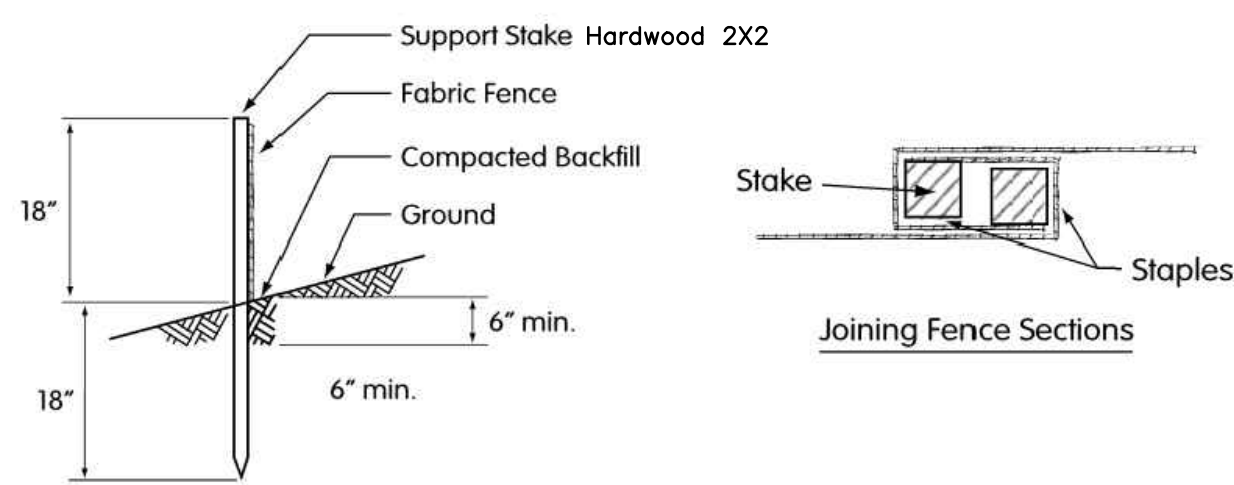


- NOTES:
- MATERIALS - COMPOST USED FOR FILTER SOCKS SHALL BE WEED, PATHOGEN, AND INSECT FREE AND FREE OF ANY REFUSE, CONTAMINANTS OR OTHER MATERIALS TOXIC TO PLANT GROWTH. THEY SHALL BE DERIVED FROM A WELL-DECOMPOSED SOURCE OF ORGANIC MATTER AND CONSIST OF PARTICLES RANGING FROM 3/8 INCH TO 2 INCHES.
 - FILTER SOCKS SHALL BE 3 TO 5 MIL CONTINUOUS TUBULAR HDPE 3/8 INCHES KNITTED MESH NETTING MATERIAL, FILLED WITH COMPOST PASSING THE ABOVE SPECIFICATIONS FOR COMPOST PRODUCTS.
 - FILTER SOCKS WILL BE PLACED ON A LEVEL LINE ACROSS SLOPES, GENERALLY PARALLEL TO THE BASE OF THE SLOPE OR OTHER AFFECTED AREA. ON SLOPES APPROACHING 2:1, ADDITIONAL SOCKS SHALL BE PROVIDED AT THE TOP AND AS NEEDED MID-SLOPE.
 - STAKES SHALL BE INSTALLED EVERY 5 FT FOR THE ENTIRE LENGTH OF THE FILTER SOCK AND WITHIN 1 FT OF EACH END. STAKES MAY GO THROUGH THE CENTER OF THE FILTER SOCK OR BE CRISS-CROSSED OVER THE TOP.
 - MANUFACTURER'S SPECIFICATIONS ARE TO BE FOLLOWED WHEN JOINING FILTER SOCK SEGMENTS. PLAN VIEW ABOVE IS TO BE CONSIDERED A MINIMUM.
 - FILTER SOCKS INTENDED TO BE LEFT AS A PERMANENT FILTER OR PART OF THE NATURAL LANDSCAPE, SHALL BE SEEDED AT THE TIME OF INSTALLATION FOR ESTABLISHMENT OF PERMANENT VEGETATION.
- MAINTENANCE:
- ROUTINELY INSPECT FILTER SOCKS AFTER EACH SIGNIFICANT RAIN, MAINTAINING FILTER SOCKS IN A FUNCTIONAL CONDITION AT ALL TIMES.
 - REMOVE SEDIMENTS COLLECTED AT THE BASE OF THE FILTER SOCKS WHEN THEY REACH 1/2 OF THE EXPOSED HEIGHT OF THE PRACTICE.
 - WHERE THE FILTER SOCK DETERIORATES OR FAILS, IT WILL BE REPAIRED OR REPLACED WITH A MORE EFFECTIVE ALTERNATIVE.
 - REMOVAL - FILTER SOCKS WILL BE DISPERSED ON SITE WHEN NO LONGER REQUIRED IN SUCH A WAY AS TO FACILITATE AND NOT OBSTRUCT SEEDING.

Slope Percent	Maximum Slope Length for Compost Filter Sock in Feet				
	8 in	12 in	18 in	24 in	32 in
2 (or less)	600	750	1000	1300	1650
5	400	500	550	650	750
10	200	250	300	400	500
15	140	170	200	325	450
20	100	125	140	260	400
25	80	100	110	200	275
30	60	75	90	130	200
35	60	75	80	115	150
40	60	75	80	100	125
45	40	50	60	80	100
50	40	50	55	65	75

