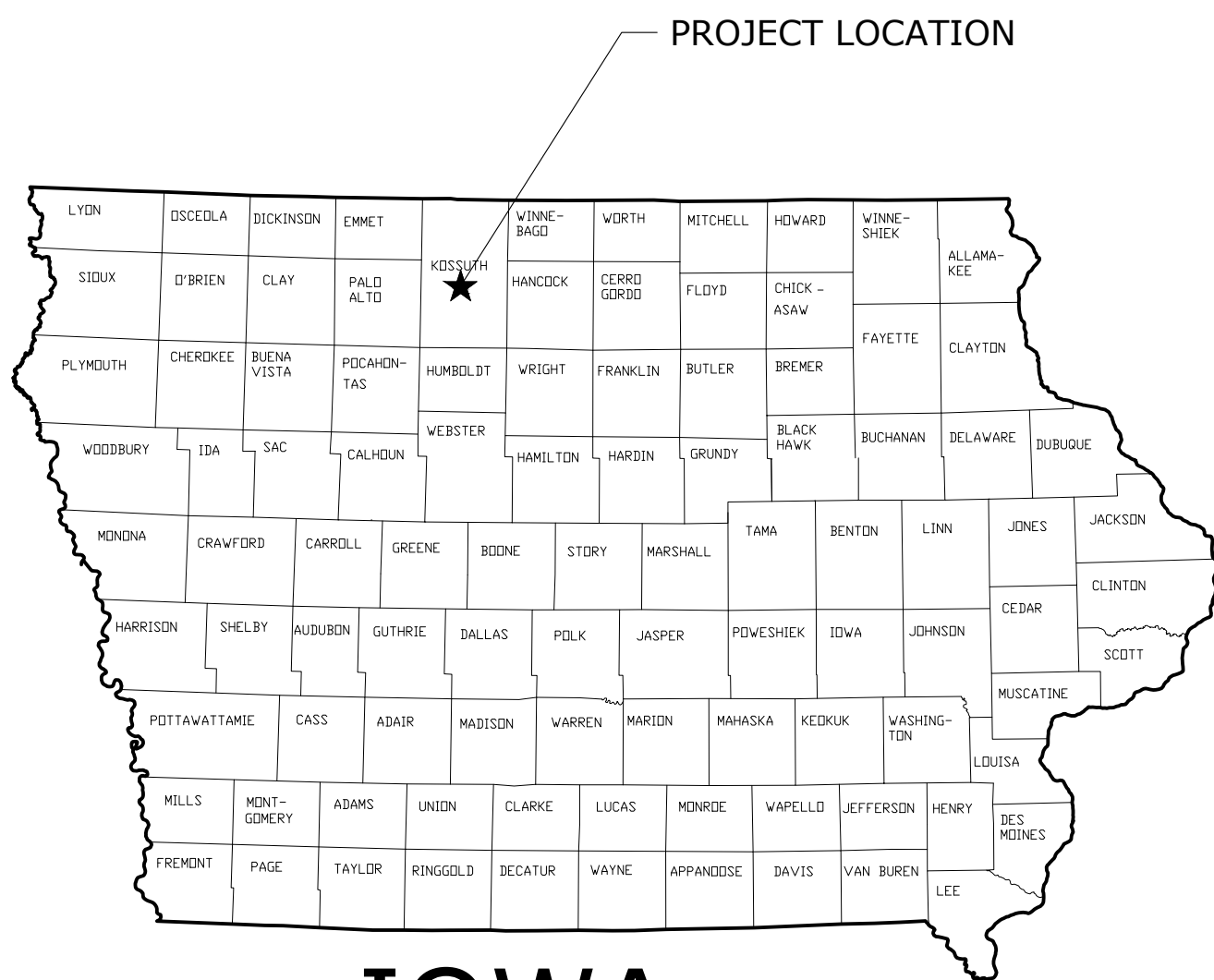
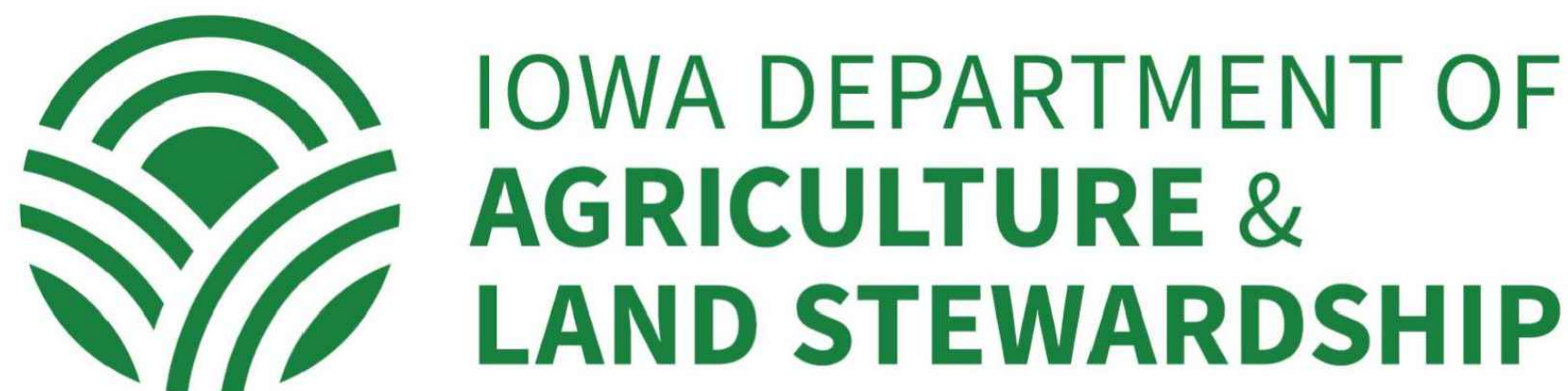
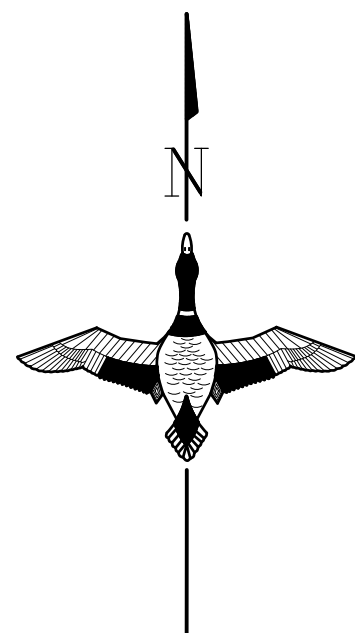




IOWA



PROJECT LOCATION MAP

SCALE: 1" = 1000'

PROJECT NO. KOS952935D

CONSTRUCTED WETLAND FOR NUTRIENT REMOVAL

KOSSUTH COUNTY

S35, T95N, R29E

IOWA

IN COOPERATION WITH

IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP

& UNITED STATES DEPARTMENT OF AGRICULTURE

IOWA ENGINEERING JOB CLASS II

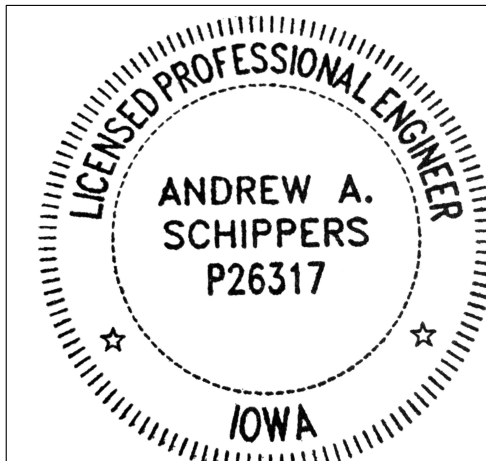
Sheet List Table	
Sheet Number	Sheet Title
C001	COVER SHEET
C002	SPECIFICATIONS, QUANTITIES, & NOTES
C051	TOPOGRAPHY & EXISTING CONDITIONS
C101	SITE PLAN
C201	PRIMARY SPILLWAY & DRAW DOWN PLAN
C202	AUXILIARY SPILLWAY PLAN
C203	WETLAND PROFILES
C204	MAIN BERM PROFILES
C205	CHANNEL PROFILES
C206	RIPRAP RIFFLE DIVERSION PLAN & PROFILE
C207	15 INCH HDPE PLAN & PROFILE
C208	12 INCH PIPE PLAN & PROFILE
C209	OXBOW SPILLWAY PLAN & PROFILE
C301	RIPRAP RIFFLE INTAKE STRUCTURE DETAILS
C302	SHEET PILE DETAILS
C303	CONSTRUCTION DETAILS
C304	WCS DETAILS SHEET 1
C305	WCS DETAILS SHEET 2
C306	FILTER DIAPHRAGM DETAILS
C307	ANTI-SEEP COLLAR DETAILS
C401	SEEDING PLAN

To the best of my professional knowledge, judgement, and belief, these plans meet applicable NRCS Standards

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.

Andrew Schippers, P.E. _____ Date _____

My license number is P26317
My license renewal date is December 31, 2025
Pages of sheets covered by this seal: 1 - 21 (C001-C401)



UTILITIES NOTE:

BEFORE THE START OF CONSTRUCTION, THE OWNER OF ANY UTILITIES INVOLVED MUST BE NOTIFIED. THE EXCAVATOR/CONTRACTOR IS RESPONSIBLE FOR GIVING THIS NOTICE BY CALLING "IOWA ONE CALL" AT (800) 292-8989 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION.

TICKET # : _____



GREAT LAKES/ATLANTIC REGIONAL OFFICE
7322 NEWMAN BOULEVARD, BUILDING 2, STE. 200
DEXTER, MICHIGAN 48130
(734) 623-2000
www.ducks.org



AFFIX SEAL: DUCKS UNLIMITED, INC.
ON: _____

COVER SHEET
KOS952935D
KOSSUTH COUNTY
IOWA

Revision	By	Date	Revisions
0	A.S.	04-22-2025	FINAL PLANS

IA-340-11 MANSKE C001 - COVER - MLH
DESIGNED BY: A.S.
DRAWN BY: M.L.H.
SURVEYED BY: A.B. & A.S.
REVIEWER: T.P.
DATE: 04-28-2025
PROJECT NUMBER: US-IA-340-11
C001

NOT FOR CONSTRUCTION

C:\Users\aschippers\Documents\Iowa 02_C3D Projects\Iowa 340-2 CREP Projects\KOSKUTH MANSKE 340-11\C3D DRAWING\IA-340-11 MANSKE C001 - COVER - MLH.dwg, 6/19/2025 11:36 AM, Andrew Schippers, SPECIFICATIONS QUANTITIES & NOTES, None

BIDDING NOTES:

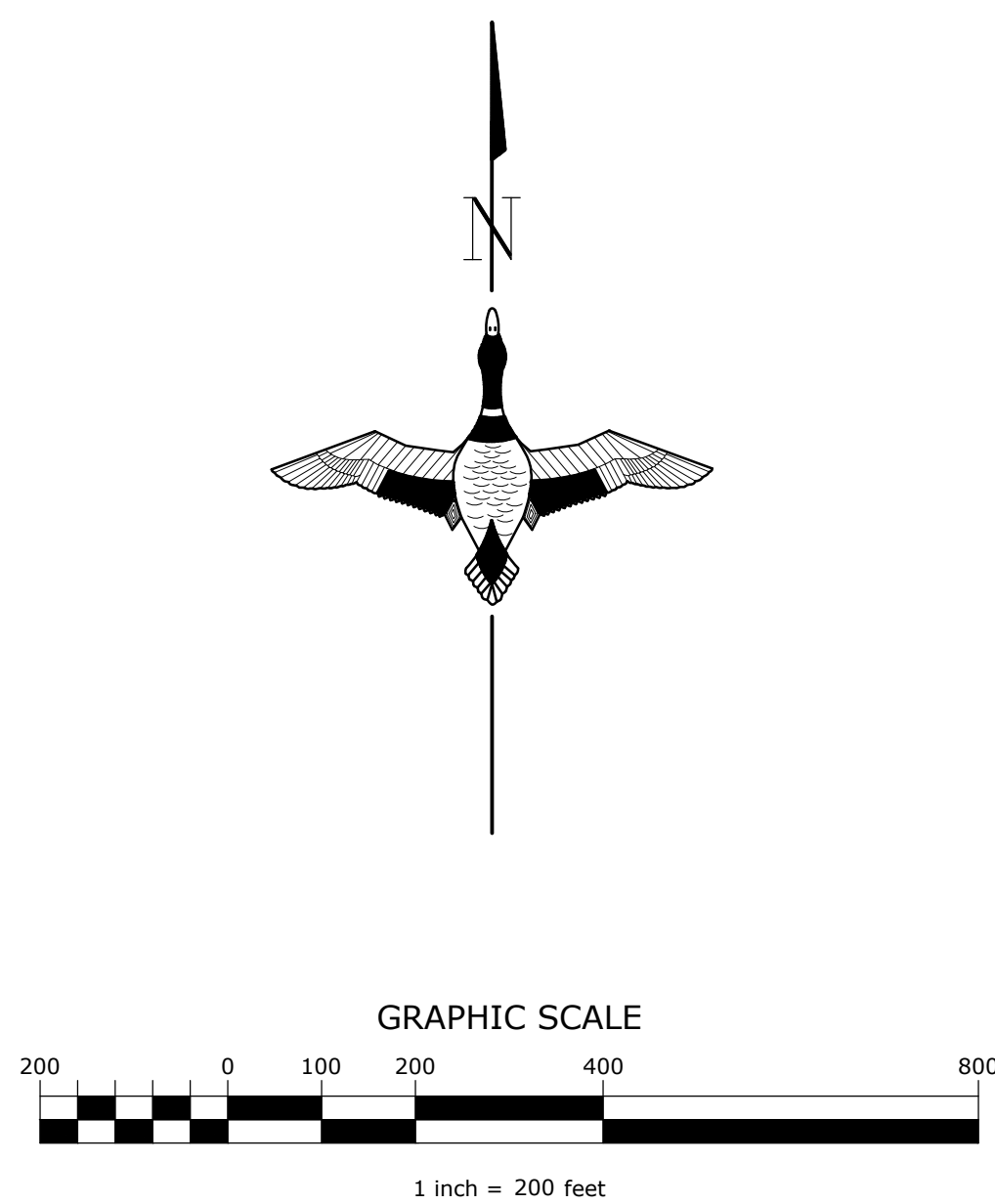
- ### CONSTRUCTION NOTES:

- ## NRCS SPECIFICATIONS:

ADDITIONAL NOTES:

- | | | | | | | | |
|--|--|--|--|--|--|--|--|
| <p style="text-align: center;"> SPECIFICATIONS, QUANTITIES, &
NOTES
 KOS952935D
 KOSSUTH COUNTY
 IOWA </p> | | | | <p style="text-align: center;"> GREAT LAKES/ATLANTIC REGIONAL OFFICE
 7322 NEWMAN BOULEVARD, BUILDING 2, STE. 200
 DEXTER, MICHIGAN 48130
 (734) 623-2000
 www.ducks.org </p> | | | |
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| <p style="text-align: center;"> ON: </p> | | | | <p style="text-align: center;"> ON: </p> | | | |
| <p style="text-align: center;"> DATE:
 04-28-2025 </p> | | | | <p style="text-align: center;"> DATE:
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 MLH </p> | | | | <p style="text-align: center;"> CAD FILE:
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 MLH </p> | | | |
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| <p style="text-align: center;"> REVIEWER: T.P. </p> | | | | <p style="text-align: center;"> REVIEWER: T.P. </p> | | | |
| <p style="text-align: center;"> DATE:
 04-28-2025 </p> | | | | <p style="text-align: center;"> DATE:
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 US-1A-340-11 </p> | | | |
| <p style="text-align: center;"> C002 </p> | | | | <p style="text-align: center;"> C002 </p> | | | |

C:\Users\schippers\Documents\Iowa 02_C3D Projects\IA-340-2 CREP Projects\IA-340-11\C3D_DRAWING\IA-340-11 MANSKE C051 - TOPO SURVEY - MLH.dwg, 6/19/2025 9:28 AM, Andrew Schippers, TOPOGRAPHY & EXISTING CONDITIONS, Note



SPOT ELEVATION
HORIZONTAL & VERTICAL CONTROL
SOIL BORING

HORIZONTAL CONTROL
Coordinates are NAD 83, Iowa State Plane North Zone 1401, and units of measurement are in U.S. Survey Feet. Raw data was collected for 10.5 hours on March 02, 2023 using a Trimble R12 GPS base receiver. Coordinates are established with the NGS OPUS (National Geodetic Survey, Online Positioning User Service) solution for the occupied control point 1.

VERTICAL CONTROL
Elevations established from with the NGS OPUS solution for the occupied control point number 1. Vertical Datum was observed in NAVD 88, using GEOID18.

Control Point 1 - Set capped rebar
N: 3829631.59
E: 4726585.33
ELEV: 1130.22

March 1, 2023 - DU started topographic survey of bottomland areas.
March 2, 2023 - DU performed the remaining topographic survey including linework from the culvert on 170th Street to the Des Moines River and linework around existing wetlands. Some topographic survey completed within the oxbow area.

March 7, 2023 - DU performed topographic survey within the oxbow area and line work around the oxbow and along the Des Moines River. Additional topographic survey was completed in the swale from 120th to the March 1, 2023 topographic survey.

LIDAR was used to fill in areas not covered by the topographic survey.

