

PLAN OF DEVELOPMENT

FOR

**OVERLAND PASS PIPELINE COMPANY LLC
PICEANCE BASIN LATERAL PIPELINE PROJECT**

**RIO BLANCO AND MOFFAT COUNTIES, COLORADO
SWEETWATER AND CARBON COUNTIES, WYOMING**

PREPARED FOR:
BUREAU OF LAND MANAGEMENT

PREPARED BY:
CH2M HILL TRIGON, INC.
34 VAN GORDON STREET, SUITE 200
LAKEWOOD, COLORADO 80228

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1.0 INTRODUCTION

This Plan of Development (POD) describes measures to be taken by Overland Pass Pipeline Company LLC (OPPC) and its contractors (Contractor) during construction, operation, and maintenance of the Piceance Basin Lateral Pipeline Project (Project). The primary objective of the POD is to establish procedures for implementation of best management practices and mitigation measures contained in the Environmental Assessment for this project. This POD is based on the Proposed Action as presented by OPPC and would be modified if an alternative route is selected by the Responsible Official in the EA Decision Record.

Measures identified in this plan apply to work within the project area defined as the right-of-way, access roads, temporary use areas, and other areas used during construction of the project.

OPPC and Contractor personnel are to be thoroughly familiar with this plan and its contents prior to initiating construction on the project.

1.1 Purpose

The purpose of this POD is to provide guidelines for the construction, future operations, and maintenance of the project in compliance with mitigation measures set forth in the Environmental Assessment. The POD contains general information on the project. Detailed information concerning specific project-related activities such as fire prevention and suppression, soil conservation and erosion control, and waterbody and wetlands protection are provided in the POD appendices (see Table 1.2-1). Additionally, detailed maps are provided in the Alignment Sheets referenced throughout this document and contained in Attachment 1. The Alignment Sheets contain detailed project mapping of the project right-of-way. Crossings of linear facilities (e.g., highways, roads, and utilities) and waterbody crossings are also identified on the sheets.

Table 1.2-1 Appendices

Appendix 1	Biological Resources Protection Plan
Appendix 2	Blasting Plan
Appendix 3	Cultural Resources Protection Plan
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Appendix 15	Paleontological Resources Protection Plan

1.2 Overview

The POD contains an introduction, a detailed discussion of the proposed construction activities, and a description of operation and maintenance activities. In addition, the environmental compliance plans listed in Table 1.2-1 are attached to the POD as appendices. Where there is overlap between the POD and the site-specific plans, an in-text cross-reference is provided to



the relevant appendix (plan).

1.3 Required Permits

The project traverses several jurisdictional boundaries, including federal, state, and local agencies. OPPC will obtain federal, state, and local permits prior to construction of the project. Table 1.3-1 lists permits required to construct the project.

Table 1.3-1 Required Permits

AGENCY	PERMIT
FEDERAL	
Bureau of Land Management White River Field Office 220 E. Market Street Meeker, CO 81641 Little Snake Field Office 455 Emerson Street Craig, Colorado 81625 Rawlins Field Office 1300 N. 3rd P.O. Box 2407 Rawlins, WY 82301	<ul style="list-style-type: none"> Right-of-way and Temporary Use permits issued under authority of the Mineral Leasing Act/
U.S. Army Corps of Engineers Colorado/Gunnison Basin Regulatory Office 402 Rood Ave., Room 142 Grand Junction, CO 81501-2563 Wyoming Regulatory Office 2232 Del Range Blvd., Ste 210 Cheyenne, WY 82009	<ul style="list-style-type: none"> Nationwide Permit 12
U.S. Fish and Wildlife Service Western Colorado Field Office 764 Horizon Drive, Building B Grand Junction, Colorado 81506-3946	<ul style="list-style-type: none"> Endangered Species Act consultation (Biological Opinion)
STATE	
COLORADO	
Colorado Department of Public Health and Environment Air Quality Control Division 4300 Cherry Creek Drive South, APCD-SS-B Denver, Colorado 80246-1530	<ul style="list-style-type: none"> Construction (Emission) Permits Land Disturbance Permit (fugitive dust)
Colorado Department of Public Health and Environment Water Quality Control Division WQCD - P -B2 4300 Cherry Creek Drive South Denver, CO 80246-1530	<ul style="list-style-type: none"> Construction Stormwater Discharge Permit Minimal Discharge Industrial Waste Water Permit
Colorado Department of Natural Resources Division of Wildlife Meeker Service Center 73485 Highway 64 P.O. Box 1181 Meeker, CO 81641	<ul style="list-style-type: none"> Temporary Use Permit Long Term Use Permit

Table 1.3-1 Required Permits (continued)

AGENCY	PERMIT
STATE	
COLORADO (continued)	
Colorado Department of Natural Resources State Land Board 600 Grant Street, Suite 306 Denver, CO 80203	<ul style="list-style-type: none"> • Permit for Long Term Use of State Lands
Colorado Department of Transportation Region 3 222 S. 6th Street, Room 100 Grand Junction, CO 81501	<ul style="list-style-type: none"> • Utility/Special Use Permit
Rio Blanco County Planning and Zoning Department 555 Main P.O. Box 599 Meeker, CO 81641	<ul style="list-style-type: none"> • Special Use Permit
Rio Blanco County Road & Bridge Department Meeker District 670 Second Street Meeker, CO 81641	<ul style="list-style-type: none"> • Utilities Installation Permit
Moffat County Planning Department 221 West Victoria Way Craig, CO 81625	<ul style="list-style-type: none"> • Special Use Permit
Moffat County Road Department P.O. Box 667 Craig, CO 81625	<ul style="list-style-type: none"> • Utilities Installation Permit
WYOMING	
Office of State Lands & Investments Real Estate Section 122 W. 25th Street Herschler Bldg 3W Cheyenne, WY 82002	<ul style="list-style-type: none"> • Temporary use permit and easement on state land
Wyoming Department of Environmental Quality Water Quality Division	<ul style="list-style-type: none"> • Construction Stormwater Permit • Temporary Discharge Permit
Wyoming Department of Environmental Quality Air Quality Division	<ul style="list-style-type: none"> • Emissions permit
Wyoming State Engineer's Office	<ul style="list-style-type: none"> • Temp. Water Use Agreement or Permit to Appropriate Surface Water
Wyoming Department of Transportation	<ul style="list-style-type: none"> • Utility Accommodation Agreement
Sweetwater County Engineer 80 West Flaming Gorge Way Green River, WY 82935	<ul style="list-style-type: none"> • Utilities Installation Permit
Carbon County Road and Bridge Department P.O. Box 487 Carbon Building, Suite 336 Rawlins, WY 82301	<ul style="list-style-type: none"> • Utilities Installation Permit

2.0 PROJECT OVERVIEW

On June 20, 2007, OPPC filed an application for transportation and utility systems and facilities on federal lands to authorize the construction, operation, and maintenance of a natural gas liquids (NGL) pipeline and related facilities in Rio Blanco and Moffat Counties, Colorado and Sweetwater and Carbon Counties, Wyoming. OPPC has proposed to construct and operate approximately 152 miles of 14-inch diameter buried steel NGL pipeline and related aboveground appurtenances within the same right-of way.

2.1 Purpose and Need

NGLs are hydrocarbon liquids associated with the production and processing of natural gas. As natural gas production increases, typical NGL production also increases. When natural gas is removed from the ground, it is compositionally different than what is transported through natural gas transmission systems and ultimately used by the public for such things as home heating and cooking. When removed from the ground, the mixture is predominately methane, but also includes heavier hydrocarbons and inert gases. Although the mixture can vary greatly, a typical stream may include 85 percent methane, 10 percent heavier hydrocarbons (NGL), and 5 percent inert gases. The NGL and inert gases must be removed to make the natural gas salable and transportable.

Once removed, the NGLs must be transported under pressure by alternate pipelines to fractionators where they are separated into purity products such as ethane, propane, and butane, which are used in the petrochemical, petroleum refining, and agricultural industries. Gas processing plants are much smaller, simpler facilities than fractionators and are more commonly located very near the natural gas drilling areas. Fractionators, on the other hand, are very complex facilities, that are located in areas of the country with ready access to delivery markets and, typically, underground storage facilities.

Increased drilling activity and natural gas production in the Rocky Mountain region, and particularly in the Piceance Basin, is creating a corresponding increase in the amount of NGLs that need to be carried out of the area to existing fractionators in the Midwest and Gulf Coast regions. An underground NGL pipeline located largely in existing pipeline rights-of-way (ROWs) would have considerable environmental and safety advantages over alternative means of transporting NGLs out of the Piceance Basin such as trucking or rail transport. Currently, existing NGL pipelines are operating at or near capacity. The proposed Project would address the needs of producers in Colorado by providing additional NGL pipeline capacity out of the Piceance Basin to fractionation facilities in Bushton and Conway, Kansas. Downstream customers would thereby gain access to the Piceance Basin supply. In summary, approval of the Project would meet the mutual needs of producers and downstream customers, and would further federal policy regarding the development of pipeline infrastructure in the Rocky Mountain region.

In addition to being necessary, the removal of NGL from the natural gas stream also can enhance the value of the components removed. Although only 10 percent of the stream by weight, NGL can contribute approximately 15 percent of the energy of the stream. Since NGL must be removed up to a certain level and are often removed in greater quantities for economic purposes, regional NGL production quantities track with regional natural gas production quantities. Specifically in the Rocky Mountain region of the U.S., as natural gas production grows, NGL production also grows. According to the *Environmental Assessment for the Mid-*



America Pipeline Company, LLC (MAPL) Western Expansion Project (2005), the Rocky Mountain region is a significant contributor to the supply of natural gas in the U.S., producing approximately 25 percent of the U.S. natural gas. Natural gas production in the Rocky Mountains increased 56 percent between 1999 and 2003. Some experts predict that the Rocky Mountain region's gas production could increase from 3.3 trillion cubic feet per year (tcfy) in 2002 to 4.6 tcfy in 2010 and 6.3 tcfy in 2025 (U.S. Department of Energy [USDOE] 2004). Notwithstanding the variance in supply predictions, industry experts agree that production from the Rocky Mountain region would be critical to serving the country's increasing energy needs. Using typical average NGL content (2 gallons per thousand cubic feet) and an average NGL recovery factor (50 percent), this increase in natural gas would produce a substantial increase in NGL that would need to be moved.

The proposed Project is in the national interest in that it is a major energy facility that would provide significant and much needed NGL transmission capacity out of the Piceance Basin to the Overland Pass Pipeline. The Project would increase the flexibility and reliability of the interstate NGL grid by offering greater access to NGL supply sources and increased availability of NGL for anticipated projects.

2.2 *Proposed Facilities*

The project consists of approximately 152 miles of natural gas liquids pipeline and related facilities as described below. The proposed pipeline begins in Section 35, T2S, R97W (Rio Blanco County, Colorado) runs north through Moffat County, Colorado and Sweetwater County, Wyoming to its terminus in Carbon County, Wyoming in Section 1, T19N, R93W. A pump station may be constructed on private land at the approximate mid-point of the pipeline route should the need to increase the capacity of the pipeline to 100,000 barrels/day arise. Without the pump station, the maximum capacity will be approximately 70,000 barrels/day. Detailed maps showing the pipeline route are included in the alignment sheet package in Attachment 1.

Construction of the Project would disturb approximately 1,381 acres of land, which includes the 50 foot permanent easement (921 acres) and the temporary use area along and adjacent to this easement (25 feet wide, 460 acres).

2.2.1 Pipeline Facilities

The pipeline will be engineered in conformance with the requirements of Title 49 Code of Federal Regulations (CFR), Part 195, "Transportation of Hazardous Liquids by Pipeline". When completed, the pipeline is expected to transport 100,000 barrels of Y-grade NGL per day.

Pipe specifications for the pipeline are as follows:

14-inch natural gas liquids pipeline 14" O.D., 0.219" w.t., API 5L X-70

2.2.2 Aboveground Facilities and Associated Appurtenances

Should NGL volumes transported through the pipe necessitate the need, a pump station will be constructed at the approximate mid-point of the pipeline route. This station will be located on private property and will require approximately 1.8 acres of land. While the need to construct the station will be unknown for sometime, the necessary easements for land and the environmental analyses for the site are being conducted. No surface structures will be located within 0.50 miles of MP 34.9 without geotechnical determination of adequate stability at the site.

Meter Stations



There will be a meter station located on private land at the southern origination point of the pipeline route. A meter station will also be positioned at the origination point of a lateral from an existing gas treatment facility at Greasewood Hub.

Block Valve

Block valves will be located along the route as required and as needed for use in maintenance and emergency situations.

Pig Launcher and Receiver

At least one launcher and receiver set will be constructed for this project. It is anticipated that the launcher will be placed at the origination point and the receiver will be placed at the Echo Springs. Additional sets will be placed at the mid-point pump station (if constructed) and along any laterals that tie into the main pipeline.

Cathodic Protection Equipment

Cathodic test point and foreign line crossing point typicals are shown in Attachment 2.

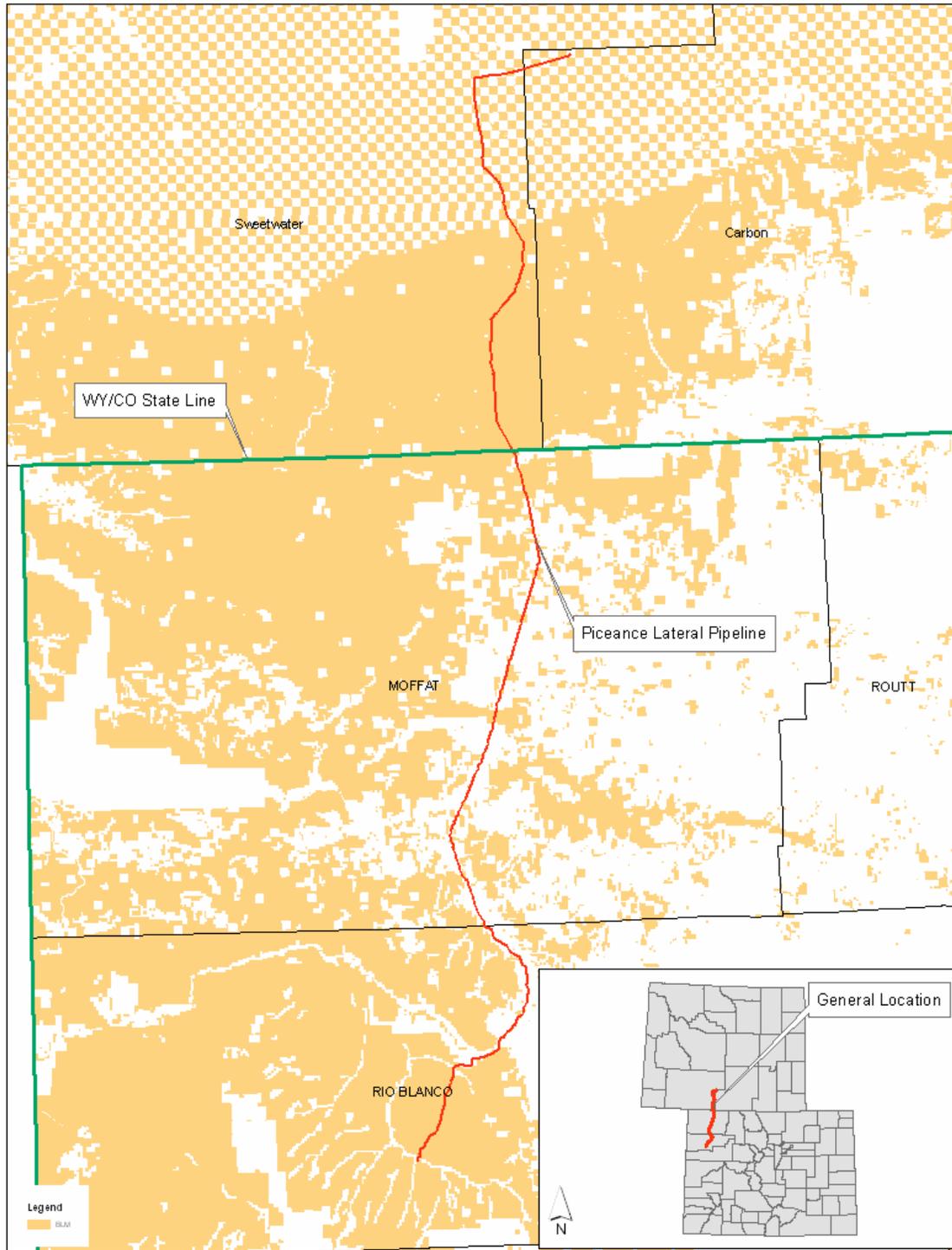
Pipeline Markers

The pipeline location will be marked with aboveground markers in accordance with DOT safety requirements, land managing agencies, and landowners. Markers are installed typically at road and fence crossings. Refer to Attachment 2 for pipeline warning marker typical.

2.3 Construction Schedule

OPPC anticipates that construction of the pipeline will take approximately six months, commencing in September 2008. To meet this schedule, two or more construction spreads may be used simultaneously on different portions of the pipeline. A contractor will be assigned to each section and will utilize an average work crew of approximately 50 people per construction spread. About 75% of this work force is expected to be comprised of regional residents. OPPC will comply with Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d, et. seq.) and the regulations of the Secretary of the Interior issued pursuant thereto.

Figure 2.0-1 Project Location and Facilities



2.4 Land Requirements

Construction of the pipeline and associated laterals and the potential mid-point pumstation would disturb approximately 1,383.1 acres of land, including the pipeline right-of-way and temporary use areas. Approximately 922.0 acres used during construction would be required for long-term operations (50-foot wide right-of-way). Approximately 47 percent of the land crossed by the project would be on Bureau of Land Management (BLM) lands managed by the Rawlins, Little Snake, and White River Field Offices. Forty-five percent of the project would occur on private lands. The project crosses state lands as well; the remaining 6.7 percent of land is on state wildlife areas or state trust lands (see Table 2.4-1 for details).

Table 2.4-1 identifies the pipeline length and long-term disturbance areas. Nominal construction area includes 25 foot wide TUA strip parallel and adjacent to the 50 foot permanent ROW. Most of the pipeline route is adjacent to existing pipelines. In these areas, the pipeline would be constructed such that a 25 foot wide offset is maintained from the nearest pipeline. This offset area would not be used for equipment during construction of the Project.

Table 2.4-1: Proposed pipeline lengths, acreages, and land status summary

Land Status	Pipe Length (ft)	Pipe Length (miles)	50-foot ROW (acres)	25-foot TUA strip (acres)	% of Route
STATE - Wyoming	5,495	1.1	6.3	3.2	0.8
STATE - Colorado	53,786 (40% State Trust, 60% CDOW)	10.2	61.7	30.9	6.7
PRIVATE	365,928	69.3	420.0	210.0	45.5
BLM	378,145	71.6	434	217.0	47.0
TOTALS	803,757	152.2	922.0	461.1	100

2.4.1 Rights-of-Way

The ROW will consist of an operations ROW plus additional temporary use areas (TUA) needed during construction. Except in certain areas, land use disturbance generally will not exceed 75 feet in width. A 50-foot operations ROW is requested with an additional 25 feet of temporary use area running adjacent to this ROW.

2.4.2 Aboveground Facilities and Associated Appurtenances

A pump station may be constructed should the need arise at the approximate mid-point of the pipeline route. This station would occupy a site approximately two acres in size and would be located on private land.

Associated aboveground appurtenances proposed by OPPC include pipeline markers, meter stations, a block valve, pig launcher and receiver, and cathodic protection equipment. Any aboveground appurtenances will be within the 50-foot right-of-way. No additional land would be required outside the 50-foot right-of-way for appurtenances.

2.4.3 Temporary Use Areas

In addition to the 25'-wide TUA running adjacent to the 50'-wide ROW, OPPC has identified temporary workspace areas where additional construction area width is required for safe and



efficient construction, especially at foreign pipeline and road crossings, wetland and waterbody crossings, timber and boulder storage areas, steep side-slopes, at the bases or tops of steep ascent-descent areas, and at truck turnaround areas.

2.4.4 Access Roads

OPPC proposes to use a combination of existing state, county, private, and BLM roads to gain access to the right-of-way during construction. Hauling equipment and materials will be done in accordance with state requirements. Modifications, including grading, may be required to use some of these roads. Maintenance will include blading throughout the construction period to keep roads level and not rutted. Following the completion of construction, roadways will be returned to the condition they were in prior to construction. Temporary access along the ROW will be reclaimed at the end of construction. Operations and maintenance activities could require year-round access post construction. The location of identified access roads is depicted in the Transportation Management Plan (Appendix 11). At this time OPPC does not propose to construct any new roads on Federal lands managed by the BLM.

2.4.5 Contractor/Pipe Storage/Offloading Yards

OPPC will use an existing contractor yard in Craig, Colorado to store pipe and other construction materials and equipment during construction of the project. This yard has been and is currently being used as a storage yard for other pipeline project in the area.

3.0 CONSTRUCTION ACTIVITIES

The following section provides a description of each phase of standard construction along the right-of-way. Also included in these sections are specific applicable mitigation requirements that will be implemented by the Contractor.

3.1 *Project Area Surveying and Staking*

3.1.1 Pre-Construction

Pre-construction surveys and literature reviews were conducted to identify sensitive resources along the project route. The field survey results will be used to identify sensitive resource, construction buffer areas, and areas requiring special protective signing, flagging, fencing, or timing restrictions. Resources identified include: sensitive wildlife (e.g., elk, raptors, amphibians, and federally listed species) populations and habitat; sensitive plant populations; cultural resources; wetlands and waterbodies; and areas of potential geologic instability. Mitigation measures for sensitive areas that cannot be avoided are addressed in environmental compliance plans (appendices) included in this document (e.g. Environmental Protection Plan, Cultural Resources Protection Plan, Biological Resources Protection Plan, etc). Sensitive areas will be marked in the field with flagging. Flagging will be consistently colored and/or patterned for each resource associated with this project. The Contractor will train personnel in color coding system and required actions.

Civil engineering surveys will be performed by OPPC to identify the centerline of the pipeline and the boundaries of both sides of the approved working limits before construction activities commence. OPPC's Construction Inspectors will be responsible for verifying that the limits of authorized construction work areas are staked prior to construction. Flagged and/or painted lath will be set at 200-foot intervals (maximum), or as required to maintain line of sight, along the proposed centerline. The edges of the work limits will be marked at 200-foot intervals (maximum), or as required to maintain line of sight, with flagged and/or painted lath. Temporary



use areas will be marked in a similar fashion and four corners of each temporary use area will be marked by a flagged and/or painted lath. This staking will clearly demark the boundary of the area that can be used or accessed by construction personnel. Equipment will not be parked or driven beyond these stakes.

3.1.2 Construction

Construction equipment could include trucks, loaders, various sized dozers, shovels and backhoes, side booms, generators, bending machines, and other equipment as needed. Most of the equipment to be used during ROW restoration will consist of dozers, blades, and backhoes.

3.2 *Clearing, Grading, and Topsoiling*

All vegetation will be mowed within the stake boundaries of the ROW. On Federal lands managed by the BLM, the construction right-of-way will be graded over the trench and the working side with topsoil and other spoil being stockpile on the non-working side. On non-federally managed lands, grading will occur where necessary to provide for safe and efficient operation of construction equipment and inspection vehicles, and to provide space for the storage of subsoil and topsoil. Construction activities and ground disturbance will be limited to approved, staked areas.

Where necessary, trees will be cut with a chain saw and/or mechanical shears and brush will be generally cut with a hydro-axe or similar equipment. Trees and larger shrubs will be cut as close to the ground as possible. Stumps will be left in place except over the trench line or as necessary to create a safe and level workspace. OPPC's Environmental Inspector will coordinate with the appropriate agency or landowner to locate areas for stump disposal. Trees will be felled inside the approved right-of-way boundaries. OPPC will acquire the appropriate timber sale agreement/permits from BLM prior to cutting or removing trees. Smaller brush such as sagebrush will be mowed with a brush hog or similar device with the chipped portions of the brush left on the ground to be consolidated with the topsoil.

On Federal lands managed by the BLM, trees will be windrowed adjacent to the right-of-way or temporary use areas provided that equipment stays within the approved right-of-way boundaries. Following construction, these materials will be evenly dispersed over the portion of the right-of-way from which the trees and brush were originally removed to impede future access along the right-of-way and to provide wildlife habitat. However, if the BLM desires, timber may be made available to the public for firewood or fence posts. This wood would be de-limbed, cut into 4 to 8 foot lengths, and stockpiled on the right of way or within approved temporary use areas at points where the right-of-way crosses access roads (in a manner such that the stockpiled wood will not hinder reclamation efforts).

