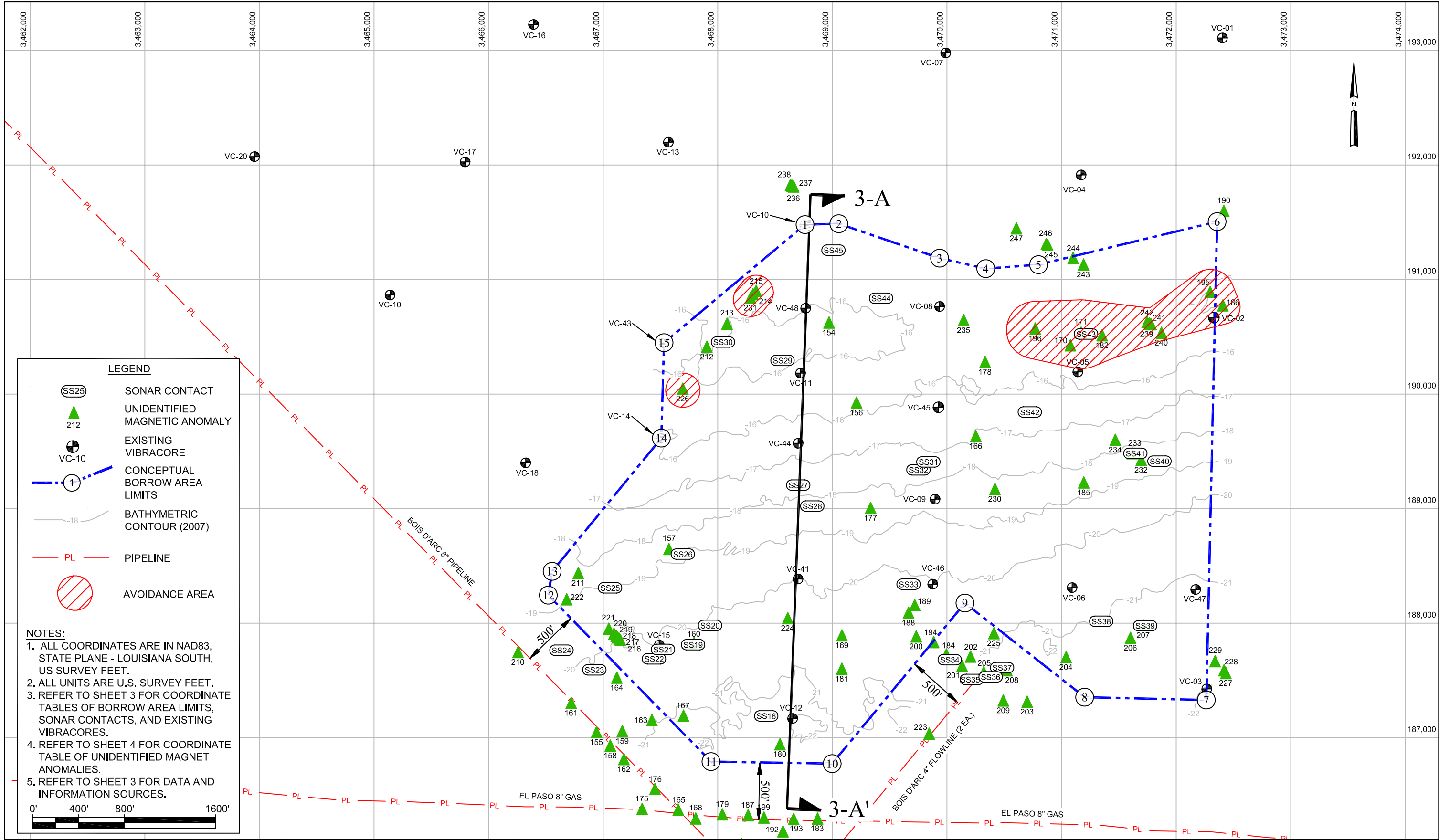


TERREBONNE BASIN BARRIER
SHORELINE RESTORATION

APPENDIX L
ENGINEERING INVESTIGATIONS
AND COST ESTIMATES

ANNEX L-1
BORROW AREA DESIGN PLANS



LEGEND

- SS25 SONAR CONTACT
- ▲ UNIDENTIFIED MAGNETIC ANOMALY
- EXISTING VIBRACORE
- - - CONCEPTUAL BORROW AREA LIMITS
- BATHYMETRIC CONTOUR (2007)
- - - PIPELINE
- / / / AVOIDANCE AREA

NOTES:

1. ALL COORDINATES ARE IN NAD83, STATE PLANE - LOUISIANA SOUTH, US SURVEY FEET.
2. ALL UNITS ARE U.S. SURVEY FEET.
3. REFER TO SHEET 3 FOR COORDINATE TABLES OF BORROW AREA LIMITS, SONAR CONTACTS, AND EXISTING VIBRACORES.
4. REFER TO SHEET 4 FOR COORDINATE TABLE OF UNIDENTIFIED MAGNET ANOMALIES.
5. REFER TO SHEET 3 FOR DATA AND INFORMATION SOURCES.

0' 400' 800' 1600'

REV.	DATE	DESCRIPTION	BY

SJB GROUP, LLC
QUALITY BY DESIGN

P.O. BOX 1751
BATON ROUGE, LA. 70821

PHONE (225) 769-3400
FAX (225) 769-3596

COASTAL ENGINEERING CONSULTANTS INC.

PH: (239) 643-2324
FAX: (239) 643-1143
3106 SOUTH HORSESHOE DRIVE
NAPLES, FLORIDA 34104

OFFICE OF COASTAL PROTECTION & RESTORATION
ENGINEERING BRANCH

450 LAUREL STREET
BATON ROUGE, LOUISIANA 70801

DRAWN BY: DARTEZ / ZWERNEMAN DESIGNED BY: MICHAEL POFF, P.E.

TERREBONNE BASIN
BARRIER SHORELINE RESTORATION

STATE PROJECT NUMBER: LCA-TBBSR
FEDERAL PROJECT NUMBER: LCA-TBBSR

APPROVED BY:

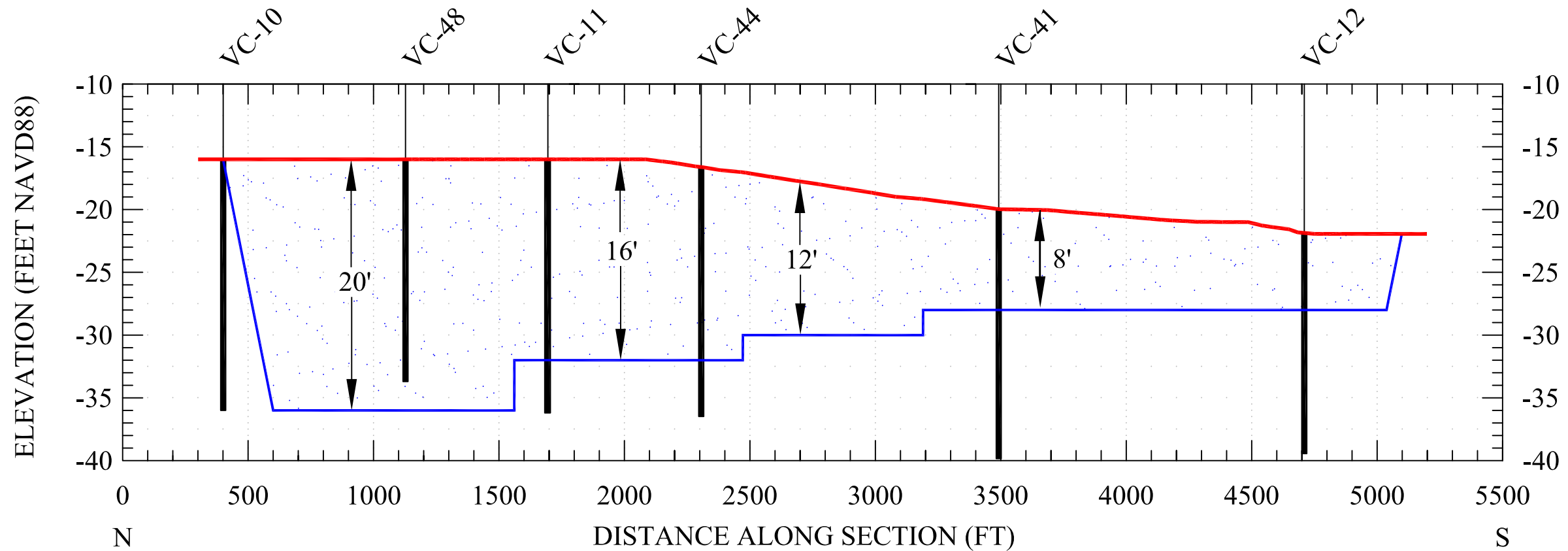
WHISKEY ISLAND
RESTORATION BORROW
AREA 3 PLAN VIEW

DATE: JANUARY, 2010
SHEET 1 OF 4

NOTES:

1. EXISTING GRADE DERIVED FROM FIGURE 5-2 ALTERNATIVE 1: BORROW SITE EXCAVATION PLAN INCLUDED IN REPORT TITLED "WHISKEY ISLAND BACK BARRIER MARSH CREATION, PROJECT NO. TE-50, 95% DESIGN REPORT", T. BAKER SMITH, 2007.
2. VIBRACORE SPECIFICS OBTAINED FROM REPORT TITLED "HYDROGRAPHIC, GEOPHYSICAL AND GEOTECHNICAL SURVEY PROGRAM, WHISKEY ISLAND BACK-BARRIER MARSH CREATION PROJECT TE-50", APPENDIX 5 - VIBRATORY CORE SUMMARY TABLE, OCEAN SURVEYS, INC., 2007.
3. RESTORATION BORROW AREA SIDE SLOPES 1V:10H.

SCALE:
H: 1" = 10'
V: 1" = 500'



3-A TO 3-A'

LEGEND

- EXISTING VIBRACORE
- RESTORATION BORROW AREA CUT LIMITS
- EXISTING GRADE (T. BAKER SMITH, MOFFATT & NICHOL, 2007)

						OFFICE OF COASTAL PROTECTION & RESTORATION ENGINEERING BRANCH 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		TERREBONNE BASIN BARRIER SHORELINE RESTORATION STATE PROJECT NUMBER: LCA-TBBSR FEDERAL PROJECT NUMBER: LCA-TBBSR		WHISKEY ISLAND RESTORATION BORROW AREA 3 SECTION DATE: JANUARY, 2010	
REV.	DATE	DESCRIPTION	BY	P.O. BOX 1751 BATON ROUGE, LA. 70821 PHONE (225) 769-3400 FAX (225) 769-3596		PH: (239) 643-2324 FAX: (239) 643-1143 3106 SOUTH HORSESHOE DRIVE NAPLES, FLORIDA 34104		DRAWN BY: DARTEZ / ZWERNEMAN DESIGNED BY: MICHAEL POFF, P.E.		APPROVED BY:	
SHEET 2 OF 4											

BORROW AREA LIMITS		
PI NO.	EASTING - X	NORTHING - Y
1	3468761.35	191479.69
2	3469056.21	191487.66
3	3469935.92	191186.86
4	3470338.37	191095.26
5	3470799.14	191130.06
6	3472357.76	191505.80
7	3472263.11	187329.90
8	3471201.44	187354.44
9	3470156.75	188176.27
10	3468998.35	186774.49
11	3467940.69	186792.12
12	3466521.03	188244.95
13	3466554.51	188453.17
14	3467507.46	189615.95
15	3467531.02	190448.93

SONAR CONTACTS									
REF NO.	EASTING - X	NORTHING - Y	DIMENSIONS	DESCRIPTION	REF NO.	EASTING - X	NORTHING - Y	DIMENSIONS	DESCRIPTION
SS17	3466510.00	184730.60	29' x 16' x NMH	OBLONG TARGET	SS32	3469752.00	189337.90	74' x 10' x NMH	OBLONG TARGET
SS18	3468424.00	187189.10	15' x 13' x NMH	OBLONG TARGETS	SS33	3469666.00	188339.00	12' x 8' x NMH	OBLONG TARGETS
SS19	3467785.00	187811.40	12' x 4' x NMH	OBLONG TARGET	SS34	3470025.00	187680.60	18' x 9' x NMH	OBLONG TARGET
SS20	3467933.00	187979.50	12' x 10' x NMH	OBLONG TARGETS	SS35	3470218.00	187508.00	11' x 6' x NMH	OBLONG TARGET
SS21	3467523.00	187769.50	16' x 2' x NMH	LINEAR TARGET	SS36	3470382.00	187530.00	11' x 6' x NMH	OBLONG TARGETS
SS22	3467445.00	187687.80	18' x 18' x NMH	TRIANGULAR TARGET	SS37	3470482.00	187611.00	21' x 5' x NMH	OBLONG TARGET
SS23	3466924.00	187591.80	14' x 10' x NMH	"S" SHAPED TARGET	SS38	3471347.00	188015.60	18' x 4' x NMH	OBLONG TARGET
SS24	3466637.00	187762.40	18' x 8' x NMH	OBLONG TARGET	SS39	3471730.00	187977.20	14' x 5' x NMH	OBLONG TARGET
SS25	3467061.00	188308.10	40' x 17' x NMH	OBLONG TARGET	SS40	3471856.00	189413.10	18' x 6' x NMH	OBLONG TARGET
SS26	3467696.00	188602.00	18' x 7' x NMH	OBLONG TARGET	SS41	3471645.00	189481.40	12' x 8' x NMH	OBLONG TARGET
SS27	3468703.00	189203.60	23' x 12' x NMH	OBLONG TARGET	SS42	3470724.00	189841.20	23' x 11' x NMH	OBLONG TARGET
SS28	3468826.00	189020.80	20' x 8' x NMH	OBLONG TARGET	SS43	3471214.00	190523.90	23' x 4' x NMH	OBLONG TARGET
SS29	3468566.00	190292.80	20' x 13' x NMH	OBLONG TARGET	SS44	3469426.00	190835.30	11' x 8' x NMH	OBLONG TARGETS
SS30	3468046.00	190453.60	18' x 9' x NMH	OBLONG TARGETS	SS45	3469010.00	191255.00	17' x 4' x NMH	OBLONG TARGETS
SS31	3469839.00	189407.00	40' x 22' x NMH	OBLONG TARGET					

NMH = NO MEASURABLE HEIGHT

EXISTING VIBRACORES			
CORE NO.	EASTING - X	NORTHING - Y	CORE LENGTH
VC-01	3472404.00	193109.00	19.9'
VC-02	3472329.00	190668.00	19.1'
VC-03	3472267.00	187427.00	16.7'
VC-04	3471171.00	191913.00	19.6'
VC-05	3471142.00	190194.00	16.9'
VC-06	3471092.00	188311.00	20.0'
VC-07	3469989.00	192978.00	16.5'
VC-08	3469936.00	190765.00	19.7'
VC-09	3469896.00	189083.00	19.8'
VC-10	3468755.00	191476.00	20.0'
VC-11	3468722.00	190183.00	20.0'
VC-12	3468653.00	187169.00	17.5'
VC-13	3467569.00	192199.00	20.0'
VC-14	3467509.00	189610.00	19.9'
VC-15	3467489.00	187809.00	20.1'
VC-16	3466392.00	193227.00	19.0'
VC-17	3465795.00	192027.00	20.0'
VC-18	3466324.00	189400.00	20.0'
VC-19	3465140.00	190865.00	20.2'
VC-20	3463958.00	192073.00	17.0'
VC-41	3468700.00	188386.00	19.8'
VC-42	3471733.00	189500.00	19.9'
VC-43	3467531.00	190445.00	18.4'
VC-44	3468701.00	189571.00	19.8'
VC-45	3469926.00	189885.00	19.5'
VC-46	3469876.00	188341.00	20.0'
VC-47	3472171.00	188295.00	19.8'
VC-48	3468767.00	190750.00	17.7'

