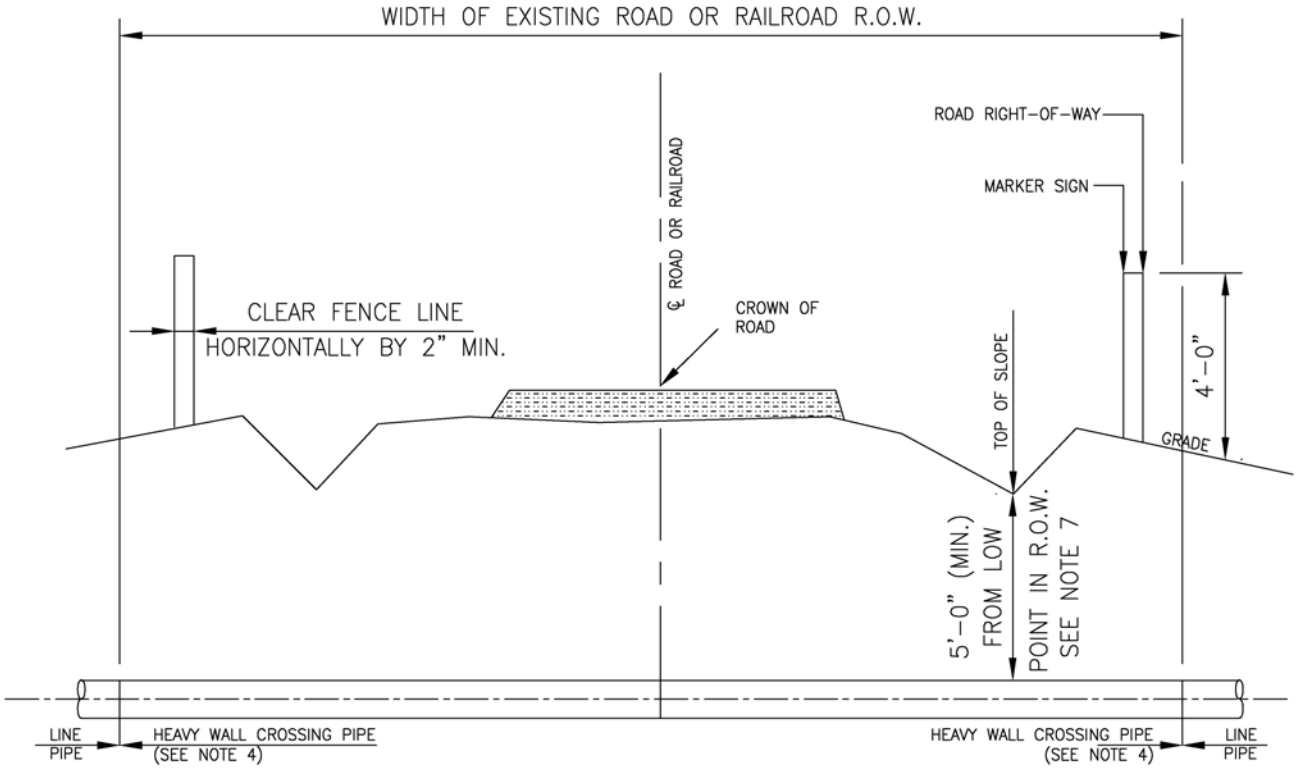

NOTES:

1. CROSSINGS SHALL BE IN ACCORDANCE WITH APPLICABLE PERMIT.
2. ROAD CROSSING PIPE SHALL EXTEND AT MINIMUM TO RIGHT-OF-WAY LINE UNLESS OTHERWISE SPECIFIED.
3. THE TYPE AND MINIMUM REQUIRED LENGTH OF PIPE FOR CROSSINGS OF ROADS SHALL BE AS SPECIFIED ON ALIGNMENT SHEETS.
4. PIPE FOR BORED CROSSINGS TO INCLUDE ABRASION-RESISTANT (ARB) COATING.
5. PIPELINE MARKER AND TEST STATIONS TO BE INSTALLED ON RIGHT-OF-WAY LINE NEXT TO FENCE IF POSSIBLE.
6. THE CROSSING PIPE SHALL BE STRAIGHT WITH NO VERTICAL OR HORIZONTAL BENDS WITHIN ROAD RIGHT-OF-WAY.
7. MINIMUM PIPELINE COVER IN DRAINAGE DITCHES AT PUBLIC ROADS IS 60 INCHES, 36 INCHES IN CONSOLIDATED ROCK.

BakkenLink Pipeline, LLC	
TYPICAL CONSTRUCTION UNCASED ROAD/RAILROAD CROSSING BORE PROFILE	
DRAWN BY: PCS	CHK'D. BY: PCS
DATE: 11-15-11	APPRV. BY: PCS
DWG. NO. DETAIL-20	REV A