OPPC shall redistribute large, woody material salvaged during clearing operations on BLM-administered lands within the White River Resource Area in those areas where the proposed pipeline deviates from an existing ROW or corridor. Materials shall be dispersed over the portion of the ROW from which the trees and brush were originally removed to meet fire management objectives and to provide wildlife habitat, seedling protection and a deterrent to vehicular traffic. Woody materials dispersed across the ROW shall not exceed 3 to 5 tons/acre. Excess woody materials may be mulched or made available for firewood or fence posts.

On private lands, brush and other materials cleared from the right-of-way may be chipped or shredded and incorporated into the topsoil at the direction of the landowner. Private landowner requirements will be listed in the Fee Land Line List included as Attachment 3 of the Plan of Development.

On Federal lands managed by the BLM, available topsoil between the depths of 4-12 inches will be removed from the trench line and the working side of the ROW. Prior to construction, OPPC with the help of a Soil Scientist will identify the depths of tops that will be removed. These areas will be identified on the construction alignment sheets. Examples of soils where the amount removed may be greater than 6 inches would include soil units 130 and 162 located in Moffat County, Colorado. In areas where more than 6 inches of topsoil is removed, additional Temporary Use Areas may be required to stockpile the additional soil.

No matter the amount of topsoil removed, topsoil will be stockpiled separately from subsoil and will not be used to pad the trench or construct trench breakers.

On private lands, topsoil will generally be stripped up to a depth of 6 inches from the trench line; however, at the private landowner's request, more than 6 inches of topsoil may be salvaged and/or topsoil will be salvaged across the full-width of the right-of-way or a portion thereof. Up to 12 inches of topsoil will be stripped across the trench line or construction right-of-way in irrigated agricultural lands. Topsoil will be stockpiled separately from subsoil and will not be used to pad the trench or construct trench breakers.

3.2.1 Clearing, Grading and Topsoiling Requirements

OPPC's Construction Inspectors will ensure that the Contractor implements the following mitigation measures during clearing, grading, and topsoiling operations:

- All seasonal closures on State and Federal lands will be observed.
- Brace and secure each fence crossed before cutting the opening needed for construction to prevent slacking of the wire. The opening will be closed by temporary gates or by the installation of cattle guards as necessary or as requested by the landowner to prevent passage of livestock. Fences will be braced and secured in accordance with BLM specifications. See Attachment 2 for fence cut and restoration and temporary fence gate typicals.
- Install temporary fencing and/or cattle guards as required by pre-construction agreements with landowners to prevent livestock entry into the construction right-of-way.
- Survey monuments found within the right-of-way will be protected. Survey monuments include, but are not limited to, General Land Office and BLM Cadastral Survey Corners, reference corners, witness points, U.S. Coastal and Geodetic benchmarks and triangulation stations, military control monuments, and recognizable civil (both public and private) survey monuments.
- If any survey monuments found within the right-of-way or temporary use areas are disturbed or obliterated during the course of the project, the Contractor will immediately report it to OPPC. OPPC will report it in writing to the Authorized Officer and the respective installing authority, if known.
- Clearing will be performed to preserve roots to the extent practicable, while stockpiling vegetation wastes to maintain stability of the site, and provide erosion control. Steep slopes will be graded properly to minimize erosion.
- Cleared vegetation will be disposed of as requested by the BLM, state agency, or the private landowner by either placing back on the reclaimed ROW, stockpiling on the side of the ROW, or removing from the ROW.
- Cuts and fills will be minimized in order to reduce the amount of soil exposed to erosion.
- Available topsoil will be salvaged as listed below:
 - Federal lands managed by the BLM: 4-12 inched across the trench line and the working side of the ROW. Depth to be determined prior to construction and

identified on the alignment sheets.

- Private lands: unless otherwise directed by the private landowner, up to 6 inches across the trench line, except irrigated agricultural lands where up to 12 inches of topsoil will be stripped across the full-width of the right-of-way
- Salvaged topsoil will be kept separate from subsoil.
- Dry drainages or washes that cross the ROW will not be blocked with topsoil piles. Topsoil will be placed on the banks of the drainage. Gaps will be left periodically in the topsoil windrow to avoid ponding and excess diversion of natural runoff during storm events.
- Erosion control measures will be implemented in accordance with Section 5.0 of this Plan.
- Equipment traveling the ROW will not create ruts deeper than 4 inches for distances of 50 feet or greater.

3.3 *Trenching and Blasting*

Construction methods used to excavate a trench will vary depending on soils, terrain, and related factors. In situations such as steep slopes, unstable soils, high water table, or deep or wide trench requirements, trackhoes will generally be used.

Measures will be taken to ensure that access is provided for private landowners or tenants to move vehicles, equipment, and livestock across the trench where necessary. Adequate precautions will also be taken to ensure that livestock are not prevented from reaching water sources because of the open trench. Measures to be taken include contacting livestock operators and providing adequate crossing facilities.

The Contractor will keep wildlife and livestock trails open and passable by adding soft plugs (areas where the trench is excavated and replaced with minimal compaction) during the construction phase. Soft plugs with ramps on either side will be left at well-defined livestock and wildlife trails and at 1-mile intervals to allow access across the trench and provide a means of escape for livestock and wildlife that may fall into the trench.

The depth and width of the trench will vary depending upon pipe diameter and soil types. A typical trench will be excavated approximately 32 inches wide at the bottom and the sides will be sloped to ensure safe construction. The depth of the trench will be approximately 5 feet.

The cover from top of pipe to ground level as graded to finished right-of-way will be in conformance with DOT regulations; a level will be at least 36 inches, except in rocky areas, where the cover will be at least 18-24 inches. Burial depths will increase to minimum four feet below channel bottom at dry wash or stream crossings.

Occasionally, the trench will be excavated to depths greater than the minimum values specified. Greater depths of cover will be required at unpaved road crossings, foreign pipeline crossings, waterbodies, and other obstructions. Where the pipeline traverses locations for which there are definite plans to level the land for irrigation or other purposes, the pipe will be buried at a depth to accommodate these plans.

As a minimum, the trench will be excavated to a depth to allow a clearance of 18 - 24 inches between OPPC's pipeline and other pipelines or underground facilities. Machine excavation will not be performed closer than 5 feet from any existing pipeline encountered in the right-of-way unless authorized by the pipeline owners/operators. Existing pipeline locations will be marked in the field and 48-hour prior notification given to the operator of the underground utility.

Paved roads will be bored to avoid disrupting traffic in accordance with governing agency and

permit requirements. Pipeline crossings of unsurfaced or lightly traveled roads will be made with a mechanical trenching machine or a trackhoe (unless a permitting agency requires a bore). Installation at these locations, including cleanup and restoration of road surfaces, will usually be completed within one day. In such cases, provisions will be made to detour or control passage of traffic during construction (see Appendix 11, Transportation Plan).

Crossings of railroads, foreign utility pipelines, and certain waterbodies (some irrigation trenches, some perennial streams and rivers) would be bored. If necessary, the pipe placed under these features will have a thicker wall than the pipe constructed in other areas to increase structural integrity in these areas.

Where rock is encountered, tractor-mounted mechanical rippers or rock trenching equipment may be used to facilitate excavation. In areas where rippers or trenchers are not practical or sufficient, blasting may be employed. Blasting will be used only where necessary.

Normally, the effects of blasting are confined to the pipeline right-of-way. Where rock formations are encountered and blasting is necessary, authorizations will be obtained and safety precautions observed. Blasting work will be conducted in compliance with federal, state, and local laws, rules, and regulations. The Contractor is responsible for obtaining permits to store blasting materials on Federal lands managed by the BLM. After blasting has been completed, trackhoes will be used to clean the trench for pipe installation. See the Blasting Plan (Appendix 2) for additional blasting requirements.

Excavated subsoil will be stored separately from windrowed topsoil piles. Subsoil will not be stored in flowing waterbodies, dry drainages or washes that cross the right-of-way. Subsoil will be placed on the banks of the drainage. Gaps will be left periodically in the subsoil piles to avoid ponding and excess diversion of natural runoff during storm events.

3.3.1 Trenching Requirements

OPPC's Construction Inspectors will ensure that the Contractor implements the following mitigation measures during trenching operations:

- Utilize the "One Call" system to locate and stake the centerline and limits of underground facilities in the area of proposed excavation.
- Provide 48-hour notification to the owner/operator of any foreign pipeline prior to performing any work within 10 feet of buried or aboveground pressurized gas piping.
- Prohibit machine excavation within 5 feet of any existing pipeline encountered in the right-of-way unless authorized by the pipeline's owner/operator.
- Install livestock crossovers (trench plugs) with ramps on either side of the open trench at maximum 1-mile intervals and at well defined livestock and wildlife trails to facilitate passage of livestock, wildlife, and wild horses across the right-of-way and to prevent animals from becoming trapped in the trench.
- Water flow in irrigation ditches or stock water pipelines crossed by OPPC's pipeline will be maintained at all times unless arrangements are made with the affected parties to temporarily shut off the flow of water.
- Topsoil will not be used to pad the trench or construct trench breakers.

3.4 *Pipe Installation*

Pipe installation will include stringing, bending for horizontal or vertical angles in the alignment, welding the pipe segments together, inspection, coating the joint areas to prevent corrosion, and then lowering-in and padding as described in greater detail below.

3.4.1 Stringing

Line pipe will be shipped directly from the manufacturer by rail to off loading areas on private land and then hauled to staging areas where stringing trucks collect and deliver the pipeline to the right-of-way. Each individual joint of pipe will be unloaded with a sideboom or trackhoe and placed (strung) parallel to the trench in a continuous line. Sufficient pipe for road or waterbody crossings will be stockpiled at temporary use areas near the crossings.

Stringing operations will be coordinated with trenching and installation activities in order to properly manage the construction time at a particular tract of land. Gaps will be left at access points across the trench to allow crossing of the right-of-way.

3.4.2 Bending

After joints of pipe are strung along the trench but before the joints are welded or pressed together, individual joints of pipe will be bent to accommodate horizontal and vertical changes in direction. Field bends will be made utilizing a hydraulically operated bending machine. Where the deflection of a bend exceeds the allowable limits for a field-bent pipe, factory (induction) bends will be installed.

3.4.3 Welding

After pipe joints are bent, the pipe joints will be lined up end-to-end and clamped into position. The pipeline joints will be welded together in conformance with 49 CFR Part 195 Subpart D (Construction).

3.4.4 Inspection

All welds will be visually inspected by an American Welding Society (AWS) certified inspector who is part of the construction management staff. Non-destructive radiographic inspection methods will be conducted in accordance with DOT requirements percentage of welds radiographically inspected will be according to 49 CFR Chapter 1, Part 195.234, Welds: Nondestructive testing. A specialized contractor, AWS certified to perform radiographic inspection, will be employed to perform this work. Any defects will be repaired or cut out as required under the specified regulations and standards. Documents that verify the integrity of the pipeline will be kept on file by OPPC for inspection by the Office of Pipeline Safety, US Department of Transportation.

3.4.5 Coating

To prevent corrosion, the pipe will be externally coated with fusion bonded epoxy coating prior to delivery. After welding, field joints will be coated with a tape wrap, shrinkable sleeve wrap, or field-applied fusion bond epoxy. This step is not necessary for pressure fitted pipe. Before the pipe is lowered into the trench, the pipeline coating will be visually inspected and tested with an electronic detector, and any faults or scratches (holidays) will be repaired.

3.4.6 Lowering-in and Padding

Before the pipe section is lowered into the trench, inspection will be conducted to verify that the pipe is properly fitted and installed into the trench, minimum cover is provided, and the trench bottom is free of rocks and other debris that could damage the external pipe coating.

Dewatering may be necessary where water has accumulated in the trench, and will occur in accordance with the Environmental Protection Plan (Appendix 12). Side-boom tractors will be

used to simultaneously lift the pipe section, position it over the trench, and lower it in place. Specialized padding machines may be used to sift soil fines of 1 ½ inches or smaller from the excavated subsoils to provide rock-free pipeline padding and bedding to a depth of approximately 6 ½ inches above the pipe. Sandbags may be used to pad the bottom of the trench instead of, or in combination with, padding with soil fines. In rocky areas, padding material or a rock shield will be used to protect the pipe. No topsoil will be used to pad the pipe.

3.5 *Backfilling*

Backfilling will begin after a section of pipe has been successfully placed in the trench. Prior to backfilling the trench, the equipment operator will check the trench for wildlife and/or livestock and will be sure any wildlife or livestock found in the trench is removed before backfilling begins. Backfill will be conducted using a bulldozer, rotary auger backfiller, padding machine, or other suitable equipment. Backfilling the trench will generally use the subsoil previously excavated from the trench, except in rocky areas where imported select fill material maybe needed. Backfill will be graded and compacted, where necessary for ground stability, by tamping or walking with a wheeled or tracked vehicle. Compaction will be performed to the extent that there are no voids in the trench. In irrigated agricultural areas, the backfill will be replaced at the same compaction density as the adjacent undisturbed soil. Any excavated materials or materials unfit for backfill will either be utilized elsewhere or properly disposed of in conformance with applicable laws or regulations.

3.5.1 Backfilling Requirements

OPPC's Construction Inspectors will ensure that the Contractor implements the following mitigation measures during backfilling operations:

- Rock will not be used to backfill the trench above the top of the existing bedrock profile.
- Trench breakers will be constructed as defined in the Environmental Protection Plan (Appendix 12).
- The Contractor, if necessary, will place a mound of topsoil over the trench approximately 0.5-foot in height to account for subsidence (except for at road crossings where compaction will be adequate to keep roadway flat). Mounded soil will not be placed in areas that will have surface runoff, such as dry washes or other areas where runoff is channeled such as small depressions, swales, and game trails which cross the ROW. Proper compaction of the trench should eliminate the need for mounding except where frozen soil conditions preclude good compaction.

3.6 *Hydrostatic Testing*

The entire pipeline will be tested in compliance with DOT regulations (49 CFR Parts 195). Prior to filling the pipeline for hydrostatic test, each section of the pipeline will be cleaned by passing reinforced poly pigs through the interior of the line. Incremental segments of the pipeline will then be filled with air or water, pressurized, and held for the duration of the test. The length of each segment tested will depend on topography.

Typically, the hydrostatic tests of individual segments will be conducted in sequence and the test water will be transferred from one segment to another. Test water will be obtained from approved sources. Sources for test water are included in the Pressure Testing Plan (Appendix 8).

Water for hydrostatic testing will be appropriated from various sources utilizing portable pumps driven by diesel and/or gasoline engines. To prevent environmental damage from potential fuel

spills during the operation of the engine(s), additional measures will be implemented when the pumps are located within 200 feet of a waterbody or wetland as described in the Hydrostatic Test Plan (Appendix 8).

Once hydrostatic testing is complete, test water will be discharged back to the original source through a filtration device.

OPPC's Construction Inspectors will ensure that the Contractor implements the following mitigation measures during hydrostatic testing operations:

- Test water will be withdrawn from approved/permitted sources.
- Sufficient notice will be provided to the Environmental Inspector to sample water used for test purposes if required (during appropriation and discharge if applicable).
- Utilize screens on the intake hoses at surface water sources to prevent the entrapment of fish or other aquatic species and monitor the appropriation rate to ensure that adequate downstream flow is maintained to support aquatic life.
- Dewatering will be performed in accordance with the measures defined in the Hydrostatic Testing Plan (Appendix 8) and project permits. Install energy-dissipating devices and/or filter bags to prevent scour, erosion, suspension of sediment, and damage to vegetation. Monitor discharge rates to ensure effectiveness of the energy-dissipating device.

3.7 Pipeline Commissioning

Following hydrostatic testing, any necessary tie-ins will be made. The welds on the tie-ins will be inspected and the pipeline dried before commissioning begins. Commissioning includes testing of controls and communication systems prior to pipeline operation.

3.8 Cleanup and Restoration

Cleanup and restoration of the surface along the right-of-way and any TUAs will be performed by removing any construction debris and by performing final grading to the finished contour. Steps will be taken to minimize erosion, restore the natural ground contour, and account for trench settling as described in the Environmental Protection Plan (Appendix 12). Seeding will be performed in accordance with private landowner and agency requirements as described in the Environmental Protection Plan.

3.8.1 Cleanup and Restoration Requirements

OPPC's Construction Inspectors will ensure that the Contractor implements the following mitigation measures during cleanup and restoration activities:

- The right-of-way and other project-related areas where soil has been disturbed will be restored as close to pre-construction grades, compaction, and other conditions as possible.
- Decompact subsoil to the depth of compaction prior to topsoil replacement. In areas where topsoil was not salvaged, decompact topsoil as necessary.
- Return topsoil to pre-construction depths and locations.
- The Contractor will remove rocks larger than 4 inches in any dimension from the restored topsoil in irrigated agricultural areas.
- Logs, limbs, and excess rock may be randomly distributed across the right-of-way to block use of the right-of-way by motor vehicles in selected areas, used as reclamation materials and/or slope stabilizing devices. Excess rock distributed on the ROW will not

exceed the percentage of rock found on adjacent, non-disturbed lands. Any rocks removed from the right-of-way will be disposed of in an approved disposal site according to agency mineral material disposal authorities. OPPC will be responsible for payment for any rocks removed from federal lands. OPPC will coordinate with private landowners and the agencies regarding the methods of disposal.

- Seed disturbed areas with the goals of replacing suitable wildlife habitat and browse and providing a vegetative cover that will stabilize the soil to control erosion and sedimentation. Typical seed mixes will reflect environmental conditions and ecological range sites along the project route and emphasize the use of native species. Seed mixes, rates and application areas as well as success criteria are provided in the Environmental Protection Plan (Appendix 12).
- Use certified weed-free seed purchased from and blended by qualified producers and dealers.
- Drill seeding is preferred but broadcast seeding will be used in areas as described in the Environmental Protection Plan (Appendix 12). Seeding will be completed prior to distribution of woody material.
- Irrigation ditches, cattle guards, fences, and artificial and natural livestock and wildlife water sources will be maintained and repaired to at least pre-construction conditions. This includes replacement of cattle guards if necessary to support heavy loads prior to crossing and maintenance of water supply to livestock throughout construction.

3.9 *Livestock Barrier and Other Livestock Issues*

Fences crossing the right-of-way will be braced, cut, and temporarily fitted with gates to permit passage. During construction, the opening will be controlled as necessary (including use of cattle guards) to prevent the escape of livestock. Existing fences will be replaced and braces left in place upon completion of construction activities. Prior to cutting or replacing the fences, OPPC will notify grazing permittees and private landowners in order to give them the opportunity to be present when the fence is cut. During construction, the Contractor will take care not to obstruct or damage gates or cattle guards. Those damaged or made inoperable will be repaired to BLM and/or private landowner satisfaction.

OPPC will provide compensation or interim measures will be provided for any critical facilities (such as watering sites or pipelines) that are disrupted during the construction or restoration process.

3.9.1 Livestock Related Requirements

OPPC's Construction Inspectors will ensure that the Contractor implements the following mitigation measures relating to fencing:

- The Contractor will repair damaged livestock facilities (corrals, fences, water sources, etc.) to BLM or private landowner's specifications. These facilities will be left in the same condition as the pre-construction condition. The Contractor will install temporary fences when necessary to prevent livestock movement across fences temporarily removed for construction.
- Maintain the current condition and usability of stock ponds and other facilities along the right-of-way. If water pipelines need to be severed during construction, the leasee/landowner will be notified prior to water supply disruption. Any severed water pipelines will be repaired to as good as before the pipe was severed. OPPC will replace water for livestock affected by the severed water pipeline.

- Install livestock/wildlife crossovers (trench plugs) with ramps on either side of the open trench at 1-mile intervals and at well defined livestock and wildlife trails.

3.10 Health and Safety

OPPC's Construction Inspectors will ensure that the Contractor implements the following health and safety measures:

- The Contractor will comply with requirements listed in the Blasting Plan (Appendix 2), Fire Prevention and Suppression Plan (Appendix 5), Hazardous Materials Management and Spill Prevention, Containment, and Countermeasure Plan (Appendix 7), Pressure Testing Plan (Appendix 8), and the Safety Plan (Appendix 10).
- The Contractor will cease pipeline construction activities, with the exception of pneumatic or hydrostatic testing operations and HDD pullback, by sunset. Nighttime construction (with the exception of pneumatic or hydrostatic testing and HDD pullback) will not be permitted unless approved by OPPC.
- No burning of brush or debris, and no campfires, lunch fires, or warming fires will be allowed on the right-of-way in accordance with the Fire Prevention and Suppression Plan (Appendix 5) and BLM fire restrictions.
- The Contractor will control fugitive dust in accordance with the Fugitive Dust Control Plan (Appendix 6) and any applicable county, state, or federal permit requirements.
- The Contractor will ensure that equipment is properly maintained to reduce emissions and noise.
- Prohibit camping on the right-of-way.

3.11 Waste Disposal

OPPC Construction Inspectors will ensure that the Contractor implements the following waste disposal measures:

- No littering will be allowed on the right-of-way. Construction and operations sites will be maintained in a sanitary condition at all times and waste materials at these sites will be disposed of promptly at an appropriate waste disposal site. Waste is defined as discarded matter including, but not limited to, human waste, discarded food, trash, garbage, refuse, oil drums, petroleum products, blasting boxes, and equipment.
- The Contractor will dispose of excess or unsuitable materials at commercial disposal sites, commercial recycling centers, and disposal sites approved by OPPC.
- The Contractor will comply with the hazardous waste disposal requirements included in the Hazardous Materials Management and Spill Prevention, Containment, and Countermeasure Plan (Appendix 7).
- Human wastes, temporarily located within self-contained facilities (portable toilets), will be removed from the right-of-way and disposed of in accordance with applicable laws and regulations.

4.0 OPERATION AND MAINTENANCE ACTIVITIES

OPPC's pipeline control center in Tulsa, OK will be responsible for monitoring pipeline operations after construction is completed. Maintenance and operating personnel will be coordinated from the local field office so that any area can be reached within a short period in case of an emergency or malfunction. These personnel will be qualified and trained employees of OPPC and or OPPC approved contractors.

OPPC's pipeline system will be operated and maintained in accordance with industry standard procedures to ensure safe operation and to maintain the integrity of its pipeline system. OPPC's operating and maintenance procedures will be developed in accordance with the safety standards outlined in 49 CFR Parts 195 and other applicable regulations. These procedures will continue to be implemented during the operations and maintenance of the pipeline facilities.

4.1 Surveillance

Communications and detection systems for the project will be developed. The frequency of ground inspections of the pipeline will be in compliance with Office of Pipeline Safety requirements.

Buildings intended for human occupancy within 220 yards on either side of the pipeline will be identified as required by the appropriate regulations for natural gas pipelines. This information will be used to determine the class location that will be used in turn as criteria for selection frequencies of various inspection procedures, designing new pipeline facilities, and upgrading existing facilities.

4.2 Right-of-Way Access

Surface travel along the right-of-way will generally be limited to periodic valve inspections, right-of-way maintenance/inspection, and any pipeline repairs that may be needed. In addition to the above activities, it will also be necessary to access the right-of-way for the following:

- corrosion control survey crews,
- erosion control maintenance,
- possible reclamation issues,
- noxious and invasive weed control surveys and maintenance (in conformance with the Noxious Weed Management Plan [Appendix 9]), and
- periodic monitoring of irrigation ditches and irrigated agricultural fields for two seasons after construction to ensure the integrity of the trench and field flow characteristics.

4.3 Pipeline and Site Maintenance and Repair

OPPC's pipelines will be built to current standards of engineering, inspection, and cathodic protection and will require minimal maintenance. Repairs required because of minor corrosion and slight external mechanical damage to pipe and coating material can be made without interruption or with minimum interruption of service. Repairs are usually made under a reduced pipeline pressure and require a minimum amount of excavation and heavy equipment. Other minor repairs include correction of erosion control measures, repairs to waterbars, replacement of pipeline markers, and removal of debris from the right-of-way. These repairs may require earth-moving equipment and hand tools.

Some settling of the backfilled trench will occur, particularly after the first winter following construction. In this case, subsidence and potholes will be filled and the surface restored to

normal grade and reseeded. If subsidence is discovered in subsequent years, the potholes will be filled and the surface restored to normal grade and reseeded.

OPPC will also maintain the right-of-way in a safe, useable condition as directed by the BLM field representative. A regular maintenance program will include, but is not limited to, soil stabilization and noxious weed management and control for all areas impacted by the project. OPPC will maintain a 50-ft wide permanent right-of-way corridor on federal lands. This corridor will be kept free of trees by periodic clearing or cutting. However, OPPC will endeavor to leave trees that were not removed during construction, and which are immediately adjacent to rivers/streams, for the purpose of bank stabilization, unless directed to remove it by regulating authorities.