DATA AND INFORMATION SOURCES:

- BATHYMETRIC CONTOURS DERIVED FROM FIGURE 5-2 ALTERNATIVE 1: BORROW SITE EXCAVATION PLAN INCLUDED IN REPORT TITLED "WHISKEY ISLAND BACK BARRIER MARSH CREATION, PROJECT NO. TE-50, 95% DESIGN REPORT", T. BAKER SMITH, 2007.
- VIBRACORE LOCATIONS AND SPECIFICS OBTAINED FROM REPORT TITLED "HYDROGRAPHIC, GEOPHYSICAL AND GEOTECHNICAL SURVEY PROGRAM, WHISKEY ISLAND BACK-BARRIER MARSH CREATION PROJECT TE-50", APPENDIX 5 - VIBRATORY CORE SUMMARY TABLE, OCEAN SURVEYS, INC., 2007.
- SONAR CONTACTS LOCATIONS AND SPECIFICS OBTAINED FROM REPORT TITLED "HYDROGRAPHIC, GEOPHYSICAL AND GEOTECHNICAL SURVEY PROGRAM, WHISKEY ISLAND BACK-BARRIER MARSH CREATION PROJECT TE-50", APPENDIX 10 - SUMMARY TABLES OF MAGNETIC ANOMALIES AND SIDE SCAN SONAR TARGETS, PAGES 10-10 TO 10-11, OCEAN SURVEYS, INC., 2007.
- UNIDENTIFIED MAGNETIC ANOMALIES LOCATIONS AND SPECIFICS OBTAINED FROM REPORT TITLED "HYDROGRAPHIC, GEOPHYSICAL AND GEOTECHNICAL SURVEY PROGRAM, WHISKEY ISLAND BACK-BARRIER MARSH CREATION PROJECT TE-50", APPENDIX 10 - SUMMARY TABLES OF MAGNETIC ANOMALIES AND SIDE SCAN SONAR TARGETS, PAGES 10-5 TO 10-9, OCEAN SURVEYS, INC., 2007.

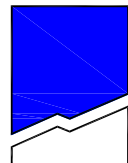
				 <p>QUALITY BY DESIGN</p>	 <p>COASTAL ENGINEERING CONSULTANTS INC. PH: (239) 643-2324 FAX: (239) 643-1143 3106 SOUTH HORSESHOE DRIVE NAPLES, FLORIDA 34104</p>	<p>OFFICE OF COASTAL PROTECTION & RESTORATION ENGINEERING BRANCH 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801</p>		<p>TERREBONNE BASIN BARRIER SHORELINE RESTORATION</p>		<p>WHISKEY ISLAND RESTORATION BORROW AREA 3 COORDINATE TABLES</p>
REV.	DATE	DESCRIPTION	BY					STATE PROJECT NUMBER: LCA-TBBSR	FEDERAL PROJECT NUMBER: LCA-TBBSR	
						DRAWN BY: DARTEZ / ZWERNEMAN	DESIGNED BY: MICHAEL POFF, P.E.	APPROVED BY:	SHEET 3 OF 4	

UNIDENTIFIED MAGNETIC ANOMALIES											
REF NO.	EASTING - X	NORTHING - Y	GAMMA	DURATION	DESCRIPTION	REF NO.	EASTING - X	NORTHING - Y	GAMMA	DURATION	DESCRIPTION
154	3468971.00	190611.00	5	45	UNKNOWN	201	3470132.00	187614.00	555	925	WELL SL-15074
155	3466942.00	187035.00	85	200	PIPELINE	202	3470206.00	187695.00	205	50	UNKNOWN
156	3469211.00	189912.00	13	100	UNKNOWN	203	3470700.00	187301.00	14	1400	WELL SL-15074
157	3467574.00	188634.00	8	75	UNKNOWN	204	3471040.00	187690.00	7	95	UNKNOWN
158	3467062.00	186918.00	105	90	PIPELINE	205	3470321.00	187558.00	497	625	WELL SL-15074
159	3467167.00	187045.00	78	110	UNKNOWN	206	3471602.00	187858.00	28	60	OIL & GAS DEBRIS
160	3467793.00	187814.00	2069	155	OIL & GAS DEBRIS	207	3471713.00	187969.00	322	110	OIL & GAS DEBRIS
161	3466721.00	187290.00	57	110	PIPELINE	208	3470523.00	187576.00	277	600	WELL SL-15074
162	3467181.00	186800.00	260	190	PIPELINE	209	3470492.00	187312.00	27	1100	WELL SL-15074
163	3467425.00	187140.00	17	70	UNKNOWN	210	3466257.00	187734.00	123	195	PROBABLE PIPELINE
164	3467119.00	187511.00	731	150	OIL & GAS DEBRIS	211	3466783.00	188424.00	10	60	UNKNOWN
165	3467655.00	186359.00	132	340	PIPELINE	212	3467905.00	190400.00	5	5	UNKNOWN
166	3470252.00	189620.00	6	140	OIL & GAS DEBRIS	213	3468081.00	190601.00	5	55	UNKNOWN
167	3467701.00	187179.00	8	70	UNKNOWN	214	3468308.00	190858.00	28	125	UNKNOWN
168	3467808.00	186282.00	97	230	PIPELINE	215	3468335.00	190888.00	14	10	UNKNOWN
169	3469084.00	187880.00	11	150	OIL & GAS DEBRIS	216	3467150.00	187840.00	11	5	UNKNOWN
170	3471077.00	190412.00	40	85	UNKNOWN	217	3467138.00	187852.00	12	10	UNKNOWN
171	3471171.00	190523.00	3282	235	UNKNOWN	218	3467126.00	187863.00	11	15	UNKNOWN
175	3467340.00	186365.00	507	170	PIPELINE	222	3466682.00	188195.00	7	5	UNKNOWN
176	3467452.00	186540.00	113	105	PIPELINE	223	3469845.00	187022.00	178	125	PROBABLE PIPELINE
177	3469334.00	188993.00	6	110	UNKNOWN	224	3468611.00	188030.00	14	95	UNKNOWN
178	3470333.00	190267.00	21	85	UNKNOWN	225	3470410.00	187899.00	39	2000	WELL SL-15074
179	3468040.00	186318.00	217	290	PIPELINE	226	3467695.00	190034.00	11	150	UNKNOWN
180	3468543.00	186930.00	9	145	OIL & GAS DEBRIS	227	3472434.00	187551.00	14	20	UNKNOWN
181	3469083.00	187589.00	5	50	UNKNOWN	228	3472418.00	187576.00	8	30	UNKNOWN
182	3471354.00	190500.00	27	100	UNKNOWN	229	3472340.00	187655.00	5	5	UNKNOWN
183	3468871.00	186281.00	387	260	PIPELINE	230	3470419.00	189158.00	30	200	OIL & GAS DEBRIS
184	3469995.00	187713.00	91	1600	WELL SL-15074	231	3468286.00	190827.00	5	285	UNKNOWN
185	3471194.00	189215.00	28	200	OIL & GAS DEBRIS	232	3471695.00	189411.00	6	75	UNKNOWN
186	3472408.00	190761.00	13	130	UNKNOWN	233	3471616.00	189470.00	5	5	UNKNOWN
187	3468265.00	186310.00	510	185	PIPELINE	234	3471469.00	189587.00	5	5	UNKNOWN
188	3469665.00	188078.00	6	1700	WELL SL-15074	235	3470146.00	190632.00	5	5	UNKNOWN
189	3469719.00	188144.00	49	105	UNKNOWN	236	3468662.00	191798.00	13	5	UNKNOWN
190	3472416.00	191585.00	7	55	UNKNOWN	237	3468648.00	191805.00	16	5	UNKNOWN
192	3468569.00	186169.00	15	80	UNKNOWN	239	3471781.00	190597.00	20	110	UNKNOWN
193	3468662.00	186278.00	338	145	PIPELINE	240	3471872.00	190522.00	6	90	UNKNOWN
194	3469884.00	187821.00	30	1500	WELL SL-15074	241	3471768.00	190602.00	8	85	UNKNOWN
195	3472297.00	190878.00	301	150	UNKNOWN	242	3471747.00	190616.00	10	5	UNKNOWN
196	3470770.00	190559.00	11	400	UNKNOWN	243	3471192.00	191117.00	5	10	UNKNOWN
199	3468403.00	186290.00	697	200	PIPELINE	246	3470867.00	191297.00	5	5	UNKNOWN
200	3469732.00	187871.00	13	1800	WELL SL-15074	247	3470606.00	191433.00	6	5	UNKNOWN

REV.	DATE	DESCRIPTION	BY



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COASTAL
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OFFICE OF COASTAL PROTECTION & RESTORATION
ENGINEERING BRANCH

450 LAUREL STREET
BATON ROUGE, LOUISIANA 70801

DRAWN BY: DARTEZ / ZWERNEMAN

DESIGNED BY: MICHAEL POFF, P.E.

TERREBONNE BASIN
BARRIER SHORELINE RESTORATION

STATE PROJECT NUMBER: LCA-TBBSR

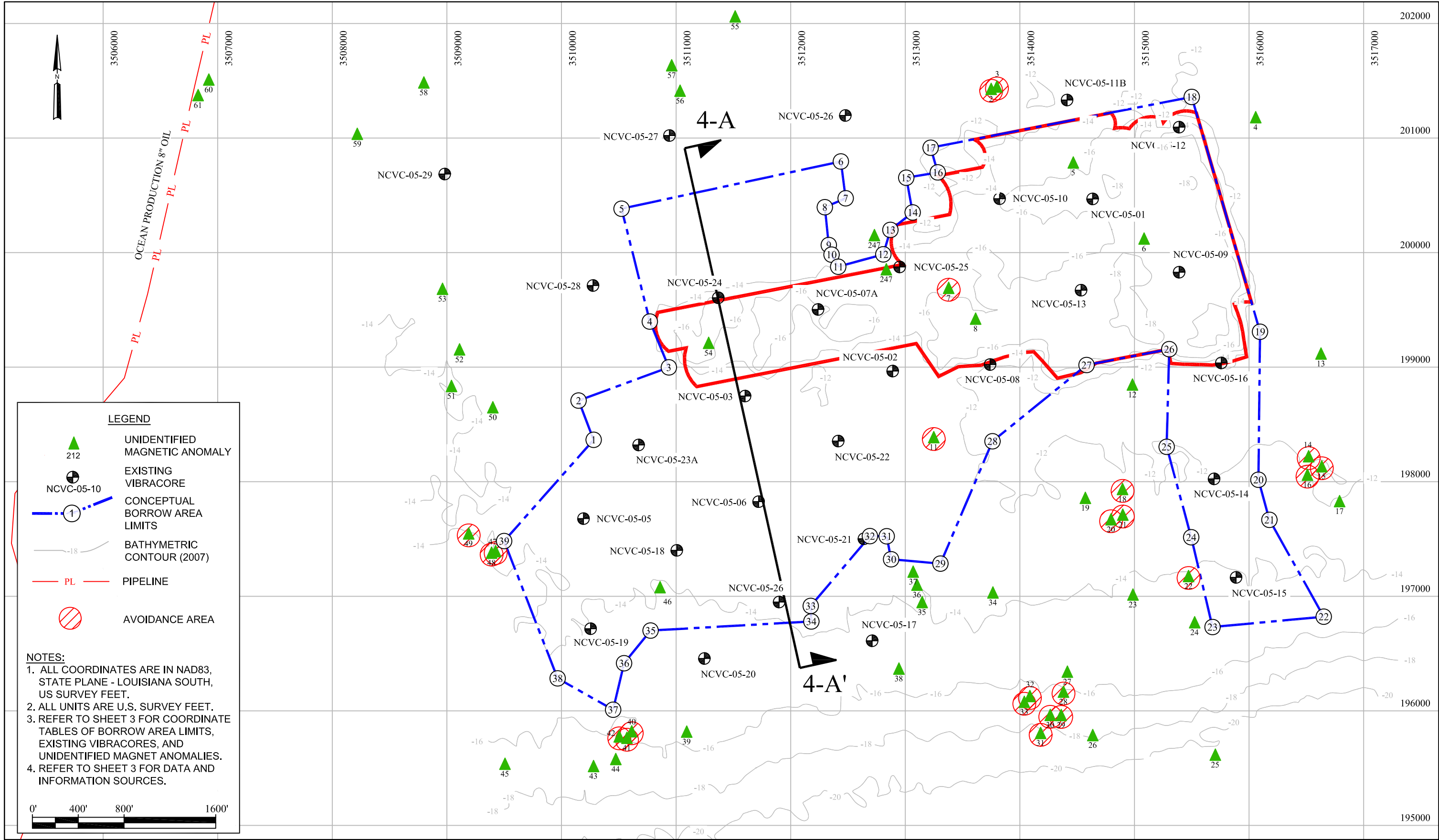
FEDERAL PROJECT NUMBER: LCA-TBBSR

APPROVED BY:

WHISKEY ISLAND
RESTORATION BORROW
AREA 3 COORDINATE
TABLES

DATE: JANUARY, 2010

SHEET 4 OF 4



REV.	DATE	DESCRIPTION	BY
	12/23	Vibracores added	JSD

SJB GROUP, LLC
QUALITY BY DESIGN

P.O. BOX 1751
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PHONE (225) 769-3400
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OFFICE OF COASTAL PROTECTION & RESTORATION
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450 LAUREL STREET
BATON ROUGE, LOUISIANA 70801

DRAWN BY: DARTEZ / ZWERNEMAN
DESIGNED BY: MICHAEL POFF, P.E.

