

Houston Ship Channel - Light-Draft 1



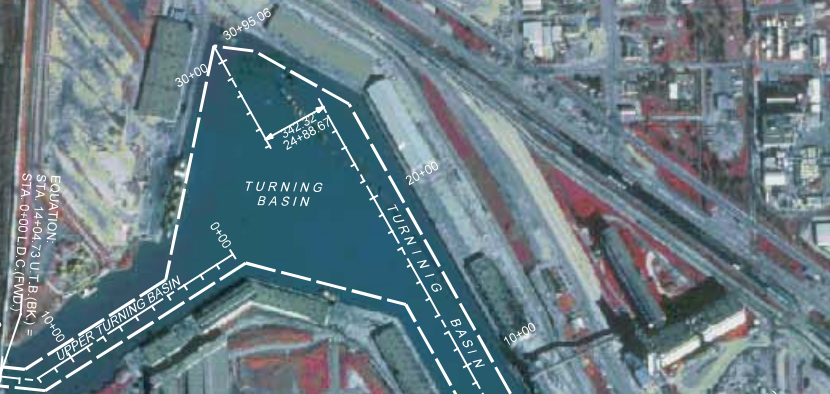


FILTER BED TRACT  
PLACEMENT AREA  
  
(NOT AVAILABLE  
THIS CONTRACT)  
  
FILTER BED TRACT  
PLACEMENT AREA  
  
(NOT AVAILABLE  
THIS CONTRACT)

GLENDALE PLACEMENT AREA

STIMPSON-HOUSE TRACT  
PLACEMENT AREA

STIMPSON-HOUSE TRACT  
PLACEMENT AREA



Houston Ship Channel 2





STIMPSON-HOUSE TRACT  
PLACEMENT AREA

CLINTON PLACEMENT AREA

CLINTON PLACEMENT AREA

LEVEE

STIMPSON-HOUSE TRACT  
PLACEMENT AREA

CLINTON PLACEMENT AREA

CLINTON PLACEMENT AREA

LEVEE

Houston Ship Channel 3





P.T. STA. 1244+28.19  
CURVE NO. 35  
P.C. STA. 1250+74.06

P.T. STA. 1235+71.35  
CURVE NO. 34  
P.C. STA. 1226+98.62

EQUATION:  
STA. 1216+49.57 H.S.C. =  
STA. 51+01.05 B.I.C.

EQUATION:  
STA. 1186+54.72 H.S.C. =  
STA. 3+74.54 B.I.C.

PLAN  
SCALE IN FEET  
0 500 1,000 1,500

Houston Ship Channel 4

SPOIL BANK



SPILL BANK

ROSA ALLEN  
DISPOSAL AREA

(NOT AVAILABLE  
THIS CONTRACT)

Houston Ship Channel 5

PLAN  
0 500 1,000 1,500  
SCALE IN FEET



HUNTING BAYOU  
TURNING BASIN

CURVE  
NO. 24

EQUATION  
P.T. STA. 954+98.20 (BKTS)  
P.T. STA. 958+35.77 (FWO)

P.C. STA. 967+79.47

CURVE  
NO. 26

CURVE  
NO. 27

CURVE  
NO. 28

EQUATION  
P.C. STA. 1026+41.17 (FWO)  
P.C. STA. 1028+82.01 (BK)

CURVE  
NO. 29

EQUATION  
P.C. STA. 1061+11.16  
P.T. STA. 1067+32.68

P.T. STA. 1048+29.00

CLINTON ISLAND  
TURNING BASIN

PLAN

0 500 1,000 1,500  
SCALE IN FEET

Houston Ship Channel 6



Houston Ship Channel 7





P.C.C. STA. 772+57.55

CURVE No. 19

P.C.C. STA. 764+89.38

CURVE No. 18

P.C. STA. 728+06.83

X = 3,222,488.980  
Y = 711,831.980

X = 3,226,870.86  
Y = 711,521.28

X = 3,229,683.23  
Y = 711,749.76

X = 3,232,614.94  
Y = 713,288.29

BEGIN FLARE  
STA. 657+36.817

P.I. STA. 684+06.58  
X = 3,226,870.86  
Y = 711,521.28

688+35.11

610+00  
620+00  
630+00  
640+00  
650+00  
660+00  
670+00  
680+00

PLAN  
0 500 1000 1500  
SCALE IN FEET

Houston Ship Channel 8





P.I. STA. 531+52.166  
X - 3,239,242.215  
Y - 719,219.107

END FLARE  
STA. 527+35.122  
385'

