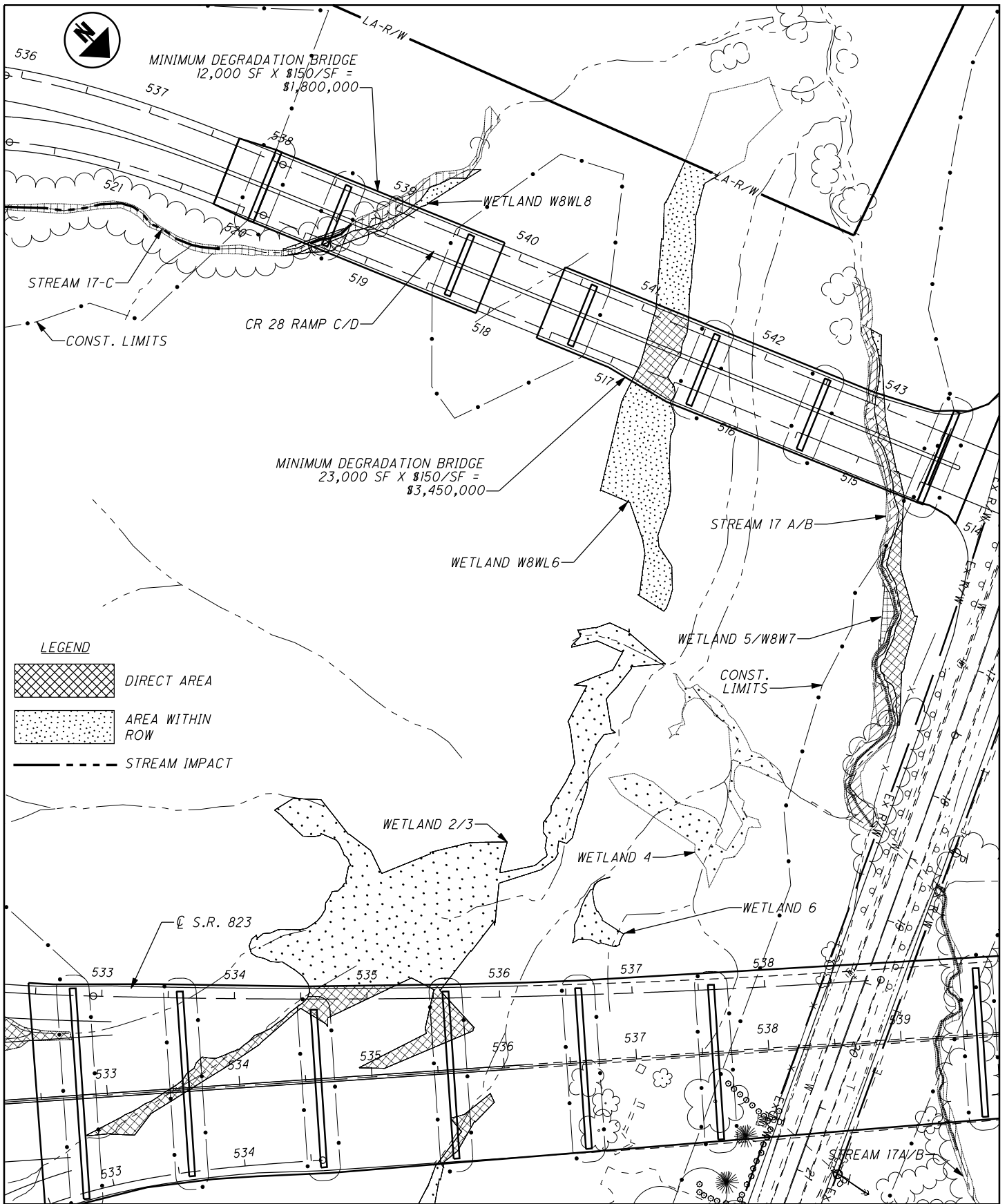
**MINIMUM DEGRADATION
WETLAND 12**

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 823 BYPASS IN SCIOTO COUNTY

U.S. Army Corps of Engineers 404 Permit and OEPA Section 401 Water Quality Certification Application

DATE: 09/13/2011

FIGURE 4-2



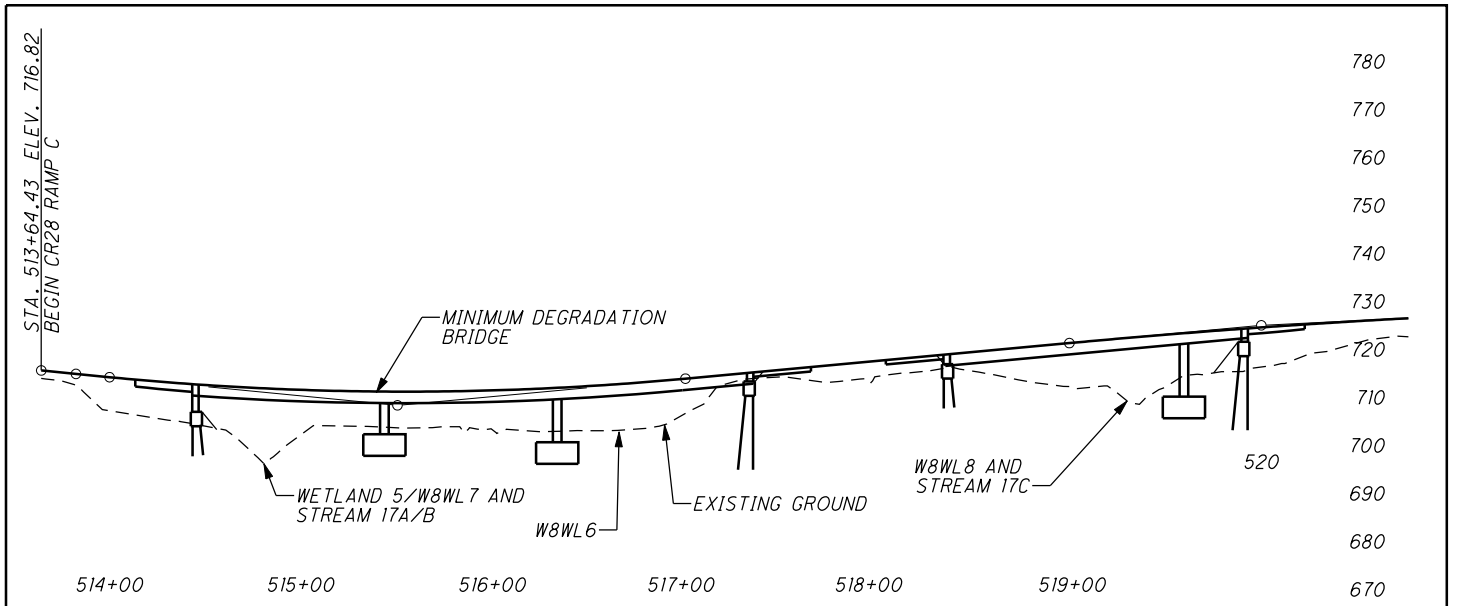
**MINIMUM DEGRADATION
STREAM 17 A/B AND 17C
WETLAND 5/W8WL7
WETLAND W8WL6
AND WETLAND W8WL8**