CONTROL POINT DATA				
POINT #	ELEVATION	NORTH	EAST	DESCRIPTION
1	1130.22	3829631.59	4726585.33	SET CAPPED REBAR
3	1134.74	3829710.23	4724723.11	SET CAPPED REBAR
4	1100.89	3828257.43	4724734.83	SET CAPPED REBAR

TEST PIT SOIL DATA					
LOCATION	TRENCH #1	TRENCH #2	TRENCH #3	TRENCH #4	TRENCH #5
TOP	TOPSOIL W/ 16" ROOT ZONE	TOPSOIL W/ 12" ROOT ZONE	TOPSOIL W/ 12" ROOT ZONE	18" TOPSOIL	TOPSOIL MIX /DEPOSITS 6"-10" ROOT ZONE
ELEV. RANGE	1102.51-1104.2 4	1097.65-1100.60	1099.30-1100.03	1099.20-1100.40	1099.30-1100.86
MIDDLE	DARK BROWN SOIL/SILT (BREAKS APART W/ ADDED WATER)	LIGHT BROWN CLAY MIX	DARK BROWN SOIL/CLAY, DRY BUT COHESIVE WITH ADDED WATER	DARK BROWN TOPSOIL TRANSITION	BROWN TOPSOIL W/SAND & GRIT
ELEV. RANGE	1099.37-1102.51	1093.21-1097.65	1096.07-1099.30	1097.26-1099.20	1096.32-1099.30
BOTTOM	SANDY BROWN SOIL	BLUE CLAY W/ SAND	DARK BROWN/GREY CLAY	DARK BROWN COHESIVE SOIL	LIGHTER BROWN SOIL W/ MORE SAND CONTENT
ELEV. RANGE	1096.11-1099.37	1091.83-1093.21	1093.03-1096.07	1092.56-1097.26	1094.02-1096.32

ON:

TOPOGRAPHY & EXISTING
CONDITIONS
KOS952935D
KOSSUTH COUNTY
IOWA

By	A.S.	-	-	-	-	-
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Date
4-22-2025
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Revisions

PL PLANS

Sheet	-	FIN	-	-	-	-	-
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	-						
	-						
	-						
	-						

Revision	0	-	-	-	-	-
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CAD FILE:
IA-340-11 MANSKE C051 - TOPO
SURVEY - MLH

DESIGNED BY: A.S.

DRAWN BY: M.L.H.

SURVEYED BY: A.B. & A.S.

REVIEWER: T.P.

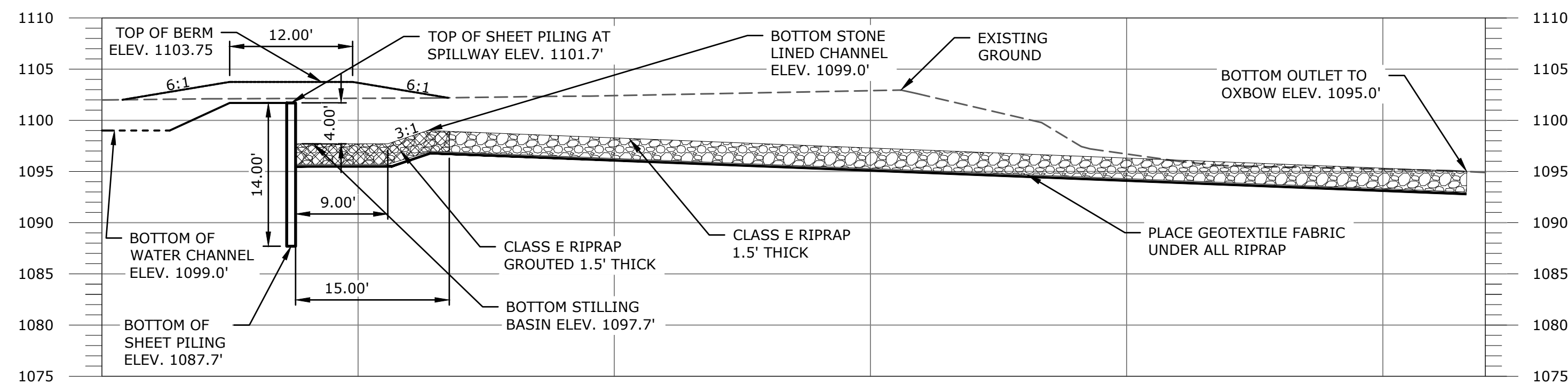
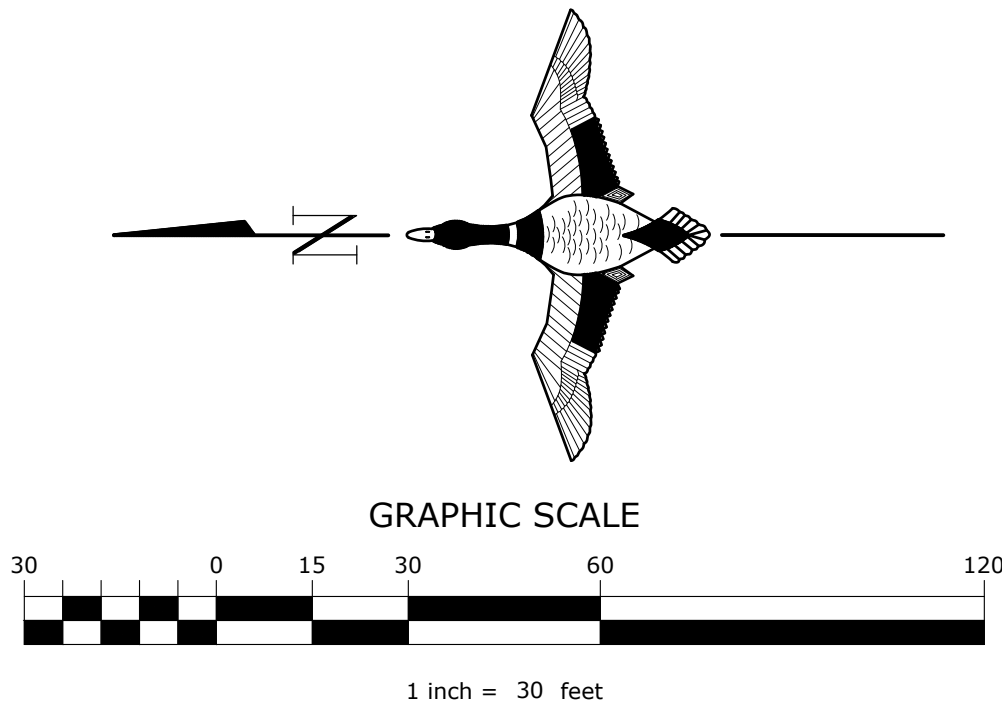
DATE:
04-28-2025

PROJECT NUMBER:

C051

NOT FOR CONSTRUCTION

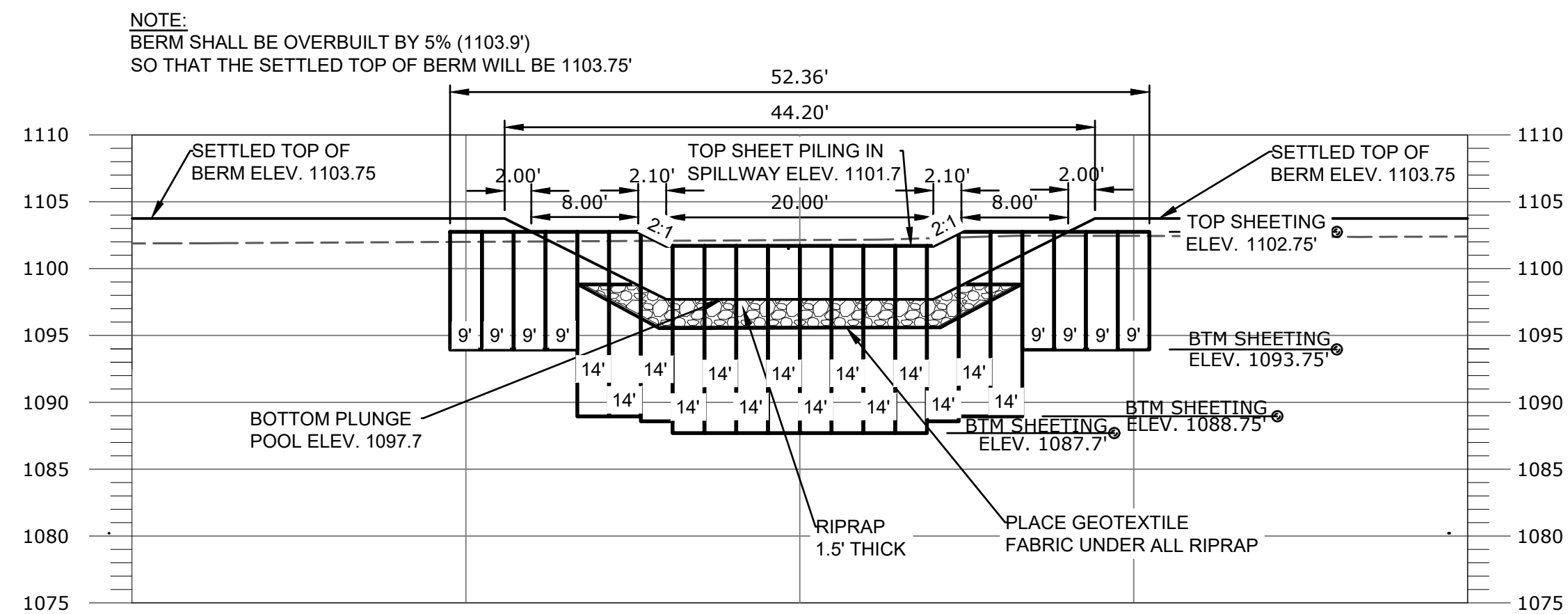
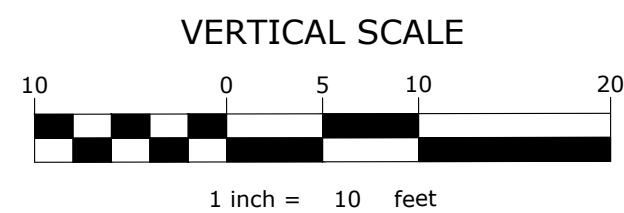
C:\Users\mhaase\Documents\Projects\Kossuth\340-2 CREP Projects\IA-340-11\C3D DRAWING\IA-340-11 MANSKE C201 - PROFILES - MLH.dwg, 6/18/2025 2:57 PM, Michael Haase, PRIMARY SPILLWAY & DRAW DOWN PLAN, Note



HORIZONTAL SCALE

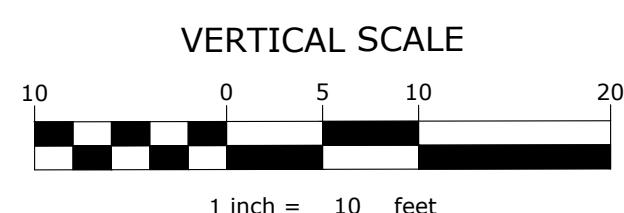
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1 inch = 10 feet



HORIZONTAL SCALE

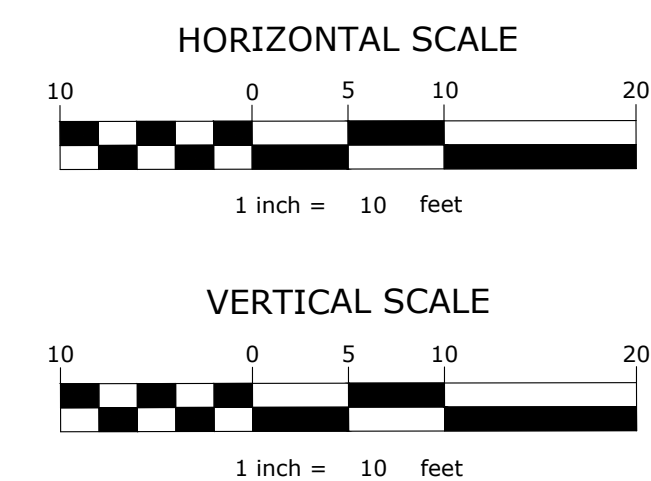
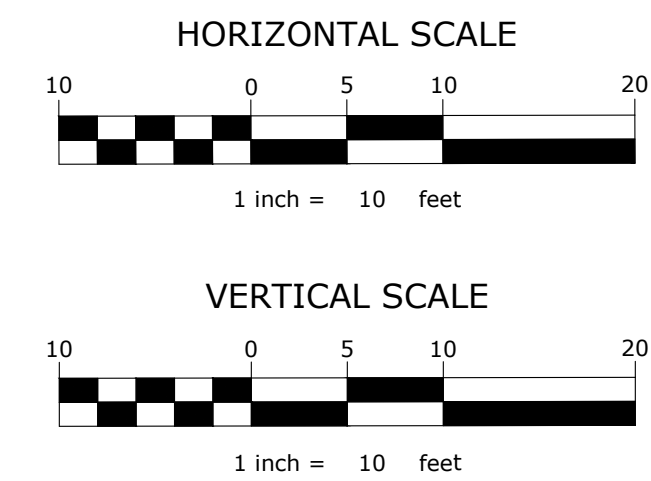
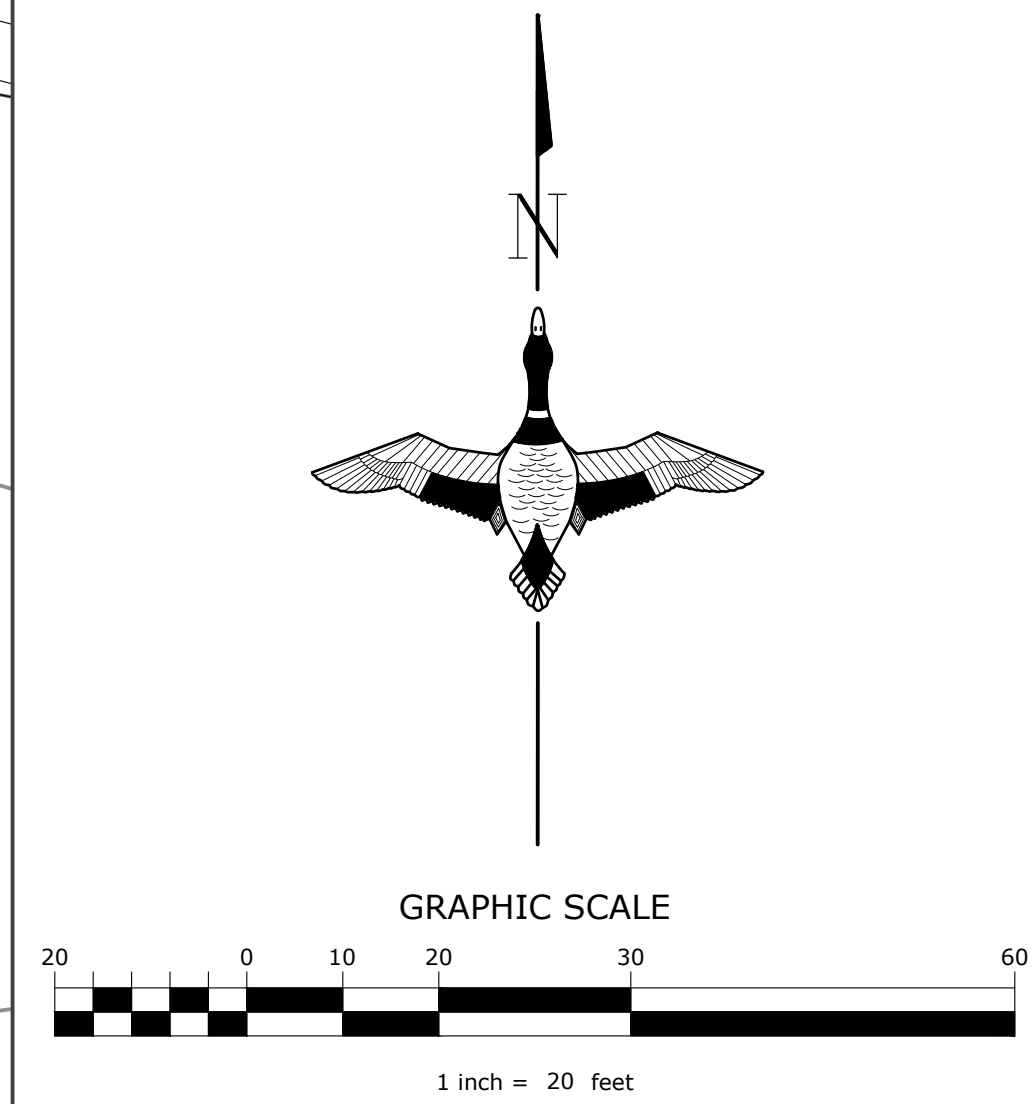
1 inch = 10 feet



PRIMARY SPILLWAY & DRAW DOWN PLAN KOS952935D KOSSUTH COUNTY IOWA				GREAT LAKES/ATLANTIC REGIONAL OFFICE 7322 NEWMAN BOULEVARD, BUILDING 2, STE. 200 DEXTER, MICHIGAN 48130 (734) 623-2000 www.ducks.org DUCKS UNLIMITED			
AFFIX SEAL: DUCKS UNLIMITED, INC ON:							
Revisions		Date		By		Sheet	
0		4-22-2025		A.S.		FINAL PLANS	
-		-		-		-	
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-		-		-		-	
CAD FILE: 1A-340-11 MANSKE C201 - PROFILES - MLH							
DESIGNED BY: A.S.							
DRAWN BY: M.L.H.							
SURVEYED BY: A.B. & A.S.							
REVIEWER: T.P.							
DATE: 04-28-2025							
PROJECT NUMBER: US-1A-340-11							
C201							

NOT FOR CONSTRUCTION

1. ALL RIPRAP SHALL BE PLACED OVER NON-WOVEN GEOTEXTILE FABRIC.
2. CONTRACTOR SHALL PROVIDE MANUFACTURER SHOP DRAWINGS FOR TURF REINFORCING MAT SHOWING ANCHORAGE LOCATION, SPACING, AND LAP CONFIGURATION

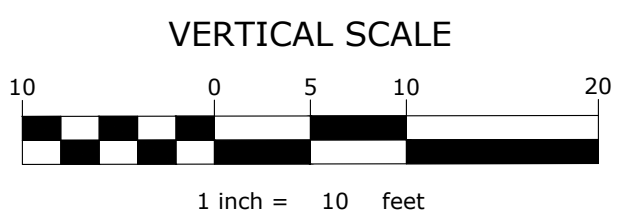
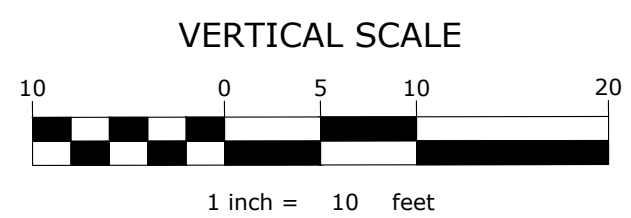
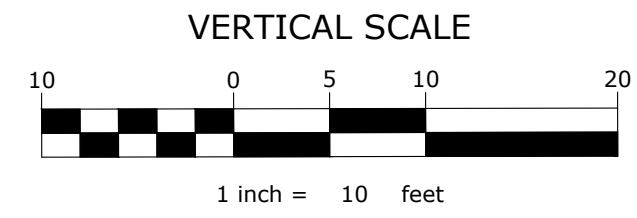


AFFIX SEAL: DUCKS UNLIMITED, INC.

