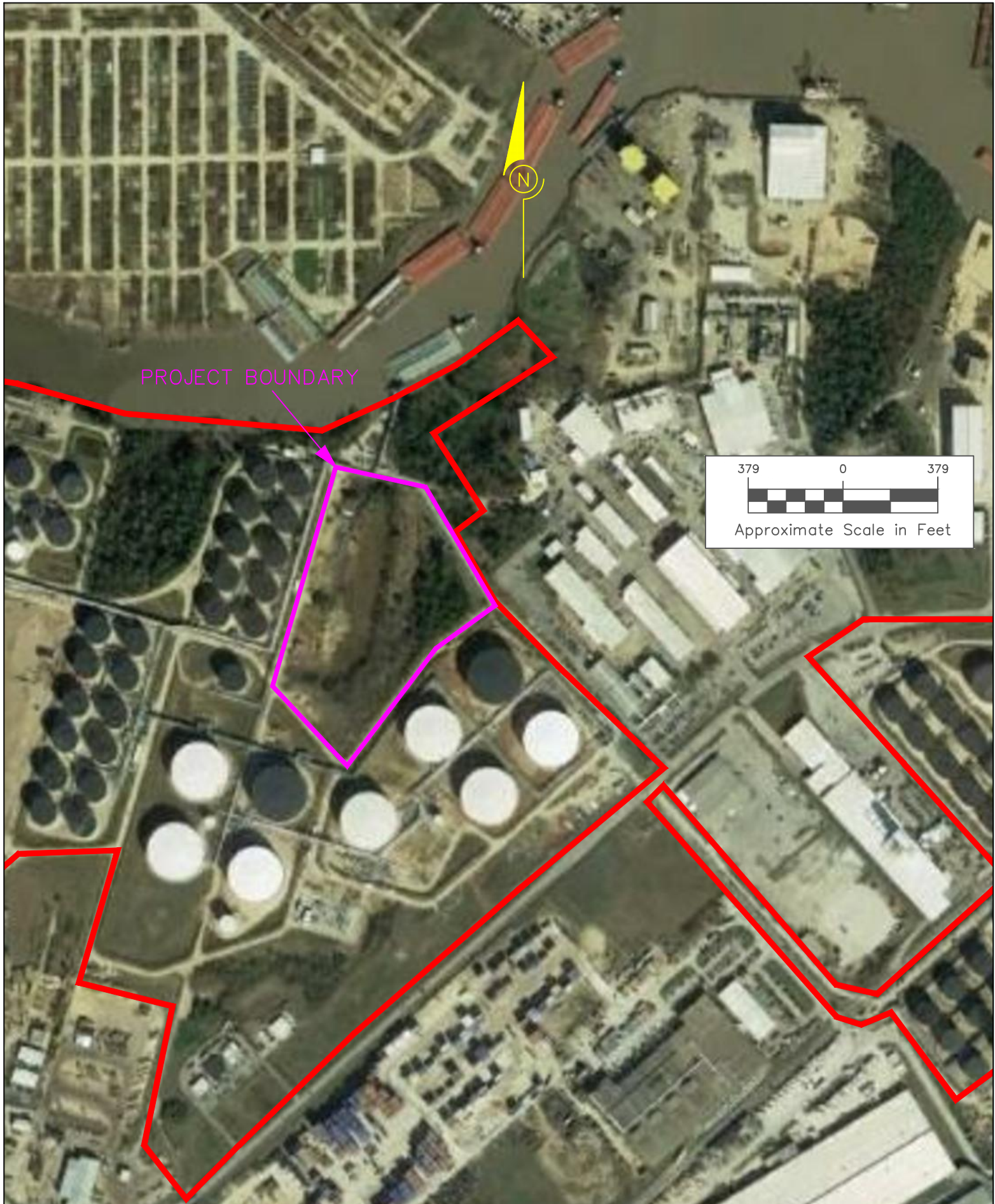




Reference: Stanley Engineering Dwg. # 53801CP1 dated May 17, 2001

SHEET 2 OF 5

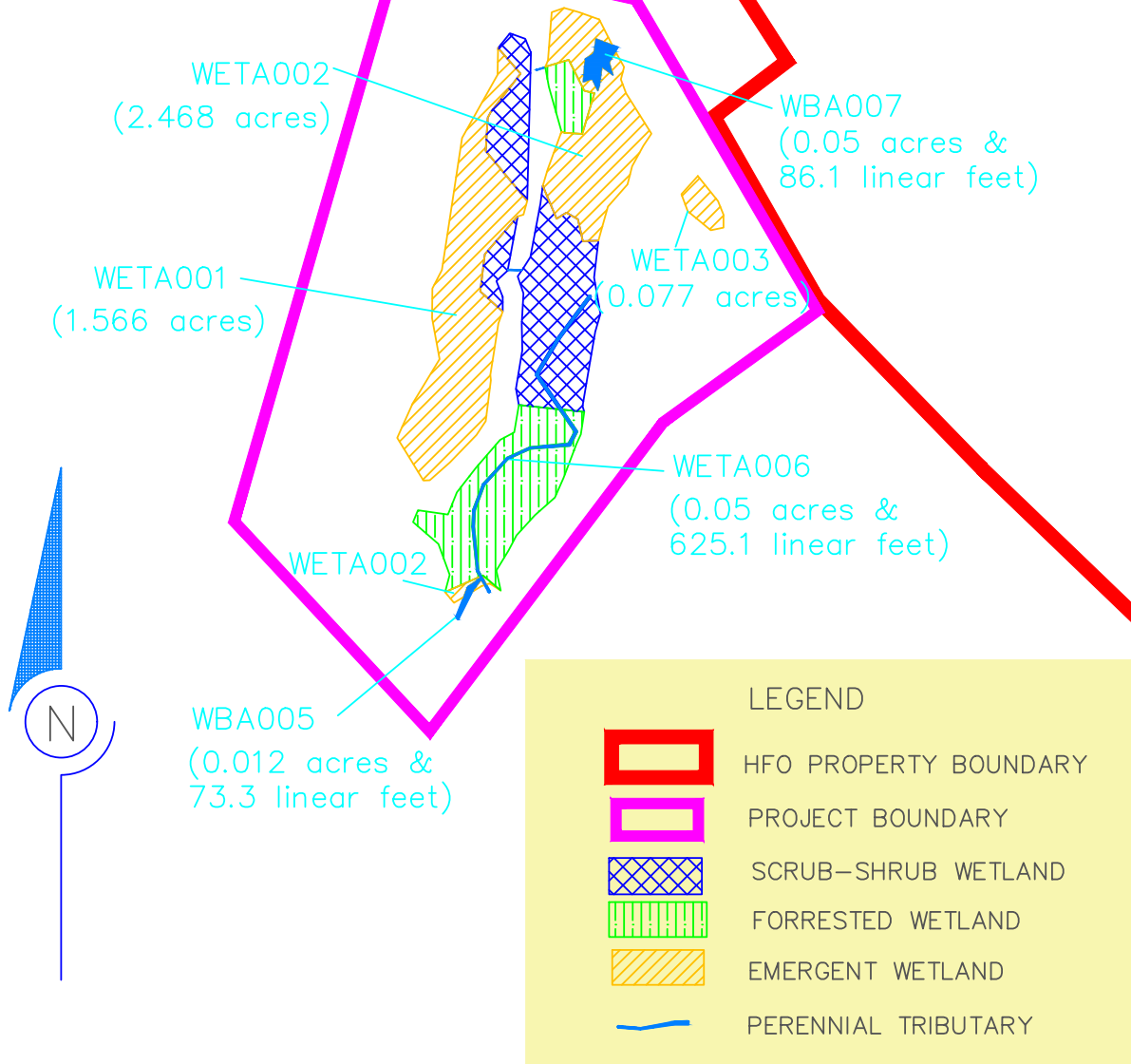
REVISIONS		DESIGN BY L&B		DATE 11/28/2017	
NO.	DATE	REMARKS	DATE	DATE	DATE
1		100% L&B REV.			
2		CHECKED BY			
3		APPROVED BY			
4		ENGINEER			
5		FILE NO. HFO MAPS COE 2017/200			
6		SCALE 1" = 240'			



HOUSTON FUEL OIL TERMINAL COMPANY	
10000 JACOBSON BLVD.	
HOUSTON, TEXAS 77060, TEXAS	
AREA MAP	SHEET 2

N:\CLIENT\HFO\DRAWINGS\BASE MAP & Related AutoCAD Maps\USCOE Maps\HFO MAPS COE 2017.dwg, 11/21/2017 4:33:20 PM

