



South Dakota Agricultural Impact Mitigation Plan

Revision: 0

8/29/2023

Table of Contents

1	INTRODUCTION.....	3
2	PLAN LIMITATIONS	3
3	SEQUENCE OF CONSTRUCTION EVENTS AND SCHEDULE	3
4	POINTS OF CONTACT	4
5	DEFINITIONS.....	5
6	AGRICULTURAL MITIGATION MEASURES	8
6.1.	EASEMENT STAKING.....	8
6.2.	CLEARING BRUSH AND TREES ALONG THE EASEMENT.....	8
6.3.	FENCING AND GATES	8
6.4.	TOPSOIL SEPARATION AND REPLACEMENT.....	8
6.5.	PREVENTION OF EROSION	9
6.6.	PUMPING WATER FROM OPEN TRENCHES.....	9
6.7.	TEMPORARY AND PERMANENT REPAIR OF DRAIN TILES	9
6.8.	REMOVAL OF ROCKS AND DEBRIS FROM THE RIGHT-OF-WAY	11
6.9.	RESTORATION AFTER SOIL COMPACTION AND RUTTING.....	11
6.10.	RESTORATION OF TERRACES, WATERWAYS AND OTHER EROSION CONTROL STRUCTURES.....	11
6.11.	REVEGETATION OF UNTILLED LAND.....	12
6.12.	FUTURE DRAIN TILE AND SOIL CONSERVATION PRACTICES AND STRUCTURES.....	12
6.13.	RESTORATION OF LAND SLOPE AND CONTOUR.....	12
6.14.	SITING AND RESTORATION OF AREAS USED FOR FIELD ENTRANCES AND TEMPORARY ROADS.....	12
6.15.	CONSTRUCTION IN WET CONDITIONS.....	13
6.16.	WEED CONTROL.....	13

Appendices

A - Typical Drawings

Acronyms and Abbreviations

CO₂ – Carbon Dioxide

Plan - Agricultural Impact Mitigation Plan

ROW - Right-of-Way

SCS – SCS Carbon Transport LLC (Project Sponsor)

SWPPP – Stormwater Pollution Prevention Plan

1 INTRODUCTION

The purpose of this Agricultural Impact Mitigation Plan (Plan) is to present the proposed measures for minimizing impacts to and restoring agricultural lands during and after pipeline construction.

Prior to construction, SCS will provide copies of this Plan to all landowners of property and persons in possession of the property that will be disturbed by the construction, to the county commissioners, and the county engineer.

2 PLAN LIMITATIONS

Mitigation measures identified in this Plan apply only to agricultural land and do not apply to urban land, road and railroad right-of-way (ROW), interstate natural gas pipelines ROW, non-disturbed land not used for agriculture, or mined and disturbed land not used for agriculture. The identified mitigation measures will be implemented as long as they do not conflict with federal, state, and local permits, approvals and regulations.

3 SEQUENCE OF CONSTRUCTION EVENTS AND SCHEDULE

Pipeline construction is anticipated to commence as soon as practicable following the receipt of required permits and approvals. The construction of the pipeline in South Dakota will take approximately 15 - 18 months to complete, with expected durations on individual parcels to be shorter.

The sequence of events for pipeline construction will begin with advance notification of affected persons and governmental agencies. Following notification, activities will generally be undertaken in the following sequence:

- Complete final surveys, stake right-of-way boundaries and workspace;
- Access road and mat installation;
- Grubbing and clearing of the construction corridor;
- Front-end grading
- Right-of-way topsoil stripping, segregation and storage
- Stringing of pipe and other supplies along the construction corridor;
- Pipeline welding and bending where necessary;
- X-ray inspection, weld repairs, coating field welds
- Excavation of the pipeline trench;
- Temporary repairs to tile lines, if encountered;
- Lowering of the pipeline within the trench;
- Permanent repairs to tile lines damaged during construction activities;
- Backfill of the trench and rough grading;
- Replace topsoil, final grading and full restoration;
- Hydrostatic testing of the pipeline, final tie-in;
- Revegetation and post restoration monitoring; and
- Removal of erosion control measures.

4 POINTS OF CONTACT

SCS’s designated point of contact for inquiries or claims from affected persons is as follows:

Counties	SCS Designated Point of Contact
Beadle, Brown, Clark, Codington, Edmunds, Hamlin, Hand, Hyde, Kingsbury, Lake, Lincoln, McCook, McPherson, Miner, Minnehaha, Spink, Sully, Turner	Kyle Landry ROW Manager 2321 N Loop Dr., STE 221, Ames, IA 50010 Email: klandry@summitcarbon.com Telephone: 515-384-0959

Any change in the point of contact will be promptly communicated in writing to the affected persons. The above point of contact will remain available for at least one year following project completion and for affected persons with unresolved damage claims until such a time as those claims are resolved.

