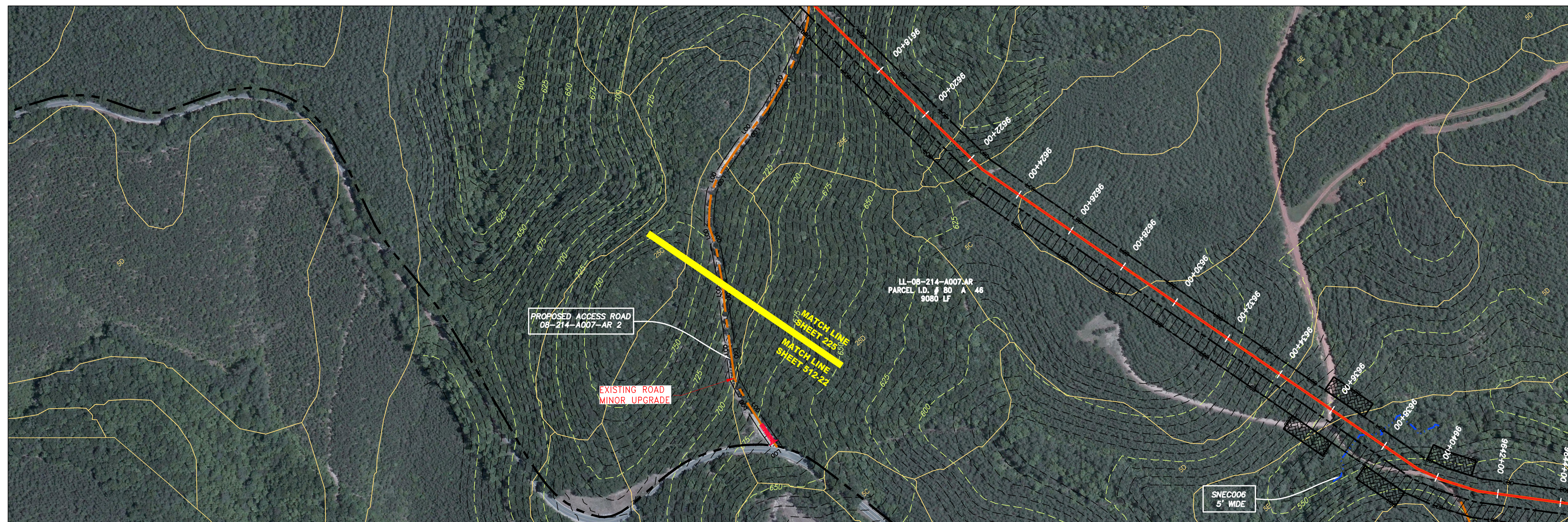


ACCESS ROAD  
DETAIL 21



ACCESS ROAD  
DETAIL 22

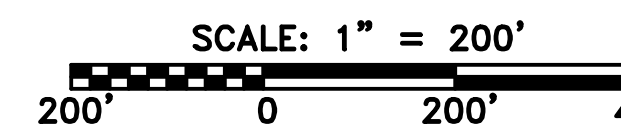
GAI CAD FILE NO. \NTG-FS1\THRASHER\050-5159 - GAI, INC. - GAI - THRASHER - SERP - MAPPING\SURVEY\DRAWING\SEC 4 - ACCESS ROAD DETAILS.DWG

**LEGEND**

- |  |  |  |  |   |
|--|--|--|--|---|
| <ul style="list-style-type: none"> <li>— X — X — PROPERTY LINE</li> <li>— E — FENCE</li> <li>— S — STREAM</li> <li>— G — EXISTING GAS PIPELINE</li> <li>— OH — OVERHEAD UTILITY LINES</li> <li>— — — ACCESS ROAD</li> <li>— — — PROPOSED GAS PIPELINE</li> </ul> | <ul style="list-style-type: none"> <li>— — — STORM SEWER</li> <li>— — — UNDERGROUND ELECTRIC</li> <li>— — — WATER LINE</li> <li>— — — SAN — SANITARY SEWER</li> <li>— — — EDGE OF GRAVEL</li> <li>— — — PROPOSED PERMANENT EASEMENT</li> <li>— — — PROPOSED GAS PIPELINE (NO GROUND SURVEY)</li> </ul> | <ul style="list-style-type: none"> <li>[Hatched Box] EXTRA WORK SPACE</li> <li>[Cross-hatched Box] AREA OF NO DISTURBANCE</li> <li>[Green Box] WETLAND (COLOR SHOWN TO PROVIDE CLARITY ONLY)</li> <li>[Hatched Box] TOPSOIL SEGREGATION AREA</li> <li>[Hatched Box] PROPOSED TEMPORARY R.O.W.</li> <li>[Circle with X] UTILITY POLE</li> </ul> | <ul style="list-style-type: none"> <li>[Red Triangle] PERMANENT WATERBAR/SLOPE BREAKER</li> <li>[Red Triangle] TEMPORARY WATERBAR/SLOPE BREAKER</li> <li>[Red Triangle] TRENCH BREAKER/PLUG</li> <li>[Blue Diamond] STREAM CROSSING</li> <li>[Blue Diamond] USFWS STREAM CROSSING WITH ENHANCED CONTROLS</li> <li>[Blue Diamond] SEEP</li> <li>[Blue Arrow] SLOPE DIRECTION</li> <li>[Blue Arrow] CONSTRUCTION ENTRANCE WITH DITCH</li> <li>[Blue Arrow] CULVERT AS NEEDED</li> <li>[Blue Arrow] CULVERT WATERBAR</li> </ul> | <ul style="list-style-type: none"> <li>— LOD — LIMIT OF DISTURBANCE</li> <li>— BSRF — BELTED SILT RETENTION FENCE (BSRF)</li> <li>— — — COMPOST FILTER SOCK</li> <li>— — — SEDIMENT BARRIER IDENTIFICATION</li> <li>— — — CULVERT IDENTIFICATION</li> <li>— — — ORANGE SAFETY FENCE</li> <li>— — — ROADSIDE DITCH</li> <li>— — — SOIL TYPE</li> <li>— — — TYPICAL BIG SLOPE CATEGORY SLOPE INCLINATION</li> </ul> |
|--|--|--|--|---|

