

CALIFORNIA COASTAL COMMISSION

South Coast District Office
301 Ocean Blvd., Suite 300
Long Beach, CA 90802
(562) 590-5071



W13b&14a

(CDP 5-24-0081, CC-0001-24 City of Redondo Beach)

February 6, 2025

EXHIBITS

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Service Layer Credits Sources: Earl, HERS, Garmin, LGGS, Intermop, INCORPORATION P. NRCas, Earl Japan, METI, Earl China (Hong Kong), Earl Korea, Earl (Thailand), NGCO, (c) OpenStreetMap contributors, and the 55 User Community



California Coastal
Commission
CDP 5-24-0081
CC-0001-0024
Exhibit 1

PROJECT AREA

VICINITY MAP
 1" = 10,000'



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PROJECT INFORMATION

PROJECT ADDRESS:
KING HARBOR, REDONDO BEACH, CA 90277

PROPERTY OWNER:
CITY OF REDONDO BEACH

ASSESSOR'S PARCEL NUMBER (APN):
DREDGING AREA I: WATERS NOT WITHIN A COUNTY PARCEL
DREDGING AREA II: 7503-029-902

PLACEMENT SITE: WATERS NOT WITHIN A COUNTY PARCEL

ENGINEER:
NOBLE CONSULTANTS, INC.
2201 DUPOUNT DRIVE, STE. 830
IRVINE, CA 92612

SCOPE OF WORK:

MAINTENANCE DREDGING OF 46,300 CUBIC YARDS OF SEDIMENT (NOT TO EXCEED 62,000 CY AT TWO LOCATIONS WITHIN KING HARBOR: DREDGING AREA 1 (45,500 CY DESIGN, 60,000 CY MAXIMUM) AND DREDGING AREA II (800 CY DESIGN, 2,000 CY MAXIMUM). SUBSEQUENT DISPOSAL OF DREDGED MATERIAL AT THE PLACEMENT SITE CENTERED APPROXIMATELY 0.85 MILES SOUTH OF THE ENTRANCE TO KING HARBOR 0.35 MILES OFFSHORE, AND OFF-SITE DISPOSAL OF DREDGED DEBRIS CONTAMINATION.

PROJECT AREAS:

DREDGING AREA I: 178,602 SQUARE FEET
DREDGING AREA II: 14,600 SQUARE FEET
PLACEMENT SITE: 506,744 SQUARE FEET

FLOOD ZONE:

DREDGING AREA I: VE
DREDGING AREA II: AE
PLACEMENT SITE: VE

CURRENT CODES:

REDONDO BEACH, CALIFORNIA MUNICIPAL CODE
CITY OF REDONDO BEACH STANDARD PLANS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION
"GREENBOOK" STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (2021 EDITION)
U.S. ARMY CORPS OF ENGINEERS "DREDGING AND DREDGED MATERIAL MANAGEMENT MANUAL
EM 1110-2-5025 (2015 EDITION)
CALIFORNIA CODE OF REGULATIONS TITLES 23 & 27
CODE OF FEDERAL REGULATIONS TITLE 40
CALIFORNIA BUILDING CODE 2022

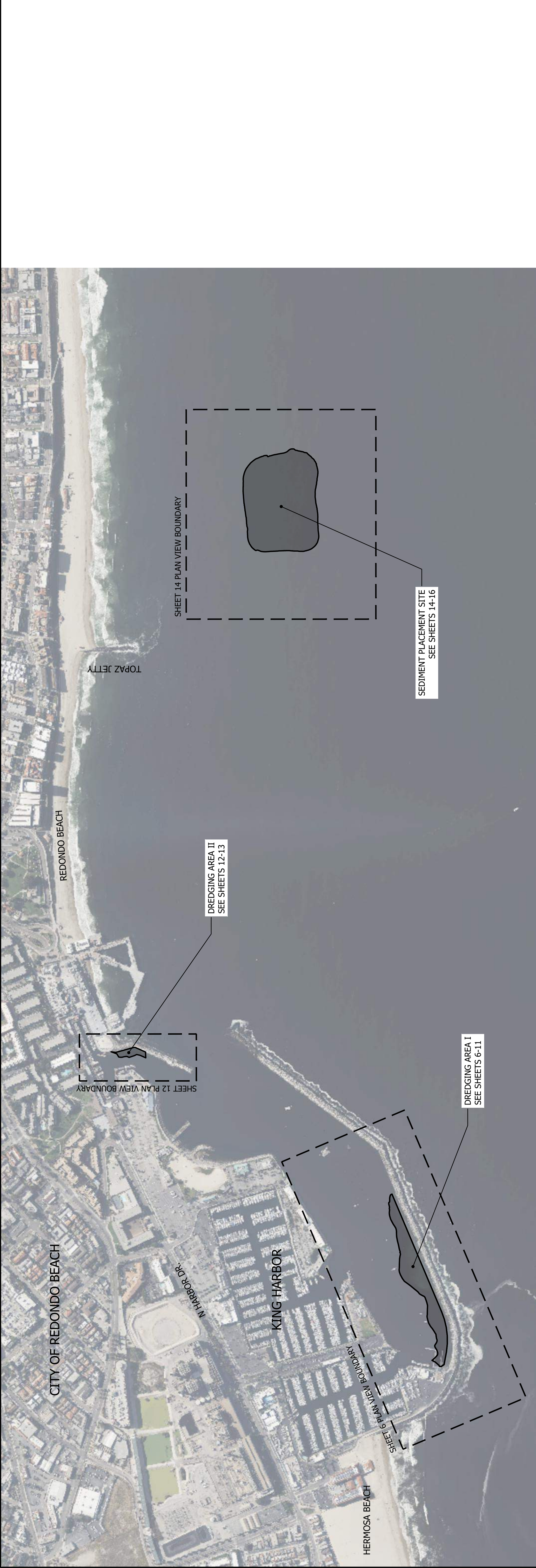
REVIEWS	CITY OF REDONDO BEACH CALIFORNIA PUBLIC WORKS DEPARTMENT – ENGINEERING SERVICES DIVISION			
DATE	DESCRIPTION			
		KING HARBOR		
		TITLE SHEET		
		MAINTENANCE DREDGING PROJECT		
		DRAWN	PM	CHECKED TF
		APPROVED BY <i>Aswinje</i>		SCALE AS SHOWN
		CITY ENGINEER – R.C.E.		DATE 25 MAY 2023
		PROJECT NO. 70660	SHEET NO. <u>1</u> OF <u>19</u> SHEETS	DRAWING NO.

