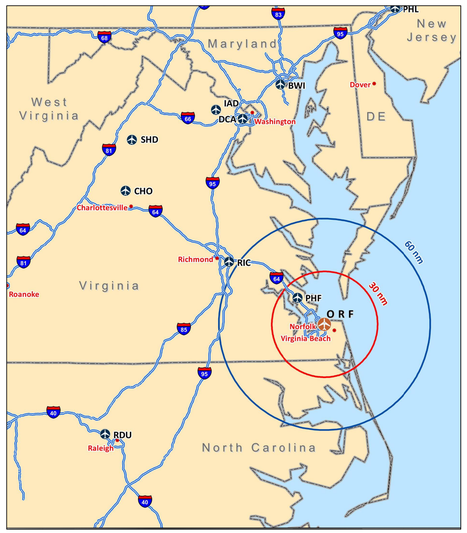
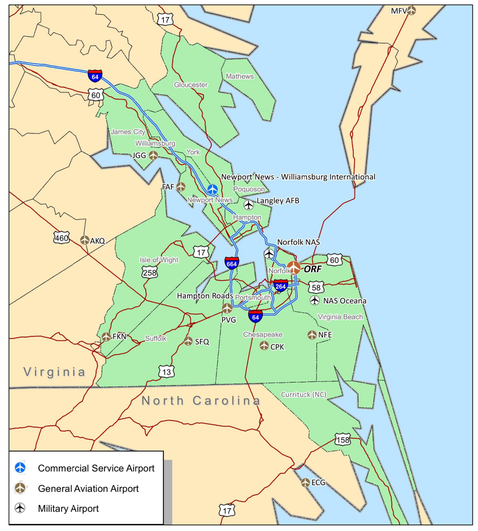
NORFOLK AIRPORT AUTHORITY
NORFOLK INTERNATIONAL AIRPORT
AIRPORT LAYOUT PLAN
February 2020 DRAFT

AREA RESERVED FOR
FAA APPROVAL LETTER



LOCATION MAP



VICINITY MAP

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NORFOLK AIRPORT AUTHORITY

APPROVED _____ DATE _____
Name
TITLE

VIRGINIA DEPARTMENT OF TRANSPORTATION

APPROVED _____ DATE _____
Name
TITLE

NO	DATE	REVISION	BY	CK.	APPR.

DESIGNED BY RTL
DRAWN BY PDH
REVIEWED BY NSL
APPROVED BY .

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NORFOLK INTERNATIONAL AIRPORT

PROJECT NAME
AIRPORT LAYOUT PLAN

DRAFT

SHEET TITLE
TITLE SHEET

JOB NO. 33370
DATE 02/11/2020
FILE NAME ORF_ALP-TITLE
REV. NO.
DWG. NO.

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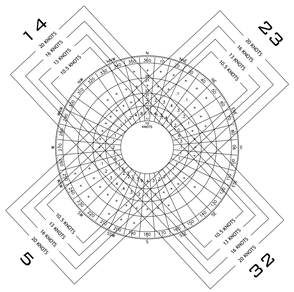
AIRPORT DATA		
2200 NORVIEW AVENUE		
NORFOLK, VA 23518-5807		
CITY OF NORFOLK		
ITEM	EXISTING	FUTURE
AIRPORT OWNER	NORFOLK AIRPORT AUTHORITY/CITY OF NORFOLK	
STATE SERVICE LEVEL	COMMERCIAL SERVICE (CM)	
NPIAS SERVICE LEVEL	PRIMARY (P)	
AIRPORT REFERENCE CODE // CRITICAL AIRCRAFT	D-IV // BOEING 757-200	D-IV // BOEING 767-300ER
MEAN MAXIMUM TEMPERATURE OF HOTTEST MONTH (NOAA)	87.4˚F / JULY	
AIRPORT ELEVATION (MSL) NAVD 88 STANDARDS	26.4'	
MAGNETIC DECLINATION	10°55' W ± 0°21' changing by 0°1' W per year	
	NOAA National Centers for Environmental Information (WMM2015)	
AIRPORT REFERENCE POINT NAD 83 STANDARDS	36˚53' 40.57" N 76˚12' 4.43" W	36˚53'37.07"N 76˚11'57.68"W
AIRPORT NAVIGATIONAL AIDS	ILS (CAT I), LOC/DME, PAPI-4, NDB, RVR, MALSR RNAV(GPS & RNP), WAAS/LPV	
MISCELLANEOUS FACILITIES	LIGHTED WIND CONES, AIRPORT SURVEILLANCE RADAR (ASR-9), HIRL, MITL, TDZL, C/L, AWOS	

VFR Windrose

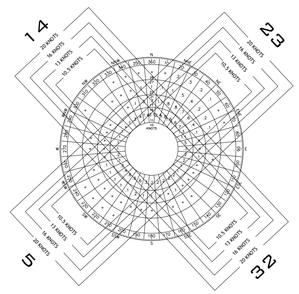


VFR Observations

RUNWAY	10.5 KNOTS	13 KNOTS	16 KNOTS	20 KNOTS
Runway 5/23	95.75%	98.27%	99.70%	99.96%
Runway 14/32	78.79%	87.17%	96.01%	99.04%
Combined	98.77%	99.72%	99.96%	100%

DATA SOURCE: NOAA National Center for Environmental Information - Southeast Regional Climate Center Chapel Hill, NC
Norfolk International Airport Norfolk, VA Station 723080
OBSERVATIONS: 92,646 Observations
2007-2017

IFR Windrose

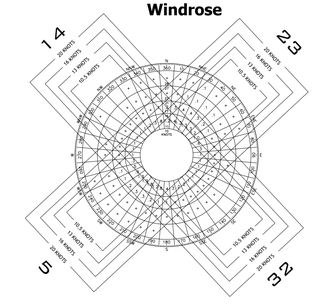


IFR Observations

RUNWAY	10.5 KNOTS	13 KNOTS	16 KNOTS	20 KNOTS
Runway 5/23	92.05%	96.34%	98.90%	99.75%
Runway 14/32	76.67%	84.58%	92.52%	96.68%
Combined	96.51%	98.88%	99.75%	99.98%

DATA SOURCE: NOAA National Center for Environmental Information - Southeast Regional Climate Center Chapel Hill, NC
Norfolk International Airport Norfolk, VA Station 723080
OBSERVATIONS: 15,056 Observations
2007-2017

All-Weather Windrose



All-Weather Observations

RUNWAY	10.5 KNOTS	13 KNOTS	16 KNOTS	20 KNOTS
Runway 5/23	95.56%	98.14%	99.62%	99.93%
Runway 14/32	80.00%	87.77%	95.89%	98.81%
Combined	98.58%	99.64%	99.93%	99.99%

DATA SOURCE: NOAA National Center for Environmental Information - Southeast Regional Climate Center Chapel Hill, NC
Norfolk International Airport Norfolk, VA Station 723080
OBSERVATIONS: 131,281 Observations
2007-2017

RUNWAY DATA

DESCRIPTION		RUNWAY 5-23				RUNWAY 14-32				RUNWAY 5R-23L			
		EXISTING		FUTURE		EXISTING		FUTURE		FUTURE		ULTIMATE	
		5	23	5L	23R	14	32	14	32	5R	23L	5R	23L
RUNWAY LENGTH		9,001'		9,001'		4,876'		TO BE CONVERTED TO TAXIWAY		5,500'		9,001'	
RUNWAY WIDTH		150'		150'		150'				100'		150'	
PAVEMENT TYPE // SURFACE TYPE		ASPHALT, CONCRETE, GROOVED		ASPHALT, CONCRETE, GROOVED		ASPHALT, GROOVED				CONCRETE, GROOVED		CONCRETE, GROOVED	
PAVEMENT CONDITION		FAIR		TBD		GOOD				N/A		N/A	
PAVEMENT CONDITION NUMBER		53 R/C/W/T		TBD		27 / F/A/W/T				N/A		N/A	
PAVEMENT STRENGTH (SINGLE)		150,000 LBS.		150,000 LBS.		75,000 LBS.				TBD		150,000 LBS.	
PAVEMENT STRENGTH (DUAL)		200,000 LBS.		200,000 LBS.		100,000 LBS.				TBD		200,000 LBS.	
PAVEMENT STRENGTH (DOUBLE TANDEM)		350,000 LBS.		350,000 LBS.		N/A				TBD		350,000 LBS.	
PAVEMENT STRENGTH (DUAL DOUBLE TANDEM)		475,000 LBS.		475,000 LBS.		N/A				TBD		475,000 LBS.	
EFFECTIVE RUNWAY GRADIENT		0.12%		0.12%		0.14%				TBD		TBD	
MAXIMUM RUNWAY GRADIENT		0.8%		0.8%		0.5%				0.30%		0.3%	
% WIND COVERAGE		SEE ABOVE	SEE ABOVE	SEE ABOVE	SEE ABOVE	SEE ABOVE	SEE ABOVE			SEE ABOVE	SEE ABOVE	SEE ABOVE	SEE ABOVE
APPROACH TYPE		PRECISION	PRECISION	PRECISION	PRECISION	NON-PRECISION	NON-PRECISION			NON-PRECISION	NON-PRECISION	PRECISION	PRECISION
APPROACH VISIBILITY MINIMUM		2400 RVR	2400 RVR	2400 RVR	2400 RVR	1 1/4 MILE	1 1/8 MILE			5000 RVR	5000 RVR	2400 RVR	2400 RVR
RUNWAY CATEGORY (14 CFR PART 77)		PRECISION	PRECISION	PRECISION	PRECISION	NON-PRECISION	NON-PRECISION			NON-PRECISION	NON-PRECISION	PRECISION	PRECISION
APPROACH SLOPE (14 CFR PART 77)		50:1	50:1	50:1	50:1	34:1	34:1			34:1	34:1	50:1	50:1
DESIGN AIRCRAFT		BOEING 757-200		BOEING 767-300ER		BOEING 737-700				BOMBARDIER CHALLENGER 600		BOEING 767-300ER	
RUNWAY DESIGN CODE (RDC)		D / IV / 2400	D / IV / 2400	D / IV / 2400	D / IV / 2400	C / III / 5000	C / III / 5000			C / II / 5000	C / II / 5000	D / IV / 2400	D / IV / 2400
RUNWAY REFERENCE CODE (RRC)		D / IV	D / IV	D / IV	D / IV	C / III	C / III			C / II	C / II	D / IV	D / IV
DEPARTURE RUNWAY SURFACE		YES	YES	YES	YES	YES	YES			YES	YES	YES	YES
THRESHOLD SITING SURFACE		SEE TSS TABLE	SEE TSS TABLE	SEE TSS TABLE	SEE TSS TABLE	SEE TSS TABLE	SEE TSS TABLE			SEE TSS TABLE	SEE TSS TABLE	SEE TSS TABLE	SEE TSS TABLE
TOUCHDOWN ZONE ELEVATION		26.10'	25.77'	26.10'	25.77'	24.34'	24.34'						
HORIZONTAL / VERTICAL DATUM		NAD 83 / NAVD 88	NAD 83 / NAVD 88	NAD 83 / NAVD 88	NAD 83 / NAVD 88	NAD 83 / NAVD 88	NAD 83 / NAVD 88			NAD 83 / NAVD 88	NAD 83 / NAVD 88	NAD 83 / NAVD 88	NAD 83 / NAVD 88
AERONAUTICAL SURVEY		VGS	VGS	VGS	VGS	VGS	VGS			TBD	TBD	TBD	TBD
RUNWAY MARKINGS		PRECISION	PRECISION	PRECISION	PRECISION	NON-PRECISION	NON-PRECISION			NON-PRECISION	NON-PRECISION	PRECISION	PRECISION
RUNWAY LIGHTING		HIRL, TDZ, CL	HIRL, CL	HIRL, TDZ, CL	HIRL, CL	HIRL	HIRL			HIRL	HIRL	HIRL, TDZ, CL	HIRL, CL
APPROACH LIGHTING		MALSR	MALSR	MALSR	MALSR	NONE	NONE			NONE	NONE	MALSR	MALSR
VISUAL AND INSTRUMENT NAVIGAITONAL AIDS		ILS (CAT I), LOC/DME, PAPI-4, NDB, RVR, VORTAC, RNAV(GPS & RNP), WAAS/LPV	ILS (CAT I), LOC/DME, PAPI-4, NDB, RVR, RNAV(GPS & RNP), WAAS/LPV	ILS (CAT I), LOC/DME, PAPI-4, NDB, RVR, RNAV(GPS & RNP), WAAS/LPV	ILS (CAT I), LOC/DME, PAPI-4, NDB, RVR, RNAV(GPS & RNP), WAAS/LPV	PAPI-2, NDB, RNAV(GPS), VOR, REIL	PAPI-2, NDB, RNAV(GPS), VOR/DME, REIL			PAPI, RNAV, REIL	PAPI, RNAV, REIL	ILS, LOC/DME, PAPI, RNAV	ILS, LOC/DME, PAPI, RNAV
RUNWAY END COORDINATES & ELEVATIONS	LATITUDE	36˚53' 9.10"N	36˚54' 19.44"N	36˚53' 9.10"N	36˚54' 19.44"N	36˚53' 48.58"N	36˚53' 18.91"N			36˚ 53' 3.79"N	36˚53' 46.76"N	36˚ 53' 3.79"N	36˚54' 14.12"N
	LONGITUDE	76˚12' 29.86"W	76˚11' 21.96"W	76˚12' 29.86"W	76˚11' 21.96"W	76˚12' 43.79"W	76˚11' 56.48"W			76˚ 12' 21.32"W	76˚11' 39.84"W	76˚ 12' 21.32"W	76˚11' 13.42"W
	ELEVATION	17.7'	15.1'	17.7'	15.1'	17.7'	21.7'			17.6'	24.1'	17.6'	24.1'
DISPLACED THRESHOLD COORDINATES & ELEVATIONS	LATITUDE	36˚53' 16.92"N	N/A	36˚53' 16.92"N	N/A	36˚53' 45.09"N	N/A			36˚53' 8.52" N	N/A	36˚53' 8.52" N	N/A
	LONGITUDE	76˚12' 22.32"W	N/A	76˚12' 22.32"W	N/A	76˚12' 38.20"W	N/A			76˚12' 16.76" W	N/A	76˚12' 16.76" W	N/A
	DISTANCE	1,000'	N/A	1,000'	N/A	575'	N/A			600'	N/A	990'	N/A
	ELEVATION	20.6'	N/A	20.6'	N/A	19.3'	N/A			12.0'	N/A	12.0'	N/A
DECLARED DISTANCES	TORA	9,001'	9,001'	9,001'	9,001'	4,876'	4,876'			5,500'	5,500'	9,001'	9,001'
	TODA	9,001'	9,001'	9,001'	9,001'	4,876'	4,876'			5,500'	5,500'	9,001'	9,001'
	ASDA	8,809'	8,995'	1,000'	1,000'	4,876'	3,901'			5,500'	5,500'	9,001'	9,001'
	LDA	7,809'	8,995'	1,000'	1,000'	4,301'	3,901'			4,500'	5,500'	8,011'	9,001'
	CLEARWAY	NONE	NONE	NONE	NONE	NONE	NONE			NONE	NONE	NONE	NONE
	STOPWAY	NONE	NONE	NONE	NONE	NONE	NONE			NONE	NONE	NONE	NONE

NO	DATE	REVISION	BY	CK.	APPR.

DESIGNED BY RTL
DRAWN BY PDH
REVIEWED BY NSL
APPROVED BY .

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NORFOLK INTERNATIONAL AIRPORT

PROJECT NAME
AIRPORT LAYOUT PLAN

DRAFT

SHEET TITLE
AIRPORT DATA SHEET 1

JOB NO. 33370
DATE 02/11/2020
FILE NAME ORF_ALP-AIRPORT DATA SHEET
REV. NO.
DWG. NO. 2 of 26

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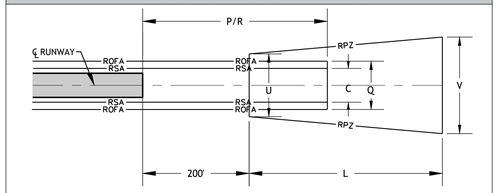
TAXIWAY DATA

TAXIWAY NAME		TAXIWAY LIGHTING		TAXIWAY DESIGN GROUP		TAXIWAY WIDTH		TAXIWAY SHOULDER WIDTH		TAXIWAY SAFETY AREA		TAXIWAY OBJECT FREE AREA		CENTERLINE SEPERATION	
EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE	EXISTING	FUTURE
A	A	MITL (LED)	MITL (LED)	5	5	75 FT.	75 FT.	30 FT.	30 FT.	171 FT.	171 FT.	259 FT.	259 FT.	906'	906'
B	B	MITL (LED)	MITL (LED)	5	5	75 FT.	75 FT.	30 FT.	30 FT.	171 FT.	171 FT.	259 FT.	259 FT.	1,265'	906'
C	C	MITL (LED)	MITL (LED)	5	5	75 FT.	75 FT.	30 FT.	30 FT.	171 FT.	171 FT.	259 FT.	259 FT.	500'	400'
E	E	MITL (LED)	MITL (LED)	5	5	75 FT.	75 FT.	30 FT.	30 FT.	171 FT.	171 FT.	259 FT.	259 FT.	993'	1,357'
F	REMOVED	MITL (LED)	N/A	3	N/A	50 FT.	N/A	30 FT.	N/A	118 FT.	N/A	186 FT.	N/A	NONE	N/A
G	REMOVED	MITL (LED)	N/A	5	N/A	75 FT.	N/A	30 FT.	N/A	171 FT.	N/A	259 FT.	N/A	NONE	N/A
H	H	MITL (LED)	MITL (LED)	5	5	75 FT.	75 FT.	30 FT.	30 FT.	171 FT.	171 FT.	259 FT.	259 FT.	1,500'	1,500'
J	J	MITL (LED)	MITL (LED)	5	5	75 FT.	75 FT.	30 FT.	30 FT.	171 FT.	171 FT.	259 FT.	259 FT.	443'	443'
V	REMOVED	MITL (LED)	N/A	5	N/A	75 FT.	N/A	30 FT.	N/A	171 FT.	N/A	259 FT.	N/A	400'	N/A
N/A	TBD	N/A	MITL (LED)	N/A	4	N/A	50 FT.	30 FT.	30 FT.	N/A	79 FT.	N/A	131 FT.	N/A	300'

RUNWAY DESIGN STANDARDS



NOT TO SCALE

DEPARTURE SURFACES

DEPARTURE DIMENSIONS	RUNWAY 5-23				RUNWAY 14-32				RUNWAY 5R-23L	
	EXISTING		FUTURE		EXISTING		FUTURE		FUTURE	
	5	23	5L	23R	14	32			5R	23L
LENGTH	10,200 FT.	10,200 FT.	10,200 FT.	10,200 FT.	10,200 FT.	10,200 FT.	TO BE CONVERTED TO TAXIWAY		10,200 FT.	10,200 FT.
INNER WIDTH	1,000 FT.	1,000 FT.	1,000 FT.	1,000 FT.	1,000 FT.	1,000 FT.			1,000 FT.	1,000 FT.
OUTER WIDTH	6,466 FT.	6,466 FT.	6,466 FT.	6,466 FT.	6,466 FT.	6,466 FT.			6,466 FT.	6,466 FT.

RUNWAY SAFETY AREA DATA

DESCRIPTION		RUNWAY 5-23				RUNWAY 14-32				RUNWAY 5L-23R			
		EXISTING		FUTURE		EXISTING		FUTURE		FUTURE		ULTIMATE	
		5	23	5R	23L	14	32	14	32	5L	23R	5L	23R
RUNWAY SAFETY AREA (RSA)	(R) LENGTH BEYOND RUNWAY END	994 FT.	808 FT.	994 FT.	808 FT.	25 FT.	1,000 FT.	TO BE CONVERTED TO TAXIWAY		1,000 FT. *	1,000 FT. *	1,000 FT.	1,000 FT.
	(P) LENGTH PRIOR TO RUNWAY END	994 FT.	808 FT.	600 FT.	600 FT.	25 FT.	600 FT.			600 FT.	600 FT.	600 FT.	600 FT.
	(C) WIDTH	500 FT.	500 FT.	500 FT.	500 FT.	500 FT.	500 FT.			500 FT.	500 FT.	500 FT.	500 FT.
RUNWAY OBJECT FREE AREA (ROFA)	(R) LENGTH BEYOND RUNWAY END	994 FT.	808 FT.	1,000 FT.	1,000 FT.	1,000 FT.	0 FT.			1,000 FT. *	1,000 FT. *	1,000 FT.	1,000 FT.
	(P) LENGTH PRIOR TO RUNWAY END	994 FT.	808 FT.	600 FT.	600 FT.	0 FT.	1,000 FT.			600 FT.	600 FT.	600 FT.	600 FT.
	(Q) WIDTH	800 FT.	800 FT.	800 FT.	800 FT.	800 FT.	800 FT.			800 FT.	800 FT.	800 FT.	800 FT.
RUNWAY PROTECTION ZONE (RPZ)	(L) LENGTH	2,500 FT.	2,500 FT.	2,500 FT.	2,500 FT.	1,700 FT.	1,700 FT.			1,700 FT.	1,700 FT.	2,500 FT.	2,500 FT.
	(U) INNER WIDTH	1,000 FT.	1,000 FT.	1,000 FT.	1,000 FT.	500 FT.	500 FT.			500 FT.	500 FT.	1,000 FT.	1,000 FT.
	(V) OUTER WIDTH	1,750 FT.	1,750 FT.	1,750 FT.	1,750 FT.	1,010 FT.	1,010 FT.			1,010 FT.	1,010 FT.	1,750 FT.	1,750 FT.
RUNWAY OBSTACLE FREE ZONE (ROFZ)	LENGTH BEYOND RUNWAY END	9,401 FT.	9,401 FT.	200 FT.	200 FT.	5,276 FT.	5,276 FT.			200 FT.	200 FT.	200 FT.	200 FT.
	WIDTH	400 FT.	400 FT.	400 FT.	400 FT.	400 FT.	400 FT.			400 FT.	400 FT.	400 FT.	400 FT.
PRECISION OBSTACLE FREE ZONE (POFZ)	LENGTH	200 FT.	200 FT.	200 FT.	200 FT.	N/A	N/A			N/A	N/A	200 FT.	200 FT.
	WIDTH	800 FT.	800 FT.	800 FT.	800 FT.	N/A	N/A			N/A	N/A	800 FT.	800 FT.

* 450 FT. WITH EMAS SATISFIES REQUIREMENT

** SEE DECLARED DISTANCE INFORMATION ON RUNWAY DATA TABLE

THRESHOLD SITING SURFACES (TSS)

		RUNWAY 5-23				14-32			5R-23L	
		EXISTING		FUTURE		EXISTING		FUTURE	FUTURE	
		5	23	5L	23R	14	32		5R	23L
APPROACH DIMENSIONS	A	200 FT.	200 FT.	200 FT.	200 FT.	200 FT.	200 FT.	TO BE CONVERTED TO TAXIWAY	200 FT.	200 FT.
	B	800 FT.	800 FT.	800 FT.	800 FT.	400 FT.	400 FT.		400 FT.	400 FT.
	C	3,400 FT.	3,400 FT.	3,400 FT.	3,400 FT.	3,400 FT.	3,400 FT.		3,400 FT.	3,400 FT.
	D	10,000 FT.	10,000 FT.	10,000 FT.	10,000 FT.	10,000 FT.	10,000 FT.		10,000 FT.	10,000 FT.
	E	0 FT.	0 FT.	0 FT.	0 FT.	0 FT.	0 FT.		0 FT.	0 FT.
TSS #* // SLOPE		5 // 34:1	5 // 34:1	5 // 34:1	5 // 34:1	4 // 20:1	4 // 20:1		4 // 20:1	4 // 20:1

*TSS # IS PER TABLE 3-2 OF AC 150/5300-13A, UPDATED 9/20/2018 VIA ENGINEERING BRIEF NO. 99

ABBREVIATIONS

ABB.	DESCRIPTION	ABB.	DESCRIPTION
ARC	AIRPORT REFERENCE CODE	PAPI-4 / PAPI-2	PRECISION APPROACH PATH INDICATOR (4-BOX OR 2-BOX)
ARP	AIRPORT REFERENCE POINT	PIR	PRECISION INSTRUMENT RUNWAY
ASDA	ACCELERATE TO STOP DISTANCE AVAILABLE	POFZ	PRECISION OBSTACLE FREE ZONE
ASR	AIRPORT SURVEILLANCE RADAR	RDC	RUNDWAY DESIGN CODE
AWOS	AUTOMATED WEATHER OBSERVING SYSTEM	REIL	RUNWAY END IDENTIFER LIGHTS
BRL	BUILDING RESTRICTION LINE	RNAV	AREA NAVIGATION
CL	CENTERLINE	ROFA	RUNWAY OBJECT FREE AREA
EX	EXISTING	RPZ	RUNWAY PROTECTION ZONE
FUT	FUTURE	RRC	RUNWAY REFERENCE CODE
GPS	GLOBAL POSITIONING SYSTEM	RSA	RUNWAY SAFETY AREA
GS	GLIDESLOPE ANTENNA	RVR	RUNWAY VISUAL RANGE
HIRL	HIGH INTENSITY RUNWAY LIGHTS	RWY	RUNWAY
IFR	INSTRUMENT FLIGHT RULES	RVZ	RUNWAY VISIBILITY ZONE
ILS	INSTRUMENT LANDING SYSTEM	TORA	TAKEOFF RUN AVAILABLE
LDA	LANDING DISTANCE AVAILABLE	TODA	TAKEOFF DISTANCE AVAILABLE
LOC	LOCALIZER	TSA	TAXIWAY SAFETY AREA
MALSR	MEDIUM INTENSITY APPROACH LIGHTING SYSTEM WITH RUNWAY ALIGNMENT INDICATOR LIGHTS	TSS	THRESHOLD SITING SURFACE
HIRL	HIGH INTENSITY RUNWAY LIGHTS	TDZE	TOUCHDOWN ZONE ELEVATION
MITL	MEDIUM INTENSITY TAXIWAY LIGHTS	TOFA	TAXIWAY OBJECT FREE AREA
NAD	NORTH AMERICAN DATUM	TWY	TAXIWAY
NAVD	NORTH AMERICAN VERTICAL DATUM	ULT	ULTIMATE
NDB	NONDIRECTIONAL BEACON	VASI-4	VISUAL APPROACH SLOPE INDICATOR (4-BOX)
NVG	NON VERTICALLY GUIDED	VFR	VISUAL FLIGHT RULES
OFA	OBJECT FREE AREA	VGS	VERTICALLY GUIDED SURVEY
OFZ	OBSTACLE FREE ZONE	VIS	VISUAL
PACS / SACS	PRIMARY AIRPORT CONTROL STATION / SECONDARY AIRPORT CONTROL STATION	VOR	VHF OMNIDIRECTIONAL RANGE

MODIFICATION OF STANDARDS

No.	STANDARD MODIFIED	FAA STANDARD	EXISTING CONDITION	PROPOSED ACTION	REFERENCE/COMMENT	DATE APPROVED
1	Runway 5 Glideslope Critical Area	Critical area should be cleared of objects that could cause signal reflections	Localizer equipment building located within critical area at south end or Runway 5-23	None	Approved by the FAA in previous ALP	
2	Runway Visibility Zone	An unobstructed view should be provided between intersecting runways	Aircraft parked at the Gates B28 and B29 can obstruct view	Provide 24-hour ATCT/Close Runway 14-32 after construction of Runway 5R-23L	Approved by the FAA in previous ALP	
3	Runway 14 Runway Protection Zone	RPZ should be cleared of objects and certain land uses	Buildings inside RPZs at east and west ends of the Runway 14-32	Close Runway 14-32 after construction of Runway 5R-23L		
4	Runway 14-32 Runway Safety Area (RSA)	1'000' x 500' RSA should be cleared, graded, and free of objects	RSA at west end of Runway 14-32 does not meet standards	Close Runway 14-32 after construction of Runway 5R-23L		
5	Runway 5-23 Runway Object Free Area (ROFA)	1,000 x 800' ROFA should be cleared of objects protruding above RSA edge elevation	ROFA at north end of Runway 5-23 contains fence and service road	None	Approved by the FAA in previous ALP	
6	Runway 5 Centerline/MALSR	Runway centerline on the displaced area are circuited separately from the lights in the non-displaced runway area when the MALSR is serving the same threshold. Interlocking the MALSR with the runway centerline on the displaced area. AC 150/5340-30D, 3.3(a)(3)	Centerline lights on displaced Runway 5 approach are not circuited separately from the lights in the non-displaced area where the MALSR exists. The MALSR is not interlocked with the runway centerline on the Runway 5 approach	Replace MALSR (RW 5) with ALSF-II	Approved by the FAA under formal request	9/17/2010

NO	DATE	REVISION	BY	CK.	APPR.

DESIGNED BY RTL
DRAWN BY PDH
REVIEWED BY NSL
APPROVED BY .

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NORFOLK INTERNATIONAL AIRPORT

PROJECT NAME
AIRPORT LAYOUT PLAN

DRAFT

SHEET TITLE
AIRPORT DATA SHEET 2

JOB NO. 33370
DATE 02/11/2020
FILE NAME ORF_ALP-AIRPORT DATA SHEET
REV. NO.
DWG. NO.

