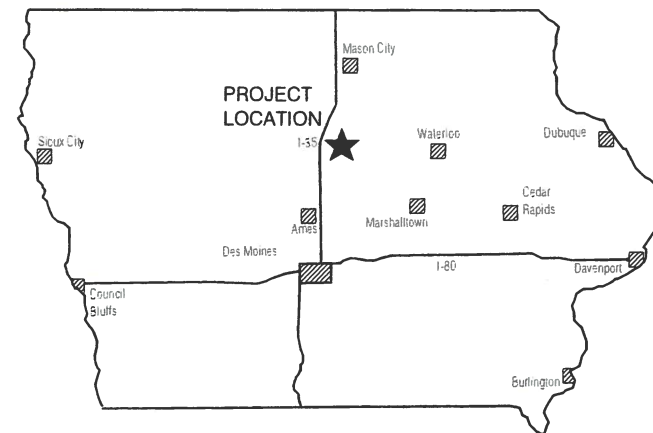


# UPPER MAIN TILE DIVERSION DRAINAGE DISTRICT 56 HARDIN COUNTY, IOWA 2021



**VICINITY MAP**  
NOT TO SCALE

WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH  
THE IOWA STATEWIDE URBAN STANDARD  
SPECIFICATIONS FOR PUBLIC IMPROVEMENTS, 2021  
EDITION (SUDAS)



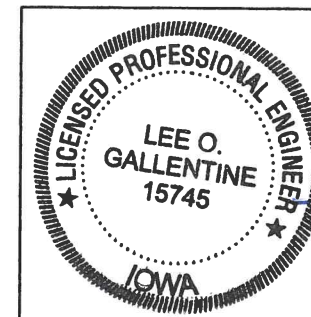
**LOCATION MAP**



Clapsaddle-Garber Associates, Inc.  
739 Park Avenue  
Ackley, Iowa 50601  
Phone 641-847-3273  
www.cgaconsultants.com

### INDEX OF SHEETS

SHEET NO.	DESCRIPTION
A.01	TITLE SHEET
A.02	SYMBOLS, LEGEND AND GENERAL INFORMATION
B.01	DETAILS
D.01 - D.03	PLAN & PROFILE



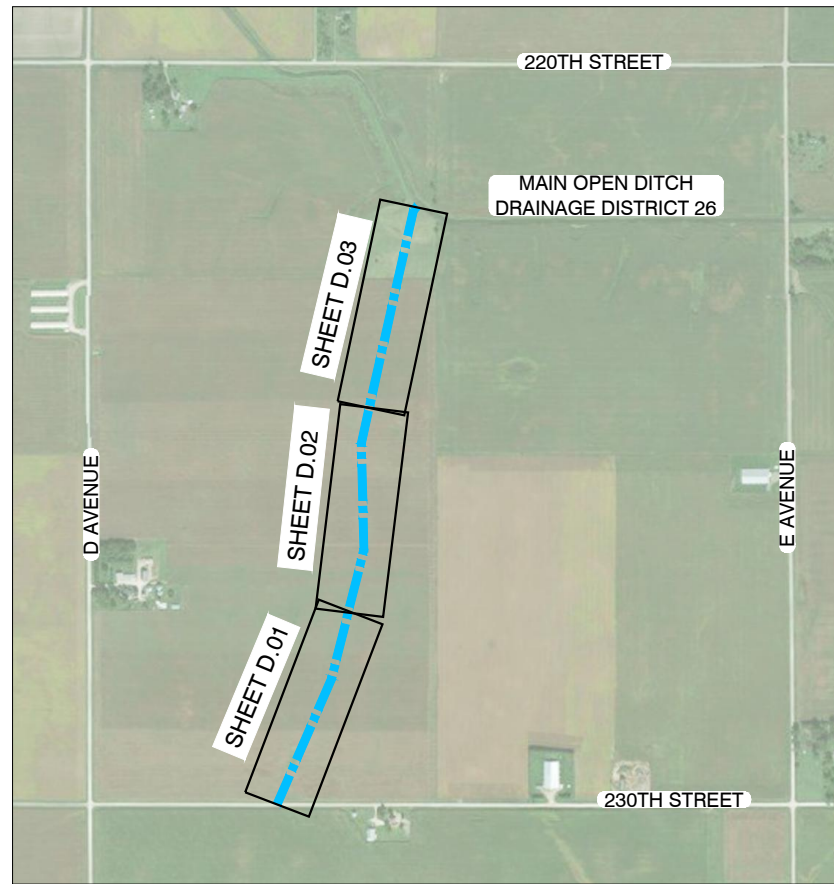
I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

*Lee O. Gallentine* PE Feb 17, 2021  
Signature

Lee O. Gallentine, PE  
Iowa License Number 15745  
My license renewal date is December 31, 2022

Pages or sheets covered by this seal: As shown on Index

I:\6830.4\DWG\Sheet\6830.4 A Sheets (Title sheet & legend).dwg - A.01 - 02-18-21 - 10:05am - ZJSC43