PROJECT BOUNDARY

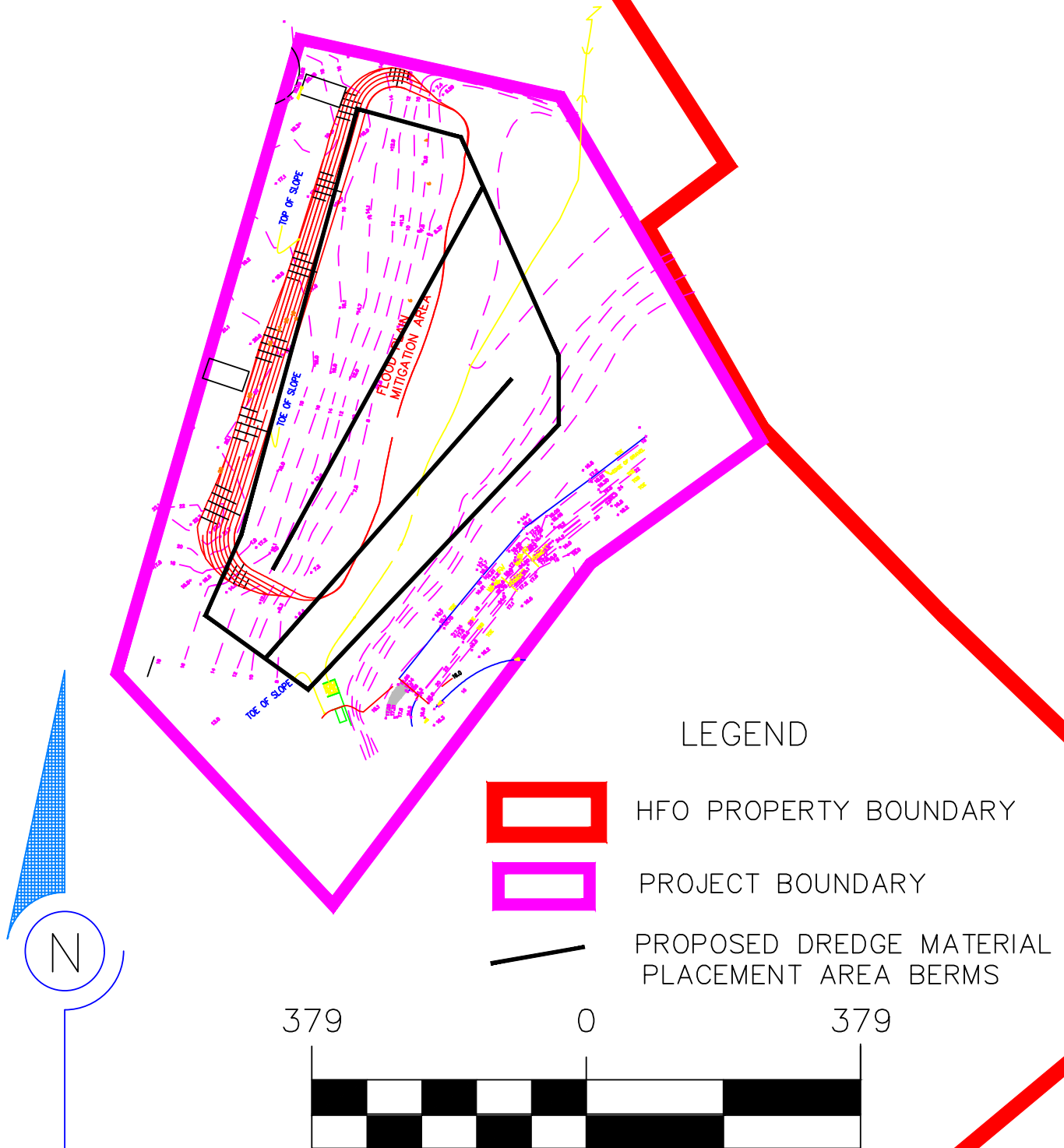


Reference: Stanley Engineering Dwg. # 53801CP2 dated May 17, 2001

SHEET 3 OF 5

REVISIONS							DRAWN BY: LLB		DATE: 11/20/2017		 THE WCM GROUP, INC. P.O. BOX 10477 HOUSTON, TEXAS 77240-0477	HOUSTON FUEL OIL TERMINAL COMPANY		AQUATIC RESOURCES WITHIN PROJECT BOUNDARY SHEET 3
NO.	DATE	REMARKS	DRW.	CHK.	ENG.	APP.	CHECKED BY:	DATE:	DATE:	DATE:		15855 JACINTOPORT BLVD. HOUSTON, HARRIS COUNTY, TEXAS		
							CORRECT BY:	DATE:	DATE:	DATE:				
							APPROVED BY:	DATE:	DATE:	DATE:				
							ENGINEER:	DATE:	DATE:	DATE:				
							FILE NO. - HFO MAPS COE 2017.DWG	SCALE:	SCALE:	SCALE:				

N:\CLIENT\HFO\DRAWINGS\BASE MAP & Related AutoCAD Maps\USCOE Maps\HFO MAPS COE 2017.dwg, 11/21/2017 8:43:19 AM



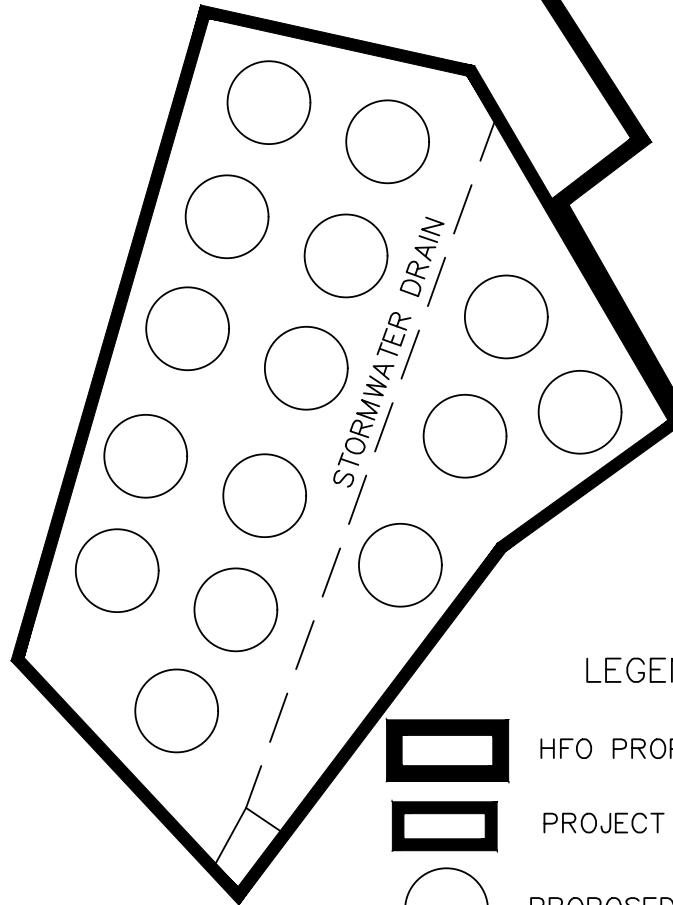
Approximate Scale in Feet

Reference: Stanley Engineering Dwg. # 53801CP2 dated May 17, 2001

SHEET 4 OF 5

REVISIONS							DRAWN BY: LLB		DATE: 11/20/2017		 THE WCM GROUP, INC. PO BOX 9817 HARLE, TEXAS 77540-9817 PO 6000 409-729 Fax 409-406-5026	HOUSTON FUEL OIL TERMINAL COMPANY		SHEET 4
NO.	DATE	REMARKS	DRW.	CHK.	ENG.	APP.	CHECKED BY:	DATE:	15855 JACINTOPORT BLVD. HOUSTON, HARRIS COUNTY, TEXAS					
							CORRECT BY:	DATE:						
							APPROVED BY:	DATE:						
							ENGINEER:	DATE:						
							FILE NO.: HFO MAPS COE 2017.DWG	SCALE:						

N:\CLIENT\HFO\DRAWINGS\BASE MAP & Related AutoCAD Maps\USCOE Maps\HFO MAPS COE 2017.dwg, 11/21/2017 8:34:48 AM