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 823 BYPASS IN SCIOTO COUNTY

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FIGURE 4-3



RAMP D AND C PROFILE

STREAM 17A/B

STREAM 17C

LENGTH OF IMPACT:	460 LF	LENGTH OF IMPACT:	743 LF
AREA OF IMPACT	0.062 ACRES	AREA OF IMPACT	0.057 ACRES
FILL BELOW OHW:	95 CY	FILL BELOW OHW:	44 CY
EXCAVATION BELOW OHW:	11 CY	EXCAVATION BELOW OHW:	5 CY

WETLAND W8WL6

WETLAND W8WL8

WETLAND 5/ W8WL7

LENGTH OF IMPACT:	N/A	LENGTH OF IMPACT:	N/A	LENGTH OF IMPACT:	N/A
DIRECT IMPACT AREA:	0.040 ACRES	DIRECT IMPACT AREA:	0.010 ACRES	DIRECT IMPACT AREA:	0.051 ACRES
WETLAND AREA WITHIN ROW	0.181 ACRES	WETLAND AREA WITHIN ROW	0.010 ACRES	WETLAND AREA WITHIN ROW	0.004 ACRES



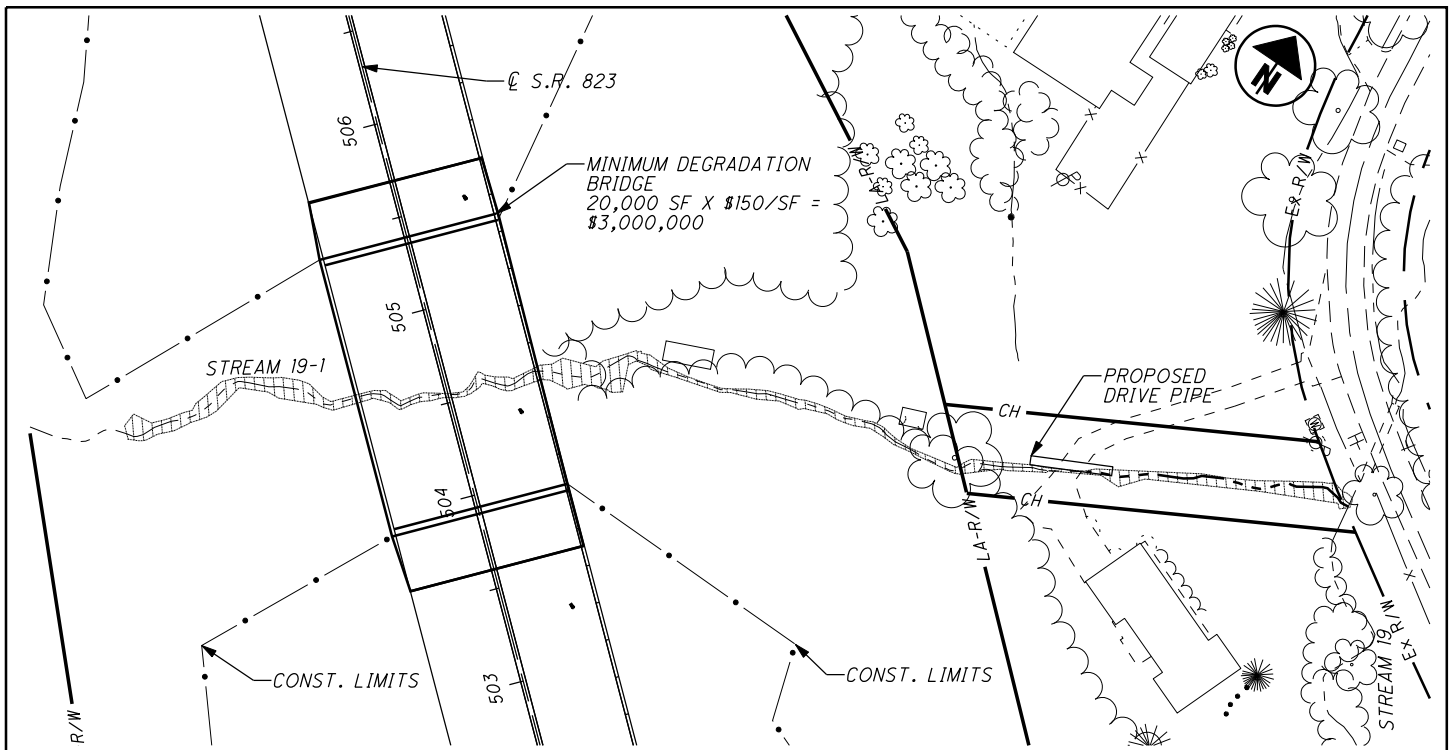
**MINIMUM DEGRADATION
STREAM 17 A/B AND 17C
WETLAND 5/ W8WL7
WETLAND W8WL6
AND WETLAND W8WL8**