VISUAL INDEX  
NOT TO SCALE

**NOTES:**

1. ALL PIPE LENGTHS SHOWN ARE THROUGH ALL STRUCTURES. HOWEVER, CONTRACTOR SHALL BE PAID ONLY FOR ACTUAL PIPE LENGTH INSTALLED IN COMPLETED SYSTEM.
2. CONTRACTOR SHALL PROTECT ALL TREES (INCLUDING LIMBS) SHOWN IN THE PROJECT PLANS UNLESS NOTED OTHERWISE. ALL TREES SHALL BE PROTECTED FROM DAMAGE TO TRUNKS, BRANCHES AND ROOTS. NO EXCAVATING, FILLING, GRADING, HAUL ROUTES OR MATERIAL STORAGE SHALL BE WITHIN THE DRIP LINE OF THE TREE(S) UNLESS OTHERWISE INDICATED. IF REQUIRED, CONTRACTOR SHALL PROVIDE BRANCH AND ROOT PRUNING REQUIRED FOR THE MEANS AND METHODS PROPOSED FOR THE NEW WORK BY A REGISTERED ARBORIST IN ADVANCE OF CONSTRUCTION. COST SHALL BE INCLUDED IN THE ASSOCIATED NEW WORK ITEM.
3. ONLY VISIBLE UTILITIES ARE PLOTTED ON THESE PLANS. THERE MAY BE SOME, THE EXISTENCE OF WHICH MAY BE KNOWN OR UNKNOWN. THE CONTRACTOR SHALL USE THE CONSTRUCTION PLANS IN CONJUNCTION WITH THE IOWA ONE-CALL SERVICE FOR THE ENTIRE PROJECT PRIOR TO STARTING ANY CONSTRUCTION TO ALLOW REVIEW FOR POSSIBLE UTILITY CONFLICTS. CONTRACTOR SHALL CONTACT ONE-CALL TO OBTAIN UTILITY LOCATES PRIOR TO STARTING CONSTRUCTION. WHERE PROPOSED CONSTRUCTION SHALL CROSS EXISTING UTILITIES, SERVICE, AND TILE LINES, CONTRACTOR SHALL LOCATE AND EXPOSE SAID UTILITIES, SERVICE, AND TILE LINES AT LEAST 24 HOURS PRIOR TO ANY CONSTRUCTION TO ALLOW REVIEW FOR POSSIBLE UTILITY CONFLICTS.
4. ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED OR INCREASED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

**BENCHMARKS:**

HARDIN COUNTY GPS MONUMENT NO. 8006  
2020 SURVEY ELEVATION = 1156.50

HARDIN COUNTY GPS MONUMENT NO. 8007  
2020 SURVEY ELEVATION = 1203.31

**PLAN SHEET LEGEND**

EXISTING	PROPOSED	
		STREET SIGN POST
		SIGN POST
		SHRUBS (BUSHES)
		DECIDUOUS TREE
		EVERGREEN TREE
		GUY ANCHOR
		POWER POLE
		TELEPHONE PEDESTAL
		TELEPHONE BOX
		ELECTRICAL BOX/TRANSFORMER
		ELECTRICAL METER
		LIGHT POLE
		GAS VALVE
		GAS METER
		FIRE HYDRANT
		WATER VALVE
		WATER SHUT-OFF
		MANHOLE
		TILE OUTLET
		BURIED FIBER OPTIC LINE
		OVERHEAD ELECTRICAL LINE
		FENCE
		GAS LINE
		WATERLINE
		SANITARY SEWER LINE
		DRAIN TILE
		STORM SEWER LINE
		PROPERTY LINE
		SECTION/R.O.W. LINE
		CONTOUR LINE
		PROPOSED CONCRETE SURFACE
		EXIST. CONCRETE SURFACE /REMOVAL
		PROPOSED GRAVEL SURFACE
		GRAVEL SURFACE/REMOVAL
		PROPOSED ACC PAVEMENT
		EXIST. ACC PAVEMENT/REMOVAL
		EXIST. SURFACE MILLING/OVERLAY
		EXIST. BRICK/STAMPED CONCRETE

**PIPE MATERIAL ABBREVIATIONS**

ACP	-	ASPHALT COATED PIPE
AWWA	-	AMERICAN WATER WORKS ASSOCIATION
CMLC	-	CEMENT MORTAR LINED AND COATED
CMP	-	CORRUGATED METAL PIPE
DIP	-	DUCTILE IRON PIPE
ELL	-	ELLIPTICAL
HDPE	-	HIGH DENSITY POLYETHYLENE
PPL	-	POLYPROPYLENE PIPE
PVC	-	POLYVINYL CHLORIDE
RCP	-	REINFORCED CONCRETE PIPE
RCEC	-	REINFORCED CONCRETE ELLIPTICAL PIPE
VCP	-	VITRIFIED CLAY PIPE

**ABBREVIATIONS**

ADAAG	-	AMERICAN DISABILITIES ACT ACCESSIBILITY GUIDELINES
BM	-	BENCHMARK
BOC	-	BACK OF CURB
CDS	-	CUL DE SAC
CL	-	CENTERLINE
EG	-	EXISTING GROUND
EP	-	EDGE OF PAVEMENT
FG	-	FORM GRADE
FL	-	FLOW LINE
HP	-	HIGH POINT
INV	-	INVERT
LP	-	LOW POINT
MAX	-	MAXIMUM
MIN	-	MINIMUM
MUTCD	-	MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES
PC	-	POINT OF CURVATURE
PCC	-	PORTLAND CEMENT CONCRETE
PRC	-	POINT OF REVERSE CURVATURE
PT	-	POINT OF TANGENCY
R/W	-	RIGHT OF WAY
TOC	-	TOP OF CONCRETE
TYP	-	TYPICAL

