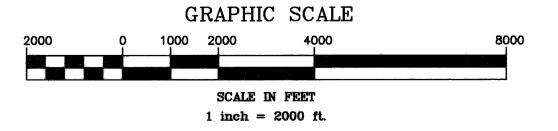
HORIZONTAL AND VERTICAL CONTROL									
NAD83(NSRS2007) GEODETIC COORDINATES			LOCAL COORDINATES		ELLIPSOID	ORTHO			
POINT	LATITUDE	LONGITUDE	NORTHING	EASTING	HEIGHT	HEIGHT	DESCRIPTION		
12	59°38'28.88631"N	151°32'43.96015"W	95644.2072	107744.9147	110.88	80.26	Fd BC/SSROD: AKDOT MP 173.0 2012		
21	59° 44' 41 . 60789"N	151°15'26.97486"W	132353.1296	161751.8731	1369.50	1338.06	Set AM[LS-7222]: AK DOT PF RCM 12.3 2013		
22	59° 44 ' 37 . 77630 "N	151°14'54.49694"W	131932.7552	163408.4749	1376.43	1344.92	Set AM[LS-7222]: AK DOT PF RCM 12.6 2013		
23	59° 45 ' 28 . 6083 I "N	151°12'42.72623"W	136967.4336	170253.9475	1479.71	1448.07	Set AM[LS-7222]: AK DOT PF RCM 14.3 2013		
24	59° 45 ' 38 . 0433 I "N	151°12'29.04435"W	137912.3880	170972.0843	1485.01	1453.36	Set AM[LS-7222]: AK DOT PF RCM 14.5 2013		
25	59° 46' 4 . 48354"N	151°11'14.47095"W	141542.4451	174857.1502	1190.66	1158.91	Set AM[LS-7222]: AK DOT PF RCM 15.6 2013		
26	59° 46 ' 22 . I 4355 "N	151°10'47.11774"W	142295.0158	176271.2955	1149.13	1117.38	Set AM[LS-7222]: AK DOT PF RCM 15.9 2013		
27	59°47'10.56784"N	151°09'56.01248"W	147164.3055	178973.8152	1253.09	1221.32	Set AM[LS-7222]: AK DOT PF RCM 17.2 2013		
28	59° 47' 18.25599"N	151°09'32.14761"W	147923.3246	180208.6231	1250.65	1218.85	Set AM[LS-7222]: AK DOT PF RCM 17.5 2013		
29	59° 48' 18.32464"N		153950.1962	184399.6102	1362.43	1330.57	Set AM[LS-7222]: AK DOT PF RCM 19.6 2013		
30	59° 48' 12 . 46937"N	151°07'53.36100"W	153339.2635	185357.1578	1291.08	1259.16	Set AM[LS-7222]: AK DOT PF RCM 19.9 2013		
551	59°38'20.36176"N	5 °29'29.49455"W	94550.3619	117718.6803	101.19	70.49	Fd BC[NGS]: Station HOMAIR 1964		

*Heights derived using Static GPS methods.

LEGEND	
	GPS Control Point, Found or Set
820	Monument Number, see Sheets 6 & 7
	Highway Centerline Asbuilt
	Section Line
	Township Line

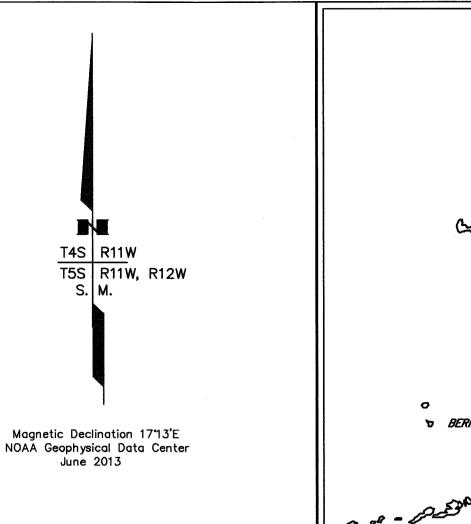
				leights derived using Static GFS i			
23 24		1	9 20) 21	Shee	t 5	23
26	25	R12W R11W	0 29	28	East End 27	29 Road 30	26
35 T4S	36	31	32	Sheet		35	
T5S	2	1	Sheet 3	5	26	T4S T5S	2
10	11	Sheet 2	7 23	8	9	10	11
15	14 21 58 5834.23 58034.23 58034.23	Ecost Ernd Rock 22 Old Ecost Et	18	17	16	15	14
12) Ø Ø 551)		24	19	20	21	22	23

