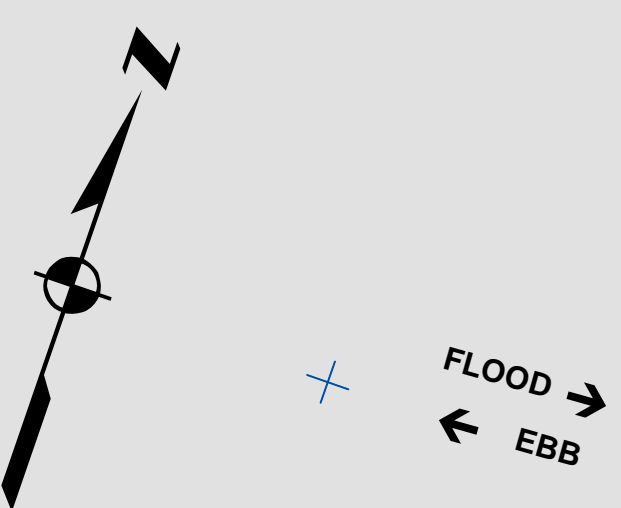


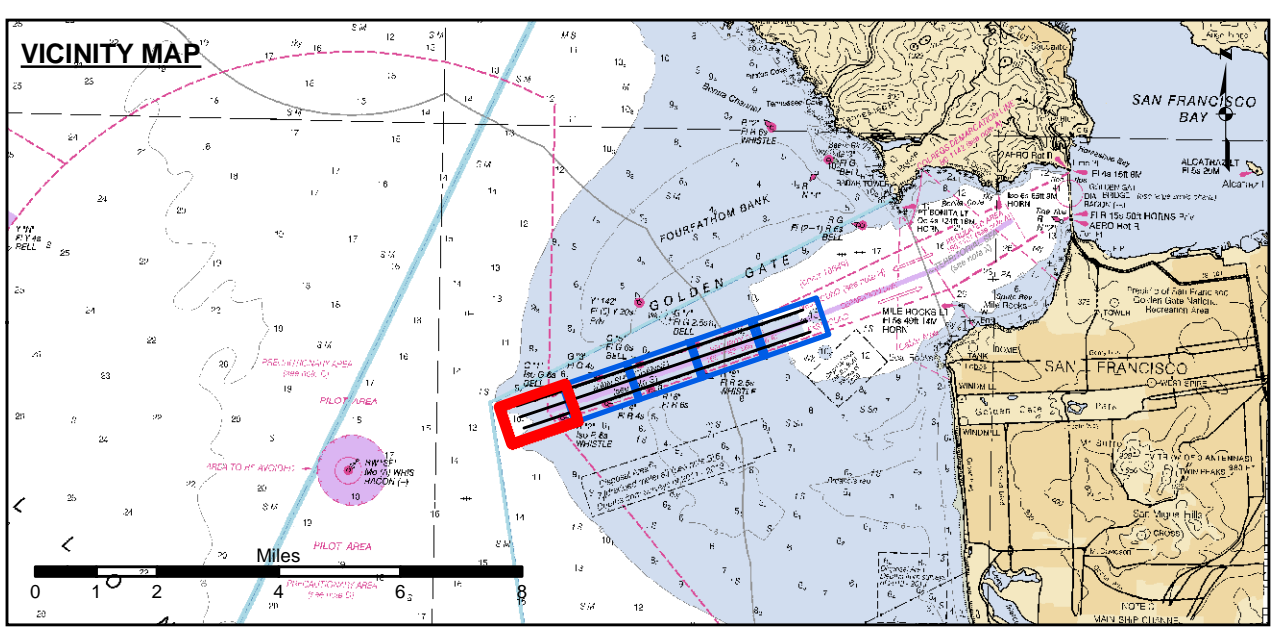
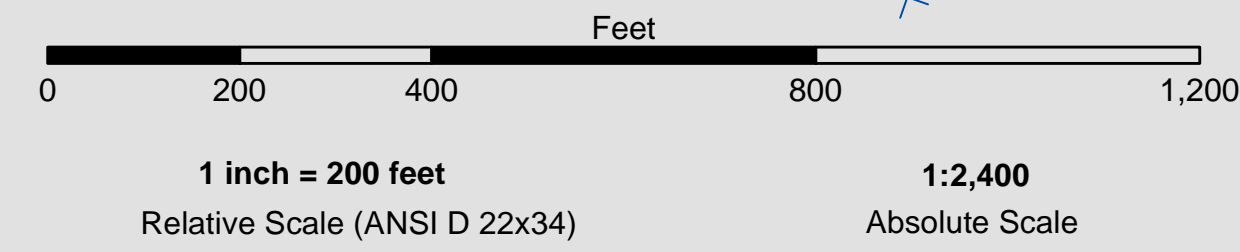


CHANNEL ANGLE POINTS - NAD 83		
CHANNEL ∟	EAST	NORTH
A	5942376.6491	2108540.1149
B	5943012.7491	2106643.9149
C	5967229.2491	2116876.3149
D	5967865.3491	2114980.1149

