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Sandra L. Brown
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Direct Dial: 202-274-2959
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October 27, 2004

Overnight via UPS (with attachments)

Jo Carole Dawkins
P.O. Box 845
63 Pine Street
Springville, AL 35146
205-467-6034

Re: STB F.D. No. 34435, Ameren Energy Generating Co. - Construction and Operation
- in Coffeen and Walshville, Illinois

Dear Jo Carole:

Enclosed please find CWRC's response to the follow-up questions you have requested in preparation for the Environmental Assessment. This information supplements the answers provided to you on August 9, 2004, September 10, 2004, and October 20, 2004. The following exhibits are attached to this response:

Revised Exhibit Q - Map of Utilities
Exhibit V - Copy of Permit Application to Army Corps of Engineers
Exhibit W - Preliminary Jurisdictional Determination Errata

Thank you for your attention to these matters, and please let me know if you have any questions based on these materials.

Sincerely yours,


Sandra L. Brown

cc: David Navecky (via hand delivery)
Glennon Hof

Note to Reader: Exhibit Q referenced in this letter is available for review by appointment only at the Board's offices, 1925 K Street, NW, Suite 500, Washington, DC 20423. Contact Dave Navecky at 202-565-1593 for an appointment.

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A T T O R N E Y S A T L A W
A LIMITED LIABILITY PARTNERSHIP

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WASHINGTON, D.C. 20004-2134
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TELEPHONE: 202-274-2950

MEMORANDUM

TO: Jo Carole Dawkins, Dawkins Consulting
David Navecky, SEA

Cc: Glennon P. Hof

FROM: Sandy Brown
Rebecca Roback

RE: Responses to Follow-up Questions
STB F.D. No. 34435, Ameren Energy Generating Co. - Construction and
Operation - in Coffeen and Walshville, Illinois

DATE: October 27, 2004

The following information responds to various follow-up questions you have presented in relation to the materials previously submitted in preparation for the Environmental Assessment.

Q1. Am I correct in assuming that Powder River Basin ("PRB") coal would remain on UP and then move over Route A or B to the plant?

Response: If UP is delivering PRB coal to the Coffeen Power Plant, UP would transport the coal over the UP track from PRB to either the new Route A or Route B connection near Walshville, Illinois and then on to the Plant.

Q2. Also, how would Monterey Mine coal move following rail construction?--would it go north to what looks like Girard or Virden on my rail map, and then south on BNSF toward the power plant?

Response: Following rail construction, Monterey Mine coal could continue to move over the same lines it currently moves. The coal would move over the NS from the Monterey Mine to Litchfield, Illinois. The NS would then operate over BNSF trackage rights to Sorento and then onto the NS track from Sorento to the Plant. If CWRC is able to purchase the NS trackage from Sorento to Coffeen, CWRC would grant NS trackage rights over the line to continue to permit the same rail movement from the Monterey Mine.

If UP is delivering coal from the Monterey Mine to the Plant, UP would take the trains out of the Mine and go north to Girard, Illinois. The UP trains would then travel south to St. Louis and then east to Walshville where the UP trains would connect to either Route A or Route B near Walshville.

Q3. I am summarizing the study in the EA and am including the wetland sites which are listed in Table 4-4 of the MACTEC report as having wetland impacts, including those which are non-jurisdictional. Page 5 of the report says the wetlands in the study area are either farmed wetlands or palustrine. Table 4-4 lists 5 sites which are classified as OW, open water, and which will have wetland impacts. My question is--the sites classified as OW--are they considered riverine wetlands, even though the report says the wetlands are all either farmed or palustrine? I just want to know what wetland type I should refer to them as.

Response: The sites classified as OW are not considered Riverine wetlands. Ponds 1 through 5 have Open Water ("OW") wetlands impact. They are in the OW zone of Palustrine wetlands. However, as noted, these ponds almost completely lack vegetation. Coffeen Lake is in the OW zone of a Lacustrine (deep water habitat, not a wetland by definition) water body because of the dimensional parameters described in MACTEC's response. Therefore, the ponds and Coffeen Lake have the designation of OW. This refers to the fact that they are unvegetated, rather than their system-level classification under the USFWS system. Reference: USFWS 1979. Classification of Wetlands and Deep Water Habitats of the United States. Cowardin, et al.

Q4. I will be briefly noting in the EA that FD 34497 is a related action to FD 34435. Please furnish me a brief description of how Coffeen and Western Railroad intends to use the 0.2 mile rail segment being leased from Ameren.

Response: On April 15, 2004, CWRC submitted a notice of exemption pursuant to 49 C.F.R. 1150.31, *et seq.*, to acquire by lease 0.2 miles of track owned by Ameren Energy Generating Company ("AEGC") located near Coffeen, Illinois. This track will connect to the proposed Route A at the connection to the Coffeen Power Plant's track (also near where the existing NS track connects to the Coffeen Plant track) and will be available to assist in coal delivery trains moving to the Coffeen Plant. Thus, CWRC's lease will further facilitate the Coffeen Power Plant in obtaining competitive transportation and rate options.

Q5. Please send an electronic version of:

- The legend on Exhibit Q listing the utilities by route
- The legend on Exhibit R listing the wells by route
- The legend on Exhibit T listing the ISGS sites of concern

Response: These electronic versions were previously provided. The legend on Exhibit Q has been updated to reflect new information regarding the ownership of three overhead electric distribution lines on Route B. The electronic version of the legend recently provided to you contains this updated information. In addition, attached is a revised copy of the map, referred to as Revised Exhibit Q.

Q6. When does Ameren anticipate that the Corps of Engineers will field verify the jurisdictional wetlands and wetland boundaries?

Response: CWRC submitted a permit application to the Corps, IDNR and IEPA on September 27, 2004. CWRC does not know when the Corps will field verify the jurisdictional wetlands and wetland boundaries. CWRC received an indication from the Corps that the public notice regarding the permit may be published soon. A copy of the permit application is attached as Exhibit V (copies of attachments to the Corps permit previously provided to Dawkins Consulting are not included).

Q7. When does Ameren anticipate that the NRCS will certify the farmed wetlands?

Response: NRCS certifies farmed wetlands at the request of the landowner. CWRC cannot request the NRCS to certify the farmed wetlands until CWRC owns the property. While CWRC has obtained options on significant portions of Route A and Route B, CWRC is not in a position to request the NRCS to certify the farmed wetlands on these properties.

Q8. Provide the field methodology employed to distinguish between perennial and intermittent streams. Absent any criteria, a review of the photographs in Appendix A of the Preliminary Jurisdictional Report suggests that Stream 18 may also be perennial.

Response: The field determinations of intermittent/perennial stream classifications are based upon indicators: the presence/absence of aquatic life (macroinvertebrates, fish), riparian zone vegetation, substrate conditions, and watershed size. The June 6, 2004 photo of Stream 18, which shows flowing water, was taken during a period of heavy rains. At a subsequent visit during a dry period (July 2004), no flow was observed, but pools of standing water were observed. These observations indicate that Stream 18 may have flow most of the year, but is not perennial.

Q9. Clarify the flow conditions of Stream 7. Table 4-1 of the Jurisdictional Report indicates that Stream 7 was field classified as perennial, whereas, the Stream Description Data Form for Stream 7 classifies the stream as intermittent.

Response: The classification of Stream 7 as intermittent on the data sheet is a typographical error. Stream 7 is perennial, due to the discharge from several springs. Attached please find Exhibit W, the Preliminary Jurisdictional Determination Errata.

Q10. The September 10, 2004 supplemental responses (see Q15 response and Exhibit N) indicate that a new bridge structure has been added to the plans (i.e., the Shoal Creek East structure) to facilitate passage of 100-year flood flows. This new structure does not appear to be reflected in the floodplain impacts assessment in the Preliminary Jurisdictional Determination (see Table 5-1 and Figure 3-10). Please clarify or revise, as appropriate.

Response: A new bridge has been added to the Shoal Creek floodplain crossing and the Lake Fork bridge has also been extended, reducing floodplain impacts. The new Shoal Creek bridge is not within a wetland or other water feature. The revised Lake Fork bridge shape was used to re-quantify wetland impacts. Due to an omission, these new structures were not used to

re-quantify floodplain impacts. The original and revised floodplain impacts are shown in the Preliminary Jurisdictional Determination Errata attached as Exhibit W.

Q11. The September 10, 2004 supplemental responses to Q15 and Q19 appear to oversimplify the culvert construction process. A review of the July 16, 2004 Plan/Profiles indicated that the placement of many of the culverts would require that an existing meandering channel be filled and straightened. If this proposed culvert construction activity occurs in a perennial stream (e.g., Grove Creek and Stream 19), or in an intermittent or ephemeral stream under flow conditions, measures would need to be taken to temporarily divert and maintain the streamflow and control erosion and sedimentation during construction. Please expand the description of these in-stream construction activities to encompass these streamflow diversion and sediment and erosion control techniques.

Response: In expanding the information provided on August 9, 2004 and September 10, 2004, the following additional steps would be taken for the construction of drainage/culvert structures in streams with a constant water flow:

- Streams with significant flow that cannot be barricaded shall have a by-pass channel cut adjacent to the site to accommodate "normal" flow conditions.
- Streams that do not have significant flow and that can be barricaded shall have a pump(s) set up to pass the water through the placement/construction site.
- Erosion control will be established around the construction site by use of silt fencing and straw bales or other approved methods.
- These features will remain in place until the permanent culvert construction process is completed.

September 27, 2004

U.S. Army Corps of Engineers
St. Louis Engineer District
ATTN: CEMVS-CO-F (Keith A. McMullen)
1222 Spruce Street
St. Louis, MO 63103-2833

Dear Mr. McMullen:

Enclosed is our Joint Application Form (JAF), with attachments, for the construction of a rail line by the Coffeen and Western Railroad Company between Walshville, Illinois and the Coffeen Power Plant owned by Ameren Energy Generating Company, near Coffeen, Illinois. The details on the two proposed alternatives and the reasons we are applying for both routes to be approved is explained in the enclosed JAF.

This project is subject to the jurisdiction of the Surface Transportation Board (STB). A petition was filed with the STB on February 5, 2004, for authority to construct and operate the proposed new rail line. The proceeding at the STB is captioned "STB FD No. 34435, Ameren Energy Generating Co. - Construction and Operation - In Coffeen and Walshville, Illinois." The STB's Section of Environmental Analysis (SEA) is leading the environmental review of this project pursuant to NEPA and related environmental regulations. The SEA has determined to proceed with the preparation of an Environmental Assessment for the project.

A consultation letter was sent to your office on March 12, 2004 from the SEA's third party contractor regarding this project. In addition to consulting with other federal and state agencies, the SEA has engaged a subcontractor to prepare a cultural resources report. That report has been completed and we understand it will be submitted to the Illinois State Historic Office by the subcontractor in the near future. Additional details regarding the project are provided in the JAF.

We have also included as attachments the following documents:

- Enclosure Two sets of full size drawings of Routes A and B
- Enclosure MACTEC's Wetlands Delineation Report
- Enclosure Reitz & Jens Hydrologic Report Executive Summary

Please call me at (636) 530-1896 if you have any questions or need additional information. In addition, you can call Mr. Glennon P. Hof, Coal Transportation Director, at Ameren with questions or comments. Mr. Hof's telephone number is (314) 554-4252.