LEGEND



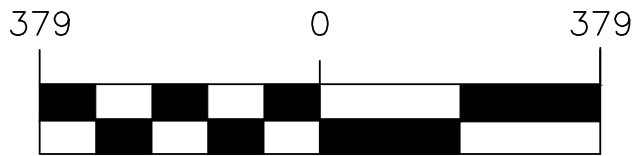
HFO PROPERTY BOUNDARY



PROJECT BOUNDARY



PROPOSED FUTURE TANK FARM



Approximate Scale in Feet

Reference: Stanley Engineering Dwg. # 53801CP2 dated May 17, 2001

SHEET 5 OF 5

REVISIONS							DRAWN BY: LLB		DATE: 11/20/2017	
NO.	DATE	REMARKS	DRW.	CHK.	ENG.	APP.	CHECKED BY:	DATE:		
							CORRECT BY:	DATE:		
							APPROVED BY:	DATE:		
							ENGINEER:	DATE:		
							FILE NO.: HFO MAPS COE 2017.DWG	SCALE:		

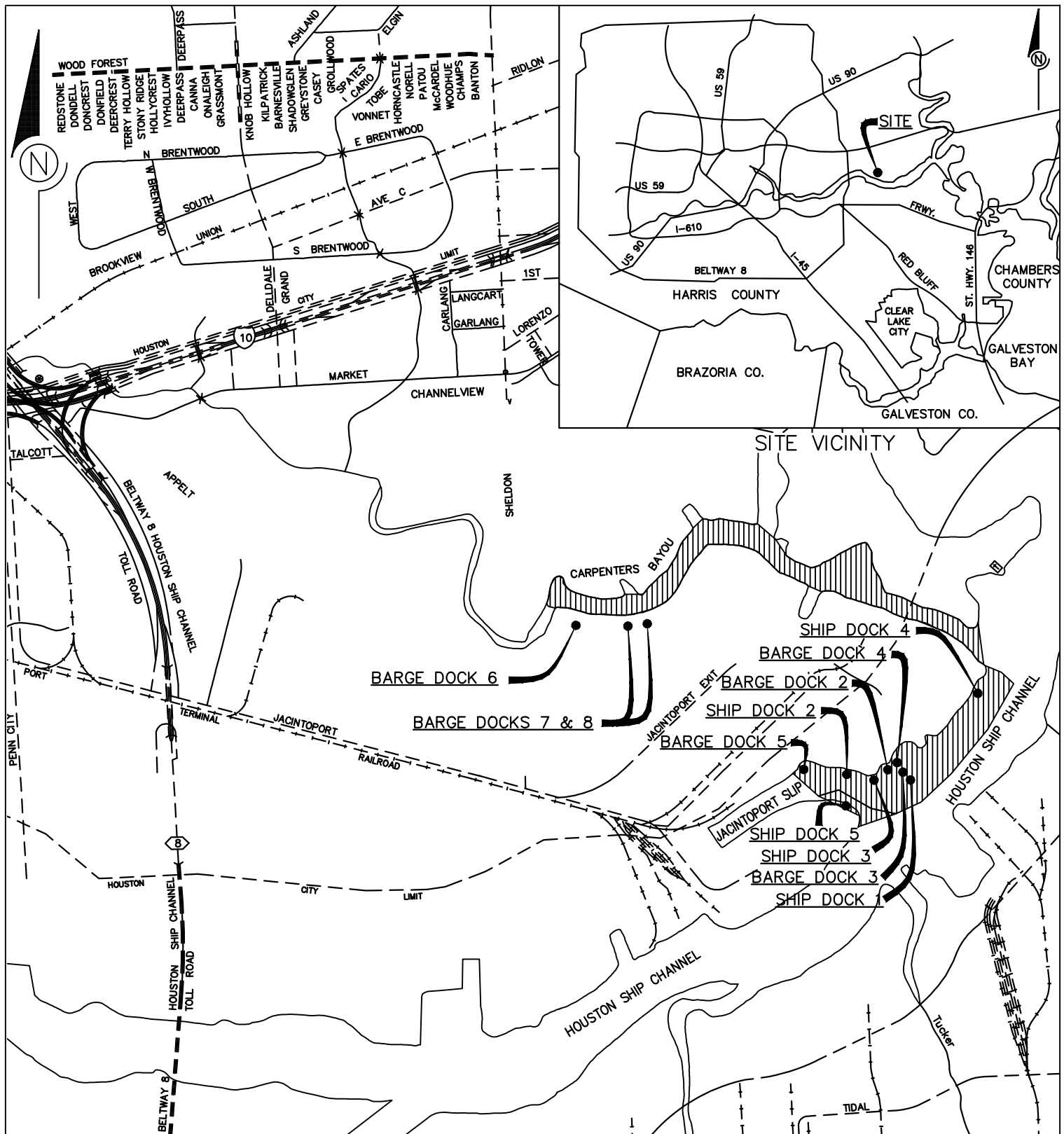


THE WCM GROUP, INC.
PO BOX 8847 HARRIS, TEXAS 77088-0847
PH 281-444-7100 Fax 281-444-5045

HOUSTON FUEL OIL TERMINAL COMPANY
15855 JACINTOPORT BLVD.
HOUSTON, HARRIS COUNTY, TEXAS

**PROJECT BOUNDARY WITH
PROPOSED FUTURE TANK FARM**

SHEET
5



HOUSTON SHIP CHANNEL & CARPENTERS BAYOU OVERALL LAYOUT

NOTE:

PREVIOUS PERMIT NUMBER FOR MAINTENANCE DREDGING AT SHIP DOCKS 1-4 AND BARGE DOCKS 2-5 IS SWG-1998-02478. PREVIOUS PERMIT NUMBER FOR MAINTENANCE DREDGING AT BARGE DOCKS 6, 7, 8 AND CARPENTERS BAYOU IS SWG-2007-0190.

1"=2650'

SK-1

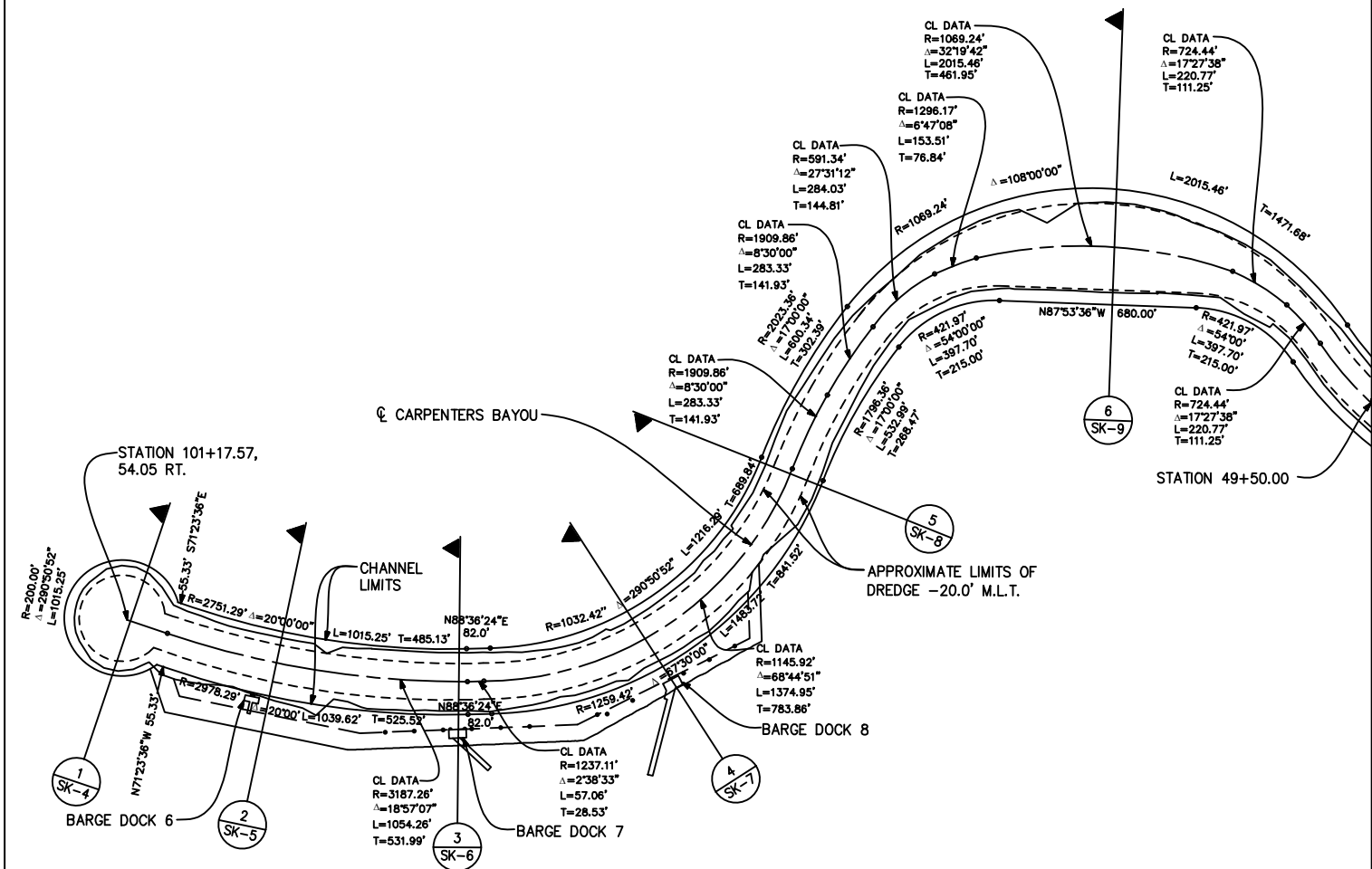
REVISIONS							DRAWN BY: LLB		DATE: 11/20/2017	
NO.	DATE	REMARKS	DRW.	CHK.	ENG.	APP.	CHECKED BY:	DATE:		
							CORRECT BY:	DATE:		
							APPROVED BY:	DATE:		
							ENGINEER:	DATE:		
							FILE NO.: HFO MAP COE DREDGE MAP.DWG	SCALE: 1" = 2,650'		



