

***Storm Water Pollution Prevention Plan
(SWPPP)***

BakkenLink Pipeline LLC

***BILLINGS, MCKENZIE, STARK, AND WILLIAMS COUNTIES,
NORTH DAKOTA***

NDPDES Permit #10-0000

May 2012

Storm Water Pollution Prevention Plan (SWPPP) BakkenLink Pipeline LLC

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Appendix D	Delegation of Authority
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1.0 Introduction

BakkenLink Pipeline LLC is proposing to build, own, and operate an approximately 132-mile long pipeline for the transportation of crude oil from existing and proposed truck receipt locations and pipeline gathering receipt stations. The proposed pipeline will be constructed in portions of Billings, McKenzie, Stark, and Williams counties, North Dakota (Figure 1).

1.1 Plan Purpose/Objectives

The Storm Water Pollution Prevention Plan (SWPPP) shall identify potential sources of pollution, which may reasonably be expected to affect the quality of storm water discharges from construction of the pipeline. The SWPPP shall describe and ensure the implementation of Best Management Practices (BMP's), which will be used to reduce the pollutants in storm water discharges associated with construction activity at the construction site and to assure compliance with the terms and conditions of this permit.

The SWPPP shall:

- Be completed prior to initiating construction activities and updated as appropriate; and
- Provide for compliance with the terms and schedule of the SWPPP beginning with the initiation of construction activities.
- For the purposes of this plan, runoff management is defined as practices that divert, infiltrate, reuse, or treat storm water runoff, and not practices that limit exposure of potential pollutants to direct rainfall or runoff. The purpose of the SWPPP is to:
- Identify sources of pollutants associated with construction activities that may affect the quality of storm water runoff from construction sites; and
- To identify storm water management practices to abate pollutants in storm water discharges from the construction site, both during and after construction.

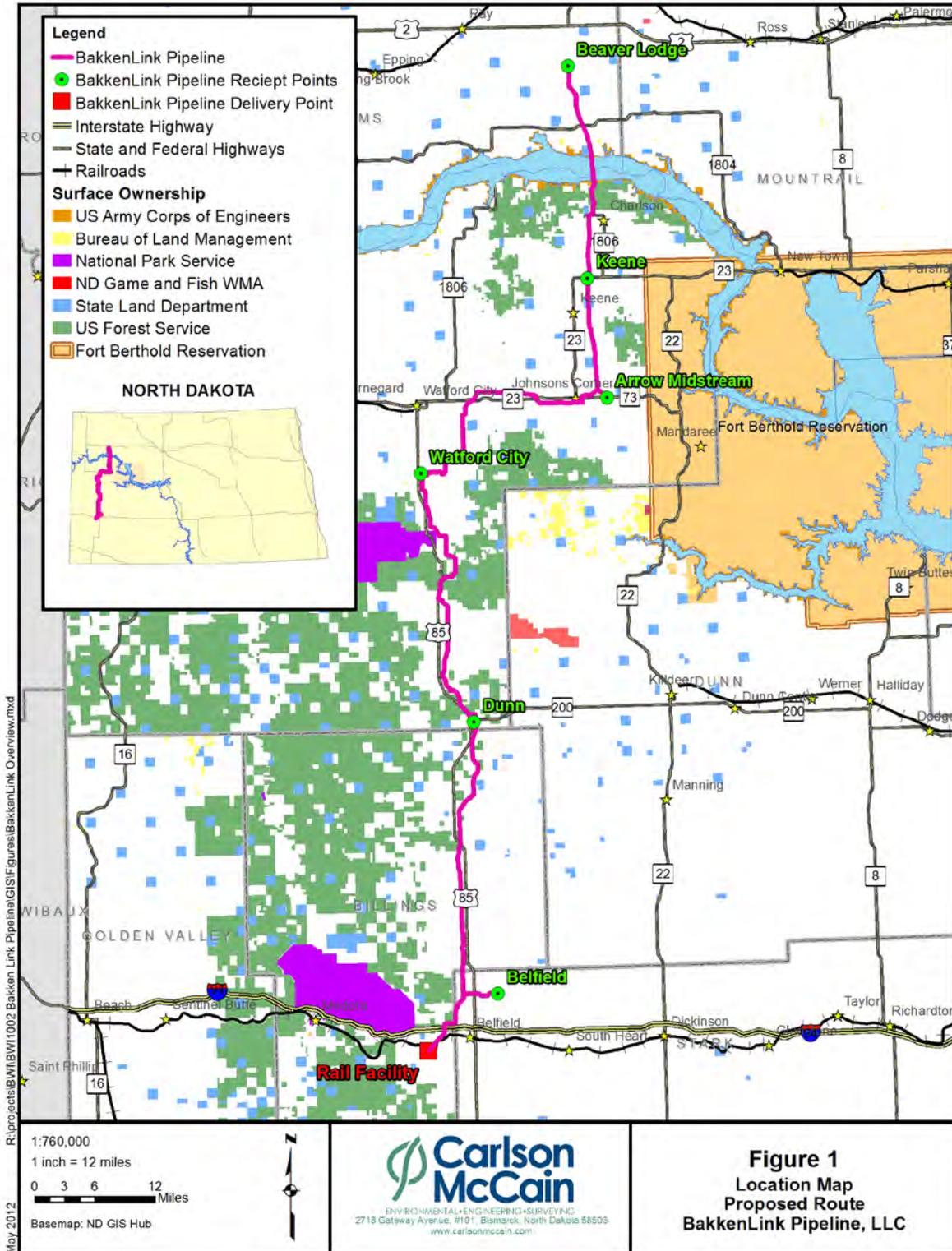
This SWPPP has been designed to outline the specific measures implemented at the construction site for minimizing potential pollutants that may otherwise impact storm water runoff during construction. BMPs are used to prevent or minimize the discharge of pollutants. Specific BMPs for minimizing runoff and erosion are described in Sections 4 and 5 of this SWPPP. BMPs should be employed to properly cover and store materials, minimize contact of materials with rainfall and runoff, minimize waste, properly dispose of waste, and recycle where possible.

1.2 Facility Conformance and Regulatory Compliance

This SWPPP has been developed in compliance with Standard Conditions provided at 40 CFR 122.41 and as defined at 40 CFR 122.26. Enforcement of these provisions is delegated to the North Dakota Department of Health (NDDH) for activity within the State of North Dakota. The NDDH authorizes permits to discharge under the North Dakota Pollution Discharge Elimination System (NDPDES) rules found in Chapter 33-16-01 promulgated under Chapter 61-28 of the North Dakota Century Code. Further information regarding the requirements of the NDPDES can be found at <http://www.ndhealth.gov/WQ/Storm/Construction/ConstructionHome.htm>.

Together with inspection reports, maintenance reports, and data records for the construction activities, this SWPPP shall be retained at the construction site during construction. In addition, a record of revisions to the SWPPP (Appendix A) shall be retained at the construction site.

Figure 1. Location Map.



Reports and records will be made available, upon request, for a period of at least three (3) years following final site stabilization. Further information on record keeping is provided in Section 10 of this SWPPP.

Conformance with the requirements of this SWPPP includes timely inspections, proper maintenance, record keeping, tracking, and documentation. Required maintenance will be conducted as soon as practicable before the next anticipated storm event. If existing BMPs need to be modified or additional BMPs are necessary, corrections will be completed before the next anticipated storm event.

1.3 Termination Clause

This SWPPP will cease to be valid within thirty (30) days after:

- Final stabilization of the entire site;
- Another operator has assumed control of the unstabilized areas of the site; or
- Temporary stabilization has been completed and control has been transferred to the property owner.

A Notice of Termination (NOT) will be filed with the NDDH upon completion of any of the above criteria. A copy of the NOT is included as Appendix B.

2.0 Responsible Party/Signatory Certification

BakkenLink has prepared this SWPPP in compliance with the requirements of the NDPDES General Permit for Discharges for Large and Small Construction Activities (Permit Number NDR 10-1000) as administered by the NDDH. BakkenLink is responsible for implementing the provisions of this operational control over the construction plans and specifications, including the ability to make modifications to those plans and specifications, or day-to-day operational control of those, which are necessary to ensure compliance with the SWPPP for the site or other permit conditions.

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I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: _____

Title: _____

Signature: _____

Date: _____

3.0 Delegation of Authority

BakkenLink will own and operate the pipeline; however, construction of the pipeline will be performed by independent Contractors and construction inspectors hired by BakkenLink. These Contractors and inspectors will have day-to-day responsibility to ensure compliance with this SWPPP. BakkenLink, by completing the Delegation of Authority Form (following page), grants authority to the named parties to act on its behalf on matters pertaining to this SWPPP. Any signed Delegation of Authority form shall be kept with this SWPPP at all times.

Delegation of Authority Form

Delegation of Authority

I, _____ (name), hereby designate the person or specifically described position below to be a duly authorized representative for the purpose of overseeing compliance with environmental requirements, including the Construction General Permit, at the _____ construction site. The designee is authorized to sign any reports, storm water pollution prevention plans and all other documents required by the permit.

_____ (name of person or position)
_____ (company)
_____ (address)
_____ (city, state, zip)
_____ (phone)

By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in _____ (Reference State Permit), and that the designee above meets the definition of a "duly authorized representative" as set forth in _____ (Reference State Permit).

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: _____

Company: _____

Title: _____

Signature: _____

Date: _____

4.0 Project Description

The project consists of a pipeline transportation system to transport crude oil from existing and proposed truck stations and gathering systems located in Billings, McKenzie, Stark and Williams Counties. The pipeline will be installed within a defined right-of-way (ROW). The temporary construction ROW will be 100 feet wide. The temporary construction ROW may be reduced in some areas as necessary to avoid impacts to environmentally sensitive areas. The pipeline is proposed to be constructed in rural areas with no established storm water drainage systems. Local roads are predominantly gravel/clay. Several major paved roads exist in the area.

Generally, the permanent pipeline ROW will be 50 feet wide, with the pipeline centered within that ROW. The location of the pipeline within the permanent ROW may vary depending on terrain, the presence of other existing facilities, and landowner requests.

Additional temporary workspace will be required at certain locations (e.g. road, railroad, and river crossings). These workspace areas may vary in size depending on the feature being crossed and crossing construction method(s).

Equipment and pipe storage areas will also be required. These areas may not be located adjacent to the proposed ROW. Off-site material storage areas (also including overburden and stockpiles of dirt, borrow areas, etc.), used solely by the permitted project, are considered a part of the project and shall be subject to the same control requirements as the ROW.

4.1 Sequence of Construction Activity

Pipeline construction is much like a moving assembly line. The construction activities will occur in the general order listed and include, but are not limited to, the following:

- Clearing
- Grading
- Stringing
- Bending
- Welding
- Ditching (excavation)
- Laying pipe
- Backfill
- Tie-ins
- Clean up

In general, construction will proceed along the pipeline in one continuous operation. As construction proceeds along a spread, construction at any single point along the pipeline, from initial surveying and clearing, to backfilling and finish grading is anticipated to last about six to ten weeks. Different phases of construction may occur at multiple locations at the same time. The entire process will be coordinated in such a manner as to minimize the total time an individual tract is disturbed, exposed to erosion, or temporarily precluded from its normal use.

4.2 Construction Site Estimates

Total disturbed acres (assume 100-foot temporary ROW) = 1,600 acres

Temporary workspace acres = ~29 acres

Storage yard(s) acres (assume three yards @ 40 acres each) = 120 acres

4.3 Soils, Slopes, Vegetation, and Drainage Patterns

The pipeline route traverses varying terrain, from nearly level cropland to rugged badlands. The construction ROW will be cleared and graded (where necessary) to provide a relatively level surface for construction equipment, a sufficiently wide workspace for the passage of heavy equipment, and safety for pipeline workers. The construction contractor will limit ground disturbance wherever possible. Natural features will be retained to the maximum extent possible. Native vegetation, especially trees, is to be retained to the maximum extent possible.

To avoid soil mixing, topsoil will be removed and segregated from underlying subsoil. Topsoil will be stored separately from subsoil and protected from construction-related activities. Topsoil is typically stored at the far edge of the ROW on the opposite side of the trench from where construction machinery does its work.

Once the pipeline is installed, the trench will be backfilled and then compacted while grading. Disturbed areas will be restored to their original contours and condition to the extent practical, unless landowner consent is obtained to do otherwise. After grading is complete and during the process of backfilling, final stabilization measures will be taken to ensure minimal erosion. In general, the ROW will revert to the previous land use after construction is completed and during operation of the pipeline.

The general flow of storm water will remain the same throughout the project. Measures will be taken to ensure the minimal amount of erosion possible, as well as the least impact on the receiving bodies of water.

4.5 Receiving Waters

A comprehensive wetland and waterbody delineation survey has been conducted along the entire route. The proposed pipeline will cross wetlands and intermittent and perennial waterbodies. The location of delineated wetlands and waterbodies are indicated on the construction drawings. In general, the following practices will be observed at these locations:

- In wetland or riparian zones, the Contractor will install sediment control structures along the construction right-of-way edges prior to vegetation removal where practicable.
- Where waterbodies or wetlands are adjacent to the construction right-of-way, the Contractor shall install sediment barriers along the edge of the construction right-of-way as necessary to contain spoil and sediment within the construction right-of-way.
- Sediment barriers will be installed across the entire ROW immediately upslope of the wetland boundary at all standard (saturated or standing water) wetland crossings as necessary to prevent sediment flow into the wetland. Sediment control barriers are not required at "dry" wetlands.
- Sediment barriers will be installed across the entire ROW immediately upslope of any flowing waterbody or impoundment.

5.0 Erosion and Sediment Control BMPs

Erosion and sediment controls include stabilization practices, as well as structural controls. General structural practices may include, but are not limited to, silt fences, earth dikes, drainage swales, sediment traps, check dams, reinforced soil retaining systems, gabions, temporary or permanent sediment basins and flow diversion. Typical erosion control details are included in Appendix C. Temporary erosion and sediment control measures shall be installed immediately after initial disturbance of the soil, maintained throughout construction (on a daily basis), and reinstalled as necessary until replaced by permanent erosion control structures or restoration of the construction ROW is complete.

Specifications and configurations for erosion and sediment control measures may be modified by BakkenLink as necessary to suit actual site conditions. However, all work shall be conducted in accordance with applicable permits.

The intent of the BMPs is to prevent any damage due to transported sediments or adding any erosion burden by diverting storm water runoff into sensitive areas. The intent is not to vegetate areas that are not naturally vegetated and to not increase any erosion rates over and above what is caused by natural drainage in the area. In general:

- Construction-phase erosion and sediment controls should be designed to retain sediment on-site to the maximum extent practicable.
- All control measures must be properly selected, installed, and maintained in accordance with the manufacturer's specifications and good engineering practices. If periodic inspections or other information indicates a control has been used inappropriately or incorrectly, the permittee must replace or modify the control for site situations.
- If sediments escape the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize off-site impacts.
- Sediment must be removed from sediment traps or sedimentation ponds when design capacity has been reduced by 50%.
- Litter, construction debris, and construction chemicals exposed to storm water shall be prevented from becoming a pollutant source for storm water discharges (e.g., screening outfalls, picked up daily, etc.).
- Ensure that silt fences are intact and that there are no gaps at the fence-ground interface or tears along the length of the fence. If gaps or tears are found, they should be repaired or the fabric should be replaced immediately. Accumulated sediments should be removed from the fence base when the sediment reaches one-third to one-half the height of the fence.
- Large debris, trash, and leaves should be removed from check dams (hay bales).

The center of a check dam should always be lower than its edges. If erosion or heavy flows cause the edges of a dam to fall to a height equal to or below the height of the center, repairs should be made immediately. Accumulated sediment should be removed from the upstream side of a check dam when the sediment has reached a height of approximately one-half the original height of the dam (measured at the center).

