

PE-057385-E

GRAPHIC SCALES

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

STV PROJECT No.: 38-17335

REV. DATE APP# ENGINEERING RECORD DRAWN BY DLH CHECKED BY CDA APPROVED BY CDA 11/30/16 DATE SCALE AS NOTED

PROFILE LEGEND:

— — — EXISTING GRADE

PROPOSED PIPELINE

EXISTING GRADE ELEV.

PROPOSED TOP OF

PIPE ELEV.

Partners L.P.

**GENERAL NOTES:** 

WETLAND CROSSING NOTES:

STREAM CROSSING NOTES:

(ES-0.01-ES-0.17).

EXISTING UTILITIES PRIOR TO CONSTRUCTION.

(ES-0.03, ES-0.08, ES-0.10, AND ES-0.15).

3. FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)

2. FOR TEMPORARY EQUIPMENT CROSSINGS REFERENCE (ES-0.10).

DETAILS WHERE RIP-RAP IS PROPOSED (ES-0.18).

RIGHT-OF-WAY WHEN PUMP BYPASS IS NOT IN PLACE.

REFERENCED WITH THE NOTES AND DETAILS (ES-0.11-ES-0.14).

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.

2. A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.

FROM EDGE OF WETLAND FOR SPECIAL PROTECTION WATERS (HQ OR EV).

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

2. ALL EXISTING UTILITY INFORMATION IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL

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.

1. REFERENCE NOTES AND DETAILS FOR WETLAND CONSTRUCTION SEQUENCING AND WETLAND RESTORATION

4. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET EDGE OF WETLAND OR 100 FEET

1. REFERENCE NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND STREAM RESTORATION

3. SITE CONDITIONS MAY ALLOW FOR IMPLEMENTATION OF OTHER APPROVED PIPELINE INSTALLATION METHODS

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

5. REFERENCE THE STREAM BANK STABILIZATION DETAIL AND STREAM RESTORATION TABLE IN THE NOTES AND

6. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET FROM TOP OF BANK OR 100 FEET

<u>LEGEND</u>

EXISTING VEGETATION

<u>DESCRIPTION</u>

EXISTING SUNOCO PIPELINE

SUNOCO PIPELINES

MAJOR CONTOUR

MINOR CONTOUR

STREAM CENTERLINE

TOP/BOTTOM OF BANK

SOIL TYPE BOUNDARY

LIMIT OF DISTURBANCE

CONSTRUCTION FENCE

WETLAND

ENTRANCE

PROPOSED 16-INCH & 20-INCH

PROPOSED SUNOCO RIGHT-OF-WAY

EXISTING EDGE OF PAVED ROADWAY

PROPOSED ROCK CONSTRUCTION

12-INCH COMPOST FILTER SOCK

18-INCH COMPOST FILTER SOCK

24-INCH COMPOST FILTER SOCK

32-INCH COMPOST FILTER SOCK

TEMPORARY EQUIPMENT CROSSING

PERMANENT WATER BAR

W/FILTER SOCK

TRENCH PLUG

SANDBAG DAM

SCREENED INLET

CULVERT PIPE

ENERGY DISSIPATER

DEWATERING FACILITY

STREAM RESTORATION

EROSION CONTROL BLANKET

PUMP

EXISTING EDGE OF UNPAVED ROADWAY

8. COMPOST FILTER SOCKS SHALL BE INSTALLED ALONG THE TOP OF THE STREAM BANK ACROSS THE

<u>SYMBOL</u>

— — — — 910 — — — —

—LD——LD——LD—

-18 - 18 - 18 - 18 - 18 -

-24--24--24--24-

-32—32—32—32—

•

| APPROVAL DESCRIPTION PENNSYLVANIA PIPELINE PROJECT STREAM S-A73 **EXISTING CONDITIONS/EROSION &** 

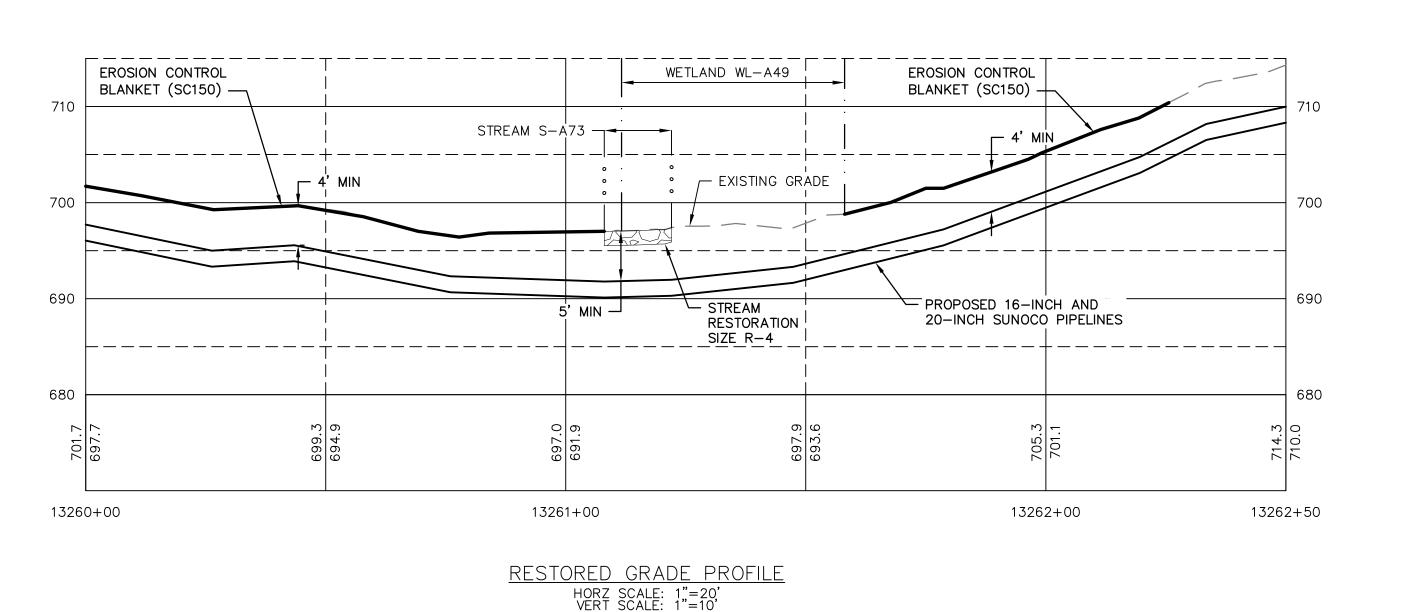
BERKS COUNTY, PA

REV. NO. S-A73-A

**Sunoco Logistics** 

SEDIMENTATION NTROL PLAN

OLD DRAWING NO.



REGISTERED PROFESSIONAL CHRISTOPHER D. ANTONI ENGINEER No. PE-057385-E /

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

**Sunoco Logistics** Partners L.P.

PENNSYLVANIA PIPELINE PROJECT STREAM S-A73 RESTORATION PLAN

BERKS COUNTY, PA

| APPROVAL

S-A73-B

GRAPHIC SCALES

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 STV PROJECT No.: 38-17335

CHRISTOPHER D. ANTONI PE-057385-E

OLD DRAWING NO.

PROFILE LEGEND:

— — — EXISTING GRADE

— PROPOSED PIPELINE

EXISTING GRADE ELEV.

PROPOSED TOP OF

PIPE ELEV.

REV. NO.

SOIL TYPE BOUNDARY WETLAND PROPOSED ROCK CONSTRUCTION ENTRANCE LIMIT OF DISTURBANCE —LD——LD——LD— CONSTRUCTION FENCE 12-INCH COMPOST FILTER SOCK 18-INCH COMPOST FILTER SOCK -18 - 18 - 18 - 18 - 18 -24-INCH COMPOST FILTER SOCK -24—24—24—24— -32—32—32—32— 32-INCH COMPOST FILTER SOCK PERMANENT WATER BAR W/FILTER SOCK TRENCH PLUG TEMPORARY EQUIPMENT CROSSING • SANDBAG DAM

<u>DESCRIPTION</u>

EXISTING SUNOCO PIPELINE

SUNOCO PIPELINES

MAJOR CONTOUR

MINOR CONTOUR

STREAM CENTERLINE

TOP/BOTTOM OF BANK

PROPOSED 16-INCH & 20-INCH

PROPOSED SUNOCO RIGHT-OF-WAY

EXISTING EDGE OF PAVED ROADWAY

EXISTING EDGE OF UNPAVED ROADWAY

PUMP

SCREENED INLET ENERGY DISSIPATER

DEWATERING FACILITY CULVERT PIPE  $\overline{\times \times \times \times \times \times}$ 

EROSION CONTROL BLANKET

STREAM RESTORATION

REV. DATE APP# DESCRIPTION

DWG. NO.

2. A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.

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).

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).

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

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.

#### STREAM CROSSING NOTES:

WETLAND CROSSING NOTES:

**GENERAL 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

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

5. REFERENCE THE STREAM BANK STABILIZATION DETAIL AND STREAM RESTORATION TABLE IN THE NOTES AND

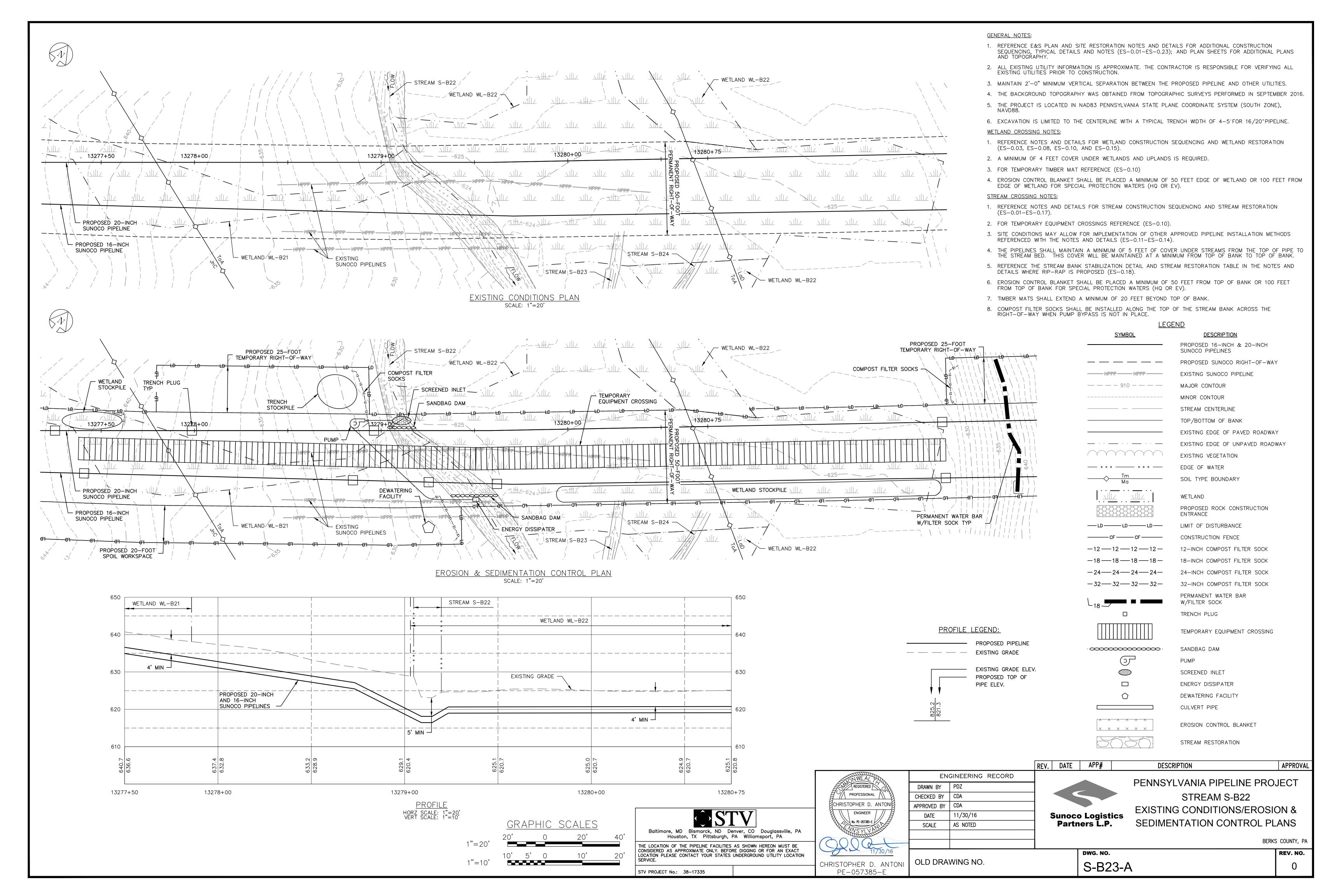
FROM TOP OF BANK FOR SPECIAL PROTECTION WATERS (HQ OR EV). 7. TIMBER MATS SHALL EXTEND A MINIMUM OF 20 FEET BEYOND TOP OF BANK.

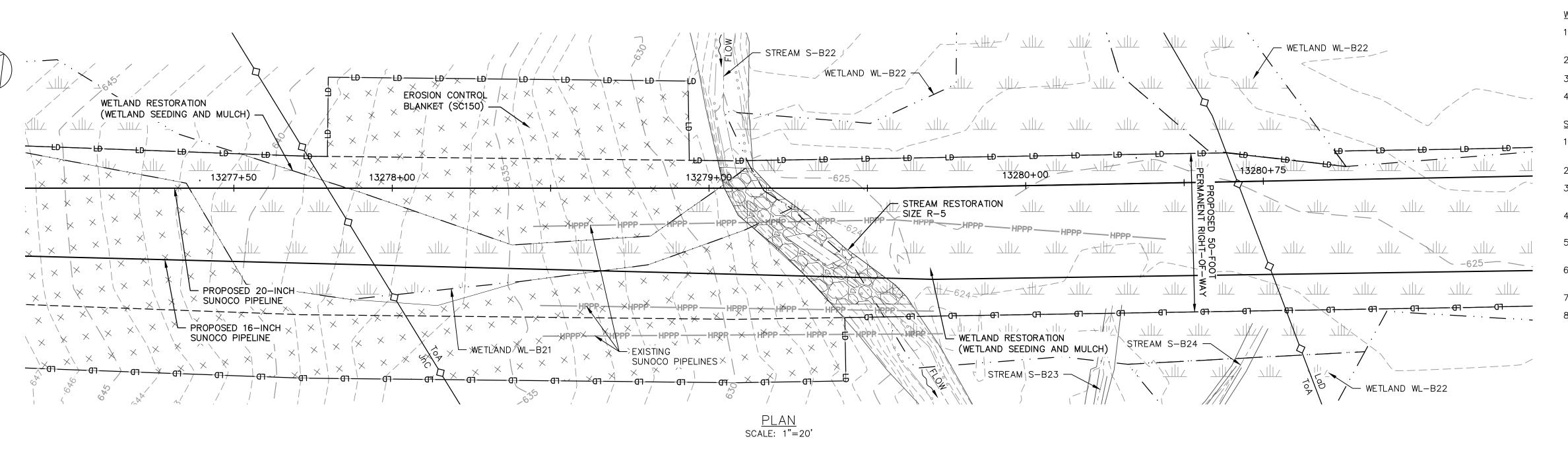
8. COMPOST FILTER SOCKS SHALL BE INSTALLED ALONG THE TOP OF THE STREAM BANK ACROSS THE RIGHT-OF-WAY WHEN PUMP BYPASS IS NOT IN PLACE.

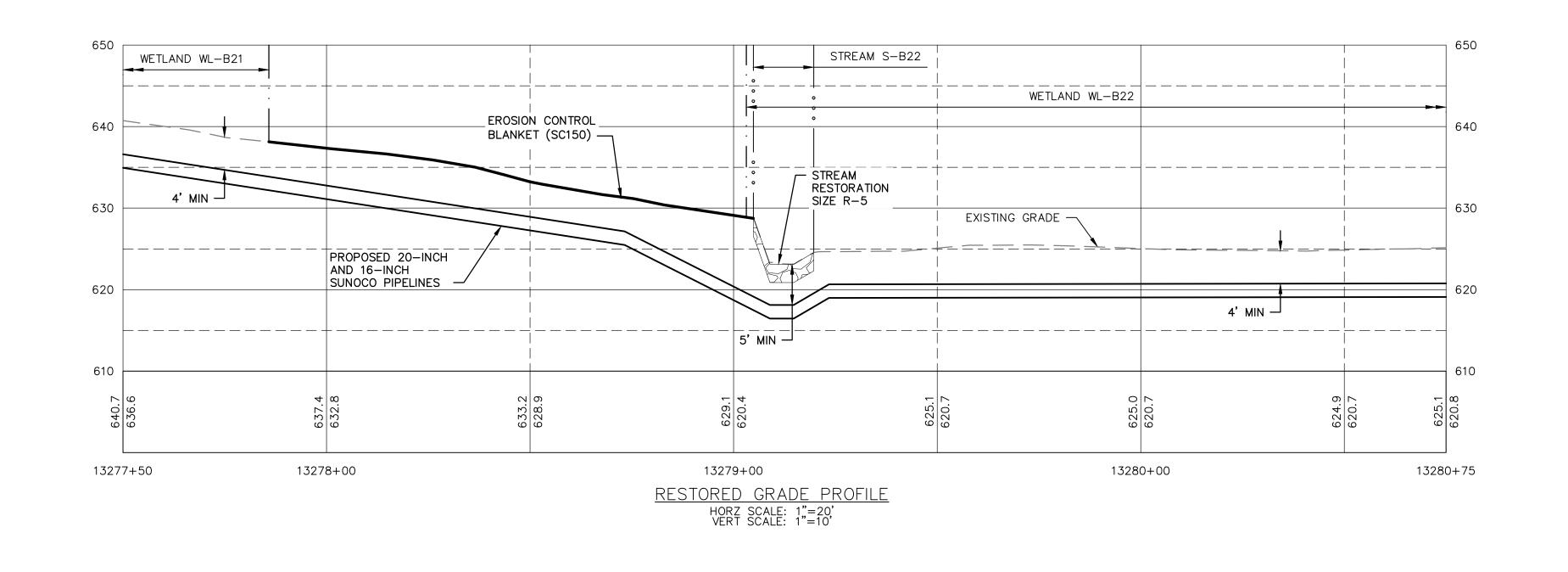
<u>SYMBOL</u>

— — — — 910 — — — —

EXISTING VEGETATION







#### **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
- 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),
- 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
- 2. A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.
- 3. FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)

(ES-0.03, ES-0.08, ES-0.10, AND ES-0.15).

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.
- 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.

# <u>SYMBOL</u> ——— HPPP ——— HPPP ———

PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES PROPOSED SUNOCO RIGHT-OF-WAY

EXISTING SUNOCO PIPELINE

**DESCRIPTION** 

— — — — 910 — — — — MAJOR CONTOUR

<u>LEGEND</u>

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 -18 --- 18 --- 18 --- 18 ---

-24-24-24-24-24-INCH COMPOST FILTER SOCK

-32 - 32 - 32 - 32 -32-INCH COMPOST FILTER SOCK

PERMANENT WATER BAR

W/FILTER SOCK TRENCH PLUG

TEMPORARY EQUIPMENT CROSSING

• SANDBAG DAM <u></u> PUMP

SCREENED INLET ENERGY DISSIPATER

DEWATERING FACILITY

CULVERT PIPE

EROSION CONTROL BLANKET  $\times$   $\times$   $\times$   $\times$   $\times$ 

STREAM RESTORATION

DESCRIPTION

PENNSYLVANIA PIPELINE PROJECT

Sunoco Logistics Partners L.P.

APP#

STREAM S-B22 **RESTORATION PLAN** 

BERKS COUNTY, PA

APPROVAL

S-B23-B

GRAPHIC SCALES 1"=20' 1"=10

**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 STV PROJECT No.: 38-17335

No. PE-057385-E / SCALE CHRISTOPHER D. ANTONI PE-057385-E

REGISTERED

PROFESSIONAL

CHRISTOPHER D. ANTONI

ENGINEER

OLD DRAWING NO.

DRAWN BY PDZ

CHECKED BY CDA

APPROVED BY CDA

DATE

PROFILE LEGEND:

— — — EXISTING GRADE

— PROPOSED PIPELINE

PIPE ELEV.

ENGINEERING RECORD

11/30/16

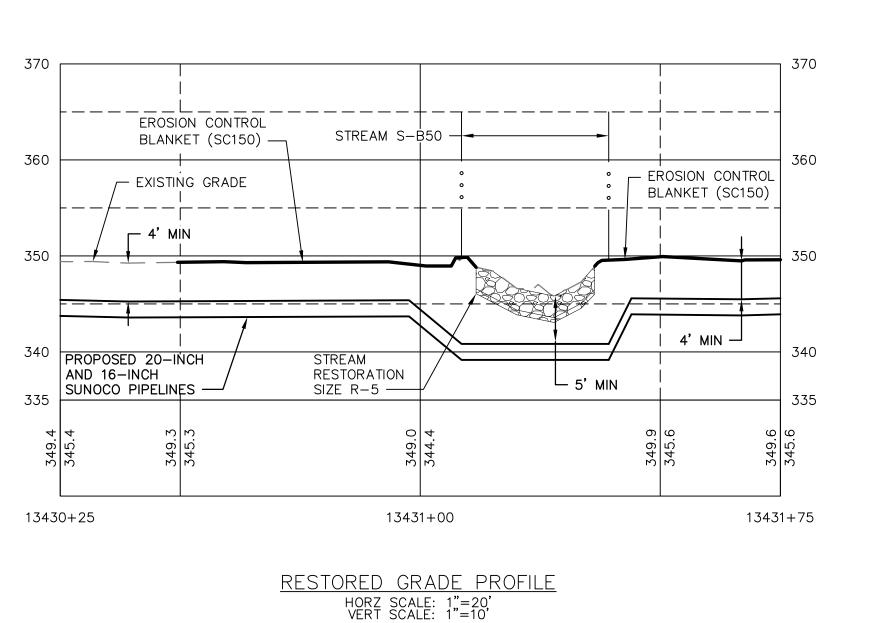
AS NOTED

EXISTING GRADE ELEV.

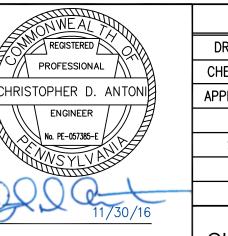
PROPOSED TOP OF

DWG. NO.

REV. DATE



Baltimore, MD Bismarck, ND Denver, CO Douglassville, PA Houston, TX Pittsburgh, PA Williamsport, PA STV PROJECT No.: 38-17335



DATE SCALE

ENGINEERING RECORD

#### DESCRIPTION | APPROVAL PENNSYLVANIA PIPELINE PROJECT STREAM S-B50 RESTORATION PLAN

DWG. NO. S-B50-B

**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
- 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).

<u>SYMBOL</u>

-24—24—24—24—

 $\times$   $\times$   $\times$   $\times$   $\times$ 

- 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.

——— HPPP ——— HPPP ——— — — — — 910 — — — —

PROPOSED 16-INCH & 20-INCH SUNOCO PIPELINES PROPOSED SUNOCO RIGHT-OF-WAY EXISTING SUNOCO PIPELINE

**DESCRIPTION** 

MAJOR CONTOUR MINOR CONTOUR

<u>LEGEND</u>

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

> > 24-INCH COMPOST FILTER SOCK

—LD——LD——LD— CONSTRUCTION FENCE

12-INCH COMPOST FILTER SOCK -18 - 18 - 18 - 18 - 18 -18-INCH COMPOST FILTER SOCK

32-INCH COMPOST FILTER SOCK

PERMANENT WATER BAR W/FILTER SOCK

TRENCH PLUG

TEMPORARY EQUIPMENT CROSSING

• SANDBAG DAM  $\odot$ 

SCREENED INLET

ENERGY DISSIPATER DEWATERING FACILITY

CULVERT PIPE

EROSION CONTROL BLANKET

V V V V V

STREAM RESTORATION

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

PROFILE LEGEND:

— — — EXISTING GRADE

— PROPOSED PIPELINE

EXISTING GRADE ELEV.

PROPOSED TOP OF

PIPE ELEV.