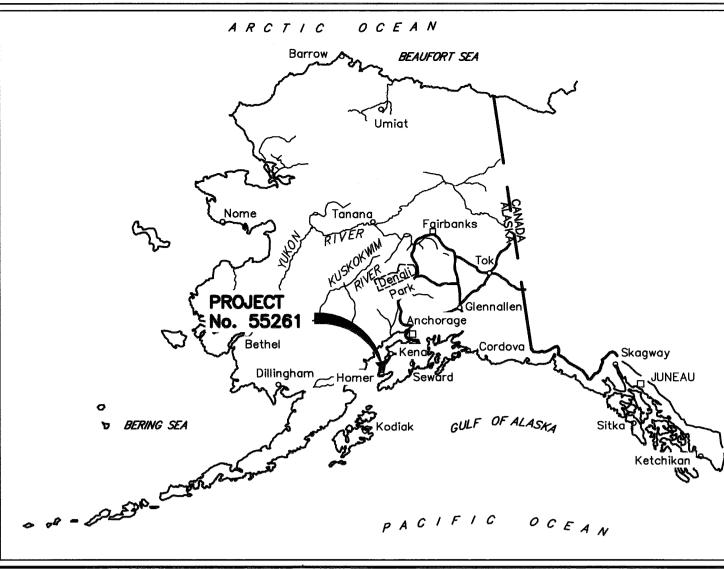


SURVEYOR'S CERTIFICATE

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 control to the extent shown hereon.

Michael E. Miller, LS-7222





HORIZONTAL CONTROL STATEMENT

Basis of Coordinates:

This project is located entirely within the HOM1 adjustment, a U.S. Survey Foot local surface grid coordinate system developed by the Alaska Department of Transportation & Public Facilities. The Basis of Coordinates is NGS Station "HOMAIR" (PID=TT0155), a brass disk having HOM1 coordinate values of 94,550.3619 N and 117,718.6803 E. Bearings are grid bearings as determined by GPS observations recorded May 24, 2013 through June 1, 2013 using Topcon dual frequency GPS receivers.

The Basis of Bearings is a local plane bearing between NGS Station "HOMAIR" (PID=TT0155) and AKDOT Control Point GPS-MP 173.0 2012. AKDOT Control Point GPS-MP 173.0 2012 bears N 83°44'29" W a distance of 10033.57 U.S. Survey Feet from NGS Station "HOMAIR" (PID=TT0155). AKDOT Control Point GPS-MP 173.0 2012 has HOM1 coordinates of 95,644.2072 N, and 107,744.9147 E.

Transformation Parameters:

The conversion from local coordinate system to Alaska State Plane coordinate system, Zone 4, NAD1983(NSRS2007): translate the local coordinates using +1,968,487.1707 feet North and +1,246,708.6707 feet East; then scale resulting coordinates using a scale factor of 1.0000060627.

The conversion from Alaska State Plane coordinate system, Zone 4, NAD1983(NSRS2007) to local surface grid coordinates; scale the State Plane coordinates using a scale factor of 0.9999939374; then translate the resulting coordinates using -1,968,487.1707 feet North and -1,246,708.6707 feet East.

VERTICAL CONTROL STATEMENT

Elevations are NAVD88 orthometric heights expressed in US Feet. The Basis of Elevations is NGS Station "HOMAIR" (PID=TT0155), having a value of 70.49 US Feet. The NAVD 88 orthometric height for this point is taken from the Record of Survey, AKSAS Project No.(s) 54130, 54140, 58106, Sterling Highway Pavement Preservation, Kenai Peninsula, Alaska, recorded as Plat No. 2012—5, Homer Recording District. The NAVD 88 orthometric height for all other listed control points was determined by GPS observations recorded May 24, 2013 through June 1, 2013 using Topcon dual frequency GPS receivers and a high-resolution geoid model (Geoid-2012A), except as noted below.

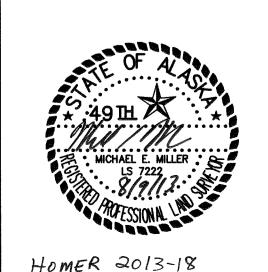
A Topcon DL-502 digital level was used for all leveling on this project, which was limited to leveling between individual monuments in each azimuth pair, but not between azimuth pairs. Control Points 21, 24, 26, 27 and 29 were held in length weighted adjustments. The accompanying monument of the pair was adjusted to match. All of the level loops closed within Third—Order tolerances per Federal Geodetic Control Committee Standards and Specifications for Geodetic Control Networks.

NOTES:

- 1. The information shown hereon is based on a field survey performed by McClintock Land Associates, Inc. from May 22, 2013 through June 4, 2013. Background information depicted is shown for orientation only and should not be used for any other purpose.
- 2. The purpose of this survey was to provide new survey control and tie existing monuments that might be disturbed during resurfacing activities on East End Road and Old East End Road.
- 3. 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 Tools. All recovered monuments were located using Static GPS techniques for positioning. This survey meets or exceeds 1:10.000 closure.
- 4. The road right—of—way and property lines are shown for background and orientation only. A true boundary survey was not a part of this survey and no determination has been made to ensure the boundaries are depicted in the proper location. PLSS monuments shown are in their true location related to the project coordinate system. There was no attempt to rectify the background information such that monuments appear to fall in the proper relationship to section and subdivision of section lines.
- 5. The centerlines of East End Road and Old East End Road were asbuilt this survey.
- 6. All dimensions and coordinates shown are in U.S. Survey Feet unless otherwise noted.
- 7. Micheal P. Frame, PLS (LS6093) was the field surveyor for this project.