Sincerely,



Leon E. McKinney, PE
McKinney Associates
1323 Bentley Place Drive
Chesterfield, MO 63005-4491

Enclosures

cc: Illinois Department of Natural Resources
Illinois Environmental Protection Agency

JOINT APPLICATION FORM

1. Application Number (to be assigned by Agency)	2. Date <div style="text-align: center; font-size: 1.2em;">27 SEPT. 2004</div> <div style="text-align: center; font-size: 0.8em;">Day Month Year</div>	3. For agency use only (Date Received)
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4. Name and address of applicant Robert K. Neff, President Coffeen and Western Railroad Company 1901 Chouteau Avenue St. Louis, MO 63103 Telephone no. during business hours (314) 554-2342 include area code ()	5. Name, address, and title of authorized agent Leon E. McKinney McKinney Associates 1323 Bentley Place Drive Chesterfield, MO 63005 (e-mail: leem55@charter.net) Telephone no. during business hours (636) 530-1896 include area code ()
--	---

6. Project Description and Remarks: Describe in detail the proposed activity, its purpose, and intended use. Also indicate the drainage area at the watershed to the downstream limit. Use attachments if needed.
See Attachment A for Project Description and Remarks.

 See Exhibit 2 for Plan and Cross Section Views of Major Crossings.
 See Exhibit 3 for Typical Culvert Plan and Cross Sections.

7. Names, addresses, and telephone numbers of all adjoining and potentially affected property owners, including the owner of the subject property if different from applicant.
See Attachment B.

8. Location of activity See Attachment C. Name of waterway at location of the activity _____ Address: _____ Street, road, or other descriptive location _____ In or near city or town _____ County _____	Legal Description: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">1/4</td> <td style="text-align: center;">Sec</td> <td style="text-align: center;">Twp.</td> <td style="text-align: center;">Rge</td> <td style="text-align: center;">P.M.</td> </tr> <tr> <td colspan="5">UTM (Universal Transverse Mercator): _____</td> </tr> <tr> <td colspan="5">If available _____</td> </tr> <tr> <td colspan="2"></td> <td style="text-align: center;">Zone</td> <td style="text-align: center;">North</td> <td style="text-align: center;">East</td> </tr> </table> Name of Local Governing Community _____ State _____ Zip Code _____	1/4	Sec	Twp.	Rge	P.M.	UTM (Universal Transverse Mercator): _____					If available _____							Zone	North	East
1/4	Sec	Twp.	Rge	P.M.																	
UTM (Universal Transverse Mercator): _____																					
If available _____																					
		Zone	North	East																	

9. Date activity is proposed to commence **February 1, 2005** Estimated Time of Construction **11 months**

10. Is any portion of the activity for which authorization is sought now complete? Yes No If answer is "Yes" give reasons in item 6.
 Month and Year the activity was completed N/A Indicate the existing work on drawings.

11. List all approvals or certifications required by other federal, interstate, state, or local agencies for any structures, construction, discharges, deposits, or other activities described in this application. If this form is being used for concurrent application to the Corps of Engineers, Illinois Department of Natural Resources, and Illinois Environmental Protection Agency, these agencies need not be listed.

Issuing Agency	Type of Approval	Identification No.	Date of Application	Date of Approval
Surface Transportation Board	Rail Construction (49 U.S.C. 10901)	STB Finance Docket # 34435	February 5, 2004	Pending
Illinois Commerce Commission	Road-Rail Crossing Protection	Unknown	Not filed yet	Unknown

12. Has any agency denied approval for the activity described herein or for any activity directly related to the activity described herein? Yes No (If "Yes", explain in item 6.)

13. Application is hereby made for authorizations of the activities described herein. I certify that I am familiar with information contained in the application, and that to the best of my knowledge and belief, such information is true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities.

Signature of Applicant or Authorized Agent
Robert K. Neff
 Typed or Printed Name of Applicant or Authorized Agent

ATTACHMENT A

Section 6. Project Description and Remarks (JAF): Proposed Activity, its Purpose, and Intended Use

Ameren Energy Generating Company's (AEGC) Coffeen Power Plant's only rail service provider is the Norfolk Southern Railway (NS). In order to create rail transportation competition, AEGC intends to construct a rail line to its Coffeen Power Plant which is located near the town of Coffeen IL. The rail line will be owned by AEGC's subsidiary, Coffeen and Western Railroad Company (CWRC). As discussed below, the rail line is subject to an authorization proceeding at the Surface Transportation Board (STB).

CWRC is seeking STB authorization for two potential routes. One proposed rail route would be approximately 13 miles in length and it would connect the plant's trackage to a location near the town of Walshville, IL. At this location, separate connections would be made to both the Union Pacific Railroad (UP) and the Burlington Northern Santa Fe Railroad (BNSF). This option is known as Route A. Another rail route would be approximately 5 miles in length and it would connect the UP's line near Walshville, IL to the NS's line near Sorento, IL. This option is known as Route B and would require a negotiated agreement with the NS in order to be able to use the existing NS line from Sorento to the Coffeen Power Plant's track. See attached Exhibit 1 for the route locations shown on a map. To date, an agreement to permit CWRC's use of the existing NS line has not been obtained and the STB cannot order NS to permit CWRC's use of the NS rail line. If AEGC is able to arrive at a negotiated agreement with the NS, Route B would be chosen. If not, Route A would be chosen. CWRC has sought STB approval for both routes.

Route A would be constructed entirely in Montgomery County, IL. Route B would be constructed in both Montgomery County and Bond County, IL. The right-of-way of both routes will average approximately 100 feet in width.

The major purpose of the construction described above is to foster competition between rail carriers moving coal to the Coffeen Power Plant. Such competition will result in more economical transportation rates than if the plant was captive to a single rail provider. By keeping transportation rates economical, AEGC will be able to control one of the largest cost factors involved in operating the coal-fired Coffeen Power Plant. By controlling the large cost factors, AEGC intends to keep this plant a viable, reliable energy producer. The intended use of this construction project is to provide coal to AEGC's Coffeen Power Plant.

On February 5, 2004 AEGC, on behalf of CWRC, filed a petition for an exemption from 49 U.S.C. § 10901 with the STB to construct and operate the proposed new rail line. The STB has the responsibility of overseeing the environmental review for this project. Currently, the STB is undertaking an environmental review of the project pursuant to the National Environmental Policy Act (NEPA) and related environmental regulations. A third party contractor, Dawkins Environmental Consulting, has been retained to assist in

the preparation of the environmental documents. In March 2004, the STB sent consultation letters to various agencies including the Army Corp of Engineers, the Illinois Environmental Protection Agency and the Illinois Department of Natural Resources. The STB has recently decided that an Environmental Assessment is the appropriate environmental document to be prepared at this time.

Continuation of Section 6. Project Description and Remarks (JAF): Alternatives Discussion

Prior to filing their petition with the STB, Ameren looked at all possible alternatives to achieve the purpose and need of this project: fuel flexibility with more and lower cost options for fuel, increase plant reliability and ultimately reduce the Coffeen Power Plant's total cost of operation. Barging of coal is not an option because the Coffeen Power Plant is not located on a navigable waterway. Similarly, an overland conveyor is not an option because there are no active coal mines located in close proximity to the plant. The nearest coal mine, Exxon's Monterey #1, is approximately 30 miles away.

Trucking was considered. In fact, coal has been trucked at times to the Coffeen Power Plant. While trucking coal has been accomplished on a limited basis, attempting to truck the amount of coal needed to keep the Coffeen Power Plant running would significantly impact the communities and roads in the vicinity. Trucking three million tons of coal per year would mean that 329 trucks per day, every day of the year, would have to drive into the plant, unload and drive out. This alternative is not practicable and trucking coal would not be as environmentally efficient as moving the coal with trains. Furthermore, the amount of coal needed now and in the future cannot be economically trucked due to the distances of available coal resources or coal terminals.

One of the first alternatives considered by Ameren was to approach the NS about obtaining the use of their existing track by either purchase or trackage rights. The NS declined Ameren's offer. Ameren will continue to attempt to negotiate such an arrangement and if successful, Route B could be constructed to accomplish the purpose and need for this project. If not, the construction of Route A will be necessary.

The selection of Routes A and B were based upon the following principle criteria:

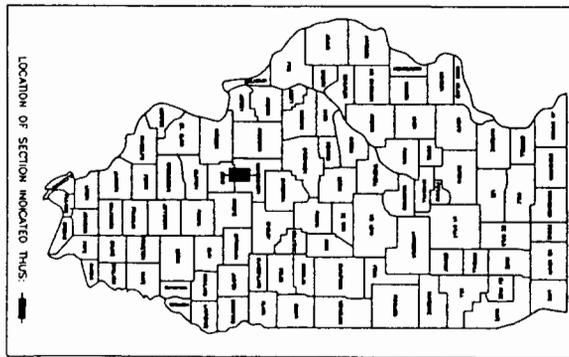
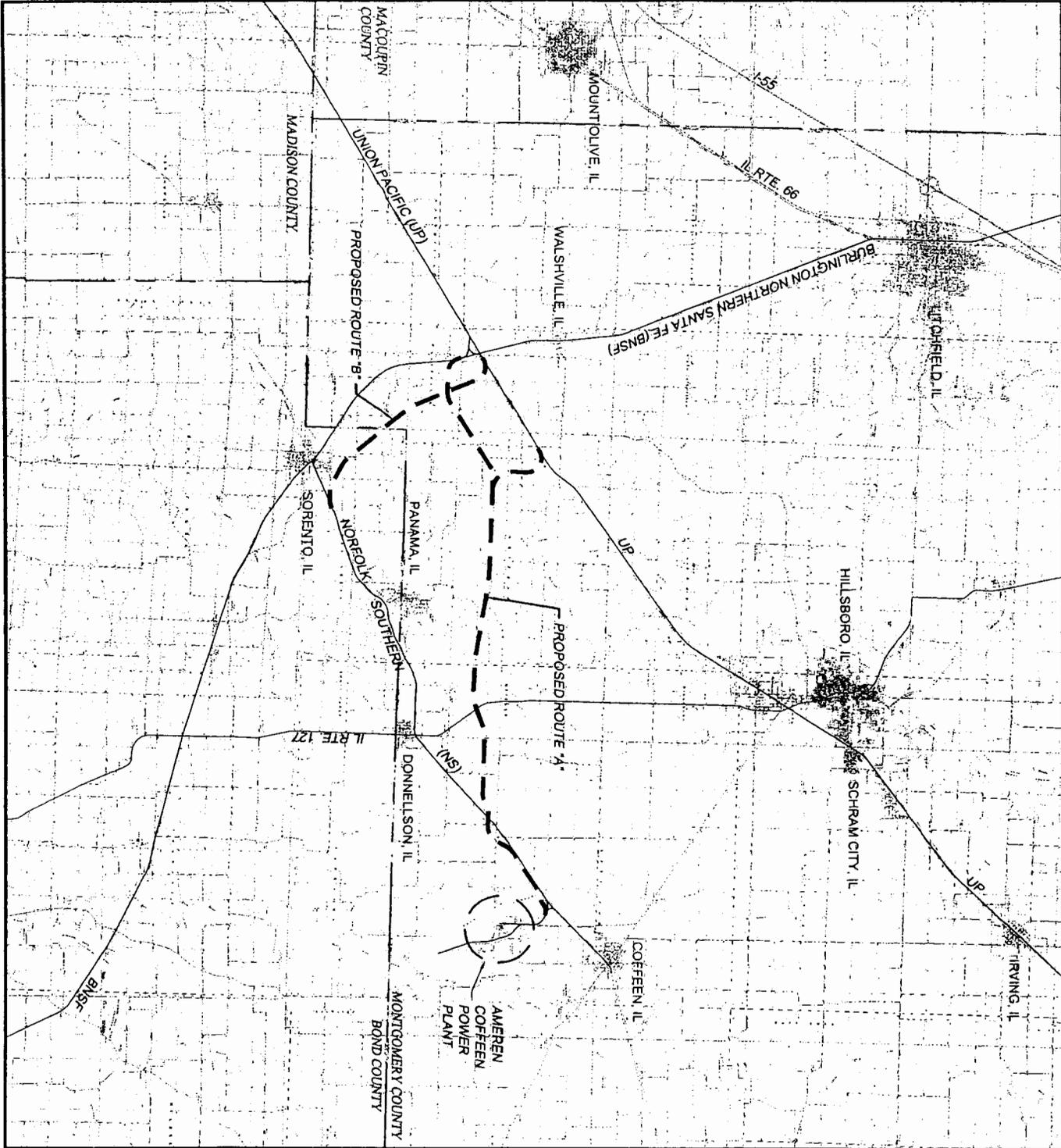
- Shortest routes possible
- Minimize environmental impacts
- Follow corridors previously disturbed by the construction of electrical transmission lines.
- Minimize property acquisition
- Optimize safety considerations (approach angles and visibility at grade crossings etc.)
- Minimize economic costs