NO.	REVISION	BY	DATE	NO.	REVISION	BY	DATE

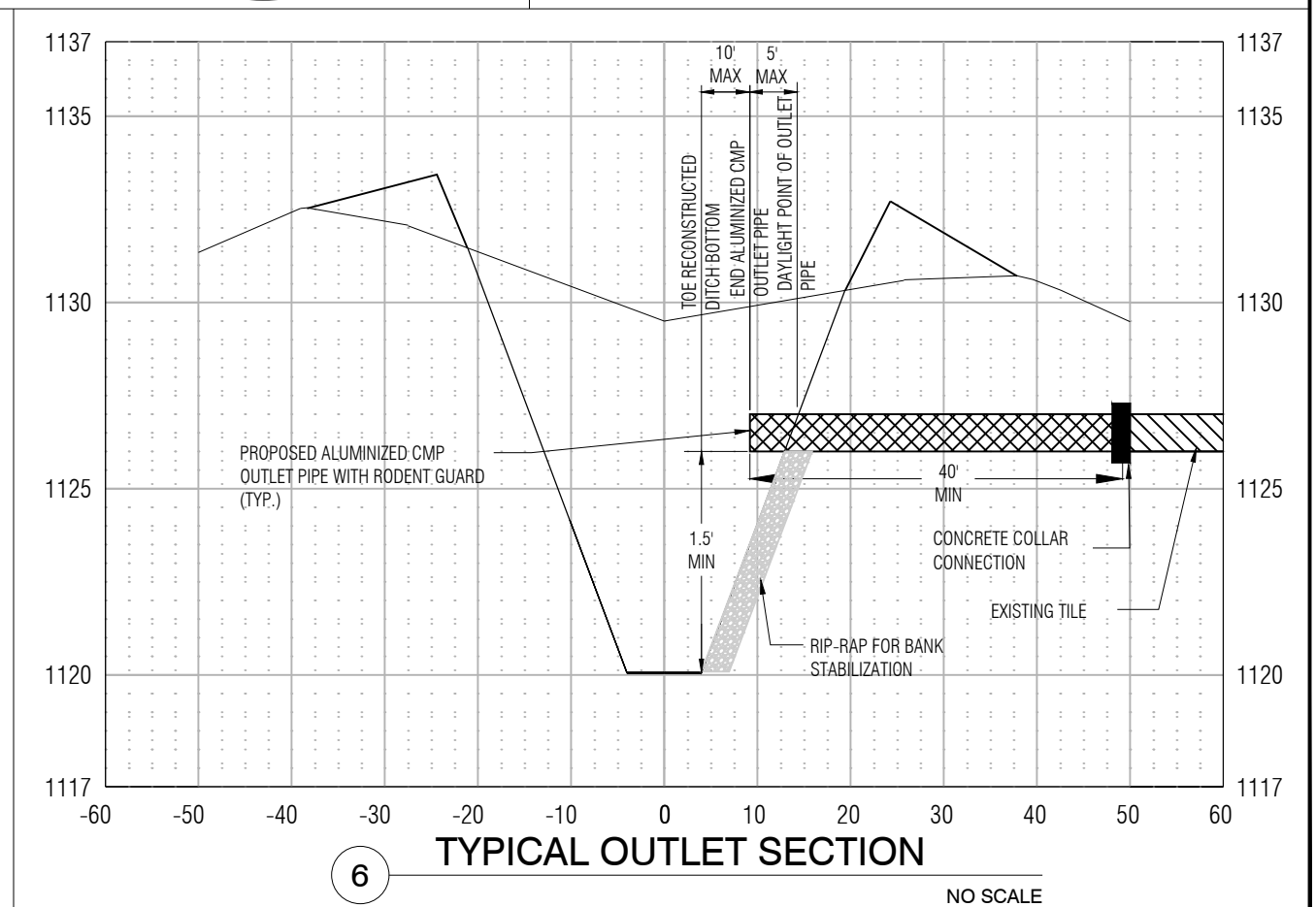
