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34

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November 15, 2006

Magalie Roman Salas, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

Re: Supplemental submission on behalf of the Ohio Department of Natural Resources, *Rockies Express Pipeline, LLC*, Docket No. PF06-30-000

Dear Secretary Salas:

On October 12, 2006, the staff of the Ohio Power Siting Board (OPSB Staff) submitted preliminary comments for FERC staff consideration in its preparation of the draft Environmental Impact Statement in this docket. Consistent with these preliminary comments, the following is submitted on behalf of the staff of the Ohio Department of Natural Resources, an OPSB member agency. A project of this magnitude will obviously impact numerous Ohio landowners. Consistent with its October 12 comments, the OPSB Staff believes that it is of paramount importance that applicant Rockies Express establish and implement a process that is informative to affected landowners, creates opportunities for effective communication of concerns and landowner planning and one that provides for fair and adequate remediation for the properties that are burdened by the project. In this vein, the OPSB Staff offers the attached agreement for FERC staff consideration as a blueprint to help facilitate these important goals.

Respectfully submitted,

/s/ William L. Wright
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On behalf of the Staff of
The Ohio Power Siting Board

WLW/klk

Attachment

IMPACT AGREEMENT
between the
ROCKIES EXPRESS PIPELINE COMPANY
and the
OHIO DEPARTMENT OF NATURAL RESOURCES,
DIVISION OF SOIL AND WATER CONSERVATION
pertaining to the construction of a
NATURAL GAS PIPELINE AND RELATED APPURTENANCES
in
BUTLER, WARREN, CLINTON, GREENE, FAYETTE,
PICKWAY, FAIRFIELD, PERRY, MORGAN, MUSKINGUM,
GUERNSEY, NOBLE, BELMONT, AND MONROE
COUNTIES in OHIO.

The Division of Soil and Water Conservation requests that the Rockies Express Pipeline Company agree to the following measures which the Company shall implement as it constructs a natural gas pipeline in parts of Butler, Warren, Clinton, Greene, Fayette, Pickaway, Fairfield, Perry, Morgan, Muskingum, Guernsey, Noble, Belmont, and Monroe Counties as described in the Company's application to the Federal Energy Regulatory Commission (FERC) for a Certificate of Public Convenience and Necessity. These measures are to prevent and/or correct impacts to subsurface drainage, surface drainage, provide compensation for damaged crops (including timber), and other negative impacts that may occur due to pipeline construction. In its application to the FERC, the Company proposed to follow (with minor modifications) the FERC's Upland Erosion Control Revegetation, and Maintenance Plan (Plan) and Wetland and Waterbody Construction and Mitigation Procedures (Procedures), and the Best Management Practices prepared by the Company. The measures described herein are to supplement the measures included in the FERC's Plan and Procedures and the Best Management Practices.

The attached pipeline standard and construction specifications apply to construction activities occurring partially or wholly on privately owned land. They do not apply to construction activities on other property such as public right-of-way, railroad right-of-way, and publicly owned land unless separately agreed to with such entities. The Company shall, however, adhere to the construction specifications relating to the repair of outlets for drain tile and/or surface drainage when they are encountered on lands owned or leased by others.

The standard and construction specifications are for mineral soils only and, therefore, do not pertain to organic muckland soils. The Ohio Division of Soil and Water Conservation recommends avoidance and routing around agricultural organic muckland soils. When this is not possible, site-specific development and implementation of construction techniques will be needed. The project sponsor's representatives shall contact the local County Soil and Water Conservation District for their requirements, during preliminary planning for such sites.

INTRODUCTION

The Rockies Express Pipeline Company shall retain qualified Agricultural and Soil Conservation Specialist/Inspectors (Agricultural Inspector) on each work phase of the project. This shall include the initial construction plan development, the construction, the initial restoration, and the post-construction monitoring and follow-up restoration. The Agricultural Inspector shall act to assure that the provisions set forth in this document or in any separate agreement, will be adhered to in good faith by the Company and by the pipeline installation contractor, and that all agreements protect the resources of both the landowner and the Company.

The Agricultural Inspector shall assist with the collection and analyzing of site-specific agricultural information gathered for the construction plan development by the Company. This information shall be obtained through field review as well as direct contact with affected landowners and farm operators, local County Soil and Water Conservation District, Agricultural Extension Agents, and others. The Agricultural Inspector shall maintain contact with the appropriate on-site Project Inspectors throughout the construction phase. The Agricultural Inspector also shall maintain contact with the affected landowners and farm operators and local County Soil and Water Conservation District personnel concerning farm resources and management matters pertinent to the agricultural operations and the site-specific implementation of the construction plan. The Company shall provide a courtesy copy of information to the appropriate local County Soil and Water Conservation Districts at any time a request for a construction plan modification is submitted.

The local County Soil and Water Conservation District shall be asked to help develop a database of potential Agricultural Inspectors. The Company will employ Agricultural Inspectors that are at a minimum thoroughly familiar with the following:

* FERC Plan and Procedure
- Pipeline Construction Sequences and Process
- Trained in all aspects of soil and water conservation
- Familiar with farm operation
- Good oral and written communication skills
- Ability to work closely with the landowners and project sponsor

The Company shall employ, where and if available, local drain tile contractors to redesign, reconstruct, and/or repair any drain tile lines that are affected by the pipeline installation. Often the local contractors may have installed the Landowner's drain tile system and can have valuable knowledge as to the location, depth of cover, appurtenances, and any other factors affecting the tile operation. The drain tile contractor(s) shall follow the attached construction specifications.

AGREEMENT

The Company shall provide the Landowner a copy of that portion of the final plans that affect his property and any plans or maps that contain the information described below concerning agricultural areas and or uses.

Unless an easement specifically provides to the contrary, the actions specified in the pipeline standard and construction specifications attached to this Agreement will be implemented in accordance with the conditions listed below:

A. The Company shall provide a copy of this Agreement to the Landowner or Landowner's Designate and Tenant prior to obtaining an easement from said Landowner.

B. All actions are subject to change by Landowners and Landowner's Designates, provided such changes are negotiated in advance of construction and acceptable to the Company, FERC and any permitting agency. To satisfy FERC requirements, any modification to an action must provide an equal or greater level of environmental protection than the original action and may need the approval of FERC before it can be implemented.

C. The Company may negotiate with Landowners or Landowners' Designates to carry out the actions that Landowners wish to perform themselves, but shall not compensate the landowner for any measures carried out themselves until final inspection has been approved by the Company and/or the local County Soil and Water Conservation District and at a minimum any measure carried out by a land owner must follow guidelines set forth in the FERC Plan.

D. All actions employed in writing by the Company pursuant to this Agreement, unless otherwise specified in this Agreement or in an easement negotiated with an individual Landowner or Landowners' Designate, shall be implemented within the time set forth in the FERC Plan following completion of the pipeline facilities on any affected property. If, because of weather and restoration conditions, the Company needs a longer period of time, the Company shall have the burden to establish how much additional time would be reasonably necessary to complete the actions required by this Agreement. Temporary repairs shall be made by the Company during the construction process as needed to minimize the risk of additional property damage that may result from an extended construction time period.

E. Unless otherwise agreed to by Landowners or Landowners' Designates, all actions pursuant to this Agreement shall extend to associated future construction, maintenance and repairs by the Company.

F. The Company shall implement the actions contained in this Agreement to the extent that they do not conflict with the requirements of any applicable federal, state and local rules and regulations and other permits and approvals that are obtained by the Company for the project. The provisions and requirements of this Agreement shall be deemed to be included in all easements unless the easement specifically provides to the contrary.

G. Each action contained in this Agreement shall be implemented to the extent that such action is not determined to be unenforceable by reason of the actions approved by, or other requirements, of the FERC Certificate issued for the project. The Company agrees to include this Agreement as part of its submissions to FERC and hereby expressly agrees to the inclusion of the terms contained in this Agreement in the Environmental Impact

Statement to be issued in conjunction with the anticipated Certificate of Public Convenience and Necessity.

H. Prior to the construction of the pipeline, the Company shall provide each Landowner and Tenant with a telephone number and address which can be used to contact the Company, both during and following the completion of construction, regarding the work that was performed on their property or any other construction-related matter. The Company shall respond promptly to Landowner and Tenant telephone calls and correspondence.

I. Certain provisions of this Agreement require the Company to consult and/or agree with the Landowner and Tenant(s) of a property. The Company shall engage in a good faith effort to secure the agreement of both Landowner and Tenant in such cases. In the event of a disagreement between Landowner and Tenant, the Company's obligation under this agreement shall be satisfied by securing the Landowner's agreement. Legal documents executed between the Landowner and Tenant will be part of the acquisition.

