



**US Army Corps
of Engineers**
Philadelphia District

Wanamaker Building
100 Penn Square East
Philadelphia, PA 19107-3390
ATTN: CENAP-OP-R

Public Notice

Public Notice No.	Date
CENAP-OP-R-2012-0800-45	March 23, 2017

Application No.	File No.
2012-0800-45	2012-0800-45

In Reply Refer to:
REGULATORY BRANCH

This District has received an application for a Department of the Army permit pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344).

The purpose of this notice is to solicit comments and recommendations from the public concerning issuance of a Department of the Army permit for the work described below.

APPLICANT: Pennsylvania Turnpike Commission
700 South Eisenhower Boulevard
Middletown, PA 17057

AGENT: A.D. Marble
2200 Renaissance Boulevard
Suite 260
King of Prussia, PA 19406

WATERWAY: East Branch of the Perkiomen Creek and Unnamed Tributaries, Indian Creek and Unnamed Tributaries, Unnamed Tributaries to the Skippack Creek, and Unnamed Tributaries to Ridge Valley Creek.

LOCATION: The project is located along 6.8 miles of the Northeast Extension of the Pennsylvania Turnpike, Interstate 476 (**I-476**), from milepost **A31.3** (just south of Fretz Road) to **A38.1** (just north of Clump Road), in Lower Salford, Salford, and Franconia Townships, Montgomery County, Pennsylvania. From 40.272962°N Lat. and -75.358451°W Long., **To** 40.343027°N Lat. and -75.387813 °W Long.

ACTIVITY: The applicant, The Pennsylvania Turnpike Commission (PTC) is proposing a total roadway reconstruction and widening of the Northeast Extension of the Pennsylvania Turnpike (**I-476**) from four to six travel lanes, from Milepost A31.3 to Milepost A38.1, in Lower Salford, Franconia, and Salford Townships, Montgomery County, Pennsylvania, as indicated on the attached plans **E-1 to E-10**. In general, the overall project consists of widening the existing roadway, shoulders, and medians including the full depth reconstruction of the existing roadway, widening mainline bridges, and the replacement of overhead bridges, drainage, stormwater management, and side road adjustments.

As stated above, the PTC proposes to widen **I-476** from four to six travel lanes. Specifically, the proposed work would involve mechanized land clearing operations of filling, grading, excavating, and vegetation clearing for; the extension of **16** existing roadway culverts, bridges, or pipes that would include the construction of new wing walls, the full replacement of **6** existing roadway culverts, the placement of rip-rap scour protection associated with the newly constructed culvert, bridge, or pipe extensions, cut and fill operations associated with side slope construction for roadway widening, the installation of stormwater management facilities, the construction of stormwater outfall structures and associated rip-rap, the permanent relocation of **9** streams and/or waterways, the construction of temporary access roads, and the installation of temporary cofferdams and by-pass pumps associated with dewatering activities. The above stated work is shown on the attached plans **E-11 to E-36 (two sided)**. Project impacts within aquatic resources (Streams and Wetlands) associated with the above mentioned work are described below.

Of the **39** streams/waterways located within the proposed project design area, **26** would be impacted due to project implementation. Approximately **8,148 linear feet** and/or **1.13 acre** of stream channel, below the Ordinary High Water Mark would be **permanently** impacted by the roadway reconstruction and widening activities. In addition, the proposed project would **temporarily** impact approximately **3,510 linear feet** and/or **0.65 acre** of stream channel, below the Ordinary High Water Mark. The PTC has indicated that **all** temporary stream/waterway impacts (fills, structures, etc.) would be removed and then restored (grades, contours, vegetation) to pre-construction conditions upon completion of the work. As stated above, the proposed project would impact a total of **8,148 linear feet** of stream channel. Of the total stream channel impact, **4,213 linear feet** is associated with **nine stream relocations**, while **793 linear feet** is associated with stream channel **Loss** that would require compensation for the unavoidable adverse impacts/affects to aquatic resources. To avoid and minimize adverse impacts/affects within streams and/or waterways, the PTC proposes to relocate **9** stream channels within the project design area. As shown on plans **E-37 to E-39**, the largest of the relocations occur within streams S-12 and S-13. Approximately **2,219 linear feet** of stream channel would be created using natural stream channel design. The total of all stream channels relocated and/or created would be **4,383 linear feet**. As mentioned above, the reconstruction and widening of I-476 would also impact Wetland resources within the project design area.

The PTC has identified Palustrine Open Water (POW), and Palustrine Emergent (PEM), Scrub-Shrub (PSS), and Forested (PFO) wetlands within the 6.8 miles of **I-476** from milepost A31.3 to A38.1. Of the **35** wetlands located within the proposed project design area, **16** would be impacted due to project implementation. The proposed project would **permanently** impact and/or fill approximately **1.08 acre of PEM, 0.0008 acre of PSS, and 0.12 acre of PFO wetlands**, for a total of **1.20 acre** due to roadway reconstruction and widening activities. In addition, the proposed project would **temporarily** impact and/or fill approximately **0.26 acre of PEM** wetlands. The PTC has indicated that **all** temporary wetland impacts (fills, structures, etc.) would be removed and then restored (grades, contours, vegetation) to pre-construction conditions upon completion of the work. Furthermore, based on the information provided within the PTC's application, **indirect or secondary impacts** to aquatic resources are not anticipated as a result of project implementation. The PTC is providing Compensatory Mitigation for all unavoidable adverse impacts/affects, and/or the **loss** of aquatic resources associated with the I-476 roadway

reconstruction and widening activities. A description of the proposed Compensatory Mitigation is provided below.

PURPOSE: The purpose of the project, as stated by the applicant, is to update the existing Northeast Extension, I-476 to meet current Department of Transportation and Federal Highway Administration standards to address current safety and traffic issues.

A preliminary review of this application indicates that the proposed work would not affect listed species or their critical habitat pursuant to **Section 7 of the Endangered Species Act** as amended. As the evaluation of this application continues, additional information may become available which could modify this preliminary determination.

The decision whether to issue a permit will be based on an evaluation of the activity's probable impact including its cumulative impacts on the public interest. The decision will reflect the national concern for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the work must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the work will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs and welfare of the people. A Department of the Army permit will be granted unless the District Engineer determines that it would be contrary to the public interest.

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

Comments on the proposed work should be submitted, in writing, within **30** days to the District Engineer, U.S. Army Corps of Engineers (USACE), Philadelphia District, Wanamaker Building, 100 Penn Square East, Philadelphia, Pennsylvania 19107-3390.

The National Historic Preservation Act requires Federal agencies to identify and address potential affects to historic properties or archaeological resources. The PTC has completed historic resource surveys along the entire 6.8 miles of the **I-476** corridor from milepost A31.3 to A38.1 and/or within the proposed project design area. The surveys have identified historic properties within the U.S. Army Corps of Engineers, Philadelphia District's permit area, in accordance with 33 CFR Part 325, Appendix C. At this time, further review and consultation is required in order for the USACE to meet its obligations under **Section 106 of the National Historic Preservation Act**.

Based on a review of the application, the PTC proposes to **avoid and minimize** impacts within streams/waterways and wetlands, and/or aquatic resources, to the maximum extent practicable, by designing the project to completely avoid aquatic resources, installing retaining walls, using steeper fill slopes (1.5 to 1), providing stream relocations to avoid piping/enclosing existing stream channels, depressing rip-rap to matching existing stream elevations, using open bottom culvert extensions, using protective fencing around wetlands, installing and working off of temporary timber matting within wetlands, including bio-retention and infiltration features for stormwater management facilities, and by using best management practices (BMP's). For all unavoidable Adverse Impacts/Affects, and/or **Loss** of aquatic resources (wetlands and streams), the PTC proposes the following Compensatory Mitigation described below.

To **compensate** for the unavoidable adverse impacts/affects, and/or the **Loss of 1.20 acre of Palustrine wetlands and 793 linear feet of Riverine stream channel**, the PTC has offered two candidate sites, as shown on plan **E-40**. The proposed **Wetland** compensation site is identified as parcel number 34-000-01393-00-4, known as the Davidheiser Property, located at 443 Creamery Road, in Telford, Pennsylvania, while the proposed **Stream** compensation site is identified as parcel number 34-00-02953-50-5, known as the Delp property, located at 715 Keller Creamery Road, in Telford, Pennsylvania. The proposed wetland compensation site is located along the East Branch of the Perkiomen Creek. Through the site selection process, the PTC has confirmed that the wetland compensation site was once part of the existing wetlands adjacent to the East Branch of the Perkiomen Creek. Wetlands on the site were historically filled to create pasture land. The PTC is required to provide approximately **1.32 acre of PEM (1.08 acre), PSS (0.0012 acre), and PFO (0.24 acre)** wetland as compensation for project impacts. The PTC proposes to remove the historic fill material and **Re-establish** approximately **2.03 acre** of wetland within the proposed wetland boundary, as shown on **plans E-41 to E-57**. The available acreage at the proposed compensation site provides an excess **above** the 1.32 acre required for wetland mitigation. During the construction of the wetland compensation site, **0.21 acre** of wetlands would be impacted, but incorporated as part of the overall 2.03 acre compensation site. The proposed **Stream Compensation** site is located within Indian Creek, a perennial tributary to the East Branch of the Perkiomen Creek. The PTC propose to remove the existing Dam and **Enhance and Rehabilitate 475 to 500 linear feet** of the stream channel/Indian Creek immediately up-stream, as shown on **plans E-58 to E-60**. The proposed dam removal would provide for the shift from a reservoir to a free flowing stream channel that would improve water quality, restore historic fish passage, and allow other organisms, that have been absent due to poor water quality, to repopulate the stream channel.

At this time, the proposed compensation stated above is a **Conceptual proposal**. As an evaluation of this application continues, additional information may become available which could modify this Compensation Proposal.

In accordance with Section 401 of the Clean Water Act, a Water Quality Certificate is necessary from the State government in which the work is located. Any comments concerning the work described above which relate to Water Quality considerations should be sent to this office with a copy to the State.

The evaluation of the impact of the work described above on the public interest will include application of the guidelines promulgated by the Administrator, U.S. Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act.

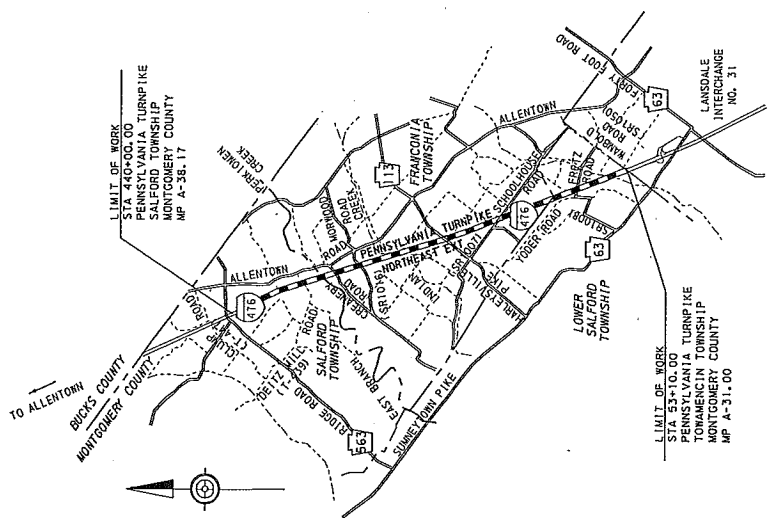
Any person may request, in writing, to the District Engineer, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for a public hearing shall state in writing, with particularity, the reasons for holding a public hearing.

Additional information concerning this permit application may be obtained by calling Mr. Bryan P. Bellacima at (215) 656-6732, via email at bryan.p.bellacima@usace.army.mil, or writing this office at the above address.

Edward E. Bonner
Chief, Regulatory Branch

E-1

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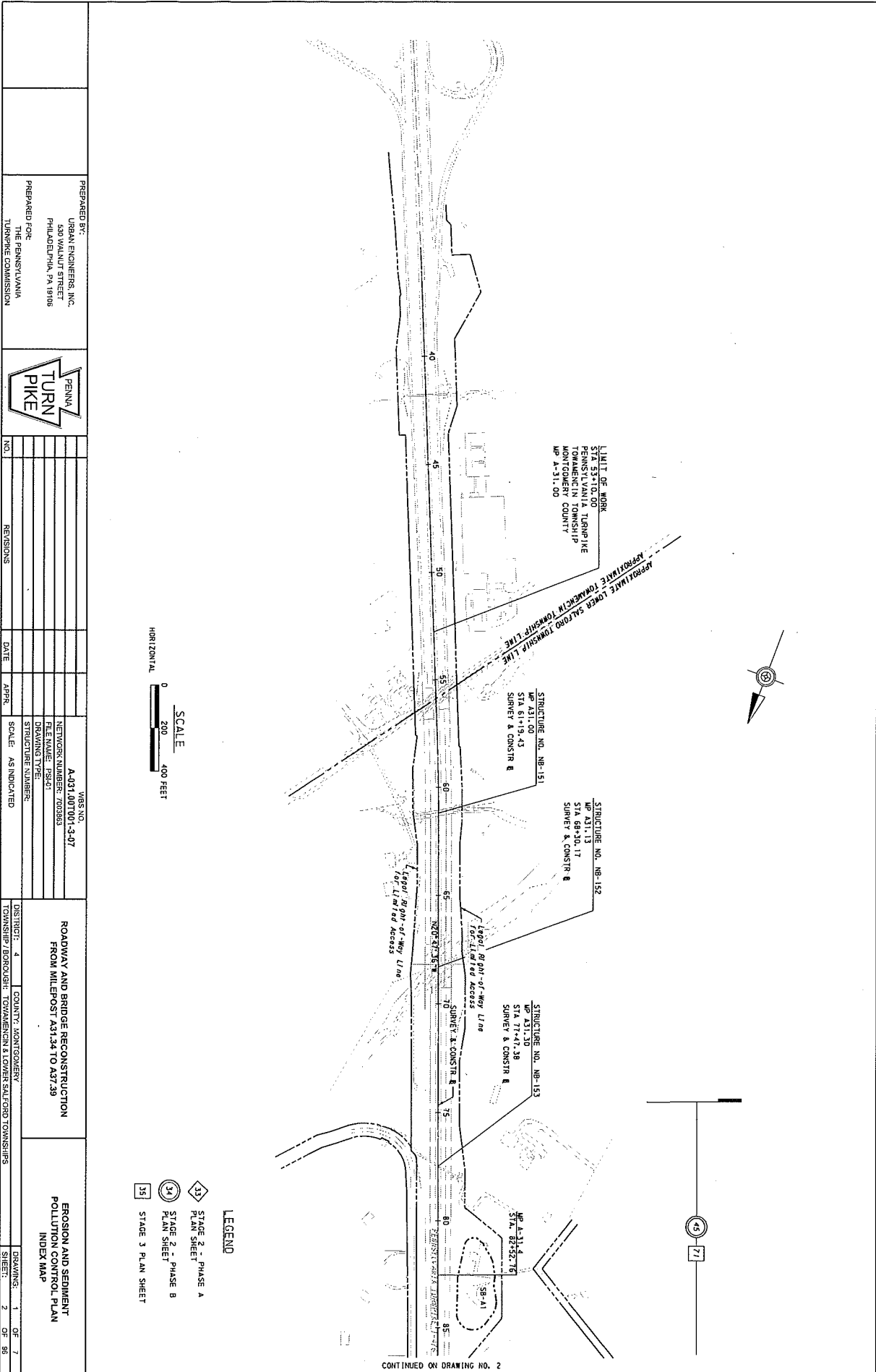
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LEGEND

- PROJECT
- STATE HIGHWAY
- TOWNSHIP ROAD
- TOWNSHIP LINE
- APPROXIMATE LOCATION

PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION	PENNSYLVANIA TURNPIKE	NO. _____ DATE _____ APPR. _____ REVISIONS	WBS NO. A-031,007071-3-07	NETWORK NUMBER: 7033053	FILE NAME: TPA-031	DRAWING TYPE:	STRUCTURE NUMBER:	SCALE: NONE
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			DISTRICT: 4 & 5	COUNTY: MONTGOMERY	TOWNSHIP: FIDELITY-TOWAMENCIN, LOWER SALFORD, FRANCONIA & SALFORD TOWNSHIPS	SHEET: 1 OF 96	DRAWING: 1 OF 96		



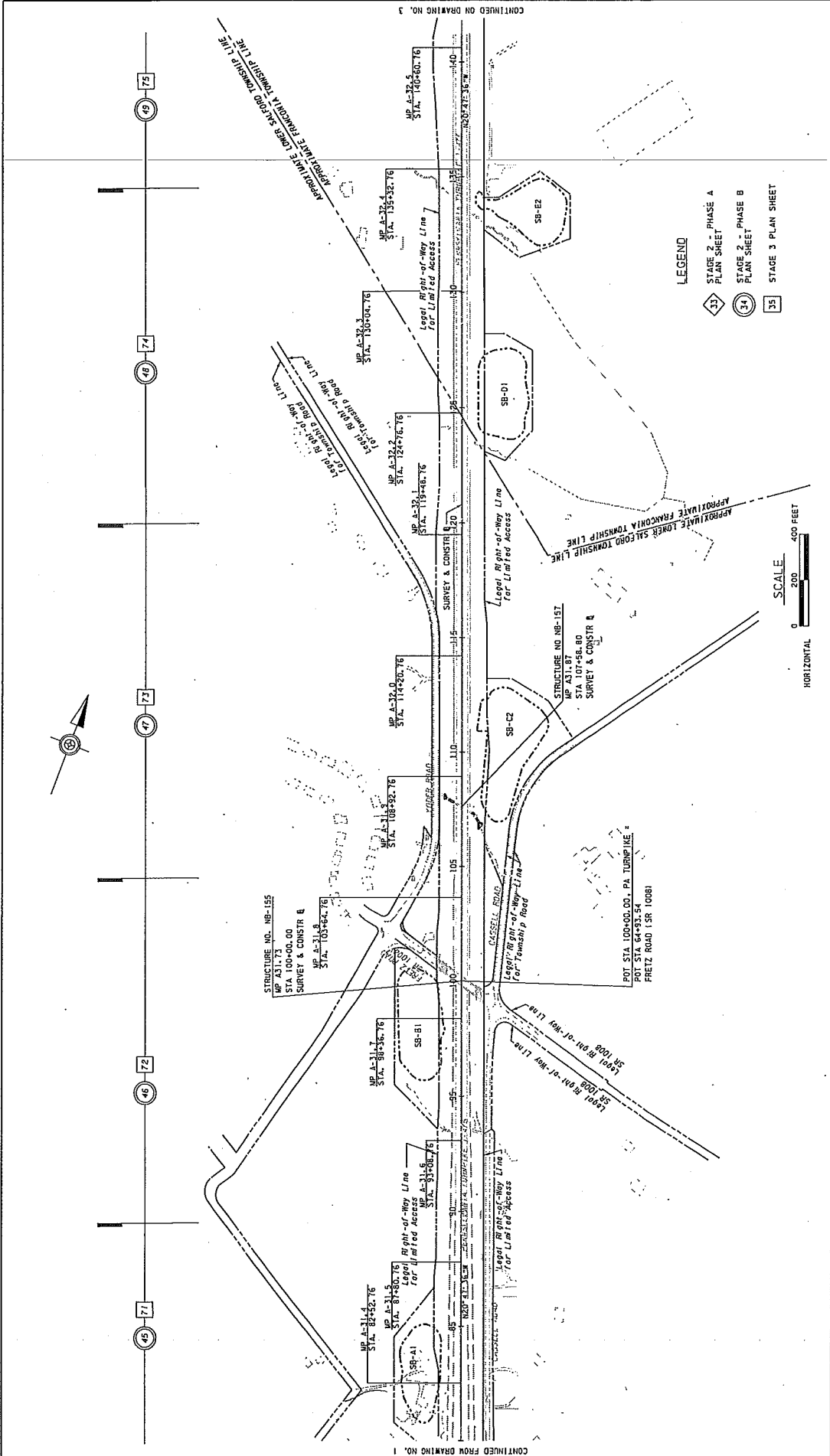
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ROADWAY AND BRIDGE RECONSTRUCTION FROM MILEPOST A31.34 TO A37.39		EROSION AND SEDIMENT POLLUTION CONTROL PLAN INDEX MAP	
DRAWINGS: 1 OF 7 SHEETS: 2 OF 55			

- LEGEND**
- STAGE 2 - PHASE A PLAN SHEET
 - STAGE 2 - PHASE B PLAN SHEET
 - STAGE 3 PLAN SHEET

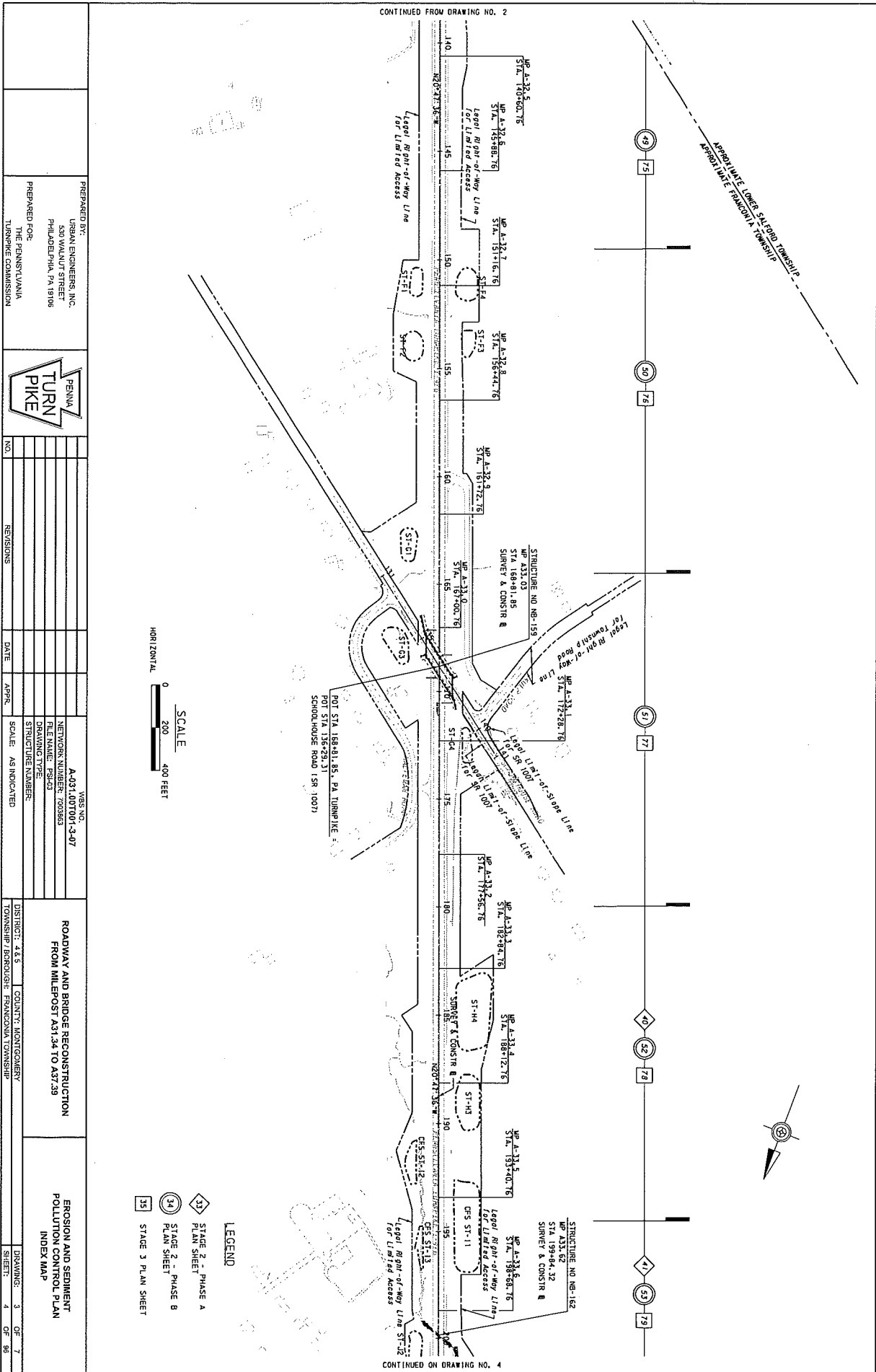
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E-3



PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106		PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION	
PENNA TURN PIKE		NO. _____ DATE _____ REVISIONS _____ APPR. _____	
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EROSION AND SEDIMENT POLLUTION CONTROL PLAN INDEX MAP			
DISTRICT: 4		COUNTY: MONTGOMERY	
TOWNSHIP/BOROUGH: LOWER SAFCORD & FRANCONIA TOWNSHIPS		DRAWING: 2 OF 7	
SHEET: 3 OF 96		SHEET: 3 OF 96	

CONTINUED FROM DRAWING NO. 2



CONTINUED ON DRAWING NO. 4

PREPARED BY:
URBAN ENGINEERS, INC.
150 WALNUT STREET
PHILADELPHIA, PA 19106

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION

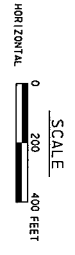


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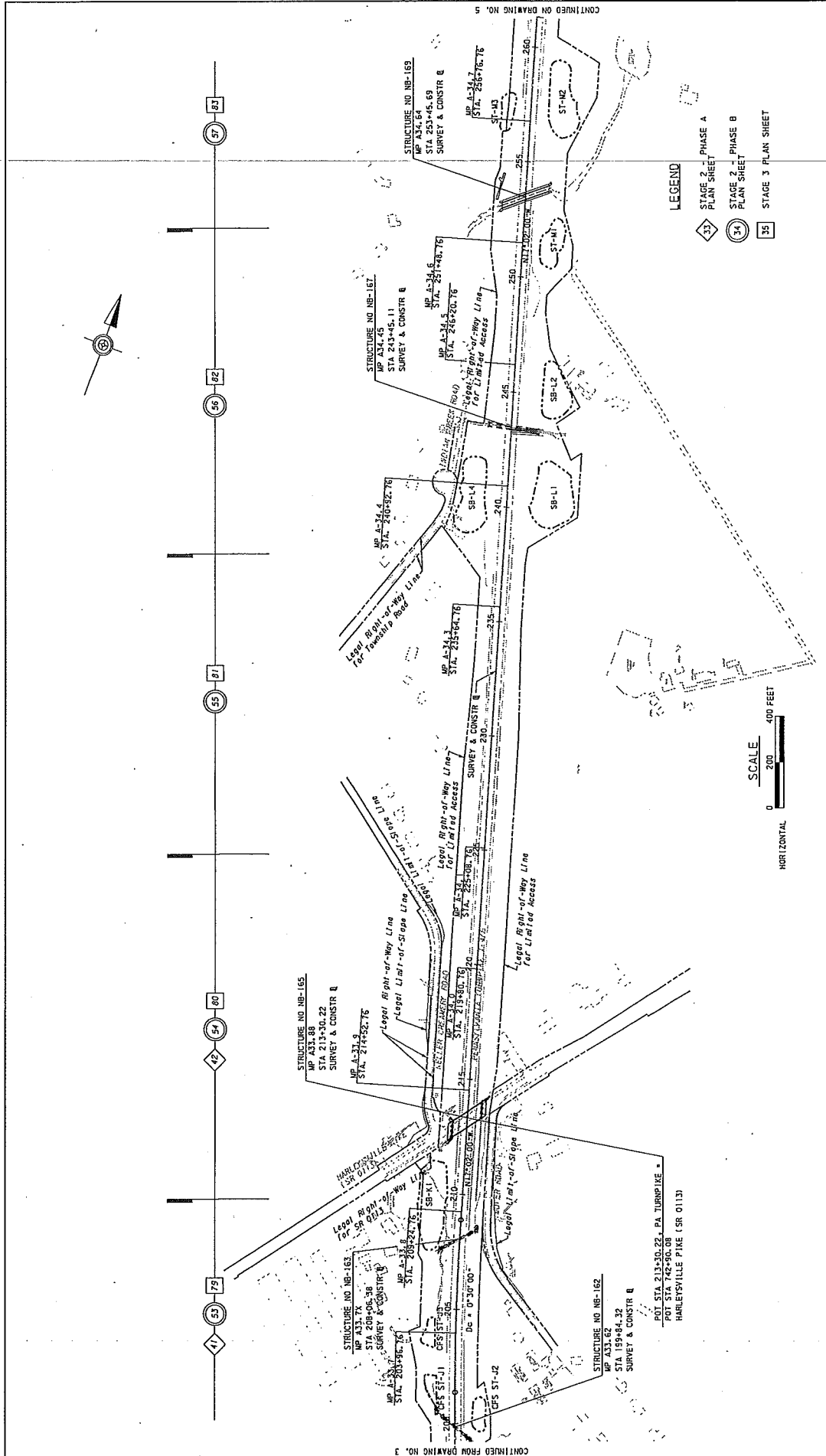
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DISTRICT	4 & 5	COUNTY	MONTGOMERY
TOWNSHIP / BRIDGE	FRANCONIA TOWNSHIP		
ROADWAY AND BRIDGE RECONSTRUCTION FROM MILEPOST 49.154 TO 49.23			

EROSION AND SEDIMENT POLLUTION CONTROL PLAN INDEX MAP	DRAWINGS: 3 OF 7
	SHEET: 4 OF 98

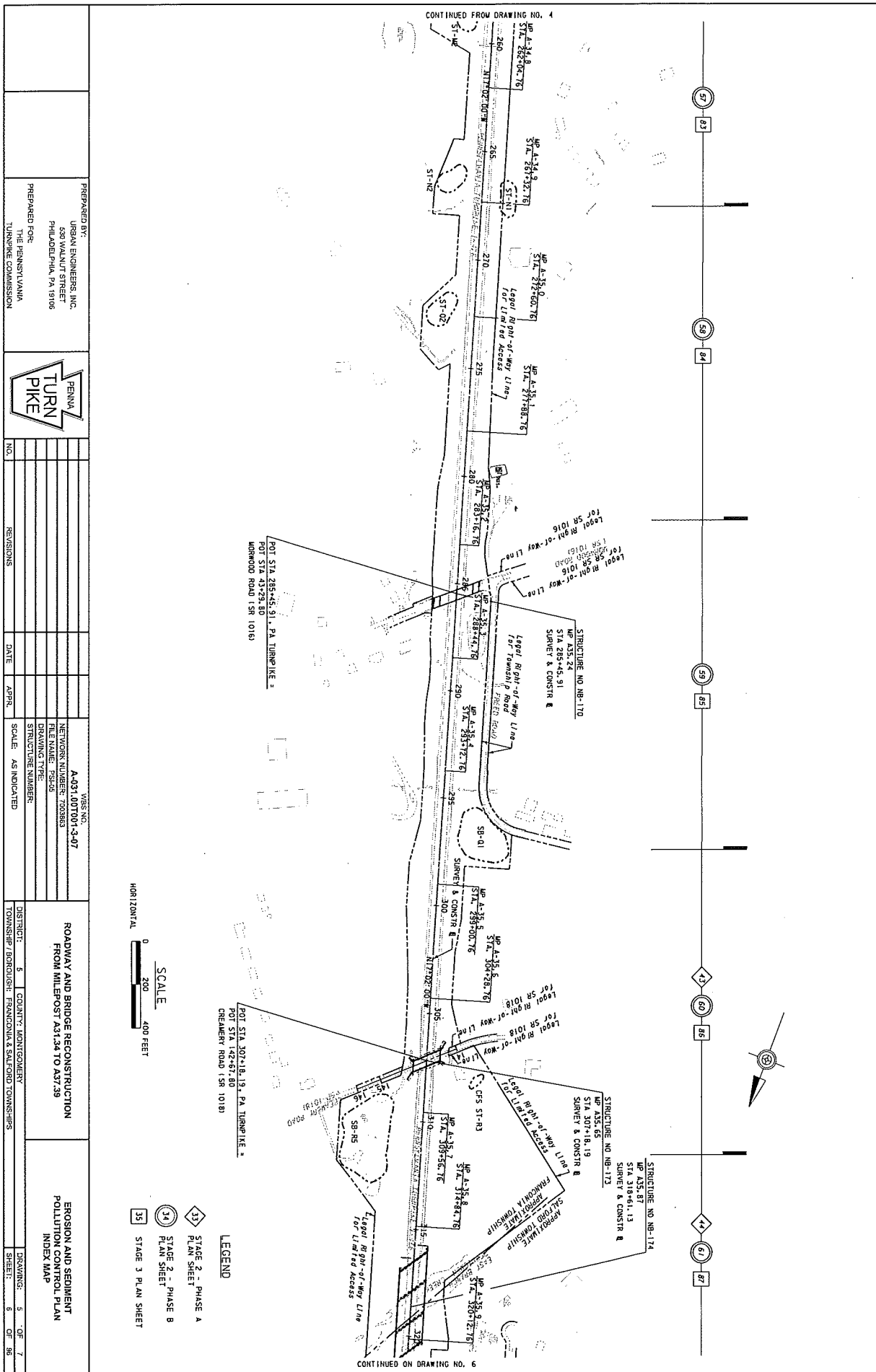


- LEGEND**
- ◆ STAGE 2 - PHASE A PLAN SHEET
 - STAGE 2 - PHASE B PLAN SHEET
 - STAGE 3 PLAN SHEET



PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106		PENNSYLVANIA TURN PIKE		DISTRICT: 5 COUNTY: MONTGOMERY TOWNSHIP/BOROUGH: FRANCONIA TOWNSHIP		ROADWAY AND BRIDGE RECONSTRUCTION FROM MILEPOST A31.34 TO A37.39		EROSION AND SEDIMENT POLLUTION CONTROL PLAN INDEX MAP	
PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		SCALE: AS INDICATED		STRUCTURE NUMBER:		DRAWING TYPE:		DRAWING: 4 OF 7 SHEET: 5 OF 86	
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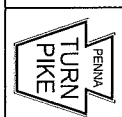


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PREPARED BY:
URBAN ENGINEERS, INC.
639 WALNUT STREET
PHILADELPHIA, PA 19106