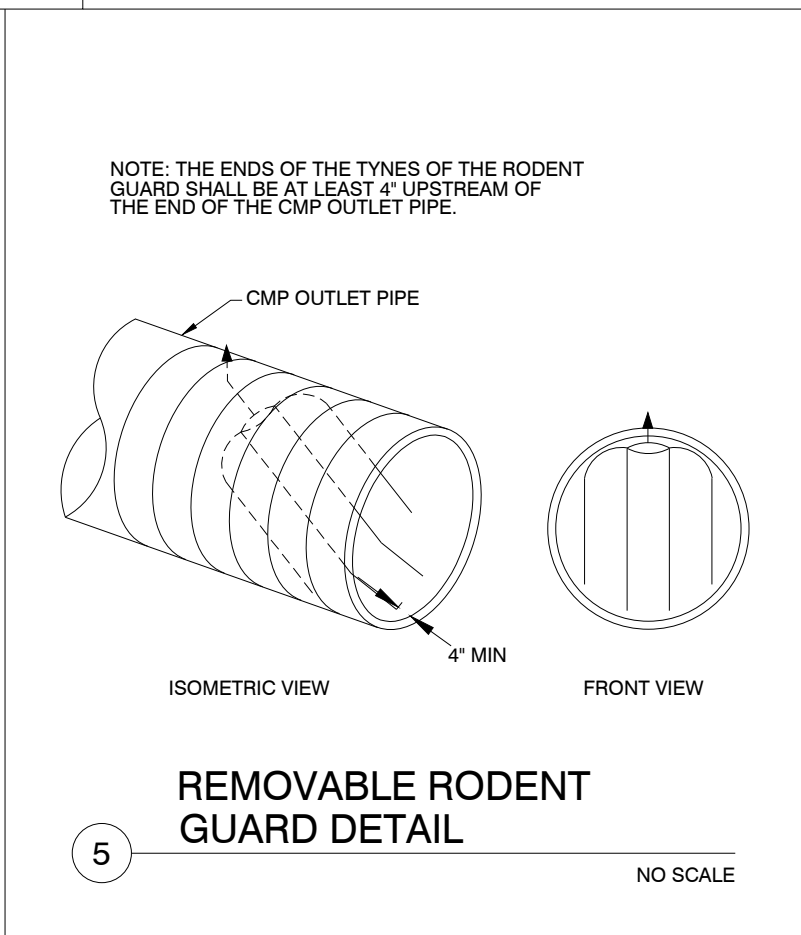
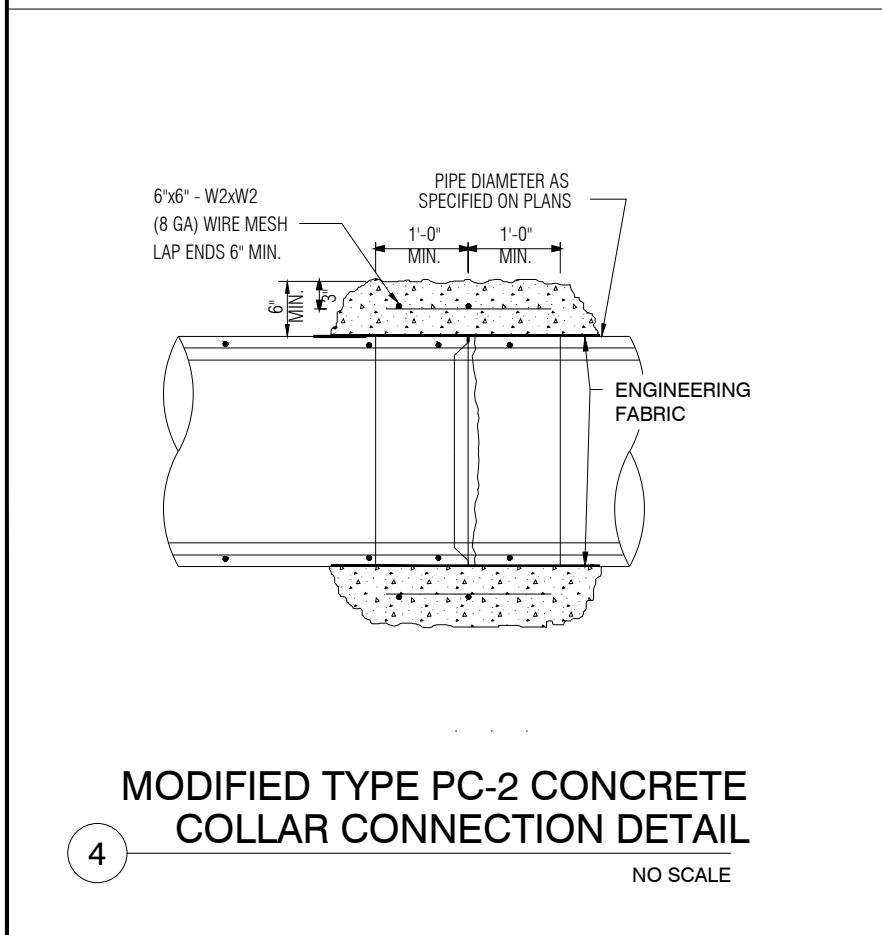
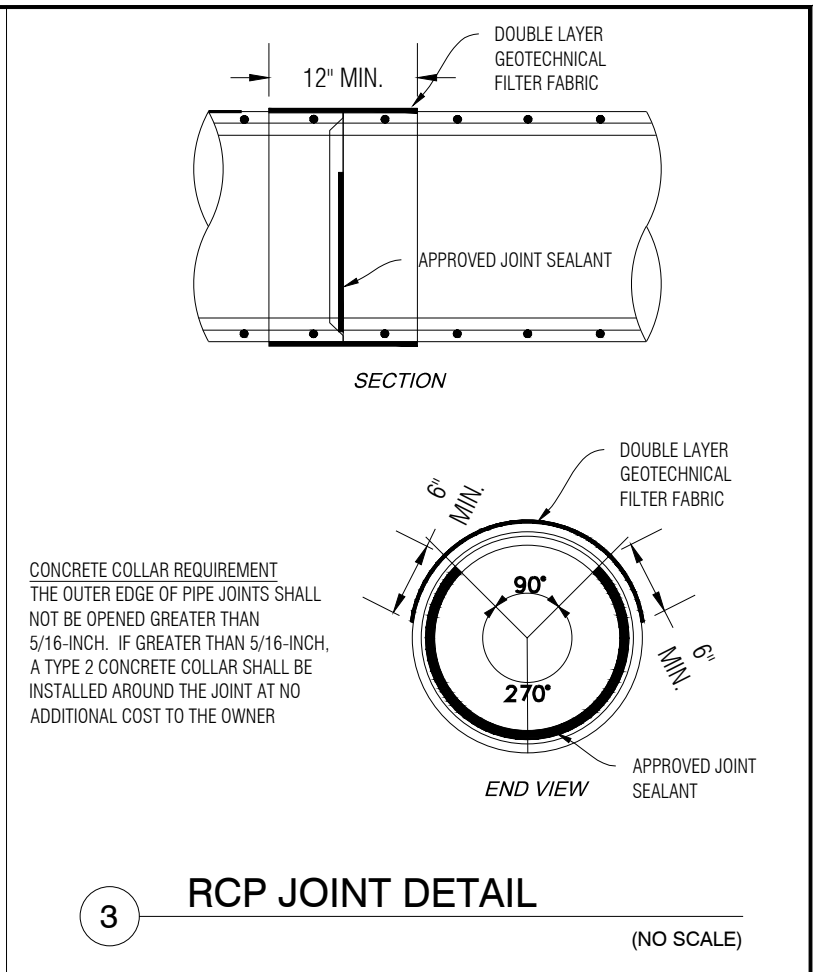
