PRELIMINARY DOCUMENTS ARE NOT TO BE USED FOR CONSTRUCTION, BIDDING, RECORDEMENT, CONVEYANCE, SALES, OR AS THE BASIS FOR THE ISSUANCE OF A PERMIT.
1. All elevations are given in the North American Vertical Datum of 1988 (NAVD 88) U.S. survey feet. All horizontal coordinates are given in the North American Datum of 1983 (NAD 83, Louisiana State Plane South Zone U.S. Feet). All elevations are based on the following:

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<th>Secondary Survey Monument</th>
<th>Elevation</th>
<th>Northing</th>
<th>Easting</th>
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2. The existing elevations shown on the plans are based on the surveys performed from April 2013 through June 2013 and October 2014 through November 2014 by the HYDRO-TERRA GROUP for the CPRA.

3. Data from station CRMSTV-64 was used to calculate the MHW and MLW. Elevations are referenced to NAVD 88, US feet, GECO 12A. MHW = +0.68' and MLW = +0.48' within project area and MHW = +1.68' and MLW = +1.15' in Little Vermilion Bay.

4. The contractor shall not, at any time, tread on existing marsh or vegetated wetlands unless otherwise directed by the engineer.

5. The contractor shall be responsible for navigating within the limits of the project site and shall notify landowners according to the land rights memorandum shown in the construction bid documents. The engineer or his representative shall monitor the contractor's location during construction.

6. The contractor shall be responsible for notifying the following pipeline and utility operators at least five (5) working days in advance of the work. Pipelines located within 150' of the work shall be marked by the contractor. The contractor shall maintain buoy's during construction and have adequate navigational equipment on the dredge to avoid dredging in restricted areas. Call Louisiana One Call at 1-800-272-3020 5 days prior to any excavation and/or dredging to locate all pipelines or utilities.

7. Plans and specifications are complementary; what is required by one is binding as if required by all. Clarifications and interpretations of, or notifications of minor variations and deviations in the contract documents, will be issued by the engineer.

8. Any damage to existing U.S. Coast Guard Navigation Aids or private navigation aids shall be repaired by the contractor to U.S. Coast Guard standards at the expense of the contractor.

9. The marsh creation areas, borrow areas, containment dikes, and water control structures may be revised by the engineer throughout the work to reflect changes in field conditions.

10. The contractor shall perform a magnetometer survey of the dredge pipeline alignment, borrow areas, water control structures, access channels, and marsh creation areas prior to excavation. Drawings showing the track lines, any magnetometer hits, coordinates, amplitude, signature type, and signature width of all magnetometer hits shall be submitted to the engineer prior to excavation.

11. The contractor is responsible for containing all hydraulically dredged material within the boundaries of the marsh creation areas.

12. A geotechnical investigation was performed by Ardaman & Associates on February 2013 to April 2013. The boring locations are shown on the plans. The geotechnical investigation report is provided in the specifications.
COASTAL PROTECTION AND RESTORATION AUTHORITY
300 LAUREL STREET
BATON ROUGE, LOUISIANA 70801

COLE'S BAYOU
MARSH RESTORATION

LEGEND

- MARSH CREATION AREA
- DREDGE PIPELINE CORRIDOR
- BORROW AREA
- VERIFIED PIPELINE
- EQUIPMENT ACCESS CORRIDOR
- UNVERIFIED PIPELINE
- WATER CONTROL STRUCTURE
- EQUIPMENT ACCESS CORRIDOR DREDGING
- EQUIPMENT ACCESS CORRIDOR

NOTES:
1. PIPELINE INFORMATION SHOWN ON PLANS IS APPROXIMATE. THE CONTRACTOR SHALL VERIFY EXACT LOCATIONS PRIOR TO BEGINNING CONSTRUCTION.
2. ALL PIPELINES LOCATED WITHIN 150' OF ANY CONSTRUCTION FEATURE SHALL BE PROBED AND THEIR LOCATIONS MARKED FOR THE DURATION OF CONSTRUCTION ACTIVITIES.
3. EQUIPMENT ACCESS TO BORROW AREA SHALL BE THROUGH NAVIGABLE WATERWAYS AND SHALL NOT DISTURB EXISTING WATER BOTTOMS UNLESS OTHERWISE NOTED.
4. BACKGROUND IMAGERY WAS TAKEN IN 2012.