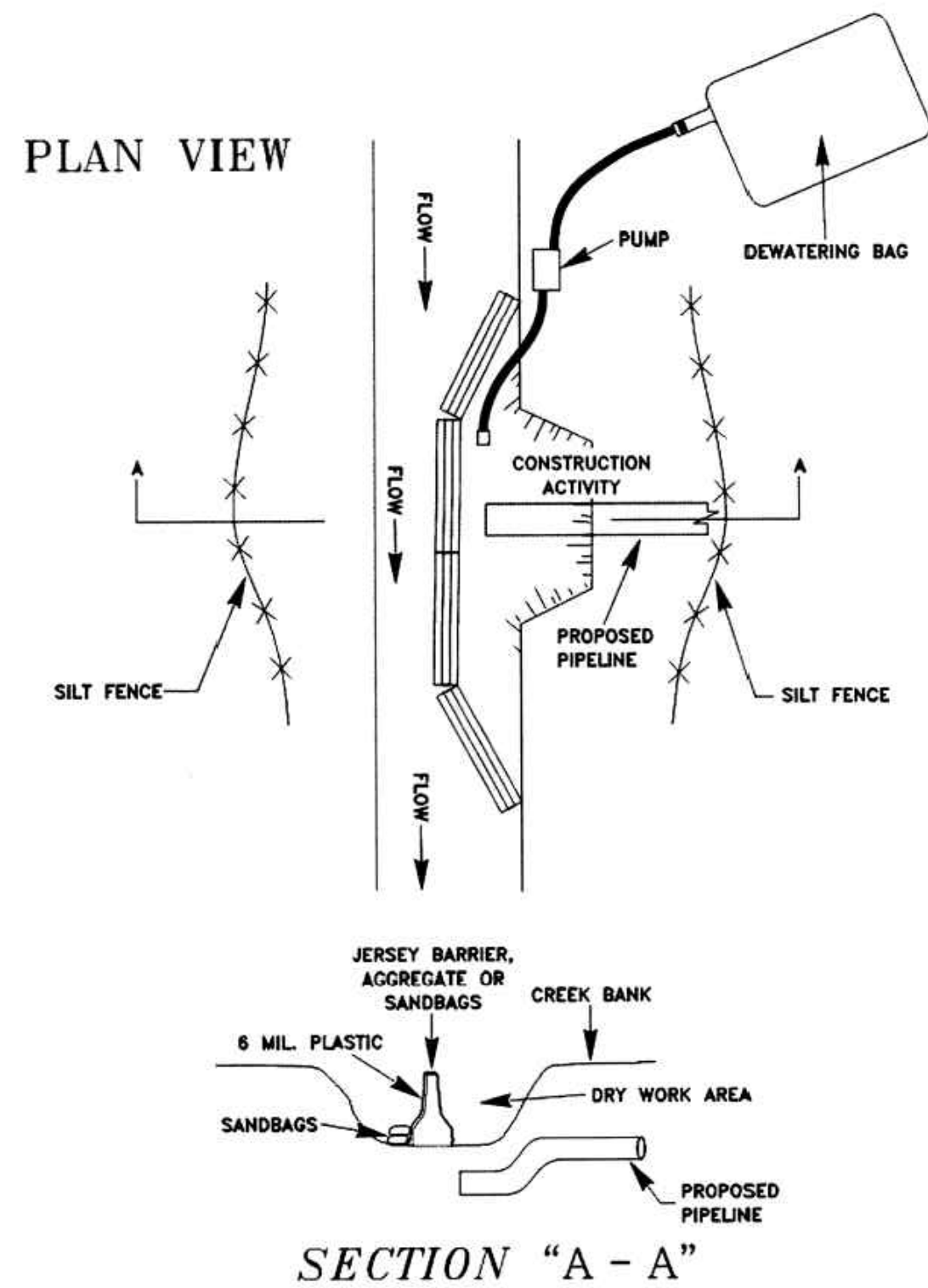
MAXIMUM SLOPE LENGTH ABOVE COMPOST FILTER SOCK AND RECOMMENDED DIAMETER

COMPOST FILTER SOCK



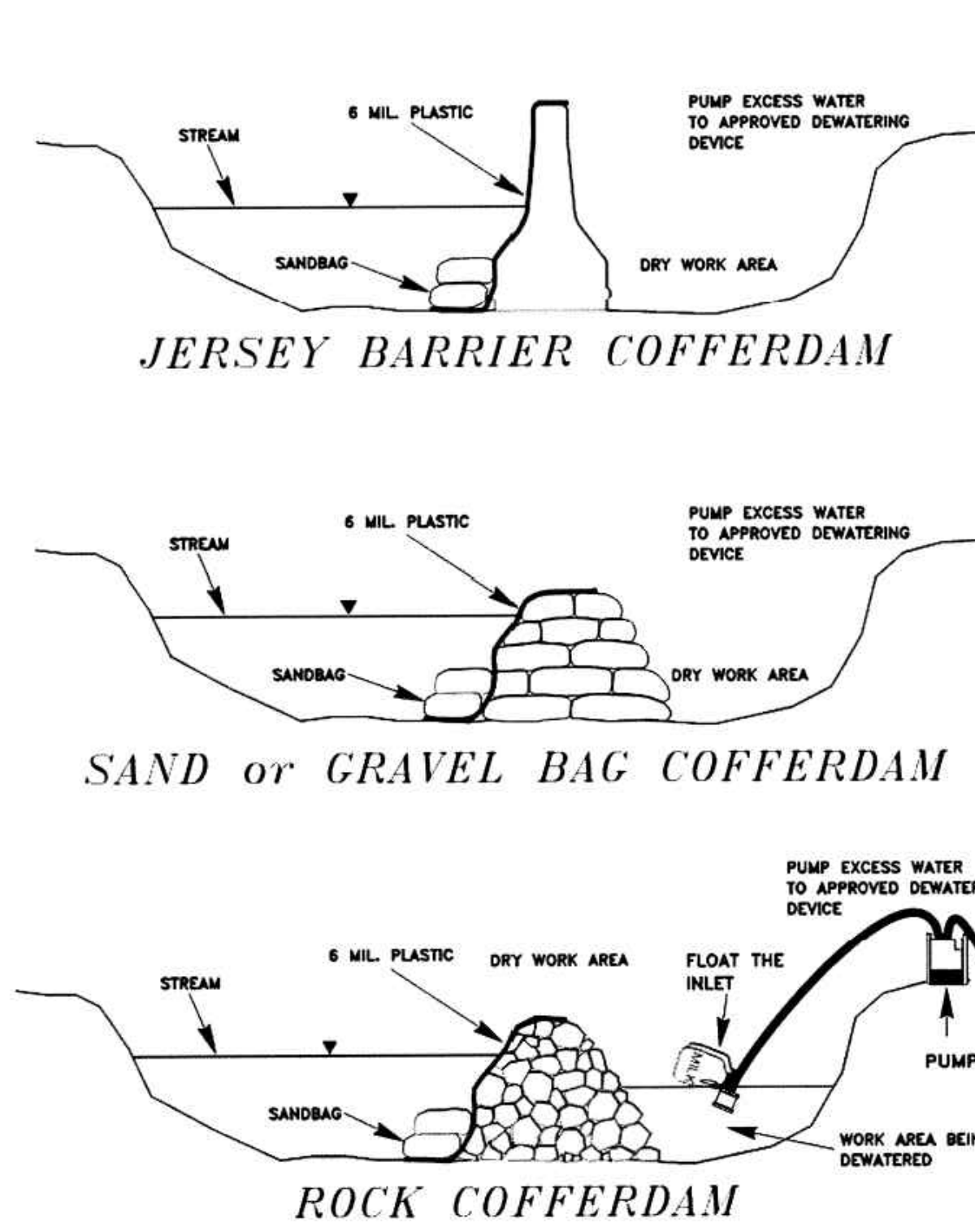
SILT FENCE
TAKEN FROM 2006 MANUAL

COFFERDAM CROSSING

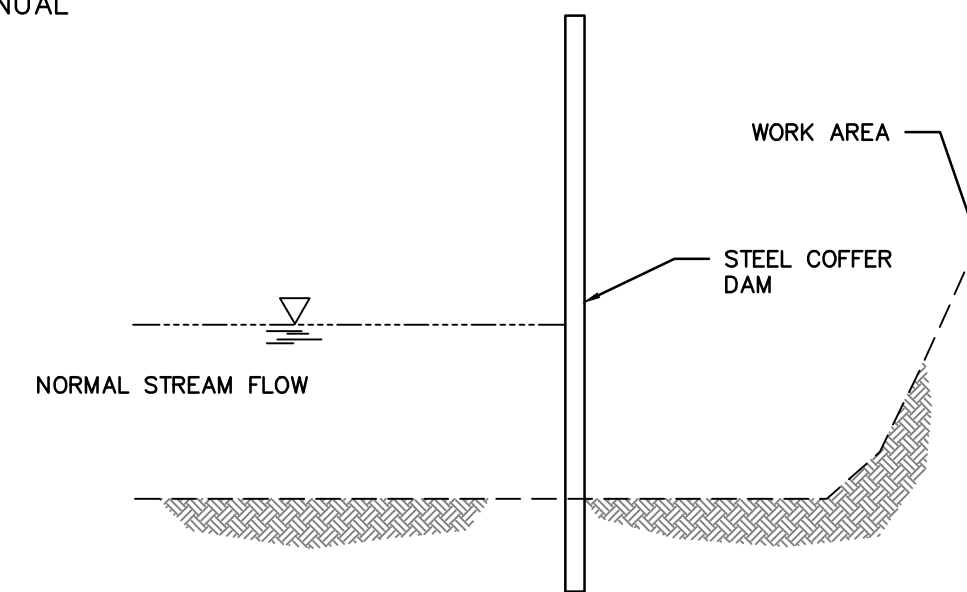


COFFERDAM STREAM CROSSING
DEVELOPED FROM 2006 MANUAL

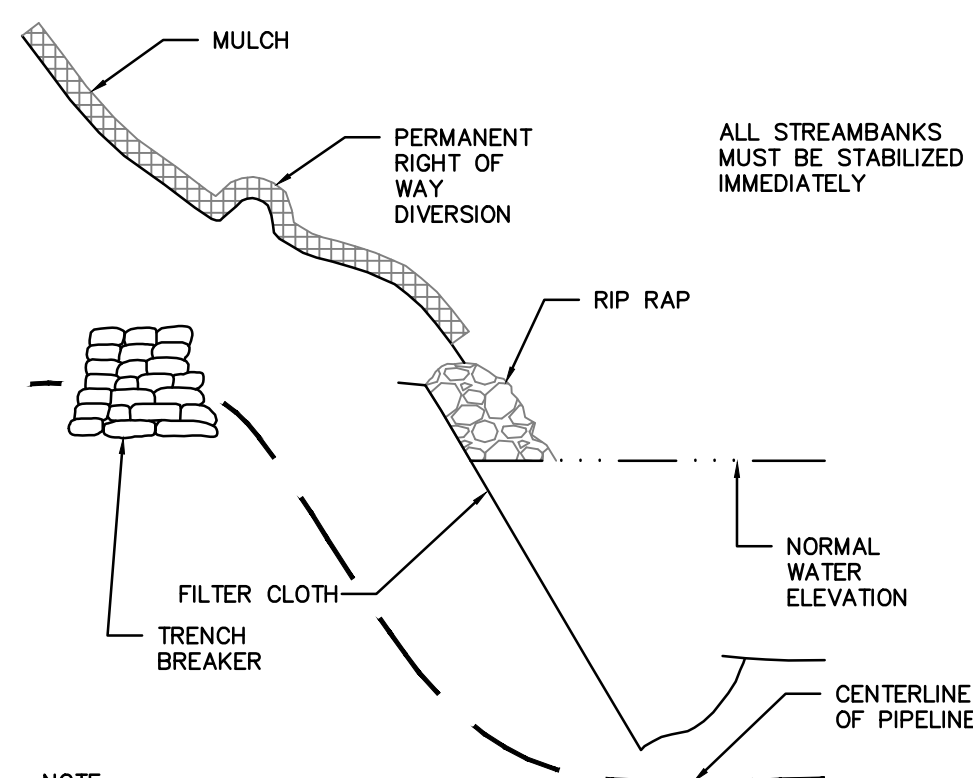
COFFERDAMS



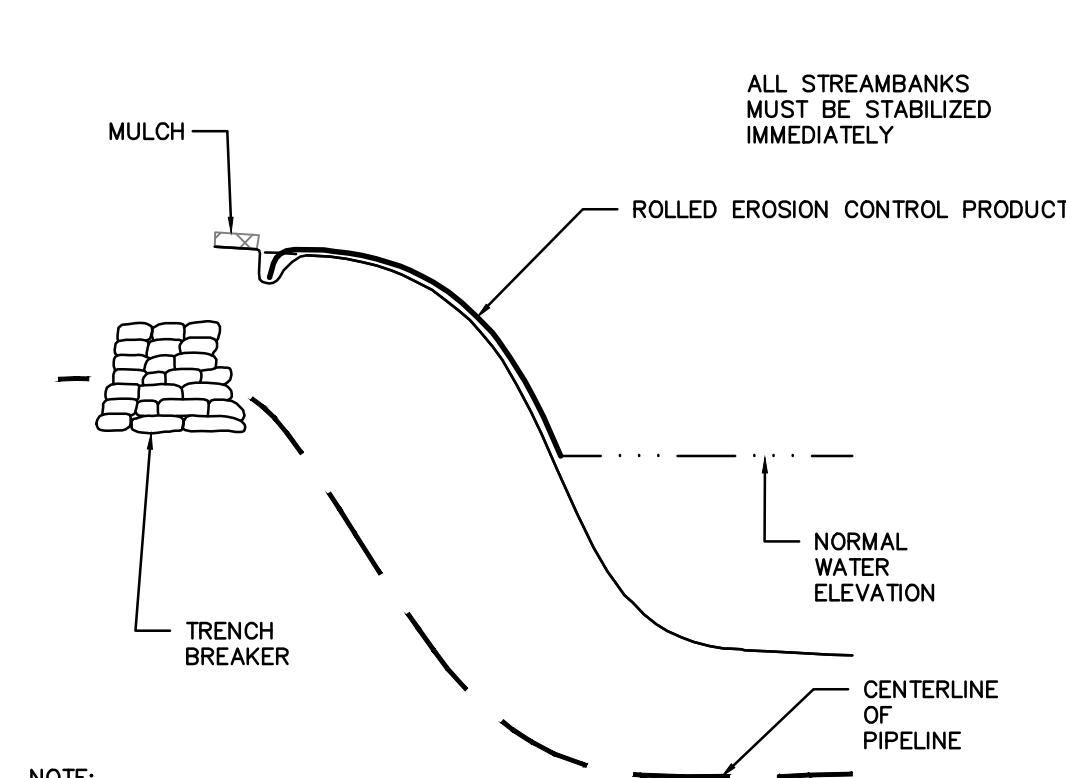
ROCK COFFERDAM



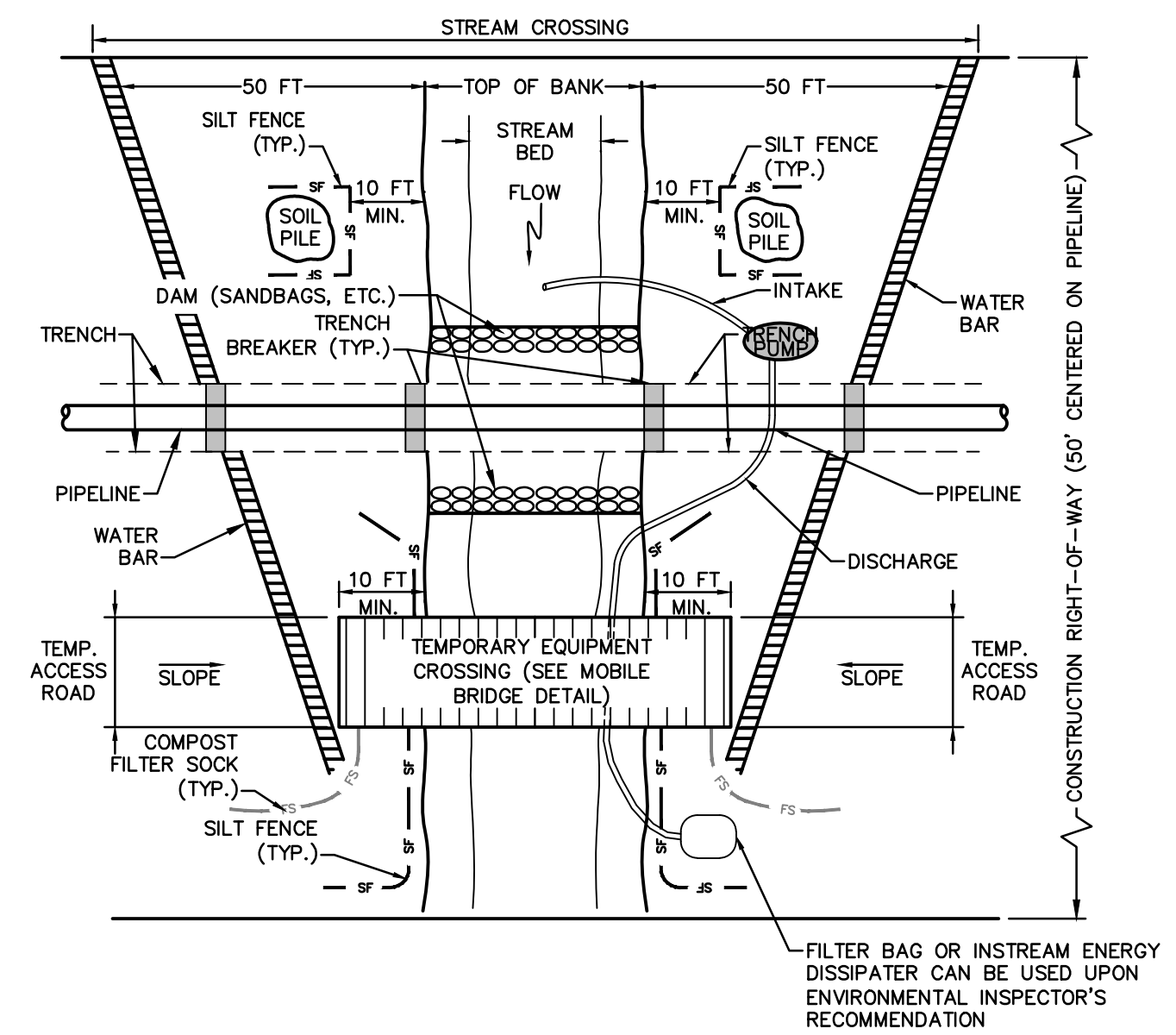
STEEL COFFERDAM OPTION



STREAM BANK STABILIZATION W/ RIP RAP
DEVELOPED FROM 2006 MANUAL

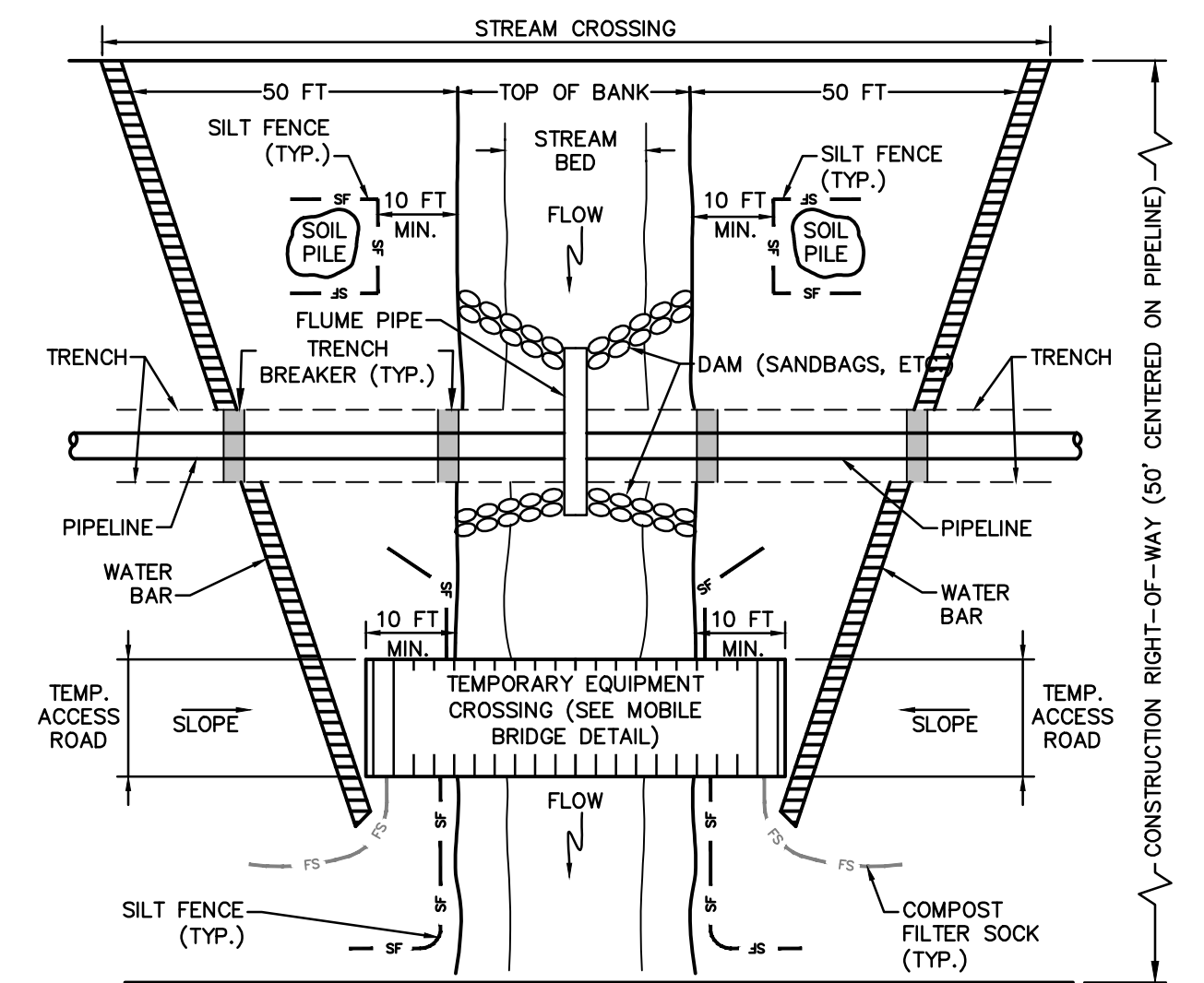


STREAM BANK STABILIZATION W/R.E.C.P.
DEVELOPED FROM 2006 MANUAL



- NOTES:
- INSTALL COMPOST FILTER SOCKS, TRENCH BREAKERS, PUMP, ENERGY DISSIPATER, AND DAMS BEFORE TRENCHING STREAM.
 - PUMP MUST BE OF SUFFICIENT CAPACITY TO CONVEY NORMAL AND/OR EXISTING STREAM FLOW OVER TRENCH. A BACK-UP PUMP OF EQUAL CAPACITY MUST BE AVAILABLE ON-SITE DURING CONSTRUCTION OF THE PIPELINE CROSSING.
 - PLACE SOIL PILES A MINIMUM OF 10 FEET FROM TOP OF BANK.
 - INSTALL WATER BARS AT APPROACHES TO STREAM CROSSING AND COMPOST FILTER SOCKS, SILT FENCE, OR SUPER SILT FENCE (AS INDICATED ON PLAN SHEETS).
 - MAINTAIN SURFACE OF TEMPORARY EQUIPMENT CROSSING TO PREVENT SOIL DISCHARGES TO STREAM.
 - APPROACHES TO CROSSINGS ARE NOT TO EXCEED A DEPTH OF 6 INCHES ABOVE ORIGINAL GRADE.
 - RESTORE AREA TO APPROXIMATE ORIGINAL CONTOURS.

TYPICAL STREAM CROSSING PUMP DIVERSION



- NOTES:
- INSTALL COMPOST FILTER SOCKS, TRENCH PLUGS, PUMP, AND DAMS BEFORE TRENCHING STREAM.
 - FOR FLUME PIPE AND ROCK FILL CROSSINGS, INSTALL FLUME PIPE ON EXISTING STREAMBED. MORE THAN 1 FLUME PIPE MAY BE NEEDED TO SPAN STREAM CHANNEL.
 - PLACE SOIL PILES A MINIMUM OF 10 FEET FROM TOP OF BANK.
 - INSTALL WATER BARS AT APPROACHES TO STREAM CROSSING AND COMPOST FILTER SOCKS, SILT FENCE, OR SUPER SILT FENCE (AS INDICATED ON PLAN SHEETS).
 - ALONG STREAM BANKS AND DOWNSLOPE END OF WATER BARS.
 - MAINTAIN SURFACE OF TEMPORARY EQUIPMENT CROSSING TO PREVENT SOIL DISCHARGES TO STREAM.
 - APPROACHES TO CROSSINGS ARE NOT TO EXCEED A DEPTH OF 6 INCHES ABOVE ORIGINAL GRADE.
 - RESTORE AREA TO APPROXIMATE ORIGINAL CONTOURS.

FLUME PIPE DIVERSION

REFERENCES:
WEST VIRGINIA EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL, DATED 2006.
WEST VIRGINIA EROSION AND SEDIMENT CONTROL FIELD MANUAL, DRAFT DATED 7-28-2010.
WEST VIRGINIA EROSION AND SEDIMENT CONTROL FIELD MANUAL, DATED MAY 2012.

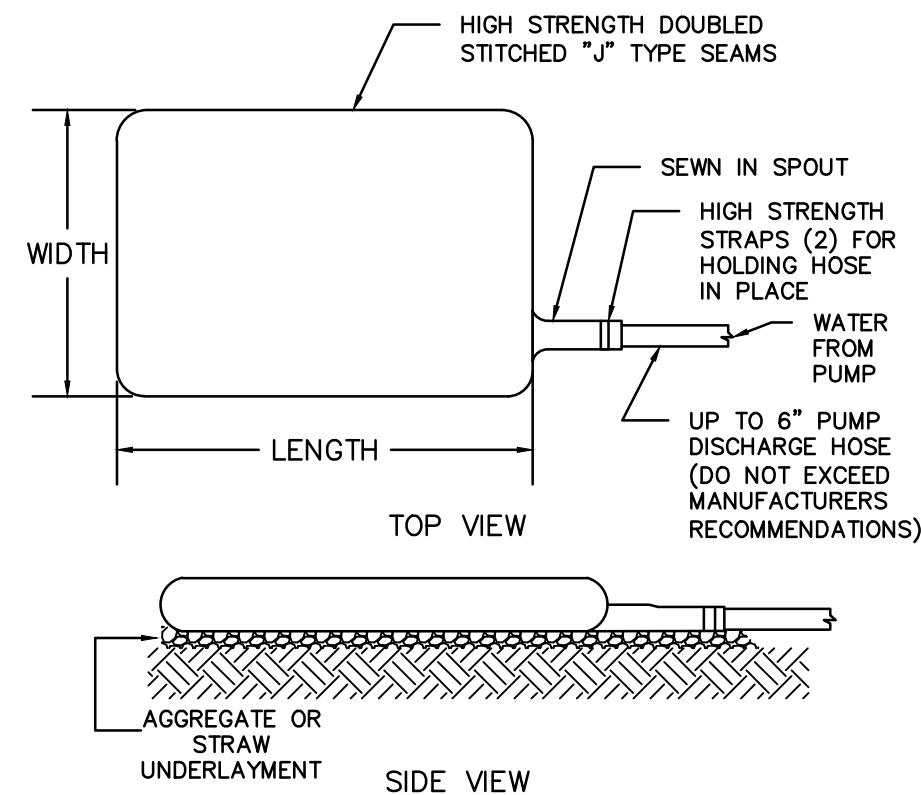
NO.	DATE	BY	CHKD.	APPD.	DESCRIPTION
1	01-26-18	KAL	RE	DW	IMPLEMENTATION PLAN ALIGNMENT CHANGES
2	02-21-18	KAL	RE	DW	5.0 IFC ALIGNMENT CHANGES
3	06-21-18	KAL	RE	DW	ES MODIFICATION 008

Mountain Valley Pipeline
EROSION AND SEDIMENT CONTROL DETAILS
MOUNTAIN VALLEY PIPELINE PROJECT - H600 LINE
WETZEL COUNTY THROUGH MONROE COUNTY, WEST VIRGINIA
MOUNTAIN VALLEY PIPELINE, LLC
555 SOUTHPOINTE BOULEVARD, SUITE 200
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