The "no action" alternative is unacceptable, in that it would result in continuing higher costs for transportation of coal because the Coffeen Power Plant would remain captive to

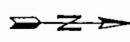
a single rail provider. Thus, the plant could expect to have little or no control on future price increases for coal transportation.

Continuation of Section 6. Project Description and Remarks (JAF): Dredging and Fill Activities

- The approximate cubic yards of fill material for each route.
 - Route A: 1,083,035 yd³
 - Route B: 337,933 yd³
- The approximate cubic yards of cut material for each route.
 - Route A: 1,144,267 yd³
 - Route B: 340,995 yd³
- The approximate number of sites to be filled for each route.
 - Route A: 25
 - Route B: 6
- The approximate number of sites to be cut for each route.
 - Route A: 25
 - Route B: 7



LOCATION OF SECTION INDICATED THIS



SCALE: 1" = 2 Miles

 PROPOSED ROUTE "A"
 PROPOSED ROUTE "B"

DESIGN NINK, INC.
ENGINEERING SERVICES FOR
RAILROADS AND INDUSTRY
ST. LOUIS, MO.

DATE	BY	AS SHOWN
1/2/04	DR	1
	CHK	1
	APP	1
	DESIGN	1

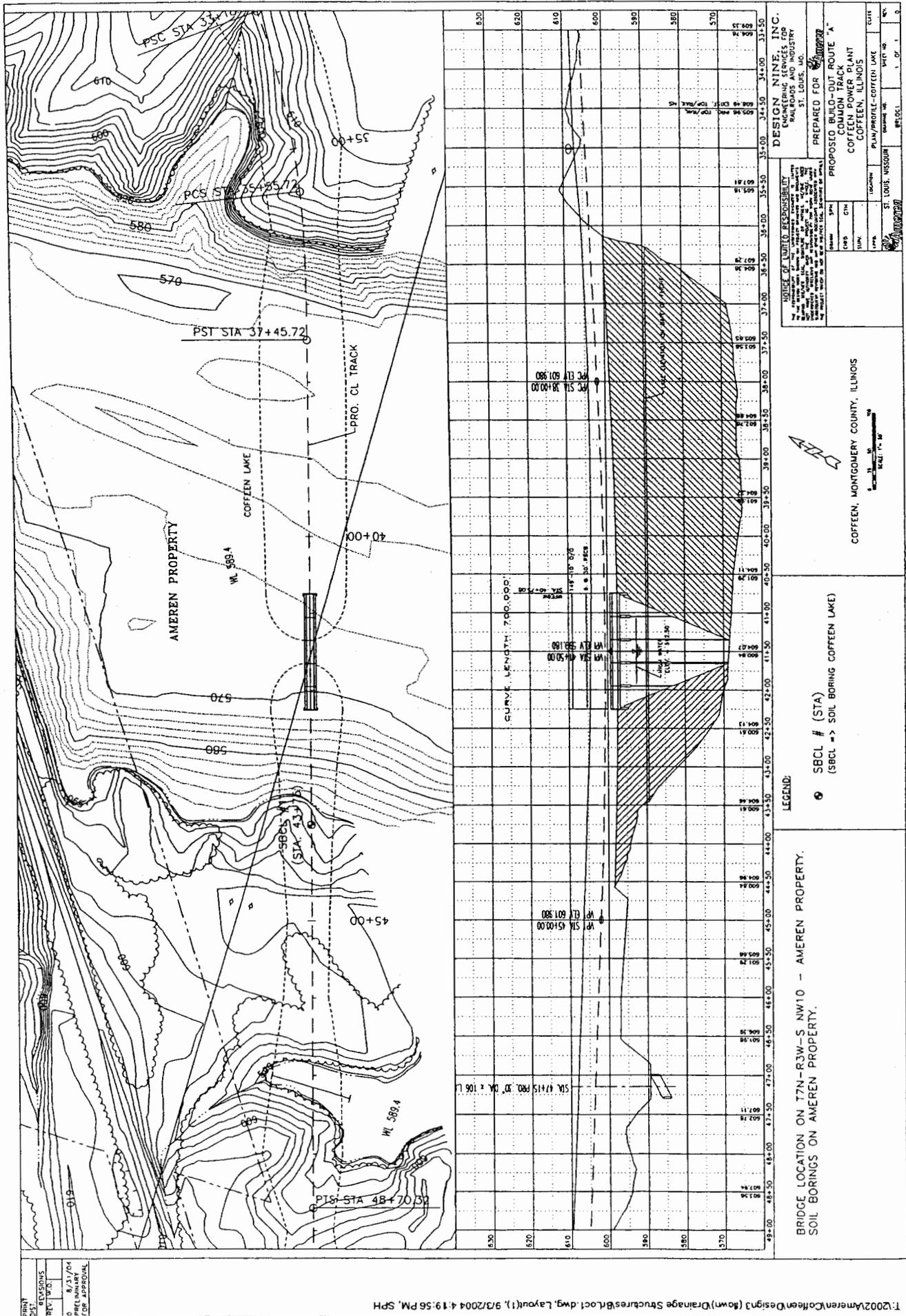


COFFEEN POWER PLANT
COFFEEN, ILLINOIS

PROPOSED TRACK BUILD-OUT
FROM COFFEEN POWER PLANT
TO UPRR AND BNSF

EXHIBIT 1

NO.	DATE	REVISION	BY
1	9/9/04	REMOVE ROUTE C	SCR



REVISIONS:
 DATE: 8/17/04
 BY: [Signature]
 DESCRIPTION: PRELIMINARY FOR APPROVAL

T:\2002\AmerenCoffeenDesign3\Drawings\Drainage Structures\Btblct.dwg, Layout(1), 9/3/2004 4:19:56 PM, SPH

NOTICE OF LIMITED RESPONSIBILITY
 THE ENGINEER HAS CONDUCTED VISUAL SURVEYS AND FIELD INVESTIGATIONS OF THE PROJECT AND HAS PREPARED THIS PLAN AND SPECIFICATIONS TO THE BEST OF HIS KNOWLEDGE AND BELIEF. THE ENGINEER DOES NOT WARRANT THAT THE INFORMATION PROVIDED IS COMPLETELY ACCURATE OR THAT THE PROJECT WILL BE FREE FROM DEFECTS OR OMISSIONS. THE ENGINEER'S LIABILITY IS LIMITED TO THE PROFESSIONAL SERVICES PROVIDED BY HIMSELF OR HIS FIRM.

DESIGN NINE, INC.
 ENGINEERING AND ARCHITECTURE
 1000 N. GARDNER ST.
 ST. LOUIS, MO. 63102

PREPARED FOR:
PROPOSED BULO-OUT ROUTE "A"
 COFFEEN POWER PLANT
 COFFEEN, ILLINOIS

PROJECT NO.: 04-001
 SHEET NO.: 1 OF 1

LEGEND:

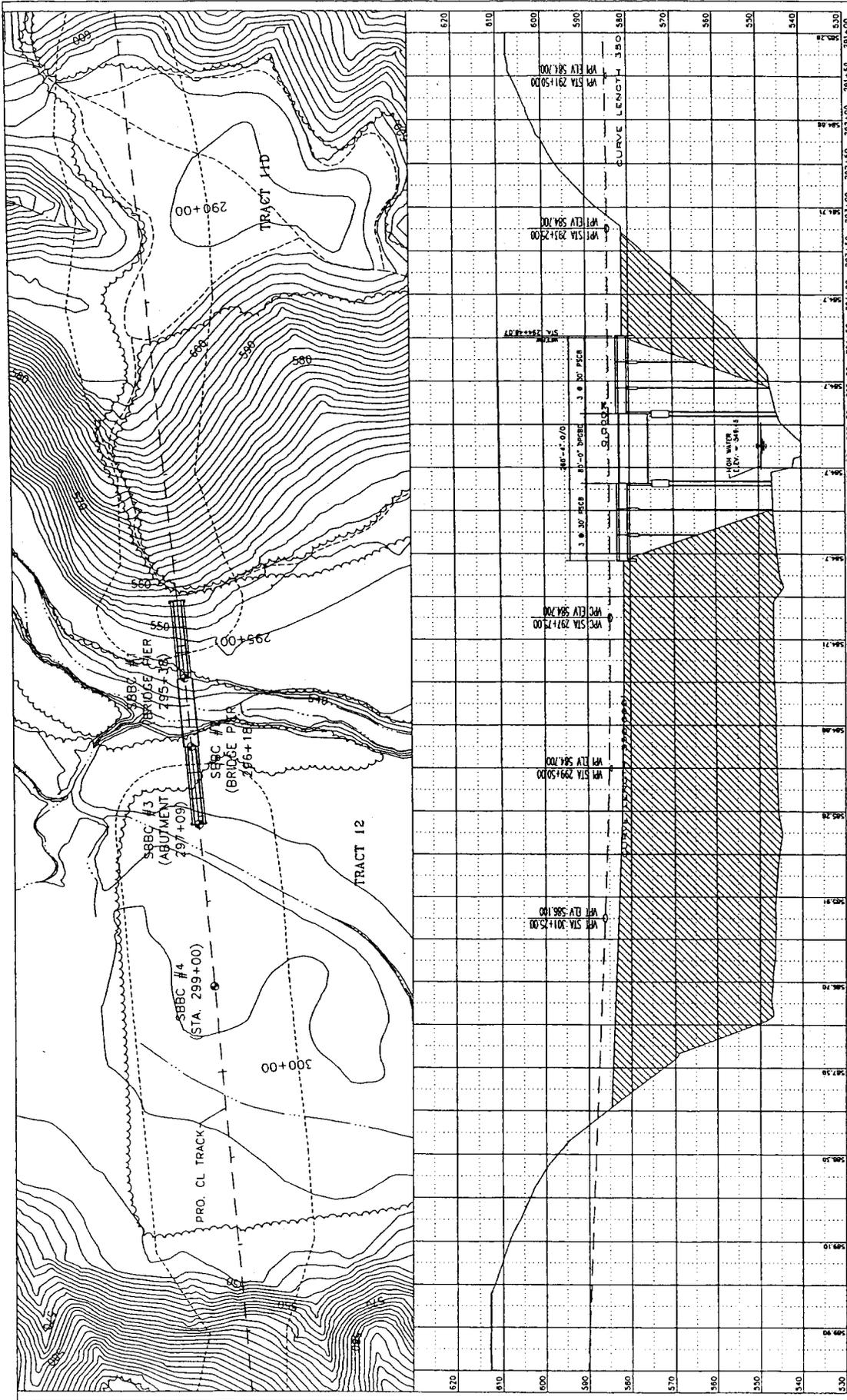
- SBCL # (STA)
- ➔ SBCL # -> SOIL BORING COFFEEN LAKE

BRIDGE LOCATION ON T7N-R3W-S NW10 - AMEREN PROPERTY.
 SOIL BORINGS ON AMEREN PROPERTY.

