

U.S. Army Corps
of Engineers
Baltimore District
PN-14-2

Public Notice

In Reply to Application Number
NAB-2013-02442-PO7 (PA DOT – Interstate 83 Exit 18 Reconstruction)

Comment Period: January 6, 2014 to February 5, 2014

THE PURPOSE OF THIS PUBLIC NOTICE IS TO SOLICIT COMMENTS FROM THE PUBLIC REGARDING THE WORK DESCRIBED BELOW. NO DECISION HAS BEEN MADE AS TO WHETHER OR NOT A PERMIT WILL BE ISSUED AT THIS TIME.

This District has received an application for a Department of the Army permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 and/or Section 404 of the Clean Water Act (33 U.S.C. 1344) as described below:

APPLICANT: Pennsylvania Department of Transportation, Engineer District 8-0
Attn: Lisa Myers, P.E., Permits Coordinator
2140 Herr Street
Harrisburg, Pennsylvania 17103

Telephone: (717) 705-6202
Email: lismyers@state.gov.pa

WATERWAY AND LOCATION OF THE PROPOSED WORK: Work is proposed on Interstate 83 Exit 18 (Mount Rose Avenue) in Springettsbury, York, and Spring Garden Townships, York County, Pennsylvania (Enclosure 1). The proposed work will directly impact Mill Creek and adjacent wetlands, a tributary of Codorus Creek and the Susquehanna River. Both the Susquehanna River and a portion of Codorus Creek are regulated pursuant to Section 10 of the Rivers and Harbors Act of 1899. The project is located at Latitude 39-57-23, Longitude -76-41-09.

PROPOSED WORK AND PURPOSE: The applicant proposes permanent impacts to 1.7585 acres and temporary impacts to 0.5482 acres of wetlands; and 536 linear feet of permanent stream impacts and 741 linear feet of temporary stream impacts to Mill Creek and contributing perennial waterways. Specific impacts associated with the various areas of work are depicted on enclosure 2. The work is associated with the reconstruction of the Interstate 83 and Mount Rose Avenue interchange as well as Haines Road, Camp Betty Washington Road, and access to the Mount Rose Flex Park and York Water Company Distribution Center. The work includes reconstruction and construction of eleven (11) separate road crossings, roadway and ramp widening, construction of sidewalks, jughandles, and traffic signal improvements. The purpose of the work is to alleviate roadway congestion, reduce unsafe driving conditions, and to meet current roadway safety and design criteria established by the U.S. Department of Transportation. Enclosure 1 provides for an overview of the proposed work. More detailed plans are available for review by contacting Mr. John Gible, Transportation Program Manager, 401 East Louther Street, Suite 205, Carlisle, PA 17013.

ALTERNATIVES ANALYSIS: The applicant has evaluated seven separate build alternatives and a no-build alternative. A table of the alternatives considered is attached (Enclosure 3). Alternatives considered changes to lane designations, traffic signaling, and reconfiguration of exit and entrance ramps.

MITIGATION STATEMENT: There are currently no mitigation banks in the service area or in adjacent watersheds that possess sufficient credits to offset project impacts. There are currently no in lieu fee programs in operation within the watershed that can accommodate the project impacts. The applicant proposes to construct project-specific permittee responsible wetland and stream compensatory mitigation to offset unavoidable project impacts. Design considerations that considered avoidance and minimization of impacts to aquatic resources are discussed in the alternatives analysis. Specifically, post-construction slopes have been pulled back and rock reinforcement and/or retaining walls installed. Ramps N and K have been restructured to further minimize impacts by increasing slopes and installing concrete retaining walls. Several culverted crossings have been reduced in length to minimize stream impacts.

The applicant proposes to construct stream restoration as mitigation for permanent and temporary stream impacts. From upstream through downstream of the project area, the applicant proposes 1,788 linear feet of stream restoration, including channel improvements, rock stabilization, installation of muddills and random boulder habitat structures, and the establishment of riparian zones with woody vegetation. The applicant would be responsible for adaptive management and long term maintenance of the stream restoration work.

The applicant also proposes to construct 2.64 acres of wetlands at the Nixon County Park on Valley Road, Spring Field Township, York County. The wetland construction would be part of a larger stream restoration project forwarded by Loganville Borough. Construction costs would be shared. Long term maintenance and adaptive management would be the responsibility of York County.

The proposed mitigation work is depicted on enclosure 4. More detailed plans of the proposed work may be obtained by contacting: Mr. John Gible, Transportation Program Manager, 401 East Louthier Street, Suite 205, Carlisle, PA 17013.

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

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

Impact Statement pursuant to the National Environmental Policy Act. Comments provided will become part of the public record for this action. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity. Written comments concerning the work described above related to the factors listed above or other pertinent factors must be received by the District Engineer, U.S. Army Corps of Engineers, Baltimore District, Mr. John Gible, Transportation Program Manager, 401 East Louth Street, Suite 205, Carlisle, PA 17013 within the comment period specified above.

ESSENTIAL FISH HABITAT: The Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), as amended by the Sustainable Fisheries Act of 1996 (Public Law 04-267), requires all Federal agencies to consult with the National Marine Fisheries Service (NMFS) on all actions, or proposed actions, permitted, funded, or undertaken by the agency that may adversely effect Essential Fish Habitat (EFH). The Corps has determined this project will not affect any EFH.

WATER QUALITY CERTIFICATION: The applicant is required to obtain a water quality certification in accordance with Section 401 of the Clean Water Act from the Pennsylvania Department of Environmental Protection. The Section 401 certifying agency has a statutory limit of one year from the date of this public notice to make its decision.

COASTAL ZONE MANAGEMENT PROGRAMS: Where applicable, the applicant has certified in this application that the proposed activity complies with and will be conducted in a manner consistent with the approved Coastal Zone Management (CZM) Program. By this public notice, we are requesting the State concurrence or objection to the applicant's consistency statement. It should be noted that the CZM Program has a statutory limit of 6 months to make its consistency determination.

The applicant must obtain any State or local government permits which may be required.

A preliminary review of this application indicates that the proposed work will not affect Federally-listed threatened or endangered species or their critical habitat, pursuant to Section 7 of the Endangered Species Act, as amended. The U.S. Fish and Wildlife Service has certified in writing that neither the project location nor the compensatory mitigation site include populations, or potentially include populations of any Federally-threatened or endangered species. As the evaluation of this application continues, additional information may become available which could modify this preliminary determination.

Review of the latest published version of the National Register of Historic Places indicates that properties listed as eligible for inclusion, therein, are located at the site of the proposed work. The Federal Highway Administration is the Lead Federal Agency responsible for compliance with Section 106 of the National Historical Preservation Act. FHWA has determined that without conditions or qualifications, the project as planned will have no adverse effect on listed or eligible properties, including historic and archaeological resources. FHWA has also consulted interested Native American groups, including 15 Federally-recognized tribes.

The evaluation of the impact of this project on the public interest will include application of the guidelines promulgated by the Administrator, U.S. Environmental Protection Agency, under authority of Section 404 of the Clean Water Act.

Any person who has an interest which may be adversely affected by the issuance of this permit may request a public hearing. The request, which must be in writing, must be received by the District Engineer, U.S. Army Corps of Engineers, Baltimore District, Mr. John Gible, Transportation Program Manager, 401 East Louther Street, Suite 205, Carlisle, PA 17013 within the comment period as specified above to receive consideration. Also it must clearly set forth the interest which may be adversely affected by this activity and the manner in which the interest may be adversely affected.