CENTERLINE ANGLE POINTS - NAD 83		
CENTERLINE ∟	EAST	NORTH
C1	5942694.6491	2107592.0149
C2	5967547.2491	2115928.2149



**PRELIMINARY ISSUE**  
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	Federal Navigation Channel		Beacon, General		51
	Shoaling Area		Obstruction Point		52
	Placement Area		Navigation Buoy		53
	Anchorage Area		Navigation Buoy		54
	Wreck Area		Shoalest Sounding*		55
	Submerged Wreck				
	Angle Point				

NOTES:  
HORIZONTAL COORDINATE SYSTEM:  
NORTH AMERICAN DATUM OF 1983 (NAD83), PROJECTED TO THE STATE PLANE COORDINATE SYSTEM (SPCS), CALIFORNIA ZONE III. DISTANCE UNITS IN U.S. SURVEY FEET.  
VERTICAL DATUM:  
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VERTICAL CONTROL:  
BENCHMARK "Q-481" USCGS DISK ELEV. 19.54 FT MLLW.  
HORIZONTAL CONTROL:  
COAST GUARD D-BEACON.

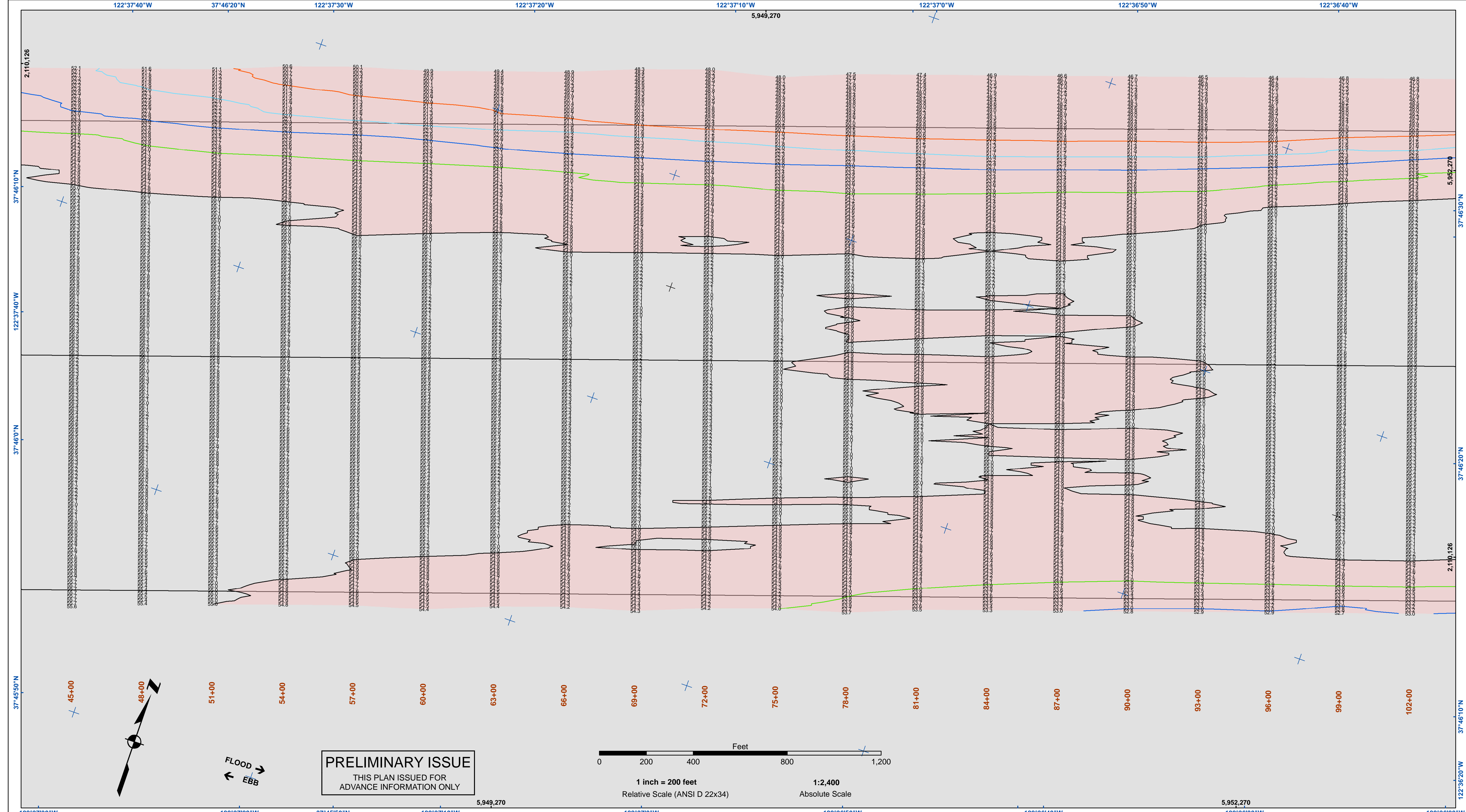


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Prepared Under the Direction of:	Chart Date:
LT COLONEL J. RAYFIELD	Jun 12, 2019
Submitted:	Plotted By:
Hydro Survey Team Leader	PDT
Recommended:	Checked By:
Chief, Hydro Survey Section	PDT
Approved:	Drawn by:
Chief, Construction Branch	PDT