REV. DATE APP#

**Sunoco Logistics** Partners L.P.

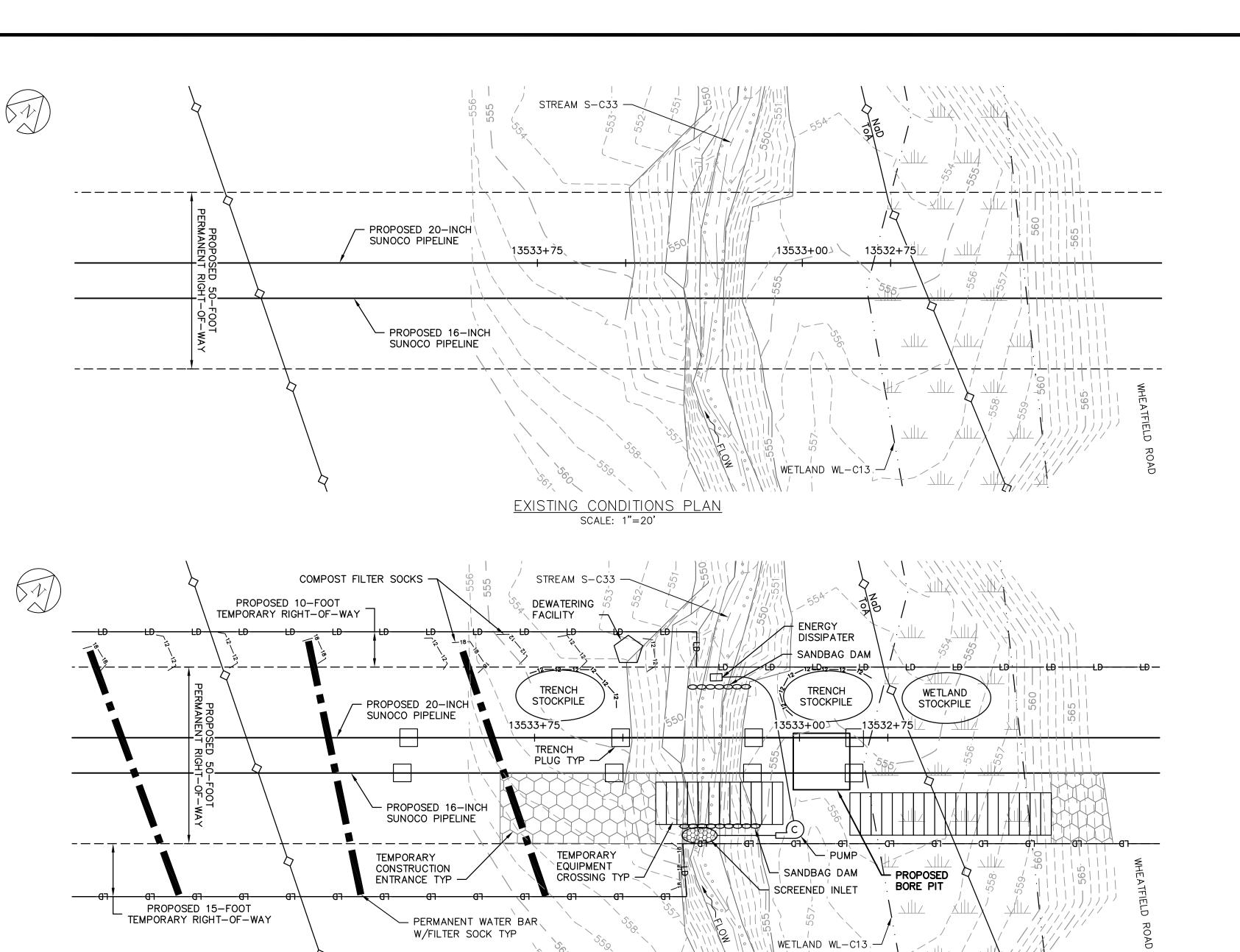
BERKS COUNTY, PA

GRAPHIC SCALES

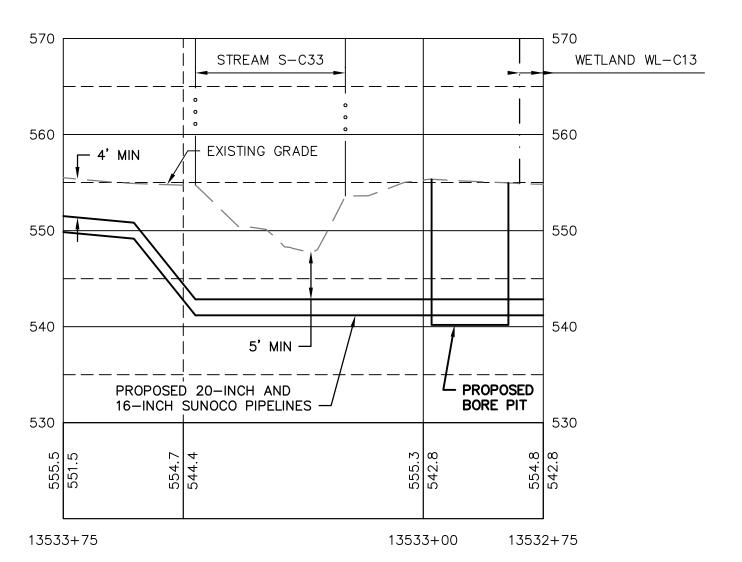
THE LOCATION OF THE PIPELINE FACILITIES AS SHOWN HEREON MUST BE CONSIDERED AS APPROXIMATE ONLY. BEFORE DIGGING OR FOR AN EXACT LOCATION PLEASE CONTACT YOUR STATES UNDERGROUND UTILITY LOCATION

CHRISTOPHER D. ANTONI PE-057385-E

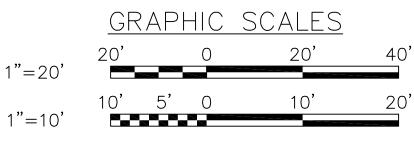
OLD DRAWING NO.

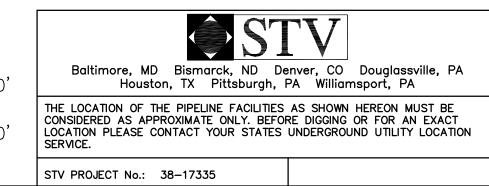


EROSION & SEDIMENTATION CONTROL PLAN



<u>PROFILE</u>





REGISTERED PROFESSIONAL CHRISTOPHER D. ANTONI ENGINEER No. PE-057385-E OLD DRAWING NO. CHRISTOPHER D. ANTONI PE-057385-E

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

REV. DATE APP# **Sunoco Logistics** Partners L.P.

 $\times$   $\times$   $\times$   $\times$   $\times$ 

DESCRIPTION APPROVA PENNSYLVANIA PIPELINE PROJECT STREAM S-C33 **EXISTING CONDITIONS/EROSION &** SEDIMENTATION CONTROL PLANS

SCREENED INLET

CULVERT PIPE

ENERGY DISSIPATER

DEWATERING FACILITY

STREAM RESTORATION

EROSION CONTROL BLANKET

BERKS COUNTY, PA

DWG. NO. REV. NO. S-C33-A

PROFILE LEGEND:

**GENERAL NOTES:** 

WETLAND CROSSING NOTES:

STREAM CROSSING NOTES:

(ES-0.01-ES-0.17).

EXISTING UTILITIES PRIOR TO CONSTRUCTION.

(ES-0.03, ES-0.08, ES-0.10, AND ES-0.15).

3. FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)

2. A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.

EDGE OF WETLAND FOR SPECIAL PROTECTION WATERS (HQ OR EV).

2. FOR TEMPORARY EQUIPMENT CROSSINGS REFERENCE (ES-0.10).

DETAILS WHERE RIP-RAP IS PROPOSED (ES-0.18).

REFERENCED WITH THE NOTES AND DETAILS (ES-0.11-ES-0.14).

TOP OF BANK FOR SPECIAL PROTECTION WATERS (HQ OR EV).

7. TIMBER MATS SHALL EXTEND A MINIMUM OF 20 FEET BEYOND TOP OF BANK.

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

EXISTING EDGE OF PAVED ROADWAY EXISTING EDGE OF UNPAVED ROADWAY EXISTING VEGETATION SOIL TYPE BOUNDARY WETLAND PROPOSED ROCK CONSTRUCTION ENTRANCE —LD — LD — LD — LIMIT OF DISTURBANCE CONSTRUCTION FENCE 12-INCH COMPOST FILTER SOCK 18-INCH COMPOST FILTER SOCK -24-24-24-24-24-INCH COMPOST FILTER SOCK 32-INCH COMPOST FILTER SOCK PERMANENT WATER BAR W/FILTER SOCK TRENCH PLUG TEMPORARY EQUIPMENT CROSSING SANDBAG DAM  $\cdot$ PUMP

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.

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.

4. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET EDGE OF WETLAND OR 100 FEET FROM

2. ALL EXISTING UTILITY INFORMATION IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL

3. MAINTAIN 2'-0" MINIMUM VERTICAL SEPARATION BETWEEN THE PROPOSED PIPELINE AND OTHER UTILITIES.

6. EXCAVATION IS LIMITED TO THE CENTERLINE WITH A TYPICAL TRENCH WIDTH OF 4-5' FOR 16/20" PIPELINE.

1. REFERENCE NOTES AND DETAILS FOR WETLAND CONSTRUCTION SEQUENCING AND WETLAND RESTORATION

1. REFERENCE NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND STREAM RESTORATION

3. SITE CONDITIONS MAY ALLOW FOR IMPLEMENTATION OF OTHER APPROVED PIPELINE INSTALLATION METHODS

5. REFERENCE THE STREAM BANK STABILIZATION DETAIL AND STREAM RESTORATION TABLE IN THE NOTES AND

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.

<u>SYMBOL</u>

— — — — 910 — — — —

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.

6. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET FROM TOP OF BANK OR 100 FEET FROM

<u>LEGEND</u>

**DESCRIPTION** 

EXISTING SUNOCO PIPELINE

SUNOCO PIPELINES

MAJOR CONTOUR

MINOR CONTOUR

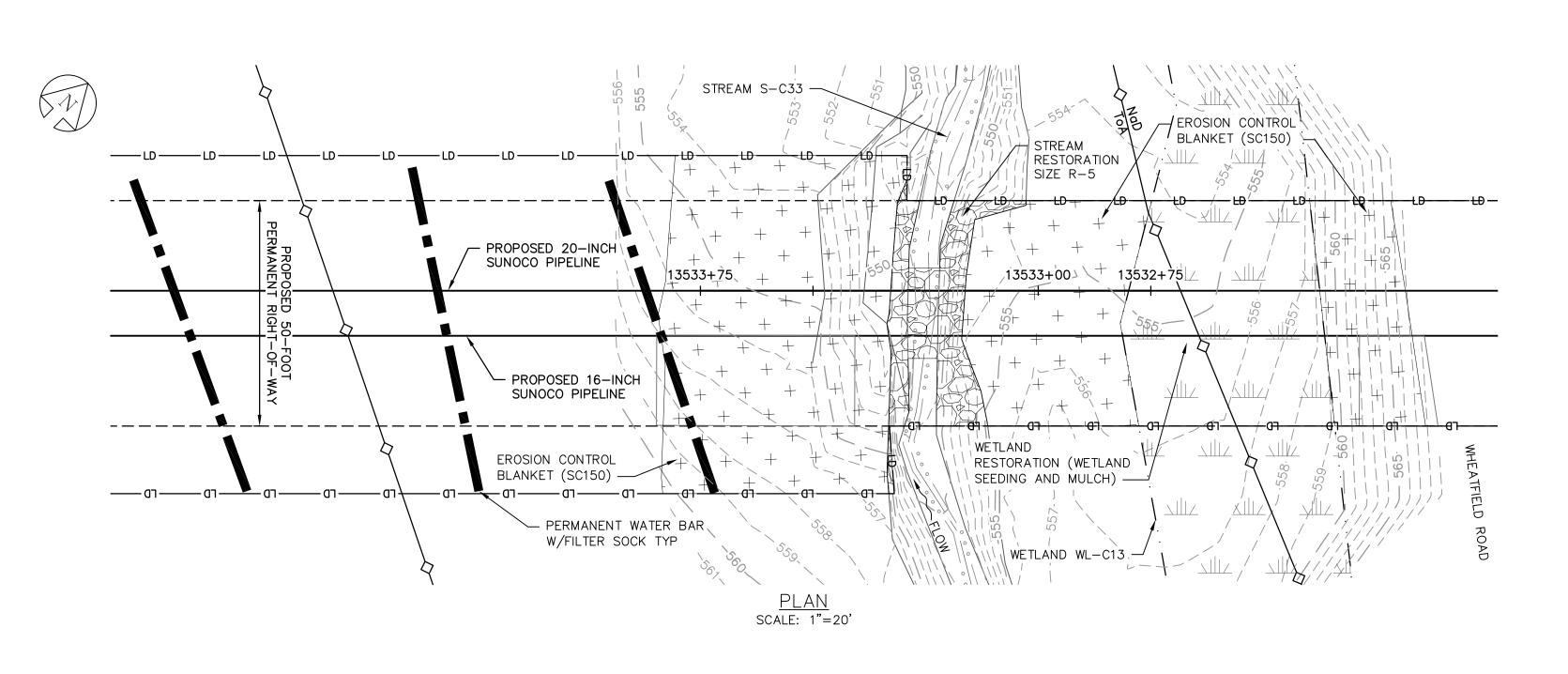
STREAM CENTERLINE

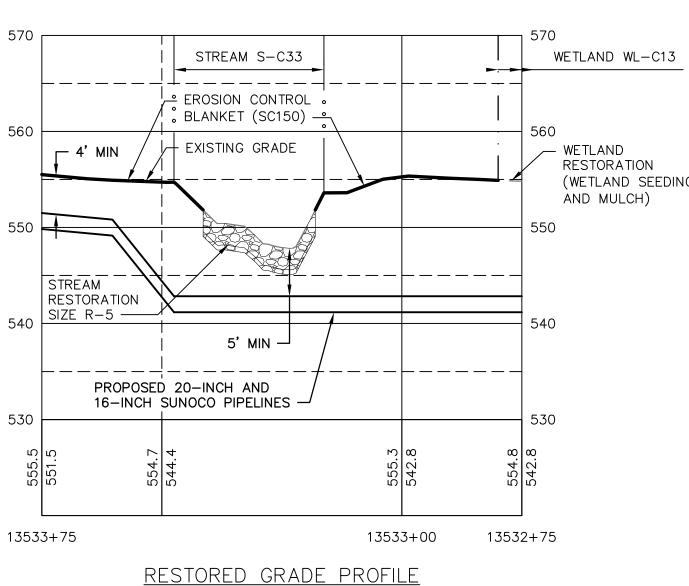
TOP/BOTTOM OF BANK

PROPOSED 16-INCH & 20-INCH

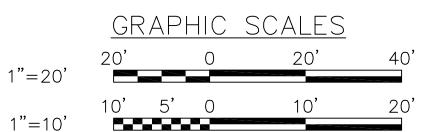
PROPOSED SUNOCO RIGHT-OF-WAY

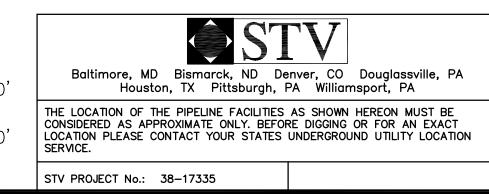
— — — EXISTING GRADE

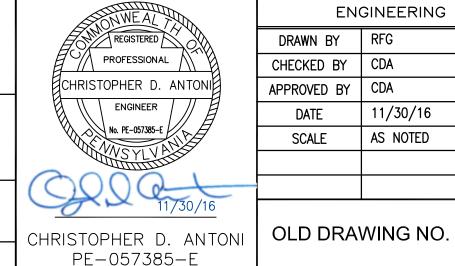




HORZ SCALE: 1"=20' VERT SCALE: 1"=10'







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

REV. DATE APP# DESCRIPTION PENNSYLVANIA PIPELINE PROJECT **Sunoco Logistics** Partners L.P.

 $\times$   $\times$   $\times$   $\times$   $\times$ 

STREAM S-C33 RESTORATION PLAN

DEWATERING FACILITY

STREAM RESTORATION

EROSION CONTROL BLANKET

CULVERT PIPE

BERKS COUNTY, PA

APPROVA

DWG. NO. REV. NO. S-C33-B

(WETLAND SEEDING PROFILE LEGEND:

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

**GENERAL NOTES:** 

WETLAND CROSSING NOTES:

STREAM CROSSING NOTES:

(ES-0.01-ES-0.17).

EXISTING UTILITIES PRIOR TO CONSTRUCTION.

(ES-0.03, ES-0.08, ES-0.10, AND ES-0.15).

3. FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)

2. A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.

EDGE OF WETLAND FOR SPECIAL PROTECTION WATERS (HQ OR EV).

2. FOR TEMPORARY EQUIPMENT CROSSINGS REFERENCE (ES-0.10).

DETAILS WHERE RIP-RAP IS PROPOSED (ES-0.18).

REFERENCED WITH THE NOTES AND DETAILS (ES-0.11-ES-0.14).

TOP OF BANK FOR SPECIAL PROTECTION WATERS (HQ OR EV).

7. TIMBER MATS SHALL EXTEND A MINIMUM OF 20 FEET BEYOND TOP OF BANK.

— — — — 910 — — — — MAJOR CONTOUR MINOR CONTOUR STREAM CENTERLINE TOP/BOTTOM OF BANK EXISTING EDGE OF PAVED ROADWAY EXISTING EDGE OF UNPAVED ROADWAY EXISTING VEGETATION SOIL TYPE BOUNDARY WETLAND . \_\_\_ . . \_\_ . . PROPOSED ROCK CONSTRUCTION ENTRANCE LIMIT OF DISTURBANCE —LD——LD——LD— CONSTRUCTION FENCE 12-INCH COMPOST FILTER SOCK —18 ——18 ——18 — 18-INCH COMPOST FILTER SOCK -24-24-24-24-24-INCH COMPOST FILTER SOCK 32-INCH COMPOST FILTER SOCK -32—32—32—32— PERMANENT WATER BAR W/FILTER SOCK TRENCH PLUG TEMPORARY EQUIPMENT CROSSING  $\cdot$ SANDBAG DAM  $\odot$ PUMP SCREENED INLET ENERGY DISSIPATER

<u>LEGEND</u>

<u>DESCRIPTION</u>

EXISTING SUNOCO PIPELINE

SUNOCO PIPELINES

PROPOSED 16-INCH & 20-INCH

PROPOSED SUNOCO RIGHT-OF-WAY

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.

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.

4. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET EDGE OF WETLAND OR 100 FEET FROM

2. ALL EXISTING UTILITY INFORMATION IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL

3. MAINTAIN 2'-0" MINIMUM VERTICAL SEPARATION BETWEEN THE PROPOSED PIPELINE AND OTHER UTILITIES.

6. EXCAVATION IS LIMITED TO THE CENTERLINE WITH A TYPICAL TRENCH WIDTH OF 4-5' FOR 16/20" PIPELINE.

1. REFERENCE NOTES AND DETAILS FOR WETLAND CONSTRUCTION SEQUENCING AND WETLAND RESTORATION

1. REFERENCE NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND STREAM RESTORATION

3. SITE CONDITIONS MAY ALLOW FOR IMPLEMENTATION OF OTHER APPROVED PIPELINE INSTALLATION METHODS

5. REFERENCE THE STREAM BANK STABILIZATION DETAIL AND STREAM RESTORATION TABLE IN THE NOTES AND

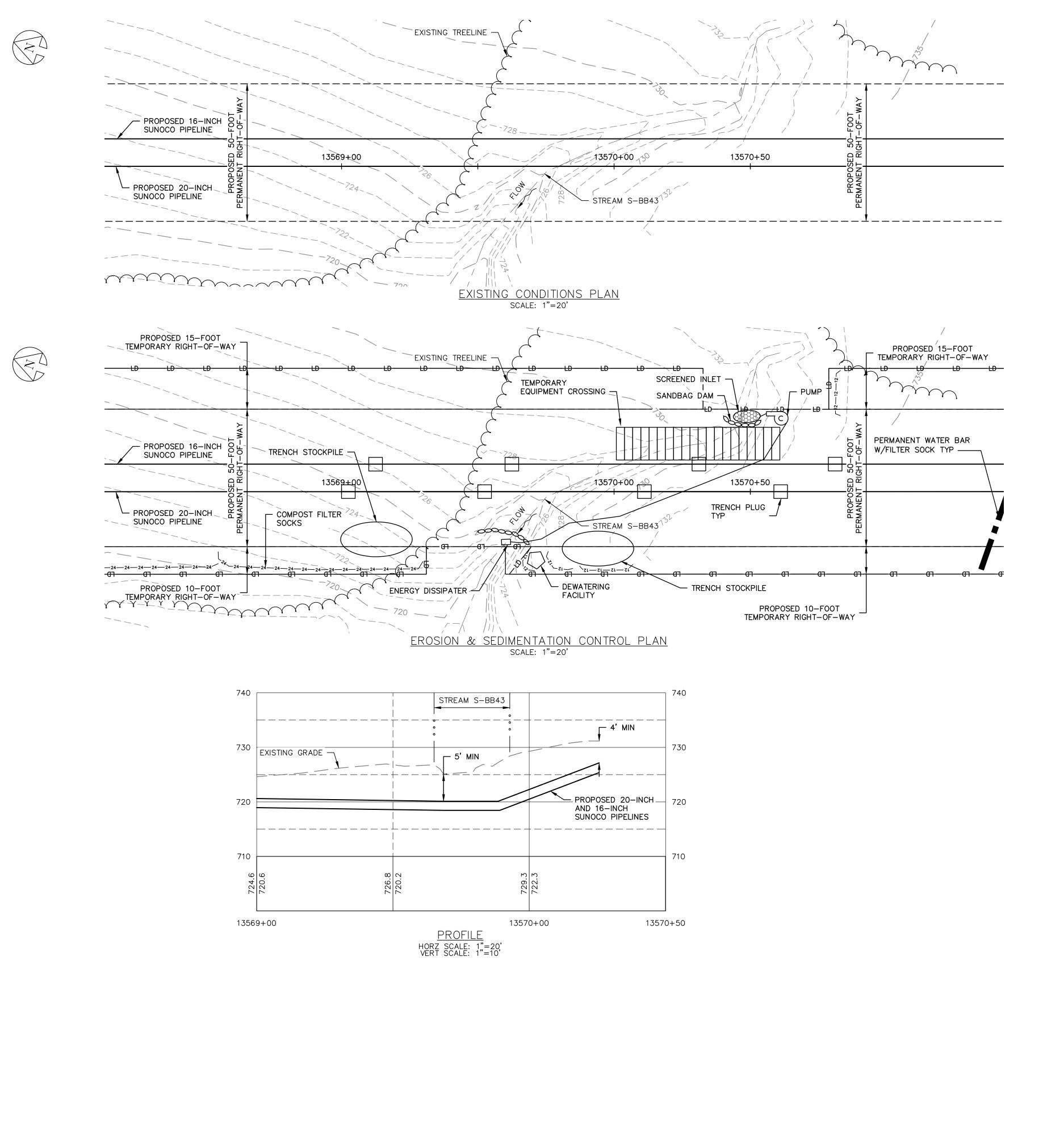
8. COMPOST FILTER SOCKS SHALL BE INSTALLED ALONG THE TOP OF THE STREAM BANK ACROSS THE RIGHT—OF—WAY WHEN PUMP BYPASS IS NOT IN PLACE.

<u>SYMBOL</u>

—— HPPP —— HPPP ——

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.

6. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET FROM TOP OF BANK OR 100 FEET FROM

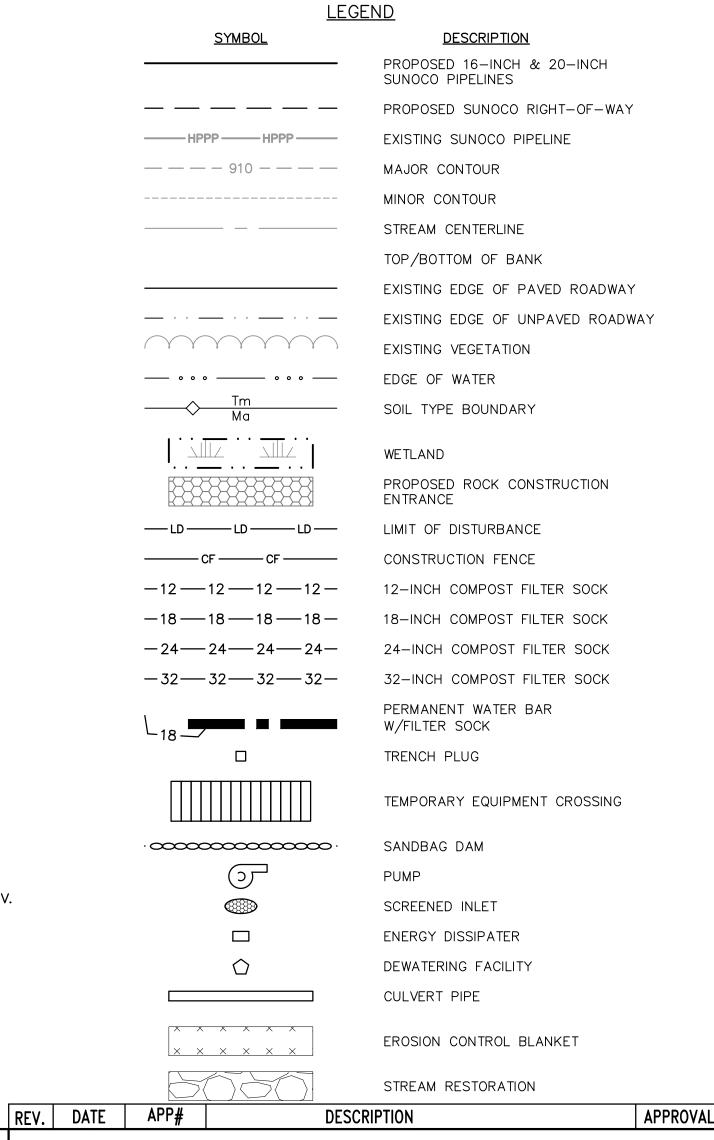


**GENERAL NOTES:** 

- 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
- 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
- 5. THE PROJECT IS LOCATED IN NAD83 PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (SOUTH ZONE),
- 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).