PREPARED BY:

**NOBLE
CONSULTANTS**



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- 1
- 2

PROJECT PLAN
SCALE: 1" = 400'

PROJECT PLAN NOTES:

1. THE CONTRACTOR SHALL FULLY COMPLY WITH ALL REQUIREMENTS CONTAINED WITHIN THESE DRAWINGS, THE SPECIFICATIONS, AND ALL PERMIT DOCUMENTS FOR THE PROJECT.
2. ALL WORK DETAILED ON THESE PLANS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE U.S. ARMY CORPS OF ENGINEERS "DREDGING AND DREDGED MATERIAL MANAGEMENT" MANUAL EM 1110-2-5025 JULY 2015 EDITION, AND THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION," 2021 EDITION AND SUPPLEMENTS TO DATE, EXCEPT AS OTHERWISE STATED IN THE CITY'S STANDARD SPECIFICATIONS, OR IN THIS CONTRACT'S SPECIAL PROVISION.
3. ALL HORIZONTAL COORDINATES SHOWN ON THESE DRAWINGS ARE IN UNITS OF FEET RELATIVE TO CALIFORNIA STATE PLANE ZONE 5 (US FEET) DATUM.
4. ALL VERTICAL COORDINATES SHOWN ON THESE DRAWINGS ARE IN UNITS OF FEET RELATIVE TO MEAN LOWER LOW WATER (MLLW) DATUM.
5. THE TERM "NEARSHORE PLACEMENT SITE" IN THE PERMITS CORRESPONDS TO THE PLACEMENT SITE USED FOR THIS PROJECT. ALL REFERENCES TO "IN-HARBOR PLACEMENT SITE" IN THE PERMITS OR OTHER PROJECT DOCUMENTS SHALL BE IGNORED, AS THE IN-HARBOR PLACEMENT SITE WILL NOT BE USED.
6. THE CONTRACTOR SHALL PROTECT THE EXISTING RUBBLE MOUND BREAKWATER STRUCTURES IN PLACE AT ALL TIMES. PLANNED METHODS FOR PROTECTION OF THE EXISTING RUBBLE MOUND STRUCTURE SHALL BE DETAILED IN THE PRE-CONSTRUCTION DREDGING AND DISPOSAL OPERATIONS PLAN SUBMITTAL. THE CONTRACTOR SHALL DOCUMENT ANY AND ALL IMPACTS TO THE BREAKWATERS FROM DREDGING ACTIVITIES, AND IMMEDIATELY NOTIFY THE CITY AND ENGINEER. IN THE EVENT THAT THE BREAKWATER IS DAMAGED, THE CITY MAY ISSUE A STOP WORK ORDER UNTIL THE DAMAGE IS FULLY ASSESSED AND A REPAIR PLAN IS DEVELOPED.
7. THE CONTRACTOR SHALL CONSIDER THAT LARGE STONES PREVIOUSLY DISPLACED FROM THE RUBBLE MOUND BREAKWATER MAY BE PRESENT WITHIN THE AREA OF SEDIMENTS TO BE DREDGED. MOVE ANY DISPLACED STONES TO THE BASE OF THE BREAKWATER STRUCTURE CLOSEST TO WHERE THE STONE WAS ORIGINALLY LOCATED. PRESENCE OF STONE OR ROCK WITHIN THE DREDGING AREA WILL NOT BE CONSIDERED A VALID REASON FOR DELAYS TO THE SCHEDULE, ADDITIONAL WORK, OR ADDITIONAL COSTS.
8. DREDGING VOLUMES:

8.1. DREDGING AREA I

- 8.1.1. DESIGN DREDGE VOLUME: 45,500 CY
- 8.1.2. MAXIMUM ALLOWABLE DREDGE VOLUME: 60,000 CY
- 8.2. DREDGING AREA II

8.2.1. DESIGN DREDGE VOLUME: 800 CY

8.2.2. MAXIMUM ALLOWABLE DREDGE VOLUME: 2,000 CY
9. DREDGING DEPTHS:

9.1. DREDGING AREA I

9.1.1. DESIGN DREDGE DEPTH: -18FT MLLW

9.1.2. MAXIMUM ALLOWABLE OVER DREDGE (OD) DEPTH: -20FT MLLW

9.2. DREDGING AREA II

9.2.1. DESIGN DREDGE DEPTH: -15FT MLLW

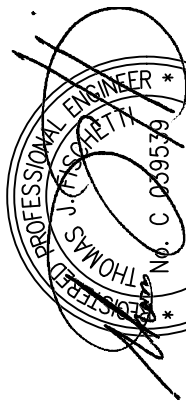
9.2.2. MAXIMUM ALLOWABLE OVER DREDGE (OD) DEPTH: -17FT MLLW
10. DREDGING AREAS:

10.1. DREDGING AREA I: 4.1 ACRES

10.2. DREDGING AREA II: 0.35 ACRES
11. THE CONTRACTOR HAS THE OPTION TO UTILIZE A LAND-SIDE STAGING AREA AT A LOCATION APPROVED BY THE CITY. IF A LAND-SIDE STAGING AREA IS TO BE USED, THEN THE CONTRACTOR SHALL SUBMIT A STAGING AND LAYDOWN AREA PLAN TO THE CITY. THE PLAN MUST BE APPROVED BY THE CITY PRIOR TO CONTRACTOR MOBILIZATION.
12. UPON COMPLETION OF EACH DAY'S WORK, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LEAVING THE WORK AREA FREE OF HAZARDS AND SHALL PROVIDE ALL NECESSARY TEMPORARY SIGNS, WARNING DEVICES, AND BARRICADES.
13. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE JOB SITE CONDITIONS OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THE RESPONSIBILITY SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
14. THROUGHOUT ALL PHASES OF CONSTRUCTION, INCLUDING SUSPENSION OF WORK, UNTIL FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL KEEP THE WORK SITE CLEAN AND FREE FROM RUBBISH AND DEBRIS. IF A LAND-SIDE STAGING AREA IS USED, THEN THE CONTRACTOR SHALL ALSO ABATE DUST NUISANCE BY CLEANING, SWEEPING, SPRINKLING WITH WATER, USING DUST FENCES, OR OTHER METHODS AS NECESSARY THROUGHOUT CONSTRUCTION OPERATIONS.
15. PRIOR TO THE COMMENCEMENT OF WORK, THE CONTRACTOR SHALL CONTACT