In addition to any other notice required by law, SCS shall, at least two weeks prior to commencement of construction, provide each affected person with written notice (the “Two Week Notice”) of the pending construction that includes: (1) the name, address, telephone number, and email address of the SCS geographic area representative.

Any change in this information shall promptly be communicated to all affected persons. Confirmation of sending the Two-Week Notice shall be delivered to the county commissioners and shall be a condition to proceeding with construction. Affected persons may designate their own point of contact by providing SCS with the name, address, telephone number, and email address of their designee.

5 DEFINITIONS

The following terms used in this Plan have the following definitions.

Affected Person	Any person with a legal right or interest in the property, including, but not limited to, a landowner, a contract purchaser of record, a person possessing the property under a lease, a record lienholder, and a record encumbrancer of the property.
Agricultural Land	Any land devoted to agricultural use, including, but not limited to, land used for crop production, cleared land capable of being cultivated, hay land, pasture land, managed woodlands and woodlands of commercial value, truck gardens, farmsteads, commercial agricultural-related facilities, feedlots, rangeland, livestock confinement systems, land on which farm buildings are located, and land used to implement management practices and structures for the improvement or conservation of soil, water, air and related plan and animal resources.
Drainage Structures or Underground Improvements	Any permanent structure used for draining agricultural lands, including tile systems and buried terrace outlets.
Pipeline	Any pipe, pipes, or pipelines used for the transportation or transmission of any solid, liquid, or gaseous substance, except water, or hazardous liquid, within or through South Dakota.
Pipeline Construction	Activity associated with installation, relocation, replacement, removal or operation or maintenance of a pipeline that disturbs agricultural land, but shall not include work performed during an emergency, tree clearing, or topsoil surveying completed on land under easement with written approval from the landowner.

Right-of-Way (ROW)	Includes the permanent and temporary easements that SCS acquires for the purpose of constructing and operating the Pipeline.
Soil Conservation Practices	Any land conservation practice recognized by federal or state soil conservation agencies including, but not limited to, grasslands and grassed waterways, hay land planting, pasture, and tree plantings.
Soil Conservation Structures	Any permanent structure recognized by federal or state soil conservation agencies, including but not limited to toe walls, drop inlets, grade control works, terraces, levees, and farm ponds.
Surface Drains	Any surface drainage system such as shallow surface field drains, grassed waterways, open ditches, or any other conveyance of surface water.



Till	To loosen the soil in preparation for planting or seeding by plowing, chiseling, discing, or similar means. Agricultural land planted using no-till planting practices is also considered tilled.
Topsoil	The uppermost layer of the soil with the darkest color or highest content of organic matter, generally referred to as the “A” horizon. “A” and “B” horizons as determined by the March 2017 United States Department of Agriculture Soil Survey Manual.
Wet Conditions	Adverse soil conditions due to rain events, antecedent moisture, or excessive ponded water, where the passage of construction equipment may cause rutting that mixes topsoil and subsoil, may prevent the effective removal or replacement of topsoil and subsoil, may prevent proper decompaction, or may damage underground tile lines.

6 AGRICULTURAL MITIGATION MEASURES

The following describes how SCS proposes to minimize and repair impacts to agricultural lands.

6.1 EASEMENT STAKING

SCS will allow the landowner to be present if desired during the staking of the easement. Written and/or verbal notice of the staking will be provided to the landowner at least two weeks prior to staking start. If proper notice is given, easement staking shall not be delayed due to landowner's failure to be present on site.

6.2 CLEARING BRUSH AND TREES ALONG THE EASEMENT

If trees are to be removed from the easement, SCS will consult with the landowner to determine if there are trees of commercial or other value to the landowner.

If there are trees of commercial or other value to the landowner, the landowner will retain ownership of the trees with the disposition of the trees to be negotiated prior to commencement of clearing. Options include the landowner harvesting the timber prior to construction, or the contractor cutting the timber and leaving the cut timber adjacent to the ROW for landowner retrieval. If the trees of commercial or other value to the landowner but the landowner does not wish to retain ownership of the trees, SCS will remove all cleared trees and debris left on or adjacent to the easement in the event the landowner does not wish to retain them.

If the trees to be cleared have been determined to have no commercial or other value to the landowner and there is no negotiated agreement between the pipeline company and the landowner for the disposition of the trees in advance of clearing the easement, removal and disposal of the material will be completed at the discretion of SCS.

6.3 FENCING AND GATES

SCS may remove all field fences and gates located within the easement during clearing of the easement and may construct temporary fences and gates where necessary. Upon completion of pipeline construction, SCS will replace any temporary field fences or gates with permanent field fences or gates.