SAN FRANCISCO CALIFORNIA  
**SAN FRANCISCO MAINSHIP CHANNEL CONDITION SURVEY**  
31 MAY, 03 JUNE & 10 JUNE 2019

**Sheet Reference Number**  
1 of 5

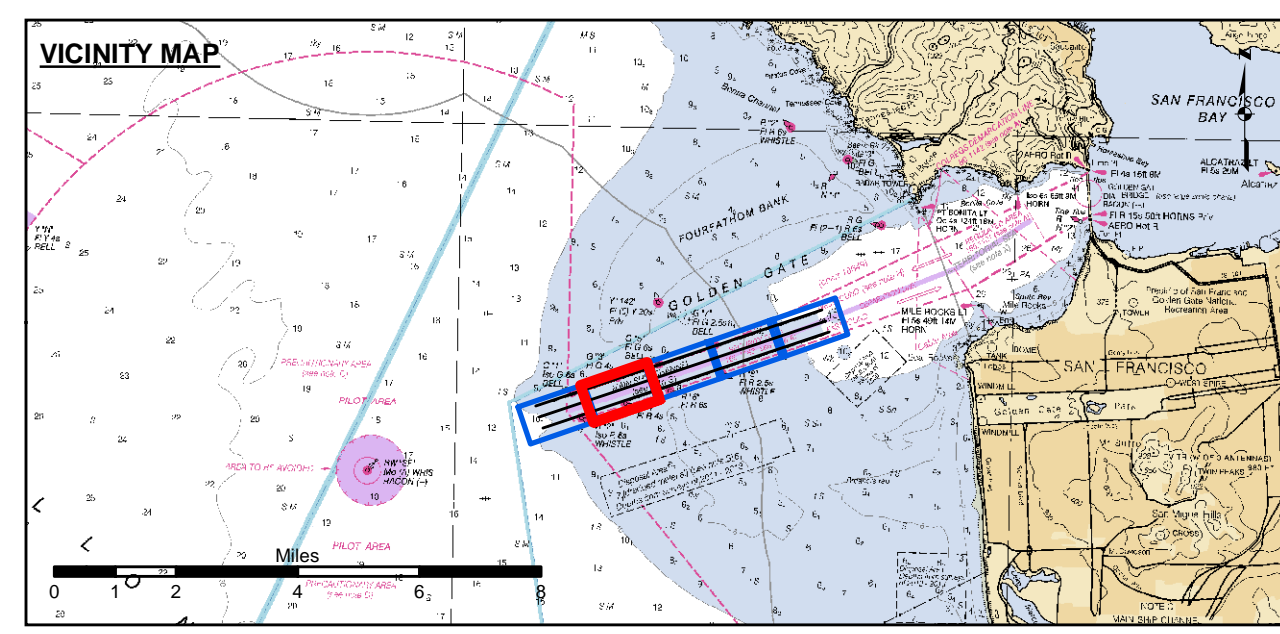


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Chart Date:	Jun 12, 2019
Surveyed By:	Travis J. Rayfield
Plotted By:	PDT
Recommended By:	Chief, Hydro Survey Section
Checked By:	PDT
Approved By:	Chief, Construction Branch

**SAN FRANCISCO BAY**  
**SAN FRANCISCO**  
**MAINSHIP CHANNEL**  
**CONDITION SURVEY**  
 31 MAY, 03 JUNE & 10 JUNE 2019