AUXILIARY SPILLWAY PLAN
KOS952935D
KOSSUTH COUNTY
IOWA

	Revision	Sheet	Revisions	Date	By
	0	-	FINAL PLANS	4-22-2025 A.S.	-
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CAD FILE: IA-340-11 MANSKE C201 - PROFILES - MLH					
DESIGNED BY: A.S.					
DRAWN BY: M.L.H.					
SURVEYED BY: A.B. & A.S.					
REVIEWER: T.P.					
DATE: 04-28-2025					
PROJECT NUMBER: US-IA-340-11					
C202					

NOT FOR CONSTRUCTION



AFFIX SEAL: DUCKS UNLIMITED, INC.

WETLAND PROFILES
KOS952935D
KOSSUTH COUNTY
IOWA

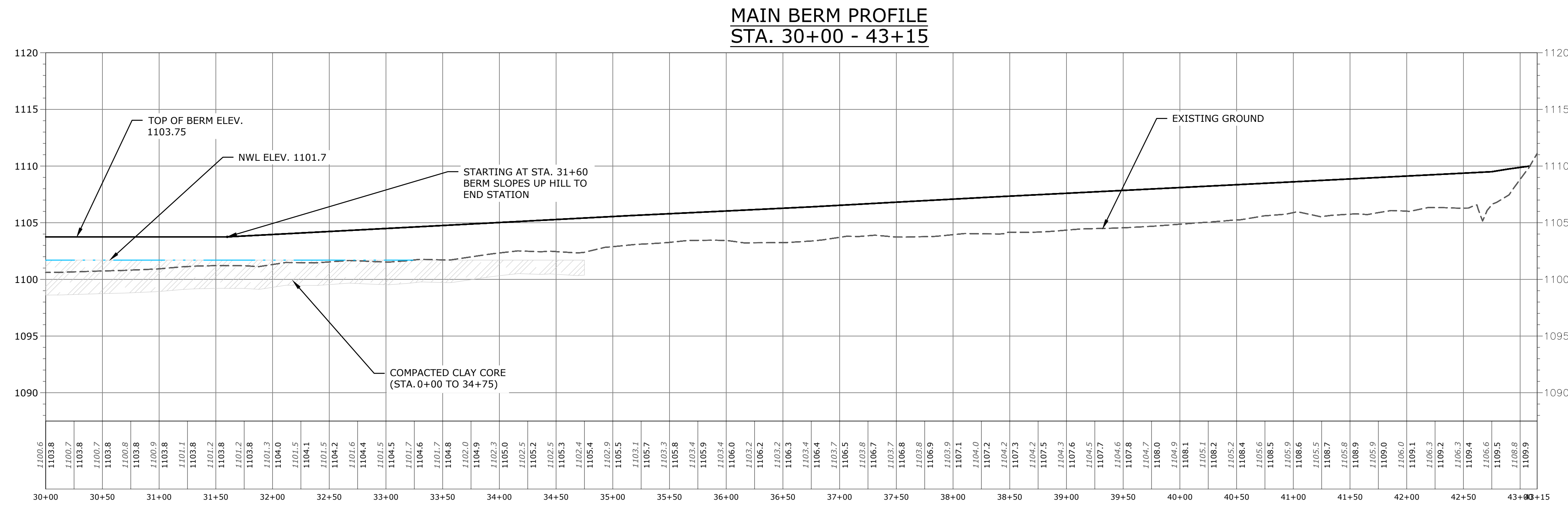
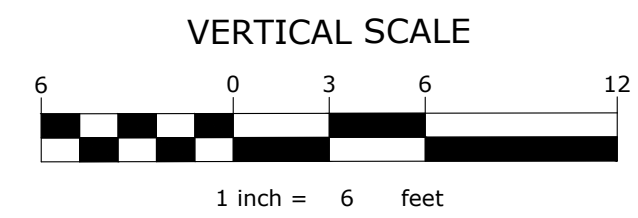
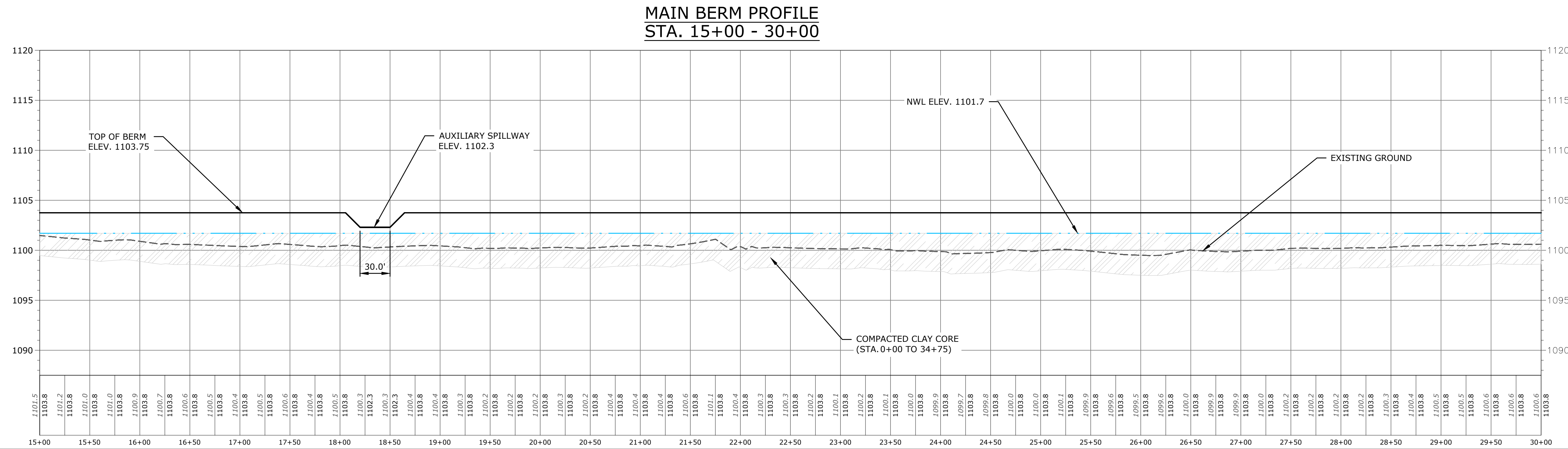
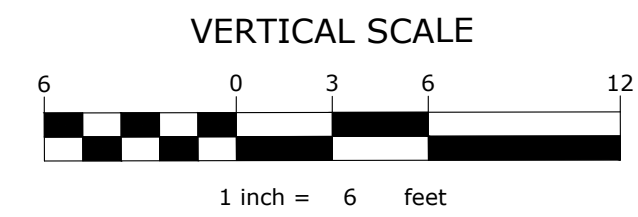
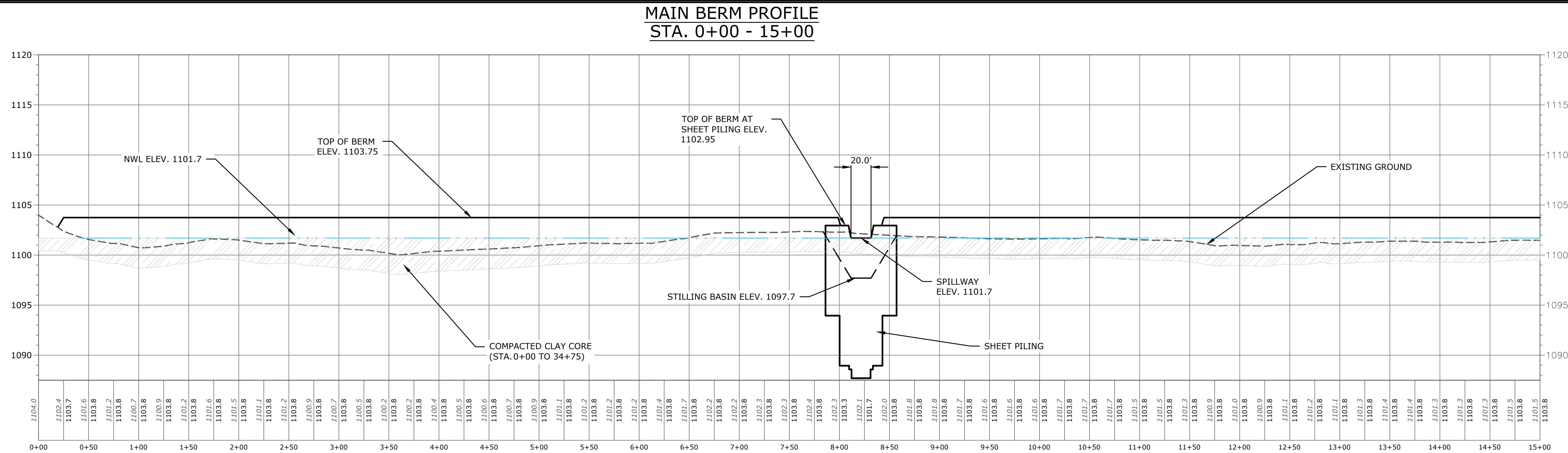
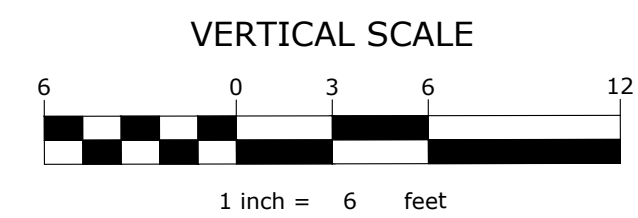
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DESIGNED BY: A.S.	-	-	-	-	-
DRAWN BY: M.L.H.	-	-	-	-	-
SURVEYED BY: A.B. & A.S.	-	-	-	-	-
REVIEWER: T.P.	-	-	-	-	-

DATE:
04-28-2025

PROJECT NUMBER:
US-IA-340-11

C203

NOT FOR CONSTRUCTION



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7322 NEWMAN BOULEVARD, BUILDING 2, STE. 200
DEXTER, MICHIGAN 48130
(734) 623-2000
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DUCKS UNLIMITED

AFFIX SEAL: DUCKS UNLIMITED, INC.

ON: _____

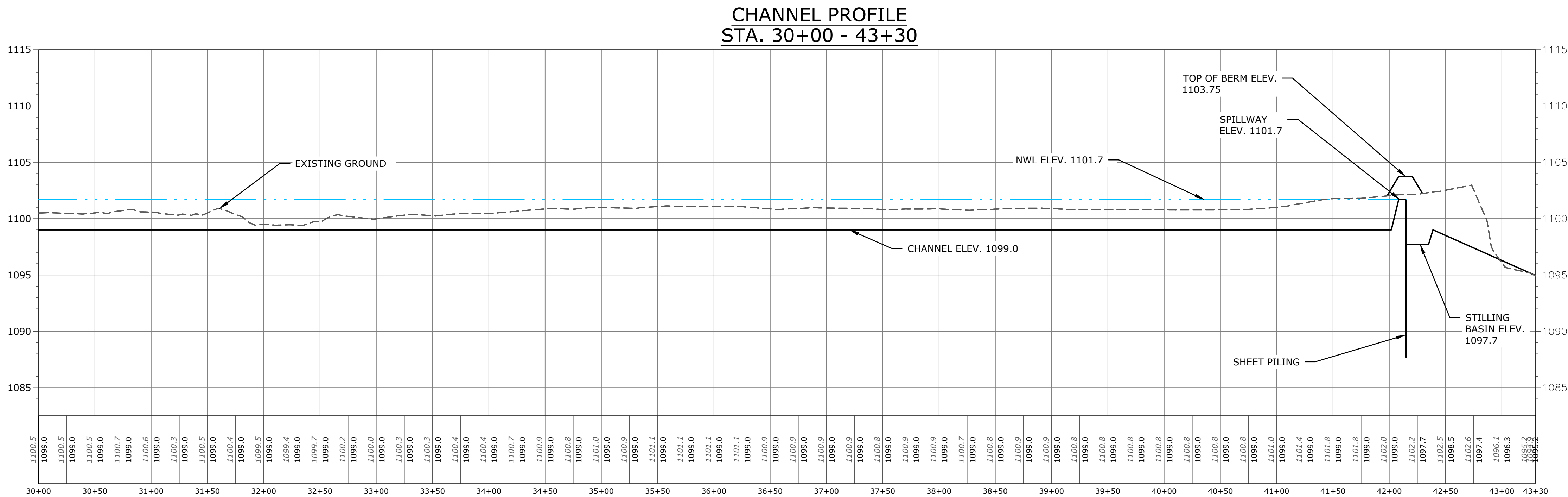
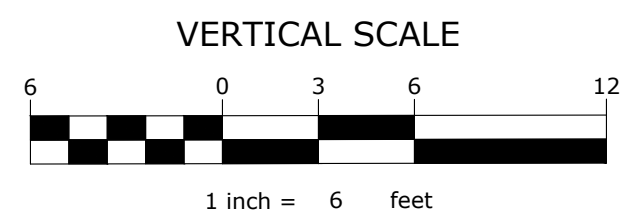
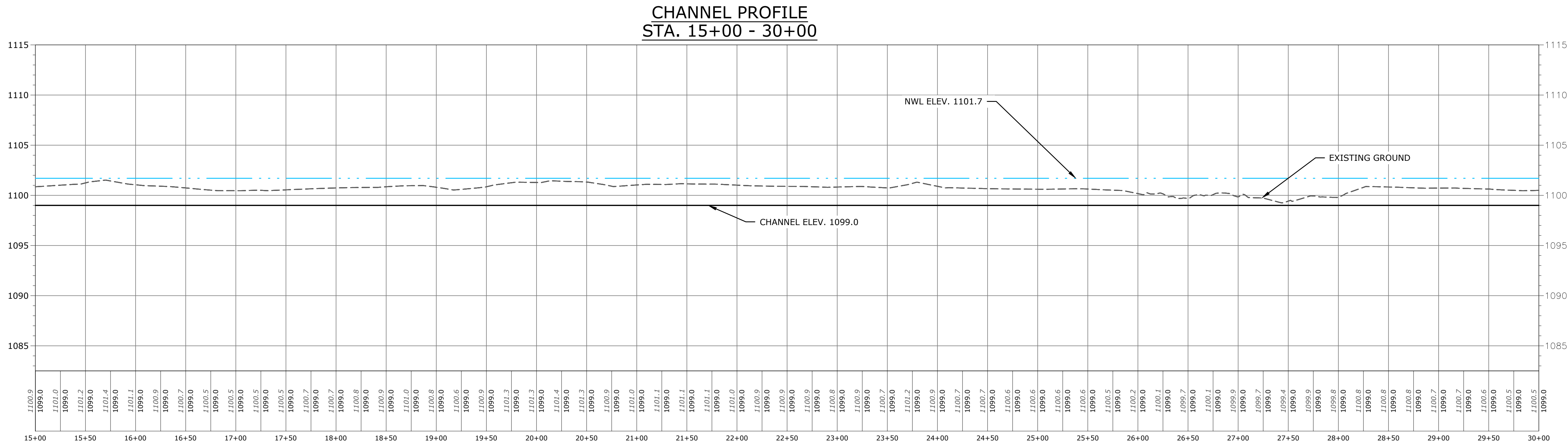
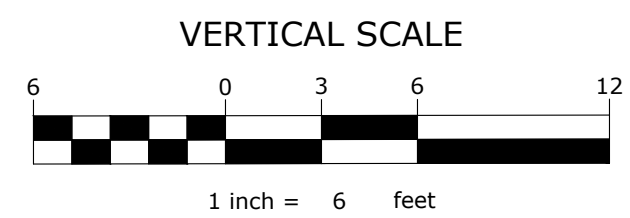
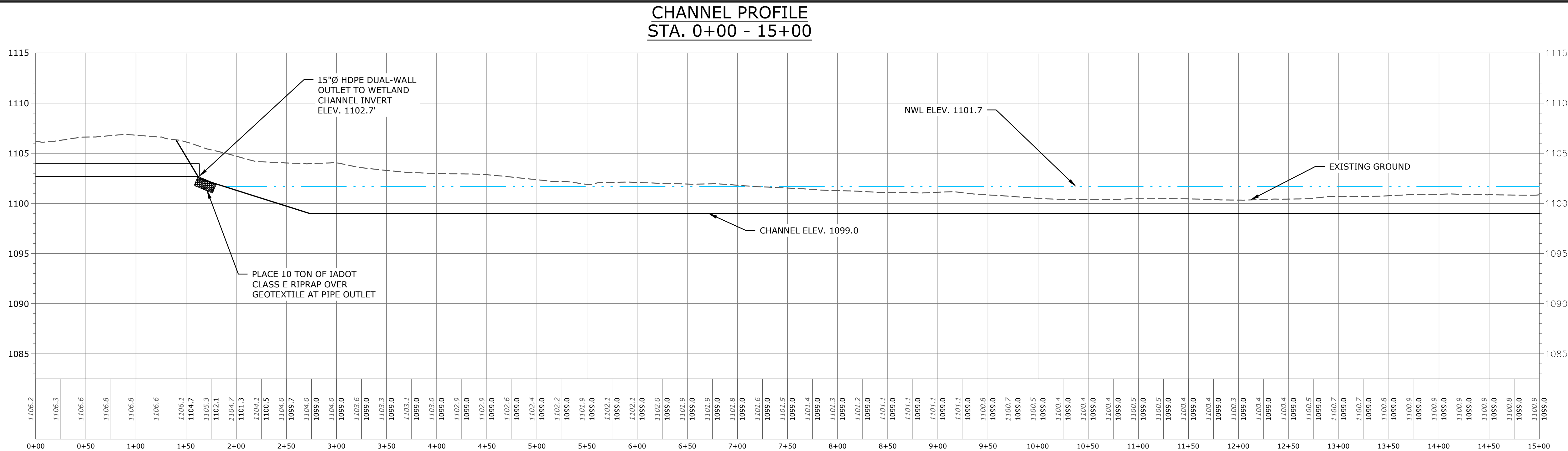
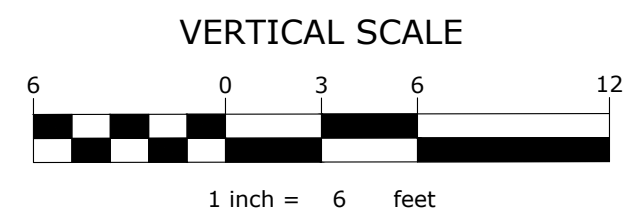
ON:

MAIN BERM PROFILES
KOS952935D
KOSSUTH COUNTY
IOWA

Revision	Sheet	Revisions	Date	By
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-	-	-	-	-
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-	-	-	-	-
CAD FILE: IA-340-11 MANSKE C201 - PROFILES - MLH DESIGNED BY: A.S. DRAWN BY: M.L.H. SURVEYED BY: A.B. & A.S. REVIEWER: T.P. DATE: 04-28-2025 PROJECT NUMBER: US-IA-340-11 C204				

C204

NOT FOR CONSTRUCTION



GREAT LAKES/ATLANTIC REGIONAL OFFICE

7322 NEWMAN BOULEVARD, BUILDING 2, STE. 200
DEXTER, MICHIGAN 48130
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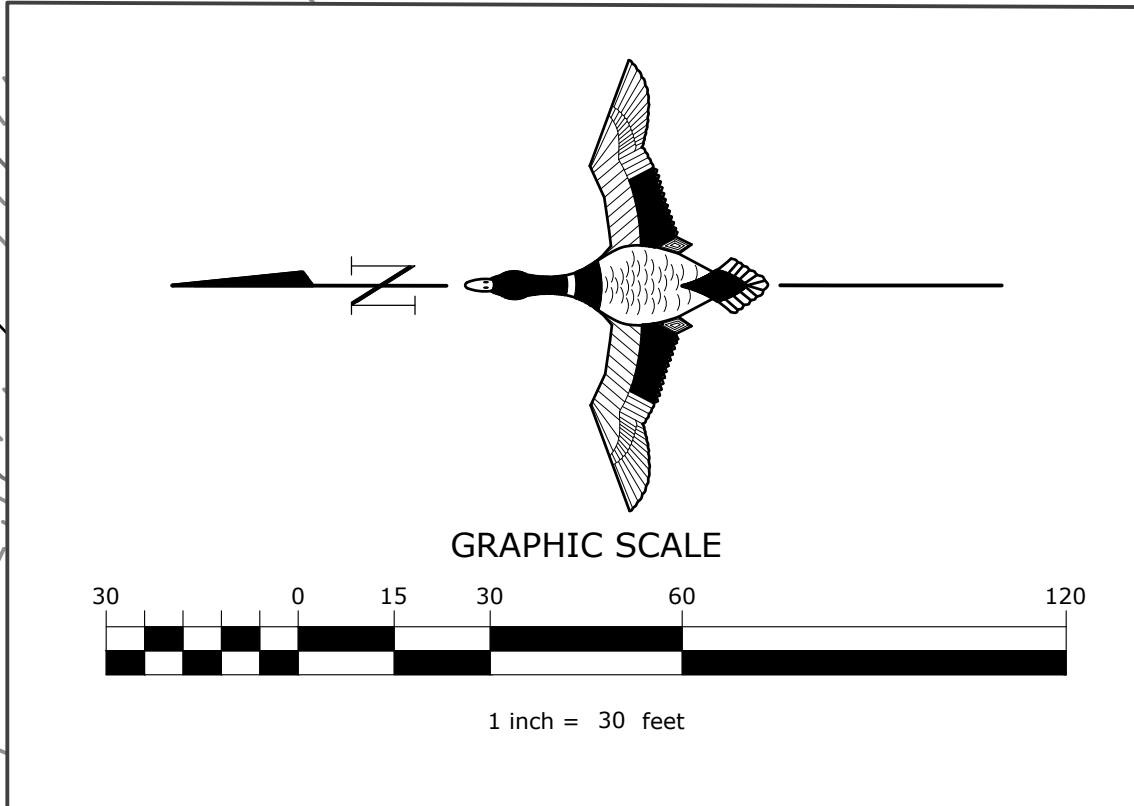
AFFIX SEAL: DUCKS UNLIMITED, INC.

CHANNEL PROFILES
KOS952935D
KOSSUTH COUNTY
IOWA

[illegible]

NOT FOR CONSTRUCTION

Iowa - Iowa 02_C3D Projects\IA-340-2 CREP PROJECTS\KOSSUTH\MANKE 340-11\C3D_DRAWING\IA-340-11 MANKE C201 - PROFILES - MLH.dwg, 6/18/2025 3:02 PM, Michael Haase, RIPRAP RIFFLE DIVERSION PLAN & PROFILE, None



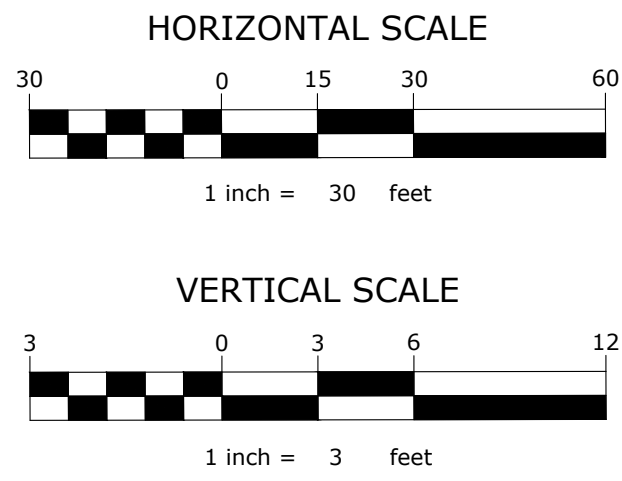
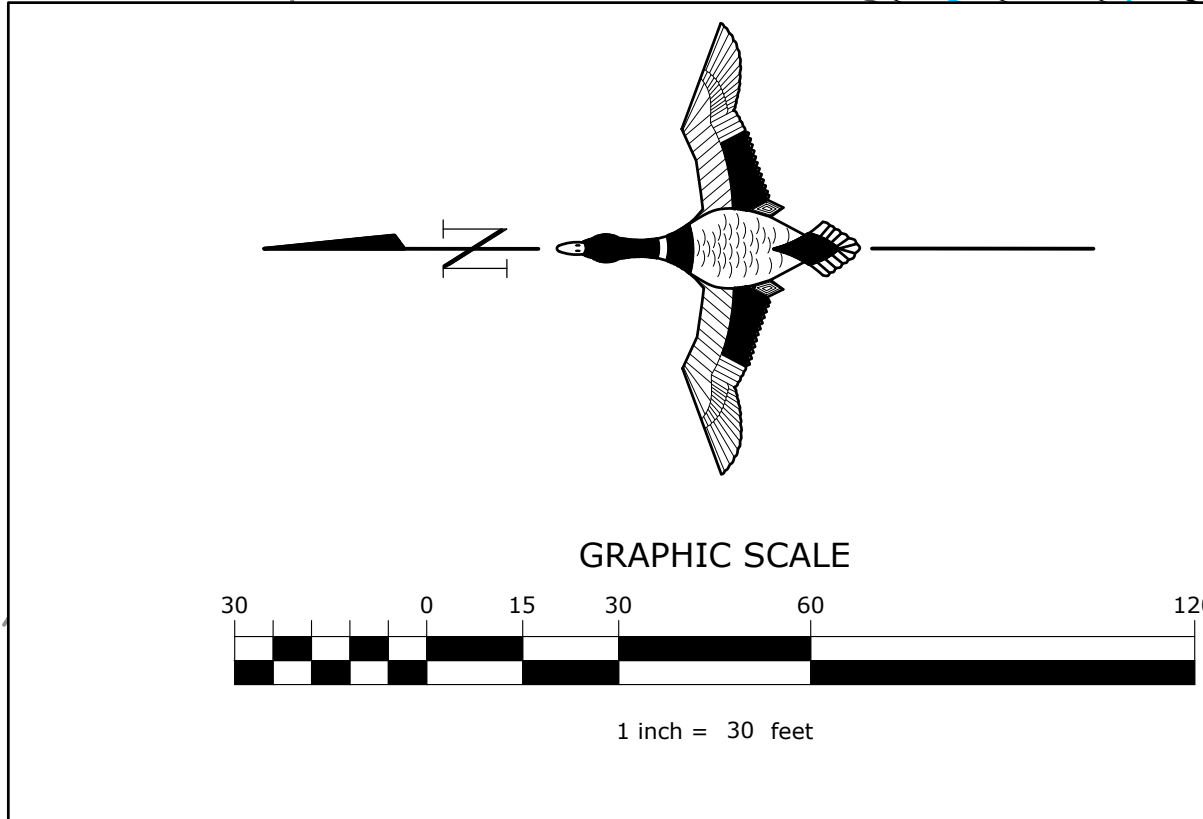
AFFIX SEAL: DUCKS UNLIMITED, INC.

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CAD FILE: IA-340-11 MANSKE C20 PROFILES - M.L.H.	
DESIGNED BY: A.S.	
DRAWN BY: M.L.H.	
SURVEYED BY: A.B. & A.S.	
REVIEWER: T.P.	
DATE: 04-28-2025	
PROJECT NUMBER: US-IA-340-11	
C206	

NOT FOR CONSTRUCTION

Iowa - Iowa02_C3D Projects\IA-340-2 CREP PROJECTS\KOSSUTH MANSKE 340-11\C3D_DRAWING\IA-340-11 MANSKE C201 - PROFILES - MLH.dwg, 6/18/2025 3:04 PM, Michael Haase, 15 INCH HDPE PLAN & PROFILE, None

