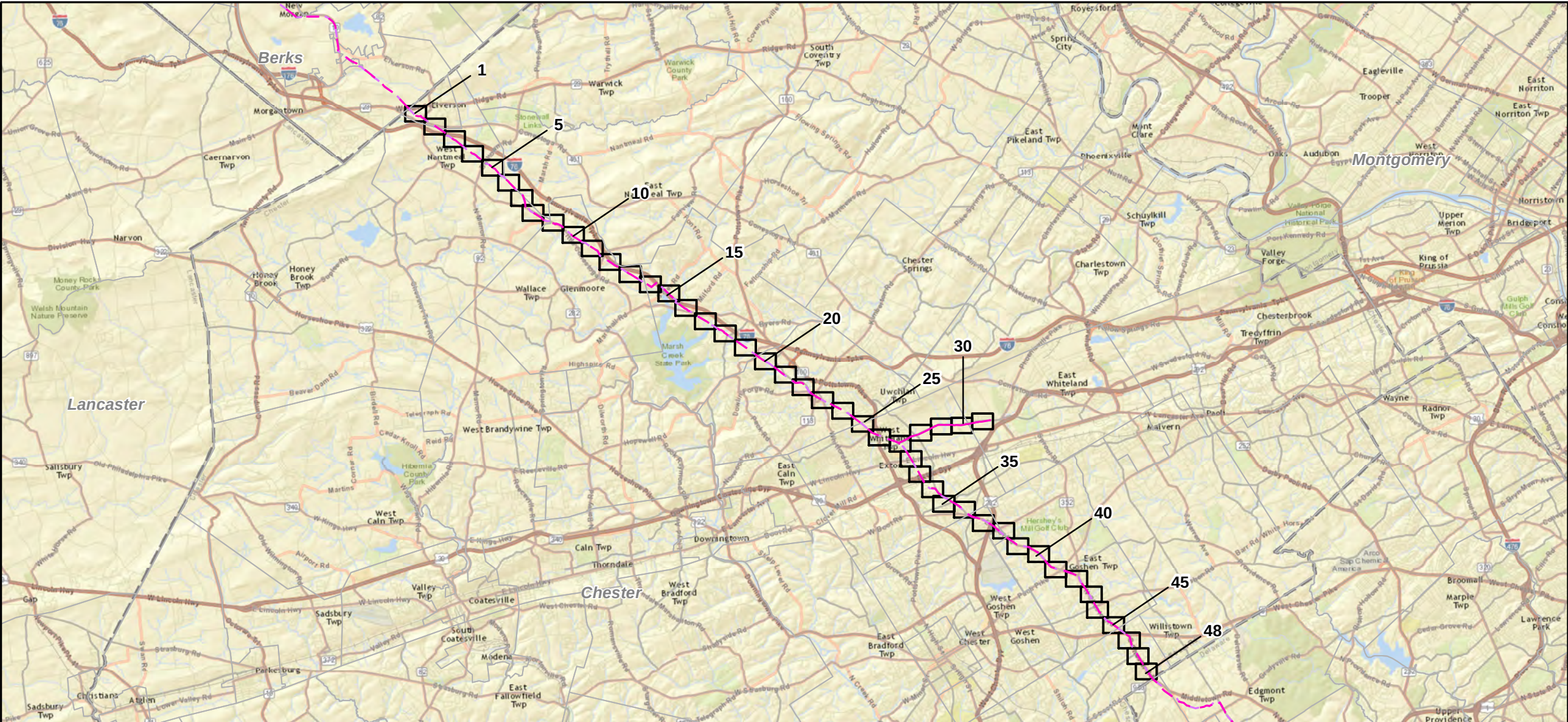
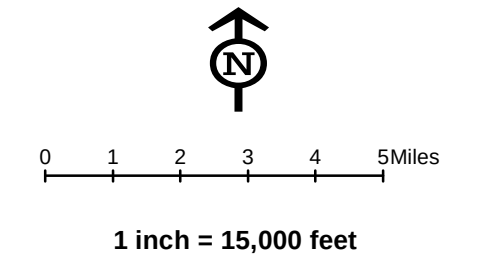
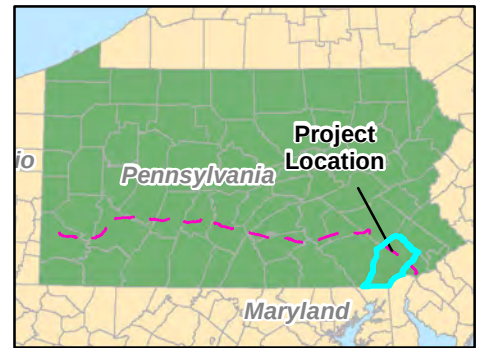




Mapset Legend

	Sheet Boundary		Permanent ROW		Existing Buried Cable		Stream Photo		Pond
	Roads		Temporary ROW		Existing Electric Line		PEM Photo		PEM Wetland
	Municipal Boundary		ATWS		Existing Fiberoptic Cable		PFO Photo		PFO Wetland
	Swedesford Lateral		Block Valve Setting LOD		Existing Gas Line		PSS Photo		PSS Wetland
	PPP 1		Existing Block Valve Setting		Existing Phone Line		Ephemeral Stream		PEM Extension
	PPP 2		Permanent Access Road		Existing Sanitary Sewer		Intermittent Stream		PFO Extension
	PPP 1 Bore		Temporary Access Road		Existing Septic System		Perennial Stream		PSS Extension
	PPP 2 Bore		Clearing Only		Existing Storm Sewer		Ch. 105 Floodways		Permanent Easement (no surface disturbance)
	PPP 1 HDD		Travel Only		Existing TV Line		Waived Ch. 105 Floodways		Parcels
	PPP 2 HDD		Stations		Existing Utility (unknown)		Ch. 106 Floodplain Fringe		Contours
					Existing Water Line				
					8" Centerline				
					8" Pipeline Maintenance Corridor				

Legend	
	Sheet Boundary
	Swedesford Lateral
	PPP 1
	PPP 2
	Township Line
	Roads
	County Boundary

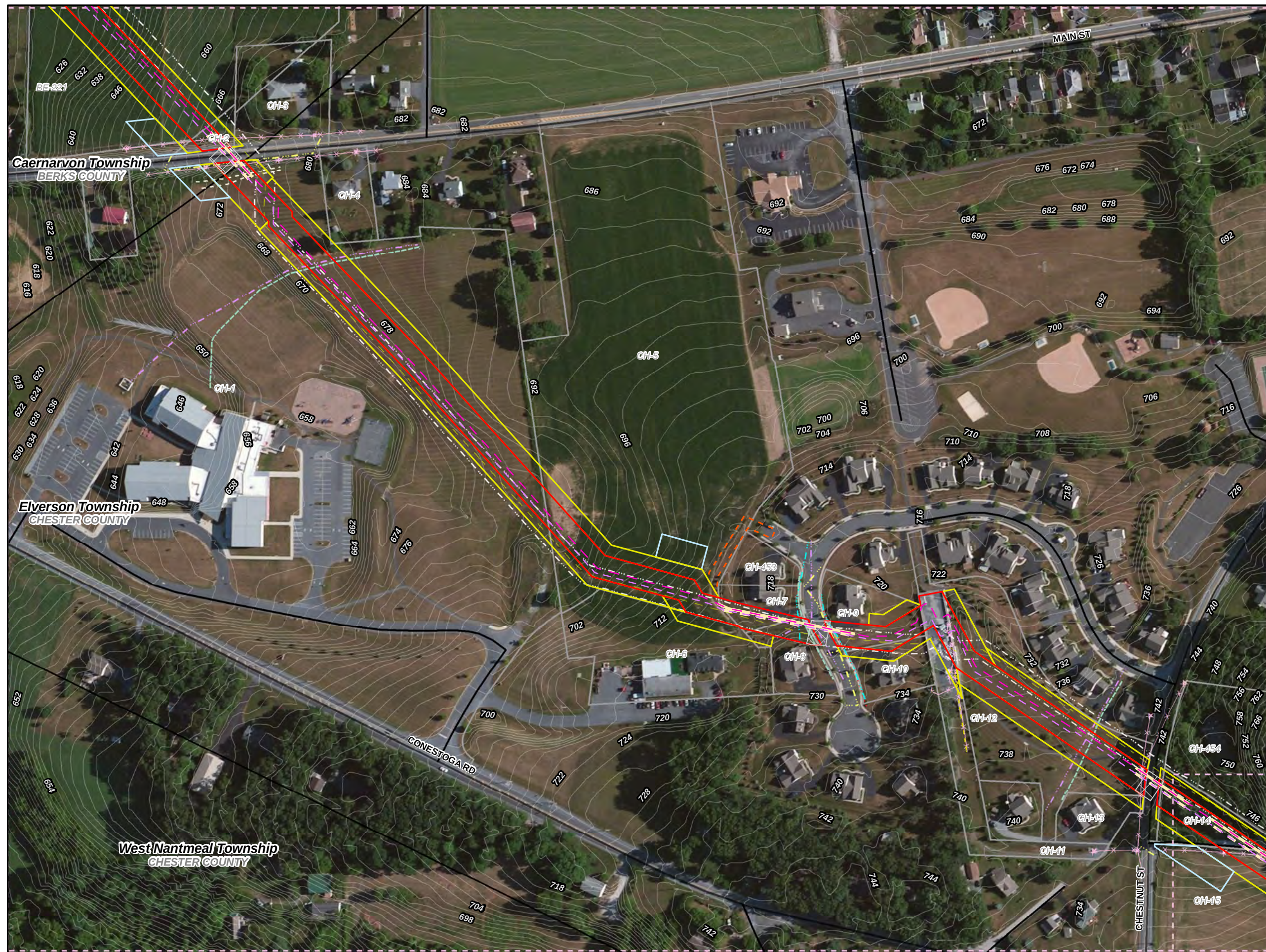


Site Plan Sheet Key for the Sunoco
Pennsylvania Pipeline Project,
Chester County, PA.
Sheet 1 of 1

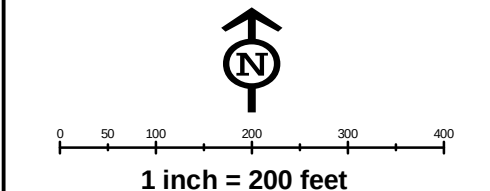
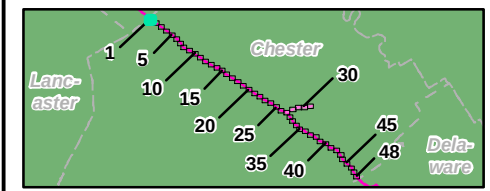
Prepared By:	Date:
	05/2016

Base Map; ESRI ArcGIS Online, Roads from NRCS
Geospatial Data Giveaway, 100-Year Floodplain from
FEMA National Flood Hazard Layer, downloaded 8/2013.
Coordinate System: NAD 83 Stateplane, PA South, Feet

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- Legend**
- Swedesford Lateral
 - PPP 1
 - PPP 2
 - PPP 1 Bore
 - PPP 2 Bore
 - PPP 1 HDD
 - PPP 2 HDD
 - Permanent ROW
 - Temporary ROW
 - ATWS
 - Block Valve Setting LOD
 - Existing Block Valve Setting
 - Permanent Access Road
 - Temporary Access Road
 - Clearing Only
 - Travel Only
 - Permanent Easement (no surface disturbance)
 - Stations
 - Ephemeral Stream
 - Intermittent Stream
 - Perennial Stream
 - Pond
 - PEM Wetland
 - PFO Wetland
 - PSS Wetland
 - Ch. 105 Floodways
 - Waived Ch. 105 Floodways
 - Ch. 106 Floodplain Fringe

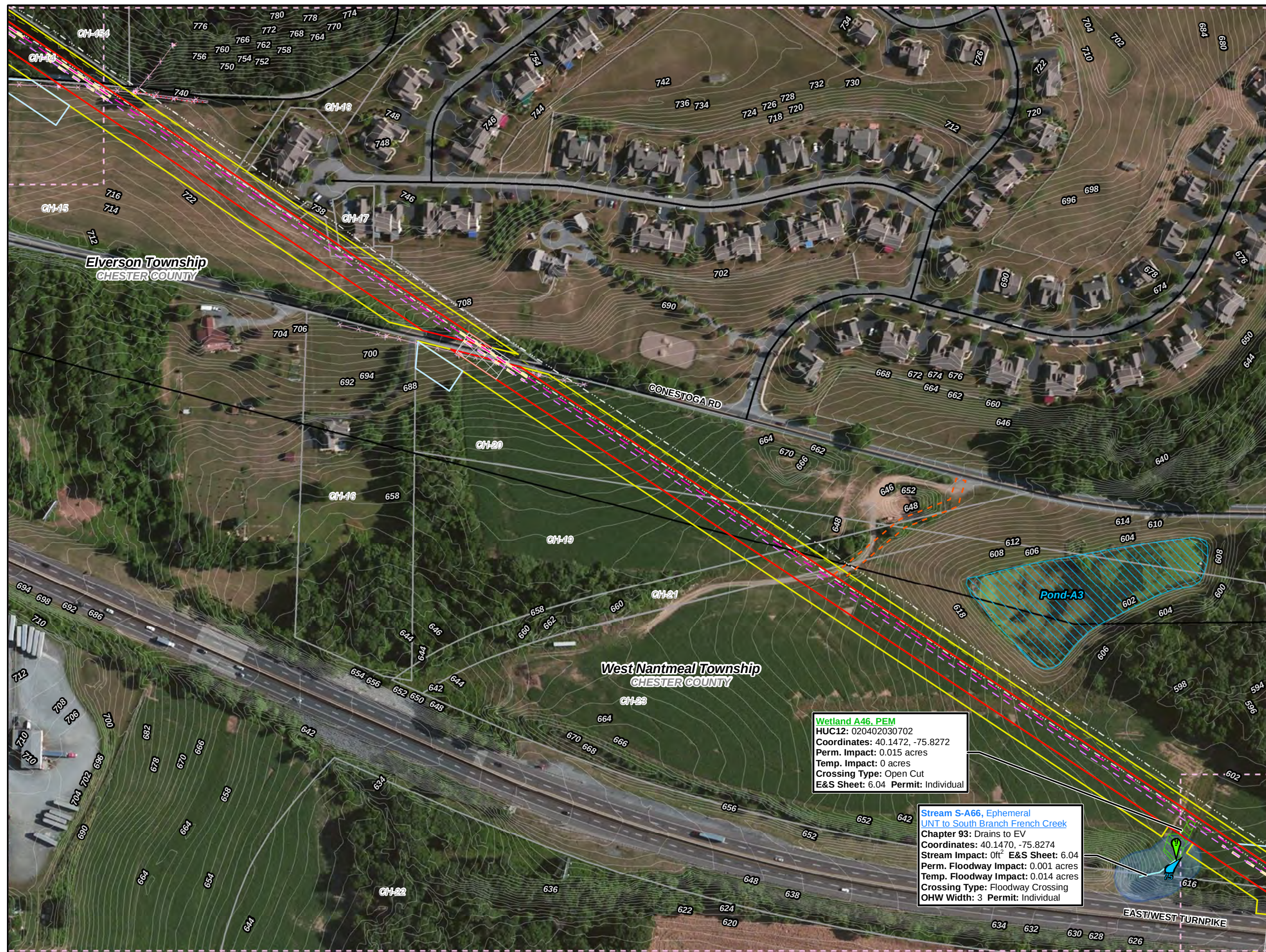


Site Plan for the Sunoco
Pennsylvania Pipeline Project,
Chester County, PA.
Sheet 1 of 48

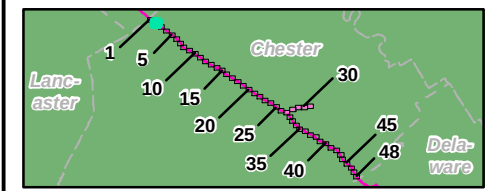
Prepared By: **TETRA TECH** Date: **5/2016**

Base Map; ESRI ArcGIS Online, Roads from NRCS
Geospatial Data Giveaway, 100-Year Floodplain from
FEMA National Flood Hazard Layer, downloaded 10/2015.
Coordinate System: NAD 83 Stateplane, PA South, Feet

P:\GIS\Projects\1212\CS958-PPP\MapXDR\Permis\County\Permis\County\SitePlan_Rev4



- Legend**
- Swedesford Lateral
 - PPP 1
 - PPP 2
 - PPP 1 Bore
 - PPP 2 Bore
 - PPP 1 HDD
 - PPP 2 HDD
 - Permanent ROW
 - Temporary ROW
 - ATWS
 - Block Valve Setting LOD
 - Existing Block Valve Setting
 - Permanent Access Road
 - Temporary Access Road
 - Clearing Only
 - Travel Only
 - Permanent Easement (no surface disturbance)
 - Stations
 - Ephemeral Stream
 - Intermittent Stream
 - Perennial Stream
 - Pond
 - PEM Wetland
 - PFO Wetland
 - PSS Wetland
 - Ch. 105 Floodways
 - Waived Ch. 105 Floodways
 - Ch. 106 Floodplain Fringe



0 50 100 200 300 400
1 inch = 200 feet

Site Plan for the Sunoco
Pennsylvania Pipeline Project,
Chester County, PA.
Sheet 2 of 48

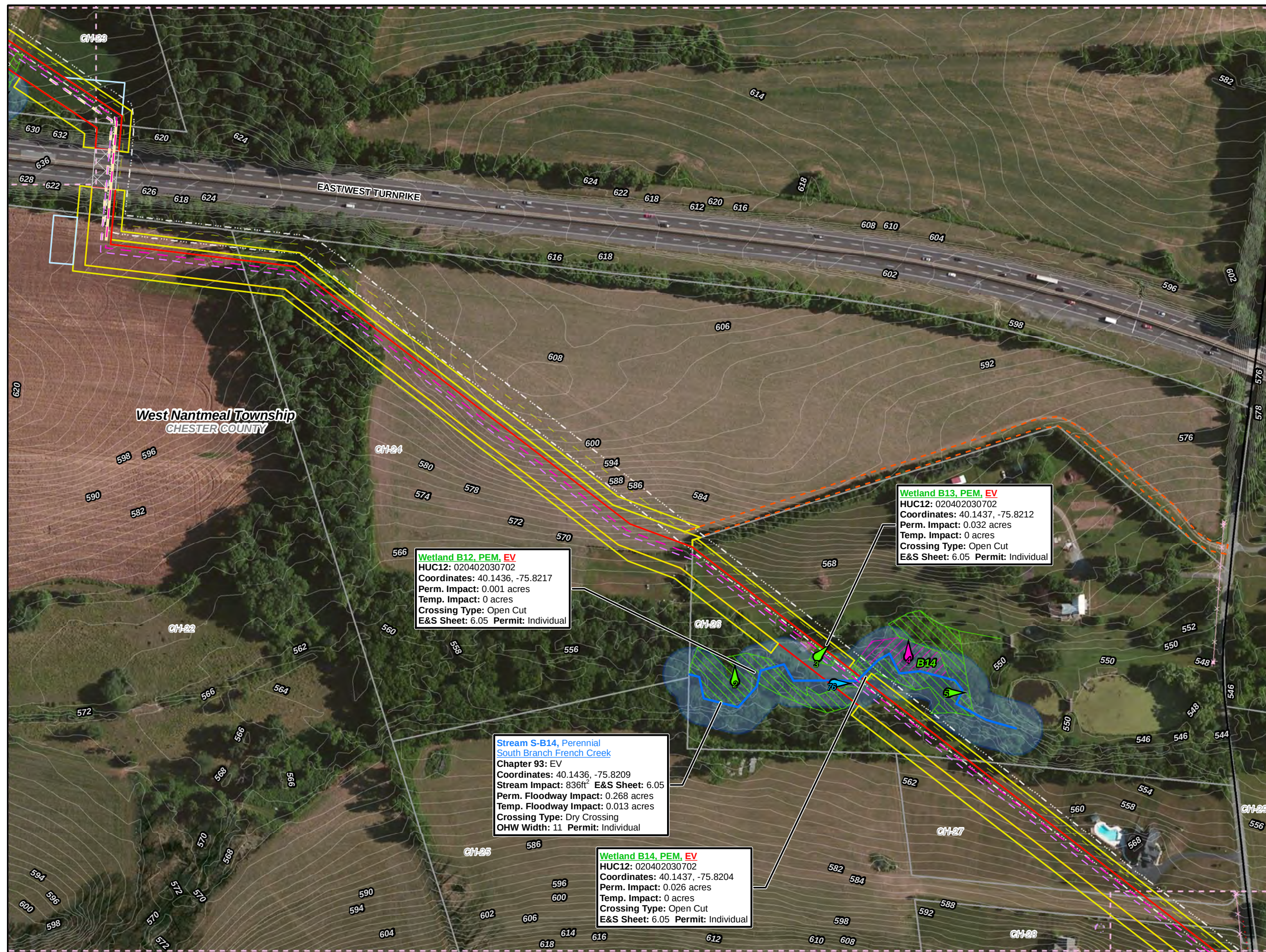
Prepared By:	Date:
 TETRA TECH	5/2016

Base Map; ESRI ArcGIS Online, Roads from NRCS
Geospatial Data Giveaway, 100-Year Floodplain from
FEMA National Flood Hazard Layer, downloaded 10/2015.
Coordinate System: NAD 83 Stateplane, PA South, Feet

Wetland A46, PEM
HUC12: 020402030702
Coordinates: 40.1472, -75.8272
Perm. Impact: 0.015 acres
Temp. Impact: 0 acres
Crossing Type: Open Cut
E&S Sheet: 6.04 Permit: Individual

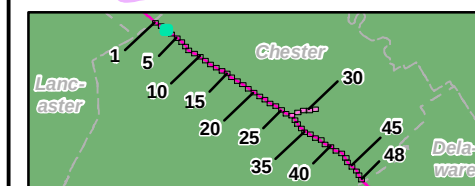
Stream S-A66, Ephemeral
UNT to South Branch French Creek
Chapter 93: Drains to EV
Coordinates: 40.1470, -75.8274
Stream Impact: 0ft² E&S Sheet: 6.04
Perm. Floodway Impact: 0.001 acres
Temp. Floodway Impact: 0.014 acres
Crossing Type: Floodway Crossing
OHW Width: 3 Permit: Individual

P:\GIS\Projects\1212\CS958-PPP\XDR\Permits\County\CountySitePlan_Rev4



Legend

- Swedesford Lateral
- PPP 1
- PPP 2
- PPP 1 Bore
- PPP 2 Bore
- PPP 1 HDD
- PPP 2 HDD
- Permanent ROW
- Temporary ROW
- ATWS
- Block Valve Setting LOD
- Existing Block Valve Setting
- Permanent Access Road
- Temporary Access Road
- Clearing Only
- Travel Only
- Permanent Easement (no surface disturbance)
- Stations
- Ephemeral Stream
- Intermittent Stream
- Perennial Stream
- Pond
- PEM Wetland
- PFO Wetland
- PSS Wetland
- Ch. 105 Floodways
- Waived Ch. 105 Floodways
- Ch. 106 Floodplain Fringe



0 50 100 200 300 400

1 inch = 200 feet

**Site Plan for the Sunoco
Pennsylvania Pipeline Project,
Chester County, PA.
Sheet 3 of 48**

Prepared By:

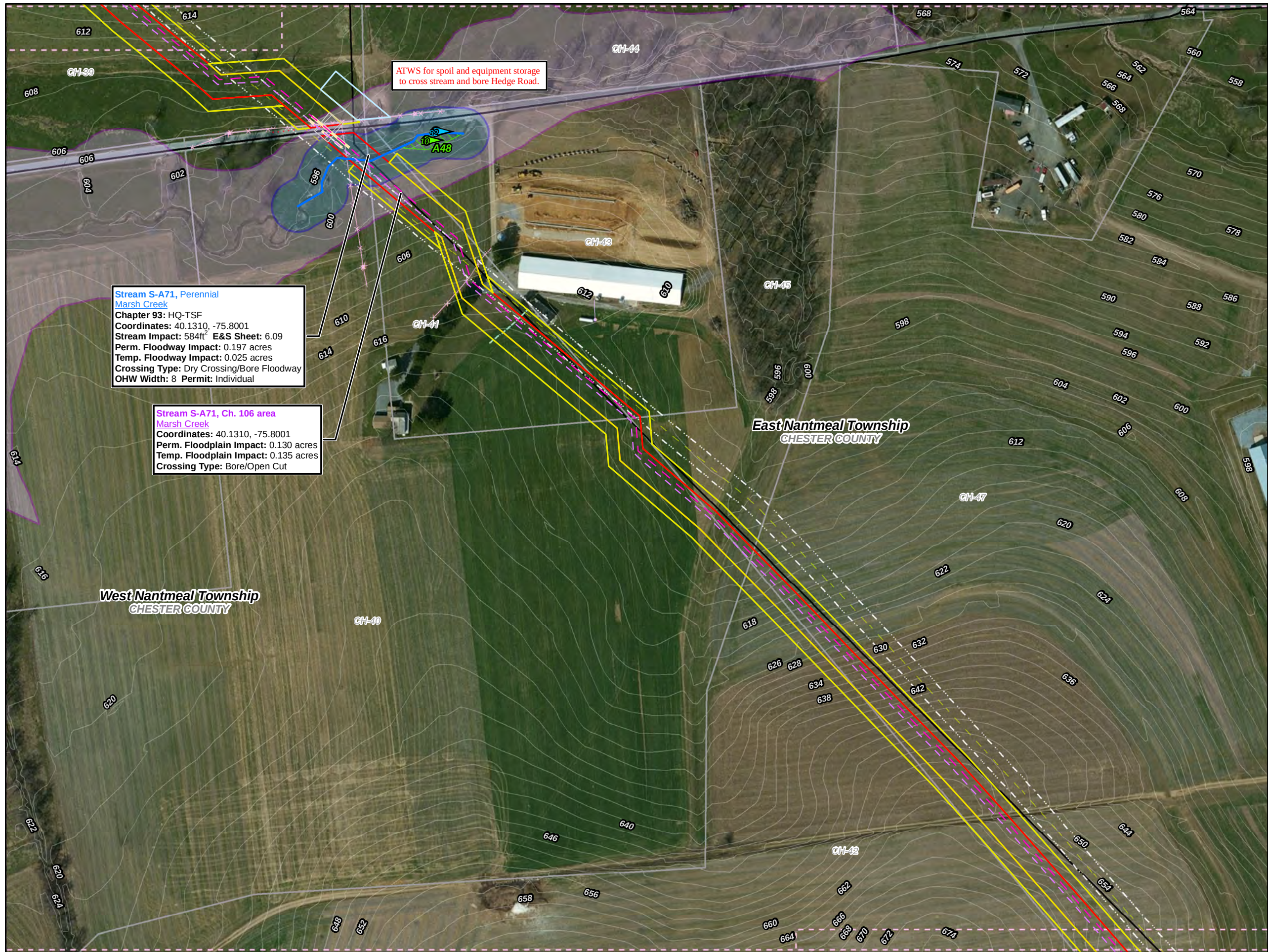


Date:

5/2016

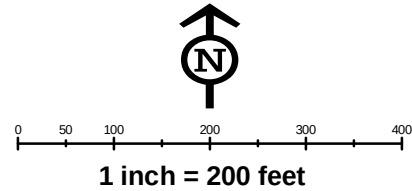
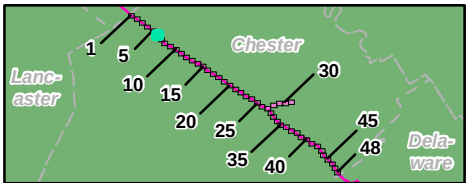
Base Map; ESRI ArcGIS Online, Roads from NRCS
Geospatial Data Giveaway, 100-Year Floodplain from
FEMA National Flood Hazard Layer, downloaded 10/2015.

Coordinate System: NAD 83 Stateplane, PA South, Feet



Legend

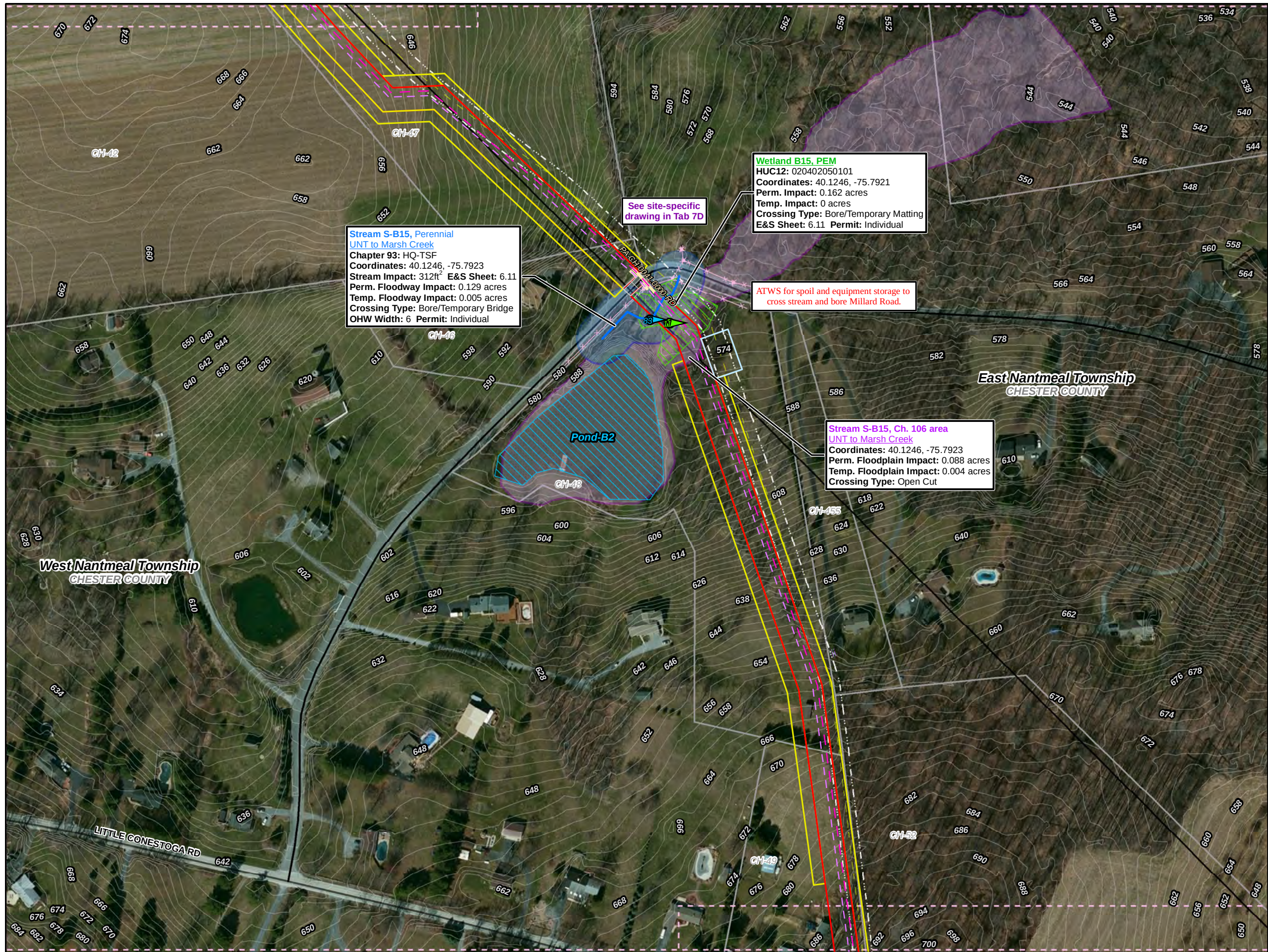
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- PPP 1
- PPP 2
- PPP 1 Bore
- PPP 2 Bore
- PPP 1 HDD
- PPP 2 HDD
- Permanent ROW
- Temporary ROW
- ATWS
- Block Valve Setting LOD
- Existing Block Valve Setting
- Permanent Access Road
- Temporary Access Road
- Clearing Only
- Travel Only
- Permanent Easement (no surface disturbance)
- Stations
- Ephemeral Stream
- Intermittent Stream
- Perennial Stream
- Pond
- PEM Wetland
- PFO Wetland
- PSS Wetland
- Ch. 105 Floodways
- Waived Ch. 105 Floodways
- Ch. 106 Floodplain Fringe



Site Plan for the Sunoco
Pennsylvania Pipeline Project,
Chester County, PA.
Sheet 6 of 48

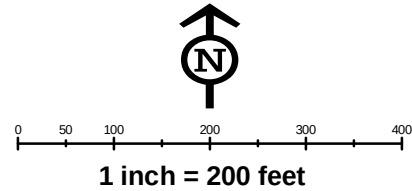
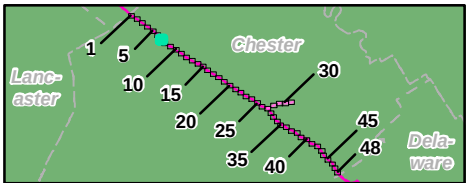
Prepared By: **TETRA TECH** Date: **5/2016**

Base Map; ESRI ArcGIS Online, Roads from NRCS
Geospatial Data Giveaway, 100-Year Floodplain from
FEMA National Flood Hazard Layer, downloaded 10/2015.
Coordinate System: NAD 83 Stateplane, PA South, Feet



Legend

- Swedesford Lateral
- PPP 1
- PPP 2
- PPP 1 Bore
- PPP 2 Bore
- PPP 1 HDD
- PPP 2 HDD
- Permanent ROW
- Temporary ROW
- ATWS
- Block Valve Setting LOD
- Existing Block Valve Setting
- Permanent Access Road
- Temporary Access Road
- Clearing Only
- Travel Only
- Permanent Easement (no surface disturbance)
- Stations
- Ephemeral Stream
- Intermittent Stream
- Perennial Stream
- Pond
- PEM Wetland
- PFO Wetland
- PSS Wetland
- Ch. 105 Floodways
- Waived Ch. 105 Floodways
- Ch. 106 Floodplain Fringe



Site Plan for the Sunoco
Pennsylvania Pipeline Project,
Chester County, PA.
Sheet 7 of 48

Prepared By: **TETRA TECH** Date: **5/2016**

Base Map; ESRI ArcGIS Online, Roads from NRCS
Geospatial Data Giveaway, 100-Year Floodplain from
FEMA National Flood Hazard Layer, downloaded 10/2015.
Coordinate System: NAD 83 Stateplane, PA South, Feet



Legend

- Swedesford Lateral
- PPP 1
- PPP 2
- PPP 1 Bore
- PPP 2 Bore
- PPP 1 HDD
- PPP 2 HDD
- Permanent ROW
- Temporary ROW
- ATWS
- Block Valve Setting LOD
- Existing Block Valve Setting
- Permanent Access Road
- Temporary Access Road
- Clearing Only
- Travel Only
- Permanent Easement (no surface disturbance)
- Stations
- Ephemeral Stream
- Intermittent Stream
- Perennial Stream
- Pond
- PEM Wetland
- PFO Wetland
- PSS Wetland
- Ch. 105 Floodways
- Waived Ch. 105 Floodways
- Ch. 106 Floodplain Fringe

1 inch = 200 feet

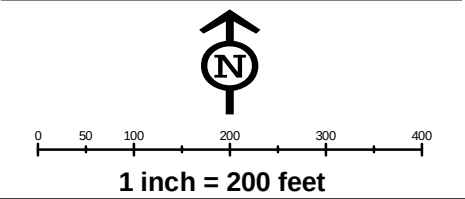
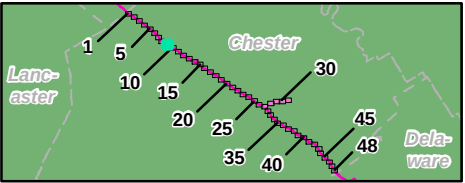
Site Plan for the Sunoco Pennsylvania Pipeline Project, Chester County, PA.
Sheet 8 of 48

Prepared By: 	Date: 5/2016
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Base Map; ESRI ArcGIS Online, Roads from NRCS Geospatial Data Giveaway, 100-Year Floodplain from FEMA National Flood Hazard Layer, downloaded 10/2015.
Coordinate System: NAD 83 Stateplane, PA South, Feet



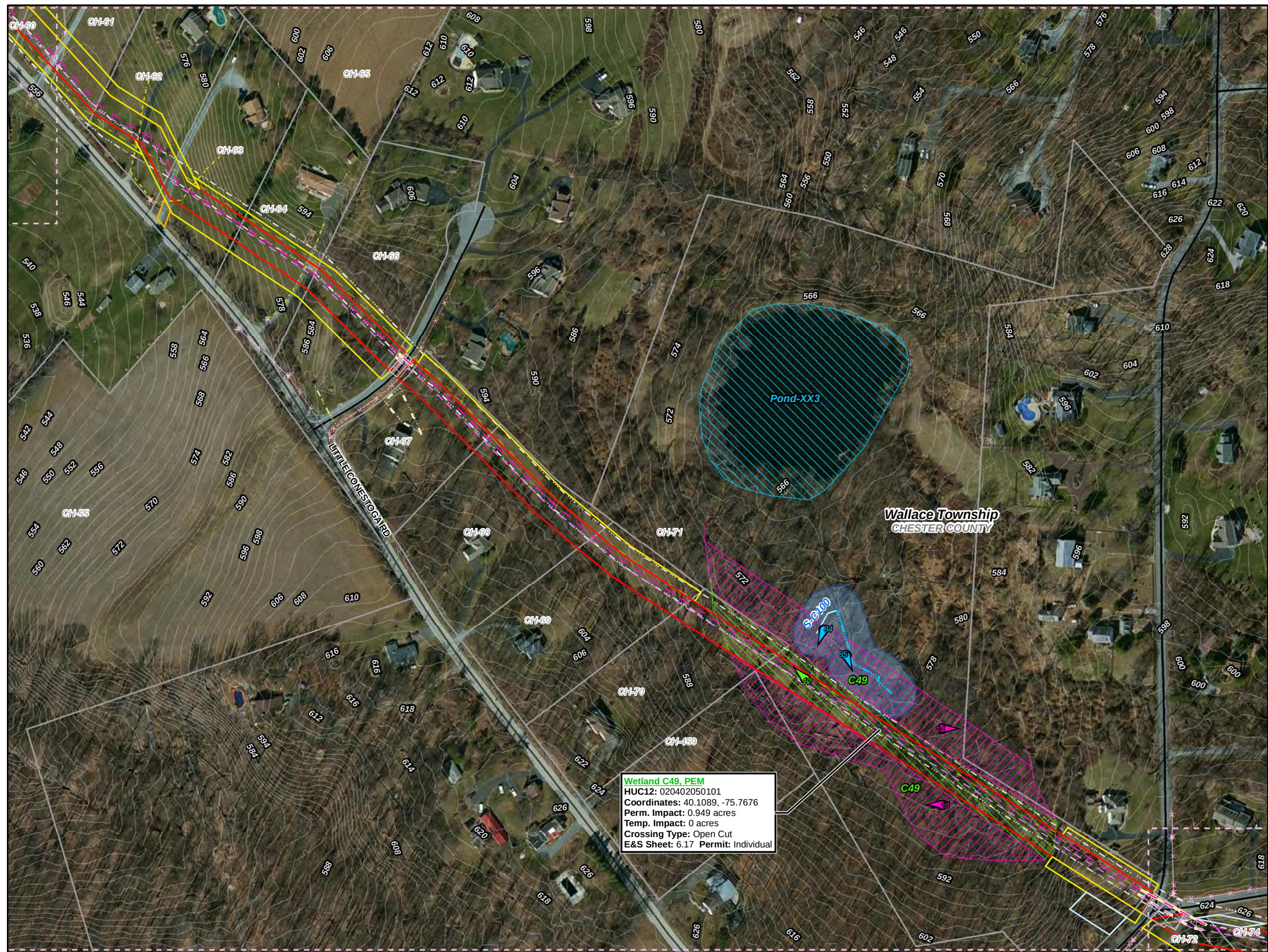
- Legend**
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 - PPP 2
 - PPP 1 Bore
 - PPP 2 Bore
 - PPP 1 HDD
 - PPP 2 HDD
 - Permanent ROW
 - Temporary ROW
 - ATWS
 - Block Valve Setting LOD
 - Existing Block Valve Setting
 - Permanent Access Road
 - Temporary Access Road
 - Clearing Only
 - Travel Only
 - Permanent Easement (no surface disturbance)
 - Stations
 - Ephemeral Stream
 - Intermittent Stream
 - Perennial Stream
 - Pond
 - PEM Wetland
 - PFO Wetland
 - PSS Wetland
 - Ch. 105 Floodways
 - Waived Ch. 105 Floodways
 - Ch. 106 Floodplain Fringe



Site Plan for the Sunoco
Pennsylvania Pipeline Project,
Chester County, PA.
Sheet 9 of 48

Prepared By:  TETRA TECH Date: 5/2016

Base Map; ESRI ArcGIS Online, Roads from NRCS
Geospatial Data Giveaway, 100-Year Floodplain from
FEMA National Flood Hazard Layer, downloaded 10/2015.
Coordinate System: NAD 83 Stateplane, PA South, Feet



Legend

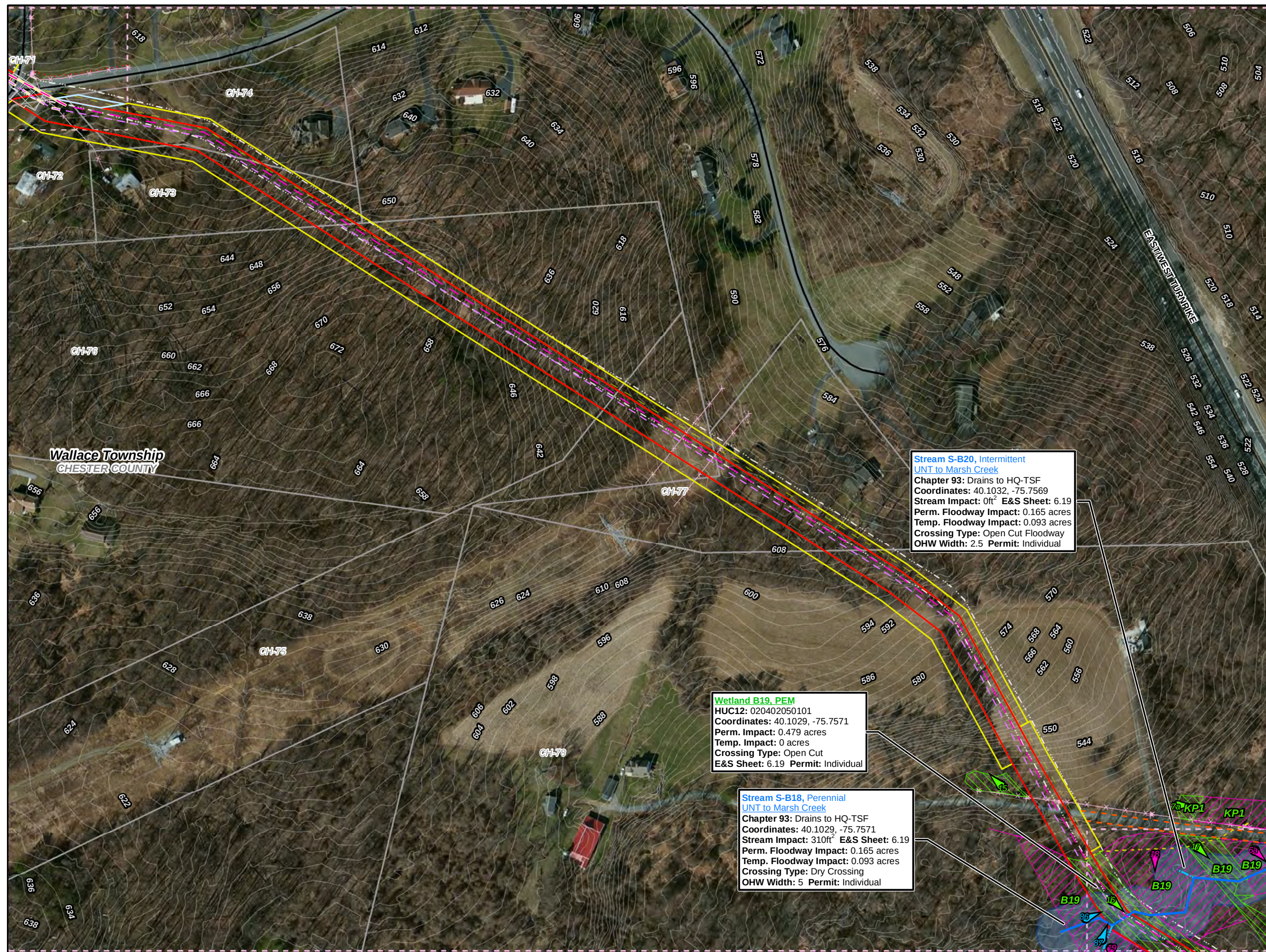
- Swedesford Lateral
- PPP 1
- PPP 2
- PPP 1 Bore
- PPP 2 Bore
- PPP 1 HDD
- PPP 2 HDD
- Permanent ROW
- Temporary ROW
- ATWS
- Block Valve Setting LOD
- Existing Block Valve Setting
- Permanent Access Road
- Temporary Access Road
- Clearing Only
- Travel Only
- Permanent Easement (no surface disturbance)
- Stations
- Ephemeral Stream
- Intermittent Stream
- Perennial Stream
- Pond
- PEM Wetland
- PFO Wetland
- PSS Wetland
- Ch. 105 Floodways
- Waived Ch. 105 Floodways
- Ch. 106 Floodplain Fringe

1 inch = 200 feet

Site Plan for the Sunoco Pennsylvania Pipeline Project, Chester County, PA.
Sheet 10 of 48

Prepared By: 	Date: 5/2016
-------------------------	------------------------

Base Map; ESRI ArcGIS Online, Roads from NRCS Geospatial Data Giveaway, 100-Year Floodplain from FEMA National Flood Hazard Layer, downloaded 10/2015.
Coordinate System: NAD 83 Stateplane, PA South, Feet



Legend

- Swedesford Lateral
- PPP 1
- PPP 2
- PPP 1 Bore
- PPP 2 Bore
- PPP 1 HDD
- PPP 2 HDD
- Permanent ROW
- Temporary ROW
- ATWS
- Block Valve Setting LOD
- Existing Block Valve Setting
- Permanent Access Road
- Temporary Access Road
- Clearing Only
- Travel Only
- Permanent Easement (no surface disturbance)
- Stations
- Ephemeral Stream
- Intermittent Stream
- Perennial Stream
- Pond
- PEM Wetland
- PFO Wetland
- PSS Wetland
- Ch. 105 Floodways
- Waived Ch. 105 Floodways
- Ch. 106 Floodplain Fringe

