



Ash Ponds

Station Boundary

County Boundary

Figure 1 - Site Location Map
Stormwater Diversion Project
and Associated Projects

Dan River Steam Station
Rockingham County, NC

PROJECT NO:	7810-16-0761	FIGURE NO:	1
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COE Figure 1

NOTE: THIS FIGURE IS FOR REFERENCE ONLY.



Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye,



- | | | |
|-----------------------------------|---------------------|--|
| Ash Ponds | DR 131 Project Area | 36 Inch Pipe Closure Project (USACE ID : SAW-2014-01477) |
| Station Boundary | DR 134 Project Area | 48 inch Pipe Closure Project (USACE ID : SAW-2015-01670) |
| Stormwater Diversion Project Area | | |

NOTE: THIS FIGURE IS FOR REFERENCE ONLY.

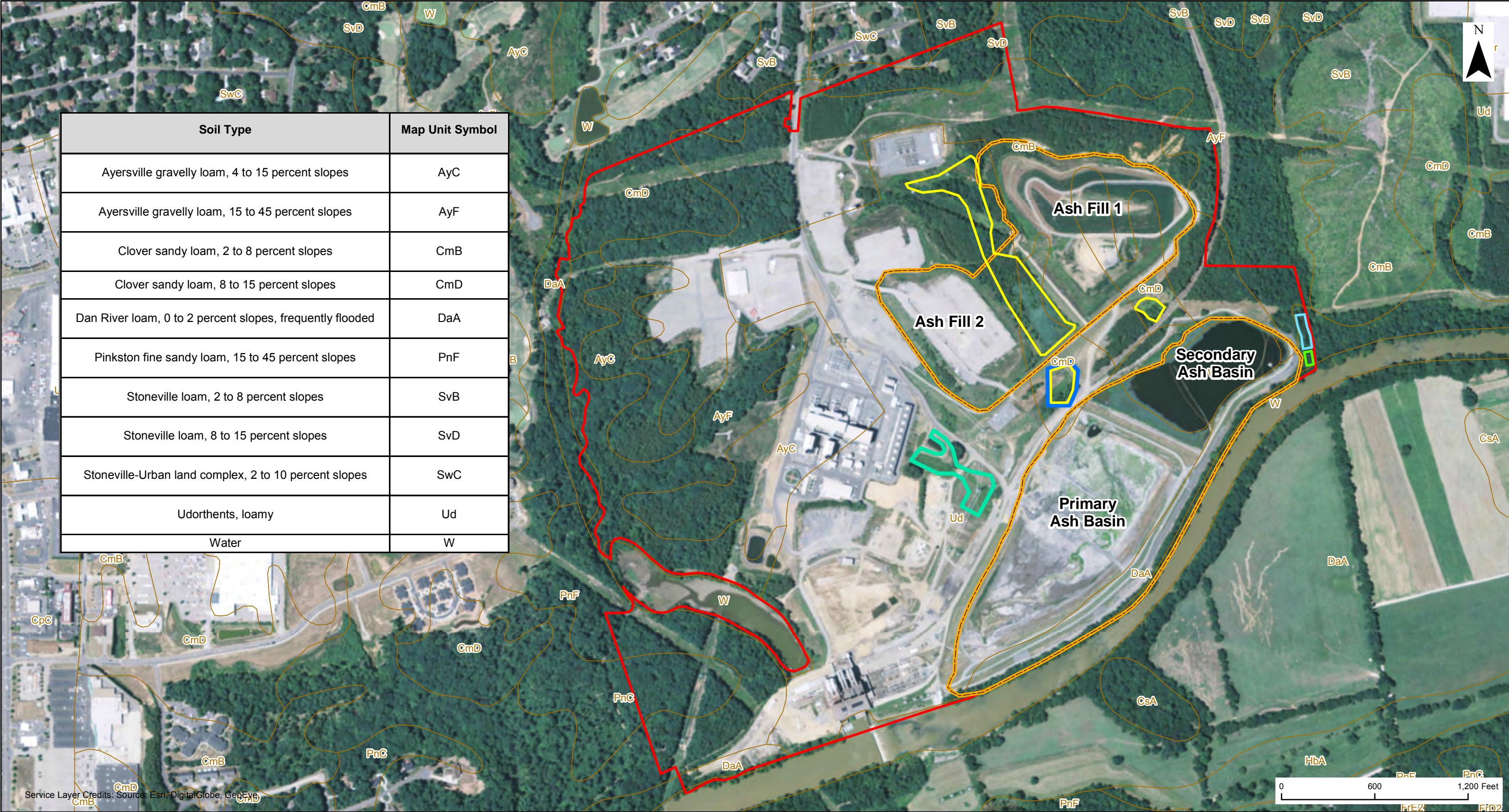
Figure 2 - Site Aerial Map
Stormwater Diversion Project
and Associated Projects
Dan River Steam Station
Rockingham County, NC

