

DAYS FROM THE INSTALLATION OF THE SILT FENCE.

ADEQUATELY UNIFORM TRENCH DEPTH.

BOTH SIDES OF THE FABRIC.

THE HEIGHT OF THE SILT FENCE SHALL BE A MINIMUM OF 16 INCHES ABOVE THE ORIGINAL GROUND SURFACE.

THE SILT FENCE SHALL BE PLACED IN AN EXCAVATED OR SLICED TRENCH CUT A MINIMUM OF 6 INCHES DEEP. THE TRENCH SHALL BE MADE WITH A TRENCHER, CABLE LAYING MACHINE, SLICING

MACHINE, OR OTHER SUITABLE DEVICE THAT WILL ENSURE AN

THE SILT FENCE SHALL BE PLACED WITH THE STAKES ON THE

MATERIAL SHALL LAY ON THE BOTTOM OF THE 6-INCH DEEP

SEAMS BETWEEN SECTIONS OF SILT FENCE SHALL BE SPLICED

OVERTOPS THE SILT FENCE, FLOWS UNDER THE FABRIC OR

OVERLAP PRIOR TO DRIVING INTO THE GROUND, (SEE DETAILS). 10. MAINTENANCE—SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. IF RUNOFF

AROUND THE FENCE ENDS, OR IN ANY OTHER WAY ALLOWS A

CONCENTRATED FLOW DISCHARGE, ONE OF THE FOLLOWING SHALL

BE PERFORMED, AS APPROPRIATE: 1) THE LAYOUT OF THE SILT

FENCE SHALL BE CHANGED, 2) ACCUMULATED SEDIMENT SHALL

BE REMOVED, OR 3) OTHER PRACTICES SHALL BE INSTALLED.

SEDIMENT DEPOSITS SHALL BE ROUTINELY REMOVED WHEN THE DEPOSITS REACHES APPROXIMATELY ONE—HALF OF THE HEIGHT

FORECASTED RAINSTORMS, REMOVE LIQUIDS OR COVER STRUCTURE TO PREVENT OVERFLOWS. REMOVE HARDENED

STRUCTURE UNTIL STRUCTURE IS REMOVED.

SOLIDS, WHOLE OR BROKEN UP, FOR DISPOSAL OR RECYCLING.

MAINTAIN RUNOFF DIVERSION AROUND EXCAVATED WASHOUT

DOWNSLOPE SIDE OF THE GEOTEXTILE. A MINIMUM OF 8 INCHES OF GEOTEXTILE MUST BE BELOW THE GROUND SURFACE. EXCESS

TRENCH. THE TRENCH SHALL BE BACKFILLED AND COMPACTED ON

TOGETHER ONLY AT A SUPPORT POST WITH A MINIMUM OF 6-IN.

### CRITERIA FOR SILT FENCE MATERIALS

2. SILT FENCE FABRIC-SEE CHART BELOW:

- FENCE POST THE LENGTH SHALL BE A MINIMUM OF 32 INCHES. WOOD POSTS WILL BE 2-BY-2-IN. NOMINAL DIMENSIONED HARDWOOD OF SOUND QUALITY. THEY SHALL BE FREE OF KNOTS, SPLITS AND OTHER VISIBLE IMPERFECTIONS, THAT WILL WEAKEN THE POSTS. THE MAXIMUM SPACING BETWEEN POSTS SHALL BE 10 FT. POSTS SHALL BE DRIVEN A MINIMUM OF 16 INCHES INTO THE GROUND, WHERE POSSIBLE. IF NOT POSSIBLE, THE POSTS SHALL BE ADEQUATELY SECURED TO PREVENT OVERTURNING OF THE FENCE DUE TO SEDIMENT/WATER LOADING.
- MIN. CRITERIA FOR SILT FENCE FABRIC (ODOT, 2002) FABRIC PROPERTIES TEST METHOD **VALUES** IINIMUM TENSILE STRENGTH 120 LBS ASTM D 4632 MAXIMUM ELONGATION @ 60 LBS 50% ASTM D 4632 IINIMUM PUNCTURE STRENGTH ASTM D 4833 50 LBS MINIMUM TEAR STRENGTH 40 LBS ASTM D 4533

≤ 0.84 mm

1x10-2 SEC.-

70%

ASTM D 4751

ASTM D 4491

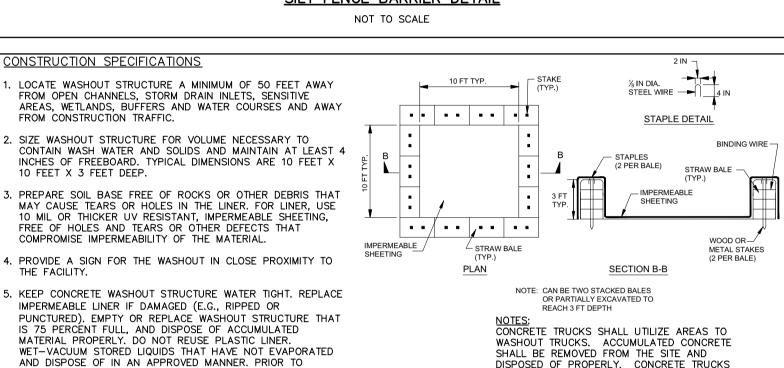
ASTM G 4355

## SILT FENCE BARRIER DETAIL

APPARENT OPENING SIZE

UV EXPOSURE STRENGTH RETENTION

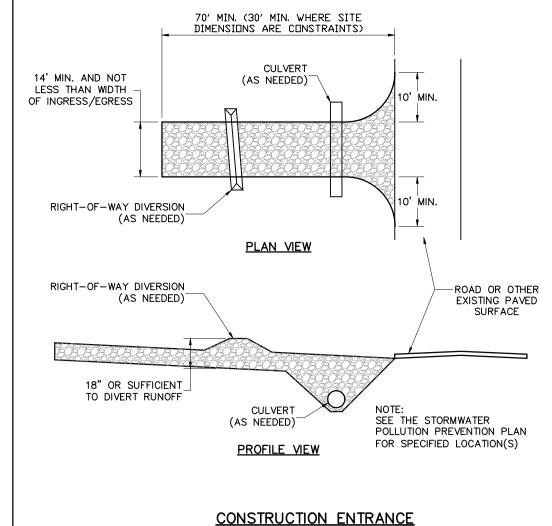
MINIMUM PERMITTIVITY



NOT TO SCALE

WASHOUT TRUCKS. ACCUMULATED CONCRETE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF PROPERLY. CONCRETE TRUCKS ARE PROHIBITED FROM WASHING OUT DIRECTLY INTO A DRAINAGE CHANNEL, STORM DRAIN OR SURFACE WATER OF THE STATE, FIELD TILE AND

OTHER SUBSURFACE DRAINAGE WITHIN TEN (10) FEET OF THE CONCRETE WASHOUT AREA SHALL CONCRETE WASHOUT AREA BE CUT AND PLUGGED.



NOT TO SCALE

# EQUIVALENT.

CONSTRUCTION ENTRANCE SPECIFICATIONS

1. STONE SIZE - ODOT # 2 (1.5-2.5 INCH) STONE SHALL BE USED, OR RECYCLED CONCRETE 2. LENGTH - THE CONSTRUCTION ENTRANCE SHALL BE AS LONG AS REQUIRED TO STABILIZE HIGH TRAFFIC AREAS BUT NOT LESS THAN 70 FT. (EXCEPTION: APPLY 30 FT. MINIMUM TO

SINGLE RESIDENCE LOTS). 3. THICKNESS - THE STONE LAYER SHALL BE AT LEAST SIX (6) INCHES THICK FOR LIGHT DUTY ENTRANCES OR AT LEAST TEN (10) INCHES FOR HEAVY DUTY USE.

4. WIDTH — THE ENTRANCE SHALL BE AT LEAST FOURTEEN (14) FEET WIDE, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. GEOTEXTILE - A GEOTEXTILE SHALL BE LAID OVER THE ENTIRE AREA PRIOR TO PLACING

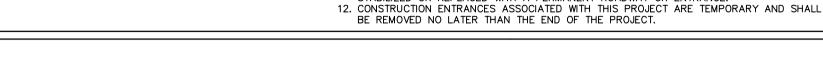
THE FOLLOWING SPECIFICATIONS:	
GEOTEXTILE SPECIFICATIONS FOR CONST	TRUCTION ENTRANCE
FABRIC PROPERTIES	VALUES
MINIMUM TENSILE STRENGTH	200 LBS
MINIMUM PUNCTURE STRENGTH	80 PSI
MINIMUM TEAR STRENGTH	50 LBS
MINIMUM BURST STRENGTH	320 PSI
MINIMUM ELONGATION	20%
EQUIVALENT OPENING SIZE	EOS < 0.6 mm
PERMITTIVITY	1x10-3 CM/SEC

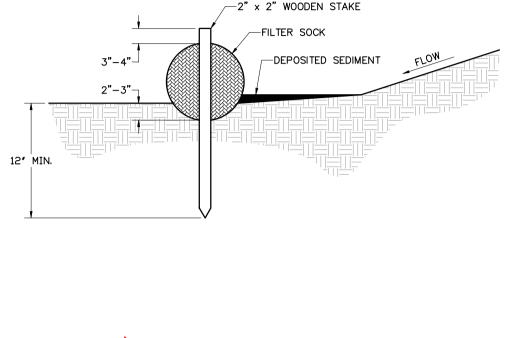
STONE. IT SHALL BE COMPOSED OF STRONG ROT-PROOF POLYMERIC FIBERS AND MEET

- 6. TIMING THE CONSTRUCTION ENTRANCE SHALL BE INSTALLED AS SOON AS IS PRACTICABLE BEFORE MAJOR GRADING ACTIVITIES.

  7. CULVERT — A PIPE OR CULVERT SHALL BE CONSTRUCTED UNDER THE ENTRANCE IF NEEDED TO PREVENT SURFACE WATER FROM FLOWING ACROSS THE ENTRANCE OR TO PREVENT RUNOFF FROM BEING DIRECTED OUT ONTO PAVED SURFACES. SIZE TO ACCOMMODATE DRAINAGE IN AREA AND RATED TO WITHSTAND THE HEAVIEST EQUIPMENT USING THE ENTRANCE. MINIMUM 12" DIAMETER PIPE.
- 8. WATER BAR A WATER BAR SHALL BE CONSTRUCTED AS PART OF THE CONSTRUCTION ENTRANCE IF NEEDED TO PREVENT SURFACE RUNOFF FROM FLOWING THE LENGTH OF THE CONSTRUCTION ENTRANCE AND OUT ONTO PAVED SURFACES. 9. MAINTENANCE - TOP DRESSING OF ADDITIONAL STONE SHALL BE APPLIED AS CONDITIONS DEMAND. MUD SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADS, OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS, SHALL BE REMOVED IMMEDIATELY. REMOVAL SHALL BE ACCOMPLISHED BY SCRAPING OR SWEEPING. 10. CONSTRUCTION ENTRANCES SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES
- AND PREVENT OFF-SITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE CONSTRUCTION SITE SHALL BE RESTRICTED FROM MUDDY AREAS.

  11. REMOVAL THE ENTRANCE SHALL REMAIN IN PLACE UNTIL THE DISTURBED AREA IS STABILIZED OR REPLACED WITH A PERMANENT ROADWAY OR ENTRANCE.





UNDISTURBED AREA

FILTER SOCK-

FILTER SOCK SPECIFICATIONS

- 1. 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" TO 2".
- 2. FILTER SOCKS SHALL BE 3 OR 5 MIL CONTINUOUS, TUBULAR, HDPE 3/8" KNITTED MESH NETTING MATERIAL, FILLED WITH COMPOST PASSING THE ABOVE SPECIFICATIONS FOR COMPOST PRODUCTS.

3. A SMALL TRENCH, 2"-3" IN DEPTH, SHALL BE EXCAVATED ON THE SLOPE CONTOUR AND PERPENDICULAR TO THE WATER FLOW. SOIL FROM THE EXCAVATION SHOULD BE PLACED

- DOWN—SLOPE NEXT TO THE TRENCH.

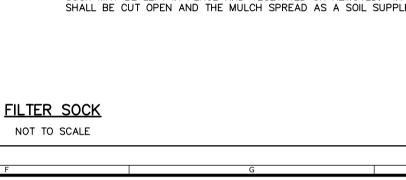
  4. FILTER SOCKS SHALL BE PLACED IN THE TRENCH, ENSURING THAT NO GAPS EXIST BETWEEN THE SOIL AND THE BOTTOM OF THE FILTER SOCK. THE ENDS OF ADJACENT FILTER SOCKS SHALL BE TIGHTLY ABUTTED SO THAT NO OPENING EXISTS FOR WATER OR SEDIMENT TO PASS THROUGH. ALTERNATIVELY, FILTER SOCKS MAY BE LAPPED, 6" MINIMUM, TO PREVENT SEDIMENT PASSING
- THROUGH THE FIELD JOINT.

  5. 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. 6. 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.
- 7. FILTER SOCKS ARE NOT TO BE USED IN CONCENTRATED FLOW SITUATIONS OR IN RUNOFF CHANNELS.
- 8. TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS. 9. ROUTINELY INSPECT FILTER SOCKS AFTER EACH SIGNIFICANT RAIN, MAINTAINING FILTER SOCKS IN A FUNCTIONAL CONDITION AT ALL TIMES.
- 10. REMOVE SEDIMENTS COLLECTED AT THE BASE OF THE FILTER SOCKS WHEN THEY REACH 1/3 OF THE EXPOSED HEIGHT OF THE PRACTICE. 11. WHERE THE FILTER SOCK DETERIORATES OR FAILS, IT SHALL BE REPAIRED OR REPLACED WITH A
- MORE EFFECTIVE ALTERNATIVE. 12. BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
- 13. REMOVAL FILTER SOCKS WILL BE DISPERSED ON SITE WHEN NO LONGER REQUIRED IN SUCH AS WAY AS TO FACILITATE AND NOT OBSTRUCT SEEDINGS.

14. UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

(ISSUED FOR APPROVA DRAFT DESIGN CHECK BJR KDG CPL/HGG 7/25/2018 17-031 HORIZONTAL VERTICAL: 17031-200 25/35

Utility



(11)	10/10/10		600	
ertilizer	(or equivalent)		600	
gricultural lime			4,000	
	•	<u>'</u>		
Area requiring tempora	ary stabilization	Time frame to a	apply erosion controls	
Any disturbed area within 50 feet of a surface water of the state and not at final grade		Within 2 days of the most recent disturbance if the area will remain idle for more than 14 days.		
	r more than 14 days but of within 50 feet of a	Within 7 days of disturbance with	of the most recent hin the area.	

surface water of the state.

Disturbed areas that will be idle over winter

NOTE: OTHER APPROVED SPECIES MAY BE SUBSTITUTED.

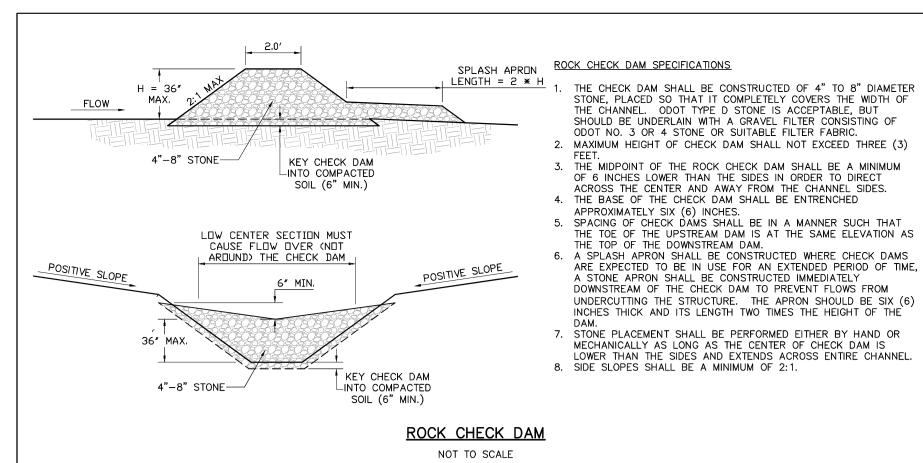
Rate (lbs/acre)

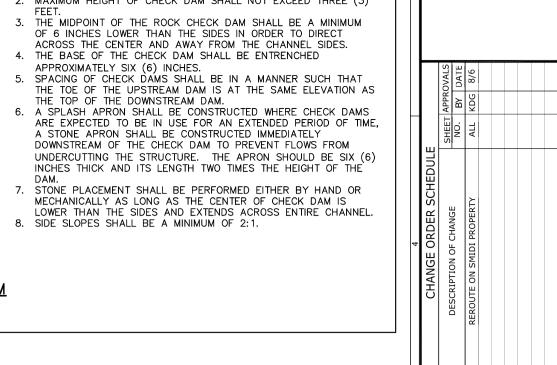
Prior to the onset of winter weather

	TEMPORARY S	EEDING		
CEEDING DATEG	CDECIEC	SEEDING RATE		
SEEDING DATES	SPECIES	LBS/1000 S.F.	LBS/ACRE	
	OATS	3.00	128	
	TALL FESCUE	1.00	40	
	ANNUAL RYEGRASS	1.00	40	
	PERENNIAL RYEGRASS	1.00	40	
MARCH 1 TO	TALL FESCUE	1.00	40	
AUGUST 15	ANNUAL RYEGRASS	1.00	40	
	ANNUAL RYEGRASS	1.25	55	
	PERENNIAL RYEGRASS	3.25	142	
	CREEPING RED FESCUE	0.40	17	
	KENTUCKY BLUEGRASS	0.40	17	
	RYE	3.00	112	
	TALL FESCUE	1.00	40	
	ANNUAL RYEGRASS	1.00	40	
	WHEAT	3.00	120	
	TALL FESCUE	1.00	40	
	ANNUAL RYEGRASS	1.00	40	
AUGUST 16 TO OCTOBER 31	PERENNIAL RYEGRASS	1.00	40	
	TALL FESCUE	1.00	40	
	ANNUAL RYEGRASS	1.00	40	
	ANNUAL RYEGRASS	1.25	40	
	PERENNIAL RYEGRASS	3.25	40	
	CREEPING RED FESCUE	0.40	40	
	KENTUCKY BLUEGRASS	0.40		
NOVEMBER 1 TO FEBRUARY 29	USE MULCH ONLY OR DORM	ANT SEEDING		

	PERMANEN	IT SEEDING	
CEED MIV	SEED	DING RATE	
SEED MIX	LBS/ACRE	LBS/1000 S.F.	NOTES
	GENER	RAL USE	
CREEPING RED FESCUE	20-40	0.50-1.00	FOR CLOSE MOWING &
DOMESTIC RYEGRASS	10-20	0.25-0.50	FOR WATERWAYS WITH
KENTUCKY BLUEGRASS	20-40	0.50-1.00	VELOCITY < 2.0 FT/SEC
TALL FESCUE	40-50	1.00-1.25	
TURF-TYPE (DWARF) FESCUE	90	2.25	
	STEEP BANKS	OR CUT SLOPES	
TALL FESCUE	40-50	1-1.25	
CROWN VETCH	10-20	0.25-0.50	DO NOT SEED LATER
TALL FESCUE	20-30	0.50-0.75	THAN AUGUST
FLAT PEA	20-25	0.50-0.75	DO NOT SEED LATER
TALL FESCUE	20-30	0.50-0.75	THAN AUGUST
	ROAD DITCHE	S AND SWALES	
TALL FESCUE	40-50	1-1.25	
TURF-TYPE (DWARF) FESCUE	90	2.25	
TALL FESCUE	5	0.10	
	LA	WNS	
KENTUCKY BLUEGRASS	100-120	2.00	
PERENNIAL RYEGRASS	100-120	2.00	
KENTUCKY BLUEGRASS	100-120	2.00	FOR SHADED AREAS
CREEPING RED FESCUE	100-120	1.50	FOR SHADED AREAS
UPLAND	ROW AND WA	ATERBODY CROSSII	NGS
ORCHARD GRASS AND/OR TALL FESCUE	20		
BIRDSFOOT-TREFOIL (EMPIRE)	7		
ANNUAL RYE	10		
	WETI	_ANDS	
ANNUAL RYE	40		USE AS A TEMPORARY REVEGETATIVE MEASURE UNTIL INDIGENOUS PLANTS REESTABLISH COVER
NOTE: OTHER APPROVED SPE	CIES MAY BE	SUBSTITUTED.	

AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
ANY AREAS THAT WILL LIE DORMANT FOR 1 YEAR OR MORE	WITHIN 7 DAYS OF THE MOST RECENT DISTURBANCE.
ANY AREAS WITHIN 50 FEET OF A SURFACE WATER OF THE STATE AND AT FINAL GRADE.	WITHIN 2 DAYS OF REACHING FINAL GRADE.
ANY OTHER AREAS AT FINAL GRADE.	WITHIN 7 DAYS OF REACHING FINAL GRADE WITHIN THAT AREA.





Utility Technologies I Corporation

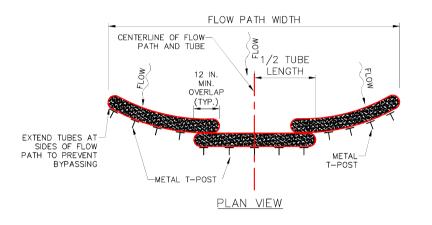
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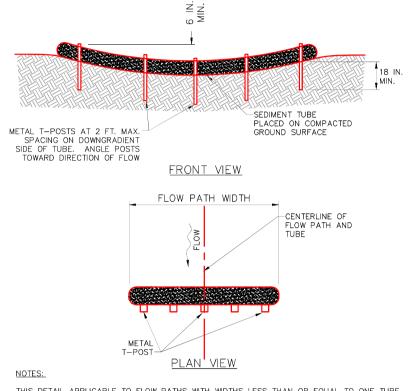
VERTICAL:

DILLE	WATTL.	E DI	TCH	CHE	CK
-	VAI	2316	URY 4" TO	5"	
	×		-	~	
	7 6" MIR		/		
		#			
			= 11/11/2		
	11		1.1		
	// ELE	VATIO.	N \\		
	// ELE	VATIO.	N \		
	// ELE	VATIO.	N \	\	
	// ELE	VATIO.	N \	\	
	ELE	VATIO. 	N \\	\	i
	// ELE	VATIO.	N \\		i
Waser cary Ship				on erded	Diameie
Vaur en Sipp Sape	ELECT LEME FILE			nmended	Evanvere
	// ≋Leig+Aleue FII	ler Sact a	ana Hesar		
State	ELeng - Alexe Fil Basse (HiV)	ler Sact a	and Hearing	18.	200
State Win 2	ELenger Alexe FII Base (Hily)	ler Spick a	ana Heann 12" 25m	384	74"
Stage Min 29 1006 (209)	EL= g + Lexe FII Bace (HrVI - n - 21% - 52 1 - 12 1 - 16 1 - 5 1	ler Sact a 8" 125 100	and Heading 12" 25/0 100	300 360 18.	750 750
Stope Win 25 tills 284 29 - 191	ELegratews FII Bace (HiV) in - 21% soliday	ler Sact a 8" 125 100	and Heading 12" 25/0 100	300 300 180	74" 790 790



NOTES: METAL T-POSTS SHALL BE INSTALLED AT THE CENTER AND AT EACH END OF THE TUBE. ADDITIONAL T-POSTS SHALL BE INSTALLED AS NEEDED TO MEET THE MAXIMUM 2-FOOT SPACING. SLIGHTLY ANGLE STAKES WITH TOP FACING TOWARDS DIRECTION OF FLOW. SEDIMENT TUBES SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/3 THE HEIGHT OF THE TUBE AND DISPOSED AS DIRECTED ELSEWHERE IN THE E&S PLAN. DAMAGED TUBES SHALL BE REPAIRED OR REPLACED WITHIN 24 HOURS OF INSPECTION, A SUPPLY OF TUBES SHALL BE KEPT ON SITE FOR THIS PURPOSE.

WEIGHTED SEDIMENT FILTER TUBE INSTALLATION ACROSS A WIDE FLOW PATH NOT TO SCALE

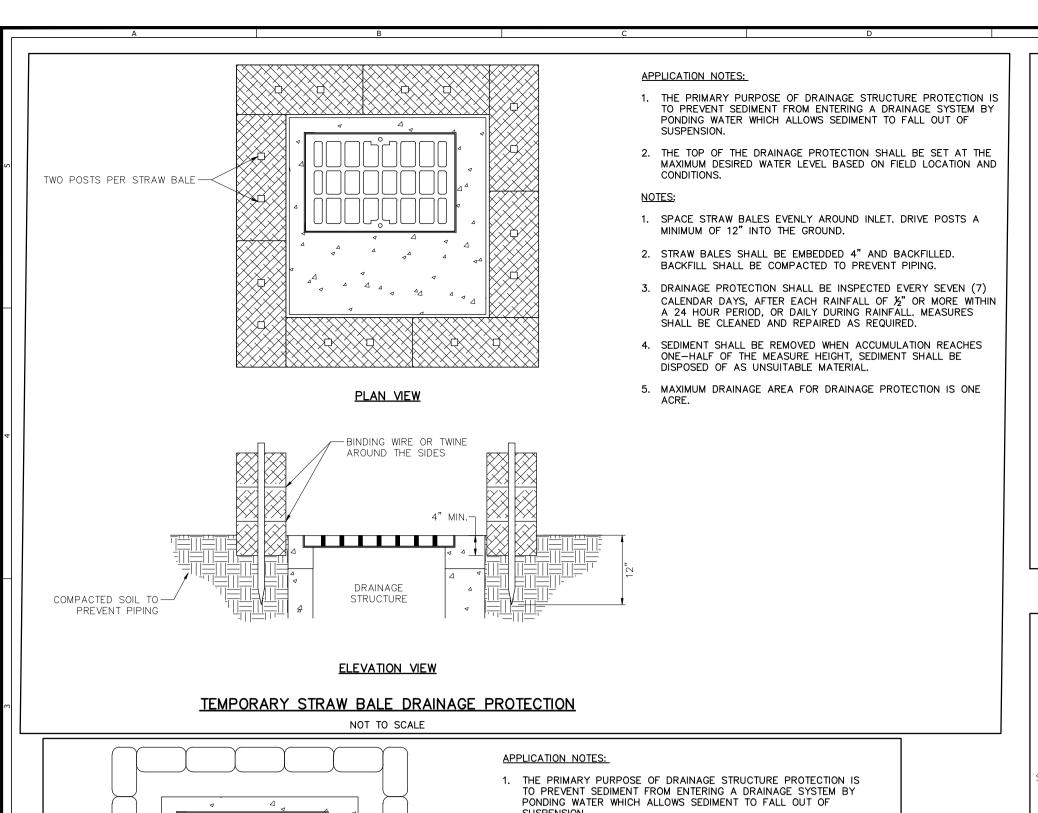


THIS DETAIL APPLICABLE TO FLOW PATHS WITH WIDTHS LESS THAN OR EQUAL TO ONE TUBE

SEDIMENT TUBES SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE TUBE AND DISPOSED AS DIRECTED ELSEWHERE IN THE E&S PLAN.

WEIGHTED SEDIMENT FILTER TUBE INSTALLATION CONCENTRATED FLOW AREA NOT TO SCALE





NOTES:

PLAN VIEW

DRAINAGE

STRUCTURE

**ELEVATION VIEW** 

TEMPORARY GRAVEL BAG DRAINAGE PROTECTION

NOT TO SCALE

2. GRAVEL BAGS ARE FILLED WITH CLEAN STONE RATHER THAN

SYSTEM IF BAGS ARE DAMAGED DURING USE.

SAND TO PREVENT SEDIMENT FROM ENTERING A DRAINAGE

3. THE TOP OF THE DRAINAGE PROTECTION SHALL BE SET AT THE MAXIMUM DESIRED WATER LEVEL BASED ON FIELD LOCATION AND

1. GRAVEL BAGS SHALL BE INDIVIDUALLY TIED, DOUBLE BAGGED AND INVERSELY INSERTED. GRAVEL BAGS SHALL LAP THE JOINTS BETWEEN THE BAGS IN THE LAYER BELOW. COST OF EXCAVATION FOR INSTALLATION SHALL BE INCLUDED IN THE PRICE BID FOR

2. DRAINAGE PROTECTION SHALL BE INSPECTED EVERY SEVEN (7)

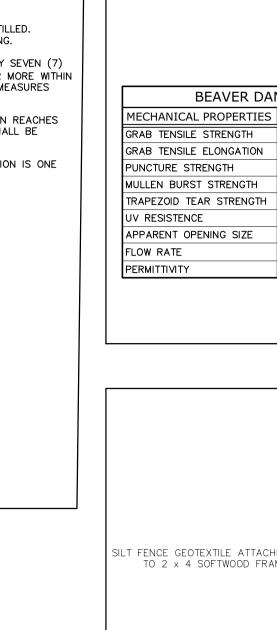
3. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATION REACHES ONE—HALF OF THE MEASURE HEIGHT, SEDIMENT SHALL BE

4. MAXIMUM DRAINAGE AREA FOR DRAINAGE PROTECTION IS ONE

SHALL BE CLEANED AND REPAIRED AS REQUIRED.

DISPOSED OF AS UNSUITABLE MATERIAL.

CALENDAR DAYS, AFTER EACH RAINFALL OF ½" OR MORE WITHIN A 24 HOUR PERIOD, OR DAILY DURING RAINFALL. MEASURES



# SILT FENCE GEOTEXTILE ATTACHED — TO 2 x 4 SOFTWOOD FRAME 2 x 4 NOMINAL -SOFTWOOD POST (TYP)

STORM SEWER GRATE

COMPLETELY COVERED— BY HI-FLOW FABRIC

LIFTING STRAPS-

APPLICATION NOTES:

COMPLETELY ENCLOSED).

TABLE TO THE LEFT:

<u>INSTALLATION</u>

**MATERIALS** 

WITH THE GRATE STANDING ON ITS END, PLACE THE EMPTY

IF USING OPTIONAL OIL ABSORBENTS, PLACE ABSORBENT PILLOW

TUCK THE ENCLOSURE FLAP INSIDE TO COMPLETELY ENCLOSE THE

HOLDING THE LIFTING STRAPS, PLACE THE GRATE INTO ITS FRAME, STREET SIDE EDGE FIRST, THEN LOWER BACK EDGE WITH DAM INTO PLACE. DO NOT RELY ON LIFTING STRAPS TO

6. THE CYLINDRICAL TUBE SHOULD BE PARTIALLY BLOCKING THE CURB HOOD OPENING WHEN INSTALLED PROPERLY.

REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM THE SURFACE AND VICINITY OF THE UNIT AFTER EACH STORM EVENT.

REMOVE THE SEDIMENT THAT HAS ACCUMULATED WITHIN

CONTAINMENT AREA OF THE BEAVER DAM AS NEEDED.

3. IF USING OPTIONAL OIL ABSORBENTS, REMOVE AND REPLACE

1. THE BEAVER DAM CURB AND GUTTER INLET PROTECTION UNIT

SHALL BE A SEWN GEOTEXTILE FABRIC UNIT ENCLOSING A

PLACED IN FRONT OF AND EXTENDING BEYOND THE INLET

OPENING ON BOTH SIDES) AND HAVE A GEOTEXTILE FABRIC

2. THE BEAVER DAM SHALL HAVE LIFTING DEVICES TO ALLOW MANUAL INSPECTION OF THE STORM WATER SYSTEM.

3. THE BEAVER DAM UNIT SHALL UTILIZE AN ORANGE MONOFILM AND A PROPERTY OF THE STORM WATER SYSTEM.

ENVELOPE FITTED TO THE INDIVIDUAL GRATE(S) ON THE STREET

SIDE OF THE SEWN UNIT (FOR GRATE(S) TO BE INSERTED AND BE

MONOFILAMENT FABRIC WITH THE CHARACTERISTICS GIVEN IN THE

POROUS STRUCTURE (IN THE FORM OF A CYLINDRICAL TUBE

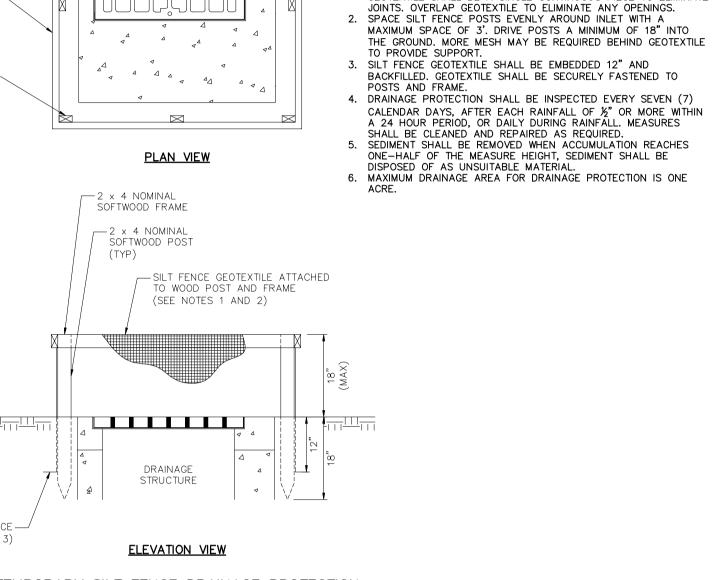
BEAVER DAM UNIT OVER THE GRATE.

ON THE BOTTOM OF GRATE POUCH.
ATTACH ABSORBENT PILLOW TO LEATHER LOOP.

SUPPORT THE ENTIRE WEIGHT OF THE GRATE.

ABSORBENT PILLOW WHEN NEAR SATURATION.

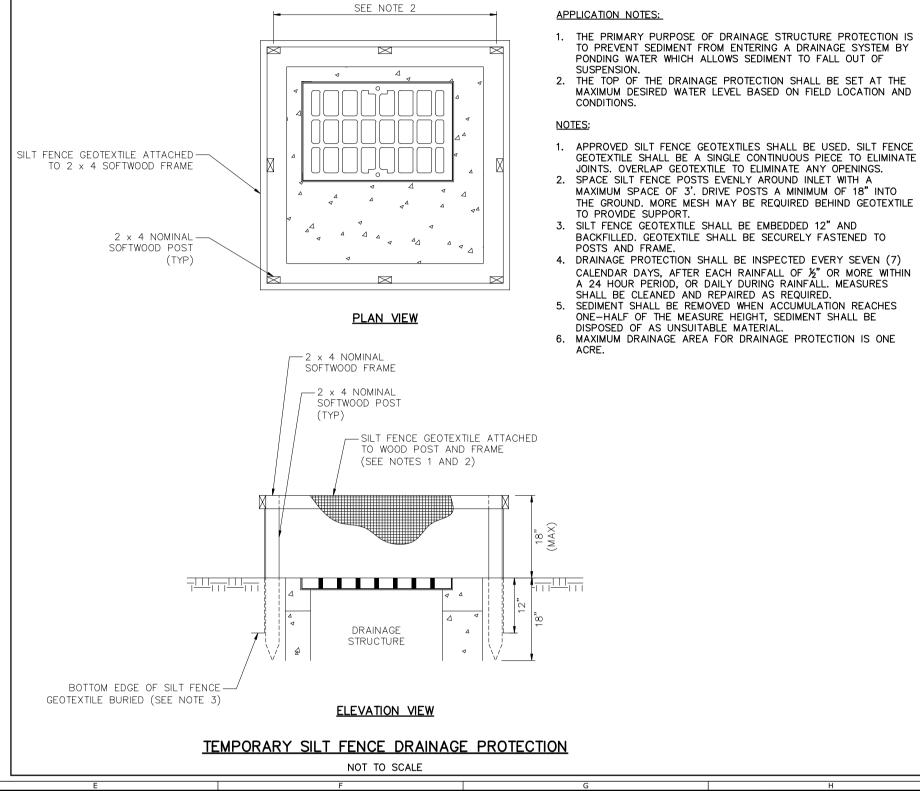
2. SPACE SILT FENCE POSTS EVENLY AROUND INLET WITH A MAXIMUM SPACE OF 3'. DRIVE POSTS A MINIMUM OF 18" INTO TO PROVIDE SUPPORT.