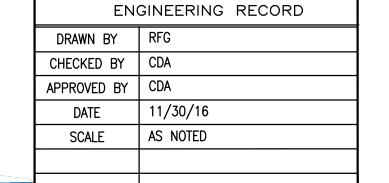
#### STREAM CROSSING NOTES:

- 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
- 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.



GRAPHIC SCALES

\$\hat{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 CHRISTOPHER D. ANTONI STV PROJECT No.: 38-17335



OLD DRAWING NO.

REGISTERED

PROFESSIONAL

CHRISTOPHER D. ANTONI

ENGINEER

No. PE-057385-E /

PE-057385-E

PROFILE LEGEND:

— — — EXISTING GRADE

PROPOSED PIPELINE

PIPE ELEV.

EXISTING GRADE ELEV.

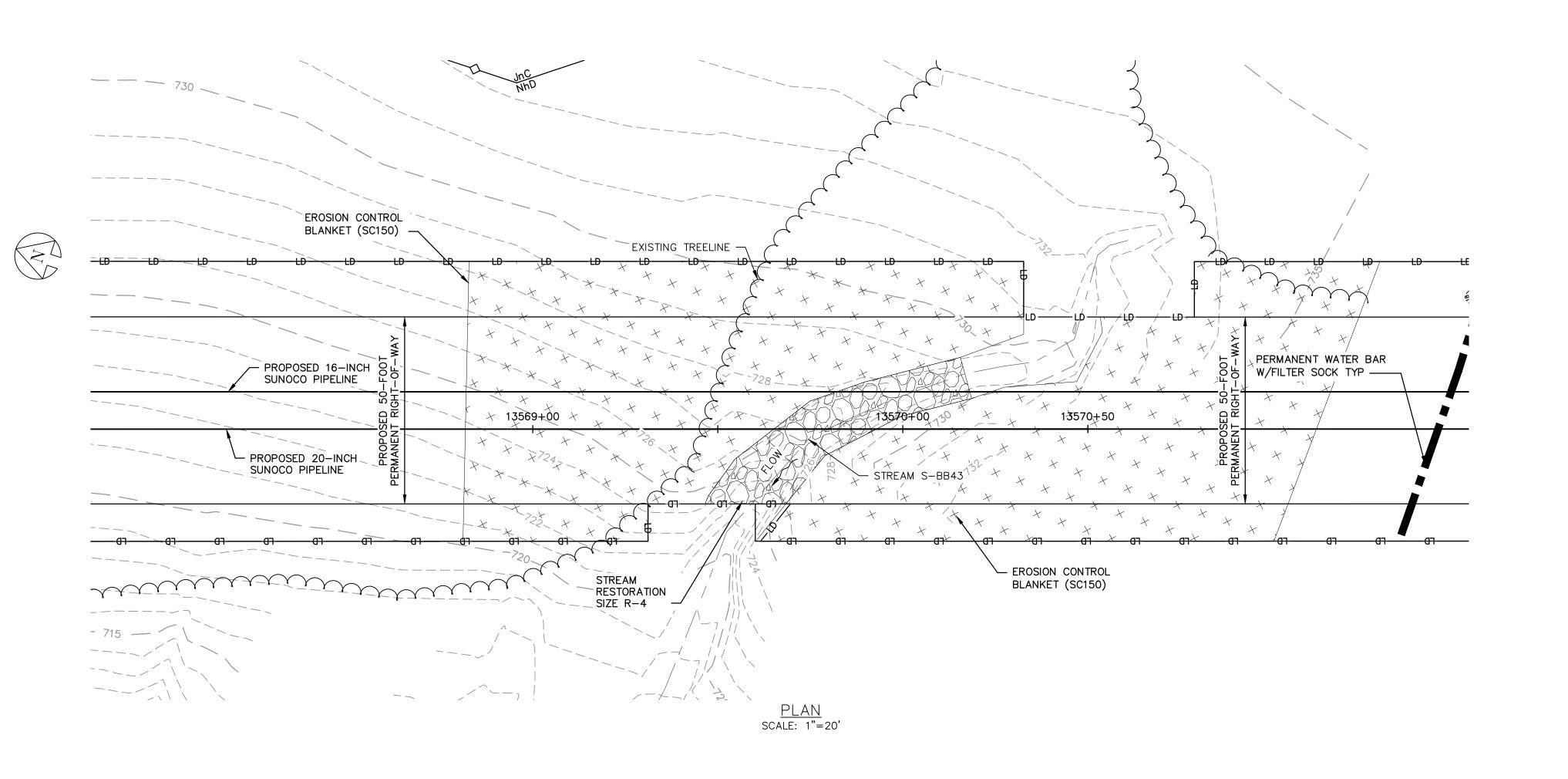
PROPOSED TOP OF

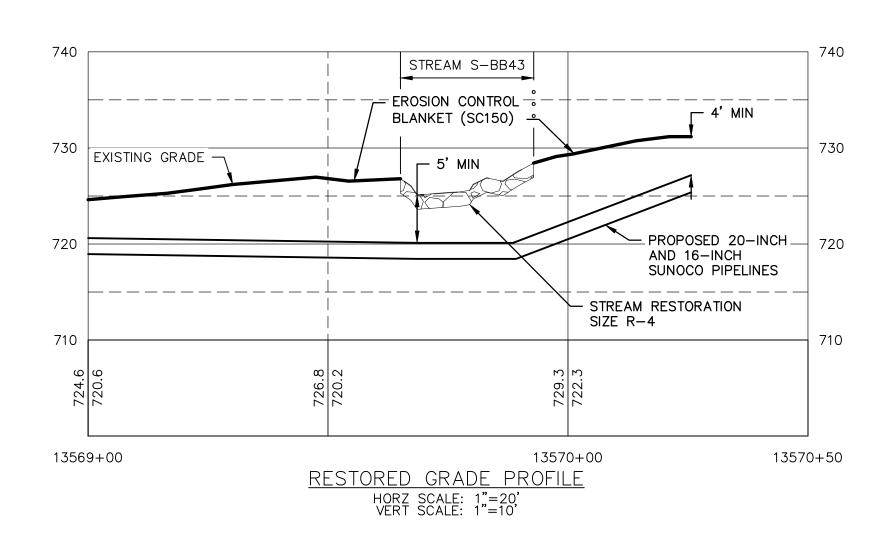
**Sunoco Logistics** Partners L.P.

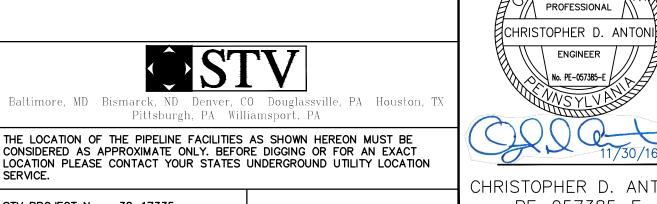
PENNSYLVANIA PIPELINE PROJECT STREAM S-BB43 **EXISTING CONDITIONS/EROSION &** SEDIMENTATION CONTROL PLANS

BERKS COUNTY, PA

DWG. NO. REV. NO. S-BB43-A 0







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

# Sunoco Logistics Partners L.P.

## PENNSYLVANIA PIPELINE PROJECT STREAM S-B43 **RESTORATION PLAN**

BERKS COUNTY, PA

DWG. NO. REV. NO. S-BB43-B

**GENERAL NOTES:** 

WETLAND CROSSING NOTES:

STREAM CROSSING NOTES:

(ES-0.01-ES-0.17).

(ES-0.03, ES-0.08, ES-0.10, AND ES-0.15).

3. FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)

2. FOR TEMPORARY EQUIPMENT CROSSINGS REFERENCE (ES-0.10).

DETAILS WHERE RIP-RAP IS PROPOSED (ES-0.18).

RIGHT-OF-WAY WHEN PUMP BYPASS IS NOT IN PLACE.

REFERENCED WITH THE NOTES AND DETAILS (ES-0.11-ES-0.14).

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.

2. A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.

FROM EDGE OF WETLAND FOR SPECIAL PROTECTION WATERS (HQ OR EV).

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

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

6. EXCAVATION IS LIMITED TO THE CENTERLINE WITH A TYPICAL TRENCH WIDTH OF 4-5'FOR 16/20"PIPELINE.

1. REFERENCE NOTES AND DETAILS FOR WETLAND CONSTRUCTION SEQUENCING AND WETLAND RESTORATION

4. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET EDGE OF WETLAND OR 100 FEET

1. REFERENCE NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND STREAM RESTORATION

3. SITE CONDITIONS MAY ALLOW FOR IMPLEMENTATION OF OTHER APPROVED PIPELINE INSTALLATION METHODS

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

5. REFERENCE THE STREAM BANK STABILIZATION DETAIL AND STREAM RESTORATION TABLE IN THE NOTES AND

6. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET FROM TOP OF BANK OR 100 FEET

**DESCRIPTION** 

EXISTING SUNOCO PIPELINE

SUNOCO PIPELINES

MAJOR CONTOUR

MINOR CONTOUR

STREAM CENTERLINE

TOP/BOTTOM OF BANK

EXISTING VEGETATION

SOIL TYPE BOUNDARY

LIMIT OF DISTURBANCE

CONSTRUCTION FENCE

PROPOSED ROCK CONSTRUCTION

12-INCH COMPOST FILTER SOCK

18-INCH COMPOST FILTER SOCK

24-INCH COMPOST FILTER SOCK

32-INCH COMPOST FILTER SOCK

TEMPORARY EQUIPMENT CROSSING

PERMANENT WATER BAR

W/FILTER SOCK

TRENCH PLUG

SANDBAG DAM

SCREENED INLET

ENERGY DISSIPATER

PUMP

EDGE OF WATER

WETLAND

ENTRANCE

PROPOSED 16-INCH & 20-INCH

PROPOSED SUNOCO RIGHT-OF-WAY

EXISTING EDGE OF PAVED ROADWAY

EXISTING EDGE OF UNPAVED ROADWAY

8. COMPOST FILTER SOCKS SHALL BE INSTALLED ALONG THE TOP OF THE STREAM BANK ACROSS THE

<u>SYMBOL</u>

— — — — 910 — — — —

-18 - 18 - 18 - 18 - 18 -

-24—24—24—24—

-32—32—32—32—

 $\odot$ 

5. THE PROJECT IS LOCATED IN NAD83 PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (SOUTH ZONE),

APP# REV. DATE

 $\times$   $\times$   $\times$   $\times$   $\times$ 

DEWATERING FACILITY CULVERT PIPE

EROSION CONTROL BLANKET STREAM RESTORATION

APPROVAL DESCRIPTION

No. PE-057385-E /

PROFILE LEGEND:

— — — EXISTING GRADE

PROPOSED PIPELINE

PIPE ELEV.

EXISTING GRADE ELEV.

PROPOSED TOP OF

OLD DRAWING NO.

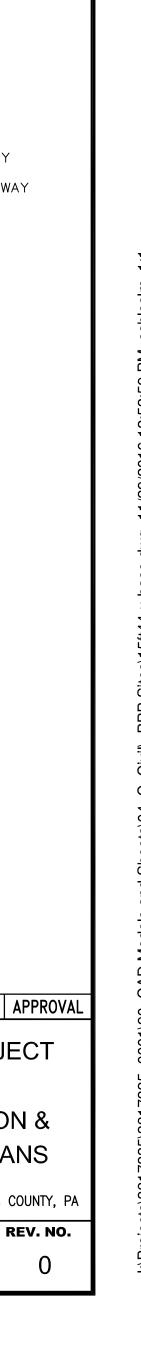
CHRISTOPHER D. ANTONI

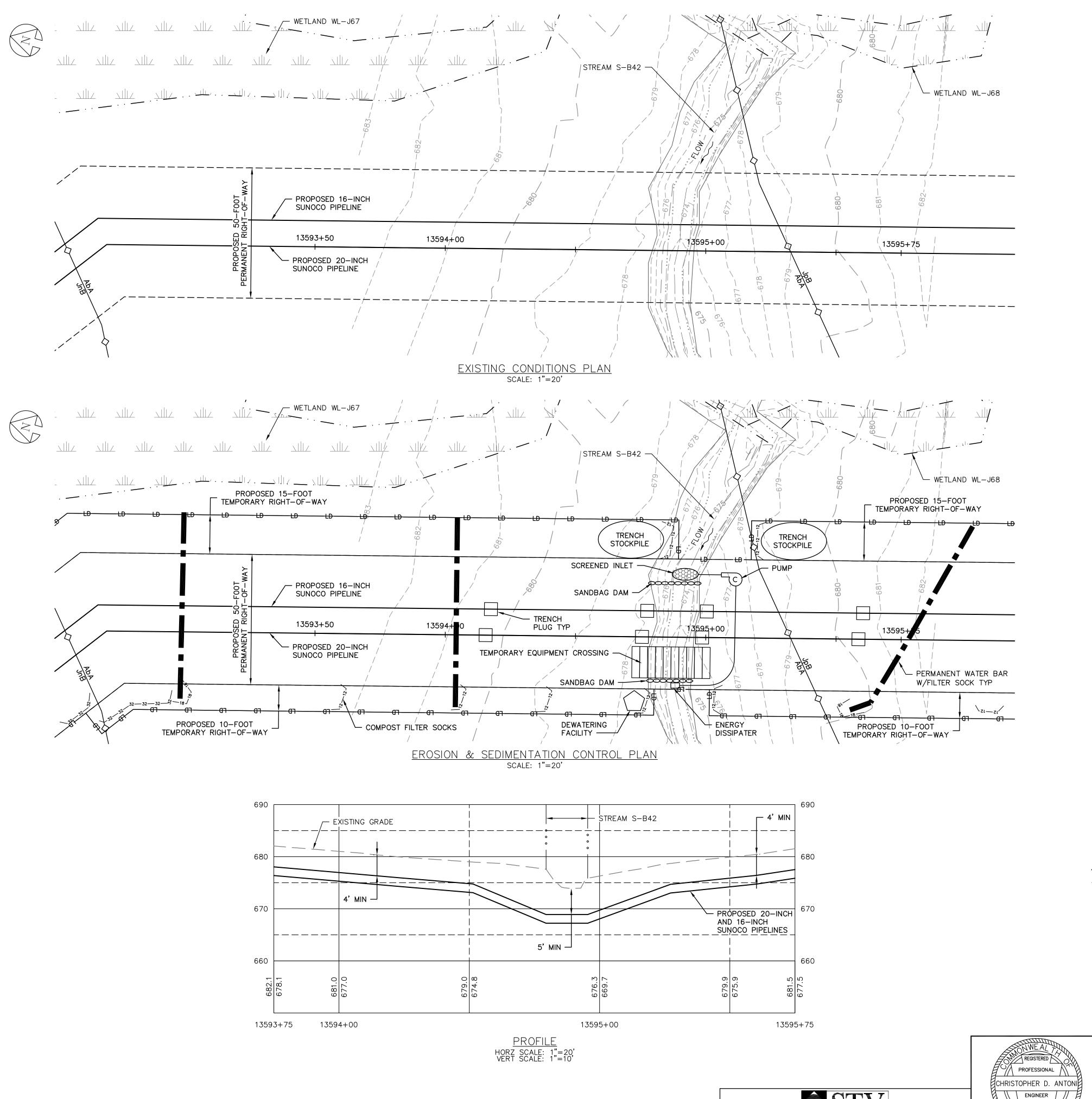
REGISTERED

PE-057385-E

STV PROJECT No.: 38-17335

GRAPHIC SCALES





1"=10

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

STV PROJECT No.: 38-17335

**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:

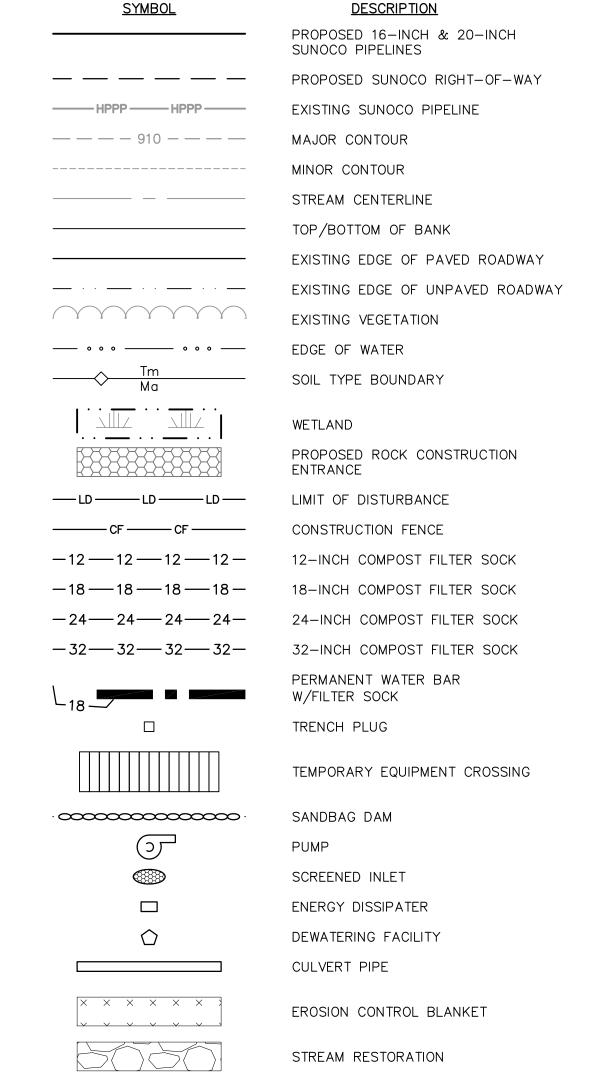
- 1. REFERENCE NOTES AND DETAILS FOR WETLAND CONSTRUCTION SEQUENCING AND WETLAND RESTORATION (ES-0.03, ES-0.08, ES-0.10, AND ES-0.15).
- 2. A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.
- 3. FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)
- 4. EROSION CONTROL BLANKET SHALL BE PLACED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

<u>LEGEND</u>

- 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.



ENGINEERING RECORD DRAWN BY RFG CHECKED BY CDA APPROVED BY | CDA 11/30/16 No. PE-057385-E / AS NOTED SCALE

CHRISTOPHER D. ANTONI PE-057385-E

PROFILE LEGEND:

— — — EXISTING GRADE

PROPOSED PIPELINE

PIPE ELEV.

EXISTING GRADE ELEV.

PROPOSED TOP OF

**Sunoco Logistics** Partners L.P.

REV. DATE APP#

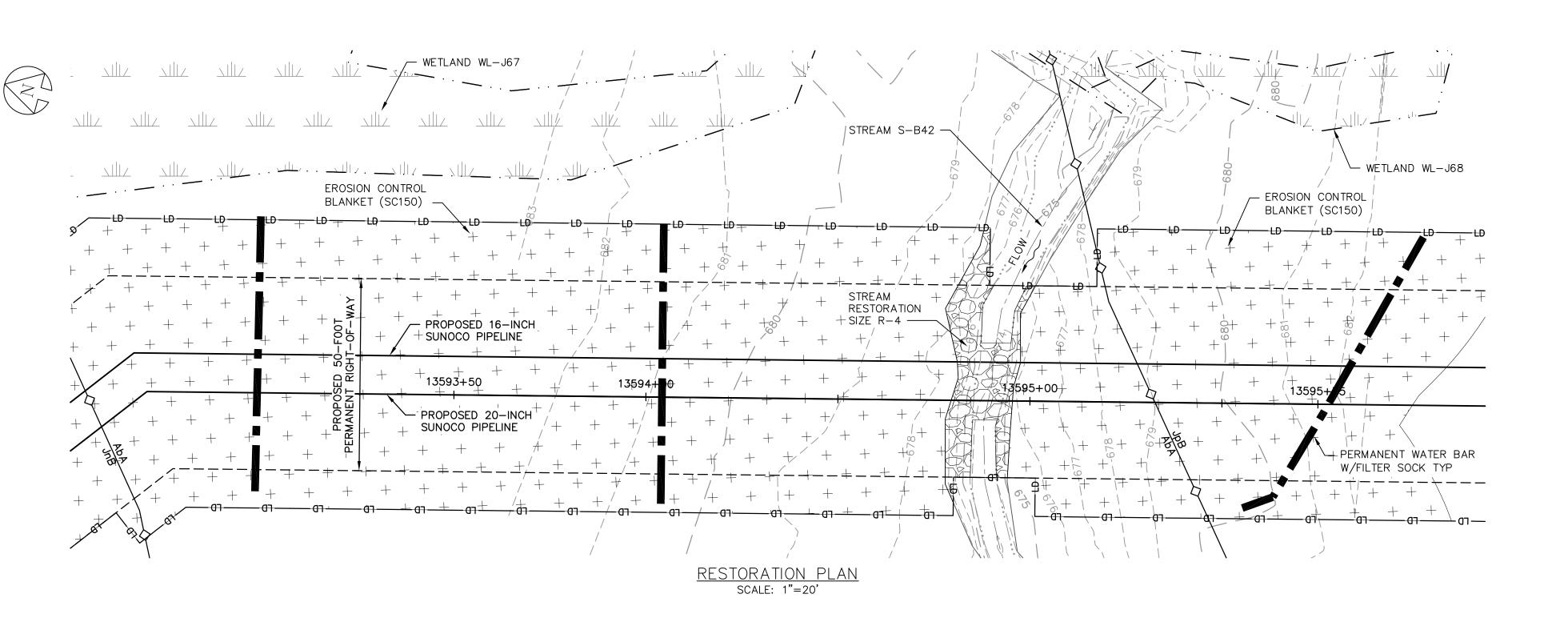
PENNSYLVANIA PIPELINE PROJECT STREAM S-B42 **EXISTING CONDITIONS/EROSION &** SEDIMENTATION CONTROL PLANS

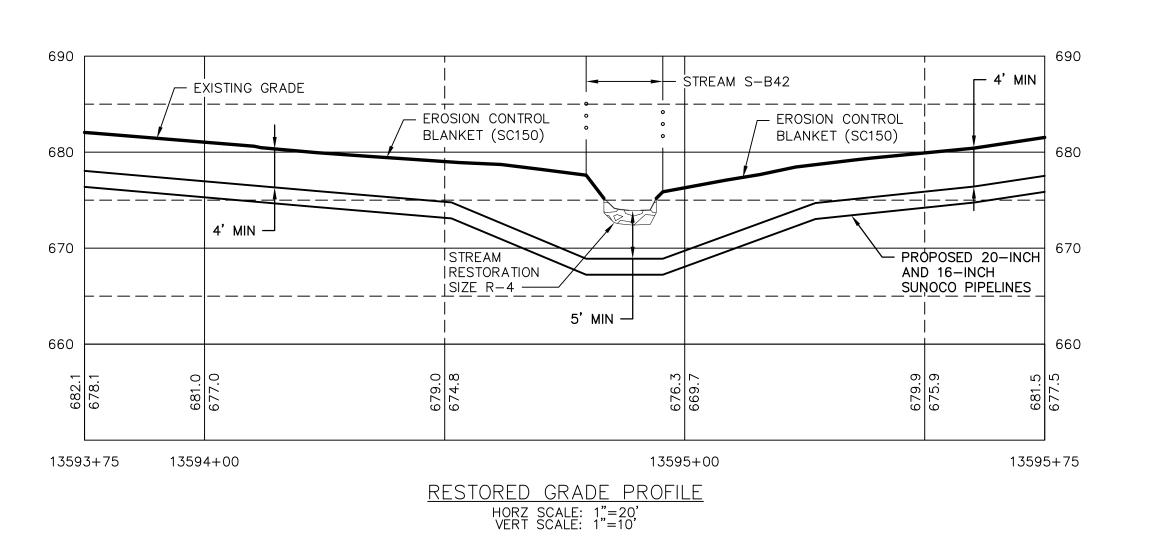
DESCRIPTION

BERKS COUNTY, PA

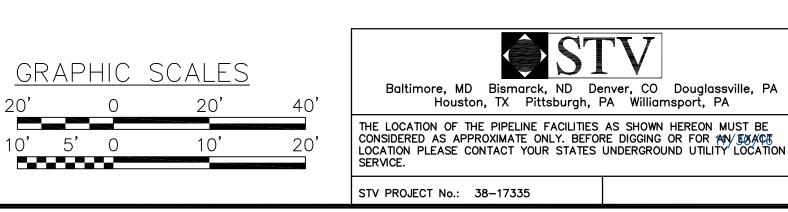
DWG. NO. OLD DRAWING NO.

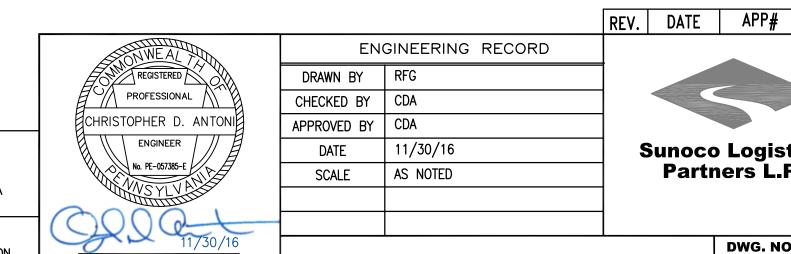
S-B42-A





1"=10





CHRISTOPHER D. ANTONI PE-057385-E

OLD DRAWING NO.