TERREBONNE BASIN
BARRIER SHORELINE RESTORATION

STATE PROJECT NUMBER: LCA-TBBSR
FEDERAL PROJECT NUMBER: LCA-TBBSR

APPROVED BY:

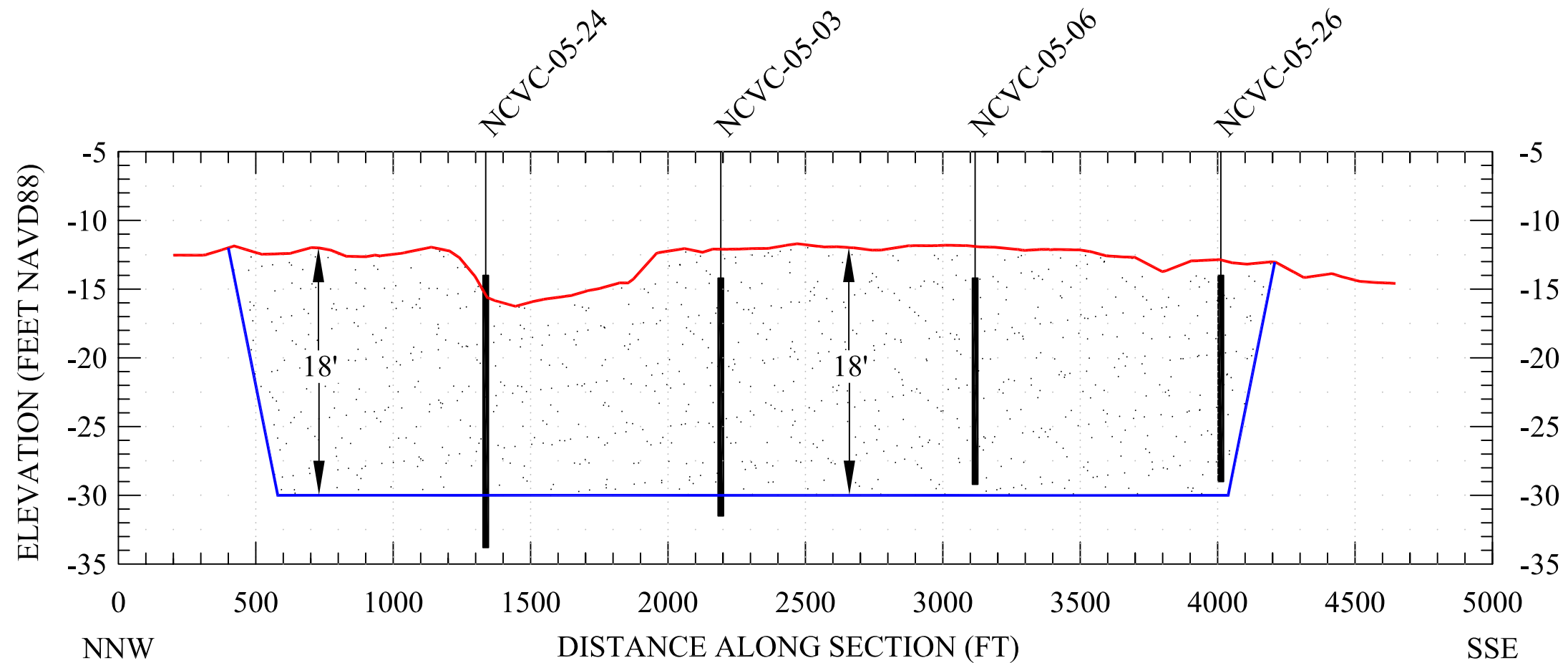
NEW CUT
BORROW AREA 4
PLAN VIEW

DATE: JANUARY, 2010
SHEET 1 OF 3

NOTES:

1. BORROW AREA CUT DEPTHS DERIVED FROM VIBRACORE LOGS OBTAINED FROM "BID PACKAGE FOR NEW CUT DUNE/MARSH RESTORATION (TE-37), LOUISIANA DEPARTMENT OF NATURAL RESOURCES, COASTAL ENGINEERING DIVISION, 2005.
2. BORROW AREA SIDE SLOPES 1V:10H.
3. EXISTING GRADE PROFILES DERIVED FROM SURVEY DATA PRESENTED IN AUTOCAD FILE 061619-POST DREDGE AREA.DWG FOR NEW CUT DUNE/MARSH RESTORATION PROJECT TE-37 PROVIDED BY LOUISIANA DEPARTMENT OF NATURAL RESOURCES, OFFICE OF COASTAL RESTORATION AND PROTECTION. SURVEY CONDUCTED IN JULY, 2007.

SCALE:
H: 1" = 10'
V: 1" = 500'



4-A TO 4-A'

LEGEND

- EXISTING VIBRACORE (vertical black line)
- BORROW AREA CUT LIMITS (blue dashed box)
- EXISTING GRADE (LDNR, 2006) (red line)

		<p>SJB GROUP, LLC QUALITY BY DESIGN</p> <p>P.O. BOX 1751 BATON ROUGE, LA. 70821</p> <p>PHONE (225) 769-3400 FAX (225) 769-3596</p>		<p>COASTAL ENGINEERING CONSULTANTS INC.</p> <p>PH: (239) 643-2324 FAX: (239) 643-1143 3106 SOUTH HORSESHOE DRIVE NAPLES, FLORIDA 34104</p>		<p>OFFICE OF COASTAL PROTECTION & RESTORATION ENGINEERING BRANCH</p> <p>450 LAUREL STREET BATON ROUGE, LOUISIANA 70801</p>		<p>TERREBONNE BASIN BARRIER SHORELINE RESTORATION</p>		<p>NEW CUT BORROW AREA 4 SECTION</p>	
								<p>FEDERAL PROJECT NUMBER: LCA-TBBSR</p>		<p>APPROVED BY:</p>	
REV.	DATE	DESCRIPTION	BY	DRAWN BY: DARTEZ / ZWERNEMAN		DESIGNED BY: MICHAEL POFF, P.E.		APPROVED BY:		SHEET 2 OF 3	

UNIDENTIFIED MAGNETIC ANOMALIES											
REF NO.	EASTING - X	NORTHING - Y	GAMMA	DURATION	DESCRIPTION	REF NO.	EASTING - X	NORTHING - Y	GAMMA	DURATION	DESCRIPTION
2	3513749.80	201412.80	20	98	POTENTIALLY SIGNIFICANT	33	3514039.10	196061.80	44	514	POTENTIALLY SIGNIFICANT
3	3513800.00	201432.90	33	76	POTENTIALLY SIGNIFICANT	34	3513765.30	197016.60	7	59	DEBRIS
4	3516058.40	201165.30	7	113	DEBRIS	35	3513147.60	196932.30	5	58	DEBRIS
5	3514466.70	200770.40	8	34	DEBRIS	36	3513103.00	197084.30	5	47	DEBRIS
6	3515084.40	200106.40	13	62	DEBRIS	37	3513069.30	197198.70	5	66	DEBRIS
7	3513378.90	199675.80	3	199	POTENTIALLY SIGNIFICANT	38	3512945.10	196352.30	6	107	DEBRIS
8	3513614.30	199407.00	19	71	DEBRIS	39	3511093.10	195802.00	7	69	DEBRIS
9	3512731.00	200136.40	11	36	DEBRIS	40	3510613.20	195804.50	5	95	POTENTIALLY SIGNIFICANT
10	3512835.00	199837.90	17	61	DEBRIS	41	3510571.50	195747.90	102	171	POTENTIALLY SIGNIFICANT
11	3513248.80	198372.70	71	197	POTENTIALLY SIGNIFICANT	42	3510504.20	195760.00	62	183	POTENTIALLY SIGNIFICANT
12	3514983.00	198831.80	22	81	DEBRIS	43	3510280.20	195501.40	22	81	DEBRIS
13	3516628.60	199102.20	5	47	DEBRIS	44	3510474.00	195562.90	5	84	DEBRIS
14	3516520.40	198206.00	16	213	POTENTIALLY SIGNIFICANT	45	3509507.10	195521.10	8	86	DEBRIS
15	3516635.10	198117.70	10	42	POTENTIALLY SIGNIFICANT	46	3510860.40	197062.50	20	61	DEBRIS
16	3516509.80	198044.70	6	119	POTENTIALLY SIGNIFICANT	47	3509425.60	197377.50	6	109	POTENTIALLY SIGNIFICANT
17	3516790.40	197813.60	14	120	DEBRIS	48	3509390.20	197364.00	84	178	POTENTIALLY SIGNIFICANT
18	3514896.10	197919.90	54	187	POTENTIALLY SIGNIFICANT	49	3509190.40	197531.90	62	240	POTENTIALLY SIGNIFICANT
19	3514571.80	197842.70	11	86	DEBRIS	50	3509401.00	198633.20	8	59	DEBRIS
20	3514795.90	197655.10	42	153	POTENTIALLY SIGNIFICANT	51	3509040.20	198819.40	1237	353	DEBRIS / WELL HEAD
21	3514898.60	197696.00	95	141	POTENTIALLY SIGNIFICANT	52	3509110.40	199138.40	94	603	DEBRIS / WELL HEAD
22	3515472.40	197159.70	49	101	POTENTIALLY SIGNIFICANT	53	3508961.90	199667.90	7	75	DEBRIS
23	3514987.20	196998.70	8	82	DEBRIS	54	3511284.50	199195.70	25	77	DEBRIS
24	3515525.90	196756.60	8	53	DEBRIS	55	3511516.10	202045.30	9	52	DEBRIS
25	3515706.00	195600.80	10	86	DEBRIS	56	3511035.20	201396.60	12	83	DEBRIS
26	3514636.40	195771.70	6	45	DEBRIS	57	3510962.10	201619.00	5	48	DEBRIS
27	3514415.00	196325.50	6	59	DEBRIS	58	3508799.30	201468.70	19	94	DEBRIS
28	3514381.00	196150.80	43	175	POTENTIALLY SIGNIFICANT	59	3508218.10	201020.20	9	52	DEBRIS
29	3514360.90	195946.90	76	221	POTENTIALLY SIGNIFICANT	60	3506922.50	201493.90	101	123	OUT OF AREA
30	3514265.50	195947.70	129	390	POTENTIALLY SIGNIFICANT	61	3506829.40	201358.20	1650	199	OUT OF AREA
31	3514181.60	195790.30	53	318	POTENTIALLY SIGNIFICANT						

BORROW AREA LIMITS		
PI NO.	EASTING - X	NORTHING - Y
1	3510280.67	198366.01
2	3510148.93	198708.29
3	3510936.83	198998.67
4	3510770.80	199398.22
5	3510524.13	200382.91
6	3512437.95	200795.76
7	3512479.98	200474.30
8	3512297.96	200396.32
9	3512332.65	200066.07
10	3512356.54	199982.31
11	3512414.83	199876.84
12	3512808.55	199985.23
13	3512870.20	200198.44
14	3513064.64	200350.64
15	3513008.55	200653.68
16	3513283.55	200700.09
17	3513221.44	200915.69
18	3515499.62	201358.90
19	3516095.89	199309.02
20	3516081.97	198017.16
21	3516177.86	197667.45
22	3516651.66	196821.94
23	3515681.49	196731.69
24	3515495.36	197515.16
25	3515281.02	198304.83
26	3515303.58	199157.15
27	3514581.93	199018.82
28	3513761.07	198353.26
29	3513306.82	197285.32
30	3512876.18	197323.09
31	3512837.98	197523.94
32	3512692.15	197525.50
33	3512174.94	196915.77
34	3512180.36	196780.36
35	3510777.33	196700.84
36	3510546.11	196415.72
37	3510450.66	196009.79
38	3509966.34	196283.53
39	3509499.34	197472.32

DATA AND INFORMATION SOURCES:

- BATHYMETRIC CONTOURS DERIVED SURVEY DATA PRESENTED IN AUTOCAD FILE 061619-POST DREDGE AREA.DWG FOR NEW CUT DUNE/MARSH RESTORATION PROJECT TE-37 PROVIDED BY LOUISIANA DEPARTMENT OF NATURAL RESOURCES, OFFICE OF COASTAL RESTORATION AND PROTECTION. SURVEY CONDUCTED IN JULY, 2007.
- VIBRACORE LOCATIONS AND SPECIFICS OBTAINED FROM "BID PACKAGE FOR NEW CUT DUNE/MARSH RESTORATION (TE-37)", LOUISIANA DEPARTMENT OF NATURAL RESOURCES, COASTAL ENGINEERING DIVISION, 2005.
- UNIDENTIFIED MAGNETIC ANOMALIES LOCATIONS AND SPECIFICS OBTAINED FROM NEW CUT DUNE/MARSH RESTORATION PROJECT TE-37 AS-BUILT DRAWINGS SHEET 9 OF 21. LOUISIANA DEPARTMENT OF NATURAL RESOURCES, COASTAL ENGINEERING DIVISION, 2006.
- CONCEPTUAL BORROW AREA LIMITS OBTAINED FROM NEW CUT DUNE/MARSH RESTORATION PROJECT TE-37 AS-BUILT DRAWINGS SHEET 8 OF 21. LOUISIANA DEPARTMENT OF NATURAL RESOURCES, COASTAL ENGINEERING DIVISION, 2006.
- PIPELINE INFORMATION OBTAINED FROM LOUISIANA DEPARTMENT OF NATURAL RESOURCES PIPELINE DATABASE LA_CMD_PIPELINE_V4 SHAPEFILE.

EXISTING VIBRACORES							
CORE NO.	EASTING - X	NORHTING - Y	CORE LENGTH	CORE NO.	EASTING - X	NORHTING - Y	CORE LENGTH
NCVC-05-01	3514635.00	200469.00	15'	NCVC-05-16	3515758.00	199037.00	17.1'
NCVC-05-02	3512890.00	198966.00	19.4'	NCVC-05-17	3512711.00	196612.00	14.1'
NCVC-05-03	3511602.00	198748.00	19.8'	NCVC-05-18	3511006.00	197401.00	17.1'
NCVC-05-04	3511899.00	196950.00	15.1'	NCVC-05-19	3510254.00	196717.00	14.8'
NCVC-05-05	3510192.00	197678.00	15.5'	NCVC-05-20	3511247.00	196457.00	16.3'
NCVC-05-06	3511720.00	197826.00	17.3'	NCVC-05-21	3512639.00	197502.00	17.5'
NCVC-05-07A	3512239.00	199504.00	19.2'	NCVC-05-22	3512415.00	198355.00	14.9'
NCVC-05-08	3513740.00	199023.00	16.5'	NCVC-05-23A	3510673.00	198321.00	15.0'
NCVC-05-09	3515390.00	199829.00	17.5'	NCVC-05-24	3511368.00	199606.00	15.0'
NCVC-05-10	3513823.00	200471.00	16.9'	NCVC-05-25	3512951.00	199875.00	15.0'
NCVC-05-11B	3514412.00	201332.00	18.1'	NCVC-05-26	3512477.00	201197.00	15.0'
NCVC-05-12	3515390.00	201095.00	18.3'	NCVC-05-27	3510942.00	201022.00	15.2'
NCVC-05-13	3514534.00	199672.00	18.4'	NCVC-05-28	3510275.00	199713.00	16.5'
NCVC-05-14	3515695.00	198025.00	17.0'	NCVC-05-29	3508981.00	200686.00	15.5'
NCVC-05-15	3515887.00	197165.00	9.0'				

REV.	DATE	DESCRIPTION	BY



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NAPLES, FLORIDA 34104

OFFICE OF COASTAL PROTECTION & RESTORATION
ENGINEERING BRANCH

450 LAUREL STREET
BATON ROUGE, LOUISIANA 70801

DRAWN BY: DARTEZ / ZWERNEMAN

DESIGNED BY: MICHAEL POFF, P.E.