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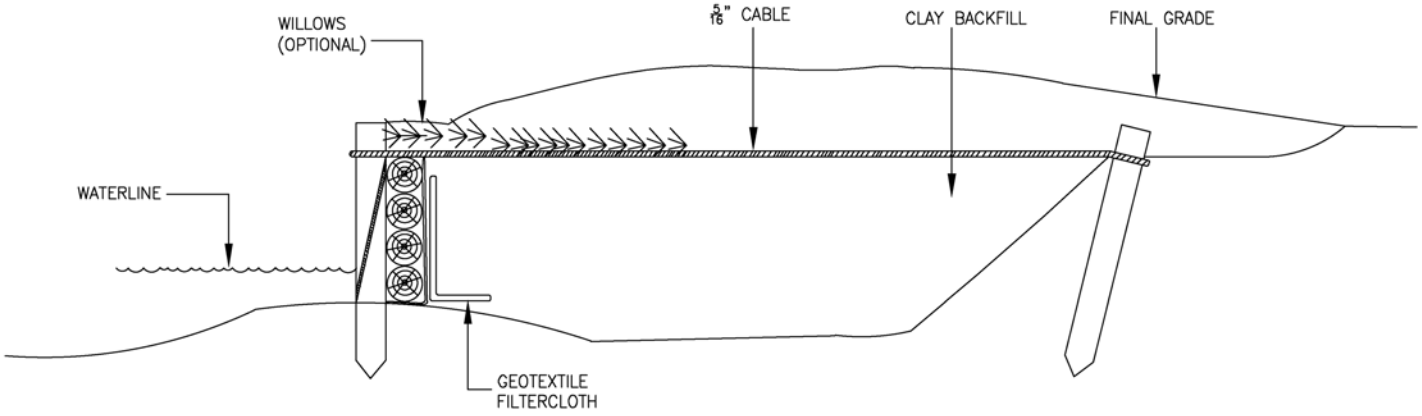

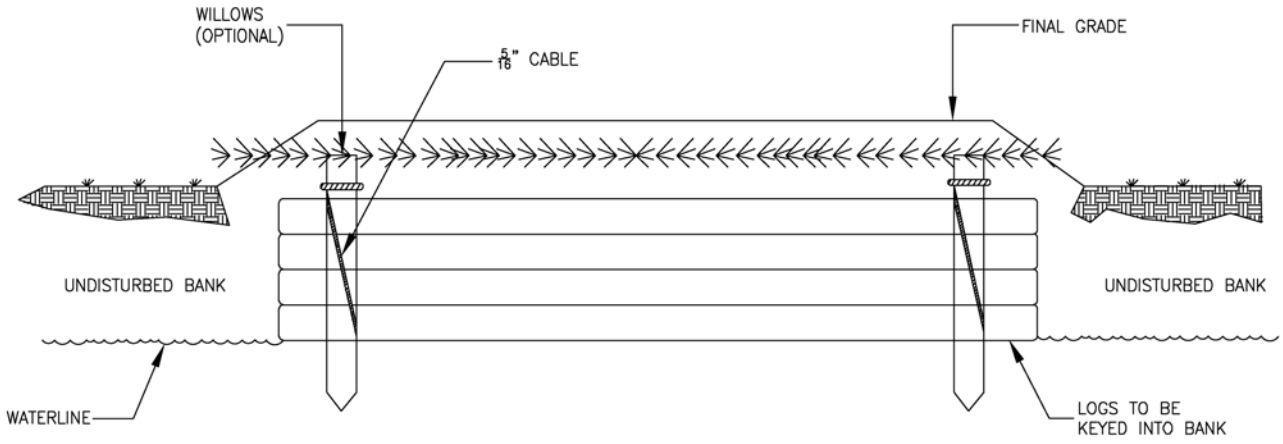

NOTES:

1. LOG WALLS TO BE CONSTRUCTED USING CONIFEROUS MATERIAL.
2. NATURE BACKFILL OR LOOSE GRADE MATERIAL SHOULD BE USED AS FILL MATERIAL.
3. ANCHOR PILINGS OR DEADMAN ANCHORS TO BE USED TO SECURE CABLE IN BANK.
4. NON-WOVEN FILTER CLOTH (NYLEX C34 OR EQUIVALENT) TO BE USED TO LINE LOG WALL.
5. INSTALLATION SPECIFICATIONS TO BE MODIFIED AS NECESSARY TO SITE CONDITIONS.

BakkenLink Pipeline, LLC		
TYPICAL CONSTRUCTION STREAM BANK RECLAMATION LOG WALL		
DRAWN BY: PCS	CHK'D. BY: PCS	
DATE: 11-16-11	APPRV. BY: PCS	
DWG. NO. DETAIL-21		REV A

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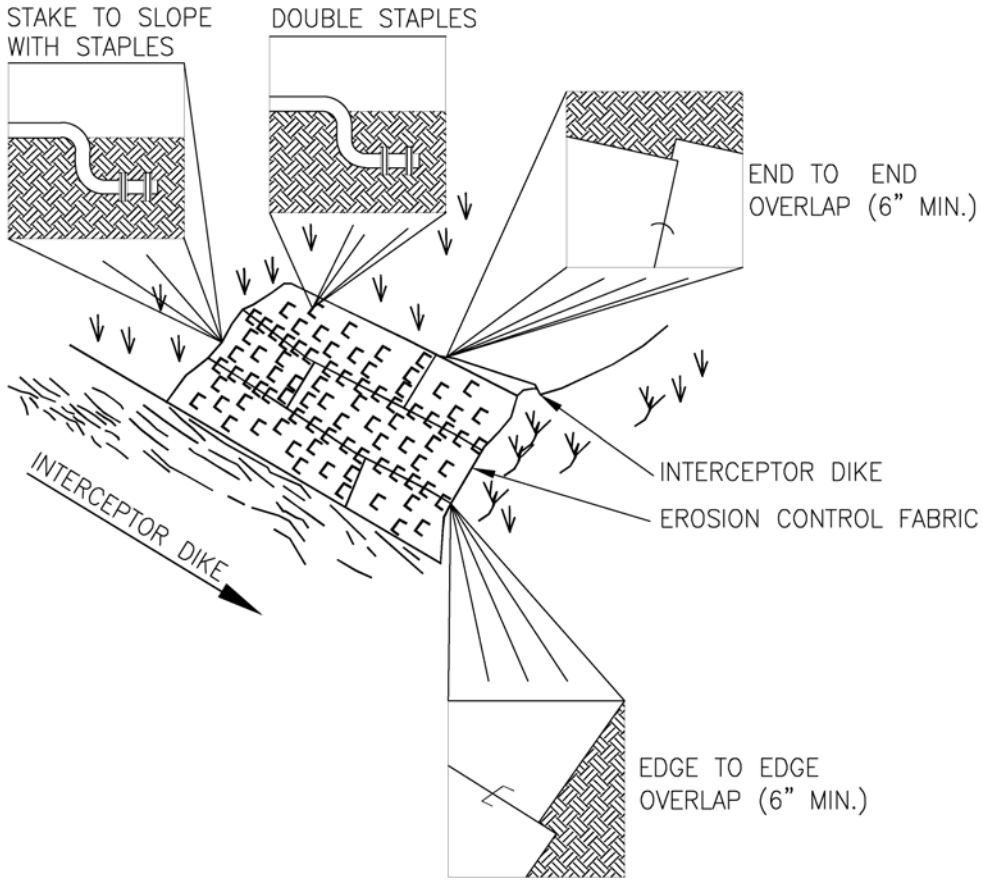