OHIO DEPARTMENT OF TRANSPORTATION
S. R. 823 BYPASS IN SCIOTO COUNTY

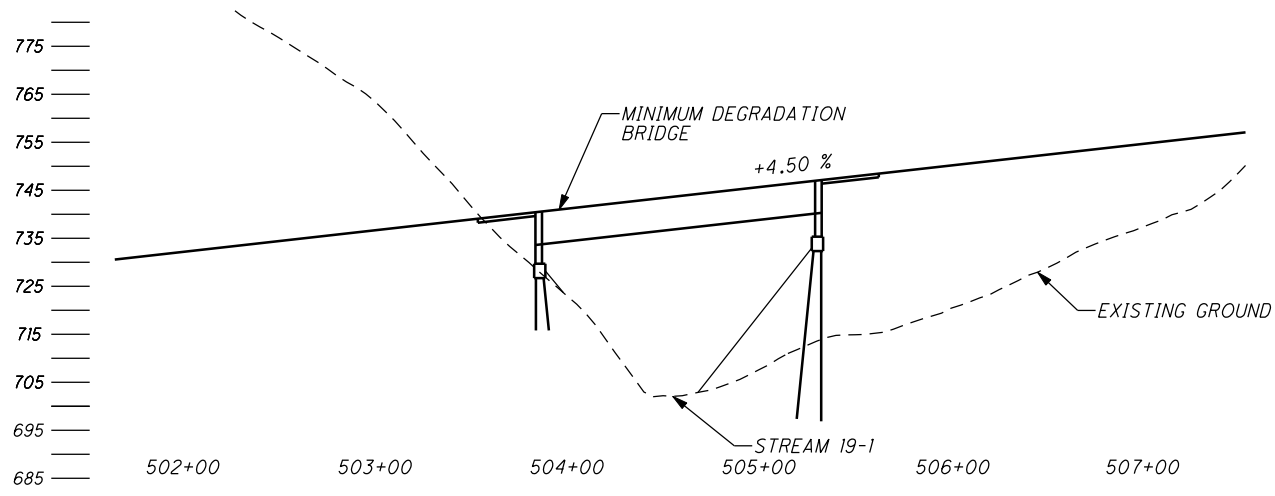
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and OEPA Section 401
Water Quality
Certification
Application

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FIGURE 4-3A



PLAN



PROFILE

LEGEND

- STREAM IMPACT LENGTH
- ▨ OHWM

LENGTH OF IMPACT:	143 LF
AREA EXCAVATED OR FILLED:	0.020 ACRES
EXCAVATION BELOW OHW:	32 CY
FILL BELOW OHW:	17 CY

PROPERTY OWNERS:
 JOSEPH AND CRYSTAL PRESTON J/S
 JOSEPH D AND BETH A WEEKLY J/S

PLAN SCALE: 1" = 100'
 PROFILE: 1" = 100'



**MINIMUM DEGRADATION
 STREAM 19-1**

OHIO DEPARTMENT OF TRANSPORTATION
 S.R. 823 BYPASS IN SCIOTO COUNTY

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FIGURE 4-4



WETLAND 17

LENGTH OF IMPACT:	N/A
DIRECT IMPACT AREA:	0.0 ACRES
WETLAND AREA WITHIN ROW:	0.001 ACRES

WETLAND 18/ W9WL2

LENGTH OF IMPACT:	N/A
DIRECT IMPACT AREA:	0.0 ACRES
WETLAND AREA WITHIN ROW:	0.038 ACRES

STREAM 21A

LENGTH OF IMPACT:	24 LF
AREA OF IMPACT:	0.004 ACRES
FILL BELOW OHW:	2 CY
EXCAVATION BELOW OHW:	4 CY

WETLAND 19

LENGTH OF IMPACT:	N/A
DIRECT IMPACT AREA:	0.072 ACRES
WETLAND AREA WITHIN ROW:	0.108 ACRES

WETLAND 20

LENGTH OF IMPACT:	N/A
DIRECT IMPACT AREA:	0.0 ACRES
WETLAND AREA WITHIN ROW:	0.062 ACRES

POND 6

LENGTH OF IMPACT:	N/A
DIRECT IMPACT AREA:	0.0 ACRES
FILL BELOW OHW:	0 CY

STREAM 21

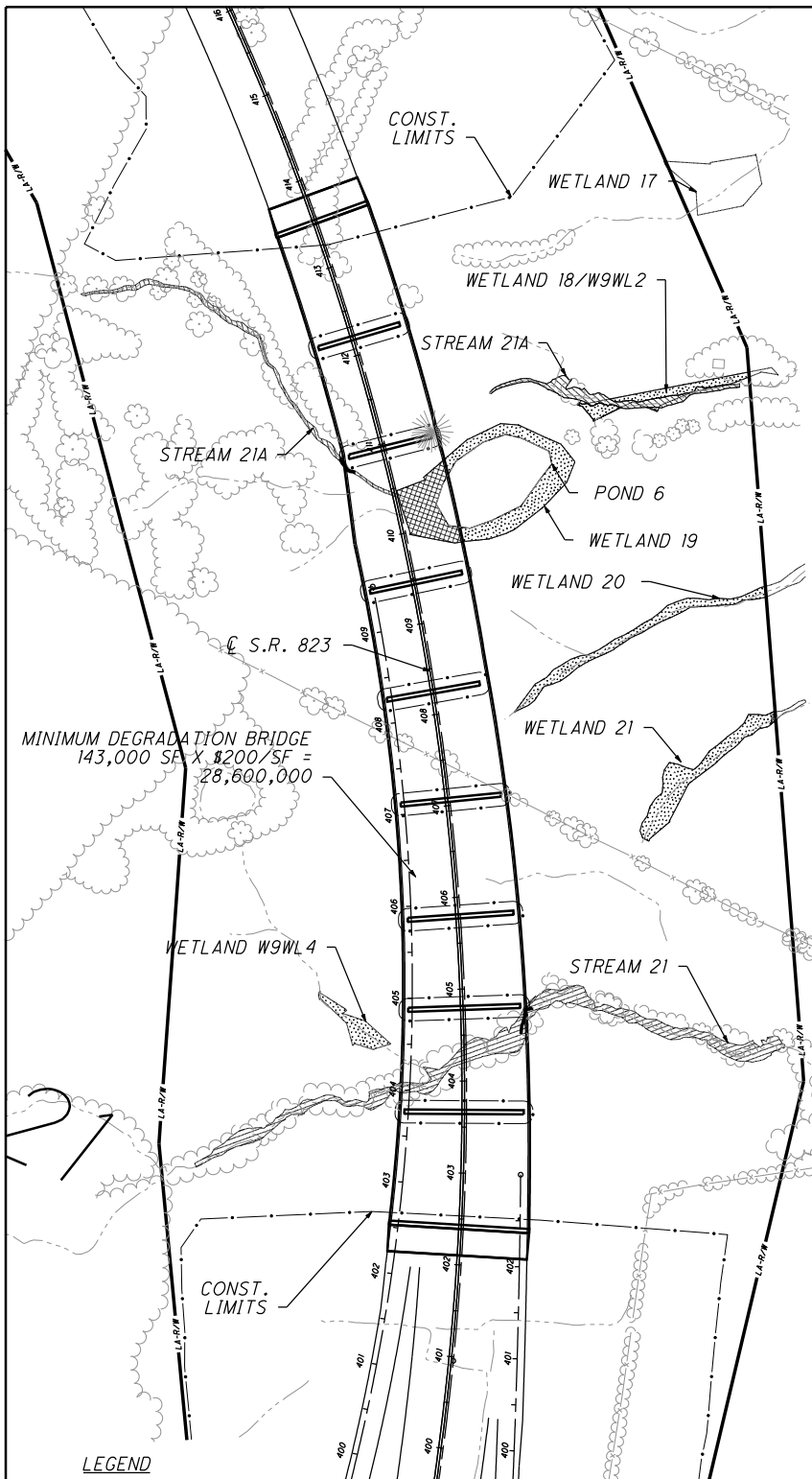
LENGTH OF IMPACT:	36 LF
AREA OF IMPACT:	0.018 ACRES
FILL BELOW OHW:	7 CY
EXCAVATION BELOW OHW:	7 CY

