

SURVEY NOTES

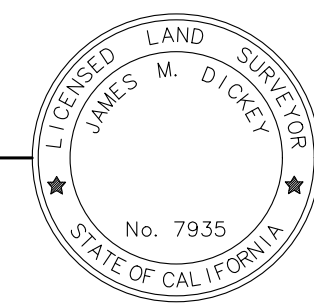
- MULTIBEAM SONAR DATA WAS COLLECTED BY CINQUINI AND PASSARINO ON FEBRUARY 7, 2023 AND REPRESENTS BATHYMETRIC CONDITIONS ON THAT DATE.
- ELEVATIONS ARE IN FT. MLLW AND ARE REFERENCED TO NOAA TIDE STATION 9419750 (TIDAL 20 RESET).
POINT **9419750**.
NORTHING **2,526,793.60**
EASTING **5,965,753.65**
ELEVATION **13.08 FT. NAVD88**
13.46 FT. MLLW
- TIDAL 20 RESET IS A STEEL DISC SET IN CONCRETE BLOCK AT THE INTERSECTION OF 2 WARFS.
- HORIZONTAL COORDINATE SYSTEM IS NAD 83 (2011 EPOCH), ELLIPSOID IS WGS84 AND THE PROJECTION IS THE CALIFORNIA STATE PLANE COORDINATE SYSTEM ZONE 1.
- THE MULTIBEAM ECHOSOUNDER SYSTEM WAS COMPRISED OF A RESON T-50 MULTIBEAM SONAR (400 kHz) INTEGRATED WITH AN APPLANIX POX/MV WAVEMASTER INTERNAL MOTION UNIT FOR TIMING, POSITIONING AND MOTION COMPENSATION.
- SURVEY VESSEL, EQUIPMENT AND CALIBRATION PROTOCOLS CONFORM TO CLASS 1 SPECIFICATIONS AS OUTLINED IN THE U.S. ARMY CORPS OF ENGINEERS SURVEY MANUAL (EM 1110-2-1003).

SURVEYOR'S STATEMENT

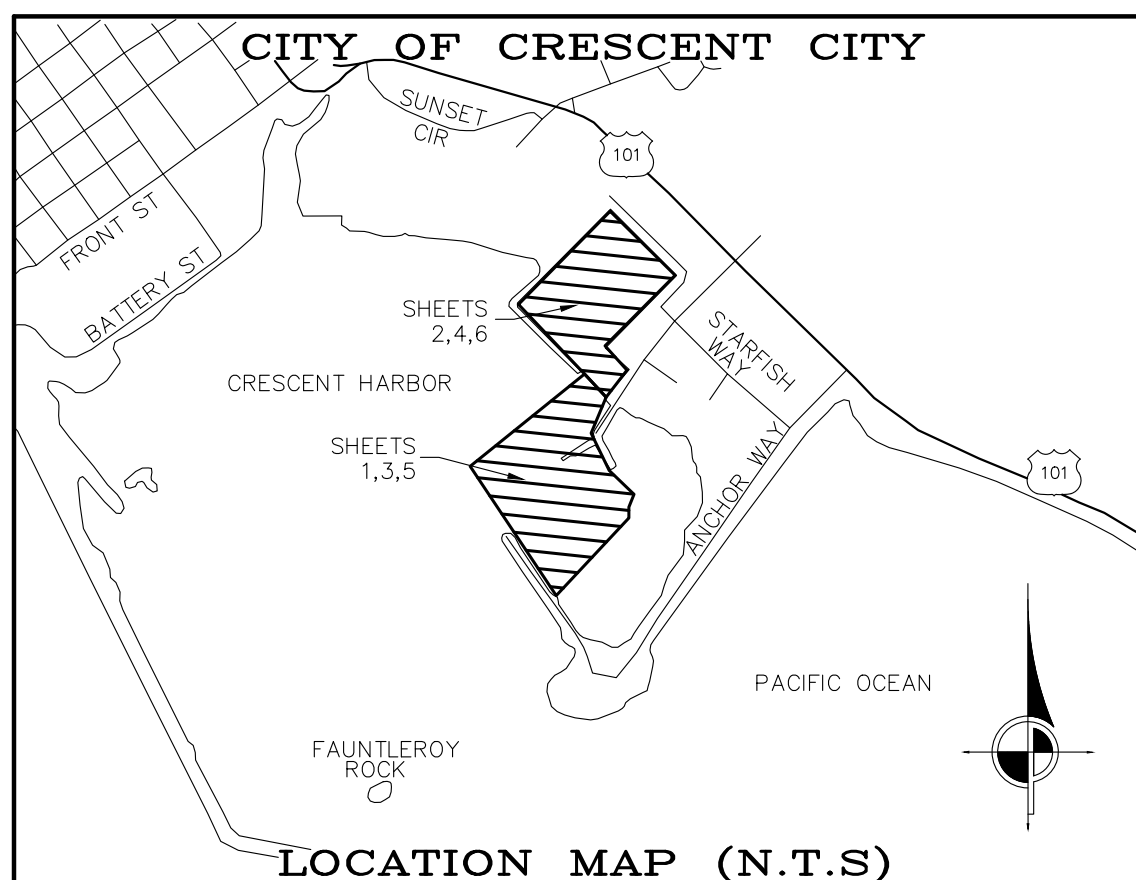
THIS MAP REPRESENTS A FIELD SURVEY MADE BY ME OR UNDER MY DIRECTION ON FEBRUARY 7, 2023 AND REPRESENTS THE VISUAL SURFACE CONDITIONS AS OF AFORESAID DATE.

