

Public Notice

US Army Corps of Engineerso Vicksburg District 4155 Clay Street Vicksburg, MS 39183-3435 www.mvk.usace.army.mil

APPLICATION NO.:	MVK-2012-197
EVALUATOR:	Ms. Tarmiko Graham
PHONE NO.:	(601) 631-5540
E-MAIL:	Tarmiko.V.Graham@usace.army.mil
DATE:	March 20, 2024
EXPIRATION DATE:	April 20, 2024

Interested parties are hereby notified that the U.S. Army Corps of Engineers, Vicksburg District, is considering a proposal to establish a mitigation bank in Ashley County, Arkansas. A prospectus describing the proposed bank has been received from Matrix New World Engineering. The Addendum Mitigation Bank site is located in Section 22, Township 17 South, Range 5 West, Ashley County, Arkansas.

<u>Description</u>: This wetland/stream addendum mitigation bank is being proposed by the bank sponsor as a means to meet the requirements for compensatory mitigation for future, and as yet unknown, wetland and stream functional losses that would be permitted by the Corps under the authority of Section 404 of the Clean Water Act.

The Bank Sponsor proposes to develop an addendum mitigation bank that would encompass 56.33 acres of land in which restoration, enhancement, and preservation activities are proposed. The Sponsor of the Pelican Foster Mitigation Bank Addendum (PFMBA) is Pelican Mitigation, LLC (Pelican). The goal of Pelican would be to conduct bottomland hardwood wetland, instream, riparian buffer, upland buffer, and upland stream buffer restoration, enhancement, and preservation activities on the PFMBA (Tract or Site). The restoration and enhancement of wetland and streams would increase wetland function, provide species diversity, and increase the width of a wildlife corridor along the Bayou Bartholomew and its major tributaries.

Baseline Conditions / Current Land Use / Proposed Actions: The 56.33-acre tract of the proposed PFMBA currently contains approximately 2.67 acres of bottomland hardwood wetlands, 1.31 acres of shrub-scrub wetlands, 16.99 acres of herbaceous wetlands, 32.02 acres of uplands buffer activities adjacent to wetland areas, and 1.46 acres of existing roads (Figures 3). The tract also contains approximately 1.88 acres of intermittent stream (Unnamed Tributary to Overflow Creek). The existing and historic land use is primarily cattle grazing and hay production. Dominant habitat types associated with the jurisdictional wetlands on the tract consists of bottomland hardwood forested wetlands, shrub-scrub wetlands, and herbaceous wetlands. Dominant species identified in these habitats include: common persimmon (*Diospyros virginiana*), honey-locust (*Gleditsia triacanthos*), sweetgum (*Liquidambar styraciflua*), common buttonbush (*Cephalanthus occidentalis*), bog rush (*Juncus marginatus*), dotted smartweed (*Persicaria punctata*), Virginia dayflower (*Commelina virginica*), lamp rush (*Juncus effusus*), cardinal-flower (*Lobelia cardinalis*), golden crown grass (*Paspalum dilatatum*), saw-tooth blackberry (*Rubus argutus*), bushy bluestem (*Andropogon glomeratus*), broom-sedge (*A. virginicus*), and American buckwheat vine (*Brunnchiaovata*).

The property contains the following soil types: Arkabutla silt loam, Calloway silt loam, Grenada silt loam, Hebert silt loam, Perry clay, Portland silty clay, and Rilla silt loam, all of which are listed as hydric soils.

The Sponsor proposes to conduct bottomland hardwood wetland, instream, riparian buffer, upland buffer, and upland stream buffer activities on the PFMBA. Bottomland hardwood wetland activities would consist of 3.57 acres of herbaceous wetland enhancement, 0.01 acre of shrub-scrub wetland enhancement, and 0.01 acre of preservation. Upland buffer activities would consist of 28.60 acres of enhancement (Figure 4). Stream activities would consist of 0.06 acre (538 linear feet) of Priority 1 restoration, 0.03 acre (91 linear feet) of stream wetland complex, and 1.67 acres (2,477 linear feet) of enhancement of an unnamed tributary to Overflow Creek. Riparian buffer activities would consist of 13.36 acres (1,983.56 linear feet) of stream buffer bottomland hardwood enhancement (herbaceous wetlands), 1.30 acres (193.01 linear feet) of stream buffer bottomland hardwood enhancement (shrub-scrub wetlands), and 2.84 acres (421.66 linear feet) of stream buffer bottomland hardwood preservation. Upland buffer activities would consist of 28.60 acres of enhancement. Upland stream buffer activities would consist of 3.42 acres (507.77 linear feet) of enhancement. Remaining acreage associated with the PFMBA, not proposed for rehabilitation, enhancement, and preservation activities includes 1.46 acres of roads.

<u>Service Area</u>: This Mitigation Bank will be established to provide mitigation to compensate for impacts to waters of the United States, including wetlands, within the State of Mississippi. This area is demarcated by the United States Geologic Survey as hydrologic unit code 08040204 and 08040205 within the Bayou Bartholomew Basin. Decisions authorizing the use of credits from the Mitigation Bank would be made by the appropriate authority on a case-by-case basis, in accordance with all applicable requirements.

The prospectus, which outlines the conceptual plan for the bank, is available at the following website:

http://www.mvk.usace.army.mil/offices/od/odf/PubNotice/pnmain.htm.

Comments on this proposed mitigation bank may be provided to the Corps at the address below. Comments should be received no later than the expiration date of this public notice.

Please provide comments to:

U.S. Army Corps of Engineers Vicksburg District Attention: CEMVK-RD 4155 Clay Street Vicksburg, Mississippi 39183-3485

> Spencer Dixon Chief (Acting), Arkansas Branch Regulatory Division



Figure No.

Drawing No.

19-043-A012

Source: Base map comprised of U.S.G.S. 7.5-minute topographic map(s), "Portland, AR" dated 2002; and "Wilmot NW, AR" dated 1960.



MATRIXNEWORLD Approved By Engineering Progress Date Drawing No.

