

**CAMINADA HEADLAND  
BEACH AND DUNE RESTORATION  
INCREMENT II (BA-143)**

**APPENDIX G**

**INSHORE PUMP-OUT AREAS AND  
CONVEYANCE CORRIDORS SURVEY  
REPORT**

**LAFOURCHE & JEFFERSON PARISHES, LOUISIANA**



**STATE OF LOUISIANA  
COASTAL PROTECTION AND RESTORATION  
AUTHORITY**

**MARCH 2014**

CAMINADA HEADLAND BEACH & DUNE RESTORATION PROJECT

(BA-45EB)

LAFOURCHE AND JEFFERSON PARISH, LOUISIANA

FINAL SURVEY REPORT

Prepared For:

COASTAL ENGINEERING CONSULTANTS, INC.



Prepared by:

Picciola & Associates, Inc.  
Civil Engineers & Land Surveyors  
P.O. Box 687  
Cut Off, LA 70345

July 2011



## EXECUTIVE SUMMARY

The intent of this Report is to summarize the Survey Work completed by Picciola & Associates, Inc. for Coastal Engineering Consultants, Inc. along approximately 14 miles of beach front between Belle Pass, Fourchon, and Caminada Pass, West of Grand Isle, Louisiana as part of Task 2.4 Supplemental Field Work, Sub Task 2.4.3 Conveyance Corridors and Sediment Re-Handling/Pump-Out Area Surveys.

The survey established the topographic, bathymetric and magnetometer surveys of Pass Fourchon, Belle Pass and an Offshore area for potential Conveyance Corridors and Sediment Re-Handling/Pump-Out Areas.

The survey data collection phase is primarily complete with only four topographic transects on the Caminada Headland incomplete due to the inability to execute a right of way / survey access agreement with the Caillouet Land Corporation prior to the survey being conducted. These survey transects are PFB04 through PFB07 of the Pass Fourchon conveyance corridor.

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## 1. INTRODUCTION

### A. Purpose

The purpose of this project was to conduct topographic, bathymetric and magnetometer surveys along the three (3) potential Conveyance Corridor and Sediment Re-Handling/Pump-Out Areas in Pass Fourchon, Belle Pass and an Offshore Area, located in Lafourche Parish, Louisiana.

The work included the establishment of a survey line, and cross section work along both Pass Fourchon and Belle Pass and a section Offshore approximately 5,000 LF offshore of the Caminada Headland.

Picciola & Associates, Inc. utilized RTK, VRS, Total Station, Hydrographic Fathometer, Magnetometer, and other standard survey equipment, as dictated by the conditions. Other equipment used included all terrain vehicles, crew boat, etc., as required.

### B. Point of Contact

Technical questions regarding this Final Survey Report and the contents of this report should be addressed to:

Picciola & Associates, Inc.  
P.O. Box 687  
115 Picciola Parkway  
Cut Off, LA 70345

Attention: Joseph C. Picciola, II, P.E., P.L.S.  
Telephone: (985) 632-5786  
Fax: (985) 632-2407

C. Schedule

The Field Work was completed on schedule.

D. Equipment Description

The following field equipment was utilized as needed to complete this survey.

- Trimble R8 GPS receivers
- Trimble 5800 GPS receivers
- Trimble 5700 GPS receivers
- Trimble 4700 GPS receivers
- Trimble 5603 Total Station
- Nikon DTM 330 Total Station
- Pac Crest broadcast radio
- Trimble broadcast radio
- Trimble TSC2 Data Collectors with Trimble Survey Controller
- Odom Fathometer with Hypack 2009 software
- Geometrics G-858 Magnetometer

The following office equipment was utilized to process collected data:

- Eagle Point survey processing software
- Hypack 2009 software
- Trimble Geomatic Office software
- Auto-CAD office software

E. Layouts/Drawings

Final Survey Drawings include Vicinity Map, Site Plan, Plan view, and Cross Sections as required. Duplicate sets are available as required.

Survey Plans show a Plan View of the Project Baseline with coordinates listed in the North American Datum of 1983 (NAD 83, ft) – Louisiana State Plane South Zone coordinate system, Project Benchmarks, and all Topographic Features inside of the Project Limits. This Plan View is overlaid on a background satellite image. Cross Sections show land side and water side on each cross section view tied to a Project Baseline Section Number and referenced to North American Vertical Datum of 1988 (NAVD 88, ft).

F. Deliverable List / Planned Submittal Dates Cross Section / Field Notes and Records (Electronic Data Sets)

One (1) digital copy of the drawing files in AutoCAD 2009 (\*.dwg) format and one (1) digital copy of the surveying data point file in ASCII Format are provided.

G. Impacts to above Items - Contingencies (Weather Etc.)

Project was completed on time. Several minor delays occurred during the course of the field work which included rough weather offshore.

## 2. SURVEY

### A. Pass Fourchon Area

The Pass Fourchon Survey baseline follows the approximate center of Pass Fourchon from Belle Pass eastward and then southward to the Headland. The Pass Fourchon bathymetric survey consists of survey transects oriented perpendicular to the Pass Fourchon survey baseline spaced at 125 foot intervals from station 00+00 to 13+75 (inclusive of the pump out area) and at 250 foot intervals thereafter to the Headland (approximate station 78+70). The survey transects extend the full width of the waterway to water depths less than 3 feet or up to a structure if present. Topographic surveys of the upland segment of the conveyance corridor consist of survey transects within the bed of old Pass Fourchon along the survey baseline from the end of Pass Fourchon to the Mean High Water (MHW) mark of the gulfward side of the Headland and three offset transects spaced at 50 foot intervals to the west and east of the survey baseline.

Survey Data Information for the Pass Fourchon Survey are included in the Survey Plans on Sheets 3 of 36 through 15 of 36.

### B. Belle Pass Area

The Belle Pass survey baseline follows the USACE baseline established for the Port Fourchon Navigation Channel Dredging, File No. H-16-45196, November 2000. Segments of the baseline utilized for this survey extend from approximately 1,000 feet north of the intersection of Pass Fourchon southward to approximately 1,000 feet south of the Belle Pass jetties. The Belle Pass survey consists of survey transects oriented perpendicular to the Belle Pass survey baseline spaced at 500 foot intervals from Stations 120+00 to 228+75, 125 foot spacing from Stations 228+75 to 247+50 (inclusive of the eastern jetty at the pump out area), and at 500 foot intervals thereafter to Station 280+00. The survey transects extend the full width of the waterway for all lines to water depths less than 3 feet or up to a structure or shoreline armoring, if present. Survey transects from Station 228+75 to Station 247+50 also include survey points defining the eastern jetty toes and crowns and survey points extending onto the Headland to the survey transect endpoints defined by the survey line files provided by CEC. Survey transects from Station 250+00 to Station 270+00 include survey points defining the eastern jetty toes and crowns.

Survey Data Information for the Belle Pass Survey are included in the Survey Plans on Sheets 16 of 36 through 29 of 36.

C. Offshore Survey

Survey Lines for the Offshore Area consist of 11 survey lines, 2,500 feet in length, spaced at 250 foot intervals covering the proposed re-handling/pump out area in addition to survey lines along the centerline and 250 feet to each side of the conveyance corridor alignment to the Headland.

Survey Data Information for the Offshore Survey are included in the Survey Plans on Sheets 30 of 36 through 36 of 36.

D. Magnetometer Survey

A magnetometer survey was performed at each Area to determine the location of any pipelines and/or anomalies within the Project Area where construction might conflict with any existing obstructions.

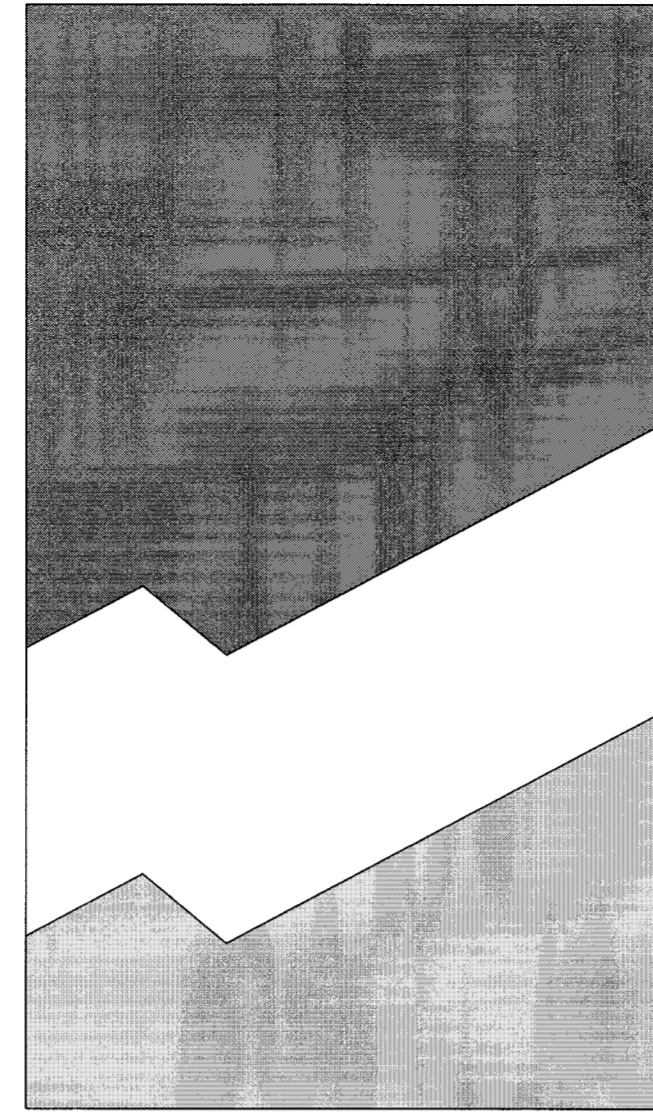
The magnetometer survey consisted of dragging a magnetometer during the bathymetric survey for each area to locate any existing pipelines and/or obstructions. If metal objects were found, the objects were circled with an increasing diameter to determine if the object extends in any direction that may resemble a pipeline or an obstruction.

Magnetometer hits were recorded and a table of each magnetometer hit is listed with the Survey Data.

ATTACHMENT "A"

SURVEY DATA PLANS





# COASTAL ENGINEERING CONSULTANTS INC

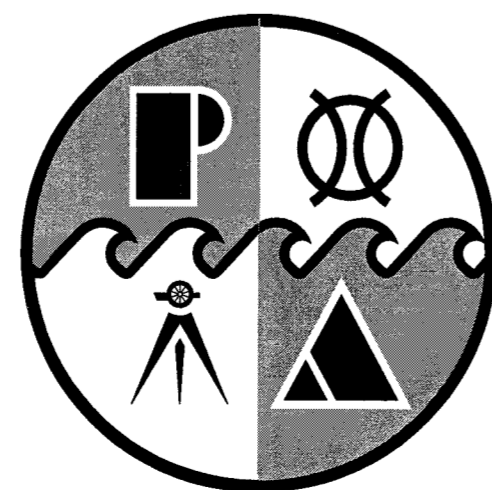
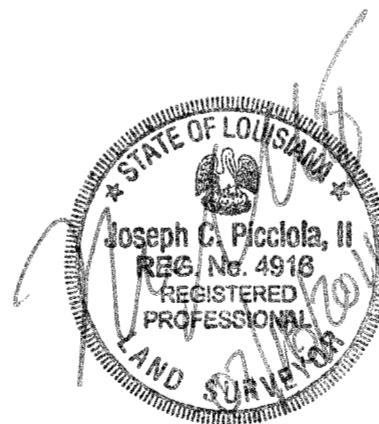
## CAMINADA HEADLAND BEACH & DUNE RESTORATION PROJECT (BA-45EB) COASTAL ENGINEERING CONSULTANTS, INC. PROJECT: 10.140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND SEDIMENT RE-HANDLING/PUMP-OUT AREAS SURVEYS

INDEX TO SHEETS:  
REFERENCE SHEET 2 OF 36

GENERAL NOTES:  
1. VERTICAL AND HORIZONTAL CONTROL BASED ON NORTH AMERICAN DATUM OF 1983, LOUISIANA STATE PLANE SOUTH, U.S. SURVEY FEET AND NORTH AMERICAN VERTICAL DATUM OF 1988, U.S. SURVEY FEET, EPOCH 2006.81 DATA.

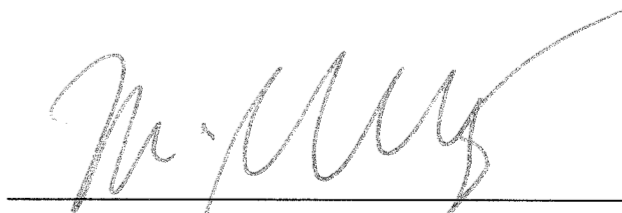
PLAN DATE: JUNE 29, 2011

REVISIONS:	
DATE:	REMARKS:



**PICCIOLA & ASSOCIATES, INC.**  
CIVIL ENGINEERS                      NAVAL ARCHITECTS  
LAND SURVEYORS                      MARINE ENGINEERS

P.O. BOX. 687  
CUT OFF, LOUISIANA 70345  
(985) 632-5786

APPROVED BY:  DATE: 07/18/2011  
JOSEPH C. PICCIOLA, II, L.S.  
LAND SURVEYOR  
LA. LICENSE NO. 4916

SHEET NUMBER	DESCRIPTION:
1	TITLE SHEET
2	INDEX OF SHEETS
3	STATE AND LOCAL VICINITY MAPS
4	PASS FOURCHON SURVEY-PLAN VIEW
5	PASS FOURCHON TOPOGRAPHIC SURVEY-PLAN VIEW
6	PASS FOURCHON MAGNETOMETER SURVEY DATA
7	PASS FOURCHON TOPOGRAPHIC SURVEY SECTIONS
8	PASS FOURCHON SECTIONS-STA. 0+00 TO STA. 6+25
9	PASS FOURCHON SECTIONS-STA. 7+50 TO STA. 13+75
10	PASS FOURCHON SECTIONS-STA. 15+00 TO STA. 27+50
11	PASS FOURCHON SECTIONS-STA. 30+00 TO STA. 42+50
12	PASS FOURCHON SECTIONS-STA. 45+00 TO STA. 57+50
13	PASS FOURCHON SECTIONS-STA. 60+00 TO STA. 72+50
14	PASS FOURCHON SECTIONS-STA. 75+00 TO STA. 81+20
15	PASS FOURCHON CENTERLINE PROFILE-STA. 0+00 TO STA. 81+20
16	BELLE PASS SURVEY-PLAN VIEW
17	BELLE PASS TOPOGRAPHIC SURVEY-STA. 228+75 TO STA. 250+00
18	BELLE PASS TOPOGRAPHIC SURVEY-STA. 250+00 TO STA. 270+00

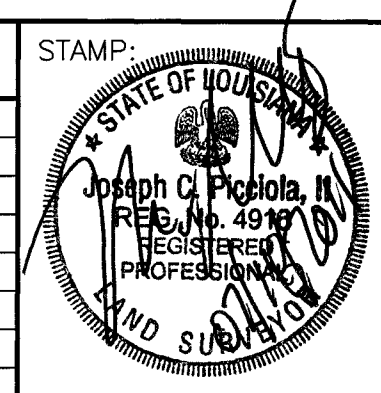
SHEET NUMBER	DESCRIPTION:
19	BELLE PASS MAGNETOMETER SURVEY DATA
20	BELLE PASS SECTIONS-STA. 120+00 TO STA. 145+00
21	BELLE PASS SECTIONS-STA. 150+00 TO STA. 175+00
22	BELLE PASS SECTIONS-STA. 180+00 TO STA. 205+00
23	BELLE PASS SECTIONS-STA. 210+00 TO STA. 230+00
24	BELLE PASS SECTIONS-STA. 231+25 TO STA. 237+50
25	BELLE PASS SECTIONS-STA. 238+75 TO STA. 245+00
26	BELLE PASS SECTIONS-STA. 246+25 TO STA. 260+00
27	BELLE PASS SECTIONS-STA. 265+00 TO STA. 280+00
28	BELLE PASS CENTERLINE PROFILE-STA. 120+00 TO STA. 270+00
29	BELLE PASS CENTERLINE PROFILE-STA. 270+00 TO STA. 280+00
30	OFFSHORE SURVEY-PLAN VIEW
31	OFFSHORE SECTIONS-STA. 000+00 TO STA. 010+00
32	OFFSHORE SECTIONS-STA. 012+50 TO STA. 022+50
33	OFFSHORE SECTIONS-STA. 025+00 & OCO1-0' TO 12,000'
34	OFFSHORE SECTIONS - OCO1-12,000' TO 12,864' & OCO2-0' TO 12,000'
35	OFFSHORE SECTIONS - OCO2-12,000' TO 12,864' & OCO3-0' TO 12,000'
36	OFFSHORE SECTIONS - OCO3-12,000' TO 12,679'

TOTAL NUMBER OF SHEETS: 36

**GENERAL NOTES:**

- HORIZONTAL CONTROL BASED ON NORTH AMERICAN DATUM OF 1983, LOUISIANA STATE PLANE SOUTH, U.S. SURVEY FEET. VERTICAL CONTROL BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (N.A.V.D. 88, FT.), U.S. SURVEY FEET, EPOCH 2006.81 DATA.
- TOPOGRAPHIC, MAGNETOMETER AND BATHYMETRIC SURVEY INFORMATION SHOWN ON PLANS TAKEN FROM SURVEYS CONDUCTED BY PICCIOLA & ASSOCIATES, INC. FROM MAY 17, 2011 THROUGH JUNE 21, 2011.
- SATELLITE IMAGERY PROVIDED BY WWW.LACOAST.GOV, APPROXIMATE IMAGE DATE-OCTOBER 29, 2008. IMAGES WERE CONVERTED FROM UTM ZONE 15-METERS TO LOUISIANA STATE PLANE SOUTH, NAD 83-FEET UTILIZING AUTODESK RASTER DESIGN 2011 AND CORPSCON VER 6.

REVISIONS:	
DATE:	REMARKS:



**PICCIOLA & ASSOCIATES, INC.**  
 CIVIL ENGINEERS      NAVAL ARCHITECTS  
 LAND SURVEYORS      MARINE ENGINEERS

P.O. BOX. 687  
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 (985) 632-5786

DESIGNED BY: J.C.P.      DRAWN BY: L.J.G.      CHECKED BY: J.C.P.

DATE: JUNE 29, 2011

SCALE: NOT TO SCALE

**COASTAL ENGINEERING CONSULTANTS, INC.**

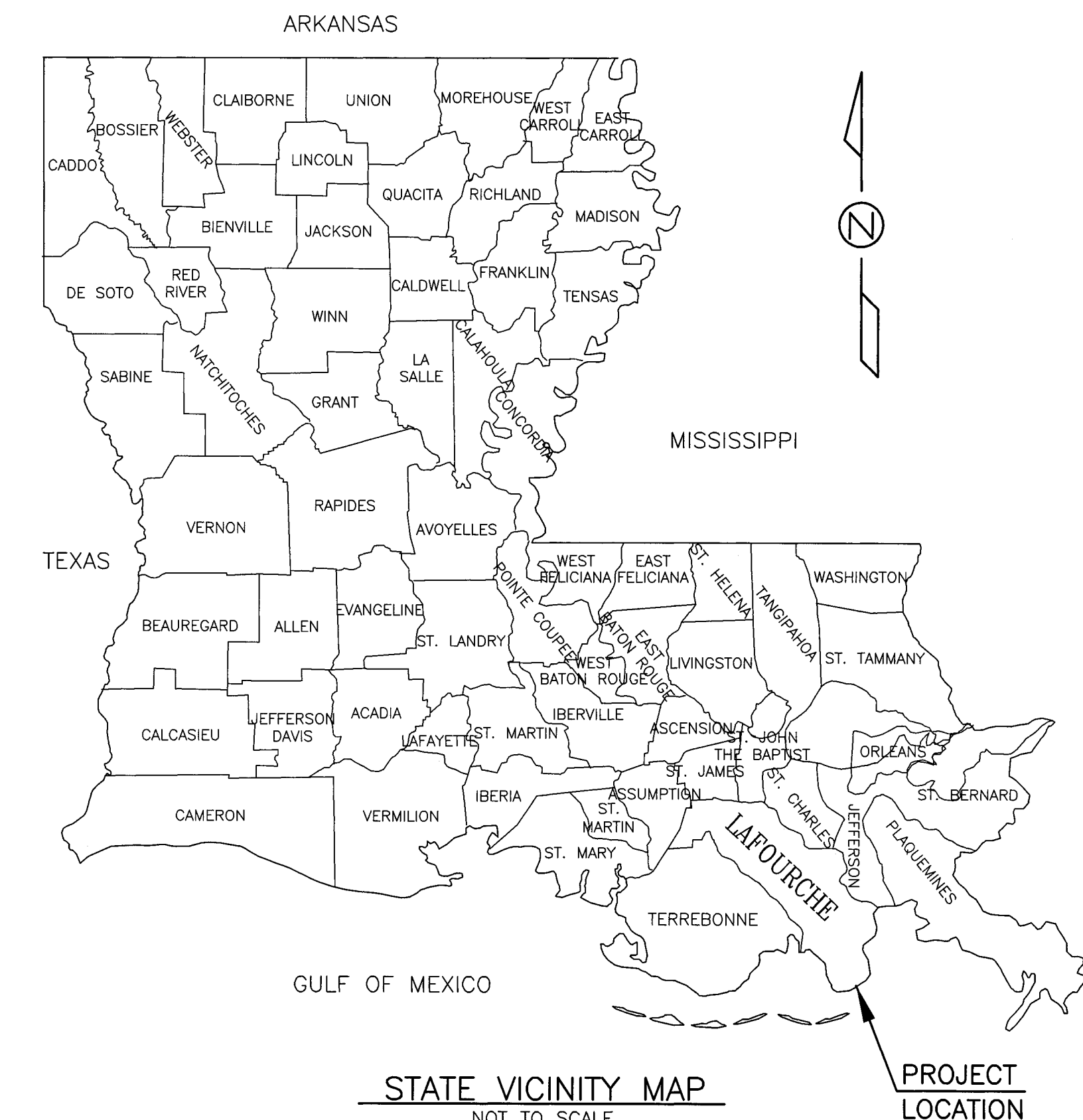
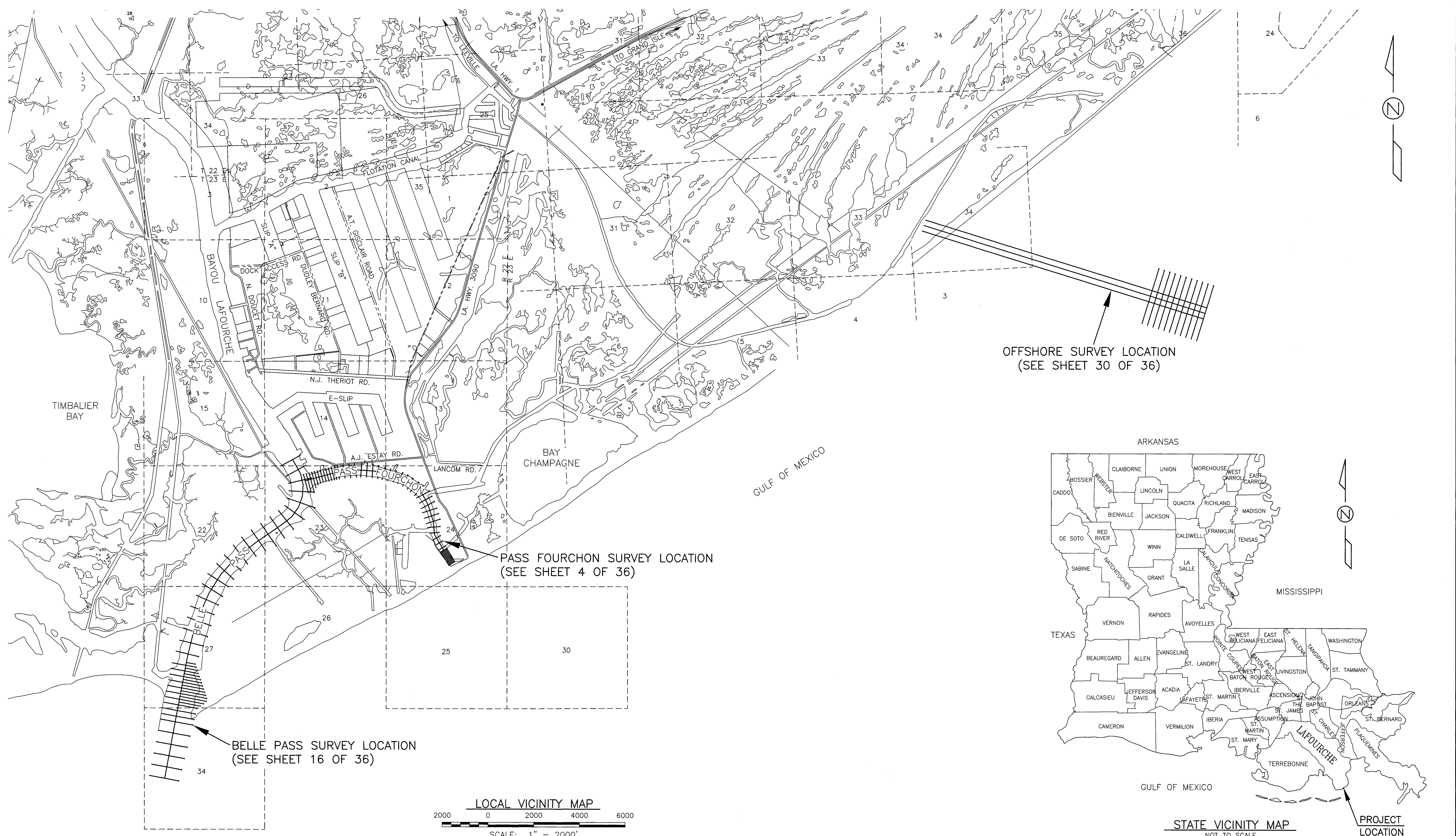
CAMINADA HEADLAND BEACH AND DUNE RESTORATION PROJECT (BA-45EB), C.E.C. PROJECT: 10.140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND SEDIMENT RE-HANDLING/PUMP-OUT AREAS SURVEYS

INDEX OF SHEETS

LAFOURCHE PARISH, LA

SHEET NO. 2 OF 36

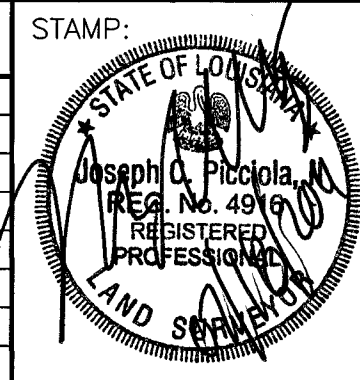
ORIGINAL



**GENERAL NOTES:**

1. BACKGROUND LINE WORK DEPICTS DIGITAL TRACING OF BELLE PASS, CAMINADA PASS AND LEEVILLE 7.5 MINUTE QUADRANGLE MAPS. ORIGINAL FILE SOURCE UNKNOWN.

REVISIONS:	
DATE:	REMARKS:



**PICCIOLA & ASSOCIATES, INC.**  
 CIVIL ENGINEERS NAVAL ARCHITECTS  
 LAND SURVEYORS MARINE ENGINEERS

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DESIGNED BY: J.C.P.    DRAWN BY: L.J.G.    CHECKED BY: J.C.P.

DATE: JUNE 29, 2011  
 SCALE: AS SHOWN

**COASTAL ENGINEERING CONSULTANTS, INC.**

CAMINADA HEADLAND BEACH AND DUNE RESTORATION PROJECT (BA-45EB)  
 C.E.C. PROJECT: 10.140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND SEDIMENT RE-HANDLING/PUMP-OUT AREAS SURVEYS

STATE AND LOCAL VICINITY MAPS

LAFOURCHE PARISH, LA

SHEET NO. 3 OF 36

ORIGINAL

DRAWING PLOTTED AT HALF SCALE



ORIGINAL



BELLE PASS  
TO GULF OF MEXICO

COLLINS MARINA

A.J. ESTAY ROAD

LA HWY. NO. 3090

BEACH ACCESS ROAD (LA 3090)

EXISTING FOURCHON BEACH

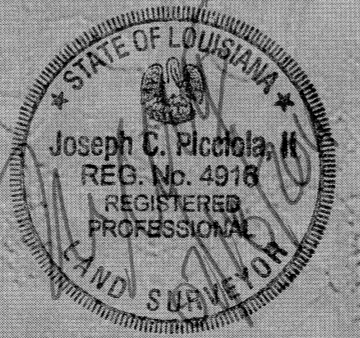
GULF OF MEXICO

SEE SHEET 15 OF 36 FOR PASS FOURCHON CENTERLINE PROFILE

SURVEY CROSS SECTIONS (TYP)  
(SEE SHEETS 8 THROUGH 15 FOR CROSS SECTIONS AND BATHYMETRIC SURVEY DATA)

MAGNETOMETER SURVEY DATA (TYP)  
(REFERENCE SHEET 6 OF 36 FOR MORE INFORMATION ON MAG HITS)

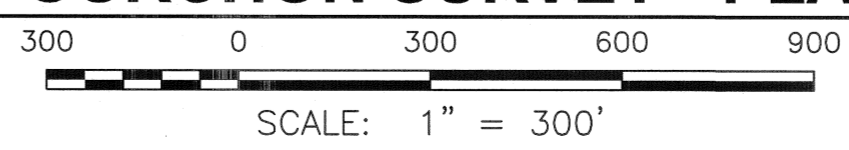
SEE SHEET 5 OF 36 FOR TOPOGRAPHIC SURVEY PLAN VIEW



PASS FOURCHON BASELINE INFORMATION

POINT	COORDINATES	SEGMENT DISTANCE (FT)	SEGMENT BEARING	P.I. STATION
A	X=3,640,071.46, Y=224,490.78	AB - 1250.00	AB - N 74°51'40" E	0+00
B	X=3,641,278.08, Y=224,817.23	BC - 1075.01	BC - N 82°11'26" E	12+50
C	X=3,642,343.12, Y=224,963.30	CD - 925.00	CD - S 86°02'02" E	23+25
D	X=3,643,265.90, Y=224,899.32	DE - 825.01	DE - S 74°40'18" E	32+50
E	X=3,644,061.56, Y=224,681.23	EF - 800.00	EF - S 63°44'34" E	40+75
F	X=3,644,779.01, Y=224,327.31	FG - 500.00	FG - S 48°14'05" E	48+75
G	X=3,645,151.95, Y=223,994.27	GH - 625.01	GH - S 27°57'52" E	53+75
H	X=3,645,445.03, Y=223,442.24	HI - 750.00	HI - S 17°42'51" E	60+00
I	X=3,645,673.23, Y=222,727.80	IJ - 575.00	IJ - S 05°04'03" E	67+50
J	X=3,645,724.02, Y=222,155.05	JK - 795.00	JK - S 30°58'54" E	73+25
K	X=3,646,133.26, Y=221,473.47			81+20

PASS FOURCHON SURVEY - PLAN VIEW



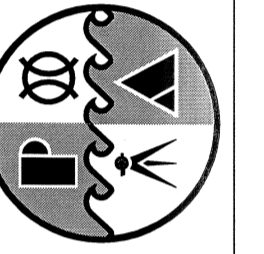
2008 BELLE PASS NW DOQQ

ORIGINAL

J.N. 1222-1002

REVISIONS:	REMARKS:
DATE:	

PICCIOLA & ASSOCIATES, INC.  
 CIVIL ENGINEERS  
 LAND SURVEYORS  
 NAVAL ARCHITECTS  
 MARINE ENGINEERS  
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COASTAL ENGINEERING CONSULTANTS, INC.  
 CAMBIADA HEADLAND BEACH AND DUNE RESTORATION PROJECT (BA-45FB)  
 C.E.C. PROJECT 10-140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND SEDIMENT  
 RE-HANDLING/PUMP-OUT AREAS SURVEYS, PASS FOURCHON SURVEY PLAN VIEW  
 LAFOURCHE PARISH, LA

DESIGNED BY:  
J.C.P.

DRAWN BY:  
L.J.G.

CHECKED BY:  
J.C.P.