TERREBONNE BASIN
BARRIER SHORELINE RESTORATION

STATE PROJECT NUMBER: LCA-TBBSR

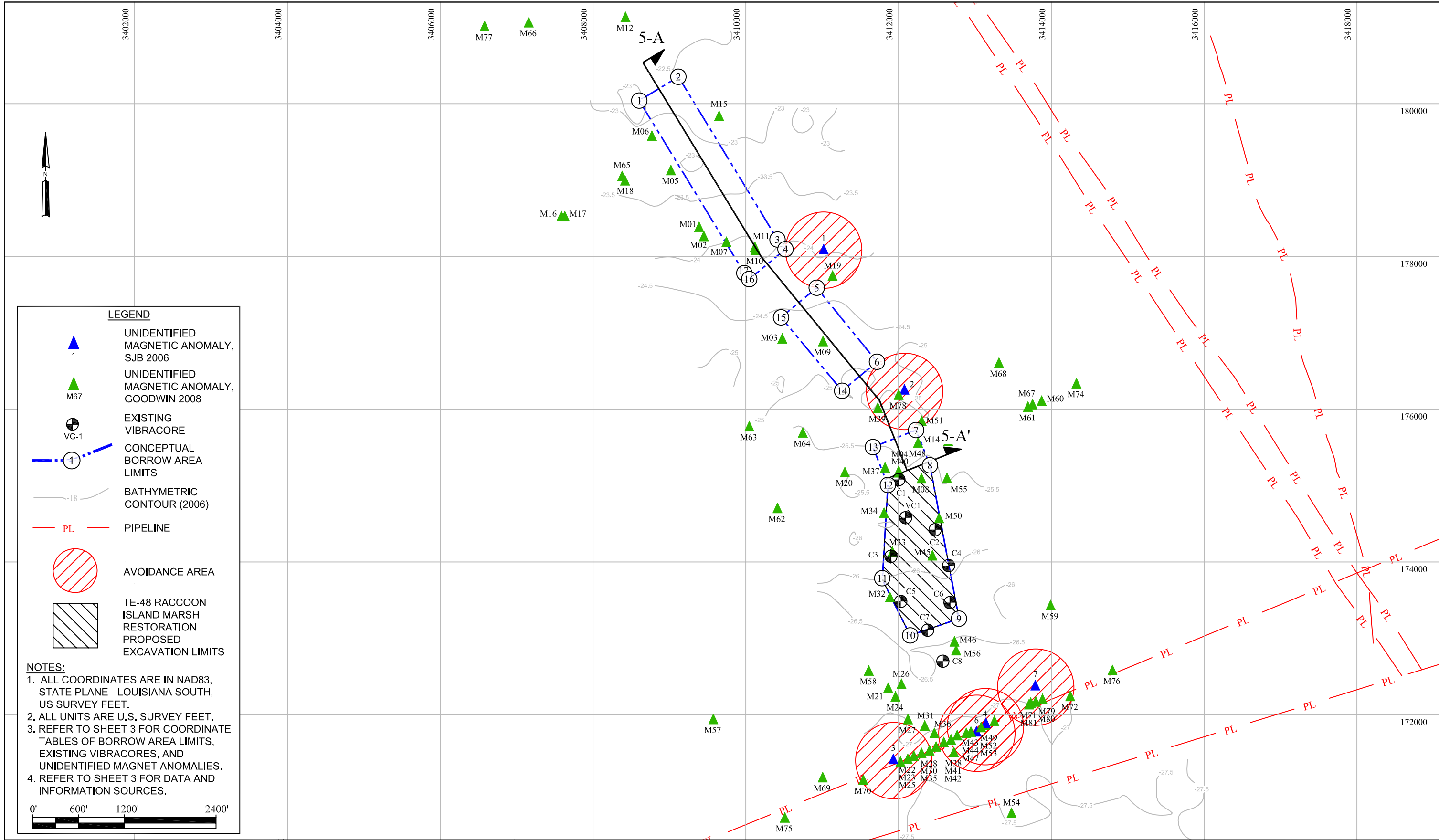
FEDERAL PROJECT NUMBER: LCA-TBBSR

APPROVED BY:









NEW CUT
BORROW AREA 4
COORDINATE
TABLES

DATE: JANUARY, 2010

SHEET 3 OF 3

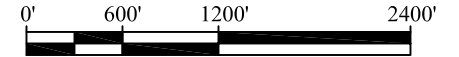


LEGEND

-  UNIDENTIFIED MAGNETIC ANOMALY, SJB 2006
-  UNIDENTIFIED MAGNETIC ANOMALY, GOODWIN 2008
-  EXISTING VIBRACORE
-  CONCEPTUAL BORROW AREA LIMITS
-  BATHYMETRIC CONTOUR (2006)
-  PIPELINE
-  AVOIDANCE AREA
-  TE-48 RACCOON ISLAND MARSH RESTORATION PROPOSED EXCAVATION LIMITS

NOTES:

1. ALL COORDINATES ARE IN NAD83, STATE PLANE - LOUISIANA SOUTH, US SURVEY FEET.
2. ALL UNITS ARE U.S. SURVEY FEET.
3. REFER TO SHEET 3 FOR COORDINATE TABLES OF BORROW AREA LIMITS, EXISTING VIBRACORES, AND UNIDENTIFIED MAGNET ANOMALIES.
4. REFER TO SHEET 3 FOR DATA AND INFORMATION SOURCES.



REV.	DATE	DESCRIPTION	BY

SJB GROUP, LLC
QUALITY BY DESIGN

P.O. BOX 1751
BATON ROUGE, LA. 70821

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ENGINEERING BRANCH

450 LAUREL STREET
BATON ROUGE, LOUISIANA 70801

DRAWN BY: DARTEZ / ZWERNEMAN DESIGNED BY: MICHAEL POFF, P.E.

TERREBONNE BASIN
BARRIER SHORELINE RESTORATION

STATE PROJECT NUMBER: LCA-TBBSR

FEDERAL PROJECT NUMBER: LCA-TBBSR

APPROVED BY:

RACCOON ISLAND
RESTORATION BORROW
AREA 5 PLAN VIEW

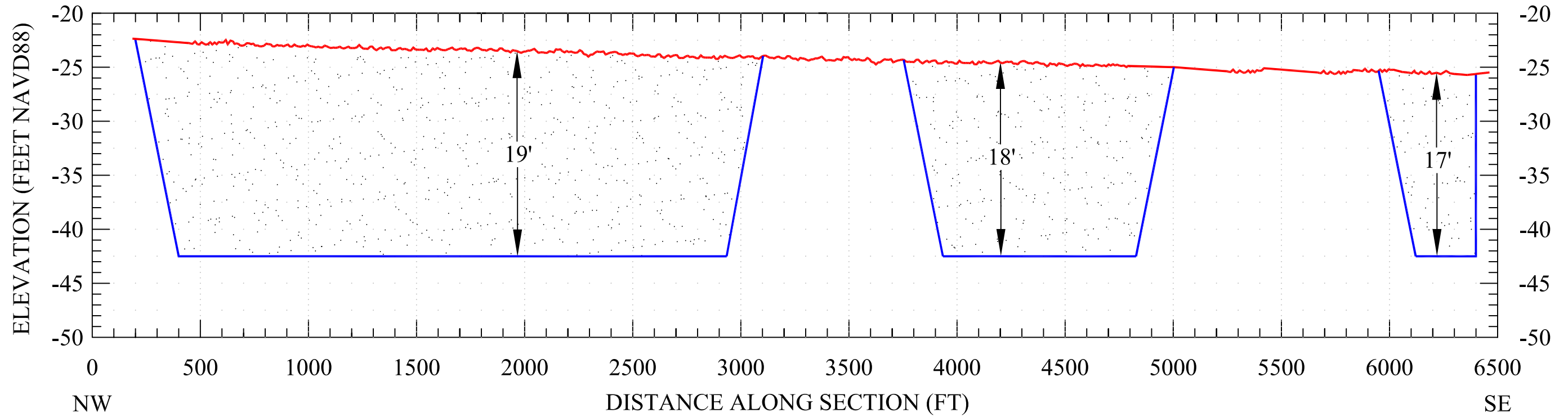
DATE: JANUARY, 2010

SHEET 1 OF 3

NOTES:



- EXISTING GRADE PROFILE DERIVED FROM AUTOCAD FILE 04358 BORROW AREA PLAN VIEW.DWG DEVELOPED FOR REPORT "OFFSHORE GEOPHYSICAL AND GEOTECHNICAL SURVEY REPORT, RACCOON ISLAND SHORELINE PROTECTION / MARSH CREATION PROJECT PHASE B (TE-48)", SJB GROUP, LLC., 2006.
- RESTORATION BORROW AREA SIDE SLOPES 1V:10H.


SCALE:
H: 1" = 10'
V: 1" = 500'



5-A TO 5-A'

LEGEND

-  RESTORATION BORROW AREA CUT LIMITS
-  EXISTING GRADE (NRCS, 2006)

		 P.O. BOX 1751 BATON ROUGE, LA. 70821 PHONE (225) 769-3400 FAX (225) 769-3596		 COASTAL ENGINEERING CONSULTANTS INC. PH: (239) 643-2324 FAX: (239) 643-1143 3106 SOUTH HORSESHOE DRIVE NAPLES, FLORIDA 34104		OFFICE OF COASTAL PROTECTION & RESTORATION ENGINEERING BRANCH 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		TERREBONNE BASIN BARRIER SHORELINE RESTORATION		RACCOON ISLAND RESTORATION BORROW AREA 5 SECTION	
								FEDERAL PROJECT NUMBER: LCA-TBBSR		APPROVED BY:	
REV.	DATE	DESCRIPTION	BY			DRAWN BY: DARTEZ / ZWERNEMAN		DESIGNED BY: MICHAEL POFF, P.E.		SHEET 2 OF 3	

BORROW AREA LIMITS		
PI NO.	EASTING - X	NORTHING - Y
1	3408605.36	180040.86
2	3409117.87	180352.85
3	3410415.01	178222.02
4	3410519.34	178095.95
5	3410928.50	177590.82
6	3411717.33	176621.14
7	3412229.15	175727.18
8	3412410.65	175266.25
9	3412790.77	173257.98
10	3412152.09	173038.69
11	3411787.65	173768.21
12	3411860.31	175008.73
13	3411664.84	175504.84
14	3411260.59	176241.59
15	3410461.72	177202.92
16	3410046.27	177702.84
17	3409980.29	177782.25

UNIDENTIFIED MAGNETIC ANOMALIES - GOODWIN 2008											
REF NO.	EASTING - X	NORTHING - Y	GAMMA	REF NO.	EASTING - X	NORTHING - Y	GAMMA	REF NO.	EASTING - X	NORTHING - Y	GAMMA
M01	3409390.00	178369.28	39.4	M28	3412300.96	171481.84	1072.0	M55	3412635.59	175082.86	10.0
M02	3409452.24	178249.77	41.8	M29	3412227.65	171977.17	16.1	M56	3412757.50	172819.79	296.3
M03	3410479.45	176907.70	17.4	M30	3412406.54	171516.31	169.8	M57	3409576.43	171925.49	15.6
M04	3412000.72	175156.09	17.9	M31	3412344.55	171840.50	12.7	M58	3411611.41	172560.56	19.6
M05	3409021.25	179113.92	25.7	M32	3411888.39	173521.80	11.6	M59	3413990.69	173416.91	13.4
M06	3408772.49	179562.99	12.3	M33	3411920.05	174115.99	24.2	M60	3413877.97	176085.42	656.4
M07	3409748.50	178173.52	14.8	M34	3411811.32	174627.18	20.9	M61	3413698.67	176008.32	1084.5
M08	3412300.95	175076.78	14.4	M35	3412492.47	171564.62	154.4	M62	3410416.26	174688.55	10.0
M09	3411011.81	176874.04	44.6	M36	3412470.04	171742.31	32.4	M63	3410047.18	175759.18	13.8
M10	3410126.31	178066.60	535.6	M37	3411824.54	175219.68	490.5	M64	3410747.24	175676.32	122.1
M11	3410120.05	178108.94	22.6	M38	3412593.39	171623.82	1465.6	M65	3408381.79	179035.15	996.4
M12	3408426.55	181118.79	14.1	M39	3411730.15	175999.96	10.7	M66	3407160.74	181048.22	131.9
M13	3412049.34	176213.28	30.9	M40	3412003.03	175173.78	21.5	M67	3413759.09	176040.83	109.5
M14	3412651.37	175567.92	10.9	M41	3412686.91	171658.95	78.3	M68	3413314.79	176590.95	17.1
M15	3409652.69	179823.22	98.9	M42	3412725.62	171491.86	13.3	M69	3411008.14	171164.12	594.7
M16	3407587.12	178510.62	39.9	M43	3412767.86	171713.86	103.5	M70	3411540.24	171129.56	102.6
M17	3407632.67	178509.08	140.8	M44	3412887.38	171743.20	1073.8	M71	3413731.06	172139.77	75.5
M18	3408418.58	178981.43	31.7	M45	3412444.07	174068.86	14.8	M72	3414248.52	172226.97	59.2
M19	3411136.84	177730.74	30.0	M46	3412737.13	172935.10	3758.0	M73	3410353.16	181866.33	214.6
M20	3411297.87	175159.34	11.5	M47	3412948.10	171760.51	449.8	M74	3414330.55	176321.95	23.8
M21	3411864.77	172334.22	15.8	M48	3412255.86	175546.01	53.8	M75	3410512.42	170635.93	209.3
M22	3412026.12	171368.55	376.5	M49	3413081.78	171820.12	2524.1	M76	3414801.43	172566.45	456.3
M23	3412122.00	171403.24	690.9	M50	3412531.89	174558.10	21.3	M77	3406582.82	180997.02	20.2
M24	3411961.49	172220.83	17.4	M51	3412304.48	175828.44	18.4	M78	3412002.28	176172.87	64.1
M25	3412200.71	171443.91	520.1	M52	3413144.43	171873.93	1395.6	M79	3413885.02	172188.41	642.4
M26	3412039.24	172386.21	14.5	M53	3413255.13	171901.42	128.7	M80	3413797.26	172154.92	101.8
M27	3412124.06	171924.14	15.6	M54	3413480.16	170697.53	18.8	M81	3413709.04	172118.90	323.2