Preliminary

JAMES M. DICKEY, P.L.S. 7935



DATE



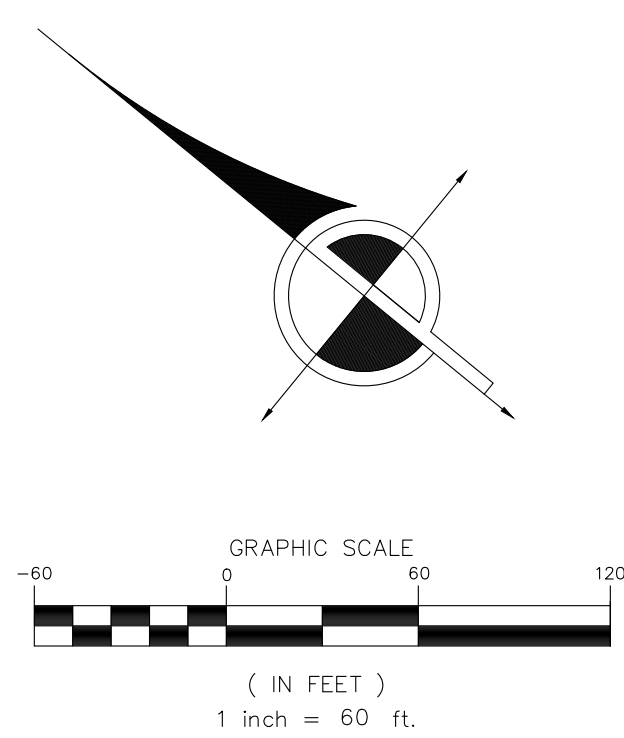
CINQUINI & PASSARINO, INC.
GEOSPATIAL SOLUTIONS
 1360 North Dutton Avenue, Suite 150 Phone: (707) 542-6288
 Santa Rosa, CA Fax: (707) 542-2106
 WWW.CINQUINIPASSARINO.COM

CRESCENT CITY HARBOR
 CRESCENT CITY, CA
 CONDITION SONAR
 SURVEY
 FEBRUARY 7, 2023

COUNTY OF DEL NORTE
 CALIFORNIA

| NO. | BY | DATE | DESCRIPTION |
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| DATE OF PREPARATION | | |
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| BY | DATE | |
| SURVEYED JK | 2/7/2023 | |
| DRAWN TJN | 2/14/2023 | |
| DESIGNED | | |
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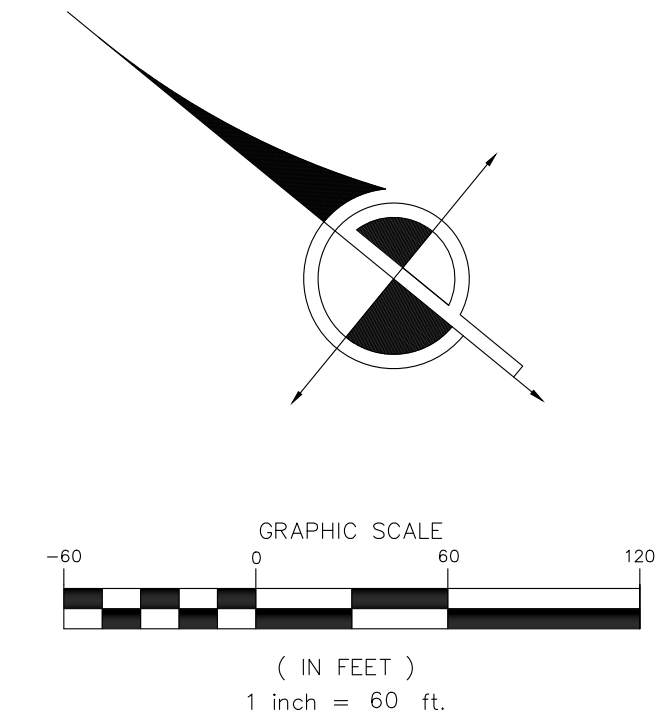
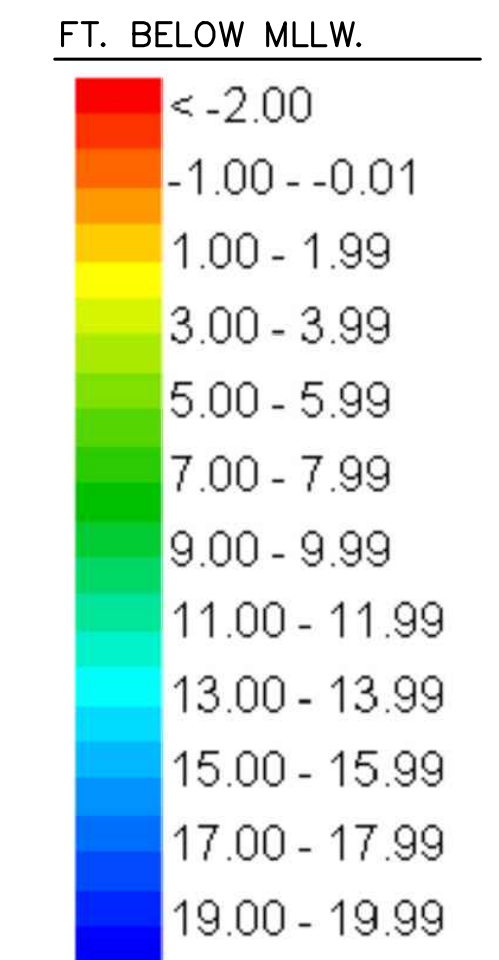


GEODETIC INFORMATION
 DATUM: NAD 83 (2011)
 CA STATE PLANE, ZONE 1
 VERTICAL DATUM: FT. MLLW

PROJECT ID: 10056-23
 CHART NUMBER
 1 OF 8



MATCHLINE - SEE SHEET 1



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CRESCENT CITY HARBOR
CRESCENT CITY, CA
CONDITION SONAR
SURVEY
FEBRUARY 7, 2023