Homer Recording District State Business — No Fee This survey does not constitute a subdivision as defined by AS 40.15.900



HOMER RECORDING DISTRICT CHECKED MF

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION

PUBLIC FACILITIES

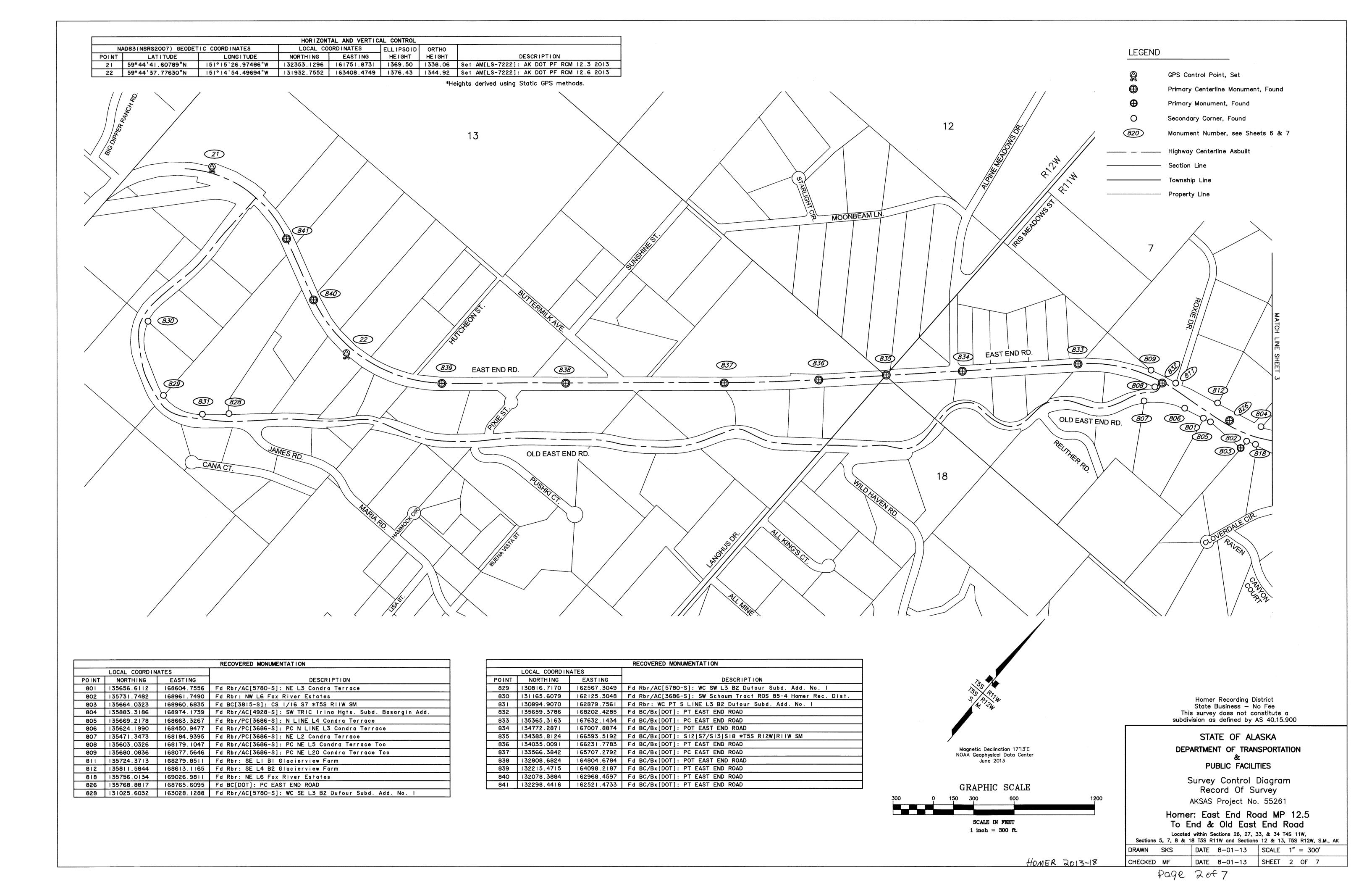
Survey Control Diagram Record Of Survey AKSAS Project No. 55261