It is requested that you communicate this information concerning the proposed work to any persons known by you to be interested and not being known to this office, who did not receive a copy of this notice.



Wade B. Chandler
Chief, Pennsylvania Section
Regulatory Branch

November 14, 2013

I-83 EXIT 18
(SR 0083, SECTION 040, YORK COUNTY)
WETLANDS IMPACTS

| WETLAND I.D. | DESCRIPTION (VEGETATIVE CLASSIFICATION) | LOCATION (LAT., LONG) | SIZE WITHIN STUDY AREA (ACRES) | PRELIMINARY ENGINEERING (CEE) IMPACTS (ACRES) | FINAL DESIGN | |
|-----------------|---|------------------------------|--------------------------------------|--|--|---|
| | | | | | IMPACTS (ACRES) P = PERMANENT T = TEMPORARY | NOTES |
| 1 | Elevated floodplain area (PEM/PSS) | N/A | 0.3150 | 0 | 0 | No impact (south of project area) |
| 2 | Elevated floodplain area (PEM/PSS) | 39 57 03.34, -76 40 56.91 | 0.7954 | 0.0050 | 0.0140 P 0.1760 T | Widening I-83 by 15 feet in this area, permanent impact limited to area immediately adjacent to current fill slope; temporary impact is based on the need for a contractor haul road (a sediment basin was proposed at this location but later eliminated to reduce the impact) |
| 3 | Elevated floodplain area (PEM/PSS) | 39 57 07.93, -76 41 00.41 | 0.1007 | 0 | 0.0550 T | Impacts due to E&S control measures and haul/access road |
| 4 | Elevated floodplain area (PEM/PSS) | 39 57 12.18, -76 41 03.23 | 0.1109 | 0.1109 | 0.1109 P | Ramp K extends away from I-83 in this area and steeper slope would not change impact |
| 5 | Man-made stormwater retention area (PEM) | 39 57 20.54, -76 41 03.38 | 0.8389 | 0.8389 | 0.8389 P | Ramp K and Ramp L directly impact and cut off water supply |
| 6 | Man-made stormwater retention area (PEM) | 39 57 28.90, -76 41 01.12 | 0.0348 | 0.0348 | 0.0348 P | SR 0124 pavement extends over wetland |
| 7 | Elevated floodplain area (PEM) | 39 57 23.78, -76 41 06.14 | 0.4276 | 0.4276 | 0.045 P 0.053 T | Impacts decreased with restricted contractor access and impact due to utility access road |
| 8 | Elevated floodplain area (PEM) | 39 57 22.13, -76 41 06.14 | 0.1041 | 0.1041 | 0.1041 P | Impacts due to ramp N/I-83 gore area with shallow fill |
| 9 | Floodplain bench area (PEM) | 39 57 22.72, -76 41 09.55 | 0.0331 | 0.0331 | 0.0331 P | Impact caused by stream shift required for utility access road near loop ramp |
| 10 | Floodplain bench area (PEM) | 39 57 24.68, -76 41 09.54 | 0.0550 | 0.0550 | 0.0550 P | Impact caused by stream shift required for utility access road near loop ramp |

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| WETLAND I.D. | DESCRIPTION (VEGETATIVE CLASSIFICATION) | LOCATION (LAT., LONG) | SIZE WITHIN STUDY AREA (ACRES) | PRELIMINARY ENGINEERING (CEE) IMPACTS (ACRES) | FINAL DESIGN | |
|-----------------|--|------------------------------|--------------------------------------|--|--|---|
| | | | | | IMPACTS (ACRES) P = PERMANENT T = TEMPORARY | NOTES |
| 11 | Floodplain bench area (PEM) | N/A | 0.0040 | 0.0040 | 0 | Wetland destroyed in flood |
| 12 | Elevated floodplain area (PEM) | N/A | 0.0093 | 0.0093 | 0 | Wetland destroyed in flood |
| 13 | Floodplain bench area (PEM) | 39 57 26.54, -76 41 08.81 | 0.0104 | 0.0104 | 0.0104 P | Wetland destroyed as part of emergency stream relocation |
| 14 | Elevated floodplain area – part of abandoned water control feature associated with past industrial/commercial use (PEM) | 39 57 33.63, -76 41 09.37 | 3.300 | 0.5300 | 0.2190 P 0.1840 T | Impact from Access Road and used 1.5:1 slope to minimize impact; Access Road is located here to improve safety at the York Water driveway and to avoid a safety issue with its new intersection along Green Hill Road Ext; also new waterline and aerial utilities in the area. |
| 15 | Floodplain bench area (PEM) | N/A | 0.0073 | 0.0073 | 0 | Wetland destroyed in flood |
| 16 | Elevated floodplain area (PEM) | 39 57 19.70, -76 41 09.37 | 0.1078 | 0.1078 | 0.0470 P | Installation of revetment wall associated with stream relocation encroaches into wetland (wall designed to prevent dewatering) |
| 17 | Elevated floodplain area (PEM) | 39 57 16.66, -76 41 08.66 | 0.0082 | 0.0082 | 0.0082 P | Ramp M pavement is over wetland |
| 18 | Linear roadside, man- manipulated area associated with clogged cross pipe connections (PEM) | 39 57 37.55, -76 41 06.56 | 0.0663 | 0.0663 | 0.0663 P | Ramp I pavement is over wetland |
| 19 | Linear roadside, man- manipulated area associated with clogged cross pipe connections (PEM) | 39 57 37.43, -76 41 04.60 | 0.1635 | 0.1635 | 0.1635 P | Ramp J pavement is over wetland |
| 20 | Isolated surface water collection pocket (PEM) | 39 57 45.94, -76 41 09.97 | 0.0013 | 0.0013 | 0.0013 P | Post- Construction SWM pond location |

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| WETLAND I.D. | DESCRIPTION (VEGETATIVE CLASSIFICATION) | LOCATION (LAT., LONG) | SIZE WITHIN STUDY AREA (ACRES) | PRELIMINARY ENGINEERING (CEE) IMPACTS (ACRES) | FINAL DESIGN | |
|-----------------|---|------------------------------|--------------------------------------|--|--|--|
| | | | | | IMPACTS (ACRES) P = PERMANENT T = TEMPORARY | NOTES |
| 21 | Isolated surface water collection pocket (PEM) | 39 57 46.43, -76 41 11.38 | 0.0006 | 0 | 0.0006 T | Impacted by E&S control measures |
| 22 | Isolated surface water collection pocket (PEM) | 39 57 46.78, -76 41 11.50 | 0.0009 | 0 | 0.0009 T | Impacted by E&S control measures |
| 23 | Isolated surface water collection pocket (PEM) | 39 57 46.78, -76 41 11.48 | 0.0003 | 0 | 0.0003 T | Impacted by E&S control measures |
| 24 | Elevated floodplain area (PEM) | N/A | 0.0068 | 0.0010 | 0 | No Impact, outside of R/W |
| 25 | Elevated floodplain area (PEM) | N/A | 0.0025 | 0 | 0 | No Impact, outside of R/W |
| 26 | Isolated surface water collection pocket (PEM) | 39 57 46.38, -76 41 10.23 | 0.0003 | 0.0003 | 0.0003 P | Post-Construction SWM pond location |
| 27 | Elevated floodplain area (PEM) | 39 57 52.30, -76 41 14.28 | 0.3792 | 0.0290 | 0.006 P 0.078 T | Impact due to drainage swale and permanent outlet protection for pipe |
| 28 | Elevated floodplain area (PEM) | N/A | 0.0017 | 0 | 0 | No Impact, outside of R/W |
| 29 | Elevated floodplain area (PEM) | N/A | 0.1205 | 0 | 0 | No Impact, outside of R/W |
| 30 | Elevated floodplain area (PEM) | N/A | 0.0289 | 0 | 0 | No Impact, outside of R/W |
| 31 | Elevated floodplain area (PFO) | N/A | 1.2467 | 0 | 0 | No Impact, outside of R/W |
| 32 | Isolated surface water collection pocket (PEM) | 39 57 46.43, -76 41 10.49 | 0.0007 | 0.0007 | 0.0007 P | Post Construction SWM pond location |
| 33 | Elevated floodplain area (PEM) | N/A | 0.0202 | 0 | 0 | No impact, outside of R/W |
| 34 | Elevated floodplain area (PEM) | N/A | 0.0695 | 0 | 0 | No impact, outside of R/W |