SCS and the landowner may negotiate separate agreements regarding field fences and gates. If livestock is present, SCS will follow standard construction procedures regarding fencing/gates to prevent livestock interference in pipeline construction activities.

6.4 TOPSOIL SEPARATION AND REPLACEMENT

Topsoil and subsoil excavated for pipeline installation will be separated and segregated in separate stockpiles and returned to the excavation in reverse order to restore the site to pre-construction condition.

Topsoil will normally be segregated up to a maximum of 12 inches of depth.

Topsoil removal and segregation will not occur in wetlands in agricultural fields that are saturated at the time of construction per the Project's Environmental Construction Plan.

SCS will save topsoil from the affected easement area during installation of pipeline and said topsoil will be replaced back to original area as near as practicable. SCS will only segregate the soil in such areas to the extent necessary to install the pipeline. Topsoil removal shall not occur during wet conditions that would otherwise prevent work.

Topsoil and subsoil will be segregated, stockpiled, and preserved separately during subsequent construction operations, and will have sufficient separation to prevent mixing during the storage period. Topsoil will not be stored or stockpiled at locations that will be used as a traveled way by construction equipment without the written consent of the landowner.

Topsoil stockpiles shall be adequately stabilized during pipeline construction activities through typical industry standard practices.

Topsoil removal will not be required where the pipeline is installed by plowing, jacking, boring, or other methods that do not require the opening of a trench.

The topsoil and subsoil shall be replaced in the reverse order in which they were excavated from the trench. The depth of the replaced topsoil shall conform as near as possible to the depth of topsoil that was removed. Where excavations are made for road, stream, drainage ditch, or other crossings, the original depth of topsoil shall be replaced as near as possible.

6.5 PREVENTION OF EROSION

SCS will follow best management practices and industry standards for erosion and sedimentation control during construction and post-construction. SCS will develop a Stormwater Pollution Prevention Plan (SWPPP) that will detail the project specific stormwater and soil erosion prevention measures. All applicable federal and state regulations and conditions associated with surface water quality criteria will require SCS's full compliance.

6.6 PUMPING WATER FROM OPEN TRENCHES

If trench and/or pit dewatering is necessary due to accumulation of precipitation and/or groundwater in open trenches, the Contractor will pump the water in a manner that will avoid damaging adjacent agricultural land. Erosion and sedimentation control measures will be implemented and may include the use of dewatering structures, splash plates, sediment bags, haybales, and/or silt fence. The removal and disposal of trench water will comply with applicable drainage laws and local ordinances relating to such activities as well as provisions of the federal Clean Water Act.

If water-related damages result from pumping water from trenches, SCS will either compensate the landowner for the damages or restore the land, pasture, surface drains, or similar land to its preconstruction condition, at the landowner's discretion.

6.7 TEMPORARY AND PERMANENT REPAIR OF DRAIN TILES

Pipeline Clearance from Drain Tile:

Where underground drain tile is encountered in the project profile, the pipeline will be installed in such a manner that the permanent tile repair can be installed with at least 12 inches of clearance from the pipeline or as agreed upon with landowner.

Temporary Repair:

The following standards will be used to determine if temporary repair of agricultural drainage tile lines encountered during pipeline construction is required.

- Any underground drain tile damaged, cut, or removed and found to be flowing or which subsequently begins to flow will be temporarily repaired as soon as practicable, and the repair will be maintained as necessary to allow for its proper function during construction of

the pipeline. The temporary repairs will be maintained in good condition until permanent repairs are made.

- If tile lines are dry and water is not flowing, temporary repairs are not required if the permanent repair is made within ten days of the time the damage occurred.
- If temporary repair of the line is not made, the upstream exposed tile line will not be obstructed but will nonetheless be screened or otherwise protected to prevent the entry of foreign materials and small animals into the tile line system, and the downstream tile line entrance will be capped or filtered to prevent entry of mud or foreign material into the line if the water level rises in the trench.

Marking:

Any underground drain tile damaged, cut, or removed will be marked by placing a highly visible flag in the trench spoil bank directly over or opposite such tile. This marker will not be removed until the tile has been permanently repaired.