COFFEEN, MONTGOMERY COUNTY, ILLINOIS

SCALE: 1" = 40'

STATION	ELEVATION	DEPTH	SOIL TYPE	REMARKS
48+70.32	575	10'	CLAY	
48+70.32	575	20'	SAND	
48+70.32	575	30'	CLAY	
48+70.32	575	40'	SAND	
48+70.32	575	50'	CLAY	
48+70.32	575	60'	SAND	
48+70.32	575	70'	CLAY	
48+70.32	575	80'	SAND	
48+70.32	575	90'	CLAY	
48+70.32	575	100'	SAND	
48+70.32	575	110'	CLAY	
48+70.32	575	120'	SAND	
48+70.32	575	130'	CLAY	
48+70.32	575	140'	SAND	
48+70.32	575	150'	CLAY	
48+70.32	575	160'	SAND	
48+70.32	575	170'	CLAY	
48+70.32	575	180'	SAND	
48+70.32	575	190'	CLAY	
48+70.32	575	200'	SAND	
48+70.32	575	210'	CLAY	
48+70.32	575	220'	SAND	
48+70.32	575	230'	CLAY	
48+70.32	575	240'	SAND	
48+70.32	575	250'	CLAY	
48+70.32	575	260'	SAND	
48+70.32	575	270'	CLAY	
48+70.32	575	280'	SAND	
48+70.32	575	290'	CLAY	
48+70.32	575	300'	SAND	



LEGEND:

- SBBC # (STA)
(SBBC => SOIL BORING BEARCAT CREEK)

BRIDGE ON T7N-R4W-S 5E14 - TRACT 11D & 12.
SOIL BORINGS ON TRACT 12 ONLY.

COFFEEN, MONTGOMERY COUNTY, ILLINOIS

ST. LOUIS, MISSOURI

DESIGN NINE, INC.
ENGINEERING SERVICES FOR
RAILROADS AND INDUSTRY
ST. LOUIS, MO.

PREPARED FOR
COMMON TRACK
COFFEEN POWER PLANT
COFFEEN, ILLINOIS

PLAN/PROFILE - BEAR CAT CREEK

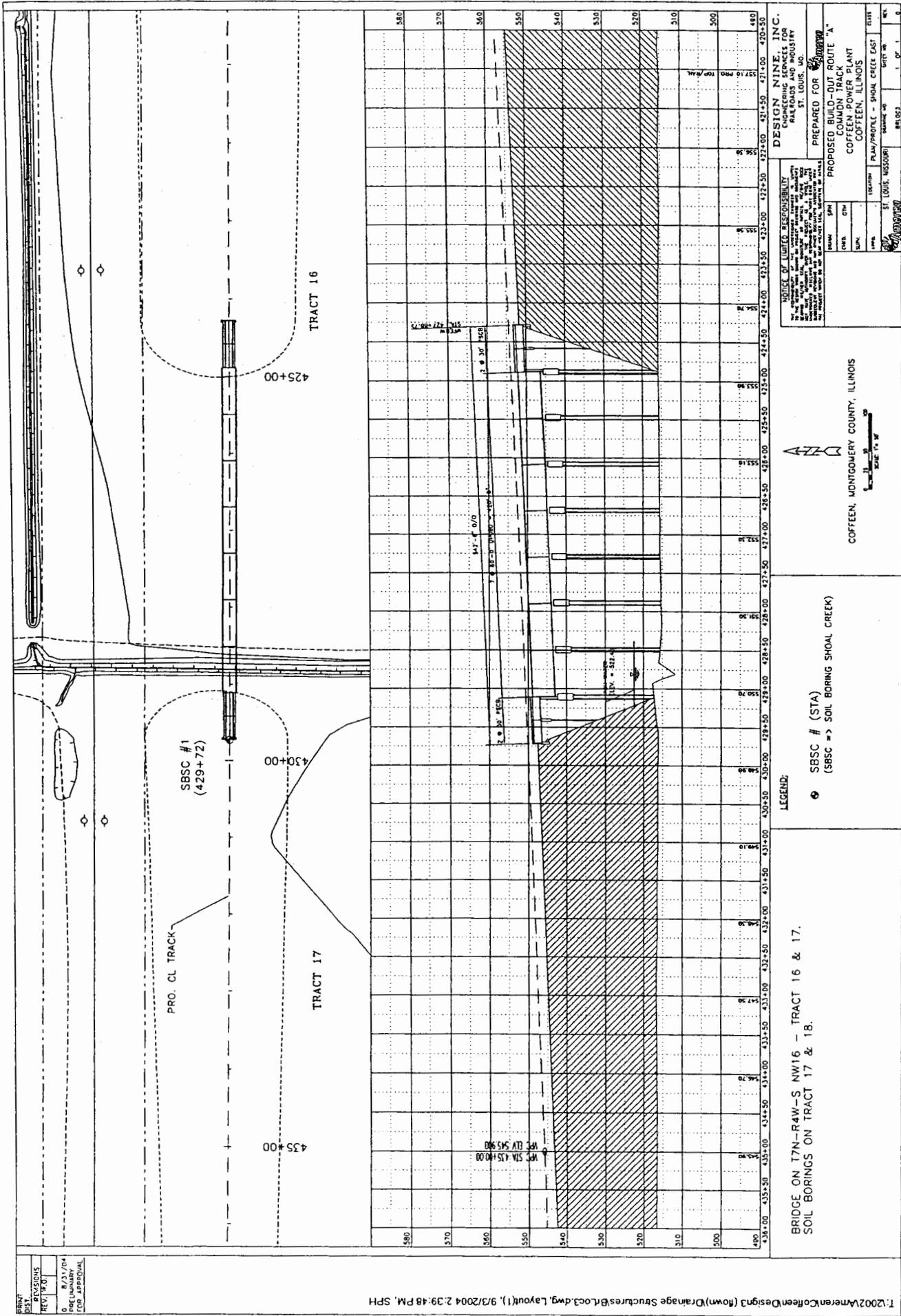
ST. LOUIS, MISSOURI

DATE: 10/10/04

SCALE: 1" = 40'

1 OF 1

REVISED	DATE
REVISIONS	
REVISED	
DATE	
PRELIMINARY	
FOR APPROVAL	



REV	DATE	DESCRIPTION
1	01/17/04	PRELIMINARY FOR APPROVAL
2	01/17/04	REVISED

T:\2002\Amenet\Coffeen\Design\Drawings\Drainage Structures\Borings\Layout(1).dwg, 9/3/2004 2:39:48 PM, SPH

BRIDGE ON T7N-R4W-S NW16 - TRACT 16 & 17.
SOIL BORINGS ON TRACT 17 & 18.

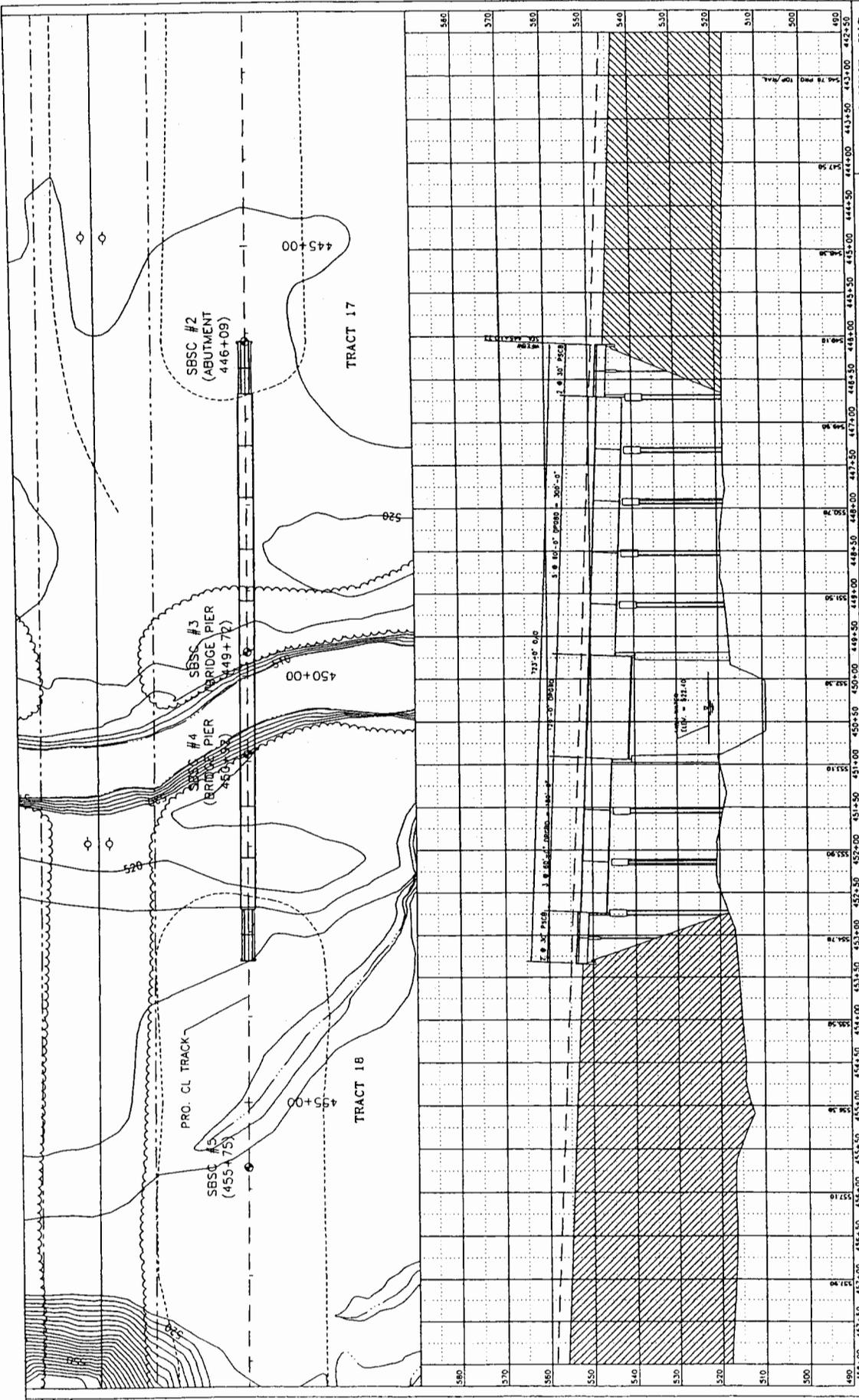
LEGEND:
● SBSC # (STA)
(SBSC => SOIL BORING SHOAL CREEK)