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.	SCALE	AS INDICATED

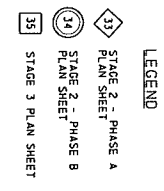
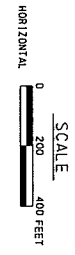
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NETWORK NUMBER: 703883
FILE NAME: P5105
DRAWING TYPE: STRUCTURE NUMBERS

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TOWNSHIP: BORDENTOWN TOWNSHIP: SADDLE BROOK TOWNSHIP:

ROADWAY AND BRIDGE RECONSTRUCTION FROM MILEPOST 7+34.154 TO 8+729

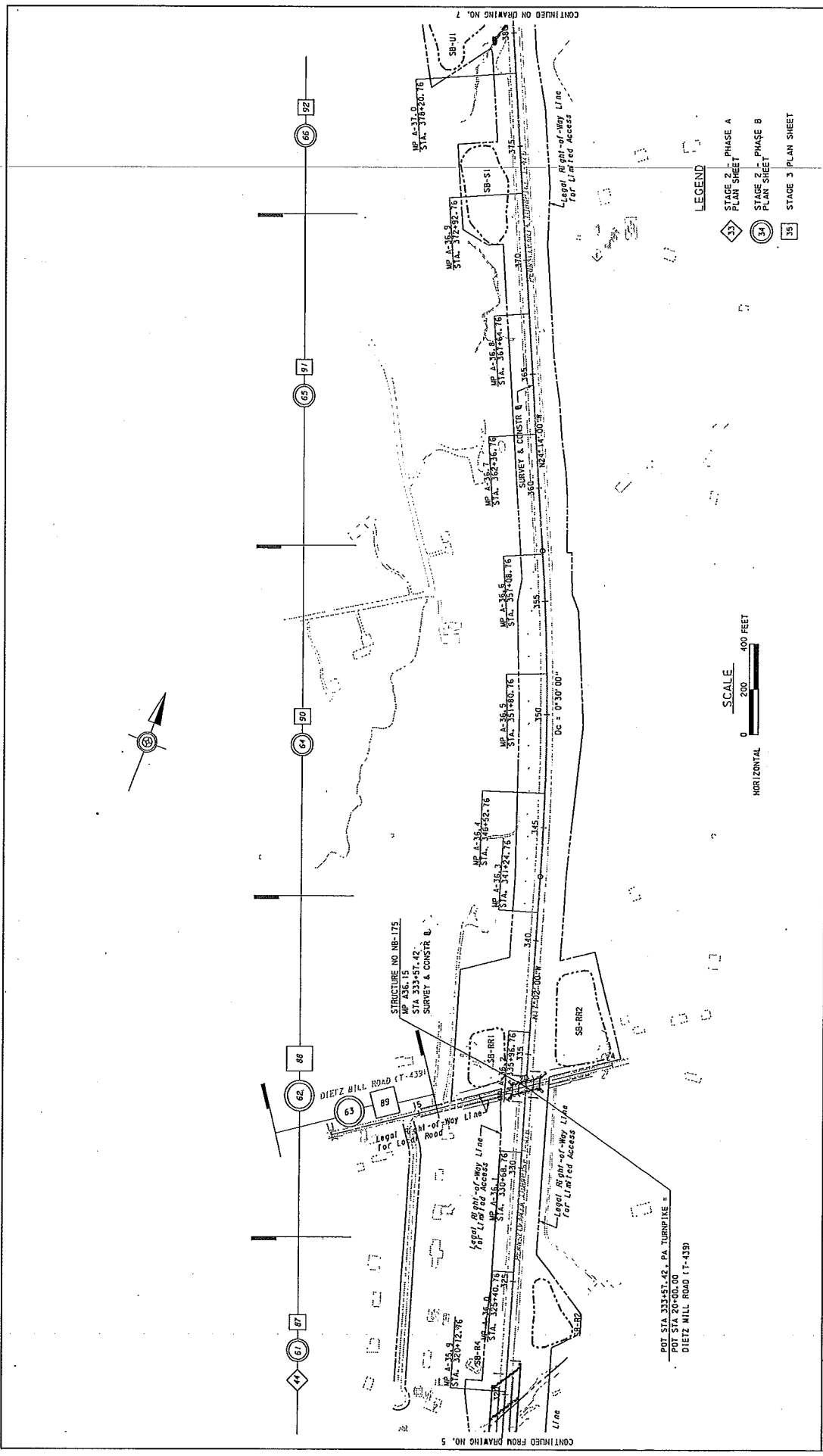
EROSION AND SEDIMENT POLLUTION CONTROL PLAN INDEX MAP

DRAWING: 5 OF 7
SHEET: 6 OF 36



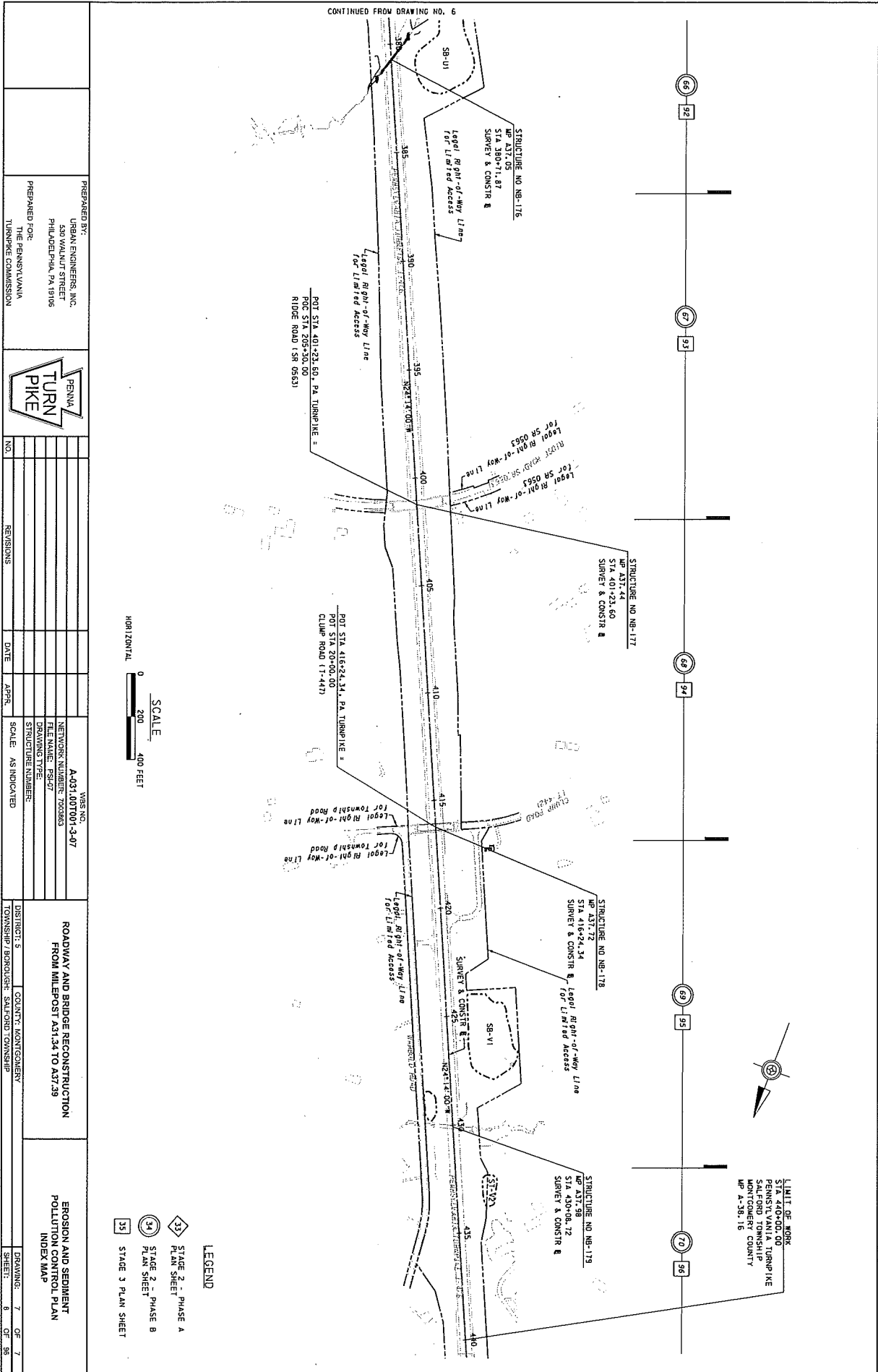
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PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106 PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION	PENNA TURN PIKE	NO. _____ DATE _____ APPR. _____	REVISIONS _____	SCALE: AS INDICATED	STRUCTURE NUMBER: _____	NETWORK NUMBER: 7003663 FILE NAME: PS-08 DRAWING TYPE: _____	WBS NO. A-031.007001-3-07	ROADWAY AND BRIDGE RECONSTRUCTION FROM MILEPOST A31.44 TO A37.39 INDEX MAP	DISTRICT: 5 COUNTY: MONTGOMERY TOWNSHIP/BOROUGHS: SALFORD TOWNSHIP	DRAWING: 6 OF 7 SHEET: 7 OF 96
		EROSION AND SEDIMENT POLLUTION CONTROL PLAN								

CONTINUED FROM DRAWING NO. 6



- LEGEND**
- ◆ STAGE 2 - PHASE A PLAN SHEET
 - ⊙ STAGE 2 - PHASE B PLAN SHEET
 - STAGE 3 PLAN SHEET

PREPARED BY:
 URBAN ENGINEERS, INC.
 530 WALNUT STREET
 PHILADELPHIA, PA 19106

PREPARED FOR:
 THE PENNSYLVANIA
 TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.	SCALE	AS INDICATED

WBS NO. A-031.007001-3-07
 NETWORK NUMBER: 700363
 FILE NAME: P51-07
 DRAWING TYPE: STRUCTURE NUMBER:
 ROADWAY AND BRIDGE RECONSTRUCTION FROM MILEPOST 431.24 TO 437.25

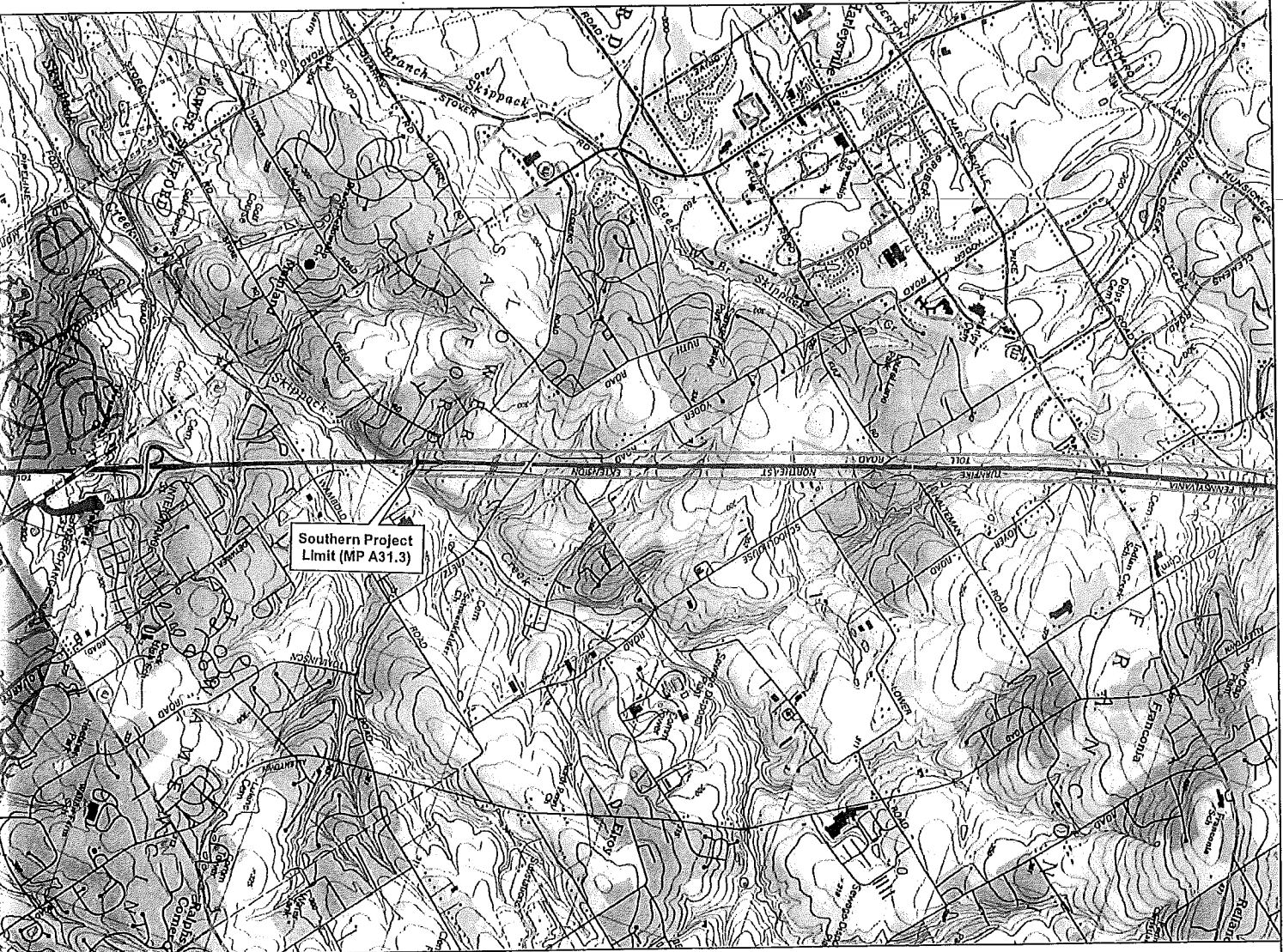
DISTRICT: 5 COUNTY: MONTGOMERY
 TOWNSHIP: BROOMFIELD SAUPOND TOWNSHIP

EROSION AND SEDIMENT POLLUTION CONTROL PLAN INDEX MAP

DRAWING: 7 OF 7
 SHEET: 8 OF 58

F-8

Match E-10



Southern Project Limit (MP A31.3)

Project Study Area

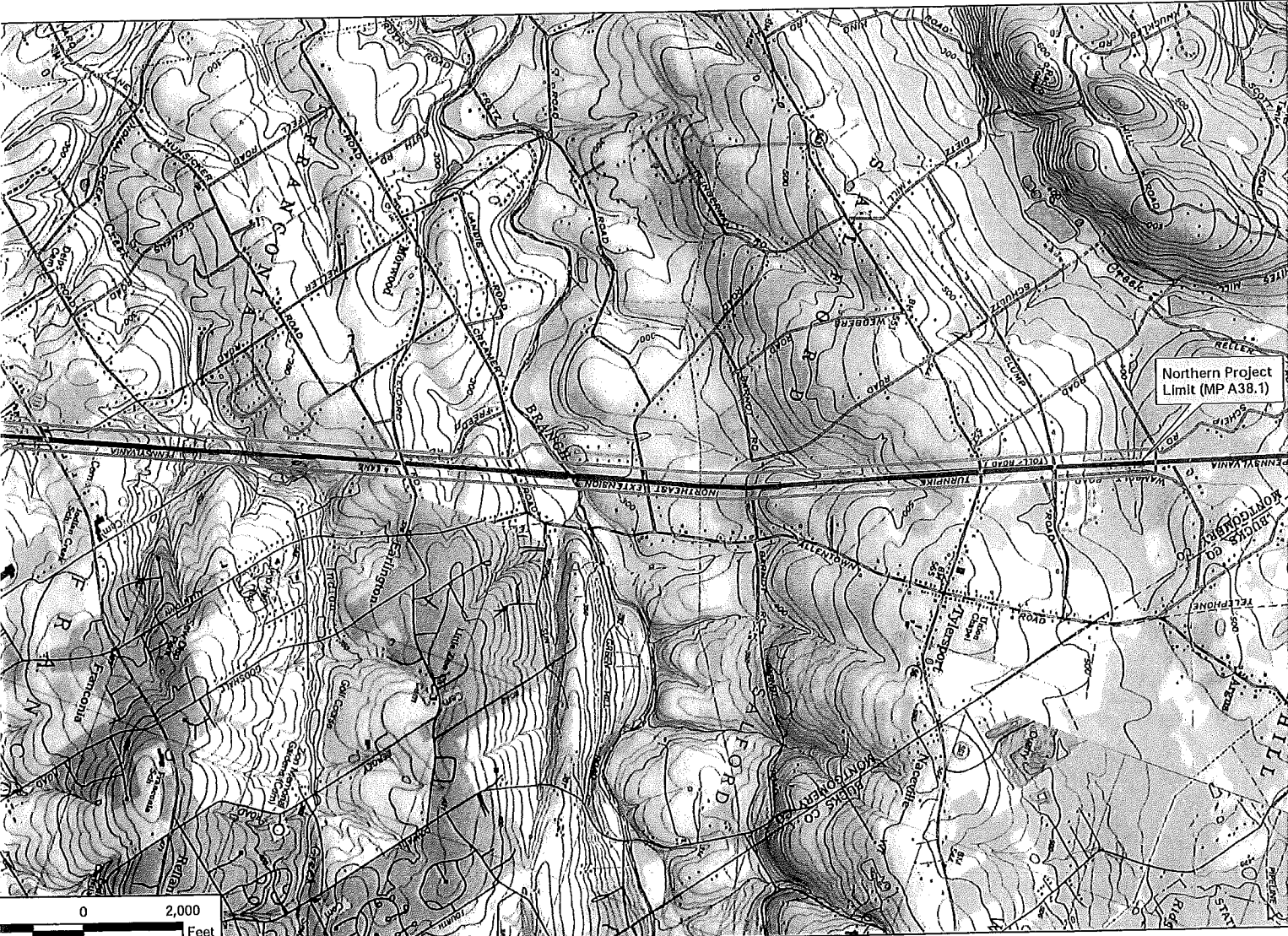
Project Location Map


Full Depth Reconstruction and Widening of the Pennsylvania Turnpike (I-476) from Milepost A31.3 to Milepost A38.1
Lower Salford, Franconia, and Salford Townships,
Montgomery County, Pennsylvania

Turnpike (I-476) from Milepost A31.3 to Milepost A38.1

Source: © 2011 National Geographic Society, I-cubed; 7.5" USGS Quadrangles for Lansdale, Perkiomenville, and Yellford Pennsylvania

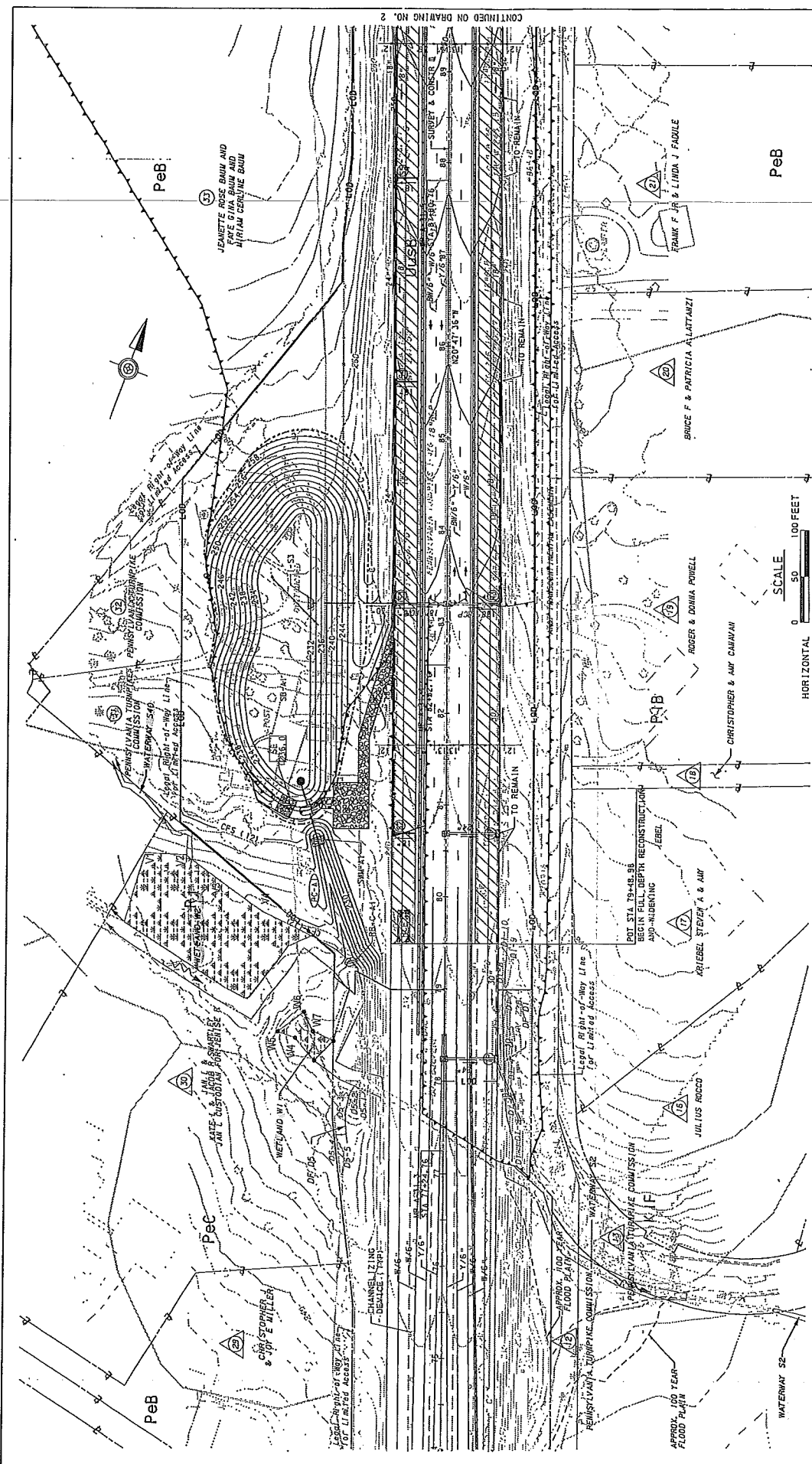
E-9



 Project Study Area

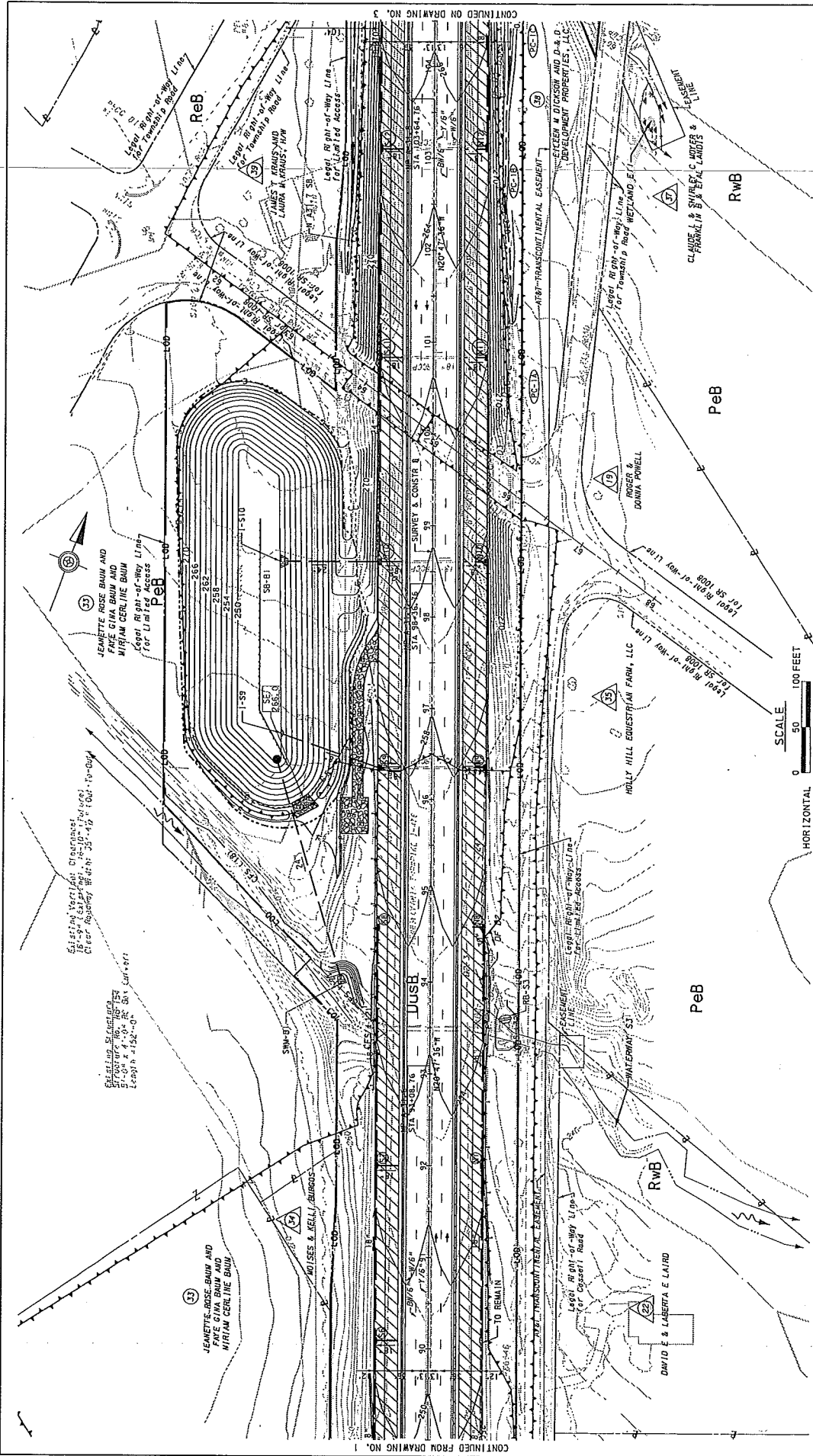
Project Location Map
 Full Depth Reconstruction and Widening of the Pennsylvania Turnpike (I-476) from
 Lower Salford, Franconia, and Salford Township
 Montgomery County, Pennsylvania

E-11



<p>PREPARED BY: URBAN ENGINEERS, INC. 500 WALNUT STREET PHILADELPHIA, PA 19106</p>		<p>PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION</p>		<p>NO. _____ DATE _____</p>		<p>REVISIONS _____</p>		<p>SCALE: AS INDICATED</p>		<p>DISTRICT: 4 COUNTY: MONTGOMERY TOWNSHIP/BOROUGH: TOWAMENCIN & LOWER SALFORD TOWNSHIPS</p>		<p>ROADWAY AND BRIDGE RECONSTRUCTION FROM MILEPOST A31.34 TO A37.39</p>		<p>EROSION AND SEDIMENT POLLUTION CONTROL PLAN STAGE 2 - PHASE B STA 74+50 TO STA 89+50</p>	
<p>WBS NO: A-031, 001, 001, 3-07</p>		<p>NETUSKY NUMBER: 70885</p>		<p>FILE NAME: EAS-01</p>		<p>DRAWING TYPE:</p>		<p>STRUCTURE NUMBER:</p>		<p>DISTRICT: 4 COUNTY: MONTGOMERY TOWNSHIP/BOROUGH: TOWAMENCIN & LOWER SALFORD TOWNSHIPS</p>		<p>ROADWAY AND BRIDGE RECONSTRUCTION FROM MILEPOST A31.34 TO A37.39</p>		<p>EROSION AND SEDIMENT POLLUTION CONTROL PLAN STAGE 2 - PHASE B STA 74+50 TO STA 89+50</p>	
<p>NO. _____ DATE _____</p>		<p>REVISIONS _____</p>		<p>SCALE: AS INDICATED</p>		<p>DISTRICT: 4 COUNTY: MONTGOMERY TOWNSHIP/BOROUGH: TOWAMENCIN & LOWER SALFORD TOWNSHIPS</p>		<p>DRAWINGS: 1 OF 26 SHEET: 45 OF 96</p>		<p>DISTRICT: 4 COUNTY: MONTGOMERY TOWNSHIP/BOROUGH: TOWAMENCIN & LOWER SALFORD TOWNSHIPS</p>		<p>ROADWAY AND BRIDGE RECONSTRUCTION FROM MILEPOST A31.34 TO A37.39</p>		<p>EROSION AND SEDIMENT POLLUTION CONTROL PLAN STAGE 2 - PHASE B STA 74+50 TO STA 89+50</p>	

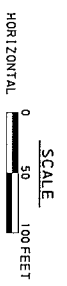
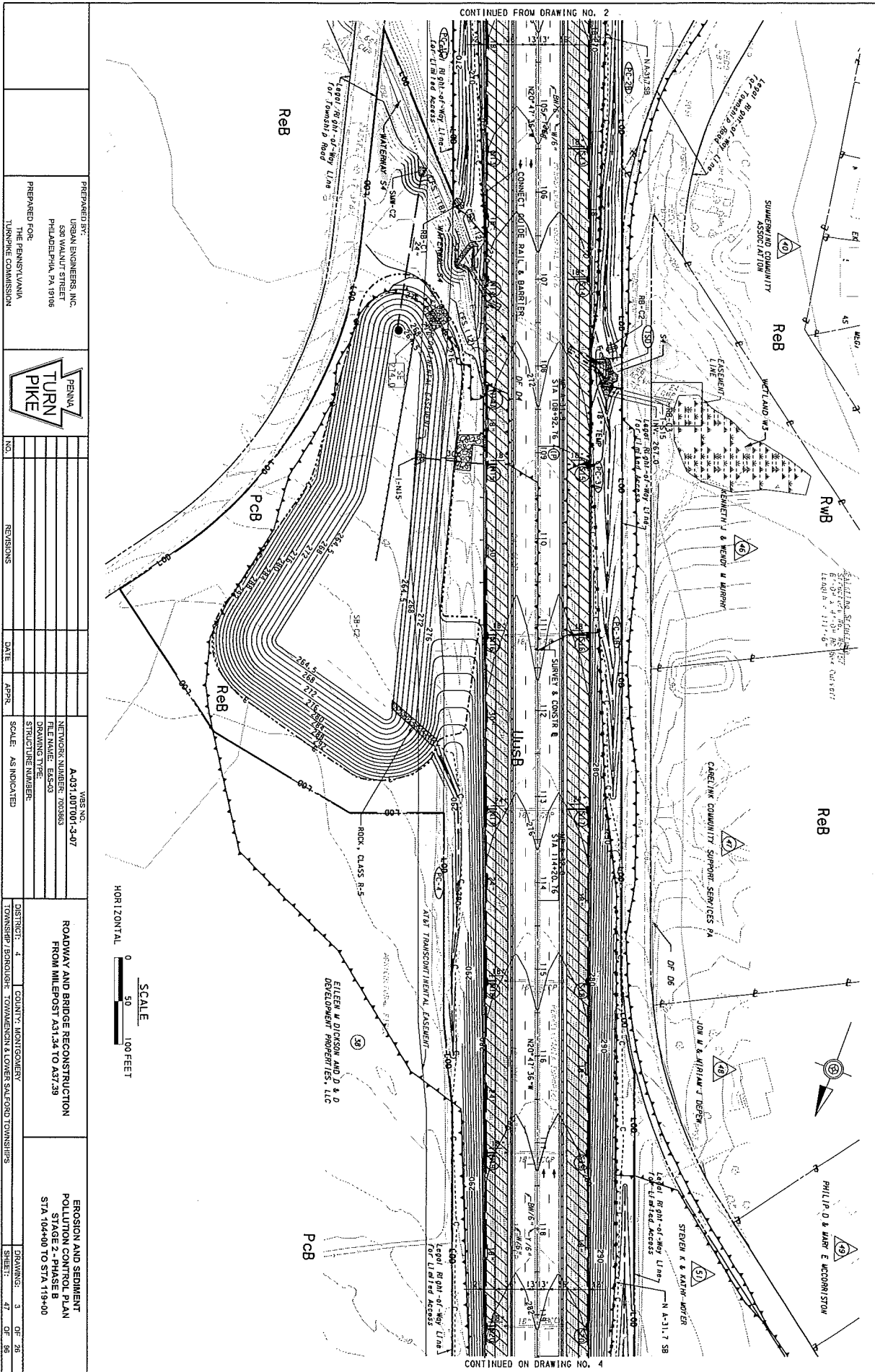
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PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106		WBS NO. A-051.007001-3-07 NETWORK NUMBER: 700383 FILE NAME: EAS-02 DRAWING TYPE: STRUCTURE NUMBER: SCALE: AS INDICATED		ROADWAY AND BRIDGE RECONSTRUCTION FROM MILEPOST A31.34 TO A37.39		EROSION AND SEDIMENT CONTROL PLAN STA 89+50 TO STA 104+00	
PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		COUNTY: MONTGOMERY TOWNSHIP: BOURBON TOWNSHIP: LOWER SAUFORD TOWNSHIPS		DISTRICT: 4 DRAWING: 2 OF 26 SHEET: 46 OF 88		NO. REVISIONS DATE APPR	

CONTINUED FROM DRAWING NO. 1
 CONTINUED ON DRAWING NO. 3
 FILE NAME: T:\111600 - A31-A37-526503 Proj\526503.dgn
 PLOTTED: 11/25/2016 11:30:05 AM

E-12



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NO.	REVISIONS	DATE	APP'R.	SCALE	AS INDICATED