Permanent Repairs:

Tile disturbed or damaged by pipeline construction will be repaired to its original or better condition. Permanent repairs will be completed, when possible, within 14 days after the pipeline is installed in the trench and prior to backfilling of the trench over the tile line. Permanent repair and replacement of damaged drain tile will be performed in accordance with the following requirements:

- All damaged, broken, or cracked tile will be removed.
- Only unobstructed tile will be used for replacement.
- The tile furnished for replacement purposes will be of a quality, size and flow capacity at least equal to that of the tile being replaced.
- Tile will be replaced using a laser transit, or similar instrument or method, to ensure that its proper gradient and alignment are restored, except where relocation or rerouting is required for angled crossings. Tile lines at a sharp angle to the trench will be repaired in the manner shown on Drawing No. PUC PL-1 in Appendix A.
- The replaced tile will be firmly supported to prevent loss of gradient or alignment due to soil settlement. The method used will be comparable to that shown on Drawing No. PUC PL-2 in Appendix A.
- A digital record will be made for each permanent repair and retained by SCS. These records will be made available to the landowner upon request.

Inspection:

Prior to backfilling of the applicable trench area, each permanent tile repair will be inspected for compliance by SCS drain tile inspector.

Backfilling:

The backfill surrounding the permanently repaired drain tile will be completed at the time of the repair and in a manner that ensures that any further backfilling will not damage or misalign the repaired section of the tile line.

Subsurface Drainage:

Subsequent to pipeline construction and permanent repair, if it becomes apparent the tile line in the area disturbed by construction is not functioning correctly or that the land adjacent to the pipeline is not draining properly, which can reasonably be attributed to the pipeline construction SCS will make further repairs or install additional tile as necessary to restore subsurface drainage.

6.8 REMOVAL OF ROCKS AND DEBRIS FROM THE RIGHT-OF-WAY

Excess rocks will be removed from the right-of-way. The topsoil, when backfilled, and the easement area shall be free of all rock larger than three inches in average diameter not native to the topsoil prior to excavation. Where rocks over three inches in size are present, their size and frequency shall be similar to adjacent soil not disturbed by construction.

The top 24 inches of the trench backfill will not contain rocks in any greater concentration or size than exist in the adjacent natural soils. Consolidated rock removed by blasting or mechanical means shall not be placed in the backfill above the natural bedrock profile or above the frost line.

Soil from which excess rock has been removed may be used for backfill. All debris attributable to the pipeline construction and related activities will be removed and disposed of properly; such debris includes spilled oil, grease, fuel, or other petroleum or chemical products. Such products and any contaminated soil will be removed for proper disposal or treated by appropriate in-situation remediation.

6.9 RESTORATION AFTER SOIL COMPACTION AND RUTTING

Agricultural land compacted by heavy project equipment, including off right-of-way access roads, will be tilled to alleviate soil compaction upon completion of construction on the property. In areas where topsoil was removed, tillage will precede replacement of topsoil. At least three passes with the tillage equipment shall be made. Tillage shall be at least 18 inches deep in land used for crop production and 12 inches deep on other lands. If tillage is not applicable, SCS will discuss other methods for decompaction with the landowner. Decompaction shall not occur in wet conditions that would otherwise prevent work. If agreed in advance, these practices may be performed by the landowners or tenants using their own equipment.

Rutted land will be graded and tilled until restored as near as practical to its preconstruction condition. On lands where topsoil was removed, rutting will be remedied before topsoil is replaced.

6.10 RESTORATION OF TERRACES, WATERWAYS AND OTHER EROSION CONTROL STRUCTURES

Existing soil conservation practices and structures damaged by pipeline construction, such as surface drains, embankments and terraces, grass waterways will be restored to pre-construction elevation, grade, and condition. Any drain lines or flow diversion devices impacted by pipeline construction will be repaired or modified as needed. Soil used to repair embankments intended to retain water shall be well compacted. Disturbed vegetation will be reestablished, including a cover crop when appropriate.

6.11 REVEGETATION OF UNTILLED LAND

Crop Production

Agricultural land not in row crop or small grain production at the time of construction, including hay fields and land in conservation or set-aside programs, will be reseeded, including use of a cover crop when appropriate, following completion of tillage and replacement of the topsoil. The seed mix used will restore the original or a comparable ground cover unless otherwise requested by the landowner. If the land is to be placed in crop production the following year, paragraph (b), below, will apply.

Delayed Crop Production

Agricultural land used for row crop or small grain production which will not be planted in that calendar year due to the pipeline construction shall be seeded with an appropriate cover crop following replacement of the topsoil and completion of tillage. However, cover crop seeding may be delayed if construction is completed too late in the year for a cover crop to become established and in such instances is not required if the landowner or tenant proposes to till the land the following year. The landowner may request ground cover where the construction is completed too late in the year for a cover crop to become established to prevent soil erosion.

6.12 FUTURE DRAIN TILE AND SOIL CONSERVATION PRACTICES AND STRUCTURES

SCS will consult with affected persons regarding plans for future drain tile installation. Where an affected person provides SCS with written plans prepared by a qualified tile technician for future drain tile improvements before an easement is secured, the pipeline will be installed at a depth which will allow for proper clearance between the pipeline and the proposed future tile installation.