NOTES:

1. EROSION CONTROL MATTING SHALL BE PLACED ON THE BANKS OF FLOWING STREAMS WHERE VEGETATION HAS BEEN REMOVED OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
2. EROSION CONTROL MATTING SHALL MEET THE REQUIREMENTS SPECIFIED IN THE PLAN AND/OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
3. STAPLES SHALL BE MADE OF 11 GAUGE WIRE, U-SHAPED WITH SIX (6) INCH LEGS AND A ONE (1) INCH CROWN. STAPLES SHALL BE DRIVEN INTO THE GROUND FOR THE FULL LENGTH OF THE STAPLE LEGS.
4. MATTING SHALL BE INSTALLED ACCORDING TO MANUFACTURER SPECIFICATIONS OR AS STATED BELOW:
   - EXTEND TOP OF BLANKET THREE (2) FEET PAST THE UPPER EDGE OF THE HIGH WATER MARK. IF AN INTERCEPTOR DIKE IS PRESENT ON THE APPROACH SLOPE, BEGIN THE BLANKET ON THE UPHILL SIDE OF THE INTERCEPTOR DIKE.
   - INSTALL BLANKET(S) ACROSS THE SLOPE IN THE DIRECTION OF THE WATER FLOW.
   - ANCHOR ("KEY") THE UPSTREAM EDGE OF THE BLANKET(S) INTO THE SLOPE USING A SIX (6) INCH DEEP TRENCH. DOUBLE STAPLE EVERY 12" BEFORE BACKFILLING AND COMPACTING TRENCH.
   - ANCHOR ("KEY") THE UPPER EDGE OF THE BLANKET(S) INTO THE SLOPE USING A SIX (6) INCH DEEP TRENCH. DOUBLE STAPLE EVERY 12" BEFORE BACKFILLING AND COMPACTING TRENCH.
   - TRENCH AND ROLL THE BLANKET DOWN THE HILL. DOUBLE STAPLE EVERY 12" BEFORE BACKFILLING AND COMPACTING TRENCH.
   - OVERLAP THE EDGES OF PARALLEL BLANKETS A MINIMUM OF SIX (6) INCHES. PLACE THE UPPER BLANKET OVER THE LOWER BLANKET (SHINGLE STYLE) AND STAPLE EVERY 12" ALONG THE LENGTH OF THE EDGE.
   - WHEN BLANKET ENDS ARE ADJOINED, PLACE THE UPSTREAM BLANKET OVER THE DOWNSTREAM BLANKET (SHIGLE STYLE) WITH APPROXIMATELY (6) INCH OF OVERLAP AND STAPLE THROUGH THE OVERLAPPED AREA EVERY 12".
   - STAPLE DOWN THE CENTER OF THE BLANKET(S), THREE(3) STAPLES IN EVERY SQUARE YARD.
5. IN LIVESTOCK AREAS WHERE EROSION CONTROL MATTING IS APPLIED TO THE SLOPES, FENCING WILL BE USED IF NECESSARY TO EXCLUDE LIVESTOCK, WITH PERMISSION OF THE LANDOWNER.
6. MONITOR WASHOUTS, STAPLE INTEGRITY OR MAT MOVEMENT. REPLACE OR REPAIR AS NECESSARY.

BakkenLink Pipeline, LLC		
TYPICAL CONSTRUCTION MATTING OF STREAM BANKS		
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DATE: 11-07-11	APPRV. BY: PCS	
DWG. NO. DETAIL-22	REV A	

