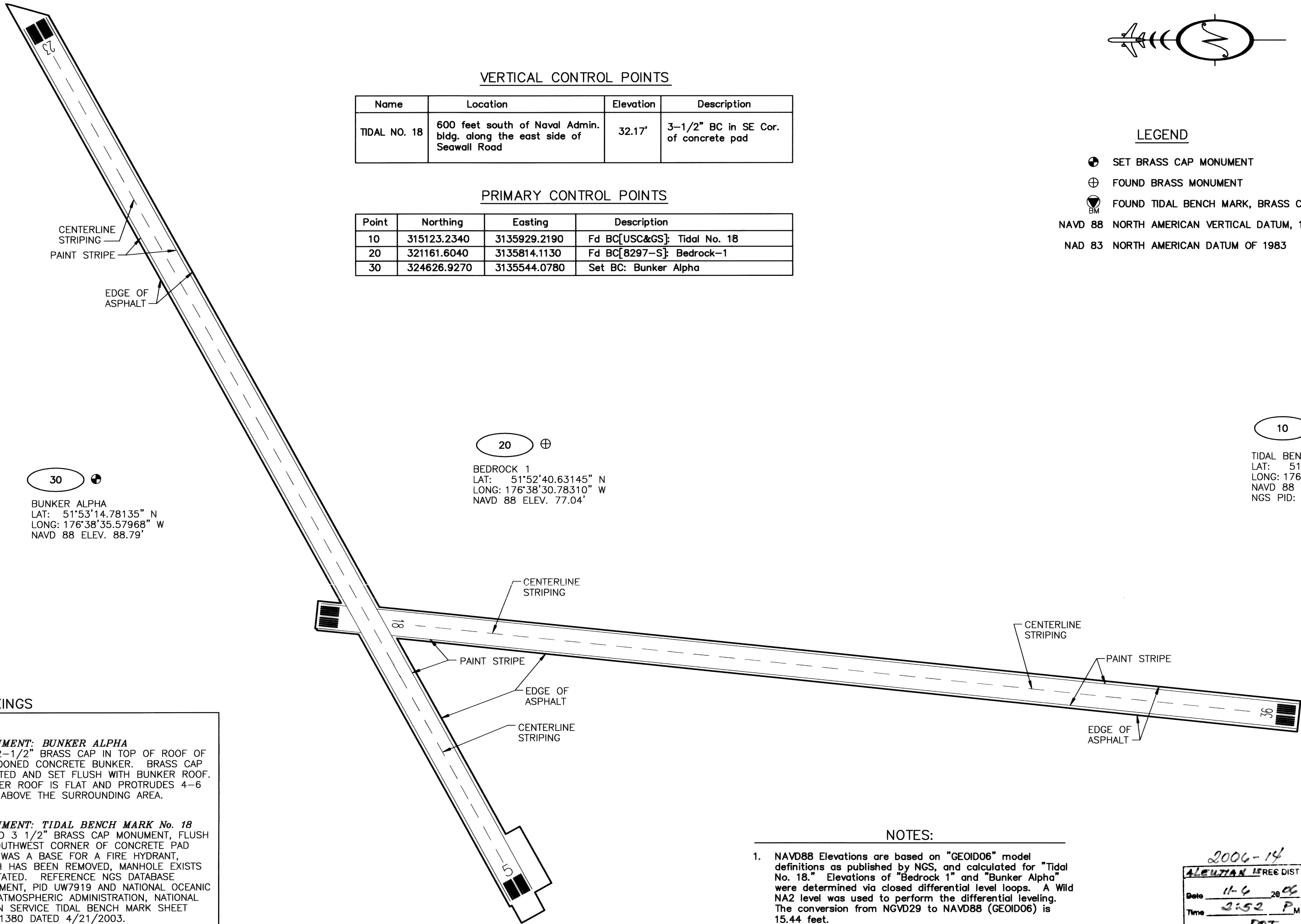


\\NWG-Pat: \\NWG-014 ADAX\K-ASAD Projects\Adax SCD.dwg



VERTICAL CONTROL POINTS

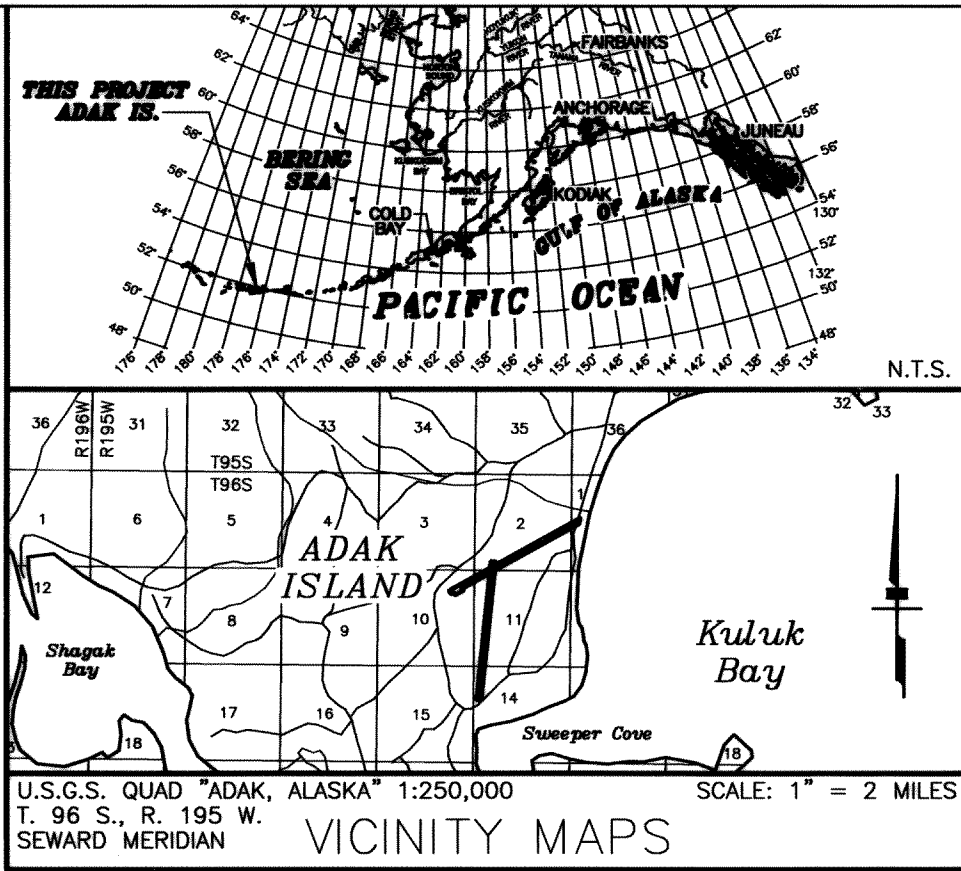
Name	Location	Elevation	Description
TIDAL NO. 18	600 feet south of Naval Admin. bldg. along the east side of Seawall Road	32.17'	3-1/2" BC in SE Cor. of concrete pad

PRIMARY CONTROL POINTS

Point	Northing	Easting	Description
10	315123.2340	3135929.2190	Fd BC[USC&GS]: Tidal No. 18
20	321161.6040	3135814.1130	Fd BC[8297-S]: Bedrock-1
30	324626.9270	3135544.0780	Set BC: Bunker Alpha

LEGEND

- SET BRASS CAP MONUMENT
- FOUND BRASS MONUMENT
- FOUND TIDAL BENCH MARK, BRASS CAP
- NAVD 88 NORTH AMERICAN VERTICAL DATUM, 1988
- NAD 83 NORTH AMERICAN DATUM OF 1983



HORIZONTAL CONTROL

COORDINATE SYSTEM:
This project is located entirely within Alaska State Plane Zone 10, a Lambert Conformal Projection. All measurements, dimensions, coordinates and elevations are expressed in U.S. Survey Feet.

BASIS OF COORDINATES:
The Basis of Coordinates for this project is Tidal No. 18, a Tidal Benchmark, NGS PID No. UW7919, VM1791 and is:

Tidal No. 18
Latitude: 51° 51' 41.09356" N
Longitude: 176° 38' 28.09107"

The coordinates are based on 125 hours of continuous GPS observations and computed using the NGS OPUS (software 0601.1, master31.pl), holding CORS stations at Cold Bay (BAY1), Unalaska (AV09) and Kodiak (KOD1).