- THE HARBOR MASTER TO OBTAIN LOCATIONS AND CHARACTERISTICS OF UTILITIES (EXPOSED, COVERED, & SUBMERGED) THAT MAY BE AFFECTED BY THE WORK.
16. SIGNIFICANT ERRORS ON THE DRAWINGS OR SPECIFICATIONS SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER. FAILURE TO DO SO WILL PLACE RESPONSIBILITY ON THE CONTRACTOR FOR CORRECTION.
17. ANY WORK NOT INDICATED ON THE DRAWINGS BUT CALLED FOR IN THE SPECIFICATIONS OR VICE-VERSA SHALL BE FURNISHED AND PERFORMED AS THOUGH SPECIFICALLY INDICATED AND CALLED FOR IN BOTH. ANY WORK NOT INSTALLED ACCORDING TO THE DRAWINGS, SPECIFICATIONS, ORDINANCES, OR LAWS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
18. THE CONTRACTOR SHALL COORDINATE AND COOPERATE WITH REPRESENTATIVES FROM THE CITY OF REDONDO BEACH AT ALL TIMES.
19. THE CONTRACTOR SHALL NOTIFY THE CITY AND ENGINEER 48 HOURS PRIOR TO STARTING WORK SO THAT THE CITY'S REPRESENTATIVE INSPECTOR CAN PREPARE FOR INSPECTION OF ON-SITE CONSTRUCTION ACTIVITIES.
20. THE CONTRACTOR SHALL KEEP ACCURATE, LEGIBLE, AND STRICT RECORDS OF ALL CHANGES OF WORK WHICH OCCUR DURING CONSTRUCTION ON A SET OF PROJECT PRINTS. PRIOR TO FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL SUBMIT AN APPROVED SET OF CERTIFIED "AS-BUILT" PLANS TO THE ENGINEER.
21. REPAIR TO ANY UTILITY LINE SYSTEM, STRUCTURE, OR FACILITY ACCIDENTALLY DAMAGED BY THE CONTRACTOR SHALL BE MADE AT THE CONTRACTOR'S EXPENSE.
22. ANY AND ALL DAMAGE CAUSED TO CITY FACILITIES, PUBLIC STREETS INCLUDING HAUL ROUTES, OR PRIVATE PROPERTY SHALL BE REPAIRED AT THE SOLE EXPENSE OF THE CONTRACTOR TO THE ENGINEER'S SATISFACTION.
23. BOATING NAVIGATION AND ACTIVITIES WITHIN THE HARBOR SHALL REMAIN OPEN AT ALL TIMES. THE CONTRACTOR SHALL NOT INTERFERE WITH OR OTHERWISE DISRUPT BOATING NAVIGATION IN ANY WAY.
24. DREDGING SHALL BE PERFORMED IN A MANNER THAT LEAVES AS SMOOTH AND CONTINUOUS OF A FINISHED GRADE AS POSSIBLE, FREE OF SHOALS OR MOUNDS.

NOAA STATION 9410840, SANTA MONICA TIDAL ELEVATIONS [FT MLLW]			
DATUM	VALUE	DESCRIPTION	
MHHW	5.43	MEAN HIGHER-HIGH WATER	
MHW	4.69	MEAN HIGH WATER	
MSL	2.79	MEAN SEA LEVEL	
MLW	0.93	MEAN LOWER WATER	
MLLW	0.00	MEAN LOWER-LOW WATER	
NAVD88	0.19	NORTH AMERICAN VERTICAL DATUM OF 1988	
MAX TIDE	8.50	HIGHEST OBSERVED TIDE	
MIN TIDE	-2.84	LOWEST OBSERVED TIDE	



SIGNED 5/25/2023

PREPARED BY:



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REVISIONS		CITY OF REDONDO BEACH			
DATE	DESCRIPTION	PUBLIC WORKS DEPARTMENT – ENGINEERING SERVICES DIVISION			
		KING HARBOR			
		PROJECT PLAN			
		MAINTENANCE DREDGING PROJECT			
		DRAWN	PM	CHECKED	TF
		APPROVED BY		SCALE 1" = 400'	
				DATE	
				25 MAY 2023	
		PROJECT NO.	70660	SHEET NO.	2
				OF	19 SHEETS
					DRAWING NO.



