

## **HORIZONTAL CONTROL STATEMENT**

### **BASIS OF COORDINATES:**

THIS PROJECT USES A NEW COORDINATE SYSTEM DEVELOPED FOR THE KIVALINA EVACUATION ROAD PROJECT. SPECIFICALLY, IT IS A MODIFIED NAD8(2011) ALASKA STATE PLANE ZONE 8 COORDINATE SYSTEM, U.S. SURVEY FEET, SCALED TO GROUND. IT IS SCALED AT POINT 564 (SACS "KVL C"), N 5,020,923.786, E 1,842,249.468 USING THE COMBINED SCALE FACTOR OF 1.000049160456. NOTE THAT THIS PROJECT IS NOT SCALED AT N0, E0.

THE BASIS OF BEARING IS ALASKA STATE PLANE ZONE 8 GRID NORTH.

### **TRANSFORMATION PARAMETERS:**

TO CONVERT LOCAL GROUND COORDINATES TO NAD83 ALASKA STATE PLANE ZONE 8, SCALE THE LOCAL COORDINATES AT POINT 564 USING 0.000050842, NO ROTATION, NO TRANSLATION.

TO CONVERT NAD83 ALASKA STATE PLANE ZONE 8 COORDINATES TO GROUND, LOCAL, SCALE THE SPC COORDINATES AT POINT 564 USING 1.000049160456. NO ROTATION, NO TRANSLATION.

PRIMARY HORIZONTAL CONTROL WAS ESTABLISHED USING STATIC GPS TECHNIQUES WITH TOPCON DUAL FREQUENCY RECEIVERS. VECTORS WERE ADJUSTED BY A SIMULTANEOUS LEAST SQUARES ADJUSTMENT USING MAGNET OFFICE V 8.2.3 ALL RECOVERED MONUMENTS WERE LOCATED USING STATIC GPS TECHNIQUES FOR POSITIONING. THIS SURVEY MEETS OR EXCEEDS 1:10,000 CLOSURE.

ALL DIMENSIONS AND COORDINATES SHOWN ARE IN U.S. SURVEY FEET UNLESS OTHERWISE NOTED.

## **VERTICAL CONTROL STATEMENT**

ELEVATIONS ARE NAVD88 ORTHOMETRIC HEIGHTS EXPRESSED IN U.S. SURVEY FEET. THE BASIS OF ELEVATIONS IS POINT 564, SACS "KVL C", HAVING A VALUE OF 16.11 FEET. THE NAVD 88 ORTHOMETRIC HEIGHT FOR THIS POINT IS P FROM THE NATIONAL GEODETIC SURVEY DATASHEET.

THE NAVD 88 ORTHOMETRIC HEIGHT FOR ALL OTHER LISTED POINTS WAS DETERMINED BY STATIC GPS OBSERVATIONS RECORDED SEPT. 14 THROUGH SEPT 21, 2016 USING TOPCON DUAL FREQUENCY GPS RECEIVERS AND GEOID MODEL GEOID12A.

## **SOURCE OF CONTROL**

THE PRECEDING HORIZONTAL AND VERTICAL CONTROL STATEMENTS WERE EXTRACTED FROM THE DOT&PF SURVEY CONTROL DIAGRAM RECORD OF SURVEY SIGNED AND SEALED BY MICHAEL E. MILLER, RLS AND FILED AS PLAT NO. 2018-1 ON JUNE 18, 2018 IN THE KOTZEBUE RECORDING DISTRICT. THE SURVEY CONTROL DRAWING WAS BASED ON A FIELD SURVEY PERFORMED BY MCCLINTOCK LAND ASSOCIATES, INC. FROM SEPTEMBER 14 THROUGH SEPTEMBER 21, 2016.

VERIFY HORIZONTAL CONTROL PRIOR TO USE.

## GENERAL NOTES

COORDINATES, STATIONS, AND OFFSETS LISTED IN THE RECOVERED MONUMENT TABLES REFER TO THE POSITION OF THE PHYSICAL EVIDENCE. DIMENSIONS, STATIONS AND OFFSETS AS SHOWN ON THE PLAN SHEETS REFLECT ADJUSTED POSITIONS. ADJUSTED POSITIONS ARE BASED ON AN EVALUATION OF THE CONTROLLING EVIDENCE AND SENIOR RIGHTS AND MAY VARY FROM THE POSITION OF THE PHYSICAL EVIDENCE.