COUNTY OF DEL NORTE
 CALIFORNIA

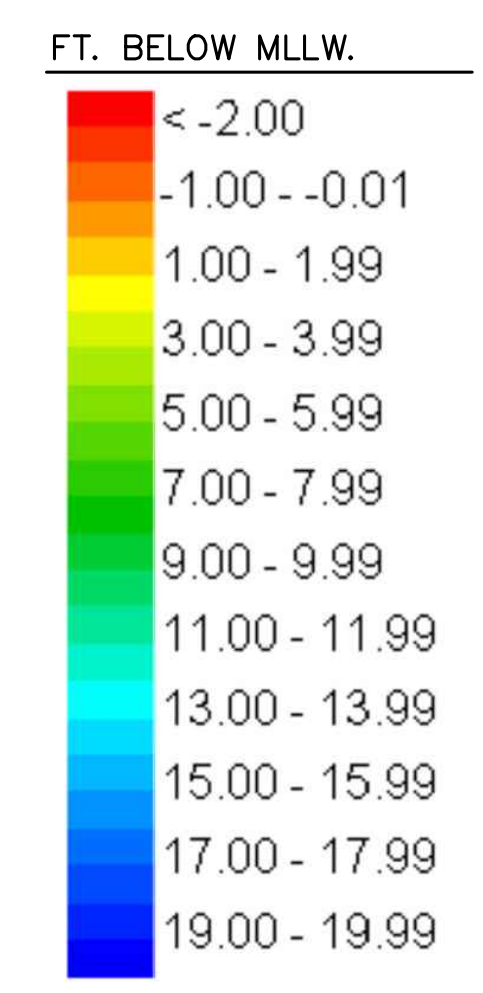
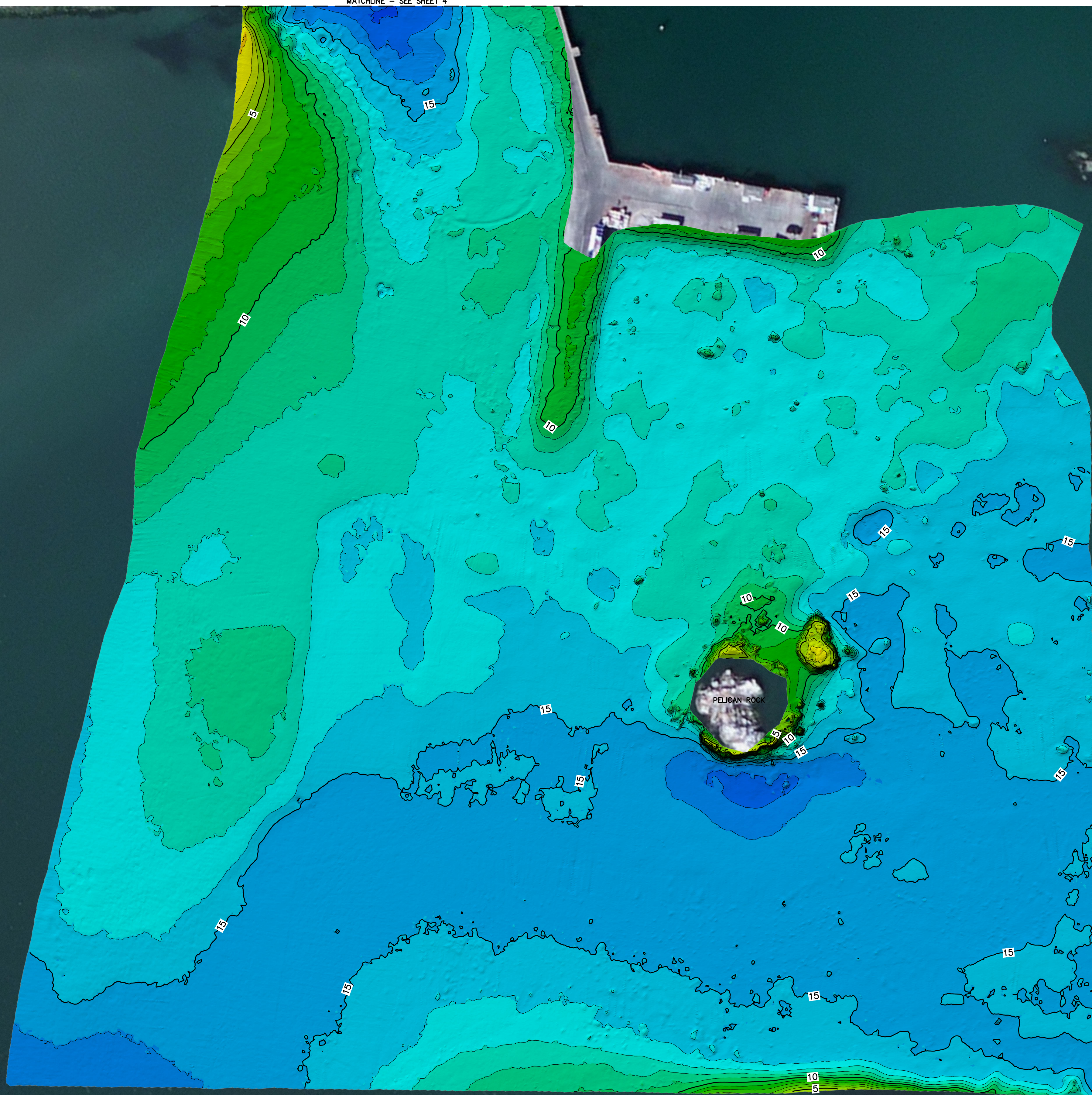
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| SURVEYED | JK | 2/7/2023 |
| DRAWN | TJN | 2/14/2023 |
| DESIGNED | | |
| CHECKED | | |

GEODETIC INFORMATION
 DATUM: NAD 83 (2011)
 CA STATE PLANE, ZONE 1
 VERTICAL DATUM: FT. MLLW

PROJECT ID: 10056-23
 CHART NUMBER
 2 OF 8

MATCHLINE - SEE SHEET 4



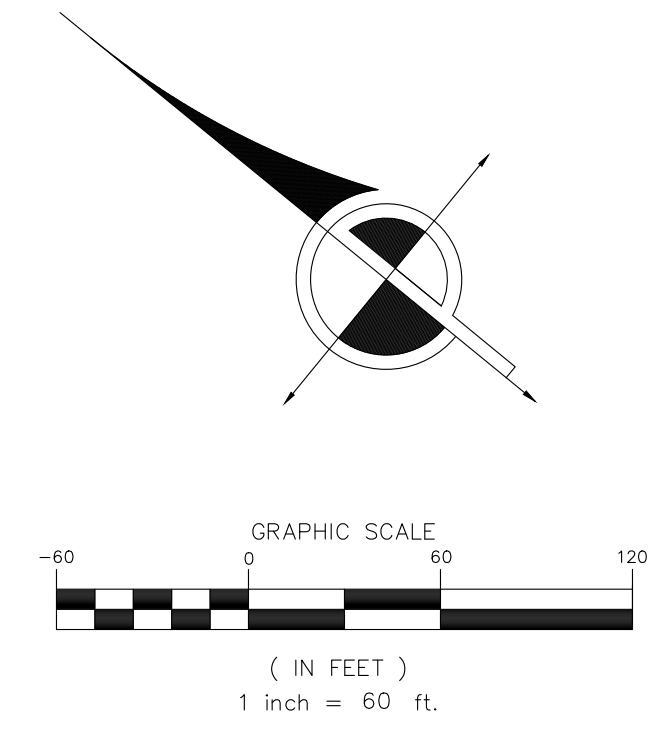
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CRESCENT CITY HARBOR
 CRESCENT CITY, CA
 CONDITION SONAR
 SURVEY
 FEBRUARY 7, 2023