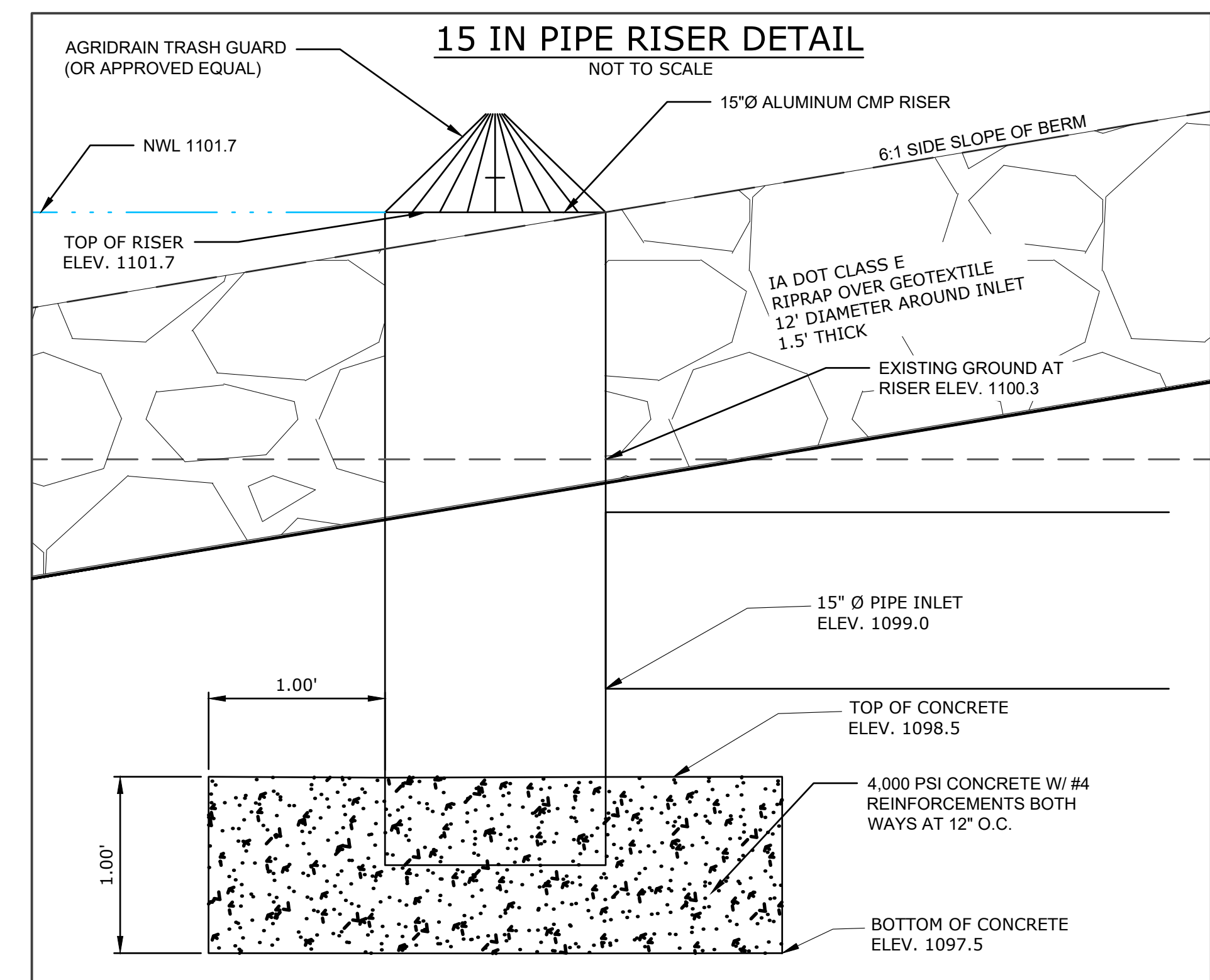
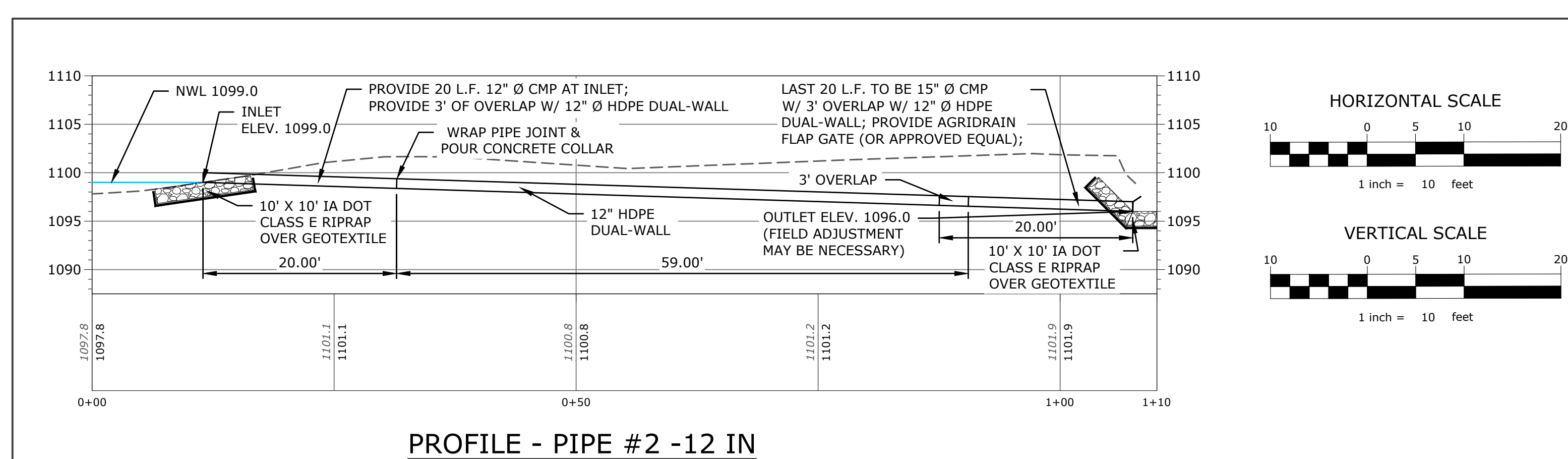
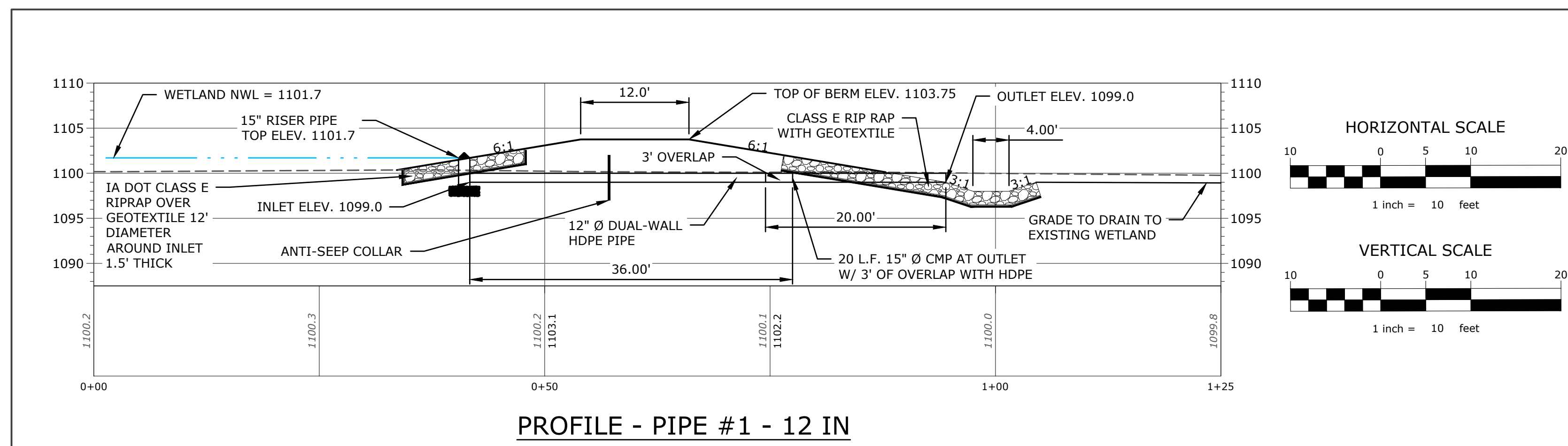
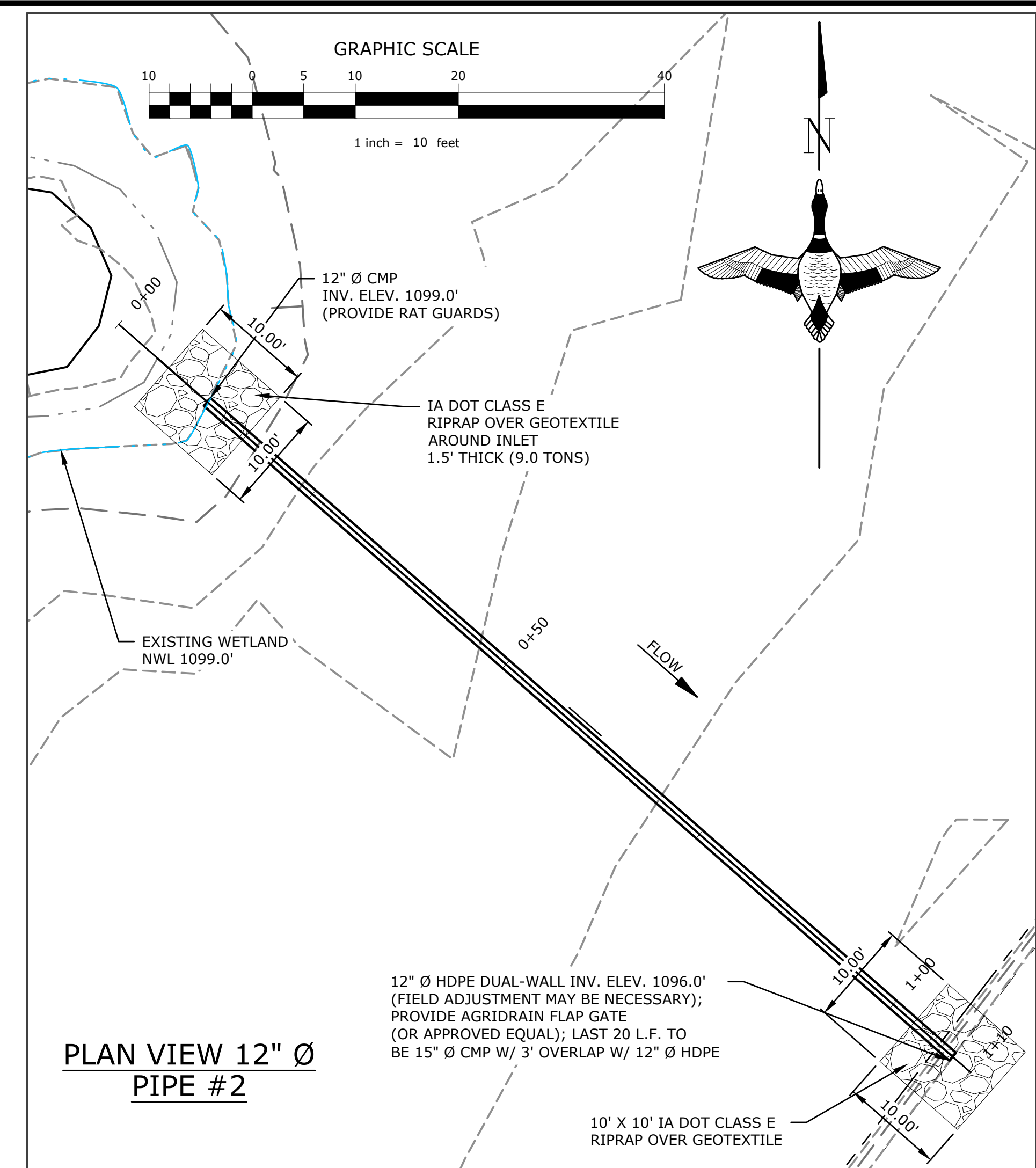
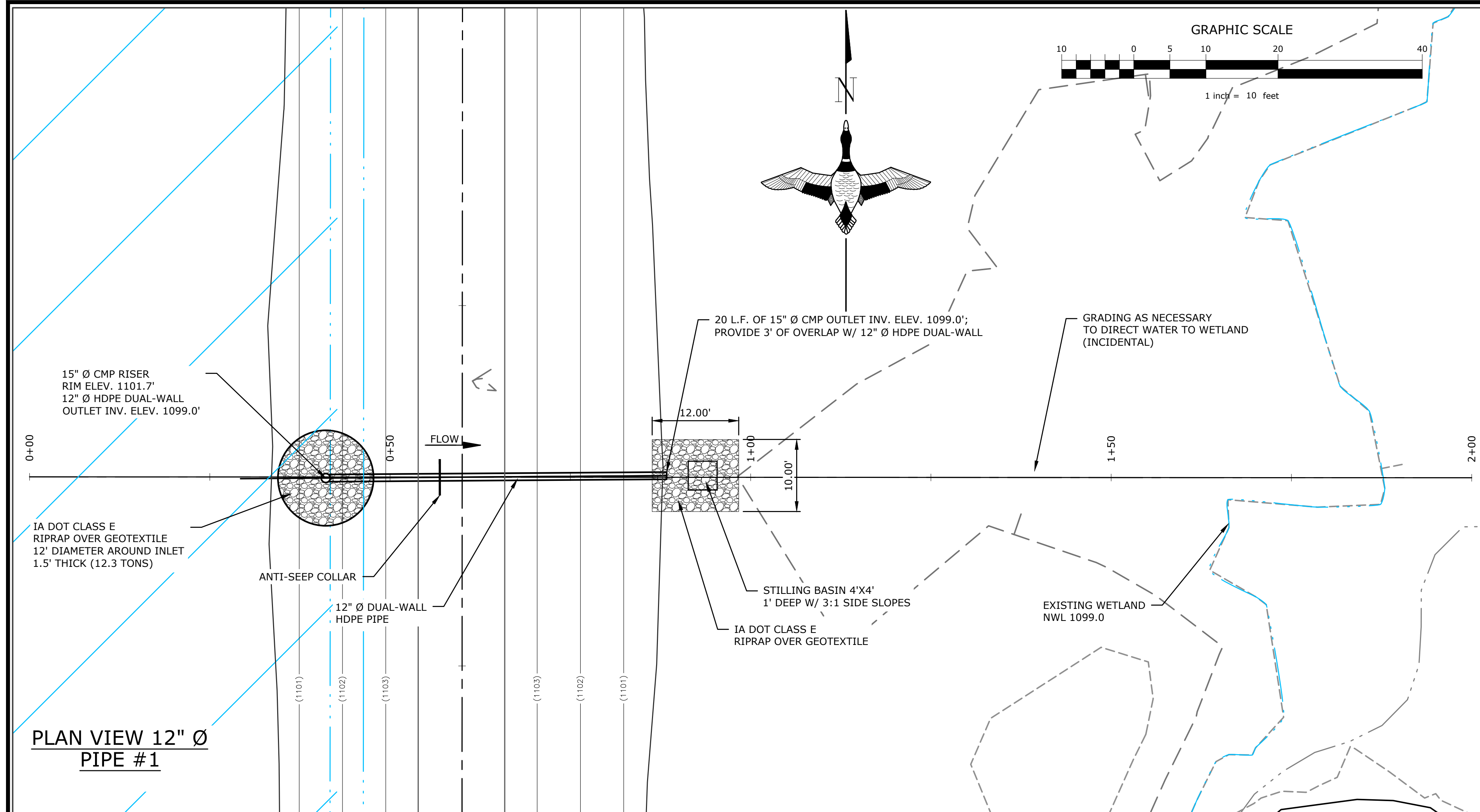
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GREAT LAKES/ATLANTIC REGIONAL OFFICE
7322 NEWMAN BOULEVARD, BUILDING 2, STE. 200
DEXTER, MICHIGAN 48130
(734) 623-2000
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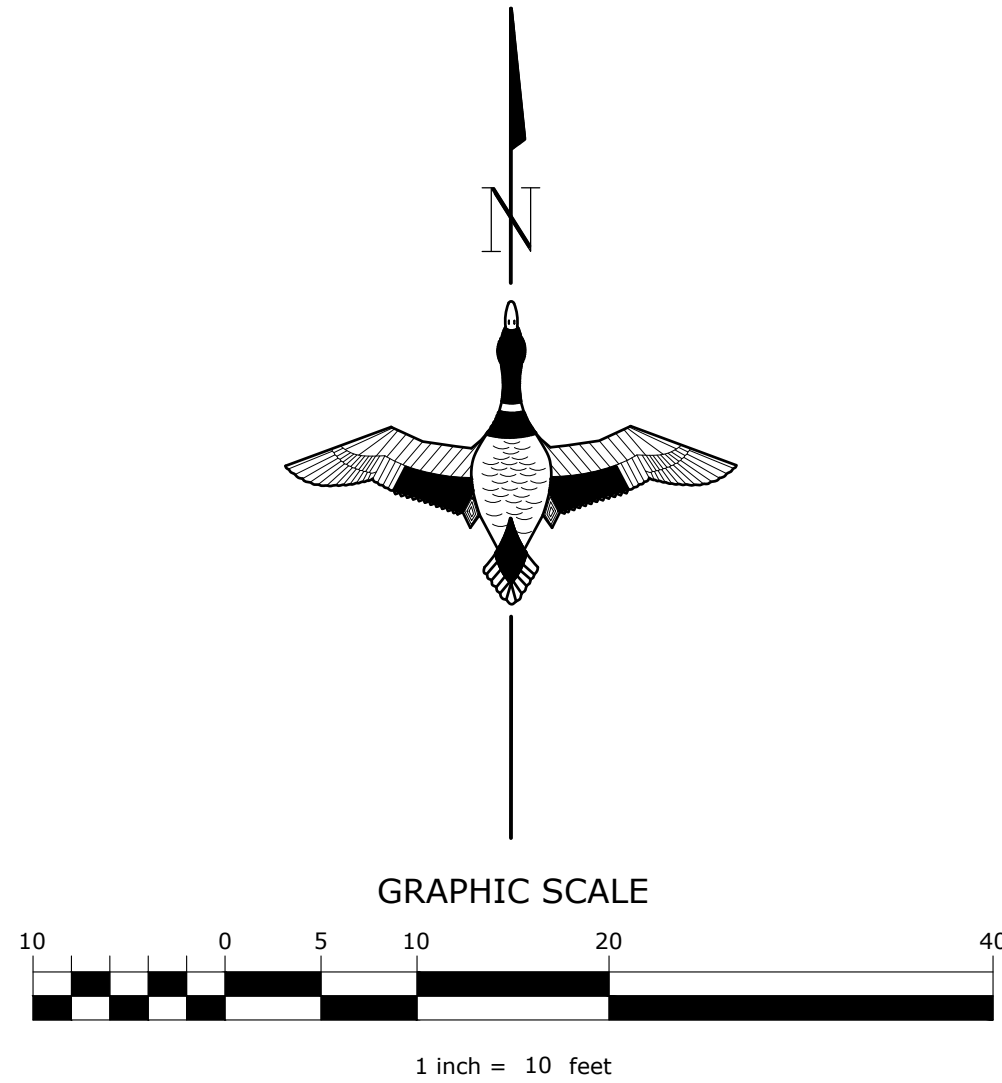
15 INCH HDPE PLAN & PROFILE
KOS952935D
KOSSUTH COUNTY
IOWA

C207



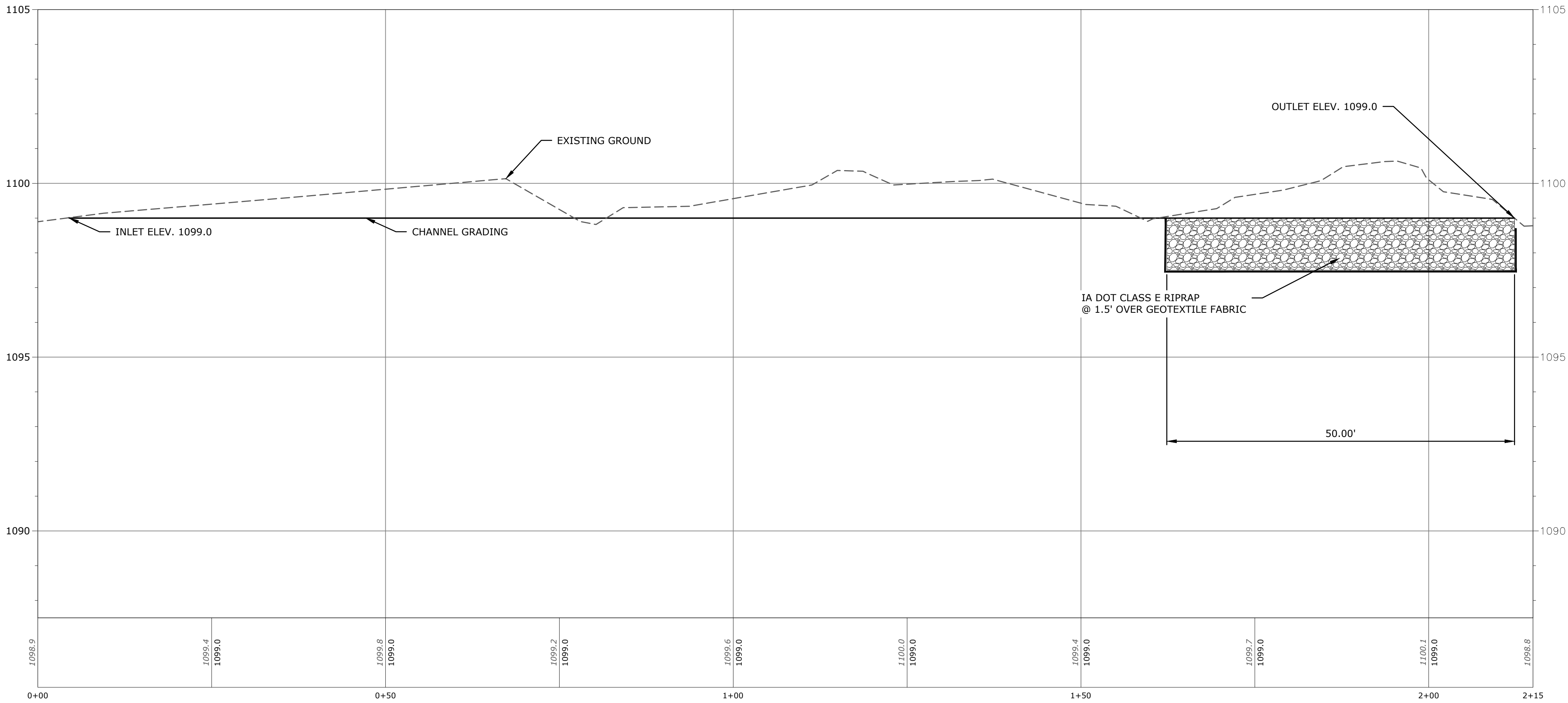
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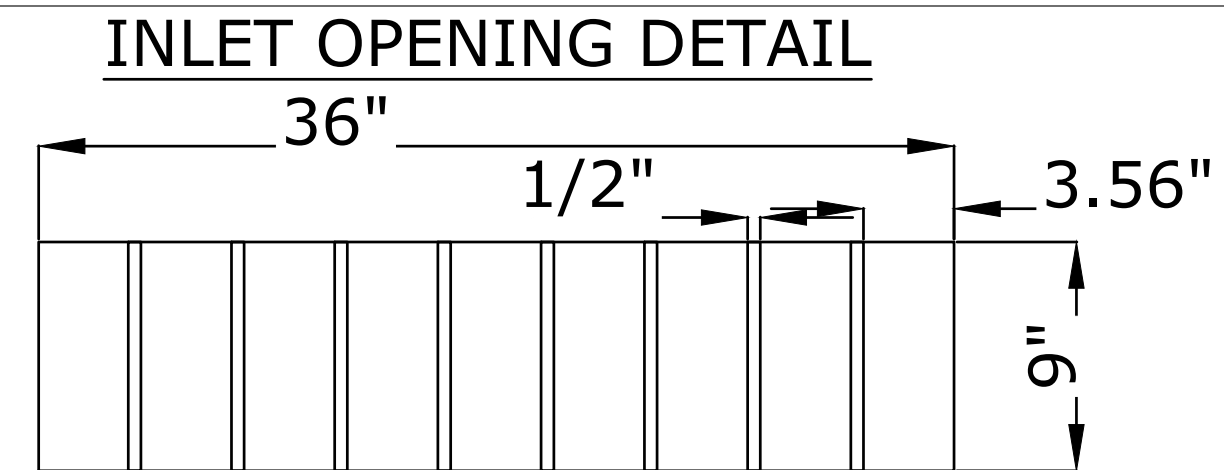
C:\Users\mhasee\Documents\Projects\KOS952935D\KOS952935D-MLH.dwg, 6/18/2025 3:07 PM, Michael Haase, OXBOW SPILLWAY PLAN & PROFILE, None



GRADING TO 1099.0' TO FACILITATE
FLOW FROM OXBOW TO SPILLWAY
(SEE PROFILE BELOW)

