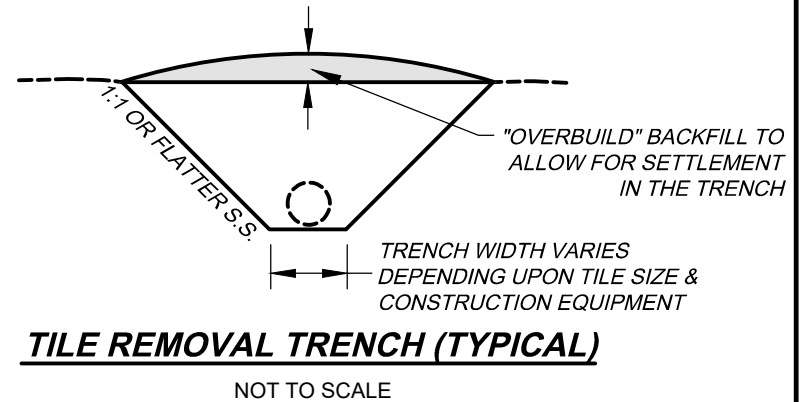


TILE BLOCK DESIGN TABLE

TYPE OF TILE BLOCK (A, B, C, D, E OR F)	(A) LENGTH OF TILE TO BE BLOCKED (FT PER LOCATION)	NUMBER OF TILE BLOCKS (#)	TOTAL (LN.FT.)



CONSTRUCTION REQUIREMENTS

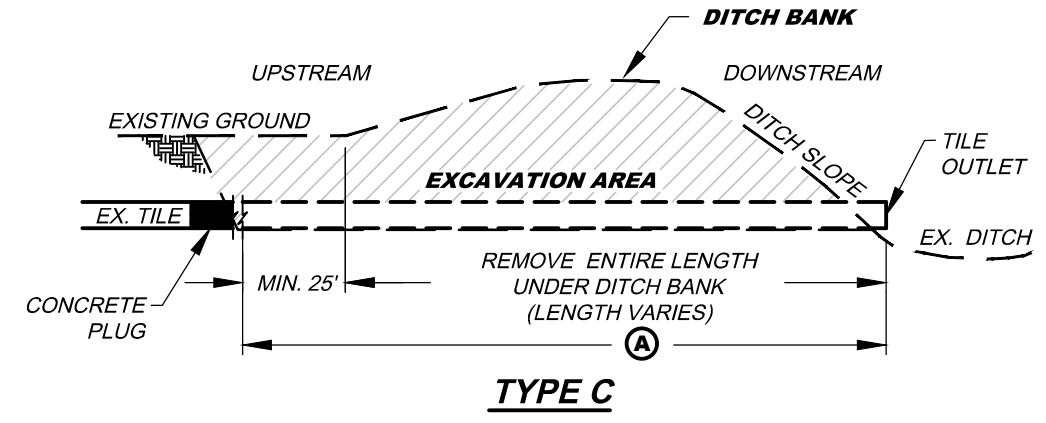
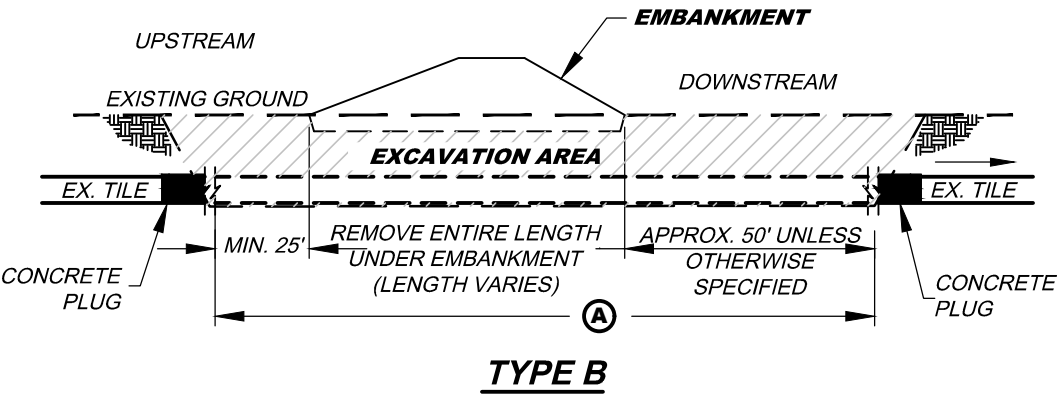
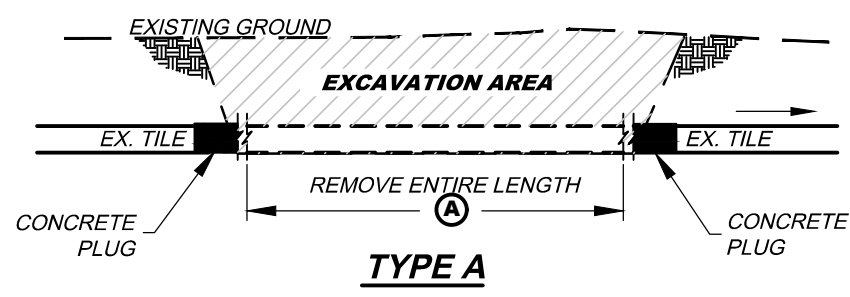
SHOULD UNEXPECTED DRAIN TILE (NOT SHOWN ON PLAN DRAWINGS) BE DISCOVERED DURING CONSTRUCTION THE PROJECT ENGINEER SHALL BE CONTACTED FOR APPROPRIATE COURSE OF ACTION FOR THE TILE BLOCK.