CONSTRUCTION PLANS

DRAWN BY:	KAL
CHECKED BY:	HT
APPROVED BY:	RE
DATE:	06/21/2018
SCALE:	AS SHOWN
SHT. NO.	0.04 OF 0.21

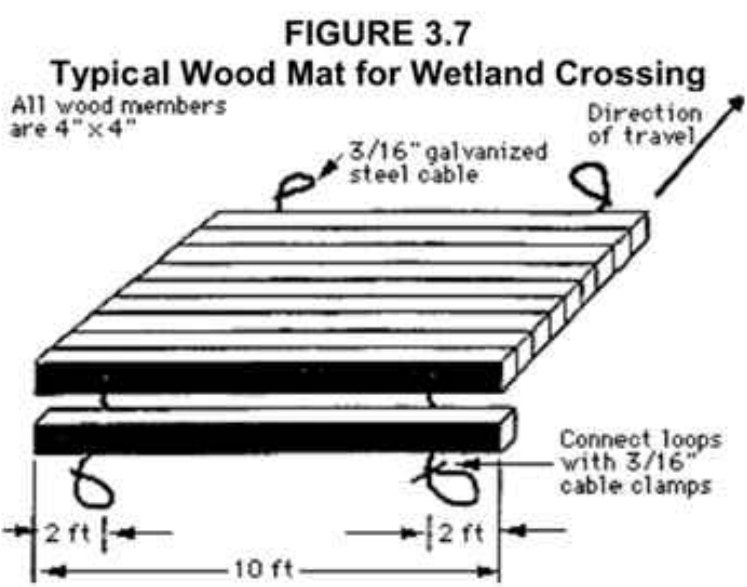


- NOTES:**
1. THE BAG SHALL BE INSTALLED ON A VERY SLIGHT SLOPE SO INCOMING WATER FLOWS DOWNHILL THROUGH THE BAG WITHOUT CREATING MORE EROSION.
 2. THE NECK OF THE FILTER BAG SHALL BE TIGHTLY STRAPPED (MINIMUM TWO STRAPS) TO THE DISCHARGE HOSE.
 3. THE BAG SHOULD BE PLACED ON AN AGGREGATE BED TO MAXIMIZE WATER FLOW THROUGH THE ENTIRE SURFACE AREA OF THE BAG.
 4. THE FILTER BAG IS FULL WHEN IT NO LONGER CAN EFFICIENTLY FILTER SEDIMENT OR PASS WATER AT A REASONABLE RATE.
 5. FLOW RATES VARY DEPENDING ON THE SIZE OF THE DEWATERING DEVICE, AMOUNT OF SEDIMENT DISCHARGED INTO THE DEWATERING DEVICE, THE TYPE OF GROUND, ROCK, OR OTHER SUBSTANCE UNDER THE BAG AND THE DEGREE OF THE SLOPE ON WHICH THE BAG LIES. THE FILTER BAG SHOULD BE SIZED TO ACCOMMODATE THE ANTICIPATED FLOW RATES FROM THE TYPE OF PUMP USED. TYPICALLY FILTER BAGS CAN HANDLE FLOW RATES OF UP TO 1000 GALLONS PER MINUTE, BUT IN ALL CASES FOLLOW THE MANUFACTURERS RECOMMENDATIONS FOR FLOW RATES.
 6. USE OF EXCESSIVE FLOW RATES OR OVERFILLING THE DEWATERING DEVICE WITH SEDIMENT WILL CAUSE RUPTURES OF THE BAG OR FAILURE OF THE HOSE ATTACHMENT STRAPS.
 7. THE FILTER BAG CAN BE LEFT IN PLACE AFTER CUTTING THE TOP OFF AND SEEDING AND MULCHING THE ACCUMULATED SEDIMENT OR REMOVED AND DISPOSED OF OFFSITE IN AN APPROVED LANDFILL.
 8. EACH STANDARD DEWATERING DEVICE SHALL HAVE A FILL SPOUT LARGE ENOUGH TO ACCOMMODATE THE DISCHARGE HOSE. USE TWO STAINLESS STEEL STRAPS TO SECURE THE HOSE AND PREVENT PUMPED WATER FROM ESCAPING WITHOUT BEING FILTERED.
 9. THE DEWATERING DEVICE SHALL BE A NONWOVEN BAG, WHICH IS SEWN WITH A DOUBLE NEEDLE STITCHING USING A HIGH STRENGTH THREAD.
 10. THE DEWATERING DEVICE SEAMS SHALL HAVE AN AVERAGE WIDE WITH STRENGTH PER ASTM D 4884 OF 100 LB/IN.
 11. THE GEOTEXTILE FABRIC SHALL BE A NONWOVEN FABRIC WITH THE FOLLOWING PROPERTIES:

PROPERTIES	TEST METHOD	ENGLISH	METRIC
GRAB TENSILE	ASTM D-4632	250 LBS.	113 KG
PUNCTURE	ASTM D-4833	165 LBS.	75 KG
FLOW RATE	ASTM D-4491	70 GAL/MIN/SQFT	25 LITERS/MIN/SQ METER
PERMITIVITY	ASTM D-4491	1.3 SEC.-1	1.3 SEC.-1
MULLENBURST	ASTM D-3786	550 LBS./SQ INCH	3.79 Mpa
UV RESISTANT	ASTM D-4355	70%	70%
AOS% RETAINED	ASTM D-4751	100%	100%

*ALL PROPERTIES ARE MINIMUM AVERAGE ROLL VALUE

DEWATERING BAG
DEVELOPED FROM 2006 MANUAL



University of Minnesota FS 07009

A geotextile underlayment shall be used under the wood mat.

Source: PaDEP, E&S Pollution Control Manual, March 2012

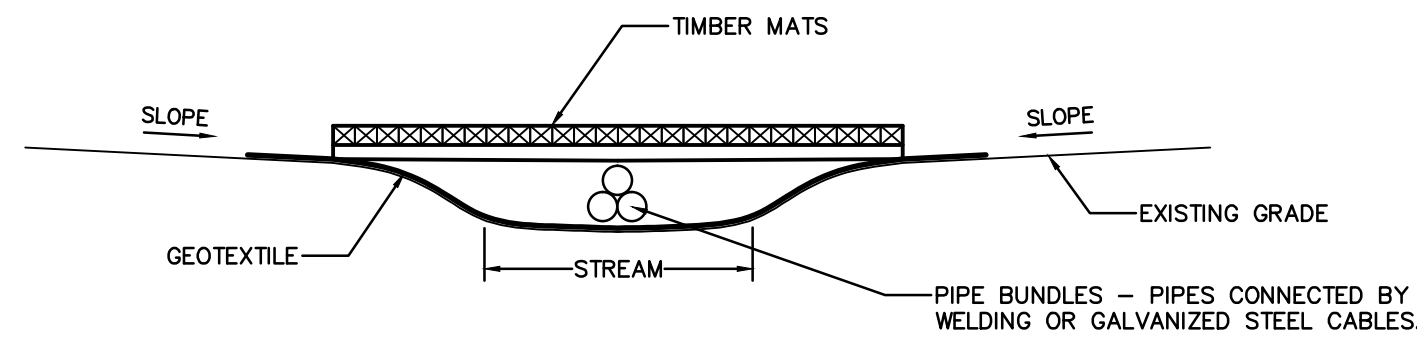
NOTE:

CULVERTS MAY BE SUBSTITUTED WHEN REQUIRED BY FIELD VERIFIED CONDITIONS.

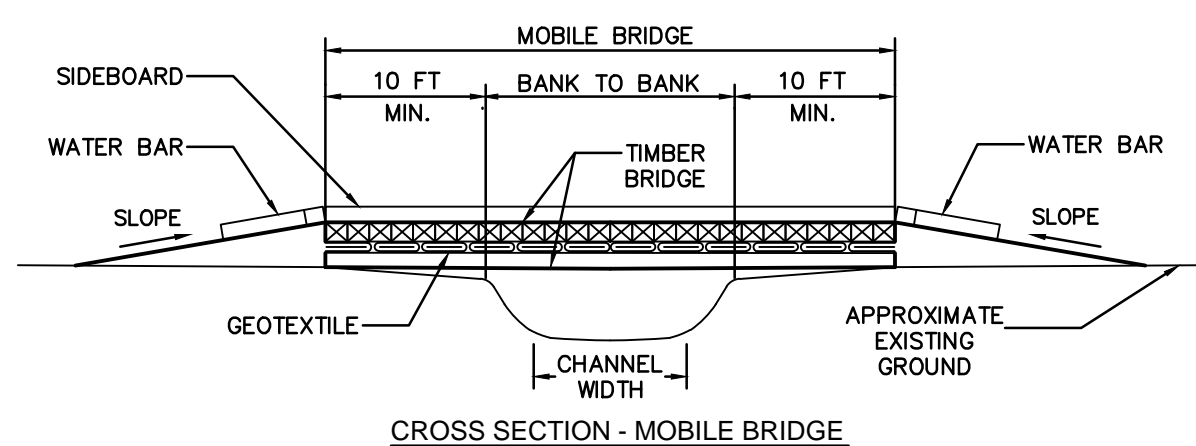
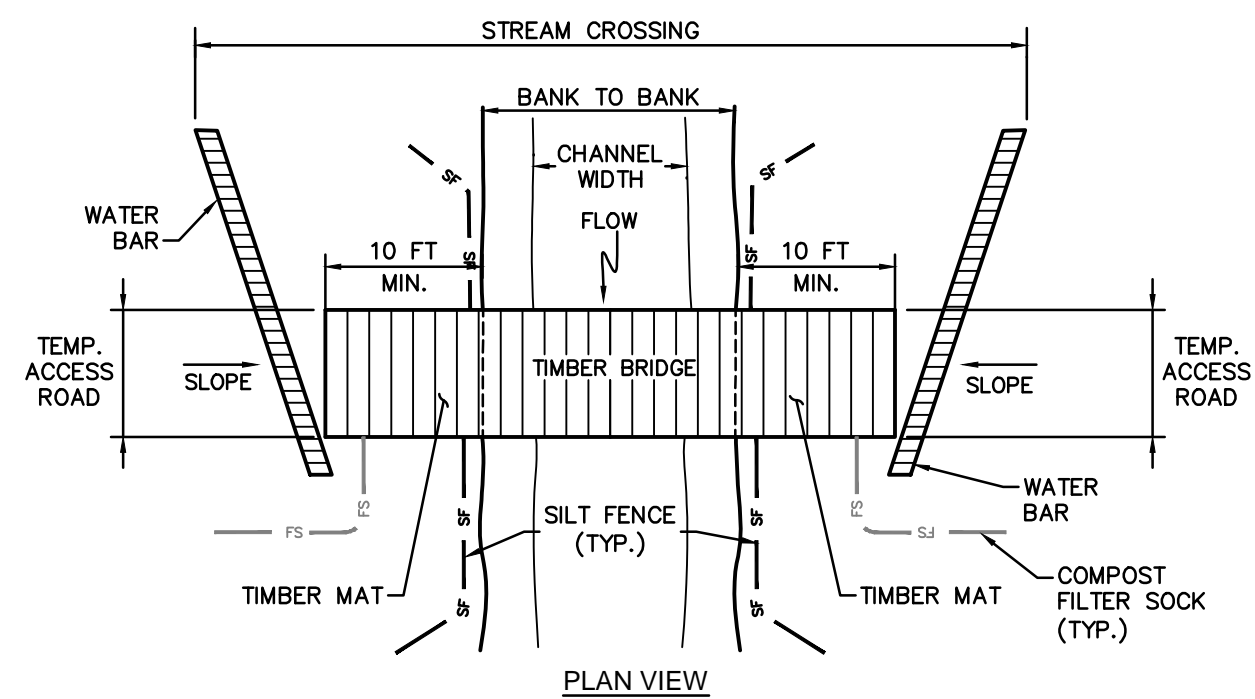
TIMBER MATS WILL BE USED ON ALL WETLANDS WITHIN THE LOD.

TIMBER MAT/WETLAND CROSSING

- REFERENCES:**
- WEST VIRGINIA EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL, DATED 2006.
 - WEST VIRGINIA EROSION AND SEDIMENT CONTROL FIELD MANUAL, DRAFT DATED 7-28-2010.
 - WEST VIRGINIA EROSION AND SEDIMENT CONTROL FIELD MANUAL, DATED MAY 2012.