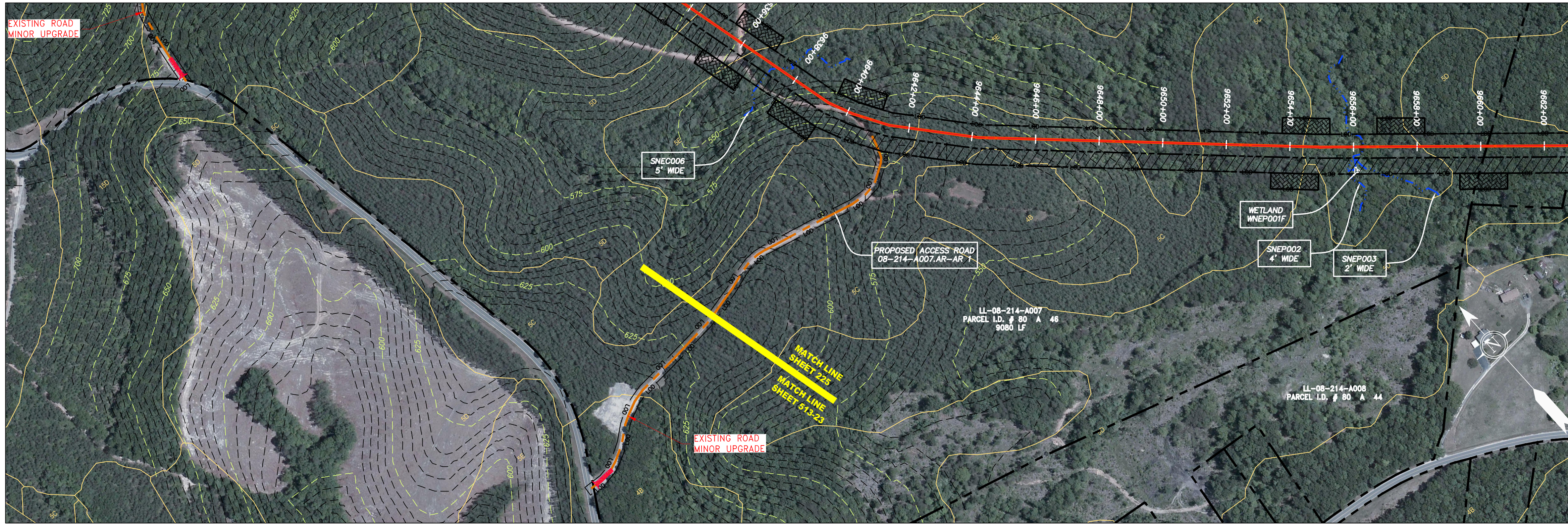
**NOTES:**

1. COORDINATE SYSTEM USED FOR MAPPING AND TOPOGRAPHY - UTM WITH NAD83 DATUM, ZONE 17, US SURVEY FOOT, CENTRAL MERIDIAN 81° W.
2. CONTOURS AND TOPOGRAPHIC FEATURES WERE DERIVED FROM LIDAR DATA AND GPS SUB-METER GROUND SURVEY PERFORMED BY GAI CONSULTANTS, INC FROM 11-03-2014 THRU 11-07-2014.
3. IMAGERY TAKEN FROM GOOGLE EARTH.
4. THE PROPERTY LINES SHOWN ARE BASED ON GIS & TAX ASSESSMENT RECORDS (PROVIDED BY OTHERS). GAI CONSULTANTS MAKE NO GUARANTEE EITHER EXPRESSED OR IMPLIED AS TO THE ACCURACY OF THE RECORDS AS SHOWN ON THESE DRAWINGS.
5. STREAM AND WETLAND DATA SHOWN ON THE DRAWINGS WAS PROVIDED BY ERM.
6. EROSION AND SEDIMENTATION CONTROL ELEMENTS MAY BE SHOWN OUTSIDE OF THE WORK AREAS FOR CLARITY ONLY. ACTUAL INSTALLATION SHALL BE WITHIN THE WORK AREAS.
7. ALL STATIONING SHOWN IS SLOPE STATIONING.
8. SILT FENCE AND FILTER SOCK SHALL BE INSTALLED PARALLEL TO CONTOUR TO EXTENT PRACTICABLE IN ACCORDANCE WITH STANDARD DETAIL.
9. BEST IN CLASS (BIC) STEEP SLOPE CATEGORY INFORMATION CAN BE FOUND IN THE APPENDIX OF THE STORMWATER POLLUTION PREVENTION PLAN.
10. ACCESS ROADS MATING SHALL BE PLACED IN AREAS OF 30% SLOPE AND GREATER, WHICH ARE INDICATED ON THE BEST IN CLASS STEEP SLOPES BAND.
11. ACCESS ROADS HAVE BEEN GROUPED INTO FOUR CATEGORIES - 1) EXISTING ROADS NO IMPROVEMENTS, 2) EXISTING ROADS MINOR IMPROVEMENTS, 3) EXISTING ROADS MAJOR IMPROVEMENTS AND 4) NEW ROADS. APPROPRIATE EROSION AND SEDIMENT CONTROLS WILL BE PROVIDED FOR ROADS IN CATEGORIES 2, 3 AND 4. ROADS IN CATEGORIES 1 AND 2 HAVE ADEQUATE EXISTING DRAINAGE; DRAINAGE FEATURES WILL BE PROVIDED FOR ROADS IN CATEGORIES 3 AND 4.
12. ERM IS SOLELY RESPONSIBLE FOR THE NATURE AND LOCATION OF THE DEPICTED BMPs AS OF THE DATE SIGNED AND SEALED BASED ON THE SOURCE DATA PROVIDED AND AS DESCRIBED IN THE NOTES SECTION OF THE INDEX SHEET OF THIS PLAN SET.
13. THE CONSTRUCTION RIGHT-OF-WAY (ROW) WILL BE RESTORED TO PRE-CONSTRUCTION CONTOURS IN ACCORDANCE WITH SECTION V.4.5 FEDERAL ENERGY REGULATORY COMMISSION (FERC) UPLAND EROSION CONTROL, REVEGETATION, AND MAINTENANCE PLAN, SECTION V.4.5. IN ADDITION, WETLAND AND WATERBODY CROSSINGS WILL BE RESTORED TO PRE-CONSTRUCTION CONTOURS IN ACCORDANCE WITH NATIONWIDE PERMIT 12 (NWP) ISSUED BY THE U.S. CORPS OF ENGINEERS.