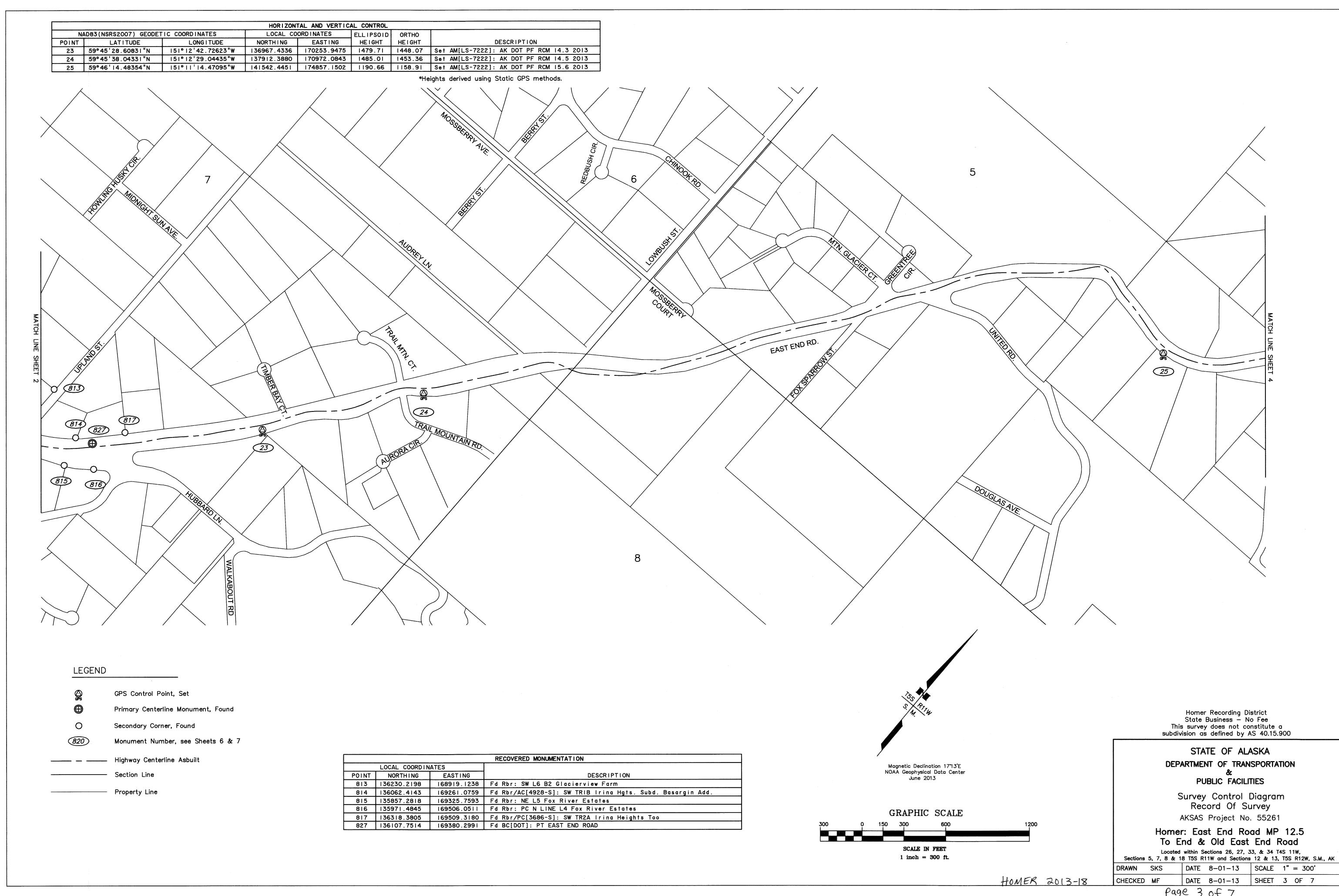
Homer: East End Road MP 12.5 To End & Old East End Road