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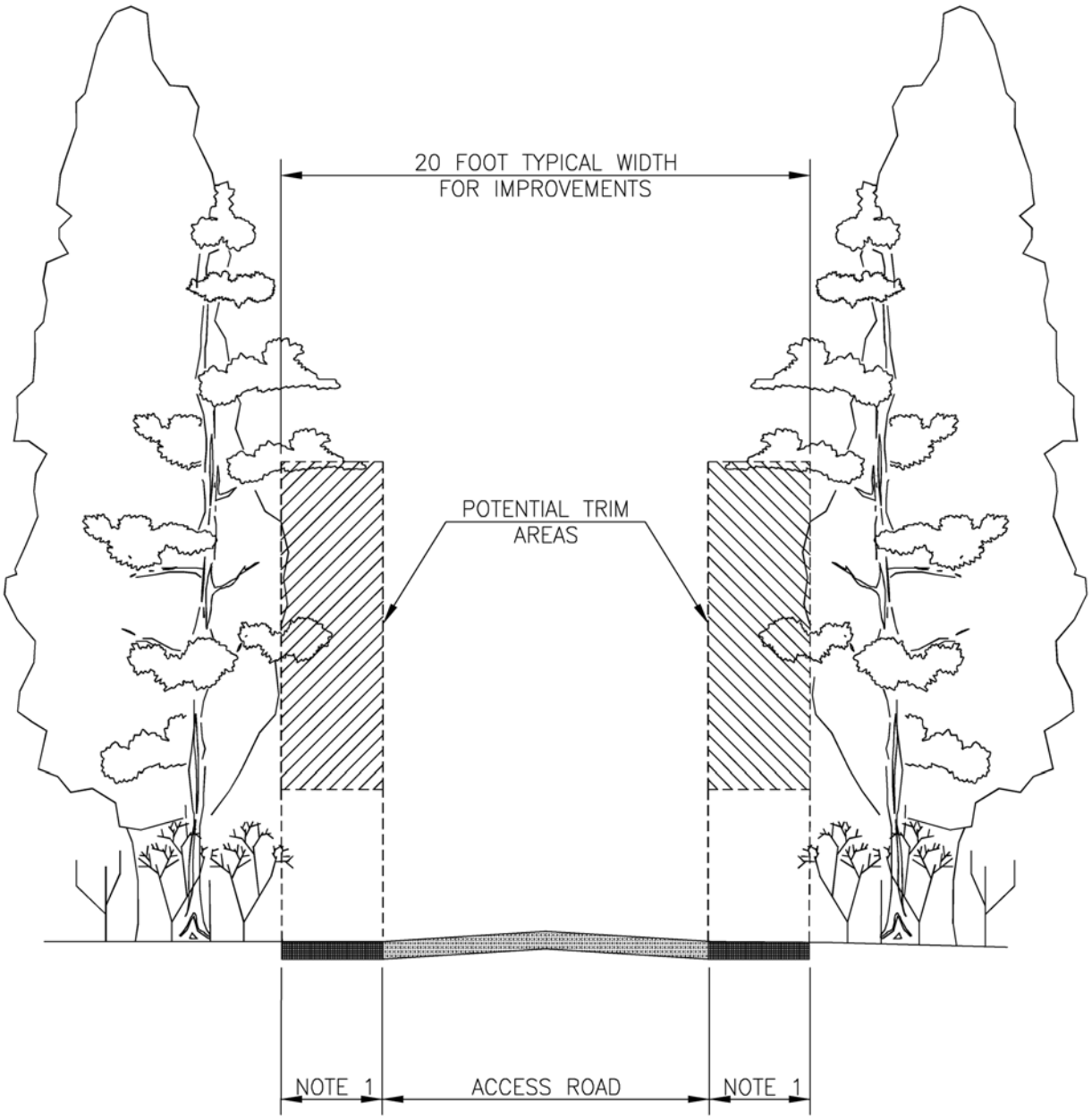

NOTE:

1. POTENTIAL WIDENING OF EXISTING ROADS WITH BASE MATERIAL (IF NEEDED).

BakkenLink Pipeline, LLC		
TYPICAL CONSTRUCTION ACCESS ROAD CROSS SECTION		
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DATE:	APPRV. BY: PCS	
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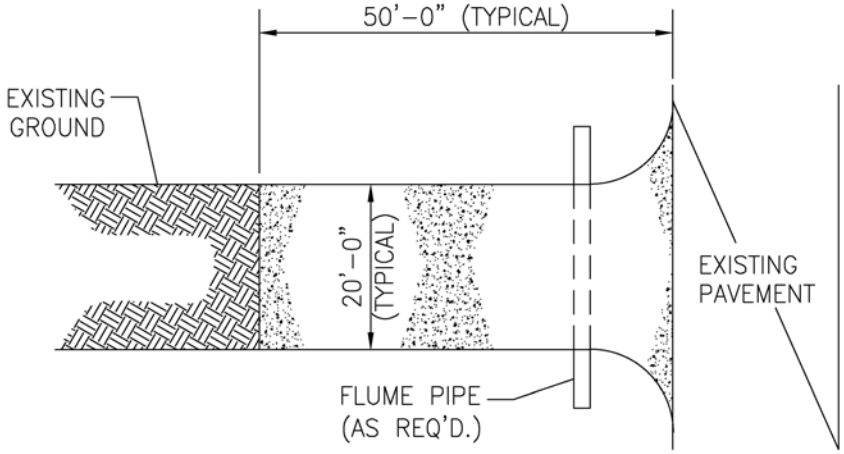
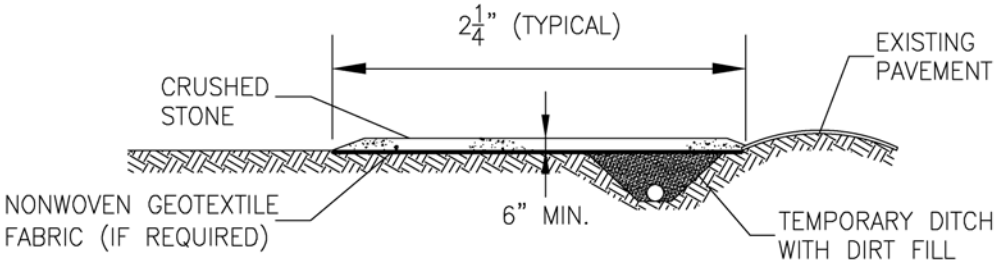


PLAN VIEW

NOT TO SCALE



CROSS SECTION

NOT TO SCALE

CONSTRUCTION SPECIFICATIONS:

1. STONE SIZE = 4"–6" (AVG.) CRUSHED STONE.

2. ALL STONE MUST BE PLACED ON NON–WOVEN GEOTEXTILE FABRIC IF USED IN RESIDENTIAL OR ACTIVE AGRICULTURAL AREAS.

3. LENGTH: FIFTY (50) FEET TYPICAL (IF SITE CONDITIONS ALLOW).
   WIDTH: TWENTY (20) FEET TYPICAL.
   THICKNESS: SIX (6) INCHES MINIMUM.

4. ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A DRIVABLE BERM OR OTHER TEMPORARY EROSION CONTROL DEVICE CAN BE USED.

5. THE ENTRANCE SHALL BE PERIODICALLY INSPECTED AND MAINTAINED IN A CONDITION THAT MINIMIZES TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. MAINTENANCE MAY INCLUDE PERIODIC TOP DRESSING WITH AN ADDITIONAL STONE OR THE REPAIR/CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ANY SEDIMENT THAT IS SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS–OF–WAY MUST BE REMOVED AS SOON AS PRACTICAL.

BakkenLink Pipeline, LLC		
TYPICAL CONSTRUCTION ROCK ACCESS PAD		
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DATE:	APPRV. BY: PCS	
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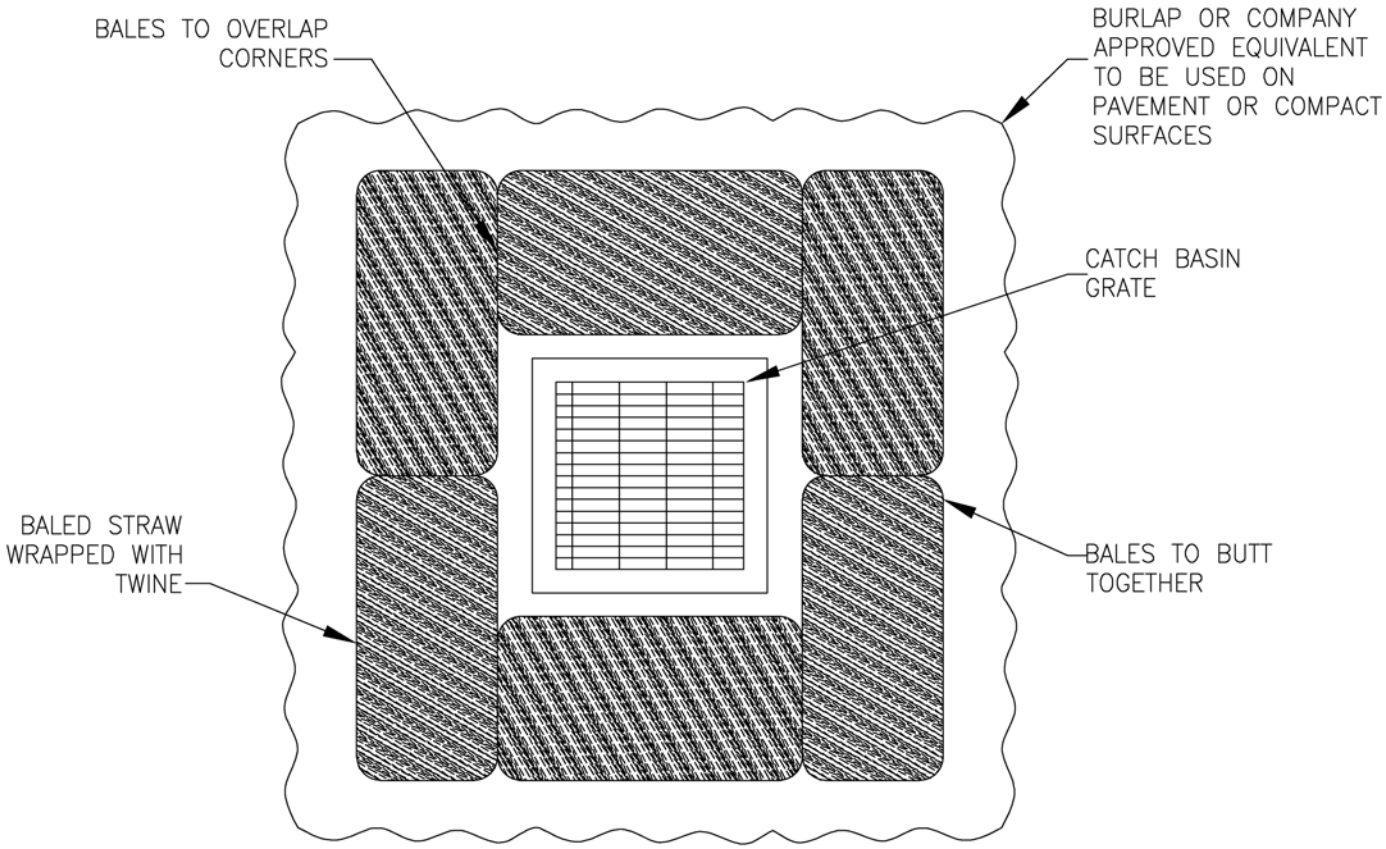

STORM DRAIN INLET PROTECTION

NOT TO SCALE

NOTES:

1. SURROUND STREET DRAINAGE STRUCTURE INLET WITH BALES PRIOR TO CONSTRUCTION AND MAINTAIN UNTIL CONSTRUCTION IS COMPLETED.

2. FOR BALES PLACED ON PAVEMENT (OR COMPACT SURFACES), PLACE BURLAP OR COMPANY APPROVED EQUIVALENT BETWEEN PAVEMENT AND BALE.

