

FILE



Legal Department

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American Electric Power
1 Riverside Plaza
Columbus, OH 43215-2373
AEP.com

November 4, 2010

Chairman Alan Schriber
Ohio Power Siting Board
Public Utilities Commission of Ohio
180 East Broad Street
Columbus, OH 43215-3793

Re: Roberts-OSU 138kV Transmission Line Case No. 08-170-EL-BTX

Dear Chairman Schriber,

Enclosed please find the permits required by the certificate issued by the Board in this case. Specifically, this filing includes the US Army Corp of Engineers crossing permits for the Olentangy and Scioto Rivers and the Storm Water Pollution Prevention Plan (SWPPP) as submitted to the Ohio EPA. Please be aware that, on October 22, 2010, the Company also provided the Board Staff with copies of the following items that are difficult to put in a format for docketing to scan:

- Roberts - OSU 138 kV Line Plan and Profile for the overhead line section
- Roberts - OSU 138 kV Line Plan and Profile for the underground line section
- Roberts - OSU 138 kV Line General Notes and Miscellaneous Details
- Sediment and Erosion Control Drawings, Notes and Details
- Horizontal Directional Drill (HDD) Migration of Drill Mud (Frac-Out) Contingency Plan
- Maintenance of Traffic Plan and Notes.

Cordially,

Matthew J. Satterwhite, Senior Counsel

Enclosure

This is to certify that the images appearing are an accurate and complete reproduction of a case file document delivered in the regular course of business.
Technician Dr Date Processed 11-4-2010



American Electric Power
1 Riverside Plaza
Columbus, OH 43215-2373
aep.com

October 28, 2010

Ohio Environmental Protection Agency
Office of Fiscal Administration
P.O. Box 1049
Columbus, OH 43216-1049

Re: Roberts-OSU 138kV
Franklin County, OH
Notice of Intent for OEPA General NPDES Permit

Dear Sir/Madam:

Attached is a Notice of Intent (NOI) for coverage under the OEPA General NPDES Permit for authorization to discharge storm water associated with construction activity. This NOI is for the construction of a 6.5 mile 138 kV line from the Roberts Road substation to the OSU substation in Franklin County, Ohio. 5.5 miles of the line will be buried. The total disturbed area is estimated at 20 acres. A map to show the location of the project has been included along with a check in the amount of \$500.00 to cover the application fee.

We appreciate your review of this application. If you have any questions concerning this submittal, please contact me at (614) 716-1264.

Sincerely,

A handwritten signature in black ink, appearing to read 'Christina Svoboda', with a long, sweeping underline.

Christina Svoboda
Environmental Specialist

Attachments

cc: Sleiman El-Hallal
John Heppner
Eric Leu



Notice of Intent (NOI) For Coverage Under Ohio Environmental Protection Agency General Permit

(Read accompanying instructions carefully before completing this form)

Submission of this NOI constitutes notice that the party identified in Section I of this form intends to be authorized to discharge into state surface waters under Ohio EPA's NPDES general permit program. Becoming a permittee obligates a discharger to comply with the terms and conditions of the permit. Complete all required information as indicated by the instructions. Forms transmitted by fax will not be accepted. A check for the proper amount must accompany this form and be made payable to "Treasurer, State of Ohio." (See the fee table in Attachment D of the NOI instructions for the appropriate processing fee)

I. Applicant Information/Mailing Address

Company (Applicant) Name: Columbus Southern Power Company dba AEP

Mailing (Applicant) Address: 1 Riverside Plaza - Water and Ecological Services - 22nd Floor

City: Columbus

State: OH

Zip Code: 43215

Contact Person: Alan R. Wood

Phone: (614) 716-1233

Fax: (614) 716-1252

Contact E-Mail Address: arwood@aep.com

II. Facility/Site Location Information

Facility Name: Roberts -OSU 138kV Line

Facility Address/Location: 6.5 mile line from Roberts Road Station (40.011108/-83.115628) to OSU Station (39.996635/-83.02265)

City: Columbus & Upper Arlington

State: OH

Zip Code: _____

County(ies): Franklin

Township(s): Clinton, Norwich

Facility Contact Person: Eric Lau

Phone: (614) 204-4475

Fax: _____

Facility Contact E-Mail Address: elau@aep.com

Quarter: _____

Section(s): _____

Range: _____

Receiving Stream or MS4: Scioto River and Olentangy River

If aware of a state nature preserve within 1,000 feet of the facility/site, check here: ☐

Enter river code here, if discharge is to a river designated scenic, wild, or recreational, or to a tributary within 1,000 feet (see instructions): _____

General Permit Number: OH

Initial Coverage: ☒

Renewal Coverage: ☐

Type of Activity: Construction SW / Darby SW - 20 or more acres disturbed Fee = \$500

SIC Code(s): - _____ - _____ - _____ - _____

Existing NPDES Permit Number: _____

ODNR Coal Mining Application Number: _____

Outfall

Design Flow (MGD)

Latitude

Longitude

Other DSW Permits Required: _____

Proposed Project Start Date (MO DY YR): 12/01/10 Estimated Completion Date: (MO DY YR): 09/16/11

Total Land Disturbance (Acres): 20.00

MS4 Drainage Area (Square Miles): _____

Payment Information: Check # 3000284735

Check Amount: \$500

Date of Check: 10/19/10

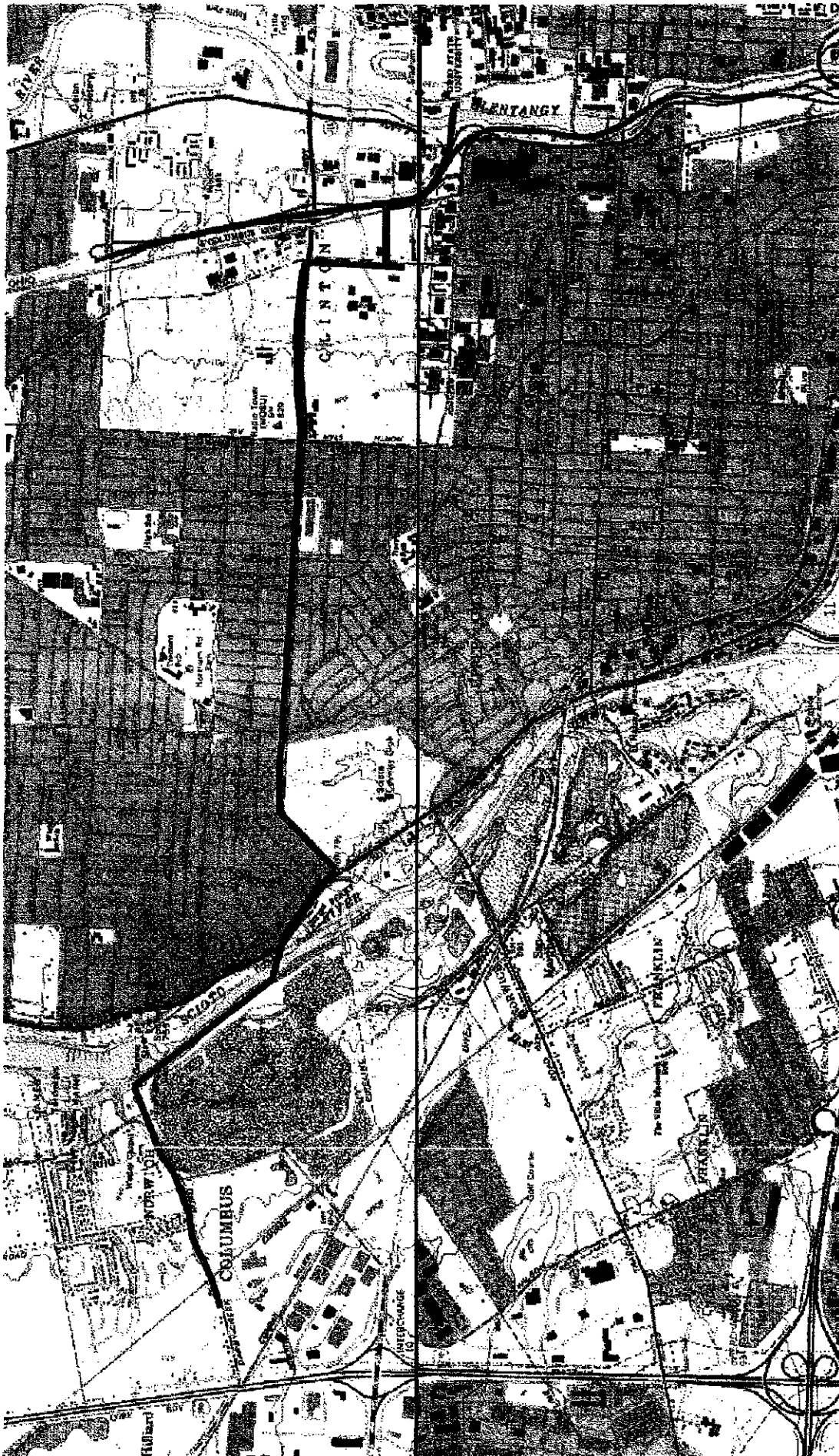
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Applicant Name: John McManus

Title: Vice President - Environmental Services

Applicant Signature: John McManus

Date: 10/28/10



Vicinity Map

Applicant : Columbus Southern Power Company

Agent: AEP Service Corporation

Project: Roberts-OSU 138 kV

Date: October 2010



N



Transmission Line

Site Contact:
Eric Leu -AEP
(614) 204-4475
eleu@AEP.com

Water & Ecological
Resource Services



STORMWATER POLLUTION PREVENTION PLAN

AEP OHIO TRANSMISSION COMPANY ROBERTS-OSU 138KV TRANSMISSION LINE FRANKLIN COUNTY, OHIO

**Prepared For:
AEP Ohio Transmission Company**

**Site Contact:
Eric Leu
614 204-4475**

**Prepared By:
American Electric Power Service Corporation
Environmental Services
1 Riverside Plaza
Columbus, Ohio 43215**



October 2010

**Construction Start Date - December 1, 2010
Construction Completion Date - September 16, 2011**

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Alan R. Wood, P.E.

Title: Manager, Water & Ecological Resource Services

Signature: 

Date: 10-28-2010

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APPENDIX 1 – General NPDES Permit for Storm Water Associated with Construction Activity.

APPENDIX 2 – USGS Site Location Map, Soil Map, Laydown Area Drawing, 138 kV Overhead Plan and Profile and Construction Plans for Underground Portion

APPENDIX 3 – Facility Inspection Reports

APPENDIX 4 – Duty to Inform Contractors and Subcontractors Form

I. **Site Description**

a. Description of Construction Activity

The Roberts-OSU project involves the construction of an approximately 6.6 mile, 138-kV electric transmission line from the Roberts Road station to the OSU station. Approximately 5.5 miles of the line will be buried and approximately 1 mile of the line will be overhead. The new transmission line is designed to prevent overloads of current facilities and to provide capacity for the future. The maximum disturbed area is approximately 20 acres and includes the trench for the underground work, foundations for the overhead portion and staging and laydown areas.

Sediment and erosion controls detailed on the drawings will be implemented prior to earth disturbing activity. The area will be stabilized and the temporary sediment and erosion controls will be removed upon completion of the project.

b. Disturbed Area

Total Disturbed Area – approx. 20 acres

c. Runoff Coefficient

The buried line will be installed predominately under existing road right of ways (ROW). The overhead portion will be a replacement of an existing line. There will be no post construction increases in runoff. Runoff coefficients are based on typical urban settings similar to the project area.

Pre-development runoff coefficient – 0.8

Post-development runoff coefficient - 0.8

d. Existing Soil Data

The USDA NRCS Web based soil survey was used to determine soil types at the project site. Soils at the site were mapped as: Celina-Urban land complex (CfC), Crosby-Urban land complex (CsA & CsB), Kokomo silty clay loam (Ko), Milton-Urban land complex (MpC), Ritchey silt loam (RhD2), Ross silt loam (Rs) and Udorthents-Urban land complex (Ut). This mapping reflects the project's urban setting.

e. Prior Land Uses

The project corridor predominately follows existing ROW.

f. Implementation Schedule

Due to the size and linear nature of the project, development of a detailed schedule was not feasible at the time of issuance of this SWPPP. A construction log will be kept to record major dates of grading and stabilization. The general order of construction for the line is as follows:

Task

December 2010	Install construction entrances and other appropriate controls
December 2010	Begin trenching for installation of the line
August 2011	Earth disturbing activities completed
September 2011	Final Stabilization Achieved

- g. Receiving Streams or Surface Waters
The Olentangy and Scioto Rivers are the primary receiving streams for the project.
- h. Subdivided Development Drawing

Not applicable.
- i. Dedicated Asphalt and Concrete Plant Discharges

Not applicable.
- j. Permit Requirements

The permit requirements can be reviewed in the permit which has been included as Appendix 1.
- k. Log of grading and stabilization activities

A log to document grading and stabilization activities and amendments to the SWPPP is included in Appendix 3.
- l. Site Map

A USGS topographic area map of the site area is included in Appendix 2.
Construction plans included in Appendix 2 show the existing and proposed contours, the limits of construction, locations of erosion and sediment control features and specifications and general notes.

II. Controls

- a. Non-Structural Preservation Methods

Stream crossings will be directional drilled. There will be no grading or removal of vegetation from areas within 150 feet of the streams.

b. Erosion Control Practices

i. Stabilization

Disturbed areas will be stabilized as specified in the tables below per the project drawings and specifications (See Appendix 2). Stabilization practices include: Temporary seeding, permanent seeding, gravel, paving and stabilized construction entrances.

Table 1: Permanent Stabilization

Area Requiring Permanent Stabilization	Time Frame to Apply Erosion Controls
Any areas that will lie dormant for one year or more.	Within seven days of the most recent disturbance.
Any areas within 50 feet of a stream and final grade.	Within two days of reaching final grade.
Any other areas at final grade.	Within seven days of reaching final grade within that area.

Table 2: Temporary Stabilization

Area Requiring Temporary Stabilization	Time Frame to Apply Erosion Controls
Any disturbed areas within 50 feet of a stream and not at final grade.	Within two days of the most recent disturbance if the area will remain idle for more than 21 days.
For all construction activities, any disturbed areas that will be dormant for more than 21 days but less than one year, and not within 50 feet of a stream.	Within seven days of the most recent disturbance within the area. For residential subdivision, disturbed areas must be stabilized at least seven days prior to transfer of permit coverage for the individual lot(s).
Disturbed areas that will be idle over winter.	Prior to the onset of winter weather.

Where vegetative stabilization techniques may cause structural instability or are otherwise unobtainable, alternative stabilization techniques will be employed.

ii Seeding

Temporary Seeding

Annual Ryegrass (*Lolium multiflorum*) at a rate of 25 lbs per acre is proposed for temporary seeding.

Permanent Seeding

The following seed mix is proposed for permanent seeding:

Improved Kentucky Bluegrass: 40% of weight (2 varieties in equal parts)

Improved Perennial Rye: 60% of weight (2 varieties in equal parts)

Germination Rate: 85%

Application Rate: 7 lbs per 1000 sq ft

or as directed by the City of Columbus Division of Recreation and Parks, ODOT, City Of Upper Arlington and The Ohio State University.

c. Runoff Control Practices

Flow of runoff from disturbed areas will be controlled to prevent erosion from occurring. Material excavated from the trenches along the roadway ROW will be directly placed into trucks for off-site disposal. The trench will be backfilled with Type-III Flashfill. Vegetated buffers will be maintained along streams.

d. Sediment Control Practices

i. *Timing*

Sediment control will be installed in accordance with the plans prior to soil disturbance in an area. Once construction activity ceases permanently in an area, that area shall be stabilized with permanent cover (rock, pavement or permanent seed).

ii. *Silt Fence*

Silt fencing will be installed along the downslope sides of the site as shown on the plans in Appendix 2, and in accordance with Part III.G.2.d.iii of the General Permit

iii. *Inlet Protection*

Since a majority of the project is along existing road ROW, inlet protection will be used on all storm sewer inlets in the project area. Inlet protection should be installed in accordance with the plans in Appendix 2.

iv. *Stream Protection*

No earth disturbing activities will be performed within 150 feet of a stream.

v. *Modifying Controls*

If periodic inspections or other information indicates a control has been used inappropriately or incorrectly, the control will be replaced or modified for site conditions.

e. Post-Construction Storm Water Management Requirements

Since the project consists of installation of a 138kV line with no increase in impervious surfaces, there will be no change from pre to post construction runoff and therefore no post-construction stormwater management is required.

f. Surface Water Protection

No construction activities will take place within jurisdictional surface waters. Directional drilling will be used to install the line under the streams. A frac-out contingency plan was developed to minimize the potential of impacts to streams from frac-outs during drilling operations. This plan is provided on Sheet 31 of the plans provided in Appendix 2.

g. Other Controls

i. *Non-Sediment Pollutant Controls*

All waste materials will be collected and stored in a securely lidded metal dumpster. The dumpster shall meet all local and any State Solid Waste Management Regulations. All trash and construction debris from the site will be disposed in the dumpster. No construction waste materials shall be buried on site. All hazardous waste materials shall be disposed of in the manner specified by local or state regulation or by the manufacturer. No solid or liquid wastes will be discharged in storm water runoff. Concrete trucks washout will be discharged into the trench. Under no circumstances will concrete trucks wash out into a drainage channel, storm sewer or surface water.

ii. *Off-site Traffic*

Stabilized construction entrances shall be provided where applicable to help reduce vehicle tracking of sediment. Any paved roads adjacent to the site entrance shall be swept to remove any excess mud, dirt, or rock tracked from the site, as necessary. Dump trucks hauling material to or from the construction site shall be covered with a tarpaulin.

iii. *Compliance with Other Requirements*

This plan is consistent with State and/or local waste disposal, sanitary sewer or septic system regulations including provisions prohibiting waste disposal by open burning. Contaminated soils are not expected to be encountered on this project. However, if they should exist within the limits of construction, they will be disposed of properly.

iv. *Trench and Ground Water Control*

If trench dewatering is needed, water shall be pumped into a silt bag to filter sediments prior to release. No ground water control is anticipated.

h. Maintenance

All temporary and permanent control practices shall be maintained and repaired as needed to ensure continued performance of their intended function. All sediment control practices will be maintained in a functional condition until permanent stabilization is achieved. The following maintenance procedures will be conducted to ensure the continued performance of control practices.

- All erosion & sediment control measures shall be maintained in good working order. If repair or maintenance is necessary, it will be initiated within three days of an inspection.
- Silt fence stakes will be maintained firmly in the ground so as to provide the necessary support to the silt fence. If a stake is not firmly in the ground it will be replaced or repositioned in the soil to provide support to the silt fence.

- Silt fence will be maintained in the upright position as shown in the drawing specifications. If silt fence tears, rips or pulls away from the supporting stakes it will be repaired or replaced so as to fulfill the intended function.
- Built up sediment shall be removed from silt fence when it has reached one-half the height of the fence.
- Sediment shall be removed from the surface of the inlet protection as needed with a stiff broom or square point shovel. Remove fine material from inside the envelope as needed. Sediment shall not be washed into the inlet. Sediment shall be removed and placed in a location where it is stable and not subject to erosion
- Temporary and permanent seeding and planting will be maintained to prevent bare spots and washouts, and promote healthy growth.
- Locations where vehicles enter or exit the site will be maintained in a manner to prevent off-site vehicle tracking of sediment. Sediment being tracked onto off-site roadways will be cleaned up promptly.

i. Inspections

All control measures shall be inspected at least once each week and following any storm event of 0.5 inches or greater. If the inspection reveals that a control practice fails to perform its intended function and that another, more appropriate control practice is required, the SWP3 will be amended and the new control practice will be installed within 10 days. If an inspection reveals that a control practice has not been implemented as intended, the control practice will be implemented within 10 days from the date of the inspection, or if the inspection reveals that the planned control practice is not needed, the inspection record will contain a statement of explanation as to why the control practice is not needed. The following are the inspection practices that shall be used to maintain erosion and sediment controls:

- The silt fence shall be inspected for proper trench depth, to see if the fabric is securely attached to the fence posts and into the trench, depth of sediment, tears, and to see that the fence posts are firmly in the ground.
- Inlet protection shall be inspected weekly and after each rainfall event. Areas where there is active traffic shall be inspected daily.
- Temporary and permanent seeding and planting shall be inspected for bare spots, washouts, and healthy growth.
- Locations where vehicles enter or exit the site shall be inspected for evidence of off-site vehicle tracking.
- An inspection report shall be made after each inspection. A copy of the form to be used for each inspection is included in Appendix 3.

- The Project Manager shall select at least two individuals who shall be responsible for inspections, maintenance, and repair activities, and filling out the inspection and maintenance report.
- Personnel selected for inspection and maintenance responsibilities shall be trained in all inspection and maintenance practices necessary for keeping the erosion and sediment controls used onsite in good working order.

III. Approved State or Local Plans

The erosion and sediment control plans were prepared in accordance with local regulations. Approval was obtained from the City of Columbus, Upper Arlington and Franklin County.

IV. Exceptions

There are no exceptions to the erosion and sediment control practices contained in the General Permit.

APPENDIX 1

**Ohio EPA NPDES General Permit OHC000003
Stormwater Discharges Associated with Construction Activity**



OHIO EPA

APR 21 2008

PERMITTING SECTION'S JOURNAL

Page 1 of 40

Ohio EPA Permit No.: OHC000003

Effective Date: April 21, 2008

Expiration Date: April 20, 2013

OHIO ENVIRONMENTAL PROTECTION AGENCY

**AUTHORIZATION FOR STORM WATER DISCHARGES ASSOCIATED
WITH CONSTRUCTION ACTIVITY UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of the federal Water Pollution Control Act, as amended (33 U.S.C. Section 1251 et. seq. hereafter referred to as "the Act") and the Ohio Water Pollution Control Act [Ohio Revised Code ("ORC") Chapter 6111], dischargers of storm water from sites where construction activity is being conducted, as defined in Part I.B of this permit, are authorized by the Ohio Environmental Protection Agency, hereafter referred to as "Ohio EPA," to discharge from the outfalls at the sites and to the receiving surface waters of the State identified in their Notice of Intent ("NOI") application form on file with Ohio EPA in accordance with the conditions specified in Parts I through VII of this permit.

It has been determined that a lowering of water quality of various waters of the State associated with granting coverage under this permit is necessary to accommodate important social and economic development in the state of Ohio. In accordance with OAC 3745-1-05, this decision was reached only after examining a series of technical alternatives, reviewing social and economic issues related to the degradation, and considering all public and intergovernmental comments received concerning the proposal.

This permit is conditioned upon payment of applicable fees, submittal of a complete NOI application form and written approval of coverage from the director of Ohio EPA in accordance with Ohio Administrative Code ("OAC") Rule 3745-38-06.

Laura H. Powell
Assistant Director

I certify this to be a true and accurate copy of the
official documents as filed in the records of the Ohio
Environmental Protection Agency.

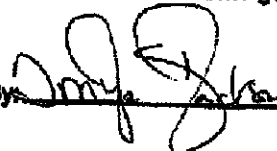
By  Date: 4-21-08

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PART I. COVERAGE UNDER THIS PERMIT

A. Permit Area.

This permit covers the entire State of Ohio.

B. Eligibility.

1. Construction activities covered. Except for storm water discharges identified under Part I.B.2, this permit may cover all new and existing discharges composed entirely of storm water discharges associated with construction activity that enter surface waters of the State or a storm drain leading to surface waters of the State.

For the purposes of this permit, construction activities include any clearing, grading, excavating, grubbing and/or filling activities that disturb one or more acres of land. Discharges from trench dewatering are also covered by this permit as long as the dewatering activity is carried out in accordance with the practices outlined in Part III.G.2.g.iv of this permit. The threshold acreage includes the entire area disturbed in the larger common plan of development or sale.