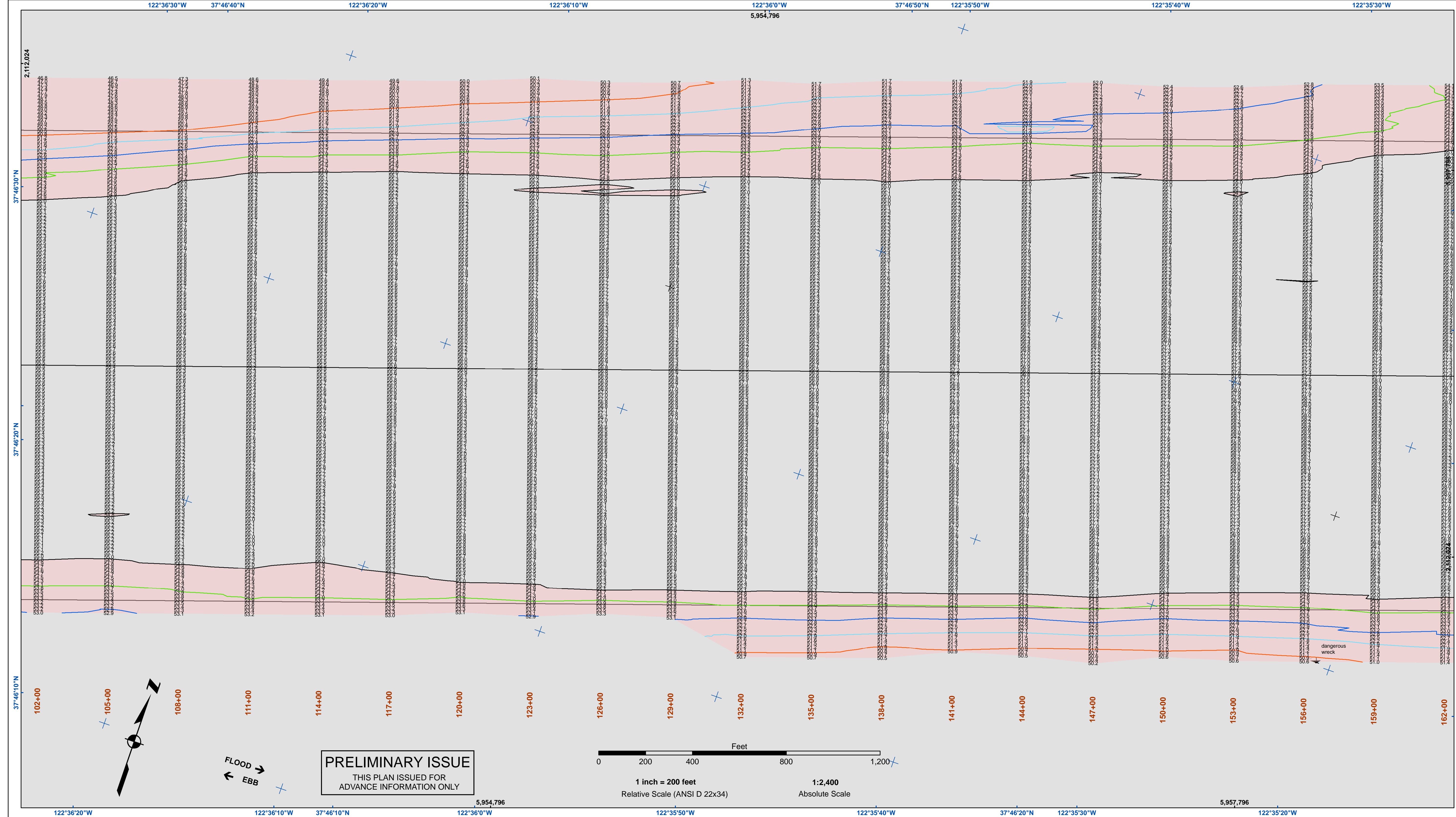
**Sheet Reference Number**  
 2 of 5



- Federal Navigation Channel
  - Shoaling Area
  - Placement Area
  - Anchorage Area
  - Wreck Area
  - Submerged Wreck
  - Angle Point
  - Beacon, General
  - Obstruction Point
  - Navigation Buoy
  - Navigation Buoy
  - Shoalest Sounding\*
- Contour Lines**
- 51
  - 52
  - 53
  - 54
  - 55

**NOTES:**  
 HORIZONTAL COORDINATE SYSTEM:  
 NORTH AMERICAN DATUM OF 1983 (NAD83), PROJECTED TO THE STATE PLANE COORDINATE SYSTEM (SPCS), CALIFORNIA ZONE III. DISTANCE UNITS IN U.S. SURVEY FEET.  
 VERTICAL DATUM:  
 SOUNDINGS ARE SHOWN IN FEET AND INDICATE DEPTHS BELOW MEAN LOWER LOW WATER.  
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 \*SHOALEST SOUNDING PER QUARTER PER REACH

