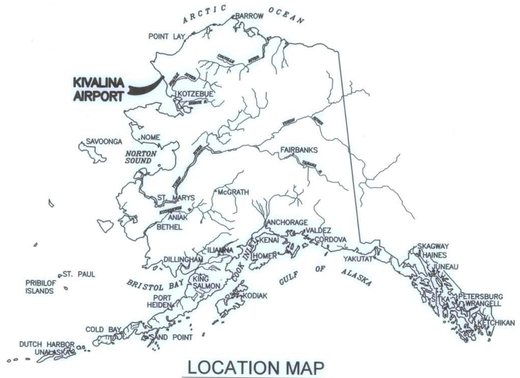
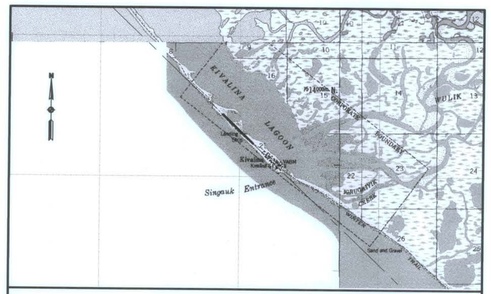


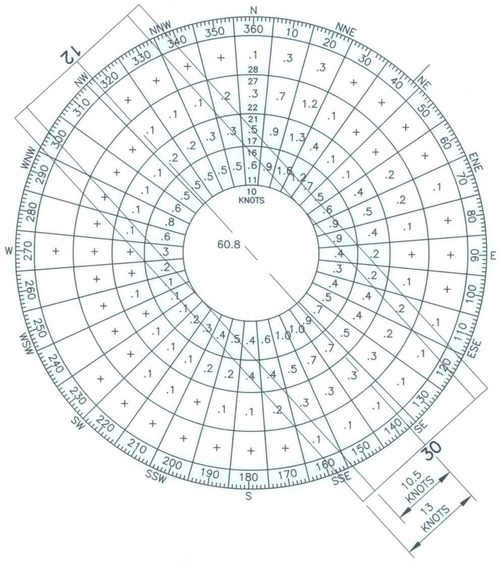
LOCATION MAP



KIVALINA, ALASKA
USGS NOATUK (D-6)
S35, T27N, R28W, FM

VICINITY MAP

SCALE: 1" = 1 MILE
0 1



WIND DATA

RUNWAY	10.5 kt (A-I)	13 kt (B-II)
12/30	79.82%	85.90%

SOURCE: NATIONAL WEATHER SERVICE/MESOWEST
STATION NAME: PAVL
PERIOD 11/2004 TO 7/2013
SAMPLED IN MILES PER HOUR

SHEET INDEX

SHEET NO.	TITLE
1	AIRPORT DATA
2	EXISTING AIRPORT LAYOUT PLAN
3	ULTIMATE AIRPORT LAYOUT PLAN
4	EXISTING INNER PORTION OF APPROACH SURFACE
5	ULTIMATE INNER PORTION OF APPROACH SURFACE
6	AIRPORT AIRSPACE (FAR PART 77)

LEGEND

ITEM	EXISTING	ULTIMATE
ANTENNA		
AIRPORT REFERENCE POINT		
BUILDING		
BUILDING RESTRICTION LINE	BRL	
BUSH		
CENTER LINE		
CONTOUR	100	
FUEL TANK		
LIGHTING		
PROPERTY LINE		
ROADWAY (GRAVEL)		
ROTATING BEACON		
RUNWAY (GRAVEL)		
RUNWAY OBJECT FREE AREA	OFA	OFA
RUNWAY OBSTACLE CLEARANCE SURFACE		
RUNWAY OBSTACLE FREE ZONE	OFZ	
RUNWAY SAFETY AREA	RSA	RSA
RUNWAY SHOULDER		
RUNWAY PROTECTION ZONE	RPZ	
SURVEY MONUMENT		
TAXIWAY (GRAVEL)		
WATERBODY		
WIND CONE		

GEOGRAPHIC COORDINATES (NAD 83) & ELEVATIONS (NAVD 88)

ITEM	EXISTING LATITUDE	EXISTING LONGITUDE	EXISTING ELEVATION	ULTIMATE LATITUDE	ULTIMATE LONGITUDE	ULTIMATE ELEVATION
AIRPORT REFERENCE POINT	67°44'10.14"N	164°33'48.59"W	N/A	SAME	SAME	SAME
THRESHOLD RW 12	67°44'20.95"N	164°34'15.07"W	16.08'	SAME	SAME	SAME
THRESHOLD RW 30	67°43'59.34"N	164°33'22.10"W	17.79'	SAME	SAME	SAME

PACS & SACS

PID	DESIGNATION	LATITUDE	LONGITUDE	ELLIPSOID HEIGHT	NORTHING	EASTING	ELEVATION	DESCRIPTION
DN5562	KVL A	67°44'01.65"N	164°33'22.31"W	9.68'	5022412.10	1840758.85	10.01'	PACS
DN5563	KVL B	67°44'24.08"N	164°34'18.87"W	9.62'	5024641.57	1838526.31	9.99'	SACS
DN5564	KVL C	67°43'46.66"N	164°32'44.55"W	15.79'	5020923.73	1842249.60	16.10'	SACS

NOTES

1. THIS ALP DRAWING SET IS UPDATED BASED ON AN AIRPORT OBSTRUCTION CHART SURVEY (AOC) COMPLETED BY USKH INC. IN 2011 IN ACCORDANCE WITH FAA AC 150/5300-18B. THIS ALP WAS UPDATED IN ACCORDANCE WITH FAA AC 150/5300-13A AND 150/5070-6B IN JUNE 2013.
2. VERTICAL DATUM IS NAVD 1988 USING GEOID09AK AND REFERENCING PACS "KVL A"
3. HORIZONTAL DATUM IS NAD83 (2007). DRAWING COORDINATES ARE ALASKA STATE PLANE ZONE 8, U.S. SURVEY FEET, UNLESS NOTED OTHERWISE.