J. If any provision of this Agreement is held to be unenforceable, no other provision shall be affected by that holding, and the remainder of the Agreement shall be interpreted as if it did not contain the unenforceable provision.

K. A local forester shall be hired by the Company to appraise the merchantable value of any timber to be cut for construction of the pipeline. The Landowner shall be compensated 100% of this value. In addition, the Landowner shall be given the option of having the Company cut the timber in random lengths and stacked along the edge of the right-of-way for the Landowner's use and/or disposal

L. Determining Construction Related Damages.

The basis of payment is explained as follows: The first year's crop damage will be a minimum of 100% of the amount the farmer/tenant would have received had he/she been able to grow a crop on the lands to be used. This may include a second full year of land used for right-of-way if delay is necessary for proper restoration conditions. Subsequent year's payments will be based on the deficiency, if any, of the yield on the lands used in relation to adjoining crops. These figures will not be known until completion of each year's monitoring program. With respect to other items (tiles, fences, etc.), the pipeline company will restore or replace them to as good or better condition. The landowner will not be compensated for these items.

OHIO DEPARTMENT OF NATURAL RESOURCES

DIVISION OF SOIL & WATER CONSERVATION

Pipeline Standard

And

Construction Specifications

DEFINITION

A line of pipe with valves, pumps, and control devices used for the conveying of liquids, gases, or finely divided solids.

PURPOSE

To convey oil, gasoline, gas, water, or any other liquefied product.

CONDITION WHERE THIS STANDARD APPLIES

Where it is desirable or necessary to convey liquid or gaseous products in a closed conduit from one point to another point

DEFINITIONS OF TERMS

Agricultural Land	Land which is presently under cultivation; land which has been previously cultivated and not subsequently developed for non-agricultural use; and cleared land which is capable of being cultivated. It includes land used for cropland, hayland, improved pastureland, managed woodlands, truck gardens, farmsteads, commercial agricultural related facilities, feedlots, livestock confinement systems, land on which farm buildings are located, and land in government set-aside programs.

Best Management Practice (BMP)	Any structural, vegetative or managerial practice used to treat, prevent or reduce soil erosion. Such practices may include temporary seeding of exposed soils, construction of retention basins for storm water control and scheduling the implementation of all BMP's to maximize their effectiveness.
Company	The Pipeline Company, its successors, and assigns, on its own behalf and as operator of the Pipeline Company.
Cropland	Land used for growing row crops, small grains, or hay; includes land that was formerly used as cropland but is currently in a government set-aside program, and pasture land formerly used as cropland.
Pipeline	The pipeline and its related appurtenances described in the Company's application to the Federal Energy Regulatory Commission for a Certificate of Public Convenience and Necessity.
Landowner	Person(s) holding legal title to property on the pipeline route from whom the Company is seeking, or has obtained, a temporary or permanent easement.
Landowner's Designate	Any person(s) legally authorized by a Landowner to make decisions regarding the mitigation or restoration of agricultural impacts to such Landowner's property.
Non-Agricultural Land	Any land that is not "Agricultural Land" as defined above.
Right-of-Way	Includes the permanent and temporary easements that the Company acquires for the purpose of constructing and operating the pipeline.
Slope Breaker	A ridge or channel constructed diagonally across a road or utility right-of–way that is subject to erosion.
Tenant	Any person lawfully residing on or in possession of the land.

Drain Tile	Any artificial subsurface drainage system including: clay and concrete tile, vitrified sewer tile, corrugated plastic tubing, and stone drains.
Topsoil	The upper most part of the soil commonly referred to as the plow layer, the A layer, or the A horizon, or its equivalent in uncultivated soils. It is the surface layer of the soil that has the darkest color or the highest content of organic matter (as Identified in the USDA County Soil Survey and verified w/ right-of-way samples).
Surface Drains	Any surface drainage system such as shallow surface field drains, grassed waterways, open ditches, or any other conveyance of surface water.

PLANNING PHASE

A) Construction Plans and Maps.

The Company shall provide the Landowner general construction plan maps with the following information concerning agricultural areas/uses:

1. Pasture/Grazing areas including unimproved grazing areas (brushy or wooded land used by livestock), permanent open pasture (land devoted only to pasture use, not suited to tillage rotation), improved pasture (including tillable rotation pasture/hayland), and livestock fencelines.

2. Cropland areas including hayland, rotation cropland, long-term cropland and agricultural lands enrolled either the annual set-aside or the Conservation Reserve Program of the U.S.D.A. Consolidated Farm Service Agency. Such lands will be identified through consultation with the offices of the Consolidated Farm Service Agency and the County Soil and Water Conservation District.

3. Unique Agricultural Lands, which include specialty cropland (vegetables, berries, etc.), orchards, vineyards, maple sugarbushes, organic mucklands, and permanent irrigation systems.

These areas mentioned above will be identified with the help of the County Soil and Water Conservation districts.

B) Sensitive Agricultural Soils

Sensitive agricultural soils are defined as areas of cropland, hayland, or pasture that are more susceptible than other agricultural soils to construction disturbance due to slope, relative soil wetness, and/or shallowness to bedrock. Wetness conditions are the result of factors such as landscape position, soil texture, seasonal water table and/or slowly permeable subsoil horizons (e.g., areas of laterally draining subsoils). All sensitive agricultural soils including, but not limited to, those identified in the county soil survey as fragipans, lacustrines, dense basal tills, soils with a seasonally high water table, or soils with less than 5 feet of depth to bedrock are to be located and identified on the project map using the following codes:

1. "SE" - designates the general area of soils sensitive to erosion due to R-O-W factor(s) of slope and/or the texture of exposed soil.

2. "SW" - designates the general area of soils susceptible to soil horizon wetness as described above.
3. "SR" - designates the general area of soils susceptible to shallow depth to bedrock.

4. "SO" - designates the location of unavoidable organic mucklands.

C) Other Features

In addition, the Company shall note the following information on the general construction plan maps, or on the construction alignment sheets.

1. Other land and water management features including subsurface drainage areas (where they can be identified prior to construction), open ditches, diversions, and diversion terraces, buried utility lines (for farmstead consumptive use), water source (developed springs, etc.), and unnamed water flows.

2. Depth of cover if it varies from those listed in the Construction Specifications.

3. Any off right-of-way access roads and work or storage areas. Map all such areas identified at the time of the construction plan submission, indicating their proposed locations. Any other areas that may be identified during construction will be considered and filed as a change in the construction plans.

4. The planned location of any compressor stations, valve stations, metering and regulating stations and any other proposed facilities.

5. General locations for trench breakers, including a notation of the distance between breakers based on percent of slope, or an appended generic chart of trench breaker spacing by degree or percent of slope.

6. General locations for subsurface intercept drains to control soil saturation and/or aid trench breakers in minimizing water piping, based on the sensitive agricultural soils data (see Section B) and site monitoring. Such locations will generally coincide with "SE" sensitive agricultural soils and breaks in slopes.

D) Point of Contact During Construction

Prior to the construction of the pipeline, the Company shall provide to each Landowner, Landowners Designate and/or Tenant the name, telephone number and mailing address of the Company representative assigned to that geographic area and responsible for the liaison activities on behalf of the Company. This Company representative shall be the contact person both during construction and operational related activities. The Company shall respond promptly to any Landowner and/or Tenant issues or concerns both during the construction and long-term operational activities.

CONSTRUCTION SPECIFICATIONS

1) INGRESS AND EGRESS ROUTES

Prior to the pipeline installation, the Company and the Landowner shall reach a mutually acceptable agreement on the route that will be utilized for entering and leaving the pipeline right-of-way, should access to the right-of-way not be practical or feasible from adjacent segments of the pipeline right-of-way or from public highway or railroad right-of-ways.

Where access ramps/pads are required from the highway to the pipeline construction area, the topsoil shall be removed and stock piled for replacement, an underlayment of durable geotextile matting shall be placed over the exposed subsoil surface prior to the placement of temporary rock access fill material. All such material will be removed upon completion of the project. The use of durable geotextile matting as an underlayment helps prevent rock and stone from becoming embedded in the subsoil material. Complete removal of the ramp upon completion of the project and restoration of the impacted site is required prior to topsoil replacement (see DETAIL No. 1, ACCESS PADS AT ROAD CROSSING).

2) TEMPORARY ROADS

The location of temporary roads to be used for construction purposes will be negotiated with the Landowner and the Tenant. The temporary roads will be designed to not impede proper drainage and will be built to minimize soil erosion on or near the temporary roads. Every attempt will be made to use existing farm lanes for access and repair damages to the existing lanes.

Upon construction completion, temporary roads may be left intact through mutual agreement of the Landowner, the Tenant and the Company unless otherwise restricted by federal, state or local regulations. If the temporary roads are to be removed, the right-of-way upon which the temporary roads are constructed will be returned to its previous use and restored to equivalent condition as existed prior to their construction.