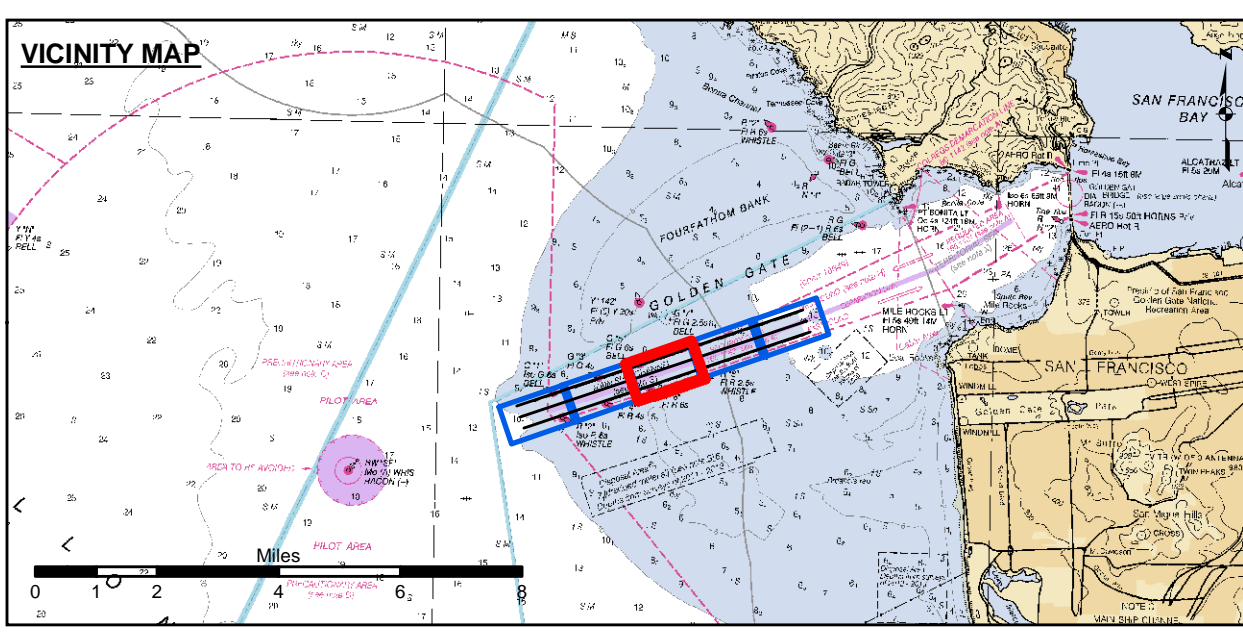
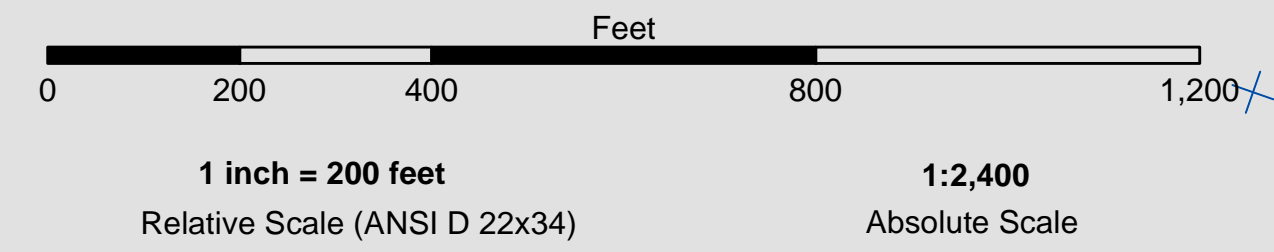
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 VERTICAL CONTROL:  
 BENCHMARK "Q-481" USCGS DISK ELEV. 19.54 FT MLLW.  
 HORIZONTAL CONTROL:  
 COAST GUARD D-BEACON.



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Prepared Under the Direction of:	Chart Date:
TRAVIS J. RAYFIELD	Jun 12, 2019
LT COLONEL, C.E., DISTRICT ENGINEER	Designed by:
Hydro Survey Team Leader	PDT
Chief, Hydro Survey Section	Plotted by:
Chief, Construction Branch	PDT
	Checked by:
	PDT
	Drawn by:
	PDT

**PRELIMINARY ISSUE**  
 THIS PLAN ISSUED FOR  
 ADVANCE INFORMATION ONLY



- Federal Navigation Channel
  - Shoaling Area
  - Placement Area
  - Anchorage Area
  - Wreck Area
  - Submerged Wreck
  - Angle Point
  - Beacon, General
  - Obstruction Point
  - Navigation Buoy
  - Navigation Buoy
  - Shoalest Sounding\*
- Contour Lines**
- 51
  - 52
  - 53
  - 54
  - 55