Tidal No. 18 is a 3 1/2" brass cap monument set flush in a concrete slab used for a fire hydrant base. Marked Bench Mark No. 18, USC&GS, 1957.

BASIS OF BEARINGS:
There is no Basis of Bearing for this project. This is a GPS Control survey.

TRANSLATION PARAMETERS:
None used this survey. All work performed in Alaska State Plane Zone 10, U.S. Survey feet.

VERTICAL CONTROL

Basis of Elevation is NAVD88 (CORS96) (EPOCH:2003.0000) as determined by an OPUS solution of 125 hours of GPS observations for Tidal No. 18, NGS PID No. UW 7919/VM 1791 and is 9.804m (32.17'). NAVD88 height was determined by applying the GEOID06 separation value to the OPUS determined Ellipsoid height of Tidal No. 18. GEOID06 is defined by NGS.

EQUIPMENT & METHODOLOGY

GPS observations were performed between July 30, 2006 and August 5, 2006 using Leica series 1200 & 500 tripod mounted receivers at "Tidal Benchmark No. 18," "Bedrock 1" and "Bunker Alpha." The positions of "Tidal No. 18" & "Bedrock 1" are based on 125 hours of observations at "Tidal No. 18" and 100 hours of observations at "Bedrock 1" and computing new positions using the NGS OPUS software and holding CORS stations located at Unalaska (AV09), Cold Bay (BAY1) and Kodiak (KOD1).

Aleutian Island Recording District
State Business – No Fee
This survey does not constitute a subdivision as defined by AS 40.15.900

NOTES:

- NAVD88 Elevations are based on "GEOID06" model definitions as published by NGS, and calculated for "Tidal No. 18." Elevations of "Bedrock 1" and "Bunker Alpha" were determined via closed differential level loops. A Wild NA2 level was used to perform the differential leveling. The conversion from NGVD29 to NAVD88 (GEOID06) is 15.44 feet.
- The horizontal position of "Bunker Alpha" was determined by holding the OPUS derived positions of "Tidal No. 18" and "Bedrock 1."
- The purpose of the 2006 GPS survey is to revise the Adak Airport Vertical Datum of NGVD29 to NAVD88 using the NGS 2006 model for Alaska, on a common monument (vertical benchmark) that is also tied/related to a 1983 to 2001 Tidal Epoch as observed by NGS. This monument is "Tidal No. 18," VM 1791.

2006-14
ALEUTIAN ISLAND DIST
Date 11-6-2006
Time 2:52 P.M.
Requested By DOT
Address

REFERENCE DATA

- CORS data for 2006 field effort is based on Unalaska (AV09-PID No. DG7414), Cold Bay (BAY1-PID No. AF9547) and Kodiak (KOD1-PID AF9549). Data period began July 30, 2006 and continued to August 5, 2006.
- "Tidal No. 18, NOAA VM 1791 published elevation based on a Tidal Epoch January, 1983 to December, 2001 at Sweeper Cove, Adak Island. Elevation, relative to Mean Low Low Water (MLLW), is 19.02 feet.

Surveyor's Certificate

I hereby certify that I am properly Registered and Licensed to practice Land Surveying in the State of Alaska, and that this drawing represents a survey made by me or under my direct supervision, and that the monuments shown hereon actually exist as described, and that all dimensions and other details are correct to the extent shown hereon.

Pierre M. Stragier LS-9812 Date



CONTRACTOR SURVEYORS
CERTIFICATE

PLANS PREPARED BY:
LOUNSBURY & ASSOCIATES

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES Survey Control Diagram Record Of Survey

58415
Adak Airport

Within Sections 1, 2, 3, 10, 11, 14 & 15, Township 96 South, Range 195 West, Seward Meridian, Alaska

DRAWN	DJB	DATE	10/05/2006	SCALE	1"=500'
CHECKED	PS	DATE	10/06/2006	SHEET	1 OF 1