WETLAND W9WL4

LENGTH OF IMPACT:	N/A
DIRECT IMPACT AREA:	0.0 ACRES
WETLAND AREA WITHIN ROW:	0.029 ACRES

WETLAND 21

LENGTH OF IMPACT:	N/A
DIRECT IMPACT AREA:	0.0 ACRES
WETLAND AREA WITHIN ROW:	0.082 ACRES



PLAN

LEGEND

- DIRECT AREA
- AREA WITHIN ROW
- AREA WITHIN ROW

PROPERTY OWNERS:
STATE OF OHIO
DARREN AND KIMBERLY JENNINGS

PLAN SCALE: 1" = 200'



MINIMUM DEGRADATION STREAM 21 AND 21-1 WETLAND 17, 18/ W9WL2, 19, 20 AND 21 POND 6

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 823 BYPASS IN SCIOTO COUNTY

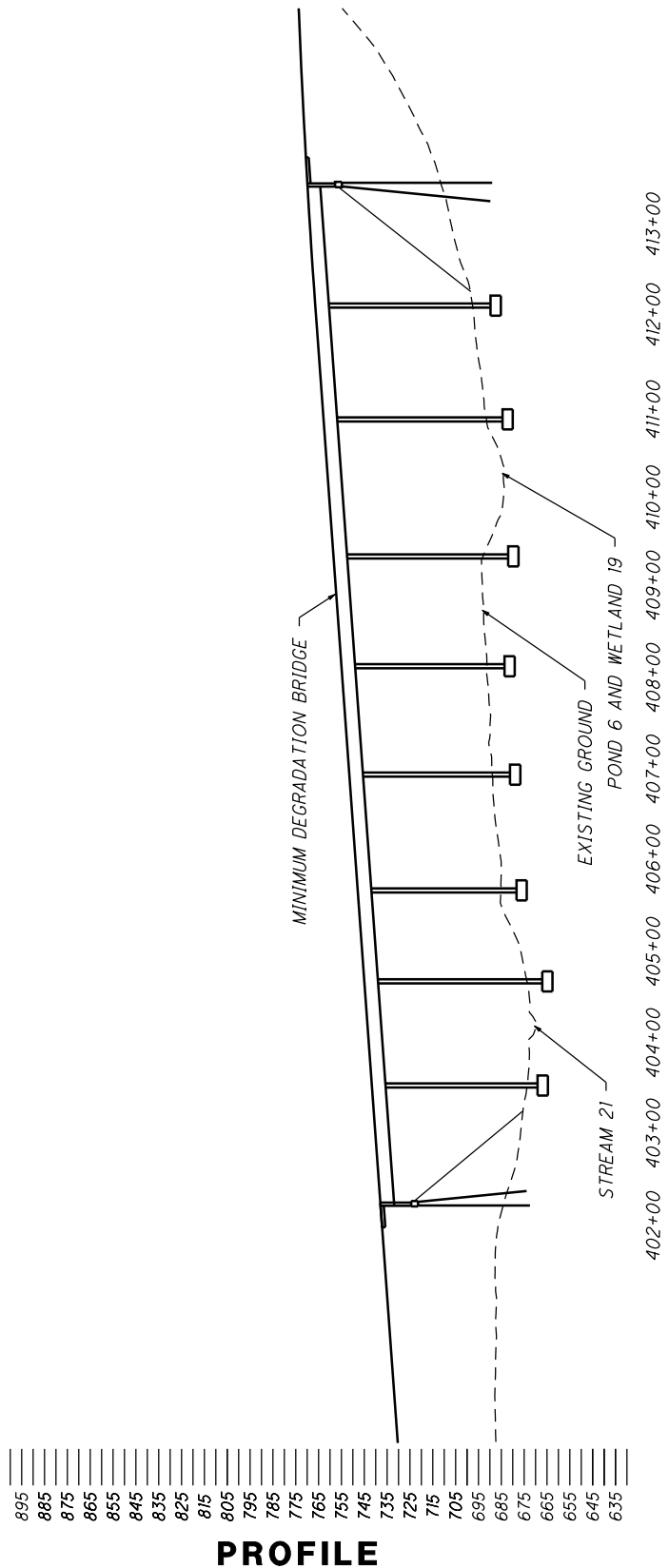
2011-00646-OHR, SCI-823-0.00, PID: 19415

