

NOTES:

1. COORDINATES SHOWN ARE BASED ON TEXAS STATE PLANE COORDINATE SYSTEM, S CENTRAL ZONE, NAD83.
2. ELEVATIONS ARE IN FEET BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
3. BATHYMETRIC SURVEY CONDUCTED BY CB&I, ON DECEMBER 19-23, 2014 AND FEBRUARY 6-8, 2015.
4. THE MAXIMUM AFTER DREDGE (AD) ELEVATIONS SHOWN ARE THE MAXIMUM DEPTHS ALLOWED WITHIN THE BORROW AREA PER THE PERMITS AND BASED ON THE AD SURVEY.
5. LOCATIONS OF OIL AND GAS INFRASTRUCTURE OBTAINED FROM SAND SEARCH INVESTIGATION FOR McFADDIN NATIONAL WILDLIFE REFUGE BEACH NOURISHMENT TGLO CEPPA PROJECT No. 1530 FINAL REPORT, DEC. 20, 2013 BY GBA, INC. HOUSTON TEXAS.

LEGEND:

- 2006 CPE VIBRACORE
- 2015 CB&I VIBRACORE
- MAGNETIC ANOMALY
- CULTURAL RESOURCE NO DREDGE ZONE NO ANCHOR AVOIDANCE AREA
- BORROW AREA COORDINATE NODE ID
- MAXIMUM OVERBURDEN CUT ELEVATION
- NO OVERBURDEN AREA
- CLAY AVOIDANCE CHANNEL
- BATHYMETRY CONTOUR

OIL AND GAS INFRASTRUCTURE

- DRY HOLE (SEE NOTE 5)
- PERMITTED LOCATION (SEE NOTE 5)
- CANCELLED ABANDONED LOCATION (SEE NOTED 5)
- PLUGGED OIL WELL (SEE NOTE 5)