HOUSTON FUEL OIL TERMINAL COMPANY
15855 JACINTOPORT BLVD.
HOUSTON, HARRIS COUNTY, TEXAS

MAINTENANCE DREDGING

FIGURE
1



CARPENTERS BAYOU LAYOUT
1"=600'



LAYOUT
SCALE: 1"=600'

SKCB-2

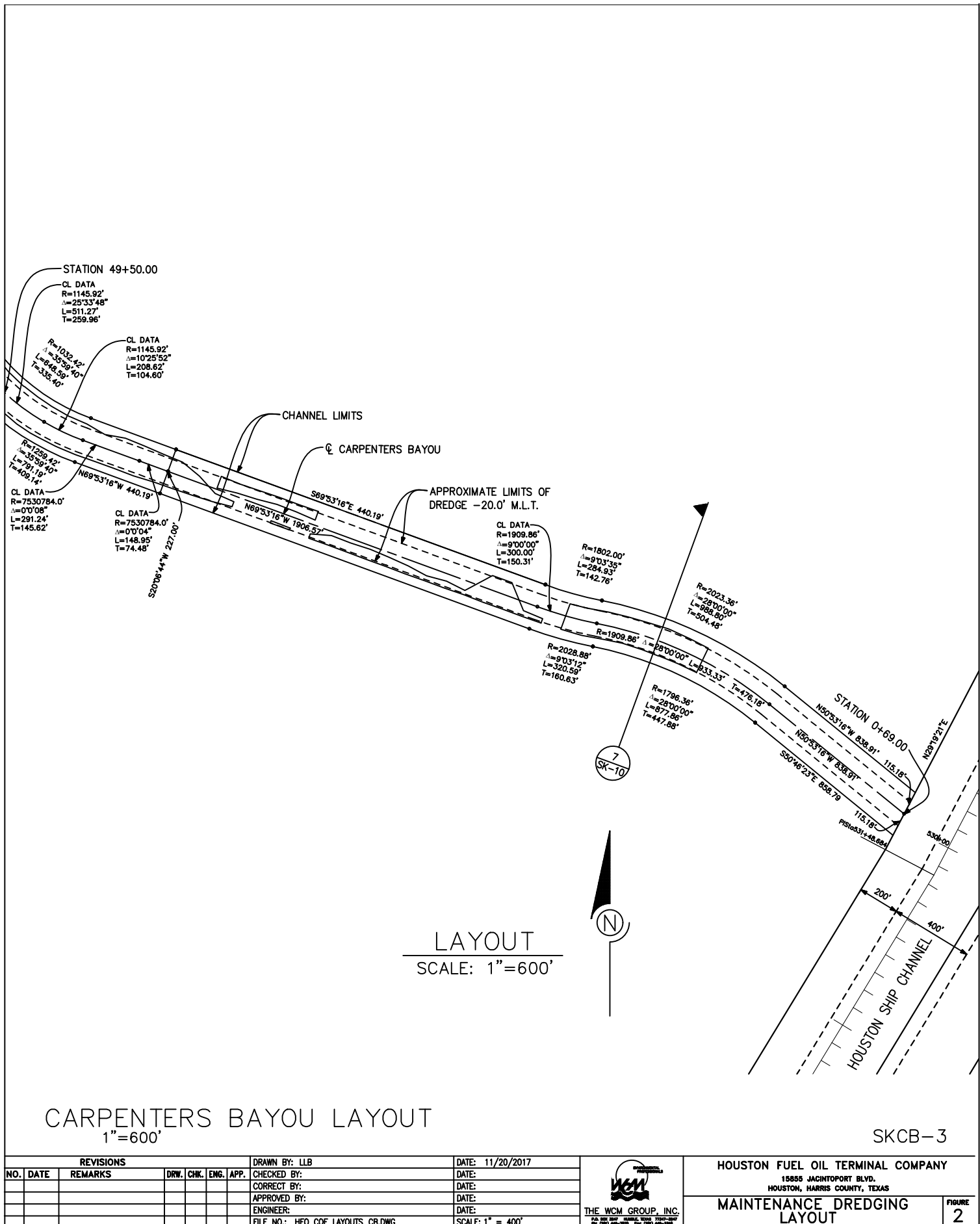
REVISIONS							DRAWN BY: LLB	DATE: 11/20/2017
NO.	DATE	REMARKS	DRW.	CHK.	ENG.	APP.	CHECKED BY:	DATE:
							CORRECT BY:	DATE:
							APPROVED BY:	DATE:
							ENGINEER:	DATE:
							FILE NO. = HFO_COF_LAYOUTS.CRDWG	SCALE: 1" = 400'



HOUSTON FUEL OIL TERMINAL COMPANY
15855 JACINTOPORT BLVD.
HOUSTON, HARRIS COUNTY, TEXAS

MAINTENANCE DREDGING LAYOUT

FIGURE
1



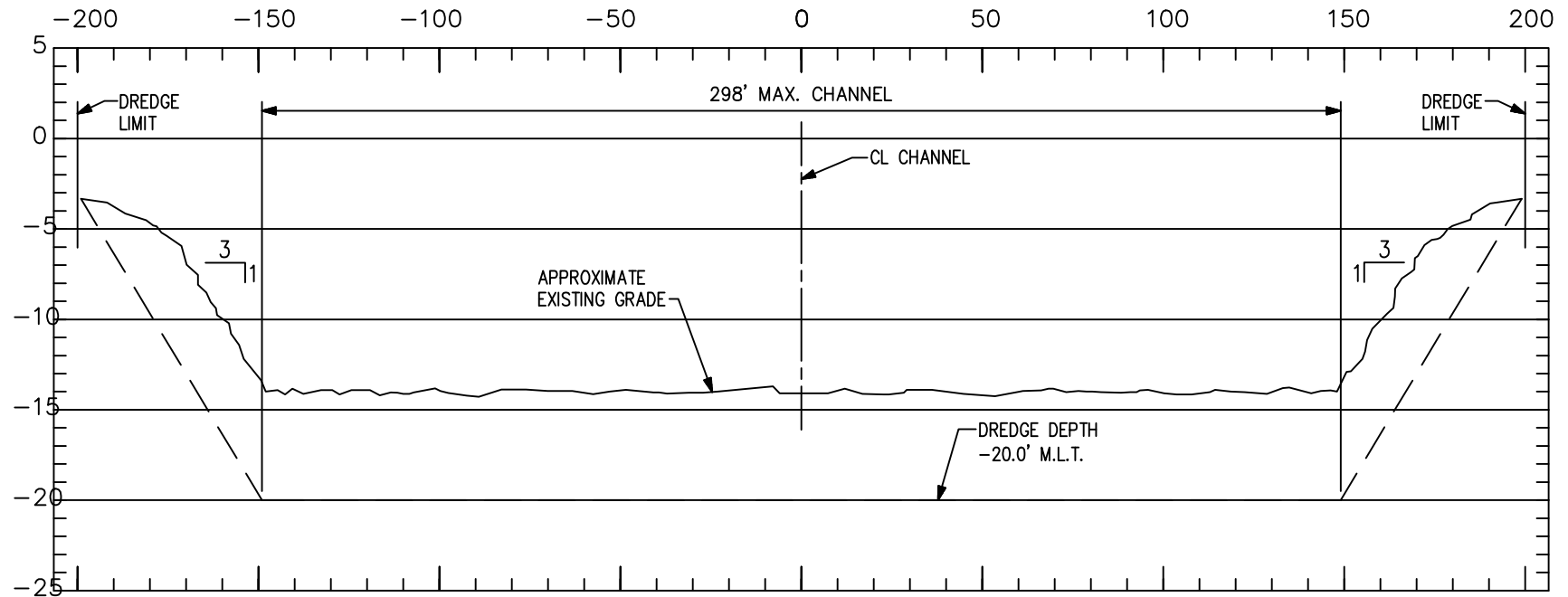
REVISIONS						DRAWN BY: LJB	DATE: 11/28/2018
NO.	DATE	REMARKS	DWN:	CHEK:	ENG:	APP:	
							CHECKED BY: DATE:
							CORRECT BY: DATE:
							APPROVED BY: DATE:
							ENGINEER: DATE:
							FILE NO.: HFO OCE SECTIONS_JMC-HSC.DWG SCALE: N/A