DATE:  
JUNE 29, 2011

SCALE:  
AS SHOWN

SHEET NO.  
4 OF 36

DRAWING PLOTTED AT HALF SCALE





PASS FOURCHON TOPOGRAPHIC SURVEY - PLAN LINE INFORMATION				
LINE	START	END	DISTANCE (FT)	BEARING
PFB01	X=3,646,025.70, Y=221,361.22	X=3,646,358.96, Y=220,806.19	647.40	S 30°58'56" E
PFB02	X=3,646,065.62, Y=221,391.86	X=3,646,401.82, Y=220,831.93	653.11	S 30°58'55" E
PFB03	X=3,646,105.54, Y=221,442.51	X=3,646,444.69, Y=220,857.67	658.84	S 30°58'56" E
PFB04	X=3,646,145.46, Y=221,453.15	X=3,646,487.56, Y=220,883.41	664.56	S 30°58'58" E
PFB05	X=3,646,185.38, Y=221,483.80	X=3,646,530.42, Y=220,909.15	670.28	S 30°58'55" E
PFB06	X=3,646,225.31, Y=221,514.44	X=3,646,573.29, Y=220,934.88	676.00	S 30°58'53" E
PFB07	X=3,646,265.22, Y=221,545.09	X=3,646,616.15, Y=220,960.62	681.73	S 30°58'54" E

**REFERENCE MAPS:**

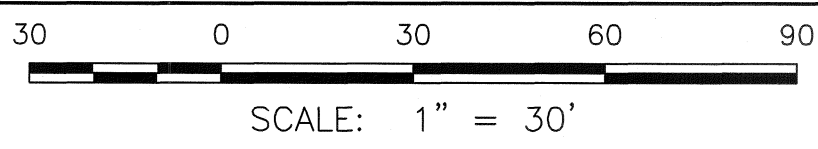
- PLAT PREPARED BY LEONARD J. CHAUVIN, JR., INC. DATED OCTOBER 10, 1997 AND TITLED "EXHIBIT 3D2, TO FINDINGS OF FACT AND CONSENT JUDGMENT IN GREATER LAFOURCHE PORT COMMISSION V. CAILLOUET LAND CORPORATION, DOCKET NO. 78781, DIVISION B, 17TH JUDICIAL DISTRICT COURT FOR THE PARISH OF LAFOURCHE, STATE OF LOUISIANA.
- PLAT PREPARED BY BFM CORPORATION DATED DECEMBER 18, 1994 WITH A LATEST REVISION DATE OF DECEMBER 29, 1994 AND TITLED "EXHIBIT "A", CHEVRON PIPELINE COMPANY ACREAGE REQUIREMENTS, FOURCHON TERMINAL", BEING IN SECTION 24, T-23-S, R-22-E.
- PLAT PREPARED BY LEONARD J. CHAUVIN, JR., INC. DATED OCTOBER 6, 2004 WITH A LATEST REVISION DATE OF NOVEMBER 27, 2006 AND TITLED "EXHIBIT "3" TO AGREEMENT BETWEEN THE PARISH OF LAFOURCHE AND CAILLOUET LAND CORPORATION", BEING IN SECTION 24, T-23-S, R-22-E.

**GENERAL NOTES:**

- TOPOGRAPHIC SURVEY DATA SHOWN WAS TAKEN FROM A SURVEYS CONDUCTED BY PICCIOLA AND ASSOCIATES, INC. ON MAY 25, 2011.
- REFERENCE SHEET 4 OF 36 FOR PASS FOURCHON BASELINE INFORMATION.
- SEE SHEET 7 OF 36 FOR PASS FOURCHON TOPOGRAPHIC SURVEY CROSS SECTIONS.
- TRANSECTS PFB04 THROUGH PFB07 WERE UNABLE TO BE SURVEYED DUE TO THE INABILITY TO EXECUTE A RIGHT OF WAY/SURVEY ACCESS AGREEMENT WITH THE CAILLOUET LAND CORPORATION PRIOR TO THE SURVEY BEING CONDUCTED.

- LEGEND:**
- EX. POWER POLES
  - EX. POWER POLES WITH LIGHTS
  - EX. WATER METER
  - EX. STREET SIGN
  - EX. CHAIN-LINK FENCE

**PASS FOURCHON TOPOGRAPHIC SURVEY - PLAN VIEW**



NOT APPLICABLE

REVISIONS:

DATE	REMARKS

PICCIOLA & ASSOCIATES, INC.  
 NAVAL ARCHITECTS  
 MARINE ENGINEERS  
 CIVIL ENGINEERS  
 LAND SURVEYORS  
 P.O. BOX 687  
 OFF. LOUISIANA 70345  
 CUT (885) 632-5766

COASTAL ENGINEERING CONSULTANTS, INC.  
 CANNADA HEADLAND BEACH AND DUNE RESTORATION PROJECT (BA-456B) C.E.C.  
 PROJECT: 10.140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND SEDIMENT  
 RE-HANDLING/PUMP-OUT AREAS SURVEYS, PASS FOURCHON TOPOGRAPHIC SURVEY  
 LAFOURCHE PARISH, LA

DESIGNED BY: J.C.P.

DRAWN BY: L.J.G.

CHECKED BY: J.C.P.

DATE: JUNE 29, 2011

SCALE: AS SHOWN

SHEET NO. 5 OF 36

DRAWING PLOTTED AT HALF SCALE

E:\10-DR\1222\1002 Coastal Engineering Consultants - Caninada Headlands Restoration\ACOC\CURRENT\Deliverables\_LDC\Survey Plans\_07-14-2011\_Slave Markups\05\_17\_18-SHT-TOPG PLAN VIEWS.dwg, 05-SHT PASS FOURCHON TOPO, 7/19/2011 8:51:59 AM, lee



ORIGINAL

ORIGINAL

MAGNETOMETER SURVEY, MAY 17, 2011 - PASS FOURCHON

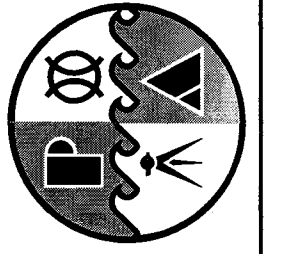
LINE	LINE NAME	*ASSIGNED POINT NO.	X	Y	LATITUDE	LONGITUDE	TYPE	GAMMA READING
CENTERLINE	003-1035	PF-01	3645652.72	222761.34	90 11.459050	29 06.451558	DIPOLE	93
CENTERLINE	003-1035	PF-02	3645687.65	222511.80	90 11.452880	29 06.410840	MONO	784
CENTERLINE	003-1035	PF-03	3645730.67	222159.42	90 11.445532	29 06.352123	DIPOLE	1019
CENTERLINE	003-1035	PF-04	3645881.44	221903.27	90 11.417689	29 06.309613	DIPOLE	90
CENTERLINE	003-1035	PF-05	3646002.71	221714.92	90 11.395261	29 06.278340	DIPOLE	761
CENTERLINE	003-1035	PF-06	3646062.88	221609.13	90 11.384155	29 06.260787	MONO	683
NORTH CL OFFSET	002-1058	PF-07	3645453.71	221641.64	90 11.494789	29 06.597111	DIPOLE	95
NORTH CL OFFSET	002-1058	PF-08	3645549.88	221466.64	90 11.477105	29 06.580808	MONO	80
NORTH CL OFFSET	002-1058	PF-09	3645789.22	221623.86	90 11.424200	29 06.528655	MONO	3316
NORTH CL OFFSET	002-1058	PF-10	3645797.76	221449.23	90 11.432330	29 06.509820	MONO	922
NORTH CL OFFSET	002-1058	PF-11	3645792.08	221310.71	90 11.433774	29 06.506980	MONO	2077
NORTH CL OFFSET	002-1058	PF-12	3645808.17	222200.06	90 11.430698	29 06.558700	MONO	728
NORTH CL OFFSET	002-1058	PF-13	3645976.23	221854.10	90 11.399973	29 06.301345	MONO	524
NORTH CL OFFSET	002-1058	PF-14	3646050.66	221727.19	90 11.386229	29 06.280284	DIPOLE	1752
SOUTH CL OFFSET	004-1126	PF-15	3641028.99	224646.14	90 12.324197	29 06.770073	MONO	58
SOUTH CL OFFSET	004-1126	PF-16	3645592.61	222501.69	90 11.470829	29 06.408817	DIPOLE	1435
SOUTH CL OFFSET	004-1126	PF-17	3645651.24	222109.59	90 11.460549	29 06.343954	DIPOLE	509
SOUTH CL OFFSET	004-1126	PF-18	3645785.14	221872.59	90 11.435837	29 06.304710	MONO	564

NOT APPLICABLE

\*REFERENCE SURVEY PLAN VIEW SHEET 4 OF 36

REVISIONS:
DATE:
REMARKS:

PICCIOLA & ASSOCIATES, INC.  
 CIVIL ENGINEERS  
 LAND SURVEYORS  
 NAVAL ARCHITECTS  
 MARINE ENGINEERS  
 P.O. BOX 687  
 CUT OFF, LOUISIANA 70345  
 (985) 632-5766



COASTAL ENGINEERING CONSULTANTS, INC.  
 CAMINADA HEADLAND BEACH AND DUNE RESTORATION PROJECT (BA-458B)  
 C.E.C. PROJECT: 10.140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND SEDIMENT  
 RE-HANDLING/PUMP-OUT AREAS SURVEYS, MAGNETOMETER SURVEY DATA  
 LAFOURCHE PARISH, LA

DESIGNED BY:  
J.C.P.

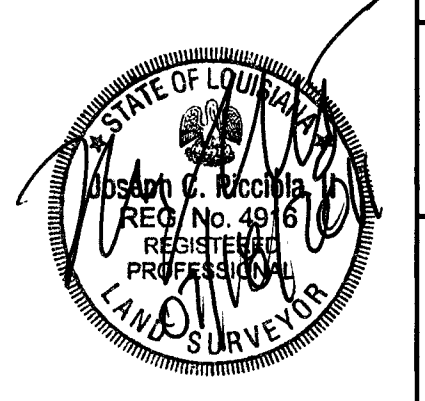
DRAWN BY:  
L.J.G.

CHECKED BY:  
J.C.P.

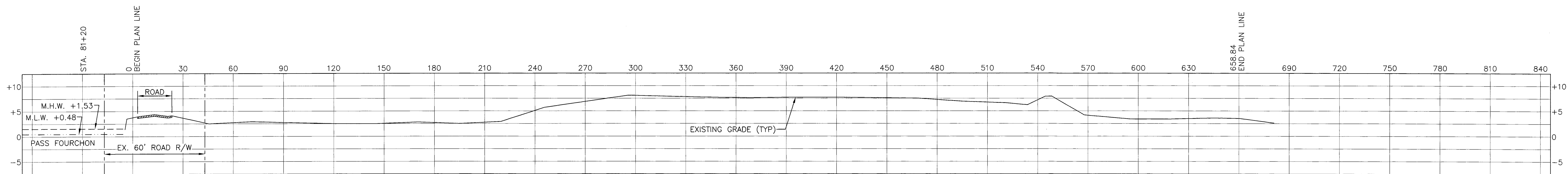
DATE:  
JUNE 29, 2011

SCALE:  
NOT TO SCALE

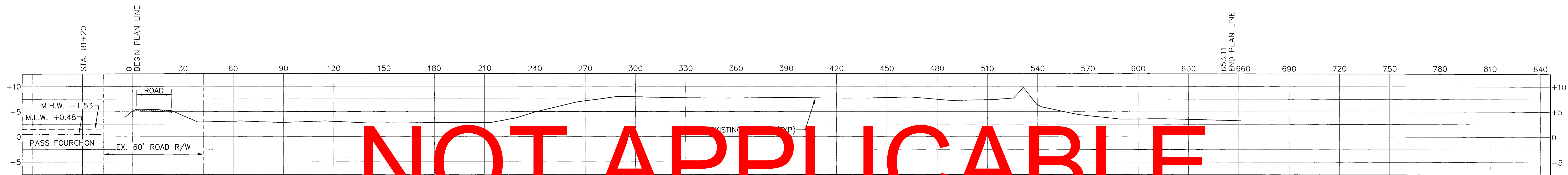
SHEET NO.  
6 of 36



DRAWING PLOTTED AT HALF SCALE

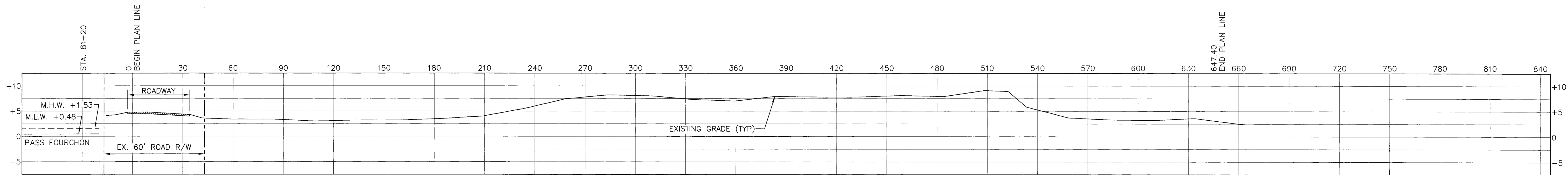


**PFB03**  
 HORZ: 1" = 30'  
 VERT: 1" = 10'



**PFB02**  
 HORZ: 1" = 30'  
 VERT: 1" = 10'

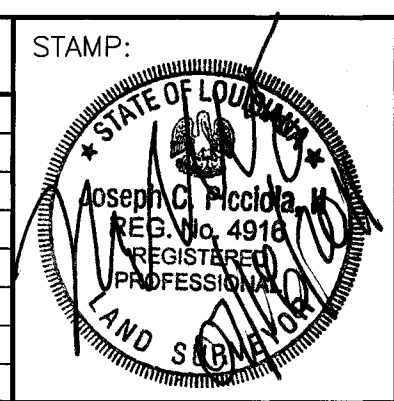
**NOT APPLICABLE**



**PFB01**  
 HORZ: 1" = 30'  
 VERT: 1" = 10'

- NOTES:**
1. MEAN HIGH WATER (M.H.W.) AND MEAN LOW WATER (M.L.W.) REFERENCED TO "BARATARIA BARRIER SHORELINE RESTORATION FEASIBILITY STUDY, APPENDIX C, CAMINADA HEADLAND, COASTAL ENGINEERING CONSULTANTS, INC., 2008".
  2. CROSS SECTIONS WERE DERIVED FROM TOPOGRAPHIC SURVEY CONDUCTED BY PICCIOLA AND ASSOCIATES, INC. ON MAY 25, 2011.

REVISIONS:	
DATE:	REMARKS:



**PICCIOLA & ASSOCIATES, INC.**  
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 LAND SURVEYORS      MARINE ENGINEERS

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 (985) 632-5786

DESIGNED BY: J.C.P.      DRAWN BY: L.J.G.      CHECKED BY: J.C.P.

DATE: JUNE 29, 2011

SCALE: AS SHOWN

**COASTAL ENGINEERING CONSULTANTS, INC.**

CAMINADA HEADLAND BEACH AND DUNE RESTORATION PROJECT (BA-45EB)  
 C.E.C. PROJECT: 10.140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND SEDIMENT RE-HANDLING/PUMP-OUT AREAS SURVEYS

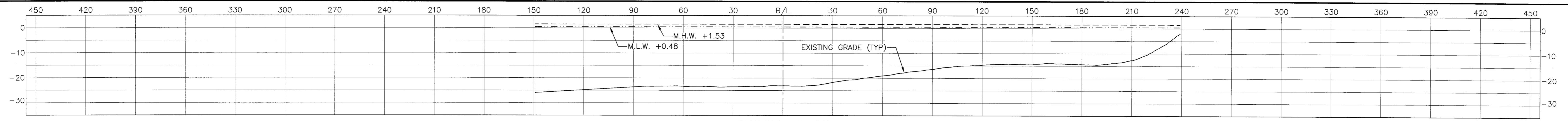
PASS FOURCHON TOPO. SURVEY--SECTIONS PFB01, PFB02 & PFB03

LAFORCHE PARISH, LA

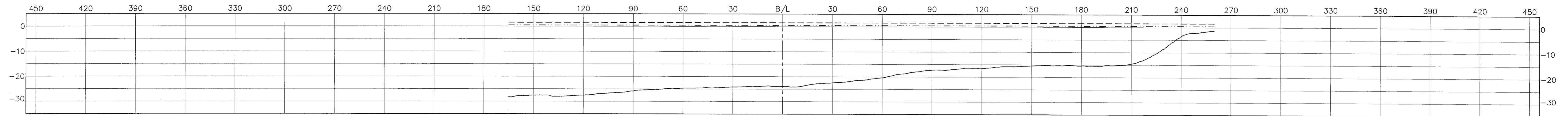
SHEET NO. 7 OF 36



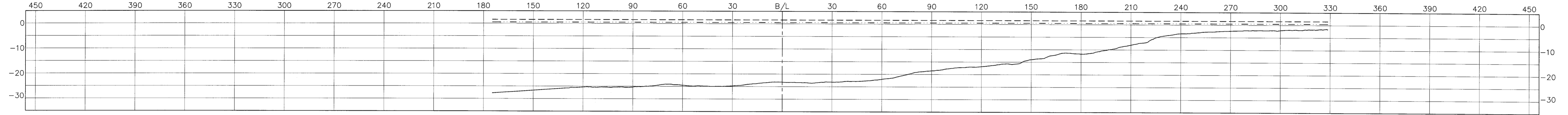
ORIGINAL



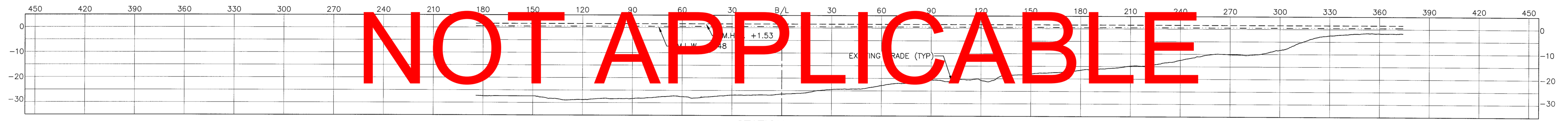
**STATION 6+25**  
 HORZ: 1" = 30'  
 VERT: 1" = 20'



**STATION 5+00**  
 HORZ: 1" = 30'  
 VERT: 1" = 20'

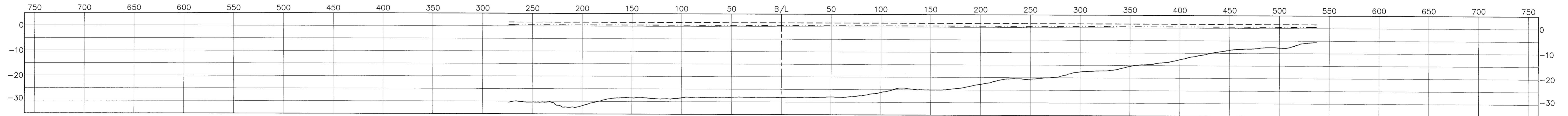


**STATION 3+75**  
 HORZ: 1" = 30'  
 VERT: 1" = 20'

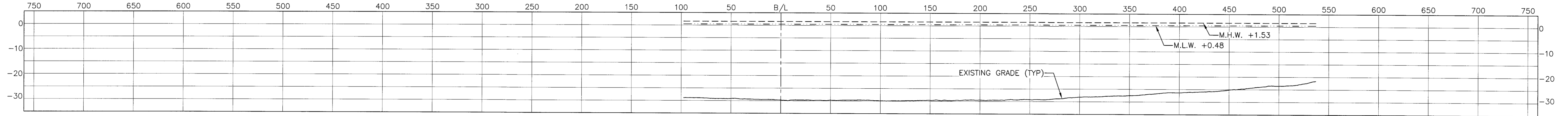


**STATION 2+50**  
 HORZ: 1" = 30'  
 VERT: 1" = 20'

**NOT APPLICABLE**



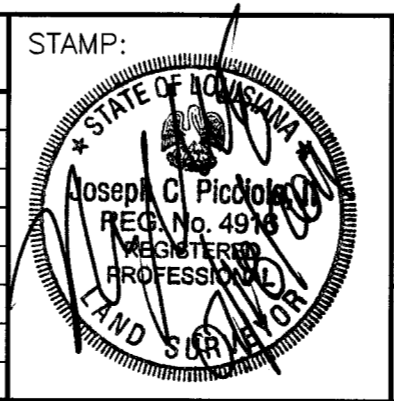
**STATION 1+25**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'



**STATION 0+00**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'

**NOTE:**  
 MEAN HIGH WATER (M.H.W.) AND MEAN LOW WATER (M.L.W.) REFERENCED TO  
 "BARATARIA BARRIER SHORELINE RESTORATION FEASIBILITY STUDY, APPENDIX  
 C, CAMINADA HEADLAND, COASTAL ENGINEERING CONSULTANTS, INC., 2008".

REVISIONS:	
DATE:	REMARKS:



**PICCIOLA & ASSOCIATES, INC.**  
 CIVIL ENGINEERS      NAVAL ARCHITECTS  
 LAND SURVEYORS      MARINE ENGINEERS

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DESIGNED BY: J.C.P.      DRAWN BY: L.J.G.      CHECKED BY: J.C.P.

DATE: JUNE 29, 2011

SCALE: AS SHOWN

**COASTAL ENGINEERING CONSULTANTS, INC.**

CAMINADA HEADLAND BEACH AND DUNE RESTORATION PROJECT (BA-45EB)  
 C.E.C. PROJECT: 10.140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND  
 SEDIMENT RE-HANDLING/PUMP-OUT AREAS SURVEYS

PASS FOURCHON SECTIONS - STA. 0+00 TO STA. 6+25

LAFOURCHE PARISH, LA

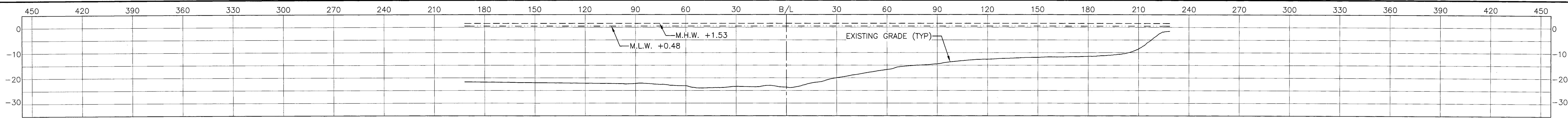
SHEET NO. 8 OF 36

ORIGINAL

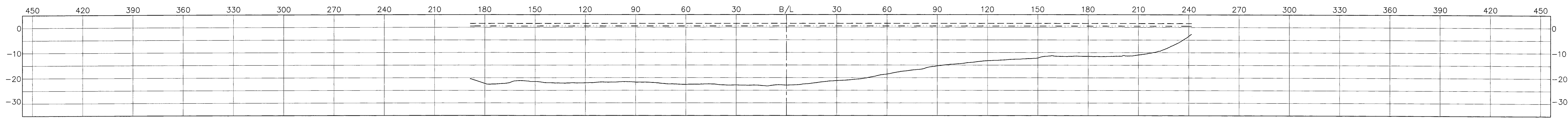
DRAWING PLOTTED AT HALF SCALE



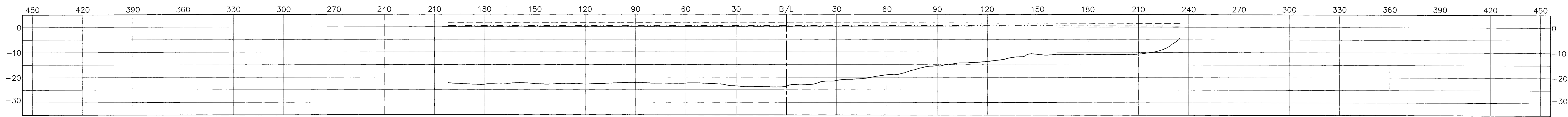
ORIGINAL



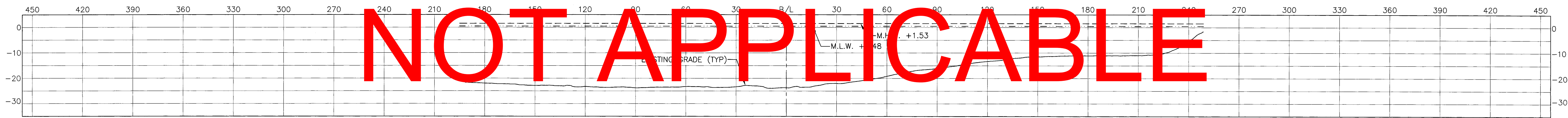
**STATION 13+75**  
 HORZ: 1" = 30'  
 VERT: 1" = 20'



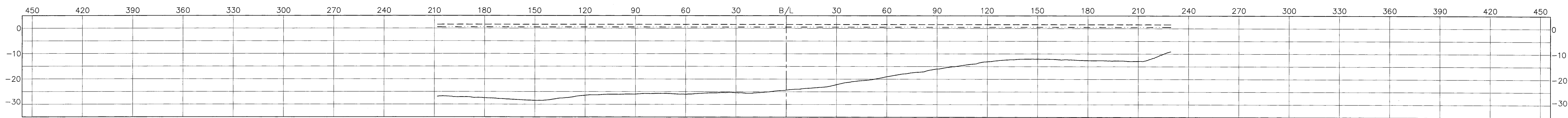
**STATION 12+50**  
 HORZ: 1" = 30'  
 VERT: 1" = 20'



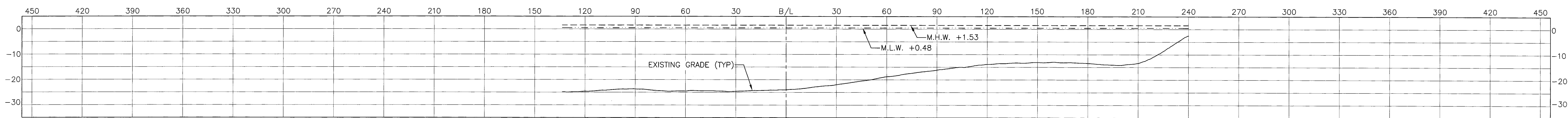
**STATION 11+25**  
 HORZ: 1" = 30'  
 VERT: 1" = 20'



**STATION 10+00**  
 HORZ: 1" = 30'  
 VERT: 1" = 20'



**STATION 8+75**  
 HORZ: 1" = 30'  
 VERT: 1" = 20'

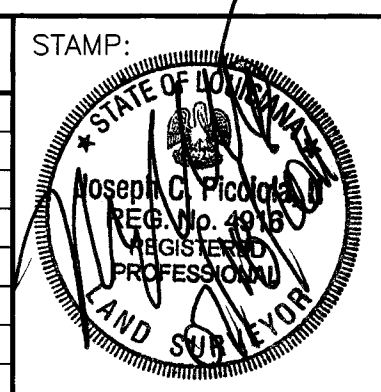


**STATION 7+50**  
 HORZ: 1" = 30'  
 VERT: 1" = 20'

**NOT APPLICABLE**

**NOTE:**  
 MEAN HIGH WATER (M.H.W.) AND MEAN LOW WATER (M.L.W.) REFERENCED TO  
 "BARATARIA BARRIER SHORELINE RESTORATION FEASIBILITY STUDY, APPENDIX  
 C, CAMINADA HEADLAND, COASTAL ENGINEERING CONSULTANTS, INC., 2008".

REVISIONS:	
DATE:	REMARKS:



**PICCIOLA & ASSOCIATES, INC.**  
 CIVIL ENGINEERS      NAVAL ARCHITECTS  
 LAND SURVEYORS      MARINE ENGINEERS

P.O. BOX 687  
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DESIGNED BY: J.C.P.      DRAWN BY: L.J.G.      CHECKED BY: J.C.P.

DATE: JUNE 29, 2011

SCALE: AS SHOWN

**COASTAL ENGINEERING CONSULTANTS, INC.**

CAMINADA HEADLAND BEACH AND DUNE RESTORATION PROJECT (BA-45EB)  
 C.E.C. PROJECT: 10.140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND  
 SEDIMENT RE-HANDLING/PUMP-OUT AREAS SURVEYS

PASS FOURCHON SECTIONS - STA. 7+50 TO STA. 13+75

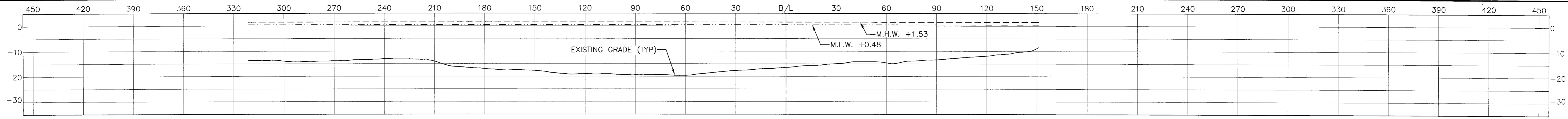
LAFORCHE PARISH, LA

SHEET NO. 9 OF 36

ORIGINAL

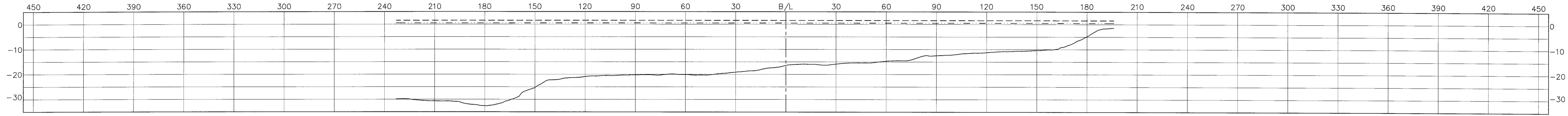
DRAWING PLOTTED AT HALF SCALE

ORIGINAL



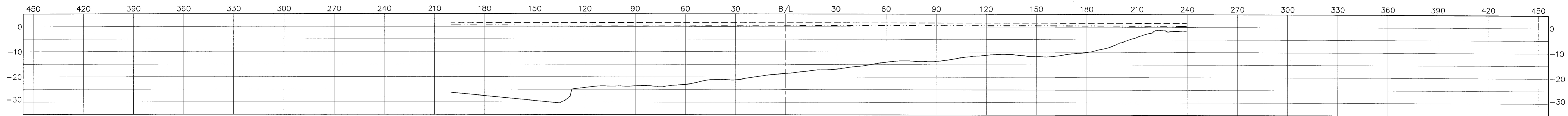
STATION 27+50

HORZ: 1" = 30'  
VERT: 1" = 20'



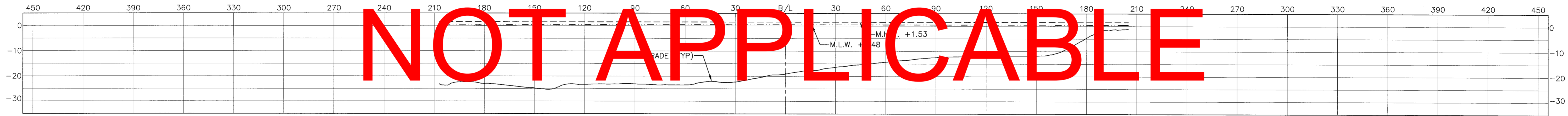
STATION 25+00

HORZ: 1" = 30'  
VERT: 1" = 20'



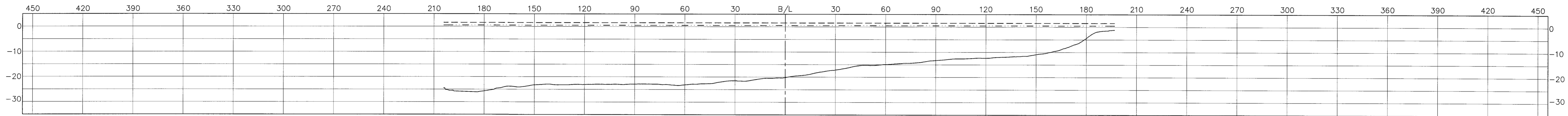
STATION 22+50

HORZ: 1" = 30'  
VERT: 1" = 20'



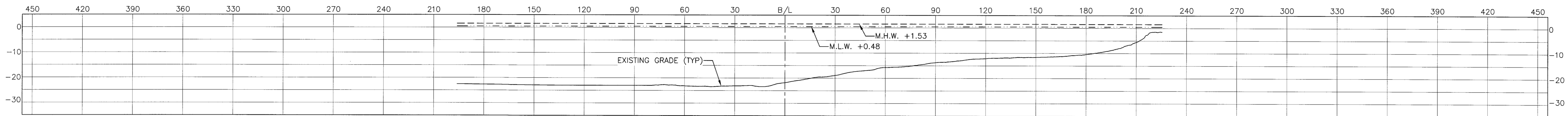
STATION 20+00

HORZ: 1" = 30'  
VERT: 1" = 20'



STATION 17+50

HORZ: 1" = 30'  
VERT: 1" = 20'



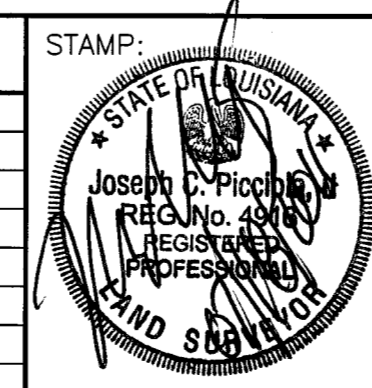
STATION 15+00

HORZ: 1" = 30'  
VERT: 1" = 20'

NOT APPLICABLE

**NOTE:**  
MEAN HIGH WATER (M.H.W.) AND MEAN LOW WATER (M.L.W.) REFERENCED TO  
"BARATARIA BARRIER SHORELINE RESTORATION FEASIBILITY STUDY, APPENDIX  
C, CAMINADA HEADLAND, COASTAL ENGINEERING CONSULTANTS, INC., 2008".

REVISIONS:	
DATE:	REMARKS:



**PICCIOLA & ASSOCIATES, INC.**  
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LAND SURVEYORS      MARINE ENGINEERS

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(985) 632-5786

DESIGNED BY: J.C.P.      DRAWN BY: L.J.G.      CHECKED BY: J.C.P.