Sediment control barriers shall be placed so as not to hinder construction operations. If silt fence or straw bale sediment barriers (in lieu of drivable berms) are placed across the entire construction ROW, a provision shall be made for temporary traffic flow through a gap for

vehicles and equipment to pass within the structure. Immediately following each day's shutdown of construction activities, a row of straw bales or a section of silt fence shall be placed across the upgradient side of the gap with sufficient overlap at each end of the barrier gap to eliminate sediment bypass flow, followed by bales tightly fitted to fill the gap. Following completion of the equipment crossing, the gap shall be closed using silt fence or straw bale sediment barrier.

The Contractor shall remove sediment barriers, except those needed for permanent erosion and sediment control, during cleanup of the construction right-of-way. The following sections describe erosion and sediment goals to be considered during construction and practices expected to be implemented to achieve those goals during construction.

5.1 Run-on Protection

The pipeline ROW will be graded to provide relatively flat surfaces that facilitate the movement and maneuvering of heavy equipment. Natural drainage swales will be utilized to the extent possible when planning locations to intercept, divert and convey storm water and runoff around the ROW. Some minor contouring may be necessary to enhance the drainage and take advantage of the natural drainage characteristics of the terrain; however, to capture sediment transported by overland flow, some structural BMPs may be installed. These include:

- Earthen dikes established on high side of location to intercept, divert and convey storm water and/or runoff around the project site.
- Trenching/ditching around high side of location to intercept, divert and convey surface runoff around the project site.

Drainage channels or ditches shall be used on a limited basis to provide drainage along the construction right-of-way and toe of cut slopes as well as to direct surface runoff across the construction right-of-way or away from disturbances and onto natural undisturbed ground. Channels or ditches shall be constructed by the Contractor during grading operations. Where there is inadequate vegetation at the channel or ditch outlet, sediment barriers, check berms, or other appropriate measures shall be used to control erosion.

5.2 Stabilizing Soils

The soils that generally will require stabilization are those used for berm construction and soil stockpiles. Stabilization methods include, but are not limited to, soil compaction and seeding of disturbed soil once backfilling and/or grading is complete. General stabilization practices may include, but are not limited to, establishment of temporary vegetation, establishment of permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, preservation of mature vegetation, and other appropriate measures.

Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. Reseeding with an approved seed mix should be completed in areas (uncultivated) that have no traffic. Erosion control matting may be installed on slopes, as needed.

Interim stabilization practices are not expected to be needed or implemented during active construction. Wherever possible, existing vegetation will remain in place to minimize erosion

potential. Final re-vegetation and stabilization of each disturbance area will occur once active construction is completed.

Topsoil piles should be stabilized as soon as practical after stripping is complete. Topsoil piles may be stabilized by seeding with an approved temporary seed mixture or by hydromulching.

Soil stockpile may be stabilized by wetting with water, or by the use of soil tackifiers. When wetting topsoil piles with water does not prevent wind erosion, the Contractor shall temporarily suspend topsoil handling operations and apply a tackifier to topsoil stockpiles at the rate recommended by the manufacturer. Should construction traffic, cattle grazing, heavy rains, or other related construction activity disturb the tackified topsoil piles and create a potential for wind erosion, additional tackifier shall be applied by the Contractor.

5.3 Slope Protection

Use berms to divert location flow from slopes to established drainages where practical. Minimize removal of existing vegetation on new locations. Use approved seed to reseed/vegetate existing locations in areas no longer traveled.

Trench breakers shall be installed in steep terrain where necessary to limit the potential for trench line erosion and at the base of slopes adjacent to waterbodies and wetlands. Trench breakers shall be constructed of materials such as sand bags, sand/cement bags, bentonite bags, or other suitable materials. The Contractor shall not use topsoil in trench breakers.

Permanent slope breakers (water bars) shall be constructed of soil or, in some instances, sand bags. The Contractor shall construct permanent slope breakers on the construction right-of-way where necessary to limit erosion, except in cultivated areas. Slope breakers shall divert surface runoff to adjacent stable vegetated areas or to energy-dissipating devices. In general, permanent slope breakers should be installed immediately downslope of all trench breakers. Permanent slope breakers shall be installed as specified on the construction drawings or generally with a minimum spacing as shown on the following table:

<u>Slope (%)</u>	<u>Spacing (feet)</u>
5 - 15	300
>15 – 30	200
>30	100

The gradient (fall) for each slope breaker shall be two percent to four percent unless otherwise approved by BakkenLink based on site-specific conditions.

Manufactured erosion control mats shall be installed across areas that have eroded and cannot be stabilized by normal seeding and mulching practices. Erosion control matting shall be made of biodegradable, natural fiber such as straw or coir (coconut fiber).

The Contractor shall prepare the soil surface and install the erosion control matting to ensure it is stable and the matting makes uniform contact with the soil of the slope face or waterbody bank with no bridging of rills, gullies, or other low areas. Mats shall be properly anchored.

5.4 Perimeter Controls and Sediment Barriers

The Contractor shall install silt fence or fiber rolls (wattles) as necessary to provide a sediment barrier. Sediment barriers should be installed at the lowest elevation of the location, at the boundary where disturbed (bare) soils meet undisturbed (vegetated) soils. Sediment barriers should be installed in ditches along the lower perimeter of locations. Straw bales may be installed as an alternative to silt fence or fiber rolls.

If none of the above BMPs are effective, installation of systems that are more complex are required. This may include the construction of sediment traps or detention basins.

5.5 Construction Entrance/Exits

Accumulations of tracked and deposited sediment on paved roadways must be removed within 24 hours or sooner if required by local authorities.

5.6 Concrete Wash Water

Concrete wash water may not be discharged to any water of the state or allowed to drain onto adjacent properties. The Contractor shall designate an area for cement washout. The area must be sufficient to contain the wash water and residual cement.

5.7 Additional BMPs

Additional/optional BMPs will be used as necessary when other methods are not effective. BMPs are subject to approval from the project engineer as well as permitting/land management agencies. Other BMPs will be used site-wide to minimize pollutants in storm water from other potential sources in accordance with the control requirements. These include:

Waste Disposal – No solid materials, including building materials, shall be discharged to waters of the State. Solid materials refer to such items as boards, wrapping materials, bricks and concrete debris, and land clearing debris such as leaves and tree limbs, but do not include total suspended solids.

Off-Site Vehicle Tracking – BMPs will be used in the minimization of vehicle tracking of sediments off-site and minimization of dust generation. The construction site will have limited access. Gravel drives will be used at the entrances to undeveloped areas.

State/Local Sanitary Sewer, Septic System or Waste Disposal Regulations – All sanitary wastewater from temporary facilities located within the construction site (trailers, portable toilets, etc.) will be removed for disposal off-site by a contractor. No sanitary wastewater will be discharged from the construction site.

Storage of Construction and Waste Materials – Vehicle maintenance, repair, refueling, and cleaning will be performed in a designated area at the construction site in order to minimize the potential for contamination of storm water by oil and grease. Any waste oil collected during such activities will be collected in drums or other compatible oil container and will be removed from the site. All waste collected from the site will be disposed of off-site at a registered waste disposal facility. There will be no on-site storage of gasoline or diesel for refueling vehicles.

5.8 Maintenance

Maintenance of the erosion and sediment control BMPs will be conducted in a timely manner once the need for maintenance activities are deemed necessary. If during inspections, a BMP requiring maintenance is identified, the maintenance will be accomplished prior to the next anticipated storm event, or as necessary to maintain the continued effectiveness of the BMP. When maintenance of the BMP cannot be accomplished prior to the next storm event, the maintenance will be scheduled and performed as soon as practicable.

Except for sediment basins, all accumulated sediment shall be removed from structural controls when sediment deposits reach $\frac{1}{3}$ to $\frac{1}{2}$ the height of the control. For sediment basins, accumulated sediment shall be removed when the capacity has been reduced by 50%. All removed sediment deposits shall be properly disposed of. Non-functioning controls shall be repaired, replaced, or supplemented with functional controls within 24 hours of discovery or as soon as field conditions

6.0 Good Housekeeping BMPs

Good housekeeping is used to maintain a clean and orderly workplace and to reduce the potential for accident spills or releases of materials that could contaminate storm water. Generally, the following general good housekeeping BMPs will be used:

- Designate areas for equipment maintenance and repair. These areas must have provisions to contain any potential pollutants in an area that can be regularly removed and properly disposed.
- Establish proper equipment/vehicle fueling and maintenance practices (drip pans, spill kits).
- Spills that occur shall be cleaned up immediately and reported, as necessary.
- Designate equipment wash-down areas and provide appropriate control of wash water.
- Construction materials should be stored in designated areas until these materials are required and should be loaded and off-loaded in the designated areas.
- Each contractor and subcontractor is encouraged to bring to the job site only the material to be used that day.
- Large items should be placed next to their installation locations to minimize handling.
- Provide protected storage areas for chemicals, paints, solvents, fertilizers, and other potentially toxic materials. If such materials are used, these storage areas should be enclosed with temporary fencing where practical. Curbing/temporary berms can be provided to minimize storm water run-on onto storage areas.
- Provide waste receptacles at convenient locations and provide regular collection of wastes.
- Debris and waste should be properly disposed of according to the applicable federal, state, and local laws.
- Provide adequately maintained sanitary facilities.
- Contractors/subcontractors should be provided with a storage yard in which to park vehicles during off-hours.
- Drums and tanks will be clearly tagged and labeled.
- Tanks and equipment will be regularly inspected.

6.1 Material Handling and Waste Management

The Contractor shall keep the ROW policed of all trash and debris. Garbage will be stored in a dumpster and its contents disposed of according to local and state regulations at an approved facility. No burning or burying of garbage will be allowed.

Portable chemical toilets will be provided for construction personnel. Portable toilets shall not be located near drainage facilities or in areas that will collect/accumulate water. Sewage shall be disposed of according to local and state requirements

6.2 Material Staging Areas

The Contractor shall follow these guidelines at material staging areas:

- Store materials indoors when possible.
- Do not store any hazardous materials on the ground.

- Store bags and boxes on pallets under cover and liquids in drums under cover. Insure that all bags/boxes are completely covered when not being used.
- Store materials in their original packages with the original product labels. Have MSDS information available on site for all materials.
- Provide for proper containment in accordance with the Spill Prevention Control and Countermeasure (SPCC) Plan developed for the project.
- Store all products with sufficient space to allow for spill cleanup and emergency response access.

6.3 Equipment/Vehicle Fueling and Maintenance

Fuel will be delivered to the construction areas via steel tanks mounted in pick-up trucks or by bulk delivery trucks. Trucks shall be equipped with spill containment kits and tools. All personnel engaged in refueling operations on site will be required to attend all nozzles or transfers during the entire time fuel transfer is occurring.

Oil and oily wastes, such as crankcase oil, cans, rags, and paper dropped in oil and lubricants, can be best disposed of in proper receptacles or recycled. Waste oil for recycling should not be mixed with degreasers, solvents, antifreeze, or brake fluid. Dumping of these wastes in storm sewers and other drainage channels is illegal and could result in fines or job shutdown.

A further source of these pollutants is leaky vehicles. Proper maintenance of equipment and placing tarps/drip pans underneath vehicles parked for a period of one or more days will further reduce pollution by this source. Refer to the SPCC Plan prepared for further guidance.

6.4 Additional BMPs

Wash facilities will not be provided to clean mud/dirt from construction equipment/vehicles. If excessive mud is on vehicles, use shovels and or brooms to brush off prior to entering county roads.

7.0 Post-Construction BMPs

Post construction activities shall, at a minimum, include:

- Reseeding/restoration of areas not needed for agricultural operations.
- Drainage ditches, earthen dikes, drainage swales, and other sediment control and diversion structures shall remain in place. Those not made permanent should be made permanent prior to final stabilization of the project area.
- Any exposed slopes should be protected using already established BMPs cited above.
- Reference is made to all of the above BMP specifications mentioned previously in this plan and they are hereby incorporated into this section of the plan.

Only certified, weed-free, seed will be used for reseeded. Once the points of disturbance have been re-contoured, broadcast seeding will be used as the application method for re-vegetation. If necessary, the seeded area will be lightly dragged after broadcasting the seed in order to get ¼- to ½-inch soil coverage and certified noxious weed-free mulch, composed of either annual grain residue or native hay, will be crimped into the soil. If seeding is done by drill seeding methods, the rates above will be reduced by 50%.

Final stabilization means that all soil-disturbing activities at the site have been completed and all soils must be stabilized by a uniform perennial vegetative cover with a density of 70 percent over the entire pervious surface area, or other equivalent means necessary to prevent soil failure under erosive conditions and;

- a. All drainage ditches, constructed to drain water from the site after construction is complete, must be stabilized to preclude erosion;
- b. All temporary synthetic, and structural erosion prevention and sediment control BMPs (such as silt fence) must be removed as part of the site final stabilization; and
- c. The permittee(s) must clean out all sediment from conveyances and from temporary sedimentation basins that will be used as permanent water quality management basins. Sediment must be stabilized to prevent it from being washed back into the basin, conveyances or drainage ways discharging off-site; or to surface waters. The cleanout of permanent basins must be sufficient to return the basin to design capacity.

8.0 Potential Sources of Pollution

The following substances listed below may be expected to be present on-site during construction:

- Concrete
- Detergents
- Paints (enamels and latex)
- Metal studs
- Fertilizers
- Fuels
- Cleaning solvent
- Lubricants
- Wood
- Pipe coatings/lubricants

The most economical and effective way to control pollutants other than sediment is to exercise good housekeeping practices and to require construction workers, planners, engineers, and developers to be aware of the need to comply with federal, state, and local regulations. The following sections discuss practices that will minimize the potential for pollutants to enter storm water discharges.

Petroleum products are commonly used during construction activities. These products are used as fuels and lubricants for vehicular operations, power tools, general operation, and equipment maintenance. These pollutants include oils and fuels such as gasoline, diesel oil, kerosene, lubricating oils, and grease. Most of these pollutants adhere to soil particles and other surfaces easily. One of the best practices of control is to retain sediments that contain oil, if any, on the construction site.

Soil erosion and sediment control practices can effectively accomplish this. Improved maintenance and safe storage facilities will reduce the potential for contaminating construction sites. Guidelines for storing construction related products are as follows:

- Clearly label all products.
- Keep tanks off the ground.
- Keep lids securely fastened.
- Post information for procedures in case of spills. Persons trained in handling spills should be on-site or on-call at all times.
- Keep materials for cleaning up spills on-site and easily available. Spills should be cleaned up immediately and the contaminated material properly disposed of.
- Specify a staging area for all vehicle maintenance activities. This area should be away from all drainage courses.
- During subcontractor or safety meetings, remind workers about proper storage and handling of materials.

8.1 Non-Storm Water Discharge Management

Allowable non-storm water discharges are:

- Air Conditioning condensate from vehicles on location,
- Discharges from fire-fighting activities,
- Uncontaminated ground water or spring water,
- Uncontaminated excavation dewatering, and
- Landscape irrigation.

9.0 Inspections

The project area will be regularly inspected by qualified personnel to ensure that BMPs are maintained in good and effective order. Personnel shall receive training in the SWPPP plan, SWPPP Plan implementation and BMP purpose, construction, use and inspection.

Erosion and sediment control measures shall be inspected on a regular basis. Disturbed areas and storage areas that are exposed to rainfall or run-on must be inspected for evidence of, or the potential for, pollutants entering site runoff. Site access shall also be inspected to determine if sediment is being tracked onto adjacent roads.

During day-to-day operations, inspections will be conducted by construction personnel. Each location is normally visited at least once per week. An inspection shall be conducted at this time and any problems areas noted on the Inspection Log (Appendix D). If all BMPs are in place and functioning properly, a negative report should be entered.