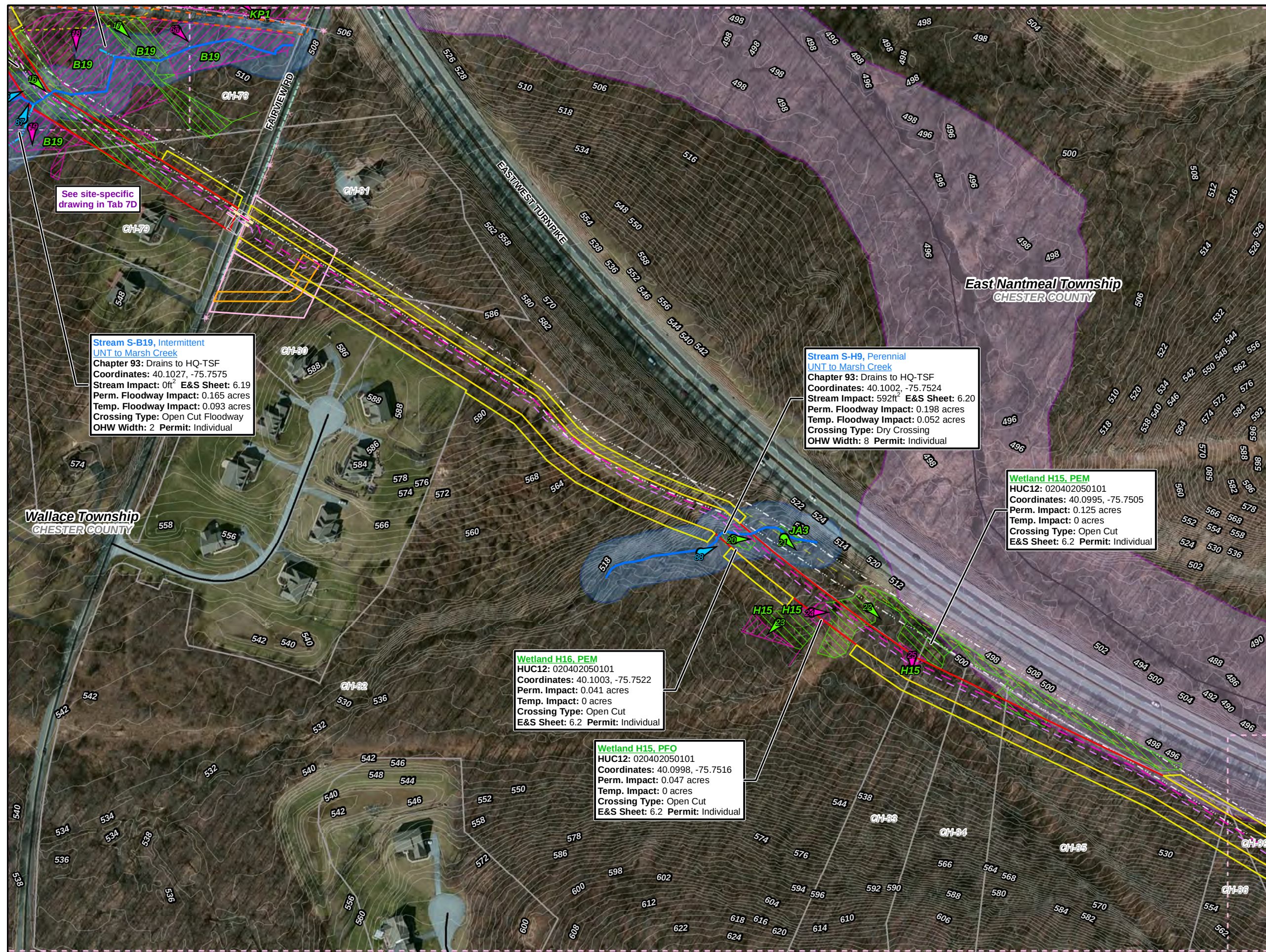
1 inch = 200 feet

Site Plan for the Sunoco Pennsylvania Pipeline Project, Chester County, PA.
Sheet 11 of 48

Prepared By:	Date:
TETRA TECH	5/2016

Base Map; ESRI ArcGIS Online, Roads from NRCS Geospatial Data Giveaway, 100-Year Floodplain from FEMA National Flood Hazard Layer, downloaded 10/2015.
Coordinate System: NAD 83 Stateplane, PA South, Feet

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See site-specific drawing in Tab 7D

Stream S-B19, Intermittent
UNT to Marsh Creek
Chapter 93: Drains to HQ-TSF
Coordinates: 40.1027, -75.7575
Stream Impact: 0ft² E&S Sheet: 6.19
Perm. Floodway Impact: 0.165 acres
Temp. Floodway Impact: 0.093 acres
Crossing Type: Open Cut Floodway
OHW Width: 2 Permit: Individual

Stream S-H9, Perennial
UNT to Marsh Creek
Chapter 93: Drains to HQ-TSF
Coordinates: 40.1002, -75.7524
Stream Impact: 592ft² E&S Sheet: 6.20
Perm. Floodway Impact: 0.198 acres
Temp. Floodway Impact: 0.052 acres
Crossing Type: Dry Crossing
OHW Width: 8 Permit: Individual

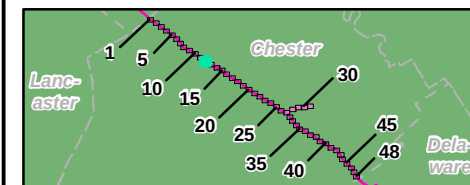
Wetland H15, PEM
HUC12: 020402050101
Coordinates: 40.0995, -75.7505
Perm. Impact: 0.125 acres
Temp. Impact: 0 acres
Crossing Type: Open Cut
E&S Sheet: 6.2 Permit: Individual

Wetland H16, PEM
HUC12: 020402050101
Coordinates: 40.1003, -75.7522
Perm. Impact: 0.041 acres
Temp. Impact: 0 acres
Crossing Type: Open Cut
E&S Sheet: 6.2 Permit: Individual

Wetland H15, PFO
HUC12: 020402050101
Coordinates: 40.0998, -75.7516
Perm. Impact: 0.047 acres
Temp. Impact: 0 acres
Crossing Type: Open Cut
E&S Sheet: 6.2 Permit: Individual

Legend

- Swedesford Lateral
- PPP 1
- PPP 2
- PPP 1 Bore
- PPP 2 Bore
- PPP 1 HDD
- PPP 2 HDD
- Permanent ROW
- Temporary ROW
- ATWS
- Block Valve Setting LOD
- Existing Block Valve Setting
- Permanent Access Road
- Temporary Access Road
- Clearing Only
- Travel Only
- Permanent Easement (no surface disturbance)
- Stations
- Ephemeral Stream
- Intermittent Stream
- Perennial Stream
- Pond
- PEM Wetland
- PFO Wetland
- PSS Wetland
- Ch. 105 Floodways
- Waived Ch. 105 Floodways
- Ch. 106 Floodplain Fringe



0 50 100 200 300 400

1 inch = 200 feet

Site Plan for the Sunoco
Pennsylvania Pipeline Project,
Chester County, PA.
Sheet 12 of 48

Prepared By:



Date:

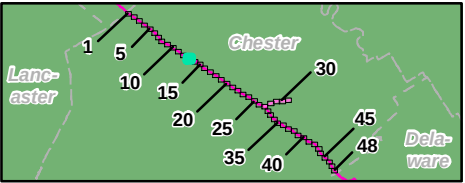
5/2016

Base Map: ESRI ArcGIS Online, Roads from NRCS
Geospatial Data Giveaway, 100-Year Floodplain from
FEMA National Flood Hazard Layer, downloaded 10/2015.

Coordinate System: NAD 83 Stateplane, PA South, Feet



- Legend**
- Swedesford Lateral
 - PPP 1
 - PPP 2
 - PPP 1 Bore
 - PPP 2 Bore
 - PPP 1 HDD
 - PPP 2 HDD
 - Permanent ROW
 - Temporary ROW
 - ATWS
 - Block Valve Setting LOD
 - Existing Block Valve Setting
 - Permanent Access Road
 - Temporary Access Road
 - Clearing Only
 - Travel Only
 - Permanent Easement (no surface disturbance)
 - Stations
 - Ephemeral Stream
 - Intermittent Stream
 - Perennial Stream
 - Pond
 - PEM Wetland
 - PFO Wetland
 - PSS Wetland
 - Ch. 105 Floodways
 - Waived Ch. 105 Floodways
 - Ch. 106 Floodplain Fringe

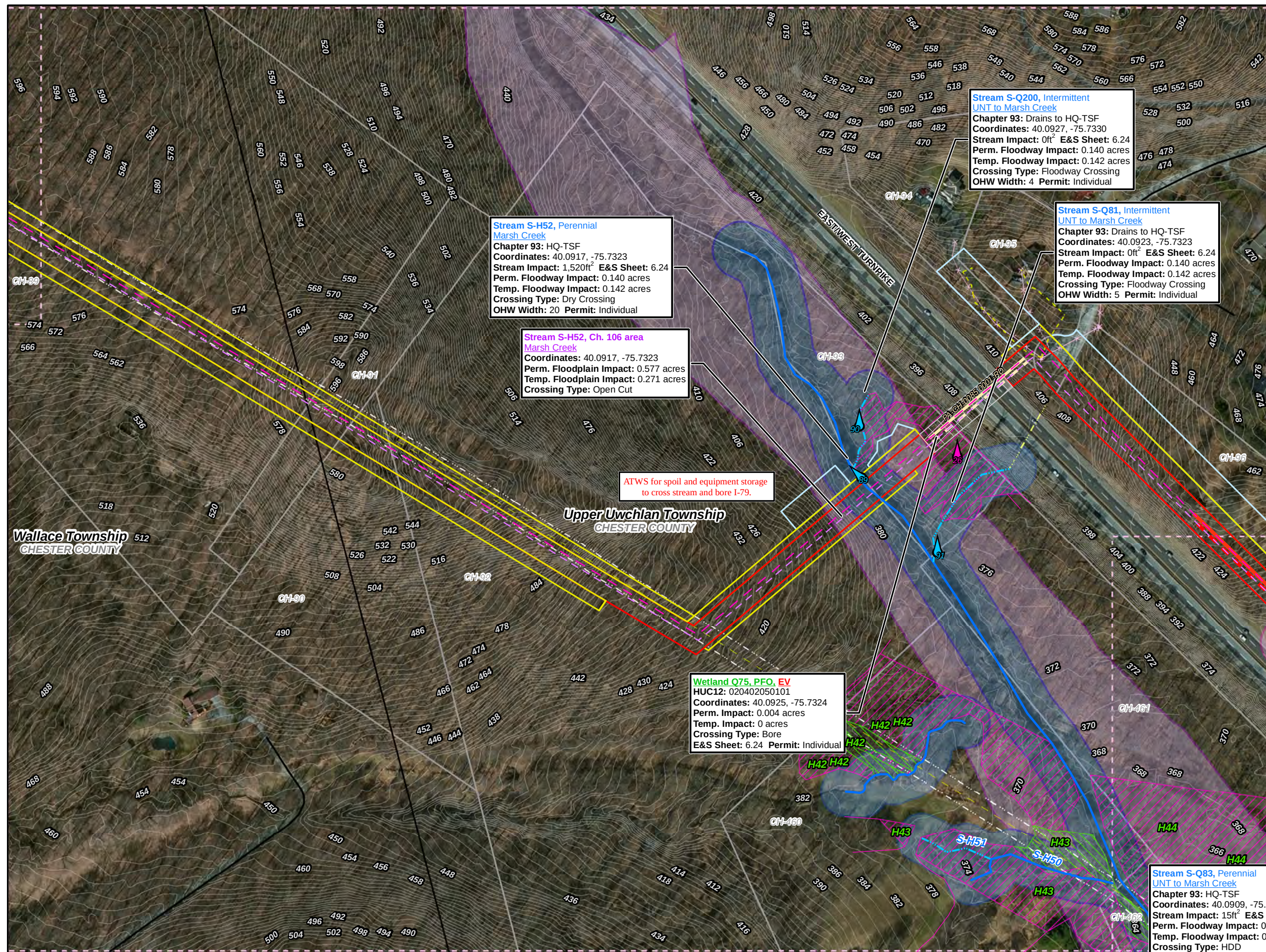


0 50 100 200 300 400
1 inch = 200 feet

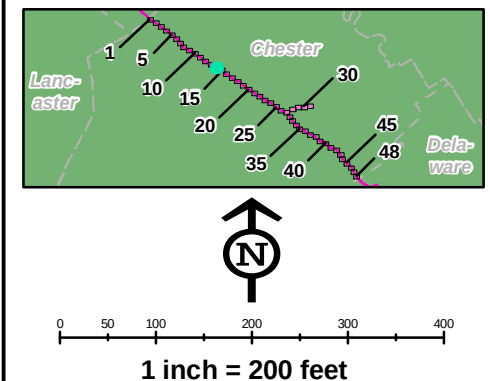
Site Plan for the Sunoco
Pennsylvania Pipeline Project,
Chester County, PA.
Sheet 13 of 48

Prepared By: 	Date: 5/2016
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Base Map; ESRI ArcGIS Online, Roads from NRCS
Geospatial Data Giveaway, 100-Year Floodplain from
FEMA National Flood Hazard Layer, downloaded 10/2015.
Coordinate System: NAD 83 Stateplane, PA South, Feet



- ### Legend
- Swedesford Lateral
 - PPP 1
 - PPP 2
 - PPP 1 Bore
 - PPP 2 Bore
 - PPP 1 HDD
 - PPP 2 HDD
 - Permanent ROW
 - Temporary ROW
 - ATWS
 - Block Valve Setting LOD
 - Existing Block Valve Setting
 - Permanent Access Road
 - Temporary Access Road
 - Clearing Only
 - Travel Only
 - Permanent Easement (no surface disturbance)
 - Stations
 - Ephemeral Stream
 - Intermittent Stream
 - Perennial Stream
 - Pond
 - PEM Wetland
 - PFO Wetland
 - PSS Wetland
 - Ch. 105 Floodways
 - Waived Ch. 105 Floodways
 - Ch. 106 Floodplain Fringe

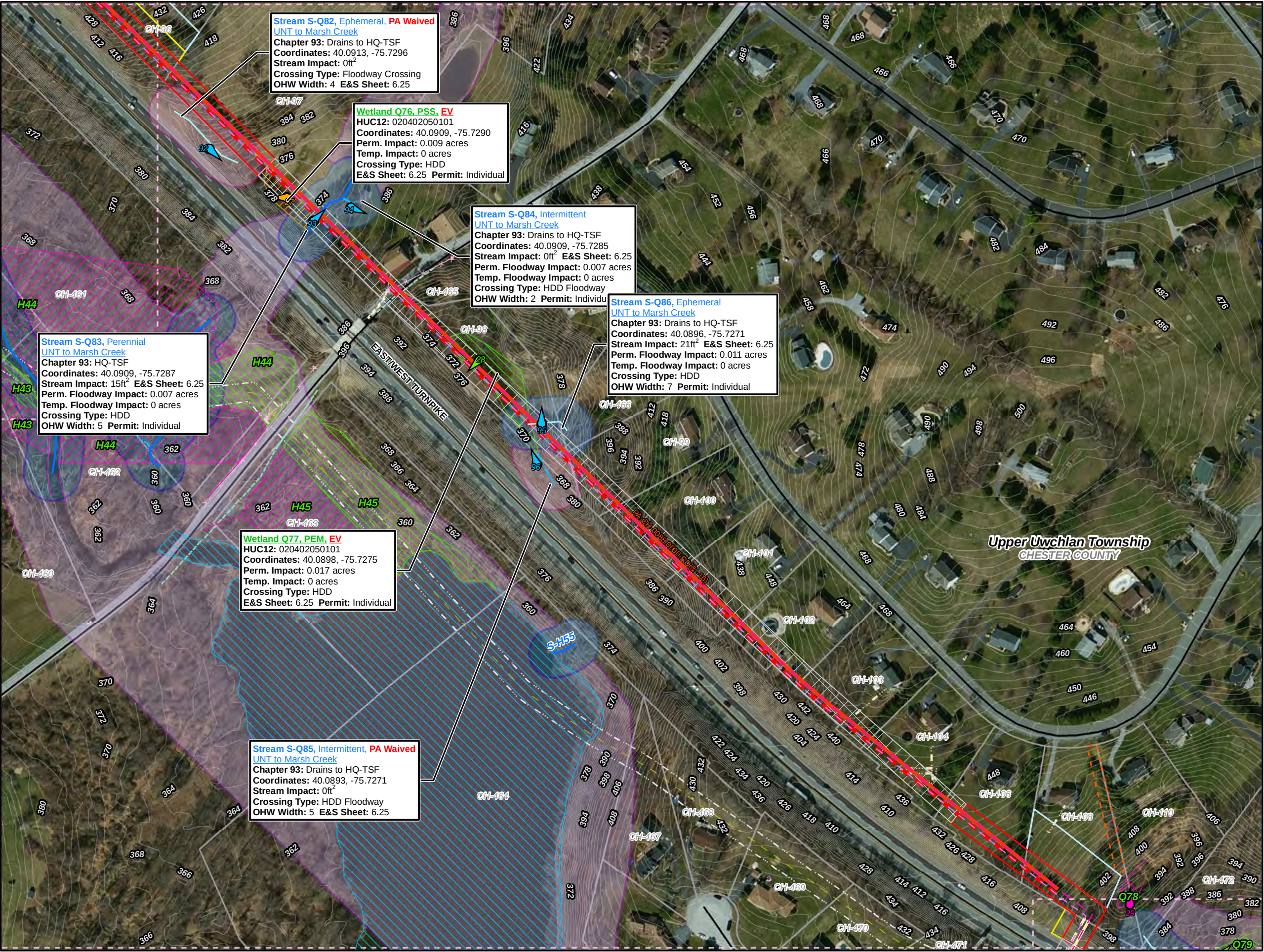


Site Plan for the Sunoco Pennsylvania Pipeline Project, Chester County, PA.
Sheet 14 of 48

Prepared By:	Date:
TETRA TECH	5/2016

Base Map: ESRI ArcGIS Online, Roads from NRCS Geospatial Data Giveaway, 100-Year Floodplain from FEMA National Flood Hazard Layer, downloaded 10/2015.
Coordinate System: NAD 83 Stateplane, PA South, Feet

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Legend

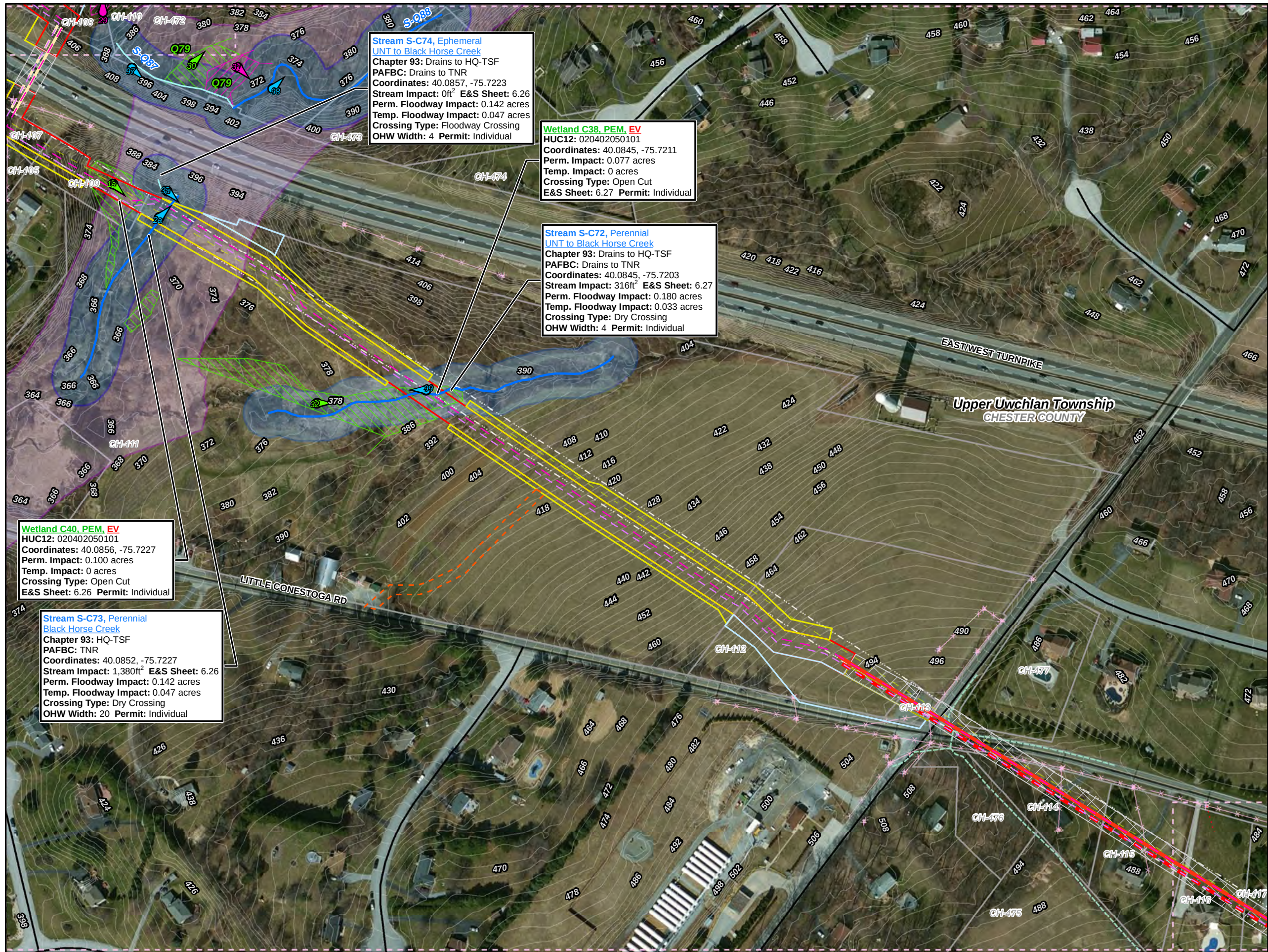
- Swedesford Lateral
- PPP 1
- PPP 2
- PPP 1 Bore
- PPP 2 Bore
- PPP 1 HDD
- PPP 2 HDD
- Permanent ROW
- Temporary ROW
- ATWS
- Block Valve Setting LOD
- Existing Block Valve Setting
- Permanent Access Road
- Temporary Access Road
- Clearing Only
- Travel Only
- Permanent Easement (no surface disturbance)
- Stations
- Ephemeral Stream
- Intermittent Stream
- Perennial Stream
- Pond
- PEM Wetland
- PFO Wetland
- PSS Wetland
- Ch. 105 Floodways
- Waived Ch. 105 Floodways
- Ch. 106 Floodplain Fringe

1 inch = 200 feet

Site Plan for the Sunoco Pennsylvania Pipeline Project, Chester County, PA.
Sheet 15 of 48

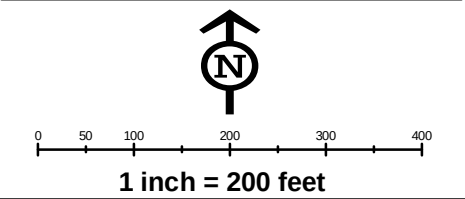
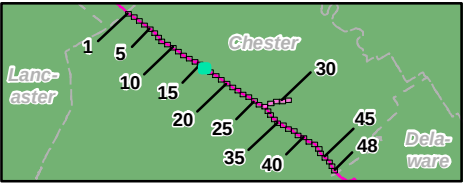
Prepared By:	Date:
TETRA TECH	5/2016

Base Map; ESRI ArcGIS Online, Roads from NRCS Geospatial Data Giveaway, 100-Year Floodplain from FEMA National Flood Hazard Layer, downloaded 10/2015.
Coordinate System: NAD 83 Stateplane, PA South, Feet