DATE 8-01-13 | SHEET 1 OF 7

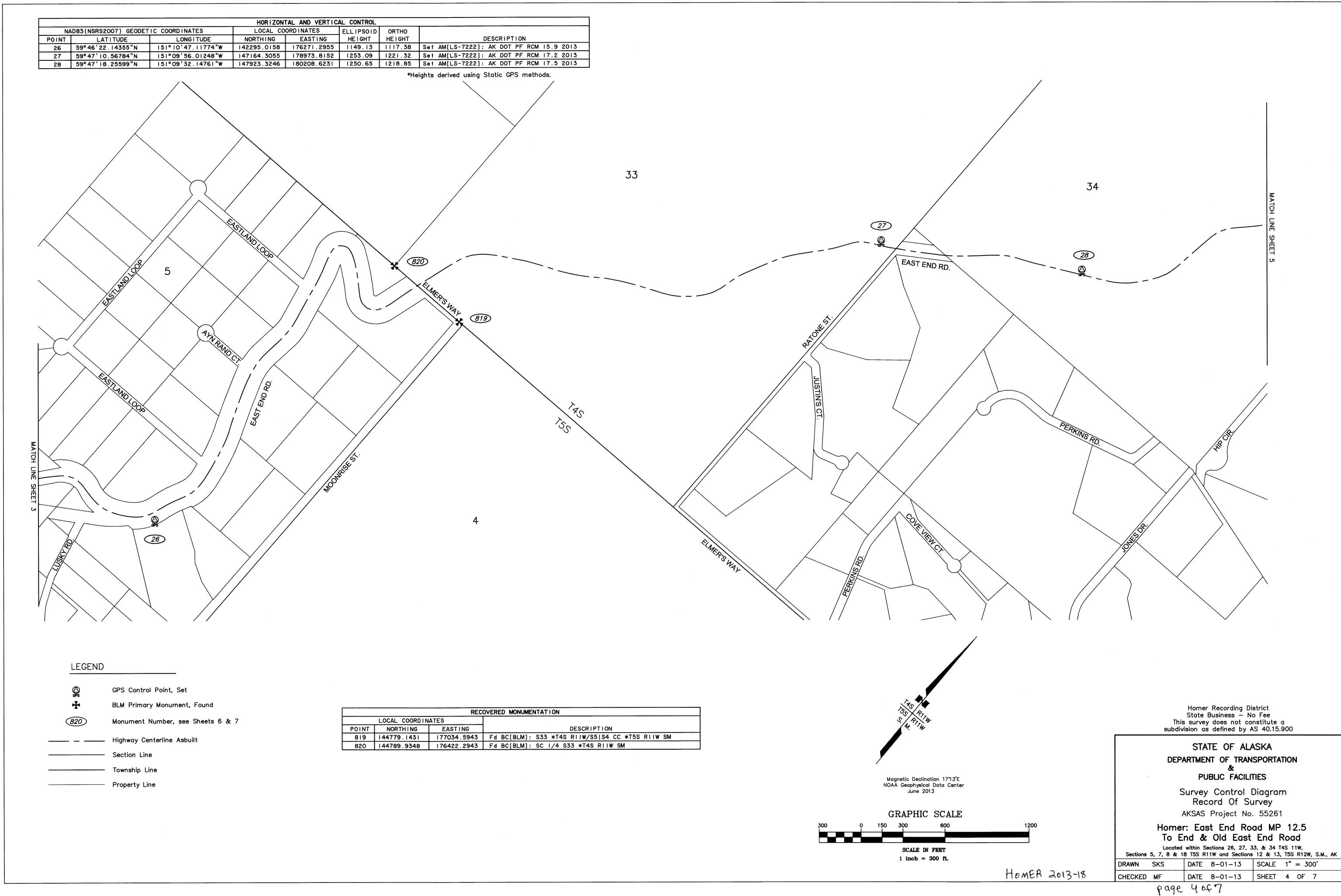
Located within Sections 26, 27, 33, & 34 T4S 11W, Sections 5, 7, 8 & 18 T5S R11W and Sections 12 & 13, T5S R12W, S.M., AK DATE 8-01-13 | SCALE 1" = 2000'