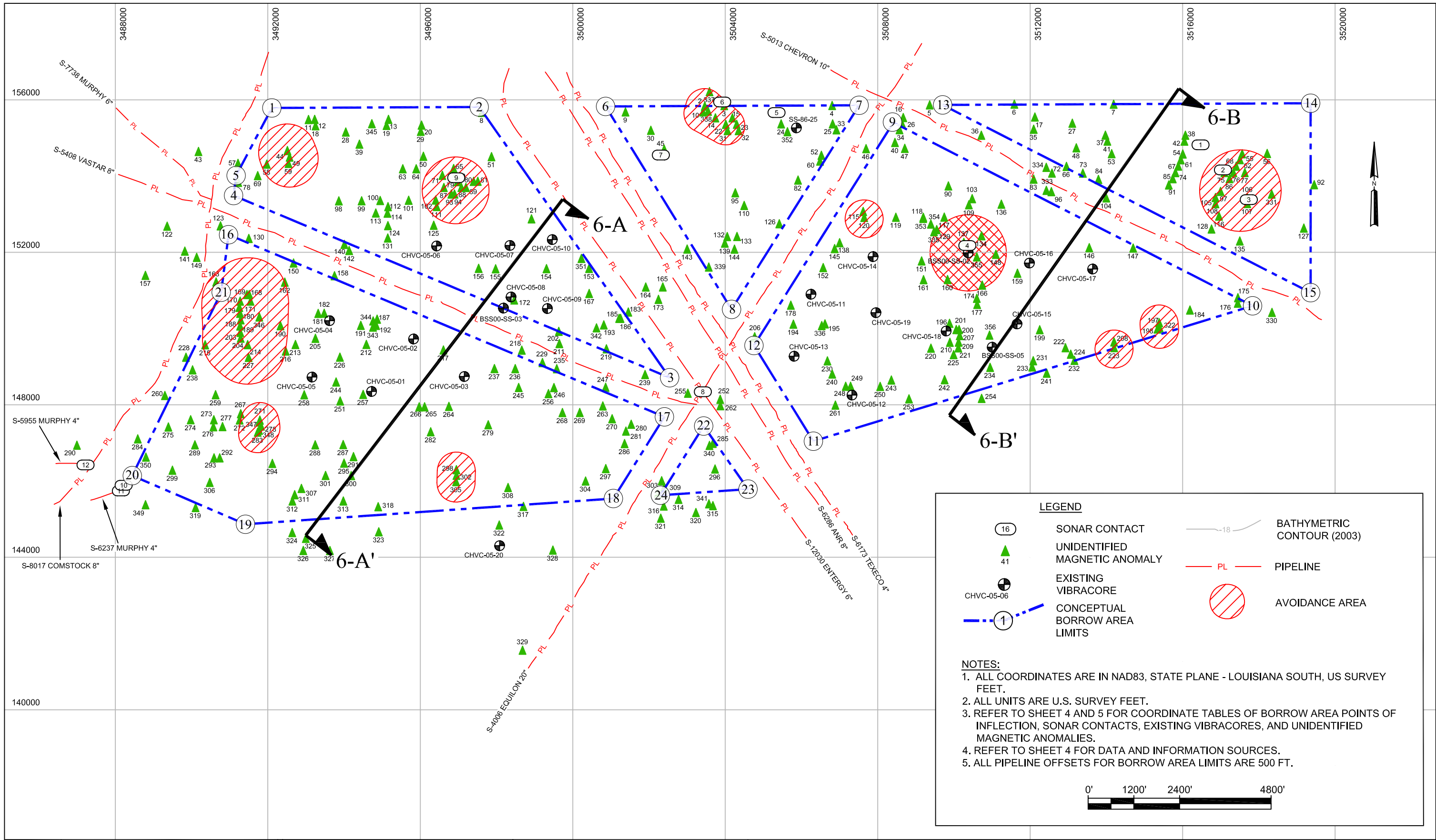
DATA AND INFORMATION SOURCES:

- BATHYMETRIC CONTOURS OBTAINED FROM AUTOCAD FILE 04358 BORROW AREA PLAN VIEW.DWG DEVELOPED FOR REPORT "OFFSHORE GEOPHYSICAL AND GEOTECHNICAL SURVEY REPORT, RACCOON ISLAND SHORELINE PROTECTION / MARSH CREATION PROJECT PHASE B (TE-48)", SJB GROUP, LLC., 2006.
- VIBRACORE LOCATIONS AND SPECIFICS OBTAINED FROM "OFFSHORE GEOPHYSICAL AND GEOTECHNICAL SURVEY REPORT, RACCOON ISLAND SHORELINE PROTECTION / MARSH CREATION PROJECT PHASE B (TE-48)", SJB GROUP, LLC., 2006.
- UNIDENTIFIED MAGNETIC ANOMALIES LOCATIONS AND SPECIFICS OBTAINED FROM "OFFSHORE GEOPHYSICAL AND GEOTECHNICAL SURVEY REPORT, RACCOON ISLAND SHORELINE PROTECTION / MARSH CREATION PROJECT PHASE B (TE-48)", SJB GROUP, LLC., 2006 AND "RACCOON ISLAND SHORELINE PROTECTION / MARSH CREATION (TE-48) SUBMERGED CULTURAL RESOURCES INVESTIGATIONS", R. CHRISTOPHER GOODWIN & ASSOCIATES, INC., 2008.
- CONCEPTUAL BORROW AREA LIMITS OBTAINED FROM "OFFSHORE GEOPHYSICAL AND GEOTECHNICAL SURVEY REPORT, RACCOON ISLAND SHORELINE PROTECTION / MARSH CREATION PROJECT PHASE B (TE-48)", SJB GROUP, LLC., 2006.

UNIDENTIFIED MAGNETIC ANOMALIES - SJB 2006			
REF NO.	EASTING - X	NORTHING - Y	GAMMA
1	3411020.05	178079.71	10
2	3412077.62	176245.95	60
3	3411931.81	171408.60	45
5	3413142.53	171878.10	250
6	3413019.65	171769.26	60
7	3413790.18	172375.80	60

EXISTING VIBRACORES			
CORE NO.	EASTING - X	NORTHING - Y	CORE LENGTH
VC-1	3412092.17	174579.20	19.9
VC-2	3415258.36	169712.63	18.5
VC-3	3416434.18	168834.96	17.2
VC-4	3418610.29	163431.83	20.3
VC-5	3418607.94	162425.28	20.3
C-1	3412004.19	175080.01	17.5
C-2	3412478.93	174422.77	19.9
C-3	3411900.01	174073.91	18.2
C-4	3412654.91	173952.40	19.7
C-5	3412027.87	173483.91	18.3
C-6	3412672.29	173468.12	18.0
C-7	3412380.11	173106.35	18.0
C-8	3412579.51	172700.84	20.1

REV.	DATE	DESCRIPTION	BY	 P.O. BOX 1751 BATON ROUGE, LA. 70821 PHONE (225) 769-3400 FAX (225) 769-3596	 COASTAL ENGINEERING CONSULTANTS INC. PH: (239) 643-2324 FAX: (239) 643-1143 3106 SOUTH HORSESHOE DRIVE NAPLES, FLORIDA 34104	OFFICE OF COASTAL PROTECTION & RESTORATION ENGINEERING BRANCH 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		TERREBONNE BASIN BARRIER SHORELINE RESTORATION		RACCOON ISLAND RESTORATION BORROW AREA 5 COORDINATE TABLES
								STATE PROJECT NUMBER: LCA-TBBSR		
						DRAWN BY: DARTEZ / ZWERNEMAN	DESIGNED BY: MICHAEL POFF, P.E.	APPROVED BY:	SHEET 3 OF 3	



LEGEND

	SONAR CONTACT		BATHYMETRIC CONTOUR (2003)
	UNIDENTIFIED MAGNETIC ANOMALY		PIPELINE
	EXISTING VIBRACORE		AVOIDANCE AREA
	CONCEPTUAL BORROW AREA LIMITS		

NOTES:

1. ALL COORDINATES ARE IN NAD83, STATE PLANE - LOUISIANA SOUTH, US SURVEY FEET.
2. ALL UNITS ARE U.S. SURVEY FEET.
3. REFER TO SHEET 4 AND 5 FOR COORDINATE TABLES OF BORROW AREA POINTS OF INFLECTION, SONAR CONTACTS, EXISTING VIBRACORES, AND UNIDENTIFIED MAGNETIC ANOMALIES.
4. REFER TO SHEET 4 FOR DATA AND INFORMATION SOURCES.
5. ALL PIPELINE OFFSETS FOR BORROW AREA LIMITS ARE 500 FT.

0' 1200' 2400' 4800'

REV.	DATE	DESCRIPTION	BY

SJB GROUP, LLC
 QUALITY BY DESIGN

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 BATON ROUGE, LA. 70821

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ENGINEERING BRANCH

450 LAUREL STREET
 BATON ROUGE, LOUISIANA 70801

DRAWN BY: DARTEZ / ZWERNEMAN DESIGNED BY: MICHAEL POFF, P.E.

TERREBONNE BASIN
 BARRIER SHORELINE RESTORATION

STATE PROJECT NUMBER: LCA-TBBSR
 FEDERAL PROJECT NUMBER: LCA-TBBSR

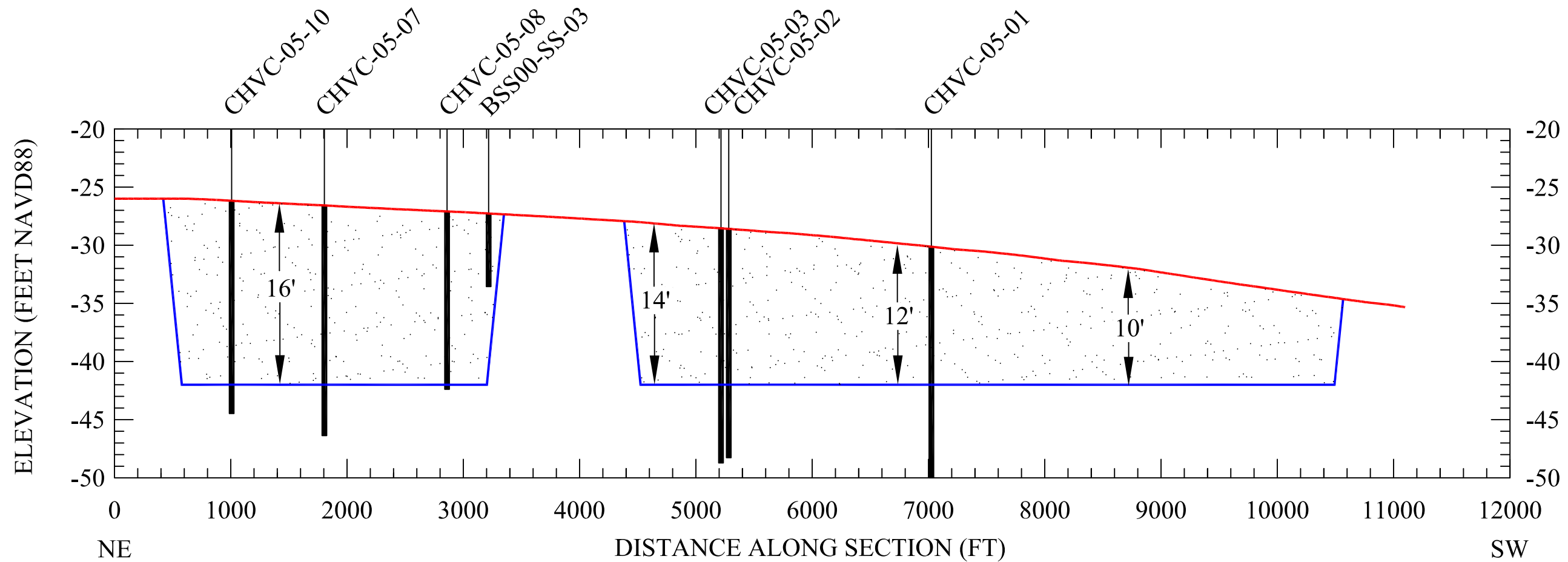
APPROVED BY:

SOUTH PELTO BORROW
 AREA 6 PLAN VIEW

DATE: JANUARY, 2010

SHEET 1 OF 5

SCALE:
H: 1" = 10'
V: 1" = 2000'



6-A TO 6-A'

NOTES:

- EXISTING GRADE DERIVED FROM BATHYMETRY MAP, NEW CUT DUNE/MARSH RESTORATION, SHEET 1 OF 4 INCLUDED IN REPORT TITLED "HIGH RESOLUTION GEOPHYSICAL AND ARCHAEOLOGICAL SURVEY OF THE SOUTH PELTO AREA BLOCK 13 VICINITY OF SHIP SHOAL", C&C TECHNOLOGIES, 2003. (DRAWING FILENAME: 4037.DWG)
- BORROW AREA CUT DEPTHS DERIVED FROM ISOPACH MAP INCLUDED IN REPORT TITLED "HIGH RESOLUTION GEOPHYSICAL AND ARCHAEOLOGICAL SURVEY OF THE SOUTH PELTO AREA BLOCK 13 VICINITY OF SHIP SHOAL", C&C TECHNOLOGIES, 2003.
- VIBRACORE LOCATIONS AND SPECIFICS PREFIXED "BSS" & "SS" OBTAINED FROM REPORT TITLED "HIGH RESOLUTION GEOPHYSICAL AND ARCHAEOLOGICAL SURVEY OF THE SOUTH PELTO AREA BLOCK 13 VICINITY OF SHIP SHOAL", PAGE 11, C&C TECHNOLOGIES, 2003. VIBRACORE LOCATIONS AND SPECIFICS PREFIXED "CHVC" OBTAINED FROM REPORT TITLED "GEOTECHNICAL INVESTIGATION FOR EXPLORATION OF SAND RESOURCES IN THE LOWER MISSISSIPPI RIVER AND SOUTH PASS AND EXPLORATION FOR SAND VIA VIBRACORING IN SOUTH PELTO BLOCKS 12 & 13", COASTAL PLANNING AND ENGINEERING, 2005.
- BORROW AREA SIDE SLOPES 1V:10H.

LEGEND

- EXISTING VIBRACORE
- BORROW AREA CUT LIMITS
- EXISTING GRADE (C&C TECHNOLOGIES, 2003b)

REV.	DATE	DESCRIPTION	BY

SJB GROUP, LLC
QUALITY BY DESIGN

P.O. BOX 1751
BATON ROUGE, LA. 70821

PHONE (225) 769-3400
FAX (225) 769-3596

COASTAL ENGINEERING CONSULTANTS INC.

PH: (239) 643-2324
FAX: (239) 643-1143
3106 SOUTH HORSESHOE DRIVE
NAPLES, FLORIDA 34104

OFFICE OF COASTAL PROTECTION & RESTORATION
ENGINEERING BRANCH
450 LAUREL STREET
BATON ROUGE, LOUISIANA 70801

DRAWN BY: DARTEZ / ZWERNEMAN DESIGNED BY: MICHAEL POFF, P.E.