3 Figure No.

CET

6/25/2020

19-043-A013









							_	
AS NECESSAR CONTROL PLA UCTION OF RE STORATION O DUCTED AT TH JT AND FILL QU	Y TO CONSTRUCT NEW CHANNEL. N FOR DETAILS ON CONSTRUCTION SEG ACH 1 SHALL BE HAULED TO THE DOWN F REACH 4. E SITE TO DETERMINE THE SHRINKAGE O UANTITIES REFLECT A 1.0 FACTOR.	UENCING. STREAM DR	GOOGLE EARTH IMAGERGY = 11/	60 Feet /14/2019	1VK-2012-197	N MITIGATION, LLC	STER MITIGATION BANK	BW DATE: 05/26/2023
		EGENE ROJECT AF XISTING CO XISTING ST ROPOSED ITE ACCES	CAREA (56.3 AC) ONTOUR (1-FT) REAM STREAM S ROADS CONTOUR		2	PELICA	PELICAN FO	DRAWN BY: Z
		IMITS OF C	HANNEL CUT			PRELIMINARY PLANS	NOT FOR CONSTRUCTION	
INEAR FEET HANCEMENT						AERIAL SITE PLAN	- UT1 REACH 1	
			<image/>			WILBANKS ENGINEERING		4117 SKYLINE DR., WARRIOR, AL 35180 (205) 412-3373
NET (CY)	FEATURE NAME	FLOW REGIME	IN-STREAM ACTIVITY	LENGTH (FT)				
43	UT1 REACH 1		RESTORATION	330			-	
-45 - 2	UT1 REACH 4		RESTORATION	208 538		C.1	00)
-2				JJO				





TABLE 1: CROSS-SECTION PARAMETERS								
RIFFLE PARAMETERS (FEET) POOL PARAMETERS (FEET)								
REACH	STATION START	STATION END	Wbkf (ft)	Wbtm	dmax	Wpbkf	Wpbtm	dpmax
UT1 REACH 1	0+00	3+30	4.0	2.2	0.9	4.7	2.2	1.3
UT1 REACH 4	0+51	2+59	6.3	1.5	1.2	6.3	1.5	1.7

CROSS-SECTION NOTES: 1. STREAM CHANNEL IS A ROSGEN "E6" CHANNELS WITH VERY LOW WIDTH/DEPTH RATIOS AND ARE LOW FLOW SYSTEMS. CHANNEL SIDE SLOPES ARE STEEPER FOR THIS PROJECT AS SHOWN WITH SIDE SLOPES OF 1:1 (REACH 1) AND 2:1 (REACH 4) TO ENSURE DEPTHS ARE OBTAINED. INSIDE BENDS OF POOL AREAS SHOULD TARGET A 1:1 (REACH 1) OR 1.5:1 (REACH 4) SLOPE. 2. CONSTRUCTION OF EACH REACH SHALL COMMENCE AT THE UPSTREAM END OF EACH CHANNEL AND PROCEED DOWNSTREAM UNLESS

NOTED IN THE PLANS OR APPROVED BY THE ENGINEER. 3. CHANNEL SHALL BE STABILIZED IN ACCORDANCE TO THE EROSION AND SEDIMENT CONTROL MEASURED NOTED THROUGHOUT THIS PLAN. 4. CONSTRUCTION TOLERANCES ARE AS FOLLOWS:

III O O II O II O E E	
WIDTH:	0.4 FEET
DEPTH:	0.1 FEET
ELEVATIONS:	0.1 FEET
STRUCTURES:	0.1 FEET

KIFFLE ECTION ALE					MVK-2012-197 PELICAN MITIGATION, LLC	-ICAN FOSTER MITIGATION BANK NN BY: ZBW DATE: 05/26/2023
	SUBSTRATE RIFFLE BED MATERIAL MINIMUM AVERAGE THICKNESS OF 4	4" (IF APPLICABLE)				PEI
	(SAND AND SILT BED)					Z
	LOW POINT IN CHANNEL TO BE IN THE FOR RIFFLE FEATURES (TARGET 2% S FROM TOE TO INVERSE CROWN)	E MIDDLE SLOPE			PRELIMINARY	NOT FOR CONSTRUCTIC
ALE		╤╤┑╾┯╷┯╼╴┎┍╧═╢┓═╌┯╷╤══╿┨				
dpmax	LOW POINT IN CHANNEL BOTTOM WIDTH (Wpbtm) POINT BAR SIDE (TARGET FROM TOE TO INVERSE C	TO BE IN 2/3 OF AWAY FROM T 4% SLOPE CROWN				
dpmax	C.S. OUTSIDE O.S. OUTSIDE O.S. OUTSIDE O.S. OUTSIDE OUTSIDE LOW POINT IN CHANNEL BOTTOM WIDTH (Wpbtm) A POINT BAR SIDE (TARGET FROM TOE TO INVERSE OF TABLE 2: STR Stream name Stream Flow type	TO BE IN 2/3 OF AWAY FROM T 4% SLOPE CROWN REAM MORPHOLOGICAL P UT1 REACH 1 Intermittent	ARAMETERS UT1 REACH 4 Intermittent			
dpmax	0.5.10000000000000000000000000000000000	TO BE IN 2/3 OF AWAY FROM T 4% SLOPE CROWN REAM MORPHOLOGICAL P UT1 REACH 1 Intermittent E6	ARAMETERS UT1 REACH 4 Intermittent E6			
dpmax	0.5.10000000000000000000000000000000000	TO BE IN 2/3 OF AWAY FROM T 4% SLOPE CROWN REAM MORPHOLOGICAL P UT1 REACH 1 Intermittent E6 0.04 0.6	ARAMETERS UT1 REACH 4 Intermittent E6 0.10 0.7	NATURAL GROUND		0, LLC 111CAL CRO00 112-3373
dpmax	OUTSIDE IIII IIIII LOW POINT IN CHANNEL BOTTOM WIDTH (Wpbtm) / POINT BAR SIDE (TARGET FROM TOE TO INVERSE OF TABLE 2: STR Stream name Stream Flow type Rosgen Stream type Drainage area, DA (sq mi) Mean riffle depth, dbkf (ft) Riffle width, Wbkf (ft)	TO BE IN 2/3 OF AWAY FROM T 4% SLOPE CROWN REAM MORPHOLOGICAL P UT1 REACH 1 Intermittent E6 0.04 0.6 4.0	ARAMETERS UT1 REACH 4 Intermittent E6 0.10 0.7 6.3			1110AL 0700 205) 412-3373
dpmax	0.5.100 0.000 0.5.100 1.100 LOW POINT IN CHANNEL BOTTOM WIDTH (Wpbtm) / POINT BAR SIDE (TARGET FROM TOE TO INVERSE O Stream name Stream Flow type Rosgen Stream type Drainage area, DA (sq mi) Mean riffle depth, dbkf (ft) Riffle width, Wbkf (ft) Width-to-depth ratio, [Wbkf/dbkf]	TO BE IN 2/3 OF AWAY FROM T 4% SLOPE CROWN REAM MORPHOLOGICAL P UT1 REACH 1 Intermittent E6 0.04 0.6 4.0 6.6	ARAMETERS UT1 REACH 4 Intermittent E6 0.10 0.7 6.3 8.8			
dpmax	Image: I	TO BE IN 2/3 OF AWAY FROM T 4% SLOPE CROWN	ARAMETERS UT1 REACH 4 Intermittent E6 0.10 0.7 6.3 8.8 4.5 1.0			
dpmax	Image: I	TO BE IN 2/3 OF AWAY FROM T 4% SLOPE CROWN EEAM MORPHOLOGICAL P UT1 REACH 1 Intermittent E6 0.04 0.6 4.0 6.6 2.4 0.8 1.3	ARAMETERS UT1 REACH 4 Intermittent E6 0.10 0.7 6.3 8.8 4.5 1.0 1.3			AL 35180 (205) 412-3373
dpmax	Image: I	TO BE IN 2/3 OF AWAY FROM 14% SLOPE CROWN EEAM MORPHOLOGICAL P UT1 REACH 1 Intermittent E6 0.04 0.6 4.0 6.6 2.4 0.8 1.3 3.7	UT1 REACH 4 Intermittent E6 0.10 0.7 6.3 8.8 4.5 1.0 1.3 7.0		INGINEERING	NOR, AL 35180 (205) 412-3373
dpmax	Construction Construction Low POINT IN CHANNEL BOTTOM WIDTH (Wpbtm) / POINT BAR SIDE (TARGET FROM TOE TO INVERSE CONTOR TO INVERSE CONTOR Stream name Stream Flow type Stream Flow type Rosgen Stream type Drainage area, DA (sq mi) Mean riffle depth, dbkf (ft) Riffle width, Wbkf (ft) Width-to-depth ratio, [Wbkf/dbkf] Riffle cross-sectional area, Abkf (sq ft) Mean pool depth, ratio, [dbkfp/dbkf] Pool cross-sectional area, Abkfp (sq ft) Pool area ratio, [Abkfp/Abkf]	TO BE IN 2/3 OF AWAY FROM 14% SLOPE DROWN EAM MORPHOLOGICAL P UT1 REACH 1 Intermittent E6 0.04 0.6 4.0 6.6 2.4 0.8 1.3 3.7 1.6	ARAMETERS UT1 REACH 4 UT1 REACH 4 Intermittent E6 0.10 0.7 6.3 8.8 4.5 1.0 1.3 7.0 1.6			ARRIOR, AL 35180 (205) 412-3373