STA. 544+06.545

BEGIN TRANSITION  
STA. 570+00

END TRANSITION  
STA. 580+00

P.I. STA. 550+66.002  
X - 3,238,246.345  
Y - 717,584.785

BEGIN FLARE  
STA. 637+56.817  
X - 3,232,614.94  
Y - 713,288.29

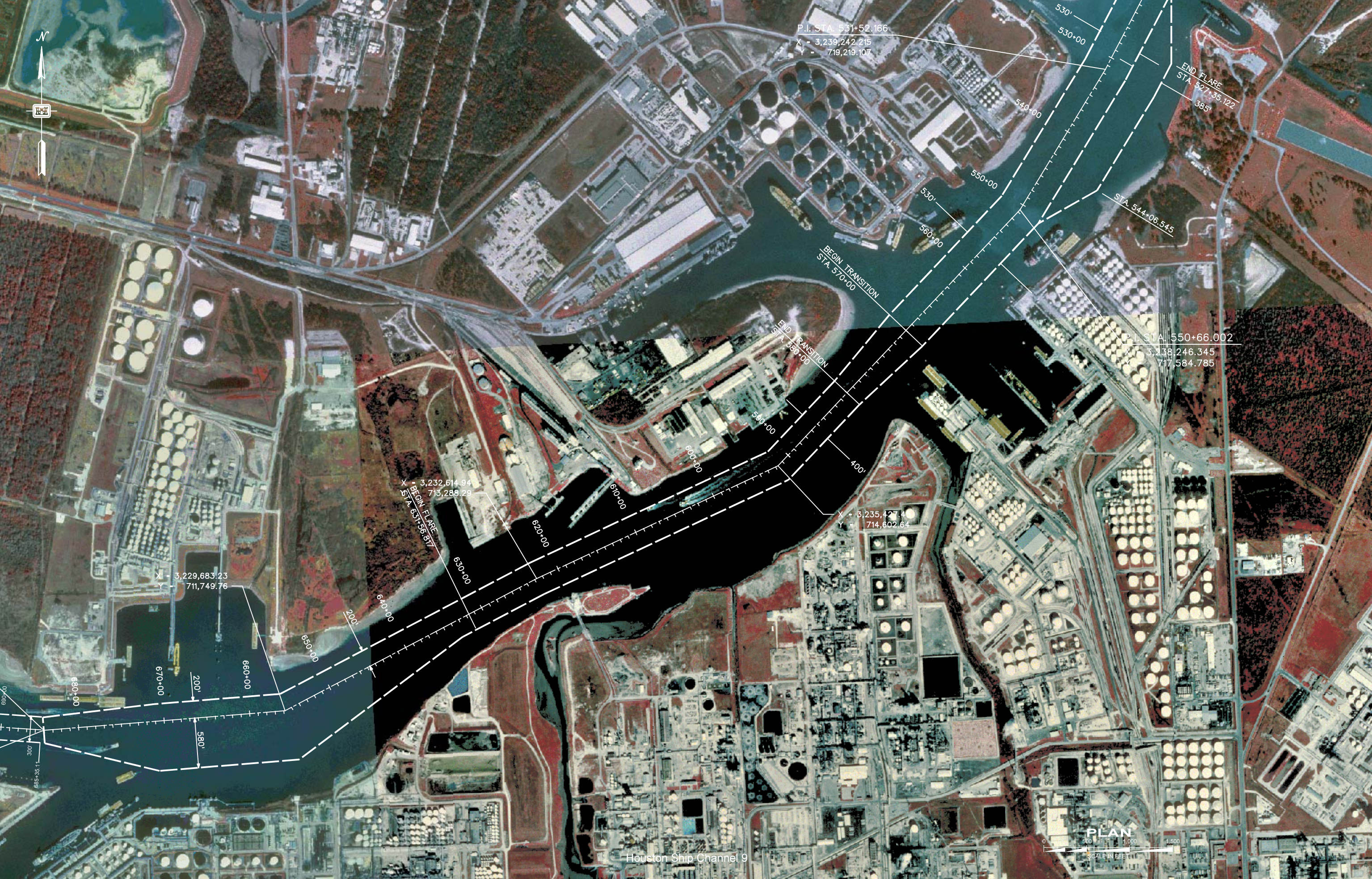
X - 3,235,427.4  
Y - 714,602.64

X - 3,229,683.23  
Y - 711,749.76

Houston Ship Channel 9

PLAN

SCALE IN FEET  
0 500 1,000 1,500





LOST LAKE  
PLACEMENT AREA

P.I. STA. 496+38.689  
 X - 3,241,024.110  
 Y - 722,621.610  
 D - 2° 8' 25"  
 A - 62° 25' 15"  
 R - 2677.002'  
 T - 1621.919'  
 L - 2336.463'

P.I. STA. 469+51.658  
 X - 3,243,758.001  
 Y - 722,618.648  
 D - 1° 19' 14"  
 A - 28° 45' 2"  
 R - 4338.621'  
 T - 1111.974'  
 L - 2177.086'

460+00

480+00

470+00

460+00

450+00

440+00

430+00

420+00

P.I. STA. 447+08.648  
 X - 3,245,723.326  
 Y - 721,537.635

P.I. STA. 428+36.699  
 X - 3,247,292.018  
 Y - 720,455.400  
 D - 1° 50' 53"  
 A - 28° 50' 54"  
 R - 3100.525'  
 T - 797.472'  
 L - 1561.105'

END TRANSITION - BEGIN  
 FLARE STA. 520+00

P.T. STA. 509+33.233  
 BEGIN 1100' TRANSITION

CURVE NO. 10

P.C.C. STA. 480+16.770

CURVE NO. 9

P.C. STA. 458+39.604

P.T. STA. 436+00.332

P.I. STA. 531+52.166  
 X - 3,239,242.215  
 Y - 719,219.107

530+00

Houston Ship Channel 10



PLAN

CURVE NO. 9



P.T. STA. 476+00  
CURVE NO. 8  
P.C. STA. 420+39.227

410+00

400+00

390+00

380+00

600'

END TRANSITION  
STA. 370+00

BEGIN TRANSITION  