**Sunoco Logistics** Partners L.P.

 $\times$   $\times$   $\times$   $\times$   $\times$ 

APPROVAL DESCRIPTION PENNSYLVANIA PIPELINE PROJECT STREAM S-B42 **RESTORATION PLAN** 

STREAM RESTORATION

EROSION CONTROL BLANKET

BERKS COUNTY, PA

DWG. NO. REV. NO. S-B42-B

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

PROFILE LEGEND:

**GENERAL NOTES:** 

WETLAND CROSSING NOTES:

STREAM CROSSING NOTES:

(ES-0.01-ES-0.17).

EXISTING UTILITIES PRIOR TO CONSTRUCTION.

(ES-0.03, ES-0.08, ES-0.10, AND ES-0.15).

3. FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)

2. A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.

EDGE OF WETLAND FOR SPECIAL PROTECTION WATERS (HQ OR EV).

2. FOR TEMPORARY EQUIPMENT CROSSINGS REFERENCE (ES-0.10).

DETAILS WHERE RIP-RAP IS PROPOSED (ES-0.18).

REFERENCED WITH THE NOTES AND DETAILS (ES-0.11-ES-0.14).

TOP OF BANK FOR SPECIAL PROTECTION WATERS (HQ OR EV).

RIGHT-OF-WAY WHEN PUMP BYPASS IS NOT IN PLACE.

7. TIMBER MATS SHALL EXTEND A MINIMUM OF 20 FEET BEYOND TOP OF BANK.

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

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.

3. MAINTAIN 2'-0" MINIMUM VERTICAL SEPARATION BETWEEN THE PROPOSED PIPELINE AND OTHER UTILITIES.

6. EXCAVATION IS LIMITED TO THE CENTERLINE WITH A TYPICAL TRENCH WIDTH OF 4-5' FOR 16/20" PIPELINE.

1. REFERENCE NOTES AND DETAILS FOR WETLAND CONSTRUCTION SEQUENCING AND WETLAND RESTORATION

1. REFERENCE NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND STREAM RESTORATION

3. SITE CONDITIONS MAY ALLOW FOR IMPLEMENTATION OF OTHER APPROVED PIPELINE INSTALLATION METHODS

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.

6. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET FROM TOP OF BANK OR 100 FEET FROM

<u>LEGEND</u>

EXISTING VEGETATION

**DESCRIPTION** 

EXISTING SUNOCO PIPELINE

SUNOCO PIPELINES

MAJOR CONTOUR

MINOR CONTOUR

EDGE OF WATER

WETLAND

SOIL TYPE BOUNDARY

STREAM CENTERLINE

TOP/BOTTOM OF BANK

PROPOSED 16-INCH & 20-INCH

PROPOSED SUNOCO RIGHT-OF-WAY

EXISTING EDGE OF PAVED ROADWAY

PROPOSED ROCK CONSTRUCTION

EXISTING EDGE OF UNPAVED ROADWAY

5. REFERENCE THE STREAM BANK STABILIZATION DETAIL AND STREAM RESTORATION TABLE IN THE NOTES AND

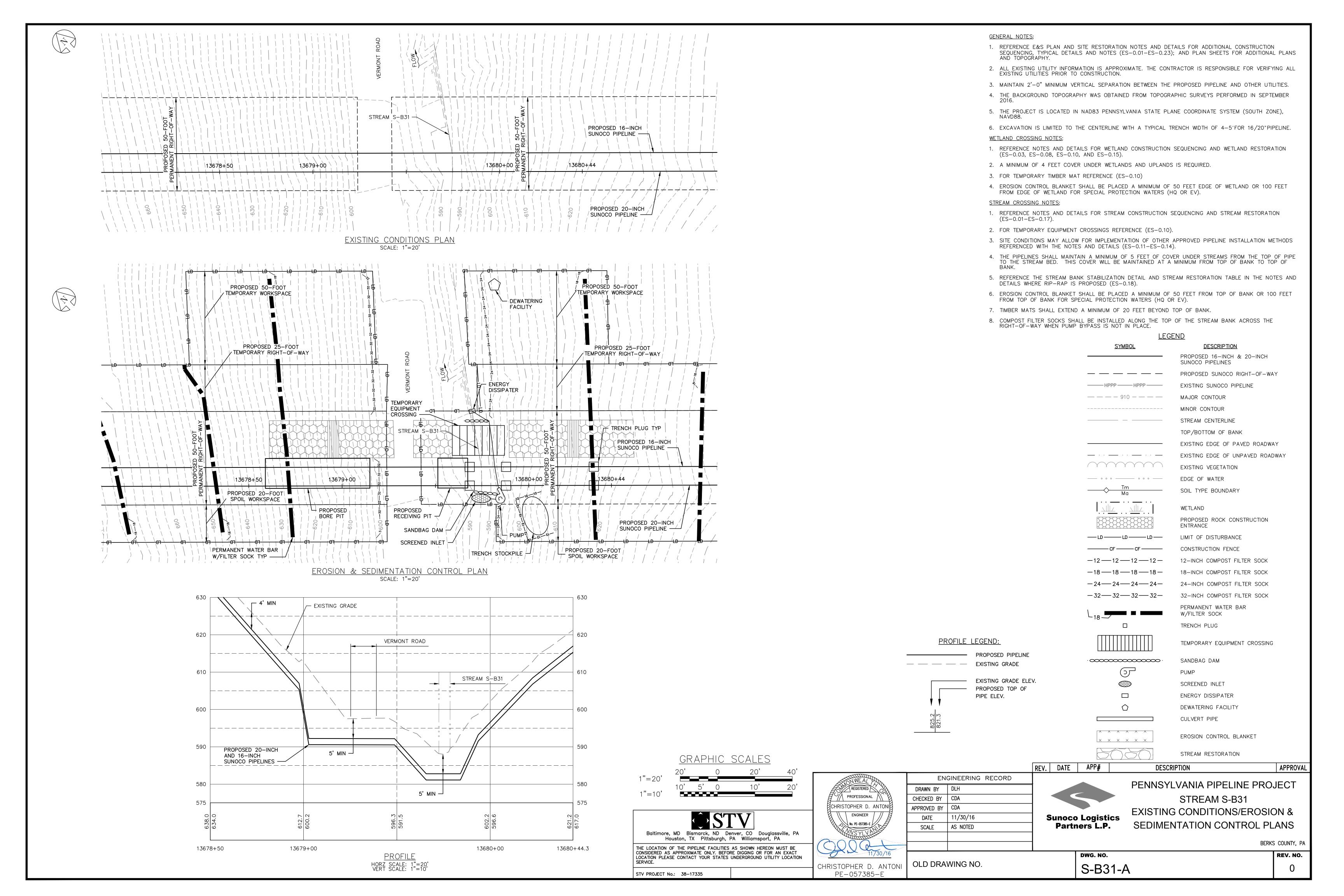
8. COMPOST FILTER SOCKS SHALL BE INSTALLED ALONG THE TOP OF THE STREAM BANK ACROSS THE

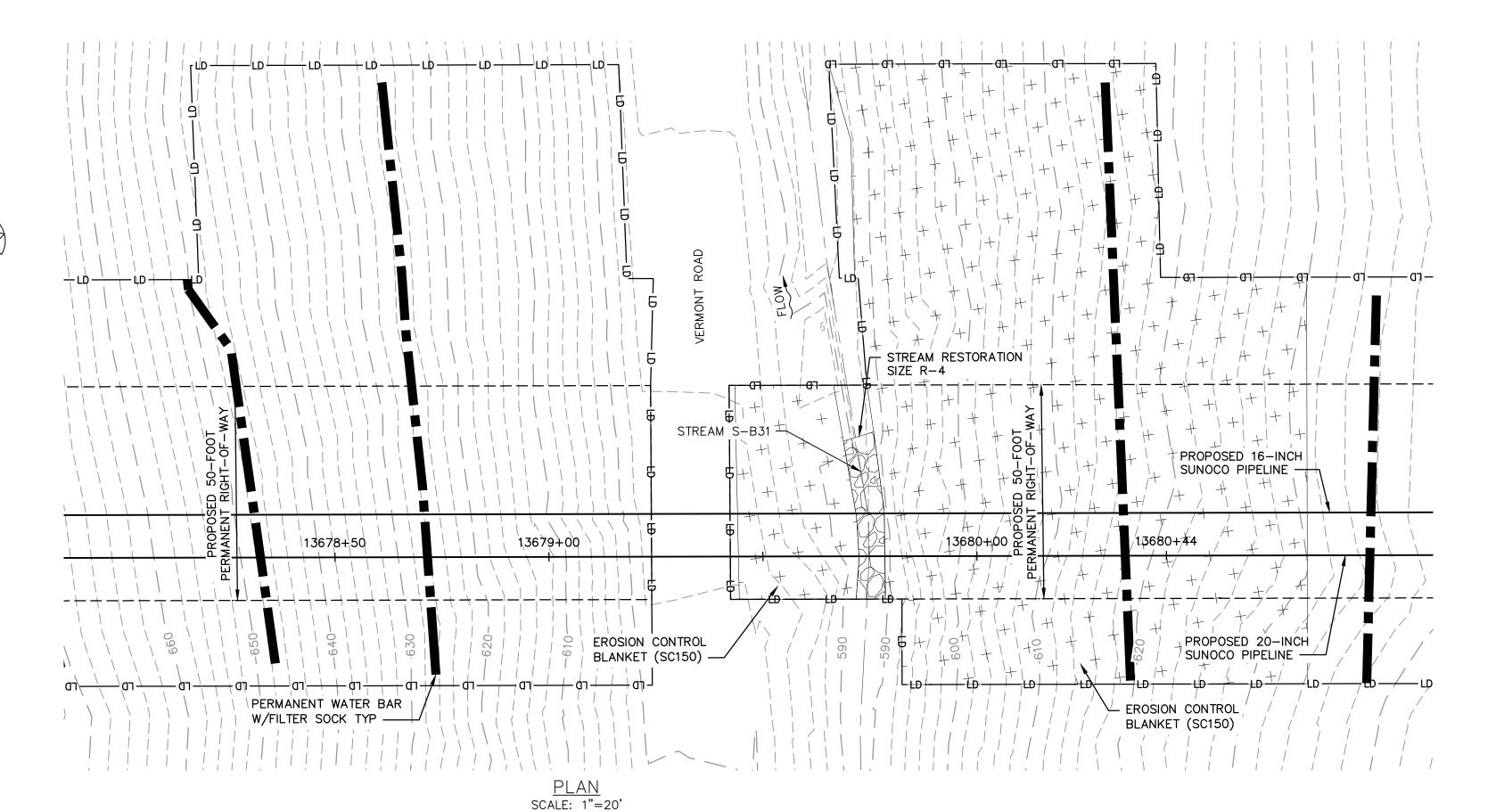
<u>SYMBOL</u>

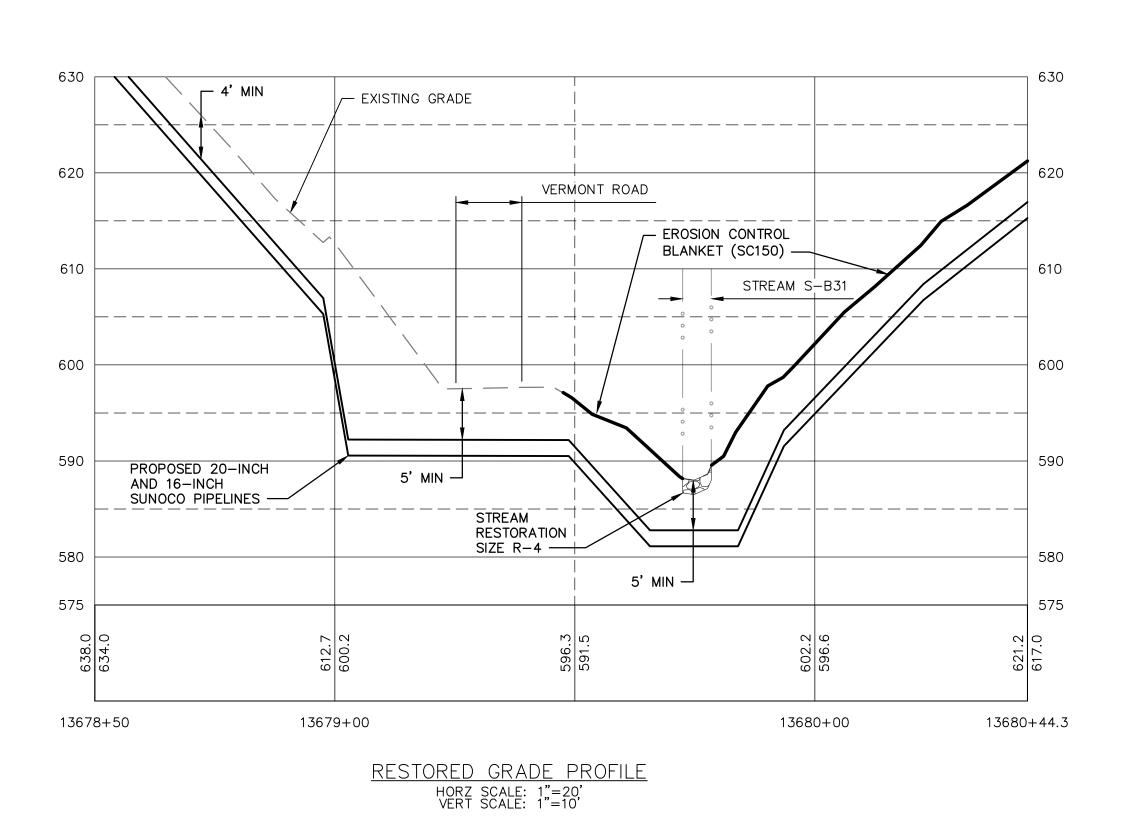
— — — — 910 — — — —

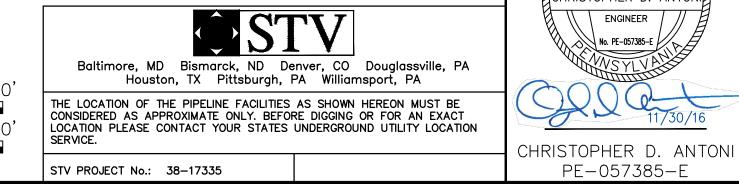
4. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET EDGE OF WETLAND OR 100 FEET FROM

ENTRANCE LIMIT OF DISTURBANCE —LD——LD——LD— CONSTRUCTION FENCE 12-INCH COMPOST FILTER SOCK -18 --- 18 --- 18 --- 18 --- 18 ---18-INCH COMPOST FILTER SOCK -24-24-24-24-24-INCH COMPOST FILTER SOCK -32—32—32—32— 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









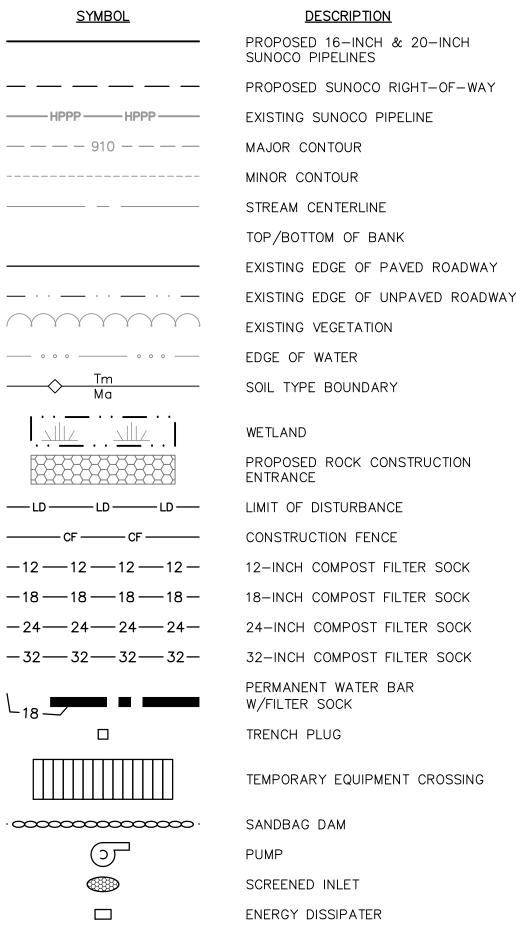
#### **GENERAL NOTES:**

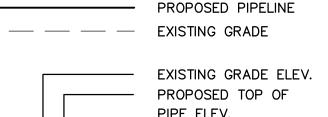
- 1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS
- 2. ALL EXISTING UTILITY INFORMATION IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITIES 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
- 5. THE PROJECT IS LOCATED IN NAD83 PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (SOUTH ZONE),
- 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
- 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.

# <u>LEGEND</u>





PROFILE LEGEND:

ENGINEERING RECORD

11/30/16

AS NOTED

DRAWN BY DLH

CHECKED BY | CDA

APPROVED BY CDA

OLD DRAWING NO.

DATE

SCALE

PROFESSIONAL

CHRISTOPHER D. ANTONI

ENGINEER

No. PE-057385-E

PE-057385-E

PIPE ELEV.

 $\times$   $\times$   $\times$   $\times$ REV. DATE APP#

STREAM RESTORATION DESCRIPTION

PENNSYLVANIA PIPELINE PROJECT STREAM S-B31 RESTORATION PLAN

DEWATERING FACILITY

EROSION CONTROL BLANKET

CULVERT PIPE

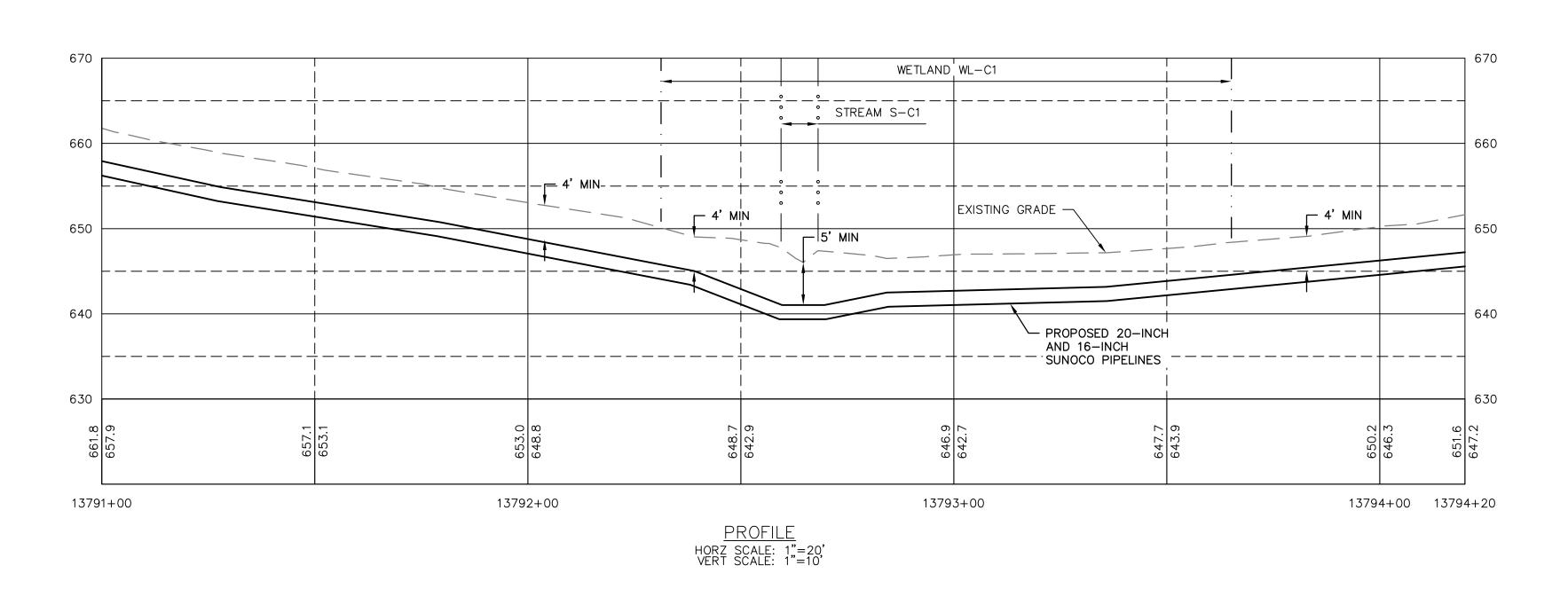
BERKS COUNTY, PA

APPROVAL

DWG. NO. S-B31-B

**Sunoco Logistics** 

Partners L.P.



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 STV PROJECT No.: 38-17335

DRAWN BY DLH CHRISTOPHER D. ANTON SCALE OLD DRAWING NO. CHRISTOPHER D. ANTONI PE-057385-E

REGISTERED

PROFESSIONAL

ENGINEER

No. PE-057385-E /

ENGINEERING RECORD CHECKED BY CWA APPROVED BY | CDA | 11/30/16 AS NOTED

**PROFILE LEGEND:** 

— — — EXISTING GRADE

PROPOSED PIPELINE

PIPE ELEV.

EXISTING GRADE ELEV.

PROPOSED TOP OF

PENNSYLVANIA PIPELINE PROJECT STREAM S-C1 **EXISTING CONDITIONS/EROSION &** Sunoco Logistics SEDIMENTATION CONTROL PLANS Partners L.P.

DESCRIPTION

BERKS COUNTY, PA

DWG. NO. REV. NO. S-C1-A

#### **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
- 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
- 5. THE PROJECT IS LOCATED IN NAD83 PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (SOUTH ZONE),
- 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
- 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.

<u>SYMBOL</u>

— — — — 910 — — — —

—LD——LD——LD—

-18 - 18 - 18 - 18 - 18 -

-24--24--24--24-

-32—32—32—32—

•

 $\times$   $\times$   $\times$   $\times$   $\times$ 

REV. DATE APP#

<u>LEGEND</u>

**DESCRIPTION** 

EXISTING SUNOCO PIPELINE

SUNOCO PIPELINES

MAJOR CONTOUR

MINOR CONTOUR

STREAM CENTERLINE

EXISTING VEGETATION

SOIL TYPE BOUNDARY

LIMIT OF DISTURBANCE

CONSTRUCTION FENCE

PERMANENT WATER BAR

W/FILTER SOCK

TRENCH PLUG

SANDBAG DAM

SCREENED INLET

CULVERT PIPE

ENERGY DISSIPATER

DEWATERING FACILITY

EROSION CONTROL BLANKET

STREAM RESTORATION

PUMP

EDGE OF WATER

WETLAND

ENTRANCE

TOP/BOTTOM OF BANK

PROPOSED 16-INCH & 20-INCH

PROPOSED SUNOCO RIGHT-OF-WAY

EXISTING EDGE OF PAVED ROADWAY EXISTING EDGE OF UNPAVED ROADWAY PROPOSED ROCK CONSTRUCTION 12-INCH COMPOST FILTER SOCK 18-INCH COMPOST FILTER SOCK 24-INCH COMPOST FILTER SOCK 32-INCH COMPOST FILTER SOCK TEMPORARY EQUIPMENT CROSSING APPROVAL

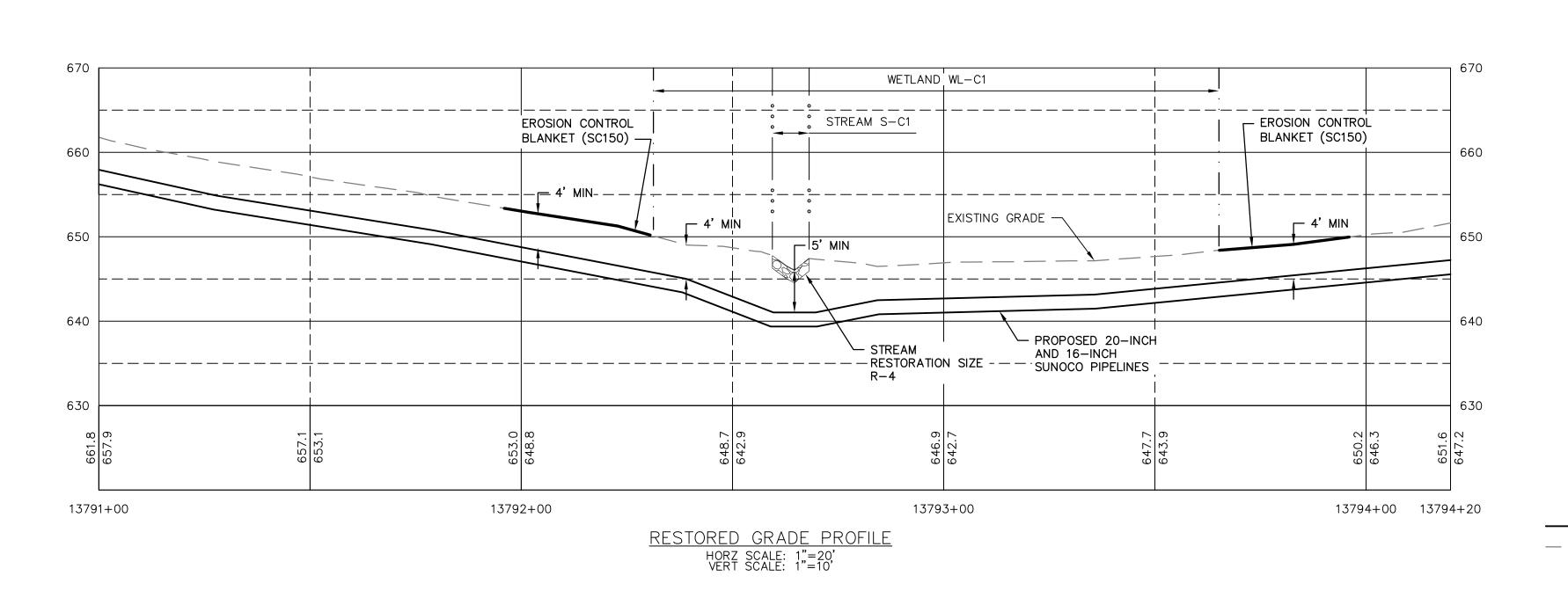
1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION

SEQUENCING, TYPICAL DETAILS AND NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS

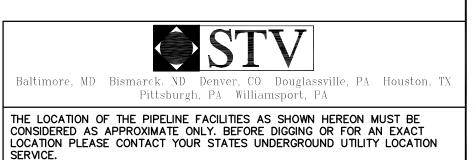
2. ALL EXISTING UTILITY INFORMATION IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL

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



GRAPHIC SCALES



STV PROJECT No.: 38-17335

CHRISTOPHER D. ANTONI PE-057385-E

REGISTERED

PROFESSIONAL

CHRISTOPHER D. ANTON

ENGINEER

No. PE-057385-E

OLD DRAWING NO.

