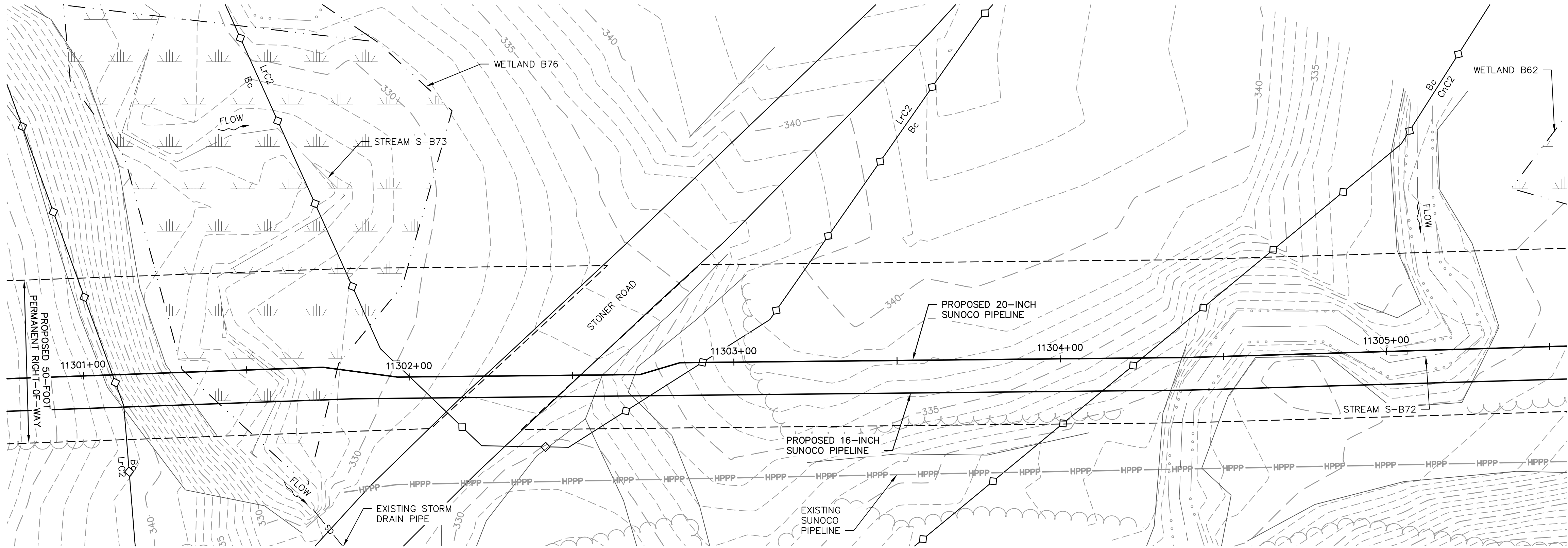
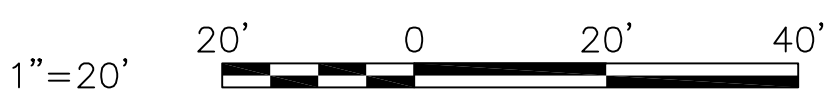




PLAN
SCALE: 1"=20'

GRAPHIC SCALE



1"=20'

Baltimore, MD Bismarck, ND Denver, CO Douglassville, PA Houston, TX
Pittsburgh, PA Williamsport, PA

THE LOCATION OF THE PIPELINE FACILITIES AS SHOWN HEREON MUST BE
CONSIDERED AS APPROXIMATE ONLY. BEFORE DIGGING OR FOR AN EXACT
LOCATION PLEASE CONTACT YOUR STATES UNDERGROUND UTILITY LOCATION
SERVICE.

STV PROJECT No.: 38-17335

11/30/16

CHRISTOPHER D. ANTONI
PE-057385-E

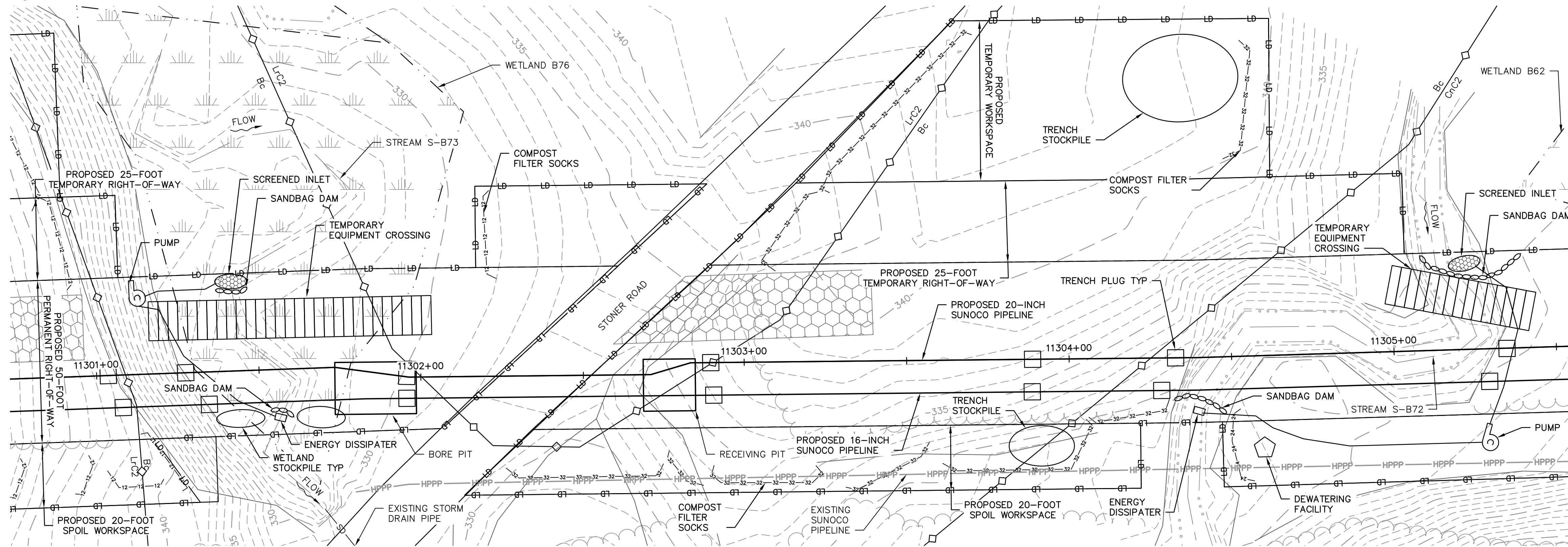
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DATE	11/30/16
SCALE	AS NOTED

OLD DRAWING NO.

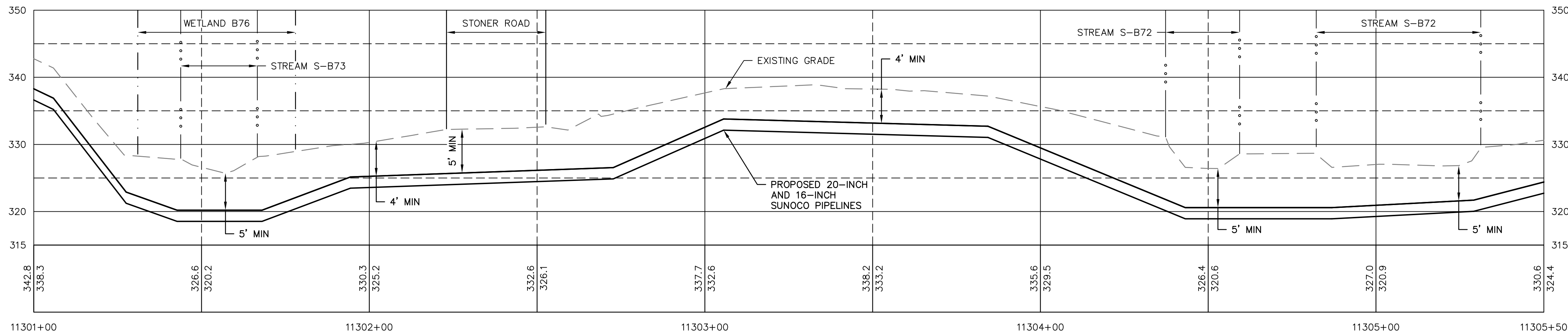
REV.	DATE	APP#	DESCRIPTION	APPROVAL
PENNSYLVANIA PIPELINE PROJECT STREAMS S-B73, S-B72 & WETLAND B76 EXISTING CONDITIONS PLAN				
DAUPHIN COUNTY, PA				
DWG. NO. S-B73-A				REV. NO. 0

- GENERAL NOTES:**
1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS AND TOPOGRAPHY.
 2. ALL EXISTING UTILITY INFORMATION IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
 3. MAINTAIN 2'-0" MINIMUM VERTICAL SEPARATION BETWEEN THE PROPOSED PIPELINE AND OTHER UTILITIES.
 4. THE BACKGROUND TOPOGRAPHY WAS OBTAINED FROM TOPOGRAPHIC SURVEYS PERFORMED IN SEPTEMBER 2016.
 5. THE PROJECT IS LOCATED IN NAD83 PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (SOUTH ZONE), NAVD88.
 6. EXCAVATION IS LIMITED TO THE CENTERLINE WITH A TYPICAL TRENCH WIDTH OF 4'-5' FOR 16/20" PIPELINE.
- WETLAND CROSSING NOTES:**
1. REFERENCE NOTES AND DETAILS FOR WETLAND CONSTRUCTION SEQUENCING AND WETLAND RESTORATION (ES-0.03, ES-0.08, ES-0.10, AND ES-0.15).
 2. A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.
 3. FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)
 4. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET EDGE OF WETLAND OR 100 FEET FROM EDGE OF WETLAND FOR SPECIAL PROTECTION WATERS (HQ OR EV).
- STREAM CROSSING NOTES:**
1. REFERENCE NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND STREAM RESTORATION (ES-0.01-ES-0.17).
 2. FOR TEMPORARY EQUIPMENT CROSSINGS REFERENCE (ES-0.10).
 3. SITE CONDITIONS MAY ALLOW FOR IMPLEMENTATION OF OTHER APPROVED PIPELINE INSTALLATION METHODS REFERENCED WITH THE NOTES AND DETAILS (ES-0.11-ES-0.14).
 4. THE PIPELINES SHALL MAINTAIN A MINIMUM OF 5 FEET OF COVER UNDER STREAMS FROM THE TOP OF PIPE TO THE STREAM BED. THIS COVER WILL BE MAINTAINED AT A MINIMUM FROM TOP OF BANK TO TOP OF BANK.
 5. REFERENCE THE STREAM BANK STABILIZATION DETAIL AND STREAM RESTORATION TABLE IN THE NOTES AND DETAILS WHERE RIP-RAP IS PROPOSED (ES-0.18).
 6. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET FROM TOP OF BANK OR 100 FEET FROM TOP OF BANK FOR SPECIAL PROTECTION WATERS (HQ OR EV).
 7. TIMBER MATS SHALL EXTEND A MINIMUM OF 20 FEET BEYOND TOP OF BANK.
 8. COMPOST FILTER SOCKS SHALL BE INSTALLED ALONG THE TOP OF THE STREAM BANK ACROSS THE RIGHT-OF-WAY WHEN PUMP BYPASS IS NOT IN PLACE.

SYMBOL	DESCRIPTION
	PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES
	PROPOSED SUNOCO RIGHT-OF-WAY
	EXISTING SUNOCO PIPELINE
	MAJOR CONTOUR
	MINOR CONTOUR
	STREAM CENTERLINE
	TOP/BOTTOM OF BANK
	EXISTING EDGE OF PAVED ROADWAY
	EXISTING EDGE OF UNPAVED ROADWAY
	EXISTING VEGETATION
	EDGE OF WATER
	SOIL TYPE BOUNDARY
	WETLAND
	PROPOSED ROCK CONSTRUCTION ENTRANCE
	LIMIT OF DISTURBANCE
	CONSTRUCTION FENCE
	12-INCH COMPOST FILTER SOCK
	18-INCH COMPOST FILTER SOCK
	24-INCH COMPOST FILTER SOCK
	32-INCH COMPOST FILTER SOCK
	PERMANENT WATER BAR W/FILTER SOCK
	TRENCH PLUG
	TEMPORARY EQUIPMENT CROSSING
	SANDBAG DAM
	PUMP
	SCREENED INLET
	ENERGY DISSIPATER
	DEWATERING FACILITY
	CULVERT PIPE
	EROSION CONTROL BLANKET
	STREAM RESTORATION

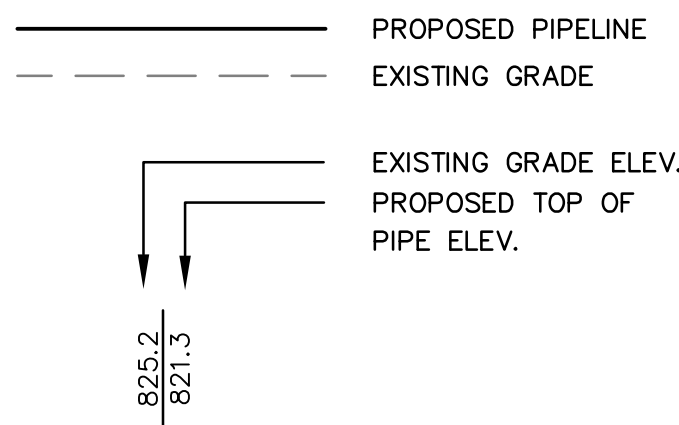


PLAN
SCALE: 1"=20'

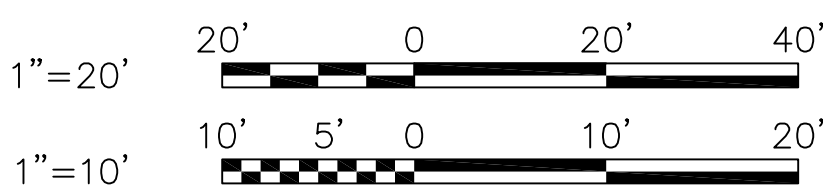


PROFILE
HORZ SCALE: 1"=20'
VERT SCALE: 1"=10'

PROFILE LEGEND:



GRAPHIC SCALES



GENERAL NOTES:

1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS AND TOPOGRAPHY.
2. ALL EXISTING UTILITY INFORMATION IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
3. MAINTAIN 2'-0" MINIMUM VERTICAL SEPARATION BETWEEN THE PROPOSED PIPELINE AND OTHER UTILITIES.
4. THE BACKGROUND TOPOGRAPHY WAS OBTAINED FROM TOPOGRAPHIC SURVEYS PERFORMED IN SEPTEMBER 2016.
5. THE PROJECT IS LOCATED IN NAD83 PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (SOUTH ZONE), NAVD88.
6. EXCAVATION IS LIMITED TO THE CENTERLINE WITH A TYPICAL TRENCH WIDTH OF 4'-5' FOR 16/20" PIPELINE.