3. REMOVE ACCUMULATED SEDIMENT.

BakkenLink Pipeline, LLC		
TYPICAL CONSTRUCTION STORM DRAIN INLET PROTECTION		
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DATE:	APPRV. BY: PCS	
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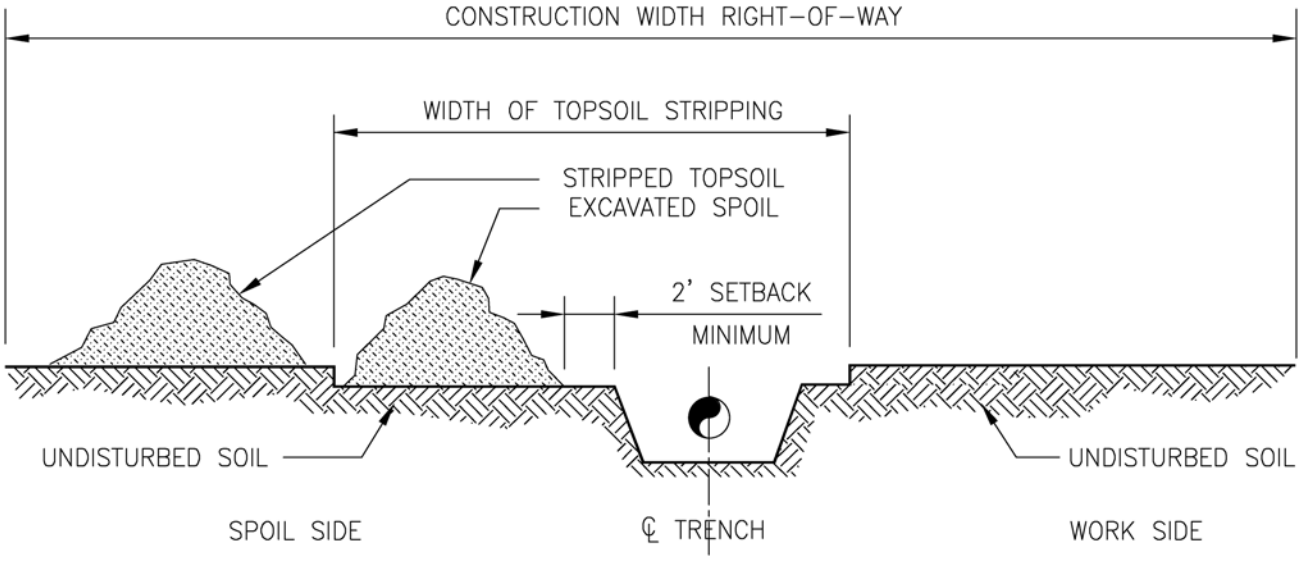

TRENCH & SPOIL SIDE TOPSOIL STRIPPING

NOT TO SCALE

NOTES:

1. TOPSOIL MAY BE STORED IN LOCATIONS AS SHOWN ABOVE, OR AT OTHER COMPANY APPROVED LOCATIONS WITHIN THE CONSTRUCTION RIGHT-OF-WAY.

2. LEAVE GAPS IN SPOIL PILES FOR WATER RUN-OFF.

BakkenLink Pipeline, LLC	
TYPICAL CONSTRUCTION TOPSOIL SEGREGATION TECHNIQUES	
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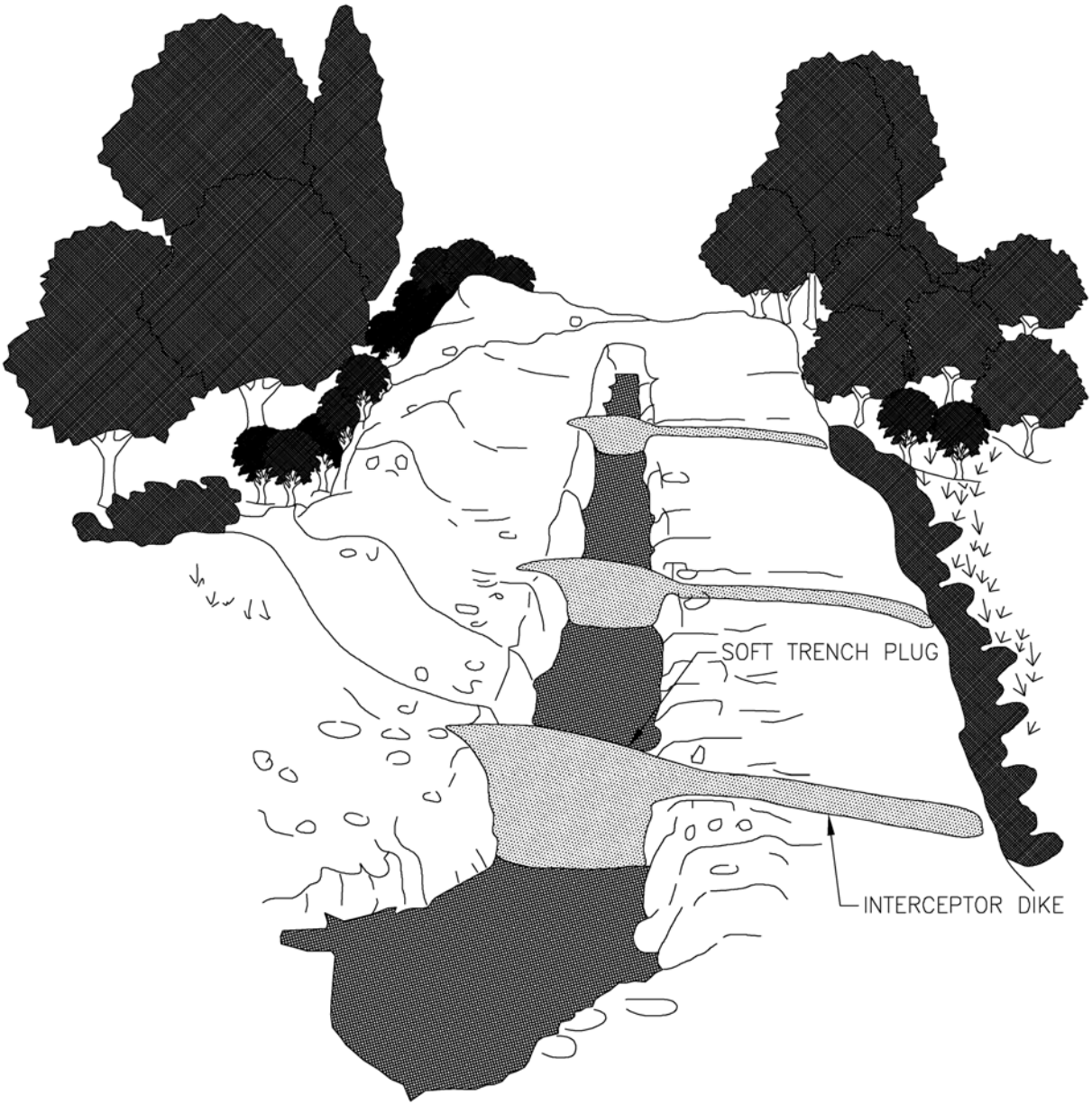