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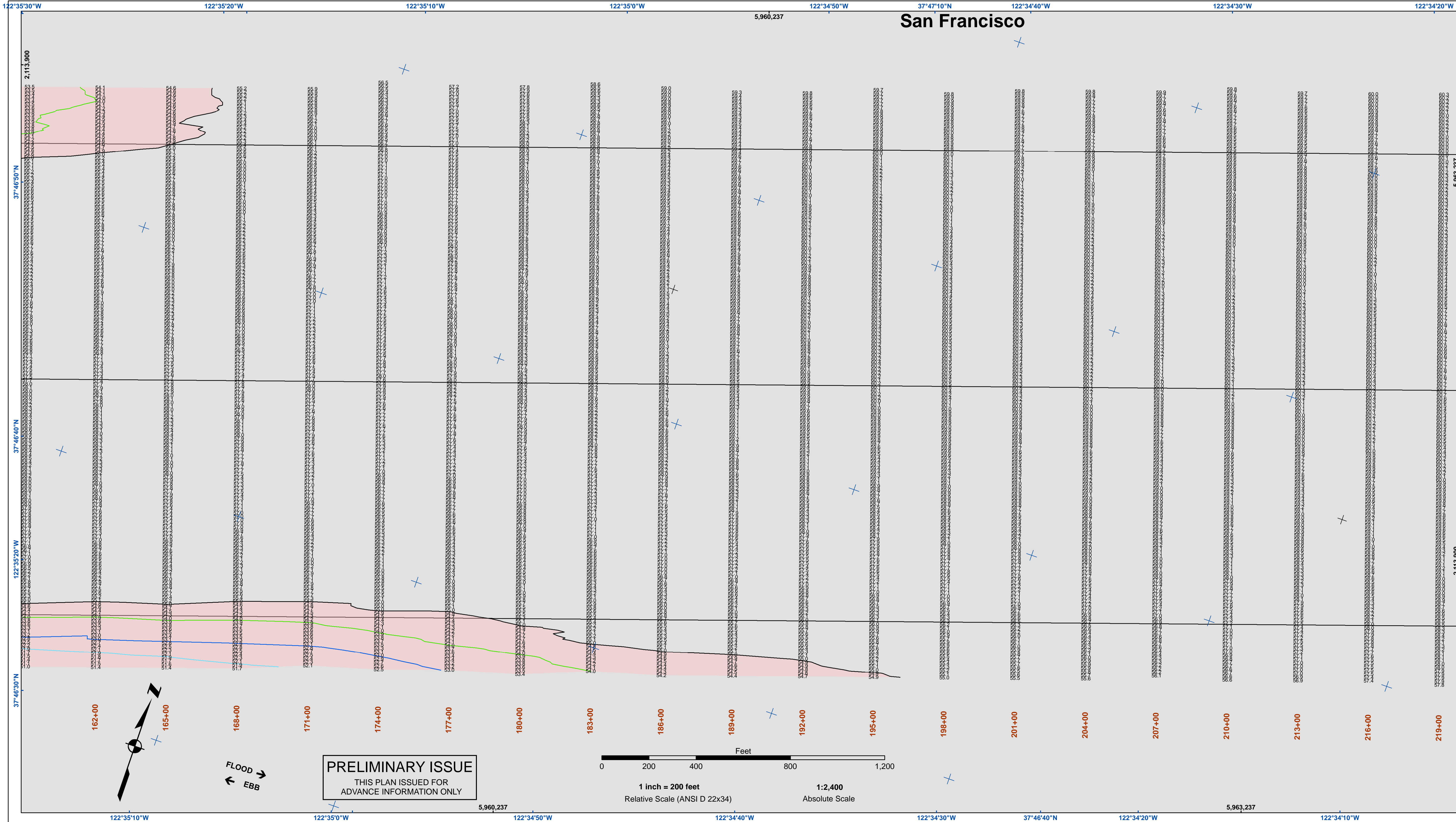
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VERTICAL CONTROL:  
 BENCHMARK "Q-481" USC&GS DISK ELEV. 19.54 FT MLLW.

HORIZONTAL CONTROL:  
 COAST GUARD D-BEACON.

SAN FRANCISCO BAY  
 CALIFORNIA  
**SAN FRANCISCO MAINSHIP CHANNEL**  
 CONDITION SURVEY  
 31 MAY, 03 JUNE & 10 JUNE 2019

**Sheet**  
**Number**  
**3 of 5**



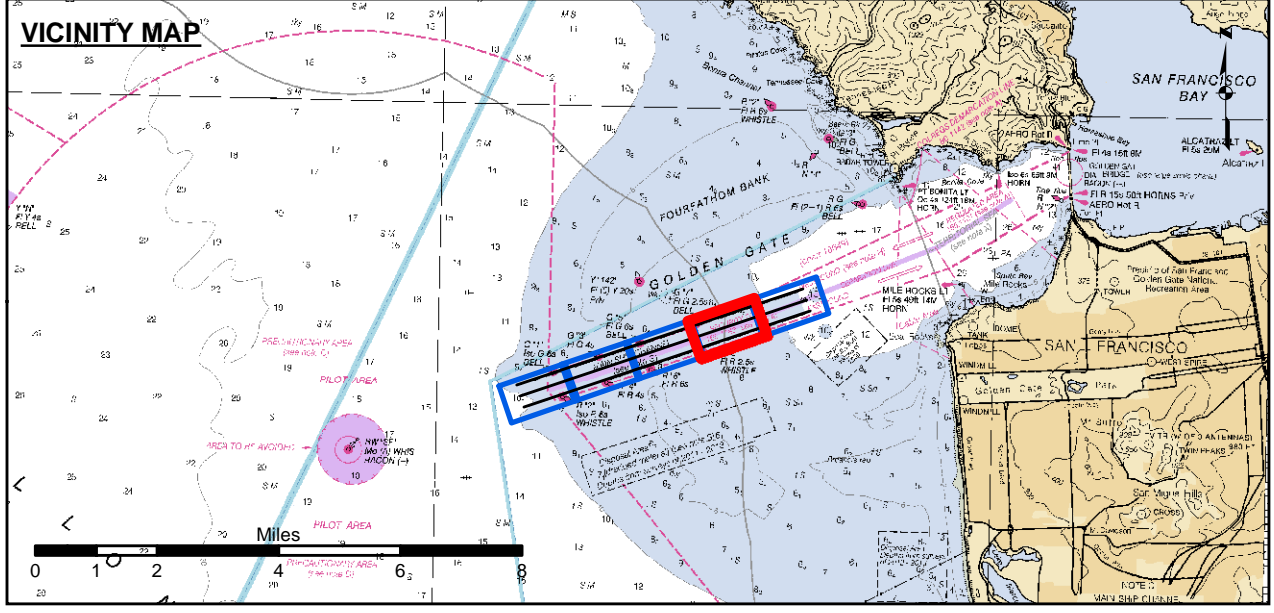
**US Army Corps of Engineers**  
 San Francisco District  
 450 Golden Gate Ave  
 San Francisco, CA 94102