P.T. STA. 360+70.110

CURVE NO. 7

360+00

350+00

P.C. STA. 342+97.352

340+00

530'

330+00

320+00

310+00

300+00

P.C. STA. 299+35.174

530'

END TRANSITION  
STA. 290+00

BEGIN TRANSITION  
STA. 280+00

700'

PEGGY LAKE  
PLACEMENT AREA

P.T. STA. 352+08.210  
X = 51,250.723, 678  
Y = 73,587.393  
D = 1° 49' 49"  
A = 32° 26' 42"  
T = 3130.582'  
L = 1772.758'

PEGGY LAKE  
PLACEMENT AREA

Houston Ship Channel 11

PLAN

SCALE IN FEET  
0 500 1,000 1,500

STATIONING

ALEXANDER ISLAND



STA. 317+74.296  
 STA. 299+35.174  
 END TRANSITION  
 STA. 290+00  
 BEGIN TRANSITION  
 STA. 280+00  
 P.I. STA. 308+70.961  
 END POINT X = 3,254,469.033  
 END POINT Y = 711,336.711  
 DELTA = 26° 25' 6"  
 TR = 4039.735'  
 LR = 935.780'  
 LR = 1839.123'

P.I. STA. 246+53.518  
 END POINT X = 5,280,709.245  
 END POINT Y = 710,799.453  
 DELTA = 42° 23' 34"  
 TR = 1504.334'  
 LR = 503.040'  
 LR = 960.226'

P.I. STA. 216+23.953  
 END POINT X = 3,396,628.835,939  
 END POINT Y = 708,516.789  
 DELTA = 11° 55' 16"  
 TR = 208.8164'  
 LR = 109.216164'  
 LR = 208.8164'

P.C. STA. 244+50.472  
 CURVE NO. 5  
 P.T. STA. 251+10.697

P.T. STA. 226+20.368  
 CURVE NO. 4

END TRANSITION  
 P.C. STA. 205+32.667

BEGIN TRANSITION  
 STA. 195+00

END TRANSITION  
 STA. 185+00

BEGIN TRANSITION  
 P.T. STA. 174+85.776





P.I. STA. 153+05.770  
X = 3,263,066.314  
Y = 700,354.022  
D = 83° 29' 36"  
A = 380.373'  
R = 3442.092'  
T = 222.103'