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3/24/2020 1:33 PM

EXISTING FACILITIES TABLE		
NO.	DESCRIPTION	ELEV.
1	DEPARTURES TERMINAL	80.9'
2	AUTOMOBILE PARKING GARAGES	125.3'
3	AIRFIELD LIGHTING VAULT	26.0'
4	TRITURATOR	33.8'
5	ARRIVALS TERMINAL	125.3'
6	AIRCRAFT RESCUE AND FIREFIGHTING STATION (ARFF)	45.7'
7	ARFF STORAGE BLDG.	43.1'
8	AIR CARGO BLDG.	43.0'
9	AIR CARGO BLDG.	44.6'
10	CATERING FACILITY	41.3'
11	FAA REMOTE COMMUNICATIONS FACILITY (RTR)	31.4'
12	RENTAL CAR RETURN BLDG.	42.2'
13	FAA SUPPORT BLDG.	41.1'
14	FAA ATCT	151.7'
15	FUEL FARM	
16	FORMER FAA SUPPORT BLDG. (ABANDONED)	36.4'
17	GROUND RUN-UP ENCLOSURE (GRE)	N/A
18	FAA SUPPORT BLDG.	36.3'
19	FAA ASR-9 RADAR	34.5'
20	G.A. TERMINAL & HANGAR FACILITY C-1	51.0'
21	HANGAR C-2	55.7'
22	HANGAR C-2	55.7'

EXISTING FACILITIES TABLE		
NO.	DESCRIPTION	ELEV.
23	T-HANGAR BLDG. #1	35.4'
24	T-HANGAR BLDG. #2	37.0'
25	T-HANGAR BLDG. #3	36.3'
26	AIRCRAFT MAINTENANCE HANGAR	61.7'
27	AIRFIELD MAINTENANCE FACILITY	48.7'
28	GENERAL AVIATION FUEL FARM	27.8'
29	ARFF TRAINING FACILITY	N/A
30	HANGAR C-5	42.9'
31	HANGAR C-3	54.0'
31	HANGAR C-3	54.0'
32	HANGAR C-4	55.1'
33	FBO MAINTENANCE SHOP	44.5'
34	AIRFIELD MAINTENANCE BLDG.	39.5'
35	LONG TERM PARKING	N/A
36	SHORT TERM PARKING	N/A
37	RW 5 LOCALIZER & MALSR EQIP. SHELTER	9.0'
38	RW 5 MALSR	N/A
39	RW 23 LOCALIZER	N/A
40	RW 23 LOCALIZER & MALSR EQIP. SHELTER	12.4'
41	RW 23 MALSR	N/A
42	RW 23 LOCALIZER	N/A
43	GENERAL AVIATION CUSTOMS AND BORDER PATROL (CBP) FACILITY	N/A

TRAVERSE WAYS TABLE				
IDENTIFIER	ROAD NAME	GROUND ELEV.	VEHICLE HT.	TOP ELEV. OF VEHICLE
A	MILITARY HWY.	14.8	15	29.8
B	I-64 ON RAMP 1	13.4	15	28.4
C	I-64 ON RAMP 2	15.2	15	30.2
D	I-64 OFF RAMP 1	14.6	15	29.6
E	MILLER STORE RD.	12.6	15	27.6
F	I-64 LANE 1	26.3	17	43.3
G	I-64 LANE 2	28.9	17	45.9
H	I-64 LANE 3	22.9	17	39.9
I	I-64 OFF RAMP 2	18.7	15	33.7
J	ACCESS ROAD	14.0	10	24.0
K	ACCESS ROAD	9.2	10	19.2
L	ACCESS ROAD	8.5	10	18.5
M	HWY. 60 LANE 1	10.6	15	25.6
N	HWY. 60 LANE 2	9.3	15	24.3
O	HWY. 60 LANE 1	11.7	15	26.7
P	HWY. 60 LANE 2	11.9	15	26.9
Q	HWY. 60 LANE 1	16.5	15	31.5
R	HWY. 60 LANE 2	15.9	15	30.9

PACS & SACS MONUMENTATION TABLE					
IDENTIFIER	MONUMENT NAME	CONTROL	LATITUDE	LONGITUDE	ELEVATION
1	ORF C	PACS	36°53' 42.33"N	76°12' 03.04"W	21.6' MSL
2	ORF D	SACS	36°53'24.44"N	76°12'18.99"W	20.3' MSL
3	AP STA A3 ORF	SACS	36°53'59.96"N	76°11'38.44"W	21.0' MSL

AIRPORT REFERENCE POINT (ARP)	
LATITUDE	LONGITUDE
36°53' 40.57" N	76°12' 4.43" W

LEGEND

- EX. BUILDING
- EX. RUNWAY PAVEMENT
- EX. RUNWAY SHOULDER PAVEMENT
- EX. TAXIWAY PAVEMENT
- EX. APRON PAVEMENT
- 160 — ELEVATION CONTOUR
- ELEV 200.0 — EXISTING GROUND SPOT ELEVATION
- X — AIRPORT FENCE (8' to 10' Chain-link w/1' Wire)
- WATER/DETENTION AREAS
- NAVAID CRITICAL AREA
- RPZ — RUNWAY APPROACH PROTECTION ZONE (RPZ)
- RSA — RUNWAY SAFETY AREA (RSA)
- ROFA — RUNWAY OBJECT FREE AREA (ROFA)
- ROFZ — RUNWAY OBSTACLE FREE ZONE (ROFZ)
- POFZ — PRECISION OBSTACLE FREE ZONE (POFZ)
- BRL — 35' BUILDING RESTRICTION LINE (BRL)
- RVZ — RUNWAY VISIBILITY ZONE (RVZ)
- TSA — EX. TAXIWAY SAFETY AREA (TSA)
- TOFA — EX. TAXIWAY OBJECT FREE AREA (TOFA)
- EX. AIRPORT PROPERTY LINE
- AIRPORT REFERENCE POINT
- WIND CONE
- PACS/SACS SURVEY MONUMENT
- FAR PART 77 APPROACH SURFACE
- THRESHOLD SITING SURFACE
- (1) FACILITY DESIGNATION
- (X) TRAVERSE WAYS

MAGNETIC DECLINATION 10° 55' W ± 0° 21' - CHANGING BY 0° 1' W ANNUALLY (NOAA, OCTOBER 2018)

GRAPHIC SCALE (FEET)

0 200 400 800

NOTES

1. TAXIWAY EDGE SAFETY MARGINS ARE NOT SHOWN DUE TO THE SCALE OF THIS PLAN SHEET. THIS INFORMATION HAS BEEN DEPICTED IN THE TAXIWAY DATA CHART ON THE AIRPORT DATA SHEET.
2. REFER TO THE PROPERTY MAP ON SHEET 22 FOR FULL EXTENT OF AIRPORT PROPERTY INFORMATION.

FAA APPROVAL STAMP

RUNWAY 14 DEPARTURE PROTECTION ZONE (500' x 1,010' x 1,700')

RUNWAY 14 APPROACH PROTECTION ZONE (500' x 1,010' x 1,700')

RUNWAY 14 END: LAT: 36°53'48.58" N LONG:76°12'43.79" W ELEV: 17.7' MSL

RUNWAY 14 DISPLACED THRESHOLD: LAT: 36°53'45.09" N LONG:76°12'38.20" W ELEV: 19.3' MSL RUNWAY LOW POINT

NORVIEW AVENUE

AIRPORT ROAD

RUNWAY END LIGHTS

REILS

THRESHOLD LIGHTS

RUNWAY 14 TDZE: 22.1' MSL

WIND CONE

PAPI-2

CLOSED TAXIWAY

PARKING GARAGES B AND C

PARKING GARAGE A

TNC STAGING LOT

NORFOLK BOTANICAL GARDEN

CONCOURSE A

CONCOURSE B

TERMINAL APRON (±2,000,000 sqft)

DEICING & R.O.N. APRON

FUEL DISPENSING FACILITY

RUNWAY 14 - 32: (14,976' x 150') (TRUE BEARING N33°24'17.71"E)

RUNWAY 5 DEPARTURE PROTECTION ZONE (1,000' x 1,750' x 2,500')

RUNWAY 23 APPROACH PROTECTION ZONE (1,000' x 1,750' x 2,500')

AIR CARGO APRON (±265,000 sqft)

CELL PHONE WAITING LOT

THRESHOLD LIGHTS

8' TO 10' CHAIN-LINK FENCE

ILS HOLD

MILITARY HIGHWAY

ROBIN HOOD ROAD

TAMPION ROADS BELTWAY

TAXIWAY 'C'

TAXIWAY 'E'

TAXIWAY 'F'

TAXIWAY 'G'

TAXIWAY 'H'

TAXIWAY 'J'

LOCALIZER CRITICAL AREA

BLAST PAD 200' x 150'

ACCESS ROAD

HOLD APRON

GLIDESLOPE CRITICAL AREA

RW 5 GLIDE SLOPE ANTENNA

P.O.F.Z.

RUNWAY 5 END: LAT: 36°53'9.10" N LONG:76°12'29.86" W ELEV: 17.7' MSL

RUNWAY 5 DISPLACED THRESHOLD: LAT: 36°53'16.92" N LONG:76°12'22.32" W ELEV: 20.6' MSL

RUNWAY 5 - 23: (9,001' x 150') (TRUE BEARING N36°23'35.85"E)

RUNWAY 5 TDZE: 23.69' MSL

RUNWAY 32 TDZE: 22.7' MSL

RUNWAY HIGH POINT: 24.34' MSL

RUNWAY INT. PT: 24.18' MSL

RUNWAY HIGH POINT: 25.76' MSL

VORTAC CRITICAL AREA 1,000'

MRO APRON

TIE DOWNS

GENERAL AVIATION APRON (±709,000 sqft)

MILLER STORE ROAD

RUNWAY 32 PROTECTION ZONE (500' x 1,010' x 1,700')

RUNWAY 32 END: LAT: 36°53'18.91" N LONG:76°11'56.48" W ELEV: 21.7' MSL

RUNWAY 23 END: LAT: 36°54'19.44" N LONG: 76°11'21.96" W ELEV: 15.1' MSL RUNWAY LOW POINT

RUNWAY 23 TDZE: 18.38' MSL

500' AWOS CRITICAL AREA

RW 23 GLIDE SLOPE ANTENNA

GLIDESLOPE CRITICAL AREA

BLAST PAD 200' x 150'

LAKE WHITEHURST

SYDBE DRIVE

HOLD APRON

ILS HOLD

NO	DATE	REVISION	BY	CK.	APPR.

DESIGNED BY RTL
DRAWN BY PDH
REVIEWED BY NSL
APPROVED BY .

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NORFOLK INTERNATIONAL AIRPORT

PROJECT NAME
AIRPORT LAYOUT PLAN

DRAFT

SHEET TITLE
EXISTING AIRPORT LAYOUT PLAN

JOB NO. 33370
DATE 02/11/2020
FILE NAME ORF_ALP-EXISTING
REV. NO.
DWG. NO.

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EXISTING FACILITIES TABLE		
NO.	DESCRIPTION	ELEV.
1	DEPARTURES TERMINAL	80.9'
2	AUTOMOBILE PARKING GARAGE	125.3'
5	ARRIVALS TERMINAL	125.3'
12	RENTAL CAR RETURN BLDG.	42.2'
15	FUEL FARM	TBD
16	FORMER FAA SUPPORT BLDG. (ABANDONED)	36.4'
17	GROUND RUN-UP ENCLOSURE (GRE)	TBD
23	REBUILT T-HANGAR BLDG. #1	35.4'
24	REBUILT T-HANGAR BLDG. #2	37.0'
25	T-HANGAR BLDG. #3	36.3'
29	ARFF TRAINING FACILITY	TBD
34	AIRFIELD MAINTENANCE BLDG.	39.5'

PROPOSED FACILITIES TABLE		
NO.	DESCRIPTION	ELEV.
F1	REBUILT CONCOURSES 'A AND B'	TBD
F2	NEW CONRAC/PARKING EXPANSION	TBD
F3	NEW DEPARTURES TERMINAL/CURBSIDE	TBD
F4	NEW 'CONCOURSE C'	TBD
F5	TERMINAL APRON EXPANSION (±1,357,500 SF)	N/A
F6	NEW AIR CARGO SORT FACILITY/APRON	TBD
F7	NEW TERMINAL DEICING APRON (±317,160 sf)	N/A
F8	NEW AIRLINE FUEL/GLYCOL STORAGE FACILITY	TBD
F9	NEW INDEPENDENT RENTAL CAR QTA FACILITY	TBD
F10	TAXIWAY 'C' REALIGNMENT	N/A
F11	NEW GENERAL AVIATION APRON (±36,960 SY)	N/A
F12	REBUILT T-HANGARS	TBD
F13	FUTR. GARAGE D	TBD
F14	FUTR. MAINTENANCE FACILITY	TBD

NOTES

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2. REFER TO THE PROPERTY MAP ON SHEETS 22 AND 23 FOR FULL EXTENT OF AIRPORT PROPERTY INFORMATION.
3. PLAN ONLY DEPICTS PROPOSED FACILITIES AND EXISTING FACILITIES AFFECTED BY FUTURE DEVELOPMENT. REFER TO SHEET 4 EXISTING AIRPORT LAYOUT PLAN FOR ALL EXISTING FACILITIES.

TRAVERSE WAYS TABLE				
IDENTIFIER	ROAD NAME	GROUND ELEV.	VEHICLE HT.	TOP ELEV. OF VEHICLE
A	MILITARY HWY.	14.8	15	29.8
B	I-64 ON RAMP 1	13.4	15	28.4
C	I-64 ON RAMP 2	15.2	15	30.2
D	I-64 OFF RAMP 1	14.6	15	29.6
E	MILLER STORE RD.	12.6	15	27.6
F	I-64 LANE 1	26.3	17	43.3
G	I-64 LANE 2	28.9	17	45.9
H	I-64 LANE 3	22.9	17	39.9
I	I-64 OFF RAMP 2	18.7	15	33.7
J	ACCESS ROAD	14.0	10	24.0
K	ACCESS ROAD	9.2	10	19.2
L	ACCESS ROAD	8.5	10	18.5
M	HWY. 60 LANE 1	10.6	15	25.6
N	HWY. 60 LANE 2	9.3	15	24.3
O	HWY. 60 LANE 1	11.7	15	26.7
P	HWY. 60 LANE 2	11.9	15	26.9
Q	HWY. 60 LANE 1	16.5	15	31.5
R	HWY. 60 LANE 2	15.9	15	30.9

PACS & SACS MONUMENTATION TABLE					
IDENTIFIER	MONUMENT NAME	CONTROL	LATITUDE	LONGITUDE	ELEVATION
1	ORF C	PACS	36°53' 42.33"N	76°12' 03.04"W	21.6' MSL
2	ORF D	SACS	36°53'24.44"N	76°12'18.99"W	20.3' MSL
3	AP STA A3 ORF	SACS	36°53'59.96"N	76°11'38.44"W	21.0' MSL

FUTURE AIRPORT REFERENCE POINT (ARP)	
LATITUDE	LONGITUDE
36°53'37.07"N	76°11'57.68"W

FAA APPROVAL STAMP

MAGNETIC DECLINATION 10° 55' W
± 0° 21' - CHANGING BY 0° 1' W
ANNUALLY
(NOAA, OCTOBER 2018)

GRAPHIC SCALE (FEET)
0 200 400 800

LEGEND

- EX. BUILDING
- EX. RUNWAY PAVEMENT
- EX. RUNWAY SHOULDER PAVEMENT
- EX. TAXIWAY PAVEMENT
- EX. APRON PAVEMENT
- FUTURE AIRFIELD PAVEMENT
- FUTURE LANDSIDE PAVEMENT
- FUTURE BUILDING
- PAVEMENT REMOVAL
- BUILDING DEMOLITION
- FUTURE DEVELOPMENT AREA
- ELEVATION CONTOUR
- EXISTING GROUND SPOT ELEVATION
- AIRPORT FENCE (8' to 10' Chain-link w/1' Wire)
- WATER/DETENTION AREAS
- NAVAID CRITICAL AREA
- RUNWAY APPROACH PROTECTION ZONE (RPZ)
- RUNWAY SAFETY AREA (RSA)
- RUNWAY OBJECT FREE AREA (ROFA)
- RUNWAY OBSTACLE FREE ZONE (ROFZ)
- PRECISION OBSTACLE FREE ZONE (POFZ)
- 35' BUILDING RESTRICTION LINE (BRL)
- RUNWAY VISIBILITY ZONE (RVZ)
- EX. TAXIWAY SAFETY AREA (TSA)
- EX. TAXIWAY OBJECT FREE AREA (TOFA)
- FUT. TAXIWAY SAFETY AREA (TSA)
- FUT. TAXIWAY OBJECT FREE AREA (TOFA)
- FUT. DRAINAGE INFRASTRUCTURE
- EX. AIRPORT PROPERTY LINE
- AIRPORT REFERENCE POINT
- WIND CONE
- PACS/SACS SURVEY MONUMENT
- FAR PART 77 APPROACH SURFACE
- THRESHOLD SITING SURFACE
- FACILITY DESIGNATION
- TRAVERSE WAYS

NO	DATE	REVISION	BY	CK.	APPR.

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DRAWN BY PDH
REVIEWED BY NSL
APPROVED BY .

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NORFOLK INTERNATIONAL AIRPORT

PROJECT NAME
AIRPORT LAYOUT PLAN

DRAFT

SHEET TITLE
FUTURE AIRPORT LAYOUT PLAN

JOB NO. 33370 | DATE 02/11/2020
FILE NAME ORF_ALP-FUTURE | REV. NO.
DWG. NO.

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EXISTING FACILITIES TABLE		
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15	FUEL FARM	TBD
16	FORMER FAA SUPPORT BLDG. (ABANDONED)	36.4'
17	GROUND RUN-UP ENCLOSURE (GRE)	TBD
23	REBUILT T-HANGAR BLDG. #1	35.4'
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25	T-HANGAR BLDG. #3	36.3'
29	ARFF TRAINING FACILITY	TBD
34	AIRFIELD MAINTENANCE BLDG.	39.5'

PROPOSED FACILITIES TABLE		
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F3	NEW DEPARTURES TERMINAL/CURBSIDE	TBD
F4	NEW 'CONCOURSE C'	TBD
F5	TERMINAL APRON EXPANSION (±1,357,500 SF)	N/A
F6	NEW AIR CARGO SORT FACILITY/APRON	TBD
F7	NEW TERMINAL DEICING APRON (±317,160 SF)	N/A
F8	NEW AIRLINE FUEL/GLYCOL STORAGE FACILITY	TBD
F9	NEW INDEPENDENT RENTAL CAR QTA FACILITY	TBD
F10	TAXIWAY 'C' REALIGNMENT	N/A
F11	NEW GENERAL AVIATION APRON (±36,960 SY)	N/A
F12	REBUILT T-HANGARS	TBD
F13	FUTR. GARAGE D	TBD
F14	FUTR. MAINTENANCE FACILITY	TBD

NOTES

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F	I-64 LANE 1	26.3	17	43.3
G	I-64 LANE 2	28.9	17	45.9
H	I-64 LANE 3	22.9	17	39.9
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K	ACCESS ROAD	9.2	10	19.2
L	ACCESS ROAD	8.5	10	18.5
M	HWY. 60 LANE 1	10.6	15	25.6
N	HWY. 60 LANE 2	9.3	15	24.3
O	HWY. 60 LANE 1	11.7	15	26.7
P	HWY. 60 LANE 2	11.9	15	26.9
Q	HWY. 60 LANE 1	16.5	15	31.5
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PACS & SACS MONUMENTATION TABLE					
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3	AP STA A3 ORF	SACS	36°53'59.96"N	76°11"38.44"W	21.0' MSL

ULTIMATE AIRPORT REFERENCE POINT (ARP)	
LATITUDE	LONGITUDE
36°53'41.61"N	76°11'51.64"W

FAA APPROVAL STAMP

MAGNETIC DECLINATION 10° 55' W
± 0° 21' - CHANGING BY 0° 1' W
ANNUALLY
(NOAA, OCTOBER 2018)

GRAPHIC SCALE (FEET)
0 200 400 800

LEGEND

- EX. BUILDING
- EX. RUNWAY PAVEMENT
- EX. RUNWAY SHOULDER PAVEMENT
- EX. TAXIWAY PAVEMENT
- EX. APRON PAVEMENT
- FUTURE AIRFIELD PAVEMENT
- FUTURE LANDSIDE PAVEMENT
- FUTURE BUILDING
- PAVEMENT REMOVAL
- BUILDING DEMOLITION
- FUTURE DEVELOPMENT AREA
- ELEVATION CONTOUR
- EXISTING GROUND SPOT ELEVATION
- AIRPORT FENCE (8' to 10' Chain-link w/1' Wire)
- WATER/DETENTION AREAS
- NAVAID CRITICAL AREAS
- RUNWAY APPROACH PROTECTION ZONE (RPZ)
- RUNWAY SAFETY AREA (RSA)
- ULTIMATE LAND RECLAMATION
- RUNWAY OBJECT FREE AREA (ROFA)
- RUNWAY OBSTACLE FREE ZONE (ROFZ)
- PRECISION OBSTACLE FREE ZONE (POFZ)
- 35' BUILDING RESTRICTION LINE (BRL)
- RUNWAY VISIBILITY ZONE (RVZ)
- EX. TAXIWAY SAFETY AREA (TSA)
- EX. TAXIWAY OBJECT FREE AREA (TOFA)
- FUT. TAXIWAY SAFETY AREA (TSA)
- FUT. TAXIWAY OBJECT FREE AREA (TOFA)
- FUT. DRAINAGE INFRASTRUCTURE
- EX. AIRPORT PROPERTY LINE
- AIRPORT REFERENCE POINT
- WIND CONE
- PACS/SACS SURVEY MONUMENT
- FAR PART 77 APPROACH SURFACE
- THRESHOLD SITING SURFACE
- FACILITY DESIGNATION
- TRAVERSE WAYS

NO	DATE	REVISION	BY	CK.	APPR.

DESIGNED BY RTL
DRAWN BY PDH
REVIEWED BY NSL
APPROVED BY .

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NORFOLK INTERNATIONAL AIRPORT

PROJECT NAME
AIRPORT LAYOUT PLAN

DRAFT

SHEET TITLE
ULTIMATE AIRPORT LAYOUT PLAN

JOB NO. 33370 | DATE 02/11/2020
FILE NAME ORF_ALP-ULTIMATE_v2 | REV. NO.
DWG. NO. **6 of 26**

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MAGNETIC DECLINATION 10° 55' W
± 0° 21' - CHANGING BY 0° 1' W
ANNUALLY
(NOAA, OCTOBER 2018)

GRAPHIC SCALE (FEET)

0 1000 2000 4000

376.40 ft MSL
350.00 ft MSL
300.00 ft MSL
250.00 ft MSL
200.00 ft MSL
176.40 ft MSL

TOWER 29265

Obstruction Group 2
Obstruction Group 3
Obstruction Group 4
SHIP 26417
FUT. RUNWAY 23R
Obstruction Group 1
FUT. RUNWAY 5L/5R
FUT. RUNWAY 23R
Obstruction Group 5

750.00 ft MSL
700.00 ft MSL
650.00 ft MSL
600.00 ft MSL
550.00 ft MSL
500.00 ft MSL
450.00 ft MSL
400.00 ft MSL
350.00 ft MSL
300.00 ft MSL
250.00 ft MSL
200.00 ft MSL

200.00 ft MSL
250.00 ft MSL
300.00 ft MSL
350.00 ft MSL
400.00 ft MSL
450.00 ft MSL
500.00 ft MSL
550.00 ft MSL
600.00 ft MSL
650.00 ft MSL

176.40 ft MSL
200.00 ft MSL
250.00 ft MSL
300.00 ft MSL
350.00 ft MSL
376.40 ft MSL

NOTE

1. THIS DRAWING SHOWS THE FULL EXTENTS OF THE IMAGINARY SURFACES USED TO DETERMINE AIRSPACE OBSTRUCTIONS, AS DETERMINED IN FEDERAL AVIATION REGULATION (FAR) PART 77. OBJECTS THAT WERE DETERMINED TO BE OBSTRUCTIONS TO THESE SURFACES ARE DEPICTED AND DESCRIBED ON SHEETS 9 THROUGH 15. OBJECTS THAT FELL OUTSIDE THE LIMITS OF THE APPROACH SURFACE PLAN AND PROFILE VIEWS HAVE BEEN INCLUDED ON THIS SHEET.
2. FIELD AND AERIAL SURVEYS WERE CONDUCTED SEPTEMBER 4, 2017.
3. IN ACCORDANCE WITH FAA ADVISORY CIRCULAR 150/5300-18B, ONLY MANMADE AAA (AIRPORT AIRSPACE ANALYSIS) SURFACE OBSTRUCTIONS REQUIRE AGL (ABOVE GROUND LEVEL) ELEVATIONS. THEREFORE, AGL ELEVATIONS FOR NATURAL FEATURES (I.E. TREES) ARE NOT REQUIRED AND SUBSEQUENTLY ARE NOT LISTED ON THE RUNWAY OBSTRUCTION TABLE.
4. PENETRATIONS TO THE TRANSITIONAL, CONICAL, AND HORIZONTAL SURFACES ARE SHOWN IN THE OBSTRUCTION GROUP CHARTS ON SHEET 8.
5. PENETRATING NAVAID AND CRITICAL OPERATIONAL STRUCTURES WERE NOT INCLUDED AS OBSTRUCTIONS IN THE PRIMARY SURFACE AS THEY ARE CRITICAL FOR SAFE AIRFIELD OPERATIONS.

NO.	DATE	REVISION	BY	CK.	APPR.

DESIGNED BY RTL
DRAWN BY PDH
REVIEWED BY NSL
APPROVED BY .

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NORFOLK INTERNATIONAL AIRPORT

PROJECT NAME
AIRPORT LAYOUT PLAN

DRAFT

SHEET TITLE
AIRSPACE PLAN

JOB NO. 33370
DATE 02/11/2020
FILE NAME ORF_ALP-P77 AIRSPACE
REV. NO.
DWG. NO.

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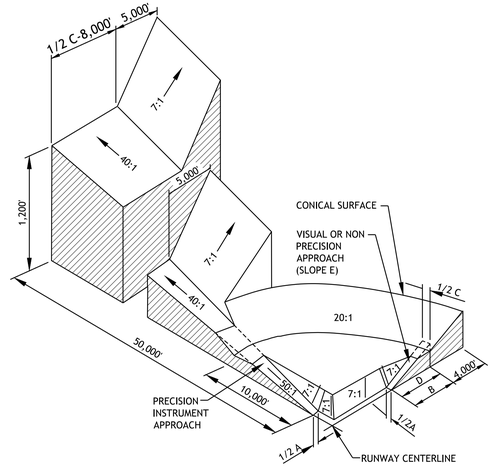

ISOMETRIC VIEW OF SECTION

77.25 CIVIL AIRPORT IMAGINARY SURFACES

DIM	ITEM	VISUAL RUNWAY		NON-PRECISION INSTRUMENT RUNWAY			PRECISION INSTRUMENT RUNWAY
		A	B	A	B C	B D	
A	WIDTH OF PRIMARY SURFACE AND APPROACH SURFACE WIDTH AT INNER END	250	500	500	500	1,000	1,000
B	RADIUS OF HORIZONTAL SURFACE	5,000	5,000	5,000	10,000	10,000	10,000
		VISUAL RUNWAY		NON-PRECISION INSTRUMENT RUNWAY			PRECISION INSTRUMENT RUNWAY
		A	B	A	B C	B D	
C	APPROACH SURFACE WIDTH AT END	1,250	1,500	2,000	3,500	4,000	16,000
D	APPROACH SURFACE LENGTH	5,000	5,000	5,000	10,000	10,000	50,000*
E	APPROACH SLOPE	20:1	20:1	20:1	34:1	34:1	50:1 / 40:1*

A - UTILITY RUNWAYS
B - RUNWAYS LARGER THAN UTILITY
C - VISIBILITY MINIMUMS GREATER THAN 3/4 MILES
D - VISIBILITY MINIMUMS AS LOW AS 3/4 MILE
* - PRECISION INSTRUMENT APPROACH SLOPE IS 50:1 FOR INNER 10,000 FT. AND 40:1 FOR AN ADDITIONAL 40,000 FT.

OBSTRUCTION GROUP 1							
Penetration	**OBJECT**	**NORTHING**	**EASTING**	**OBJECT ELEVATION**	**PART 77 ELEVATION**	**PENETRATION (FT.)**	**SURFACE**
MINIMUM	TREE 45574	3486379.4	12151701.6	103.0	101.6	1.0	TRANSITIONAL
MAXIMUM	TREE 45526	3486816.6	12151898.3	109.5	87.7	22.0	TRANSITIONAL
AVERAGE	---	---	---	106.3	94.6	11.5	---

OBSTRUCTION GROUP 2							
Penetration	**OBJECT**	**NORTHING**	**EASTING**	**OBJECT ELEVATION**	**PART 77 ELEVATION**	**PENETRATION (FT.)**	**SURFACE**
MINIMUM	UTILITY POLE 41454	3488925.1	12151160.5	65.7	63.4	2.0	TRANSITIONAL
MAXIMUM	UTILITY POLE 41462	3488883.0	12151127.4	72.2	63.6	9.0	TRANSITIONAL
AVERAGE	---	---	---	69.0	63.5	5.5	---

OBSTRUCTION GROUP 3							
Penetration	**OBJECT**	**NORTHING**	**EASTING**	**OBJECT ELEVATION**	**PART 77 ELEVATION**	**PENETRATION (FT.)**	**SURFACE**
MINIMUM	LIGHT POLE 41838	3491588.8	12153365.1	37.8	37.2	1.0	TRANSITIONAL
MAXIMUM	LIGHT POLE 22126	3491335.2	12153174.8	96.7	37.7	59.0	TRANSITIONAL
AVERAGE	---	---	---	67.3	37.4	30.0	---

OBSTRUCTION GROUP 4							
Penetration	**OBJECT**	**NORTHING**	**EASTING**	**OBJECT ELEVATION**	**PART 77 ELEVATION**	**PENETRATION (FT.)**	**SURFACE**
MINIMUM	TREE 43438	3496768.6	12156701.4	92.8	90.7	2.0	TRANSITIONAL
MAXIMUM	TREE 22568	3496638.7	12156691.8	95.0	80.8	14.0	TRANSITIONAL
AVERAGE	---	---	---	95.0	95.0	95.0	---

OBSTRUCTION GROUP 5							
Penetration	**OBJECT**	**NORTHING**	**EASTING**	**OBJECT ELEVATION**	**PART 77 ELEVATION**	**PENETRATION (FT.)**	**SURFACE**
MINIMUM	TREE 43926	3497242.1	12159308.0	58.7	56.4	2.0	TRANSITIONAL
MAXIMUM	TREE 26549	3498213.0	12159989.1	85.0	51.2	34.0	TRANSITIONAL
AVERAGE	---	---	---	95.0	95.0	95.0	---

INDIVIDUAL OBJECTS						
OBJECT	**NORTHING**	**EASTING**	**OBJECT ELEVATION**	**PART 77 ELEVATION**	**PENETRATION (FT.)**	**SURFACE**
SHIP 26417	3502588.2	12160411.6	160.5	151.7	9.0	TRANSITIONAL
TOWER 29265	3506374.0	12153692.0	218.5	180.3	38.0	HORIZONTAL

NO	DATE	REVISION	BY	CK.	APPR.

DESIGNED BY RTL
DRAWN BY PDH
REVIEWED BY NSL
APPROVED BY .

NOT APPLICABLE

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NORFOLK INTERNATIONAL AIRPORT

PROJECT NAME
AIRPORT LAYOUT PLAN

DRAFT

SHEET TITLE
AIRSPACE OBSTRUCTIONS AND DETAILS

JOB NO. 33370
DATE 02/11/2020
FILE NAME ORF_ALP-P77 AIRSPACE
REV. NO.
DWG. NO. 8 of 26

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EX 50:1 PART 77 APPROACH SURFACE
FUT 34:1 THRESHOLD SITING SURFACE (#5)
FUT 30:1 THRESHOLD SITING SURFACE (#6)
ROBIN HOOD RD.
AIRPORT RD.
ALMEDA AVE.
HENNEMAN DR.
CAPE HENRY AVE.
NORFOLK SOUTHERN RR
ASHBY ST.
ARTHUR CIR.
SIGMON ST.
GABRIEL DR.
KILMER LN.
ELIZABETH AVE.
E. PRINCESS ANNE RD.
COWAND DR.
LAKE WRIGHT DR.
N. MILITARY HWY.-165
ACADEMY DR.
INTERSTATE 64
MILLER STORE RD.
RUNWAY PROTECTION ZONE (1,000' x 1,750' x 2,500')
MALSR SHELTER
LOCALIZER
LOCALIZER SHELTER
LOCALIZER CRITICAL AREA
GLIDE SLOPE CRITICAL AREA
BLAST PAD
RUNWAY '5-23'
TAXIWAY 'C'
TAXIWAY 'J'
RUNWAY 5 / FUT 5L DISPLACED THRESHOLD: LAT: 36°53'16.92" N LONG:76°12'22.32" W ELEV: 20.6' MSL
RUNWAY 5 / FUT 5L END: LAT: 36°53'9.10" N LONG:76°12'29.86" W ELEV: 17.7' MSL
TREE GROUP 'A'
TREE GROUP 'B'
TREE GROUP 'C'
TREE GROUP 'D'
TREE GROUP 'E'
TREE GROUP 'F'
TREE GROUP 'G'
TREE GROUP 'H'
TREE GROUP 'I'
25865 (HIGHEST PENETRATION IN TREE GROUP 'A')
40420 (HIGHEST PENETRATION IN TREE GROUP 'B')
40156 (HIGHEST PENETRATION IN TREE GROUP 'C')
23875 (HIGHEST PENETRATION IN TREE GROUP 'D')
39436 (HIGHEST PENETRATION IN TREE GROUP 'E')
25511 (HIGHEST PENETRATION IN TREE GROUP 'F')
24485 / 24461 (HIGHEST PENETRATION IN TREE GROUP 'G')
25471(HIGHEST PENETRATION IN TREE GROUP 'H')
25807 / 38385 (HIGHEST PENETRATIONS IN TREE GROUP 'I')

NOTES:

1. ALL OBSTRUCTION SURVEY DATA FROM QUANTUM SPATIAL WAS COMPILED BY PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHY DATED 09-04-2017. SURVEY DATA FEATURE ACCURACY IS IN ACCORDANCE WITH REQUIREMENTS OF FAA AC 150/5300-18B.
2. DUE TO THE LARGE QUANTITY OF TREE OBSTRUCTION DATA AND FOR CLARITY PURPOSES ON THE PLAN SHEET, LARGE TREE GROUPS WITH MULTIPLE PENETRATIONS ARE SHOWN WITH THE HIGHEST PENETRATION OF THE TREE GROUP DESIGNATED IN THE PLAN/PROFILE VIEW. A DETAILED BREAKDOWN OF THE SURFACE OBJECTS AND PENETRATIONS ARE PROVIDED ON THE FOLLOWING DATA TABLES.
3. SOME GROUND ELEVATIONS ARE NOT INCLUDED AS THE LOCATION OF THE OBSTRUCTION IS BEYOND THE LIMIT OF THE GROUND TOPO ACQUIRED.
4. HORIZONTAL DATUM BASED ON VIRGINIA STATE PLANE SOUTH ZONE COORDINATE SYSTEM AND NAD83. VERTICAL DATUM BASED ON NAVD88.