1 EXISTING CONDITIONS NORTH HARBOR

3 SCALE: 1" = 80'

CITY OF REDONDO BEACH
CALIFORNIA
PUBLIC WORKS DEPARTMENT – ENGINEERING SERVICES DIVISION
KING HARBOR

EXISTING CONDITIONS & SURVEY – 1

MAINTENANCE DREDGING PROJECT

REVISIONS	
DATE	DESCRIPTION

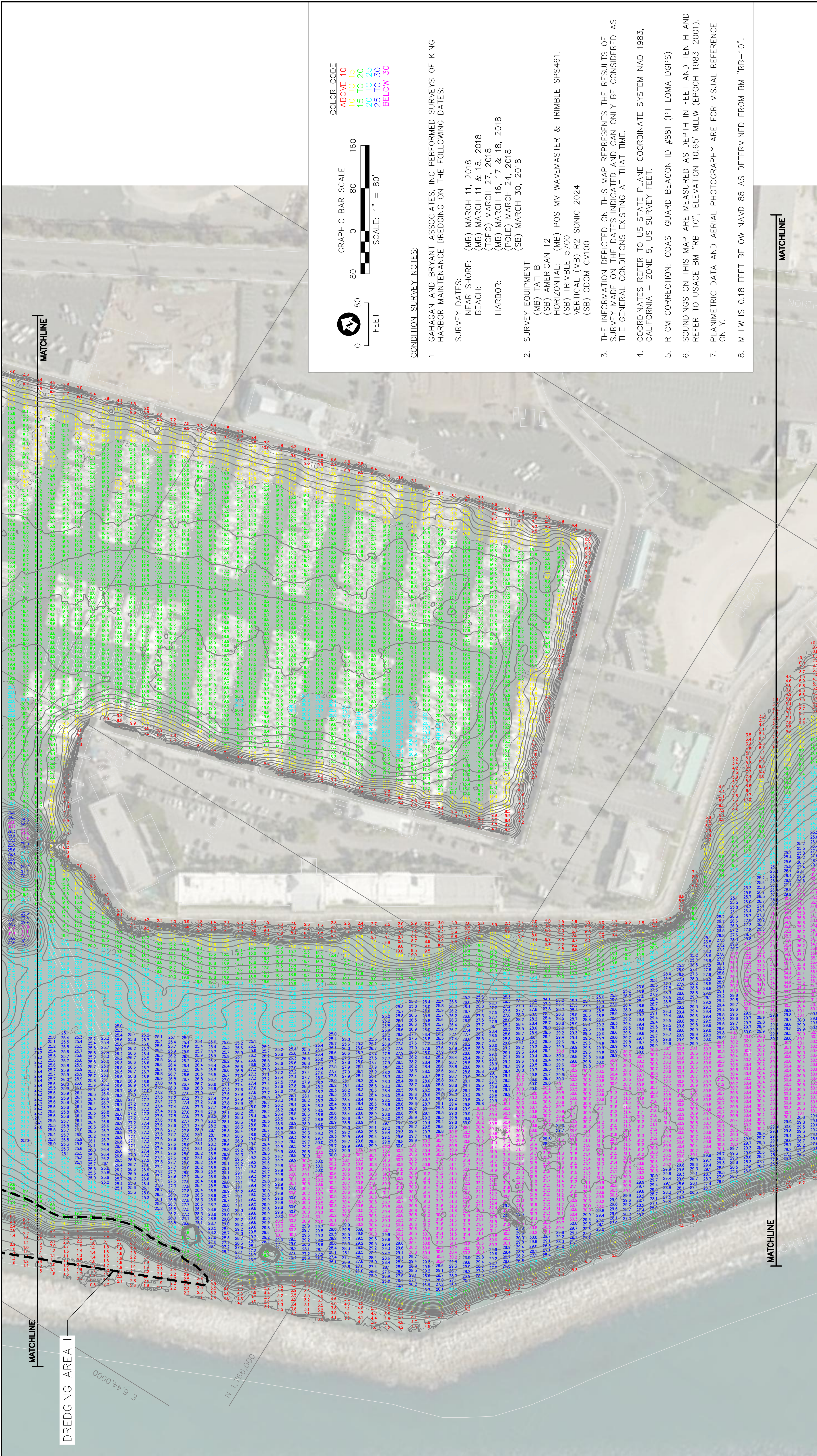
DRAWN	PM	CHECKED	TF	SCALE	1" = 80'
APPROVED BY				DATE	
 Aswinie CITY ENGINEER – M.C.E.				25 MAY 2023	
PROJECT NO.		SHEET NO.		DRAWING NO.	
70660		3		OF 19 SHEETS	

PREPARED BY:

NOBLE CONSULTANTS

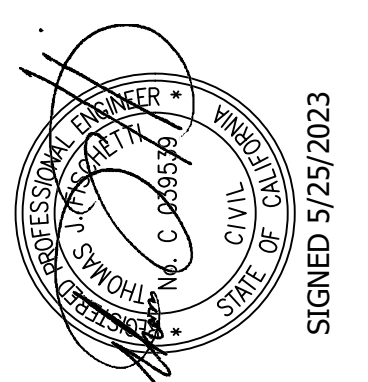
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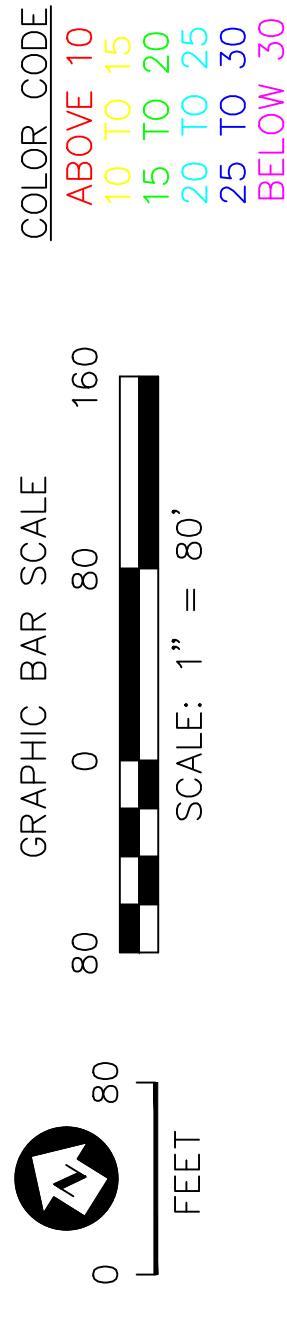
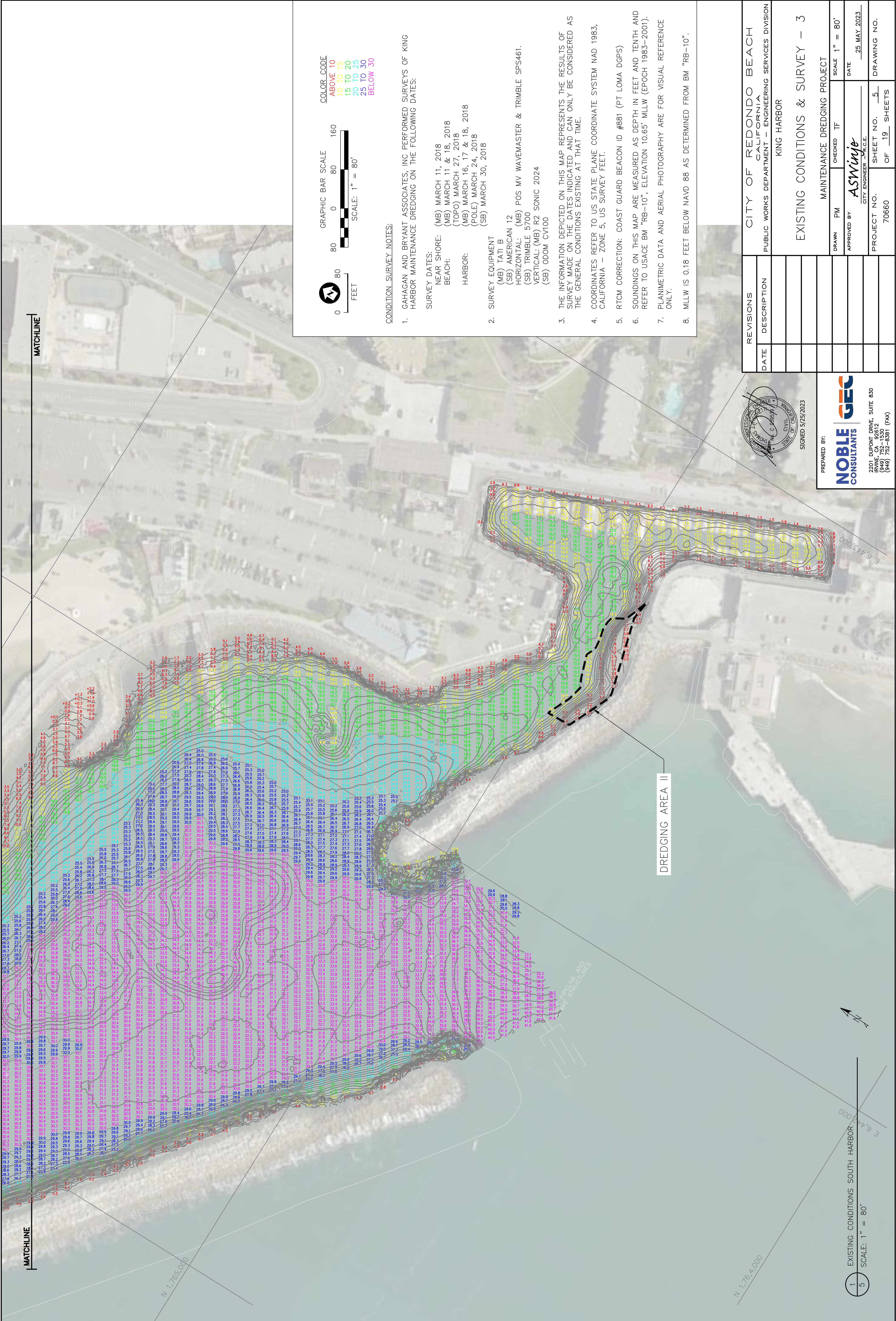
REVISIONS		CITY OF REDONDO BEACH	
DATE	DESCRIPTION	PUBLIC WORKS DEPARTMENT - ENGINEERING SERVICES DIVISION	
		KING HARBOR	
		EXISTING CONDITIONS & SURVEY - 2	
		MAINTENANCE DREDGING PROJECT	
DRAWN	PM	CHECKED	TF
APPROVED BY	ASWINGE		
	CITY ENGINEER - R.G.E.		
PROJECT NO.	70660		
	SHEET NO. 4		
	OF 19 SHEETS		
		SCALE 1" = 80'	
		DATE 25 MAY 2023	
		DRAWING NO.	
		70660	