P.I. STA. 86+22.865  
X = 3,269,872.205  
Y = 700,360.724  
D = 0° 49' 40"  
A = 35° 51' 16"  
R = 6920.527'  
T = 2238.908'  
L = 4330.726'

**PLAN**  
0 500 1,000 1,500  
SCALE IN FEET

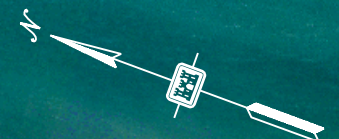
SPILLMAN ISLAND AREA  
PLACEMENT AREA

SPILLMAN ISLAND  
PLACEMENT AREA

CURVE NO. 2

VARIABLES

P.I. STA. 16  
X = 3,275  
Y = 695,7  
D = 1° 17'  
A = 29° 4  
R = 4434.  
T = 1150.1  
L = 2250



PLACEMENT AREA  
NO. 16

MARSH SITE

MARSH SITE

PLACEMENT AREA

EQUATION:  
 $-5+90.91 \text{ C.B.C.} =$   
 $3+36.97 \text{ H.S.C.}$   
 $X = 3,275,770.7060$   
 $Y = 694,236.9050$

$X = 3,278,654.03$   
 $Y = 690,395.94$   
 STA. 27+00

$\Delta = 24^\circ$   
 $R = 1910'$   
 $D = 3'$

$X = 3,279,083.32$   
 $Y = 689,727.84$   
 STA. 35+00

$X = 3,279,897.08$   
 $Y = 687,576.91$   
 STA. 58+00

$X = 3,280,017.52$   
 $Y = 686,781.97$   
 STA. 66+00

$X = 3,277,297.11$   
 $Y = 689,052.07$

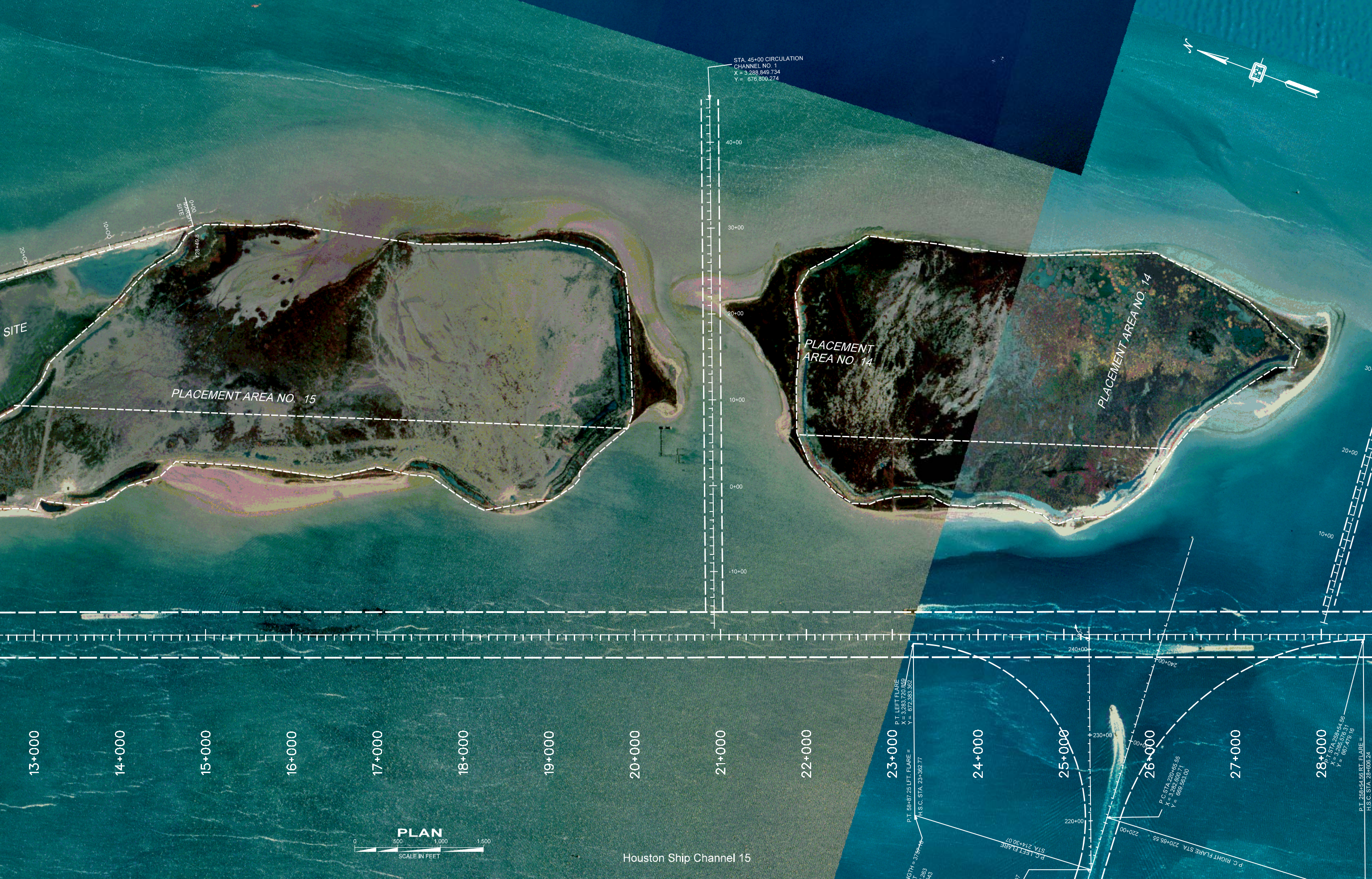
$X = 3,278,110.57$   
 $Y = 686,901.14$

0+000 1+000 2+000 3+000 4+000 5+000 6+000 7+000 8+000 9+000 10+000 11+000 12+000 13+000 14+000 15+000

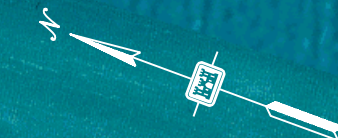
P.C. STA. 4+97.271



Houston Ship Channel 14



STA. 45+00 CIRCULATION  
CHANNEL NO. 1  
X = 3,288,849.734  
Y = 676,800.274



PLACEMENT AREA NO. 15

PLACEMENT AREA NO. 14

PLACEMENT AREA NO. 14

13+00

14+00

15+00

16+00

17+00

18+00

19+00

20+00

21+00

22+00

23+00

24+00

25+00

26+00

27+00

28+00



Houston Ship Channel 15

P.T. LEFT FLARE  
X = 3,283,720.869  
Y = 672,385.362

P.T. 58+87.25 LFT. FLARE =  
X = 3,283,720.869  
Y = 672,385.362

H.S.C. STA. 23+362.77

P.C. LEFT FLARE STA. 214+30.07

P.C. STA. 220+65.56  
X = 3,282,600.71  
Y = 669,953.00

P.C. RIGHT FLARE STA. 220+65.55

P.T. STA. 256+64.65  
X = 3,285,576.31  
Y = 667,479.16

H.S.C. STA. 28+605.24



PLACEMENT AREA NO. 14

27+000

28+000

29+000

30+000

31+000

32+000

33+000

34+000

35+000

36+000

37+000

38+000

39+000

40+000

41+000

42+000

PT. 1 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 2 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 3 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 4 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 5 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 6 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 7 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 8 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 9 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 10 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 11 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 12 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 13 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 14 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 15 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 16 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 17 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 18 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 19 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 20 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 21 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 22 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 23 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 24 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 25 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 26 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 27 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 28 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 29 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 30 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 31 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 32 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 33 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 34 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 35 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