LEGEND:

- ANTENNA
- BUILDING
- BUSH
- COMMUNICATION TOWER
- CRANE
- POLE
- LIGHT POLE
- UTILITY POLE
- ROAD
- RUNWAY LIGHT
- SIGN
- NON-COMM TOWER
- TREE
- UTILITY BOX
- 123 P77 SURFACE PENETRATION
- 123 P77 OBJECT WITHIN 10' OF P77 SURFACE

GRAPHIC SCALE (FEET)
0 100 200 400
HORIZONTAL
0 20
VERTICAL

EXISTING GROUND RUNWAY C/L PROFILE EXTENDED
INTERSTATE 64 (17' VEHICLE HEIGHT TYP.)
RUNWAY 5 / FUT RUNWAY 5L END ELEV = 17.7
RUNWAY 5 / FUT RUNWAY 5L THRESHOLD ELEV = 20.6
1,000' DISPLACED THRESHOLD
200'

NO	DATE	REVISION	BY	CK.	APPR.

DESIGNED BY RTL
DRAWN BY PDH
REVIEWED BY NSL
APPROVED BY ,

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NORFOLK INTERNATIONAL AIRPORT

PROJECT NAME
AIRPORT LAYOUT PLAN

DRAFT

SHEET TITLE
RUNWAY 5 (FUTURE RUNWAY 5L) INNER APPROACH

JOB NO. 33370
DATE 02/11/2020
FILE NAME ORF_ALP-5-23 APPRCH
REV. NO.
DWG. NO. 9 of 26

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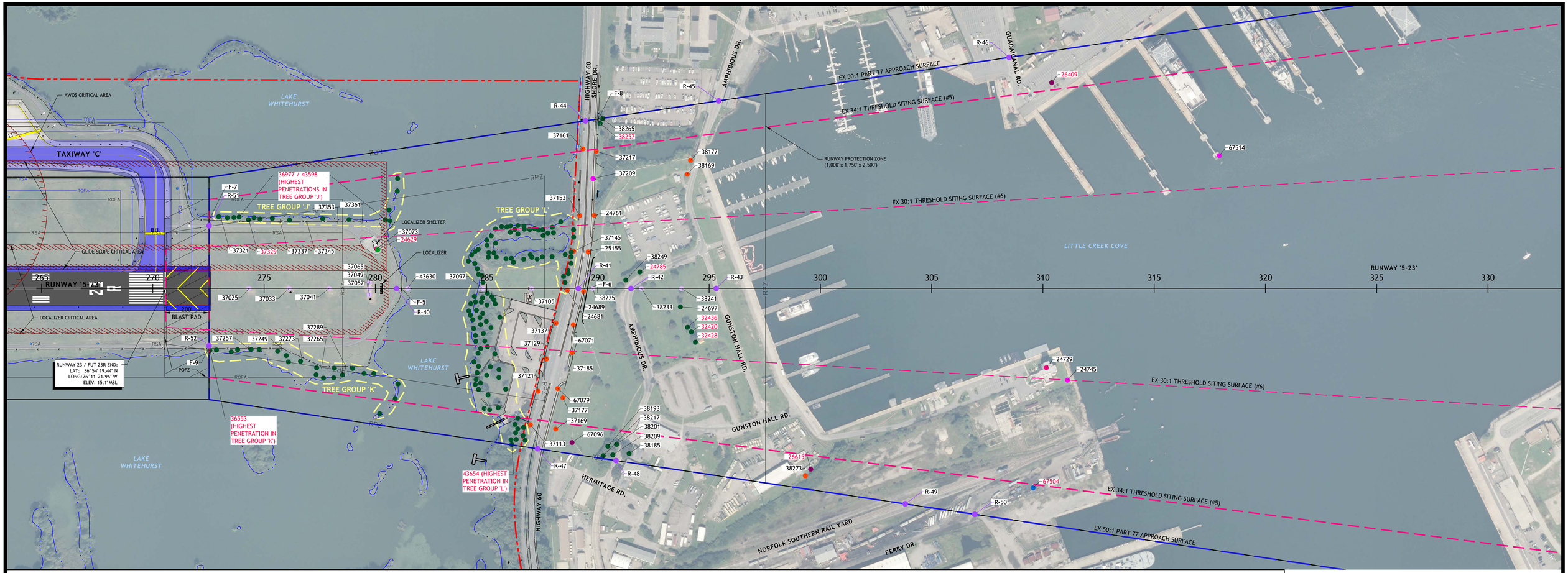

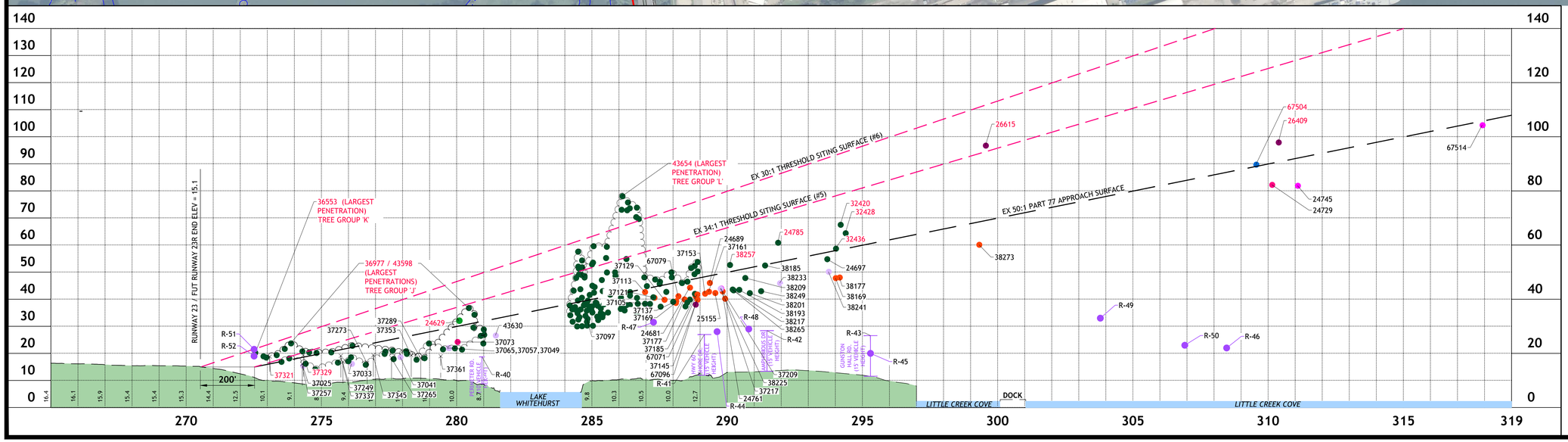

LEGEND:

- ANTENNA
- BUILDING
- BUSH
- COMMUNICATION TOWER
- CRANE
- POLE
- LIGHT POLE
- UTILITY POLE
- ROAD
- RUNWAY LIGHT
- SIGN
- NON-COMM TOWER
- TREE
- UTILITY BOX
- 123 P77 SURFACE PENETRATION
- 123 P77 OBJECT WITHIN 10 OF P77 SURFACE

GRAPHIC SCALE (FEET)

0 100 200 400 HORIZONTAL

0 20 VERTICAL

NOTES:

1. ALL OBSTRUCTION SURVEY DATA FROM QUANTUM SPATIAL WAS COMPILED BY PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHY DATED 09-04-2017. SURVEY DATA FEATURE ACCURACY IS IN ACCORDANCE WITH REQUIREMENTS OF FAA AC 150/5300-18B.
2. DUE TO THE LARGE QUANTITY OF TREE OBSTRUCTION DATA AND FOR CLARITY PURPOSES ON THE PLAN SHEET, LARGE TREE AREAS WITH MULTIPLE PENETRATIONS HAVE BEEN GROUPED WITH THE HIGHEST PENETRATION OF THE TREE GROUP BEING SPOTLIGHTED IN THE PLAN/PROFILE VIEW. A DETAILED BREAKDOWN OF THE SURFACE OBJECTS AND PENETRATIONS ARE PROVIDED ON THE FOLLOWING DATA TABLES.
3. SOME GROUND ELEVATIONS ARE NOT INCLUDED AS THE LOCATION OF THE OBSTRUCTION IS BEYOND THE LIMIT OF THE GROUND TOPO ACQUIRED.
4. GRID BASED ON VIRGINIA STATE PLANE SOUTH ZONE COORDINATE SYSTEM AND NAD 1983. VERTICAL DATUM BASED ON NAVD 1988.

NO	DATE	REVISION	BY	CK.	APPR.

DESIGNED BY RTL
DRAWN BY PDH
REVIEWED BY NSL
APPROVED BY .

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NORFOLK INTERNATIONAL AIRPORT

PROJECT NAME
AIRPORT LAYOUT PLAN

DRAFT

SHEET TITLE
RUNWAY 23 (FUTURE RUNWAY 23R) INNER APPROACH

JOB NO. 33370 | DATE 02/11/2020
FILE NAME ORF_ALP-5-23 APPRCH | REV. NO.
DWG. NO.

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SURFACE OBSTRUCTIONS

PT #	OBJECT	OBJ. ELEV.	GROUND ELEV.	50:1 PART 77 APPROACH		EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
				P77 Elev	PENETRATION (FT.)				
20272	TOWER_(NON-COMM)	182.82	8.961	306.58	-124	12146243.91	3478295.57	EX CONDITIONS	
20304	CELL_TOWER	168.78	12.494	311.56	-143	12143621.08	3479981.46	EX CONDITIONS	
23635	POLE_LIGHT	53.48	27.066	54.91	-1	12151642.00	3488646.37	EX CONDITIONS	
23643	POLE_LIGHT	51.60	21.557	52.52	-1	12151758.07	3488709.26	EX CONDITIONS	
23667	POLE_LIGHT	48.20	16.617	50.06	-2	12151892.25	3488763.07	EX CONDITIONS	
23675	POLE_LIGHT	46.42	15.302	47.55	-1	12151907.95	3488907.90	EX CONDITIONS	
23683	POLE_LIGHT	53.51	27.709	55.38	-2	12151672.50	3488594.72	EX CONDITIONS	
23691	POLE	56.98	27.612	54.66	2	12151678.46	3488635.27	EX CONDITIONS	LIGHT/FLAG
23699	INTERSTATE	53.76	36.76	57.59	-4	12151513.40	3488574.83	EX CONDITIONS	
23715	POLE_LIGHT	52.18	26.509	56.65	-4	12151806.02	3488417.35	EX CONDITIONS	
23723	POLE_LIGHT	57.46	31.25	57.86	0	12151637.13	3488467.07	EX CONDITIONS	
23731	POLE_LIGHT	59.24	37.255	58.98	0	12151460.27	3488527.50	EX CONDITIONS	LIGHT/FLAG
23739	ROAD_SIGN	59.42	22.58	54.60	5	12152082.67	3488341.29	EX CONDITIONS	LIGHT/FLAG
23747	POLE_UTIL	48.24	13.253	48.20	0	12151981.96	3488812.62	EX CONDITIONS	LIGHT/FLAG
23755	POLE_UTIL	44.02	12.946	43.87	0	12152040.20	3489038.69	EX CONDITIONS	LIGHT/FLAG
23883	POLE_UTIL	58.24	13.711	63.43	-5	12151420.96	3488280.25	EX CONDITIONS	
23899	TREE	76.59	Not Available	82.49	-6	12150854.83	3487513.44	EX CONDITIONS	TO BE REMOVED
23907	TREE	76.55	Not Available	85.18	-9	12150867.55	3487337.05	EX CONDITIONS	TO BE REMOVED
23915	TREE	75.59	Not Available	84.34	-9	12150837.87	3487411.21	EX CONDITIONS	TO BE REMOVED
23923	TREE	77.34	Not Available	85.13	-8	12150801.17	3487389.17	EX CONDITIONS	TO BE REMOVED
23931	TREE	77.61	Not Available	87.61	-10	12150688.24	3487318.61	EX CONDITIONS	TO BE REMOVED
23939	TREE	80.41	Not Available	89.30	-9	12150666.63	3487229.28	EX CONDITIONS	TO BE REMOVED
23955	TREE	94.60	Not Available	90.20	4	12150773.56	3487094.78	EX CONDITIONS	TO BE REMOVED
23963	TREE	85.59	Not Available	93.02	-7	12150633.91	3487022.20	EX CONDITIONS	TO BE REMOVED
23971	TREE	93.91	Not Available	96.97	-3	12150440.65	3486919.75	EX CONDITIONS	TO BE REMOVED
23987	TREE	96.88	Not Available	103.18	-6	12150390.92	3486570.61	EX CONDITIONS	TO BE REMOVED
24054	TREE	110.01	Not Available	112.11	-2	12150400.25	3486008.86	EX CONDITIONS	TO BE REMOVED
24082	TREE	107.00	Not Available	109.61	-3	12150497.15	3486092.89	EX CONDITIONS	TO BE REMOVED
24090	TREE	105.47	Not Available	108.39	-3	12150357.64	3486271.25	EX CONDITIONS	TO BE REMOVED
24106	TREE	97.12	Not Available	106.90	-10	12150488.88	3486267.44	EX CONDITIONS	TO BE REMOVED
24114	TREE	98.51	Not Available	107.61	-9	12150609.95	3486133.92	EX CONDITIONS	TO BE REMOVED
24162	TREE	91.31	Not Available	100.43	-9	12150775.25	3486458.11	EX CONDITIONS	TO BE REMOVED
24184	TREE	116.93	Not Available	98.97	18	12150946.38	3486422.24	EX CONDITIONS	TO BE REMOVED
24192	TREE	107.66	Not Available	95.37	12	12150966.20	3486631.73	EX CONDITIONS	TO BE REMOVED
24200	TREE	96.42	Not Available	93.48	3	12151063.01	3486677.73	EX CONDITIONS	TO BE REMOVED
24216	TREE	88.17	Not Available	98.01	-10	12150678.86	3486679.39	EX CONDITIONS	TO BE REMOVED
24224	TREE	92.46	Not Available	100.51	-8	12150523.81	3486638.06	EX CONDITIONS	TO BE REMOVED
24232	TREE	87.01	Not Available	95.92	-9	12150762.85	3486747.19	EX CONDITIONS	TO BE REMOVED
24240	TREE	94.82	Not Available	92.53	2	12150824.10	3486912.52	EX CONDITIONS	TO BE REMOVED
24248	TREE	91.80	Not Available	94.34	-3	12150870.22	3486766.31	EX CONDITIONS	TO BE REMOVED
24256	TREE	106.16	Not Available	92.01	14	12150943.54	3486857.20	EX CONDITIONS	TO BE REMOVED
24264	TREE	103.81	Not Available	92.34	11	12150968.36	3486818.42	EX CONDITIONS	TO BE REMOVED
24272	TREE	85.58	Not Available	92.47	-7	12150997.11	3486788.97	EX CONDITIONS	TO BE REMOVED
24280	TREE	85.16	Not Available	93.35	-8	12150883.83	3486817.74	EX CONDITIONS	TO BE REMOVED
24288	TREE	90.48	Not Available	89.91	1	12150847.96	3487058.00	EX CONDITIONS	TO BE REMOVED
24296	TREE	98.00	Not Available	87.76	10	12150934.29	3487127.97	EX CONDITIONS	TO BE REMOVED
24304	TREE	85.30	Not Available	86.96	-2	12150973.09	3487148.67	EX CONDITIONS	TO BE REMOVED
24312	TREE	89.06	Not Available	89.68	-1	12150917.36	3487021.12	EX CONDITIONS	TO BE REMOVED
24320	TREE	91.89	Not Available	90.29	2	12150945.48	3486962.18	EX CONDITIONS	TO BE REMOVED
24328	TREE	86.71	Not Available	88.61	-2	12151029.88	3487004.34	EX CONDITIONS	TO BE REMOVED
24336	TREE	93.30	Not Available	89.61	4	12151046.12	3486930.59	EX CONDITIONS	TO BE REMOVED
24344	TREE	97.06	Not Available	89.62	7	12151092.59	3486895.80	EX CONDITIONS	TO BE REMOVED
24352	TREE	91.42	Not Available	86.59	5	12151066.63	3487102.93	EX CONDITIONS	TO BE REMOVED
24360	TREE	90.28	Not Available	91.21	-1	12150840.86	3486982.30	EX CONDITIONS	TO BE REMOVED
24581	POLE_UTIL	56.77	14.367	64.45	-8	12151619.13	3488070.63	EX CONDITIONS	TO BE REMOVED
24589	POLE_UTIL	57.59	12.922	63.82	-6	12151484.29	3488209.62	EX CONDITIONS	TO BE REMOVED
25929	CELL_TOWER	186.62	7.466	420.23	-234	12143273.06	3474837.91	EX CONDITIONS	
32106	TREE	112.48	Not Available	96.42	16	12151008.50	3486534.94	EX CONDITIONS	TO BE REMOVED
38529	POLE_UTIL	41.81	11.872	37.94	4	12151967.32	3489461.16	EX CONDITIONS	LIGHT/FLAG
38537	POLE_UTIL	42.56	12.652	40.77	2	12152030.92	3489238.15	EX CONDITIONS	LIGHT/FLAG
38545	POLE_LIGHT	51.29	25.552	48.47	3	12152535.11	3488388.37	EX CONDITIONS	LIGHT/FLAG
38553	POLE_LIGHT	47.09	21.352	49.90	-3	12152360.85	3488427.64	EX CONDITIONS	
38561	POLE_LIGHT	45.41	19.912	51.38	-6	12152186.27	3488464.81	EX CONDITIONS	
38569	POLE_LIGHT	46.37	19.012	52.32	-6	12152020.85	3488528.15	EX CONDITIONS	
38577	POLE_LIGHT	44.51	14.002	44.86	0	12151904.64	3489077.48	EX CONDITIONS	LIGHT/FLAG
38585	POLE_LIGHT	44.15	13.522	43.36	1	12151864.59	3489199.79	EX CONDITIONS	LIGHT/FLAG
38593	POLE_LIGHT	44.51	14.302	42.36	2	12151742.13	3489352.42	EX CONDITIONS	LIGHT/FLAG
38609	ROAD_SIGN	52.64	19.072	49.91	3	12152344.54	3488439.10	EX CONDITIONS	LIGHT/FLAG
38617	POLE_LIGHT	52.76	27.352	50.87	2	12152513.88	3488254.75	EX CONDITIONS	LIGHT/FLAG
38625	POLE_LIGHT	47.78	22.162	53.92	-6	12152160.77	3488325.52	EX CONDITIONS	
38633	POLE_LIGHT	49.13	23.842	55.32	-6	12151984.62	3488368.45	EX CONDITIONS	
38641	POLE_LIGHT	61.85	36.352	60.17	2	12151273.76	3488591.54	EX CONDITIONS	LIGHT/FLAG
38649	POLE_LIGHT	61.61	35.962	61.54	0	12151111.97	3488625.57	EX CONDITIONS	LIGHT/FLAG
38657	POLE_LIGHT	60.47	35.032	58.34	2	12151169.51	3488781.70	EX CONDITIONS	LIGHT/FLAG
38665	POLE_LIGHT	58.25	33.082	57.34	1	12151334.15	3488722.67	EX CONDITIONS	LIGHT/FLAG
38673	POLE_LIGHT	58.43	32.782	56.22	2	12151514.88	3488659.10	EX CONDITIONS	LIGHT/FLAG
38689	POLE_LIGHT	44.03	13.702	47.70	-4	12151826.22	3488958.60	EX CONDITIONS	
38697	POLE_LIGHT	42.74	12.352	46.52	-4	12151732.09	3489101.11	EX CONDITIONS	
38705	POLE_LIGHT	44.51	14.602	45.17	-1	12151701.03	3489207.75	EX CONDITIONS	
38713	POLE_LIGHT	45.77	14.782	44.24	2	12151660.53	3489295.74	EX CONDITIONS	LIGHT/FLAG
38721	POLE_LIGHT	42.74	12.322	47.76	-5	12151552.84	3489156.09	EX CONDITIONS	
38729	POLE	44.30	13.492	44.59	0	12151722.37	3489228.48	EX CONDITIONS	
38737	POLE	43.76	13.402	45.53	-2	12151681.99	3489199.53	EX CONDITIONS	
38745	POLE	42.98	14.392	52.53	-10	12151329.79	3489024.62	EX CONDITIONS	
38753	PRIMARY_ROAD	49.87	32.872	48.63	1	12152637.98	3488302.65	EX CONDITIONS	LIGHT/FLAG
38761	PRIMARY_ROAD	45.40	28.402	50.13	-5	12152475.92	3488329.03	EX CONDITIONS	

SURFACE OBSTRUCTIONS (Con't.)

PT#	OBJECT	OBJ. ELEV.	GROUND ELEV.	50:1 PART 77 APPROACH		EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
				P77 ELEV.	PENETRATION (FT.)				
38769	PRIMARY_ROAD	46.81	29.812	47.40	-1	12152667.51	3488357.36	EX CONDITIONS	
38777	PRIMARY_ROAD	42.37	25.372	48.90	-7	12152502.37	3488385.60	EX CONDITIONS	
38793	PRIMARY_ROAD	44.11	27.112	50.55	-6	12152494.73	3488288.79	EX CONDITIONS	
39092	TREE	36.24	Not Available	41.17	-5	12151921.08	3489294.16	EX CONDITIONS	TO BE REMOVED
39100	TREE	34.92	Not Available	41.97	-7	12151867.15	3489284.38	EX CONDITIONS	TO BE REMOVED
39364	TREE	70.11	Not Available	57.44	13	12151209.80	3488808.06	EX CONDITIONS	TO BE REMOVED
39372	TREE	53.43	Not Available	57.29	-4	12151239.87	3488795.16	EX CONDITIONS	TO BE REMOVED
39380	TREE	62.01	Not Available	57.30	5	12151193.99	3488828.61	EX CONDITIONS	TO BE REMOVED
39388	TREE	65.07	Not Available	57.73	7	12151187.93	3488806.01	EX CONDITIONS	TO BE REMOVED
39404	TREE	64.71	Not Available	57.35	7	12151165.58	3488846.36	EX CONDITIONS	TO BE REMOVED
39412	POLE_LIGHT	64.44	34.257	61.51	3	12151225.39	3488543.81	EX CONDITIONS	LIGHT/FLAG
39420	POLE_LIGHT	60.81	29.727	61.71	-1	12151340.27	3488446.66	EX CONDITIONS	
39564	POLE_UTIL	63.03	16.557	63.67	-1	12150951.75	3488611.06	EX CONDITIONS	
39572	POLE_UTIL	62.55	14.067	63.64	-1	12150972.74	3488597.38	EX CONDITIONS	
39580	POLE_UTIL	58.05	14.037	63.17	-5	12151248.95	3488423.45	EX CONDITIONS	
40124	POLE_UTIL	58.44	13.977	65.34	-7	12152069.74	3487683.47	EX CONDITIONS	
40132	POLE_UTIL	58.20	14.307	66.07	-8	12152127.95	3487595.05	EX CONDITIONS	
40140	POLE_UTIL	56.10	14.967	64.63	-9	12152193.74	3487636.14	EX CONDITIONS	
40764	TREE	58.71	Not Available	66.63	-8	12151589.58	3487957.40	EX CONDITIONS	TO BE REMOVED
40836	TREE	112.71	Not Available	118.76	-6	12150803.84	3485298.11	EX CONDITIONS	TO BE REMOVED
40844	TREE	111.87	Not Available	117.48	-6	12150919.29	3485292.47	EX CONDITIONS	TO BE REMOVED
40844	TREE	110.01	Not Available	112.11	-2	12150400.25	3486008.86	EX CONDITIONS	TO BE REMOVED
40852	TREE	107.40	Not Available	108.28	-1	12151033.92	3485779.82	EX CONDITIONS	TO BE REMOVED
40860	TREE	99.84	Not Available	103.50	-4	12151241.20	3485923.79	EX CONDITIONS	TO BE REMOVED
40868	TREE	100.08	Not Available	103.11	-3	12151049.27	3486089.30	EX CONDITIONS	TO BE REMOVED
40876	TREE	99.45	Not Available	105.42	-6	12150947.92	3486020.58	EX CONDITIONS	TO BE REMOVED
40884	TREE	106.11	Not Available	96.13	10	12150982.01	3486572.76	EX CONDITIONS	TO BE REMOVED
40892	TREE	106.02	Not Available	96.70	9	12151037.16	3486496.41	EX CONDITIONS	TO BE REMOVED
40900	TREE	110.91	Not Available	98.39	13	12150999.48	3486419.36	EX CONDITIONS	TO BE REMOVED
40908	TREE	110.34	Not Available	99.89	10	12151003.28	3486323.21	EX CONDITIONS	TO BE REMOVED
40916	TREE	111.78	Not Available	99.44	12	12151053.89	3486313.81	EX CONDITIONS	TO BE REMOVED
41028	TREE	90.96	Not Available	89.83	1	12151066.14	3486902.27	EX CONDITIONS	TO BE REMOVED
41036	TREE	85.38	Not Available	93.82	-8	12150978.31	3486718.66	EX CONDITIONS	TO BE REMOVED
41044	TREE	93.18	Not Available	93.67	0	12151027.25	3486692.02	EX CONDITIONS	TO BE REMOVED
41052	TREE	94.98	Not Available	98.65	-4	12150888.37	3486484.97	EX CONDITIONS	TO BE REMOVED
45590	TREE	102.02	Not Available	99.55	2	12151405.00	3486048.74	EX CONDITIONS	TO BE REMOVED
63249	POLE_UTIL	59.61	16.767	63.72	-4	12150956.65	3488604.19	EX CONDITIONS	
66690	RUNWAY_LIGHT	19.26	15.977	26.33	-7	12152715.53	3489630.65	EX CONDITIONS	
66698	RUNWAY_LIGHT	18.25	16.229	22.23	-4	12152837.19	3489795.78	EX CONDITIONS	
66706	RUNWAY_LIGHT	17.74	16.608	18.13	0	12152958.43	3489961.11	EX CONDITIONS	
66714	UTILITY_BOX	19.01	15.976	26.30	-7	12152711.81	3489635.08	EX CONDITIONS	
66736	TREE	14.00	Not Available	18.87	-5	12152701.86	3490103.97	EX CONDITIONS	TO BE REMOVED
66744	TREE	14.51	Not Available	20.16	-6	12152660.90	3490053.88	EX CONDITIONS	TO BE REMOVED
66752	TREE	17.28	Not Available	18.72	-1	12152606.35	3490183.90	EX CONDITIONS	TO BE REMOVED
66760	TREE	16.53	Not Available	18.08	-2	12152607.45	3490222.70	EX CONDITIONS	TO BE REMOVED
66768	TREE	14.00	Not Available	19.93	-6	12152563.79	3490140.08	EX CONDITIONS	TO BE REMOVED
66776	UTILITY_BOX	18.11	14.065	20.95	-3	12153084.94	3489692.59	EX CONDITIONS	
66789	INTERSTATE	54.80	37.8	58.13	-3	12151425.83	3488605.61	EX CONDITIONS	
66797	INTERSTATE	55.56	38.557	58.70	-3	12151331.69	3488639.71	EX CONDITIONS	
66805	INTERSTATE	55.81	38.81	59.30	-3	12151235.96	3488673.42	EX CONDITIONS	
66813	INTERSTATE	55.81	38.81	59.88	-4	12151139.96	3488707.86	EX CONDITIONS	
66821	INTERSTATE	55.18	38.178	60.41	-5	12151054.09	3488738.31	EX CONDITIONS	
66837	INTERSTATE	53.16	36.158	60.90	-8	12151097.09	3488676.11	EX CONDITIONS	
66845	INTERSTATE	53.66	36.663	60.26	-7	12151198.77	3488640.91	EX CONDITIONS	
66853	INTERSTATE	53.54	36.537	59.60	-6	12151308.20	3488601.51	EX CONDITIONS	
66861	INTERSTATE	53.03	36.032	59.00	-6	12151403.49	3488568.56	EX CONDITIONS	
66869	INTERSTATE	51.64	34.643	58.49	-7	12151493.80	3488533.34	EX CONDITIONS	
66877	INTERSTATE	48.99	31.992	57.70	-9	12151610.86	3488496.19	EX CONDITIONS	
66893	INTERSTATE	51.77	34.77	56.92	-5	12151617.49	3488540.02	EX CONDITIONS	
66901	INTERSTATE	46.85	29.846	56.11	-9	12151606.52	3488598.25	EX CONDITIONS	
66909	INTERSTATE	49.50	32.497	56.76	-7	12151498.70	3488637.46	EX CONDITIONS	
66917	INTERSTATE	51.14	34.138	57.31	-6	12151399.35	3488676.49	EX CONDITIONS	
66925	INTERSTATE	52.02	35.022	57.99	-6	12151295.97	3488709.99	EX CONDITIONS	
66933	INTERSTATE	52.02	35.022	58.71	-7	12151185.20	3488747.34	EX CONDITIONS	
66941	INTERSTATE	51.77	34.77	59.20	-7	12151101.83	3488778.30	EX CONDITIONS	
66968	POLE_LIGHT	49.11	23.106	54.13	-5	12151844.86	3488545.59	EX CONDITIONS	
66976	TREE	36.47	Not Available	44.05	-8	12151746.96	3489243.82	EX CONDITIONS	TO BE REMOVED
66984	TREE	32.72	Not Available	41.68	-9	12151912.53	3489268.86	EX CONDITIONS	TO BE REMOVED
66992	POLE_LIGHT	44.18	14.261	53.52	-9	12152492.99	3488105.39	EX CONDITIONS	