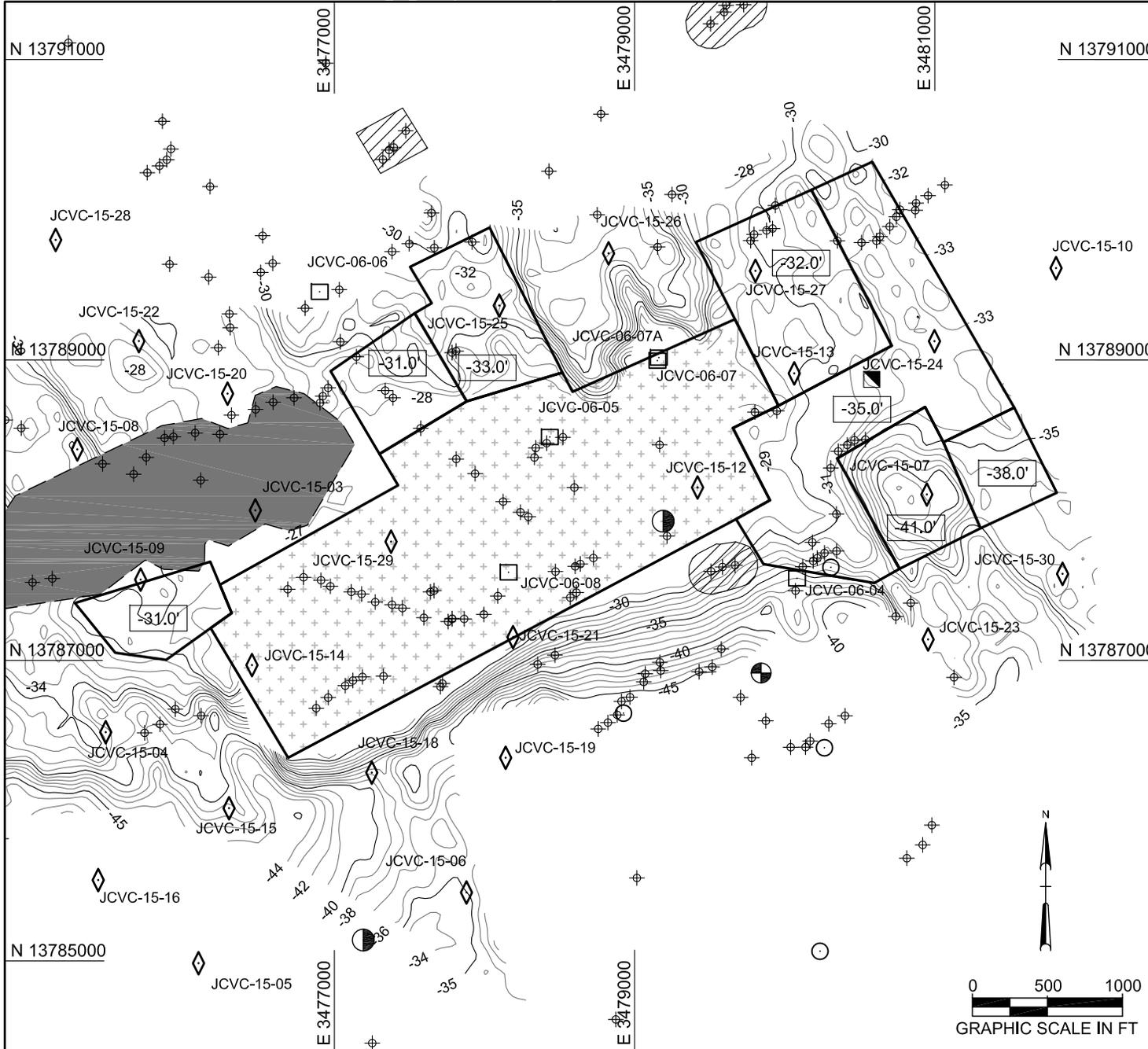
PERMIT PLATE
NOT FOR CONSTRUCTION

DEPARTMENT OF THE ARMY
GALVESTON DISTRICT, CORPS OF ENGINEERS
GALVESTON, TEXAS

Dsn by: ML
Dwn by: GK
Ckd by: ML
Dated: MAY 20, 2015

**McFADDIN WILDLIFE REFUGE
OFFSHORE BORROW AREA
PERMIT PLATE
JEFFERSON COUNTY, TEXAS
BATHYMETRY WITH OVERBURDEN CUTS PLAN VIEW**

PLATE
C-01



- NOTES:**
1. COORDINATES SHOWN ARE BASED ON TEXAS STATE PLANE COORDINATE SYSTEM, S CENTRAL ZONE, NAD83.
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 - NO OVERBURDEN AREA
 - CLAY AVOIDANCE CHANNEL
 - APPROXIMATE ELEVATION OF THE BASE OF OVERBURDEN

- OIL AND GAS INFRASTRUCTURE**
- DRY HOLE (SEE NOTE 5)
 - PERMITTED LOCATION (SEE NOTE 5)
 - CANCELLED ABANDONED LOCATION (SEE NOTED 5)
 - PLUGGED OIL WELL (SEE NOTE 5)