PT. 36 STA. 238+24.65  
X = 857,419.76  
Y = 657,419.76

Houston Ship Channel 16



PLAN





HOUSTON SHIP CHANNEL

41+000

42+000

43+000

44+000

45+000

46+000

47+000

48+000

49+000

50+000

51+000

52+000

53+000

54+000

55+000

56+000





55+000

56+000

57+000

58+000

59+000

60+000

61+000

62+000

63+000

64+000

65+000

66+000

67+000

68+000

69+000

70+000

Houston Ship Channel 18





69+000

70+000

71+000

72+000

73+000

74+000

75+000

76+000

77+000

78+000

79+000

80+000

81+000

82+000

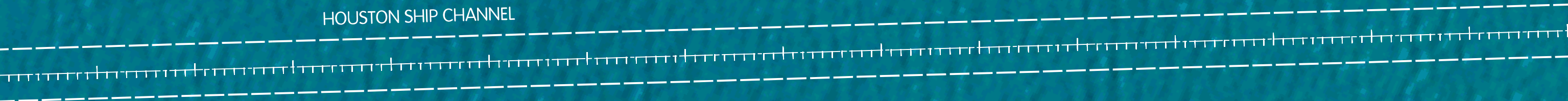
83+000

84+000

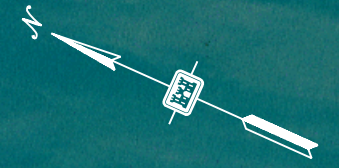
P.I. 78+489.90  
X = 3,314,872.94  
Y = 627,079.29



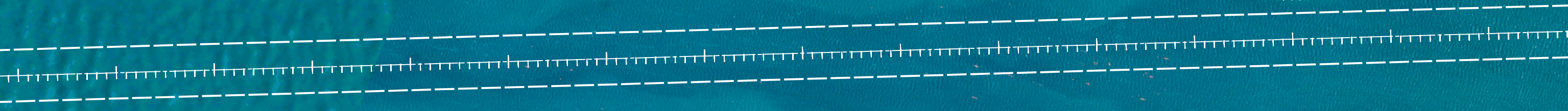
HOUSTON SHIP CHANNEL



82+000 83+000 84+000 85+000 86+000 87+000 88+000 89+000 90+000 91+000 92+000 93+000 94+000 95+000 96+000 97+000



HOUSTON SHIP CHANNEL



96+000

97+000

98+000

99+000

100+000

101+000

102+000

103+000

104+000

105+000

106+000

107+000

108+000

109+000

110+000

111+000



HOUSTON SHIP CHANNEL

110+000

111+000

112+000

113+000

114+000

115+000

116+000

117+000

118+000

119+000

120+000

121+000

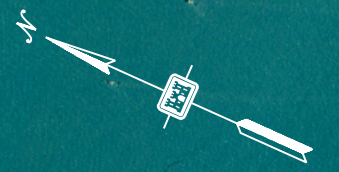
122+000

123+000

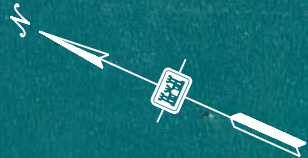
124+000

125+000

Houston Ship Channel 22



2A



P. I. STA. 128+728.999  
X = 3,336,872.623  
Y = 581,805.041

END BAY REACH STA  
BEGIN BOLIVAR ROADS  
X = 3,343,535.560  
Y = 574,841.361

124+000  
125+000  
126+000  
127+000  
128+000

129+000  
130+000  
131+000  
132+000  
133+000  
134+000  
135+000  
136+000  
137+000  
138+000  
139+000



PLAN



4120.0' O/S  
X = 3,356,392.93  
Y = 576,044.73

STA. I.B.C. 6+350.58  
X = 3,348,897.12  
Y = 577,267.36

13+886.62  
3,587.02' O/S  
X = 3,356,447.77  
Y = 577,514.55

END BAY REACH STA 138+366.818 =  
BEGIN BOLIVAR ROADS CHANNEL STA 0+000  
X = 3,343,535.560  
Y = 574,841.361

P.I. STA 4+490.072 =  
G.H.C. STA 2+312.71  
X = 3,347,628.98  
Y = 572,996.19

SHALLOW ANCHORAGE AREA

STA 6+700 BEGIN  
TRANSITION

STA 7+800 END  
TRANSITION

STA 9+239.66  
END TRANSITION  
STA 8+016.62  
BEGIN TRANSITION

INNER BAR CHANNEL





17+292  
3,358.02' O/S  
X = 3,359,858.86  
Y = 577,637.19

21+912.87  
2,200' O/S  
X = 3,364,888.79  
Y = 576,990.64

P.I. STA. 21+752.72  
X = 3,364,800.00  
Y = 574,772.41

ANCHORAGE AREA

15+000

16+000

17+000

18+000

19+000

20+000

21+000

22+000

23+000

24+000

25+000

26+000

27+000

28+000

29+000

OUTER BAR CHANNEL

800'