COUNTY OF DEL NORTE
 CALIFORNIA

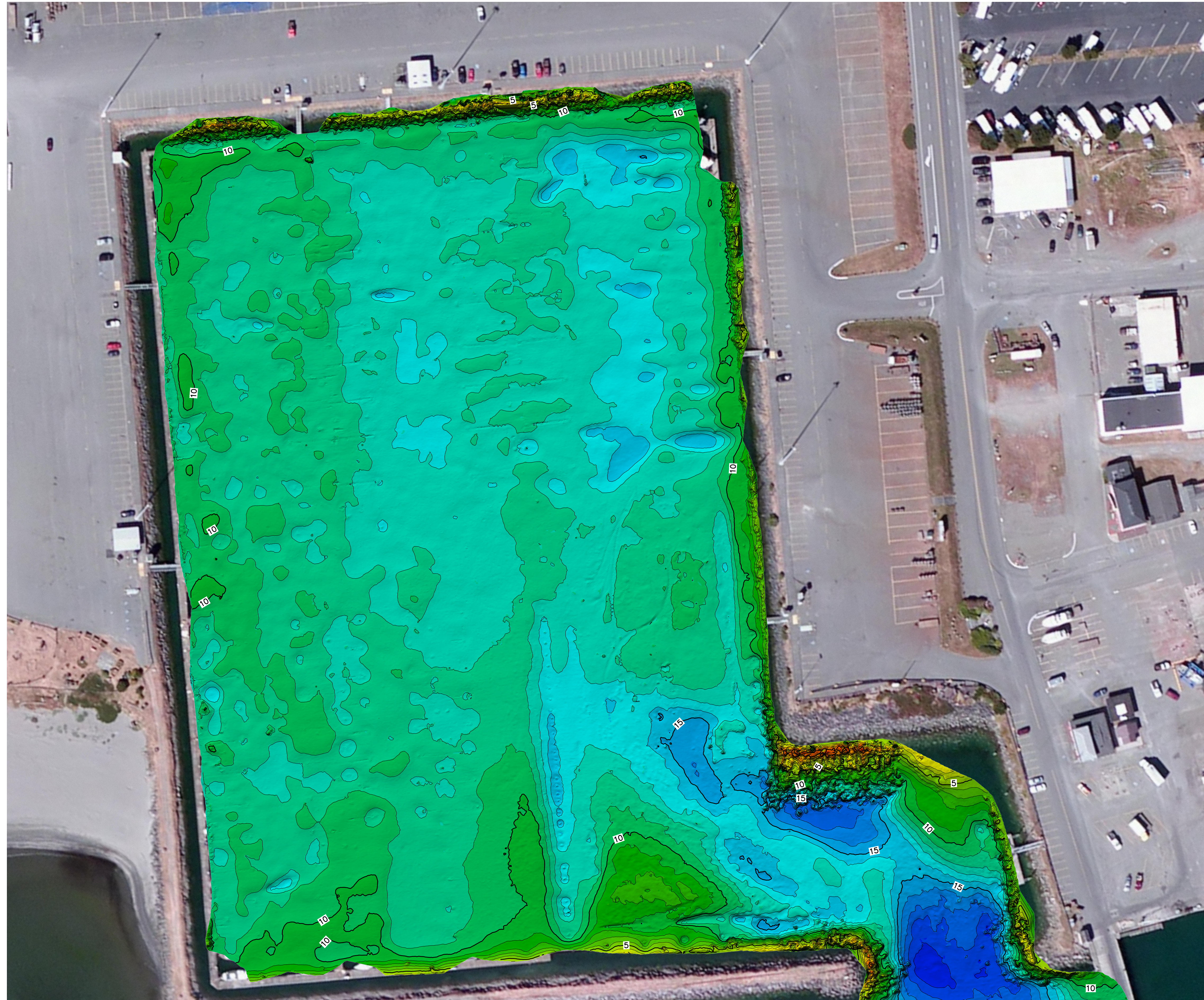
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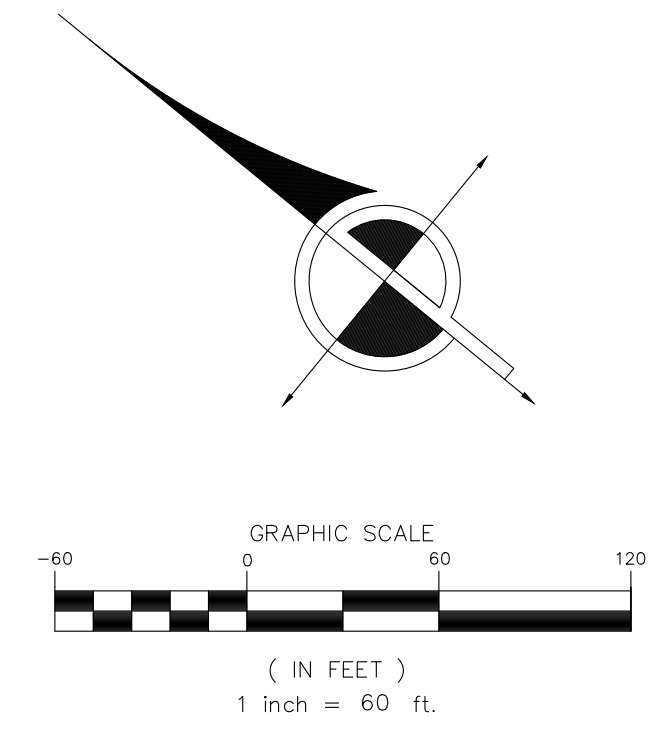
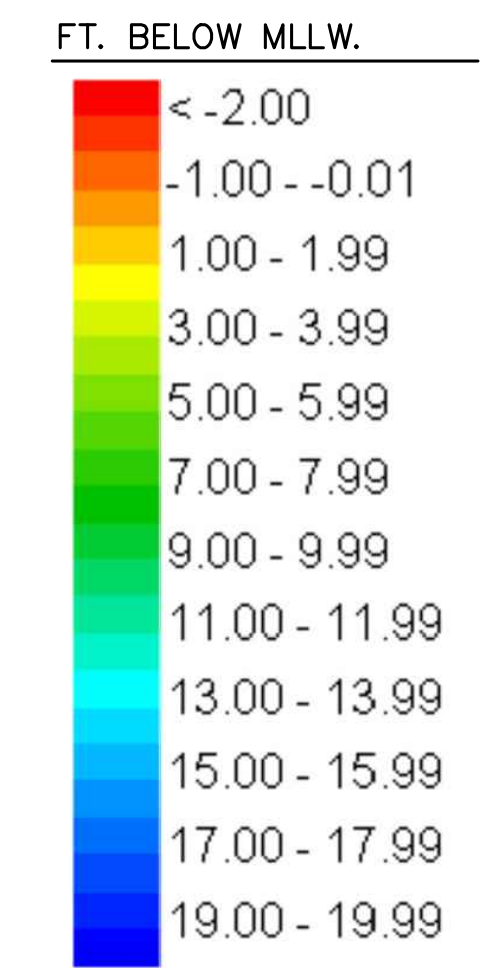