9.1 Inspection Schedule

Routine inspections will occur a minimum of once every 14 calendar days and within 24 hours of the end of a storm event of or greater than 0.5 inches of precipitation. The frequency of inspections will be reduced if:

- The entire site is temporarily stabilized;
- Runoff is unlikely due to winter conditions (e.g., site is covered with snow, ice, or the ground is frozen);
- Construction is occurring during a seasonal arid period.

Inspections must include all areas of the site disturbed by construction activity and areas used for storage of materials that are exposed to precipitation. Sedimentation and erosion control measures identified in the SWPPP must be inspected to ensure proper operation. Discharge locations must be inspected to ascertain whether erosion control measures are effective. Locations where vehicles enter or exit the site must be inspected for evidence of off-site sediment tracking.

Based on inspection results, the site description and pollution prevention measures must be revised in this SWPPP if inadequacies are discovered. The inspection and plan review process must include timely implementation of any changes to the SWPPP within seven (7) calendar days after the inspection. If existing BMPs need to be modified or if additional BMPs are necessary, implementation shall be completed before the next anticipated storm event. If implementation of changes to BMPs is not practical before the next anticipated storm event, modifications shall be implemented as soon as practical.

A waiver of the inspection requirements is available until one month before thawing conditions are expected to result in a discharge if all of the following requirements are met:

- Frozen conditions are anticipated to continue for more than one month;
- Land disturbance activities have been suspended; and
- Beginning and ending dates of the waiver period are documented in the SWPPP.

9.2 Inspection Report

The inspection reports should summarize the scope of inspections, names and qualifications of inspection personnel, the inspection dates, major observations, and remedial actions taken. These records shall be retained as part of the SWPPP for at least three (3) years after the date of inspection.

The Inspection Form describes what to look for during inspections and the types of maintenance measures to undertake. The checklist includes:

- Visual inspection
- Good housekeeping
- Site assessment

9.3 Corrective Action Log

If problems are encountered, the issue shall be promptly reported to the field superintendent or his designated representative. Corrected action shall be planned immediately and initiated as soon as feasible. Corrective actions shall be recorded on the Corrective Action Log included in Appendix E.

10.0 Recordkeeping and Training

10.1 Recordkeeping

The following records should be kept for a period of at least three (3) years from the date all site work has been completed:

- Dates of grading, construction activity, and stabilization;
- A copy of the letter from NDDH verifying the receipt of the complete Notice of Intent (NOI)/application;
- The signed and certified NOI form or permit application form;
- Inspection reports; and
- Date(s) when an area is either temporarily or permanently stabilized.

10.2 Training

SWPPP training sessions will be held prior to and during construction, as needed. Contractor construction supervisory personnel and construction inspectors are required to attend. Training topics will include the following items:

- General storm water and BMP awareness training for staff and subcontractors;
- Spill prevention and response, as described by the SPCC components of this SWPPP;
- Standard housekeeping measures;
- Materials handling procedures; and
- A review of the most recent inspection results and any resulting changes to storm water pollution prevention or new requirements.

11.0 Log of Changes to the SWPPP

Amendments to the SWPPP will be required if any of the following occur:

- There are changes to the plan of construction or operations that affect the quality of storm water runoff;
- There are changes in the requirements of the NDPDES that require changes within the SWPPP to meet these new permit conditions; and/or
- A revision is requested by the EPA, an EPA representative, or the NDDH.

Amendments and dates of the amendments shall be recorded on the Revision Record to the SWPPP in Appendix A.

Appendix A

Revision Record

Appendix B

Notice of Termination



**NOTICE OF TERMINATION TO CANCEL COVERAGE UNDER
NDPDES GENERAL PERMIT FOR STORM WATER DISCHARGES
ASSOCIATED WITH CONSTRUCTION ACTIVITY (NDR10-0000)**

NORTH DAKOTA DEPARTMENT OF HEALTH
DIVISION OF WATER QUALITY
SFN 19146 (02/10)

FOR DEPT. USE ONLY

Date Received: ___/___/___

GENERAL INFORMATION

Name of Construction Project		Permit ID Number NDR10-	
Name of Owner of Construction Project	Contact Person Name (Mr / Ms)	Contact Phone No.	
Mailing Address	City	State/Province	Zip Code

Please indicate which condition has been met before submitting the NOT.

- The site has achieved final stabilization. In order to achieve final stabilization, one of the following conditions must be met. Please indicate which condition has been met.
 - All soil disturbing activities are complete and all soils are stabilized by a uniform perennial vegetative cover with a density of 70 percent over the entire pervious surface area or other equivalent means necessary to prevent soil failure under erosive conditions. In addition, the following conditions have been met:
 - i. All drainage ditches which drain water from the site have been stabilized.
 - ii. All temporary synthetic and structural erosion prevention and sediment controls (e.g., silt fence) have been removed.
 - iii. Sediment has been removed from conveyances and temporary sediment basins used for permanent water quality management, and the sediment has been stabilized.
 - For areas with an average annual rainfall of less than 20 inches, all soil disturbing activities at the site have been completed and temporary erosion control measures have been selected, designed and installed along with the appropriate seed base to provided erosion control for three years and achieve 70 percent vegetative coverage within three years without active maintenance.
 - For soil disturbing activities on agricultural land, the land is returned to its pre-disturbance agricultural use. Areas not used for agricultural activities such as buffer strips adjacent to waters of the state and areas not being returned to pre-disturbance agricultural use must meet the criteria above.
- Another operator/permittee has assumed control in accordance with the transfer provision over all areas of the site that have not achieved final stabilization.
- For residential construction, all lots have been sold with temporary erosion protection and down gradient perimeter controls installed; a homeowner fact sheet has been given to the homeowner(s); and all other lots have achieved final stabilization.

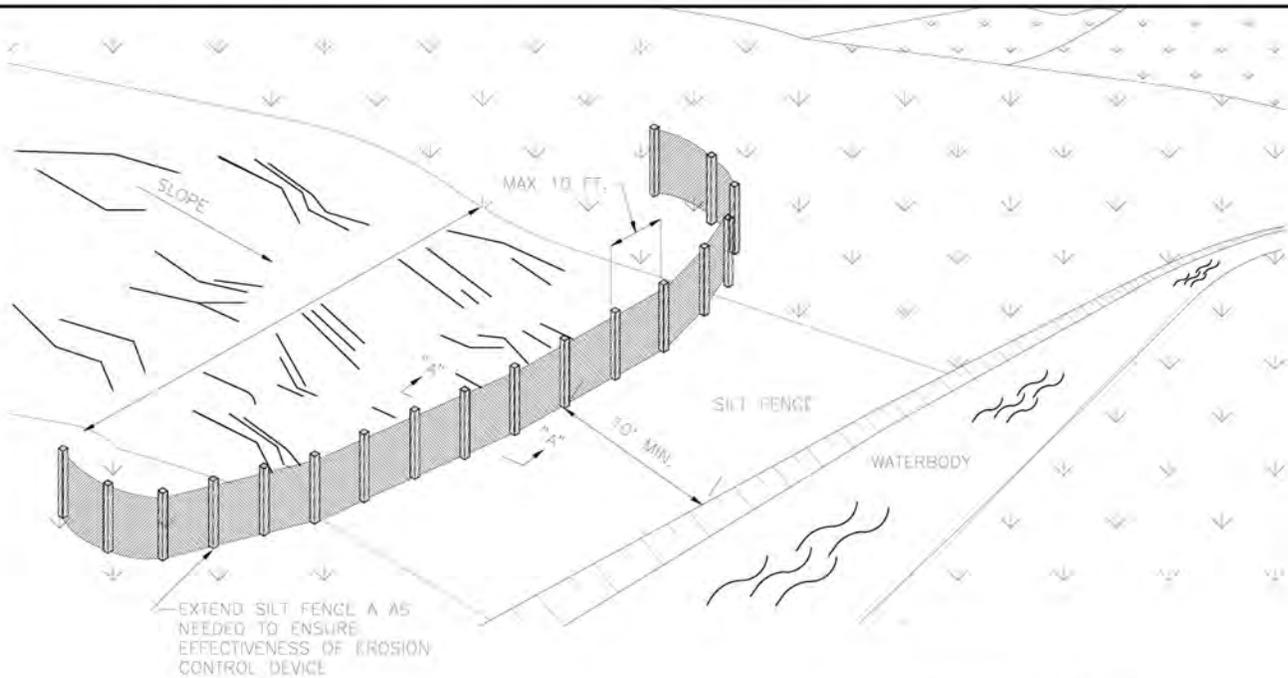
CERTIFICATION STATEMENT

Return Completed Form to: North Dakota Department of Health Division of Water Quality, 4 th Floor 918 East Divide Avenue Bismarck, ND 58501-1947 Telephone: 701.328.5210 Fax: 701.328.5200	I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.	
	Printed Name of Owner	Title
	Signature of Owner	Date

(Attach additional pages if needed)

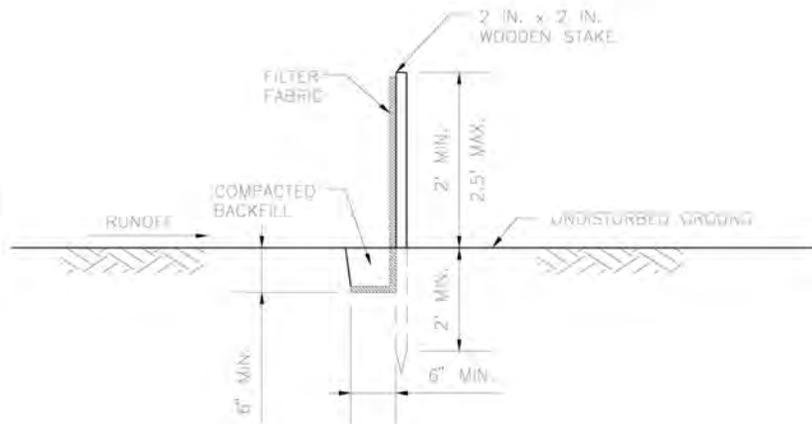
Appendix C

Typical Details



NOTES:

1. SILT FENCES ARE TO BE USED IN AREAS WHERE SHEET FLOW OR RELATIVELY SMALL VOLUMES OF WATER CAN BE EXPECTED TO OCCUR. FOR LARGER VOLUMES SUCH AS WITHIN A DEFINED CHANNEL, A CHECK DAM WILL BE REQUIRED.
2. STAKES ARE TO BE PLACED A MAXIMUM OF TEN (10) FT. OR CLOSER AS CONDITIONS REQUIRE.
3. ATTACH FILTER FABRIC AT EACH POST AT A MINIMUM OF THREE (3) LOCATIONS.
4. THE FILTER FABRIC (MIN. OF 1 FT.) IS TO BE ANCHORED IN A 6 INCH X 6 INCH TRENCH WITH WELL COMPACTED BACKFILL OVER THE FABRIC TO PREVENT UNDERMINING.
5. TO ELIMINATE POSSIBLE END FLOW, BOTH ENDS OF THE SILT FENCE SHALL BE TURNED AND EXTENDED UPSLOPE.
6. SILT FENCES ARE TO BE CHECKED AND MAINTAINED ON A REGULAR BASIS. REMOVE ANY BUILD UP OF SEDIMENT WHEN THE HEIGHT OF SEDIMENT EXCEEDS APPROXIMATELY 20% OF THE HEIGHT OF THE BARRIER.
7. MATERIAL SHOULD BE WOVEN GEOTEXTILE FABRIC SUCH AS EXXON GTF 180 OR MOBILE 600X, OR AN APPROVED EQUIVALENT. SECONDARY REINFORCEMENT SUCH AS A CONSTRUCTION BARRIER FENCE OR WIRE MESH CAN ALSO BE USED BEHIND THE FILTER FABRIC.
8. WHERE ANCHORING CONDITIONS FOR THE SILT FENCE ARE POOR, PLACE ANCHORED STRAW BALES ON DOWNSTREAM SIDE OF THE SILT FENCE



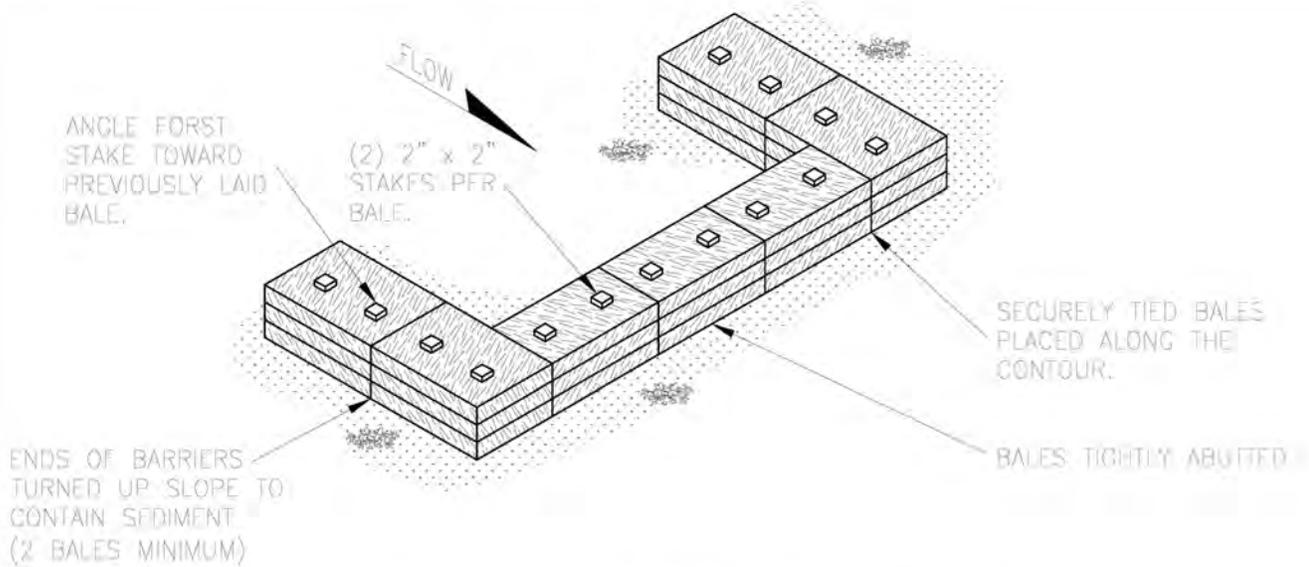
SECTION-"A"- "A"
SCALE: NOT TO SCALE

9. MAINTAINANCE REQUIREMENTS:
INSPECT SILT FENCE:
 - DAILY IN AREAS OF ACTIVE CONSTRUCTION
 - WEEKLY IN AREAS OF NO CONSTRUCTION
 - WITHIN 24 HOURS FOLLOWING MAJOR RAIN EVENT
 - REPAIR OR REPLACE SILT FENCE AS NEEDED
 - REMOVE ACCUMULATED SEDIMENTS TO AN UPLAND AREA AS NEEDED

BakkenLink Pipeline, LLC

**TYPICAL CONSTRUCTION
SILT FENCE
BARRIER INSTALLATION**

DRAWN BY: PCS	CHK'D. BY: PCS
DATE: 11-07-11	APPRV. BY: PCS
DWG. NO. DETAIL-1	REV A



PERSPECTIVE VIEW

NOT TO SCALE

INSTALLATION REQUIREMENTS:

WHEN USING STRAW BALES, PLACE THEM:

- WITH THEIR ENDS TIGHTLY ABUTTING AND EMBEDDED IN THE SOIL A TYPICAL OF 4"
- BETWEEN DISTURBED AREAS AND DOWN-SLOPE ENVIRONMENTAL RESOURCE AREAS.
- AT THE BASE OF ALL SLOPES NEXT TO WETLANDS, WATERBODIES, AND ROAD CROSSINGS.
- AT THE INLET AND OUTLET OF OPEN DRAINAGE STRUCTURES.
- APPROXIMATELY 6 FEET BEYOND THE TOE OF THE SLOPE TO GIVE THE SEDIMENT ROOM TO COLLECT.