LLC PIPELINE, IRONVILLE GENERATION

DRAFT CHECK DESIGN CPL/HGG KDG 7/25/2018 17-031 HORIZONTAL: VERTICAL: 17031-200

27/35



-OVERFLOW GAP

-CURB FILTER

LOW PROFILE WITH -GUTTER FOR SAFETY

AND CURB APPEAL

UNITS

LBS

LBS

PSI

LBS

%

U.S. STD. SIEVE

GAL/MIN/SF

SEC^-1

BEAVER DAM & DANDY BAG SPECIFICATIONS

VALUE

365 x 200

24 x 10

100

450

115 x 75

90

40

145

2.1

-CURB & GUTTER INLET

TEST METHOD

ASTM D 4632

ASTM D 4632

ASTM D 4833

ASTM D 3786

ASTM D 4533

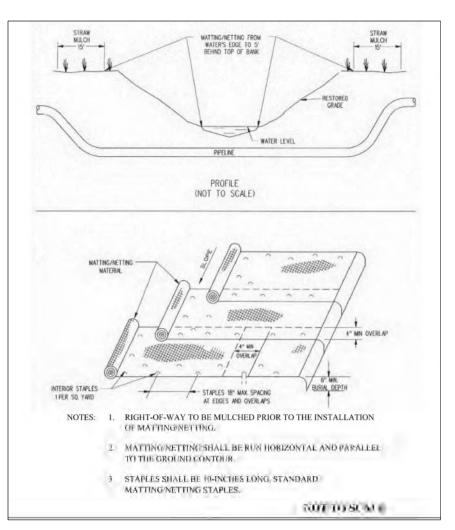
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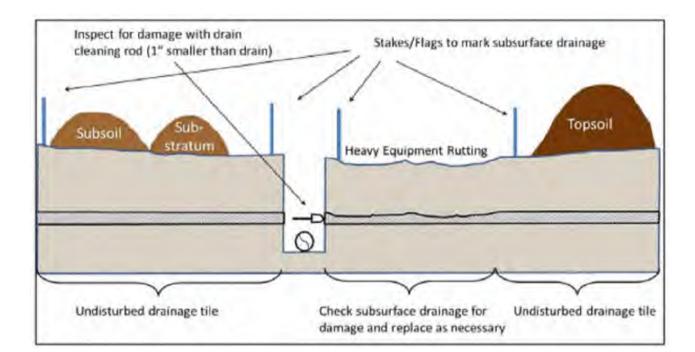
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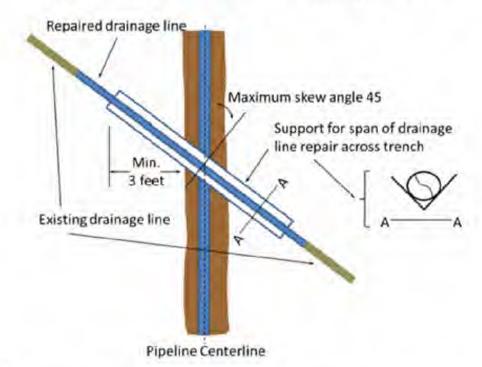
BEAVER DAM NOT TO SCALE



**EROSION CONTROL FABRIC** NOT TO SCALE

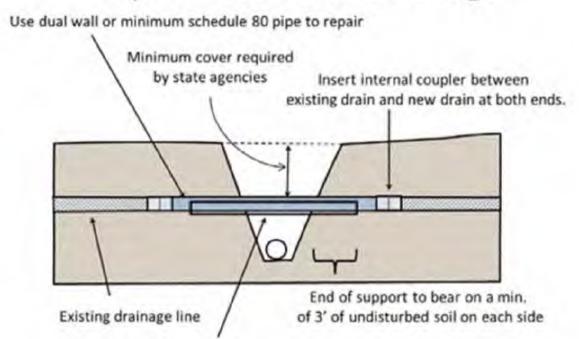


## Repair of Severed Drainage Lines



- 1. Extend support and replacement drainage line a minimum of 3 feet onto undisturbed earth on both
- sides of trench, measured perpendicular from the wall of the trench. 2. Provide steel support for drain tile or plastic pipe to maintain function while the ditch is open.
- Should a drain cross a ditch at a skew of greater than 45 degrees, the replacement drain is to be relocated into undisturbed soil or out of conflict with the pipeline ditch. The replacement drain pipe is to be installed to match elevation of existing pipes.

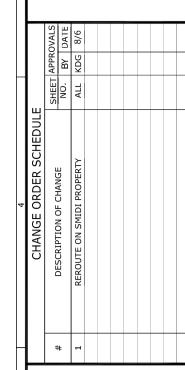
# Repair of Severed Drainage



1. Perforated pipe shall be installed so that holes are facing down.

Support Iron or pipe

- 2. The perforated rigid support pipe is shouldered back into the firm, undisturbed soil profile to ensure consistent gravity flow gradient of the drainage line across the trench as the backfill material gradually settles for up to two years.
- 3. Long stretches of the pipe support across the trench may need to be supported by sand bags or other means to prevent sagging.