HOUSTON FUEL OIL TERMINAL COMPANY
 1585 JACONTOPORT BLVD.
 HOUSTON, HARRIS COUNTY, TEXAS

**MAINTENANCE DREDGING
DREDGING SECTION**

FIGURE **1**



1 DREDGING SECTION
SK-4 1"=50' HORZ., 1"=10' VERT.

CARPENTERS BAYOU SECTION

AS SHOWN

NOTES:

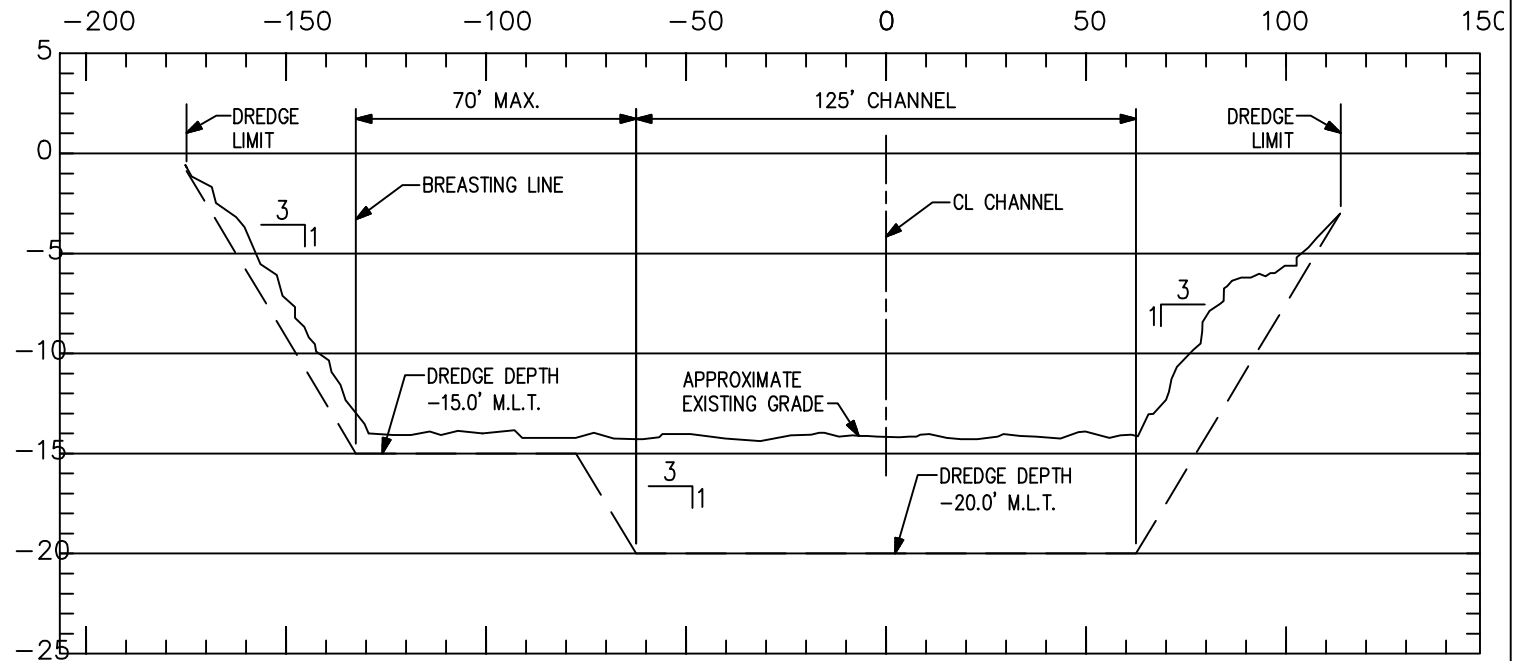
Mechanical and Hydraulic Dredging Proposed

20,000 cubic yard = amount of material to be removed from Carpenters Bayou (initially and annually).

- 14.0 feet MTL = existing depth.
- 20.0 feet MTL = proposed depth.

SKCB-4

REVISIONS							DRAWN BY: LTB	DATE: 11/28/2018	 WCM GROUP, INC. THE WCM GROUP, INC. 2000 WEST 10TH STREET FORT WORTH, TEXAS 76102-3808 HOUSTON FUEL OIL TERMINAL COMPANY 15855 JACHOBERT BLVD. HOUSTON, HARRIS COUNTY, TEXAS MAINTENANCE DREDGING DREDGING SECTION PAGE: 2		
NO.	DATE	REMARKS	DWN.	CHK.	ENG.	APP.	CHECKED BY:	DATE:			
							CORRECT BY:	DATE:			
							APPROVED BY:	DATE:			
							ENGINEER:	DATE:			
							FILE NO.: HFO COE SECTIONS, JAC-HSC, DWS	SCALE: N/A			



2 DREDGING SECTION @ BARGE DOCK 6
 SK-5 1"=50' HORZ., 1"=10' VERT.

CARPENTERS BAYOU SECTION

AS SHOWN

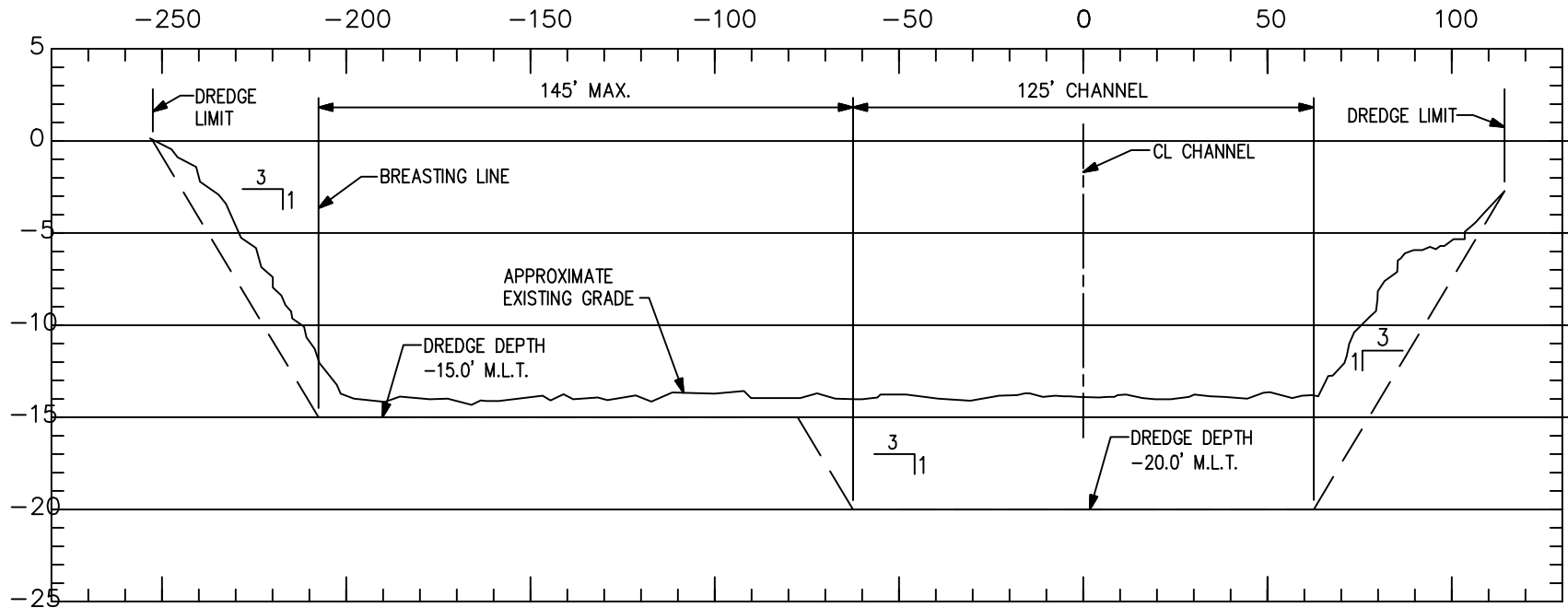
SKCB-5

NOTES:

Mechanical and Hydraulic Dredging Proposed

20,000 cubic yard = amount of material to be removed from Carpenters Bayou (initially and annually).