COFFEEN, MONTGOMERY COUNTY, ILLINOIS

DESIGN NINE, INC.
RAILROADS AND INDUSTRY
ST. LOUIS, MO.
PREPARED FOR
COFFEEN POWER PLANT
COFFEEN, ILLINOIS

PRINT
 DISSEMINATIONS
 REVISIONS
 0 8/23/04
 PRELIMINARY
 FOR APPROVAL

T:\2002\Ameren\Coffee\Design3 (town)\Drainage Structures\Borings.dwg, Layout(2), 9/3/2004 2:29:56 PM, SPH



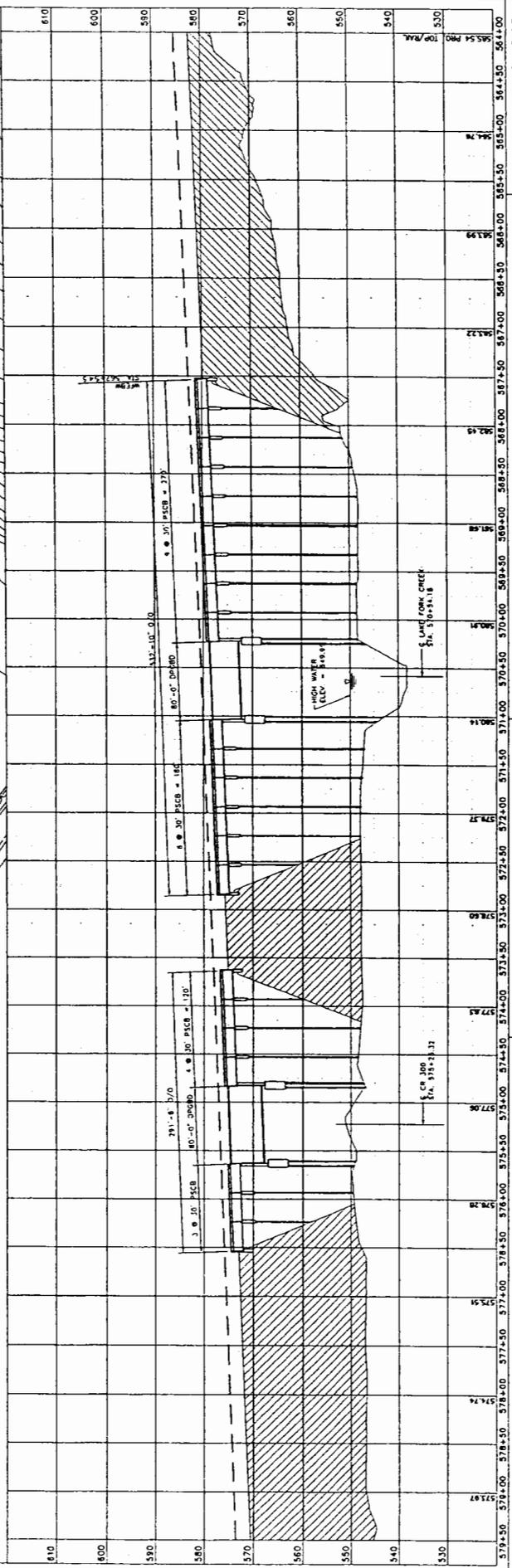
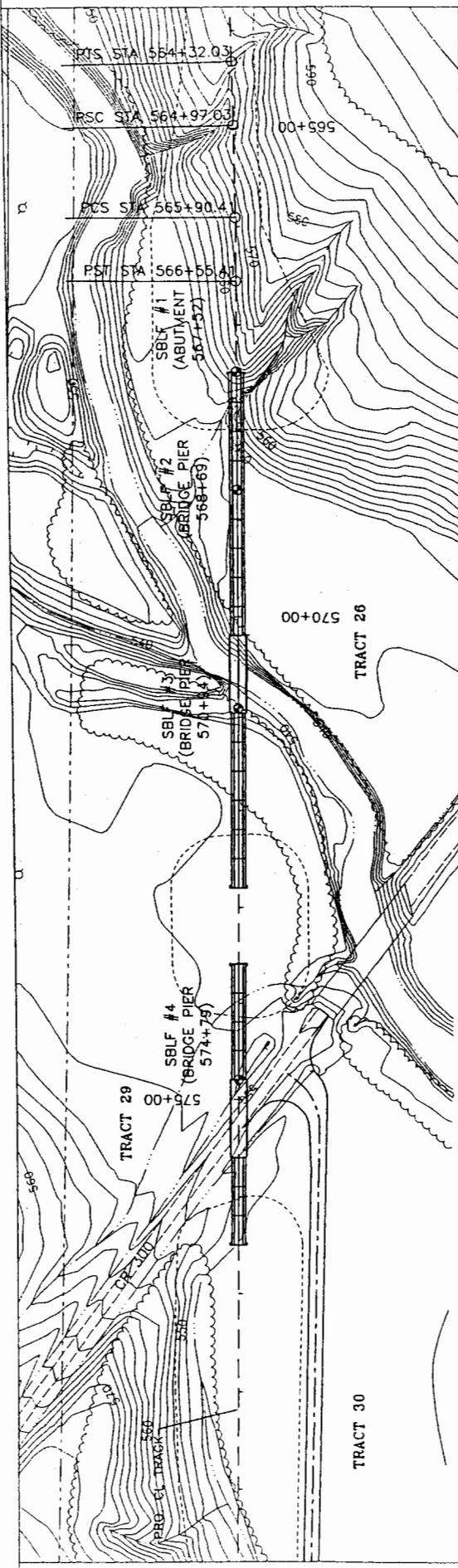
NOTICE OF LIMITED RESPONSIBILITY
 DESIGN NINE, INC.
 ENGINEERING SERVICES FOR
 RAILROADS AND INDUSTRY
 ST. LOUIS, MO.
 PREPARED FOR
 PROPOSED BUILD-OUT ROUTE 'A'
 COMMON TRACK
 COFFEEN POWER PLANT
 COFFEEN, ILLINOIS
 PLAN/PROFILE - SHOAL CREEK
 SHEET NO. 1 OF 1

COFFEEN, MONTGOMERY COUNTY, ILLINOIS
 SCALE 1" = 50'
 NORTH

LEGEND:
 ● SBSC # (STA)
 (SBSC => SOIL BORING SHOAL CREEK)

BRIDGE ON T7N-R4W-S NE17 - TRACT 17 & 18.
 SOIL BORINGS ON TRACT 17 & 18.

PRINT
 12/28/04
 REV: 03
 0 8/08/04
 PRELIMINARY
 FOR APPROVAL



NOTICE OF UNITED RESPONSIBILITY:
 The Engineer shall be responsible for the accuracy of the information provided to him by the client and for the accuracy of the information provided to the client by the Engineer. The Engineer shall not be responsible for the accuracy of the information provided to the client by the client or for the accuracy of the information provided to the Engineer by the client.

DESIGN NINE, INC.
 ENGINEERING SERVICES FOR
 TRANSPORTATION INDUSTRY
 ST. LOUIS, MISSOURI

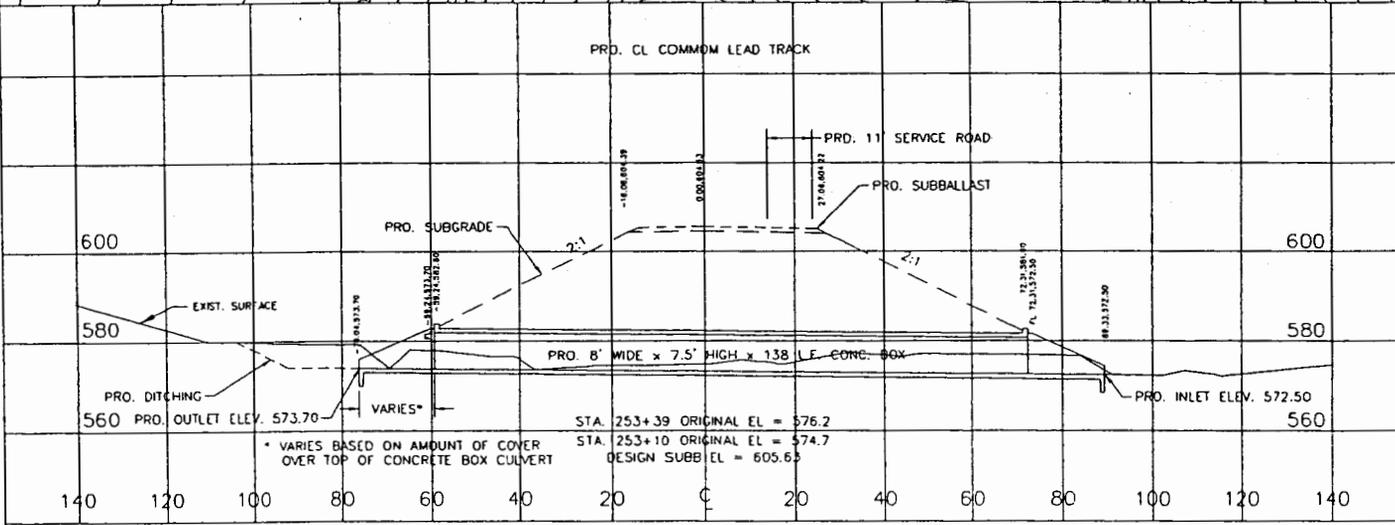
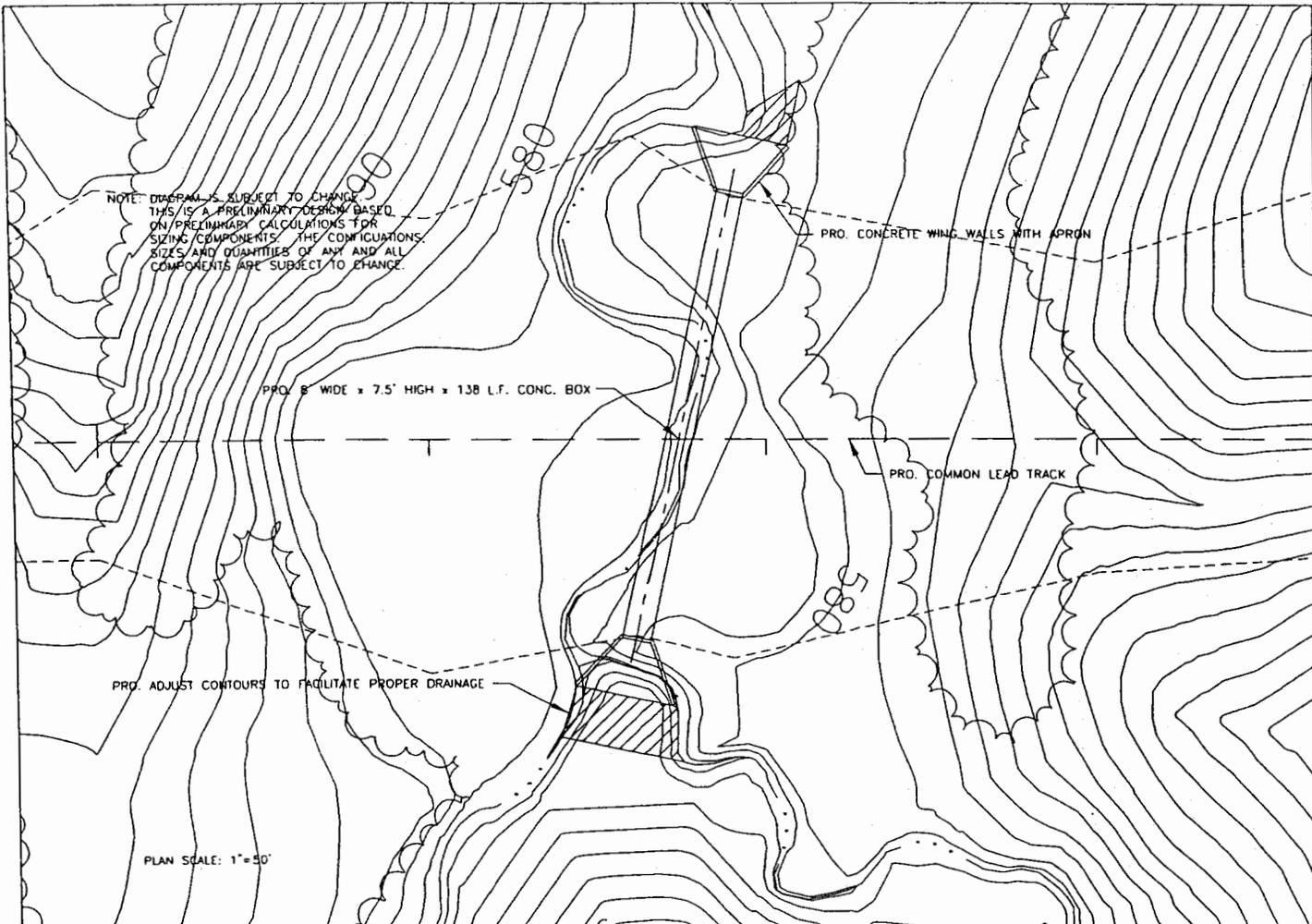
PREPARED FOR
 BNSF CONNECTION
 COFFEEN POWER PLANT
 COFFEEN, ILLINOIS