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1
4
EXISTING CONDITIONS CENTRAL HARBOR
SCALE: 1" = 80'



CONDITION SURVEY NOTES:

1. CAHAGAN AND BRYANT ASSOCIATES, INC PERFORMED SURVEYS OF KING HARBOR MAINTENANCE DREDGING ON THE FOLLOWING DATES:

SURVEY DATES:

- NEAR SHORE:
- (MB) MARCH 11, 2018
- BEACH:
- (TOPO) MARCH 27, 2018
- HARBOR:
- (MB) MARCH 16, 17 & 18, 2018
- (POLE) MARCH 24, 2018
- (SB) MARCH 30, 2018

2. SURVEY EQUIPMENT

- (MB) TATI B
- (SB) AMERICAN 12
- HORIZONTAL: (MB) POS MV WAVEMASTER & TRIMBLE SPS461.
- (SB) TRIMBLE 5700
- VERTICAL: (MB) R2 SONIC 2024
- (SB) ODOM CV100

3. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEY MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS THE GENERAL CONDITIONS EXISTING AT THAT TIME.

4. COORDINATES REFER TO US STATE PLANE COORDINATE SYSTEM NAD 1983, CALIFORNIA – ZONE 5, US SURVEY FEET.

5. RTCM CORRECTION: COAST GUARD BEACON ID #881 (PT LOMA DGPS)

6. SOUNDINGS ON THIS MAP ARE MEASURED AS DEPTH IN FEET AND TENTH AND REFER TO USACE BM "RB-10", ELEVATION 10.65' MLLW (EPOCH 1983–2001).

7. PLANIMETRIC DATA AND AERIAL PHOTOGRAPHY ARE FOR VISUAL REFERENCE ONLY.

8. MLLW IS 0.18 FEET BELOW NAVD 88 AS DETERMINED FROM BM "RB-10".

REVISIONS		CITY OF REDONDO BEACH			
DATE	DESCRIPTION	PUBLIC WORKS DEPARTMENT – ENGINEERING SERVICES DIVISION			
		KING HARBOR			
		EXISTING CONDITIONS & SURVEY – 3			
		MAINTENANCE DREDGING PROJECT			
		DRAWN	PM	CHECKED	TF
		APPROVED BY		SCALE 1" = 80'	
				DATE	
				25 MAY 2023	
		PROJECT NO.		SHEET NO. 5	
		70660		DRAWING NO.	
				OF 19 SHEETS	

PROFESSIONAL SEAL

NOBLE CONSULTANTS

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1
6
OUTER HARBOR DREDGING PLAN
SCALE: 1" = 80'

Total Volume Table			
Station	Cut Area	Cut Vol	Cum Cut Vol
15+00	146.23	0	0
15+50	141.94	224	224
16+00	24.36	125	349
16+50	51.10	58	407
17+00	203.72	195	602
17+50	252.96	352	954
18+00	248.43	387	1,341
18+50	236.23	373	1,714
19+00	593.31	633	2,346
19+50	1024.93	1,218	3,565
20+00	1062.87	1,562	5,127
20+50	805.41	1,437	6,564
21+00	530.94	1,237	7,801
21+50	505.22	959	8,760
22+00	510.35	940	9,701
22+50	534.36	967	10,668
23+00	940.28	1,365	12,033
23+50	1559.27	2,314	14,348
24+00	2073.52	3,364	17,712
24+50	2314.39	4,063	21,774
25+00	2198.30	4,178	25,953

Total Volume Table			
Station	Cut Area	Cut Vol	Cum Cut Vol
25+50	1770.67	3,675	29,628
26+00	1473.01	3,003	32,631
26+50	1162.62	2,440	35,072
27+00	1046.56	2,046	37,117
27+50	812.48	1,721	38,839
28+00	682.57	1,384	40,223
28+50	428.29	1,029	41,251
29+00	572.25	926	42,178
29+50	680.80	1,160	43,338
30+00	544.13	1,134	44,472
30+50	207.07	696	45,168
31+00	70.18	257	45,425
31+50	0.00	65	45,490
32+00	0.00	0	45,490
32+50	0.00	0	45,490
33+00	0.00	0	45,490
33+50	0.00	0	45,490
34+00	0.00	0	45,490
34+50	0.00	0	45,490
35+00	0.00	0	45,490
35+50	0.00	0	45,490

LEGEND

FG MAJOR CONTOUR (10' INTERVALS)

FG MINOR CONTOUR (2' INTERVALS)

EG MAJOR CONTOUR (10' INTERVALS)

EG MINOR CONTOUR (2' INTERVALS)

FG CONTOUR LABEL

EG CONTOUR LABEL

PROFESSIONAL SEAL

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PREPARED BY:

SIGNED 5/25/2023

CITY OF REDONDO BEACH
CALIFORNIA
PUBLIC WORKS DEPARTMENT – ENGINEERING SERVICES DIVISION
KING HARBOR

DREDGING AREA I PLAN

MAINTENANCE DREDGING PROJECT

DRAWN PM

CHECKED TF

SCALE 1" = 20'

APPROVED BY

DATE

PROJECT NO.