ROADWAY OBSTRUCTIONS

PT#	DESCRIPTION	EASTING	NORTHING	GROUND ELEV	GROUND + VEHICLE HT.	VEHICLE HT. (FT)	P77 ELEV.	PENETRATION	TRIGGERING EVENT
R-1	ARTHUR CIR.	12149969.9	3485905.85	16	31	15	118.9	-87.9	EX CONDITIONS
R-2	ASHBY ST.	12150304.34	3486359.59	16	31	15	107.6	-76.6	EX CONDITIONS
R-3	NORFOLK SOUTHERN RR	12150531.9	3486668.32	18	41	23	99.9	-58.9	EX CONDITIONS
R-4	CAPE HENRY AVE.	12150749.31	3486963.28	14	29	15	92.6	-63.6	EX CONDITIONS
R-5	ALMEDA AVE.	12151013.67	3487321.93	16	31	15	83.7	-52.7	EX CONDITIONS
R-6	I-64 OFF RAMP	12151631.92	3488160.72	18	33	15	62.9	-29.9	EX CONDITIONS
R-7	N. MILITARY HWY.	12151631.92	3488160.72	18	33	15	60.9	-27.9	EX CONDITIONS
R-8	I-64 SBL	12151831.7	3488431.75	26	43	17	56.1	-13.1	EX CONDITIONS
R-9	I-64 (MIDDLE)	12151858.56	3488468.19	29	46	17	55.2	-9.2	EX CONDITIONS
R-10	I-64 NBL	12151889.32	3488509.93	23	40	17	54.2	-14.2	EX CONDITIONS
R-11	I-64 OFF RAMP NBL	12151949.03	3488590.94	19	36	17	52.2	-16.2	EX CONDITIONS
R-12	MILLER STORE RD.	12152047.94	3488725.12	14	29	15	48.8	-19.8	EX CONDITIONS
R-13	AIRPORT PERIMETER RD.	12152094.18	348878.72	14	24	10	47.3	-23.3	EX CONDITIONS
R-14	NAVAID ROAD	12152949.67	3489948.50	16.86	26.86	10	18.4	8.4	EX CONDITIONS
R-15	ELTHAM AVE.	12149321.14	3487017.86	15	30	15	108.7	-78.7	EX CONDITIONS
R-16	ELLSMERE AVE.	1214992.528	3487620.85	13	28	15	91.8	-63.8	EX CONDITIONS
R-17	ALMEDA AVE.	12150526.61	3488226.53	16	31	15	74.9	-43.9	EX CONDITIONS
R-18	I-64 SBL	12151013.22	3488714.43	53	70	17	61.3	8.7	EX CONDITIONS
R-19	I-64 (MIDDLE)	12151045.9	3488747.20	55	72	17	60.4	11.6	EX CONDITIONS
R-20	I-64 NBL	12151086.06	3488787.47	52	69	17	59.2	9.8	EX CONDITIONS
R-21	N. MILITARY HWY.	12151251.01	3488952.86	16	31	15	54.6	-23.6	EX CONDITIONS
R-22	I-64 ON RAMP	12151385.14	3489087.34	14	31	17	50.9	-19.9	EX CONDITIONS
R-23	I-64 ON RAMP	12151615.7	3489318.51	15	32	17	44.4	-12.4	EX CONDITIONS
R-24	I-64 OFF RAMP	12151679.4	3489382.38	15	32	17	42.6	-10.6	EX CONDITIONS
R-25	MILLER STORE RD.	12151942.88	3489646.56	13	28	15	35.2	-7.2	EX CONDITIONS
R-26	AIRPORT PERIMETER RD.	12152068.96	3489772.19	12	22	10	31.7	-9.7	EX CONDITIONS
R-27	KILMER LN.	12151214.46	3485597.03	17	32	15	109.1	-77.1	EX CONDITIONS
R-28	E. PRINCESS ANNE RD.	12151540.13	3486213.08	15	30	15	95.3	-65.3	EX CONDITIONS
R-29	ELIZABETH AVE.	12151832.99	3486767.06	15	30	15	82.9	-52.9	EX CONDITIONS
R-30	COWAND DR.	12151931.42	3486953.27	15	30	15	78.7	-48.7	EX CONDITIONS
R-31	N. MILITARY HWY.	12152178.6	3487420.84	18	33	15	68.3	-35.3	EX CONDITIONS
R-32	ACADEMY DR.	12152373.76	3487791.24	17	32	15	60.0	-28.0	EX CONDITIONS
R-33	I-64 SBL	12152620.15	3488256.10	30	47	17	49.6	-2.6	EX CONDITIONS
R-34	I-64 (MIDDLE)	12152645.12	3488303.33	33	50	17	48.5	1.5	EX CONDITIONS
R-35	I-64 NBL	12152667.62	3488345.90	30	47	17	47.6	-0.6	EX CONDITIONS
R-36	MILLER STORE RD.	12152739.78	3488482.40	13	28	15	44.5	-16.5	EX CONDITIONS
R-37	AIRPORT ROAD	12152772.09	3488543.53	13	23	10	43.1	-20.1	EX CONDITIONS
R-38	AIRPORT PERIMETER RD.	12153191.87	3489337.60	9.5	19.5	10	25.4	-5.9	EX CONDITIONS

RUNWAY 5 THRESHOLD SITING SURFACE OBSTRUCTIONS

OBJECT	PART OF TREE GROUP	OBJ. ELEV.	GROUND ELEV.	34:1 TSS 5 APPROACH		EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
				TSS 5 Elev	PENETRATION (FT.)				
No Obstructions									
OBJECT	PART OF TREE GROUP	OBJ. ELEV.	GROUND ELEV.	30:1 TSS 6 APPROACH		EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
				TSS 5 Elev	PENETRATION (FT.)				
No Obstructions									

FENCE OBSTRUCTIONS
RUNWAY 5 FENCE OBSTRUCTIONS

PT#	OBJECT	EASTING	NORTHING	GROUND ELEV	GROUND + FENCE HT.	FENCE HT. (FT)	P77 ELEV.	PENETRATION	TRIGGERING EVENT
F-1	FENCE	12151999.34	3489703.17	10.06	18.06	8	33.7	-15.6	EX CONDITIONS
F-2	FENCE	12152065.94	3488749.56	13.65	21.65	8	48.2	-26.6	EX CONDITIONS
F-3	FENCE	12151754.26	3488326.70	14.61	22.61	8	58.7	-36.1	EX CONDITIONS
F-4	FENCE	12152757.73	3488516.37	12.4	20.4	8	43.8	-23.4	EX CONDITIONS

NOTES:

1. ALL OBSTRUCTION SURVEY DATA FROM QUANTUM SPATIAL WAS COMPILED BY PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHY DATED 09-04-2017. SURVEY DATA FEATURE ACCURACY IS IN ACCORDANCE WITH REQUIREMENTS OF FAA AC 150/5300-18B.
2. DUE TO THE LARGE QUANTITY OF TREE OBSTRUCTION DATA AND FOR CLARITY PURPOSES ON THE PLAN SHEET, LARGE TREE AREAS WITH MULTIPLE PENETRATIONS HAVE BEEN GROUPED WITH THE HIGHEST PENETRATION OF THE TREE GROUP BEING SPOTLIGHTED IN THE PLAN/PROFILE VIEW. A DETAILED BREAKDOWN OF THE SURFACE OBJECTS AND PENETRATIONS ARE PROVIDED ON THE FOLLOWING DATA TABLES.
3. SOME GROUND ELEVATIONS ARE NOT INCLUDED AS THE LOCATION OF THE OBSTRUCTION IS BEYOND THE LIMIT OF THE GROUND TOPO ACQUIRED.
4. GRID BASED ON VIRGINIA STATE PLANE SOUTH ZONE COORDINATE SYSTEM AND NAD 1983. VERTICAL DATUM BASED ON NAVD 1988.
5. NEGATIVE PENETRATION VALUE REPRESENTS OBJECT CLEARANCE FROM SURFACE. POSITIVE PENETRATION VALUE REPRESENTS AMOUNT ABOVE THE SURFACE.

NO	DATE	REVISION	BY	CK.	APPR.

DESIGNED BY RTL
DRAWN BY PDH
REVIEWED BY NSL
APPROVED BY .

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NORFOLK INTERNATIONAL AIRPORT

PROJECT NAME
AIRPORT LAYOUT PLAN

DRAFT

SHEET TITLE
RUNWAY 5 APPROACH OBSTRUCTIONS 1

JOB NO. 33370
DATE 02/11/2020
FILE NAME ORF_ALP-5-23 APPRCH OBSTR TABLES
REV. NO.
DWG. NO.

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TREE GROUP 'A' OBSTRUCTIONS

PT #	OBJECT	OBJ. ELEV.	GROUND ELEV.	50:1 PART 77 APPROACH		EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
				P77 Elev	PENETRATION (FT.)				
25865	TREE	118.11	Not Available	86.53	32	12151730.21	3486617.45	EX CONDITIONS	TO BE REMOVED
40516	TREE	93.18	Not Available	84.27	9	12151681.37	3486793.95	EX CONDITIONS	TO BE REMOVED
40524	TREE	90.90	Not Available	83.88	7	12151708.16	3486798.19	EX CONDITIONS	TO BE REMOVED
40548	TREE	105.54	Not Available	84.45	21	12151732.00	3486745.45	EX CONDITIONS	TO BE REMOVED
40556	TREE	106.02	Not Available	85.38	21	12151747.97	3486675.74	EX CONDITIONS	TO BE REMOVED
40564	TREE	89.46	Not Available	86.79	3	12151644.28	3486664.48	EX CONDITIONS	TO BE REMOVED
40572	TREE	91.02	Not Available	85.98	5	12151647.38	3486712.76	EX CONDITIONS	TO BE REMOVED
40580	TREE	79.62	Not Available	87.10	-7	12151580.93	3486692.04	EX CONDITIONS	TO BE REMOVED
40588	TREE	94.86	Not Available	88.23	7	12151577.72	3486624.46	EX CONDITIONS	TO BE REMOVED
40596	TREE	105.78	Not Available	88.14	18	12151648.27	3486577.55	EX CONDITIONS	TO BE REMOVED
40604	TREE	105.06	Not Available	88.80	16	12151650.77	3486534.86	EX CONDITIONS	TO BE REMOVED
40612	TREE	100.02	Not Available	89.53	10	12151647.68	3486492.19	EX CONDITIONS	TO BE REMOVED
40620	TREE	101.52	Not Available	90.05	11	12151680.59	3486488.37	EX CONDITIONS	TO BE REMOVED
40628	TREE	93.18	Not Available	91.40	2	12151579.20	3486426.58	EX CONDITIONS	TO BE REMOVED
40636	TREE	93.00	Not Available	91.35	2	12151548.81	3486451.85	EX CONDITIONS	TO BE REMOVED
40644	TREE	87.24	Not Available	90.74	-4	12151550.33	3486488.54	EX CONDITIONS	TO BE REMOVED
40652	TREE	86.88	Not Available	89.68	-3	12151564.12	3486544.07	EX CONDITIONS	TO BE REMOVED
40660	TREE	88.02	Not Available	88.92	-1	12151571.32	3486586.00	EX CONDITIONS	TO BE REMOVED
40668	TREE	87.42	Not Available	87.79	0	12151583.89	3486646.92	EX CONDITIONS	TO BE REMOVED
40676	TREE	85.86	Not Available	87.71	-2	12151613.22	3486630.45	EX CONDITIONS	TO BE REMOVED
40684	TREE	103.80	Not Available	91.32	12	12151485.89	3486499.92	EX CONDITIONS	TO BE REMOVED
40692	TREE	89.40	Not Available	91.12	-2	12151396.94	3486578.13	EX CONDITIONS	TO BE REMOVED
40700	TREE	92.94	Not Available	90.06	3	12151396.60	3486644.32	EX CONDITIONS	TO BE REMOVED
40708	TREE	94.68	Not Available	89.16	6	12151407.78	3486691.73	EX CONDITIONS	TO BE REMOVED
40716	TREE	93.60	Not Available	88.53	5	12151411.46	3486728.04	EX CONDITIONS	TO BE REMOVED
40724	TREE	94.14	Not Available	88.21	6	12151411.35	3486747.84	EX CONDITIONS	TO BE REMOVED
40732	TREE	90.06	Not Available	88.49	2	12151388.11	3486747.93	EX CONDITIONS	TO BE REMOVED
40740	TREE	87.72	Not Available	90.39	-3	12151347.13	3486660.02	EX CONDITIONS	TO BE REMOVED
40748	TREE	91.02	Not Available	88.94	2	12151480.56	3486651.66	EX CONDITIONS	TO BE REMOVED
40756	TREE	96.54	Not Available	87.97	9	12151484.64	3486709.03	EX CONDITIONS	TO BE REMOVED
40924	TREE	105.09	Not Available	95.21	10	12151295.07	3486398.82	EX CONDITIONS	TO BE REMOVED
40932	TREE	90.18	Not Available	94.08	-4	12151310.11	3486458.35	EX CONDITIONS	TO BE REMOVED
40940	TREE	100.53	Not Available	94.63	6	12151415.46	3486346.15	EX CONDITIONS	TO BE REMOVED
40948	TREE	99.45	Not Available	92.61	7	12151599.05	3486345.66	EX CONDITIONS	TO BE REMOVED
40956	TREE	96.78	Not Available	92.76	4	12151555.75	3486358.86	EX CONDITIONS	TO BE REMOVED
40964	TREE	95.64	Not Available	92.75	3	12151516.55	3486388.37	EX CONDITIONS	TO BE REMOVED
40972	TREE	94.35	Not Available	93.17	1	12151449.92	3486411.49	EX CONDITIONS	TO BE REMOVED
40980	TREE	89.94	Not Available	94.03	-4	12151390.65	3486402.05	EX CONDITIONS	TO BE REMOVED
40988	TREE	87.75	Not Available	92.10	-4	12151437.98	3486486.72	EX CONDITIONS	TO BE REMOVED
40996	TREE	85.65	Not Available	93.74	-8	12151515.47	3486327.88	EX CONDITIONS	TO BE REMOVED
41004	TREE	89.19	Not Available	91.93	-3	12151382.90	3486538.28	EX CONDITIONS	TO BE REMOVED
45566	TREE	99.26	Not Available	87.49	12	12151710.82	3486572.19	EX CONDITIONS	TO BE REMOVED

TREE GROUP 'C' OBSTRUCTIONS

PT #	OBJECT	OBJ. ELEV.	GROUND ELEV.	50:1 PART 77 APPROACH		EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
				P77 Elev	PENETRATION (FT.)				
40156	TREE	78.90	Not Available	62.61	16	12152154.95	3487790.36	EX CONDITIONS	TO BE REMOVED
40164	TREE	56.58	Not Available	62.92	-6	12152208.80	3487731.53	EX CONDITIONS	TO BE REMOVED
40172	TREE	61.44	Not Available	63.20	-2	12152164.62	3487746.55	EX CONDITIONS	TO BE REMOVED
40180	TREE	72.42	Not Available	61.69	11	12152219.76	3487799.69	EX CONDITIONS	TO BE REMOVED
40188	TREE	68.46	Not Available	60.97	7	12152239.41	3487829.89	EX CONDITIONS	TO BE REMOVED
40196	TREE	70.62	Not Available	61.81	9	12152171.52	3487827.39	EX CONDITIONS	TO BE REMOVED
40204	TREE	65.52	Not Available	61.74	4	12152147.72	3487849.62	EX CONDITIONS	TO BE REMOVED
40212	TREE	64.08	Not Available	62.13	2	12152120.85	3487845.15	EX CONDITIONS	TO BE REMOVED
40220	TREE	62.28	Not Available	61.33	1	12152203.17	3487834.10	EX CONDITIONS	TO BE REMOVED

TREE GROUP 'D' OBSTRUCTIONS

PT #	OBJECT	OBJ. ELEV.	GROUND ELEV.	50:1 PART 77 APPROACH		EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
				P77 Elev	PENETRATION (FT.)				
23835	TREE	68.26	Not Available	70.20	-2	12151153.97	3488056.57	EX CONDITIONS	TO BE REMOVED
23843	TREE	71.40	Not Available	70.66	1	12151132.79	3488043.31	EX CONDITIONS	TO BE REMOVED
23851	TREE	70.55	Not Available	71.01	0	12151114.67	3488034.91	EX CONDITIONS	TO BE REMOVED
23859	TREE	71.51	Not Available	68.43	3	12151241.24	3488102.01	EX CONDITIONS	TO BE REMOVED
23867	TREE	73.15	Not Available	65.97	7	12151358.64	3488168.36	EX CONDITIONS	TO BE REMOVED
23875	TREE	72.76	Not Available	64.48	8	12151448.47	3488194.66	EX CONDITIONS	TO BE REMOVED
40772	TREE	69.27	Not Available	64.63	5	12151406.33	3488216.76	EX CONDITIONS	TO BE REMOVED
40780	TREE	68.43	Not Available	64.77	4	12151413.23	3488202.42	EX CONDITIONS	TO BE REMOVED
40788	TREE	69.93	Not Available	64.45	5	12151430.99	3488209.75	EX CONDITIONS	TO BE REMOVED
40796	TREE	71.43	Not Available	65.51	6	12151380.94	3488180.33	EX CONDITIONS	TO BE REMOVED
40804	TREE	69.63	Not Available	66.78	3	12151324.05	3488143.60	EX CONDITIONS	TO BE REMOVED
40812	TREE	68.25	Not Available	67.61	1	12151278.08	3488126.13	EX CONDITIONS	TO BE REMOVED
40820	TREE	69.75	Not Available	68.74	1	12151227.84	3488092.65	EX CONDITIONS	TO BE REMOVED
40828	TREE	62.91	Not Available	69.08	-6	12151207.38	3488086.81	EX CONDITIONS	TO BE REMOVED

NOTES:

1. ALL OBSTRUCTION SURVEY DATA FROM QUANTUM SPATIAL WAS COMPILED BY PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHY DATED 09-04-2017. SURVEY DATA FEATURE ACCURACY IS IN ACCORDANCE WITH REQUIREMENTS OF FAA AC 150/5300-18B.
2. DUE TO THE LARGE QUANTITY OF TREE OBSTRUCTION DATA AND FOR CLARITY PURPOSES ON THE PLAN SHEET, LARGE TREE AREAS WITH MULTIPLE PENETRATIONS HAVE BEEN GROUPED WITH THE HIGHEST PENETRATION OF THE TREE GROUP BEING SPOTLIGHTED IN THE PLAN/PROFILE VIEW. A DETAILED BREAKDOWN OF THE SURFACE OBJECTS AND PENETRATIONS ARE PROVIDED ON THE FOLLOWING DATA TABLES.
3. SOME GROUND ELEVATIONS ARE NOT INCLUDED AS THE LOCATION OF THE OBSTRUCTION IS BEYOND THE LIMIT OF THE GROUND TOPO ACQUIRED.
4. GRID BASED ON VIRGINIA STATE PLANE SOUTH ZONE COORDINATE SYSTEM AND NAD 1983. VERTICAL DATUM BASED ON NAVD 1988.
5. NEGATIVE PENETRATION VALUE REPRESENTS OBJECT CLEARANCE FROM SURFACE. POSITIVE PENETRATION VALUE REPRESENTS AMOUNT ABOVE THE SURFACE.

TREE GROUP 'B' OBSTRUCTIONS

PT #	OBJECT	OBJ. ELEV.	GROUND ELEV.	50:1 PART 77 APPROACH		EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
				P77 Elev	PENETRATION (FT.)				
24368	TREE	92.36	Not Available	88.51	4	12151227.14	3486865.20	EX CONDITIONS	TO BE REMOVED
24381	TREE	96.01	Not Available	85.89	10	12151236.10	3487021.38	EX CONDITIONS	TO BE REMOVED
24397	TREE	102.52	Not Available	82.34	20	12151400.89	3487120.53	EX CONDITIONS	TO BE REMOVED
24405	TREE	89.37	Not Available	79.94	9	12151451.71	3487231.78	EX CONDITIONS	TO BE REMOVED
24413	TREE	84.33	Not Available	80.00	4	12151436.08	3487240.12	EX CONDITIONS	TO BE REMOVED
24421	TREE	91.72	Not Available	79.54	12	12151392.57	3487300.76	EX CONDITIONS	TO BE REMOVED
24429	TREE	83.66	Not Available	79.93	4	12151365.81	3487295.93	EX CONDITIONS	TO BE REMOVED
24437	TREE	89.20	Not Available	75.86	13	12151576.35	3487393.92	EX CONDITIONS	TO BE REMOVED
24445	TREE	87.97	Not Available	75.34	13	12151590.56	3487415.53	EX CONDITIONS	TO BE REMOVED
31941	TREE	92.30	Not Available	83.98	8	12151320.52	3487077.91	EX CONDITIONS	TO BE REMOVED
40244	TREE	99.90	Not Available	73.53	26	12152017.87	3487212.98	EX CONDITIONS	TO BE REMOVED
40252	TREE	94.62	Not Available	72.45	22	12152049.15	3487256.92	EX CONDITIONS	TO BE REMOVED
40260	TREE	99.42	Not Available	73.26	26	12151997.51	3487244.45	EX CONDITIONS	TO BE REMOVED
40268	TREE	98.22	Not Available	72.97	25	12151987.13	3487270.44	EX CONDITIONS	TO BE REMOVED
40276	TREE	86.34	Not Available	73.60	13	12151932.15	3487271.91	EX CONDITIONS	TO BE REMOVED
40284	TREE	85.68	Not Available	73.99	12	12151911.73	3487262.54	EX CONDITIONS	TO BE REMOVED
40292	TREE	72.24	Not Available	73.56	-1	12151901.37	3487297.09	EX CONDITIONS	TO BE REMOVED
40300	TREE	75.66	Not Available	74.63	1	12151884.08	3487243.37	EX CONDITIONS	TO BE REMOVED
40308	TREE	77.34	Not Available	74.55	3	12151993.95	3487167.49	EX CONDITIONS	TO BE REMOVED
40316	TREE	101.46	Not Available	73.13	28	12151848.72	3487362.74	EX CONDITIONS	TO BE REMOVED
40324	TREE	89.58	Not Available	72.19	17	12151893.62	3487387.86	EX CONDITIONS	TO BE REMOVED
40332	TREE	79.86	Not Available	71.52	8	12151918.67	3487411.06	EX CONDITIONS	TO BE REMOVED
40340	TREE	83.70	Not Available	70.80	13	12151974.05	3487414.75	EX CONDITIONS	TO BE REMOVED
40348	TREE	88.14	Not Available	74.13	14	12151794.93	3487340.11	EX CONDITIONS	TO BE REMOVED
40356	TREE	79.50	Not Available	74.94	5	12151753.02	3487320.60	EX CONDITIONS	TO BE REMOVED
40364	TREE	74.34	Not Available	75.82	-1	12151708.49	3487298.42	EX CONDITIONS	TO BE REMOVED
40372	TREE	72.90	Not Available	76.69	-4	12151671.04	3487272.43	EX CONDITIONS	TO BE REMOVED
40380	TREE	81.78	Not Available	77.64	4	12151619.95	3487250.88	EX CONDITIONS	TO BE REMOVED
40388	TREE	78.30	Not Available	78.23	0	12151586.49	3487239.11	EX CONDITIONS	TO BE REMOVED
40396	TREE	85.02	Not Available	79.31	6	12151543.60	3487203.45	EX CONDITIONS	TO BE REMOVED
40404	TREE	82.26	Not Available	80.42	2	12151500.81	3487165.97	EX CONDITIONS	TO BE REMOVED
40412	TREE	96.66	Not Available	81.64	15	12151449.34	3487128.03	EX CONDITIONS	TO BE REMOVED
40420	TREE	113.82	Not Available	82.79	31	12151402.35	3487091.13	EX CONDITIONS	TO BE REMOVED
40428	TREE	100.38	Not Available	84.09	16	12151392.21	3487017.94	EX CONDITIONS	TO BE REMOVED
40436	TREE	106.62	Not Available	85.41	21	12151383.68	3486942.39	EX CONDITIONS	TO BE REMOVED
40444	TREE	83.82	Not Available	85.20	-1	12151343.44	3486984.99	EX CONDITIONS	TO BE REMOVED
40452	TREE	94.86	Not Available	85.30	10	12151283.27	3487023.14	EX CONDITIONS	TO BE REMOVED
40460	TREE	93.18	Not Available	86.79	6	12151211.80	3486983.69	EX CONDITIONS	TO BE REMOVED
40468	TREE	83.82	Not Available	86.19	-2	12151212.46	3487020.45	EX CONDITIONS	TO BE REMOVED
40476	TREE	92.46	Not Available	84.79	8	12151271.07	3487063.98	EX CONDITIONS	TO BE REMOVED
40484	TREE	85.62	Not Available	83.68	2	12151359.02	3487067.85	EX CONDITIONS	TO BE REMOVED
40492	TREE	88.98	Not Available	81.74	7	12151535.12	3487058.60	EX CONDITIONS	TO BE REMOVED
40500	TREE	104.94	Not Available	83.19	22	12151453.13	3487029.12	EX CONDITIONS	TO BE REMOVED
40508	TREE	103.02	Not Available	84.19	19	12151440.89	3486976.24	EX CONDITIONS	TO BE REMOVED
40532	TREE	93.78	Not Available	80.09	14	12151686.54	3487049.86	EX CONDITIONS	TO BE REMOVED
40540	TREE	89.94	Not Available	79.66	10	12151723.80	3487049.07	EX CONDITIONS	TO BE REMOVED
41012	TREE	90.45	Not Available	89.19	1	12151237.82	3486815.33	EX CONDITIONS	TO BE REMOVED
41020	TREE	90.18	Not Available	88.64	2	12151292.42	3486809.21	EX CONDITIONS	TO BE REMOVED
45502	TREE	79.04	Not Available	73.70	5	12151952.92	3487250.09	EX CONDITIONS	TO BE REMOVED

TREE GROUP 'E' OBSTRUCTIONS

PT #	OBJECT	OBJ. ELEV.	GROUND ELEV.	50:1 PART 77 APPROACH		EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
				P77 Elev	PENETRATION (FT.)				
25411	TREE	73.70	Not Available	62.38	11	12151373.29	3488380.33	EX CONDITIONS	TO BE REMOVED
39428	TREE	78.15	Not Available	63.29	15	12150948.49	3488637.19	EX CONDITIONS	TO BE REMOVED
39436	TREE	80.19	Not Available	62.82	17	12150994.78	3488632.08	EX CONDITIONS	TO BE REMOVED
39444	TREE	74.85	Not Available	63.31	12	12150967.34	3488622.16	EX CONDITIONS	TO BE REMOVED
39452	TREE	72.03	Not Available	62.93	9	12150964.32	3488647.87	EX CONDITIONS	TO BE REMOVED
39460	TREE	76.53	Not Available	62.50	14	12151039.81	3488618.77	EX CONDITIONS	TO BE REMOVED
39468	TREE	73.65	Not Available	62.89	11	12151006.96	3488618.81	EX CONDITIONS	TO BE REMOVED
39476	TREE	66.15	Not Available	63.36	3	12151006.45	3488590.37	EX CONDITIONS	TO BE REMOVED
39484	TREE	68.13	Not Available	62.97	5	12151032.79	3488595.05	EX CONDITIONS	TO BE REMOVED
39492	TREE	65.91	Not Available	63.24	3	12151042.14	3488571.12	EX CONDITIONS	TO BE REMOVED
39500	TREE	60.63	Not Available	62.41	-2	12151082.18	3488593.09	EX CONDITIONS	TO BE REMOVED
39508	TREE	61.17	Not Available	62.27	-1	12151072.91	3488608.97	EX CONDITIONS	TO BE REMOVED
39516	TREE	68.25	Not Available	63.09	5	12151083.54	3488549.82	EX CONDITIONS	TO BE REMOVED
39524	TREE	71.67	Not Available	62.72	9	12151099.68	3488561.45	EX CONDITIONS	TO BE REMOVED
39532	TREE	75.81	Not Available	62.70	13	12151127.44	3488542.23	EX CONDITIONS	TO BE REMOVED
39540	TREE	67.05	Not Available	62.32	5	12151159.52	3488541.73	EX CONDITIONS	TO BE REMOVED
39548	TREE	68.55	Not Available	62.47	6	12151173.55	3488522.51	EX CONDITIONS	TO BE REMOVED
39556	TREE	66.99	Not Available	62.16	5	12151141.45	3488565.07	EX CONDITIONS	TO BE REMOVED
39588	TREE	72.63	Not Available	62.49	10	12151226.77	3488481.67	EX CONDITIONS	TO BE REMOVED
39596	TREE	74.79	Not Available	62.53	12	12151245.03	3488465.90	EX CONDITIONS	TO BE REMOVED
39604	TREE	60.69	Not Available	62.13	-1	12151277.17	3488467.13	EX CONDITIONS	TO BE REMOVED
39612	TREE	78.27	Not Available	62.34	16	12151319.11	3488423.30	EX CONDITIONS	TO BE REMOVED
39620	TREE	76.77	Not Available	62.42	14	12151339.65	3488403.10	EX CONDITIONS	TO BE REMOVED