DATE: JUNE 29, 2011

SCALE: AS SHOWN

**COASTAL ENGINEERING CONSULTANTS, INC.**

CAMINADA HEADLAND BEACH AND DUNE RESTORATION PROJECT (BA-45EB)  
C.E.C. PROJECT: 10.140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND  
SEDIMENT RE-HANDLING/PUMP-OUT AREAS SURVEYS

PASS FOURCHON SECTIONS - STA. 15+00 TO STA. 27+50

LAFOURCHE PARISH, LA

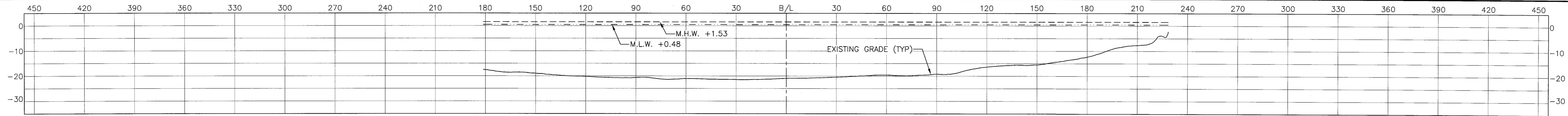
SHEET NO. 10 OF 36

ORIGINAL

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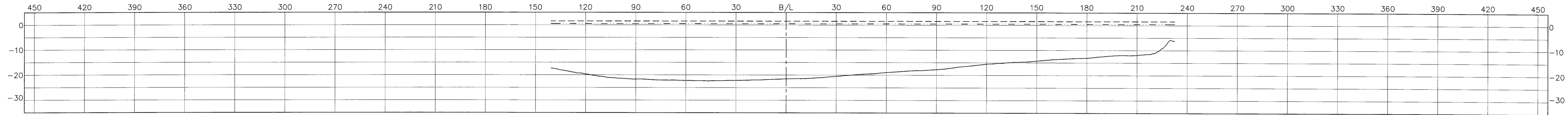


ORIGINAL



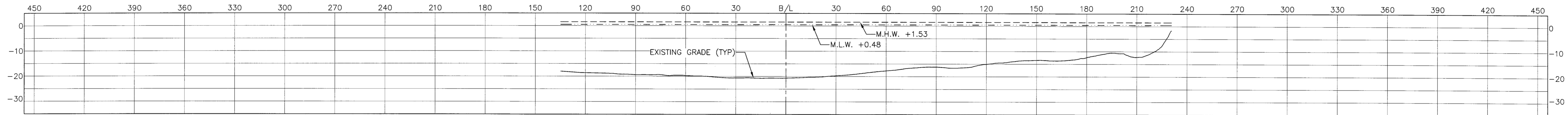
STATION 42+50

HORZ: 1" = 30'  
VERT: 1" = 20'



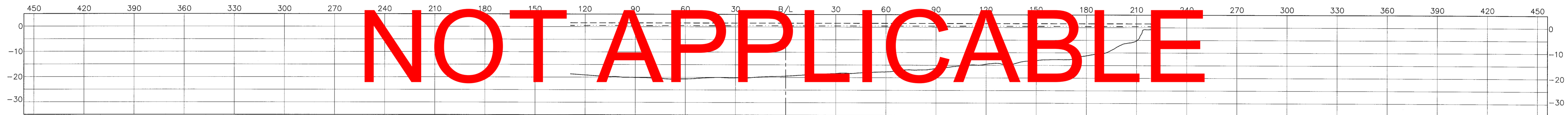
STATION 40+00

HORZ: 1" = 30'  
VERT: 1" = 20'



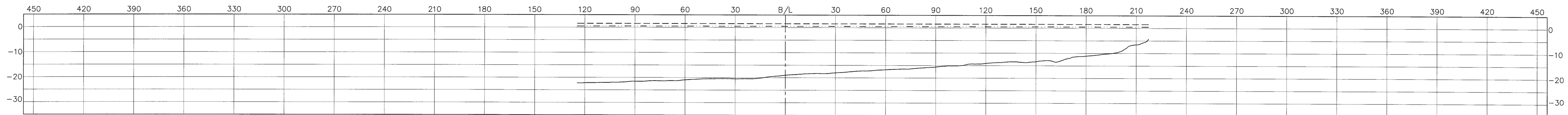
STATION 37+50

HORZ: 1" = 30'  
VERT: 1" = 20'



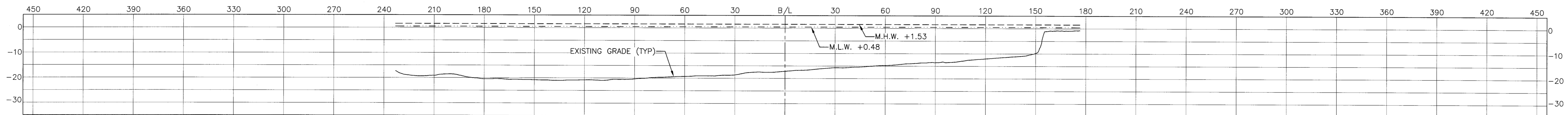
STATION 35+00

HORZ: 1" = 30'  
VERT: 1" = 20'



STATION 32+50

HORZ: 1" = 30'  
VERT: 1" = 20'



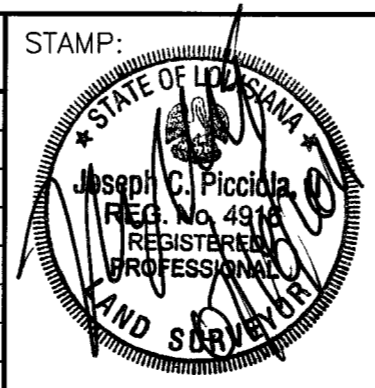
STATION 30+00

HORZ: 1" = 30'  
VERT: 1" = 20'

NOT APPLICABLE

NOTE:  
MEAN HIGH WATER (M.H.W.) AND MEAN LOW WATER (M.L.W.) REFERENCED TO  
"BARATARIA BARRIER SHORELINE RESTORATION FEASIBILITY STUDY, APPENDIX  
C, CAMINADA HEADLAND, COASTAL ENGINEERING CONSULTANTS, INC., 2008".

REVISIONS:	
DATE:	REMARKS:



**PICCIOLA & ASSOCIATES, INC.**  
 CIVIL ENGINEERS LAND SURVEYORS NAVAL ARCHITECTS MARINE ENGINEERS  
 P.O. BOX. 687  
 CUT OFF, LOUISIANA 70345  
 (985) 632-5786

DESIGNED BY: J.C.P. DRAWN BY: L.J.G. CHECKED BY: J.C.P.

DATE: JUNE 29, 2011  
 SCALE: AS SHOWN

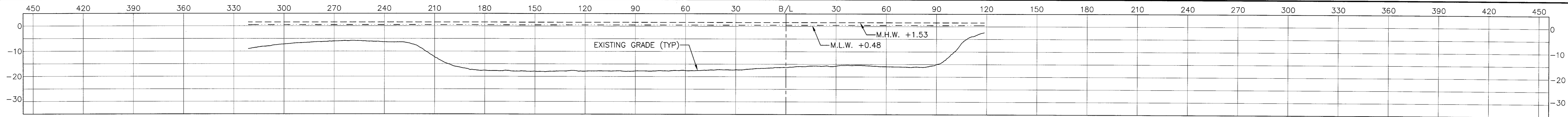
**COASTAL ENGINEERING CONSULTANTS, INC.**  
 CAMINADA HEADLAND BEACH AND DUNE RESTORATION PROJECT (BA-45EB)  
 C.E.C. PROJECT: 10.140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND  
 SEDIMENT RE-HANDLING/PUMP-OUT AREAS SURVEYS  
 PASS FOURCHON SECTIONS - STA. 30+00 TO STA. 42+50  
 LAFOURCHE PARISH, LA

SHEET NO. 11 OF 36

ORIGINAL

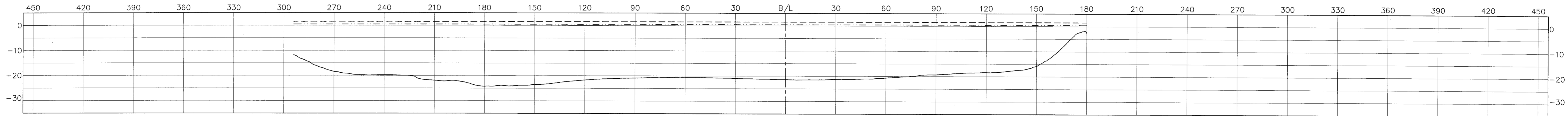
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ORIGINAL



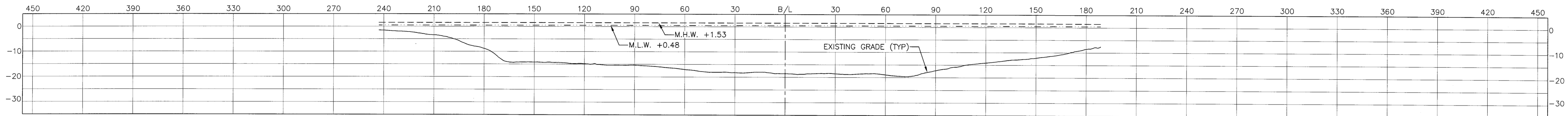
STATION 57+50

HORZ: 1" = 30'  
VERT: 1" = 20'



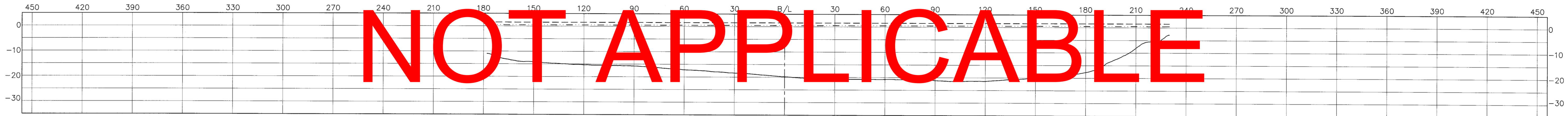
STATION 55+00

HORZ: 1" = 30'  
VERT: 1" = 20'



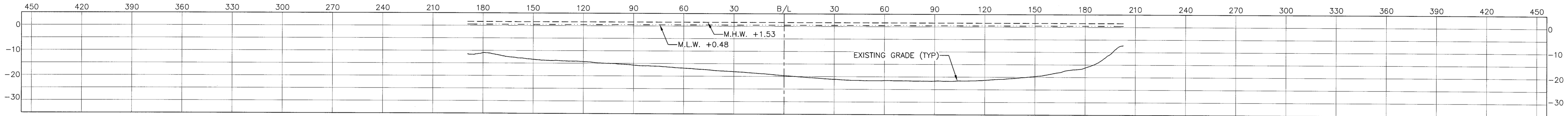
STATION 52+50

HORZ: 1" = 30'  
VERT: 1" = 20'



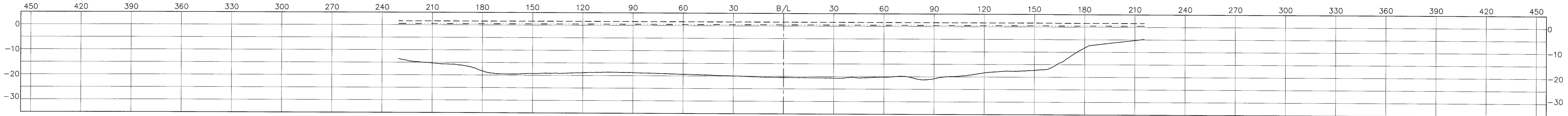
STATION 50+00

HORZ: 1" = 30'  
VERT: 1" = 20'



STATION 47+50

HORZ: 1" = 30'  
VERT: 1" = 20'



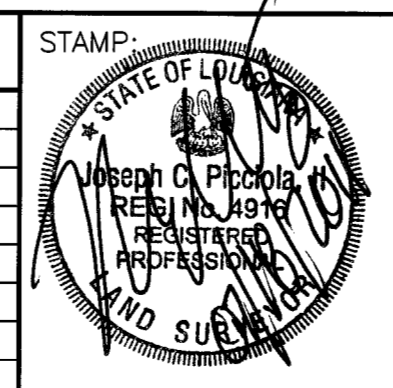
STATION 45+00

HORZ: 1" = 30'  
VERT: 1" = 20'

**NOT APPLICABLE**

**NOTE:**  
MEAN HIGH WATER (M.H.W.) AND MEAN LOW WATER (M.L.W.) REFERENCED TO "BARATARIA BARRIER SHORELINE RESTORATION FEASIBILITY STUDY, APPENDIX C, CAMINADA HEADLAND, COASTAL ENGINEERING CONSULTANTS, INC., 2008".

REVISIONS:	
DATE:	REMARKS:



**PICCIOLA & ASSOCIATES, INC.**  
 CIVIL ENGINEERS      NAVAL ARCHITECTS  
 LAND SURVEYORS      MARINE ENGINEERS

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DESIGNED BY: J.C.P.      DRAWN BY: L.J.G.      CHECKED BY: J.C.P.

DATE: JUNE 29, 2011

SCALE: AS SHOWN

**COASTAL ENGINEERING CONSULTANTS, INC.**

CAMINADA HEADLAND BEACH AND DUNE RESTORATION PROJECT (BA-45EB)  
 C.E.C. PROJECT: 10.140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND SEDIMENT RE-HANDLING/PUMP-OUT AREAS SURVEYS

PASS FOURCHON SECTIONS - STA. 45+00 TO STA. 57+50

LAFOURCHE PARISH, LA

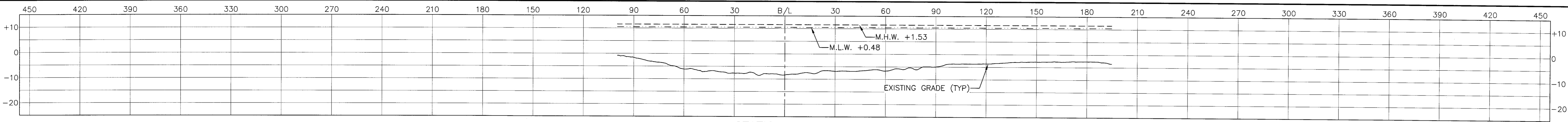
SHEET NO. 12 OF 36

ORIGINAL

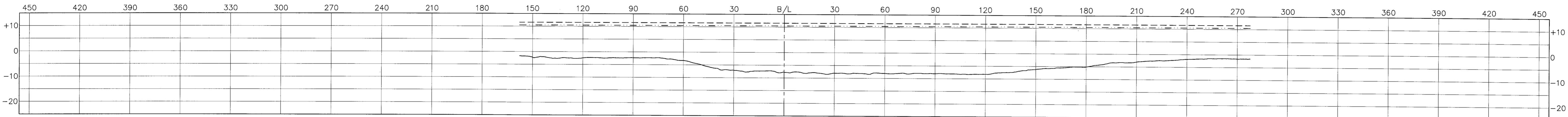
DRAWING PLOTTED AT HALF SCALE



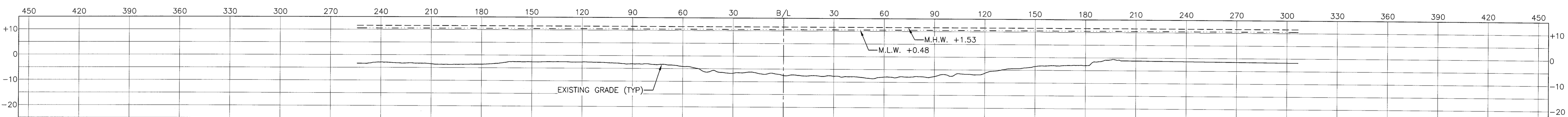
ORIGINAL



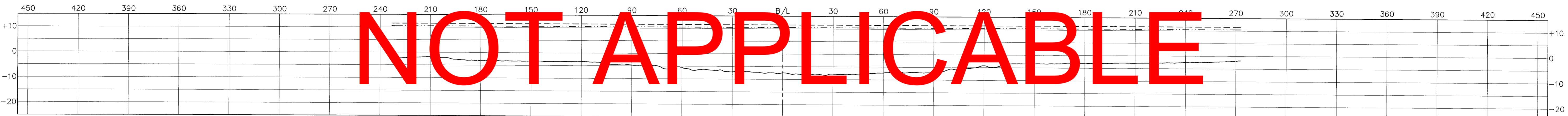
STATION 72+50  
 HORZ: 1" = 30'  
 VERT: 1" = 20'



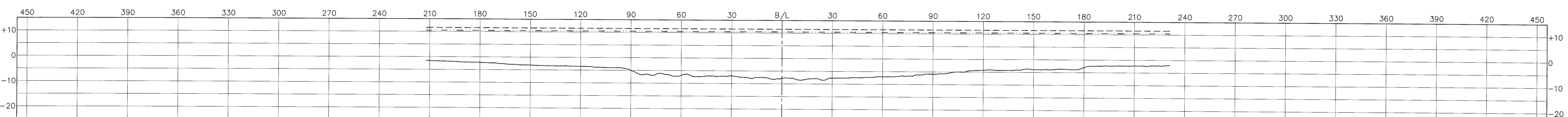
STATION 70+00  
 HORZ: 1" = 30'  
 VERT: 1" = 20'



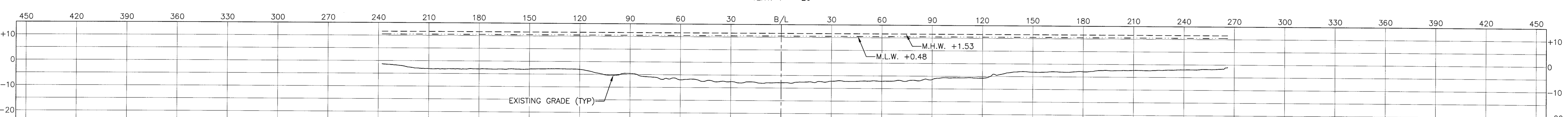
STATION 67+50  
 HORZ: 1" = 30'  
 VERT: 1" = 20'



STATION 65+00  
 HORZ: 1" = 30'  
 VERT: 1" = 20'



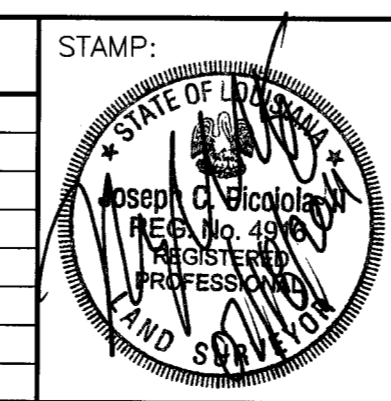
STATION 62+50  
 HORZ: 1" = 30'  
 VERT: 1" = 20'



STATION 60+00  
 HORZ: 1" = 30'  
 VERT: 1" = 20'

**NOTE:**  
 MEAN HIGH WATER (M.H.W.) AND MEAN LOW WATER (M.L.W.) REFERENCED TO  
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 C, CAMINADA HEADLAND, COASTAL ENGINEERING CONSULTANTS, INC., 2008".

REVISIONS:	
DATE:	REMARKS:



**PICCIOLA & ASSOCIATES, INC.**  
 CIVIL ENGINEERS      NAVAL ARCHITECTS  
 LAND SURVEYORS      MARINE ENGINEERS

P.O. BOX 687  
 CUT OFF, LOUISIANA 70345  
 (985) 632-5786

DESIGNED BY: J.C.P.      DRAWN BY: L.J.G.      CHECKED BY: J.C.P.

DATE: JUNE 29, 2011

SCALE: AS SHOWN

**COASTAL ENGINEERING CONSULTANTS, INC.**

CAMINADA HEADLAND BEACH AND DUNE RESTORATION PROJECT (BA-45EB)  
 C.E.C. PROJECT: 10.140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND  
 SEDIMENT RE-HANDLING/PUMP-OUT AREAS SURVEYS

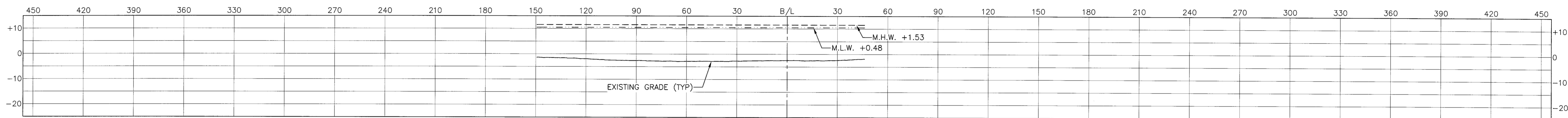
PASS FOURCHON SECTIONS - STA. 60+00 TO STA. 72+50

LAFOURCHE PARISH, LA

SHEET NO. 13 OF 36

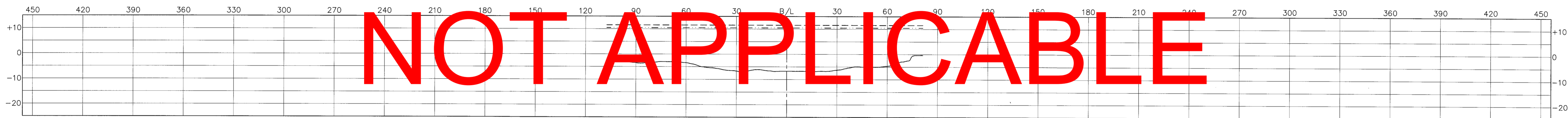
ORIGINAL

DRAWING PLOTTED AT HALF SCALE



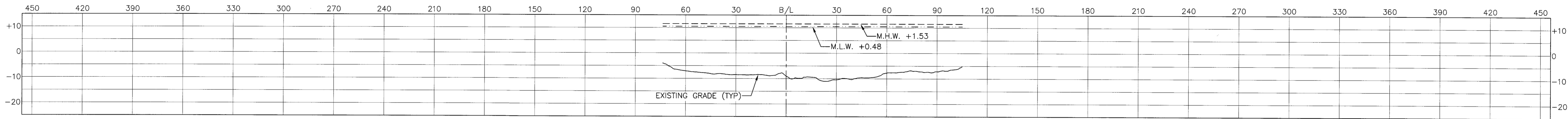
STATION 81+20

HORZ: 1" = 30'  
VERT: 1" = 20'



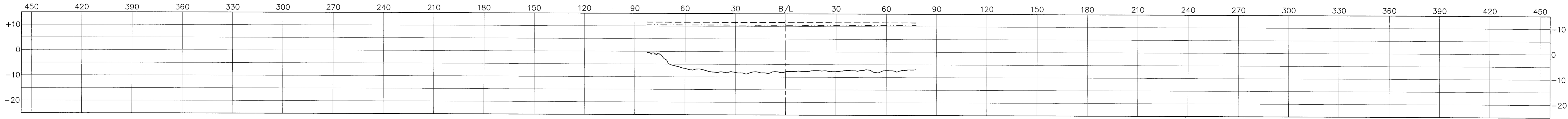
STATION 80+00

HORZ: 1" = 30'  
VERT: 1" = 20'



STATION 77+50

HORZ: 1" = 30'  
VERT: 1" = 20'

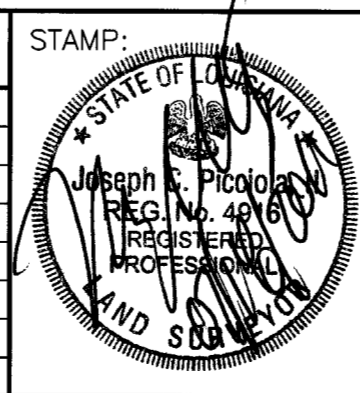


STATION 75+00

HORZ: 1" = 30'  
VERT: 1" = 20'

NOTE:  
MEAN HIGH WATER (M.H.W.) AND MEAN LOW WATER (M.L.W.) REFERENCED TO  
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REVISIONS:	
DATE:	REMARKS:



**PICCIOLA & ASSOCIATES, INC.**  
 CIVIL ENGINEERS      NAVAL ARCHITECTS  
 LAND SURVEYORS      MARINE ENGINEERS

P.O. BOX. 687  
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DESIGNED BY: J.C.P.      DRAWN BY: L.J.G.      CHECKED BY: J.C.P.

DATE: JUNE 29, 2011

SCALE: AS SHOWN

**COASTAL ENGINEERING CONSULTANTS, INC.**

CAMINADA HEADLAND BEACH AND DUNE RESTORATION PROJECT (BA-45EB)  
 C.E.C. PROJECT: 10.140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND  
 SEDIMENT RE-HANDLING/PUMP-OUT AREAS SURVEYS

PASS FOURCHON SECTIONS - STA. 75+00 TO STA. 81+20

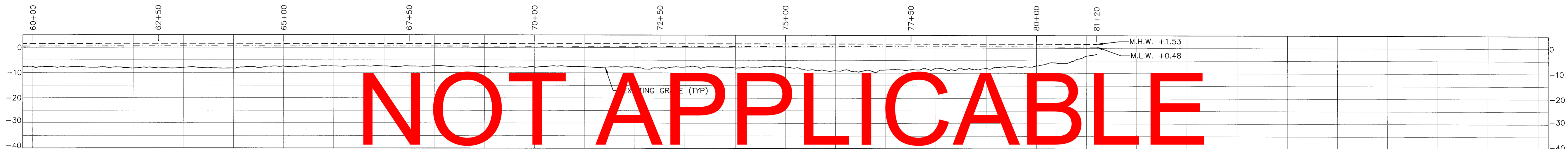
LAFOURCHE PARISH, LA

SHEET NO. 14 OF 36

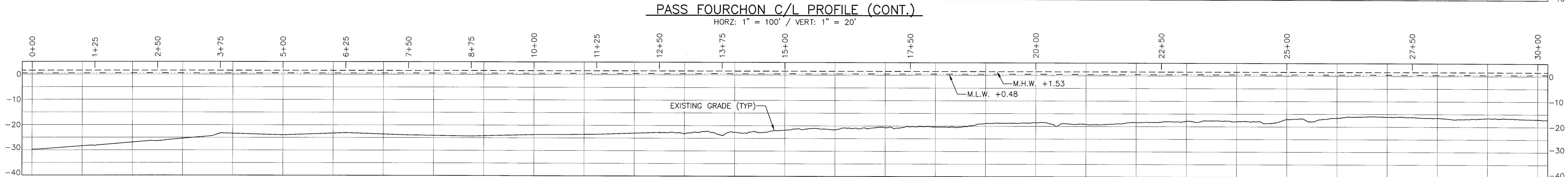
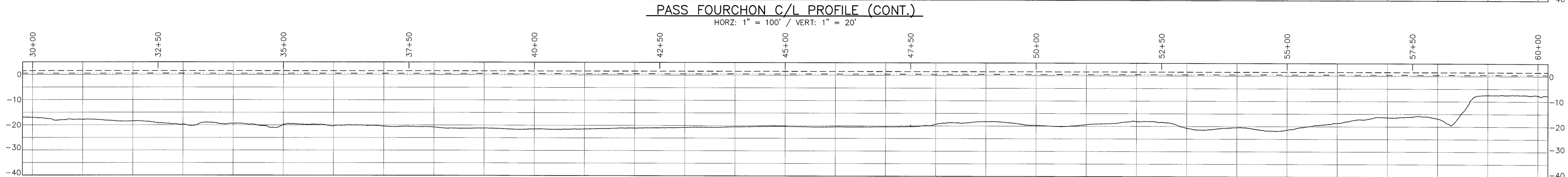


BATHYMETRIC SURVEY - PASS FOURCHON					
SECTION	START	END	LENGTH (FT)	START-END TIME (GMT)	DATE
0+00	X=3,639,979.65Y=224,830.13	X=3,640,330.93, Y=223,531.72	1,345.09	16:07:44-16:11:26	5/23/2011
1+25	X=3,640,102.79, Y=224,853.58	X=3,640,366.08, Y=223,880.43	1,008.14	16:02:05-16:05:18	5/23/2011
2+50	X=3,640,264.62, Y=224,734.09	X=3,640,410.60, Y=224,194.51	558.98	15:55:20-15:57:25	5/23/2011
3+75	X=3,640,399.63, Y=224,713.68	X=3,640,519.91, Y=224,269.15	460.52	15:51:45-15:53:19	5/23/2011
5+00	X=3,640,510.95, Y=224,780.89	X=3,640,622.05, Y=224,370.21	425.44	15:48:40-15:50:04	5/23/2011
6+25	X=3,640,648.47, Y=224,751.23	X=3,640,737.29, Y=224,422.93	340.10	15:45:40-15:46:49	5/23/2011
7+50	X=3,640,759.85, Y=224,818.15	X=3,640,858.20, Y=224,454.64	376.58	15:42:35-15:43:50	5/23/2011
8+75	X=3,640,861.66, Y=224,920.47	X=3,640,976.07, Y=224,497.61	438.06	15:37:52-15:39:31	5/23/2011
10+00	X=3,640,985.76, Y=224,940.43	X=3,641,101.79, Y=224,511.53	444.32	15:33:43-15:35:20	5/23/2011
11+25	X=3,641,104.61, Y=224,979.76	X=3,641,218.75, Y=224,557.87	437.35	15:30:12-15:31:46	5/23/2011
12+50	X=3,641,228.74, Y=224,999.57	X=3,641,341.25, Y=224,583.71	430.81	15:26:04-15:27:35	5/23/2011
13+75	X=3,641,388.15, Y=224,931.05	X=3,641,434.13, Y=224,607.74	326.56	15:21:32-15:22:45	5/23/2011
15+00	X=3,641,514.58, Y=224,929.85	X=3,641,557.52, Y=224,627.88	305.01	15:18:17-15:19:34	5/23/2011
17+50	X=3,641,744.66, Y=225,087.56	X=3,641,801.18, Y=224,690.12	401.44	15:15:18-15:16:39	5/23/2011
20+00	X=3,641,991.96, Y=225,124.25	X=3,642,050.02, Y=224,716.00	412.36	15:11:47-15:13:03	5/23/2011
22+50	X=3,642,249.67, Y=225,087.76	X=3,642,302.57, Y=224,715.77	375.73	15:08:19-15:09:31	5/23/2011
25+00	X=3,642,533.83, Y=225,183.82	X=3,642,504.13, Y=224,755.53	429.32	15:04:48-15:06:11	5/23/2011
27+50	X=3,642,756.64, Y=224,782.98	X=3,642,790.37, Y=225,269.49	487.68	19:54:26-19:56:06	5/19/2011
30+00	X=3,643,004.29, Y=224,740.41	X=3,643,032.65, Y=225,149.43	410.00	19:48:27-19:49:46	5/19/2011
32+50	X=3,642,350.86, Y=224,682.31	X=3,643,274.53, Y=225,023.75	342.26	19:45:37-19:46:50	5/19/2011

BATHYMETRIC SURVEY - PASS FOURCHON (CONTINUED)					
SECTION	START	END	LENGTH (FT)	START-END TIME (GMT)	DATE
35+00	X=3,643,449.03, Y=224,621.74	X=3,643,534.93, Y=224,935.10	324.92	19:38:32-19:39:49	5/19/2011
37+50	X=3,643,687.07, Y=224,544.43	X=3,643,776.11, Y=224,869.26	336.81	19:34:35-19:35:41	5/19/2011
40+00	X=3,643,927.71, Y=224,476.66	X=3,644,026.50, Y=224,837.06	373.69	19:31:37-19:32:48	5/19/2011
42+50	X=3,644,117.34, Y=224,398.74	X=3,644,298.83, Y=224,766.64	410.24	19:28:37-19:29:59	5/19/2011
45+00	X=3,644,361.82, Y=224,329.24	X=3,644,544.59, Y=224,699.76	413.15	19:24:25-19:25:52	5/19/2011
47+50	X=3,644,577.12, Y=224,200.59	X=3,644,750.71, Y=224,552.49	392.39	19:20:43-19:22:20	5/19/2011
50+00	X=3,644,718.89, Y=244,072.33	X=3,644,990.91, Y=224,376.93	408.38	19:16:35-19:18:10	5/19/2011
52+50	X=3,644,932.97, Y=223,936.73	X=3,645,220.67, Y=224,258.89	431.92	19:12:26-19:14:14	5/19/2011
55+00	X=3,645,051.44, Y=223,799.38	X=3,645,470.65, Y=224,021.95	474.63	19:08:40-19:10:05	5/19/2011
57+50	X=3,645,222.95, Y=223,607.38	X=3,645,650.33, Y=223,834.29	483.88	19:00:40-19:02:34	5/19/2011
60+00	X=3,645,209.83, Y=223,317.37	X=3,645,655.35, Y=223,553.91	504.42	18:52:06-18:54:01	5/19/2011
62+50	X=3,645,300.77, Y=223,133.73	X=3,645,723.23, Y=223,268.66	443.48	18:46:51-18:48:53	5/19/2011
65+00	X=3,645,337.53, Y=222,883.03	X=3,645,797.80, Y=223,030.04	483.61	18:42:21-18:44:30	5/19/2011
67+50	X=3,645,481.61, Y=222,666.60	X=3,645,915.60, Y=222,805.22	455.59	18:37:21-18:39:24	5/19/2011
70+00	X=3,645,412.59, Y=222,453.71	X=3,645,852.66, Y=222,492.74	441.80	18:31:31-18:33:21	5/19/2011
72+50	X=3,645,523.27, Y=222,213.54	X=3,645,816.83, Y=222,238.58	294.71	18:26:50-18:27:51	5/19/2011
75+00	X=3,645,884.96, Y=222,047.56	X=3,645,747.41, Y=221,964.98	160.44	18:23:17-18:24:06	5/19/2011
77+50	X=3,645,852.62, Y=221,736.55	X=3,646,006.02, Y=221,828.65	178.92	18:18:52-18:19:49	5/19/2011
80+00	X=3,646,163.61, Y=221,631.67	X=3,646,001.77, Y=221,534.49	188.78	18:16:07-18:17:07	5/19/2011
81+20	X=3,646,300.11, Y=221,573.65	X=3,646,093.58, Y=221,449.65	240.90	18:10:46-18:11:51	5/19/2011

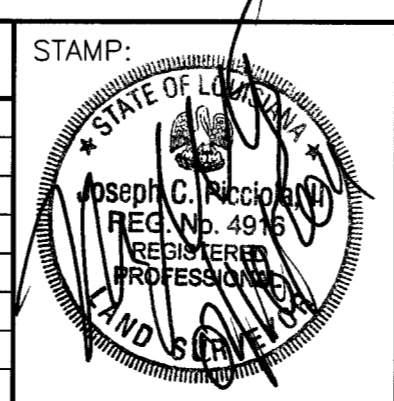


NOT APPLICABLE



**NOTE:**  
 MEAN HIGH WATER (M.H.W.) AND MEAN LOW WATER (M.L.W.) REFERENCED TO  
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REVISIONS:	
DATE:	REMARKS:



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 CIVIL ENGINEERS      NAVAL ARCHITECTS  
 LAND SURVEYORS      MARINE ENGINEERS

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 CUT OFF, LOUISIANA 70345  
 (985) 632-5786

DESIGNED BY: J.C.P.      DRAWN BY: L.J.G.      CHECKED BY: J.C.P.