AIRPORT DATA

ITEM	EXISTING	ULTIMATE
ICAO IDENTIFIER	PAVL	SAME
NATIONAL AIRPORT IDENTIFIER	KVL	SAME
FAA SITE NUMBER	50417.*A	SAME
AIRPORT REFERENCE CODE (ARC)	A-I	B-II
NPIAS SERVICE LEVEL (P, CS, R, GA)	CS	SAME
AIRPORT ELEVATION (NAVD88)	18.41'	SAME
MEAN MAX. TEMPERATURE, HOTTEST MONTH	52°, JULY	SAME
OBSTRUCTION SURVEY SOURCE & TYPE	AOC (SEE NOTES)	SAME
MAGNETIC DECLINATION, YEAR, RATE OF CHANGE	12°14'42"E, 2015 0°17.1'W / YEAR	SAME
AIRPORT AND TERMINAL NAVIGATION AIDS	AWOS, WINDCONE, GPS, ROTATING BEACON	SAME

RUNWAY 12-30 DATA

ITEM	EXISTING	ULTIMATE
FAR PART 77 APPROACH CATEGORY (UTILITY, OTHER THAN UTILITY)	UTILITY	SAME
FAR PART 77 APPROACH TYPE (V, C, NPA, PA)	NPA	SAME
RUNWAY DESIGN CODE (RDC)	A-I-5000	B-II-5000
RUNWAY REFERENCE CODE (RRC)	A-I-5000	B-II-5000
CRITICAL AIRCRAFT	CESSNA 208	SAME
FAR PART 77 APPROACH SLOPE	20:1	SAME
APPROACH TSS SLOPE	20:1	SAME
VISIBILITY MINIMUM	≥1 SM	SAME
RUNWAY SURFACE	GRAVEL	SAME
PAVEMENT STRENGTH (SW,DW,DTW x1000lbs)	N/A	SAME
TRUE MEAN BEARING	S 42°54'12" E	SAME
MAXIMUM ELEVATION ABOVE MSL	N/A	SAME
EFFECTIVE GRADE	0.057%	SAME
RUNWAY TOUCHDOWN ZONE ELEVATIONS (NAVD 88)	RW 12: 18.41'	SAME
	RW 30: 18.41'	SAME
RUNWAY DIMENSIONS	60' x 3000'	75' x 3000'
RUNWAY SAFETY AREA (RSA) DIMENSIONS	120' x 3480'	150' x 3600'
RSA LENGTH BEYOND RW ENDS	240'	300'
RUNWAY PROTECTION ZONE (RPZ) DIMENSIONS	500'x700'x1000'	SAME
RUNWAY OBJECT FREE AREA (ROFA) DIMENSIONS	400' x 3480'	500' x 3600'
ROFA LENGTH BEYOND RW ENDS	240'	300'
RUNWAY OBSTACLE FREE ZONE (ROFZ) DIMENSIONS	250' x 3400'	SAME
PRECISION OBJECT FREE ZONE (POFZ) DIMENSIONS	N/A	SAME
RUNWAY LIGHTING TYPE	MIRL	SAME
RUNWAY MARKING TYPE (P, NP, NONE)	NONE	SAME
RUNWAY VISUAL APPROACH AIDS	NONE	SAME
RUNWAY LANDING AIDS	RNAV/GPS	SAME

TAXIWAY DATA

ITEM	EXISTING	ULTIMATE
TAXIWAY DESIGN GROUP	2	SAME
TAXIWAY DIMENSIONS	45' x 1600'	SAME
TAXIWAY SHOULDER WIDTH	10'	SAME
SEPARATION FROM PARALLEL RUNWAY	N/A	SAME
TAXIWAY (TSA) WIDTH	79'	SAME
TAXIWAY OBJECT FREE AREA (TOFA) WIDTH	131'	SAME
TAXIWAY LIGHTING	MITL	SAME
TAXIWAY MARKING	NONE	SAME

NON-STANDARD CONDITIONS

ITEM	STANDARD	EXISTING	ULTIMATE
LANDFILL SEPARATION	10,000'	1,800'	SAME
R/W 12 THRESHOLD LIGHTS	INBOARD (2'-10' OFFSET)	INBOARD (0' OFFSET)	INBOARD (2'-10' OFFSET)

DESIGN LLC
DRAWN TCK
CHECKED JGL

BY	DATE	REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION

APPROVED Albert M Beck DATE 5/12/14
ALBERT M.L. BECK, P.E. DESIGN GROUP CHIEF

AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL SUBJECT TO ALP APPROVAL LETTER DATED 8/11/14
FAA AIRSPACE REVIEW NUMBER: 2001-AAL-48-NRA