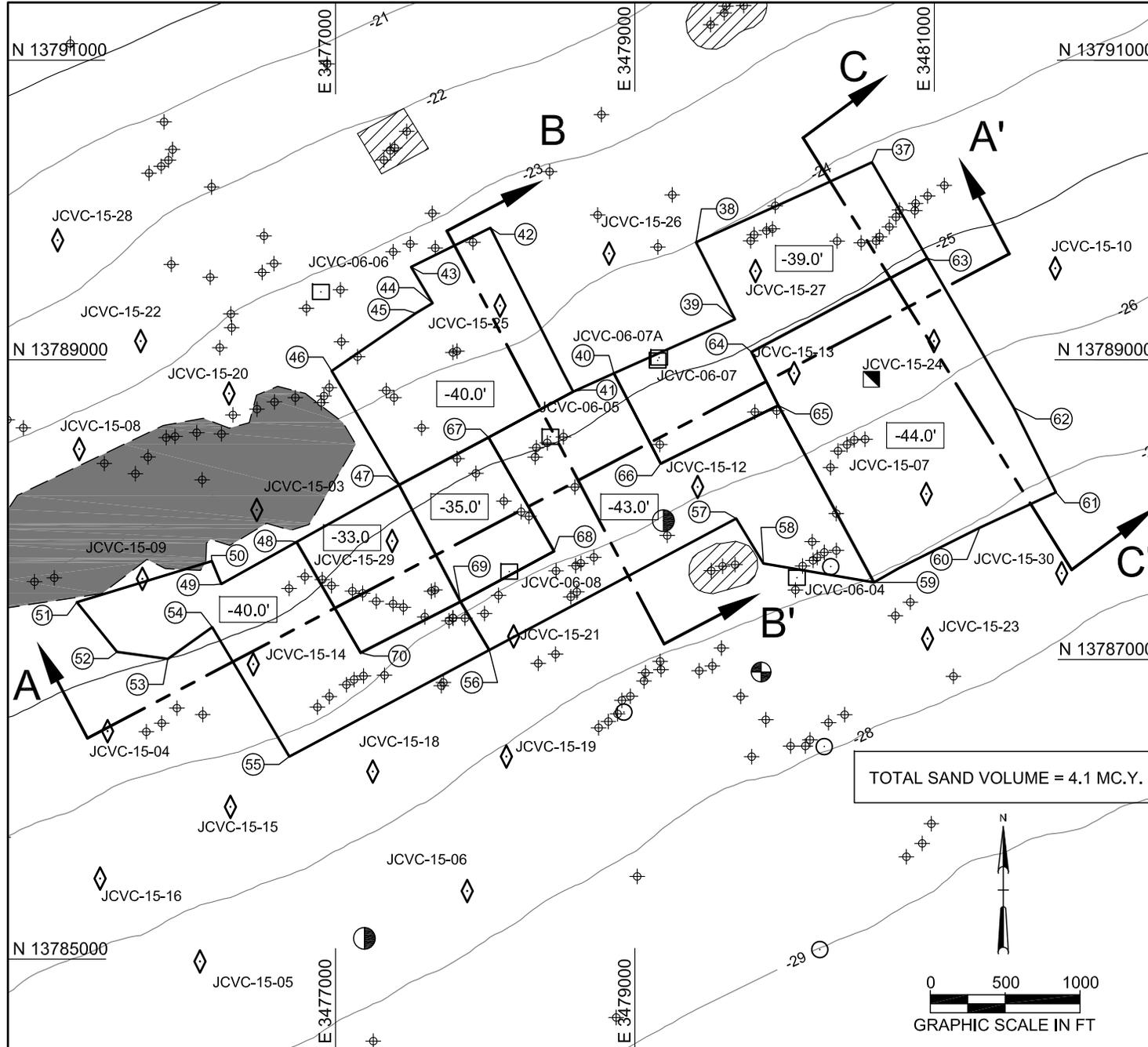
PERMIT PLATE
NOT FOR CONSTRUCTION

DEPARTMENT OF THE ARMY
GALVESTON DISTRICT, CORPS OF ENGINEERS
GALVESTON, TEXAS

Dsn by: ML
Dwn by: GK
Ckd by: ML
Dated: MAY 20, 2015

**McFADDIN WILDLIFE REFUGE
OFFSHORE BORROW AREA
PERMIT PLATE
JEFFERSON COUNTY, TEXAS
ISOPACH WITH OVERBURDEN CUTS PLAN VIEW**

PLATE
C-02



NOTES:

- COORDINATES SHOWN ARE BASED ON TEXAS STATE PLANE COORDINATE SYSTEM, S CENTRAL ZONE, NAD83.
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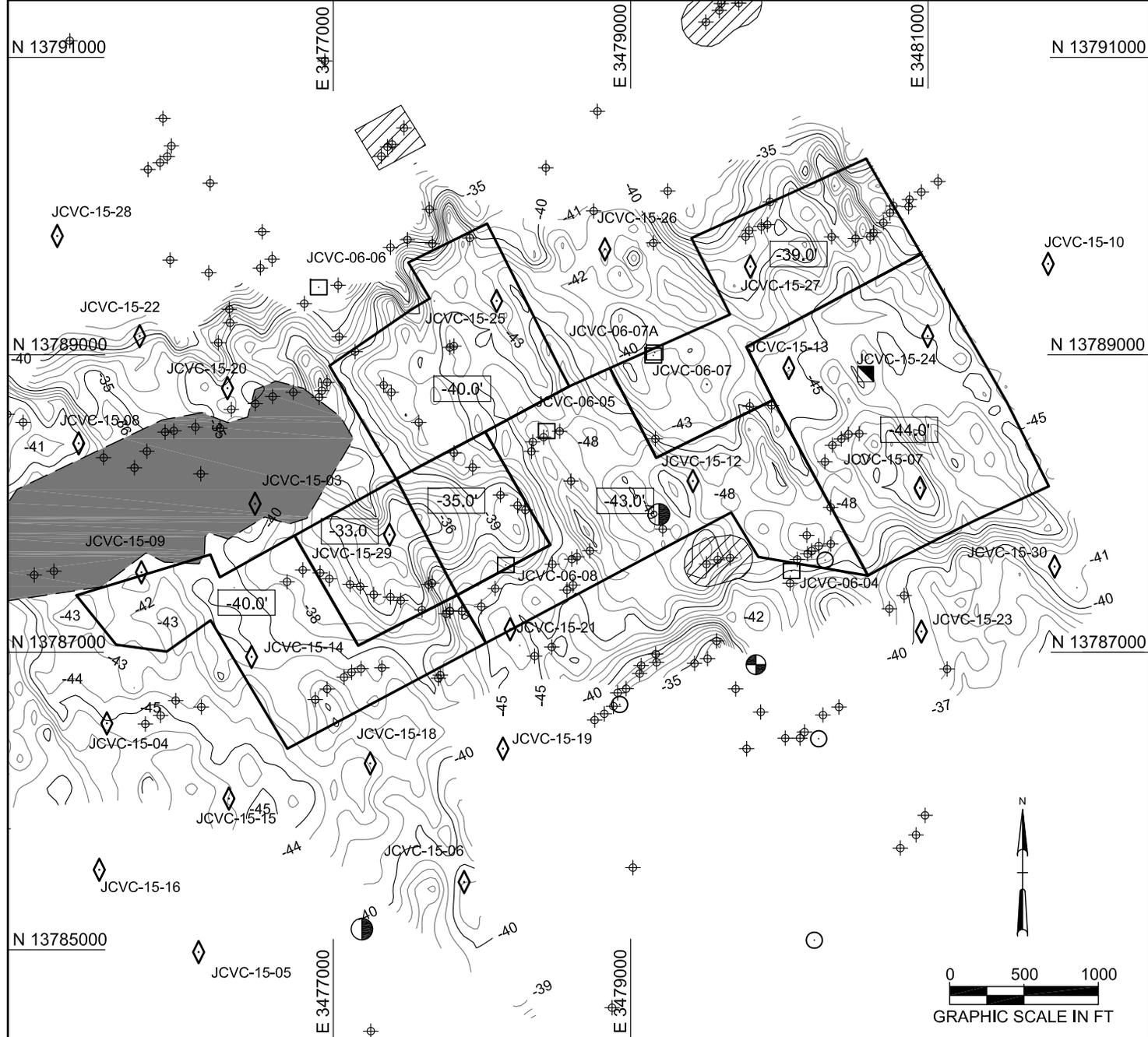
LEGEND:

- 2006 CPE VIBRACORE
- 2015 CB&I VIBRACORE
- MAGNETIC ANOMALY
- CULTURAL RESOURCE NO DREDGE ZONE NO ANCHOR AVOIDANCE AREA
- BORROW AREA COORDINATE NODE ID
- MAXIMUM BASE OF SAND CUT ELEVATION
- CLAY AVOIDANCE CHANNEL
- BATHYMETRY CONTOUR

OIL AND GAS INFRASTRUCTURE

- DRY HOLE (SEE NOTE 5)
- PERMITTED LOCATION (SEE NOTE 5)
- CANCELLED ABANDONED LOCATION (SEE NOTED 5)
- PLUGGED OIL WELL (SEE NOTE 5)