**Water Control Structure Location Coordinates**

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**Description**

- TO BE REMOVED
- MARSH CREATION AREA 1
- MARSH CREATION AREA 2
- MARSH CREATION AREA 3
- LITTLE VERMILION BAY
- MARSH CREATION AREA
- VERIFIED PIPELINE
- DREDGE PIPELINE CORRIDOR
- BORROW AREA
- EQUIPMENT ACCESS CORRIDOR DREDGING
- EQUIPMENT ACCESS CORRIDOR
- WATER CONTROL STRUCTURE
- UNVERIFIED PIPELINE
- MCILHENNY CANAL

NOTES:
1. PIPELINE INFORMATION SHOWN ON PLANS IS APPROXIMATE. THE CONTRACTOR SHALL VERIFY EXACT LOCATIONS PRIOR TO BEGINNING CONSTRUCTION.
2. ALL PIPELINES LOCATED WITHIN 150' OF ANY CONSTRUCTION FEATURE SHALL BE PROBED AND THEIR LOCATIONS MARKED FOR THE DURATION OF CONSTRUCTION ACTIVITIES.
3. EQUIPMENT ACCESS TO BORROW AREA SHALL BE THROUGH NAVIGABLE WATERWAYS AND SHALL NOT DISTURB EXISTING WATER BOTTOMS UNLESS OTHERWISE NOTED.
4. BACKGROUND IMAGERY WAS TAKEN IN 2012.

**Equipment Access Corridor Inset**

**Equipment Access Corridor Dredging**

**Coastal Protection and Restoration Authority**

**State Project Number:** TV-63
**Federal Project Number:** TV-63
**Date:** April 2015
**Sheet 3 of 14**

**Drawn By:** K. Cantu
**Designed By:** A. Taylor, P.L.
**Approved By:** S. Haynes, P.E.
NOTES:
1. PIPELINE INFORMATION SHOWN ON PLANS IS APPROXIMATE. THE CONTRACTOR SHALL VERIFY EXACT LOCATIONS PRIOR TO BEGINNING CONSTRUCTION.
2. ALL PIPES LOCATED WITHIN 150' OF THE BORROW AREA SHALL BE PROBED AND THEIR LOCATIONS MARKED FOR THE DURATION OF CONSTRUCTION ACTIVITIES OF THE BORROW AREA.
3. A MAGNETOMETER SURVEY SHALL BE CONDUCTED ACCORDING TO THE SPECIFICATIONS PRIOR TO MOBILIZATION OF THE DREDGE.
NOTES:
1. PIPELINE INFORMATION SHOWN ON PLANS IS APPROXIMATE. THE CONTRACTOR SHALL VERIFY EXACT LOCATIONS PRIOR TO BEGINNING CONSTRUCTION.
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COASTAL PROTECTION AND RESTORATION AUTHORITY
ROGER M. FOLLIS, STATE PROJ. MGR.
BATON ROUGE, LOUISIANA 70801

MARSH CREATION AREAS 1 & 2 PLAN VIEW

LEGEND

- MARSH CREATION AREA
- MARSH CREATION DIKE
- MARSH CREATION DIKE BORROW AREA
- EQUIPMENT ACCESS CORRIDOR
- DREDGE PIPELINE CORRIDOR
- PIPELINE
- WATER CONTROL STRUCTURE

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COASTAL PROTECTION AND RESTORATION AUTHORITY
450 LAUREL STREET
BATON ROUGE, LOUISIANA 70801

MARSH CREATION AREA 3 PLAN VIEW

LEGEND
- MARSH CREATION AREA
- MARSH CONTAINMENT DIKE
- MARSH CONTAINMENT DIKE BORROW AREA
- EQUIPMENT ACCESS CORRIDOR
- DREDGE PIPELINE CORRIDOR
- PIPELINE
- WATER CONTROL STRUCTURE

EQUIPMENT ACCESS CORRIDOR
DREDGE PIPELINE CORRIDOR

UNKNOWN PIPELINE

COLE'S BAYOU
MARSH RESTORATION

STATE PROJECT NUMBER: TV-63
FEDERAL PROJECT NUMBER: TV-63

APPROVED BY: S. HAYNES, P.E.
DATE: APRIL 2015

DRAWN BY: K. CANTU
DESIGNED BY: A. TAYLOR, P.E.
COASTAL PROTECTION AND RESTORATION AUTHORITY
BATON ROUGE, LOUISIANA 70801

COLE'S BAYOU MARSH RESTORATION

WATER CONTROL STRUCTURE PLAN VIEWS

STATE PROJECT NUMBER: TV-63
FEDERAL PROJECT NUMBER: TV-63

NOTES:
1. PIPELINE INFORMATION SHOWN ON PLANS IS APPROXIMATE. THE CONTRACTOR SHALL VERIFY EXACT LOCATIONS PRIOR TO BEGINNING CONSTRUCTION.
2. ALL PIPELINES LOCATED WITHIN 150' OF ANY CONSTRUCTION FEATURE SHALL BE PROBED AND THEIR LOCATIONS MARKED FOR THE DURATION OF CONSTRUCTION ACTIVITIES.
3. BACKGROUND IMAGERY WAS TAKEN IN 2012.