DRAWN BY DLH

CHECKED BY CWA

APPROVED BY CDA

SCALE

11/30/16

AS NOTED

PROFILE LEGEND:

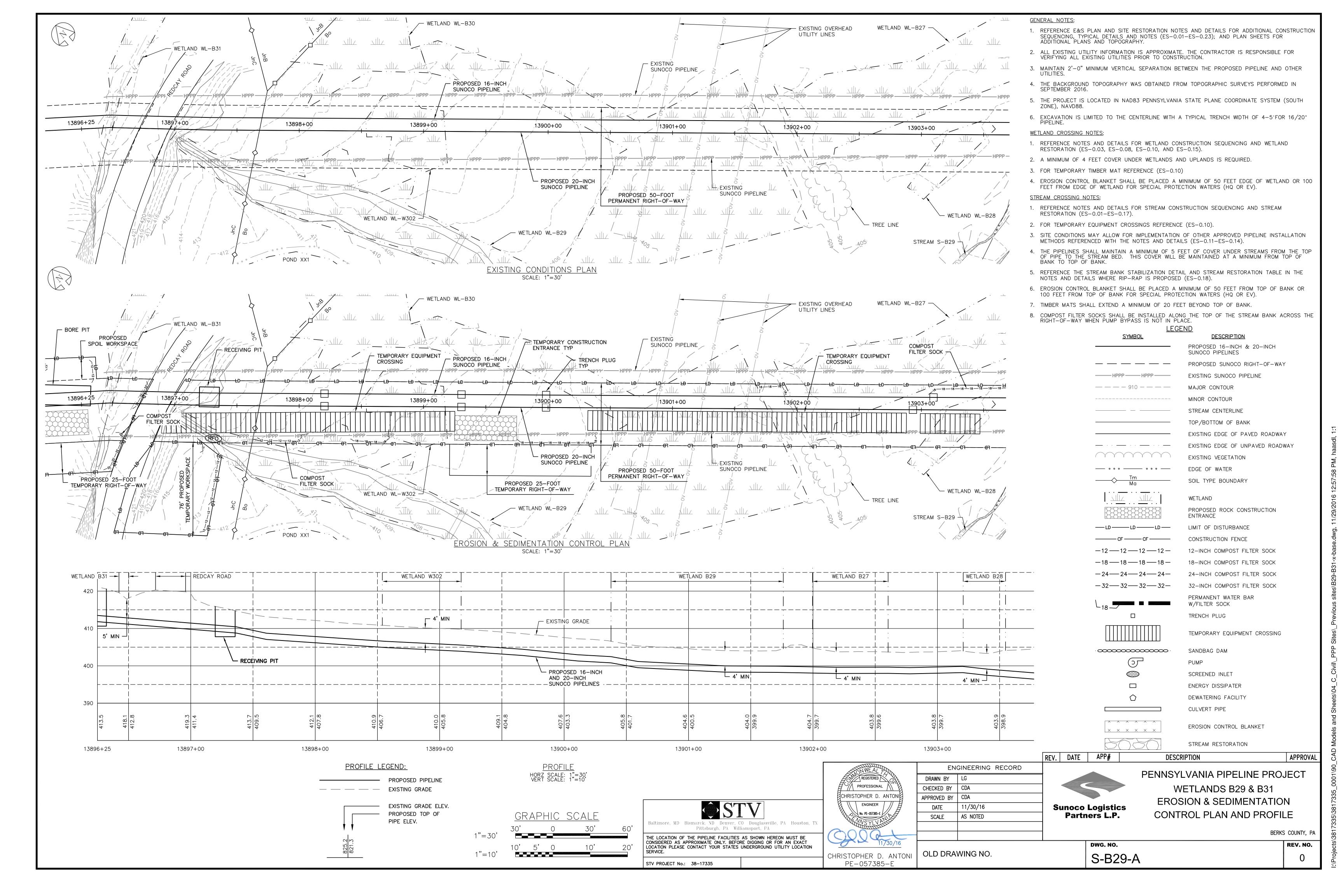
DWG. NO.

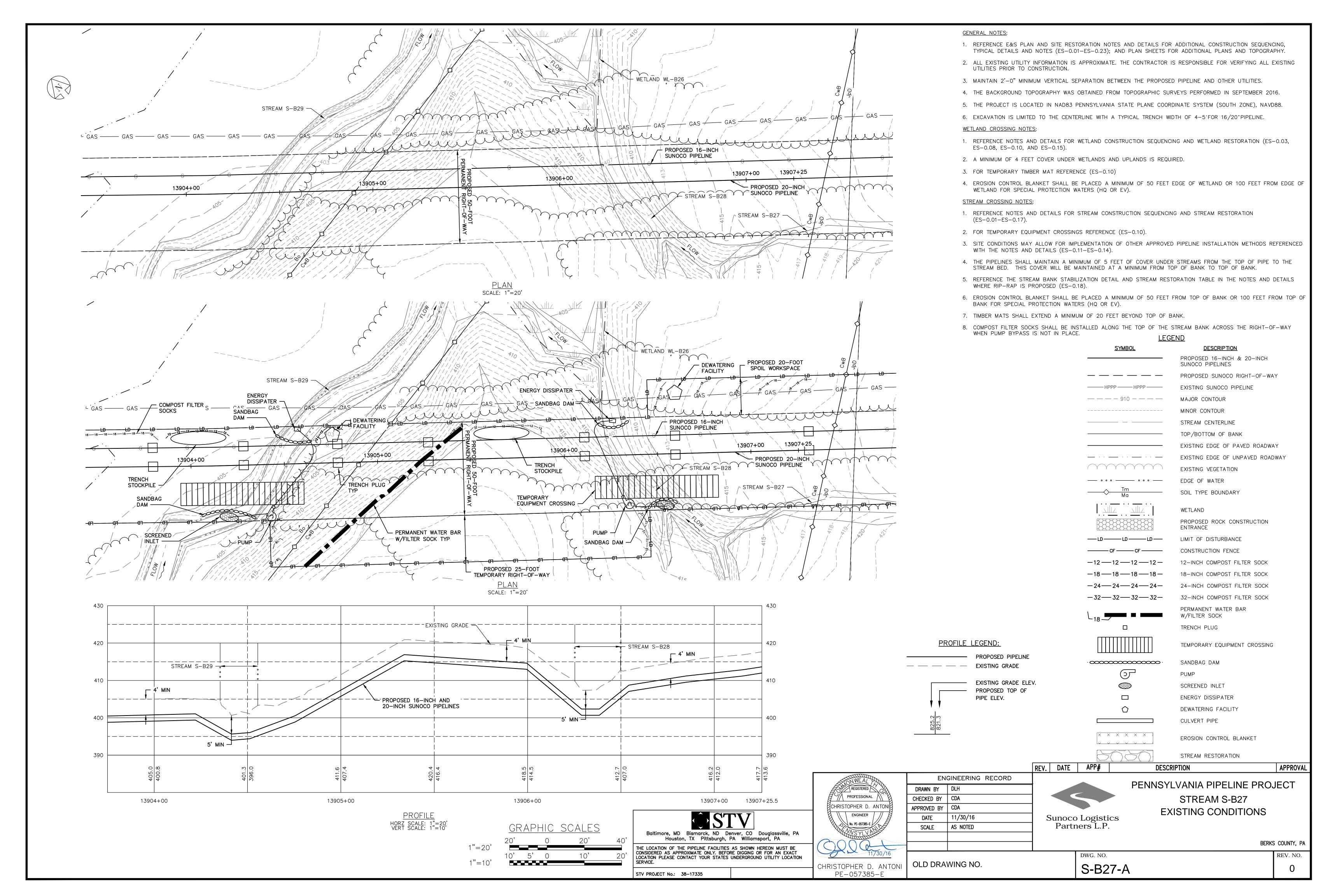
S-C1-B

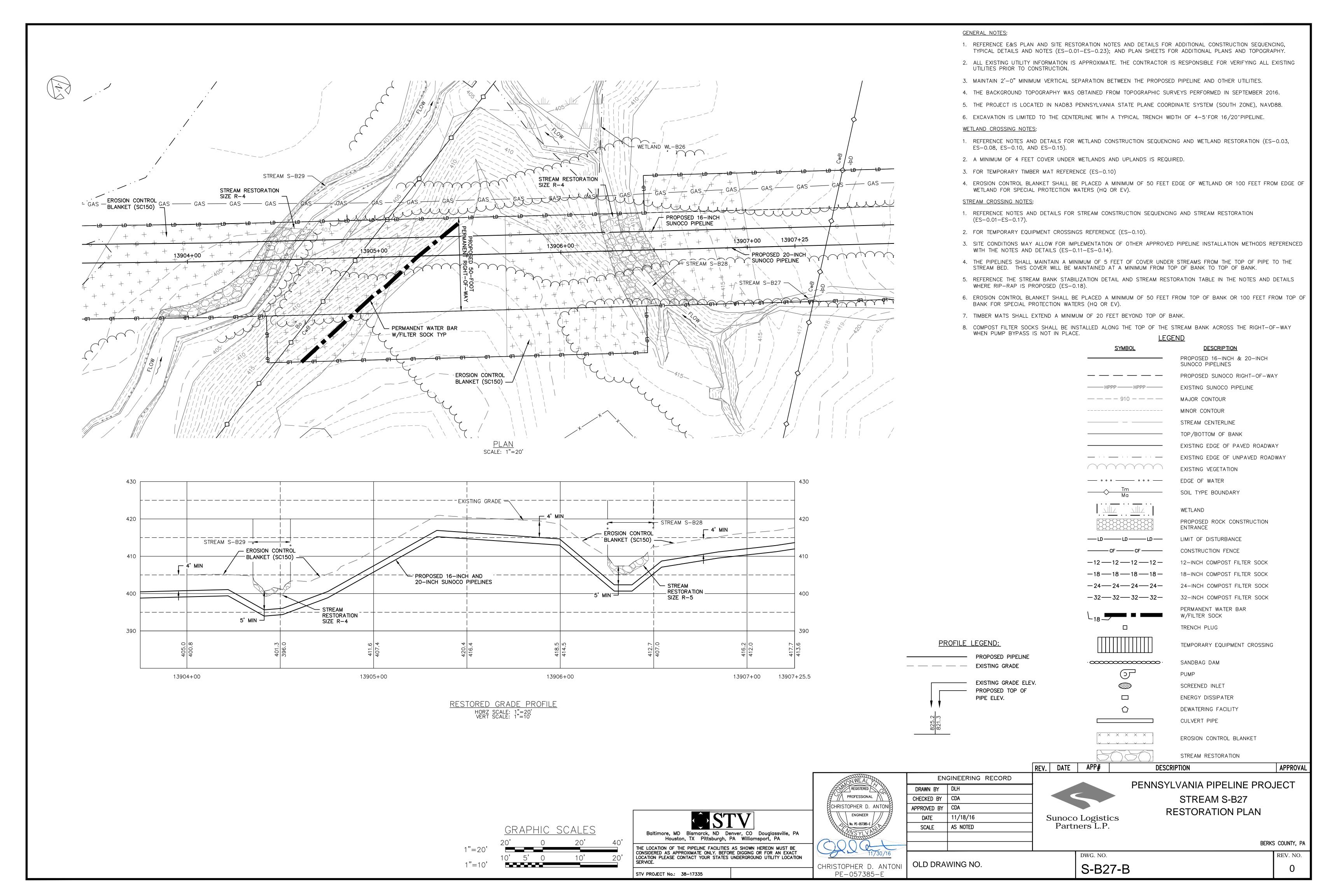
**GENERAL NOTES:** 

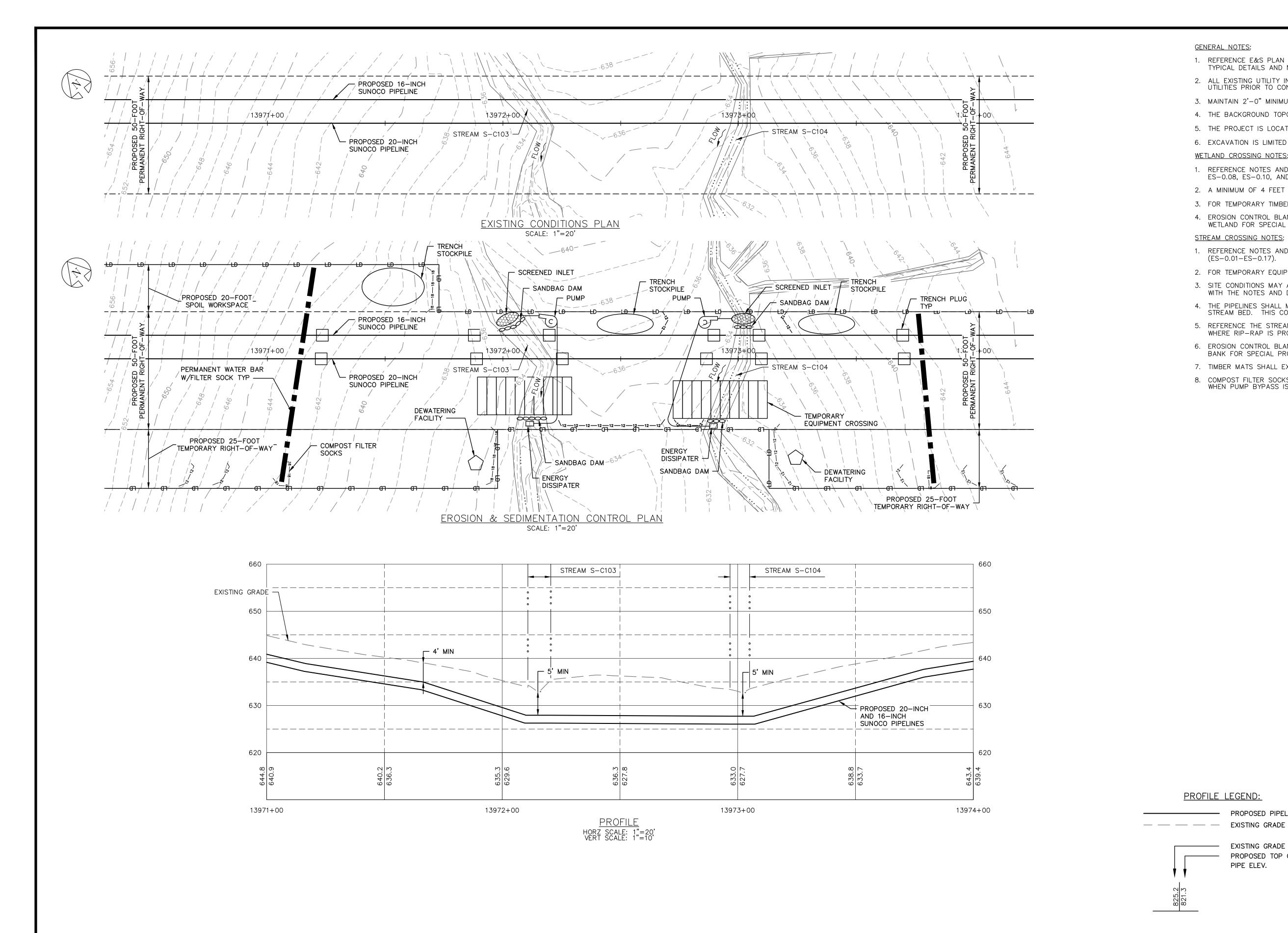
EXISTING UTILITIES PRIOR TO CONSTRUCTION.

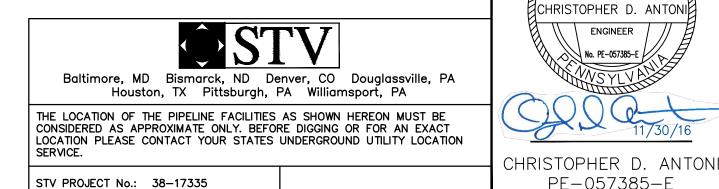
BERKS COUNTY, PA

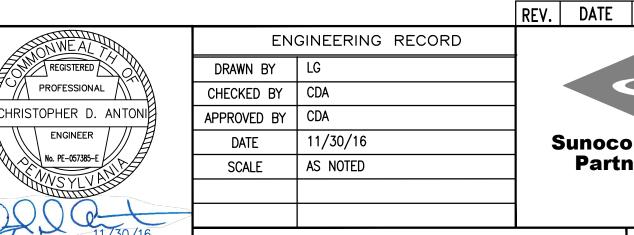












OLD DRAWING NO.

PROFESSIONAL

ENGINEER

No. PE-057385-E /

PE-057385-E

PROFILE LEGEND:

PROPOSED PIPELINE

PIPE ELEV.

EXISTING GRADE ELEV.

PROPOSED TOP OF

**GENERAL NOTES:** 

UTILITIES PRIOR TO CONSTRUCTION.

ES-0.08, ES-0.10, AND ES-0.15).

3. FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)

WETLAND FOR SPECIAL PROTECTION WATERS (HQ OR EV).

2. FOR TEMPORARY EQUIPMENT CROSSINGS REFERENCE (ES-0.10).

WITH THE NOTES AND DETAILS (ES-0.11-ES-0.14).

BANK FOR SPECIAL PROTECTION WATERS (HQ OR EV).

WHERE RIP-RAP IS PROPOSED (ES-0.18).

WHEN PUMP BYPASS IS NOT IN PLACE.

WETLAND CROSSING NOTES:

**STREAM CROSSING NOTES:** 

(ES-0.01-ES-0.17).

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

3. MAINTAIN 2'-0" MINIMUM VERTICAL SEPARATION BETWEEN THE PROPOSED PIPELINE AND OTHER UTILITIES.

6. EXCAVATION IS LIMITED TO THE CENTERLINE WITH A TYPICAL TRENCH WIDTH OF 4-5'FOR 16/20"PIPELINE.

1. REFERENCE NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND STREAM RESTORATION

2. A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.

7. TIMBER MATS SHALL EXTEND A MINIMUM OF 20 FEET BEYOND TOP OF BANK.

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.

1. REFERENCE NOTES AND DETAILS FOR WETLAND CONSTRUCTION SEQUENCING AND WETLAND RESTORATION (ES-0.03,

4. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET EDGE OF WETLAND OR 100 FEET FROM EDGE OF

3. SITE CONDITIONS MAY ALLOW FOR IMPLEMENTATION OF OTHER APPROVED PIPELINE INSTALLATION METHODS REFERENCED

4. THE PIPELINES SHALL MAINTAIN A MINIMUM OF 5 FEET OF COVER UNDER STREAMS FROM THE TOP OF PIPE TO THE

5. REFERENCE THE STREAM BANK STABILIZATION DETAIL AND STREAM RESTORATION TABLE IN THE NOTES AND DETAILS

8. COMPOST FILTER SOCKS SHALL BE INSTALLED ALONG THE TOP OF THE STREAM BANK ACROSS THE RIGHT-OF-WAY

6. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET FROM TOP OF BANK OR 100 FEET FROM TOP OF

<u>SYMBOL</u>

—— HPPP —— HPPP ——

— — — — 910 — — — —

-18 --- 18 --- 18 --- 18 ---

-24—24—24—24—

-32—32—32—32—

•

 $\times$   $\times$   $\times$   $\times$   $\times$ 

<u>LEGEND</u>

**DESCRIPTION** 

EXISTING SUNOCO PIPELINE

SUNOCO PIPELINES

MAJOR CONTOUR

MINOR CONTOUR

STREAM CENTERLINE

EXISTING VEGETATION

SOIL TYPE BOUNDARY

LIMIT OF DISTURBANCE

CONSTRUCTION FENCE

WETLAND

ENTRANCE

TOP/BOTTOM OF BANK

PROPOSED 16-INCH & 20-INCH

PROPOSED SUNOCO RIGHT-OF-WAY

EXISTING EDGE OF PAVED ROADWAY

PROPOSED ROCK CONSTRUCTION

12-INCH COMPOST FILTER SOCK

18-INCH COMPOST FILTER SOCK

24-INCH COMPOST FILTER SOCK

32-INCH COMPOST FILTER SOCK

TEMPORARY EQUIPMENT CROSSING

PERMANENT WATER BAR

W/FILTER SOCK

TRENCH PLUG

SANDBAG DAM

SCREENED INLET

CULVERT PIPE

ENERGY DISSIPATER

DEWATERING FACILITY

STREAM RESTORATION

PUMP

EXISTING EDGE OF UNPAVED ROADWAY

STREAM BED. THIS COVER WILL BE MAINTAINED AT A MINIMUM FROM TOP OF BANK TO TOP OF BANK.

**Sunoco Logistics** Partners L.P.

APP#

## PENNSYLVANIA PIPELINE PROJECT STREAMS S-C103 & S-C104 **EXISTING CONDITIONS/EROSION &** SEDIMENTATION CONTROL PLANS

EROSION CONTROL BLANKET

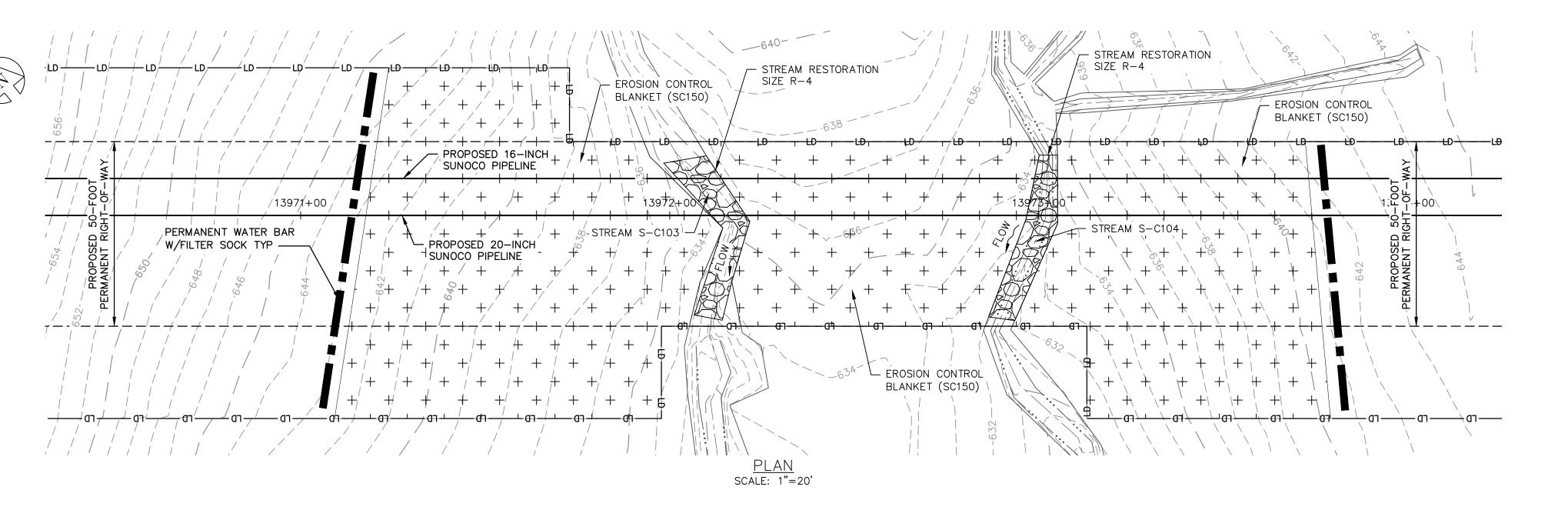
BERKS COUNTY, PA

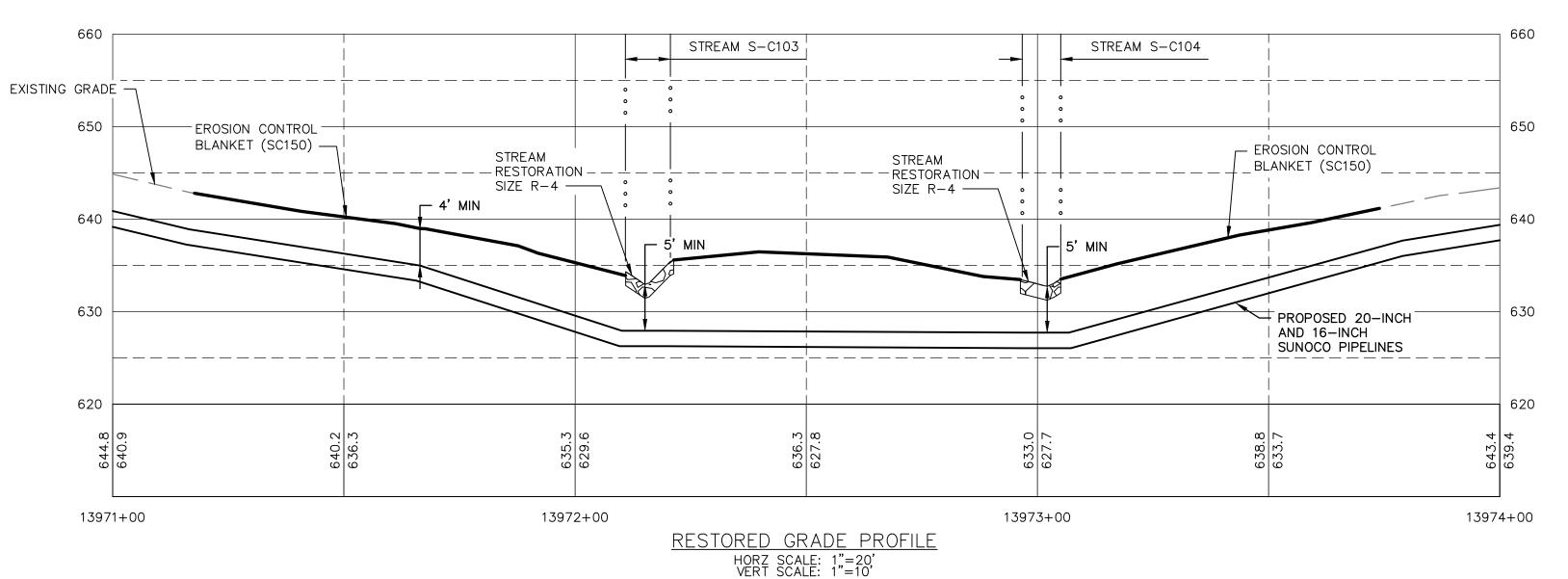
REV. NO.