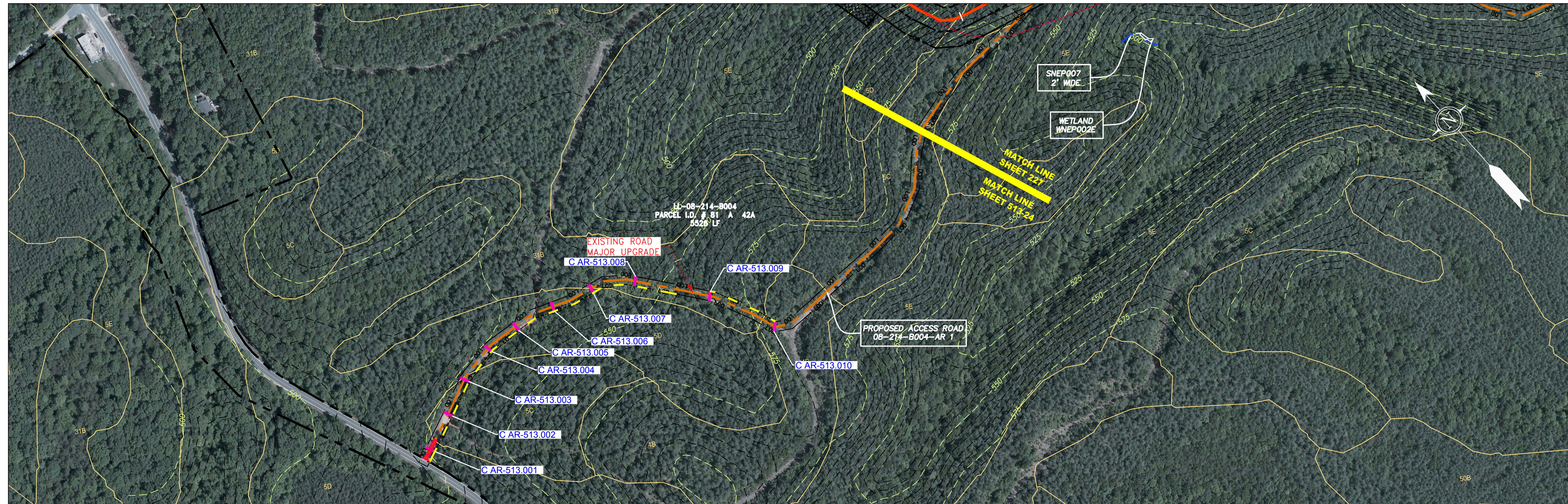


<p>42" AP-1 PIPELINE ACCESS ROAD DETAIL BUCKINGHAM COUNTY, VIRGINIA</p> <p>ATLANTIC COAST PIPELINE, LLC C/O DOMINION TRANSMISSION, INC. 925 WHITE OAKS BLVD., BRIDGEPORT, WV 26330</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 10%;">NO.</th> <th style="width: 10%;">DATE</th> <th style="width: 10%;">DWN.</th> <th style="width: 10%;">CHKD.</th> <th style="width: 10%;">APPVD.</th> <th style="width: 49%;">DESCRIPTION</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	NO.	DATE	DWN.	CHKD.	APPVD.	DESCRIPTION						
NO.	DATE	DWN.	CHKD.	APPVD.	DESCRIPTION								
<p>SCALE: AS SHOWN</p> <p>DATE: 6/20/17</p> <p>DRAWN: GPT</p> <p>CHECKED: DLH</p> <p>APPROVED: NET</p>													
<p>SOUTHPOINTE OFFICE 6000 TOWN CENTER BLVD. CANONSBURG, PA 15317 724-873-3545</p>													
<p>PROJECT NO./DASH NO. <b>140468</b></p> <p>TASK NO. SUB TASK NO. <b>005 00</b></p> <p>GROUP ID DRAWING NO. <b>D E512</b></p> <p style="text-align: right;"><b>AR-512</b></p>													





ACCESS ROAD  
DETAIL 23



ACCESS ROAD  
DETAIL 24

GAI CAD FILE NO. \NTG-FS1\THRASHER\050-5159 - GAI, INC. - GAI - THRASHER - SERP - MAPPING\SURVEY\DRAWING\SEC 4\SEC 4 - ACCESS ROAD DETAILS.DWG

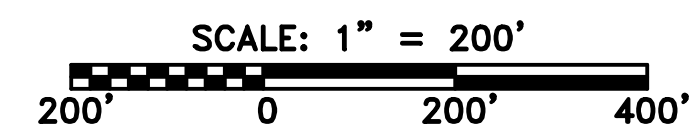
**LEGEND**

	PROPERTY LINE		STORM SEWER		EXTRA WORK SPACE		TOPSOIL SEGREGATION AREA
	FENCE		UNDERGROUND ELECTRIC		AREA OF NO DISTURBANCE		PROPOSED TEMPORARY R.O.W.
	STREAM		WATER LINE		WETLAND (COLOR SHOWN TO PROVIDE CLARITY ONLY)		UTILITY POLE
	EXISTING GAS PIPELINE		SANITARY SEWER	<b>NOTE: THE PE SEAL AND SIGNATURE APPLIES ONLY TO THE E&amp;S CONTROL DESIGN COMPLETED BY ERM (SEE NOTE 12).</b>			
	OVERHEAD UTILITY LINES		EDGE OF GRAVEL				
	ACCESS ROAD		PROPOSED PERMANENT EASEMENT				
	PROPOSED GAS PIPELINE		PROPOSED GAS PIPELINE (NO GROUND SURVEY)				

	PERMANENT WATERBAR/SLOPE BREAKER		LOD		LIMIT OF DISTURBANCE
	TEMPORARY WATERBAR/SLOPE BREAKER		BSRF		BELTED SILT RETENTION FENCE (BSRF)
	TRENCH BREAKER/PLUG		COMPOST FILTER SOCK		SEDIMENT BARRIER IDENTIFICATION
	STREAM CROSSING		USFWS STREAM CROSSING WITH ENHANCED CONTROLS		CULVERT IDENTIFICATION
	SLOPE DIRECTION		ROADSIDE DITCH		SOIL TYPE
	CONSTRUCTION ENTRANCE WITH DITCH		111.03 C 111.01 30-58%		TYPICAL BIC SLOPE CATEGORY SLOPE INCLINATION
	CULVERT WATERBAR				

