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Directory	
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Project Description
This project includes installing an intake structure and 1400 ft of 12" dual wall field tile through private property easements.

Iowa Department of Natural Resources

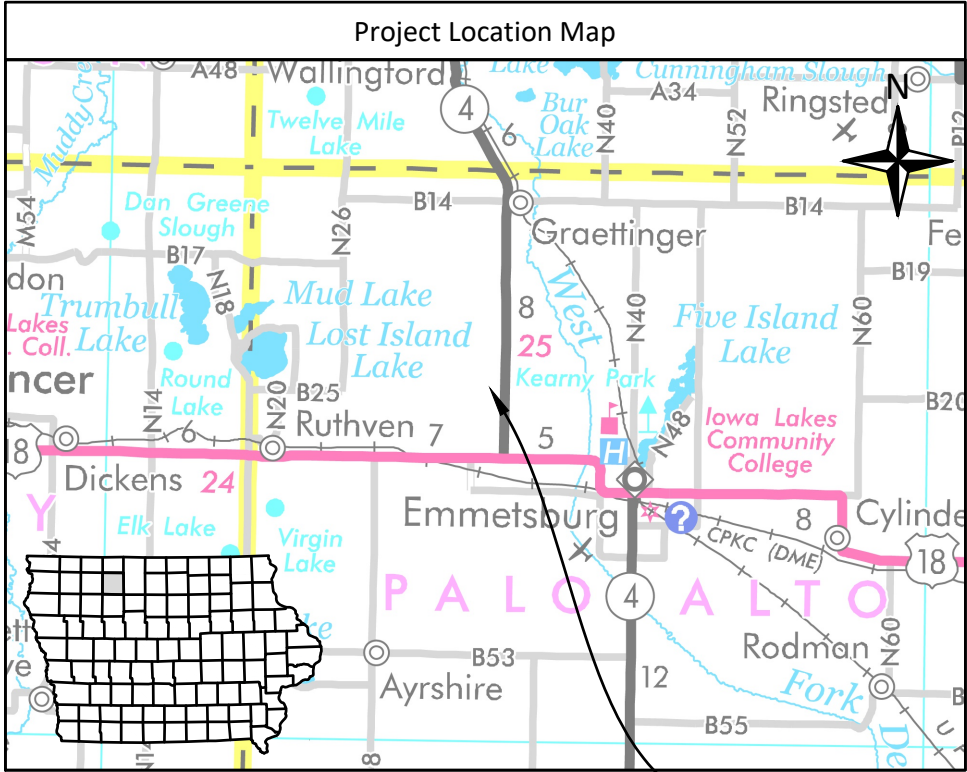
Construction Documents for

Perkins Marsh

Palo Alto County, Iowa

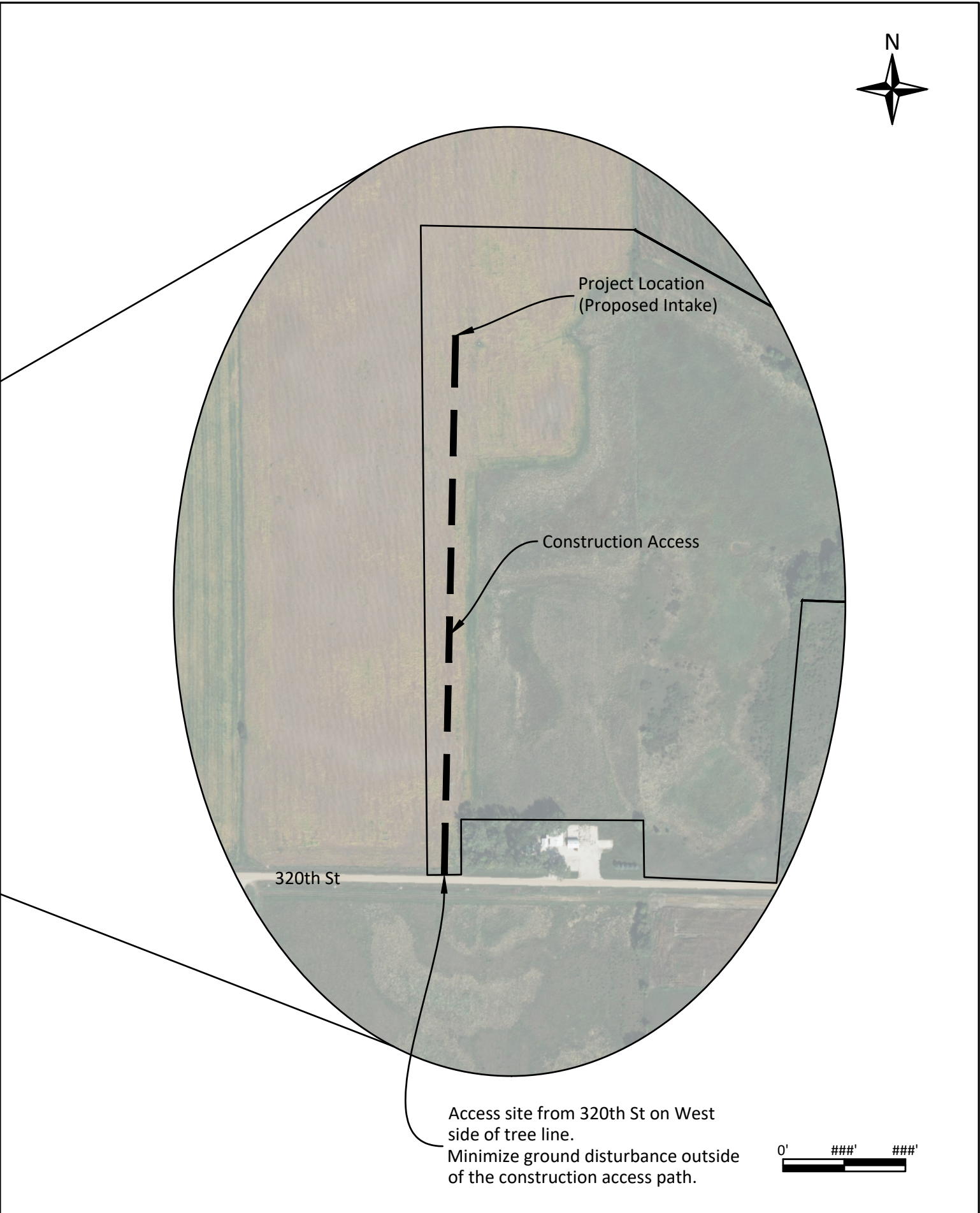
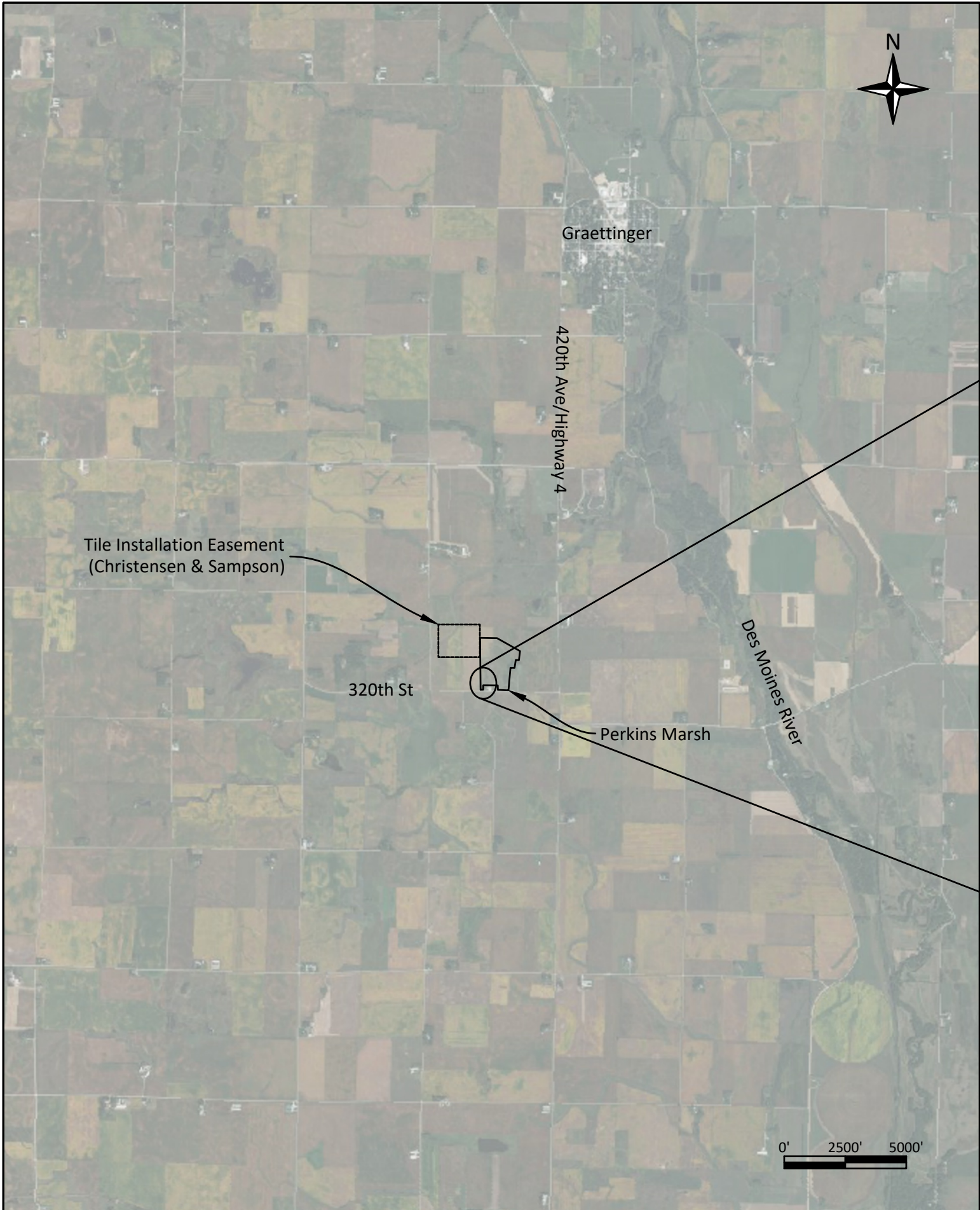
Outlet Construction