<p>US Army Corps of Engineers Galveston District</p>	<p>PERMIT PLATE NOT FOR CONSTRUCTION</p>	<p>Dsn by: ML</p>	<p>McFADDIN WILDLIFE REFUGE OFFSHORE BORROW AREA PERMIT PLATE JEFFERSON COUNTY, TEXAS BATHYMETRY WITH BASE OF SAND CUTS PLAN VIEW</p>	<p>PLATE C-03</p>
	<p>DEPARTMENT OF THE ARMY GALVESTON DISTRICT, CORPS OF ENGINEERS GALVESTON, TEXAS</p>	<p>Dwn by: GK</p>		
		<p>Ckd by: ML</p>		
		<p>Dated: MAY 20, 2015</p>		



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LEGEND:

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- 2015 CB&I VIBRACORE
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- BORROW AREA COORDINATE NODE ID
- MAXIMUM BASE OF SAND CUT ELEVATION
- CLAY AVOIDANCE CHANNEL
- APPROXIMATE ELEVATION OF THE BASE OF SAND

OIL AND GAS INFRASTRUCTURE

- DRY HOLE (SEE NOTE 5)
- PERMITTED LOCATION (SEE NOTE 5)
- CANCELLED ABANDONED LOCATION (SEE NOTED 5)
- PLUGGED OIL WELL (SEE NOTE 5)



PERMIT PLATE
NOT FOR CONSTRUCTION

DEPARTMENT OF THE ARMY
GALVESTON DISTRICT, CORPS OF ENGINEERS
GALVESTON, TEXAS

Dsn by:
ML

Dwn by:
GK

Ckd by:
ML

Dated:
MAY 20, 2015

**McFADDIN WILDLIFE REFUGE
OFFSHORE BORROW AREA
PERMIT PLATE
JEFFERSON COUNTY, TEXAS
ISOPACH WITH BASE OF SAND CUTS PLAN VIEW**

PLATE
C-04

Overburden Cut Limits		
Point No.	Easting	Northing
1	3480583.3	13790319.1
9	3477648.2	13789378.3
2	3480177.5	13790132.5
3	3479408.2	13789784.5
4	3479668.4	13789271.1
5	3478587.1	13788788.1
6	3478519.3	13788916.4
7	3478034.2	13789881.7
8	3477504.2	13789620.0
10	3477535.1	13789311.5
11	3476974.6	13788925.8
12	3477300.2	13788374.7
13	3477424.0	13788165.3
14	3476237.1	13787504.2
15	3476173.7	13787656.9
16	3475271.7	13787382.4
17	3475539.8	13787051.1
18	3475879.4	13787004.0
19	3476175.7	13787215.4
20	3476691.3	13786352.0
21	3479676.2	13787940.6
22	3479858.5	13787641.2
23	3480596.4	13787515.3
24	3480765.6	13787610.8
25	3481303.8	13787879.9

Overburden Cut Limits		
Point No.	Easting	Northing
26	3481812.4	13788116.0
27	3481529.5	13788682.8
28	3480713.5	13789095.2
29	3479958.3	13788695.9
30	3479655.4	13788547.2
31	3479901.9	13788066.5
32	3477881.9	13788724.8
33	3476315.6	13787315.2
34	3480349.0	13788344.3
35	3480934.9	13788687.2
36	3481056.4	13788452.8

Base of Sand Limits		
Point No.	Easting	Northing
37	3480583.3	13790319.1
38	3479408.2	13789784.5
39	3479668.4	13789271.1
40	3478860.0	13788910.0
41	3478587.1	13788788.1
42	3478034.2	13789881.7
43	3477504.2	13789620.0
44	3477648.2	13789378.3
45	3477535.1	13789311.5
46	3476974.6	13788925.8
47	3477424.0	13788165.3
48	3476739.8	13787784.2
49	3476237.1	13787504.2
50	3476173.7	13787656.9
51	3475271.7	13787382.4
52	3475539.8	13787051.1
53	3475879.4	13787004.0
54	3476175.7	13787215.4
55	3476691.3	13786352.0
56	3478026.9	13787062.8
57	3479676.2	13787940.6
58	3479858.5	13787641.2
59	3480596.4	13787515.3
60	3481303.8	13787879.9
61	3481812.4	13788116.0