This permit also authorizes storm water discharges from support activities (e.g., concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, borrow areas) provided:

- a. The support activity is directly related to a construction site that is required to have NPDES permit coverage for discharges of storm water associated with construction activity;
- b. The support activity is not a commercial operation serving multiple unrelated construction projects and does not operate beyond the completion of the construction activity at the site it supports;
- c. Appropriate controls and measures are identified in a storm water pollution prevention plan (SWP3) covering the discharges from the support activity; and
- d. The support activity is on or contiguous with the property defined in the NOI (off-site borrow pits and soil disposal areas, which serve only one project, do not have to be contiguous with the construction site);

Part I.B

2. **Limitations on coverage.** The following storm water discharges associated with construction activity are not covered by this permit:
 - a. Storm water discharges that originate from the site after construction activities have been completed, including any temporary support activity, and the site has achieved final stabilization. Industrial post-construction storm water discharges may need to be covered by an NPDES permit;
 - b. Storm water discharges associated with construction activity that the director has shown to be or may reasonably expect to be contributing to a violation of a water quality standard; and
 - c. Storm water discharges authorized by an individual NPDES permit or an alternative NPDES general permit;
3. **Waivers.** After March 10, 2003, sites whose larger common plan of development or sale have at least one, but less than five acres of land disturbance, which would otherwise require permit coverage for storm water discharges associated with construction activities, may request that the director waive their permit requirement. Entities wishing to request such a waiver must certify in writing that the construction activity meets one of the two waiver conditions:
 - a. **Rainfall erosivity waiver.** For a construction site to qualify for the rainfall erosivity waiver, the cumulative rainfall erosivity over the project duration must be five or less and the site must be stabilized with at least a 70 percent vegetative cover or other permanent, non-erosive cover. The rainfall erosivity must be calculated according to the method in U.S. EPA Fact Sheet 3.1 **Construction Rainfall Erosivity Waiver** dated January 2001. If it is determined that a construction activity will take place during a time period where the rainfall erosivity factor is less than five, a written waiver certification must be submitted to Ohio EPA at least 21 days before construction activity is scheduled to begin. If the construction activity will extend beyond the dates specified in the waiver certification, the operator must either: (a) recalculate the waiver using the original start date with the new ending date (if the R factor is still less than five, a new waiver certification must be submitted) or (b) submit an NOI application form and fee for coverage under this general permit at least seven days prior to the end of the waiver period (see Attachment A); or

Part I.B.3

- b. **TMDL (Total Maximum Daily Load) waiver.** Storm water controls are not needed based on a TMDL approved or established by U.S. EPA that addresses the pollutant(s) of concern or, for non-impaired waters that do not require TMDLs, an equivalent analysis that determines allocations for small construction sites for the pollutant(s) of concern or that determines that such allocations are not needed to protect water quality based on consideration of existing in-stream concentrations, expected growth in pollutant contributions from all sources, and a margin of safety. The pollutant(s) of concern include sediment or a parameter that addresses sediment (such as total suspended solids, turbidity or siltation) and any other pollutant that has been identified as a cause of impairment of any water body that will receive a discharge from the construction activity. The operator must certify to the director of Ohio EPA that the construction activity will take place, and storm water discharges will occur, within the drainage area addressed by the TMDL or equivalent analysis. A written waiver certification must be submitted to Ohio EPA at least 21 days before the construction activity is scheduled to begin.
4. **Prohibition on non-storm water discharges.** All discharges covered by this permit must be composed entirely of storm water with the exception of the following: discharges from fire fighting activities; fire hydrant flushings; potable water sources including waterline flushings; irrigation drainage; lawn watering; routine external building washdown which does not use detergents; pavement washwaters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used; air conditioning condensate; springs; uncontaminated ground water from trench or well point dewatering and foundation or footing drains where flows are not contaminated with process materials such as solvents. Dewatering activities must be done in compliance with Part III.G.2.g.iv of this permit. Discharges of material other than storm water or the authorized non-storm water discharges listed above must comply with an individual NPDES permit or an alternative NPDES general permit issued for the discharge

Except for flows from fire fighting activities, sources of non-storm water listed above that are combined with storm water discharges associated with construction activity must be identified in the SWP3. The SWP3 must identify and ensure the implementation of appropriate pollution prevention measures for the non-storm water component(s) of the discharge.

Part I.B

5. Spills and unintended releases (Releases in excess of Reportable Quantities). This permit does not relieve the permittee of the reporting requirements of 40 CFR Part 117 and 40 CFR Part 302. In the event of a spill or other unintended release, the discharge of hazardous substances in the storm water discharge(s) from a construction site must be minimized in accordance with the applicable storm water pollution prevention plan for the construction activity and in no case, during any 24-hour period, may the discharge(s) contain a hazardous substance equal to or in excess of reportable quantities.

40 CFR Part 117 sets forth a determination of the reportable quantity for each substance designated as hazardous in 40 CFR Part 116. The regulation applies to quantities of designated substances equal to or greater than the reportable quantities, when discharged to surface waters of the State. 40 CFR Part 302 designates under section 102(a) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, those substances in the statutes referred to in section 101(14), identifies reportable quantities for these substances and sets forth the notification requirements for releases of these substances. This regulation also sets forth reportable quantities for hazardous substances designated under section 311(b)(2)(A) of the Clean Water Act (CWA).

C. Requiring an individual NPDES permit or an alternative NPDES general permit.

1. The director may require an alternative permit. The director may require any operator eligible for this permit to apply for and obtain either an individual NPDES permit or coverage under an alternative NPDES general permit in accordance with OAC Rule 3745-38-04. Any interested person may petition the director to take action under this paragraph.

The director will send written notification that an alternative NPDES permit is required. This notice shall include a brief statement of the reasons for this decision, an application form and a statement setting a deadline for the operator to file the application. If an operator fails to submit an application in a timely manner as required by the director under this paragraph, then coverage, if in effect, under this permit is automatically terminated at the end of the day specified for application submittal.

Part I.C

2. Operators may request an individual NPDES permit. Any owner or operator eligible for this permit may request to be excluded from the coverage of this permit by applying for an individual permit. The owner or operator shall submit an individual application with reasons supporting the request to the director in accordance with the requirements of 40 CFR 122.26. If the reasons adequately support the request, the director shall grant it by issuing an Individual NPDES permit.
3. When an individual NPDES permit is issued to an owner or operator otherwise subject to this permit or the owner or operator is approved for coverage under an alternative NPDES general permit, the applicability of this permit to the individual NPDES permittee is automatically terminated on the effective date of the individual permit or the date of approval for coverage under the alternative general permit, whichever the case may be.

D. Permit requirements when portions of a site are sold

If an operator obtains a permit for a development, and then the operator (permittee) sells off lots or parcels within that development, permit coverage must be continued on those lots until a Notice of Termination (NOT) in accordance with Part IV.B is submitted. For developments which require the use of centralized sediment and erosion controls (i.e., controls that address storm water runoff from one or more lots) for which the conveyance of permit coverage for a portion of the development will either prevent or impair the implementation of the controls and therefore jeopardize compliance with the terms and conditions of this permit, the permittee will be required to maintain responsibility for the implementation of those controls. For developments where this is not the case, it is the permittee's responsibility to temporarily stabilize all lots sold to individual lot owners unless an exception is approved in accordance with Part III.G.4. In cases where permit coverage for individual lot(s) will be conveyed, the permittee shall inform, in writing, the individual lot owner of the obligations under this permit and ensure that the Individual Lot NOI application is submitted to Ohio EPA.

E. Authorization

1. Obtaining authorization to discharge. Operators that discharge storm water associated with construction activity must submit an NOI application form in accordance with the requirements of Part II of this permit to obtain authorization to discharge under this general permit. As required under OAC Rule 3745-38-06(E), the director, in response to the NOI submission, shall notify the applicant in writing that he/she has been granted general permit coverage to discharge storm water associated with construction activity under the terms and conditions of this permit or that the applicant must apply for an individual NPDES permit or coverage under an alternate general NPDES permit as described in Part I.C.1

Part I.E

2. No release from other requirements. No condition of this permit shall release the permittee from any responsibility or requirements under other environmental statutes or regulations. Other permit requirements commonly associated with construction activities include, but are not limited to, section 401 water quality certifications, isolated wetland permits, permits to install sanitary sewers or other devices that discharge or convey polluted water, permits to install drinking water lines, single lot sanitary system permits and disturbance of land which was used to operate a solid or hazardous waste facility (i.e., coverage under this NPDES general permit does not satisfy the requirements of OAC Rule 3745-27-13 or ORC Section 3734.02(H)). This permit does not relieve the permittee of other responsibilities associated with construction activities such as contacting the Ohio Department of Natural Resources, Division of Water, to ensure proper well installation and abandonment of wells.

Part II. NOTICE OF INTENT REQUIREMENTS

A. Deadlines for notification.

Initial coverage: Operators who intend to obtain initial coverage for a storm water discharge associated with construction activity under this general permit must submit a complete and accurate NOI application form and appropriate fee at least 21 days prior to the commencement of construction activity. If more than one operator, as defined in Part VII of this general permit, will be engaged at a site, each operator shall seek coverage under this general permit. Where one operator has already submitted an NOI prior to other operator(s) being identified, the additional operator shall request modification of coverage to become a co-permittee. In such instances, the co-permittees shall be covered under the same facility permit number. No additional permit fee is required.

Individual lot transfer of coverage: Operators must each submit an individual lot notice of intent (Individual Lot NOI) application form (no fee required) to Ohio EPA at least seven days prior to the date that they intend to accept responsibility for permit requirements for their portion of the original permitted development from the previous permittee. The original permittee may submit an Individual Lot NOT at the time the Individual Lot NOI is submitted. Transfer of permit coverage is not granted until an approval letter from the director of Ohio EPA is received by the applicant.

B. Failure to notify.

Operators who fail to notify the director of their intent to be covered and who discharge pollutants to surface waters of the State without an NPDES permit are in violation of ORC Chapter 6111. In such instances, Ohio EPA may bring an enforcement action for any discharges of storm water associated with construction activity.

Part II

C. Where to submit an NOI.

Operators seeking coverage under this permit must submit a signed NOI form, provided by Ohio EPA, to the address found in the associated instructions.

D. Additional notification.

The permittee shall make NOIs and SWP3s available upon request of the director of Ohio EPA, local agencies approving sediment and erosion control plans, grading plans or storm water management plans, local governmental officials, or operators of municipal separate storm sewer systems (MS4s) receiving drainage from the permitted site. Each operator that discharges to an NPDES permitted MS4 shall provide a copy of its Ohio EPA NOI submission to the MS4 in accordance with the MS4's requirements, if applicable.

E. Renotification.

Upon renewal of this general permit, the permittee is required to notify the director of his intent to be covered by the general permit renewal. Permittees covered under the previous NPDES general permits for storm water discharges associated with construction activity (NPDES permit numbers OHR100000 and OHC000002) shall have continuing coverage under this permit. The permittees covered under OHR100000 or OHC000002 shall submit a letter within 90 days of receipt of written notification by Ohio EPA expressing their intent that coverage be continued. There is no fee associated with these letters of intent for continued coverage. Permit coverage will be terminated after the 90-day period if the letter is not received by Ohio EPA. Ohio EPA will provide instructions on the contents of the letter and where it is to be sent within the notification letter.

PART III. STORM WATER POLLUTION PREVENTION PLAN (SWP3)

A. Storm Water Pollution Prevention Plans.

A SWP3 shall be developed for each site covered by this permit. For a multi-phase construction project, a separate NOI shall be submitted when a separate SWP3 will be prepared for subsequent phases. SWP3s shall be prepared in accordance with sound engineering and/or conservation practices by a professional experienced in the design and implementation of standard erosion and sediment controls and storm water management practices addressing all phases of construction. The SWP3 shall identify potential sources of pollution which may reasonably be expected to affect the quality of storm water discharges associated with construction activities. The SWP3 shall be a comprehensive, stand-alone document, which is not complete unless it contains the information required by Part III.G of this permit. In addition, the SWP3 shall describe and ensure the implementation of best management practices (BMPs) that reduce the pollutants in storm water discharges during construction and pollutants associated with post-construction activities to ensure compliance with ORC Section 6111.04, OAC Chapter 3745-1 and the terms and conditions of this permit.

B. Timing

A SWP3 shall be completed prior to the timely submittal of an NOI and updated in accordance with Part III D. Upon request and good cause shown, the director may waive the requirement to have a SWP3 completed at the time of NOI submission. If a waiver has been granted, the SWP3 must be completed prior to the initiation of construction activities. The SWP3 must be implemented upon initiation of construction activities.

Permittees continuing coverage from the previous generations of this permit (OHR100000 and OHC000002) that have initiated construction activity prior to the receipt of the first written notification from Ohio EPA to submit a letter of intent to continue coverage, as required in Part II.E, are not required to update their SWP3 as a result of this renewal (OHC000003). Permittees continuing coverage from the previous generations of this permit (OHR100000 and OHC000002) that have not initiated construction activity prior to the receipt of the first written notification from Ohio EPA to submit a letter of intent to continue coverage, as required in Part II.E, are required to update their SWP3 as a result of this renewal (OHC000003).

C. SWP3 Signature and Review.

1. Plan Signature and Retention On Site. The SWP3 shall include the certification in Part V.H., be signed in accordance with Part V.G., and be retained on site during working hours.

Part III.C

2. Plan Availability

- a. On-site: The plan shall be made available immediately upon request of the director or his authorized representative during working hours. A copy of the NOI and letter granting permit coverage under this general permit also shall be made available at the site.
 - b. By written request: The permittee must provide a copy of the SWP3 within 10 days upon written request by any of the following:
 - i. The director or the director's authorized representative;
 - ii. A local agency approving sediment and erosion plans, grading plans or storm water management plans; or
 - iii. In the case of a storm water discharge associated with construction activity which discharges through a municipal separate storm sewer system with an NPDES permit, to the operator of the system.
 - c. To the public: All NOIs, general permit approval for coverage letters, and SWP3s are considered reports that shall be available to the public in accordance with the Ohio Public Records law. The permittee shall make documents available to the public upon request or provide a copy at public expense, at cost, in a timely manner. However, the permittee may claim to Ohio EPA any portion of an SWP3 as confidential in accordance with Ohio law.
3. Plan Revision: The director or authorized representative, may notify the permittee at any time that the SWP3 does not meet one or more of the minimum requirements of this part. Within 10 days after such notification from the director (or as otherwise provided in the notification) or authorized representative, the permittee shall make the required changes to the SWP3 and, if requested, shall submit to Ohio EPA the revised SWP3 or a written certification that the requested changes have been made.

D. Amendments

The permittee shall amend the SWP3 whenever there is a change in design, construction, operation or maintenance, which has a significant effect on the potential for the discharge of pollutants to surface waters of the State or if the SWP3 proves to be ineffective in achieving the general objectives of controlling pollutants in storm water discharges associated with construction activity. Amendments to the SWP3 may be reviewed by Ohio EPA in the same manner as Part III.C.

Part III

E. Duty to inform contractors and subcontractors

The permittee shall inform all contractors and subcontractors not otherwise defined as "operators" in Part VII of this general permit, who will be involved in the implementation of the SWP3, of the terms and conditions of this general permit. The permittee shall maintain a written document containing the signatures of all contractors and subcontractors involved in the implementation of the SWP3 as proof acknowledging that they reviewed and understand the conditions and responsibilities of the SWP3. The written document shall be created and signatures of each individual contractor shall be obtained prior to their commencement of work on the construction site.

F. Total Maximum Daily Load (TMDL) allocations

If a TMDL is approved for any waterbody into which the permittee's site discharges and requires specific BMPs for construction sites, the director may require the permittee to revise his/her SWP3.

G. SWP3 Requirements

Operations that discharge storm water from construction activities are subject to the following requirements and the SWP3 shall include the following items:

1. Site description. Each SWP3 shall provide:
 - a. A description of the nature and type of the construction activity (e.g., low density residential, shopping mall, highway, etc.);
 - b. Total area of the site and the area of the site that is expected to be disturbed (i.e., grubbing, clearing, excavation, filling or grading, including off-site borrow areas);
 - c. An estimate of the impervious area and percent imperviousness created by the construction activity;
 - d. A calculation of the runoff coefficients for both the pre-construction and post construction site conditions;
 - e. Existing data describing the soil and, if available, the quality of any discharge from the site;
 - f. A description of prior land uses at the site;

Part III.G.1

- g. An implementation schedule which describes the sequence of major construction operations (i.e., grubbing, excavating, grading, utilities and infrastructure installation) and the implementation of erosion, sediment and storm water management practices or facilities to be employed during each operation of the sequence;
- h. The name and/or location of the immediate receiving stream or surface water(s) and the first subsequent named receiving water(s) and the areal extent and description of wetlands or other special aquatic sites at or near the site which will be disturbed or which will receive discharges from disturbed areas of the project. For discharges to an MS4, the point of discharge to the MS4 and the location where the MS4 ultimately discharges to a stream or surface water of the State must be indicated;
- i. For subdivided developments where the SWP3 does not call for a centralized sediment control capable of controlling multiple individual lots, a detail drawing of a typical individual lot showing standard individual lot erosion and sediment control practices.

This does not remove the responsibility to designate specific erosion and sediment control practices in the SWP3 for critical areas such as steep slopes, stream banks, drainage ways and riparian zones.

- j. Location and description of any storm water discharges associated with dedicated asphalt and dedicated concrete plants covered by this permit and the best management practices to address pollutants in these storm water discharges;
- k. A copy of the permit requirements (attaching a copy of this permit is acceptable);
- l. A cover page or title identifying the name and location of the site, the name and contact information of all construction site operators, the name and contact information for the person responsible for authorizing and amending the SWP3, preparation date, and the estimated dates that construction will start and be complete;
- m. A log documenting grading and stabilization activities as well as amendments to the SWP3, which occur after construction activities commence; and
- n. Site map showing:

Part III.G.1.n

- i. Limits of earth-disturbing activity of the site including associated off-site borrow or spoil areas that are not addressed by a separate NOI and associated SWP3;
- ii. Soils types should be depicted for all areas of the site, including locations of unstable or highly erodible soils;
- iii. Existing and proposed contours. A delineation of drainage watersheds expected during and after major grading activities as well as the size of each drainage watershed, in acres;
- iv. Surface water locations including springs, wetlands, streams, lakes, water wells, etc., on or within 200 feet of the site, including the boundaries of wetlands or stream channels and first subsequent named receiving water(s) the permittee intends to fill or relocate for which the permittee is seeking approval from the Army Corps of Engineers and/or Ohio EPA;
- v. Existing and planned locations of buildings, roads, parking facilities and utilities;
- vi. The location of all erosion and sediment control practices, including the location of areas likely to require temporary stabilization during the course of site development;
- vii. Sediment and storm water management basins noting their sediment settling volume and contributing drainage area;
- viii. Permanent storm water management practices to be used to control pollutants in storm water after construction operations have been completed.
- ix. Areas designated for the storage or disposal of solid, sanitary and toxic wastes, including dumpster areas, areas designated for cement truck washout, and vehicle fueling;
- x. The location of designated construction entrances where the vehicles will access the construction site;
- xi. The location of any in-stream activities including stream crossings;

Part III.G

2. **Controls.** The SWP3 must contain a description of the controls appropriate for each construction operation covered by this permit and the operator(s) must implement such controls. The SWP3 must clearly describe for each major construction activity identified in Part III.G.1.g: (a) appropriate control measures and the general timing (or sequence) during the construction process that the measures will be implemented; and (b) which contractor is responsible for implementation (e.g., contractor A will clear land and install perimeter controls and contractor B will maintain perimeter controls until final stabilization). The SWP3 shall identify the subcontractors engaged in activities that could impact storm water runoff. The SWP3 shall contain signatures from all of the identified subcontractors indicating that they have been informed and understand their roles and responsibilities in complying with the SWP3. Ohio EPA recommends that the primary site operator review the SWP3 with the primary contractor prior to commencement of construction activities and keep a SWP3 training log to demonstrate that this review has occurred.

Ohio EPA recommends that the erosion, sediment, and storm water management practices used to satisfy the conditions of this permit should meet the standards and specifications in the current edition of Ohio's Rainwater and Land Development (see definitions) manual or other standards acceptable to Ohio EPA. The controls shall include the following minimum components:

- a. **Non-Structural Preservation Methods.** The SWP3 must make use of practices which preserve the existing natural condition as much as feasible. Such practices may include: preserving riparian areas adjacent to surface waters of the State, preserving existing vegetation and vegetative buffer strips, phasing of construction operations in order to minimize the amount of disturbed land at any one time and designation of tree preservation areas or other protective clearing or grubbing practices. The recommended buffer that operators should leave undisturbed along a surface water of the State is 25 feet as measured from the ordinary high water mark of the surface water.
- b. **Erosion Control Practices.** The SWP3 must make use of erosion controls that are capable of providing cover over disturbed soils unless an exception is approved in accordance with Part III.G.4. A description of control practices designed to restabilize disturbed areas after grading or construction shall be included in the SWP3. The SWP3 must provide specifications for stabilization of all disturbed areas of the site and provide guidance as to which method of stabilization will be employed for any time of the year. Such practices may include: temporary seeding, permanent seeding, mulching, matting, sod stabilization, vegetative buffer strips, phasing of construction operations, use of construction entrances and the use of alternative ground cover.

Part III.G.2.b

- i. **Stabilization.** Disturbed areas must be stabilized as specified in the following tables below. Permanent and temporary stabilization are defined in Part VII.

Table 1: Permanent Stabilization

Area requiring permanent stabilization	Time frame to apply erosion controls
Any areas that will lie dormant for one year or more	Within seven days of the most recent disturbance
Any areas within 50 feet of a surface water of the State and at final grade	Within two days of reaching final grade
Any other areas at final grade	Within seven days of reaching final grade within that area

Table 2: Temporary Stabilization

Area requiring temporary stabilization	Time frame to apply erosion controls
Any disturbed areas within 50 feet of a surface water of the State and not at final grade	Within two days of the most recent disturbance if the area will remain idle for more than 21 days
For all construction activities, any disturbed areas that will be dormant for more than 21 days but less than one year, and not within 50 feet of a surface water of the State	Within seven days of the most recent disturbance within the area For residential subdivisions, disturbed areas must be stabilized at least seven days prior to transfer of permit coverage for the individual lot(s).
Disturbed areas that will be idle over winter	Prior to the onset of winter weather

Where vegetative stabilization techniques may cause structural instability or are otherwise unobtainable, alternative stabilization techniques must be employed.

- ii. **Permanent stabilization of conveyance channels.** Operators shall undertake special measures to stabilize channels and outfalls and prevent erosive flows. Measures may include seeding, dormant seeding (as defined in the current edition of the Rainwater and Land Development manual), mulching, erosion control matting, sodding, riprap, natural channel design with bioengineering techniques or rock check dams.

Part III.G.2

- c. **Runoff Control Practices.** The SWP3 shall incorporate measures which control the flow of runoff from disturbed areas so as to prevent erosion from occurring. Such practices may include rock check dams, pipe slope drains, diversions to direct flow away from exposed soils and protective grading practices. These practices shall divert runoff away from disturbed areas and steep slopes where practicable. Velocity dissipation devices shall be placed at discharge locations and along the length of any outfall channel to provide non-erosive flow velocity from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected.
- d. **Sediment Control Practices.** The plan shall include a description of structural practices that shall store runoff allowing sediments to settle and/or divert flows away from exposed soils or otherwise limit runoff from exposed areas. Structural practices shall be used to control erosion and trap sediment from a site remaining disturbed for more than 14 days. Such practices may include, among others: sediment settling ponds, silt fences, earth diversion dikes or channels which direct runoff to a sediment settling pond and storm drain inlet protection. All sediment control practices must be capable of ponding runoff in order to be considered functional. Earth diversion dikes or channels alone are not considered a sediment control practice unless those are used in conjunction with a sediment settling pond.

The SWP3 must contain detail drawings for all structural practices.

- i. Timing. Sediment control structures shall be functional throughout the course of earth disturbing activity. Sediment basins and perimeter sediment barriers shall be implemented prior to grading and within seven days from the start of grubbing. They shall continue to function until the up slope development area is restabilized. As construction progresses and the topography is altered, appropriate controls must be constructed or existing controls altered to address the changing drainage patterns.
- ii. Sediment settling ponds. A sediment settling pond is required for any one of the following conditions:
- concentrated storm water runoff (e.g., storm sewer or ditch);
 - runoff from drainage areas, which exceed the design capacity of silt fence or other sediment barriers;
 - runoff from drainage areas that exceed the design capacity of inlet protection; or
 - runoff from common drainage locations with 10 or more acres of disturbed land

Part III.G.2.d.ii

The permittee may request approval from Ohio EPA to use alternative controls if the permittee can demonstrate the alternative controls are equivalent in effectiveness to a sediment settling pond.

The sediment settling pond volume consists of both a dewatering zone and a sediment storage zone. The volume of the dewatering zone shall be a minimum of 1800 cubic feet (ft³) per acre of drainage (67 yd³/acre) with a minimum 48-hour drain time for sediment basins serving a drainage area over 5 acres. The volume of the sediment storage zone shall be calculated by one of the following methods: Method 1: The volume of the sediment storage zone shall be 1000 ft³ per disturbed acre within the watershed of the basin. OR Method 2: The volume of the sediment storage zone shall be the volume necessary to store the sediment as calculated with RUSLE or a similar generally accepted erosion prediction model. The accumulated sediment shall be removed from the sediment storage zone once it's full. When determining the total contributing drainage area, off-site areas and areas which remain undisturbed by construction activity must be included unless runoff from these areas is diverted away from the sediment settling pond and is not co-mingled with sediment-laden runoff. The depth of the dewatering zone must be less than or equal to five feet. The configuration between inlets and the outlet of the basin must provide at least two units of length for each one unit of width (> 2:1 length:width ratio), however, a length to width ratio of 4:1 is recommended. When designing sediment settling ponds, the permittee must consider public safety, especially as it relates to children, as a design factor for the sediment basin and alternative sediment controls must be used where site limitations would preclude a safe design. The use of a combination of sediment and erosion control measures in order to achieve maximum pollutant removal is encouraged.

- iii. Silt Fence and Diversions. Sheet flow runoff from denuded areas shall be intercepted by silt fence or diversions to protect adjacent properties and water resources from sediment transported via sheet flow. Where intended to provide sediment control, silt fence shall be placed on a level contour downslope of the disturbed area. This permit does not preclude the use of other sediment barriers designed to control sheet flow runoff. The relationship between the maximum drainage area to silt fence for a particular slope range is shown in the table below

Part III.G.2.d.iii

Maximum drainage area (in acres) to 100 linear feet of silt fence	Range of slope for a particular drainage area (in percent)
0.5	< 2%
0.25	≥ 2% but < 20%
0.125	≥ 20% but < 50%

Placing silt fence in a parallel series does not extend the size of the drainage area. Storm water diversion practices shall be used to keep runoff away from disturbed areas and steep slopes where practicable. Such devices, which include swales, dikes or berms, may receive storm water runoff from areas up to 10 acres.