dpmax	Side LOW POINT IN CHANNEL BOTTOM WIDTH (Wpbtm) / POINT BAR SIDE (TARGET FROM TOE TO INVERSE COLSPANS) Stream name Stream name Stream name Stream Flow type Rosgen Stream type Drainage area, DA (sq mi) Mean riffle depth, dbkf (ft) Riffle width, Wbkf (ft) Width-to-depth ratio, [Wbkf/dbkf] Riffle cross-sectional area, Abkf (sq ft) Mean pool depth, dbkfp (ft) Mean pool depth ratio, [dbkfp/dbkf] Pool cross-sectional area, Abkfp (sq ft) Pool area ratio, [Abkfp/Abkf] Entrenchment ratio, ER (Wfpa/Wbkf] Meander length	TO BE IN 2/3 OF AWAY FROM 1 4% SLOPE CROWN EEAM MORPHOLOGICAL P UT1 REACH 1 Intermittent E6 0.04 0.6 4.0 6.6 2.4 0.8 1.3 3.7 1.6 6.1 26 9	ARAMETERS UT1 REACH 4 Intermittent E6 0.10 0.7 6.3 8.8 4.5 1.0 1.3 7.0 1.6 6.1 50.6	ATURAL GROUND	KS ENGINEERING	LA LAL JOLUTION J, LLO LAL CAL CACOU
dpmax	Image: I	TO BE IN 2/3 OF AWAY FROM T4% SLOPE DROWN EEAM MORPHOLOGICAL P UT1 REACH 1 Intermittent E6 0.04 0.6 4.0 6.6 2.4 0.8 1.3 3.7 1.6 6.1 36.8 9.2	ARAMETERS UT1 REACH 4 Intermittent E6 0.10 0.7 6.3 8.8 4.5 1.0 1.3 7.0 1.6 6.1 50.6 9.2	NATURAL GROUND	NKS ENGINEERING	E DR., WARRIOR, AL 35180 (205) 412-3373
dpmax	Stream name Stream flow type Rosgen Stream type Drainage area, DA (sq mi) Mean riffle depth, dbkf (ft) Riffle width, Wbkf (ft) Width-to-depth ratio, [Wbkf/dbkf] Riffle cross-sectional area, Abkf (sq ft) Mean pool depth, dbkfp (ft) Mean pool depth ratio, [dbkfp/dbkf] Pool area ratio, [Abkfp/Abkf] Entrenchment ratio, ER (Wfpa/Wbkf] Meander length, Lm (ft) Meander length ratio [Lm/Wbkf] Radius of curvature, Rc (ft)	TO BE IN 2/3 OF AWAY FROM 7 4% SLOPE CROWN EEAM MORPHOLOGICAL P UT1 REACH 1 Intermittent E6 0.04 0.6 4.0 6.6 2.4 0.8 1.3 3.7 1.6 6.1 36.8 9.2 9.8	ARAMETERS UT1 REACH 4 Intermittent E6 0.10 0.7 6.3 8.8 4.5 1.0 1.3 7.0 1.6 6.1 50.6 9.2 13.4	VATURAL GROUND	ANKS ENGINEERING	
dpmax	Image: I	TO BE IN 2/3 OF AWAY FROM 14% SLOPE ROWN UT1 REACH 1 Intermittent E6 0.04 0.6 4.0 6.6 2.4 0.8 1.3 3.7 1.6 6.1 36.8 9.2 9.8 2.5	ARAMETERS UT1 REACH 4 Intermittent E6 0.10 0.7 6.3 8.8 4.5 1.0 1.3 7.0 1.6 6.1 50.6 9.2 13.4 2.5	ATURAL GROUND	BANKS ENGINEERING	7 SKYLINE DR., WARRIOR, AL 35180 (205) 412-3373
dpmax	Site LOW POINT IN CHANNEL BOTTOM WIDTH (Wpbtm) / POINT BAR SIDE (TARGET FROM TOE TO INVERSE COLSPANSING COLSPANSI	TO BE IN 2/3 OF AWAY FROM 7 4% SLOPE DROWN	ARAMETERS UT1 REACH 4 Intermittent E6 0.10 0.7 6.3 8.8 4.5 1.0 1.0 1.3 7.0 1.6 6.1 50.6 9.2 13.4 2.5 29.5 5.4	Image:		4117 SKYLINE DR., WARRIOR, AL 35180 (205) 412-3373
dpmax	Silve LOW POINT IN CHANNEL BOTTOM WIDTH (Wpbtm) / POINT BAR SIDE (TARGET FROM TOE TO INVERSE COLSPANSION TOE TO INVERTINAL TO TO INVERSE COLSPANSION TOE TO INVERSE	TO BE IN 2/3 OF AWAY FROM T 4% SLOPE CROWN EEAM MORPHOLOGICAL P. UT1 REACH 1 Intermittent E6 0.04 0.6 4.0 6.6 2.4 0.8 1.3 6.6 2.4 0.8 1.3 3.7 1.6 6.1 36.8 9.2 9.8 2.5 21.4 5.4 7.7	ARAMETERS UT1 REACH 4 UT1 REACH 4 Intermittent E6 0.10 0.7 6.3 8.8 4.5 1.0 1.6 6.1 1.6 6.1 50.6 9.2 13.4 2.5 29.5 5.4 10.5	Image:	WILBANKS ENGINEERING	4117 SKYLINE DR., WARRIOR, AL 35180 (205) 412-3373
dpmax	Silver IIIIIII LOW POINT IN CHANNEL BOTTOM WIDTH (Wpbtm) / POINT BAR SIDE (TARGET FROM TOE TO INVERSE OF POINT BAR SIDE (TARGET FROM TOE TO INVERSE OF POINT BAR SIDE (TARGET FROM TOE TO INVERSE OF POINT BAR SIDE (TARGET FROM TOE TO INVERSE OF POINT BAR SIDE (TARGET FROM TOE TO INVERSE OF POINT BAR SIDE (TARGET FROM TOE TO INVERSE OF POINT BAR SIDE (TARGET FROM TOE TO INVERSE OF POINT BAR SIDE (TARGET FROM TOE TO INVERSE OF POINT BAR SIDE (TARGET FROM TOE TO INVERSE OF POINT BAR SIDE (TARGET FROM TOE TO INVERSE OF POINT BAR SIDE (TARGET FROM TOE TO INVERSE OF POINT BAR SIDE (TARGET FROM TOE TO INVERSE OF POINT BAR SIDE (TARGET FROM TOE TO INVERSE OF POINT BAR SIDE (TARGET BET FROM TOE TO INVERSE OF POINT BAR SIDE (TARGET SI	TO BE IN 2/3 OF AWAY FROM T4% SLOPE CROWN UT1 REACH 1 Intermittent E6 0.04 0.6 4.0 6.6 2.4 0.8 1.3 3.7 1.6 6.1 36.8 9.2 9.8 2.5 21.4 5.4 7.7 1.9	UT1 PEACH 4 Intermittent E6 0.10 0.7 6.3 8.8 4.5 1.0 1.3 7.0 1.6 6.1 50.6 9.2 13.4 2.5 29.5 5.4 10.5	Image:	WILBANKS ENGINEERING	4117 SKYLINE DR., WARRIOR, AL 35180 (205) 412-3373