SCS will consult with affected persons regarding plans for future use or installation of soil conservation practices or structures. Where an affected person provides SCS with a design for such practice or structure prepared by a qualified technician before an easement is secured, the pipeline will be installed at a depth that will retain the integrity of the pipeline.

6.13 RESTORATION OF LAND SLOPE AND CONTOUR

The slope, contour, grade, and drainage pattern of the disturbed area will be restored as nearly as possible to its preconstruction condition. However, the trench may be crowned to allow for anticipated settlement of the backfill. SCS will remediate areas of excessive or insufficient settlement in the trench area which visibly affects land contour or undesirably alters surface drainage. Disturbed areas where erosion causes excessive rills or channels or areas of heavy sediment deposition, will be regraded as needed. On steep slopes, methods such as sediment barriers, slope breakers, or mulching will be used as necessary to control erosion until vegetation can be reestablished.

6.14 SITING AND RESTORATION OF AREAS USED FOR FIELD ENTRANCES AND TEMPORARY ROADS

The location of temporary roads to be used for construction purposes will be negotiated with the landowner and, as applicable, other affected persons. 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.

Post construction and restoration of temporary field entrances or access roads will be removed and the land made suitable for its previous use. Areas affected will be regraded and tilled as required. If by agreement or at landowner request, and approved by local public road authorities, a field entrance or road is left in place, it will be left in a graded and serviceable condition.

6.15 CONSTRUCTION IN WET CONDITIONS

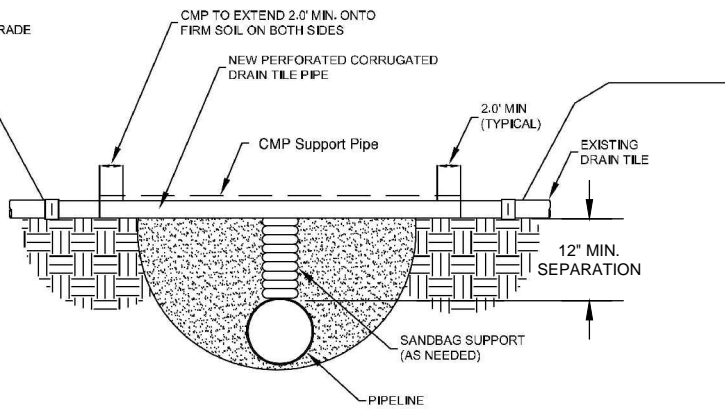
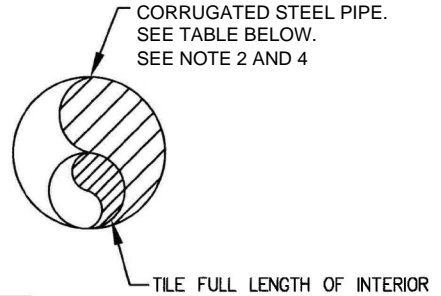
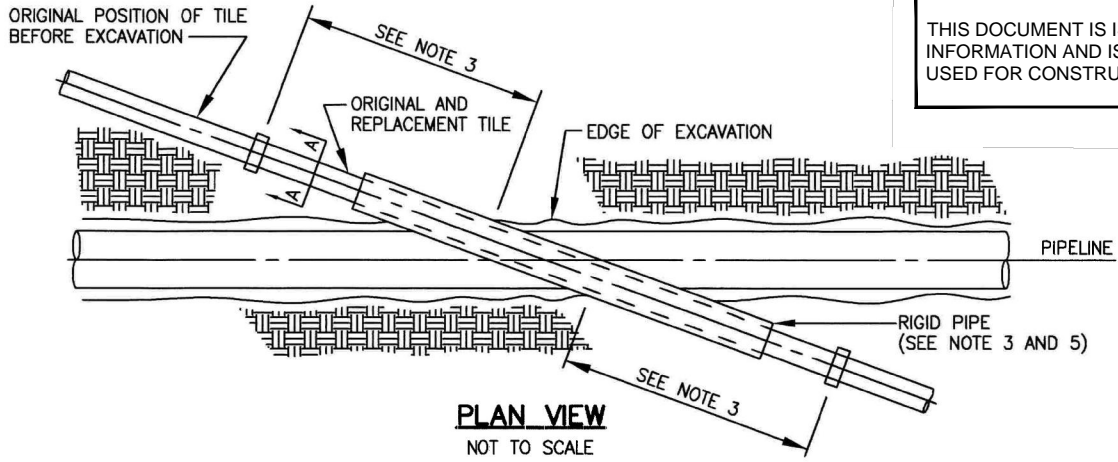
Construction in wet soil conditions will not commence or continue at times when or locations where the passage of heavy construction equipment may cause rutting to the extent that the topsoil and subsoil are mixed, or underground drainage structures may be damaged.