Plan Sheet 67 of 70 (Phase 1 Portsmouth Bypass)

U.S. Army Corps of
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Certification
Application

DATE: 09/13/2011

FIGURE 4-5



PLAN SCALE: 1" = 200'



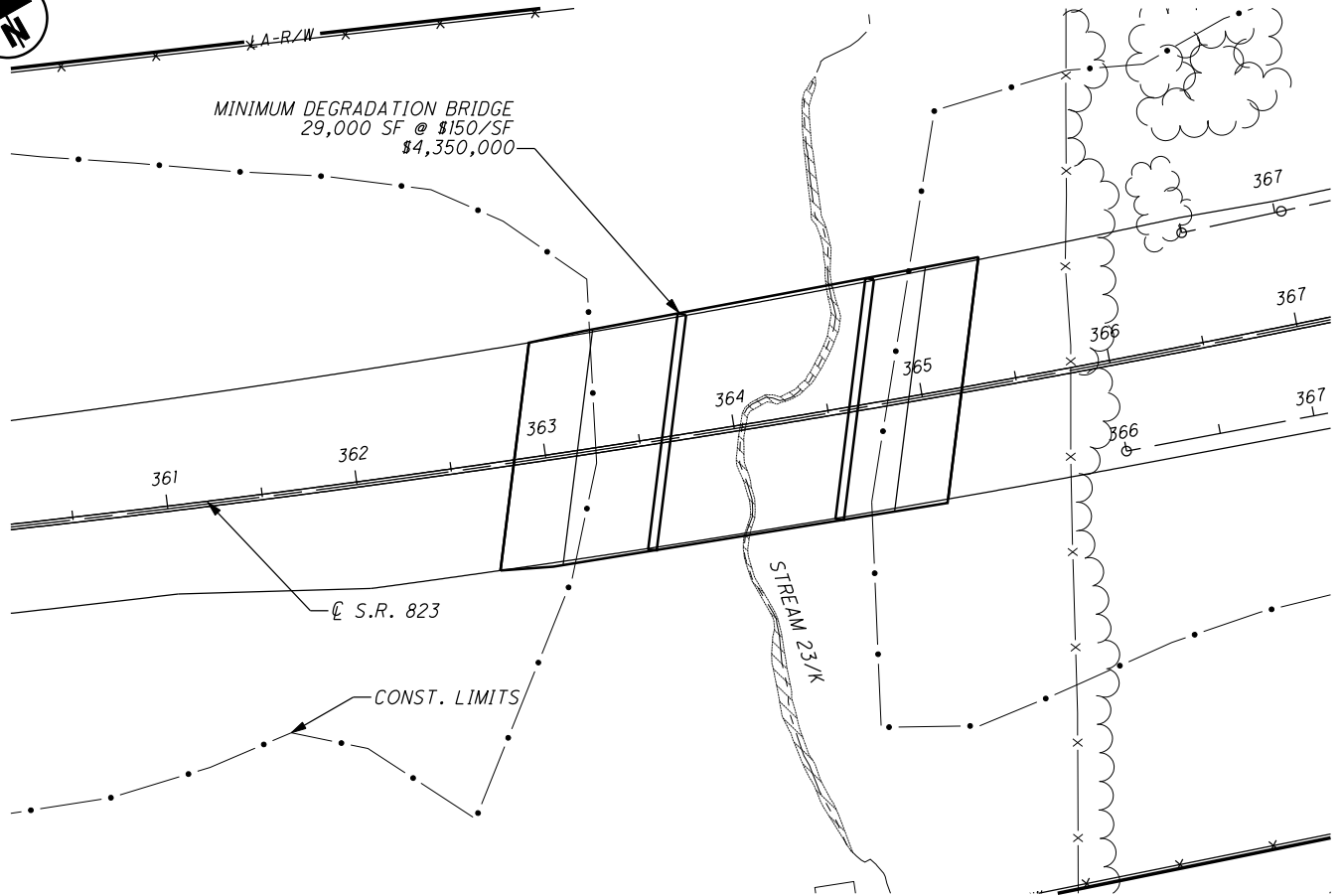
**MINIMUM DEGRADATION
STREAM 21 AND 21-1
WETLAND 17, 18 / W9WL2,
19, 20 AND 21
POND 6**

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 823 BYPASS IN SCIOTO COUNTY

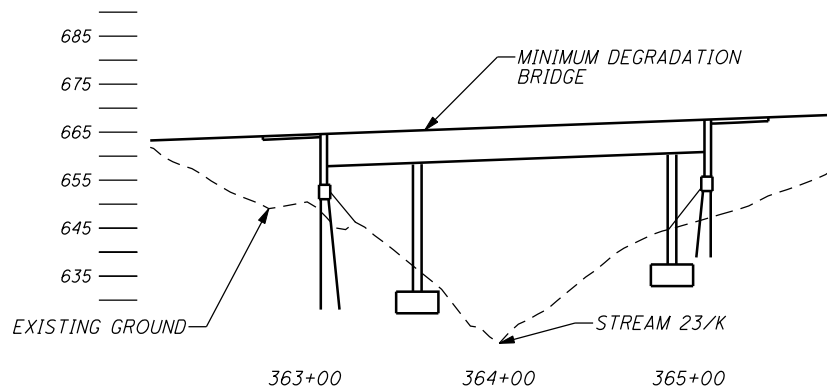
U.S. Army Corps of
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and OEPA Section 401
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FIGURE 4-5A

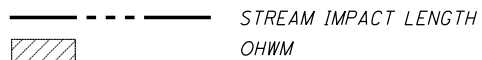


PLAN



PROFILE

LEGEND



LENGTH OF IMPACT: 0 LF
 AREA EXCAVATED OR FILLED: 0.0 ACRES
 EXCAVATION BELOW OHW: 0 CY
 FILL BELOW OHW: 0 CY

PLAN SCALE: 1" = 100'
 CULVERT PROFILE: 1" = 100'