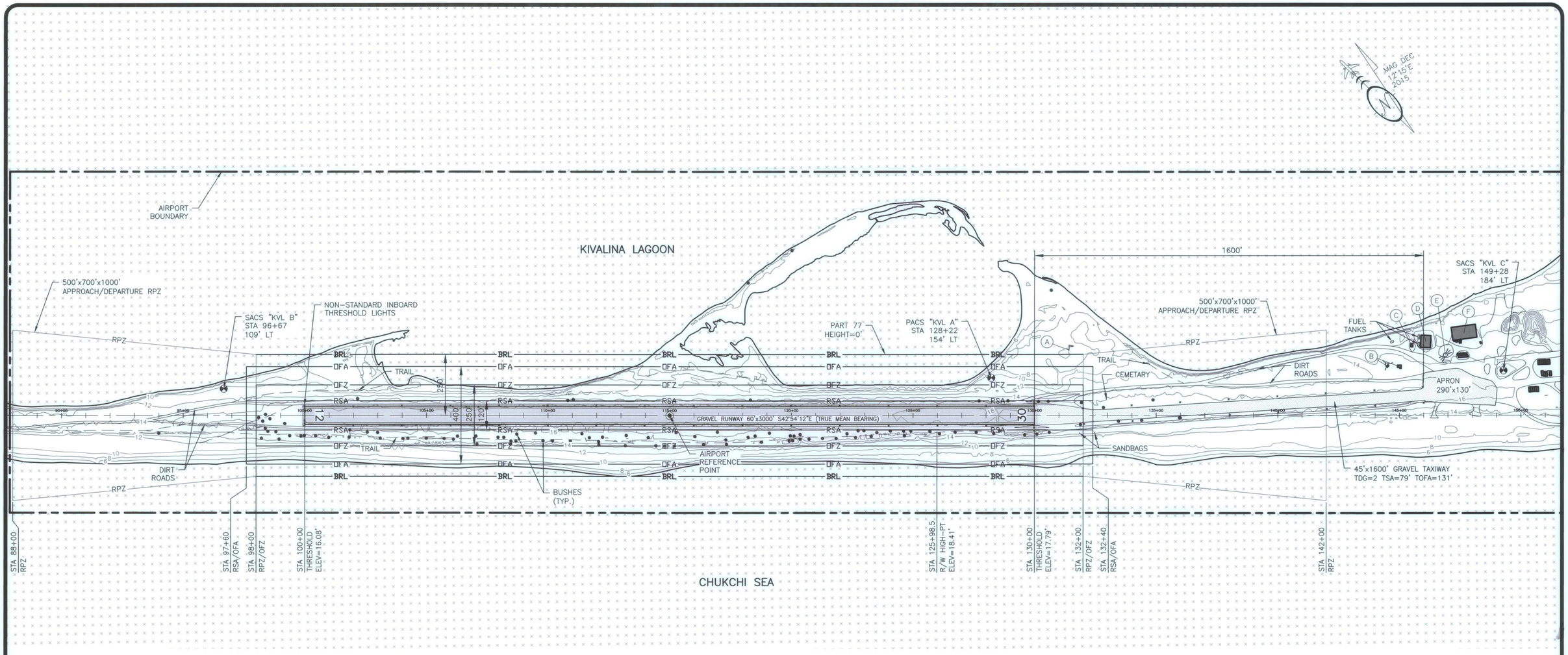
Pat Doi DATE: 8/11/14
FAA, AIRPORTS DIVISION ALASKAN REGION, AAL-607

KIVALINA AIRPORT
KIVALINA, ALASKA

AIRPORT DATA

SHEET 1 OF 6

DRAWING NAME: C:\Windows\Temp\AcPublish_8732\1309900KVL_ALP01.dwg PLOTTED: May 07, 2014 - 11:07am



BUILDINGS/FACILITIES

BLD/FAC	DESCRIPTION	STATION/OFFSET	TOP ELEV.
(A)	LIGHTED WINDCONE	131+42/267' LT	30.2'
(B)	AWOS W/OBST. LIGHTING	144+48/209' LT	46.7'
(C)	ELECTRICAL EQUIPMENT ENCLOSURE	145+50/285' LT	21.4'
(D)	SREB	146+10/300' LT	33.1'
(E)	ROTATING BEACON	146+90/247' LT	47.6'
(F)	STORAGE BUILDING	147+65/340' LT	27.0'

DESIGN LLC
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CHECKED JGL

BY	DATE	REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION
APPROVED
ALBERT M.L. BECK, P.E. DESIGN GROUP CHIEF
DATE 5/12/14

AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL SUBJECT TO ALP APPROVAL LETTER DATED 8/11/14
FAA AIRSPACE REVIEW NUMBER: 2001-AAL-48-NRA
FAA, AIRPORTS DIVISION ALASKAN REGION, AAL-607 DATE: 8/11/14