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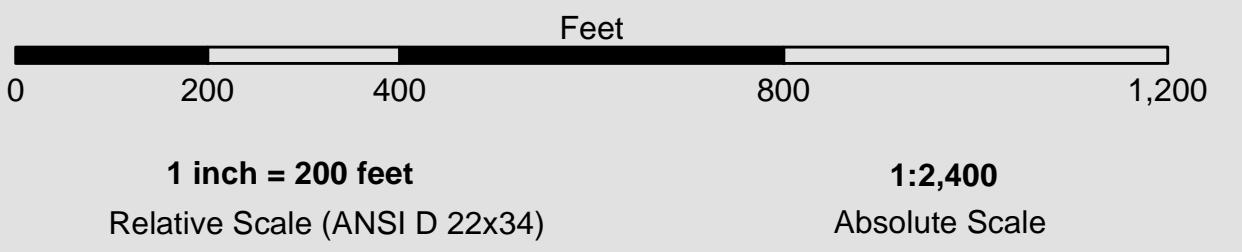
Prepared Under the Direction of <b>TRAVIS J. RAYFIELD</b> LT COLONEL, C.E., DISTRICT ENGINEER	Surveyed By: PDT	Chart Date: Jun 12, 2019
Subject: Hydro Survey Team Leader	Plotted By: PDT	Designed by: PDT
Recommended: Chief, Hydro Survey Station	Checked By: PDT	Drawn by: PDT
Approved: Chief, Construction Branch		

**SAN FRANCISCO BAY**  
 CALIFORNIA  
**SAN FRANCISCO MAINSHIP CHANNEL**  
 CONDITION SURVEY  
 31 MAY, 03 JUNE & 10 JUNE 2019

**Sheet Reference Number**  
 4 of 5



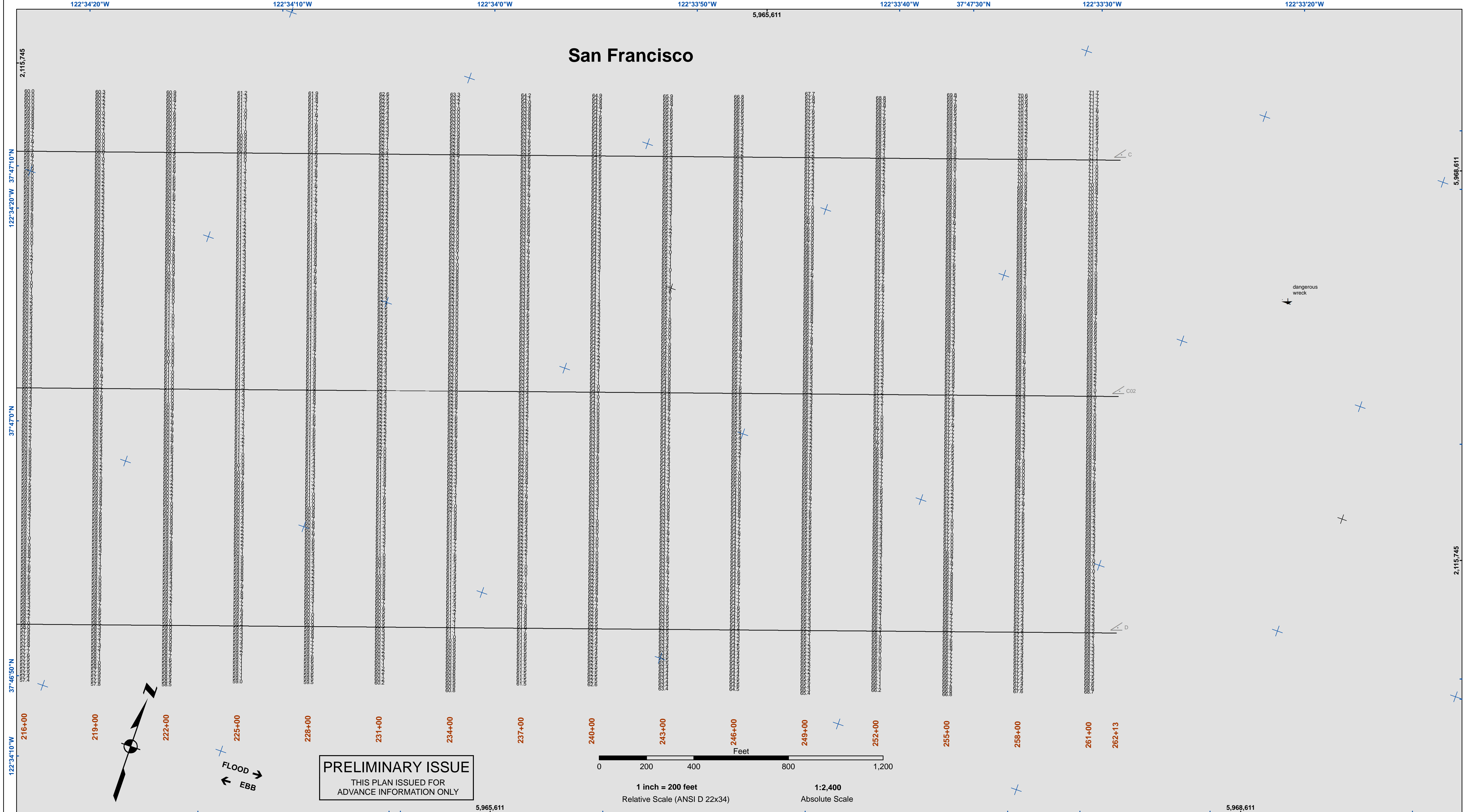
**PRELIMINARY ISSUE**  
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- |                            |                    |                      |
|----------------------------|--------------------|----------------------|
| Federal Navigation Channel | Beacon, General    | <b>Contour Lines</b> |
| Shoaling Area              | Obstruction Point  |                      |
| Placement Area             | Navigation Buoy    |                      |
| Anchorage Area             | Navigation Buoy    |                      |
| Wreck Area                 | Shoalest Sounding* |                      |
| Submerged Wreck            |                    | 51                   |
| Angle Point                |                    | 52                   |
|                            |                    | 53                   |
|                            |                    | 54                   |
|                            |                    | 55                   |