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| WETLAND I.D. | DESCRIPTION (VEGETATIVE CLASSIFICATION) | LOCATION (LAT., LONG) | SIZE WITHIN STUDY AREA (ACRES) | PRELIMINARY ENGINEERING (CEE) IMPACTS (ACRES) | FINAL DESIGN | |
|-------------------------------|---|------------------------------|--------------------------------------|--|--|-----------------------------------|
| | | | | | IMPACTS (ACRES) P = PERMANENT T = TEMPORARY | NOTES |
| 50 | Floodplain bench area (PEM/PSS) | N/A | 0.0127 | 0 | 0 | No impact, outside of R/W |
| 51 | Isolated surface water collection pocket (PEM) | 39 57 45.44, -76 41 10.66 | 0.0004 | 0 | 0.0004 T | Impacted by E&S control measures |
| 52 | Floodplain bench area (PEM) | N/A | 0.0173 | 0 | 0 | No impact (north of project area) |
| 100 | Elevated floodplain area (PEM/PSS) | N/A | 0.1200 | 0 | 0 | No impact, outside of R/W |
| 101 | Elevated floodplain area (PEM/PSS) | N/A | 0.2680 | 0 | 0 | No impact, outside of R/W |
| 102 | Elevated floodplain area (PEM) | N/A | 0.0370 | 0 | 0 | No impact, outside of R/W |
| 103 | Elevated floodplain area (PEM) | N/A | 0.0130 | 0 | 0 | No impact, outside of R/W |
| 104 | Elevated floodplain area (PEM) | N/A | 0.0460 | 0 | 0 | No impact, outside of R/W |
| TOTAL PROPOSED WETLAND IMPACT | | | | 2.5485 ACRES | 2.3067 ACRES (P = 1.7585 and T = 0.5482) | |

I-83 EXIT 18
(SR 0083, SECTION 040, YORK COUNTY)
WATERCOURSE IMPACTS

November 18, 2013

| Permanent Impact Table: Bridges | | | | | | | | | | | | | | | | |
|---|-------------|-----------|------------------------------|----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|--|---|---------------------------------|-----------------------------------|--|--|----------------------|---------------------|--|
| Structure | Watercourse | Station | Location (Lat., Long) | Existing Bridge Width (ft) | Proposed Bridge Width (ft) | Existing Bridge Length (ft) | Proposed Bridge Length (ft) | New Bridge Width (=D - C) (ft) | New Bridge Length (=E - F) (ft) | Upstream Alterations (ft) | Downstream Alterations (ft) | Up- stream Lost Channel (ft) | Down- stream Lost Channel (ft) | Permanent Impact* | | Impact Description |
| | | | | | | | | | | | | | | Linear Feet (ft) | Square Feet (sf) | |
| | Columns | A | B | C | D | E | F | G | H | I | J | K | L | M | N | |
| I-83 Over Mill Creek (Structure 1) | Mill Creek | 165+59.29 | 39 57 15.31, -76 41 04.82 | 48.6 | 48.6 | 87.6 | 115.4 | 0 | 27.8 | 10.5 | N/A | N/A | N/A | 38.3 | 1,342.0 | Extension of existing abutments and new superstructure. The structure is adjacent, upstream, to the Ramp K over Mill Creek (Structure 3) bridge and therefore does not require additional downstream alterations. |
| Ramp K Over Mill Creek (Structure 3) | Mill Creek | 20+02.19 | 39 57 15.31, -76 41 03.75 | N/A | 45.2 | N/A | 34.4 | 45.2 | 34.4 | 10.5 | N/A | N/A | N/A | 44.9 | 1,552.0 | Extension of existing abutments and new superstructure. The structure is adjacent, downstream, to the I-83 over Mill Creek (Structure 1) bridge and therefore does not require additional downstream alterations. |
| Ramp N Over Mill Creek (Structure 4) | Mill Creek | 512+12.38 | 39 57 21.36, -76 41 09.17 | N/A | 71.0 | N/A | 47.6 | 71.0 | 47.6 | N/A | N/A | N/A | N/A | 47.6 | 1,550.0 | New bridge |
| Ramp N Over Mill Creek (Structure 5) | Mill Creek | 520+69.58 | 39 57 28.35, -76 41 10.97 | N/A | 49.2 | N/A | 61.4 | 49.2 | 61.4 | 26.5 | N/A | N/A | N/A | 87.9 | 2,002.0 | New bridge (includes replacing existing ramp and culvert). The structure is adjacent, upstream, to the Mount Rose Ave. over Mill Creek and York Water Access road over Mill Creek bridges (Structures 6 and 7) and therefore does not require additional downstream alterations. |

| Structure | Watercourse | Station | Location (lat, long) | Existing Bridge Width (ft) | Proposed Bridge Width (ft) | Existing Bridge Length (ft) | Proposed Bridge Length (ft) | New Bridge Width (ft) (=C - B) | New Bridge Length (ft) (=E - D) | Upstream Alterations (ft) | Downstream Alterations (ft) | Up- stream Lost Channel (ft) | Down- stream Lost Channel (ft) | Permanent Impact* (ft) | | Impact Description |
|--|-------------|----------|------------------------------|----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|--|---|---------------------------------|-----------------------------------|--|--|------------------------------|---------------------|--|
| | | | | | | | | | | | | | | Linear Feet (ft) | Square Feet (sf) | |
| | Columns | A | B | C | D | E | F | G | H | I | J | K | L | M | | N |
| Mount Rose Ave. Over Mill Creek (Structure 6) | Mill Creek | 20+97.75 | 39 57 29.52, -76 71 10.97 | 55.4 | 57.6 | 76.6 | 112.4 | 2.2 | 35.8 | N/A | N/A | N/A | N/A | 35.8 | 801.0 | New bridge (includes replacing existing ramp and culvert). The structure is adjacent, in-between, the Ramp N over Mill Creek and York Water Access road over Mill Creek bridges (Structures 5 and 7) and therefore does not have any upstream or downstream alterations. |
| York Water Access road Over Mill Creek (Structure 7) | Mill Creek | 12+52.46 | 39 57 30.33, -76 41 12.29 | N/A | 57.6 | N/A | 46.1 | 57.6 | 46.1 | N/A | 26.5 | N/A | N/A | 72.6 | 1,659.0 | New bridge (includes replacing existing ramp and culvert). The structure is adjacent, downstream, to the Mount Rose Ave. over Mill Creek and Ramp N over Mill Creek bridges and therefore does not have any upstream alterations. |
| Total Impact | | | | | | | | | | | | | | 327.1 | 8,906.0 | *Permanent Impacts (ft) = The addition of columns H, I, J, K and L for perennial and intermittent streams. Square Feet (sf) (Calculated by multiplying net linear impact by width of stream) |

