

DUCKS UNLIMITED

WATER RESOURCES RECEIVED

MAR 28 2024

KS DEPT OF AGRICULTURE

DUCKS UNLIMITED

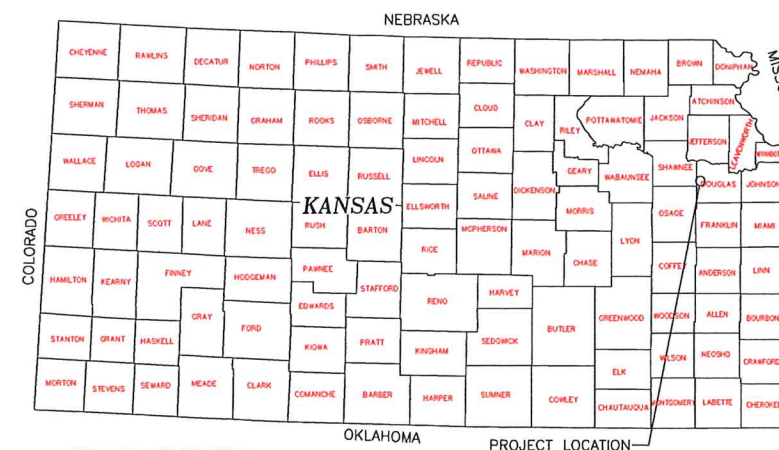
PROJECT

ELK CREEK MARSH

LOCATED IN SECTIONS 24 & 25
TOWNSHIP 13S, RANGE 17E, 6TH P.M.
DOUGLAS COUNTY, KANSAS

IN COOPERATION WITH

KANSAS DEPARTMENT OF WILDLIFE AND PARKS



PLAN INDEX

- TITLE PAGE & LOCATION MAP
- OVERALL PLAN
- ACCESS DRIVE BUILDUP #1 & EMBANKMENT #1 EXTENSION
- WETLAND #1 CONSTRUCTED TOPOGRAPHY
- WCS #1
- ACCESS DRIVE BUILDUP #2 & EMBANKMENT #2 EXTENSION
- WETLAND #2 CONSTRUCTED TOPOGRAPHY
- WCS #2A
- WCS #2B
- SUPPLY PIPELINE
- BUTTERFLY VALVE #1 & DRAIN PIPE #1
- BUTTERFLY VALVE #2
- BUTTERFLY VALVE #3 & DRAIN PIPE #2
- ACCESS DRIVE BUILDUP #3
- WETLAND #3 CONSTRUCTED TOPOGRAPHY
- WCS #3
- SWPP PLAN
- SWPP PLAN NOTES
- USGS TOPOGRAPHIC MAP

ESTIMATED QUANTITIES

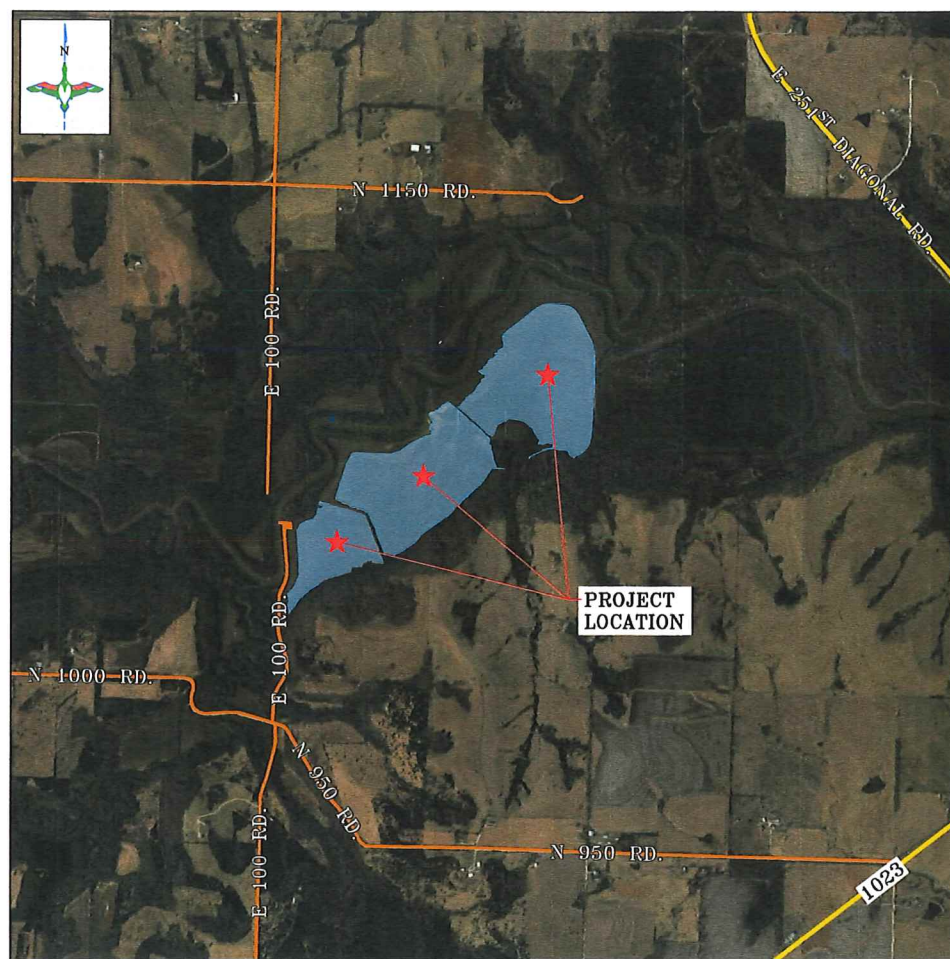
MOBILIZATION:	1 L.S.
SITE PREPARATION:	1 L.S.
EMBANKMENT CONSTRUCTION:	
ACCESS DRIVE BUILDUP #1	350 C.Y. - P**
EMBANKMENT #1 EXTENSION	314 C.Y. - P**
ACCESS DRIVE BUILDUP #2 (3 C.Y. INCIDENTAL CUT)	35 C.Y. - P**
EMBANKMENT #2 EXTENSION	118 C.Y. - P**
WCS #1 PIPE COVER	21 C.Y. - P**
EMBANKMENT #2 REPAIR (31 C.Y. INCIDENTAL CUT)	135 C.Y. - P**
ACCESS DRIVE BUILDUP #3 (10 C.Y. INCIDENTAL CUT)	115 C.Y. - P**
WCS #3 COVER	296 C.Y. - P**
CONSTRUCTED TOPOGRAPHY:	
WETLAND #1 FILL 1A	339 C.Y. - P*
WETLAND #1 FILL 1B	1,068 C.Y. - P*
WETLAND #1 FILL 1C	703 C.Y. - P*
WETLAND #1 FILL 1D (4 C.Y. INCIDENTAL CUT)	899 C.Y. - P*
BORROW #1A (8,233 C.Y. CUT)	INCIDENTAL
BORROW #1B (731 C.Y. CUT)	INCIDENTAL
WETLAND #2 FILL 2A (13 C.Y. INCIDENTAL CUT)	2,446 C.Y. - P*
WETLAND #2 FILL 2B	347 C.Y. - P*
WETLAND #2 FILL 2C	121 C.Y. - P*
BORROW #2A (22,924 C.Y. CUT)	INCIDENTAL
BORROW #2B (617 C.Y. CUT)	INCIDENTAL
WETLAND #3 FILL 3A	304 C.Y. - P*
WETLAND #3 FILL 3B	24,955 C.Y. - P*
WATER CONTROL STRUCTURES - SUPPLY & INSTALL:	
6' TALL 36"Ø ALUMINUM INLINE WCS	3 EA.
5' TALL 36"Ø ALUMINUM INLINE WCS	1 EA.
12" SPEARS WAFER BUTTERFLY VALVE	3 EA.
CULVERTS & PIPE - SUPPLY & INSTALL:	
24"Ø 14 GAUGE ALUMINUM CMP	612 L.F.-A
12"Ø SCHEDULE 40 PVC	4,140 L.F.-A
12"Ø SCHEDULE 40 PVC TEE	2 EA.
12"Ø SCHEDULE 40 PVC 90° ELBOW	1 EA.
12"Ø SCHEDULE 40 PVC 45° ELBOW	1 EA.
12"Ø SCHEDULE 40 PVC 33.75° ELBOW	1 EA.
12"Ø x 1"Ø PVC CLAMP SADDLE	2 EA.
1"Ø SCHEDULE 80 PVC PIPE	880 L.F.-A
1"Ø SCHEDULE 80 PVC 90° ELBOW	2 EA.
1"Ø SCHEDULE 80 PVC 22.5° ELBOW	1 EA.
ROCK RIPRAP & AGGREGATE - SUPPLY & PLACE:	
DU CLASS II ROCK RIPRAP W/ FILTER FABRIC	39 C.Y.-P
WELL-GRADED SAND OR ANGULAR SQUEEGEE SAND	115 C.Y.-P
SEEDING & MULCH - SUPPLY & PLACE:	
PURE LIVE SEED	1.6 ACRES
REMOVE EXISTING PIPE	
REMOVAL OF EXISTING PIPE	1 L.S.

SPECIFICATIONS

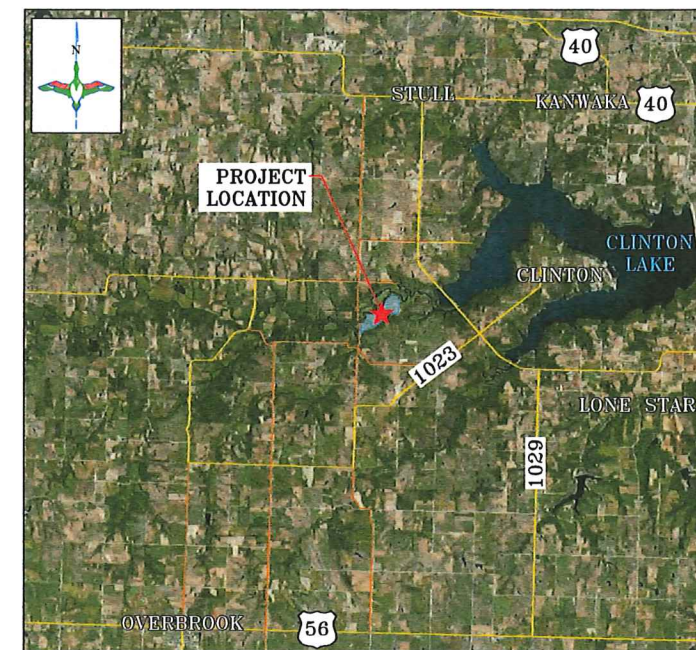
201 MOBILIZATION	301 WATER CONTROL STRUCTURES	311 REMOVAL OF EXISTING CULVERTS AND STRUCTURES
202 SITE PREPARATION	302 STRUCTURE AND CULVERT APPURTENANCES	320 WATER PIPELINE INSTALLATION
203 EXCAVATION	303 CULVERT AND PIPE INSTALLATION	401 SOIL EROSION AND POLLUTION CONTROL
204 EMBANKMENT CONSTRUCTION	304 CAST-IN-PLACE REINFORCED CONCRETE	402 SEEDING AND MULCHING
206 CONSTRUCTED TOPOGRAPHY	305 RIPRAP, REVETMENT & AGGREGATE PLACEMENT	

THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THE MATERIAL, DATA AND INFORMATION IS AT THE USER'S SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.

"BEFORE YOU DIG"
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 "KANSAS 811" AT 811. A 48 HOUR NOTIFICATION AND FULL DESCRIPTION OF LOCATION IS REQUIRED.

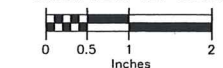


PAVED ROAD ———
DIRT ROAD ———
LOCATION MAP
SCALE: 1" = ¼ MILE



PAVED ROAD ———
VICINITY MAP
SCALE: 1" = 2 MILES

ALL WRITTEN SCALES ARE ACCURATE ON 24x36 INCH SHEETS. THE BELOW SCALE BAR CAN BE USED TO CHECK PLAN SET SCALE.



PERMIT ISSUE



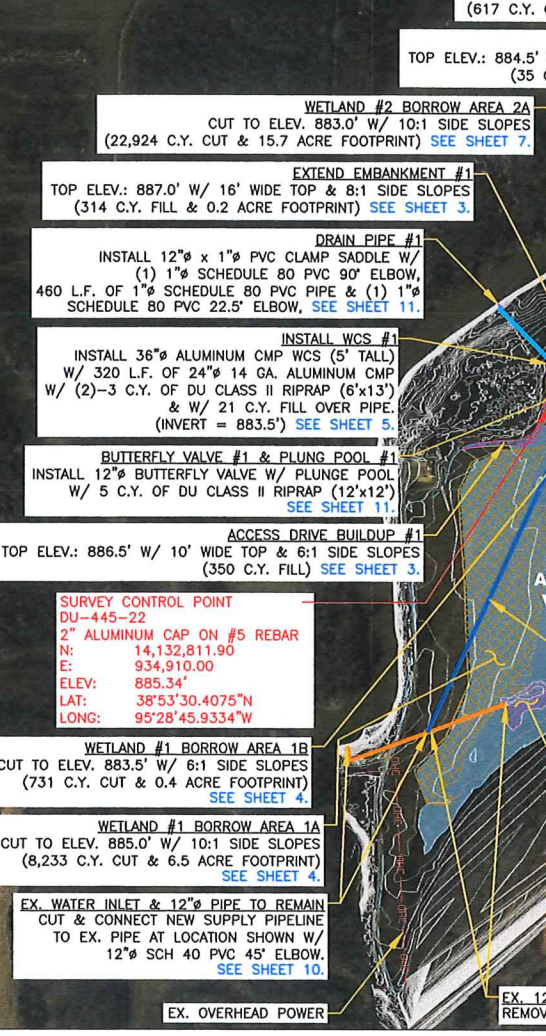
DU REGIONAL ENGINEER:
CRAIG ROY, P.E.
(913) 991-2223

	PROJECT NO. KS-004-6	DESIGNED BY: CAR
	ELK CREEK MARSH	DRAWN BY: CAR/JJW
GREAT PLAINS REGIONAL OFFICE	TITLE PAGE & LOCATION MAP	SURVEYED BY: CAR
DATE: 02/19/2024	SHEET NO. 1 OF 19	CHECKED BY:
	APPROVED BY:	APPROVED BY:

DIRT BALANCE TABLE			
LOCATION	FILL (C.Y.)*	EXCAVATION (C.Y.)	NET (C.Y.)
WETLAND #1			
WETLAND #1 FILL 1A	339	-	339
WETLAND #1 FILL 1B	1,068	-	1,068
WETLAND #1 FILL 1C	703	-	703
WETLAND #1 FILL 1D	899	-	899
EMBANKMENT #1 EXTENSION**	314	-	314
ACCESS DRIVE BUILDUP #1**	350	-	350
WCS #1 PIPE COVER	21	-	21
BORROW #1A	-	8,233	(8,233)
BORROW #1B	-	731	(731)
WETLAND #2			
WETLAND #2 FILL 2A	2,446	13	2,433
WETLAND #2 FILL 2B	347	-	347
WETLAND #2 FILL 2C	121	-	121
EMBANKMENT #2 EXTENSION**	118	-	118
EMBANKMENT #2 REPAIR**	135	31	104
ACCESS DRIVE BUILDUP #2**	35	3	32
BORROW #2A	-	22,924	(22,924)
BORROW #2B	-	617	(617)
WETLAND #3			
WETLAND #3 FILL 3A	304	-	304
WETLAND #3 FILL 3B	24,955	-	24,955
ACCESS DRIVE BUILDUP #3**	115	10	105
WCS #3 COVER	286	-	286
TOTAL	32,566	32,566	-

* FILL IN WETLANDS INCLUDES A 15% SHRINKAGE FACTOR
 ** FILL FOR EMBANKMENTS & ACCESS DRIVE BUILDUP INCLUDES A 25% SHRINKAGE FACTOR

REMOVE TREES AS REQUIRED TO INSTALL PIPE TO THE RIVER IN TWO LOCATIONS. TREE REMOVAL IS CONSIDERED INCIDENTAL TO BID ITEM "SITE PREPARATION"



EX. PIPE TO BE REMOVED
 REMOVE & OFFSITE DISPOSAL OF EX. 12" PVC PIPE
 BUTTERFLY VALVE #3 & PLUNG POOL #3
 INSTALL 12" BUTTERFLY VALVE W/ PLUNG POOL
 W/ 5 C.Y. OF DU CLASS II RIPRAP (12'x12') SEE SHEET 13.

SURVEY CONTROL POINT
 DU-443-22
 2" ALUMINUM CAP ON #5 REBAR
 N: 14,134,559.24
 E: 937,164.86
 ELEV: 883.53'
 LAT: 38°53'48.2741"N
 LONG: 95°28'18.0288"W

DRAIN PIPE #2
 INSTALL 12" x 1" PVC CLAMP SADDLE W/
 (1) 1" SCHEDULE 80 PVC 90° ELBOW &
 420 L.F. OF 1" SCHEDULE 80 PVC PIPE.
 SEE SHEET 13.

BUTTERFLY VALVE #2 & PLUNG POOL #2
 INSTALL 12" BUTTERFLY VALVE W/ PLUNG POOL
 W/ 5 C.Y. OF DU CLASS II RIPRAP (12'x12')
 SEE SHEET 12.

EXTEND EMBANKMENT #2
 TOP ELEV.: 885.0' W/ 16' WIDE TOP & 8:1 SIDE SLOPES
 (118 C.Y. FILL & 0.1 ACRE FOOTPRINT) SEE SHEET 6.

REPLACE WCS #2A
 INSTALL 36" ALUMINUM CMP WCS (6' TALL)
 W/ 108 L.F. OF 24" 14 GA. ALUMINUM CMP
 & (2)-3 C.Y. OF DU CLASS II RIPRAP (6'x13')
 REMOVE & OFFSITE DISPOSAL OF EX. WCS & PIPING.
 (INVERT = 880.5') SEE SHEET 8.

WETLAND #2 BORROW AREA 2B
 CUT TO ELEV. 880.5' W/ 6:1 SIDE SLOPES
 (617 C.Y. CUT & 1.2 ACRE FOOTPRINT) SEE SHEET 7.

ACCESS DRIVE BUILDUP #2
 TOP ELEV.: 884.5' W/ 10' WIDE TOP & 6:1 SIDE SLOPES
 (35 C.Y. FILL & 3 C.Y. CUT) SEE SHEET 6.

WETLAND #2 BORROW AREA 2A
 CUT TO ELEV. 883.0' W/ 10:1 SIDE SLOPES
 (22,924 C.Y. CUT & 15.7 ACRE FOOTPRINT) SEE SHEET 7.

EXTEND EMBANKMENT #1
 TOP ELEV.: 887.0' W/ 16' WIDE TOP & 8:1 SIDE SLOPES
 (314 C.Y. FILL & 0.2 ACRE FOOTPRINT) SEE SHEET 3.

DRAIN PIPE #1
 INSTALL 12" x 1" PVC CLAMP SADDLE W/
 (1) 1" SCHEDULE 80 PVC 90° ELBOW,
 460 L.F. OF 1" SCHEDULE 80 PVC PIPE & (1) 1" SCHEDULE 80 PVC 22.5° ELBOW, SEE SHEET 11.

INSTALL WCS #1
 INSTALL 36" ALUMINUM CMP WCS (5' TALL)
 W/ 320 L.F. OF 24" 14 GA. ALUMINUM CMP
 W/ (2)-3 C.Y. OF DU CLASS II RIPRAP (6'x13')
 & W/ 21 C.Y. FILL OVER PIPE.
 (INVERT = 883.5') SEE SHEET 5.

BUTTERFLY VALVE #1 & PLUNG POOL #1
 INSTALL 12" BUTTERFLY VALVE W/ PLUNG POOL
 W/ 5 C.Y. OF DU CLASS II RIPRAP (12'x12')
 SEE SHEET 11.

ACCESS DRIVE BUILDUP #1
 TOP ELEV.: 886.5' W/ 10' WIDE TOP & 6:1 SIDE SLOPES
 (350 C.Y. FILL) SEE SHEET 3.

SURVEY CONTROL POINT
 DU-445-22
 2" ALUMINUM CAP ON #5 REBAR
 N: 14,132,811.90
 E: 934,910.00
 ELEV: 885.34'
 LAT: 38°53'30.4075"N
 LONG: 95°28'45.9334"W

WETLAND #1 BORROW AREA 1B
 CUT TO ELEV. 883.5' W/ 6:1 SIDE SLOPES
 (731 C.Y. CUT & 0.4 ACRE FOOTPRINT)
 SEE SHEET 4.

WETLAND #1 BORROW AREA 1A
 CUT TO ELEV. 885.0' W/ 10:1 SIDE SLOPES
 (8,233 C.Y. CUT & 6.5 ACRE FOOTPRINT)
 SEE SHEET 4.

EX. WATER INLET & 12" PIPE TO REMAIN
 CUT & CONNECT NEW SUPPLY PIPELINE
 TO EX. PIPE AT LOCATION SHOWN W/
 12" SCH 40 PVC 45° ELBOW.
 SEE SHEET 10.

SUPPLY PIPELINE
 INSTALL 4,140 L.F. OF 12" SCH. 40 PVC PIPE
 W/ (1) 12" SCH. 40 PVC 45° ELBOW,
 (1) 12" SCH. 40 PVC 33.75° ELBOW,
 (1) 12" SCH. 40 PVC 90° ELBOW,
 (2) 12" SCH. 40 PVC TEES &
 PROVIDE 115 C.Y. OF WELL-GRADED SAND AS
 PIPE BEDDING.
 SEE SHEET 10.

WETLAND #1 FILL AREA 1A
 FILL TO ELEV. 884.5'
 (339 C.Y. FILL & 0.4 ACRE FOOTPRINT)
 SEE SHEET 4.

WETLAND #1 FILL AREAS 1B, 1C & 1D
 FILL TO ELEV. 883.5'
 (1,068, 703 & 899 C.Y. FILL
 & 1.2, 1.4 & 1.1 ACRE FOOTPRINTS)
 SEE SHEET 4.

EX. WCS & 24" PIPE TO REMAIN
 INLET INVERT = 882.6'
 TOP ELEV. = 888.3'

WETLAND #2 FILL AREA 2B
 FILL TO ELEV. 881.0'
 (347 C.Y. FILL & 1.2 ACRE FOOTPRINT)
 SEE SHEET 7.

WETLAND #2 FILL AREA 2A
 FILL TO ELEV. 880.5'
 (2,446 C.Y. FILL, 13 C.Y. CUT & 2.6 ACRE FOOTPRINT)
 SEE SHEET 7.

WETLAND #2 FILL AREA 2C
 FILL TO ELEV. 880.5'
 (121 C.Y. FILL & 0.3 ACRE FOOTPRINT)
 SEE SHEET 7.

INSTALL WCS #2B
 INSTALL 36" ALUMINUM CMP WCS (6' TALL)
 W/ 89 L.F. OF 24" 14 GA. ALUMINUM CMP
 & (2)-3 C.Y. OF DU CLASS II RIPRAP (6'x13'),
 (INVERT = 880.5') SEE SHEET 9.

REPAIR EXISTING EMBANKMENT #2
 MATCH EX. TOP & EX. SIDE SLOPES
 (104 C.Y. FILL)
 SEE SHEET 9.

EX. WCS & 24" PIPE TO REMAIN
 INLET INVERT = 879.6'
 OUTLET INVERT = 879.2'
 TOP ELEV. = 884.0

WETLAND #3 FILL AREA 3B
 FILL TO ELEV. 880.0
 (24,955 C.Y. FILL & 20.7 ACRE FOOTPRINT)
 SEE SHEET 15.

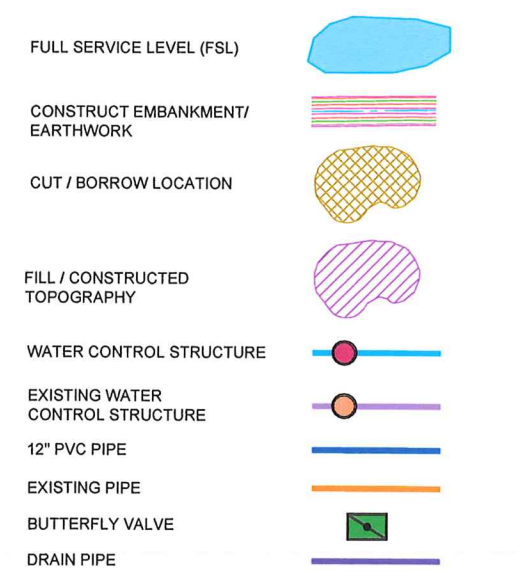
WETLAND #3 FILL AREA 3A
 FILL TO ELEV. 880.0
 (304 C.Y. FILL & 0.8 ACRE FOOTPRINT)
 SEE SHEET 15.