DATE: JUNE 29, 2011  
 SCALE: AS SHOWN

**COASTAL ENGINEERING CONSULTANTS, INC.**

CAMINADA HEADLAND BEACH AND DUNE RESTORATION PROJECT (BA-45EB)  
 C.E.C. PROJECT: 10.140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND  
 SEDIMENT RE-HANDLING/PUMP-OUT AREAS SURVEYS

PASS FOURCHON CENTERLINE PROFILE - STA. 0+00 TO STA. 81+20  
 LAFOURCHE PARISH, LA

SHEET NO. 15 OF 36

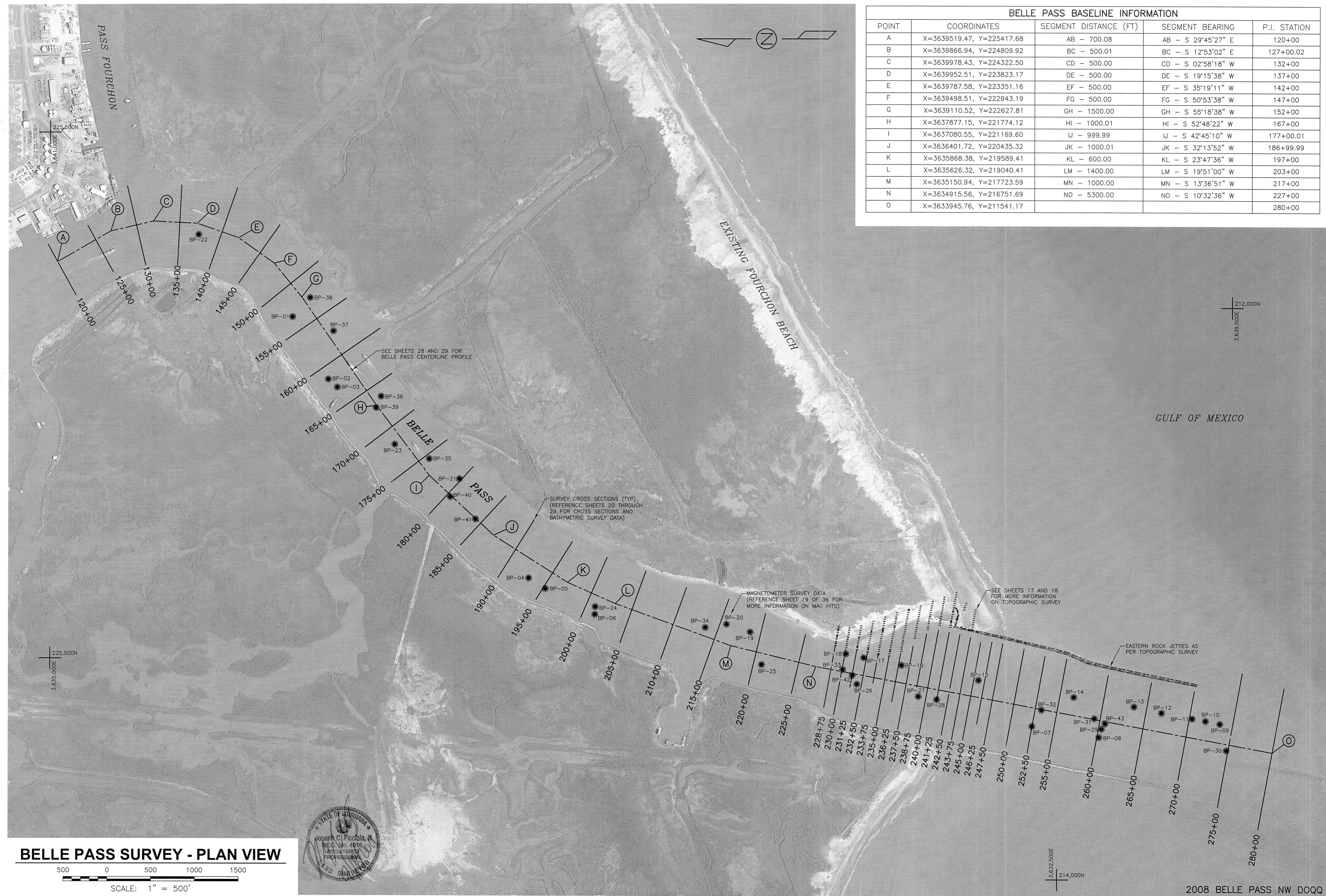
ORIGINAL

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ORIGINAL

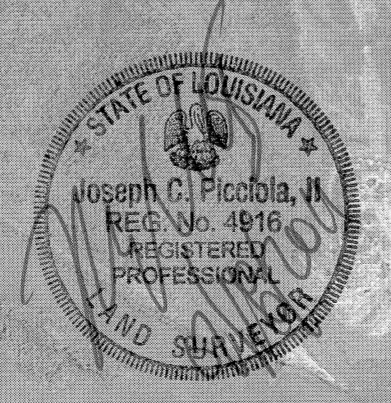
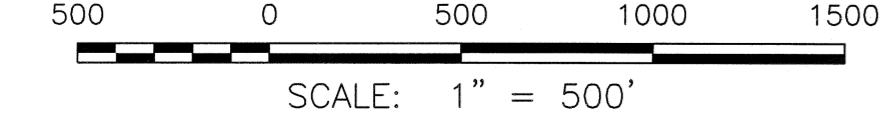
DRAWING PLOTTED AT HALF SCALE





BELLE PASS BASELINE INFORMATION				
POINT	COORDINATES	SEGMENT DISTANCE (FT)	SEGMENT BEARING	P.I. STATION
A	X=3639519.47, Y=225417.68	AB - 700.08	AB - S 29°45'27" E	120+00
B	X=3639866.94, Y=224809.92	BC - 500.01	BC - S 12°53'02" E	127+00.02
C	X=3639978.43, Y=224322.50	CD - 500.00	CD - S 02°58'18" W	132+00
D	X=3639952.51, Y=223823.17	DE - 500.00	DE - S 19°15'38" W	137+00
E	X=3639787.58, Y=223351.16	EF - 500.00	EF - S 35°19'11" W	142+00
F	X=3639498.51, Y=222943.19	FG - 500.00	FG - S 50°53'38" W	147+00
G	X=3639110.52, Y=222627.81	GH - 1500.00	GH - S 55°18'38" W	152+00
H	X=3637877.15, Y=221774.12	HI - 1000.01	HI - S 52°48'22" W	167+00
I	X=3637080.55, Y=221169.60	IJ - 999.99	IJ - S 42°45'10" W	177+00.01
J	X=3636401.72, Y=220435.32	JK - 1000.01	JK - S 32°13'52" W	186+99.99
K	X=3635868.38, Y=219589.41	KL - 600.00	KL - S 23°47'36" W	197+00
L	X=3635626.32, Y=219040.41	LM - 1400.00	LM - S 19°51'00" W	203+00
M	X=3635150.94, Y=217723.59	MN - 1000.00	MN - S 13°36'51" W	217+00
N	X=3634915.56, Y=216751.69	NO - 5300.00	NO - S 10°32'36" W	227+00
O	X=3633945.76, Y=211541.17			280+00

### BELLE PASS SURVEY - PLAN VIEW



REVISIONS:	
DATE:	
REMARKS:	

**PICCIOLA & ASSOCIATES, INC.**  
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 CAMINADA HEADLAND BEACH AND DUNE RESTORATION PROJECT (BA-45EE)  
 C.E.C. PROJECT: 10.140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND SEDIMENT  
 RE-HANDLING/PUMP-OUT AREAS SURVEYS, BELLE PASS SURVEY PLAN VIEW  
 LAFOURCHE PARISH, LA

DESIGNED BY:	J.C.P.
DRAWN BY:	L.J.G.
CHECKED BY:	J.C.P.
DATE:	JUNE 29, 2011
SCALE:	AS SHOWN
SHEET NO.	16 OF 36

DRAWING PLOTTED AT HALF SCALE



EASTERN ROCK JETTY-SURVEY DATA			
STATION	X	Y	ELEVATION
1 - TOE	3,635,586.65	215,163.35	+4.87
1 - CROWN	3,635,588.84	215,161.59	+5.96
1 - CL	3,635,590.34	215,159.48	+5.61
1 - CROWN	3,635,592.13	215,157.25	+5.60
1 - TOE	3,635,593.89	215,155.65	+4.26
2-TOE	3,635,560.62	215,143.25	+4.02
2-CROWN	3,635,562.86	215,140.10	+5.49
2-CL	3,635,564.67	215,137.35	+5.59
2-CROWN	3,635,565.81	215,135.39	+6.27
2-TOE	3,635,567.45	215,132.40	+4.46
3-TOE	3,635,526.59	215,133.39	+4.03
3-CROWN	3,635,526.48	215,130.49	+5.40
3-CL	3,635,526.49	215,127.78	+5.70
3-CROWN	3,635,527.16	215,125.52	+5.12
3-TOE	3,635,528.37	215,121.85	+4.25
4-TOE	3,635,509.32	215,134.36	+4.29
4-CROWN	3,635,508.29	215,129.52	+6.93
4-CL	3,635,507.03	215,125.48	+7.17
4-CROWN	3,635,506.23	215,121.58	+6.35
4-TOE	3,635,505.57	215,116.85	+3.83

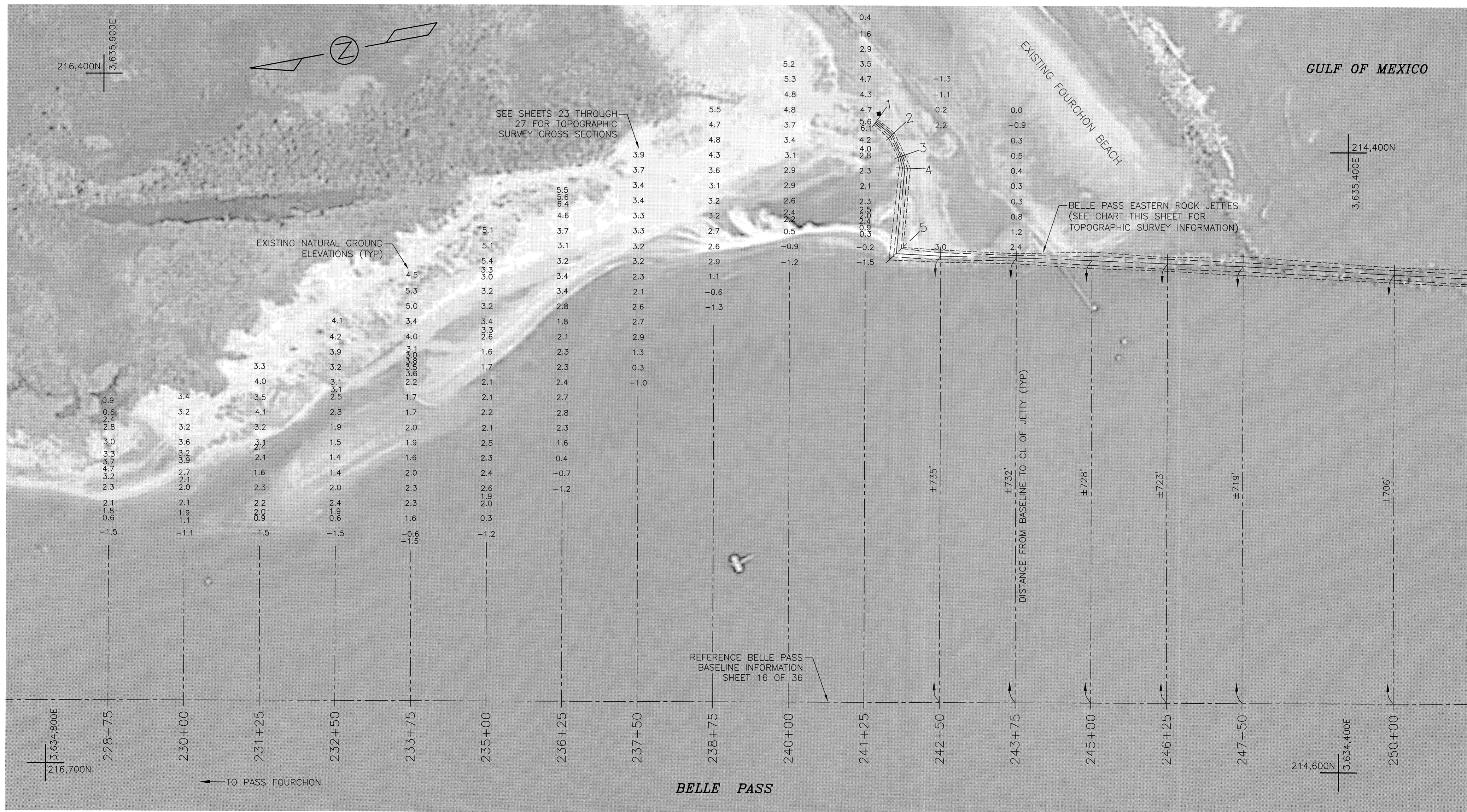
EASTERN ROCK JETTY-SURVEY DATA (CONT.)			
STATION	X	Y	ELEVATION
5-TOE	3,635,363.39	215,178.76	+1.19
5-CROWN	3,635,367.10	215,170.34	+4.52
5-CL	3,635,371.52	215,164.93	+6.28
5-CROWN	3,635,378.72	215,155.29	+6.05
5-TOE	3,635,379.46	215,151.77	+4.38
242+50-TOE	3,635,344.76	215,095.85	+2.32
242+50-CROWN	3,635,348.41	215,095.19	+5.40
242+50-CL	3,635,354.44	215,093.91	+6.04
242+50-CROWN	3,635,359.94	215,092.59	+5.72
242+50-TOE	3,635,364.28	215,092.03	+3.09
243+75-TOE	3,635,319.41	214,973.91	+1.05
243+75-CROWN	3,635,324.08	214,972.70	+4.21
243+75-CL	3,635,328.88	214,971.95	+4.80
243+75-CROWN	3,635,332.88	214,971.08	+5.60
243+75-TOE	3,635,335.87	214,971.35	+3.73
245+00-TOE	3,635,289.30	214,852.85	-0.24
245+00-CROWN	3,635,294.44	214,851.66	+4.28
245+00-CL	3,635,302.16	214,850.20	+4.28
245+00-CROWN	3,635,308.97	214,848.00	+3.75
245+00-TOE	3,635,315.49	214,845.36	+0.78

EASTERN ROCK JETTY-SURVEY DATA (CONT.)			
STATION	X	Y	ELEVATION
246+25-TOE	3,635,262.48	214,730.66	+1.76
246+25-CROWN	3,635,266.15	214,730.66	+3.82
246+25-CL	3,635,274.41	214,728.45	+5.33
246+25-CROWN	3,635,281.92	214,726.69	+5.01
246+25-TOE	3,635,284.36	214,726.09	+2.41
247+50-TOE	3,635,233.17	214,609.37	+1.36
247+50-CROWN	3,635,239.02	214,606.87	+4.63
247+50-CL	3,635,247.12	214,604.39	+4.95
247+50-CROWN	3,635,253.34	214,602.98	+3.71
247+50-TOE	3,635,263.31	214,601.56	+1.60
250+00-TOE	3,635,175.62	214,363.05	+1.79
250+00-CROWN	3,635,180.58	214,362.60	+4.94
250+00-CL	3,635,188.37	214,360.72	+5.74
250+00-CROWN	3,635,195.78	214,359.37	+4.52
250+00-TOE	3,635,199.95	214,358.15	-0.44

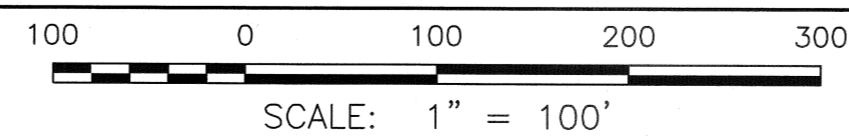
**NOTE:**  
SURVEY DATA SHOWN BEGINS ON THE BELLE PASS SIDE OF THE ROCK JETTIES TRAVELING IN AN EASTERLY DIRECTION.

**GENERAL NOTES:**

- TOPOGRAPHIC SURVEY DATA SHOWN WAS TAKEN FROM A SURVEYS CONDUCTED BY PICCIOLA AND ASSOCIATES, INC. ON MAY 25, 2011 AND JUNE 21, 2011.
- REFERENCE SHEET 16 OF 36 FOR BELLE PASS BASELINE INFORMATION.
- REFERENCE SHEETS 23 THROUGH 27 FOR BELLE PASS CROSS SECTIONS CONTAINING TOPOGRAPHIC SURVEY DATA.



**BELLE PASS TOPOGRAPHIC SURVEY - STA. 228+75 TO STA. 250+00**

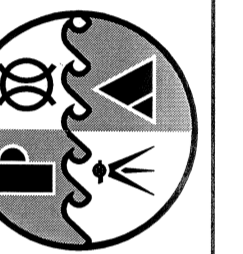


2008 BELLE PASS NW DOQQ

REVISIONS:

DATE:	REMARKS:

**PICCIOLA & ASSOCIATES, INC.**  
 CIVIL ENGINEERS  
 LAND SURVEYORS  
 NAVAL ARCHITECTS  
 MARINE ENGINEERS  
 P.O. BOX 687  
 CUT OFF, LOUISIANA 70345  
 (985) 632-5786



**COASTAL ENGINEERING CONSULTANTS, INC.**  
 CAMINADA HEADLAND BEACH AND DUNE RESTORATION PROJECT (BA-45EP) C.E.C.  
 PROJECT: 10.140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND SEDIMENT  
 RE-HANDLING/PUMP-OUT AREAS SURVEYS, BELLE PASS TOPOGRAPHIC SURVEY  
 LAFOURCHE PARISH, LA

DESIGNED BY:  
J.C.P.

DRAWN BY:  
L.J.G.

CHECKED BY:  
J.C.P.

DATE:  
JUNE 29, 2011

SCALE:  
AS SHOWN

SHEET NO.  
17 OF 36

DRAWING PLOTTED AT HALF SCALE

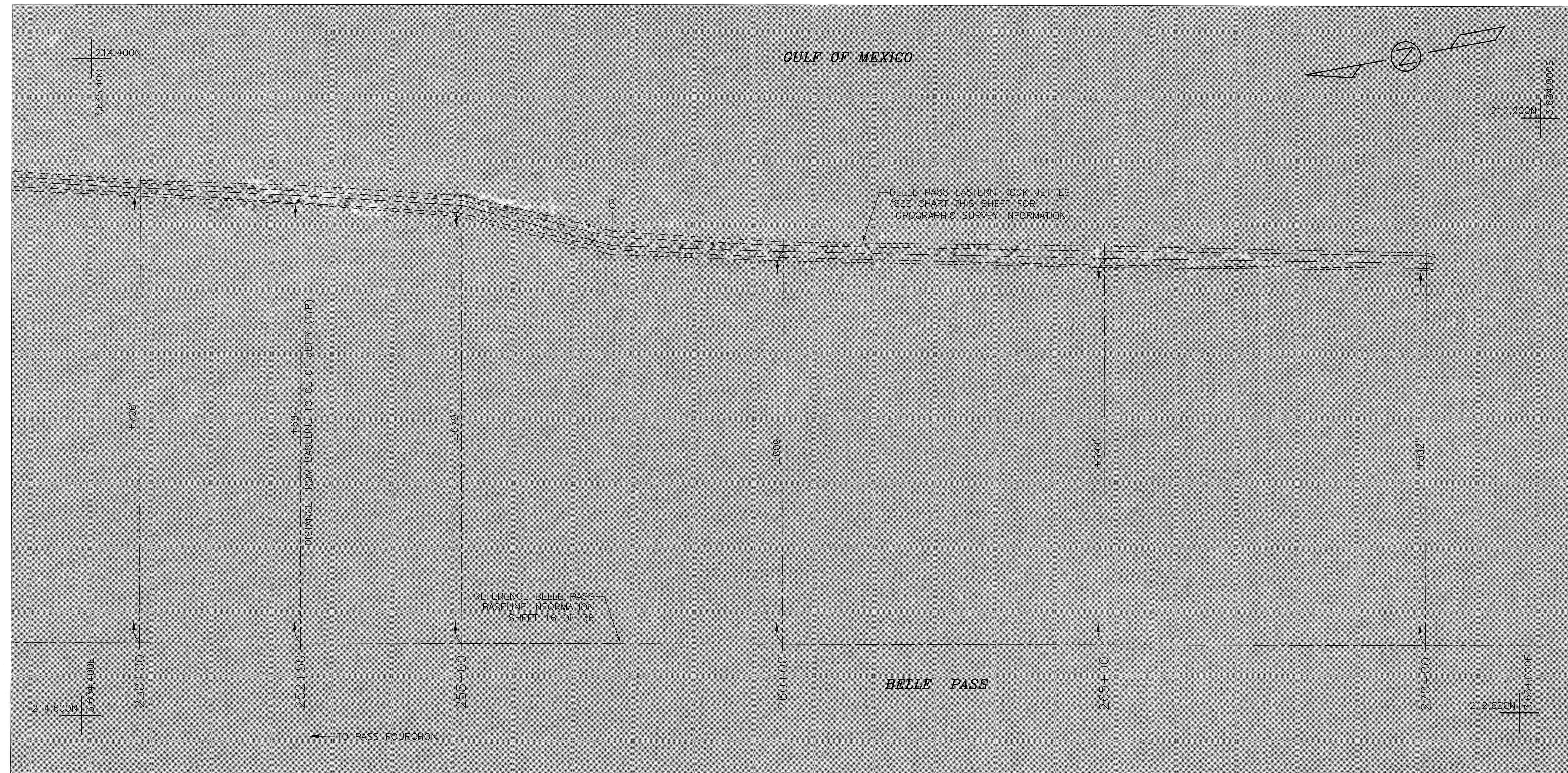


EASTERN ROCK JETTY—SURVEY DATA (CONT.)			
STATION	X	Y	ELEVATION
252+50—TOE	3,635,118.92	214,123.29	+0.85
252+50—CROWN	3,635,124.99	214,121.33	+5.11
252+50—CL	3,635,131.25	214,118.96	+5.83
252+50—CROWN	3,635,137.95	214,115.35	+5.31
252+50—TOE	3,635,146.45	214,112.50	+0.62
6—TOE	3,634,953.82	213,659.85	+0.94
6—CROWN	3,634,961.23	213,657.96	+4.59
6—CL	3,634,967.03	213,655.27	+6.04
6—CROWN	3,634,979.80	213,651.95	+4.98
6—TOE	3,634,988.50	213,648.99	+1.40
255+00—TOE	3,635,054.33	213,882.15	+1.14
255+00—CROWN	3,635,060.22	213,881.66	+4.75
255+00—CL	3,635,070.59	213,874.05	+5.77
255+00—CROWN	3,635,078.40	213,872.46	+4.78
255+00—TOE	3,635,085.62	213,871.14	+0.39

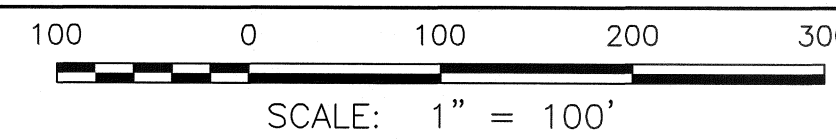
EASTERN ROCK JETTY—SURVEY DATA (CONT.)			
STATION	X	Y	ELEVATION
260+00—TOE	3,634,897.23	213,406.01	+0.67
260+00—CROWN	3,634,902.57	213,405.16	+5.65
260+00—CL	3,634,911.36	213,402.66	+6.64
260+00—CROWN	3,634,919.50	213,395.58	+4.46
260+00—TOE	3,634,924.30	213,392.41	+1.74
265+00—TOE	3,634,795.21	212,910.75	+0.34
265+00—CROWN	3,634,798.75	212,909.69	+4.31
265+00—CL	3,634,809.31	212,907.97	+5.10
265+00—CROWN	3,634,820.40	212,906.06	+5.55
265+00—TOE	3,634,828.27	212,905.32	+1.07
270+00—TOE	3,634,700.27	212,418.40	+1.87
270+00—CROWN	3,634,703.42	212,418.36	+4.34
270+00—CL	3,634,710.94	212,415.73	+5.21
270+00—CROWN	3,634,722.64	212,414.58	+4.77
270+00—TOE	3,634,727.16	212,415.17	+2.20

**NOTE:**  
SURVEY DATA SHOWN BEGINS ON THE BELLE PASS SIDE OF THE ROCK JETTIES TRAVELING IN AN EASTERLY DIRECTION.

- GENERAL NOTES:**
1. TOPOGRAPHIC SURVEY DATA SHOWN WAS TAKEN FROM A SURVEYS CONDUCTED BY PICCIOLA AND ASSOCIATES, INC. ON MAY 25, 2011 AND JUNE 21, 2011.
  2. REFERENCE SHEET 16 OF 36 FOR BELLE PASS BASELINE INFORMATION.
  3. REFERENCE SHEETS 23 THROUGH 27 FOR BELLE PASS CROSS SECTIONS CONTAINING TOPOGRAPHIC SURVEY DATA.



**BELLE PASS TOPOGRAPHIC SURVEY - STA. 250+00 TO STA. 270+00**

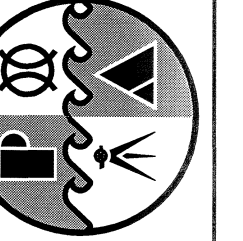


2008 BELLE PASS NW DOQQ

REVISIONS:

DATE:	REMARKS:

**PICCIOLA & ASSOCIATES, INC.**  
 CIVIL ENGINEERS  
 LAND SURVEYORS  
 NAVAL ARCHITECTS  
 MARINE ENGINEERS  
 P.O. BOX 687  
 CUT OFF, LOUISIANA 70345  
 (985) 632-5786



**COASTAL ENGINEERING CONSULTANTS, INC.**  
 CAMINADA HEADLAND BEACH AND DUNE RESTORATION PROJECT (BA-45EB) C.E.C.  
 PROJECT: 10.140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND SEDIMENT  
 RE-HANDLING/PUMP-OUT AREAS SURVEYS, BELLE PASS TOPOGRAPHIC SURVEY  
 LAFOURCHE PARISH, LA

DESIGNED BY:  
J.C.P.

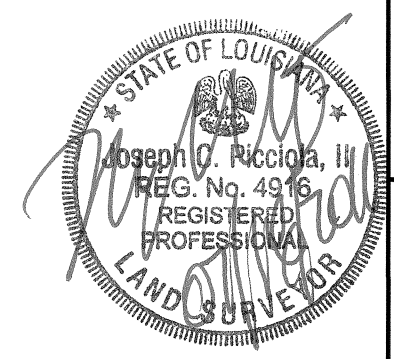
DRAWN BY:  
L.J.G.

CHECKED BY:  
J.C.P.

DATE:  
JUNE 29, 2011

SCALE:  
AS SHOWN

SHEET NO.  
18 OF 36



**DRAWING PLOTTED AT HALF SCALE**



ORIGINAL

E:\10-DR\1222-1002 Coastal Engineering Consultants - Camnada Headlands Restoration\ACAD\CURRENT\Deliverables\_LDG\Survey Plans\_07-14-2011\_Sleve Markups\06\_19-SRT\_MAG SURVEY DATA.dwg, 19-SRT BELLE PASS MAG, 7/19/2011 8:40:35 AM, lee

ORIGINAL

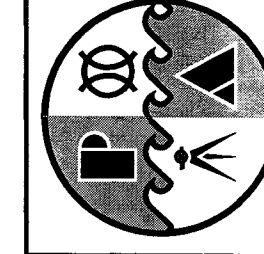
J.N. 1222-1002

10.140 CONVEYANCE CORRIDOR MAGNETOMETER SURVEY, MAY 17, 2011 - BELLE PASS

LINE	LINE NAME	*ASSIGNED POINT NO.	X	Y	LATITUDE	LONGITUDE	TYPE	GAMMA READING
WEST MOST CL OFFSET	005_1318	BP-01	3638887.51	222733.49	90 12.730042	29 06.457987	MONO	62
WEST MOST CL OFFSET	005_1318	BP-02	3638177.19	222325.41	90 12.864234	29 06.391802	MONO	88
WEST MOST CL OFFSET	005_1318	BP-03	3638085.31	222221.47	90 12.881686	29 06.374806	MONO	163
WEST MOST CL OFFSET	005_1318	BP-04	3635918.05	220033.39	90 13.292821	29 06.017289	DIPOLE	203
WEST MOST CL OFFSET	005_1318	BP-05	3635797.59	219842.13	90 13.315798	29 05.985927	DIPOLE	57
WEST MOST CL OFFSET	005_1318	BP-06	3635505.19	219276.20	90 13.371754	29 05.893026	MONO	153
WEST MOST CL OFFSET	005_1318	BP-07	3634244.55	214285.04	90 13.617616	29 05.071581	MONO	89
WEST MOST CL OFFSET	005_1318	BP-08	3634120.62	213520.39	90 13.642278	29 04.945625	MONO	467
EAST MOST CL OFFSET	001_1348	BP-09	3634273.06	212138.35	90 13.616153	29 04.717370	DIPOLE	126
EAST MOST CL OFFSET	001_1348	BP-10	3634305.23	212302.55	90 13.609814	29 04.744408	MONO	215
EAST MOST CL OFFSET	001_1348	BP-11	3634332.42	212454.70	90 13.604430	29 04.769468	DIPOLE	338
EAST MOST CL OFFSET	001_1348	BP-12	3634397.26	212804.43	90 13.591619	29 04.827064	DIPOLE	717
EAST MOST CL OFFSET	001_1348	BP-13	3634467.06	213118.20	90 13.577940	29 04.878720	DIPOLE	723
EAST MOST CL OFFSET	001_1348	BP-14	3634574.14	213806.44	90 13.556581	29 04.992096	DIPOLE	245
EAST MOST CL OFFSET	001_1348	BP-15	3634764.53	214895.54	90 13.518842	29 05.171475	DIPOLE	130
EAST MOST CL OFFSET	001_1348	BP-16	3634932.03	215773.57	90 13.485786	29 05.316067	DIPOLE	68
EAST MOST CL OFFSET	001_1348	BP-17	3635016.53	216205.34	90 13.469130	29 05.387167	MONO	213
EAST MOST CL OFFSET	001_1348	BP-18	3635060.29	216409.32	90 12.460540	29 05.420750	DIPOLE	318
EAST MOST CL OFFSET	001_1348	BP-19	3635306.52	217502.39	90 14.412301	29 05.600695	DIPOLE	206
EAST MOST CL OFFSET	001_1348	BP-20	3635395.45	217771.76	90 13.395106	29 05.644995	MONO	105
EAST MOST CL OFFSET	001_1348	BP-21	3637043.46	220825.80	90 13.079963	29 06.145219	DIPOLE	89
WEST CL OFFSET	004_1434	BP-22	3639824.99	223806.59	90 12.551959	29 06.633514	DIPOLE	40
WEST CL OFFSET	004_1434	BP-23	3637435.29	221564.48	90 13.005002	29 06.267460	MONO	44
WEST CL OFFSET	004_1434	BP-24	3635591.97	219272.49	90 13.355460	29 05.892276	DIPOLE	86
WEST CL OFFSET	004_1434	BP-25	3634937.67	217372.32	90 13.481822	29 05.579825	MONO	50
WEST CL OFFSET	004_1434	BP-26	3634717.65	216282.73	90 13.525128	29 05.400412	DIPOLE	23
WEST CL OFFSET	004_1434	BP-27	3634580.34	215581.44	90 13.552194	29 05.284931	MONO	123
WEST CL OFFSET	004_1434	BP-28	3634554.64	215372.11	90 13.559278	29 05.250451	DIPOLE	66
WEST CL OFFSET	004_1434	BP-29	3634214.21	213490.47	90 13.624754	29 04.940539	MONO	107
WEST CL OFFSET	004_1434	BP-30	3633972.31	212064.46	90 13.672772	29 04.705658	MONO	99
CL - EAST CL OFFSET	003_1505	BP-31	3634333.09	213571.28	90 13.602279	29 04.953682	MONO	74
CL - EAST CL OFFSET	003_1505	BP-32	3634429.07	214175.67	90 13.583157	29 05.053243	MONO	468
CL - EAST CL OFFSET	003_1505	BP-33	3634884.14	216446.19	90 13.493559	29 05.427115	DIPOLE	54
CL - EAST CL OFFSET	003_1505	BP-34	3635357.76	218015.53	90 13.401744	29 05.685273	MONO	1390
CL - EAST CL OFFSET	003_1505	BP-35	3637270.40	221171.03	90 13.036698	29 06.202812	MONO	173
CL - EAST CL OFFSET	003_1505	BP-36	3637981.03	221721.71	90 12.902193	29 06.292521	MONO	82
CL - EAST CL OFFSET	003_1505	BP-37	3638725.28	222266.62	90 12.761377	29 06.381223	DIPOLE	94
CL - EAST CL OFFSET	003_1505	BP-38	3639105.60	222531.48	90 13.689442	29 06.424306	MONO	83
CENTERLINE	003_1552	BP-39	3637851.52	221777.54	90 12.926420	29 06.301941	MONO	55
CENTERLINE	003_1552	BP-40	3636839.67	220930.04	90 13.118054	29 06.163745	MONO	77
CENTERLINE	003_1552	BP-41	3636586.14	220641.94	90 13.166208	29 06.116619	DIPOLE	66
CENTERLINE	003_1552	BP-42	3634816.97	216335.51	90 13.506378	29 05.408961	MONO	49
CENTERLINE	003_1552	BP-43	3634276.29	213448.92	90 13.613171	29 04.933586	DIPOLE	46

\*REFERENCE SURVEY PLAN VIEW SHEET 16 OF 36

REVISIONS:  
DATE: \_\_\_\_\_  
REMARKS: \_\_\_\_\_



PICCIOLA & ASSOCIATES, INC.  
NAVAL ARCHITECTS  
MARINE ENGINEERS  
CIVIL ENGINEERS  
LAND SURVEYORS

DESIGNED BY:  
J.C.P.