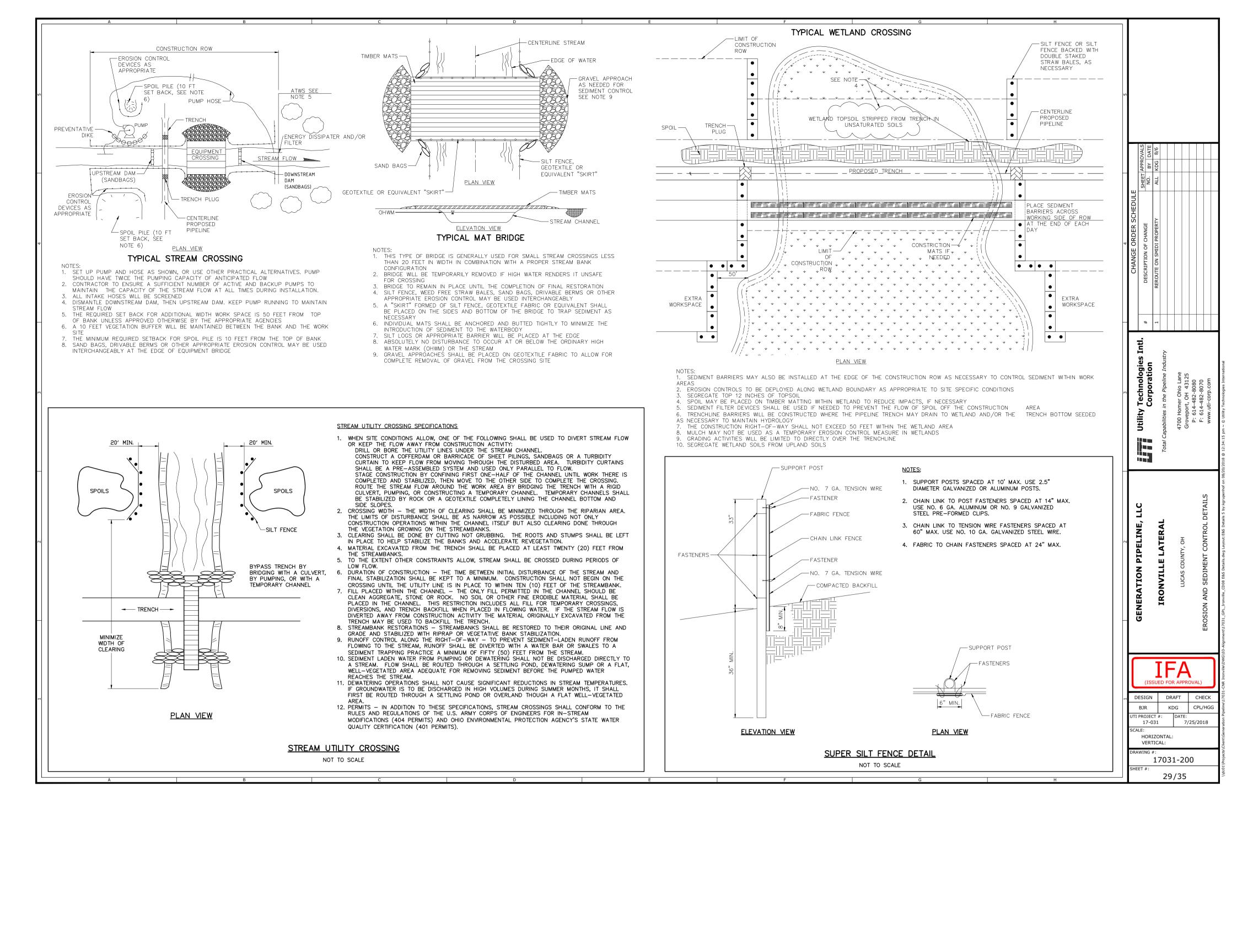


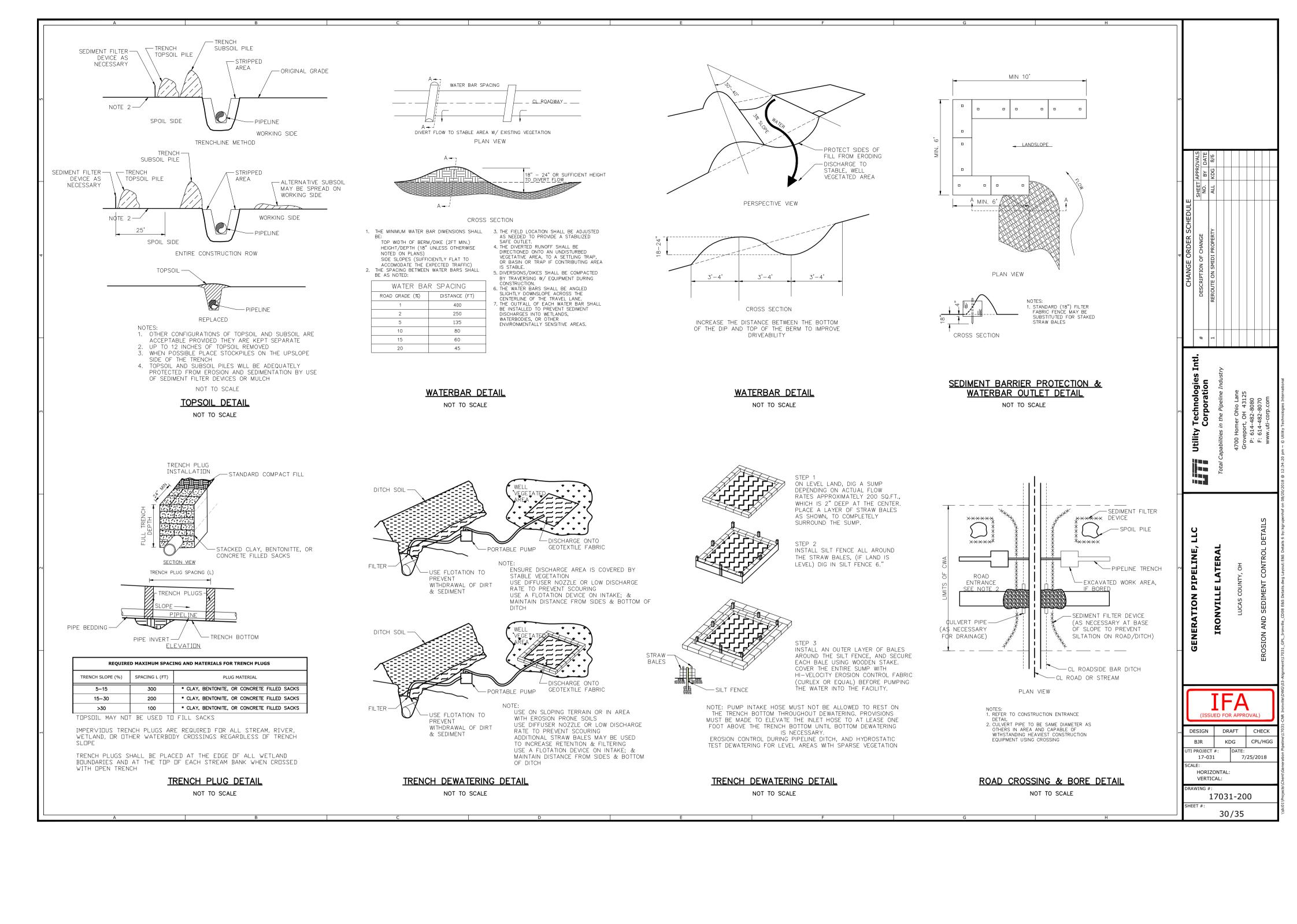
IRONVILLE LATERAL

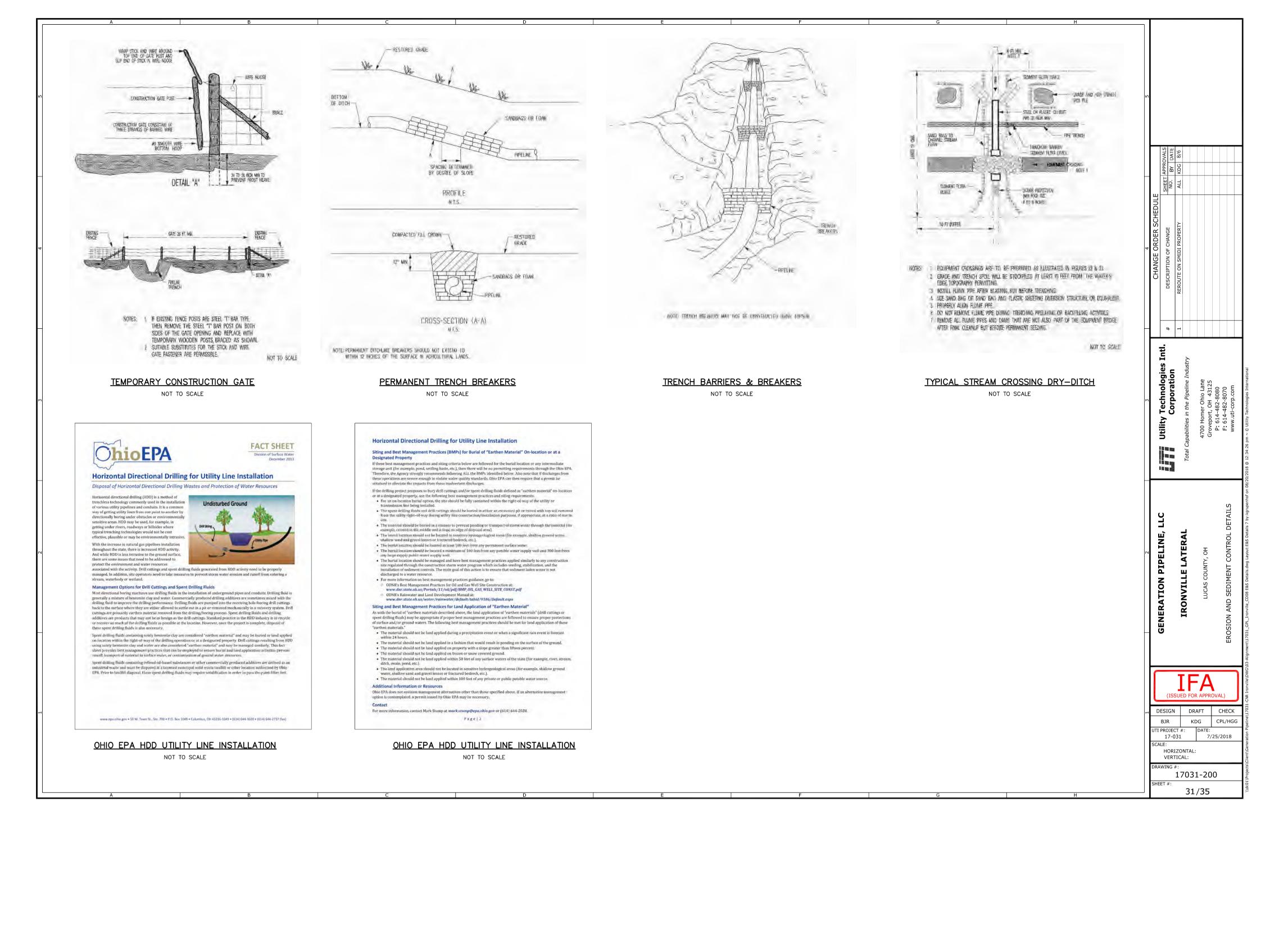
GENERATION PIPELINE, LLC



28/35







### **PROJECT DESCRIPTION: CONSTRUCTION SEQUENCE:** MAINTENANCE OF TEMPORARY E&S MEASURES/BMP NEEDED TO SECURE IT FIRMLY SHALL NOT EXCEED THREE PASSES WITH MAXIMUM APPLIED BINDER NOT EXCEEDING 10 GALLONS PER 1, 000 SQUARE FEET THIS EROSION AND SEDIMENT CONTROL PLAN IS FOR THE CONSTRUCTION OF THE NATURAL GAS PIPELINES ARE INSTALLED USING CONVENTIONAL OVERLAND BURIED PIPELINE CONSTRUCTION TECHNIQUES. THIS SECTION PROVIDES AN OVERVIEW OF THE EQUIPMENT AND OPERATIONS NECESSARY FOR THE INSTALLATION OF A LIQUID MULCH BINDERS SHALL NOT BE USED WITHIN 100 FEET OF A THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTINUOUS WATERBODY. MAINTENANCE OF ALL BMP AND DEVICES FOR THE DURATION OF THE PROJECT AND UNTIL WHICH TIME THE AREA IS STABILIZED WITH A MINIMUM MULCH SHALL BE APPLIED AT A RATE OF 6,000 LBS PER ACRE WITHIN NATURAL GAS PIPELINE, DESCRIBES POTENTIAL IMPACTS THAT MAY OCCUR FROM THE PIPELINE WILL BE INSTALLED USING A COMBINATION OF OPEN-CUT AND 100 FEET OF A WATERBODY. UNIFORM 70% PERENNIAL VEGETATIVE COVER OR UNTIL AGRICULTURAL EACH OPERATION, AND IDENTIFIES THE MEASURES THAT WILL BE IMPLEMENTED TO CONTROL THESE POTENTIAL IMPACTS. THIS SECTION ALSO DISCUSSES IN DETAIL THE EROSION AND SEDIMENT CONTROL TECHNIQUES THAT APPLY TO EACH BORING METHODS. THE PIPELINE IS SITED WITH LUCAS COUNTY, OHIO. THE MULCH SHALL NOT BE APPLIED ON WETLANDS. LANDS HAVE BEEN RETURNED TO THEIR PRE-CONSTRUCTION PROJECT WILL UTILIZE NEWLY ACQUIRED EASEMENTS PARALLEL TO EXISTING AGRICULTURAL USE. RAILROADS AND FORFIGN PIPELINES. CONSTRUCTION ACTIVITY INCLUDING CLEARING, GRADING, TRENCHING, LOWERING—IN OF PIPE, BACKFILLING, AND HYDROSTATIC TESTING. INSTALLATION OF THE PIPELINE WILL TYPICALLY PROCEED FROM ONE END OF THE CONSTRUCTION SPREAD THE CONTRACTOR SHALL INSPECT ALL DEVICES WEEKLY (MINIMUM) AND STEEP SLOPE STABILIZATION EROSION CONTROL MATTING SHALL BE USED ON ALL PERMANENT SLOPES AFTER EVERY RAINFALL EVENT AND PERFORM MAINTENANCE AS REQUIRED UPON COMPLETION OF THE PROJECT ALL DISTURBED AREAS WILL BE RETURNED TO ANY DEVICE FOUND TO BE CLOGGED, DAMAGED, HALF-FULL OF SILT OR NOT FULLY OPERATIONAL SHALL BE CLEANED OF ALL DEBRIS. THE SOLID WASTE DISPOSAL IS THE RESPONSIBILITY OF THE CONTRACTOR. ALL 3H:1V AND STEEPER AND ON ALL DISTURBED STREAM BANKS. THEIR PRE-CONSTRUCTION CONTOURS AND MAY THEN BE UTILIZED FOR TO THE OTHER IN AN ASSEMBLY LINE OR "MAINLINE" FASHION. THE SPACING PREVIOUSLY INTENDED PURPOSES. ALL SLOPES ARE TO BE INSPECTED AFTER EACH RAINFALL EVENT. BETWEEN INDIVIDUAL CREWS RESPONSIBLE FOR EACH INTERDEPENDENT ACTIVITY IS ERODED AREAS ARE TO HAVE THE SOIL/TOPSOIL REPLACED, THE SEED BASED ON ANTICIPATED RATE OF PROGRESS. THE ACTIVITIES LISTED BELOW ARE DEPOSITED SEDIMENT FROM THE TRAP SHALL BE REMOVED AND SPREAD RESOWN, AND THE EROSION CONTROL MATTING IS TO BE REPLACED AND SITE DATA: NORMALLY PERFORMED IN THE FOLLOWING SEQUENCE: ACCORDINGLY OR USED AS FILL MATERIAL ON THE PROJECT SITE OWNER: GENERATION PIPELINE, LLC UNLESS OTHERWISE NOTED STANDARDS AND SPECIFICATION ESTABLISHED IN 445 HUTCHINSON AVENUE, SUITE 830 THE LATEST EDITION OF THE OHIO DEPARTMENT OF NATURAL RESOURCES, DIVISION OF SOIL & WATER CONSERVATION, MANUAL ENTITLED "RAINWATER SURVEY AND FLAG THE ROW PERMANENT CONTROL MEASURES COLUMBUS, OHIO 43235 INSTALL CONSTRUCTION ENTRANCE PERMANENT SEEDING SHALL BE SELECTED AND APPLIED TO THE REQUIRED & LAND DEVELOPMENT: OHIO'S STANDARDS FOR STORMWATER INSTALL PERIMETER SEDIMENT CONTROLS AREAS USING THE DATA TABLE IN THESE DETAILS. MANAGEMENT AND DEVELOPMENT AND URBAN STREAM PROTECTION" SHALL DEVELOPMENT TYPE: GAS PIPELINE INSTALLATION CLEAR AND GRUB USE PURE LIVE SEED WITHIN 12 MONTHS OF TESTING, GOVERN THE STORMWATER POLLUTION PREVENTION AND EROSION AND STRIP TOPSOIL AND SEGREGATE IF TALL FESCUE IS USED, PLANT ENDOPHYTE-FREE CERTIFIED SEED. SEDIMENT CONTROL INSTALLATION, INSPECTION, AND MAINTENANCE FOR SITE ACREAGE: ±20.53 AC EXCAVATE SOIL AND STOCKPILE THIS PROJECT. PIPE STRINGING AND BENDING IT MAY BECOME NECESSARY TO REMOVE PORTIONS OF TEMPORARY BMP DURING CONSTRUCTION TO FACILITATE THE GRADING OPERATIONS IN MAINTENANCE/RESPONSIBILITIES DISTURBED ACREAGE: ±19.04 AC WELDING AND WELD INSPECTION CONTRACTOR SHALL IMPLEMENT THE E&S PLAN IN ACCORDANCE WITH THE TRENCH DEWATERING CERTAIN AREAS. THESE CONTROLS SHALL BE REPLACED UPON GRADING DRAWINGS AND PROJECT NARRATIVE. SITE DRAINS TO: OTTER CREEK OR DURING ANY INCLEMENT WEATHER. LOWERING THE PIPE INTO THE TRENCH ALL BMP SHALL BE INSPECTED AFTER EACH RAINFALL EVENT. ANY BACKFILLING THE TRENCH REPAIRS SHALL BE CONDUCTED WITHIN 3 DAYS OF THE INSPECTION. AVERAGE SLOPES: EXISTING: 0-18% **VEGETATION** REPLACE TOPSOIL BMP THAT ARE INADEQUATE, FAIL TO PERFORM, OR WHEN A MORE PROPOSED: 0-18% MAINTAIN GRASS AREAS WITHIN THE GRADING LIMITS OF THE PROJECT APPROPRIATE BMP IS REQUIRED, THE SWP3 SHALL BE AMENDED AND THE NEW BMP INSTALLED WITHIN 10 DAYS OF THE INSPECTION. 13. HYDROSTATIC TESTING OF PIPE UNTIL THE ENTIRE PROJECT HAS BEEN COMPLETED. 14. FINAL GRADE AT NO TIME WILL SEDIMENT OR SEDIMENT—LADEN RUNOFF BE ALLOWED TO LEAVE THE SITE AND ENTER WATERS OF THE STATE WITHOUT FIRST CRITICAL AREAS: NONE ROW RESTORATION AND CLEAN UP IF A SLOPE FAILURE OCCURS (AFTER THE SEEDING AND SOIL SUPPLEMENT WORK ON A SLOPE HAS BEEN SATISFACTORILY COMPLETED) THE CONTRACTOR IS TO REDRESS THE SLOPE AND REAPPLY SOIL SUPPLEMENT PASSING THROUGH A SEDIMENT FILTERING DEVICE. IF BMP FAIL TO OEPA GENERAL GENERAL EROSION & SEDIMENT CONTROL METHODS / PROCEDURES AND RESEED AS SPECIFIED FOR THE ORIGINAL TREATMENT. PERFORM AS EXPECTED, ALTERNATIVE BMP OR MODIFICATIONS TO THOSE PERMIT NUMBER: OHC000002 QUALIFIED PERSONNEL ARE TO CONDUCT SITE INSPECTIONS ENSURING PROPER INSPECT ANY RESTORED AREAS WITHIN THE PROJECT LIMITS WEEKLY AND BMP WILL BE REQUIRED. FUNCTIONALITY OF THE EROSION AND SEDIMENTATION (E&S) CONTROLS. ALL E&S ALL PERMANENTLY SEEDED AREAS THAT BECOME ERODED SHALL HAVE THE AFTER EACH RAINFALL EVENT TO DETERMINE IF RILL AND GULLIES HAVE PROJECT CONTACT INFORMATION: ARE TO BE INSPECTED ONCE EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS OF BEEN FORMED AND FOR EXISTENCE OF BARE PATCHES. AREAS OF TOPSOIL REPLACED, THE EROSION CONTROL MATTING REPLACED (IF A 1/2 INCH STORM EVENT OR GREATER. RECORDS OF THESE INSPECTIONS SHALL INADEQUATE VEGETATION SHALL BE RESEEDED AND MULCHED. AREAS WHERE RILLS AND GULLIES HAVE FORMED SHALL BE FILLED, SEEDED AND APPLICABLE), THE GRASS RESOWN AND MULCH REAPPLIED AND ANCHORED. BE MAINTAINED FOR A PERIOD OF 3 YEARS FOLLOWING PERMANENT STABILIZATION CHIEF INSPECTOR: TBD IF EROSION PERSISTS, THE AREA SHALL BE EITHER LINED WITH SOD OR ALONG THE PROJECT LENGTH. STABILIZED WITH RIPRAP. A COPY OF THE APPROVED E&S SHALL BE KEPT AVAILABLE FOR INSPECTION ON THE CONSTRUCTION SITE AT ALL TIMES THROUGHOUT THE ENVIRON. INSPECTOR: SEAN PEFFER IT IS THE CONTRACTORS RESPONSIBILITY TO MAINTAIN THE E&S CONTROL FEATURES ON THIS PROJECT. ANY SEDIMENT OR DEBRIS THAT HAS REDUCED THE ROCK CONSTRUCTION ENTRANCE INSPECT ROCK CONSTRUCTION ENTRANCE INSTALLATION WEEKLY AND TERM OF THE PROJECT. EFFICIENCY OF A CONTROL SHALL BE REMOVED IMMEDIATELY. PROJECT ENGINEER: HOBY GRISET, PE THE INTENT OF THIS PLAN/NARRATIVE IS TO INDICATE GENERAL MEANS OF COMPLIANCE WITH THE REQUIREMENTS OF THE RULES AND REGULATIONS AFTER EVERY PRECIPITATION EVENT. STRUCTURE OR FEATURE BECOME DAMAGED, THE CONTRACTOR SHALL REPAIR OR REPLACE IT AT NO COST TO THE OWNER. ALL STORM WATER CONTROLS SHALL BE MAINTAINED IN A FUNCTIONAL CONDITION UNTIL ALL UPSLOPE AREAS THEY THE STRUCTURE THICKNESS SHALL BE MAINTAINED TO THE SPECIFIED DIMENSION BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL MAY BE OF FEDERAL WATER POLLUTION CONTROL ACT (33 U.S.C. SECTION 1251 ET. MAINTAINED ON SITE AT THE LAYDOWN AREA FOR THIS PURPOSE SEQ) AND THE OHIO WATER POLLUTION CONTROL ACT (ORC CHAPTER CONTROL ARE PERMANENTLY RESTABILIZED. AT THE END OF EACH CONSTRUCTION DAY, SEDIMENT DEPOSITED ON PUBLIC ROADWAYS SHALL BE IMMEDIATELY REMOVED AND RETURNED TO 6111). IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO IMPLEMENT THESE METHODS, PLUS ADDITIONAL METHODS, AS MAY BE E&S CONTROL BEST MANAGEMENT PRACTICES (BMP) SHALL BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE ANY SITE DISTURBANCE BEGINS WITHIN THE TRIBUTARY AREAS OF THE BMP. IN ALL CASES, THE SMALLEST PRACTICAL AREA THE CONSTRUCTION SITE. WASHING OF THE ROADWAY WITH WATER SHALL NECESSARY BECAUSE OF CONDITIONS CREATED BY LOCALIZED SITE NOT BE PERMITTED. CONDITIONS AND/OR CONSTRUCTION PROCEDURES IN ORDER TO ASSURE COMPLIANCE WITH APPLICABLE LAW. IT WILL FURTHER BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN ALL BMP SO THAT OF STABLE LAND SURFACE WILL BE DISTURBED. THEY PERFORM AS REQUIRED BY APPLICABLE LAW. INSPECT FILTER SOCK AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL AT NO TIME WILL SEDIMENT OR SEDIMENT-LADEN RUNOFF BE ALLOWED TO LEAVE FINES AND RELATED COSTS RESULTING FROM THE CONTRACTOR'S FAILURE TO PROVIDE ADEQUATE PROTECTION AGAINST SOIL EROSION AND FOR ANY EVENT. MAKE ALL REQUIRED REPAIRS IMMEDIATELY. AND ENTER WATERS OF THE STATE WITHOUT FIRST PASSING THROUGH A ACCUMULATED SEDIMENTS SHALL BE REMOVED AS REQUIRED TO KEEP THE SEDIMENT FILTERING DEVICE. SHOULD SITE CONDITIONS, CONSTRUCTION PROCEDURES, ETC. ALTER THE APPROVED PLAN TO THE POINT WHERE SEDIMENT VIOLATIONS OF STATE AND/OR FEDERAL RULES AND REGULATIONS SOCK FUNCTIONAL. IN ALL CASES REMOVE DEPOSITS WHERE ACCUMULATIONS REACH 1/2 THE ABOVE-GROUND HEIGHT OF THE SOCK. PROMULGATED THEREUNDER SHALL BE BORNE BY THE CONTRACTOR. AND SEDIMENT-LADEN RUNOFF IS NOT BEING CONTROLLED AND FILTERED BEFORE IT LEAVES THE SITE, ADDITIONAL BMP ARE TO BE IMPLEMENTED. THE REMOVED SEDIMENT SHALL BE USED FOR ONSITE GRADING AND IMMEDIATELY STABILIZED WITH SEED AND ANCHORED MULCH. RECYCLING AND DISPOSAL METHODS REMOVE WASTE MATERIAL INCLUDING TRASH AND DEBRIS, AND LEGALLY DISPOSE OF THEM OFF THE SITE TO AN APPROVED DUMP SITE. SEPARATE RECYCLABLE MATERIALS PRODUCED DURING SITE CLEARING FROM OTHER ADHERE TO MANUFACTURER'S RECOMMENDATIONS FOR REPLACING FILTER ANY TRAPPED SEDIMENT OR DEBRIS REMOVED DURING CLEANING OR REMOVAL OF A BMP SHALL BE PLACED IN AREAS NOT SUBJECT TO EROSION AND SOCK DUE TO WEATHERING PERMANENTLY STABILIZED. MAINTENANCE OF REPAIRS OF STORMWATER CONTROLS ANY SOCK SECTION THAT HAS COLLAPSED OR EXPERIENCED A FAILURE DUE TO CONCENTRATED SURFACE FLOW SHALL BE IMMEDIATELY REPLACED WITH A NEW SECTION OF FILTER SOCK OF THE SAME DIAMETER FOR THE NON-RECYCLABLE MATERIALS, STORE OR STOCKPILE WITHOUT INTERMIXING MUST BE COMPLETED WITHIN 3 DAYS OF THE DATE OF THE INSPECTION THAT WITH OTHER MATERIALS AND TRANSPORT THEM TO RECYCLING FACILITIES. REVEALED THE DEFICIENCY. MATERIAL TO BE REMOVED SHALL BE REMOVED DAILY AND SHALL NOT BE ALLOWED TO ACCUMULATE AT THE SITE. LENGTH OF THE COLLAPSED AREA. WORK ON THE PIPELINE MAY OCCUR OVER THE ENTIRE PROJECT AREA SIMULTANEOUSLY. MEASURES SHALL BE IMPLEMENTED AS NECESSARY TO CONTINUE THE INTEGRITY OF THE STORMWATER POLLUTION PREVENTION PLAN AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY NO CONSTRUCTION RELATED WASTE MATERIALS ARE TO BE BURIED ON STABILIZED, REMOVE ALL SOCK MATERIALS AND UNSTABLE SEDIMENT DEPOSITS, BRING THE DISTURBED AREA GRADE AND STABILIZE. OPEN BURNING IS PROHIBITED. ROCK FILTER OUTLET PROHIBITED DISCHARGES INSPECT ROCK FILTER OUTLETS AND SILT FENCE FOR DAMAGE ONCE A EARTH DISTURBANCE ACTIVITIES, INCLUDING MOVEMENT OF CONSTRUCTION WEEK AND AFTER EACH RAINFALL EVENT. VEHICLES, SHALL BE AVOIDED/MINIMIZED BELOW THE LOCATION OF THE PERIMETER BMP. SHOULD EARTH DISTURBANCE OCCUR BELOW THE PERIMETER BMP, WASTEWATER FROM WASHOUT OF CONCRETE, UNLESS MANAGED BY AN ROCK FILTER OUTLETS SHALL BE CLEANED OR REPLACED WHEN CLOGGED APPROPRIATE CONTROL. PERMANENT STABILIZATION SHALL BE IMMEDIATELY APPLIED TO THOSE DISTURBED WITH SEDIMENTS. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS WASTEWATER FROM WASHOUT AND CLEANOUT OF STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS, AND OTHER CONSTRUCTION REACH 1/3 THE HEIGHT OF THE OUTLET. STONE MATERIALS SHALL BE WASHED COMPLETELY FREE OF ALL FOREIGN MATERIALS OR NEW ROCK SHALL BE USED TO REBUILD THE FILTER. IF STONES ARE WASHED, ENSURE THAT SEDIMENT—LADEN RUNOFF FROM THE WASHED MATERIAL WASTE AND EXCESS MATERIALS SHALL BE STOCKPILED OR DISPOSED OF IN A FUELS, OILS, OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT LAWFUL MANNER ON SITE OR AT AN APPROVED FACILITY. OPERATION MAINTENANCE. SOAPS OR SOLVENTS USED IN VEHICLE AND EQUIPMENT WASHING. TOPSOIL AND SPOIL STOCKPILES SHALL BE SEEDED AND MULCHED WITHIN 7 DAYS IF THEY ARE TO REMAIN FOR MORE THAN 14 DAYS. STOCKPILES ARE TO BE PLACED IN A LOCATION WHERE THEY WILL NOT INTERFERE WITH CONSTRUCTION ACTIVITIES AND ARE NOT TO BE LOCATED WITHIN THE FLOW PATH OF A NATURAL OR CONSTRUCTED WATERWAY. SEDIMENT ACCUMULATIONS REMOVED FROM BEHIND THE FILTERS SHALL BE USED ON SITE FOR GRADING OR DISPOSED OF AT AN APPROVED FACILITY. IMMEDIATELY STABILIZE MATERIAL WITH SEED AND ANCHORED MULCH. ADD STONE TO THE FILTERS AS NEEDED TO MAINTAIN DESIGN HEIGHT AND TEMPORARY STABILIZATION OR CONSTRUCTED WATERWAY. STOCKPILE AREAS ARE TO HAVE SIDE SLOPES OF CROSS SECTION. REPAIR ALL DAMAGE TO ROCK FILTER OUTLETS AND SILT AREA REQUIRING TEMPORARY TIME FRAME TO APPLY EROSION FENCE IMMEDIATELY. STABILIZATION CONTROLS AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED, REMOVE ALL FENCING MATERIALS, AGGREGATE AND UNSTABLE SEDIMENT DEPOSITS, BRING THE DISTURBED AREA TO GRADE AND ANY DISTURBED AREAS WITHIN 50 FEET OF WITHIN TWO DAYS OF THE MOST PERMANENT STABILIZATION IS REQUIRED AS SOON AS A DISTURBED AREA IS BROUGHT TO GRADE OR FINAL EARTHMOVING HAS BEEN COMPLETED. WHERE IT IS RECENT DISTURBANCE IF THE AREA A SURFACE WATER OF THE STATE AND NOT AT FINAL GRADE WILL REMAIN IDLE FOR MORE THAN ESTABLISH PERMANENT VEGETATIVE COVER. NOT POSSIBLE TO PERMANENTLY STABILIZE A DISTURBED AREA IMMEDIATELY AFTER THE FINAL EARTHMOVING HAS BEEN COMPLETED OR WHERE THE ACTIVITY CEASES FOR MORE THAN 7 DAYS, TEMPORARY STABILIZATION MEASURES SHALL TEMPORARY VEGETATIVE COVER WITHIN SEVEN DAYS OF THE MOST DISTURBED AREAS THAT WILL BE DORMANT RECENT DISTURBANCE WITHIN THE FOR MORE THAN 14 DAYS BUT LESS THAN AREA, FOR RESIDENTIAL TEMPORARY SEEDING SHALL BE SELECTED AND APPLIED TO REQUIRED AREAS USING THE TEMPORARY STABILIZATION DATA TABLE IN THESE FOR MORE THAN 14 DAYS BUT LESS THAN ONE YEAR, AND NOT WITHIN 50 FEET OF A SUBDIVISIONS, DISTURBED AREAS UST ANY BMP REQUIRED OR NECESSARY TO PROTECT AREAS FROM EROSION DURING SURFACE WATER OF THE STATE | BE STABILIZED AT LEAST SEVEN DAYS PRIOR TO TRANSFER OF PERMIT COVERAGE FOR THE TABILIZATION PERIOD MAINTAINED STABILIZATION OF THE CONTRIBUTING DRAINAGE AREA IS COMPLETED. UPON INSTABILITY OR ARE OTHERWISE UNOBTAINABLE, ALTERNATIVE COMPLETION OF PERMANENT STABILIZATION, ALL UNNECESSARY OR UNUSABLE BMP SHALL BE REMOVED, THE DISTURBED AREAS CREATED BY THIS ACTIVITY SHALL BE STABILIZATION TECHNIQUES MUST BE EMPLOYED. INDIVIDUAL LOT(S). BROUGHT TO FINAL GRADE AND THE SOILS SHALL BE IMMEDIATELY STABILIZED. PRIOR TO THE ONSET OF WINTER DISTURBED AREAS THAT WILL BE IDLE OVER WINTER MULCH SHALL BE APPLIED OVER SEEDED AREAS NO LATER THAN 48 SCHEDULE CONSTRUCTION SO THAT GRADING OPERATIONS CAN BEGIN AND END AS HOURS AFTER SEEDING. QUICKLY AS POSSIBLE. SPREAD MULCH UNIFORMLY, IN A CONTINUOUS BLANKET, AT A MINIMUM RATE OF 4,000 LBS PER ACRE. CLEARLY MARK AREAS THAT ARE NOT TO BE DISTURBED BY FLAGS, SIGNS, ETC. MULCH MAY BE SPREAD BY HAND OR WITH AN ACCEPTABLE MECHANICAL BLOWER. MACHINES WHICH CUT MULCH INTO SHORT PIECES WILL NOT BE PERMITTED. ADDITIONAL BMP SHALL BE REQUIRED AS DIRECTED BY JURISDICTIONAL AGENCIES, MULCH SHALL BE ANCHORED BY USE OF CRIMPING, NETTING, ASPHALTIC THE ENGINEER, AND/OR THE OWNER. INEFFECTIVE STORMWATER CONTROLS OR OR A NON-ASPHALTIC EMULSION MULCH BINDER IMMEDIATELY FOLLOWING CONTROL MEASURES NOT INSTALLED PER THE SWPPP MUST BE REPLACED OR INSTALLED BEFORE THE NEXT RAINFALL BUT IN NO CASE LATER THAN 10 DAYS MULCH SPREADING. IF AN ASPHALTIC OR NON-ASPHALTIC EMULSION MULCH BINDER IS USED, THE NUMBER OF PASSES OVER THE MULCH AS FROM THE DATE OF THE INSPECTION THAT REVEALED THE DEFICIENCY.