WETLAND CROSSING NOTES:

1. REFERENCE NOTES AND DETAILS FOR WETLAND CONSTRUCTION SEQUENCING AND WETLAND RESTORATION (ES-0.03, ES-0.08, ES-0.10, AND ES-0.15).
2. A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.
3. FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)
4. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET EDGE OF WETLAND OR 100 FEET FROM EDGE OF WETLAND FOR SPECIAL PROTECTION WATERS (HQ OR EV).

STREAM CROSSING NOTES:

1. REFERENCE NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND STREAM RESTORATION (ES-0.01-ES-0.17).
2. FOR TEMPORARY EQUIPMENT CROSSINGS REFERENCE (ES-0.10).
3. SITE CONDITIONS MAY ALLOW FOR IMPLEMENTATION OF OTHER APPROVED PIPELINE INSTALLATION METHODS REFERENCED WITH THE NOTES AND DETAILS (ES-0.11-ES-0.14).
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5. REFERENCE THE STREAM BANK STABILIZATION DETAIL AND STREAM RESTORATION TABLE IN THE NOTES AND DETAILS WHERE RIP-RAP IS PROPOSED (ES-0.18).
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7. TIMBER MATS SHALL EXTEND A MINIMUM OF 20 FEET BEYOND TOP OF BANK.
8. COMPOST FILTER SOCKS SHALL BE INSTALLED ALONG THE TOP OF THE STREAM BANK ACROSS THE RIGHT-OF-WAY WHEN PUMP BYPASS IS NOT IN PLACE.

LEGEND

SYMBOL	DESCRIPTION
	PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES
	PROPOSED SUNOCO RIGHT-OF-WAY
	EXISTING SUNOCO PIPELINE
	MAJOR CONTOUR
	MINOR CONTOUR
	STREAM CENTERLINE
	TOP/BOTTOM OF BANK
	EXISTING EDGE OF PAVED ROADWAY
	EXISTING EDGE OF UNPAVED ROADWAY
	EXISTING VEGETATION
	EDGE OF WATER
	SOIL TYPE BOUNDARY
	WETLAND
	PROPOSED ROCK CONSTRUCTION ENTRANCE
	LIMIT OF DISTURBANCE
	CONSTRUCTION FENCE
	12-INCH COMPOST FILTER SOCK
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	24-INCH COMPOST FILTER SOCK
	32-INCH COMPOST FILTER SOCK
	PERMANENT WATER BAR W/FILTER SOCK
	TRENCH PLUG
	TEMPORARY EQUIPMENT CROSSING
	SANDBAG DAM
	PUMP
	SCREENED INLET
	ENERGY DISSIPATER
	DEWATERING FACILITY
	CULVERT PIPE
	EROSION CONTROL BLANKET
	STREAM RESTORATION

REV.	DATE	APP#	DESCRIPTION	APPROVAL
PENNSYLVANIA PIPELINE PROJECT STREAMS S-B73, S-B72 & WETLAND B76 EROSION & SEDIMENTATION CONTROL PLAN AND PROFILE				
DAUPHIN COUNTY, PA				
DWG. NO. S-B73-B				REV. NO. 0

Baltimore, MD Bismarck, ND Denver, CO Douglassville, PA Houston, TX
Pittsburgh, PA Williamsport, PA

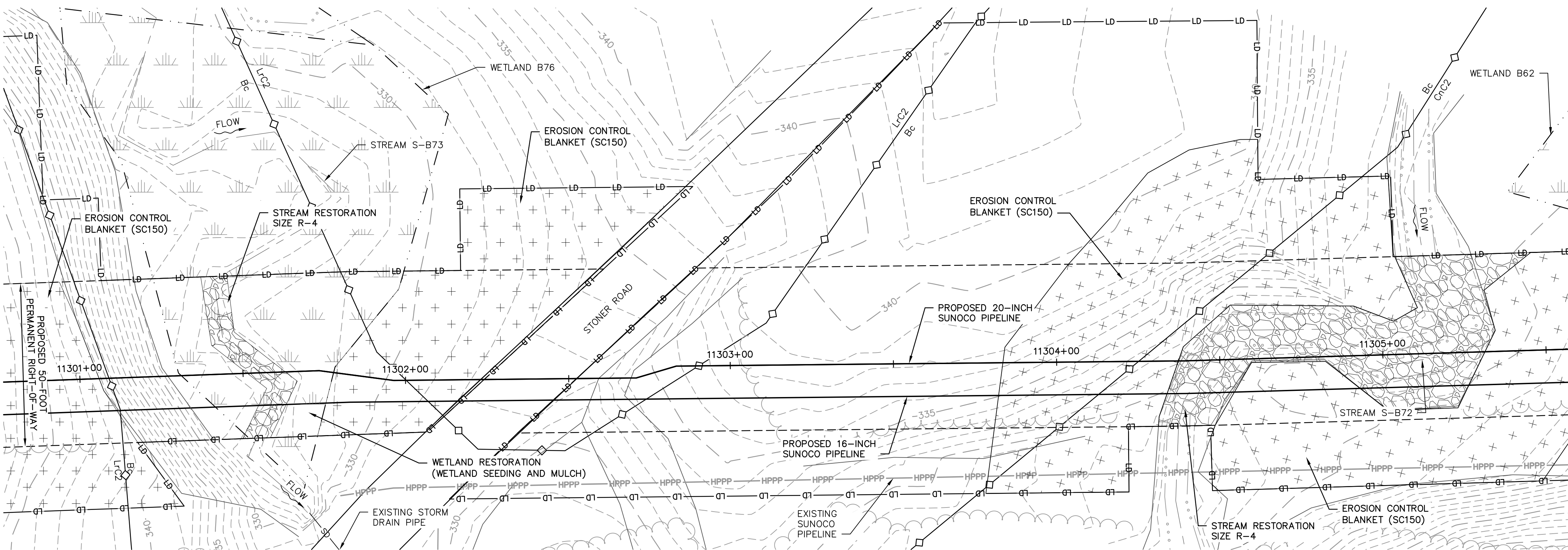
THE LOCATION OF THE PIPELINE FACILITIES AS SHOWN HEREON MUST BE
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LOCATION PLEASE CONTACT YOUR STATES UNDERGROUND UTILITY LOCATION
SERVICE.

STV PROJECT No.: 38-17335

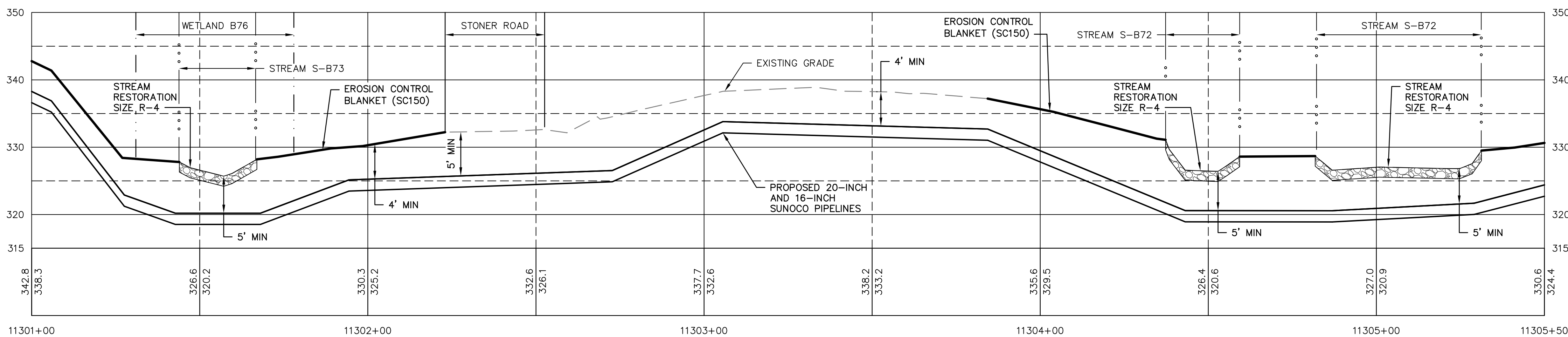
11/30/16

CHRISTOPHER D. ANTONI
PE-057385-E

ENGINEERING RECORD	
DRAWN BY	RRJ
CHECKED BY	CDA
APPROVED BY	CDA
DATE	11/30/16
SCALE	AS NOTED
OLD DRAWING NO.	

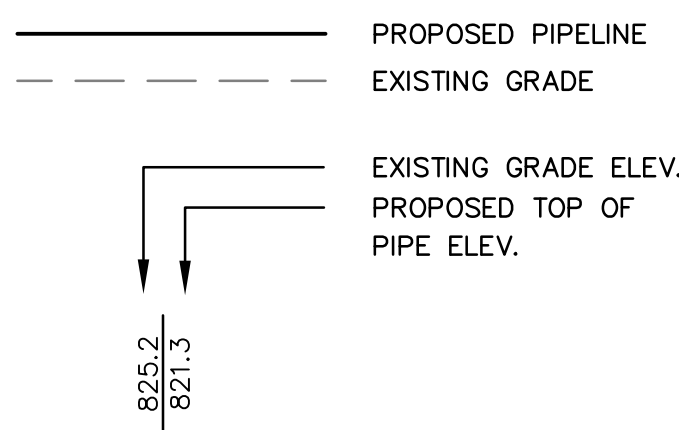


PLAN
SCALE: 1"=20'

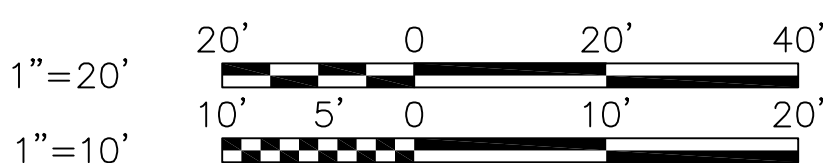


RESTORED GRADE PROFILE
HORZ SCALE: 1"=20'
VERT SCALE: 1"=10'

PROFILE LEGEND:



GRAPHIC SCALES



GENERAL NOTES:

1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS AND TOPOGRAPHY.
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WETLAND CROSSING NOTES:

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4. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET EDGE OF WETLAND OR 100 FEET FROM EDGE OF WETLAND FOR SPECIAL PROTECTION WATERS (HQ OR EV).