TREE GROUP 'F' OBSTRUCTIONS

PT #	OBJECT	OBJ. ELEV.	GROUND ELEV.	50:1 PART 77 APPROACH		EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
				P77 Elev	PENETRATION (FT.)				
23487	TREE	58.77	Not Available	45.30	13	12151969.30	3489002.17	EX CONDITIONS	TO BE REMOVED
23495	TREE	44.92	Not Available	45.50	-1	12151971.30	3488988.38	EX CONDITIONS	TO BE REMOVED
23503	TREE	46.50	Not Available	46.61	0	12151953.51	3488932.79	EX CONDITIONS	TO BE REMOVED
23511	TREE	51.26	Not Available	47.89	3	12151937.79	3488864.52	EX CONDITIONS	TO BE REMOVED
23519	TREE	57.83	Not Available	49.27	9	12151932.26	3488783.06	EX CONDITIONS	TO BE REMOVED
23527	TREE	48.45	Not Available	49.07	-1	12151931.92	3488795.33	EX CONDITIONS	TO BE REMOVED
23535	TREE	46.75	Not Available	49.72	-3	12151926.97	3488758.71	EX CONDITIONS	TO BE REMOVED
23543	TREE	47.31	Not Available	50.23	-3	12151928.99	3488725.51	EX CONDITIONS	TO BE REMOVED
23556	TREE	77.69	Not Available	53.78	24	12151817.88	3488587.26	EX CONDITIONS	TO BE REMOVED
23564	TREE	56.80	Not Available	51.32	5	12151870.79	3488700.62	EX CONDITIONS	TO BE REMOVED
23572	TREE	67.08	Not Available	50.26	17	12152258.67	3488481.05	EX CONDITIONS	TO BE REMOVED
23580	TREE	70.09	Not Available	51.66	18	12152055.63	3488543.36	EX CONDITIONS	TO BE REMOVED
23588	TREE	51.33	Not Available	55.42	-4	12151580.37	3488660.39	EX CONDITIONS	TO BE REMOVED
23619	TREE	57.75	Not Available	50.97	7	12151752.17	3488810.22	EX CONDITIONS	TO BE REMOVED
23627	TREE	67.33	Not Available	54.23	13	12151645.23	3488686.11	EX CONDITIONS	TO BE REMOVED
25503	TREE	71.63	Not Available	49.23	22	12152384.43	3488451.97	EX CONDITIONS	TO BE REMOVED
25511	TREE	78.69	Not Available	47.13	32	12152595.27	3488427.42	EX CONDITIONS	TO BE REMOVED
31861	TREE	65.34	Not Available	52.33	13	12151734.44	3488738.67	EX CONDITIONS	TO BE REMOVED
31869	TREE	50.53	Not Available	49.08	1	12151784.14	3488904.13	EX CONDITIONS	TO BE REMOVED
31877	TREE	68.41	Not Available	54.11	14	12151751.90	3488615.16	EX CONDITIONS	TO BE REMOVED
31885	TREE	75.25	Not Available	53.31	22	12151883.67	3488567.60	EX CONDITIONS	TO BE REMOVED
31893	TREE	63.85	Not Available	51.02	13	12152157.22	3488508.52	EX CONDITIONS	TO BE REMOVED
31901	TREE	67.45	Not Available	51.53	16	12151999.49	3488592.96	EX CONDITIONS	TO BE REMOVED
32098	TREE	63.98	Not Available	52.27	12	12151807.67	3488688.47	EX CONDITIONS	TO BE REMOVED
35452	TREE	69.10	Not Available	52.61	16	12151846.82	3488638.58	EX CONDITIONS	TO BE REMOVED
38681	POLE_LIGHT	45.65	15.352	49.81	-4	12151826.57	3488827.46	EX CONDITIONS	
38812	TREE	75.54	Not Available	46.49	29	12152665.54	3488415.43	EX CONDITIONS	TO BE REMOVED
38820	TREE	70.98	Not Available	46.43	25	12152609.50	3488460.39	EX CONDITIONS	TO BE REMOVED
38828	TREE	67.74	Not Available	45.56	22	12152699.93	3488447.82	EX CONDITIONS	TO BE REMOVED
38836	TREE	60.00	Not Available	45.76	14	12152677.58	3488451.86	EX CONDITIONS	TO BE REMOVED
38844	TREE	70.38	Not Available	46.65	24	12152637.77	3488425.66	EX CONDITIONS	TO BE REMOVED
38852	TREE	72.84	Not Available	48.08	25	12152522.40	3488422.06	EX CONDITIONS	TO BE REMOVED
38860	TREE	67.86	Not Available	48.10	20	12152498.70	3488437.85	EX CONDITIONS	TO BE REMOVED
38868	TREE	64.32	Not Available	47.52	17	12152525.05	3488454.98	EX CONDITIONS	TO BE REMOVED
38876	TREE	58.68	Not Available	47.92	11	12152481.64	3488461.73	EX CONDITIONS	TO BE REMOVED
38884	TREE	59.88	Not Available	48.78	11	12152430.76	3488446.22	EX CONDITIONS	TO BE REMOVED
38892	TREE	58.14	Not Available	48.35	10	12152422.08	3488479.07	EX CONDITIONS	TO BE REMOVED
38900	TREE	53.10	Not Available	47.87	5	12152463.08	3488478.50	EX CONDITIONS	TO BE REMOVED
38908	TREE	68.64	Not Available	48.72	20	12152390.12	3488479.49	EX CONDITIONS	TO BE REMOVED
38916	TREE	57.06	Not Available	49.40	8	12152349.28	3488467.60	EX CONDITIONS	TO BE REMOVED
38924	TREE	57.48	Not Available	49.35	8	12152317.09	3488494.34	EX CONDITIONS	TO BE REMOVED
38932	TREE	46.56	Not Available	48.95	-2	12152342.37	3488500.61	EX CONDITIONS	TO BE REMOVED
38940	TREE	64.20	Not Available	49.66	15	12152280.27	3488502.16	EX CONDITIONS	TO BE REMOVED
38948	TREE	59.22	Not Available	49.79	9	12152260.67	3488508.43	EX CONDITIONS	TO BE REMOVED
38956	TREE	52.02	Not Available	50.05	2	12152236.03	3488510.58	EX CONDITIONS	TO BE REMOVED
38964	TREE	55.74	Not Available	50.18	6	12152204.02	3488526.39	EX CONDITIONS	TO BE REMOVED
38972	TREE	61.32	Not Available	50.84	10	12152188.09	3488496.79	EX CONDITIONS	TO BE REMOVED
38980	TREE	51.48	Not Available	50.44	1	12152177.31	3488529.48	EX CONDITIONS	TO BE REMOVED
38988	TREE	58.68	Not Available	51.43	7	12152129.86	3488502.99	EX CONDITIONS	TO BE REMOVED
38996	TREE	58.26	Not Available	51.08	7	12152120.58	3488531.53	EX CONDITIONS	TO BE REMOVED
39004	TREE	65.46	Not Available	50.88	15	12152073.42	3488578.79	EX CONDITIONS	TO BE REMOVED
39012	TREE	61.32	Not Available	51.53	10	12152087.13	3488528.66	EX CONDITIONS	TO BE REMOVED
39020	TREE	58.74	Not Available	50.99	8	12152096.70	3488554.70	EX CONDITIONS	TO BE REMOVED
39028	TREE	67.74	Not Available	50.98	17	12152038.59	3488598.26	EX CONDITIONS	TO BE REMOVED
39036	TREE	66.30	Not Available	51.62	15	12152024.93	3488568.69	EX CONDITIONS	TO BE REMOVED
39044	TREE	44.58	Not Available	50.50	-6	12151924.80	3488711.79	EX CONDITIONS	TO BE REMOVED
39052	TREE	44.88	Not Available	48.99	-4	12151923.62	3488806.82	EX CONDITIONS	TO BE REMOVED
39060	TREE	37.80	Not Available	46.06	-8	12151961.72	3488960.71	EX CONDITIONS	TO BE REMOVED
39068	TREE	38.70	Not Available	46.33	-8	12151967.96	3488939.25	EX CONDITIONS	TO BE REMOVED
39076	TREE	39.42	Not Available	44.39	-5	12151963.86	3489063.02	EX CONDITIONS	TO BE REMOVED
39084	TREE	34.92	Not Available	43.81	-9	12151977.48	3489088.83	EX CONDITIONS	TO BE REMOVED
39108	TREE	76.32	Not Available	53.48	23	12151838.43	3488590.68	EX CONDITIONS	TO BE REMOVED
39116	TREE	60.12	Not Available	52.82	7	12151867.61	3488610.07	EX CONDITIONS	TO BE REMOVED
39124	TREE	63.96	Not Available	52.23	12	12151860.48	3488652.15	EX CONDITIONS	TO BE REMOVED
39132	TREE	43.02	Not Available	51.86	-9	12151896.63	3488648.41	EX CONDITIONS	TO BE REMOVED
39140	TREE	47.76	Not Available	51.06	-3	12151857.18	3488726.88	EX CONDITIONS	TO BE REMOVED
39148	TREE	53.10	Not Available	51.76	1	12151814.76	3488714.96	EX CONDITIONS	TO BE REMOVED
39156	TREE	71.82	Not Available	53.40	18	12151795.85	3488626.93	EX CONDITIONS	TO BE REMOVED
39164	TREE	68.40	Not Available	52.71	16	12151809.55	3488659.46	EX CONDITIONS	TO BE REMOVED
39172	TREE	62.46	Not Available	53.74	9	12151749.30	3488640.44	EX CONDITIONS	TO BE REMOVED
39180	TREE	54.81	Not Available	52.50	2	12151907.92	3488600.39	EX CONDITIONS	TO BE REMOVED
39188	TREE	49.50	Not Available	55.70	-6	12151497.17	3488703.94	EX CONDITIONS	TO BE REMOVED
39196	TREE	47.40	Not Available	55.45	-8	12151558.31	3488674.45	EX CONDITIONS	TO BE REMOVED
39204	TREE	48.66	Not Available	55.11	-6	12151606.12	3488660.83	EX CONDITIONS	TO BE REMOVED
39212	TREE	63.96	Not Available	53.58	10	12151688.80	3488694.56	EX CONDITIONS	TO BE REMOVED

TREE GROUP 'F' OBSTRUCTIONS (Con't.)

PT #	OBJECT	OBJ. ELEV.	GROUND ELEV.	50:1 PART 77 APPROACH		EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
				P77 Elev	PENETRATION (FT.)				
39300	TREE	47.76	Not Available	50.48	-3	12151761.39	3488833.68	EX CONDITIONS	TO BE REMOVED
39308	TREE	48.66	Not Available	50.79	-2	12151778.09	3488801.88	EX CONDITIONS	TO BE REMOVED
39316	TREE	47.79	Not Available	50.15	-2	12151798.90	3488826.73	EX CONDITIONS	TO BE REMOVED
39324	TREE	47.97	Not Available	49.90	-2	12151797.60	3488843.13	EX CONDITIONS	TO BE REMOVED
39332	TREE	46.71	Not Available	49.93	-3	12151783.52	3488851.60	EX CONDITIONS	TO BE REMOVED
39340	TREE	47.67	Not Available	49.41	-2	12151797.67	3488873.45	EX CONDITIONS	TO BE REMOVED
39348	TREE	40.83	Not Available	48.43	-8	12151790.55	3488939.32	EX CONDITIONS	TO BE REMOVED
39356	TREE	68.25	Not Available	52.03	16	12151840.70	3488678.68	EX CONDITIONS	TO BE REMOVED
45374	TREE	74.66	Not Available	46.72	28	12152679.24	3488390.78	EX CONDITIONS	TO BE REMOVED

TREE GROUP 'G' OBSTRUCTIONS

PT #	OBJECT	OBJ. ELEV.	GROUND ELEV.	50:1 PART 77 APPROACH		EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
				P77 Elev	PENETRATION (FT.)				
24453	TREE	67.05	Not Available	60.14	7	12151782.29	3488218.50	EX CONDITIONS	TO BE REMOVED
24461	TREE	70.15	Not Available	60.34	10	12151792.64	3488198.43	EX CONDITIONS	TO BE REMOVED
24469	TREE	67.11	Not Available	60.63	6	12151821.29	3488159.17	EX CONDITIONS	TO BE REMOVED
24477	TREE	67.51	Not Available	60.70	7	12151835.30	3488144.16	EX CONDITIONS	TO BE REMOVED
24485	TREE	71.16	Not Available	61.09	10	12151842.75	3488114.85	EX CONDITIONS	TO BE REMOVED
24493	TREE	60.06	Not Available	61.54	-1	12151875.83	3488062.66	EX CONDITIONS	TO BE REMOVED
24501	TREE	65.23	Not Available	61.82	3	12151904.90	3488023.36	EX CONDITIONS	TO BE REMOVED
24509	TREE	64.22	Not Available	62.10	2	12151908.35	3488003.59	EX CONDITIONS	TO BE REMOVED
24517	TREE	57.17	Not Available	62.19	-5	12151928.25	3487983.10	EX CONDITIONS	TO BE REMOVED
40228	TREE	60.48	Not Available	62.63	-2	12151958.93	3487933.19	EX CONDITIONS	TO BE REMOVED
40236	TREE	54.84	Not Available	60.67	-6	12152026.09	3488005.89	EX CONDITIONS	TO BE REMOVED

TREE GROUP 'H' OBSTRUCTIONS

PT #	OBJECT	OBJ. ELEV.	GROUND ELEV.	50:1 PART 77 APPROACH		EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
				P77 Elev	PENETRATION (FT.)				
23769	TREE	82.04	Not Available	57.73	24	12151754.25	3488388.85	EX CONDITIONS	TO BE REMOVED
23785	TREE	79.23	Not Available	55.10	24	12152134.98	3488271.46	EX CONDITIONS	TO BE REMOVED
23793	TREE	72.64	Not Available	56.86	16	12151918.73	3488321.48	EX CONDITIONS	TO BE REMOVED
25463	TREE	77.75	Not Available	54.23	24	12152246.88	3488242.78	EX CONDITIONS	TO BE REMOVED
25471	TREE	77.12	Not Available	52.52	25	12152384.06	3488248.16	EX CONDITIONS	TO BE REMOVED
25479	TREE	73.60	Not Available	51.68	22	12152550.70	3488177.71	EX CONDITIONS	TO BE REMOVED
31909	TREE	66.50	Not Available	58.58	8	12151667.45	3488400.14	EX CONDITIONS	TO BE REMOVED
31917	TREE	77.60	Not Available	57.19	20	12151830.70	3488365.56	EX CONDITIONS	TO BE REMOVED
31925	TREE	70.82	Not Available	55.82	15	12151994.45	3488330.50	EX CONDITIONS	TO BE REMOVED
31933	TREE	71.54	Not Available	55.19	16	12152074.63	3488310.17	EX CONDITIONS	TO BE REMOVED
39628	TREE	72.87	Not Available	57.91	15	12151730.97	3488394.66	EX CONDITIONS	TO BE REMOVED
39636	TREE	73.53	Not Available	58.54	15	12151699.45	3488378.50	EX CONDITIONS	TO BE REMOVED
39644	TREE	62.01	Not Available	58.14	4	12151692.70	3488408.71	EX CONDITIONS	TO BE REMOVED
39652	TREE	51.39	Not Available	58.53	-7	12151654.54	3488412.52	EX CONDITIONS	TO BE REMOVED
39660	TREE	77.79	Not Available	57.73	20	12151809.14	3488348.49	EX CONDITIONS	TO BE REMOVED
39668	TREE	78.03	Not Available	57.92	20	12151778.60	3488359.02	EX CONDITIONS	TO BE REMOVED
39676	TREE	73.17	Not Available	57.36	16	12151795.44	3488381.12	EX CONDITIONS	TO BE REMOVED
39684	TREE	76.05	Not Available	57.27	19	12151869.35	3488332.52	EX CONDITIONS	TO BE REMOVED
39692	TREE	74.31	Not Available	57.74	17	12151831.38	3488331.36	EX CONDITIONS	TO BE REMOVED
39700	TREE	72.45	Not Available	57.05	15	12151859.17	3488353.83	EX CONDITIONS	TO BE REMOVED
39708	TREE	67.11	Not Available	56.63	10	12151888.32	3488358.00	EX CONDITIONS	TO BE REMOVED
39716	TREE	74.49	Not Available	56.60	18	12151907.88	3488345.30	EX CONDITIONS	TO BE REMOVED
39724	TREE	68.79	Not Available	57.24	12	12151892.43	3488317.28	EX CONDITIONS	TO BE REMOVED
39732	TREE	71.01	Not Available	56.38	15	12151930.19	3488342.85	EX CONDITIONS	TO BE REMOVED
39740	TREE	70.41	Not Available	56.55	14	12151954.25	3488314.41	EX CONDITIONS	TO BE REMOVED
39748	TREE	67.95	Not Available	56.37	12	12151978.11	3488307.84	EX CONDITIONS	TO BE REMOVED
39756	TREE	67.11	Not Available	55.55	12	12152027.22	3488323.08	EX CONDITIONS	TO BE REMOVED
39764	TREE	64.95	Not Available	55.85	9	12152036.05	3488297.45	EX CONDITIONS	TO BE REMOVED
39772	TREE	56.85	Not Available	56.37	0	12152013.72	3488282.15	EX CONDITIONS	TO BE REMOVED
39780	TREE	56.85	Not Available	56.19	1	12152048.40	3488267.71	EX CONDITIONS	TO BE REMOVED
39788	TREE	70.59	Not Available	55.66	15	12152070.46	3488284.35	EX CONDITIONS	TO BE REMOVED
39796	TREE	74.01	Not Available	55.15	19	12152112.35	3488284.68	EX CONDITIONS	TO BE REMOVED
39804	TREE	76.35	Not Available	55.68	21	12152118.94	3488247.35	EX CONDITIONS	TO BE REMOVED
39812	TREE	75.99	Not Available	54.59	21	12152150.44	3488291.89	EX CONDITIONS	TO BE REMOVED
39820	TREE	55.95	Not Available	55.92	0	12152076.54	3488263.76	EX CONDITIONS	TO BE REMOVED
39828	TREE	74.07	Not Available	55.64	18	12152166.17	3488215.11	EX CONDITIONS	TO BE REMOVED
39836	TREE	73.05	Not Available	55.38	18	12152161.90	3488233.89	EX CONDITIONS	TO BE REMOVED
39844	TREE	76.35	Not Available	54.73	22	12152177.53	3488263.09	EX CONDITIONS	TO BE REMOVED
39852	TREE	74.73	Not Available	54.25	20	12152184.45	3488287.64	EX CONDITIONS	TO BE REMOVED
39860	TREE	75.69	Not Available	54.78	21	12152233.45	3488218.56	EX CONDITIONS	TO BE REMOVED
39868	TREE	65.73	Not Available	55.11	11	12152201.66	3488221.66	EX CONDITIONS	TO BE REMOVED
39876	TREE	66.45	Not Available	54.30	12	12152218.61	3488259.27	EX CONDITIONS	TO BE REMOVED
39884	TREE	75.39	Not Available	53.54	22	12152271.82	3488267.45	EX CONDITIONS	TO BE REMOVED
39892	TREE	72.51	Not Available	54.29	18	12152298.29	3488201.41	EX CONDITIONS	TO BE REMOVED
39900	TREE	71.25	Not Available	54.45	17	12152277.61	3488206.50	EX CONDITIONS	TO BE REMOVED
39908	TREE	70.17	Not Available	54.67	16	12152258.55	3488207.24	EX CONDITIONS	TO BE REMOVED
39916	TREE	73.23	Not Available	53.85	19	12152287.64	3488236.21	EX CONDITIONS	TO BE REMOVED
39924	TREE	66.09	Not Available	55.10	11	12152281.84	3488162.93	EX CONDITIONS	TO BE REMOVED
39932	TREE	66.15	Not Available	53.49	13	12152320.40	3488234.57	EX CONDITIONS	TO BE REMOVED
39940	TREE	66.93	Not Available	53.81	13	12152331.00	3488206.99	EX CONDITIONS	TO BE REMOVED
39948	TREE	67.89	Not Available	53.33	15	12152343.31	3488227.54	EX CONDITIONS	TO BE REMOVED
39956	TREE	69.87	Not Available	52.85	17	12152406.99	3488210.34	EX CONDITIONS	TO BE REMOVED
39964	TREE	69.27	Not Available	52.94	16	12152420.96	3488195.00	EX CONDITIONS	TO BE REMOVED
39972	TREE	63.39	Not Available	53.14	10	12152430.95	3488175.00	EX CONDITIONS	TO BE REMOVED
39980	TREE	64.71	Not Available	53.51	11	12152391.05	3488181.67	EX CONDITIONS	TO BE REMOVED
39988	TREE	65.67	Not Available	53.01	13	12152389.55	3488213.56	EX CONDITIONS	TO BE REMOVED
39996	TREE	59.19	Not Available	52.15	7	12152428.04	3488238.67	EX CONDITIONS	TO BE REMOVED
40004	TREE	68.67	Not Available	52.04	17	12152455.02	3488225.73	EX CONDITIONS	TO BE REMOVED
40012	TREE	68.79	Not Available	51.53	17	12152494.07	3488228.24	EX CONDITIONS	TO BE REMOVED
40020	TREE	71.43	Not Available	52.08	19	12152532.66	3488165.55	EX CONDITIONS	TO BE REMOVED
40028	TREE	69.27	Not Available	51.34	18	12152546.84	3488201.43	EX CONDITIONS	TO BE REMOVED
40036	TREE	59.07	Not Available	51.25	8	12152529.43	3488219.88	EX CONDITIONS	TO BE REMOVED
40044	TREE	54.27	Not Available	52.29	2	12152486.02	3488187.06	EX CONDITIONS	TO BE REMOVED
40052	TREE	46.65	Not Available	53.17	-7	12152465.60	3488147.59	EX CONDITIONS	TO BE REMOVED
40060	TREE	68.19	Not Available	55.46	13	12152229.42	3488179.16	EX CONDITIONS	TO BE REMOVED
40068	TREE	71.37	Not Available	55.94	15	12152213.15	3488161.54	EX CONDITIONS	TO BE REMOVED
40076	TREE	66.93	Not Available	56.28	11	12152222.12	3488134.09	EX CONDITIONS	TO BE REMOVED
40084	TREE	74.97	Not Available	55.81	19	12152242.00	3488148.47	EX CONDITIONS	TO BE REMOVED
40092	TREE	69.57	Not Available	55.85	14	12152261.58	3488131.44	EX CONDITIONS	TO BE REMOVED
40100	TREE	63.69	Not Available	56.53	7	12152154.59	3488168.08	EX CONDITIONS	TO BE REMOVED
40108	TREE	66.87	Not Available	57.03	10	12152113.04	3488167.52	EX CONDITIONS	TO BE REMOVED
40116	TREE	66.27	Not Available	56.14	10	12152129.92	3488210.48	EX CONDITIONS	TO BE REMOVED

TREE GROUP 'I' OBSTRUCTIONS

PT #	OBJECT	OBJ. ELEV.	GROUND ELEV.	50:1 PART 77 APPROACH		EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
				P77 Elev	PENETRATION (FT.)				
25665	TREE	57.64	Not Available	38.26	19	12152829.32	3488805.36	EX CONDITIONS	TO BE REMOVED
25681	TREE	54.70	Not Available	34.78	20	12152912.85	3488960.29	EX CONDITIONS	TO BE REMOVED
25689	TREE	43.14	Not Available	31.04	12	12153028.16	3489107.64	EX CONDITIONS	TO BE REMOVED
25801	TREE	51.77	Not Available	27.77	24	12153139.61	3489239.23	EX CONDITIONS	TO BE REMOVED
38281	TREE	57.62	Not Available	37.32	20	12152848.89	3488849.41	EX CONDITIONS	TO BE REMOVED
38289	TREE	60.08	Not Available	37.02	23	12152876.83	3488847.65	EX CONDITIONS	TO BE REMOVED
38297	TREE	55.70	Not Available	36.60	19	12152865.78	3488881.99	EX CONDITIONS	TO BE REMOVED
38305	TREE	57.68	Not Available	35.70	22	12152895.21	3488915.91	EX CONDITIONS	TO BE REMOVED
38313	TREE	56.06	Not Available	35.65	20	12152924.39	3488897.42	EX CONDITIONS	TO BE REMOVED
38321	TREE	57.80	Not Available	36.80	21	12152901.45	3488842.82	EX CONDITIONS	TO BE REMOVED
38329	TREE	55.22	Not Available	37.75	17	12152876.30	3488802.62	EX CONDITIONS	TO BE REMOVED
38337	TREE	52.64	Not Available	38.17	14	12152815.10	3488821.74	EX CONDITIONS	TO BE REMOVED
38345	TREE	50.00	Not Available	37.42	13	12152827.20	3488859.55	EX CONDITIONS	TO BE REMOVED
38353	TREE	39.02	Not Available	39.68	-1	12152777.74	3488755.13	EX CONDITIONS	TO BE REMOVED
38361	TREE	45.08	Not Available	39.14	6	12152808.22	3488766.47	EX CONDITIONS	TO BE REMOVED
38369	TREE	47.18	Not Available	38.88	8	12152843.50	3488756.50	EX CONDITIONS	TO BE REMOVED
38377	TREE	59.12	Not Available	35.89	23	12152936.30	3488873.77	EX CONDITIONS	TO BE REMOVED
38385	TREE	56.66	Not Available	32.82	24	12153002.62	3489015.75	EX CONDITIONS	TO BE REMOVED
38393	TREE	52.16	Not Available	32.01	20	12153023.54	3489050.39	EX CONDITIONS	TO BE REMOVED
38401	TREE	46.52	Not Available	32.28	14	12152988.94	3489059.50	EX CONDITIONS	TO BE REMOVED
38409	TREE	45.62	Not Available	31.52	14	12153029.69	3489076.51	EX CONDITIONS	TO BE REMOVED
38417	TREE	51.98	Not Available	33.23	19	12152963.12	3489019.43	EX CONDITIONS	TO BE REMOVED
38425	TREE	49.04	Not Available	34.21	15	12152925.87	3488986.05	EX CONDITIONS	TO BE REMOVED
38433	TREE	53.54	Not Available	34.43	19	12152943.12	3488959.52	EX CONDITIONS	TO BE REMOVED
38441	TREE	52.94	Not Available	33.63	19	12152979.80	3488982.32	EX CONDITIONS	TO BE REMOVED
38449	TREE	55.70	Not Available	34.45	21	12152966.74	3488940.96	EX CONDITIONS	TO BE REMOVED
38457	TREE	54.26	Not Available	34.99	19	12152932.06	3488932.70	EX CONDITIONS	TO BE REMOVED
38465	TREE	53.36	Not Available	35.24	18	12152900.71	3488940.46	EX CONDITIONS	TO BE REMOVED
38473	TREE	47.60	Not Available	35.95	12	12152872.13	3488917.80	EX CONDITIONS	TO BE REMOVED
38481	TREE	40.28	Not Available	29.54	11	12153075.37	3489166.14	EX CONDITIONS	TO BE REMOVED
38489	TREE	48.20	Not Available	28.57	20	12153105.91	3489203.34	EX CONDITIONS	TO BE REMOVED
38497	TREE	40.40	Not Available	40.57	0	12152790.71	3488690.56	EX CONDITIONS	TO BE REMOVED
38505	TREE	36.80	Not Available	40.64	-4	12152767.89	3488703.21	EX CONDITIONS	TO BE REMOVED
38513	TREE	37.88	Not Available	40.75	-3	12152747.64	3488711.37	EX CONDITIONS	TO BE REMOVED

NOTES:

1. ALL OBSTRUCTION SURVEY DATA FROM QUANTUM SPATIAL WAS COMPILED BY PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHY DATED 09-04-2017. SURVEY DATA FEATURE ACCURACY IS IN ACCORDANCE WITH REQUIREMENTS OF FAA AC 150/5300-18B.
2. DUE TO THE LARGE QUANTITY OF TREE OBSTRUCTION DATA AND FOR CLARITY PURPOSES ON THE PLAN SHEET, LARGE TREE AREAS WITH MULTIPLE PENETRATIONS HAVE BEEN GROUPED WITH THE HIGHEST PENETRATION OF THE TREE GROUP BEING SPOTLIGHTED IN THE PLAN/PROFILE VIEW. A DETAILED BREAKDOWN OF THE SURFACE OBJECTS AND PENETRATIONS ARE PROVIDED ON THE FOLLOWING DATA TABLES.
3. SOME GROUND ELEVATIONS ARE NOT INCLUDED AS THE LOCATION OF THE OBSTRUCTION IS BEYOND THE LIMIT OF THE GROUND TOPO ACQUIRED.
4. GRID BASED ON VIRGINIA STATE PLANE SOUTH ZONE COORDINATE SYSTEM AND NAD 1983. VERTICAL DATUM BASED ON NAVD 1988.
5. NEGATIVE PENETRATION VALUE REPRESENTS OBJECT CLEARANCE FROM SURFACE. POSITIVE PENETRATION VALUE REPRESENTS AMOUNT ABOVE THE SURFACE.

NO	DATE	REVISION	BY	CK.	APPR.

DESIGNED BY RTL
DRAWN BY PDH
REVIEWED BY NSL
APPROVED BY .

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NORFOLK INTERNATIONAL AIRPORT

PROJECT NAME
AIRPORT LAYOUT PLAN

DRAFT

SHEET TITLE
RUNWAY 5 APPROACH OBSTRUCTIONS 3

JOB NO. 33370
DATE 02/11/2020
FILE NAME ORF_ALP-5-23 APPRCH OBSTR TABLES
REV. NO.
DWG. NO.

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RUNWAY 23 THRESHOLD SITING SURFACE OBSTRUCTIONS

OBJECT	PART OF TREE GROUP	OBJ. ELEV.	GROUND ELEV.	34:1 TSS 5 APPROACH		EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
				TSS 5 Elev	PENETRATION (FT.)				
TREE	L	53.553	Not Available	51.9	2	12159501.88	3498395.76	EX CONDITIONS	TO BE REMOVED
TREE	L	51.414	Not Available	50.3	1	12159450.95	3498367.87	EX CONDITIONS	TO BE REMOVED
TREE	K	20.212	Not Available	15.2	5	12158775.53	3497381.94	EX CONDITIONS	TO BE REMOVED
TREE	K	18.952	Not Available	16.0	3	12158790.88	3497406.46	EX CONDITIONS	TO BE REMOVED
TREE	J	18.502	Not Available	16.3	2	12158314.27	3497770.50	EX CONDITIONS	TO BE REMOVED
TREE	J	19.402	Not Available	17.5	2	12158341.35	3497798.41	EX CONDITIONS	TO BE REMOVED
TREE	J	23.722	Not Available	19.0	5	12158369.90	3497843.27	EX CONDITIONS	TO BE REMOVED
TREE	J	21.682	Not Available	18.3	3	12158357.95	3497823.11	EX CONDITIONS	TO BE REMOVED
TREE	J	20.782	Not Available	20.3	1	12158404.47	3497869.85	EX CONDITIONS	TO BE REMOVED
FENCE	J	18.862	10.102	16.7	2	12158335.97	3497770.49	EX CONDITIONS	
TREE	L	55.252	Not Available	53.3	2	12159751.30	3498272.05	EX CONDITIONS	TO BE REMOVED
TREE	L	59.632	Not Available	51.9	8	12159677.69	3498268.98	EX CONDITIONS	TO BE REMOVED
TREE	L	54.352	Not Available	50.7	4	12159632.59	3498249.11	EX CONDITIONS	TO BE REMOVED
TREE	L	57.592	Not Available	50.3	7	12159606.13	3498250.64	EX CONDITIONS	TO BE REMOVED
TREE	L	51.832	Not Available	50.7	1	12159548.86	3498310.98	EX CONDITIONS	TO BE REMOVED
TREE	L	52.912	Not Available	51.8	1	12159602.71	3498316.99	EX CONDITIONS	TO BE REMOVED
TREE	L	52.072	Not Available	50.3	2	12159428.85	3498381.95	EX CONDITIONS	TO BE REMOVED
TREE	L	59.392	Not Available	53.4	6	12159643.30	3498354.90	EX CONDITIONS	TO BE REMOVED
OBJECT	**PART OF TREE GROUP**	**OBJ. ELEV.**	**GROUND ELEV.**	**30:1 TSS 6 APPROACH**		**EASTING**	**NORTHING**	**TRIGGERING EVENT**	**DISPOSITION**
				TSS 6 Elev	**PENETRATION (FT.)**				
TREE	L	51.414	Not Available	61.5	10	12159450.95	3498367.87	EX CONDITIONS	TO BE REMOVED
TREE	L	52.072	Not Available	61.4	9	12159428.85	3498381.95	EX CONDITIONS	TO BE REMOVED

ROADWAY OBSTRUCTIONS

PT#	OBJECT	EASTING	NORTHING	GROUND ELEV	GROUND + VEHICLE HT.	VEHICLE HT. (FT)	P77 ELEV.	PENETRATION	TRIGGERING EVENT	DISPOSITION
R-40	AIRPORT PERIM. RD.	12159047.41	3498221.93	8.5	18.5	10	31.9	-13.4	EX CONDITIONS	
R-41	HWY 60 - SHORE DR.	12159531.69	3498878.40	12	27	15	48.2	-21.2	EX CONDITIONS	
R-42	AMPHIBIOUS DR.	12159673.09	3499070.16	13	28	15	52.3	-24.3	EX CONDITIONS	
R-43	GUNSTON HALL RD.	12159900.25	3499378.34	12	27	15	60.6	-33.6	EX CONDITIONS	
R-44	HWY 60 - SHORE DR.	12158945.05	3499352.70	10.5	25.5	15	48.9	-23.4	EX CONDITIONS	
R-45	AMPHIBIOUS DR.	12159228.05	3499888.12	5	20	15	60.8	-40.8	EX CONDITIONS	
R-46	GUADALCANAL RD.	12159844.82	3501054.84	7	22	15	87.0	-65.0	EX CONDITIONS	
R-47	HWY 60 - SHORE DR.	12159981.55	3498280.94	16.5	31.5	15	43.9	-12.4	EX CONDITIONS	
R-48	AMPHIBIOUS DR.	12160256.57	3498556.69	14	29	15	51.6	-22.6	EX CONDITIONS	
R-49	NORFOLK SOUTHERN RR	12161184.65	3499487.23	10	33	23	77.6	-44.6	EX CONDITIONS	
R-50	FERRY RD.	12161407.60	3499710.78	8	23	15	83.9	-60.9	EX CONDITIONS	
R-51	AIRPORT PERIM. RD.	12158321.90	3497710.70	11.5	21.5	10	15.0	6.5	EX CONDITIONS	
R-52	AIRPORT PERIM. RD.	12158755.09	3497391.41	9	19	10	15.0	4.0	EX CONDITIONS	

FENCE OBSTRUCTIONS

PT#	OBJECT	EASTING	NORTHING	GROUND ELEV	GROUND + FENCE HT.	FENCE HT. (FT)	P77 ELEV.	PENETRATION	TRIGGERING EVENT	DISPOSITION
F-5	FENCE	12159061.39	3498240.38	7.82	15.82	8	32.3	-16.5	EX CONDITIONS	
F-6	FENCE	12159550.50	3498903.84	12.5	20.5	8	48.8	-28.3	EX CONDITIONS	
F-7	FENCE	12158301.42	3497726.29	9.5	17.5	8	15.0	2.5	EX CONDITIONS	
F-8	FENCE	12158972.75	3499405.18	7	15	8	50.0	-35.0	EX CONDITIONS	
F-9	FENCE	12158765.53	3497383.75	8	16	8	15.0	1.0	EX CONDITIONS	

NOTES:

1. ALL OBSTRUCTION SURVEY DATA FROM QUANTUM SPATIAL WAS COMPILED BY PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHY DATED 09-04-2017. SURVEY DATA FEATURE ACCURACY IS IN ACCORDANCE WITH REQUIREMENTS OF FAA AC 150/5300-18B.
2. DUE TO THE LARGE QUANTITY OF TREE OBSTRUCTION DATA AND FOR CLARITY PURPOSES ON THE PLAN SHEET, LARGE TREE AREAS WITH MULTIPLE PENETRATIONS HAVE BEEN GROUPED WITH THE HIGHEST PENETRATION OF THE TREE GROUP BEING SPOTLIGHTED IN THE PLAN/PROFILE VIEW. A DETAILED BREAKDOWN OF THE SURFACE OBJECTS AND PENETRATIONS ARE PROVIDED ON THE FOLLOWING DATA TABLES.
3. SOME GROUND ELEVATIONS ARE NOT INCLUDED AS THE LOCATION OF THE OBSTRUCTION IS BEYOND THE LIMIT OF THE GROUND TOPO ACQUIRED.
4. GRID BASED ON VIRGINIA STATE PLANE SOUTH ZONE COORDINATE SYSTEM AND NAD 1983. VERTICAL DATUM BASED ON NAVD 1988.
5. NEGATIVE PENETRATION VALUE REPRESENTS OBJECT CLEARANCE FROM SURFACE. POSITIVE PENETRATION VALUE REPRESENTS AMOUNT ABOVE THE SURFACE.