Legend

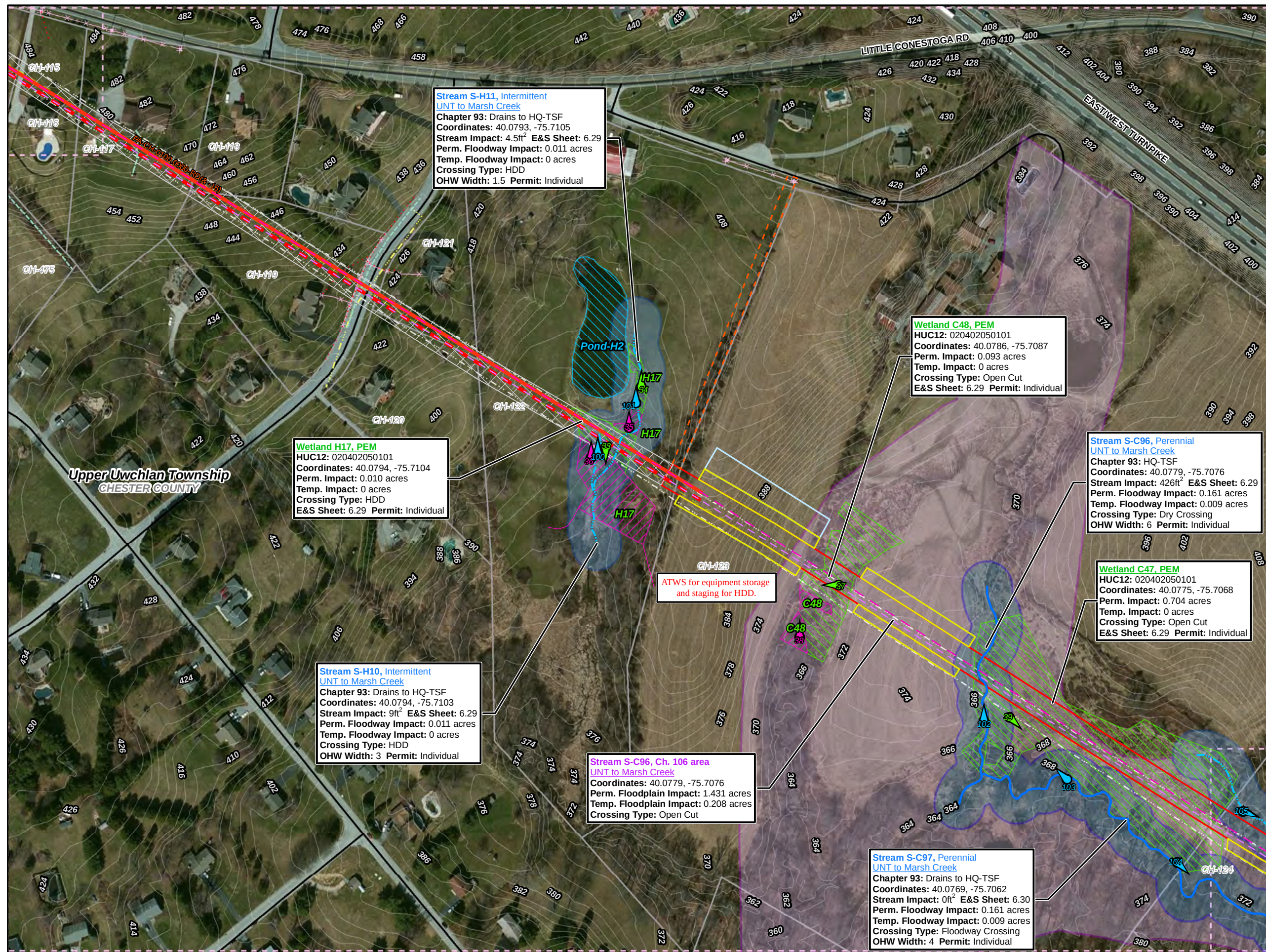
- Swedesford Lateral
- PPP 1
- PPP 2
- PPP 1 Bore
- PPP 2 Bore
- PPP 1 HDD
- PPP 2 HDD
- Permanent ROW
- Temporary ROW
- ATWS
- Block Valve Setting LOD
- Existing Block Valve Setting
- Permanent Access Road
- Temporary Access Road
- Clearing Only
- Travel Only
- Permanent Easement (no surface disturbance)
- Stations
- Ephemeral Stream
- Intermittent Stream
- Perennial Stream
- Pond
- PEM Wetland
- PFO Wetland
- PSS Wetland
- Ch. 105 Floodways
- Waived Ch. 105 Floodways
- Ch. 106 Floodplain Fringe



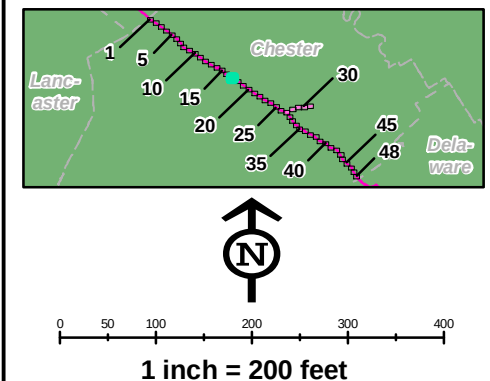
Site Plan for the Sunoco
Pennsylvania Pipeline Project,
Chester County, PA.
Sheet 16 of 48

Prepared By: **TETRA TECH** Date: **5/2016**

Base Map: ESRI ArcGIS Online, Roads from NRCS
Geospatial Data Giveaway, 100-Year Floodplain from
FEMA National Flood Hazard Layer, downloaded 10/2015.
Coordinate System: NAD 83 Stateplane, PA South, Feet



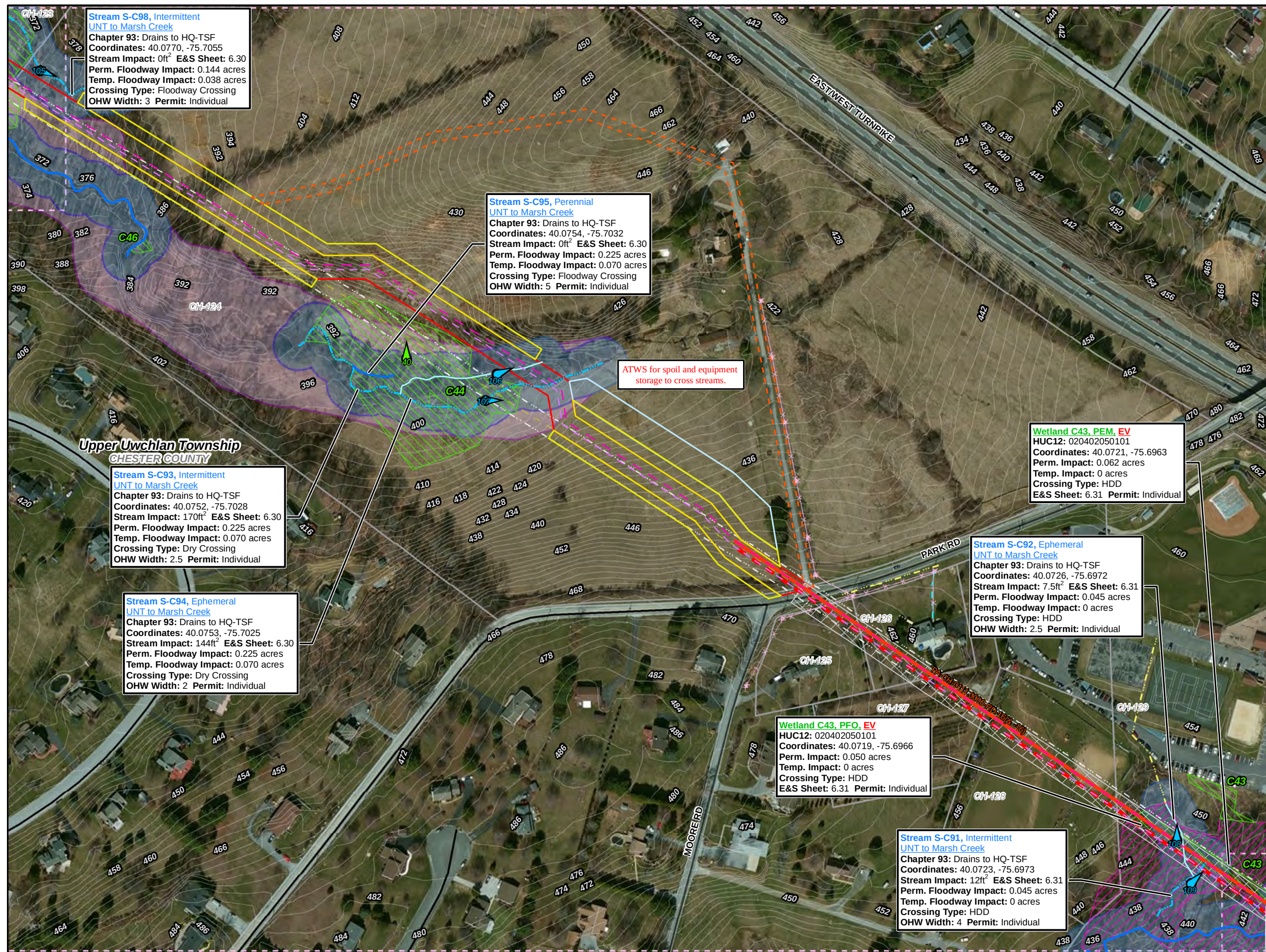
- ### Legend
- Swedesford Lateral
 - PPP 1
 - PPP 2
 - PPP 1 Bore
 - PPP 2 Bore
 - PPP 1 HDD
 - PPP 2 HDD
 - Permanent ROW
 - Temporary ROW
 - ATWS
 - Block Valve Setting LOD
 - Existing Block Valve Setting
 - Permanent Access Road
 - Temporary Access Road
 - Clearing Only
 - Travel Only
 - Permanent Easement (no surface disturbance)
 - Stations
 - Ephemeral Stream
 - Intermittent Stream
 - Perennial Stream
 - Pond
 - PEM Wetland
 - PFO Wetland
 - PSS Wetland
 - Ch. 105 Floodways
 - Waived Ch. 105 Floodways
 - Ch. 106 Floodplain Fringe



Site Plan for the Sunoco Pennsylvania Pipeline Project, Chester County, PA, Sheet 17 of 48

Prepared By: **TETRA TECH** Date: **5/2016**

Base Map; ESRI ArcGIS Online, Roads from NRCS Geospatial Data Giveaway, 100-Year Floodplain from FEMA National Flood Hazard Layer, downloaded 10/2015. Coordinate System: NAD 83 Stateplane, PA South, Feet



Stream S-C98, Intermittent
UNT to Marsh Creek
Chapter 93: Drains to HQ-TSF
Coordinates: 40.0770, -75.7055
Stream Impact: 0ft² E&S Sheet: 6.30
Perm. Floodway Impact: 0.144 acres
Temp. Floodway Impact: 0.038 acres
Crossing Type: Floodway Crossing
OHW Width: 3 Permit: Individual

Stream S-C95, Perennial
UNT to Marsh Creek
Chapter 93: Drains to HQ-TSF
Coordinates: 40.0754, -75.7032
Stream Impact: 0ft² E&S Sheet: 6.30
Perm. Floodway Impact: 0.225 acres
Temp. Floodway Impact: 0.070 acres
Crossing Type: Floodway Crossing
OHW Width: 5 Permit: Individual

ATWS for spoil and equipment
storage to cross streams.

Stream S-C93, Intermittent
UNT to Marsh Creek
Chapter 93: Drains to HQ-TSF
Coordinates: 40.0752, -75.7028
Stream Impact: 170ft² E&S Sheet: 6.30
Perm. Floodway Impact: 0.225 acres
Temp. Floodway Impact: 0.070 acres
Crossing Type: Dry Crossing
OHW Width: 2.5 Permit: Individual

Stream S-C94, Ephemeral
UNT to Marsh Creek
Chapter 93: Drains to HQ-TSF
Coordinates: 40.0753, -75.7025
Stream Impact: 144ft² E&S Sheet: 6.30
Perm. Floodway Impact: 0.225 acres
Temp. Floodway Impact: 0.070 acres
Crossing Type: Dry Crossing
OHW Width: 2 Permit: Individual

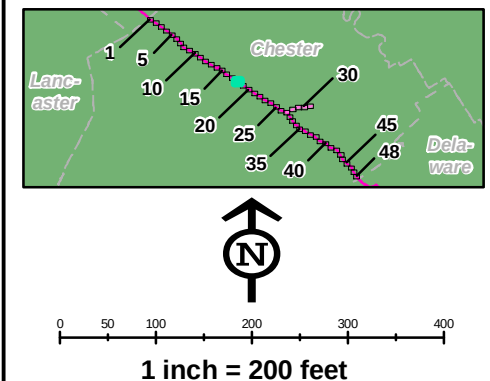
Wetland C43, PEM, EV
HUC12: 020402050101
Coordinates: 40.0721, -75.6963
Perm. Impact: 0.062 acres
Temp. Impact: 0 acres
Crossing Type: HDD
E&S Sheet: 6.31 Permit: Individual

Stream S-C92, Ephemeral
UNT to Marsh Creek
Chapter 93: Drains to HQ-TSF
Coordinates: 40.0726, -75.6972
Stream Impact: 7.5ft² E&S Sheet: 6.31
Perm. Floodway Impact: 0.045 acres
Temp. Floodway Impact: 0 acres
Crossing Type: HDD
OHW Width: 2.5 Permit: Individual

Wetland C43, PFO, EV
HUC12: 020402050101
Coordinates: 40.0719, -75.6966
Perm. Impact: 0.050 acres
Temp. Impact: 0 acres
Crossing Type: HDD
E&S Sheet: 6.31 Permit: Individual

Stream S-C91, Intermittent
UNT to Marsh Creek
Chapter 93: Drains to HQ-TSF
Coordinates: 40.0723, -75.6973
Stream Impact: 12ft² E&S Sheet: 6.31
Perm. Floodway Impact: 0.045 acres
Temp. Floodway Impact: 0 acres
Crossing Type: HDD
OHW Width: 4 Permit: Individual

- ### Legend
- Swedesford Lateral
 - PPP 1
 - PPP 2
 - PPP 1 Bore
 - PPP 2 Bore
 - PPP 1 HDD
 - PPP 2 HDD
 - Permanent ROW
 - Temporary ROW
 - ATWS
 - Block Valve Setting LOD
 - Existing Block Valve Setting
 - Permanent Access Road
 - Temporary Access Road
 - Clearing Only
 - Travel Only
 - Permanent Easement (no surface disturbance)
 - Stations
 - Ephemeral Stream
 - Intermittent Stream
 - Perennial Stream
 - Pond
 - PEM Wetland
 - PFO Wetland
 - PSS Wetland
 - Ch. 105 Floodways
 - Waived Ch. 105 Floodways
 - Ch. 106 Floodplain Fringe

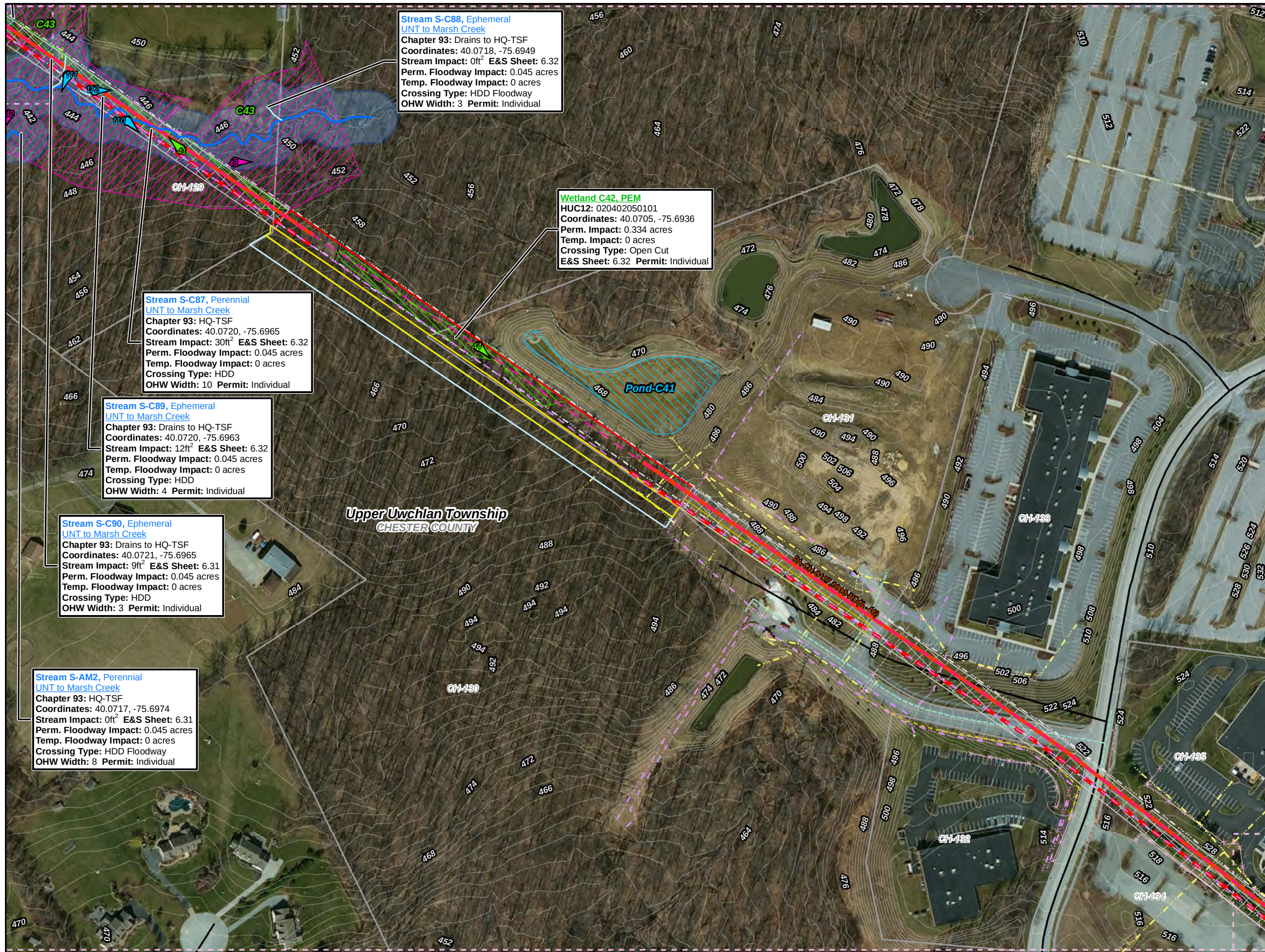


Site Plan for the Sunoco Pennsylvania Pipeline Project, Chester County, PA.
Sheet 18 of 48

Prepared By:	Date:
TETRA TECH	5/2016

Base Map: ESRI ArcGIS Online, Roads from NRCS Geospatial Data Giveaway, 100-Year Floodplain from FEMA National Flood Hazard Layer, downloaded 10/2015.
Coordinate System: NAD 83 Stateplane, PA South, Feet

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Stream S-C88, Ephemeral
UNT to Marsh Creek
Chapter 93: Drains to HQ-TSF
Coordinates: 40.0718, -75.6949
Stream Impact: 0ft² E&S Sheet: 6.32
Perm. Floodway Impact: 0.045 acres
Temp. Floodway Impact: 0 acres
Crossing Type: HDD Floodway
OHW Width: 3 Permit: Individual

Wetland C42, PEM
HUC12: 020402050101
Coordinates: 40.0705, -75.6936
Perm. Impact: 0.334 acres
Temp. Impact: 0 acres
Crossing Type: Open Cut
E&S Sheet: 6.32 Permit: Individual

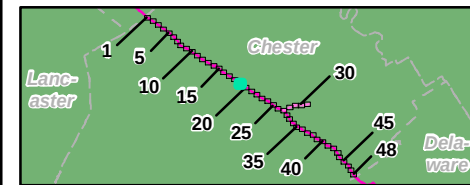
Stream S-C87, Perennial
UNT to Marsh Creek
Chapter 93: HQ-TSF
Coordinates: 40.0720, -75.6965
Stream Impact: 30ft² E&S Sheet: 6.32
Perm. Floodway Impact: 0.045 acres
Temp. Floodway Impact: 0 acres
Crossing Type: HDD
OHW Width: 10 Permit: Individual

Stream S-C89, Ephemeral
UNT to Marsh Creek
Chapter 93: Drains to HQ-TSF
Coordinates: 40.0720, -75.6963
Stream Impact: 12ft² E&S Sheet: 6.32
Perm. Floodway Impact: 0.045 acres
Temp. Floodway Impact: 0 acres
Crossing Type: HDD
OHW Width: 4 Permit: Individual

Stream S-C90, Ephemeral
UNT to Marsh Creek
Chapter 93: Drains to HQ-TSF
Coordinates: 40.0721, -75.6965
Stream Impact: 9ft² E&S Sheet: 6.31
Perm. Floodway Impact: 0.045 acres
Temp. Floodway Impact: 0 acres
Crossing Type: HDD
OHW Width: 3 Permit: Individual

Stream S-AM2, Perennial
UNT to Marsh Creek
Chapter 93: HQ-TSF
Coordinates: 40.0717, -75.6974
Stream Impact: 0ft² E&S Sheet: 6.31
Perm. Floodway Impact: 0.045 acres
Temp. Floodway Impact: 0 acres
Crossing Type: HDD Floodway
OHW Width: 8 Permit: Individual

- Legend**
- Swedesford Lateral
 - PPP 1
 - PPP 2
 - PPP 1 Bore
 - PPP 2 Bore
 - PPP 1 HDD
 - PPP 2 HDD
 - Permanent ROW
 - Temporary ROW
 - ATWS
 - Block Valve Setting LOD
 - Existing Block Valve Setting
 - Permanent Access Road
 - Temporary Access Road
 - Clearing Only
 - Travel Only
 - Permanent Easement (no surface disturbance)
 - Stations
 - Ephemeral Stream
 - Intermittent Stream
 - Perennial Stream
 - Pond
 - PEM Wetland
 - PFO Wetland
 - PSS Wetland
 - Ch. 105 Floodways
 - Waived Ch. 105 Floodways
 - Ch. 106 Floodplain Fringe



0 50 100 200 300 400
1 inch = 200 feet

Site Plan for the Sunoco
Pennsylvania Pipeline Project,
Chester County, PA.
Sheet 19 of 48

Prepared By:

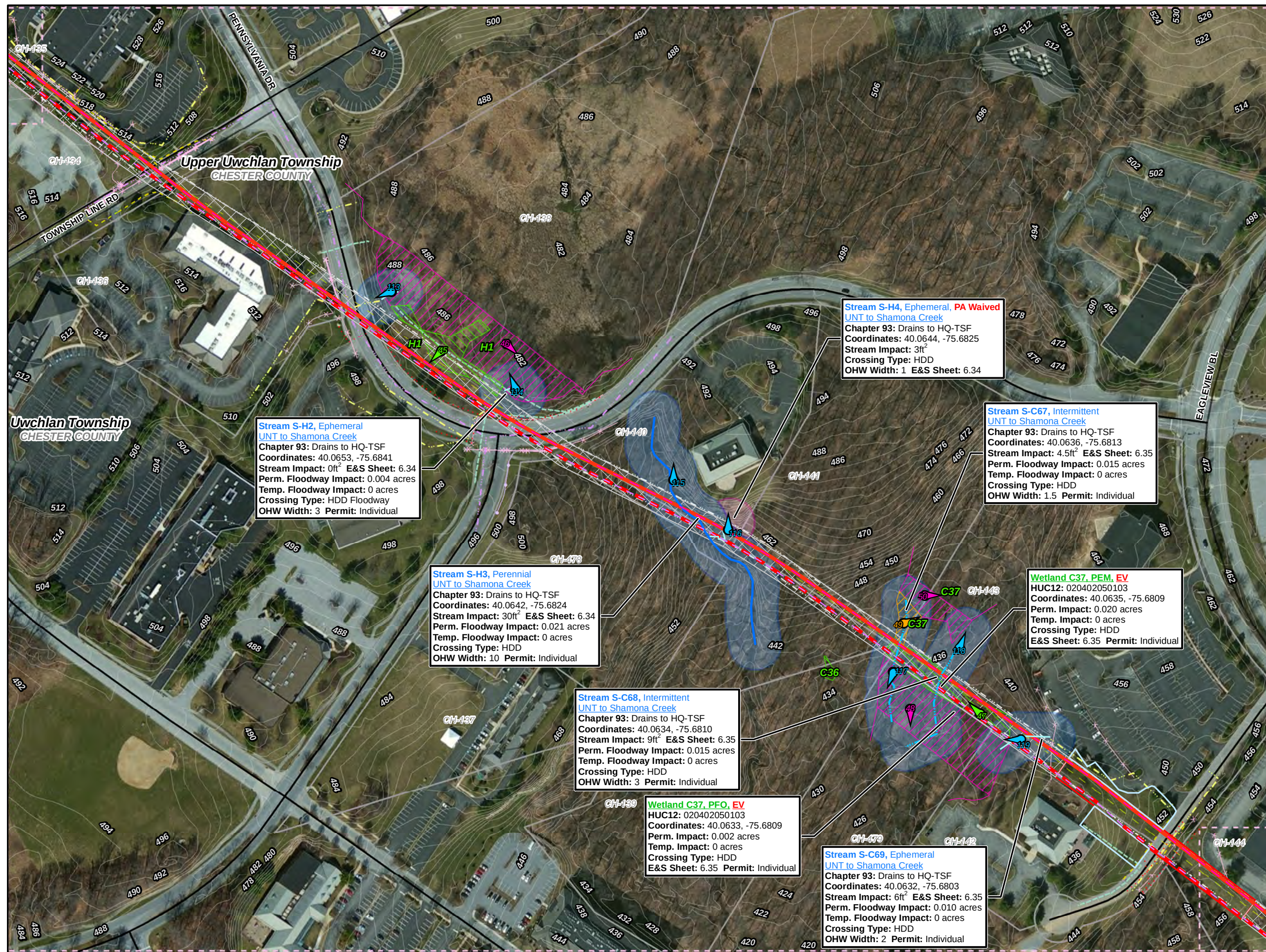


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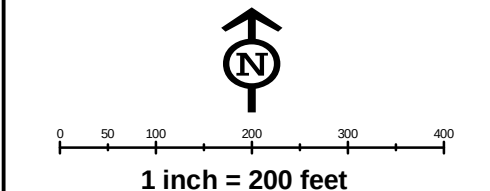
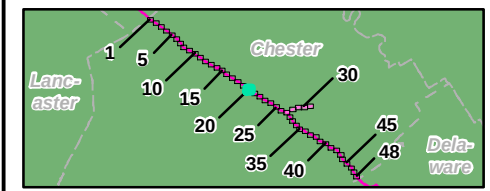
5/2016

Base Map: ESRI ArcGIS Online, Roads from NRCS
Geospatial Data Giveaway, 100-Year Floodplain from
FEMA National Flood Hazard Layer, downloaded 10/2015.