LOCATION: PLAN PROFILE - LAKE FORK & CR. 30%
 COUNTY: ST. LOUIS, MISSOURI
 DRAWING NO.: 1 OF 1
 SHEET NO.: 8

COFFEEN, MONTGOMERY COUNTY, ILLINOIS
 SCALE: 1" = 40'

LEGEND:
 ● SBLF # (STA)
 (SBLF # -> SOIL BORING LAKE FORK)

BRIDGE ON T7N-R5W-S SE13 & NE24 - TRACT 26, 29 & 30.
 SOIL BORINGS ON TRACT 26 & 29.



TYPICAL PLAN AND CROSS SECTION VIEW OF CONCRETE BOX

NOTE: CONCRETE BOX CULVERT SIZES INCLUDE:
 DOUBLE 8' WIDE x 10' HIGH
 8' WIDE x 10' HIGH
 10' WIDE x 7' HIGH
 TRIPLE 20' WIDE x 12' HIGH

NOTICE OF LIMITED RESPONSIBILITY
 THE RESPONSIBILITY OF THE UNDERSIGNED ENGINEER IS LIMITED TO THE DESIGN WORK SHOWN ON PROJECT DRAWINGS AND DOCUMENTS BEARING HIS/HER SEAL, SIGNATURE OR OFFICIAL HEADLINE. THIS FIRM HAS NO AUTHORITY OVER THE PROJECT AS A WHOLE. THE UNDERSIGNED DISCLAIMS ANY RESPONSIBILITY FOR WORK DONE UNDER SUPERVISOR RETENTION AND ANY OTHER DOCUMENTS ASSOCIATED WITH THE PROJECT WHICH DO NOT BEAR HIS/HER SEAL, SIGNATURE OR OFFICIAL HEADLINE.

DESIGN NINE, INC.
 ENGINEERING SERVICES FOR
 RAILROADS AND INDUSTRY
 ST. LOUIS, MO.

PREPARED FOR

PROPOSED BUILD-OUT
 ROUTES "A" & "B"
 COFFEEN POWER PLANT
 COFFEEN, ILLINOIS

DRAWN	SCR	LOCATION	CONCRETE BOX EXHIBIT 9/03/04	CLASS
CHKD.	GTH	ST. LOUIS, MISSOURI	DRAWING NO.	SHEET NO.
APPD.			CONC_BOX-EXH	1 OF 1

NOTE: DIAGRAM IS SUBJECT TO CHANGE.
THIS IS A PRELIMINARY DESIGN BASED
ON PRELIMINARY CALCULATIONS FOR
SIZING COMPONENTS. THE CONFIGURATIONS,
SIZES AND QUANTITIES OF ANY AND ALL
COMPONENTS ARE SUBJECT TO CHANGE.

PRO. RIPRAP

PRO. 96" DIA. x 186 L.F. CSP

PRO. COMMON LEAD TRACK

PIPE DIA.

PIPE DIA.

2 x DIA.

PLAN SCALE: 1"=50'

PRO. CL COMMON LEAD TRACK

PRO. 11' SERVICE ROAD

PRO. SUBBALLAST

PRO. SUBGRADE

18" RIPRAP

PIPE DIA.

2 x PIPE DIA.

PRO. 96" DIA. x 186 L.F. CSP

ORIGINAL EL = 512.2
DESIGN SUBB EL = 548.58

EXIST. SURFACE

PRO. OUTLET ELEV. 511.80

PRO. INLET ELEV. 511.86

140 120 100 80 60 40 20 C 20 40 60 80 100 120 140

TYPICAL PLAN AND CROSS SECTION VIEW OF CULVERTS

NOTE: CORRUGATED STEEL PIPE DIAMETERS INCLUDE:
24", 30", 36", 42", 48", 54", 60", 66", 72", 84", 90", & 96" DIAMETER
TYPICAL RIPRAP PROTECTION
FOR CSP'S UP TO 48" = 12" DEEP
48" TO 96" = 18" DEEP

NOTICE OF LIMITED RESPONSIBILITY
THE RESPONSIBILITY OF THE UNDERSIGNED ENGINEER IS LIMITED
TO THE DESIGN WORK SHOWN ON PROJECT DRAWINGS AND DOCUMENTS
BEARING HIS/HER SEAL, SIGNATURE OR INITIALS. HE/SHE DOES
NOT HAVE AUTHORITY OVER THE PROJECT OR A PORTION THEREOF.
THE UNDERSIGNED DISCLAIMS ANY RESPONSIBILITY FOR WORK DONE UNDER
SUPERVISORY SUPERVISION AND ANY OTHER DOCUMENTS ASSOCIATED WITH
THE PROJECT WHICH DO NOT BEAR HIS/HER SEAL, SIGNATURE OR INITIALS.

DESIGN NINE, INC.
ENGINEERING SERVICES FOR
RAILROADS AND INDUSTRY
ST. LOUIS, MO.

PREPARED FOR
PROPOSED BUILD-OUT
ROUTES "A" & "B"
COFFEEN POWER PLANT
COFFEEN, ILLINOIS

DRAWN	MPA	LOCATOR	CULVERT DRAINAGE EXHIBIT 9/03/04	CLASS
CHECKED	GTH	ST. LOUIS, MISSOURI	DRAWING NO.	SHEET NO.
SCALE			CULVERT-EXH	1 OF 1
DATE				REV.

ATTACHMENT B

Route	
A	James Bonetto 4441 Buckeye Trail Hillsboro, Illinois 217-537-3332
A	William McQuern 2804 Jackson St Hillsboro, Illinois 62049 217-332-2024
A	Alvin L. Massey, Jr. 92 Mc Quern Lane Hillsboro, Illinois 62049 217-537-3241
A	Thomas R. Bee 3127 Illinois Rt. 127 Hillsboro, Illinois 62049 217-537-3605
A	Barbara J. Wright, Trustee c/o 1 st National Bank P.O. Box 40 Vandalia, Illinois 62471 618-283-1141
A	Charles & Nancy McDowell 1437 Vandalia Road Hillsboro, Illinois 62049 Unknown
A	Dennis Lee Whitley 1601 Ascot Chase Sherman, Illinois 62864 217-496-2585 or 217-414-8358
A	Bernette Spaeth Ron & David Spaeth 243 Spaeth Lane Hillsboro, Illinois 62049 217-537-3219
A	Larry and Kristine Whitley 7 Tremont Terrace Hillsboro, Illinois 62049 217-532-5891
A	Richard L. Dorothy A Suhre, Trustees Brent & Vicki Suhre c/o Richard Suhre 6805 State Route 4 Alhambra, Illinois 62001 618-633-2505
A	David Ketchum 9272 Pheasant Trail Hillsboro, Illinois 62049 Unknown

Route	
A	Grisham Township c/o Barbara L. Jackson Box 7 Panama, Illinois 62077 217-537-3478
A	Clyde & Mary Josephine Andres Judy Andres 8378 Flat Bottom Trail Hillsboro, Illinois 62049 217-537-3495
A	Betty Laughlin, William E. Laughlin, Ruth Ann Carroll, Jo Ellen Micklevitz, Michael Laughlin, Nancy Laughlin c/o Betty Laughlin 105 Laughlin Lane Hillsboro, Illinois 62049 217-537-3285
A	James E. Carroll 8319 Flat Bottom Trail Hillsboro, Illinois 62049 217-537-3473
A	Kilton Farms, Inc. P.O. box 391 Litchfield, Illinois 62056 217-324-5971
A	Bobby D. Hunt & Betty J. Hunt 813 Longbridge Trail Walshville, Illinois 62091 217-272-4748
A	Robert Baxter 1119 State St Alton, Illinois 62002 618-462-1119
A	Bobby Gibson 7417 Shoal Creek Trail Walshville, Illinois 62091 217-272-4405
A	Marlene W. Fetterer 602 E. Center Troy, Illinois 62294 618-667-7306
A	Roy and Bernadine Zinda 797 Longbridge Trail Walshville, Illinois 62091 217-272-4031
A	Charles Titsworth 611 Longbridge Trail Walshville, Illinois 62091 217-272-4287
A	John & Eleanor Svetlik 3762 Brickler Road Springfield, Illinois 62707 217-528-8366