KIVALINA AIRPORT
KIVALINA, ALASKA

EXISTING
AIRPORT LAYOUT PLAN

SHEET 2 OF 6

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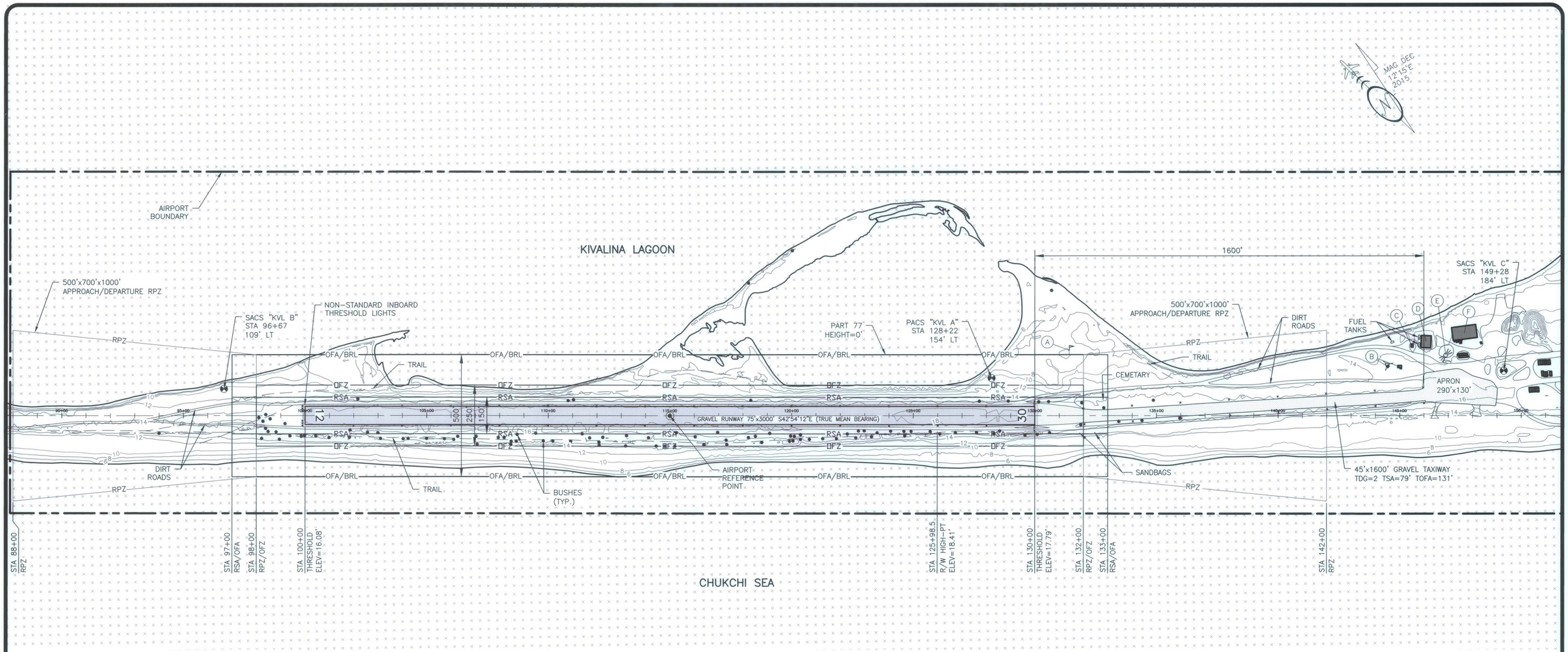

BUILDINGS/FACILITIES

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(A)	LIGHTED WINDCONE	131+42/267' LT	30.2'
(B)	AWOS W/OBST. LIGHTING	144+48/209' LT	46.7'
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(D)	SREB	146+10/300' LT	33.1'
(E)	ROTATING BEACON	146+90/247' LT	47.6'
(F)	STORAGE BUILDING	147+65/340' LT	27.0'

DESIGN LLC
DRAWN TCK
CHECKED JGL

BY	DATE	REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION
APPROVED Albert M Beck
ALBERT M.L. BECK, P.E. — DESIGN GROUP CHIEF — DATE 5/12/14

AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL SUBJECT TO ALP APPROVAL LETTER DATED 8/11/14
FAA AIRSPACE REVIEW NUMBER: 2001-AAL-48-NRA
FAA, AIRPORTS DIVISION ALASKAN REGION, AAL- DATE: 8/11/14