GEODETIC INFORMATION
 DATUM: NAD 83 (2011)
 CA STATE PLANE, ZONE 1
 VERTICAL DATUM: FT. MLLW

PROJECT ID: 10056-23
 CHART NUMBER
 3 OF 8



MATCHLINE - SEE SHEET 3



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CRESCENT CITY HARBOR
 CRESCENT CITY, CA
 CONDITION SONAR
 SURVEY
 FEBRUARY 7, 2023

COUNTY OF DEL NORTE
 CALIFORNIA

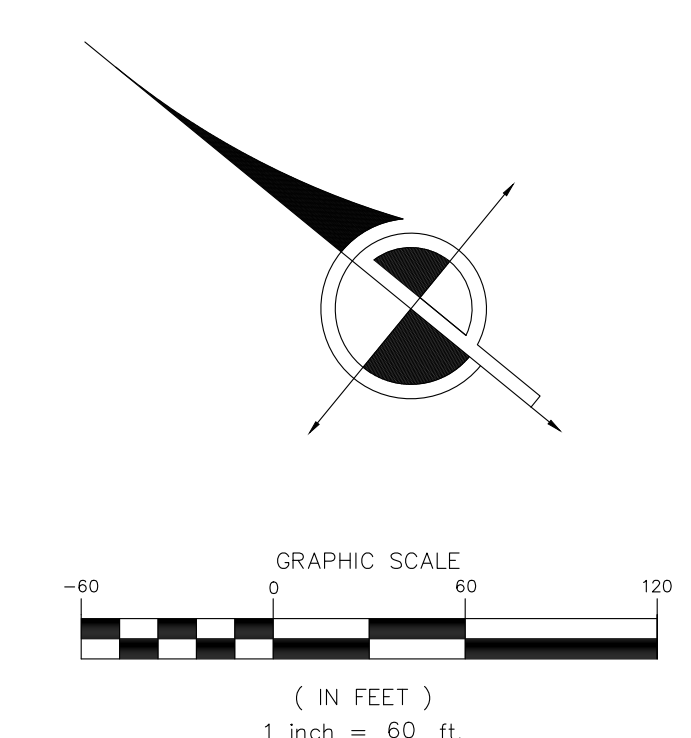
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| SURVEYED | JK | 2/7/2023 |
| DRAWN | TJN | 2/14/2023 |
| DESIGNED | | |
| CHECKED | | |

GEODETIC INFORMATION
 DATUM: NAD 83 (2011)
 CA STATE PLANE, ZONE 1
 VERTICAL DATUM: FT. MLLW

PROJECT ID: 10056-23
 CHART NUMBER
 4 OF 8

MATCHLINE - SEE SHEET 6



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CRESCENT CITY HARBOR
 CRESCENT CITY, CA
 CONDITION SONAR
 SURVEY
 FEBRUARY 7, 2023