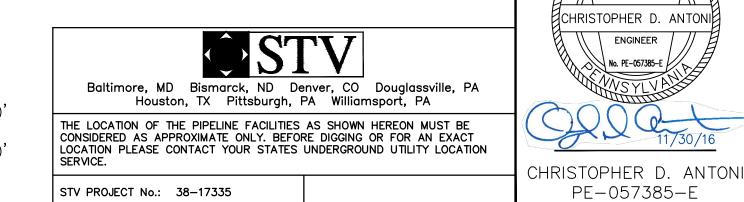
APPROVAL

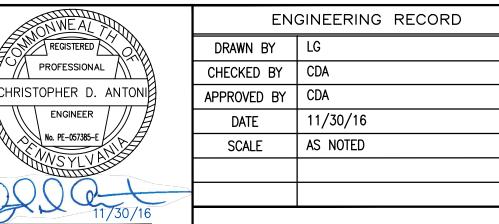
DWG. NO. S-C103-A

DESCRIPTION









OLD DRAWING NO.

REGISTERED

PROFESSIONAL

ENGINEER

No. PE-057385-E /

PROFILE LEGEND:

— — — EXISTING GRADE

PROPOSED PIPELINE

PIPE ELEV.

EXISTING GRADE ELEV.

PROPOSED TOP OF

# Sunoco Logistics Partners L.P.

### APPROVAL PENNSYLVANIA PIPELINE PROJECT STREAMS S-C103 & S-C104 **RESTORATION PLAN**

BERKS COUNTY, PA

DWG. NO. REV. NO. S-C103-B

---- • • • • --- EDGE OF WATER

**GENERAL NOTES:** 

WETLAND CROSSING NOTES:

**STREAM CROSSING NOTES:** 

(ES-0.01-ES-0.17).

UTILITIES PRIOR TO CONSTRUCTION.

ES-0.08, ES-0.10, AND ES-0.15).

3. FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)

WETLAND FOR SPECIAL PROTECTION WATERS (HQ OR EV).

2. FOR TEMPORARY EQUIPMENT CROSSINGS REFERENCE (ES-0.10).

WITH THE NOTES AND DETAILS (ES-0.11-ES-0.14).

BANK FOR SPECIAL PROTECTION WATERS (HQ OR EV).

7. TIMBER MATS SHALL EXTEND A MINIMUM OF 20 FEET BEYOND TOP OF BANK.

WHERE RIP-RAP IS PROPOSED (ES-0.18).

WHEN PUMP BYPASS IS NOT IN PLACE.

1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING,

3. MAINTAIN 2'-0" MINIMUM VERTICAL SEPARATION BETWEEN THE PROPOSED PIPELINE AND OTHER UTILITIES.

6. EXCAVATION IS LIMITED TO THE CENTERLINE WITH A TYPICAL TRENCH WIDTH OF 4-5'FOR 16/20"PIPELINE.

1. REFERENCE NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND STREAM RESTORATION

2. A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.

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.

1. REFERENCE NOTES AND DETAILS FOR WETLAND CONSTRUCTION SEQUENCING AND WETLAND RESTORATION (ES-0.03,

4. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET EDGE OF WETLAND OR 100 FEET FROM EDGE OF

3. SITE CONDITIONS MAY ALLOW FOR IMPLEMENTATION OF OTHER APPROVED PIPELINE INSTALLATION METHODS REFERENCED

4. THE PIPELINES SHALL MAINTAIN A MINIMUM OF 5 FEET OF COVER UNDER STREAMS FROM THE TOP OF PIPE TO THE

5. REFERENCE THE STREAM BANK STABILIZATION DETAIL AND STREAM RESTORATION TABLE IN THE NOTES AND DETAILS

8. COMPOST FILTER SOCKS SHALL BE INSTALLED ALONG THE TOP OF THE STREAM BANK ACROSS THE RIGHT-OF-WAY

6. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET FROM TOP OF BANK OR 100 FEET FROM TOP OF

<u>SYMBOL</u>

— — — — 910 — — — —

STREAM BED. THIS COVER WILL BE MAINTAINED AT A MINIMUM FROM TOP OF BANK TO TOP OF BANK.

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

PROPOSED ROCK CONSTRUCTION ENTRANCE LIMIT OF DISTURBANCE —LD — LD — LD — CONSTRUCTION FENCE

-12 - 12 - 12 - 12 - 12 -12-INCH COMPOST FILTER SOCK -18 --- 18 --- 18 --- 18 ---18-INCH COMPOST FILTER SOCK

**DESCRIPTION** 

EXISTING SUNOCO PIPELINE

SUNOCO PIPELINES

MAJOR CONTOUR

MINOR CONTOUR

STREAM CENTERLINE

EXISTING VEGETATION

SOIL TYPE BOUNDARY

WETLAND

TOP/BOTTOM OF BANK

PROPOSED 16-INCH & 20-INCH

PROPOSED SUNOCO RIGHT-OF-WAY

EXISTING EDGE OF PAVED ROADWAY

EXISTING EDGE OF UNPAVED ROADWAY

24-INCH COMPOST FILTER SOCK -24—24—24—24— -32—32—32—32— 32-INCH COMPOST FILTER SOCK

PERMANENT WATER BAR W/FILTER SOCK

TRENCH PLUG TEMPORARY EQUIPMENT CROSSING

SANDBAG DAM • SCREENED INLET

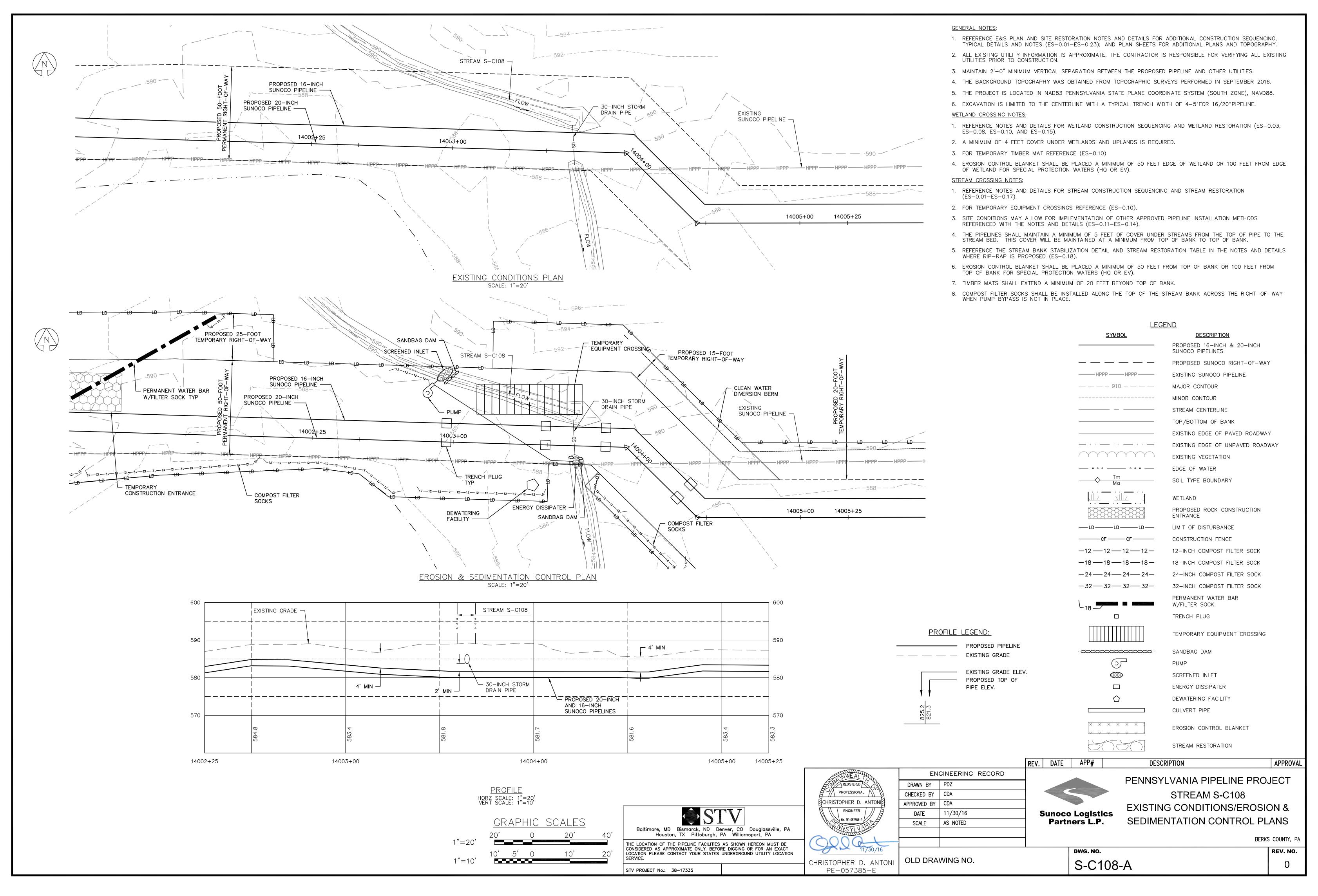
ENERGY DISSIPATER

DEWATERING FACILITY CULVERT PIPE

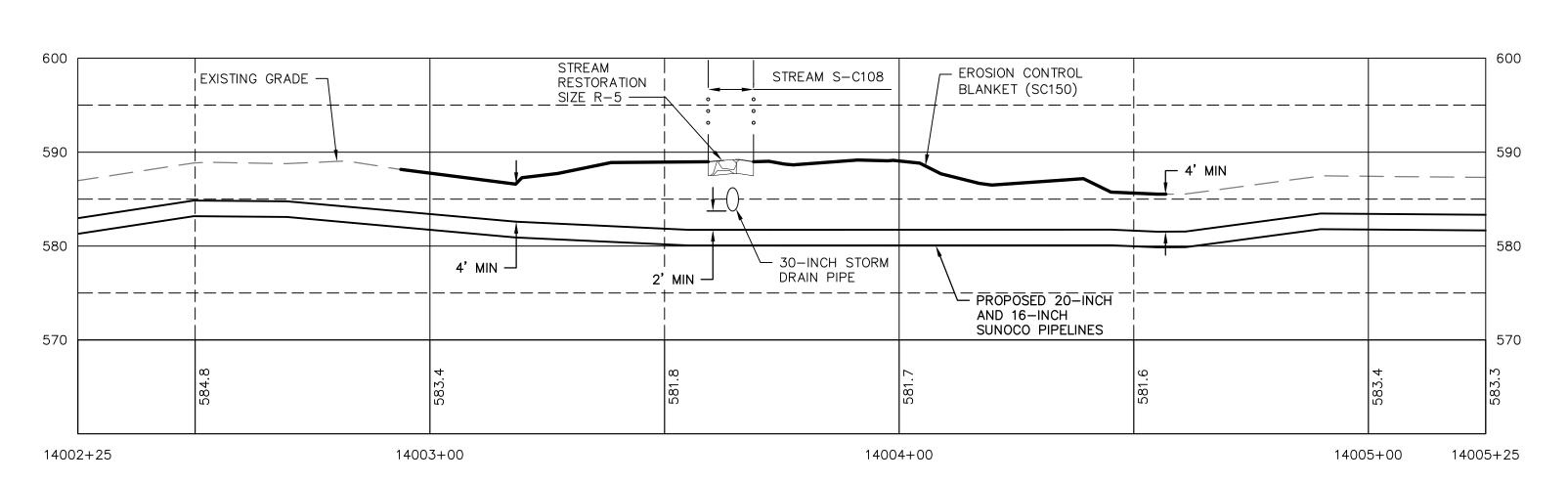
 $\times \times \times \times \times \times$ EROSION CONTROL BLANKET  $\times$   $\times$   $\times$   $\times$   $\times$ 

STREAM RESTORATION

REV. DATE APP# **DESCRIPTION** 

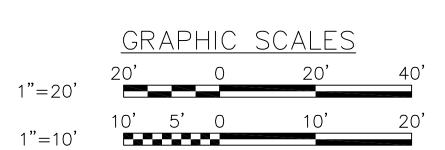


I:Projects\3817335\3817335\_0001\90\_CAD Models and Sheets\04\_C\_CIvil\_PPP Sites\SSP-57-x-base.dwg, 11/29/2016

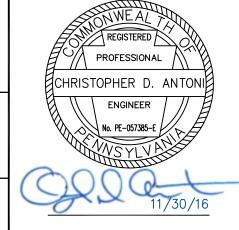


RESTORED GRADE PROFILE

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



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 STV PROJECT No.: 38-17335



OLD DRAWING NO. CHRISTOPHER D. ANTONI PE-057385-E

ENGINEERING RECORD DRAWN BY PDZ CHECKED BY CDA APPROVED BY CDA | 11/30/16 AS NOTED SCALE

PROFILE LEGEND:

PROPOSED PIPELINE

EXISTING GRADE ELEV.

PROPOSED TOP OF

PIPE ELEV.

EXISTING GRADE

**GENERAL NOTES:** 

UTILITIES PRIOR TO CONSTRUCTION.

ES-0.08, ES-0.10, AND ES-0.15).

WETLAND CROSSING NOTES:

STREAM CROSSING NOTES:

(ES-0.01-ES-0.17).

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

3. MAINTAIN 2'-0" MINIMUM VERTICAL SEPARATION BETWEEN THE PROPOSED PIPELINE AND OTHER UTILITIES.

6. EXCAVATION IS LIMITED TO THE CENTERLINE WITH A TYPICAL TRENCH WIDTH OF 4-5'FOR 16/20"PIPELINE.

3. SITE CONDITIONS MAY ALLOW FOR IMPLEMENTATION OF OTHER APPROVED PIPELINE INSTALLATION METHODS

2. A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.

OF WETLAND FOR SPECIAL PROTECTION WATERS (HQ OR EV).

2. FOR TEMPORARY EQUIPMENT CROSSINGS REFERENCE (ES-0.10).

WHERE RIP-RAP IS PROPOSED (ES-0.18).

WHEN PUMP BYPASS IS NOT IN PLACE.

REFERENCED WITH THE NOTES AND DETAILS (ES-0.11-ES-0.14).

TOP OF BANK FOR SPECIAL PROTECTION WATERS (HQ OR EV).

7. TIMBER MATS SHALL EXTEND A MINIMUM OF 20 FEET BEYOND TOP OF BANK.

4. THE BACKGROUND TOPOGRAPHY WAS OBTAINED FROM TOPOGRAPHIC SURVEYS PERFORMED IN SEPTEMBER 2016.

1. REFERENCE NOTES AND DETAILS FOR WETLAND CONSTRUCTION SEQUENCING AND WETLAND RESTORATION (ES-0.03,

4. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET EDGE OF WETLAND OR 100 FEET FROM EDGE

5. REFERENCE THE STREAM BANK STABILIZATION DETAIL AND STREAM RESTORATION TABLE IN THE NOTES AND DETAILS

6. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET FROM TOP OF BANK OR 100 FEET FROM

8. COMPOST FILTER SOCKS SHALL BE INSTALLED ALONG THE TOP OF THE STREAM BANK ACROSS THE RIGHT-OF-WAY

<u>SYMBOL</u>

— — — — 910 — — — —

· — · · · — ·

—LD — LD — LD —

-18 - 18 - 18 - 18 - 18 -

-24—24—24—24—

-32—32—32—32—

•

 $\bigcirc$ 

<u>LEGEND</u>

**DESCRIPTION** 

EXISTING SUNOCO PIPELINE

SUNOCO PIPELINES

MAJOR CONTOUR

MINOR CONTOUR

STREAM CENTERLINE

EXISTING VEGETATION

SOIL TYPE BOUNDARY

LIMIT OF DISTURBANCE

CONSTRUCTION FENCE

EDGE OF WATER

WETLAND

ENTRANCE

TOP/BOTTOM OF BANK

PROPOSED 16-INCH & 20-INCH

PROPOSED SUNOCO RIGHT-OF-WAY

EXISTING EDGE OF PAVED ROADWAY

PROPOSED ROCK CONSTRUCTION

12-INCH COMPOST FILTER SOCK

18-INCH COMPOST FILTER SOCK

24-INCH COMPOST FILTER SOCK

32-INCH COMPOST FILTER SOCK

TEMPORARY EQUIPMENT CROSSING

PERMANENT WATER BAR

W/FILTER SOCK

TRENCH PLUG

SANDBAG DAM

SCREENED INLET

CULVERT PIPE

ENERGY DISSIPATER

DEWATERING FACILITY

EROSION CONTROL BLANKET

STREAM RESTORATION

PUMP

DESCRIPTION

EXISTING EDGE OF UNPAVED ROADWAY

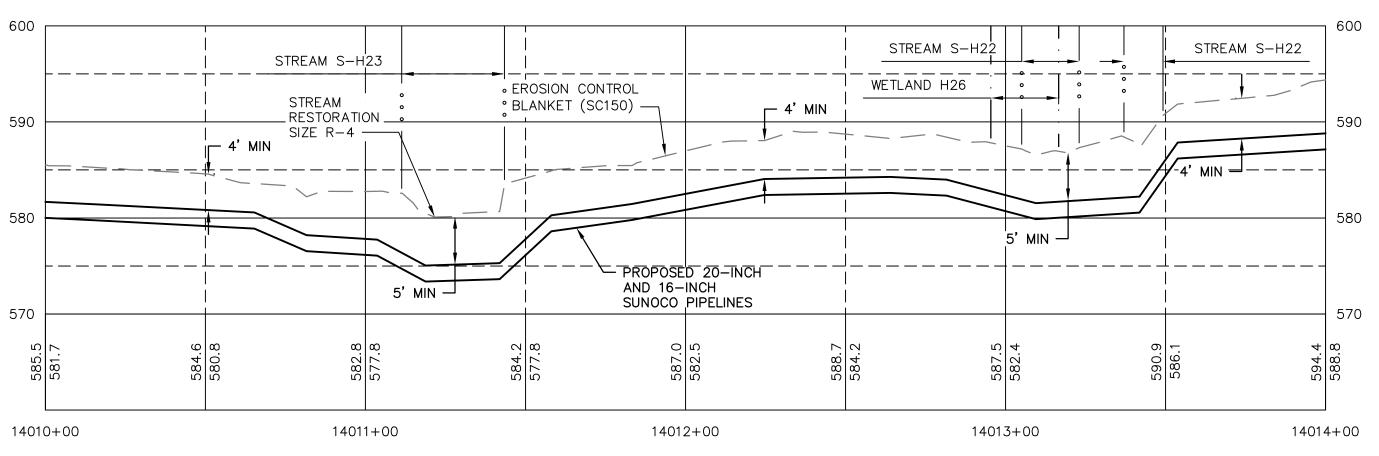
**Sunoco Logistics** Partners L.P.

REV. DATE APP#

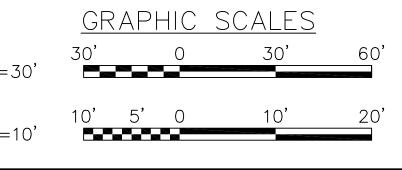
## PENNSYLVANIA PIPELINE PROJECT STREAM S-C108 RESTORATION PLAN

DWG. NO. S-C108-B BERKS COUNTY, PA REV. NO.

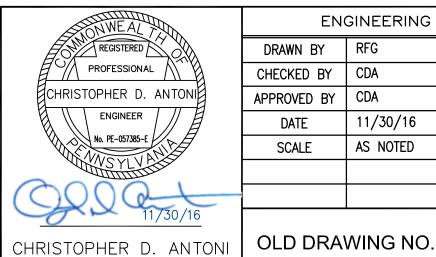
APPROVAL



PROFILE



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 STV PROJECT No.: 38-17335



PE-057385-E

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

**GENERAL NOTES:** 

WETLAND CROSSING NOTES:

**STREAM CROSSING NOTES:** 

PROPOSED (ES-0.18).

IS NOT IN PLACE.

AND ES-0.15).

REV. DATE APP# **Sunoco Logistics** Partners L.P.

1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND

2. ALL EXISTING UTILITY INFORMATION IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITIES PRIOR TO

1. REFERENCE NOTES AND DETAILS FOR WETLAND CONSTRUCTION SEQUENCING AND WETLAND RESTORATION (ES-0.03, ES-0.08, 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

3. SITE CONDITIONS MAY ALLOW FOR IMPLEMENTATION OF OTHER APPROVED PIPELINE INSTALLATION METHODS REFERENCED WITH THE NOTES

4. THE PIPELINES SHALL MAINTAIN A MINIMUM OF 5 FEET OF COVER UNDER STREAMS FROM THE TOP OF PIPE TO THE STREAM BED. THIS

5. REFERENCE THE STREAM BANK STABILIZATION DETAIL AND STREAM RESTORATION TABLE IN THE NOTES AND DETAILS WHERE RIP-RAP IS

8. COMPOST FILTER SOCKS SHALL BE INSTALLED ALONG THE TOP OF THE STREAM BANK ACROSS THE RIGHT-OF-WAY WHEN PUMP BYPASS

6. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET FROM TOP OF BANK OR 100 FEET FROM TOP OF BANK FOR

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

NOTES (ES-0.01-ES-0.23); AND PLAN SHEETS FOR ADDITIONAL PLANS AND TOPOGRAPHY.

2. A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.

COVER WILL BE MAINTAINED AT A MINIMUM FROM TOP OF BANK TO TOP OF BANK.

7. TIMBER MATS SHALL EXTEND A MINIMUM OF 20 FEET BEYOND TOP OF BANK.

PROFILE LEGEND:

— — — EXISTING GRADE

PROPOSED PIPELINE

PIPE ELEV.

— EXISTING GRADE ELEV.

PROPOSED TOP OF

3. FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)

2. FOR TEMPORARY EQUIPMENT CROSSINGS REFERENCE (ES-0.10).

SPECIAL PROTECTION WATERS (HQ OR EV).

SPECIAL PROTECTION WATERS (HQ OR EV).

AND DETAILS (ES-0.11-ES-0.14).

3. MAINTAIN 2'-0" MINIMUM VERTICAL SEPARATION BETWEEN THE PROPOSED PIPELINE AND OTHER UTILITIES.

6. EXCAVATION IS LIMITED TO THE CENTERLINE WITH A TYPICAL TRENCH WIDTH OF 4-5'FOR 16/20"PIPELINE.

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.

DESCRIPTION APPROVAL PENNSYLVANIA PIPELINE PROJECT STREAMS S-C108, S-H23 AND S-H22 **EXISTING CONDITIONS/EROSION &** SEDIMENTATION CONTROL PLANS

> BERKS COUNTY, PA REV. NO.