Technologies Corporation

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## **CONSTRUCTION PRACTICES** ALL ACCESS TO THE CONSTRUCTION ROW WILL BE LIMITED TO APPROVED ACCESS

POINTS FROM PUBLIC ROADWAYS. ACCESS TO THE ROW DURING CONSTRUCTION AND RESTORATION ACTIVITIES IS PERMITTED ONLY BY THE ACCESS POINTS IDENTIFIED ON THE SWP3. CONTRACTOR SHALL MAINTAIN SAFE CONDITIONS AT ALL ROAD CROSSINGS ACCESS POINTS DURING CONSTRUCTION AND RESTORATION. ADDITIONAL REQUIREMENTS PER LOCAL AND STATE PERMITS MAY BE NECESSARY. ALL ACCESS ROADS WILL BE MAINTAINED DURING CONSTRUCTION BY GRADING AND THE ADDITION OF GRAVEL OR STONE

CONTRACTOR WILL IMPLEMENT ALL APPROPRIATE EROSION AND SEDIMENTATION CONTROL MEASURES FOR CONSTRUCTION/IMPROVEMENT OF

CONTRACTOR SHALL ENSURE THAT ALL PAVED ROAD SURFACES UTILIZED DURING CONSTRUCTION ARE KEPT FREE OF MUD AND DEBRIS TO THE EXTENT PRACTICAL ALL ACCESS ROADS ACROSS A WATERBODY MUST USE APPROVED CROSSING TECHNIQUE. THE ONLY ACCESS ROADS, UNLESS OTHERWISE PERMITTED, THAT CAN BE USED IN WETLANDS OTHER THAN THE CONSTRUCTION ROW ARE THOSE EXISTING ROADS REQUIRING NO MODIFICATION AND NO IMPACT ON THE

LIMIT CONSTRUCTION EQUIPMENT OPERATING IN WETLAND AREAS TO THAT NEEDED TO CLEAR THE ROW, DIG THE TRENCH, FABRICATE AND INSTALL THE PIPELINE, BACKFILL THE TRENCH, AND RESTORE THE ROW. ALL OTHER CONSTRUCTION EQUIPMENT SHALL USE ACCESS ROADS LOCATED IN UPLAND AREAS TO MAXIMUM EXTENT PRACTICAL. WHERE ACCESS ROADS IN UPLAND AREAS DO NOT PROVIDE REASONABLE ACCESS, LIMIT ALL OTHER CONSTRUCTION EQUIPMENT TO ONE PASS THROUGH THE WETLAND USING THE ROW, WHENEVER PRACTICAL FOR ACCESS THROUGH A WETLAND, USE APPROVED CROSSING TECHNIQUE.

CONSTRUCTION ENTRANCE A CONSTRUCTION ENTRANCE IS A STABILIZED PAD OF STONE UNDERLAIN WITH A GEOTEXTILE FABRIC LOCATED AT POINTS OF INGRESS/EGRESS. THE PRACTICE IS USED TO REDUCE THE AMOUNT OF MUD TRACKED OFF-SITE WITH CONSTRUCTION A CONSTRUCTION ENTRANCE IS APPLICABLE WHERE:

CONSTRUCTION TRAFFIC LEAVES ACTIVE CONSTRUCTION AREAS AND ENTERS PUBLIC ROADWAYS OR AREAS UNCHECKED BY EFFECTIVE SEDIMENT AREAS WHERE FREQUENT VEHICLE AND EQUIPMENT ACCESS IS EXPECTED AND LIKELY TO CONTRIBUTE SEDIMENT TO RUNOFF, SUCH AS AT THE ENTRANCE TO INDIVIDUAL BUILDING LOTS.

IF A CONSTRUCTION ENTRANCE IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF MUD FROM WHEELS OR THERE IS AN ESPECIALLY SENSITIVE TRAFFIC SITUATION ON ADJACENT ROADS, WHEEL WASH AREAS MAY BE NECESSARY. THIS REQUIRES AN EXTENDED WIDTH PAD TO AVOID CONFLICTS WITH TRAFFIC, A SUPPLY OF WASH WATER AND SUFFICIENT DRAINAGE TO ASSURE RUNOFF IS CAPTURED IN A SEDIMENT POND OR

PROPER INSTALLATION OF A CONSTRUCTION ENTRANCE REQUIRES A GEOTEXTILE AND PROPER DRAINAGE TO INSURE CONSTRUCTION SITE RUNOFF DOES NOT LEAVE THE SITE. THE USE OF GEOTEXTILE UNDER THE STONE HELPS TO PREVENT POTHOLES FROM DEVELOPING AND WILL SAVE THE AMOUNT OF STONE NEEDED DURING THE LIFE OF THE PRACTICE. PROPER DRAINAGE MAY INCLUDE CULVERTS TO DIRECT WATER UNDER THE ROADWAY OR WATER BARS TO DIRECT MUDDY WATER OFF THE ROADWAY

TOWARD SEDIMENT TRAPS OR PONDS. THE AREA OF THE ENTRANCE MUST BE CLEARED OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL. THE GEOTEXTILE WILL THEN BE PLACED THE FULL WIDTH AND LENGTH OF THE ENTRANCE. STONE SHALL BE PLACED TO A DEPTH OF AT LEAST SIX (6) INCHES. ROADS SUBJECT TO HEAVY DUTY LOADS SHOULD BE INCREASED TO A

MINIMUM OF TEN (10) INCHES. SURFACE WATER SHALL BE CONVEYED UNDER THE ENTRANCE, THROUGH CULVERTS, OR DIVERTED VIA WATER BARS OR MOUNTABLE BERMS (MINIMUM 5:1 SLOPES) SO AS TO CONVEY SEDIMENT LADEN RUNOFF TO SEDIMENT CONTROL PRACTICES OR TO ALLOW CLEAN WATER TO PASS BY THE ENTRANCE. THE STABILIZED CONSTRUCTION ENTRANCE SHALL MEET THE SPECIFICATIONS INCLUDED IN THE DETAIL ON THESE PLANS. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS—OF—WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR THE WASHING AND REWORKING OF EXISTING STONE AS CONDITIONS DEMAND

AND REPAIR AND/OR CLEANING OF ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY. THE USE OF WATER TRUCKS TO REMOVE MATERIALS DROPPED, WASHED, OR TRACKED ONTO ROADWAYS WILL NOT BE PERMITTED UNDER ANY CIRCUMSTANCES. PIPE AND CONTRACTOR LAYDOWN AREAS

PIPE AND CONTRACTOR LAYDOWN AREAS ARE REQUIRED FOR STORING AND

STAGING EQUIPMENT, PIPE, FUEL, OIL, PIPE FABRICATION, AND OTHER CONSTRUCTION RELATED MATERIALS. THE CONTRACTOR SHALL PERFORM THE FOLLOWING MEASURES AT PIPE AND CONTRACTOR LAYDOWN AREAS. STRIP AND SEGREGATE TOPSOIL INSTALL BMP AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR, OUTLINED IN THIS PLAN, OR IDENTIFIED ON THE CONSTRUCTION DRAWINGS, AND MAINTAIN THEM THROUGHOUT CONSTRUCTION AND RESTORATION ACTIVITIES. IMPLEMENT AND COMPLY WITH THE SWP3

RESTORE AND REVEGETATE ALL DISTURBED AREAS IN ACCORDANCE WITH THE MEASURES OUTLINED IN THIS PLAN AND AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR

OFF-ROW DISTURBANCE ALL CONSTRUCTION ACTIVITIES ARE RESTRICTED TO WITHIN THE LIMITS IDENTIFIED ON THE CONSTRUCTION DRAWINGS. HOWEVER, IN THE EVENT THAT OFF-ROW DISTURBANCE OCCURS, THE FOLLOWING MEASURES WILL BE IMPLEMENTED: THE ENVIRONMENTAL INSPECTOR WILL IMMEDIATELY REPORT THE OCCURRENCE TO THE PROJECT ENGINEER AND ROW AGENT. THE PROJECT ENGINEER WILL NOTIFY COMPANY AND THE STAFF AT THE

THE CONDITIONS THAT CAUSED THE DISTURBANCE WILL BE EVALUATED BY THE PROJECT ENGINEER AND ENVIRONMENTAL INSPECTOR. AND THEY WILL DETERMINE WHETHER WORK AT THE LOCATION CAN PROCEED UNDER THOSE

IF DEEMED NECESSARY BY THE PROJECT ENGINEER AND ENVIRONMENTAL INSPECTOR, ONE OR MORE OF THE FOLLOWING CORRECTIVE ACTIONS WILL IMMEDIATE RESTORATION OF THE ORIGINAL CONTOURS SEEDING AND MULCHING THE DISTURBED AREA

INSTALLATION OF BMP

CLEARING OPERATIONS WILL INCLUDE THE REMOVAL OF VEGETATION WITHIN THE CONSTRUCTION ROW. VARIOUS CLEARING METHODS WILL BE EMPLOYED DEPENDING ON TREE SIZE, CONTOUR OF THE LAND, AND THE ABILITY OF THE GROUND TO SUPPORT CLEARING EQUIPMENT. VEGETATIVE CLEARING WILL EITHER BE ACCOMPLISHED BY HAND OR BY CUTTING EQUIPMENT. THE FOLLOWING PROCEDURES WILL BE STANDARD PRACTICE DURING CLEARING: PRIOR TO BEGINNING THE REMOVAL OF VEGETATION, THE LIMITS OF

CLEARING WILL BE ESTABLISHED AND IDENTIFIED IN ACCORDANCE WITH CONSTRUCTION DRAWINGS. ALL CONSTRUCTION ACTIVITIES AND GROUND DISTURBANCE WILL BE CONFINED TO WITHIN THE ROW SHOWN ON THE CONSTRUCTION DRAWINGS. CLEARLY MARK AND PROTECT TREES TO BE SAVED AS PER LANDOWNER REQUESTS OR AS OTHERWISE REQUIRED.

ALL WOOD PRODUCTS (SAWLOGS, PULPWOOD OR CORDWOOD) WILL BE REMOVED AND PROPERLY DISPOSED OF FROM THE PROJECT AREA. BRUSH AND LIMBS MAY BE DISPOSED OF IN ONE OR MORE OF THE FOLLOWING WAYS: CHIPPED AND GIVEN AWAY, OR THINLY SPREAD (LESS THAN 2 INCHES

THICK OVER THE CONSTRUCTION WORK AREA, EXCEPT IN AGRICULTURAL LANDS OR WITHIN 50 FEET OF STREAMS, FLOODPLAINS, OR WETLANDS. CHIPPING WILL BE LIMITED TO THOSE AREAS WHERE AGREED TO WITH THE HAULED OFF-SITE. OFF-SITE DISPOSAL IN OTHER THAN COMMERCIALLY OPERATED DISPOSAL LOCATIONS IS SUBJECT TO COMPLIANCE WITH ALL APPLICABLE SURVEY, LANDOWNER APPROVAL AND MITIGATION REQUIREMENTS.

EXITING SURFACE DRAINAGE PATTERNS WILL NOT BE ALTERED BY THE PLACEMENT OF TIMBER OR BRUSH PILES AT THE EDGE OF THE CONSTRUCTION ROW. CLEARING CONDITIONS FOR ALL WETLAND AND STREAM CROSSINGS. THE ENVIRONMENTAL INSPECTOR IS REQUIRED TO BE ON SITE DURING THESE ACTIVITIES

GRUBBING ACTIVITIES ARE LIMITED ON THE STREAM AND WETLAND CROSSINGS TO THE AREA DIRECTLY OVER THE TRENCHLINE. NO GRUBBING IS PERMITTED WITHIN THE RIPARIAN ZONE OF THE STREAMS CROSSED USING BORING METHODS.

INSTALLING TEMPORARY SEDIMENT BARRIERS SEDIMENT BARRIERS, WHICH ARE TEMPORARY EROSION CONTROLS (BMP) INTENDED TO MINIMIZE THE FLOW OF SEDIMENT AND TO PREVENT THE DEPOSITION OF SEDIMENTS INTO SENSITIVE RESOURCES, SHALL BE INSTALLED FOLLOWING VEGETATIVE CLEARING OPERATIONS. THEY MAY BE CONSTRUCTED OF MATERIALS SUCH AS SILT FENCE, COMPACTED EARTH (E.G. DRIVABLE BERMS ACROSS TRAFFIC LANES, WATERBARS), OR AN EQUIVALENT MATERIAL AS IDENTIFIED BY THE ENVIRONMENTAL INSPECTOR. THE CONTRACTOR IS RESPONSIBLE FOR THEIR REMOVAL AND DISPOSAL.

INSTALL TEMPORARY BMP AT THE BASE OF SLOPES ADJACENT TO ROAD

REMOVE TEMPORARY BMP FROM AN AREA WHEN REPLACED BY PERMANENT

CROSSINGS AND AT WATERBODY AND WETLAND CROSSINGS INSPECT TEMPORARY BMP DAILY IN AREAS OF ACTIVE CONSTRUCTION TO ENSURE PROPER FUNCTIONING AND MAINTENANCE. IN OTHER AREAS, BMP WILL BE INSPECTED AND MAINTAINED ON A WEEKLY BASIS THROUGHOUT CONSTRUCTION, AND WITHIN 24 HOURS FOLLOWING STORM EVENTS. MAINTAIN ALL TEMPORARY BMP IN PLACE UNTIL PERMANENT REVEGETATION MEASURES ARE SUCCESSFUL OR THE UPLAND AREAS ADJACENT TO WETLANDS, WATERBODIES, OR ROADS ARE STABILIZED.