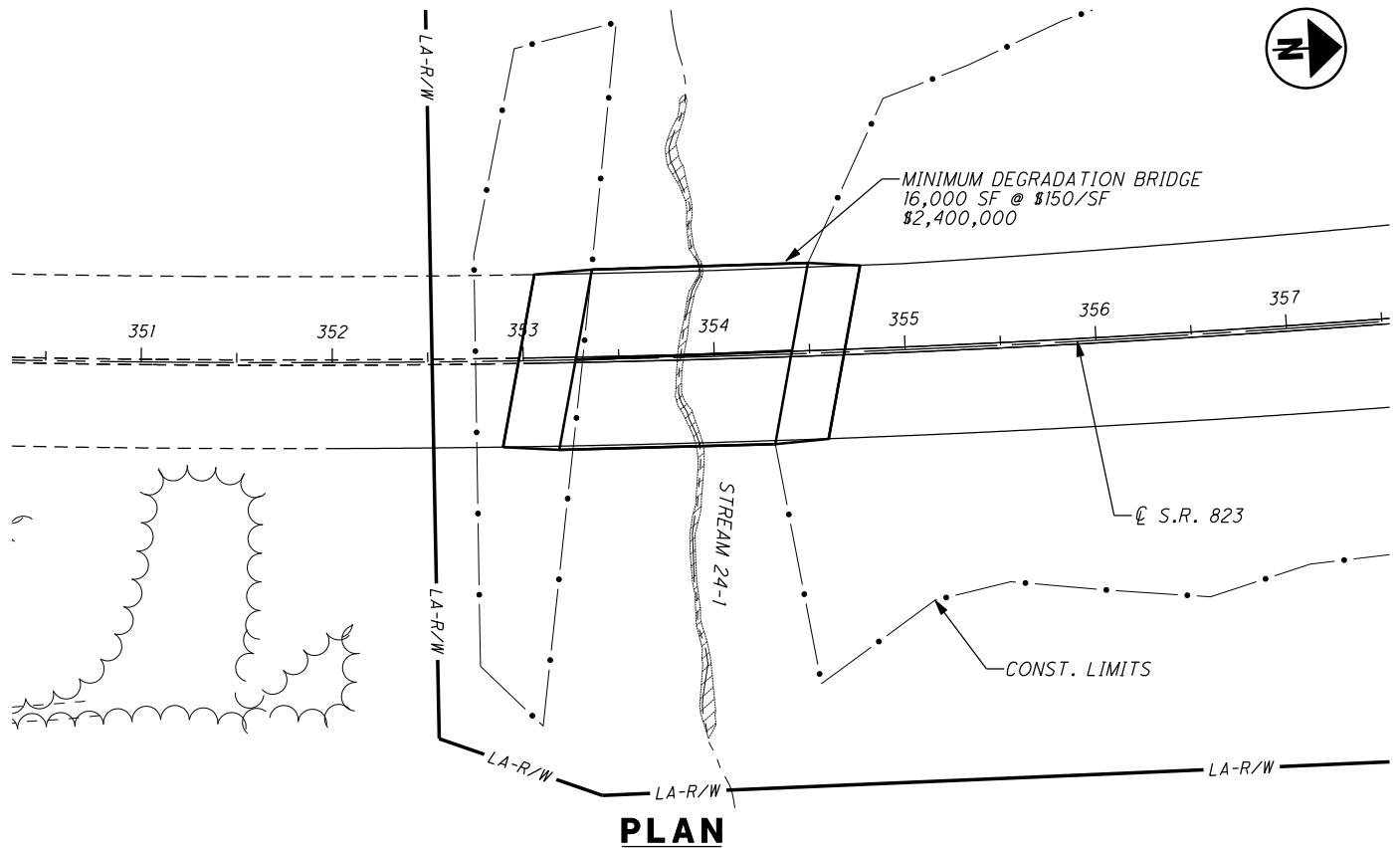
**MINIMUM DEGRADATION
 STREAM 23/K**

OHIO DEPARTMENT OF TRANSPORTATION
 S.R. 823 BYPASS IN SCIOTO COUNTY

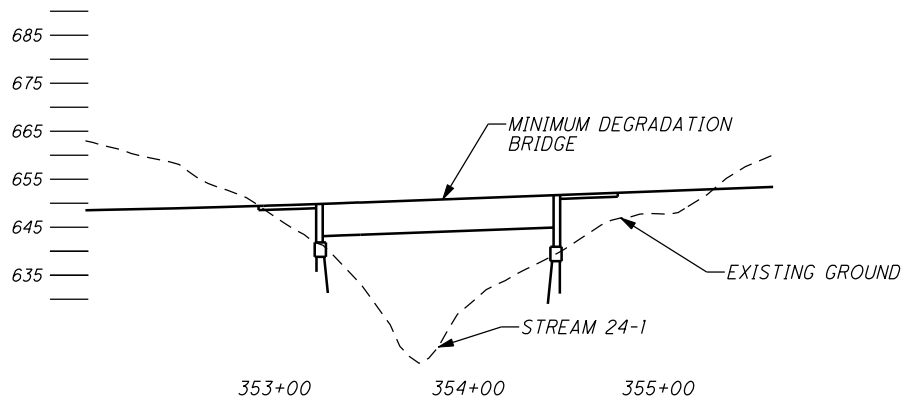
U.S. Army Corps of
 Engineers 404 Permit
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 Water Quality
 Certification
 Application

DATE: 09/13/2011

FIGURE 4-6



PLAN



PROFILE

LEGEND

- — — — — STREAM IMPACT LENGTH
- OHWM

PROPERTY OWNERS:
VICTOR D AND ELSIE A KNORE J/S

LENGTH OF IMPACT:	0 LF
AREA EXCAVATED OR FILLED:	0.0 ACRES
EXCAVATION BELOW OHW:	0 CY
FILL BELOW OHW:	0 CY

PLAN SCALE: 1" = 100'
CULVERT PROFILE: 1" = 100'



**MINIMUM DEGRADATION
STREAM 24-1**

OHIO DEPARTMENT OF TRANSPORTATION
S.R. 823 BYPASS IN SCIOTO COUNTY

U.S. Army Corps of
Engineers 404 Permit
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Water Quality
Certification
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FIGURE 4-7

404 / 401 TABLE C
Nature of Proposed Activities by Impacted Feature for the Preferred Alternative