ALL DOCUMENTS NOTED IN THIS PLAN SET AND REFERENCED BY INSTRUMENT NUMBER OR BOOK AND PAGE ARE RECORDED IN THE KOTZEBUE RECORDING DISTRICT, UNLESS NOTED OTHERWISE.

THE NATURAL MEANDERS OF THE MEAN HIGH WATER (MHW) FORM THE TRUE BOUNDS OF PARCELS 2 AND 3. THE APPROXIMATE LINE OF MHW, AS SHOWN, IS FOR AREA COMPUTATIONS ONLY, THE TRUE CORNERS BEING ON THE EXTENSION OF THE SIDELINES AND THEIR INTERSECTION WITH THE NATURAL MEANDERS. THE APPROXIMATE MHW LINES OF PARCELS 2 AND 3 WERE DETERMINED FROM A FIELD SURVEY PERFORMED BY R&M CONSULTANTS, INC (R&M) ON JULY 4, 2014 AND ARE BASED ON TIDAL DATUM 9491253, KIVALINA AK, EPOCH 1983-2001. MHW ELEVATIONS WERE DETERMINED BY DIFFERENTIAL LEVELS ORIGINATING FROM NOAA TIDAL BENCH MARK 949 1253 E. THE PUBLISHED MHW ELEVATION OF BENCH MARK 949 1253 E = 11.85 FEET. TO CONVERT NAVD88 PROJECT ELEVATIONS TO MLLW DATUM ELEVATIONS, SUBTRACT 2.77 FEET. TO CONVERT NAVDD88 PROJECT ELEVATIONS TO MHW DATUM ELEVATIONS, SUBTRACT 3.54 FEET.

THE PROTRACTED SECTION LINES SHOWN HEREON WERE COMPUTED BY R&M BASED ON FOUND MONUMENT POSITIONS PROVIDED BY THE LOCATION SURVEYOR. SECTION CORNERS WERE COMPUTED USING THE APPLICABLE METHODS IN THE BLM MANUAL OF SURVEYING INSTRUCTIONS (2009). THE PROTRACTED SECTION LINES SHOWN HEREON WERE COMPUTED FOR THE PURPOSES OF ESTABLISHING THE BOUNDARIES BETWEEN THE APPLICABLE PARCELS AND AREA COMPUTATIONS. BEARINGS AND DISTANCE SHOWN TO COMPUTED SECTION CORNERS ARE NOT TO BE USED IN ESTABLISHING THE BOUNDARIES OF APPLICABLE PARCELS. PARCELS ARE DEFINED BY PROJECT ALIGNMENT AND THE NECESSARY OFFSET FROM SAID ALIGNMENT.

A.S. 9.55.275 REPLAT APPROVAL REQUIRES AN AGENCY OF THE STATE ACQUIRING PROPERTY IN FEE THAT RESULTS IN A BOUNDARY CHANGE TO OBTAIN REPLAT APPROVAL FROM A MUNICIPALITY EXERCISING PLATTING AUTHORITY. THE SURFACE AND SUBSURFACE ESTATE FOR PARCELS 4 THROUGH 13 ARE OWNED BY NANA REGIONAL CORPORATION AND WILL BE CONVEYED IN FEE TO THE CITY OF KIVALINA UNDER THE TERMS OF SECTION 14(C) (3) OF THE ALASKA NATIVE CLAIMS SETTLEMENT ACT. 14(C) (3) RECONVEYANCES ARE EXCLUDED FROM THE DEFINITION OF "SUBDIVISION" ACCORDING TO SECTION 8.16.020 "DEFINITIONS" OF THE NORTHWEST ARCTIC BOROUGH CODE. ALL OTHER PARCELS IDENTIFIED FOR THIS PROJECT WILL BE ACQUIRED AS EASEMENT INTERESTS IN THE NAME OF THE CITY OF KIVALINA OR THE STATE OF ALASKA AND REQUIRE NO DEDICATION OR PLATTING APPROVAL.