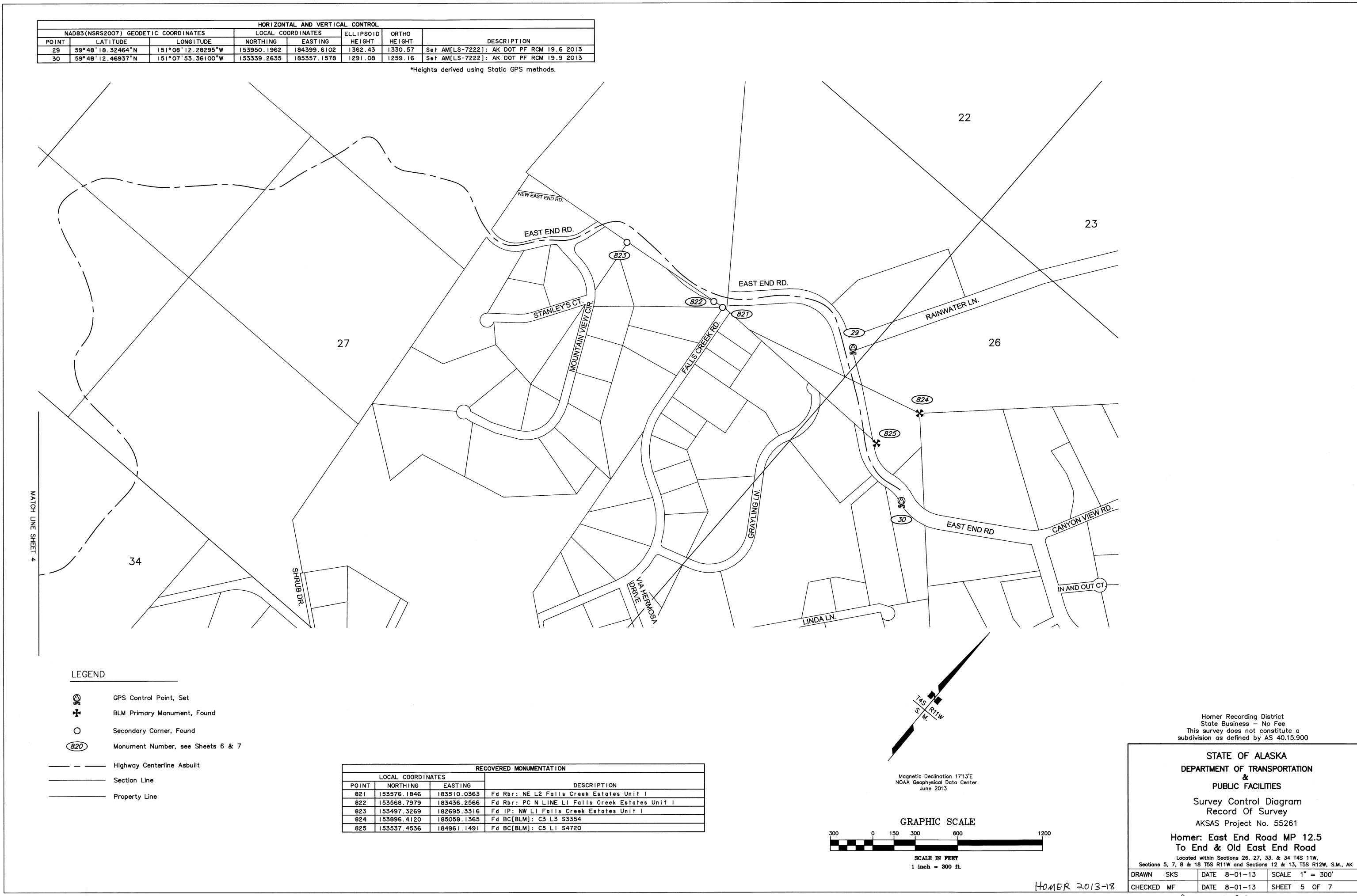
page 10f7





Page 3 of 7





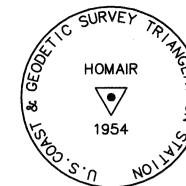
Page 5 of 7

Sheet 1 Control Monuments

MP 173.0 •

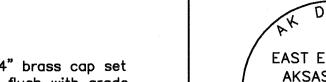
(12)

Found 9/16" stainless steel rod with 2 1/2" brass donut 0.3' below lip of 4" steel pipe case that is flush with ground. Good condition.



(551)

Found 3 1/4" brass cap set in concrete, flush with grade, severely scarred, stable condition.





Set 2 1/2"x30" alum. post, 29" in the ground, with $3 \frac{1}{4}$ " alum. cap marked as shown, with a clear magnet at base. Carsonite post N25W, 1.0 ft.

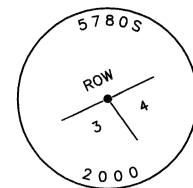
EAST END ROAD AKSAS 55261

RCM 12.6 2013

Sheet 2 Monuments

(22)

Set 2 1/2"x30" alum. post, 30" in the ground, with 3 1/4" alum. cap marked as shown, with a clear magnet at base. Carsonite post South, 1.0 ft.



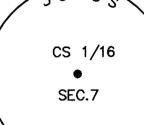
(801

Found 2" alum. cap on 5/8" rebar, flush with grade. Cap leaning slightly to southeast; shot center of cap.



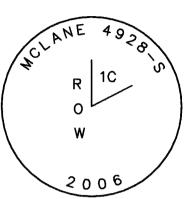
(802)

Found 5/8" rebar, projecting 0.25' above the ground, no cap. Good condition.



(803)

Found 2" brass cap on 1" iron pipe, 0.15' below grade. Good condition.

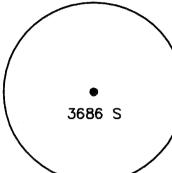


RCM 12.3

804

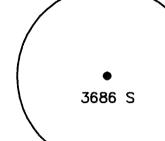
21

Found 2" alum. cap on 5/8" rebar, 0.75' above grade. Good condition.



(805)

Found 1 1/4" yellow plastic cap on 1/2" rebar, flush with grade. Good condition.



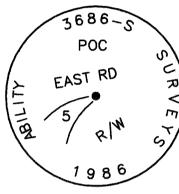
(806)

Found 1 1/4" yellow plastic cap on 1/2" rebar, 0.25' above grade. Good



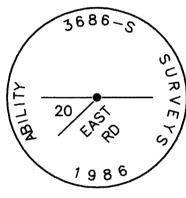
(807)

Found 1 1/4" yellow plastic cap on 1/2" rebar, 0.3' above grade. Good condition.