Route	
A	Lawrence & Linda Elam, Trustees 805 Dooner Drive Collinsville, Illinois 62234 618-344-5006
A	Eleanor Svetlik Trustee, Mary Lou Petrunich, Ed Kish, Judy Kish Trustee, Leona Riecan c/o Mary Lou Petrunich 1605 Bent Oak Springfield, Illinois 62704 217-546-6340
A	Darrell & Lori Fenton 6349 Elm Trail Walshville, Illinois 62091 217-324-2479
A	Joe Sebeschak 7016 Shoal Creek Trail Walshville, Illinois 62091 217-272-4293
A	Gary Deuser 1214 Lindenthal Ave Highland, Illinois 62249 618-654-3109
A	Pelma Ferjancic 3201 Elevator Road Walshville, Illinois 62091 217-999-7304
A	Robert & Janis Smith Trustees 2510 West 20 th St Granite City, Illinois 62040 618-877-4580
A	John Loew 311 West 7 th South Mt. Olive, Illinois 62069 217-999-4503
A	David & Mary Eilert David M. Weilder c/o David M. Weilder 104 W. 5 th South Mt. Olive, Illinois 62069 217-999-6380
A	Lyle H & Catherine L. Krieger 155 Marsh Lane Walshville, Illinois 62091 217-272-4238
A	David A Baker 12327 Roberson Road Litchfield, Illinois 62056 Unknown
A	Chad & Lisa Roach 7000 Elm Trail Walshville Illinois 62094 Unknown

Route	
A	Rose Beard 14243 Mentor Lane Coffeen, Illinois 62017 Unknown
A	Samuel J. Elizondo 3141 Illinois Route 127 Hillsboro, Illinois 62019 217-537-3320
A	Mike Laughlin 50 Laughlin Lane Hillsboro, Illinois 62049 217-537-3180
A	Brian and Cassie Johnson 5229 North 3 rd Ave. Walshville, Illinois 62091 217-272-4669
A	Donald Boehler and Sherry Brossard 689 Fox Hunt Trail Hillsboro, Illinois 62049 217-537-3414
A	Kent William Pastrovich 6206 Niemanville Trail Litchfield, IL 62056 217-324-2879
A,B	Kenneth E. & Betty J. Weiss Trustees 312 W. 3 rd North Street Mt. Olive, Illinois 62029 217-999-5003
B	Ruby Mae Hughes 2008 Elevator Rd Walshville, Illinois 62091 217-272-4106
B	James & Elaine Bradshaw 5325 Kirkland Trail Sorento, Illinois 62086 217-272-4933
B	Manuel & Bonnie Fernandez 1320 Singer Trail Sorento, Illinois 62086 217-272-4407
B	Donald L. & Susan E. Wall 309 Sorento Ave. Sorento, Illinois 62086 217-272-4485
B	Donald A. & Laura K Wall 272 Singer Trail Sorento, Illinois 62086 217-272-4408
B	Reba A. Wall Trustee 283 Sorento Ave Sorento, Illinois 62086 217-272-4296

Route	
B	Thomas H. Miller 5308 Sorento Ave Sorento, Illinois 62086 217-272-4085 and 1411 Beverly Point Road Leesburg, Florida 34748 352-728-8984
B	Robert Collman 341 Old Panama Ave Sorento, Illinois 62086 217-272-4088
B	William Brennan 209 W. Panama Ave Sorento, Illinois 62086 217-272-4313
B	Kevin R. Kelley 107 East Panama St Sorento, Illinois 62086 217-272-4062
B	David L. Crouch 209 E. Panama St Sorento, Illinois 62806 217-272-4477
B	Gerald and Alesia Volentine 406 Old Panama Ave Sorento, Illinois 62086 217-272-4128
B	Doris Ingles (Randy) 608 N. West ST Sorento, Illinois 62086 217-272-4203
B	Ronald U. Cruthis 241 Sunnyside Ave Sorento, Illinois 62086 217-272-4403
B	Minnie L Wall 409 Sorento Ave Sorento, Illinois 62086 217-272-4328
B	Village of Sorento P.O. Box 219 Sorento, Illinois 62086 217-272-4379
B	George and Mary Petrunich, etal 623 Jaime Lynn Court Edwardsville, Illinois 62025 Unknown
B	Sam Pastrovich, Jr. 1081 Mt. Olive Trail Litchfield, Illinois 62056 217-999-7452

ATTACHMENT C

MACTEC Identifier	Name of Waterway	DNF Station #	Route	Impact Type	Culvert Diameter	Culvert/Bridge Length	In or Near City or Town	County	State	Legal Description		UTM - From		UTM - To	
										Section	Township Range	Zone	North	Zone	North
Stream 25	Coffeen Lake	16+58	A	Culverted	36"	Extended 30'	N/A	Montgomery	Illinois	TMN	R3W	16	14197594.31631	957032.91852	
Welland 15	Coffeen Lake	36+30 to 43+40	A	Embankment/Bridge	5 Span	150'	N/A	Montgomery	Illinois	TMN	R3W	16	14196976.32559	955330.71327	956649.40417
Welland 14	Coffeen Lake	47+15	A	Filled/Culverted	30"	106'	N/A	Montgomery	Illinois	TMN	R3W	16	14196672.70902	945294.13881	
Welland 11	Coffeen Lake	59+00	A	Partial Fill			N/A	Montgomery	Illinois	TMN	R3W	16	14196100.53573	93244.62975	
Stream 22	Coffeen Lake	71+20	A	Partial Fill			N/A	Montgomery	Illinois	TMN	R3W	16	14195459.06341	932225.62261	
Stream 23	Coffeen Lake	81+66	A	Culverted	48"	66'	N/A	Montgomery	Illinois	TMN	R3W	16	14195458.51298	932224.98751	
Stream 30	Coffeen Lake	82+66	A	Culverted	66"	74'	N/A	Montgomery	Illinois	TMN	R3W	16	14194828.56193	931269.18232	
Stream 21	Coffeen Lake	214+19	A	Culverted	60"	138'	N/A	Montgomery	Illinois	TMN	R3W	16	14191456.45198	939446.91304	
Stream 19	Coffeen Lake	223+18	A	Culverted	72"	266'	N/A	Montgomery	Illinois	TMN	R3W	16	14191470.58701	938347.80955	
Stream 10	Coffeen Lake	236+05	A	Box Culvert	(3) 8w x 10h	194'	N/A	Montgomery	Illinois	TMN	R4W	16	14191327.10607	937276.15468	
Stream 18	Coffeen Lake	253+26	A	Box Culvert	8w x 7.5h	138'	N/A	Montgomery	Illinois	TMN	R4W	16	14191350.90378	937351.49736	
Stream 17	Coffeen Lake	253+26	A	Filled/Diverter			N/A	Montgomery	Illinois	TMN	R4W	16	14190328.55966	934354.50373	
Stream 18 Tributary A	Coffeen Lake	266+95	A	Culverted	66"	128'	N/A	Montgomery	Illinois	TMN	R4W	16	14190328.55966	934354.50373	
Stream 16	Coffeen Lake	271+64	A	Culverted	60"	80'	N/A	Montgomery	Illinois	TMN	R4W	16	14190328.55966	934354.50373	
Stream 15	Coffeen Lake	281+00	A	Filled/Diverter			N/A	Montgomery	Illinois	TMN	R4W	16	14190328.55966	934354.50373	
Stream 14	Coffeen Lake	293+78	A	Bridged	7 Span	260'	N/A	Montgomery	Illinois	TMN	R4W	16	14190344.30917	932351.32456	
Welland 10-3-FW	Coffeen Lake	297+50	A	Partial Fill			N/A	Montgomery	Illinois	TMN	R4W	16	14190371.58318	931451.55566	
Welland 10-2-FW	Coffeen Lake	301+80	A	Filled			N/A	Montgomery	Illinois	TMN	R4W	16	14190375.63322	931301.59048	
Welland 10-1-FW	Coffeen Lake	314+51	A	Culverted	84"	162'	N/A	Montgomery	Illinois	TMN	R4W	16	14190383.98650	931021.66102	
Stream 13	Coffeen Lake	318+00	A	Filled/Diverter			N/A	Montgomery	Illinois	TMN	R4W	16	14190383.98650	931021.66102	
Stream 12	Coffeen Lake	319+49	A	Culverted	54"	284'	N/A	Montgomery	Illinois	TMN	R4W	16	14190383.98650	931021.66102	
Stream 11 Tributary A	Coffeen Lake	318+00	A	Filled			N/A	Montgomery	Illinois	TMN	R4W	16	14190376.34215	938383.91456	
Welland 9-FW	Coffeen Lake	431 to 444	A	Partial Fill			N/A	Montgomery	Illinois	TMN	R4W	16	14192037.38078	918077.29598	916778.08399
Stream 11	Coffeen Lake	450+34	A	Bridged	13 Span	723'	N/A	Montgomery	Illinois	TMN	R4W	16	14192114.74235	916178.44946	
Welland 8	Coffeen Lake	451 to 462	A	Partial Fill/Bridge			N/A	Montgomery	Illinois	TMN	R4W	16	14192118.81454	916078.50991	
Stream 11 Tributary B	Coffeen Lake	459+60	A	Culverted	(2) 84"	262'	N/A	Montgomery	Illinois	TMN	R4W	16	14192153.83130	915219.02921	
Stream 11 Tributary A	Coffeen Lake	467+00	A	Filled/Diverter			N/A	Montgomery	Illinois	TMN	R4W	16	14192163.60746	914979.17418	
Welland 6	Coffeen Lake	558+30	A	Partial Fill			N/A	Montgomery	Illinois	TMN	R5W	16	14189705.16465	906109.30587	
Stream 7	Coffeen Lake	558+30	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14189702.92741	906105.98866	
Stream 6	Coffeen Lake	558+34	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14189702.92741	906105.98866	
Welland 4	Coffeen Lake	570+50	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14189031.55782	905091.83606	
Welland 1-FW	Coffeen Lake	571+00	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14189004.45733	905049.80727	
Welland 2-FW	Coffeen Lake	574+90 to 579+60	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14188793.07286	904721.94267	904326.82916
Stream 4	Coffeen Lake	578+00 to 580+00	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14188635.05096	904461.33584	904293.20244
Stream 3	Coffeen Lake	584+94	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14188194.69461	903793.84585	
Stream 10 Tributary A	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Stream 10	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Stream 2	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 2	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 1	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 2	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 1	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 2	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 1	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 2	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 1	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 2	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 1	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 2	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 1	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 2	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 1	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 2	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 1	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 2	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 1	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 2	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 1	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 2	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 1	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 2	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 1	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 2	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 1	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 2	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 1	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 2	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 1	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 2	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 1	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 2	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 1	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 2	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 1	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 2	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 1	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554	903196.67416	
Pond 2 Wet 2	Coffeen Lake	593+04	A	BNSF			N/A	Walshville	Illinois	TMN	R5W	16	14187810.32554		

Hydrologic Analysis and Design of Stormwater Crossings Coffeen and Western Railroad Proposed Construction Project

EXECUTIVE SUMMARY

Introduction

Reitz & Jens, Inc.¹ provides the following executive summary of its hydrology report for the Coffeen and Western Railroad Co. ("CWRC"). The report analyzes the proposed bridge crossings for five significant waterway crossings and the design recommendations for all of the culverts needed along CWRC's proposed railroad alignment(s) in Montgomery and/or Bond County, Illinois. The principal use of almost all of the tributary area throughout this project is agricultural.