WATER ELEVATION (FT. AMSL)	SURFACE AREA (SF2)	AREA (ACRES)	STORAGE (AC-FT)
883.5	172,229	3.95	0
884.0	374,391	8.59	3.14
884.5	598,453	13.7	8.72
885.0	968,057	22.2	17.7
885.5	1,337,726	30.7	30.9

WATER ELEVATION (FT. AMSL)	SURFACE AREA (SF2)	AREA (ACRES)	STORAGE (AC-FT)
883.5	159,437	3.66	0
884.0	361,077	8.29	3.0
884.5	824,949	18.94	9.8
885.0	1,341,424	30.79	22.2
885.5	1,782,154	40.91	40.2
885.0	2,337,083	53.65	63.8
883.5	3,229,494	74.1	95.7

WATER ELEVATION (FT. AMSL)	SURFACE AREA (SF2)	AREA (ACRES)	STORAGE (AC-FT)
880.0	900,739	20.68	0
880.5	1,566,871	35.97	14.2
881.0	2,127,097	48.83	35.4
881.5	2,599,227	59.67	62.5
882.0	2,943,122	67.56	94.3
882.5	3,160,432	72.55	129.3
883.0	3,395,556	78.0	167.0

LEGEND



BORROW NOTES:

- STRIP AND STOCKPILE APPROX. 4"-6" OF TOPSOIL FROM PROPOSED BORROW AREAS. 4"-6" OF TOPSOIL SHALL BE RESPREAD OVER THE ENTIRE BORROW AREA INCLUDING SIDE SLOPES. COST OF TOPSOIL WORK SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "SITE PREPARATION".
- SUITABLE MATERIAL FOR ALL FILLS SHALL BE OBTAINED FROM THE DESIGNATED BORROW AREA SHOWN ON THIS SHEET AS APPROVED BY THE DU FIELD ENGINEER.
- BORROW AREAS ARE TO LOOK NATURAL UPON COMPLETION, MAINTAINING VISUAL APPEALING SLOPES. IDEALLY THESE SLOPES SHALL BE 6:1 OR FLATTER.
- BORROW AREAS ARE DEFINED AND THE CONTRACTOR NEEDS APPROVAL FROM THE DU ENGINEER TO BORROW OUTSIDE OF THE DEFINED LIMIT.

SEEDING NOTES:

- SEEDING AND MULCHING WILL BE REQUIRED ON THE EMBANKMENT TOPS AND SIDESLOPES. MULCH SHOULD BE CLEAN RICE, BARLEY, OR WHEAT STRAW. THE SEED WILL BE SUPPLIED BY THE CONTRACTOR. SEE SEED MIX BELOW. SEEDING SHALL OCCUR BEFORE LAST SPRING FROST OR APRIL 15TH (WHICHEVER IS EARLIER).
- MULCHING WILL REQUIRE ANCHORING OF SOME TYPE SUCH AS TACKING, MATTING, HAND PUNCHING, ROLLER PUNCHING, OR CRIMPER PUNCHING TO PREVENT BLOWING OR WASHING AWAY.
- MULCH APPLICATION RATE WILL BE TWO TONS PER ACRE OR ONE 74 POUND BALE PER 800 SQUARE FEET.
- SEEDED AREAS SHALL BE MONITORED MONTHLY UNTIL AT LEAST 70 PERCENT OF THE VEGETATION IS ESTABLISHED.

SEED MIX: (19.0 LBS/ACRE)

DESCRIPTION	PURE LIVE SEED (PLS) PER ACRE
INDIANGRASS, CHEYENNE	1.20 LBS
SWITCHGRASS, KAN LOW	1.80 LBS
SWITCHGRASS, CAVE IN ROCK	1.80 LBS
LITTLE BLUESTEM, ALDOUS	1.60 LBS
EASTERN GAMAGRASS, VARIETY NOT STATED	4.20 LBS
CANADA WILDRYE, MANDAN	3.00 LBS
VIRGINIA WILDRYE, VARIETY NOT STATED	2.00 LBS
BIG BLUESTEM, KAW	3.40 LBS
TOTAL	19.0 LBS

ABBREVIATIONS LIST

BRK = BREAK
 BTM. = BOTTOM
 C.L. = CENTER LINE
 CMP = CORRUGATED METAL PIPE ROUND
 CMPA = CORRUGATED METAL PIPE ARCH
 CONC. = CONCRETE
 DIA. = DIAMETER
 RD = ROAD
 ELEV. = ELEVATION
 EX. = EXISTING
 FES = FLARED END SECTION
 FSL = FULL SERVICE LEVEL
 GA. = GAUGE
 INV = INVERT
 LAT = LATITUDE (WGS84)
 LONG = LONGITUDE (WGS84)
 L.F. = LINEAR FEET
 MISC = MISCELLANEOUS
 N = NORTHING COORDINATE OR NORTH
 NFES = NON-FLARED END SECTION
 O.C. = ON CENTER
 O.C.E.W. = ON CENTER EACH WAY
 OHE = OVERHEAD ELECTRIC
 P.C. = POINT OF INTERSECTION
 P.I. = POINT OF INTERSECTION
 P.T. = POINT OF TANGENCY
 PLS = PURE LIVE SEED
 RCP = REINFORCED CONCRETE PIPE
 RD = ROAD
 REQ'D = REQUIRED
 R.O.W. = RIGHT OF WAY
 S = SOUTH
 SED = SEDIMENT
 TBM = TEMPORARY BENCHMARK
 US = UNDERGROUND
 VEG = VEGETATION
 W/ = WITH
 WCS = WATER CONTROL STRUCTURE
 WL = WATER LEVEL
 WS = WATER SHOT

PERMIT ISSUE

HORIZONTAL AND VERTICAL CONTROL OPUS SOLUTION- COORDINATES ARE UTM ZONE 15 GRID COORDINATES IN US FEET (NAD83). THEY WERE ESTABLISHED FROM THE WGS84 ELLIPSOID WITH INFORMATION FROM A TRIMBLE R12 SURVEY GRADE GPS RECEIVER ON JULY 13, 2022 AT DUCKS UNLIMITED CONTROL POINT DU-443-22 AND CALIBRATED TO AN OPUS POSITION OCCUPIED FOR 6 HOURS AND 40 MINUTE(S) AND SENT TO NGS FOR SOLUTION. THE VERTICAL CONTROL CAME FROM THE SAME SOLUTION USING GEOID 18 CONUS IN THE NAVD88. THE FULL OPUS SOLUTION REPORT IS ON FILE AT THE DUCKS UNLIMITED ENGINEERING DEPARTMENT IN GRAND ISLAND, NEBRASKA.



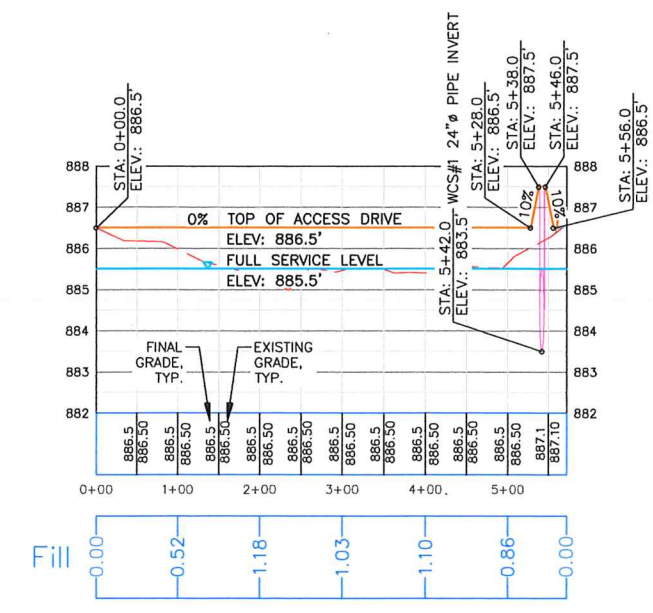
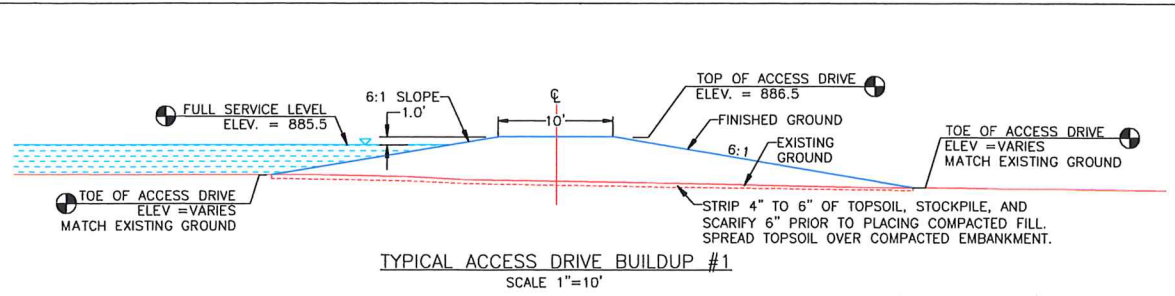
EXAMPLE OF DUCKS UNLIMITED CONTROL POINT SURVEY CAP

THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THE MATERIAL, DATA AND INFORMATION IS AT THE USER'S SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.

"BEFORE YOU DIG"
 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 "KANSAS 811" AT 811. A 48 HOUR NOTIFICATION AND FULL DESCRIPTION OF LOCATION IS REQUIRED.

DU REGIONAL ENGINEER:
 CRAIG ROY, P.E.
 (913) 991-2223

	PROJECT NO. KS-004-6	DESIGNED BY: CAR
	ELK CREEK MARSH	DRAWN BY: CAR/JJW
OVERALL PLAN		SURVEYED BY: CAR
GREAT PLAINS REGIONAL OFFICE		CHECKED BY:
DATE: 02/19/2024	SHEET NO. 2 OF 19	APPROVED BY:

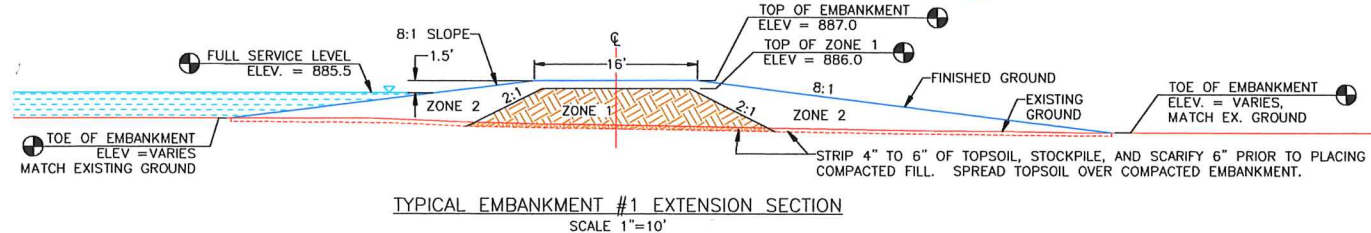
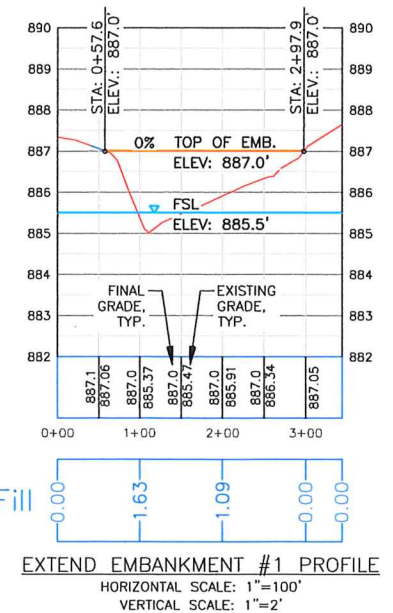


- EMBANKMENT CONSTRUCTION NOTES:**
1. STRIP 4" TO 6" OF TOPSOIL, STOCKPILE, AND SCARIFY 6" PRIOR TO PLACING COMPACTED FILL. SPREAD TOPSOIL OVER COMPACTED EMBANKMENT. COST OF TOPSOIL WORK SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "SITE PREPARATION".
 2. THE EMBANKMENT SUBGRADE MUST BE STABLE, UNIFORMLY GRADED, FREE OF ROCKS, ROOTS, AND OTHER DEBRIS, WITH NO ABRUPT GRADE CHANGES.
 3. EMBANKMENT CONSTRUCTION SHALL BE FROM COMPACTED EARTHEN MATERIAL CONTAINING MINIMAL ORGANIC MATERIAL AND SHALL COMPLY WITH DJ SPECIFICATION SECTION 204 "EMBANKMENT CONSTRUCTION".
 4. EMBANKMENT FILL SHALL BE OBTAINED FROM THE SPECIFIED BORROW AREA. FILL SHALL BE PLACED IN LIFTS OF NO MORE THAN 8" AND COMPACTED PRIOR TO PLACING SUBSEQUENT LIFTS.
 5. CONTRACTOR TO SEED FINISHED EMBANKMENT. SEE SEEDING NOTES, THIS SHEET.

- BORROW NOTES:** SEE SHEET 2
- SEEDING NOTES:**
1. SEEDING AND MULCHING WILL BE REQUIRED ON THE EMBANKMENT TOPS AND SIDESLOPES. MULCH SHOULD BE CLEAN RICE, BARLEY, OR WHEAT STRAW. THE SEED WILL BE SUPPLIED BY THE CONTRACTOR. SEE SEED MIX BELOW. SEEDING SHALL OCCUR BEFORE LAST SPRING FROST OR APRIL 15TH (WHICHEVER IS EARLIER).
 2. MULCHING WILL REQUIRE ANCHORING OF SOME TYPE SUCH AS TACKING, MATTING, HAND PUNCHING, ROLLER PUNCHING, OR CRIMPER PUNCHING TO PREVENT BLOWING OR WASHING AWAY.
 3. MULCH APPLICATION RATE WILL BE TWO TONS PER ACRE OR ONE 74 POUND BALE PER 800 SQUARE FEET.
 4. SEEDED AREAS SHALL BE MONITORED MONTHLY UNTIL AT LEAST 70 PERCENT OF THE VEGETATION IS ESTABLISHED.

SEED MIX: (19.0 LBS/ACRE)

DESCRIPTION	PURE LIVE SEED (PLS) PER ACRE
INDIANGRASS, CHEYENNE	1.20 LBS
SWITCHGRASS, KAN LOW	1.80 LBS
SWITCHGRASS, CAVE IN ROCK	1.80 LBS
LITTLE BLUESTEM, ALDOUS	1.60 LBS
EASTERN GAMAGRASS, VARIETY NOT STATED	4.20 LBS
CANADA WILDRYE, MANDAN	3.00 LBS
VIRGINIA WILDRYE, VARIETY NOT STATED	3.00 LBS
BIG BLUESTEM, KAW	2.40 LBS
TOTAL	19.0 LBS



LEGEND

FULL SERVICE LEVEL (FSL)		FILL / CONSTRUCTED TOPOGRAPHY		12" PVC PIPE	
CONSTRUCT EMBANKMENT/ EARTHWORK		WATER CONTROL STRUCTURE		EXISTING PIPE	
CUT / BORROW LOCATION		EXISTING WATER CONTROL STRUCTURE		BUTTERFLY VALVE	
				DRAIN PIPE	

WATER RESOURCES RECEIVED
MAR 28 2024
KS DEPT OF AGRICULTURE
PERMIT ISSUE

THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THE MATERIAL, DATA AND INFORMATION IS AT THE USER'S SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.

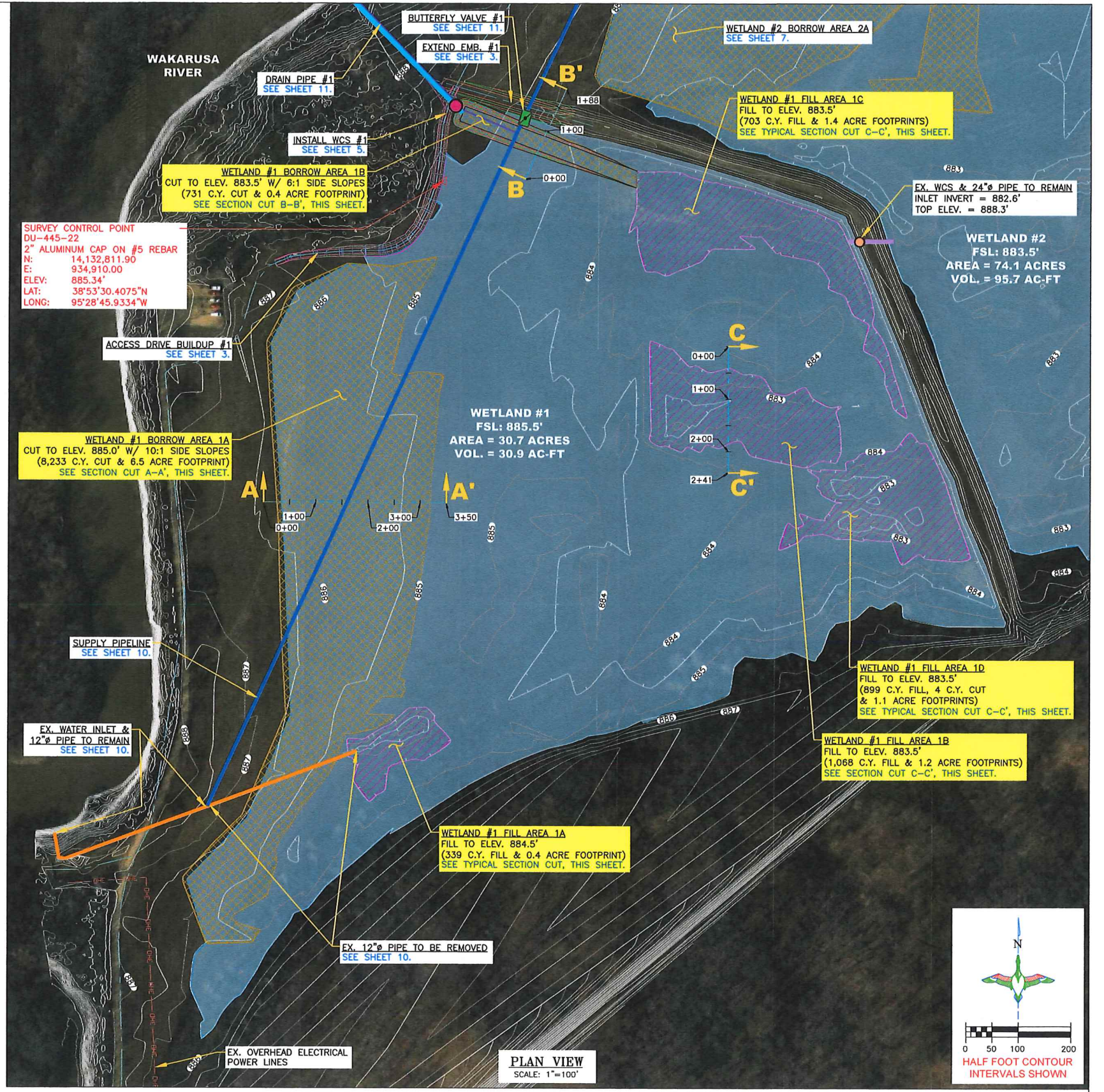
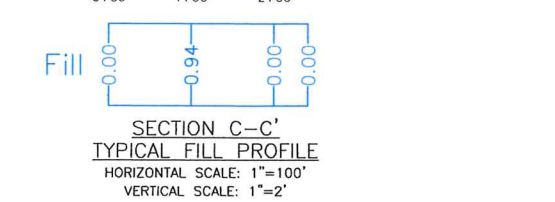
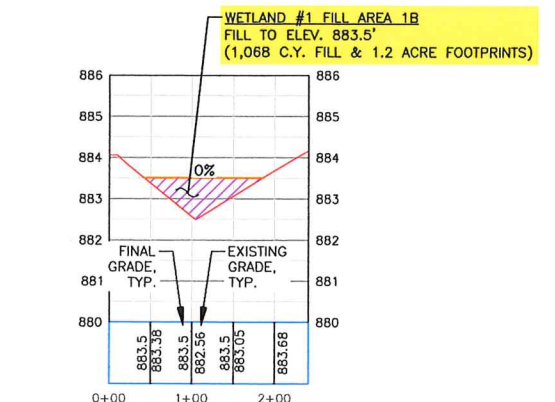
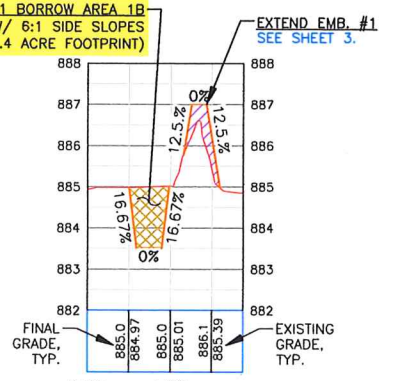
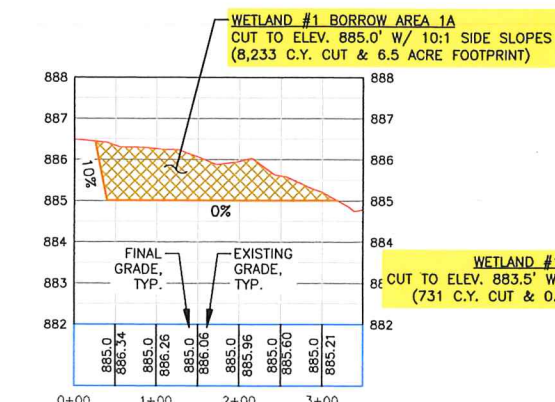
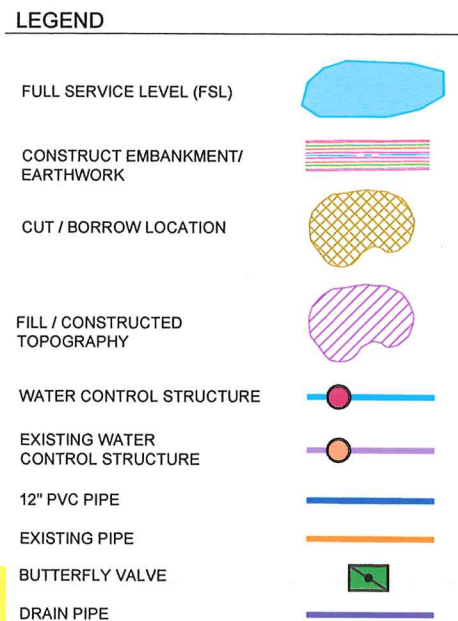
"BEFORE YOU DIG"
BEFORE THE START OF CONSTRUCTION, THE OWNER OF ANY UTILITIES INVOLVED MUST BE NOTIFIED. THE EXCAVATOR/CONTRACTOR IS RESPONSIBLE FOR GIVING THIS NOTICE BY CALLING "KANSAS 811" AT 811. A 48 HOUR NOTIFICATION AND FULL DESCRIPTION OF LOCATION IS REQUIRED.

DU REGIONAL ENGINEER:
CRAIG ROY, P.E.
(913) 991-2223

	PROJECT NO. KS-004-6	DESIGNED BY: CAR
	ELK CREEK MARSH ACCESS DRIVE BUILDUP #1 & EMBANKMENT #1 EXTENSION	DRAWN BY: CAR/JJW
GREAT PLAINS REGIONAL OFFICE	DATE: 02/19/2024	CHECKED BY: CAR
SHEET NO. 3 OF 19	APPROVED BY:	APPROVED BY:

DIRT BALANCE TABLE			
LOCATION	FILL (C.Y.)*	EXCAVATION (C.Y.)	NET (C.Y.)
WETLAND #1			
WETLAND #1 FILL 1A'	339	-	339
WETLAND #1 FILL 1B'	1,068	-	1,068
WETLAND #1 FILL 1C'	703	-	703
WETLAND #1 FILL 1D'	899	4	895
EMBANKMENT #1 EXTENSION**	314	-	314
ACCESS DRIVE BUILDUP #1**	350	-	350
WCS #1 PIPE COVER	21	-	21
BORROW #1A	-	8,233	(8,233)
BORROW #1B	-	731	(731)
WETLAND #2			
WETLAND #2 FILL 2A'	2,448	13	2,433
WETLAND #2 FILL 2B'	347	-	347
WETLAND #2 FILL 2C'	121	-	121
EMBANKMENT #2 EXTENSION**	118	-	118
EMBANKMENT #2 REPAIR**	135	31	104
ACCESS DRIVE BUILDUP #2**	35	3	32
BORROW #2A	-	22,924	(22,924)
BORROW #2B	-	617	(617)
WETLAND #3			
WETLAND #3 FILL 3A'	304	-	304
WETLAND #3 FILL 3B'	24,955	-	24,955
ACCESS DRIVE BUILDUP #3**	115	10	105
WCS #3 COVER	286	-	286
TOTAL	32,568	32,568	-

* FILL IN WETLANDS INCLUDES A 15% SHRINKAGE FACTOR
 ** FILL FOR EMBANKMENTS & ACCESS DRIVE BUILDUP INCLUDES A 25% SHRINKAGE FACTOR



WATER RESOURCES RECEIVED
MAR 28 2024

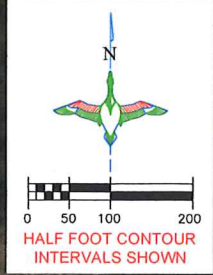
KS DEPT OF AGRICULTURE

THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THE MATERIAL, DATA AND INFORMATION IS AT THE USER'S SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.

"BEFORE YOU DIG"
 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 "KANSAS 811" AT 811, A 48 HOUR NOTIFICATION AND FULL DESCRIPTION OF LOCATION IS REQUIRED.