(808)

Found 2" alum. cap on 5/8" rebar, 0.3' below grade. Good condition.



(809)

Found 2" alum. cap on 5/8" rebar, 0.5' above grade. Good condition.



(811)

Found 5/8" rebar, 1.0' below grade, no cap. Good condition.



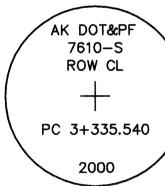
(812)

Found 5/8" rebar, projecting 0.25' above the ground, no cap. Good condition.



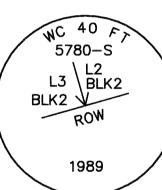
(818)

Found 5/8" rebar, 0.7' below grade, no cap. Good condition.



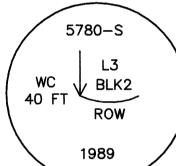
(826

Found 2 1/2" brass cap on 1" iron pipe, 0.3' below grade. Good condition.



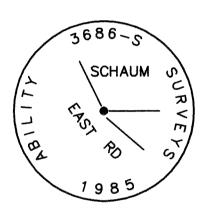
(828)

Found 2" alum. cap on 5/8" rebar, 0.3' above grade. Good condition.



(829)

Found 2" alum. cap on 5/8" rebar. 0.2' above grade. Good condition.



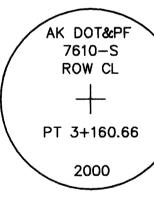
(830)

Found 2" alum. cap on 5/8" rebar, 0.25' above grade. Good condition.



(831)

Found 5/8" rebar, 0.2' below lip of water valve case that is flush with ground. Good condition.



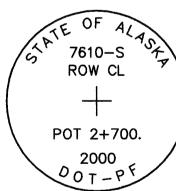
(832)

Found 2 1/2" brass cap on 1" iron pipe, 0.25' below lip of monument case that is flush with pavement. Good condition. No cover on monument case.



(833)

Found 2 1/2" brass cap on 1" iron pipe, 0.25' below lip of monument case that is flush with pavement. Good condition.



(834)

Found 2 1/2" brass cap on 1" iron pipe, 0.3' below lip of monument case that is flush with pavement. Good condition.



(835)

Found 2 1/2" brass cap on 1" iron pipe, 0.25' below lip of monument case that is flush with pavement. Cap markings partially legible.



7610-S

ROW-CL

PT 1+151.85

2000

00T-P

(836)

(840)

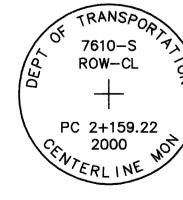
Found 2 1/2" brass cap on 1" iron pipe, 0.25' below lip of monument case that is flush with pavement. Most of the cap markings are illegible.

Found 2 1/2" brass cap (incorrectly

below lip of monument case that is

flush with pavement. Good condition.

marked PT) on 1" iron pipe, 0.3'



7610-S

ROW-CL

PT 1+000

OOT-P

(837

841

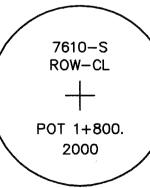
Found 2 1/2" brass cap on 1" iron pipe, 0.4' below lip of monument case that is flush with pavement. Good condition.

Found 2 1/2" brass cap on 1" iron

pipe, 0.25' below lip of monument

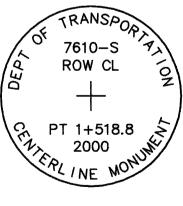
case that is flush with pavement.

Cap markings partially legible.



(838)

Found 2 1/2" brass cap on 1" iron pipe, 0.3' below lip of monument case that is flush with pavement Cap markings partially legible.



(839)

Found 2 1/2" brass cap on 1" iron pipe, 0.4' below lip of monument case that is flush with pavement. Good condition.

Homer Recording District State Business - No Fee This survey does not constitute a subdivision as defined by AS 40.15.900

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION PUBLIC FACILITIES

Survey Control Diagram Record Of Survey AKSAS Project No. 55261

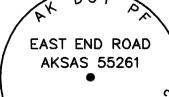
Homer: East End Road MP 12.5 To End & Old East End Road Located within Sections 26, 27, 33, & 34 T4S 11W,

Sections 5, 7, 8 & 18 T5S R11W and Sections 12 & 13, T5S R12W, S.M., AK DATE 8-01-13 | SCALE N/A CHECKED MF DATE 8-01-13 | SHEET 6 OF 7

HOMER 2013-18

Page 6077

Sheet 3 Monuments



2013

NO CAP

Set 2 1/2"x30" alum. post, 29" in the ground, with 3 1/4" alum. cap marked as shown, with a clear magnet at base. Carsonite post S50°E, 1.0 ft. RCM 14.3

(23)



(24) Set 2 1/2"x30" alum. post, 30" in the ground, with $3 \frac{1}{4}$ " alum. cap marked as shown, with a clear magnet at base. Carsonite post S50°E, 1.0 ft.