3) CLEARING OF BRUSH AND TREES ON THE RIGHT-OF-WAY

Unless otherwise restricted by federal, state or local regulations, the Company shall follow the Landowner's, Landowner Designee's, and the Tenant's desires as stated in the easement agreement regarding the disposal of trees, brush and stumps of no value to the Landowner by burning, burial, chipping, etc., or complete removal from any affected property.

The Company shall identify black cherry trees located on the right-of-way near active livestock use areas during the construction plan development. Black cherry tree vegetation is toxic to livestock when wilted and shall not be stockpiled in areas accessible to livestock. During the clearing phase, such vegetation will be disposed of in a manner that prevents contact with livestock.

Unless otherwise restricted by federal, state or local regulations, the Company shall follow the Landowner's or Landowner Designate's desires as stated in the easement agreement regarding the removal of tree stumps that the Company might otherwise leave in the ground.

4) TOPSOIL REMOVAL AND PROTECTION

In agricultural land the topsoil shall be removed prior to any activity by any equipment or delivery trucks. In all other areas the topsoil shall be removed after clearing, clearing and grubbing, and prior to any other construction equipment and delivery trucks. Topsoil shall be removed from the full width of the right-of-way and stockpiled along either edge and on the right-of-way (see DETAIL No. 2, DEPTH OF TOPSOIL REMOVAL).

Topsoil shall be kept separated from any other excavated material and construction activity (see DETAIL No. 3, TOPSOIL SEGREGATION). The depth of topsoil removal shall include all of the "A" horizon down to the beginning of the subsoil "B" horizon, or as identified by the County Soil and Water Conservation District, generally not to exceed a maximum of 12 inches. Topsoil removal up to a depth of 16 inches may be required in specially designated soils encountered along the pipeline route and identified in the construction plan. The Agricultural Inspector shall determine the depth of topsoil removal from the specially designated soil areas during the construction plan development by using the local County Soil Survey and on-site soil augering, if necessary. All topsoil material will be stripped, stockpiled, and uniformly returned to restore the original soil profile.

During the clearing/construction phase, the Agricultural Inspector shall monitor site-specific depths of topsoil stripping. Where right-of-way construction requires cut-and-fill of the soil profile across grades, to the extent practicable, topsoil stockpiling will be located on the up slope edge of the right-of-way (see DETAIL No. 4, TOPSOIL STOCKPILING ON SLOPES). Where topsoil cannot be separately stored on the up slope side, suitable right-of-way space will be provided on the down slope side to ensure the complete segregation of the topsoil from all cut-and-fill material.

5) DEPTH OF COVER

Except for above-ground piping facilities, such as mainline block valves, tap valves, meter stations, etc., and except as otherwise stated in the Agreement, the pipeline will be buried as follows:

1. In agricultural land where there are existing subsurface drainage systems, or drain tile is required to provide adequate drainage, and bedrock is not shallower than 96 inches, a minimum of 60 inches of cover shall be provided over the top of the pipeline. Where bedrock is shallower than 96 inches, the Company reserves the right, as an option, to install a drain tile submain to collect drain tile flows to a suitable crossing location or a suitable outfall. This drain tile submain will be designed in conjunction with the local County Soil and Water Conservation Districts.

2. In agricultural land without drain tile and where County Soil Survey indicate good drainage, a minimum of 48 inches of cover over the top of pipeline will be maintained.

3. In non-agricultural land, unimproved pastureland, and land permanently devoted to pasture a minimum of 36 inches of cover shall be maintained over the top of the pipeline.

4. A minimum of 60 inches of cover shall be maintained over the top of the pipeline where it crosses surface drains, diversions, grassed waterways, open ditches, and streams.

A minimum of 12 inches of separation shall be maintained between the pipeline and drainage tile unless adequate measures are taken to protect the present and future integrity of pipeline and the drain tile.

In agricultural lands where the depth of soil over bedrock is 48 inches or less, the pipeline shall be buried entirely below the top of the bedrock or at the depth specified above for the particular land use, whichever is less. At no time shall the depth of cover be less than 24 inches below the soil surface.

6) ROCK REMOVAL (SHALLOW SOILS)

The top 48 inches or the actual depth of top cover, whichever is less, within the pipeline trench, bore pits, or other excavations shall not be backfilled with soil containing rocks of any greater concentration or size than existed prior to the pipeline construction.

In areas of bedrock removal that requires blasting, matting or controlled blasting shall be used to limit the dispersion of blast rock fragments. Landowners/operators and adjacent landowners will be given timely notice prior to blasting.

7) REPAIR OF DAMAGED AND ADVERSELY AFFECTED TILE LINES

All drain tile repair and/or replacement shall be completed prior to topsoil replacement.

If underground drain tile is damaged by the pipeline installation, it shall be repaired in a manner that assures the drain tile's proper operating condition at the point of repair. If underground drain tile lines in the pipeline construction area are adversely affected by the pipeline construction, the Company will take such actions as are necessary to insure the proper functioning of the drain tile lines, including the relocation, reconfiguration, and replacement of the existing drain tile lines. The following standards and policies shall apply to the drain tile line repair:

A. The Company shall make a conscientious effort to locate all drain tile lines within the right-of-way prior to the pipeline installation. The Company will contact the local County Soil and Water Conservation Districts and affected Landowners/Tenants for their knowledge of drain tile line locations prior to the pipeline installation. All identified drain tile lines will be marked with a 4 foot lathe to alert construction crews to the need for drain tile line repairs.

B. During construction all drain tile lines that are damaged, cut, or removed shall be distinctly marked by placing a highly visible 4 foot lathe in the trench spoil bank directly opposite each drain tile line. This marker shall not be removed until the drain tile line has been permanently repaired and such repairs have been approved and accepted by the Agricultural Inspector and the local County Soil and Water Conservation District. If the County Soil and Water Conservation District Technician is not available at the time of backfill and restoration, the Agricultural Inspector will follow repair guidelines set forth in this document and DETAILS No. 5 thru No. 10, DRAIN TILE REPAIR SYSTEM.

C. All drain tile lines shall be repaired with materials of the same or better quality as that which was damaged. The repair plans shall be approved by the Agricultural Inspector and the local County Soil and Water Conservation District. The repair may require the installation of a submain to reduce the number of drain tile lines crossing the pipeline (see DETAIL No. 10, TILE SYSTEM NEW SUBMAIN).

D. Where drain tile lines are severed by the pipeline trench steel channel iron, steel angle iron, full-round slotted steel pipe, half-round steel pipe, or schedule 80 pvc pipe with 1/8 inch diameter holes shall be used to support the drain tile lines across the trench (see DETAIL No. 5 thru No. 10).

   1. If the drain tile repairs involve clay or concrete tile, the support member shall extend to the first tile joint beyond the minimum 3-foot distance. If the drain tile repairs involve plastic pipe it shall be supported at a 90-degree angle from the bottom of the drain tile. This may involve using angle Iron to provide proper support.

   2. There shall be a minimum of 12 inches of clearance between the drain tile line and the pipeline whether the pipeline passes over or under the tile line. If this clearance cannot be

attained, the drain tile line must be protected from damage that might result from the proximity of the pipeline.

3. In no instance shall the grade of the drain tile line be decreased.

E. Before completing permanent drain tile repairs, all drain tile lines shall be examined by suitable means (see DETAIL No. 5, DRAIN TILE INSPECTION) on both sides of the trench for their entire length within the right-of-way to check for drain tile that might have been damaged by construction equipment. If any drain tile line is found to be damaged, it shall be repaired so it will operate as well after construction as before construction began.

F. Temporary repairs of drain tile lines shall be made as soon as exposed. This shall include the use of filter material to prevent the movement of soil into the drain tile line or the temporary plugging of the drain tile line until permanent repairs can be made.

G. All permanent drain tile line repairs shall be made within 30 days following completion of the pipeline installation on any affected Landowner's property.

H. Following completion of the pipeline construction, the Company shall also be responsible for correcting and repairing all drain tile line repairs that fail on the permanent and construction right-of-way. The plans for the repairs shall be approved by the local County Soil and Water Conservation District prior beginning work on the repair.

8) INSTALLATIONS OF ADDITIONAL DRAIN TILE LINES

The Company shall be responsible for installing such additional drain tile and other drainage measures as are necessary to properly drain wet areas on the permanent and temporary right-of-ways caused by the construction and/or existence of the pipeline.

9) REPAIR OF DAMAGED SOIL CONSERVATION PRACTICES

All soil conservation practices (such as terraces, diversions, grassed waterways, outlet ditches, wascobs, etc.) that are damaged by the pipeline construction shall be restored to their pre-construction condition as approved by the Agricultural Inspector.