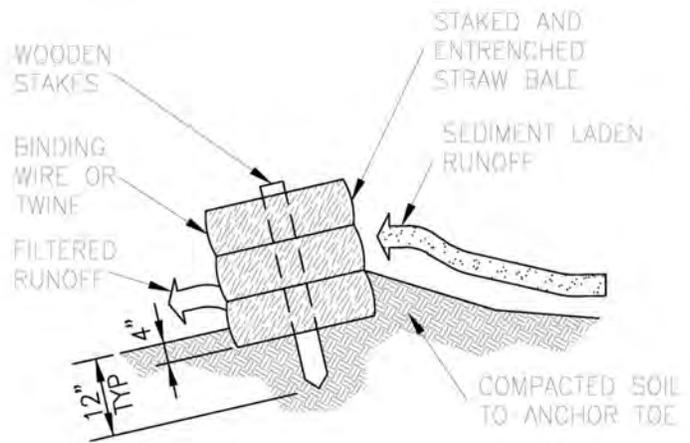
KEY IN THE BOTTOM OF THE BALE. IN AREAS WHERE IT IS NOT FEASIBLE TO TRENCH IT IN (LEDGES, ROCKY SOIL, LARGE TREE ROOTS, ETC), USE NATIVE SOIL AS BACKFILL UP-SLOPE OF THE BALE.

IF USED IN CONJUNCTION WITH SILT FENCE, BALES ARE PLACED UP-SLOPE OF THE SILT FENCE AND DO NOT NEED TO BE TRENCHED IN.

MAINTENANCE REQUIREMENTS:

INSPECT BALES:

- DAILY IN AREAS OF ACTIVE CONSTRUCTION.
- WEEKLY IN AREAS WITH NO CONSTRUCTION.
- WITHIN 24 HOURS FOLLOWING EACH MAJOR STORM EVENT.
- REPAIR OR REPLACE BALES AS NEEDED.
- REMOVE ACUMULATED SEDIMENTS TO AN UPLAND AREA AS NEEDED.



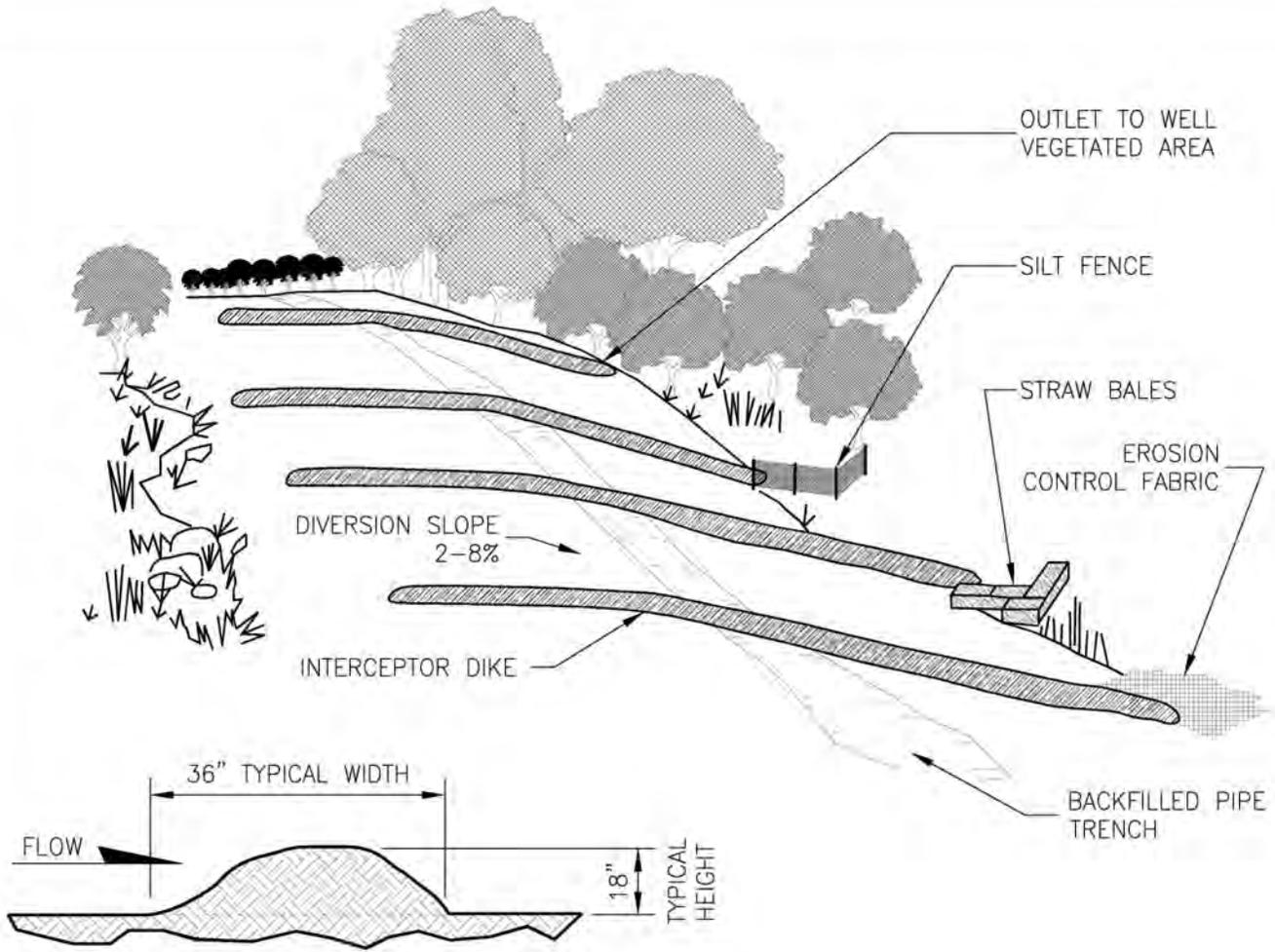
CROSS-SECTION

NOT TO SCALE

BakkenLink Pipeline, LLC

TYPICAL CONSTRUCTION STRAW BALE INSTALLATION

DRAWN BY: PCS	CHK'D. BY: PCS
DATE: 11-07-11	APPRV. BY: PCS
DWG. NO. DETAIL-2	REV A



CROSS SECTION
NOT TO SCALE

INSTALLATION REQUIREMENTS:

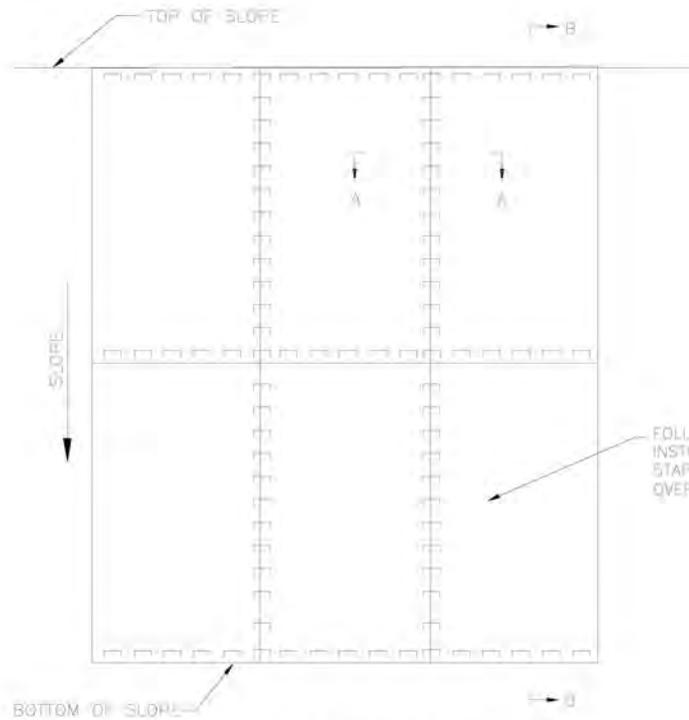
- INSTALL PERMANENT INTERCEPTOR DIKES IN ALL AREAS EXCEPT RESIDENTIAL OR AGRICULTURAL AS NECESSARY TO AVOID EXCESSIVE EROSION (UNLESS AUTHORIZED BY LANDOWNER OR LAND MANAGING AGENCY IN AGRICULTURAL OR RESIDENTIAL AREA).
 - MUST BE INSTALLED ON SLOPES GREATER THAN 5% WHERE THE BASE OF THE SLOPE IS LESS THAN 50 FEET FROM A WATERBODY, WETLAND OR ROAD CROSSING AT THE FOLLOWING MINIMUM SPACING:
- | SLOPE (%) | SPACING (FT) |
|-----------|--------------|
| 5-15 | 300 |
| >15-30 | 200 |
| >30 | 100 |
- CONSTRUCT USING EARTH FILLED SACKS, STAKED STRAW BALES, SILT FENCE, OR SOIL FOR TEMPORARY OR COMPACTED EARTH AND ROCK TO PERMANENT.
 - INSTALL WITH A 2 - 8% OUTFALL ANGLE.
 - POSITION OUTFALL TO PREVENT SEDIMENT DISCHARGE INTO WETLANDS, WATERBODIES, OR OTHER SENSITIVE RESOURCES.

- FILTER RUN-OFF WATER BY CONSTRUCTION OF THE OUTLET IN A WELL VEGETATED STABLE AREA, OR BY USING AN ENERGY DISSIPATING DEVICE (SILT FENCE, STRAW BALES, EROSION CONTROL FABRIC), AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.

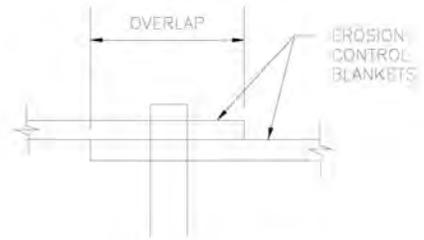
MAINTENANCE REQUIREMENTS:

- INSPECT DURING AND FOLLOWING CONSTRUCTION AND MAKE REPAIRS AS NEEDED.
- KEEP THE CHANNEL FREE OF DEBRIS AND OBSTRUCTIONS.
- SEED AND MULCH PERMANENT INTERCEPTOR DIKES FOLLOWING CONSTRUCTION.

BakkenLink Pipeline, LLC	
TYPICAL CONSTRUCTION INTERCEPTOR DIKE INSTALLATION	
DRAWN BY: PCS	CHK'D. BY: PCS
DATE: 11-07-11	APPRV. BY: PCS
DWG. NO. DETAIL-3	REV A



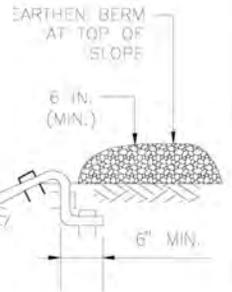
PLAN VIEW
SCALE: NOT TO SCALE



SECTION "A"-"A"
SCALE: NOT TO SCALE

FOLLOW MANUFACTURER'S INSTRUCTIONS FOR THE STAPLE PATTERN AND OVERLAP REQUIREMENTS

EROSION CONTROL BLANKETS



SECTION "B"-"B"
SCALE: NOT TO SCALE

STAKED STRAW BALES AT TOE OF SLOPE

6" MIN.

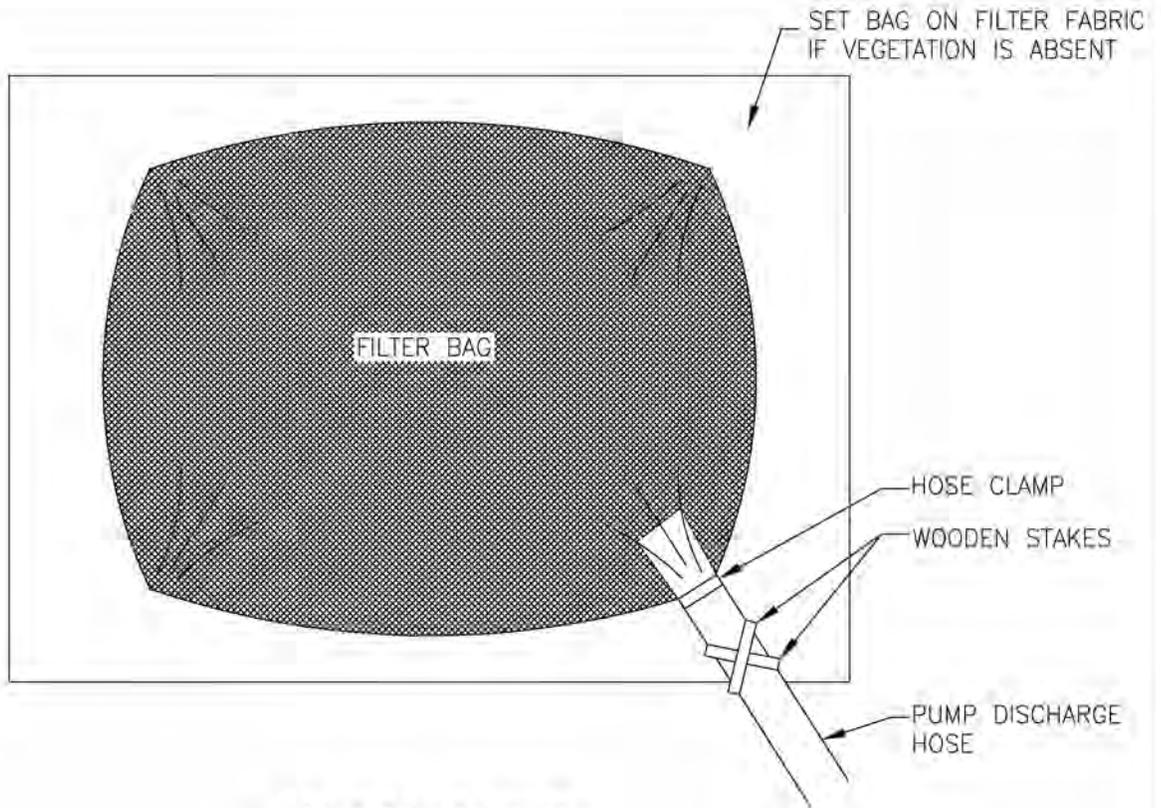
NOTES:

1. EROSION CONTROL BLANKETS SHALL BE NORTH AMERICAN GREEN S 150 FOR SLOPES 3 TO 1 AND SC 150 FOR SLOPES 2 TO 1 OR APPROVED EQUALS.
2. INSTALL BLANKETS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
3. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING GRADING, REMOVAL OF LARGE ROCKS AND DEBRIS, AND THE APPLICATION OF SEED AND FERTILIZER.
4. EROSION CONTROL BLANKETS SHALL EXTEND COMPLETELY ACROSS DISTURBED AREAS TO PROTECT ERODIBLE SURFACES.
5. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A MINIMUM SIX (6) INCHES WIDE AND SIX (6) INCHES DEEP TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. ROLL THE BLANKETS DOWN THE SLOPE IN THE DIRECTION OF THE WATER FLOW.
7. AS AN ALTERNATIVE TO STAPLES, WOODEN STAKES CAN BE USED.
8. ENSURE COMPLETE CONTACT BETWEEN THE BLANKETS AND THE SLOPE FACE. ADDITIONAL STAPLES CAN BE USED TO ELIMINATE GAPS.
9. EROSION CONTROL BLANKETS WILL BE INSTALLED AS REQUIRED BY LAND OWNER OR APPLICABLE PERMIT.