dpmax	Stream name Stream Flow type Rosgen Stream type Drainage area, DA (sq mi) Mean riffle depth, dbkf (ft) Riffle width, Wbkf (ft) Width-to-depth ratio, [Wbkf/dbkf] Riffle cross-sectional area, Abkf (sq ft) Mean pool depth, ratio, [Wbkf/dbkf] Pool cross-sectional area, Abkfp (sq ft) Pool area ratio, [Abkfp/Abkf] Entrenchment ratio, ER (Wfpa/Wbkf] Meander length, Lm (ft) Meander length, Lm (ft) Meander length, Lm (ft) Radius of curvature ratio [Rc/Wbkf] Belt width, Wblt (ft) Pool length ratio [Lp/Wbkf] Pool length ratio [Lp/Wbkf]<	TO BE IN 2/3 OF AWAY FROM 74% SLOPE SROWN	ARAMETERS UT1 REACH 4 Intermittent E6 0.10 0.7 6.3 8.8 4.5 1.0 1.0 1.3 7.0 1.6 6.1 50.6 9.2 13.4 2.5 29.5 5.4 10.5 1.9 26.3	I I	WILBANKS ENGINEERING	4117 SKYLINE DR., WARRIOR, AL 35180 (205) 412-3373
dpmax	Stream name Stream name Stream name Stream sipe Drainage area, DA (sq mi) Mean riffle depth, dbkf (ft) Riffle width, Wbkf (ft) Width-to-depth ratio, [Wbkf/dbkf] Riffle cross-sectional area, Abkf (sq ft) Mean pool depth, dbkfp (ft) Mean pool depth ratio, [dbkfp/dbkf] Pool area ratio, [Abkfp/Abkf] Entrenchment ratio, ER (Wfpa/Wbkf] Meander length ratio [Lm/Wbkf] Radius of curvature, Rc (ft) Radius of curvature ratio [Rc/Wbkf] Belt width, Wblt (ft) Pool length ratio [Lp/Wbkf] <	TO BE IN 2/3 OF AWAY FROM 7 4% SLOPE CROWN EEAM MORPHOLOGICAL P. UT1 REACH 1 Intermittent E6 0.04 0.6 4.0 6.6 2.4 0.8 1.3 3.7 1.6 6.1 36.8 9.2 9.8 2.5 21.4 5.4 7.7 1.9 19.1 4.8 0.004	ARAMETERS UT1 REACH 4 Intermittent E6 0.10 0.7 6.3 8.8 4.5 1.0 1.0 1.3 7.0 1.6 6.1 50.6 9.2 13.4 2.5 29.5 5.4 10.5 1.9 26.3 4.8 0.0090		WILBANKS ENGINEERING	4117 SKYLINE DR., WARRIOR, AL 35180 (205) 412-3373
dpmax	Image: Stream name Stream name Stream name Stream name Stream name Stream Flow type Rosgen Stream type Drainage area, DA (sq mi) Mean riffle depth, dbkf (ft) Riffle width, Wbkf (ft) Width-to-depth ratio, [Wbkf/dbkf] Riffle cross-sectional area, Abkf (sq ft) Mean pool depth, dbkfp/Abkf] Pool cross-sectional area, Abkf (sq ft) Pool area ratio, [Abkfp/Abkf] Entrenchment ratio, ER (Wfpa/Wbkf] Meander length ratio [Lm/Wbkf] Radius of curvature ratio [Rc/Wbkf] Belt width, Wblt (ft) Meander width ratio [Wblt/Wbkf] Pool length ratio [Lp/Wbkf] Pool length ratio [Lp/Wbkf] Pool length ratio [Lp/Wbkf] Pool length ratio [Lp/Wbkf] Pool length ratio [Vblt/Wbkf] Pool length ratio [Lp/Wbkf]	TO BE IN 2/3 OF AWAY FROM 74% SLOPE ROWN	ARAMETERS UT1 REACH 4 Intermittent E6 0.10 0.7 6.3 8.8 4.5 1.0 1.0 1.3 7.0 1.6 6.1 50.6 9.2 13.4 2.5 29.5 5.4 10.5 1.9 26.3 4.8 0.0080 0.0008		WILBANKS ENGINEERING	4117 SKYLINE DR., WARRIOR, AL 35180 (205) 412-3373
dpmax	Image: Stream name Stream Stream type Drainage area, DA (sq mi) Mean riffle depth, dbkf (ft) Riffle width, Wbkf (ft) Width-to-depth ratio, [Wbkf/dbkf] Riffle cross-sectional area, Abkf (sq ft) Mean pool depth, dbkfp (ft) Mean pool depth, dbkfp/Abkf] Entrenchment ratio, [Rc/Wbkf] Pool area ratio, [Abkfp/Abkf] Entrenchment ratio [Lm/Wbkf] Radius of curvature ratio [Rc/Wbkf] Belt width, Wblt (ft) Meander length, Lm (ft) Meander width ratio [Wblt/Wbkf] Pool length ratio [Lp/Wbkf]	TO BE IN 2/3 OF AWAY FROM 74% SLOPE 200000 EEAM MORPHOLOGICAL P. UT1 REACH 1 Intermittent E6 0.04 0.6 4.0 6.6 2.4 0.8 1.3 3.7 1.6 6.1 36.8 9.2 9.8 2.5 21.4 5.4 7.7 1.9 19.1 4.8 0.0004 0.0003 1.38	ARAMETERS UT1 REACH 4 Intermittent E6 0.10 0.7 6.3 8.8 4.5 1.0 1.3 7.0 1.6 6.1 50.6 9.2 13.4 2.5 29.5 5.4 10.5 1.9 26.3 4.8 0.0080 0.0080		WILBANKS ENGINEERING	4117 SKYLINE DR., WARRIOR, AL 35180 (205) 412-3373
dpmax	Image: I	TO BE IN 2/3 OF AWAY FROM 14% SLOPE CROWN	ARAMETERS UT1 REACH 4 Intermittent E6 0.10 0.7 6.3 8.8 4.5 1.0 1.3 7.0 1.6 6.1 50.6 9.2 13.4 2.5 5.4 10.5 1.9 26.3 4.8 0.0008 1.10 13.5		WILBANKS ENGINEERING	