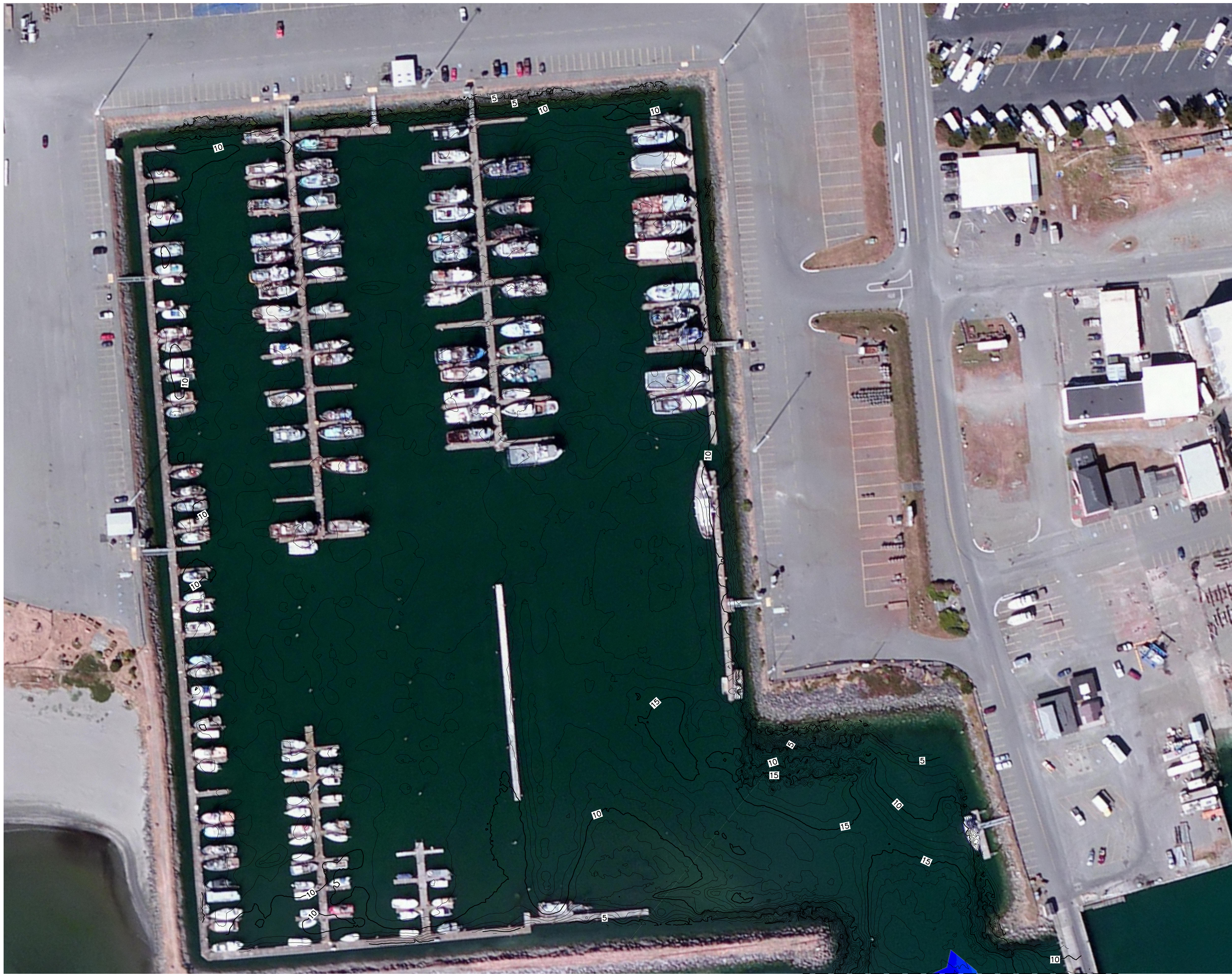
COUNTY OF DEL NORTE
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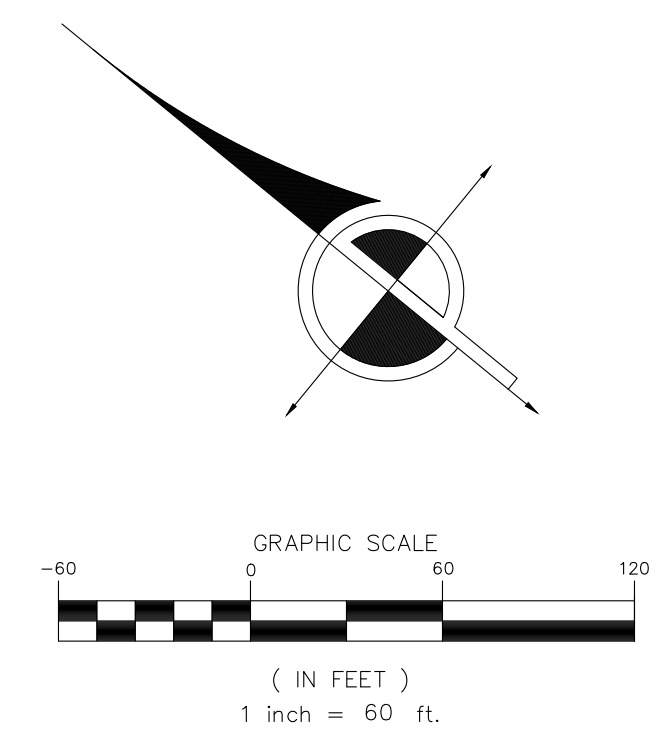
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| JK | 2/7/2023 |
| TJN | 2/14/2023 |
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GEODETTIC INFORMATION
 DATUM: NAD 83 (2011)
 CA STATE PLANE, ZONE 1
 VERTICAL DATUM: FT. MLLW

PROJECT ID: 10056-23
 CHART NUMBER



MATCHLINE - SEE SHEET 5



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CRESCENT CITY HARBOR
CRESCENT CITY, CA
CONDITION SONAR
SURVEY
FEBRUARY 7, 2023

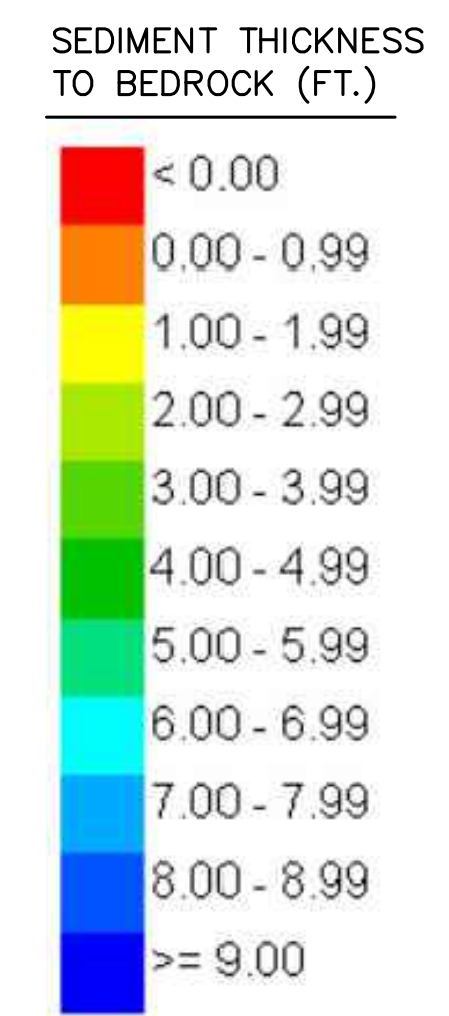
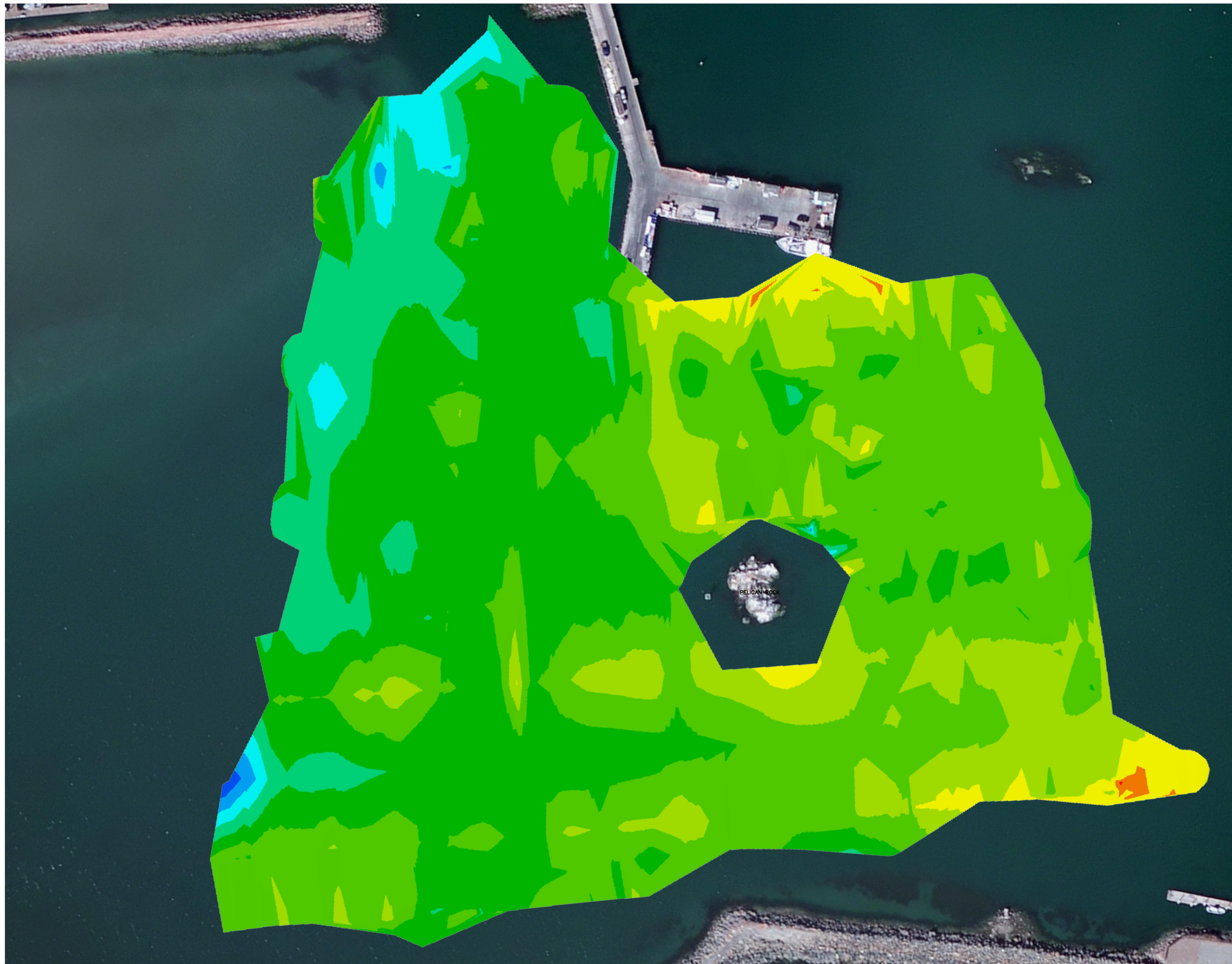
COUNTY OF DEL NORTE
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| J.K. | 2/7/2023 |
| T.J.N. | 2/14/2023 |
| DESIGNED | |
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GEODEIC INFORMATION
 DATUM: NAD 83 (2011)
 CA STATE PLANE, ZONE 1
 VERTICAL DATUM: FT. MLLW

