



**NOTES**

1. PRIMARY PROJECT HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 8, NAD83 (NSRS2007), IN U.S. FEET. BASIS OF COORDINATES IS NATIONAL GEODETIC SURVEY (NGS) CONTROL STATION "OME A" (PID DF3651), AS N 3,841,096.47' AND E 1,728,070.64' AND "OME B" (PID DF3652), AS N 3,842,264.55' AND E 1,729,661.41'. MONUMENTS ARE SECONDARY AIRPORT CONTROL STATIONS (SACS) AT NOME AIRPORT, ALASKA.  
LOCAL PROJECT HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 8, NAD83 (NSRS2007), IN U.S. SURVEY FEET HOLDING "KMJV-1" HAVING A VALUE OF N 3,837,168.87' AND E 1,729,283.15'.
2. VERTICAL CONTROL IS MEAN LOWER LOW WATER (MLLW +0.0'). BASED ON THE NOAA/NOS TIDAL BENCHMARK LIST "946 8756 NOME NORTON SOUND, ALASKA" PUBLISHED 10/05/07. THIS TIDAL DATUM IS BASED ON THE 1983-2001 TIDAL EPOCH AND IS REFERENCED BY HOLDING NOAA/USCGS TIDAL BENCHMARK "946 8756 H" (VM#12155/PID#BFB37) AS 12.18 FT.
3. VERTICAL TIES TO THE NATIONAL SPATIAL REFERENCE SYSTEM ARE BASED ON PUBLISHED NAVD83 (GEOID 12B) ELEVATIONS HOLDING NOAA/USCGS TIDAL BENCHMARK "946 8756 H" (VM#12155/PID#BFB37) AS 14.82 FT.
4. SOUNDINGS ARE IN FEET AND ARE MINUS UNLESS OTHERWISE INDICATED.
5. BATHYMETRY WAS COLLECTED MAY 29 & 30, 2018. SOUNDINGS WERE COLLECTED USING A CEESCOPE ECHO SOUNDER OPERATING AT 200 KHZ. SOUND VELOCITY THROUGH THE WATER COLUMN WAS DETERMINED WITH AN AML BASE X2 SOUND VELOCITY PROBE. POSITION AND TIDES WERE PROVIDED IN REAL TIME USING A TRIMBLE R8 RTK GPS RECEIVER OPERATING ON KINEMATICS CORRECTIONS BROADCAST FROM A TRIMBLE R8 RTK BASE RECEIVER SET AT CONTROL STATION "KMJV-1". DATA WAS COLLECTED AND PROCESSED USING HYPACK 2018 INTEGRATED SOFTWARE. HORIZONTAL CONTROL WAS SURVEYED USING RTK GNSS EQUIPMENT AND TECHNIQUES. VERTICAL CONTROL WAS SURVEYED USING DIFFERENTIAL LEVELING TECHNIQUES.
6. THIS DRAWING INDICATES GENERAL CONDITIONS AT THE TIME OF THE SURVEY.
7. MAP SOUNDINGS ARE SORTED AT 10 FEET AND ARE SHOAL-BIASED. CONTOURS ARE SORTED AT 10 FEET AND SHOAL-BIASED SOUNDINGS. VOLUME SOUNDINGS ARE SORTED AT 10 FEET AND SHOAL-BIASED.