Base of Sand Limits		
Point No.	Easting	Northing
62	3481529.5	13788682.8
63	3480954.1	13789677.9
64	3479778.6	13789052.5
65	3479958.3	13788695.9
66	3479172.0	13788307.7
67	3478022.2	13788482.7
68	3478459.7	13787722.3
69	3477834.7	13787385.5
70	3477168.1	13787045.2



US Army Corps
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Galveston District

PERMIT PLATE
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DEPARTMENT OF THE ARMY
GALVESTON DISTRICT, CORPS OF ENGINEERS
GALVESTON, TEXAS

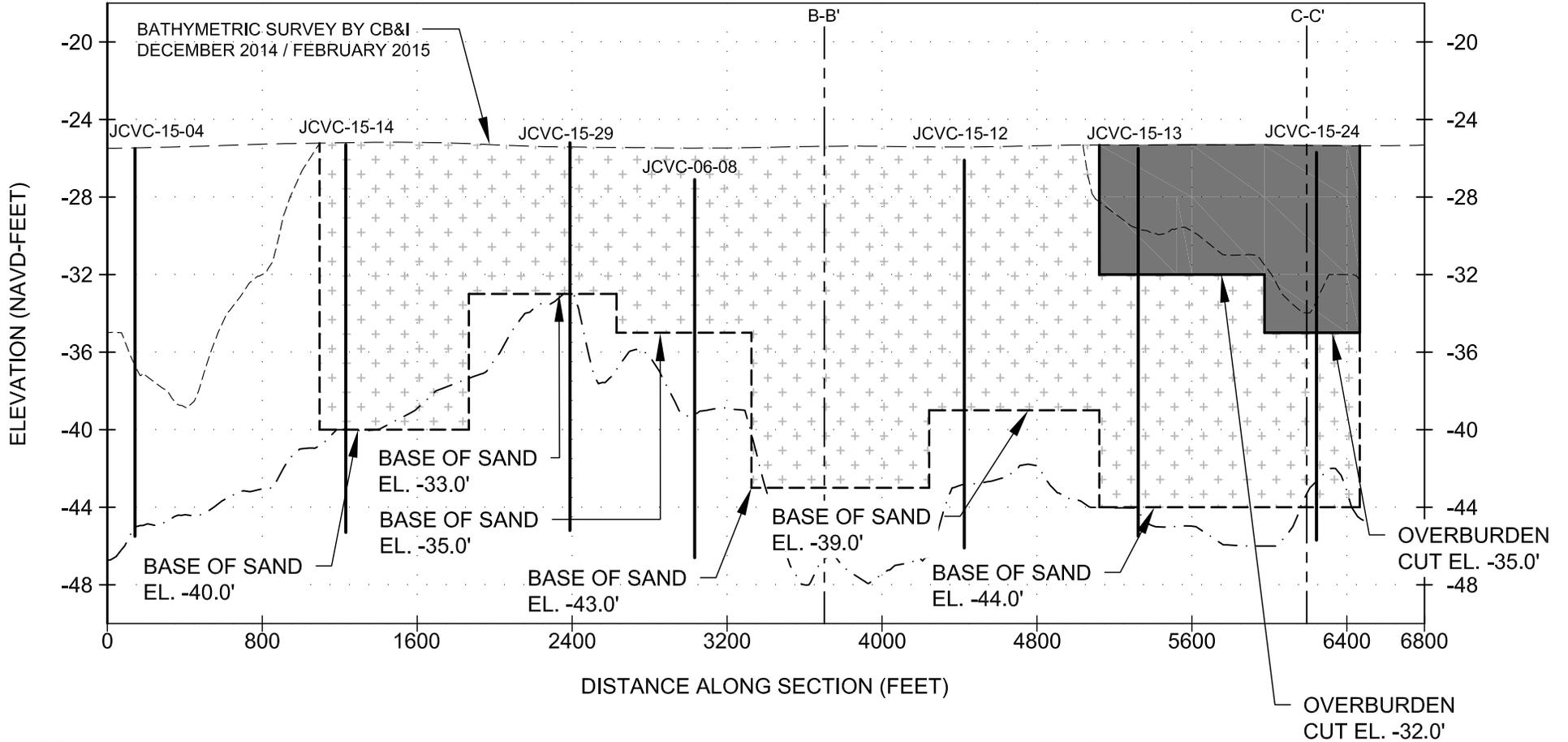
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ML
Dwn by:
GK
Ckd by:
ML
Dated:
MAY 20, 2015