A. Streams																		
Site/Feature	Approximate Station Location	Proposed Structure or Action	Existing Channel Disturbed Due to Permanent Placement of Proposed Structure, Highway Fill, Channel Change or Channel Protection											Existing Channel Disturbed Due to Temporary Crossing				
			Length of Channel Disturbed (feet)	Excavation below OHWM				Fill Below OHWM				Total Area Impact (acre)	Length of Channel Disturbed (feet)	Excavation below OHWM		Fill Below OHWM		
				Roadway cut (CY)	Block Mat or RCP (CY)	Total Volume (CY)	Area (acre)	Roadway fill (CY)	Block Mat or RCP (CY)	Conduit (CY)	Total Volume (CY)			Area (acre)	Volume (CY)	Area (acre)	Volume (CY)	Area (acre)
Stream 17a/b; UNT ¹ to Long Run	539+00	Culvert and Fill Section	898	16	48	64	0.034	157	48	23	228	0.162	0.196	0	0	0	0	0
Stream 17-1-1; UNT ¹ to Long Run	519+50	Cut Section	73	183	0	183	0.005	0	0	0	0	0.000	0.005	0	0	0	0	0
Stream 17c; UNT ¹ to Long Run	CR 28 Ramp C-D	Modification	960	0	0	0	0.000	60	0	0	60	0.093	0.093	0	0	0	0	0
Stream 17c-1; UNT ¹ to Long Run	CR 28 Ramp C-D	Fill section	394	0	0	0	0.000	9	0	0	9	0.020	0.020	0	0	0	0	0
Stream 17d; UNT ¹ to Long Run	CR 28 10+75	Culvert and Fill Section	294	82	41	123	0.032	70	41	0	111	0.073	0.105	0	0	0	0	0
Stream 18; Long Run	484+50	Bridge	55	0	10	10	0.005	27	10	0	37	0.014	0.019	150	0	0	914	0.146
Stream 18-1; to Long Run	473+50	Culvert	417	0	12	12	0.002	18	12	2	32	0.049	0.051	0	0	0	0	0
Stream 18b; UNT ¹ to Long Run	465+25	Modification	244	40	20	60	0.016	26	20	10	56	0.036	0.052	0	0	0	0	0
Stream 19; UNT ¹ to Long Run	485+50 to 490+50	Modification and Pier	530	118	3	121	0.054	148	3	0	151	0.060	0.114	0	0	0	0	0
Stream 19-1; UNT ¹ to Long Run	504+53	Culvert	662	67	17	84	0.037	42	17	0	59	0.068	0.105	0	0	0	0	0
Stream 20; UNT ¹ to Long Run	443+50	Bridge	23	10	0	10	0.004	0	0	0	0	0.000	0.004	150	0	0	261	0.110
Stream 20-1; UNT ¹ to Long Run	434+00	Bridge Fill	720	0	0	0	0.000	30	0	0	30	0.068	0.068	0	0	0	0	0
Stream 20-2; UNT ¹ to Long Run	449+25	Culvert and Modification	375	17	0	17	0.004	7	0	0	7	0.023	0.027	0	0	0	0	0
Stream 21; UNT ¹ to Long Run	404+00	Culvert	802	4	16	20	0.013	226	16	21	263	0.205	0.218	0	0	0	0	0
Stream 21a; UNT ¹ to Long Run	410+50	Culvert	745	41	4	45	0.003	21	4	5	30	0.040	0.043	0	0	0	0	0

404 / 401 TABLE C
Nature of Proposed Activities by Impacted Feature for the Preferred Alternative

A. Streams																		
Site/Feature	Approximate Station Location	Proposed Structure or Action	Existing Channel Disturbed Due to Permanent Placement of Proposed Structure, Highway Fill, Channel Change or Channel Protection										Existing Channel Disturbed Due to Temporary Crossing					
			Length of Channel Disturbed (feet)	Excavation below OHWM				Fill Below OHWM					Total Area Impact (acre)	Length of Channel Disturbed (feet)	Excavation below OHWM		Fill Below OHWM	
				Roadway cut (CY)	Block Mat or RCP (CY)	Total Volume (CY)	Area (acre)	Roadway fill (CY)	Block Mat or RCP (CY)	Conduit (CY)	Total Volume (CY)	Area (acre)			Volume (CY)	Area (acre)	Volume (CY)	Area (acre)
Stream 22a/b; UNT ¹ to Little Scioto River	375+00	Culvert and Modification	1,267	57	6	63	0.015	180	6	0	186	0.165	0.180	0	0	0	0	0
Stream 22a-1; UNT ¹ to Little Scioto River	TR 234 R C STA 381+70	Cut Section	318	94	0	94	0.012	15	0	0	15	0.024	0.036	0	0	0	0	0
Stream 23/K; UNT ¹ to Little Scioto River	364+50	Culvert	415	18	5	23	0.007	57	5	13	75	0.041	0.048	0	0	0	0	0
Stream 24-1; UNT ¹ to Little Scioto River	353+88	Culvert	333	36	11	47	0.006	12	11	9	32	0.075	0.081	0	0	0	0	0

404 / 401 TABLE C
Nature of Proposed Activities by Impacted Feature for the Preferred Alternative

B. PONDS										
Site / Feature	Approx. Station Location	Proposed Structure or Action	Existing Channel Disturbed Due to Placement of Proposed Structure, Highway Fill, Channel Change or Channel Protection					Existing Channel Disturbed Due to Temporary Crossing		
			Length of Channel Disturbed (feet)	Excavation Below OHWM		Fill Below OHWM		Length of Channel Disturbed (feet)	Excavation / Fill Below OHWM	
				Volume (CY)	Area (acre)	Volume (CY)	Area (acre)		Volume (CY)	Area (acre)
Pond – 4	466+00	Embankment Fill	N/A	0	0	13,726	1.418	N/A	0	0
Pond – 5	448+00	Embankment Fill	N/A	0	0	329	0.034	N/A	0	0
Pond – 6	410+00	Embankment Fill	N/A	0	0	1,830	0.189	N/A	0	0
Pond – 7	396+00	Embankment Fill	N/A	0	0	5,731	0.592	N/A	0	0
Pond – 8	380+00	Embankment Fill	N/A	0	0	4,521	0.467	N/A	0	0