| SURVEY CONTROL DATA |              |              |       |              |
|---------------------|--------------|--------------|-------|--------------|
| STATION             | NORTHING     | EASTING      | MLLW  | DESCRIPTION  |
| 39+71               | 3,834,957.98 | 1,729,422.33 |       | BRASS CAP    |
| 53+68               | 3,834,888.51 | 1,728,762.20 |       | BRASS CAP    |
| BOOTSTRAP           | 3,838,021.15 | 1,730,359.97 | 6.70  | BRASS CAP    |
| CELL                | 3,835,965.94 | 1,729,122.26 |       | ALUMINUM MON |
| DINGO               | 3,836,890.97 | 1,732,407.19 | 19.34 | BRASS CAP    |
| KMJV-1              | 3,837,168.87 | 1,729,283.15 | 16.44 | BRASS CAP    |
| NH-02               | 3,838,272.50 | 1,731,835.01 | 12.45 | BRASS CAP    |
| NH-03               | 3,837,585.34 | 1,730,864.94 | 13.87 | BRASS CAP    |
| NH-04               | 3,837,212.71 | 1,731,266.48 | 15.30 | BRASS CAP    |
| OME A               | 3,841,096.47 | 1,728,070.64 |       | BRASS CAP    |
| OME B               | 3,842,264.55 | 1,729,661.41 |       | BRASS CAP    |
| PUMP                | 3,837,605.19 | 1,731,831.48 | 9.18  | BRASS CAP    |
| SHEET               | 3,837,882.85 | 1,731,533.69 | 11.70 | DESTROYED    |

| NAVIGATION AIDS |           |           |                  |
|-----------------|-----------|-----------|------------------|
| USCG NO.        | NORTHING  | EASTING   | DESCRIPTION      |
| 27962           | 3,834,922 | 1,729,388 | ENTRANCE LIGHT 2 |
| 27963           | 3,834,844 | 1,728,782 | ENTRANCE LIGHT 1 |
| 27964           | 3,836,250 | 1,729,618 | BUOY 1           |
| 27965           | 3,836,070 | 1,729,925 | BUOY 2           |
| 27966           | 3,836,541 | 1,729,900 | BUOY 3           |
| 27967           | 3,836,470 | 1,730,030 | BUOY 4           |
| 27968           | 3,838,033 | 1,730,848 | BUOY 5           |
| 27969           | 3,837,935 | 1,731,111 | BUOY 7           |
| 27970           | 3,837,678 | 1,731,012 | BUOY 8           |
| 27971           | 3,837,805 | 1,731,401 | BUOY 9           |

**US Army Corps of Engineers - ALASKA DISTRICT**

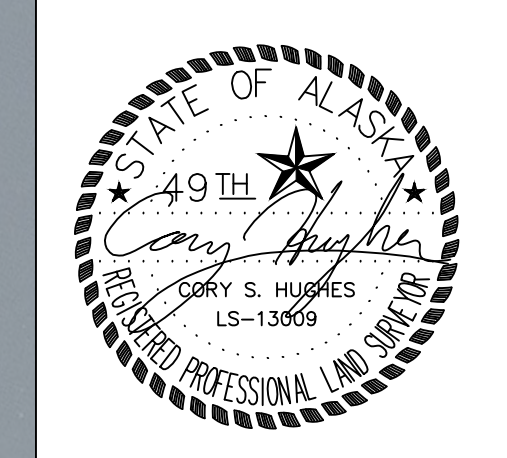
CONTRACT NO. W17HRC003  
 CONTINUING ALASKA MARINE ENGINEERING  
 CITY AND PORT STATE ALASKA  
 Recommendation Approved Date  
 Name CONTRACTOR DATE

| NO. | DESCRIPTION | DATE |
|-----|-------------|------|
|     |             |      |
|     |             |      |
|     |             |      |

U.S. ARMY CORPS OF ENGINEERS  
 ALASKA DISTRICT  
 JBER, ALASKA 99506-0988  
 HUGHES & ASSOCIATES  
 200 COTTE LOOP  
 WASHILLA, AK 99654

**2018 HARBOR MAINTENANCE DREDGING  
 PRE-DREDGE SURVEY  
 MAY 29 - 31, 2018**

SHEET IDENTIFICATION  
 6-NOM-92-07-58  
 Sheet 2 of 5



THIS HYDROGRAPHIC SURVEY WAS COMPLETED UNDER THE OVERSIGHT OF AN ACMA/PHSDA CERTIFIED HYDROGRAPHER

*Cory Hughes*  
 CORY S. HUGHES, C.H. (245)