- iv. Inlet Protection. Other erosion and sediment control practices shall minimize sediment laden water entering active storm drain systems, unless the storm drain system drains to a sediment settling pond. All inlets receiving runoff from drainage areas of one or more acres will require a sediment settling pond.
- v. Surface Waters of the State Protection. If construction activities disturb areas adjacent to surface waters of the State, structural practices shall be designed and implemented on site to protect all adjacent surface waters of the State from the impacts of sediment runoff. No structural sediment controls (e.g., the installation of silt fence or a sediment settling pond) shall be used in a surface water of the State. For all construction activities immediately adjacent to surface waters of the State, it is recommended that a setback of at least 25-feet, as measured from the ordinary high water mark of the surface water, be maintained in its natural state as a permanent buffer. Where impacts within this setback area are unavoidable due to the nature of the construction activity (e.g., stream crossings for roads or utilities), the project shall be designed such that the number of stream crossings and the width of the disturbance within the setback area are minimized.
- vi. Modifying Controls. If periodic inspections or other information indicates a control has been used inappropriately or incorrectly, the permittee must replace or modify the control for site conditions

Part III.G.2

- e. **Post-Construction Storm Water Management Requirements.** So that the receiving stream's physical, chemical, and biological characteristics are protected and stream functions are maintained, post-construction storm water practices shall provide perpetual management of runoff quality and quantity. To meet the post-construction requirements of this permit, the SWP3 must contain a description of the post-construction BMPs that will be installed during construction for the site and the rationale for their selection. The rationale must address the anticipated impacts on the channel and floodplain morphology, hydrology, and water quality. Post-construction BMPs cannot be installed within a surface water of the State (e.g., wetland or stream) unless it's authorized by a CWA 401 water quality certification, CWA 404 permit, or Ohio EPA non-jurisdictional wetland/stream program approval. Note: localities may have more stringent post-construction requirements.

Detail drawings and maintenance plans must be provided for all post-construction BMPs. Maintenance plans shall be provided by the permittee to the post-construction operator of the site (including homeowner associations) upon completion of construction activities (prior to termination of permit coverage). For sites located within a community with a regulated municipal separate storm sewer system (MS4), the permittee, land owner, or other entity with legal control of the property may be required to develop and implement a maintenance plan to comply with the requirements of the MS4. Maintenance plans must ensure that pollutants collected within structural post-construction practices, be disposed of in accordance with local, state, and federal regulations. To ensure that storm water management systems function as they were designed and constructed, the post construction operation and maintenance plan must be a stand-alone document, which contains: (1) a designated entity for storm water inspection and maintenance responsibilities; (2) the routine and non-routine maintenance tasks to be undertaken; (3) a schedule for inspection and maintenance; (4) any necessary legally binding maintenance easements and agreements; and (5) a map showing all access and maintenance easements. Permittees are not responsible under this permit for operation and maintenance of post-construction practices once coverage under this permit is terminated.

Post-construction storm water BMPs that discharge pollutants from point sources once construction is completed, may in themselves, need authorization under a separate NPDES permit (one example is storm water discharges from regulated industrial sites).

Part III.G.2.e

Construction activities that do not include the installation of any impervious surface (e.g., soccer fields), abandoned mine land reclamation activities regulated by the Ohio Department of Natural Resources, stream and wetland restoration activities, and wetland mitigation activities are not required to comply with the conditions of Part III.G.2.e of this permit. Linear construction projects, (e.g., pipeline or utility line installation), which do not result in the installation of additional impervious surface, are not required to comply with the conditions of Part III.G.2.e of this permit. However, linear construction projects must be designed to minimize the number of stream crossings and the width of disturbance and achieve final stabilization of the disturbed area as defined in Part VII.H 1.

Large Construction Activities. For all large construction activities (involving the disturbance of five or more acres of land or will disturb less than five acres, but is a part of a larger common plan of development or sale which will disturb five or more acres of land), the post construction BMP(s) chosen must be able to detain storm water runoff for protection of the stream channels, stream erosion control, and improved water quality. The BMP(s) chosen must be compatible with site and soil conditions. Structural (designed) post-construction storm water treatment practices shall be incorporated into the permanent drainage system for the site. The BMP(s) chosen must be sized to treat the water quality volume (WQv) and ensure compliance with Ohio's Water Quality Standards in OAC Chapter 3745-1. The WQv shall be equivalent to the volume of runoff from a 0.75-inch rainfall and shall be determined according to the following equation:

$$WQv = C * P * A / 12$$

where:

WQv = water quality volume in acre-feet

C = runoff coefficient appropriate for storms less than 1 inch

(Either use the following formula: $C = 0.858i^3 - 0.78i^2 + 0.774i + 0.04$, where i = fraction of post-construction impervious surface or use Table 1)

P = 0.75 inch precipitation depth

A = area draining into the BMP in acres

Part III.G.2.e

Table 1
Runoff Coefficients Based on the Type of Land Use

Land Use	Runoff Coefficient
Industrial & Commercial	0.8
High Density Residential (>8 dwellings/acre)	0.5
Medium Density Residential (4 to 8 dwellings/acre)	0.4
Low Density Residential (<4 dwellings/acre)	0.3
Open Space and Recreational Areas	0.2

Where the land use will be mixed, the runoff coefficient should be calculated using a weighted average. For example, if 60% of the contributing drainage area to the storm water treatment structure is Low Density Residential, 30% is High Density Residential, and 10% is Open Space, the runoff coefficient is calculated as follows $(0.6)(0.3) + (0.3)(0.5) + (0.1)(0.2) = 0.35$.

An additional volume equal to 20 percent of the WQv shall be incorporated into the BMP for sediment storage. Ohio EPA recommends that BMPs be designed according to the methodology included in the Rainwater and Land Development manual or in another design manual acceptable for use by Ohio EPA.

The BMPs listed in Table 2 below shall be considered standard BMPs approved for general use. However communities with a regulated MS4 may limit the use of some of these BMPs. BMPs shall be designed such that the drain time is long enough to provide treatment, but short enough to provide storage for successive rainfall events and avoid the creation of nuisance conditions. The outlet structure for the post-construction BMP must not discharge more than the first half of the WQv or extended detention volume (EDv) in less than one-third of the drain time. The EDv is the volume of storm water runoff that must be detained by a structural post-construction BMP. The EDv is equal to 75 percent of the WQv for wet extended detention basins, but is equal to the WQv for all other BMPs listed in Table 2.

Part III.G.2.e

Table 2
Structural Post-Construction BMPs & Associated Drain (Drawdown) Times

Best Management Practice	Drain Time of WQv
Infiltration Basin [^]	24 - 48 hours
Enhanced Water Quality Swale	24 hours
Dry Extended Detention Basin [*]	48 hours
Wet Extended Detention Basin ^{**}	24 hours
Constructed Wetland (above permanent pool) [^]	24 hours
Sand & Other Media Filtration	40 hours
Bioretention Cell [^]	40 hours
Pocket Wetland [*]	24 hours
Vegetated Filter Strip	24 hours

^{*} Dry basins must include forebay and micropool each sized at 10% of the WQv

^{**} Provide both a permanent pool and an EDv above the permanent pool, each sized at 0.75

^{*} WQv

[^] Extended detention shall be provided for the full WQv above the permanent water pool.

[^] The WQv shall completely infiltrate within 48 hours so there is no standing or residual water in the BMP.

^{*} Pocket wetlands must have a wet pool equal to the WQv, with 25% of the WQv in a pool and 75% in marshes. The EDv above the permanent pool must be equal to the WQv.

The permittee may request approval from Ohio EPA to use alternative post-construction BMPs if the permittee can demonstrate that the alternative BMPs are equivalent in effectiveness to those listed in Table 2 above. Construction activities shall be exempt from this condition if it can be demonstrated that the WQv is provided within an existing structural post-construction BMP that is part of a larger common plan of development or if structural post-construction BMPs are addressed in a regional or local storm water management plan. A municipally operated regional storm water BMP can be used as a post-construction BMP provided that the BMP can detain the WQv from its entire drainage area and release it over a 24 hour period.

Transportation Projects The construction of new roads and roadway improvement projects by public entities (i.e., the state, counties, townships, cities, or villages) may implement post-construction BMPs in compliance with the current version (as of the effective date of this permit) of the Ohio Department of Transportation's "Location and Design Manual, Volume Two Drainage Design" that has been accepted by Ohio EPA as an alternative to the conditions of this permit.

Part III.G.2.e

Offsite Mitigation of Post-Construction Ohio EPA may authorize the offsite mitigation of the post-construction requirements of Part III.G.2.e of this permit on a case by case basis provided the permittee clearly demonstrates the BMPs listed in Table 2 are not feasible and the following criteria is met: (1) a maintenance agreement or policy is established to ensure operations and treatment in perpetuity; (2) the offsite location discharges to the same HUC-14 watershed unit; and (3) the mitigation ratio of the WQv is 1.5 to 1 or the WQv at the point of retrofit, whichever is greater. Requests for offsite mitigation must be received prior to receipt of the NOI applications.

Redevelopment Projects Sites that have been previously developed where no post-construction BMPs were installed shall either ensure a 20 percent net reduction of the site impervious area, provide for treatment of at least 20 percent of the WQv, or a combination of the two. A one-for-one credit towards the 20 percent net reduction of impervious area can be obtained through the use of pervious pavement and/or green roofs. Where projects are a combination of new development and redevelopment, the total WQv that must be treated shall be calculated by a weighted average based on acreage, with the new development at 100 percent WQv and redevelopment at 20 percent WQv.

Non-Structural Post-Construction BMPs The size of the structural post-construction can be reduced by incorporating non-structural post-construction BMPs into the design. Practices such as preserving open space will reduce the runoff coefficient and, thus, the WQv. Ohio EPA encourages the implementation of riparian and wetland setbacks. Practices which reduce storm water runoff include permeable pavements, green roofs, rain barrels, conservation development, smart growth, low-impact development, and other site design techniques contained in the Ohio Lake Commission's Balanced Growth Program (see <http://www.epa.state.oh.us/oleo/bg1/index.html>). In order to promote the implementation of such practices, the Director may consider the use of non-structural practices to demonstrate compliance with Part III.G.2.e of this permit for areas of the site not draining into a common drainage system of the site, i.e., sheet flow from perimeter areas such as the rear yards of residential lots, for low density development scenarios, or where the permittee can demonstrate that the intent of pollutant removal and stream protection, as required in Part III.G.2.e of this permit is being addressed through non-structural post-construction BMPs based upon review and approval by Ohio EPA.

Part III.G.2.e

Use of Alternative Post-Construction BMPs This permit does not preclude the use of innovative or experimental post-construction storm water management technologies. However, the Director may require these practices to be tested using the protocol outlined in the Technology Acceptance Reciprocity Partnership's (TARP) Protocol for Stormwater Best Management Practice Demonstrations (see <http://www.dep.state.pa.us/dep/deputate/pollprev/techservices/tarp>).

The Director may require discharges from such structures to be monitored to ensure compliance with Part III.G.2.e of this permit. Permittees must request approval from Ohio EPA to use alternative post-construction BMPs if the permittee can demonstrate that the alternative BMPs are equivalent in effectiveness to those listed in Table 2 above. To demonstrate this equivalency, the permittee must show that the alternative BMP has a minimum total suspended solids (TSS) removal efficiency of 80 percent. Also, the WQv discharge rate from the practice must be reduced to prevent stream bed erosion and protect the physical and biological stream integrity unless there will be negligible hydrological impact to the receiving surface water of the State. The discharges will have a negligible impact if the permittee can demonstrate that one of the following four conditions exist:

- i. The entire WQv is recharged to groundwater;
- ii. The larger common plan of development or sale will create less than one acre of impervious surface;
- iii. The project is a redevelopment project within an ultra-urban setting (i.e., a downtown area or on a site where 100 percent of the project area is already impervious surface and the storm water discharge is directed into an existing storm sewer system); or
- iv. The storm water drainage system of the development discharges directly into a large river (fourth order or greater) or to a lake and where the development area is less than 5 percent of the watershed area upstream of the development site, unless a TMDL identified water quality problems in the receiving surface waters of the State.

Part III.G.2.e

The Director shall only consider the use of alternative BMPs on projects where the permittee can demonstrate that the implementation of the BMPs listed in Table 2 is infeasible due to physical site constraints that prevent the ability to provide functional BMP design. Alternative practices may include, but are not limited to, underground detention structures, vegetated swales and vegetated filter strips designed using water quality flow, natural depressions, rain barrels, permeable pavements green roofs, rain gardens, catch basin inserts, and hydrodynamics separators. The Director may also consider non-structural post-construction approaches where no local requirement for such practices exist.

Small Construction Activities. For all small land disturbance activities (which disturb one or more, but less than five acres of land and is not a part of a larger common plan of development or sale which will disturb five or more acres of land), a description of measures that will be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed must be included in the SWP3. Structural measures should be placed on upland soils to the degree attainable. Such practices may include, but are not limited to: storm water detention structures (including wet basins); storm water retention structures; flow attenuation by use of open vegetated swales and natural depressions; infiltration of runoff onsite; and sequential systems (which combine several practices). The SWP3 shall include an explanation of the technical basis used to select the practices to control pollution where flows exceed pre-development levels.

- f. **Surface Water Protection.** If the project site contains any streams, rivers, lakes, wetlands or other surface waters, certain construction activities at the site may be regulated under the CWA and/or state non-jurisdictional stream and wetland requirements. Sections 404 and 401 of the Act regulate the discharge of dredged or fill material into surface waters and the impacts of such activities on water quality, respectively. Construction activities in surface waters which may be subject to CWA regulation and/or state requirements include, but are not limited to: sewer line crossings, grading, backfilling or culverting streams, filling wetlands, road and utility line construction, bridge installation and installation of flow control structures. If the project contains streams, rivers, lakes or wetlands or possible wetlands, the permittee must contact the appropriate U.S. Army Corps of Engineers District Office. (CAUTION: Any area of seasonally wet hydric soil is a potential wetland - please consult the Soil Survey and list of hydric soils for your County, available at your county's Soil and Water Conservation District. If you have any questions about Section 401 water quality certification, please contact the Ohio Environmental Protection Agency, Section 401 Coordinator.)

Part III.G.2.f

U.S. Army Corps of Engineers (Section 404 regulation):
Huntington, WV District (304) 399-5210 (Muskingum River, Hocking River,
Scioto River, Little Miami River, and Great Miami River Basins)
Buffalo, NY District (716) 879-4191 (Lake Erie Basin)
Pittsburgh, PA District (412) 395-7154 (Mahoning River Basin)
Louisville, KY District (502) 315-6733 (Ohio River)

Ohio EPA 401/404 and non-jurisdictional stream/wetland coordinator can be
contacted at (614) 644-2001 (all of Ohio)

Concentrated storm water runoff from BMPs to natural wetlands shall be converted to diffuse flow before the runoff enters the wetlands. The flow should be released such that no erosion occurs downslope. Level spreaders may need to be placed in series, particularly on steep sloped sites, to ensure non-erosive velocities. Other structural BMPs may be used between storm water features and natural wetlands, in order to protect the natural hydrology, hydroperiod, and wetland flora. If the applicant proposes to discharge to natural wetlands, a hydrologic analysis shall be performed. The applicant shall attempt to match the pre-development hydroperiods and hydrodynamics that support the wetland. The applicant shall assess whether their construction activity will adversely impact the hydrologic flora and fauna of the wetland. Practices such as vegetative buffers, infiltration basins, conservation of forest cover, and the preservation of intermittent streams, depressions, and drainage corridors may be used to maintain wetland hydrology.

- g. Other controls.** The SWP3 must also provide BMPs for pollutant sources other than sediment. Non-sediment pollutant sources, which may be present on a construction site, include paving operations, concrete washout, structure painting, structure cleaning, demolition debris disposal, drilling and blasting operations, material storage, slag, solid waste, hazardous waste, contaminated soils, sanitary and septic wastes, vehicle fueling and maintenance activities, and landscaping operations.
- i. Non-Sediment Pollutant Controls.** No solid or liquid waste, including building materials, shall be discharged in storm water runoff. The permittee must implement all necessary BMPs to prevent the discharge of non-sediment pollutants to the drainage system of the site or surface waters of the State. Under no circumstance shall concrete trucks wash out directly into a drainage channel, storm sewer or surface waters of the State. No exposure of storm water to waste materials is recommended.
- ii Off-site traffic.** Off-site vehicle tracking of sediments and dust generation shall be minimized.

Part III.G.2.g

- iii. **Compliance with other requirements.** The SWP3 shall be consistent with applicable State and/or local waste disposal, sanitary sewer or septic system regulations, including provisions prohibiting waste disposal by open burning and shall provide for the proper disposal of contaminated soils to the extent these are located within the permitted area.
- iv. **Trench and ground water control.** There shall be no turbid discharges to surface waters of the State resulting from dewatering activities. If trench or ground water contains sediment, it must pass through a sediment settling pond or other equally effective sediment control device, prior to being discharged from the construction site. Alternatively, sediment may be removed by settling in place or by dewatering into a sump pit, filter bag or comparable practice. Ground water dewatering which does not contain sediment or other pollutants is not required to be treated prior to discharge. However, care must be taken when discharging ground water to ensure that it does not become pollutant-laden by traversing over disturbed soils or other pollutant sources.
- v. **Contaminated Sediment.** Where construction activities are to occur on sites with contamination from previous activities, operators must be aware that concentrations of materials that meet other criteria (is not considered a Hazardous Waste, meeting VAP standards, etc.) may still result in storm water discharges in excess of Ohio Water Quality Standards. Such discharges are not authorized by this permit. Appropriate BMPs include, but are not limited to:
 - The use of berms, trenches, and pits to collect contaminated runoff and prevent discharges;
 - Pumping runoff into a sanitary sewer (with prior approval of the sanitary sewer operator) or into a container for transport to an appropriate treatment/disposal facility; and
 - Covering areas of contamination with tarps or other methods that prevent storm water from coming into contact with the material.

Operators should consult with Ohio EPA Division of Surface Water prior to seeking permit coverage.

- h. **Maintenance.** All temporary and permanent control practices shall be maintained and repaired as needed to ensure continued performance of their intended function. All sediment control practices must be maintained in a functional condition until all up slope areas they control are permanently stabilized. The SWP3 shall be designed to minimize maintenance requirements. The applicant shall provide a description of maintenance procedures needed to ensure the continued performance of control practices.

Part III.G.2

- i. **Inspections.** At a minimum, procedures in an SWP3 shall provide that all controls on the site are inspected at least once every seven calendar days and within 24 hours after any storm event greater than one-half inch of rain per 24 hour period. The inspection frequency may be reduced to at least once every month if the entire site is temporarily stabilized or runoff is unlikely due to weather conditions (e.g., site is covered with snow, ice, or the ground is frozen). A waiver of inspection requirements is available until one month before thawing conditions are expected to result in a discharge if all of the following conditions are met: the project is located in an area where frozen conditions are anticipated to continue for extended periods of time (i.e., more than one month); land disturbance activities have been suspended; and the beginning and ending dates of the waiver period are documented in the SWP3. Once a definable area has been finally stabilized, you may mark this on your SWP3 and no further inspection requirements apply to that portion of the site. The permittee shall assign "qualified inspection personnel" to conduct these inspections to ensure that the control practices are functional and to evaluate whether the SWP3 is adequate and properly implemented in accordance with the schedule proposed in Part III.G.1.g of this permit or whether additional control measures are required.

Following each inspection, a checklist must be completed and signed by the qualified inspection personnel representative. At a minimum, the inspection report must include:

- i. the inspection date;
- ii. names, titles, and qualifications of personnel making the inspection;
- iii. weather information for the period since the last inspection (or since commencement of construction activity if the first inspection) including a best estimate of the beginning of each storm event, duration of each storm event, approximate amount of rainfall for each storm event (in inches), and whether any discharges occurred;
- iv. weather information and a description of any discharges occurring at the time of the inspection;
- v. location(s) of discharges of sediment or other pollutants from the site;
- vi. location(s) of BMPs that need to be maintained;
- vii. location(s) of BMPs that failed to operate as designed or proved inadequate for a particular location;
- viii. location(s) where additional BMPs are needed that did not exist at the time of inspection; and
- ix. corrective action required including any changes to the SWP3 necessary and implementation dates.

Part III.G.2.i

Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of or the potential for pollutants entering the drainage system. Erosion and sediment control measures identified in the SWP3 shall be observed to ensure that those are operating correctly. Discharge locations shall be inspected to ascertain whether erosion and sediment control measures are effective in preventing significant impacts to the receiving waters. Locations where vehicles enter or exit the site shall be inspected for evidence of off-site vehicle tracking.

The permittee shall maintain for three years following the submittal of a notice of termination form, a record summarizing the results of the inspection, names(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of the SWP3 and a certification as to whether the facility is in compliance with the SWP3 and the permit and identify any incidents of non-compliance. The record and certification shall be signed in accordance with Part V.G. of this permit.

- i. **When practices require repair or maintenance.** If the inspection reveals that a control practice is in need of repair or maintenance, with the exception of a sediment settling pond, it must be repaired or maintained within three days of the inspection. Sediment settling ponds must be repaired or maintained within 10 days of the inspection.
- ii. **When practices fail to provide their intended function.** If the inspection reveals that a control practice fails to perform its intended function and that another, more appropriate control practice is required, the SWP3 must be amended and the new control practice must be installed within 10 days of the inspection.
- iii. **When practices depicted on the SWP3 are not installed.** If the inspection reveals that a control practice has not been implemented in accordance with the schedule contained in Part III.G.1.g of this permit, the control practice must be implemented within 10 days from the date of the inspection. If the inspection reveals that the planned control practice is not needed, the record must contain a statement of explanation as to why the control practice is not needed.

Part III.G

3. **Approved State or local plans.** All dischargers regulated under this general permit must comply, except those exempted under state law, with the lawful requirements of municipalities, counties and other local agencies regarding discharges of storm water from construction activities. All erosion and sediment control plans and storm water management plans approved by local officials shall be retained with the SWP3 prepared in accordance with this permit. Applicable requirements for erosion and sediment control and storm water management approved by local officials are, upon submittal of a NOI form, incorporated by reference and enforceable under this permit even if they are not specifically included in an SWP3 required under this permit. When the project is located within the jurisdiction of a regulated municipal separate storm sewer system (MS4), the permittee must certify that the SWP3 complies with the requirements of the storm water management program of the MS4 operator.
4. **Exceptions.** If specific site conditions prohibit the implementation of any of the erosion and sediment control practices contained in this permit or site specific conditions are such that implementation of any erosion and sediment control practices contained in this permit will result in no environmental benefit, then the permittee shall provide justification for rejecting each practice based on site conditions. Exceptions from implementing the erosion and sediment control standards contained in this permit will be approved or denied on a case-by-case basis.

The permittee may request approval from Ohio EPA to use alternative methods to satisfy conditions in this permit if the permittee can demonstrate that the alternative methods are sufficient to protect the overall integrity of receiving streams and the watershed. Alternative methods will be approved or denied on a case-by-case basis.

PART IV. NOTICE OF TERMINATION REQUIREMENTS

A. Failure to notify.

The terms and conditions of this permit shall remain in effect until a signed Notice of Termination (NOT) form is submitted. Failure to submit an NOT constitutes a violation of this permit and may affect the ability of the permittee to obtain general permit coverage in the future.

B. When to submit an NOT

1. Permittees wishing to terminate coverage under this permit must submit an NOT form in accordance with Part V.G. of this permit. Compliance with this permit is required until an NOT form is submitted. The permittee's authorization to discharge under this permit terminates at midnight of the day the NOT form is

Part IV.B

submitted. Prior to submitting the NOT form, the permittee shall conduct a site inspection in accordance with Part III.G 2.i of this permit and have a maintenance agreement in place to ensure all post-construction BMPs will be maintained in perpetuity.

2. All permittees must submit an NOT form within 45 days of completing all permitted land disturbance activities. Enforcement actions may be taken if a permittee submits an NOT form without meeting one or more of the following conditions:
 - a. Final stabilization (see definition in Part VII) has been achieved on all portions of the site for which the permittee is responsible (including, if applicable, returning agricultural land to its pre-construction agricultural use);
 - b. Another operator(s) has assumed control over all areas of the site that have not been finally stabilized;
 - c. For residential construction only, temporary stabilization has been completed and the lot, which includes a home, has been transferred to the homeowner. (Note: individual lots without housing which are sold by the developer must undergo final stabilization prior to termination of permit coverage.); or
 - d. An exception has been granted under Part III.G.4.

C. How to submit an NOT

Permittees must use Ohio EPA's approved NOT form. The form must be completed and mailed according to the instructions and signed in accordance with Part V.G of this permit.

PART V. STANDARD PERMIT CONDITIONS.

A. Duty to comply.

1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of ORC Chapter 6111, and is grounds for enforcement action.
2. Ohio law imposes penalties and fines for persons who knowingly make false statements or knowingly swear or affirm the truth of a false statement previously made

B. Continuation of an expired general permit.

An expired general permit continues in force and effect until a new general permit is issued.

Part V

C. Need to halt or reduce activity not a defense.

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

D. Duty to mitigate.

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

E. Duty to provide information.

The permittee shall furnish to the director, within 10 days of written request, any information which the director may request to determine compliance with this permit. The permittee shall also furnish to the director upon request copies of records required to be kept by this permit.

F. Other information.

When the permittee becomes aware that he or she failed to submit any relevant facts or submitted incorrect information in the NOI, SWP3, NOT or in any other report to the director, he or she shall promptly submit such facts or information.

G. Signatory requirements.

All NOIs, NOTs, SWP3s, reports, certifications or information either submitted to the director or that this permit requires to be maintained by the permittee, shall be signed.