Project No. 26-01-74-01



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Estimated Quantities			
Item	Description	Quantity	Unit
1	Mobilization	1	LS
2	12" Dual Wall Tile (Non-Perforated)	1,410	LF
3	Granular Bedding & Backfill	450	TN
4	Private Tile Repair/Reconnect	10	Each
5	15" CMP	10	LF
6	Pre-cast Intake Structure (Install Only)	1	LS
7	Class 10 Excavation (Channel)	232	CY
8	Tile Search	100	LF
9	12" HD Bar Guard	1	Each
10	15" Rat Guard	1	Each

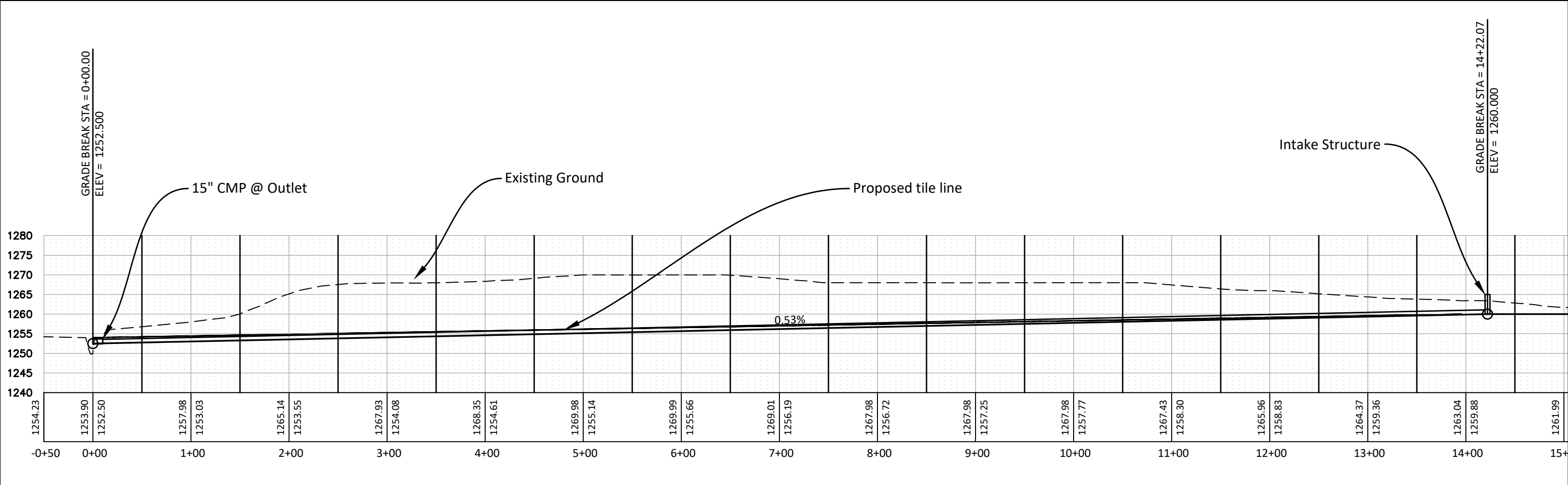
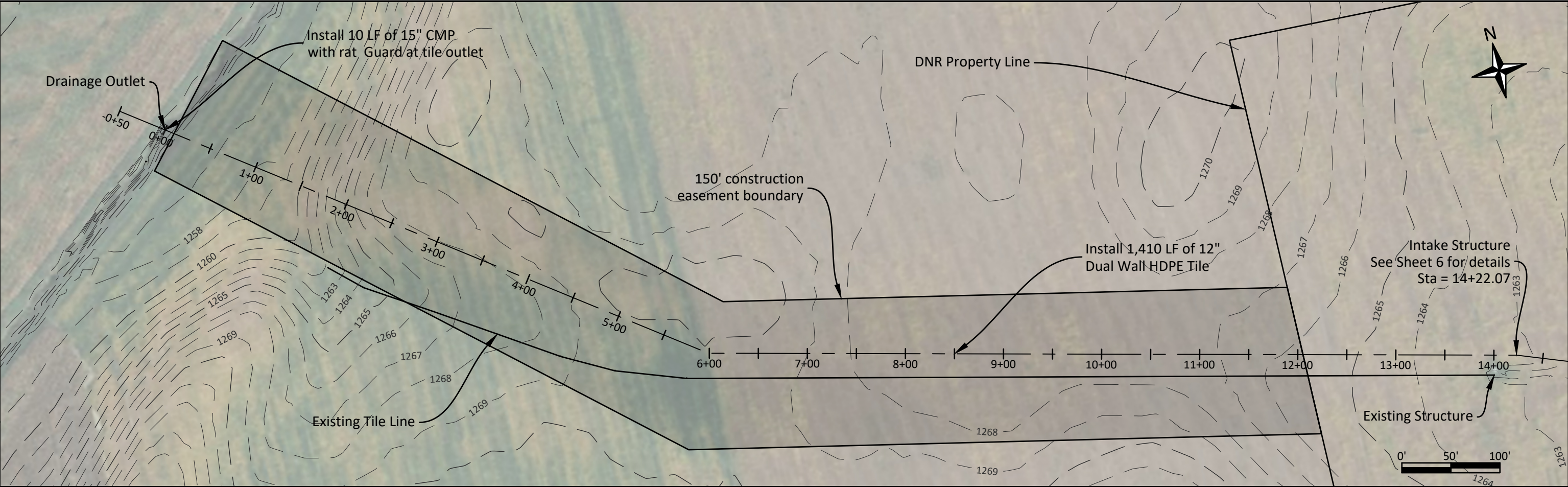
Estimate Reference Information	
1.	Mobilization - Payment per SUDAS Section 11020.
2.	12" Dual Wall Tile (Non-Perforated) - Must meet SUDAS Section 4020 2.01F for HDPE pipe. Strip and stockpile black dirt to be respread after tile installation and backfill.
3.	Granular Bedding & Backfill - Product to meet SUDAS Section 3010 for Class 1 material. Backfill around tile per SUDAS 3010.103 shown on sheet 6.
4.	Private Tile Repairs/Reconnects - Repair and reconnect any private pattern tile disturbed during the installation of the 12" dual wall tile.
5.	15" CMP - Must meet SUDAS Section 4020 2.01 G for 16 gauge corrugated metal pipe. Install with 2' of CMP slid over the HDPE pipe and wrap exterior joint with two layers of engineering fabric.
6.	Pre-Cast Intake Structure (Install Only) - DNR furnished item. See Sheet 6 for reference photos. Place on 12" of Class 1 bedding material.
7.	Class 10 Excavation(Channel) - Per SUDAS Section 2010. Spread excavation spoils north of the channel with a max spoil depth of 1 ft. See approximate spoils location on Sheet 5. Grade spoils to maintain surface drainage.
8.	Tile Search - Expose existing tile line in a minimum of two locations to determine alignment and ensure it is not damaged during the installation of the 12" dual wall tile.
9.	12" HD Bar Guard - Agri Drain Heavy Duty Bar Guard or approved equal.
10.	15" Rat Guard - Agri Drain Rodent Guard or approved equal.