PROJECT NO: 7810-16-0761

FIGURE NO: 2



COE Figure 2



Soil Type	Map Unit Symbol
Ayersville gravelly loam, 4 to 15 percent slopes	AyC
Ayersville gravelly loam, 15 to 45 percent slopes	AyF
Clover sandy loam, 2 to 8 percent slopes	CmB
Clover sandy loam, 8 to 15 percent slopes	CmD
Dan River loam, 0 to 2 percent slopes, frequently flooded	DaA
Pinkston fine sandy loam, 15 to 45 percent slopes	PnF
Stoneville loam, 2 to 8 percent slopes	SvB
Stoneville loam, 8 to 15 percent slopes	SvD
Stoneville-Urban land complex, 2 to 10 percent slopes	SwC
Udorthents, loamy	Ud
Water	W



- Station Boundary
- Ash Ponds
- Soils
- 48 inch Pipe Closure Project
- 36 Inch Pipe Closure Project
- Stormwater Diversion Project Area
- DR 134 Project Area
- DR 131 Project Area

NOTE: THIS FIGURE IS FOR REFERENCE ONLY.

Figure 5 - NRCS Soils Map
Stormwater Diversion Project
and Associated Projects

Dan River Steam Station
Rockingham County, NC





COE Figure 3

PROJECT NO:7810-16-0761

FIGURE NO:5



	<div><div><div>Station Boundary</div><div>Ash Ponds</div><div>48-Inch Pipe Closure Project</div><div>36-Inch Pipe Closure Project</div></div><div><div>Streams</div><div>Wetlands</div><div>Ponds</div></div><div><div>Stormwater Diversion Project Area</div><div>DR 134 Project Area</div><div>DR 131 Project Area</div></div></div>	<div>Figure 6a - Jurisdictional Waters Map Stormwater Diversion Project and Associated Projects</div> <div>Dan River Steam Station Rockingham County, NC</div>	 COE Figure 4
	<div>NOTE: THIS FIGURE IS FOR REFERENCE ONLY.</div>	<div>PROJECT NO: 7810-16-0761</div> <div>FIGURE NO: 6a</div>	