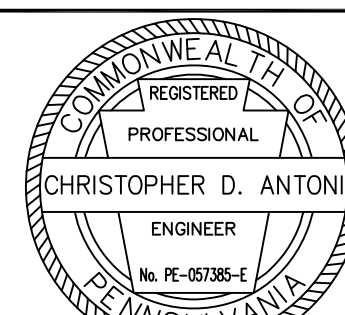
STREAM CROSSING NOTES:

1. REFERENCE NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND STREAM RESTORATION (ES-0.01-ES-0.17).
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7. TIMBER MATS SHALL EXTEND A MINIMUM OF 20 FEET BEYOND TOP OF BANK.
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LEGEND

SYMBOL	DESCRIPTION
	PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES
	PROPOSED SUNOCO RIGHT-OF-WAY
	EXISTING SUNOCO PIPELINE
	MAJOR CONTOUR
	MINOR CONTOUR
	STREAM CENTERLINE
	TOP/BOTTOM OF BANK
	EXISTING EDGE OF PAVED ROADWAY
	EXISTING EDGE OF UNPAVED ROADWAY
	EXISTING VEGETATION
	EDGE OF WATER
	SOIL TYPE BOUNDARY
	WETLAND
	PROPOSED ROCK CONSTRUCTION ENTRANCE
	LIMIT OF DISTURBANCE
	CONSTRUCTION FENCE
	12-INCH COMPOST FILTER SOCK
	18-INCH COMPOST FILTER SOCK
	24-INCH COMPOST FILTER SOCK
	32-INCH COMPOST FILTER SOCK
	PERMANENT WATER BAR W/FILTER SOCK
	TRENCH PLUG
	TEMPORARY EQUIPMENT CROSSING
	SANDBAG DAM
	PUMP
	SCREENED INLET
	ENERGY DISSIPATER
	DEWATERING FACILITY
	CULVERT PIPE
	EROSION CONTROL BLANKET
	STREAM RESTORATION

REV.	DATE	APP#	DESCRIPTION	APPROVAL
PENNSYLVANIA PIPELINE PROJECT STREAMS S-B73, S-B72 & WETLAND B76 RESTORATION PLAN				
DAUPHIN COUNTY, PA				
DWG. NO. S-B73-C				REV. NO. 0



CHRISTOPHER D. ANTONI
PE-057385-E

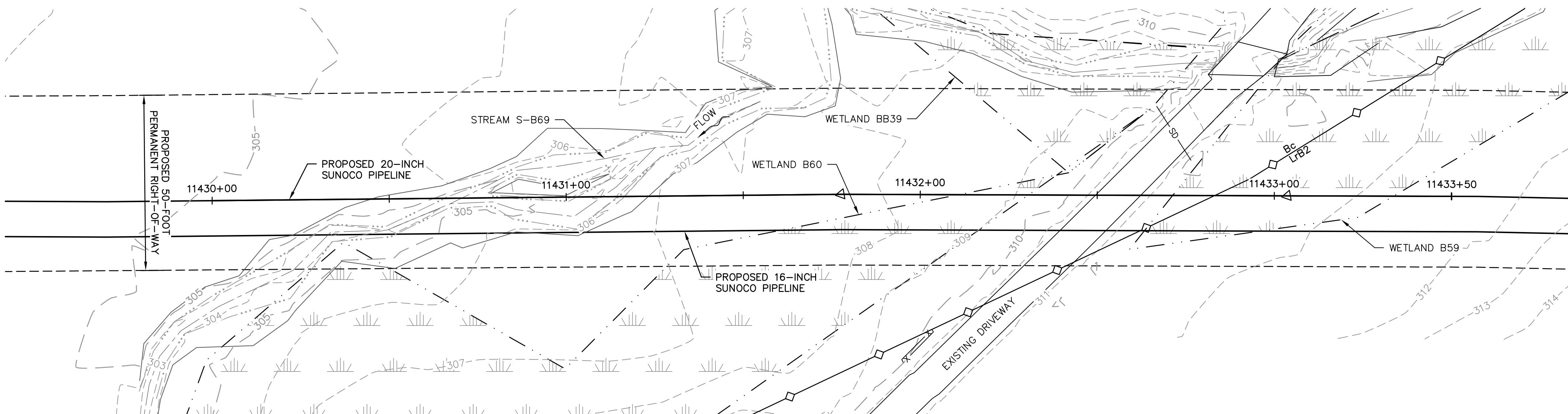
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CHECKED BY	CDA
APPROVED BY	CDA
DATE	11/30/16
SCALE	AS NOTED

OLD DRAWING NO.

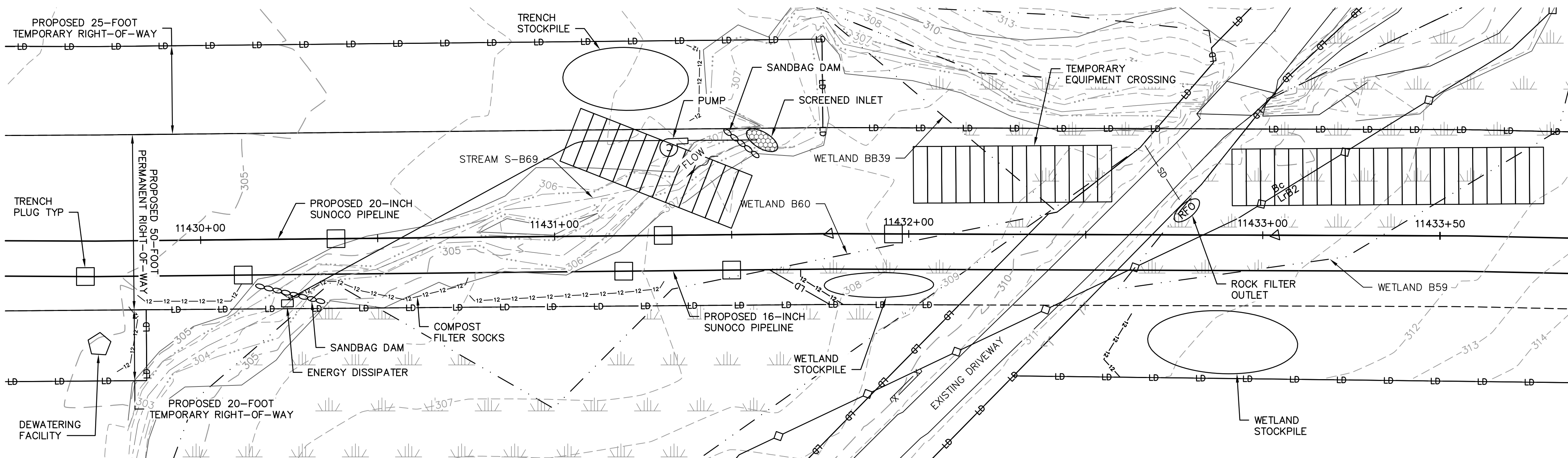
STV
Baltimore, MD Bismarck, ND Denver, CO Douglassville, PA Houston, TX
Pittsburgh, PA Williamsport, PA

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SERVICE.

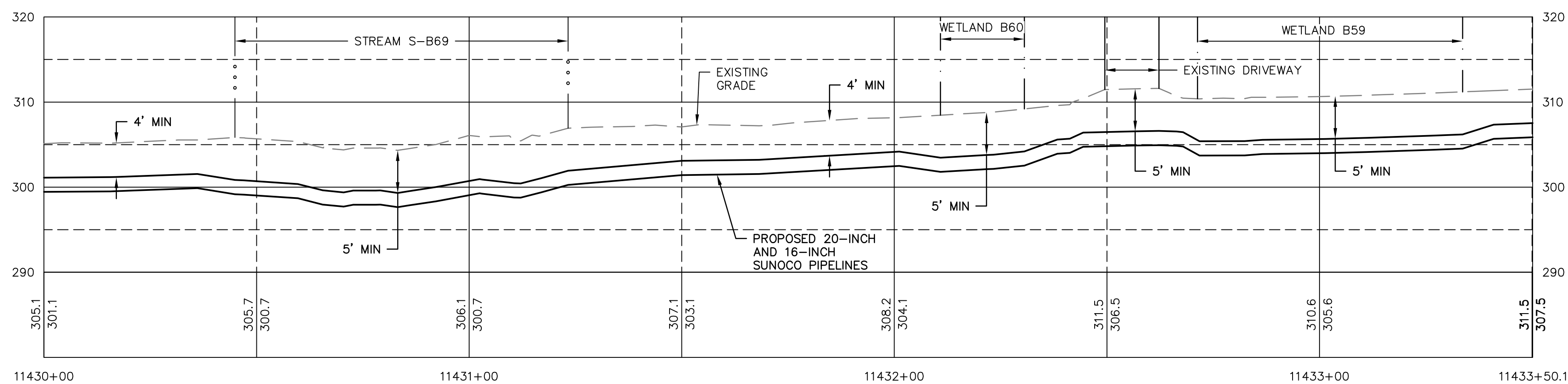
STV PROJECT No.: 38-17335



EXISTING CONDITIONS PLAN
SCALE: 1"=20'

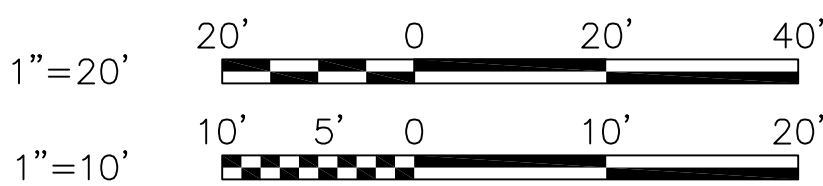


EROSION & SEDIMENTATION CONTROL PLAN
SCALE: 1"=20'



PROFILE
HORZ SCALE: 1"=20'
VERT SCALE: 1"=10'

GRAPHIC SCALES



GENERAL NOTES:

1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS AND TOPOGRAPHY.
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WETLAND CROSSING NOTES:

1. REFERENCE NOTES AND DETAILS FOR WETLAND CONSTRUCTION SEQUENCING AND WETLAND RESTORATION (ES-0.03, ES-0.08, ES-0.10, AND ES-0.15).
2. A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.
3. FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)
4. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET EDGE OF WETLAND OR 100 FEET FROM EDGE OF WETLAND FOR SPECIAL PROTECTION WATERS (HQ OR EV).

STREAM CROSSING NOTES:

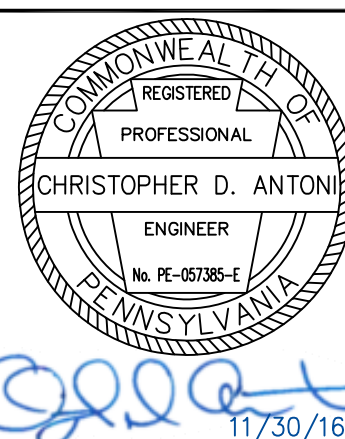
1. REFERENCE NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND STREAM RESTORATION (ES-0.01-ES-0.17).
2. FOR TEMPORARY EQUIPMENT CROSSINGS REFERENCE (ES-0.10).
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5. REFERENCE THE STREAM BANK STABILIZATION DETAIL AND STREAM RESTORATION TABLE IN THE NOTES AND DETAILS WHERE RIP-RAP IS PROPOSED (ES-0.18).
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7. TIMBER MATS SHALL EXTEND A MINIMUM OF 20 FEET BEYOND TOP OF BANK.
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LEGEND

SYMBOL	DESCRIPTION
	PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES
	PROPOSED SUNOCO RIGHT-OF-WAY
	EXISTING SUNOCO PIPELINE
	MAJOR CONTOUR
	MINOR CONTOUR
	STREAM CENTERLINE
	TOP/BOTTOM OF BANK
	EXISTING EDGE OF PAVED ROADWAY
	EXISTING EDGE OF UNPAVED ROADWAY
	EXISTING VEGETATION
	EDGE OF WATER
	SOIL TYPE BOUNDARY
	WETLAND
	PROPOSED ROCK CONSTRUCTION ENTRANCE
	LIMIT OF DISTURBANCE
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	PERMANENT WATER BAR W/FILTER SOCK
	TRENCH PLUG
	TEMPORARY EQUIPMENT CROSSING
	SANDBAG DAM
	PUMP
	SCREENED INLET
	ENERGY DISSIPATER
	DEWATERING FACILITY
	CULVERT PIPE
	EROSION CONTROL BLANKET
	STREAM RESTORATION

PROFILE LEGEND:

	PROPOSED PIPELINE
	EXISTING GRADE
	EXISTING GRADE ELEV.
	PROPOSED TOP OF PIPE ELEV.



CHRISTOPHER D. ANTONI
PE-057385-E

ENGINEERING RECORD	
DRAWN BY	RFG
CHECKED BY	CDA
APPROVED BY	CDA
DATE	11/30/16
SCALE	AS NOTED

OLD DRAWING NO.