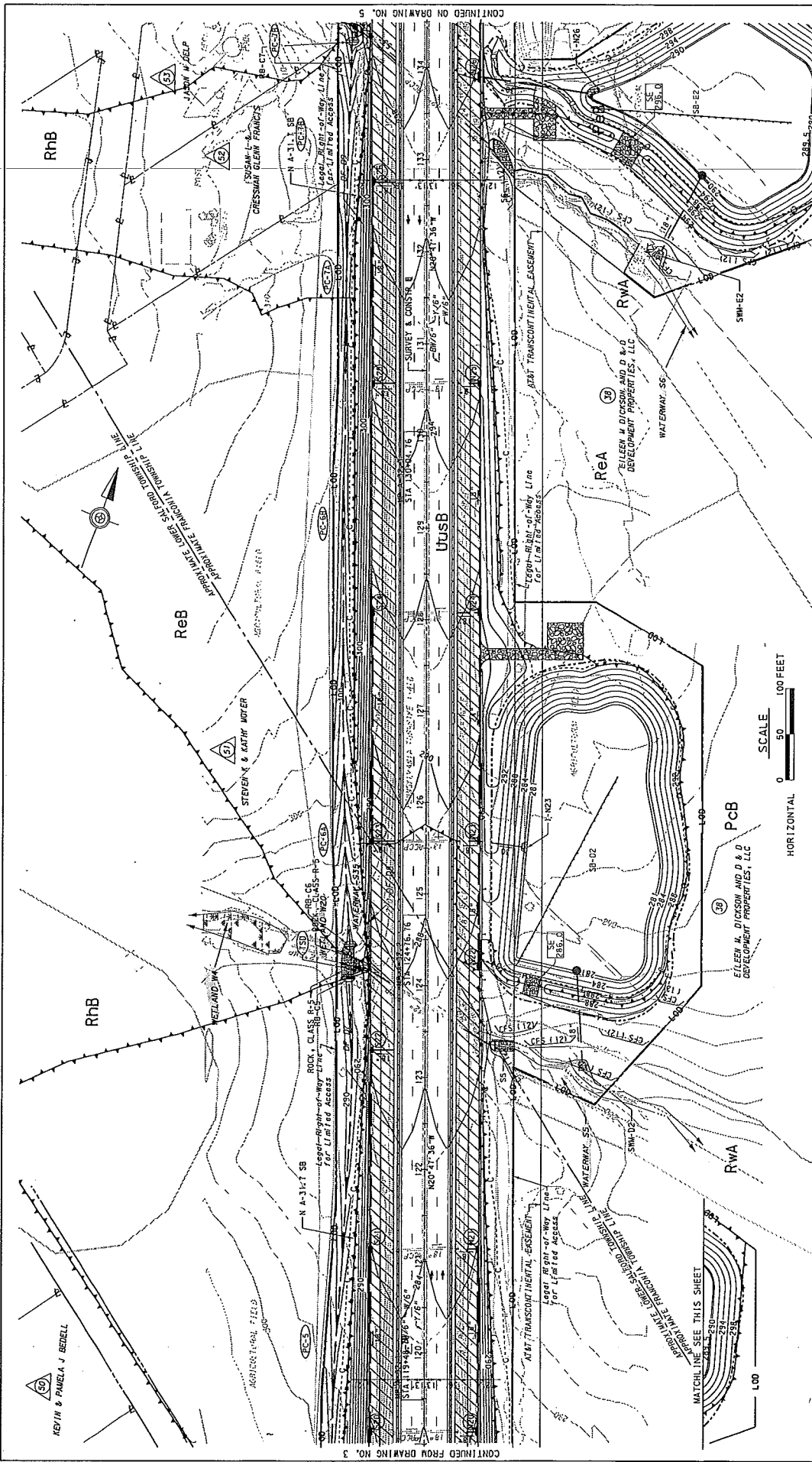
WBS NO. A-031.001001-3-07
 NETWORK NUMBER: 703363
 FILE NAME: EAS-03
 DRAWING TYPE: STRUCTURE NUMBER

DISTRICT: 4 COUNTY: MONTGOMERY
 TOWNSHIP: BIRCHMOUNT TOWNSHIP & LOWER SALEGORD TOWNSHIPS

ROADWAY AND BRIDGE RECONSTRUCTION
 FROM MILEPOST A31.34 TO A37.29

EROSION AND SEDIMENT
 POLLUTION CONTROL PLAN
 STAGE 2 - PHASE B
 STA 104+00 TO STA 114+00

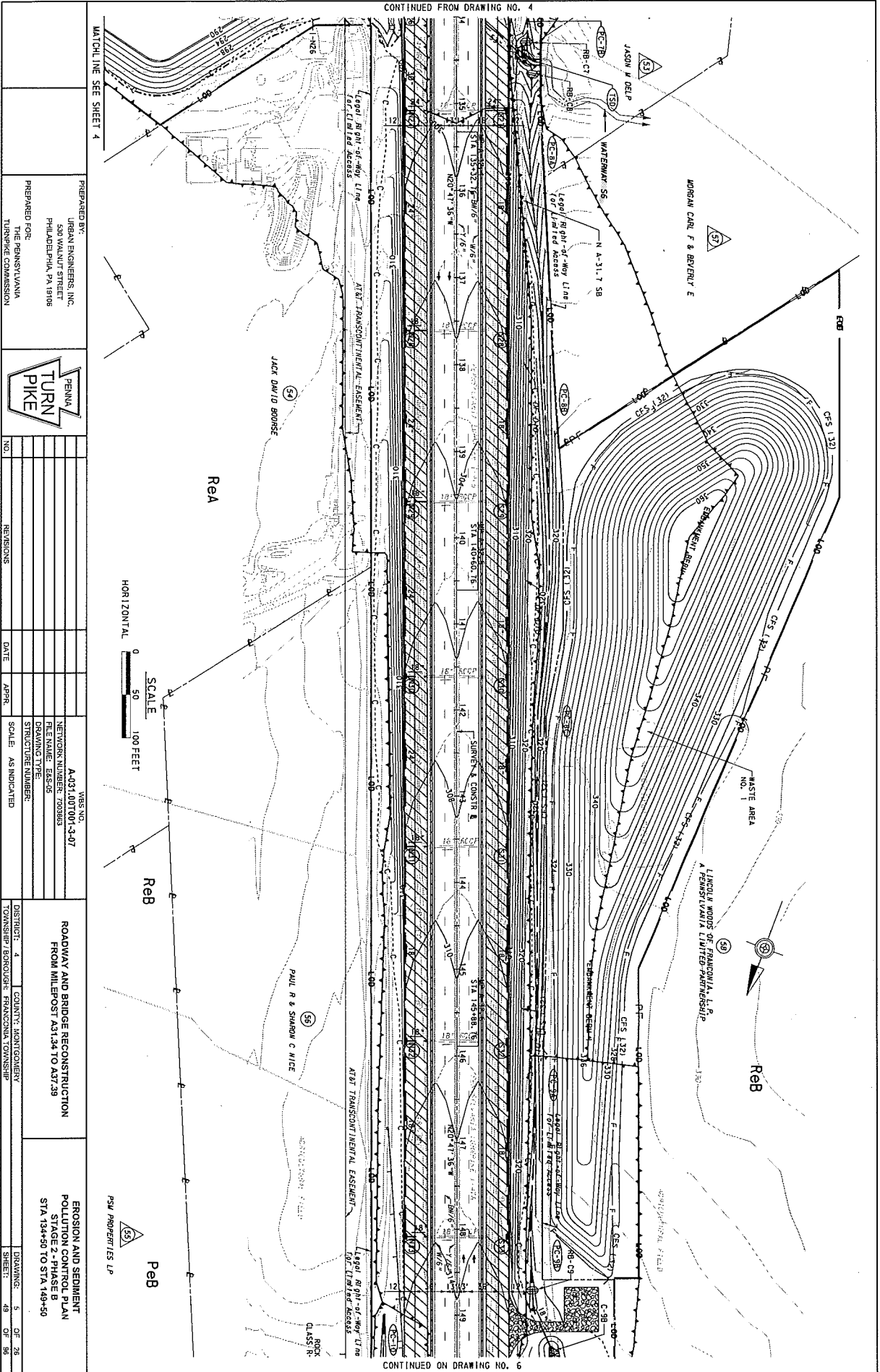
DRAWINGS: 3 OF 26
 SHEET: 47 OF 86



	PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106	ROADWAY AND BRIDGE RECONSTRUCTION FROM MILEPOST A31.34 TO A37.39		EROSION AND SEDIMENT POLLUTION CONTROL PLAN STAGE 2 - PHASE 5 STA 119+00 TO 134+50
	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION	WBS NO. A-031.00T001-3-07 NETWORK NUMBER: 7020863 FILE NAME: E45-04 DRAWING TYPE: STRUCTURE NUMBER:		DISTRICT: 4 COUNTY: MONTEGOMERY TOWNSHIP: BERGSHIRE TOWNSHIP & FRANKLINIA TOWNSHIPS
	NO. _____ DATE _____ APPR. _____ REVISIONS: _____	SCALE: AS INDICATED		DRAWING: 4 OF 28 SHEET: 40 OF 59
	MATCH LINE SEE THIS SHEET	MATCH LINE SEE THIS SHEET		MATCH LINE SEE THIS SHEET

E-14

CONTINUED FROM DRAWING NO. 4



CONTINUED ON DRAWING NO. 6

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NO.	REGIONS	DATE	APPR.	SCALE	AS INDICATED

WBS NO.
A-031.007001-3-07
NETWORK NUMBER: 70088
FILE NAME: EA5-05
DRAWING TYPE:
STRUCTURE NUMBER:

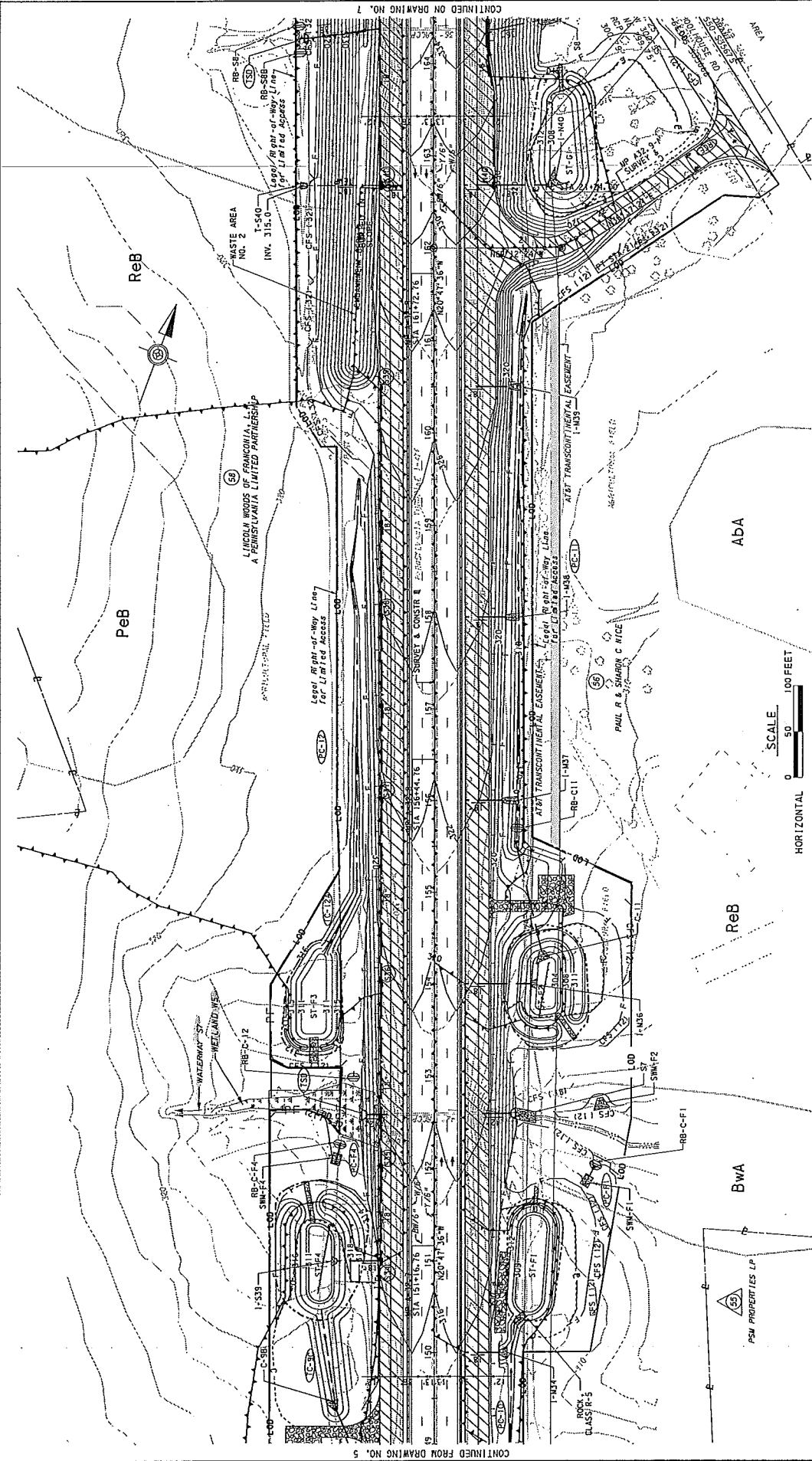
DISTRICT: 4 COUNTY: MONTGOMERY
TOWNSHIP: BOROUGH: FRANCONIA TOWNSHIP

ROADWAY AND BRIDGE RECONSTRUCTION
FROM MILEPOST A31.54 TO A37.59


EROSION AND SEDIMENT
CONTROL PHASE B
STA 134+50 TO STA 149+50

DRAWINGS: 5 OF 28
SHEET: 49 OF 95

F-15



CONTINUED FROM DRAWING NO. 5

PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106 PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		NO. _____ REVISIONS _____ DATE _____ APPR. _____	VBS NO. A-031.00T001-3-07 NETWORK NUMBER: 7030863 FILE NAME: EAS-08 DRAWING TYPE STRUCTURE NUMBER SCALE: AS INDICATED	ROADWAY AND BRIDGE RECONSTRUCTION FROM MILEPOST A31.34 TO A37.39	EROSION AND SEDIMENT POLLUTION CONTROL PLAN STAGE 2 - PHASE B STA 149+50 TO STA 164+50

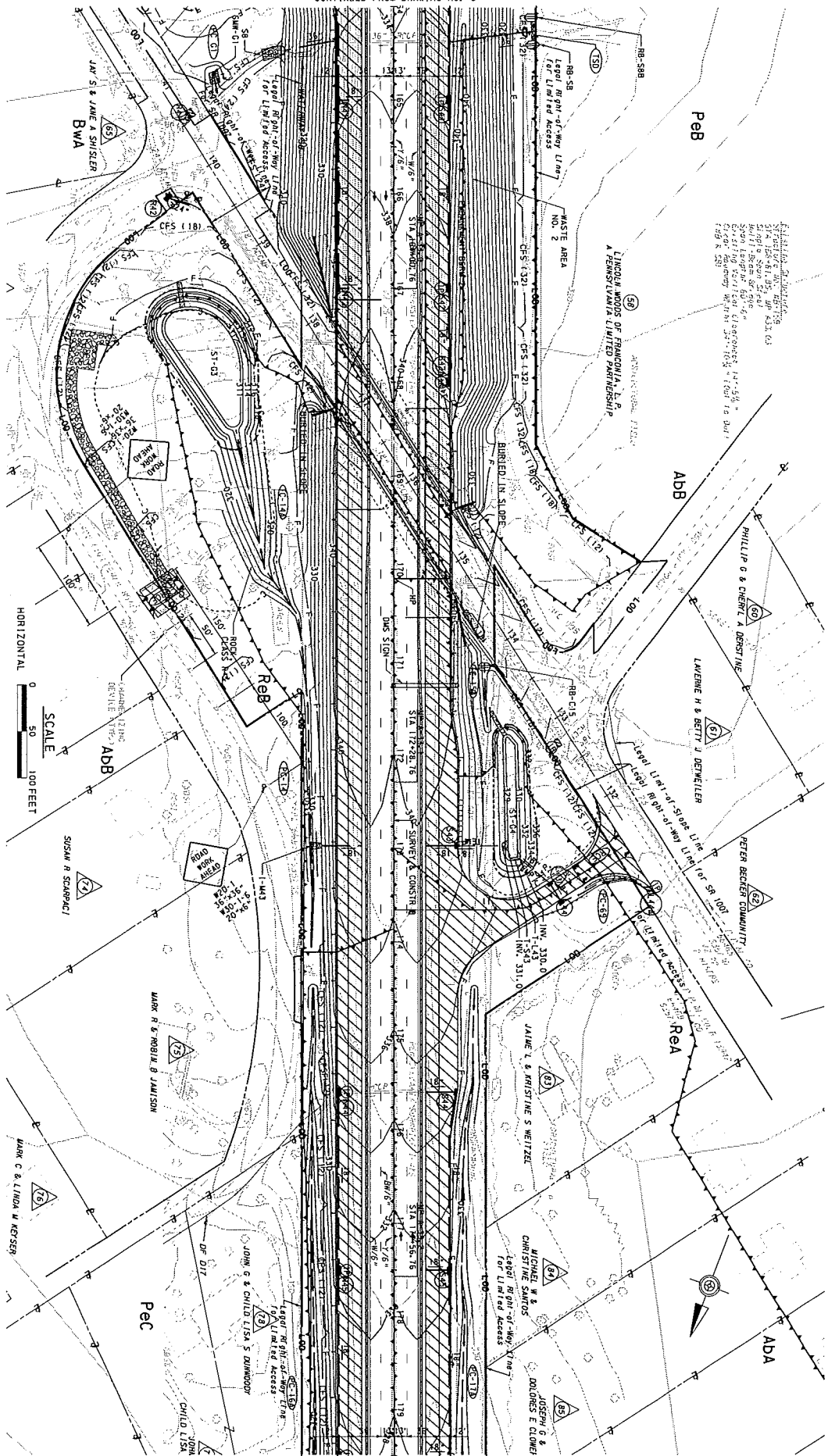
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PLOTTED: 12/5/2016 11:30:15 AM

E-16

CONTINUED FROM DRAWING NO. 6



CONTINUED ON DRAWING NO. 8

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 530 WALNUT STREET
 PHILADELPHIA, PA 19106

PREPARED FOR:
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NO.	REVISIONS	DATE	APPR.	SCALE	AS INDICATED

WBS NO. A-031.007001-3-07
 NETWORK NUMBER: 702083
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 DRAWING TYPE: STRUCTURE NUMBER:
 SCALE: AS INDICATED

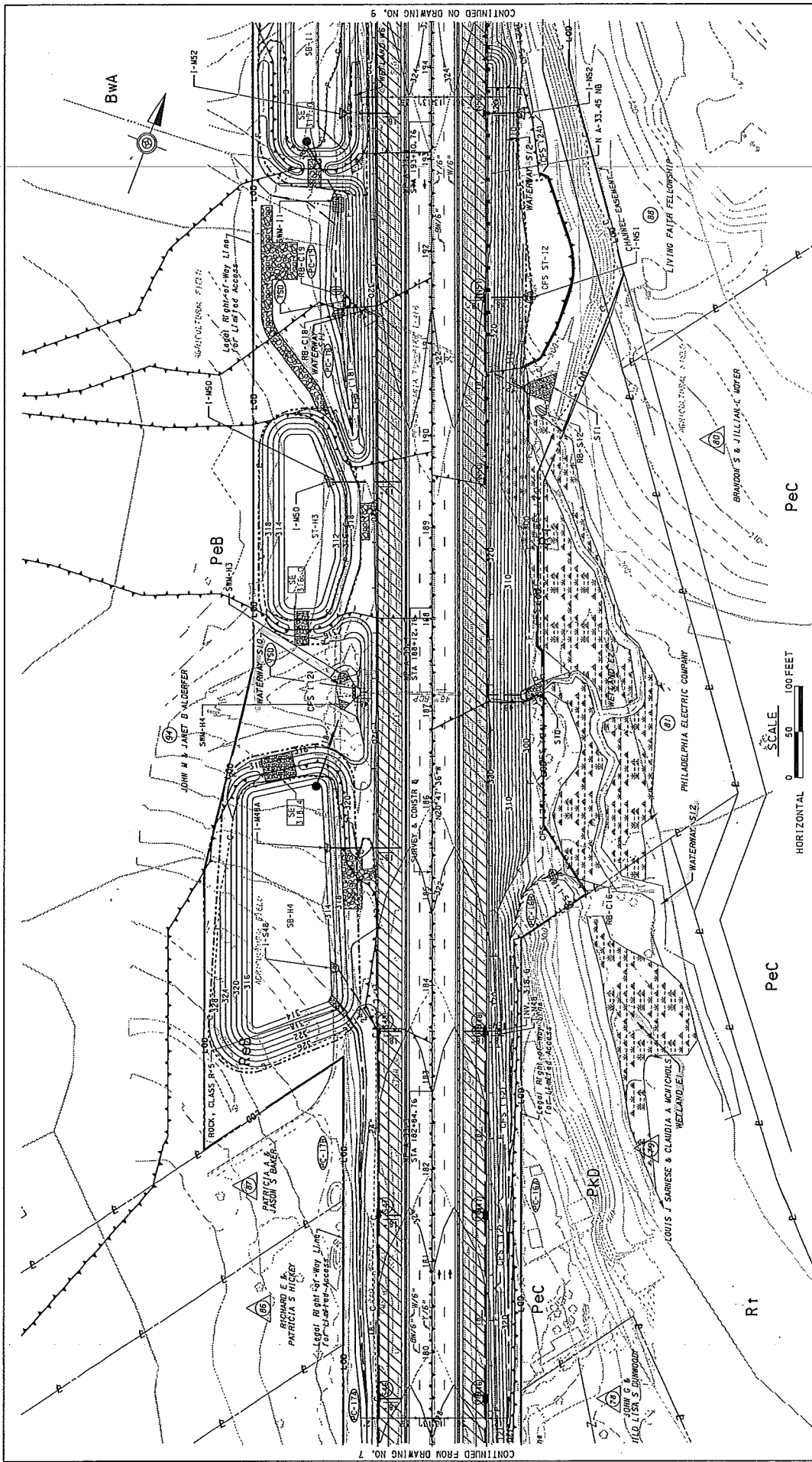
DISTRICT: 4.3.3 COUNTY: MONTGOMERY
 TOWNSHIP: BOROUGH: FRANCONIA TOWNSHIP

ROADWAY AND BRIDGE RECONSTRUCTION
 FROM MILEPOST AD1.24 TO AD1.29

EROSION AND SEDIMENT
 CONTROL PLAN
 STA. 164+50 TO STA. 179+50

DRAWINGS: 7 OF 26
 SHEET: 51 OF 85

E+17

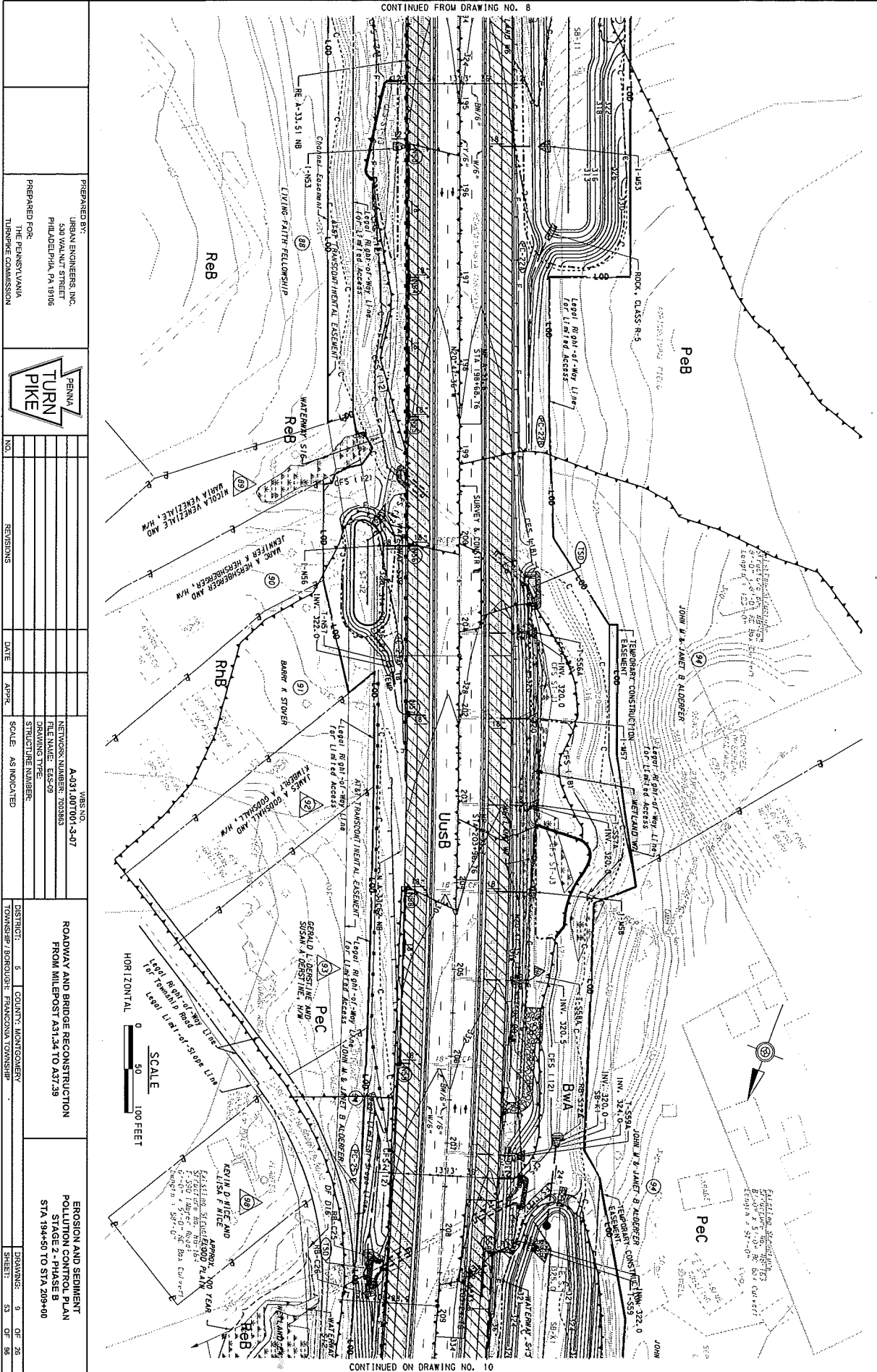


FILE NAME: T:\111600 - A31-A37.5\ERS03 Plans\STAGE 2 - PHASE B\ERS-09-phased.dgn PLOTTED: 12/5/2016 11:30:20 AM

E-18

PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106 PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		NO. _____ REVISIONS _____ DATE _____ APPR. _____	VES NO. A-031.00T001-3-07	ROADWAY AND BRIDGE RECONSTRUCTION FROM MILEPOST A31.34 TO A37.59	EROSION AND SEDIMENT POLLUTION CONTROL PLAN STAGE 2 - PHASE B STA 179+50 TO STA 194+50
			NETWORK NUMBER: 7002603 FILE NAME: ERS-09 DRAWING TYPE: STRUCTURE NUMBER: SCALE: AS INDICATED		
DISTRICT: 5 COUNTY: MONTGOMERY TOWNSHIP: BORDEN: PRINCEDON TOWNSHIP			DRAWING: 8 OF 28 SHEET: 32 OF 38		

CONTINUED FROM DRAWING NO. 8



CONTINUED ON DRAWING NO. 10

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NO.	REVISIONS	DATE	APPR.	SCALE

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 NETWORK NUMBER: 200303
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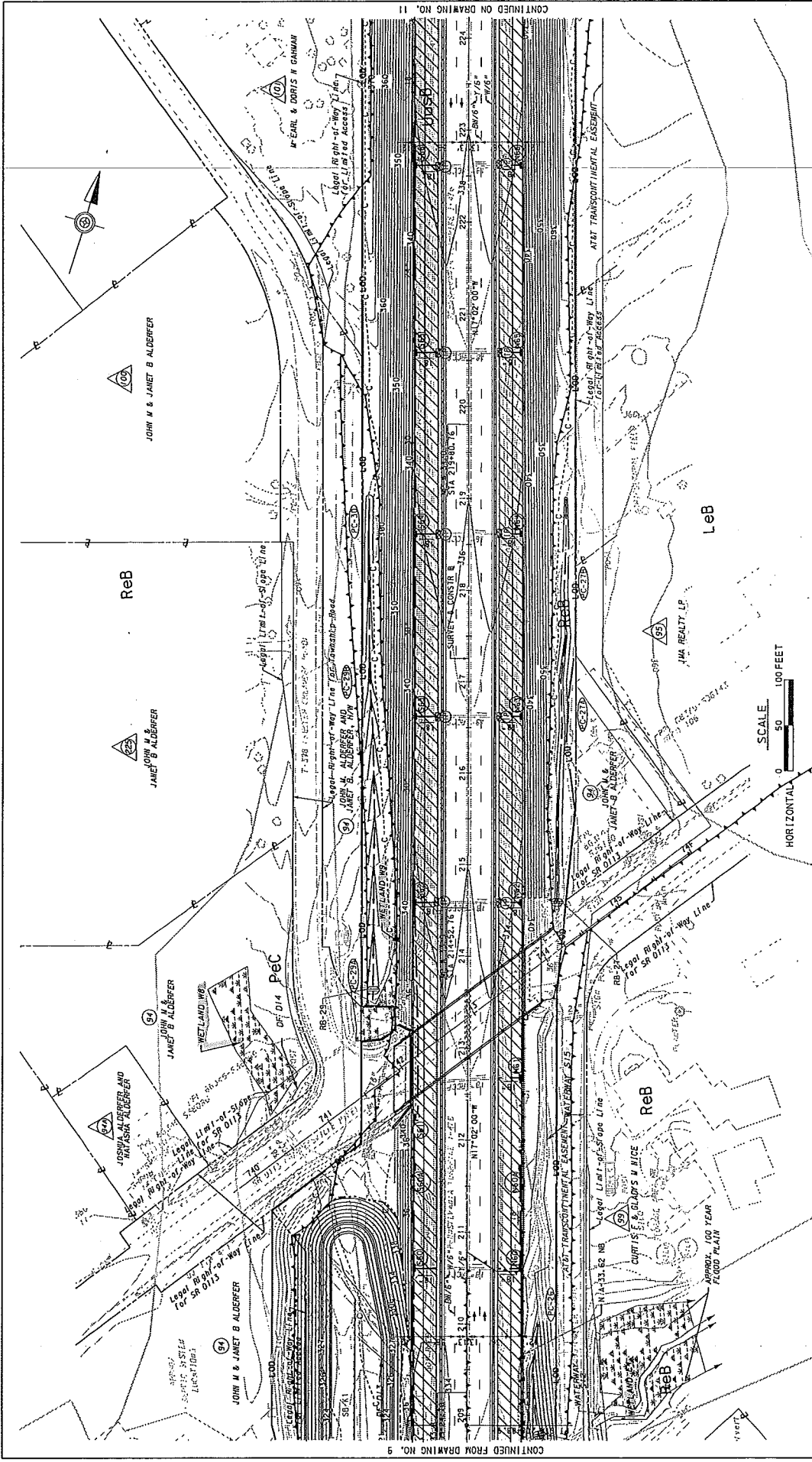
ROADWAY AND BRIDGE RECONSTRUCTION
 FROM MILEPOST 141.34 TO 141.39

EROSION AND SEDIMENT
 CONTROL CONTROL PLAN
 STA 194+50 TO STA 209+00


DISTRICT: 5 COUNTY: MONTGOMERY
 TOWNSHIP: BOROUGH: FRANKFORD TOWNSHIP

DRAWINGS: 9 OF 26
 SHEET: 53 OF 56

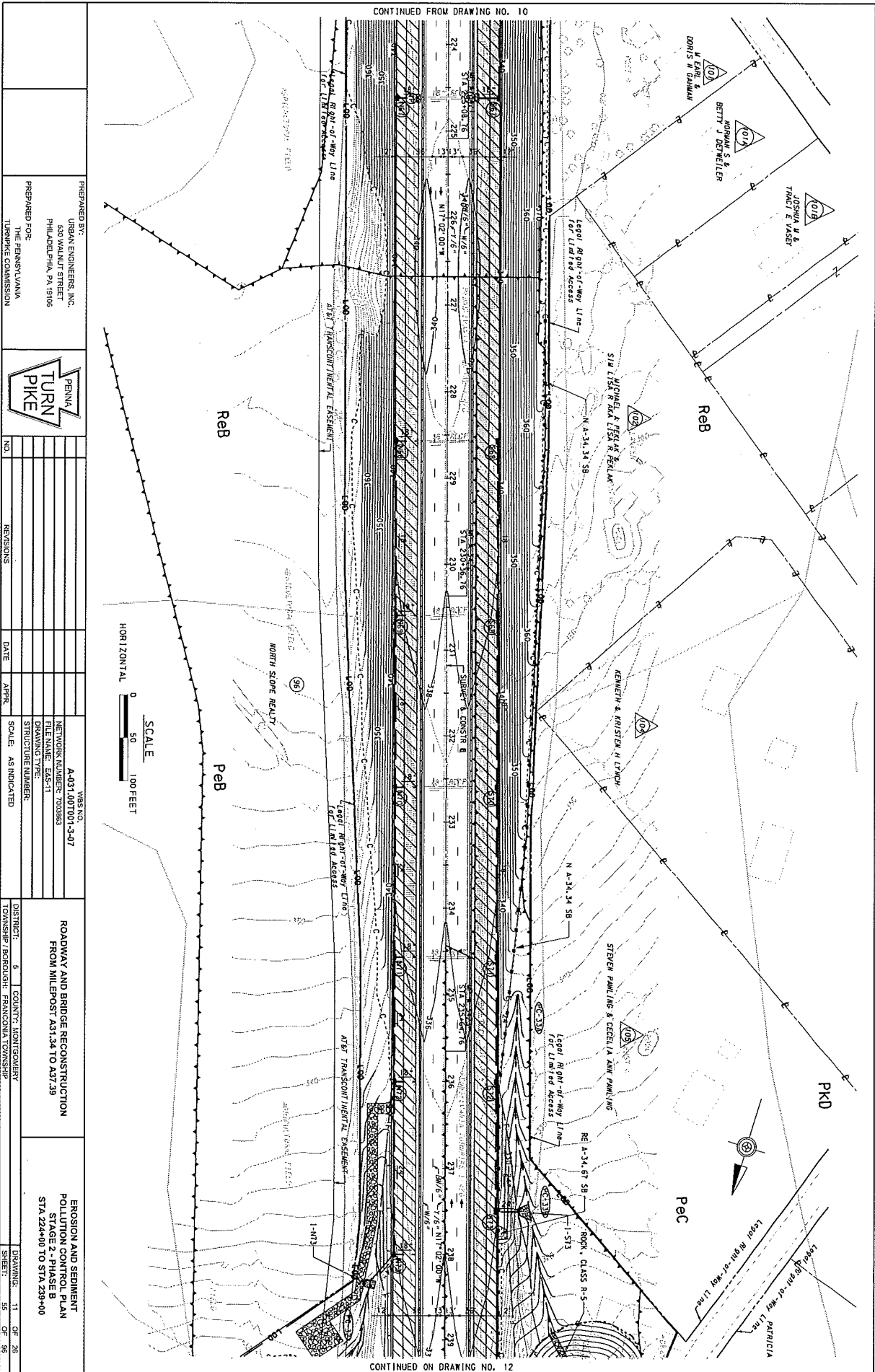
E-19



CONTINUED FROM DRAWING NO. 9
 CONTINUED ON DRAWING NO. 11

PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106	PREPARED FOR: PENNSYLVANIA TURNPIKE COMMISSION		REVISIONS		DATE	APPR.
			NO.	REVISIONS	DATE	APPR.
			NO.	REVISIONS	DATE	APPR.
ROADWAY AND BRIDGE RECONSTRUCTION FROM MILEPOST A31.34 TO A37.29		WBS NO. A-434,007001-3-07	DISTRICT: 5 COUNTY: MONTGOMERY TOWNSHIP: BIRMGHAM, TOWNSHIP			
EROSION AND SEDIMENT POLLUTION CONTROL PLAN STAGE 2 - PHASE B STA. 209+00 TO STA. 224+00		NETWORK NUMBER: 703883	SCALE: AS INDICATED			
		FILE NAME: EES-10	DRAWING: 10 OF 26			
		DRAWING TYPE:	SHEET: 24 OF 28			