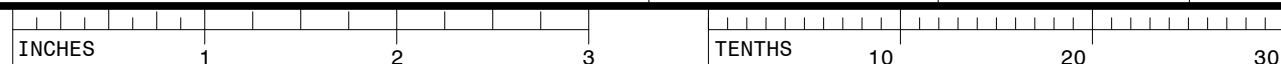


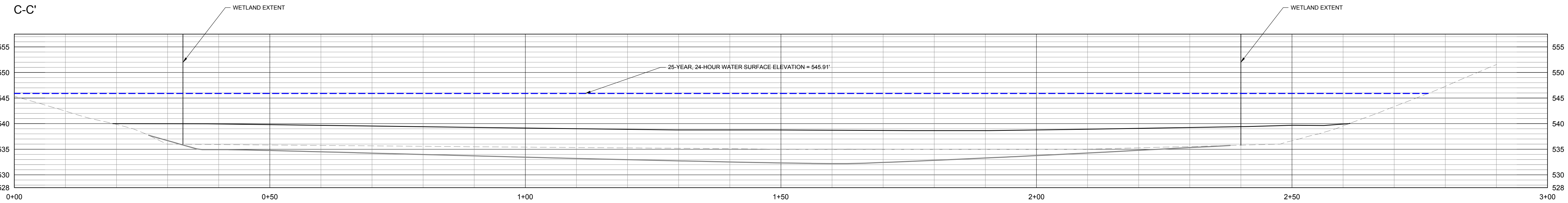
SEAL

NOT FOR
CONSTRUCTION

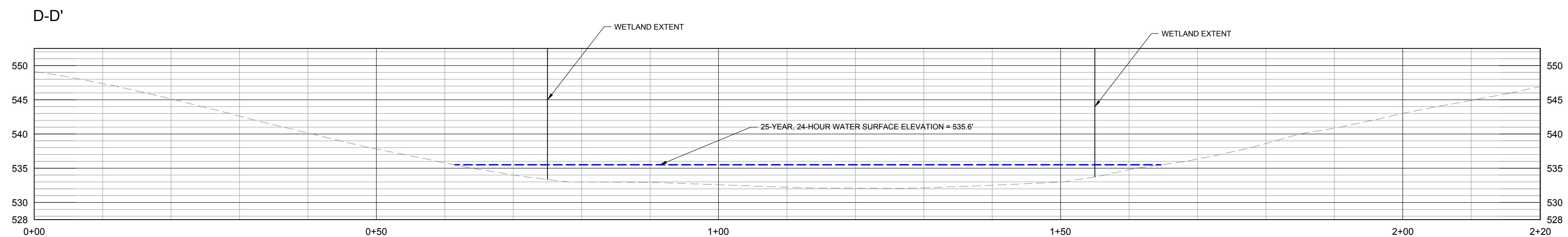