Pipeline failures or external mechanical damage needing major repairs may require shutdown of the pipeline. In these instances, the pipeline segment will be isolated between mainline valves and the natural gas liquids in the segment needing repair will be vented to the atmosphere, burned off with a flare, or collected for transportation to another part of the pipeline system.. To facilitate these repairs, equipment, tools, pre-tested pipe, and other materials for emergency use will be stored at existing operations facilities.

OPPC will be responsible for noxious weed control within the limits of the right-of-way. OPPC will consult with the BLM Authorized Officer or field representative and local weed districts for acceptable weed control management techniques within the limits imposed in the grant stipulations. See the Noxious Weed Management Plan (Appendix 9) for additional information.

4.4 Vehicle and Equipment Maintenance

OPPC will ensure that operations equipment is properly maintained to reduce emissions and leaks.

4.5 Wildlife Avoidance Periods

Pipeline maintenance will be scheduled to minimize the impact to wildlife closures as defined in the Biological Resources Protection Plan (Appendix 1). Emergency maintenance on Federal lands managed by the BLM during the wildlife restriction times will require notification to the BLM prior to accessing the ROW.

4.6 Survey Monuments

OPPC will ensure that a registered land surveyor or a BLM cadastral surveyor restores any General Land Office or BLM cadastral survey corners/monuments obliterated during operations. Procedures to restore the monuments will be as described in the Manual of Surveying Instructions for the Survey of the Public Lands in the United States, latest edition. OPPC will record these surveys in the appropriate county and send a copy to the Authorized Officer. If the BLM cadastral surveyors or other federal surveyors are used to restore the disturbed survey monument, OPPC will be responsible for the survey cost.

5.0 EMERGENCY PROCEDURES

OPPC and the Contractor will develop two Emergency Plans that will be followed by OPPC and Contractor employees in the event of an emergency at any pipeline facility associated with this project. First, a Construction Emergency Plan will be written to be used during pipeline construction. The second plan will be written for situations that could occur during pipeline operations (Operations Emergency Plan). The Operations Emergency Plan will be developed in accordance with applicable 49 CFR Parts 195 requirements. Both Emergency Plans will include written procedures used to minimize the hazards of natural gas liquids pipeline emergencies.



The Emergency Plans will address topics such as administrative issues, emergency planning, assignment of responsibilities, handling and evaluating emergency calls, responding to and controlling emergency situations, news media communications, restoration of service, obtaining and reporting emergency information, employee training, liaison with public officials, general public information program, location/inventory of pipeline repair materials and equipment, and lists of emergency telephone numbers and key personnel. OPPC's Emergency Plans will be updated and maintained in conformance with applicable DOT Office of Pipeline Safety requirements.

6.0 TERMINATION AND ABANDONMENT OF RIGHT-OF-WAY AND FACILITIES

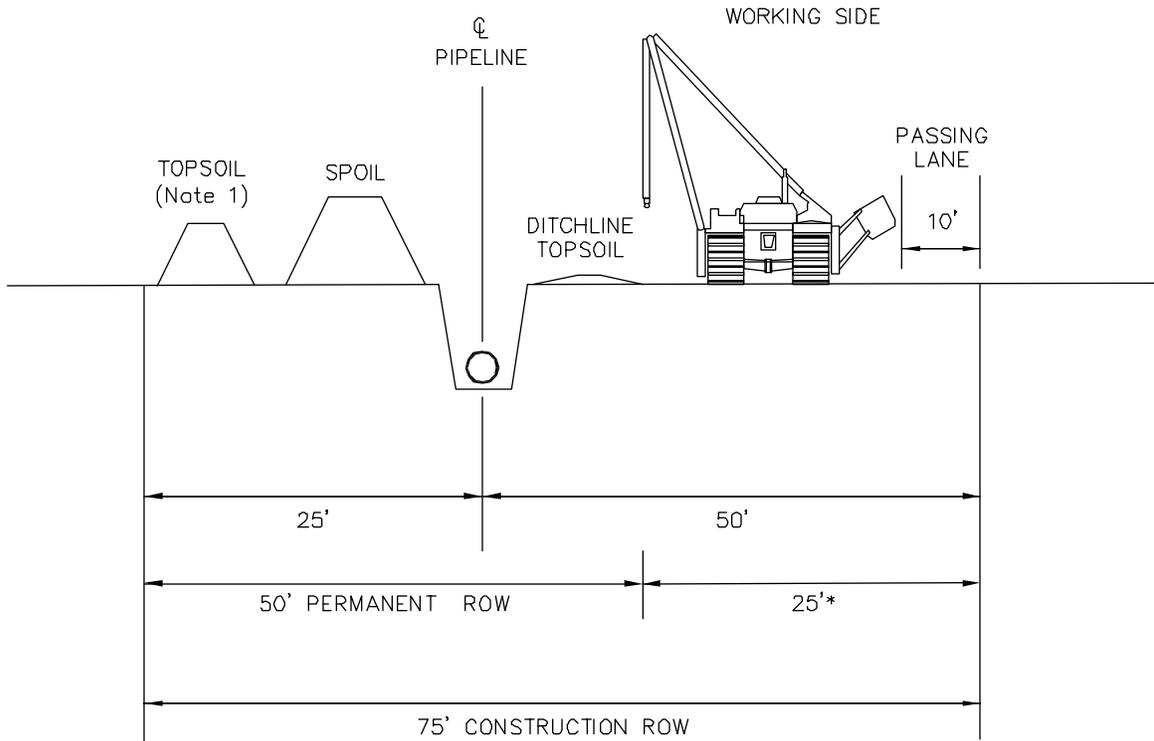
Prior to termination of the BLM Right-of-Way Grant, or any portion thereof, OPPC will contact the Authorized Officer to arrange for a pre-termination meeting and joint inspection of the right-of-way. This meeting and inspection will take place a minimum of 30 days prior to termination. The meeting and inspection will be held so that an agreement on an acceptable termination and rehabilitation plan can be reached. This plan will include, but not be limited to, abandonment and/or removal of facilities, drainage structures and/or surface material, recontouring, replacing of topsoil, seeding, and monitoring (including monitoring of noxious weeds). The Authorized Officer must approve the plan in writing. OPPC will relinquish all, or those specified portions, of the right-of-way in accordance with the termination plan.

DRAFT

**ATTACHMENT 1
ALIGNMENT SHEETS**

Alignment sheets are provided under separate cover.

**ATTACHMENT 2
CONSTRUCTION TYPICALS**



* ADDITIONAL TEMPORARY WORK SPACE FOR CONSTRUCTION

NOTES:

1. THIS IS AN ALTERNATE TOPSOIL LOCATION FOR THE DITCH LINE TOPSOIL DEPENDING UPON THE CONDITIONS ENCOUNTERED IN THE FIELD DURING CONSTRUCTION.

REVISIONS						DRAWN BY:	RC	 OVERLAND PASS PIPELINE COMPANY, LLC 100 WEST 5TH STREET TULSA, OK 74103-4298				
△						CHECKED BY:	CAM					
△						REVIEWED BY:						
△						APPROVED BY:						
△						PROJECT MANAGER:						
△	ISSUED FOR REVIEW	9/10/07	RC									
NO.	DESCRIPTION	DATE	BY	CHK.	APPR.	SCALE/NONE	PROJECT NUMBER	2275-01	DRAWING NUMBER	OPPL-TYP-100	REV.	A

⊕
EXISTING
PIPELINE

⊕
PIPELINE

WORKING SIDE

TOPSOIL
(Note 1)

SPOIL

DITCHLINE
TOPSOIL

PASSING
LANE

10'

25'

25'

50'

50' PERMANENT ROW

25'*

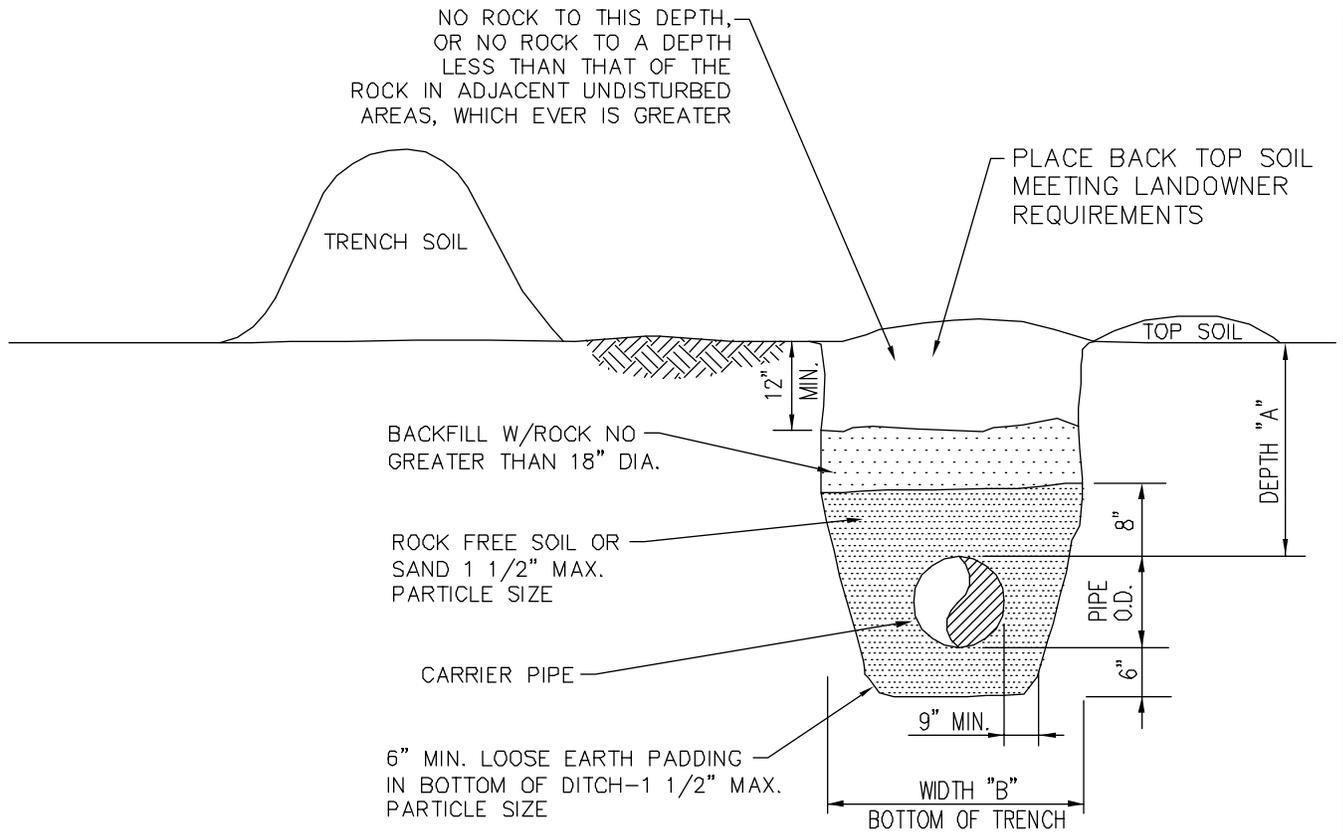
75' CONSTRUCTION ROW

* ADDITIONAL TEMPORARY WORK
SPACE FOR CONSTRUCTION

NOTES:

1. THIS IS AN ALTERNATE TOPSOIL LOCATION FOR THE DITCH LINE TOPSOIL DEPENDING UPON THE CONDITIONS ENCOUNTERED IN THE FIELD DURING CONSTRUCTION.

REVISIONS						DRAWN BY:		RC	
△						CHECKED BY:	CAM		 <p>OVERLAND PASS PIPELINE COMPANY, LLC 100 WEST 5TH STREET TULSA, OK 74103-4298</p>
△						REVIEWED BY:			
△						APPROVED BY:			
△						PROJECT MANAGER:			
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△	ISSUED FOR REVIEW	9/10/07	RC			SCALE: NONE			
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						DRAWING NUMBER		OPPL-TYP-101	
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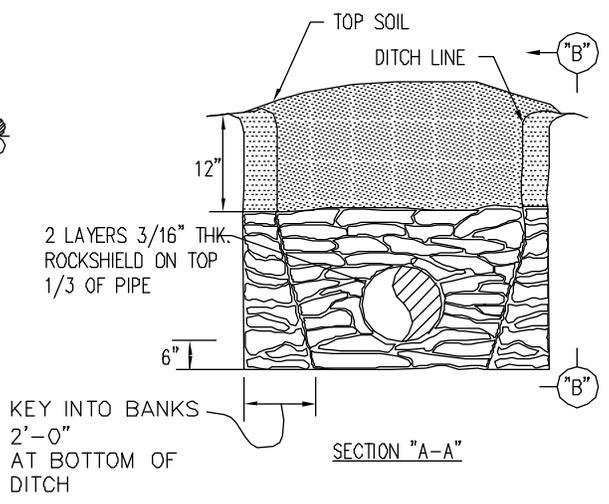
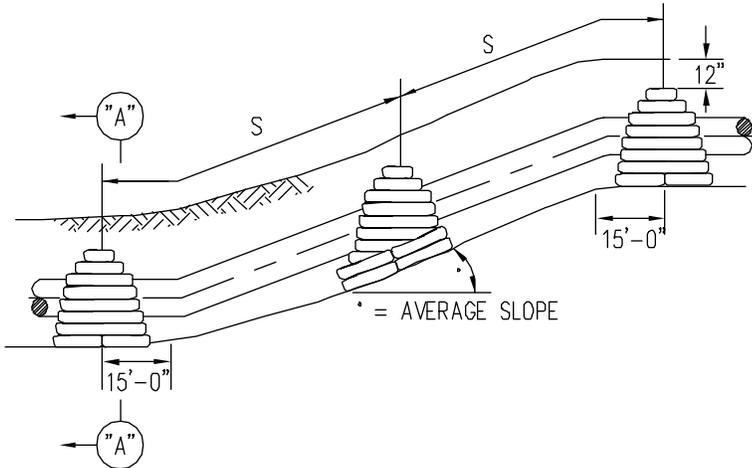
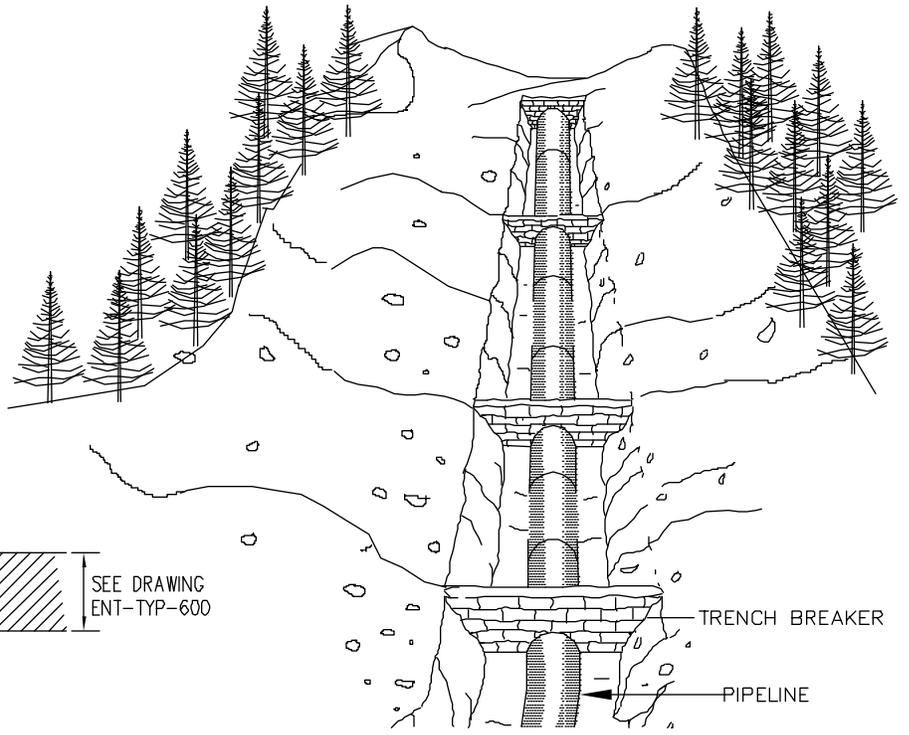
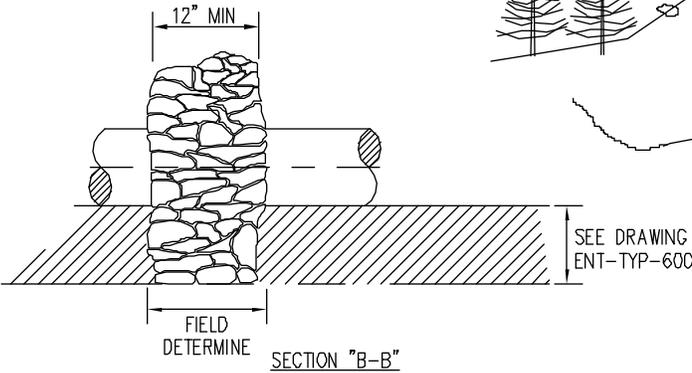


NOMINAL PIPE SIZE (INCHES)	REQUIRED DIMENSIONS (INCHES) FOR PIPE INSTALLATION IN:			
	EARTH		CONSOLIDATED ROCK	
	WIDTH B	DEPTH* A	WIDTH B	DEPTH* A
4	12	36	12	30
6	18	36	18	30
8	20	36	20	30
10	22	36	22	30
12	24	36	24	30
14	24	36	24	30

*UNLESS GREATER DEPTH REQUIRED BY PERMIT OR ROW AGREEMENT.

REVISIONS						DRAWN BY:	RC	 OVERLAND PASS PIPELINE COMPANY, LLC 100 WEST 5TH STREET TULSA, OK 74103-4298				
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△						REVIEWED BY:						
△						APPROVED BY:						
△						PROJECT MANAGER:						
△	ISSUED FOR REVIEW	9/10/07	RC									
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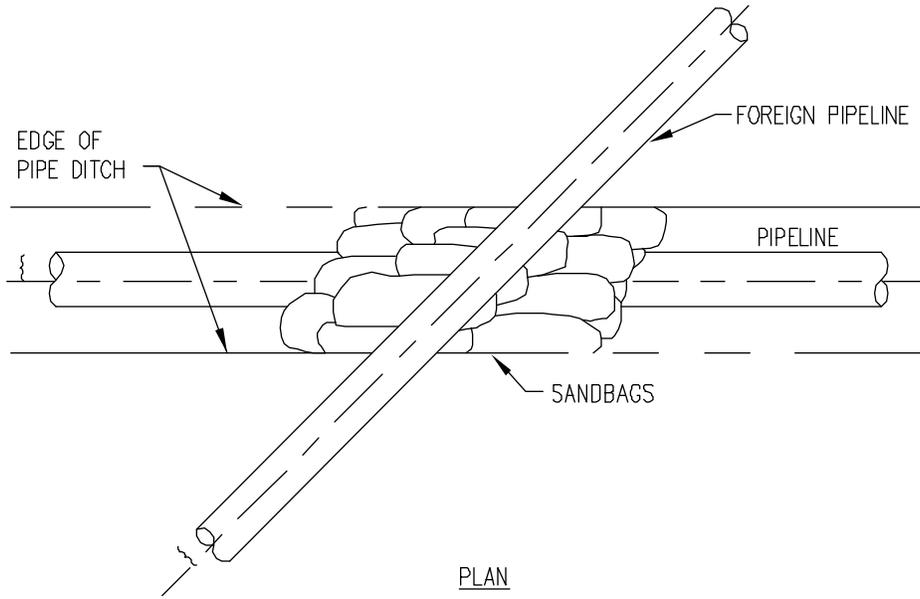
AVG. SLOPE (%)	SPACING (S)
LESS THAN 5%	NONE
5% - 15%	300'
15% - 30%	200'
MORE THAN - 30%	100'



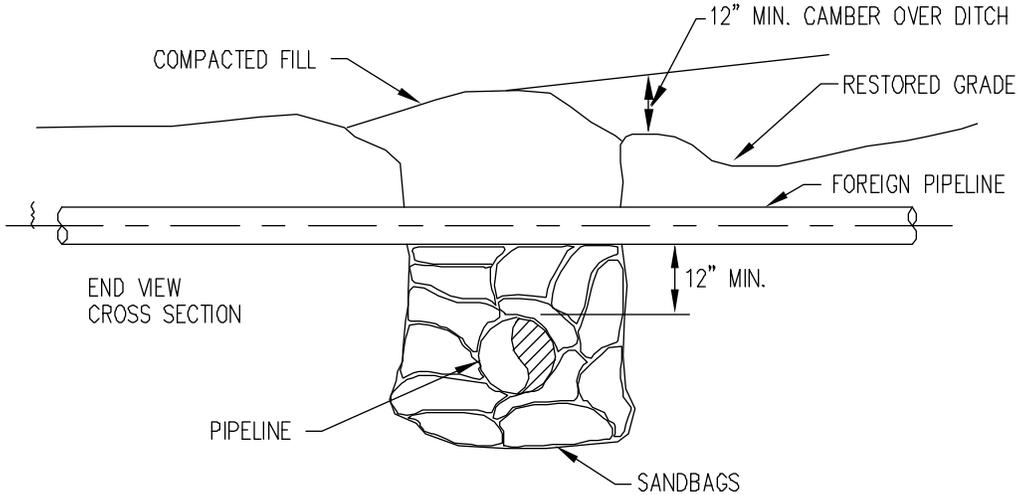
NOTES:

- TRENCH BREAKERS SHALL BE INSTALLED:
 - ON SLOPES ALONG THE TRENCH LINE WHERE THE NATURAL DRAINAGE PATTERN, PROFILE, AND TYPE OF BACKFILL MATERIAL MAY RESULT IN LOSS OF BACKFILL MATERIAL OR ALTERATION OF THE NATURAL PATTERN
 - AT THE BASE OF SLOPES ADJACENT TO WATERBODIES AND WETLANDS
 - WHERE NEEDED TO AVOID DRAINING A WETLAND
 - ON UPLAND SLOPES, AT THE SAME SPACING AS SLOPE BREAKERS AND UP SLOPE OF SLOPE BREAKERS
 - IN AGRICULTURAL \geq 5 PERCENT LAND AND RESIDENTIAL AREAS WHERE PERMANENT SLOPE BREAKERS ARE NOT TYPICALLY INSTALLED, AT THE SAME SPACING AS IF PERMANENT SLOPE BREAKERS WHERE REQUIRED.
- OPEN WEAVE HEMP OR JUTE SACKS SHALL BE FILLED WITH A MINIMUM OF 55lbs IN A MIXTURE OF SAND & SUBSOIL.
- BREAKER SPACING AND CONFIGURATION, INCLUDING THE NEED TO KEY THE BREAKER INTO THE UNDISTURBED SOIL AT THE SIDES AND BOTTOM OF THE TRENCH, MAY CHANGE AS DETERMINED BY COMPANY ENGINEER OR SIMILARLY QUALIFIED PROFESSIONAL.
- ALL MATERIALS SHALL BE SUPPLIED BY CONTRACTOR.
- INSTALL ONE TRENCH BREAKER UNDER EVERY SLOPE BREAKER.