- 14.0 feet MTL = existing depth.
- 20.0 feet MTL = proposed depth.



3
SK-6

DREDGING SECTION @ BARGE DOCK 7

1"=50' HORZ., 1"=10' VERT.

CARPENTERS BAYOU SECTION

SKCB-6

NOTES:

AS SHOWN

Mechanical and Hydraulic Dredging Proposed

20,000 cubic yard = amount of material to be removed from Carpenters Bayou (initially and annually).

- 14.0 feet MTL = existing depth.

- 20.0 feet MTL = proposed depth.

REVISIONS		DATE	BY	CHK.	ENG.	APP.	DATE	BY	CHK.	ENG.	APP.
NO.	DATE	REMARKS									
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											
29											
30											
31											
32											
33											
34											
35											
36											
37											
38											
39											
40											
41											
42											
43											
44											
45											
46											
47											
48											
49											
50											
51											
52											
53											
54											
55											
56											
57											
58											
59											
60											
61											
62											
63											
64											
65											
66											
67											
68											
69											
70											
71											
72											
73											
74											
75											
76											
77											
78											
79											
80											
81											
82											
83											
84											
85											
86											
87											
88											
89											
90											
91											
92											
93											
94											
95											
96											
97											
98											
99											
100											

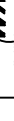
THE WCM GROUP, INC.
1800 WEST 19TH STREET, SUITE 200
HOUSTON, TEXAS 77058

HOUSTON FUEL OIL TERMINAL COMPANY
18855 JACINTO AVENUE, SUITE 100
HOUSTON, TEXAS 77058

MAINTENANCE DREDGING
DREDGING SECTION

FIGURE
3

REVISIONS							DRAWN BY: LJB	DATE: 11/28/2018
NO.	DATE	REMARKS	PRN.	CHK.	ENG.	APP.	CHECKED BY:	DATE:
							CORRECT BY: <th>DATE:</th>	DATE:
							APPROVED BY: <th>DATE:</th>	DATE:
							ENGINEER: <th>DATE:</th>	DATE:
							FILE NO.: HFO ODE SECTIONS_JAC-HSC.DWG	SCALE: N/A



WCM
WATER CONSTRUCTION MANAGEMENT
INC.

HOUSTON FUEL OIL TERMINAL COMPANY

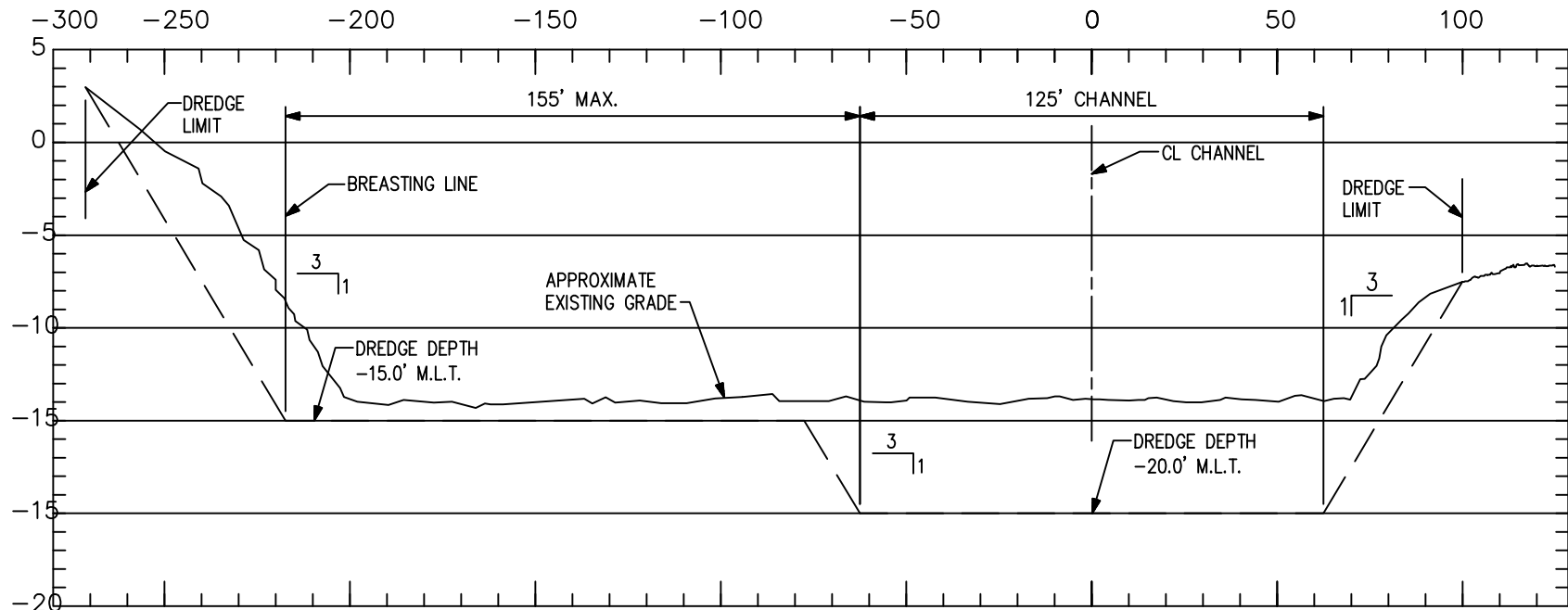
1585 JACINTOPORT BLVD.
HOUSTON, HARRIS COUNTY, TEXAS

**MAINTENANCE DREDGING
DREDGING SECTION**

PROJECT

4

THE WCM GROUP, INC.
1585 JACINTOPORT BLVD., SUITE 200
HOUSTON, TEXAS 77057-4007
TEL: 281-880-7000 FAX: 281-880-7001
WWW.WCMGROUP.COM



4 DREDGING SECTION @ BARGE DOCK 8
 SK-7 1"=50' HORZ., 1"=10' VERT.

CARPENTERS BAYOU SECTION

AS SHOWN

SKCB-7

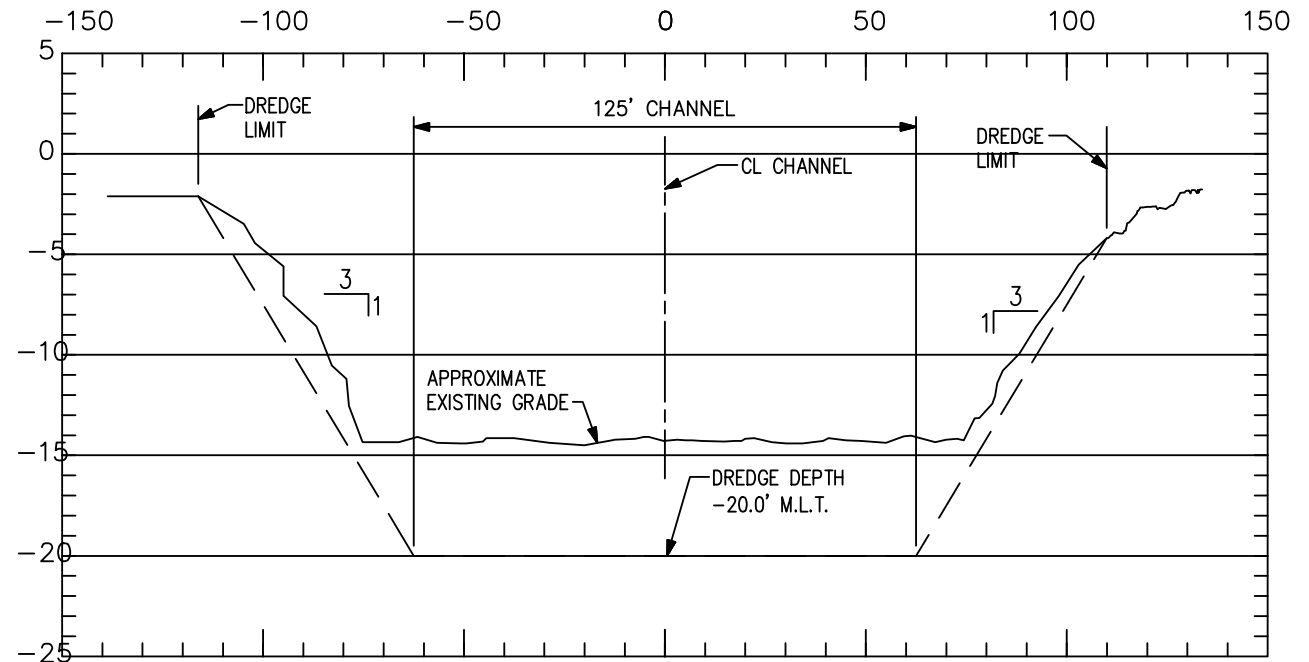
NOTES:

Mechanical and Hydraulic Dredging Proposed

20,000 cubic yard = amount of material to be removed from Carpenters Bayou (initially and annually).