General Information	
1.	Verify actual locations and elevations with DNR Engineer.
2.	All work shall conform to and be performed in accordance with the current edition of the Iowa SUDAS Specifications Manual and all applicable codes and ordinances.
3.	The contractor shall visit the site and inspect the project area and thoroughly familiarize themselves with the actual job conditions prior to bidding and the start of work. Failure to visit the project site shall not relieve the contractor from performing the work in accordance to the plans, specification, special provisions and contract.
4.	The contractor shall verify, at the site, all dimensions and conditions shown on the plans and shall notify the DNR Engineer of any discrepancies, omissions, and/or conflicts prior to proceeding with the work.
5.	It shall be the contractor's responsibility to provide waste areas or disposal sites for excess material (excavated material or broken concrete) which is not desirable to be incorporated into the work involved on this project. No payment for overhaul will be allowed for material hauled to these sites. No material shall be placed within the right-of-way, unless specifically stated in the plans or approved by the DNR Engineer.
6.	The contractor shall not disturb desirable grass areas and desirable trees outside the construction limits. The contractor will not be permitted to park or service vehicles and equipment or use these areas for storage of materials. Storage, parking and service areas will be subject to the approval of the DNR Engineer.
7.	Where utilities and fixtures are shown as Existing on the plans or encountered within the construction area, it shall be the responsibility of the contractor to notify the DNR Engineer of those utilities prior to the beginning of any construction. The contractor shall be afforded access to these facilities for necessary modification of services. Underground facilities, structures and utilities have been plotted from available surveys and records and therefore their locations must be considered approximate only. It is possible there may be others, the existence of which is presently not known or shown. It is the contractor's responsibility to determine their existence and exact location and to avoid damage thereto. No claims for additional compensation will be allowed to the contractor for any interference or delay caused by such work.
8.	The contractor shall shape graded area to maintain surface drainage. All elevations are to finish grade.
9.	The contractor is expected to have materials, equipment, and labor available on a daily basis to install and maintain erosion control features on the project. This may involve seeding, silt fence, rock ditch checks, silt basins or silt dikes.