404 / 401 TABLE C
Nature of Proposed Activities by Impacted Feature for the Preferred Alternative

C. WETLANDS								
Feature(s)	Approx. Station Location	Description	Total Area Impacted (acre)	Proposed Action	Direct Impacts (within construction limits)*			Indirect Impact Area (outside construction limits)
					Volume Excavated (CY)	Volume Filled (CY)	Area Excavated and/or Filled	
Wetland 1	SR 823 535+10	Non-Isolated	0.141	Embankment Fill	0	115	0.072	0.069
Wetland 2/3	SR 823 535+40	Non-Isolated	0.517	Embankment Fill	0	834	0.517	0.000
Wetland 4	CR 28R C/D	Non-Isolated	0.089	Embankment Fill	0	3	0.002	0.087
W8WL6	CR 28 R C 516+60/ R D 541+40	Non-Isolated	0.221	Embankment Fill	0	334	0.207	0.014
W8WL8	CR 28R C 519+00/ R D 539+00	Non-Isolated	0.020	Embankment Fill	0	32	0.020	0.000
Wetland 5/ W8WL7	CR 28R C 514+50/ R D 543+40	Non-Isolated	0.066	Embankment Fill and Concrete	0	107 (101 CY embankment fill and 6 CY concrete)	0.066	0.000
Wetland 6	CR 28R C/D	Non-Isolated	0.018	Embankment Fill	0	3	0.002	0.016
Wetland 7	CR 28R C 532+25	Non-Isolated	0.108	Embankment Fill	0	174	0.108	0.000
Wetland 8	CR 28R C/D	Non-Isolated	0.028	Embankment Fill	0	45	0.028	0.000
Wetland 9	CR 28R C/D	Non-Isolated	0.073	Embankment Fill	0	102	0.063	0.010

404 / 401 TABLE C
Nature of Proposed Activities by Impacted Feature for the Preferred Alternative

C. WETLANDS								
Feature(s)	Approx. Station Location	Description	Total Area Impacted (acre)	Proposed Action	Direct Impacts (within construction limits)*			Indirect Impact Area (outside construction limits)
					Volume Excavated (CY)	Volume Filled (CY)	Area Excavated and/or Filled	
Wetland 12	CR 28R A/B	Non-Isolated	0.811	Embankment Fill	0	852	0.528	0.283
Wetland 13	CR 28R A/B	Non-Isolated	0.233	Embankment Fill	0	8	0.005	0.228
Wetland 14	CR 28R A/B	Non-Isolated	0.010	Embankment Fill	0	0	0.000	0.010
Wetland 15	CR 28R A/B	Non-Isolated	0.041	Embankment Fill	0	65	0.041	0.000
Wetland 16	Flowers-Ison Road	Non-Isolated	0.036	Embankment Fill	22	58	0.036	0.000
Wetland 17	412+50	Non-Isolated	0.001	Embankment Fill	0	0	0.000	0.001
Wetland 18/ W9WL2	411+11	Non-Isolated	0.038	Embankment Fill and Concrete	0	58 (52 CY embankment fill and 6 CY concrete)	0.036	0.002
Wetland 19	410+00	Non-Isolated	0.180	Embankment Fill	0	290	0.180	0.000
Wetland 20	409+00	Non-Isolated	0.062	Embankment Fill	0	93	0.058	0.004
Wetland 21	408+00	Non-Isolated	0.082	Embankment Fill	0	130	0.081	0.001
W9WL4	405+00	Non-Isolated	0.029	Embankment Fill	0	47	0.029	0.000

404 / 401 TABLE C
Nature of Proposed Activities by Impacted Feature for the Preferred Alternative

C. WETLANDS								
Feature(s)	Approx. Station Location	Description	Total Area Impacted (acre)	Proposed Action	Direct Impacts (within construction limits)*			Indirect Impact Area (outside construction limits)
					Volume Excavated (CY)	Volume Filled (CY)	Area Excavated and/or Filled	
Wetland 22	395+50	Non-Isolated	0.344	Embankment Fill	0	555	0.344	0.000
Wetland 24	380+00/ TR 234R A	Non-Isolated	0.069	Embankment Fill	0	112	0.069	0.000
Wetland 26	388+00	Non-Isolated	0.483	Embankment Fill	0	780	0.483	0.000
Wetland 28	380+00	Non-Isolated	0.101	Embankment Fill	0	162	0.101	0.000
Wetland 29	458+00	Non-Isolated	0.001	Embankment Fill	0	0	0.000	0.001
Wetland 30	447+00	Non-Isolated	0.011	Embankment Fill	0	18	0.011	0.000
Wetland 31	446+00	Non-Isolated	0.027	Embankment Fill	0	44	0.027	0.000
Wetland 32	541+00	Non-Isolated	0.019	Embankment Fill	0	0	0.000	0.019
Wetland 33	541+00	Non-Isolated	0.021	Embankment Fill	0	34	0.021	0.000
Wetland 34	541+00	Non-Isolated	0.013	Embankment Fill	0	21	0.013	0.000

404 / 401 TABLE C Nature of Proposed Activities by Impacted Feature for the Preferred Alternative

C. WHOLE PROJECT SUMMARY OF ACTIVITIES																
Total Project Lineal Stream Disturbances			Total Project Excavation (No pond excavation proposed)						Total Project Fill							
Total Length Disturbed due to Proposed Structures, Highway Fill, Channel Change or Channel Protection	Length Disturbed due to Temporary Crossing	Net Length Disturbed	Stream Excavated		Wetland Excavated		Total Excavation		Stream Filled (standard roadfill, channel protection, temporary crossings & other materials)		Wetland Filled		Pond Filled		Total Filled	
			Volume (CY)	Area (acre)	Volume (CY)	Area (acre)	Volume (CY)	Area (acre)	Volume (CY)	Area (acre)	Volume (CY)	Area (acre)	Volume (CY)	Area (acre)	Volume (CY)	Area (acre)
9,825 feet	300 feet	9,525 feet	976	0.249	22	0.007	998	0.256	2,556	1.472	5,076	3.148	26,137	2.700	33,768	7.320