10) CONTROL OF TRENCH WASHOUTS, WATER PIPING AND BLOWOUTS

Trench breakers shall be installed for the dual purpose of preventing trench washouts during construction and abating water piping and blow-outs subsequent to trench backfill. The distance between permanent trench breakers may range from the relatively close-spaced formula of the toe of the upper trench breaker being level with the head of the lower trench breaker to the relatively greater spacing (see DETAIL No. 11, PERMANENT TRENCH BREAKERS, and DETAIL No. 12 or 12A, TRENCH BREAKER SPACING). The Company shall record each installed trench breaker location, by map-referenced station-number.

11) PUMPING OF WATER FROM OPEN TRENCHES

No back filling shall be done in water filled trench. All freestanding water shall be removed prior to any back filling.

In the event it becomes necessary to pump water from open trenches, the Company shall pump the water in a manner that will avoid damaging adjacent agricultural land, crops, and/or pasture. Such damages include, but are not limited to: inundation of crops for more than 24 hours, sheet and rill erosion, deposition of sediment in ditches and other water courses, and the deposition of gravel in fields, pastures, and any water courses.

If it is impossible to avoid water-related damages as described above, the Company will restore the land, pasture, watercourses, etc. to their pre-construction condition.

All pumping of water shall comply with existing drainage laws, local ordinances relating to such activities, and provisions of the Clean Water Act.

12) SUBSOIL DECOMPACTION, SOIL SHATTERING, AND STONE REMOVAL

In all agricultural sections of the right-of-way, where topsoil is stripped and prior to topsoil replacement, the subsoil shall be fractured by deep ripping to a depth of 16 inches below the surface of the subsoil with the appropriate industrial ripper. The ripper shall have maximum teeth spacing of 16 inches. The ripping shall be performed parallel to the pipeline and at 90 degrees to the pipeline. Following the ripping operation all stone and rock material four inches and larger in size which has been lifted to the surface shall be collected and removed from the site for disposal.

Upon approval by the Agricultural Inspector of the subsoil decompaction and the stone removal, the topsoil that has been temporarily removed for the period of construction shall then be replaced. The soil profile in the full width of the right-of-way shall be shattered to a depth of 16 inches with a heavy-duty sub-soiling tool having angled legs. Stone removal shall be completed, as necessary, to eliminate any additional rocks and stones brought to the surface as a result of the final subsoil shattering process.

The Company will restore all construction-rutted land to as near as practical to its pre-construction condition. The cost of applying fertilizer and manure or other material with a high level of organic material shall be included in the damages paid, thereby allowing the Landowner and/or Tenant to apply the appropriate type and amounts of fertilizer, lime and other material as needed depending on the crops contemplated and the construction schedule.

Due to the generally unsuitable weather for continuing agricultural land restoration in late autumn, subsoil decompaction and topsoil replacement activities shall not be performed between November 1st. and April 1st., unless approved on a site-specific basis by the Agricultural Inspector in consultation with the local County Soil and Water Conservation District.

13) BACKFILL PROFILE AND TRENCH CROWNING

In all agricultural land areas, ripped or blasted bedrock or concentrated volumes of excavated stone or rock material may be used for trench backfill material, but no closer than 24 inches from the exposed working construction surface of the right-of-way. All rock not utilized as trench backfill material shall be removed from the right-of-way. The remaining backfill material shall consist of suitable subsoil material. Trench crowning shall occur during the trench backfilling operation using subsoil materials over the trench to allow for trench settling (see DETAIL No. 13, TRENCH CROWNING). After the initial ripping of the exposed subsoil and the rock cleanup has been completed, the stockpiled topsoil shall be spread over the entire affected right-of-way. In areas where trench settling occurs after topsoil spreading, imported topsoil shall be used to fill each depression. Topsoil from the adjacent agricultural land shall not be used to fill the depressions.

In agricultural areas where the materials excavated during trenching are insufficient in quantity to meet backfill requirements, the soil of any agricultural land adjacent to the trench and construction zone shall not be used as either backfill or surface cover material. Under no circumstances shall any topsoil materials be used for pipe padding material or trench backfill. In situations where imported soil materials are employed for

backfill on agricultural lands, such material shall be of similar texture to the existing soils on site.

TWO YEAR MONITORING AND REMEDIATION

1. GENERAL MONITORING AND REMEDIATION

The Company shall provide a monitoring and remediation period of no less than two years immediately following the full-length activation of the pipeline or the completion of initial right-of-way restoration, whichever occurs last. The Company shall be responsible for the cost of the monitoring and remediation. The two-year period allows for the effects of climatic cycles such as frost action, precipitation and growing seasons to occur, from which various monitoring determinations can be made. The Company shall maintain an Agricultural Inspector on at least a part-time basis through this period. The monitoring and remediation phase shall be used to identify any remaining impacts associated with the pipeline construction that are in need of correction and to implement the follow-up restoration.

General right-of-way conditions to be monitored include topsoil thickness, relative content of rock and large stones, trench settling, crop production, drainage and repair of severed fences, etc. The problems or concerns shall be identified through on-site monitoring of all areas along the right-of-way and through contact with respective landowner/operator and local County Soil and Water Conservation District.

Topsoil deficiency and trench settling shall be restored with imported topsoil that is consistent with the quality of topsoil on the affected site. Excessive amounts of rock and oversized stone material shall be determined by a visual inspection of the right-of-way. Results shall be compared to portions of the same field located outside of the right-of-way. Included in the determination of relative rock and large stone content is the right-of-way's condition subsequent to tillage and the relative concentration of such materials within the right-of-way as compared to off the right-of-way. All excess rocks and large stones shall be removed and disposed of by the Company.

On site monitoring shall be conducted at least three times during the growing season and shall include a comparison of growth and yield for crops on and off the right-of-way. When the subsequent crop productivity within the affected right-of-way is less than that of the adjacent unaffected agricultural land, the Agricultural Inspector, in conjunction with the Company as well as other appropriate organizations, shall help to determine the appropriate rehabilitation measures for the Company to implement.

During the various stages of the project, all affected farm operators shall be periodically apprised of the duration of remediation by their respective Agricultural Inspector. Because conditions that require remediation may not be noticeable at or shortly after the completion of construction, the signing of a release form prior to the end of the remediation period shall not relieve the Company's responsibility to fully redress all project impacts. After completion of the specific remediation period, the Company shall continue to respond to the reasonable requests of the land-owner/operators to correct project related affects on the agricultural resources.

On lands subject to erosion, the Company shall patrol the pipeline right-of-way with reasonable frequency to detect erosion of the top cover. Whenever the loss of cover due to erosion creates a safety issue the Company shall take corrective action.

2. SPECIFIC MONITORING AND REMEDIATION

After the moisture of the soil profile on the affected right-of-way has returned to equilibrium with the adjacent off right-of-way land, subsoil compaction will be tested using an appropriate soil penetrometer or other soil compaction-measuring device. Compaction tests shall be made for each soil type identified on the affected agricultural land. The subsoil compaction test results within the right-of-way shall be compared with those of the adjacent off right-of-way portion of the affected farm field/soil unit. Where representative subsoil density on the right-of-way exceeds the representative subsoil density outside the right-of-way, additional shattering of the soil profile shall be performed using a deep, angled-leg subsoiler tool to a depth of 16 inches. Deep shattering shall be applied during periods of relatively low soil moisture to prevent additional subsoil compaction. Oversized stone/rock material, which is uplifted to the surface as a result of the deep shattering, shall be removed and disposed off the right-of-way. In the event that subsequent construction or cleanup activities result in new compaction, additional deep shattering shall be performed to alleviate such compaction.