McFADDIN WILDLIFE REFUGE
OFFSHORE BORROW AREA
PERMIT PLATE
JEFFERSON COUNTY, TEXAS
COORDINATE LOCATIONS TABLES

PLATE

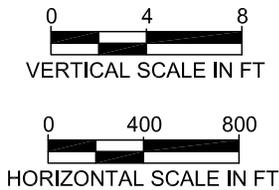
C-05

SECTION A-A'



NOTES:

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3. THE MAXIMUM AFTER DREDGE (AD) ELEVATIONS SHOWN ARE THE MAXIMUM DEPTHS ALLOWED WITHIN THE BORROW AREA PER THE PERMITS AND BASED ON THE AD SURVEY.



LEGEND:

- OVERBURDEN CUT
- BASE OF SAND CUT
- BATHYMETRIC SURVEY BY CB&I DECEMBER 19-23, 2014 / FEBRUARY 6-8, 2015
- APPROXIMATE ELEVATION OF BASE OF OVERBURDEN
- APPROXIMATE ELEVATION OF BASE OF SAND



US Army Corps of Engineers
Galveston District

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GALVESTON, TEXAS

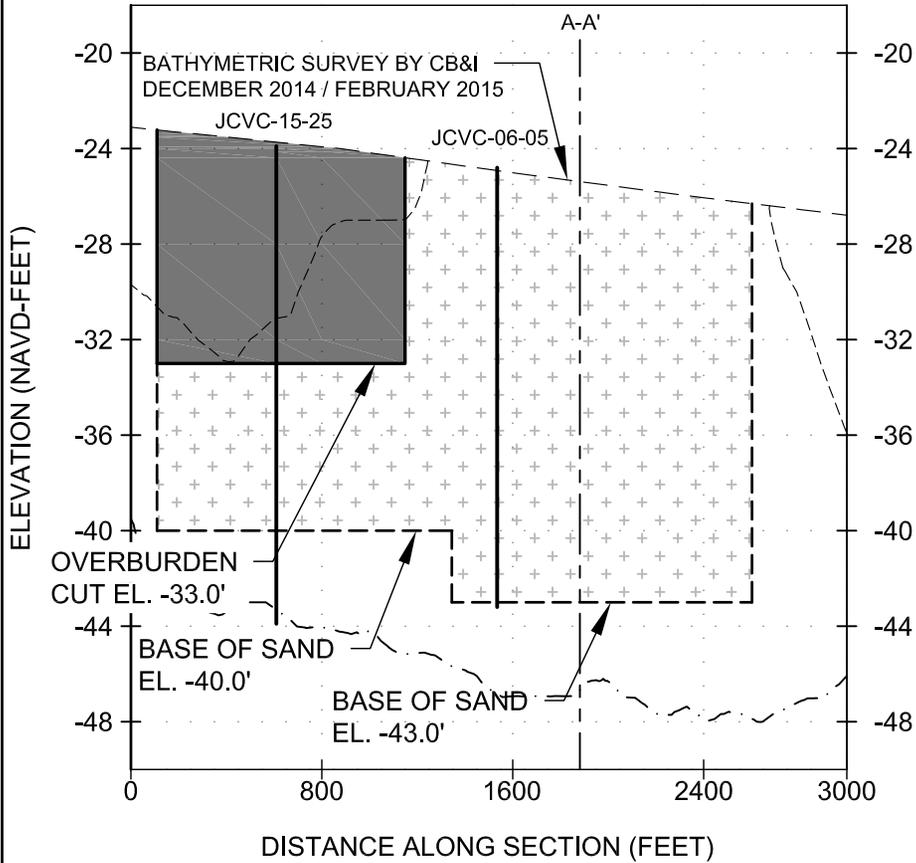
Dsn by: ML
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**McFADDIN WILDLIFE REFUGE
OFFSHORE BORROW AREA
PERMIT PLATE
JEFFERSON COUNTY, TEXAS
CROSS SECTION A-A'**