CONTINUED FROM DRAWING NO. 10



CONTINUED ON DRAWING NO. 12

PREPARED BY:
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NO.	REVISIONS	DATE	APPR.	SCALE	AS INDICATED

VBS NO. A-031.0001001-3-07
 NETWORK NUMBER: 7003883
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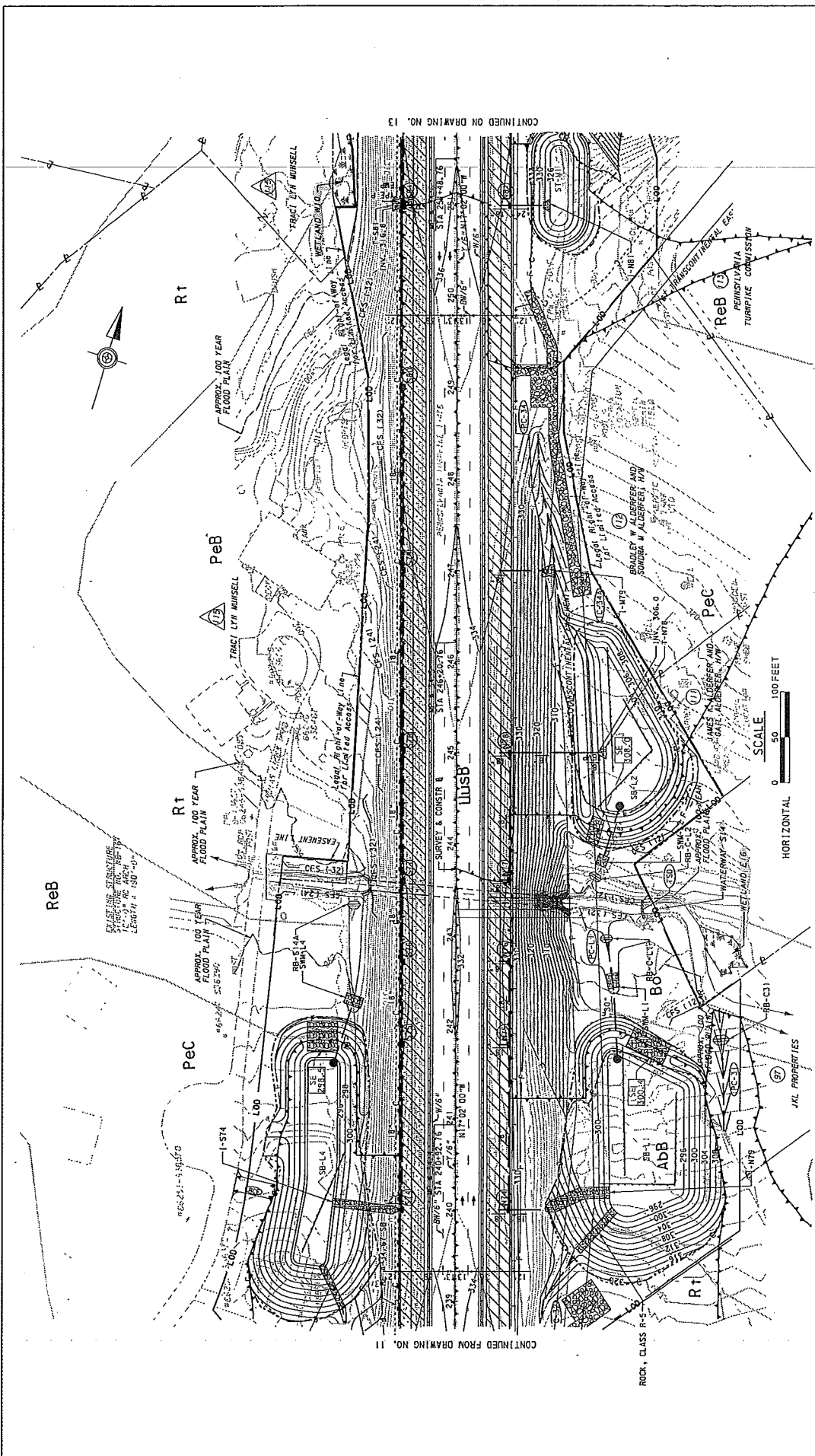
ROADWAY AND BRIDGE RECONSTRUCTION
 FROM MILEPOST 751.34 TO 757.39

EROSION AND SEDIMENT
 POLLUTION CONTROL PLAN
 STA 224+00 TO STA 235+00

DRAWINGS: 11 OF 26
 SHEETS: 55 OF 96


F-21

E-22

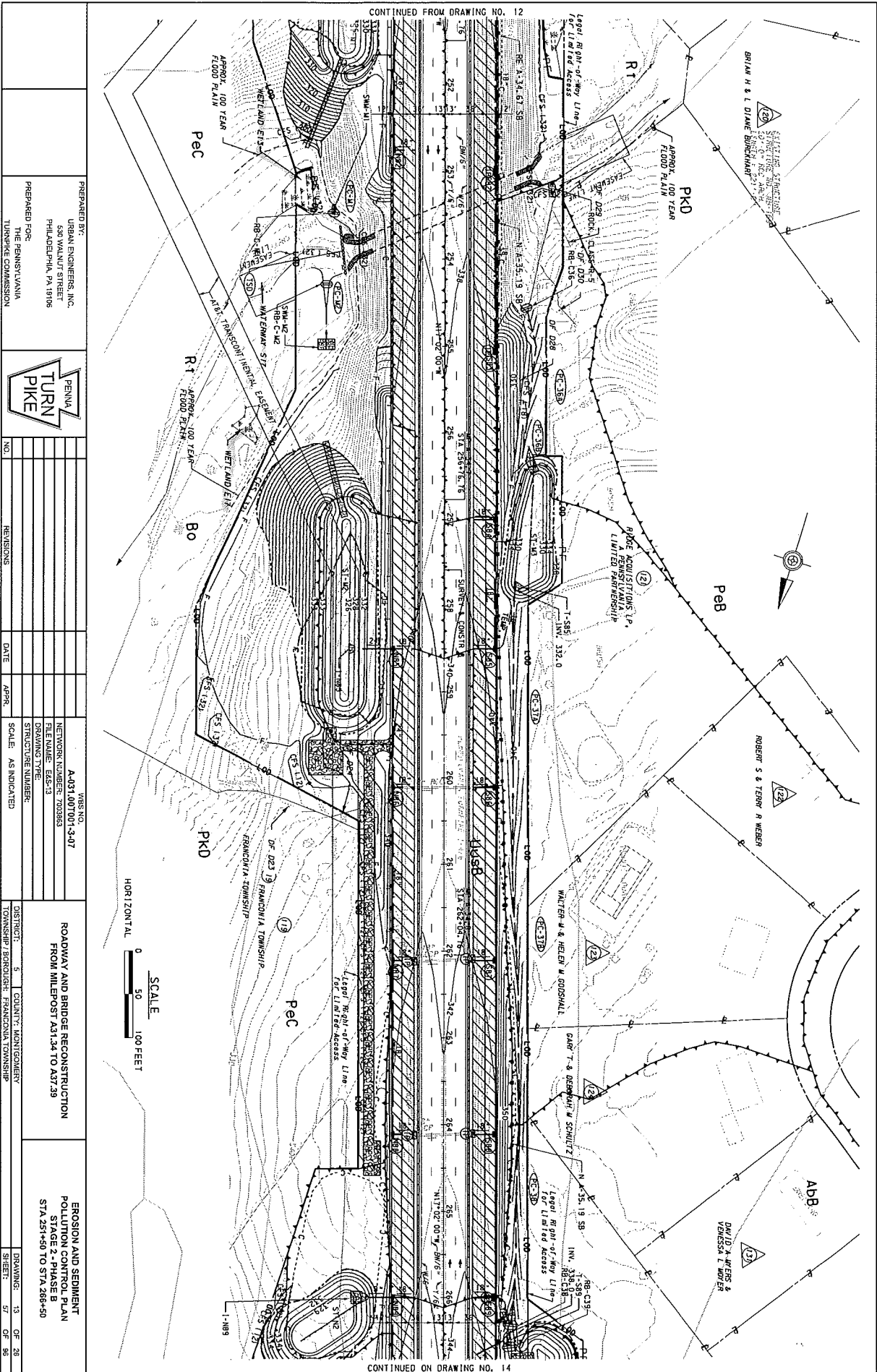


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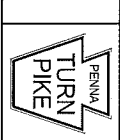
PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106	PREPARED FOR: PENNSYLVANIA TURNPIKE COMMISSION		NO. _____ REVISIONS _____ DATE _____ APPR. _____	WBS NO. A-031.00T01-3-07	ROADWAY AND BRIDGE RECONSTRUCTION FROM MILEPOST A31.24 TO A37.39	EROSION AND SEDIMENT POLLUTION CONTROL PLAN STAGE 2 - PHASE B STA 239+00 TO STA 251+50
				NETWORK NUMBER: 700383 FILE NAME: E5-12 DRAWING TYPE: STRUCTURE NUMBER:		

CONTINUED FROM DRAWING NO. 12



CONTINUED ON DRAWING NO. 14

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 PHILADELPHIA, PA 19106



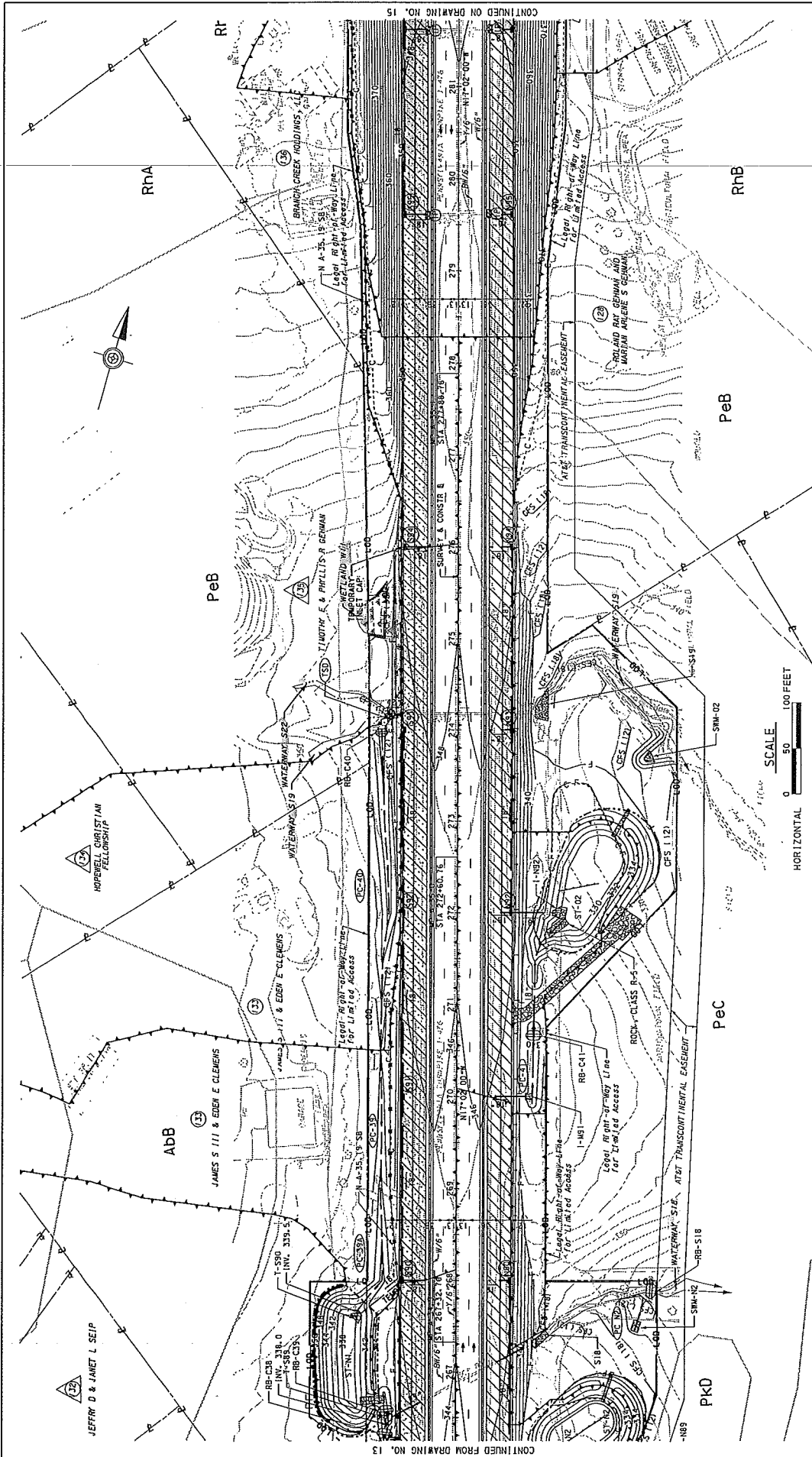
NO.	REVISIONS	DATE	APPR.	SCALE

VBS NO.	A-031.007001-3-07
NETWORK NUMBER	703083
FILE NAME	E85-13
DRAWING TYPE	STRUCTURE NUMBER

ROADWAY AND BRIDGE RECONSTRUCTION
 FROM MILEPOST 431.34 TO 431.35

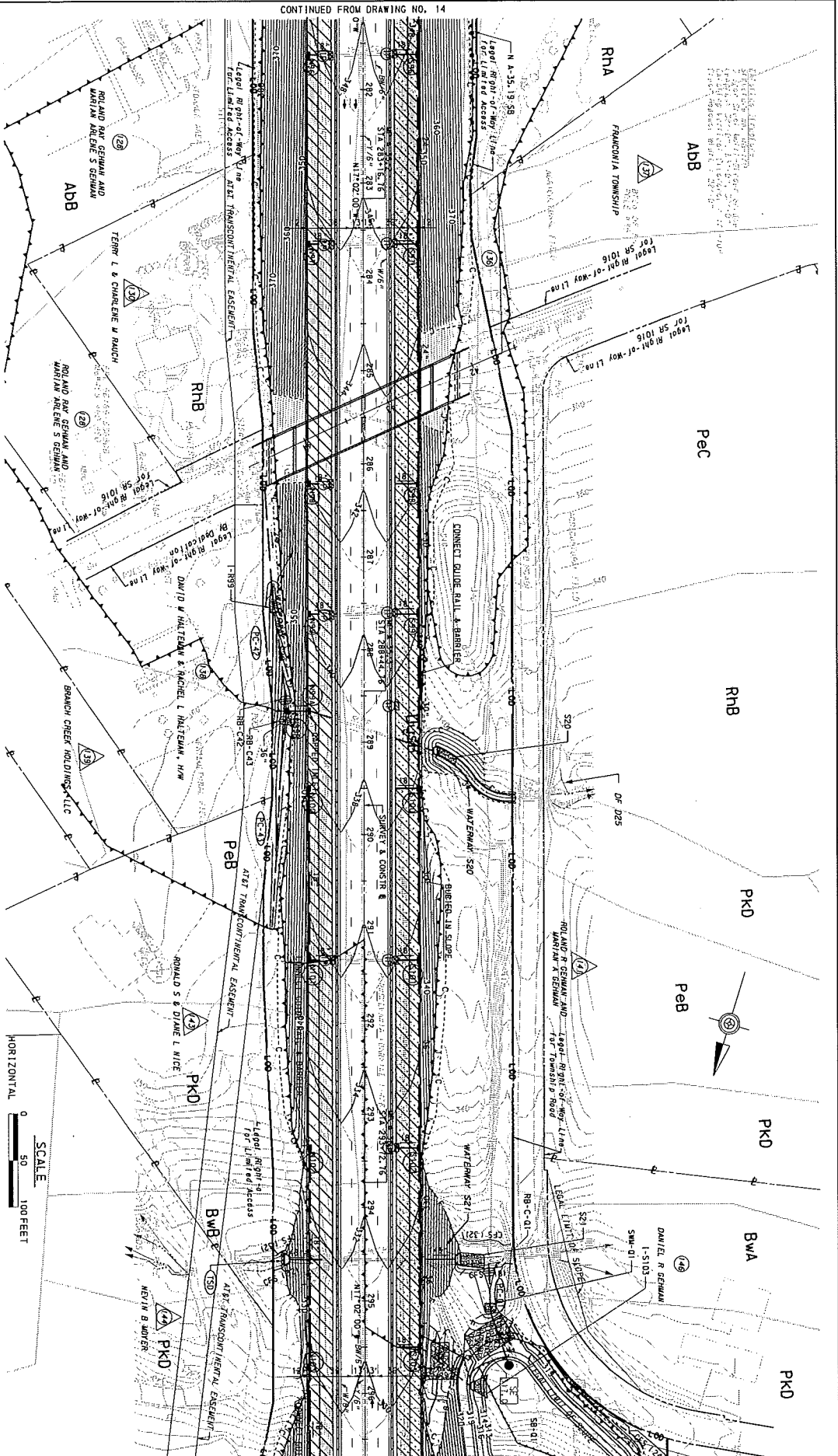
EROSION AND SEDIMENT
 POLLUTION CONTROL PLAN
 SHEET 57 OF 36






E-24

CONTINUED FROM DRAWING NO. 14



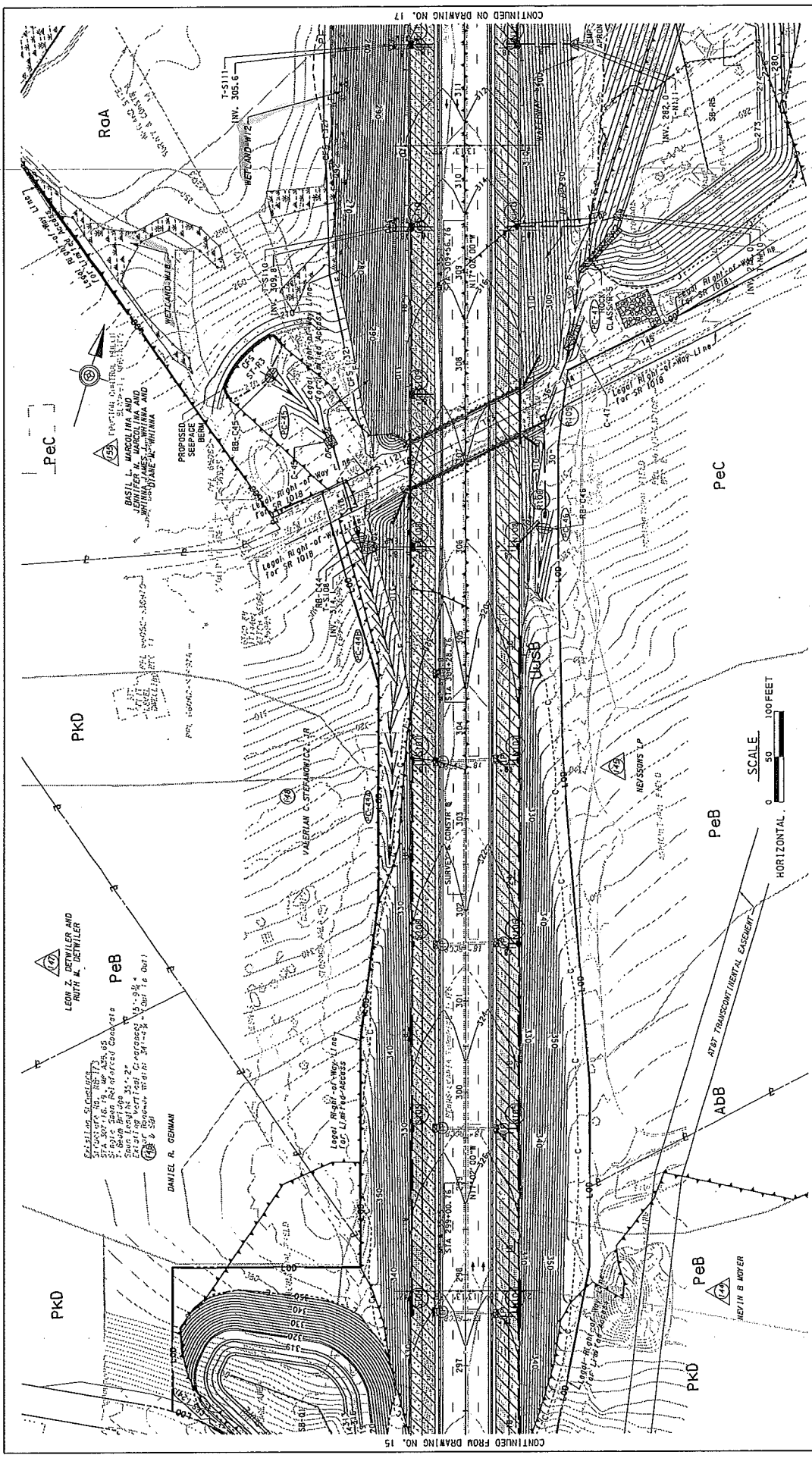
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PREPARED BY: URBAN ENGINEERS, INC. 538 WALNUT STREET PHILADELPHIA, PA 19106			VBS NO. A-031.001001-3-07		
PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION			NETWORK NUMBER: 700063		
			FILE NAME: EXE-15		
			DRAWING TYPE		
			STRUCTURE NUMBERS		
NO.	REVISIONS	DATE	APPR.	SCALE	AS INDICATED
DISTRICT: 5 COUNTY: MONTGOMERY			DRAWING: 15 OF 26		
TOWNSHIP: LANCASTER, FRANCONIA TOWNSHIP			SHEET: 58 OF 58		

ROADWAY AND BRIDGE RECONSTRUCTION
FROM MILEPOST .431.34 TO .437.39

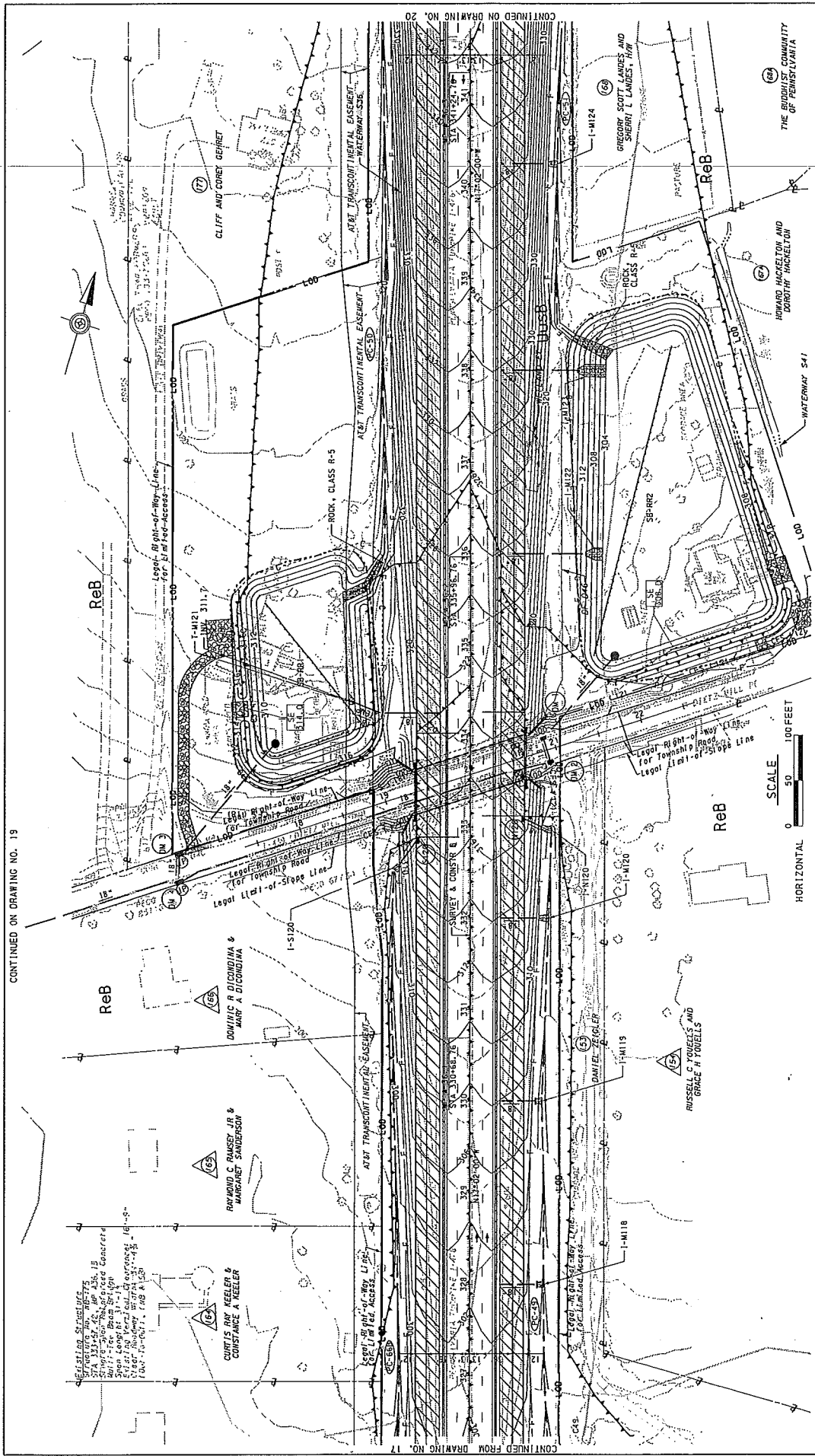
EROSION AND SEDIMENT
POLLUTION CONTROL PLAN
STAGE 2 - PHASE B
STA 281+50 TO STA 286+50

1125



CONTINUED FROM DRAWING NO. 15
 CONTINUED ON DRAWING NO. 17

	PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106	REVISIONS NO. DATE	SCALE: AS INDICATED	DISTRICT: 5 COUNTY: MONTGOMERY TOWNSHIP: BERGHOFF PARSONSIA TOWNSHIP	ROADWAY AND BRIDGE RECONSTRUCTION FROM MILEPOST A31.34 TO A37.39	EROSION AND SEDIMENT POLLUTION CONTROL PLAN STAGE 2 - PHASE B STA 298+50 TO STA 314+50
	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION					

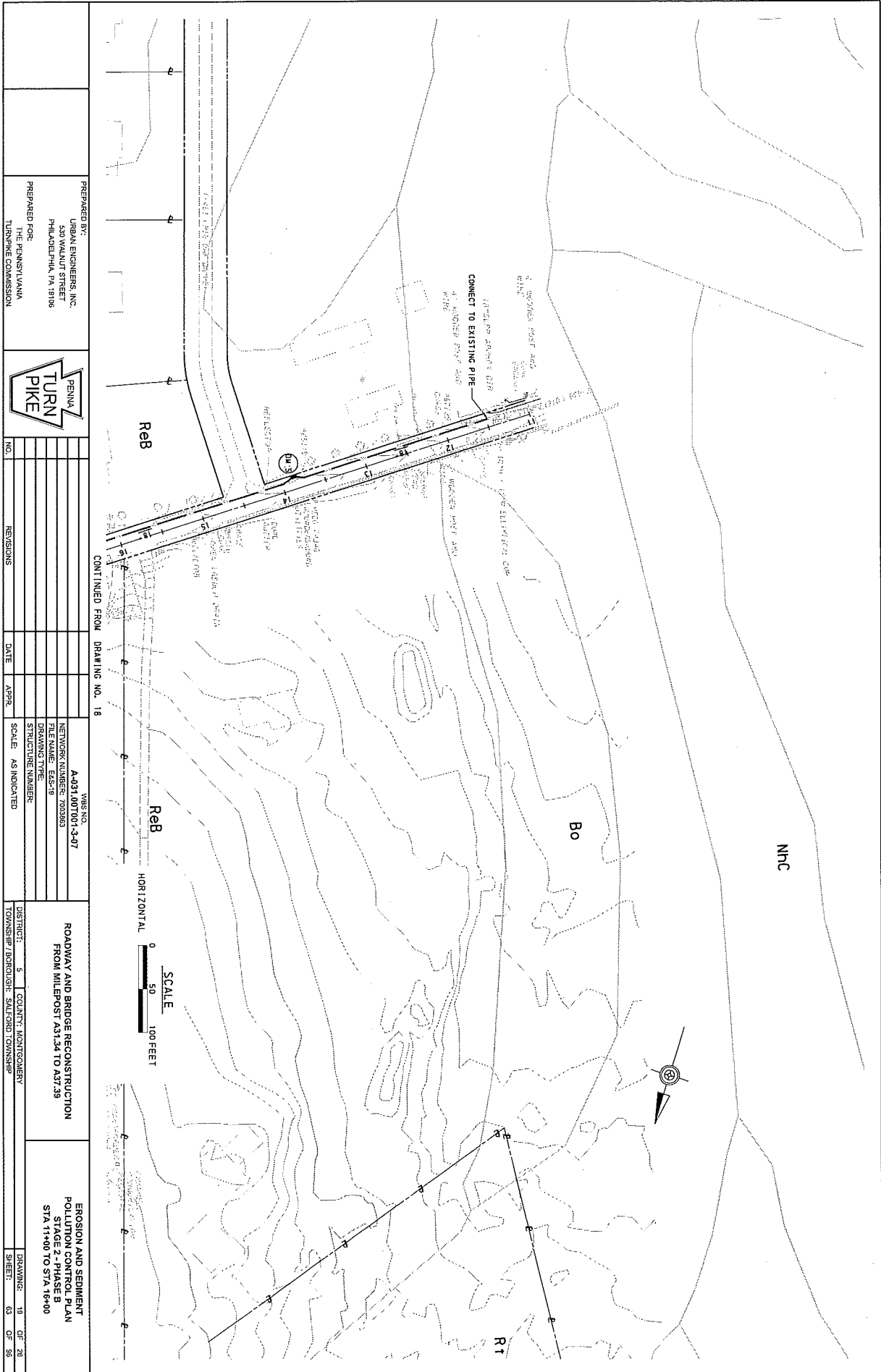


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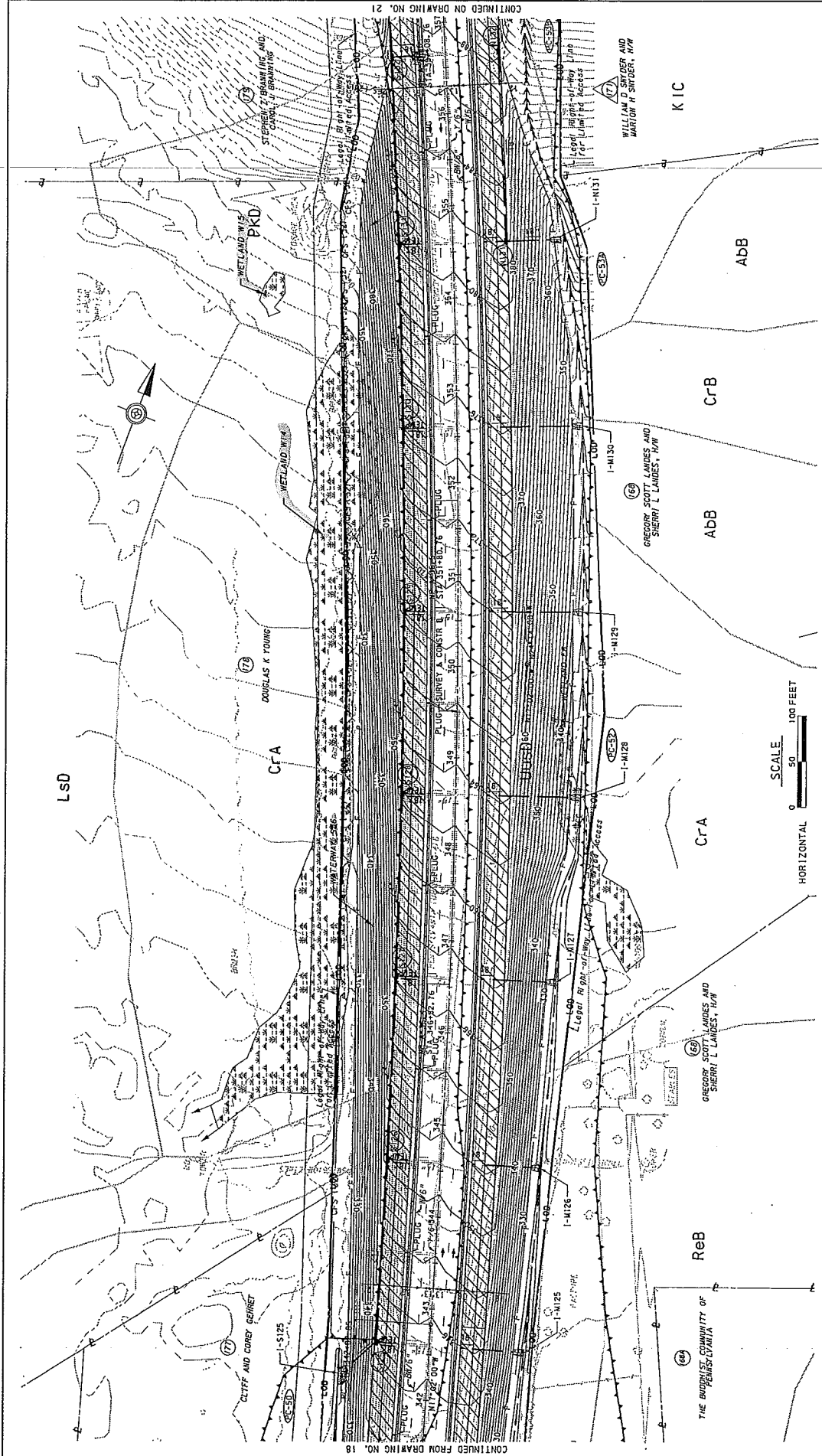
E-28

PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106 PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		REVISIONS	NO.	DATE	APPR.
		SCALE: AS INDICATED	STRUCTURE NUMBER:	DRAWING TYPE:	FILE NAME: EAS-18
ROADWAY AND BRIDGE RECONSTRUCTION FROM MILEPOST A31.34 TO A37.39		DISTRICT: 5		COUNTY: MONTGOMERY	
EROSION AND SEDIMENT POLLUTION CONTROL PLAN STAGE 2 - PHASE B STA 326+50 TO STA 341+50		TOWNSHIP: BURLINGTON		SHEET: 18 OF 28	



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		NO. _____ REVISIONS _____ DATE _____ APPR. _____ SCALE: AS INDICATED	
WBS NO. A-031.007001-3-07 NETWORK NUMBER 703083 FILE NAME: E65-19 DRAWING TYPE: _____ STRUCTURE NUMBER: _____		ROADWAY AND BRIDGE RECONSTRUCTION FROM HILLESPOST RD. TO A37.35	
DISTRICT: 5 COUNTY: MONTGOMERY TOWNSHIP: BORDERSHIRE SAULTON TOWNSHIP		EROSION AND SEDIMENT PLAN STA 11400 TO STA 11600	
DRAWING: 18 OF 28 SHEET: 63 OF 96		CONTINUED FROM DRAWING NO. 18	

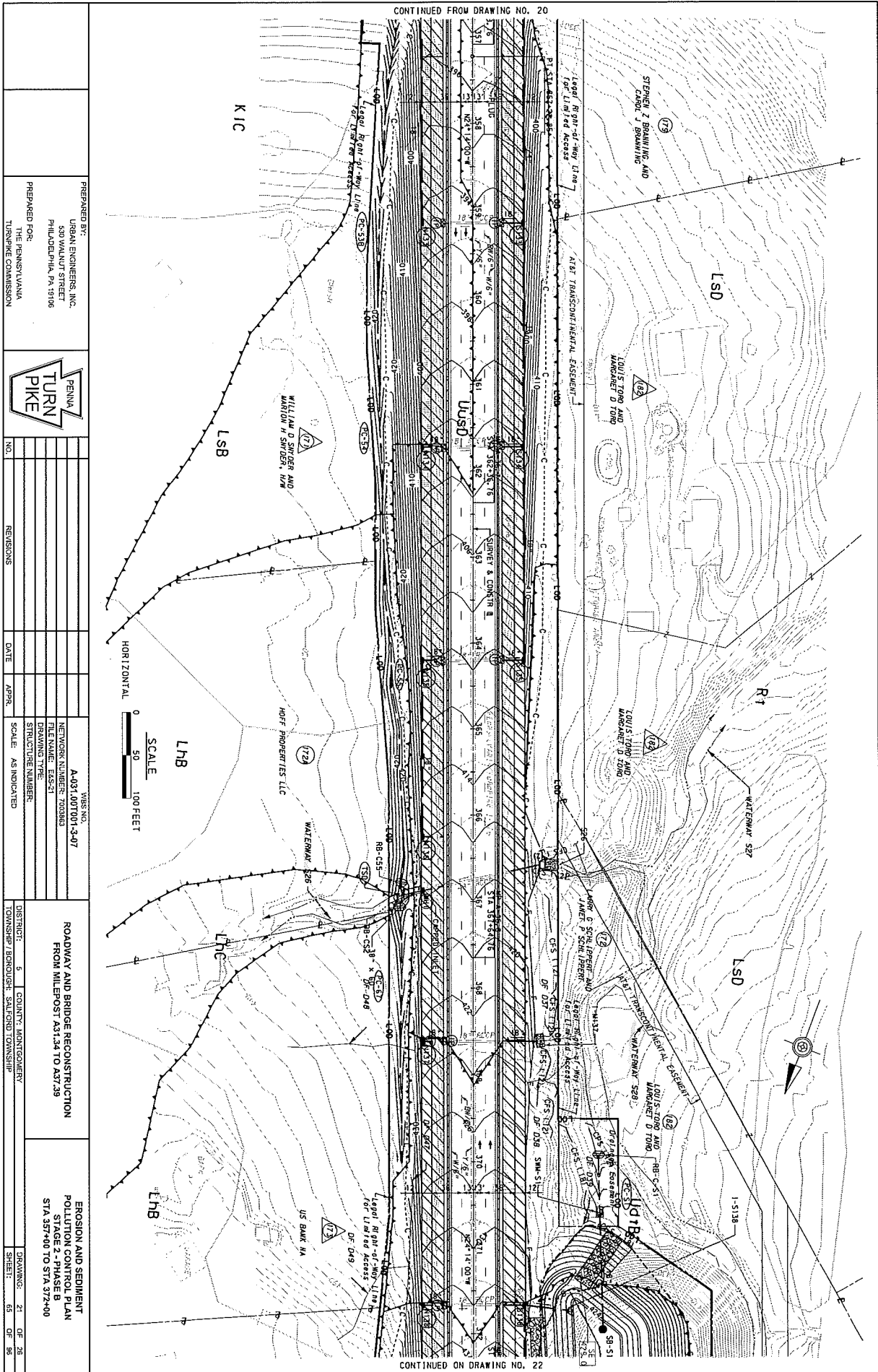
E-29



PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106 PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		NO. _____ REVISIONS _____ DATE _____ APPR. _____ SCALE: AS INDICATED	VBS NO. A-031,00T001-3-07	ROADWAY AND BRIDGE RECONSTRUCTION FROM MILEPOST A31.34 TO A37.29	EROSION AND SEDIMENT CONTROL PLAN PHASE B STA. 341+50 TO STA. 357+00
			NETWORK NUMBER: 7008683 FILE NAME: EAS-20 DRAWING TYPE STRUCTURE NUMBER		
DISTRICT: 5 COUNTY: MONTGOMERY TOWNSHIP: BORDOWISSE, SACTON TOWNSHIP		DRAWINGS: 20 OF 26 SHEET: 64 OF 98			

FILE NAME: T111600 - A31-A37, SVR5303 Plan/STAGE 2 - PHASE B/EAS-20-Proposed.dgn PLOTTED: 12/5/2016 11:31:01 AM

E-30



CONTINUED FROM DRAWING NO. 20

CONTINUED ON DRAWING NO. 22

PREPARED BY:
 URBAN ENGINEERS, INC.
 530 WALNUT STREET
 PHILADELPHIA, PA 19106



NO.	REVISIONS	DATE	APPR.

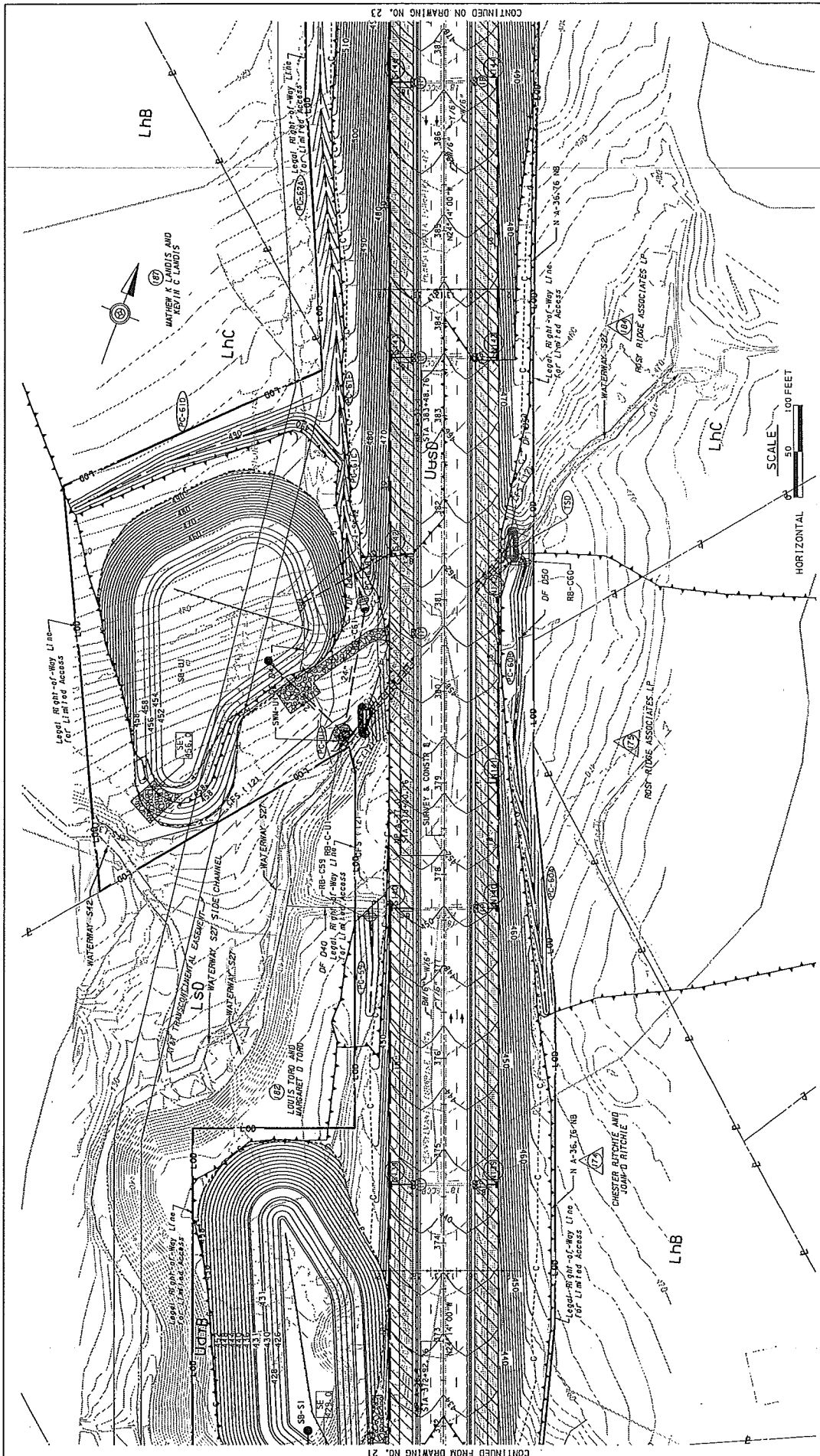
WBS NO. A-031.007001-3-07
 NETWORK NUMBER 70383
 FILE NAME: E85-21
 DRAWING TYPE: STRUCTURE NUMBER


DISTRICT: 5 COUNTY: MONTGOMERY
 TOWNSHIP: BROADBENT SUBPDR: TOWNSHIP

EROSION AND SEDIMENT CONTROL PLAN
 STA 357+00 TO STA 372+00
 DRAWING: 21 OF 28
 SHEET: 65 OF 86

F-31

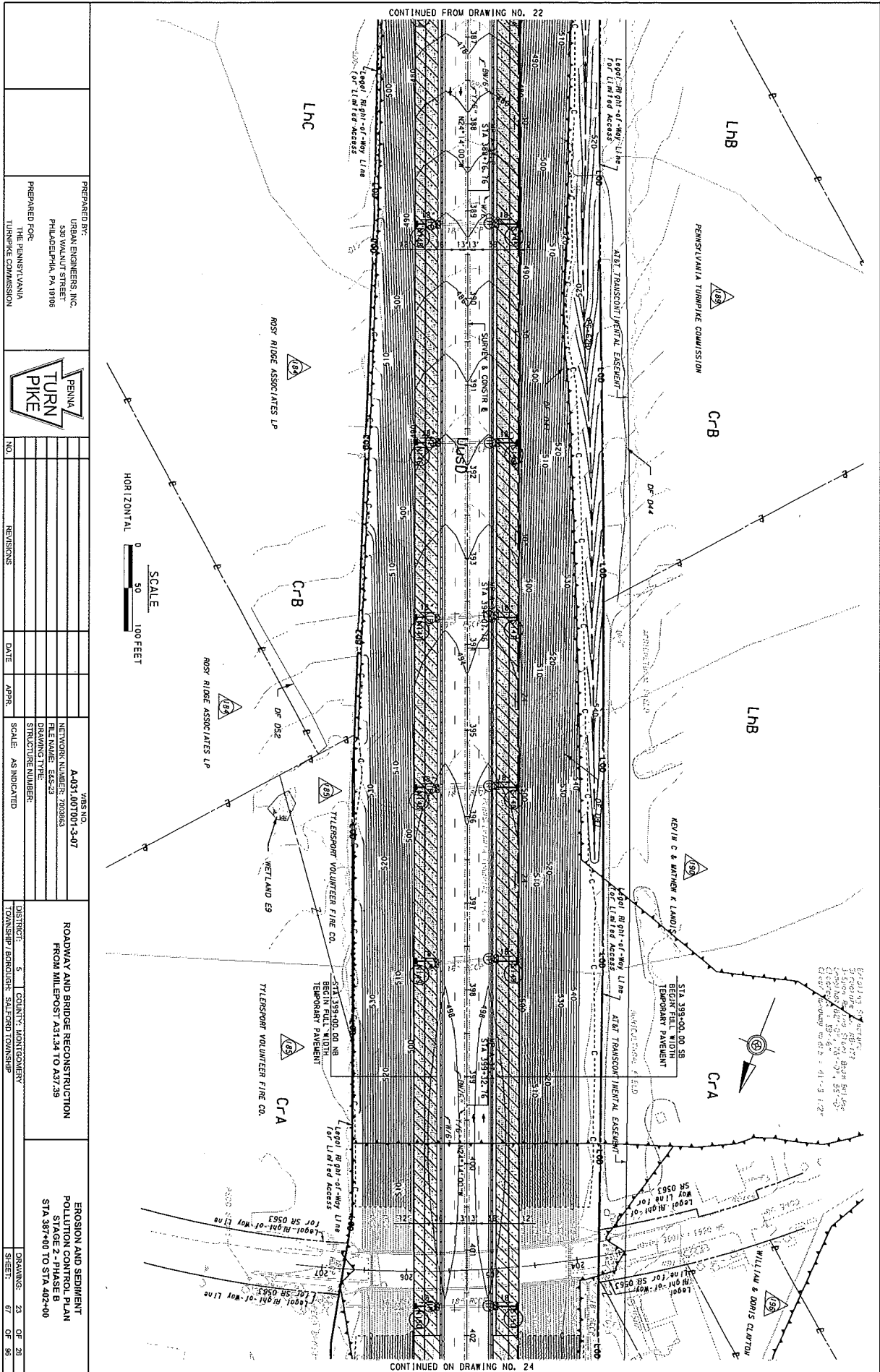
E-32



PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		NO.	REVISIONS	DATE	APPR.	SCALE: AS INDICATED	STRUCTURE NUMBER	DRAWING TYPE	FILE NAME: EAS-22	NETWORK NUMBER: 7003663	A-031.00T001-3-07	WEBS NO.	ROADWAY AND BRIDGE RECONSTRUCTION FROM MILEPOST A31.34 TO A37.39	EROSION AND SEDIMENT POLLUTION CONTROL PLAN STAGE 2 - PHASE B STA 372+00 TO STA 397+00
														DISTRICT: 5	COUNTY: MONTGOMERY


CONTINUED FROM DRAWING NO. 21

CONTINUED ON DRAWING NO. 23

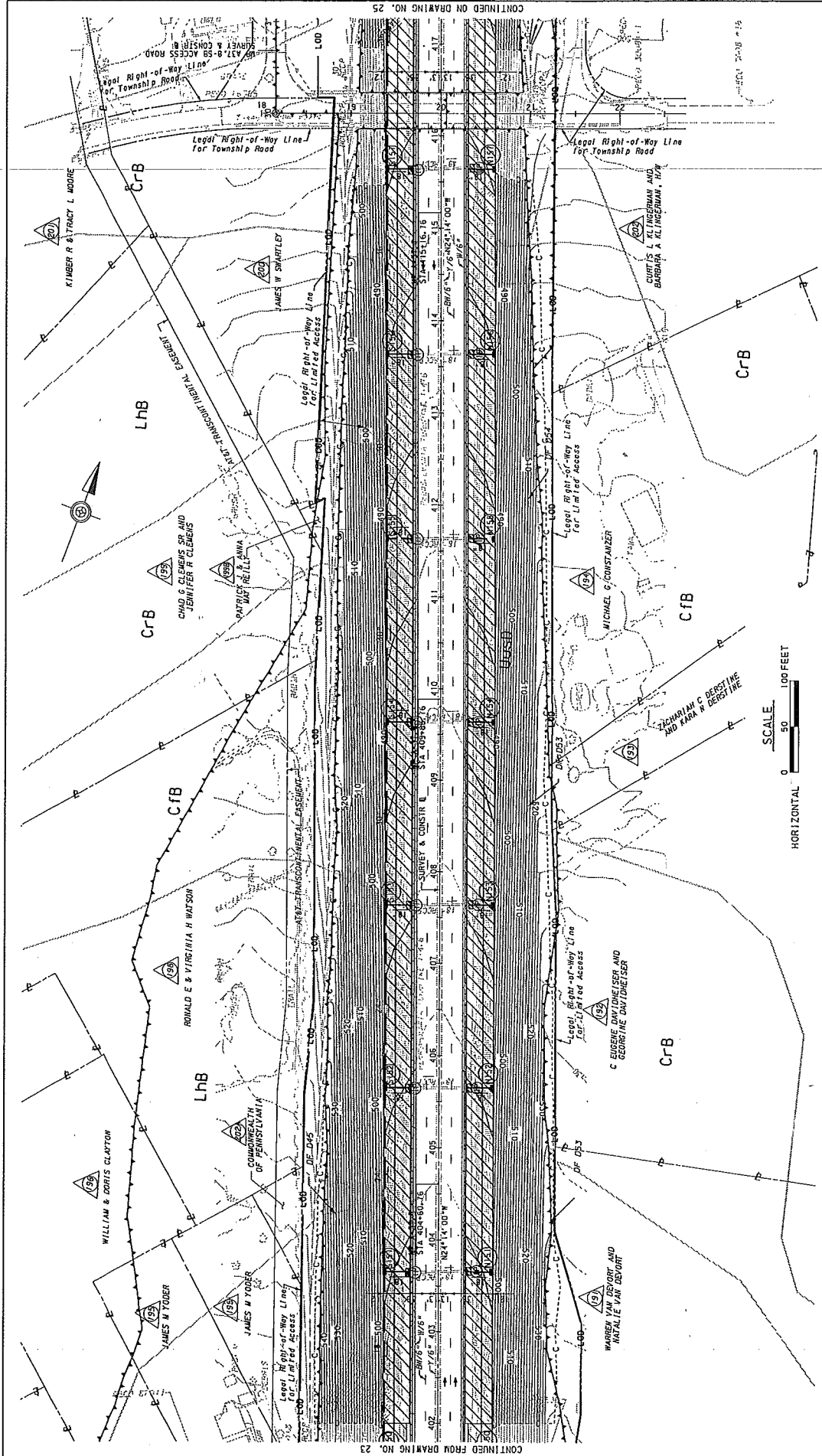


CONTINUED FROM DRAWING NO. 22

CONTINUED ON DRAWING NO. 24

PREPARED BY: URBAN ENGINEERS, INC. 439 WALNUT STREET PHILADELPHIA, PA 19106	WBS NO. A-031.007001-3-07	ROADWAY AND BRIDGE RECONSTRUCTION FROM MILEPOST 431.34 TO 431.35	EROSION AND SEDIMENT POLLUTION CONTROL PLAN PAGE 2 - PHASE B STA 387+00 TO STA 402+00
PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION	NETWORK NUMBER: 700003	DISTRICT: 5	COUNTY: MONTGOMERY
	NO.	REVISIONS	DATE
	NO.	REVISIONS	DATE
NO.	REVISIONS	DATE	APPR.
NO.	REVISIONS	DATE	SCALE: AS INDICATED
NO.	REVISIONS	DATE	TOWNSHIP: BROADVIEW
NO.	REVISIONS	DATE	SUB-TOWNSHIP:
NO.	REVISIONS	DATE	DRAWING: 23 OF 26
NO.	REVISIONS	DATE	SHEET: 67 OF 95

E-33

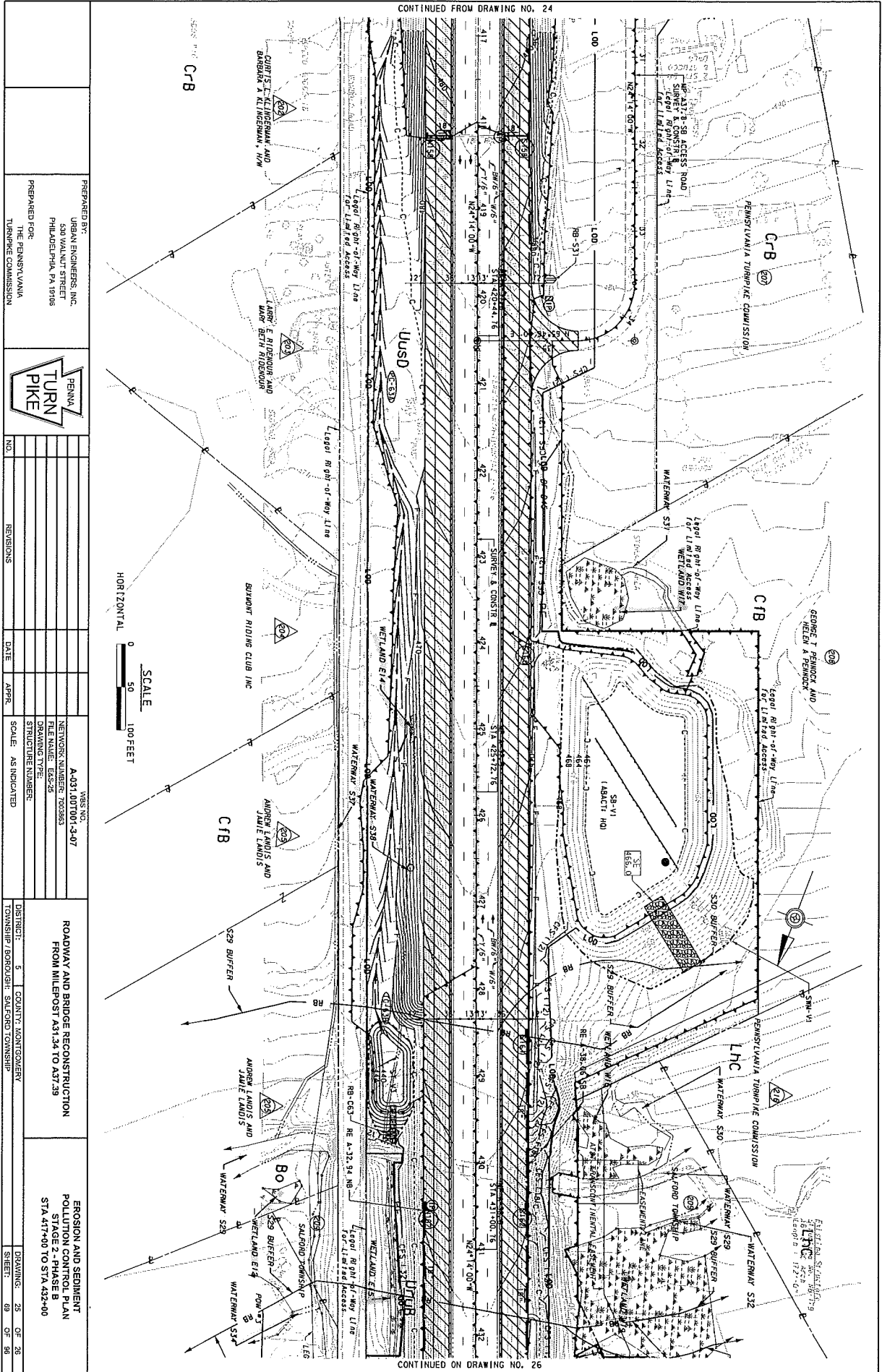


FILE NAME: T1111600 - A31-A37_5VEAS03 Plans/STAGE 2 - PHASE B/EAS-24-PhaseB.dgn
 PLOTTED: 12/5/2016 11:31:29 AM
 CONTINUED FROM DRAWING NO. 23
 CONTINUED ON DRAWING NO. 25

E-34

PREPARED BY: URBAN ENGINEERS, INC. 500 WALNUT STREET PHILADELPHIA, PA 19106 PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		NO. _____ REVISIONS _____ DATE _____ APPR. _____	WBS NO. A-031_007001-3-07 NETWORK NUMBER: 7038603 FILE NAME: EAS-24 DRAWING TYPE: STRUCTURE NUMBER: SCALE: AS INDICATED	ROADWAY AND BRIDGE RECONSTRUCTION FROM MILEPOST A31.34 TO A37.39	DISTRICT: 5 COUNTY: MONTGOMERY TOWNSHIP: BOROUGHS: SHEPARD TOWNSHIP
				EROSION AND SEDIMENT POLLUTION CONTROL PLAN STAGE 2 - PHASE B STA. 402+00 TO STA. 417+00	DRAWING: 24 OF 26 SHEET: 68 OF 88

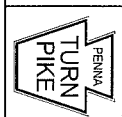
CONTINUED FROM DRAWING NO. 24



CONTINUED ON DRAWING NO. 26

PREPARED BY:
 URBAN ENGINEERS, INC.
 530 WALNUT STREET
 PHILADELPHIA, PA 19108

PREPARED FOR:
 PENNSYLVANIA
 TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.	SCALE

VBS NO. A-031.007001-3-07
 NETWORK NUMBER: 700363
 FILE NAME: E85-25
 DRAWING TYPE: STRUCTURE NUMBERS

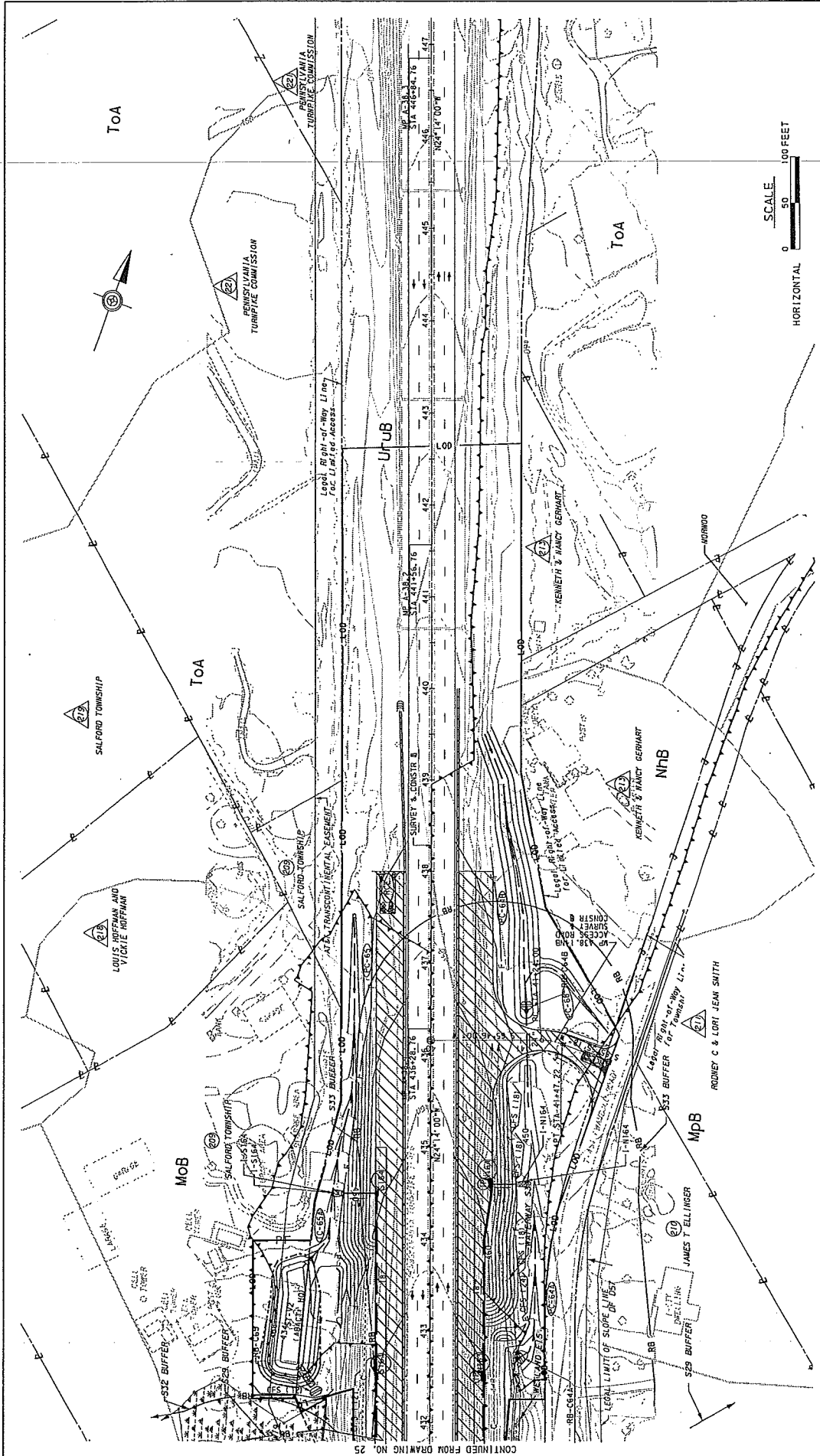
DISTRICT: 5 COUNTY: MONTGOMERY
 TOWNSHIP: BORDENBURG SAUERBORN TOWNSHIP

ROADWAY AND BRIDGE RECONSTRUCTION
 FROM MILEPOST 1A01.34 TO 1A01.39

EROSION AND SEDIMENT
 POLLUTION CONTROL PLAN
 STA 417+00 TO STA 432+00

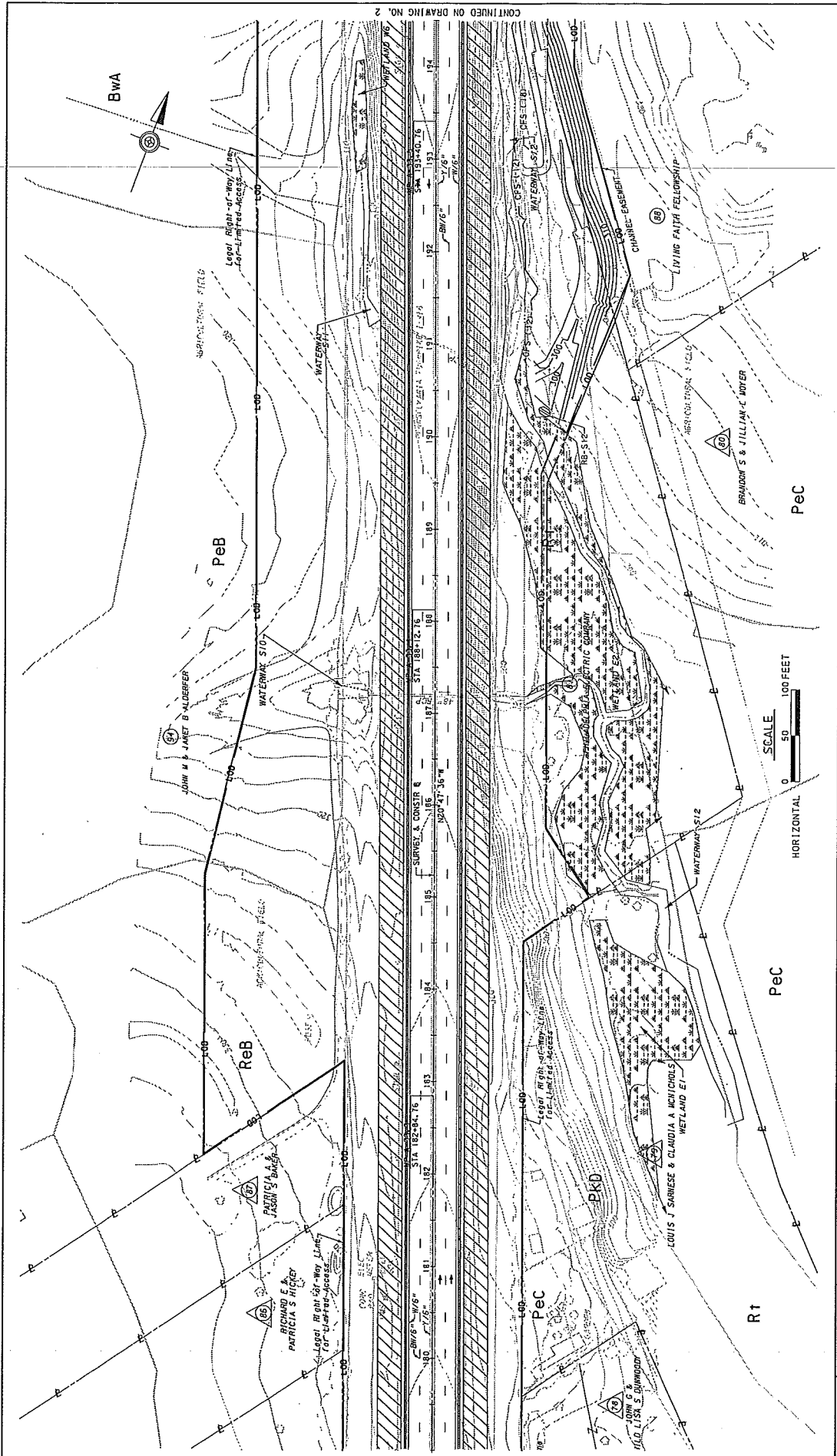
DRAWING: 25 OF 28
 SHEET: 09 OF 50

E-35



PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION	PENNA. TURN PIKE	REVISIONS		NO.	DATE	APPR.	
			WBS NO. A-031.007001-3-07	NETWORK NUMBER: 7003863	FILE NAME: EAS-26	DRAWING TYPE:	STRUCTURE NUMBER:	SCALE: AS INDICATED
ROADWAY AND BRIDGE RECONSTRUCTION FROM MILEPOST A31.34 TO A37.39			EROSION AND SEDIMENT POLLUTION CONTROL PLAN STAGE 2 - PHASE B STA 432+00 TO STA 447+00			DRAWING:	SHEET:	
			26	26	26	26	26	
			71	71	71	71	71	