- TILE REMOVAL (EXCAVATION):**
- THE WORK SHALL INCLUDE ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED TO COMPLETE THE EXCAVATION AND REMOVAL OF ALL IDENTIFIED TILE DRAINAGE SYSTEMS.
 - IDENTIFIED DRAINAGE TILE SHALL BE EXCAVATED AND REMOVED AS REQUIRED BY THE DRAWINGS, AS STAKED, OR AS OTHERWISE SPECIFIED BY THE ENGINEER.
 - UNLESS OTHERWISE SPECIFIED, ALL FRAGMENTS OF THE DRAINAGE TILE SHALL BE REMOVED FROM THE EXCAVATED TRENCH AND ASSOCIATED BACKFILL MATERIAL.
 - EACH END OF THE EXPOSED DRAINAGE TILE IN THE EXCAVATED TRENCH SHALL BE PLUGGED WITH CONCRETE (MIN. 2' IN LENGTH). PLUGS SHALL BE WATER TIGHT.
 - BACKFILL AND TAMP BY HAND A MINIMUM DISTANCE OF TWO FEET AROUND EACH SEALED TILE END WITH SUITABLE SOIL MATERIAL. BACKFILL THE REMAINING TRENCH WITH THE MOST SUITABLE MATERIAL AVAILABLE AND COMPACT TO A DENSITY EQUAL TO OR GREATER THAN THAT OF THE SURROUNDING UNDISTURBED SOIL.