BakkenLink Pipeline, LLC

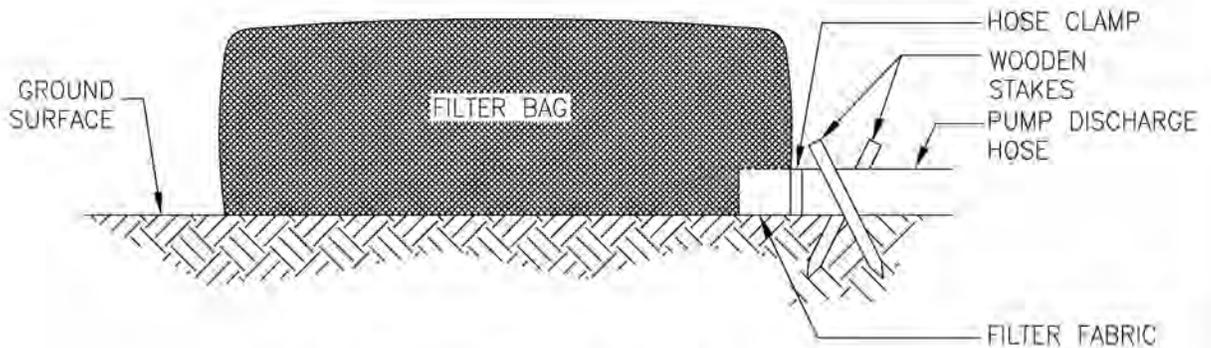
TYPICAL CONSTRUCTION
EROSION CONTROL
BLANKET INSTALLATION

DRAWN BY: PCS	CHK'D. BY: PCS
DATE: 11-07-11	APPRV. BY: PCS
DWG. NO. DETAIL-4	REV A



PLAN VIEW

N.T.S.



CROSS-SECTION

N.T.S.

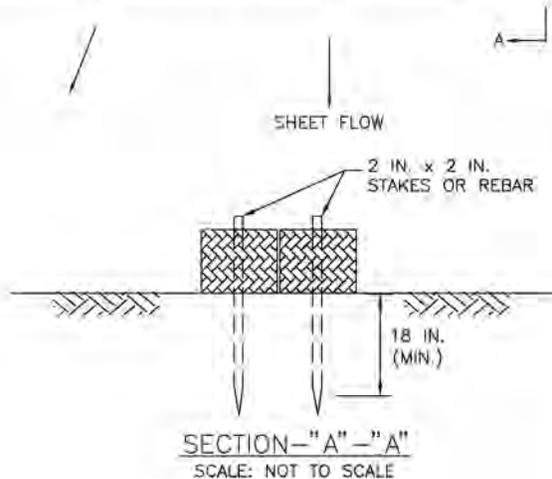
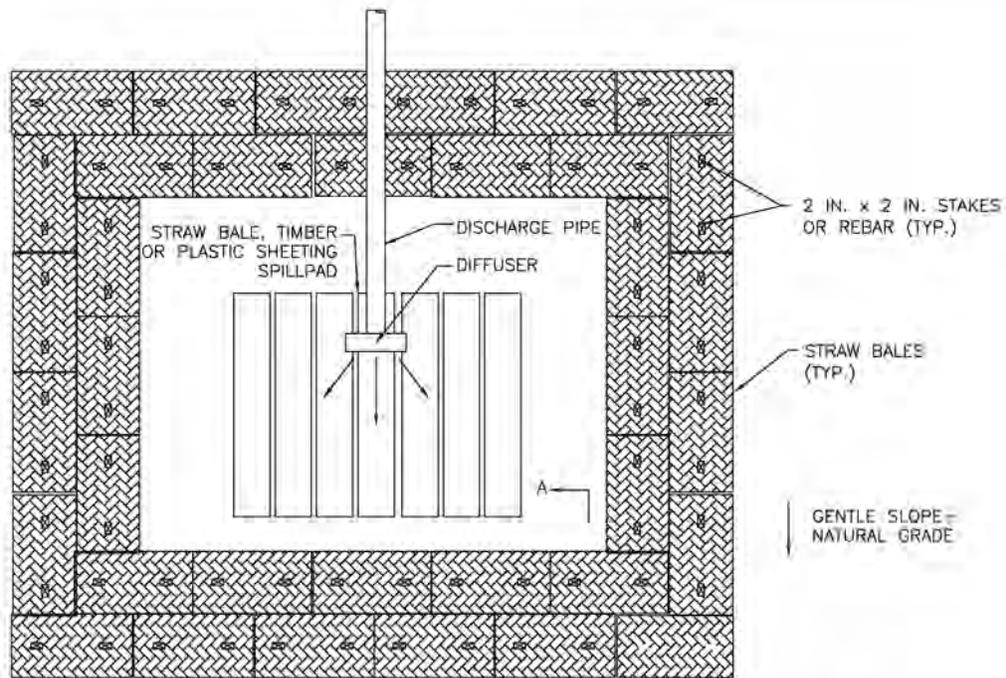
NOTES:

1. LIMIT ONE (1) DISCHARGE HOSE PER BAG.
2. REMOVE DEWATERING STRUCTURE AS SOON AS POSSIBLE AFTER COMPLETION OF DEWATERING ACTIVITIES.

BakkenLink Pipeline, LLC

TYPICAL CONSTRUCTION
FILTER BAG INSTALLATION

DRAWN BY: PCS	CHK'D. BY: PCS
DATE: 11-07-11	APPRV. BY: PCS
DWG. NO. DETAIL-5	REV A



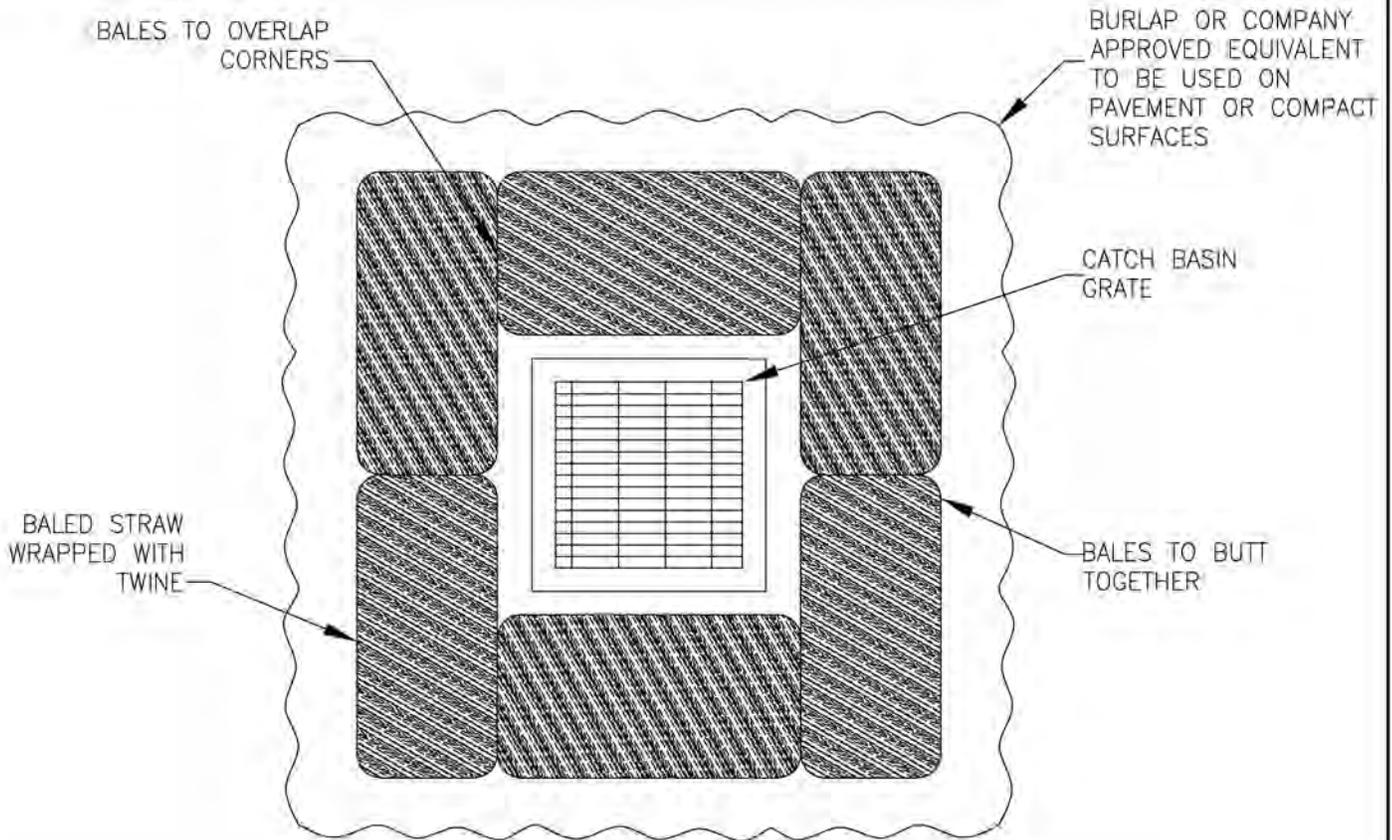
NOTES:

1. INSTALL A STRAW BALE DEWATERING STRUCTURE WHEREVER IT IS NECESSARY AND AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR TO PREVENT THE FLOW OF HEAVILY SILT LADEN WATER INTO WATER BODIES OR WETLANDS. ALL DEWATERING ACTIVITIES SHALL BE IN ACCORDANCE WITH ENVIRONMENTAL SPECIFICATION AND RELEVANT PERMITS.
2. DISCHARGE SITE SHOULD BE WELL VEGETATED AND LOCATED AT LEAST 50 FEET FROM ANY WATERCOURSE. THE TOPOGRAPHY OF THE SITE SHOULD BE SUCH THAT WATER WILL FLOW INTO THE DEWATERING STRUCTURE AND AWAY FROM ANY WORK AREAS. THE AREA DOWN SLOPE FROM THE DEWATERING SITE MUST BE REASONABLY FLAT OR STABILIZED BY VEGETATION OR OTHER MEANS TO ALLOW THE FILTERED WATER TO CONTINUE AS SHEET FLOW.
3. DIRECT THE PUMPED WATER ONTO A STABLE SPILL PAD CONSTRUCTED OF ROCKFILL, WEIGHTED TIMBERS, OR A WOVEN GEOTEXTILE STAKED TO THE GROUND SURFACE, SUCH AS MIRAGI 600X, TERRAFIX 400W, OR A COMPANY APPROVED EQUIVALENT.
4. DISCHARGE RATES SHOULD BE SUCH THAT THE CAPACITY OF THE STRUCTURE WILL NOT BE EXCEEDED.
5. DISCHARGE WATER SHALL BE FORCED INTO SHEET FLOW IMMEDIATELY BEYOND THE SPILL PAD USING A COMBINATION OF STRAW BALES AND THE NATURAL TOPOGRAPHY, DRIVE TWO (2) STAKES OR REBAR INTO EACH BALE TO ANCHOR THEM IN PLACE.
6. MANUFACTURED FILTER BAGS ARE A SUITABLE ALTERNATIVE TO STRAW BALE STRUCTURES FOR TRENCH DEWATERING. FILTER BAGS SHALL BE INSTALLED AS SPECIFIED BY THE MANUFACTURER. DISPOSE OF FULL FILTER BAGS AT AN APPROVED OFF-SITE FACILITY.

BakkenLink Pipeline, LLC

TYPICAL CONSTRUCTION
STRAW BALE
DEWATERING STRUCTURE

DRAWN BY: PCS	CHK'D. BY: PCS
DATE: 11-07-11	APPRV. BY: PCS
DWG. NO. DETAIL-6	REV A



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

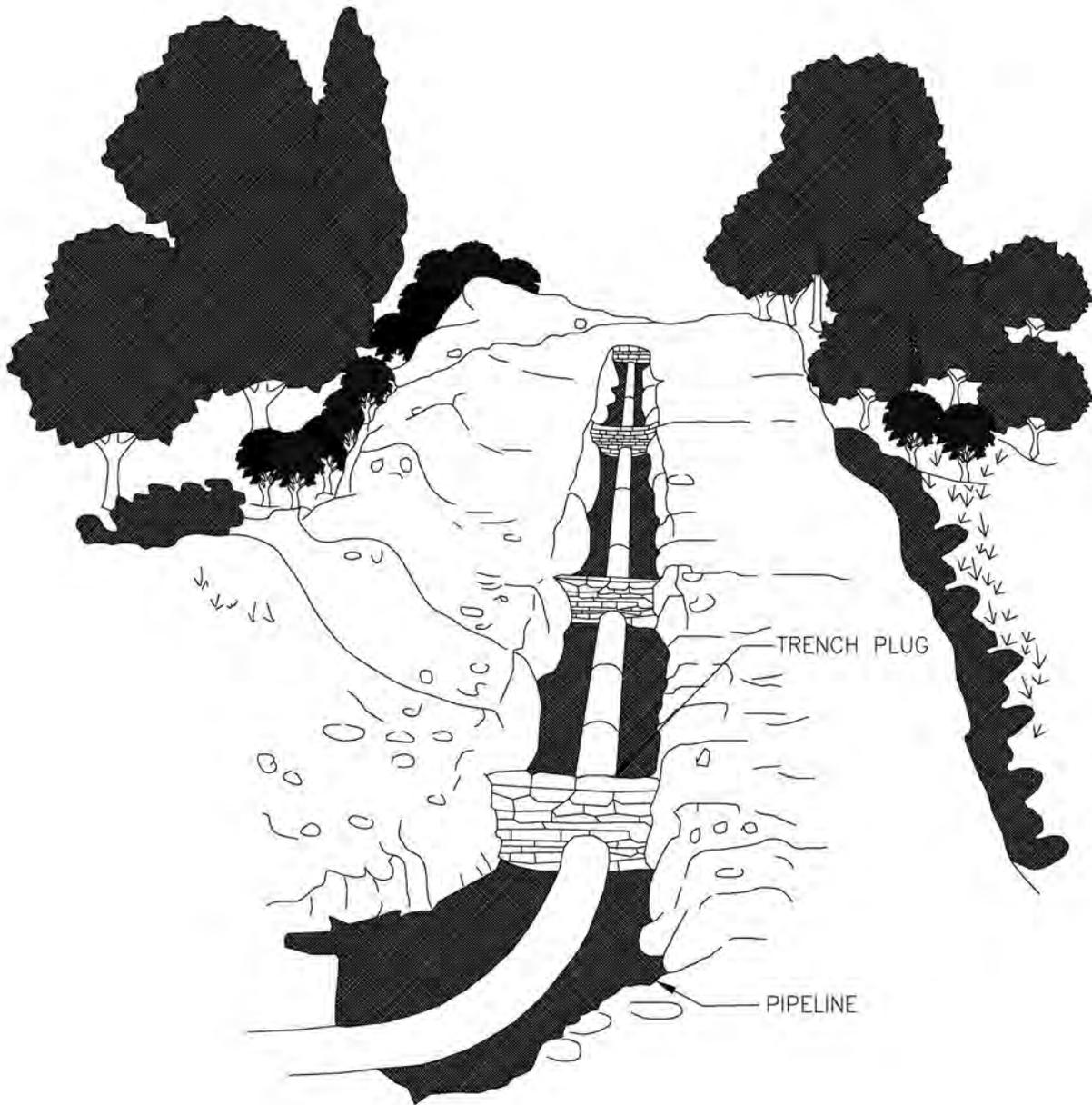
TYPICAL CONSTRUCTION
STORM DRAIN INLET PROTECTION

DRAWN BY: PCS CHK'D. BY: PCS

DATE: APPRV. BY: PCS

DWG. NO. DETAIL 25

REV
A



NOTES:

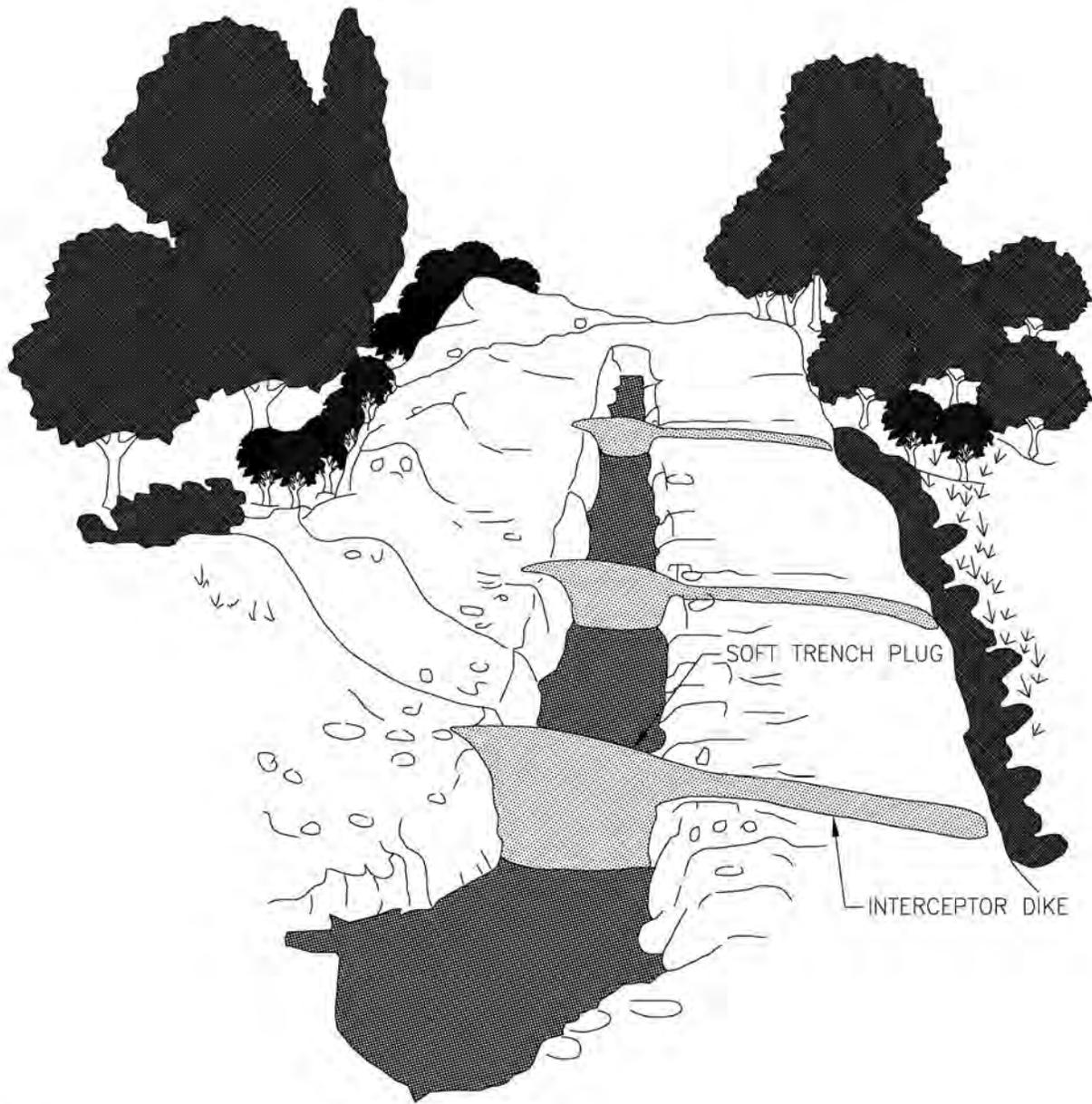
<u>SLOPE (%)</u>	<u>SPACING (FT)</u>
5-15	300
>15-30	200
>30	100

BakkenLink Pipeline, LLC

TYPICAL CONSTRUCTION
PERMANENT
TRENCH PLUGS

DRAWN BY: PCS	CHK'D. BY: PCS
DATE: 11-07-11	APPRV. BY: PCS

DWG. NO. DETAIL-7	REV A
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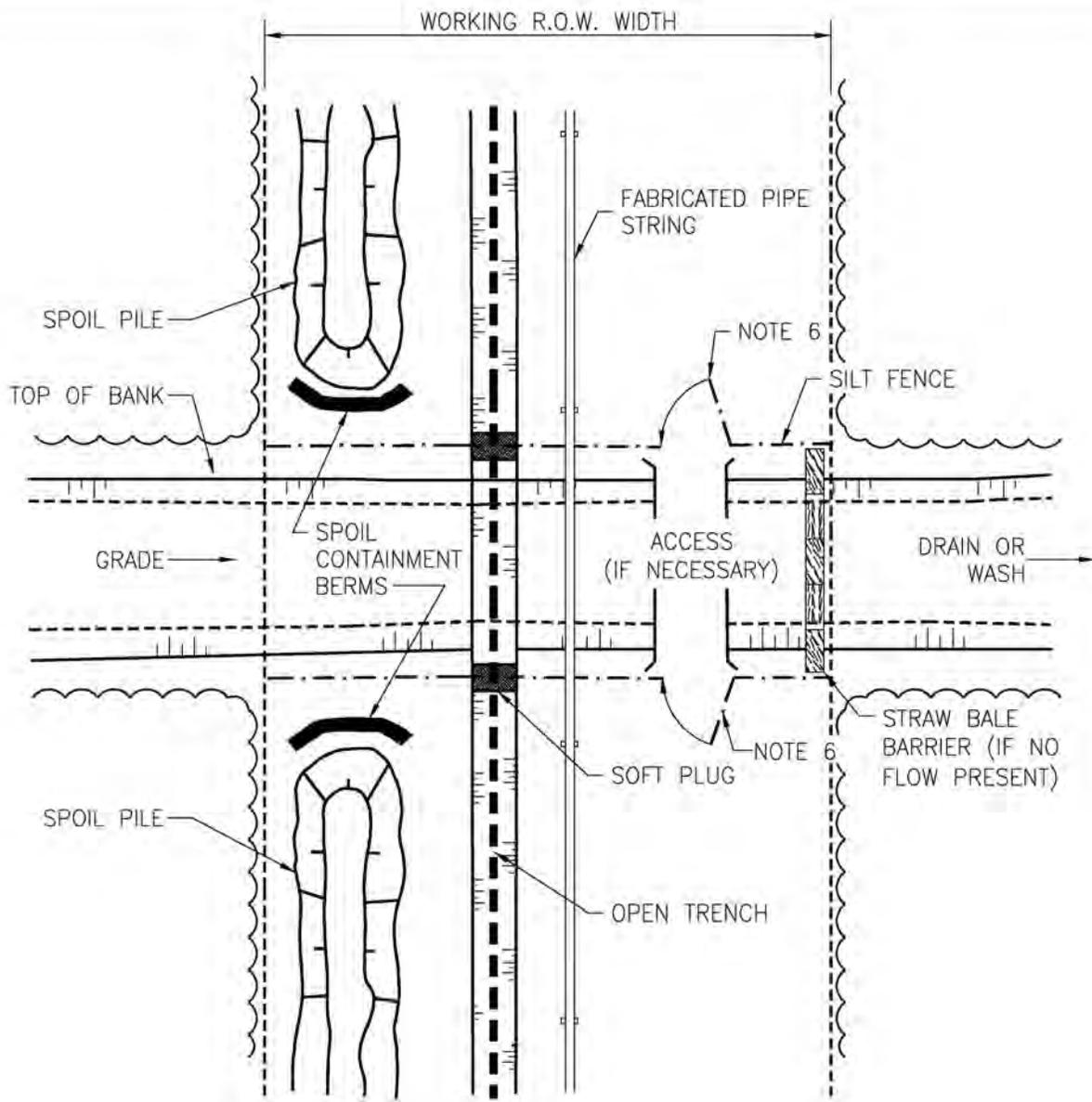
NOTES:

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

DRAWN BY: PCS	CHK'D. BY: PCS
DATE:	APPRV. BY: PCS
DWG. NO. DETAIL 27	REV A



PLAN VIEW

NOT TO SCALE

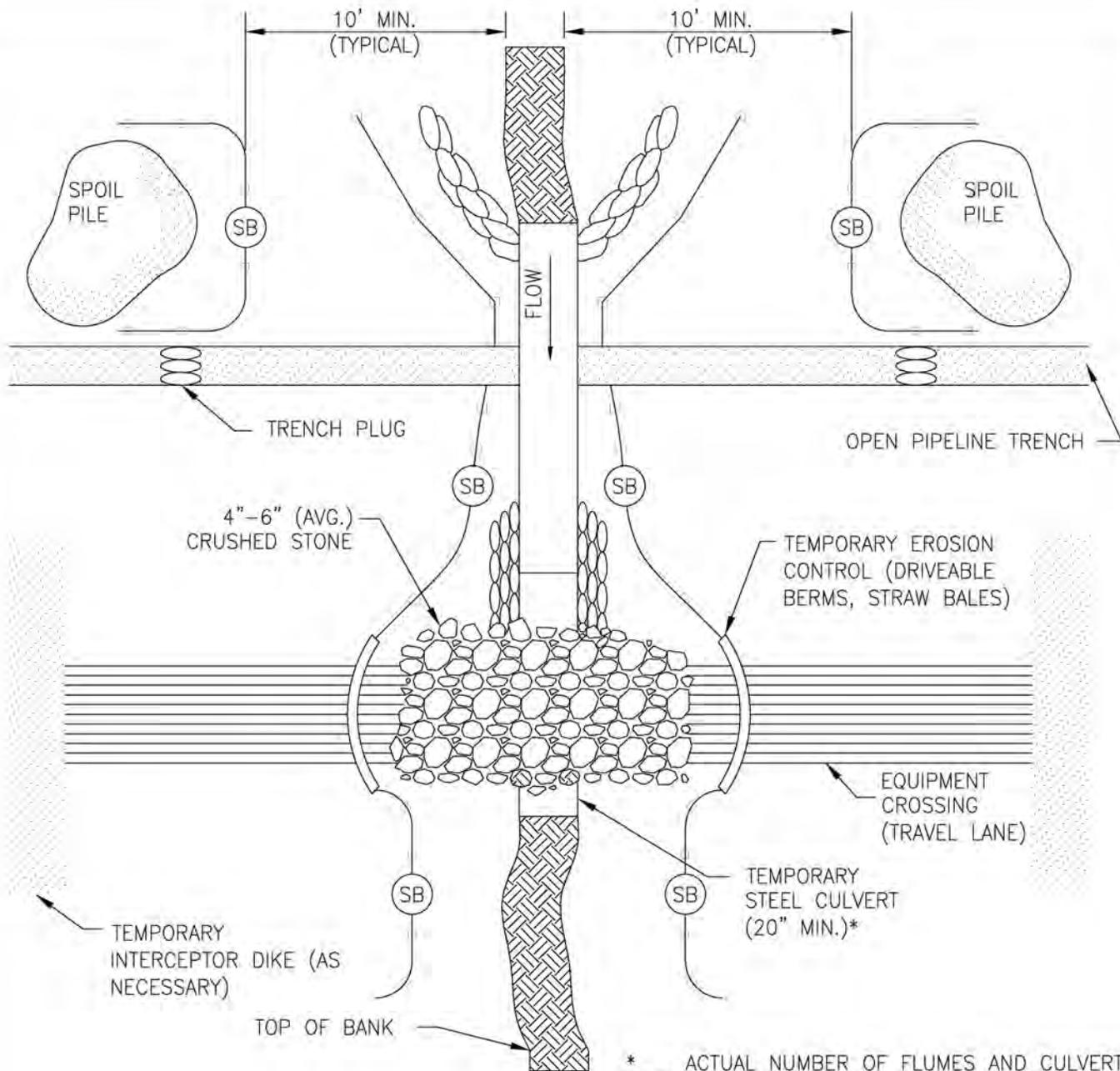
NOTE:

1. APPLICABLE TO MINOR (<10') WATERBODIES THAT ARE NOT FLOWING AT THE TIME OF CONSTRUCTION, OR DO NOT SUPPORT A SIGNIFICANT FISHERY.
2. VEHICLE ACCESS IS ONLY REQUIRED WHERE NECESSARY TO FACILITATE EQUIPMENT MOVEMENT AND MAY CONSIST OF TIMBER MATS, TEMPORARY BRIDGES, RAIL FLATARS OR FLUME CROSSING.
3. INSTALL SOFT PLUGS FOLLOWING EXCAVATION OF MAINLINE DITCH THROUGH CROSSING.
4. INSTALL SEDIMENT BARRIERS AS INDICATED. PROTECT ACCESS WITH SILT FENCE GATES OR STRAW BALE BARRIERS.
5. MAINLINE PIPE SECTION MAY SPAN CROSSING IN PREPARATION FOR LOWER IN.
6. SILT FENCE OR STRAW BALE "GATE" TO BE CLOSED AT NIGHT OR DURING RAINFALL.

BakkenLink Pipeline, LLC

TYPICAL CONSTRUCTION
NON-FLOWING
OPEN CUT CROSSING

DRAWN BY: PCS	CHK'D. BY: PCS
DATE: 11-07-11	APPRV. BY: PCS
DWG. NO. DETAIL-10	
REV A	

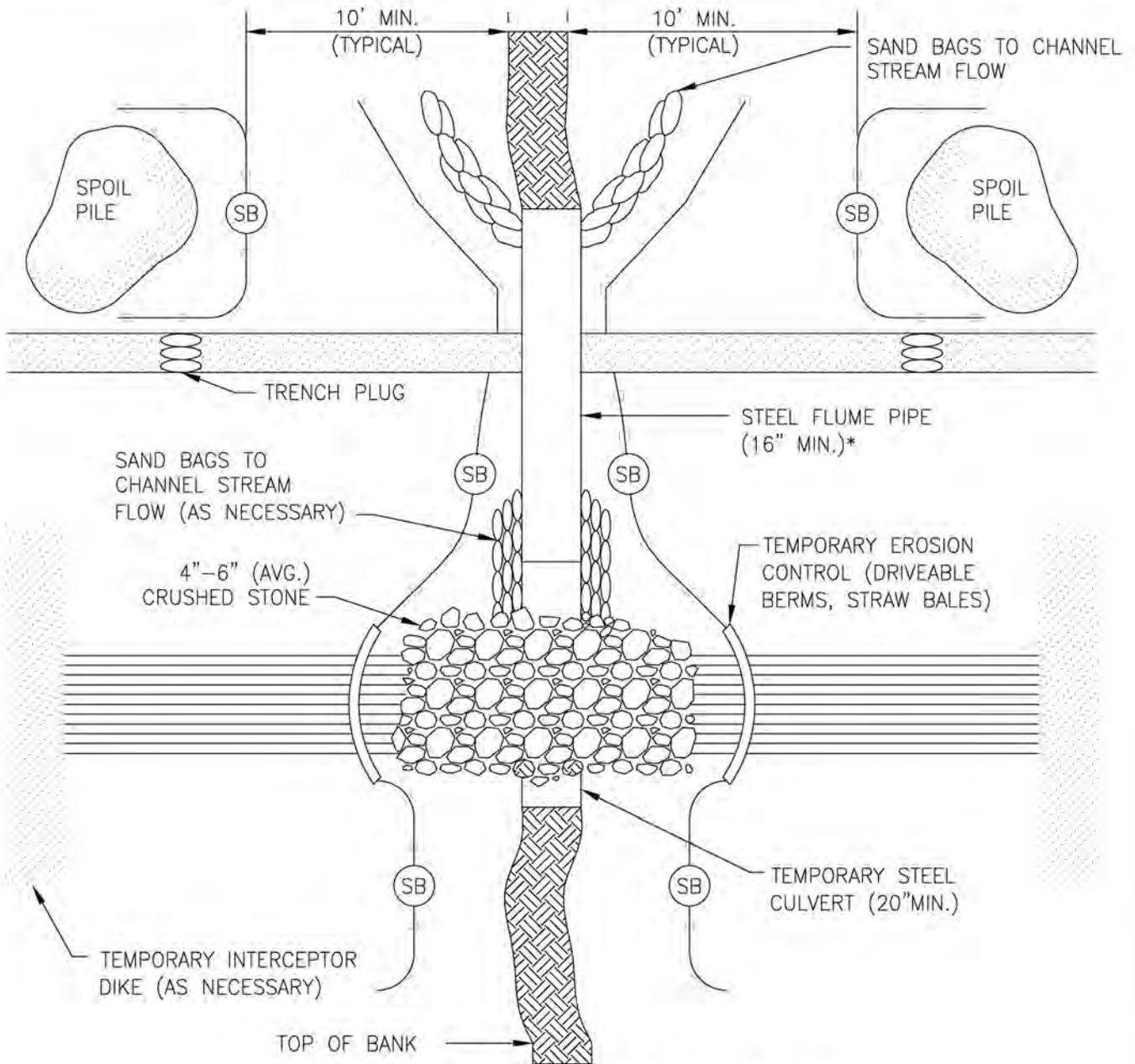


* ACTUAL NUMBER OF FLUMES AND CULVERT PIPES REQUIRED TO BE DETERMINED BY STREAM WIDTH.