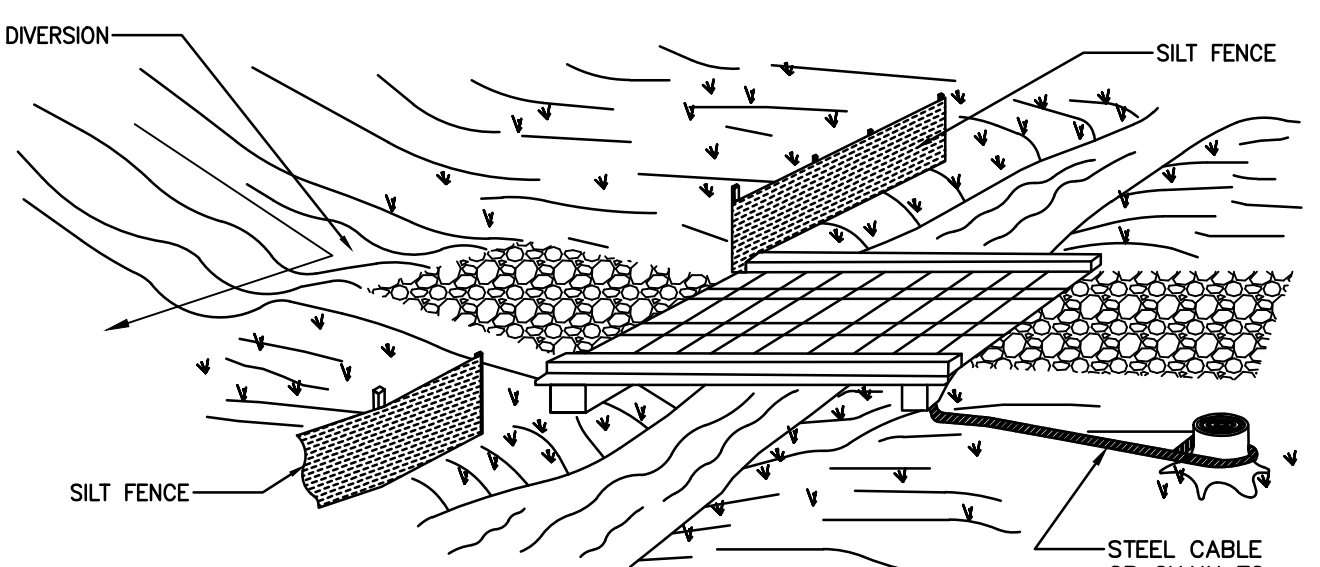
**TIMBER MAT AND PIPE BUNDLE
TEMPORARY STREAM CROSSING**



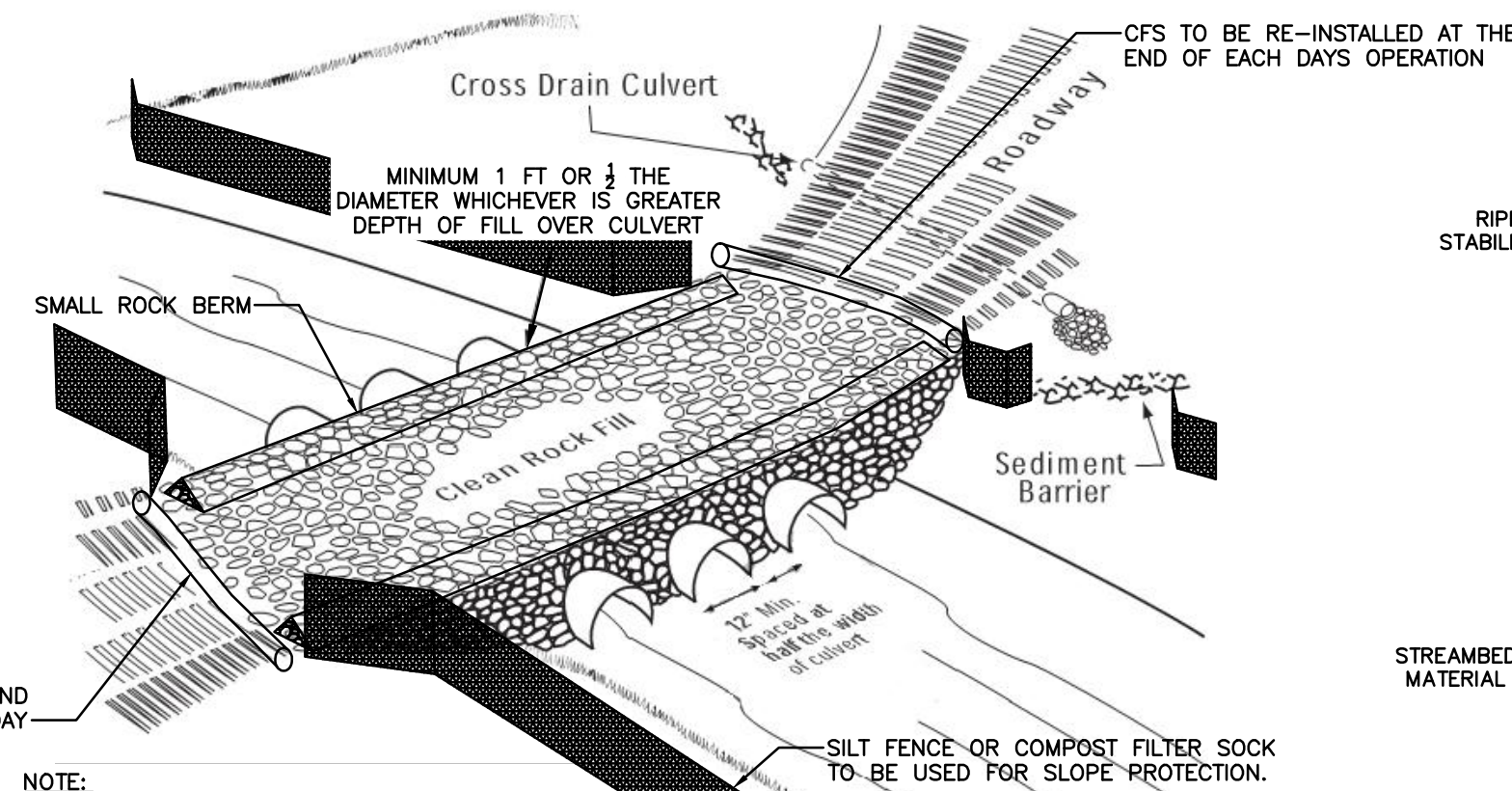
NOTES:

1. INSTALL WATER BARS OR SILT FENCE AT APPROACHES TO STREAM CROSSING AND COMPOST FILTER SOCKS ALONG STREAM BANKS.
2. MAINTAIN SURFACE OF TEMPORARY EQUIPMENT CROSSING TO PREVENT SOIL DISCHARGES TO STREAM.
3. APPROACHES TO CROSSINGS ARE NOT TO EXCEED A DEPTH OF 6 INCHES ABOVE ORIGINAL GRADE.
4. GEOTEXTILE LINER TO COME UP ON THE SIDES OF THE BRIDGE A MINIMUM OF 18"
5. SIDEBOARDS TO BE ATTACHED TO THE UPPER DECK. GEOTEXTILE TO BE WRAPPED AROUND SIDEBOARDS PRIOR TO FASTENING.

MOBILE BRIDGE



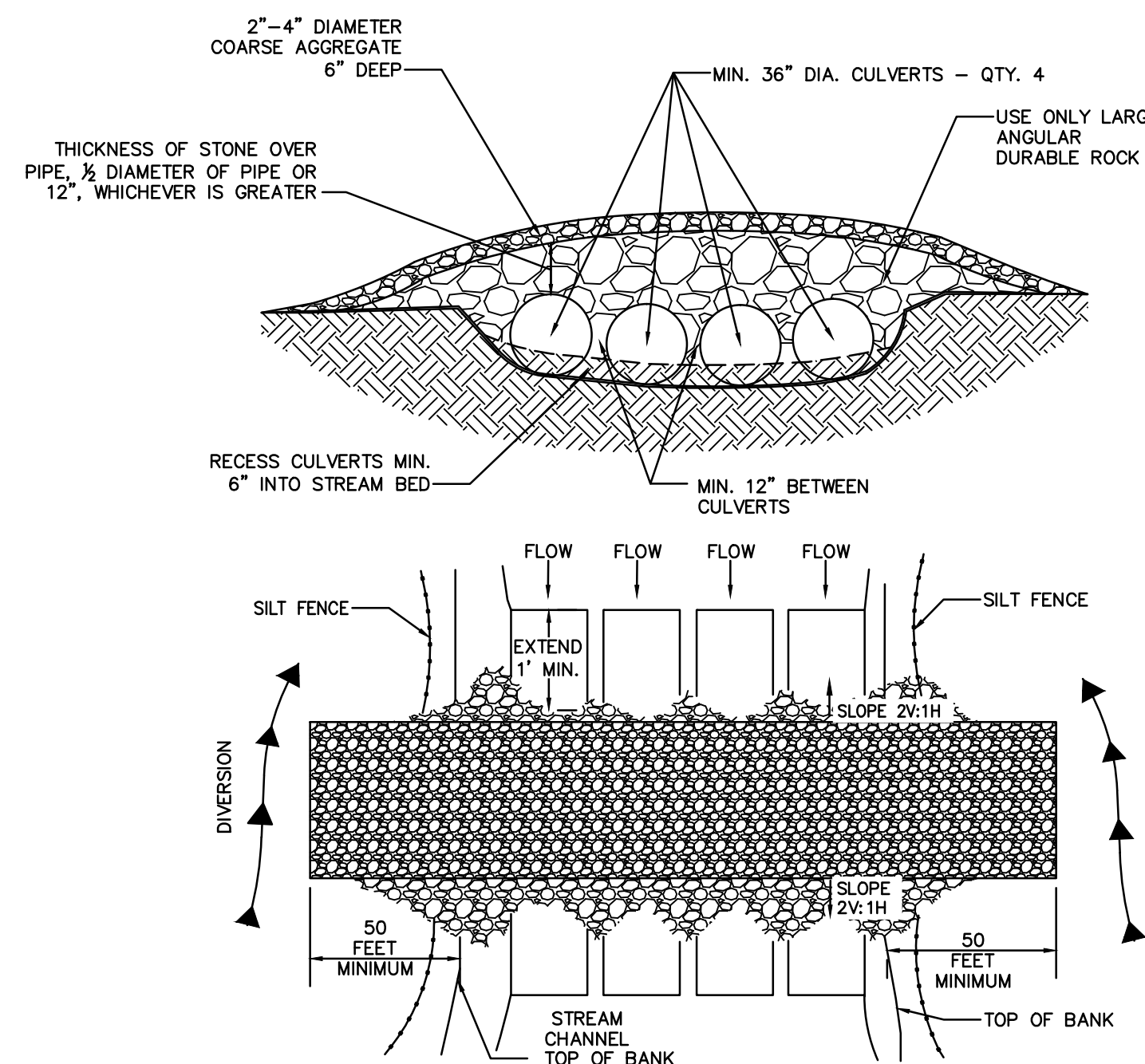
TEMPORARY BRIDGE STREAM CROSSING DETAIL



NOTE:

1. CULVERTS TO BE COUNTERSUNK IN STREAM BED.
2. STREAM BED MATERIAL IS NOT TO BE USED FOR FILL.
3. SMALL ROCK BERMS SHALL BE CONSTRUCTED ON THE LEFT AND RIGHT SIDE OF THE CROSSING FOR SEDIMENT CONTAINMENT.