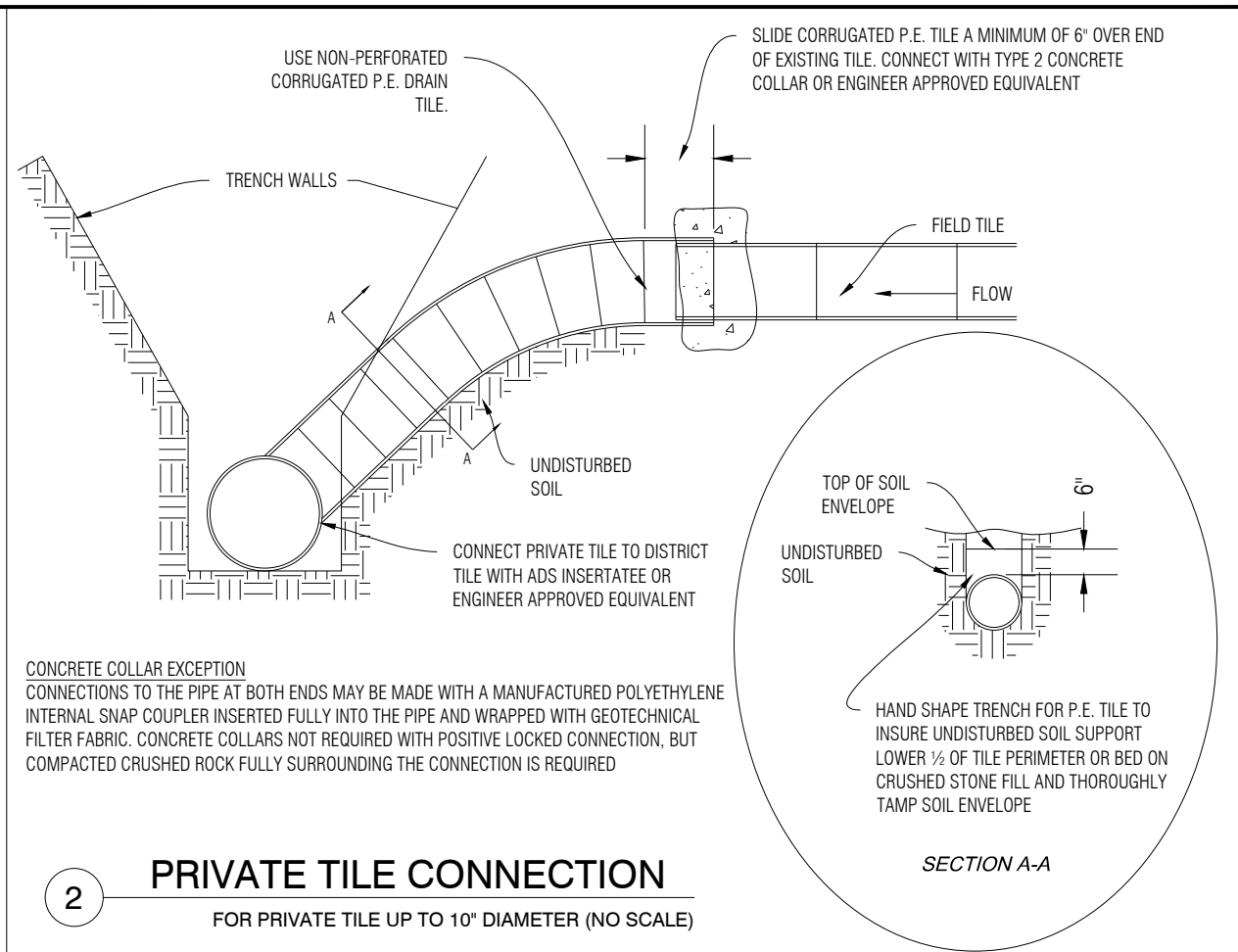
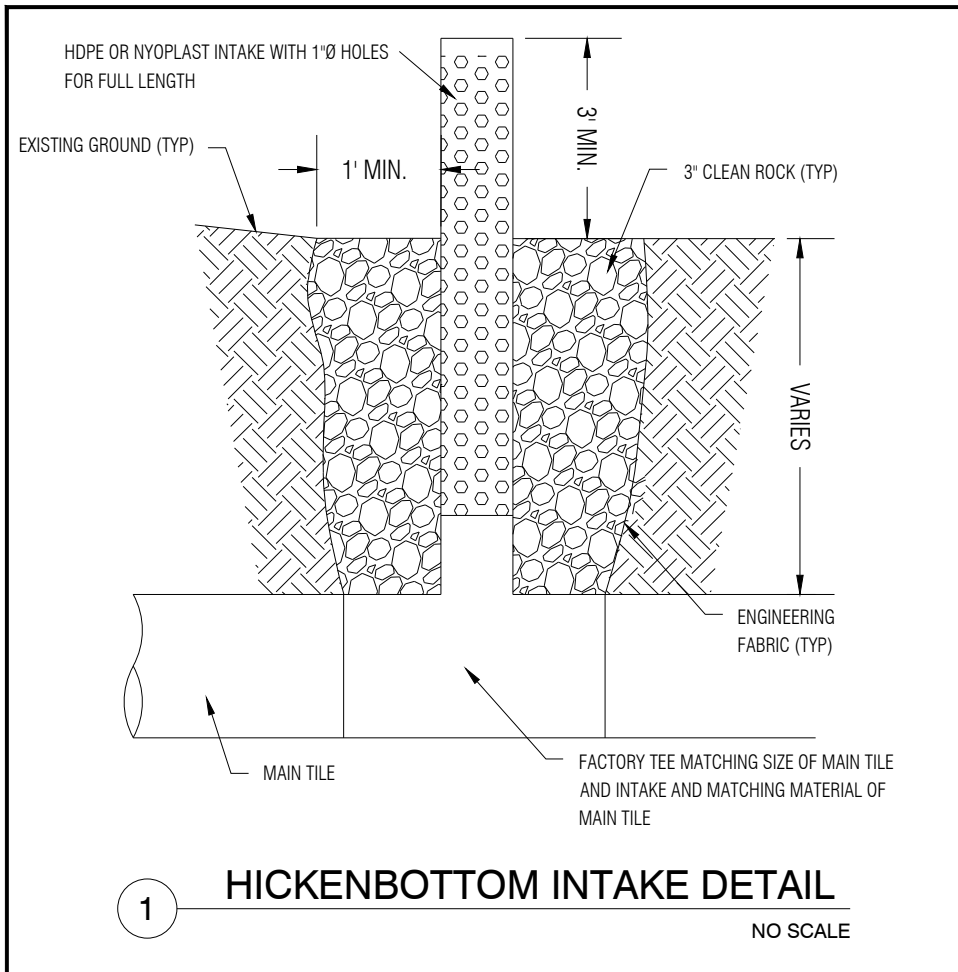