Coordinate System: NAD 83 Stateplane, PA South, Feet



- ### Legend
- Swedesford Lateral
 - PPP 1
 - PPP 2
 - PPP 1 Bore
 - PPP 2 Bore
 - PPP 1 HDD
 - PPP 2 HDD
 - Permanent ROW
 - Temporary ROW
 - ATWS
 - Block Valve Setting LOD
 - Existing Block Valve Setting
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 - Temporary Access Road
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 - Pond
 - PEM Wetland
 - PFO Wetland
 - PSS Wetland
 - Ch. 105 Floodways
 - Waived Ch. 105 Floodways
 - Ch. 106 Floodplain Fringe

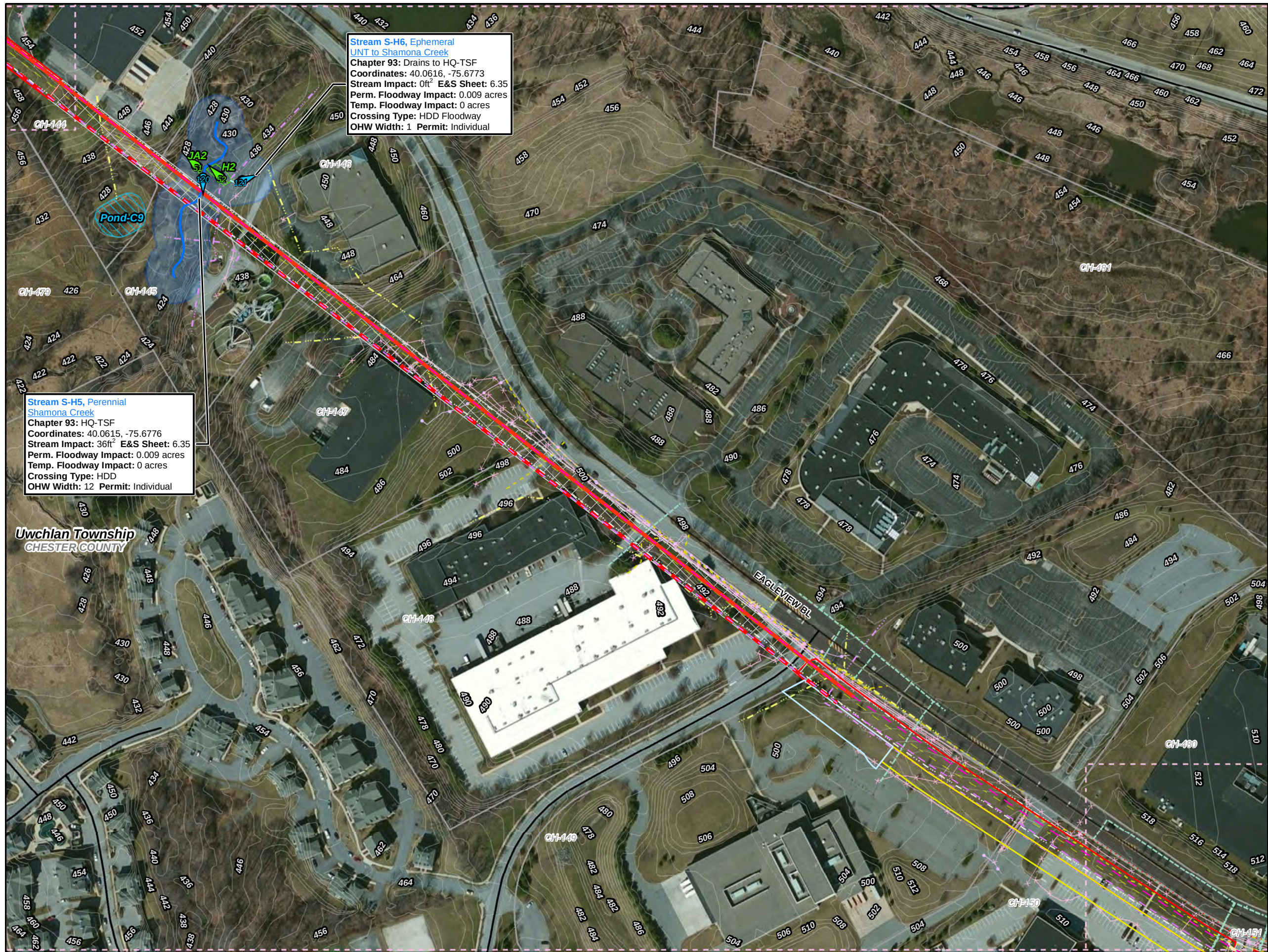


Site Plan for the Sunoco
Pennsylvania Pipeline Project,
Chester County, PA.
Sheet 20 of 48

Prepared By:  TETRA TECH Date: 5/2016

Base Map: ESRI ArcGIS Online, Roads from NRCS
Geospatial Data Giveaway, 100-Year Floodplain from
FEMA National Flood Hazard Layer, downloaded 10/2015.
Coordinate System: NAD 83 Stateplane, PA South, Feet

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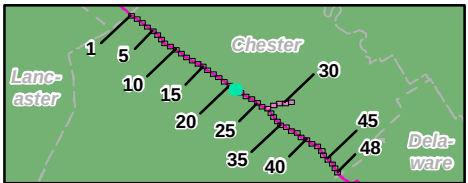
Stream S-H6, Ephemeral
UNT to Shamona Creek
Chapter 93: Drains to HQ-TSF
Coordinates: 40.0616, -75.6773
Stream Impact: 0ft² E&S Sheet: 6.35
Perm. Floodway Impact: 0.009 acres
Temp. Floodway Impact: 0 acres
Crossing Type: HDD Floodway
OHW Width: 1 Permit: Individual

Stream S-H5, Perennial
Shamona Creek
Chapter 93: HQ-TSF
Coordinates: 40.0615, -75.6776
Stream Impact: 36ft² E&S Sheet: 6.35
Perm. Floodway Impact: 0.009 acres
Temp. Floodway Impact: 0 acres
Crossing Type: HDD
OHW Width: 12 Permit: Individual

Uwchlan Township
CHESTER COUNTY

Legend

- Swedesford Lateral
- PPP 1
- PPP 2
- PPP 1 Bore
- PPP 2 Bore
- PPP 1 HDD
- PPP 2 HDD
- Permanent ROW
- Temporary ROW
- ATWS
- Block Valve Setting LOD
- Existing Block Valve Setting
- Permanent Access Road
- Temporary Access Road
- Clearing Only
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- Permanent Easement (no surface disturbance)
- Stations
- Ephemeral Stream
- Intermittent Stream
- Perennial Stream
- Pond
- PEM Wetland
- PFO Wetland
- PSS Wetland
- Ch. 105 Floodways
- Waived Ch. 105 Floodways
- Ch. 106 Floodplain Fringe



0 50 100 200 300 400

1 inch = 200 feet

Site Plan for the Sunoco
Pennsylvania Pipeline Project,
Chester County, PA.
Sheet 21 of 48

Prepared By:



Date:

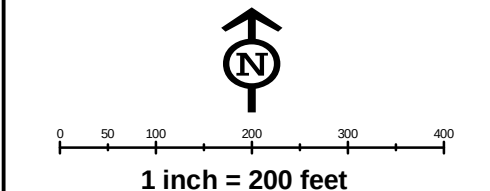
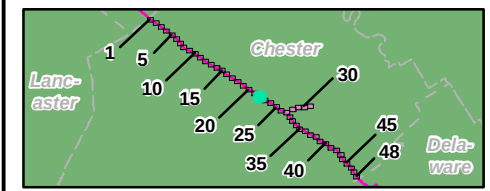
5/2016

Base Map; ESRI ArcGIS Online, Roads from NRCS
Geospatial Data Giveaway, 100-Year Floodplain from
FEMA National Flood Hazard Layer, downloaded 10/2015.

Coordinate System: NAD 83 Stateplane, PA South, Feet



- Legend**
- Swedesford Lateral
 - PPP 1
 - PPP 2
 - PPP 1 Bore
 - PPP 2 Bore
 - PPP 1 HDD
 - PPP 2 HDD
 - Permanent ROW
 - Temporary ROW
 - ATWS
 - Block Valve Setting LOD
 - Existing Block Valve Setting
 - Permanent Access Road
 - Temporary Access Road
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 - Perennial Stream
 - Pond
 - PEM Wetland
 - PFO Wetland
 - PSS Wetland
 - Ch. 105 Floodways
 - Waived Ch. 105 Floodways
 - Ch. 106 Floodplain Fringe

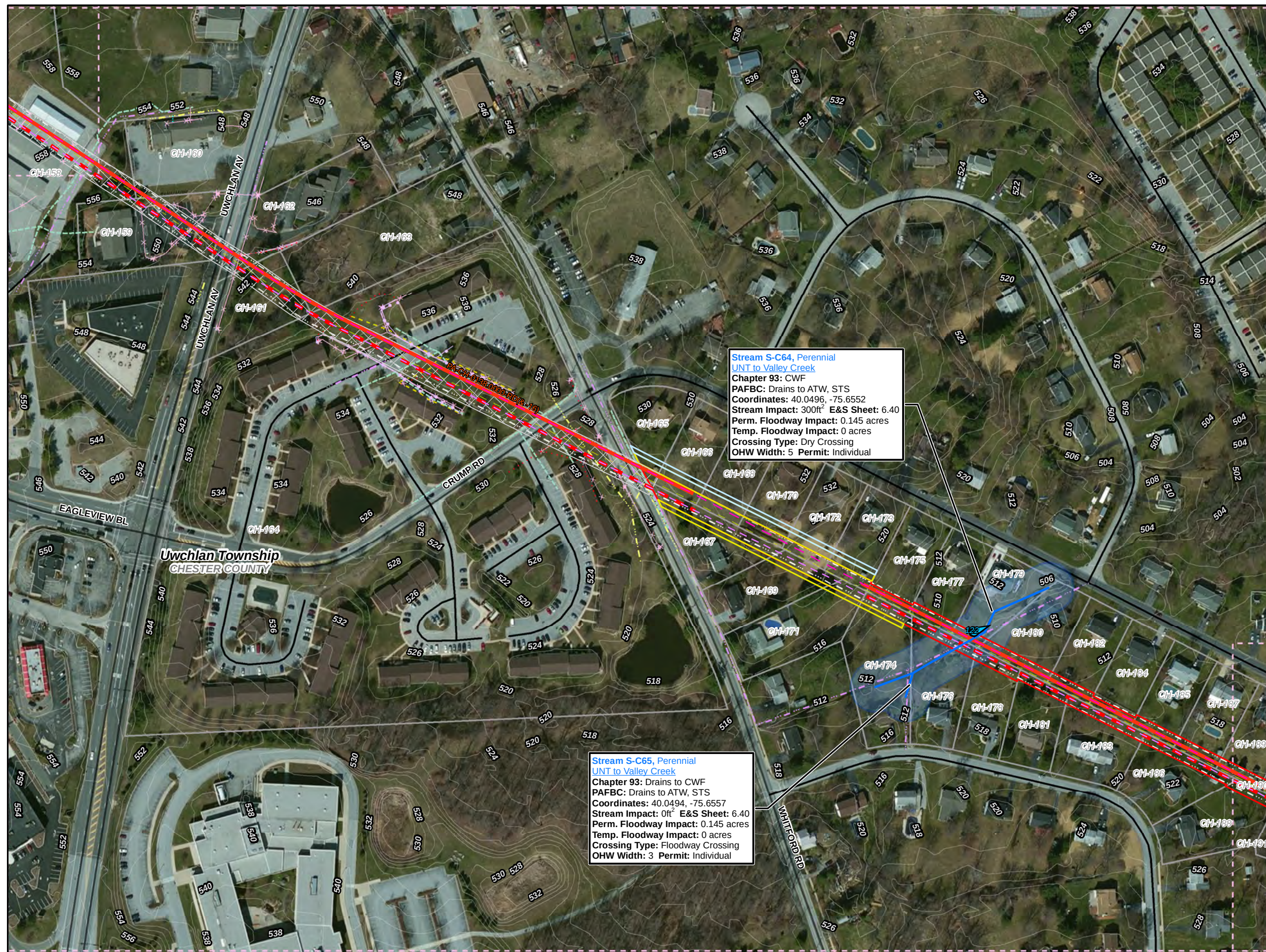


Site Plan for the Sunoco
Pennsylvania Pipeline Project,
Chester County, PA.
Sheet 22 of 48

Prepared By:  TETRA TECH Date: 5/2016

Base Map; ESRI ArcGIS Online, Roads from NRCS Geospatial Data Giveaway, 100-Year Floodplain from FEMA National Flood Hazard Layer, downloaded 10/2015.
Coordinate System: NAD 83 Stateplane, PA South, Feet

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Stream S-C64, Perennial
UNT to Valley Creek
Chapter 93: CWF
PAFBC: Drains to ATW, STS
Coordinates: 40.0496, -75.6552
Stream Impact: 300ft² E&S Sheet: 6.40
Perm. Floodway Impact: 0.145 acres
Temp. Floodway Impact: 0 acres
Crossing Type: Dry Crossing
OHW Width: 5 Permit: Individual

Stream S-C65, Perennial
UNT to Valley Creek
Chapter 93: Drains to CWF
PAFBC: Drains to ATW, STS
Coordinates: 40.0494, -75.6557
Stream Impact: 0ft² E&S Sheet: 6.40
Perm. Floodway Impact: 0.145 acres
Temp. Floodway Impact: 0 acres
Crossing Type: Floodway Crossing
OHW Width: 3 Permit: Individual

Legend

- Swedesford Lateral
- PPP 1
- PPP 2
- PPP 1 Bore
- PPP 2 Bore
- PPP 1 HDD
- PPP 2 HDD
- Permanent ROW
- Temporary ROW
- ATWS
- Block Valve Setting LOD
- Existing Block Valve Setting
- Permanent Access Road
- Temporary Access Road
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- Pond
- PEM Wetland
- PFO Wetland
- PSS Wetland
- Ch. 105 Floodways
- Waived Ch. 105 Floodways
- Ch. 106 Floodplain Fringe

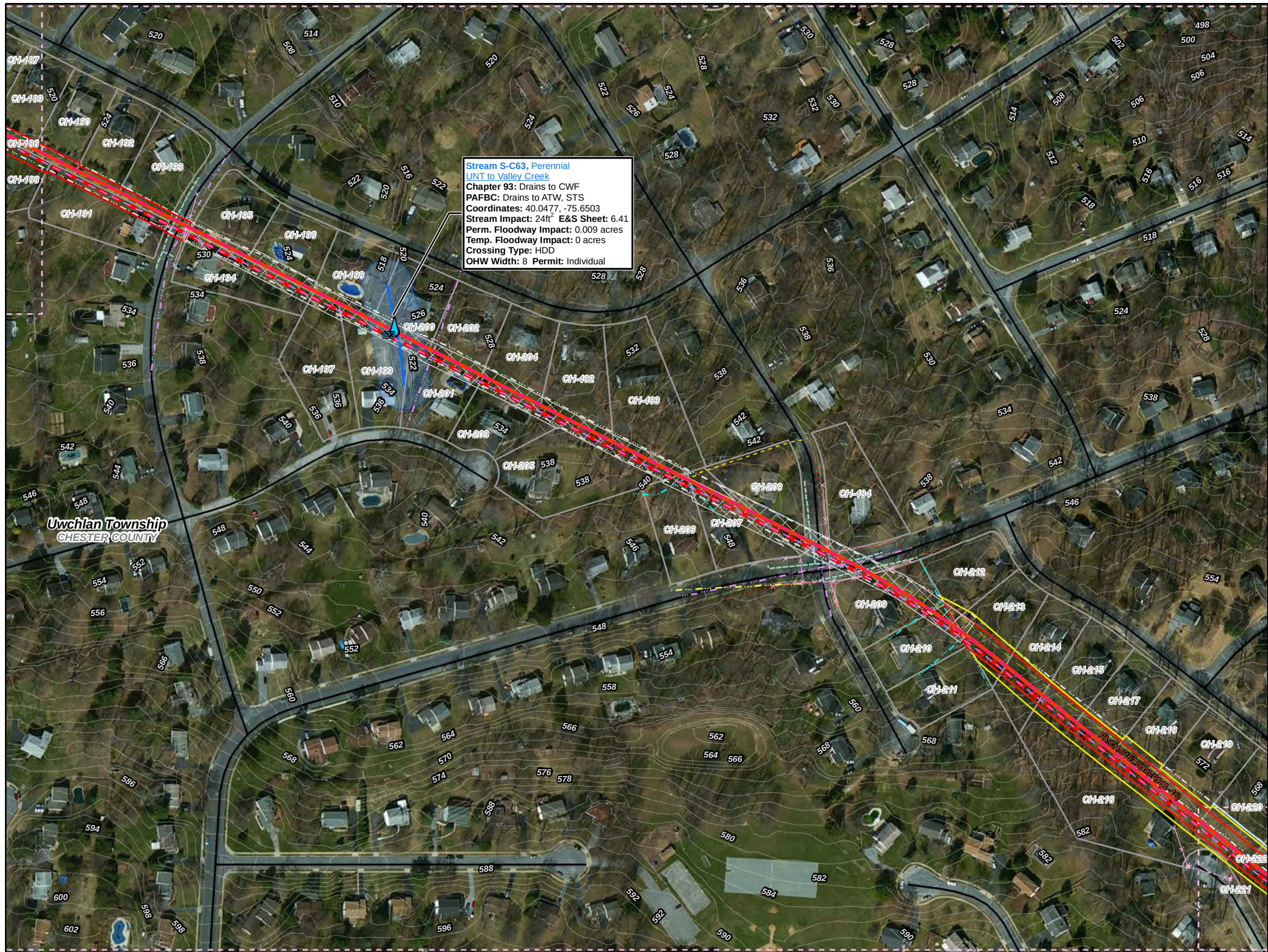
1 inch = 200 feet

Site Plan for the Sunoco Pennsylvania Pipeline Project, Chester County, PA.
Sheet 23 of 48

Prepared By:	Date:
TETRA TECH	5/2016

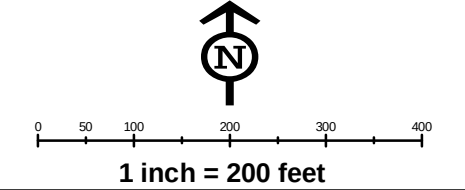
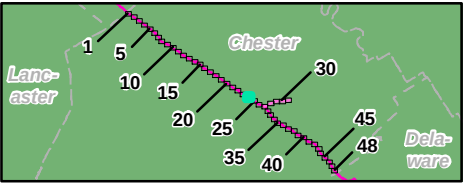
Base Map: ESRI ArcGIS Online, Roads from NRCS Geospatial Data Giveaway, 100-Year Floodplain from FEMA National Flood Hazard Layer, downloaded 10/2015.
Coordinate System: NAD 83 Stateplane, PA South, Feet

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Legend

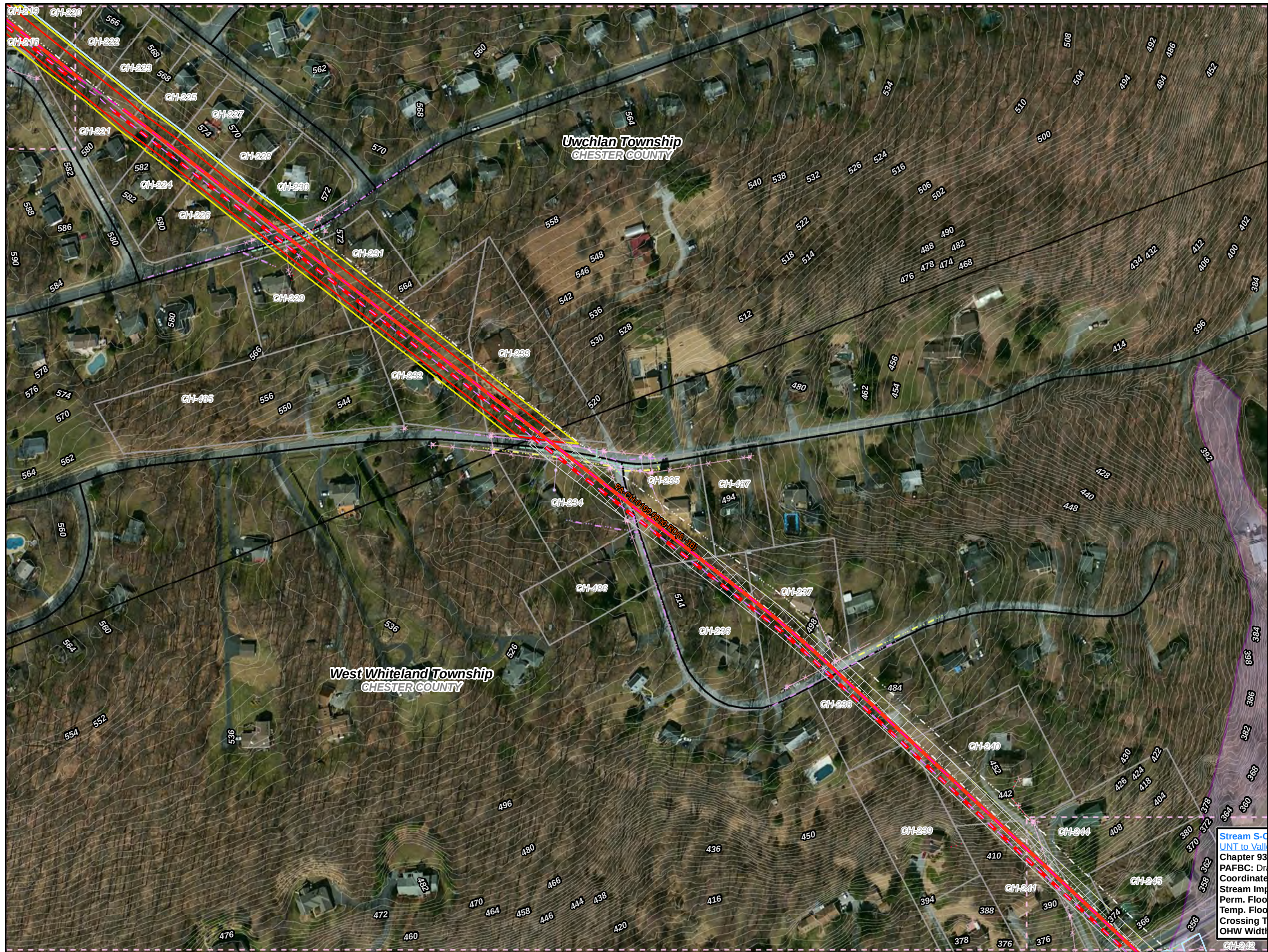
- Swedesford Lateral
- PPP 1
- PPP 2
- PPP 1 Bore
- PPP 2 Bore
- PPP 1 HDD
- PPP 2 HDD
- Permanent ROW
- Temporary ROW
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- Block Valve Setting LOD
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- Permanent Access Road
- Temporary Access Road
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- Perennial Stream
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- PEM Wetland
- PFO Wetland
- PSS Wetland
- Ch. 105 Floodways
- Waived Ch. 105 Floodways
- Ch. 106 Floodplain Fringe