SHEET NO.

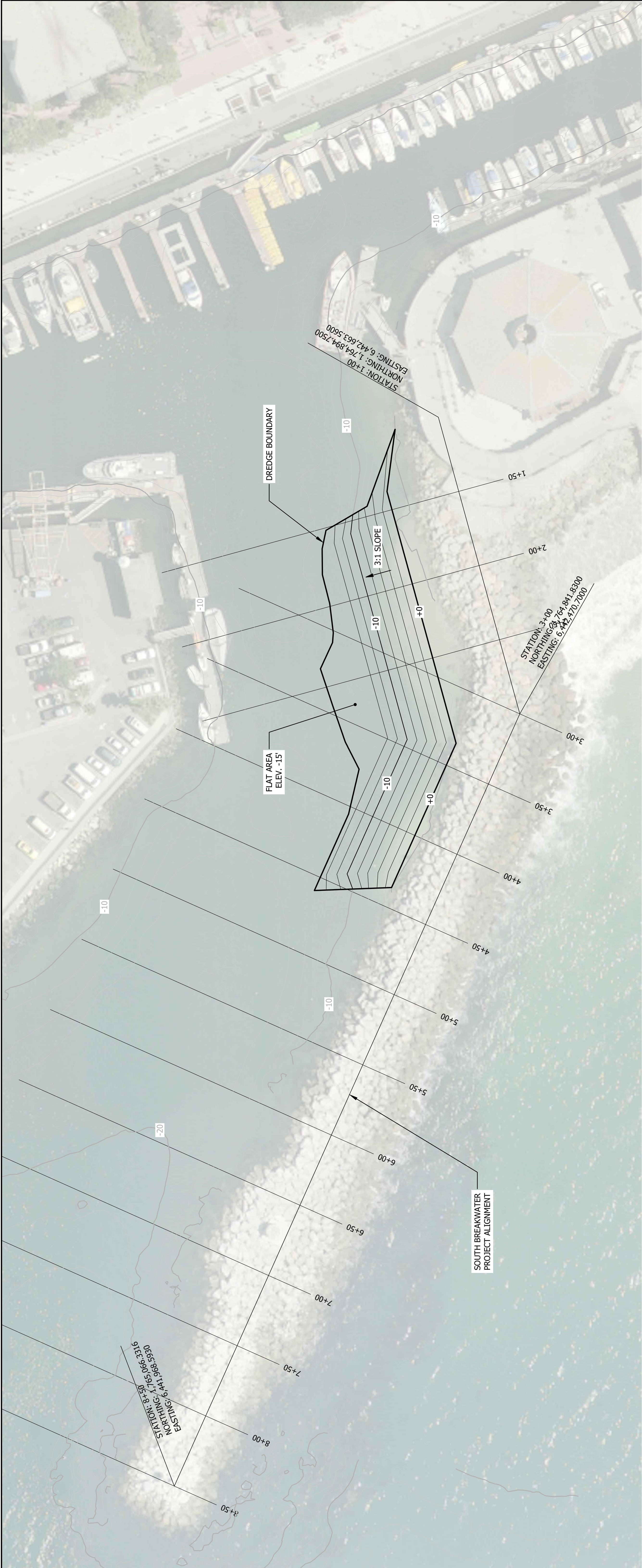
OF

SHEETS

ALIGNMENT PI STATIONS			
PI STATION	NORTHING	EASTING	DISTANCE
9+00.00	1,768,081.40'	6,440,140.88'	
12+65.22	1,767,939.43'	6,439,804.39'	365.22'
18+08.04	1,767,381.82'	6,439,629.72'	584.32'
35+88.73	1,765,721.35'	6,440,330.00'	1,802.10'
36+05.30	1,765,711.18'	6,440,316.92'	16.57'

ALIGNMENT HORIZONTAL CURVES							
CURVE	PC NORTHING [FT]	PC EASTING [FT]	PT NORTHING [FT]	PT EASTING [FT]	R [FT]	C [FT]	A
A	1,768,066.2620	6,440,104.9990	1,767,628.0670	6,439,706.8590	704	592.06	49° 43' 53.7628"
B	1,767,628.0670	6,439,706.8590	1,767,144.0600	6,439,729.9900	704	484.56	40° 15' 34.3293"





1 BASIN 3 CHANNEL DREDGING PLAN
12 SCALE: 1" = 30'

ALIGNMENT PI STATIONS			
PI STATION	NORTHING	EASTING	DISTANCE
1+00.00	1,764,894.75'	6,442,663.56'	199.99'
2+99.99	1,764,841.83'	6,442,470.70'	
8+50.00	1,765,066.33'	6,441,968.59'	550.01'

Total Volume Table			
Station	Cut Area	Cut Vol	Cum Cut Vol
1+50	23.24	0	0
2+00	187.92	196	196
2+50	154.16	317	512
3+00	216.35	-80	433
3+50	32.40	230	663
4+00	13.32	42	705
4+50	0.00	12	718
5+00	0.00	0	718
5+50	0.00	0	718
6+00	0.00	0	718
6+50	0.00	0	718
7+00	0.00	0	718
7+50	0.00	0	718
8+00	0.00	0	718
8+50	0.00	0	718

LEGEND	
FG MAJOR CONTOUR (10' INTERVALS)	—
FG MINOR CONTOUR (2' INTERVALS)	—
EG MAJOR CONTOUR (10' INTERVALS)	—
EG MINOR CONTOUR (2' INTERVALS)	—
FG CONTOUR LABEL	+XX'
EG CONTOUR LABEL	+XX'

REVIEWS		CITY OF REDONDO BEACH			
DATE	DESCRIPTION	CALIFORNIA PUBLIC WORKS DEPARTMENT – ENGINEERING SERVICES DIVISION			
		KING HARBOR			
		DREDGING AREA II PLAN			
		MAINTENANCE DREDGING PROJECT			
		DRAWN	PM	CHECKED	TF
		APPROVED BY		DATE	
				25 MAY 2023	
		PROJECT NO.		SHEET NO.	
		70660		12	
				OF 19 SHEETS	
				DRAWING NO.	