COE Figure 7

ABSAT ISSUE #	DATE	DESIGN
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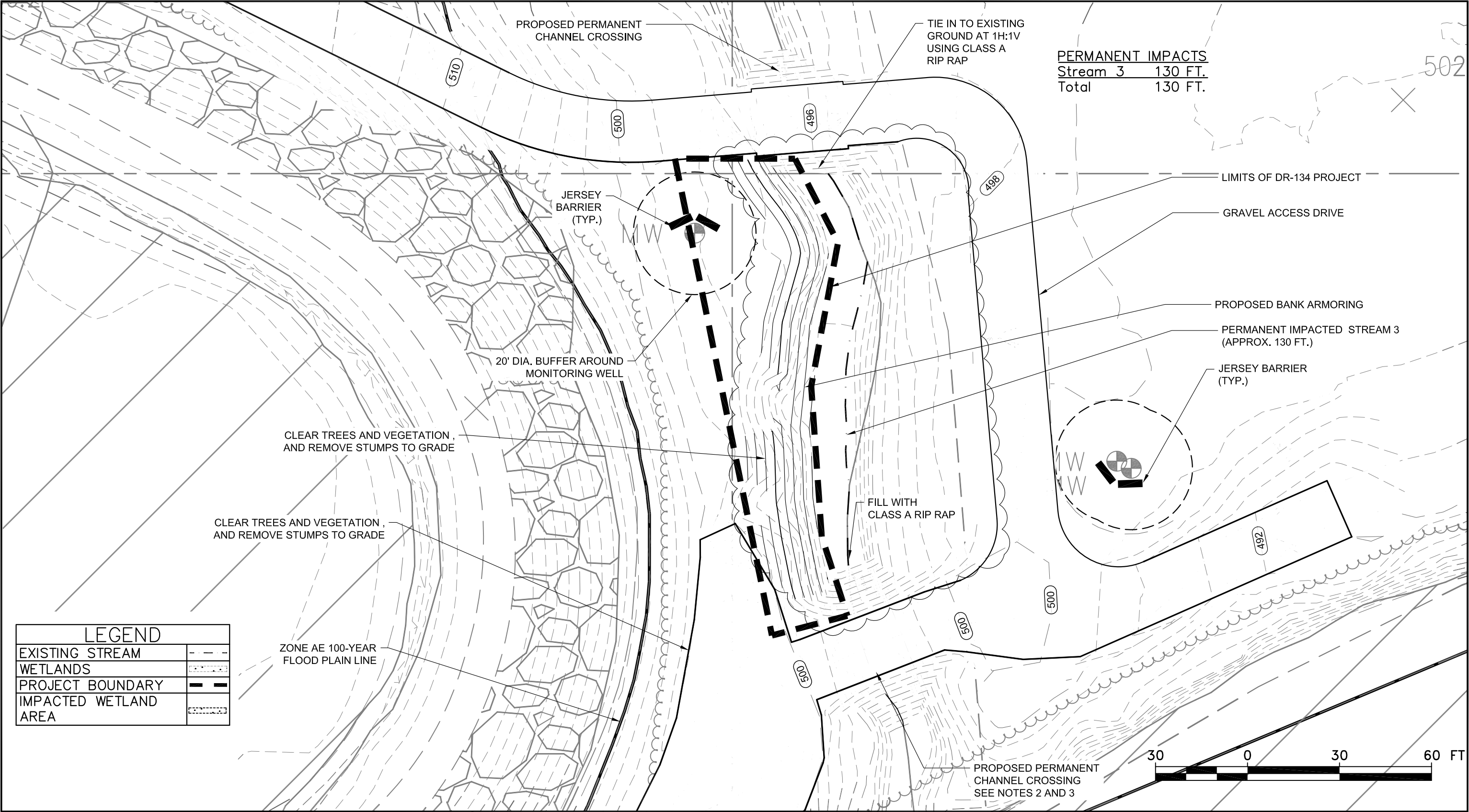
SECTION C-C'