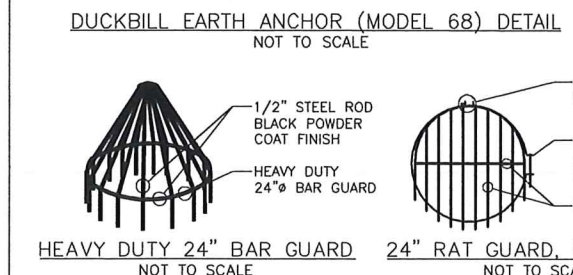
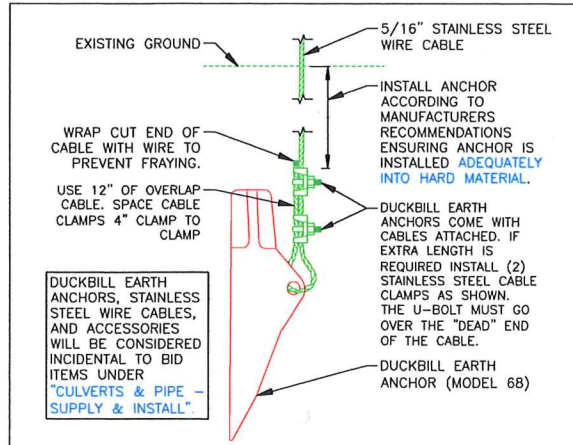
DU REGIONAL ENGINEER:
CRAIG ROY, P.E.
 (913) 991-2223

	PROJECT NO. KS-004-6	DESIGNED BY: CAR
	ELK CREEK MARSH WETLAND #1 CONSTRUCTED TOPOGRAPHY	DRAWN BY: CAR/JJV
GREAT PLAINS REGIONAL OFFICE	CHECKED BY: CAR	APPROVED BY:
DATE: 02/19/2024	SHEET NO. 4 OF 19	APPROVED BY:



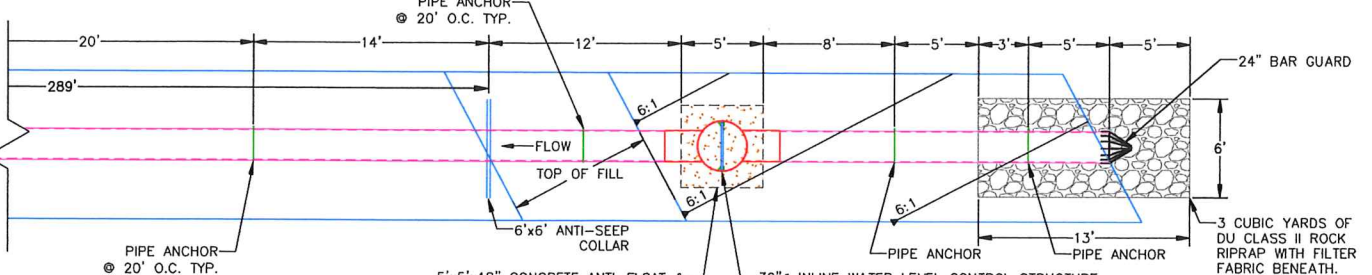
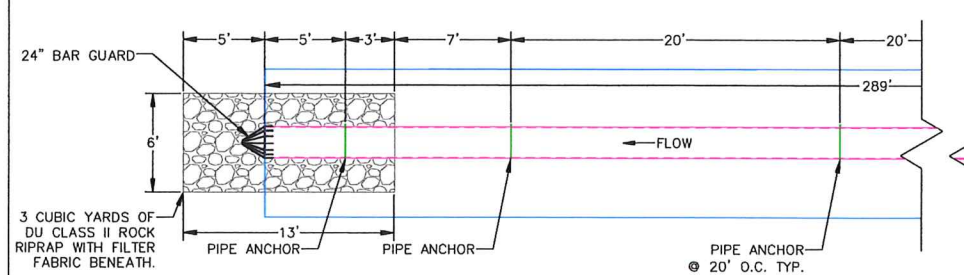
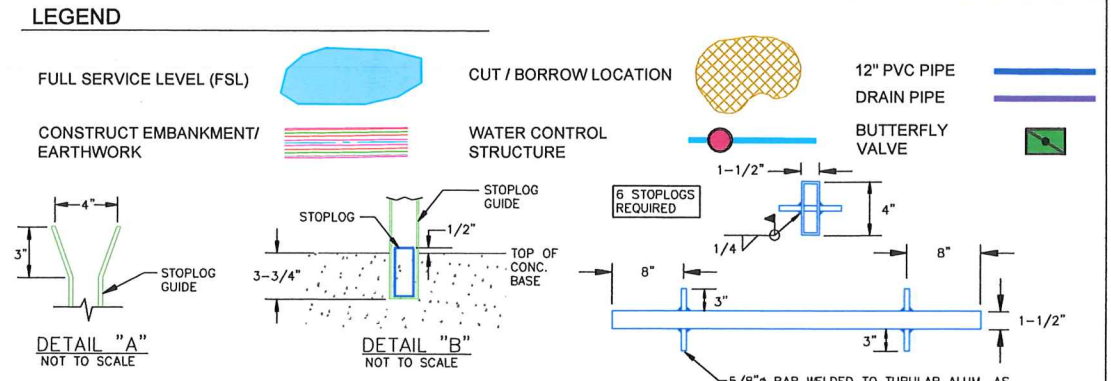
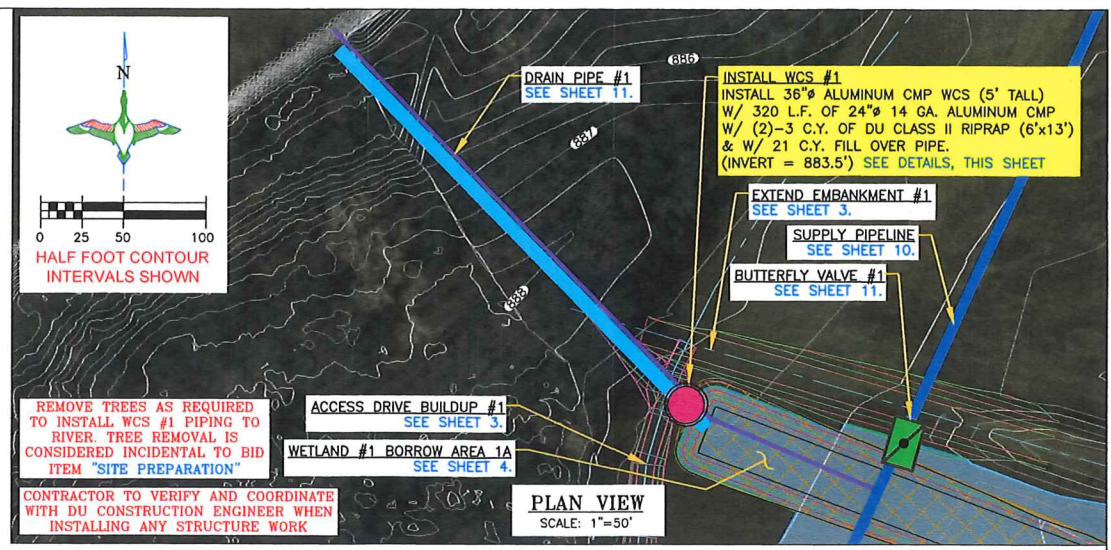
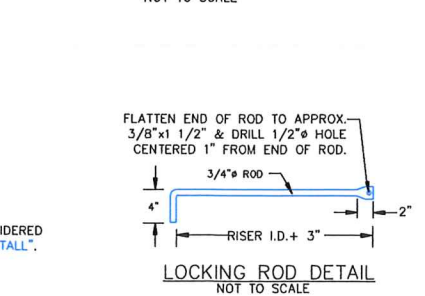
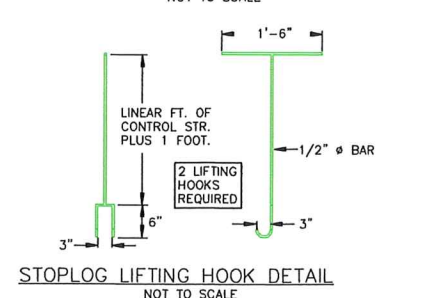
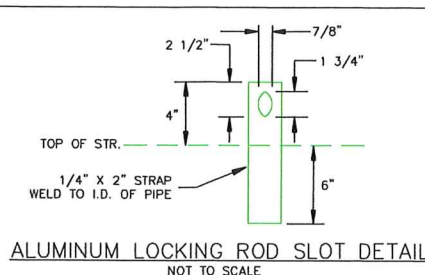
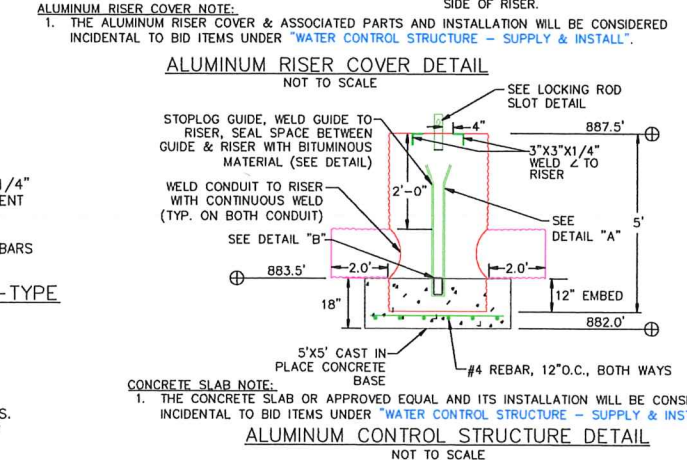
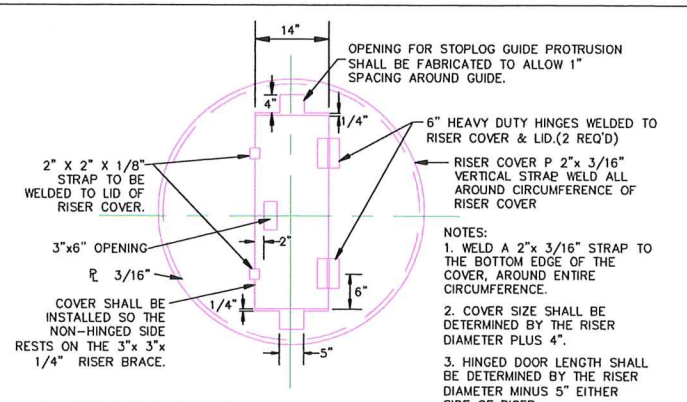
WATER RESOURCES RECEIVED MAR 28 2024

KS DEPT OF AGRICULTURE



BAR GUARD/RAT GUARD INSTALLATION NOTES:

1. THE BAR GUARD/RAT GUARD OR APPROVED EQUAL AND ITS INSTALLATION WILL BE CONSIDERED INCIDENTAL TO BID ITEMS UNDER "WATER CONTROL STRUCTURE - SUPPLY & INSTALL".
2. BAR GUARD TO BE INSTALLED ON THE UPSTREAM LOCATION OF THE WCS.
3. RAT GUARD TO BE INSTALLED ON THE DOWNSTREAM LOCATION OF THE WCS.
4. AGRI-GRAIN CORP., WISCONSIN FLOW GATE, SEABREEZE CULVERT, INC., OR APPROVED EQUAL.

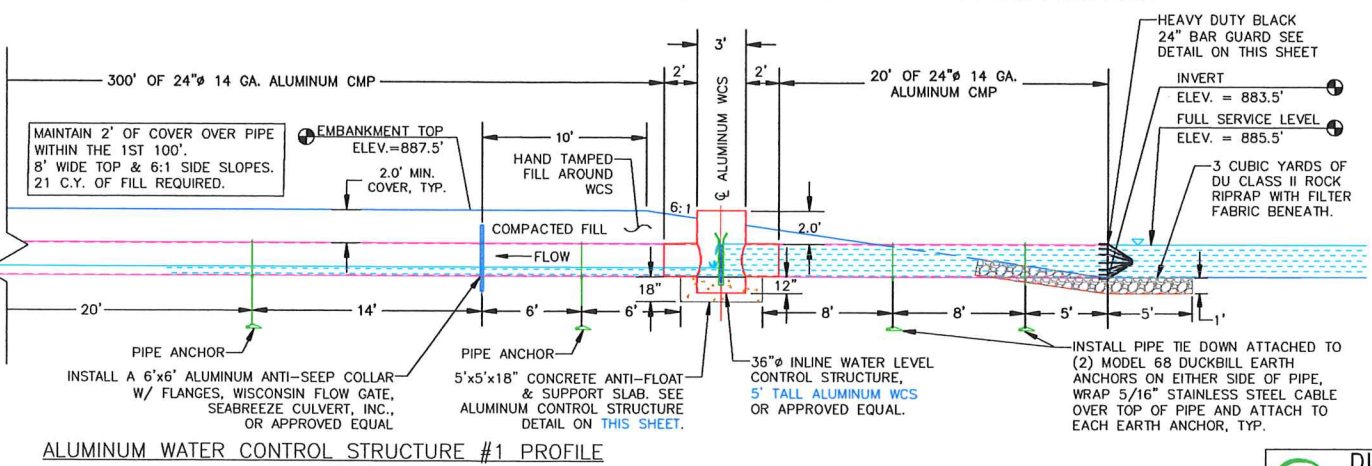
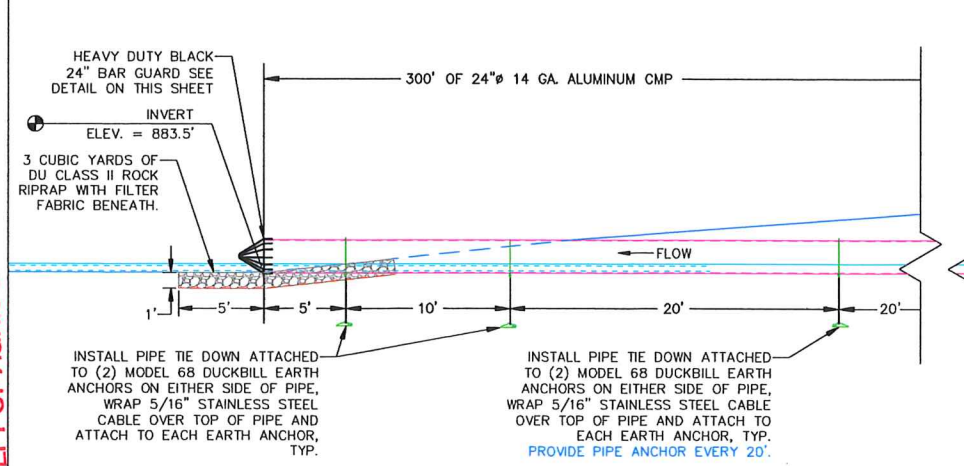


STRUCTURE NOTE:

- 1) ALUMINUM WATER CONTROL STRUCTURE WILL BE MANUFACTURED BY WISCONSIN FLOW GATE & CULVERT CO. (715)-325-3302 OR SEABREEZE CULVERT, INC. (409) 296-4098 OR APPROVED EQUIVALENT. DU ENGINEER WILL NEED TO APPROVE OTHER MANUFACTURER.

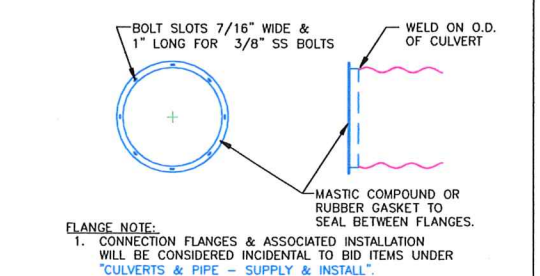
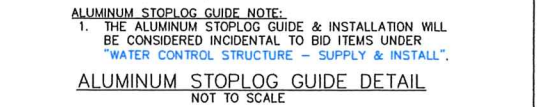
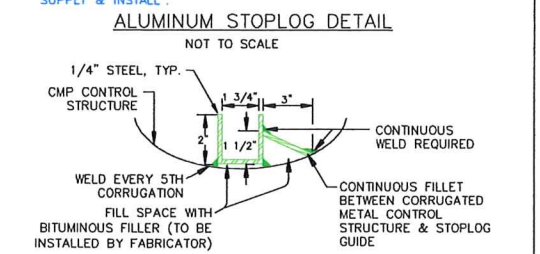
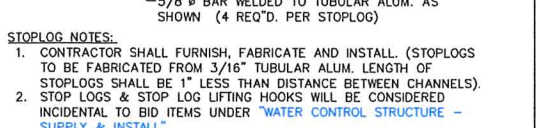
STRUCTURE NOTE:

- 1) ALUMINUM WATER CONTROL STRUCTURE WILL BE MANUFACTURED BY WISCONSIN FLOW GATE & CULVERT CO. (715)-325-3302 OR SEABREEZE CULVERT, INC. (409) 296-4098 OR APPROVED EQUIVALENT. DU ENGINEER WILL NEED TO APPROVE OTHER MANUFACTURER.



INSTALL PIPE TIE DOWN ATTACHED TO (2) MODEL 68 DUCKBILL EARTH ANCHORS ON EITHER SIDE OF PIPE, WRAP 5/16" STAINLESS STEEL CABLE OVER TOP OF PIPE AND ATTACH TO EACH EARTH ANCHOR, TYP. PROVIDE PIPE ANCHOR EVERY 20'.

INSTALL PIPE TIE DOWN ATTACHED TO (2) MODEL 68 DUCKBILL EARTH ANCHORS ON EITHER SIDE OF PIPE, WRAP 5/16" STAINLESS STEEL CABLE OVER TOP OF PIPE AND ATTACH TO EACH EARTH ANCHOR, TYP. PROVIDE PIPE ANCHOR EVERY 20'.

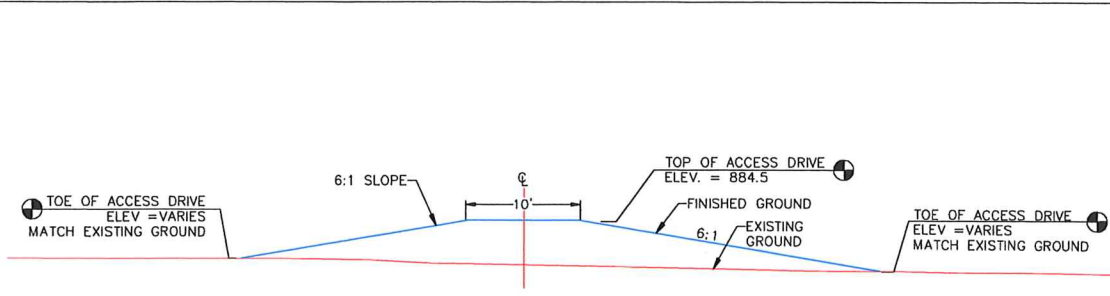


THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THE MATERIAL, DATA AND INFORMATION IS AT THE USER'S SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.

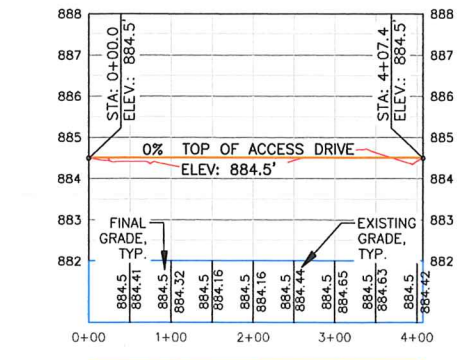
"BEFORE YOU DIG"
BEFORE THE START OF CONSTRUCTION, THE OWNER OF ANY UTILITIES INVOLVED MUST BE NOTIFIED. THE EXCAVATOR/CONTRACTOR IS RESPONSIBLE FOR GIVING THIS NOTICE BY CALLING "KANSAS 811" AT 811. A 48 HOUR NOTIFICATION AND FULL DESCRIPTION OF LOCATION IS REQUIRED.

DU REGIONAL ENGINEER:
CRAIG ROY, P.E.
(913) 991-2223

<p>GREAT PLAINS REGIONAL OFFICE DATE: 02/19/2024 SHEET NO. 5 OF 19</p>	<p>PROJECT NO. KS-004-6 ELK CREEK MARSH WCS #1</p>	<p>DESIGNED BY: CAR DRAWN BY: CAR/JJW SURVEYED BY: CAR CHECKED BY:</p>
	<p>PERMIT ISSUE</p> <p>APPROVED BY:</p>	



TYPICAL EMBANKMENT #2 ACCESS DRIVE BUILDUP
SCALE 1"=10'



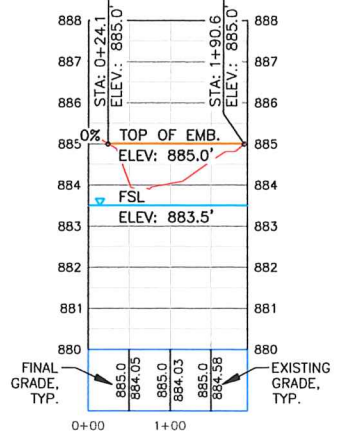
ACCESS DRIVE BUILDUP #2 PROFILE
HORIZONTAL SCALE: 1"=100'
VERTICAL SCALE: 1"=2'

- EMBANKMENT CONSTRUCTION NOTES:**
1. STRIP 4" TO 6" OF TOPSOIL, STOCKPILE, AND SCARIFY 6" PRIOR TO PLACING COMPACTED FILL. SPREAD TOPSOIL OVER COMPACTED EMBANKMENT. COST OF TOPSOIL WORK SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "SITE PREPARATION".
 2. THE EMBANKMENT SUBGRADE MUST BE STABLE, UNIFORMLY GRADED, FREE OF ROCKS, ROOTS, AND OTHER DEBRIS, WITH NO ABRUPT GRADE CHANGES.
 3. EMBANKMENT CONSTRUCTION SHALL BE FROM COMPACTED EARTHEN MATERIAL CONTAINING MINIMAL ORGANIC MATERIAL AND SHALL COMPLY WITH DU SPECIFICATION SECTION 204 "EMBANKMENT CONSTRUCTION."
 4. EMBANKMENT FILL SHALL BE OBTAINED FROM THE SPECIFIED BORROW AREA. FILL SHALL BE PLACED IN LIFTS OF NO MORE THAN 8" AND COMPACTED PRIOR TO PLACING SUBSEQUENT LIFTS.
 5. CONTRACTOR TO SEED FINISHED EMBANKMENT. SEE SEEDING NOTES, THIS SHEET.

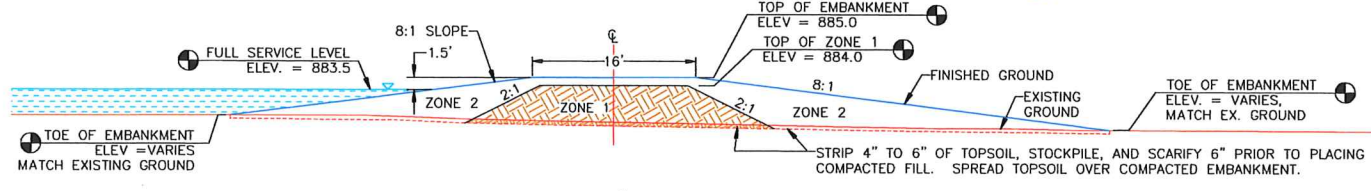
- BORROW NOTES:** SEE SHEET 2
- SEEDING NOTES:**
1. SEEDING AND MULCHING WILL BE REQUIRED ON THE EMBANKMENT TOPS AND SIDESLOPES. MULCH SHOULD BE CLEAN RICE, BARLEY, OR WHEAT STRAW. THE SEED WILL BE SUPPLIED BY THE CONTRACTOR. SEE SEED MIX BELOW. SEEDING SHALL OCCUR BEFORE LAST SPRING FROST OR APRIL 15TH (WHICHEVER IS EARLIER).
 2. MULCHING WILL REQUIRE ANCHORING OF SOME TYPE SUCH AS TACKING, MATTING, HAND PUNCHING, ROLLER PUNCHING, OR CRIMPER PUNCHING TO PREVENT BLOWING OR WASHING AWAY.
 3. MULCH APPLICATION RATE WILL BE TWO TONS PER ACRE OR ONE 74 POUND BALE PER 800 SQUARE FEET.
 4. SEEDING AREAS SHALL BE MONITORED MONTHLY UNTIL AT LEAST 70 PERCENT OF THE VEGETATION IS ESTABLISHED.