TERREBONNE BASIN
BARRIER SHORELINE RESTORATION

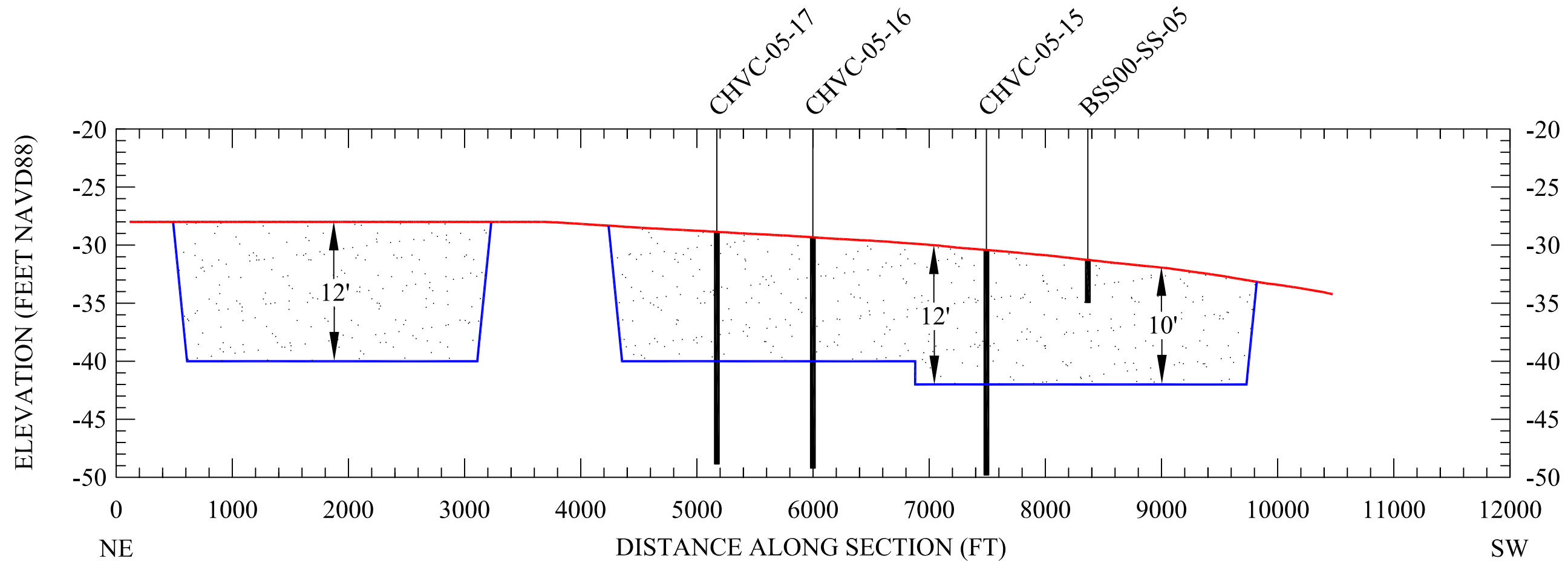
STATE PROJECT NUMBER: LCA-TBBSR
FEDERAL PROJECT NUMBER: LCA-TBBSR

APPROVED BY:

SOUTH PELTO BORROW
AREA 6 SECTION

DATE: JANUARY, 2010
SHEET 2 OF 5

SCALE:
H: 1" = 10'
V: 1" = 2000'



6-B TO 6-B'

NOTES:

- EXISTING GRADE DERIVED FROM BATHYMETRY MAP, NEW CUT DUNE/MARSH RESTORATION, SHEET 1 OF 4 INCLUDED IN REPORT TITLED "HIGH RESOLUTION GEOPHYSICAL AND ARCHAEOLOGICAL SURVEY OF THE SOUTH PELTO AREA BLOCK 13 VICINITY OF SHIP SHOAL", C&C TECHNOLOGIES, 2003. (DRAWING FILENAME: 4037.DWG)
- BORROW AREA CUT DEPTHS DERIVED FROM ISOPACH MAP INCLUDED IN REPORT TITLED "HIGH RESOLUTION GEOPHYSICAL AND ARCHAEOLOGICAL SURVEY OF THE SOUTH PELTO AREA BLOCK 13 VICINITY OF SHIP SHOAL", C&C TECHNOLOGIES, 2003.
- VIBRACORE LOCATIONS AND SPECIFICS PREFIXED "BSS" & "SS" OBTAINED FROM REPORT TITLED "HIGH RESOLUTION GEOPHYSICAL AND ARCHAEOLOGICAL SURVEY OF THE SOUTH PELTO AREA BLOCK 13 VICINITY OF SHIP SHOAL", PAGE 11, C&C TECHNOLOGIES, 2003. VIBRACORE LOCATIONS AND SPECIFICS PREFIXED "CHVC" OBTAINED FROM REPORT TITLED "GEOTECHNICAL INVESTIGATION FOR EXPLORATION OF SAND RESOURCES IN THE LOWER MISSISSIPPI RIVER AND SOUTH PASS AND EXPLORATION FOR SAND VIA VIBRACORING IN SOUTH PELTO BLOCKS 12 & 13", COASTAL PLANNING AND ENGINEERING, 2005.
- BORROW AREA SIDE SLOPES 1V:10H.

LEGEND	
	EXISTING VIBRACORE
	BORROW AREA CUT LIMITS
	EXISTING GRADE (C&C TECHNOLOGIES, 2003b)

		 SJB GROUP, LLC <small>QUALITY BY DESIGN</small> P.O. BOX 1751 BATON ROUGE, LA. 70821 PHONE (225) 769-3400 FAX (225) 769-3596	 COASTAL ENGINEERING CONSULTANTS INC. PH: (239) 643-2324 FAX: (239) 643-1143 3106 SOUTH HORSESHOE DRIVE NAPLES, FLORIDA 34104	OFFICE OF COASTAL PROTECTION & RESTORATION ENGINEERING BRANCH 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		TERREBONNE BASIN BARRIER SHORELINE RESTORATION		SOUTH PELTO BORROW AREA 6 SECTION	
						STATE PROJECT NUMBER: LCA-TBBSR			FEDERAL PROJECT NUMBER: LCA-TBBSR
REV.	DATE	DESCRIPTION	BY	DRAWN BY: DARTEZ / ZWERNEMAN		DESIGNED BY: MICHAEL POFF, P.E.		APPROVED BY:	SHEET 3 OF 5

BORROW AREA LIMITS					
PI NO.	EASTING - X	NORTHING - Y	PI NO.	EASTING - X	NORTHING - Y
1	3492105.07	155787.41	13	3509703.72	155866.70
2	3497544.99	155811.92	14	3519357.50	155910.19
3	3502541.80	148709.91	15	3519357.50	150942.02
4	3491101.12	153489.65	16	3490969.14	152461.03
5	3491168.34	154013.62	17	3502404.45	147683.53
6	3500860.53	155826.86	18	3501065.31	145540.82
7	3507512.53	155856.82	19	3491413.08	144866.33
8	3504166.08	150502.27	20	3488443.86	146141.91
9	3508386.57	155416.02	21	3490775.60	150952.59
10	3517833.97	150596.61	22	3503433.27	147442.87
11	3506312.76	147044.39	23	3504597.83	145787.67
12	3504753.72	149555.69	24	3502298.39	145626.99



SONAR CONTACTS				
REF NO.	EASTING - X	NORTHING - Y	DIMENSION	DESCRIPTION
1	3516468.73	154820.03	13' x 6' x NMH	Debris
2	3517057.74	154161.01	15' x 11' x NMH	Debris
3	3517057.74	154161.01	15' x 9' x NMH	Debris
4	3510351.78	152178.04	4' x 2' x NMH	Debris
5	3505345.73	155665.17	14' x 3' x NMH	Debris
6	3503919.72	155944.20	15' x 2' x NMH	Debris
7	3502310.75	154552.19	7' x 2' x NMH	Debris
8	3503412.85	148342.04	17' x 15'	Debris
9	3496941.76	153955.24	Debris Zone	Debris Zone
10	3488217.90	145889.17	16' x 17' x NMH	Debris
11	3488144.90	145740.17	9' x 13' x NMH	Debris
12	3487217.89	146422.19	Debris Zone	Debris Zone

NMH = NO MEASURABLE HEIGHT

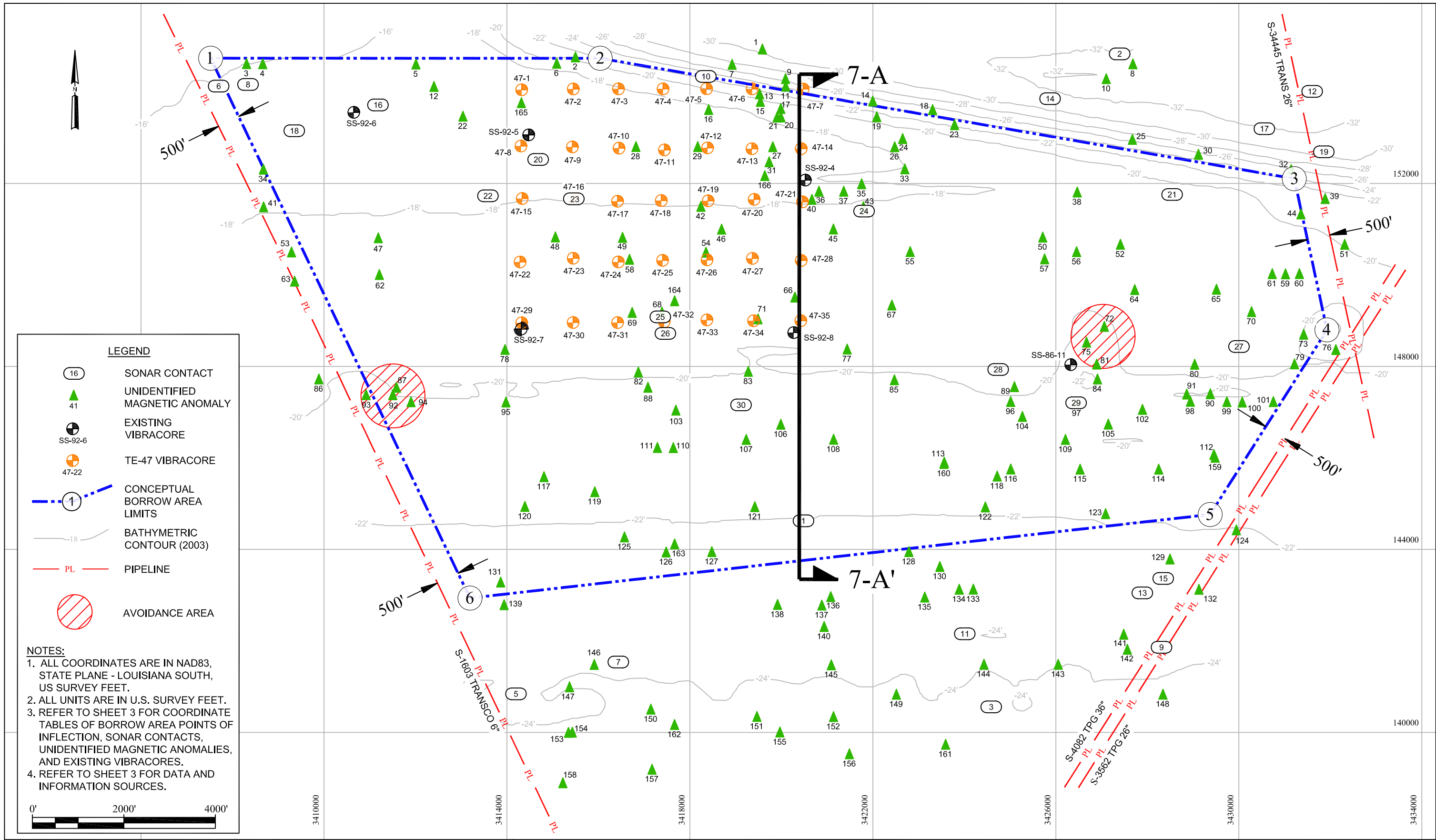
EXISTING VIBRACORES							
CORE NO.	EASTING - X	NORTHING - Y	CORE LENGTH	CORE NO.	EASTING - X	NORTHING - Y	CORE LENGTH
BSS00-SS-02	3510374.58	151986.47	6.8'	CHVC-05-09	3499334.00	150525.00	20.3'
BSS00-SS-03	3498181.47	150536.38	6.3'	CHVC-05-10	3499462.00	152334.00	18.3'
BSS00-SS-05	3511003.53	149511.61	3.7'	CHVC-05-11	3506249.00	150900.00	17.4'
SS-86-25	3505866.77	155263.95	43.5'	CHVC-05-12	3507325.00	148255.00	19.8'
CHVC-05-01	3494722.00	148350.00	20.3'	CHVC-05-13	3505807.00	149274.00	18.8'
CHVC-05-02	3495823.00	149727.00	19.7'	CHVC-05-14	3507878.00	151887.00	20.1'
CHVC-05-03	3497155.00	148742.00	20.2'	CHVC-05-15	3511655.00	150121.00	19.4'
CHVC-05-04	3493620.00	150207.00	17.4'	CHVC-05-16	3511981.00	151718.00	19.9'
CHVC-05-05	3493160.00	148728.00	20.2'	CHVC-05-17	3513638.00	151562.00	20.0'
CHVC-05-06	3496427.00	152167.00	17.2'	CHVC-05-18	3509796.00	149936.00	19.9'
CHVC-05-07	3498531.00	152180.00	19.8'	CHVC-05-19	3507954.00	150416.00	13.8'
CHVC-05-08	3498380.00	150829.00	15.3'	CHVC-05-20	3498081.00	144304.00	20.2'

DATA AND INFORMATION SOURCES:

- BATHYMETRIC CONTOURS AND PIPELINE IDENTIFICATIONS DERIVED FROM BATHYMETRY MAP, NEW CUT DUNE/MARSH RESTORATION, SHEET 1 OF 4 INCLUDED IN REPORT TITLED "HIGH RESOLUTION GEOPHYSICAL AND ARCHAEOLOGICAL SURVEY OF THE SOUTH PELTO AREA BLOCK 13 VICINITY OF SHIP SHOAL", C&C TECHNOLOGIES, 2003. (DRAWING FILENAME: 4037.DWG)
- VIBRACORE LOCATIONS AND SPECIFICS PREFIXED "BSS" & "SS" OBTAINED FROM REPORT TITLED "HIGH RESOLUTION GEOPHYSICAL AND ARCHAEOLOGICAL SURVEY OF THE SOUTH PELTO AREA BLOCK 13 VICINITY OF SHIP SHOAL", PAGE 11, C&C TECHNOLOGIES, 2003. VIBRACORE LOCATIONS AND SPECIFICS PREFIXED "CHVC" OBTAINED FROM REPORT TITLED "GEOTECHNICAL INVESTIGATION FOR EXPLORATION OF SAND RESOURCES IN THE LOWER MISSISSIPPI RIVER AND SOUTH PASS AND EXPLORATION FOR SAND VIA VIBRACORING IN SOUTH PELTO BLOCKS 12 & 13", COASTAL PLANNING AND ENGINEERING, 2005.
- SONAR CONTACTS LOCATIONS AND SPECIFICS OBTAINED FROM REPORT TITLED "HIGH RESOLUTION GEOPHYSICAL AND ARCHAEOLOGICAL SURVEY OF THE SOUTH PELTO AREA BLOCK 13 VICINITY OF SHIP SHOAL", PAGE 29, C&C TECHNOLOGIES, 2003.
- UNIDENTIFIED MAGNETIC ANOMALIES LOCATIONS AND SPECIFICS OBTAINED FROM REPORT TITLED "HIGH RESOLUTION GEOPHYSICAL AND ARCHAEOLOGICAL SURVEY OF THE SOUTH PELTO AREA BLOCK 13 VICINITY OF SHIP SHOAL", APPENDIX B, PAGES B-17 TO B-27, C&C TECHNOLOGIES, 2003.