STA 19+800  
BEGIN FLARE

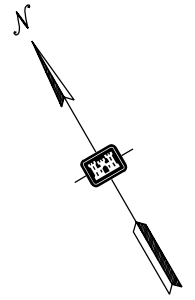
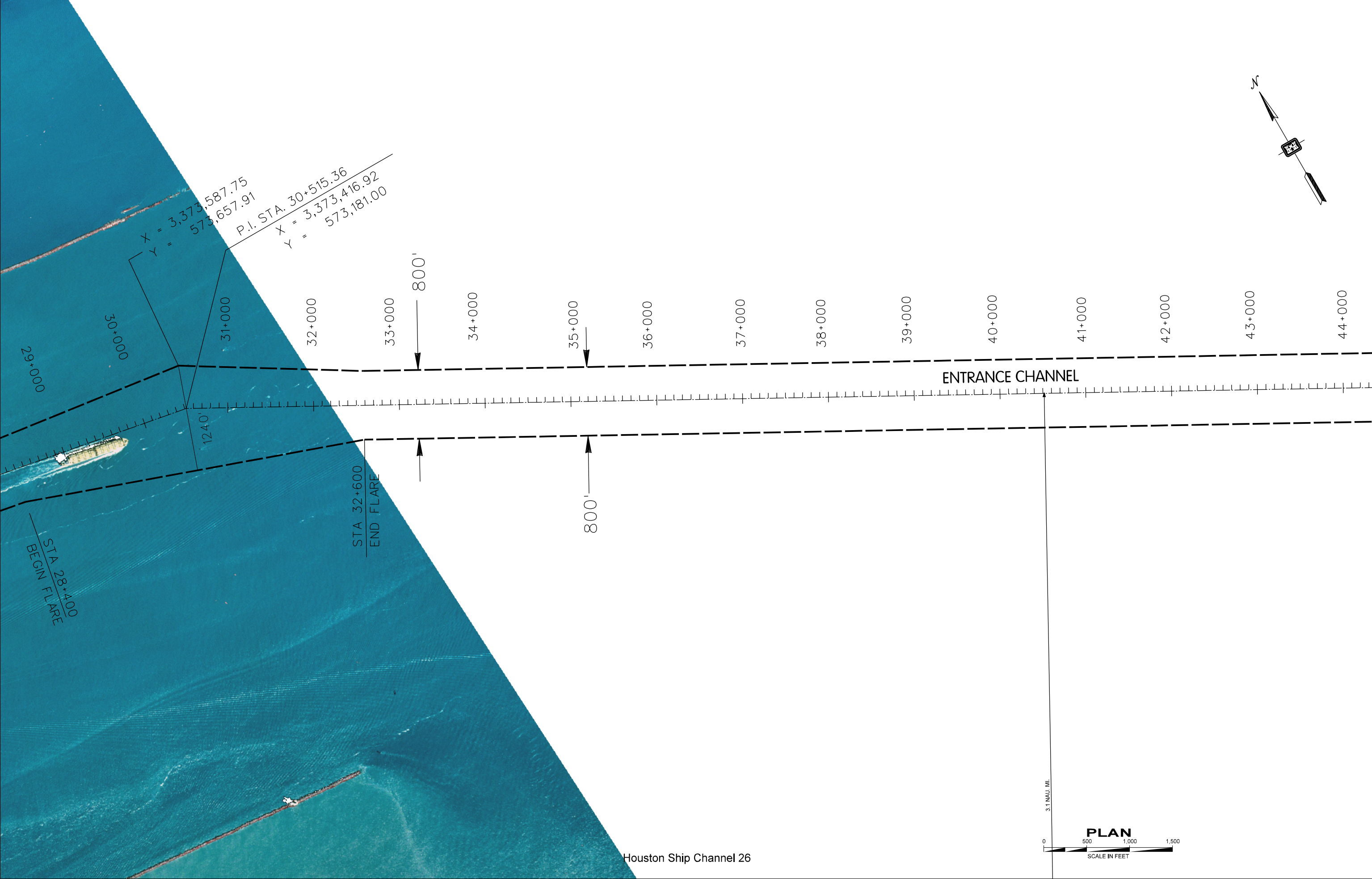
STA 23+800  
END FLARE

800'