SEED MIX: (19.0 LBS/ACRE)

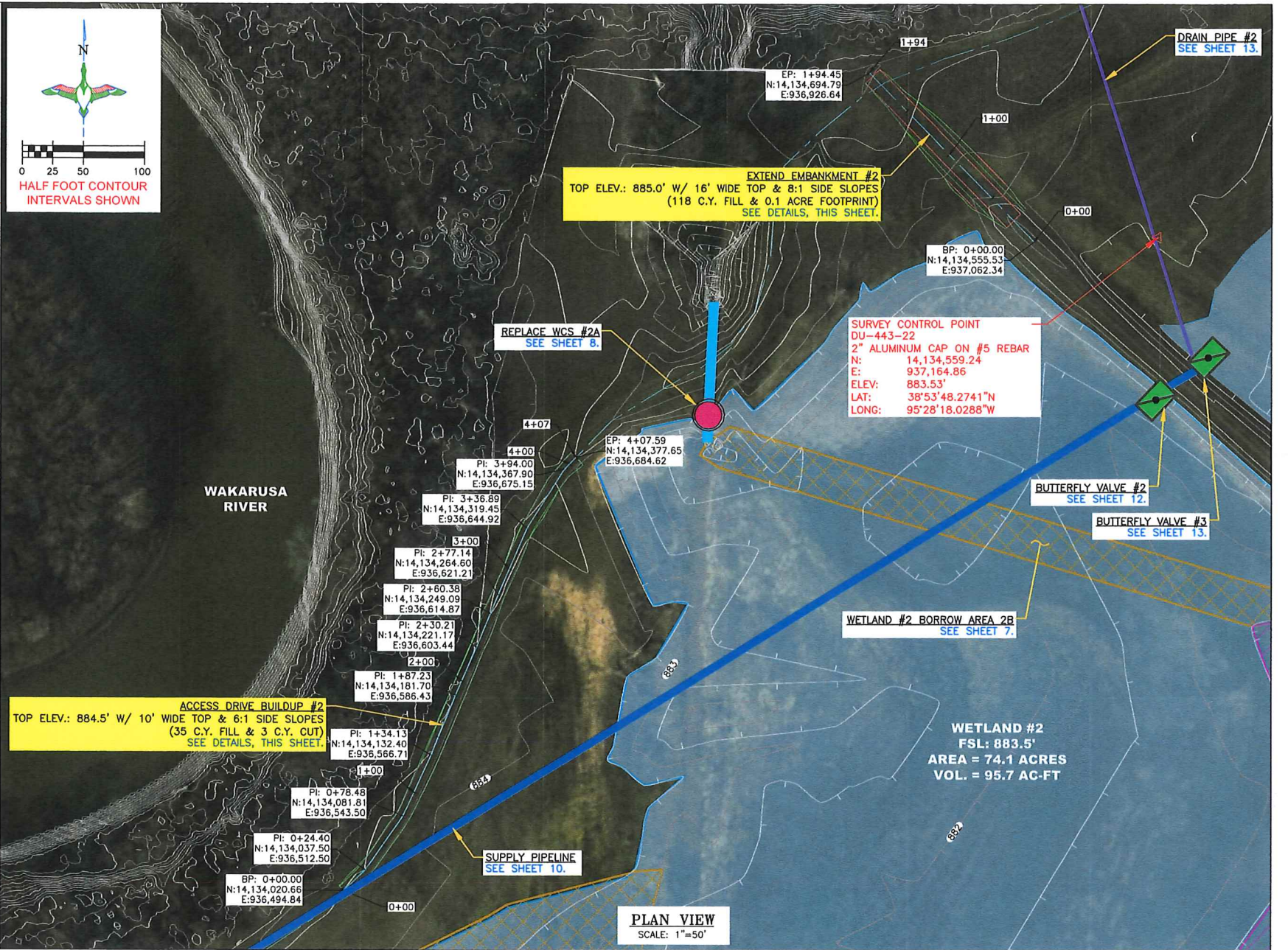
DESCRIPTION	PURE LIVE SEED (PLS) PER ACRE
INDIANGRASS, CHEYENNE	1.20 LBS
SWITCHGRASS, KAN LOW	1.80 LBS
SWITCHGRASS, CAVE IN ROCK	1.80 LBS
LITTLE BLUESTEM, ALDOUS	1.60 LBS
EASTERN GAMAGRASS, VARIETY NOT STATED	4.20 LBS
CANADA WILDRIE, MANDAN	3.00 LBS
VIRGINIA WILDRIE, VARIETY NOT STATED	3.00 LBS
BIG BLUESTEM, KAW	2.40 LBS
TOTAL	19.0 LBS



EXTEND EMBANKMENT #2 PROFILE
HORIZONTAL SCALE: 1"=100'
VERTICAL SCALE: 1"=2'



TYPICAL EMBANKMENT #2 EXTENSION SECTION
SCALE 1"=10'



PLAN VIEW
SCALE: 1"=50'

LEGEND

- FULL SERVICE LEVEL (FSL) [Blue shaded area]
- CONSTRUCT EMBANKMENT/ EARTHWORK [Pink hatched area]
- CUT / BORROW LOCATION [Yellow hatched area]
- FILL / CONSTRUCTED TOPOGRAPHY [Purple hatched area]
- WATER CONTROL STRUCTURE [Red circle]
- EXISTING WATER CONTROL STRUCTURE [Orange circle]
- 12" PVC PIPE [Blue line]
- EXISTING PIPE [Orange line]
- BUTTERFLY VALVE [Green square]
- DRAIN PIPE [Purple line]

WATER RESOURCES RECEIVED
MAR 28 2024

KS DEPT OF AGRICULTURE **PERMIT ISSUE**

THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THE MATERIAL, DATA AND INFORMATION IS AT THE USER'S SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.

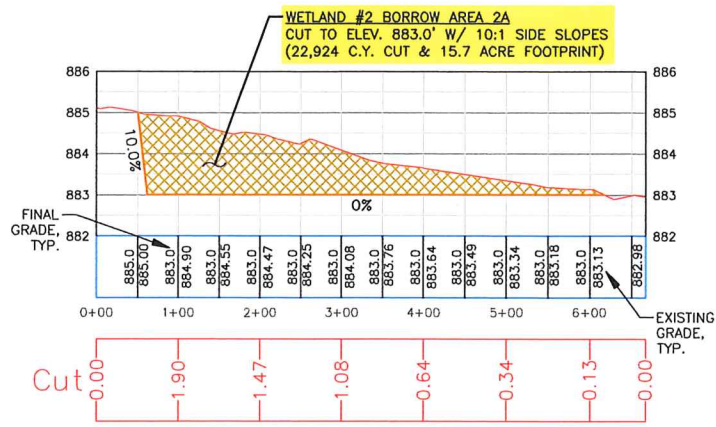
"BEFORE YOU DIG"
BEFORE THE START OF CONSTRUCTION, THE OWNER OF ANY UTILITIES INVOLVED MUST BE NOTIFIED. THE EXCAVATOR/CONTRACTOR IS RESPONSIBLE FOR GIVING THIS NOTICE BY CALLING "KANSAS 811" AT 811. A 48 HOUR NOTIFICATION AND FULL DESCRIPTION OF LOCATION IS REQUIRED.

DU REGIONAL ENGINEER:
CRAIG ROY, P.E.
(913) 991-2223

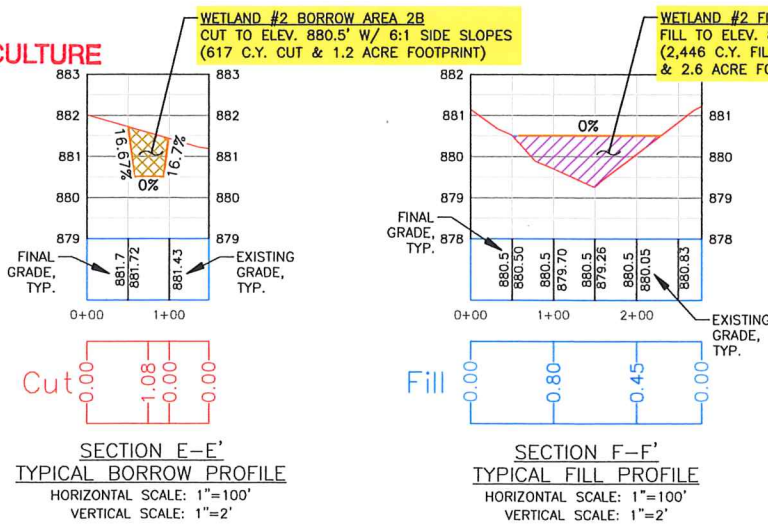
	PROJECT NO. KS-004-6	DESIGNED BY: CAR
	ELK CREEK MARSH ACCESS DRIVE BUILDUP #2 & EMBANKMENT #2 EXTENSION	DRAWN BY: CAR/JJV
GREAT PLAINS REGIONAL OFFICE	SHEET NO. 6 OF 19	CHECKED BY: CAR
DATE: 02/19/2024	APPROVED BY:	APPROVED BY:

DIRT BALANCE TABLE			
LOCATION	FILL (C.Y.)*	EXCAVATION (C.Y.)	NET (C.Y.)
WETLAND #1			
WETLAND #1 FILL 1A*	339	-	339
WETLAND #1 FILL 1B*	1,068	-	1,068
WETLAND #1 FILL 1C*	703	-	703
WETLAND #1 FILL 1D*	899	4	895
EMBANKMENT #1 EXTENSION**	314	-	314
ACCESS DRIVE BUILDUP #1**	350	-	350
WCS #1 PIPE COVER	21	-	21
BORROW #1A	-	8,233	(8,233)
BORROW #1B	-	731	(731)
WETLAND #2			
WETLAND #2 FILL 2A*	2,446	13	2,433
WETLAND #2 FILL 2B*	347	-	347
WETLAND #2 FILL 2C*	121	-	121
EMBANKMENT #2 EXTENSION**	118	-	118
EMBANKMENT #2 REPAIR**	135	31	104
ACCESS DRIVE BUILDUP #2**	35	3	32
BORROW #2A	-	22,924	(22,924)
BORROW #2B	-	617	(617)
WETLAND #3			
WETLAND #3 FILL 3A*	304	-	304
WETLAND #3 FILL 3B*	24,855	-	24,855
ACCESS DRIVE BUILDUP #3**	115	10	105
WCS #3 COVER	296	-	296
TOTAL	32,566	32,566	-

* FILL IN WETLANDS INCLUDES A 15% SHRINKAGE FACTOR
 ** FILL FOR EMBANKMENTS & ACCESS DRIVE BUILDUP INCLUDES A 25% SHRINKAGE FACTOR

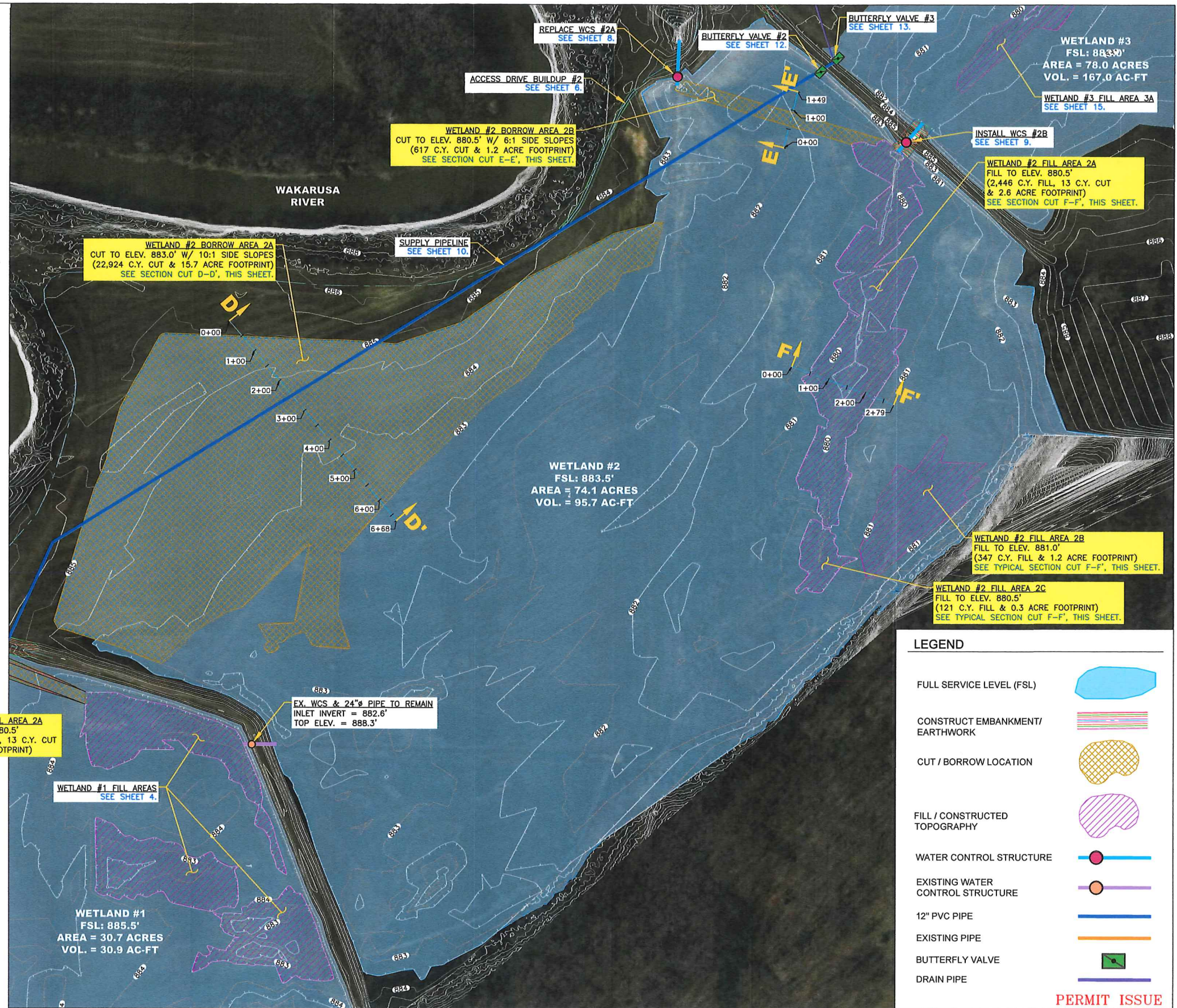


SECTION D-D'
TYPICAL BORROW PROFILE
HORIZONTAL SCALE: 1"=100'
VERTICAL SCALE: 1"=2'



SECTION E-E'
TYPICAL BORROW PROFILE
HORIZONTAL SCALE: 1"=100'
VERTICAL SCALE: 1"=2'

SECTION F-F'
TYPICAL FILL PROFILE
HORIZONTAL SCALE: 1"=100'
VERTICAL SCALE: 1"=2'



LEGEND	
FULL SERVICE LEVEL (FSL)	
CONSTRUCT EMBANKMENT/ EARTHWORK	
CUT / BORROW LOCATION	
FILL / CONSTRUCTED TOPOGRAPHY	
WATER CONTROL STRUCTURE	
EXISTING WATER CONTROL STRUCTURE	
12" PVC PIPE	
EXISTING PIPE	
BUTTERFLY VALVE	
DRAIN PIPE	

PERMIT ISSUE

WATER RESOURCES RECEIVED
MAR 28 2024

KS DEPT OF AGRICULTURE

THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THE MATERIAL, DATA AND INFORMATION IS AT THE USER'S SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.

"BEFORE YOU DIG"
 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 "KANSAS 811" AT 811. A 48 HOUR NOTIFICATION AND FULL DESCRIPTION OF LOCATION IS REQUIRED.

DU REGIONAL ENGINEER:
CRAIG ROY, P.E.
(913) 991-2223

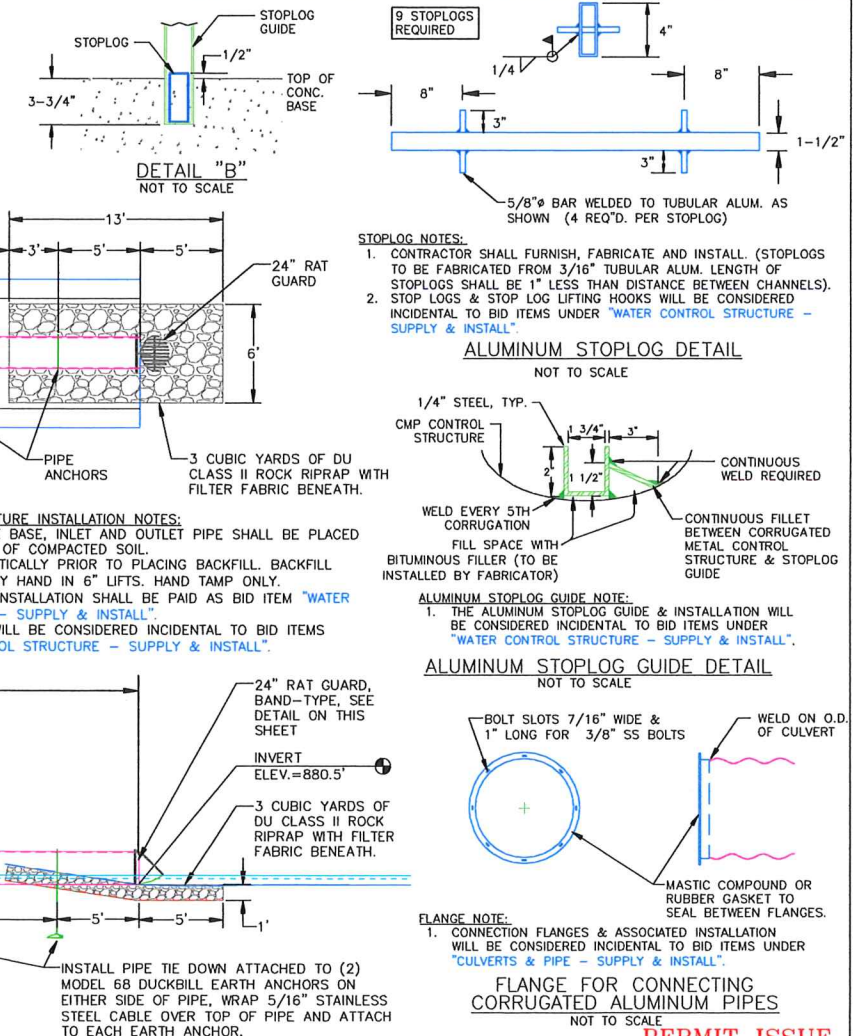
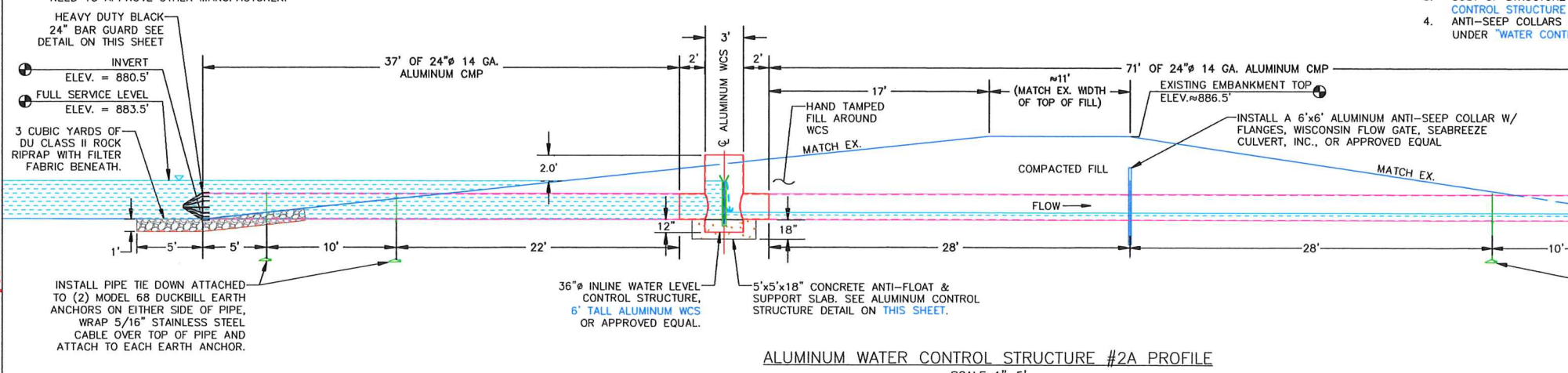
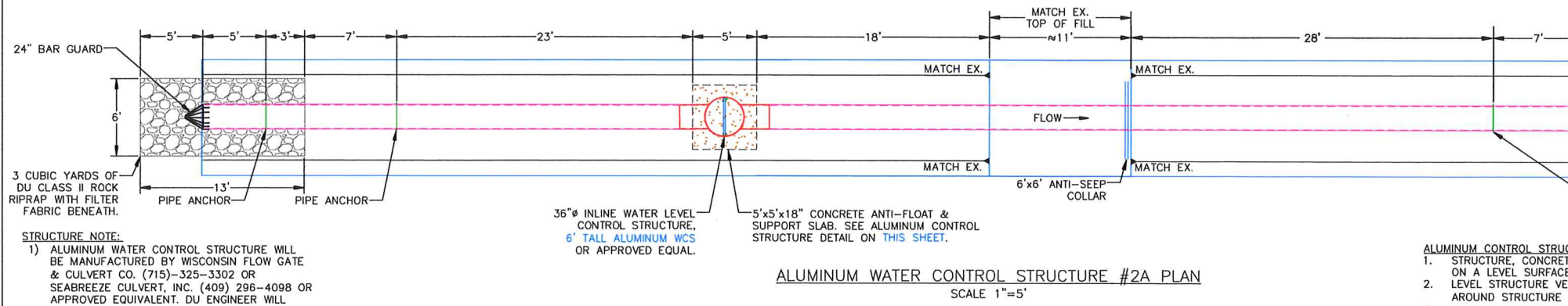
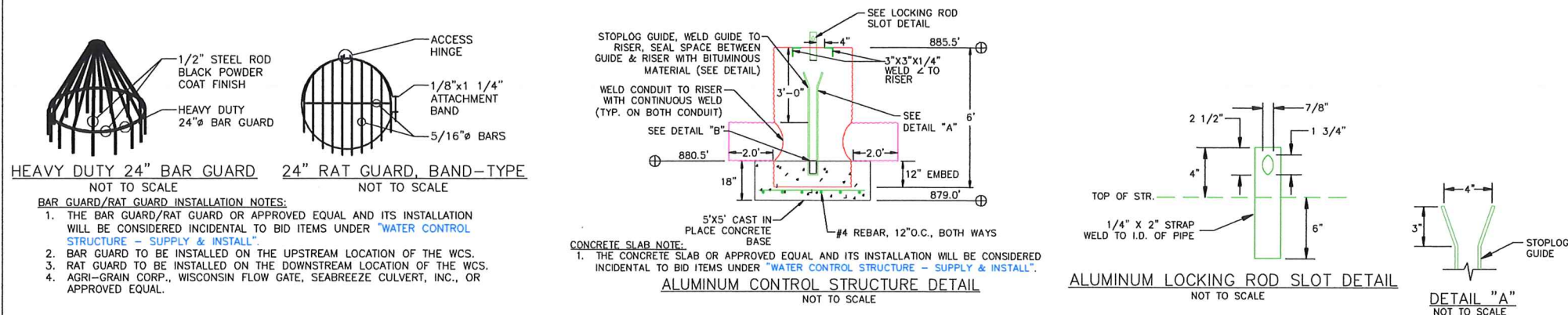
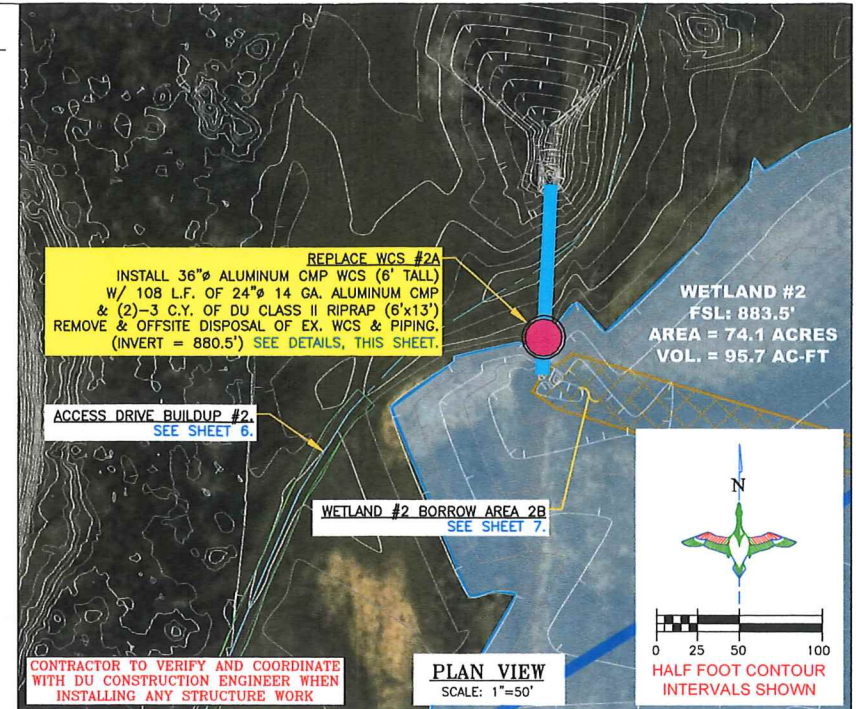
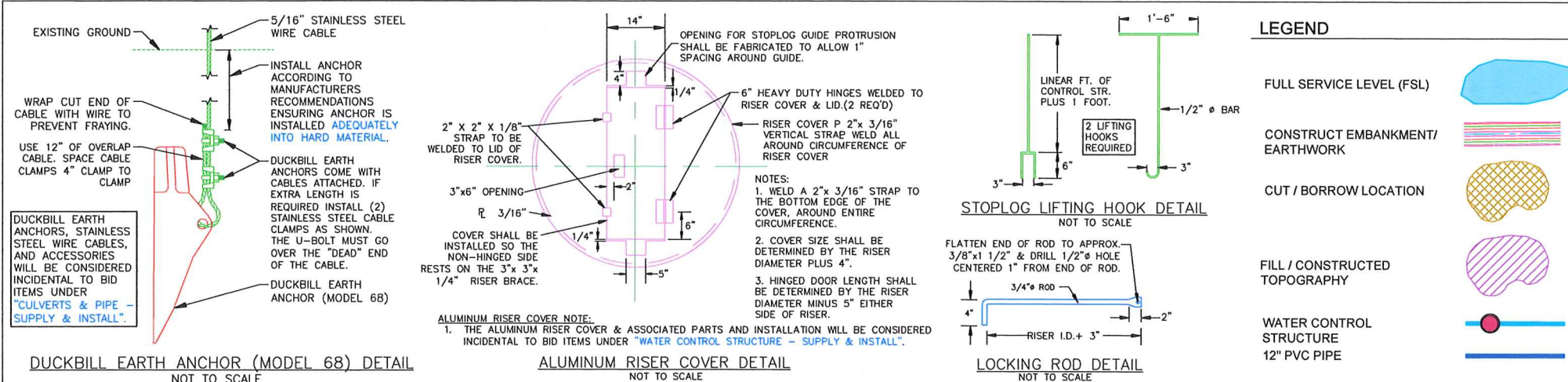
DUCKS UNLIMITED INC.
GREAT PLAINS REGIONAL OFFICE
DATE: 02/19/2024 SHEET NO. 7 OF 19

PROJECT NO. KS-004-6
ELK CREEK MARSH
WETLAND #2
CONSTRUCTED TOPOGRAPHY

DESIGNED BY: CAR
DRAWN BY: CAR/JJV
SURVEYED BY: CAR
CHECKED BY: .
APPROVED BY: .