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 APPROVED: LOG DATE: ---

**DRAINAGE DISTRICT 56**  
HARDIN CO, IOWA

**SYMBOLS, LEGENDS, & GENERAL INFORMATION**

PROJECT NO. 6830.4  
SHEET NO. A.02



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NO.	REVISION	BY	DATE	NO.	REVISION	BY	DATE

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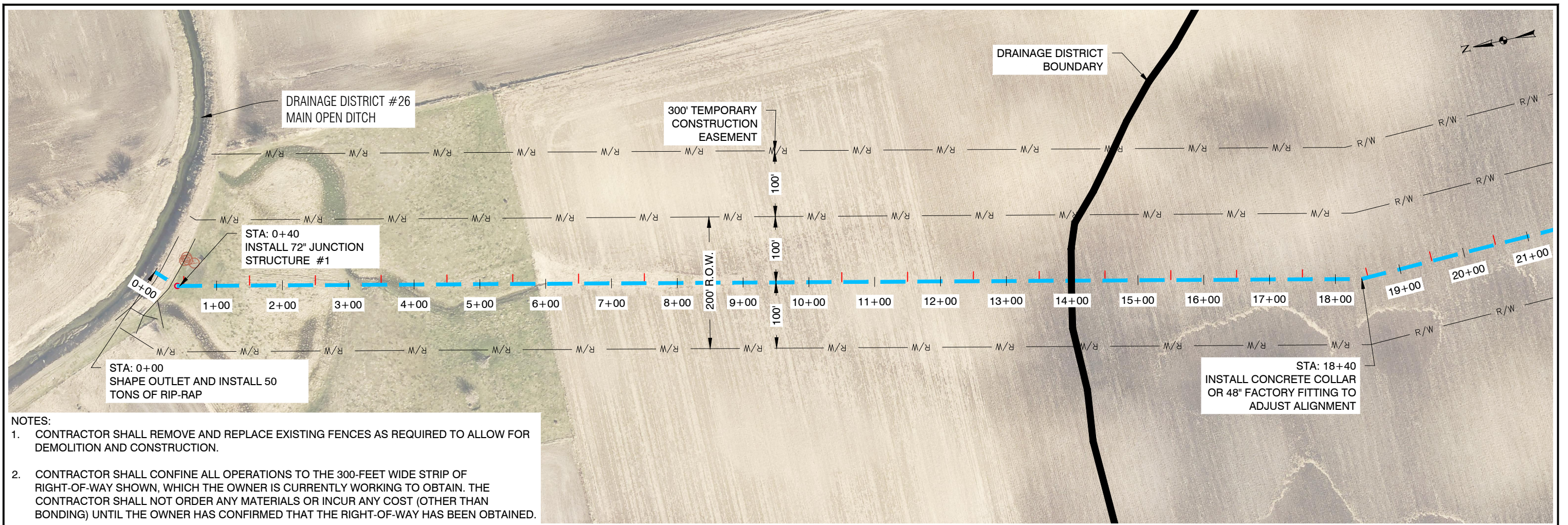
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**DRAINAGE DISTRICT 56**  
HARDIN CO, IOWA