PREPARED BY:

NOBLE CONSULTANTS

GEC

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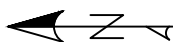
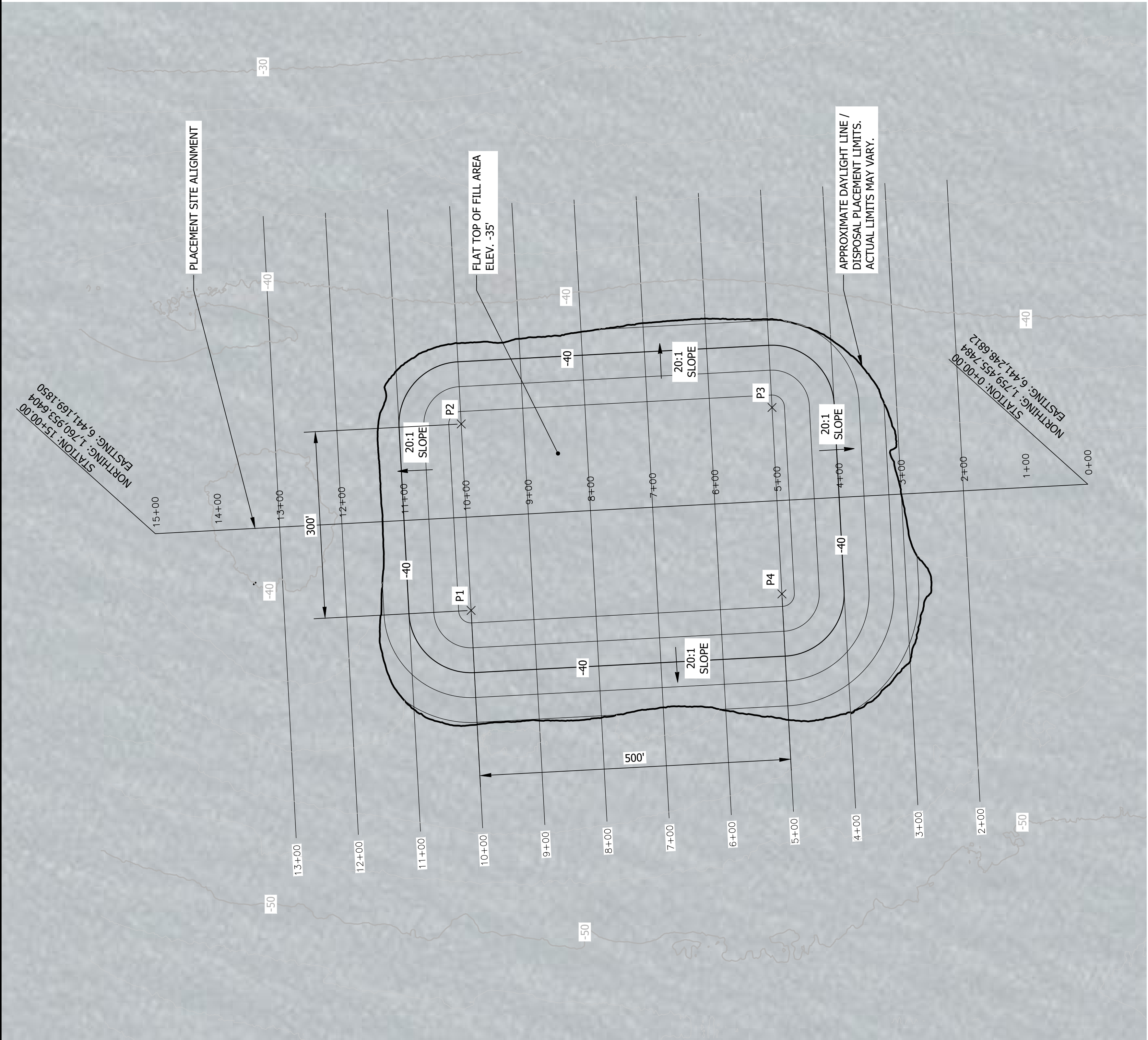
PROFESSIONAL SEAL

STATE OF CALIFORNIA

CIVIL ENGINEER

NO. C 93854

SIGNED 5/25/2023



LEGEND	
FG MAJOR CONTOUR (10' INTERVALS)	_____
FG MINOR CONTOUR (2' INTERVALS)	_____
EG MAJOR CONTOUR (10' INTERVALS)	_____
EG MINOR CONTOUR (2' INTERVALS)	_____
FG CONTOUR LABEL	+XX'
EG CONTOUR LABEL	+XX'

SEDIMENT PLACEMENT AREA COORDINATES		
POINT	NORTHING [FT]	EASTING [FT]
P1	1,760,467	6,441,031
P2	1,760,483	6,441,331
P3	1,759,984	6,441,358
P4	1,759,968	6,441,058

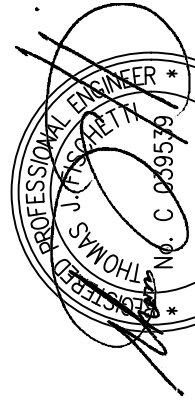
SURVEY NOTES:

- OFFSHORE SURVEY PERFORMED ON MARCH 11, 2018 BY GAHAGAN AND BRYANT ASSOCIATED, INC.
- HORIZONTAL COORDINATES REFER TO US STATE PLANE COORDINATES SYSTEM NAD 1983, CALIFORNIA - ZONE 5, US SURVEY FEET
- RTCM CORRECTION: COAST GUARD BEACON ID #881 (PT LOMA DGPS)
- SOUNDINGS ON THIS MAP ARE MEASURED AS DEPTH IN FEET AND TENTH AND REFER TO USACE BM "RB-10" ELEVATION 10.65' MLLW (EPOCH 1983-2001)
- PLANIMETRIC DATA AND AERIAL PHOTOGRAPHY ARE FOR VISUAL REFERENCE ONLY
- MLLW IS 0.18 FEET BELOW NAVD88 AS DETERMINED FROM BM "RB-10"