WATER RESOURCES RECEIVED MAR 28 2024

KS DEPT OF AGRICULTURE

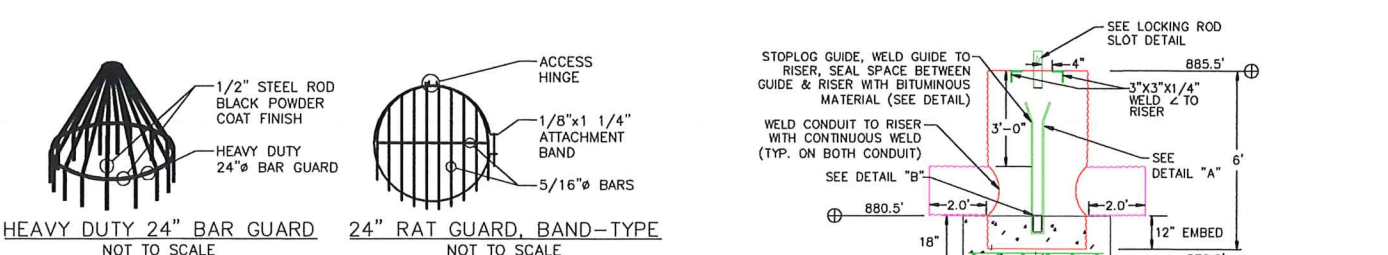
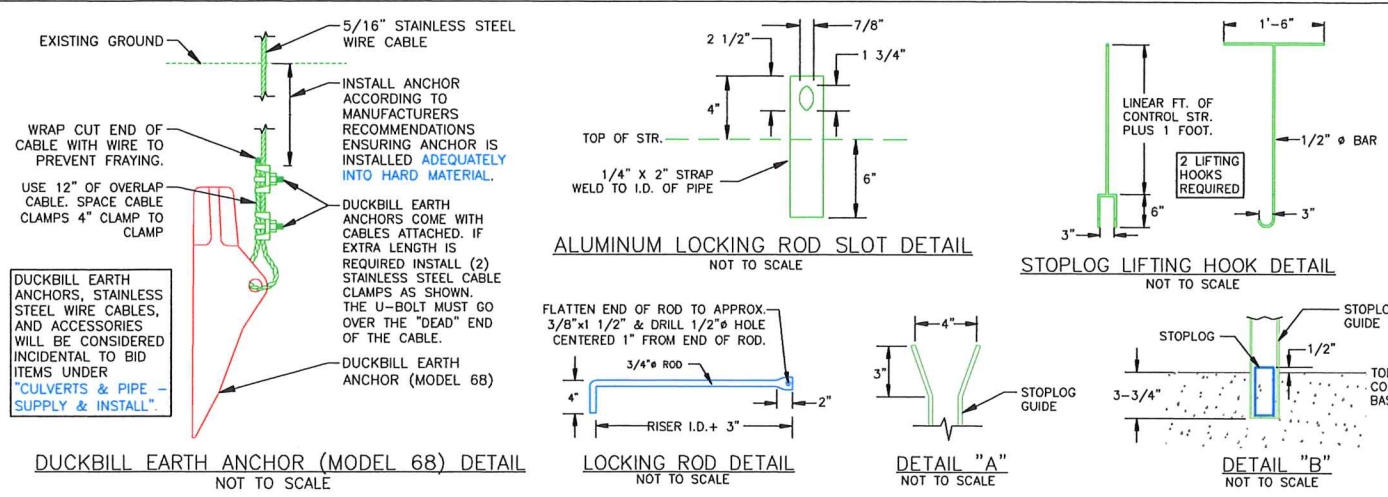


THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THE MATERIAL, DATA AND INFORMATION IS AT THE USER'S SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.

"BEFORE YOU DIG"
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 "KANSAS 811" AT 811, A 48 HOUR NOTIFICATION AND FULL DESCRIPTION OF LOCATION IS REQUIRED.

DU REGIONAL ENGINEER:
CRAIG ROY, P.E.
(913) 991-2223

<p>DUCKS UNLIMITED INC.</p> <p>GREAT PLAINS REGIONAL OFFICE</p> <p>DATE: 02/19/2024</p> <p>SHEET NO. 8 OF 19</p>	<p>PROJECT NO. KS-004-6</p> <p>ELK CREEK MARSH</p> <p>WCS #2A</p>	<p>DESIGNED BY: CAR</p> <p>DRAWN BY: CAR/JWW</p> <p>SURVEYED BY: CAR</p> <p>CHECKED BY: .</p>
	<p>APPROVED BY:</p>	<p>APPROVED BY:</p>

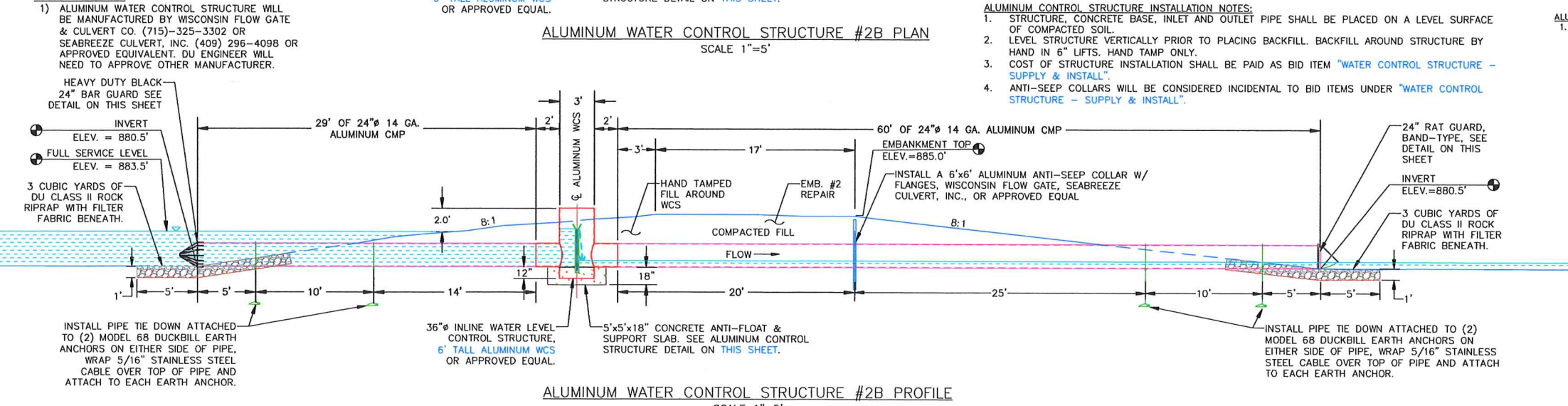
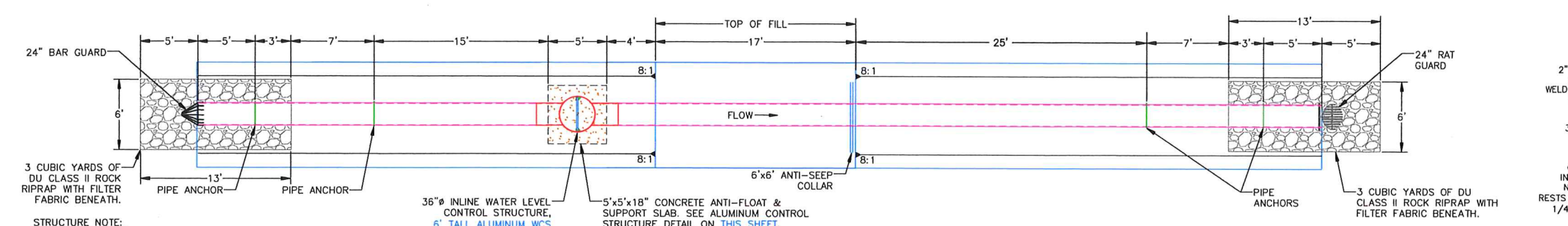
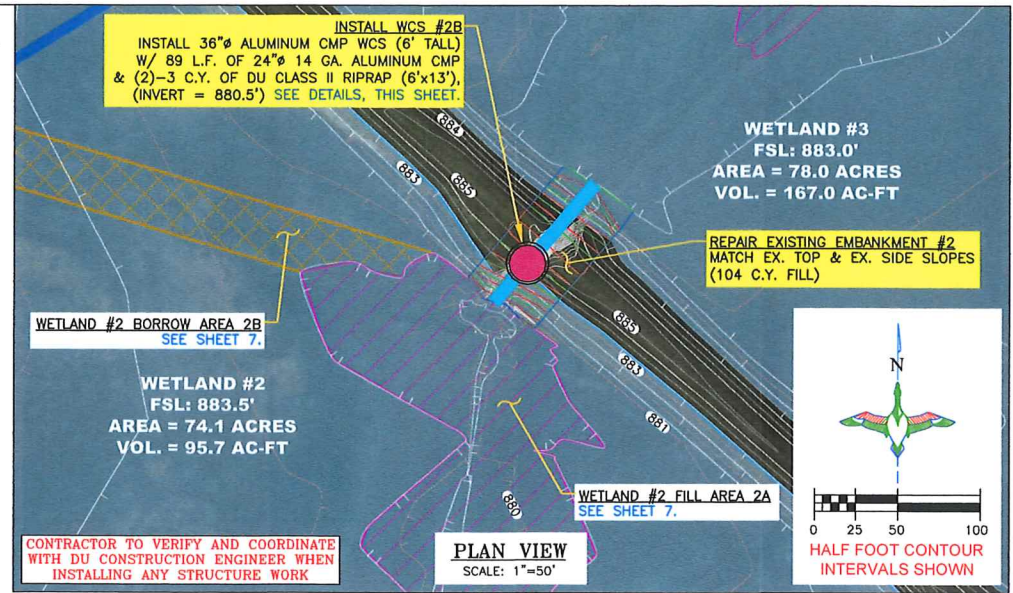
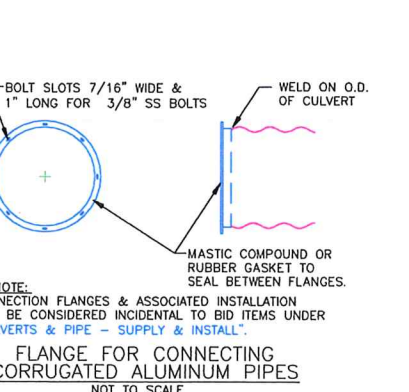
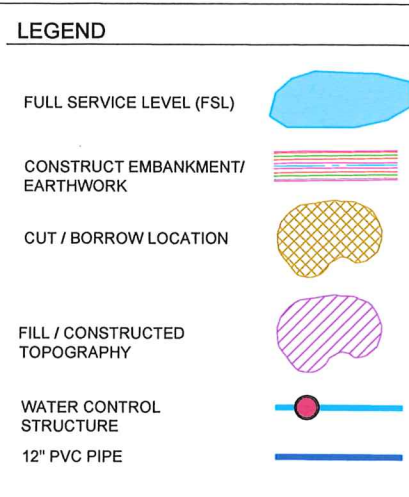


BAR GUARD/RAT GUARD INSTALLATION NOTES:

1. THE BAR GUARD/RAT GUARD OR APPROVED EQUAL AND ITS INSTALLATION WILL BE CONSIDERED INCIDENTAL TO BID ITEMS UNDER "WATER CONTROL STRUCTURE - SUPPLY & INSTALL".
2. BAR GUARD TO BE INSTALLED ON THE UPSTREAM LOCATION OF THE WCS.
3. RAT GUARD TO BE INSTALLED ON THE DOWNSTREAM LOCATION OF THE WCS.
4. AGRI-GRAIN CORP., WISCONSIN FLOW GATE, SEABREEZE CULVERT, INC., OR APPROVED EQUAL.

CONCRETE SLAB NOTE:

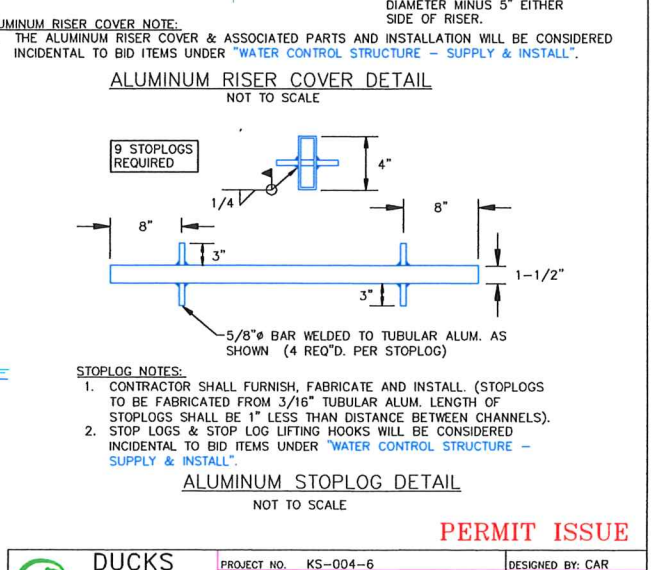
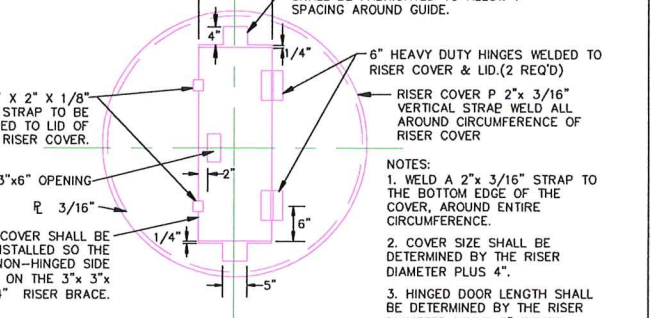
1. THE CONCRETE SLAB OR APPROVED EQUAL AND ITS INSTALLATION WILL BE CONSIDERED INCIDENTAL TO BID ITEMS UNDER "WATER CONTROL STRUCTURE - SUPPLY & INSTALL".



THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THE MATERIAL, DATA AND INFORMATION IS AT THE USER'S SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.

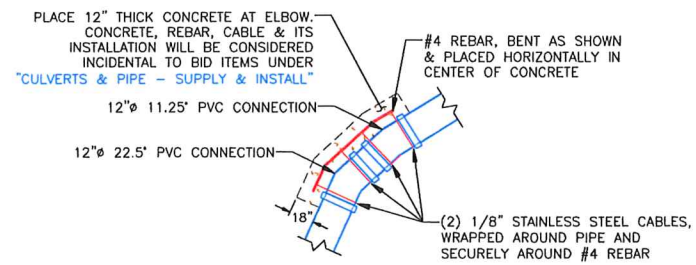
"BEFORE YOU DIG"
 BEFORE THE START OF CONSTRUCTION, THE OWNER OF ANY UTILITIES INVOLVED MUST BE NOTIFIED. THE EXCAVATOR/CONTRACTOR IS RESPONSIBLE FOR GIVING THIS NOTICE BY CALLING "KANSAS 811" AT 811, A 48 HOUR NOTIFICATION AND FULL DESCRIPTION OF LOCATION IS REQUIRED.

DU REGIONAL ENGINEER:
 CRAIG ROY, P.E.
 (913) 991-2223

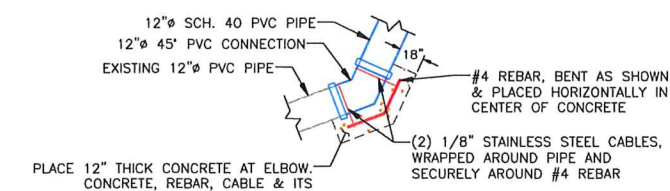


PERMIT ISSUE

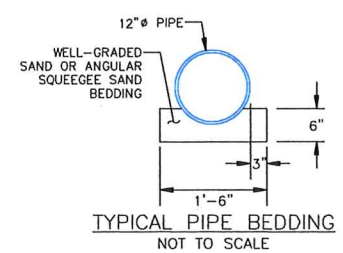
	PROJECT NO. KS-004-6	DESIGNED BY: CAR
	ELK CREEK MARSH	DRAWN BY: CAR/JJW
WCS #2B	SURVEYED BY: CAR	CHECKED BY: .
GREAT PLAINS REGIONAL OFFICE	APPROVED BY:	APPROVED BY:
DATE: 02/19/2024	SHEET NO. 9 OF 19	



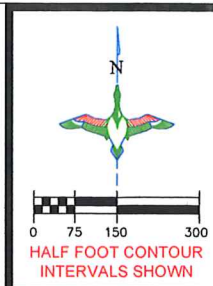
TYPICAL CONCRETE THRUST BLOCK AT 33.75' ELBOW
SCALE 1"=5'



TYPICAL CONCRETE THRUST BLOCK AT CONNECTION TO EXISTING PIPE
SCALE 1"=5'

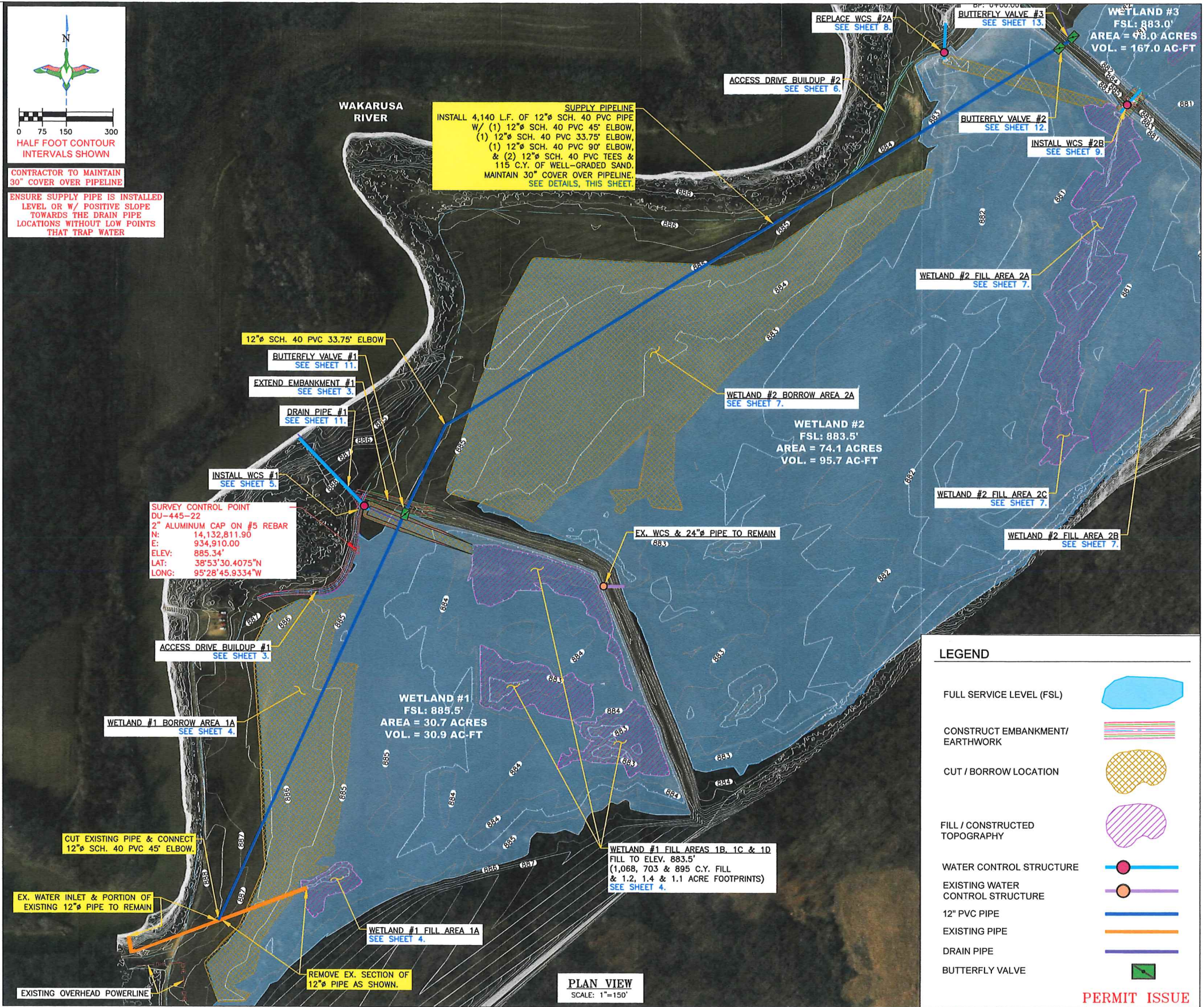


**WATER RESOURCES
RECEIVED
MAR 28 2024
KS DEPT OF AGRICULTURE**



CONTRACTOR TO MAINTAIN 30" COVER OVER PIPELINE

ENSURE SUPPLY PIPE IS INSTALLED LEVEL OR W/ POSITIVE SLOPE TOWARDS THE DRAIN PIPE LOCATIONS WITHOUT LOW POINTS THAT TRAP WATER



LEGEND	
FULL SERVICE LEVEL (FSL)	
CONSTRUCT EMBANKMENT/ EARTHWORK	
CUT / BORROW LOCATION	
FILL / CONSTRUCTED TOPOGRAPHY	
WATER CONTROL STRUCTURE	
EXISTING WATER CONTROL STRUCTURE	
12" PVC PIPE	
EXISTING PIPE	
DRAIN PIPE	
BUTTERFLY VALVE	

PERMIT ISSUE

THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THE MATERIAL, DATA AND INFORMATION IS AT THE USER'S SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.

"BEFORE YOU DIG"
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 "KANSAS 811" AT 811. A 48 HOUR NOTIFICATION AND FULL DESCRIPTION OF LOCATION IS REQUIRED.