LEGEND
- MARSH CREATION AREA
- EARTHEN CONTAINMENT DIKE
- WATER CONTROL STRUCTURE
- EQUIPMENT ACCESS CORRIDOR
- DREDGE PIPELINE CORRIDOR
- OUTFALL

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G:\Users\CED\BASINS\TV-63 Cole's Bayou\DRAWINGS - AUTOCAD\Plan Set\80% Design Drawings\07-8 Culvert Plan View.dwg
NOTES:
1. EXISTING STRUCTURE AT WATER CONTROL STRUCTURE 6 SHALL BE REMOVED AND REPLACED WITH PLASTIC PIPES.
2. ALL PIPELINES LOCATED WITHIN 150' OF ANY CONSTRUCTION FEATURE SHALL BE PROBED AND THEIR LOCATIONS MARKED FOR THE DURATION OF CONSTRUCTION ACTIVITIES.
3. BACKGROUND IMAGERY WAS TAKEN IN 2012.
COASTAL PROTECTION AND RESTORATION AUTHORITY
450 LAUREL STREET
BATON ROUGE, LOUISIANA 70801

LEGEND
- BORROW AREA
- EQUIPMENT ACCESS CORRIDOR
- TEMPORARY SPOIL
- EXISTING WATER BOTTOM

TYPICAL SECTION - BORROW AREA

TYPICAL SECTION - EQUIPMENT ACCESS CORRIDOR

EL = -15.0' (MAX.)
MLW = 1.16'
MHW = 1.85'

10’ 20’ 30’ 40’ 50’ 60’ 70’

200’ 100’ 0 200’ 400’

10’ 20’ 30’ 40’ 50’ 60’ 70’

200’ 100’ 0 200’ 400’

LEGEND
- BORROW AREA
- EQUIPMENT ACCESS CORRIDOR
- TEMPORARY SPOIL
- EXISTING WATER BOTTOM

TYPICAL SECTION - BORROW AREA

TYPICAL SECTION - EQUIPMENT ACCESS CORRIDOR

EL = -9.0' (MAX.)
MLW = 1.16'
MHW = 1.85'

25.0' (MIN.)

25.0' (MIN.)

EL = -15.0' (MAX.)
MLW = 1.16'
MHW = 1.85'

25.0' (MIN.)

25.0' (MIN.)

EL = -9.0' (MAX.)
MLW = 1.16'
MHW = 1.85'

30% Design Drawings
30% Design Drawings
30% Design Drawings
30% Design Drawings

DATE: APRIL 2015
STATE: LA
PROJECT NUMBER: TV-63
FEDERAL PROJECT NUMBER: TV-63

ELEVATION (FEET NAVD 88)

SOUTH

NORTH

EXISTING WATER BOTTOM

BORROW AREA

EQUIPMENT ACCESS

CORRIDOR

TEMPORARY SPOIL

EXISTING WATER BOTTOM

SOUTHWEST

NORTHEAST

TYPICAL SECTION - EQUIPMENT ACCESS CORRIDOR

HORIZONTAL GRAPHIC SCALE

VERTICAL GRAPHIC SCALE

200’ 100’ 0 200’ 400’

10’ 20’ 30’ 40’ 50’ 60’

200’ 100’ 0 200’ 400’

10’ 20’ 30’ 40’ 50’ 60’
COASTAL PROTECTION AND RESTORATION AUTHORITY
Baton Rouge, Louisiana 70801

COLE'S BAYOU MARSH RESTORATION

TV-63

TYPICAL PLAN & PROFILE FOR WATER CONTROL STRUCTURE WITH SINGLE CULVERT

NOTES:
1. A TRENCH SHALL BE EXCAVATED AS NECESSARY TO INSTALL THE PLASTIC CULVERT. SPOIL MATERIAL SHALL BE TEMPORARILY STOCKPILED AND UTILIZED AS BACKFILL OF THE PLASTIC PIPE.
2. THE BORROW AREA SHALL BE UTILIZED AS NEEDED FOR BREACHES.
COASTAL PROTECTION AND RESTORATION AUTHORITY
450 LAUREL STREET
BATON ROUGE, LOUISIANA 70801