STA 28+400  
BEGIN FLARE



PLAN



$X = 3,373,587.75$   
 $Y = 573,657.91$   
P.I. STA. 30+515.36  
 $X = 3,373,416.92$   
 $Y = 573,181.00$

29+000

30+000

31+000

32+000

33+000

34+000

35+000

36+000

37+000

38+000

39+000

40+000

41+000

42+000

43+000

44+000

ENTRANCE CHANNEL

1240'

STA 28+4000  
BEGIN FLARE

STA 32+600  
END FLARE

800'

800'

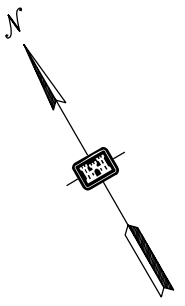
800'

Houston Ship Channel 26

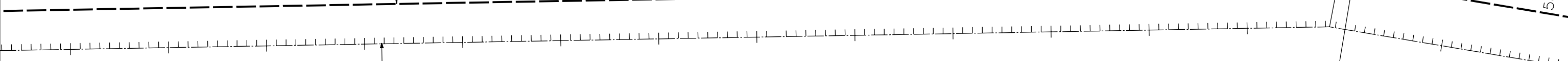
3.1 NAVAL MILE



PLAN



43+000 44+000 45+000 46+000 47+000 48+000 49+000 50+000 51+000 52+000 53+000 54+000 55+000 56+000 57+000 58+000



800'

STA 52+400  
BEGIN TRANSITION

STA 53+500  
END TRANSITION

1000'

1000'

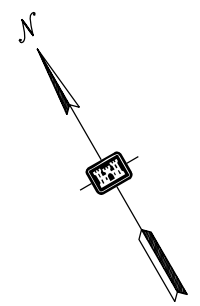
STA 55+840.35 END  
EXISTING CHANNEL

P.I. STA. 55+840.35  
X = 3,395,576.72  
Y = 560,921.36

1.3 NAU. MI.



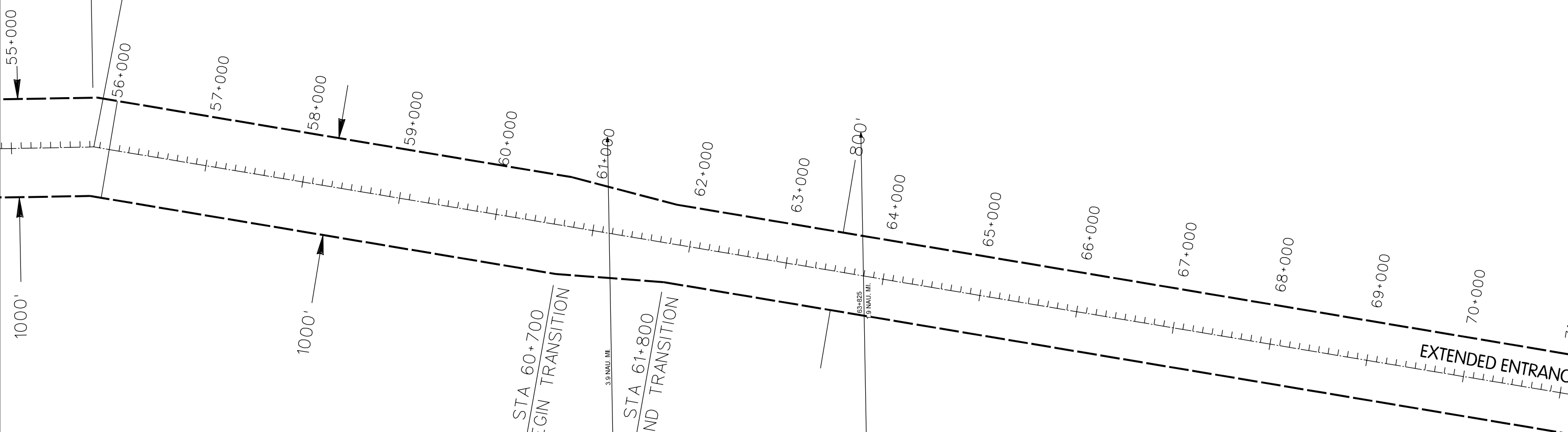
PLAN



STA 55+840.35 END  
EXISTING CHANNEL

P.I. STA. 55+840.35

X	=	3,395,576.72
Y	=	560,921.36



Houston Ship Channel 28