Site Plan for the Sunoco
Pennsylvania Pipeline Project,
Chester County, PA.
Sheet 24 of 48

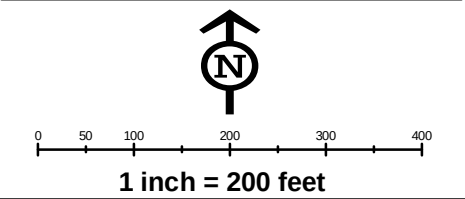
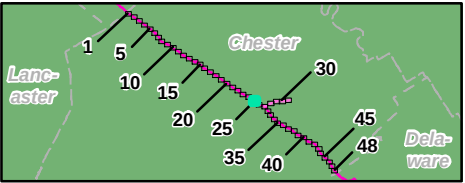
Prepared By:	Date:
 TETRA TECH	5/2016

Base Map: ESRI ArcGIS Online, Roads from NRCS
Geospatial Data Giveaway, 100-Year Floodplain from
FEMA National Flood Hazard Layer, downloaded 10/2015.
Coordinate System: NAD 83 Stateplane, PA South, Feet



Legend

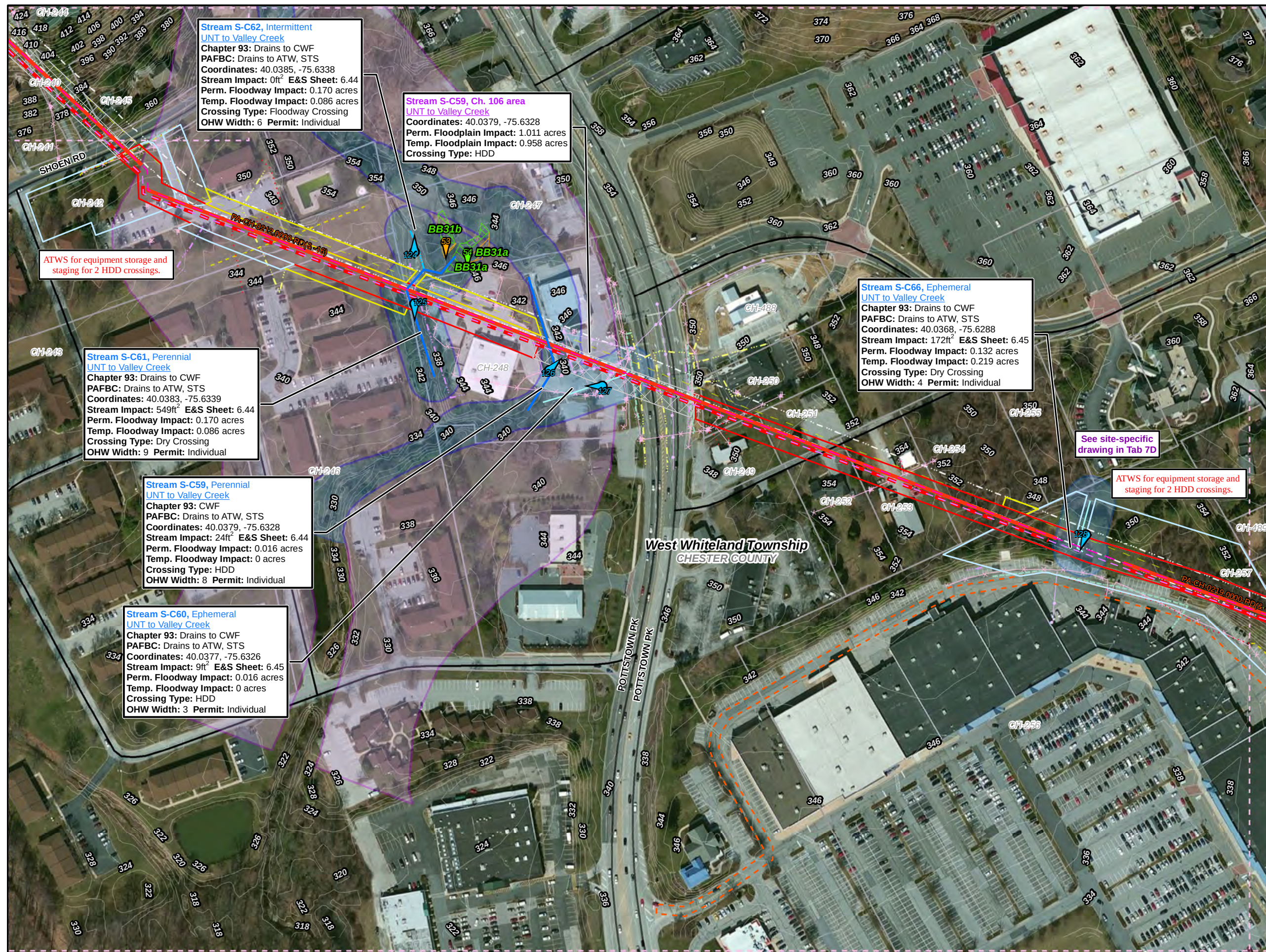
- Swedesford Lateral
- PPP 1
- PPP 2
- PPP 1 Bore
- PPP 2 Bore
- PPP 1 HDD
- PPP 2 HDD
- Permanent ROW
- Temporary ROW
- ATWS
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- Existing Block Valve Setting
- Permanent Access Road
- Temporary Access Road
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- PEM Wetland
- PFO Wetland
- PSS Wetland
- Ch. 105 Floodways
- Waived Ch. 105 Floodways
- Ch. 106 Floodplain Fringe



Site Plan for the Sunoco
Pennsylvania Pipeline Project,
Chester County, PA.
Sheet 25 of 48

Prepared By: TETRA TECH Date: 5/2016

Base Map; ESRI ArcGIS Online, Roads from NRCS
Geospatial Data Giveaway, 100-Year Floodplain from
FEMA National Flood Hazard Layer, downloaded 10/2015.
Coordinate System: NAD 83 Stateplane, PA South, Feet



Legend

- Swedesford Lateral
- PPP 1
- PPP 2
- PPP 1 Bore
- PPP 2 Bore
- PPP 1 HDD
- PPP 2 HDD
- Permanent ROW
- Temporary ROW
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- Existing Block Valve Setting
- Permanent Access Road
- Temporary Access Road
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- PSS Wetland
- Ch. 105 Floodways
- Waived Ch. 105 Floodways
- Ch. 106 Floodplain Fringe

1 inch = 200 feet

Site Plan for the Sunoco Pennsylvania Pipeline Project, Chester County, PA. Sheet 26 of 48

Prepared By:	Date:
TETRA TECH	5/2016

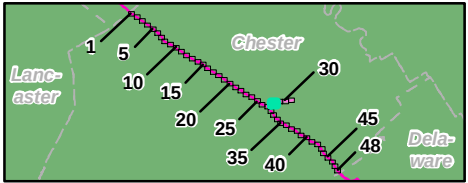
Base Map: ESRI ArcGIS Online, Roads from NRCS Geospatial Data Giveaway, 100-Year Floodplain from FEMA National Flood Hazard Layer, downloaded 10/2015.
Coordinate System: NAD 83 Stateplane, PA South, Feet



Stream S-BB28, Perennial
UNT to Valley Creek
Chapter 93: CWF
Coordinates: 40.0375, -75.6161
Stream Impact: 36ft E&S Sheet: 6.76
Perm. Floodway Impact: 0.006 acres
Temp. Floodway Impact: 0 acres
Crossing Type: HDD
OHW Width: 12 Permit: Individual

Legend

- Swedesford Lateral
- PPP 1
- PPP 2
- PPP 1 Bore
- PPP 2 Bore
- PPP 1 HDD
- PPP 2 HDD
- Permanent ROW
- Temporary ROW
- ATWS
- Block Valve Setting LOD
- Existing Block Valve Setting
- Permanent Access Road
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- Stations
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- PSS Wetland
- Ch. 105 Floodways
- Waived Ch. 105 Floodways
- Ch. 106 Floodplain Fringe



0 50 100 200 300 400

1 inch = 200 feet

Site Plan for the Sunoco
Pennsylvania Pipeline Project,
Chester County, PA.
Sheet 28 of 48

Prepared By:



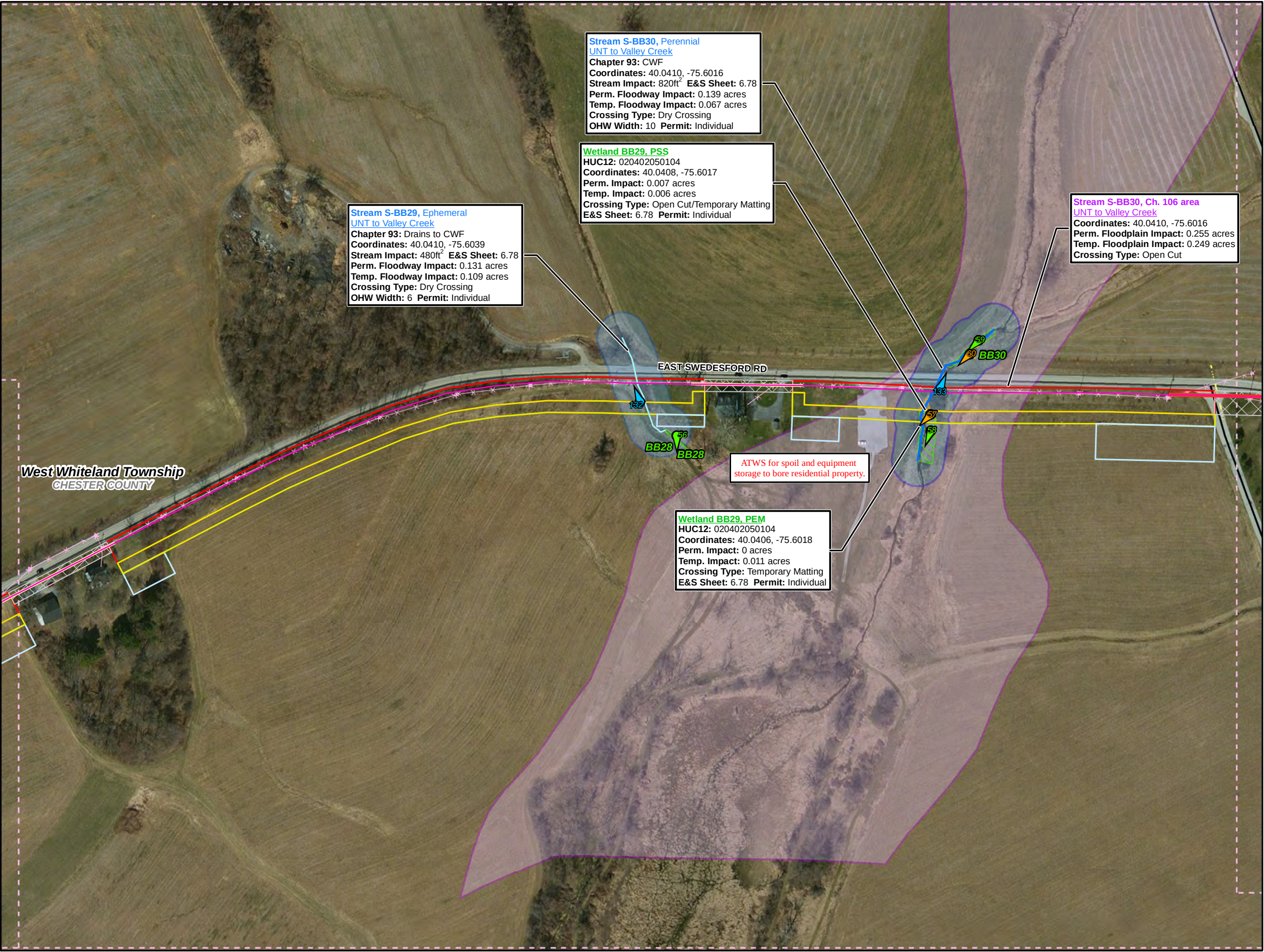
Date:

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Base Map; ESRI ArcGIS Online, Roads from NRCS
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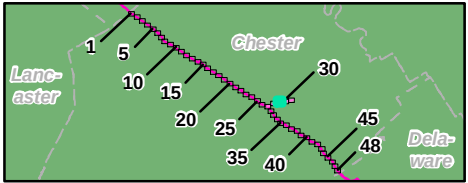
Coordinate System: NAD 83 Stateplane, PA South, Feet

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Legend

- Swedesford Lateral
- PPP 1
- PPP 2
- PPP 1 Bore
- PPP 2 Bore
- PPP 1 HDD
- PPP 2 HDD
- Permanent ROW
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- Block Valve Setting LOD
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- Ch. 105 Floodways
- Waived Ch. 105 Floodways
- Ch. 106 Floodplain Fringe



0 50 100 200 300 400

1 inch = 200 feet

Site Plan for the Sunoco
Pennsylvania Pipeline Project,
Chester County, PA.
Sheet 29 of 48

Prepared By:



Date:

5/2016

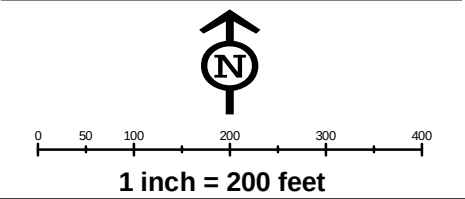
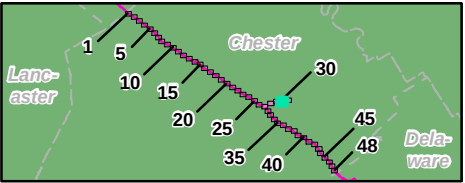
Base Map; ESRI ArcGIS Online, Roads from NRCS
Geospatial Data Giveaway, 100-Year Floodplain from
FEMA National Flood Hazard Layer, downloaded 10/2015.

Coordinate System: NAD 83 Stateplane, PA South, Feet

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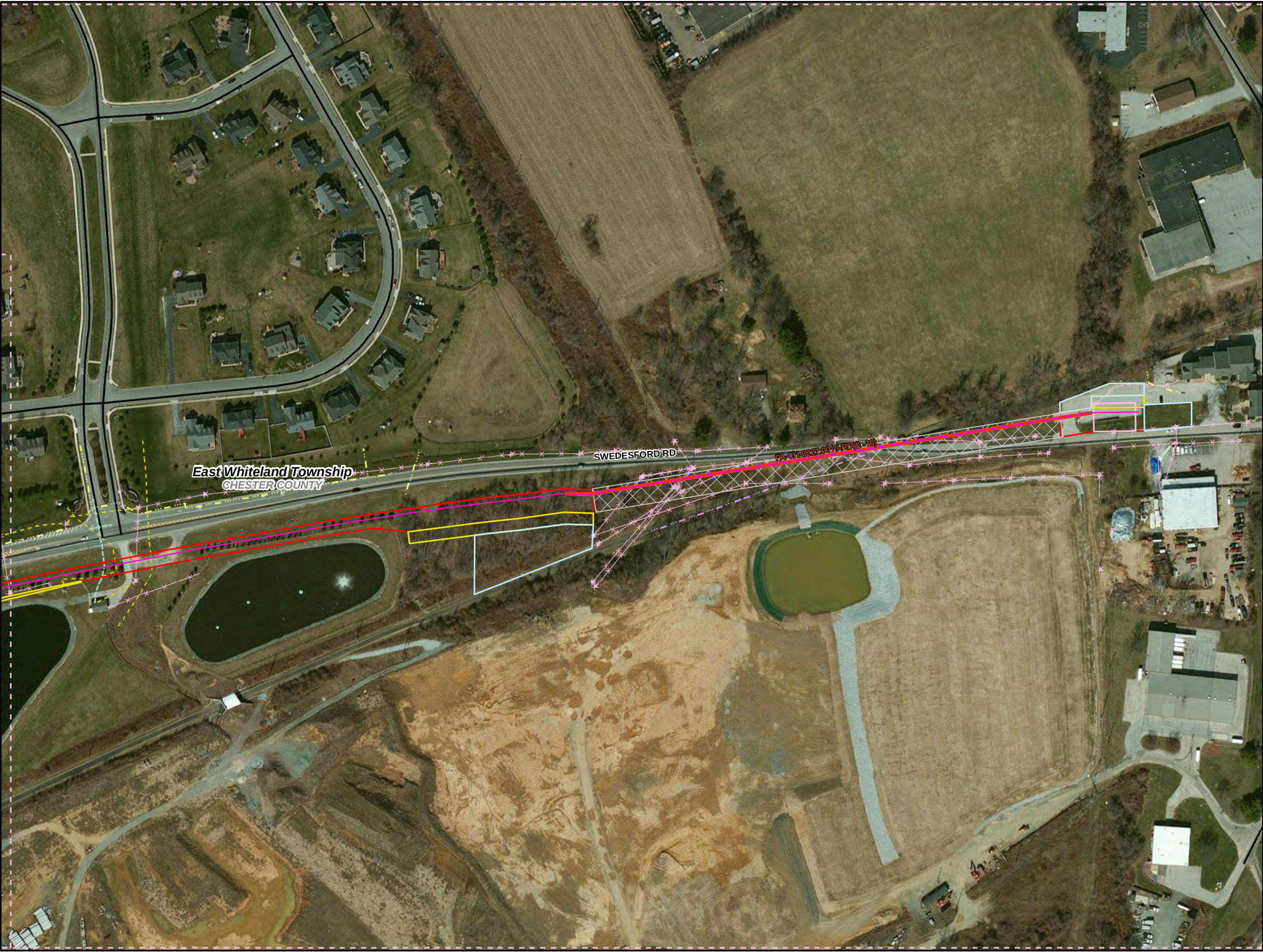
- Legend**
- Swedesford Lateral
 - PPP 1
 - PPP 2
 - PPP 1 Bore
 - PPP 2 Bore
 - PPP 1 HDD
 - PPP 2 HDD
 - Permanent ROW
 - Temporary ROW
 - ATWS
 - Block Valve Setting LOD
 - Existing Block Valve Setting
 - Permanent Access Road
 - Temporary Access Road
 - Clearing Only
 - Travel Only
 - Permanent Easement (no surface disturbance)
 - Stations
 - Ephemeral Stream
 - Intermittent Stream
 - Perennial Stream
 - Pond
 - PEM Wetland
 - PFO Wetland
 - PSS Wetland
 - Ch. 105 Floodways
 - Waived Ch. 105 Floodways
 - Ch. 106 Floodplain Fringe



Site Plan for the Sunoco
Pennsylvania Pipeline Project,
Chester County, PA.
Sheet 30 of 48

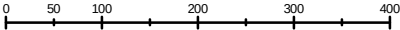
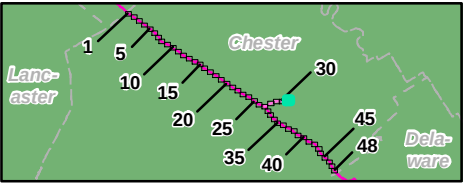
Prepared By:  **TETRA TECH** Date: **5/2016**

Base Map; ESRI ArcGIS Online, Roads from NRCS
Geospatial Data Giveaway, 100-Year Floodplain from
FEMA National Flood Hazard Layer, downloaded 10/2015.
Coordinate System: NAD 83 Stateplane, PA South, Feet



Legend

- Swedesford Lateral
- PPP 1
- PPP 2
- PPP 1 Bore
- PPP 2 Bore
- PPP 1 HDD
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- Waived Ch. 105 Floodways
- Ch. 106 Floodplain Fringe



1 inch = 200 feet

Site Plan for the Sunoco
Pennsylvania Pipeline Project,
Chester County, PA.
Sheet 31 of 48

Prepared By:

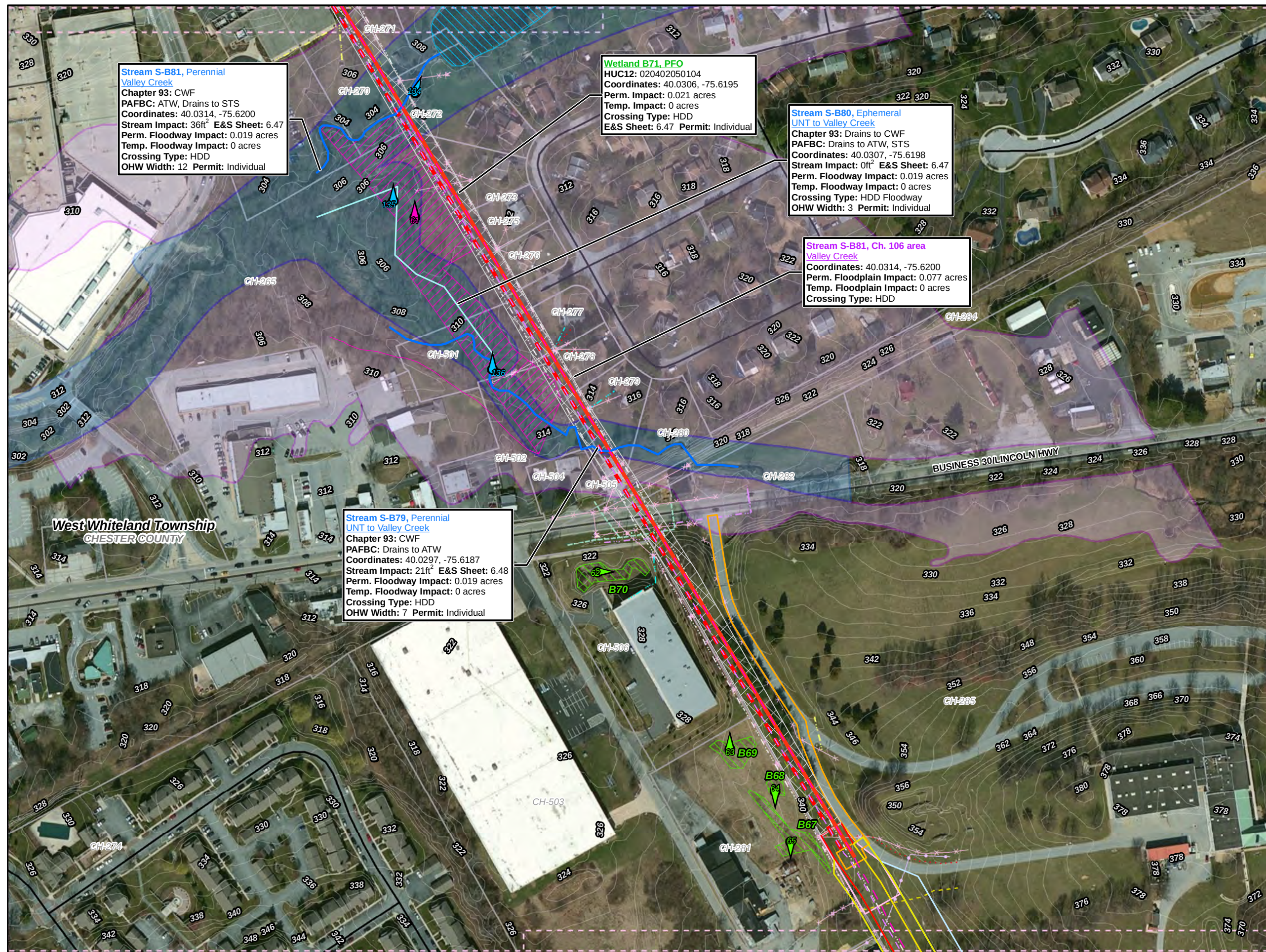


Date:

5/2016

Base Map; ESRI ArcGIS Online, Roads from NRCS
Geospatial Data Giveaway, 100-Year Floodplain from
FEMA National Flood Hazard Layer, downloaded 10/2015.