DU REGIONAL ENGINEER:
CRAIG ROY, P.E.
(913) 991-2223

DUCKS UNLIMITED INC.
GREAT PLAINS REGIONAL OFFICE
DATE: 02/19/2024 SHEET NO. 10 OF 19

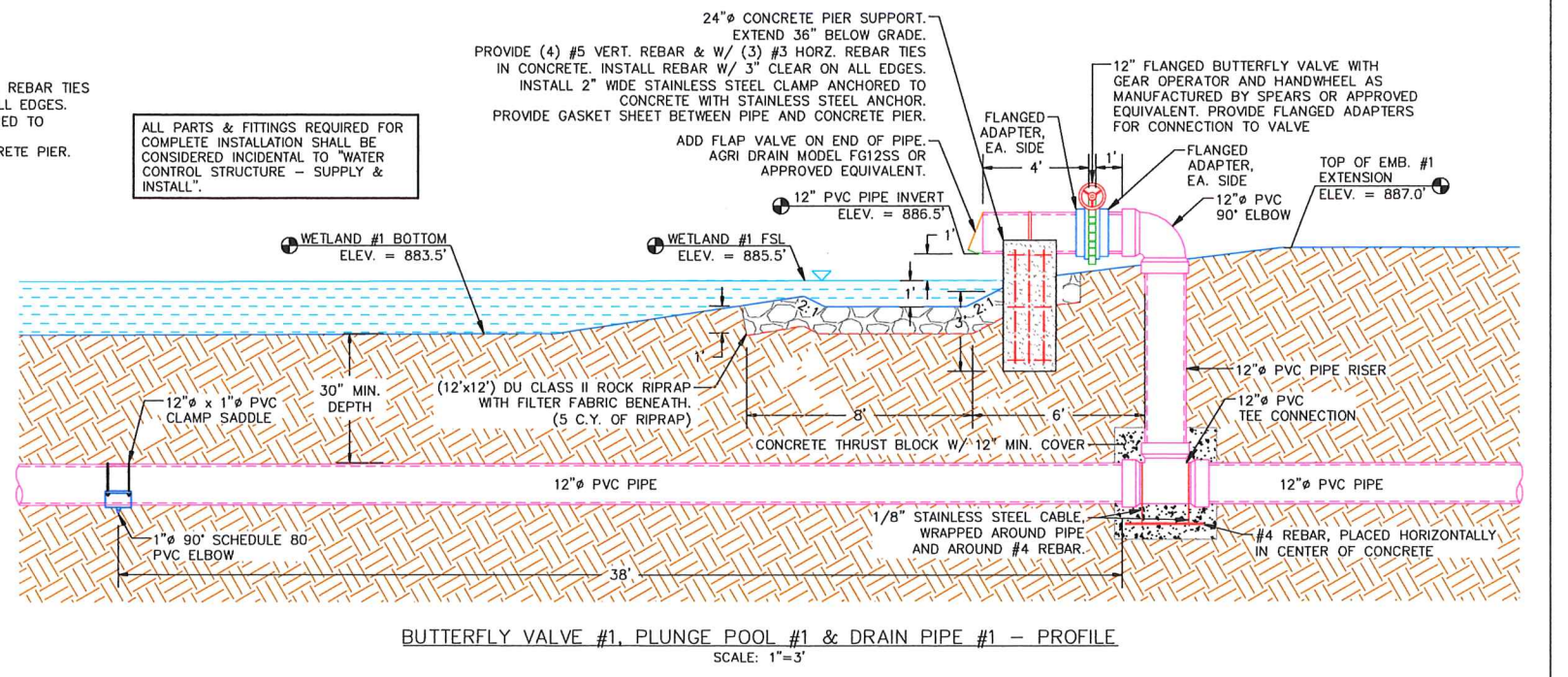
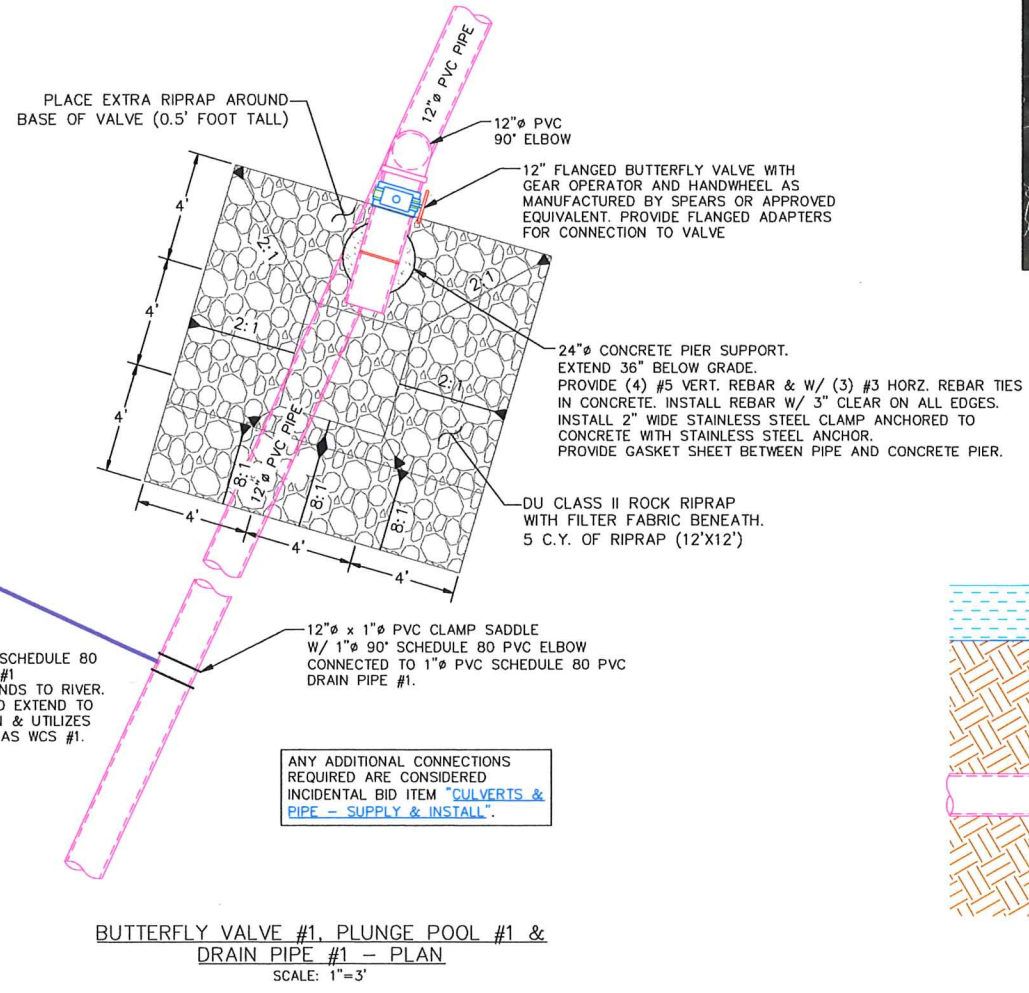
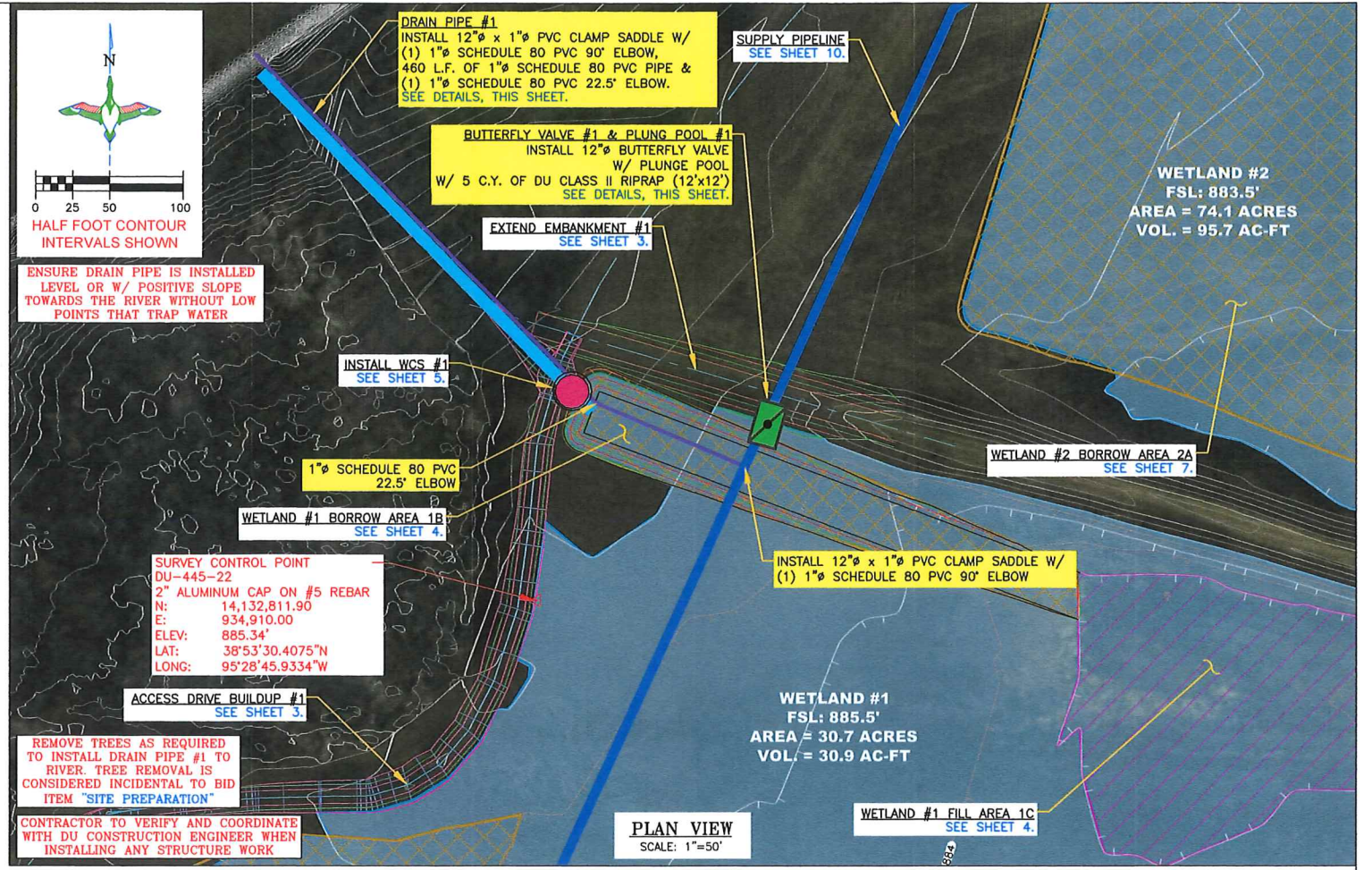
PROJECT NO. KS-004-6
ELK CREEK MARSH
SUPPLY PIPELINE
DESIGNED BY: CAR
DRAWN BY: CAR/JJV
SURVEYED BY: CAR
CHECKED BY:
APPROVED BY: APPROVED BY:

WATER RESOURCES RECEIVED
MAR 28 2024

KS DEPT OF AGRICULTURE

LEGEND

FULL SERVICE LEVEL (FSL)	
CONSTRUCT EMBANKMENT/ EARTHWORK	
CUT / BORROW LOCATION	
FILL / CONSTRUCTED TOPOGRAPHY	
WATER CONTROL STRUCTURE	
EXISTING WATER CONTROL STRUCTURE	
12" PVC PIPE	
EXISTING PIPE	
BUTTERFLY VALVE	
DRAIN PIPE	



THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THE MATERIAL, DATA AND INFORMATION IS AT THE USER'S SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.

"BEFORE YOU DIG"
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 "KANSAS 811" AT 811. A 48 HOUR NOTIFICATION AND FULL DESCRIPTION OF LOCATION IS REQUIRED.

DU REGIONAL ENGINEER:
CRAIG ROY, P.E.
(913) 991-2223

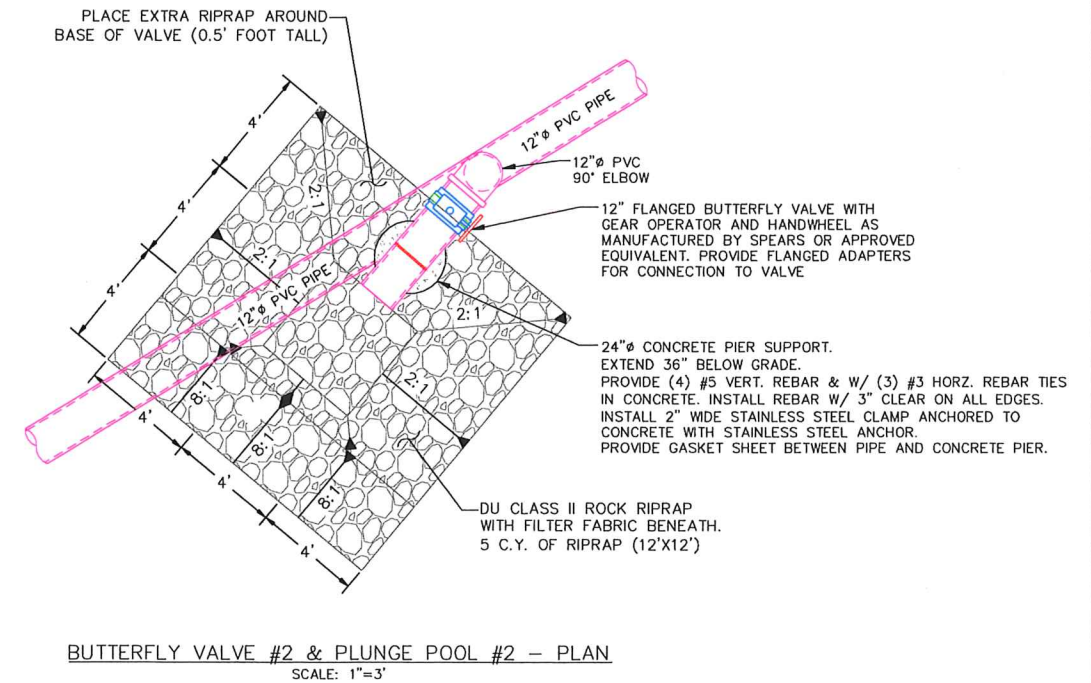
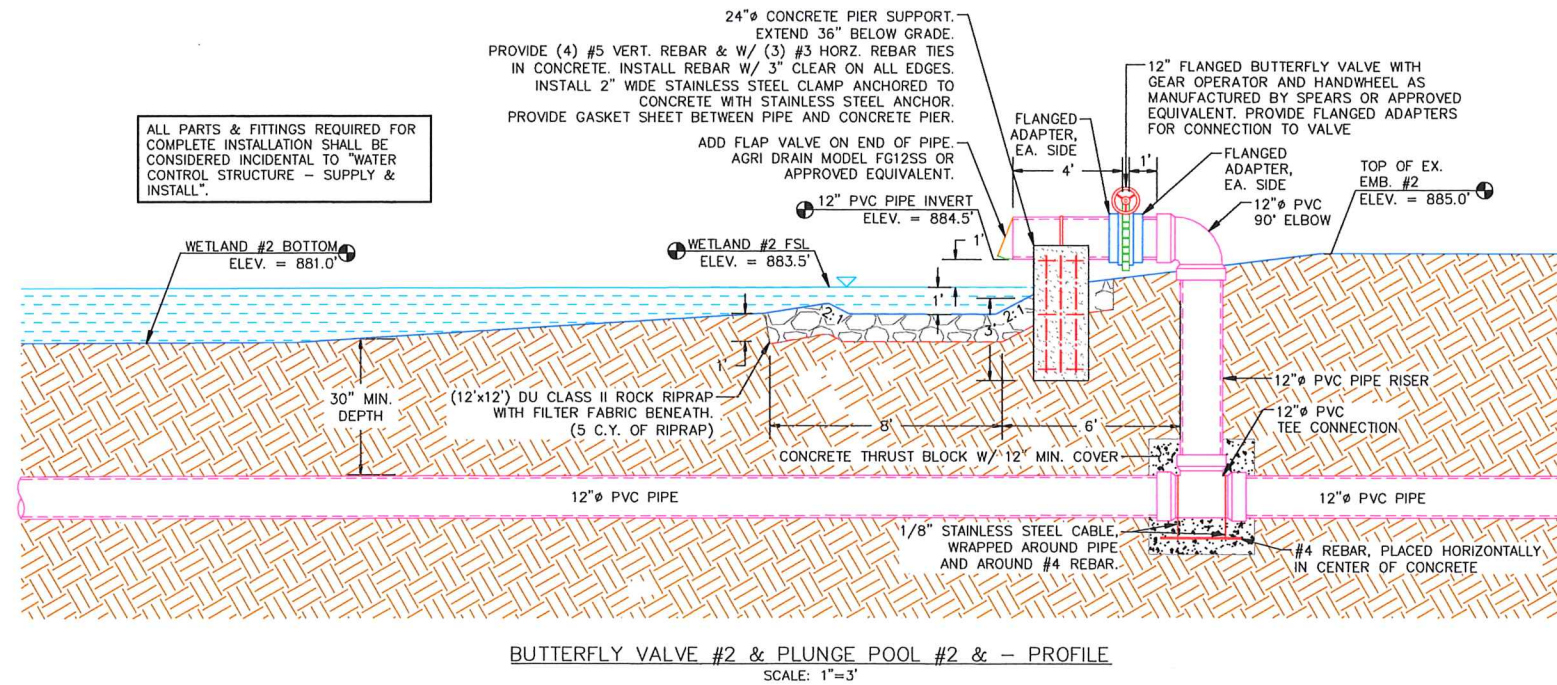
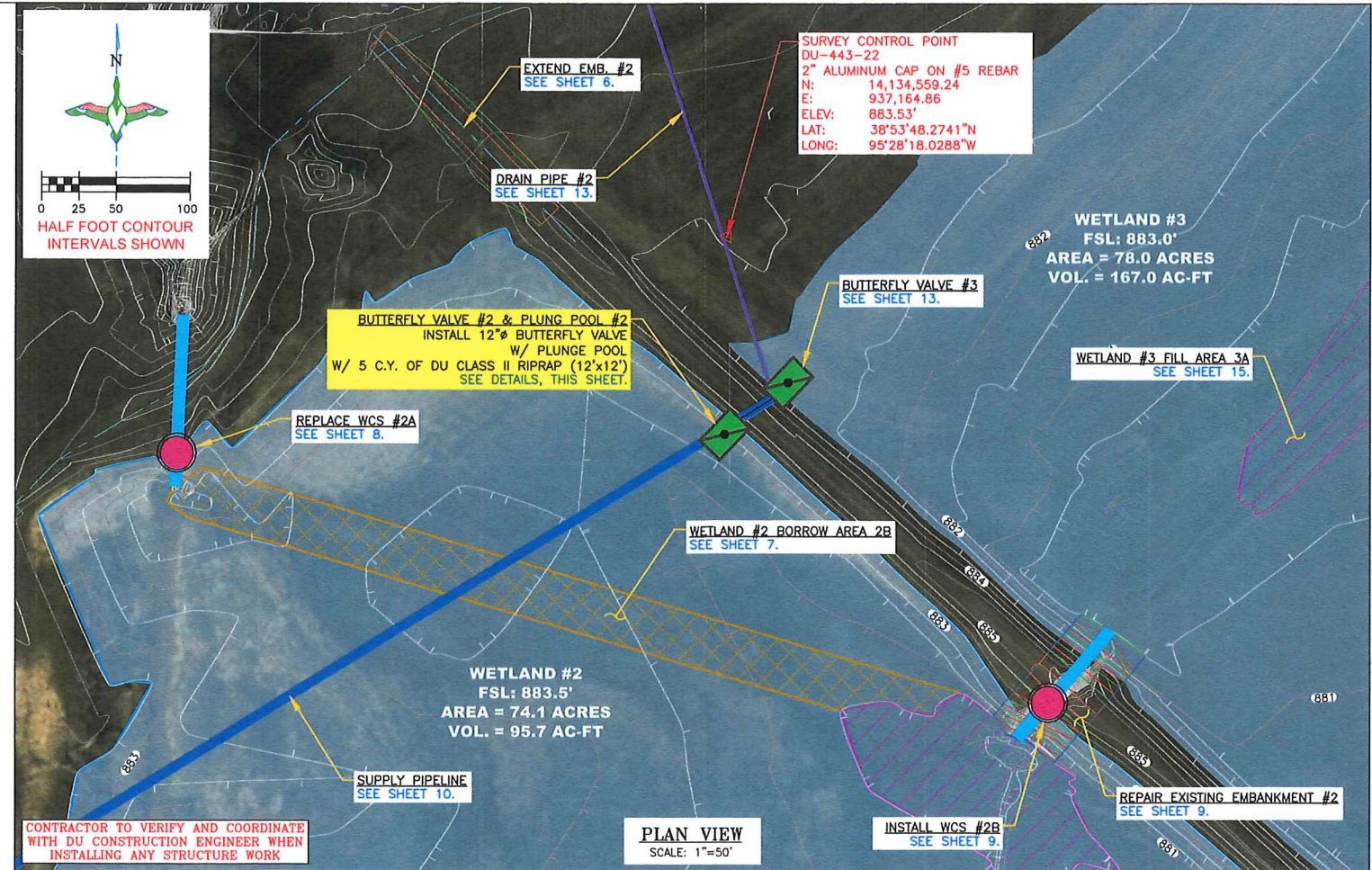
 GREAT PLAINS REGIONAL OFFICE DATE: 02/19/2024	PROJECT NO. KS-004-6 ELK CREEK MARSH HYDRANT/VALVE #1 & DRAIN PIPE #1	DESIGNED BY: CAR DRAWN BY: CAR/JJW SURVEYED BY: CAR CHECKED BY:
	APPROVED BY:	SHEET NO. 11 OF 19 APPROVED BY:

PERMIT ISSUE

WATER RESOURCES
RECEIVED
MAR 28 2024
KS DEPT OF AGRICULTURE

LEGEND

FULL SERVICE LEVEL (FSL)	
CONSTRUCT EMBANKMENT/ EARTHWORK	
CUT / BORROW LOCATION	
FILL / CONSTRUCTED TOPOGRAPHY	
WATER CONTROL STRUCTURE	
EXISTING WATER CONTROL STRUCTURE	
12" PVC PIPE	
EXISTING PIPE	
BUTTERFLY VALVE	
DRAIN PIPE	



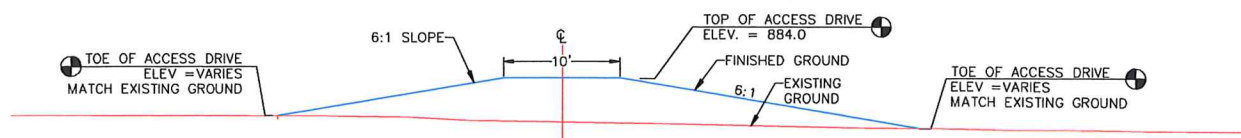
THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THE MATERIAL, DATA AND INFORMATION IS AT THE USER'S SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.

"BEFORE YOU DIG"
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 "KANSAS 811" AT 811, A 48 HOUR NOTIFICATION AND FULL DESCRIPTION OF LOCATION IS REQUIRED.

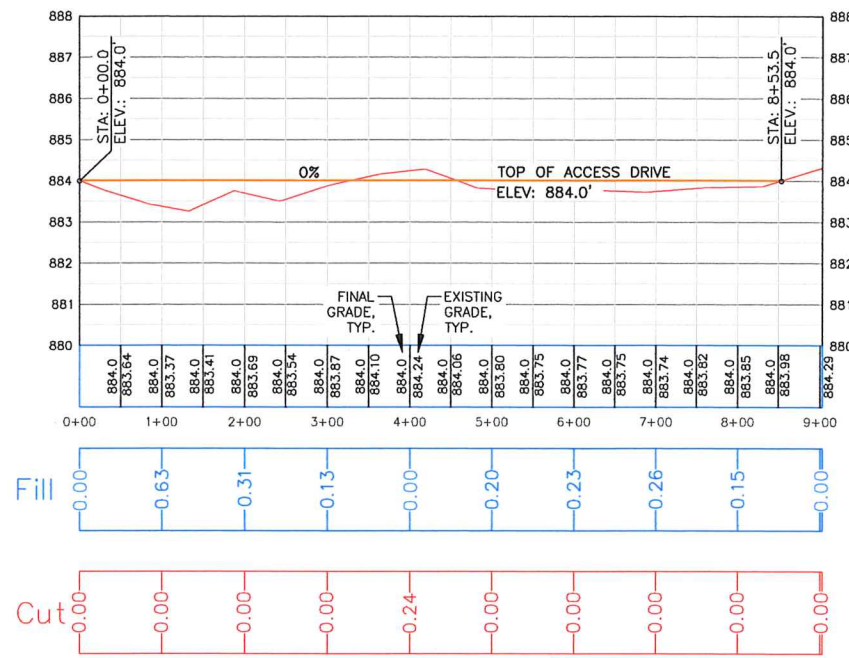
DU REGIONAL ENGINEER:
CRAIG ROY, P.E.
(913) 991-2223

<p>DUCKS UNLIMITED INC. GREAT PLAINS REGIONAL OFFICE DATE: 02/19/2024</p>	<p>PROJECT NO. KS-004-6 ELK CREEK MARSH HYDRANT/VALVE #2</p>	<p>DESIGNED BY: CAR DRAWN BY: CAR/JJW SURVEYED BY: CAR CHECKED BY:</p>
	<p>APPROVED BY:</p>	<p>APPROVED BY:</p>

PERMIT ISSUE



TYPICAL EMBANKMENT #3 ACCESS DRIVE BUILDUP
SCALE 1"=10'



ACCESS DRIVE BUILDUP #3 PROFILE
HORIZONTAL SCALE: 1"=100'
VERTICAL SCALE: 1"=2'

WATER RESOURCES
RECEIVED
MAR 28 2024

KS DEPT OF AGRICULTURE

EMBANKMENT CONSTRUCTION NOTES:

- STRIP 4" TO 6" OF TOPSOIL, STOCKPILE, AND SCARIFY 6" PRIOR TO PLACING COMPACTED FILL. SPREAD TOPSOIL OVER COMPACTED EMBANKMENT. COST OF TOPSOIL WORK SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "SITE PREPARATION".
- THE EMBANKMENT SUBGRADE MUST BE STABLE, UNIFORMLY GRADED, FREE OF ROCKS, ROOTS, AND OTHER DEBRIS, WITH NO ABRUPT GRADE CHANGES.
- EMBANKMENT CONSTRUCTION SHALL BE FROM COMPACTED EARTHEN MATERIAL CONTAINING MINIMAL ORGANIC MATERIAL AND SHALL COMPLY WITH DU SPECIFICATION SECTION 204 "EMBANKMENT CONSTRUCTION."
- EMBANKMENT FILL SHALL BE OBTAINED FROM THE SPECIFIED BORROW AREA. FILL SHALL BE PLACED IN LIFTS OF NO MORE THAN 8" AND COMPACTED PRIOR TO PLACING SUBSEQUENT LIFTS.
- CONTRACTOR TO SEED FINISHED EMBANKMENT. SEE SEEDING NOTES, THIS SHEET.

BORROW NOTES: SEE SHEET 2

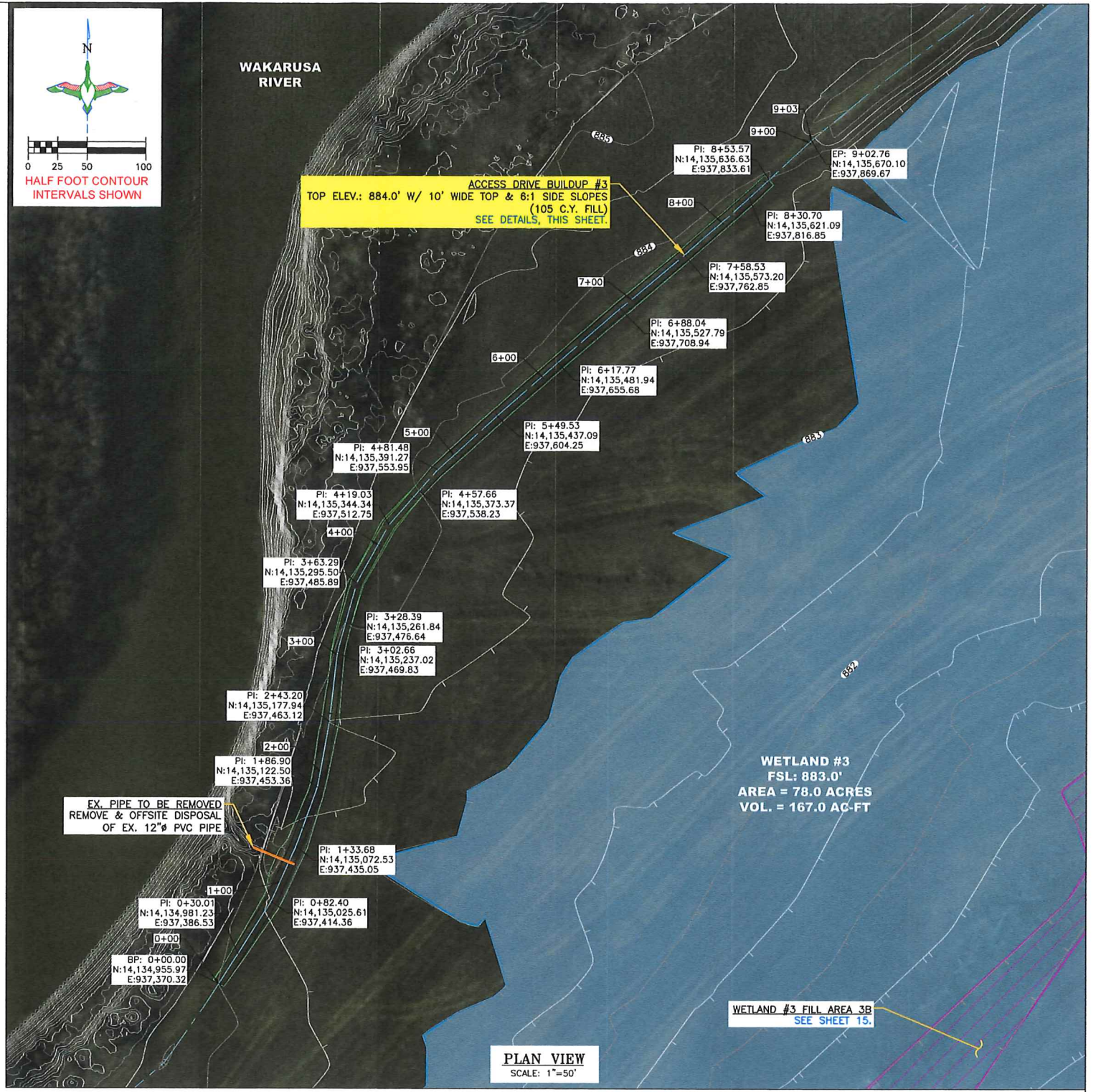
SEEDING NOTES:

- SEEDING AND MULCHING WILL BE REQUIRED ON THE EMBANKMENT TOPS AND SIDESLOPES. MULCH SHOULD BE CLEAN RICE, BARLEY, OR WHEAT STRAW. THE SEED WILL BE SUPPLIED BY THE CONTRACTOR. SEE SEED MIX BELOW. SEEDING SHALL OCCUR BEFORE LAST SPRING FROST OR APRIL 15TH (WHICHEVER IS EARLIER).
- MULCHING WILL REQUIRE ANCHORING OF SOME TYPE SUCH AS TACKING, MATING, HAND PUNCHING, ROLLER PUNCHING, OR CRIMPER PUNCHING TO PREVENT BLOWING OR WASHING AWAY.
- MULCH APPLICATION RATE WILL BE TWO TONS PER ACRE OR ONE 74 POUND BALE PER 800 SQUARE FEET.
- SEEDED AREAS SHALL BE MONITORED MONTHLY UNTIL AT LEAST 70 PERCENT OF THE VEGETATION IS ESTABLISHED.