	HATCH LEGEND	ACRES
Ψ Ψ Ψ Ψ Ψ Ψ Ψ	WETLAND ENHANCEMENT	3.58
	WETLAND PRESERVATION	0.01
┍╾┍╴┍╴┍╴┍╴┍╴┍	RIPARIAN BUFFER ENHANCEMENT	14.66
	RIPARIAN BUFFER PRESERVATION	2.84
	UPLAND BUFFER ENHANCEMENT	28.60
	UPLAND RIPARIAN BUFFER ENHANCEMENT	3.42
	NON-PLANTING AREAS (STREAM CHANNELS,	3.22
	ACCESS ROADS, ETC.)	
	TOTAL SITE	56.3

PLANTING NOTES:

TEMPORARY AND PERMANENT SEED

- 1. ALL DISTURBED AREAS WILL BE STABILIZED USING MULCH AND TEMPORARY SEED TO PROVIDE ADEQUATE GROUND COVER AND CONDITION THE SOIL.
- MULCH MUST BE ADDED TO ACHIEVE 75% COVERAGE (ROUGHLY 2 TONS/ACRE FOR WHEAT STRAW)
 A FERTILITY SOIL TEST SHALL BE USED TO DETERMINE FERTILIZER AMOUNT OR, IF NO SOIL TEST IS AVAILABLE, A
- STANDARD MIXTURE SHALL BE APPLIED OF 1.5 TONS OF LIME PER ACRE AND 400 LBS OF 5-15-10 FERTILIZER PER ACRE.
- BARE ROOT PLANTINGS
- 1. PLANT BARE ROOT SHRUBS AND TREES IN ACRES AS INDICATED ON THE PLANS.
- PROVIDE 9' SPACING BETWEEN PLANTS.
 LOOSEN COMPACTED SOIL AND PLANT IN HOLES FORMED WITH A MATTOCK, DIBBLE BAR OR EQUAL.
- PROVIDE PLANTING HOLD SUFFICIENT IN SIZE AND DEPTH TO PREVENT CROWDING OF ROOTS.
- 5. ROOTS SHALL BE KEPT MOIST DURING TRANSPORTATION, DISTRIBUTION, AND INSTALLATION.
- 6. PLANTS SHALL BE HEELED-IN INTO MOIST SOIL IF NOT PROMPTLY PLANTED AFTER DELIVERY TO THE PROJECT SITE.
- LIVE STAKES:
- 1. STAKES CAN BE CUT AND INSTALLED ON THE SAME DAY OR SOAKED ANYWHERE FROM 1 TO 7 DAYS.
- 2. STAKES THAT ARE SPLIT SHALL NOT BE INSTALLED.
- STAKES SHALL BE INSTALLED ORTHOGONAL TO THE BANK AND WITH BUDS POINTING UPWARDS.
 STAKES SHALL BE ¹/₂ TO 2 INCHES IN DIAMETER AND 2 TO 3 FEET IN LENGTH.
- AFTER INSTALLATION, THE TOP PORTION OF STAKES SHALL BE PRUNED WITH A SQUARE CUT LEAVING NO LESS THAN 3 INCHES AND NO MORE THAN 6 INCHES ABOVE THE GROUND.

GENERAL PLANTING INFORMATION

		DI ANTING MATERIAL SIZE	COMPOSITION (%)
NAWE		PLANTING MATERIAL SIZE	
	Hazal alder	Live Stake	
	Ruttonhush		
			3/sy
10/			
	Red mulberry	Bare Root	6.0
	American sycamore	Bare Poot	4.0
	Bald cypress	Bare Poot	7.0
		Bare Poot	3.0
	American emi		3.0
	Sweet necan	Pare Poet	
		Bare Root	13.5
		Bare Rool	13.5
	Water colk	Bare Root	13.5
		Date Root	13.0
		Bare Rool	13.0
DIDAD			00.0
NIFAN			
	River blich Red mulberry	Bare Root	3.0
		Bare Root	4.0
	Pald everose	Bare Root	5.0
		Bare Rool	5.0
	American elm		3.0
	Sweet pecan	IUTAL SOFT MAST	
		Bare Root	13.5
		Bare Root	13.5
		Bare Root	13.5
			13.0
		Bare Root	13.0
		Bare Root	13.5
			80.0
UPL			6.0
bra		Bare Doot	5.0
via identalis		Bare Doot	<u> </u>
	American Sycamore	Para Doot	
inala	Shortleat pine		4.0
formia	Di#=		20.0
iormis	Bitternut hickory	Bare Root	13.5
nensis	Sweet pecan	Bare Root	13.5
alba	Northern white oak	Bare Root	13.0
icata	Souther red oak	Bare Root	13.5
nigra	Water oak	Bare Root	13.0
agoda	Cherry bark oak	Bare Root	13.5

ES. WETLAND ENHANCEMENT: VEGETATIVE ENHANCEMENT TO BE ACCOMPLISHED BY PLANTING AN APPROPRIATE SPECIES MIXTURE OF BOTTOMLAND HARDWOODS (TABLE 5) DURING THE STANDARD PLANTING SEASON (DECEMBER THRU MARCH), FOLLOWING THE REMOVAL OF UNDESIRED VEGETATION FROM THE ENHANCEMENT AREAS. SEEDLINGS WILL BE PLANTED USING A 9 X 9 FOOT SPACING FOR AN INITIAL STAND DENSITY OF AT LEAST 540 SEEDLINGS PER ACRE

STREAM BUFFER ENHANCEMENT: VEGETATIVE ENHANCEMENT WILL BE CONDUCTED WITHIN RIPARIAN AREAS OF THE EXISTING AND PROPOSED STREAM CORRIDORS WHERE IN-STREAM RESTORATION ACTIVITIES ARE CONDUCTED. A 150-FOOT-WIDE BUFFER (150 FEET EACH SIDE OF THE STREAM) WILL BE PLANTED WITH AN APPROPRIATE SPECIES MIXTURE OF BOTTOMLAND HARDWOODS (TABLE 5) DURING THE STANDARD PLANTING SEASON (DECEMBER THRU MARCH), FOLLOWING THE REMOVAL OF UNDESIRED VEGETATION FROM THE ENHANCEMENT RIPARIAN AREAS. SEEDLINGS WILL BE PLANTED USING A 9 X 9 FOOT SPACING FOR AN INITIAL STAND DENSITY OF AT LEAST 540 SEEDLINGS PER ACRE.

UPLAND BUFFER AND UPLAND STREAM BUFFER ENHANCEMENT: VEGETATIVE ENHANCEMENT WILL BE ACCOMPLISHED BY PLANTING AN APPROPRIATE SPECIES MIXTURE OF HARDWOODS (TABLE 5) DURING THE STANDARD PLANTING SEASON (DECEMBER THRU MARCH). SEEDLINGS WILL BE PLANTED USING A 9 X 9 FOOT SPACING FOR AN INITIAL STAND DENSITY OF AT LEAST 540 SEEDLINGS PER ACRE.