I-83 EXIT 18
(SR 0083, SECTION 040, YORK COUNTY)
WATERCOURSE IMPACTS

Permanent Impact Table: Culverts

| Structure | Watercourse | Station | Location (lat, long) | Existing Pipe (lf) | Proposed Pipe (lf) | New Pipe Length (lf) (=D - C) | Upstream Alterations (lf) | Downstream Alterations (lf) | Upstream Lost Channel (lf) | Downstream Lost Channel (lf) | Permanent Impacts* | | Impact Description |
|------------------------------|-------------|---------|------------------------------|-----------------------|-----------------------|-------------------------------------|---------------------------------|-----------------------------------|----------------------------------|------------------------------------|---------------------|---------------------|--|
| | | | | | | | | | | | Linear Feet (lf) | Square Feet (sf) | |
| | Columns | A | B | C | D | E | F | G | H | I | J | | K |
| I-83 Culvert Extension | Channel 6 | 194+55 | 39 57 43.48, -76 41 08.61 | 102.0 | 160.0 | 58.0* | 12.0 | 12.0 | N/A | N/A | 74.0* | 780.0 | The existing 10' x 6' concrete box culvert will be extended (I-83 Sta 194+55, E&S plan sheet 47) using a Box Culvert Diversion (E&S detail sheet 29). *The culvert extension involves the demolition of end pieces of the existing culvert to allow for the attachment of the proposed extensions, therefore the permanent stream impacts are less than the size of new pipe. |
| I-83 Pipe Extension | Channel 2 | 157+81 | 39 57 08.34, -76 41 01.19 | 210.0 | 225.0 | 15.0 | N/A | 11.0 | N/A | N/A | 26.0 | 489.0 | The existing 5' x 4' concrete box culvert will be extended (I-83 Sta 157+81, E&S plan sheet 36) using a temporary Pump Bypass System with a temporary Sandbag Cofferdam (E&D detail sheet 21). Since channel 2 flows from I-83 drainage to Mill Creek there are no upstream impacts. No H&H analysis was completed for this minor inline extension; however this culvert was modeled as part of the Storm Water Management analysis. |
| I-83 Culvert Extension | Channel 1 | 149+53 | 39 56 59.81, 76 40 55.90 | 233.0 | 318.0 | 85.0 | 12.0 | 12.0 | N/A | N/A | 109.0 | 2,776.0 | The existing 6' x 6' concrete box culvert will be extended (I-83 Sta 149+53, E&S plan sheet 34) using a temporary Pump Bypass System with a temporary Sandbag Cofferdam (E&S detail sheet 21). |
| TOTAL IMPACT | | | | | | | | | | | 209.0 | 4,045.0 | Permanent Impacts (lf) = The addition of columns E, F, G, H and I for perennial and intermittent streams. Square Feet (sf) (Calculated by multiplying net linear impact by width of stream) |

I-83 EXIT 18
(SR 0083, SECTION 040, YORK COUNTY)
WATERCOURSE IMPACTS

| Temporary Impacts | | | | |
|-------------------|---|-------------------|------------------|--|
| Watercourse | Structure | Temporary Impact* | | Impact Description |
| | | Linear Feet (lf) | Square Feet (sf) | |
| Channel 6 | I-83 Culvert Extension | 101.0 | 1,008.0 | A Box Culvert Diversion (E&S detail sheet 29) is proposed for the construction of the culvert extension. |
| Channel 2 | I-83 Pipe Extension/ Contractor Access Road 1A | 70.0 | 1,245.0 | A temporary Pump Bypass System with a temporary Sandbag Cofferdam (E&D detail sheet 21) is proposed for the construction of the pipe extension. Contractor access road 1A will require a temporary crossing consisting of 2, 36" pipes (E&S Plan sheet 34) |
| Channel 1 | I-83 Culvert Extension/ Contractor Access Road 1A | 116.0 | 3,293.0 | A temporary Pump Bypass System with a temporary Sandbag Cofferdam (E&S detail sheet 21) is proposed for the construction of the culvert extension. Contractor access road 1A will require a temporary crossing consisting of 3, 48" pipes (E&S Plan sheet 34) |
| Mill Creek | Rock Construction Entrance 3 (RCE 3) /Contractor Access Road 1 | 55.0 | 1,586.0 | RCE(3) and Contractor access road 1 will require a temporary crossing consisting of 7, 36" pipes to access the construction site from Camp Betty Washington Road (E&S plan sheet 35, E&S detail sheet 21 for Stream Crossing details) |
| Mill Creek | Ramp N over Mill Creek (Structure 4) / Contractor Access Road 2 | 141.0 | 4,433.0 | Contractor access road 2 will require a temporary crossing consisting of 7, 36" pipes to access construction areas within the loop Ramp NE&S plan sheet 42, E&S detail sheet 21 for Stream Crossing details) Construction of the bridge will require the use of a temporary Cofferdam (E&S detail sheet 22). |
| Mill Creek | I-83/Ramp K crossing | 153.0 | 8,211.0 | These structures are all adjacent. Construction of the bridge will require the use of a temporary Cofferdam (E&S plan sheets 37, 38, and 63, E&S detail sheet 22). |
| Mill Creek | York Water Access Road/ Mount Rose Avenue/Ramp N over Mill Creek (Structure 5) | 105.0 | 2,800.0 | These structures are all adjacent. Construction of the bridge will require the use of a temporary Cofferdam (E&S plan sheets 53 and 54, E&S detail sheet 22) |
| Total | | 741.0 | 22,576.0 | |

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**I-83 EXIT 18
(SR 0083, SECTION 040, YORK COUNTY)
WATERCOURSE IMPACTS**

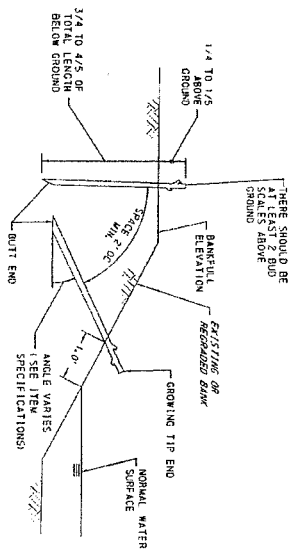
| Impact Summary Table | | |
|----------------------|------------------|------------------|
| Impacts | Linear Feet (lf) | Square Feet (sf) |
| Permanent | 536.1 | 12,951.0 |
| Temporary | 741.0 | 22,576.0 |
| Total | 1,277.1 | 35,527.0 |