KIVALINA AIRPORT
KIVALINA, ALASKA

ULTIMATE AIRPORT LAYOUT PLAN

SHEET 3 OF 6

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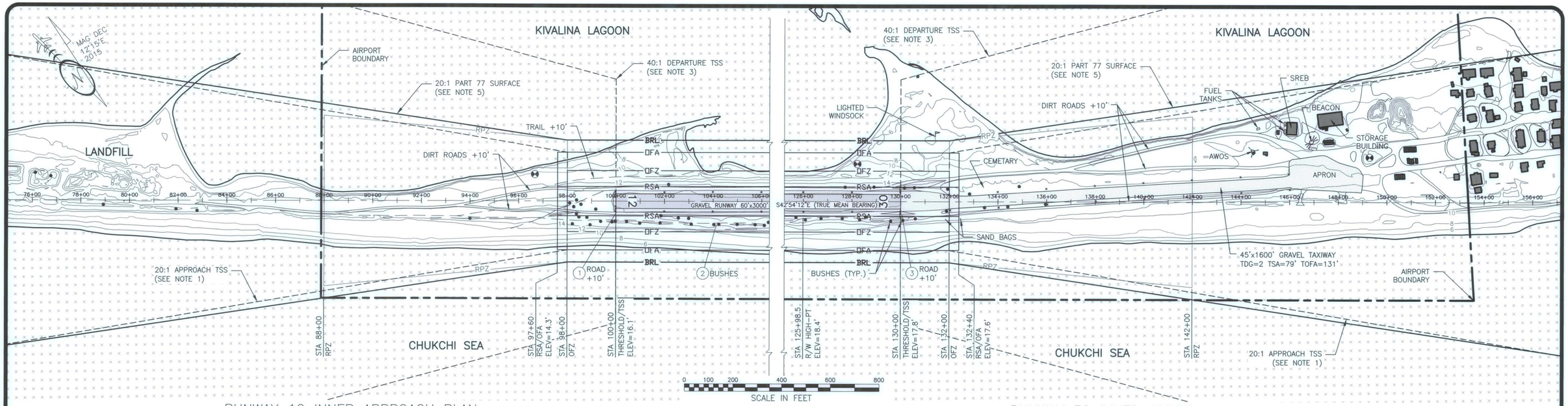
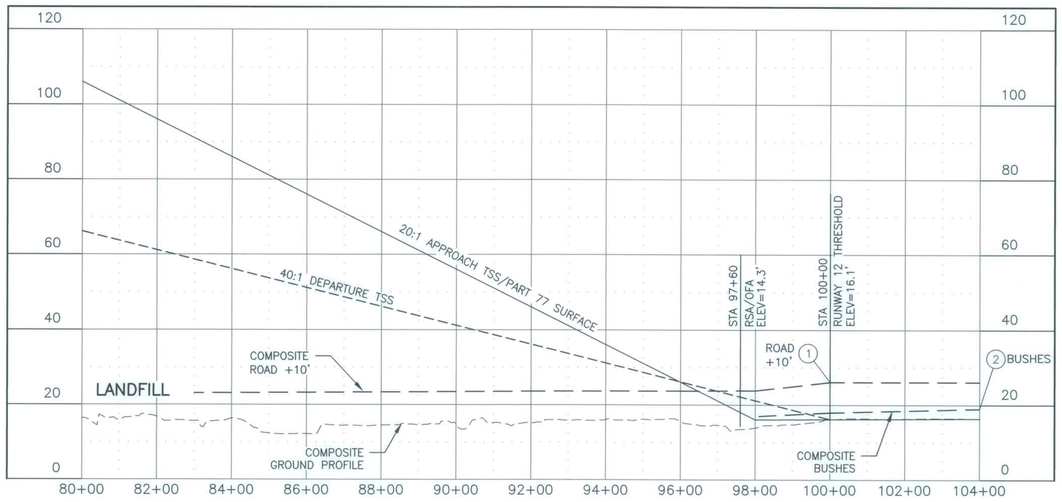
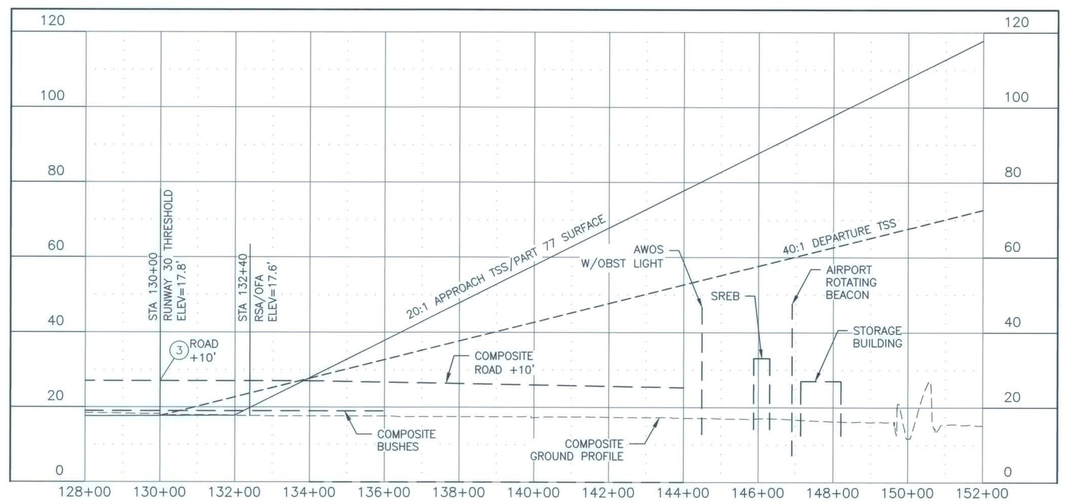


RUNWAY 12 INNER APPROACH PLAN

RUNWAY 30 INNER APPROACH PLAN



RUNWAY 12 INNER APPROACH PROFILE



RUNWAY 30 INNER APPROACH PROFILE

OBSTRUCTION TABLE (INNER PORTION R/W 12)

ID #	DESCRIPTION	STATION/OFFSET	ELEV.	SURFACE ELEV.	SURFACE PENETRATED	SURFACE PENETRATION	DISPOSITION
1	ROAD +10'	100+00/50' RT	25.1'	16.1'	TSS/PART 77	9.0'	NONE
2	BUSHES	100+00/50' RT	19.2'	16.3'	PRIMARY	2.9'	REMOVE

GENERAL NOTES:

1. APPROACH TSS DIMENSION = 400'x3800'x10000' (TYPE 4, TABLE 3-2, AC 150/5300-13A)
2. APPROACH TSS SLOPE EXTENDS 10000' AT 20:1
3. DEPARTURE TSS DIMENSION = 1000'x6466'x10200'
4. DEPARTURE TSS SLOPE EXTENDS 10200' AT 40:1
5. PART 77 APPROACH SURFACE DIMENSION = 500'x2000'x5000'
6. PART 77 APPROACH SURFACE EXTENDS 5000' AT 20:1
7. PART 77 ROAD OBSTRUCTION HEIGHTS ARE INCLUDED (10' FOR PRIVATE ROAD & 15' FOR PUBLIC ROAD)
8. R/W 12 HAS OBSTACLE FREE ZONE & THRESHOLD SITING SURFACE PENETRATIONS.
9. R/W 30 HAS OBSTACLE FREE ZONE & THRESHOLD SITING SURFACE PENETRATIONS.