Coordinate System: NAD 83 Stateplane, PA South, Feet



Stream S-B81, Perennial Valley Creek
Chapter 93: CWF
PAFBC: ATW, Drains to STS
Coordinates: 40.0314, -75.6200
Stream Impact: 36ft² E&S Sheet: 6.47
Perm. Floodway Impact: 0.019 acres
Temp. Floodway Impact: 0 acres
Crossing Type: HDD
OHW Width: 12 Permit: Individual

Wetland B71, PFO
HUC12: 020402050104
Coordinates: 40.0306, -75.6195
Perm. Impact: 0.021 acres
Temp. Impact: 0 acres
Crossing Type: HDD
E&S Sheet: 6.47 Permit: Individual

Stream S-B80, Ephemeral UNT to Valley Creek
Chapter 93: Drains to CWF
PAFBC: Drains to ATW, STS
Coordinates: 40.0307, -75.6198
Stream Impact: 0ft² E&S Sheet: 6.47
Perm. Floodway Impact: 0.019 acres
Temp. Floodway Impact: 0 acres
Crossing Type: HDD Floodway
OHW Width: 3 Permit: Individual

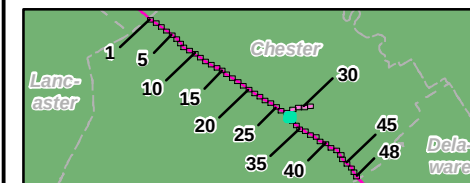
Stream S-B81, Ch. 106 area Valley Creek
Coordinates: 40.0314, -75.6200
Perm. Floodplain Impact: 0.077 acres
Temp. Floodplain Impact: 0 acres
Crossing Type: HDD

Stream S-B79, Perennial UNT to Valley Creek
Chapter 93: CWF
PAFBC: Drains to ATW
Coordinates: 40.0297, -75.6187
Stream Impact: 21ft² E&S Sheet: 6.48
Perm. Floodway Impact: 0.019 acres
Temp. Floodway Impact: 0 acres
Crossing Type: HDD
OHW Width: 7 Permit: Individual

West Whiteland Township
CHESTER COUNTY

Legend

- Swedesford Lateral
- PPP 1
- PPP 2
- PPP 1 Bore
- PPP 2 Bore
- PPP 1 HDD
- PPP 2 HDD
- Permanent ROW
- Temporary ROW
- ATWS
- Block Valve Setting LOD
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- Permanent Access Road
- Temporary Access Road
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- Perennial Stream
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- PSS Wetland
- Ch. 105 Floodways
- Waived Ch. 105 Floodways
- Ch. 106 Floodplain Fringe



0 50 100 200 300 400

1 inch = 200 feet

Site Plan for the Sunoco Pennsylvania Pipeline Project, Chester County, PA.
Sheet 32 of 48

Prepared By:



Date:

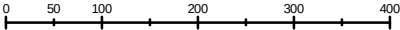
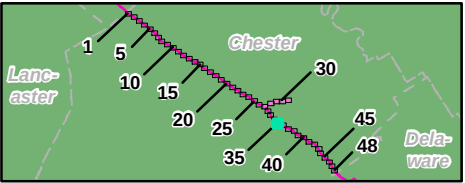
5/2016

Base Map: ESRI ArcGIS Online, Roads from NRCS Geospatial Data Giveaway, 100-Year Floodplain from FEMA National Flood Hazard Layer, downloaded 10/2015.

Coordinate System: NAD 83 Stateplane, PA South, Feet



- Legend**
- Swedesford Lateral
 - PPP 1
 - PPP 2
 - PPP 1 Bore
 - PPP 2 Bore
 - PPP 1 HDD
 - PPP 2 HDD
 - Permanent ROW
 - Temporary ROW
 - ATWS
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 - Temporary Access Road
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 - Perennial Stream
 - Pond
 - PEM Wetland
 - PFO Wetland
 - PSS Wetland
 - Ch. 105 Floodways
 - Waived Ch. 105 Floodways
 - Ch. 106 Floodplain Fringe

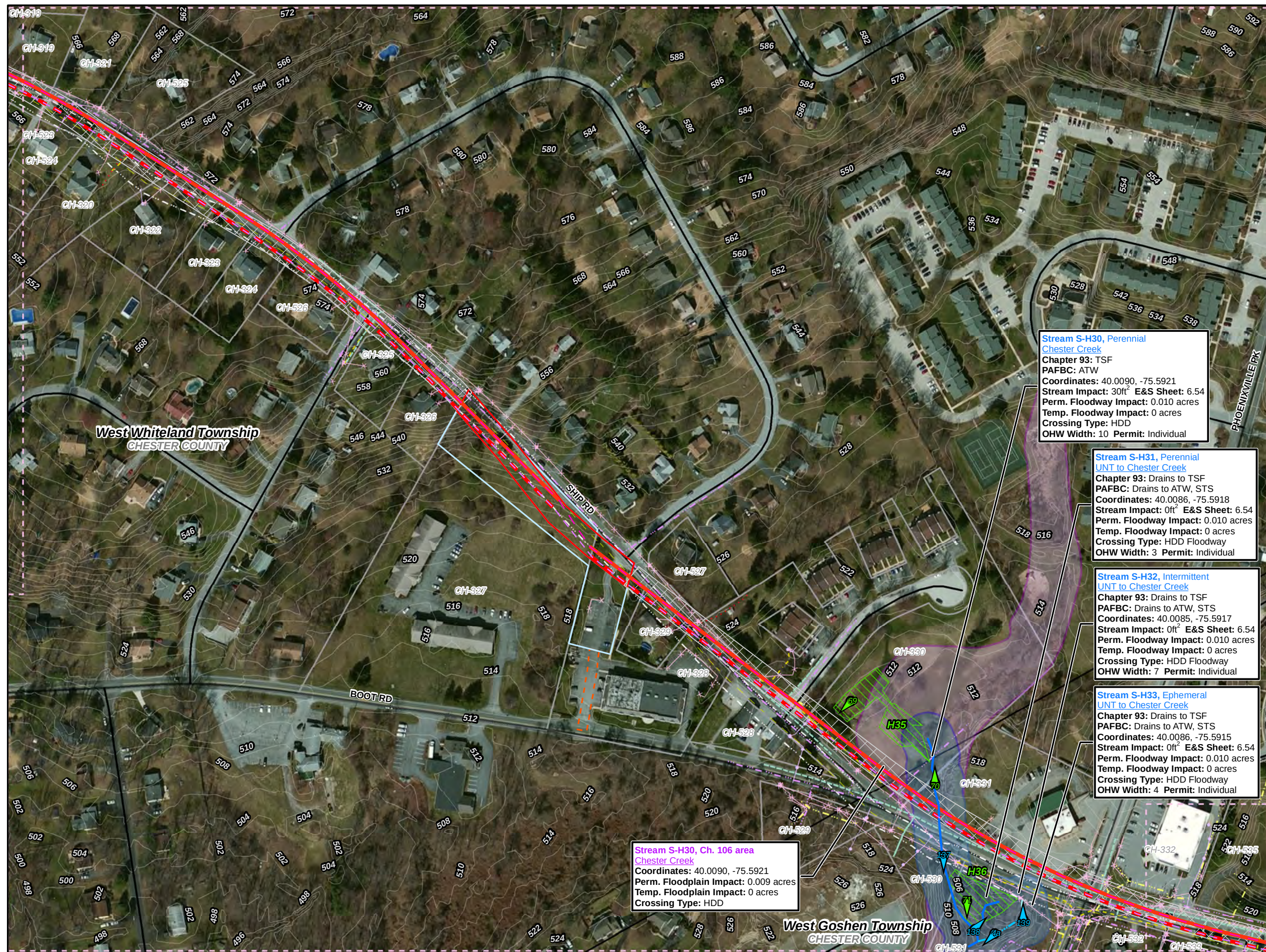


1 inch = 200 feet

Site Plan for the Sunoco
Pennsylvania Pipeline Project,
Chester County, PA.
Sheet 35 of 48

Prepared By: 	Date: 5/2016
---	-----------------

Base Map; ESRI ArcGIS Online, Roads from NRCS
Geospatial Data Giveaway, 100-Year Floodplain from
FEMA National Flood Hazard Layer, downloaded 10/2015.
Coordinate System: NAD 83 Stateplane, PA South, Feet



Legend

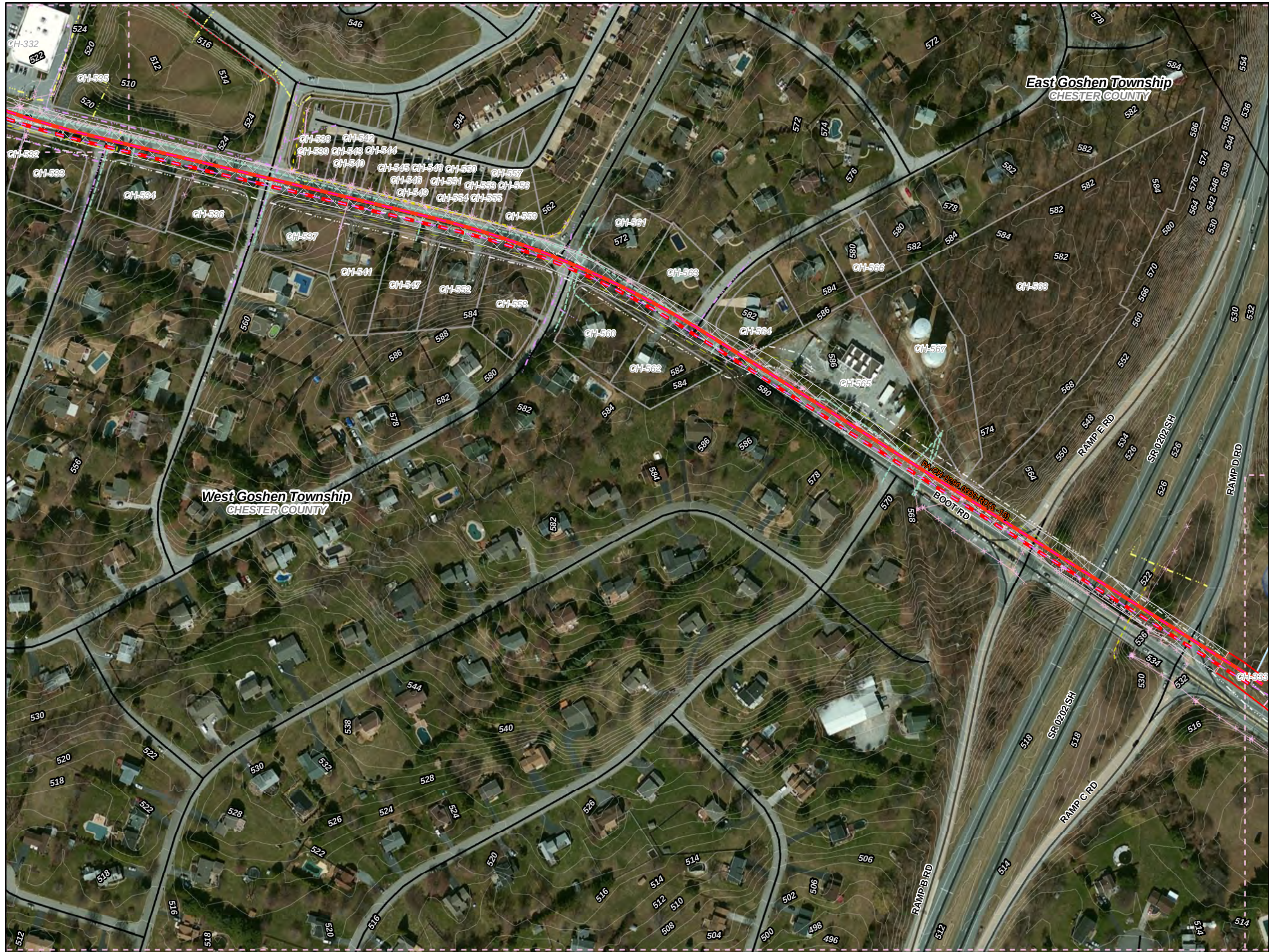
- Swedesford Lateral
- PPP 1
- PPP 2
- PPP 1 Bore
- PPP 2 Bore
- PPP 1 HDD
- PPP 2 HDD
- Permanent ROW
- Temporary ROW
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- PSS Wetland
- Ch. 105 Floodways
- Waived Ch. 105 Floodways
- Ch. 106 Floodplain Fringe

1 inch = 200 feet

Site Plan for the Sunoco Pennsylvania Pipeline Project, Chester County, PA.
Sheet 36 of 48

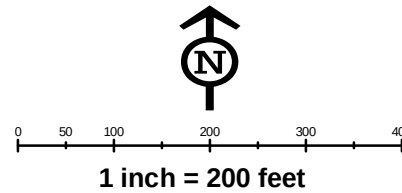
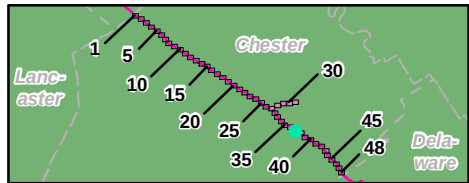
Prepared By: TETRA TECH Date: 5/2016

Base Map: ESRI ArcGIS Online, Roads from NRCS Geospatial Data Giveaway, 100-Year Floodplain from FEMA National Flood Hazard Layer, downloaded 10/2015.
Coordinate System: NAD 83 Stateplane, PA South, Feet



Legend

- Swedesford Lateral
- PPP 1
- PPP 2
- PPP 1 Bore
- PPP 2 Bore
- PPP 1 HDD
- PPP 2 HDD
- Permanent ROW
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- PSS Wetland
- Ch. 105 Floodways
- Waived Ch. 105 Floodways
- Ch. 106 Floodplain Fringe



Site Plan for the Sunoco
Pennsylvania Pipeline Project,
Chester County, PA.
Sheet 37 of 48

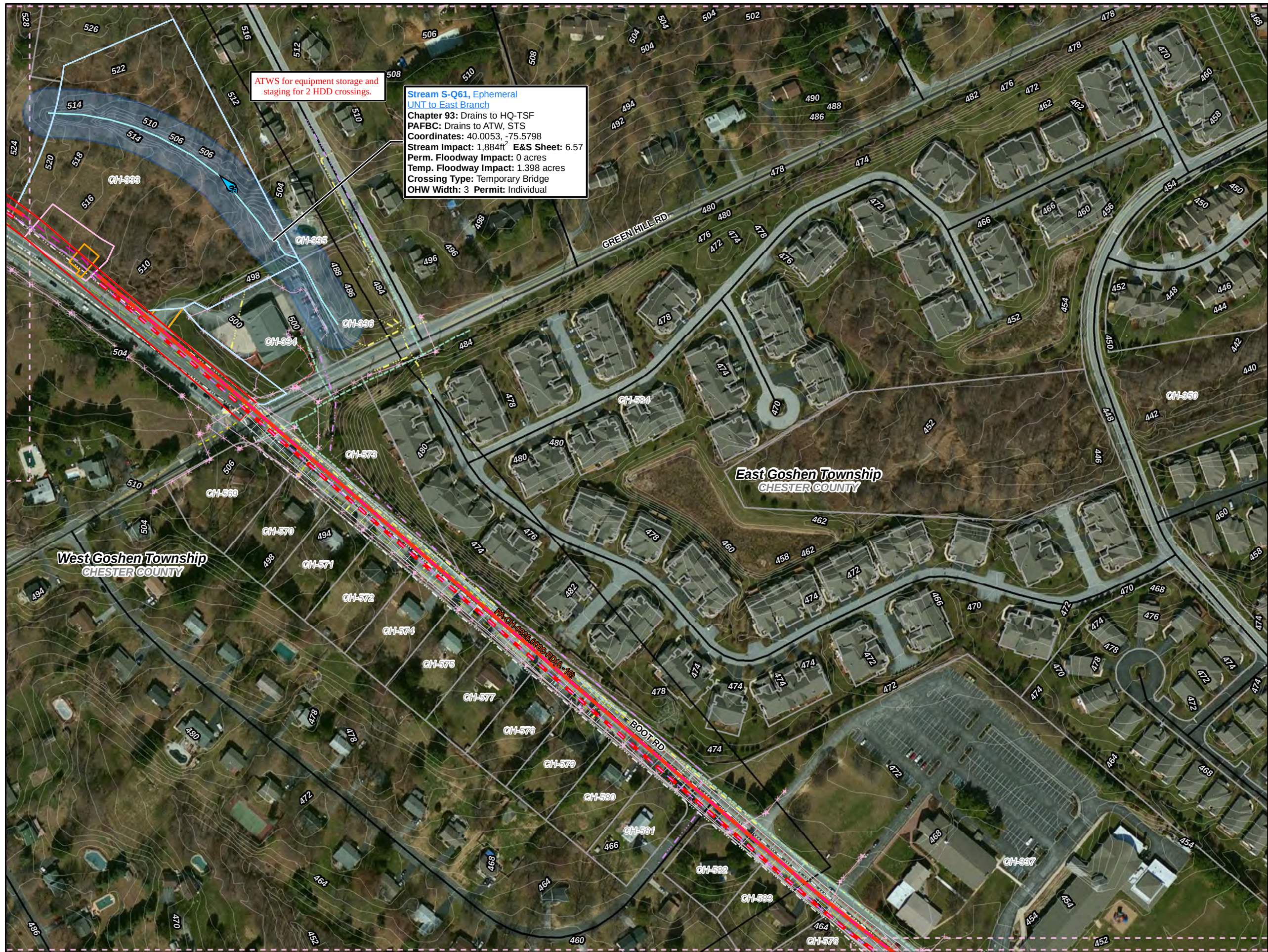
Prepared By:



Date:

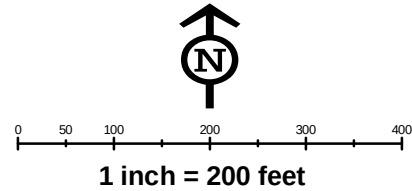
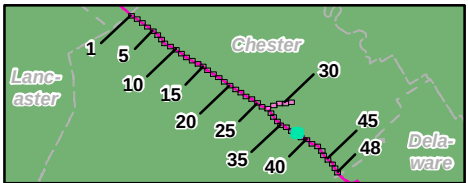
5/2016

Base Map; ESRI ArcGIS Online, Roads from NRCS
Geospatial Data Giveaway, 100-Year Floodplain from
FEMA National Flood Hazard Layer, downloaded 10/2015.
Coordinate System: NAD 83 Stateplane, PA South, Feet



Legend

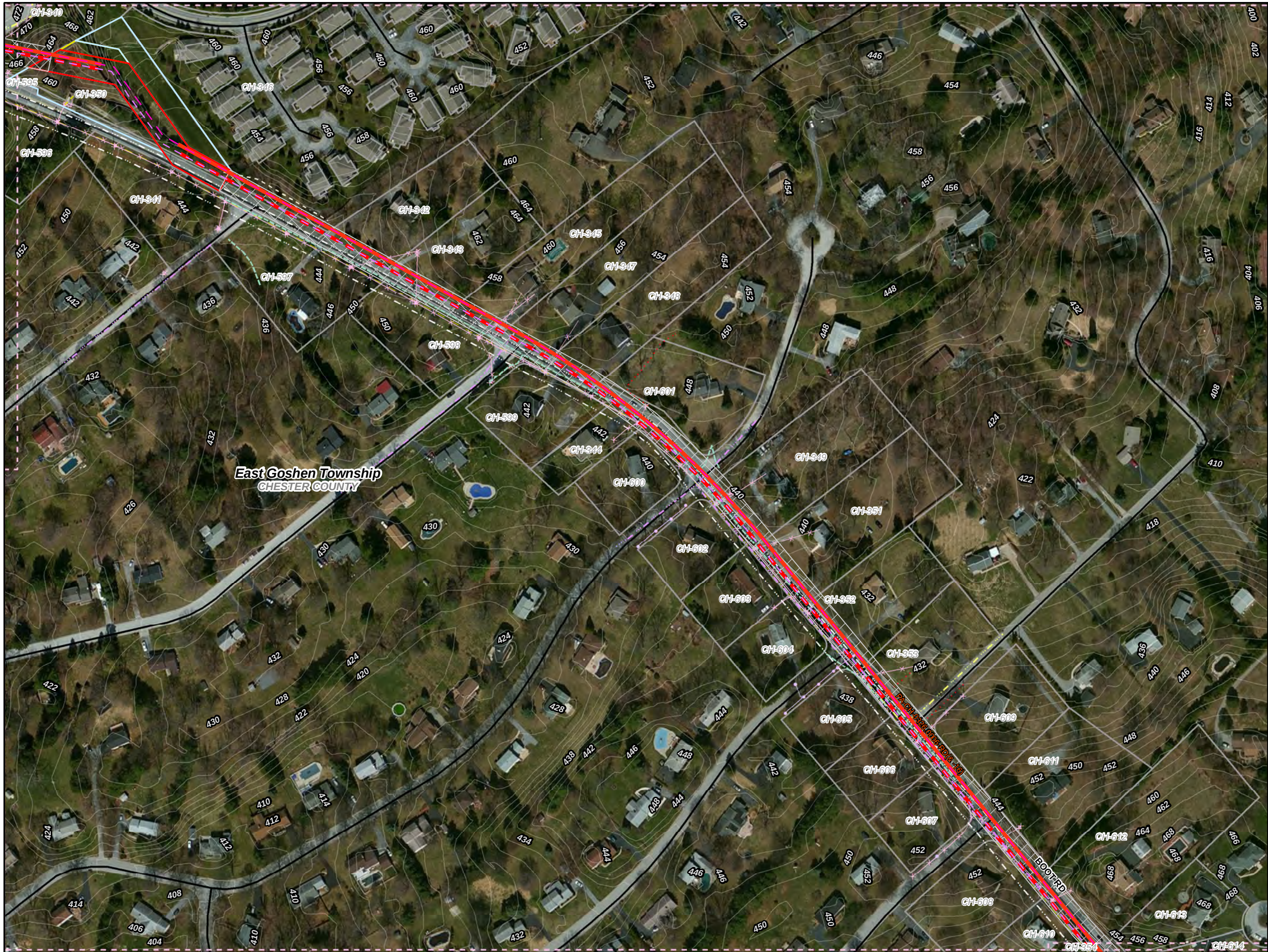
- Swedesford Lateral
- PPP 1
- PPP 2
- PPP 1 Bore
- PPP 2 Bore
- PPP 1 HDD
- PPP 2 HDD
- Permanent ROW
- Temporary ROW
- ATWS
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- Existing Block Valve Setting
- Permanent Access Road
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- Intermittent Stream
- Perennial Stream
- Pond
- PEM Wetland
- PFO Wetland
- PSS Wetland
- Ch. 105 Floodways
- Waived Ch. 105 Floodways
- Ch. 106 Floodplain Fringe