NOTES:

1. (SB) TEMPORARY SEDIMENT BARRIER OF SILT FENCE AND/OR STRAW BALES, OR APPROPRIATE MATERIALS.
2. FOR MINOR WATERBODIES, COMPLETE TRENCHING AND BACKFILLING IN THE WATERBODY (NOT INCLUDING BLASTING OR OTHER ROCK BREAKING MEASURES) WITHIN 24 HOURS. IF A FLUME IS INSTALLED WITHIN THE WATERBODY DURING MAINLINE ACTIVITIES, IT CAN BE REMOVED JUST PRIOR TO LOWERING IN THE PIPELINE. THE 24-HOUR TIMEFRAME STARTS AS SOON AS THE FLUME IS REMOVED.
3. FOR INTERMEDIATE WATERBODIES, COMPLETE TRENCHING AND BACKFILLING IN THE WATERBODY (NOT INCLUDING BLASTING OR OTHER ROCK BREAKING MEASURES) WITHIN 48 CONTINUOUS HOURS, IF FEASIBLE.

BakkenLink Pipeline, LLC			
TYPICAL CONSTRUCTION WET CROSSING			
DRAWN BY: PCS		CHK'D. BY: PCS	
DATE: 11-07-11		APPRV. BY: PCS	
DWG. NO. DETAIL-11			REV A



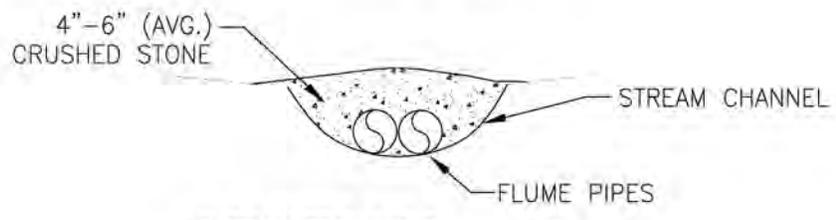
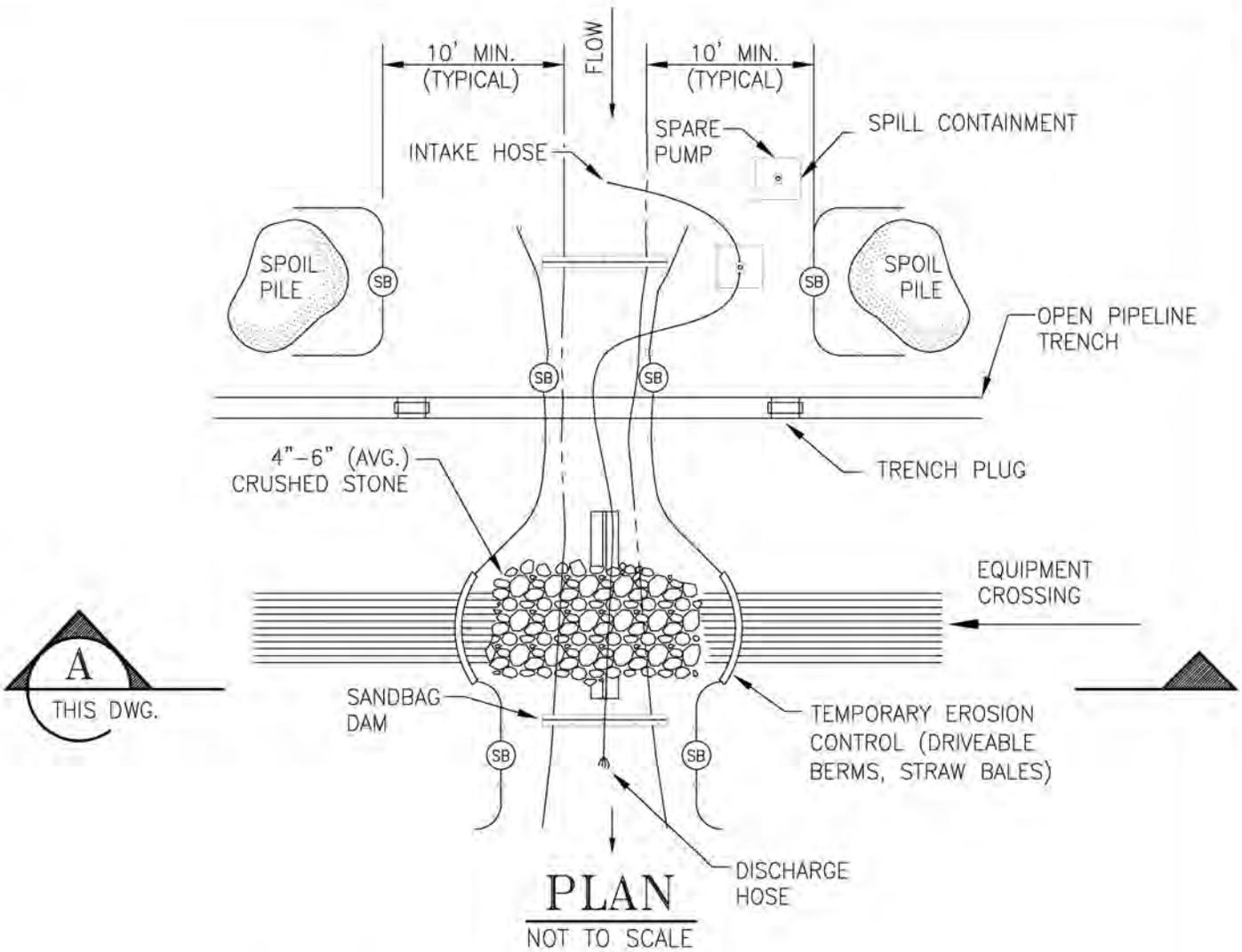
• ACTUAL NUMBER OF FLUMES AND CULVERT PIPES REQUIRED TO BE CONTINUED BY STREAM WIDTH.

NOTES:

1. (SB) TEMPORARY SEDIMENT BARRIER OF SILT FENCE AND/OR STRAW BALES, OR OTHER APPROPRIATE MATERIALS.
2. SAND BAGS MUST BE FILLED WITH SAND FREE OF SILT, ORGANICS, AND OTHER MATERIAL.
3. ALIGN FLUME(S) TO PREVENT BANK EROSION AND STREAM SCOUR.
4. CONDUCT ALL IN-STREAM ACTIVITY (EXCEPT BLASTING OR OTHER ROCK BREAKING MEASURES) WITH THE FLUME(S) IN PLACE. FLUME PIPE(S) MAY NOT BE REMOVED FOR LOWERING IN OR INITIAL STREAMBED RESTORATION EFFORTS.
5. THE ENDS OF THE FLUME AND CULVERT MUST EXTEND TO AND UNDISTURBED AREA.

BakkenLink Pipeline, LLC			
TYPICAL CONSTRUCTION FLUMED CROSSING			
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DATE: 11-07-11		APPRV. BY: PCS	
DWG. NO. DETAIL-12			REV A

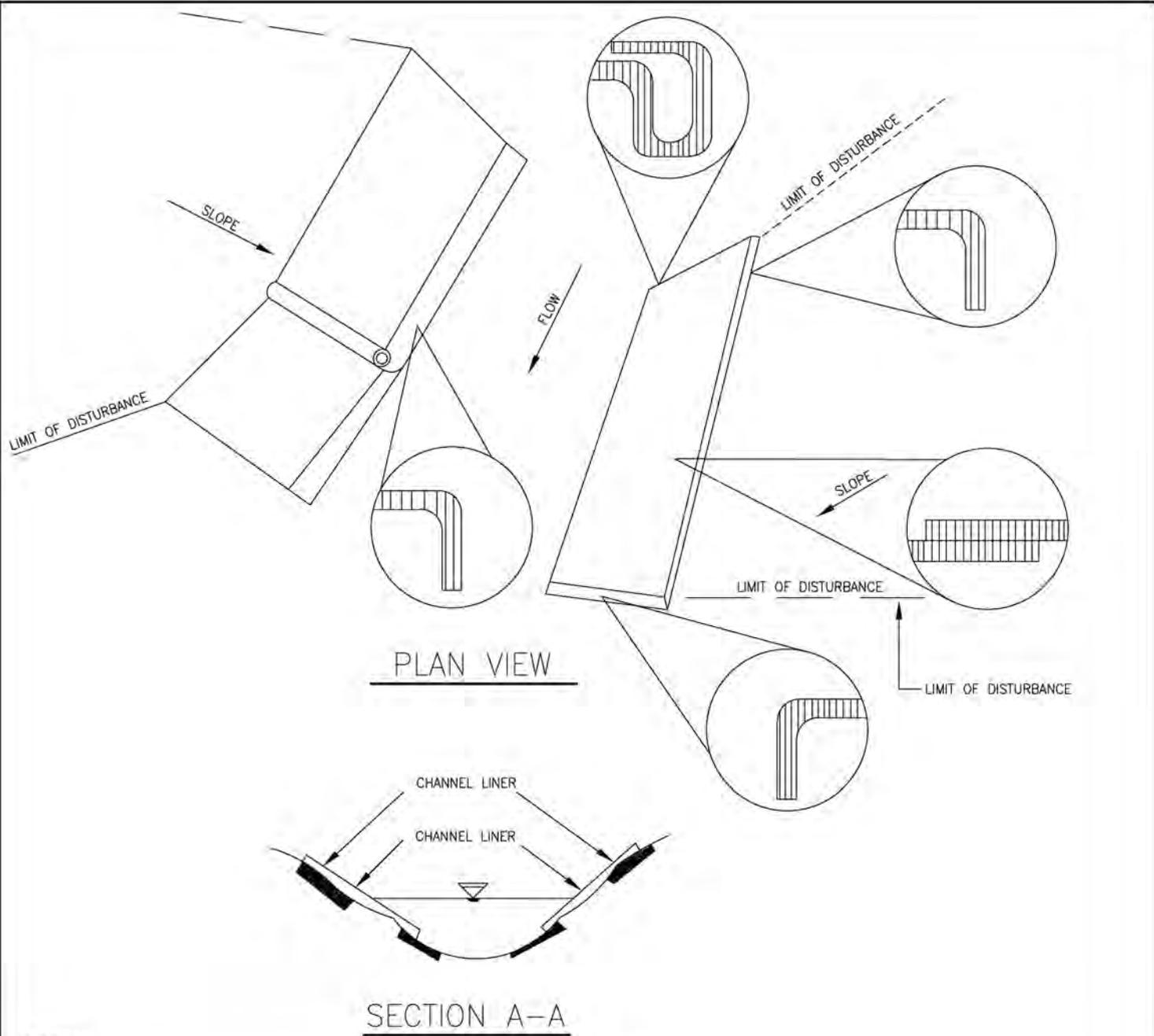
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NOTES:

1. (SB) TEMPORARY SEDIMENT BARRIER OF SILT FENCE AND/OR STRAW BALES, OR APPROPRIATE MATERIALS.
2. INSTALL AND SEAL SANDBAGS UPSTREAM AND DOWNSTREAM OF THE CROSSING.
3. CREATE AN UPSTREAM SUMP USING SANDBAGS IF NATURAL SUMP IS UNAVAILABLE FOR THE INTAKE HOSE.
4. EXCAVATE ACROSS STREAM CHANNEL FOLLOWING WATER REROUTING.
5. DO NOT REFUEL OR STORE FUEL WITHIN 100 FEET OF THE WATERBODY, WHERE FEASIBLE.
6. MONITOR PUMPS AT ALL TIMES DURING STREAM CROSSING PROCEDURE.
7. USE SUFFICIENT PUMPS, INCLUDING ONSITE BACKUP PUMPS, TO MAINTAIN DOWNSTREAM FLOW.
8. SCREEN PUMP INTAKES.
9. NUMBER OF FLUME PIPES FOR EQUIPMENT BRIDGE WILL VARY DEPENDING ON SITE CONDITIONS.