NOTES:

1. TEMPORARY TRENCH PLUGS MAY BE USED IN CONJUNCTION WITH INTERCEPTOR DIKES TO PREVENT WATER FROM OVERFLOWING INTO SENSITIVE RESOURCE AREAS.

2. DIVERT TRENCH OVERFLOW TO A WELL-VEGETATED OFF-RIGHT-OF-WAY LOCATION, OR INSTALL AN APPROPRIATE ENERGY DISSIPATING DEVICE.

BakkenLink Pipeline, LLC		
TYPICAL CONSTRUCTION TEMPORARY TRENCH PLUGS		
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DATE:	APPRV. BY: PCS	
DWG. NO. DETAIL 27	REV A	

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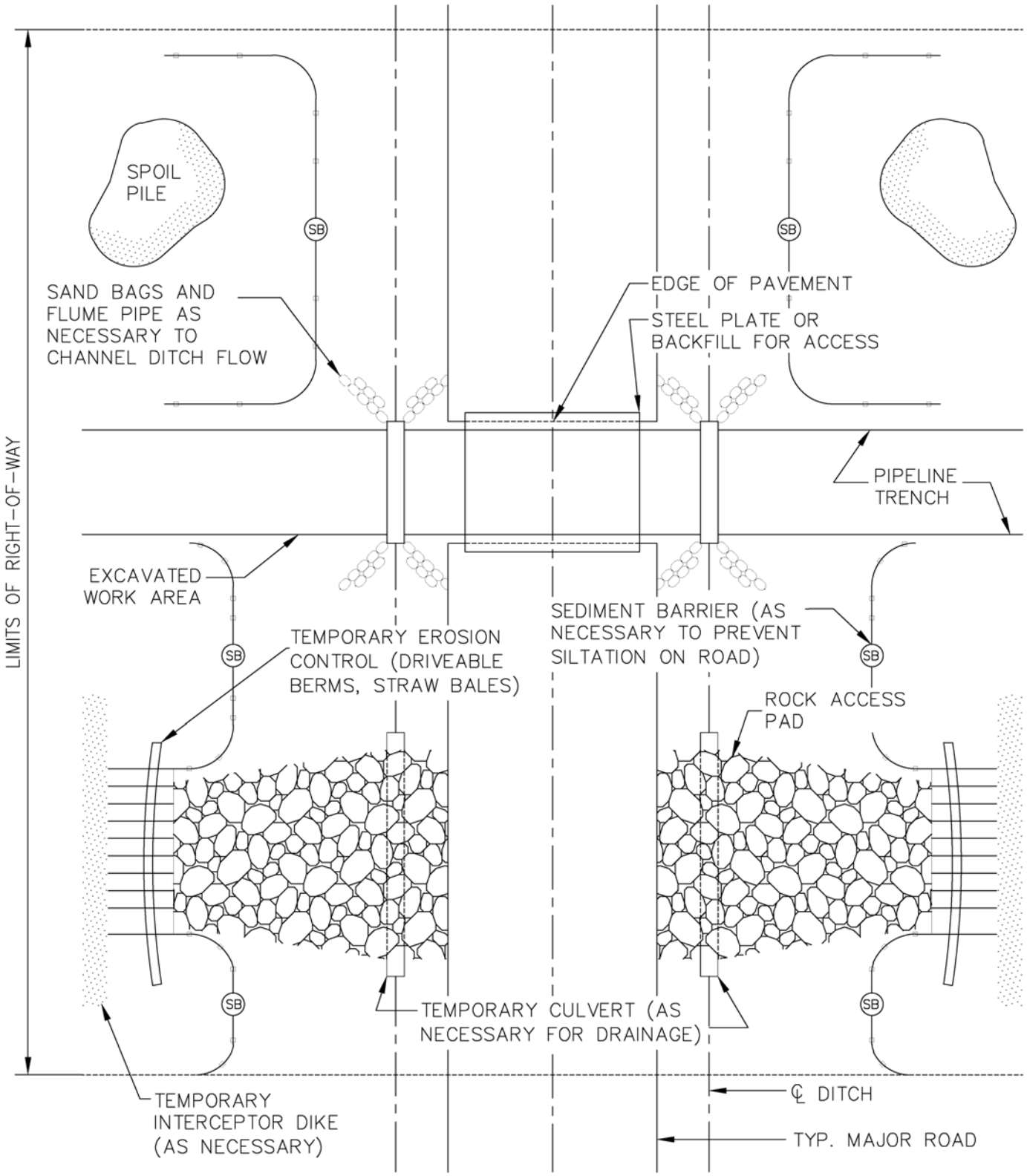

(SB) TEMPORARY SEDIMENT BARRIER OF SILT FENCE AND/OR STRAW BALES.