| TABLE 2 – PRELIMINARY ALTERNATIVE ANALYSIS SUMMARY | | |
|--|--|--|
| ALTERNATIVE | KEY FEATURES* | MEET PROJECT NEED AND PURPOSE? |
| No Build | No improvements would be done. (see Figure 1) | NO: With a continually growing area, this alternative was found to be impractical and does not provide the capacity to meet the project needs. This alternative was carried forward for comparison purposes. |
| Transportation System Management (TSM) | Restriping the westbound right turn lane on Mount Rose Avenue as a shared through/right lane, restriping eastbound Mount Rose Avenue on the I-83 bridge to optimize storage capacity on bridge, and revising the phase sequence and timings at the ramp intersections to optimize traffic flow. | NO: measures would improve capacity and traffic flow; however, do not address the area's congestion and safety issues. These improvements were incorporated into the early action plan; however, significant capacity enhancing improvements still must be made. |
| 18.4 - Single Point Urban Interchange (SPUI) | Repositioning of the I-83 north and south exit ramp terminals to meet at a single signalized intersection. (see Figure 2) | NO: would operate at an overall LOS E during the PM peak hour with several movements/approaches operating at a LOS E or worse. The number of vehicles using each ramp is so unbalanced that the effectiveness of the single point intersection is lost. In addition, the close proximity of Haines Road to the exit ramps creates a short weave length, causing significant accident potential. |
| 18.5 - Compressed Diamond Interchange | Provision of eight traffic lanes through the interchange area with dual left turn lanes provided for the southbound off and on ramps while maintaining a similar configuration and location as the existing interchange. A right turn only auxiliary lane for traffic utilizing eastbound Mount Rose Avenue would be added for use by northbound off-ramp traffic heading to Camp Betty Washington Road. (see Figure 3) | NO: additional lanes would add capacity, improving flow; however, dual left turn lanes would be incapable of handling the magnitude of traffic turning left with acceptable LOS. Traffic would likely be backed up throughout the entire length of the exit ramps and potentially onto the I-83 mainline. The close proximity of the Haines Road intersection to the ramp entrances (in particular the northbound exit ramp) creates a dangerous weave of traffic from the exit ramps. |

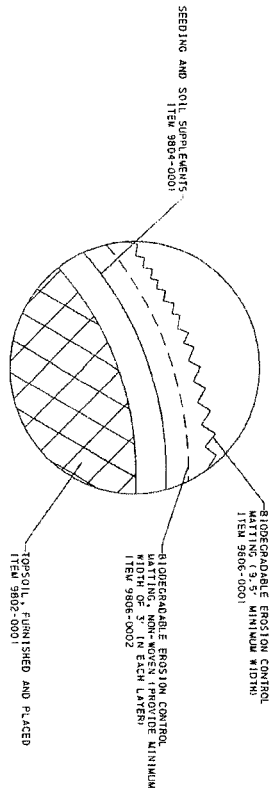
Enclosure 3

| TABLE 2 – PRELIMINARY ALTERNATIVE ANALYSIS SUMMARY | | |
|--|---|---|
| ALTERNATIVE | KEY FEATURES* | MEET PROJECT NEED AND PURPOSE? |
| 18.6 - Camp Betty Washington Jughandle | Removal of I-83 northbound exit ramp from the diamond formation and redesigned to connect to Camp Betty Washington Road. (see Figure 4) | NO: additional capacity created by the relocation of the northbound exit ramp would improve flow; however, the demand for left turns off of the southbound exit ramp and the stacking of exit ramp traffic into the I-83 mainline would not be addressed. |
| EA-5 - Railroad Bed | Use of existing railroad underpass to relocate I-83 northbound exit ramp and bringing this exit, I-83 southbound exit and southbound on-ramp to a single signalized intersection. Includes a new northbound on-ramp for eastbound Mount Rose Avenue traffic and a separate on-ramp for westbound Mount Rose Avenue traffic would remain in a similar location to the existing on-ramp. (see Figure 5) | NO: capacity would be improved for I-83 northbound exit ramp and both the I-83 southbound and northbound on-ramps. However, I-83 southbound exit stacking would still continue. Ramp volumes are so unbalanced that the effectiveness of the single point intersection is lost. In the design year 2036, the ramp intersections would operate at a LOS E with several movements/ approaches operating at a LOS F or worse. |
| Diverging Diamond Interchange (DDI) | Redesign of all ramps to accommodate left turning movements onto Mount Rose Avenue while eliminating the need for the protected left turn phase at the signalized ramp intersections. On Mount Rose Avenue, traffic crosses over to the left side of the roadway between two 2-phase signalized intersections. (see Figure 6) | NO: southbound exit ramp left turn traffic cannot be accommodated along with the eastbound Mount Rose Avenue movements. The volume of left turns would exceed the capacity of the interchange and the southbound exit ramp traffic would be backed up into the I-83 mainline. In addition, the heavy right turn volume from the northbound exit ramp must yield to eastbound Mount Rose Avenue traffic, which conflicts with the nearby Haines Road intersection. |
| EA-6 - Modified Jughandle/ Cloverleaf | Redesign/relocation of ramps, roadways, bridge/structure. Relocation of northbound exit ramp to merge traffic onto Camp Betty Washington Road, relocation and elongation of southbound on-ramp for westbound traffic, new northbound on-ramp, and new southbound exit loop ramp for eastbound traffic. (see Figure 7) | YES: improves safety and performance by lengthening distance between Haines Road signalized intersection and nearest signalized ramp intersection; decreases number of signalized ramp intersections on the Mount Rose Avenue corridor; anticipated to reduce number of crashes on Mount Rose Avenue; improves traffic flow on local streets by improving the LOS at each intersection, decreases anticipated stacking length; and eliminates stacking onto I-83 mainline and adjacent intersections. |

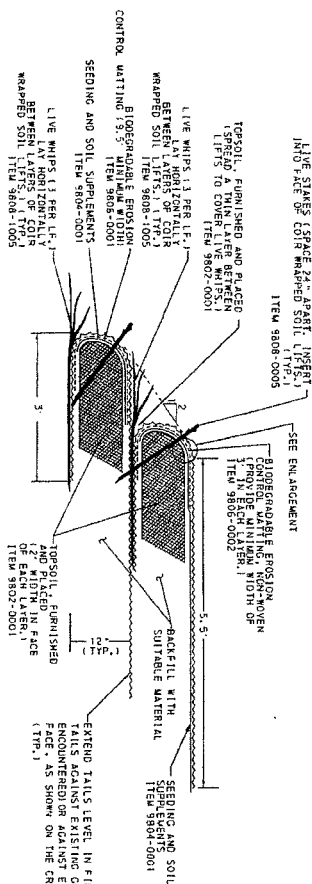
* All alternatives, except for the No-Build and TSM Alternatives, include the widening of Mount Rose Avenue, Camp Betty Washington Road, and Haines Road throughout the interchange.