REVISIONS						DRAWN BY:	RC	OVERLAND PASS PIPELINE COMPANY, LLC 100 WEST 5TH STREET TULSA, OK 74103-4298					
△						CHECKED BY:	GAM						
△						REVIEWED BY:							
△						APPROVED BY:							
△						PROJECT MANAGER:							
△	ISSUED FOR REVIEW	9/10/07	RC			SCALE: NONE		PROJECT NUMBER	2275-01	DRAWING NUMBER	OPPL-TYP-110	REV.	A



PLAN

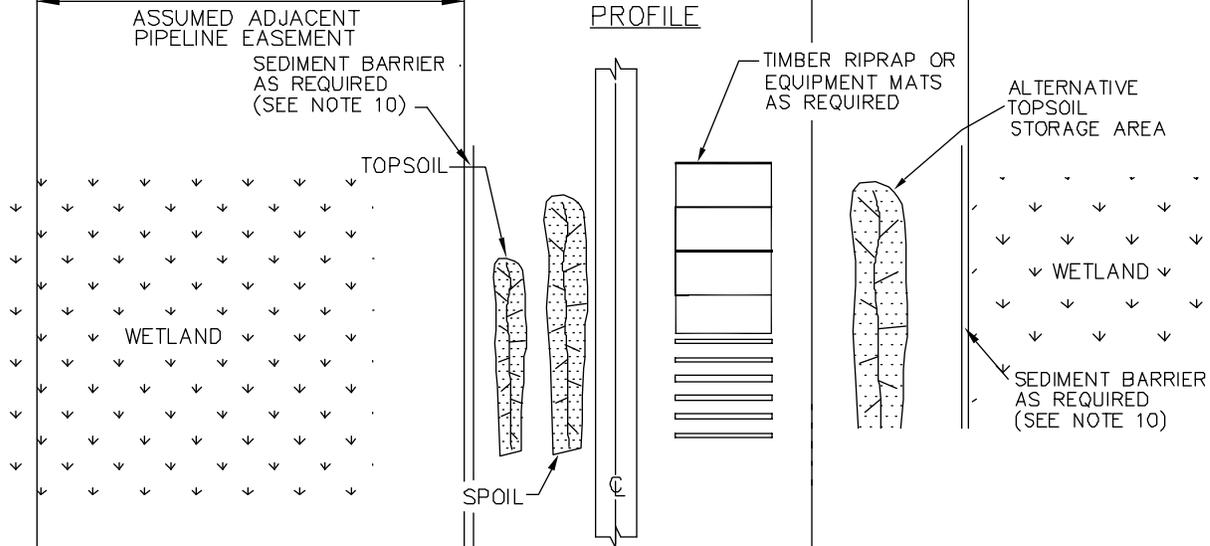
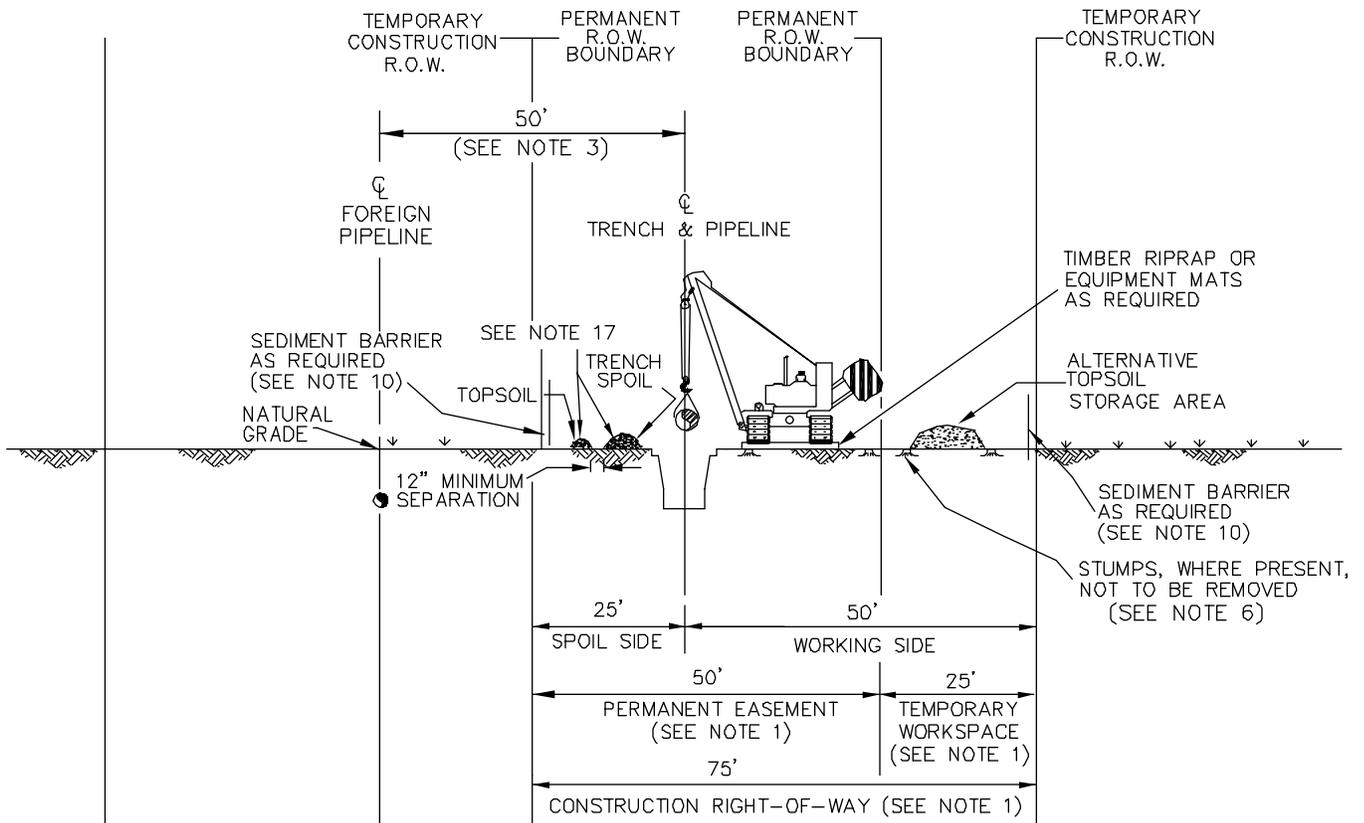


ELEVATION

NOTES:

1. BURIED PIPELINE(S) LOCATIONS TO BE DETERMINED IN ACCORDANCE WITH ONE CALL AND BY ELECTRONIC MEANS IN ADVANCE OF PIPELINE INSTALLATION AND CONFIRMED BY CAREFULLY EXPOSING BY HAND DIGGING OR "HYDRO VAC".
2. OWNER OF BURIED PIPELINE(S) SHALL BE NOTIFIED AT LEAST 48 HOURS IN ADVANCE OF EXCAVATION OF CROSSING, OR AS SPECIFIED ON THE CROSSING LINE LIST. THE OWNER OR HIS REPRESENTATIVE SHALL BE REQUESTED TO BE PRESENT ON SITE WHEN THE CROSSING OPERATION IS TO TAKE PLACE.
3. PIPELINE CROSSINGS SHALL BE CONSTRUCTED ACCORDING TO THIS DETAIL, OR A SPECIFIC CROSSING PERMIT OR DRAWING IF MORE STRINGENT.

REVISIONS						DRAWN BY:	RC	 OVERLAND PASS PIPELINE COMPANY, LLC 100 WEST 5TH STREET TULSA, OK 74103-4298 FOREIGN PIPELINE CROSSING					
△						CHECKED BY:	CAM						
△						REVIEWED BY:							
△						APPROVED BY:							
△						PROJECT MANAGER:							
△	ISSUED FOR REVIEW	9/10/07	RC			SCALE NONE		PROJECT NUMBER	2275-01	DRAWING NUMBER	OPPL-TYP-119	REV.	A
NO.	DESCRIPTION	DATE	BY	CHK.	APPR.			PROJECT NUMBER	DRAWING NUMBER	REV.	A		



PLAN VIEW

REVISIONS						NO.	DESCRIPTION	DATE	BY	CHK.	APPR.
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△	ISSUED FOR REVIEW		9/10/07	RC							

DRAWN BY:	RC	 <p>OVERLAND PASS PIPELINE COMPANY, LLC 100 WEST 5TH STREET TULSA, OK 74103-4298</p> <p>CH2MHILL TRIGON EPC</p>
CHECKED BY:	CAM	
REVIEWED BY:		
APPROVED BY:		
PROJECT MANAGER:		

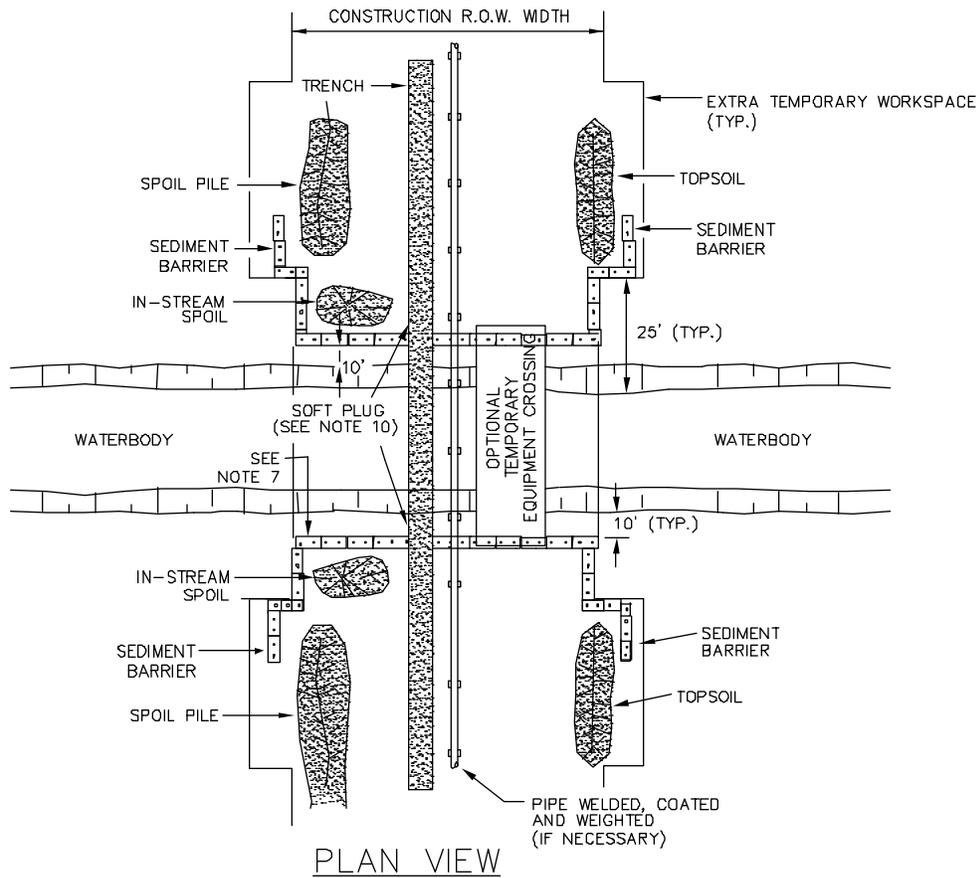
WETLAND CROSSING PROCEDURE (SHT. 1 OF 2)	
PROJECT NUMBER	2275-01
DRAWING NUMBER	OPPL-TYP-122
REV.	A

NOTES:

1. CONSTRUCTION RIGHT-OF-WAY WILL TYPICALLY BE 75 FEET WIDE CONSISTING OF 50 FEET OF PERMANENT EASEMENT AND 25 FEET OF TEMPORARY WORKSPACE.
2. THE SAME LAYOUT APPLIES WHETHER CONSTRUCTION R.O.W. DOES OR DOES NOT ABUT A FOREIGN R.O.W.
3. IF OFFSET FROM A FOREIGN PIPELINE, THE OFFSET WILL BE 50 FEET FOR MOST WETLANDS, BUT MAY BE INCREASED OR DECREASED DEPENDING ON THE SITE SPECIFIC CONSTRUCTION REQUIREMENTS.
4. LOCATE ANY EXTRA TEMPORARY WORK SPACE AREAS AT LEAST 50 FEET FROM EDGE OF WETLAND UNLESS OTHERWISE SPECIFIED IN A SITE-SPECIFIC PLAN.
5. CLEARING OF VEGETATION AND TREES IS PROHIBITED BETWEEN TEMPORARY EXTRA WORK SPACE AND THE EDGE OF THE WETLAND.
6. CUT VEGETATION AND TREES OFF AT GROUND LEVEL, LEAVING EXISTING ROOT SYSTEMS IN PLACE AND REMOVE CUTTINGS FROM THE WETLAND FOR DISPOSAL.
7. LIMIT CONSTRUCTION EQUIPMENT TO ONE PASS THROUGH WETLANDS TO THE EXTENT PRACTICABLE.
8. NO REFUELING OF EQUIPMENT OR CONCRETE COATING ACTIVITIES WITHIN 300 FEET OF WETLAND EXCEPT IN ACCORDANCE WITH THE SPCC PLAN. NO STORAGE OF HAZARDOUS MATERIALS WITHIN 100 FEET OF ANY WETLAND.
9. IF SATURATED AT TIME OF CONSTRUCTION, REDUCE SOIL COMPACTION BY UTILIZING WIDE-TRACK OR BALLOON TIRE CONSTRUCTION EQUIPMENT OR NORMAL EQUIPMENT OPERATED ON TIMBER RIPRAP OR EQUIPMENT MATS.
10. AVOID ADJACENT WETLANDS. INSTALL SEDIMENT BARRIERS IMMEDIATELY AFTER INITIAL GROUND DISTURBANCE ACROSS THE ENTIRE CONSTRUCTION R.O.W. IMMEDIATELY UPSLOPE OF THE WETLAND BOUNDARY AND AT THE EDGE OF THE CONSTRUCTION R.O.W. ALONG THE WETLAND AS DIRECTED BY THE COMPANY INSPECTOR.
11. SEGREGATE THE TOP 1 FOOT OF TOPSOIL FROM THE AREA DISTURBED BY TRENCHING, EXCEPT IN AREAS WHERE STANDING WATER OR SATURATED SOILS ARE PRESENT. MAINTAIN 12" SEPARATION BETWEEN TOPSOIL AND TRENCH SPOIL.
12. LEAVE GAPS IN TOPSOIL AND SPOIL PILES AT OBVIOUS DRAINAGES. DO NOT PUSH UPLAND SOILS INTO CREEKS OR WETLANDS. DO NOT USE TOPSOIL FOR PADDING. AVOID SCALPING VEGETATED GROUND SURFACE WHEN BACKFILLING SPOIL PILE.
13. IF SATURATED AT TIME OF CONSTRUCTION, LEAVE HARD PLUGS AT THE EDGE OF WETLAND UNTIL JUST PRIOR TO LOWERING IN.
14. LOWER-IN PIPE, INSTALL TRENCH BREAKERS AT WETLAND EDGES AS DIRECTED BY THE COMPANY INSPECTOR. BACKFILL IMMEDIATELY ON COMPLETION OF CONSTRUCTION.
15. REMOVE ANY TIMBER RIPRAP OR EQUIPMENT MATS FROM WETLANDS UPON COMPLETION OF CONSTRUCTION.
16. RESTORE GRADE TO NEAR PRE-CONSTRUCTION TOPOGRAPHY AND REPLACE TOPSOIL, WHERE SALVAGED, WITHOUT A CROWN OVER THE TRENCH.
17. TOPSOIL AND TRENCH SPOIL RELATIVE POSITIONS CAN, AS DIRECTED BY THE COMPANY INSPECTOR, BE ADJUSTED TO FIT SITE CONDITIONS.

REVISIONS						DRAWN BY:	RC	 OVERLAND PASS PIPELINE COMPANY, LLC 100 WEST 5TH STREET TULSA, OK 74103-4298
△						CHECKED BY:	GAM	
△						REVIEWED BY:		
△						APPROVED BY:		
△						PROJECT MANAGER:		
△	ISSUED FOR REVIEW	9/10/07	RC					
NO.	DESCRIPTION	DATE	BY	CHK.	APPR.	SCALE/NONE	PROJECT NUMBER: 2275-01 DRAWING NUMBER: OPPL-TYP-122A REV. A	



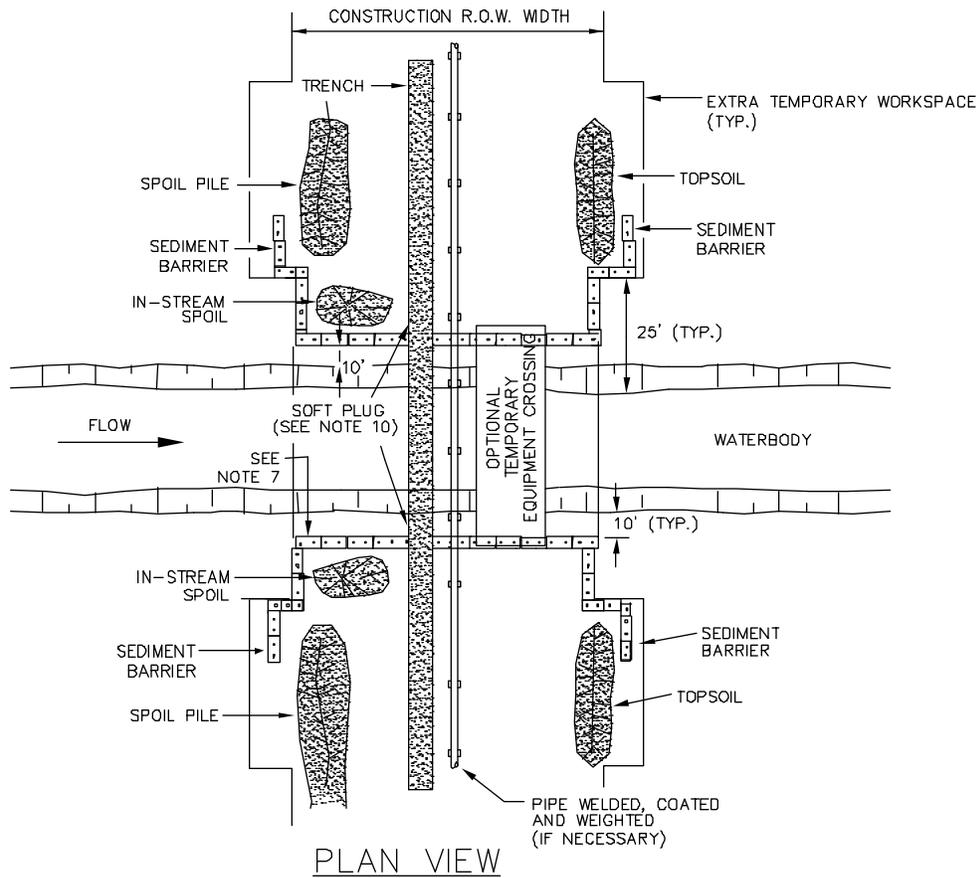


PLAN VIEW

NOTES:

1. METHOD APPLIES TO WATERBODIES THAT ARE NOT STATE-DESIGNATED FISHERIES WHERE FLUME CROSSINGS ARE NOT REQUIRED. IF TOPOGRAPHY PERMITS TEMPORARY EQUIPMENT BRIDGE INSTALLATION, THE CONTRACTOR SHALL TRENCH, STRING, WELD, COAT, WEIGHT (IF NECESSARY), LOWER IN AND BACKFILL UTILIZING THE MAIN LINE CREW TRAVELING OVER THE BRIDGE. IF TOPOGRAPHY PROHIBITS INSTALLATION OF A TEMPORARY EQUIPMENT BRIDGE, CONTRACTOR SHALL TRENCH UP TO BOTH SIDES OF CROSSING; STRING, WELD, COAT AND WEIGHT (IF NECESSARY) USING THE MAINLINE CREW. IN STREAM EXCAVATION, LOWER IN, AND BACKFILL WILL UTILIZES A CLAM OR HOES WORKING FROM THE BANKS.
2. SCHEDULE CROSSING DURING LOW WATER LEVEL IF POSSIBLE.
3. COMPLETE ALL IN-STREAM ACTIVITIES WITHIN 24 HOURS IF FEASIBLE.
4. NO REFUELING OF MOBILE EQUIPMENT WITHIN 300 FEET OF WATERBODY.
5. INSTALLATION OF TEMPORARY EQUIPMENT CROSSING WHERE REQUIRED BY PERMITS OR AGENCIES; OPTIONAL AT THE DISCRETION OF THE COMPANY'S INSPECTOR AT ALL OTHER CROSSINGS.
6. IN AGRICULTURAL LAND, STRIP TOPSOIL FROM SPOIL STORAGE AREA.
7. CONSTRUCT SEDIMENT BARRIERS ALONG THE SIDES OF STOCKPILES AND ACROSS THE ENTIRE CONSTRUCTION R.O.W. TO PREVENT SILT LADEN WATER AND SPOIL FROM FLOWING BACK INTO WATERBODY. BARRIERS MAY BE TEMPORARILY REMOVED TO ALLOW CONSTRUCTION ACTIVITIES BUT MUST BE REPLACED BY THE END OF EACH WORK DAY.
8. IN-STREAM SPOIL TO BE STORED OUT OF THE STREAM CHANNEL A MINIMUM OF 10 FEET FROM THE TOP OF BANK.
9. TRENCH THROUGH WATERBODY USING MAINLINE EXCAVATION EQUIPMENT WHERE PRACTICAL.
10. INSTALL TEMPORARY (SOFT) PLUGS AT THE EDGE OF STREAM BANKS UNTIL JUST PRIOR TO PIPE INSTALLATION TO CONTROL TRENCH SLOUGHING.
11. BACKFILL WITH NATIVE MATERIAL.
12. RESTORE WATERBODY CHANNEL TO APPROXIMATE PRE-CONSTRUCTION PROFILE AND SUBSTRATE.
13. RESTORE STREAM BANKS TO APPROXIMATE ORIGINAL CONDITION AND STABILIZE, AS REQUIRED.
14. ALL DIMENSIONS INDICATED SHALL BE DETERMINED BY ACTUAL CONSTRUCTION CONDITIONS.

REVISIONS						DRAWN BY:	RC	 OVERLAND PASS PIPELINE COMPANY, LLC 100 WEST 5TH STREET TULSA, OK 74103-4298 CH2MHILL TRIGON EPC NON-FLOWING WATERBODY CROSSING OPEN-CUT			
△						CHECKED BY:	CAM				
△						REVIEWED BY:					
△						APPROVED BY:					
△						PROJECT MANAGER:					
△	ISSUED FOR REVIEW	9/10/07	RC			SCALE/NOTE					
NO.	DESCRIPTION	DATE	BY	CHK.	APPR.	PROJECT NUMBER	2275-01	DRAWING NUMBER	OPPL-TYP-124	REV.	A

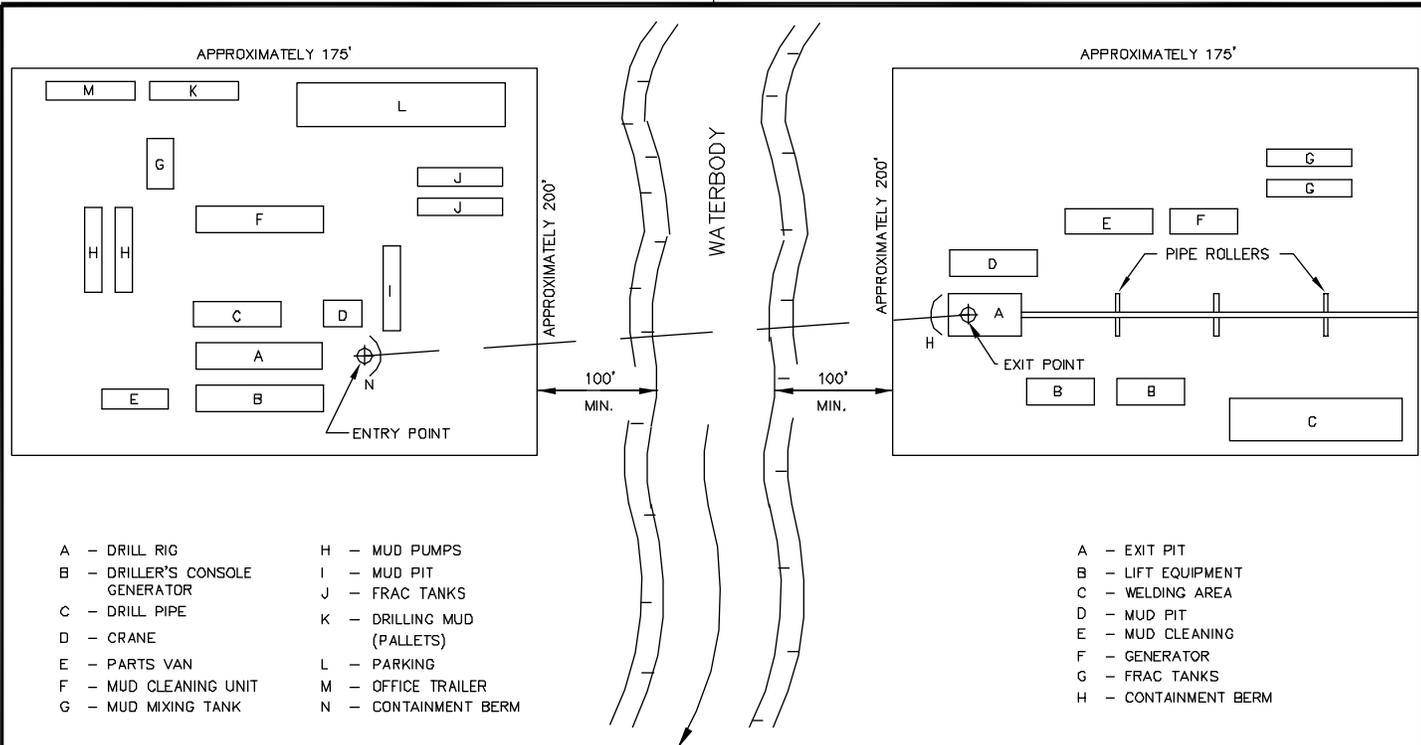


PLAN VIEW

NOTES:

1. METHOD APPLIES TO WATERBODIES THAT ARE NOT STATE-DESIGNATED FISHERIES WHERE FLUME CROSSINGS ARE NOT REQUIRED. IF TOPOGRAPHY PERMITS TEMPORARY EQUIPMENT BRIDGE INSTALLATION, THE CONTRACTOR SHALL TRENCH, STRING, WELD, COAT, WEIGHT (IF NECESSARY), LOWER IN AND BACKFILL UTILIZING THE MAIN LINE CREW TRAVELING OVER THE BRIDGE. IF TOPOGRAPHY PROHIBITS INSTALLATION OF A TEMPORARY EQUIPMENT BRIDGE, CONTRACTOR SHALL TRENCH UP TO BOTH SIDES OF CROSSING; STRING, WELD, COAT AND WEIGHT (IF NECESSARY) USING THE MAINLINE CREW. IN STREAM EXCAVATION, LOWER IN, AND BACKFILL WILL UTILIZES A CLAM OR HOES WORKING FROM THE BANKS.
2. SCHEDULE CROSSING DURING LOW FLOW PERIOD IF POSSIBLE.
3. COMPLETE ALL IN-STREAM ACTIVITIES WITHIN 24 HOURS IF FEASIBLE.
4. NO REFUELING OF MOBILE EQUIPMENT WITHIN 300 FEET OF WATERBODY.
5. INSTALLATION OF TEMPORARY EQUIPMENT CROSSING WHERE REQUIRED BY PERMITS OR AGENCIES; OPTIONAL AT THE DISCRETION OF THE COMPANY'S INSPECTOR AT ALL OTHER CROSSINGS.
6. IN AGRICULTURAL LAND, STRIP TOPSOIL FROM SPOIL STORAGE AREA.
7. CONSTRUCT SEDIMENT BARRIERS ALONG THE SIDES OF STOCKPILES AND ACROSS THE ENTIRE CONSTRUCTION R.O.W. TO PREVENT SILT LADEN WATER AND SPOIL FROM FLOWING BACK INTO WATERBODY. BARRIERS MAY BE TEMPORARILY REMOVED TO ALLOW CONSTRUCTION ACTIVITIES BUT MUST BE REPLACED BY THE END OF EACH WORK DAY.
8. IN-STREAM SPOIL TO BE STORED OUT OF THE STREAM CHANNEL A MINIMUM OF 10 FEET FROM THE TOP OF BANK.
9. TRENCH THROUGH WATERBODY USING MAINLINE EXCAVATION EQUIPMENT WHERE PRACTICAL.
10. INSTALL TEMPORARY (SOFT) PLUGS AT THE EDGE OF STREAM BANKS UNTIL JUST PRIOR TO PIPE INSTALLATION TO CONTROL WATER FLOW & TRENCH SLOUGHING.
11. MAINTAIN STREAM FLOW THROUGHOUT CROSSING CONSTRUCTION.
12. BACKFILL WITH NATIVE MATERIAL.
13. RESTORE WATERBODY CHANNEL TO APPROXIMATE PRE-CONSTRUCTION PROFILE AND SUBSTRATE.
14. RESTORE STREAM BANKS TO APPROXIMATE ORIGINAL CONDITION AND STABILIZE, AS REQUIRED.
15. ALL DIMENSIONS INDICATED SHALL BE DETERMINED BY ACTUAL CONSTRUCTION CONDITIONS.