RCM 15.6

Set $2 \frac{1}{2}$ "x30" alum. post, 29" in the ground, with 3 1/4" alum. cap marked as shown, with a clear magnet at base. Carsonite post South, 1.0 ft.

(25)

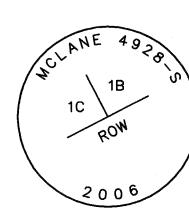
(817)

(27)



(813) Found 1/2" rebar, projecting 0.3' above the ground, no cap. Good

condition.



Found 2" alum. cap on 5/8" rebar, 0.3' above grade. Good condition.

(814)



Found 1/2" rebar, projecting 0.4' above the ground, no cap. Good condition.

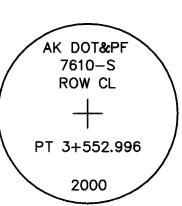


(816)

Found 1/2" rebar, projecting 0.2' above the ground, no cap. Good condition.

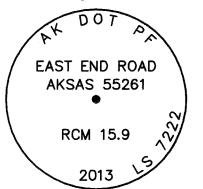


Found 2 1/2" red plastic cap on 5/8" rebar, 0.30' above grade. Good



Found 2 1/2" brass cap on 1" iron pipe, 0.4' above grade. Good condition.

Sheet 4 Monuments

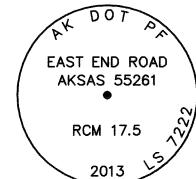


(26)

Set 2 1/2"x30" alum. post, 29" in the ground, with 3 1/4" alum. cap marked as shown. with a clear magnet at base. Carsonite post S65°E, 1.0 ft.

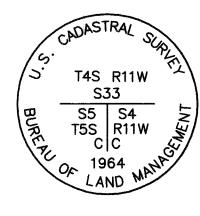


Set 2 1/2"x30" alum. post, 29" in the ground, with 3 1/4" alum. cap marked as shown, with a clear magnet at base. Carsonite post N30°W, 1.0 ft.



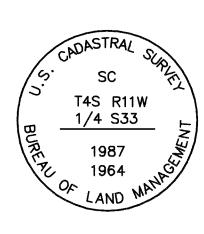
(28) Set 2 1/2"x30" alum. post,

29" in the ground, with 3 1/4" alum. cap marked as shown, with a clear magnet at base. Carsonite post N25°W, 1.0 ft.



(819)

Found 2 1/2" concrete filled iron post, leaning NE in swampy ground, projecting 0.1 above grade, with a 3 1/4" brass cap lying alongside. Plumbed iron post and left brass cap alongside.



(820)

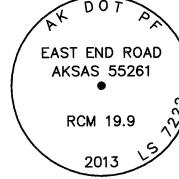
Found 3 1/4" brass cap on 2 1/2" iron post, 0.3' above grade. Good

Sheet 5 Monuments



(29)

Set 2 1/2"x30" alum. post, 30" in the ground, with $3 \frac{1}{4}$ " alum. cap marked as shown, with a clear magnet at base. Carsonite post N35°E, 1.0 ft.



(30)

Set 2 1/2"x30" alum. post, 30" in the ground, with $3 \frac{1}{4}$ " alum. cap marked as shown, with a clear magnet at base. Carsonite post South, 1.0 ft.



(821)

Found 1/2" rebar, 0.2' below grade, no cap and bent. Straightened and reset rebar.



822

Found 1/2" rebar, 0.2' above grade, no cap and bent. Straightened and reset rebar.

IRON PIPE NO CAP

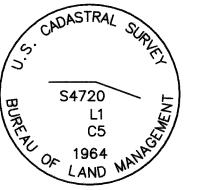
823

Found 1" iron pipe, 0.1' above grade, no cap. Good condition.



(824)

Found 3 1/4" brass cap on 2 1/2" iron post, 0.4' above grade, leaning to SE and alongside wooden fence post. Unable to straighten iron post, plumbed over base of iron post for



(825)

Found 3 1/4" brass cap on 2 1/2" iron post, flush with grade. Good

2013-18 Plat # HOMER Rec Dist 8-20-2019

Homer Recording District State Business — No Fee This survey does not constitute a subdivision as defined by AS 40.15.900

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION PUBLIC FACILITIES

Survey Control Diagram Record Of Survey AKSAS Project No. 55261

Homer: East End Road MP 12.5 To End & Old East End Road

Located within Sections 26, 27, 33, & 34 T4S 11W, Sections 5, 7, 8 & 18 T5S R11W and Sections 12 & 13, T5S R12W, S.M., AK DATE 8-01-13 | SCALE N/A DATE 8-01-13 | SHEET 7 OF 7 CHECKED MF

page 70f7