SURFACE OBSTRUCTIONS

PT #	OBJECT	OBJ. ELEV.	GROUND ELEV.	50:1 PART 77 APPROACH		EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
				P77 Elev	PENETRATION (FT.)				
24681	POLE_UTIL	44.32	10.86	47.24	-3	12159510.51	3498834.95	EX CONDITIONS	
24689	POLE_UTIL	46.04	11.58	48.71	-3	12159558.05	3498890.96	EX CONDITIONS	
24697	TREE	54.82	Not Available	57.39	-3	12159871.53	3499199.41	EX CONDITIONS	TO BE REMOVED
24729	BUILDING	82.27	5.08	90.29	-8	12161067.80	3500360.99	EX CONDITIONS	
24745	POLE_LIGHT	81.94	5.58	92.19	-10	12161169.26	3500404.20	EX CONDITIONS	
24761	POLE_UTIL	42.93	9.25	49.65	-7	12159310.30	3499132.26	EX CONDITIONS	
24785	TREE	60.89	Not Available	53.75	7	12159637.32	3499146.05	EX CONDITIONS	TO BE REMOVED
24955	TREE	45.03	Not Available	40.02	5	12159133.04	3498664.52	EX CONDITIONS	TO BE REMOVED
25155	POLE_UTIL	42.33	9.65	49.11	-7	12159426.43	3499013.10	EX CONDITIONS	
26409	POLE	97.93	7.32	90.77	7	12160049.48	3501141.48	EX CONDITIONS	LIGHT/FLAG
26615	POLE	96.77	7.28	69.12	28	12160807.25	3499237.87	EX CONDITIONS	LIGHT/FLAG
32282	TREE	51.41	Not Available	39.01	12	12159450.95	3498367.87	EX CONDITIONS	TO BE REMOVED
32420	TREE	67.52	Not Available	58.38	9	12159991.52	3499172.45	EX CONDITIONS	TO BE REMOVED
32428	TREE	64.40	Not Available	58.75	6	12160039.75	3499159.88	EX CONDITIONS	TO BE REMOVED
32436	TREE	58.70	Not Available	58.03	1	12159964.52	3499170.69	EX CONDITIONS	TO BE REMOVED
37025	RUNWAY_LIGHT	15.41	8.93	18.64	-3	12158654.87	3497688.85	EX CONDITIONS	
37033	RUNWAY_LIGHT	16.16	9.68	22.24	-6	12158761.98	3497833.80	EX CONDITIONS	
37041	RUNWAY_LIGHT	18.65	10.79	25.84	-7	12158868.53	3497978.55	EX CONDITIONS	
37049	RUNWAY_LIGHT	21.98	9.95	29.44	-7	12158975.31	3498123.52	EX CONDITIONS	
37057	RUNWAY_LIGHT	21.98	10.40	29.43	-7	12158997.91	3498106.75	EX CONDITIONS	
37065	RUNWAY_LIGHT	21.95	9.92	29.44	-7	12158952.97	3498140.17	EX CONDITIONS	
37073	BUILDING	24.20	11.78	30.09	-6	12158851.79	3498255.10	EX CONDITIONS	LIGHT/FLAG
37105	RUNWAY_LIGHT	38.24	10.73	44.03	-6	12159408.43	3498710.79	EX CONDITIONS	
37113	POLE_UTIL	42.68	13.37	43.92	-1	12159898.27	3498342.65	EX CONDITIONS	
37121	POLE_UTIL	40.58	11.69	44.61	-4	12159797.81	3498459.93	EX CONDITIONS	
37129	POLE_UTIL	39.83	11.03	45.36	-6	12159703.44	3498575.88	EX CONDITIONS	
37137	POLE_UTIL	39.29	11.54	46.22	-7	12159598.51	3498706.72	EX CONDITIONS	
37145	POLE_UTIL	39.86	11.90	47.80	-8	12159386.32	3498961.52	EX CONDITIONS	
37153	POLE_UTIL	42.08	11.78	48.36	-6	12159272.90	3499079.41	EX CONDITIONS	
37161	POLE_UTIL	42.80	11.99	48.65	-6	12159040.22	3499268.83	EX CONDITIONS	
37169	POLE_UTIL	38.66	11.00	46.20	-8	12159981.68	3498422.84	EX CONDITIONS	
37177	POLE_UTIL	39.98	11.24	46.84	-7	12159887.42	3498532.22	EX CONDITIONS	
37185	POLE_UTIL	41.18	11.12	47.66	-6	12159748.62	3498685.35	EX CONDITIONS	
37209	POLE_LIGHT	44.00	11.54	49.55	-6	12159174.67	3499225.70	EX CONDITIONS	
37217	POLE_UTIL	40.22	11.39	49.84	-10	12159083.98	3499310.62	EX CONDITIONS	
38169	POLE_UTIL	47.84	5.81	58.02	-10	12159409.81	3499578.64	EX CONDITIONS	
38177	POLE_UTIL	48.05	5.06	58.31	-10	12159368.50	3499627.49	EX CONDITIONS	
38185	TREE	52.49	Not Available	52.79	0	12160266.09	3498622.82	EX CONDITIONS	TO BE REMOVED
38193	TREE	43.49	Not Available	50.88	-7	12160183.15	3498565.41	EX CONDITIONS	TO BE REMOVED
38201	TREE	42.29	Not Available	51.66	-9	12160199.47	3498601.71	EX CONDITIONS	TO BE REMOVED
38209	TREE	47.87	Not Available	51.33	-3	12160227.58	3498560.27	EX CONDITIONS	TO BE REMOVED
38217	TREE	43.31	Not Available	50.47	-7	12160204.82	3498523.50	EX CONDITIONS	TO BE REMOVED
38225	RUNWAY_LIGHT	43.94	10.46	49.51	-6	12159570.97	3498931.52	EX CONDITIONS	
38233	RUNWAY_LIGHT	45.92	10.25	53.90	-8	12159701.15	3499107.97	EX CONDITIONS	
38241	RUNWAY_LIGHT	50.15	9.92	57.50	-7	12159808.15	3499252.86	EX CONDITIONS	
38249	TREE	43.01	Not Available	52.50	-9	12159628.97	3499074.21	EX CONDITIONS	TO BE REMOVED
38257	TREE	52.67	Not Available	50.20	2	12158993.84	3499399.46	EX CONDITIONS	TO BE REMOVED
38265	TREE	43.61	Not Available	50.39	-7	12158982.00	3499420.35	EX CONDITIONS	TO BE REMOVED
38273	POLE_UTIL	60.14	8.12	68.63	-8	12160816.39	3499201.05	EX CONDITIONS	
43630	RUNWAY_LIGHT	26.61	6.75	32.88	-6	12159077.59	3498262.11	EX CONDITIONS	
67071	POLE_UTIL	41.78	11.10	47.78	-6	12159651.26	3498764.96	EX CONDITIONS	
67079	POLE_UTIL	41.15	10.73	46.38	-5	12159840.55	3498538.46	EX CONDITIONS	
67096	POLE	38.05	10.53	47.67	-10	12160074.08	3498446.05	EX CONDITIONS	
67504	CRANE	89.74	5.27	89.11	1	12161467.47	3499993.17	EX CONDITIONS	LIGHT/FLAG
67514	POLE_LIGHT	104.31	6.97	105.84	-2	12160761.52	3501552.81	EX CONDITIONS	

TREE GROUP 'J' OBSTRUCTIONS

PT #	OBJECT	OBJ. ELEV.	GROUND ELEV.	50:1 PART 77 APPROACH		EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
				P77 Elev	PENETRATION (FT.)				
36961	TREE	18.50	Not Available	15.91	3	12158314.27	3497770.50	EX CONDITIONS	TO BE REMOVED
36969	TREE	19.40	Not Available	16.68	3	12158341.35	3497798.41	EX CONDITIONS	TO BE REMOVED
36977	TREE	23.72	Not Available	17.74	6	12158369.90	3497843.27	EX CONDITIONS	TO BE REMOVED
36985	TREE	21.68	Not Available	17.27	4	12158357.95	3497823.11	EX CONDITIONS	TO BE REMOVED
36993	TREE	20.78	Not Available	18.58	2	12158404.47	3497869.85	EX CONDITIONS	TO BE REMOVED
37001	TREE	20.42	Not Available	19.08	1	12158412.18	3497895.30	EX CONDITIONS	TO BE REMOVED
37009	TREE	20.18	Not Available	19.63	1	12158433.39	3497913.58	EX CONDITIONS	TO BE REMOVED
37017	TREE	20.42	Not Available	20.72	0	12158463.16	3497959.51	EX CONDITIONS	TO BE REMOVED
37321	FENCE	18.86	10.102	16.17	3	12158335.97	3497770.49	EX CONDITIONS	
37329	FENCE	19.43	10.342	18.66	1	12158414.20	3497867.59	EX CONDITIONS	
37337	FENCE	19.16	10.312	21.42	-2	12158494.67	3497979.87	EX CONDITIONS	
37345	FENCE	19.40	10.972	23.83	-4	12158566.08	3498076.66	EX CONDITIONS	
37353	FENCE	19.37	10.762	26.62	-7	12158649.41	3498189.08	EX CONDITIONS	
37361	FENCE	19.01	9.862	28.80	-10	12158715.07	3498276.13	EX CONDITIONS	
43590	TREE	28.86	Not Available	31.99	-3	12158653.60	3498519.27	EX CONDITIONS	TO BE REMOVED
43598	TREE	36.78	Not Available	30.89	6	12158769.17	3498365.93	EX CONDITIONS	TO BE REMOVED
43606	TREE	29.58	Not Available	31.23	-2	12158744.19	3498405.07	EX CONDITIONS	TO BE REMOVED
43614	TREE	23.70	Not Available	31.96	-8	12158697.88	3498484.55	EX CONDITIONS	TO BE REMOVED
43622	TREE	34.32	Not Available	31.30	3	12158785.93	3498379.05	EX CONDITIONS	TO BE REMOVED
67021	TREE	22.84	Not Available	22.28	1	12158515.65	3498017.65	EX CONDITIONS	TO BE REMOVED
67029	BUSH	21.04	Not Available	25.25	-4	12158598.26	3498141.38	EX CONDITIONS	TO BE REMOVED
67037	BUSH	18.26	Not Available	27.62	-9	12158672.64	3498233.54	EX CONDITIONS	TO BE REMOVED

TREE GROUP 'K' OBSTRUCTIONS

PT #	OBJECT	OBJ. ELEV.	GROUND ELEV.	50:1 PART 77 APPROACH		EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
				P77 Elev	PENETRATION (FT.)				
36553	TREE	20.21	Not Available	15.13	5	12158775.53	3497381.94	EX CONDITIONS	TO BE REMOVED
36561	TREE	18.95	Not Available	15.70	3	12158790.88	3497406.46	EX CONDITIONS	TO BE REMOVED
36569	TREE	18.17	Not Available	17.61	1	12158846.31	3497483.85	EX CONDITIONS	TO BE REMOVED
37225	BUSH	16.61	Not Available	21.21	-5	12158957.84	3497625.15	EX CONDITIONS	
37233	BUSH	16.19	Not Available	18.82	-3	12158881.62	3497533.34	EX CONDITIONS	
37241	BUSH	14.09	Not Available	19.55	-5	12158903.30	3497562.50	EX CONDITIONS	
37249	FENCE	16.94	8.482	21.58	-5	12158958.52	3497647.81	EX CONDITIONS	
37257	FENCE	16.16	7.612	18.57	-2	12158870.01	3497526.21	EX CONDITIONS	
37265	FENCE	18.38	9.892	25.17	-7	12159131.16	3497743.53	EX CONDITIONS	
37273	FENCE	16.55	8.362	23.37	-7	12159044.94	3497695.22	EX CONDITIONS	
37289	FENCE	18.32	9.802	27.33	-9	12159195.55	3497830.39	EX CONDITIONS	
37369	BUSH	18.59	Not Available	22.17	-4	12159026.24	3497634.94	EX CONDITIONS	
37377	BUSH	17.15	Not Available	21.98	-5	12158997.33	3497644.29	EX CONDITIONS	
37385	BUSH	15.83	Not Available	23.26	-7	12159056.32	3497680.30	EX CONDITIONS	
37393	BUSH	20.69	Not Available	24.72	-4	12159122.86	3497721.53	EX CONDITIONS	
37401	BUSH	19.85	Not Available	24.66	-5	12159146.21	3497701.05	EX CONDITIONS	
37409	BUSH	17.93	Not Available	25.33	-7	12159178.22	3497718.62	EX CONDITIONS	
37417	BUSH	23.69	Not Available	27.94	-4	12159220.59	3497849.65	EX CONDITIONS	
37425	BUSH	20.81	Not Available	26.25	-5	12159204.41	3497756.82	EX CONDITIONS	
37433	BUSH	19.85	Not Available	26.31	-6	12159171.22	3497784.64	EX CONDITIONS	
37441	BUSH	17.69	Not Available	27.02	-9	12159216.57	3497795.65	EX CONDITIONS	
37449	BUSH	21.53	Not Available	28.98	-7	12159269.45	3497878.12	EX CONDITIONS	
37457	BUSH	21.89	Not Available	29.85	-8	12159295.57	3497913.37	EX CONDITIONS	
37465	TREE	26.87	Not Available	32.02	-5	12159398.18	3497972.59	EX CONDITIONS	TO BE REMOVED
37473	TREE	26.51	Not Available	31.77	-5	12159443.67	3497923.54	EX CONDITIONS	TO BE REMOVED
67013	BUSH	16.91	Not Available	17.03	0	12158836.97	3497455.19	EX CONDITIONS	TO BE REMOVED
67045	TREE	21.44	Not Available	30.38	-9	12159456.88	3497827.24	EX CONDITIONS	TO BE REMOVED

TREE GROUP 'L' OBSTRUCTIONS

PT #	OBJECT	OBJ. ELEV.	GROUND ELEV.	50:1 PART 77 APPROACH		EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
				P77 Elev	PENETRATION (FT.)				
24641	TREE	53.55	Not Available	40.07	13	12159501.88	3498395.76	EX CONDITIONS	TO BE REMOVED
24649	TREE	47.91	Not Available	38.82	9	12159398.92	3498394.40	EX CONDITIONS	TO BE REMOVED
24657	TREE	47.12	Not Available	40.72	6	12159547.14	3498402.97	EX CONDITIONS	TO BE REMOVED
24963	TREE	43.18	Not Available	38.64	5	12159126.97	3498583.27	EX CONDITIONS	TO BE REMOVED
26557	TREE	73.61	Not Available	42.79	31	12159879.62	3498286.23	EX CONDITIONS	TO BE REMOVED
32308	TREE	36.26	Not Available	39.15	-3	12159192.72	3498566.93	EX CONDITIONS	TO BE REMOVED
32316	TREE	42.46	Not Available	40.14	2	12159180.00	3498637.66	EX CONDITIONS	TO BE REMOVED
32324	TREE	43.02	Not Available	40.79	2	12159096.91	3498738.84	EX CONDITIONS	TO BE REMOVED
32332	TREE	40.63	Not Available	42.14	-2	12159125.72	3498801.45	EX CONDITIONS	TO BE REMOVED
32340	TREE	48.11	Not Available	43.86	4	12159190.11	3498861.26	EX CONDITIONS	TO BE REMOVED
32348	TREE	53.79	Not Available	47.80	6	12159307.81	3499019.11	EX CONDITIONS	TO BE REMOVED
32356	TREE	48.13	Not Available	45.89	2	12159241.98	3498949.16	EX CONDITIONS	TO BE REMOVED
32364	TREE	46.01	Not Available	46.65	-1	12159244.89	3498994.06	EX CONDITIONS	TO BE REMOVED
32372	TREE	44.88	Not Available	44.05	1	12159296.47	3498794.69	EX CONDITIONS	TO BE REMOVED
32380	TREE	49.96	Not Available	45.87	4	12159347.56	3498869.74	EX CONDITIONS	TO BE REMOVED
32388	TREE	52.31	Not Available	47.58	5	12159399.27	3498938.32	EX CONDITIONS	TO BE REMOVED
32396	TREE	51.58	Not Available	47.33	4	12159452.68	3498883.31	EX CONDITIONS	TO BE REMOVED
32404	TREE	46.49	Not Available	45.02	1	12159225.34	3498907.29	EX CONDITIONS	TO BE REMOVED
32412	TREE	49.29	Not Available	47.57	2	12159422.46	3498920.44	EX CONDITIONS	TO BE REMOVED
37097	RUNWAY_LIGHT	33.17	9.802	39.62	-6	12159277.49	3498533.20	EX CONDITIONS	
37481	TREE	73.85	Not Available	43.31	31	12159890.43	3498310.77	EX CONDITIONS	TO BE REMOVED
37489	TREE	75.77	Not Available	42.65	33	12159914.29	3498252.16	EX CONDITIONS	TO BE REMOVED
37497	TREE	70.37	Not Available	43.26	27	12159918.27	3498287.41	EX CONDITIONS	TO BE REMOVED
37505	TREE	69.65	Not Available	43.45	26	12159941.02	3498282.37	EX CONDITIONS	TO BE REMOVED
37513	TREE	73.07	Not Available	42.18	31	12159901.32	3498232.86	EX CONDITIONS	TO BE REMOVED
37521	TREE	54.89	Not Available	42.54	12	12159856.20	3498288.00	EX CONDITIONS	TO BE REMOVED
37529	TREE	37.91	Not Available	42.79	-5	12159841.52	3498314.78	EX CONDITIONS	TO BE REMOVED
37537	TREE	72.89	Not Available	42.59	30	12159888.48	3498267.74	EX CONDITIONS	TO BE REMOVED
37545	TREE	55.25	Not Available	41.04	14	12159751.30	3498272.05	EX CONDITIONS	TO BE REMOVED
37553	TREE	59.63	Not Available	40.11	20	12159677.69	3498268.98	EX CONDITIONS	TO BE REMOVED
37561	TREE	54.35	Not Available	39.26	15	12159632.59	3498249.11	EX CONDITIONS	TO BE REMOVED
37569	TREE	57.59	Not Available	38.97	19	12159606.13	3498250.64	EX CONDITIONS	TO BE REMOVED
37577	TREE	49.25	Not Available	39.04	10	12159589.46	3498267.41	EX CONDITIONS	TO BE REMOVED
37585	TREE	48.05	Not Available	39.44	9	12159614.72	3498273.63	EX CONDITIONS	TO BE REMOVED
37593	TREE	51.83	Not Available	39.26	13	12159548.86	3498310.98	EX CONDITIONS	TO BE REMOVED
37601	TREE	52.91	Not Available	40.00	13	12159602.71	3498316.99	EX CONDITIONS	TO BE REMOVED
37609	TREE	38.63	Not Available	40.32	-2	12159581.81	3498352.65	EX CONDITIONS	TO BE REMOVED
37617	TREE	35.87	Not Available	38.85	-3	12159520.57	3498306.46	EX CONDITIONS	TO BE REMOVED
37625	TREE	43.73	Not Available	39.13	5	12159568.24	3498288.78	EX CONDITIONS	TO BE REMOVED
37633	TREE	49.01	Not Available	39.22	10	12159500.32	3498344.23	EX CONDITIONS	TO BE REMOVED
37641	TREE	52.07	Not Available	38.98	13	12159428.85	3498381.95	EX CONDITIONS	TO BE REMOVED
37649	TREE	49.97	Not Available	41.70	8	12159703.79	3498348.39	EX CONDITIONS	TO BE REMOVED
37657	TREE	59.39	Not Available	41.09	18	12159643.30	3498354.90	EX CONDITIONS	TO BE REMOVED
37665	TREE	49.91	Not Available	41.10	9	12159614.96	3498376.45	EX CONDITIONS	TO BE REMOVED
37673	TREE	48.59	Not Available	39.44	9	12159489.80	3498365.96	EX CONDITIONS	TO BE REMOVED
37681	TREE	41.63	Not Available	39.82	2	12159473.82	3498401.25	EX CONDITIONS	TO BE REMOVED
37689	TREE	33.59	Not Available	40.38	-7	12159441.95	3498459.47	EX CONDITIONS	TO BE REMOVED
37697	TREE	38.27	Not Available	39.45	-1	12159403.15	3498430.01	EX CONDITIONS	TO BE REMOVED
37705	TREE	35.87	Not Available	39.96	-4	12159407.02	3498458.95	EX CONDITIONS	TO BE REMOVED
37713	TREE	37.79	Not Available	39.39	-2	12159376.61	3498446.08	EX CONDITIONS	TO BE REMOVED
37721	TREE	37.13	Not Available	38.74	-2	12159364.86	3498414.34	EX CONDITIONS	TO BE REMOVED
37729	TREE	36.29	Not Available	38.54	-2	12159342.25	3498418.31	EX CONDITIONS	TO BE REMOVED
37737	TREE	34.13	Not Available	38.39	-4	12159322.56	3498423.61	EX CONDITIONS	TO BE REMOVED
37745	TREE	31.73	Not Available	38.56	-7	12159301.36	3498449.90	EX CONDITIONS	TO BE REMOVED
37753	TREE	33.41	Not Available	39.07	-6	12159340.78	3498452.43	EX CONDITIONS	TO BE REMOVED

NO	DATE	REVISION	BY	CK.	APPR.

DESIGNED BY RTL
DRAWN BY PDH
REVIEWED BY NSL
APPROVED BY .

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NORFOLK INTERNATIONAL AIRPORT

PROJECT NAME
AIRPORT LAYOUT PLAN

DRAFT

SHEET TITLE
RUNWAY 23 APPROACH OBSTRUCTIONS 1

JOB NO. 33370
DATE 02/11/2020
FILE NAME ORF_ALP-5-23 APPRCH OBSTR TABLES
REV. NO.
DWG. NO.

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TREE GROUP 'L' OBSTRUCTIONS

PT #	OBJECT	OBJ. ELEV.	GROUND ELEV.	50:1 PART 77 APPROACH		EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
				P77 Elev	PENETRATION (FT.)				
37761	TREE	35.15	Not Available	40.02	-5	12159349.45	3498505.27	EX CONDITIONS	TO BE REMOVED
37769	TREE	33.89	Not Available	39.51	-6	12159323.43	3498492.70	EX CONDITIONS	TO BE REMOVED
37777	TREE	31.67	Not Available	39.62	-8	12159311.44	3498508.24	EX CONDITIONS	TO BE REMOVED
37785	TREE	29.99	Not Available	38.89	-9	12159284.86	3498482.76	EX CONDITIONS	TO BE REMOVED
37793	TREE	32.51	Not Available	38.99	-6	12159307.40	3498472.00	EX CONDITIONS	TO BE REMOVED
37801	TREE	30.23	Not Available	40.06	-10	12159308.52	3498537.83	EX CONDITIONS	TO BE REMOVED
37809	TREE	32.33	Not Available	40.45	-8	12159332.33	3498544.64	EX CONDITIONS	TO BE REMOVED
37817	TREE	34.97	Not Available	40.64	-6	12159349.70	3498543.79	EX CONDITIONS	TO BE REMOVED
37825	TREE	33.41	Not Available	40.76	-7	12159367.43	3498538.08	EX CONDITIONS	TO BE REMOVED
37833	TREE	30.29	Not Available	39.64	-9	12159368.60	3498467.13	EX CONDITIONS	TO BE REMOVED
37841	TREE	39.53	Not Available	39.69	0	12159443.47	3498415.45	EX CONDITIONS	TO BE REMOVED
37849	TREE	35.12	Not Available	41.18	-6	12159428.36	3498518.78	EX CONDITIONS	TO BE REMOVED
37857	TREE	32.78	Not Available	39.66	-7	12159256.57	3498551.52	EX CONDITIONS	TO BE REMOVED
37865	TREE	35.78	Not Available	39.60	-4	12159231.04	3498566.64	EX CONDITIONS	TO BE REMOVED
37873	TREE	36.26	Not Available	39.15	-3	12159192.72	3498566.93	EX CONDITIONS	TO BE REMOVED
37881	TREE	37.76	Not Available	38.36	-1	12159141.05	3498555.36	EX CONDITIONS	TO BE REMOVED
37889	TREE	34.88	Not Available	38.93	-4	12159166.92	3498571.83	EX CONDITIONS	TO BE REMOVED
37897	TREE	30.08	Not Available	39.26	-9	12159215.66	3498556.49	EX CONDITIONS	TO BE REMOVED
37905	TREE	40.58	Not Available	39.25	1	12159124.69	3498622.83	EX CONDITIONS	TO BE REMOVED
37913	TREE	39.56	Not Available	38.95	1	12159124.36	3498604.59	EX CONDITIONS	TO BE REMOVED
37921	TREE	44.54	Not Available	40.19	4	12159164.76	3498651.72	EX CONDITIONS	TO BE REMOVED
37929	TREE	38.12	Not Available	40.86	-3	12159200.67	3498666.93	EX CONDITIONS	TO BE REMOVED
37937	TREE	36.62	Not Available	40.64	-4	12159179.42	3498669.25	EX CONDITIONS	TO BE REMOVED
37945	TREE	35.90	Not Available	42.40	-7	12159265.50	3498715.06	EX CONDITIONS	TO BE REMOVED
37953	TREE	37.40	Not Available	42.21	-5	12159245.31	3498717.88	EX CONDITIONS	TO BE REMOVED
37961	TREE	40.52	Not Available	43.32	-3	12159281.38	3498760.47	EX CONDITIONS	TO BE REMOVED
37969	TREE	45.68	Not Available	44.99	1	12159322.40	3498834.11	EX CONDITIONS	TO BE REMOVED
37977	TREE	40.76	Not Available	44.53	-4	12159316.88	3498809.13	EX CONDITIONS	TO BE REMOVED
37985	TREE	38.36	Not Available	43.91	-6	12159282.92	3498796.03	EX CONDITIONS	TO BE REMOVED
37993	TREE	46.52	Not Available	47.05	-1	12159375.12	3498922.99	EX CONDITIONS	TO BE REMOVED
38001	TREE	42.02	Not Available	47.60	-6	12159383.17	3498951.28	EX CONDITIONS	TO BE REMOVED
38009	TREE	39.86	Not Available	47.26	-7	12159438.26	3498889.32	EX CONDITIONS	TO BE REMOVED
38017	TREE	38.84	Not Available	47.04	-8	12159475.88	3498847.99	EX CONDITIONS	TO BE REMOVED
38025	TREE	37.40	Not Available	46.90	-10	12159450.07	3498858.56	EX CONDITIONS	TO BE REMOVED
38033	TREE	50.30	Not Available	47.81	2	12159334.66	3498999.98	EX CONDITIONS	TO BE REMOVED
38041	TREE	47.30	Not Available	44.66	3	12159216.25	3498891.59	EX CONDITIONS	TO BE REMOVED
38049	TREE	42.74	Not Available	45.49	-3	12159250.90	3498917.39	EX CONDITIONS	TO BE REMOVED
38057	TREE	37.28	Not Available	45.07	-8	12159247.28	3498894.00	EX CONDITIONS	TO BE REMOVED
38065	TREE	39.08	Not Available	45.99	-7	12159264.68	3498938.76	EX CONDITIONS	TO BE REMOVED
38073	TREE	38.30	Not Available	44.28	-6	12159198.71	3498880.92	EX CONDITIONS	TO BE REMOVED
38081	TREE	38.36	Not Available	43.38	-5	12159174.48	3498842.74	EX CONDITIONS	TO BE REMOVED
38089	TREE	41.36	Not Available	42.80	-1	12159144.45	3498829.06	EX CONDITIONS	TO BE REMOVED
38097	TREE	42.68	Not Available	42.81	0	12159174.57	3498807.29	EX CONDITIONS	TO BE REMOVED
38105	TREE	42.74	Not Available	41.80	1	12159119.76	3498784.92	EX CONDITIONS	TO BE REMOVED
38113	TREE	41.72	Not Available	41.34	0	12159104.48	3498767.81	EX CONDITIONS	TO BE REMOVED
38121	TREE	37.64	Not Available	40.41	-3	12159110.25	3498705.58	EX CONDITIONS	TO BE REMOVED
38129	TREE	36.44	Not Available	42.12	-6	12159148.11	3498783.94	EX CONDITIONS	TO BE REMOVED
38137	TREE	37.82	Not Available	42.52	-5	12159150.61	3498806.87	EX CONDITIONS	TO BE REMOVED
38145	TREE	34.04	Not Available	43.34	-9	12159162.06	3498849.42	EX CONDITIONS	TO BE REMOVED
38153	TREE	34.40	Not Available	40.80	-6	12159148.70	3498701.46	EX CONDITIONS	TO BE REMOVED
38161	TREE	37.40	Not Available	40.00	-3	12159113.71	3498677.66	EX CONDITIONS	TO BE REMOVED
43654	TREE	78.06	Not Available	42.62	35	12159921.04	3498222.25	EX CONDITIONS	TO BE REMOVED
67053	TREE	38.84	Not Available	40.26	-1	12159735.58	3498235.70	EX CONDITIONS	TO BE REMOVED

NOTES:

1. ALL OBSTRUCTION SURVEY DATA FROM QUANTUM SPATIAL WAS COMPILED BY PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHY DATED 09-04-2017. SURVEY DATA FEATURE ACCURACY IS IN ACCORDANCE WITH REQUIREMENTS OF FAA AC 150/5300-18B.
2. DUE TO THE LARGE QUANTITY OF TREE OBSTRUCTION DATA AND FOR CLARITY PURPOSES ON THE PLAN SHEET, LARGE TREE AREAS WITH MULTIPLE PENETRATIONS HAVE BEEN GROUPED WITH THE HIGHEST PENETRATION OF THE TREE GROUP BEING SPOTLIGHTED IN THE PLAN/PROFILE VIEW. A DETAILED BREAKDOWN OF THE SURFACE OBJECTS AND PENETRATIONS ARE PROVIDED ON THE FOLLOWING DATA TABLES.
3. SOME GROUND ELEVATIONS ARE NOT INCLUDED AS THE LOCATION OF THE OBSTRUCTION IS BEYOND THE LIMIT OF THE GROUND TOPO ACQUIRED.
4. GRID BASED ON VIRGINIA STATE PLANE SOUTH ZONE COORDINATE SYSTEM AND NAD 1983. VERTICAL DATUM BASED ON NAVD 1988.
5. NEGATIVE PENETRATION VALUE REPRESENTS OBJECT CLEARANCE FROM SURFACE. POSITIVE PENETRATION VALUE REPRESENTS AMOUNT ABOVE THE SURFACE.