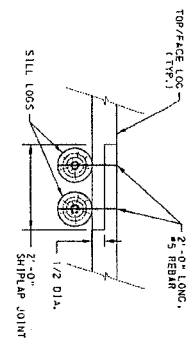
LIVE STAKES
ITEM 9808-0005
NO SCALE



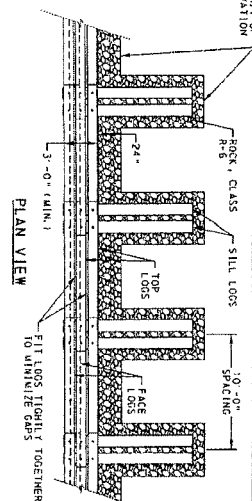
ENLARGEMENT



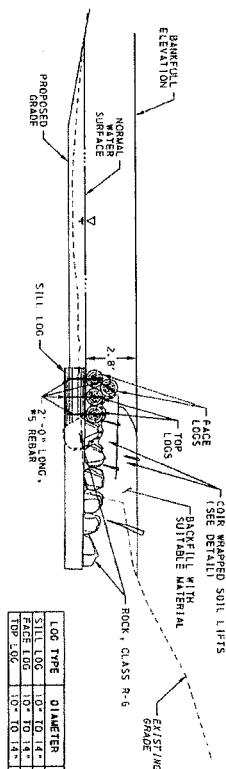
COIR WRAPPED SOIL LIFTS
NO SCALE



JOINT DETAIL



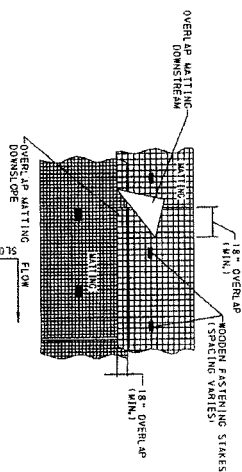
PLAN VIEW



SECTION

MUD SLUR
NO SCALE

| LOG TYPE | DIAMETER | LENGTH |
|----------|------------|------------|
| SILL LOG | 10" TO 14" | 11' (MIN.) |
| FACE LOG | 10" TO 14" | 10' |
| TOP LOG | 10" TO 14" | 10' |



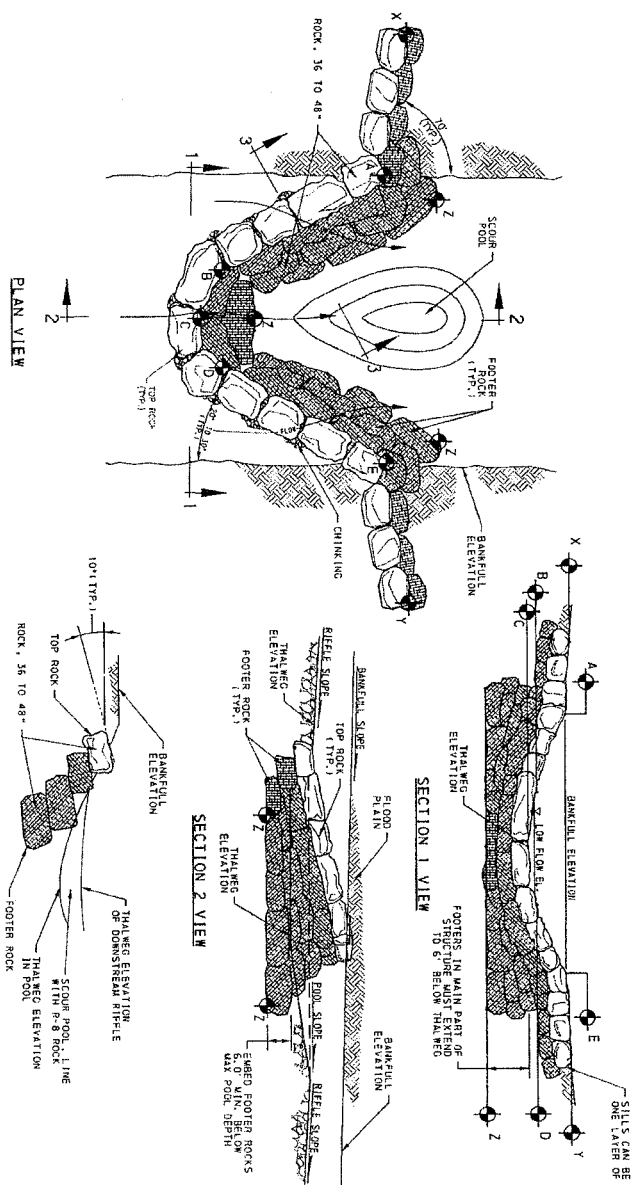
BIODEGRADABLE EROSION CONTROL MATTING

ITEM 9806-0001
NO SCALE

STREAM MITIGATION PLAN



| | | | | |
|---------------------------------------|-----------|-------|---------|---------|
| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
| 8-0 | YORK | 0083 | 040 | 2 OF 33 |
| SPRING GARDEN & SPRINGFELLSBURY TOWNS | | | | |
| REVISION NUMBER | REVISIONS | | | DATE BY |
| | | | | |
| | | | | |



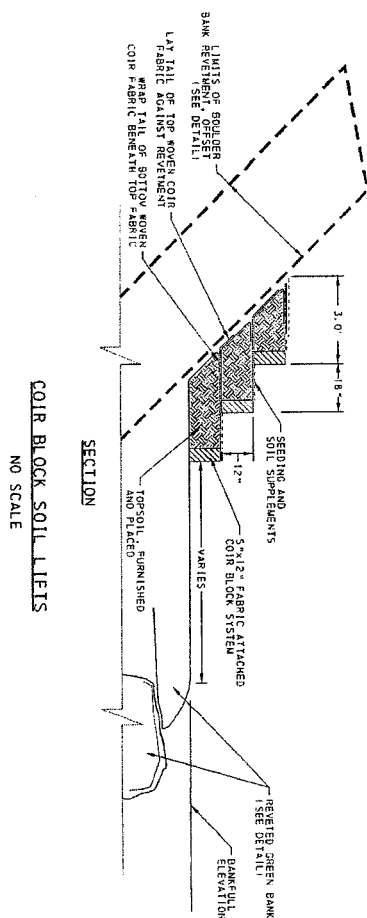
DETAILS

— SILLS CAN BE FOOTED WITH ONE LAYER OF FOOTER ROCK

[illegible]

CROSS ROCK VANE TABLE

| | | | | |
|---------------------------------------|-----------|-------|---------|---------|
| 01 DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
| 8-0 | YORK | 0083 | 040 | 3 OF 33 |
| SPRING GARDEN & SPRINGFIELD TOWNSHIPS | | | | |
| REVISION NUMBER | REVISIONS | | DATE | BY |
| | | | | |
| | | | | |