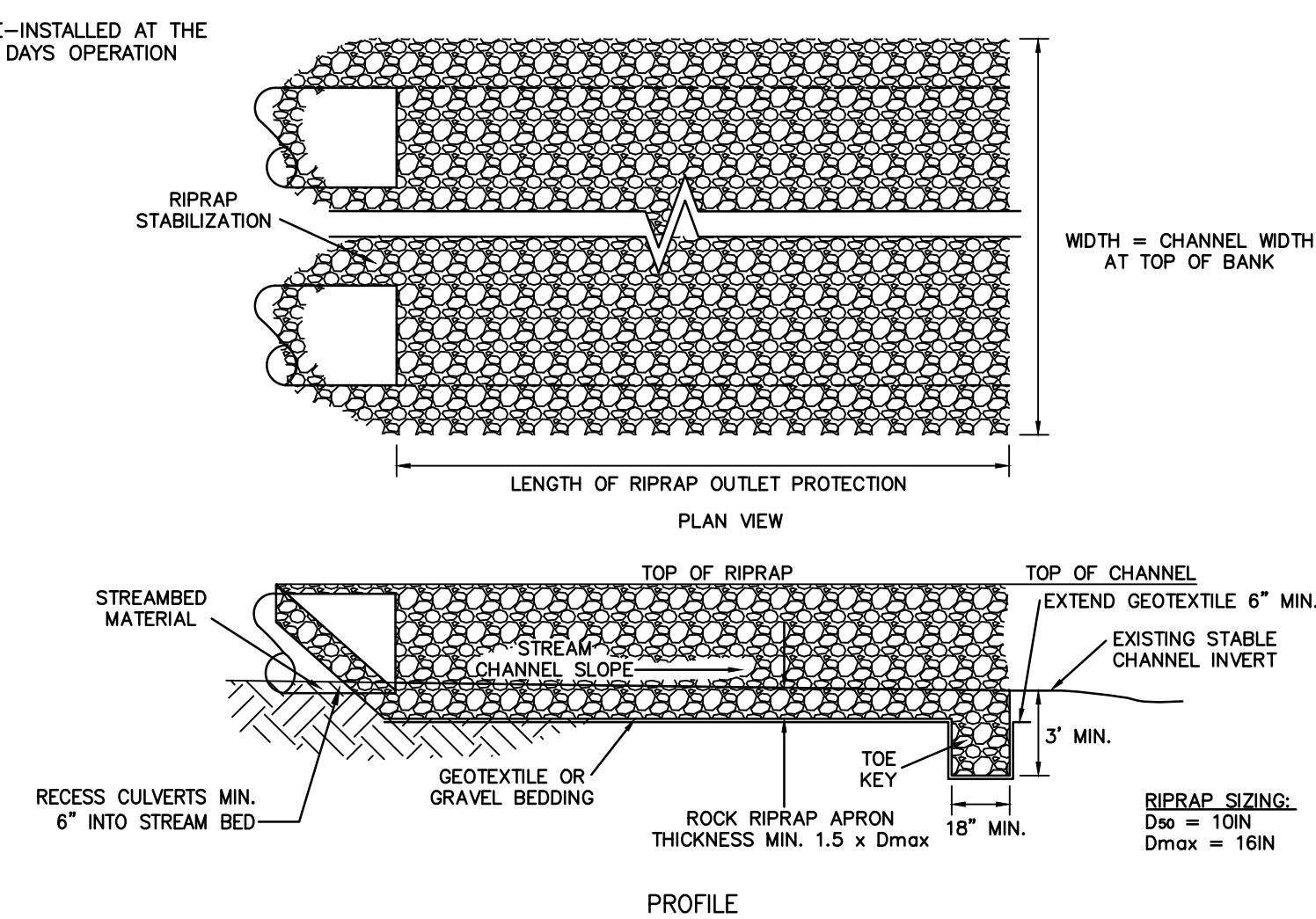
TYPICAL E&S CONTROL FOR STREAM CROSSINGS
TAKEN FROM 2012 MANUAL



NOTES:

1. 2" TO 4" COARSE AGGREGATE OR LARGER WILL BE USED TO FORM THE CROSSING. DO NOT USE ERODIBLE MATERIAL FOR CONSTRUCTION OF THE CROSSING. THE DEPTH OF STONE COVER OVER THE CULVERT SHALL BE EQUAL TO ONE-HALF THE DIAMETER OF THE CULVERT OR 12", WHICHEVER IS GREATER. IF MULTIPLE CULVERTS ARE USED, THEY SHALL BE SEPARATED BY AT LEAST 12" OF COMPACTED AGGREGATE FILL TO PROTECT THE SIDES OF THE STONE FROM EROSION. RIPRAP SHALL BE USED. STREAM BED MATERIAL IS NOT TO BE USED FOR FILL.
2. THE CULVERTS SHALL EXTEND A MINIMUM OF ONE FOOT BEYOND THE UPSTREAM AND DOWNSTREAM TOE OF THE AGGREGATE PLACED AROUND THE CULVERT.
3. THE SLOPE OF THE CULVERT SHALL BE EQUAL TO THAT OF THE EXISTING STREAM CHANNEL AND AT LEAST 0.25 INCH PER FOOT.
4. THE WATERWAY CROSSING SHALL BE AT A RIGHT ANGLE TO THE STREAM. WHERE APPROACH CONDITIONS DICTATE, THE CROSSING MAY VARY 15 DEGREES FROM A LINE DRAWN PERPENDICULAR TO THE CENTERLINE OF THE STREAM AT THE INTENDED CROSSING LOCATION.
5. THE CENTERLINE OF BOTH ROADWAY APPROACHES SHALL COINCIDE WITH THE CROSSING ALIGNMENT CENTERLINE FOR A MINIMUM DISTANCE OF 50' FROM EACH BANK OF THE WATERWAY BEING CROSSED. IF PHYSICAL OR RIGHT-OF-WAY RESTRAINTS PRELUDE THE 50' MIN., A SHORTER DISTANCE MAY BE PROVIDED. ALL FILL MATERIALS ASSOCIATED WITH THE ROADWAY APPROACH SHALL BE LIMITED TO A MAX. HEIGHT OF 2' ABOVE THE EXISTING FLOOD PLAIN ELEVATION.
6. THE ROADWAY APPROACHES TO THE STRUCTURE SHALL CONSIST OF STONE PADS MEETING THE FOLLOWING SPECIFICATIONS:
 - 1) STONE: 2" - 4"
 - 2) MIN. THICKNESS: 6"
 - 3) MIN. WIDTH: EQUAL TO THE WIDTH OF THE STRUCTURE
 - 4) MIN. LENGTH: 50' ON EITHER SIDE OF THE CROSSING
7. A WATER DIVERTING STRUCTURE SUCH AS A SWALE SHALL BE CONSTRUCTED (ACROSS THE ROADWAY ON BOTH ROADWAY APPROACHES) 50' (MAX.) ON EITHER SIDE OF THE CROSSING. THE 50' IS MEASURED FROM THE TOP OF THE BANK. IF THE ROADWAY APPROACH IS CONSTRUCTED WITH A REVERSE GRADE AWAY FROM THE WATERWAY, A SEPARATE DIVERTING STRUCTURE IS NOT REQUIRED.
8. APPROPRIATE PERIMETER CONTROLS SUCH AS SILT FENCE AND SUPER SILT FENCE MUST BE EMPLOYED WHEN NECESSARY ALONG BANKS OF STREAM.
9. CLEARING & EXCAVATION OF STREAMBED AND BANKS WILL BE KEPT TO A MINIMUM.
10. THE INVERT ELEVATION OF THE CULVERT SHALL BE INSTALLED COUNTERSUNK INTO NATURAL STREAMBED GRADE BY 6".
11. FILTER CLOTH SHALL BE PLACED ON THE STREAMBED AND STREAMBANKS PRIOR TO PLACEMENT OF THE PIPE CULVERTS AND AGGREGATE. THE FILTER CLOTH SHALL COVER THE STREAMBED AND EXTEND A MIN. OF 6" AND MAX. OF 1' BEYOND THE END OF THE CULVERT AND BEDDING MATERIAL.
12. DURING ROUTINE ROAD MAINTENANCE, DO NOT GRADE MUD AND DEBRIS OVER THE SIDES OF THE CROSSING INTO THE STREAM.

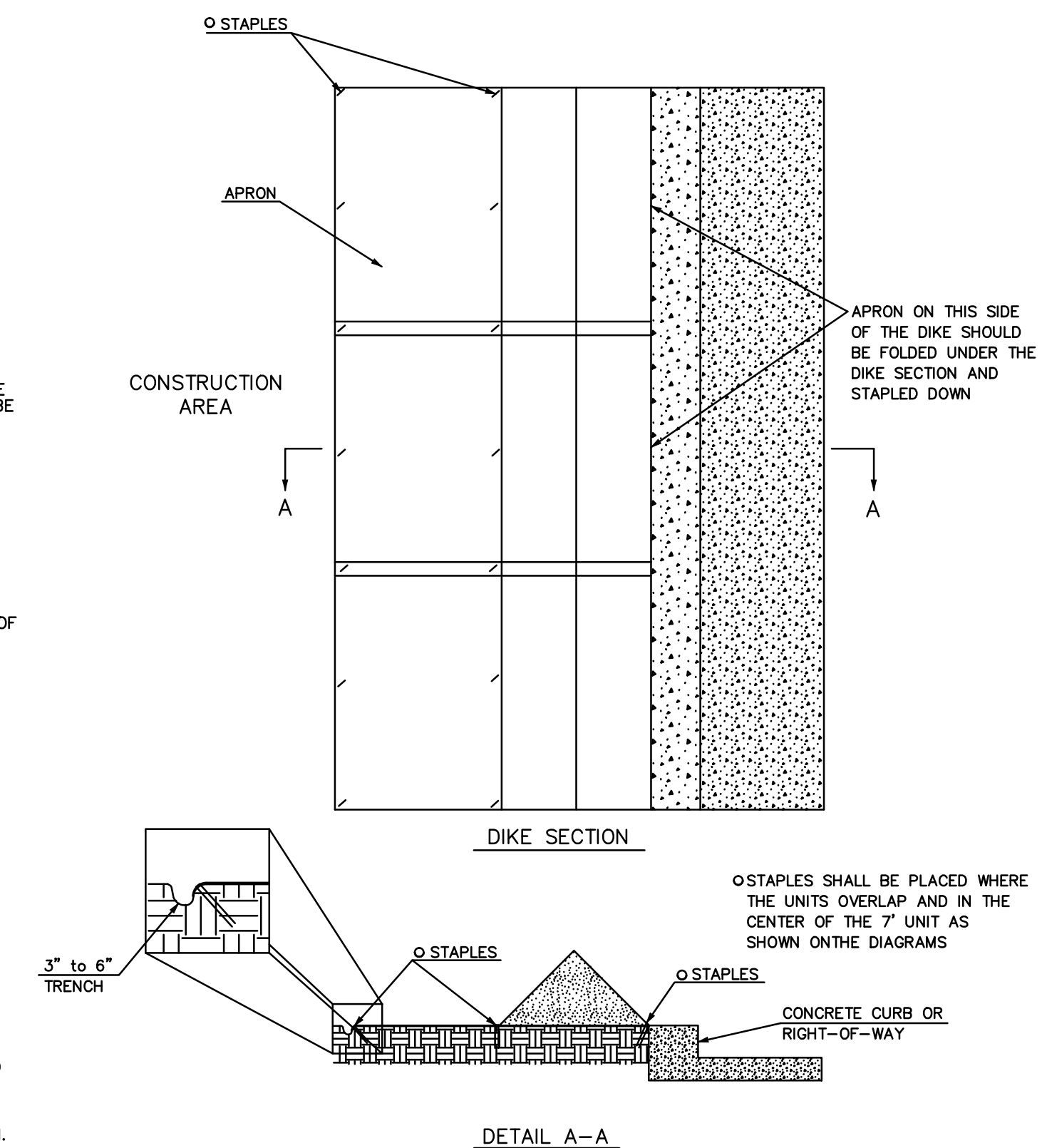
CULVERT CROSSING
DEVELOPED FROM 2006 MANUAL



NOTES:

1. SUBGRADE FOR THE FILTER OR BEDDING AND RIPRAP SHALL BE PREPARED TO THE REQUIRED LINES AND GRADES AS SHOWN ON THE PLAN. THE SUBGRADE SHALL BE CLEARED OF ALL TREES, STUMPS, ROOTS, SOD, LOOSE ROCK, OR OTHER MATERIALS.
2. RIPRAP SHALL CONFORM TO THE GRADING LIMITS AS SHOWN ON THE PLAN.
3. GEOTEXTILE SHALL BE SECURELY ANCHORED ACCORDING TO MANUFACTURERS' RECOMMENDATIONS.
4. GRAVEL BEDDING SHALL BE AASHTO NO. 67'S OR 57'S UNLESS SHOWN DIFFERENTLY ON THE DRAWINGS.
5. RIPRAP MAY BE PLACED BY EQUIPMENT BUT SHALL BE PLACED IN A MANNER TO PREVENT SLIPPAGE OR DAMAGE TO THE GEOTEXTILE.
6. RIPRAP SHALL BE PLACED BY A METHOD THAT DOES NOT CAUSE SEGREGATION OF SIZES. EXTENSIVE PUSHING WITH A DOZER CAUSES SEGREGATION AND SHALL BE AVOIDED BY DELIVERING RIPRAP NEAR ITS FINAL LOCATION WITHIN THE CHANNEL.
7. CONSTRUCTION SHALL BE SEQUENCED SO THAT OUTLET PROTECTION IS PLACED AND FUNCTIONAL WHEN THE STORM DRAIN, CULVERT, OR OPEN CHANNEL ABOVE IT BECOMES OPERATIONAL.
8. ALL DISTURBED AREAS WILL BE VEGETATED AS SOON AS PRACTICAL.
9. RIPRAP APRON AT BOTH INLET AND OUTLET SHALL EXTEND ACROSS THE STREAM CHANNEL BOTTOM AND UP THE CHANNEL BANKS TO THE TOP OF THE BANKS.