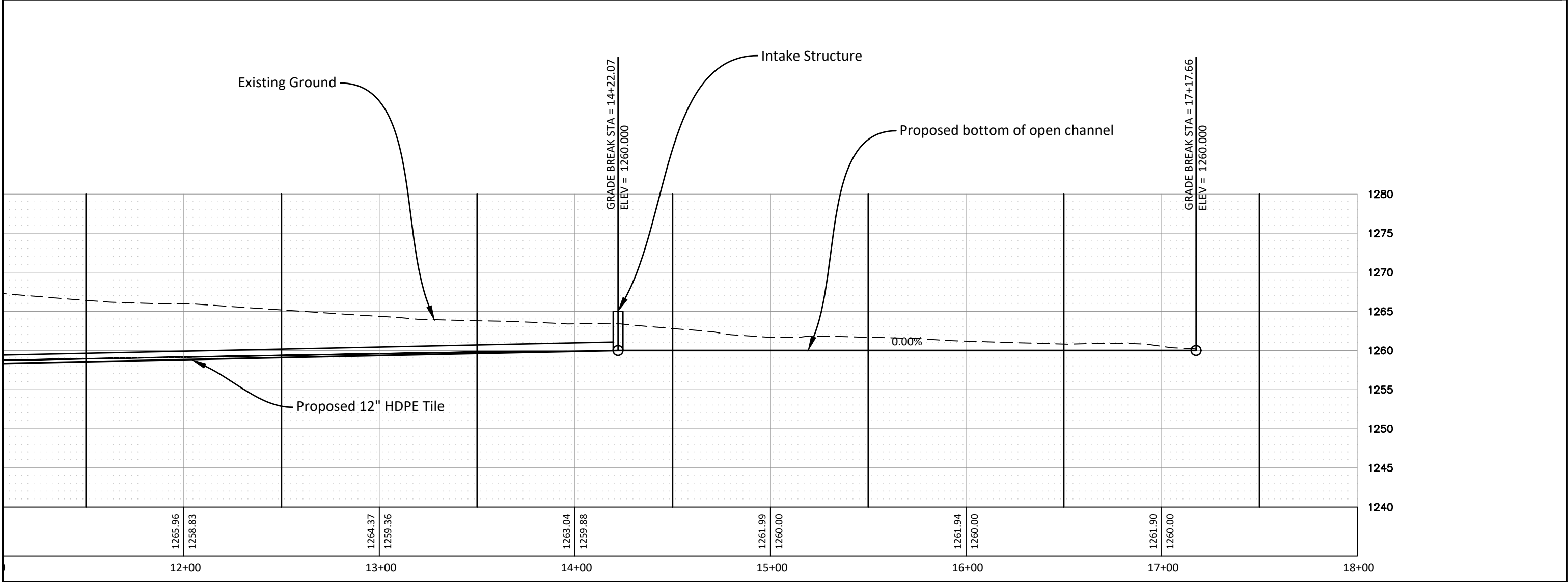
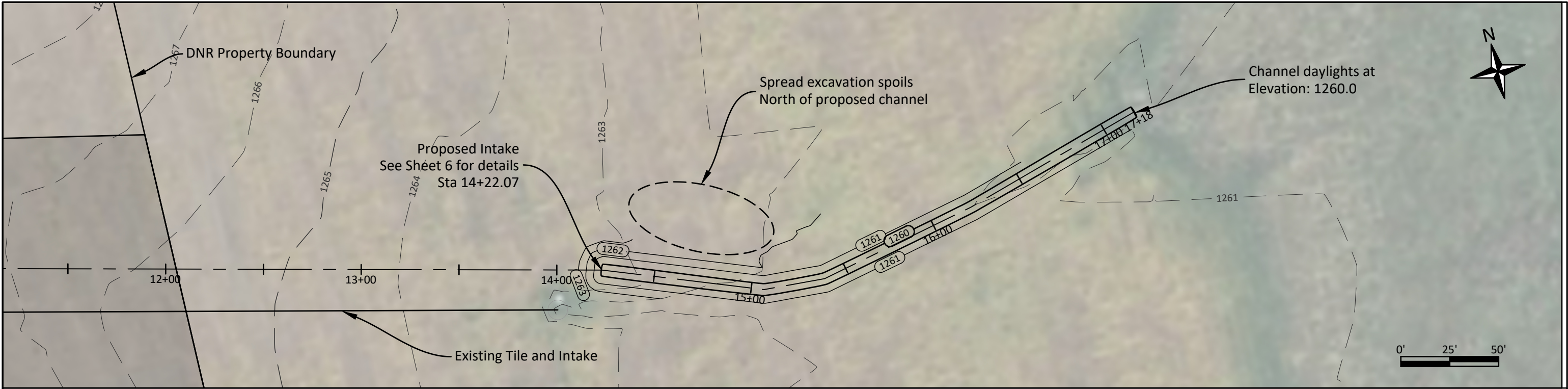