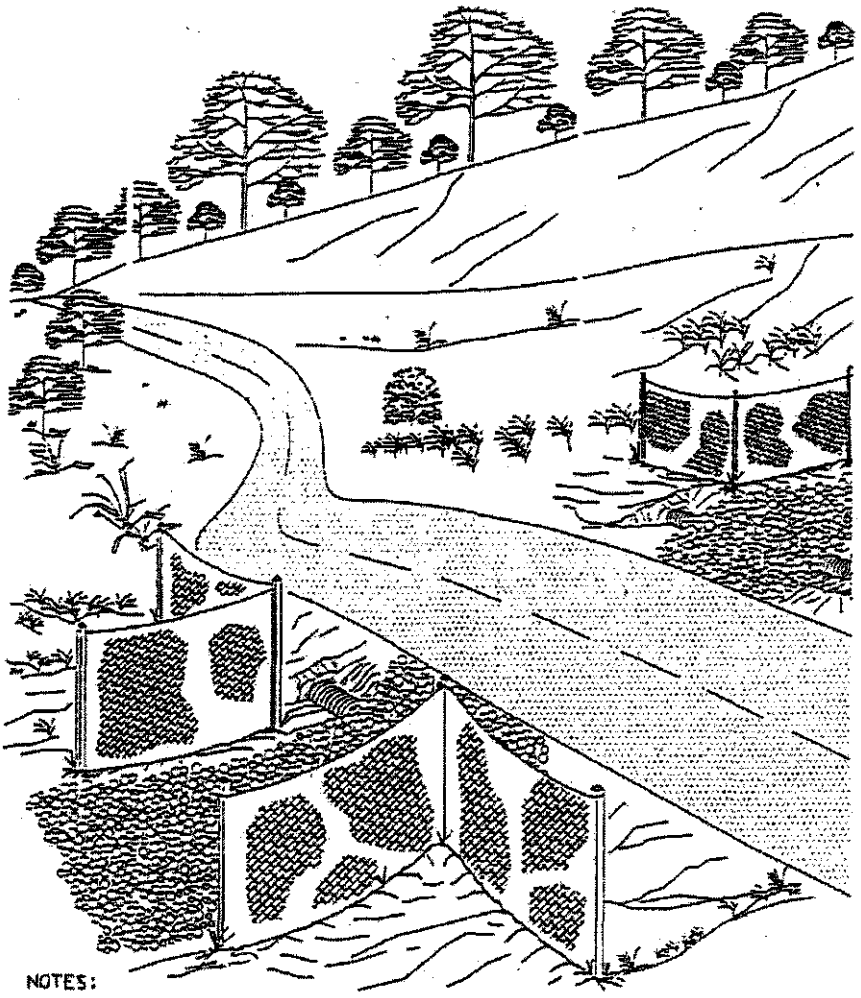
For lands disturbed within or adjoined to agricultural areas where the construction alters the natural stratification of soil horizons and natural soil drainage patterns, the Company shall rectify the effects with measures such as subsurface intercept drain tile lines (see DETAIL No. 8, INTERCEPT DRAIN TILE CROSS TRENCH DRAINAGE). Selection of the type of intercept drain lines to be installed to prevent surface seeps and the seasonally prolonged saturation of the backfilled trench zone and adjacent areas shall be performed by a qualified Agricultural Inspector. During monitoring and follow-up remediation drawings of the drain tile shall be provided to the landowner for review before the Company begins the cor-

rective action. All drain tile lines shall be installed according to Natural Resource Conservation Service standards and specifications.

3. COMMUNICATION ACCESS

The Company shall provide all landowners/operators with a telephone number to facilitate direct contact with the Company and the project's Agricultural Inspector(s) through all of the stages of the project, including operation and maintenance.

Access Pads at Road Crossings

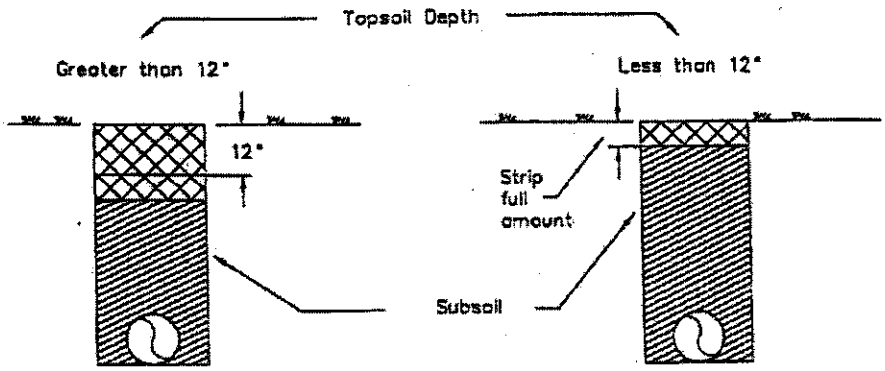


NOTES:

MINIMUM ROCK PAD DIMENSIONS SHALL BE 20 FEET LONG & 12 FEET WIDE.

Detail No. 1

DEPTH OF TOPSOIL REMOVAL

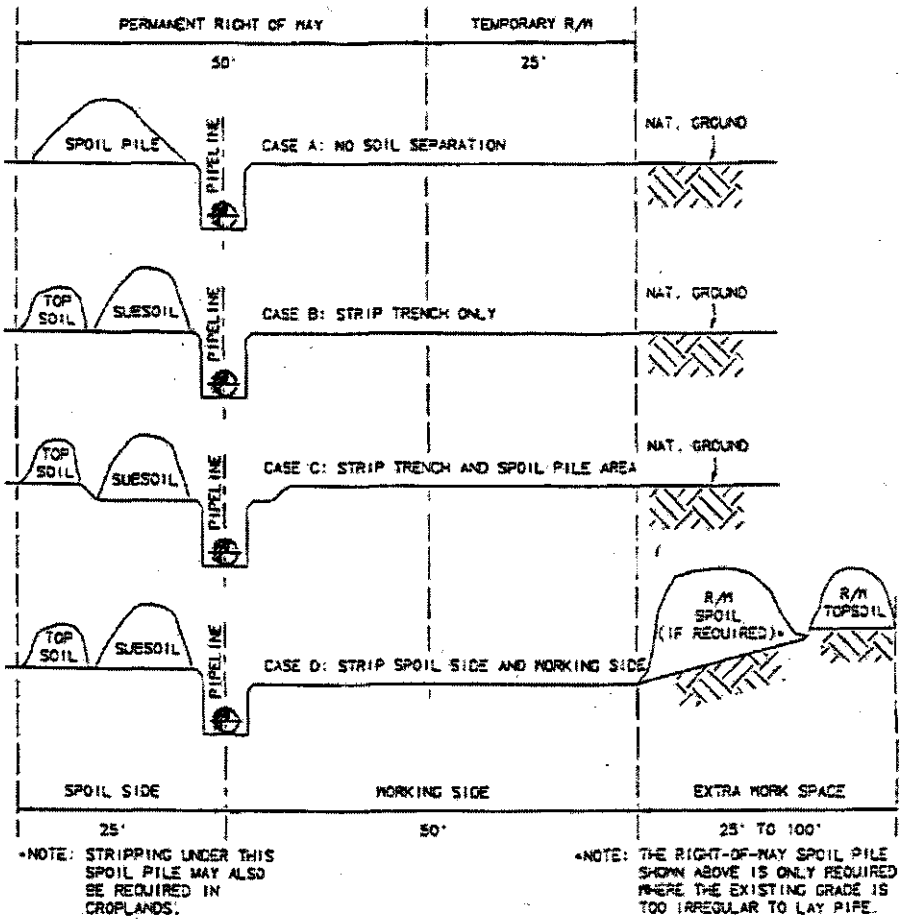


NOTE:

1. Where the topsoil is finely textured and is deeper than 12 inches, stripping is required to the depth of the subsoil, or 16 inches, whichever is less.

Detail No. 2

Topsoil Segregation

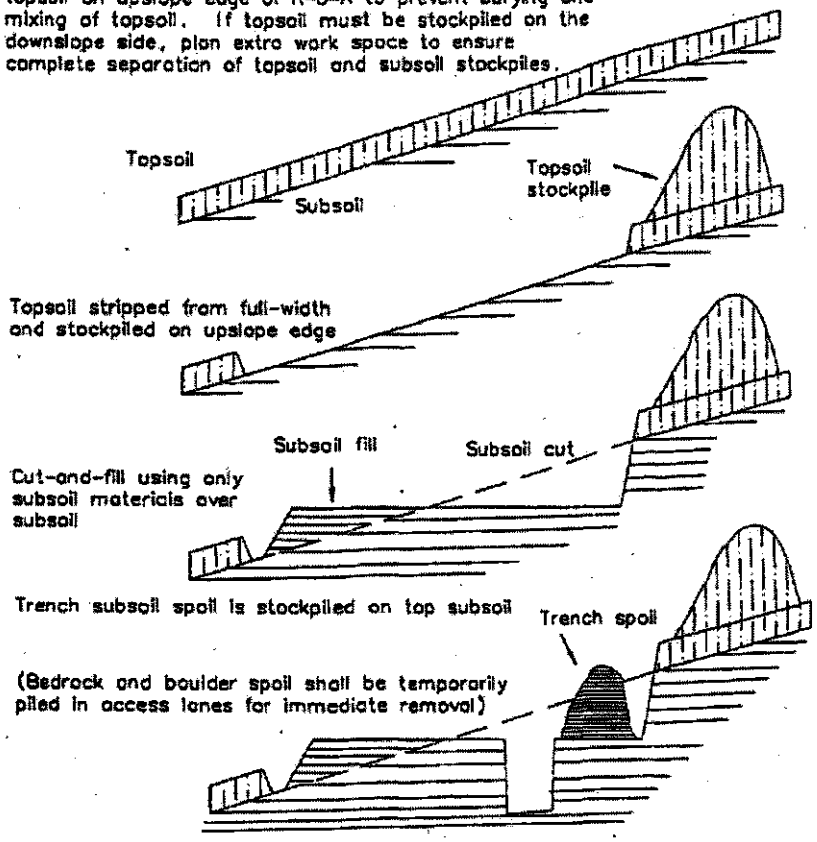


CASE A APPLIES TO WOODLANDS AND BRUSHLANDS.
CASE B SHOULD BE USED IN PERMANENT HAYLAND, PASTURE AND WETLAND.
CASE C SHOULD BE USED IN NON ACTIVE CROPLANDS WITH DRY STABLE SOILS.
CASE D WILL BE USED IN ALL ACTIVE CROPLANDS AS DETERMINED BY THE PERMITS.