		 P.O. BOX 1751 PHONE (225) 769-3400 BATON ROUGE, LA. 70821 FAX (225) 769-3596		 COASTAL ENGINEERING CONSULTANTS INC. PH: (239) 643-2324 FAX: (239) 643-1143 3106 SOUTH HORSESHOE DRIVE NAPLES, FLORIDA 34104		OFFICE OF COASTAL PROTECTION & RESTORATION ENGINEERING BRANCH 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		TERREBONNE BASIN BARRIER SHORELINE RESTORATION		SOUTH PELTO BORROW AREA 6 COORDINATE TABLES	
								STATE PROJECT NUMBER: LCA-TBBSR		FEDERAL PROJECT NUMBER: LCA-TBBSR	
REV.	DATE	DESCRIPTION	BY	DRAWN BY: DARTEZ / ZWERNEMAN		DESIGNED BY: MICHAEL POFF, P.E.		APPROVED BY:		SHEET 4 OF 5	

UNIDENTIFIED MAGNETIC ANOMALIES																								
REF NO.	EASTING - X	NORTHING - Y	GAMMA	REF NO.	EASTING - X	NORTHING - Y	GAMMA	REF NO.	EASTING - X	NORTHING - Y	GAMMA	REF NO.	EASTING - X	NORTHING - Y	GAMMA	REF NO.	EASTING - X	NORTHING - Y	GAMMA	REF NO.	EASTING - X	NORTHING - Y	GAMMA	
1	3500924.83	155805.78	33	61	3515948.74	154389.02	32	121	3498914.78	152840.19	3	181	3493319.82	150360.20	5	241	3512431.84	148791.95	4	301	3493512.89	146109.11	2	
2	3503461.06	155795.05	4	62	3517499.74	154394.01	3	182	3493356.79	152647.30	3	182	3493476.82	150363.20	1	242	3509752.84	148620.98	19	302	3496945.89	146113.07	996	
3	3503971.79	155811.63	4	63	3495538.76	154153.26	5	123	3490756.79	152656.28	9	183	3501454.82	150396.11	3	243	3508355.84	148611.99	13	303	3502329.89	145970.01	26	
4	3506802.72	155814.16	30	64	3495890.76	154154.25	3	124	3495148.79	152662.23	5	184	3516188.81	150446.94	6	244	3493788.85	148561.16	4	304	3500333.89	145963.03	9	
5	3509361.72	155830.13	4	65	3496871.76	154159.24	16	125	3496349.78	152671.22	3	185	3501212.82	150229.11	29	245	3498578.85	148416.10	16	305	3496936.89	145947.07	6	
6	3511582.72	155849.10	12	66	3512949.74	154216.06	3	126	3505415.78	152711.11	8	186	3501251.82	150229.11	13	246	3499503.85	148415.09	4	306	3490474.89	145927.14	4	
7	3514187.71	155848.07	8	67	3515881.74	154223.02	11	127	3519176.77	152596.95	4	187	3494864.82	150208.18	5	247	3500859.85	148422.08	9	307	3492879.90	145769.11	17	
8	3497611.74	155634.26	12	68	3517402.74	154221.00	17	128	3516754.77	152573.98	19	188	3491285.83	150192.22	363	248	3507158.85	148449.00	4	308	3498299.89	145792.05	2	
9	3501380.73	155645.22	5	69	3491732.77	153974.30	4	129	3509545.78	152558.06	16	189	3491269.83	150029.22	1932	249	3507286.85	148449.00	7	309	3502399.89	145799.00	6	
10	3503415.73	155645.20	3	70	3496919.76	153986.24	1674	130	3491499.79	152325.27	3	190	3492329.83	150035.21	12	250	3508062.85	148444.99	17	310	3502227.90	145639.00	12	
11	3493065.74	155446.31	3	71	3496575.76	153981.24	19	131	3495144.79	152337.22	5	191	3494437.83	150045.18	22	251	3493895.86	148062.15	4	311	3492702.90	145603.11	5	
12	3493227.74	155450.31	10	72	3512569.75	154041.06	6	132	3504049.78	152376.12	2	192	3494839.83	150046.18	5	252	3503865.85	148106.04	14	312	3492642.90	145438.11	3	
13	3495163.74	155449.29	4	73	3513380.75	154039.05	9	133	3504306.78	152377.12	5	193	3500811.82	150057.11	22	253	3508818.85	148118.98	3	313	3493978.90	145439.09	2	
14	3503739.73	155490.19	4	74	3515807.74	154053.02	11	134	3510722.78	152395.04	3	194	3505785.82	150077.05	3	254	3510724.85	148130.96	5	314	3502773.90	145481.99	3	
15	3504185.73	155490.18	4	75	3517093.74	154056.00	54	135	3517496.77	152258.96	8	195	3506614.82	150084.04	3	255	3503016.85	148266.05	45	315	3503674.90	145315.98	27	
16	3508668.73	155498.13	29	76	3517328.74	154055.00	18	136	3511242.76	153226.06	3	196	3509882.82	150099.01	3	256	3499359.85	148254.09	10	316	3502384.90	145305.99	12	
17	3512121.72	155511.09	60	77	3517628.74	154053.00	6	137	3510257.78	152221.05	16	197	3515381.81	150117.94	5	257	3494498.86	148234.15	5	317	3498703.90	145297.04	10	
18	3493249.75	155281.31	8	78	3491221.77	153798.30	9	138	3506998.78	152213.08	5	198	3515337.82	149949.94	49	258	3492952.86	148225.16	8	318	3494893.90	145289.08	31	
19	3495111.74	155291.29	26	79	3496976.77	153815.23	2467	139	3503986.79	152203.12	2	199	3512248.82	149930.98	2	259	3490627.86	148226.19	4	319	3490102.91	145267.13	4	
20	3496030.74	155299.28	25	80	3497396.76	153824.23	30	140	3494006.79	152170.23	5	200	3510132.82	149936.00	17	260	3489297.86	148206.20	12	320	3503228.90	145136.98	40	
21	3502955.74	155316.19	6	81	3497505.76	153826.23	6	141	3498820.80	151994.28	6	201	3510058.82	149936.00	10	261	3506887.86	147955.00	3	321	3502306.91	144988.99	32	
22	3504012.73	155319.18	6	82	3494131.80	153858.13	6	142	3496307.78	152009.23	9	202	3499630.83	149889.12	8	262	3503869.86	147939.03	16	322	3498068.91	144808.03	3	
23	3504298.73	155321.18	6	83	3512089.75	153881.06	26	143	3502998.79	152048.13	7	203	3491275.83	149862.22	72	263	3500786.86	147933.07	6	323	3494908.91	144631.07	5	
24	3505464.73	155331.17	3	84	3513788.75	153874.04	3	144	3504239.79	152045.11	9	204	3491285.84	149710.21	15	264	3496748.86	147920.11	3	324	3492637.92	144610.09	8	
25	3506815.73	155332.15	3	85	3515737.75	153893.02	8	145	3506868.79	152060.08	4	205	3493246.83	149706.19	22	265	3496109.86	147910.12	3	325	3492994.92	144458.08	2	
26	3508635.73	155338.13	48	86	3517226.75	153893.00	7	146	3513547.78	152083.01	3	206	3504769.83	149748.06	5	266	3495968.86	147908.12	2	326	3492928.92	144140.08	8	
27	3513103.72	155350.08	33	87	3496615.77	153663.23	20	147	3510480.78	152077.99	16	207	3510148.82	149777.00	9	267	3491287.87	147728.17	5	327	3493626.92	144139.07	12	
28	3494043.75	155118.30	7	88	3497075.77	153663.23	8	148	3511097.79	151909.03	20	208	3514198.82	149612.95	53	268	3499725.86	147758.08	4	328	3499475.92	144151.00	2	
29	3496009.74	155136.27	9	89	3497194.77	153663.23	11	149	3490131.80	151829.27	12	209	3510120.83	149605.99	9	269	3500180.86	147760.07	2	329	3498679.96	141524.96	3	
30	3502046.74	155164.20	6	90	3509852.76	153703.08	4	150	3492672.80	151682.24	17	210	3509891.83	149602.00	18	270	3501029.86	147597.06	2	330	3518340.81	150384.92	2	
31	3504056.74	155155.18	79	91	3515634.75	153730.01	5	151	3509149.79	151736.05	58	211	3499645.83	149569.11	6	271	3491789.87	147560.16	38	331	3518333.75	153488.98	2	
32	3504347.74	155155.18	7	92	3519448.75	153735.97	6	119	3506567.79	151562.08	6	212	3494582.84	149546.17	10	272	3491258.87	147565.17	3	332	3515393.82	149981.94	10	
33	3506914.73	155176.15	17	93	3496811.77	153491.23	5	153	3500424.80	151540.15	2	213	3492722.84	149545.19	2	273	3490581.87	147570.18	4	333	3512422.76	153587.05	19	
34	3508569.73	155179.13	12	94	3496894.77	153491.23	48	154	3499307.80	151534.16	2	214	3491468.84	149541.21	9	274	3489973.87	147571.18	5	334	3512420.75	154192.06	2	
35	3512090.73	155192.09	3	95	3504261.76	153524.14	5	155	3497973.80	151530.17	2	215	3490353.84	149536.22	3	275	3489388.87	147380.19	17	335	3509474.78	152501.06	6	
36	3510716.73	155033.10	13	96	3512553.76	153554.05	28	156	3497528.80	151542.18	7	216	3492466.84	149373.19	15	276	3490569.87	147387.17	27	336	3506529.82	150040.04	3	
37	3513971.73	155036.06	18	97	3516991.75	153560.00	11	157	3488786.81	151357.28	5	217	3496603.84	149400.15	6	277	3490809.87	147390.17	6	337	3503584.72	156177.21	3	
38	3516069.73	155033.04	5	98	3493860.78	153311.26	5	158	3493746.81	151348.22	15	218	3498660.84	149396.12	8	278	3491818.87	147406.16	10	338	3503547.73	155663.20	2	
39	3494400.75	154799.28	3	99	3494458.78	153314.25	7	159	3511664.79	151414.01	6	219	3500880.83	149430.10	3	279	3497779.87	147439.09	2	339	3503565.80	151576.11	8	
40	3508450.74	154844.12	3	100	3494945.77	153321.25	5	160	3509830.80	151247.03	11	220	3509394.83	149449.00	10	280	3501530.87	147453.05	2	340	3503583.87	146897.01	4	
41	3514022.73	154879.06	24	101	3495692.77	153328.24	12	161	3509200.80	151244.04	9	221	3510113.83	149455.99	3	281	3501392.87	147272.05	5	341	3503569.90	145363.98	28	
42	3516043.73	154880.03	8	102	3496401.77	153333.23	5	162	3492442.81	151179.23	14	222	3512923.83	149460.96	9	282	3496269.87	147254.10	4	342	3500619.82	149981.11	33	
43	3490178.76	154608.33	8	103	3510476.76	153370.07	5	163	3490641.81	151184.25	2	223	3514200.83	149462.94	2	283	3491731.87	147244.16	10	343	3494756.83	149999.18	5	
44	3492508.76	154617.30	4	104	3513994.76	153389.03	6	164	3501912.81	151052.12	4	224	3513062.83	149289.95	22	284	3488585.88	147068.19	9	344	3494760.83	150161.18	6	
45	3502396.75	154667.19	3	105	3516858.76	153399.99	113	165	3502359.81	151054.11	11	225	3509989.83	149277.99	22	285	3503671.87	146950.01	2	345	3494727.74	155336.29	24	
46	3507692.74	154681.13	82	106	35176																			



LEGEND

- SONAR CONTACT
- UNIDENTIFIED MAGNETIC ANOMALY
- EXISTING VIBRACORE
- TE-47 VIBRACORE
- CONCEPTUAL BORROW AREA LIMITS
- BATHYMETRIC CONTOUR (2003)
- PIPELINE
- AVOIDANCE AREA

NOTES:

- ALL COORDINATES ARE IN NAD83, STATE PLANE - LOUISIANA SOUTH, US SURVEY FEET.
- ALL UNITS ARE IN U.S. SURVEY FEET.
- REFER TO SHEET 3 FOR COORDINATE TABLES OF BORROW AREA POINTS OF INFLECTION, SONAR CONTACTS, UNIDENTIFIED MAGNETIC ANOMALIES, AND EXISTING VIBRACORES.
- REFER TO SHEET 3 FOR DATA AND INFORMATION SOURCES.

0' 2000' 4000'

REV.	DATE	DESCRIPTION	BY

SJB GROUP, LLC
QUALITY BY DESIGN

P.O. BOX 1751
BATON ROUGE, LA. 70821

PHONE (225) 769-3400
FAX (225) 769-3596

COASTAL ENGINEERING CONSULTANTS INC.

PH: (239) 643-2324
FAX: (239) 643-1143
3106 SOUTH HORSESHOE DRIVE
NAPLES, FLORIDA 34104

OFFICE OF COASTAL PROTECTION & RESTORATION
ENGINEERING BRANCH

450 LAUREL STREET
BATON ROUGE, LOUISIANA 70801

DRAWN BY: DARTEZ / ZWERNEMAN DESIGNED BY: MICHAEL POFF, P.E.

TERREBONNE BASIN
BARRIER SHORELINE RESTORATION

STATE PROJECT NUMBER: LCA-TBBSR

FEDERAL PROJECT NUMBER: LCA-TBBSR

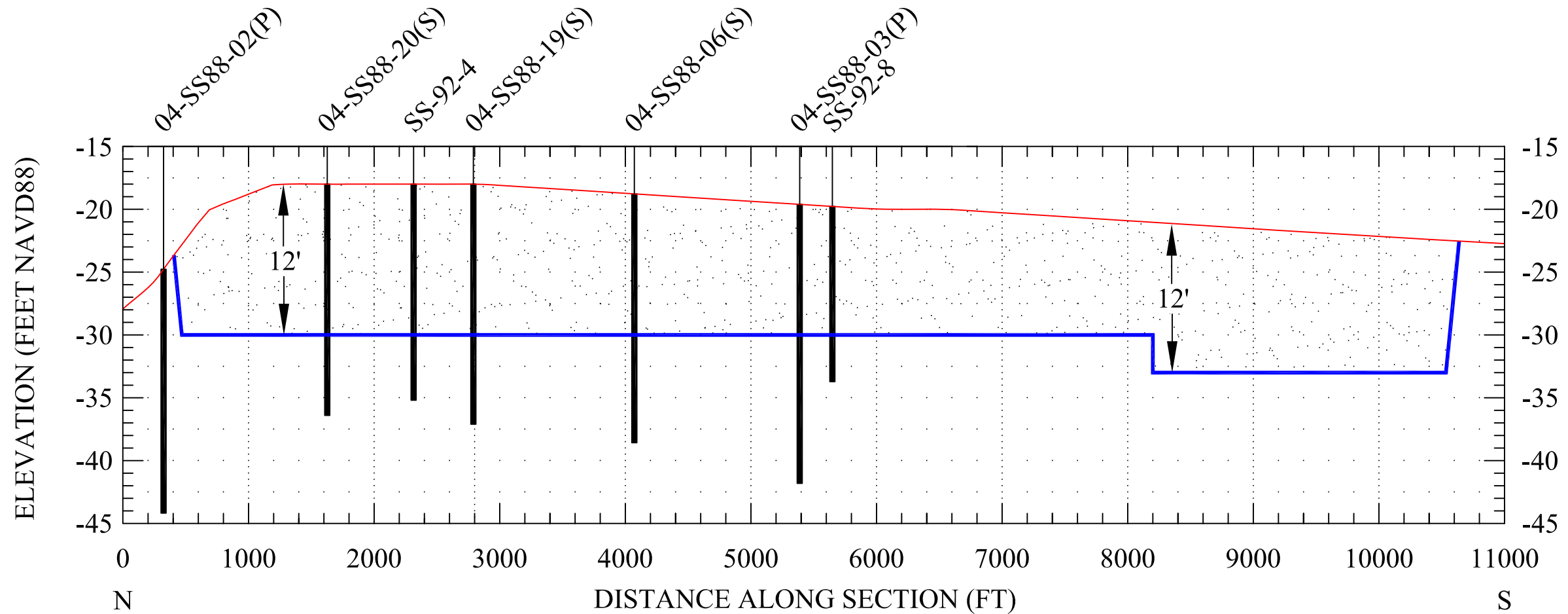
APPROVED BY:

SHIP SHOAL BORROW
AREA 7 PLAN VIEW

DATE: JANUARY, 2010

SHEET 1 OF 3

SCALE:
H: 1" = 10'
V: 1" = 1000'






7-A TO 7-A'

NOTES:

- EXISTING GRADE DERIVED FROM BATHYMETRY MAP, WHISKEY ISLAND WEST FLANK RESTORATION SHEET 1 OF 4 INCLUDED IN REPORT TITLED "HIGH RESOLUTION GEOPHYSICAL AND ARCHAEOLOGICAL SURVEY OF PORTIONS OF BLOCKS 87, 88, 89, 94 AND 95 SHIP SHOAL AREA", C&C TECHNOLOGIES, 2003. (DRAWING FILENAME: 4036.DWG)
- BORROW AREA CUT DEPTHS DERIVED FROM ISOPACH MAP INCLUDED IN REPORT TITLED "HIGH RESOLUTION GEOPHYSICAL AND ARCHAEOLOGICAL SURVEY OF PORTIONS OF BLOCKS 87, 88, 89, 94 AND 95 SHIP SHOAL AREA", C&C TECHNOLOGIES, 2003.
- VIBRACORE LOCATIONS AND SPECIFICS OBTAINED FROM REPORT TITLED "HIGH RESOLUTION GEOPHYSICAL AND ARCHAEOLOGICAL SURVEY OF PORTIONS OF BLOCKS 87, 88, 89, 94 AND 95 SHIP SHOAL AREA", PAGE 13, C&C TECHNOLOGIES, 2003.
- BORROW AREA SIDE SLOPES 1V:10H.