**NOTES:**

- COORDINATE SYSTEM USED FOR MAPPING AND TOPOGRAPHY - UTM WITH NAD83 DATUM, ZONE 17, US SURVEY FOOT, CENTRAL MERIDIAN 81° W. CONTOURS AND TOPOGRAPHIC FEATURES WERE DERIVED FROM LIDAR DATA AND GPS SUB-METER GROUND SURVEY PERFORMED BY GAI CONSULTANTS, INC FROM 11-03-2014 THRU 11-07-2014.
- PROPERTY LINES SHOWN ARE BASED ON GIS & TAX ASSESSMENT RECORDS (PROVIDED BY OTHERS). GAI CONSULTANTS MAKE NO GUARANTEE EITHER EXPRESSED OR IMPLIED AS TO THE ACCURACY OF THE RECORDS AS SHOWN ON THESE DRAWINGS.
- IMAGERY TAKEN FROM GOOGLE EARTH.
- STREAM AND WETLAND DATA SHOWN ON THE DRAWINGS WAS PROVIDED BY ERM.
- EROSION AND SEDIMENTATION CONTROL ELEMENTS MAY BE SHOWN OUTSIDE OF THE WORK AREAS FOR CLARITY ONLY. ACTUAL INSTALLATION SHALL BE WITHIN THE WORK AREAS.
- ALL STATIONING SHOWN IS SLOPE STATIONING.
- SILT FENCE AND FILTER SOCK SHALL BE INSTALLED PARALLEL TO CONTOUR TO EXTENT PRACTICABLE IN ACCORDANCE WITH STANDARD DETAIL.
- BEST IN CLASS (BIC) STEEP SLOPE CATEGORY INFORMATION CAN BE FOUND IN THE APPENDIX OF THE STORMWATER POLLUTION PREVENTION PLAN.
- ACCESS ROADS HAVE BEEN GROUPED INTO FOUR CATEGORIES - 1) EXISTING ROADS NO IMPROVEMENTS, 2) EXISTING ROADS MINOR IMPROVEMENTS, 3) EXISTING ROADS MAJOR IMPROVEMENTS AND 4) NEW ROADS. APPROPRIATE EROSION AND SEDIMENT CONTROLS WILL BE PROVIDED FOR ROADS IN CATEGORIES 2, 3 AND 4. ROADS IN CATEGORIES 1 AND 2 HAVE ADEQUATE EXISTING DRAINAGE; DRAINAGE FEATURES WILL BE PROVIDED FOR ROADS IN CATEGORIES 3 AND 4.
- ERM IS SOLELY RESPONSIBLE FOR THE NATURE AND LOCATION OF THE DEPICTED BMPs AS OF THE DATE SIGNED AND SEALED BASED ON THE SOURCE DATA PROVIDED AND AS DESCRIBED IN THE NOTES SECTION OF THE INDEX SHEET OF THIS PLAN SET.
- THE CONSTRUCTION RIGHT-OF-WAY (ROW) WILL BE RESTORED TO PRE-CONSTRUCTION CONTOURS IN ACCORDANCE WITH SECTION V.4.5 FEDERAL ENERGY REGULATORY COMMISSION (FERC) UPLAND EROSION CONTROL, REVEGETATION, AND MAINTENANCE PLAN, SECTION V.4.5. IN ADDITION, WETLAND AND WATERBODY CROSSINGS WILL BE RESTORED TO PRE-CONSTRUCTION CONTOURS IN ACCORDANCE WITH NATIONWIDE PERMIT 12 (NWP) ISSUED BY THE U.S. CORPS OF ENGINEERS.



PROJECT NO./DASH NO. <b>140468</b>	
TASK NO. SUB TASK NO. <b>005 00</b>	
GROUP ID DRAWING NO. <b>D E13</b>	
PROJECT NO./DASH NO. <b>AR-513</b>	

42" AP-1 PIPELINE  
ACCESS ROAD DETAIL  
BUCKINGHAM COUNTY, VIRGINIA

ATLANTIC COAST PIPELINE, LLC  
C/O DOMINION TRANSMISSION, INC.  
925 WHITE OAKS BLVD., BRIDGEPORT, WV 26330

SCALE: AS SHOWN  
DATE: 6/20/17  
DRAWN: GPT  
CHECKED: DLH  
APPROVED: NET

gai consultants  
SOUTHPOINTE OFFICE  
6000 TOWN CENTER BLVD.  
CANONSBURG, PA 15317  
724-873-3545

PROFESSIONAL ENGINEER  
DANIEL R. GOLDSTEIN  
Lic. No. 047436

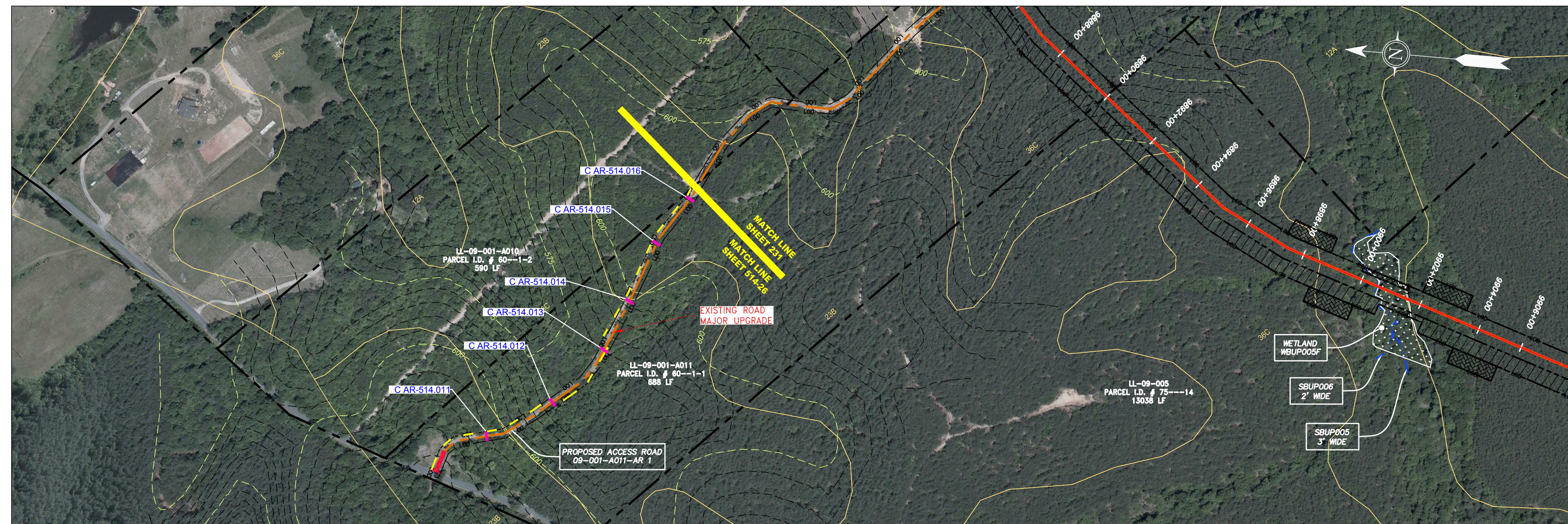
NO.	DATE	DWN.	CHKD.	APPD.	DESCRIPTION

REVISIONS





ACCESS ROAD  
DETAIL 25



ACCESS ROAD  
DETAIL 26

GAI CAD FILE NO. \NTG-FS1\THRASHER\050-5159 - GAI, INC. - GAI - THRASHER - SERP - MAPPING\SURVEY\DRAWING\SEC 4\SEC 4 - ACCESS ROAD DETAILS.DWG

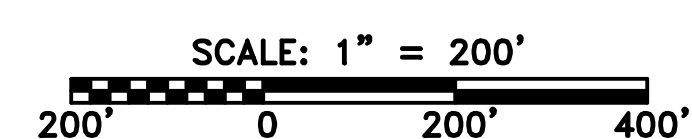
**LEGEND**

- |           |                        |       |  |               |  |               |                           |
|-----------|------------------------|-------|--|---------------|--|---------------|---------------------------|
| — X — X — | PROPERTY LINE          | — E — | STORM SEWER                              | [Hatched Box] | EXTRA WORK SPACE                                 | [Hatched Box] | TOPSOIL SEGREGATION AREA  |
| — X — X — | FENCE                  | — W — | UNDERGROUND ELECTRIC                     | [Dotted Box]  | AREA OF NO DISTURBANCE                           | [Hatched Box] | PROPOSED TEMPORARY R.O.W. |
| — G — G — | EXISTING GAS PIPELINE  | — S — | WATER LINE                               | [Green Box]   | WETLAND<br>(COLOR SHOWN TO PROVIDE CLARITY ONLY) | [Circle]      | UTILITY POLE              |
| — OH —    | OVERHEAD UTILITY LINES | —     | SANITARY SEWER                           | [Dashed Line] | EDGE OF GRAVEL                                   | —             |                           |
| —         | ACCESS ROAD            | —     | PROPOSED PERMANENT EASEMENT              |               |  |               |                           |
| —         | PROPOSED GAS PIPELINE  | —     | PROPOSED GAS PIPELINE (NO GROUND SURVEY) |               |  |               |                           |