1. These items shall be signed as follows:

- a. For a corporation: By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:**
 - i. A president, secretary, treasurer or vice-president of the corporation in charge of a principal business function or any other person who performs similar policy or decision-making functions for the corporation; or**

Part V.G.1.a

- ii. The manager of one or more manufacturing, production or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
 - b. For a partnership or sole proprietorship: By a general partner or the proprietor, respectively; or
 - c. For a municipality, State, Federal or other public agency: By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes (1) the chief executive officer of the agency or (2) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of U.S. EPA).
2. All reports required by the permits and other information requested by the director shall be signed by a person described in Part V.G.1 of this permit or by a duly authorized representative of that person. A person is a duly authorized representative only if:
- a. The authorization is made in writing by a person described in Part V.G.1 of this permit and submitted to the director;
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of manager, operator of a well or well field, superintendent, position of equivalent responsibility or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and
 - c. The written authorization is submitted to the director.

Part V.G

3. Changes to authorization. If an authorization under Part V.G.2 of this permit is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part V G 2 of this permit must be submitted to the director prior to or together with any reports, information or applications to be signed by an authorized representative.

H. Certification.

Any person signing documents under this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

I. Oil and hazardous substance liability.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties to which the permittee is or may be subject under section 311 of the CWA or 40 CFR Part 112. 40 CFR Part 112 establishes procedures, methods and equipment and other requirements for equipment to prevent the discharge of oil from non-transportation-related onshore and offshore facilities into or upon the navigable surface waters of the State or adjoining shorelines.

J. Property rights.

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

K. Severability.

The provisions of this permit are severable and if any provision of this permit or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

Part V

L. Transfers.

Ohio NPDES general permit coverage is transferable. Ohio EPA must be notified in writing sixty days prior to any proposed transfer of coverage under an Ohio NPDES general permit. The transferee must inform Ohio EPA it will assume the responsibilities of the original permittee transferor.

M. Environmental laws.

No condition of this permit shall release the permittee from any responsibility or requirements under other environmental statutes or regulations.

N. Proper operation and maintenance.

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit and with the requirements of SWP3s. Proper operation and maintenance requires the operation of backup or auxiliary facilities or similar systems, installed by a permittee only when necessary to achieve compliance with the conditions of the permit.

O. Inspection and entry.

The permittee shall allow the director or an authorized representative of Ohio EPA, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;
2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit; and
3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment)

PART VI. REOPENER CLAUSE

- A. If there is evidence indicating potential or realized impacts on water quality due to any storm water discharge associated with construction activity covered by this permit, the permittee of such discharge may be required to obtain coverage under an individual permit or an alternative general permit in accordance with Part I.C of this permit or the permit may be modified to include different limitations and/or requirements.
- B. Permit modification or revocation will be conducted according to ORC Chapter 6111.

PART VII. DEFINITIONS

- A. "Act" means Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub. L. 92-500, as amended Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483, Pub. L. 97-117 and Pub. L. 100-4, 33 U.S.C. 1251 et. seq.
- B. "Best management practices (BMPs)" means schedules of activities, prohibitions of practices, maintenance procedures and other management practices (both structural and non-structural) to prevent or reduce the pollution of surface waters of the State. BMP's also include treatment requirements, operating procedures and practices to control plant and/or construction site runoff, spillage or leaks, sludge or waste disposal or drainage from raw material storage.
- C. "Commencement of construction" means the initial disturbance of soils associated with clearing, grubbing, grading, placement of fill or excavating activities or other construction activities.
- D. "Concentrated storm water runoff" means any storm water runoff which flows through a drainage pipe, ditch, diversion or other discrete conveyance channel.
- E. "Director" means the director of the Ohio Environmental Protection Agency.
- F. "Discharge" means the addition of any pollutant to the surface waters of the State from a point source.
- G. "Disturbance" means any clearing, grading, excavating, filling, or other alteration of land surface where natural or man-made cover is destroyed in a manner that exposes the underlying soils.
- H. "Final stabilization" means that either:
1. All soil disturbing activities at the site are complete and a uniform perennial vegetative cover (e.g., evenly distributed, without large bare areas) with a density of at least 70 percent cover for the area has been established on all unpaved areas and areas not covered by permanent structures or equivalent stabilization measures (such as the use of landscape mulches, rip-rap, gabions or geotextiles) have been employed. In addition, all temporary erosion and sediment control practices are removed and disposed of and all trapped sediment is permanently stabilized to prevent further erosion; or
 2. For individual lots in residential construction by either:
 - a. The homebuilder completing final stabilization as specified above or

Part VII.H.2

- b. The homebuilder establishing temporary stabilization including perimeter controls for an individual lot prior to occupation of the home by the homeowner and informing the homeowner of the need for and benefits of, *final stabilization*. (Homeowners typically have an incentive to put in the landscaping functionally equivalent to final stabilization as quick as possible to keep mud out of their homes and off sidewalks and driveways.); or
3. For construction projects on land used for agricultural purposes (e.g., pipelines across crop or range land), final stabilization may be accomplished by returning the disturbed land to its pre-construction agricultural use. Areas disturbed that were previously used for agricultural activities, such as buffer strips immediately adjacent to surface waters of the State and which are not being returned to their pre-construction agricultural use, must meet the final stabilization criteria in (1) or (2) above.
- I. "Individual Lot NOI" means a Notice of Intent for an individual lot to be covered by this permit (see parts I and II of this permit).
- J. "Larger common plan of development or sale"- means a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under one plan.
- K. "MS4" means municipal separate storm sewer system which means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels or storm drains) that are:
 1. Owned or operated by the federal government, state, municipality, township, county, district(s) or other public body (created by or pursuant to state or federal law) including special district under state law such as a sewer district, flood control district or drainage districts or similar entity or a designated and approved management agency under section 208 of the act that discharges into surface waters of the State; and
 2. Designed or used for collecting or conveying solely storm water,
 3. Which is not a combined sewer and
 4. Which is not a part of a publicly owned treatment works.
- L. "National Pollutant Discharge Elimination System (NPDES)" means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits and enforcing pretreatment requirements, under sections 307, 402, 318 and 405 of the CWA. The term includes an "approved program."

Part VII

- M. "NOI" means notice of intent to be covered by this permit.
- N. "NOT" means notice of termination.
- O. "Operator" means any party associated with a construction project that meets either of the following two criteria:
1. The party has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or
 2. The party has day-to-day operational control of those activities at a project which are necessary to ensure compliance with an SWP3 for the site or other permit conditions (e.g., they are authorized to direct workers at a site to carry out activities required by the SWP3 or comply with other permit conditions).

As set forth in Part II.A, there can be more than one operator at a site and under these circumstances, the operators shall be co-permittees.

- P. "Owner or operator" means the owner or operator of any "facility or activity" subject to regulation under the NPDES program.
- Q. "Permanent stabilization" means the establishment of permanent vegetation, decorative landscape mulching, matting, sod, rip rap and landscaping techniques to provide permanent erosion control on areas where construction operations are complete or where no further disturbance is expected for at least one year.
- R. "Percent imperviousness" means the impervious area created divided by the total area of the project site.
- S. "Point source" means any discernible, confined and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or the floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.
- T. "Qualified inspection personnel" means a person knowledgeable in the principles and practice of erosion and sediment controls, who possesses the skills to assess all conditions at the construction site that could impact storm water quality and to assess the effectiveness of any sediment and erosion control measures selected to control the quality of storm water discharges from the construction activity.

Part VII

- U. "Rainwater and Land Development" is a manual describing construction and post-construction best management practices and associated specifications. A copy of the manual may be obtained by contacting the Ohio Department of Natural Resources, Division of Soil & Water Conservation.
- V. "Riparian area" means the transition area between flowing water and terrestrial (land) ecosystems composed of trees, shrubs and surrounding vegetation which serve to stabilize erodible soil, improve both surface and ground water quality, increase stream shading and enhance wildlife habitat.
- W. "Runoff coefficient" means the fraction of total rainfall that will appear at the conveyance as runoff.
- X. "Sediment settling pond" means a sediment trap, sediment basin or permanent basin that has been temporarily modified for sediment control, as described in the latest edition of the Rainwater and Land Development manual.
- Y. "State isolated wetland permit requirements" means the requirements set forth in Sections 6111.02 through 6111.029 of the ORC.
- Z. "Storm water" means storm water runoff, snow melt and surface runoff and drainage.
- AA. "Surface waters of the State" or "water bodies" means all streams, lakes, reservoirs, ponds, marshes, wetlands or other waterways which are situated wholly or partially within the boundaries of the state, except those private waters which do not combine or effect a junction with natural surface or underground waters. Waters defined as sewerage systems, treatment works or disposal systems in Section 6111.01 of the ORC are not included.
- BB. "SWP3" means storm water pollution prevention plan.
- CC. "Temporary stabilization" means the establishment of temporary vegetation, mulching, geotextiles, sod, preservation of existing vegetation and other techniques capable of quickly establishing cover over disturbed areas to provide erosion control between construction operations.
- DD. "Water Quality Volume (WQ_v)" means the volume of storm water runoff which must be captured and treated prior to discharge from the developed site after construction is complete. WQ_v is based on the expected runoff generated by the mean storm precipitation volume from post-construction site conditions at which rapidly diminishing returns in the number of runoff events captured begins to occur.

APPENDIX 2

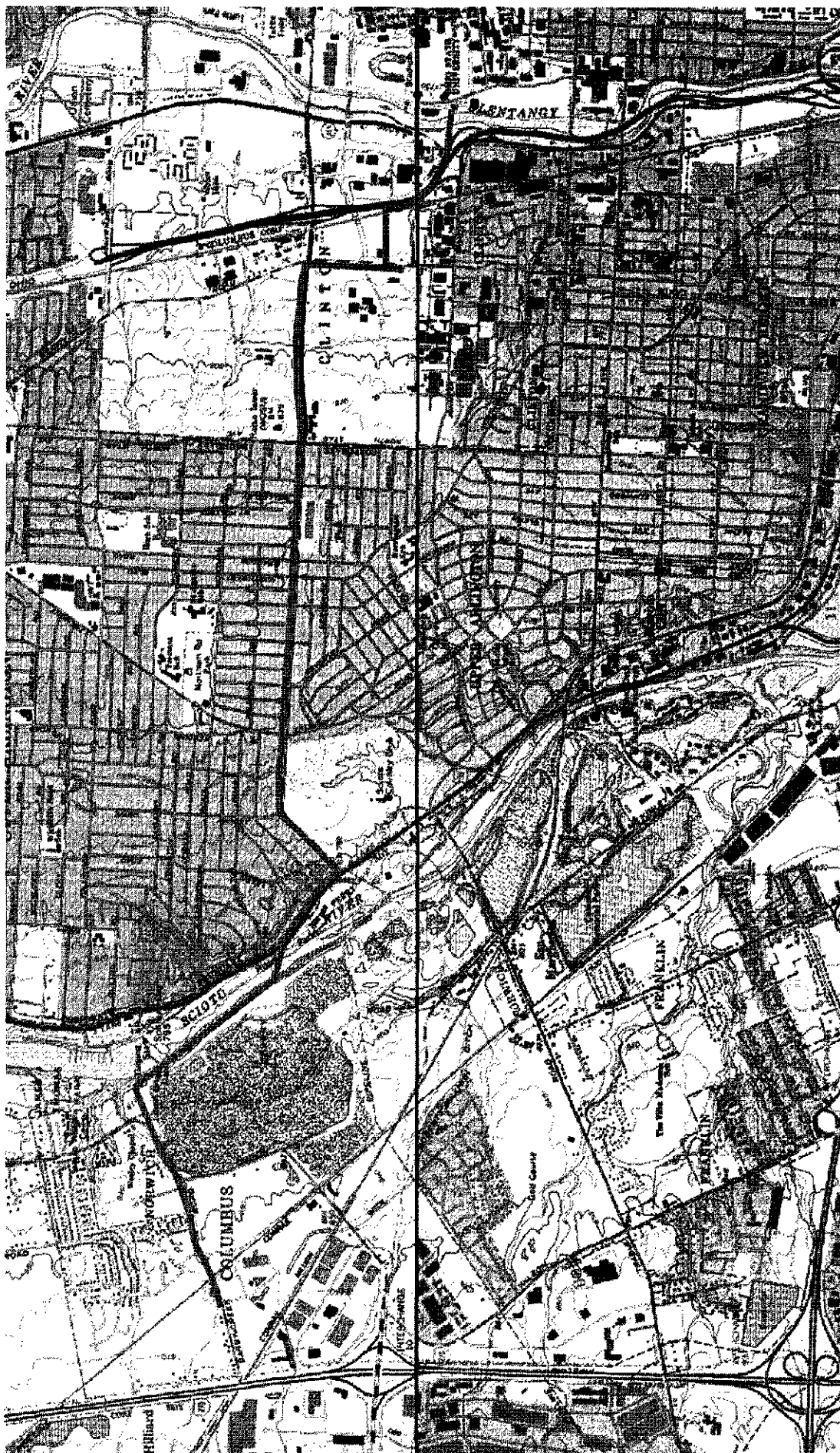
USGS Site Location Map

Soil Map

Laydown Area Drawing

138 kV Overhead Plan and Profile

Construction Plans for Underground Portion



N



Transmission Line

Vicinity Map

Applicant : Columbus Southern Power Company

Agent: AEP Service Corporation

Project: Roberts-OSU 138 kV

Date: October 2010

Site Contact:
Eric Leu -AEP
(614) 204-4475
eleu@AEP.com

Water & Ecological
Resource Services



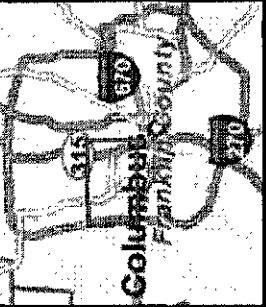


700 Morrison Rd
 Gahanna, OH 43230-6842
 PH: (614) 716-1000
 Fax: (614) 552-1818

ROBERTS-OSU 138kV LINE

LEGEND:

- Substation
- Underground Line
- Overhead Line



0 1,500 3,000

 Scale in Feet

Soil Map—Franklin County, Ohio



MAP LEGEND

Area of Interest (AOI)			Very Stony Spot
Area of Interest (AOI)			Wet Spot
Soils			Other
Soil Map Units		Special Line Features	
Special Point Features			Gully
			Short Steep Slope
			Other
		Political Features	
			Cities
		Water Features	
			Oceans
			Streams and Canals
		Transportation	
			Rails
			Interstate Highways
			US Routes
			Major Roads

MAP INFORMATION

Map Scale: 1:41,000 if printed on A size (8.5" x 11") sheet.
 The soil surveys that comprise your AOI were mapped at 1:15,840.
 Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
 Coordinate System: UTM Zone 17N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Franklin County, Ohio
 Survey Area Data: Version 9, Jan 25, 2010
 Date(s) aerial images were photographed: 8/23/2004; 8/23/2004

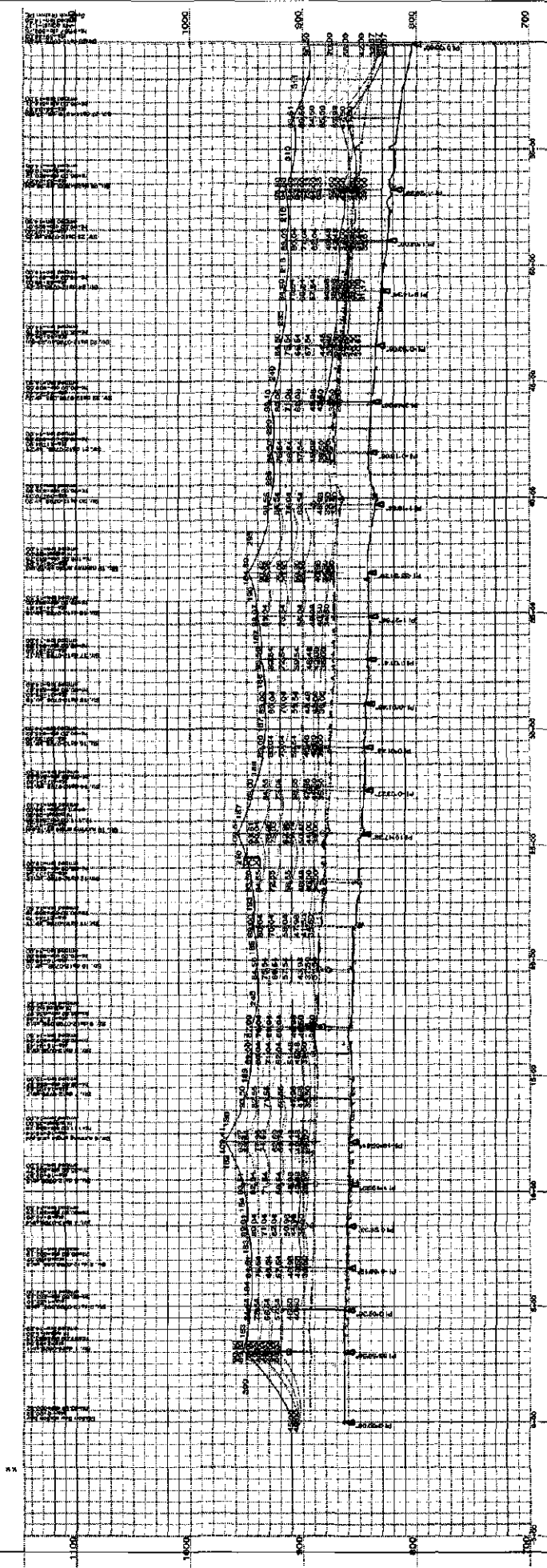
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

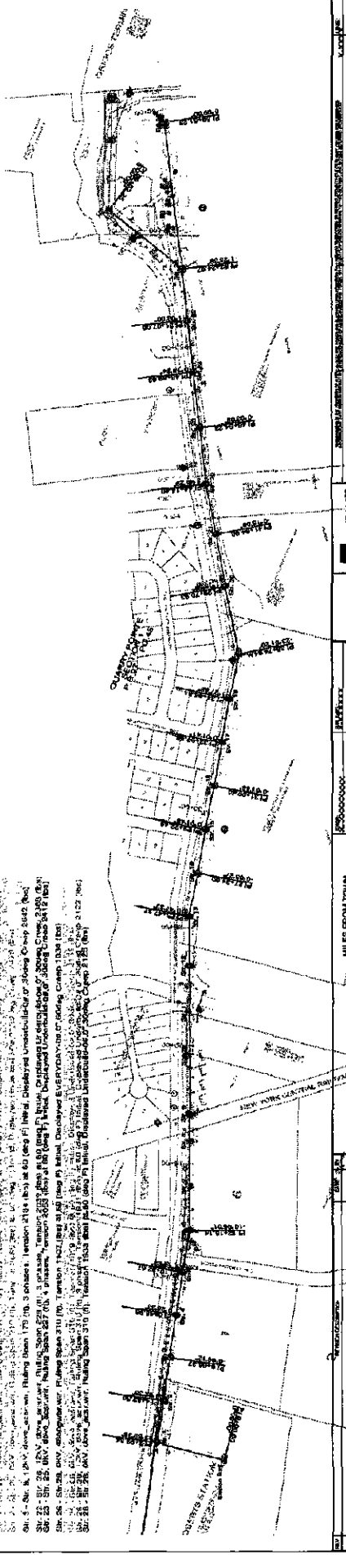
Franklin County, Ohio (OH049)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CbC	Cardington-Urban land complex, 6 to 12 percent slopes	0.2	0.0%
CeB	Celina silt loam, 2 to 6 percent slopes	87.5	1.9%
CeB2	Celina silt loam, 2 to 6 percent slopes, eroded	61.1	1.3%
CrB	Celina-Urban land complex, 2 to 6 percent slopes	529.6	11.5%
CrA	Crosby silt loam, 0 to 2 percent slopes	10.0	0.2%
CrB	Crosby silt loam, 2 to 6 percent slopes	469.2	10.2%
CsA	Crosby-Urban land complex, 0 to 2 percent slopes	860.1	18.6%
CsB	Crosby-Urban land complex, 2 to 6 percent slopes	698.9	15.1%
EIB	Eldean silt loam, 2 to 6 percent slopes	80.6	1.7%
EmB	Eldean-Urban land complex, 2 to 6 percent slopes	282.6	6.1%
KeB	Kendallville silt loam, 2 to 6 percent slopes	23.4	0.5%
Ko	Kokomo silty clay loam	111.5	2.4%
MkB	Miamian silt loam, 2 to 6 percent slopes	16.1	0.3%
MIC2	Miamian silty clay loam, 6 to 12 percent slopes, eroded	72.5	1.6%
MnC	Miamian-Urban land complex, 6 to 12 percent slopes	46.6	1.0%
MoB	Milton silt loam, 2 to 6 percent slopes	55.8	1.2%
MoC2	Milton silt loam, 6 to 12 percent slopes, eroded	11.0	0.2%
MpB	Milton-Urban land complex, 2 to 6 percent slopes	96.4	2.1%
MpC	Milton-Urban land complex, 6 to 12 percent slopes	141.0	3.1%
OcA	Ockley silt loam, 0 to 2 percent slopes	9.0	0.2%
Pt	Pits, quarry	455.6	9.9%
RhB	Ritchey silt loam, 2 to 6 percent slopes	7.9	0.2%
RhD2	Ritchey silt loam, 12 to 18 percent slopes, eroded	54.2	1.2%
Rs	Ross silt loam, occasionally flooded	63.8	1.4%
Ut	Udorthents-Urban land complex, gently rolling	123.1	2.7%
Uv	Urban land-Celina complex, 2 to 12 percent slopes	23.9	0.5%
Uw	Urban land-Genesee complex, occasionally flooded	71.5	1.5%
Ux	Urban land-Ockley complex, 0 to 6 percent slopes	41.2	0.9%
W	Water	94.2	2.0%

Franklin County, Ohio (OH049)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Wt	Westland silty clay loam	18.2	0.4%
Totals for Area of Interest		4,616.6	100.0%





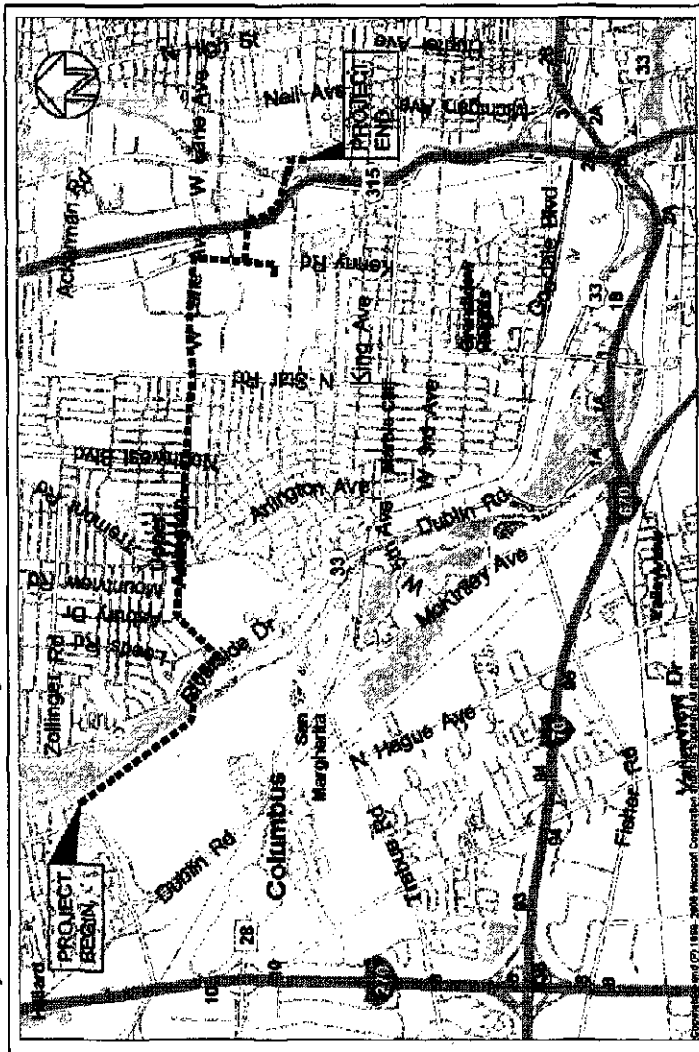
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Station 1+800: 25' (100' from centerline) existing ground elevation 715.00 (100' from centerline) proposed road grade 715.00
Station 1+900: 25' (100' from centerline) existing ground elevation 715.00 (100' from centerline) proposed road grade 715.00



PROJECT: XXXXX	DATE: 10/1/2000	BY: J. J. J.	CHECKED: J. J. J.
DESIGNED: J. J. J.	APPROVED: J. J. J.	SCALE: 1" = 40.0'	VERT. SCALE: 1" = 10.0'
SHEET: 1 OF 1			

**COLUMBUS SOUTHERN POWER
OSU - ROBERTS
138KV TRANSMISSION LINE**

SEDIMENT, EROSION CONTROL, & HDD SURFACE MIGRATION CONTINGENCY PLANS



INDEX OF SHEETS

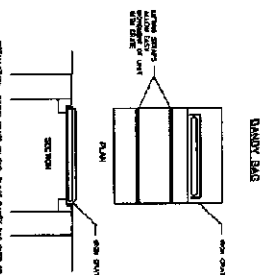
96-00

1948 Dublin Road
Columbus, Ohio 43215
614-860-6409

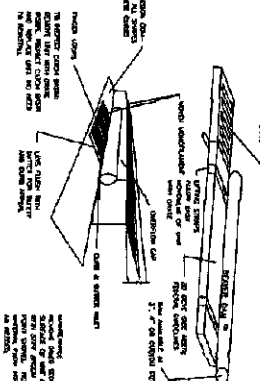
CALL TOLL FREE
800-362-2764
YOU'VE GOT
TO SEE THIS
TO WIN THE
NAB AWARD

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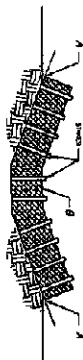
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REPORTEDLY, THE ABOVE NAMED INDIVIDUALS ARE CURRENTLY BEING IDENTIFIED BY NAME ON THE BASIS OF INFORMATION RECEIVED FROM THE NEW YORK OFFICE OF THE DISTRICT ATTORNEY, NEW YORK, AND THE NEW YORK OFFICE OF THE ATTORNEY GENERAL, NEW YORK. THE NEW YORK OFFICE OF THE DISTRICT ATTORNEY, NEW YORK, IS CURRENTLY CONDUCTING AN INVESTIGATION OF THE MATTER AND HAS REQUESTED THAT THE NEW YORK OFFICE OF THE ATTORNEY GENERAL, NEW YORK, BE KEPT ADVISED OF ANY DEVELOPMENTS IN THE MATTER.