Drawn by: MN	
Revision	Date

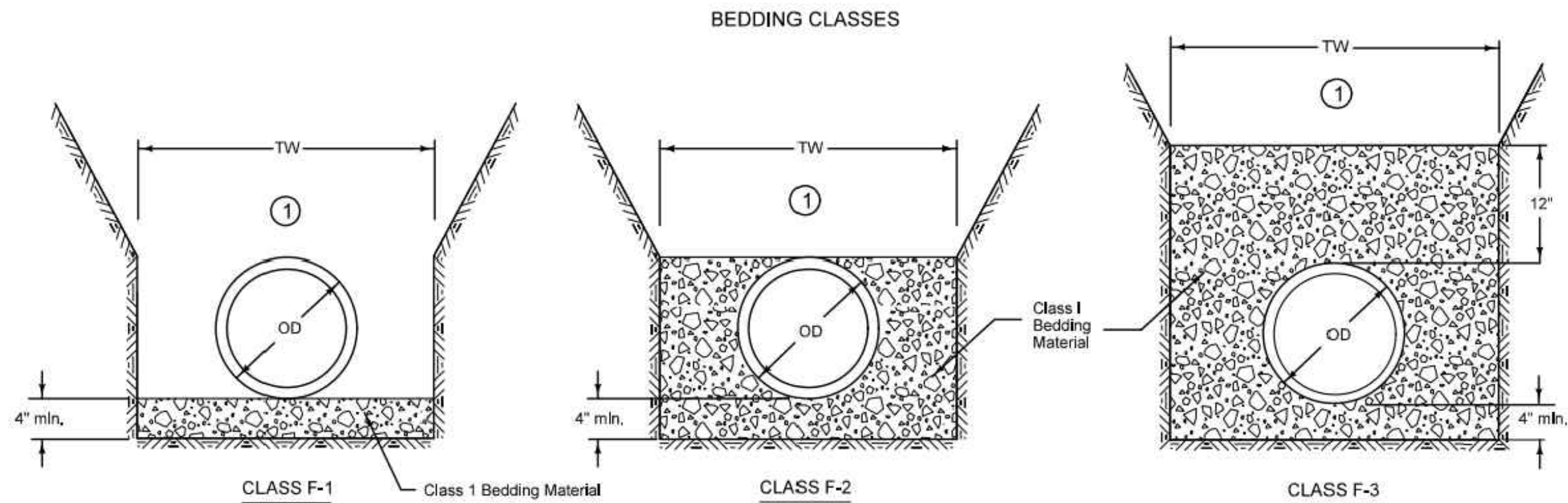
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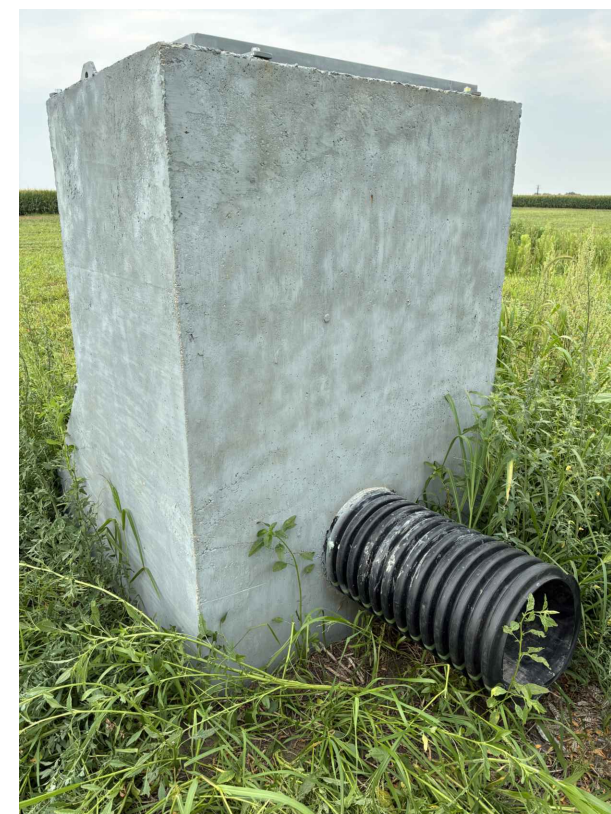
Iowa DOT SW103, SUDAS Figure 3010.103



Intake Structure - Front View



Intake Structure - Side View



Intake Structure - Back View