SECTION D-D'



Environment & Infrastructure 2801 YORKMONT ROAD SUITE 100 CHARLOTTE, NC 28208 TEL: (704) 357-8600 FAX: (704) 357-8638 LICENSEE: NC ENG: F-1253 NC GEOLOGY: C-247	 amec foster wheeler	CROSS SECTIONS 2 DAN RIVER STEAM STATION INDIVIDUAL PERMIT APPLICATION			
		FOR ISSUED FOR PERMITTING - NOT RELEASED FOR CONSTRUCTION			
NOT FOR CONSTRUCTION COE Figure 8		SCALE: AS SHOWN		DES: CSJ	
		DWG TYPE: DWG		DFTR: CSJ	
		JOB NO: 7810-16-0559		CHKD: CHR	
		DATE: 2/8/2017		ENGR: CHR	
FILENAME: CROSS SECTIONS 2.dwg				APPD: CHR	
DWG SIZE	DRAWING NO.			REVISION	
ANSI D 22"x34"	3			0	



		CLIENT: DUKE ENERGY - CAROLINAS		DWN BY: JMB	PROJECT DAN RIVER STEAM STATION DR-134 PROJECT IMPACT AREA	DATE: APRIL 25, 2017
		Amec Foster Wheeler Environment & Infrastructure 2801 YORKMONT ROAD, SUITE 100 CHARLOTTE, NC 28208 PHONE 704-357-8600, FAX 704-357-8638 LICENSURE: NC ENG: F-1253 NC GEOLOGY: C-247		CHK'D BY: XXX		PROJECT NO: 7810-15-0418
				DATUM: NAD99	TITLE PLAN VIEW COE Figure 9	REV. NO.: A
				PROJECTION: UTM Zone 0		FIGURE No. FIGURE 01
				SCALE: 1" = 30'		