EROSION CONTROL MEASURES OR WHEN THE AREA HAS BEEN SUCCESSFULLY RESTORED. THE CONSTRUCTION ROW WILL BE GRADED AS NEEDED TO PROVIDE A LEVEL WORKSPACE FOR SAFE OPERATION OF HEAVY EQUIPMENT USED IN PIPELINE

CONSTRUCTION. THE FOLLOWING PROCEDURES WILL BE STANDARD PRACTICE

TOPSOIL SEGREGATION

DURING GRADING:

METHODS WILL BE USED IN ALL AREAS. PREVENT THE MIXING OF TOPSOIL WITH SUBSOIL BY STRIPPING TOPSOIL FROM EITHER THE FULL WORK AREA OR FROM THE TRENCH LINE AND SUBSOIL STORAGE AREA. WHERE TOPSOIL SEGREGATION IS REQUIRED, MAINTAIN SEPARATION OF SALVAGED TOPSOIL AND SUBSOIL THROUGHOUT ALL CONSTRUCTION

LEAVE GAPS IN THE TOPSOIL FOR PILES FOR THE INSTALLATION OF TEMPORARY WATER BARS TO ALLOW WATER TO BE DIVERTED OFF ROW. NEVER USE TOPSOIL FOR PADDING, BACK FILL OR TRENCH PLUGS.

TREE STUMP REMOVAL AND DISPOSAL REMOVE TREE STUMPS IN UPLAND AREAS ALONG THE ENTIRE WIDTH OF THE PERMANENT ROW TO ALLOW ADEQUATE CLEARANCE FOR THE SAFE OPERATION OF VEHICLES AND EQUIPMENT. STUMPS WITHIN THE

TEMPORARY ROW WILL BE REMOVED OR GROUND TO A SUITABLE HEIGHT THAT WILL ALLOW THE SAFE PASSAGE OF EQUIPMENT, AS STIPULATED BY THE CHIEF INSPECTOR OR ENVIRONMENTAL INSPECTOR. TREE STUMP REMOVAL FOR ALL WETLAND AND STREAM CROSSINGS: THE ENVIRONMENTAL INSPECTOR IS REQUIRED TO BE ON SITE DURING THESE ACTIVITIES.

GRUBBING ACTIVITIES ARE LIMITED ON THE STREAM AND WETLAND CROSSINGS TO THE AREA DIRECTLY OVER THE TRENCHLINE. NO GRUBBING IS PERMITTED WITHIN THE RIPARIAN ZONE OF THE STREAMS CROSSED USING BORING METHODS. DISPOSE OF STUMPS BY ONE OF THE FOLLOWING METHODS AND IN ACCORDANCE WITH REGULATORY REQUIREMENTS: BURNED, WHERE PERMITTED BY LAW. NECESSARY BURNING PERMITS

SHALL BE OBTAINED PRIOR TO ACTIVITY. CHIPPED, THINLY SPREAD (LESS THAN 2 INCHES THICK OVER THE CONSTRUCTION WORK AREA, EXCEPT IN AGRICULTURAL LANDS OR WITHIN 50 FEET OF STREAMS, FLOODPLAINS, OR WETLANDS. CHIPPING WILL BE LIMITED TO THOSE AREAS WHERE AGREED TO WITH THE LANDOWNER. HAULED OFF-SITE. OFF-SITE DISPOSAL IN OTHER THAN COMMERCIALLY OPERATED DISPOSAL LOCATIONS IS SUBJECT TO COMPLIANCE WITH ALL APPLICABLE SURVEY, LANDOWNER APPROVAL AND MITIGATION

IN GENERAL, A TRENCH WILL BE EXCAVATED TO A DEPTH THAT WILL PERMIT BURIAL OF THE PIPE WITH ADEQUATE COVER. OVERLAND TRENCHING MAY BE ACCOMPLISHED USING A CONVENTIONAL BACKHOE OR A ROTARY WHEEL-DITCH MACHINE. IN SHALE OR ROCKY AREAS WHERE THE USE OF THE WHEEL-DITCHING MACHINE IS LIMITED, A TRACTOR-DRAWN RIPPER WILL BE EMPLOYED TO BREAK AND LOOSEN HARD SUBSTRATUM MATERIAL. A BACKHOE MAY THEN BE USED TO REMOVE ROCK AND SOIL FROM THE DITCH.

THE FOLLOWING PROCEDURES WILL BE STANDARD PRACTICE DURING DITCHING: PLACE SPOIL AT LEAST 10 FEET UP GRADIENT FROM THE EDGE OF WATERBODIES. SPOIL WILL BE CONTAINED WITH BMP TO PREVENT SPOIL MATERIALS OR HEAVILY SILT—LADEN WATER FROM TRANSFERRING INTO WATERBODIES AND WETLANDS OR OFF THE ROW.

TEMPORARY TRENCH PLUGS TEMPORARY TRENCH PLUGS ARE BARRIERS WITHIN THE DITCH THAT SEGMENT THE CONTINUOUS OPEN TRENCH. THEY TYPICALLY CONSIST OF COMPACTED SUBSOIL OR SANDBAGS (SOFT) PLACED ACROSS THE DITCH OR COMPOSED OF UNEXCAVATED PORTIONS OF THE DITCH (HARD). ALONG STEEP SLOPES, THEY SERVE TO REDUCE EROSION AND SEDIMENTATION IN THE TRENCH AND MINIMIZE DEWATERING PROBLEMS AS THE BASE OF SLOPES WHERE SENSITIVE ENVIRONMENTS SUCH AS WATERBODIES AND WETLANDS ARE FREQUENTLY LOCATED. IN ADDITION, THEY PROVIDE ACCESS ACROSS THE TRENCH FOR WILDLIFE DO NOT USE TOPSOIL FOR INSTALLING TEMPORARY SOFT TRENCH PLUGS. TEMPORARY TRENCH PLUGS MAY BE USED IN CONJUNCTION WITH WATERBARS TO PREVENT WATER IN THE TRENCH FROM OVERFLOWING INTO

TRENCH DEWATERING MAY BE PERIODICALLY REQUIRED ALONG PORTIONS OF THE PROPOSED PIPELINE PRIOR TO AND/OR SUBSEQUENT TO INSTALLATION OF THE PIPELINE TO REMOVE COLLECTED WATER FROM THE TRENCH. TRENCH DEWATERING WILL BE CONDUCTED (ON OR OFF THE CONSTRUCTION ROW) IN SUCH A MANNER THAT DOES NOT CAUSE EROSION AND DOES NOT RESULT IN HEAVILY SILT-LADEN WATER FLOWING INTO ANY

A CONSTRUCTION ENERGY-DISSIPATING DEVICE.

SENSITIVE RESOURCE AREAS. ATTEMPT TO DIVERT TRENCH OVERFLOW TO

WATERBODY OR WETLAND. THE INTAKES OF THE HOSES USED TO WITHDRAW THE WATER FROM THE TRENCH WILL BE ELEVATED AND SCREENED TO MINIMIZE PUMPING OF DEPOSITED SEDIMENTS. WATER WILL BE PUMPED INTO A FILTER BAG OR THROUGH A STRUCTURE COMPOSED OF BMP PRIOR TO BEING DISCHARGED INTO AREAS WHERE ADEQUATE VEGETATION IS PRESENT ADJACENT TO THE CONSTRUCTION ROW. WHEN USING FILTER BAGS, SECURE THE DISCHARGE HOSE TO THE

WATERBODY/WETLAND AREA, ADDITIONAL BMP MAY BE NEEDED. REMOVE DEWATERING STRUCTURES AS SOON AS POSSIBLE AFTER THE COMPLETION OF DEWATERING ACTIVITIES.

WHERE VEGETATION IS ABSENT OF IN THE VICINITY OF A

FOLLOWING TRENCH EXCAVATION, PIPE SECTIONS WILL BE DELIVERED TO THE CONSTRUCTION SITE AND INSTALLED PER COMPANY SPECIFICATIONS.

BACKFILLING CONSISTS OF COVERING THE PIPE WITH THE EARTH REMOVED FROM THE TRENCH OR WITH OTHER FILL MATERIAL HAULED TO THE SITE WHEN THE EXISTING TRENCH SPOIL IS NOT ADEQUATE FOR BACKFILL. UNDER NO CIRCUMSTANCES SHALL TOPSOIL BE USED AS PADDING MATERIAL ANY EXCESS MATERIAL WILL BE SPREAD WITHIN THE ROW IN UPLAND AREAS AND LAND CONTOURS WILL BE ROUGHED-IN TO MATCH ADJACENT COMPLETE FINAL GRADING WITHIN 10 CALENDAR DAYS, WEATHER AND SOIL

DAMAGED DRAINAGE TILES ALL DRAINAGE TILES CROSSED BY CONSTRUCTION ACTIVITIES SHALL BE MARKED AND PROBED TO DETERMINE IF DAMAGE HAS OCCURED DRAINAGE TILE REMOVED, CUT, BROKE, OR OTHERWISE DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY QUALIFIED PFRSONNEL.

CONDITIONS PERMITTING, OF BACKFILLING.

TEMPORARY MEASURES APPROVED BY THE PROJECT ENGINEER AND ENVIRONMENTAL INSPECTOR SHALL BE TAKEN TO PROVIDE SUITABLE DRAINAGE UNTIL PERMANENT REPAIRS ARE MADE. BROKEN OR DAMAGED TILE SHALL BE REPLACED WITH THE SAME SIZE AND QUALITY MATERIAL. FINAL GRADING

THE CONSTRUCTION ROW SHALL BE GRADED TO RESTORE ITS PRE-CONSTRUCITON CONTOURS. DURING FINAL GRADING, SOIL OVER THE TRENCH MAY BE MOUNDED TO ALLOW FOR FUTURE SETTLING. ADDITIONAL FILL MAY BE ADDED IN AREAS THAT HAVE SETTLED BELOW GROUND LEVEL. CONSERVED TOPSOIL SHALL BE RETURNED DURING FINAL GRADING.

EXCESS ROCK SHALL BE REMOVED FROM THE TOP 12 INCHES OF SOIL TO THE EXTENT PRACTICABLE. THE SIZE, DENSITY AND DISTRIBUTION OF ROCK ON THE CONSTRUCTION WORK AREA SHOULD BE SIMILAR TO ADJACENT AREAS NOT DISTURBED BY CONSTRUCTION. DILIGENT EFFORTS SHALL BE MADE TO REMOVE ROCKS GREATER THAN 4 INSTALL FINAL EROSION CONTROL DEVICES.

PERMANENT TRENCH PLUGS PERMANENT TRENCH PLUGS ARE INTENDED TO SLOW SUBSURFACE WATER FLOW AND EROSION ALONG THE TRENCH AND AROUND THE PIPE IN SLOPING TERRAIN. PERMANENT TRENCH PLUGS PER COMPANY SPECIFICATIONS. TOPSOIL SHALL NOT BE USED TO CONSTRUCT TRENCH PLUGS. TRENCH PLUGS SHALL BE INSTALLED AT WATER BODIES AND WETLANDS AND WHERE NEEDED TO AVOID DRAINING OF RESOURCE AS SHOWN ON THE

CONSTRUCTION PLAN.

ONCE THE PIPELINE IS COMPLETED AND BEFORE IT IS PLACED INTO SERVICE IT WILL BE HYDROSTATICALLY TESTED FOR STRUCTURAL INTEGRITY. HYDROSTATIC TESTING INVOLVES FILLING THE PIPELINE WITH CLEAN WATER AND MAINTAINING A

TEST PRESSURE IN EXCESS OF NORMAL OPERATING PRESSURES FOR A SPECIFIED

PERIOD OF TIME. THE TESTING PROCEDURE INVOLVES FILLING THE PIPELINE WITH

TEST WATER, PERFORMING THE PRESSURE TEST, AND DISCHARGING THE TEST

DETAILS REGARDING THE HYDROSTATIC TESTING PROCEDURES AND NECESSARY PERMITTING HAVE NOT YET BEEN DETERMINED TEST WATER MAY BE WITHDRAWN FROM STREAMS ON THE PROJECT SITE. PERMITS ARE REQUIRED ON PUMPS THAT HAVE THE <u>CAPACITY</u> TO WITHDRAWN 70GPM OR MORE. TEST WATER MAY ALSO BE PURCHASED FROM LOCAL MUNICIPALITIES VIA WATER HYDRANT METER. DISCHARGE WATER SHALL BE DISPOSED OF THROUGH AN APPROVED MUNICIPAL SANITARY SEWER. DISCHARGE WATER IS PROHIBITED FROM BEING DISCHARGED DIRECTLY TO THE GROUND OR INTO ANY STORMWATER SYSTEM. A HYDROSTATIC DISCHARGE PERMIT IS REQUIRED IF THE TEST WATER IS UNABLE TO BE DISCHARGED INTO A MUICIPAL SANITARY SEWER SYSTEM. THE PROJECT ENGINEER AND/OR ENVIRONMENTAL INSPECTOR WILL COORDINATE ALL PERMITTING ACTIVITIES ASSOCIATED WITH THE DISCHARGE

OF HYDROSTATIC TEST WATER.

PERMANENT EROSION CONTROL PERMANENT EROSION AND SEDIMENTATION CONTROL DEVICES TO MINIMIZE POST-CONSTRUCTION EROSION. IF FINAL CLEANUP AND SEEDING CANNOT BE COMPLETED AND IS DELAYED THE NEXT RECOMMENDED GROWING SEASON, THE WINTER STABILIZATION MEASURES SHALL BE FOLLOWED. GRADE THE ROW TO PER-CONSTRUCTION CONTOURS.

SPREAD SEGREGATED TOPSOIL BACK ACROSS THE GRADED ROW TO ITS ORIGINAL PROFILE A TRAVEL LANE MAY BE LEFT OPEN TEMPORARILY TO ALLOW ACCESS BY CONSTRUCTION TRAFFIC IF TEMPORARY BMP ARE INSTALLED, REGULARLY INSPECTED AND MAINTAINED. WHEN ACCESS IS NO LONGER REQUIRED, THE TRAVEL LANE MUST BE REMOVED AND THE ROW RESTORED. REMOVE ALL CONSTRUCTION DEBRIS (USED FILTER BAGS, SKIDS, TRASH, ETC.) FROM THE ROW. GRADE OR TILL THE ROW TO LEAVE THE SOIL IN THE PROPER CONDITION FOR PLANTING OR AGRICULTURAL USE.

PERMANENT WATERBARS ARE INTENDED TO REDUCE RUNOFF VELOCITY, DIVERT WATER OFF THE CONSTRUCTION ROW, AND PREVENT SEDIMENT DEPOSITION INTO SENSITIVE RESOURCES. PERMANENT WATERBARS WILL BE CONSTRUCTED OF COMPACTED SOIL. SAND BAGS OR SOME FUNCTIONAL EQUIVALENT MAY BE USED WHEN DIRECTED BY THE ENVIRONMENTAL INSPECTOR. INSTALL PERMANENT WATERBARS, EXCEPT CULTIVATED AREAS AND LAWNS, AT THE LOCATIONS SHOWN ON THE CONSTRUCTION DRAWINGS OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR. INSTALL PERMANENT WATERBARS ACROSS THE ENTIRE ROW AT ALL WATERBODY CROSSINGS, AND AT THE BASE OF SLOPES ADJACENT TO ROADS. WHEN THE ROW PARALLELS AN EXISTING UTILITY ROW,

PERMANENT WATERBARS MAY BE INSTALLED TO MATCH EXISTING WATERBARS OF THE ADJACENT UNDISTURBED PIPELINE ROW. CONSTRUCT WATERBARS WITH A 2 TO 8 PERCENT OUT SLOPE TO DIVERT SURFACE FLOW TO A STABLE VEGETATIVE AREA WITHOUT CAUSING WATER TO POOL OR ERODE BEHIND THE WATERBAR. IN THE ABSENCE OF A STABLE VEGETATIVE AREA, INSTALL AN ENERGY DISSIPATING DEVICE AT THE END OF THE WATERBAR AS DIRECTED BY THE ENVIRONMENTAL

EROSION CONTROL FABRIC

INSTALL EROSION CONTROL FABRIC AT WATERBAR OUTLETS AND DRAINAGE SWALES AS NECESSARY OR AS DIRECTED BY THE ENVIRONMENTAL INSTALL EROSION CONTROL FABRIC OR MATTING ON SLOPES GREATER THAN 3:1. ANCHOR THE EROSION CONTROL FABRIC OR MATTING WITH STAPLES OR OTHER APPROPRIATE DEVICES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. INSTALL EROSION CONTROL FABRIC ON WATERBODY BANKS AT TIME OF

PERMANENT STABILIZATION, REVEGETATION, AND SEEDING SUCCESSFUL REVEGETATION OF SOILS DISTURBED BY PROJECT RELATED ACTIVITIES

FINAL BANK RE-CONTOURING.

SEEDING WILL BE CONDUCTED USING THE FOLLOWING REQUIREMENTS: PERMANENT STABILIZATION AND SEEDING SHALL BE SELECTED AND APPLIED TO REQUIRED AREAS USING THE PERMANENT STABILIZATION DATA TABLE IN THESE DETAILS. PREPARE SEEDBED IN DISTURBED AREAS TO A DEPTH OF 3 TO 4 INCHES TO PROVIDE A FIRM SEEDBED. WHEN HYDRO SEEDING, SCARIFY THE SEEDBED TO FACILITATE LODGING AND GERMINATION OF SEED.

SEED DISTURBED AREAS IN ACCORDANCE WITH THE SEED MIXES, RATES

AND DATES SPECIFIED IN THIS PLAN. PERFORM SEEDING OF PERMANENT VEGETATION WITHIN THE RECOMMENDED SEEDING DATES AS OUTLINED IN THIS PLAN. IF SEEDING CANNOT BE DONE WITHIN THOSE DATES, USE APPROPRIATE TEMPORARY EROSION CONTROL MEASURES DISCUSSED IN SECTION IV AND PERFORM SEEDING OF PERMANENT VEGETATION AT THE BEGINNING OF THE NEXT RECOMMENDED SEEDING SEASON. MULCH IN ACCORDANCE WITH SPECIFICATIONS IN THIS

UNIFORMLY APPLY AND COVER SEED IN ACCORDANCE WITH PLAN.