Detail No. 3

TOPSOIL STOCKPILING ON SLOPES REQUIRING CUT AND FILL GRADE

Where the R-O-W crosses agricultural slopes and construction cuts and/or fills will occur, stockpile all topsoil on upslope edge of R-O-W to prevent burying and mixing of topsoil. If topsoil must be stockpiled on the downslope side, plan extra work space to ensure complete separation of topsoil and subsoil stockpiles.

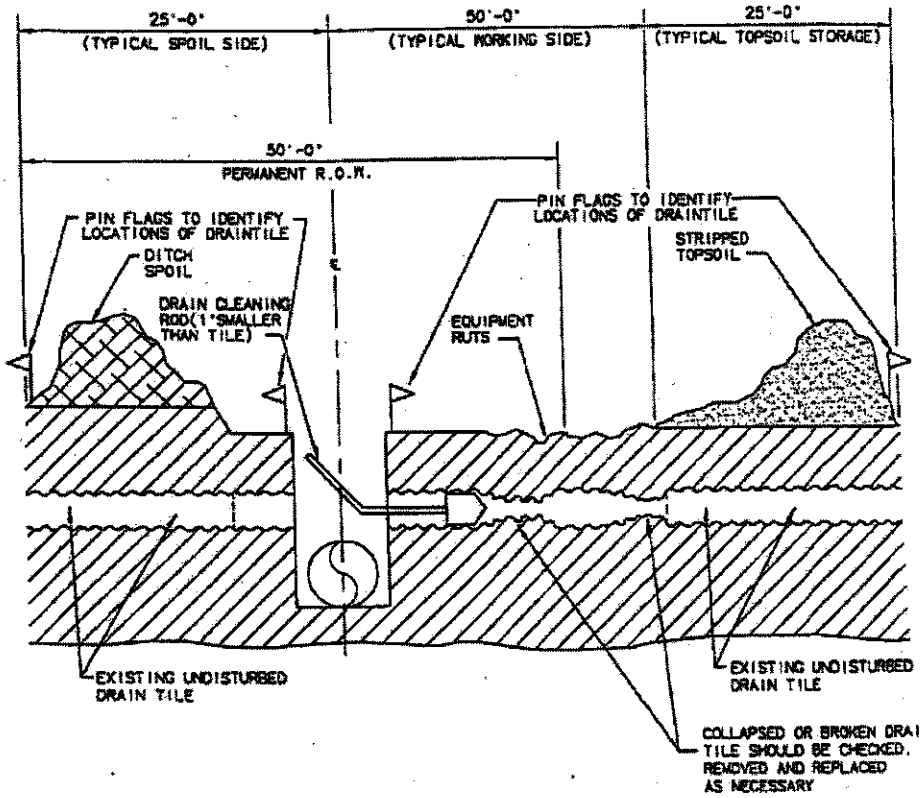


NOTES

1. Subsoil is regraded to contour after pipe installation.
2. Topsoil is replaced over the R-O-W after the subsoil is decompacted and rocks/stones are removed.

Detail No. 4

DRAIN TILE INSPECTION



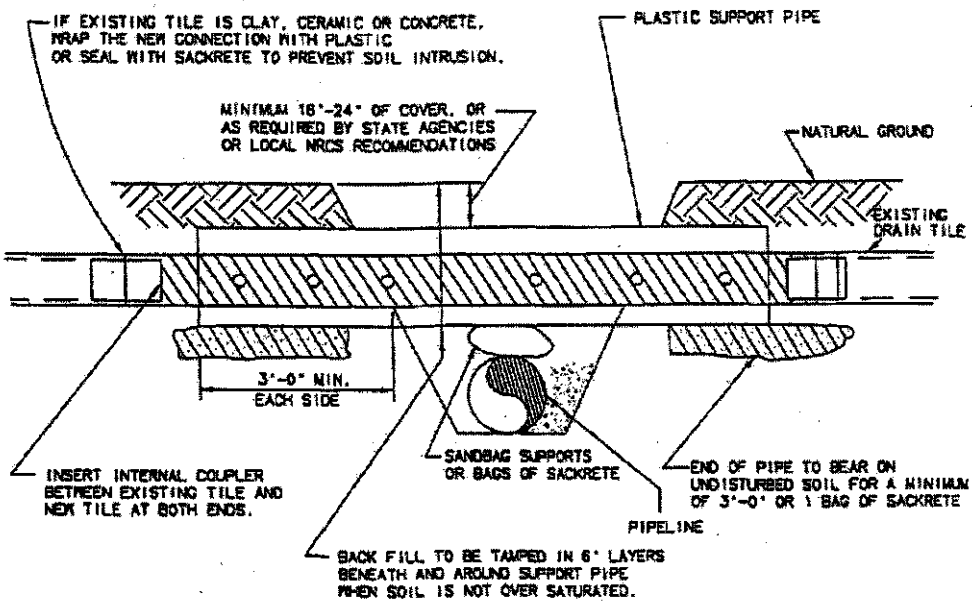
NOTES:

1 Clean out drain tiles to the permanent Right-Of-Way limits on the backfill side and to the temporary Right-Of-Way limit on the working side.

2 Replace damaged tiles and repair tiles and joints that require work and are within the areas of construction activities.

Detail No. 5

REPAIR OF SEVERED TILE LINE



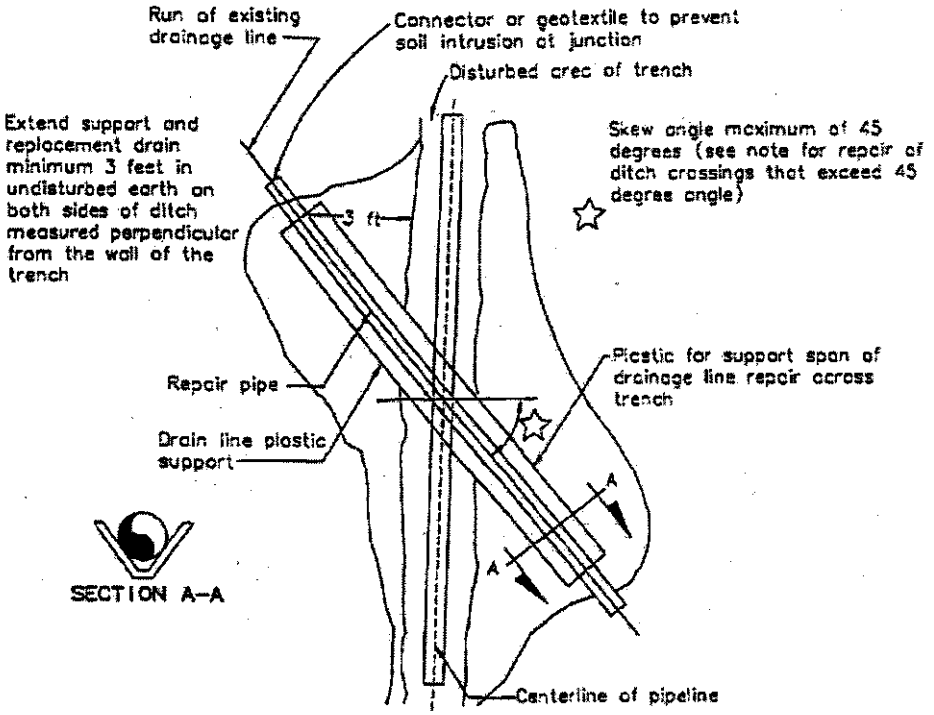
TUBING SIZE	PIPE SIZE
4"	4"
6"	6"
8"	10"
10"	10"
12"	12"
18"	18"

NOTES:

1. ALL PIPE TO BE MIN SCHEDULE 80
2. PLASTIC DRAIN TUBING AND CORRUGATED PIPE TO BE INSTALLED SO THE HOLES ARE CENTERED ON EACH SIDE OF THE BOTTOM OF THE PIPE
3. ALL MATERIAL TO BE CONTRACTOR SUPPLIED
4. THE PERFORATED RIGID SUPPORT PIPE IS SHOULDERED BACK INTO THE FIRM, UNDISTURBED SOIL PROFILE TO ENSURE CONSISTENT GRAVITY FLOW GRADIENT OF THE TILE LINE ACROSS THE TRENCH AS THE BACKFILL MATERIAL GRADUALLY SETTLES FOR UP TO TWO YEARS