- |            |  |        |  |
|------------|--|--------|--|
| [Triangle] | PERMANENT WATERBARI/SLOPE BREAKER            | [Line] | LIMIT OF DISTURBANCE                         |
| [Triangle] | TEMPORARY WATERBARI/SLOPE BREAKER            | [Line] | BELTED SILT RETENTION FENCE (BSRF)           |
| [Triangle] | TRENCH BREAKER/PLUG                          | [Line] | COMPOST FILTER SOCK                          |
| [Diamond]  | STREAM CROSSING                              | [Line] | SEDIMENT BARRIER IDENTIFICATION              |
| [Diamond]  | USFWS STREAM CROSSING WITH ENHANCED CONTROLS | [Line] | CULVERT IDENTIFICATION                       |
| [Diamond]  | SEEP   | [Line] | ROADSIDE DITCH                               |
| [Arrow]    | SLOPE DIRECTION                              | [Line] | SOIL TYPE                                    |
| [Arrow]    | CONSTRUCTION ENTRANCE WITH DITCH             | [Line] | TYPICAL BIG SLOPE CATEGORY SLOPE INCLINATION |
| [Arrow]    | CULVERT AS NEEDED                            |        |  |
| [Arrow]    | CULVERT WATERBAR                             |        |  |

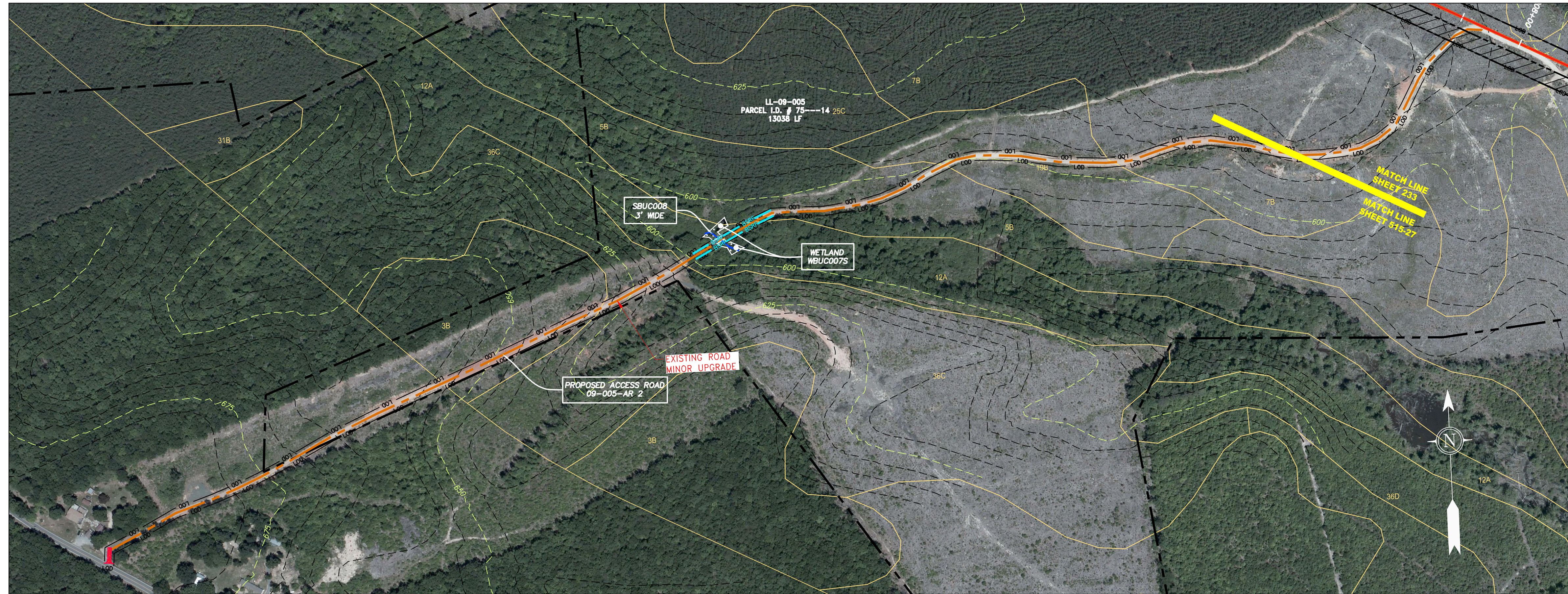
**NOTES:**

- COORDINATE SYSTEM USED FOR MAPPING AND TOPOGRAPHY - UTM WITH NAD83 DATUM, ZONE 17, US SURVEY FOOT, CENTRAL MERIDIAN 81° W.
- CONTOURS AND TOPOGRAPHIC FEATURES WERE DERIVED FROM LIDAR DATA AND GPS SUB-METER GROUND SURVEY PERFORMED BY GAI CONSULTANTS, INC FROM 11-03-2014 THRU 11-07-2014.
- IMAGERY TAKEN FROM GOOGLE EARTH.
- THE PROPERTY LINES SHOWN ARE BASED ON GIS & TAX ASSESSMENT RECORDS (PROVIDED BY OTHERS). GAI CONSULTANTS MAKE NO GUARANTEE EITHER EXPRESSED OR IMPLIED AS TO THE ACCURACY OF THE RECORDS AS SHOWN ON THESE DRAWINGS.
- STREAM AND WETLAND DATA SHOWN ON THE DRAWINGS WAS PROVIDED BY ERM.
- EROSION AND SEDIMENTATION CONTROL ELEMENTS MAY BE SHOWN OUTSIDE OF THE WORK AREAS FOR CLARITY ONLY. ACTUAL INSTALLATION SHALL BE WITHIN THE WORK AREAS.
- ALL STATIONING SHOWN IS SLOPE STATIONING.
- SILT FENCE AND FILTER SOCK SHALL BE INSTALLED PARALLEL TO CONTOUR TO EXTENT PRACTICABLE IN ACCORDANCE WITH STANDARD DETAIL.
- BEST IN CLASS (BIC) STEEP SLOPE CATEGORY INFORMATION CAN BE FOUND IN THE APPENDIX OF THE STORMWATER POLLUTION PREVENTION PLAN.
- EROSION CONTROL MATTING SHALL BE PLACED IN AREAS OF 30% SLOPE AND GREATER, WHICH ARE INDICATED ON THE BEST IN CLASS STEEP SLOPES BAND.