PROJECT ID: 10056-23
 CHART NUMBER
 6 OF 8



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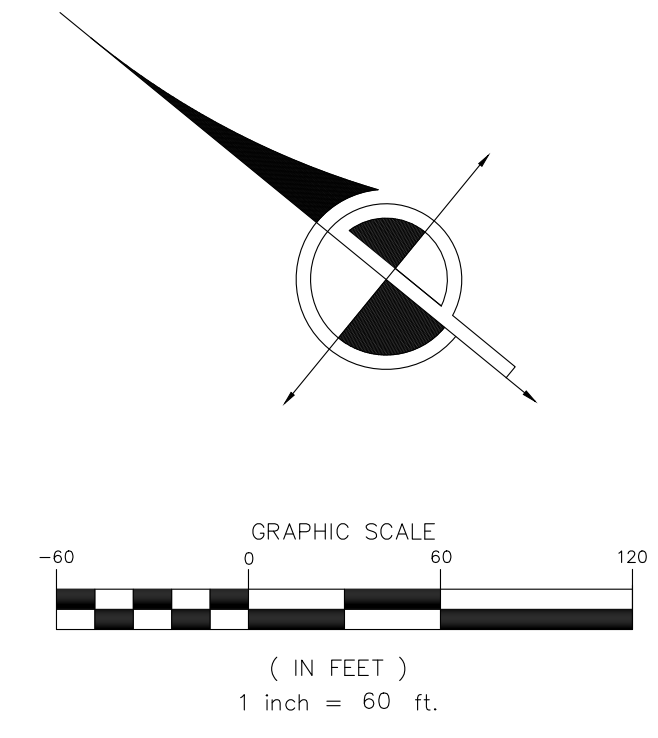
CRESCENT CITY HARBOR
 CRESCENT CITY, CA
 SUB-BOTTOM PROFILE SURVEY
 FEBRUARY 8, 2023
 SEDIMENT THICKNESS