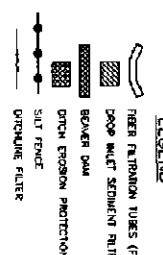
[illegible]

BLAVER DAN ANDREW FRIDMAN 2500 10TH AVE S. SEATTLE WA 98148

[illegible]

POINTS A SHOULD BE IDENTICAL TO POINT B

TERRA TUBES FOR
DRAINAGE WAY OR SHEET
FIBER FILTRATION TUBES (FTT'S)

[illegible][illegible][illegible]

FIBER FILTRATION TUBES (FFT'S)
DROOP INLET SEDIMENT FILTER, DADDY BAG

[illegible]

CONTINGENCY PLAN:
HORIZONTAL DIRECTIONAL DRILL (HDD)
SURFACE MIGRATION (FRAC-OUT) OF OIL MUD

INTRODUCTION

EXTENSIVE PROCEEDINGS FOR ALLEGEDLY VIOLATING WOMAN ASSOCIATION WITH THE ASSASSINATION OF PRESIDENT JOHN F. KENNEDY. The following is a list of the names of the persons who were arrested and charged with conspiracy in the assassination of President John F. Kennedy, and the names of the persons who were arrested and charged with conspiracy in the assassination of President John F. Kennedy.

TO MAXIMIZE THE POTENTIAL FOR A FRAC-OUT, THIS CONTINGENCY PLAN INCLUDES:

[illegible]

UPPER MILLIKEN, 6500 MILLBOND ROAD AND THAMMUN COUNTY PROJECTS,

PRAC-TICE COMMUNITY CONTROL PLAN, SUBMITTAL TO THE EFFECTIVE NODS AND PACERS SET FORTH BY THE ALLIANCE FOR THE ENVIRONMENT, CHAD POWER LINE TRMS BOARD AND STATE DEPARTMENT OF ALABAMA, RESPECTS, ARMY CORPS OF ENGINEERS, CITY OF COLUMBUS, CITY OF UPTER ALABAMA, CSR RAYMOND, GDOT AND TRANSPORTATION DEPARTMENT.

TO FURTHER REDUCE POTENTIAL IMPACTS OF IDENTIFIED RESOURCES THE FOLLOWING PROTECTIVE MEASURES WILL BE IMPLEMENTED:

[illegible]

* BEFORE HORIZONTAL DIRECTIONAL DRILLING BEGINS, THE CONSTRUCTION SHALL SUBMIT TO THE CITY ENGINEER A CONSTRUCTION PLAN FOR CONSTRUCTION AND RECORD OF MATERIALS TO BE USED IN EACH SECTION.

[illegible]

INTERSECTION OF DISJOINT AREAS OF A WEIGHTED

CONTINGENCY RESPONSE

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[illegible]

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[illegible]

COVILZAL INVESTMENT

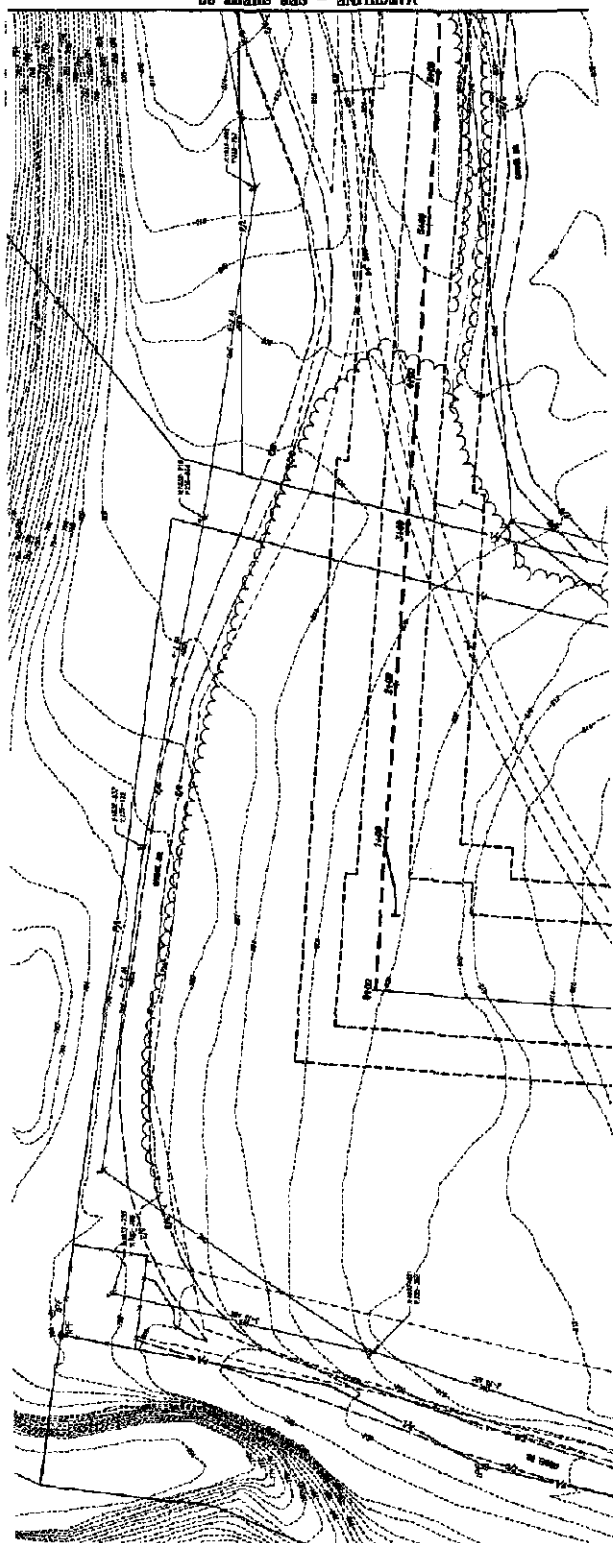
1. *Chlamydia trachomatis* serotypes 1, 2, 3, 4, 6, 8, 9, 10, 12, 14, 15, 16, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 84

RESPONSE PERSONNEL

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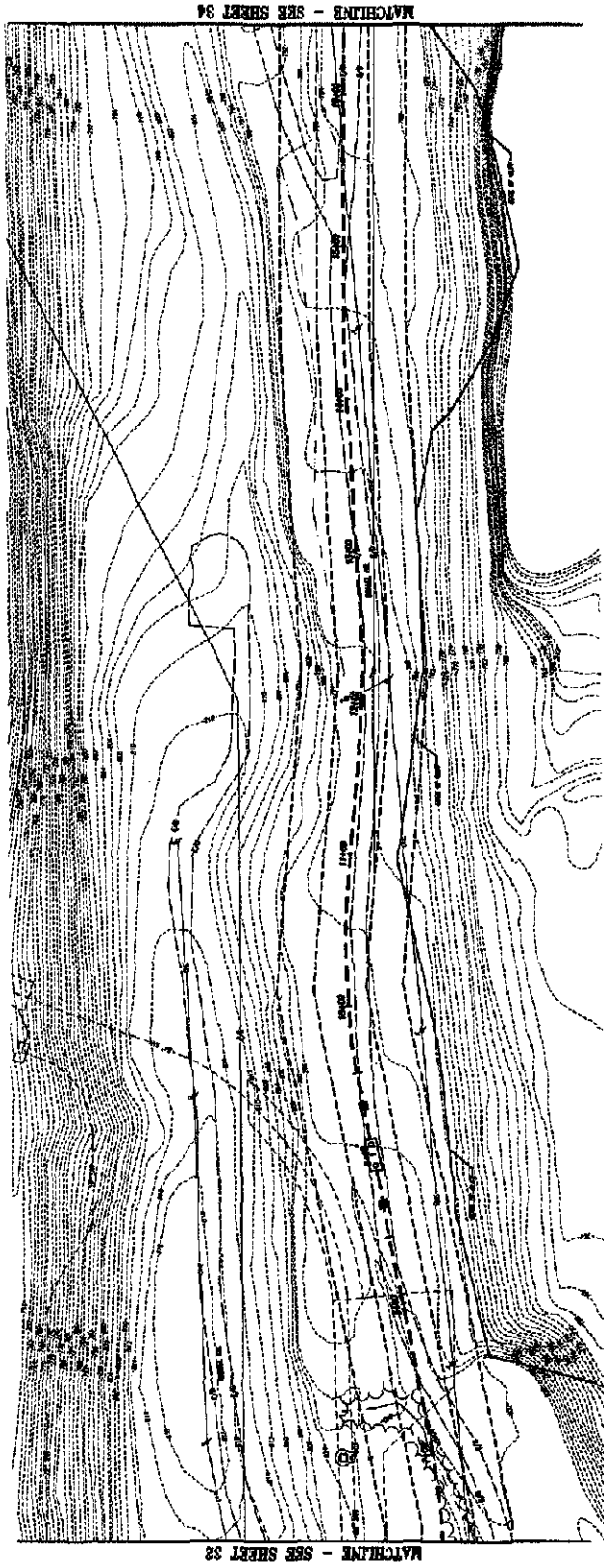


STRAW BALE BARRIER (5 BALES MIN. PER BARRIER)
DROP INLET SEDIMENT FILTER, DANDY BAG
BEAVER DAM
DITCH EROSION PROTECTION
SLIT FENCE
DITCHLINE FILTER

THE **NEW** **YORK** **PUBLIC** **LIBRARY** **ASTOR LENOX TILDEN FOUNDATION**

SEE SHEET 30 FOR SLY FENCING DETAILS AND NOTES

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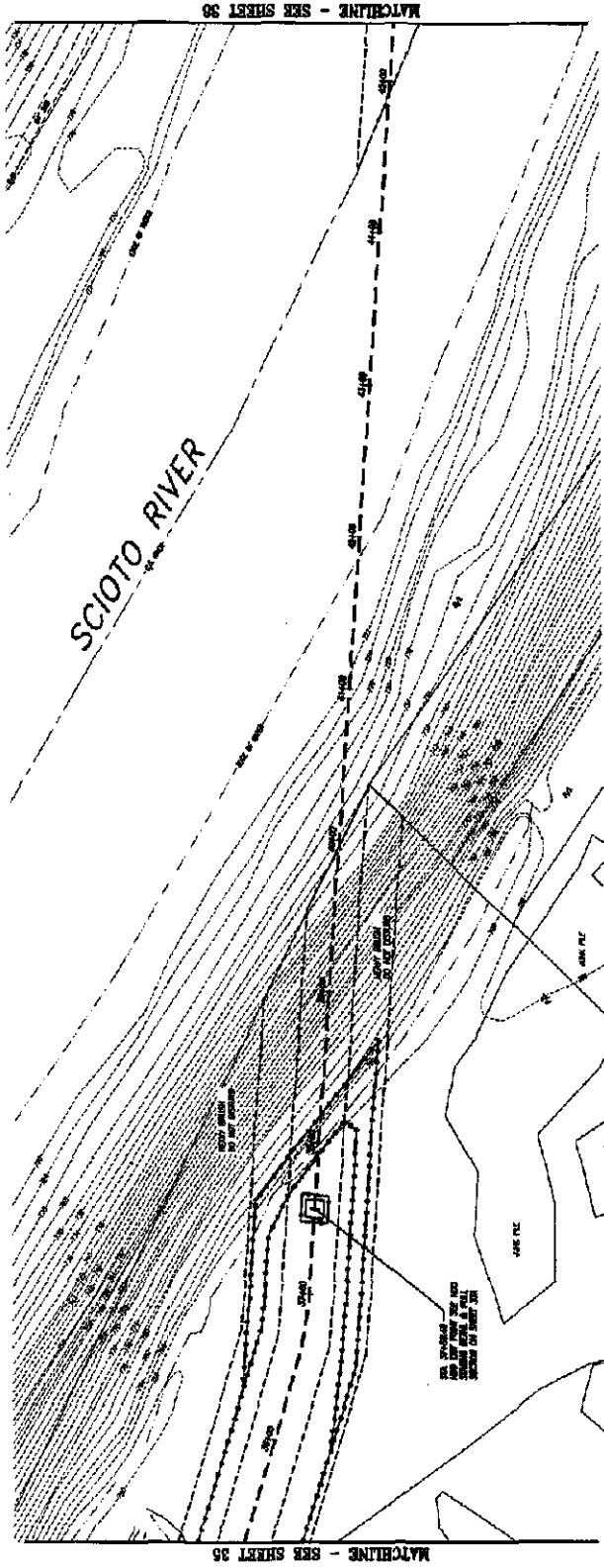
- LEGEND**
- STRAW DALE BARRIER (5 BALES MIN. PER BARRIER)
 - DROP INLET SEDIMENT FILTER, SANDY BAG
 - BEAVER DAM
 - DITCH EROSION PROTECTION
 - SALT FENCE
 - DITCHLINE FILTER

*SEE SHEET 30 FOR SALT FENCING DETAILS AND NOTES

WATERWAY NOTATION

THIS PROJECT IS BEING CONSIDERED WITHIN THE EXISTING WATERSHED AREA OF A LAKE. ANY CHANGES TO THE EXISTING WATERSHED AREA WILL BE INDICATED BY A DASHED LINE. ANY CHANGES TO THE EXISTING WATERSHED AREA WILL BE INDICATED BY A DASHED LINE. ANY CHANGES TO THE EXISTING WATERSHED AREA WILL BE INDICATED BY A DASHED LINE.

STATE OF OHIO COUNTY OF FRANKLIN TOWNSHIP OF HONKACH CITY OF COLUMBUS		OSB - ROBERTS 138KV TRANSMISSION LINE PROPOSED LINE ROUTE		SHEET LENGTH: 2200X SHEET WIDTH: 3300X		DATE: 08/01/00 DRAWN BY: J. ROBERTS CHECKED BY: J. ROBERTS APPROVED BY: J. ROBERTS		SCALE: 1" = 100' NORTH ARROW:		PROJECT NO.: 00-000000 SHEET NO.: 34	
PROJECT NO.: 00-000000 SHEET NO.: 34		PROJECT NO.: 00-000000 SHEET NO.: 34		PROJECT NO.: 00-000000 SHEET NO.: 34		PROJECT NO.: 00-000000 SHEET NO.: 34		PROJECT NO.: 00-000000 SHEET NO.: 34		PROJECT NO.: 00-000000 SHEET NO.: 34	



- LEGEND**
- STRAW BALE BARRIER (5 BALES MIN. PER BARRIER)
 - DITCH INLET SEDIMENT FILTER, DANDY BAG
 - BEAMER DAM
 - DITCH EROSION PROTECTION
 - SILT FENCE
 - DITCHLINE FILTER

*SEE SHEET 30 FOR SILT FENCING DETAILS AND NOTES

NOTES

1. THE DESIGNER HAS CONDUCTED VISUAL INSPECTIONS OF THE PROJECT AREA AND HAS OBSERVED THE EXISTING CONDITIONS. THE DESIGNER HAS NOT CONDUCTED ANY FIELD SURVEYS OR TESTS TO DETERMINE THE EXISTING CONDITIONS. THE DESIGNER HAS NOT CONDUCTED ANY FIELD SURVEYS OR TESTS TO DETERMINE THE EXISTING CONDITIONS.

2. THE DESIGNER HAS CONDUCTED VISUAL INSPECTIONS OF THE PROJECT AREA AND HAS OBSERVED THE EXISTING CONDITIONS. THE DESIGNER HAS NOT CONDUCTED ANY FIELD SURVEYS OR TESTS TO DETERMINE THE EXISTING CONDITIONS. THE DESIGNER HAS NOT CONDUCTED ANY FIELD SURVEYS OR TESTS TO DETERMINE THE EXISTING CONDITIONS.

PROJECT NO. 1387 SHEET NO. 36 OF 100 DATE 10/10/00 DRAWN BY J. ROBERTS CHECKED BY J. ROBERTS APPROVED BY J. ROBERTS		PROJECT NAME 1387 TRANSMISSION LINE PROPOSED LINE ROUTE		PROJECT LOCATION SCIOTO RIVER COUNTY OF FRANKLIN CITY OF COLUMBUS		PROJECT DESCRIPTION TRANSMISSION LINE ROUTE PROPOSED LINE ROUTE		PROJECT STATUS PRELIMINARY	
--	--	---	--	--	--	---	--	-------------------------------	--

TYPICAL HDD SITE PLAN - STAGING AREA & PULL SECTION

HDD BORE DESCRIPTION - SCOTIO RIVER CROSSING:

ITEM	DESCRIPTION	QUANTITY
1	HORIZONTAL LENGTH OF BORE	1,420 FEET
2	ENTRY HOLE	10 CUBIC YARDS
3	ENTRY HOLE	10 CUBIC YARDS
4	ENTRY HOLE	1,200 FEET
5	ENTRY HOLE	1,000 FEET
6	MINIMUM DEPTH BEHIND WATER COURSE	22 FEET

LEGEND:

- STRAW BALE BARRIER (5 BALES MIN. PER BARRIER)
- BEAVER DAM
- DITCH EROSION PROTECTION
- SILT FENCE
- DITCHLINE FILTER

HDD BORE CROSS SECTION (SCOTIO RIVER):

NOT SCALE

STA. 37+92.48 TO STA. 51+70.00

[illegible]

VERMONT

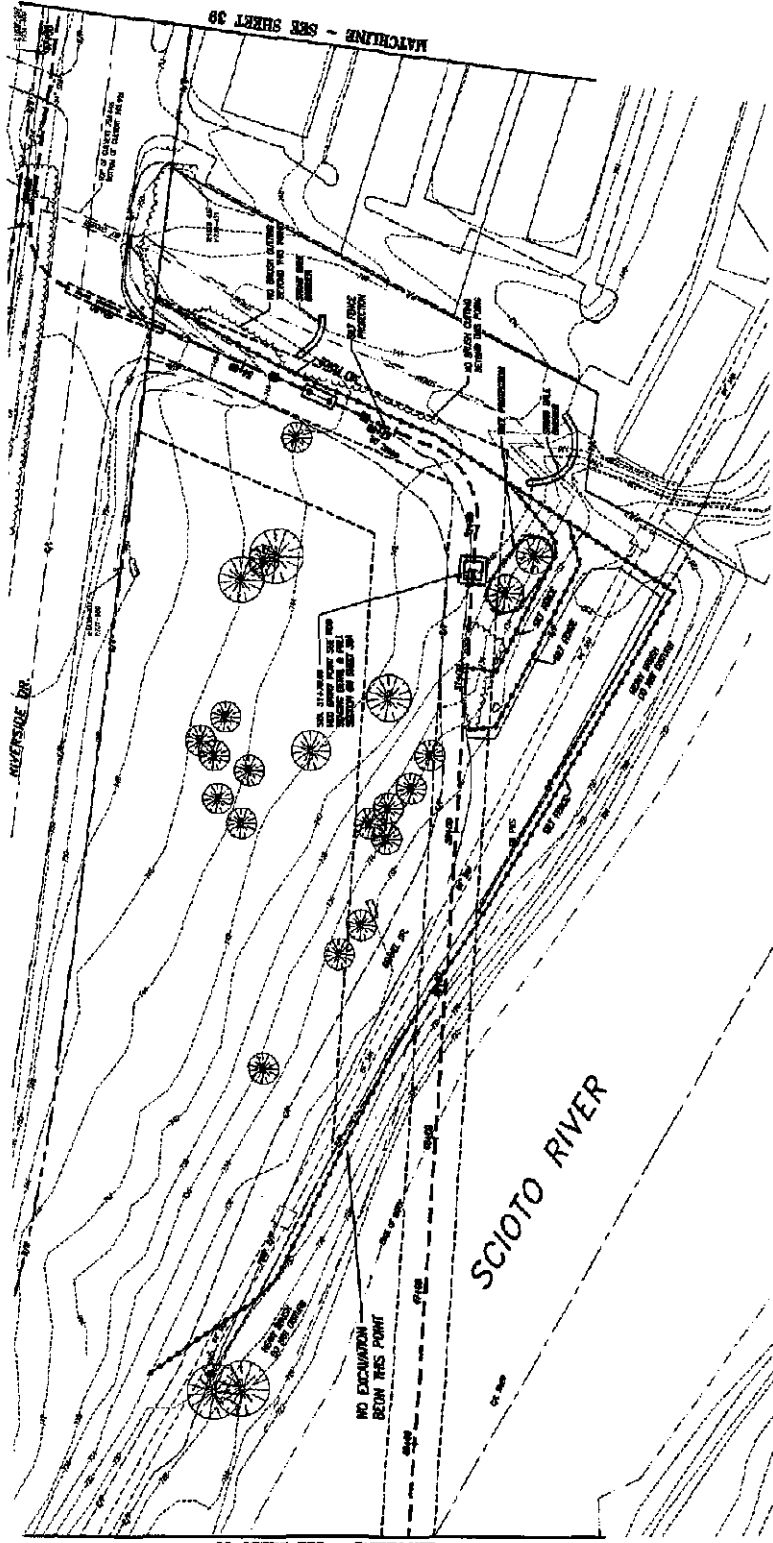
APR 11 1964

10

THE UNIVERSITY OF CHICAGO

SHEET: 37 OF 100 REV 0

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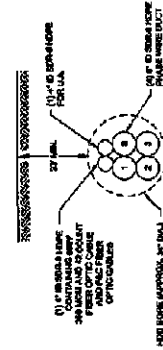


LEGEND

- STUMP BALE BARRIER (5 BALES MIN. PER BARRIER)
- DROP INLET SEDIMENT FILTER, DANDY BAG
- BEAVER DAM
- DITCH EROSION PROTECTION
- SILT FENCE
- DITCHLINE FILTER

HOD BORE DESCRIPTION - SCIOTO RIVER CROSSING

- HORIZONTAL LENGTH OF BORE 1,420 FEET
- BENT ANGLE 10 DEGREES
- BENT ANGLE 10 DEGREES
- VERTICAL CURVE RADIUS 1,200 FEET
- VERTICAL CURVE RADIUS 1,000 FEET
- MINIMUM DEPTH BENEATH WATER COURSE 23 FEET



HOD BORE CROSS SECTION (SCIOTO RIVER)

STA. 37+56.48 TO STA. 61+76.60

*SEE SHEET 30 FOR SILT FENCING DETAILS AND NOTES

WARNING: PROHIBITION
 THIS DRAWING IS THE PROPERTY OF THE ENGINEER. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER. THE ENGINEER ASSUMES NO LIABILITY FOR ANY DAMAGE OR LOSS OF ANY KIND, INCLUDING REASONABLE ATTORNEY'S FEES, ARISING OUT OF OR IN CONNECTION WITH THE USE OF THIS DRAWING. THE USER OF THIS DRAWING SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR COMPLYING WITH ALL APPLICABLE REGULATIONS AND ORDINANCES. THE USER OF THIS DRAWING SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR COMPLYING WITH ALL APPLICABLE REGULATIONS AND ORDINANCES. THE USER OF THIS DRAWING SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR COMPLYING WITH ALL APPLICABLE REGULATIONS AND ORDINANCES.

PROJECT: 13800 TRANSMISSION LINE DRAWING: 38 OF 100 DATE: 05/10/00 DESIGNED BY: [Signature] CHECKED BY: [Signature] APPROVED BY: [Signature]	
CLIENT: [Blank] PROJECT LOCATION: [Blank] PROJECT NUMBER: [Blank]	
SHEET: 38 OF 100 DATE: 05/10/00 DESIGNED BY: [Signature] CHECKED BY: [Signature] APPROVED BY: [Signature]	

[illegible]

SCIOTO RIVER

25-1000 (U) 4710 SOURCE HERE FOR U.S.