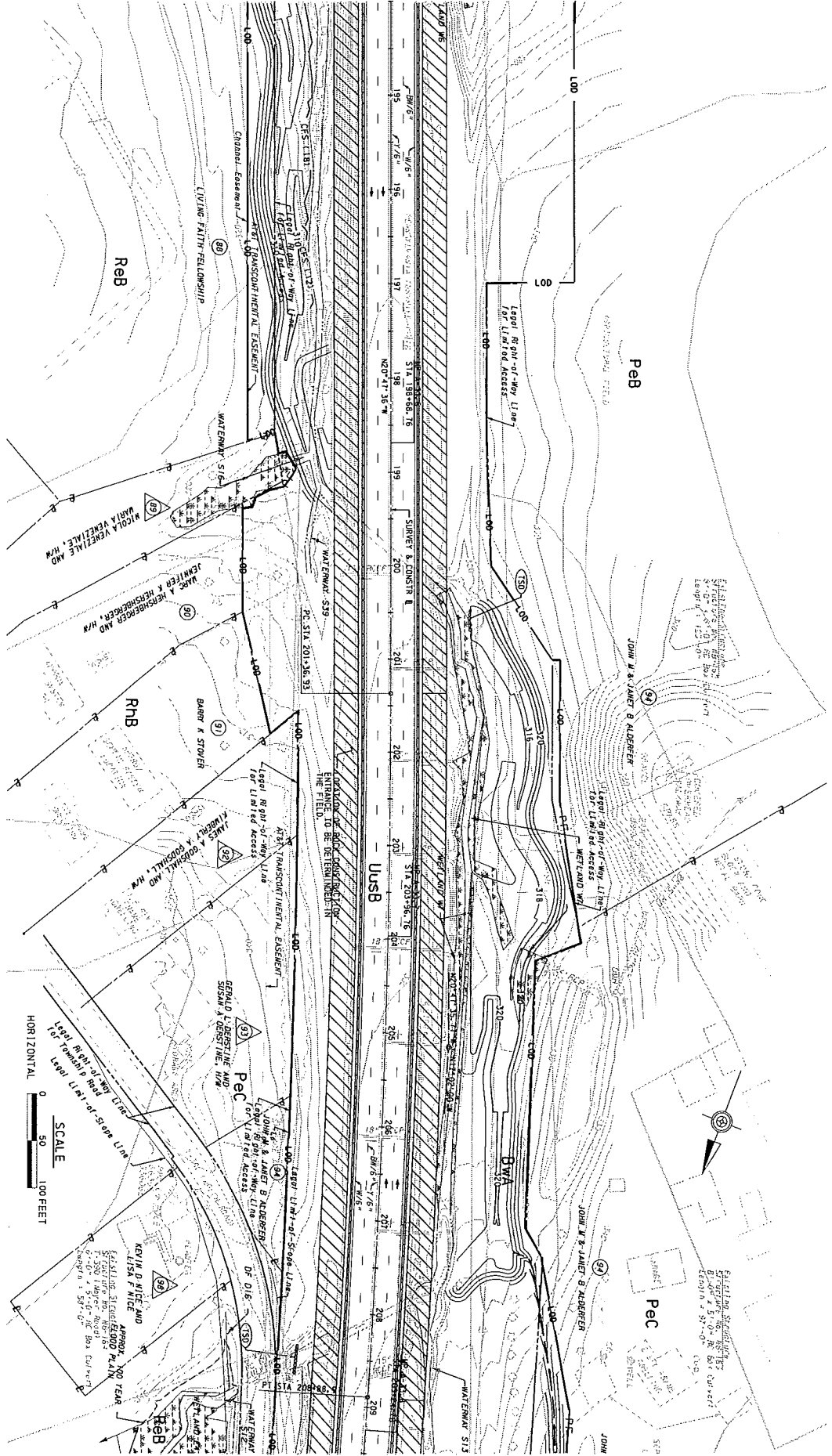
E-37



	PREPARED BY: URBAN ENGINEERS, INC. 530 WALNUT STREET PHILADELPHIA, PA 19106	WBS NO. A-031.007001-3-07	EROSION AND SEDIMENT POLLUTION CONTROL PLAN
	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION	NETWORK NUMBER: 7003903 FILE NAME: E&S-08 DRAWING TYPE: STRUCTURE NUMBER:	ROADWAY AND BRIDGE RECONSTRUCTION FROM MILEPOST A31.341 TO A37.38
	NO. REVISIONS DATE APPR.	SCALE: AS INDICATED	DISTRICT: COUNTY: TOWNSHIP:
DRAWINGS: 1 OF 5 SHEET: 40 OF 88			

CONTINUED ON DRAWING NO. 2

CONTINUED FROM DRAWING NO. 1



CONTINUED ON DRAWING NO. 3

PREPARED BY:
 URBAN ENGINEERS, INC.
 439 WALNUT STREET
 PHILADELPHIA, PA 19106

PREPARED FOR:
 THE PENNSYLVANIA
 TOWNSHIP COMMISSION



NO.	REVISIONS	DATE	APPR.	SCALE

WBS NO. A-031.007001-3-07
 NETWORK NUMBER 70003
 FILE NAME: EES-09
 DRAWING TYPE:
 STRUCTURE NUMBER:

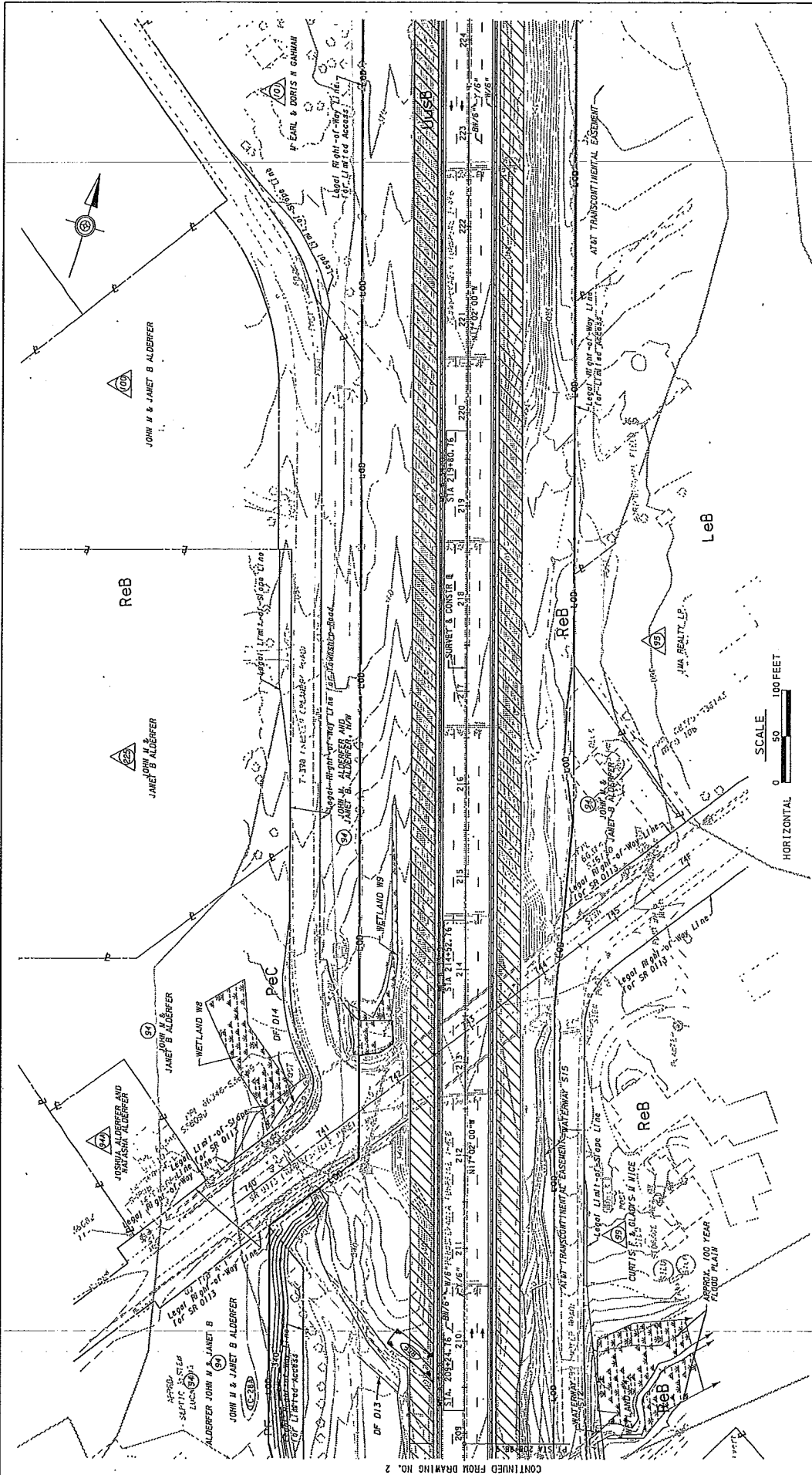
ROADWAY AND BRIDGE RECONSTRUCTION
 FROM MILEPOST A31.34 TO A31.38

EROSION AND SEDIMENT
 POLLUTION CONTROL PLAN
 AS PER 25 P.S. § 6103
 STA 194+50 TO STA 209+00

DISTRICT: 5 COUNTY: MONTGOMERY
 TOWNSHIP: BROADBENT FRANCONIA TOWNSHIP

DRAWN: 2 OF 5
 SHEET: 41 OF 55

E-38



CONTINUED FROM DRAWING NO. 2

PREPARED BY: URBAN ENGINEERS, INC. 800 VALUOT STREET PHILADELPHIA, PA 19106 PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		WBS NO. A-037.001007-3-07	ROADWAY AND BRIDGE RECONSTRUCTION FROM MILEPOST A31.34 TO A37.39	EROSION AND SEDIMENT POLLUTION CONTROL PLAN STAGE 2 - PHASE A STA. 209+00 TO STA. 224+00
		NETWORK NUMBER: 705800 FILE NAME: EAS-10 DRAWING TYPE: STRUCTURE NUMBERS	DISTRICT: 5 COUNTY: MONTGOMERY TOWNSHIP: BOROUGH: FRANCISVILLE TOWNSHIP	DRAWINGS: 3 OF 5 SHEET: 42 OF 88
REVISIONS NO. DATE APPR.	SCALE: AS INDICATED	HORIZONTAL 0 50 100 FEET		

E-39

Pennsylvania Turnpike Total Reconstruction Project, Milepost A31 to A38
Compensatory Mitigation Plan

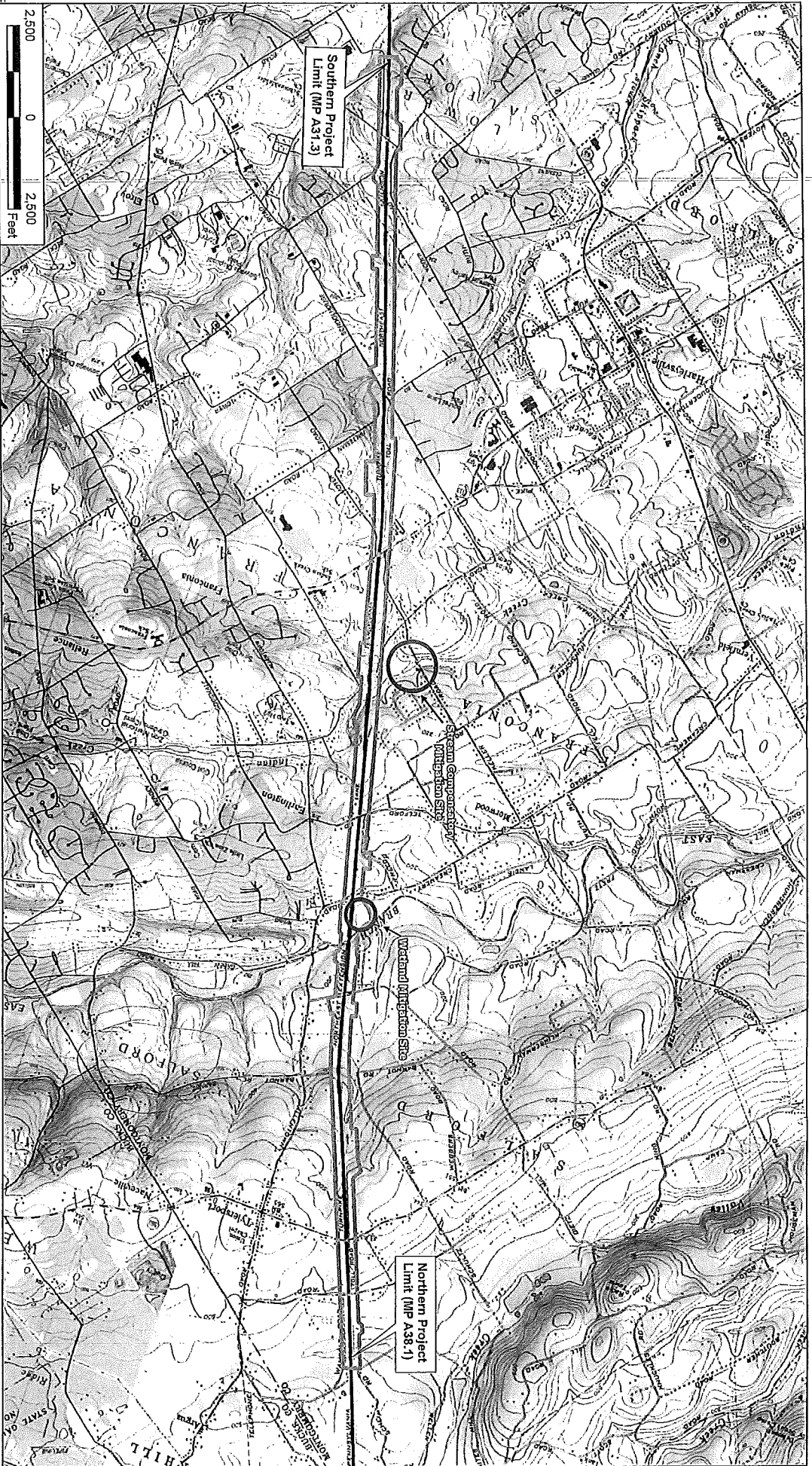


Project Study Area

Mitigation Sites

Figure 2
Mitigation Sites
Full Depth Reconstruction and Widening of the Pennsylvania Turnpike (I-476) from Milepost A31.3 to Milepost A38.1
Lower Salford, Franconia, and Salford Townships,
Montgomery County, Pennsylvania

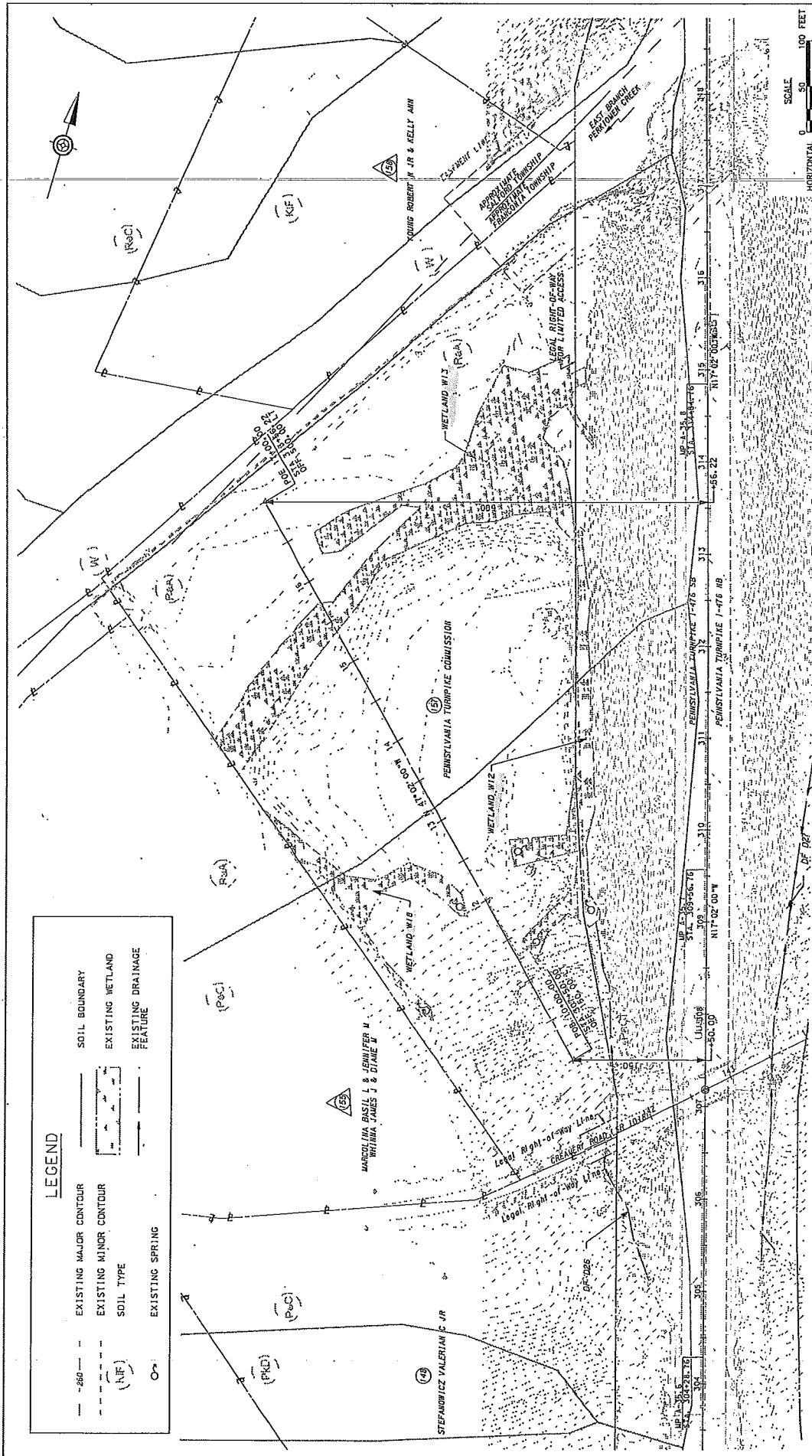
Source: © 2013 National Geographic Society. Licensed: 7.5" USGS Quadrangles for Lansdale, Pottersville, and Talford Pennsylvania



E-40

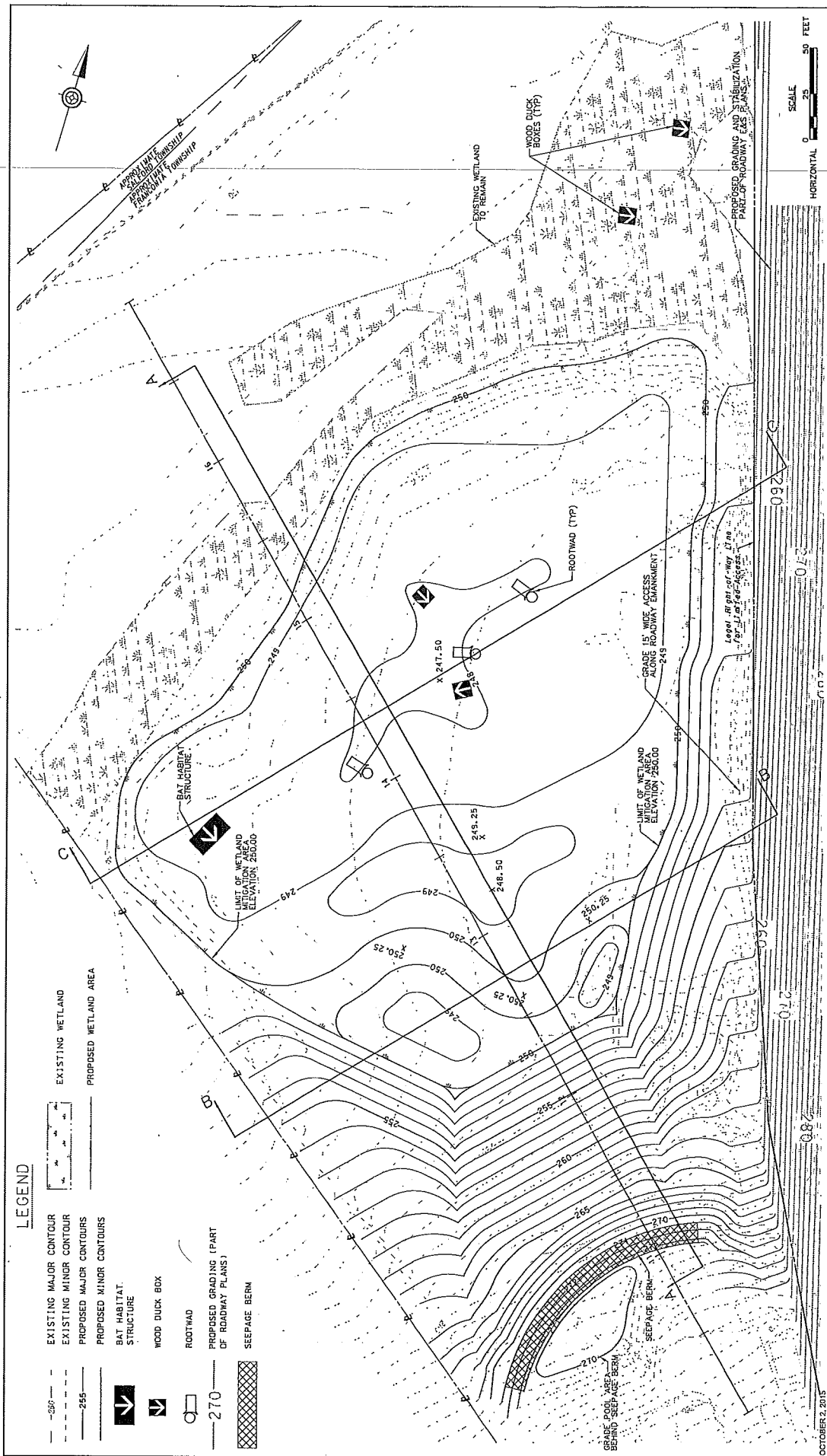
LEGEND

- 250 ——— EXISTING MAJOR CONTOUR
- - - - - EXISTING MINOR CONTOUR
- (N.F.) SOIL TYPE
- EXISTING SPRING
- SOIL BOUNDARY
- - - - - EXISTING WETLAND
- - - - - EXISTING DRAINAGE FEATURE



PREPARED BY: A.D. MARBLE & COMPANY, INC. 375 EAST ELM STREET, SUITE 101 CONSHOHOCKEN, PA 19428	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION	PENNSYLVANIA TURNPIKE	USES: N/A A-031 007001-3-07 NETWORK NUMBER: 703063 FILE NAME: WAB01.dwg DRAWING TYPE: IV STRUCTURE NUMBER:	ROADWAY AND BRIDGE RECONSTRUCTION FROM MILLERSDALE TO DARTMOUTH	WETLAND MITIGATION PLAN MP A35.7 - MP A35.8 EXISTING CONDITIONS PLAN
			DISTRICT: 5 TOWNSHIP: BOROUGHS: FRANCONIA TOWNSHIP	COUNTY: MONTGOMERY	SCALE: AS INDICATED

E-40

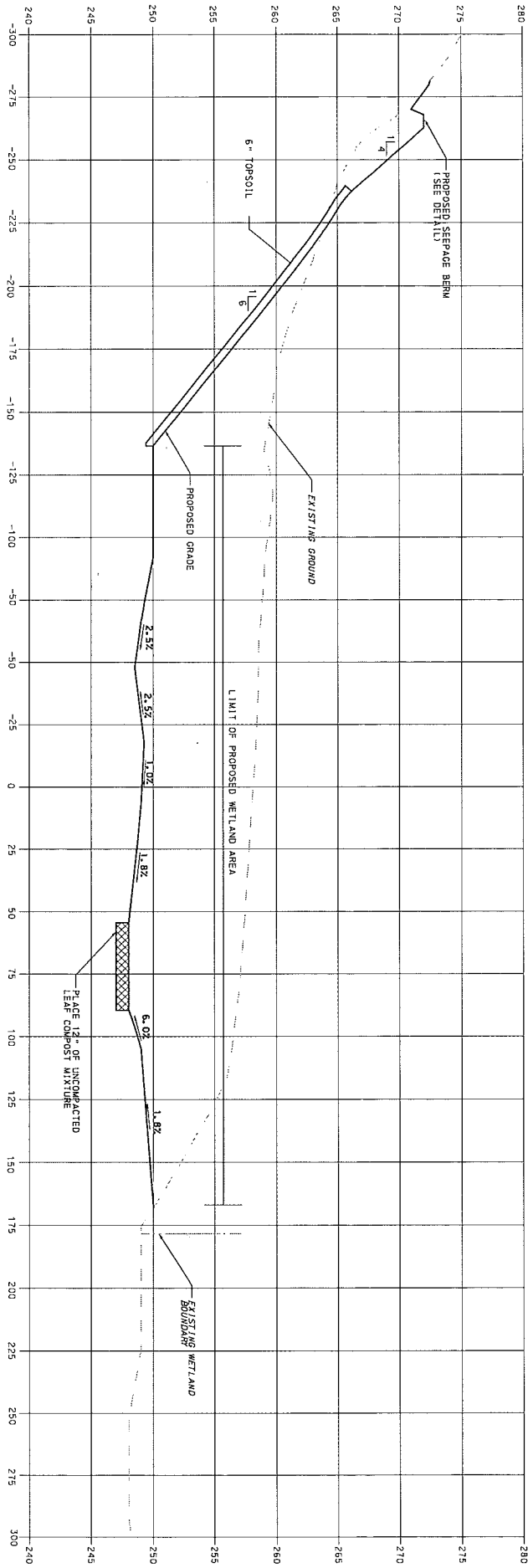


LEGEND

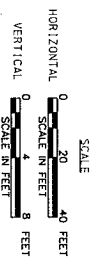
- 250 --- EXISTING WETLAND
- 255 --- PROPOSED WETLAND AREA
- - - - - EXISTING MAJOR CONTOUR
- - - - - PROPOSED MAJOR CONTOUR
- - - - - EXISTING MINOR CONTOUR
- - - - - PROPOSED MINOR CONTOUR
- ▣ BAT HABITAT STRUCTURE
- ▣ WOOD DUCK BOX
- ROOTWAD
- 270 --- PROPOSED GRADING (PART OF ROADWAY PLANS)
- ▣ SEEPAGE BERN

OCTOBER 2, 2015		PREPARED BY: C. E. & COMPANY, INC. 315 EAST BULL DOG RD CONSHOHOCKEN, PA 19080		WBS NO. A-031-007001-9-47 NETWORK NUMBER: 7003863 FILE NAME: WMB030.dgn DRAWING TYPE: JV STRUCTURE NUMBER:	
PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		REVISIONS		SCALE: AS INDICATED	
ROADWAY AND BRIDGE RECONSTRUCTION FROM MILEPOST A31.34 TO A37.39		DISTRICT: 8 TOWNSHIP / PARISH: MONSIEUR COUNTY: MONSIEUR		DRAWING: 1 OF 1 SHEET: 3 OF 18	
WETLAND MITIGATION PLAN MP A35.7 - MP A35.8 GRADING PLAN					

E-42

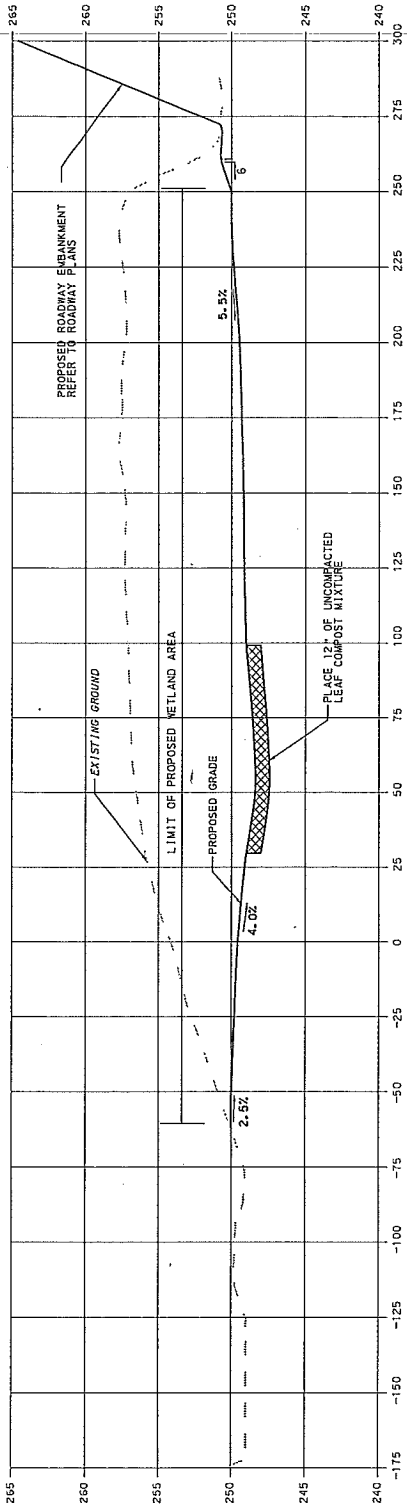


TYPICAL SECTION A-A
FOR PROPOSED WETLAND MITIGATION
SEE SHEET 3 OF 18 FOR LOCATIONS

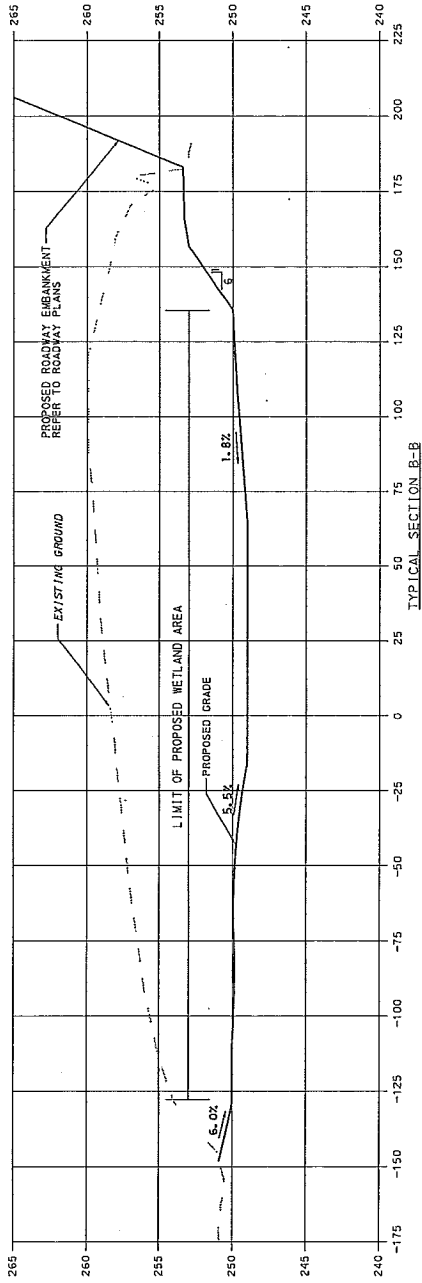


OCTOBER 2, 2015		PREPARED BY: A.D. MARLE & COMPANY, INC. 375 EAST ELM STREET, SUITE 101 CONSHOHOCKEN, PA 19328		PREPARED FOR: THE PENNSYLVANIA TOWNSHIP COMMISSION	
		WBS NO. A-031.001001-3-07		DISTRICT: 5 COUNTY: MONTGOMERY TOWNSHIP: BOROUGHTON PENNSYLVANIA TOWNSHIP	
NO.		NETWORK NUMBER: 703863		ROADWAY AND BRIDGE RECONSTRUCTION FROM MILEPOST A31.34 TO A37.39	
REVISIONS		DRAWING TYPE: IV		WETLAND MITIGATION PLAN MIP A35.7, MIP A35.8 TYPICAL SECTIONS	
DATE		STRUCTURE NUMBER:		DRAWINGS: 1 OF 2	
APPR.		SCALE: AS INDICATED		SHEET: 4 OF 18	

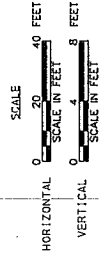
E-42



TYPICAL SECTION C-C
FOR PROPOSED WETLAND MITIGATION
SEE SHEET 3 OF 18 FOR LOCATIONS



TYPICAL SECTION B-B
FOR PROPOSED WETLAND MITIGATION
SEE SHEET 3 OF 18 FOR LOCATIONS



OCTOBER 2, 2015

PREPARED BY:
A.D. MARBLE & COMPANY, INC.
375 EAST ELM STREET, SUITE 101
CONSHOHOCKEN, PA 19428

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.

REVISIONS

DATE

APPR.