REV.	DATE	APP#	DESCRIPTION	APPROVAL
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PENNSYLVANIA PIPELINE PROJECT
STREAM S-B69
EXISTING CONDITIONS/EROSION &
SEDIMENTATION CONTROL PLANS

DAUPHIN COUNTY, PA

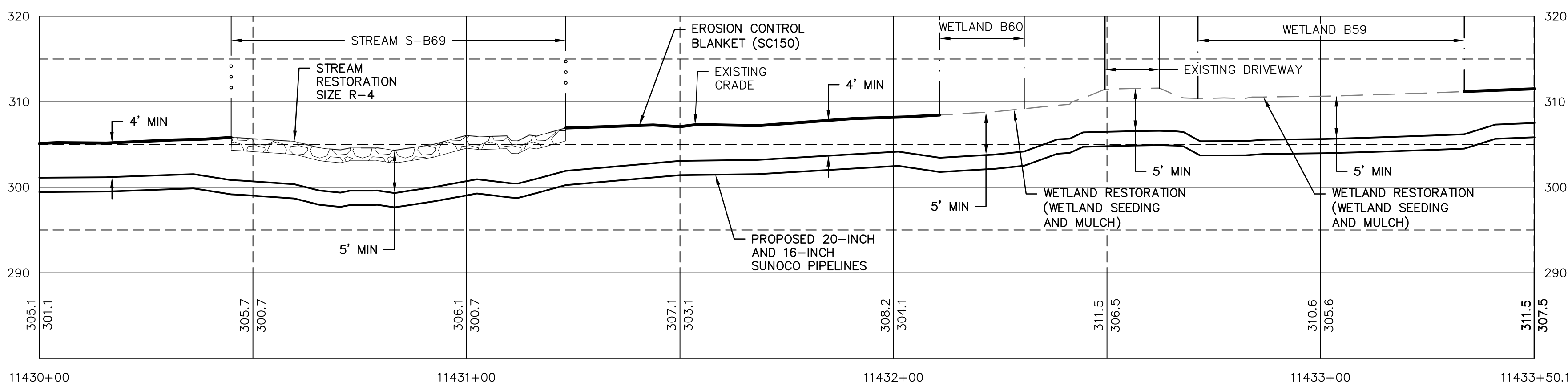
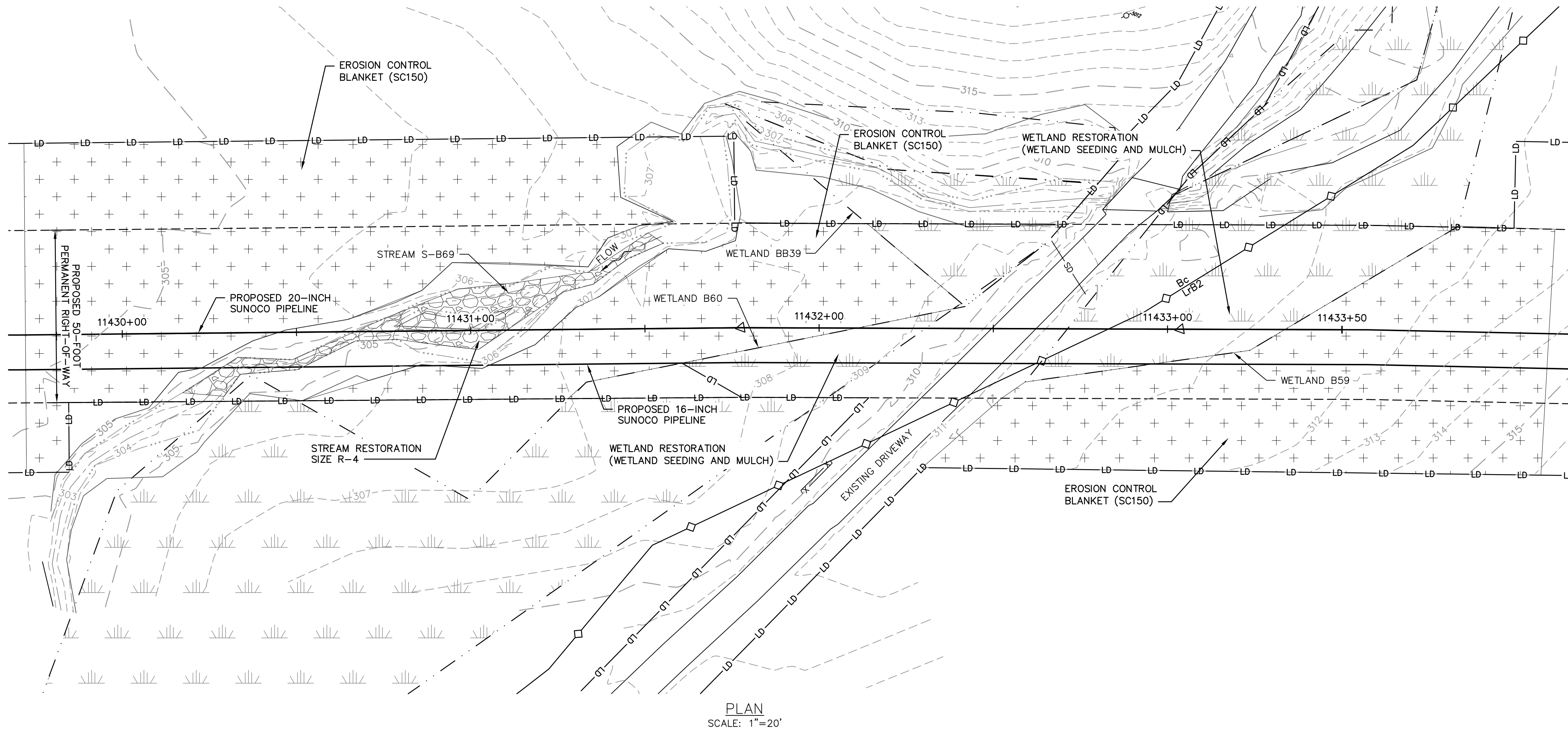
DWG. NO.
S-B69-A

REV. NO.
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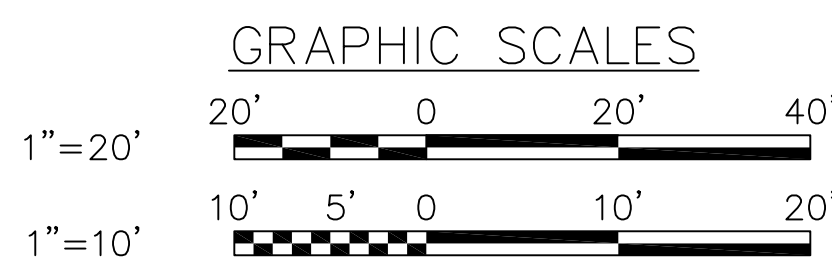
STV
Baltimore, MD Bismarck, ND Denver, CO Douglassville, PA
Houston, TX Pittsburgh, PA Williamsport, PA

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LOCATION PLEASE CONTACT YOUR STATES UNDERGROUND UTILITY LOCATION
SERVICE.

STV PROJECT No.: 38-17335



RESTORED GRADE PROFILE
HORZ SCALE: 1"=20'
VERT SCALE: 1"=10'



GENERAL NOTES:

1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS AND TOPOGRAPHY.
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2. A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.
3. FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)
4. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET EDGE OF WETLAND OR 100 FEET FROM EDGE OF WETLAND FOR SPECIAL PROTECTION WATERS (HQ OR EV).

STREAM CROSSING NOTES:

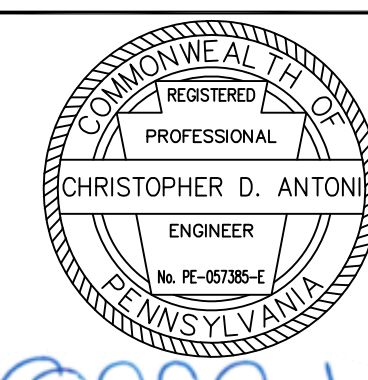
1. REFERENCE NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND STREAM RESTORATION (ES-0.01-ES-0.17).
2. FOR TEMPORARY EQUIPMENT CROSSINGS REFERENCE (ES-0.10).
3. SITE CONDITIONS MAY ALLOW FOR IMPLEMENTATION OF OTHER APPROVED PIPELINE INSTALLATION METHODS REFERENCED WITH THE NOTES AND DETAILS (ES-0.11-ES-0.14).
4. THE PIPELINES SHALL MAINTAIN A MINIMUM OF 5 FEET OF COVER UNDER STREAMS FROM THE TOP OF PIPE TO THE STREAM BED. THIS COVER WILL BE MAINTAINED AT A MINIMUM FROM TOP OF BANK TO TOP OF BANK.
5. REFERENCE THE STREAM BANK STABILIZATION DETAIL AND STREAM RESTORATION TABLE IN THE NOTES AND DETAILS WHERE RIP-RAP IS PROPOSED (ES-0.18).
6. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET FROM TOP OF BANK OR 100 FEET FROM TOP OF BANK FOR SPECIAL PROTECTION WATERS (HQ OR EV).
7. TIMBER MATS SHALL EXTEND A MINIMUM OF 20 FEET BEYOND TOP OF BANK.
8. COMPOST FILTER SOCKS SHALL BE INSTALLED ALONG THE TOP OF THE STREAM BANK ACROSS THE RIGHT-OF-WAY WHEN PUMP BYPASS IS NOT IN PLACE.

LEGEND

SYMBOL	DESCRIPTION
	PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES
	PROPOSED SUNOCO RIGHT-OF-WAY
	EXISTING SUNOCO PIPELINE
	MAJOR CONTOUR
	MINOR CONTOUR
	STREAM CENTERLINE
	TOP/BOTTOM OF BANK
	EXISTING EDGE OF PAVED ROADWAY
	EXISTING EDGE OF UNPAVED ROADWAY
	EXISTING VEGETATION
	EDGE OF WATER
	SOIL TYPE BOUNDARY
	WETLAND
	PROPOSED ROCK CONSTRUCTION ENTRANCE
	LIMIT OF DISTURBANCE
	CONSTRUCTION FENCE
	12-INCH COMPOST FILTER SOCK
	18-INCH COMPOST FILTER SOCK
	24-INCH COMPOST FILTER SOCK
	32-INCH COMPOST FILTER SOCK
	PERMANENT WATER BAR W/FILTER SOCK
	TRENCH PLUG
	TEMPORARY EQUIPMENT CROSSING
	SANDBAG DAM
	PUMP
	SCREENED INLET
	ENERGY DISSIPATER
	DEWATERING FACILITY
	CULVERT PIPE
	EROSION CONTROL BLANKET
	STREAM RESTORATION

PROFILE LEGEND:

	PROPOSED PIPELINE
	EXISTING GRADE
	EXISTING GRADE ELEV.
	PROPOSED TOP OF PIPE ELEV.



CHRISTOPHER D. ANTONI
PE-057385-E

STV
Baltimore, MD Bismarck, ND Denver, CO Douglassville, PA
Houston, TX Pittsburgh, PA Williamsport, PA

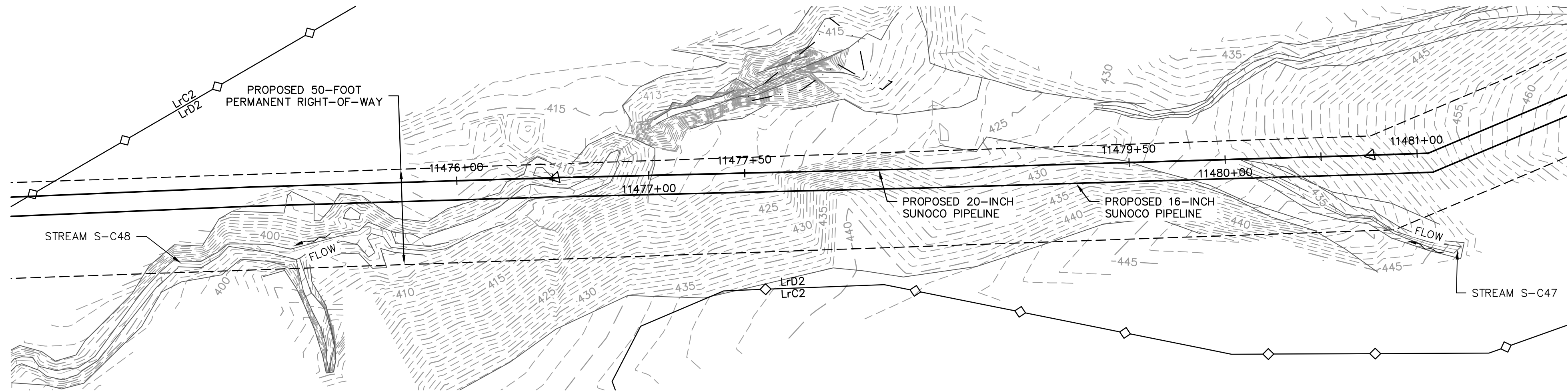
THE LOCATION OF THE PIPELINE FACILITIES AS SHOWN HEREON MUST BE CONSIDERED AS APPROXIMATE ONLY. BEFORE DIGGING OR FOR AN EXACT LOCATION PLEASE CONTACT YOUR STATES UNDERGROUND UTILITY LOCATION SERVICE.

STV PROJECT No.: 38-17335

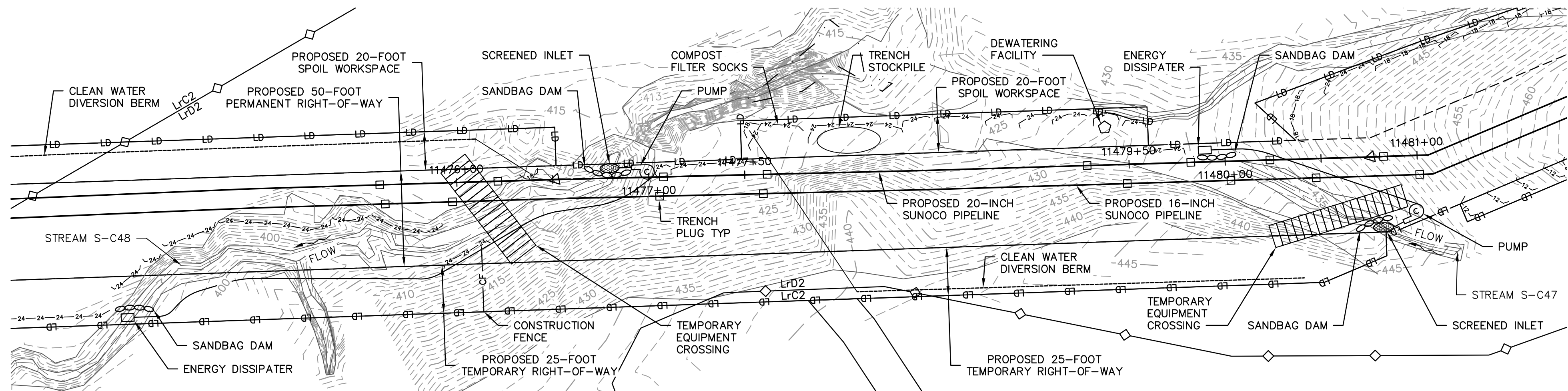
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DRAWN BY	RFG
CHECKED BY	CDA
APPROVED BY	CDA
DATE	11/30/16
SCALE	AS NOTED

OLD DRAWING NO.