**STREAM CULVERT CROSSING
INLET/OUTLET PROTECTION**



**TEMPORARY SILT DIKE INSTALLATION FOR
CONTINUOUS BARRIER**
SOURCE ACF ENVIRONMENTAL

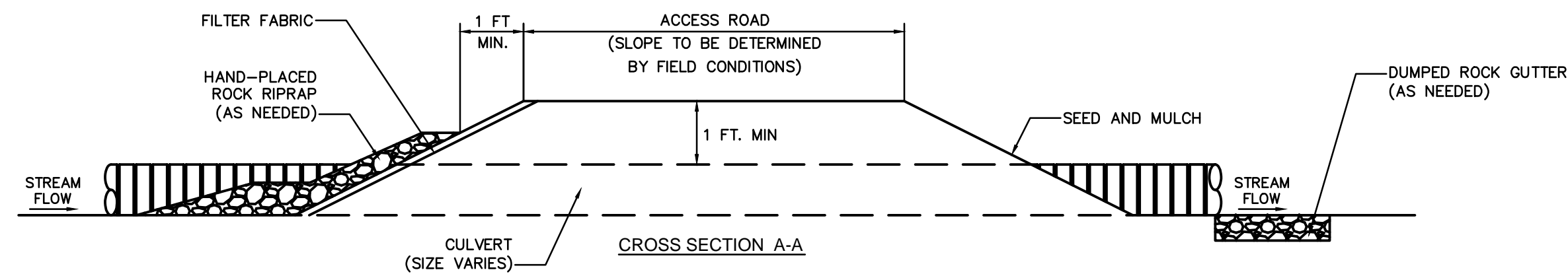
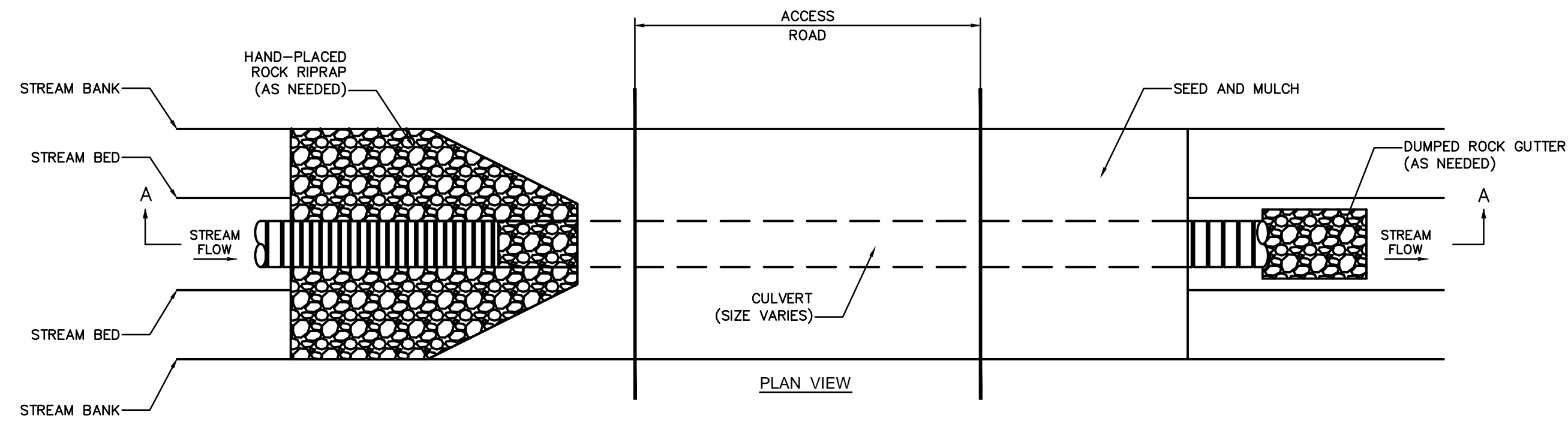
NO.	DATE	APPD.	CHKD.	DESCRIPTION
1	01-26-18	KAL	RE	IMPLEMENTATION PLAN ALIGNMENT CHANGES
2	02-21-18	KAL	RE	5.0 IFC ALIGNMENT CHANGES
3	06-21-18	KAL	DW	ES MODIFICATION 008

Mountain Valley Pipeline
EROSION AND SEDIMENT CONTROL DETAILS
MOUNTAIN VALLEY PIPELINE PROJECT - H600 LINE
WETZEL COUNTY THROUGH MONROE COUNTY, WEST VIRGINIA
MOUNTAIN VALLEY PIPELINE, LLC
555 SOUTHPOINTE BOULEVARD, SUITE 200
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™
661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

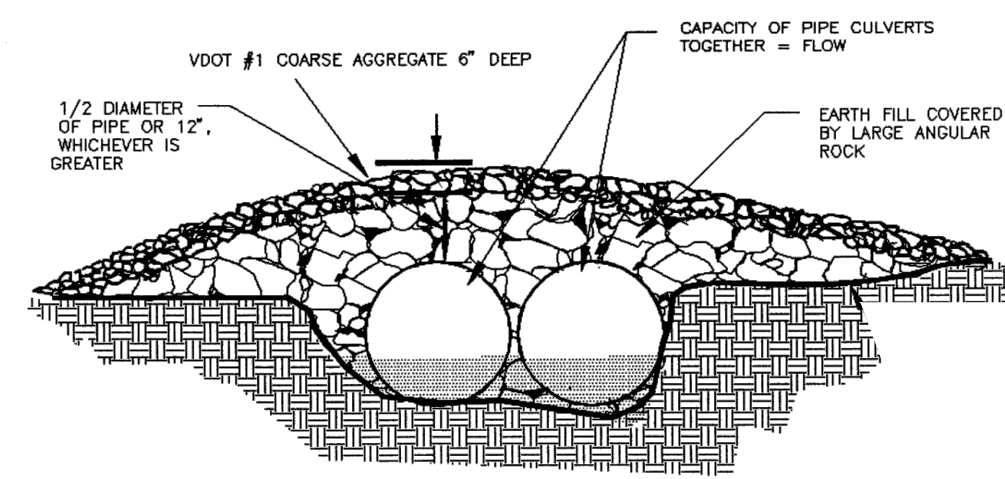
CONSTRUCTION PLANS

DRAWN BY:	KAL
CHECKED BY:	HT
APPROVED BY:	RE
DATE:	06/21/2018
SCALE:	AS SHOWN
SHT. NO.	0.05 OF 0.21



CULVERT SHALL BE DEPRESSED A MINIMUM OF 6 INCHES INTO STREAM BED TO ENSURE UPSTREAM AND DOWNSTREAM CONNECTIVITY

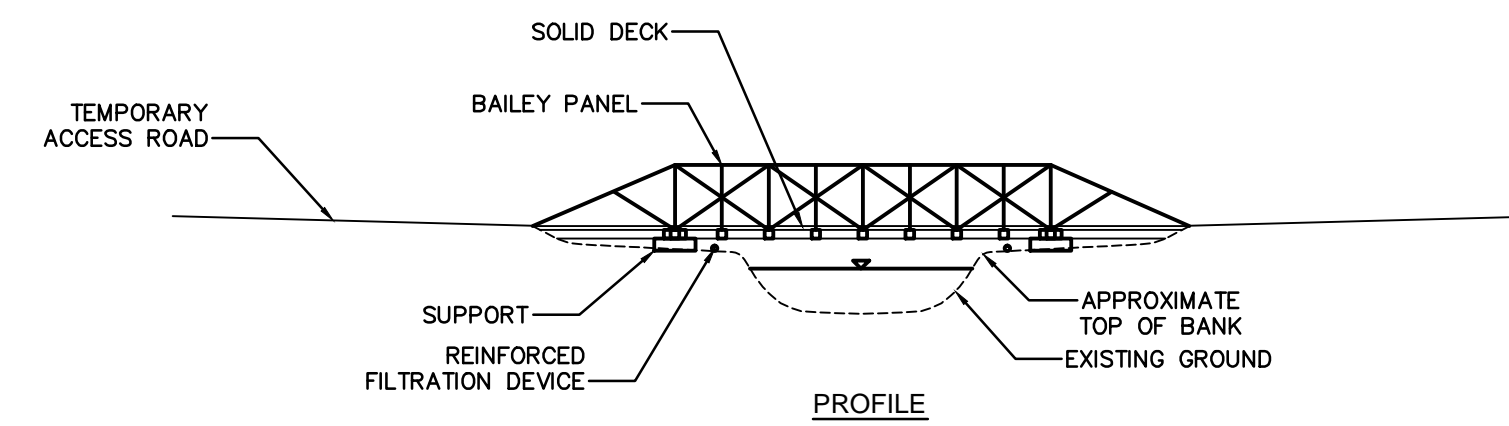
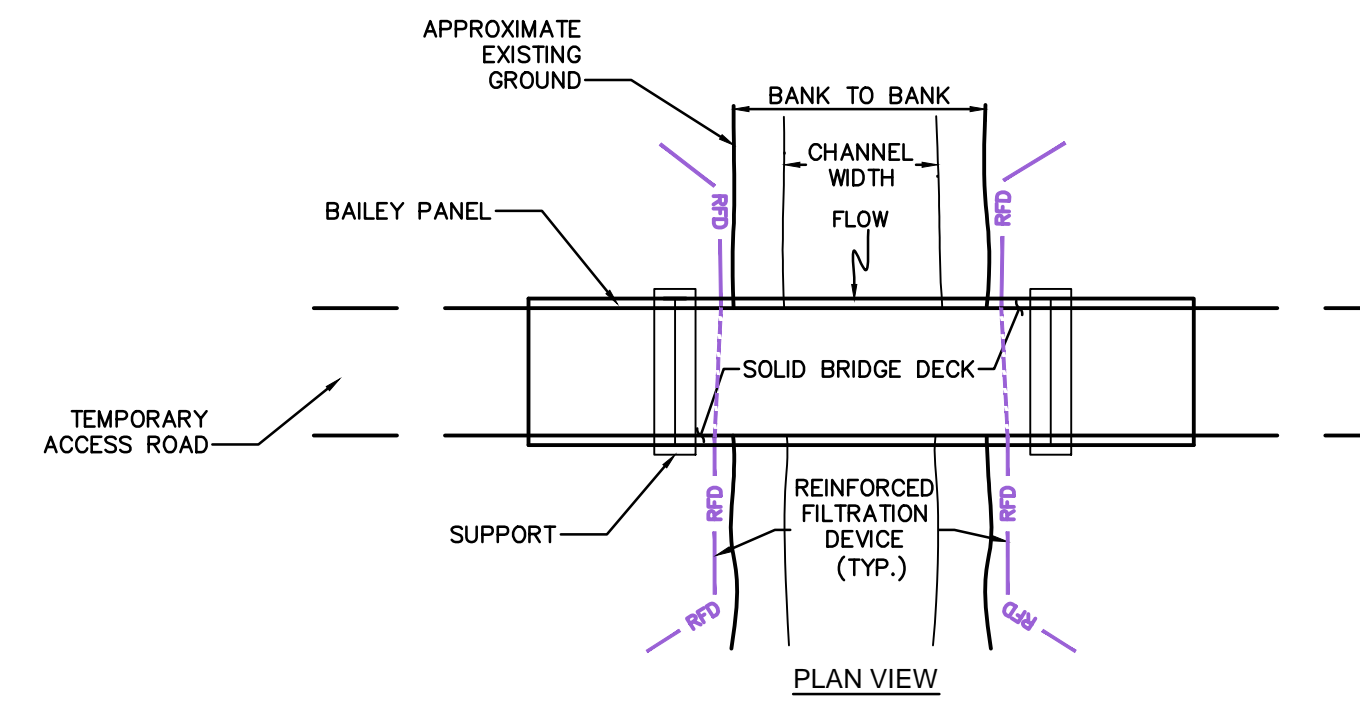
TYPICAL ROAD CROSS-SECTION AT STREAM CROSSING