SECTION (SCIOTO RIVER)

[illegible]

INFORMATION OFFERED IN THIS ADVERTISING PROGRAM IS PROVIDED FROM THE BEST AVAILABLE INFORMATION AND SOURCES. UTILITY LOCATIONS ARE NOT GUARANTEED. LOCATIONS ARE APPROXIMATE AND SUBJECT TO CHANGE. LOCATIONS ARE NOT GUARANTEED. LOCATIONS ARE APPROXIMATE AND SUBJECT TO CHANGE. LOCATIONS ARE APPROXIMATE AND SUBJECT TO CHANGE.

vertical

STATE OF OHIO
COUNTY OF FRANKLIN
TOWNSHIP OF NORWICH
CITY OF COLUMBUS



DATE	
ISSUES	WAG DIVERSITY
CHECKED	
APPROVED	

DSU - ROBERTS
38KV TRANSMISSION LINE
PROPOSED LINE ROUTE

X0000 X0000



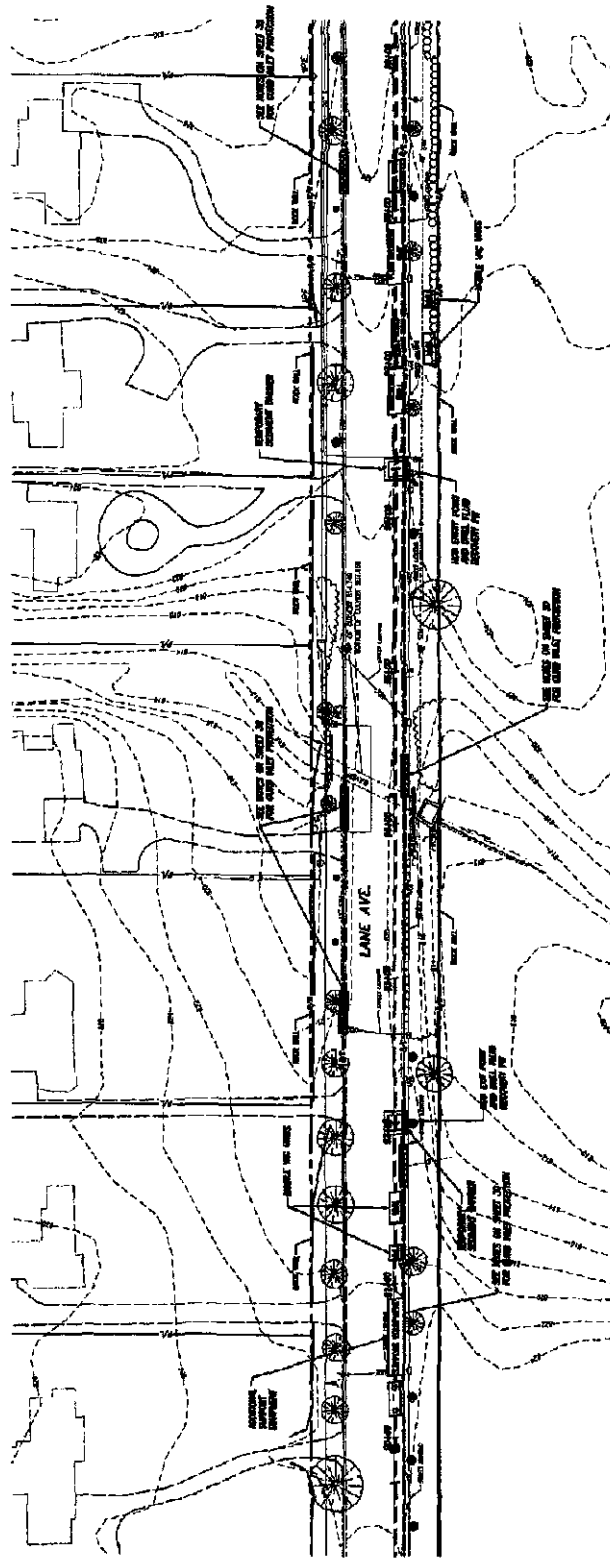
DATE LAYER -	INDICATOR FOR CONTRACTING	
E -	EDGE -	
NO. 3BA	SHEET	3BA OF 100 REV 0

HOD BORE DESCRIPTION - SCHOTO RIVER CROSSING	
HORIZONTAL LENGTH OF BORE	1,420 FEET
ENTRY ANGLE	10 DEGREES
EXIT ANGLE	10 DEGREES
ENTRY VERTICAL CURVE RADIUS	1,200 FEET
EXIT VERTICAL CURVE RADIUS	1,600 FEET
MINIMUM DEPTH BENEATH WATER COURSE	22 FEET

STRAW BALE BARRIER (5 BALES MIN. PER BARRIER)
DROPPY INLET SEDIMENT FILTER, DANDY BAG
BEAVER DAM
DITCH EROSION PROTECTION
SILT FENCE
DITCHLINE FILTER

improvements in the design of the building. The improvements were implemented if they were found to be cost-effective. The improvements were implemented if they were found to be cost-effective. The improvements were implemented if they were found to be cost-effective.

TYPICAL HDD SITE PLAN - RIG SECTION AND STAGING AREA PULL SECTION



NOTES: SEE MAINTENANCE OF TRAFFIC PLAN & NOTES

HDD BORE DESCRIPTION - 84" CULVERT CROSSING

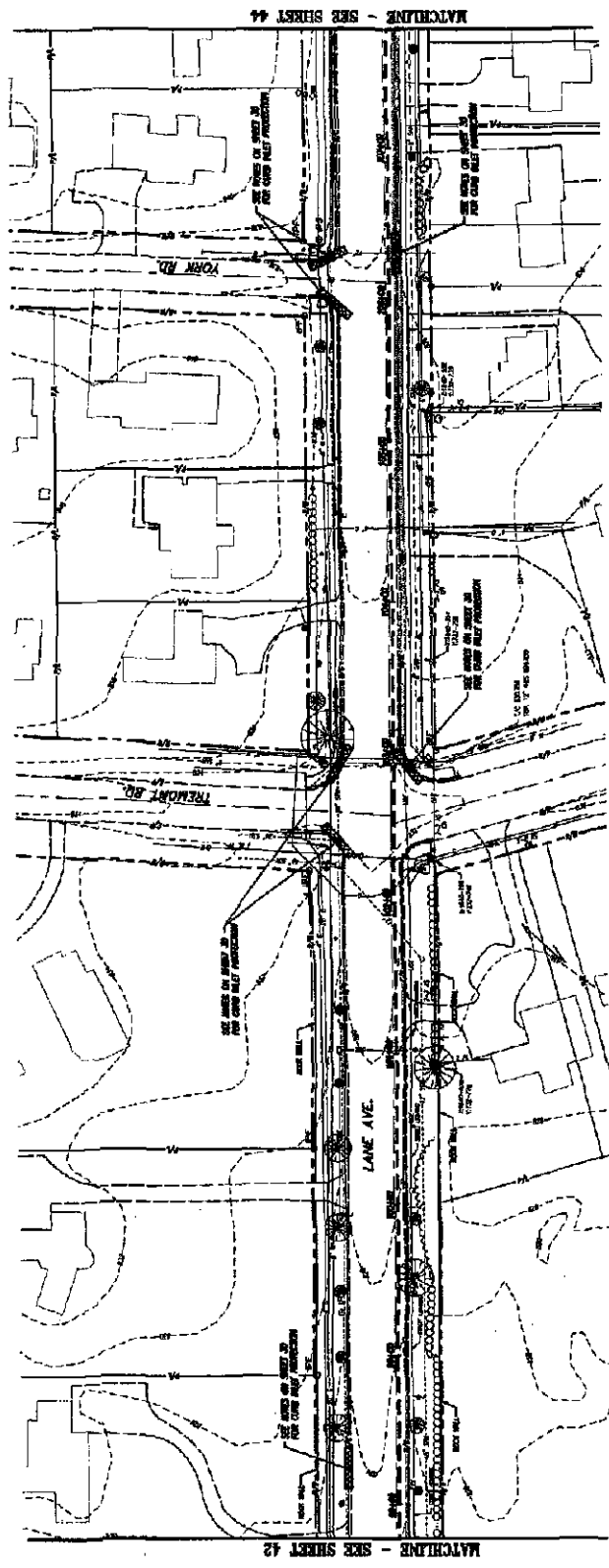
- HORIZONTAL LENGTH OF BORE 407 FEET
- ENTRY ANGLE 10 DEGREES
- ENTRY VERTICAL CURVE RADIUS 1000 FEET
- EXIT VERTICAL CURVE RADIUS 1000 FEET
- MINIMUM DEPTH BENEATH 96" BOX CULVERT 5 FEET

NOTES: THIS PLAN IS A PRELIMINARY DESIGN. IT IS NOT TO BE USED FOR CONSTRUCTION WITHOUT THE APPROVAL OF THE ENGINEER. THE ENGINEER IS NOT RESPONSIBLE FOR THE ACCURACY OF THE DATA PROVIDED BY THE CLIENT. THE CLIENT IS RESPONSIBLE FOR THE ACCURACY OF THE DATA PROVIDED BY THE CLIENT.

LEGEND

- STEELW BALE BARRIER (5 BALES MIN. PER BARRIER)
- DEEP INLET SEDIMENT FILTER, DUNDY BAS
- BEAVER DAM
- DITCH EROSION PROTECTION
- SILT FENCE
- OFF-ROAD FILTER

<p>STATE OF OHIO COUNTY OF FRANKLIN TOWNSHIP OF NORTHCH CITY OF COLUMBUS</p>		<p>DATE: 02/24/2024 TIME: 10:00 AM BY: [Signature] FOR: [Signature]</p>	<p>PROJECT: 138KV TRANSMISSION LINE PROPOSED LINE ROUTE</p>	<p>DATE: 02/24/2024 TIME: 10:00 AM BY: [Signature] FOR: [Signature]</p>
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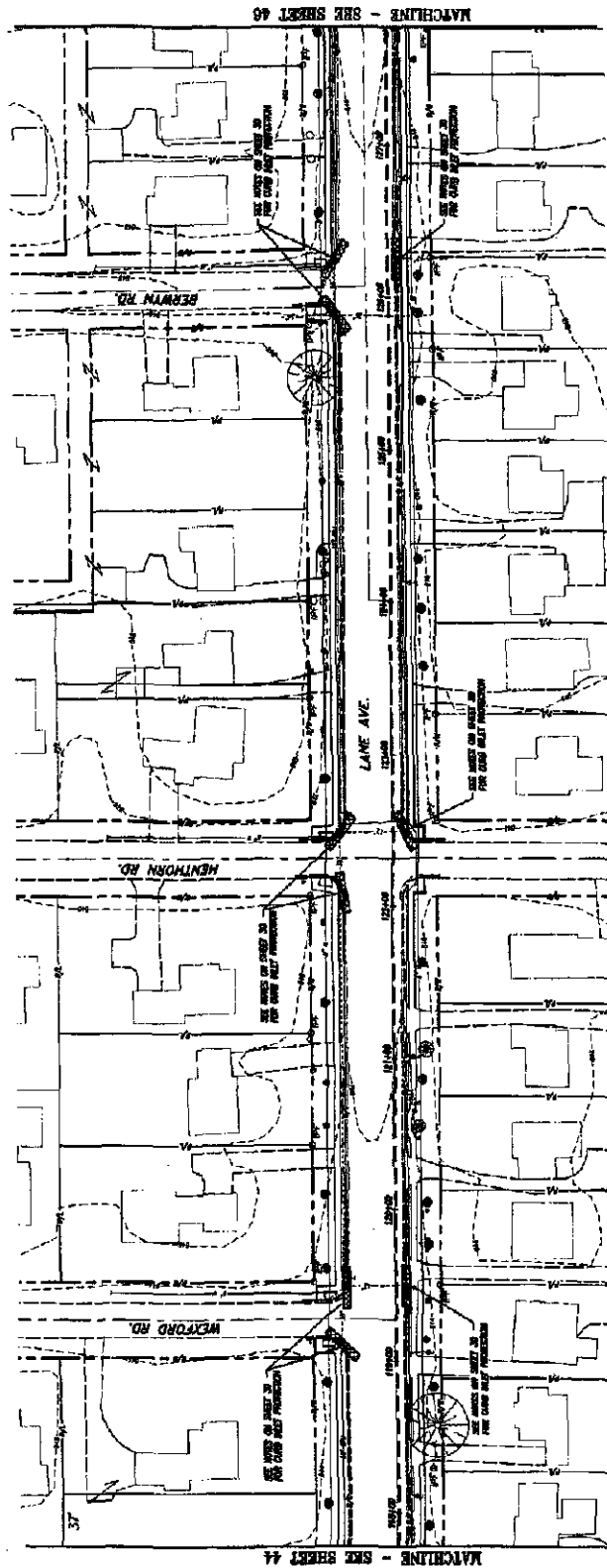
LEGEND

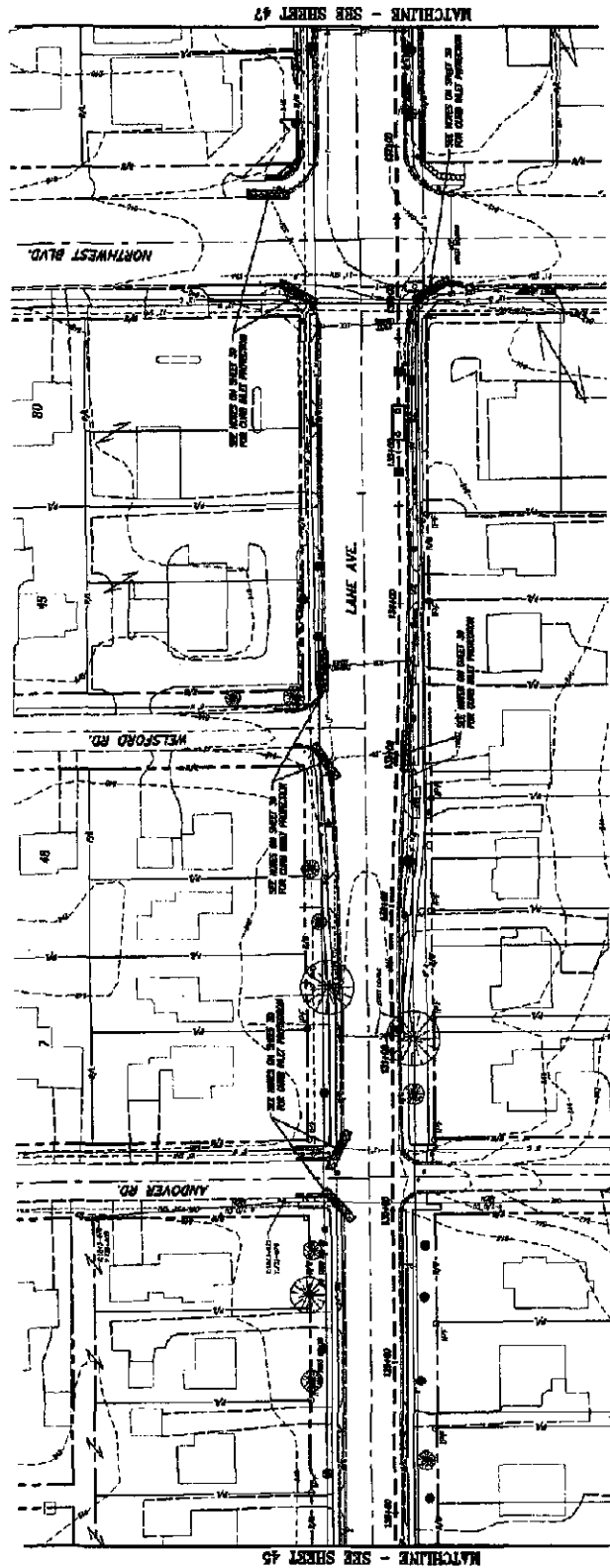
- STRAW BALE BARRIER (5 BALES MIN. PER BARRIER)
- GRASS INLET SEDIMENT FILTER, BUNDY BAG
- BEAVER DAM
- DITCH EROSION PROTECTION
- SALT FENCE
- DITCHLINE FILTER

*SEE SHEET 30 FOR SALT FENCING DETAILS AND NOTES

ALL DIMENSIONS ARE IN FEET AND INCHES. DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED. DIMENSIONS ARE TO BE MAINTAINED AT ALL TIMES. DIMENSIONS ARE TO BE MAINTAINED AT ALL TIMES. DIMENSIONS ARE TO BE MAINTAINED AT ALL TIMES.

SHEET NO. 43 SHEET TITLE: 138KV TRANSMISSION LINE PROPOSED LINE ROUTE SHEET NUMBER: 10000		DATE: 10/1/03 DRAWN BY: J. ROBERTS CHECKED BY: J. ROBERTS		SCALE: 1" = 40' NORTH:	
PROJECT NO. 10000 PROJECT TITLE: 138KV TRANSMISSION LINE PROPOSED LINE ROUTE PROJECT LOCATION: 138KV TRANSMISSION LINE PROPOSED LINE ROUTE		SHEET NO. 43 SHEET TITLE: 138KV TRANSMISSION LINE PROPOSED LINE ROUTE SHEET NUMBER: 10000		DATE: 10/1/03 DRAWN BY: J. ROBERTS CHECKED BY: J. ROBERTS	
COUNTY OF CHIO COUNTY OF FRANKLIN TOWNSHIP OF NORWICH CITY OF COLUMBUS		SHEET NO. 43 SHEET TITLE: 138KV TRANSMISSION LINE PROPOSED LINE ROUTE SHEET NUMBER: 10000		DATE: 10/1/03 DRAWN BY: J. ROBERTS CHECKED BY: J. ROBERTS	





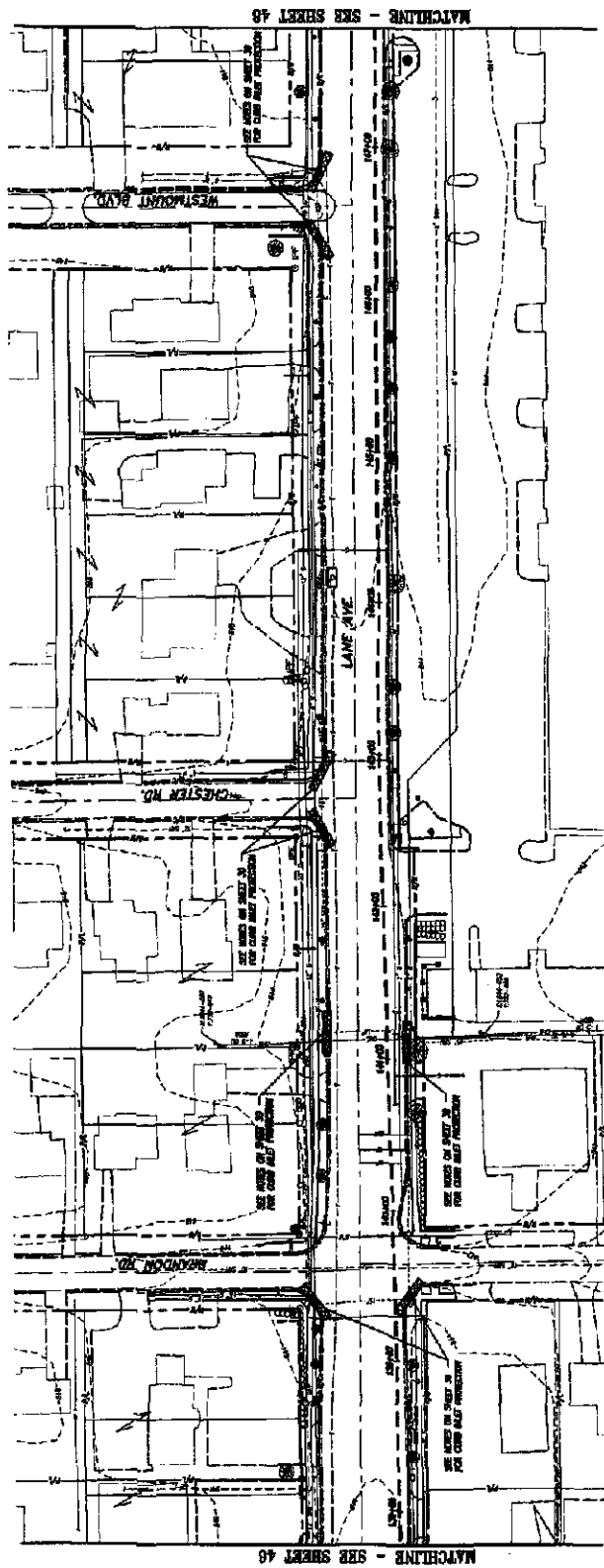
LEGEND

- STRAW BALE BARRIER (5 BALES MIN. PER BARRIER)
- DROP INLET SEDIMENT FILTER, DANDY BAG
- BEAMER DAM
- DITCH EROSION PROTECTION
- SILT FENCE
- DITCHLINE FILTER

*SEE SHEET 30 FOR SILT FENCING DETAILS AND NOTES

NOTES: 1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE OHIO DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR HIGHWAYS" AND THE "MANUAL OF PRACTICES FOR HIGHWAY CONSTRUCTION". 2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE OHIO DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR HIGHWAYS" AND THE "MANUAL OF PRACTICES FOR HIGHWAY CONSTRUCTION". 3. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE OHIO DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR HIGHWAYS" AND THE "MANUAL OF PRACTICES FOR HIGHWAY CONSTRUCTION".

PROJECT INFORMATION		DATE: 10/1/2010		SCALE: 1"=40'	
PROJECT NAME: 138KV TRANSMISSION LINE PROPOSED LINE ROUTE		SHEET NUMBER: 30		SHEET TOTAL: 46 OF 100	
CLIENT: OHIO ROBERTS		DESIGNER: J. L. ROBERTS		CHECKED: J. L. ROBERTS	
DRAWN BY: J. L. ROBERTS		DATE: 10/1/2010		SCALE: 1"=40'	
PROJECT LOCATION: 138KV TRANSMISSION LINE PROPOSED LINE ROUTE		SHEET NUMBER: 30		SHEET TOTAL: 46 OF 100	
CLIENT: OHIO ROBERTS		DESIGNER: J. L. ROBERTS		CHECKED: J. L. ROBERTS	
DRAWN BY: J. L. ROBERTS		DATE: 10/1/2010		SCALE: 1"=40'	

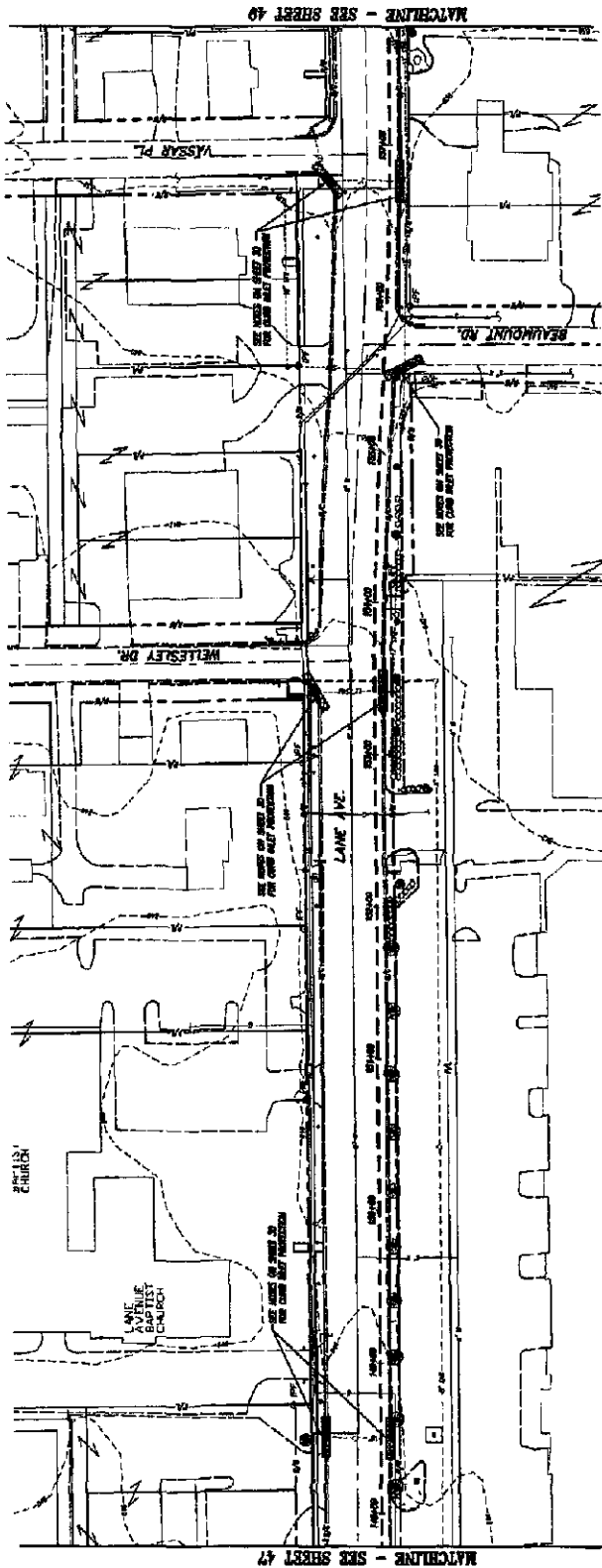


- LEGEND**
- STRAW BALE BARRIER (5 BALES MIN. PER BARRIER)
 - DROP INLET SEDIMENT FILTER, DANDY BNG
 - BUNYON DAM
 - DITCH EROSION PROTECTION
 - SILT FENCE
 - DITCHLINE FILTER

*SEE SHEET 30 FOR SILT FENCING DETAILS AND NOTES

APPROVED FOR THE CITY OF COLUMBIA
 BY: [Signature]
 DATE: [Date]

PROJECT: 138KV TRANSMISSION LINE SHEET: 47 OF 100 DATE: 4/7/00 DRAWN BY: [Name] CHECKED BY: [Name] DESIGNED BY: [Name]		CITY OF COLUMBIA DEPARTMENT OF PUBLIC WORKS DIVISION OF HIGHWAYS
PROJECT LOCATION: [Address] PROJECT DESCRIPTION: [Description]		SCALE: 1" = 40' HORIZONTAL 1" = 20' VERTICAL
PROJECT NO.: [Number] SHEET NO.: 47 OF 100		CITY OF COLUMBIA DEPARTMENT OF PUBLIC WORKS DIVISION OF HIGHWAYS

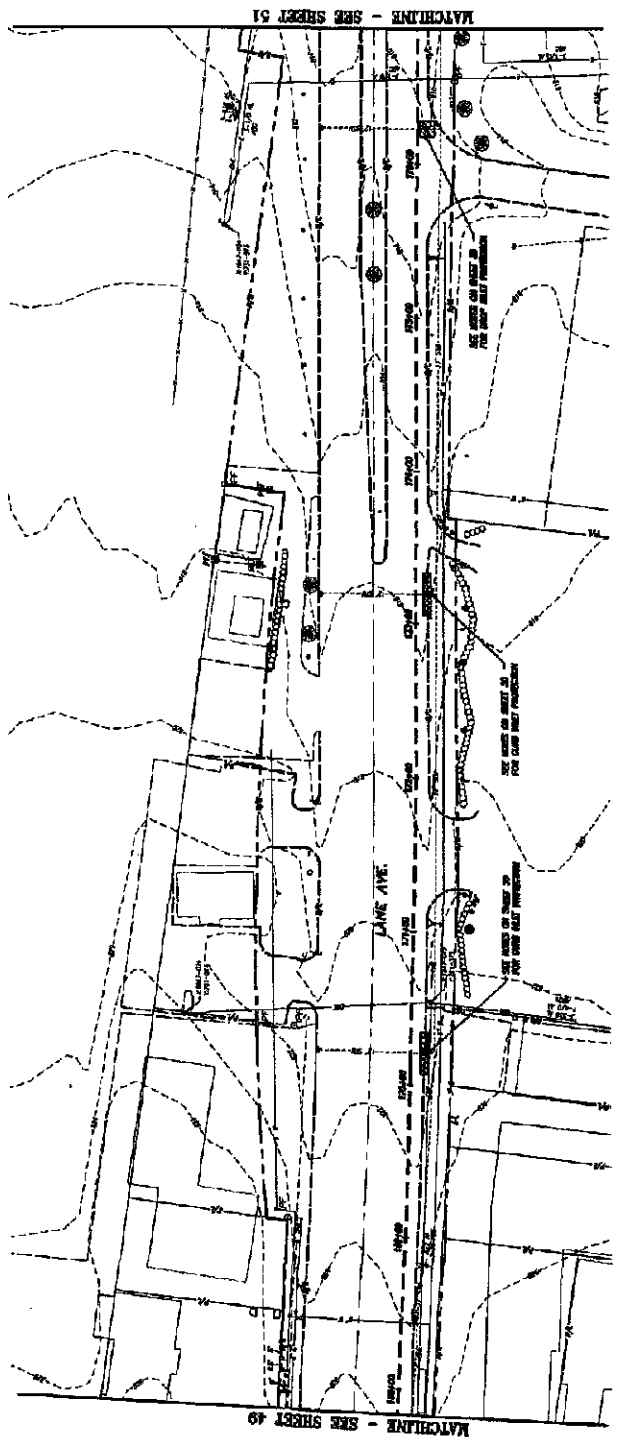


- LEGEND**
- STRAW BALE BARRIER (3 BALES MIN. PER BARRIER)
 - DROP INLET SEDIMENT FILTER, DANDY BAG
 - SEWER DOW
 - DITCH EROSION PROTECTION
 - SILT FENCE
 - DITCHLINE FILTER

*SEE SHEET 30 FOR SILT FENCING DETAILS AND NOTES

APPROVED FOR THE PROJECT BY THE STATE OF MISSISSIPPI, DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS, ON BEHALF OF THE MISSISSIPPI TURNPIKE AUTHORITY. THIS PROJECT IS A PART OF THE MISSISSIPPI TURNPIKE SYSTEM, WHICH IS A FEDERAL-STATE JOINT PROJECT. THE PROJECT IS FINANCED BY THE FEDERAL GOVERNMENT, THE STATE OF MISSISSIPPI, AND THE MISSISSIPPI TURNPIKE AUTHORITY. THE PROJECT IS A PART OF THE MISSISSIPPI TURNPIKE SYSTEM, WHICH IS A FEDERAL-STATE JOINT PROJECT. THE PROJECT IS FINANCED BY THE FEDERAL GOVERNMENT, THE STATE OF MISSISSIPPI, AND THE MISSISSIPPI TURNPIKE AUTHORITY.