Site Plan for the Sunoco
Pennsylvania Pipeline Project,
Chester County, PA.
Sheet 38 of 48

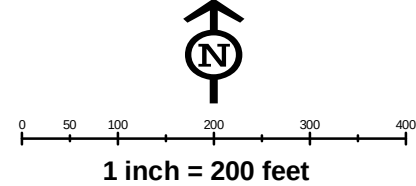
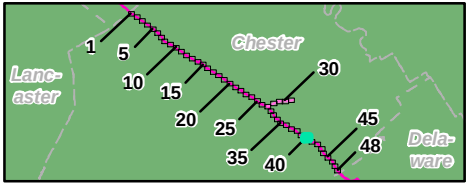
Prepared By:  Date: 5/2016

Base Map; ESRI ArcGIS Online, Roads from NRCS
Geospatial Data Giveaway, 100-Year Floodplain from
FEMA National Flood Hazard Layer, downloaded 10/2015.
Coordinate System: NAD 83 Stateplane, PA South, Feet



Legend

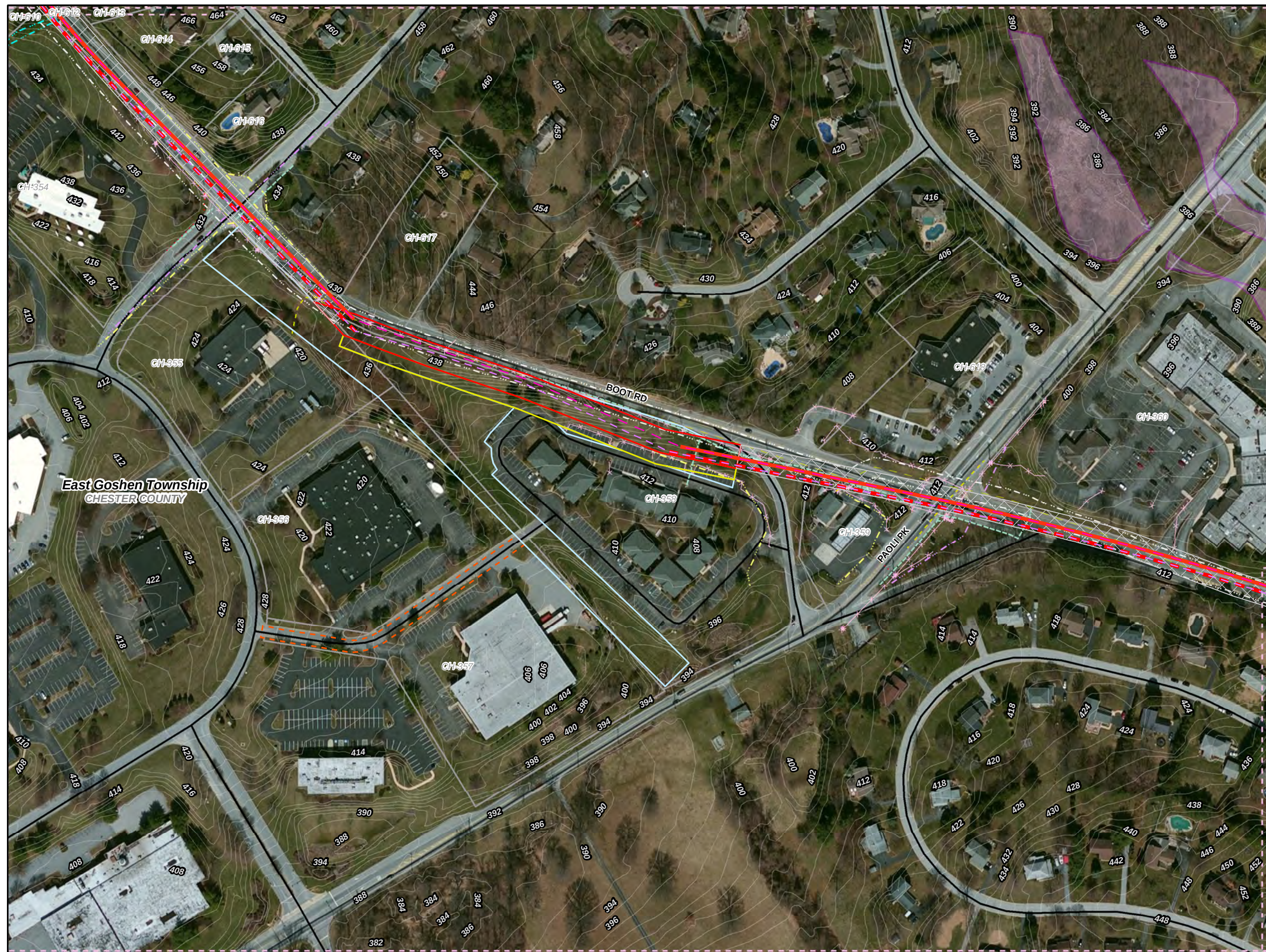
- Swedesford Lateral
- PPP 1
- PPP 2
- PPP 1 Bore
- PPP 2 Bore
- PPP 1 HDD
- PPP 2 HDD
- Permanent ROW
- Temporary ROW
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- Block Valve Setting LOD
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- Pond
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- PSS Wetland
- Ch. 105 Floodways
- Waived Ch. 105 Floodways
- Ch. 106 Floodplain Fringe



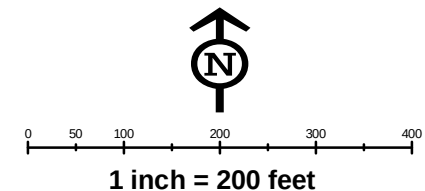
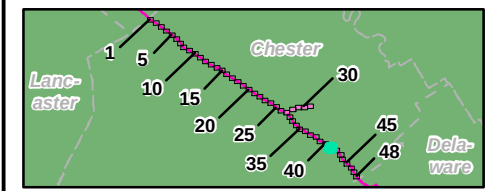
Site Plan for the Sunoco
Pennsylvania Pipeline Project,
Chester County, PA.
Sheet 40 of 48

Prepared By: **TETRA TECH** Date: **5/2016**

Base Map; ESRI ArcGIS Online, Roads from NRCS
Geospatial Data Giveaway, 100-Year Floodplain from
FEMA National Flood Hazard Layer, downloaded 10/2015.
Coordinate System: NAD 83 Stateplane, PA South, Feet



- ### Legend
- Swedesford Lateral
 - PPP 1
 - PPP 2
 - PPP 1 Bore
 - PPP 2 Bore
 - PPP 1 HDD
 - PPP 2 HDD
 - Permanent ROW
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 - PFO Wetland
 - PSS Wetland
 - Ch. 105 Floodways
 - Waived Ch. 105 Floodways
 - Ch. 106 Floodplain Fringe



Site Plan for the Sunoco Pennsylvania Pipeline Project, Chester County, PA.
Sheet 41 of 48

Prepared By:	Date:
 TETRA TECH	5/2016

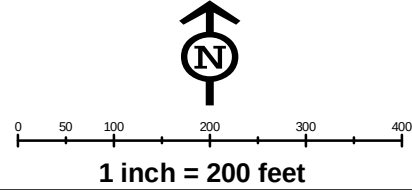
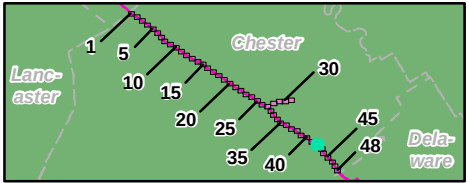
Base Map; ESRI ArcGIS Online, Roads from NRCS Geospatial Data Giveaway, 100-Year Floodplain from FEMA National Flood Hazard Layer, downloaded 10/2015.
Coordinate System: NAD 83 Stateplane, PA South, Feet

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Legend

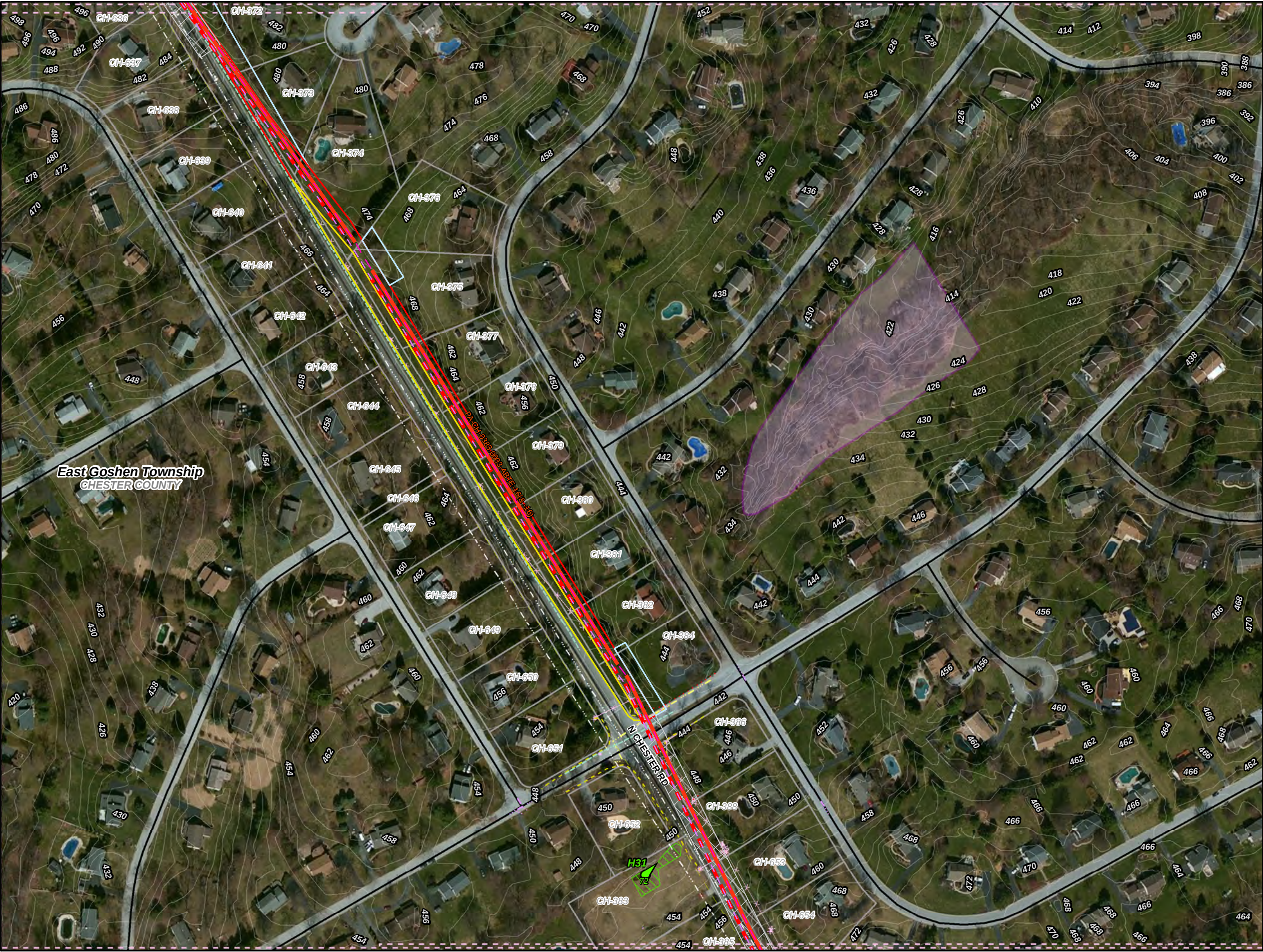
- Swedesford Lateral
- PPP 1
- PPP 2
- PPP 1 Bore
- PPP 2 Bore
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- PPP 2 HDD
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- PSS Wetland
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- Ch. 106 Floodplain Fringe



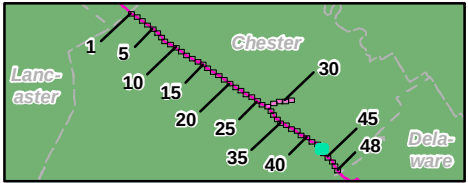
Site Plan for the Sunoco
Pennsylvania Pipeline Project,
Chester County, PA.
Sheet 42 of 48

Prepared By:	Date:
	5/2016

Base Map; ESRI ArcGIS Online, Roads from NRCS
Geospatial Data Giveaway, 100-Year Floodplain from
FEMA National Flood Hazard Layer, downloaded 10/2015.
Coordinate System: NAD 83 Stateplane, PA South, Feet



- Legend**
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 - PPP 1
 - PPP 2
 - PPP 1 Bore
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 - PPP 2 HDD
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 - PFO Wetland
 - PSS Wetland
 - Ch. 105 Floodways
 - Waived Ch. 105 Floodways
 - Ch. 106 Floodplain Fringe

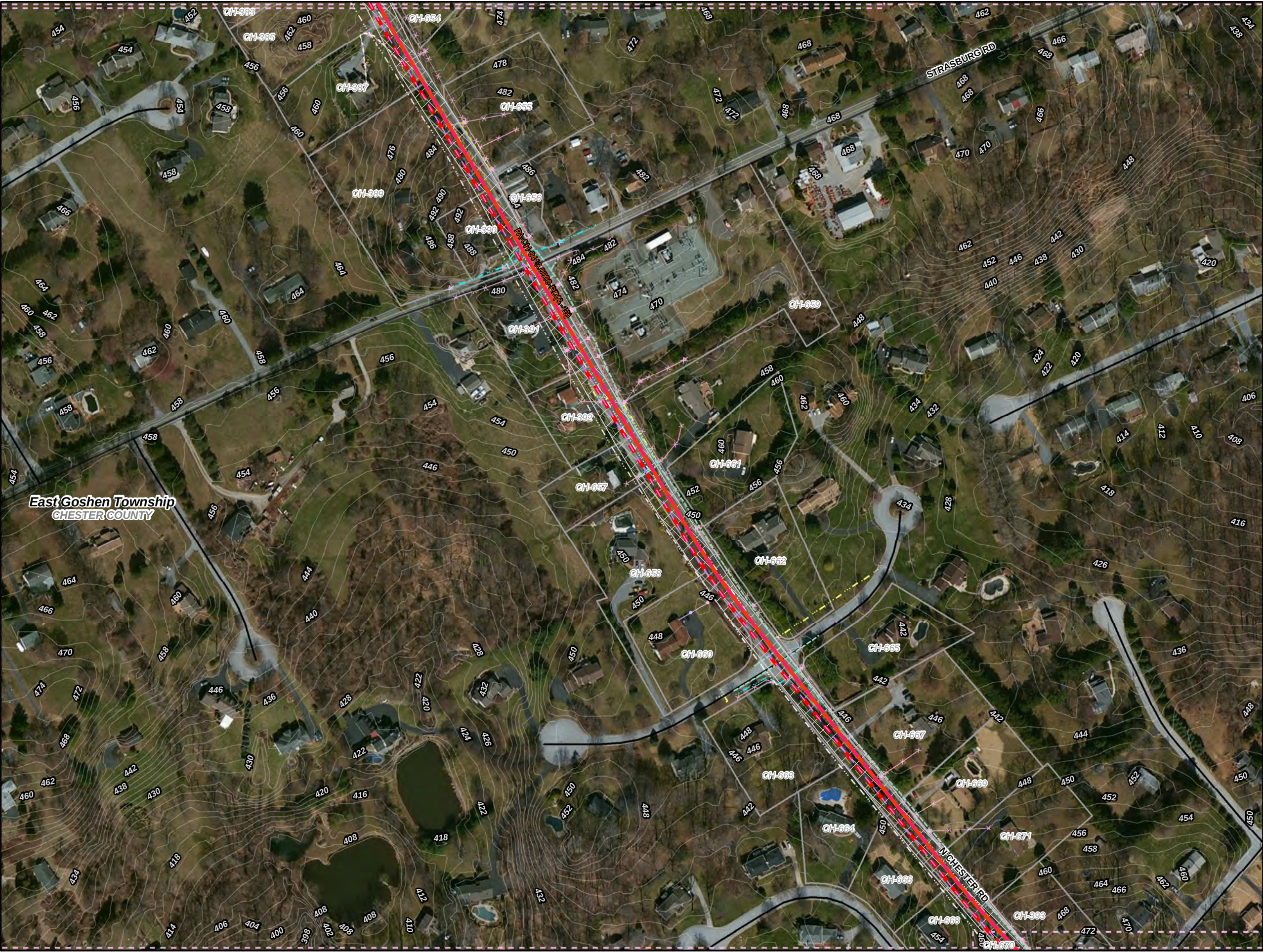


0 50 100 200 300 400
1 inch = 200 feet

Site Plan for the Sunoco
Pennsylvania Pipeline Project,
Chester County, PA.
Sheet 43 of 48

Prepared By: 	Date: 5/2016
---	-----------------

Base Map; ESRI ArcGIS Online, Roads from NRCS
Geospatial Data Giveaway, 100-Year Floodplain from
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Legend

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- PPP 1
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- Ch. 106 Floodplain Fringe

1 inch = 200 feet

0 50 100 200 300 400

**Site Plan for the Sunoco
Pennsylvania Pipeline Project,
Chester County, PA.
Sheet 44 of 48**

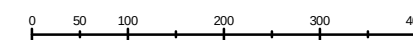
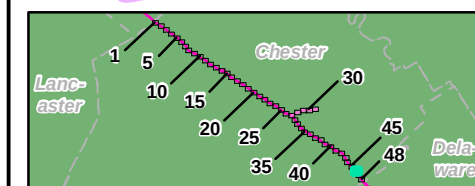
Prepared By:	Date:
TETRA TECH	5/2016

Base Map; ESRI ArcGIS Online, Roads from NRCS Geospatial Data Giveaway, 100-Year Floodplain from FEMA National Flood Hazard Layer, downloaded 10/2015.
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Legend

-
- Swedesford Lateral
- PPP 1
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- PPP 1 Bore
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- Waived Ch. 105 Floodways
- Ch. 106 Floodplain Fringe



1 inch = 200 feet

**Site Plan for the Sunoco
Pennsylvania Pipeline Project,
Chester County, PA.
Sheet 46 of 48**

Prepared By:



Date:

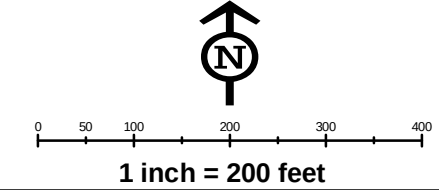
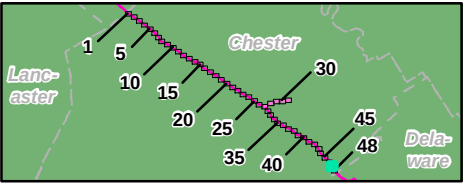
5/2016

Base Map; ESRI ArcGIS Online, Roads from NRCS Geospatial Data Giveaway, 100-Year Floodplain from FEMA National Flood Hazard Layer, downloaded 10/2015.

Coordinate System: NAD 83 Stateplane, PA South, Feet



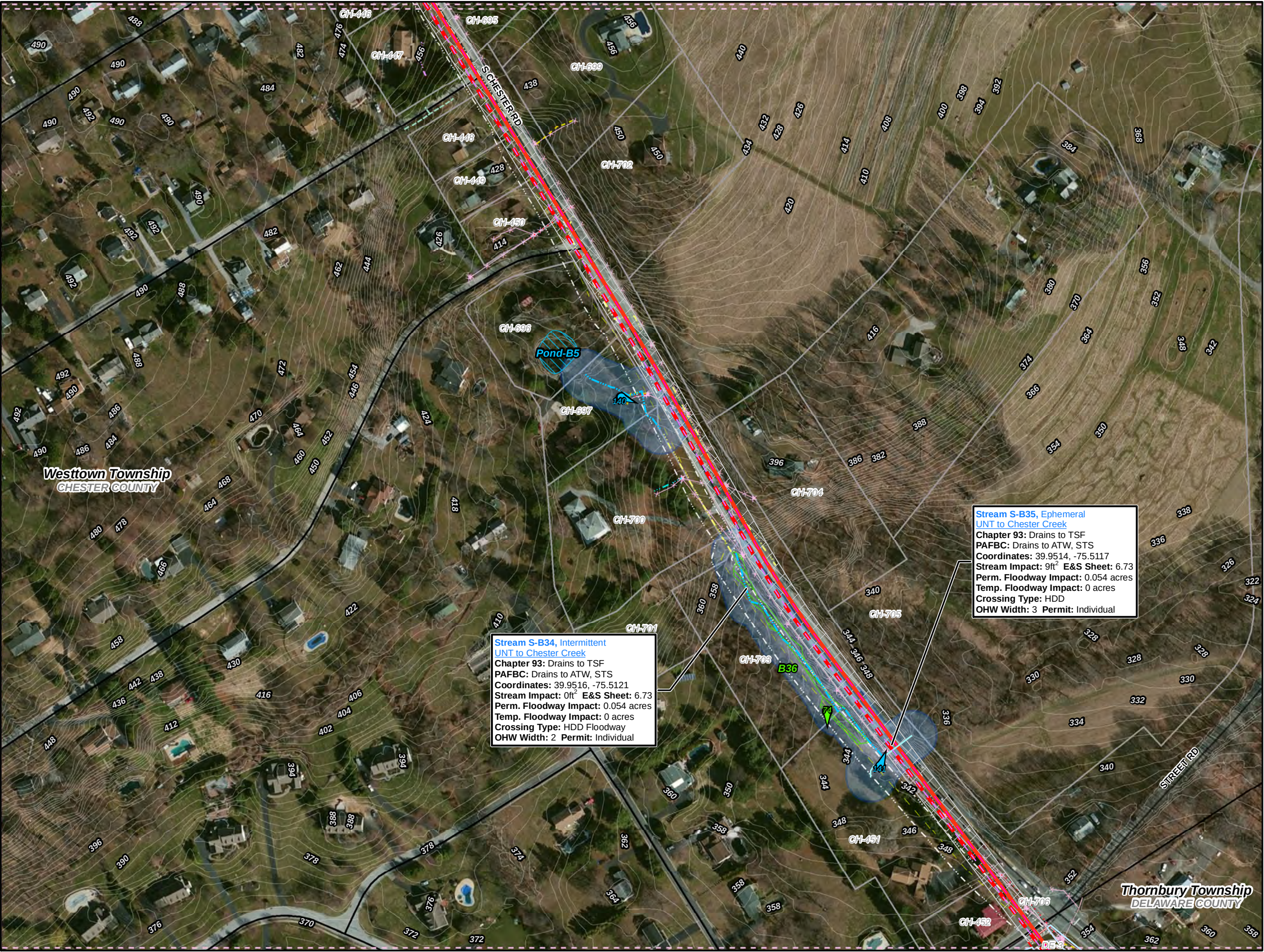
- Legend**
- Swedesford Lateral
 - PPP 1
 - PPP 2
 - PPP 1 Bore
 - PPP 2 Bore
 - PPP 1 HDD
 - PPP 2 HDD
 - Permanent ROW
 - Temporary ROW
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 - Ch. 105 Floodways
 - Waived Ch. 105 Floodways
 - Ch. 106 Floodplain Fringe



Site Plan for the Sunoco
Pennsylvania Pipeline Project,
Chester County, PA.
Sheet 47 of 48

Prepared By:  Date: 5/2016

Base Map; ESRI ArcGIS Online, Roads from NRCS
Geospatial Data Giveaway, 100-Year Floodplain from
FEMA National Flood Hazard Layer, downloaded 10/2015.
Coordinate System: NAD 83 Stateplane, PA South, Feet



Legend

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- PPP 1
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1 inch = 200 feet

0 50 100 200 300 400

Site Plan for the Sunoco Pennsylvania Pipeline Project, Chester County, PA.
Sheet 48 of 48

Prepared By:	Date:
TETRA TECH	5/2016

Base Map; ESRI ArcGIS Online, Roads from NRCS Geospatial Data Giveaway, 100-Year Floodplain from FEMA National Flood Hazard Layer, downloaded 10/2015.
Coordinate System: NAD 83 Stateplane, PA South, Feet