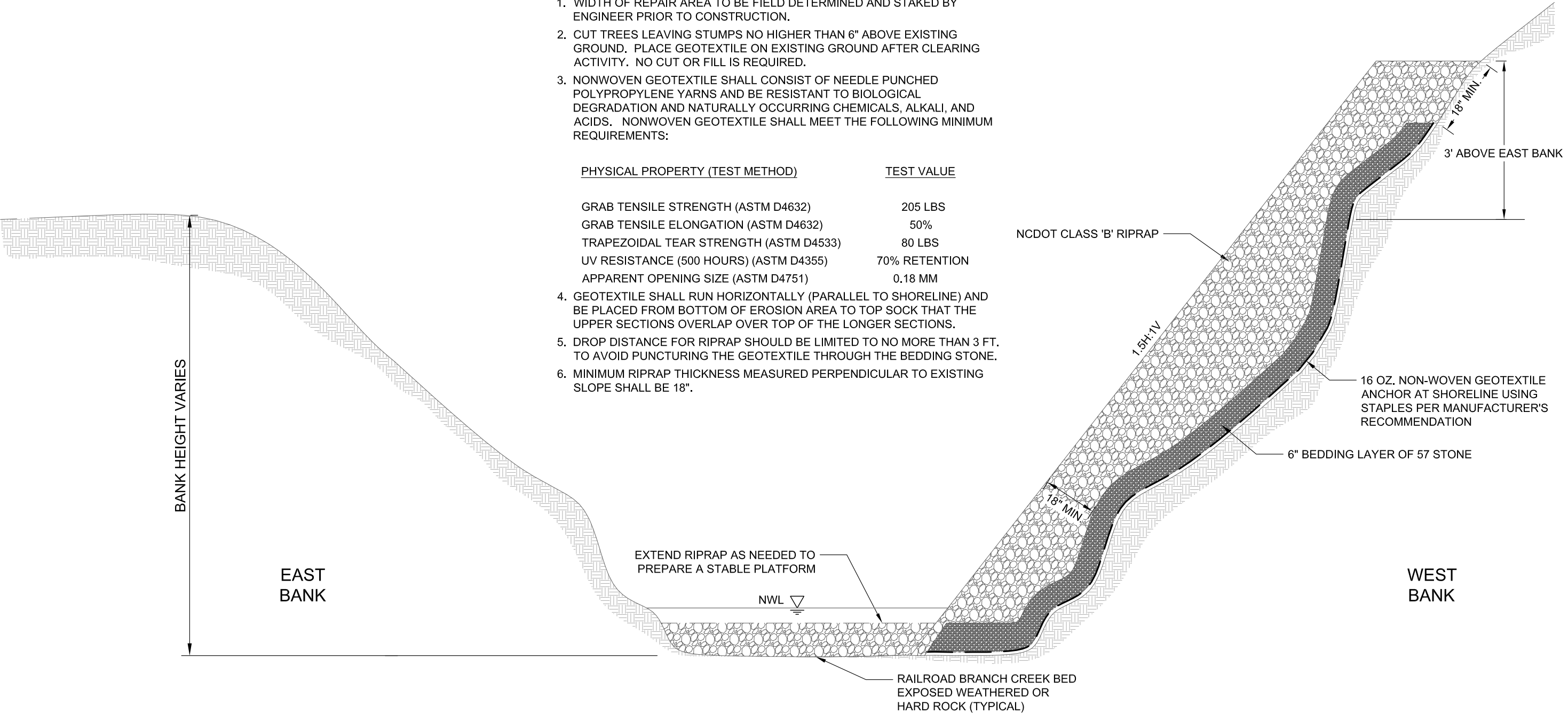
CONSTRUCTION NOTES FOR SLOPE REPAIR:

1. WIDTH OF REPAIR AREA TO BE FIELD DETERMINED AND STAKED BY ENGINEER PRIOR TO CONSTRUCTION.
2. CUT TREES LEAVING STUMPS NO HIGHER THAN 6" ABOVE EXISTING GROUND. PLACE GEOTEXTILE ON EXISTING GROUND AFTER CLEARING ACTIVITY. NO CUT OR FILL IS REQUIRED.
3. NONWOVEN GEOTEXTILE SHALL CONSIST OF NEEDLE PUNCHED POLYPROPYLENE YARNS AND BE RESISTANT TO BIOLOGICAL DEGRADATION AND NATURALLY OCCURRING CHEMICALS, ALKALI, AND ACIDS. NONWOVEN GEOTEXTILE SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS:

PHYSICAL PROPERTY (TEST METHOD) TEST VALUE

GRAB TENSILE STRENGTH (ASTM D4632)	205 LBS
GRAB TENSILE ELONGATION (ASTM D4632)	50%
TRAPEZOIDAL TEAR STRENGTH (ASTM D4533)	80 LBS
UV RESISTANCE (500 HOURS) (ASTM D4355)	70% RETENTION
APPARENT OPENING SIZE (ASTM D4751)	0.18 MM

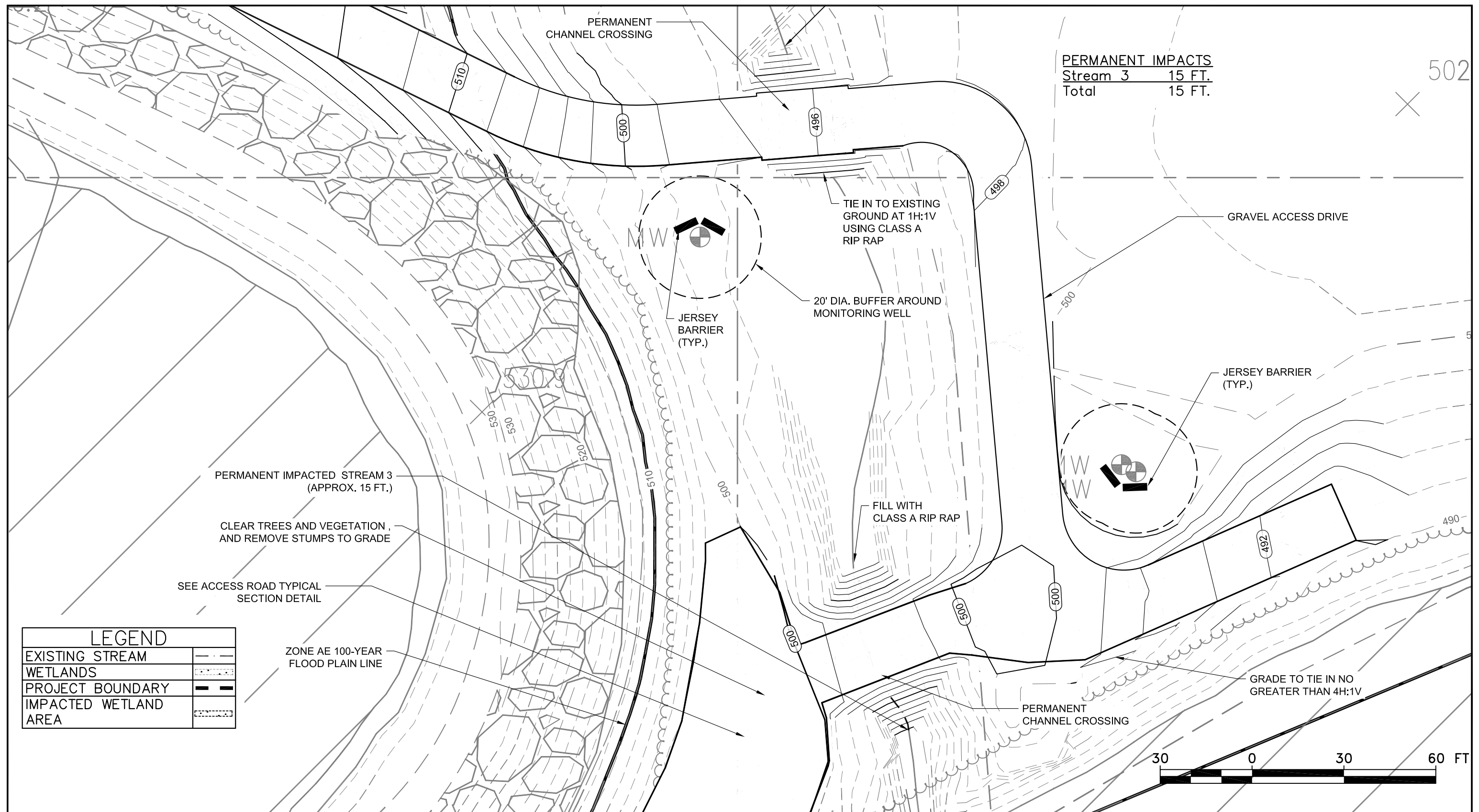
4. GEOTEXTILE SHALL RUN HORIZONTALLY (PARALLEL TO SHORELINE) AND BE PLACED FROM BOTTOM OF EROSION AREA TO TOP SOCK THAT THE UPPER SECTIONS OVERLAP OVER TOP OF THE LONGER SECTIONS.
5. DROP DISTANCE FOR RIPRAP SHOULD BE LIMITED TO NO MORE THAN 3 FT. TO AVOID PUNCTURING THE GEOTEXTILE THROUGH THE BEDDING STONE.
6. MINIMUM RIPRAP THICKNESS MEASURED PERPENDICULAR TO EXISTING SLOPE SHALL BE 18".