MISSISSIPPI TURNPIKE AUTHORITY PROJECT NO. 138K SHEET NO. 48 OF 100 DATE: 10/1/80 DRAWN BY: J. L. BROWN CHECKED BY: J. L. BROWN APPROVED BY: J. L. BROWN		STATE OF MISSISSIPPI DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PROJECT NO. 138K SHEET NO. 48 OF 100 DATE: 10/1/80 DRAWN BY: J. L. BROWN CHECKED BY: J. L. BROWN APPROVED BY: J. L. BROWN	
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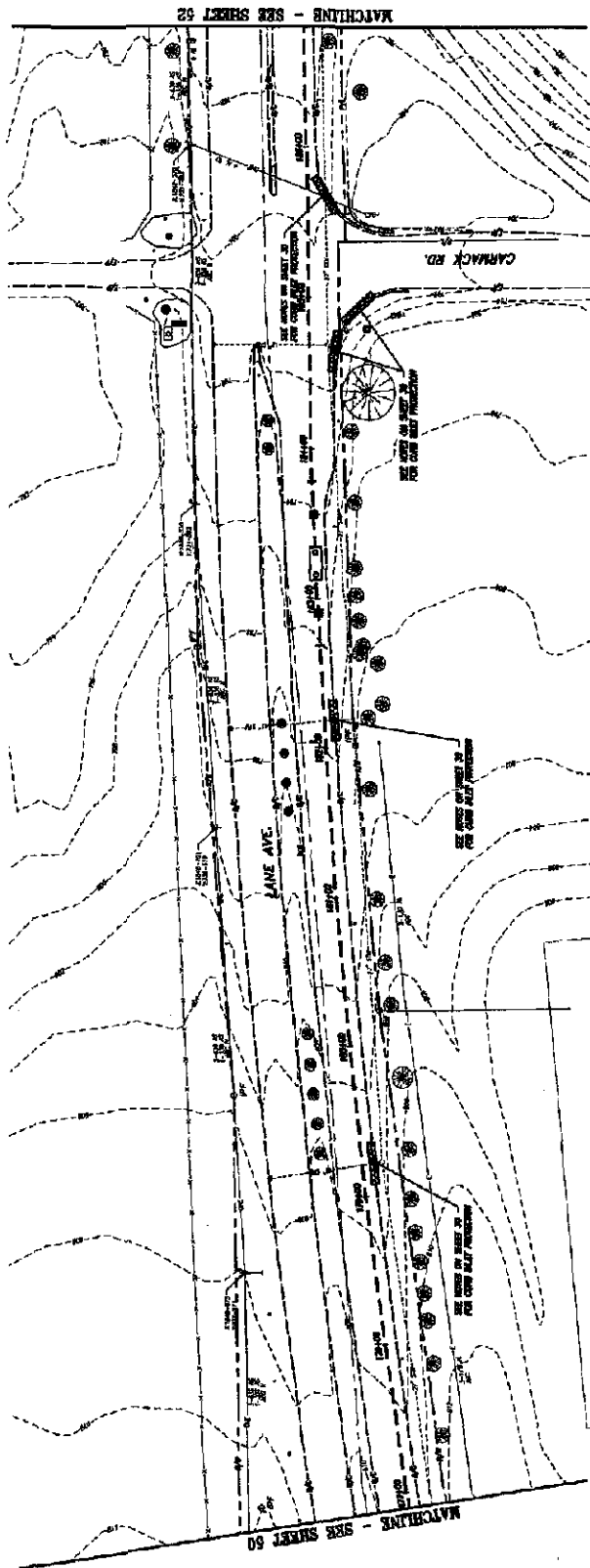


- LEGEND**
- STORM WALK BARRIER (5 BALES MIN. PER BARRIER)
 - DITCH INLET SEDIMENT FILTER, DANDY BAG
 - BEAMER DAM
 - DITCH DROSION PROTECTION
 - SILT FENCE
 - DETACHLINE FILTER

*SEE SHEET 30 FOR SILT FENCING DETAILS AND NOTES

NOT TO SCALE
 ALL DIMENSIONS ARE IN FEET AND INCHES
 ALL DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE NOTED
 ALL DIMENSIONS ARE TO BE MAINTAINED AT ALL TIMES
 ALL DIMENSIONS ARE TO BE MAINTAINED AT ALL TIMES

PROJECT: OSU - ROBERTS 138KV TRANSMISSION LINE PROPOSED LINE ROUTE SHEET: 50 OF 100		DATE: 08/01/00 DRAWN BY: XXX CHECKED BY: XXX APPROVED BY: XXX
SCALE: 1" = 100' NORTH: UP		PROJECT NO.: 000000 SHEET NO.: 50 OF 100
COUNTY: OSU TOWNSHIP: ROBERTS CITY: ROBERTS		PROJECT NO.: 000000 SHEET NO.: 50 OF 100



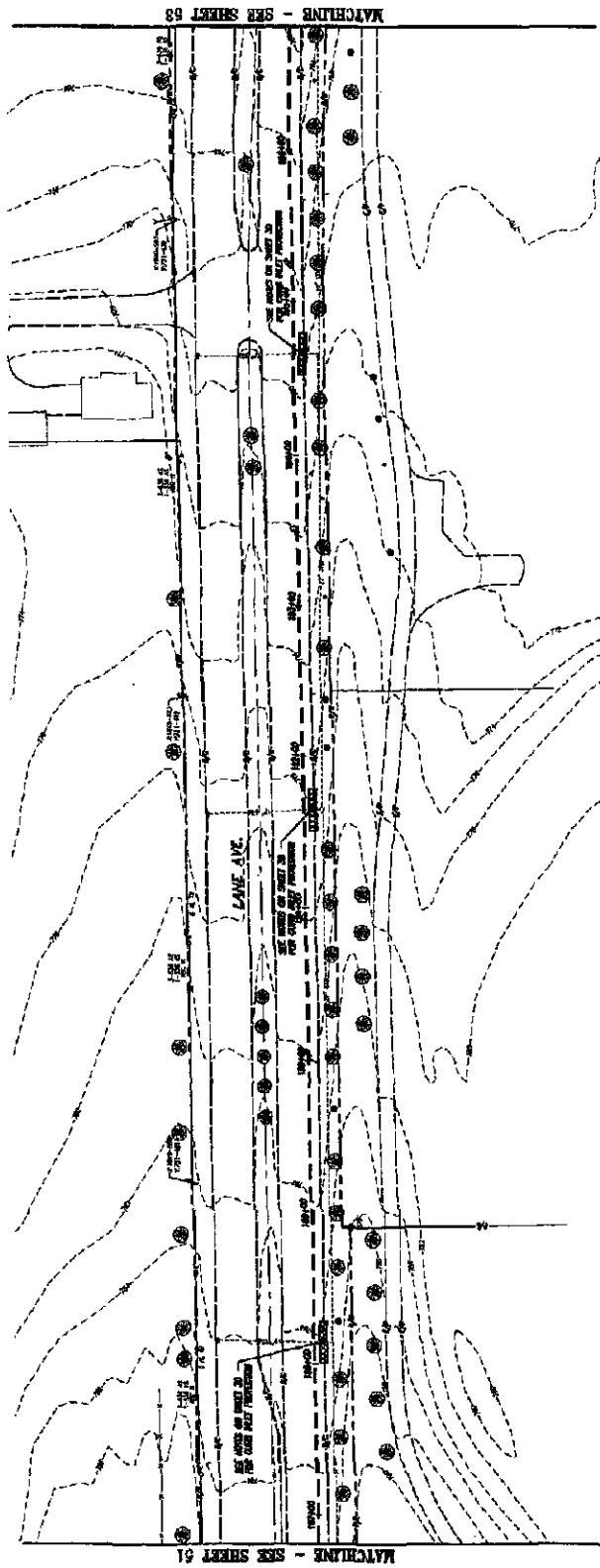
LEGEND

- STORM SILE BARBER (5 SALES MAX PER BARBER)
- DROP INLET SEDIMENT FILTER, DANDY BAG
- BEAVER DAM
- DITCH EROSION PROTECTION
- SILT FENCE
- DITCHLINE FILTER

*SEE SHEET 30 FOR SILT FENCING DETAILS AND NOTES

NOTES: 1. THE DESIGNER HAS CONDUCTED VISUAL INSPECTIONS OF THE PROJECT AREA AND HAS FOUND NO OBSTACLES TO THE PROPOSED ROUTE. 2. THE DESIGNER HAS CONDUCTED VISUAL INSPECTIONS OF THE PROJECT AREA AND HAS FOUND NO OBSTACLES TO THE PROPOSED ROUTE. 3. THE DESIGNER HAS CONDUCTED VISUAL INSPECTIONS OF THE PROJECT AREA AND HAS FOUND NO OBSTACLES TO THE PROPOSED ROUTE.

PROJECT NO.	DATE	BY	CHKD	APP'D
138KV TRANSMISSION LINE	10/10/00	J. ROBERTS	J. ROBERTS	J. ROBERTS
PROPOSED LINE ROUTE				
STATE OF OHIO COUNTY OF FRANKLIN TOWNSHIP OF INDIAN CITY OF COLUMBUS				
SCALE: 1" = 40'				
SHEET 51 OF 100				



LEGEND

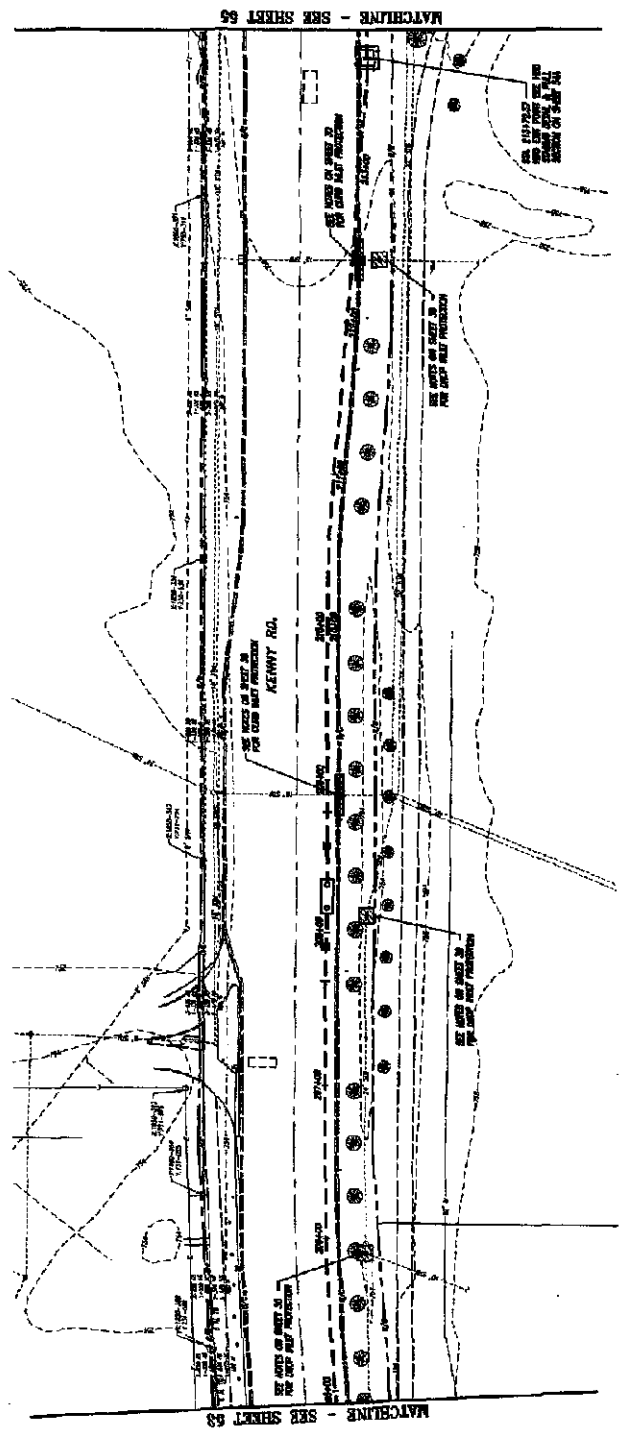
- STRAW BALE BARRIER (5 BALES MIN. PER BARRIER)
- DROP INLET SEDIMENT FILTER, DANDY BAC
- BEAKER DAM
- DITCH EROSION PROTECTION
- SILT FENCE
- DITCHLINE FILTER

*SEE SHEET 30 FOR SILT FENCING DETAILS AND NOTES







CONSTRUCTION OF THIS PROJECT IS SUBJECT TO THE APPROVAL OF THE STATE OF OHIO, COUNTY OF FRANKLIN, AND CITY OF COLUMBUS. THE PROJECT IS SUBJECT TO THE APPROVAL OF THE STATE OF OHIO, COUNTY OF FRANKLIN, AND CITY OF COLUMBUS. THE PROJECT IS SUBJECT TO THE APPROVAL OF THE STATE OF OHIO, COUNTY OF FRANKLIN, AND CITY OF COLUMBUS.

PROJECT NO. 10000 SHEET NO. 52 OF 100 DATE 10/10/2000		PROJECT NAME 138KV TRANSMISSION LINE PROPOSED LINE ROUTE	PROJECT LOCATION 138KV TRANSMISSION LINE PROPOSED LINE ROUTE
PROJECT OWNER OSU-ROBERTS		PROJECT ENGINEER [Signature]	PROJECT CHECKER [Signature]
PROJECT DESCRIPTION 138KV TRANSMISSION LINE PROPOSED LINE ROUTE		PROJECT LOCATION 138KV TRANSMISSION LINE PROPOSED LINE ROUTE	PROJECT STATUS []

24



LEGEND

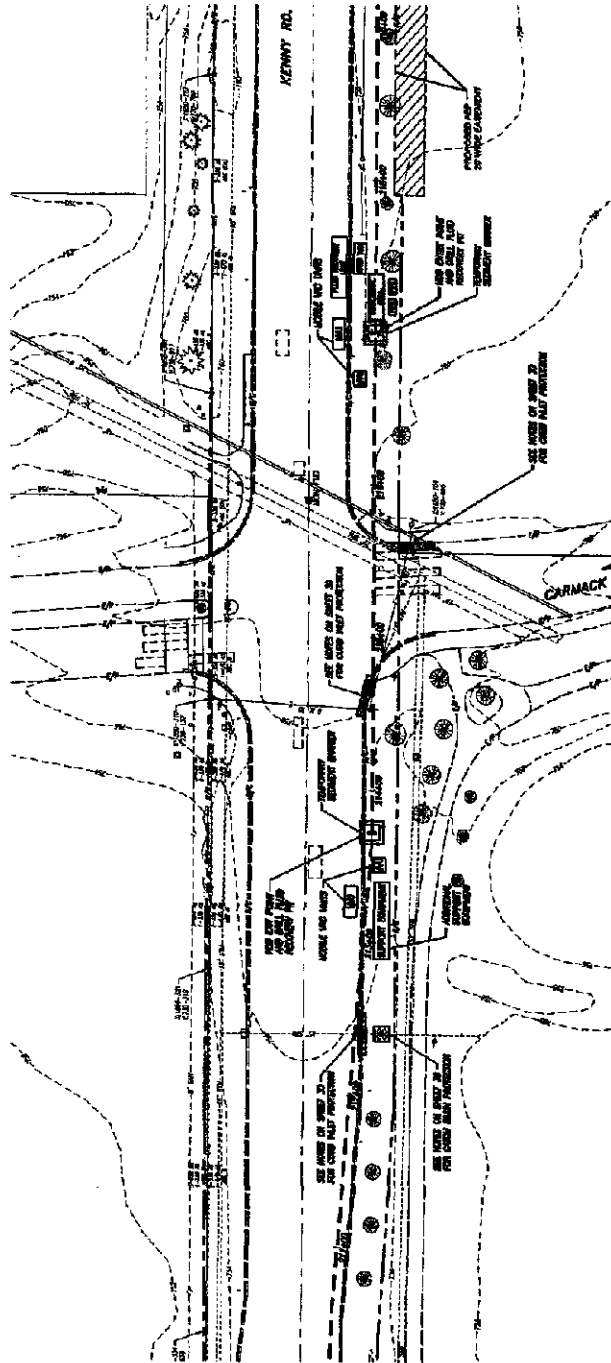
- | | |
|---|---|
|  | STRAW BALE BARRIER (3 BALES MIN. PER BARRIER) |
|  | DROP INLET SEDIMENT FILTER, DAILY RAG |
|  | BEAVER DAM |
|  | DITCH EROSION PROTECTION |
|  | SILT FENCE |
|  | DITCHLINE FILTER |

*SEE SHEET 30 FOR SILT FENCING DETAILS AND NOTES

—a spokeswoman for the agency—will also be asked to give the most available information and answers. Utility location teams conduct these types of investigations and are not yet fully trained to determine exact location size or depth. So far, the agency has not been able to determine exact location size or depth. So far, the agency has not been able to determine exact location size or depth.

[illegible]

TYPICAL HDD SITE PLAN - RIG SECTION AND STAGING AREA PULL SECTION



HDD BORE DESCRIPTION - STA. 2134+72.37 TO 2174+00:

- HORIZONTAL LENGTH OF BORE 370 FEET
- ENTRY ANGLE 12 DEGREES
- EXIT ANGLE 12 DEGREES
- ENTRY VERICAL CURVE RADUS 500 FEET
- EXIT VERICAL CURVE RADUS 500 FEET
- MINIMUM DEPTH BENEATH ROAD 25 FEET

NOTE: SEE MAINTENANCE OF TRAFFIC PLAN & NOTES

LEGEND

- STRAW BALE BARRIER (5 BALES MIN. PER BARRIER)
- DROP INLET SEDIMENT FILTER, DANDY BAG
- BEAMER DMH
- DITCH EROSION PROTECTION
- SILT FENCE
- DITCHLINE FILTER

1380V TRANSMISSION LINE
PROPOSED LINE ROUTE

DATE: 04/15/2010
DRAWN: G. J. JONES
CHECKED: J. J. JONES
APPROVED: J. J. JONES

STATE OF OHIO
COUNTY OF FRANKLIN
TOWNSHIP OF HORMONCH
CITY OF COLUMBUS

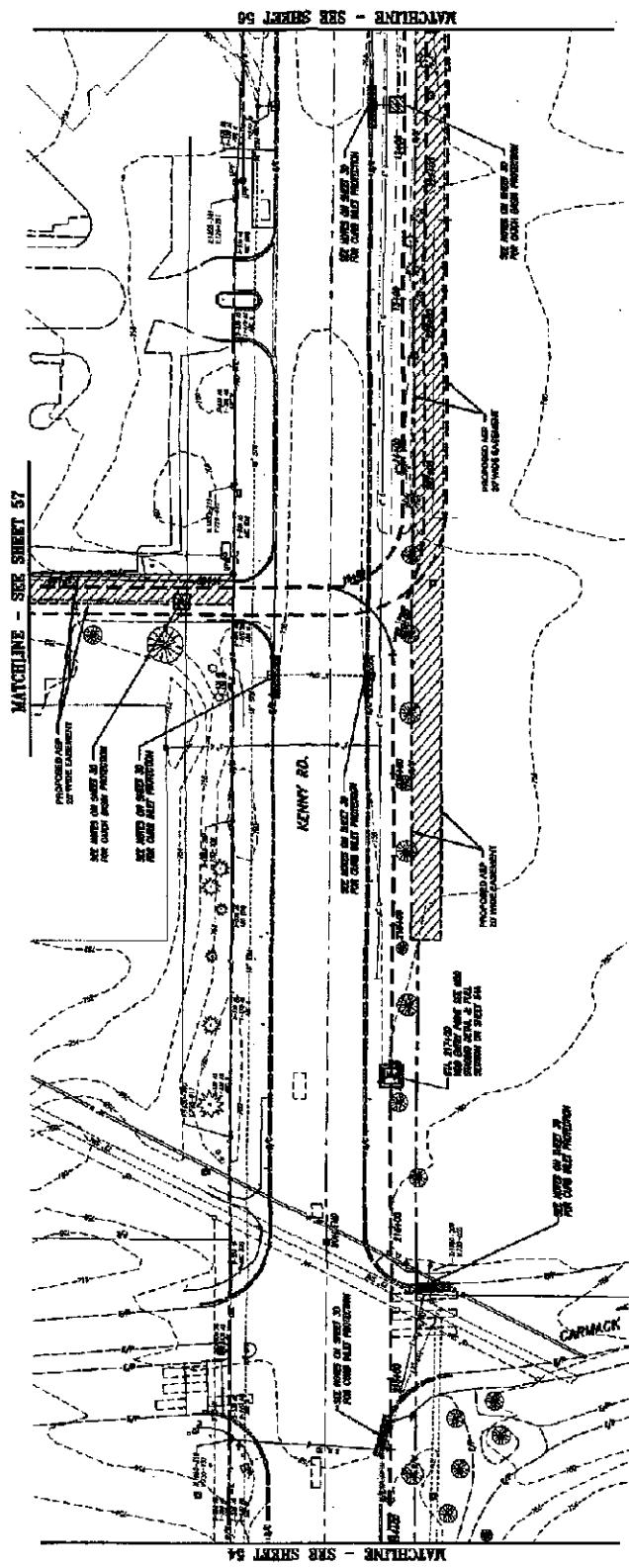
HORIZONTAL
VERTICAL

DATE: 04/15/2010
BY: G. J. JONES

DATE: 04/15/2010
BY: G. J. JONES

DATE: 04/15/2010
BY: G. J. JONES

1-2



LEGEND

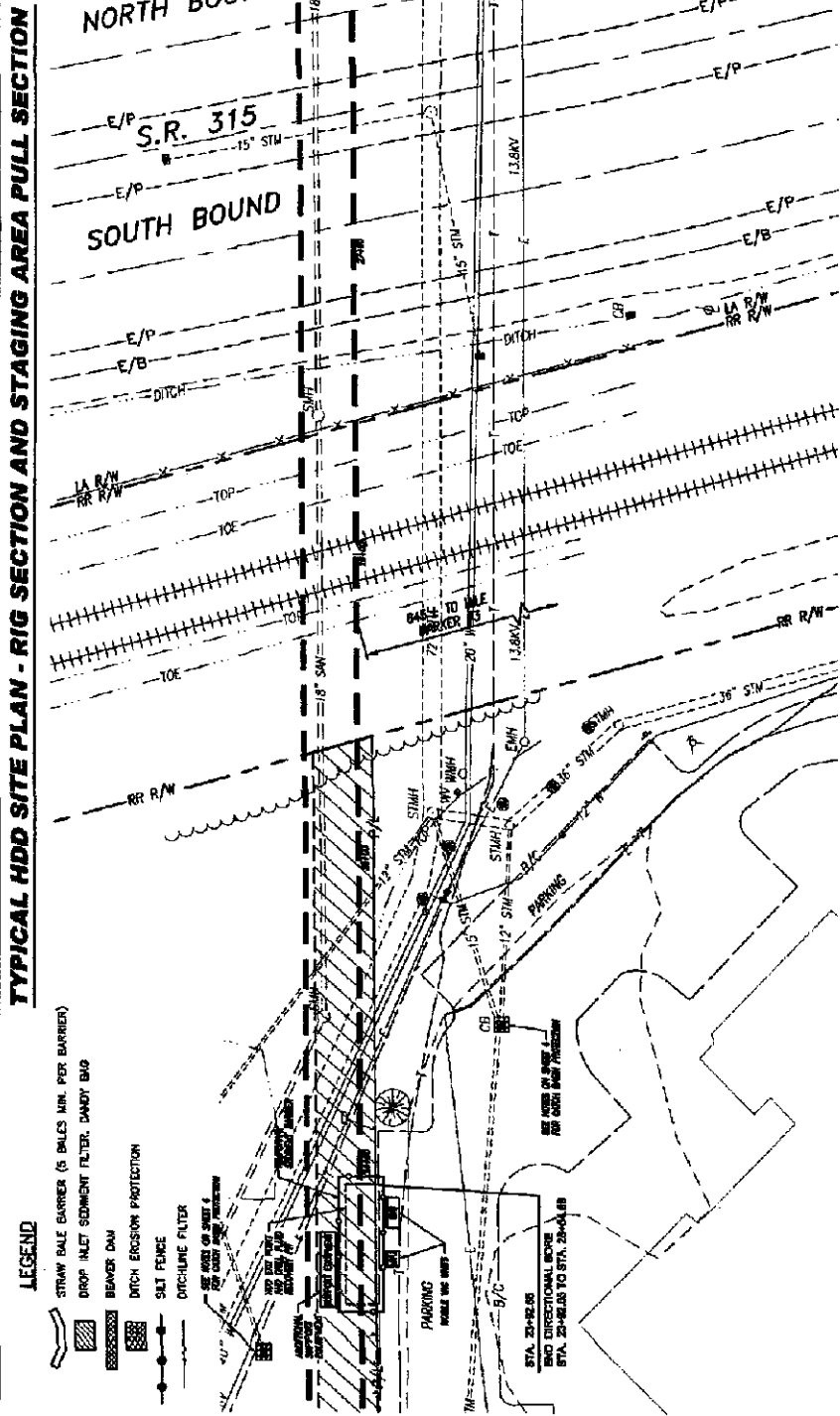
- STRAW BALE BARRIER (5 BALES MIN. PER BARRIER)
- DROP INLET SEDIMENT FILTER, DANDY BAG
- BEAVER DAM
- NOTCH EROSION PROTECTION
- SALT FENCE
- OUTLINE FILTER