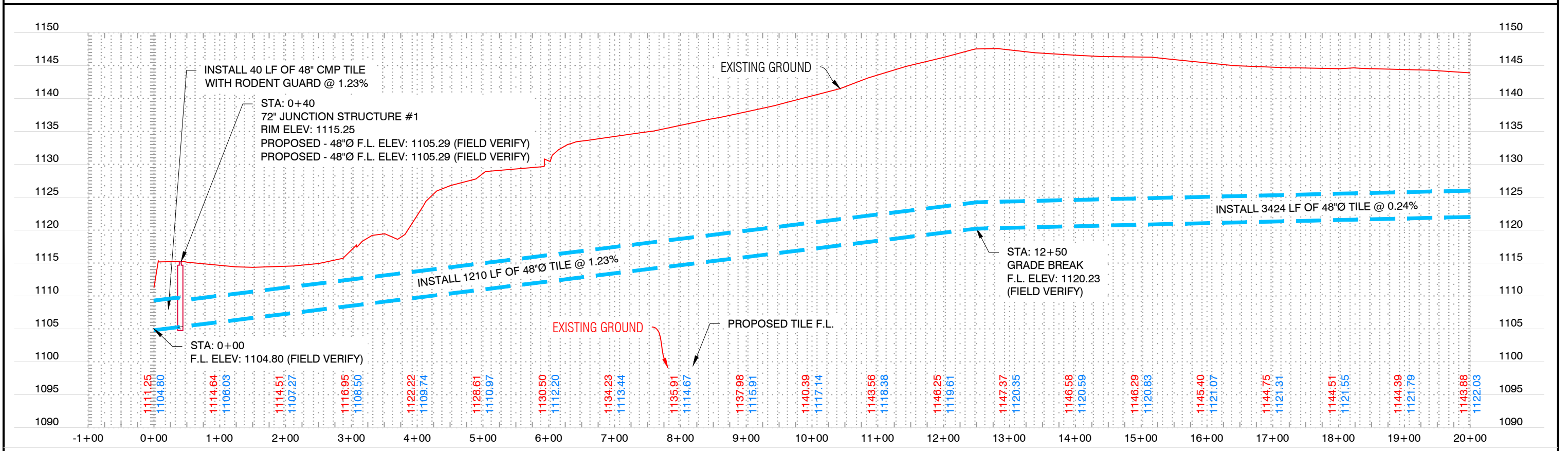
**DETAILS**

PROJECT NO. 6830.4  
SHEET NO. B.01

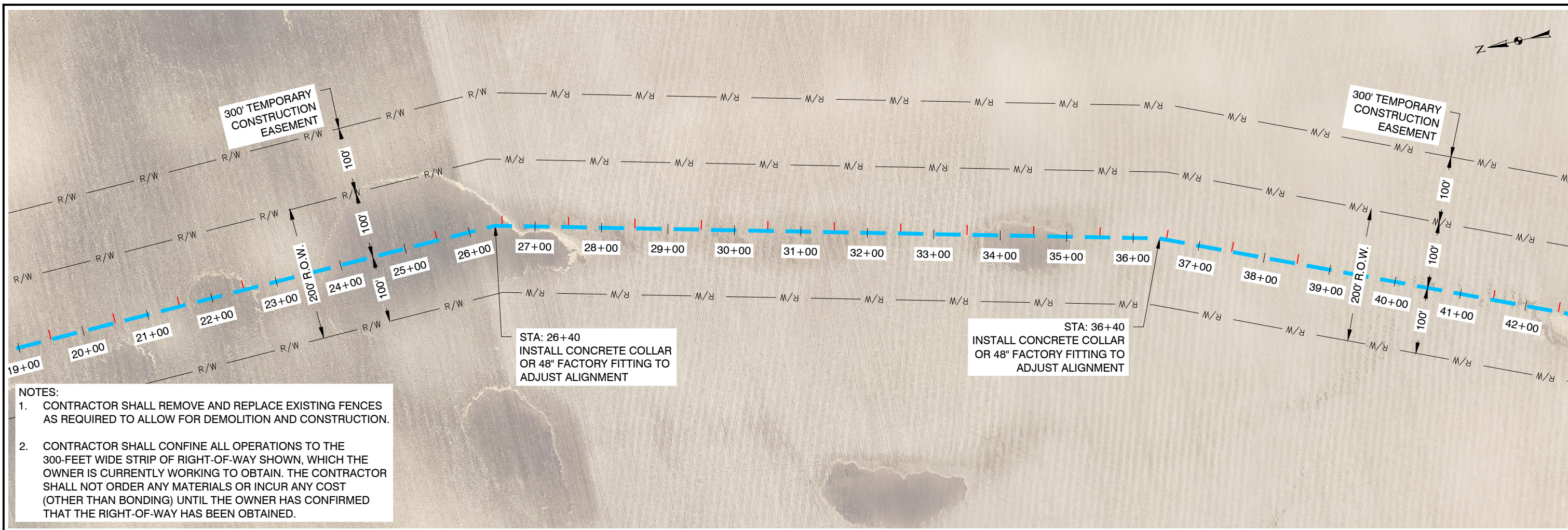




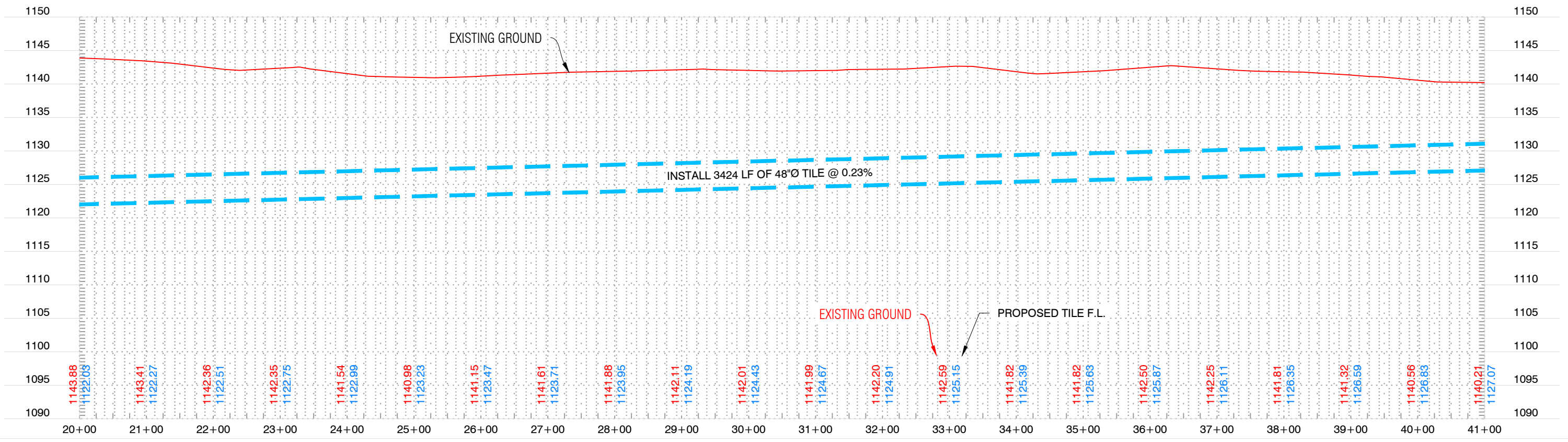
- NOTES:**
- CONTRACTOR SHALL REMOVE AND REPLACE EXISTING FENCES AS REQUIRED TO ALLOW FOR DEMOLITION AND CONSTRUCTION.
  - CONTRACTOR SHALL CONFINE ALL OPERATIONS TO THE 300-FOOT WIDE STRIP OF RIGHT-OF-WAY SHOWN, WHICH THE OWNER IS CURRENTLY WORKING TO OBTAIN. THE CONTRACTOR SHALL NOT ORDER ANY MATERIALS OR INCUR ANY COST (OTHER THAN BONDING) UNTIL THE OWNER HAS CONFIRMED THAT THE RIGHT-OF-WAY HAS BEEN OBTAINED.



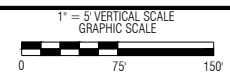




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 Ph 641-847-3279  
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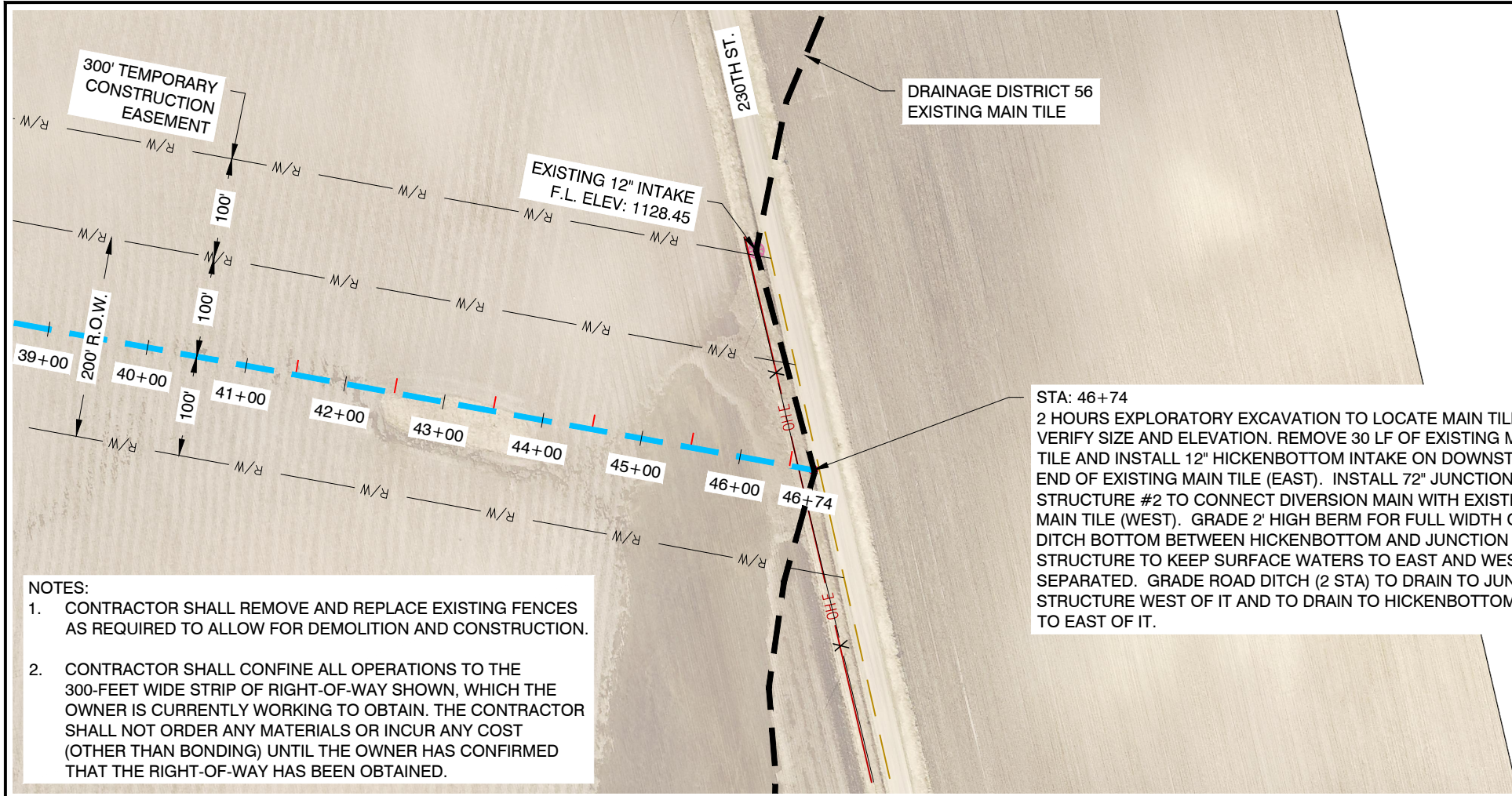
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**DRAINAGE DISTRICT 56**  
 HARDIN CO, IOWA