THE TOTAL WETLAND ENHANCEMENT AREA IS 3.58 ACRES INVOLVING THE PLANTING OF 1,934 SEEDLINGS. THE TOTAL RIPARIAN BUFFER ENHANCEMENT AREA IS 14.66 ACRES INVOLVING THE PLANTING OF 7,917 SEEDLINGS. THE TOTAL UPLAND BUFFER AND UPLAND STREAM BUFFER ENHANCEMENT AREA IS 32.02 ACRES INVOLVING THE PLANTING OF 17,291 SEEDLINGS.

TABLE 6: GRASS SPECIES SELECTION					
ME	COMMON NAME	SEEDING RATE PER ACES, PLS	SEEDING DATE RANGES		
	Bermudagrass	10	APR 1 - JUL 1		
;	Tall Fescue	40-50	SEP 1 - NOV 1		
	Partridge Pea	10-15	MAR 15 - JUL 15		
	Swithgrass	4	APR 1 - JUN 15		
	Millet	40	APR 1 - AUG 1		
	Rye	3 BU	SEP 1 - NOV 15		
	Ryegrass	30	AUG 1 - SEP 15		
	Sorghum-Sudan Hydrids	40	MAY 1 - AUG 1		
	Wheat	3 BU	SEP 1 - NOV 1		
	Crimson Clover	10	SEP 1 - NOV 1		

				¥	2023
		60 Feet	2	ATION BA	ΓE: 05/26/:
	GOOGLE EARTH IMAG	ERGY = 11/14/2019	-2012-19	R MITIG	LAD
NERVICE AND		ALL	MVK		ZBW
				PELICAN F	JRAWN BY :
			RELIMINAR	PLANS NOT FOR	
			<u></u>	Č	5
			F		
			NEN	Z	
	TP MU TS PS			PLA	
			S S M M		ך ך
			8 NC	UTR I	
			OSIC	CON	ן לו
			ERC	•	
	SEDIMENT & EROSION CONTROL L	EGEND	Ľ		73
	SITE PREPARATION		RIN	NS, LI	5) 412-33
	TEMPORARY STAGING AREA TEMPORARY HAUL ROUTE LIMITS OF DISTURBANCE		INFE	OLUTIOI	NL 35180 (20
	SURFACE STABILIZATION		FNC	AL S	RIOR, A
	PERMANENT SEEDING	MU PS		ENT	., WAR
	PRESERVATION OF VEGETATION	PV	ŇZ	MNC	NE DR
	TREE PLANTING	TP	B A	VIRC	7 SKYLI
A A A A A	SEDIMENT CONTROL		VII	× EN	4117
	SEDIMENT BARRIER, SILT FENCE ROCK FILTER DAM	— sf — RD			
	STREAM PROTECTION				
	CHANNEL STABILIZATION	CS			
	STREAM BANK STABILIZATION	SP	F	_10	
					-

		Image: Constraint of the second of the se	MVK-2012-197	PELICAN MITIGATION, LLC PELICAN FOSTER MITIGATION BANK	DRAWN BY: ZBW DATE: 05/26/2023
<image/>			PRFI IMINARY	PLANS NOT FOR	CONSTRUCTION
SEDIMENT & EROSION CONTROL LEGEND SITE PREPARATION TEMPORARY STAGING AREA TEMPORARY HAUL ROUTE LIMITS OF DISTURBANCE SURFACE STABILIZATION MULCHING PERMANENT SEEDING PRESERVATION OF VEGETATION TEMPORARY SEED TEMPORARY SEED PRESERVATION OF VEGETATION PRESERVATION OF VEGETATION SEDIMENT CONTROL SEDIMENT CONTROL SEDIMENT CONTROL SEDIMENT CONTROL SEDIMENT CONTROL SEDIMENT CONTROL SEDIMENT POTECTION CHANNEL STABILIZATION CHANNEL STABILIZATION	BUILT UP LINE, THIS E		EROSION & SEDIMENT	CONTROL PLAN	SITE PLAN
STREAM BANK STABILIZATION SP		SITE PREPARATION TEMPORARY STAGING AREA TEMPORARY HAUL ROUTE LIMITS OF DISTURBANCE SURFACE STABILIZATION MULCHING MULCHING PERMANENT SEEDING PRESERVATION OF VEGETATION PV TEMPORARY SEED TEMPORARY SEED SEDIMENT CONTROL SEDIMENT BARRIER, SILT FENCE SETEAM PROTECTION CHANNEL STABILIZATION	WILBANKS FNGINFERING	& ENVIRONMENTAL SOLUTIONS, LLC	4117 SKYLINE DR., WARRIOR, AL 35180 (205) 412-3373

POSTS SHALL BE EITHER 3-IN THICK SOFT WOOD, 1.5-IN THICK OAK, OR 1.33 LB/LF STEEL WITH A MINIMUM LENGTH OF 4-FT. STEEL POSTS SHALL HAVE PROJECTIONS TO FACILITATE FASTENING FABRIC. SEE TABLE SB-1 FOR WOOD POST FASTENER INFORMATION

- FILTER FABRIC SHALL MEET THE FOLLOWING:
- A) MINIMUM WITH OF 36 INCHES CONFORM TO AASHTO M288 B)
- SILT FENCES TO BE INSTALLED IN LOCATIONS AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN AND AS DIRECTED BY
- THE ENGINEER PRIOR TO BEGINNING OF CONSTRUCTION. SILT FENCES TO BE MAINTAINED AND CLEANED AS NECESSARY TO MAINTAIN IN FUNCTIONAL CONDITION. SILT FENCES SHALL BE
- INSPECTED AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL EVENT. SILT FENCES TO BE REMOVED AND THE AREA TO BE RESTORED TO ITS NATURAL CONDITION WHEN PERMANENT EROSION AND SEDIMENT CONTROL PROCEDURES ARE EFFECTIVE.