- HAVE ADEQUATE EXISTING DRAINAGE; DRAINAGE FEATURES WILL BE PROVIDED FOR ROADS IN CATEGORIES 3 AND 4.
- ACCESS ROADS HAVE BEEN GROUPED INTO FOUR CATEGORIES - 1) EXISTING ROADS NO IMPROVEMENTS, 2) EXISTING ROADS MINOR IMPROVEMENTS, 3) EXISTING ROADS MAJOR IMPROVEMENTS AND 4) NEW ROADS. APPROPRIATE EROSION AND SEDIMENT CONTROLS WILL BE PROVIDED FOR ROADS IN CATEGORIES 2, 3 AND 4. ROADS IN CATEGORIES 1 AND 2 WILL BE RESTORED TO PRE-CONSTRUCTION CONTOURS IN ACCORDANCE WITH SECTION V.4.5 FEDERAL ENERGY REGULATORY COMMISSION (FERC) UPLAND EROSION CONTROL, REVEGETATION, AND MAINTENANCE PLAN, SECTION V.4.5. IN ADDITION, WETLAND AND WATERBERRY CROSSINGS WILL BE RESTORED TO PRE-CONSTRUCTION CONTOURS IN ACCORDANCE WITH NATIONWIDE PERMIT 12 (NWP) ISSUED BY THE U.S. CORPS OF ENGINEERS.
- ERM IS SOLELY RESPONSIBLE FOR THE NATURE AND LOCATION OF THE DEPICTED BMPs AS OF THE DATE SIGNED AND SEALED BASED ON THE SOURCE DATA PROVIDED AND AS DESCRIBED IN THE NOTES SECTION OF THE INDEX SHEET OF THIS PLAN SET.
- THE CONSTRUCTION RIGHT-OF-WAY (ROW) WILL BE RESTORED TO PRE-CONSTRUCTION CONTOURS IN ACCORDANCE WITH SECTION V.4.5 FEDERAL ENERGY REGULATORY COMMISSION (FERC) UPLAND EROSION CONTROL, REVEGETATION, AND MAINTENANCE PLAN, SECTION V.4.5. IN ADDITION, WETLAND AND WATERBERRY CROSSINGS WILL BE RESTORED TO PRE-CONSTRUCTION CONTOURS IN ACCORDANCE WITH NATIONWIDE PERMIT 12 (NWP) ISSUED BY THE U.S. CORPS OF ENGINEERS.

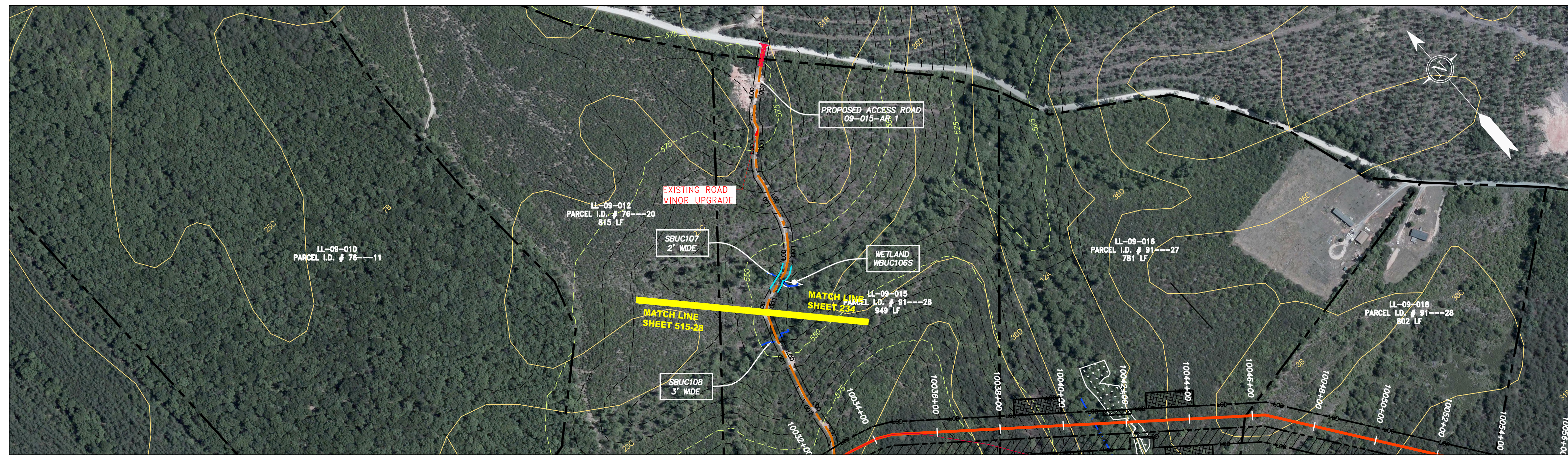


PROJECT NO./DASH NO. <b>140468</b>													
TASK NO. SUB TASK NO. <b>005 00</b>	GROUP ID DRAWING NO. <b>D E514</b>												
PROJECT NAME <b>42" AP-1 PIPELINE ACCESS ROAD DETAIL</b>													
CLIENT <b>ATLANTIC COAST PIPELINE, LLC</b> C/O DOMINION TRANSMISSION, INC. 925 WHITE OAKS BLVD., BRIDGEPORT, WV 26330													
SCALE: AS SHOWN													
DATE: 6/20/17													
DRAWN: GPT													
CHECKED: DLH													
APPROVED: NET													
REVISIONS <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>DWN.</th> <th>CHKD.</th> <th>APPD.</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		NO.	DATE	DWN.	CHKD.	APPD.	DESCRIPTION						
NO.	DATE	DWN.	CHKD.	APPD.	DESCRIPTION								





ACCESS ROAD  
DETAIL 27



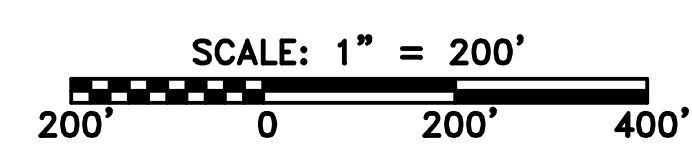
ACCESS ROAD  
DETAIL 28

GAI CAD FILE NO. \NTG-FS1\THRASHER\050-5159 - GIA, INC. - GAI - THRASHER - SERP - MAPPING\SURVEY\DRAWING\SEC 4\SEC 4. ACCESS ROAD DETAILS.DWG

