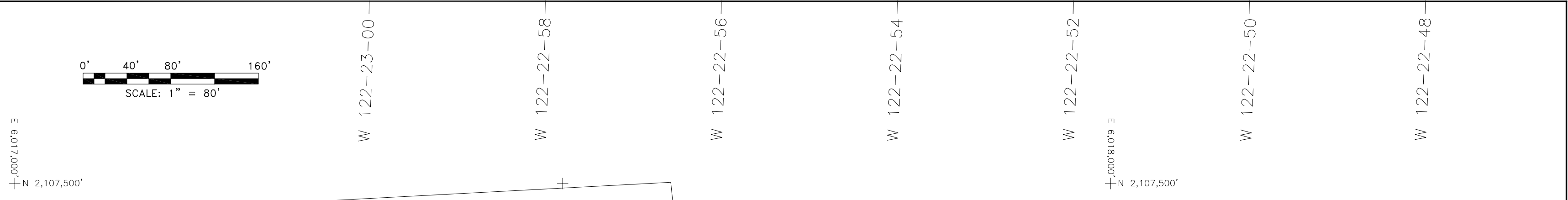
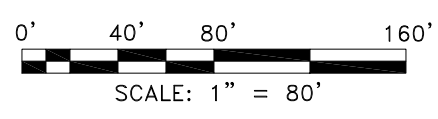


**SOUNDING CHART FOR NAVIGATION INTO  
SAN FRANCISCO DRYDOCK**  
APRIL 2017

CLIENT:  
**PUGLIA ENGINEERING, INC.**  
FOOT OF 20th STREET  
SAN FRANCISCO, CA 94107  
(360) 647-0080



SCALE:  
1" = 80'  
DRAWING NO.  
1 of 1  
REV.  
0



Abandoned Pier



**ORIGINAL**

I certify that the soundings displayed on this navigation chart are from a hydrographic survey performed by me and under my direct supervision, using accuracy standards defined by the U.S. Army Corps of Engineers Manual, EM 1110-2-1003 (30 NOV 13) as specified for deep draft navigation projects.

Signed: *Richard A. Olejniczak* Date 04/25/17  
Richard A. Olejniczak, CH, PE CE44118

**GENERAL NOTES**

- BATHYMETRY SURVEYED BY GAHAGAN & BRYANT ASSOCIATES, INC. ON APRIL 21, 2017. SURVEYS REPRESENT THE SEAFLOOR CONDITIONS ON THOSE DATES.
- SOUNDINGS ARE BASED ON MEAN LOWER LOW WATER VERTICAL DATUM, SOUNDING LOCATION AT DECIMAL POINT.
- PLANE GRID, BEARINGS AND COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, LAMBERT CONFORMAL PROJECTION, ZONE III (NA083), AS DESCRIBED IN SPECIAL PUBLICATION NO. 253 PUBLISHED BY THE NATIONAL OCEAN SURVEY.
- GBA SOUNDINGS WERE ACQUIRED BY A MULTIBEAM R2 SONIC 2024 ECHOSOUNDER WITH POS MV AND ARE SHOWN TO THE NEAREST TENTH OF A FOOT. TIDAL OBSERVATIONS REFERENCED TO BENCHMARK "EE09", ELEV. = 11.66' MLLW LOCATED NEAR THE NORTHEAST CORNER OF PIER 3 AT THE SAN FRANCISCO DRYDOCK. BENCHMARK INFORMATION PROVIDED BY THE PORT OF SAN FRANCISCO.
- GBA HORIZONTAL POSITIONING SYSTEM USED IS NAVSTAR GPS WITH U.S. COAST GUARD DIFFERENTIAL BEACON.
- LOCATIONS OF PIERS, DOCKS, SHORELINE AND OTHER PLANIMETRICS ARE APPROXIMATE IN NATURE AND ARE BASED ON MAPS PROVIDED BY OTHERS.
- SURVEYS WERE PERFORMED TO MEET THE ACCURACY STANDARDS PRESCRIBED IN THE U.S. ARMY CORPS OF ENGINEERS MANUAL EM 1110-2-1003 (30 NOV 13) AS SPECIFIED FOR DEEP DRAFT NAVIGATION PROJECTS.
- BUOY INDICATED ON DRAWING BY A SYMBOL. COORDINATES ARE AS FOLLOWS:  
X: 6,017,560 Y: 2,106,362  
LAT N37-45-52.75 LONG W122-22-56.81

■ ■ ■ ■ PROPOSED TOE OF DREDGING UNIT

Abandoned Pier

**SAN FRANCISCO BAY**