MINOR CONTOUR STREAM CENTERLINE TOP/BOTTOM OF BANK EXISTING EDGE OF PAVED ROADWAY EXISTING EDGE OF UNPAVED ROADWA

**DESCRIPTION** 

EXISTING SUNOCO PIPELINE

SUNOCO PIPELINES

MAJOR CONTOUR

PROPOSED 16-INCH & 20-INCH

PROPOSED SUNOCO RIGHT-OF-WAY

EXISTING VEGETATION EDGE OF WATER \_\_\_ 。。。 \_\_\_\_ 。。。 \_\_\_ SOIL TYPE BOUNDARY

<u>LEGEND</u>

**SYMBOL** 

— — — — 910 — — — —

WETLAND PROPOSED ROCK CONSTRUCTION ENTRANCE

LIMIT OF DISTURBANCE —LD——LD——LD— CONSTRUCTION FENCE 12-INCH COMPOST FILTER SOCK

18-INCH COMPOST FILTER SOCK -24—24—24—24— 24-INCH COMPOST FILTER SOCK -32—32—32—3232-INCH COMPOST FILTER SOCK

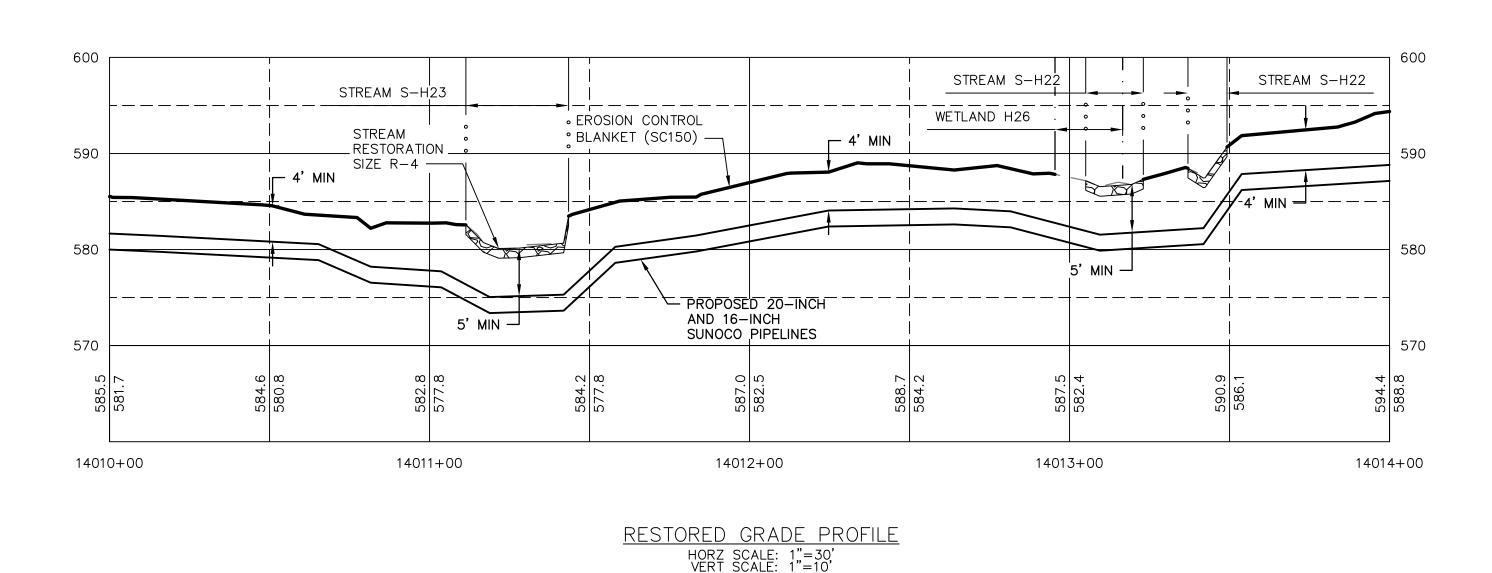
PERMANENT WATER BAR W/FILTER SOCK

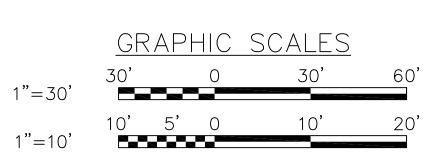
TRENCH PLUG TEMPORARY EQUIPMENT CROSSING

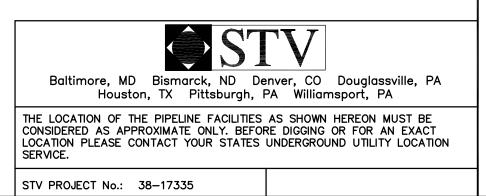
SANDBAG DAM **F** PUMP

SCREENED INLET ENERGY DISSIPATER DEWATERING FACILITY CULVERT PIPE EROSION CONTROL BLANKET  $\times$   $\times$   $\times$   $\times$   $\times$ STREAM RESTORATION

SCALE: 1"=30'





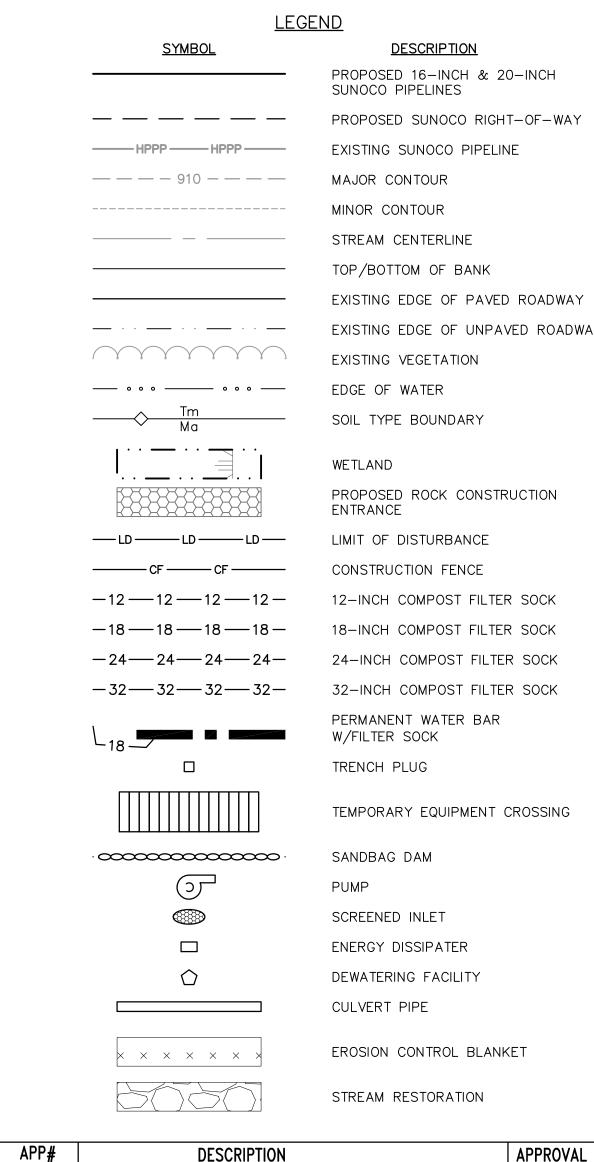


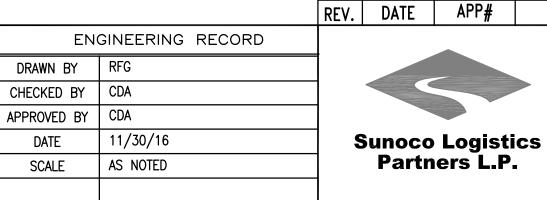
#### **GENERAL NOTES:**

- 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,
- 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.





REGISTERED

PROFESSIONAL

CHRISTOPHER D. ANTON

ENGINEER

No. PE-057385-E

CHRISTOPHER D. ANTONI PE-057385-E

PROFILE LEGEND:

— — EXISTING GRADE

PROPOSED PIPELINE

EXISTING GRADE ELEV.

PROPOSED TOP OF

PIPE ELEV.

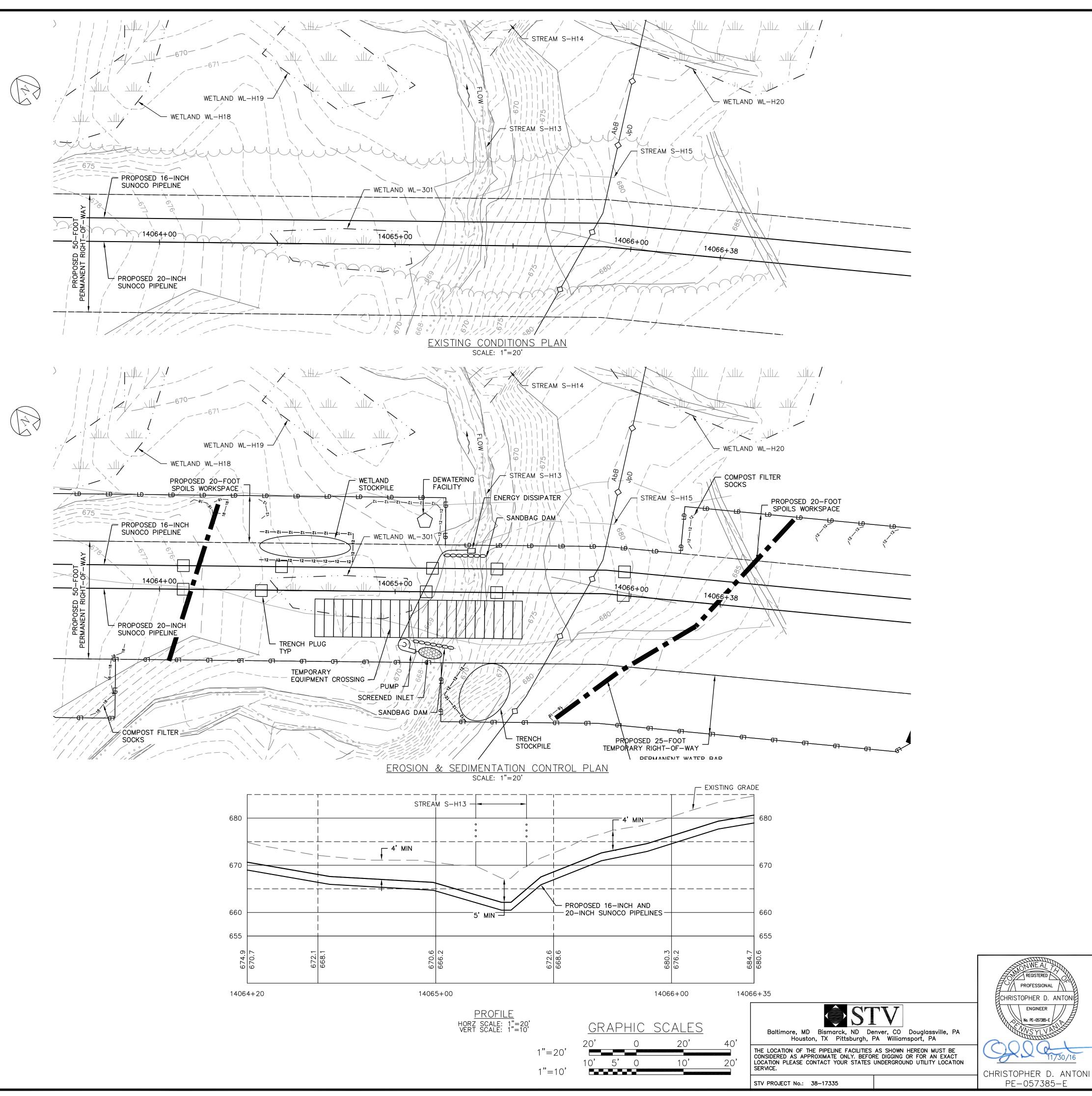
APP#

PENNSYLVANIA PIPELINE PROJECT STREAMS S-C108, S-H23 AND S-H22 **RESTORATION PLAN** 

BERKS COUNTY, PA

REV. NO.

DWG. NO. OLD DRAWING NO. S-H22-B

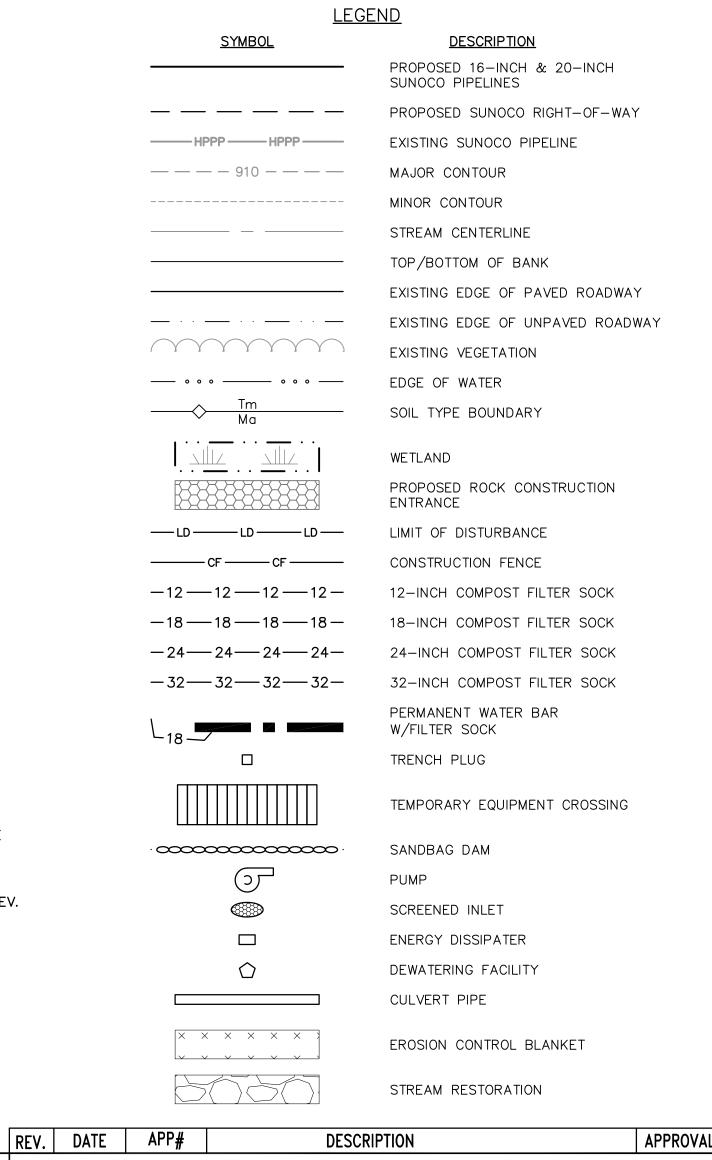


#### **GENERAL NOTES:**

- 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.



ENGINEERING RECORD DRAWN BY DLH PROFESSIONAL CHECKED BY CDA CHRISTOPHER D. ANTON APPROVED BY | CDA 11/30/16 No. PE−057385−E AS NOTED SCALE

OLD DRAWING NO.

PROFILE LEGEND:

PROPOSED PIPELINE

EXISTING GRADE ELEV.

PROPOSED TOP OF

EXISTING GRADE

PIPE ELEV.

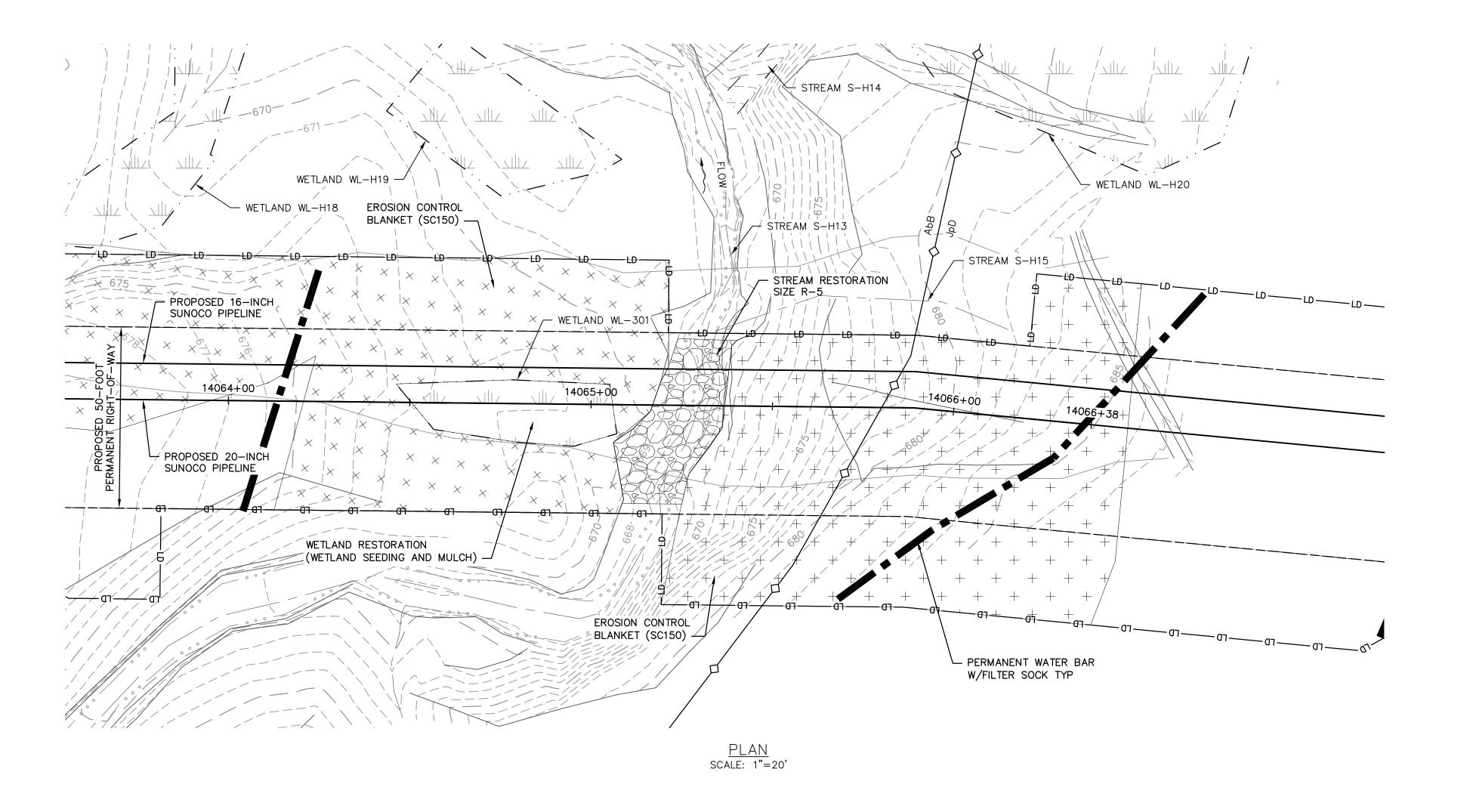
**Sunoco Logistics** Partners L.P.

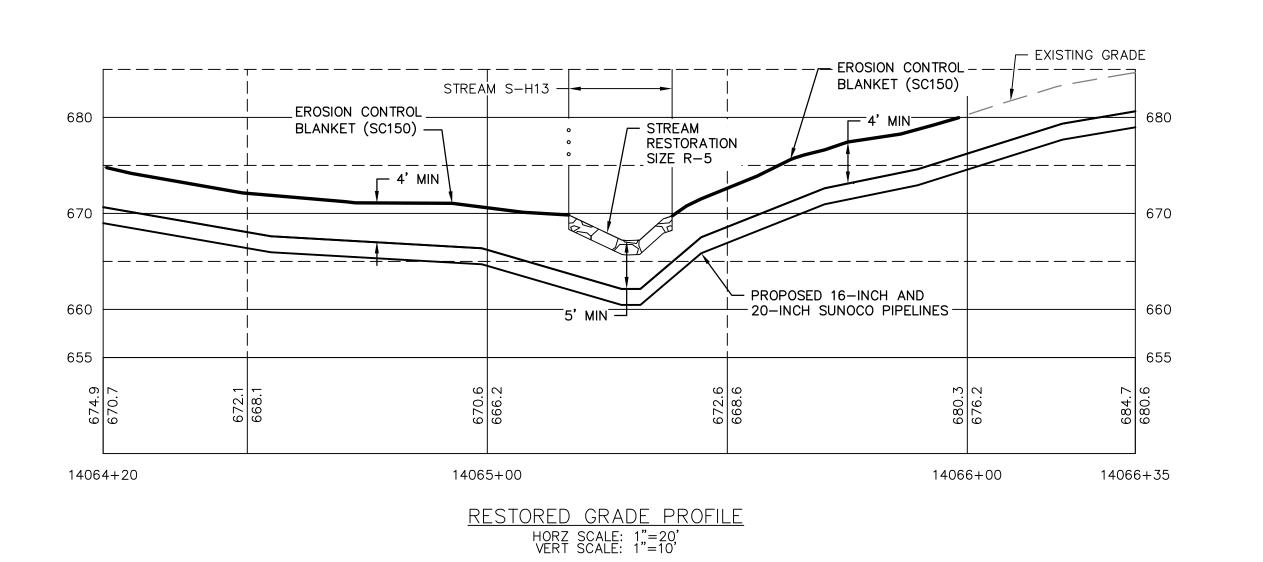
DWG. NO.

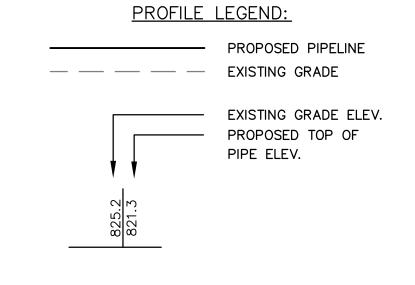
PENNSYLVANIA PIPELINE PROJECT STREAMS S-H13 AND S-H15 **EXISTING CONDITIONS EROSION &** SEDIMENTATION CONTROL PLAN

BERKS COUNTY, PA

REV. NO. S-H13-A







#### **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
- 5. THE PROJECT IS LOCATED IN NAD83 PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (SOUTH ZONE),
- 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
- 2. A MINIMUM OF 4 FEET COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.
- 3. FOR TEMPORARY TIMBER MAT REFERENCE (ES-0.10)

(ES-0.03, ES-0.08, ES-0.10, AND ES-0.15).