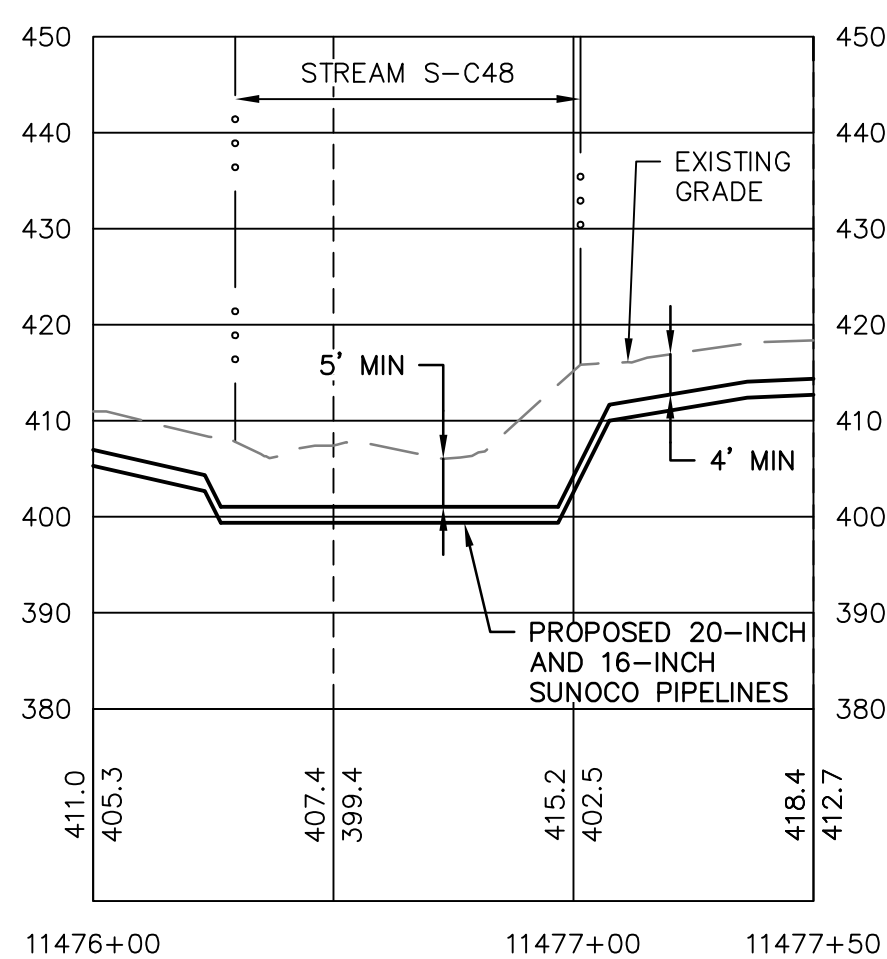
REV.	DATE	APP#	DESCRIPTION	APPROVAL
Sunoco Logistics Partners L.P. PENNSYLVANIA PIPELINE PROJECT STREAM S-B69 RESTORATION PLAN DAUPHIN COUNTY, PA				
DWG. NO.			S-B69-B	REV. NO. 0



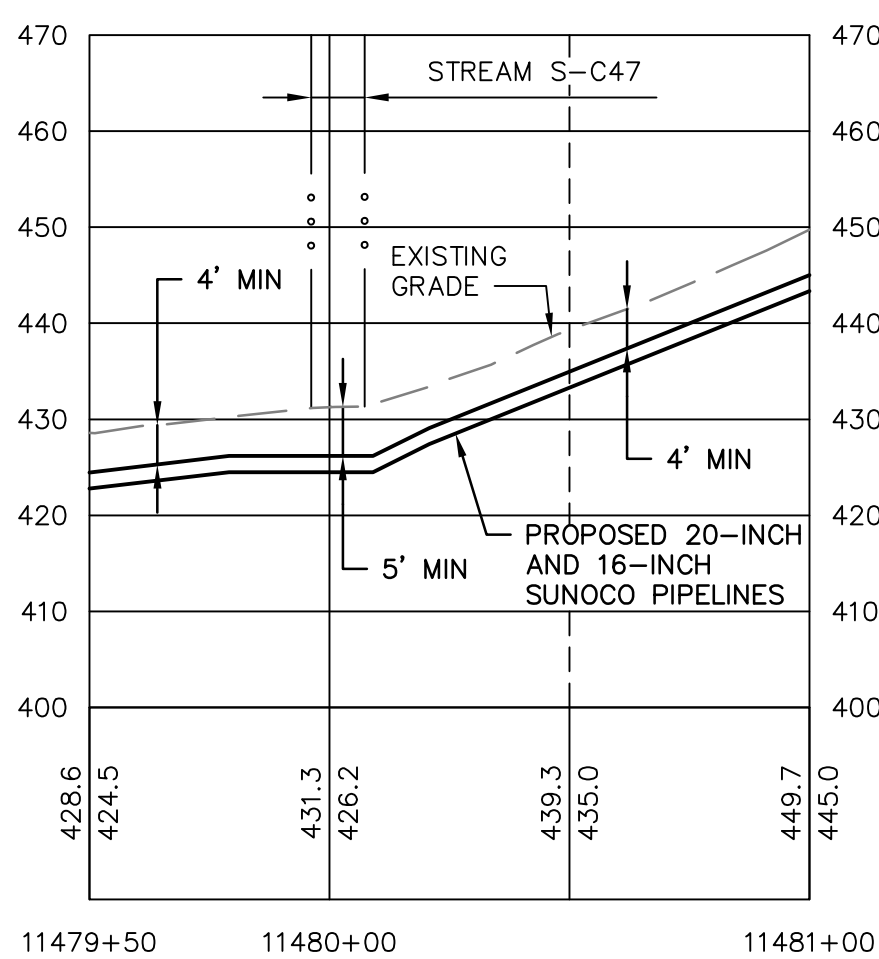
EXISTING CONDITIONS PLAN
SCALE: 1"=40'



EROSION & SEDIMENTATION CONTROL PLAN
SCALE: 1"=40'

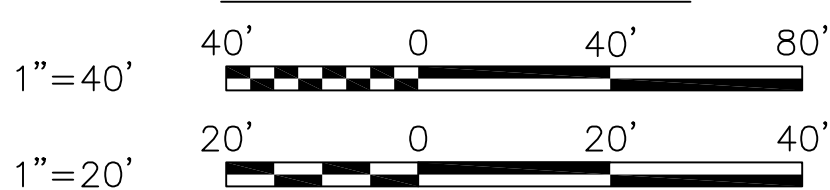


PROFILE
HORZ SCALE: 1"=40'
VERT SCALE: 1"=20'



PROFILE
HORZ SCALE: 1"=40'
VERT SCALE: 1"=20'

GRAPHIC SCALES



STV
Baltimore, MD Bismarck, ND Denver, CO Douglassville, PA Houston, TX
Pittsburgh, PA Williamsport, PA

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STV PROJECT No.: 38-17335

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CHRISTOPHER D. ANTONI
ENGINEER
No. PE-057385-E
11/30/16

CHRISTOPHER D. ANTONI
PE-057385-E

GENERAL NOTES:

- REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS AND TOPOGRAPHY.
- ALL EXISTING UTILITY INFORMATION IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- MAINTAIN 2'-0" MINIMUM VERTICAL SEPARATION BETWEEN THE PROPOSED PIPELINE AND OTHER UTILITIES.
- THE BACKGROUND TOPOGRAPHY WAS OBTAINED FROM TOPOGRAPHIC SURVEYS PERFORMED IN SEPTEMBER 2016.
- THE PROJECT IS LOCATED IN NAD83 PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (SOUTH ZONE), NAVD88.
- EXCAVATION IS LIMITED TO THE CENTERLINE WITH A TYPICAL TRENCH WIDTH OF 4'-5' FOR 16/20" PIPELINE.

WETLAND CROSSING NOTES:

- REFERENCE NOTES AND DETAILS FOR WETLAND CONSTRUCTION SEQUENCING AND WETLAND RESTORATION (ES-0.03, ES-0.08, ES-0.10, AND ES-0.15).
- A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.
- FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)
- EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET EDGE OF WETLAND OR 100 FEET FROM EDGE OF WETLAND FOR SPECIAL PROTECTION WATERS (HQ OR EV).

STREAM CROSSING NOTES:

- REFERENCE NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND STREAM RESTORATION (ES-0.01-ES-0.17).
- FOR TEMPORARY EQUIPMENT CROSSINGS REFERENCE (ES-0.10).
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- COMPOST FILTER SOCKS SHALL BE INSTALLED ALONG THE TOP OF THE STREAM BANK ACROSS THE RIGHT-OF-WAY WHEN PUMP BYPASS IS NOT IN PLACE.

LEGEND

SYMBOL	DESCRIPTION
	PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES
	PROPOSED SUNOCO RIGHT-OF-WAY
	EXISTING SUNOCO PIPELINE
	MAJOR CONTOUR
	MINOR CONTOUR
	STREAM CENTERLINE
	TOP/BOTTOM OF BANK
	EXISTING EDGE OF PAVED ROADWAY
	EXISTING EDGE OF UNPAVED ROADWAY
	EXISTING VEGETATION
	EDGE OF WATER
	SOIL TYPE BOUNDARY
	WETLAND
	PROPOSED ROCK CONSTRUCTION ENTRANCE
	LIMIT OF DISTURBANCE
	CONSTRUCTION FENCE
	12-INCH COMPOST FILTER SOCK
	18-INCH COMPOST FILTER SOCK
	24-INCH COMPOST FILTER SOCK
	32-INCH COMPOST FILTER SOCK
	PERMANENT WATER BAR W/FILTER SOCK
	TRENCH PLUG
	TEMPORARY EQUIPMENT CROSSING
	SANDBAG DAM
	PUMP
	SCREENED INLET
	ENERGY DISSIPATER
	DEWATERING FACILITY
	CULVERT PIPE
	EROSION CONTROL BLANKET
	STREAM RESTORATION

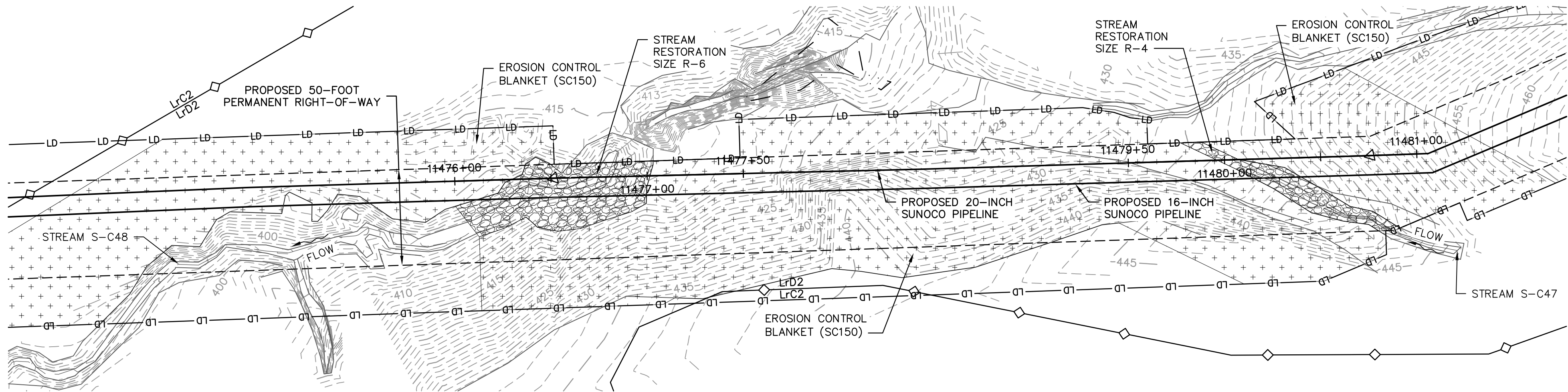
PROFILE LEGEND:

	PROPOSED PIPELINE
	EXISTING GRADE
	EXISTING GRADE ELEV.
	PROPOSED TOP OF PIPE ELEV.