*SEE SHEET 30 FOR SILT FENCING DETAILS AND NOTES

NOT TO SCALE
 ALL DIMENSIONS ARE IN FEET AND INCHES
 UNLESS OTHERWISE SPECIFIED
 1" = 20'

PROJECT NO. 1384V TRANSMISSION LINE PROPOSED LINE ROUTE		SHEET NO. 35 OF 100	
DATE: 08/01/2008 DRAWN BY: J. L. BROWN CHECKED BY: J. L. BROWN		SCALE: 1" = 20' PROJECT: 1384V TRANSMISSION LINE SHEET: 35 OF 100	
STATE OF OHIO COUNTY OF COLUMBIA CITY OF COLUMBUS			
PROJECT LOCATION: 1384V TRANSMISSION LINE SHEET NO. 35 OF 100			

TYPICAL HDD SITE PLAN - RIG SECTION AND STAGING AREA PULL SECTION



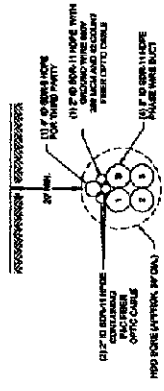
LEGEND

- STRAW BALE BARRIER (5 BALES MIN. PER BARRIER)
DITCH INLET SEDIMENT FILTER, DANDY BAG
BEAVER DAM
DITCH EROSION PROTECTION
SILT FENCE
DITCHLINE FILTER
SEE NOTES ON SHEET 6
SEE NOTES ON SHEET 7
SEE NOTES ON SHEET 8

STA. 23+92.65
END DIRECTIONAL BORE
STA. 23+92.65 TO STA. 23+04.48

HDO GORE DESCRIPTION - STA. 23+92.65 TO 28+54.89:

- | | |
|-------------------------------|------------|
| * HORIZONTAL LENGTH OF SLOPE | 452 FEET |
| * ENTRY ANGLE | 8 DEGREES |
| * EXIT ANGLE | 10 DEGREES |
| * ENTRY VERTICAL CURVE RADIUS | 800 FEET |
| * EXIT VERTICAL CURVE RADIUS | 800 FEET |
| * MINIMUM DEPTH BENEATH ROAD | 20 FEET |

HDD BORE CROSS SEC
 11.0000 INCHES

NOT TO SCALE

HOPE MATHS

1. **THE COMPANY** shall be a company limited by shares, and the authorized share capital shall be £1,000,000, divided into 1,000,000 shares of £1 each.

2. **THE COMPANY** shall be a public company within the meaning of the Companies Act, 1947.

3. **THE COMPANY** shall be incorporated in England and Wales.

4. **THE COMPANY** shall have its registered office at the address of the registered office of the company as shown in the register of companies.

5. **THE COMPANY** shall have its principal office at the address of the principal office of the company as shown in the register of companies.

6. **THE COMPANY** shall have its head office at the address of the head office of the company as shown in the register of companies.

7. **THE COMPANY** shall have its main office at the address of the main office of the company as shown in the register of companies.

8. **THE COMPANY** shall have its principal place of business at the address of the principal place of business of the company as shown in the register of companies.

9. **THE COMPANY** shall have its principal place of business at the address of the principal place of business of the company as shown in the register of companies.

10. **THE COMPANY** shall have its principal place of business at the address of the principal place of business of the company as shown in the register of companies.

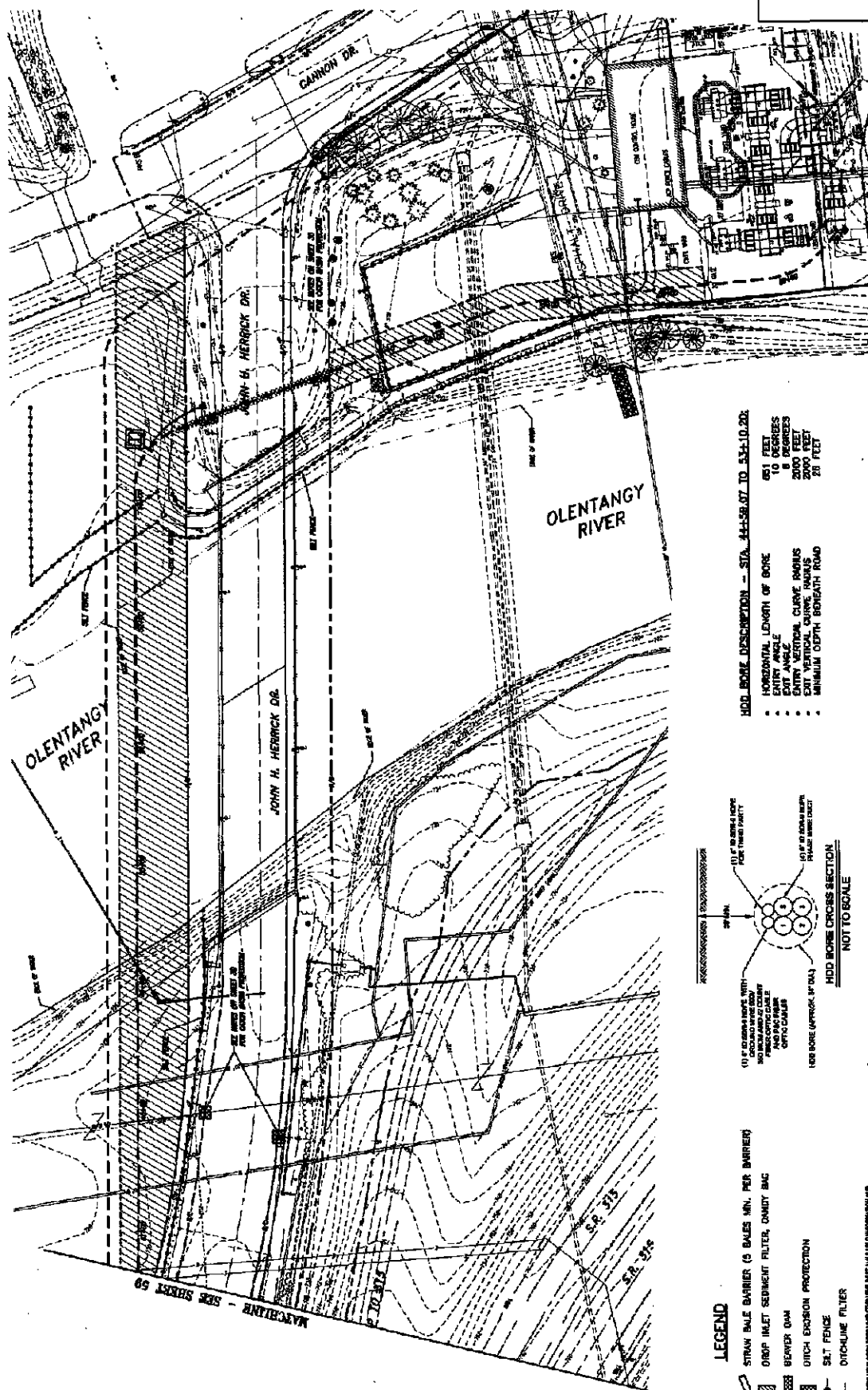
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STATE OF OHIO
COUNTY OF FRANKLIN
TOWNSHIP OF NORTH-
CITY OF COLUMBUS

THESE RESULTS INDICATE THAT THE EFFECT OF THE TREATMENT ON THE RISK OF A SECONDARY ATTACK IS SIGNIFICANTLY REDUCED IN PATIENTS WITH A FIRST ATTACK OF MULTIPLE SCLEROSIS. THE EFFECT OF THE TREATMENT ON THE RISK OF A SECONDARY ATTACK IS SIGNIFICANTLY REDUCED IN PATIENTS WITH A FIRST ATTACK OF MULTIPLE SCLEROSIS. THE EFFECT OF THE TREATMENT ON THE RISK OF A SECONDARY ATTACK IS SIGNIFICANTLY REDUCED IN PATIENTS WITH A FIRST ATTACK OF MULTIPLE SCLEROSIS.

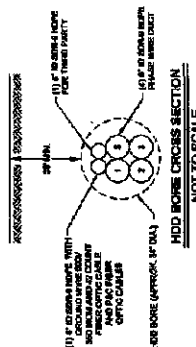
OSU - ROBERTS
138KV TRANSMISSION LINE
PROPOSED LINE ROUTE[illegible]

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HOOD BORE DESCRIPTION - STA. 44+58.07 TO 53+10.20:

- | | |
|-----------------------------|------------|
| HORIZONTAL LENGTH OF BORE | 651 FEET |
| ENTRY ANGLE | 10 DEGREES |
| EXIT ANGLE | 8 DEGREES |
| ENTRY VERTICAL CURVE RADIUS | 2000 FEET |
| EXIT VERTICAL CURVE RADIUS | 2000 FEET |
| MINIMUM DEPTH BENEATH ROAD | 28 FEET |

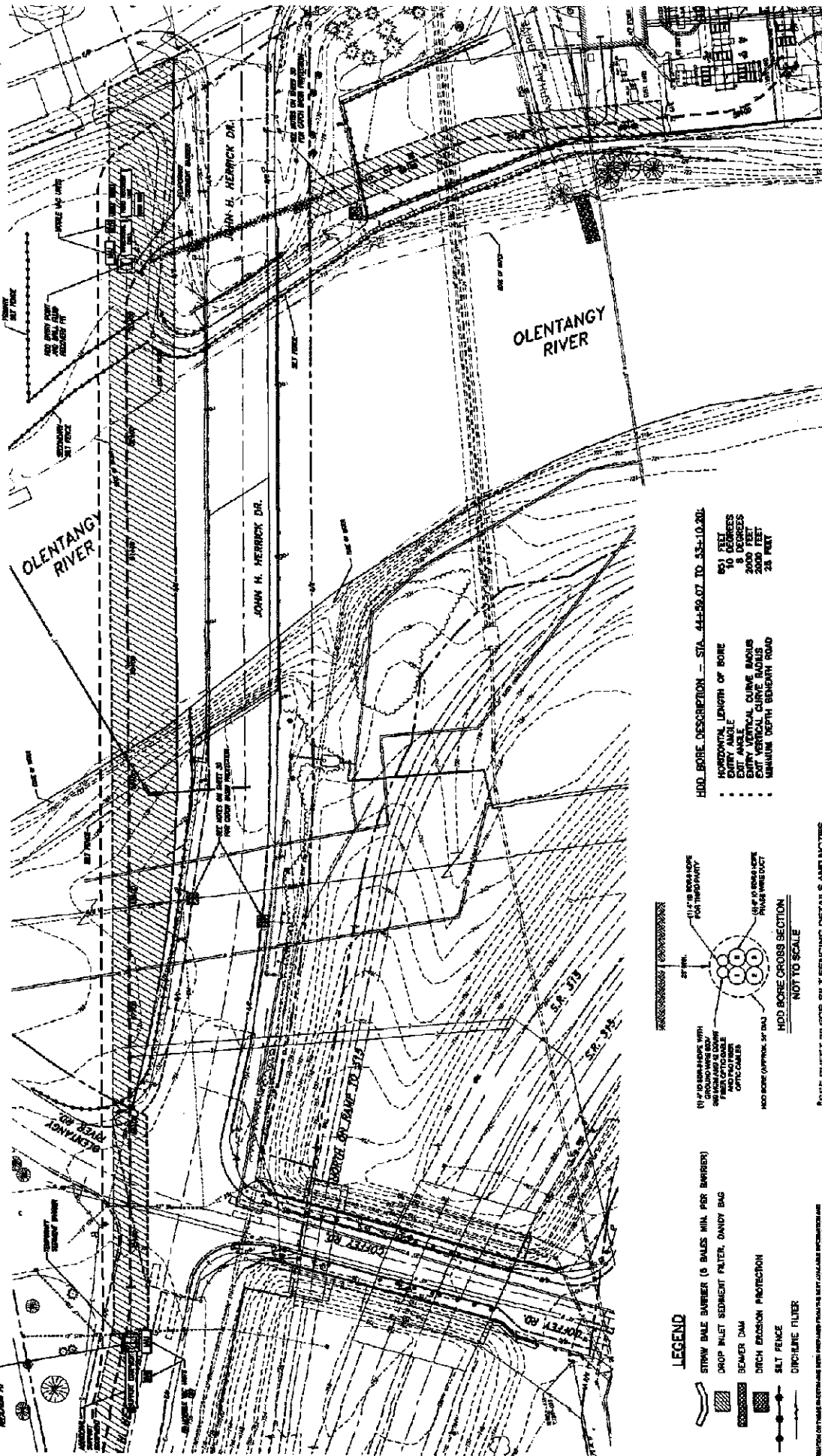


SEE SHEET 30 FOR SILT FENCING DETAILS AND NOTES

STATE OF OHIO
COUNTY OF FRANKLIN
TOWNSHIP OF NORWICH
CITY OF COLUMBUS

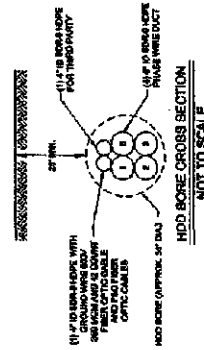
0811 - ROBERTS
138KV TRANSMISSION LINE
PROPOSED LINE ROUTE

TYPICAL HDD SITE PLAN - RIG SECTION



HDD BORE DESCRIPTION - STA. 44+59.07 TO 53+10.80

- HORIZONTAL LENGTH OF BORE 891 FEET
- BORE DIAMETER 42 INCHES
- ENTRY ANGLE 8 DEGREES
- ENTRY VERTICAL CURVE RADIUS 2000 FEET
- EXIT VERTICAL CURVE RADIUS 2000 FEET
- MINIMUM DEPTH BENEATH ROAD 25 FEET



*SEE SHEET 30 FOR SALT FENCING DETAILS AND NOTES

SHEET NO. 60 OF 900 DATE: 08/01/00 DRAWN BY: [Signature] CHECKED BY: [Signature] APPROVED BY: [Signature]		SHEET LENGTH: 3000
DESIGNER: [Signature] PROJECT: [Signature] CLIENT: [Signature]		
STATE OF OHIO COUNTY OF COLUMBIA CITY OF COLUMBUS		

APPENDIX 3

Facility Inspection Reports

**ROBERTS-OSU 138 kV STORMWATER POLLUTION PREVENTION PLAN
EROSION AND SEDIMENT CONTROL FEATURES INSPECTION FORM**

Date: _____ Inspector's Name _____

Rainfall Amount: _____

Weather Conditions: _____

Estimate of the beginning of each storm event (if applicable): _____

Description and location of discharges observed between inspections and during the inspection: _____

Erosion and Sediment Control Features Inspected:

_____ Silt Fence	_____ Inlet Protection
_____ Gravel Construction Entrance	_____ Seeding
_____ Drill fluid recovery pits	

Corrective Actions Required (include implementation dates and changes to SWPPP): _____

Additional Control Measures Recommended: _____

Inspector's Signature: _____

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Date _____

Responsible Official's Name _____

Company Title _____

Signature _____

cc: Al Wood

**ROBERTS-OSU 138 kV STORMWATER POLLUTION PREVENTION PLAN
STORMWATER POLLUTION PREVENTION PLAN
SWP3 AMENDMENTS, GRADING AND STABILIZATION LOG**

Date: _____ Inspector's Name _____

Location and Description of Grading and Stabilization Activities

Amendments to the SWP3: _____

Date: _____ Inspector's Name _____

Location and Description of Grading and Stabilization Activities

Amendments to the SWP3: _____

Date: _____ Inspector's Name _____

Location and Description of Grading and Stabilization Activities

Amendments to the SWP3: _____

APPENDIX 4

Duty to Inform Contractors and Subcontractors Form

By signing below I acknowledge that I have been informed of the terms and conditions of the Ohio Environmental Protection Agency's General NPDES Permit for Storm Water Associated with Construction Activity, and have reviewed and understand the conditions and responsibilities of the Storm Water Pollution Prevention Plan for the Roberts-OSU 138kV Construction Project.

[illegible]



DEPARTMENT OF THE ARMY
HUNTINGTON DISTRICT, CORPS OF ENGINEERS
502 EIGHTH STREET
HUNTINGTON, WEST VIRGINIA 25701-2070

REPLY TO
ATTENTION OF

OCT 22 2010

Operations and Readiness Division
Regulatory Branch
LRH-2010-00642-OLR- Olentangy River MP 2.6

Mr. John Heppner
American Electric Power
700 Morrison Road
Gahanna, Ohio 43147

Dear Mr. Heppner:

I refer to the information you have submitted regarding your proposal to install utility lines beneath the Olentangy River approximately 2.6 river miles above its confluence with the Scioto River in Columbus, Franklin County, Ohio. This project is referred to as the OSU-Roberts 138kV Underground Transmission Line. The proposal includes the installation of three utility lines with approximately 25-feet of separation. The proposed lines would each be installed via horizontal directional drill (HDD). The proposed HDD crossings would parallel the north side of John H. Herrick Drive Bridge west of Cannon Drive.

The Corps of Engineers authority to regulate waters of the United States is based, in part, on the definitions and limits of jurisdiction contained in 33 CFR 328 and 33 CFR 329. Section 404 of the Clean Water Act requires that a Department of the Army permit be obtained prior to the discharge of dredged or fill material into waters of the United States, including wetlands. Section 10 of the Rivers and Harbors Act of 1899 requires that a Department of the Army permit be obtained for any work in, on, over or under a navigable water.

The Olentangy River is a traditional navigable water of the United States subject to the permit requirements of Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. Given the proposed project would not result in the placement of fill material into the Olentangy River, we have determined the proposed project does not require authorization under Section 404 of the Clean Water Act. However, given the proposed project would require work under the Olentangy River, a navigable water, the proposal does require authorization under Section 10 of the Rivers and Harbors Act.

Based on the submitted information, it has been determined the proposal meets the criteria for Nationwide Permit Number (NWP) #12 (attached) under the March 12, 2007 Federal Register, Notice of Reissuance of Nationwide Permits (72 FR 11092) provided you comply with all terms and conditions of the enclosed material. A copy of this NWP can be found on our website at <http://www.lrh.usace.army.mil/permits/>.

This verification is valid until the NWP is modified, reissued, or revoked. All of the existing NWPs are scheduled to be modified, reissued, or revoked prior to March 18, 2012. It is incumbent upon you to remain informed of changes to the NWPs. We will issue a public notice when the NWPs are reissued. Furthermore, if you commence or are under contract to commence this activity before the date that the relevant nationwide permit is modified or revoked, you will have twelve (12) months from the date of the modification or revocation of the NWP to complete the activity under the present terms and conditions of this nationwide permit.

Please be aware this nationwide permit authorization does not obviate the requirement to obtain other Federal, state or local authorizations required by law. A copy of this NWP and verification letter must be supplied to your project engineer responsible for construction activities. A copy of the verification letter must be kept at the site during construction. Upon completion of the work, the attached certification must be signed and returned to this office.

If you have any questions concerning the above, please contact Ms. Susan A. Fields at (304) 399-5610 or by email at Susan.A.Fields@usace.army.mil.

Sincerely,



Kimberly D. Courts-Brown
Regulatory Project Manager
Energy Resource Section

Enclosures

CF:
Mr. Joe Black
The Fishel Company
1366 Dublin Road
Columbus, Ohio 43215

Ms. Becky Jenkins
Ohio Department of Natural Resources
2045 Morse Road, Building G
Columbus, OH 43229

Ms. Julie Proell
United States Fish and Wildlife Service
4625 Morse Road, Suite 104
Columbus, OH 43230



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
HUNTINGTON DISTRICT, CORPS OF ENGINEERS
602 EIGHTH STREET
HUNTINGTON, WEST VIRGINIA 25701-2070

AUG 12 2010

Operations and Readiness Division
Regulatory Branch
LRH-2010-00644-SCR- Scioto River MP 138.6

Mr. John Heppner
American Electric Power
700 Morrison Road
Gahanna, Ohio 43147

Dear Mr. Heppner:

I refer to the information you have submitted regarding your proposal to install a utility line beneath the Scioto River approximately 138.6 river miles above its confluence with the Ohio River in Columbus, Franklin County, Ohio. This project is referred to as the OSU-Roberts 138kV Line Proposed Line Route. The proposed utility line would be installed via horizontal directional drill (HDD).

The Corps of Engineers authority to regulate waters of the United States is based, in part, on the definitions and limits of jurisdiction contained in 33 CFR 328 and 33 CFR 329. Section 404 of the Clean Water Act requires that a Department of the Army permit be obtained prior to the discharge of dredged or fill material into waters of the United States, including wetlands. Section 10 of the Rivers and Harbors Act of 1899 requires that a Department of the Army permit be obtained for any work in, on, over or under a navigable water.

The Scioto River is a traditional navigable water of the United States subject to the permit requirements of Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. Given the proposed project would not result in the placement of fill material into the Scioto River, we have determined the proposed project does not require authorization under Section 404 of the Clean Water Act. However, given the proposed project would require work under the Scioto River, a navigable water, the proposal does require authorization under Section 10 of the Rivers and Harbors Act.

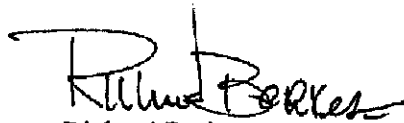
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This verification is valid until the NWP is modified, reissued, or revoked. All of the existing NWPs are scheduled to be modified, reissued, or revoked prior to March 18, 2012. It is incumbent upon you to remain informed of changes to the NWPs. We will issue a public notice when the NWPs are reissued. Furthermore, if you commence or are under contract to commence this activity before the date that the relevant nationwide permit is modified or revoked, you will have twelve (12) months from the date of the modification or revocation of the NWP to complete the activity under the present terms and conditions of this nationwide permit.

Please be aware this nationwide permit authorization does not obviate the requirement to obtain other Federal, state or local authorizations required by law. A copy of this NWP and verification letter must be supplied to your project engineer responsible for construction activities. A copy of the verification letter must be kept at the site during construction. Upon completion of the work, the attached certification must be signed and returned to this office.

If you have any questions concerning the above, please contact Ms. Susan A. Fields at (304) 399-5610 or by email at Susan.A.Fields@usace.army.mil.

Sincerely,



Richard Berkes
Regulatory Project Manager
Energy Resource Section

Enclosures

CF:
Mr. Joe Black
The Fishel Company
1366 Dublin Road
Columbus, Ohio 43215