LEGEND

-  EXISTING VIBRACORE
-  BORROW AREA CUT LIMITS
-  EXISTING GRADE (C&C TECHNOLOGIES, 2003a)

		 P.O. BOX 1751 PHONE (225) 769-3400 BATON ROUGE, LA. 70821 FAX (225) 769-3596		 COASTAL ENGINEERING CONSULTANTS INC. PH: (239) 643-2324 FAX: (239) 643-1143 3106 SOUTH HORSESHOE DRIVE NAPLES, FLORIDA 34104		OFFICE OF COASTAL PROTECTION & RESTORATION ENGINEERING BRANCH 450 LAUREL STREET BATON ROUGE, LOUISIANA 70801		TERREBONNE BASIN BARRIER SHORELINE RESTORATION		SHIP SHOAL BORROW 7 SECTION	
								FEDERAL PROJECT NUMBER: LCA-TBBSR		APPROVED BY:	
REV.	DATE	DESCRIPTION	BY	DRAWN BY: DARTEZ / ZWERNEMAN		DESIGNED BY: MICHAEL POFF, P.E.		APPROVED BY:		SHEET 2 OF 3	

UNIDENTIFIED MAGNETIC ANOMALIES															
REF NO.	EASTING - X	NORHTING - Y	GAMMA	REF NO.	EASTING - X	NORHTING - Y	GAMMA	REF NO.	EASTING - X	NORHTING - Y	GAMMA	REF NO.	EASTING - X	NORHTING - Y	GAMMA
1	3415582.47	154900.88	4	43	3417790.72	151455.66	8	85	3418467.80	147669.75	9	127	3414476.93	143914.30	8
2	3411495.39	154730.34	15	44	3427356.83	151295.96	5	86	3405885.81	147689.36	10	128	3418785.15	143913.60	8
3	3404305.42	154581.92	27	45	3417134.92	150966.51	45	87	3407583.59	147521.91	7	129	3424493.40	143752.87	6
4	3404659.01	154580.26	21	46	3414689.81	150963.15	8	88	3413083.44	147518.02	80	130	3419462.50	143589.64	14
5	3408008.50	154572.32	13	47	3407184.87	150791.54	342	89	3421092.16	147519.87	8	131	3409860.74	143248.57	4
6	3411086.30	154589.14	14	48	3411056.71	150793.92	5	90	3425374.56	147366.09	5	132	3425126.55	143090.40	225
7	3414921.07	154565.93	43	49	3412529.67	150801.87	7	91	3424859.54	147359.39	9	133	3420193.68	143094.31	18
8	3423682.56	154577.27	13	50	3421712.38	150790.80	4	92	3407507.41	147354.11	69	134	3419885.84	143091.98	16
9	3416088.07	154254.02	7	51	3428312.74	150631.59	6	93	3406918.53	147357.89	69	135	3419132.23	142920.05	8
10	3423099.72	154253.27	5	52	3423409.24	150632.63	6	94	3407900.16	147201.45	7	136	3417076.52	142930.89	11
11	3416091.87	154088.15	11	53	3405288.36	150465.42	10	95	3409975.40	147198.89	80	137	3416882.80	142745.91	10
12	3408402.28	154083.02	8	54	3414349.37	150459.36	5	96	3421010.44	147195.86	10	138	3415914.01	142759.00	16
13	3415522.00	153921.32	14	55	3418813.33	150473.46	4	97	3422456.39	147156.99	15	139	3409934.94	142754.58	9
14	3417995.09	153764.60	5	56	3422452.01	150471.20	8	98	3424939.25	147200.38	12	140	3416932.51	142276.76	21
15	3415538.34	153756.87	8	57	3421752.49	150313.01	6	99	3425737.10	147192.91	43	141	3423482.22	142108.01	13
16	3414407.85	153578.76	5	58	3412679.72	150316.01	21	100	3426073.43	147184.38	16	142	3423561.08	141779.75	31
17	3415985.69	153602.17	7	59	3427018.80	149986.39	14	101	3426752.93	147193.27	4	143	3422049.88	141450.42	6
18	3419304.32	153578.79	9	60	3427322.99	149991.84	8	102	3423891.66	147023.42	19	144	3420426.71	141453.31	6
19	3418083.02	153420.74	8	61	3423729.18	149989.75	55	103	3413962.41	147022.83	4	145	3417088.60	141439.62	47
20	3415986.88	153415.78	7	62	3407209.14	149982.86	5	104	3421266.30	146868.35	8	146	3411906.64	141447.80	23
21	3415903.08	153412.38	4	63	3405355.96	149826.25	3	105	3423144.86	146702.53	8	147	3411365.68	140959.65	7
22	3409035.66	153433.15	59	64	3423723.07	149642.09	20	106	3415984.84	146698.77	6	148	3424339.74	140798.27	22
23	3419801.84	153251.96	35	65	3425509.43	149650.30	14	107	3415228.70	146366.53	10	149	3418511.30	140795.62	891
24	3418648.71	152943.33	8	66	3416293.60	149478.13	14	108	3417139.16	146369.86	7	150	3413143.69	140470.31	7
25	3423671.97	152927.14	11	67	3418413.03	149305.59	7	109	3422208.06	146366.88	39	151	3415463.36	140310.43	19
26	3418475.02	152764.88	12	68	3413390.65	149161.57	34	110	3412633.70	146206.02	9	152	3417136.86	140307.99	100
27	3415810.00	152765.78	472	69	3412738.08	149156.48	8	111	3413287.97	146206.47	5	153	3411342.86	139962.57	18
28	3412818.07	152769.77	27	70	3426277.15	149160.68	10	112	3425452.88	146037.49	7	154	3411426.74	139967.92	5
29	3414168.01	152768.56	12	71	3415486.77	149001.32	64	113	3419558.31	145869.82	6	155	3415964.59	139970.68	20
30	3425115.06	152599.54	17	72	3423058.25	148839.22	8	114	3424247.20	145717.99	6	156	3417484.70	139493.74	18
31	3415729.73	152436.95	12	73	3427416.13	148667.56	19	115	3422527.90	145717.65	6	157	3413170.23	139158.22	29
32	3427142.62	152266.82	11	74	3423031.55	148656.38	728	116	3421012.41	145720.64	12	158	3411203.00	138819.80	12
33	3418696.65	152281.59	13	75	3422668.76	148493.92	10	117	3410807.79	145552.22	12	159	3425480.42	145977.35	606
34	3404671.86	152275.52	30	76	3428119.87	148331.25	16	118	3420715.24	145565.61	8	160	3419552.27	145840.16	5
35	3417752.60	151954.59	6	77	3417435.92	148342.65	17	119	3411917.87	145224.11	11	161	3419587.80	139702.23	8
36	3416818.86	151793.10	6	78	3409955.82	148334.47	10	120	3410390.02	144901.49	5	162	3413662.41	140134.68	47
37	3417360.09	151793.68	5	79	3427215.38	148019.21	4	121	3415416.41	144896.65	5	163	3413663.97	144081.56	7
38	3422464.91	151774.89	50	80	3422464.91	148010.78	6	122	3420456.87	144890.72	16	164	3413665.96	149412.28	25
39	3427886.17	151630.98	61	81	3422891.55	148013.72	4	123	3423085.81	144743.25	8	165	3410313.67	153727.63	13
40	3416666.19	151615.64	7	82	3412872.30	147855.93	35	124	3425944.13	144391.30	61	166	3415653.74	152134.73	4
41	3404677.30	151452.24	10	83	3415274.27	147855.11	5	125	3412567.68	144236.36	4				
42	3414238.68	151461.81	7	84	3422907.90	147688.05	61	126	3413478.16	143906.34	6				

SONAR CONTACTS				
REF NO.	EASTING - X	NORTHING - Y	DIMENSIONS	DESCRIPTION
1	3416482.62	144622.67	6' diameter	Debris
2	3423395.44	154829.94	25' x 5' x NMH	Debris
3	3420587.59	140554.66	5' diameter x 1'	Debris
4	3418191.52	154504.86	57' x 25' x NMH	Debris
5	3410197.73	140839.52	1' x 1' x 1'	Debris
6	3403698.74	154129.63	16' x 4' x NMH	Debris
7	3412435.69	141535.56	3' diameter x 0.5	Debris
8	3404340.73	154165.64	16' x 4' x NMH	Debris
9	3424310.53	141857.73	8' x 6' x NMH	Debris
10	3414349.58	154338.79	23' x 8' x NMH	Debris
11	3420009.59	142152.68	3' diameter x 0.5	Debris
12	3427604.38	154009.99	23' x 6' x NMH	Debris
13	3423891.53	143046.75	8' x 2' x 0.5'	Debris
14	3421874.47	153850.90	33' x 33' x NMH	Disturbed Area
15	3424347.52	143362.76	17' x 1' x NMH	Debris
16	3407181.69	153717.68	23'	Linear Debris
17	3426559.41	153193.96	6' x 0.5' x 1'	Debris
18	3405351.72	153153.64	16'	Linear Debris
19	3427859.39	152688.97	8' x 7' x NMH	Debris
20	3410683.65	152525.71	19'	Linear Debris
21	3425442.45	151755.90	7' x 1.5' x NMH	Debris
22	3409585.67	151730.68	6' x 1' x 0.8'	Debris
23	3411485.64	151656.71	4' x 4' x NMH	Debris
24	3417808.55	151394.80	5' x 1.5' x NMH	Debris
25	3413351.63	149041.70	8' x 6' x NMH	Debris
26	3413463.63	148718.69	6' x 6' x NMH	Debris
27	3426004.45	148431.87	3' x 3' x 1'	Debris
28	3420740.53	147932.78	8 x 8' x NMH	Debris
29	3422444.52	147204.80	8' x 8' x 37'	Buoy / Chain
30	3415119.62	147158.69	6' x 6' x NMH	Debris

EXISTING VIBRACORES			
CORE NO.	EASTING - X	NORTHING - Y	CORE LENGTH
SS-86-11	3422326.21	148037.75	34.78'
SS-92-4	3416522.63	152073.46	17.19'
SS-92-5	3410475.18	153061.74	14.27'
SS-92-6	3406651.85	153553.48	13.94'
SS-92-7	3410312.61	148818.33	15.35'
SS-92-8	3416268.43	148739.20	13.94'

TE-47 VIBRACORES									
MAP ID	CORE NO.	EASTING - X	NORTHING - Y	CORE LENGTH	MAP ID	CORE NO.	EASTING - X	NORTHING - Y	CORE LENGTH
47-1	04-SS88-01(P)	3410321.54	154047.21	19.8'	47-19	04-SS88-17(S)	3414397.00	151619.81	19.7'
47-2	04-SS88-27(S)	3411448.82	154065.35	18.2'	47-20	04-SS88-18(S)	3415403.98	151651.88	22.3'
47-3	04-SS88-28(S)	3412437.19	154067.44	14.3'	47-21	04-SS88-19(S)	3416460.46	151597.59	19.1'
47-4	04-SS88-29(S)	3413411.74	154067.45	17.0'	47-22	04-SS88-12(S)	3410285.60	150282.68	17.9'
47-5	04-SS88-30(S)	3414363.63	154070.13	18.3'	47-23	04-SS88-11(S)	3411448.22	150364.41	15.4'
47-6	04-SS88-31(S)	3415358.37	154066.82	18.9'	47-24	04-SS88-10(S)	3412433.78	150283.75	14.0'
47-7	04-SS88-02(P)	3416476.70	154063.79	19.4'	47-25	04-SS88-09(S)	3413401.81	150318.29	20.9'
47-8	04-SS88-26(S)	3410305.21	152818.60	20.0'	47-26	04-SS88-08(S)	3414373.82	150329.10	18.5'
47-9	04-SS88-25(S)	3411430.41	152798.42	21.0'	47-27	04-SS88-07(S)	3415365.53	150362.09	19.1'
47-10	04-SS88-24(S)	3412449.58	152771.41	19.6'	47-28	04-SS88-06(S)	3416431.98	150315.90	19.8'
47-11	04-SS88-23(S)	3413442.34	152733.24	19.5'	47-29	04-SS88-04(P)	3410322.40	148952.97	15.5'
47-12	04-SS88-22(S)	3414386.16	152777.71	19.3'	47-30	04-SS88-01(S)	3411445.72	148960.55	19.8'
47-13	04-SS88-21(S)	3415354.70	152757.81	19.7'	47-31	04-SS88-02(S)	3412417.32	148958.70	16.6'
47-14	04-SS88-20(S)	3416432.52	152760.53	18.4'	47-32	04-SS88-03(S)	3413437.44	148977.13	19.1'
47-15	04-SS88-13(S)	3410332.26	151670.33	21.1'	47-33	04-SS88-04(S)	3414370.61	149016.16	15.8'
47-16	04-SS88-14(S)	3411461.87	151664.78	19.8'	47-34	04-SS88-05(S)	3415391.07	148998.45	17.8'
47-17	04-SS88-15(S)	3412416.96	151610.98	16.8'	47-35	04-SS88-03(P)	3416424.28	148999.31	22.7'
47-									