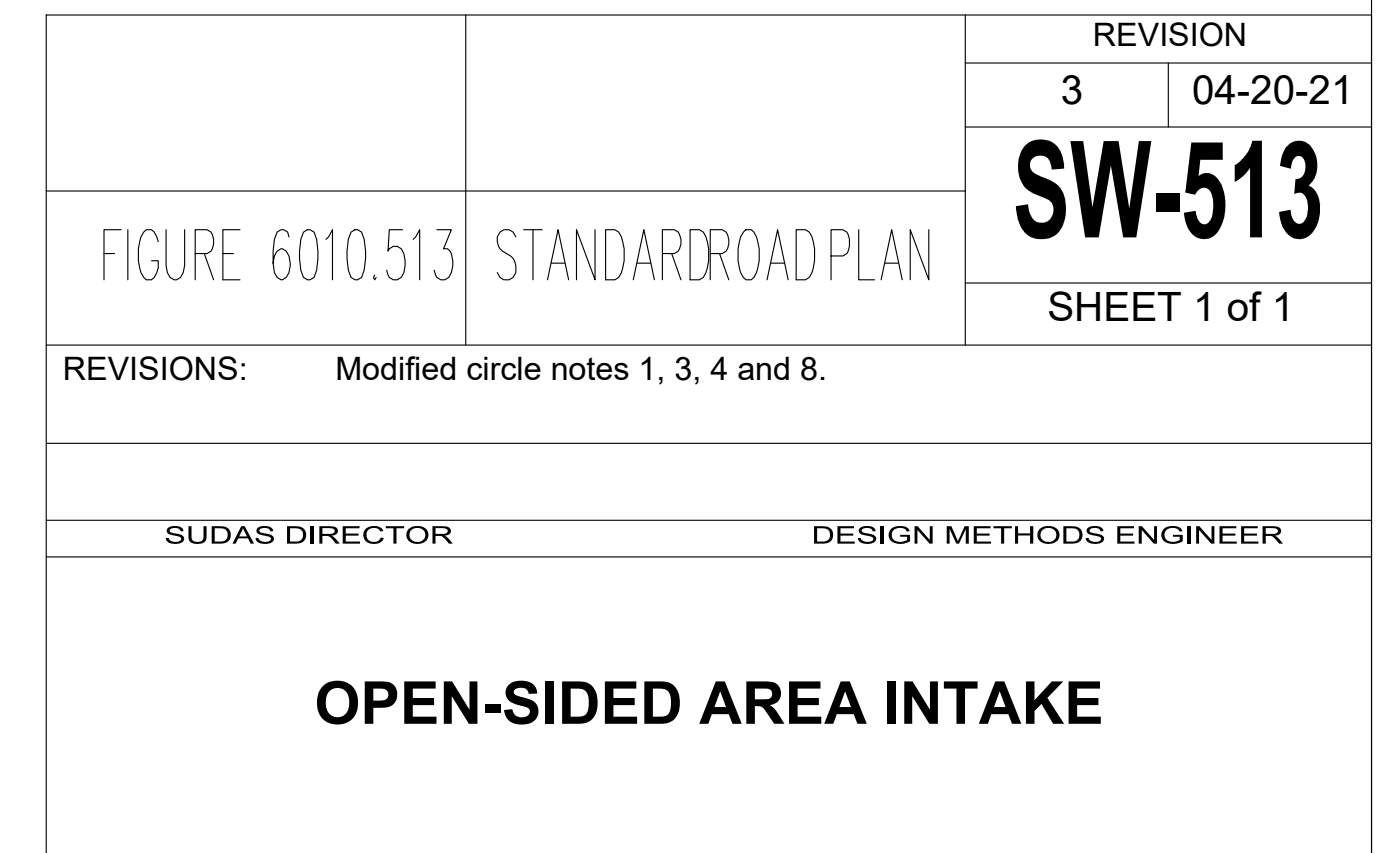
OXBOW SPILLWAY



[illegible]

ADJACENT WALLS MAY HAVE DIFFERENT WIDTHS BASED UPON
PIPE CONFIGURATION, BUT STRUCTURE MUST BE RECTANGULAR.

- ① CONSTRUCT INLET OPENINGS WITH 15 INCH #4 EPOXY COATED BARS AT 3.8 INCHES ON CENTER. (TO PROVIDE 8 BARS PER SIDE W/ 3.56" OPENING DIMENSIONS BETWEEN BARS). EMBED BARS A MINIMUM OF 3 INCHES INTO WALLS AND TOP AT ALL OPENINGS.
- ② GRADE TO INLET ELEVATION ON OPEN SIDES. GRADE TO TOP ELEVATION ON CLOSED SIDES.
- ③ CORNER PIER REQUIRED BETWEEN OPENINGS OF TWO ADJACENT WALLS. EXTEND WALL REINFORCING VERTICALLY THROUGH PIER. INSTALL ONE ADDITIONAL 15 INCH #4 BAR IN PIER.
- ④ CENTER PIER REQUIRED AT CENTER OF ANY INLET OPENING WITH LENGTH OF 5 FEET OR GREATER. EXTEND WALL REINFORCING VERTICALLY THROUGH PIER. INSTALL ONE ADDITIONAL 15 INCH #4 BAR IN PIER.
- ⑤ WALL WIDTHS VARY WITH PIPE DIAMETER. PROVIDE 6 INCHES OF WALL WIDTH (MINIMUM) EACH SIDE OF PIPE OPENING. MINIMUM WALL WIDTH IS 36 INCHES. MAXIMUM WALL WIDTH IS 72 INCHES.
- ⑥ CAST-IN-PLACE BASE SHOWN. IF BASE IS PRECAST INTEGRAL WITH WALLS, THE FOOTPRINT OF BASE IS NOT REQUIRED TO EXTEND BEYOND THE OUTER EDGE OF THE WALLS.
- ⑦ INSTALL FOUR #4 DIAGONAL BARS AT ALL PIPE OPENINGS.
- ⑧ 12 INCH MINIMUM WALL HEIGHT ABOVE ALL PIPES.



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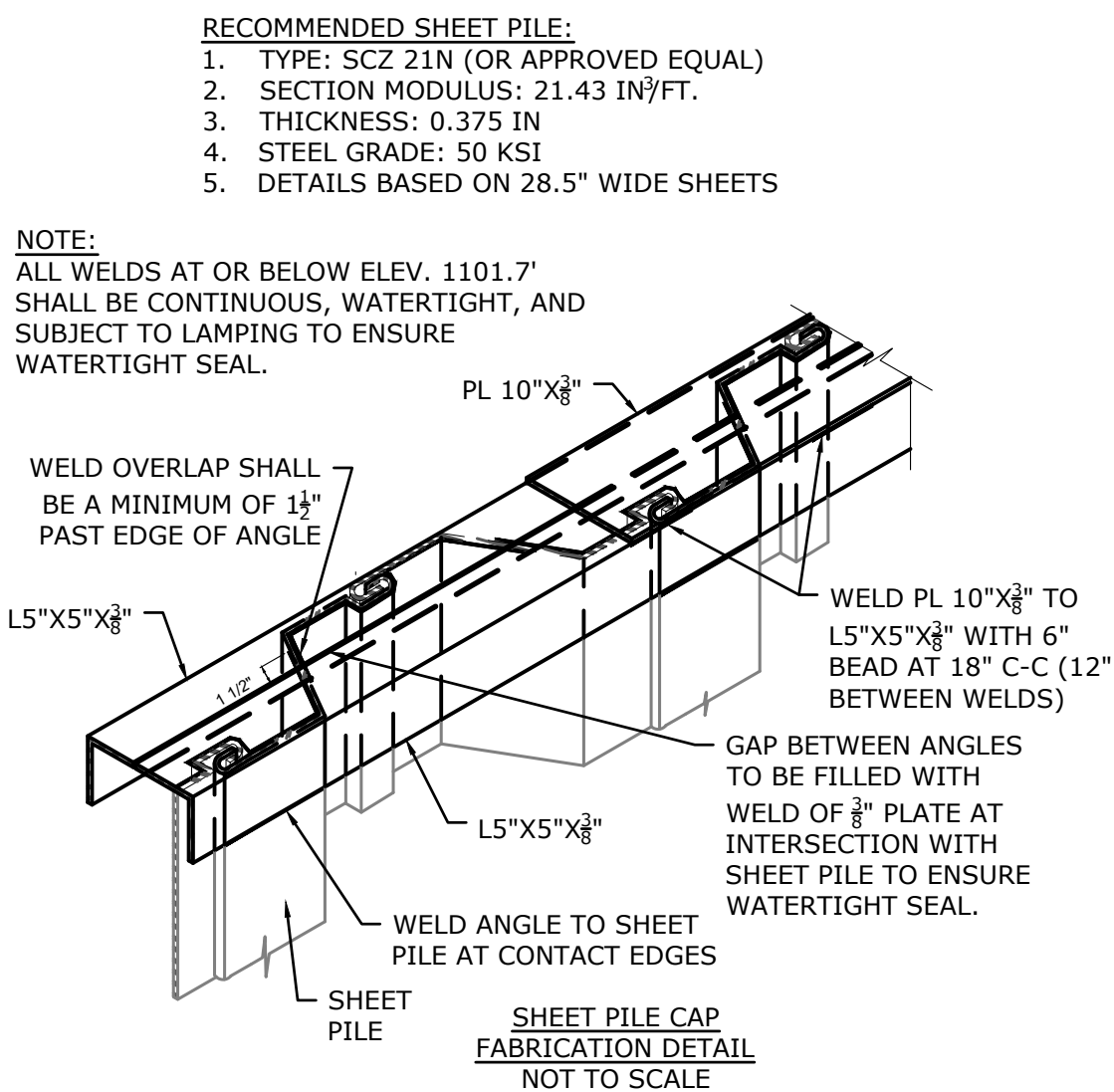
RIPRAP RIFFLE INTAKE
 STRUCTURE DETAILS
 KOS952935D
 KOSSUTH COUNTY
 IOWA

REPORT	DATE	PERIOD	DATE
0	-	FINAL PLANS	4-22-2025
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

CAD FILE:
-340-11 MANSKE C301 - DETAILS
- MLH
DESIGNED BY: A.S.
DRAWN BY: M.L.H.
SURVEYED BY: A.B. & A.S.
REVIEWER: T.P.
DATE:
04-28-2025
PROJECT NUMBER:
US-IA-340-11
C301

NOT FOR CONSTRUCTION

C:\Users\mhaase\Documents\Projects\Iowa - Iowa 02_C3D Projects\Iowa 340-2 CREP Projects\Kossuth\Iowa 340-11 C3D DRAWING\IA-340-11 MANSKE C301 - DETAILS - MIH.dwg, 6/18/2025 3:13 PM, Michael Haase, SHEET PILE DETAILS, None



UNIFORM WIDTH ALONG ENTIRE WALL LENGTH

X_4''

X_4''

L5"X5"X4"

WELD ANGLES TO FACE OF SHEET PILE AT CONTACT EDGES WHERE POSSIBLE

PILE CAP SECTION VIEW
NOT TO SCALE



SHEET PILE DETAILS
KOS952935D
KOSSUTH COUNTY
IOWA

Revisions		Date	By
0	FINAL PLANS	4-22-2025	A.S.

CAD FILE:
IA-340-11 MANSKE C301 - DETAILS
- MLH

DESIGNED BY: A.S.

DRAWN BY: M.L.H.

SURVEYED BY: A.B. & A.S.

REVIEWER: T.P.

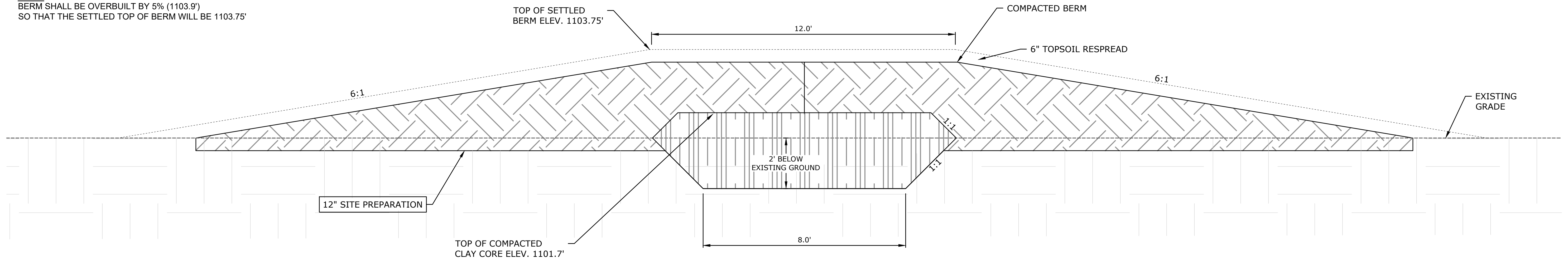
DATE:
04-28-2025

PROJECT NUMBER:
US-IA-340-11

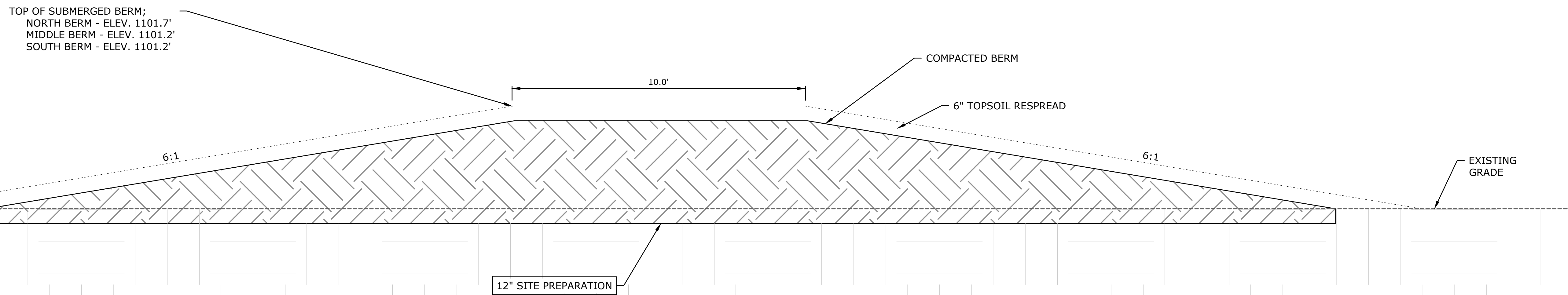
C302

NOT FOR CONSTRUCTION

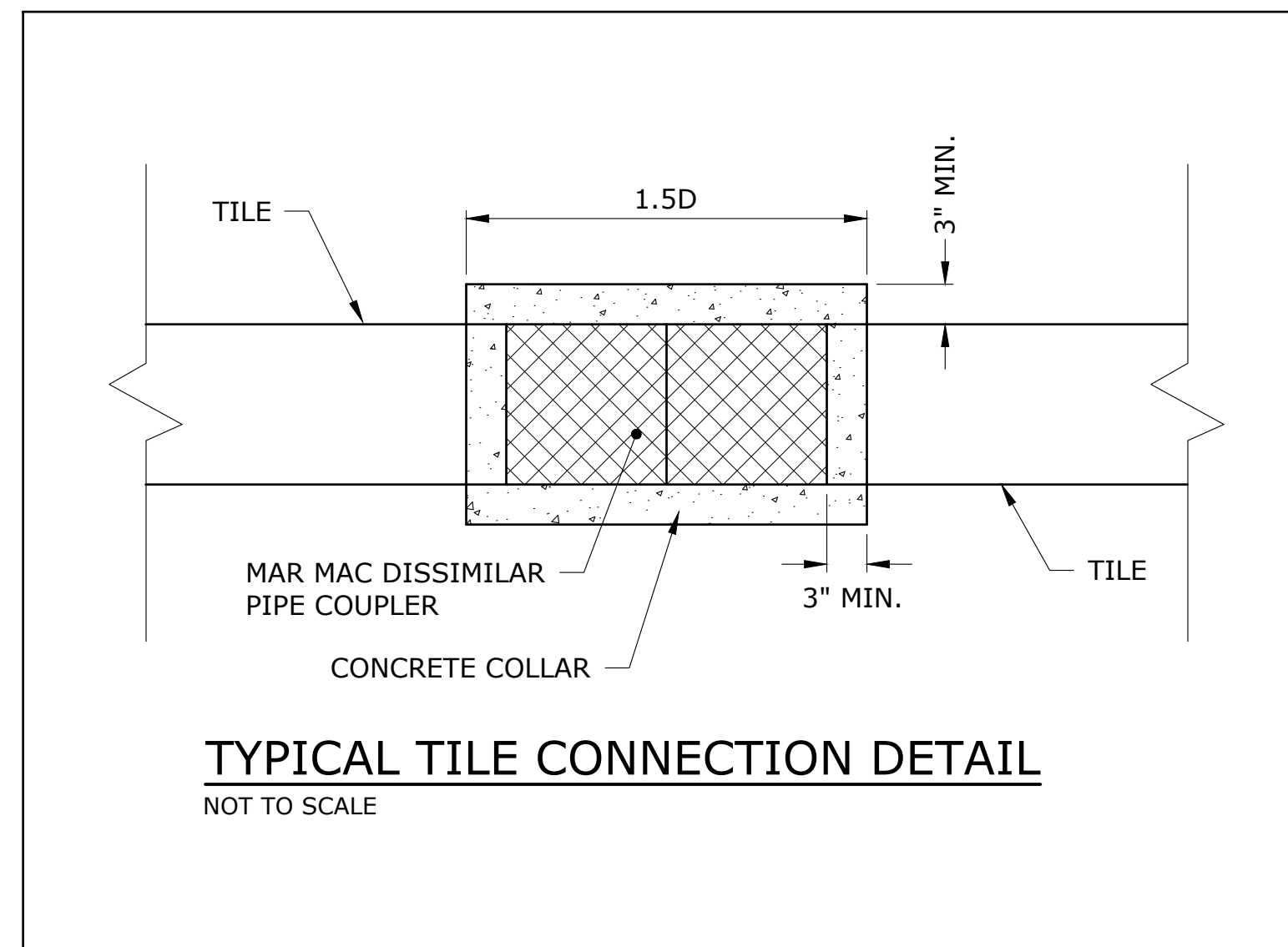
NOTE:
BERM SHALL BE OVERBUILT BY 5% (1103.9')
SO THAT THE SETTLED TOP OF BERM WILL BE 1103.75'