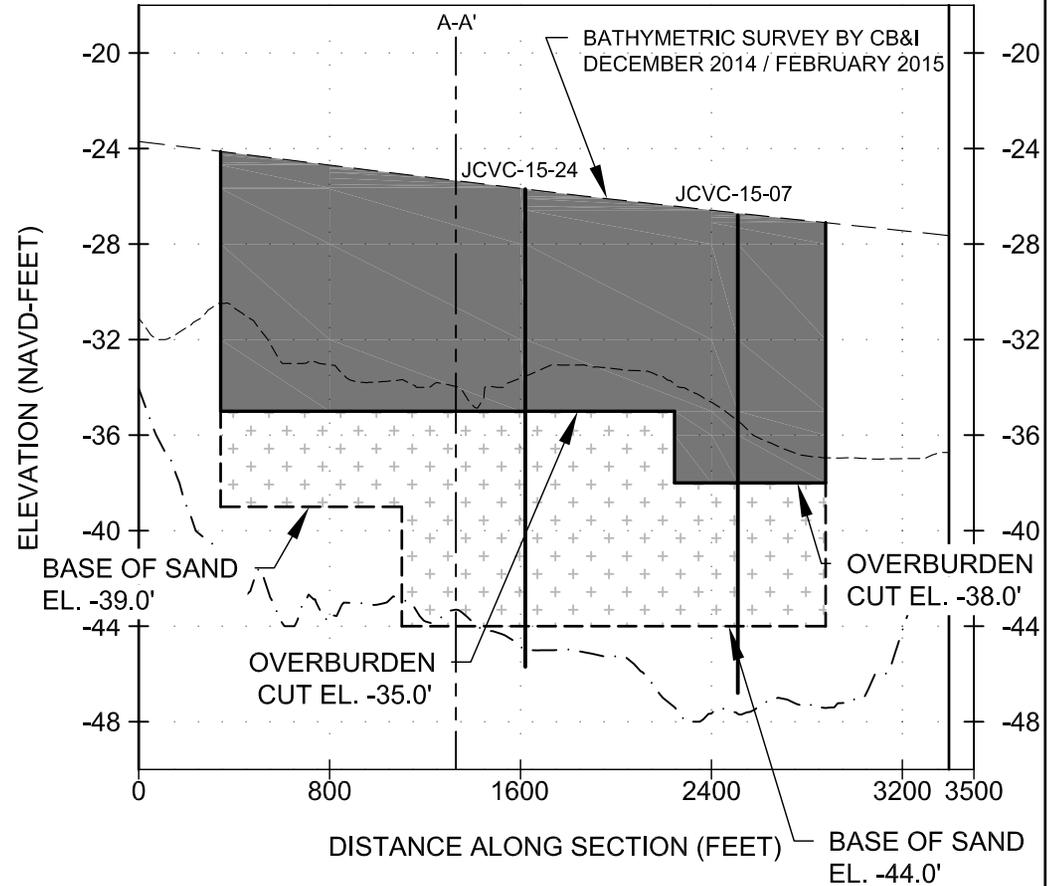
PLATE

X-01

SECTION B-B'

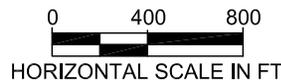
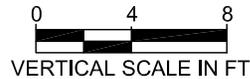


SECTION C-C'



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LEGEND:

- OVERBURDEN CUT
- BASE OF SAND CUT
- BATHYMETRIC SURVEY BY CB&I DECEMBER 19-23, 2014 / FEBRUARY 6-8, 2015
- APPROXIMATE ELEVATION OF BASE OF OVERBURDEN
- APPROXIMATE ELEVATION OF BASE OF SAND



US Army Corps of Engineers
Galveston District

PERMIT PLATE
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DEPARTMENT OF THE ARMY
GALVESTON DISTRICT, CORPS OF ENGINEERS
GALVESTON, TEXAS

Dsn by: ML
Dwn by: GK
Ckd by: ML
Dated: MAY 20, 2015

**McFADDIN WILDLIFE REFUGE
OFFSHORE BORROW AREA
PERMIT PLATE
JEFFERSON COUNTY, TEXAS
CROSS SECTION B-B' AND C-C'**

PLATE

X-02