BakkenLink Pipeline, LLC			
TYPICAL CONSTRUCTION DAM AND PUMP CROSSING			
DRAWN BY: PCS		CHK'D. BY: PCS	
DATE: 11-07-11		APPRV. BY: PCS	
DWG. NO. DETAIL-13			REV A



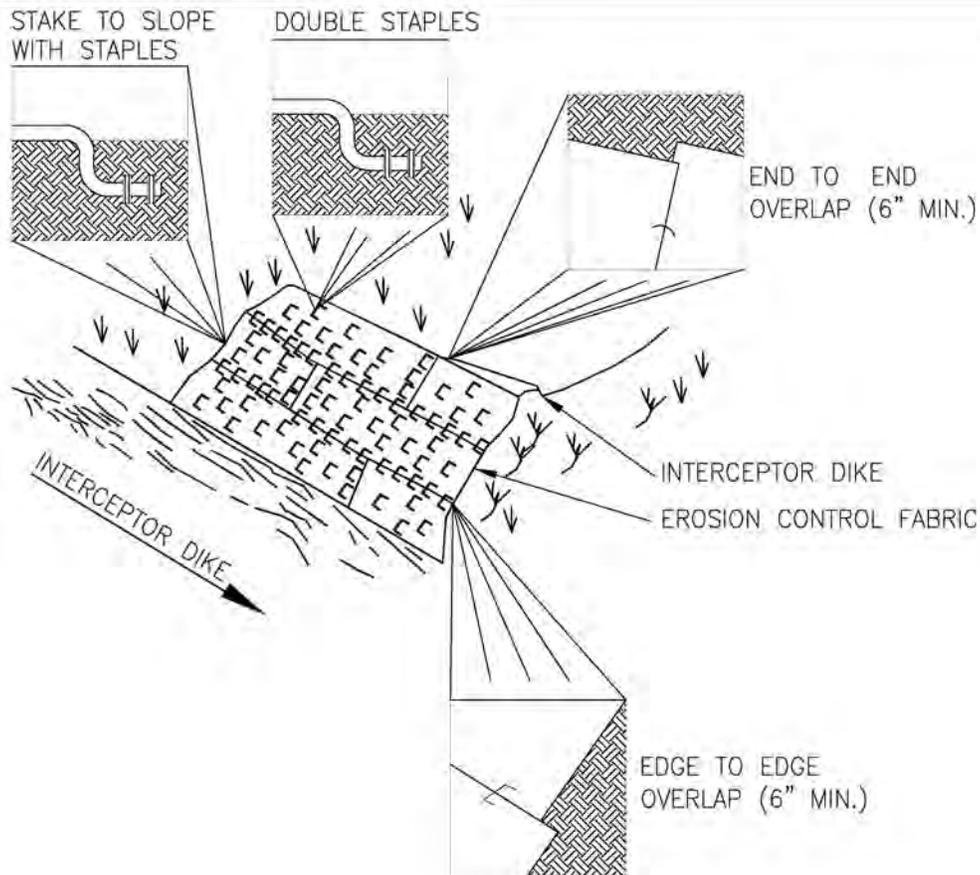
NOTES:

1. INSTALL AND ANCHOR LINERS FOLLOWING MANUFACTURER'S INSTRUCTIONS.
2. PREPARE SOIL BEFORE INSTALLING CHANNEL LINER, INCLUDING THE APPLICATION OF FERTILIZER AND SEED. CHANNEL LINERS SHOULD EXTEND COMPLETELY ACROSS DISTURBED BANK AREAS TO PROTECT ERODIBLE SURFACES.
3. BEGIN AT THE END OF THE CHANNEL BY ANCHORING THE LINER IN A TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
4. ROLL LINER IN DIRECTION OF WATER FLOW.
5. INSTALL LINERS END-OVER-END (SHINGLE STYLE) WITH OVERLAP USING A DOUBLE ROW OF STAGGERED STAPLES 4 INCHES BELOW THE FIRST ROW IN STAGGERED PATTERN.
6. IN HIGH FLOW CHANNEL APPLICATIONS A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FEET INTERVALS. USE A ROW OF STAPLES 4 INCHES BELOW THE FIRST ROW IN A STAGGERED PATTERN.
7. INSTALL CHANNEL LINER TO THE TOP OF DEFINED CHANNEL SECTION TO OR MORE ROWS OF BLANKETS MAY BE NECESSARY, THESE LINERS MUST BE OVERLAPPED 4 INCHES AND STAPLED.
8. THE CHANNEL LINER SHOULD EXTEND TO THE BASE OF THE CHANNEL AND STAPLED. FOR CHANNELS WITH VERY LITTLE OR NO FLOW, EXTEND A MINIMUM OF 1 FOOT BELOW WATER LEVEL AND STAPLE IN PLACE.
9. INSTALLATION SPECIFICATIONS TO BE MODIFIED AS NECESSARY TO SUIT ACTUAL SITE CONDITIONS.

BakkenLink Pipeline, LLC

TYPICAL CONSTRUCTION
FLEXIBLE CHANNEL
LINER INSTALLATION

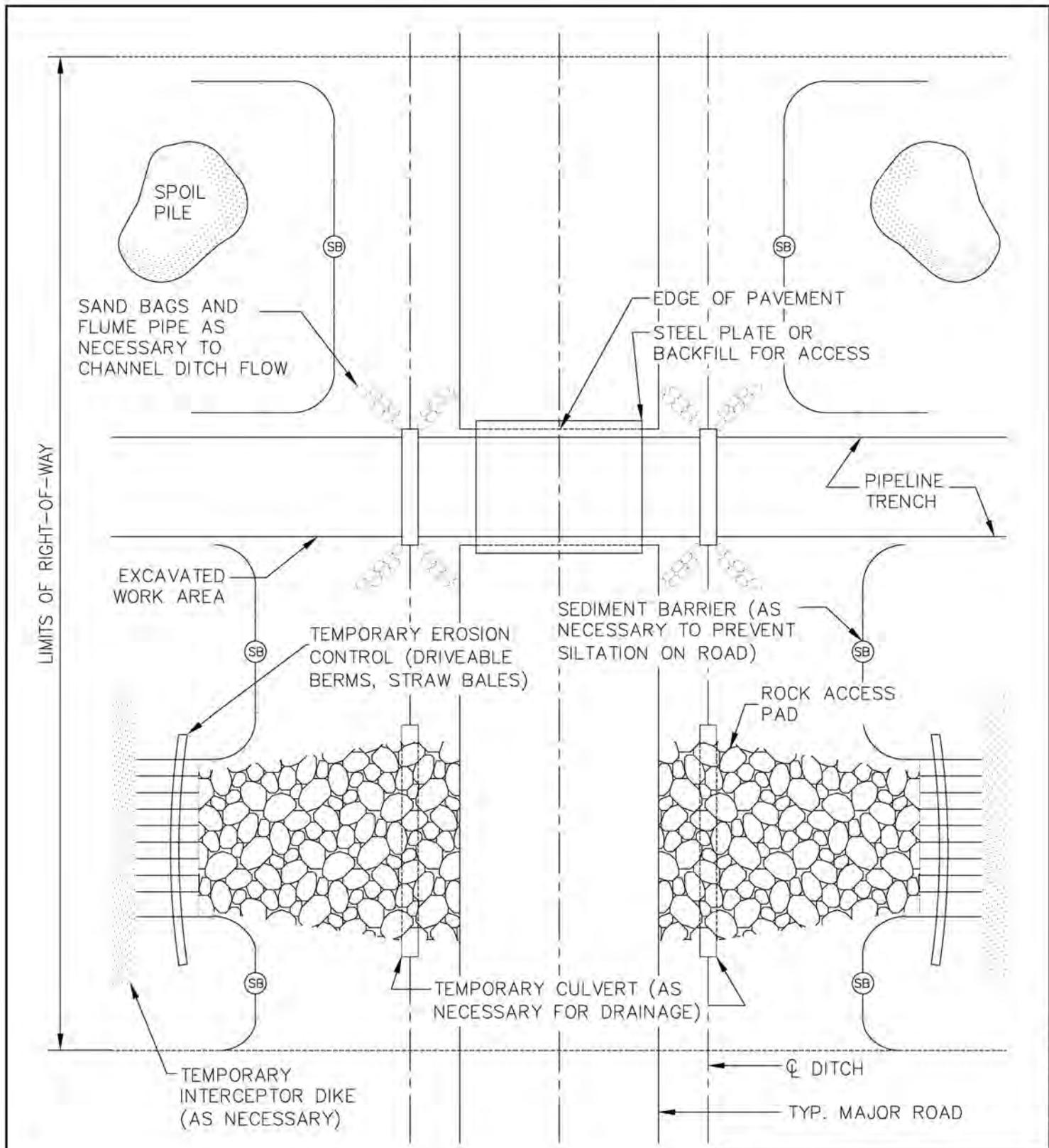
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DATE: 11-14-11	APPRV. BY: PCS
DWG. NO. DETAIL-18	REV A



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 (SHINGLE 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			
DRAWN BY: PCS		CHK'D. BY: PCS	
DATE: 11-07-11		APPRV. BY: PCS	
DWG. NO. DETAIL-22			REV A



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

BakkenLink Pipeline, LLC

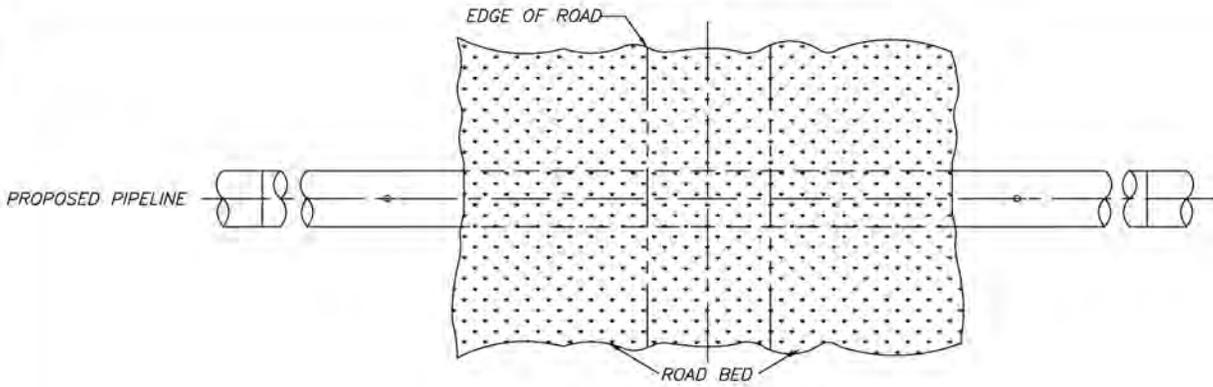
TYPICAL CONSTRUCTION
PAVED ROAD CROSSING (OPEN CUT)

DRAWN BY: PCS CHK'D. BY: PCS

DATE: APPRV. BY: PCS

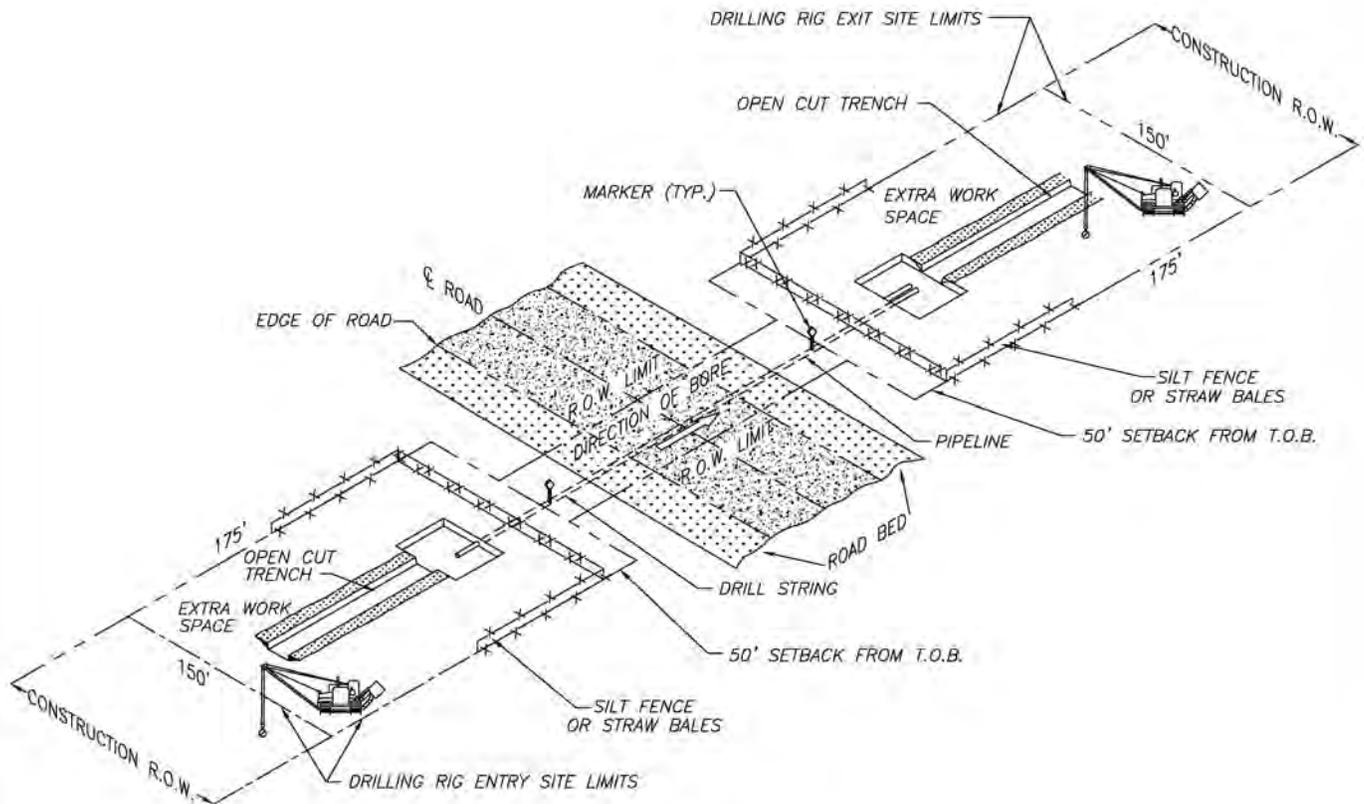
DWG. NO. DETAIL 28

REV
A



PLAN VIEW

NOT TO SCALE



PLAN VIEW 'A'

NOT TO SCALE

NOTES:

1. EXTRA WORK SPACE NOT LOCATED IN WETLAND WHEN POSSIBLE AND PRACTICAL.
2. RIGHT-OF-WAY LIMITS FOR WETLAND AND UPLAND ARE 100' AND 120' RESPECTIVELY.
3. WORK AREA WILL BE TEMPORARILY MATTED FOR MARSH AREAS.

BakkenLink Pipeline, LLC

TYPICAL CONSTRUCTION BORED ROAD CROSSING

DRAWN BY: PCS	CHK'D. BY: PCS
DATE:	APPRV. BY: PCS
DWG. NO. DETAIL 40-A	REV A

Appendix D
Inspection Record

BakkenLink Pipeline LLC
Site Inspection Record - Construction

Project Name: BakkenLink Pipeline LLC

Coverage Number: _____

Inspector: _____ Date: _____ Time: _____

Precipitation Amount: _____ Date: _____

- Areas Inspected (Choose Applicable):
- Active areas
 - Stabilized areas with less than 70% cover
 - Areas that have achieved final stabilization

Is there evidence of, or the potential for, pollutants entering drainage systems or waters of the state from:

Material Storage Areas Y N

Vehicle Maintenance Areas Y N

Observations / Corrective Actions:

<input type="checkbox"/> Y <input type="checkbox"/> N	Have all erosion and sediment controls and best management practices identified in the plan been installed or implemented?
<input type="checkbox"/> Y <input type="checkbox"/> N	Are erosion and sediment controls operating correctly and in serviceable condition?
<input type="checkbox"/> Y <input type="checkbox"/> N	Are erosion and sediment controls operating consistently and effectively?
<input type="checkbox"/> Y <input type="checkbox"/> N	Are there any devices similar to silt fence or fiber rolls where sediment has reached more than 1/3 the height of the device? (Removal and repairs must be made within 24 hours.)
<input type="checkbox"/> Y <input type="checkbox"/> N	Are there any sediment basins where collected sediment has reduced the storage capacity by 1/2? (Drainage and removal must be completed within 72 hours.)
<input type="checkbox"/> Y <input type="checkbox"/> N	Is there evidence of sediment deposits in surface waters, drainage ditches or other stormwater conveyance systems? (Removal and stabilization must be completed within 7 days unless prohibited by legal, regulatory or physical access constrains. All reasonable efforts must be made to obtain access. Once permission is granted, removal must take place within 7 days.)
<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	Is there evidence of sediment being tracked off-site by vehicles or equipment? (Sediment tracked or deposited on paved surfaces must be removed within 24 hours.)
<input type="checkbox"/> Y <input type="checkbox"/> N	Is there evidence of sediment depositing off-site other than in surface waters, drainage ditches and stormwater conveyance systems? (Sediment must be recovered in a manner and frequency sufficient to minimize off-site impacts – for example, sediment could wash away during the next precipitation event.)
<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	Is stormwater flow distributed evenly over vegetative buffers?
<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	Is sediment accumulating in vegetative buffers?
<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	Are rills forming within vegetative buffers?
	(If vegetative buffers are silted covered, contain rills or are otherwise rendered ineffective, other erosion and sediment controls must be implemented. Eroded areas must be repaired and stabilized.)

Comments

Has the SWPP Plan been updated as a result of this inspection?

Y

N

Has the Site Map been updated as a result of this inspection?

Y

N

Appendix E

Corrective Action Log