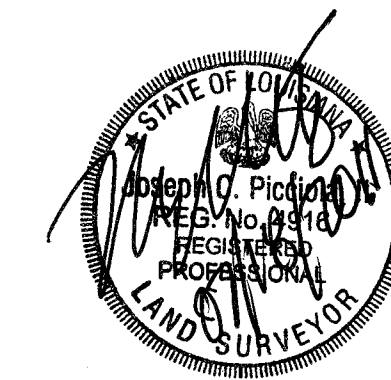
DRAWN BY:  
L.J.G.

CHECKED BY:  
J.C.P.

DATE:  
JUNE 29, 2011

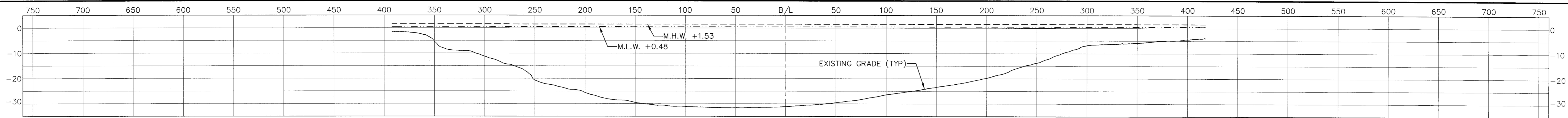
SCALE:  
NOT TO SCALE

SHEET NO.  
19 OF 36



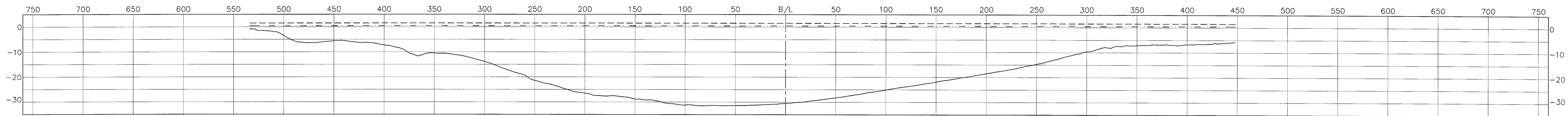
DRAWING PLOTTED AT HALF SCALE

ORIGINAL



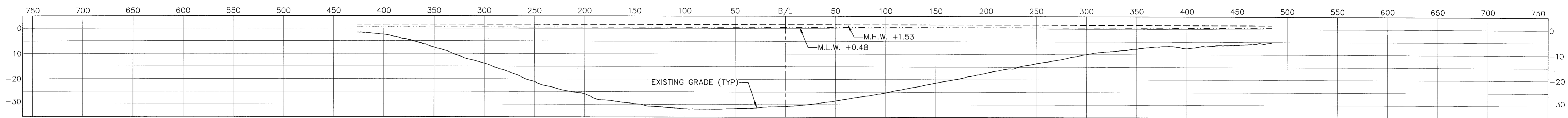
STATION 145+00

HORZ: 1" = 50'  
VERT: 1" = 20'



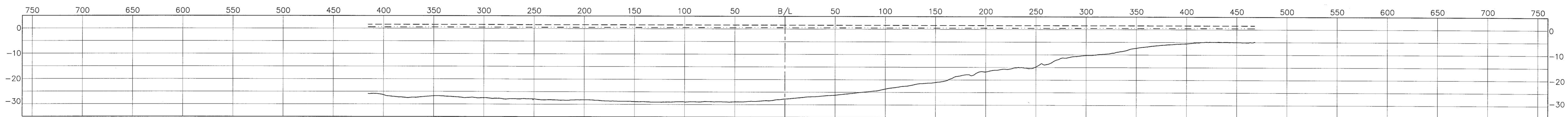
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VERT: 1" = 20'



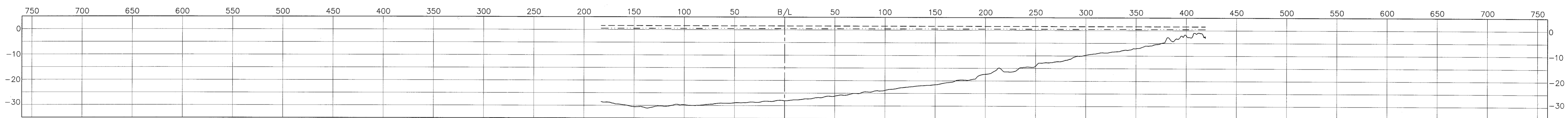
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VERT: 1" = 20'



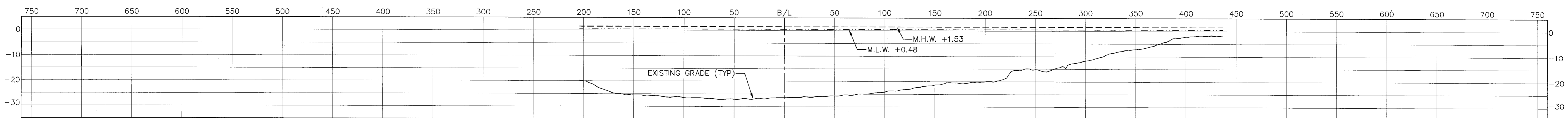
STATION 130+00

HORZ: 1" = 50'  
VERT: 1" = 20'



STATION 125+00

HORZ: 1" = 50'  
VERT: 1" = 20'

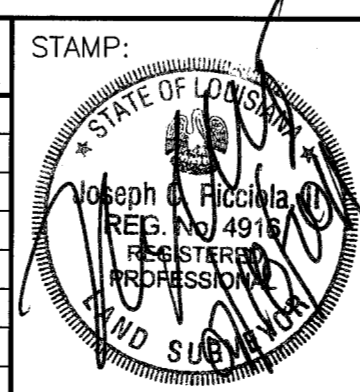


STATION 120+00

HORZ: 1" = 50'  
VERT: 1" = 20'

**NOTE:**  
MEAN HIGH WATER (M.H.W.) AND MEAN LOW WATER (M.L.W.) REFERENCED TO  
"BARATARIA BARRIER SHORELINE RESTORATION FEASIBILITY STUDY, APPENDIX  
C, CAMINADA HEADLAND, COASTAL ENGINEERING CONSULTANTS, INC., 2008".

REVISIONS:	
DATE:	REMARKS:



**PICCIOLA & ASSOCIATES, INC.**  
CIVIL ENGINEERS LAND SURVEYORS NAVAL ARCHITECTS MARINE ENGINEERS  
P.O. BOX. 687  
CUT OFF, LOUISIANA 70345  
(985) 632-5786

DESIGNED BY: J.C.P.    DRAWN BY: L.J.G.    CHECKED BY: J.C.P.

DATE: JUNE 29, 2011  
SCALE: AS SHOWN

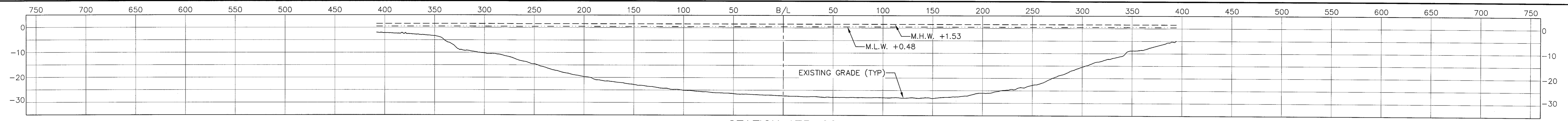
**COASTAL ENGINEERING CONSULTANTS, INC.**  
CAMINADA HEADLAND BEACH AND DUNE RESTORATION PROJECT (BA-45EB)  
C.E.C. PROJECT: 10.140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND  
SEDIMENT RE-HANDLING/PUMP-OUT AREAS SURVEYS  
BELLE PASS SECTIONS - STA. 120+00 TO STA. 145+00  
LAFOURCHE PARISH, LA

SHEET NO. 20 OF 36

ORIGINAL

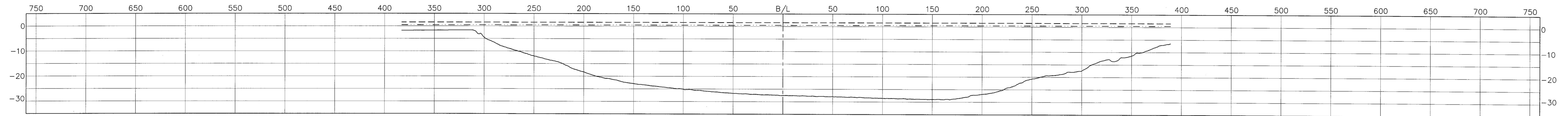
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ORIGINAL



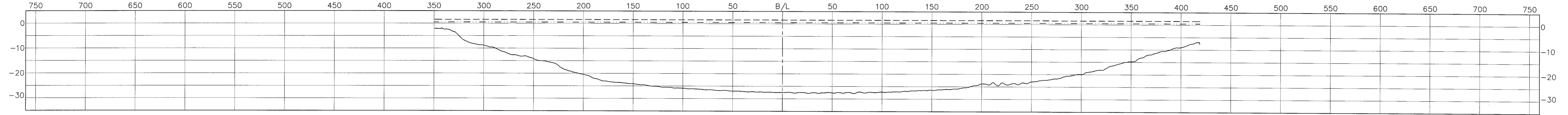
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HORZ: 1" = 50'  
VERT: 1" = 20'



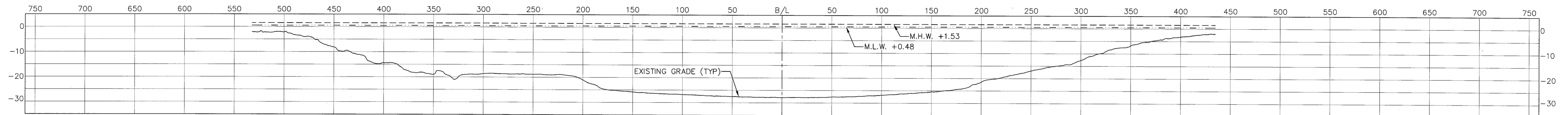
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HORZ: 1" = 50'  
VERT: 1" = 20'



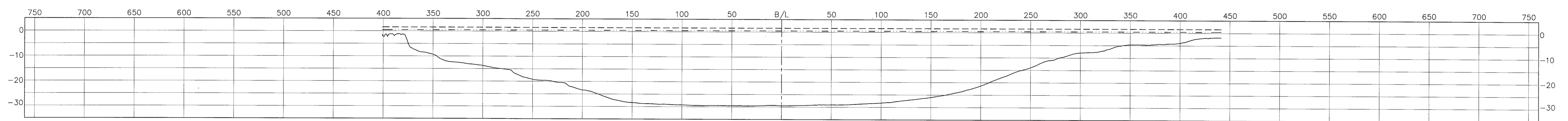
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VERT: 1" = 20'



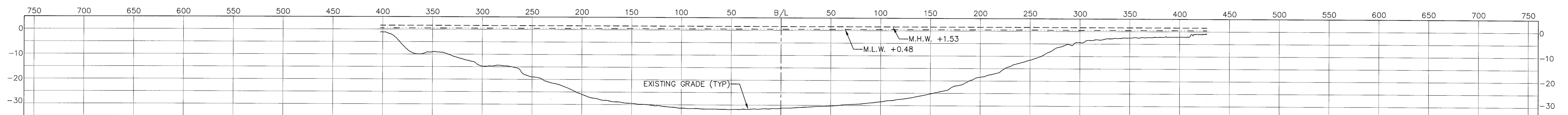
STATION 160+00

HORZ: 1" = 50'  
VERT: 1" = 20'



STATION 155+00

HORZ: 1" = 50'  
VERT: 1" = 20'

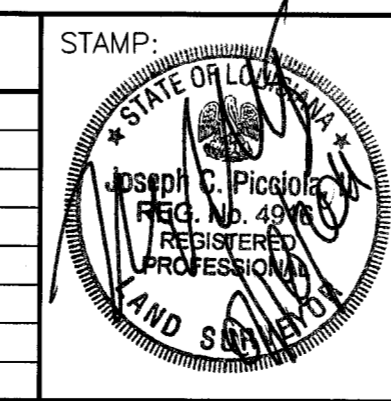


STATION 150+00

HORZ: 1" = 50'  
VERT: 1" = 20'

**NOTE:**  
MEAN HIGH WATER (M.H.W.) AND MEAN LOW WATER (M.L.W.) REFERENCED TO  
"BARATARIA BARRIER SHORELINE RESTORATION FEASIBILITY STUDY, APPENDIX  
C, CAMINADA HEADLAND, COASTAL ENGINEERING CONSULTANTS, INC., 2008".

REVISIONS:	
DATE:	REMARKS:



**PICCIOLA & ASSOCIATES, INC.**  
 CIVIL ENGINEERS      NAVAL ARCHITECTS  
 LAND SURVEYORS      MARINE ENGINEERS

P.O. BOX 687  
 CUT OFF, LOUISIANA 70345  
 (985) 632-5786

DESIGNED BY: J.C.P.      DRAWN BY: L.J.G.      CHECKED BY: J.C.P.

DATE: JUNE 29, 2011

SCALE: AS SHOWN

**COASTAL ENGINEERING CONSULTANTS, INC.**

CAMINADA HEADLAND BEACH AND DUNE RESTORATION PROJECT (BA-45EB)  
 C.E.C. PROJECT: 10.140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND  
 SEDIMENT RE-HANDLING/PUMP-OUT AREAS SURVEYS

BELLE PASS SECTIONS - STA. 150+00 TO STA. 175+00

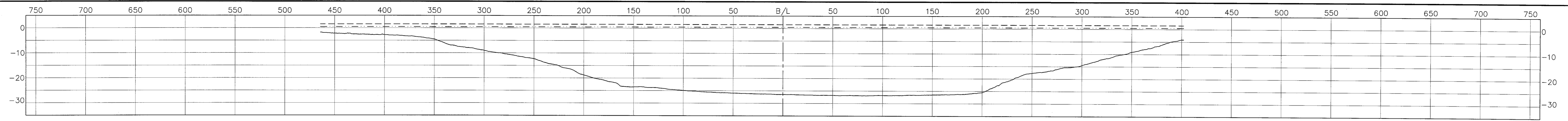
LAFOURCHE PARISH, LA

SHEET NO. 21 OF 36

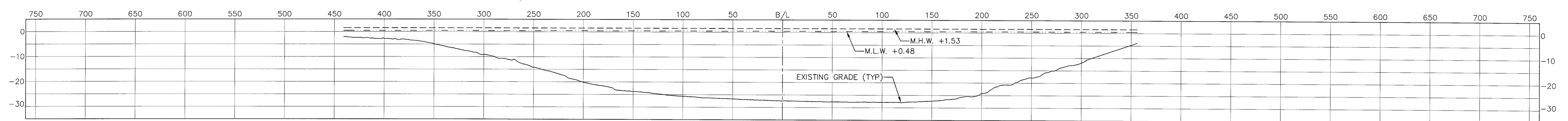
ORIGINAL

DRAWING PLOTTED AT HALF SCALE

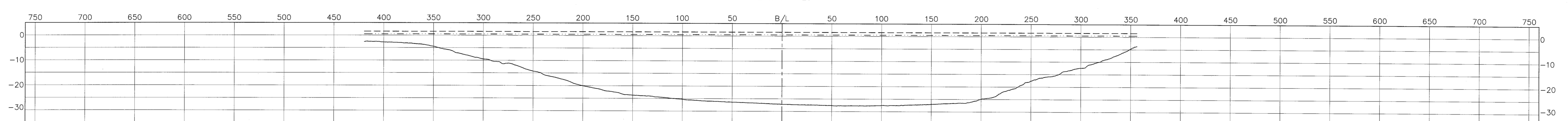
ORIGINAL



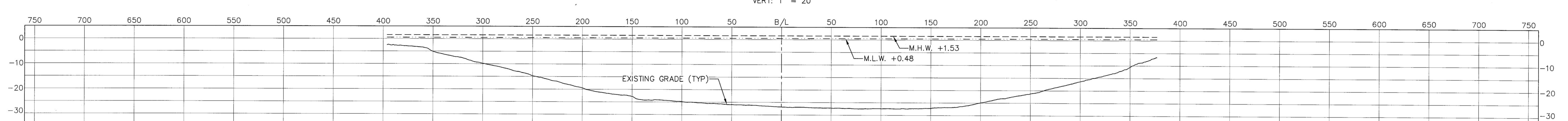
**STATION 205+00**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'



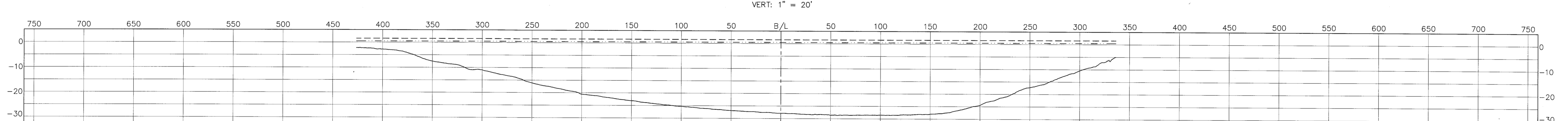
**STATION 200+00**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'



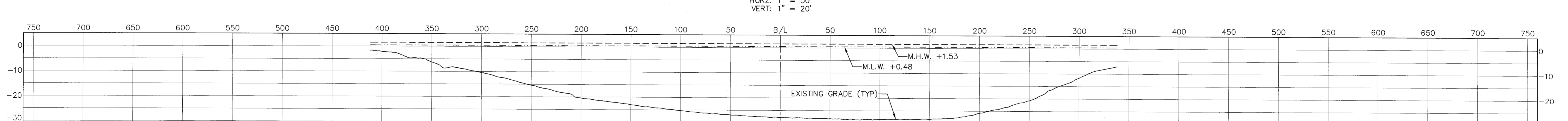
**STATION 195+00**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'



**STATION 190+00**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'



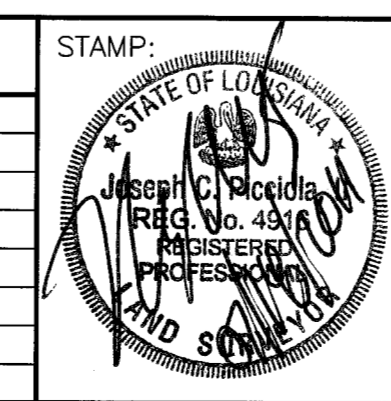
**STATION 185+00**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'



**STATION 180+00**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'

**NOTE:**  
 MEAN HIGH WATER (M.H.W.) AND MEAN LOW WATER (M.L.W.) REFERENCED TO  
 "BARATARIA BARRIER SHORELINE RESTORATION FEASIBILITY STUDY, APPENDIX  
 C, CAMINADA HEADLAND, COASTAL ENGINEERING CONSULTANTS, INC., 2008".

REVISIONS:	
DATE:	REMARKS:



**PICCIOLA & ASSOCIATES, INC.**  
 CIVIL ENGINEERS      NAVAL ARCHITECTS  
 LAND SURVEYORS      MARINE ENGINEERS

P.O. BOX 687  
 CUT OFF, LOUISIANA 70345  
 (985) 632-5786

DESIGNED BY: J.C.P.      DRAWN BY: L.J.G.      CHECKED BY: J.C.P.

DATE: JUNE 29, 2011  
 SCALE: AS SHOWN

**COASTAL ENGINEERING CONSULTANTS, INC.**

CAMINADA HEADLAND BEACH AND DUNE RESTORATION PROJECT (BA-45EB)  
 C.E.C. PROJECT: 10.140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND  
 SEDIMENT RE-HANDLING/PUMP-OUT AREAS SURVEYS

BELLE PASS SECTIONS - STA. 180+00 TO STA. 205+00  
 LAFOURCHE PARISH, LA

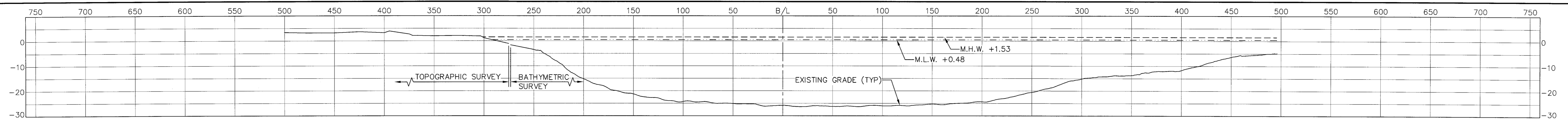
SHEET NO. 22 OF 36

ORIGINAL

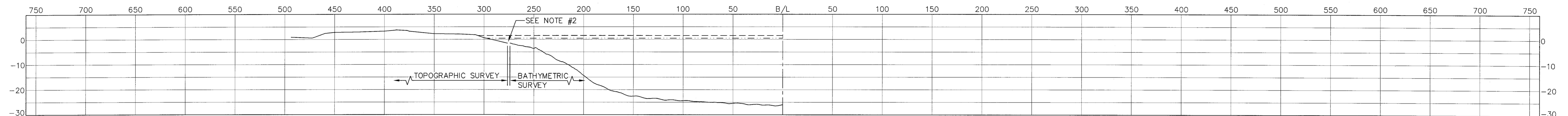
DRAWING PLOTTED AT HALF SCALE



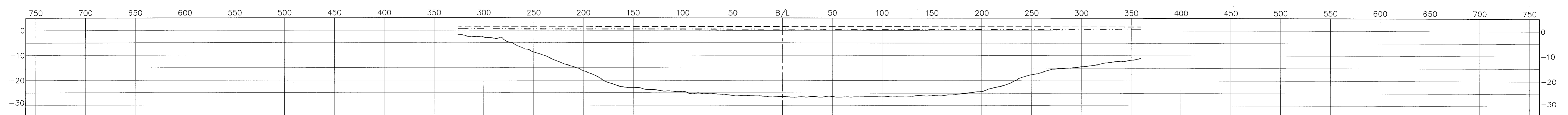
ORIGINAL



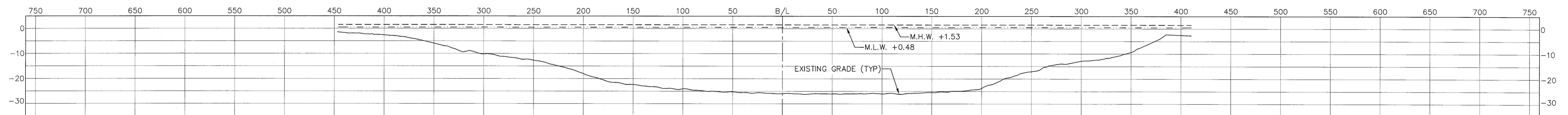
**STATION 230+00**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'



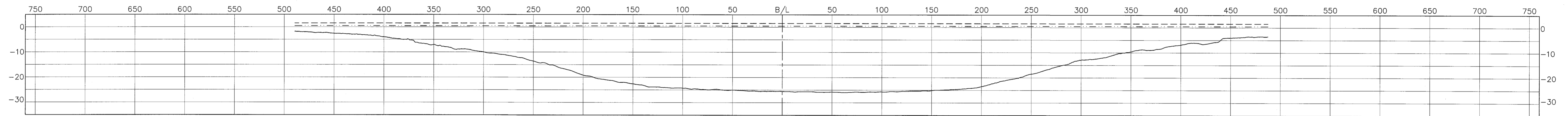
**STATION 228+75**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'



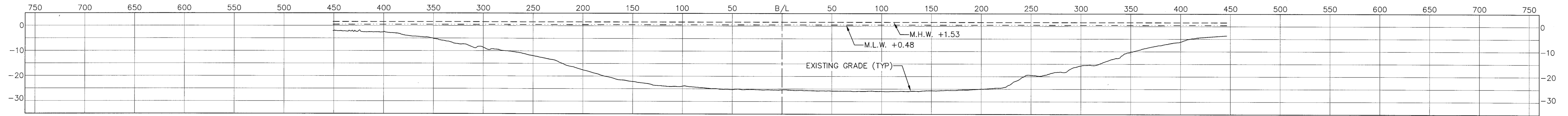
**STATION 225+00**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'



**STATION 220+00**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'



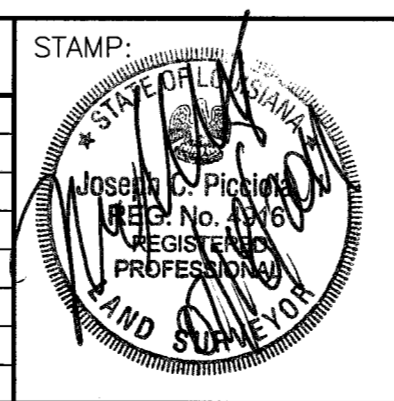
**STATION 215+00**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'



**STATION 210+00**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'

- NOTES:**
1. MEAN HIGH WATER (M.H.W.) AND MEAN LOW WATER (M.L.W.) REFERENCED TO "BARATARIA BARRIER SHORELINE RESTORATION FEASIBILITY STUDY, APPENDIX C, CAMINADA HEADLAND, COASTAL ENGINEERING CONSULTANTS, INC., 2008".
  2. NO SURVEY DATA WAS TAKEN BETWEEN THE LIMITS OF THE TOPOGRAPHIC SURVEY AND LIMITS OF BATHYMETRIC SURVEY THEREFORE NO BOTTOM INTERPRETATION WAS SHOWN.

REVISIONS:	
DATE:	REMARKS:



**PICCIOLA & ASSOCIATES, INC.**  
 CIVIL ENGINEERS LAND SURVEYORS NAVAL ARCHITECTS MARINE ENGINEERS  
 P.O. BOX 687  
 CUT OFF, LOUISIANA 70345  
 (985) 632-5786

DESIGNED BY: J.C.P. DRAWN BY: L.J.G. CHECKED BY: J.C.P.

DATE: JUNE 29, 2011  
 SCALE: AS SHOWN

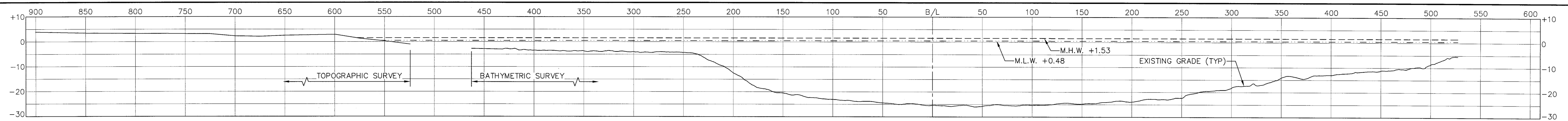
**COASTAL ENGINEERING CONSULTANTS, INC.**  
 CAMINADA HEADLAND BEACH AND DUNE RESTORATION PROJECT (BA-45EB)  
 C.E.C. PROJECT: 10.140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND SEDIMENT RE-HANDLING/PUMP-OUT AREAS SURVEYS  
 BELLE PASS SECTIONS - STA. 210+00 TO STA. 230+00  
 LAFOURCHE PARISH, LA

SHEET NO. 23 OF 36

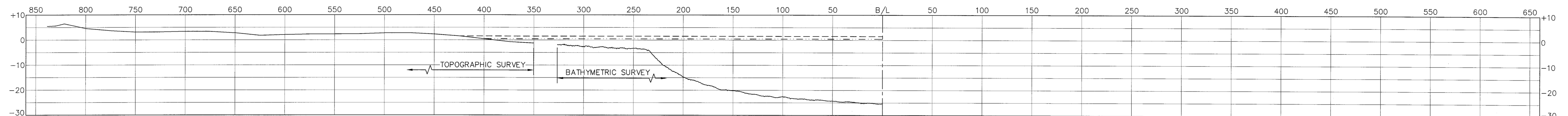
ORIGINAL

DRAWING PLOTTED AT HALF SCALE

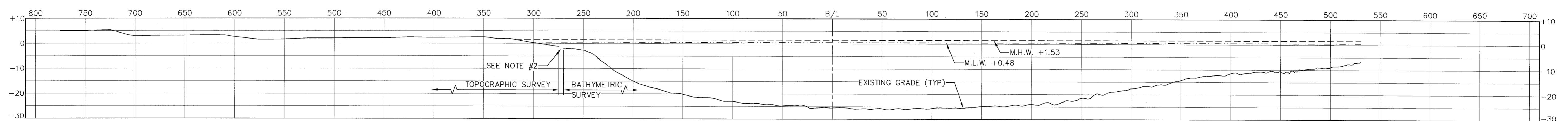
ORIGINAL



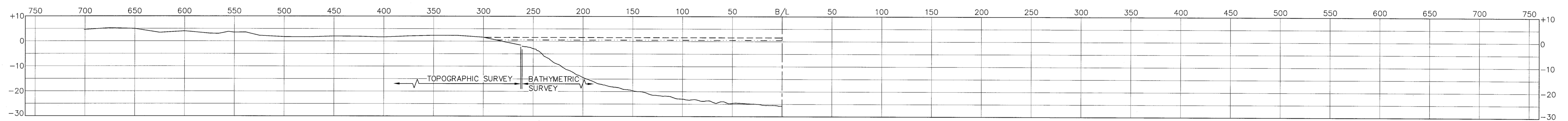
**STATION 237+50**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'



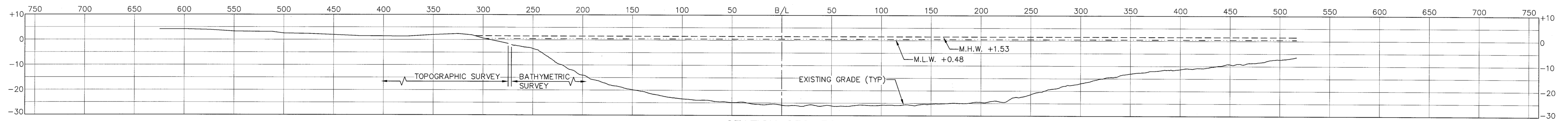
**STATION 236+25**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'



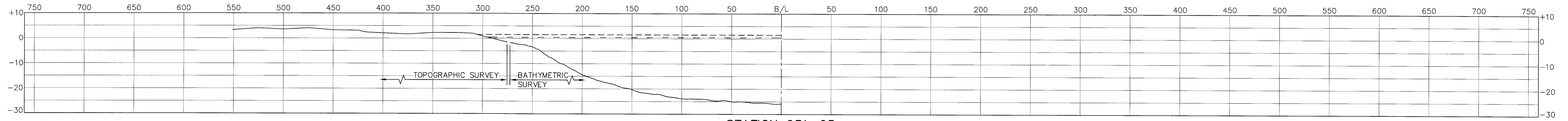
**STATION 235+00**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'



**STATION 233+75**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'



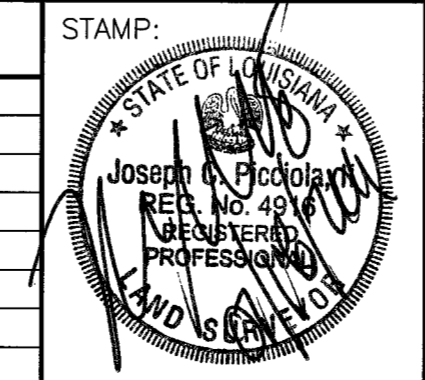
**STATION 232+50**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'



**STATION 231+25**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'

- NOTES:**
1. MEAN HIGH WATER (M.H.W.) AND MEAN LOW WATER (M.L.W.) REFERENCED TO "BARATARIA BARRIER SHORELINE RESTORATION FEASIBILITY STUDY, APPENDIX C, CAMINADA HEADLAND, COASTAL ENGINEERING CONSULTANTS, INC., 2008".
  2. NO SURVEY DATA WAS TAKEN BETWEEN THE LIMITS OF THE TOPOGRAPHIC SURVEY AND LIMITS OF BATHYMETRIC SURVEY THEREFORE NO BOTTOM INTERPRETATION WAS SHOWN.