COUNTY OF DEL NORTE
 CALIFORNIA

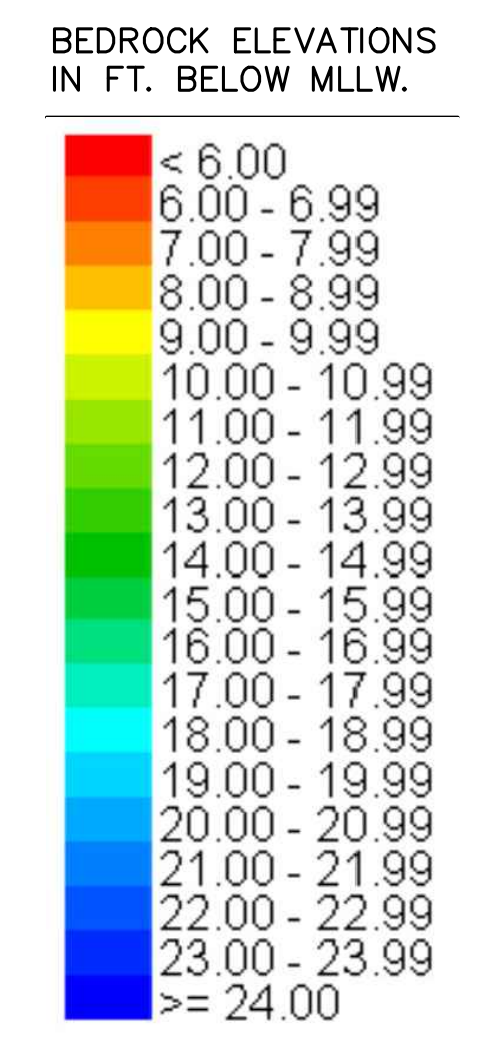
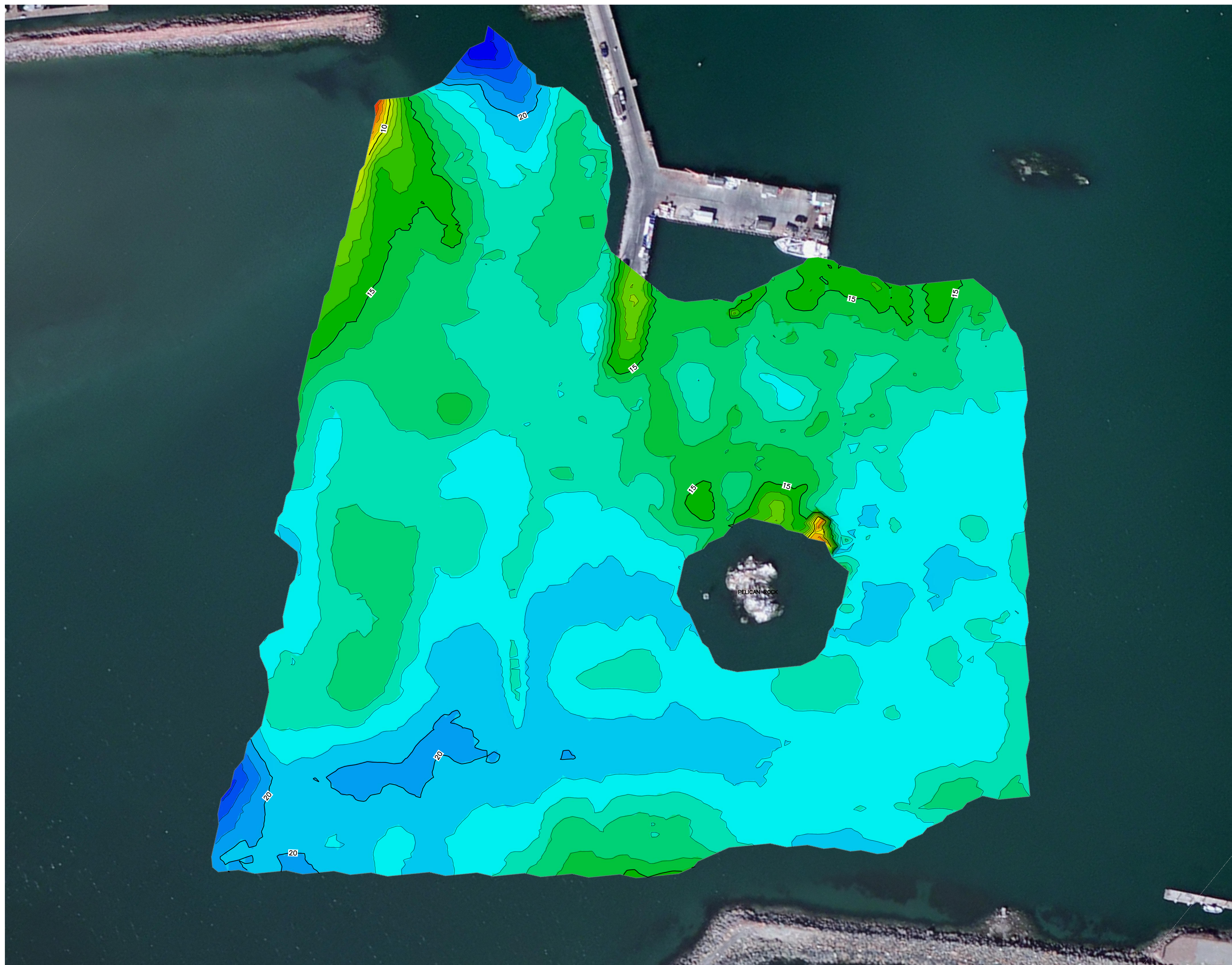
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| DRAWN TJN | 2/14/2023 |
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PROJECT ID: 10056-23
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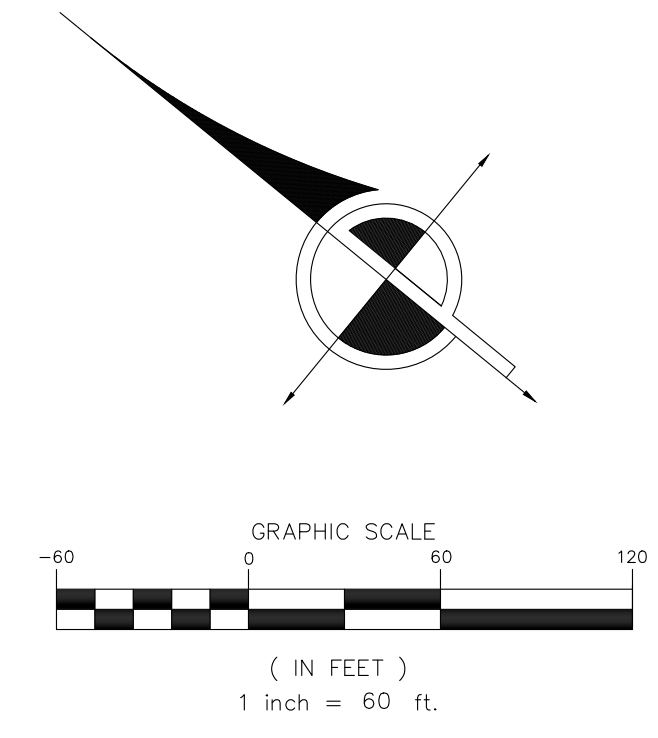
CRESCENT CITY HARBOR
 CRESCENT CITY, CA
 SUB-BOTTOM PROFILE
 SURVEY
 FEBRUARY 7, 2023

CONTOURS AND
 SHADED RELIEF SHOW
 TOP OF BEDROCK
 ELEVATIONS IN FEET
 BELOW MLLW.

COUNTY OF DEL NORTE
 CALIFORNIA

| NO. | BY | DATE | DESCRIPTION |
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| DATE OF PREPARATION | |
|---------------------|--------------|
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GEODETIC INFORMATION
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 CA STATE PLANE, ZONE 1
 VERTICAL DATUM: FT. MLLW

PROJECT ID: 10056-23
 CHART NUMBER
 8 OF 8