OBSTRUCTION TABLE (INNER PORTION R/W 30)

ID #	DESCRIPTION	STATION/OFFSET	ELEV.	SURFACE ELEV.	SURFACE PENETRATED	SURFACE PENETRATION	DISPOSITION
3	ROAD +10'	130+00/50' RT	27.0'	18.0'	TSS/PART 77	9.0'	NONE

DESIGN LLC
DRAWN TCK
CHECKED JGL

BY	DATE	REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION

APPROVED _____ DATE 5/12/14
ALBERT M.L. BECK, P.E. DESIGN GROUP CHIEF

AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL SUBJECT TO ALP APPROVAL LETTER DATED 8/11/14
FAA AIRSPACE REVIEW NUMBER: 2001-AAL-48-NRA

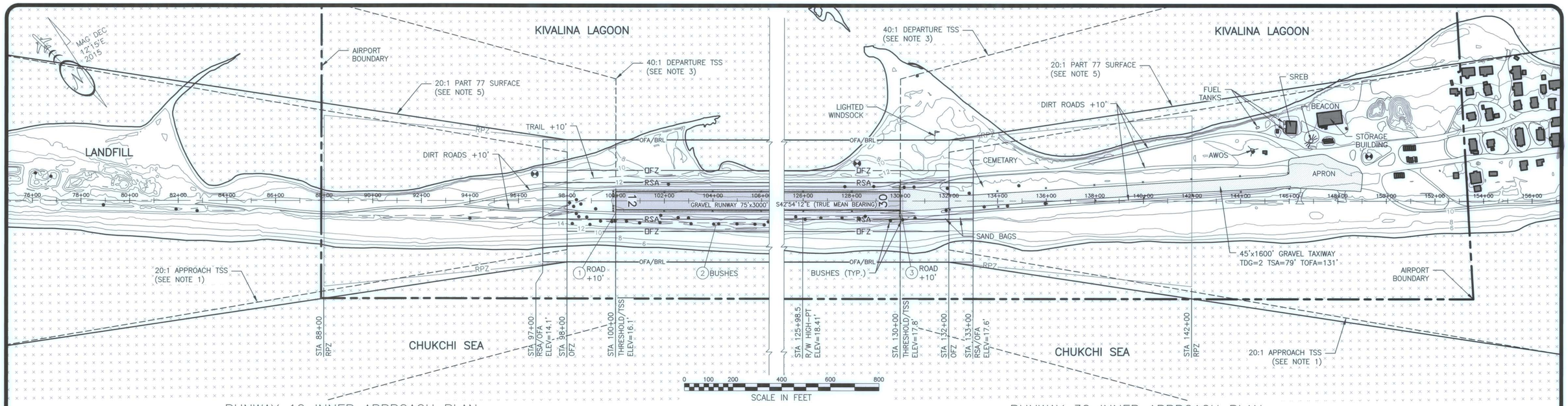
_____ DATE: 8/11/14
FAA, AIRPORTS DIVISION ALASKAN REGION, AAL-603

KIVALINA AIRPORT
KIVALINA, ALASKA

EXISTING
INNER PORTION OF APPROACH SURFACE

SHEET 4 OF 6

DRAWING NAME: I:\1309900\Kivalina Airport\Dwgs\CS Sheets\1309900KVL_ALP04.dwg PLOTTED: May 07, 2014 - 11:08am



RUNWAY 12 INNER APPROACH PLAN

RUNWAY 30 INNER APPROACH PLAN

RUNWAY 12 INNER APPROACH PROFILE

RUNWAY 30 INNER APPROACH PROFILE

OBSTRUCTION TABLE (INNER PORTION R/W 12)

ID #	DESCRIPTION	STATION/OFFSET	ELEV.	SURFACE ELEV.	SURFACE PENETRATED	SURFACE PENETRATION	DISPOSITION
①	ROAD +10'	100+00/50' RT	25.1'	16.1'	APPROACH TSS	9.0'	NONE
②	BUSHES	100+00/50' RT	19.2'	16.3'	TRANSITIONAL	2.9'	REMOVE

GENERAL NOTES:

1. APPROACH TSS DIMENSION = 400'x3800'x10000' (TYPE 4, TABLE 3-2, AC 150/5300-13A)
2. APPROACH TSS SLOPE EXTENDS 10000' AT 20:1
3. DEPARTURE TSS DIMENSION = 1000'x6466'x10200'
4. DEPARTURE TSS SLOPE EXTENDS 10200' AT 40:1
5. PART 77 APPROACH SURFACE DIMENSION = 500'x2000'x5000'
6. PART 77 APPROACH SURFACE EXTENDS 5000' AT 20:1
7. PART 77 ROAD OBSTRUCTION HEIGHTS ARE INCLUDED (10' FOR PRIVATE ROAD & 15' FOR PUBLIC ROAD)
8. R/W 12 HAS OBSTACLE FREE ZONE & THRESHOLD SITING SURFACE PENETRATIONS.
9. R/W 30 HAS OBSTACLE FREE ZONE & THRESHOLD SITING SURFACE PENETRATIONS.