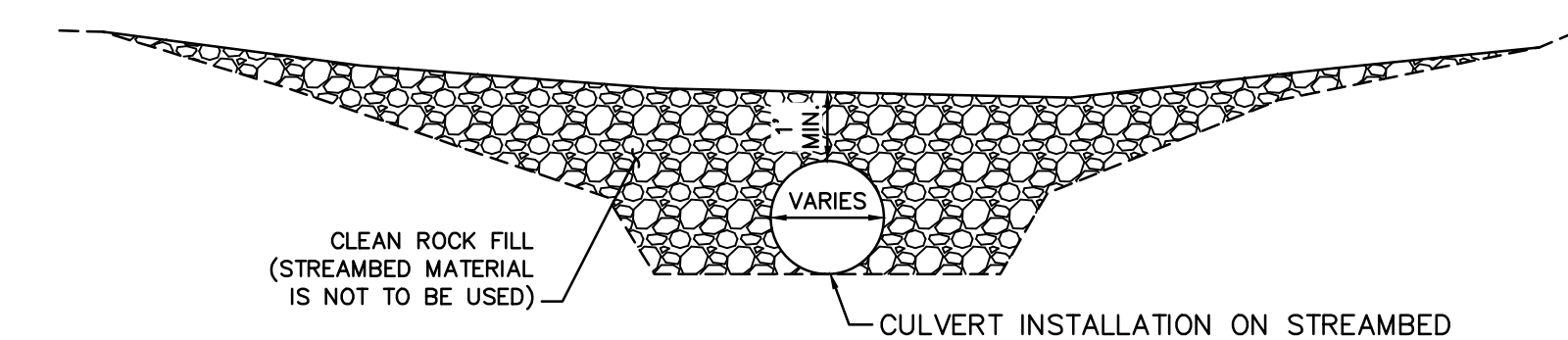
TEMPORARY CULVERT CROSSING
TAKEN FROM VADEQ 1992 MANUAL

NOTE:

THE CULVERT TYPES, SIZES, AND LOCATIONS RELATIVE TO THE PIPELINE ARE SHOWN ON THE TABLE INCLUDED AS ATTACHMENT DR3 WATER RESOURCES -6A.



MODULAR TEMPORARY BAILEY BRIDGE



TYPICAL STREAM CROSSING PROFILE - SINGLE CULVERT
TAKEN FROM WVDEP MANUAL

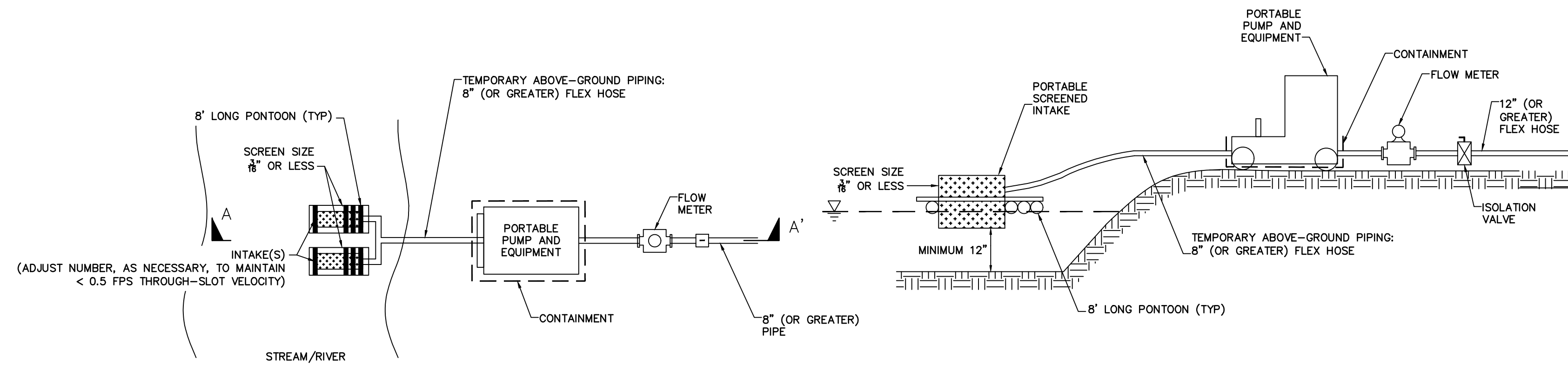
NO.	DATE	CHKD.	APPD.	DESCRIPTION	
3	06-21-18	KAL	RE	DW	ES MODIFICATION 008
2	02-21-18	KAL	RE	DW	5.0 JEC ALIGNMENT CHANGES
1	01-26-18	KAL	RE	DW	IMPLEMENTATION PLAN ALIGNMENT CHANGES

Mountain Valley Pipeline
EROSION AND SEDIMENT CONTROL DETAILS
MOUNTAIN VALLEY PIPELINE PROJECT - H600 LINE
MOUNTAIN VALLEY PIPELINE, LLC
 555 SOUTHPOINTE BOULEVARD, SUITE 200
 CANONSBURG, PA 15317

TETRA TECH
 complex world | CLEAR SOLUTIONS™
 661 ANDERSEN DRIVE
 FOSTER PLAZA 7
 PITTSBURGH, PA 15220

THIS TYPICAL CONSTRUCTION DETAIL IS INTENDED TO PROVIDE GUIDANCE TO THE PIPELINE CONTRACTOR. THE ACTUAL CONSTRUCTION TECHNIQUES MAY DIFFER DEPENDING UPON FIELD CONDITIONS AND/OR REGULATORY REQUIREMENTS

DRAWN BY:	KAL
CHECKED BY:	HT
APPROVED BY:	RE
DATE:	06/21/2018
SCALE:	AS SHOWN
SHT. NO.	0.09 OF 0.21



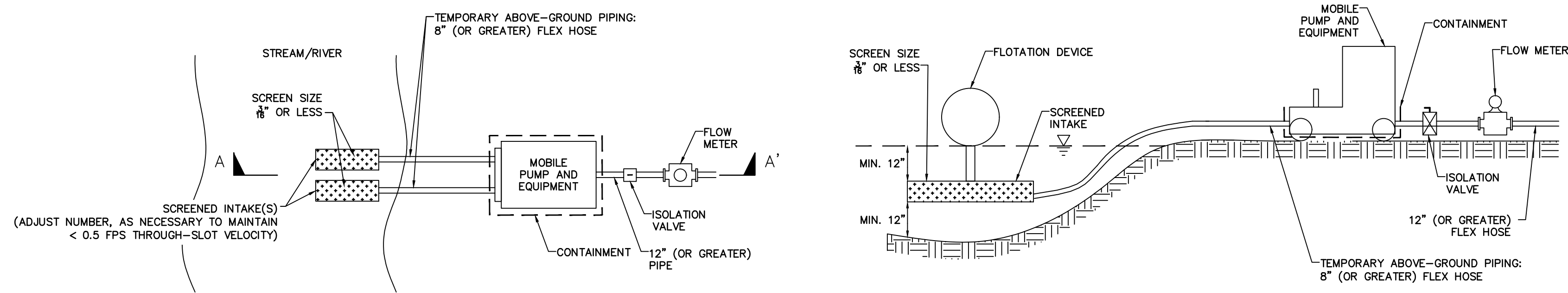
**SCHEMATIC
PLAN VIEW**
NOT TO SCALE

**INTAKE ARRANGEMENT
SECTION A-A'**
NOT TO SCALE

NOTES:

1. PUMP PAD WILL MATCH EXISTING GRADE.
2. SURFACE WATER SOURCE TO BE USED FOR TEMPORARY WATER WITHDRAWALS. TEMPORARY PUMP AND ASSOCIATED EQUIPMENT (OTHER THAN THE TEMPORARY HOSE AND INTAKE SCREEN) WILL BE LOCATED OUT OF THE ORDINARY HIGH WATER MARK. ALL TEMPORARY HOSES AND INTAKE SCREENS WILL BE REMOVED FROM THE FLOODWAY WHEN NOT IN USE.

TYPICAL RIVERSCREEN INTAKE WITH MOBILE PUMP



**SCHEMATIC
PLAN VIEW**
NOT TO SCALE

**INTAKE ARRANGEMENT
SECTION A-A'**
NOT TO SCALE

NOTES:

1. PUMP PAD WILL MATCH EXISTING GRADE.
2. SURFACE WATER SOURCE TO BE USED FOR TEMPORARY WATER WITHDRAWALS. TEMPORARY PUMP AND ASSOCIATED EQUIPMENT (OTHER THAN THE TEMPORARY HOSE AND INTAKE SCREEN) WILL BE LOCATED OUT OF THE ORDINARY HIGH WATER MARK. ALL TEMPORARY HOSES AND INTAKE SCREENS WILL BE REMOVED FROM THE FLOODWAY WHEN NOT IN USE.

TYPICAL FLOATING INTAKE WITH MOBILE PUMP
NOT TO SCALE

NO.	DATE	DWN.	CHKD.	APPD.	DESCRIPTION
4	11-01-18	JK	RE	DW	ES MODIFICATION 0011
3	08-21-18	KAL	RE	DW	ES MODIFICATION 008
2	02-21-18	KAL	RE	DW	5.0 IFC ALIGNMENT CHANGES
1	01-26-18	KAL	RE	DW	IMPLEMENTATION PLAN ALIGNMENT CHANGES

Mountain Valley Pipeline

MOUNTAIN VALLEY PIPELINE PROJECT - H600 LINE

MOUNTAIN VALLEY PIPELINE, LLC
2200 ENERGY DRIVE
CANONSBURG, PA 15317

TETRA TECH
complex world | CLEAR SOLUTIONS™

661 ANDERSEN DRIVE
FOSTER PLAZA 7
PITTSBURGH, PA 15220

THIS TYPICAL CONSTRUCTION DETAIL IS INTENDED TO PROVIDE GUIDANCE TO THE PIPELINE CONTRACTOR. THE ACTUAL CONSTRUCTION TECHNIQUES MAY DIFFER DEPENDING UPON FIELD CONDITIONS AND/OR REGULATORY REQUIREMENTS

DRAWN BY:	KAL
CHECKED BY:	HT
APPROVED BY:	RE
DATE:	11/01/2018
SCALE:	AS SHOWN
SHT. NO.	0.09A OF 0.21