**LEGEND**

- |  |                        |  |  |   |  |  |  |
|--|------------------------|--|--|---|--|--|--|
|  | PROPERTY LINE          |  | STORM SEWER                              |   | EXTRA WORK SPACE                                 |  | TOPSOIL SEGREGATION AREA                     |
|  | FENCE                  |  | UNDERGROUND ELECTRIC                     |   | AREA OF NO DISTURBANCE                           |  | PROPOSED TEMPORARY R.O.W.                    |
|  | STREAM                 |  | WATER LINE                               |   | WETLAND<br>(COLOR SHOWN TO PROVIDE CLARITY ONLY) |  | UTILITY POLE                                 |
|  | EXISTING GAS PIPELINE  |  | SANITARY SEWER                           | <b>NOTE: THE PE SEAL AND SIGNATURE APPLIES ONLY TO THE E&amp;S CONTROL DESIGN COMPLETED BY ERM (SEE NOTE 12).</b> |  |  |  |
|  | OVERHEAD UTILITY LINES |  | EDGE OF GRAVEL                           |   | PERMANENT WATERBAR/SLOPE BREAKER                 |  | TEMPORARY WATERBAR/SLOPE BREAKER             |
|  | ACCESS ROAD            |  | PROPOSED PERMANENT EASEMENT              |   | STREAM CROSSING WITH ENHANCED CONTROLS           |  | SLOPE DIRECTION                              |
|  | PROPOSED GAS PIPELINE  |  | PROPOSED GAS PIPELINE (NO GROUND SURVEY) |   | CULVERT AS NEEDED                                |  | CONSTRUCTION ENTRANCE WITH DITCH             |
|  |                        |  |  |   | TRENCH BREAKER/PLUG                              |  | USFWS STREAM CROSSING                        |
|  |                        |  |  |   | STREAM CROSSING WITH ENHANCED CONTROLS           |  | CULVERT SAFETY FENCE                         |
|  |                        |  |  |   | ROADSIDE DITCH                                   |  | ROADSIDE DITCH                               |
|  |                        |  |  |   | SEEP   |  | SOIL TYPE                                    |
|  |                        |  |  |   | LIMIT OF DISTURBANCE                             |  | TYPICAL BIG SLOPE CATEGORY SLOPE INCLINATION |

- NOTES:**
- COORDINATE SYSTEM USED FOR MAPPING AND TOPOGRAPHY - UTM WITH NAD83 DATUM, ZONE 17, US SURVEY FOOT, CENTRAL MERIDIAN 81° W.
  - CONTOURS AND TOPOGRAPHIC FEATURES WERE DERIVED FROM LIDAR DATA AND GPS SUB-METER GROUND SURVEY PERFORMED BY GAI CONSULTANTS, INC FROM 11-03-2014 THRU 11-07-2014.
  - IMAGERY TAKEN FROM GOOGLE EARTH.
  - THE PROPERTY LINES SHOWN ARE BASED ON GIS & TAX ASSESSMENT RECORDS (PROVIDED BY OTHERS). GAI CONSULTANTS MAKE NO GUARANTEE EITHER EXPRESSED OR IMPLIED AS TO THE ACCURACY OF THE RECORDS AS SHOWN ON THESE DRAWINGS.
  - STREAM AND WETLAND DATA SHOWN ON THE DRAWINGS WAS PROVIDED BY ERM.
  - EROSION AND SEDIMENTATION CONTROL ELEMENTS MAY BE SHOWN OUTSIDE OF THE WORK AREAS FOR CLARITY ONLY. ACTUAL INSTALLATION SHALL BE WITHIN THE WORK AREAS.
  - ALL STATIONING SHOWN IS SLOPE STATIONING.
  - SILT FENCE AND FILTER SOCK SHALL BE INSTALLED PARALLEL TO CONTOUR TO EXTENT PRACTICABLE IN ACCORDANCE WITH STANDARD DETAIL.
  - BEST IN CLASS (BIC) STEEP SLOPE CATEGORY INFORMATION CAN BE FOUND IN THE APPENDIX OF THE STORMWATER POLLUTION PREVENTION PLAN.
  - EROSION CONTROL MATTING SHALL BE PLACED IN AREAS OF 30% SLOPE AND GREATER, WHICH ARE INDICATED ON THE BEST IN CLASS STEEP SLOPES BAND.
  - ACCESS ROADS HAVE BEEN GROUPED INTO FOUR CATEGORIES - 1) EXISTING ROADS NO IMPROVEMENTS, 2) EXISTING ROADS MINOR IMPROVEMENTS, 3) EXISTING ROADS MAJOR IMPROVEMENTS AND 4) NEW ROADS. APPROPRIATE EROSION AND SEDIMENT CONTROLS WILL BE PROVIDED FOR ROADS IN CATEGORIES 2, 3 AND 4. ROADS IN CATEGORIES 1 AND 2 HAVE ADEQUATE EXISTING DRAINAGE; DRAINAGE FEATURES WILL BE PROVIDED FOR ROADS IN CATEGORIES 3 AND 4.
  - ERM IS SOLELY RESPONSIBLE FOR THE NATURE AND LOCATION OF THE DEPICTED BMPs AS OF THE DATE SIGNED AND SEALED BASED ON THE SOURCE DATA PROVIDED AND AS DESCRIBED IN THE NOTES SECTION OF THE INDEX SHEET OF THIS PLAN SET.
  - THE CONSTRUCTION RIGHT-OF-WAY (ROW) WILL BE RESTORED TO PRE-CONSTRUCTION CONTOURS IN ACCORDANCE WITH SECTION V.4.5 FEDERAL ENERGY REGULATORY COMMISSION (FERC) UPLAND EROSION CONTROL, REVEGETATION, AND MAINTENANCE PLAN, SECTION V.4.5. IN ADDITION, WETLAND AND WATERBODY CROSSINGS WILL BE RESTORED TO PRE-CONSTRUCTION CONTOURS IN ACCORDANCE WITH NATIONWIDE PERMIT 12 (NWP) ISSUED BY THE U.S. CORPS OF ENGINEERS.



<p>42" AP-1 PIPELINE ACCESS ROAD DETAIL BUCKINGHAM COUNTY, VIRGINIA</p> <p>ATLANTIC COAST PIPELINE, LLC C/O DOMINION TRANSMISSION, INC. 925 WHITE OAKS BLVD., BRIDGEPORT, WV 26330</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 10%;">NO.</th> <th style="width: 10%;">DATE</th> <th style="width: 10%;">DWN.</th> <th style="width: 10%;">CHKD.</th> <th style="width: 10%;">APPD.</th> <th style="width: 49%;">DESCRIPTION</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	NO.	DATE	DWN.	CHKD.	APPD.	DESCRIPTION						
NO.	DATE	DWN.	CHKD.	APPD.	DESCRIPTION								
<p>SCALE: AS SHOWN</p> <p>DATE: 6/20/17</p> <p>DRAWN: GPT</p> <p>CHECKED: DLH</p> <p>APPROVED: NET</p>													
<p>SOUTHPOINTE OFFICE 6000 TOWN CENTER BLVD. CANONSBURG, PA 15317 724-873-3545</p>													
<p>PROJECT NO./DASH NO. <b>140468</b></p> <p>TASK NO. SUB TASK NO. <b>005 00</b></p> <p>GROUP ID DRAWING NO. <b>D E515</b></p> <p><b>AR-515</b></p>													