REVISIONS:	
DATE:	REMARKS:



**PICCIOLA & ASSOCIATES, INC.**  
 CIVIL ENGINEERS LAND SURVEYORS NAVAL ARCHITECTS MARINE ENGINEERS  
 P.O. BOX 687  
 CUT OFF, LOUISIANA 70345  
 (985) 632-5786

DESIGNED BY: J.C.P.    DRAWN BY: L.J.G.    CHECKED BY: J.C.P.

DATE: JUNE 29, 2011  
 SCALE: AS SHOWN

**COASTAL ENGINEERING CONSULTANTS, INC.**  
 CAMINADA HEADLAND BEACH AND DUNE RESTORATION PROJECT (BA-45EB)  
 C.E.C. PROJECT: 10.140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND SEDIMENT RE-HANDLING/PUMP-OUT AREAS SURVEYS  
 BELLE PASS SECTIONS - STA. 231+25 TO STA. 237+50  
 LAFOURCHE PARISH, LA

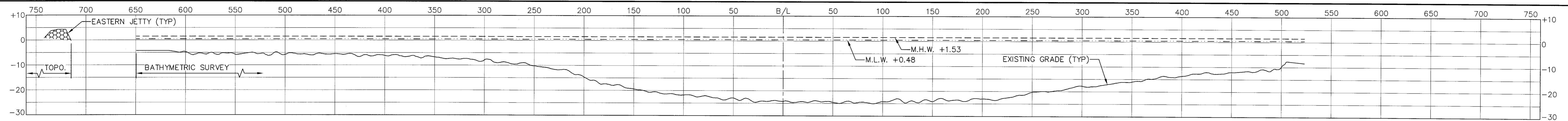
SHEET NO. 24 OF 36

ORIGINAL

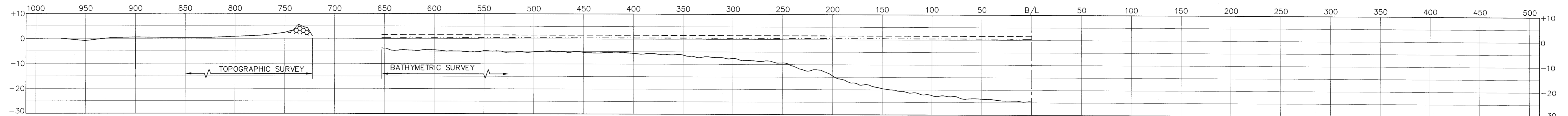
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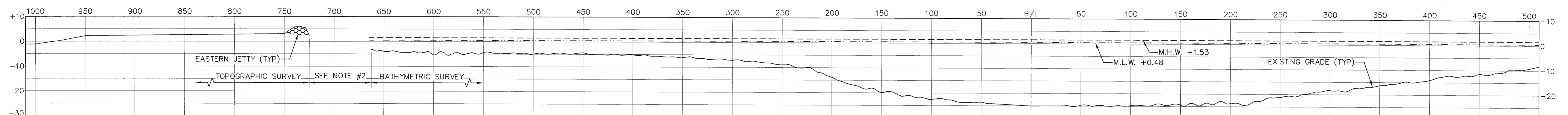
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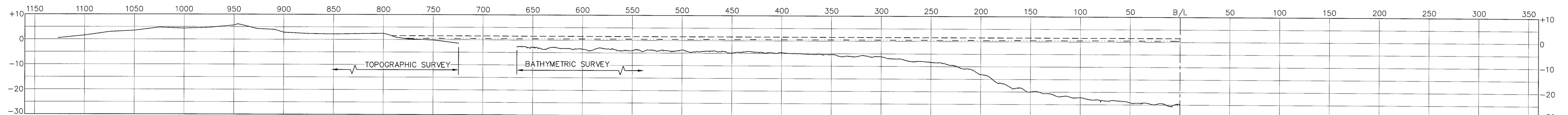
**STATION 245+00**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'



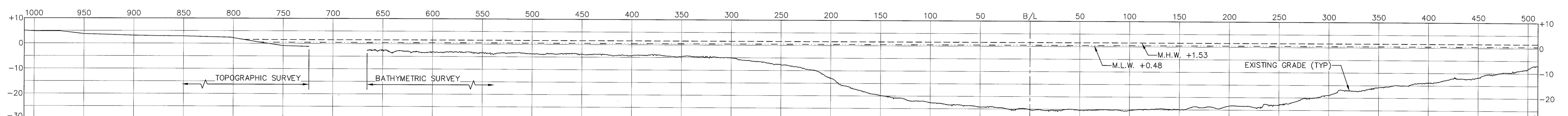
**STATION 243+75**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'



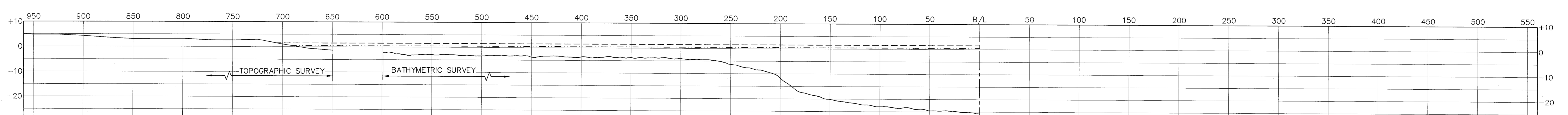
**STATION 242+50**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'



**STATION 241+25**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'



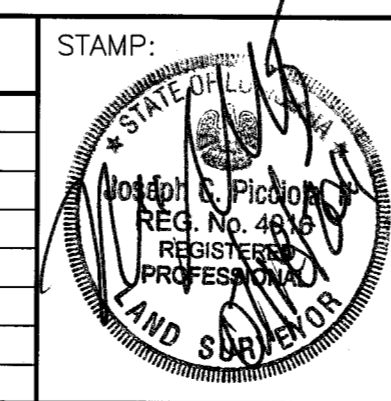
**STATION 240+00**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'



**STATION 238+75**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'

- NOTES:**
1. MEAN HIGH WATER (M.H.W.) AND MEAN LOW WATER (M.L.W.) REFERENCED TO "BARATARIA BARRIER SHORELINE RESTORATION FEASIBILITY STUDY, APPENDIX C, CAMINADA HEADLAND, COASTAL ENGINEERING CONSULTANTS, INC., 2008".
  2. NO SURVEY DATA WAS TAKEN BETWEEN THE LIMITS OF THE TOPOGRAPHIC SURVEY AND LIMITS OF BATHYMETRIC SURVEY THEREFORE NO BOTTOM INTERPRETATION WAS SHOWN.

REVISIONS:	
DATE:	REMARKS:



**PICCIOLA & ASSOCIATES, INC.**  
 CIVIL ENGINEERS LAND SURVEYORS NAVAL ARCHITECTS MARINE ENGINEERS  
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 (985) 632-5786

DESIGNED BY: J.C.P. DRAWN BY: L.J.G. CHECKED BY: J.C.P.

DATE: JUNE 29, 2011  
 SCALE: AS SHOWN

**COASTAL ENGINEERING CONSULTANTS, INC.**  
 CAMINADA HEADLAND BEACH AND DUNE RESTORATION PROJECT (BA-45EB)  
 C.E.C. PROJECT: 10.140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND SEDIMENT RE-HANDLING/PUMP-OUT AREAS SURVEYS  
 BELLE PASS SECTIONS - STA. 238+75 TO STA. 245+00  
 LAFOURCHE PARISH, LA

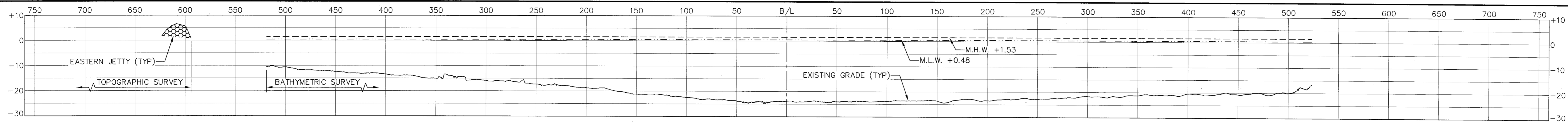
SHEET NO. 25 OF 36

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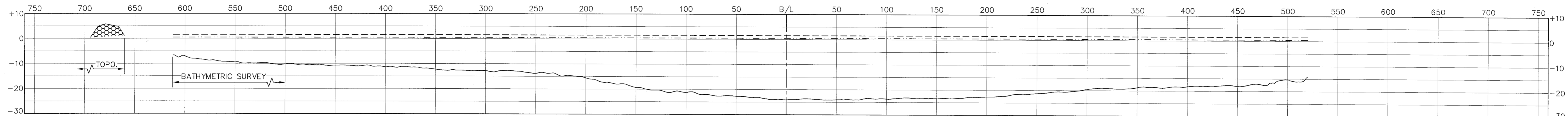
ORIGINAL

DRAWING PLOTTED AT HALF SCALE

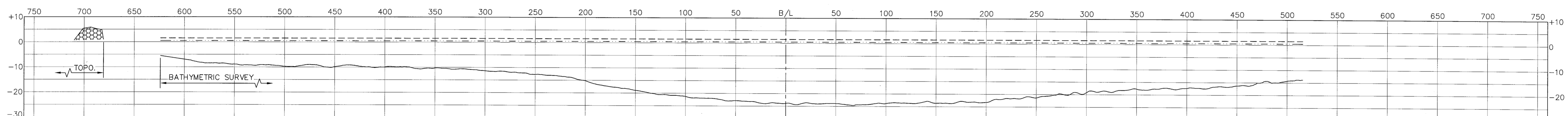
ORIGINAL



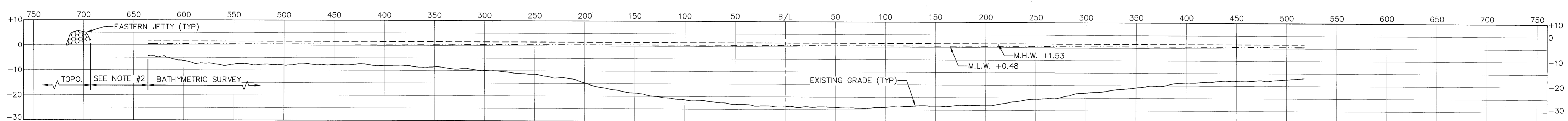
**STATION 260+00**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'



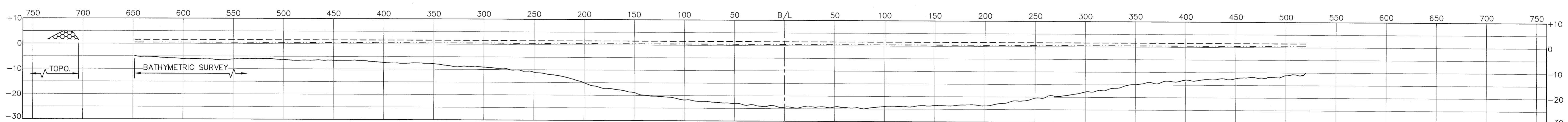
**STATION 255+00**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'



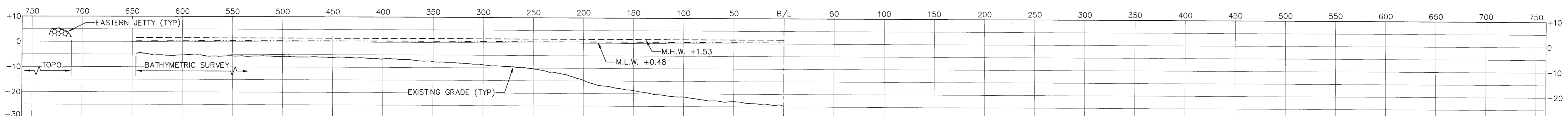
**STATION 252+50**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'



**STATION 250+00**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'



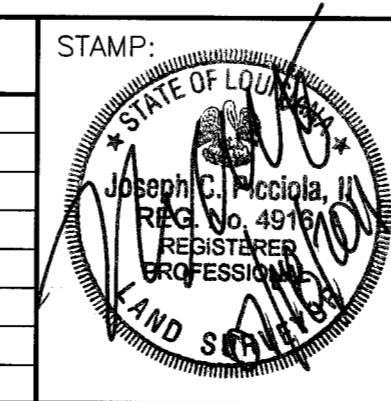
**STATION 247+50**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'



**STATION 246+25**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'

**NOTES:**  
 1. MEAN HIGH WATER (M.H.W.) AND MEAN LOW WATER (M.L.W.) REFERENCED TO "BARATARIA BARRIER SHORELINE RESTORATION FEASIBILITY STUDY, APPENDIX C, CAMINADA HEADLAND, COASTAL ENGINEERING CONSULTANTS, INC., 2008".  
 2. NO SURVEY WAS DATA TAKEN BETWEEN THE LIMITS OF THE TOPOGRAPHIC SURVEY AND LIMITS OF BATHYMETRIC SURVEY THEREFORE NO BOTTOM INTERPRETATION WAS SHOWN.

REVISIONS:	
DATE:	REMARKS:



**PICCIOLA & ASSOCIATES, INC.**  
 CIVIL ENGINEERS LAND SURVEYORS NAVAL ARCHITECTS MARINE ENGINEERS  
 P.O. BOX 687  
 CUT OFF, LOUISIANA 70345  
 (985) 632-5786

DESIGNED BY: J.C.P. DRAWN BY: L.J.G. CHECKED BY: J.C.P.

DATE: JUNE 29, 2011  
 SCALE: AS SHOWN

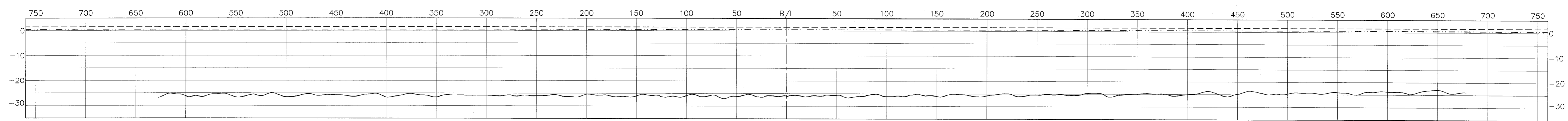
**COASTAL ENGINEERING CONSULTANTS, INC.**  
 CAMINADA HEADLAND BEACH AND DUNE RESTORATION PROJECT (BA-45EB)  
 C.E.C. PROJECT: 10.140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND SEDIMENT RE-HANDLING/PUMP-OUT AREAS SURVEYS  
 BELLE PASS SECTIONS - STA. 246+25 TO STA. 260+00  
 LAFOURCHE PARISH, LA

SHEET NO. 26 OF 36

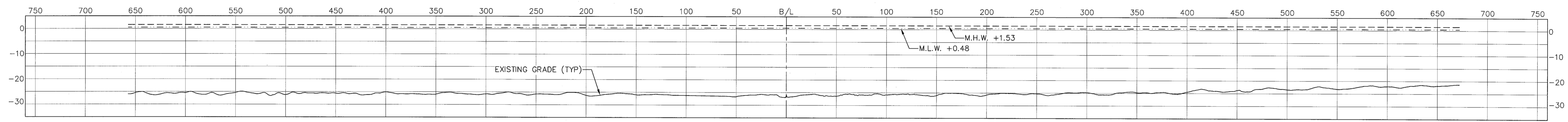
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ORIGINAL

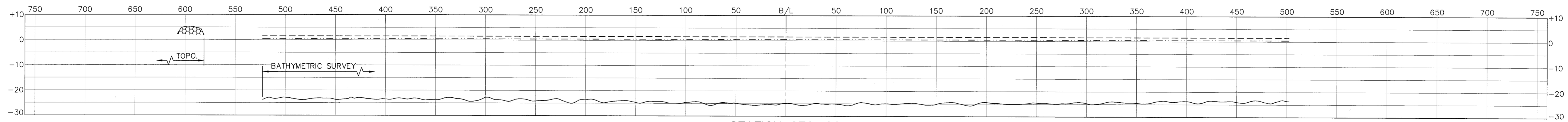
DRAWING PLOTTED AT HALF SCALE



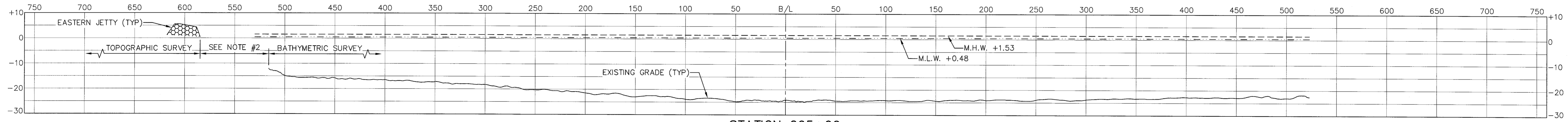
**STATION 280+00**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'



**STATION 275+00**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'



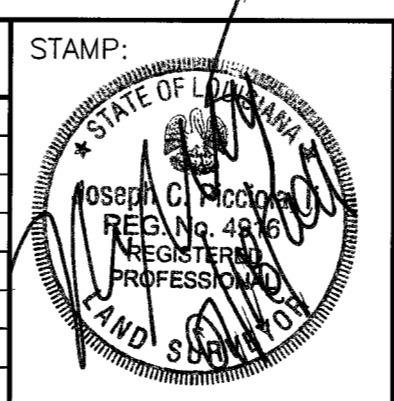
**STATION 270+00**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'



**STATION 265+00**  
 HORZ: 1" = 50'  
 VERT: 1" = 20'

**NOTES:**  
 1. MEAN HIGH WATER (M.H.W.) AND MEAN LOW WATER (M.L.W.) REFERENCED TO "BARATARIA BARRIER SHORELINE RESTORATION FEASIBILITY STUDY, APPENDIX C, CAMINADA HEADLAND, COASTAL ENGINEERING CONSULTANTS, INC., 2008".  
 2. NO SURVEY DATA WAS TAKEN BETWEEN THE LIMITS OF THE TOPOGRAPHIC SURVEY AND LIMITS OF BATHYMETRIC SURVEY THEREFORE NO BOTTOM INTERPRETATION WAS SHOWN.

REVISIONS:	
DATE:	REMARKS:



**PICCIOLA & ASSOCIATES, INC.**  
 CIVIL ENGINEERS      NAVAL ARCHITECTS  
 LAND SURVEYORS      MARINE ENGINEERS

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DESIGNED BY: J.C.P.      DRAWN BY: L.J.G.      CHECKED BY: J.C.P.

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 SCALE: AS SHOWN

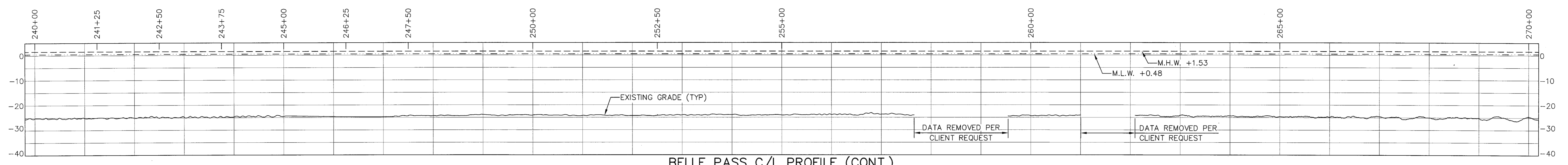
**COASTAL ENGINEERING CONSULTANTS, INC.**

CAMINADA HEADLAND BEACH AND DUNE RESTORATION PROJECT (BA-45EB)  
 C.E.C. PROJECT: 10.140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND SEDIMENT RE-HANDLING/PUMP-OUT AREAS SURVEYS

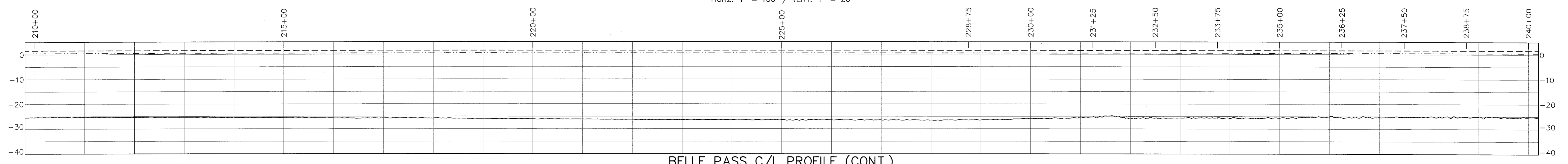
BELLE PASS SECTIONS - STA. 265+00 TO STA. 280+00  
 LAFOURCHE PARISH, LA

SHEET NO. 27 OF 36

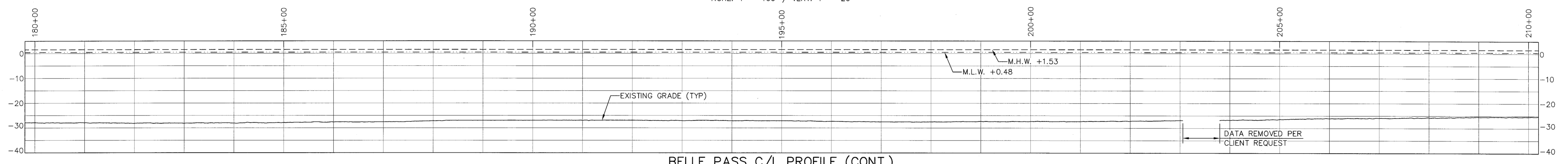
ORIGINAL



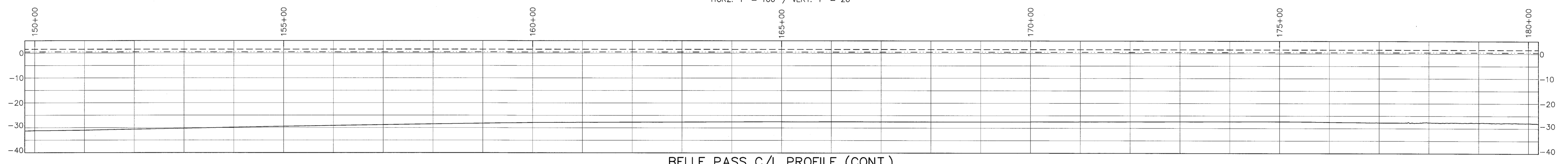
**BELLE PASS C/L PROFILE (CONT.)**  
 HORZ: 1" = 100' / VERT: 1" = 20'



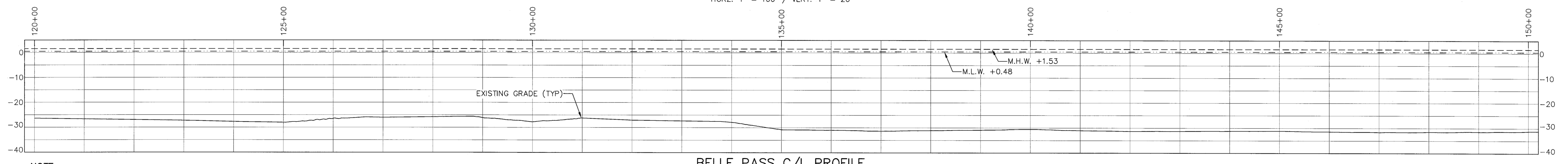
**BELLE PASS C/L PROFILE (CONT.)**  
 HORZ: 1" = 100' / VERT: 1" = 20'



**BELLE PASS C/L PROFILE (CONT.)**  
 HORZ: 1" = 100' / VERT: 1" = 20'



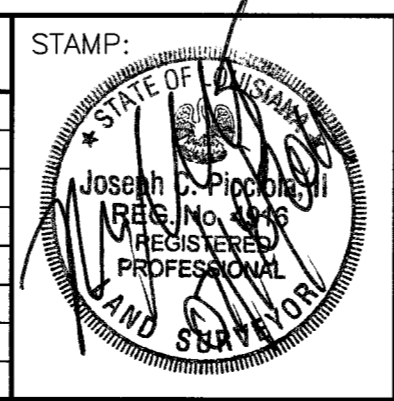
**BELLE PASS C/L PROFILE (CONT.)**  
 HORZ: 1" = 100' / VERT: 1" = 20'



**BELLE PASS C/L PROFILE**  
 HORZ: 1" = 100' / VERT: 1" = 20'

**NOTE:**  
 MEAN HIGH WATER (M.H.W.) AND MEAN LOW WATER (M.L.W.) REFERENCED TO "BARATARIA BARRIER SHORELINE RESTORATION FEASIBILITY STUDY, APPENDIX C, CAMINADA HEADLAND, COASTAL ENGINEERING CONSULTANTS, INC., 2008".

REVISIONS:	
DATE:	REMARKS:



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 LAND SURVEYORS      MARINE ENGINEERS

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DESIGNED BY: J.C.P.      DRAWN BY: L.J.G.      CHECKED BY: J.C.P.

DATE: JUNE 29, 2011

SCALE: AS SHOWN

**COASTAL ENGINEERING CONSULTANTS, INC.**

CAMINADA HEADLAND BEACH AND DUNE RESTORATION PROJECT (BA-45EB)  
 C.E.C. PROJECT: 10.140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND SEDIMENT RE-HANDLING/PUMP-OUT AREAS SURVEYS

BELLE PASS CENTERLINE PROFILE - STA. 120+00 TO STA. 270+00

LAFOURCHE PARISH, LA

SHEET NO. 28 OF 36

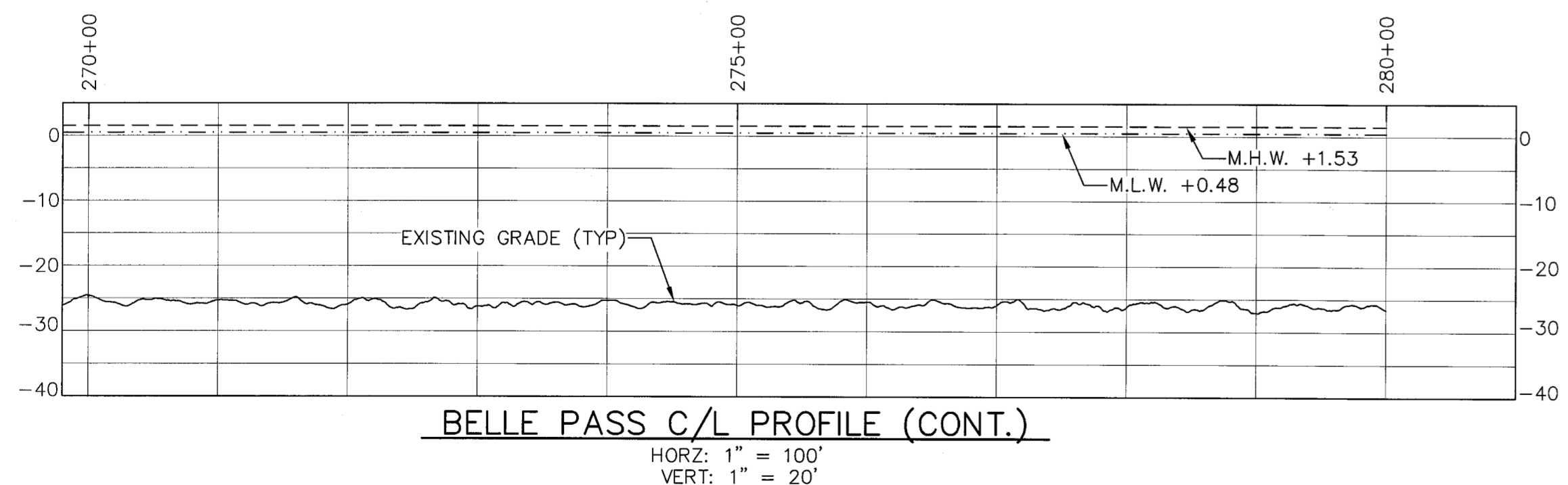
DRAWING PLOTTED AT HALF SCALE

ORIGINAL

E:\10-DR\1222-1002 Coastal Engineering Consultants - Caminada Headlands Restoration\ACAD\CURRENT\Deliverables\_L\0\SURVEY\Plots\07-14-2011 Steve Markings\20\_29-SRT\_BUPS\_SECTION\_SRT.dwg, Model, 7/19/2011 8:34:54 AM, lee

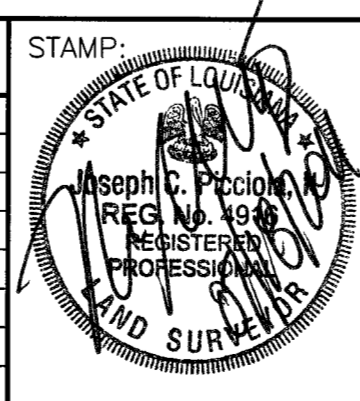


BATHYMETRIC SURVEY - BELLE PASS						
SECTION	START	END	LENGTH (FT)	START-END TIME (GMT)	DATE	
120+00	X=3,639,137.20, Y=225,206.69	X=3,639,715.88, Y=225,526.09	660.97	19:09:06-19:11:08	5/23/2011	
125+00	X=3,639,400.90, Y=224,781.13	X=3,639,929.59, Y=225,072.94	603.95	19:14:09-19:15:55	5/23/2011	
130+00	X=3,640,381.67, Y=224,621.91	X=3,639,477.94, Y=224,411.15	927.98	19:18:24-19:20:56	5/23/2011	
135+00	X=3,639,478.77, Y=224,048.04	X=3,640,388.53, Y=224,000.81	910.99	19:25:35-19:28:10	5/23/2011	
140+00	X=3,640,357.55, Y=223,363.87	X=3,639,430.74, Y=223,687.69	981.75	19:32:22-19:34:59	5/23/2011	
145+00	X=3,639,273.24, Y=223,347.93	X=3,639,934.22, Y=222,879.58	810.09	19:36:34-19:39:14	5/23/2011	
150+00	X=3,638,996.32, Y=223,085.38	X=3,639,519.39, Y=222,441.88	829.27	19:50:13-19:53:08	5/23/2011	
155+00	X=3,639,097.70, Y=222,119.22	X=3,638,618.46, Y=222,811.59	842.05	14:23:58-14:26:07	5/24/2011	
160+00	X=3,638,205.27, Y=222,530.01	X=3,638,755.63, Y=221,734.89	967.01	14:44:59-14:48:22	5/24/2011	
165+00	X=3,637,803.18, Y=222,232.39	X=3,638,240.63, Y=221,600.39	768.63	14:55:41-14:58:40	5/24/2011	
170+00	X=3,637,403.05, Y=221,902.60	X=3,637,827.21, Y=221,343.65	701.67	15:02:53-15:05:37	5/24/2011	
175+00	X=3,637,001.50, Y=221,604.63	X=3,637,486.62, Y=220,965.36	802.50	15:08:28-15:11:26	5/24/2011	
180+00	X=3,636,628.68, Y=221,178.80	X=3,637,179.18, Y=220,669.86	749.71	15:15:06-15:17:40	5/24/2011	
185+00	X=3,636,290.60, Y=220,810.42	X=3,636,850.51, Y=220,292.78	762.53	15:20:44-15:23:06	5/24/2011	
190+00	X=3,635,922.97, Y=200,382.51	X=3,636,576.81, Y=219,970.27	772.95	15:27:09-15:29:43	5/24/2011	
195+00	X=3,635,673.72, Y=219,948.58	X=3,636,329.95, Y=219,534.83	775.78	15:33:27-15:36:16	5/24/2011	
200+00	X=3,635,468.44, Y=219,437.89	X=3,636,150.58, Y=219,137.13	745.51	15:39:24-15:41:49	5/24/2011	
205+00	X=3,635,180.43, Y=218,988.75	X=3,635,995.22, Y=218,694.60	866.28	15:44:44-15:47:35	5/24/2011	
210+00	X=3,634,995.40, Y=218,523.95	X=3,635,812.72, Y=218,228.90	869.11	15:51:19-15:54:19	5/24/2011	
215+00	X=3,634,757.32, Y=218,078.33	X=3,635,679.20, Y=217,745.52	980.11	15:59:53-16:03:31	5/24/2011	
220+00	X=3,634,706.09, Y=217,522.65	X=3,635,514.59, Y=217,326.84	831.87	17:49:52-17:52:15	5/24/2011	
225+00	X=3,634,612.96, Y=217,030.75	X=3,635,279.48, Y=216,869.33	685.79	17:56:03-17:57:51	5/24/2011	
228+75	X=3,634,452.08, Y=216,659.94	X=3,635,152.88, Y=216,529.51	712.83	18:00:35-18:02:27	5/24/2011	
230+00	X=3,634,373.00, Y=216,547.51	X=3,635,111.93, Y=216,409.98	751.62	18:04:54-18:06:45	5/24/2011	
231+25	X=3,634,684.93, Y=216,362.31	X=3,635,105.66, Y=216,284.00	427.96	18:08:51-18:10:03	5/24/2011	
232+50	X=3,634,307.04, Y=216,305.50	X=3,635,081.77, Y=216,161.31	788.03	18:12:05-18:14:12	5/24/2011	
233+75	X=3,634,730.35, Y=216,099.56	X=3,635,049.62, Y=216,040.14	324.75	18:15:30-18:16:35	5/24/2011	
235+00	X=3,634,247.53, Y=216,062.29	X=3,635,034.34, Y=215,915.84	800.32	18:20:02-18:22:41	5/24/2011	
236+25	X=3,634,521.31, Y=215,884.18	X=3,635,067.22, Y=215,782.57	555.29	18:25:19-18:26:55	5/24/2011	
237+50	X=3,634,205.16, Y=215,815.88	X=3,635,148.61, Y=215,640.28	959.65	18:30:11-18:32:49	5/24/2011	
238+75	X=3,634,686.68, Y=215,599.10	X=3,635,289.46, Y=215,486.91	613.13	18:34:13-18:36:01	5/24/2011	
240+00	X=3,634,162.13, Y=215,569.59	X=3,635,332.08, Y=215,351.84	1,190.04	18:38:39-18:41:41	5/24/2011	
241+25	X=3,634,558.62, Y=215,368.65	X=3,635,309.52, Y=215,228.89	763.80	18:43:39-18:45:50	5/24/2011	
242+50	X=3,635,285.20, Y=215,106.27	X=3,634,146.31, Y=215,318.24	1,158.45	18:46:52-18:49:29	5/24/2011	
243+75	X=3,634,093.15, Y=215,201.00	X=3,635,250.76, Y=214,985.54	1,177.49	18:49:57-18:53:00	5/24/2011	
245+00	X=3,635,191.96, Y=214,869.33	X=3,634,089.47, Y=215,074.53	1,121.42	18:54:30-18:57:11	5/24/2011	
246+25	X=3,634,265.90, Y=214,914.55	X=3,635,198.58, Y=214,740.95	948.70	13:02:59-13:05:34	6/1/2011	
247+50	X=3,634,029.64, Y=214,831.37	X=3,635,177.78, Y=214,617.67	1,167.86	12:49:48-12:53:01	6/1/2011	
250+00	X=3,635,119.59, Y=214,374.21	X=3,634,016.03, Y=214,579.61	1,122.51	12:41:58-12:44:52	6/1/2011	
252+50	X=3,633,942.15, Y=214,339.07	X=3,635,033.92, Y=214,135.87	1,110.52	12:36:33-12:39:59	6/1/2011	
255+00	X=3,635,004.88, Y=213,886.98	X=3,633,891.94, Y=214,094.12	1,132.05	12:27:26-12:30:28	6/1/2011	
260+00	X=3,633,797.34, Y=213,603.14	X=3,634,821.85, Y=213,412.45	1,042.11	12:22:39-12:25:27	6/1/2011	
265+00	X=3,634,741.26, Y=212,918.86	X=3,633,706.27, Y=213,111.50	1,052.77	12:12:52-12:15:56	6/1/2011	
270+00	X=3,633,635.00, Y=212,616.19	X=3,634,642.63, Y=212,428.64	1,024.94	12:05:08-12:07:27	6/1/2011	
275+00	X=3,634,846.43, Y=211,882.12	X=3,633,324.93, Y=212,165.31	1,547.63	11:56:09-11:59:59	6/1/2011	
280+00	X=3,633,072.51, Y=211,703.70	X=3,634,676.40, Y=211,405.18	1,631.43	11:45:59-11:49:07	6/1/2011	



**NOTE:**  
 MEAN HIGH WATER (M.H.W.) AND MEAN LOW WATER (M.L.W.) REFERENCED TO "BARATARIA BARRIER SHORELINE RESTORATION FEASIBILITY STUDY, APPENDIX C, CAMINADA HEADLAND, COASTAL ENGINEERING CONSULTANTS, INC., 2008".