- 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  PROPOSED 16-INCH & 20-INCH SUNCOO PIPELINES  PROPOSED SUNCOO RIGHT-OF-WAY EXISTING SUNCOO PIPELINE  MAJOR CONTOUR  MINOR CONTOUR  STREAM CENTERLINE  TOP/BOTTOM OF BANK EXISTING EDGE OF PAVED ROADWAY EXISTING VEGETATION EDGE OF WATER  SOIL TYPE BOUNDARY  WETLAND  PROPOSED ROCK CONSTRUCTION ENTRANCE  LIMIT OF DISTURBANCE  CONSTRUCTION FENCE  18—18—18—18—18—18—18-18-18-18-18-18-18-18-18-18-18-18-18-1	<u>LEGEND</u>	
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 VEGETATION  EDGE OF WATER  SOIL TYPE BOUNDARY  WETLAND  PROPOSED ROCK CONSTRUCTION ENTRANCE  LIMIT OF DISTURBANCE  CONSTRUCTION FENCE  12—12—12—12—12—12—12—12—12—12—12—12—12—1	<u>SYMBOL</u>	DESCRIPTION
HPPP HPPP EXISTING SUNOCO PIPELINE  MAJOR CONTOUR  MINOR CONTOUR  STREAM CENTERLINE  TOP/BOTTOM OF BANK  EXISTING EDGE OF PAVED ROADWAY  EXISTING VEGETATION  EDGE OF WATER  SOIL TYPE BOUNDARY  WETLAND  PROPOSED ROCK CONSTRUCTION ENTRANCE  CF CF CF CONSTRUCTION FENCE  12 — 12 — 12 — 12 — 12—inch compost filter sock  - 18 — 18 — 18 — 18 — 18—inch compost filter sock  - 24 — 24 — 24 — 24 — 24—inch compost filter sock  - 32 — 32 — 32 — 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		
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—12—12—12—12—12—12—inch compost filter sock  -18—18—18—18—18—18—18—inch compost filter sock  -24—24—24—24—24—24—24—inch compost filter sock  -32—32—32—32—32—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		PROPOSED SUNOCO RIGHT-OF-WAY
MINOR CONTOUR  STREAM CENTERLINE  TOP/BOTTOM OF BANK  EXISTING EDGE OF PAVED ROADWAY  EXISTING VEGETATION  EDGE OF WATER  SOIL TYPE BOUNDARY  WETLAND  PROPOSED ROCK CONSTRUCTION ENTRANCE  LIMIT OF DISTURBANCE  CONSTRUCTION FENCE  12—12—12—12—12—12—12—Inch Compost Filter Sock  18—18—18—18—18—18—Inch Compost Filter Sock  24—24—24—24—24—24—24—Inch Compost Filter Sock  724—24—24—24—24—24—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	——————————————————————————————————————	EXISTING SUNOCO PIPELINE
STREAM CENTERLINE TOP/BOTTOM OF BANK EXISTING EDGE OF PAVED ROADWAY EXISTING VEGETATION EDGE OF WATER SOIL TYPE BOUNDARY  WETLAND PROPOSED ROCK CONSTRUCTION ENTRANCE LIMIT OF DISTURBANCE CONSTRUCTION FENCE -12—12—12—12—12—12—Inch Compost filter sock -24—24—24—24—24—24—24—Inch Compost filter sock -32—32—32—32—32—32—32—Inch Compost filter sock TRENCH PLUG  TEMPORARY EQUIPMENT CROSSING  SANDBAG DAM PUMP SCREENED INLET ENERGY DISSIPATER DEWATERING FACILITY CULVERT PIPE  EROSION CONTROL BLANKET	— — — 910 — — —	MAJOR CONTOUR
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—12—12—12—12—12—12—Inch Compost filter sock -18—18—18—18—18—18—18—18—18—18—18—18—18—1		MINOR CONTOUR
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—12—12—12—12—12—12—inch compost filter sock  18—18—18—18—18—18—inch compost filter sock  24—24—24—24—24—24—24—inch compost filter sock  32—32—32—32—32—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 CENTERLINE
EXISTING EDGE OF UNPAVED ROADWAY  EXISTING VEGETATION  EDGE OF WATER  SOIL TYPE BOUNDARY  WETLAND  PROPOSED ROCK CONSTRUCTION ENTRANCE  LIMIT OF DISTURBANCE  CONSTRUCTION FENCE  12—12—12—12—12—12—12—12—12—10—14—16—18—18—18—18—18—18—18—18—18—10—10—10—10—10—10—10—10—10—10—10—10—10—		TOP/BOTTOM OF BANK
EXISTING VEGETATION  EDGE OF WATER  SOIL TYPE BOUNDARY  WETLAND  PROPOSED ROCK CONSTRUCTION ENTRANCE  LIMIT OF DISTURBANCE  CONSTRUCTION FENCE  12—12—12—12— 12—12—12— 12—inch compost filter sock  -24—24—24—24— 24—inch compost filter sock  -32—32—32—32— 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		EXISTING EDGE OF PAVED ROADWAY
EDGE OF WATER  SOIL TYPE BOUNDARY  WETLAND  PROPOSED ROCK CONSTRUCTION ENTRANCE  LIMIT OF DISTURBANCE  CONSTRUCTION FENCE  12—12—12—12—12—12—12—INCH COMPOST FILTER SOCK  18—18—18—18—18—18—18—INCH COMPOST FILTER SOCK  24—24—24—24—24—24—INCH COMPOST FILTER SOCK  32—32—32—32—32—32—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	<u> </u>	EXISTING EDGE OF UNPAVED ROADWAY
SOIL TYPE BOUNDARY  WETLAND  PROPOSED ROCK CONSTRUCTION ENTRANCE  LIMIT OF DISTURBANCE  CONSTRUCTION FENCE  12—12—12—12—12—12—12—12—12—10—14—18—18—18—18—18—18—18—18—18—18—18—10—10—10—10—10—10—10—10—10—10—10—10—10—		EXISTING VEGETATION
WETLAND  PROPOSED ROCK CONSTRUCTION ENTRANCE  LIMIT OF DISTURBANCE  CONSTRUCTION FENCE  12—12—12—12—12—12—12—12—12—16—18—18—18—18—18—18—18—18—18—18—18—18—18—	0 0 0 0 0 0	EDGE OF WATER
PROPOSED ROCK CONSTRUCTION ENTRANCE  — LD — LD — LD — LIMIT OF DISTURBANCE  — CF — CF — CONSTRUCTION FENCE  — 12 — 12 — 12 — 12 — 12 — 12 — 12 — INCH COMPOST FILTER SOCK  — 18 — 18 — 18 — 18 — 18 — INCH COMPOST FILTER SOCK  — 24 — 24 — 24 — 24 — 24 — 24 — INCH COMPOST FILTER SOCK  — 32 — 32 — 32 — 32 — 32 — INCH COMPOST FILTER SOCK  — PERMANENT WATER BAR W/FILTER SOCK  — TRENCH PLUG  — TEMPORARY EQUIPMENT CROSSING  SANDBAG DAM  — PUMP  — SCREENED INLET  — DEWATERING FACILITY  CULVERT PIPE  EROSION CONTROL BLANKET	——	SOIL TYPE BOUNDARY
ENTRANCE  LIMIT OF DISTURBANCE  CONSTRUCTION FENCE  12—12—12—12—12—12—12—12—INCH COMPOST FILTER SOCK  18—18—18—18—18—18—18—INCH COMPOST FILTER SOCK  24—24—24—24—24—24—24—INCH COMPOST FILTER SOCK  32—32—32—32—32—32—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		WETLAND
CF — CF — CONSTRUCTION FENCE  -12 — 12 — 12 — 12 — 12 — 12 — 12 — 18 — 18		
12—12—12—12— 12—12—12— 12—INCH COMPOST FILTER SOCK  18—18—18—18—18— 18—INCH COMPOST FILTER SOCK  24—24—24—24— 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	—_LDLDLD	LIMIT OF DISTURBANCE
-18—18—18—18—  -24—24—24—24—  -32—32—32—32—  -32—32—32—32—  -32—32—32—32—	——— CF ——— CF ———	CONSTRUCTION FENCE
24—24—24—24—24—24—24—32—32—32—32—32—32—32—32—32—32—32—32—32—	—12 ——12 ——12 —	12-INCH COMPOST FILTER SOCK
32—32—32—32—32—32—32—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	—18 ——18 ——18 —	18-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	-24242424-	24-INCH COMPOST FILTER SOCK
W/FILTER SOCK TRENCH PLUG  TEMPORARY EQUIPMENT CROSSING  SANDBAG DAM PUMP SCREENED INLET ENERGY DISSIPATER DEWATERING FACILITY CULVERT PIPE  EROSION CONTROL BLANKET	-32-32-32-32-	32-INCH COMPOST FILTER SOCK
TRENCH PLUG  TEMPORARY EQUIPMENT CROSSING  SANDBAG DAM  PUMP  SCREENED INLET  ENERGY DISSIPATER  DEWATERING FACILITY  CULVERT PIPE  EROSION CONTROL BLANKET		
SANDBAG DAM  PUMP  SCREENED INLET  ENERGY DISSIPATER  DEWATERING FACILITY  CULVERT PIPE  EROSION CONTROL BLANKET		TRENCH PLUG
PUMP  SCREENED INLET  ENERGY DISSIPATER  DEWATERING FACILITY  CULVERT PIPE  EROSION CONTROL BLANKET		TEMPORARY EQUIPMENT CROSSING
SCREENED INLET  ENERGY DISSIPATER  DEWATERING FACILITY  CULVERT PIPE  EROSION CONTROL BLANKET	-	SANDBAG DAM
ENERGY DISSIPATER  DEWATERING FACILITY  CULVERT PIPE  EROSION CONTROL BLANKET	(5)	PUMP
DEWATERING FACILITY  CULVERT PIPE  EROSION CONTROL BLANKET		SCREENED INLET
CULVERT PIPE  EROSION CONTROL BLANKET		ENERGY DISSIPATER
EROSION CONTROL BLANKET	$\bigcirc$	DEWATERING FACILITY
EROSION CONTROL BLANKET		CULVERT PIPE
STREAM RESTORATION		EROSION CONTROL BLANKET
		STREAM RESTORATION

GRAPHIC SCALES

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 STV PROJECT No.: 38-17335

REV. DATE APP# ENGINEERING RECORD DRAWN BY DLH PROFESSIONAL CHECKED BY CDA CHRISTOPHER D. ANTONI APPROVED BY CDA ENGINEER 11/30/16 No. PE−057385−E AS NOTED SCALE

OLD DRAWING NO.

CHRISTOPHER D. ANTONI

PE-057385-E

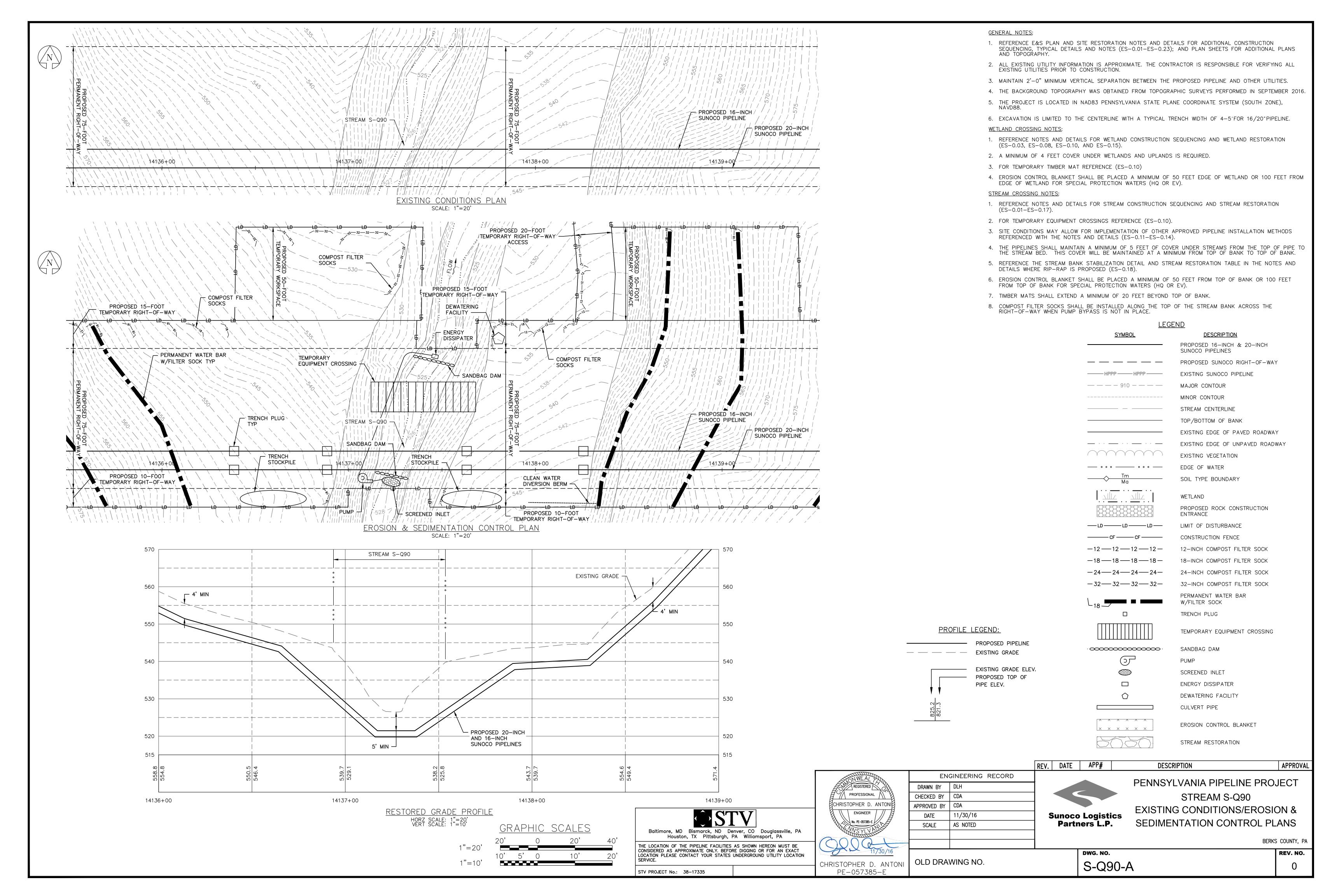
**Sunoco Logistics** Partners L.P.

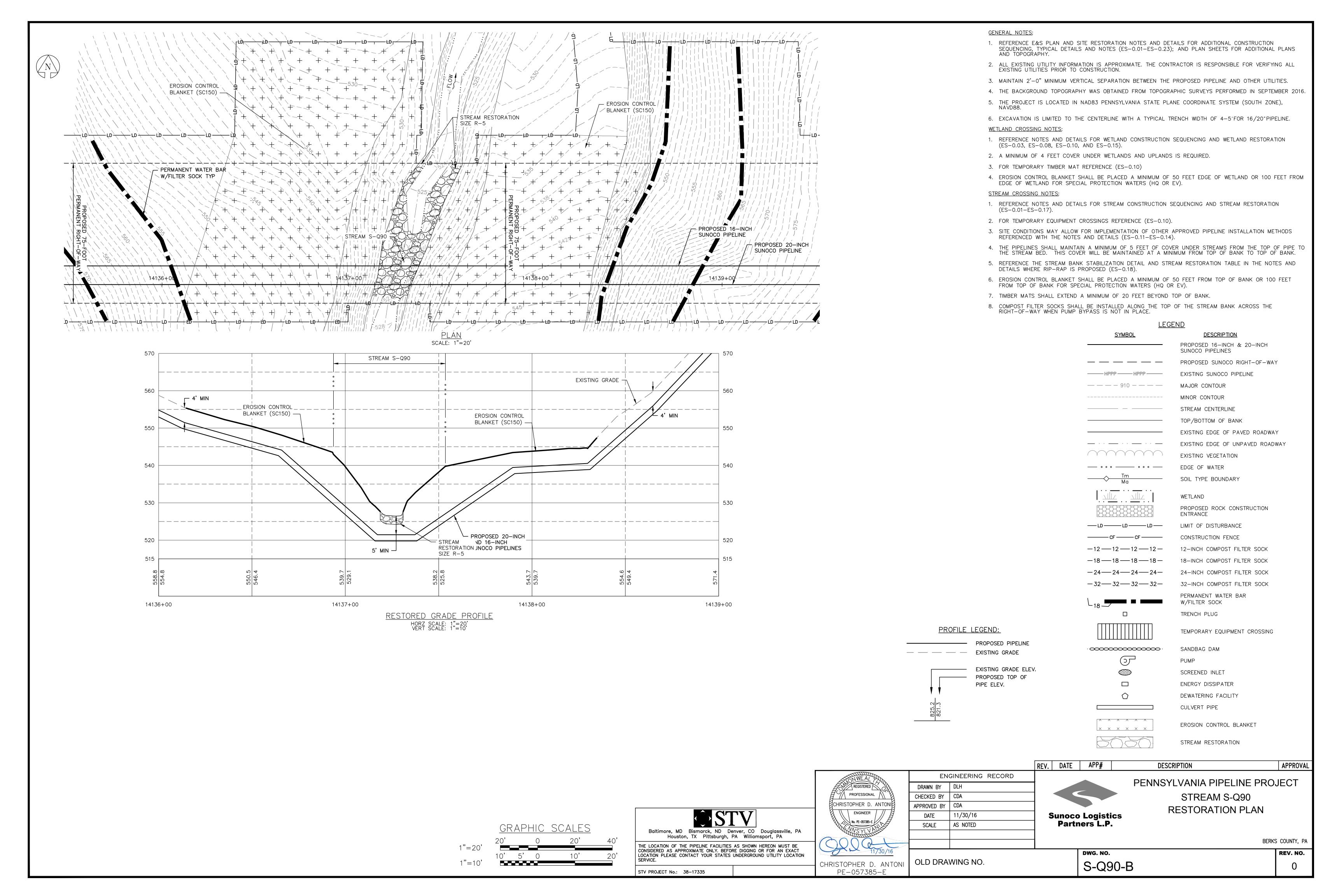
PENNSYLVANIA PIPELINE PROJECT STREAMS S-H13 AND S-H15 **RESTORATION PLAN** 

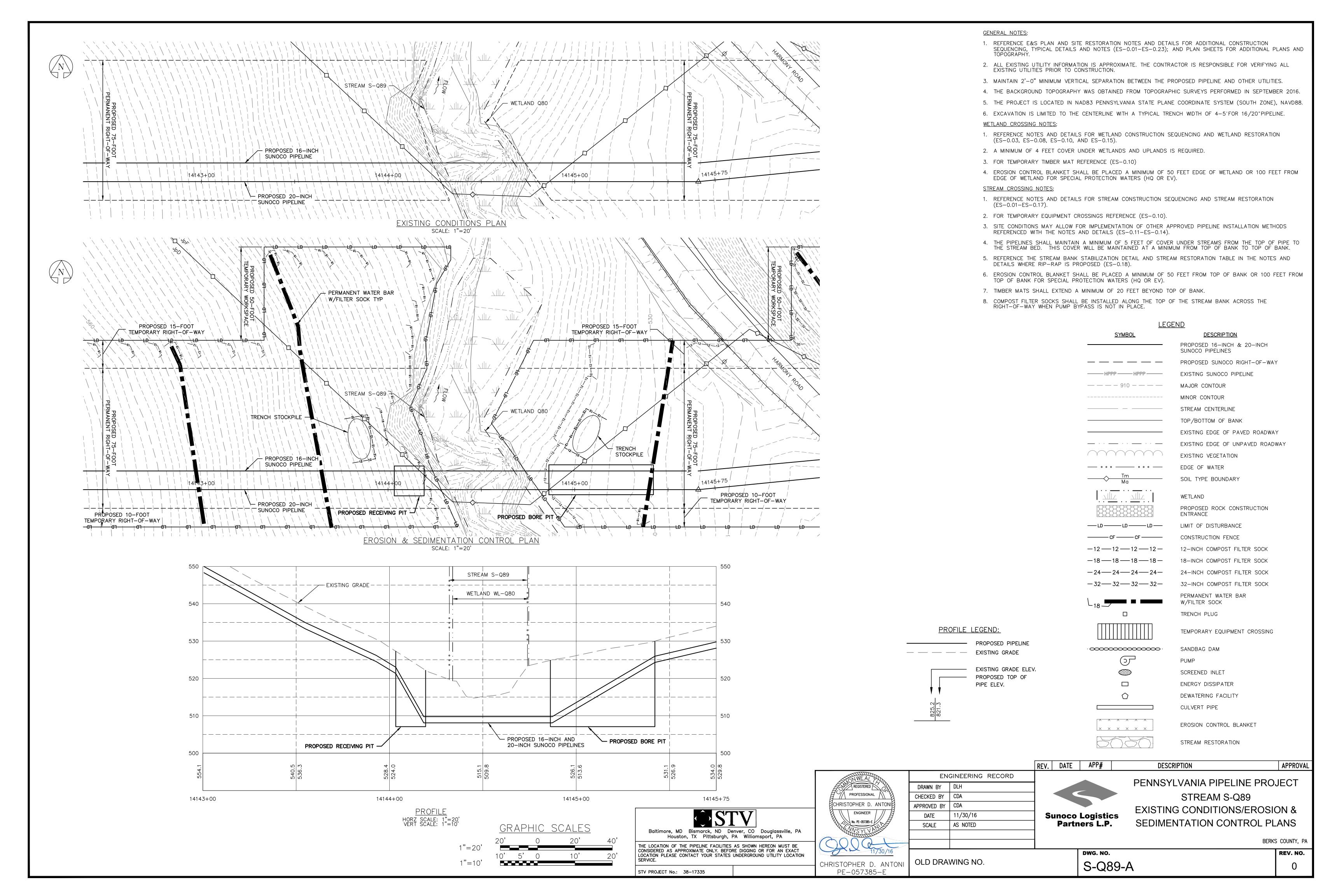
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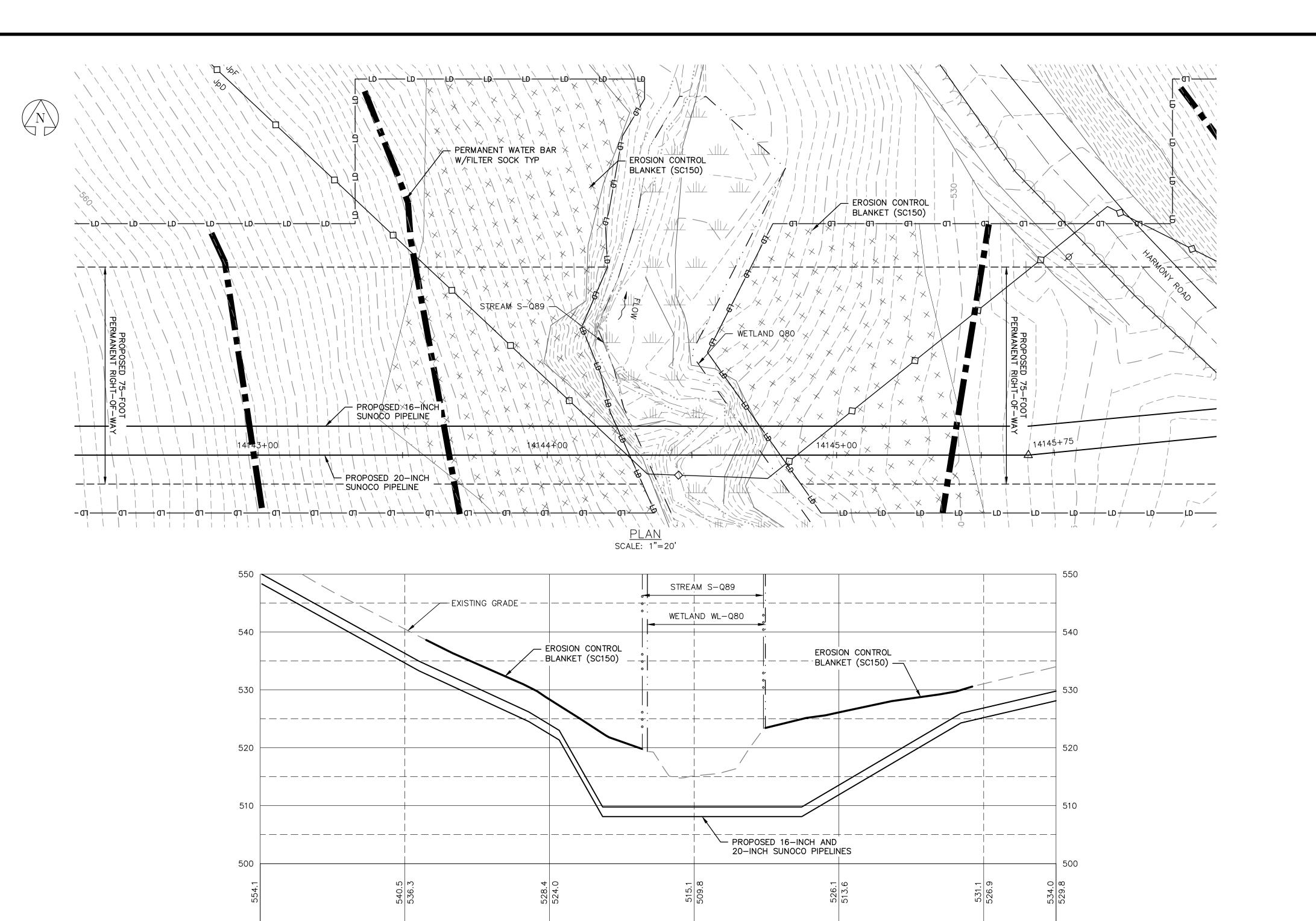
DWG. NO. S-H13-B BERKS COUNTY, PA REV. NO.

APPROVAL









RESTORED GRADE PROFILE

14144+00

14143+00

#### **GENERAL NOTES:**

- 1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING, TYPICAL DETAILS AND NOTES; 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),

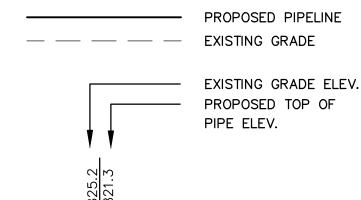
#### WETLAND CROSSING NOTES:

- 1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS, FOR WETLAND CONSTRUCTION SEQUENCING
- 2. A MINIMUM OF 4 FEET OF COVER UNDER WETLANDS AND UPLANDS IS REQUIRED.
- 3. EROSION CONTROL BLANKET SHALL BE PLACED A MINIMUM OF 50 FEET FROM EDGE OF WETLAND, OR 100 FEET FROM EDGE OF WETLAND FOR SPECIAL PROTECTION WATERS (HQ OR EV).

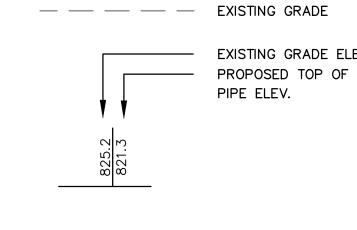
#### STREAM CROSSING NOTES:

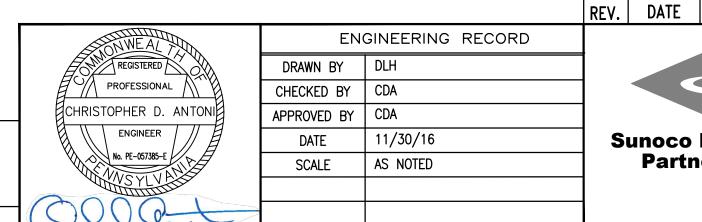
- 1. REFERENCE E&S PLAN AND SITE RESTORATION NOTES AND DETAILS FOR STREAM CONSTRUCTION SEQUENCING AND RESTORATION.
- 2. TEMPORARY EQUIPMENT BRIDGE CROSSINGS ARE TO BE IMPLEMENTED IN ACCORDANCE WITH THE NOTES AND DETAILS FOR THE IMPLEMENTED METHOD.
- 3. SITE CONDITIONS MAY ALLOW FOR IMPLEMENTATION OF OTHER APPROVED PIPELINE INSTALLATION METHODS, REFERENCED WITH THE NOTES AND DETAILS.
- 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 RIPRAP IS PROPOSED.
- 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
— — — 910 — — —	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
—LD——LD——	LIMIT OF DISTURBANCE
CFCF	CONSTRUCTION FENCE
-12 12 12 12	12-INCH COMPOST FILTER SOCK
—18 ——18 ——18 —	18-INCH COMPOST FILTER SOCK
-24242424	24-INCH COMPOST FILTER SOCK
-32 <del>-32</del> -32-32-	32-INCH COMPOST FILTER SOCK
L <sub>18</sub> = =====	PERMANENT WATER BAR W/FILTER SOCK
	TRENCH PLUG
	TEMPORARY EQUIPMENT CROSSING
	SANDBAG DAM
<b>デ</b>	PUMP
	SCREENED INLET
	ENERGY DISSIPATER
$\bigcirc$	DEWATERING FACILITY
	CULVERT PIPE
X	EROSION CONTROL BLANKET



PROFILE LEGEND:





PENNSYLVANIA PIPELINE PROJECT STREAM S-Q89 **RESTORATION PLAN** Sunoco Logistics

**DESCRIPTION** 

STREAM RESTORATION

BERKS COUNTY, PA

APPROVAL

GRAPHIC SCALES

14145+00

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

14145+75

PE-057385-E

STV PROJECT No.: 38-17335

CHRISTOPHER D. ANTONI

OLD DRAWING NO.

DWG. NO. S-Q89-B

APP#

Partners L.P.