(SB) SEDIMENT BARRIER - TYPE B NOT TO SCALE

TABLE SB-1: WOOD POST FASTENERS FOR SILT FENCE

	GUAGE	CROWN	LEGS	STAPLES/POST
WIRE STABLES	17 MIN.	3/4" WIDE	1/2" LONG	5 MIN.
	GUAGE	LENGTH	BUTTON HEAD	NAIL/POST
NAILS	14 MIN.	1"	3/4" LONG	4 MIN.

GENERAL NOTES:

DISTURBED ACREAGE: LESS THAN 0.2 ACRES RIVER BASIN: BAYOU BARTHOLOMEW WATERSHED; HUC: 08040205 MAINTENANCE CONTACT: LEE WOMACK (PROJECT MANAGER)

- 1. THE SITE CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING AND MAINTAINING SUITABLE EROSION AND SEDIMENT CONTROL DEVICES ON SITE DURING CONSTRUCTION AS REQUIRED TO PREVENT SILT FROM LEAVING THE SITE. SILT WILL NOT BE ALLOWED BEYOND LIMITS OF DISTURBANCE.
- 2. EROSION CONTROL MEASURES SHALL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF APPROVED PLANS DOES NOT PROVIDE SUFFICIENT EROSION AND SEDIMENT CONTROL, ADDITIONAL CONTROL MEASURES SHALL BE IMPLEMENTED. CONTRACTOR IS RESPONSIBLE FOR DAILY INSPECTIONS, REPAIRING OR REPLACING EROSION CONTROL DEVICES WHICH BECOME INEFFECTIVE.
- 3. THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING AN NPDES PERMIT THROUGH THE ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ) AND A COPY WILL BE PROVIDED TO THE OWNER.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF A SWPPP PLAN AS REQUIRED BY LDEQ.
- 5. THE CONTRACTOR IS RESPONSIBLE FOR ALL INSPECTIONS AND REPORTING REQUIRED BY NPDES PERMIT AND ADEQ. 6. ALL EROSION CONTROL MEASURES SHALL MEET THE GUIDELINES SET FORTH IN THE STATE, COUNTY, AND LOCAL
- EROSION AND SEDIMENT CONTROL GUIDELINES AS A MINIMUM STANDARD, OR AS REQUIRED BY THE ADEQ. THE CONTRACTOR IS RESPONSIBLE FOR THE CLEANUP AND REMOVAL OF ANY BUILDUP OF SEDIMENT WHICH ESCAPES
- THE SITE. 8. THE CONTRACTOR IS RESPONSIBLE FOR CLEANING SILT AND DEBRIS OUT OF ALL STORM DRAINAGE STRUCTURES UPON
- THE COMPLETION OF CONSTRUCTION. 9. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ANY FINES LEVIED AGAINST THE SITE OR
- VIOLATIONS OF EROSION CONTROL REGULATIONS. 10. THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER HANDLING AND STORAGE OF HAZARDOUS MATERIALS SUCH AS: PAINTS, FUELS, FERTILIZERS, POISONS, ETC. DURING CONSTRUCTION, APPROPRIATE SPILL PREVENTION SHOULD BE IMPLEMENTED TO REDUCE THE POSSIBILITY OF CONTAMINATING STORM WATER RUNOFF.
- 11. THE CONTRACTOR SHALL PROVIDE TEMPORARY GROUND COVER FOR ALL AREAS WITH EXPOSED SOIL WHICH WILL NOT BE DISTURBED BY GRADING OPERATIONS FOR A PERIOD OF FOURTEEN (14) DAYS OR MORE, OR AS REQUIRED BY NPDES PERMIT OR LDEQ.
- 12. THE CONTRACTOR SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL DEVICES AFTER EACH RAINFALL AND PERFORM NECESSARY REPAIRS AND MAINTENANCE.
- 13. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL TEMPORARY EROSION CONTROL MEASURES AFTER CONSTRUCTION IS COMPLETE AND ALL DISTURBED AREAS HAVE BEEN STABILIZED.
- 14. NO PETROLEUM PRODUCTS ARE TO BE STORED ONSITE WHILE UNATTENDED BY CONTRACTORS REPRESENTATIVES. 15. EROSION CONTROL BLANKET SHALL BE INSTALLED ON ALL DISTURBED CHANNEL BANKS. 16. FUELING STATION AND TEMPORARY RESTROOMS WILL BE LOCATED AT THE STAGING AREA ALONG WITH NPDES PERMIT
- BOX AND RAIN GAUGE. 17. ALL DISTURBED AREAS WILL BE STABILIZED USING MULCH AND TEMPORARY SEED TO PROVIDE ADEQUATE GROUND
- COVER AND CONDITION THE SOIL. 18. MULCH MUST BE ADDED TO ACHIEVE 75% COVERAGE (ROUGHLY 2 TONS/ACRE FOR WHEAT STRAW).
- 19. TEMPORARY SEEDING WILL INCLUDE A MIX OF MILLET, RYE, RYEGRASS, SORGHUM-SUDAN HYBRIDS, WHEAT, AND
- CRIMSON CLOVER. SEE SHEET C.501 FOR PLANTING RATES. 20. PERMANENT SEEDING WILL INCLUDE A HERBACEOUS, NATIVE MIX OF BERMUDA GRASS, TALL FESCUE, PARTRIDGE PEA AND SWITCHGRASS. SEE SHEETS C.501 FOR PLANTING RATES.
- 21. A FERTILITY SOIL TEST SHALL BE USED TO DETERMINE FERTILIZER AMOUNTS OR, IF NO SOIL TEST IS AVAILABLE, A STANDARD MIXTURE SHALL BE APPLIED OF 1.5 TONS OF LIME PER ACRE AND 400 LBS OF 5-15-10 FERTILIZER PER ACRE.
- 22. SEE SHEETS C.500 AND C.501 FOR PLANTING DETAILS.