COLE'S BAYOU
MARSH RESTORATION

HORIZONTAL GRAPHIC SCALE

VERTICAL GRAPHIC SCALE

NOTES:
1. A TRENCH SHALL BE EXCAVATED AS NECESSARY TO INSTALL THE PLASTIC CULVERT. Spoil material shall be temporarily stockpiled and utilized as backfill of the plastic pipe.
2. The borrow area shall be utilized as needed for breaches.

TYPICAL SECTION - DOUBLE CULVERT

TIE INTO EXISTING GRADE

DUCKBILL CHECK VALVE

48" PLASTIC PIPE CULVERT

PROFILE VIEW

PLAN VIEW

OUTFALL

OUTFALL

EL = +3.0'

EL = -2.0'

MLW = 0.48'

MHW = 0.88'

VARES

VARES

FILL (SEE NOTE 1)

FILL (SEE NOTE 1)

FILL

FILL

EXISTING GROUND

EXISTING GROUND

BORROW AREA (SEE NOTE 2)

BORROW AREA (SEE NOTE 2)

6' x 6' HDPE ANTI-SEEP COLLAR (TYP.)

6' x 6' HDPE ANTI-SEEP COLLAR (TYP.)

LEGEND

EARTHEN FILL

BORROW AREA

EXISTING GROUND

6' x 6' HDPE ANTI-SEEP COLLAR

G:\Users\CED\BASINS\TV\TV-63 Cole's Bayou\DRAWINGS - AUTOCAD\Plan Set\30% Design Drawings\11 & 12 typ culvert.dwg
SETTLEMENT PLATE
COORDINATES

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NOTE:
A MAGNETOMETER SURVEY SHALL BE CONDUCTED ACCORDING TO THE SPECIFICATIONS PRIOR TO MOBILIZATION OF THE DREDGE.

LEGEND

---

SURVEY TRANSECT
VERIFIED PIPELINE
UNVERIFIED PIPELINE
SOIL BORING
SECONDARY MONUMENT
SETTLEMENT PLATE

COASTAL PROTECTION AND RESTORATION AUTHORITY
250 LAUREL STREET
BATON ROUGE, LOUISIANA 70801

COLE'S BAYOU MARSH RESTORATION
STATE PROJECT NUMBER: TV-63
FEDERAL PROJECT NUMBER: TV-63
DATE: APRIL 2015
DRAWN BY: K. CANTU
DESIGNED BY: A. TAYLOR P.E.
APPROVED BY: S. HAYNES P.E.
SHEET 11 OF 14
COASTAL PROTECTION AND RESTORATION AUTHORITY
450 LAUREL STREET
BATON ROUGE, LOUISIANA 70801

VARIES
SURVEY TRANSECT (TYP.)
TOE OF DIKE (TYP.)
EXISTING DIKE

VARIES
EARTHEN FILL

VARIES
BORROW AREA

OUTFALL

VARIES

PLAN VIEW
SINGLE CULVERT INSTALLATION

LEGEND

EARTHEN CONTAINMENT DIKE BORROW AREA
EARTHEN CONTAINMENT DIKE
EXISTING DIKE
SURVEY TRANSECT

48" PLASTIC PIPE CULVERT
(TYP.)

50.0'
(TYP.)

VARIES

50.0'
(TYP.)

48" PLASTIC PIPE CULVERT (TYP.)
(TYP.)

50.0'
(TYP.)

VARIES

50.0'
(TYP.)

VARIES

PLAN VIEW
DOUBLE CULVERT INSTALLATION

50.0'
(TYP.)

VARIES

50.0'
(TYP.)

VARIES

50.0'
(TYP.)

VARIES

50.0'
(TYP.)

9.0'

SURVEY TRANSECT (TYP.)

EARTHEN FILL
BORROW AREA

48" PLASTIC PIPE CULVERT

50.0'
(TYP.)

VARIES

50.0'
(TYP.)

48" PLASTIC PIPE CULVERT (TYP.)

0'

15'

30'

60'

15'

30'

60'

0'

15'

30'

60'

OUTFALL

TOE OF DIKE (TYP.)
EXISTING DIKE

EARTHEN FILL

BORROW AREA