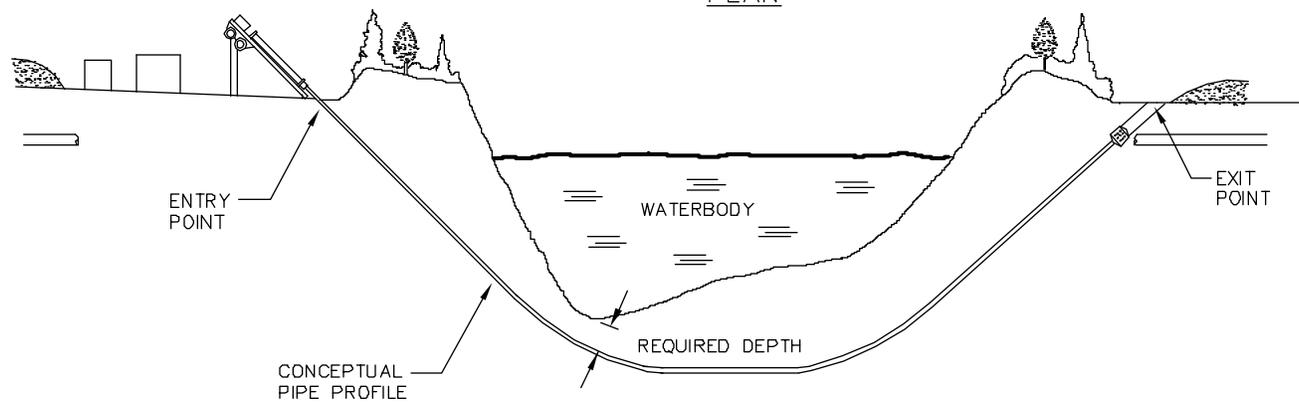
REVISIONS						DRAWN BY:	RC	 OVERLAND PASS PIPELINE COMPANY, LLC 100 WEST 5TH STREET TULSA, OK 74103-4298 CH2MHILL TRIGON EPC FLOWING WATERBODY CROSSING OPEN-CUT			
△						CHECKED BY:	CAM				
△						REVIEWED BY:					
△						APPROVED BY:					
△						PROJECT MANAGER:					
△	ISSUED FOR REVIEW	9/10/07	RC			SCALE/DONE					
NO.	DESCRIPTION	DATE	BY	CHK.	APPR.	PROJECT NUMBER	2275-01	DRAWING NUMBER	OPPL-TYP-125	REV.	A



- A - DRILL RIG
- B - DRILLER'S CONSOLE GENERATOR
- C - DRILL PIPE
- D - CRANE
- E - PARTS VAN
- F - MUD CLEANING UNIT
- G - MUD MIXING TANK
- H - MUD PUMPS
- I - MUD PIT
- J - FRAC TANKS
- K - DRILLING MUD (PALLETES)
- L - PARKING
- M - OFFICE TRAILER
- N - CONTAINMENT BERM

- A - EXIT PIT
- B - LIFT EQUIPMENT
- C - WELDING AREA
- D - MUD PIT
- E - MUD CLEANING
- F - GENERATOR
- G - FRAC TANKS
- H - CONTAINMENT BERM

PLAN



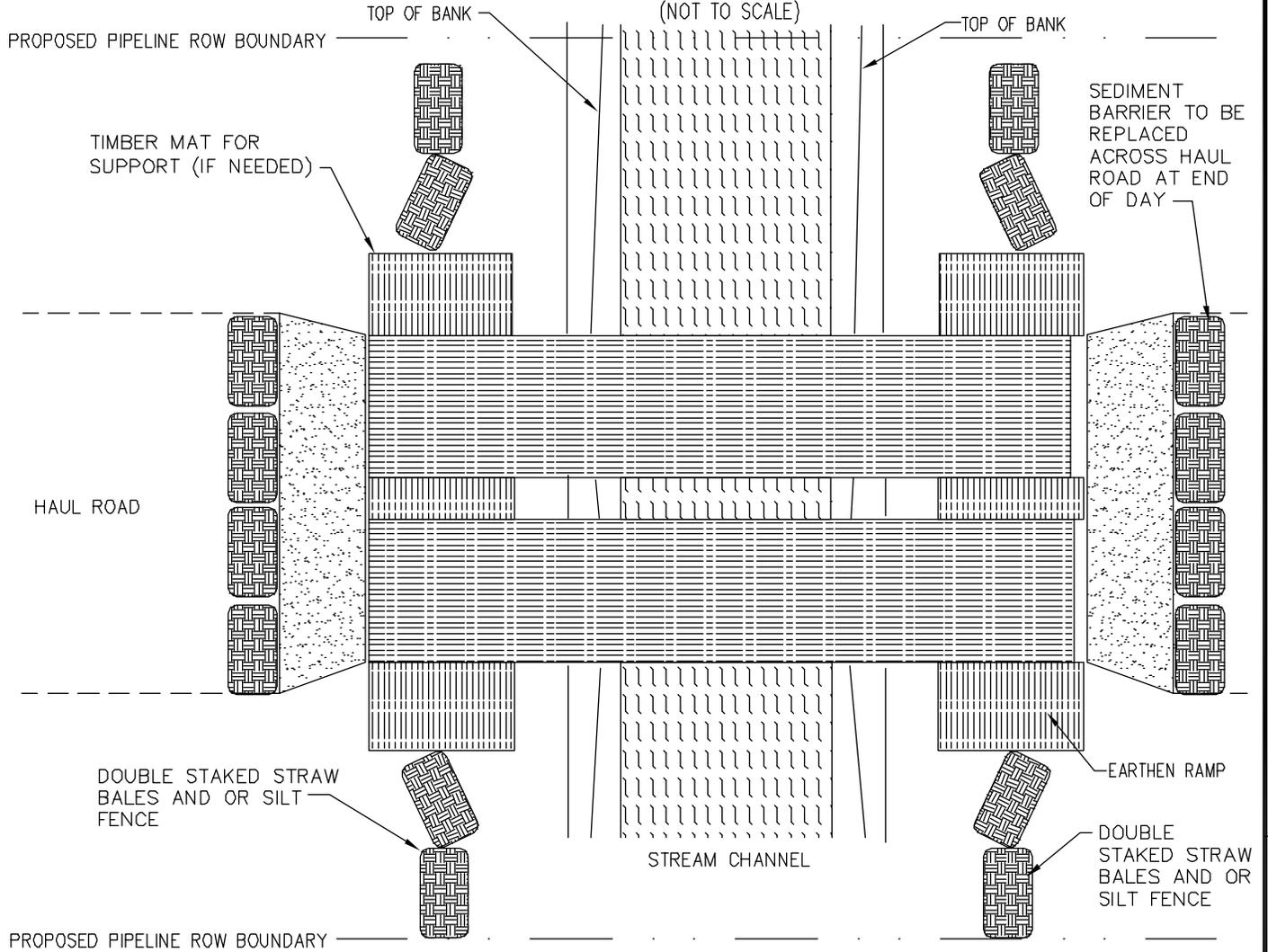
PROFILE

NOTES:

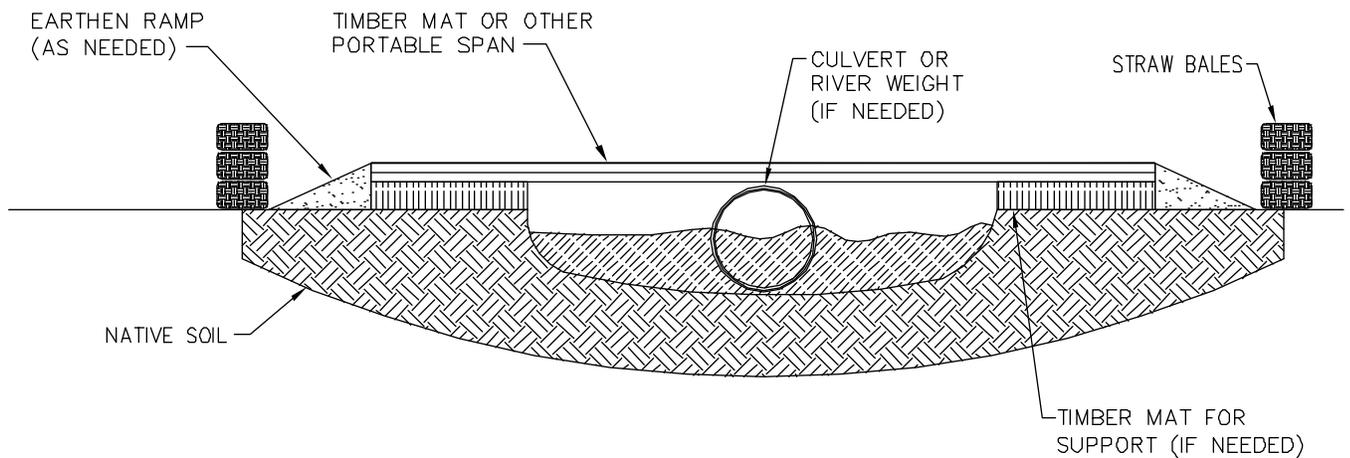
1. SET UP DRILLING EQUIPMENT A MINIMUM OF 100 FEET FROM THE EDGE OF THE WATERBODY. DO NOT CLEAR OR GRADE WITHIN THE 100 FOOT ZONE.
2. ENSURE THAT ONLY BENTONITE BASED DRILLING MUD IS USED. DO NOT ALLOW THE USE OF ANY ADDITIVES TO THE DRILLING MUD WITHOUT THE APPROVAL OF COMPANY'S INSPECTOR.
3. INSTALL SUITABLE DRILLING MUD TANKS OR SUMPS TO PREVENT CONTAMINATION OF WATERBODY.
4. INSTALL BERMS DOWNSLOPE FROM THE DRILL ENTRY AND ANTICIPATED EXIT POINTS TO CONTAIN ANY RELEASE OF DRILLING MUD.
5. DISPOSE OF DRILLING MUD IN ACCORDANCE WITH THE APPROPRIATE REGULATORY AUTHORITY REQUIREMENTS.
6. SEE SITE SPECIFIC PERMIT OR ALIGN SHEETS FOR DIMENSIONS.

REVISIONS						DRAWN BY: RC		 OVERLAND PASS PIPELINE COMPANY, LLC 100 WEST 5TH STREET TULSA, OK 74103-4298  WATERBODY CROSSING H.D.D.				
△						CHECKED BY: CAM					PROJECT NUMBER: 2275-01	
△						REVIEWED BY:					DRAWING NUMBER: OPPL-TYP-129	
△						APPROVED BY:					REV: A	
△						PROJECT MANAGER:						
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△	ISSUED FOR REVIEW	9/10/07	RC									
NO.	DESCRIPTION	DATE	BY	CHK.	APPR.							

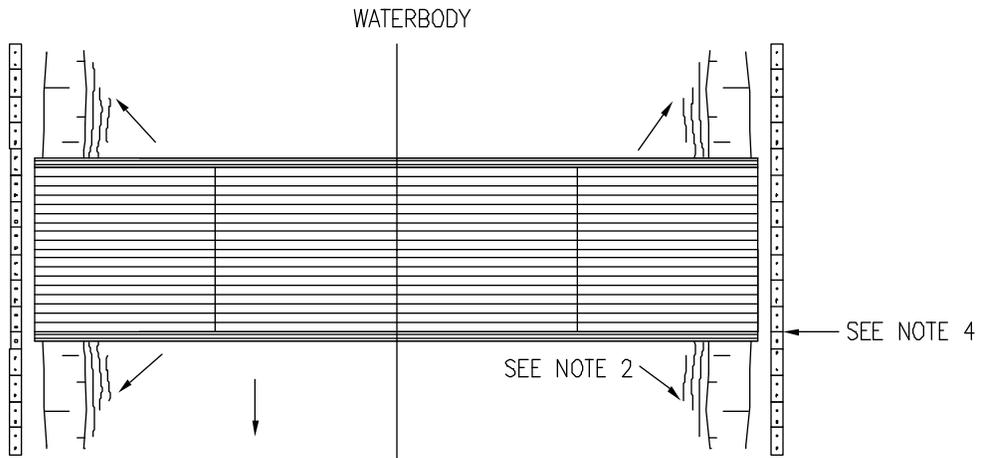
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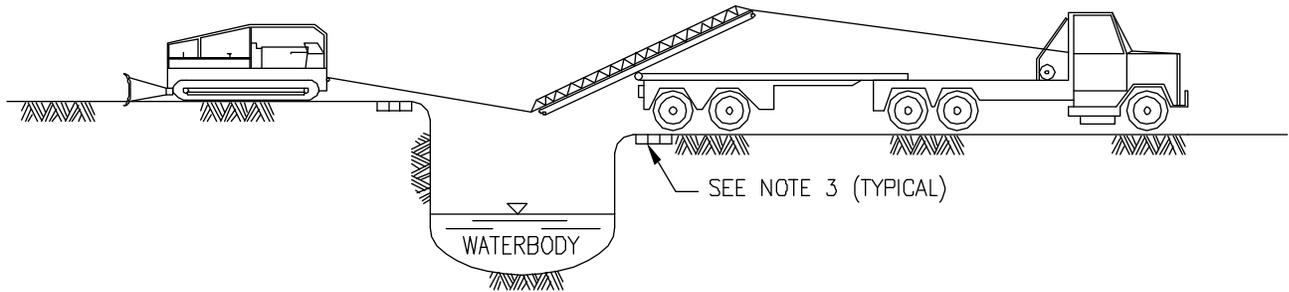
PLAN VIEW
(NOT TO SCALE)



REVISIONS						DRAWN BY:	RC	 OVERLAND PASS PIPELINE COMPANY, LLC 100 WEST 5TH STREET TULSA, OK 74103-4298	
△						CHECKED BY:	CAM		
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△	ISSUED FOR REVIEW	9/10/07	RC						
NO.	DESCRIPTION	DATE	BY	CHK.	APPR.	SCALE/NOTE	PROJECT NUMBER	DRAWING NUMBER	REV.
							2275-01	OPPL-TYP-132	A



PLAN

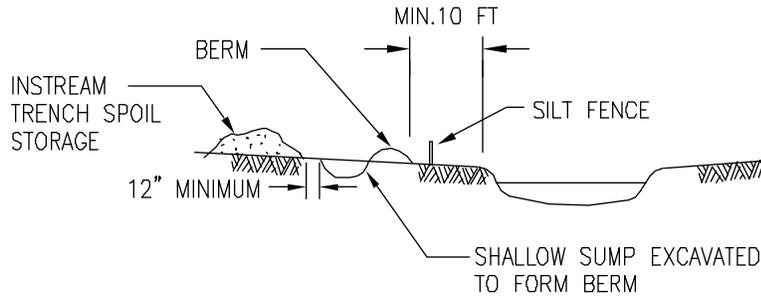
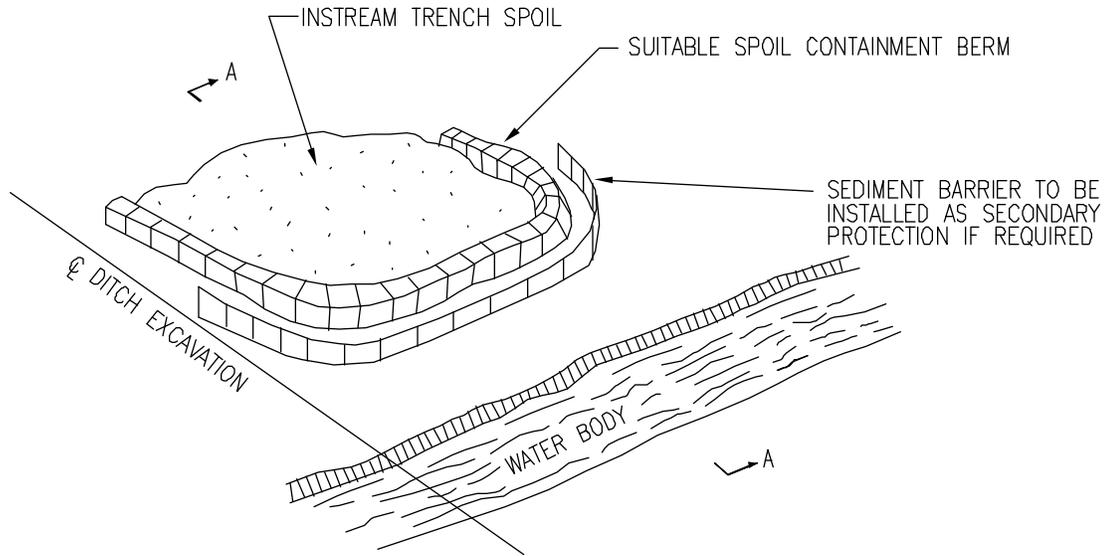


PROFILE

NOTES:

1. THIS TYPE OF BRIDGE IS GENERALLY USED ON NARROW, DEEP CROSSINGS.
2. BRIDGE IS ANCHORED AND/OR TIED OFF TO ANCHOR BLOCKS FOR STABILITY.
3. UTILIZE APPROACH FILLS OF CLEAN GRANULAR MATERIAL, SWAMP MATS, SKIDS OR OTHER SUITABLE MATERIALS TO AVOID CUTTING THE BANKS WHEREVER FEASIBLE. ENSURE ADEQUATE FREEBOARD. AS REQUIRED, ENSURE THAT FILL MATERIAL USED DOES NOT SPILL INTO WATERBODY.
4. CONSTRUCT SEDIMENT BARRIERS ACROSS THE ENTIRE CONSTRUCTION R.O.W. TO PREVENT SILT LADEN WATER AND SPOIL FROM FLOWING BACK INTO WATERBODY. BARRIERS MAY BE TEMPORARILY REMOVED TO ALLOW CONSTRUCTION ACTIVITIES BUT MUST BE REPLACED BY THE END OF EACH WORK DAY. SILT FENCE, HAY BALES OR SANDBAGS MAY BE USED INTERCHANGEABLY.
5. REMOVE PORTABLE BRIDGES AS SOON AS POSSIBLE AFTER PERMANENT SEEDING UNLESS OTHERWISE DIRECTED BY COMPANY REPRESENTATIVE. THE STRUCTURE IS TO BE REMOVED IF THERE IS MORE THAN ONE MONTH BETWEEN FINAL GRADING AND SEEDING, AND ALTERNATIVE ACCESS TO THE CONSTRUCTION R.O.W. IS AVAILABLE.
6. DISPOSE OF ANY ROCK AS DIRECTED BY THE COMPANY REPRESENTATIVE.
7. RESTORE AND STABILIZE BED AND BANKS TO APPROXIMATE PRE-CONSTRUCTION CONDITIONS.

REVISIONS						DRAWN BY:	RC	 OVERLAND PASS PIPELINE COMPANY, LLC 100 WEST 5TH STREET TULSA, OK 74103-4298 CH2MHILL TRIGON EPC PORTABLE WATERBODY BRIDGE		
△						CHECKED BY:	CAM			
△						REVIEWED BY:				
△						APPROVED BY:				
△						PROJECT MANAGER:				
△	ISSUED FOR REVIEW	9/10/07	RC			SCALE: NONE		PROJECT NUMBER	DRAWING NUMBER	REV.
NO.	DESCRIPTION	DATE	BY	CHK.	APPR.			2275-01	OPPL-TYP-133	A



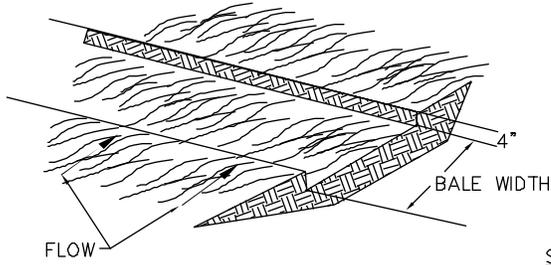
SECTION A-A

NOTE:

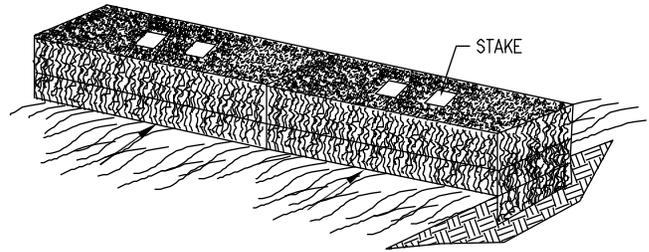
1. SOIL CONTAINMENT BERMS ARE TO BE USED WHERE INSTREAM TRENCH SPOIL COULD REENTER THE WATERBODY DIRECTLY OR INDIRECTLY AND WITH SIMULTANEOUS UTILIZATION OF SEDIMENT BARRIERS IF REQUIRED.
2. MATERIAL USED FOR THE CONTAINMENT BERM SHOULD BE A MINIMUM OF 10 FT. FROM THE WATERS EDGE. IT SHOULD BE KEPT TO A HEIGHT WHICH REMAINS STABLE DURING THE CONSTRUCTION PERIOD.
3. CARE SHOULD BE TAKEN THAT THE SPOIL PILE DOES NOT OVERTOP THE CONTAINMENT BERM.
4. THE CONTAINMENT BERM SHOULD BE DISMANTLED AND THE SITE RESTORED TO THE ORIGINAL CONDITION UPON COMPLETION OF THE WATER CROSSING.
5. WHERE POSSIBLE, RIPARIAN VEGETATION SHALL BE LEFT IN PLACE.
6. STAGED MOVEMENT OF INSTREAM SPOIL MAY BE REQUIRED IF QUANTITIES ARE EXCESSIVE.
7. CARE AND ATTENTION MUST BE TAKEN TO ENSURE SPOIL CONTAINMENT BERMS ARE MAINTAINED.
8. FULL CONSIDERATION FOR OVERALL SLOPE STABILITY IS REQUIRED WHEN SELECTING A SPOIL CONTAINMENT LOCATION.