To facilitate construction in wet soils, SCS may elect to remove and stockpile the topsoil from the traveled way, install mats or padding, or use other acceptable methods.

6.16 WEED CONTROL

Weed control and necessary mitigation procedures are being addressed in a separate SCS “*South Dakota Noxious Weed Mitigation Plan*”.

THIS DOCUMENT IS ISSUED FOR INFORMATION AND IS NOT TO BE USED FOR CONSTRUCTION.



MINIMUM SUPPORT TABLE		
TILE SIZE	PIPE SIZE	
3"	4"	STD. WT.
4"-5"	6"	STD. WT.
8"-9"	10"	STD. WT.
10"	12"	STD. WT.

P:\1927\doc\Engineering & Technical\10_Pipeline\Typicals\DWG\1927-000-PL-DWG-0039.dwg Plotted on: Jan 18, 2022 - 11:41am by jwhite

						DWN. BY: GIE 12-28-21					
					CHK. JW 01-18-22						
					PROJ. ENGR. VK 01-18-22						
					PROJ. MGR.						
					CLIENT APP.						
0	ISSUED FOR INFORMATION	GIE	01-18-22	JW	DA						
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE: N.T.S.					



		SUMMIT CARBON SOLUTIONS			
MIDWEST CARBON EXPRESS PROPOSED 4"-24" PIPELINE TYPICAL CONSTRUCTION (SD) PERMANENT DRAIN TILE REPAIR					
DWG. NO.	EXHIBIT A-45-1	SHT. NO.	1 OF 2	REV.	0
PUC PL-01					

THIS DOCUMENT IS ISSUED FOR INFORMATION AND IS NOT TO BE USED FOR CONSTRUCTION.

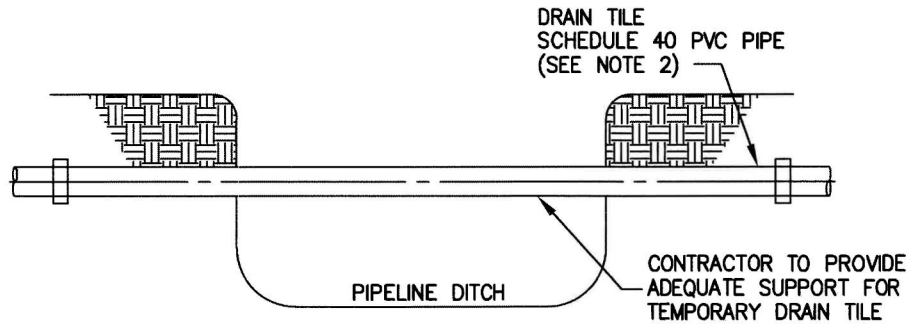
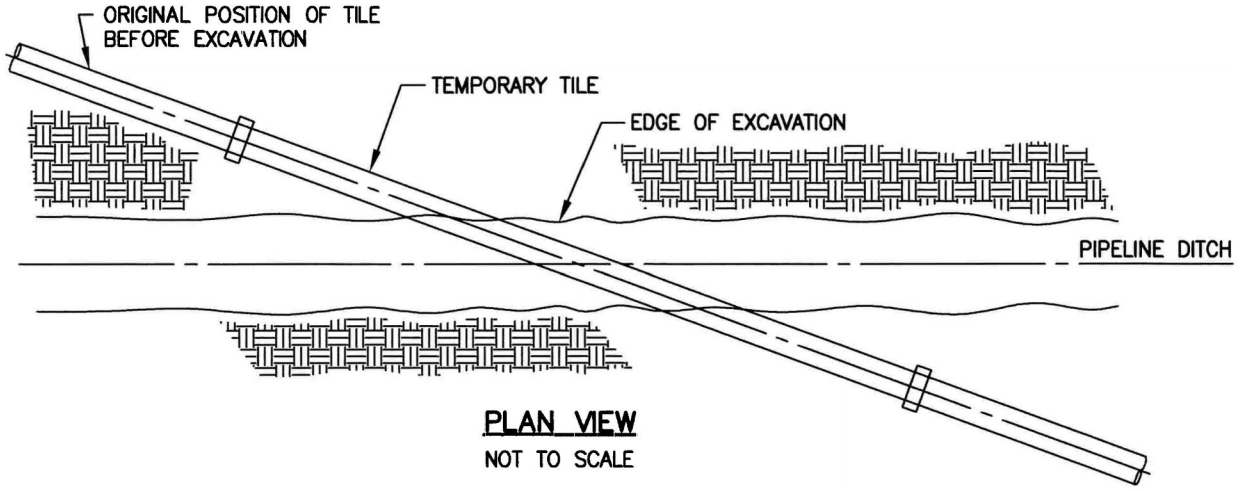
NOTES:

1. TILE REPAIR AND REPLACEMENT SHALL MAINTAIN ORIGINAL ALIGNMENT GRADIENT AND WATER FLOW TO THE GREATEST EXTENT POSSIBLE. IF THE TILE NEEDS TO BE RELOCATED, THE INSTALLATION ANGLE MAY VARY DUE TO SITE SPECIFIC CONDITIONS AND LANDOWNER RECOMMENDATIONS.
2. 2'-0" MINIMUM LENGTH OF RIGID PIPE SHALL BE SUPPORTED BY UNDISTURBED SOIL, OR IF CROSSING IS NOT AT RIGHT ANGLES TO PIPELINE, EQUIVALENT LENGTH PERPENDICULAR TO TRENCH. (SHIM WITH SAND BAGS ONLY TO UNDISTURBED SOIL FOR SUPPORT AND DRAINAGE GRADIENT MAINTENANCE (TYPICAL BOTH SIDES)) IF NEEDED ONLY.
3. DRAIN TILES WILL BE PERMANENTLY CONNECTED TO EXISTING DRAIN TILES A MINIMUM OF THREE FEET OUTSIDE OF EXCAVATED TRENCH LINE USING INDUSTRY STANDARDS TO ENSURE PROPER SEAL OF REPAIRED DRAIN TILES INCLUDING SLIP COUPLINGS.
4. DIAMETER OF RIGID PIPE SHALL BE OF ADEQUATE SIZE TO ALLOW FOR THE INSTALLATION OF THE TILE FOR THE FULL LENGTH OF THE RIGID PIPE.
5. ALL MATERIAL TO BE FURNISHED BY CONTRACTOR.
6. PRIOR TO REPAIRING TILE, CONTRACTOR SHALL SWAB LATERALLY INTO THE EXISTING TILE TO FULL WIDTH OF THE RIGHTS OF WAY TO DETERMINE IF ADDITIONAL DAMAGE HAS OCCURRED. ALL DAMAGED/DISTURBED TILE SHALL BE REPAIRED AS NEAR AS PRACTICABLE TO ITS ORIGINAL OR BETTER CONDITION.
7. ALL DAMAGED, BROKEN, OR CRACKED TILE SHALL BE REMOVED.
8. ONLY OBSTRUCTED TILE SHALL BE USED FOR REPLACEMENT.
9. THE REPLACE TILE SHALL BE FIRMLY SUPPORTED TO PREVENT LOSS OF GRADIENT OR ALIGNMENT DUE TO SOIL SETTLEMENT. THE METHOD USED SHALL BE COMPARABLE TO THAT SHOWN ON DRAWING NO. IUB PL-1 AT END OF THIS CHAPTER.
10. INSPECTION. PRIOR TO BACKFILLING OF THE APPLICABLE TRENCH AREA, EACH PERMANENT TILE REPAIR SHALL BE INSPECTED FOR COMPLIANCE BY THE COUNTY INSPECTOR. IF PROPER NOTICE IS GIVEN, CONSTRUCTION SHALL NOT BE DELAYED DUE TO AN INSPECTOR'S FAILURE TO BE PRESENT.
11. BACKFILLING. THE BACKFILL SURROUNDING THE PERMANENTLY REPAIRED DRAIN TILE SHALL BE COMPLETED AT THE TIME OF REPAIR AND IN A MANNER THAT ENSURES THAT ANY FURTHER BACKFILLING WILL NOT DAMAGE OR MISALIGN THE REPAIRED SECTION OF THE LINE. THE BACKFILL SHALL BE INSPECTED FOR COMPLIANCE BY THE COUNTY INSPECTOR.

P:\1927\doc\Engineering & Technical\10_Pipeline\Typicals\DWG\1927-000-PL-DWG-0039.dwg Plotted on: Jan. 18, 2022 - 11:43am by jwhite

							SUMMIT CARBON SOLUTIONS			
							DWN. BY: GIE 12-28-21	MIDWEST CARBON EXPRESS PROPOSED 4"-24" PIPELINE TYPICAL CONSTRUCTION (SD) PERMANENT DRAIN TILE REPAIR		
					CHK. JW 01-18-22					
					PROJ. ENGR. VK 01-18-22					
					PROJ. MGR.					
0	ISSUED FOR INFORMATION	GIE	01-18-22	JW	DA	CLIENT APP.				
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE: N.T.S.	DWG. NO. PUC PL-01	EXHIBIT A-45-6	SHT. NO. 2 OF 2	REV. 0

P:\1927\doc\Engineering & Technical\10_Pipeline\Typicals\DWG\1927-000-PL-DWG-0040.dwg Plotted on: Jan 18, 2022 - 11:48am by jwhite



THIS DOCUMENT IS ISSUED FOR INFORMATION AND IS NOT TO BE USED FOR CONSTRUCTION.