REVISIONS:	
DATE:	REMARKS:



**PICCIOLA & ASSOCIATES, INC.**  
 CIVIL ENGINEERS NAVAL ARCHITECTS  
 LAND SURVEYORS MARINE ENGINEERS

P.O. BOX 687  
 CUT OFF, LOUISIANA 70345  
 (985) 632-5786

DESIGNED BY: J.C.P.    DRAWN BY: L.J.G.    CHECKED BY: J.C.P.

DATE: JUNE 29, 2011  
 SCALE: AS SHOWN

**COASTAL ENGINEERING CONSULTANTS, INC.**

CAMINADA HEADLAND BEACH AND DUNE RESTORATION PROJECT (BA-45EB)  
 C.E.C. PROJECT: 10.140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND SEDIMENT RE-HANDLING/PUMP-OUT AREAS SURVEYS

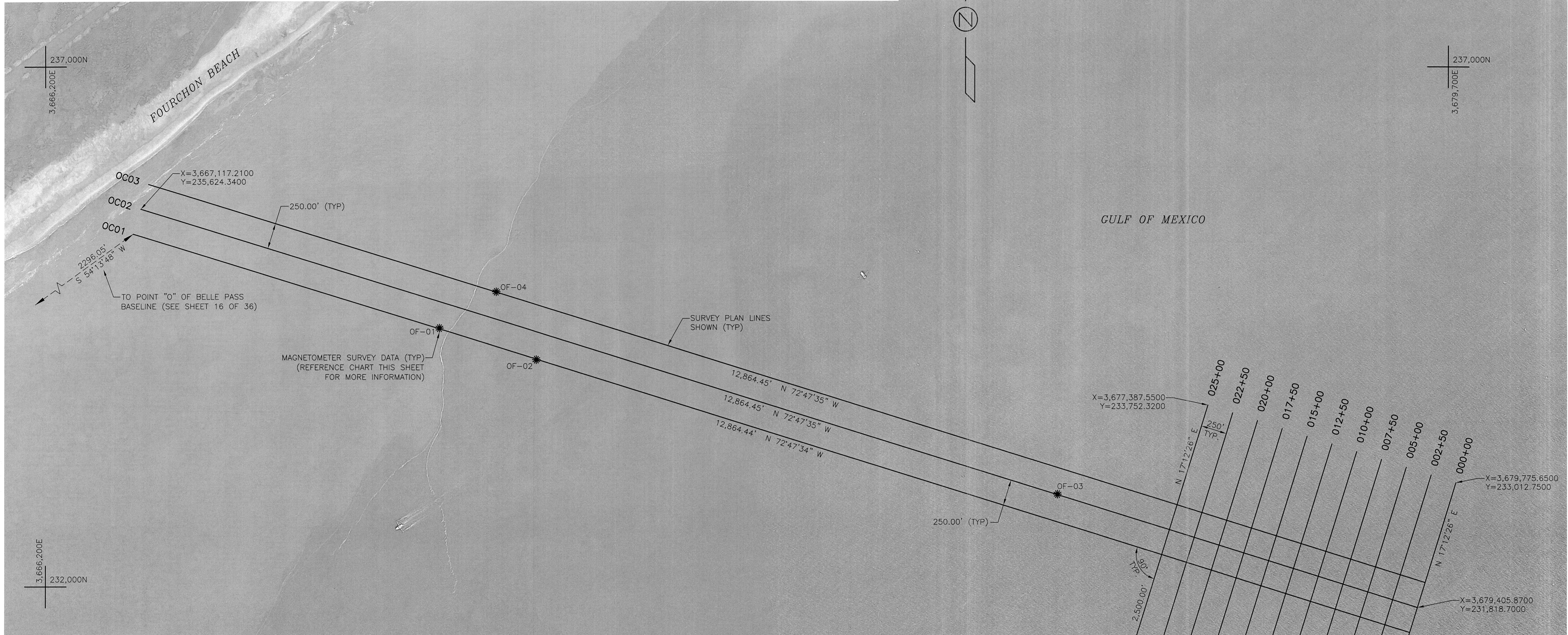
BELLE PASS CENTERLINE PROFILE - STA. 270+00 TO STA. 280+00  
 LAFOURCHE PARISH, LA

SHEET NO. 29 OF 36



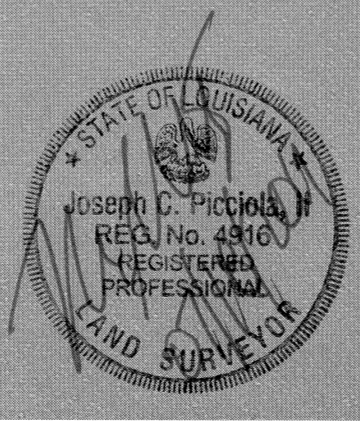
ORIGINAL

MAGNETOMETER SURVEY, MAY 27, 2011 - OFFSHORE								
LINE	LINE NAME	ASSIGNED POINT NO.	X	Y	LATITUDE	LONGITUDE	TYPE	GAMMA READING
CORRIDOR-SOUTH OFFSET	OC01D	OF-01	3,669,991.77	234,478.71	90 06.863233	29 08.343344	DIPOLE	32
CORRIDOR-SOUTH OFFSET	OC01D	OF-02	3,670,924.00	234,178.86	90 06.688648	29 08.292236	MONO	21
CENTERLINE	OC02	OF-03	3,675,941.33	232,896.29	90 05.748397	29 08.071751	DIPOLE	39
CORRIDOR-NORTH OFFSET	OC03	OF-04	3,670,538.50	234,829.51	90 06.759789	29 08.400259	DIPOLE	52

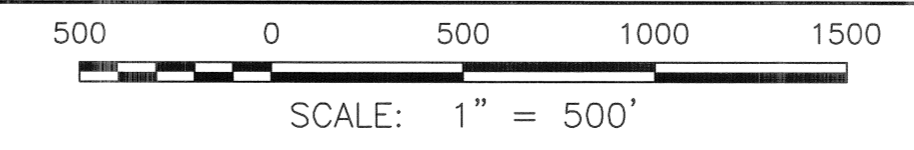


BATHYMETRIC SURVEY - OFFSHORE						
SECTION	START	END	LENGTH (FT)	START-END TIME (GMT)	DATE	
OC01	X=3,667,010.90, Y=235,395.55	X=3,679,371.36, Y=231,567.67	12,939.62	16:45:36-17:20:52	5/27/2011	
OC02	X=3,679,554.76, Y=231,772.59	X=3,667,084.07, Y=235,634.61	13,055.01	17:26:06-17:59:52	5/27/2011	
OC03	X=3,667,377.13, Y=235,805.56	X=3,679,504.51, Y=232,049.87	12,695.61	17:51:38-18:23:20	5/27/2011	
000+00	X=3,679,770.76, Y=232,996.97	X=3,679,032.64, Y=230,613.51	2,495.14	18:29:37-18:35:26	5/27/2011	
002+50	X=3,678,788.93, Y=230,671.64	X=3,679,542.93, Y=233,106.36	2,548.80	18:37:20-18:42:00	5/27/2011	
005+00	X=3,679,304.57, Y=233,181.80	X=3,678,551.99, Y=230,751.64	2,544.02	18:44:24-18:50:20	5/27/2011	
007+50	X=3,678,840.55, Y=233,373.61	X=3,679,071.93, Y=233,275.65	2,593.64	18:52:08-18:56:47	5/27/2011	
010+00	X=3,678,840.55, Y=233,373.61	X=3,678,072.52, Y=230,893.58	2,596.23	18:58:54-19:05:10	5/27/2011	
012+50	X=3,677,831.54, Y=230,960.54	X=3,678,595.84, Y=233,3428.52	2,583.62	19:07:10-19:11:48	5/27/2011	
015+00	X=3,677,573.42, Y=230,972.15	X=3,678,361.96, Y=233,518.40	2,665.56	19:28:40-19:33:30	5/27/2011	
017+50	X=3,678,127.95, Y=233,607.85	X=3,677,351.93, Y=231,102.01	2,623.25	19:35:50-19:42:56	5/27/2011	
020+00	X=3,677,106.60, Y=231,154.96	X=3,677,875.59, Y=233,638.06	2,592.36	19:44:39-19:50:03	5/27/2011	
022+50	X=3,677,647.48, Y=233,746.55	X=3,676,881.80, Y=231,274.15	2,588.25	19:52:20-20:00:31	5/27/2011	
025+00	X=3,676,646.88, Y=231,360.66	X=3,677,400.12, Y=233,792.92	2,546.22	20:02:38-20:08:30	5/27/2011	

SEE SHEETS 31 THROUGH 36 FOR SURVEY CROSS SECTIONS.



### OFFSHORE SURVEY - PLAN VIEW



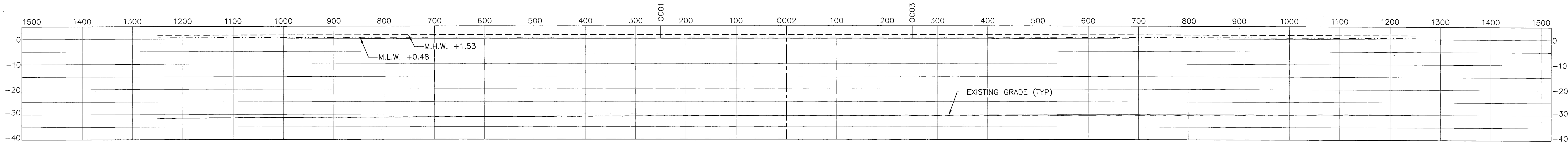
2008 CAMINADA PASS SW DOQQ

REVISIONS:	DATE:	REMARKS:
<b>PICCIOLA &amp; ASSOCIATES, INC.</b> CIVIL ENGINEERS LAND SURVEYORS NAVAL ARCHITECTS MARINE ENGINEERS P.O. BOX 687 CUT OFF, LOUISIANA 70345 (985) 632-5786		
<b>COASTAL ENGINEERING CONSULTANTS, INC.</b> CAMINADA HEADLAND BEACH AND DUNE RESTORATION PROJECT (BA-45EB) C.E.C. PROJECT 10140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND SEDIMENT RE-HANDLING/PUMP-OUT AREAS SURVEYS, OFFSHORE SURVEY PLAN VIEW LAFOURCHIE PARISH, LA		
DESIGNED BY:	J.C.P.	
DRAWN BY:	L.J.G.	
CHECKED BY:	J.C.P.	
DATE:	JUNE 29, 2011	
SCALE:	AS SHOWN	
SHEET NO.	30 OF 36	

DRAWING PLOTTED AT HALF SCALE

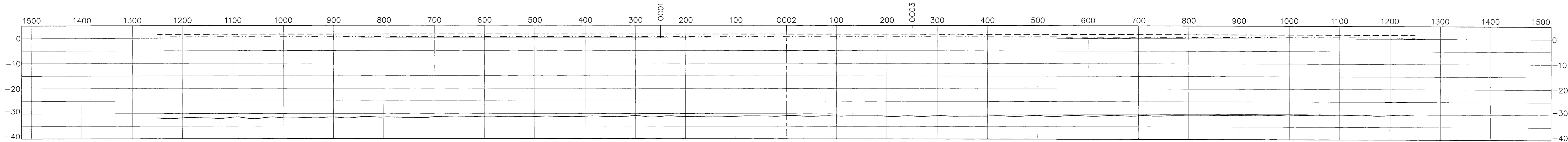
ORIGINAL





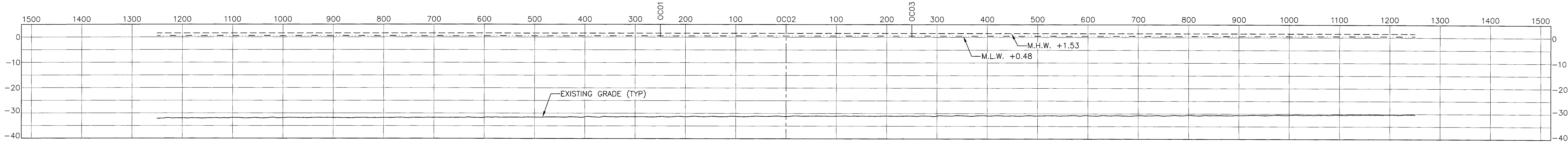
STATION 010+00

HORZ: 1" = 100'  
VERT: 1" = 20'



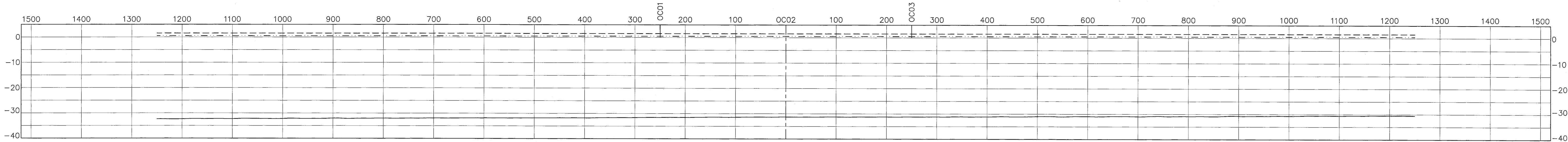
STATION 007+50

HORZ: 1" = 100'  
VERT: 1" = 20'



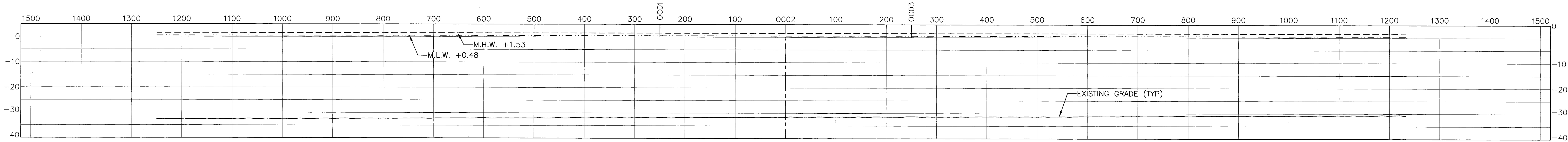
STATION 005+00

HORZ: 1" = 100'  
VERT: 1" = 20'



STATION 002+50

HORZ: 1" = 100'  
VERT: 1" = 20'

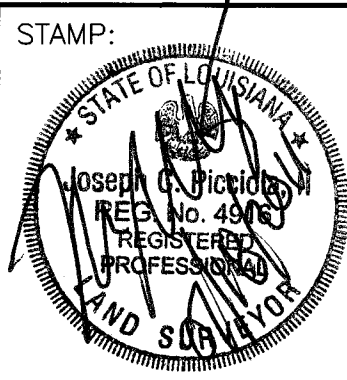


STATION 000+00

HORZ: 1" = 100'  
VERT: 1" = 20'

**NOTE:**  
MEAN HIGH WATER (M.H.W.) AND MEAN LOW WATER (M.L.W.) REFERENCED TO  
"BARATARIA BARRIER SHORELINE RESTORATION FEASIBILITY STUDY, APPENDIX  
C, CAMINADA HEADLAND, COASTAL ENGINEERING CONSULTANTS, INC., 2008".

REVISIONS:	
DATE:	REMARKS:



**PICCIOLA & ASSOCIATES, INC.**  
 CIVIL ENGINEERS      NAVAL ARCHITECTS  
 LAND SURVEYORS      MARINE ENGINEERS

P.O. BOX 687  
 CUT OFF, LOUISIANA 70345  
 (985) 632-5786

DESIGNED BY: J.C.P.      DRAWN BY: L.J.G.      CHECKED BY: J.C.P.

DATE: JUNE 29, 2011

SCALE: AS SHOWN

**COASTAL ENGINEERING CONSULTANTS, INC.**

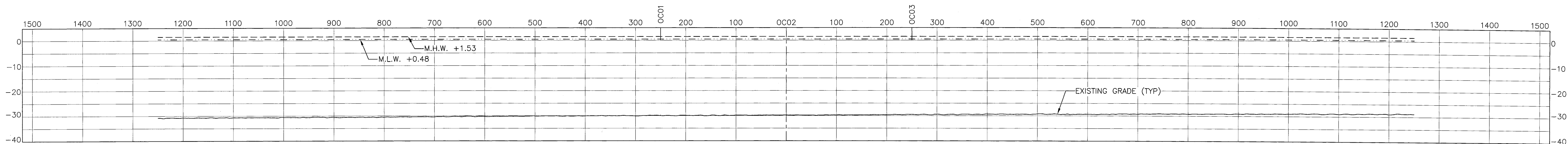
CAMINADA HEADLAND BEACH AND DUNE RESTORATION PROJECT (BA-45EB)  
 C.E.C. PROJECT: 10.140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND  
 SEDIMENT RE-HANDLING/PUMP-OUT AREAS SURVEYS

OFFSHORE SECTIONS - STA. 000+00 TO STA. 010+00

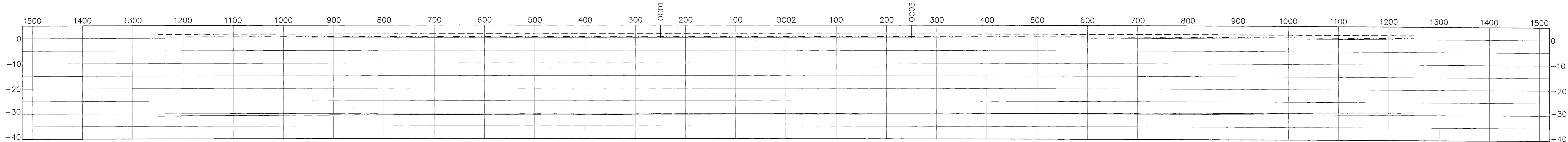
LAFOURCHE PARISH, LA

SHEET NO. 31 OF 36

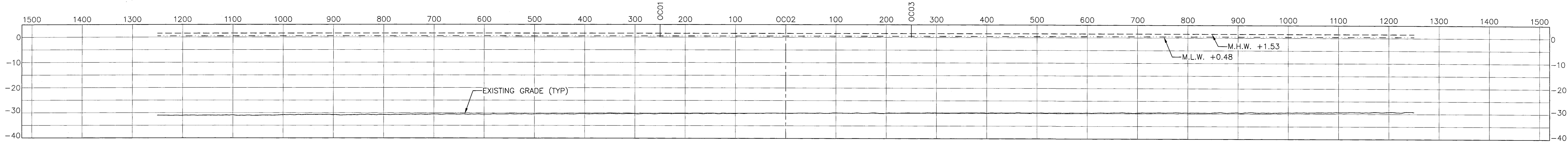
ORIGINAL



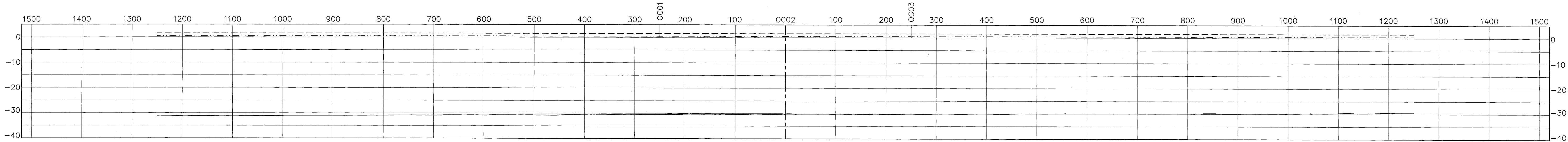
**STATION 022+50**  
 HORZ: 1" = 100'  
 VERT: 1" = 20'



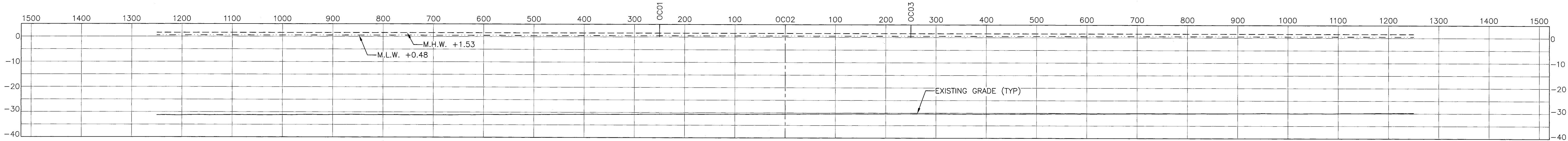
**STATION 020+00**  
 HORZ: 1" = 100'  
 VERT: 1" = 20'



**STATION 017+50**  
 HORZ: 1" = 100'  
 VERT: 1" = 20'



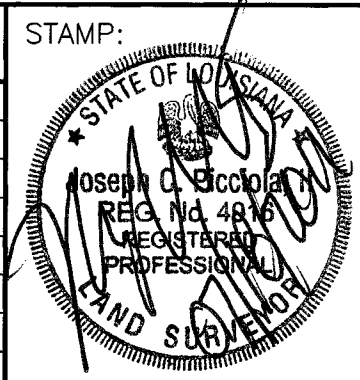
**STATION 015+00**  
 HORZ: 1" = 100'  
 VERT: 1" = 20'



**STATION 012+50**  
 HORZ: 1" = 100'  
 VERT: 1" = 20'

**NOTES:**  
 1. MEAN HIGH WATER (M.H.W.) AND MEAN LOW WATER (M.L.W.) REFERENCED TO "BARATARIA BARRIER SHORELINE RESTORATION FEASIBILITY STUDY, APPENDIX C, CAMINADA HEADLAND, COASTAL ENGINEERING CONSULTANTS, INC., 2008".

REVISIONS:	
DATE:	REMARKS:



**PICCIOLA & ASSOCIATES, INC.**  
 CIVIL ENGINEERS LAND SURVEYORS NAVAL ARCHITECTS MARINE ENGINEERS  
 P.O. BOX, 687  
 CUT OFF, LOUISIANA 70345  
 (985) 632-5786

DESIGNED BY: J.C.P.    DRAWN BY: L.J.G.    CHECKED BY: J.C.P.

DATE: JUNE 29, 2011  
 SCALE: AS SHOWN

**COASTAL ENGINEERING CONSULTANTS, INC.**  
 CAMINADA HEADLAND BEACH AND DUNE RESTORATION PROJECT (BA-45EB)  
 C.E.C. PROJECT: 10.140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND SEDIMENT RE-HANDLING/PUMP-OUT AREAS SURVEYS  
 OFFSHORE SECTIONS - STA. 010+00 TO STA. 022+50  
 LAFOURCHE PARISH, LA

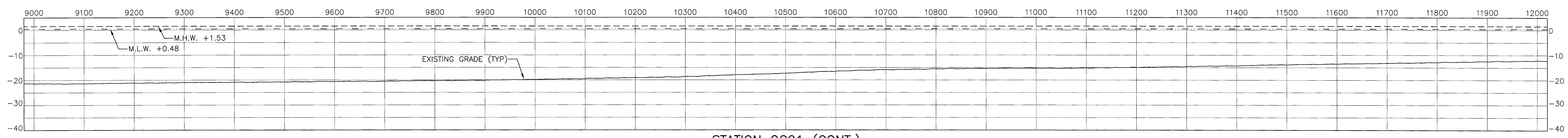
SHEET NO. 32 OF 36

ORIGINAL

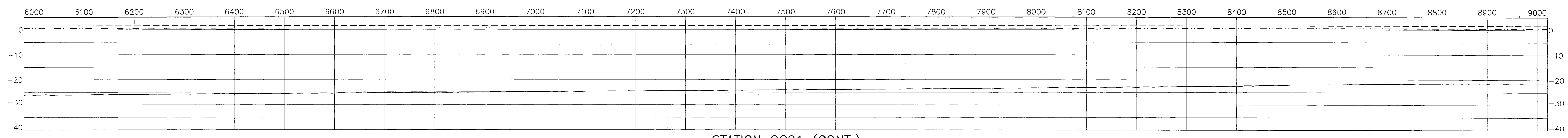
DRAWING PLOTTED AT HALF SCALE



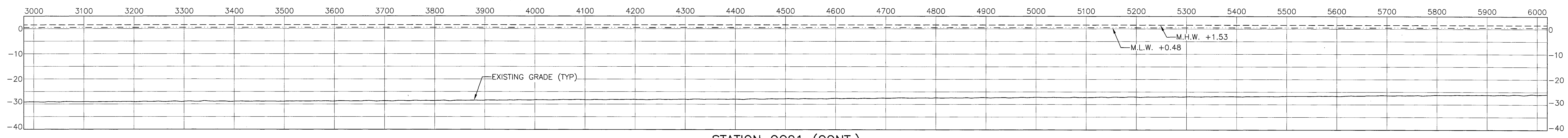
ORIGINAL



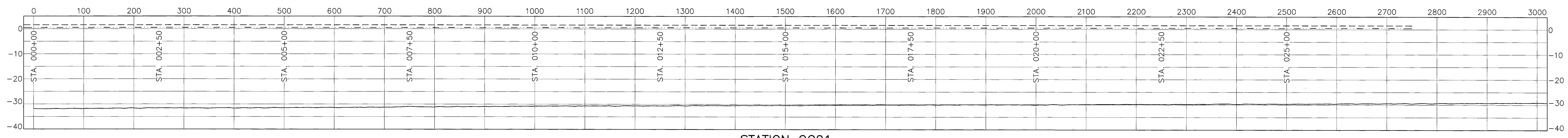
STATION OC01 (CONT.)  
 HORZ: 1" = 100'  
 VERT: 1" = 20'



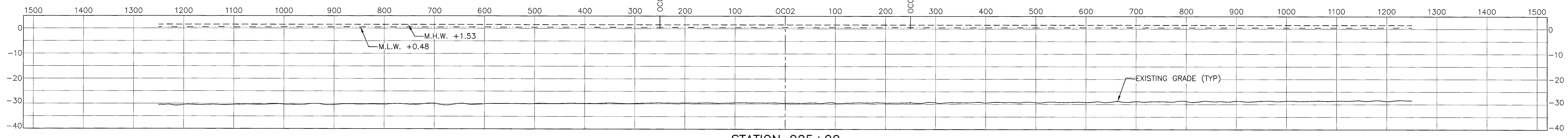
STATION OC01 (CONT.)  
 HORZ: 1" = 100'  
 VERT: 1" = 20'



STATION OC01 (CONT.)  
 HORZ: 1" = 100'  
 VERT: 1" = 20'



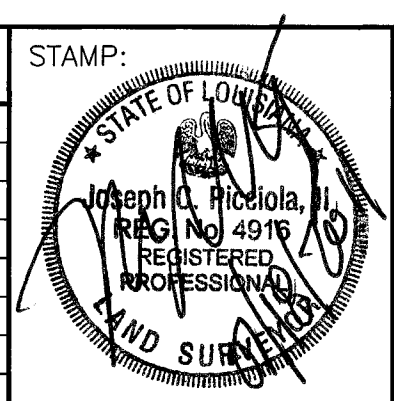
STATION OC01  
 HORZ: 1" = 100'  
 VERT: 1" = 20'



STATION 025+00  
 HORZ: 1" = 100'  
 VERT: 1" = 20'

**NOTE:**  
 MEAN HIGH WATER (M.H.W.) AND MEAN LOW WATER (M.L.W.) REFERENCED TO  
 "BARATARIA BARRIER SHORELINE RESTORATION FEASIBILITY STUDY, APPENDIX  
 C, CAMINADA HEADLAND, COASTAL ENGINEERING CONSULTANTS, INC., 2008".

REVISIONS:	
DATE:	REMARKS:



**PICCIOLA & ASSOCIATES, INC.**  
 CIVIL ENGINEERS LAND SURVEYORS NAVAL ARCHITECTS MARINE ENGINEERS  
 P.O. BOX 687  
 CUT OFF, LOUISIANA 70345  
 (985) 632-5786

DESIGNED BY: J.C.P.    DRAWN BY: L.J.G.    CHECKED BY: J.C.P.