Hydraulic Design Criteria

The hydraulic design criteria used in this report is the criteria established by the Illinois Department of Natural Resources ("IDNR"). The IDNR criteria for jurisdictional crossings is that the proposed construction has to create less than one foot of rise for the 100 year flood at the crossing, and less than 0.5 feet rise 1000 feet upstream of the construction. The IDNR criteria are more restrictive than any rural FEMA requirements.

Findings

Coffeen Lake - Coffeen Lake was built in the mid to late 1960's as a source of cooling water for the Coffeen power generation plant. The proposed crossing is approximately 400 to 800 feet south of the Norfolk Southern Railroad (NS) through the lake. The NS crossing of Coffeen Lake is an embankment with two drainage openings. The tributary watershed area of the entire lake is 19.013 square miles, and the watershed upstream of the railroad crossing is 10.353 square miles.

Because of the close proximity of the proposed CWRC crossing of Coffeen Lake to the existing NS crossing, Reitz & Jens gave special consideration to the potential to create a stagnant pool of water between the two embankments. To diminish the possibility of water stagnation by encouraging the maximum flow distance, Reitz & Jens recommends that the opening in the CWRC embankment be centered at track station 41+50, which is near the west bank of the lake. This will force flows through the existing embankment to move laterally across the whole zone to new embankment opening. In addition, there are two small tributaries that discharge into the lake in this area from the east that will add to the outflow to the west. It is our opinion that this drainage pattern will encourage the greatest possible mixing and fresh water replacement in the pool between the existing and proposed embankment.

Reitz & Jens calculated that a maximum discharge of 4562 cubic feet per second (CFS) through the proposed opening will maintain a minimum difference in elevation between the upper and lower parts of the lake. The proposed 30 foot wide clear span opening with sloping

¹ Reitz & Jens, Inc. worked with Design Nine, Inc., the engineering consultants for the project, in developing the design recommendations for all the culverts or structures needed along the proposed alignments.

abutments calculates to have a maximum head loss of 0.06 feet (0.75 inch) for a design flow of 5000 cfs. Since the maximum differential water surface at the proposed new crossing is less than one inch, it is Reitz and Jens Inc.'s opinion² that the lake will remain effectively balanced on each side of the proposed new crossing subject to the limitations of flow through the existing NS embankment.

Bearcat Creek – The 100 year storm discharge for Bearcat Creek is 4550 cfs and the 50 year storm discharge is 3950 cfs. The proposed bridge at Bearcat Creek will be 260 feet long with 7 spans, including an 80 foot main span and six 30 foot approach spans. The results of modeling the existing channel and the channel with the proposed railroad embankment and bridge indicate that in a 100 year storm, there will be a flow rise of 0.64 feet at the bridge and 0.01 feet 1000 feet upstream. This complies with IDNR regulations.

Shoal Creek - The floodplain crossing at Shoal Creek is about 4700 feet long. The calculated 100 year flow for Shoal Creek is 22,585 cfs. Two bridges are proposed for Shoal Creek, including a longer bridge of 720 feet at the main creek channel, and a second bridge, 540 feet long, in the eastern embankment across the flood plain. The results of modeling the existing channel and the channel with the proposed railroad embankment and bridge indicate that in a 100 year storm, there will be a flow rise of 0.77 feet at the bridge and 0.25 feet 1000 feet upstream. This complies with the IDNR regulations.

Lake Fork Creek - The calculated 100 year storm flow for the total Lake Fork Creek tributary is 7351 cfs. A conservative modeling approach to account for the 45 degree skew across the creek valley indicates that the 100 year storm flow rise will be 0.66 feet at the bridge and 0.29 feet 1000 feet upstream. This complies with the IDNR regulations.

Grove Branch - This crossing is in Route B. The calculated 100 year storm flow is 4614 cfs. The proposed crossing is a triple 20 foot wide by 12 foot high reinforced concrete box culvert. The results of modeling the existing channel and the channel with the proposed railroad embankment and culvert in place indicate that in a 100 year storm, there will be a flow rise of 0.72 feet at the bridge and 0.42 feet 1000 feet upstream. This complies with IDNR regulations.

Smaller Crossings - The tributary areas for the small crossings ranged from 0.001 square miles to 2.175 square miles. The smaller crossing culverts were all sized based upon conservative result flow modeling and using standard hydraulic criteria in the railroad industry. The culverts were sized to keep the 50 year flow below the intrados of the culvert and the headwater depth for the 100 year flow through the conduit was checked to assure the track subgrade would not be flooded.

Attached to this Executive Summary is a table indicating the proposed design for each embankment drainage crossing to accommodate the hydrologic analysis in consultation with Design Nine, Inc.

² IDNR has not established specific design criteria for lakes as it has for streams. However, based on discussions with IDNR this design will meet IDNR standards and requirements.

Summary Table of embankment drainage crossings													Revised 9/16/04
Design for BNSF RR Hydraulic criteria (50 yr storm at culvert intrades)													
Check for Headwater Depth of the 100 yr storm													
Station ±	Station ±	DNI	Trib Area	Area	sq miles	Stream	CMP	DNI	50 Yr	100 Yr	100 Yr	100 Yr	
post June 9	pre 5/27	Station ±	sq inches	acres	sq miles	Slope (ft/m)	Conduit	Size (in)	storm	flow	flow	depth	
ROUTE "A" - Common Lead													
30' extension													
38' extension													
drains to Coffeen Lake													
28+10			0.13	3.0	0.005		30	existing 36"			0		
Coffeen Lake													
41+50							single 30" bridge plus sloping abutments						
47+20		41+50	0.43	0.9	0.001		30	bridge					
51+40		47+20	0.64	1.3	0.002		30	30"					
56+40		51+33	0.53	1.1	0.002		30	33"	1.06	2.915	0		
57+70			0.14	3.2	0.005	42	30" min.						drains to 51+33
67+00		67+00						2-24"	15.5				RR ditches under road crossing
71+25		71+21	1.43	32.8	0.051	26.4	48	48"	73.6	1.1	4.4		
82+60		82+66	1.24	28.5	0.044	35.2	66	66"	77.7	1.07	5.885		
92+05				0.0	0.000		30" min.						drains to 82+66
112+25		112+10	8.35	191.9	0.300	11.7	72	72"	184.5	1.06	6.36		
		115+35						2-24"					RR ditches under road crossing
		187+36						2-30"					RR ditches under road crossing
193+50		192+80	2.56	58.8	0.092	52.8	72	72"	173.7	1.02	6.12		
204+50			0.36	8.3	0.013	30	33		28.8				drains to 214+19
214+95		214+19	1.71	39.3	0.061	55	66	66"	111.5	1.08	5.94		
226+80		225+85	1.77	40.6	0.063	93.2	72	72"	134.7	1.08	5.94		
228+30		227+80	0.14	3.2	0.005	123	33		180.4	209.2	1.11	3.0525	drains to 225+18
233+75		233+22		0.0	0.000			toe drain to west	28.8				drains to 236+05
236+00		236+05	60.63	1391.9	2.175	28.6	2-8x10		147.10	1.12	11.2		
254+05		253+26	14.89	341.8	0.534	27.9	1-8x7.5		480.3	1.12	8.4		
256+30				0.0	0.000								drains to 253+26
267+85		266+95	0.98	22.5	0.035	140	66	66"	143.4	1.02	5.61		
270+30			0.17	3.9	0.006		30		0.0				drains to 271+64
272+50		271+64	0.35	8.0	0.013	188	60	60"	64.2	1.08	5.4		
283+18			0.07	1.6	0.003		30		0.0				drains to Bear Cat Creek
287+85			0.22	5.1	0.008	216	42		56.8	1.25	4.375		drains to Bear Cat Creek
288+40													
316+20		295+78						bridge					
319+70		314+51	2.83	65.0	0.102	132	84	84"	319.2	1.14	7.98		
325+70		319+49	0.79	18.1	0.028	97	54	54"	97.9	1.12	5.04		
328+95									0.0				drains to 319+49
345+93		344+48	2.77	63.6	0.099	33	66	66"	0.0				drains to 319+49
		366+90							140.9	1.03	5.655		
377+00			0.29	6.7	0.010	35	33		24.7	1.02	2.805		RR ditches under road crossing
428+81		428+81	6.75	155.0	0.242	33	84	bridge	283.9	1.05	7.35		drains to Shoal Creek East
450+34													
459+60			10.03	230.3	0.360		2-84"		523.1	0.0	610.7	1.1	7.7
462+00									0.0				drains to 459+60
463+95									0.0				drains to 459+60
465+80									0.0				drains to 459+60
466+40									0.0				Excavate existing pond levee
469+50		468+39	0.08	1.8	0.003	312	36	36"	31.7	1.05	3.15		Excavate existing pond levee
473+25		471+95	0.17	3.9	0.006	211	42	42"	45.8	1.02	3.57		Excavate existing pond levee
483+50				0.0	0.000		30" min.		0.0				drains to 471+95

Errata to August 27, 2004 Report

After the August 27, 2004 Report was published, Design Nine, Inc. provided MACTEC updated station numbers. The updated station numbers that changed from the Report are noted below. These updated Station Numbers have no impact on the remainder of the Report.

Updates to Table 4-1:

<u>Page</u>	<u>Stream Number</u>	<u>Report Station Number</u>	<u>Updated Station Number</u>
9	Stream 1	226+00 to 231+00	226+50; 228 to 231
9	Stream 4	585+94	584+94
9	Stream 10	542+28	542+38
9	Stream 11 Shoal Creek	450+00	450+34
9	Stream 14 Bearcat Creek	296+00	295+78
9	Stream 25	17+00	16+58

Updates to Table 4-2:

<u>Page</u>	<u>Wetland or Pond ID</u>	<u>Report Station Number</u>	<u>Updated Station Number</u>
10	Wetland 15	47+10	47+15

In addition, the following updates should be noted in the Report:

Update to Figure 3-10 and Table 5-1:

An additional bridge was added to the design subsequent to the completed Report. This bridge is between Station Numbers 424+25 and 429+75 near Shoal Creek and replaces a previously proposed embankment and culvert pipe. Neither the previous culvert pipe nor the alternative bridge is within a wetland or other water feature and thus does not change the wetland impacts in the Report. A revised bridge at Lake Fork was also added and is included in the relevant Figures. The Lake Fork bridge shape was used to re-quantify wetland impacts in the Report. However, due to an omission, these new structures were not used to re-quantify floodplain impacts. Table 5.1 on page 12 of the Report should be replaced with the following Revised Table 5.1:

Revised Table 5.1. Floodplain Impacts

Stream Crossing	Original Floodplain Impacts (8-27-2004)		Revised Floodplain Impacts (10-22-2004)	
	Acres	Hectares	Acres	Hectares
Grove Branch	1.31	0.53	1.31	0.53
Lake Fork Creek	2.03	0.82	0.64	0.26
Shoal Creek	18.08	7.32	15.20	6.15
Bearcat Creek	1.04	0.42	1.04	0.42
Coffeen Lake	1.28	0.52	1.28	0.52
Total	23.74	9.61	19.47	7.88

Update to Appendix C:

<u>Page</u>	<u>Description</u>
C-7	The Field Determination for the Type of Flow for Stream 7 should be marked "X" for Perennial instead of Intermittent.