OBSTRUCTION TABLE (INNER PORTION R/W 30)

ID #	DESCRIPTION	STATION/OFFSET	ELEV.	SURFACE ELEV.	SURFACE PENETRATED	SURFACE PENETRATION	DISPOSITION
③	ROAD +10'	130+00/50' RT	27.0'	18.0'	APPROACH TSS	9.0'	NONE

DESIGN LLC
DRAWN TCK
CHECKED JGL

BY	DATE	REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION

APPROVED Albert M. Beck
ALBERT M.L. BECK, P.E.
DATE 5/12/14
DESIGN GROUP CHIEF

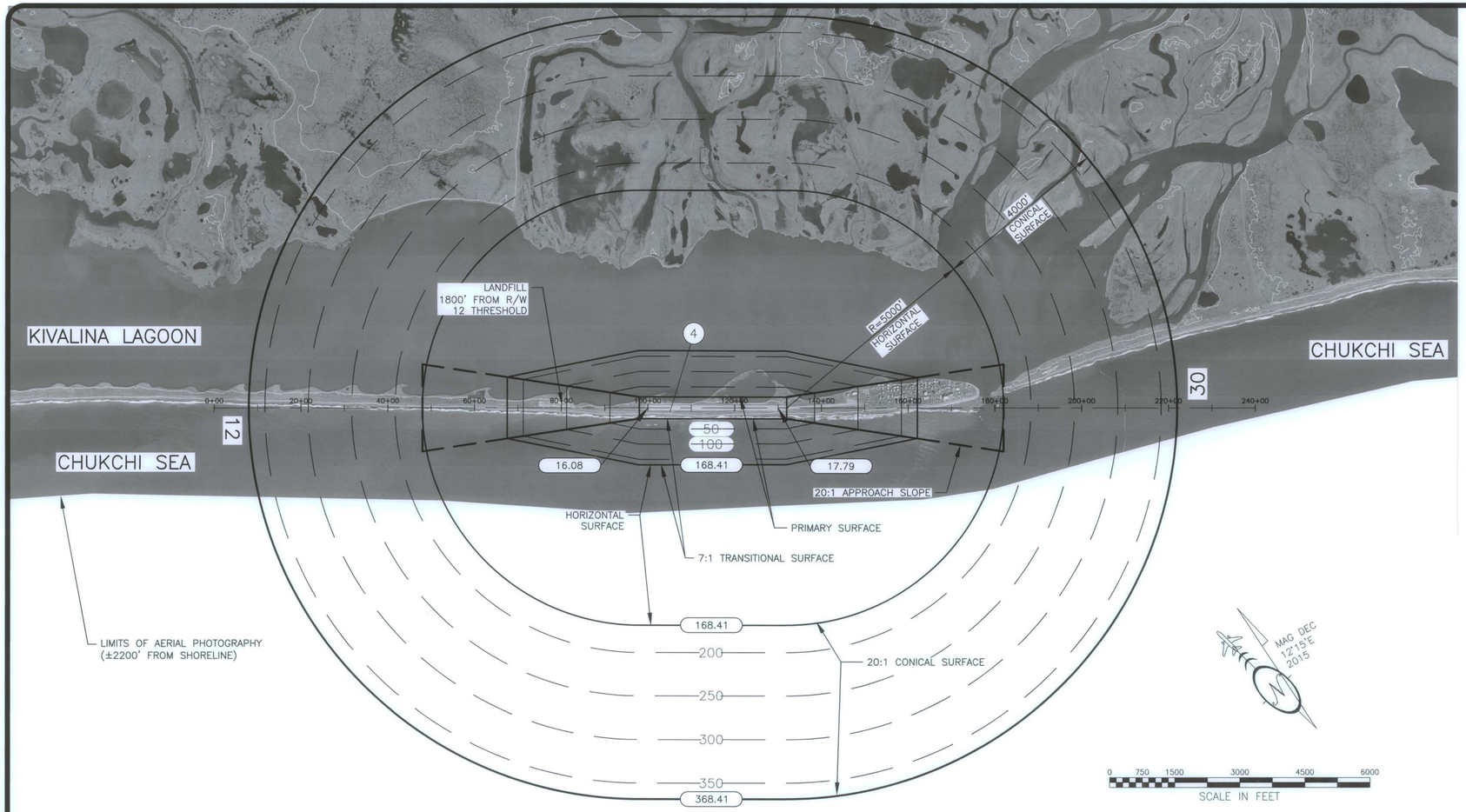
AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL SUBJECT TO ALP APPROVAL LETTER DATED 8/11/14
FAA AIRSPACE REVIEW NUMBER: 2001-AAL-48-NRA
DATE: 8/11/14
FAA, AIRPORTS DIVISION ALASKAN REGION, AAL-