SEDIMENT PLACEMENT NOTES:

- MATERIAL SHALL BE PLACED IN THE DESIGNATED SEDIMENT DISPOSAL PLACEMENT AREA IN A CONTROLLED MANNER SO AS TO PROVIDE AS UNIFORM A SURFACE AS POSSIBLE. THE CONTRACTOR SHALL DESCRIBE HOW THIS WILL BE ACHIEVED IN THEIR DREDGING AND DISPOSAL OPERATIONS PLAN SUBMITTAL. REFER TO THE SPECIAL PROVISIONS OF THE PROJECT SPECIFICATIONS FOR FULL LIST OF ITEMS TO BE INCLUDED IN THE PLAN.
- THE CONTRACTOR SHALL EXCAVATE, DELIVER, AND PLACE NO MORE THAN 62,000 CUBIC YARDS OF SEDIMENT FROM DREDGING AREAS I AND II TO WITHIN THE SEDIMENT PLACEMENT SITE.
- TOLERANCE FOR PLACEMENT OF SEDIMENT WITHIN LIMITS OF THE SEDIMENT PLACEMENT AREA SHALL BE -50 FT TO -35 FT MLLW; SEDIMENT LEVEL SHALL NOT BE HIGHER THAN -35 FT MLLW ANYWHERE WITHIN SEDIMENT PLACEMENT AREA.

ALIGNMENT PI STATIONS			
PI STATION	NORTHING	EASTING	DISTANCE
0+00.00	1,759,455.75'	6,441,248.68'	
15+00.00	1,760,953.64'	6,441,169.19'	1,500.000'



PREPARED BY:

NOBLE CONSULTANTS

GEC

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IRVINE, CA 92612
(949) 752-1530
(949) 752-8381 (FAX)

SIGNED 5/25/2023

REVISONS		CITY OF REDONDO BEACH CALIFORNIA PUBLIC WORKS DEPARTMENT – ENGINEERING SERVICES DIVISION KING HARBOR			
DATE	DESCRIPTION	PLACEMENT PLAN			
		MAINTENANCE DREDGING PROJECT			
		DRAWN	PM	CHECKED	TF
		APPROVED BY		SCALE 1" = 100'	
				DATE	
		PROJECT NO.		CITY ENGINEER – R.G.E.	
		70660		25 MAY 2023	
		SHEET NO.		DRAWING NO.	
		OF 19		SHEETS	



California Coastal Commission
CDP 5-24-0081
CC-0001-0024
Exhibit 4

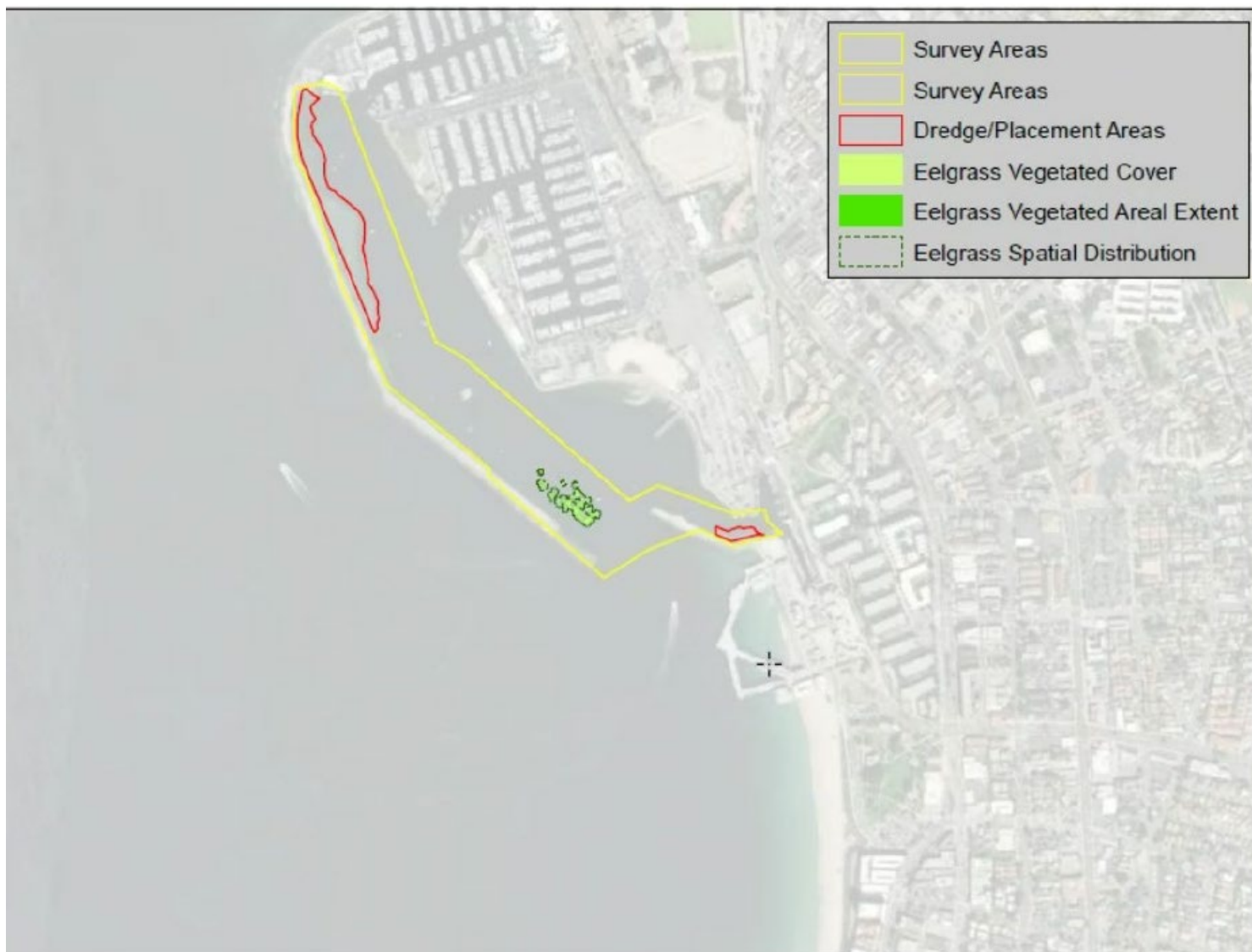


Figure 1 - Location of Mapped Eelgrass Bed in Relation to Both Dredge Areas
(Source: Merkel & Associates, November 2023)