- 14.0 feet MTL = existing depth.
- 20.0 feet MTL = proposed depth.

REVIEWS				DRAWN BY: LTB	DATE: 11/28/2018	 HOUSTON FUEL OIL TERMINAL COMPANY 15855 JACINTOPOINT BLVD. HOUSTON, HARRIS COUNTY, TEXAS MAINTENANCE DREDGING DREDGING SECTION
NO. DATE	REMARKS	DRW. CHK. ENG. APP.	CHECKED BY:	DATE:		
			CORRECT BY:	DATE:		
			APPROVED BY:	DATE:		
			ENGINEER:	DATE:		
			FILE NO.: HFO CODE SECTIONS JMC-HSC.DWG	SCALE: N/A		
THE WCM GROUP, INC. 15855 JACINTOPOINT BLVD. HOUSTON, TEXAS 77058-1000 TEL: 281-291-1000 FAX: 281-291-1001						
					FIGURE 5	



5 DREDGING SECTION
SK-8 1"=50' HORZ., 1"=10' VERT.

CARPENTERS BAYOU SECTION

SKCB-8

NOTES:

Mechanical and Hydraulic Dredging Proposed

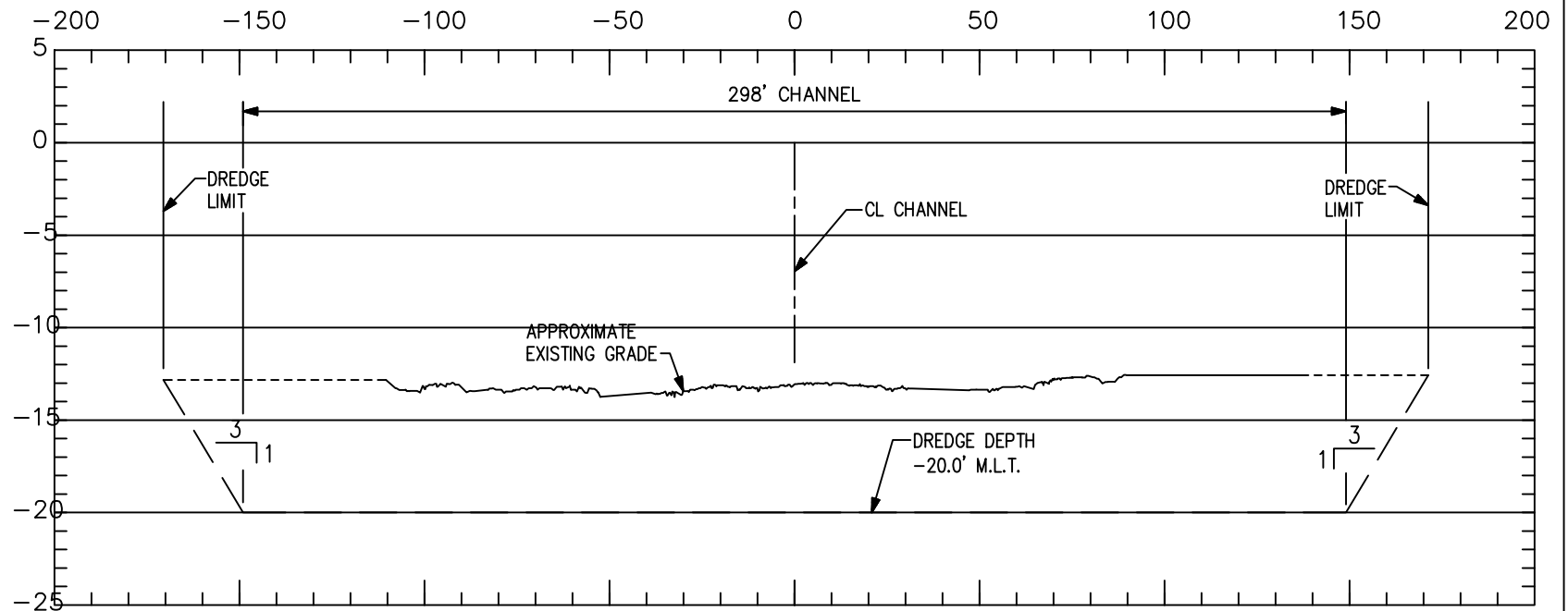
AS SHOWN

20,000 cubic yard = amount of material to be removed from Carpenters Bayou (initially and annually).

- 14.0 feet MTL = existing depth.

- 20.0 feet MTL = proposed depth.

REVISIONS							DRAWN BY: LJB	DATE: 11/28/2018	 HOUSTON FUEL OIL TERMINAL COMPANY 15855 JACINTOPORT BLVD. HOUSTON, HARRIS COUNTY, TEXAS		FIGURE
NO.	DATE	REMARKS	DN:	CHK:	ENG.	APP.	CHECKED BY:	DATE:			
							CORRECT BY: <td>DATE:</td> <td colspan="2"></td> <td rowspan="4">MAINTENANCE DREDGING DREDGING SECTION</td>	DATE:			MAINTENANCE DREDGING DREDGING SECTION
							APPROVED BY: <td>DATE:</td> <td colspan="2"></td>	DATE:			
							ENGINEER: <td>DATE:<td colspan="2"></td></td>	DATE: <td colspan="2"></td>			
							FILE NO.: HFO ODE SECTIONS_JMC-HSC.DWG	SCALE: N/A			
									 THE WCM GROUP, INC. 15855 JACINTOPORT BLVD., SUITE 200 HOUSTON, TEXAS 77057-4207 TEL: 281-865-9977 FAX: 281-865-9978		6



6 DREDGING SECTION
SK-9 1"=50' HORZ., 1"=10' VERT.

1"=50' HORZ., 1"=10' VERT.

CARPENTERS BAYOU SECTION

AS SHOWN

SKCB-9

NOTES:

Mechanical and Hydraulic Dredging Proposed

20,000 cubic yard = amount of material to be removed from Carpenters Bayou (initially and annually).

- 14.0 feet MTL = existing depth.

– 20.0 feet MTL = proposed depth.

REVISIONS				DRAWN BY: LJB	DATE: 11/28/2018
NO.	DATE	REMARKS	DWG.	CHK.	ENG. APP.
					CHECKED BY:
					CORRECT BY:
					APPROVED BY:
					ENGINEER:
					FILE NO.: HFO O&E SECTIONS, JMC-HSC.DWG
					SCALE: N/A