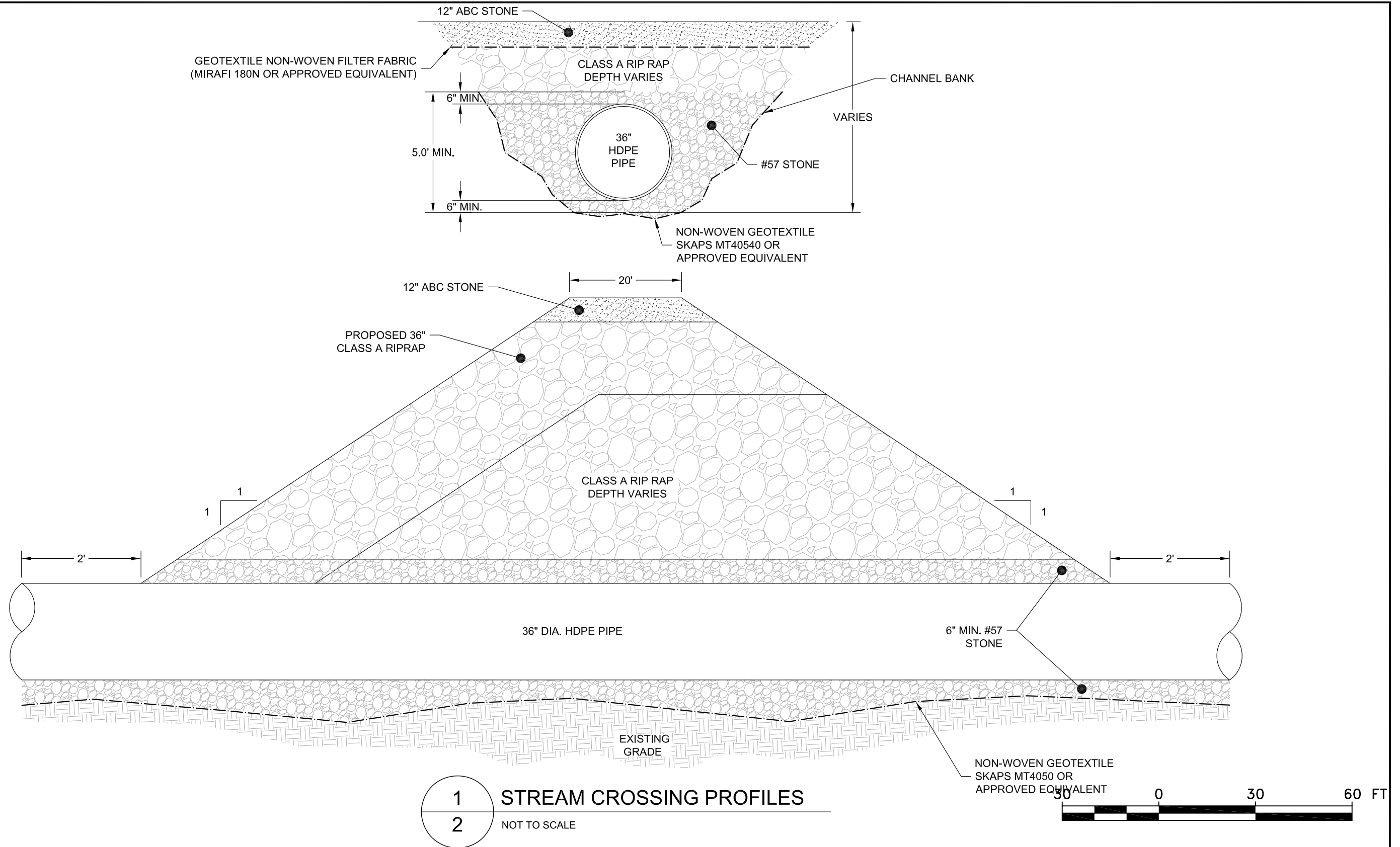
1 BEDDING STONE AND RIP RAP INSTALLATION
2 NOT TO SCALE



	CLIENT: DUKE ENERGY - CAROLINAS Amec Foster Wheeler Environment & Infrastructure 2801 YORKMONT ROAD, SUITE 100 CHARLOTTE, NC 28208 PHONE 704-357-8600, FAX 704-357-8638 LICENSURE: NC ENG: F-1253 NC GEOLOGY: C-247		DWN BY: JMB	PROJECT DAN RIVER STEAM STATION DR-134 PROJECT IMPACT AREA	DATE: APRIL 25, 2017
			CHK'D BY: XXX		PROJECT NO: 7810-15-0418
			DATUM: NAD99	TITLE SECTION DETAIL COE Figure 10	REV. NO.: A
			PROJECTION: UTM Zone 0 SCALE: 1" = 30'		FIGURE No. FIGURE 02



	CLIENT:		DWN BY:	JMB	PROJECT	DAN RIVER STEAM STATION DR-131 PROJECT IMPACT AREA	DATE:	APRIL 25, 2017	
	DUKE ENERGY - CAROLINAS		CHK'D BY:	XXX			PROJECT NO:	7810-15-0418	
			DATUM:	NAD99			REV. NO.:	A	
	Amec Foster Wheeler Environment & Infrastructure 2801 YORKMONT ROAD, SUITE 100 CHARLOTTE, NC 28208 PHONE 704-357-8600, FAX 704-357-8638 LICENSURE: NC ENG: F-1253 NC GEOLOGY: C-247				PROJECTION:	UTM Zone 0	TITLE	PLAN VIEW COE Figure 11	FIGURE No. FIGURE 01
					SCALE:	1" = 30'			



	DUKE ENERGY	CLIENT:		DWN BY:	JMB	PROJECT	DAN RIVER STEAM STATION DR-131 PROJECT IMPACT AREA		DATE:	APRIL 25, 2017
		DUKE ENERGY - CAROLINAS		CHK'D BY:	XXX				PROJECT NO:	7810-15-0418
		Amec Foster Wheeler Environment & Infrastructure		DATUM:	NAD99	TITLE			REV. NO.:	A
		2801 YORKMONT ROAD, SUITE 100 CHARLOTTE, NC 28208 PHONE 704-357-8600, FAX 704-357-8638 LICENSURE: NC ENG: F-1253 NC GEOLOGY: C-247		PROJECTION:	UTM Zone 0		SECTION DETAILS COE Figure 12		FIGURE No.	FIGURE 02