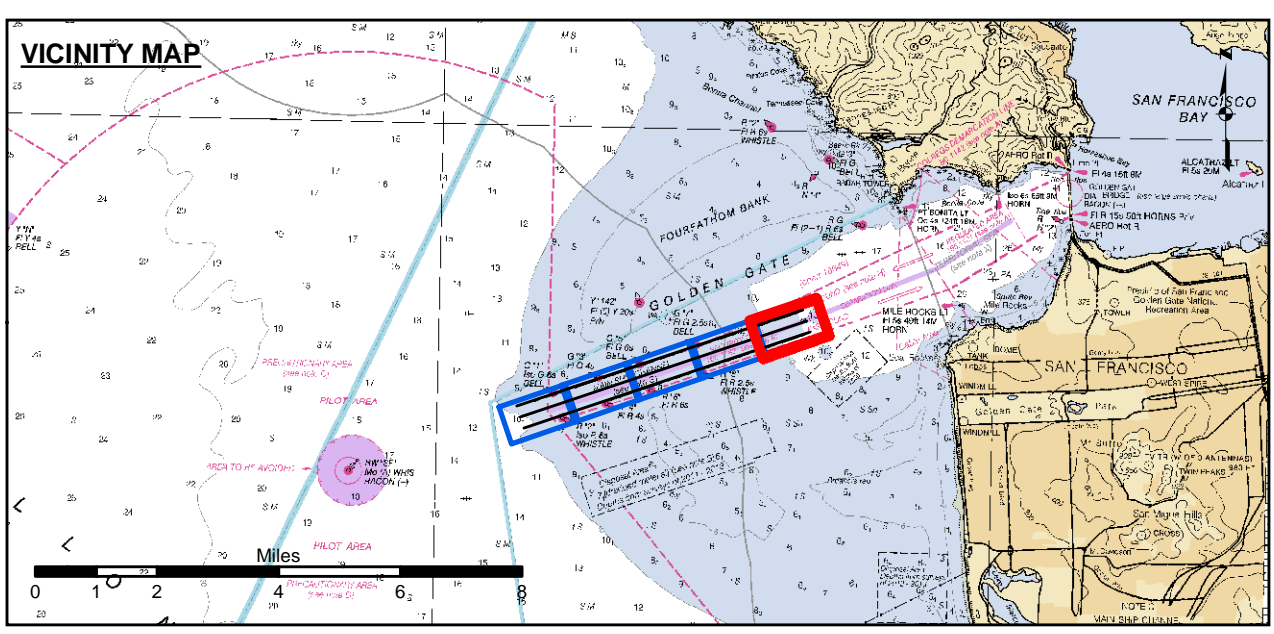
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Prepared Under the Direction of	Chart Date
TRAVIS J. RAYFIELD	Jun 12, 2019
LT Colonel, C.E., District Engineer	Designed by:
Submitted:	PDT
Hydro Survey Team Leader	Plotted By:
Recommended:	PDT
Chief, Hydro Survey Section	Checked By:
Approved:	PDT
Chief, Construction Branch	Drawn by:
	PDT



- |                            |                    |                      |
|----------------------------|--------------------|----------------------|
| Federal Navigation Channel | Beacon, General    | <b>Contour Lines</b> |
| Shoaling Area              | Obstruction Point  | 51                   |
| Placement Area             | Navigation Buoy    | 52                   |
| Anchorage Area             | Navigation Buoy    | 53                   |
| Wreck Area                 | Shoalest Sounding* | 54                   |
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SAN FRANCISCO BAY  
 CALIFORNIA  
**SAN FRANCISCO MAINSHIP CHANNEL**  
 CONDITION SURVEY  
 31 MAY, 03 JUNE & 10 JUNE 2019

**Sheet Reference Number**  
 5 of 5