BakkenLink Pipeline, LLC

TYPICAL CONSTRUCTION
PAVED ROAD CROSSING (OPEN CUT)

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DATE:	APPRV. BY: PCS
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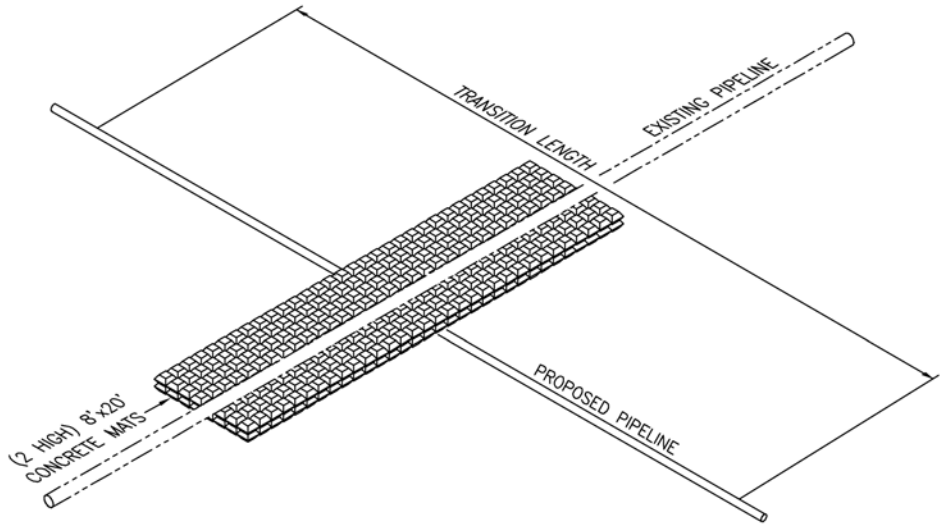
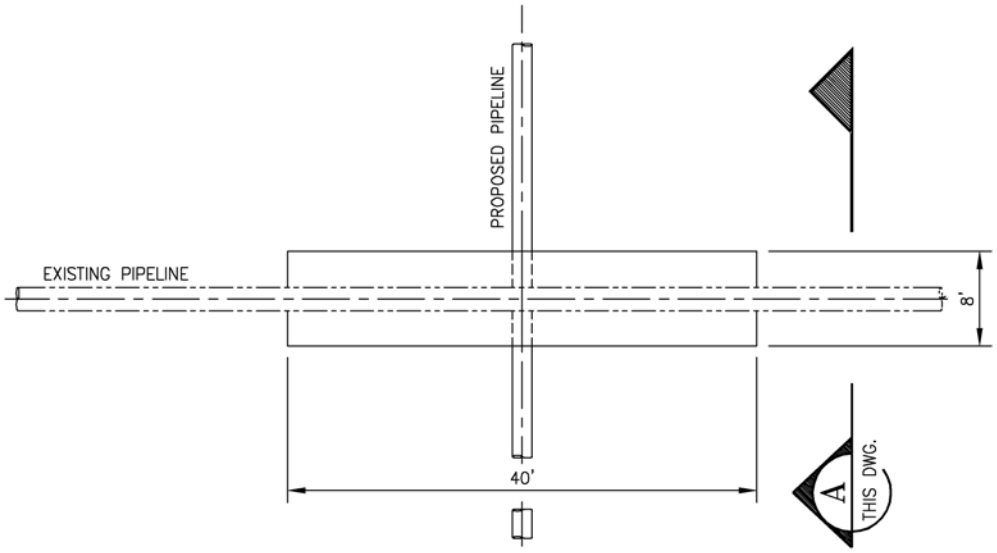
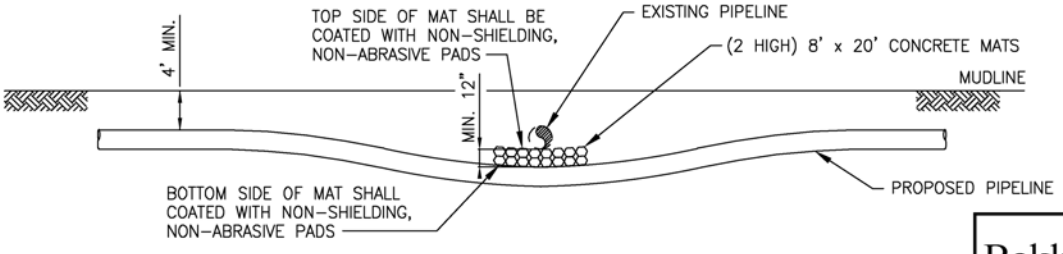
TYP. PIPELINE CROSSING UNDER EXISTING PIPELINE





PLAN



SECTION

SCALE: N.T.S.

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NOTES:

1. SAND/CEMENT BAGS MAY BE USED SEPARATELY OR IN COMBINATION WITH CONCRETE MATS TO ACHIEVE 18 INCH SEPARATION BETWEEN PIPELINES.
2. EDGES OF CONCRETE MATS SHALL BE BURIED BELOW MUDLINE.

BakkenLink Pipeline, LLC

TYPICAL CONSTRUCTION
CROSSING UNDER EXISTING PIPELINE

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