PERMANENT STABILIZATION AREA REQUIRING PERMANENT TIME FRAME TO APPLY EROSION STABILIZATION CONTROLS ANY AREAS THAT WILL LIE DORMANT FOR ONE YEAR OR MORE RECENT DISTURBANCE ANY AREAS WITHIN 50 FEET OF A WITHIN TWO DAYS OF REACHING SURFACE WATER OF THE STATE AND AT FINAL GRADE FINAL GRADE ANY OTHER AREAS AT FINAL GRADE FINAL GRADE WITHIN THAT AREA

Technologies Corporation

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PIPELIN ONVILLE

(ISSUED FOR APPROVA DRAFT CHECK KDG CPL/HGG 7/25/2018 17-031 HORIZONTAL VERTICAL: 17031-200 33/35

DESIGN

WETLAND CROSSING THIS CROSSING TECHNIQUE IS TYPICALLY USED TO CROSS WATER BODIES IN A TRENCHLESS MANNER. THIS METHOD INVOLVES DRILLING UNDER THE WATERBODY AND INSTALLING A PREFABRICATED CROSSING SECTION THROUGH THE BOREHOLE, THEREBY AVOIDING DISTURBANCE TO THE GROUND SURFACE AT THE APPROACHES MULCH IS INTENDED TO STABILIZE THE SOIL SURFACE AND SHALL CONSIST OF GENERAL PROCEDURES WEED-FREE STRAW, WOOD FIBER HYDRO MULCH, EROSION CONTROL FABRIC, OR SOME FUNCTIONAL EQUIVALENT AS APPROVED BY THE ENVIRONMENTAL INSPECTOR CLEARING AND GRADING A. WETLAND BOUNDARIES AND BUFFERS MUST BE CLEARLY MARKED IN THE AND CHIEF INSPECTOR. HAY SHALL NOT BE USED FOR MULCH. FIELD WITH SIGNS AND/OR HIGHLY VISIBLE FLAGGING UNTIL TO THE CROSSING AND TO THE WATERBODY BED ITSELF. CONSTRUCTION RELATED GROUND DISTURBING ACTIVITIES ARE COMPLETE. THE BORE CROSSING SHALL BE INSTALLED AS FOLLOWS: B. RESTRICT EXTRA WORK AREAS (SUCH AS STAGING AREAS AND IN THE EVENT THAT THE FINAL PHASES OF CONSTRUCTION OCCUR TOO LATE IN THE YEAR FOR CLEANUP ACTIVITIES TO ADEQUATELY PROCEED THE FOLLOWING PROCEDURES WILL BE IMPLEMENTED ALONG THE DISTURBED ROW AT THOSE LOCATIONS UNTIL FINAL RESTORATION MEASURES CAN BE COMPLETED. A. INSTALL TEMPORARY ENTRY AND EXIT POINTS: ADDITIONAL SPOIL STORAGE AREAS) TO THOSE SHOWN ONLY ON THE CONSTRUCTION DRAWINGS. ALL EXTRA WORK AREAS MUST BE LOCATED B. INSTALL TEMPORARY PITS TO STORE DRILL MUD AND SOIL CUTTINGS; C. DRILL PILOT HOLE FROM ENTRY PIT TO THE EXIT PIT; AT LEAST 50 FEET AWAY FROM WETLAND BARRIERS. D. ENLARGE PILOT HOLE BY DRAWING REAMER BACK THROUGH PILOT HOLE; C. DO NO CUT TREES OUTSIDE OF THE CONSTRUCTION ROW TO OBTAIN INSTALL PERMANENT WATERBARS AT SPECIFIED INTERVALS ON ALL SLOPES, E. PULL PREFABRICATED SECTION OF PIPE THROUGH HOLE; TIMBER FOR RIPRAP OR EQUIPMENT MATS. OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR. D. CLEARED MATERIALS (SLASH, LOGS, BRUSH, WOOD CHIPS) SHALL BE IMMEDIATELY REMOVED FROM WETLAND AREAS. F. DISPOSE OF DRILLING MUD AND SOIL CUTTING IN AN APPROVED INSTALL TEMPORARY SEDIMENT BARRIERS ADJACENT TO STREAM AND MANNER WETLAND CROSSINGS, AS WELL AS ANY OTHER CRITICAL AREAS. INADVERTENT RETURNS SHALL BE HANDLED IN ACCORDANCE WITH THE SEED AND MULCH ROW AND SEED SEGREGATED TOP SOIL PILES. CONTINGENCY PLAN: TEMPORARY EROSION AND SEDIMENT CONTROL A. GENERAL A. MAINTAIN ALL SEDIMENT BARRIERS THROUGHOUT CONSTRUCTION AND SPECIAL CONSTRUCTION METHODS
THE COMPANY WILL UTILIZE THE FOLLOWING SPECIALIZED CONSTRUCTION PROCEDURES FOR ROAD CROSSINGS ALONG THE PIPELINE PROJECT. THE PROJECT CONSTRUCTION DRAWINGS WILL INDICATE THE LOCATION WHERE SPECIALIZED THIS PROTOCOL OUTLINES STEPS TO BE TAKEN WHEN RESPONDING TO REINSTALL AS NECESSARY (SUCH AS AFTER BACKFILLING OF THE INADVERTENT RETURNS THAT MAY OCCUR DURING BORE INSTALLATION TRENCH) UNTIL REPLACED BY PERMANENT BMP OR RESTORATION OF OF NATURAL GAS PIPELINES. ADJACENT UPLAND AREAS IS COMPLETE. AFTER—THE—FACT PERMITS MAY BE REQUIRED FROM STATE AND FEDERAL AGENCIES DEPENDING ON THE LOCATION OF THE INCIDENT AND THE AMOUNT OF DRILLING MUD RELEASED INTO THE ENVIRONMENT. CONSTRUCTION METHODS WILL BE USED. CROSSING PROCEDURE A. IF STANDING WATER OR SATURATED SOILS ARE PRESENT, OR IF NOTE: THERE ARE CAVES AND SINKHOLES, ALSO KNOWN AS "KARST TERRAIN," IN SOME PARTS OF THE SERVICE TERRITORY. SPECIAL PLANNING MUST OCCUR BEFORE ANY BORE INSTALLATION NEAR KARST CONSTRUCTION EQUIPMENT CAUSE RUTS OR MIXING OF THE TOPSOIL AND SUBSOIL IN THE WETLANDS, USE LOW-GROUND WEIGHT CONSTRUCTION EQUIPMENT OR OPERATE NORMAL WEIGHT CONSTRUCTION UNPAVED PRIVATE AND PUBLIC ROADS SUPPORTING MINIMAL TRAFFIC VOLUMES ARE USUALLY CROSSED BY BORING OR BY MEANS OF AN OPEN CUT, METHOD IS APPROVED BY THE OWNER OR APPROPRIATE ROAD MANAGEMENT AGENCY. AN OPEN CUT CROSSING MAY INVOLVE CLOSING THE ROAD TO ALL TRAFFIC AND CONSTRUCTING AND ADEQUATE DETOUR AROUND THE CROSSING FEATURES TO MINIMIZE THE POTENTIAL FOR RELEASE OF DRILLING MUD EQUIPMENT ON TIMBER RIPRAP, PREFABRICATED EQUIPMENT MATS OR TERRA MATS ON THE WORKING SIDE OF THE ROW DURING CLEARING OPERATIONS. DO NOT USE MORE THAN TWO LAYERS OF TIMBER RIPRAP INTO THESE AREAS. B. MATERIALS AND EQUIPMENT TO BE KEPT ON SITE OR READILY AVAILABLE CONTAINMENT MATERIALS SUCH AS STRAW BALES, SILT AREA, OR EXCAVATING ONE-HALF OF THE ROAD AT A TIME ALLOWING THROUGH TO STABILIZE THE ROW. TRAFFIC TO BE MAINTAINED. THE TRENCH FOR AN OPEN CUT CROSSING IS FENCE AND COIR FIBER LOGS SHALL BE KEPT ON SITE DURING BORING B. DO NOT USE ROCK, SOIL IMPORTED FROM OUTSIDE THE WETLAND, TREE STUMPS, OR BRUSH RIPRAP TO STABILIZE THE ROW. EXCAVATED WITH A BACKHOE OR SIMILAR EQUIPMENT, ALL BACKFILL IS COMPACTED, AND THE ROAD RESURFACED. ALL STATE, NATIONAL, AND OPERATIONS. FOR LARGE PROJECTS, A VACUUM TRUCK MAY ALREADY BE AVAILABLE ON SITE. FOR SMALLER PROJECTS, EITHER OF THE EMERGENCY RESPONSE CONTRACTORS LISTED ON THE FOLLOWING PAGE MAY BE USED AS AN "ON CALL" VACUUM TRUCK RESOURCE WITHOUT C. INSTALL A PERMANENT WATER BAR AND A TRENCH PLUG AT THE BASE OF THE SLOPES NEAR THE BOUNDARY BETWEEN THE WETLAND AND INTERSTATE HIGHWAYS AS WELL AS ALL RAILROADS MUST BE CROSSED BY BORING, UNLESS THE CROSSING PERMIT ALLOWS FOR AN OPEN CUT CROSSING. ADJACENT UPLAND AREAS. IN ADDITION, INSTALL BMP AS NEEDED. ANY PROJECT-SPECIFIC PRIOR COORDINATION. WATERBODY CROSSING C. IMMEDIATE RESPONSE ACTIONS UPON DISCOVERING AN INADVERTENT CLEANUP AND RESTORATION THE FOLLOWING SECTION DESCRIBES THE CONSTRUCTION PROCEDURES AND RETURN, TAKE SAFE ACTIONS TO: A. DO NOT USE LIME OR FERTILIZER IN WETLAND AREAS. MITIGATION MEASURES THAT WILL BE USED FOR PIPELINE INSTALLATIONS AT WATERBODIES. THE INTENT OF THESE PROCEDURES IS TO MINIMIZE THE EXTENT a. STOP THE RELEASE. FOLLOWING INDUSTRY BEST PRACTICES, STOP THE B. MULCH THE DISTURBED ROW ONLY WHEN REQUIRED BY THE APPROPRIATE LAND MANAGEMENT OR STATE AGENCY. BORING RIG OR REDUCE PRESSURE TO KEEP DRILLING MUD FROM REACHING THE SURFACE. AND DURATION OF PROJECT RELATED DISTURBANCES WITHIN WATERBODIES. b. CONTAIN THE RELEASE. PLACE STRAW BALES, SILT FENCE, COIR FIBER LOGS OR OTHER STRUCTURAL SEDIMENT CONTROL MEASURES TO KEEP THE DRILLING MUD FROM LEAVING THE PROJECT SITE AND FROM C. REMOVE ALL TIMBER RIPRAP AND PREFABRICATED EQUIPMENT MATS UPON COMPLETION OF CONSTRUCTION. TEMPORARY EQUIPMENT BRIDGE D. ENSURE THAT ALL DISTURBED AREAS PERMANENTLY REVEGETATED.

E. REMOVE TEMPORARY BMP LOCATED AT THE BOUNDARY BETWEEN THE WETLAND AND ADJACENT UPLAND AREAS AFTER UPLAND REVEGETATION A TEMPORARY EQUIPMENT BRIDGE IS A STRUCTURE THAT MAY BE INSTALLED ACROSS A WATERBODY TO PROVIDE A MEANS FOR CONSTRUCTION EQUIPMENT TO CROSS THE STREAM WHILE MINIMIZING IMPACTS TO THE CHANNEL BOTTOM OR ENTERING SURFACE WATERWAYS AND WETLANDS. DETERMINE THE FLOW PATH THAT THE DRILLING MUD IS MOST AND STABILIZATION OF ADJACENT WETLANDS AREAS ARE SUCCESSFUL BANKS AS SPECIFIED IN THE POST CONSTRUCTION SECTION. PLACE CONTAINMENT MATERIALS IN THE FLOW PATH OF THE CONSTRUCT EQUIPMENT BRIDGES TO MAINTAIN UNRESTRICTED FLOW AND TO PREVENT SOIL FROM ENTERING THE WATERBODY. DRILLING MUD; MONITOR THE CONTAINMENT AREA TO ENSURE DRILLING MUD DOES EQUIPMENT BRIDGE SHALL BE INSTALLED ABOVE THE ORDINARY HIGH WATER MARK FOR THE STREAM. NO STRUCTURES OR DISTURBANCE SHALL NOT ESCAPE; AND Technologies Corporation BE ALLOWED OCCUR BELOW THIS MARK. PLACE ADDITIONAL CONTAINMENT MATERIALS AS NEEDED TO STOP THE DRILLING MUD FROM SPREADING. CONSTRUCT CROSSINGS AS CLOSE TO PERPENDICULAR TO THE AXIS OF C. NOTIFY OTHERS. CALL THE PROJECT MANAGER. NOTIFY ENVIRONMENTAL INSPECTOR IMMEDIATELY UPON DISCOVERING AN INADVERTENT RETURN THAT HAS REACHED AN ENVIRONMENTALLY THE WATERBODY CHANNEL. MAINTAIN THE EQUIPMENT BRIDGE TO WITHSTAND THE HIGHEST FLOWS THAT WOULD OCCUR. SENSITIVE AREA, INCLUDING BUT NOT LIMITED TO KARST SINKHOLES, DO NOT USE SOIL TO CONSTRUCT OR STABILIZE EQUIPMENT BRIDGES. RIVERS, LAKES, STREAMS, PONDS, CREEKS OR ROADSIDE DITCHES. MAINTAIN EQUIPMENT BRIDGES TO PREVENT SOIL FROM ENTERING THE d. BEGIN CLEANUP. SEE FOLLOWING FOR MORE INFORMATION. D. CLEANING UP THE DRILLING MUD IN ENVIRONMENTALLY SENSITIVE AREAS, INSTALL ROCK APPROACHES TO EQUIPMENT BRIDGES AS NEEDED AS PER BEGIN REMOVING THE DRILLING MUD AS SOON AS IT HAS BEEN STOPPED AND CONTAINED. IF THE RELEASE IS ONGOING, REMOVAL MAY BEGIN BEFORE THE RELEASE IS STOPPED. DRILLING MUD CONTAINED IN UPLAND DETAIL IN SWP3. REMOVE EQUIPMENT BRIDGES (AND ROCK, IF APPLICABLE) AS SOON AS PRACTICAL AFTER PERMANENT SEEDING. AREAS (NOT IN A KARST SINKHOLE, WETLAND, SURFACE WATER OR FLOODWAY) MAY BE LEFT IN PLACE TO DRY. ONCE DRY, REMOVE THE DRILLING MUD TO PRE-EXISTING GRADE AND USE THE DRIED MATERIAL AS BACKFILL IN THE PIPE TRENCH. FOR RELEASES TO ENVIRONMENTALLY CLEARING AND GRADING CONFINE CONSTRUCTION ACTIVITIES AND GROUND DISTURBANCE TO WITHIN THE ROW BOUNDARIES SHOWN ON THE CONSTRUCTION DRAWINGS. SENSITIVE AREAS, THE FOLLOWING EMERGENCY RESPONSE AND CLEANUP RESTRICT EXTRA WORK AREAS (E.G. STAGING AREAS AND ADDITIONAL CONTRACTORS MAY BE USED: SPOIL STORAGE AREAS) TO THOSE SHOWN ONLY ON THE CONSTRUCTION DRAWINGS. ALL EXTRA WORK AREAS MUST BE LOCATED AT LEAST 50 FEET FROM THE WATER'S EDGE, EXCEPT WHERE THE ADJACENT UPLAND CONSISTS OF ACTIVELY CULTIVATED OR ROTATED CROPLAND OR OTHER ENVIRONMENTAL EMERGENCY RESPONDERS DISTURBED LAND. IF SITE—SPECIFIC CONDITIONS DO NOT PERMIT A 50—FOOT SETBACK, THE COMPANY CAN RECEIVE WRITTEN APPROVAL FROM THE PERMITTING AGENCY TO LOCATE THESE EXTRA WORK AREA CLOSER THAN 50 FEET FROM THE WATER'S EDGE. **SUMMIT ENVIRONMENTAL SERVICES** PIPELINE, IF THE PIPELINE PARALLELS A WATERBODY, ATTEMPT TO MAINTAIN AT LEAST 15 FEET OF UNDISTURBED VEGETATION BETWEEN THE WATERBODY (877) 421-1744 (AND ANY ADJACENT WETLAND) AND THE ROW EXCEPT AT THE CROSSING LOCATION. CLEAR THE ROW ADJACENT TO ALL WATERBODIES UP TO THE HIGH WATER E. GENERATION PIPELINE SHALL MAKE ALL REQUIRED NOTIFICATIONS TO SONVILLE BANK (WHERE DISCERNIBLE). LOCAL, STATE OR FEDERAL ENVIRONMENTAL AGENCIES AND APPLY FOR IMMEDIATELY REMOVE ALL CUT TREES AND BRACHES THAT INADVERTENTLY FALL INTO A WATERBODY AND STOCKPILE IN AN UPLAND AREA ON ROW ANY AFTER-THE-FACT PERMITS. GRADE THE ROW ADJACENT TO WATERBODIES UP TO WITHIN 10 FEET OF HIGH WATER BANK, LEAVING AN UNGRUBBED VEGETATIVE STRIP CLEARING AND GRADING OPERATIONS MAY PROCEED THROUGH THE 10—FOOT VEGETATIVE STRIP ONLY ON THE WORKING SIDE OF THE ROW IN ORDER TO INSTALL THE EQUIPMENT BRIDGE AND TRAVEL LAND. USE TEMPORARY SEDIMENT BARRIERS TO PREVENT THE FLOW OF BANK SPOIL MAINTAIN ADEQUATE FLOW RATES TO PROTECT AQUATIC LIFE AND PREVENT THE INTERRUPTION OF EXISTING DOWNSTREAM USES. INSTALLING TEMPORARY EROSION AND SEDIMENT CONTROL INSTALL SEDIMENT BARRIERS (BMP) IMMEDIATELY AFTER INITIAL DISTURBANCE OF THE WATERBODY OR ADJACENT UPLAND. BMP MUST BE PROPERLY MAINTAINED THROUGHOUT CONSTRUCTION AND REINSTALLED AS NECESSARY (E.G. BACKFILLING OF THE TRENCH), UNTIL REPLACEMENT BY PERMANENT BMP OR RESTORATION OF ADJACENT UPLAND AREAS IS (ISSUED FOR APPROVA INSTALL BMP ACROSS THE ENTIRE CONSTRUCTION OF THE ROW AT ALL WATERBODY CROSSINGS, WHERE NECESSARY TO PREVENT THE FLOW OF SEDIMENTS INTO THE WATERBODY. TEMPORARY OR REMOVABLE BMP SUCH DRAFT DESIGN CHECK KDG CPL/HGG AS WATERBARS MAY BE USED IN LIEU OF SEDIMENT BARRIERS IN FRONT OF EQUIPMENT BRIDGES OR TIMBER MATS ACROSS THE TRAVEL LANE. THESE TEMPORARY SEDIMENT BARRIERS CAN BE REMOVED DURING THE CONSTRUCTION DAY, BUT MUST BE REINSTALLED AFTER CONSTRUCTION 7/25/2018 17-031 HORIZONTAL HAS STOPPED FOR THE DAY AND/OR WHEN HEAVY PRECIPITATION IS VERTICAL: INSTALL BMP AS NECESSARY ALONG THE EDGE OF THE CONSTRUCTION ROW TO CONTAIN SPOIL AND SEDIMENT WITHIN THE ROW WHERE 17031-200 WATERBODIES ARE ADJACENT OR PARALLEL TO THE CONSTRUCTION ROW. 34/35