REVISIONS						DRAWN BY:	RC	 OVERLAND PASS PIPELINE COMPANY, LLC 100 WEST 5TH STREET TULSA, OK 74103-4298  CH2MHILL TRIGON EPC TEMPORARY SOIL CONTAINMENT BERM					
△						CHECKED BY:	CAM						
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△						APPROVED BY:							
△						PROJECT MANAGER:							
△	ISSUED FOR REVIEW	9/10/07	RC			SCALE: NONE		PROJECT NUMBER	2275-01	DRAWING NUMBER	OPPL-TYP-201	REV.	A

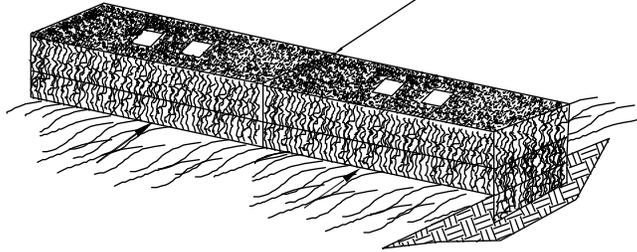
STEP 1. EXCAVATE THE TRENCH



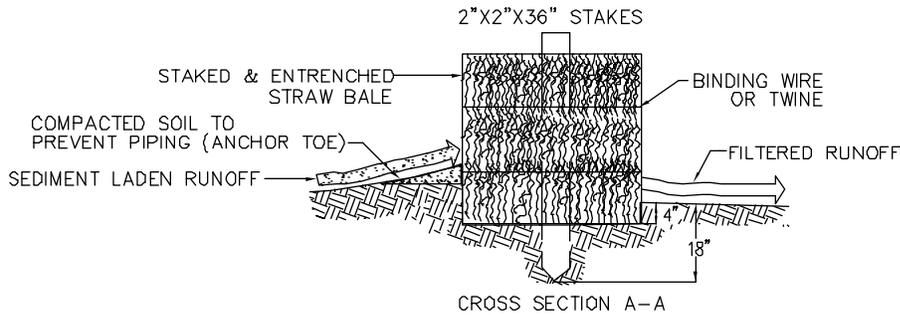
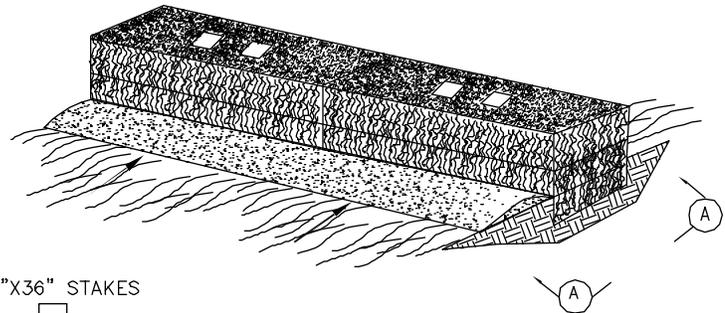
STEP 2. PLACE AND STAKE STRAW BALES.



STEP 3. WEDGE LOOSE STRAW BETWEEN BALES.

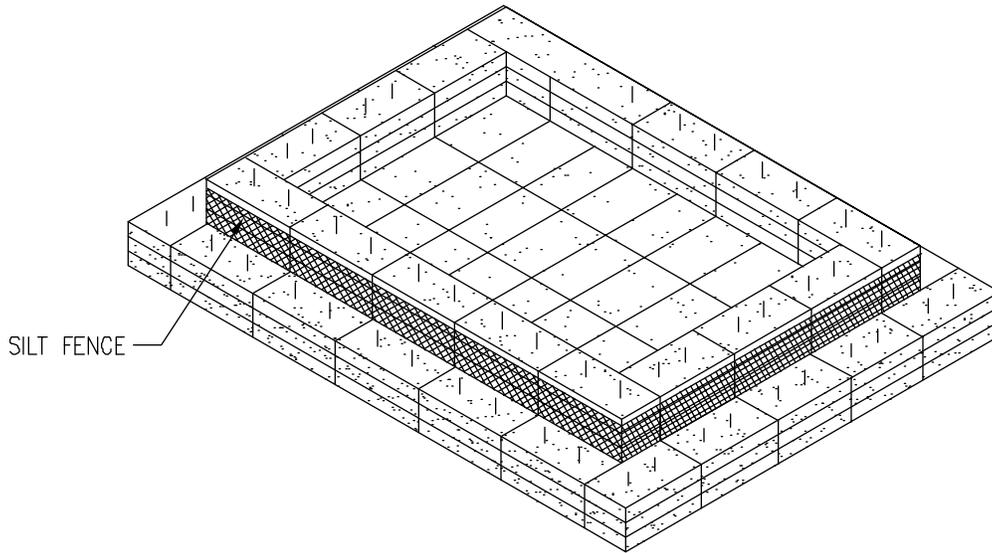


STEP 4. BACKFILL AND COMPACT THE EXCAVATED SOIL.

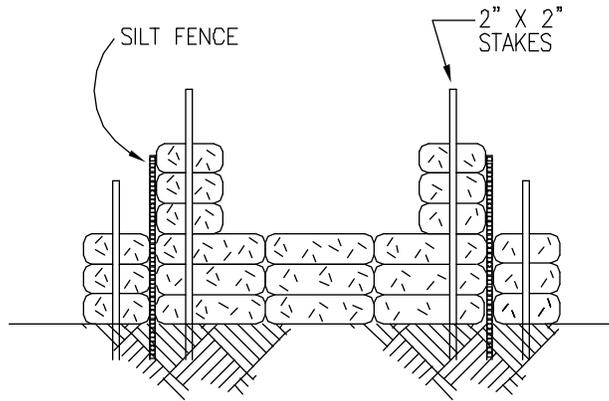


NOTE:
USE CERTIFIED WEED-FREE STRAW.

REVISIONS						DRAWN BY:	RC	 OVERLAND PASS PIPELINE COMPANY, LLC 100 WEST 5TH STREET TULSA, OK 74103-4298	
△						CHECKED BY:	CAM		
△						REVIEWED BY:			
△						APPROVED BY:			
△						PROJECT MANAGER:			
△	ISSUED FOR REVIEW	9/10/07	RC						
NO.	DESCRIPTION	DATE	BY	CHK.	APPR.	SCALE: NONE	PROJECT NUMBER: 2275-01	DRAWING NUMBER: OPPL-TYP-202A	REV. A



PERSPECTIVE VIEW



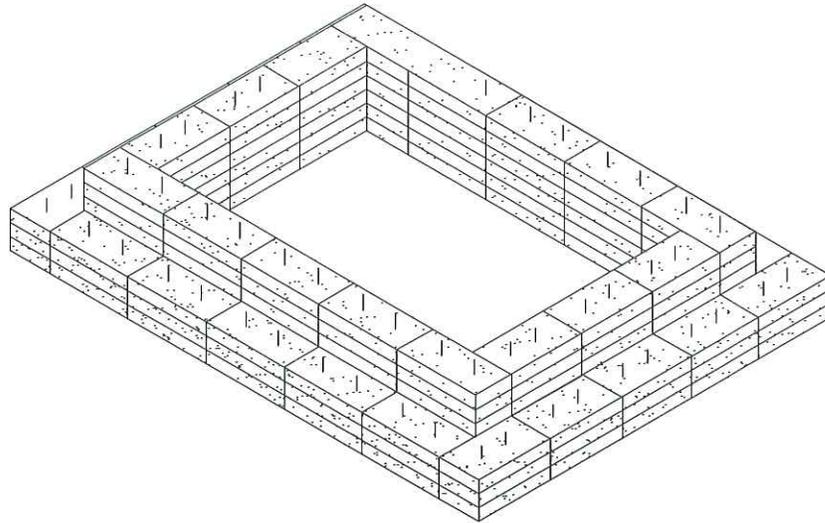
OPTION 1

NOTES:

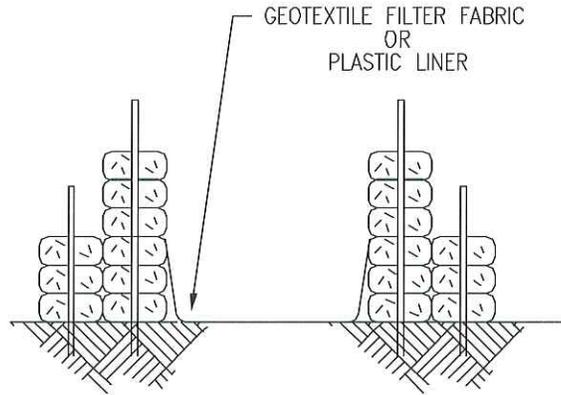
1. INSTALL A STRAW BALE DEWATERING STRUCTURE WHEREVER IT IS NECESSARY AND AS DIRECTED BY THE COMPANY'S INSPECTOR TO PREVENT THE FLOW OF HEAVILY SILT LADEN WATER INTO WATER BODIES OR WETLANDS.
2. DISCHARGE SITE SHALL BE WELL VEGETATED AND THE TOPOGRAPHY OF THE SITE SUCH THAT WATER WILL FLOW AWAY FROM ANY WORK AREAS. THE AREA DOWN SLOPE FROM THE DEWATERING SITE MUST BE REASONABLY PLANE OR STABILIZED BY VEGETATION OR OTHER MEANS TO ALLOW THE FILTERED WATER TO CONTINUE AS SHEET FLOW.
3. IN AREAS OF HIGHLY ERODIBLE SOILS, LINE ENTIRE STRUCTURE WITH GEOTEXTILE FILTER FABRIC, PLASTIC SHEETING, OR STRAW.
4. THE DIMENSIONS OF THE STRUCTURE SHALL BE DETERMINED IN THE FIELD BASED UPON SITE CONDITIONS.
5. DISCHARGE RATES SHALL BE SUCH THAT WATER WILL NOT OVERFLOW THE TOP OF THE STRUCTURE.
6. NSTALL A SPLASH PUP IF THE DISCHARGE VELOCITY IS EXCESSIVE. (OPPL-TYP-207)

REVISIONS						DRAWN BY:	RC	 OVERLAND PASS PIPELINE COMPANY, LLC 100 WEST 5TH STREET TULSA, OK 74103-4298	
△						CHECKED BY:	CAM		
△						REVIEWED BY:			
△						APPROVED BY:			
△						PROJECT MANAGER:			
△	ISSUED FOR REVIEW	9/10/07	RC						
NO.	DESCRIPTION	DATE	BY	CHK.	APPR.	SCALE: NONE	PROJECT NUMBER: 2275-01	DRAWING NUMBER: OPPL-TYP-204	REV. A

STRAW BALE DEWATERING STRUCTURE
LARGE VOLUME - OPTION 1 (SHT. 1 OF 2)



PERSPECTIVE VIEW

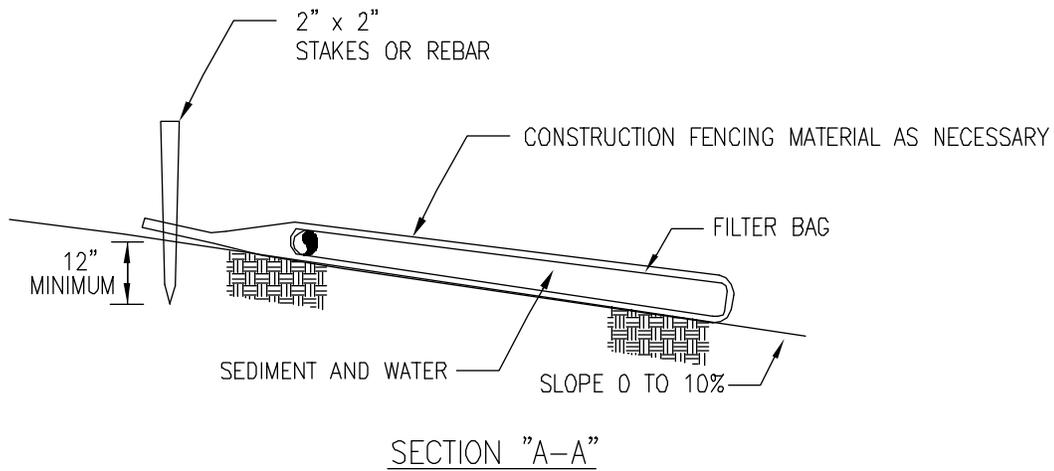
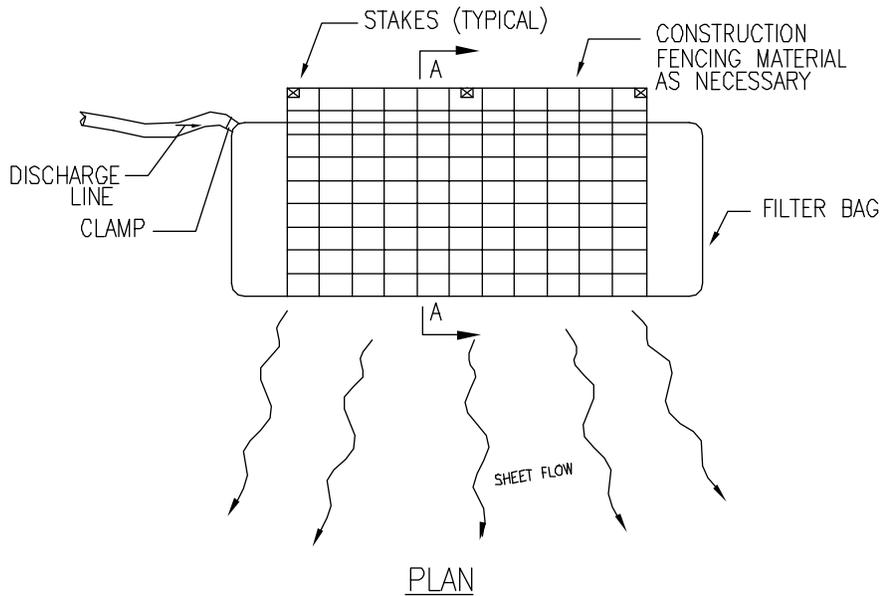


OPTION 2

NOTES:

1. INSTALL A STRAW BALE DEWATERING STRUCTURE WHEREVER IT IS NECESSARY AND AS DIRECTED BY THE COMPANY'S INSPECTOR TO PREVENT THE FLOW OF HEAVILY SILT LADEN WATER INTO WATER BODIES OR WETLANDS.
2. DISCHARGE SITE SHALL BE WELL VEGETATED AND THE TOPOGRAPHY OF THE SITE SUCH THAT WATER WILL FLOW AWAY FROM ANY WORK AREAS. THE AREA DOWN SLOPE FROM THE DEWATERING SITE MUST BE REASONABLY PLANE OR STABILIZED BY VEGETATION OR OTHER MEANS TO ALLOW THE FILTERED WATER TO CONTINUE AS SHEET FLOW.
3. IN AREAS OF HIGHLY ERODIBLE SOILS, LINE ENTIRE STRUCTURE WITH GEOTEXTILE FILTER FABRIC, PLASTIC SHEETING, OR STRAW.
4. THE DIMENSIONS OF THE STRUCTURE SHALL BE DETERMINED IN THE FIELD BASED UPON SITE CONDITIONS.
5. DISCHARGE RATES SHALL BE SUCH THAT WATER WILL NOT OVERFLOW THE TOP OF THE STRUCTURE.
6. INSTALL A SPLASH PUP IF THE DISCHARGE VELOCITY IS EXCESSIVE. (OPPL-TYP-207)

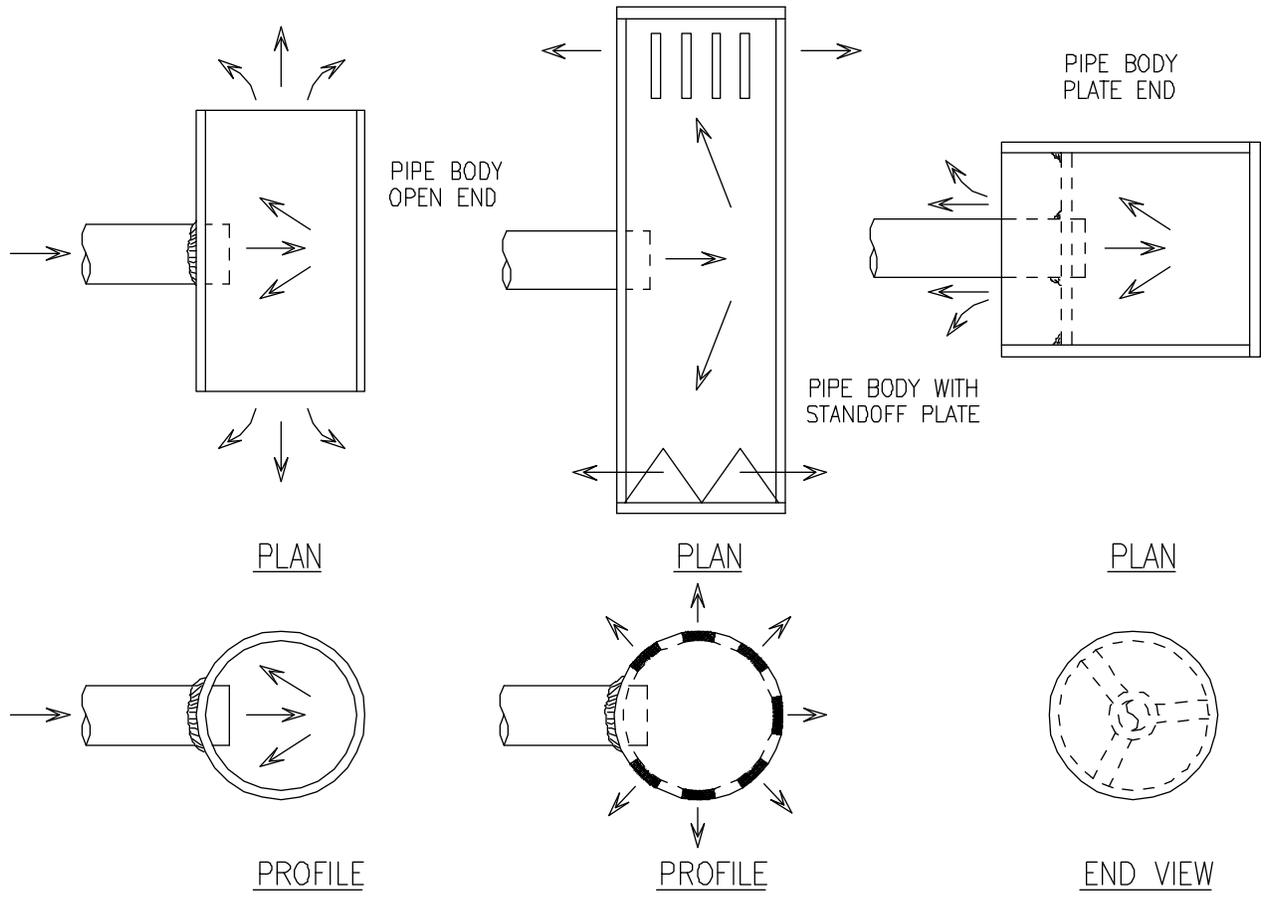
REVISIONS						DRAWN BY:	RC	 OVERLAND PASS PIPELINE COMPANY, LLC 100 WEST 5TH STREET TULSA, OK 74103-4298				
△						CHECKED BY:	CAM					
△						REVIEWED BY:						
△						APPROVED BY:						
△						PROJECT MANAGER:						
△	ISSUED FOR REVIEW	9/10/07	RC			CH2MHILL TRIGON EPC						
NO.	DESCRIPTION	DATE	BY	CHK.	APPR.	SCALE/DWG	PROJECT NUMBER	2275-01	DRAWING NUMBER	OPPL-TYP-204A	REV.	A



NOTES:

1. INSTALL A DEWATERING GEOTEXTILE FILTER BAG AS DIRECTED BY THE COMPANY'S INSPECTOR TO PREVENT THE FLOW OF HEAVILY SILT LADEN WATER INTO WATERBODIES OR WETLANDS.
2. DISCHARGE SITE SHALL BE WELL VEGETATED AND THE TOPOGRAPHY OF THE SITE SUCH THAT WATER WILL FLOW AWAY FROM ANY WORK AREAS. THE AREA DOWN SLOPE FROM THE DEWATERING SITE MUST BE REASONABLY PLANE OR STABILIZED BY VEGETATION OR OTHER MEANS TO ALLOW THE FILTERED WATER TO CONTINUE AS SHEET FLOW.
3. TO ATTACH THE DISCHARGE HOSE, CUT A CORNER OF THE BAG, INSERT DISCHARGE HOSE, AND SECURE THE HOSE TO THE BAG.
4. A SINGLE FILTER BAG SHOULD NOT BE USED FOR FLOWS GREATER THAN 600 GALLONS PER MINUTE.
5. REPLACE FILTER BAG BEFORE IT IS COMPLETELY FILLED WITH SEDIMENT. MONITOR DISCHARGE TO AVOID OVER PRESSURING DUE TO PLUGGING, WHICH MAY RESULT IN RUPTURE.
6. DISPOSE OF USED FILTER BAG AND SEDIMENT AT A SITE APPROVED BY THE COMPANY'S INSPECTOR.

REVISIONS						DRAWN BY:	RC	 OVERLAND PASS PIPELINE COMPANY, LLC 100 WEST 5TH STREET TULSA, OK 74103-4298					
NO.	DESCRIPTION	DATE	BY	CHK.	APPR.	CHECKED BY:	CAM						
△						REVIEWED BY:							
△						APPROVED BY:							
△						PROJECT MANAGER:		GEOTEXTILE FILTER BAG FOR DEWATERING					
△													
△								PROJECT NUMBER	2275-01	DRAWING NUMBER	OPPL-TYP-206	REV.	A
△	ISSUED FOR REVIEW	9/10/07	RC			SCALE: NONE							



BASIC SPLASH PUP

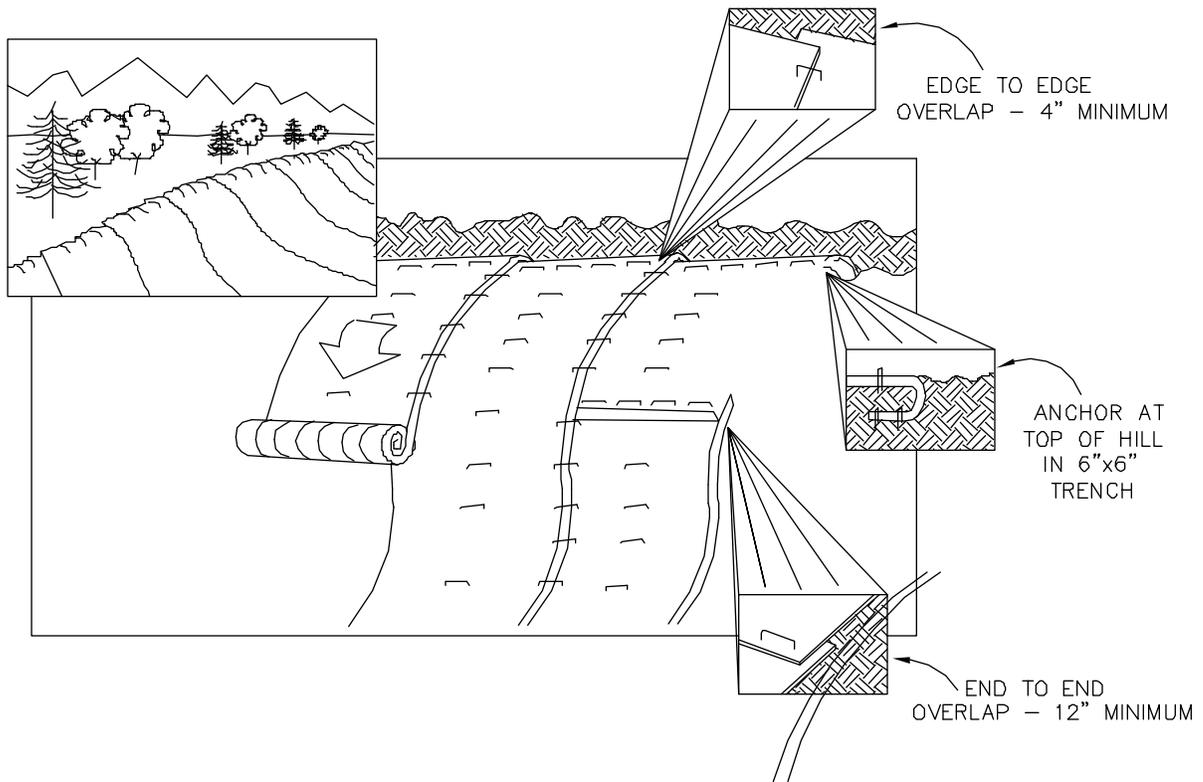
BASIC SPLASH PLATE

PLATE COMBINATION

NOTES:

1. AN ENERGY DISSIPATER SHALL BE UTILIZED WHENEVER WATER DISCHARGE VELOCITIES MAY CAUSE EROSION.
2. THE DESIGN AND EFFECTIVENESS OF THE ENERGY DISSIPATER IS THE RESPONSIBILITY OF THE CONSTRUCTION CONTRACTOR.
3. ENERGY DISSIPATERS ARE UTILIZED IN CONJUNCTION WITH A DEWATERING STRUCTURE.
4. GEOTEX FABRIC OR EQUIV. SHALL BE PLACED UNDERNEATH AND AROUND DISSIPATER DEVICE TO MIN. EROSION.