SEED MIX: (19.0 LBS/ACRE)

DESCRIPTION	PURE LIVE SEED (PLS) PER ACRE
INDIANGRASS, CHEYENNE	1.20 LBS
SWITCHGRASS, KAN LOW	1.80 LBS
SWITCHGRASS, CAVE IN ROCK	1.80 LBS
LITTLE BLUESTEM, ALDOUS	1.60 LBS
EASTERN GAMAGRASS, VARIETY NOT STATED	4.20 LBS
CANADA WILDRYE, MANDAN	3.00 LBS
VIRGINIA WILDRYE, VARIETY NOT STATED	3.00 LBS
BIG BLUESTEM, KAW	2.40 LBS
TOTAL	19.0 LBS

THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THE MATERIAL, DATA AND INFORMATION IS AT THE USER'S SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.



PLAN VIEW
SCALE: 1"=50'

LEGEND

FULL SERVICE LEVEL (FSL)		FILL / CONSTRUCTED TOPOGRAPHY		12" PVC PIPE	
CONSTRUCT EMBANKMENT/ EARTHWORK		WATER CONTROL STRUCTURE		EXISTING PIPE	
CUT / BORROW LOCATION		EXISTING WATER CONTROL STRUCTURE		BUTTERFLY VALVE	

"BEFORE YOU DIG"
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 "KANSAS 811" AT 811. A 48 HOUR NOTIFICATION AND FULL DESCRIPTION OF LOCATION IS REQUIRED.

DU REGIONAL ENGINEER:
CRAIG ROY, P.E.
(913) 991-2223

 GREAT PLAINS REGIONAL OFFICE DATE: 02/19/2024 SHEET NO: 14 OF 19	PROJECT NO. KS-004-6 ELK CREEK MARSH ACCESS DRIVE BUILDUP #3	DESIGNED BY: CAR DRAWN BY: CAR/JJW SURVEYED BY: CAR CHECKED BY:
	PERMIT ISSUE	APPROVED BY:

WATER RESOURCES
RECEIVED
MAR 28 2024
KS DEPT OF AGRICULTURE

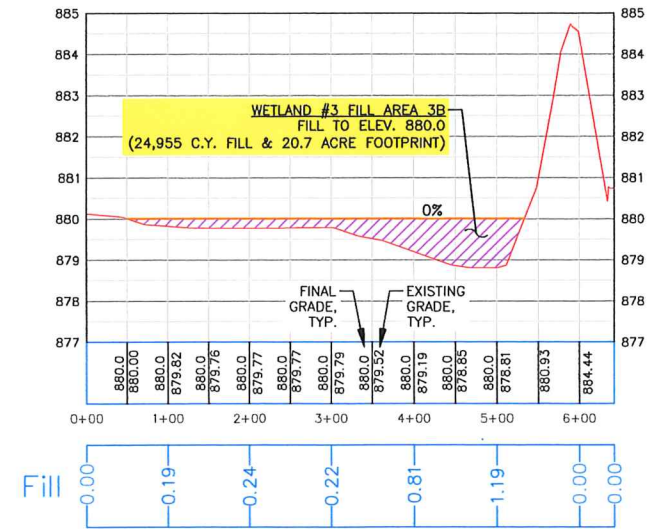
LEGEND

FULL SERVICE LEVEL (FSL)	
CONSTRUCT EMBANKMENT/ EARTHWORK	
CUT / BORROW LOCATION	
FILL / CONSTRUCTED TOPOGRAPHY	
WATER CONTROL STRUCTURE	
EXISTING WATER CONTROL STRUCTURE	
12" PVC PIPE	
EXISTING PIPE	
BUTTERFLY VALVE	
DRAIN PIPE	

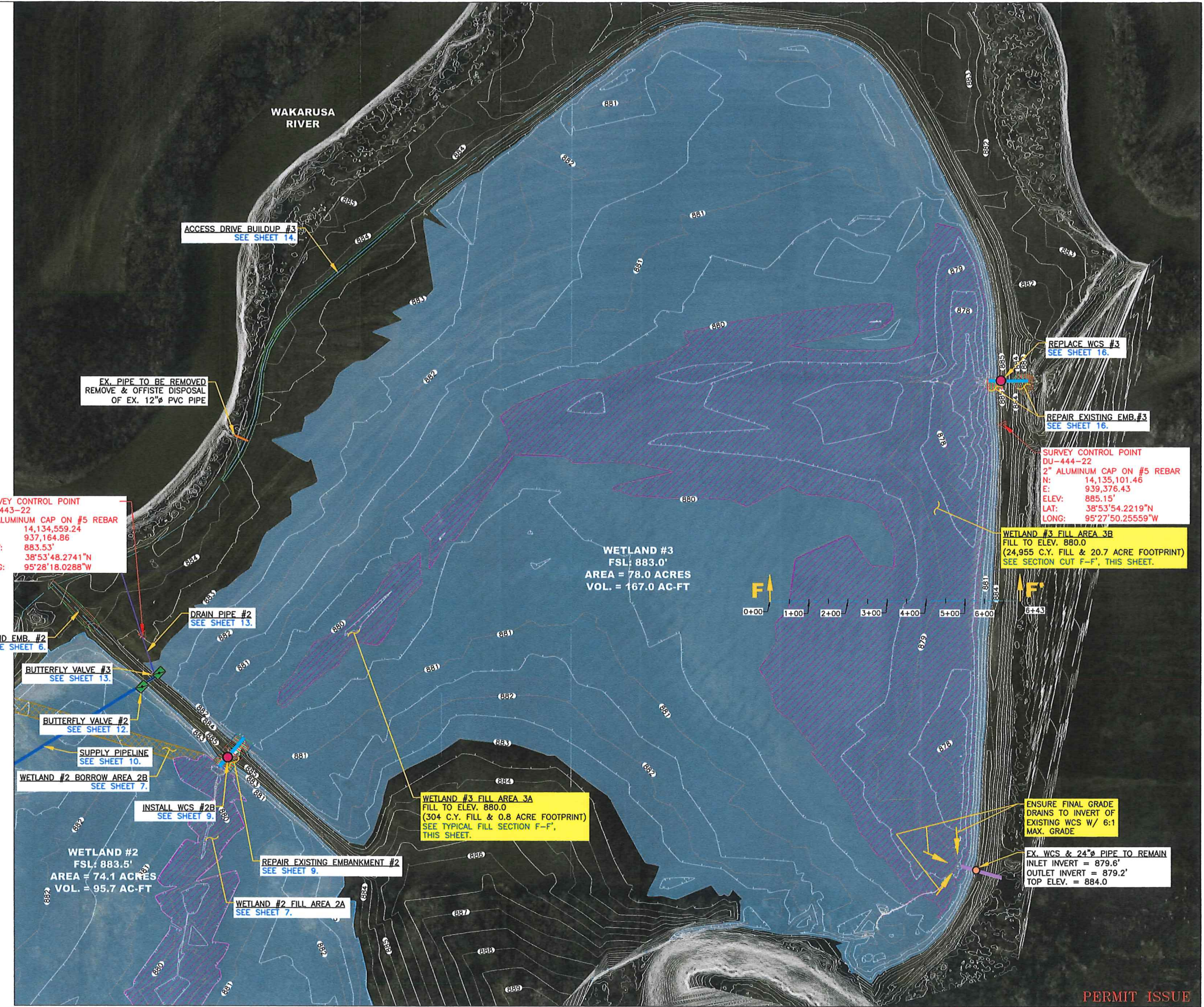
DIRT BALANCE TABLE

LOCATION	FILL (C.Y.) *	EXCAVATION (C.Y.)	NET (C.Y.)
WETLAND #1			
WETLAND #1 FILL 1A*	339	-	339
WETLAND #1 FILL 1B*	1,068	-	1,068
WETLAND #1 FILL 1C*	703	-	703
WETLAND #1 FILL 1D*	899	4	895
EMBANKMENT #1 EXTENSION**	314	-	314
ACCESS DRIVE BUILDUP #1**	350	-	350
WCS #1 PIPE COVER	21	-	21
BORROW #1A	-	8,233	(8,233)
BORROW #1B	-	731	(731)
WETLAND #2			
WETLAND #2 FILL 2A*	2,448	13	2,433
WETLAND #2 FILL 2B*	347	-	347
WETLAND #2 FILL 2C*	121	-	121
EMBANKMENT #2 EXTENSION**	118	-	118
EMBANKMENT #2 REPAIR**	135	31	104
ACCESS DRIVE BUILDUP #2**	35	3	32
BORROW #2A	-	22,924	(22,924)
BORROW #2B	-	617	(617)
WETLAND #3			
WETLAND #3 FILL 3A*	304	-	304
WETLAND #3 FILL 3B*	24,955	-	24,955
ACCESS DRIVE BUILDUP #3**	115	10	105
WCS #3 COVER	286	-	286
TOTAL	32,568	32,568	-

* FILL IN WETLANDS INCLUDES A 15% SHRINKAGE FACTOR
** FILL FOR EMBANKMENTS & ACCESS DRIVE BUILDUP INCLUDES A 25% SHRINKAGE FACTOR



SECTION F-F'
TYPICAL FILL PROFILE
HORIZONTAL SCALE: 1"=100'
VERTICAL SCALE: 1"=2'



THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THIS MATERIAL, DATA AND INFORMATION IS AT THE USER'S SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.

"BEFORE YOU DIG"
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 "KANSAS 811" AT 811. A 48 HOUR NOTIFICATION AND FULL DESCRIPTION OF LOCATION IS REQUIRED.

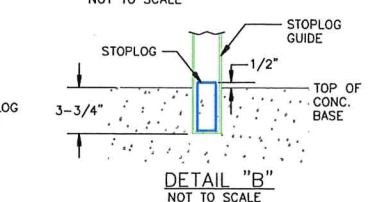
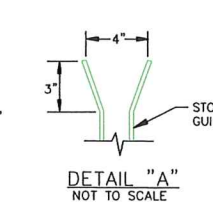
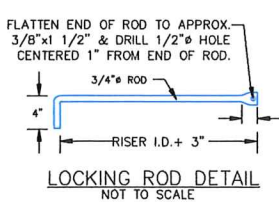
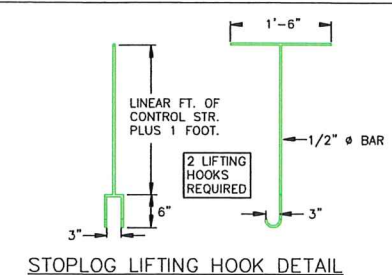
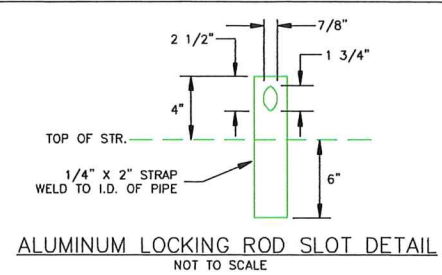
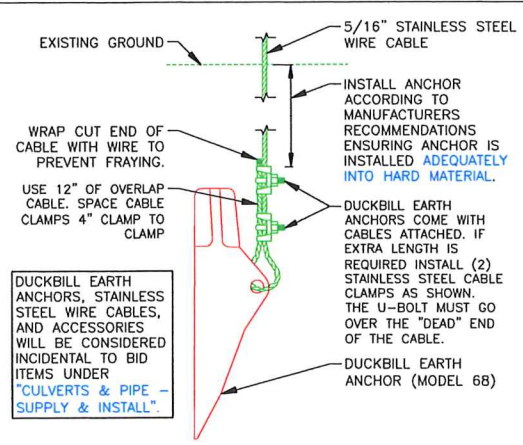
DU REGIONAL ENGINEER:
CRAIG ROY, P.E.
(913) 991-2223

DUCKS UNLIMITED INC.
GREAT PLAINS REGIONAL OFFICE
DATE: 02/19/2024 SHEET NO. 15 OF 19

PROJECT NO. KS-004-6
ELK CREEK MARSH
WETLAND #3
CONSTRUCTED TOPOGRAPHY

DESIGNED BY: CAR
DRAWN BY: CAR/JJW
SURVEYED BY: CAR
CHECKED BY: .
APPROVED BY: .

PERMIT ISSUE

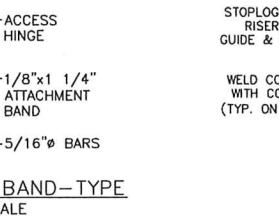
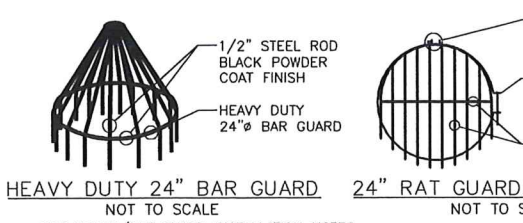


DUCKBILL EARTH ANCHOR (MODEL 68) DETAIL
NOT TO SCALE

LOCKING ROD DETAIL
NOT TO SCALE

DETAIL "A"
NOT TO SCALE

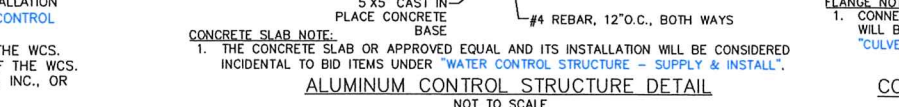
DETAIL "B"
NOT TO SCALE



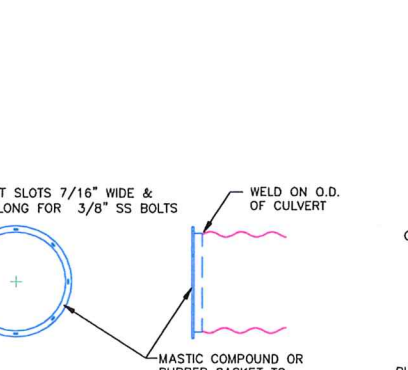
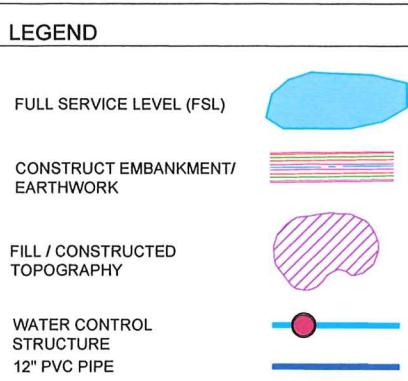
HEAVY DUTY 24" BAR GUARD
NOT TO SCALE

24" RAT GUARD, BAND-TYPE
NOT TO SCALE

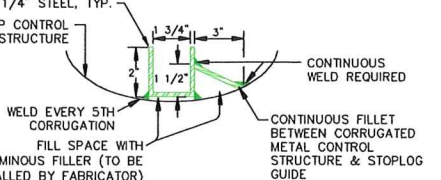
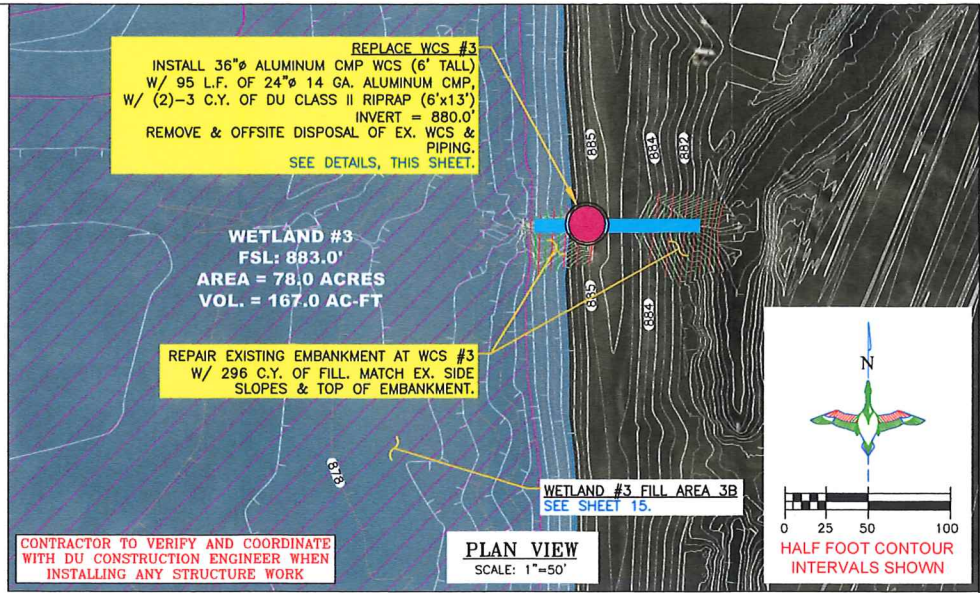
BAR GUARD/RAT GUARD INSTALLATION NOTES:
1. THE BAR GUARD/RAT GUARD OR APPROVED EQUAL AND ITS INSTALLATION WILL BE CONSIDERED INCIDENTAL TO BID ITEMS UNDER "WATER CONTROL STRUCTURE - SUPPLY & INSTALL".
2. BAR GUARD TO BE INSTALLED ON THE UPSTREAM LOCATION OF THE WCS.
3. RAT GUARD TO BE INSTALLED ON THE DOWNSTREAM LOCATION OF THE WCS.
4. AGRI-GRAIN CORP., WISCONSIN FLOW GATE, SEABREEZE CULVERT, INC., OR APPROVED EQUAL.



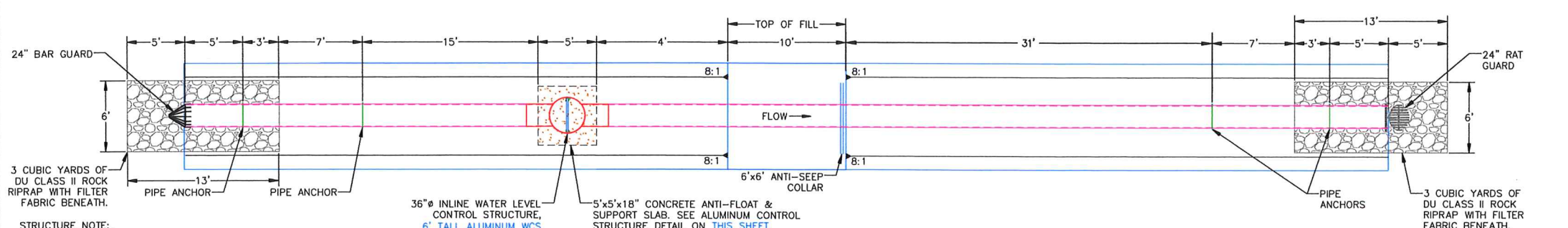
ALUMINUM CONTROL STRUCTURE DETAIL
NOT TO SCALE



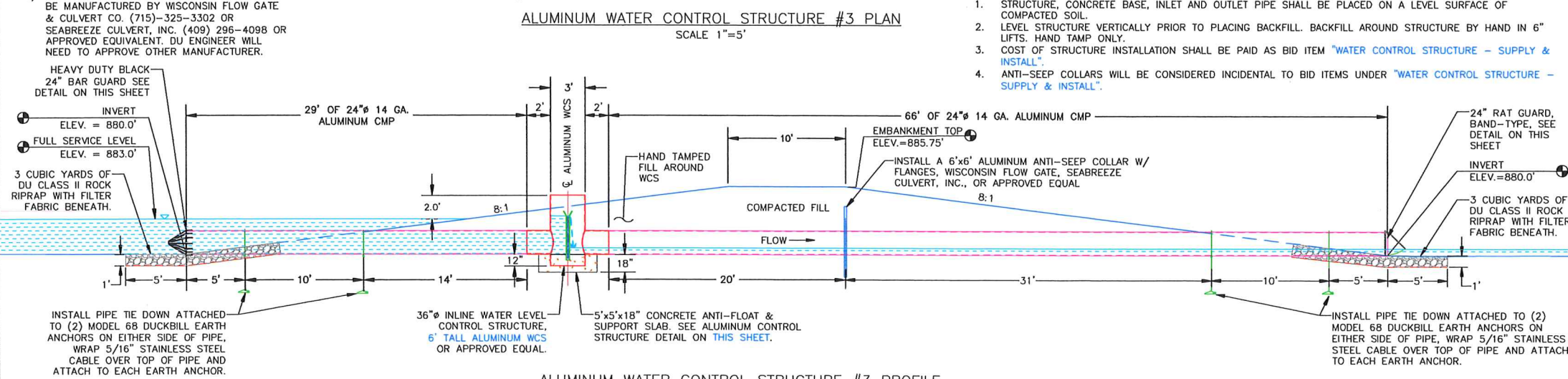
FLANGE FOR CONNECTING CORRUGATED ALUMINUM PIPES
NOT TO SCALE



ALUMINUM STOPLOG GUIDE DETAIL
NOT TO SCALE



ALUMINUM WATER CONTROL STRUCTURE #3 PLAN
SCALE 1"=5'



ALUMINUM WATER CONTROL STRUCTURE #3 PROFILE
SCALE 1"=5'

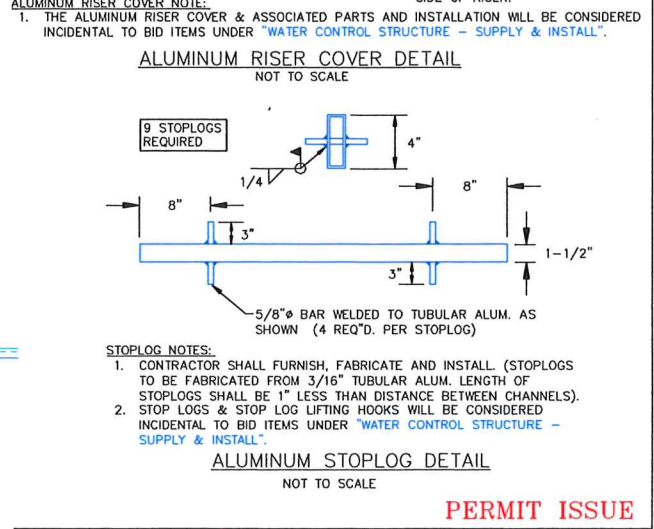
THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THE MATERIAL, DATA AND INFORMATION IS AT THE USER'S SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.

"BEFORE YOU DIG"
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 "KANSAS 811" AT 811. A 48 HOUR NOTIFICATION AND FULL DESCRIPTION OF LOCATION IS REQUIRED.