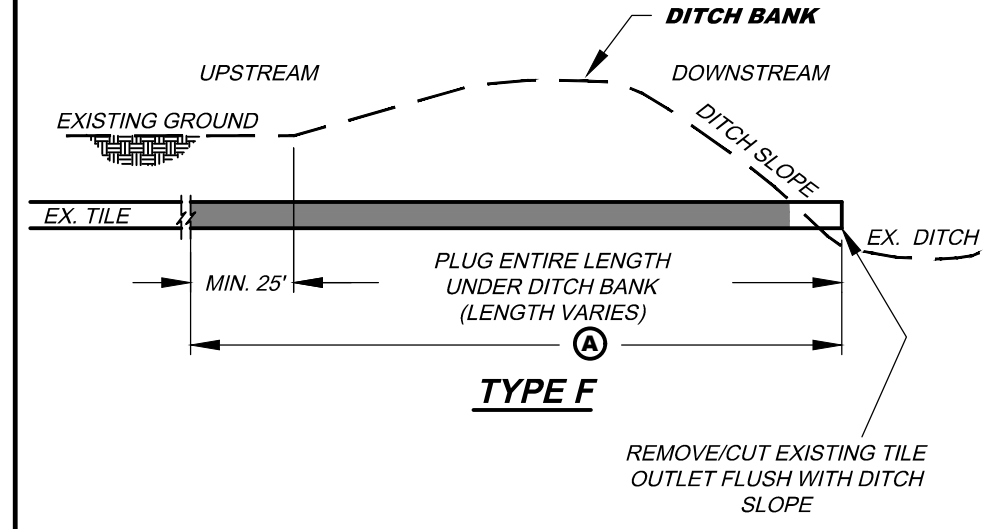
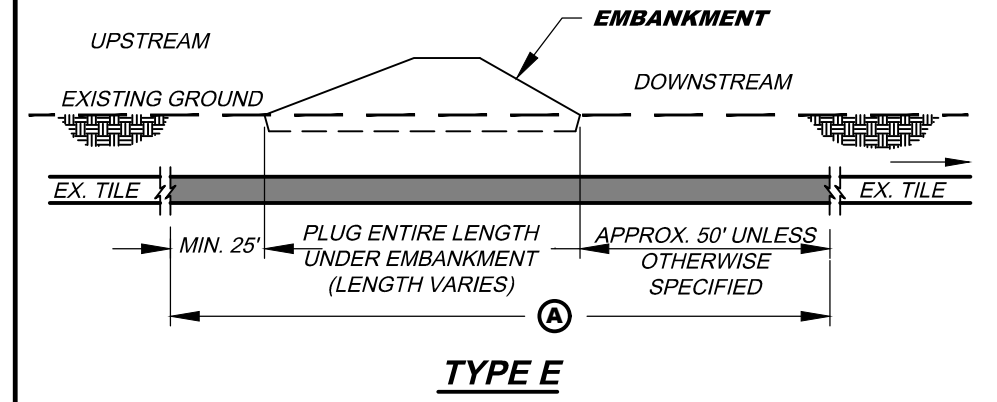
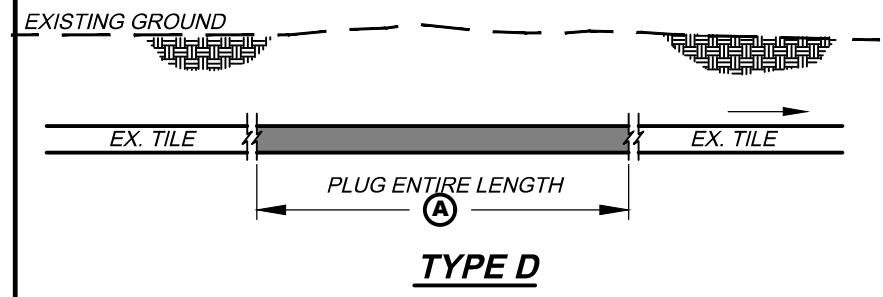
- TILE PLUGGING:**
- THE WORK SHALL INCLUDE ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED TO COMPLETE THE PLUGGING OF ALL IDENTIFIED TILE DRAINAGE SYSTEMS.
 - IDENTIFIED DRAINAGE TILE SHALL BE PLUGGED AS REQUIRED BY THE DRAWINGS, AS STAKED, OR AS OTHERWISE SPECIFIED BY THE ENGINEER.
 - MEANS TO ACCESS THE TILE DRAINAGE SYSTEM TO CONSTRUCT APPROPRIATE PLUGS SHALL BE APPROVED BY THE ENGINEER.
 - CONSTRUCTED PLUGS SHALL BE MADE PERMANENT AND WATERTIGHT. METHODS TO PLUG THE TILE SYSTEM INCLUDE USING SAND SLURRY MIXES, CONCRETE GROUT, OR CERTAIN EXPANDING POLYURETHANE FOAMS. IF PLUGGING METHOD IS NOT SPECIFIED, THE METHOD PROPOSED REQUIRES ENGINEER'S APPROVAL.
 - AREAS THAT ARE EXCAVATED TO ACCESS THE TILE SYSTEM SHALL BE CAREFULLY BACKFILLED AND COMPACTED IN LIFTS WITH SUITABLE SOIL MATERIAL. BACKFILL SHALL BE COMPACTED TO A DENSITY EQUAL TO SURROUNDING UNDISTURBED SOIL.

TILE BLOCK DETAILS

TILE REMOVAL
NOT TO SCALE



TILE PLUGGING
NOT TO SCALE



I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA



STANDARD SHEET BWSR 105

WETLAND RESTORATION PLAN
TILE BLOCK DETAIL SHEET

PROJECT #:
SHEET NO. OF

PRINT NAME / SIGNATURE DATE: LIC. NO.