NO	DATE	REVISION	BY	CK.	APPR.

DESIGNED BY RTL
DRAWN BY PDH
REVIEWED BY NSL
APPROVED BY

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(518)-453-4500
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NORFOLK INTERNATIONAL AIRPORT

PROJECT NAME
AIRPORT LAYOUT PLAN

DRAFT

SHEET TITLE
RUNWAY 23 APPROACH OBSTRUCTIONS 2

JOB NO. 33370
DATE 02/11/2020
FILE NAME ORF_ALP-5-23 APPRCH OBSTR TABLES
REV. NO.
DWG. NO. 15 of 26

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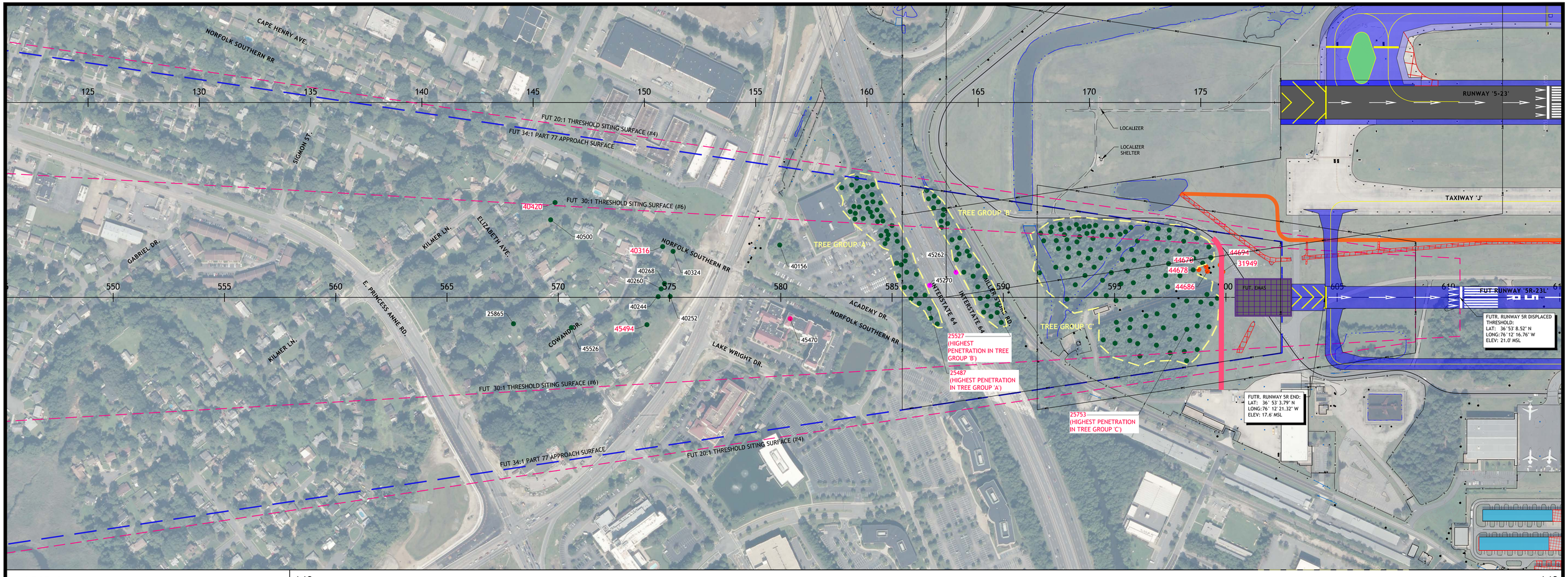

LEGEND:

- ANTENNA
- BUILDING
- BUSH
- COMMUNICATION TOWER
- CRANE
- POLE
- LIGHT POLE
- UTILITY POLE
- ROAD
- RUNWAY LIGHT
- SIGN
- NON-COMM TOWER
- TREE
- UTILITY BOX
- 123 P77 SURFACE PENETRATION
- 123 P77 OBJECT WITHIN 10 OF P77 SURFACE

GRAPHIC SCALE (FEET)

0 100 200 400

HORIZONTAL 20

VERTICAL 0

NOTES:

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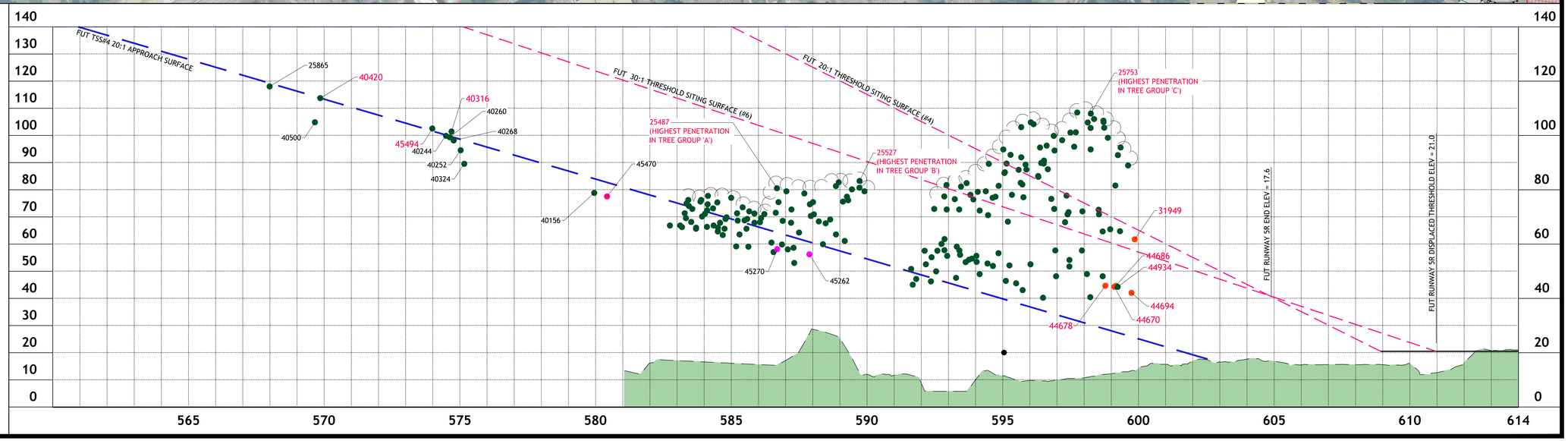

NO	DATE	REVISION	BY	CK.	APPR.

DESIGNED BY RTL
DRAWN BY PDH
REVIEWED BY NSL
APPROVED BY .

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NORFOLK INTERNATIONAL AIRPORT

PROJECT NAME
AIRPORT LAYOUT PLAN

DRAFT

SHEET TITLE
FUTURE RUNWAY 5R INNER APPROACH

JOB NO. 33370
DATE 02/11/2020
FILE NAME ORF_ALP-5-23 Parallel ALT APPRCH
REV. NO.
DWG. NO.

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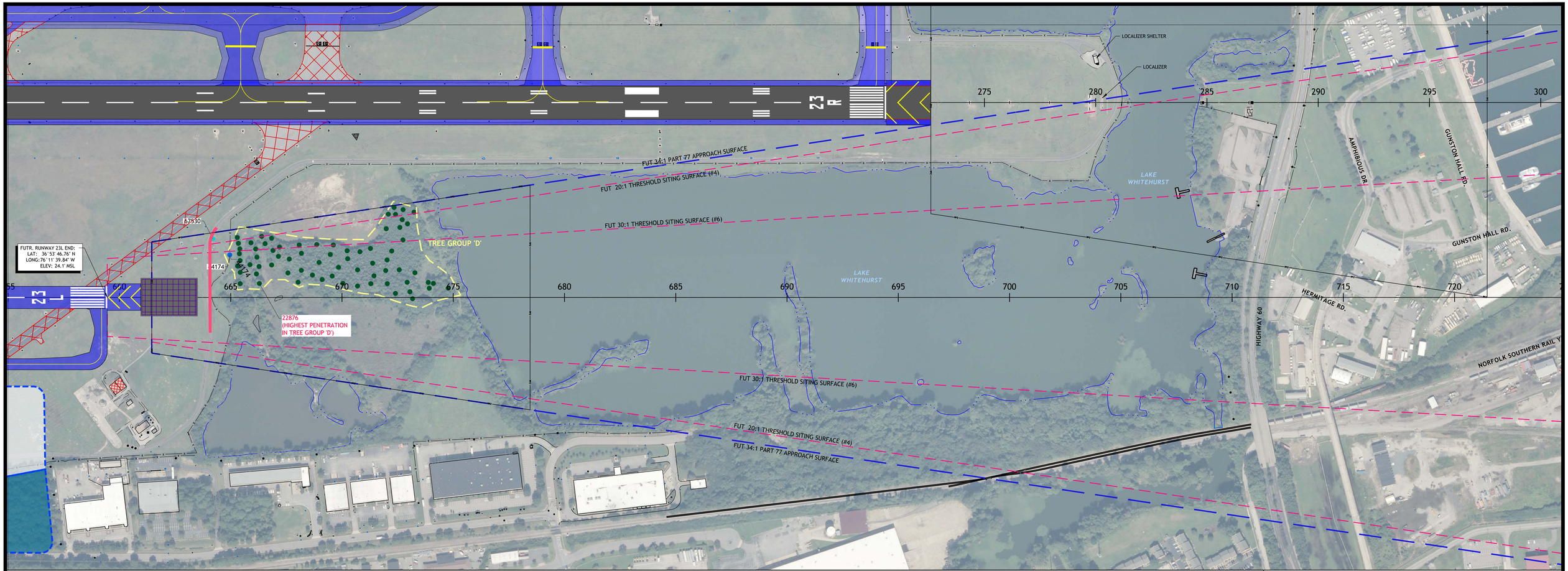

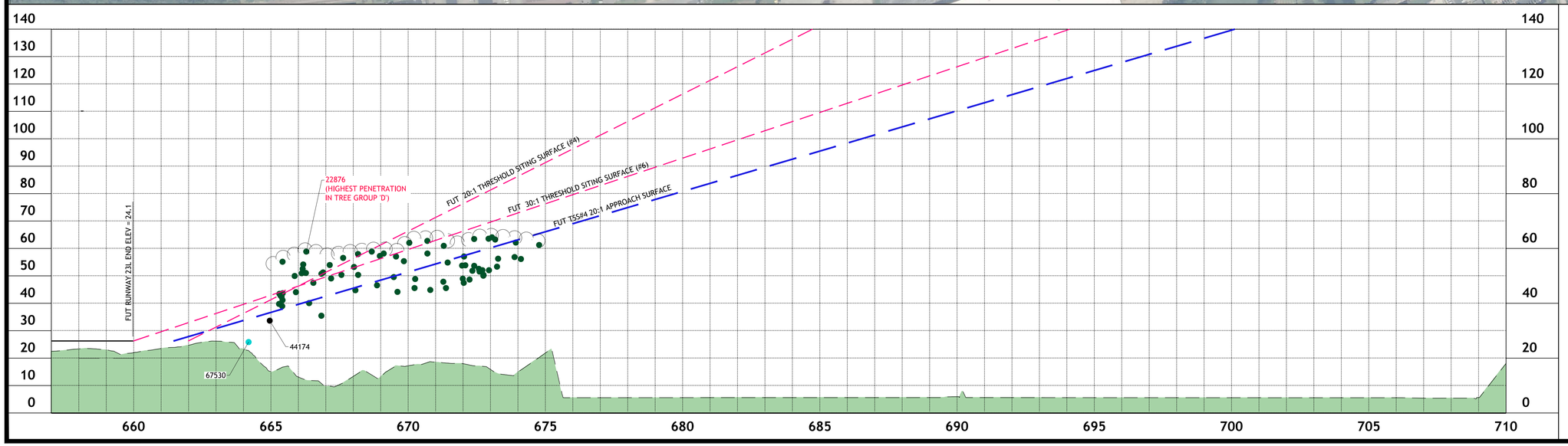

LEGEND:

- ANTENNA
- BUILDING
- BUSH
- COMMUNICATION TOWER
- CRANE
- POLE
- LIGHT POLE
- UTILITY POLE
- ROAD
- RUNWAY LIGHT
- SIGN
- NON-COMM TOWER
- TREE
- UTILITY BOX
- 123 P77 SURFACE PENETRATION
- 123 P77 OBJECT WITHIN 10 OF P77 SURFACE

GRAPHIC SCALE (FEET)

0 100 200 400

HORIZONTAL

20

0

VERTICAL

NOTES:

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NO	DATE	REVISION	BY	CK.	APPR.

DESIGNED BY RTL
DRAWN BY PDH
REVIEWED BY NSL
APPROVED BY .

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NORFOLK INTERNATIONAL AIRPORT

PROJECT NAME: AIRPORT LAYOUT PLAN

DRAFT

SHEET TITLE: FUTURE RUNWAY 23L INNER APPROACH

JOB NO. 33370
DATE 02/11/2020
FILE NAME ORF_ALP-5-23 Parallel ALT APPRCH
REV. NO.
DWG. NO.

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MISCELLANEOUS SURFACE OBSTRUCTIONS

				FUTURE 34:1 PART 77 APPROACH		FUTURE 20:1 THRESHOLD SITING SURFACE					
PT#	OBJECT	OBJ. ELEV.	GROUND ELEV.	FUTURE PART 77 ELEV.	PENETRATION (FT.)	FUTURE TSS ELEV.	PENETRATION (FT.)	NORTHING	EASTING	TRIGGERING EVENT	DISPOSITION
25865	TREE	118.1	NOT AVAILABLE	119.3	-1.2			3486617.446	12151730.210	EXISTING CONDITIONS	TRIM/REMOVE
31949	POLE_UTIL	61.8	NOT AVAILABLE	25.6	36.3	63.9	-2.1	3489321.718	12153433.310	EXISTING CONDITIONS	RELOCATE
40156	TREE	78.9	NOT AVAILABLE	84.1	-5.2			3487790.357	12152154.950	EXISTING CONDITIONS	TRIM/REMOVE
40244	TREE	99.9	NOT AVAILABLE	100.2	-0.3			3487212.980	12152017.870	EXISTING CONDITIONS	TRIM/REMOVE
40252	TREE	94.6	NOT AVAILABLE	98.6	-4.0			3487256.921	12152049.150	EXISTING CONDITIONS	TRIM/REMOVE
40260	TREE	99.4	NOT AVAILABLE	99.8	-0.4			3487244.449	12151997.510	EXISTING CONDITIONS	TRIM/REMOVE
40268	TREE	98.2	NOT AVAILABLE	99.4	-1.1			3487270.440	12151987.130	EXISTING CONDITIONS	TRIM/REMOVE
40316	TREE	101.5	NOT AVAILABLE	99.6	1.9			3487362.735	12151848.720	EXISTING CONDITIONS	TRIM/REMOVE
40324	TREE	89.6	NOT AVAILABLE	98.2	-8.6			3487387.857	12151893.620	EXISTING CONDITIONS	TRIM/REMOVE
40420	TREE	113.8	NOT AVAILABLE	113.8	0.0			3487091.126	12151402.350	EXISTING CONDITIONS	TRIM/REMOVE
40500	TREE	104.9	NOT AVAILABLE	114.4	-9.5			3487029.116	12151453.130	EXISTING CONDITIONS	TRIM/REMOVE
44670	POLE_UTIL	44.3	NOT AVAILABLE	27.8	16.6			3489274.960	12153370.120	EXISTING CONDITIONS	RELOCATE
44678	POLE_UTIL	44.7	NOT AVAILABLE	28.7	16.0			3489240.640	12153361.420	EXISTING CONDITIONS	RELOCATE
44686	POLE_UTIL	44.7	NOT AVAILABLE	27.6	17.1			3489267.469	12153390.440	EXISTING CONDITIONS	RELOCATE
44694	POLE_UTIL	42.1	NOT AVAILABLE	25.9	16.2			3489330.264	12153401.930	EXISTING CONDITIONS	RELOCATE
45262	POLE_LIGHT	56.3	NOT AVAILABLE	60.8	-4.5			3488355.483	12152724.090	EXISTING CONDITIONS	LIGHT
45270	POLE_LIGHT	58.2	NOT AVAILABLE	64.3	-6.1			3488225.205	12152701.110	EXISTING CONDITIONS	LIGHT
45470	BUILDING	77.6	NOT AVAILABLE	82.7	-5.1			3487631.591	12152449.630	EXISTING CONDITIONS	LIGHT
45494	TREE	102.6	NOT AVAILABLE	101.7	0.9			3487097.533	12152089.340	EXISTING CONDITIONS	TRIM/REMOVE
45526	TREE	109.5	NOT AVAILABLE	111.7	-2.1			3486816.614	12151898.320	EXISTING CONDITIONS	TRIM/REMOVE

TREE GROUP B

				FUTURE 34:1 PART 77 APPROACH		FUTURE 20:1 THRESHOLD SITING SURFACE					
PT#	OBJECT	OBJ. ELEV.	GROUND ELEV.	FUTURE PART 77 ELEV.	PENETRATION (FT.)	FUTURE TSS ELEV.	PENETRATION (FT.)	NORTHING	EASTING	TRIGGERING EVENT	DISPOSITION
25503	TREE	71.6	NOT AVAILABLE	64.5	7.2			3488451.968	12152384.430	EX CONDITIONS	TRIM/REMOVE
25511	TREE	78.7	NOT AVAILABLE	61.4	17.3			3488427.416	12152595.270	EX CONDITIONS	TRIM/REMOVE
25519	TREE	81.4	NOT AVAILABLE	57.9	23.4			3488395.423	12152834.690	EX CONDITIONS	TRIM/REMOVE
25527	TREE	83.3	NOT AVAILABLE	55.4	27.9			3488396.803	12152979.510	EX CONDITIONS	TRIM/REMOVE
38812	TREE	75.5	NOT AVAILABLE	60.4	15.1			3488415.434	12152665.540	EX CONDITIONS	TRIM/REMOVE
38820	TREE	71.0	NOT AVAILABLE	60.3	10.7			3488460.389	12152609.500	EX CONDITIONS	TRIM/REMOVE
38828	TREE	67.7	NOT AVAILABLE	59.0	8.7			3488447.816	12152699.930	EX CONDITIONS	TRIM/REMOVE
38836	TREE	60.0	NOT AVAILABLE	59.3	0.7			3488451.863	12152677.580	EX CONDITIONS	TRIM/REMOVE
38844	TREE	70.4	NOT AVAILABLE	60.7	9.7			3488425.662	12152637.770	EX CONDITIONS	TRIM/REMOVE
38852	TREE	72.8	NOT AVAILABLE	62.8	10.1			3488422.061	12152522.400	EX CONDITIONS	TRIM/REMOVE
38860	TREE	67.9	NOT AVAILABLE	62.8	5.1			3488437.852	12152498.700	EX CONDITIONS	TRIM/REMOVE
38868	TREE	64.3	NOT AVAILABLE	61.9	2.4			3488454.976	12152525.050	EX CONDITIONS	TRIM/REMOVE
38876	TREE	58.7	NOT AVAILABLE	62.5	-3.8			3488461.729	12152481.640	EX CONDITIONS	TRIM/REMOVE
38884	TREE	59.9	NOT AVAILABLE	63.8	-3.9			3488446.221	12152430.760	EX CONDITIONS	TRIM/REMOVE
38892	TREE	58.1	NOT AVAILABLE	63.2	-5.0			3488479.066	12152422.080	EX CONDITIONS	TRIM/REMOVE
38900	TREE	53.1	NOT AVAILABLE	62.5	-9.4			3488478.496	12152463.080	EX CONDITIONS	TRIM/REMOVE
38908	TREE	68.6	NOT AVAILABLE	63.7	4.9			3488479.487	12152390.120	EX CONDITIONS	TRIM/REMOVE
38916	TREE	57.1	NOT AVAILABLE	64.7	-7.6			3488467.598	12152349.280	EX CONDITIONS	TRIM/REMOVE
45374	TREE	74.7	NOT AVAILABLE	60.8	13.9			3488390.778	12152679.240	EX CONDITIONS	TRIM/REMOVE
45382	TREE	68.4	NOT AVAILABLE	59.8	8.6			3488384.038	12152744.110	EX CONDITIONS	TRIM/REMOVE
45390	TREE	69.1	NOT AVAILABLE	58.6	10.6			3488406.767	12152783.640	EX CONDITIONS	TRIM/REMOVE
45398	TREE	63.6	NOT AVAILABLE	57.9	5.7			3488451.245	12152759.210	EX CONDITIONS	TRIM/REMOVE
45406	TREE	61.2	NOT AVAILABLE	57.0	4.2			3488450.123	12152815.460	EX CONDITIONS	TRIM/REMOVE
45414	TREE	82.8	NOT AVAILABLE	57.6	25.2			3488372.940	12152882.570	EX CONDITIONS	TRIM/REMOVE
45422	TREE	76.2	NOT AVAILABLE	56.6	19.6			3488405.463	12152897.210	EX CONDITIONS	TRIM/REMOVE
45430	TREE	80.8	NOT AVAILABLE	55.4	25.4			3488417.710	12152950.720	EX CONDITIONS	TRIM/REMOVE
45438	TREE	77.5	NOT AVAILABLE	56.7	20.8			3488377.791	12152926.860	EX CONDITIONS	TRIM/REMOVE
45446	TREE	80.2	NOT AVAILABLE	56.2	24.0			3488364.000	12152976.910	EX CONDITIONS	TRIM/REMOVE
45454	TREE	79.5	NOT AVAILABLE	54.8	24.6			3488385.049	12153026.190	EX CONDITIONS	TRIM/REMOVE
45462	TREE	75.7	NOT AVAILABLE	57.2	18.6			3488348.738	12152941.790	EX CONDITIONS	TRIM/REMOVE

TREE GROUP A

				FUTURE 34:1 PART 77 APPROACH		FUTURE 20:1 THRESHOLD SITING SURFACE					
PT#	OBJECT	OBJ. ELEV.	GROUND ELEV.	FUTURE PART 77 ELEV.	PENETRATION (FT.)	FUTURE TSS ELEV.	PENETRATION (FT.)	NORTHING	EASTING	TRIGGERING EVENT	DISPOSITION
25463	TREE	77.8	NOT AVAILABLE	71.8	5.9			3488242.775	12152246.880	EX CONDITIONS	TRIM/REMOVE
25471	TREE	77.1	NOT AVAILABLE	69.3	7.8			3488248.160	12152384.060	EX CONDITIONS	TRIM/REMOVE
25479	TREE	73.6	NOT AVAILABLE	68.0	5.6			3488177.705	12152550.700	EX CONDITIONS	TRIM/REMOVE
25487	TREE	80.6	NOT AVAILABLE	64.3	16.3			3488162.792	12152784.100	EX CONDITIONS	TRIM/REMOVE
39804	TREE	76.3	NOT AVAILABLE	73.9	2.4			3488247.353	12152118.940	EX CONDITIONS	TRIM/REMOVE
39828	TREE	74.1	NOT AVAILABLE	73.9	0.2			3488215.107	12152166.170	EX CONDITIONS	TRIM/REMOVE
39836	TREE	73.0	NOT AVAILABLE	73.5	-0.5			3488233.893	12152161.900	EX CONDITIONS	TRIM/REMOVE
39844	TREE	76.3	NOT AVAILABLE	72.5	3.8			3488263.090	12152177.530	EX CONDITIONS	TRIM/REMOVE
39852	TREE	74.7	NOT AVAILABLE	71.8	2.9			3488287.642	12152184.450	EX CONDITIONS	TRIM/REMOVE
39860	TREE	75.7	NOT AVAILABLE	72.6	3.1			3488218.564	12152233.450	EX CONDITIONS	TRIM/REMOVE
39868	TREE	65.7	NOT AVAILABLE	73.1	-7.4			3488221.660	12152201.660	EX CONDITIONS	TRIM/REMOVE
39876	TREE	66.4	NOT AVAILABLE	71.9	-5.5			3488259.265	12152218.610	EX CONDITIONS	TRIM/REMOVE
39884	TREE	75.4	NOT AVAILABLE	70.8	4.6			3488267.447	12152271.820	EX CONDITIONS	TRIM/REMOVE
39892	TREE	72.5	NOT AVAILABLE	71.9	0.6			3488201.408	12152298.290	EX CONDITIONS	TRIM/REMOVE
39900	TREE	71.2	NOT AVAILABLE	72.1	-0.9			3488206.499	12152277.610	EX CONDITIONS	TRIM/REMOVE
39908	TREE	70.2	NOT AVAILABLE	72.4	-2.3			3488207.235	12152258.550	EX CONDITIONS	TRIM/REMOVE
39916	TREE	73.2	NOT AVAILABLE	71.2	2.0			3488236.205	12152287.640	EX CONDITIONS	TRIM/REMOVE
39924	TREE	66.1	NOT AVAILABLE	73.1	-7.0			3488162.929	12152281.840	EX CONDITIONS	TRIM/REMOVE
39932	TREE	66.1	NOT AVAILABLE	70.7	-4.6			3488234.565	12152320.400	EX CONDITIONS	TRIM/REMOVE
39940	TREE	66.9	NOT AVAILABLE	71.2	-4.3			3488206.991	12152331.000	EX CONDITIONS	TRIM/REMOVE
39948	TREE	67.9	NOT AVAILABLE	70.5	-2.6			3488227.538	12152343.310	EX CONDITIONS	TRIM/REMOVE
39956	TREE	69.9	NOT AVAILABLE	69.8	0.1			3488210.343	12152406.990	EX CONDITIONS	TRIM/REMOVE
39964	TREE	69.3	NOT AVAILABLE	69.9	-0.6			3488194.998	12152420.960	EX CONDITIONS	TRIM/REMOVE
39972	TREE	63.4	NOT AVAILABLE	70.2	-6.8			3488175.001	12152430.950	EX CONDITIONS	TRIM/REMOVE
39980	TREE	64.7	NOT AVAILABLE	70.7	-6.0			3488181.672	12152391.050	EX CONDITIONS	TRIM/REMOVE
39988	TREE	65.7	NOT AVAILABLE	70.0	-4.3			3488213.561	12152389.550	EX CONDITIONS	TRIM/REMOVE
39996	TREE	59.2	NOT AVAILABLE	68.7	-9.6			3488238.674	12152428.040	EX CONDITIONS	TRIM/REMOVE
40004	TREE	68.7	NOT AVAILABLE	68.6	0.1			3488225.727	12152455.020	EX CONDITIONS	TRIM/REMOVE
40012	TREE	68.8	NOT AVAILABLE	67.8	1.0			3488228.238	12152494.070	EX CONDITIONS	TRIM/REMOVE
40020	TREE	71.4	NOT AVAILABLE	68.6	2.8			3488165.546	12152532.660	EX CONDITIONS	TRIM/REMOVE
40028	TREE	69.3	NOT AVAILABLE	67.5	1.7			3488201.428	12152546.840	EX CONDITIONS	TRIM/REMOVE
40036	TREE	59.1	NOT AVAILABLE	67.4	-8.3			3488219.880	12152529.430	EX CONDITIONS	TRIM/REMOVE
40060	TREE	68.2	NOT AVAILABLE	73.6	-5.4			3488179.158	12152229.420	EX CONDITIONS	TRIM/REMOVE
40068	TREE	71.4	NOT AVAILABLE	74.3	-2.9			3488161.544	12152213.150	EX CONDITIONS	TRIM/REMOVE
40076	TREE	66.9	NOT AVAILABLE	74.8	-7.9			3488134.092	12152222.120	EX CONDITIONS	TRIM/REMOVE
40084	TREE	75.0	NOT AVAILABLE	74.1	0.8			3488148.470	12152242.000	EX CONDITIONS	TRIM/REMOVE
40092	TREE	69.6	NOT AVAILABLE	74.2	-4.6			3488131.443	12152261.580	EX CONDITIONS	TRIM/REMOVE
40108	TREE	66.9	NOT AVAILABLE	75.9	-9.1			3488167.515	12152113.040	EX CONDITIONS	TRIM/REMOVE
40116	TREE	66.3	NOT AVAILABLE	74.6	-8.3			3488210.481	12152129.920	EX CONDITIONS	TRIM/REMOVE
45286	TREE	69.6	NOT AVAILABLE	66.0	3.6			3488207.018	12152625.630	EX CONDITIONS	TRIM/REMOVE
45294	TREE	72.1	NOT AVAILABLE	67.3	4.8			3488177.158	12152592.340	EX CONDITIONS	TRIM/REMOVE
45302	TREE	63.6	NOT AVAILABLE	68.4	-4.8			3488139.090	12152583.980	EX CONDITIONS	TRIM/REMOVE
45310	TREE	71.3	NOT AVAILABLE	66.8	4.5			3488152.324	12152658.480	EX CONDITIONS	TRIM/REMOVE
45318	TREE	67.9	NOT AVAILABLE	66.8	1.2			3488121.839	12152699.680	EX CONDITIONS	TRIM/REMOVE
45326	TREE	71.1	NOT AVAILABLE	65.7	5.4			3488138.944	12152738.280	EX CONDITIONS	TRIM/REMOVE
45334	TREE	79.5	NOT AVAILABLE	63.3	16.2			3488149.691	12152860.580	EX CONDITIONS	TRIM/REMOVE
45342	TREE	75.5	NOT AVAILABLE	64.2	11.3			3488141.576	12152822.570	EX CONDITIONS	TRIM/REMOVE
45350	TREE	60.6	NOT AVAILABLE	64.9	-4.3			3488182.312	12152723.780	EX CONDITIONS	TRIM/REMOVE
45358	TREE	68.1	NOT AVAILABLE	66.2	1.9			3488149.401	12152696.620	EX CONDITIONS	TRIM/REMOVE
45366	TREE	65.7	NOT AVAILABLE	67.6	-2.0			3488128.650	12152641.110	EX CONDITIONS	TRIM/REMOVE

NOTES:

1. ALL OBSTRUCTION SURVEY DATA FROM QUANTUM SPATIAL WAS COMPILED BY PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHY DATED 09-04-2017. SURVEY DATA FEATURE ACCURACY IS IN ACCORDANCE WITH REQUIREMENTS OF FAA AC 150/5300-18B.
2. DUE TO THE LARGE QUANTITY OF TREE OBSTRUCTION DATA AND FOR CLARITY PURPOSES ON THE PLAN SHEET, LARGE TREE AREAS WITH MULTIPLE PENETRATIONS HAVE BEEN GROUPED WITH THE HIGHEST PENETRATION OF THE TREE GROUP BEING SPOTLIGHTED IN THE PLAN/PROFILE VIEW. A DETAILED BREAKDOWN OF THE SURFACE OBJECTS AND PENETRATIONS ARE PROVIDED ON THE FOLLOWING DATA TABLES.
3. SOME GROUND ELEVATIONS ARE NOT INCLUDED AS THE LOCATION OF THE OBSTRUCTION IS BEYOND THE LIMIT OF THE GROUND TOPO ACQUIRED.
4. GRID BASED ON VIRGINIA STATE PLANE SOUTH ZONE COORDINATE SYSTEM AND NAD 1983. VERTICAL DATUM BASED ON NAVD 1988.
5. NEGATIVE PENETRATION VALUE REPRESENTS OBJECT CLEARANCE FROM SURFACE. POSITIVE PENETRATION VALUE REPRESENTS AMOUNT ABOVE THE SURFACE.