DUST CONTROL	TO INSTALL THE PIPE.	AREAS. DURING NON-GERMINATING MONTHS, MULCH OR PROTECTIVE	
1. DUST CONTROL INVOLVES PREVENTING OR REDUCING DUST FORM EXPOSED SOILS OR OTHER SOURCES DURING LAND DISTURBING, DEMOLITION AND CONSTRUCTION ACTIVITIES TO REDUCE THE PRESENCE OF AIRBORNE	THE TRENCH SHALL BE BACKFILLED AS SOON AS POSSIBLE AFTER THE PIPE HAS BEEN LOWERED IN.	BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION	
SUBSTANCES WHICH MAY PRESENT HEALTH HAZARDS, TRAFFIC SAFETY PROBLEMS OR HARM ANIMAL OR PLANT LIFE. PLANNING FOR DUST CONTROL INVOLVES LIMITING THE AMOUNT OF SOIL DISTURBANCE AT ANY ONE TIME	WATERBARS OR OTHER APPROPRIATE CONTROLS ARE TO BE INSTALLED AFTER BACKFILL HAS BEEN PLACED. WATERBARS SHOULD BE SPACED APART BASED ON	SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.	
AS A KEY OBJECTIVE. THEREFORE, PHASED CLEARING AND GRADING OPERATIONS AND THE UTILIZATION OF OTHER STABILIZATION PRACTICES CAN SIGNIFICANTLY REDUCE DUST EMISSIONS. DUST SHALL BE CONTROLLED	DETAIL.  IF A SUITABLE VEGETATIVE FILTER STRIP DOES NOT EXIST AT THE POINT OF	24. PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON—VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL	
BY ANY OF THE FOLLOWING:  2. VEGETATIVE COVER — TIMELY APPLICATION OF TEMPORARY AND PERMANENT SEEDINGS MUST BE UTILIZED TO ACCOMPLISH THIS	DISCHARGE FOR ANY WATERBAR, A SEDIMENT BARRIER SHOULD BE PROVIDED.	SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS. 25. E&S BMP MUST REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY	
3. MULCH — OFFERS A FAST, EFFECTIVE MEANS OF CONTROLLING DUST. MULCHING IS NOT RECOMMENDED FOR AREAS WITHIN HEAVY TRAFFIC PATHWAYS. BINDERS OR TACKIFIERS SHOULD BE USED TO TACK ORGANIC	BACKFILL MATERIAL SHOULD BE MOUNDED OVER THE EXCAVATED AREA TO ALLOW FOR SETTLING, AND SEEDED AND MULCHED.	TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE PROJECT ENGINEER. 26. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY E&S BMP	
MULCHES.  4. ROUGH GRADED SOILS — LEAVING THE SOIL IN A TEMPORARY STATE OF ROUGH GRADE, WHERE CLODS RATHER THAN FLATTENED SOILS PREDOMINATE	THE EXCAVATED AREA MUST BE STABILIZED WITHIN 7 DAYS OF BEING BROUGHT TO FINAL GRADE.	MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMP. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMP MUST BE STABILIZED IMMEDIATELY. IN ORDER TO	S H S
THE SURFACE, CAN REDUCE THE AMOUNT OF DUST GENERATED FROM AREAS DURING PERIODS OF HIGHER WINDS. THIS MUST BE BALANCED BY THE NEED TO REACH A STAGE WHERE THE SOIL CAN BE STABILIZED AND MAY BE ONLY	STAGING AREA, ASSEMBLY AREAS, TEMPORARY EQUIPMENT AND NON—HAZARDOUS MATERIAL STORAGE AREAS SHOULD BE LOCATED OUTSIDE THE 100 YEAR FLOODWAY. HAZARDOUS OR POLLUTIVE MATERIAL STORAGE AREAS SHOULD BE	ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL CONVERSIONS SHOULD BE DONE ONLY DURING THE GERMINATING MONTHS. 27. ALL CHANNELS SHALL BE KEPT FREE OF OBSTRUCTIONS INCLUDING BUT NOT	PPROVA (DG BY DA'A
NECESSARY WHEN HIGH WINDS ARE PREDICTED.  5. WATERING — THIS IS THE MOST COMMONLY USED DUST CONTROL PRACTICE.  THE SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS WET BEFORE	LOCATED AT LEAST 100 FEET BACK FROM THE TOP OF A STREAM BANK OR WETLAND. *REFER TO FLOODPLAIN MAPS, SEVERAL AREAS LONG THE ROUTE ARE LOCATED WITHIN THE 100YR FLOODPLAIN. STOCKPILES AND EQUIPMENT ARE	LIMITED TO FILL, ROCKS, LEAVES, WOODY DEBRIS, ACCUMULATED SEDIMENT, EXCESS VEGETATION, AND CONSTRUCTION MATERIAL/WASTES. 28. EROSION CONTROL BLANKETING SHALL BE INSTALLED ON ALL SLOPES 3H:1V	SHEET A NO.
AND DURING GRADING AND IS REPEATED AS NEEDED. IT OFFERS FAST PROTECTION FOR HAUL ROADS AND OTHER HEAVY TRAFFIC ROUTES. WATERING SHOULD BE DONE AT A RATE THAT PREVENTS DUST BUT DOES	PROHIBITED FROM BEING LOCATED WITHIN THE REGULATED FLOODWAY CHANNEL (DRY CREEK). TEMPORARY BRIDGE STRUCTURE SHALL BE INSTALLED TO NOT IMPEDE THE FLOW OF WATER IN DRY CREEK OR SHALL BE REMOVED PRIOR TO	OR STEEPER WITHIN 50 FEET OF A SURFACE WATER AND ON ALL OTHER DISTURBED AREAS SPECIFIED ON THE PLAN MAPS AND/OR DETAIL SHEETS. 29. IMMEDIATELY STOP WORK AND CONTACT THE PROJECT ENGINEER AND	DOLE
NOT CAUSE SOIL EROSION. CHEMICAL STABILIZERS / WETTING AGENTS MANY PRODUCTS OF THIS TYPE ARE AVAILABLE AND ARE USUALLY MOST EFFECTIVE ON TYPICAL MINERAL SOILS. BUT MAY NOT BE ON PREDOMINANTLY ORGANIC	LARGE RAIN EVENTS.	ENVIRONMENTAL INSPECTOR IN THE EVENT ANY ARCHEOLOGICAL REMAINS ARE DISCOVERED DURING CONSTRUCTION.	SSC#
SOILS SUCH AS MUCK. USERS ARE ADVISED TO PAY ATTENTION TO THE LIMITATIONS AND INSTRUCTIONS REGARDING EACH PRODUCT. THE FOLLOWING TABLE LISTS VARIOUS ADHESIVES AND PROVIDES CORRESPONDING	FILTER FABRIC FENCE BACKED WITH STRAW BALES ARE TO BE INSTALLED AT THE BOTTOM OF STEEP SLOPES BEFORE REACHING A STREAM.	30. AN ENVIRONMENTAL INSPECTOR IS REQUIRED TO BE PRESENT DURING STREAM CROSSING ACTIVITIES TO ENSURE REQUIREMENTS NEAR SENSITIVE ECOLOGICAL RESOURCES ARE MET.	CHANGE PROPER
INFORMATION ON MIXING APPLICATIONS:  DUST CONTROL ADHESIVES	TRENCH PLUGS MUST BE INSTALLED WHEN CROSSING A STREAM, WETLAND OR OTHER WATERBODY. TRENCH PLUG SHOULD BE PLACED ON BOTH SIDES OF THE CROSSING.	31. ALL PERSONNEL WORKING ON THE PROJECT SITE ARE REQUIRED TO HAVE TRAINING ON THREATENED AND ENDANGERED SPECIES FOR THE PROJECT AREA.	CHANGE ORDER CRIPTION OF CHANGE TE ON SMIDI PROPER
ADHESIVE WATER DILUTION NOZZLE APPLICATION RATE (ADHESIVE: WATER) TYPE (GAL/ACRE)	MISCELLANEOUS NOTES  1. A COPY OF THE APPROVED DRAWINGS SHALL BE AVAILABLE AT THE PROJECT	32. DAMAGED FIELD TILE SYSTEMS SHALL BE PROMPTLY REPAIRED. 33. ALL TEMPORARY GRAVEL AND OTHER CONSTRUCTION STAGING ARES AND ACCESS ROAD MATERIALS SHALL BE REMOVED, AS WEATHER PERMITS, WHEN	CHA ESCRIP OUTE OI
LATEX EMULSION         12.5:1         FINE         235           RESIN IN WATER         4:1         FINE         300	SITE AT ALL TIMES.  2. CONTACT OUPS AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES.	NO LONGER NEEDED FOR CONSTRUCTION. 34. GRAVEL AND OTHER CONSTRUCTION MATERIAL SHALL NOT BE DISPOSED OF BY SPREADING SUCH MATERIAL ON AGRICULTURAL LAND.	D G REA
ACRYLIC EMULSION (NO TRAFFIC) 7:1 COARSE 450  ACRYLIC EMULSION (TRAFFIC) 3.5:1 COARSE 350	3. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE PROJECT ENGINEER	35. ALL CONSTRUCTION DEBRIS AND ALL CONTAMINATED SOIL SHALL BE PROMPTLY REMOVED AND PROPERLY DISPOSED OF IN ACCORDANCE WITH THE OHIO EPA REGULATIONS.	
6. STONE — USED TO STABILIZE ROADS OR OTHER AREAS DURING CONSTRUCTION USING CRUSHED STONE OR COARSE GRAVEL.	PRIOR TO IMPLEMENTATION.  4. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE.		# 11
7. CALCIUM CHLORIDE — THIS CHEMICAL MAY BE APPLIED BY MECHANICAL SPREADER AS LOOSE, DRY GRANULES OR FLAKES AT A RATE THAT KEEPS THE SURFACE MOIST BUT NOT SO HIGH AS TO CAUSE WATER POLLUTION OR	GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMP SPECIFIED BY THE CONSTRUCTION SEQUENCE FOR THAT STAGE OR PHASE		Int.
PLANT DAMAGE.  8. STREET CLEANING — PAVED AREAS THAT HAVE ACCUMULATED SEDIMENT FROM CONSTRUCTION SITES SHOULD BE CLEANED DAILY, OR AS NEEDED,	HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS DOCUMENT.  5. AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS		ion Industr
UTILIZING A STREET SWEEPER OR BUCKET—TYPE LOADER OR SCRAPER.  MAINTENANCE	OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED BEFORE CLEARING AND GRUBBING OPERATION BEGIN.		Technologie Corporation in the Pipeline Ind. mer Ohio Lane rt, OH 43125 4-482-8070 tt-corp.com
MOST DUST CONTROL MEASURES, SUCH AS APPLICATIONS OF WATER OR ROAD TREATMENTS WILL REQUIRE MONITORING AND REPEAT APPLICATIONS AS NEEDED TO	6. STOCKPILE SLOPES MUST BE 2H:1V OR FLATTER. 7. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE		/ Tech Corp Corp Omer Oh ort, OH 4-482-8
ACCOMPLISH GOOD CONTROL.  SPILL PREVENTION CONTROL	POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BMP TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE PROJECT ENGINEER.		Utility  Dabilities a  4700 Hor  Grovepo  P: 614  F: 614
CITY OF OREGON FIRE DEPARTMENT: 419.698.7021  POST CONSTRUCTION ACTIVITIES / POST CONSTRUCTION MONITORING	<ol> <li>ALL SANITARY WASTE WILL BE COLLECTED IN PORTABLE UNITS THAT WILL BE LOCATED AT LEAST 25 FEET FROM ANY STORM DRAINAGE DITCH, WATER CONVEYANCE SYSTEM, OR STORM DRAIN INLET SYSTEM AND EMPTIED</li> </ol>		otal Cap.
ALL PROJECT CONDUCTED UNDER THIS PLAN SHALL MEET THE MONITORING REQUIREMENTS SET FORTH IN THIS SECTION. COMPANY PERSONNEL SHALL PERFORM THE FOLLOWING:	REGULARLY BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR, AS REQUIRED BY LOCAL REGULATIONS.  9. ALL BUILDING MATERIALS AND WASTES MUST BE REMOVED FROM THE SITE		o <sub>7</sub>
PLANT GROWTH ON THE ROW WILL BE INSPECTED REGULARLY AND MAINTAINED FOR THE LIFE OF THE FACILITY. FOLLOW—UP INSPECTIONS WILL OCCUR AFTER THE FIRST AND SECOND GROWING SEASON.	AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.  10. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL		
<ol> <li>REVEGETATION EFFORTS WILL CONTINUE UNTIL REVEGETATION IS SUCCESSFUL.</li> <li>PROBLEMS WITH DRAINAGE AND IRRIGATION SYSTEMS RESULTING FROM</li> </ol>	BROUGHT ON SITE IS CLEAN FILL.  11. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED		N N
PIPELINE CONSTRUCTION IN ACTIVE AGRICULTURAL AREAS WILL BE MONITORED AND CORRECTED UNTIL RESTORATION IS SUCCESSFUL.  4. EROSION PROBLEMS ON THE FACILITY ROW AND ACCESS ROADS WILL BE	VEGETATED AREAS WHEN POSSIBLE.  12. UNTIL THE SITE IS STABILIZED, ALL E&S BMP MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL E&S BMP		LLC
REPORTED TO THE PROJECT ENGINEER, CORRECTIVE MEASURES WILL BE PERFORMED AS NEEDED, EROSION CONTROL DEVICES THAT ARE NO LONGER REQUIRED MUST BE REMOVED, REMOVAL OF THE EROSION CONTROL DEVICES	AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, RESEEDING, RE—MULCHING AND RE—NETTING MUST BE		INE,
WILL BE AT THE DISCRETION OF THE ENVIRONMENTAL INSPECTOR. SIMILARLY, ADDITIONAL EROSION CONTROL DEVICES WILL BE INSTALLED AS REQUIRED.  5. MAINTAIN ALL TEMPORARY SEDIMENT BARRIERS IN PLACE UNTIL PERMANENT	PERFORMED IMMEDIATELY. IF E&S BMP FAIL TO PERFORM AS EXPECTED, REPLACE BMP, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.  13. A LOG SHOWING DATES THAT E&S BMP WERE INSPECTED AS WELL AS ANY		IPEL LATI
REVEGETATION MEASURES ARE SUCCESSFUL OR THE UPLAND AREAS ADJACENT TO WETLANDS, WATERBODIES, OR ROADS ARE STABILIZED. REMOVE TEMPORARY SEDIMENT BARRIERS FROM AN AREA ONCE THAT AREA	DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.		ON P
IS SUCCESSFULLY RESTORED.  6. EFFORTS TO CONTROL UNAUTHORIZED OFF—ROAD VEHICLE USE, IN COOPERATION WITH THE LANDOWNER, SHALL CONTINUE THROUGHOUT THE LIFE	14. SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE		RATIO ONVI
OF THE PROJECT. MAINTAIN SIGNS, GATES, AND VEHICLE TRAILS AS NECESSARY.	SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEPT INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.  15. ALL SEDIMENT REMOVED FROM BMP SHALL BE DISPOSED OF IN THE MANNER		ENER IR
VEGETATION PRACTICES  PERMANENT STRUCTURAL PRACTICES / PERMANENT SEEDING  PLACE PERMANENT SEEDING ON ALL FINAL GRADED AREAS THAT ARE NOT TO	DESCRIBED ON THE PLAN DRAWINGS.  16. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL		E SO
RECEIVE OTHER PERVIOUS COVER (GRAVEL) AND AFTER THE INSTALLATION OF EROSION CONTROL BLANKETS HAVE BEEN PLACED.	INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.  17. ALL FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9		
SEED MIXTURES FERTILIZING, SEEDING AND MULCHING WILL BE USED AS BOTH A TEMPORARY AND	INCHES IN THICKNESS.  18. FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE		TEA
A FINAL EROSION AND SEDIMENTATION CONTROL MEASURE. GRASS MIXTURES ARE USED ACCORDING TO PERMANENT AND TEMPORARY COVER REQUIREMENTS. THE TEMPORARY SEED MIX SHALL BE USED IN ALL DISTURBED AREAS THAT WILL NOT	WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.  19. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.		(ISSUED FOR APPROVAL)
BE REWORKED WITHIN 14 DAYS AND DURING PERIODS OF THE YEAR WHEN PERMANENT SEEDING CANNOT BE PLACED. PERMANENT SEED MIX SHALL BE APPLIED WITHIN 6 DAYS AFTER FINAL GRADING HAS BEEN ACCOMPLISHED. APPLY	20. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES. 21. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED		DESIGN DRAFT CHECK  BJR KDG CPL/HGG
SLOPE SEEDING ON SLOPES GREATER THAN 3V:1H.  BEST MANAGEMENT PRACTICES FOR PIPELINES	IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.  22. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED UPON REACHING		UTI PROJECT #: DATE: 17-031 7/25/2018
WHEN POSSIBLE, BURY THE PIPELINE IN THE EDGE OF THE ACCESS ROAD AND STABILIZE THE BACKFILLED AREA WITH VEGETATION OR CRUSHED ROCK.	FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. AGRICULTURAL LAND IS TO BE RETURNED TO ITS PRE—CONSTRUCTION AGRICULTURAL USE.		SCALE: HORIZONTAL: VERTICAL:
LIMIT CLEARING AND GRUBBING TO CUTTING EXISTING VEGETATION RATHER THAN BULL DOZING THE VEGETATION. LIMIT THE TRENCH WIDTH TO WHAT IS NECESSARY	23. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED		DRAWING #: 17031-200
A B	C D	E F G H	SHEET #: 35/35

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Case No(s). 18-1601-GA-BLN

Summary: Letter of Notification - Attachment E (Part 3 of 3) electronically filed by Mr. Michael J. Settineri on behalf of Generation Pipeline LLC