DATE: JUNE 29, 2011  
 SCALE: AS SHOWN

**COASTAL ENGINEERING CONSULTANTS, INC.**  
 CAMINADA HEADLAND BEACH AND DUNE RESTORATION PROJECT (BA-45EB)  
 C.E.C. PROJECT: 10.140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND  
 SEDIMENT RE-HANDLING/PUMP-OUT AREAS SURVEYS  
 OFFSHORE SECTIONS - STA. 025+00 & OC01-0' TO 12,000'  
 LAFOURCHE PARISH, LA

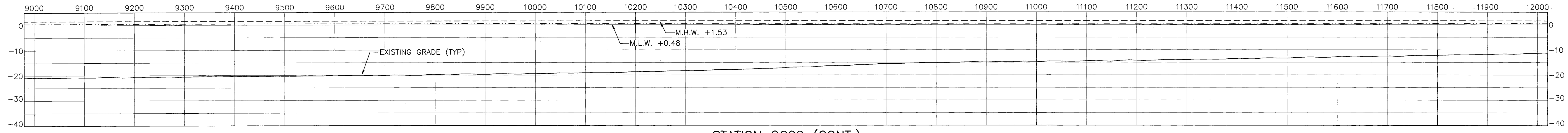
SHEET NO. 33 OF 36

ORIGINAL

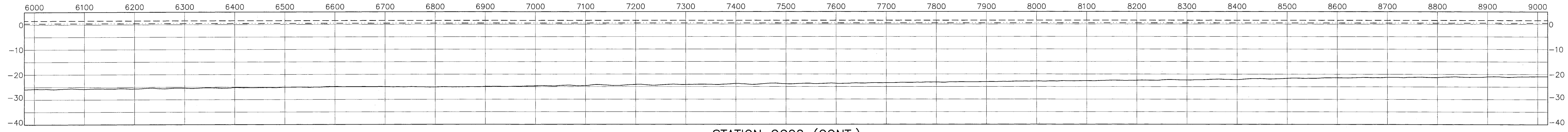
DRAWING PLOTTED AT HALF SCALE



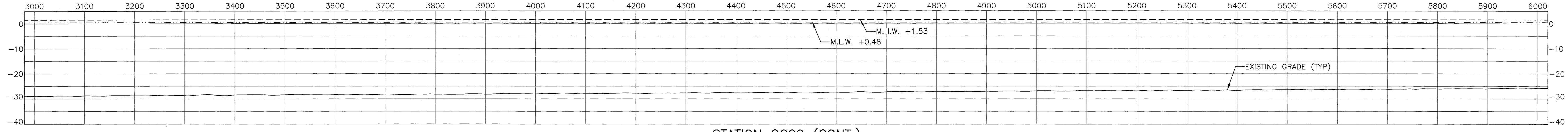
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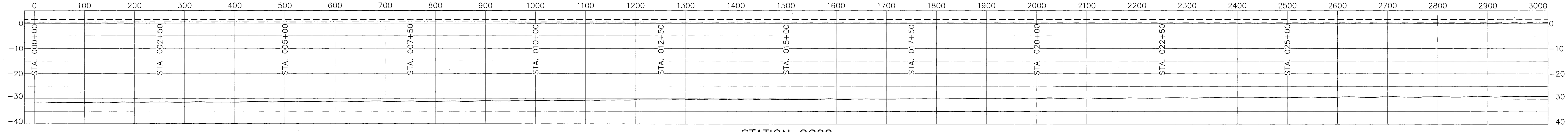
STATION OC02 (CONT.)  
 HORZ: 1" = 100'  
 VERT: 1" = 20'



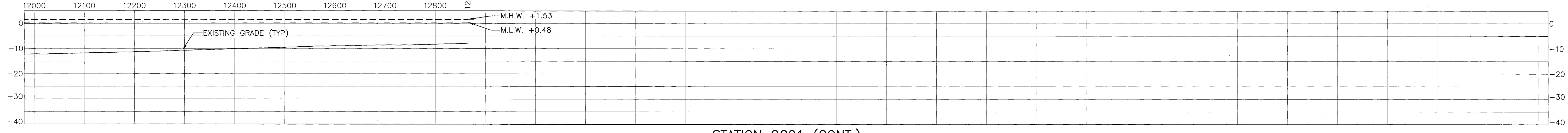
STATION OC02 (CONT.)  
 HORZ: 1" = 100'  
 VERT: 1" = 20'



STATION OC02 (CONT.)  
 HORZ: 1" = 100'  
 VERT: 1" = 20'



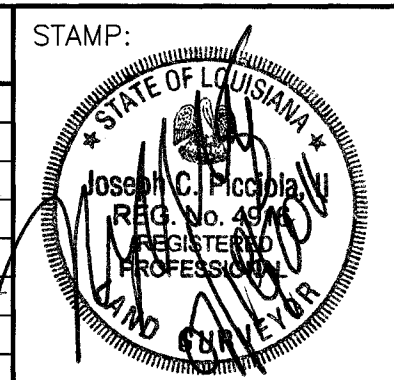
STATION OC02  
 HORZ: 1" = 100'  
 VERT: 1" = 20'



STATION OC01 (CONT.)  
 HORZ: 1" = 100'  
 VERT: 1" = 20'

**NOTE:**  
 MEAN HIGH WATER (M.H.W.) AND MEAN LOW WATER (M.L.W.) REFERENCED TO  
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 C, CAMINADA HEADLAND, COASTAL ENGINEERING CONSULTANTS, INC., 2008".

REVISIONS:	
DATE:	REMARKS:



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 CIVIL ENGINEERS LAND SURVEYORS NAVAL ARCHITECTS MARINE ENGINEERS  
 P.O. BOX 687  
 CUT OFF, LOUISIANA 70345  
 (985) 632-5786

DESIGNED BY: J.C.P.    DRAWN BY: L.J.G.    CHECKED BY: J.C.P.

DATE: JUNE 29, 2011  
 SCALE: AS SHOWN

**COASTAL ENGINEERING CONSULTANTS, INC.**  
 CAMINADA HEADLAND BEACH AND DUNE RESTORATION PROJECT (BA-45EB)  
 C.E.C. PROJECT: 10.140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND  
 SEDIMENT RE-HANDLING/PUMP-OUT AREAS SURVEYS  
 OFFSHORE SECTIONS - OC01-12,000' TO 12,864' & OC02-0' TO 12,000'  
 LAFORCHE PARISH, LA

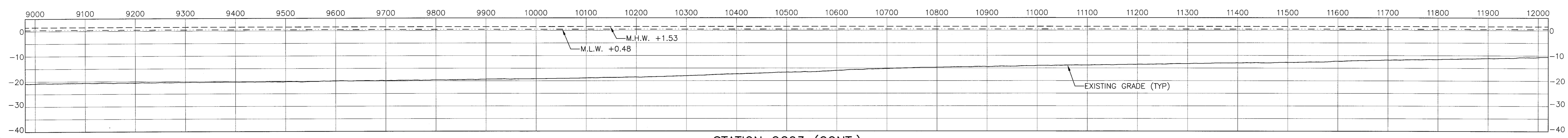
SHEET NO. 34 OF 36

ORIGINAL

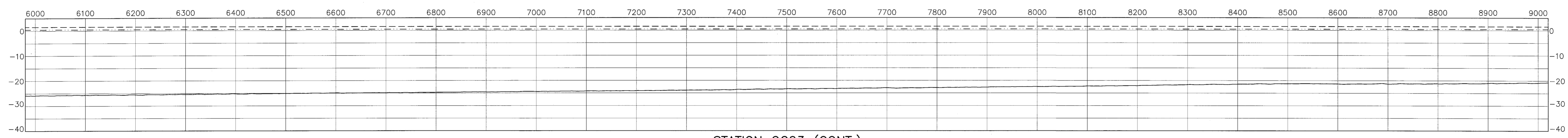
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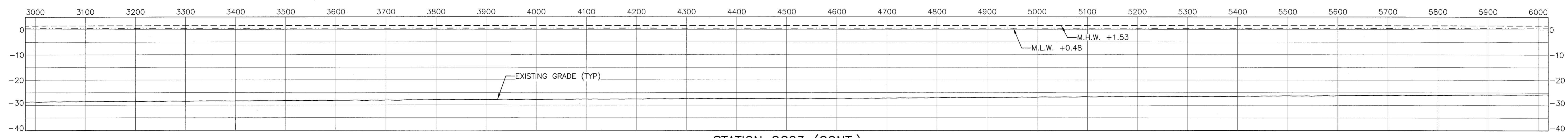
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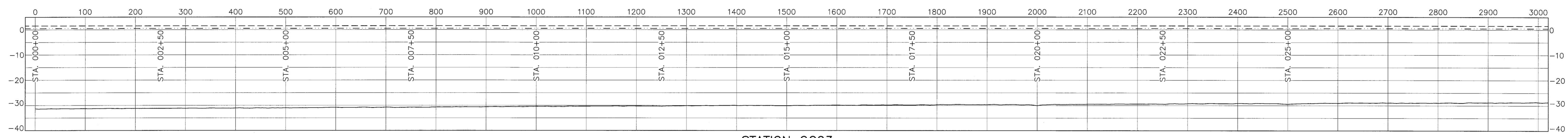
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 VERT: 1" = 20'



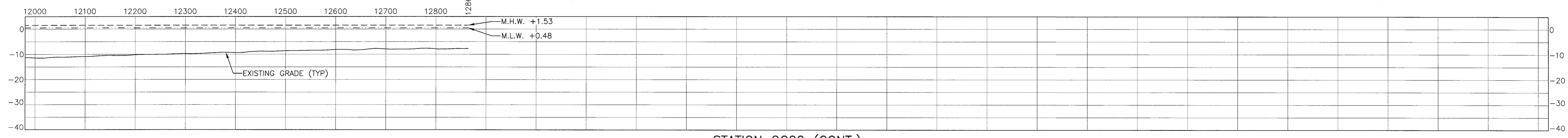
STATION OC03 (CONT.)  
 HORZ: 1" = 100'  
 VERT: 1" = 20'



STATION OC03 (CONT.)  
 HORZ: 1" = 100'  
 VERT: 1" = 20'



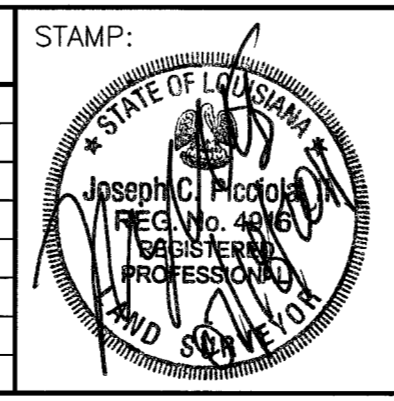
STATION OC03  
 HORZ: 1" = 100'  
 VERT: 1" = 20'



STATION OC02 (CONT.)  
 HORZ: 1" = 100'  
 VERT: 1" = 20'

**NOTE:**  
 MEAN HIGH WATER (M.H.W.) AND MEAN LOW WATER (M.L.W.) REFERENCED TO  
 "BARATARIA BARRIER SHORELINE RESTORATION FEASIBILITY STUDY, APPENDIX  
 C, CAMINADA HEADLAND, COASTAL ENGINEERING CONSULTANTS, INC., 2008".

REVISIONS:	
DATE:	REMARKS:



**PICCIOLA & ASSOCIATES, INC.**  
 CIVIL ENGINEERS      NAVAL ARCHITECTS  
 LAND SURVEYORS      MARINE ENGINEERS

P.O. BOX. 687  
 CUT OFF, LOUISIANA 70345  
 (985) 632-5786

DESIGNED BY: J.C.P.      DRAWN BY: L.J.G.      CHECKED BY: J.C.P.

DATE: JUNE 29, 2011

SCALE: AS SHOWN

**COASTAL ENGINEERING CONSULTANTS, INC.**

CAMINADA HEADLAND BEACH AND DUNE RESTORATION PROJECT (BA-45EB)  
 C.E.C. PROJECT: 10.140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND  
 SEDIMENT RE-HANDLING/PUMP-OUT AREAS SURVEYS

OFFSHORE SECTIONS - OC02-12,000' TO 12,864' & OC03-0' TO 12,000'

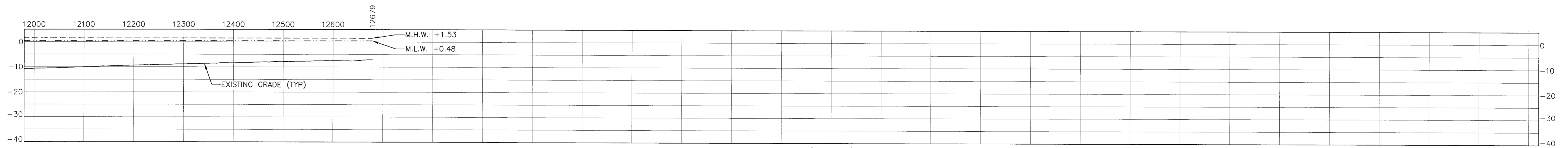
LAFOURCHE PARISH, LA

SHEET NO. 35 OF 36

ORIGINAL

DRAWING PLOTTED AT HALF SCALE



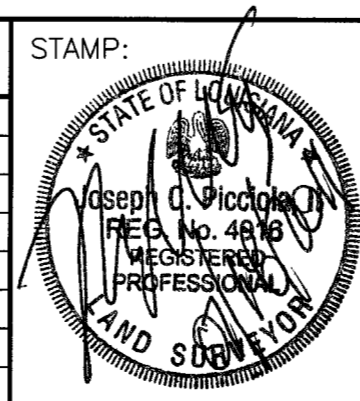


**NOTE:**  
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 "BARATARIA BARRIER SHORELINE RESTORATION FEASIBILITY STUDY, APPENDIX  
 C, CAMINADA HEADLAND, COASTAL ENGINEERING CONSULTANTS, INC., 2008".

**STATION OC03 (CONT.)**

HORZ: 1" = 100'  
 VERT: 1" = 20'

REVISIONS:	
DATE:	REMARKS:



**PICCIOLA & ASSOCIATES, INC.**  
 CIVIL ENGINEERS      NAVAL ARCHITECTS  
 LAND SURVEYORS      MARINE ENGINEERS

P.O. BOX. 687  
 CUT OFF, LOUISIANA 70345  
 (985) 632-5786

DESIGNED BY: J.C.P.	DRAWN BY: L.J.G.	CHECKED BY: J.C.P.
------------------------	---------------------	-----------------------

DATE:  
JUNE 29, 2011

SCALE:  
AS SHOWN

**COASTAL ENGINEERING CONSULTANTS, INC.**

CAMINADA HEADLAND BEACH AND DUNE RESTORATION PROJECT (BA-45EB)  
 C.E.C. PROJECT: 10.140 - TASK 2.4.3 CONVEYANCE CORRIDORS AND  
 SEDIMENT RE-HANDLING/PUMP-OUT AREAS SURVEYS

OFFSHORE SECTIONS - OC03-12,000' TO 12,679'

LAFOURCHE PARISH, LA

SHEET NO.  
36 OF 36

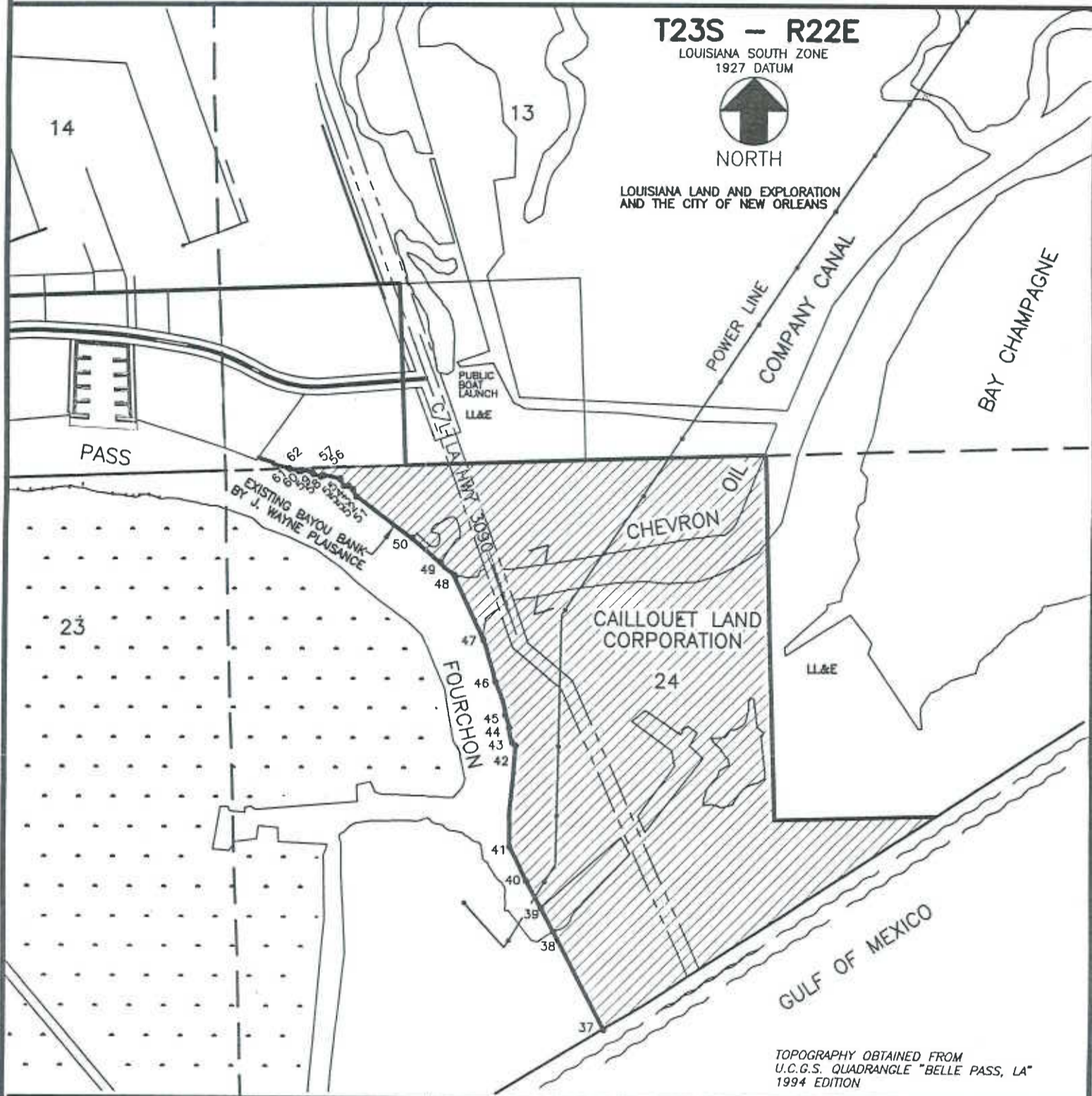


ATTACHMENT "B"

REFERENCE MAPS



**EXHIBIT 3D2**

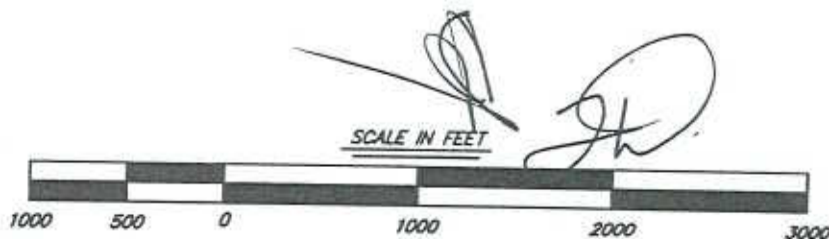


**EXHIBIT 3D2  
TO FINDINGS OF FACT AND CONSENT JUDGMENT  
IN GREATER LAFOURCHE PORT COMMISSION  
V. CAILLOUET LAND CORPORATION  
DOCKET NO. 78781, DIVISION B  
17th JUDICIAL DISTRICT COURT FOR THE  
PARISH OF LAFOURCHE, STATE OF LOUISIANA**

PREPARED BY:

 **LEONARD J. CHAUVIN, JR., INC.**  
Civil Engineers & Professional Land Surveyors  
Thibodaux, Louisiana

DATE: OCTOBER 10, 1997





**EXHIBIT 3D2**

**COORDINATE CHART**

37. X=2365733.37 Y= 160070.69	51. X=2363898.13 Y= 163917.83
38. X=2365364.35 Y= 160774.97	52. X=2363870.28 Y= 163968.84
39. X=2365274.94 Y= 160945.60	53. X=2363839.50 Y= 163992.99
40. X=2365166.69 Y= 161139.98	54. X=2363804.46 Y= 163994.17
41. X=2365043.92 Y= 161386.50	55. X=2363773.74 Y= 164045.74
42. X=2365084.92 Y= 162115.63	56. X=2363656.63 Y= 164069.73
43. X=2365056.12 Y= 162139.98	57. X=2363635.17 Y= 164060.37
44. X=2365036.35 Y= 162246.75	58. X=2363579.55 Y= 164078.13
45. X=2365006.17 Y= 162340.28	59. X=2363572.53 Y= 164088.68
46. X=2364933.72 Y= 162581.64	60. X=2363497.386 Y= 164106.09
47. X=2364843.34 Y= 162885.80	61. X=2363475.87 Y= 164097.42
48. X=2364624.33 Y= 163355.01	62. X=2363406.30 Y= 164116.90
49. X=2364523.14 Y= 163443.80	
50. X=2364315.35 Y= 163614.43	

**EXHIBIT 3D2  
TO FINDINGS OF FACT AND CONSENT JUDGMENT  
IN GREATER LAFOURCHE PORT COMMISSION  
V. CAILLOUET LAND CORPORATION  
DOCKET NO. 78781, DIVISION B  
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PREPARED BY: \_\_\_\_\_



**LEONARD J. CHAUVIN, JR., INC.**  
*Civil Engineers & Professional Land Surveyors*  
Thibodaux, Louisiana

DATE: OCTOBER 10, 1997

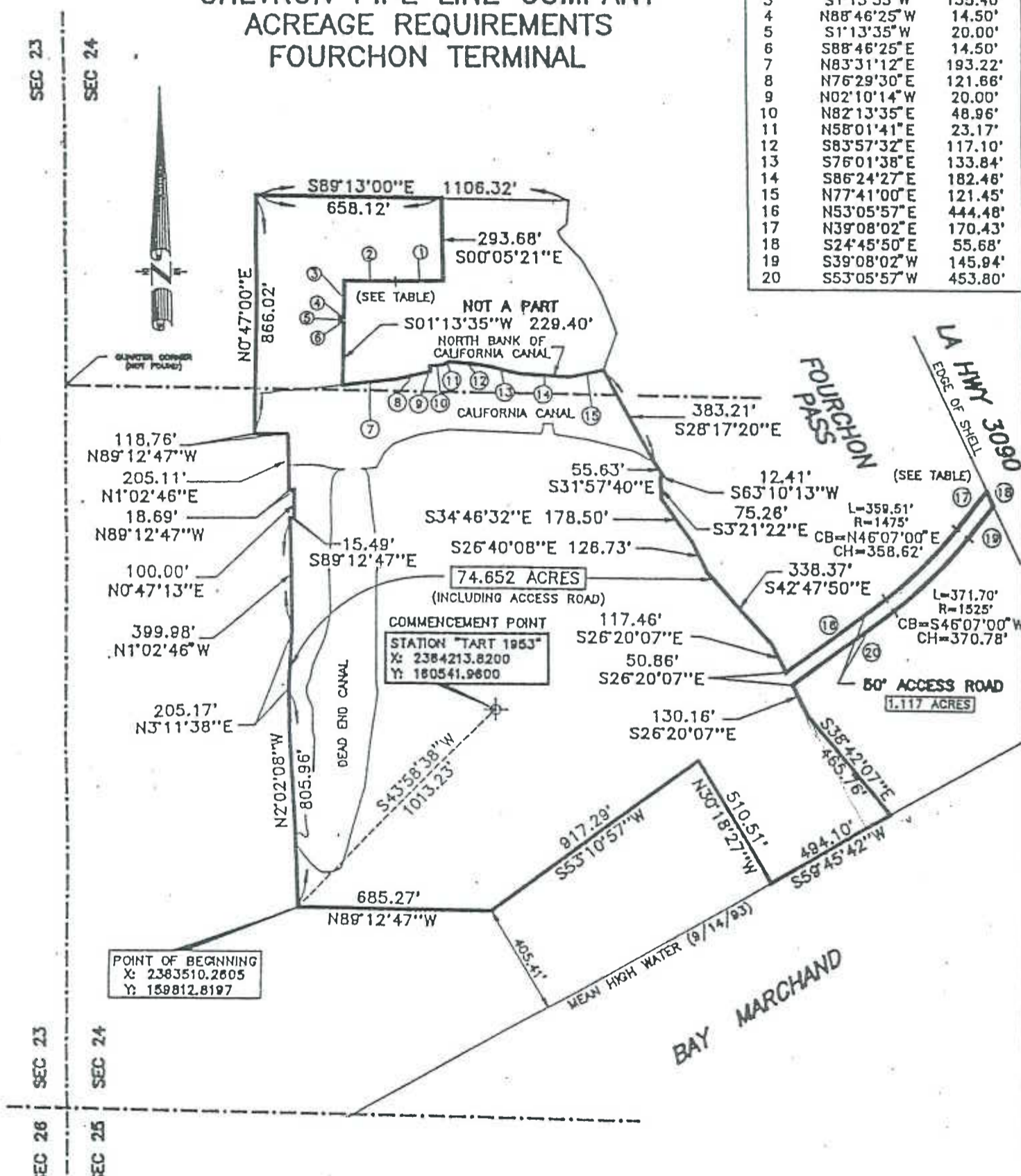


23-22 Section 24

3S-R22E

**EXHIBIT "A"**  
**CHEVRON PIPE LINE COMPANY**  
**ACREAGE REQUIREMENTS**  
**FOURCHON TERMINAL**

NO.	BEARING	DISTANCE
1	S89°26'06" W	172.18'
2	N89°57'06" W	178.48'
3	S1°13'35" W	135.40'
4	N88°46'25" W	14.50'
5	S1°13'35" W	20.00'
6	S88°46'25" E	14.50'
7	N83°31'12" E	193.22'
8	N76°29'30" E	121.86'
9	N02°10'14" W	20.00'
10	N82°13'35" E	48.96'
11	N58°01'41" E	23.17'
12	S83°57'32" E	117.10'
13	S76°01'38" E	133.84'
14	S86°24'27" E	182.46'
15	N77°41'00" E	121.45'
16	N53°05'57" E	444.48'
17	N39°08'02" E	170.43'
18	S24°45'50" E	55.68'
19	S39°08'02" W	145.94'
20	S53°05'57" W	453.80'



SURVEYED IN ACCORDANCE WITH THE LOUISIANA "MINIMUM STANDARDS FOR PROPERTY BOUNDARY SURVEYS" FOR A CLASS "D" SURVEY, MADE AT THE REQUEST OF CHEVRON PIPE LINE COMPANY

The Servitudes and Restrictions shown on this survey are limited to those set forth in the description furnished us and there is no representation that all applicable Servitudes and Restrictions are shown hereon. The surveyor has made no title search or public record search in compiling the data for this survey.

I have consulted the Federal Insurance Administration Flood Hazard Boundary Maps and found this property is not in a Special Flood Hazard Area.  
 F. I. A. ZONE A13 AND V16

REVISED WEST LEASE LINE, 12/29/94  
 REVISED 12/29/94 TO ADD CANALS  
 SCALE 1" = 500'  
 DATE DECEMBER 18, 1994  
 PAMAP # 1551



A Professional Land Surveying Company  
 CITY OF KENNER  
 JEFFERSON PARISH, LOUISIANA

*R. P. Fontcuberta, Jr.*  
 REGISTERED PROFESSIONAL LAND SURVEYOR






**CERTIFICATION:**

THIS SURVEY WAS MADE IN COMPLIANCE WITH THE MINIMUM STANDARDS SET FORTH BY THE LOUISIANA STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND PROFESSIONAL LAND SURVEYORS, CLASS B

**NOTES:**

- 1) REFERENCE MAP AND BEARINGS: A) GREATER LAV. PORT COMM. PLAT SHOWING PROPOSED SERVITUDE AGREEMENT ON PROPERTY BELONGING TO THE CAILLOUET LAND CORPORATION, BEING IN SEC. 24 T23S-R22E, LAFOURCHE PARISH PREPARED BY: WAYNE PAUSANCE, INC. DATED: MARCH 17, 2004
- B) MAP SHOWING PROPOSED SERVITUDE ON PROPERTY BELONGING TO CAILLOUET LAND CORPORATION LOCATED IN SECTION 24, T23S-R22E LAFOURCHE PARISH, LOUISIANA PREPARED BY: LEONARD CHAUVIN P.E., P.L.S., INC. DATED: MARCH 12, 2002 REVISED: DECEMBER 08, 2003
- C) EXHIBIT 302, TO FINDINGS OF FACT AND CONSENT JUDGMENT IN GREATER LAFOURCHE PORT COMMISSION V. CAILLOUET LAND CORPORATION DOCKET NO. 78781 DIVISION B 17TH JUDICIAL DISTRICT COURT FOR THE PARISH OF LAFOURCHE, STATE OF LOUISIANA. PREPARED BY: LEONARD J. CHAUVIN, JR., INC. DATED: OCTOBER 10, 1997
- D) ELEVATIONS IN NGVD '29

**LEGEND**

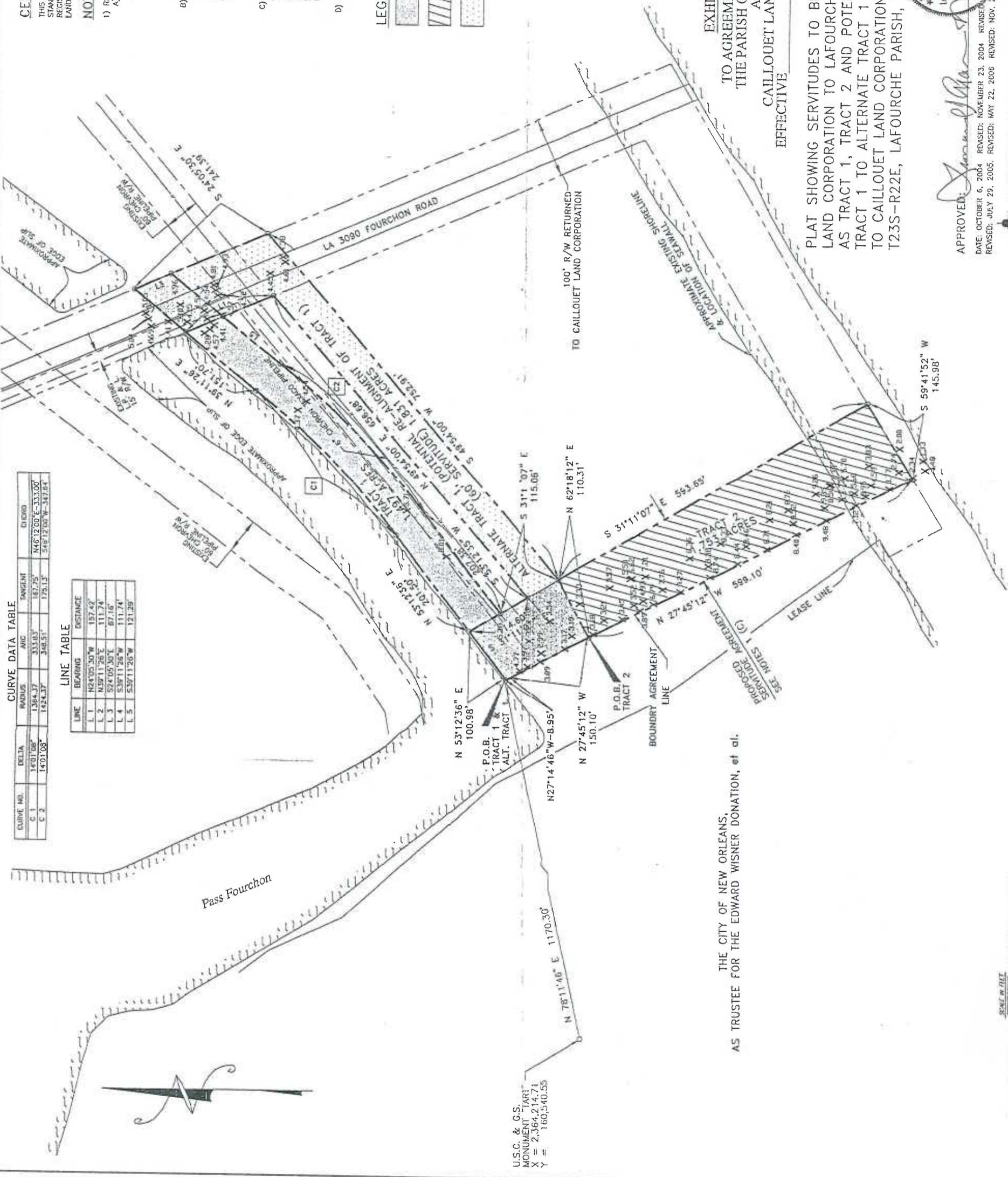
-  TRACT 1
-  TRACT 2
-  ALTERNATE TRACT 1, (POTENTIAL RE-ALIGNMENT OF TRACT 1)

**CURVE DATA TABLE**

CURVE NO.	DELTA	ARC	RADIUS	CHORD	CHORD BEARING
C-1	143°1'08"	333.83'	1364.37'	167.75'	N46°12'00"E-333.00'
C-2	143°1'08"	346.51'	1424.37'	175.13'	S46°12'00"W-347.84'

**LINE TABLE**

LINE	BEARING	DISTANCE
L-1	N24°05'30"W	157.42'
L-2	N39°11'26"E	111.74'
L-3	S24°05'30"E	87.16'
L-4	S39°11'26"W	111.74'
L-5	S39°11'26"W	121.29'



AS TRUSTEE FOR THE CITY OF NEW ORLEANS,  
THE EDWARD WISNER DONATION, et al.

PLAT SHOWING SERVITUDES TO BE GRANTED BY CAILLOUET LAND CORPORATION TO LAFOURCHE PARISH DESIGNATED AS TRACT 1, TRACT 2 AND POTENTIAL RE-ALIGNMENT OF TRACT 1 TO ALTERNATE TRACT 1 ON PROPERTY BELONGING TO CAILLOUET LAND CORPORATION LOCATED IN SECTION 24, T23S-R22E, LAFOURCHE PARISH, LOUISIANA



APPROVED: *[Signature]*  
 DATE: OCTOBER 6, 2004 REVISED: NOVEMBER 23, 2004 REVISED: NOVEMBER 23, 2004 REVISED: JULY 11, 2005.  
 REVISED: JULY 29, 2005 REVISED: MAY 22, 2006 REVISED: NOV. 27, 2006

**LEONARD CHAUVIN P.E., P.L.S., INC.**  
 CIVIL ENGINEER - LAND SURVEYOR  
 618 A CANAL BLVD. THIBODAUX, LA.



ALL DIMENSIONS AND SERVITUDE BEARINGS TO BE GRANTED BY C.L.T. TO L.P. BESE-23-1004-04