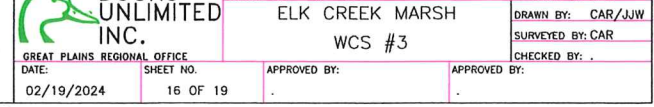
DU REGIONAL ENGINEER:
CRAIG ROY, P.E.
(913) 991-2223

	PROJECT NO. KS-004-6	DESIGNED BY: CAR
	ELK CREEK MARSH	DRAWN BY: CAR/JJW
	WCS #3	SURVEYED BY: CAR
DATE: 02/19/2024	SHEET NO. 16 OF 19	CHECKED BY:
	APPROVED BY:	APPROVED BY:

WATER RESOURCES RECEIVED
MAR 28 2024
KS DEPT OF AGRICULTURE

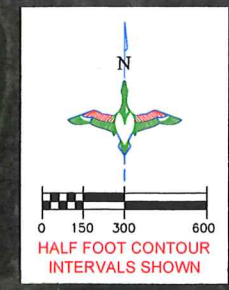
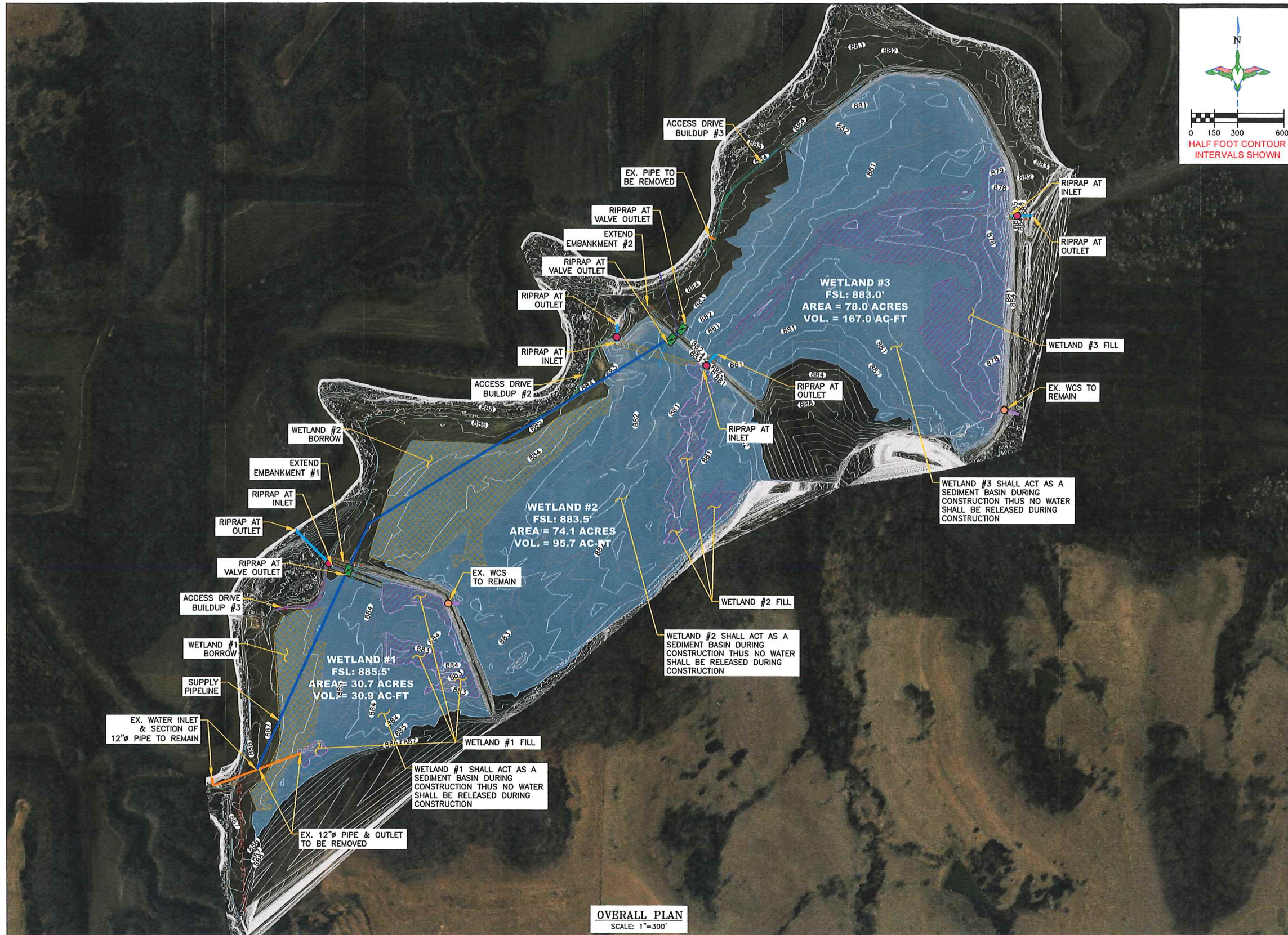


ALUMINUM RISER COVER DETAIL
NOT TO SCALE



ALUMINUM STOPLOG DETAIL
NOT TO SCALE

PERMIT ISSUE



LEGEND

FULL SERVICE LEVEL (FSL)	
CONSTRUCT EMBANKMENT/ EARTHWORK	
CUT / BORROW LOCATION	
FILL / CONSTRUCTED TOPOGRAPHY	
WATER CONTROL STRUCTURE	
EXISTING WATER CONTROL STRUCTURE	
12" PVC PIPE	
EXISTING PIPE	
BUTTERFLY VALVE	
DRAIN PIPE	

- BORROW NOTES:**
- STRIP AND STOCKPILE APPROX. 4"-6" OF TOPSOIL FROM PROPOSED BORROW AREAS. 4"-6" OF TOPSOIL SHALL BE RESPREAD OVER THE ENTIRE BORROW AREA INCLUDING SIDE SLOPES. COST OF TOPSOIL WORK SHALL BE CONSIDERED INCIDENTAL TO BID ITEM "SITE PREPARATION".
 - SUITABLE MATERIAL FOR ALL FILLS SHALL BE OBTAINED FROM THE DESIGNATED BORROW AREA SHOWN ON THIS SHEET AS APPROVED BY THE DU FIELD ENGINEER.
 - BORROW AREAS ARE TO LOOK NATURAL UPON COMPLETION, MAINTAINING VISUAL APPEALING SLOPES. IDEALLY THESE SLOPES SHALL BE 6:1 OR FLATTER.
 - BORROW AREAS ARE DEFINED AND THE CONTRACTOR NEEDS APPROVAL FROM THE DU ENGINEER TO BORROW OUTSIDE OF THE DEFINED LIMIT.

- SEEDING NOTES:**
- SEEDING AND MULCHING WILL BE REQUIRED ON THE EMBANKMENT TOPS AND SIDESLOPES. MULCH SHOULD BE CLEAN RICE, BARLEY, OR WHEAT STRAW. THE SEED WILL BE SUPPLIED BY THE CONTRACTOR. SEE SEED MIX BELOW. SEEDING SHALL OCCUR BEFORE LAST SPRING FROST OR APRIL 15TH (WHICHEVER IS EARLIER).
 - MULCHING WILL REQUIRE ANCHORING OF SOME TYPE SUCH AS TACKING, MATTING, HAND PUNCHING, ROLLER PUNCHING, OR CRIMPER PUNCHING TO PREVENT BLOWING OR WASHING AWAY.
 - MULCH APPLICATION RATE WILL BE TWO TONS PER ACRE OR ONE 74 POUND BALE PER 800 SQUARE FEET.
 - SEEDED AREAS SHALL BE MONITORED MONTHLY UNTIL AT LEAST 70 PERCENT OF THE VEGETATION IS ESTABLISHED.

SEED MIX: (19.0 LBS/ACRE)

DESCRIPTION	PURE LIVE SEED (PLS) PER ACRE
INDIANGRASS, CHEYENNE	1.20 LBS
SWITCHGRASS, KAN LOW	1.80 LBS
SWITCHGRASS, CAVE IN ROCK	1.80 LBS
LITTLE BLUESTEM, ALDOUS	1.60 LBS
EASTERN GAMAGRASS, VARIETY NOT STATED	4.20 LBS
CANADA WILDRYE, MANDAN	3.00 LBS
VIRGINIA WILDRYE, VARIETY NOT STATED	3.00 LBS
BIG BLUESTEM, KAW	2.40 LBS
TOTAL	19.0 LBS

WATER RESOURCES RECEIVED
MAR 28 2024

KS DEPT OF AGRICULTURE

PERMIT ISSUE

THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THE MATERIAL, DATA AND INFORMATION IS AT THE USER'S SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.

"BEFORE YOU DIG"
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 "KANSAS 811" AT 811, A 48 HOUR NOTIFICATION AND FULL DESCRIPTION OF LOCATION IS REQUIRED.

DU REGIONAL ENGINEER:
CRAIG ROY, P.E.
(913) 991-2223

	DUCKS UNLIMITED INC.	PROJECT NO. KS-004-6	DESIGNED BY: CAR
	GREAT PLAINS REGIONAL OFFICE	ELK CREEK MARSH	DRAWN BY: CAR/JJW
DATE: 02/19/2024	SHEET NO: 17 OF 19	APPROVED BY:	CHECKED BY: CAR
			APPROVED BY:

STORM WATER POLLUTION PREVENTION PLAN

The Kansas General Permit Authorization to Discharge Stormwater Associated with Construction Activity shall apply for this project.

ABBREVIATIONS

KDHE: Kansas Department of Health and Environment
KDEM: Kansas Division of Emergency Management
USFWS: United States Fish and Wildlife Service

NARRATIVE

Project Limits: See Sheets 2-17 of this plan for the project limits and details. These sheets cover the excavation, embankment construction, pipeline modification a water control structure installation/replacement.

SITE DESCRIPTION

Project Description: The purpose of the project is enhance three shallow water wetlands and modification of a supply pipeline with three discharge hydrants and four water control structures.
Site Map(s): See map on cover sheet of plans.

Major Soil Disturbing Activities (check all that apply):

- Clearing & Grubbing
- Grading & Shaping
- Cutting & Filling
- Other (describe):

Total Project Area: 184.4 Acres
Total Area to Be Disturbed: 55.1 Acres
Existing Impervious Area: 0.0 Acres
Proposed Impervious Area: 0.0 Acres

Name of Receiving Water Body/Bodies: Wakarusa River
Discharges to Special Or Impaired Waters: The project does not discharge to a special or impaired water.

Discharges to Calcareous Fen: The project does not have a discharge to a Calcareous fen.

Endangered or Threatened Species: The project area has not been identified for endangered or threatened species.

Historic Places or Archeological Sites: Historical places or archeological sites have been addressed by the USFWS.

Quantities Tabulation for All BMPs: See estimated quantities and construction notes in plans.

ORDER OF CONSTRUCTION ACTIVITIES

(Stabilization measures shall be completed as soon as possible, but in no case later than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased.)

- Install erosion and sediment control measures.
- Proceed with site grading and construction activities.
- Stabilize areas disturbed by construction activities with temporary erosion and sediment control measures.
- Complete final grading.
- Complete permanent erosion and sediment control measures.

LOCATION OF SWPPP REQUIREMENTS IN PROJECT PLAN

See the SWPPP details on sheet 17 and notes on this sheet.

EROSION AND SEDIMENT CONTROLS

(Check all that apply)

Stabilization Practices (See Erosion and Sediment Control Details in Plan Sheets)

- Temporary or Permanent Seeding
- Sod Placement
- Planting
- Mulching (Straw or Cellulose Fiber)
- Erosion Control Blankets or Mats
- Vegetation Buffer Strips
- Roughened Surface (e.g. tracking)
- Gabions-Gabion Mattress
- Other: Riprap, Geoweb

Structural Temporary Erosion and Sediment Controls

- Silt Fence
- Temporary Berm
- Temporary Slope Drain
- Straw Wattles or Rolls
- Diversion Channels/Swales
- Channel Liners (TRM)
- Stone Rip Rap Sheet
- Rock Check Dams
- Sediment Traps/Basins
- Inlet Protection
- Outlet Protection
- Surface Inlet Protection
- Curb Inlet Protection
- Stabilized Construction Entrances
- Other

Wetland Avoidance:

Will construction and/or erosion and sediment controls impinge on regulated wetlands? Yes No
If yes, the project and erosion and sediment control impacts have been included in the total project wetland impacts and have been included in the 404 permit process with the USACE.

Storm Water Management: Storm water management will be handled by temporary controls outlined in "EROSION AND SEDIMENT CONTROLS" above, and any permanent controls needed to meet permanent storm water management needs in the post construction period.

Pollution Prevention Management Measures

- Solid Wastes
Collected sediment, asphalt, and concrete millings, floating debris, paper, plastic, fabric, construction and demolition debris and other wastes must be disposed of properly and must comply with the KDHE disposal requirements.
- Hazardous Materials
Oil, gasoline, paint and any hazardous substances must be properly stored, including secondary containment, to prevent spills, leaks or other discharge. Restricted access to storage areas must be provided to prevent vandalism. Storage and disposal of hazardous waste must be in compliance with KDHE regulations.
- Vehicle Washing
External washing of trucks and other construction vehicles must be limited to a defined area of the site. Runoff must be contained and waste properly disposed of. No engine degreasing is allowed on site.
- Concrete Washout Onsite
All liquid and solid wastes generated by concrete washout operation must be contained in a leak-proof containment facility or impermeable liner. A compacted clay liner that does not allow washout liquids to enter ground water is considered an impermeable liner. The liquid and solid wastes must not contact the ground, and there must not be runoff from the concrete washout operation or areas. Liquid and solid wastes must be disposed of properly and in compliance with KDHE regulations. A sign must be installed adjacent to each washout facility to inform concrete equipment operators to utilize the proper facilities.

MAINTENANCE AND INSPECTION

Maintenance and Inspection Practices

- Inspections will be conducted at least one time per week and after a storm event of 0.50 inches or greater.
- All controls will be maintained in good working order. Necessary repairs will be initiated within 24 hours of the site inspection report or as soon as field conditions allow access.
- Inspections of areas that are temporarily stabilized due to ice, frozen soil conditions, or consistent snow cover are to be performed at the same frequency as during normal conditions; however, such areas are exempt from performing observations of disturbed soils, sediment and erosion BMPs, drainage areas, and locations where stormwater can flow from the construction site.
- Disturbed project areas that are temporarily stabilized due to ice, frozen soil conditions or consistent snow cover extending across 70 percent or more of the area shall be noted on the inspection report. The thawing of these areas shall be noted during the first subsequent inspection when iced, frozen or snow covered conditions are not longer present.
- Where parts of the construction site have undergone final stabilization, but work remains on other parts of the site, inspections of the stabilized areas may be reduced to once per month.
- Silt fence will be inspected for depth of sediment and for tears in order to ensure the fabric is securely anchored. Sediment buildup will be removed from the silt fence when it reaches 1/2 of the height of the silt fence. All silt fences must be repaired, replaced, or supplemented when they become nonfunctional or the sediment reaches 1/2 of the height of the fence.
- Sediment basins and traps will be checked. Sediment will be removed and cleaned when the capacity of the sediment basin reaches 20 percent or more. The basin will be maintained until less than 10 acres of area needing final stabilization within the drainage basin remains.
- Check dams will be inspected for stability. Sediment will be removed when the depth reaches 1/2 the height of the dam.
- All seeded areas will be checked for bare spots, washouts, and vigorous growth free of significant weed infestations.
- Surface waters, including drainage ditches and conveyance systems, must be inspected for evidence of sediment being deposited by erosion.
- Construction site vehicle entrance and exit locations will be designated prior to mobilizing equipment. If a designated entrance and exit locating cannot be determined, the use of a wheel washing facility will be utilized. If applicable, wash waters will be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge. Off-site track out shall be cleaned up at the end of each work day. If contaminated soils are encountered, a wheel washing station with tanks for holding of the fresh water will be utilized.
- Disturbed areas will be checked for stabilization. Stabilization measures shall be initiated as soon as construction activity in that portion of the site has temporarily or permanently ceased.
- The normal wetted perimeter of any temporary or permanent drainage ditch or swale that drains water from any portion of the construction site, or diverts water around the site, must be stabilized within 200 lineal feet from the property edge, or from the point of discharge into any surface water. Stabilization of the last 200 lineal feet must be completed within 24 hours after connection to a surface water.
- Stabilization of the remaining portions of any temporary or permanent ditches or swales must be completed within 14 days after connecting to a surface water and construction in that portion of the ditch has temporarily or permanently ceased.
- Temporary or permanent ditches or swales that are being used as a sediment containment system (with properly designed rock ditch checks, bio rolls, silt dikes, etc.) do not need to be stabilized. These areas must be stabilized within 24 hours after no longer being used as a sediment containment system.
- Pipe outlets must be provided with temporary or permanent energy dissipation within 24 hours after connection to a surface water.

- Discharge procedures for water control and dewatering operations will be inspected. If the water cannot be discharged to a sedimentation basin prior to entering the surface water, it must be treated with the appropriate BMPs, such that the discharge does not adversely affect the receiving water or downstream landowners.
- Inspection and maintenance reports will be completed for each site inspection, this form will also be used to document changes to the SWPPP. The report shall include the date and amount of precipitation or snowmelt events that cause surface erosion. A copy of the completed inspection form will be filed with the SWPPP documents.
- The Contractor's site superintendent is responsible for inspection. Maintenance and repair activities are the responsibility of the Contractor.
- In areas of concentrated flows such as channelized drainage, the use of velocity dissipation devices (e.g. check dams, riprap and wattles), installation of channel liners (e.g. riprap, geotextiles, and erosion control blankets) will be utilized.

SITE PROTECTION

- Fertilizer application and riparian areas: Fertilizer application for temporary erosion control on the construction site shall be done in a manner that does not allow it to leave the treated area.
- Erosion and sediment control: Maintain practices to minimize or avoid soil loss and sedimentation.
- Solid Waste: All waste materials by the construction project shall be disposed of in accordance with the provisions of the Kansas solid waste management statutes and regulations (K.S.A. 65-3401 and K.A.R. 28-29-1 et. seq.) or applicable local rules. Good housekeeping including personal refuse such as food containers, snacks, etc. shall also be addressed.
- Construction shall be done in a manner that avoids downstream bank instability.
- Floating Debris: The applicant shall take appropriate measures to capture any floating debris released to surface waters as a result of this project.
- Fuels, Chemicals and Maintenance Areas: All fuels and chemicals necessary to complete the project shall be stored in such a manner that accidental spillage is minimized or can be temporarily contained before reaching the water body. Equipment maintenance areas shall also be located in this manner.
- Spills: Should a spill of fuel or discharge of pollutants occur the local emergency staff should be contacted first by dialing 911. The Kansas Department of Health and Environment shall then be notified immediately: (785) 291-3333-Option 2. (24 hours a day.) These incidences should also be reported to the National Spill Response Center at 1-800-424-8802. A Spill Prevention and Response Plan should be prepared.

SPILL NOTIFICATION

In the event of a spill, the contractor's site superintendent will make the appropriate notification(s), consistent with the following procedures:
1. A reportable spill is a quantity of more than 5 gallons of petroleum which must be reported immediately to the KDEM.
2. Any spill of oil or hazardous substance to waters of the state must be reported immediately by telephone to the KDEM.
3. Kansas Division of Emergency Management Reporting Line: 24 Hour (800) 275-0297.

CONSTRUCTION CHANGES

The SWPP plan shall be modified or amended as appropriate during the term of the construction activity until the site is stabilized. The contractor is responsible for the installation, operation, and maintenance of erosion controls and shall keep a current copy of the SWPP plan on the project site.

Modifications to the SWPP plan shall be made to better control the site erosion and sediment discharges based on field conditions or site phasing that was not considered during SWPP plan development. The permittee shall indicate the changes on the erosion and sediment control plan sheets, maintain a log showing dates of all SWPP plan modifications, and the name and title of the person authorizing the modifications. Changes to the SWPP plan that are not an amendment (See Section 7.3.2 of the Kansas Department of Health and Environment-Kansas Pollution Control) are considered modifications and do not need to be submitted to KDHE. Modification of site erosion and sediment controls based on field conditions or site phasing do not require preparation or approval by a professional however, modifications that involve the relocation or reconfiguration of any sedimentation basin or corresponding outlet structure required under Section 7.2.7 of the Kansas Department of Health and Environment-Kansas Pollution Control shall be prepared under the supervision of a licensed or certified professional.

PROJECT CONTACTS

The Contractor is responsible for implementation of the SWPP plan and installation, inspection and maintenance of the erosion prevention and sediment control BMP's before and during construction.

Contractor and KDHE contact information is provided in the contract documents and project plans.

WATER RESOURCES RECEIVED

MAR 28 2024


KS DEPT OF AGRICULTURE

PERMIT ISSUE

THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THE MATERIAL, DATA AND INFORMATION IS AT THE USER'S SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.

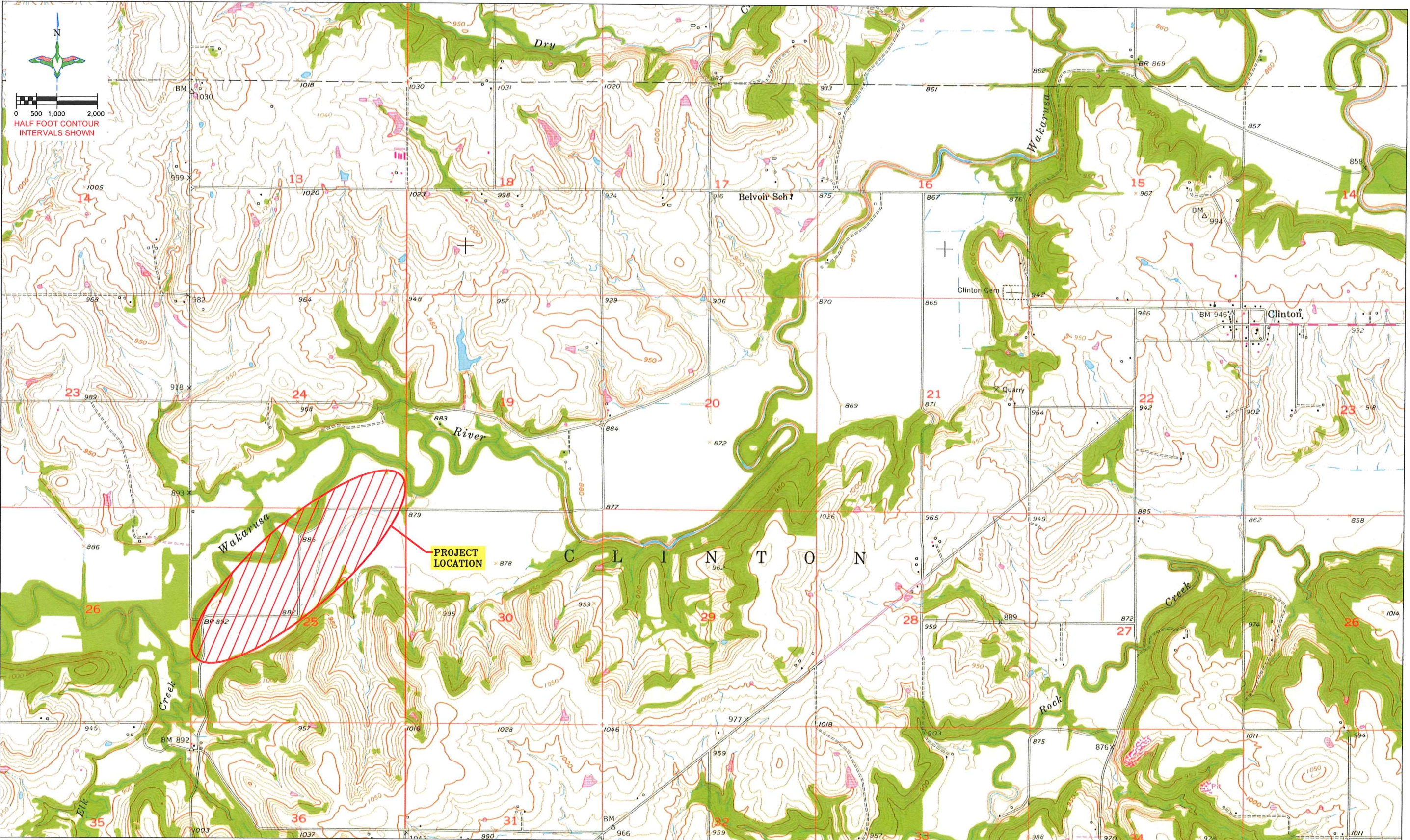
"BEFORE YOU DIG"
BEFORE THE START OF CONSTRUCTION, THE OWNER OF ANY UTILITIES INVOLVED MUST BE NOTIFIED. THE EXCAVATOR/CONTRACTOR IS RESPONSIBLE FOR GIVING THIS NOTICE BY CALLING "KANSAS 811" AT 811. A 48 HOUR NOTIFICATION AND FULL DESCRIPTION OF LOCATION IS REQUIRED.

DU REGIONAL ENGINEER:
CRAIG ROY, P.E.
(913) 991-2223

	PROJECT NO. KS-004-6	DESIGNED BY: CAR
	ELK CREEK MARSH	DRAWN BY: CAR/JJW
SWPP PLAN NOTES		SURVEYED BY: CAR
GREAT PLAINS REGIONAL OFFICE	DATE: 02/19/2024	SHEET NO.: 16 OF 19
	APPROVED BY:	CHECKED BY:

WATER RESOURCES RECEIVED
MAR 28 2024

KS DEPT OF AGRICULTURE



OVERALL PLAN VIEW
SCALE: 1"=1,000'

THIS MATERIAL, DATA AND INFORMATION IS THE PROPERTY OF DUCKS UNLIMITED, INC. IT MAY NOT BE USED OR REPRODUCED FOR ANY PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF AN AUTHORIZED AGENT OF DUCKS UNLIMITED, INC. DUCKS UNLIMITED, INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND REGARDING THIS MATERIAL, DATA AND INFORMATION, INCLUDING, BUT NOT LIMITED TO, THE ACCURACY OF THE MATERIAL, DATA AND INFORMATION OR ITS SUITABILITY FOR ANY PURPOSE. ALL USE OF THE MATERIAL, DATA AND INFORMATION IS AT THE USER'S SOLE RISK. BY USING ANY OF THIS MATERIAL, DATA AND INFORMATION, USER AGREES THAT DUCKS UNLIMITED, INC. IS NOT RESPONSIBLE FOR THEIR USE OF THE MATERIAL, DATA AND INFORMATION OR THE RESULTS THEREOF.

"BEFORE YOU DIG"
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 "KANSAS 811" AT 811. A 48 HOUR NOTIFICATION AND FULL DESCRIPTION OF LOCATION IS REQUIRED.

DU REGIONAL ENGINEER:
CRAIG ROY, P.E.
(913) 991-2223

DUCKS UNLIMITED INC. <small>GREAT PLAINS REGIONAL OFFICE</small>	PROJECT NO. KS-004-6	DESIGNED BY: CAR
	ELK CREEK MARSH USGS TOPOGRAPHIC MAP	DRAWN BY: CAR/JWW
DATE: 02/19/2024	SHEET NO. 19 OF 19	CHECKED BY:
	APPROVED BY:	APPROVED BY:

PERMIT ISSUE