**PLAN AND PROFILE**

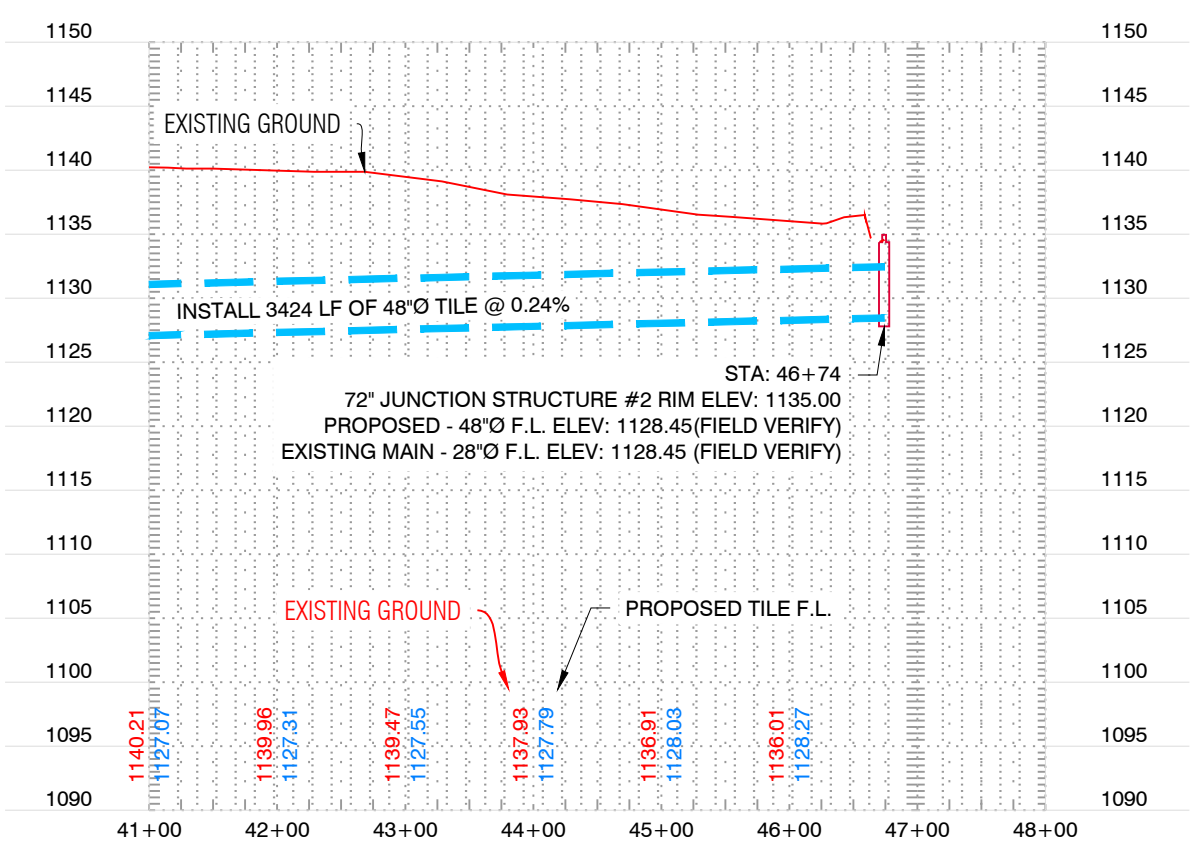
PROJECT NO. 6830.4  
 SHEET NO. D.02





STA: 46+74  
 2 HOURS EXPLORATORY EXCAVATION TO LOCATE MAIN TILE AND VERIFY SIZE AND ELEVATION. REMOVE 30 LF OF EXISTING MAIN TILE AND INSTALL 12" HICKENBOTTOM INTAKE ON DOWNSTREAM END OF EXISTING MAIN TILE (EAST). INSTALL 72" JUNCTION STRUCTURE #2 TO CONNECT DIVERSION MAIN WITH EXISTING MAIN TILE (WEST). GRADE 2' HIGH BERM FOR FULL WIDTH OF DITCH BOTTOM BETWEEN HICKENBOTTOM AND JUNCTION STRUCTURE TO KEEP SURFACE WATERS TO EAST AND WEST SEPARATED. GRADE ROAD DITCH (2 STA) TO DRAIN TO JUNCTION STRUCTURE WEST OF IT AND TO DRAIN TO HICKENBOTTOM INTAKE TO EAST OF IT.

- NOTES:**
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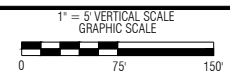
# DRAINAGE DISTRICT 56

HARDIN CO, IOWA

## PLAN AND PROFILE

PROJECT NO. 6830.4  
 SHEET NO. D.03

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