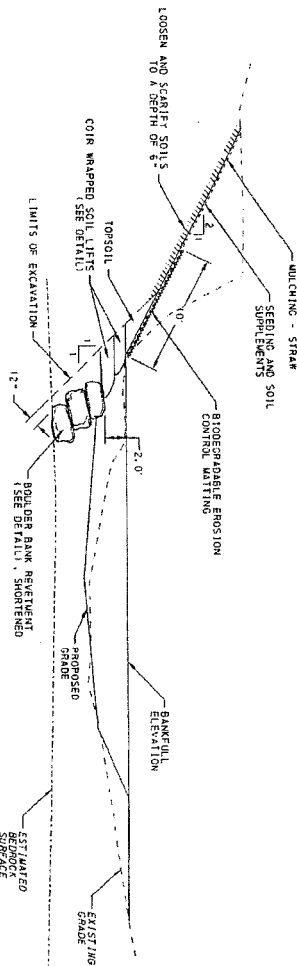
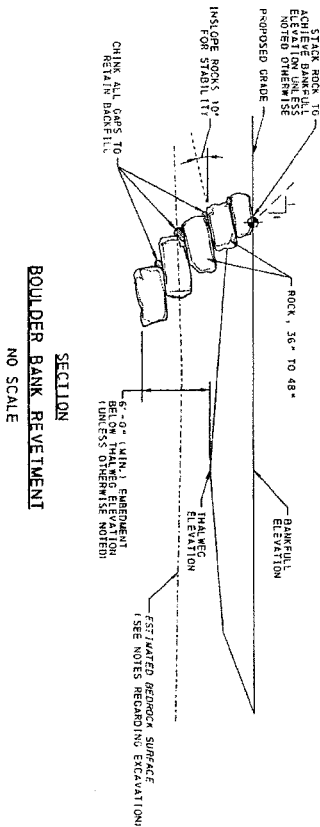
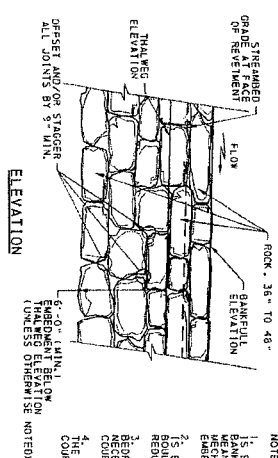
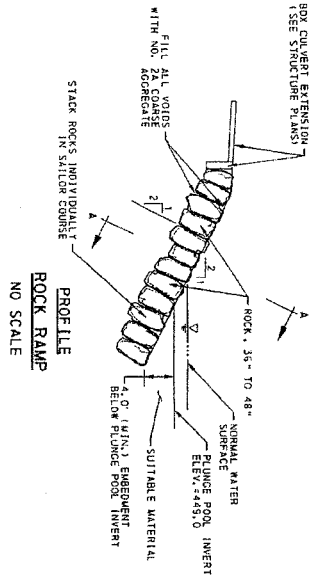
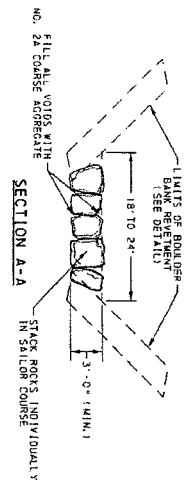


CROSS ROCK VANE
NO SCALE

COLOR BLOCK SOIL LIFTS

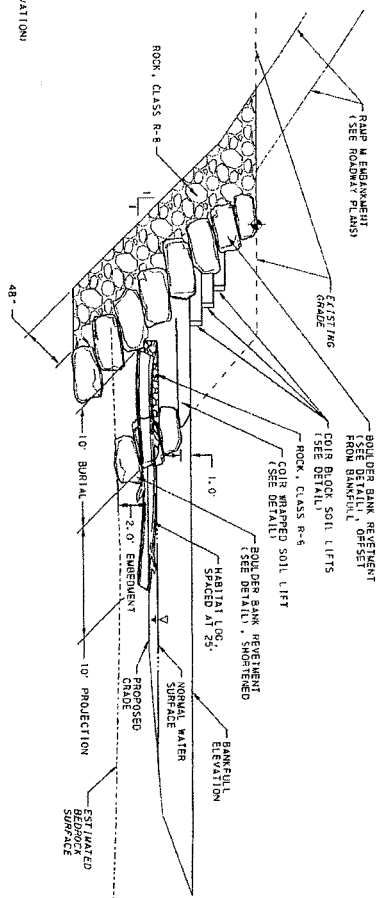
STREAM MITIGATION PLAN





- NOTES - BOULDER BANK REVEINMENT
1. IF SCIST, PHILLITE, OR OTHER SOFT WEATHERED BEDROCK IS ENCOUNTERED DURING EXCAVATION FOR THE PROPOSED BOULDER BANK, THE BEDROCK SHOULD BE EXCAVATED TO A DEPTH OF 6' BELOW THE PROPOSED GRADE. IF THE BEDROCK IS WEATHERED TO SUCH A DEGREE THAT IT IS NOT POSSIBLE TO EXCAVATE TO THE PROPOSED GRADE, THE BEDROCK SHOULD BE EXCAVATED TO A DEPTH OF 6' BELOW THE PROPOSED GRADE. IF THE BEDROCK IS WEATHERED TO SUCH A DEGREE THAT IT IS NOT POSSIBLE TO EXCAVATE TO THE PROPOSED GRADE, THE BEDROCK SHOULD BE EXCAVATED TO A DEPTH OF 6' BELOW THE PROPOSED GRADE.
 2. IF SCIST, PHILLITE, OR OTHER SOFT WEATHERED BEDROCK IS ENCOUNTERED DURING EXCAVATION FOR THE PROPOSED BOULDER BANK, THE BEDROCK SHOULD BE EXCAVATED TO A DEPTH OF 6' BELOW THE PROPOSED GRADE. IF THE BEDROCK IS WEATHERED TO SUCH A DEGREE THAT IT IS NOT POSSIBLE TO EXCAVATE TO THE PROPOSED GRADE, THE BEDROCK SHOULD BE EXCAVATED TO A DEPTH OF 6' BELOW THE PROPOSED GRADE. IF THE BEDROCK IS WEATHERED TO SUCH A DEGREE THAT IT IS NOT POSSIBLE TO EXCAVATE TO THE PROPOSED GRADE, THE BEDROCK SHOULD BE EXCAVATED TO A DEPTH OF 6' BELOW THE PROPOSED GRADE.
 3. IF SCIST, PHILLITE, OR OTHER SOFT WEATHERED BEDROCK IS ENCOUNTERED DURING EXCAVATION FOR THE PROPOSED BOULDER BANK, THE BEDROCK SHOULD BE EXCAVATED TO A DEPTH OF 6' BELOW THE PROPOSED GRADE. IF THE BEDROCK IS WEATHERED TO SUCH A DEGREE THAT IT IS NOT POSSIBLE TO EXCAVATE TO THE PROPOSED GRADE, THE BEDROCK SHOULD BE EXCAVATED TO A DEPTH OF 6' BELOW THE PROPOSED GRADE. IF THE BEDROCK IS WEATHERED TO SUCH A DEGREE THAT IT IS NOT POSSIBLE TO EXCAVATE TO THE PROPOSED GRADE, THE BEDROCK SHOULD BE EXCAVATED TO A DEPTH OF 6' BELOW THE PROPOSED GRADE.
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GREEN BANK TREATMENT