Detail No. 6

REPAIR OF SEVERED DRAIN TILE

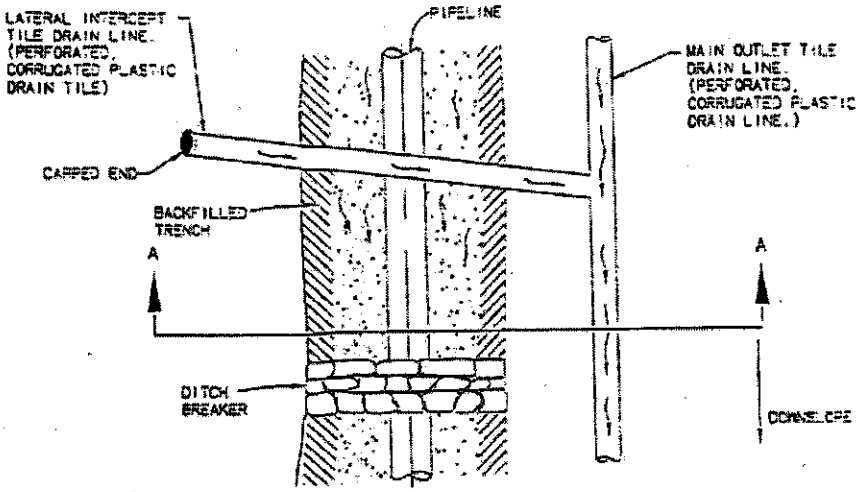


NOTES:

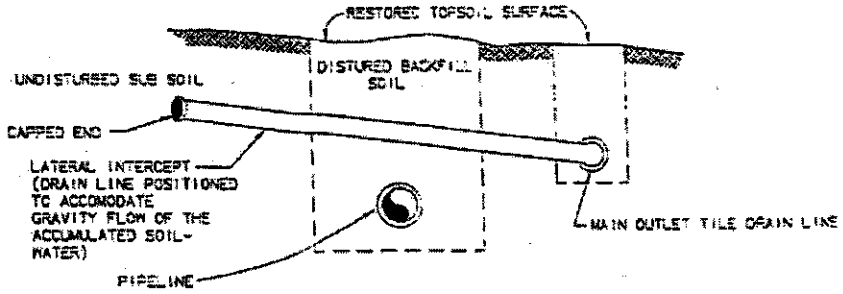
1. Provide a plastic support for drain tile or plastic pipe to maintain function while ditch is open
2. Should a drain tile cross a ditch at a skew of greater than 45 degrees, the replacement drain is to be relocated into undisturbed soil or out of conflict with the pipeline ditch Replacement drain line is to be installed to match elevation of existing drain tiles

Detail No. 7

Intercept Drain Tile Cross Trench Drainage



PLAN



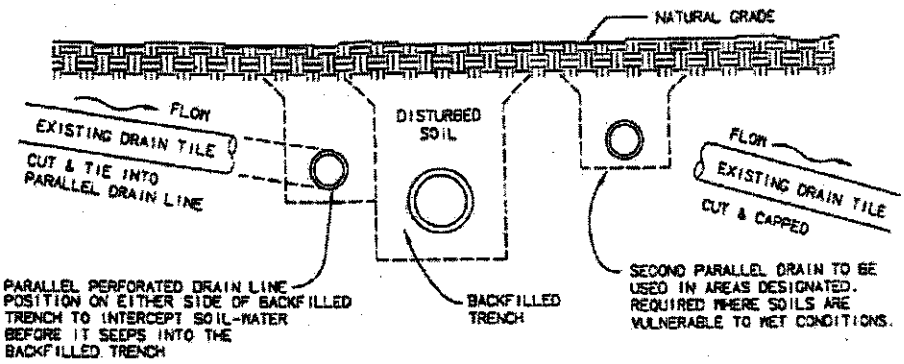
PROFILE-SECTION "A-A"

NOTES:

1. Ditch breakers prevent gully erosion while trench is open and help inhibit water piping and water blowouts down the course of the pipeline after backfilling.
2. Intercept drain lines absorb the soil and water which drain naturally from the undisturbed soil profile into the disturbed backfill soil material of the trench. the intercept drain lines help prevent saturated soil conditions.
3. Agricultural cropland may require cross trench drainage or parallel drainage.

Detail No. 8

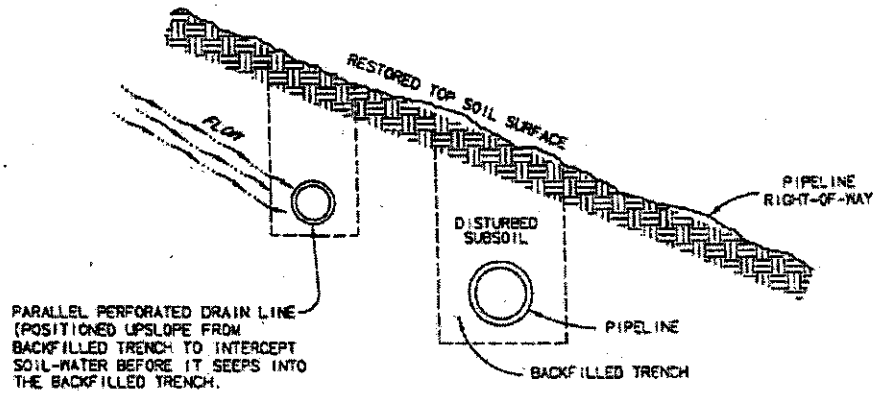
Intercept Drain Tile Parallel To Trench



NOTE:

1 Parallel drainage tile installation to be approved for site specific agricultural soils where repair of existing cross tiles would be less effective for example:

a. Shallow bedrock.
b. Interference by other utility lines.
c. To header closely spaced shallow tiles and french drains.

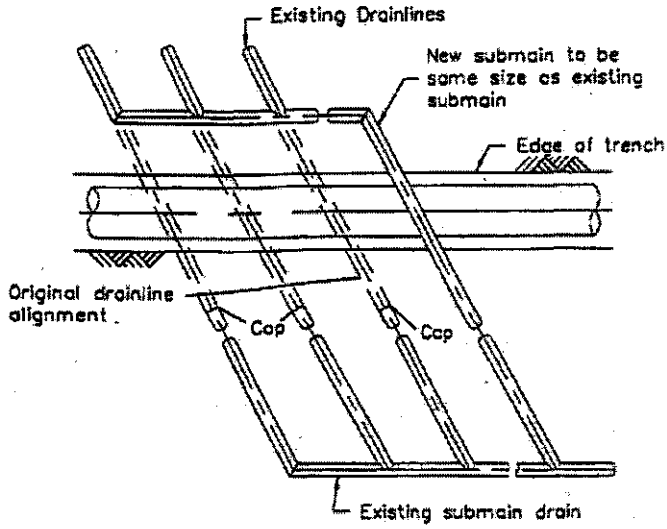


NOTE:

1 Parallel drainage tile installation to be approved for site specific sloping soils as indicated.

Detail No. 9

TILE SYSTEM WITH NEW SUBMAIN

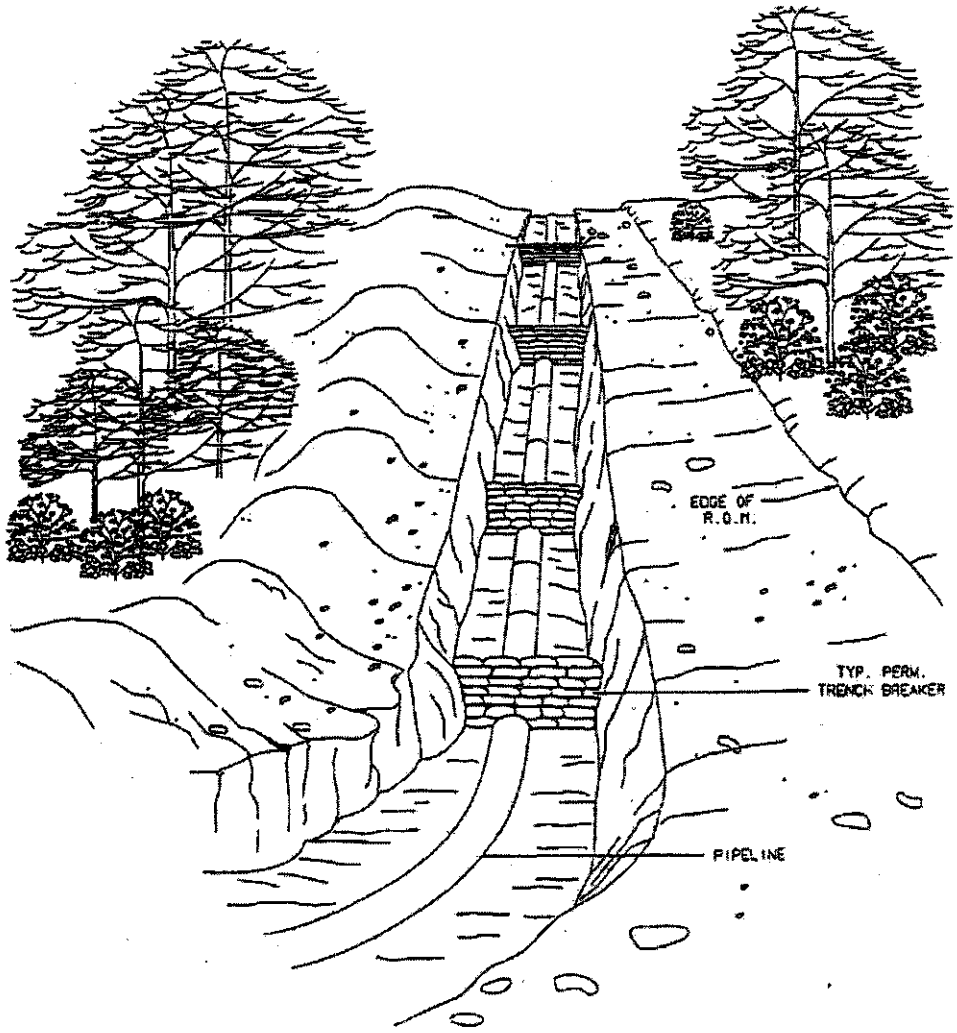


PLAN VIEW

NOTE
1 To be determined by agricultural specialist base on slope & drainage area in consultation with SWCD

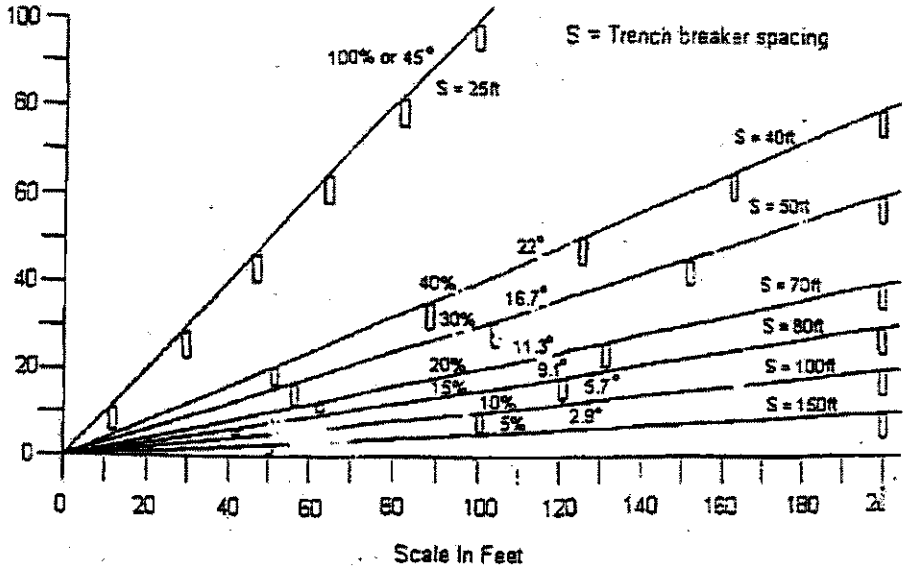
Detail No. 10

Permanent Trench Breakers



Detail No. 11

TRENCH BREAKER SPACING



NOTES:

1. Depending on the specific conditions of slopes exceeding 40%, the spacing between trench breakersmay continue diminishing as illustrated, or may cease once a spacing of 30 to 35 feet has been reached.
2. The preferred construction material for trench breakers is sand bags, which are durable yet flexible and will conform to gradual shifting of pipeline and backfill, while serving their function, impede the flow of subsurface water along the trench.
3. In agricultural lands, top of trench breaker will not be closer than two feet from the restored surface.

Detail No. 12

PERMANENT SLOPE BREAKER SPACING
AS ALTERNATIVE SPACING GUIDELINE FOR TRENCH BREAKERS[1]

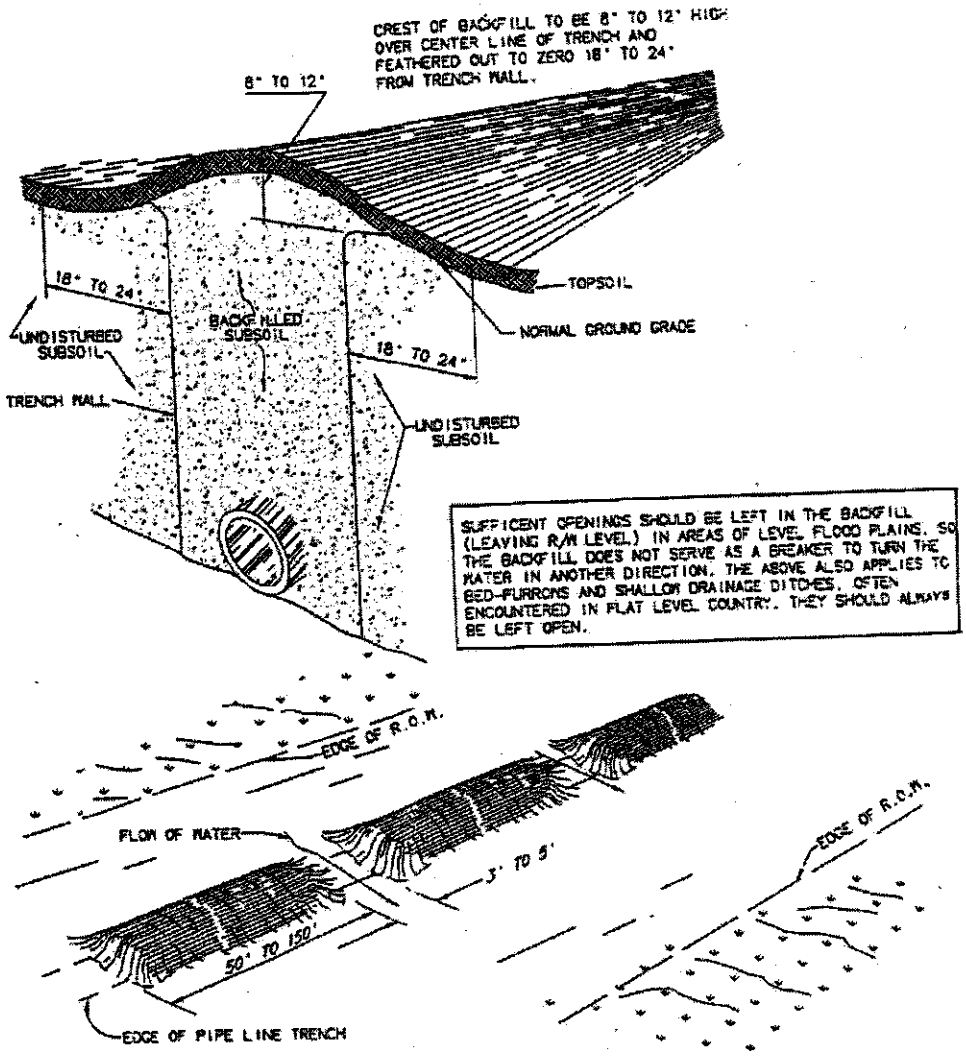
Slope(percent)	Spacing(feet)
< 5	125
5 to 10	100
10 to 20	75
20 to 35	50
> 35	25

Source: New York guidelines for Urban Erosion and Sediment Control (October 1991) "Standards and Specifications for Water Bars," with the terms "Slope greater" and "Water Bar" teeing synonymous: "A ridge or ridge and channel constructed diagonally across a sloping road or utility Right-of-Way that is subject to erosion."

[1]Basis for Permanent Slope Breaker Spacing as an Alternative Spacing Guideline for Trench Breakers is found in U.S. Federal Energy Regulatory Commission in 12/2/94 Upland Erosion Control, Revegetation Maintenance Plan VI. Restoration, B. Permanent Erosion Control Devices (pp.8 and 9)

Detail No. 12A

TRENCH CROWNING



Excess subsoil spoil material which is not contained within the trench as backfill will be graded over the exposed subsoil surface.

When seasonal conditions are too wet for effective agricultural land restoration, the trench will be backfilled and the work site "winterized" until ground conditions are suitable for restoration.

Detail No. 13