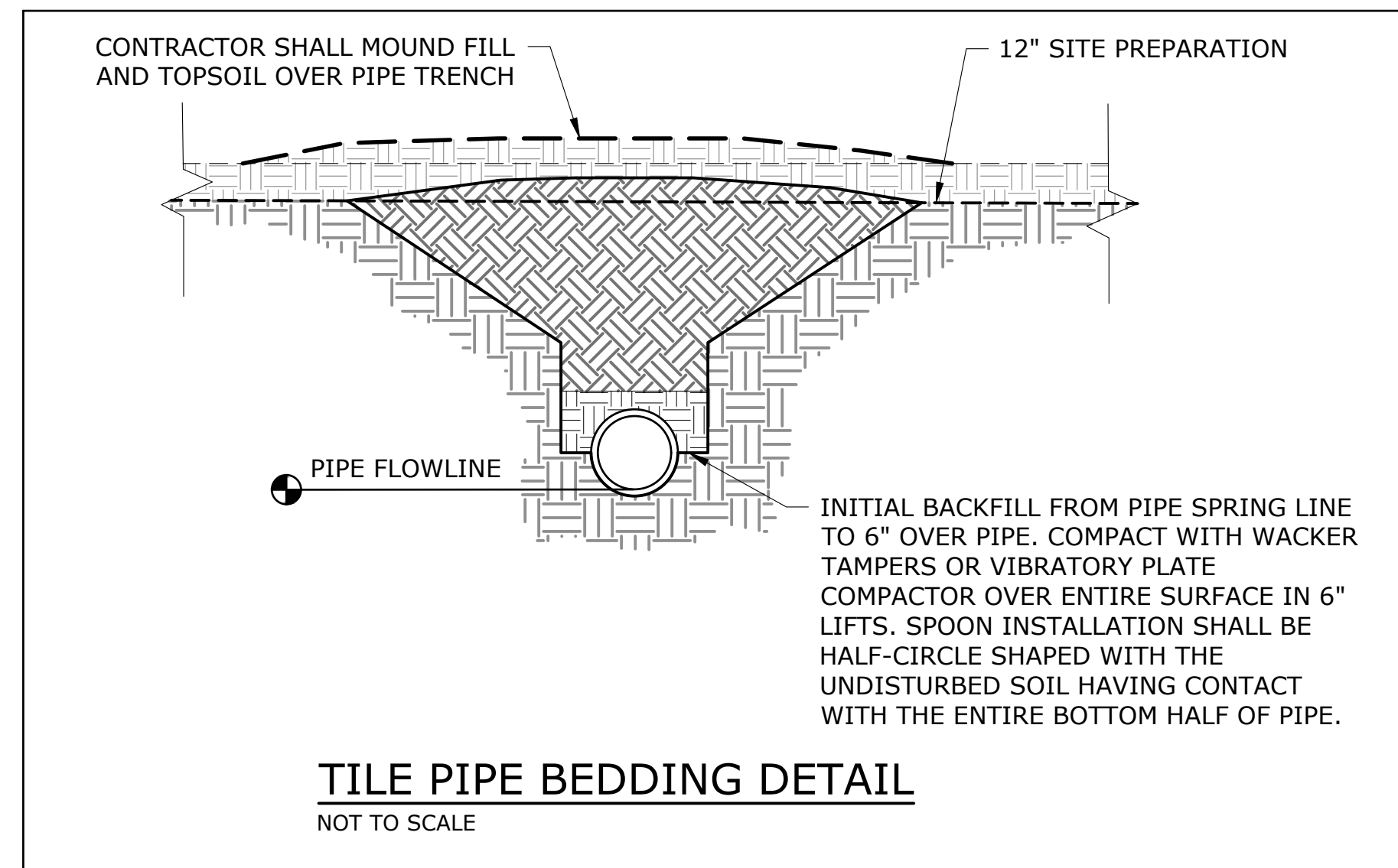
TYPICAL PRIMARY BERM CROSS SECTION
NOT TO SCALE



SUBMERGED BERM CROSS SECTION
NOT TO SCALE



TYPICAL TILE CONNECTION DETAIL



TILE PIPE BEDDING DETAIL

NOT TO SCALE

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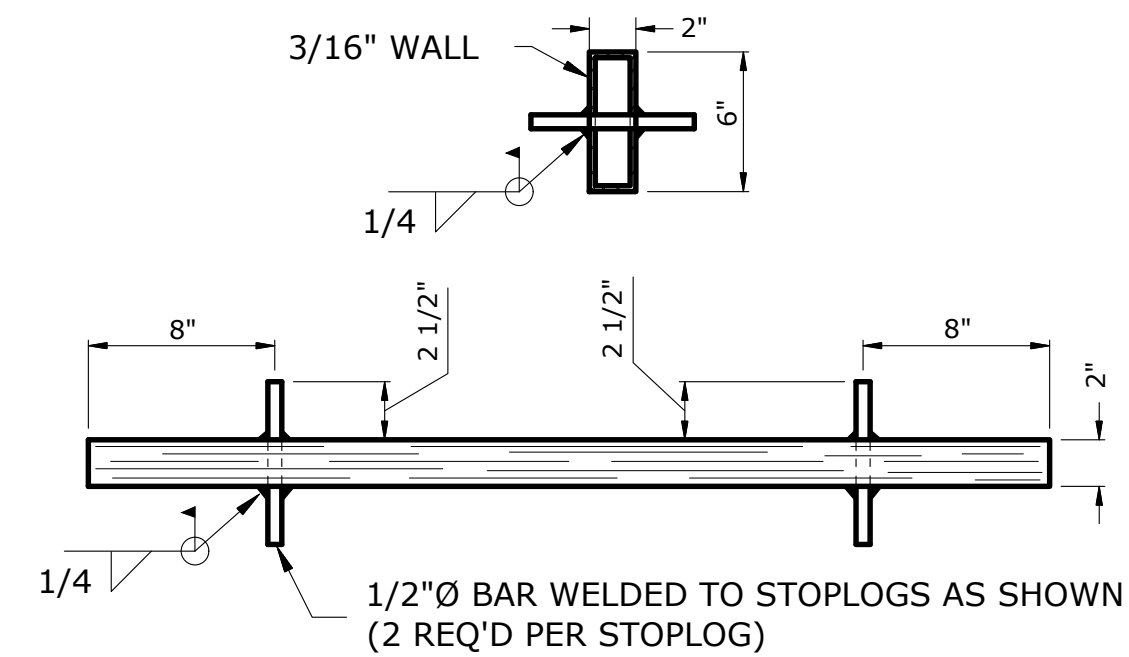
FIX SEAL: DUCKS UNLIMITED, INC.

CONSTRUCTION DETAILS
KOS952935D
KOSSUTH COUNTY
IOWA

A.S.		1	1	1	1	1	1
4-22-2025		1	1	1	1	1	1
FINAL PLANS		1	1	1	1	1	1
0		1	1	1	1	1	1
CAD FILE: 340-11 MANSCK C301 - DETAILS - MLH DESIGNED BY: A.S. DRAWN BY: M.L.H. SURVEYED BY: A.B. & A.S. VIEWER: T.P. DATE: 04-28-2025 PROJECT NUMBER: US-1A-340-11 C303							

NOT FOR CONSTRUCTION

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NOTE: 1. WELD 1/2Ø BAR IN STOPLOGS.

2. STOPLOGS SHALL BE 1" SHORTER THAN WIDTH BETWEEN STOPLOG GUIDES.

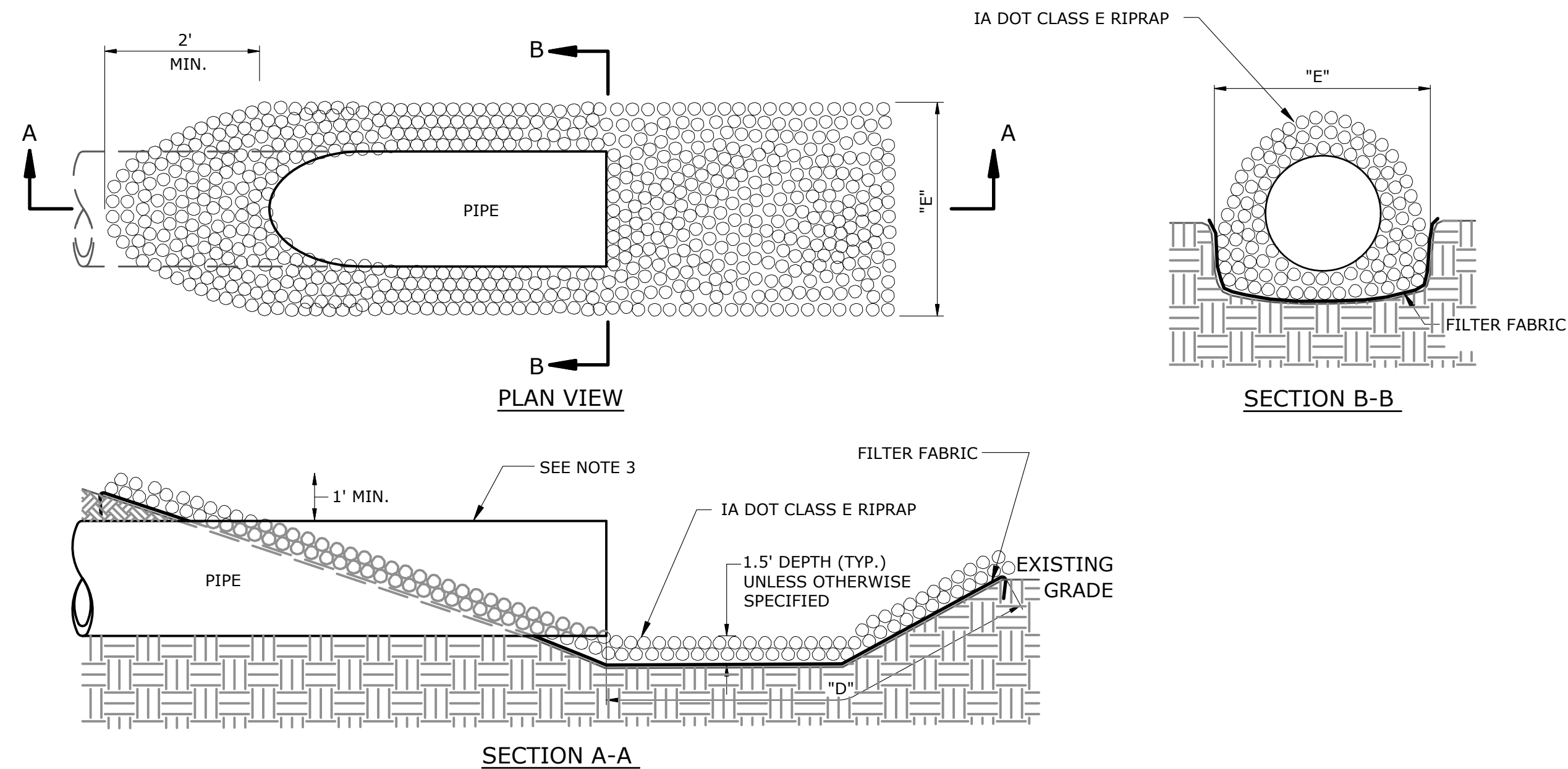
3. FABRICATOR TO PROVIDE 1-2" & 1-3" STOPLOG IN ADDITION TO STOPLOGS SPECIFIED.

NOT TO SCALE

-
- 36" DIA. CULVERT
- BOLT SLOTS
7/16" WIDE
1" LONG FOR
3/8" SS BOLTS
- A
B
C
- WELD ON O.D.
OF CULVERT

NOTES: 1. 6"- 36" FLANGES CUT FROM 3/16 ALUMINUM PLATE.
2. GASKETS DIE CUT FROM 1/8" PVC NITRILE FOAM ENSOLITE AND MATCHED TO CORRESPONDING FLANGE DIMENSIONS (BXD)(E) & NO HOLES.
3. 2 WASHERS PER SLOT.

NOT TO SCALE



- NOTES:
1. IF THE RIPRAP CLASS DESIGNATION IS NOT SPECIFIED ON THE CONSTRUCTION PLANS, IA DOT CLASS E RIPRAP SHALL BE UTILIZED. THE ROCK SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
 2. UNLESS OTHERWISE SPECIFIED, FILTER FABRIC SHALL BE UTILIZED IN THE INSTALLATION OF RIPRAP.
 3. DOWNSTREAM CMP PIPE OUTLET SHALL CONFORM TO SLOPE FOR PIPE DIAMETERS 30" AND LARGER.

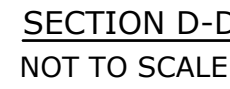
NOT TO SCALE

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CAD FILE: IA-340-11 MANSKE C301 - DETAIL - MLH
DESIGNED BY: A.S.
DRAWN BY: M.L.H.
SURVEYED BY: A.B. & A.S.
REVIEWER: T.P.
DATE: 04-28-2025
PROJECT NUMBER: US-IA-340-11

C304

NOT FOR CONSTRUCTION



COVER SHALL BE TRIMMED TO FIT AROUND GATE APPURTENANCES SO THE NON-HINGED SIDE RESTS ON L 3"x 3 1/4" RISER BRACE.

3/16" PLATE

WELD ALL AROUND CIRCUMFERENCE OF RISER COVER

NOTES:

1. WELD AND 2"x3 1/4" STRAP TO THE BOTTOM EDGE OF THE COVER, AROUND THE ENTIRE CIRCUMFERENCE.
2. COVER SIZE SHALL BE DETERMINED BY THE RISER DIAMETER PLUS 4".
3. HINGED DOOR LENGTH SHALL BE DETERMINED BY THE RISER DIAMETER MINUS 5" EITHER SIDE OF RISER.

CONTINUOUS FILLET BETWEEN CORRUGATED ALUM. CONTROL STRUCTURE & STOPLOG GUIDE UPSTREAM

3"

1 1/2"

1/4"

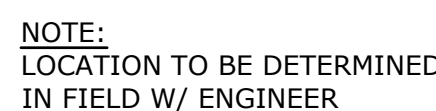
(MAY BE INSTALLED ON DOWNSTREAM SIDE FOR STOPLOCK ATTACHMENT)

WELD EVERY 5TH CORRUGATION DOWNSTREAM

ALUMINUM CMP CONTROL STRUCTURE

LOCKING ROD DETAIL

NOT TO SCALE



NOTE: L1 AND L2 EQUAL HEIGHT OF RISER PLUS 1'
MAX LENGTH FOR EACH 5'. AFTER ADD A SECOND EXTENSION L3
2 PER STRUCTURE

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ON:

WCS DETAILS SHEET 2
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KOSSUTH COUNTY
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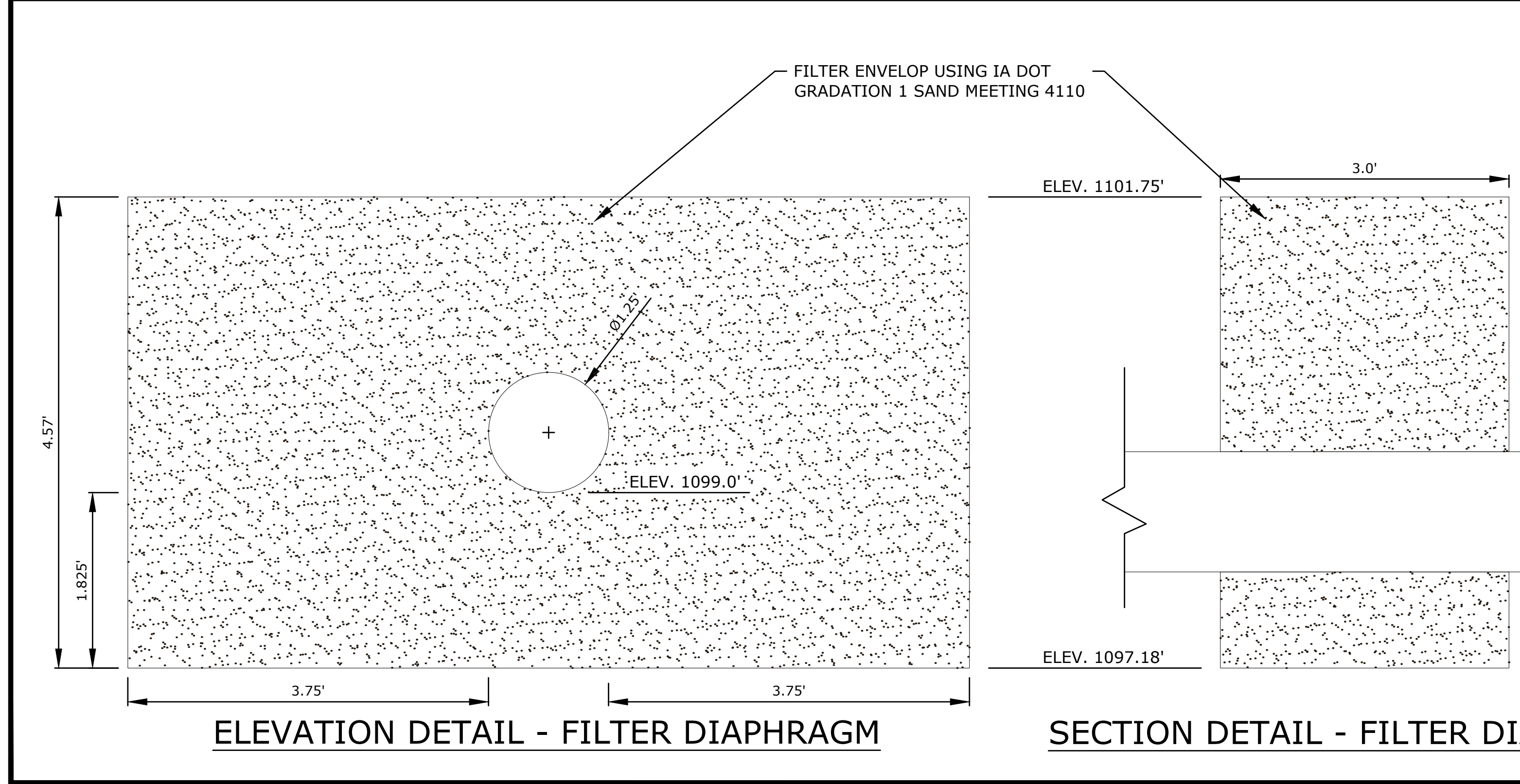
Revision	Sheet	Revisions	Date	By
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-	-	-	-	-
-	-	-	-	-