KIVALINA AIRPORT
KIVALINA, ALASKA

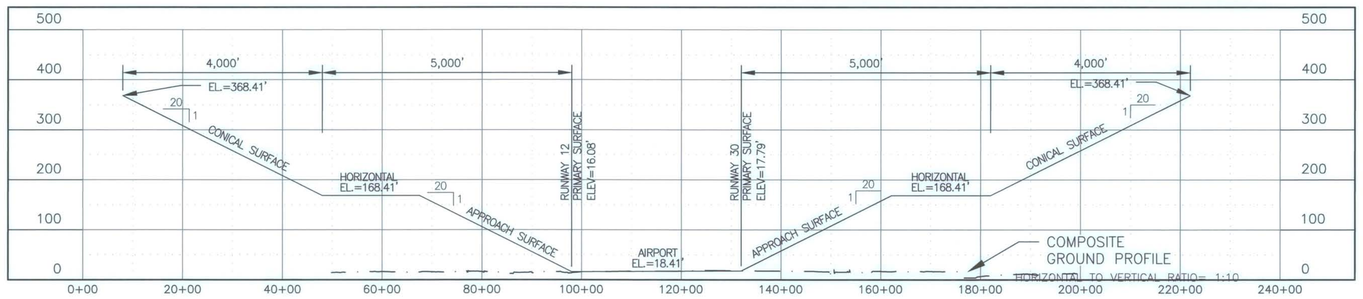
ULTIMATE
INNER PORTION OF APPROACH SURFACE

SHEET 5 OF 6

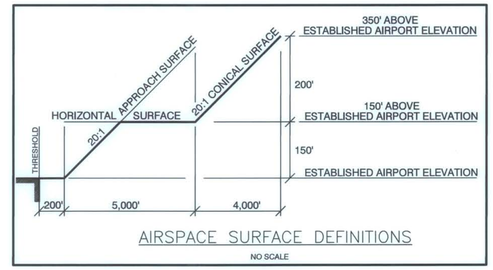
DRAWING NAME: i:\1309900\Kivalina Airport\Dwgs\C\Sheets\1309900KVL_ALP05.dwg PLOTTED: May 07, 2014 - 11:09am



AIRSPACE PLAN



AIRSPACE PROFILE



AIRSPACE SURFACE DEFINITIONS

NO SCALE

LEGEND

168.41	AIRSPACE ELEVATION (SURFACE DIVIDERS)
	AIRSPACE SURFACE DIVIDERS (NON CONTROLLING)
200	AIRSPACE ELEVATION (50' INCREMENTS)
10	EXISTING GROUND ELEVATIONS
	RUNWAY CENTERLINE (EXTENDED)

ULTIMATE RUNWAY F.A.R. PART 77 DIMENSIONS UTILITY, NPA, >1 S.M.

DESCRIPTION	DIMENSION
ESTABLISHED AIRPORT ELEVATION	18.41'
RUNWAY THRESHOLD ELEVATION	RW12: 16.08' \ RW30: 17.79
PRIMARY SURFACE	500'x3400'
HORIZONTAL SURFACE ELEVATION	168.41'
HORIZONTAL SURFACE RADIUS	5000'
APPROACH SURFACE	500'x2000'x5000'
APPROACH SURFACE SLOPE	20:1
CONICAL SURFACE WIDTH	4000' @ 20:1
TRANSITIONAL SURFACE SLOPE	7:1

F.A.R. PART 77 SURFACE OBSTRUCTION TABLE

ID #	DESCRIPTION	STATION/ OFFSET	ELEV.	SURFACE PENETRATED	SURFACE ELEV.	SURFACE PENETRATION	DISPOSITION
(4)	TERRAIN (HP)	105+00/95' RT	18.3'	PRIMARY	16.3'	2.0'	TO REMAIN

(HP=HIGH POINT OF TERRAIN OBSTRUCTION)

NOTES:

1. REFER TO INNER PORTION OF APPROACH SURFACE (SHEETS 4 & 5) FOR CLOSE IN OBSTRUCTIONS ANALYZED WITH THE THRESHOLD SITING AND PART 77 SURFACES.
2. THERE ARE NO KNOWN HEIGHT RESTRICTIONS.
3. REFER TO THE AIRPORT LAYOUT PLAN (SHEETS 2 & 3) FOR BUILDING LOCATIONS AND ELEVATIONS.
4. GROUND SURFACE INFORMATION WAS PROVIDED BY AN AERIAL MAPPING SUBCONTRACTOR. A CAREFUL COMPARISON WITH SURVEYED DATA WAS MADE TO ENSURE THAT ALL INFORMATION MEETS THE ACCURACY REQUIREMENTS ESTABLISHED IN AC 150/5300-18B.

DESIGN LLC
DRAWN TCK
CHECKED JGL

BY	DATE	REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
NORTHERN REGION

APPROVED Albert M Beck DATE 5/12/14
ALBERT M.L. BECK, P.E. DESIGN GROUP CHIEF

AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL SUBJECT TO ALP APPROVAL LETTER DATED 8/11/14
FAA AIRSPACE REVIEW NUMBER: 2001-AAL-48-NRA
DATE: 8/11/14
FAA, AIRPORTS DIVISION ALASKAN REGION, AAL-607

KIVALINA AIRPORT
KIVALINA, ALASKA

AIRPORT AIRSPACE (FAR PART 77)

SHEET 6 OF 6

DRAWING NAME: i:\1309900\Kivalina Airport\Dwgs\C\Sheets\1309900KVL_ALP06.dwg PLOTTED: May 07, 2014 - 11:09am