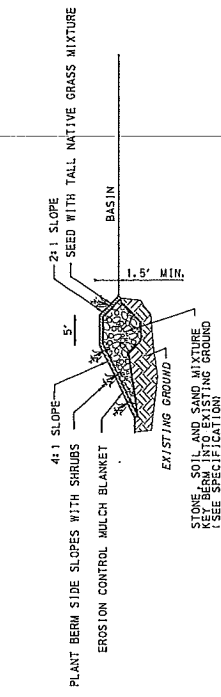
WBS NO.
A-031.001001-S-07
NETWORK NUMBER: 7033603
FILE NAME:
DRAWING TYPE: IV
STRUCTURE NUMBER:
SCALE: AS INDICATED

ROADWAY AND BRIDGE RECONSTRUCTION
FROM MILEPOST A31.34 TO A37.39

WETLAND MITIGATION PLAN
FOR ROADWAY AND
BRIDGE RECONSTRUCTION
TYPICAL SECTIONS

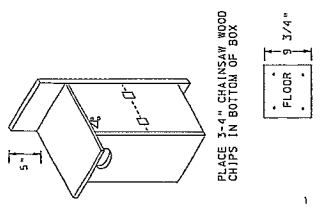
DISTRICT: 5 COUNTY: MONTGOMERY
TOWNSHIP: BIRCHCREEK PRINCEDANIA TOWNSHIP
DRAWING: 2 OF 2
SHEET: 3 OF 18

E-44



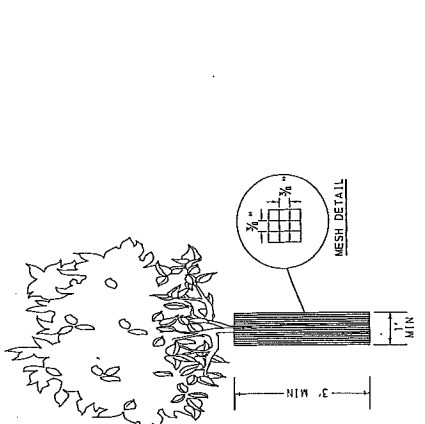
SEEPAGE BERM DETAIL
(ITEM 4000-XXXX)
N.T.S.

- NOTES**
- SEEPAGE BERM SHALL HAVE A MINIMUM HEIGHT OF 1.5 FEET MEASURED FROM THE BOTTOM OF THE BASIN TO THE TOP OF BERM.
 - KEY BERM A MINIMUM OF 1.0 FT INTO EXISTING GROUND. KEY WIDTH SHALL BE A MINIMUM OF 3 FEET.
 - ENTIRE BERM SHALL BE WELL SEEDED WITH TALL NATIVE GRASS MIXTURE.



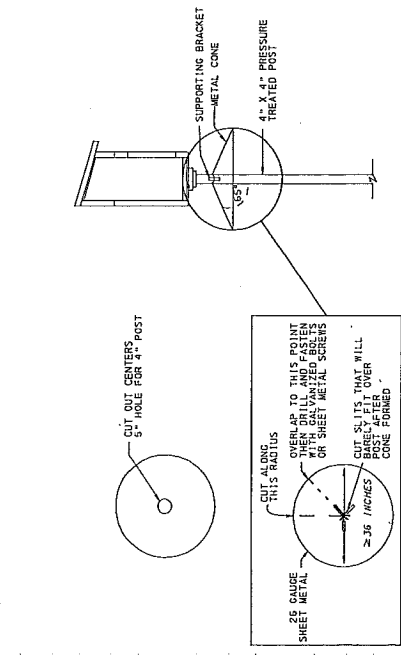
PREDATOR GUARDS
(ITEM NO. 4000-XXXX)
N.T.S.

NOTES:
BASED ON WOODCRAFTING FOR WILDLIFE PUBLICATION FROM THE PENNSYLVANIA GAME COMMISSION.



TREE PROTECTION
(ITEM 4000-XXXX)
N.T.S.

NOTE: 1. 2\" X 4\" ROLLS THAT CAN BE CUT TO THE PROTECTION LENGTH (5' 3/8\" X 3/8\"). USE PLASTIC OR METAL FASTENERS TO SECURE TREE PROTECTOR. PLACE ON TREES AS INDICATED ON PLANTING LEGEND.



PREDATOR GUARDS
(ITEM NO. 4000-XXXX)
N.T.S.

OCTOBER 2, 2015

PREPARED BY:
A.J. MARBLE & COMPANY, INC.
375 EAST 81st STREET, SUITE 101
CONSHOHOCKEN, PA 19028



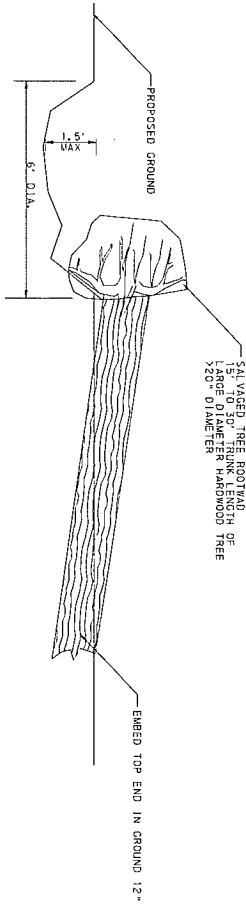
PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION

WBS NO. A-031.007001-3-07
NETWORK NUMBER: 7003063
FILE NAME:
DRAWING TYPE: IV
STRUCTURE NUMBER:
SCALE: AS INDICATED

ROADWAY AND BRIDGE RECONSTRUCTION
FROM MILEPOST A31.34 TO A37.39

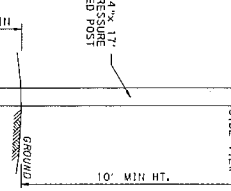
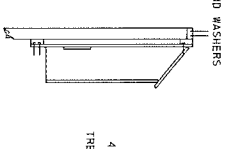
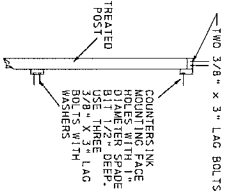
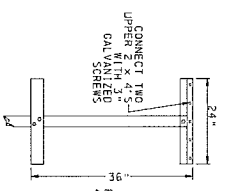
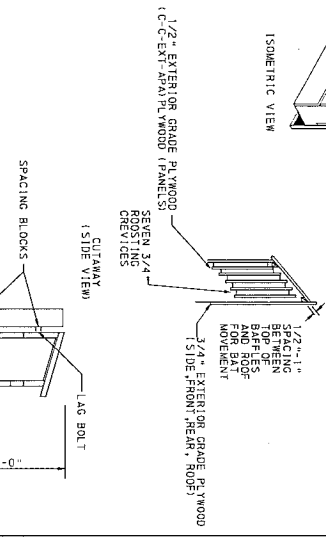
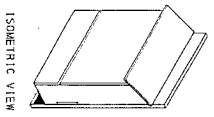
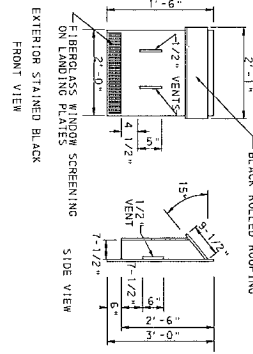
WETLAND MITIGATION PLAN
MP A357 - MP A358
PLANTING AND HABITAT ENHANCEMENT DETAILS

DISTRICT: 5	COUNTY: MONTGOMERY	DRAWING: 2	OF 3
TOWNSHIP/BOROUGH: FRANCONIA TOWNSHIP		SHEET: 7	OF 18



ROOTWAD DETAIL
 (ITEM 4000-XXXX)
 NTS

- NOTES
1. PLACE NEAR OPEN WATER AREA. EXTEND TRUNK INTO WATER TO PROVIDE BASKING PLATFORM.
 2. ROOTWAD SALVAGED BY EXCAVATING AROUND ROOTS AND TOPPED WITH EXCAVATION.
 3. ROOTWAD PLACED ON NORTHWEST SIDE OF EXCAVATED PIT TO PROVIDE AESTHETIC SCREENING OF PIT. PLACEMENT SHALL BE ESTABLISHED BY THE REPRESENTATIVE.
 4. SELECT HARDWOOD TREES LARGER THAN 20" DIAMETER FROM DISTURBED AREA OF SITE.



- NOTES
1. BASED ON WOODCREATING FOR WILDLIFE PUBLICATION FROM THE PENNSYLVANIA GAME COMMISSION.
 2. ORIENT BOX TO SOUTHEAST TO CATCH MORNING SUN IF POSSIBLE.
 3. PLACE 20 TO 25 FEET FROM THE NEAREST TREE BRANCHES.

HABITAT ENHANCEMENT - BAT HOUSE STRUCTURE
 (ITEM NO. 4000-XXXX)
 NTS

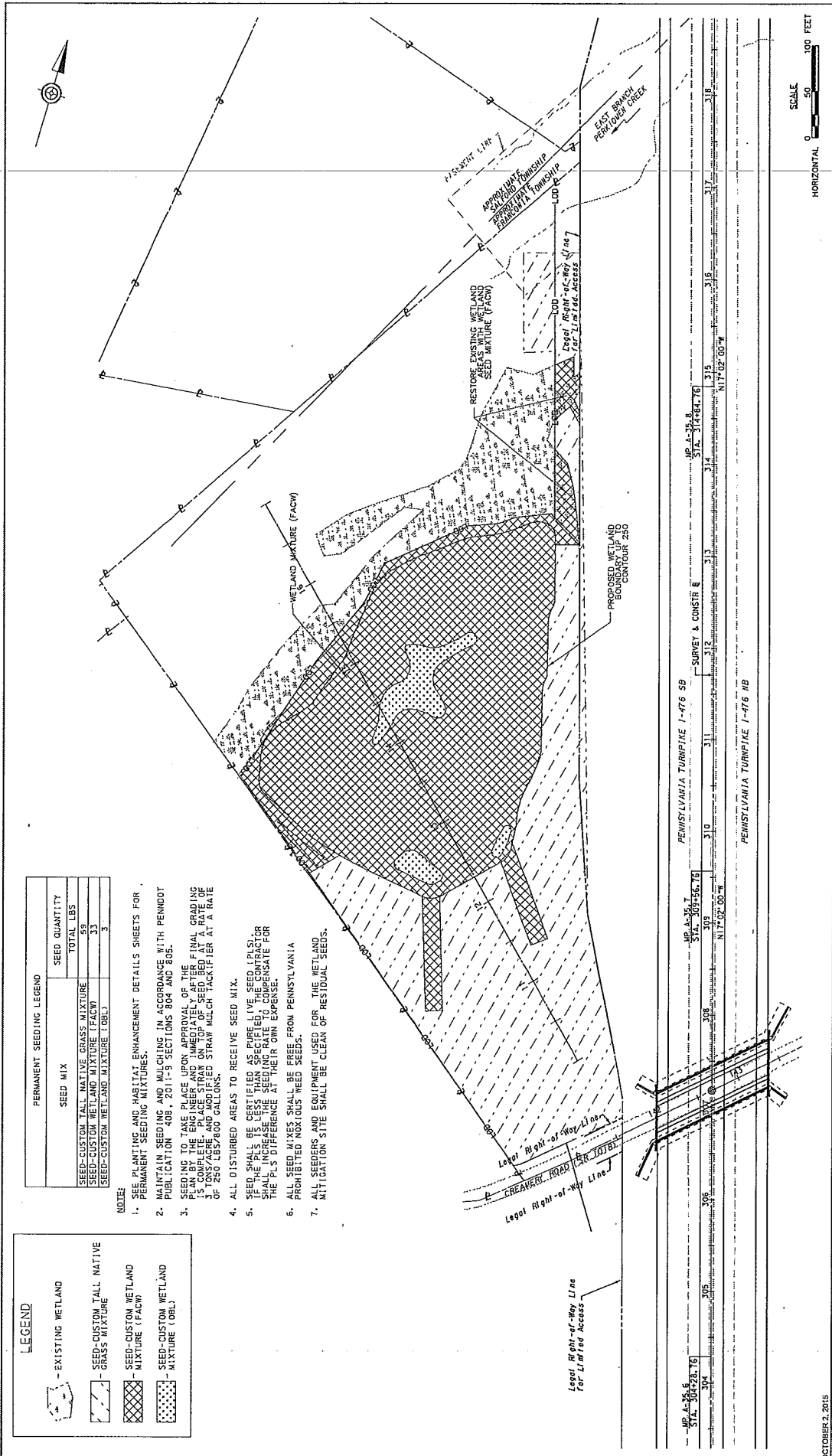
OCTOBER 2, 2015		PREPARED BY: A.D. YARBLE & COMPANY, INC. 375 EAST ELM STREET, SUITE 101 CONSHOHOCKEN, PA 19428		PENNA TURN-PIKE		NO.		REVISIONS		DATE		APPR.		WBS NO. A-031.00T001-3-07		ROADWAY AND BRIDGE RECONSTRUCTION FROM MILEPOST 431.34 TO 437.39		WETLAND MITIGATION PLAN MP ASSJ - MP ASSB	
		PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION												DISTRICT: 5		COUNTY: MONTGOMERY		PLANTING AND HABITAT ENHANCEMENT DETAILS	
														TOWNSHIP/BOROUGH: FRANCONIA TOWNSHIP				DRAWINGS: 3 OF 3	
																		SHEET: 8 OF 18	



PERMANENT SEEDING LEGEND	
SEED MIX	SEED QUANTITY TOTAL LBS
SEED-CUSTOM TALL NATIVE GRASS MIXTURE	59
SEED-CUSTOM WETLAND MIXTURE (FACW)	33
SEED-CUSTOM WETLAND MIXTURE (OBL)	3

LEGEND	
	- EXISTING WETLAND
	SEED-CUSTOM TALL NATIVE GRASS MIXTURE
	SEED-CUSTOM WETLAND MIXTURE (FACW)
	SEED-CUSTOM WETLAND MIXTURE (OBL)

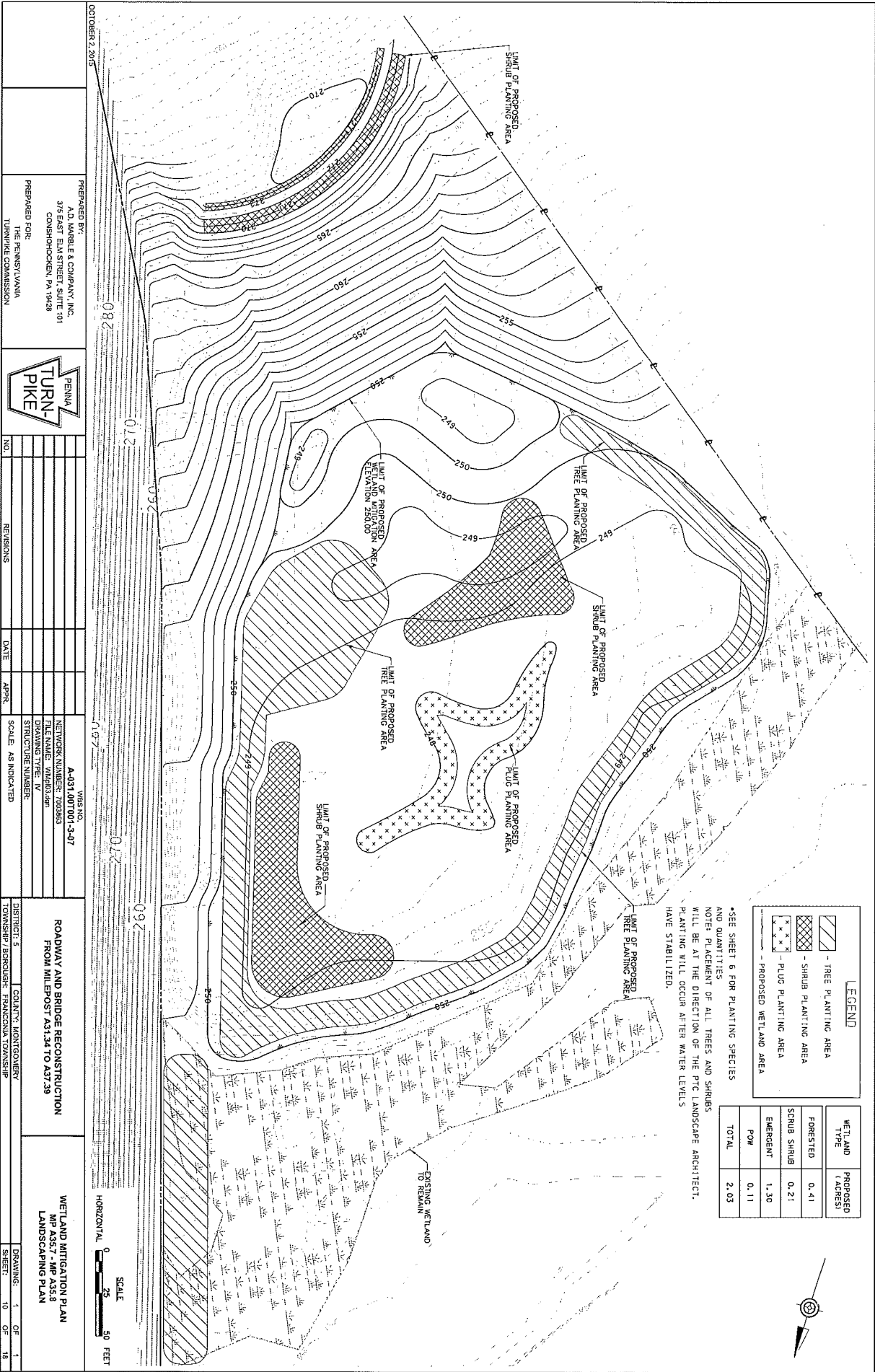
- NOTES
1. PLANTING AND MAINTENANCE ENHANCEMENT DETAILS SHEETS FOR PERMANENT SEEDING MIXTURES.
 2. MAINTAIN SEEDING AND MULCHING IN ACCORDANCE WITH PENNDOT PUBLICATION LOG # 2011-5 SECTIONS 604 AND 605.
 3. SEEDING SHALL BE DONE ON A LEVEL OF THE FINAL GRADING. THE PLAN BY THE ENGINEER AND NAMED AS SUCH SHALL BE USED. IF THE GRADING IS COMPLETE, PLACE STRAW ON TOP OF SEED BED AT A RATE OF 200 LBS/600 GALLONS.
 4. ALL DISTURBED AREAS TO RECEIVE SEED MIX.
 5. SEED SHALL BE CERTIFIED AS PURE LIVE SEED (PLS). THE PURCHASE PRICE SHALL INCREASE 10% SEED AND 5% MULCH TO COMPENSATE FOR THE PLS DIFFERENCE AT THEIR OWN EXPENSE.
 6. ALL SEED MIXES SHALL BE FREE FROM PENNSYLVANIA PROHIBITED NOXIOUS WEED SEEDS.
 7. ALL SEEDERS AND EQUIPMENT USED FOR THE WETLAND MITIGATION SITE SHALL BE CLEAN OF RESIDUAL SEEDS.



SCALE
HORIZONTAL 0 50 100 FEET

OCTOBER 2, 2015	PREPARED BY: A.D. MARBLE & COMPANY, INC. 375 EAST ELM STREET, SUITE 101 CONSHOHOCKEN, PA 19028		VES NO. A-031.001001-3-07 NETWORK NUMBER: 702883 FILE NAME: VM001.dwg DRAWING TYPE: IV STRUCTURE NUMBER: SCALE: AS INDICATED	WETLAND MITIGATION PLAN PROJECT NO. 133-8 SEEDING PLAN	
	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION			DISTRICT: 5 TOWNSHIP: BURDUGH COUNTY: MONTGOMERY FRONTIER NUMBER: 34334TD04RTS9	DRAWING: 1 OF 1 SHEET: 9 OF 18

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LEGEND

[Diagonal hatching]	TREE PLANTING AREA
[Cross-hatching]	SHRUB PLANTING AREA
[Star pattern]	PLUD PLANTING AREA
[Dotted pattern]	PROPOSED WETLAND AREA

WETLAND TYPE (ACRES)	PROPOSED (ACRES)
FORESTED	0.41
SCRUB SHRUB	0.21
EMERGENT	1.30
POW	0.11
TOTAL	2.03

•SEE SHEET 6 FOR PLANTING SPECIES AND QUANTITIES
 NOTE: PLACEMENT OF ALL TREES AND SHRUBS WILL BE AT THE DIRECTION OF THE PTC LANDSCAPE ARCHITECT. PLANTING WILL OCCUR AFTER WATER LEVELS HAVE STABILIZED.

OCTOBER 2, 2015

PREPARED BY:
 A.D. MARBLE & COMPANY, INC.
 375 EAST ELM STREET, SUITE 101
 CONSHOHOCKEN, PA 19428

PREPARED FOR:
 THE PENNSYLVANIA
 TURNPIKE COMMISSION



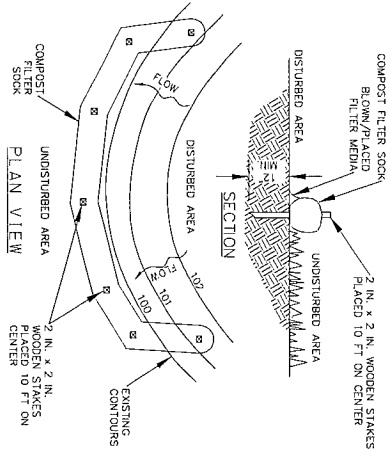
NO.	REVISIONS	DATE	APPR.	WBS NO.
				A-031.007001-3-07
				NETWORK NUMBER: 700363
				FILE NAME: WMP03.dwg
				DRAWING TYPE: IV
				STRUCTURE NUMBER:
				SCALE: AS INDICATED

DISTRICT: 5 | COUNTY: MONTGOMERY
 TOWNSHIP: BROOKLET | FRANCISIA TOWNSHIP

**ROADWAY AND BRIDGE RECONSTRUCTION
 FROM MILEPOST 43.134 TO 43.739**

WETLAND MITIGATION PLAN
 W/ ASS. P/MS 28
 LANDSCAPING PLAN

DRAWING: 1 OF 1
 SHEET: 10 OF 18



COMPOST FILTER SOCK
ITEM NO. 1067-C01B1

NOTES:
SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AND 5 FEET DOWN TO THE MAIN CHANNEL. THE SOCK SHALL BE PLACED AT THE TOP OF THE SLOPE OF ITS TRIBUTARY AREA. TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

COMPOST FILTER SOCKS SHALL BE INSPECTED WEARLY AND AFTER EACH RAINFALL EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS. PHOTOGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 3 MONTHS. UNLESS STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE SUPPLEMENT, THE MESH SHALL BE CUT OPEN AND THE MESH SPREAD AS A SOIL

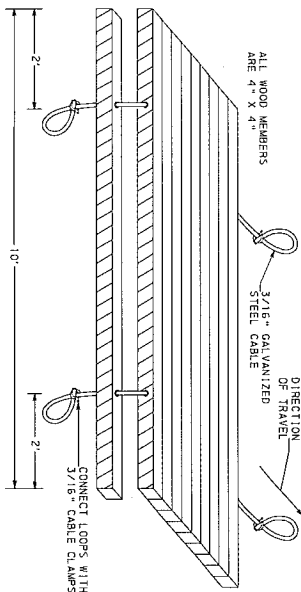
TABLE A1
COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS

MATERIAL TYPE	3 MI HOPE	5 MI HOPE	5 MI HOPE	MULTI-FILAMENT POLYPROPYLENE (MPP)	HEAVY DUTY MULTI-FILAMENT POLYPROPYLENE (HDMP)
CHARACTERISTICS	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE
SOCK DIAMETERS	12" - 18"	18" - 24"	12" - 18" - 24" - 32"	12" - 18" - 24" - 32"	12" - 18" - 24" - 32"
MESH OPENING	3/8"	3/8"	3/8"	3/8"	1/8"
TENSILE STRENGTH		26 PSI	26 PSI	44 PSI	202 PSI
ULTRAVIOLET STABILIZER (ASTM C-155)	23% AT 1000 HR.	23% AT 1000 HR.		100% AT 1000 HR.	100% AT 1000 HR.
MINIMUM FUNCTIONAL LONGEVITY	6 MONTHS	9 MONTHS	6 MONTHS	1 YEAR	2 YEARS

INNER CONTAINMENT NETTING	HOPE BIAXIAL NET CONTINUOUSLY WOUND FUSION-WELDED JUNCTIONS
OUTER FILTRATION MESH	3/4" x 3/4" MAX. APERTURE SIZE COMPOSITE POLYPROPYLENE FABRIC (WOVEN LAYER AND NON-WOVEN FLEECE MECHANICALLY FUSED VIA NEEDLE PUNCH) 3/16" MAX. APERTURE SIZE
SOCK FABRICS COMPOSED OF BURLAP MAY BE USED ON PROJECTS LASTING 6 MONTHS OR LESS.	

TABLE A2
COMPOST STANDARDS

ORGANIC MATTER CONTENT	BOX - 150X120X120 WEIGHT BASED
ORGANIC PARTICLE	FIBROUS AND ELONGATED
MOISTURE CONTENT	35% - 55%
PARTICLE SIZE	98% PASS THROUGH 1" SCREEN
SOLUBLE SALT CONCENTRATION	5.0 G5/100 G MAXIMUM



WETLAND CROSSING WOOD MATTING
ITEM NO. 4000-XXXXX
N. 1, 5.

NOTES:
GEOTEXTILE CLASS 4 TYPE A SHALL BE USED UNDER MATS.
ITEM INCLUDES FURNISHING, INSTALLING, MAINTAINING AND REMOVAL OF WOOD MATS. LOCATIONS OF MATTING SHOW ON PLANS.

OCTOBER 2, 2015

PREPARED BY: A.D. MABLE & COMPANY, INC.
375 EAST ELM STREET, SUITE 101
CONSHOHOCKEN, PA 19028

PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION

NO. _____ REGIONS _____ DATE _____ YEAR _____ SCALE: AS INDICATED

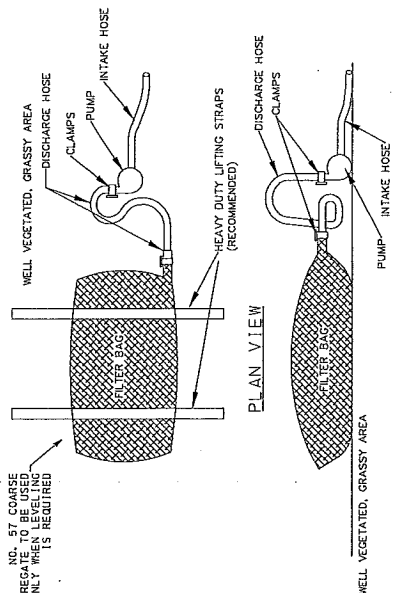
WBS NO. A-031.001001-3-07
NETWORK NUMBER: 200863
FILE NAME: WML ESD022400
DRAWING TYPE: IV
STRUCTURE NUMBER: _____

DISTRICT 5 COUNTY: MONTGOMERY
TOWNSHIP: BRIDGE TOWNSHIP

ROADWAY AND BRIDGE RECONSTRUCTION FROM MILEPOST A31.34 TO A37.39

WETLAND MITIGATION PLAN
MP A35.7 - MP A35.8
EROSION AND SEDIMENT POLLUTION CONTROL DETAILS

REVISIONS: 4 OF 8
SHEET: 14 OF 18



NOTES:
A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THE PUMPING RATE IS REDUCED TO 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER. BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.

BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON POLYETHYLENE OR POLYPROPYLENE LINERS. BAGS SHALL NOT BE PLACED UNDER THE BAG TO REMOVE SLOPE STEPPERS.

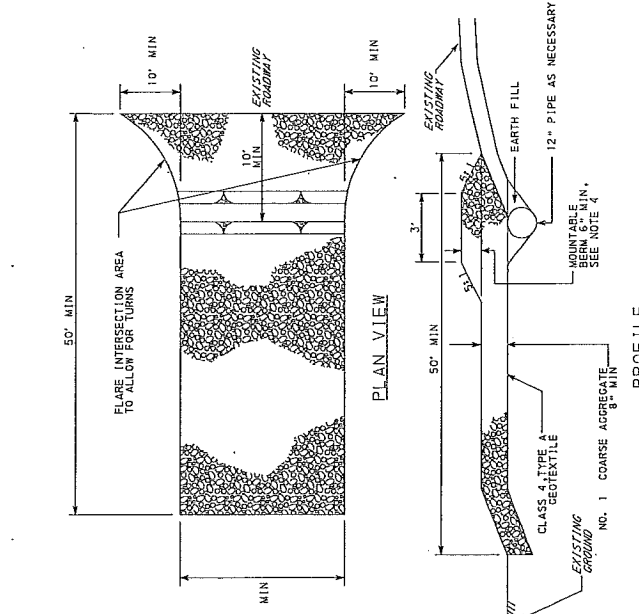
NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

THE PUMP, DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVC. WIDE WIDTH STRENGTH	ASTM D-2884	60 LB/IN
GRAB TENSILE	ASTM D-4832	205 LB
TEAR RESISTANCE	ASTM D-4832	10 LB
UV RESISTANCE	ASTM D-1555	50% 20
AOS % RETAINED	ASTM D-4751	80 SIEVE



NOTES:
1. MOUNTABLE BERM USED TO PROVIDE PROPER COVER FOR PIPE
2. REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.
3. RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE
4. MOUNTABLE BERM SHALL BE METALLED. WHEREVER OPTIONAL CURBET PIPE IS USED, AND PROPER PIPE COVER SHALL BE PROVIDED. WHERE NECESSARY, THE COVER SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.
5. CONSTRUCT A MOUNTABLE BERM ONLY WHEN 6" MIN COVER CANNOT BE PROVIDED OVER THE PIPE.
MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FEET TO PROVIDE ADDITIONAL SEDIMENT REMOVAL CAPACITY. ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

ROCK CONSTRUCTION ENTRANCE
(ITEM NO. 2849-0001)
N. T. S.

PREPARED BY: A.D. MARBLE & COMPANY, INC. 375 EAST ELM STREET, SUITE 101 CONSHOHOCKEN, PA 19428		WBS NO. A-031.001007-3-07	
PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		NETWORK NUMBER: 002883 FILE NAME: DRAWING TYPE: IV STRUCTURE NUMBER	
DATE: _____ REVISIONS: _____		SCALE: AS INDICATED	
DISTRICT: 5 TOWNSHIP: BOROUGHR: FRANCONIA TOWNSHIP		COUNTY: MONTGOMERY	
ROADWAY AND BRIDGE RECONSTRUCTION FROM MILEPOST A31.34 TO A37.39		WETLAND MITIGATION PLAN MP A37.7 - MP A38.8 EROSION AND SEDIMENT POLLUTION CONTROL DETAILS	
DRAWING: 5 OF 8		SHEET: 15 OF 18	

E-54

OCTOBER 2, 2015		PREPARED BY: A.D. MARBLE & COMPANY, INC. 375 EAST ELM STREET, SUITE 101 CONSHOHOCKEN, PA 19429		PENNA TURN-PIKE		NO.		NO.		NO.		NO.		NO.		NO.		NO.		NO.	
OCTOBER 2, 2015		PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		PENNA TURN-PIKE		NO.		NO.		NO.		NO.		NO.		NO.		NO.		NO.	
OCTOBER 2, 2015		WBS NO. A-031.007001-3-07		PENNA TURN-PIKE		NO.		NO.		NO.		NO.		NO.		NO.		NO.		NO.	
OCTOBER 2, 2015		NETWORK NUMBER: 703063		PENNA TURN-PIKE		NO.		NO.		NO.		NO.		NO.		NO.		NO.		NO.	
OCTOBER 2, 2015		DRAWING TYPE: IV		PENNA TURN-PIKE		NO.		NO.		NO.		NO.		NO.		NO.		NO.		NO.	
OCTOBER 2, 2015		STRUCTURE NUMBER:		PENNA TURN-PIKE		NO.		NO.		NO.		NO.		NO.		NO.		NO.		NO.	
OCTOBER 2, 2015		SCALE: AS INDICATED		PENNA TURN-PIKE		NO.		NO.		NO.		NO.		NO.		NO.		NO.		NO.	
OCTOBER 2, 2015		DISTRICT: 3		PENNA TURN-PIKE		NO.		NO.		NO.		NO.		NO.		NO.		NO.		NO.	
OCTOBER 2, 2015		COUNTY: MONTGOMERY		PENNA TURN-PIKE		NO.		NO.		NO.		NO.		NO.		NO.		NO.		NO.	
OCTOBER 2, 2015		TOWNSHIP: BROUGH		PENNA TURN-PIKE		NO.		NO.		NO.		NO.		NO.		NO.		NO.		NO.	
OCTOBER 2, 2015		PARISH: FRANCIS		PENNA TURN-PIKE		NO.		NO.		NO.		NO.		NO.		NO.		NO.		NO.	
OCTOBER 2, 2015		ROADWAY AND BRIDGE RECONSTRUCTION FROM MILEPOST A31.34 TO A37.39		PENNA TURN-PIKE		NO.		NO.		NO.		NO.		NO.		NO.		NO.		NO.	
OCTOBER 2, 2015		WETLAND MITIGATION PLAN MP A35.7, MP A35.8		PENNA TURN-PIKE		NO.		NO.		NO.		NO.		NO.		NO.		NO.		NO.	
OCTOBER 2, 2015		EROSION AND SEDIMENT POLLUTION CONTROL DETAILS		PENNA TURN-PIKE		NO.		NO.		NO.		NO.		NO.		NO.		NO.		NO.	
OCTOBER 2, 2015		DRAWING: 8 OF 8		PENNA TURN-PIKE		NO.		NO.		NO.		NO.		NO.		NO.		NO.		NO.	
OCTOBER 2, 2015		SHEET: 16 OF 16		PENNA TURN-PIKE		NO.		NO.		NO.		NO.		NO.		NO.		NO.		NO.	