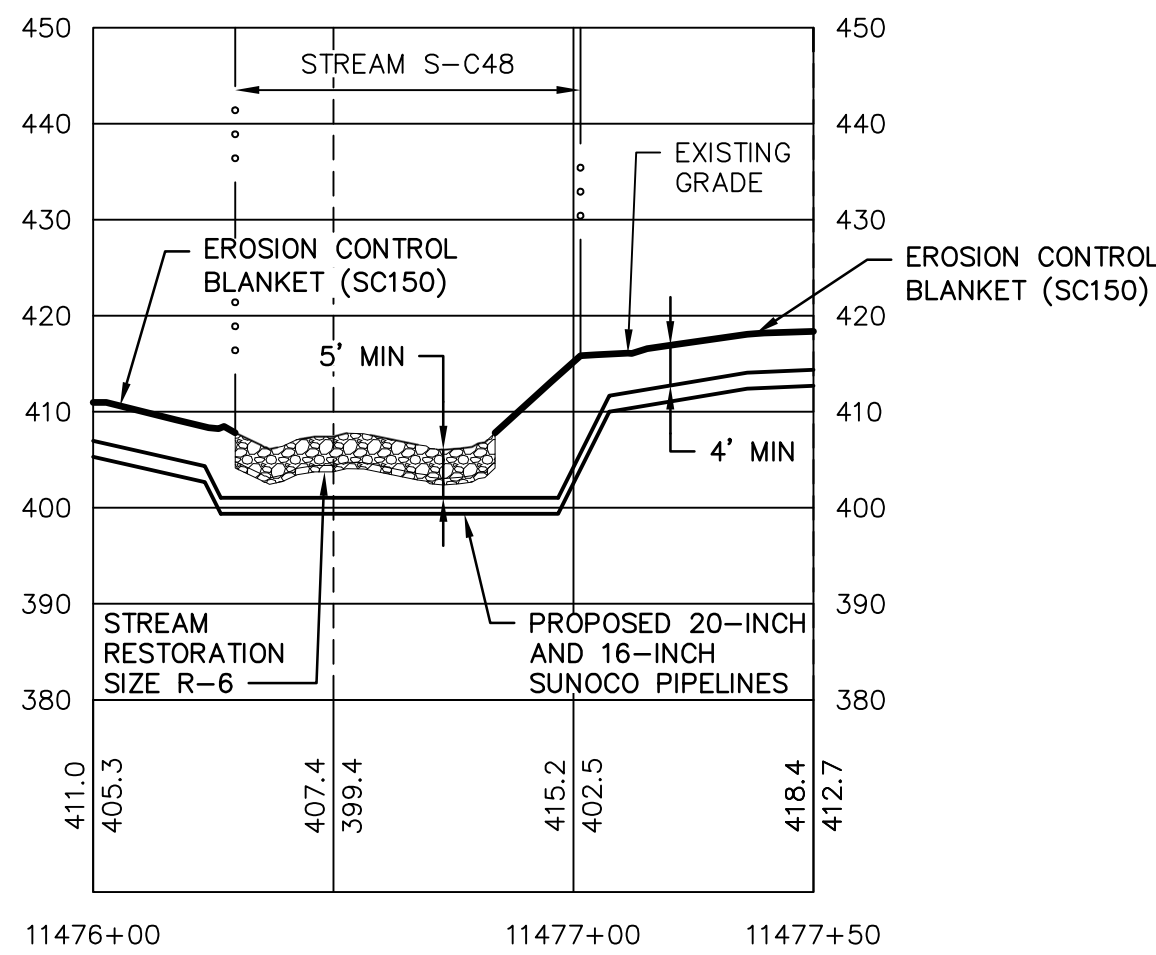
REV.	DATE	APP#	DESCRIPTION	APPROVAL
Sunoco Logistics Partners L.P. PENNSYLVANIA PIPELINE PROJECT STREAMS S-C47 AND S-C48 EXISTING CONDITIONS/EROSION & SEDIMENTATION CONTROL PLANS DAUPHIN COUNTY, PA				
DWG. NO.			REV. NO.	
S-C48-A			0	

ENGINEERING RECORD	
DRAWN BY	RFG
CHECKED BY	CDA
APPROVED BY	CDA
DATE	11/30/16
SCALE	AS NOTED

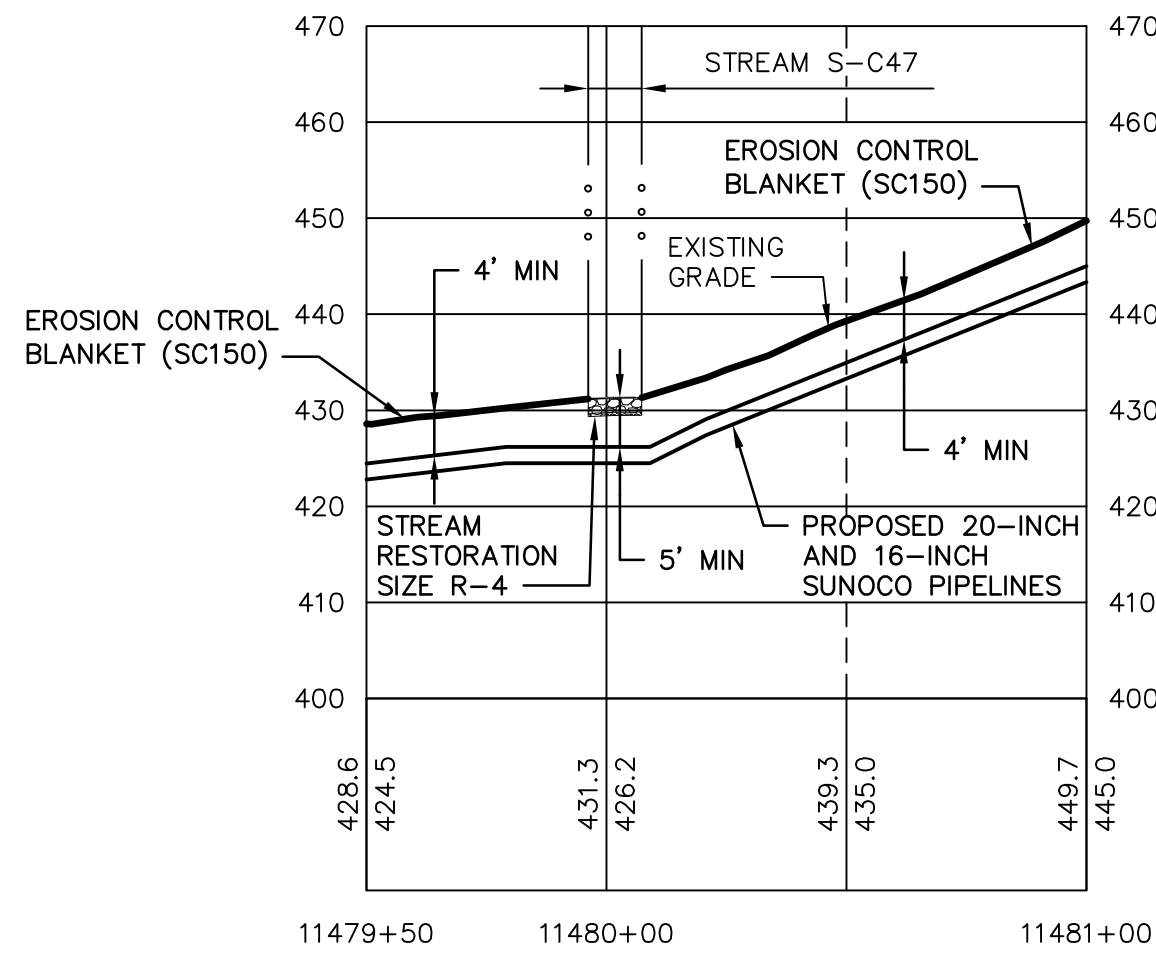
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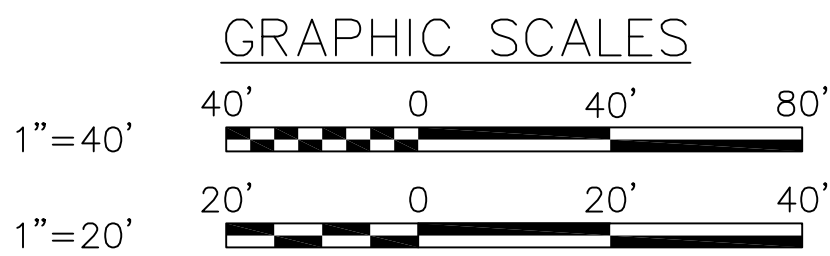
PLAN
SCALE: 1"=40'



RESTORED GRADE PROFILE
HORZ SCALE: 1"=40'
VERT SCALE: 1"=20'



RESTORED GRADE PROFILE
HORZ SCALE: 1"=40'
VERT SCALE: 1"=20'



STV
Baltimore, MD Bismarck, ND Denver, CO Douglassville, PA Houston, TX
Pittsburgh, PA Williamsport, PA

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STV PROJECT No.: 38-17335

11/30/16

CHRISTOPHER D. ANTONI
PE-057385-E

GENERAL NOTES:

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- FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)
- EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET EDGE OF WETLAND OR 100 FEET FROM EDGE OF WETLAND FOR SPECIAL PROTECTION WATERS (HQ OR EV).

STREAM CROSSING NOTES:

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LEGEND

SYMBOL	DESCRIPTION
	PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES
	PROPOSED SUNOCO RIGHT-OF-WAY
	EXISTING SUNOCO PIPELINE
	MAJOR CONTOUR
	MINOR CONTOUR
	STREAM CENTERLINE
	TOP/BOTTOM OF BANK
	EXISTING EDGE OF PAVED ROADWAY
	EXISTING EDGE OF UNPAVED ROADWAY
	EXISTING VEGETATION
	EDGE OF WATER
	SOIL TYPE BOUNDARY
	WETLAND
	PROPOSED ROCK CONSTRUCTION ENTRANCE
	LIMIT OF DISTURBANCE
	CONSTRUCTION FENCE
	12-INCH COMPOST FILTER SOCK
	18-INCH COMPOST FILTER SOCK
	24-INCH COMPOST FILTER SOCK
	32-INCH COMPOST FILTER SOCK
	PERMANENT WATER BAR W/FILTER SOCK
	TRENCH PLUG
	TEMPORARY EQUIPMENT CROSSING
	SANDBAG DAM
	PUMP
	SCREENED INLET
	ENERGY DISSIPATER
	DEWATERING FACILITY
	CULVERT PIPE
	EROSION CONTROL BLANKET
	STREAM RESTORATION

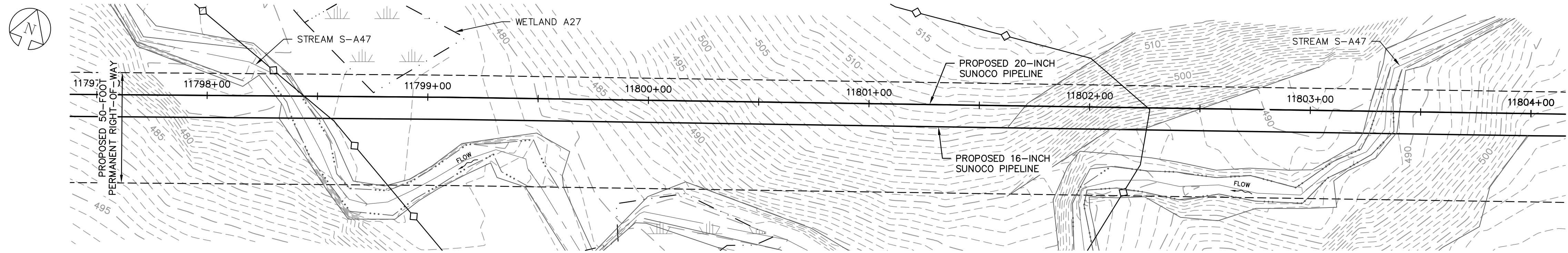
PROFILE LEGEND:

	PROPOSED PIPELINE
	EXISTING GRADE
	EXISTING GRADE ELEV.
	PROPOSED TOP OF PIPE ELEV.

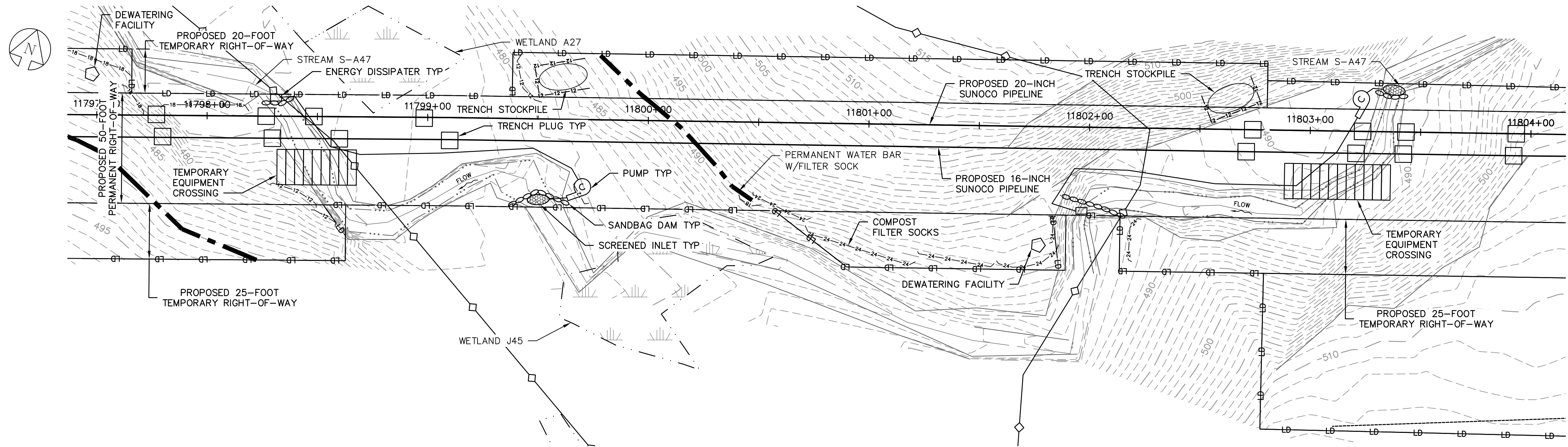
REV.	DATE	APP#	DESCRIPTION	APPROVAL
PENNSYLVANIA PIPELINE PROJECT STREAMS S-C47 AND S-C48 RESTORATION PLAN				
DAUPHIN COUNTY, PA			DWG. NO. S-C48-B	REV. NO. 0