					DWN. BY:	GIE	12-28-21	MIDWEST CARBON EXPRESS PROPOSED 4"-24" PIPELINE TYPICAL CONSTRUCTION (SD) TEMPORARY DRAIN TILE REPAIR
					CHK.	JW	01-18-22	
					PROJ. ENGR.	VK	01-18-22	
					PROJ. MGR.			
					CLIENT APP.			
0	ISSUED FOR INFORMATION	GIE	01-18-22	JW	DA	DWG. NO. EXHIBIT A-45-6 SHEET NO. 1 OF 2		
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE: N.T.S.	REV. 0	

P:\1927\doc\Engineering & Technical\10_Pipeline\Typicals\DWG\1927-000-PL-DWG-0040.dwg Plotted on: Jan 18, 2022 - 12:15pm by jwhite

NOTES:

1. TEMPORARY TILE REPAIR AND REPLACEMENT SHALL MAINTAIN ORIGINAL ALIGNMENT GRADIENT AND WATER FLOW TO THE GREATEST EXTENT POSSIBLE.
2. TEMPORARY DRAIN TILE TO BE SIZED TO MAINTAIN ADEQUATE FLOW AND CONNECTED TO EXISTING DRAIN TILES.
3. ANY UNDERGROUND DRAIN TILE DAMAGED, CUT, OR REMOVED AND FOUND TO BE FLOWING OR WHICH SUBSEQUENTLY BEGINS TO FLOW SHALL BE TEMPORARILY REPAIRED AS SOON AS PRACTICABLE, AND THE REPAIR SHALL BE MAINTAINED AS NECESSARY TO ALLOW FOR PROPER FUNCTION DURING CONSTRUCTION OF THE PIPELINE. THE TEMPORARY REPAIRS SHALL BE MAINTAINED IN GOOD CONDITION UNTIL PERMANENT REPAIRS ARE MADE.
4. TEMPORARY REPAIR IS NOT REQUIRED IF THE ANGLE BETWEEN THE TRENCH AND THE TILE LINES PLACES THE TILE END POINTS TOO FAR APART FOR TEMPORARY REPAIR TO BE PRACTICAL.
5. IF TEMPORARY REPAIR OF THE LINE IS NOT MADE, THE UPSTREAM EXPOSED TILE LINE SHALL NOT BE OBSTRUCTED BUT SHALL NONETHELESS BE SCREENED OR OTHERWISE PROTECTED TO PREVENT THE ENTRY OF THE FOREIGN MATERIALS AND SMALL ANIMALS INTO THE TILE LINE SYSTEM, AND THE DOWNSTREAM TILE LINE ENTRANCE SHALL BE CAPPED OR FILTERED TO PREVENT ENTRY OF MUD OR FOREIGN MATERIAL INTO THE LINE IF THE WATER LEVEL RISES IN THE TRENCH.
6. MARKING. ANY UNDERGROUND DRAIN TILE DAMAGED, CUT, OR REMOVAL SHALL BE MARKED BY PLACING A HIGHLY VISIBLE FLAG IN THE TRENCH SPOIL BANK DIRECTLY OVER OR OPPOSITE SUCH TILE. THIS MARKER SHALL NOT BE REMOVED UNTIL THE TILE HAS BEEN PERMANENTLY REPAIRED AND THE REPAIRS HAVE BEEN APPROVED AND ACCEPTED BY THE COUNTY INSPECTOR. IF PROPER NOTICE IS GIVEN, CONSTRUCTION SHALL NOT BE DELAYED DUE TO AN INSPECTOR'S FAILURE TO BE PRESENT ON THE SITE.

THIS DOCUMENT IS ISSUED FOR INFORMATION AND IS NOT TO BE USED FOR CONSTRUCTION.

								
DWN. BY: GIE 12-28-21 CHK. JW 01-18-22 PROJ. ENGR. VK 01-18-22 PROJ. MGR.						MIDWEST CARBON EXPRESS PROPOSED 4"-24" PIPELINE TYPICAL CONSTRUCTION (SD) TEMPORARY DRAIN TILE REPAIR		
CLIENT APP.						DWG. NO. EXHIBIT A-45-6 SHEET NO. REV. PUC PL-02 2 OF 2 0		
NO.	REVISION DESCRIPTION	BY	DATE	CHK'D	APP'D	SCALE: N.T.S.		
0	ISSUED FOR INFORMATION	GIE	01-18-22	JW	DA			