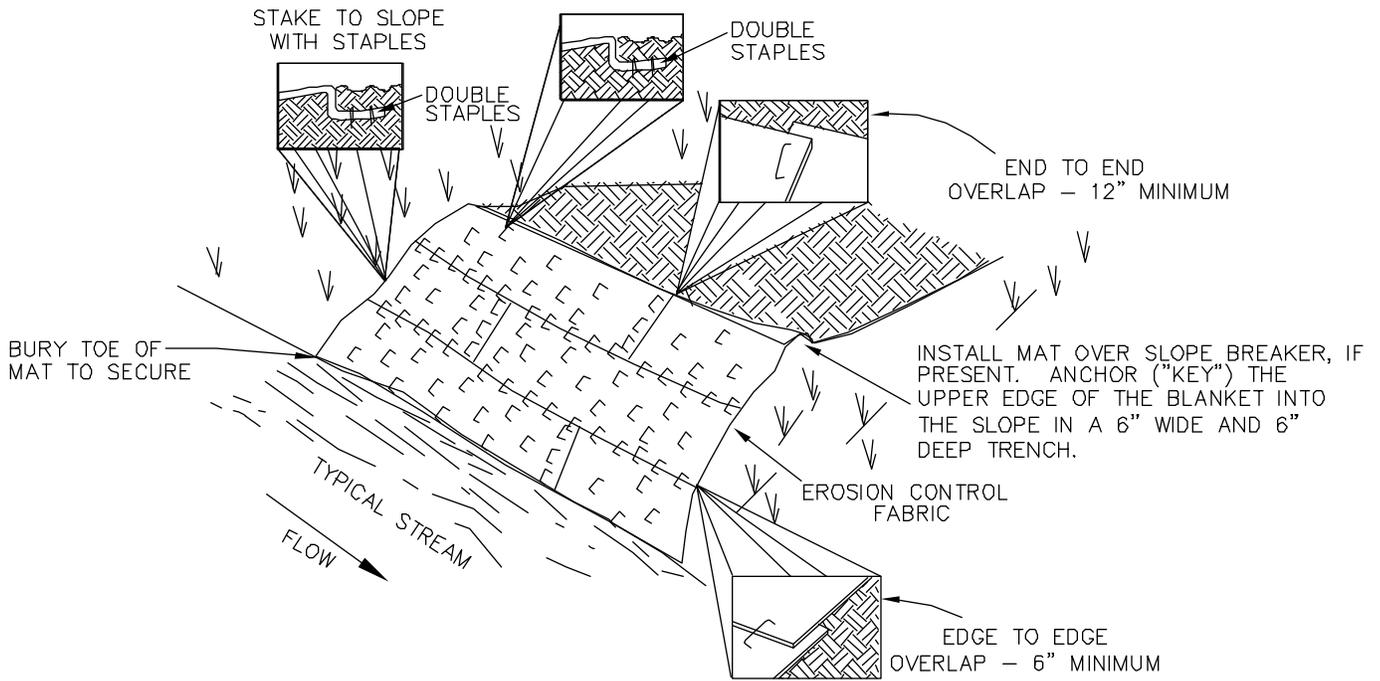
REVISIONS						DRAWN BY:	RC	 OVERLAND PASS PIPELINE COMPANY, LLC 100 WEST 5TH STREET TULSA, OK 74103-4298 CH2MHILL TRIGON EPC SPLASH PUP FOR TEST WATER DISCHARGE			
△						CHECKED BY:	GAM				
△						REVIEWED BY:					
△						APPROVED BY:					
△						PROJECT MANAGER:					
△	ISSUED FOR REVIEW	9/10/07	RC			SCALE: NONE					
NO.	DESCRIPTION	DATE	BY	CHK.	APPR.	PROJECT NUMBER	2275-01	DRAWING NUMBER	OPPL-TYP-207	REV.	A



NOTES:

1. EROSION CONTROL MATTING (BLANKETS) SHALL BE USED AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
2. THE EROSION CONTROL MAT SHALL BE MADE OF BIODEGRADABLE NATURAL FIBER, UNLESS OTHERWISE APPROVED BY THE ENVIRONMENTAL INSPECTOR. EROSION CONTROL MATS SHALL BE FURNISHED IN CONTINUOUS ROLLS OF 30' OR GREATER WITH A MINIMUM WIDTH OF 4'.
3. THE EROSION CONTROL MAT SHALL BE BON TERRA CS2 OR NORTH AMERICAN GREEN SC150 OR SC150BN OR A COMPANY APPROVED EQUIVALENT WITH THESE SPECIFICATIONS:
 - 70% STRAW AND 30% COCONUT (COIR) FABRIC
 - WEIGHT OF 0.5 LBS/YD
 - UNDERLAIN WITH PHOTODEGRADABLE PLASTIC NETTING OR NATURAL FIBER NET AND OVERLAIN WITH UV STABILIZED PLASTIC NETTING OR NATURAL FIBER NET. SHALL BE DRIVEN INTO THE
4. MATTING SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR AS STATED BELOW:
 - THE TOP OF THE BLANKET SHALL EXTEND 3' PAST THE UPPER EDGE OF THE SLOPE.
 - ANCHOR ("KEY") THE UPPER EDGE OF THE BLANKET INTO THE SLOPE IN A 6" WIDE BY 6" DEEP TRENCH. BLANKET ROLL SHALL BE ON UPHILL SIDE OF TRENCH. DOUBLE STAPLE EVERY 12" BEFORE BACKFILLING AND COMPACTING TRENCH.
 - BRING MAT ROLL BACK OVER THE TOP OF THE TRENCH AND CONTINUE TO ROLL DOWN SLOPE. STAPLE EVERY 12" WHERE MAT EXITS THE TRENCH AT TOP OF SLOPE.
 - THE EDGES OF PARALLEL BLANKETS SHALL BE OVERLAPPED A MIN. OF 4" AND STAPLED EVERY 12" THE LENGTH OF THE EDGE.
 - WHEN BLANKETS ARE SPICED DOWN SLOPE TO ADJOINING MATS, THE UPPER BLANKET SHALL BE PLACED OVER THE LOWER MAT (SHINGLE STYLE) WITH APPROXIMATELY 12" OF OVERLAP. STAPLE THROUGH THE OVERLAPPED AREA EVERY 12".
 - STAPLE DOWN THE CENTER OF THE BLANKET(S). TWO STAPLES IN EVERY SQUARE YARD.
 - STAPLE ACROSS THE BOTTOM OF THE EROSION CONTROL MATTING EVERY 12".
5. THE EROSION CONTROL MATTING SHALL MAKE UNIFORM CONTACT WITH THE SOIL UNDERNEATH WITH NO BRIDGING OF RILLS OR GULLIES.
6. MONITOR FOR WASHOUTS, STAPLE INTEGRITY OR MAT MOVEMENT. PRIOR TO COMPLETION OF CONSTRUCTION, REPLACE OR REPAIR AS NECESSARY.

REVISIONS						DRAWN BY:		ONEOK NGL Gathering, L.L.C. 100 West 5th Street Tulsa, OK 74103-4298 			
△						RC					
△						GAM					
△						REVIEWED BY:					
△						APPROVED BY:					
△						PROJECT MANAGER:					
△	ISSUED FOR REVIEW	9/10/07	RC			SCALE: NONE					
△						PROJECT NUMBER	2275-01	DRAWING NUMBER	OPPL-TYP-209	REV.	A



NOTES:

1. EROSION CONTROL MATTING (BLANKETS) SHALL BE PLACED ON THE BANKS OF ALL WATERBODIES WHERE VEGETATION HAS BEEN REMOVED AND/OR AS DIRECTED BY THE COMPANY INSPECTOR.
2. THE TYPE OF EROSION CONTROL MAT SHALL BE MADE OF BIODEGRADABLE NATURAL FIBERS, UNLESS OTHERWISE APPROVED BY THE COMPANY INSPECTOR. EROSION CONTROL MATS SHALL BE FURNISHED IN CONTINUOUS ROLLS OF 30' OR GREATER WITH A MINIMUM WIDTH OF 4'.
3. THE EROSION CONTROL MAT SHALL BE BON TERRA CF7 OR A COMPANY APPROVED EQUIVALENT WITH THESE SPECIFICATIONS:
 - 100% WOVEN COCONUT (COIR) FABRIC.
 - WEIGHT OF 1.2 LBS/YD.
 - 50% OPEN AREA.
4. MATTING SHALL BE INSTALLED ACCORDING TO MANUFACTURE SPECIFICATIONS OR AS STATED BELOW:
 - THE TOP OF THE BLANKET SHALL EXTEND A MINIMUM OF 2' PAST THE UPPER EDGE OF THE ORDINARY HIGH WATER MARK. IF A SLOPE BREAKER IS PRESENT ON THE APPROACH SLOPE, THE BLANKET SHALL EXTEND OVER THE CREST AND THE THROUGH OF THE SLOPE BREAKER.
 - INSTALL BLANKET(S) ACROSS THE SLOPE IN THE DIRECTION OF WATER FLOW.
 - ANCHOR ("KEY") THE UPSTREAM EDGE OF THE BLANKET(S) INTO THE SLOPE USING A 6" WIDE BY 6" DEEP TRENCH. DOUBLE STAPLE EVERY 12" BEFORE BACKFILLING AND COMPACTING TRENCH.
 - ANCHOR ("KEY") THE UPPER EDGE OF THE BLANKET INTO THE SLOPE IN A 6" WIDE BY 6" DEEP TRENCH. DOUBLE STAPLE EVERY 12" BEFORE BACKFILLING AND COMPACTING TRENCH.
 - THE EDGES OF PARALLEL BLANKETS SHALL BE OVERLAPPED A MINIMUM OF 6". THE UPPER BLANKET SHALL BE PLACED OVER THE LOWER BLANKET (SHINGLE STYLE) AND STAPLED EVERY 12" THE LENGTH OF THE EDGE.
 - WHEN BLANKET ENDS, THE UPSTREAM BLANKET SHALL BE PLACED OVER THE DOWNSTREAM BLANKET (SHINGLE STYLE) WITH AT LEAST 12" OF OVERLAP. STAPLE THROUGH THE OVERLAPPED AREA EVERY 12".
 - STAPLE DOWN THE CENTER OF THE BLANKET(S) WITH THREE STAPLES IN EVERY SQUARE YARD.
 - STAPLE ACROSS THE BOTTOM OF THE EROSION CONTROL MATTING EVERY 12".
5. THE EROSION CONTROL MATTING SHALL MAKE UNIFORM CONTACT WITH THE SOIL UNDERNEATH WITH NO BRIDGING OF RILLS OR GULLIES.
6. MONITOR FDR WASHOUTS, STAPLE INTEGRITY OR MAT MOVEMENT PRIOR TO COMPLETION OF CONSTRUCTION. REPLACE OR REPAIR AS NECESSARY.

REVISIONS						DRAWN BY: RC		 OVERLAND PASS PIPELINE COMPANY, LLC 100 WEST 5TH STREET TULSA, OK 74103-4298 EROSION CONTROL MATTING STREAMBANKS		
△						CHECKED BY: CAM				
△						REVIEWED BY:				
△						APPROVED BY:				
△						PROJECT MANAGER:				
△	ISSUED FOR REVIEW	9/10/07	RC			PROJECT NUMBER: 2275-01		DRAWING NUMBER: OPPL-TYP-210		
NO.	DESCRIPTION	DATE	BY	CHK.	APPR.	SCALE: NONE		REV. A		

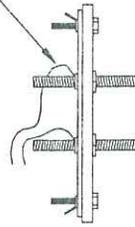
EQUIPMENT CLEANING STATION NOTES:

1. STATIONS MUST BE INSTALLED AT ALL COUNTY LINES. A MINIMUM OF 1,320 FEET (0.25 MILES) FROM PERENNIAL WATERBODIES. EQUIPMENT MOVED FROM A WEED INFESTED AREA MUST BE WASHED OR OTHERWISE CLEANED PRIOR TO MOBILIZATION.
2. DURING NON-FROZEN SOIL CONDITIONS, CONSTRUCT CLEANING STATIONS FOR HIGH PRESSURE WATER CLEANING AT APPROVED LOCATIONS BY STRIPPING TOPSOIL AND CONSTRUCTION CONTAINMENT BERMS OUT OF SUBSOIL.
3. CONTAINMENT BERMS WILL NOT BE REQUIRED WHEN CLEANING WILL BE DONE USING COMPRESSED AIR AND TRACK SHOVELS INSTEAD OF HIGH PRESSURE WATER.
4. CLEANING SHALL BE CARRIED OUT UNDER THE SUPERVISION AND TO THE SATISFACTION OF THE ENVIRONMENTAL INSPECTOR.
5. STATION TO BE EQUIPPED WITH TIMBER MATS, SKID PADS, OR RACKS TO ELEVATE EQUIPMENT TRACKS/TIRES SO THAT SOIL AND WEEDS WILL BE CONTAINED IN THE STATION BASIN.
6. FILTER FABRIC TO BE INSTALLED AS A CONTINUOUS PIECE AND PLACED OVER THE TOP AND TO THE OUTSIDE EDGE OF THE BERMS AND FIRMLY FASTENED IN PLACE. THE EDGES OF PARALLEL PIECES SHALL BE OVERLAPPED A MINIMUM OF 12 INCHES (SHINGLE STYLE), AND FOLDED OVER (SEE DETAIL A). STAPLE THROUGH THE OVERLAPPED AREA EVERY 12 INCHES.
7. FILTER FABRIC SHALL BE NON-WOVEN POLYPROPYLENE, WITH AN APPARENT OPENING SIZE OF 70 TO 100 (U.S. SEIVE), 200-POUND GRAB STRENGTH, AND 8 OUNCES PER YARD UNIT WEIGHT, OR BETTER. IN AREAS THAT ARE NOT ROCKY, CONTRACTOR MAY CHOOSE TO USE NON-WOVEN POLYPROPYLENE, 160-POUND GRAB STRENGTH, AND 6 OUNCES PER YARD UNIT WEIGHT.
8. WATER USED FOR CLEANING SHALL NOT BE ALLOWED TO FLOW INTO ANY WATERBODY, WETLAND OR IRRIGATION CANAL/DITCH.
9. SIZE OF STATION SHALL BE ADEQUATE TO ACCOMMODATE THE MAXIMUM SIZE OF EQUIPMENT EXPECTED.
10. SKIDS ARE TO BE CLEANED BETWEEN WASHING INDEPENDENT PIECES OF EQUIPMENT.
11. FILTER FABRIC WILL BE REMOVED TO AN ACCEPTABLE LANDFILL WHEN THE WASH STATION IS DISMANTLED.
12. THE DEPRESSION WILL BE BACKFILLED WITH BERMED MATERIAL. ANY SOILS CONTAMINATED BY PETROLEUM BASED OR OTHER UNDESIRABLE MATERIALS FROM CLEAN OFF STATIONS SHALL BE REMOVED IN ACCORDANCE WITH APPLICABLE REQUIREMENTS.
13. TOPSOIL WILL BE RETURNED AND THE AREA RECLAIMED.
14. CLEANING SITES WILL BE MONITORED DURING THE POST CONSTRUCTION MONITORING PROGRAM AND WEEDS CONTROLLED AS REQUIRED.

REVISIONS						DRAWN BY:	RC	 OVERLAND PASS PIPELINE COMPANY, LLC 100 WEST 5TH STREET TULSA, OK 74103-4298
△						CHECKED BY:	CAM	
△						REVIEWED BY:		
△						APPROVED BY:		
△						PROJECT MANAGER:		
△	ISSUED FOR REVIEW	9/10/07	RC					
NO.	DESCRIPTION	DATE	BY	CHK.	APPR.	SCALE/DONE	PROJECT NUMBER: 2275-01 DRAWING NUMBER: OPPL-TYP-215A REV. A	

EQUIPMENT CLEANING STATION (SHT. 2 OF 2)

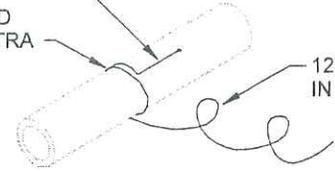
ATTACH:
NO. 10 THHN
STRD
COPPER
BLACK



6" OF WIRE
ALONG PIPE

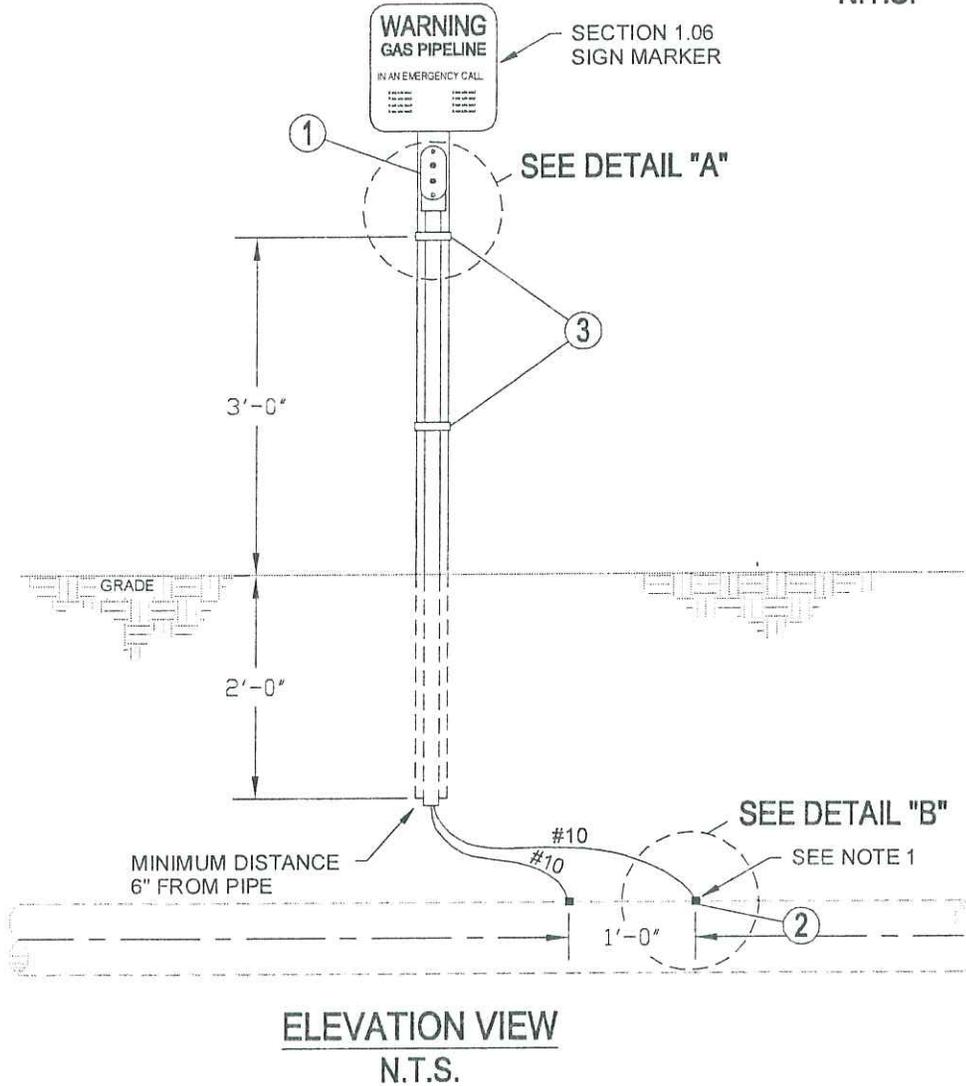
WIRE AROUND
PIPE FOR EXTRA
STRENGTH

12" SLACK
IN WIRE



DETAIL "B"
N.T.S.

DETAIL "A"
N.T.S.

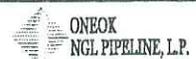


NOTES:

1. ATTACH THE #10 THHN STRD BLACK WIRE TO THE PIPELINE AS PER "999-CP-070".
2. COMPRESSION TERMINAL LUGS SHOULD BE USED TO CONNECT ALL WIRES TO THE FINKLET FACE PLATE.
3. WHEN INSTALLING BY THE ROAD CROSSING, FACE PLATE SHALL FACE THE HIGHWAY.
4. THE CATHODIC PROTECTION TEST STATION SHALL BE INSTALLED IN ACCORDANCE WITH THE CORROSION MANUAL.