CAD FILE: IA-340-11 MANSKE C301 - DETAIL - MLH	
DESIGNED BY: A.S.	
DRAWN BY: M.L.H.	
SURVEYED BY: A.B. & A.S.	
REVIEWER: T.P.	
DATE: 04-28-2025	
PROJECT NUMBER: US-IA-340-11	
C305	

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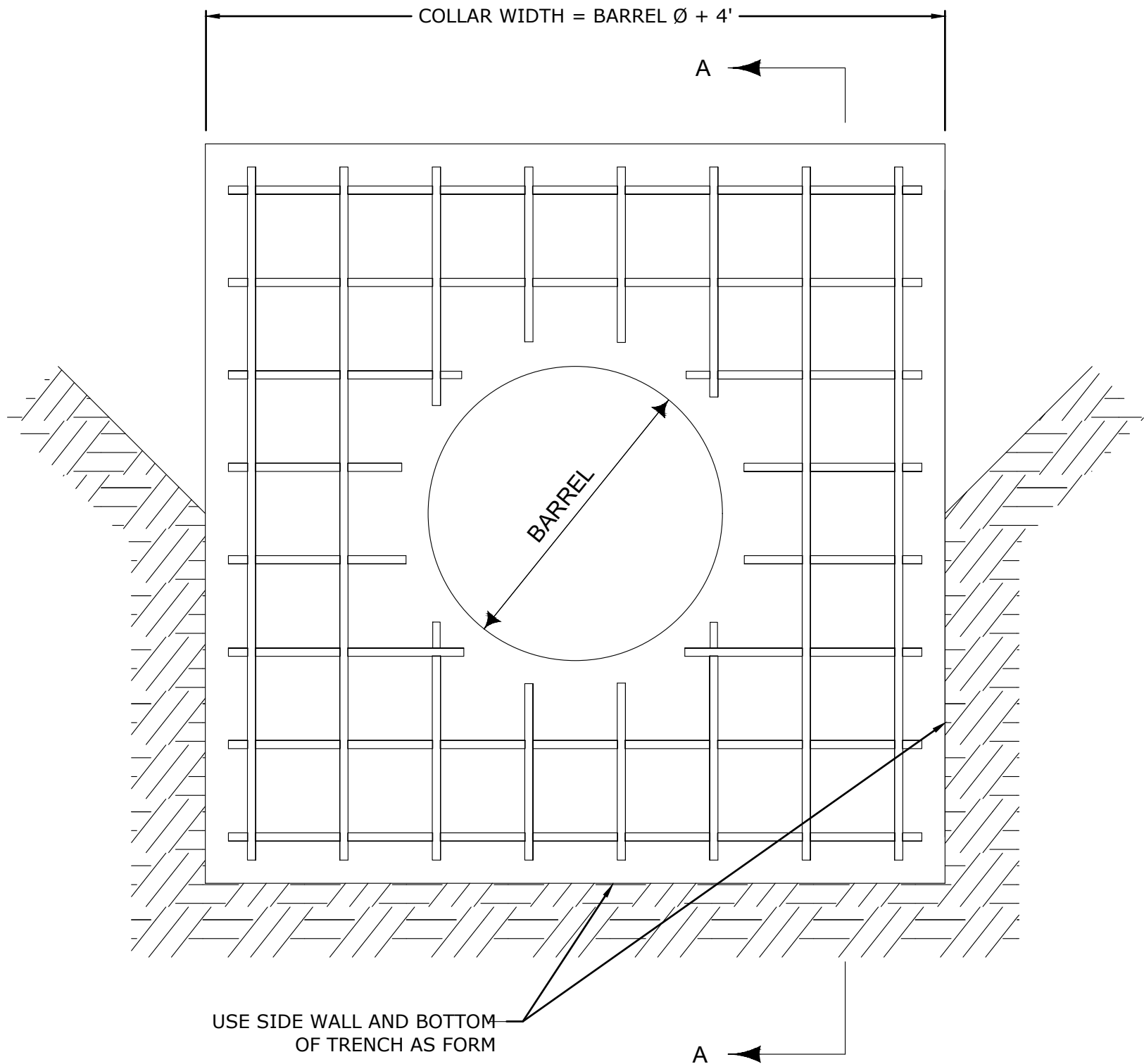


Revision	Sheet	Revisions	Date	By
0	-	FINAL PLANS	4-22-2025	A.S.
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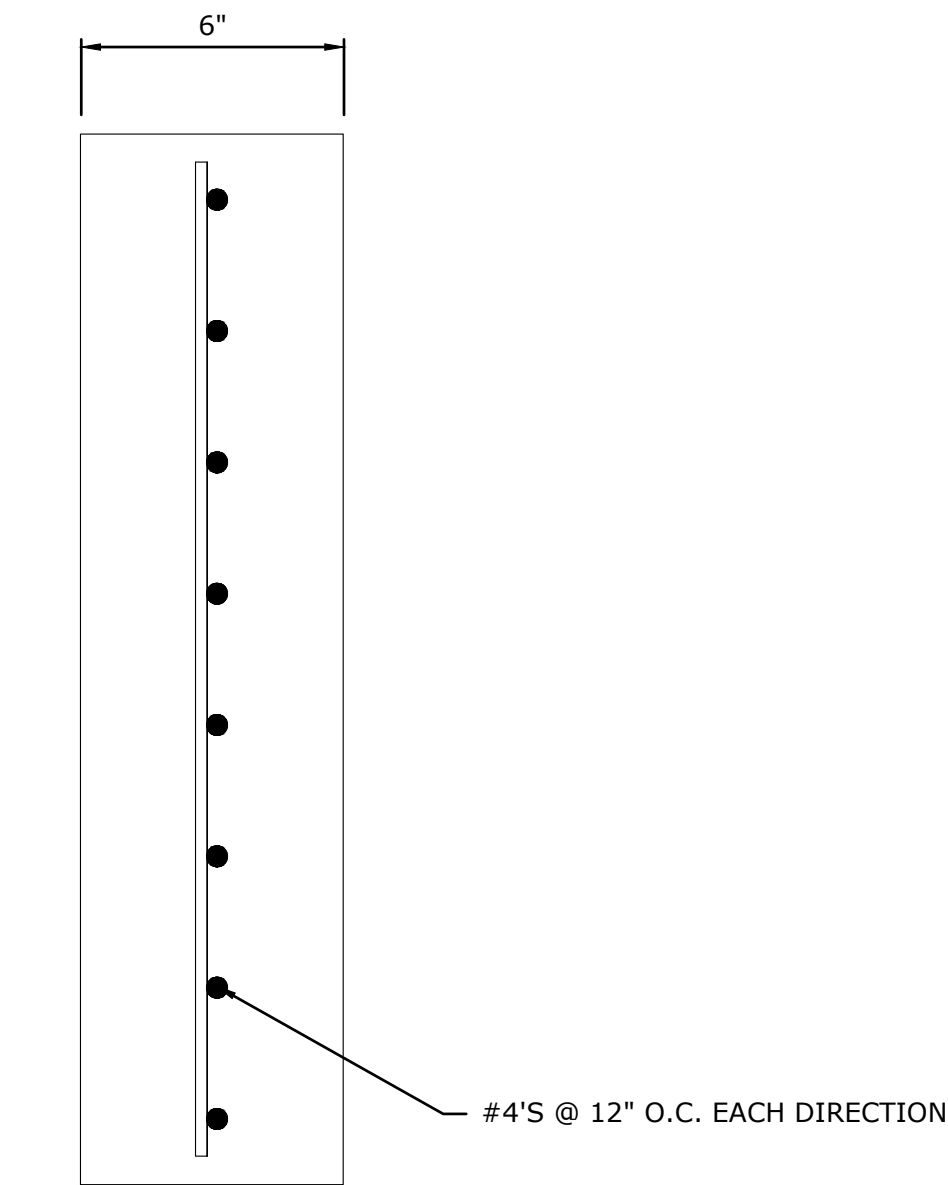
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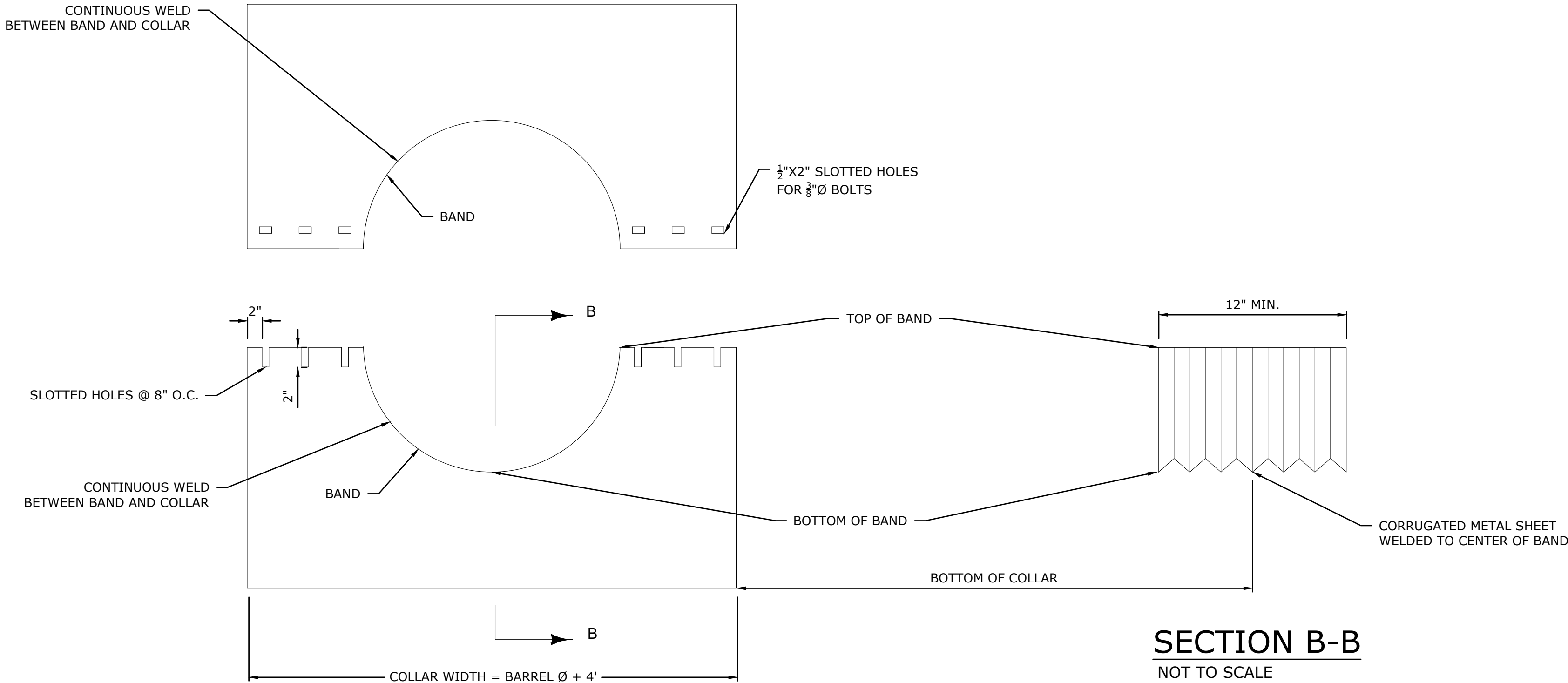
NOTE:
CONTRACTOR TO PROVIDE ONE ANTI-SEEP COLLAR ON 12"Ø HDPE DUAL-WALL PIPE #1 THROUGH THE MAIN BERM.
CONTRACTOR SHALL UTILIZE EITHER THE CONCRETE COLLAR DETAIL OR CMP COLLAR DETAIL. ANTI-SEEP COLLAR SHALL BE POSITIONED ON THE PIPE 3' UPSTREAM FROM THE BERM CENTERLINE.



CONCRETE COLLAR
NOT TO SCALE



SECTION A-A
NOT TO SCALE



CMP COLLAR
NOT TO SCALE

SECTION B-B
NOT TO SCALE

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ON:

ANTI-SEEP COLLAR DETAILS
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Revision	Sheet	Revisions	Date	By
0	FINAL PLANS	A.S.	4-22-2025	
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
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CAD FILE:
IA-340-11 MANSKE C301 - DETAILS
- MLH

DESIGNED BY: A.S.

DRAWN BY: M.L.H.

SURVEYED BY: A.B. & A.S.

REVIEWER: T.P.

DATE:
04-28-2025

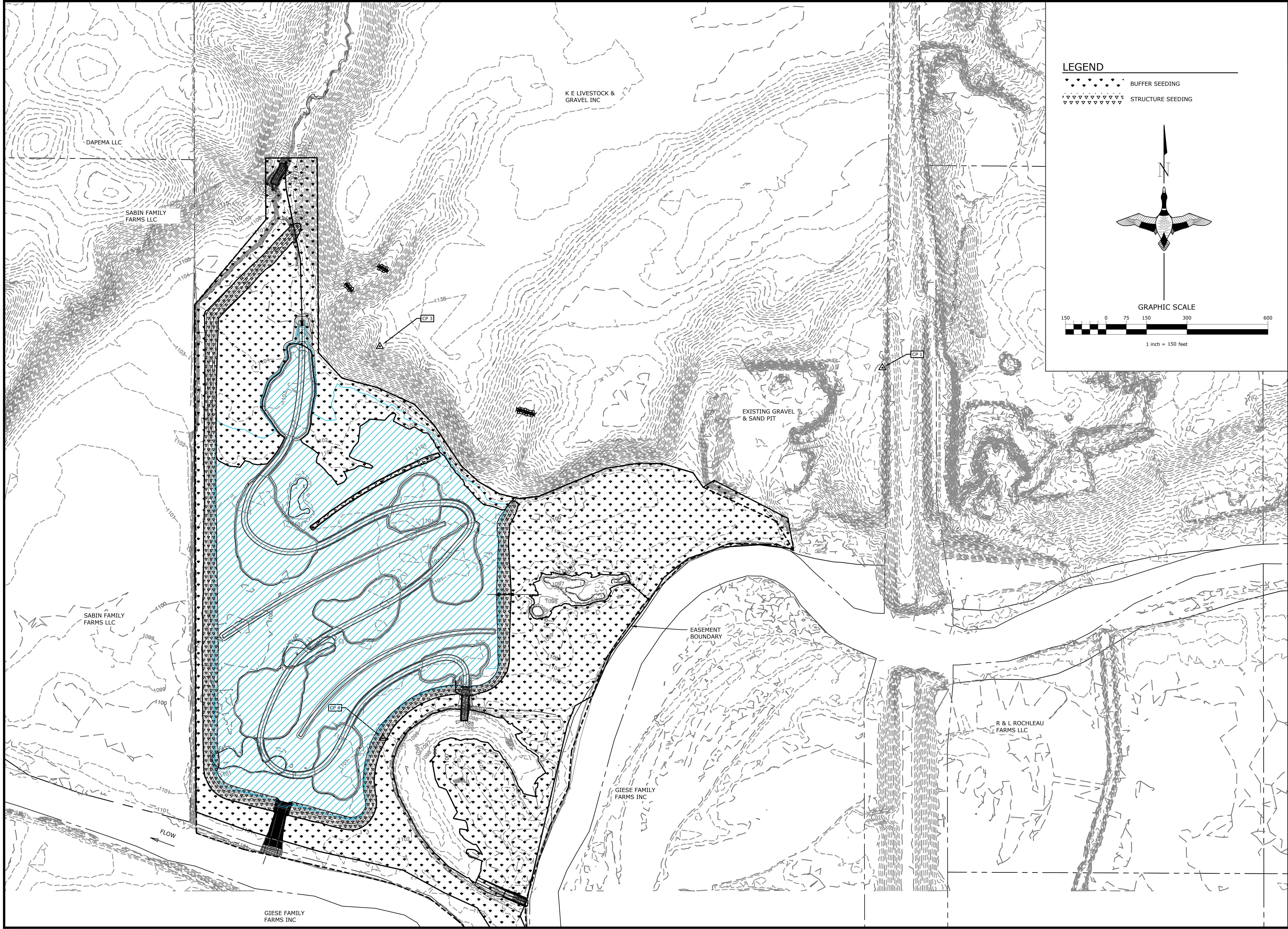
PROJECT NUMBER:
US-IA-340-11

C307

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C:\Users\mhasea\Documents\Projects\KOS952935D\IA-340-11\CAD DRAWING\IA-340-11 MANSKE C101 - SITE PLAN - MLH.dwg, 6/18/2025 3:22 PM, Michael Hasea, SEEDING PLAN, None



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ON:

SEEDING PLAN
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Revision	Sheet	Revisions	Date	By
0	FINAL PLANS		04-22-2025	A.S.

CAD FILE:
IA-340-11 MANSKE C101 - SITE
PLAN - MLH

DESIGNED BY: A.S.

DRAWN BY: M.L.H.

SURVEYED BY: A.B. & A.S.

REVIEWER: T.P.

DATE:
04-28-2025

PROJECT NUMBER:
US-IA-340-11

C401

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