ACCESS ROAD  
DETAIL 29

**LEGEND**

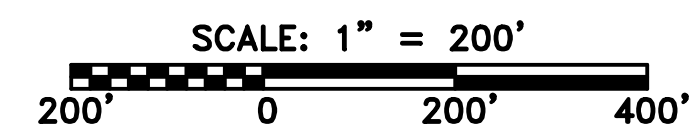
	PROPERTY LINE		STORM SEWER		EXTRA WORK SPACE		TOPSOIL SEGREGATION AREA
	FENCE		UNDERGROUND ELECTRIC		AREA OF NO DISTURBANCE		PROPOSED TEMPORARY R.O.W.
	STREAM		WATER LINE		WETLAND (COLOR SHOWN TO PROVIDE CLARITY ONLY)		UTILITY POLE
	EXISTING GAS PIPELINE		SANITARY SEWER				
	OVERHEAD UTILITY LINES		EDGE OF GRAVEL				
	ACCESS ROAD		PROPOSED PERMANENT EASEMENT				
	PROPOSED GAS PIPELINE		PROPOSED GAS PIPELINE (NO GROUND SURVEY)				

NOTE: THE PE SEAL AND SIGNATURE APPLIES ONLY TO THE E&S CONTROL DESIGN COMPLETED BY ERM (SEE NOTE 12).

	PERMANENT WATERBAR/SLOPE BREAKER		LOD		LIMIT OF DISTURBANCE
	TEMPORARY WATERBAR/SLOPE BREAKER		BSRF		BELTED SILT RETENTION FENCE (BSRF)
	TRENCH BREAKER/PLUG		COMPOST FILTER SOCK		SEDIMENT BARRIER IDENTIFICATION
	STREAM CROSSING		USFWS STREAM CROSSING WITH ENHANCED CONTROLS		CULVERT IDENTIFICATION
	SLOPE DIRECTION		ROADSIDE DITCH		SOIL TYPE
	CONSTRUCTION ENTRANCE WITH DITCH		30-58%		
	CULVERT AS NEEDED				
	CULVERT WATERBAR				

**NOTES:**

- COORDINATE SYSTEM USED FOR MAPPING AND TOPOGRAPHY - UTM WITH NAD83 DATUM, ZONE 17, US SURVEY FOOT, CENTRAL MERIDIAN 81° W.
- CONTOURS AND TOPOGRAPHIC FEATURES WERE DERIVED FROM LIDAR DATA AND GPS SUB-METER GROUND SURVEY PERFORMED BY GAI CONSULTANTS, INC FROM 11-03-2014 THRU 11-07-2014.
- IMAGERY TAKEN FROM GOOGLE EARTH.
- THE PROPERTY LINES SHOWN ARE BASED ON GIS & TAX ASSESSMENT RECORDS (PROVIDED BY OTHERS). GAI CONSULTANTS MAKE NO GUARANTEE EITHER EXPRESSED OR IMPLIED AS TO THE ACCURACY OF THE RECORDS AS SHOWN ON THESE DRAWINGS.
- STREAM AND WETLAND DATA SHOWN ON THE DRAWINGS WAS PROVIDED BY ERM.
- EROSION AND SEDIMENTATION CONTROL ELEMENTS MAY BE SHOWN OUTSIDE OF THE WORK AREAS FOR CLARITY ONLY. ACTUAL INSTALLATION SHALL BE WITHIN THE WORK AREAS.
- ALL STATIONING SHOWN IS SLOPE STATIONING.
- SILT FENCE AND FILTER SOCK SHALL BE INSTALLED PARALLEL TO CONTOUR TO EXTENT PRACTICABLE IN ACCORDANCE WITH STANDARD DETAIL.
- BEST IN CLASS (BIC) STEEP SLOPE CATEGORY INFORMATION CAN BE FOUND IN THE APPENDIX OF THE STORMWATER POLLUTION PREVENTION PLAN.
- EROSION CONTROL MATTING SHALL BE PLACED IN AREAS OF 30% SLOPE AND GREATER, WHICH ARE INDICATED ON THE BEST IN CLASS STEEP SLOPES BAND.
- ACCESS ROADS HAVE BEEN GROUPED INTO FOUR CATEGORIES - 1) EXISTING ROADS NO IMPROVEMENTS, 2) EXISTING ROADS MINOR IMPROVEMENTS, 3) EXISTING ROADS MAJOR IMPROVEMENTS AND 4) NEW ROADS. APPROPRIATE EROSION AND SEDIMENT CONTROLS WILL BE PROVIDED FOR ROADS IN CATEGORIES 2, 3 AND 4. ROADS IN CATEGORIES 1 AND 2 HAVE ADEQUATE EXISTING DRAINAGE; DRAINAGE FEATURES WILL BE PROVIDED FOR ROADS IN CATEGORIES 3 AND 4.
- ERM IS SOLELY RESPONSIBLE FOR THE NATURE AND LOCATION OF THE DEPICTED BMPs AS OF THE DATE SIGNED AND SEALED BASED ON THE SOURCE DATA PROVIDED AND AS DESCRIBED IN THE NOTES SECTION OF THE INDEX SHEET OF THIS PLAN SET.
- THE CONSTRUCTION RIGHT-OF-WAY (ROW) WILL BE RESTORED TO PRE-CONSTRUCTION CONTOURS IN ACCORDANCE WITH SECTION V.4.5 FEDERAL ENERGY REGULATORY COMMISSION (FERC) UPLAND EROSION CONTROL, REVEGETATION, AND MAINTENANCE PLAN, SECTION V.4.5. IN ADDITION, WETLAND AND WATERBODY CROSSINGS WILL BE RESTORED TO PRE-CONSTRUCTION CONTOURS IN ACCORDANCE WITH NATIONWIDE PERMIT 12 (NWP) ISSUED BY THE U.S. CORPS OF ENGINEERS.



NO.	DATE	DWN.	CHKD.	APPD.	DESCRIPTION

PROFESSIONAL ENGINEER  
 Daniel R. Goldstein  
 Lic. No. 047436  
 ERM

42" AP-1 PIPELINE  
 ACCESS ROAD DETAIL  
 BUCKINGHAM COUNTY, VIRGINIA  
 ATLANTIC COAST PIPELINE, LLC  
 C/O DOMINION TRANSMISSION, INC.  
 925 WHITE OAKS BLVD., BRIDGEPORT, WV 26330

SCALE:	AS SHOWN
DATE:	6/20/17
DRAWN:	GPT
CHECKED:	DLH
APPROVED:	NET

**gai consultants**  
 SOUTHPOINTE OFFICE  
 6000 TOWN CENTER BLVD.  
 CANONSBURG, PA 15317  
 724-873-3545

PROJECT NO./DASH NO.	140468
TASK NO. SUB TASK NO.	005 00
GROUP ID DRAWING NO.	D E516
	AR-516