BILL OF MATERIALS			
Item	Qty.	Unit	
1	1	EA	GC75-BL-GAL-40"-GY-25-10-THHN-BK-STR
2	1	EA	APPROVED COATING
3	2	EA	3/4" HOLE STRAPS
4			
5			
6			

REV:	DATE:	DESCRIPTION:	BY:	REV:	DATE:	DESCRIPTION:	BY:
1	01.18.07	ORIGINAL DRAWING	RAS	1			
2	07.17.07	UPDATED DRAWING	RAS	2			
3				3			
4				4			
5				5			
6				6			



CATHODIC PROTECTION
TEST STATION

DRAWING # 999.C.P.065

REV 2

**ATTACHMENT 3
FEE LANDS LINE LIST**

Overland Pass Piceance Lateral

Tract Number	County	Owner Name	Owner Address	City, State Zip Code	Phone # (s)	OPPL responsible for entire seeding	OPPL responsible for 1st Seeding	OPPL NOT responsible	Sec	T	R
1.000	Rio Blanco	Williams Energy	1 William Center	Tulsa, OK 74172		TBD			35	2S	97W
3.000	Rio Blanco	M.T.W. RANCH, LLC	2212 Common St.	Lake Charles, LA 7065	Atty. Trina Zagar-Brown 970.878.5065	TBD			25	2S	97W
3.700	Rio Blanco	M.T.W. RANCH, LLC	2212 Common St.	Lake Charles, LA 7065	Atty. Trina Zagar-Brown 970.878.5065	TBD			25	2S	97W
16.000	Rio Blanco	SHULTS RANCH LLLP	67848 Hwy 64,P O BOX 987	MEEKER, CO 81641	970-878-4419		X		6	1S	95W
18.000	Rio Blanco	SHULTS RANCH LLLP	67848 Hwy 64,P O BOX 987	MEEKER, CO 81641	970-878-4419		X		6	1S	95W
19.000	Rio Blanco	SHULTS RANCH LLLP	P O BOX 2394	MEEKER, CO 81641	970-878-3278		X		31	1N	95W
23.000	Rio Blanco	CROSS SLASH 4 RANCH LP	P.O. Box 1182	MEEKER, CO 81641	970-878-4429			X	32	1N	95W
25.000	Rio Blanco	SHULTS RANCH LLLP	67848 HIGHWAY 64, P O BOX 987	MEEKER, CO 81641	970-878-4419		X		28, 32, 33	1N	95W
31.300	Rio Blanco	SHULTS, LONNIE K. & MARGARET J	P O BOX 987	MEEKER, CO 81641	970-878-4419		X		28	1N	95W
31.700	Rio Blanco	HALANDRAS, CHRIS	67224 Highway 64	Meeker, CO 81641	970-878-4847		X		28	1N	95W
33.500	Rio Blanco	HALANDRAS, CHRIS	67224 Highway 64	Meeker, CO 81641	970-878-4847		X		21	1N	95W
34.500	Rio Blanco	HALANDRAS, CHRIS	67224 Highway 64	Meeker, CO 81641	970-878-4847		X		21	1N	95W
35.000	Rio Blanco	CULBERTSON, MARION LAKE	68945 HIGHWAY 64	MEEKER, CO 81641	970-878-4786 Bill Lake		X		14, 15, 21, 22	1N	95W
36.000	Rio Blanco	SLOAN, MARY LEE & CHARLES D.	P O BOX 628	MEEKER, CO 81641	970-878-5144		X		14	1N	95W
37.000	Rio Blanco	CULBERTSON, MARION LAKE	68945 HIGHWAY 64	MEEKER, CO 81641	970-878-4786 Bill Lake		X		11	1N	95W
39.000	Rio Blanco	GRADY RANCH LLC	1533 CO RD 7	MEEKER, CO 81641	970-878-3137 Will M. Grady		X		12	1N	95W
41.000	Rio Blanco	ETCHART, JOHN P AND SHERYL ETCHART (1/2 AND DOUGLAS N. PROCTOR (1/2) 1625 COMMANCHE DRIVE, CHANDLER, AZ 85224	1972 COUNTY ROAD 36	MEEKER, CO 81641	970-878-4640		X		1	1N	95W
42.000	Rio Blanco	BYERLY, CATHERINE	1320 CRANFORD	GREELEY,CO 80631	970-352-5378		X		1, 36	1N	95W
43.000	Rio Blanco	SEPIC, DJURDJICA & BERISLAV 5086 County Rd. 7 Meeker, CO 81641	3105 EAST FAIRBROOK CIRCLE	MESA, AZ 85213	480-396-2324 970-878-9850 480-396-2324 cell		X		36	2N	95W
44.000	Rio Blanco	SEPIC, DJURDJICA & BERISLAV 5086 County Rd. 7 Meeker, CO 81641	3105 EAST FAIRBROOK CIRCLE	MESA, AZ 85213	480-396-2324 970-878-9850 480-396-2324 cell		X		30, 31	2N	94W
45.000	Rio Blanco	BARTON, JOHNNIE W. & VIRGINIA M.	581 Strawberry Patch Road	MEEKER, CO 81641	970-878-4835		X		30	2N	94W
46.000	Rio Blanco	BARTON, JOHNNIE W. & VIRGINIA M.	581 Strawberry Patch Road	MEEKER, CO 81641	970-878-4835		X		30	2N	94W
47.000	Rio Blanco	SEPIC, DJURDJICA & BERISLAV 5086 County Rd. 7 Meeker, CO 81641	3105 EAST FAIRBROOK CIRCLE	MESA, AZ 85213	480-396-2324 970-878-9850 480-396-2324 cell		X		25	2N	94W
48.000	Rio Blanco	VILLA RANCH, LLC	P O BOX 94	MEEKER, CO 81641	970-856-5266		X		24	2N	95W
49.000	Rio Blanco	VILLA RANCH, LLC	P O BOX 94	MEEKER, CO 81641	970-856-5266		X		18, 19	2N	94W
50.000	Rio Blanco	VILLA RANCH, LLC	P O BOX 94	MEEKER, CO 81641	970-856-5266		X		13	2N	95W

Overland Pass Piceance Lateral

Tract Number	County	Owner Name	Owner Address	City, State Zip Code	Phone # (s)	OPPL responsible for entire seeding	OPPL responsible for 1st Seeding	OPPL NOT responsible	Sec	T	R
51.000	Rio Blanco	VANDIVER, J.E. & SYLLRENE REVOC. TRUST	3210 NOTTINGHAM	PEARLAND, TX 77581	970-878-5853		X		12, 13	2N	95W
52.000	Rio Blanco	BUFFALO HORN PROPERTIES LLC	919 3RD AVENUE 13825 CR 7	NEW YORK, NY 10022 MEEKER, CO 81641	970-878-5450 Grant Ediger - Mgr 970-756-5450 (Cell)	TBD			12	2N	95W
54.000	Rio Blanco	BUFFALO HORN PROPERTIES LLC	919 3RD AVENUE 13825 CR 7	NEW YORK, NY 10022 MEEKER, CO 81641	970-878-5450 Grant Ediger - Mgr 970-756-5450 (Cell)	TBD			1, 2	2N	95W
55.000	Rio Blanco	BUFFALO HORN PROPERTIES LLC	919 3RD AVENUE 13825 CR 7	NEW YORK, NY 10022 MEEKER, CO 81641	970-878-5450 Grant Ediger - Mgr 970-756-5450 (Cell)	TBD			34, 35	3N	95W
56.000	Rio Blanco	MCKEE, ROY REVOCABLE TRUST	1480 Rio Blanco County Road 93	MEEKER, CO 81641	970-878-4688		X		27, 34	3N	95W
57.000	Rio Blanco	BUFFALO HORN PROPERTIES LLC	919 3RD AVENUE 13825 CR 7	NEW YORK, NY 10022 MEEKER, CO 81641	970-878-5450 Grant Ediger - Mgr 970-756-5450 (Cell)	TBD			28	3N	95W
58.000	Rio Blanco	BUFFALO HORN PROPERTIES LLC	919 3RD AVENUE 13825 CR 7	NEW YORK, NY 10022 MEEKER, CO 81641	970-878-5450 Grant Ediger - Mgr 970-756-5450 (Cell)	TBD			20, 21	3N	95W
60.000	Moffat	BUFFALO HORN PROPERTIES LLC	919 3RD AVENUE 13825 CR 7	NEW YORK, NY 10022 MEEKER, CO 81641	970-878-5450 Grant Ediger - Mgr 970-756-5450 (Cell)	TBD			7, 17, 18	3N	95W
61.000	Moffat	POUND, RALPH W & DORIS H, JAMES B BEANE & FOREST T, TUTOR: 1/3 INTEREST EACH	510 Clayton ST	TUPELOS, MISSISSIPPI 38804	662-842-8247		X		6, 7	3N	95W
62.000	Moffat	BUFFALO HORN PROPERTIES LLC	919 3RD AVENUE 13825 CR 7	NEW YORK, NY 10022 MEEKER, CO 81641	970-878-5450 Grant Ediger - Mgr 970-756-5450 (Cell)	TBD			6 (31)	3N (4N)	95W
64.000	Moffat	TINGLE, RICKIE	PO BOX 206	MEEKER, CO 81641	970-272-2006			X	31	4N	95W
65.000	Moffat	KEYSTONE RANCH, LTD (David Johnson)	4851 CR 57	MEEKER, CO 81641	970-272-3279		X		36	4N	96W
66.000	Moffat	KEYSTONE RANCH, LTD (David Johnson)	4851 CR 57	MEEKER, CO 81641	970-272-3279		X		25	4N	96W
66.500	Moffat	RAWLINSON, MARIE I & JOYCE	11658 RBC RD 7	MEEKER, CO 81641	970-878-4825	X			25	4N	96W
68.000	Moffat	KEYSTONE RANCH, LTD (David Johnson)	4851 CR 57	MEEKER, CO 81641	970-272-3279		X		24	4N	96W
69.000	Moffat	PATEL, ROGER DBA RAMS PROPERTIES C/o Attorney Joe Fennessy ,613 Park, Meeker, Co 84641, Phone 970-878-4783	P.O. BOX 7984	PORT ST. LUCIE, FL 34985	772-879-7399		X		24	4N	96W
71.000	Moffat	TINGLE, RICKIE	P.O. BOX 206	MEEKER, CO 81641	970-272-3006			X	23	4N	96W
73.000	Moffat	TINGLE, RICKIE	P.O. BOX 206	MEEKER, CO 81641	970-272-3006			X	11, 14, 23	4N	96W
75.000	Moffat	TINGLE, RICKIE	P.O. BOX 206	MEEKER, CO 81641	970-272-3006			X	(26), 26, 35	5N	96W

Overland Pass Piceance Lateral

Tract Number	County	Owner Name	Owner Address	City, State Zip Code	Phone # (s)	OPPL responsible for entire seeding	OPPL responsible for 1st Seeding	OPPL NOT responsible	Sec	T	R
77.000	Moffat	TINGLE, RICKIE	P.O. BOX 206	MEEKER, CO 81641	970-272-3006			X	26	5N	96W
78.000	Moffat	SHELTON, STEPHEN H & JUDETH L	P.O. BOX 127	MEEKER, CO 81641	970-272-3553		X		26	5N	96W
80.000	Moffat	SHELTON, STEPHEN H & JUDETH L	P.O. BOX 127	MEEKER, CO 81641	970-272-3553		X		23	5N	96W
81.000	Moffat	COOK, RODNEY S. & TAMARA	14651 COUNTY ROAD 3	CRAIG, CO 81625	970-824-2342	X			14, 23	5N	96W
82.000	Moffat	COOK, STERLING LIVING TRUST (1/2) & MARY W. LIVING TRUST (1/2)	P.O. BOX 96	MAYBELL, CO 81640	970-272-3719 (Son - John)	X (3 yrs)			14	5N	96W
83.000	Moffat	VAN HOUTEN, STELLA MAE ESTATE	1720 P RD	LOMA, CO 81524	970-858-3780	X			11, 14	5N	96W
87.000	Moffat	VAN HOUTEN, STELLA MAE ESTATE	1720 P RD	LOMA, CO 81524	970-858-3780	X			11, 12	5N	96W
89.000	Moffat	COOK, STERLING LIVING TRUST (1/2) & MARY W. LIVING TRUST (1/2)	P.O. BOX 96	MAYBELL, CO 81640	970-272-3719 (Son - John)	X			1	5N	96W
90.000	Moffat	COOK, STERLING LIVING TRUST (1/2) & MARY W. LIVING TRUST (1/2)	P.O. BOX 96	MAYBELL, CO 81640	970-272-3719 (Son - John)	X			36	6N	96W
96.000	Moffat	COOK, STERLING LIVING TRUST & MARY W. LIVING TRUST 83/84, KatherineClark Roberts, c/o Kristen Walker and Clark Roberts 1/84	590 Yampa Ave.	CRAIG, CO 81625	970-824-6360	X (3 yrs)			36	6N	96W
98.000	Moffat	COOK, STERLING LIVING TRUST (1/2) & MARY W. LIVING TRUST (1/2)	P.O. BOX 96	MAYBELL, CO 81640	970-272-3719 (Son - John)	X			31	6N	95W
99.000	Moffat	COOK, STERLING LIVING TRUST & MARY W. LIVING TRUST (83/84), Museum (1/84)	590 Yampa Ave.	CRAIG, CO 81625	970-824-6360	X			31	6N	95W
100.000	Moffat	COOK, STERLING LIVING TRUST & MARY W. LIVING TRUST 83/84, KatherineClark Roberts, c/o Kristen Walker and Clark Roberts 1/84	P.O. BOX 96	MAYBELL, CO 81640	970-272-3719 (Son - John)	X			30	6N	95W
101.000	Moffat	COOK, STERLING LIVING TRUST & MARY W. LIVING TRUST (83/84), Museum (1/84)	590 Yampa Ave.	CRAIG, CO 81625	970-824-6360	X			30	6N	95W
102.000	Moffat	COOK, STERLING LIVING TRUST (1/2) & MARY W. LIVING TRUST (1/2)	P.O. BOX 96	MAYBELL, CO 81640	970-272-3719 (Son - John)	X			30	6N	95W
104.000	Moffat	COOK, STERLING LIVING TRUST (1/2) & MARY W. LIVING TRUST (1/2)	P.O. BOX 96	MAYBELL, CO 81640	970-272-3719 (Son - John)	X			19, 20, 30	6N	95W
105.000	Moffat	Mary E Heritage Trust 4.17 %, Donald W Nutting 4.17%, James E Nutting 4.17%, Dr. Robert O. Nutting ,12.50%, (Blackwell, Paul /Dorothy H. Larson, 12.50%, Lawrence K Larson 4.17%, Frederick A Larson 4.17%, Lance V Larson 4.17%, Ruby Morton 5.00%, Linda Rensink 5.00%Ellen Duarte 5.00%, Richard Smiddy 5.00%, Roberta Jones 5.00%, State of	2300 The Strand	Manhattan Beach, CA 90266	760-346-3332	X			20	6N	95W
109.000	Moffat	BARNES, BRUCE L. & JOYCE K.	P.O. BOX 142	MAYBELL, CO 81640	970-272-3023		X		33	7N	95W
109.700	Moffat	BARNES, BRUCE L. & JOYCE K.	P.O. BOX 142	MAYBELL, CO 81640	970-272-3023		X		33	7N	95W
111.000	Moffat	MCINTYRE, SAM L. & GEORGIA B.	BOX 125	MAYBELL, CO 81640	970-272-3278		X		33	7N	95W

Overland Pass Piceance Lateral

Tract Number	County	Owner Name	Owner Address	City, State Zip Code	Phone # (s)	OPPL responsible for entire seeding	OPPL responsible for 1st Seeding	OPPL NOT responsible	Sec	T	R
113.000	Moffat	MCINTYRE, SAM L. & GEORGIA B.	BOX 125	MAYBELL, CO 81640	970-272-3278		X		15, 22	7N	95W
115.000	Moffat	RAFTOPOULOS, JOHN & STEVE DBA RAFTOPOULOS BROS LIVESTOCK	893 STOUT ST	CRAIG, CO 81625	970-824-5750/326-8614		X		2, 11	7N	95W
116.000	Moffat	NOTTINGHAM LAND & LIVESTOCK, A PARTNERSHIP	BOX 969 1671 Moffat County Road 103	CRAIG, CO 81625	970-824-3333/326-8513 Mike		X		2	7N	95W
117.000	Moffat	NOTTINGHAM LAND & LIVESTOCK, A PARTNERSHIP	BOX 969 1671 Moffat County Road 103	CRAIG, CO 81625	970-824-3333/326-8513 Mike		X		35	8N	95W
118.000	Moffat	STRICKLER, L. BRUCE & ELLEN A.	13801 POWER HOUSE RD	POTTER VALLEY, CA 95469	707-743-1872 Thomas Thornberry 970-824-7057		X		26, 35	8N	95W
120.000	Moffat	STRICKLER, L. BRUCE & ELLEN A.	13801 POWER HOUSE RD	POTTER VALLEY, CA 95469	707-743-1872 Thomas Thornberry 970-824-7057		X		26	8N	95W
122.000	Moffat	STRICKLER, L. BRUCE & ELLEN A.	13801 POWER HOUSE RD	POTTER VALLEY, CA 95469	707-743-1872 Thomas Thornberry 970-824-7057		X		25	8N	95W
124.000	Moffat	VISINTAINER SHEEP CO	BOX 395	CRAIG, CO 81626	970-824-6061		X		24	8N	95W
128.000	Moffat	NOTTINGHAM LAND & LIVESTOCK, A PARTNERSHIP	BOX 969 1671 Moffat County Road 103	CRAIG, CO 81625	970-824-3333		X		13	8N	95W
129.000	Moffat	KELSALL, SAMUEL IV & EDNA M.	1118 E MISSOURI AVE, SUITE B-2	PHOENIX, AZ 85014	602-234-1999	X			12	8N	95W
132.000	Moffat	NOTTINGHAM LAND & LIVESTOCK, A PARTNERSHIP	BOX 969 1671 Moffat County Road 103	CRAIG, CO 81625	970-824-3333		X		6	8N	94W
133.000	Moffat	VISINTAINER SHEEP CO	BOX 395	CRAIG, CO 81626	970-824-6061		X		6	8N	94W
135.000	Moffat	VISINTAINER SHEEP CO	BOX 395	CRAIG, CO 81626	970-824-6061		X		29 30,31	9N	94W
136.000	Moffat	TOMKE, CRAIG T. LIVING TRUST	P.O. BOX 896 108 S. Walnut	HAYDEN, CO 81639	970-276-1249	X			29	9N	94W
142.000	Moffat	DUNBAR, KEITH , ET AL(MULTIPLE INTERESTS) SEE TAX SHEETS FOR MULTIPLE TAX NUMBERS	P.O. Box 322	Meeker, CO 81641	970-878-5754	X			17	9N	94W

Overland Pass Piceance Lateral

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144.000	Moffat	DUNBAR, KEITH , ET AL(MULTIPLE INTERESTS) SEE TAX SHEETS FOR MULTIPLE TAX NUMBERS	P.O. Box 322	Meeker, CO 81641	970-878-5754	X			17	9N	94W
145.000	Moffat	NOTTINGHAM LAND & LIVESTOCK, A PARTNERSHIP	BOX 969 1671 Moffat County Road 103	CRAIG, CO 81625	970-824-3333		X		8, 9	9N	94W
146.000	Moffat	ELLIS, RUSSELL DALE JR	P.O. BOX 16	BAGGS, WY 82321	307-380-8554		X		4	9N	94W
147.000	Moffat	NOTTINGHAM LAND & LIVESTOCK, A PARTNERSHIP	BOX 969 1671 Moffat County Road 103	CRAIG, CO 81625	970-824-3333		X		4	9N	94W
148.000	Moffat	ELLIS, RUSSELL DALE JR	P.O. BOX 16	BAGGS, WY 82321	307-380-8554		X		4	9N	94W
149.000	Moffat	NOTTINGHAM LAND and LIVESTOCK LLLP	BOX 969 1671 Moffat County Road 103	CRAIG, CO 81625	970-824-3333		X		4 (33)	9N (10N)	94W
150.000	Moffat	NOTTINGHAM LAND & LIVESTOCK, A PARTNERSHIP	BOX 969 1671 Moffat County Road 103	CRAIG, CO 81625	970-824-3333		X		33	10N	94W
152.000	Moffat	ANDREW, STEPHEN R. & SHARON L.	80 County Road 20	CRAIG, CO 81625	970-824-9347		X		27	10N	94W
154.000	Moffat	COUNTS, FRANKLIN L. & ROSE MARIE	777 S RANNEY ST	CRAIG, CO 81625	970-824-6023 (w) 824-5498		X		22	10N	94W
155.000	Moffat	RAFTOPOULOS, JOHN & STEVE DBA RAFTOPOULOS BROS LIVESTOCK	893 STOUT ST	CRAIG, CO 81625	970-824-5750/326-8614		X		15	10N	94W
157.000	Moffat	RAFTOPOULOS, JOHN & STEVE DBA RAFTOPOULOS BROS LIVESTOCK	893 STOUT ST	CRAIG, CO 81625	970-824-9501 970-326-8620		X		15	10N	94W
159.000	Moffat	RAFTOPOULOS, JOHN & STEVE DBA RAFTOPOULOS BROS LIVESTOCK	893 STOUT ST	CRAIG, CO 81625	970-824-9501 970-326-8620		X		10	10N	94W
161.000	Moffat	RAFTOPOULOS, JOHN & STEVE DBA RAFTOPOULOS BROS LIVESTOCK	893 STOUT ST	CRAIG, CO 81625	970-824-9501 970-326-8620		X		3 (34)	10N (11N)	94W
163.000	Moffat	WEIBEL LAND, LLC	P.O. BOX 2028	LONGMONT, CO 80502	303-485-0278		X		28, 33	11N	94W
165.000	Moffat	WEIBEL LAND, LLC	P.O. BOX 2028	LONGMONT, CO 80502	303-485-0278		X		28, 33	11N	94W
167.000	Moffat	RAFTOPOULOS, JOHN & STEVE DBA RAFTOPOULOS BROS LIVESTOCK	893 STOUT ST	CRAIG, CO 81625	970-824-9501 970-326-8620		X		21	11N	94W
173.000	Moffat	ANDERSON, BEVERLY J	112 W MAIN ST	SILT, CO 81652	970-876-0225 970-876-2718		X		20	12N	94W
173.700	Moffat	ANDERSON, BEVERLY J	112 W MAIN ST	SILT, CO 81652	970-876-0225 970-876-2718		X		20	12N	94W
182.000	Sweetwater	PEROULIS, ANDREW PEROULIS	P.O. Box 683	Craig, CO 81625	970-824-5960		X		3	16N	94W
184.000	Sweetwater	SAPOUNAKIS, DIANE M.	P.O. Box 3633	Laguna Hills, CA 92654	949-831-6682		X		27	17N	94W
190.000	Sweetwater	STRATTON SHEEP CO	P.O. BOX 321	RAWLINS, WY 82301	307-324-2500	X			21	17N	94W
192.000	Sweetwater	STRATTON SHEEP CO	P.O. BOX 321	RAWLINS, WY 82301	307-324-2500	X			17	17N	94W
194.000	Sweetwater	SAPOUNAKIS, DIANE M.	P.O. Box 3633	Laguna Hills, CA 92654	949-831-6682		X		7	17N	94W
198.000	Sweetwater	R&M FETERL PROPERTIES L.L.P. (54.71%) & (LEON G.FETERL LIVING TRUST (45.29%))	210 E. Drake Street (8470 Countryside Blvd.)	Salem, SD 57058 (Rapid City, SD 57702)	605-425-2984 605-348-3546	X			31	18N	94W
200.000	Sweetwater	Heath Land & Energy LLLP (FormerlyENERGY ENTERPRISES)	1335 PONDEROSA PLACE,	RAPID CITY, SD 57701	605-342-7205	X			29	18N	94W
202.000	Sweetwater	R&M FETERL PROPERTIES L.L.P. (54.71%) & (LEON G.FETERL LIVING TRUST (45.29%))	210 E. Drake Street (8470 Countryside Blvd.)	Salem, SD 57058 (Rapid City, SD 57702)	605-484-0264 605-348-3546	X			19	18N	94W
204.000	Sweetwater	Heath Land & Energy LLLP (Formerly Clev JCK)	1335 PONDEROSA PLACE,	RAPID CITY, SD 57701	605-342-7205		X		7	18N	94W
206.000	Sweetwater	Heath Land & Energy LLLP (Formerly Clev JCK)	1335 PONDEROSA PLACE,	RAPID CITY, SD 57701	605-342-7205		X		31	19N	94W
208.000	Sweetwater	R&M FETERL PROPERTIES L.L.P. (54.71%) & (LEON G.FETERL LIVING TRUST (45.29%))	210 E. Drake Street (8470 Countryside Blvd.)	Salem, SD 57058 (Rapid City, SD 57702)	605-484-0264 605-348-3546	X			19	19N	94W
209.000	Sweetwater	Heath Land & Energy LLLP (FormerlyENERGY ENTERPRISES)	1335 Ponderosa Place	Rapid City, SD 57701	605-342-7265		X		19	19N	94W
210.000	Sweetwater	HOLLAND, LAMBERT W. LIVING TRUST	120 S. Allcott St.	Chamberlain, SD 57325	605-734-6933	X			19	19N	94W

Overland Pass Piceance Lateral

Tract Number	County	Owner Name	Owner Address	City, State Zip Code	Phone # (s)	OPPL responsible for entire seeding	OPPL responsible for 1st Seeding	OPPL NOT responsible	Sec	T	R
212.000	Sweetwater	ADAMS, STEPHEN F. & CAROLYN L.	P.O. Box 177	Baggs,WY 82321	307-383-7174		X		17	19N	94W
214.000	Sweetwater	ANADARKO LAND CORP	P.O. Box 1330	Houston, TX	832-636-7939 Don Ed Green	X			15	19N	94W
216.000	Sweetwater	ANADARKO LAND CORP		Houston, TX	832-636-7939 Don Ed Green	X			13	19N	94W
218.000	Carbon	known as Norwest Bank Colorado, National Association, formerly known as Norwest Bank Greeley, National Association, formerly known as United Bank of Greeley, National Association, formerly known as Intrawest Bank of Greeley, National Association, formerly known as First National Bank of Greeley, TRUSTEE OF THE TRUST CREATED UNDER THE LAST WILL AND TESTAMENT OF DOMINGO ECHEVERRIA, DECEASED	1740 Broadway, Suite C-7300-07E	Denver, CO 82704	303-863-5178	X			7	19N	93W
220.000	Carbon	known as Norwest Bank Colorado, National Association, formerly known as Norwest Bank Greeley, National Association, formerly known as United Bank of Greeley, National Association, formerly known as Intrawest Bank of Greeley, National Association, formerly known as First National Bank of Greeley, TRUSTEE OF THE TRUST CREATED UNDER THE LAST WILL AND TESTAMENT OF DOMINGO ECHEVERRIA, DECEASED	1740 Broadway, Suite C-7300-07E	Denver, CO 82704	303-863-5178	X			9	19N	93W
222.000	Carbon	known as Norwest Bank Colorado, National Association, formerly known as Norwest Bank Greeley, National Association, formerly known as United Bank of Greeley, National Association, formerly known as Intrawest Bank of Greeley, National Association, formerly known as First National Bank of Greeley, TRUSTEE OF THE TRUST CREATED UNDER THE LAST WILL AND TESTAMENT OF DOMINGO ECHEVERRIA, DECEASED	280 Highway 191 North	Rock Springs, WY 82902	970-826-5070 Louise McMinn	X			11	19N	93W
226.000	Carbon	known as Norwest Bank Colorado, National Association, formerly known as Norwest Bank Greeley, National Association, formerly known as United Bank of Greeley, National Association, formerly known as Intrawest Bank of Greeley, National Association, formerly known as First National Bank of Greeley, TRUSTEE OF THE TRUST CREATED UNDER THE LAST WILL AND TESTAMENT OF DOMINGO ECHEVERRIA, DECEASED	1740 Broadway, Suite C-7300-07E	Denver, CO 82704	303-863-5178	X			1	19N	93W