SCIENTIFIC NAME	COMMON NAME	% WEIGHT (LBS.)	RATIO/DATES
SEED-CUSTOM WETLAND MIXTURE OBL ITEM NO. 4804-XXXX			
CAREX VULPINOIDEA	FOX SEDGE	35%	1-1000
CAREX LURIDA	LURID/SWALLOW SEDGE	20%	4-1000
SCIRPUS ATROVIRENS	GREEN BULLRUSH	12%	1-400
CAREX LUPULINA	HOP SEDGE	12%	1-400
CAREX SCOPARIA	BLUNT BROW SEDGE	6%	1-200
SPARGANIUM EUYCARPUM	OLIVE BUR BEED	4%	0-800
VERBERNA HASIATA	BLUE VERVAIN	4%	0-800
QUERCUS PETULUS	SOFT LEAF OAK	2%	0-600
QUERCUS LAEVEFOLIA	EASTERN WHITE OAK	2%	0-400
CAREX CRINITA	FRINGED SEDGE	1%	0-200
ASCLEPIAS INCARNATA	SWAMP MILKWEEDE	1%	0-200
MULHUS RINDEUS	SQUARE STEMMED MONKEYFLYWEED	1%	0-200
ONOCLEA SENEBIOLIS	SENSITIVE FERN	1%	0-200
SCIRPUS CYPERRINUS	WOODRASS	1%	0-200
SCIRPUS CYPERRINUS	WATER PINE WOOD	1%	0-200
SCIRPUS CYPERRINUS	BLUED STONEGRASS	1%	0-200
SCIRPUS CYPERRINUS	JOE PINE WOOD	1%	0-200
SCIRPUS CYPERRINUS	WATER PLANTAIN	0.5%	0-100
SCIRPUS CYPERRINUS	BLUE FLAG	0.5%	0-100
SCIRPUS CYPERRINUS	NOODLING BUR MARIGOLD	0.5%	0-100
SCIRPUS CYPERRINUS	SEEDBOX	0.5%	0-100
SCIRPUS CYPERRINUS	ROUGHLEAF GOLDENROD	0.5%	0-100
SEED-CUSTOM WETLAND MIXTURE FACW ITEM NO. 4804-XXXX			
CAREX VULPINOIDEA	FOX SEDGE	85%	3-750
CAREX VULPINOIDEA	VIRGINIA WILD RICE	10%	1-400
CAREX VULPINOIDEA	SOFT T RUSH	10%	1-500
CAREX VULPINOIDEA	GREEN BULLRUSH	7%	1-300
CAREX VULPINOIDEA	MOUL GRASS	5%	0-750
CAREX VULPINOIDEA	FOUL MANNA GRASS	5%	0-750
CAREX VULPINOIDEA	BLUE VERVAIN	5%	0-750
CAREX VULPINOIDEA	WATER PINE WOOD	2%	0-300
CAREX VULPINOIDEA	WATER PINE WOOD	2%	0-300
CAREX VULPINOIDEA	GRASS LEAVED GOLDENROD	2%	0-300
CAREX VULPINOIDEA	TALL NATIVE GRASS MIXTURE ITEM NO. 2804-XXXX	2%	0-300
CAREX VULPINOIDEA	616 BLUESTEM TIMOTHY VARIETY	31%	8-300
CAREX VULPINOIDEA	616 BLUESTEM TIMOTHY VARIETY	31%	8-300
CAREX VULPINOIDEA	ANNULAR RYEGRASS	8%	2-200
CAREX VULPINOIDEA	INDIAN GRASS	7%	2-200
CAREX VULPINOIDEA	BLACK-EYED SUSAN	7%	2-200
CAREX VULPINOIDEA	OX-EYE SUNFLOWER	7%	2-200
CAREX VULPINOIDEA	PLAIN COREOPSIS	7%	2-200
CAREX VULPINOIDEA	PURPLE CORNFLOWER	7%	2-200
CAREX VULPINOIDEA	SWITCHGRASS TIMOTHY VARIETY	10%	2-800
CAREX VULPINOIDEA	LITTLE BLUESTEM IMPROVED VARIETY	8%	1-300

PLANTING DATES: SEPT. 1 - OCT. 15
OR MARCH 15

PLANTING DATES: SEPT. 1 - OCT. 15
OR MARCH 15

PLANTING DATES: SEPT. 1 - OCT. 15
OR MARCH 15

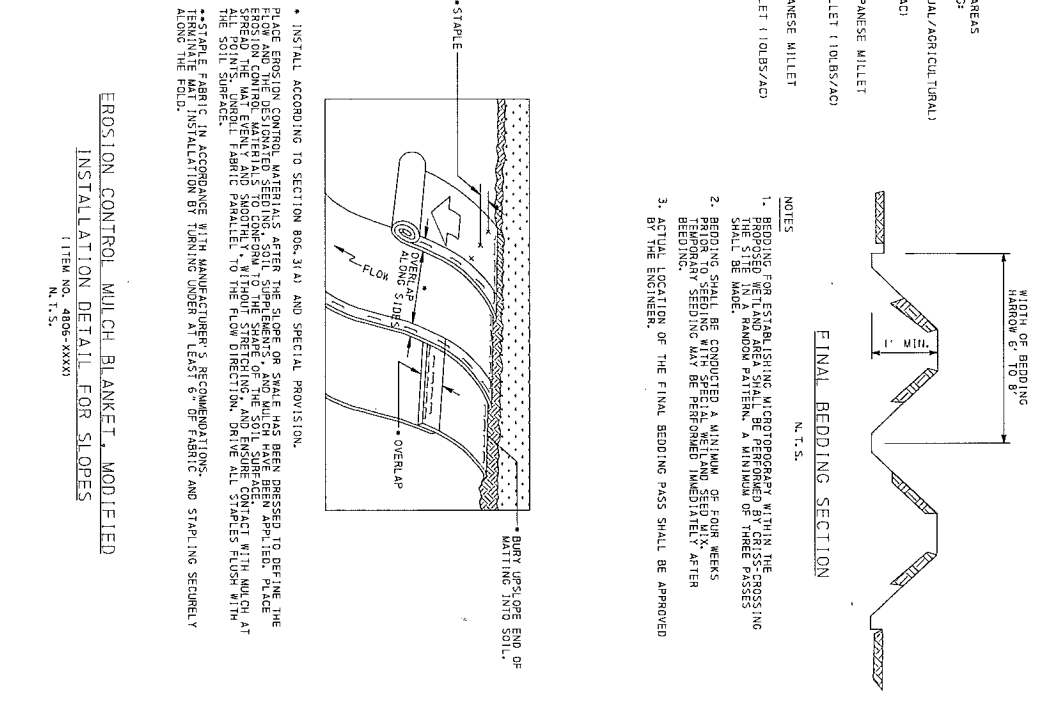
TEMPORARY SEEDING MIXTURES

IF SEEDING OCCURS OUTSIDE OF THE PLANTING DATES FOR ALL AREAS APPLY THE FOLLOWING TO EACH MIXTURE FOR TEMPORARY SEEDING:

MIX PERMANENT TALL NATIVE GRASS MIXTURE WITH WINTER (ANNUAL/AGRICULTURAL) RYE & SEED TOGETHER AT THE FOLLOWING RATE:
TALL NATIVE GRASS MIXTURE (28LBS/AC) + WINTER RYE (30LBS/AC)
COMBINED APPLICATION RATE: (58LBS/AC)

MIX PERMANENT CUSTOM WETLAND SEED MIXTURE (FACW) WITH JAPANESE MILLET & SEED TOGETHER AT THE FOLLOWING RATE:
CUSTOM WETLAND SEED MIXTURE (20LBS/AC) + JAPANESE MILLET (110LBS/AC)
COMBINED APPLICATION RATE: (130LBS/AC)

MIX PERMANENT CUSTOM WETLAND SEED MIXTURE (OBL) WITH JAPANESE MILLET & SEED TOGETHER AT THE FOLLOWING RATE:
CUSTOM WETLAND SEED MIXTURE (20LBS/AC) + JAPANESE MILLET (110LBS/AC)
COMBINED APPLICATION RATE: (130LBS/AC)

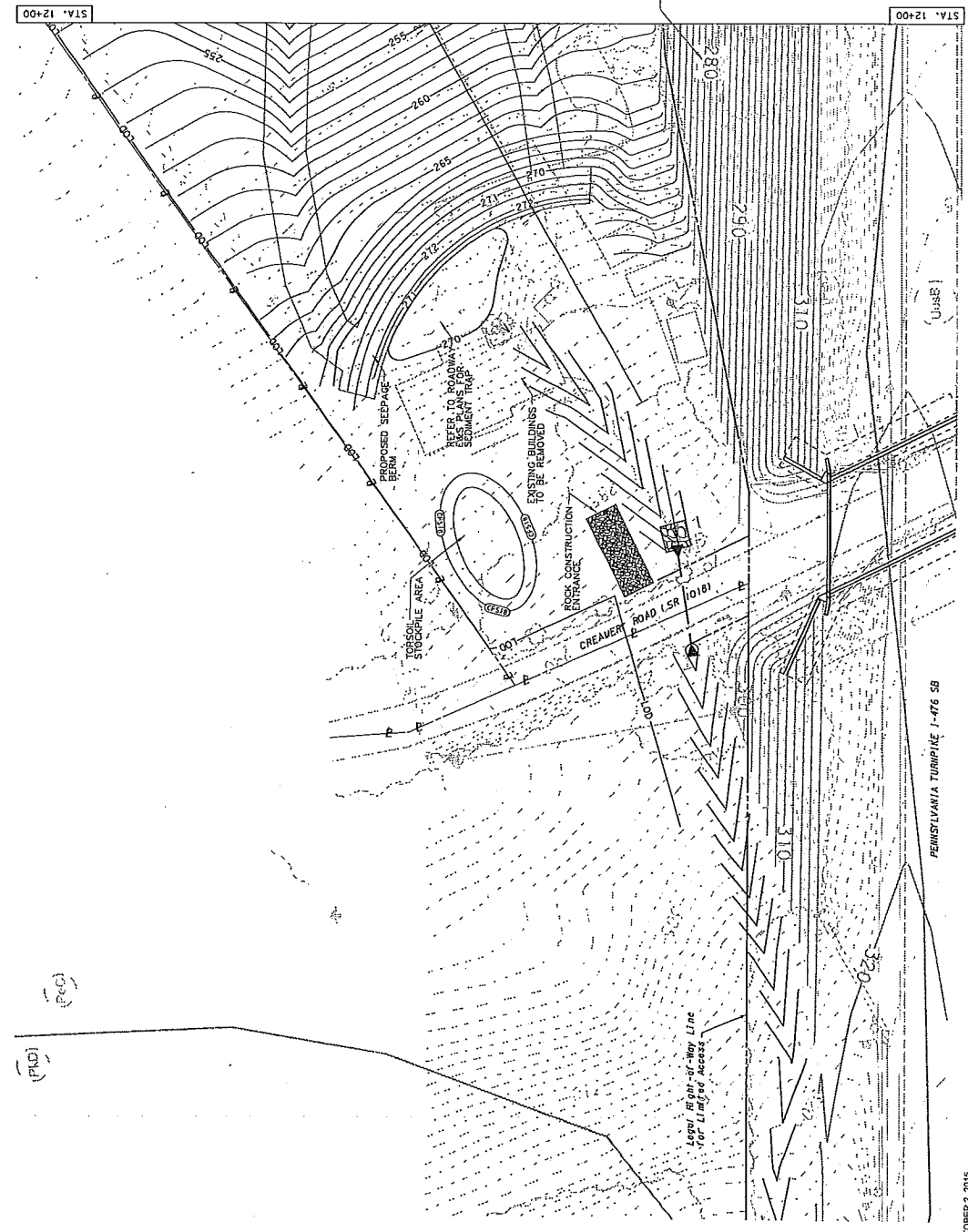


F-55



LEGEND

- PF ——— TEMPORARY PROTECTIVE FENCE
- L-00 ——— LIMIT OF DISTURBANCE
- CE31B ——— COMPOST FILTER SOCK, 18" DIA.
- [Hatched Box] ——— ROCK CONSTRUCTION ENTRANCE
- [Box with FB] ——— SEDIMENT FILTER BAG
- Soil Type ——— SOIL TYPE
- [Cross-hatched Box] ——— WETLAND CROSSING ROADWAY MITIGATION
- [Dotted Box] ——— EXISTING WETLAND
- [Dashed Box] ——— 100-YEAR FLOODPLAIN
- [Dotted Box] ——— PROPOSED GRADING PART OF ROADWAY PLANS
- [Dotted Box] ——— PROPOSED EROSION CONTROL MULCH BLANKET, MODIFIED

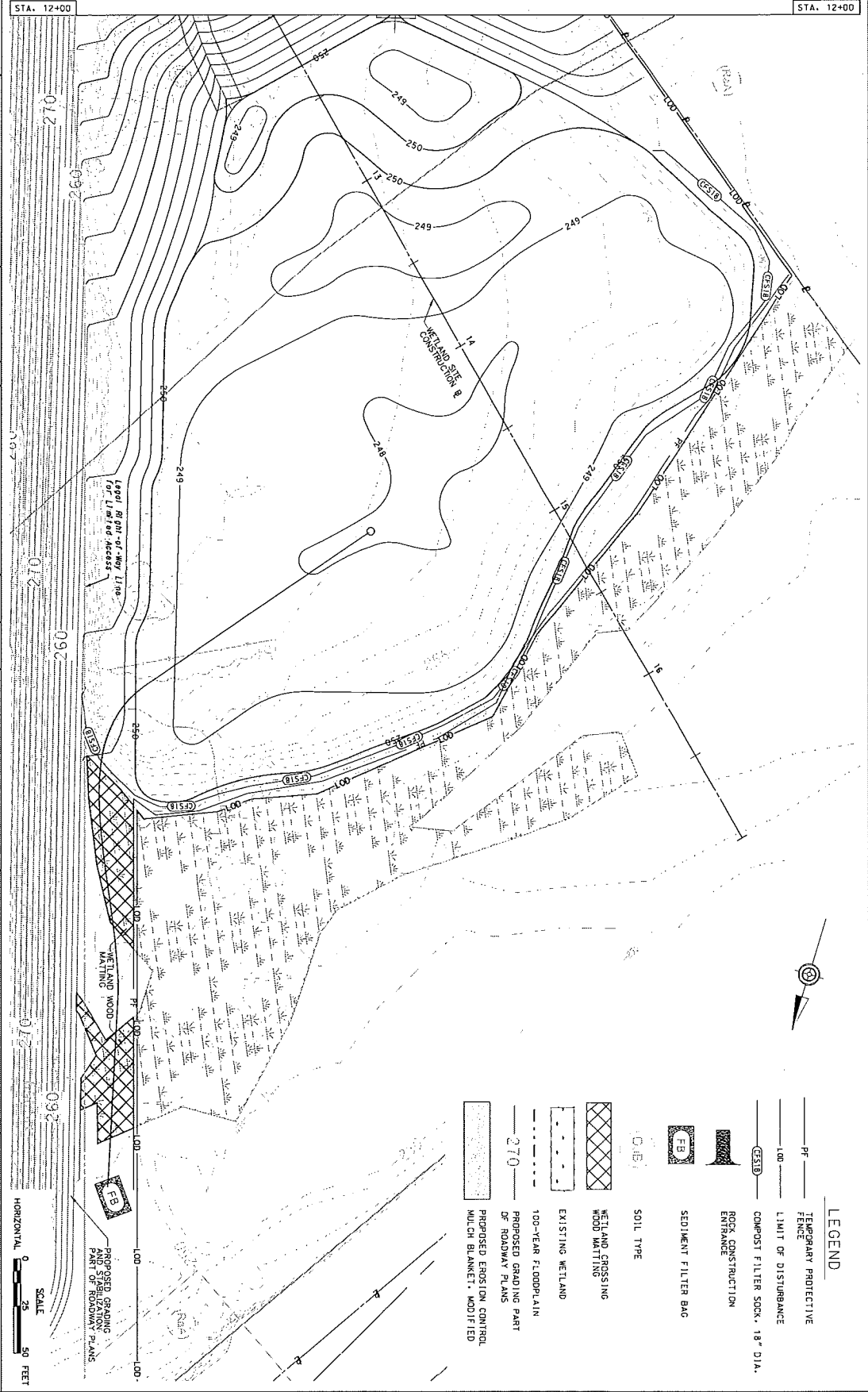


PREPARED BY: A.D. MARBLE & COMPANY, INC. 375 EAST ELM STREET, SUITE 101 CONSHOHOCKEN, PA 19428		VBS NO. A-031.00T001-3-07 NETWORK NUMBER: 7020603 FILE NAME: DRAWING TYPE: IV STRUCTURE NUMBER: SCALE: AS INDICATED	ROADWAY AND BRIDGE RECONSTRUCTION FROM MILEPOST A31.34 TO A37.39		WETLAND MITIGATION PLAN MP ASSET - MP A35.6 EROSION AND SEDIMENT POLLUTION CONTROL PLAN	
			DISTRICT: 5 TOWNSHIP: BERCROFT COUNTY: MONTGOMERY PRINCONA TOWNSHIP	DRAWING: 7 OF: 8	SHEET: 7 OF: 18	

E-56

OCTOBER 2, 2015

CONTINUED FROM DRAWING NO. 7



LEGEND

- PF ——— TEMPORARY PROTECTIVE FENCE
- LIMIT OF DISTURBANCE
- (CFS18)— COMPOST FILTER SOCK, 18" DIA. ENTRANCE
- [Hatched Box] ROCK CONSTRUCTION
- [Box with 'FB'] SEDIMENT FILTER BAG
- (SLOPE) SOIL TYPE
- [Cross-hatched Box] WETLAND CROSSING WOOD MATTING
- [Dotted Box] EXISTING WETLAND
- [Dashed Box] 100-YEAR FLOODPLAIN
- [Line with '270'] PROPOSED GRADING PART OF ROADWAY PLANS
- [Stippled Box] PROPOSED EROSION CONTROL MULCH BLANKET, MODIFIED

PREPARED BY:
 A.D. MARBLE & COMPANY, INC.
 375 EAST ELM STREET, SUITE 101
 CONSHOHOCKEN, PA 19428

PREPARED FOR:
 THE PENNSYLVANIA
 TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.	SCALE, AS INDICATED

WSS NO. A-031.007004-3-07
 NETWORK NUMBER: 700363
 FILE NAME:
 DRAWING TYPE: IV
 STRUCTURE NUMBER:

DISTRICT: 5 COUNTY: MONTEGOMERY
 TOWNSHIP: BROADBENT TOWNSHIP

**ROADWAY AND BRIDGE RECONSTRUCTION
 FROM MILEPOST A31.34 TO A37.39**

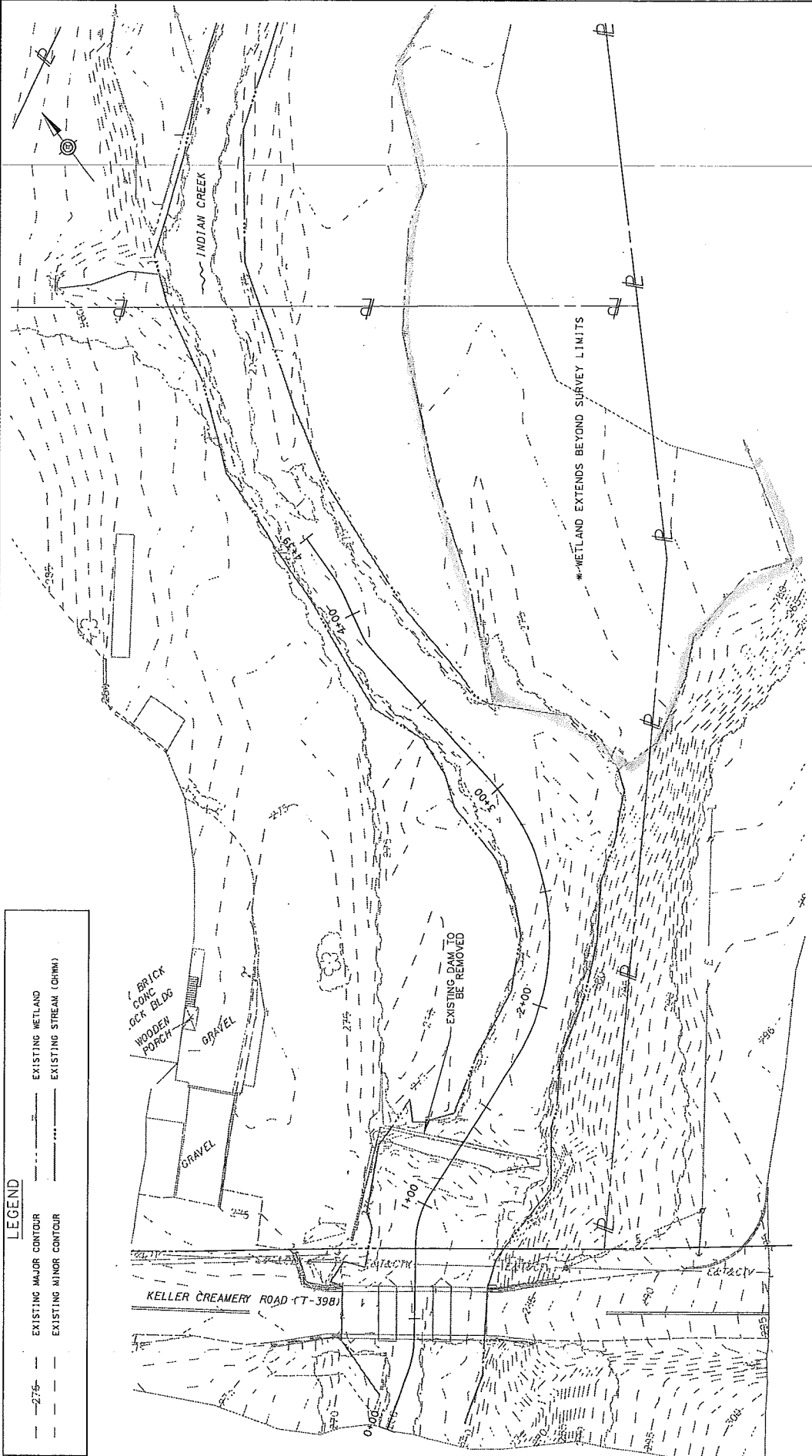
WETLAND MITIGATION PLAN
 MAP A357, MAP A38.8
 EROSION AND SEDIMENT POLLUTION CONTROL PLAN

DRAWING: 8 OF 8
 SHEET: 18 OF 18

HORIZONTAL SCALE: 1" = 50 FEET

LEGEND

-275-	EXISTING MAJOR CONTOUR	- - -	EXISTING WETLAND
- - -	EXISTING MINOR CONTOUR	- - - - -	EXISTING STREAM (ORHW)



<p>PREPARED BY: A.J. MARBLE & COMPANY, INC. 375 EAST ELM STREET, SUITE 101 CONSHOHOCKEN, PA 19028</p>		<p>NO.</p>		<p>REVISIONS</p>		<p>DATE</p>		<p>APPR.</p>	
<p>PREPARED FOR: PENNSYLVANIA TURNSPIKE COMMISSION</p>		<p>WBS NO. A-03100T001-2</p>		<p>NETWORK NUMBER: 7003224</p>		<p>FILE NAME:</p>		<p>DISTRICT: 3</p>	
<p>FOR STREAM COMPENSATORY MITIGATION OCTOBER 2015</p>		<p>DRAWING TYPE: IV</p>		<p>STRUCTURE NUMBER:</p>		<p>SCALE: 1" = 20'</p>		<p>TOWNSHIP: 7 BOROUGH: FRANKONIA TOWNSHIP</p>	
<p>ROADWAY AND BRIDGE RECONSTRUCTION FROM MILEPOST A31.34 TO A37.39</p>		<p>SCALE IN FEET</p>		<p>SCALE: 1" = 20'</p>		<p>DRAWING: 1 OF 4</p>		<p>SHEET: 1 OF 4</p>	

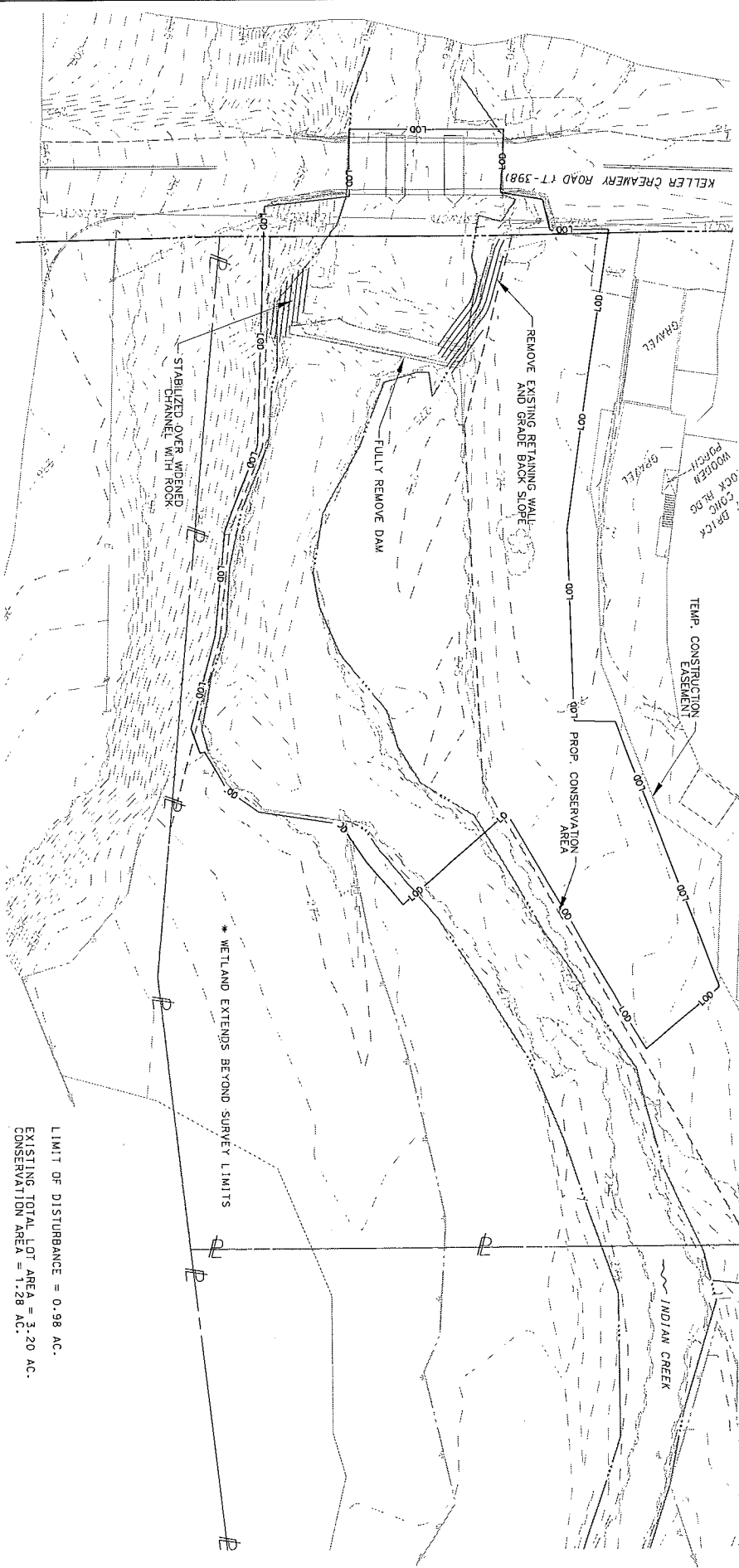
*ALL PROPERTY LINES AND RIGHT-OF-WAYS SHOWN ARE APPROXIMATE

*WETLAND EXTENDS BEYOND SURVEY LIMITS

E-58

LEGEND

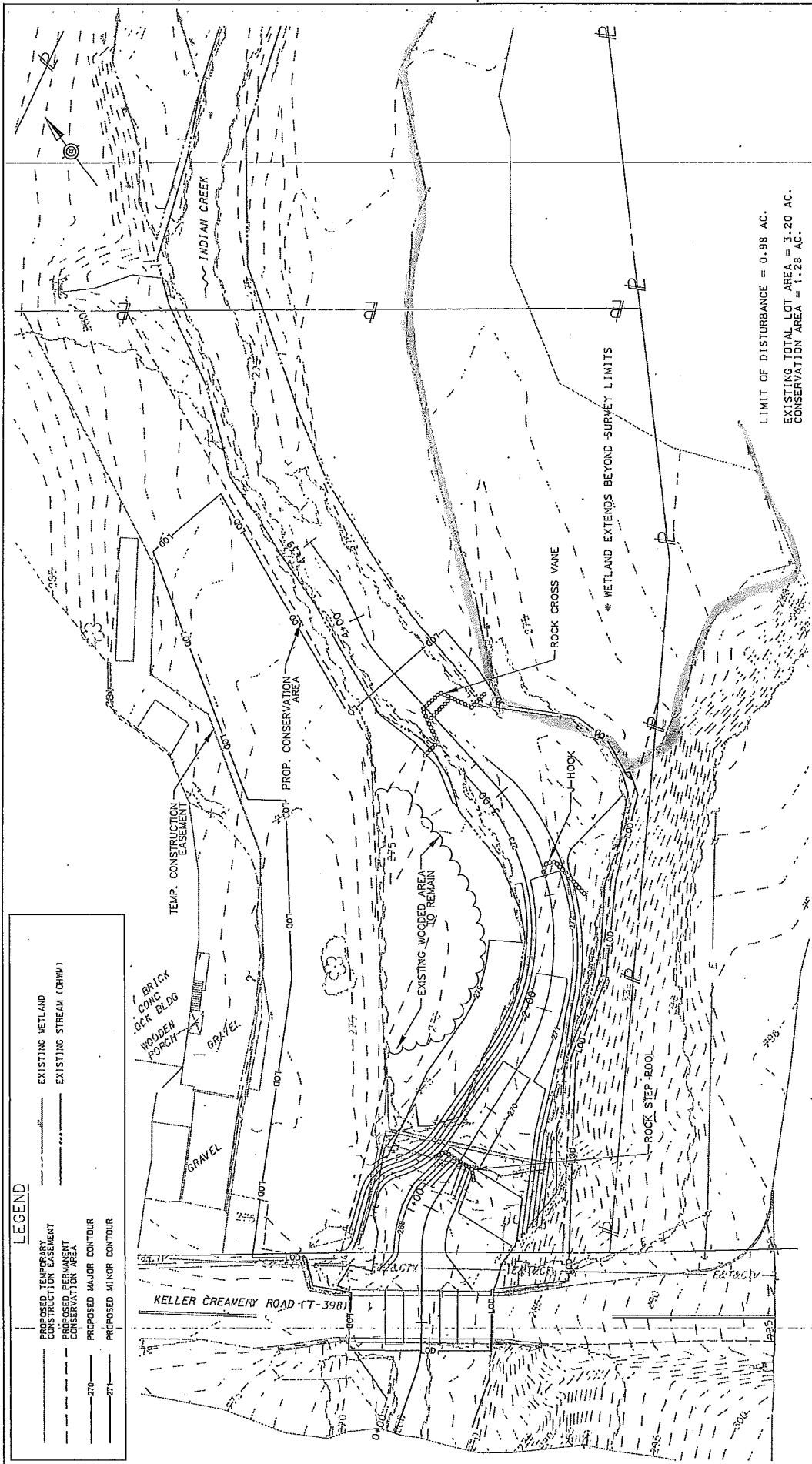
- PROPOSED TEMPORARY CONSTRUCTION EASEMENT
- PROPOSED PERMANENT CONSERVATION AREA
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EXISTING WETLAND
- EXISTING STREAM (DWM)



LIMIT OF DISTURBANCE = 0.98 AC.
 EXISTING TOTAL LOT AREA = 3.20 AC.
 CONSERVATION AREA = 1.28 AC.

*ALL PROPERTY LINES AND RIGHT-OF-WAYS SHOWN ARE APPROXIMATE

PREPARED BY: A.D. MARBLE & COMPANY, INC. 375 EAST ELM STREET, SUITE 101 CONSHOHOCKEN, PA 19380		PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION	
VIMS NO. A-031.001001-2		NETWORK NUMBER: 720228	
FILE NAME: DRAWING TYPE: IV		STRUCTURE NUMBER: 21	
SCALE: 1" = 40'		SCALE IN FEET: 40	
ROADWAY AND BRIDGE RECONSTRUCTION FROM MILEPOST A37.34 TO A37.39		DISTRICT: 4 TOWNSHIP: BERGSHOUSE COUNTY: MONTEGOMERY PRELIMINARY PROPOSED CONDITIONS PLAN - PHASE I FOR STREAM COMPENSATORY MITIGATION OCTOBER 2015	
NO.		REVISIONS	
DATE		APPR.	
SCALE		SHEET: 2 OF 4	



LEGEND

--- (dashed line)	EXISTING WETLAND
--- (dotted line)	PROPOSED TEMPORARY CONSTRUCTION EASEMENT
--- (solid line)	EXISTING STREAM (CHRM)
--- (dashed line)	PROPOSED PERMANENT CONSERVATION AREA
--- (solid line)	PROPOSED MAJOR CONTOUR
--- (solid line)	PROPOSED MINOR CONTOUR

LIMIT OF DISTURBANCE = 0.98 AC.
 EXISTING TOTAL LOT AREA = 3.20 AC.
 CONSERVATION AREA = 1.28 AC.

*ALL PROPERTY LINES AND RIGHT-OF-WAYS SHOWN ARE APPROXIMATE

PREPARED BY: A.D. MARBLE & COMPANY, INC. 373 EAST ELM STREET, SUITE 01 CONSHOHOCKEN, PA 19428 PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		VBS NO. A-01.00T001-2	PRELIMINARY PROPOSED CONDITIONS PLAN - PHASE II FOR STREAM COMPENSATORY MITIGATION OCTOBER 2015
		NETWORK NUMBER: T03224	
		FILE NAME: DRAWING TYPE: IV	
		STRUCTURE NUMBER: SCALE: 1" = 20'	
NO.	REVISIONS	DATE	APPR.
DISTRICT: 4 COUNTY: MONTGOMERY TOWNSHIP/BOROUGH: FRANCONIA TOWNSHIP			
			DRAWINGS: 3 OF 4 SHEET: 3 OF 4