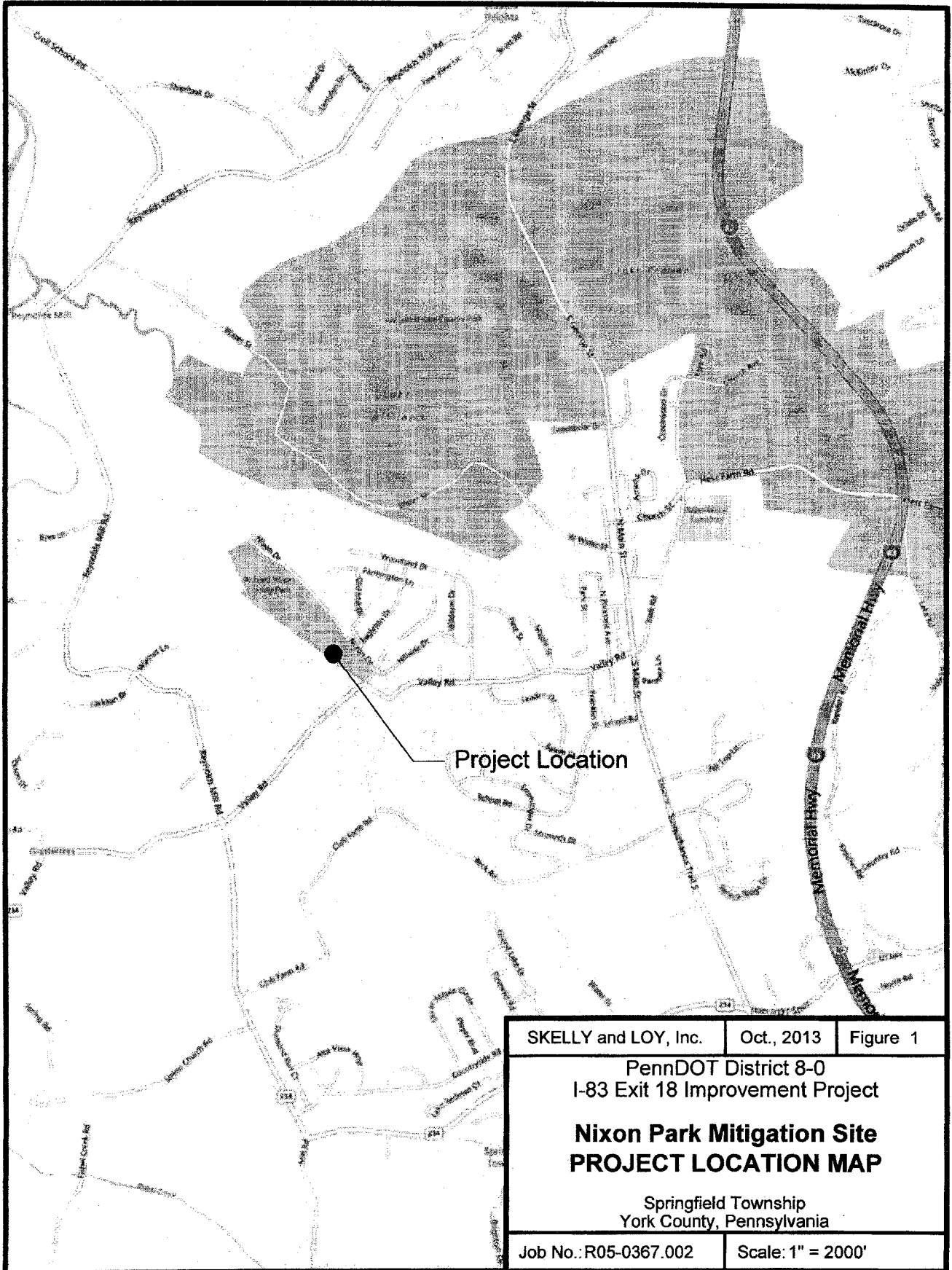


REVEINED GREEN BANK WITH HABITAT LOG

STREAM MITIGATION PLAN



| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|----------|---------|---------|---------|---------|
| 8-0 | TRINITY | ROAD 1 | 040 | 4 OF 33 |
| REVISION | DATE | BY | | |
| NO. 1 | 11/1/90 | MT/1300 | 040 | BT |



SKELLY and LOY, Inc.

Oct., 2013

Figure 1

PennDOT District 8-0
I-83 Exit 18 Improvement Project

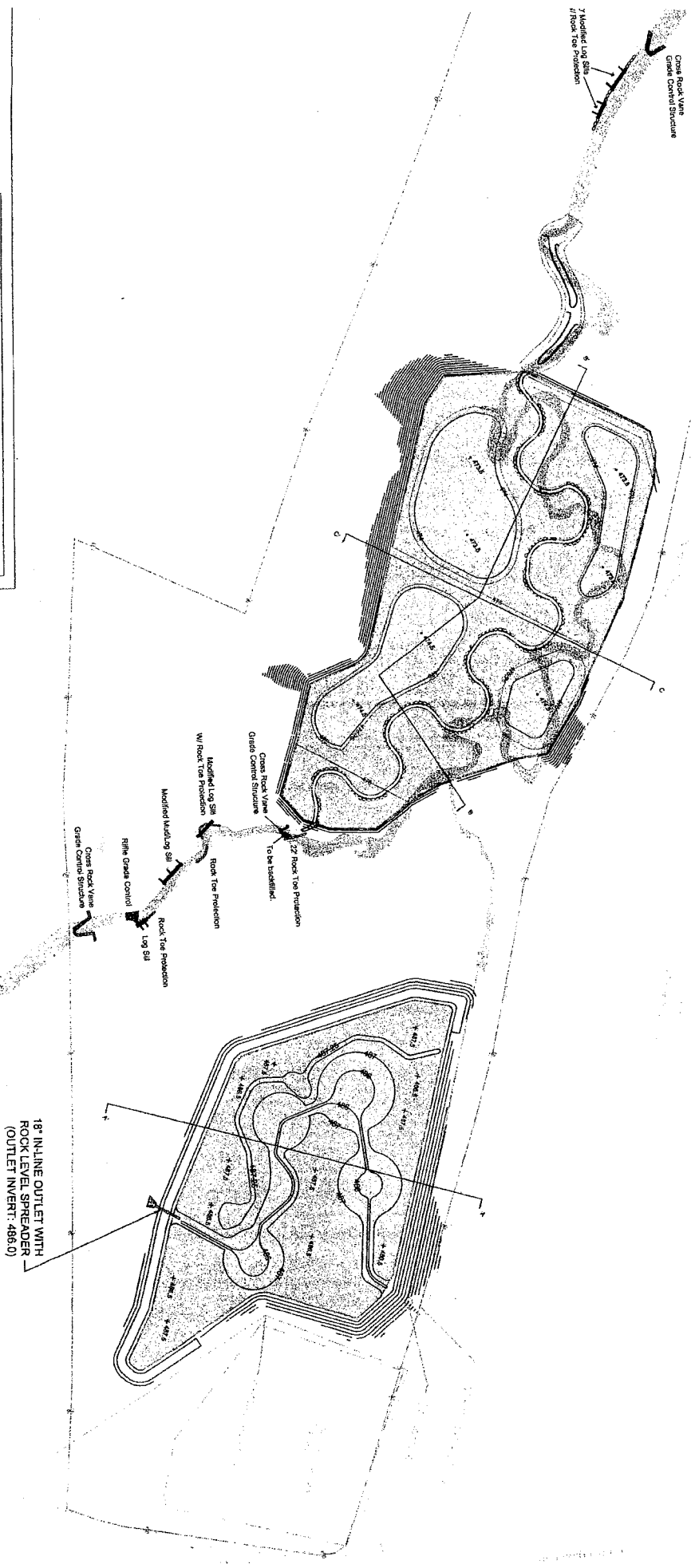
**Nixon Park Mitigation Site
PROJECT LOCATION MAP**

Springfield Township
York County, Pennsylvania

Job No.: R05-0367.002

Scale: 1" = 2000'

NORTH



| Wetland Mitigation | | | |
|---------------------------|------------|------------|------------|
| Habitat Type | Basin A | Basin B | Total |
| Saturated Marsh | 0.91 Acres | 0.96 Acres | 1.87 Acres |
| Inundated Marsh | 0.33 Acres | 0.33 Acres | 0.66 Acres |
| Ephemeral Inundated Marsh | 0.58 Acres | 0.58 Acres | 1.16 Acres |
| Gross Total | 1.24 Acres | 1.54 Acres | 2.78 Acres |
| Wetland within Basin | 0.14 Acres | 0.14 Acres | 0.28 Acres |