ENGINEERING RECORD	
DRAWN BY	RFG
CHECKED BY	CDA
APPROVED BY	CDA
DATE	11/30/16
SCALE	AS NOTED

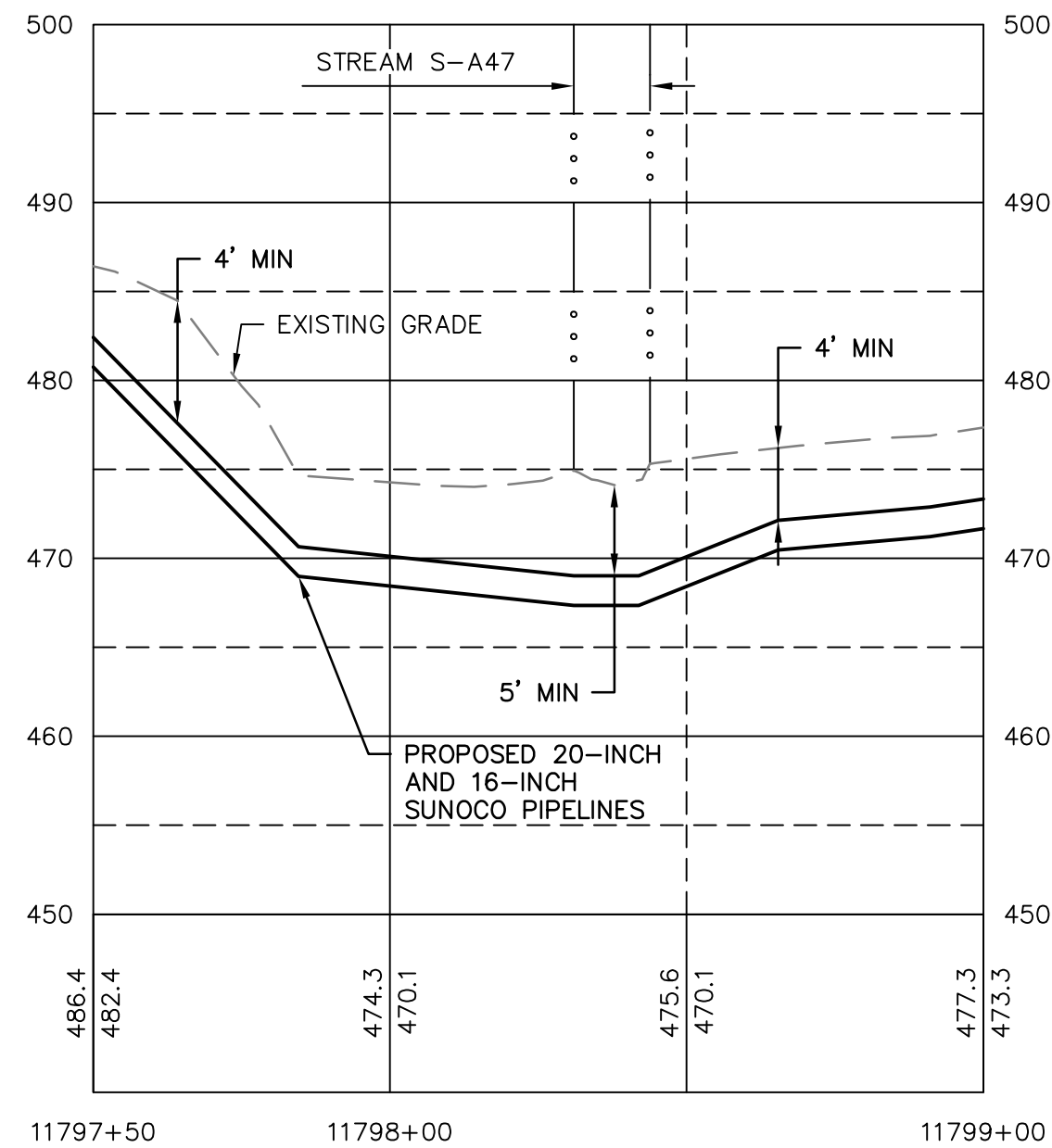
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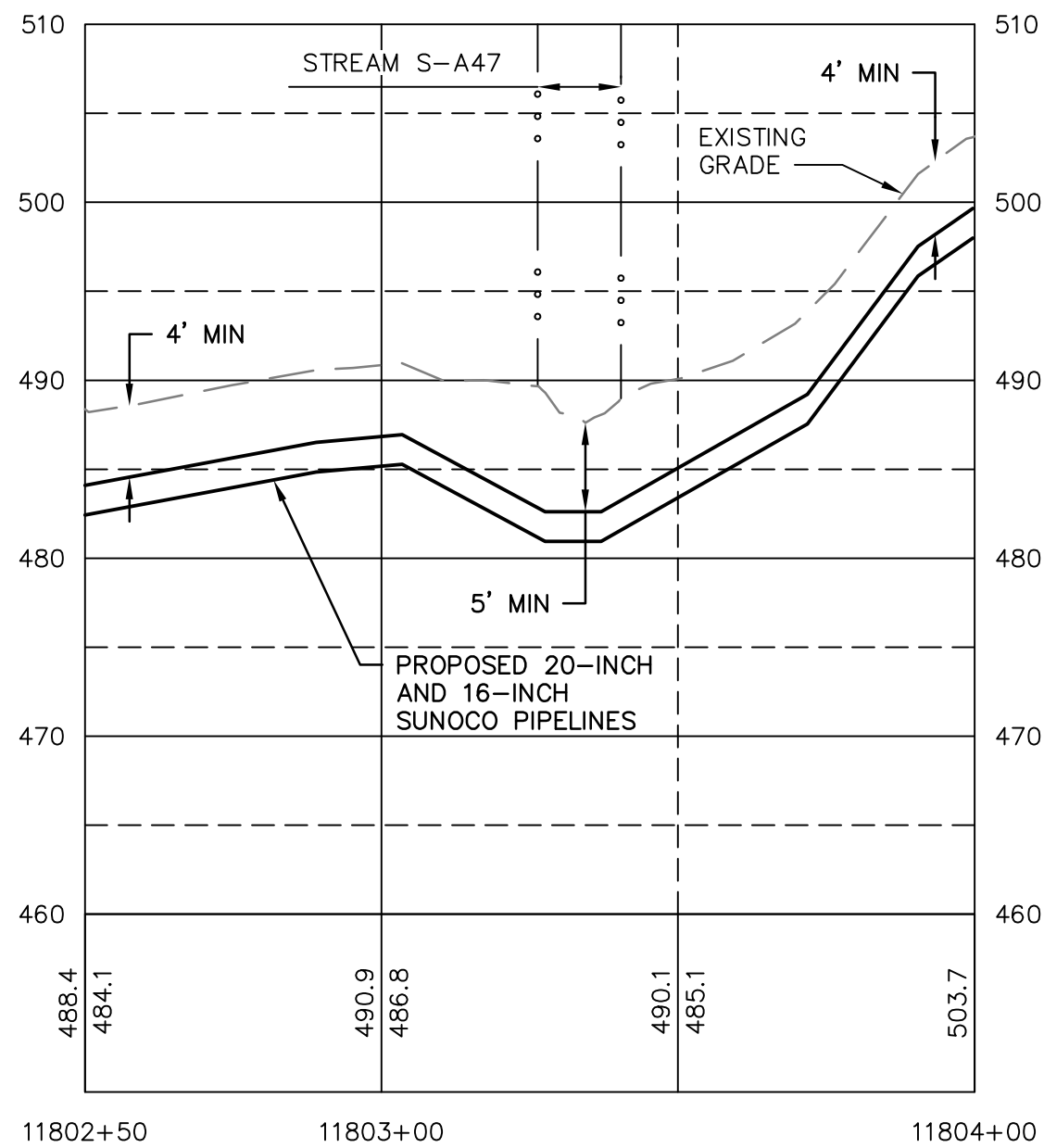
EXISTING CONDITIONS PLAN
SCALE: 1"=30'



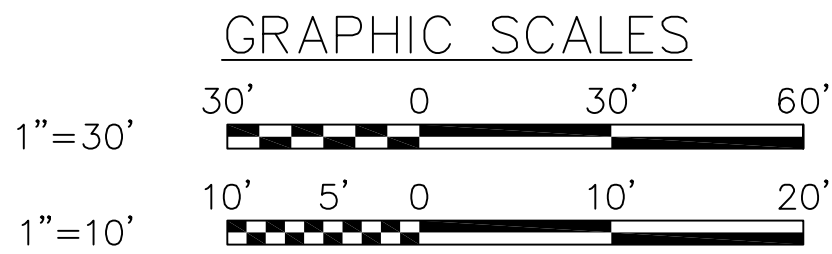
EROSION & SEDIMENTATION CONTROL PLAN
SCALE: 1"=30'



PROFILE
HORZ SCALE: 1"=30'
VERT SCALE: 1"=10'



PROFILE
HORZ SCALE: 1"=30'
VERT SCALE: 1"=10'



GENERAL NOTES:

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STREAM CROSSING NOTES:

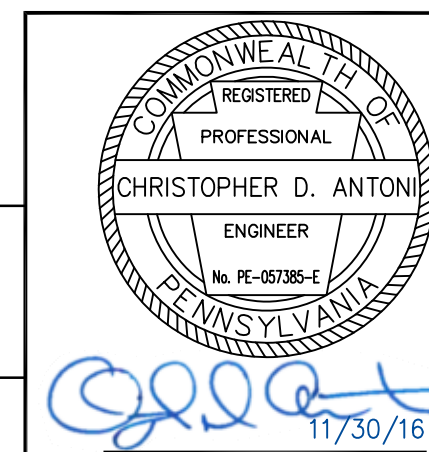
- REFERENCE NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND STREAM RESTORATION (ES-0.01-ES-0.17).
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LEGEND

SYMBOL	DESCRIPTION
	PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES
	PROPOSED SUNOCO RIGHT-OF-WAY
	EXISTING SUNOCO PIPELINE
	MAJOR CONTOUR
	MINOR CONTOUR
	STREAM CENTERLINE
	TOP/BOTTOM OF BANK
	EXISTING EDGE OF PAVED ROADWAY
	EXISTING EDGE OF UNPAVED ROADWAY
	EXISTING VEGETATION
	EDGE OF WATER
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	WETLAND
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	SANDBAG DAM
	PUMP
	SCREENED INLET
	ENERGY DISSIPATER
	DEWATERING FACILITY
	CULVERT PIPE
	EROSION CONTROL BLANKET
	STREAM RESTORATION

PROFILE LEGEND:

	PROPOSED PIPELINE
	EXISTING GRADE
	EXISTING GRADE ELEV.
	PROPOSED TOP OF PIPE ELEV.



CHRISTOPHER D. ANTONI
PE-057385-E

ENGINEERING RECORD	
DRAWN BY	RFG
CHECKED BY	CDA
APPROVED BY	CDA
DATE	11/30/16
SCALE	AS NOTED

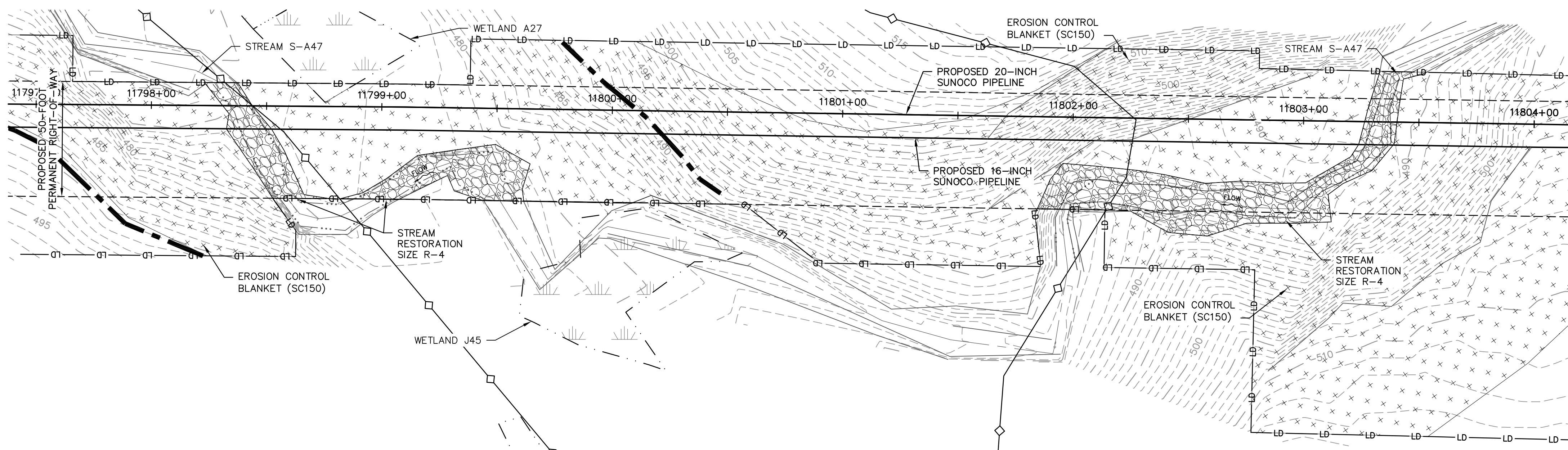
OLD DRAWING NO.