WCM
GROUP, INC.
1585 JACINTOPORT BLVD.
HOUSTON, HARRIS COUNTY, TEXAS

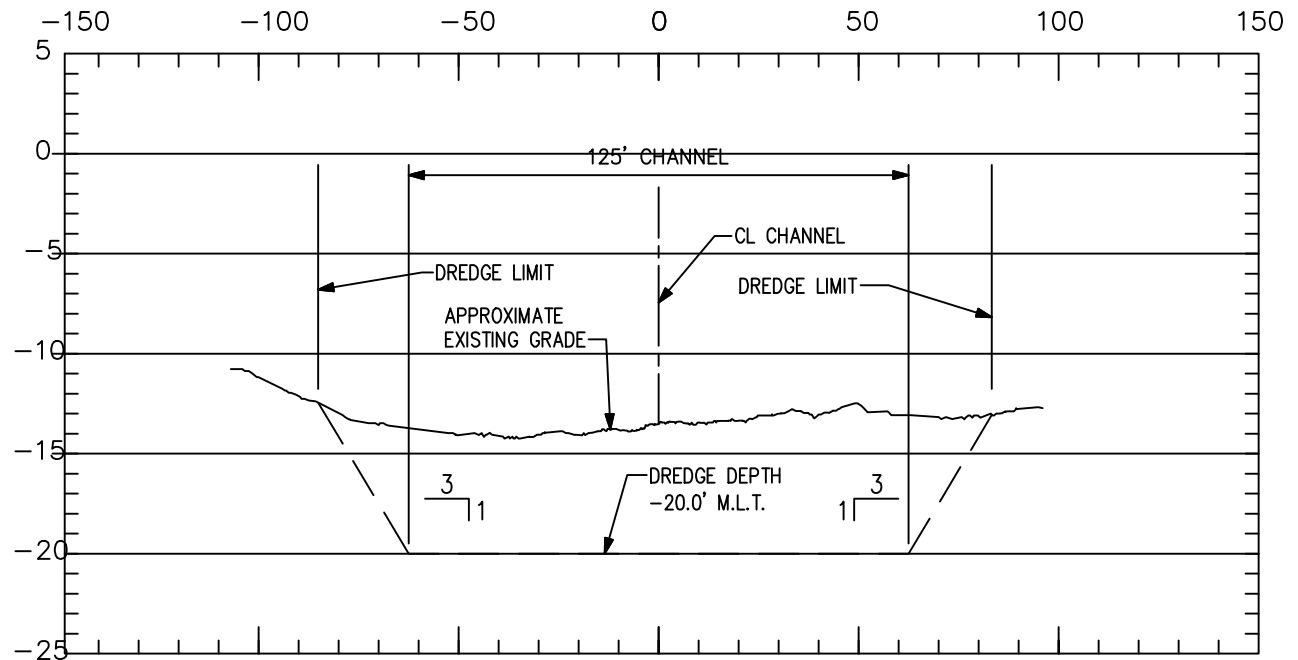
HOUSTON FUEL OIL TERMINAL COMPANY

MAINTENANCE DREDGING

DREDGING SECTION

FIGURE 7

THE WCM GROUP, INC. 1585 JACINTOPORT BLVD. HOUSTON, TEXAS 77057-1000
 TEL: 281-291-2000 FAX: 281-291-2001
 WWW.WCMGROUP.COM



7 DREDGING SECTION
SK-10 1"=50' HORZ., 1"=10' VERT.

CARPENTERS BAYOU SECTION

SKCB-10

AS SHOWN

NOTES:

Mechanical and Hydraulic Dredging Proposed

20,000 cubic yard = amount of material to be removed from Carpenters Bayou (initially and annually).

- 14.0 feet MTL = existing depth.

– 20.0 feet MTL = proposed depth.

REVISIONS				DRAWN BY: LJB	DATE: 02/28/2018
NO. DATE	REMARKS	INT.	CHK. ENG. APP.	CHECKED BY:	DATE:
				CORRECT BY:	DATE:
				APPROVED BY:	DATE:
				ENGINEER:	DATE:
				FILE NO.: HFO ODE DREDGE PLACEMENT PRECISING SCALE: " = 2'000'	



WCM
GROUP, INC.
15855 JACINTOPORT BLVD.
HOUSTON, TEXAS 77058

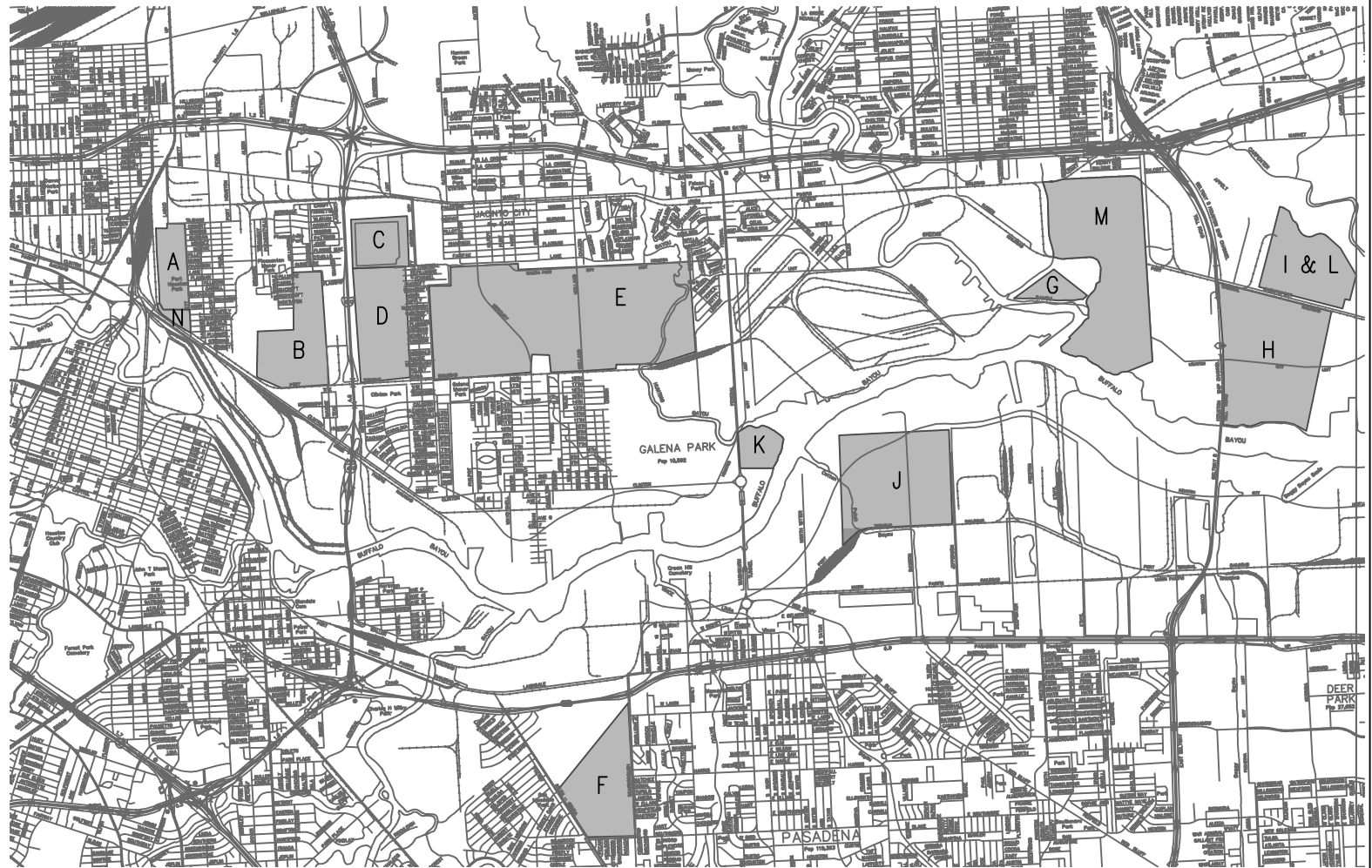
**MAINTENANCE DREDGING
MATERIAL PLACEMENT AREAS**

FIGURE 1

THE WCM GROUP, INC.
 15855 JACINTOPORT BLVD., SUITE 200
 HOUSTON, TEXAS 77058
 TEL: 281-460-9900 FAX: 281-460-9901

CARPENTERS BAYOU DMPA'S
1"=2000'

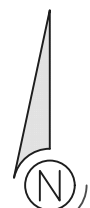
SK-10



PROPOSED DREDGE MATERIAL PLACEMENT AREAS:

- A. DORSETT
- B. GLENDALE
- C. STIMSON TRACT
- D. HOUSE TRACT
- E. CLINTON
- F. ROSA ALLEN
- G. GREENS BAYOU
- H. BELTWAY 8 TRACT
- I. PINTO LION
- J. EAST AND WEST JONES
- K. TARGA
- L. JACINTOPORT DREDGE MATERIAL STORAGE AND RECLAMATION FACILITY (GLANVILLE FACILITY)
- M. WAH CHANG
- N. FILTER BED

NO. DATE		REVISIONS		DRAWN BY: LJB		DATE: 02/28/2018	
		REMARKS		CHK. ENG. APP.		CHECKED BY:	DATE:
						CORRECTED BY:	DATE:
						APPROVED BY:	DATE:
						ENGINEER:	DATE:
						FILE NO.: HFO COE DREDGE PLACEMENT AREAS.DWG	SCALE: 1" = 2,650'
				THE WCA GROUP, INC.		HOUSTON FUEL OIL TERMINAL COMPANY	
				MAINTENANCE DREDGING MATERIALS PLACEMENT AREAS		18488 JACINTO AVENUE HOUSTON, TEXAS 77058	
				2		FIGURE	



CARPENTERS BAYOU DMPA'S

1" = 2000'

SK-11



PROPOSED DREDGE MATERIAL PLACEMENT AREAS:

- O. LOST LAKE
- P. GOAT ISLAND
- Q. PEGGY LAKE
- R. ALEXANDER ISLAND
- S. SPILMAN ISLAND
- T. ATKINSON ISLAND
- U. ON-SITE LOCATIONS PER PERMIT #SWC-1997-01189 & SWB-2007-01866 (FORMERLY 22404)
- V. HOG ISLAND