REV.	DATE	APP#	DESCRIPTION	APPROVAL
PENNSYLVANIA PIPELINE PROJECT				
STREAM S-A47				
RESTORATION PLAN				
DAUPHIN COUNTY, PA				
DWG. NO.				REV. NO.
S-A47-A				0

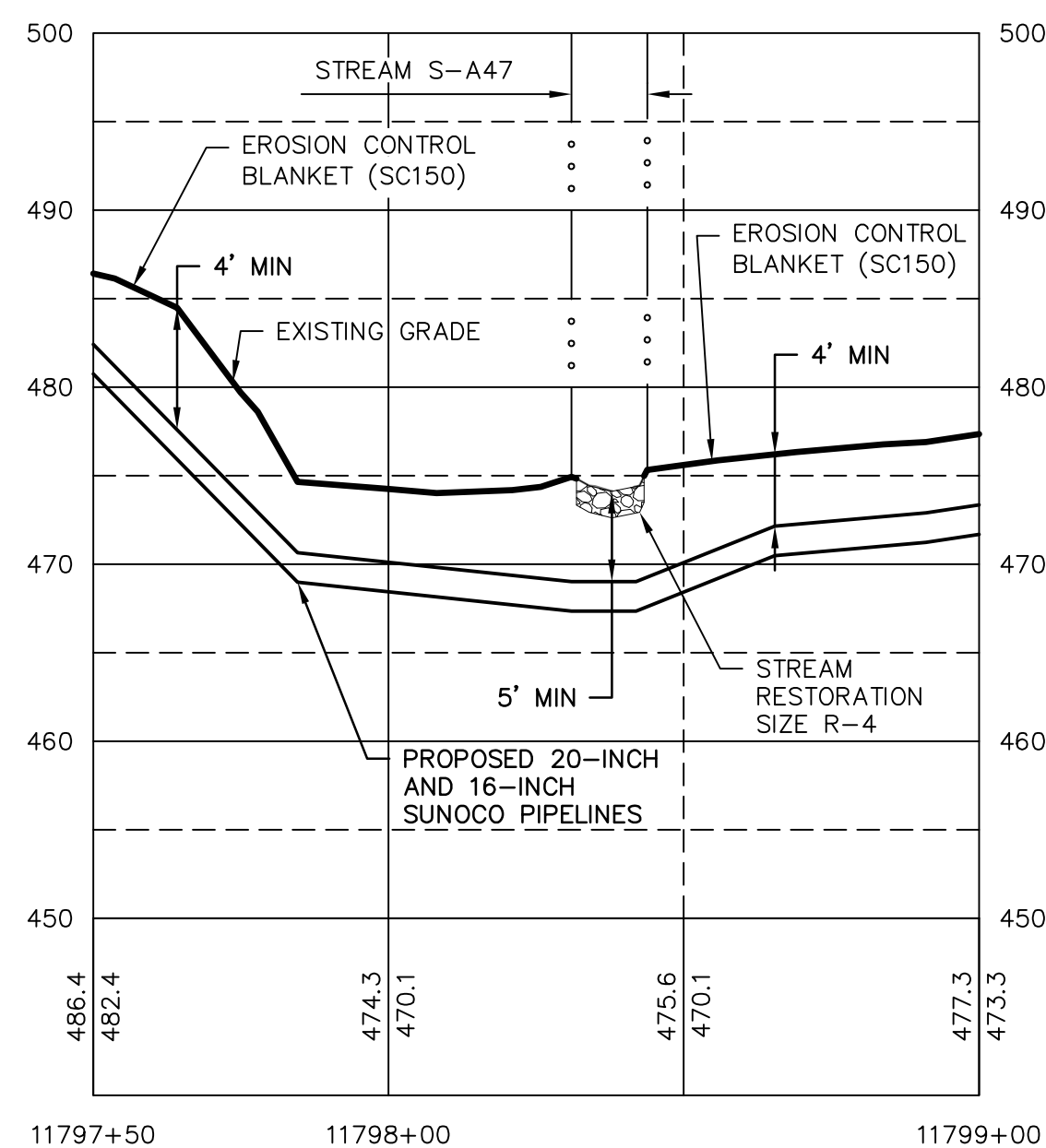
STV
Baltimore, MD Bismarck, ND Denver, CO Douglassville, PA
Houston, TX Pittsburgh, PA Williamsport, PA

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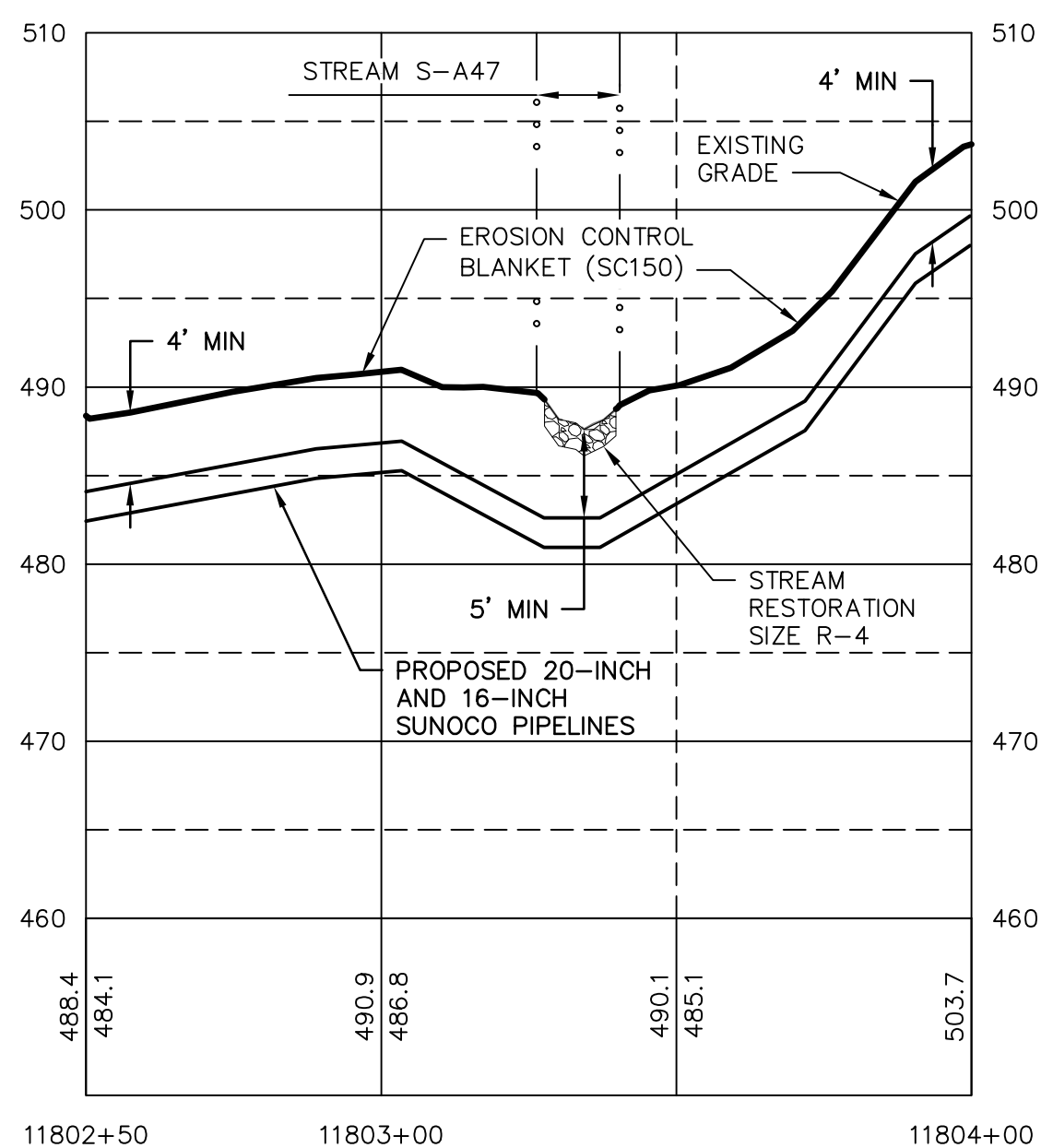
STV PROJECT No.: 38-17335



PLAN
SCALE: 1"=30'



RESTORED GRADE PROFILE
HORZ SCALE: 1"=30'
VERT SCALE: 1"=10'



RESTORED GRADE PROFILE
HORZ SCALE: 1"=30'
VERT SCALE: 1"=10'

GENERAL NOTES:

- REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS AND TOPOGRAPHY.
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- FOR TEMPORARY EQUIPMENT CROSSINGS REFERENCE (ES-0.10).
- SITE CONDITIONS MAY ALLOW FOR IMPLEMENTATION OF OTHER APPROVED PIPELINE INSTALLATION METHODS REFERENCED WITH THE NOTES AND DETAILS (ES-0.11-ES-0.14).
- THE PIPELINES SHALL MAINTAIN A MINIMUM OF 5 FEET OF COVER UNDER STREAMS FROM THE TOP OF PIPE TO THE STREAM BED. THIS COVER WILL BE MAINTAINED AT A MINIMUM FROM TOP OF BANK TO TOP OF BANK.
- REFERENCE THE STREAM BANK STABILIZATION DETAIL AND STREAM RESTORATION TABLE IN THE NOTES AND DETAILS WHERE RIP-RAP IS PROPOSED (ES-0.18).
- EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET FROM TOP OF BANK OR 100 FEET FROM TOP OF BANK FOR SPECIAL PROTECTION WATERS (HQ OR EV).
- TIMBER MATS SHALL EXTEND A MINIMUM OF 20 FEET BEYOND TOP OF BANK.
- COMPOST FILTER SOCKS SHALL BE INSTALLED ALONG THE TOP OF THE STREAM BANK ACROSS THE RIGHT-OF-WAY WHEN PUMP BYPASS IS NOT IN PLACE.

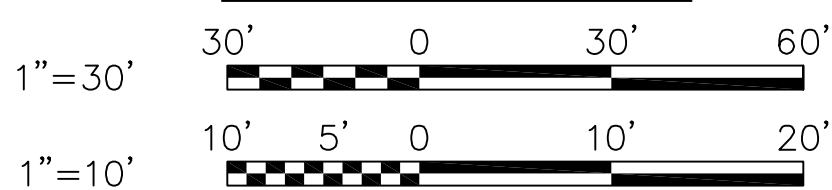
LEGEND

SYMBOL	DESCRIPTION
	PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES
	PROPOSED SUNOCO RIGHT-OF-WAY
	EXISTING SUNOCO PIPELINE
	MAJOR CONTOUR
	MINOR CONTOUR
	STREAM CENTERLINE
	TOP/BOTTOM OF BANK
	EXISTING EDGE OF PAVED ROADWAY
	EXISTING EDGE OF UNPAVED ROADWAY
	EXISTING VEGETATION
	EDGE OF WATER
	SOIL TYPE BOUNDARY
	WETLAND
	PROPOSED ROCK CONSTRUCTION ENTRANCE
	LIMIT OF DISTURBANCE
	CONSTRUCTION FENCE
	12-INCH COMPOST FILTER SOCK
	18-INCH COMPOST FILTER SOCK
	24-INCH COMPOST FILTER SOCK
	32-INCH COMPOST FILTER SOCK
	PERMANENT WATER BAR W/FILTER SOCK
	TRENCH PLUG
	TEMPORARY EQUIPMENT CROSSING
	SANDBAG DAM
	PUMP
	SCREENED INLET
	ENERGY DISSIPATER
	DEWATERING FACILITY
	CULVERT PIPE
	EROSION CONTROL BLANKET
	STREAM RESTORATION

PROFILE LEGEND:

	PROPOSED PIPELINE
	EXISTING GRADE
	EXISTING GRADE ELEV.
	PROPOSED TOP OF PIPE ELEV.

GRAPHIC SCALES



STV
Baltimore, MD Bismarck, ND Denver, CO Douglassville, PA
Houston, TX Pittsburgh, PA Williamsport, PA

THE LOCATION OF THE PIPELINE FACILITIES AS SHOWN HEREON MUST BE CONSIDERED AS APPROXIMATE ONLY. BEFORE DIGGING OR FOR AN EXACT LOCATION PLEASE CONTACT YOUR STATES UNDERGROUND UTILITY LOCATION SERVICE.

STV PROJECT No.: 38-17335

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CHRISTOPHER D. ANTON
ENGINEER
No. PE-057385-E
11/30/16

CHRISTOPHER D. ANTONI
PE-057385-E

ENGINEERING RECORD	
DRAWN BY	RFG
CHECKED BY	CDA
APPROVED BY	CDA
DATE	11/30/16
SCALE	AS NOTED

REV.	DATE	APP#	DESCRIPTION	APPROVAL
PENNSYLVANIA PIPELINE PROJECT STREAM S-A47 RESTORATION PLAN				
				DAUPHIN COUNTY, PA
DWG. NO.			S-A47-B	REV. NO. 0