NO.	DATE	REVISION	BY	CK.	APPR.

DESIGNED BY RTL
DRAWN BY PDH
REVIEWED BY NSL
APPROVED BY .

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NORFOLK INTERNATIONAL AIRPORT

PROJECT NAME
AIRPORT LAYOUT PLAN

DRAFT

SHEET TITLE
FUTURE RUNWAY 5R APPROACH OBSTRUCTION TABLES - 1

JOB NO. 33370
DATE 02/11/2020
FILE NAME ORF_ALP-5R-23L APPRCH OBSTR TABLES
REV. NO.
DWG. NO.

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TREE GROUP 'C' OBSTRUCTIONS

				FUTURE 34:1 PART 77 APPROACH		FUTURE 20:1 THRESHOLD SITING SURFACE					
PT#	OBJECT	OBJ. ELEV.	GROUND ELEV.	FUTURE PART 77 ELEV.	PENETRATION (FT.)	FUTURE TSS ELEV.	PENETRATION (FT.)	NORTHING	EASTING	TRIGGERING EVENT	DISPOSITION
25649	TREE	82.5	NOT AVAILABLE	43.8	38.7			3488813.419	12153079.280	EX CONDITIONS	TRIM/REMOVE
25657	TREE	81.8	NOT AVAILABLE	46.0	35.9			3488803.069	12152968.160	EX CONDITIONS	TRIM/REMOVE
25665	TREE	57.6	NOT AVAILABLE	48.3	9.3			3488805.364	12152829.320	EX CONDITIONS	TRIM/REMOVE
25673	TREE	77.5	NOT AVAILABLE	40.6	36.8			3488966.221	12153050.950	EX CONDITIONS	TRIM/REMOVE
25681	TREE	54.7	NOT AVAILABLE	43.2	11.5			3488960.286	12152912.850	EX CONDITIONS	TRIM/REMOVE
25689	TREE	43.1	NOT AVAILABLE	37.7	5.4			3489107.635	12153028.160	EX CONDITIONS	TRIM/REMOVE
25705	TREE	92.9	NOT AVAILABLE	39.0	53.9	86.7	6.1	3488921.406	12153205.530	EX CONDITIONS	TRIM/REMOVE
25713	TREE	104.9	NOT AVAILABLE	36.8	68.1	83.0	21.9	3488822.252	12153465.850	EX CONDITIONS	TRIM/REMOVE
25721	TREE	89.6	NOT AVAILABLE	41.4	48.3	90.7	-1.1	3488707.533	12153360.810	EX CONDITIONS	TRIM/REMOVE
25745	TREE	105.0	NOT AVAILABLE	28.9	76.1	69.6	35.4	3489021.974	12153646.450	EX CONDITIONS	TRIM/REMOVE
25753	TREE	108.1	NOT AVAILABLE	30.3	77.8	72.0	36.1	3489037.933	12153545.810	EX CONDITIONS	TRIM/REMOVE
25761	TREE	99.2	NOT AVAILABLE	28.5	70.8	68.8	30.4	3489161.358	12153484.280	EX CONDITIONS	TRIM/REMOVE
25769	TREE	94.5	NOT AVAILABLE	34.2	60.3	78.6	15.9	3488971.987	12153410.130	EX CONDITIONS	TRIM/REMOVE
25777	TREE	87.6	NOT AVAILABLE	35.0	52.7	79.9	7.7	3489099.393	12153195.530	EX CONDITIONS	TRIM/REMOVE
25785	TREE	73.0	NOT AVAILABLE	34.3	38.7	78.7	-5.7	3489031.993	12153326.750	EX CONDITIONS	TRIM/REMOVE
25793	TREE	64.8	NOT AVAILABLE	27.2	37.7	66.6	-1.7	3489316.058	12153349.670	EX CONDITIONS	TRIM/REMOVE
25801	TREE	51.8	NOT AVAILABLE	32.6	19.1			3489239.233	12153139.610	EX CONDITIONS	TRIM/REMOVE
31965	TREE	48.2	NOT AVAILABLE	29.0	19.2			3489316.439	12153241.580	EX CONDITIONS	TRIM/REMOVE
31973	TREE	72.1	NOT AVAILABLE	31.2	40.9	73.5	-1.4	3489156.123	12153333.350	EX CONDITIONS	TRIM/REMOVE
31981	TREE	86.5	NOT AVAILABLE	39.6	46.9	87.8	-1.3	3488801.980	12153332.460	EX CONDITIONS	TRIM/REMOVE
38281	TREE	57.6	NOT AVAILABLE	46.9	10.7			3488849.412	12152848.890	EX CONDITIONS	TRIM/REMOVE
38289	TREE	60.1	NOT AVAILABLE	46.5	13.6			3488847.653	12152876.830	EX CONDITIONS	TRIM/REMOVE
38297	TREE	55.7	NOT AVAILABLE	45.9	9.8			3488881.985	12152865.780	EX CONDITIONS	TRIM/REMOVE
38305	TREE	57.7	NOT AVAILABLE	44.6	13.1			3488915.907	12152895.210	EX CONDITIONS	TRIM/REMOVE
38313	TREE	56.1	NOT AVAILABLE	44.5	11.6			3488897.424	12152924.390	EX CONDITIONS	TRIM/REMOVE
38321	TREE	57.8	NOT AVAILABLE	46.2	11.6			3488842.823	12152901.450	EX CONDITIONS	TRIM/REMOVE
38329	TREE	55.2	NOT AVAILABLE	47.6	7.7			3488802.618	12152876.300	EX CONDITIONS	TRIM/REMOVE
38337	TREE	52.6	NOT AVAILABLE	48.2	4.5			3488821.737	12152815.100	EX CONDITIONS	TRIM/REMOVE
38345	TREE	50.0	NOT AVAILABLE	47.1	2.9			3488859.548	12152827.200	EX CONDITIONS	TRIM/REMOVE
38361	TREE	45.1	NOT AVAILABLE	49.6	-4.5			3488766.465	12152808.220	EX CONDITIONS	TRIM/REMOVE
38369	TREE	47.2	NOT AVAILABLE	49.2	-2.0			3488756.502	12152843.500	EX CONDITIONS	TRIM/REMOVE
38377	TREE	59.1	NOT AVAILABLE	44.8	14.3			3488873.767	12152936.300	EX CONDITIONS	TRIM/REMOVE
38385	TREE	56.7	NOT AVAILABLE	40.3	16.3			3489015.745	12153002.620	EX CONDITIONS	TRIM/REMOVE
38393	TREE	52.2	NOT AVAILABLE	39.1	13.0			3489050.385	12153023.540	EX CONDITIONS	TRIM/REMOVE
38401	TREE	46.5	NOT AVAILABLE	39.5	7.0			3489059.504	12152988.940	EX CONDITIONS	TRIM/REMOVE
38409	TREE	45.6	NOT AVAILABLE	38.4	7.2			3489076.507	12153029.690	EX CONDITIONS	TRIM/REMOVE
38417	TREE	52.0	NOT AVAILABLE	40.9	11.1			3489019.433	12152963.120	EX CONDITIONS	TRIM/REMOVE
38425	TREE	49.0	NOT AVAILABLE	42.4	6.7			3488986.049	12152925.870	EX CONDITIONS	TRIM/REMOVE
38433	TREE	53.5	NOT AVAILABLE	42.7	10.9			3488959.518	12152943.120	EX CONDITIONS	TRIM/REMOVE
38441	TREE	52.9	NOT AVAILABLE	41.5	11.4			3488982.315	12152979.800	EX CONDITIONS	TRIM/REMOVE
38449	TREE	55.7	NOT AVAILABLE	42.7	13.0			3488940.962	12152966.740	EX CONDITIONS	TRIM/REMOVE
38457	TREE	54.3	NOT AVAILABLE	43.5	10.7			3488932.699	12152932.060	EX CONDITIONS	TRIM/REMOVE
38465	TREE	53.4	NOT AVAILABLE	43.9	9.5			3488940.461	12152900.710	EX CONDITIONS	TRIM/REMOVE
38473	TREE	47.6	NOT AVAILABLE	44.9	2.7			3488917.801	12152872.130	EX CONDITIONS	TRIM/REMOVE
38481	TREE	40.3	NOT AVAILABLE	35.5	4.8			3489166.138	12153075.370	EX CONDITIONS	TRIM/REMOVE
38489	TREE	48.2	NOT AVAILABLE	34.1	14.1			3489203.339	12153105.910	EX CONDITIONS	TRIM/REMOVE
44702	TREE	89.0	NOT AVAILABLE	26.3	62.7	65.1	23.9	3489231.579	12153514.580	EX CONDITIONS	TRIM/REMOVE
44710	TREE	95.6	NOT AVAILABLE	27.1	68.5	66.5	29.2	3489194.548	12153518.330	EX CONDITIONS	TRIM/REMOVE
44718	TREE	81.6	NOT AVAILABLE	27.7	53.9	67.4	14.1	3489203.957	12153472.870	EX CONDITIONS	TRIM/REMOVE
44726	TREE	89.7	NOT AVAILABLE	39.4	50.3	87.5	2.2	3488786.978	12153363.200	EX CONDITIONS	TRIM/REMOVE
44734	TREE	92.0	NOT AVAILABLE	37.8	54.1	84.8	7.2	3488836.250	12153387.610	EX CONDITIONS	TRIM/REMOVE
44742	TREE	82.0	NOT AVAILABLE	37.7	44.3	84.6	-2.6	3488861.297	12153360.360	EX CONDITIONS	TRIM/REMOVE
44750	TREE	103.1	NOT AVAILABLE	37.9	65.3	84.8	18.3	3488801.737	12153433.970	EX CONDITIONS	TRIM/REMOVE
44758	TREE	94.9	NOT AVAILABLE	39.8	55.1	88.1	6.8	3488741.302	12153404.850	EX CONDITIONS	TRIM/REMOVE
44766	TREE	94.9	NOT AVAILABLE	30.3	64.5	72.0	22.9	3489113.375	12153442.510	EX CONDITIONS	TRIM/REMOVE
44774	TREE	95.9	NOT AVAILABLE	32.1	63.8	75.0	20.9	3489052.736	12153422.550	EX CONDITIONS	TRIM/REMOVE
44782	TREE	89.9	NOT AVAILABLE	35.7	54.2	81.1	8.8	3488926.859	12153388.270	EX CONDITIONS	TRIM/REMOVE
44790	TREE	95.6	NOT AVAILABLE	35.8	59.8	81.3	14.3	3488894.982	12153424.280	EX CONDITIONS	TRIM/REMOVE
44798	TREE	96.3	NOT AVAILABLE	35.1	61.2	80.1	16.2	3488890.253	12153471.830	EX CONDITIONS	TRIM/REMOVE
44806	TREE	99.9	NOT AVAILABLE	34.3	65.6	78.8	21.1	3488885.904	12153521.900	EX CONDITIONS	TRIM/REMOVE
44814	TREE	104.2	NOT AVAILABLE	36.5	67.7	82.5	21.7	3488796.875	12153517.650	EX CONDITIONS	TRIM/REMOVE
44822	TREE	108.5	NOT AVAILABLE	31.8	76.8	74.5	34.1	3488973.823	12153548.670	EX CONDITIONS	TRIM/REMOVE
44830	TREE	98.3	NOT AVAILABLE	33.4	64.9	77.2	21.1	3488957.161	12153477.530	EX CONDITIONS	TRIM/REMOVE
44838	TREE	101.2	NOT AVAILABLE	31.9	69.3	74.7	26.5	3489029.136	12153464.630	EX CONDITIONS	TRIM/REMOVE
44846	TREE	102.9	NOT AVAILABLE	28.9	74.0	69.5	33.4	3489115.085	12153524.470	EX CONDITIONS	TRIM/REMOVE
44854	TREE	92.8	NOT AVAILABLE	27.4	65.4	67.0	25.8	3489124.903	12153595.910	EX CONDITIONS	TRIM/REMOVE
44862	TREE	105.5	NOT AVAILABLE	28.9	76.6	69.6	35.9	3489084.265	12153561.340	EX CONDITIONS	TRIM/REMOVE
44870	TREE	106.1	NOT AVAILABLE	30.0	76.2	71.4	34.8	3489021.120	12153588.880	EX CONDITIONS	TRIM/REMOVE
44878	TREE	104.8	NOT AVAILABLE	30.6	74.2	72.5	32.3	3488969.689	12153619.130	EX CONDITIONS	TRIM/REMOVE
44886	TREE	101.1	NOT AVAILABLE	32.5	68.6	75.7	25.4	3488914.616	12153586.510	EX CONDITIONS	TRIM/REMOVE
44894	TREE	102.8	NOT AVAILABLE	30.3	72.4	72.0	30.8	3488953.578	12153658.860	EX CONDITIONS	TRIM/REMOVE
44902	TREE	64.7	NOT AVAILABLE	29.0	35.7	69.8	-5.0	3489280.019	12153290.950	EX CONDITIONS	TRIM/REMOVE
44910	TREE	71.0	NOT AVAILABLE	29.4	41.6	70.4	0.5	3489252.285	12153306.010	EX CONDITIONS	TRIM/REMOVE
44918	TREE	72.7	NOT AVAILABLE	29.5	43.2	70.5	2.1	3489219.842	12153347.560	EX CONDITIONS	TRIM/REMOVE
44926	TREE	65.5	NOT AVAILABLE	28.2	37.2	68.4	-2.9	3489272.296	12153348.420	EX CONDITIONS	TRIM/REMOVE
44934	TREE	44.3	NOT AVAILABLE	27.4	16.9			3489337.292	12153306.450	EX CONDITIONS	TRIM/REMOVE
44942	TREE	40.5	NOT AVAILABLE	30.4	10.1			3489295.706	12153192.690	EX CONDITIONS	TRIM/REMOVE
44950	TREE	49.0	NOT AVAILABLE	30.7	18.3			3489261.691	12153218.200	EX CONDITIONS	TRIM/REMOVE
44958	TREE	57.7	NOT AVAILABLE	31.3	26.4			3489221.129	12153242.090	EX CONDITIONS	TRIM/REMOVE
44966	TREE	54.2	NOT AVAILABLE	32.6	21.5			3489219.175	12153167.070	EX CONDITIONS	TRIM/REMOVE

TREE GROUP 'C' OBSTRUCTIONS CONTINUED

				FUTURE 34:1 PART 77 APPROACH		FUTURE 20:1 THRESHOLD SITING SURFACE					
PT#	OBJECT	OBJ. ELEV.	GROUND ELEV.	FUTURE PART 77 ELEV.	PENETRATION (FT.)	FUTURE TSS ELEV.	PENETRATION (FT.)	NORTHING	EASTING	TRIGGERING EVENT	DISPOSITION
44974	TREE	57.7	NOT AVAILABLE	34.2	23.5			3489174.536	12153140.170	EX CONDITIONS	TRIM/REMOVE
44982	TREE	52.6	NOT AVAILABLE	36.8	15.8			3489094.974	12153094.050	EX CONDITIONS	TRIM/REMOVE
44990	TREE	77.3	NOT AVAILABLE	37.6	39.7	84.4	-7.0	3489050.877	12153109.910	EX CONDITIONS	TRIM/REMOVE
44998	TREE	77.9	NOT AVAILABLE	32.9	45.0	76.4	1.5	3489175.302	12153209.070	EX CONDITIONS	TRIM/REMOVE
45006	TREE	76.7	NOT AVAILABLE	34.6	42.1	79.2	-2.5	3489133.305	12153171.260	EX CONDITIONS	TRIM/REMOVE
45014	TREE	85.1	NOT AVAILABLE	36.0	49.1	81.7	3.5	3489087.522	12153151.570	EX CONDITIONS	TRIM/REMOVE
45022	TREE	87.5	NOT AVAILABLE	37.3	50.2	83.8	3.7	3489031.110	12153155.190	EX CONDITIONS	TRIM/REMOVE
45030	TREE	89.7	NOT AVAILABLE	35.4	54.3	80.6	9.1	3489069.486	12153210.490	EX CONDITIONS	TRIM/REMOVE
45038	TREE	68.3	NOT AVAILABLE	39.3	29.0			3489006.854	12153072.930	EX CONDITIONS	TRIM/REMOVE
45046	TREE	76.5	NOT AVAILABLE	43.0	33.5			3488902.393	12153000.670	EX CONDITIONS	TRIM/REMOVE
45054	TREE	79.5	NOT AVAILABLE	41.7	37.8			3488916.907	12153057.900	EX CONDITIONS	TRIM/REMOVE
45062	TREE	78.2	NOT AVAILABLE	38.9	39.3	86.5	-8.3	3488990.330	12153120.490	EX CONDITIONS	TRIM/REMOVE
45070	TREE	79.3	NOT AVAILABLE	42.6	36.7			3488868.533	12153073.610	EX CONDITIONS	TRIM/REMOVE
45078	TREE	81.5	NOT AVAILABLE	40.3	41.2	88.9	-7.4	3488915.967	12153139.090	EX CONDITIONS	TRIM/REMOVE
45086	TREE	87.4	NOT AVAILABLE	38.1	49.3	85.3	2.2	3488979.608	12153176.720	EX CONDITIONS	TRIM/REMOVE
45094	TREE	90.8	NOT AVAILABLE	35.4	55.4	80.6	10.2	3489039.538	12153252.900	EX CONDITIONS	TRIM/REMOVE
45102	TREE	71.8	NOT AVAILABLE	32.7	39.1	76.1	-4.3	3489147.219	12153259.310	EX CONDITIONS	TRIM/REMOVE
45110	TREE	71.0	NOT AVAILABLE	32.8	38.1	76.2	-5.3	3489082.335	12153341.280	EX CONDITIONS	TRIM/REMOVE
45118	TREE	68.1	NOT AVAILABLE	33.1	35.0	76.7	-8.6	3489105.504	12153294.410	EX CONDITIONS	TRIM/REMOVE
45126	TREE	84.8	NOT AVAILABLE	36.0	48.8	81.6	3.1	3488981.146	12153297.240	EX CONDITIONS	TRIM/REMOVE
45134	TREE	86.2	NOT AVAILABLE	39.7	46.5	87.9	-1.7	3488858.524	12153252.860	EX CONDITIONS	TRIM/REMOVE
45142	TREE	82.6	NOT AVAILABLE	37.9	44.7	84.9	-2.3	3488917.243	12153274.120	EX CONDITIONS	TRIM/REMOVE
45150	TREE	72.4	NOT AVAILABLE	42.4	30.1			3488802.907	12153174.510	EX CONDITIONS	TRIM/REMOVE
45158	TREE	77.1	NOT AVAILABLE	41.0	36.1			3488836.782	12153208.970	EX CONDITIONS	TRIM/REMOVE
45166	TREE	70.7	NOT AVAILABLE	41.4	29.3			3488864.172	12153143.550	EX CONDITIONS	TRIM/REMOVE
45174	TREE	89.3	NOT AVAILABLE	37.4	52.0	84.0	5.4	3488968.832	12153234.550	EX CONDITIONS	TRIM/REMOVE
45182	TREE	50.9	NOT AVAILABLE	49.8	1.2			3488656.112	12152948.370	EX CONDITIONS	TRIM/REMOVE
45206	TREE	73.0	NOT AVAILABLE	47.3	25.7			3488788.768	12152911.460	EX CONDITIONS	TRIM/REMOVE
45214	TREE	72.8	NOT AVAILABLE	45.9	26.9			3488826.572	12152937.720	EX CONDITIONS	TRIM/REMOVE
45222	TREE	72.8	NOT AVAILABLE	44.6	28.2			3488850.721	12152982.550	EX CONDITIONS	TRIM/REMOVE
45230	TREE	78.2	NOT AVAILABLE	43.4	34.8			3488870.578	12153025.310	EX CONDITIONS	TRIM/REMOVE
45238	TREE	81.2	NOT AVAILABLE	44.4	36.8			3488823.793	12153030.360	EX CONDITIONS	TRIM/REMOVE
45246	TREE	77.6	NOT AVAILABLE	46.2	31.4			3488765.664	12153005.190	EX CONDITIONS	TRIM/REMOVE
45254	TREE	76.6	NOT AVAILABLE	45.1	31.5			3488753.488	12153087.000	EX CONDITIONS	TRIM/REMOVE
67540	TREE	46.3	NOT AVAILABLE	47.6	-1.3			3488729.524	12152971.600	EX CONDITIONS	TRIM/REMOVE
67548	TREE	61.9	NOT AVAILABLE	46.2	15.7			3488684.694	12153116.750	EX CONDITIONS	TRIM/REMOVE

NOTES:

1. ALL OBSTRUCTION SURVEY DATA FROM QUANTUM SPATIAL WAS COMPILED BY PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHY DATED 09-04-2017. SURVEY DATA FEATURE ACCURACY IS IN ACCORDANCE WITH REQUIREMENTS OF FAA AC 150/5300-18B.
2. DUE TO THE LARGE QUANTITY OF TREE OBSTRUCTION DATA AND FOR CLARITY PURPOSES ON THE PLAN SHEET, LARGE TREE AREAS WITH MULTIPLE PENETRATIONS HAVE BEEN GROUPED WITH THE HIGHEST PENETRATION OF THE TREE GROUP BEING SPOTLIGHTED IN THE PLAN/PROFILE VIEW. A DETAILED BREAKDOWN OF THE SURFACE OBJECTS AND PENETRATIONS ARE PROVIDED ON THE FOLLOWING DATA TABLES.
3. SOME GROUND ELEVATIONS ARE NOT INCLUDED AS THE LOCATION OF THE OBSTRUCTION IS BEYOND THE LIMIT OF THE GROUND TOPO ACQUIRED.
4. GRID BASED ON VIRGINIA STATE PLANE SOUTH ZONE COORDINATE SYSTEM AND NAD 1983. VERTICAL DATUM BASED ON NAVD 1988.
5. NEGATIVE PENETRATION VALUE REPRESENTS OBJECT CLEARANCE FROM SURFACE. POSITIVE PENETRATION VALUE REPRESENTS AMOUNT ABOVE THE SURFACE.

NO	DATE	REVISION	BY	CK.	APPR.

DESIGNED BY RTL
DRAWN BY PDH
REVIEWED BY NSL
APPROVED BY .

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NORFOLK INTERNATIONAL AIRPORT

PROJECT NAME
AIRPORT LAYOUT PLAN

DRAFT

SHEET TITLE
FUTURE RUNWAY 5R APPROACH OBSTRUCTION TABLES - 2

JOB NO. 33370
DATE 02/11/2020
FILE NAME ORF_ALP-5R-23L APPRCH OBSTR TABLES
REV. NO.
DWG. NO.

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TREE GROUP 'D' OBSTRUCTIONS

				FUTURE 34:1 PART 77 APPROACH		FUTURE 20:1 THRESHOLD SITING SURFACE					
PT#	OBJECT	OBJ. ELEV.	GROUND ELEV.	FUTURE PART 77 ELEV.	PENETRATION (FT.)	FUTURE TSS ELEV.	PENETRATION (FT.)	NORTHING	EASTING	TRIGGERING EVENT	DISPOSITION
22788	TREE	51.9	NOT AVAILABLE	58.3	-6.4			3495327.901	12157500.410	EX CONDITIONS	TRIM/REMOVE
22876	TREE	58.9	NOT AVAILABLE	40.5	18.4	50.5	8.4	3494637.823	12157416.500	EX CONDITIONS	TRIM/REMOVE
22884	TREE	54.2	NOT AVAILABLE	40.2	14.0	49.9	4.3	3494699.201	12157314.560	EX CONDITIONS	TRIM/REMOVE
22908	TREE	39.8	NOT AVAILABLE	37.6	2.2			3494680.674	12157191.170	EX CONDITIONS	TRIM/REMOVE
22916	TREE	56.6	NOT AVAILABLE	44.5	12.1	57.2	-0.6	3494811.239	12157407.790	EX CONDITIONS	TRIM/REMOVE
22940	TREE	64.1	NOT AVAILABLE	60.4	3.7			3495160.573	12157847.860	EX CONDITIONS	TRIM/REMOVE
22948	TREE	61.3	NOT AVAILABLE	65.5	-4.2			3495308.499	12157936.630	EX CONDITIONS	TRIM/REMOVE
22972	TREE	49.0	NOT AVAILABLE	57.3	-8.3			3495242.831	12157556.690	EX CONDITIONS	TRIM/REMOVE
22988	TREE	61.0	NOT AVAILABLE	55.3	5.7			3495040.696	12157714.260	EX CONDITIONS	TRIM/REMOVE
23004	TREE	58.2	NOT AVAILABLE	48.8	9.4	64.6	-6.4	3494875.583	12157569.580	EX CONDITIONS	TRIM/REMOVE
23020	TREE	46.6	NOT AVAILABLE	48.1	-1.5			3494949.250	12157428.470	EX CONDITIONS	TRIM/REMOVE
23028	TREE	44.9	NOT AVAILABLE	53.8	-9.0			3495086.289	12157569.720	EX CONDITIONS	TRIM/REMOVE
32021	TREE	47.5	NOT AVAILABLE	57.4	-9.9			3495162.472	12157671.840	EX CONDITIONS	TRIM/REMOVE
35387	TREE	47.5	NOT AVAILABLE	41.3	6.2	51.8	-4.3	3494765.005	12157287.560	EX CONDITIONS	TRIM/REMOVE
35403	TREE	55.4	NOT AVAILABLE	51.0	4.4			3494967.308	12157568.990	EX CONDITIONS	TRIM/REMOVE
36849	TREE	53.4	NOT AVAILABLE	61.0	-7.5			3495387.426	12157570.800	EX CONDITIONS	TRIM/REMOVE
36881	TREE	50.4	NOT AVAILABLE	59.5	-9.1			3495354.683	12157532.430	EX CONDITIONS	TRIM/REMOVE
43942	TREE	53.9	NOT AVAILABLE	57.6	-3.7			3495289.123	12157509.680	EX CONDITIONS	TRIM/REMOVE
43950	TREE	53.7	NOT AVAILABLE	58.5	-4.8			3495314.623	12157529.460	EX CONDITIONS	TRIM/REMOVE
43958	TREE	52.1	NOT AVAILABLE	60.1	-8.0			3495332.743	12157595.570	EX CONDITIONS	TRIM/REMOVE
43966	TREE	52.1	NOT AVAILABLE	59.4	-7.3			3495324.841	12157566.270	EX CONDITIONS	TRIM/REMOVE
43974	TREE	51.6	NOT AVAILABLE	59.1	-7.5			3495295.627	12157588.090	EX CONDITIONS	TRIM/REMOVE
44102	TREE	62.2	NOT AVAILABLE	63.0	-0.7			3495239.789	12157886.640	EX CONDITIONS	TRIM/REMOVE
44110	TREE	56.9	NOT AVAILABLE	62.8	-5.9			3495251.798	12157862.640	EX CONDITIONS	TRIM/REMOVE
44118	TREE	56.2	NOT AVAILABLE	63.5	-7.3			3495267.673	12157880.180	EX CONDITIONS	TRIM/REMOVE
44150	TREE	56.3	NOT AVAILABLE	61.1	-4.8			3495229.317	12157792.230	EX CONDITIONS	TRIM/REMOVE
44158	TREE	63.6	NOT AVAILABLE	60.1	3.5			3495175.708	12157806.040	EX CONDITIONS	TRIM/REMOVE
44190	TREE	40.1	NOT AVAILABLE	40.8	-0.7			3494771.715	12157252.310	EX CONDITIONS	TRIM/REMOVE
44198	TREE	51.0	NOT AVAILABLE	40.0	10.9	49.6	1.3	3494716.468	12157281.870	EX CONDITIONS	TRIM/REMOVE
44206	TREE	44.1	NOT AVAILABLE	39.4	4.7	48.6	-4.5	3494715.944	12157246.910	EX CONDITIONS	TRIM/REMOVE
44214	TREE	42.4	NOT AVAILABLE	37.9	4.5	46.0	-3.6	3494644.856	12157255.390	EX CONDITIONS	TRIM/REMOVE
44222	TREE	42.9	NOT AVAILABLE	37.8	5.2	45.8	-2.8	3494669.098	12157215.260	EX CONDITIONS	TRIM/REMOVE
44230	TREE	39.0	NOT AVAILABLE	37.9	1.0	46.1	-7.1	3494659.571	12157239.130	EX CONDITIONS	TRIM/REMOVE
44238	TREE	43.5	NOT AVAILABLE	37.6	5.8	45.6	-2.1	3494605.679	12157295.310	EX CONDITIONS	TRIM/REMOVE
44246	TREE	41.2	NOT AVAILABLE	38.0	3.2	46.1	-5.0	3494629.265	12157282.240	EX CONDITIONS	TRIM/REMOVE
44254	TREE	43.7	NOT AVAILABLE	38.0	5.7	46.2	-2.5	3494598.270	12157325.150	EX CONDITIONS	TRIM/REMOVE
44262	TREE	55.2	NOT AVAILABLE	38.0	17.2	46.2	9.1	3494567.820	12157365.710	EX CONDITIONS	TRIM/REMOVE
44270	TREE	50.8	NOT AVAILABLE	42.1	8.6	53.2	-2.5	3494731.627	12157382.230	EX CONDITIONS	TRIM/REMOVE
44278	TREE	54.0	NOT AVAILABLE	43.0	11.0	54.7	-0.7	3494779.090	12157368.870	EX CONDITIONS	TRIM/REMOVE
44286	TREE	51.3	NOT AVAILABLE	42.3	8.9	53.5	-2.3	3494775.298	12157333.460	EX CONDITIONS	TRIM/REMOVE
44294	TREE	49.1	NOT AVAILABLE	43.2	5.9	55.0	-5.9	3494807.848	12157338.270	EX CONDITIONS	TRIM/REMOVE
44302	TREE	35.5	NOT AVAILABLE	42.1	-6.7			3494802.726	12157285.360	EX CONDITIONS	TRIM/REMOVE
44310	TREE	44.8	NOT AVAILABLE	45.8	-0.9			3494884.591	12157383.410	EX CONDITIONS	TRIM/REMOVE
44318	TREE	50.4	NOT AVAILABLE	46.1	4.3	59.9	-9.6	3494870.530	12157419.320	EX CONDITIONS	TRIM/REMOVE
44326	TREE	57.3	NOT AVAILABLE	48.4	8.9	63.9	-6.6	3494909.902	12157499.180	EX CONDITIONS	TRIM/REMOVE
44334	TREE	44.2	NOT AVAILABLE	50.3	-6.1			3495007.969	12157474.330	EX CONDITIONS	TRIM/REMOVE
44342	TREE	45.6	NOT AVAILABLE	52.1	-6.5			3495042.645	12157532.210	EX CONDITIONS	TRIM/REMOVE
44350	TREE	47.9	NOT AVAILABLE	55.2	-7.3			3495133.247	12157585.830	EX CONDITIONS	TRIM/REMOVE
44374	TREE	50.1	NOT AVAILABLE	59.5	-9.4			3495273.471	12157641.590	EX CONDITIONS	TRIM/REMOVE
44382	TREE	48.7	NOT AVAILABLE	58.0	-9.3			3495203.317	12157651.780	EX CONDITIONS	TRIM/REMOVE
44398	TREE	53.8	NOT AVAILABLE	57.2	-3.4			3495129.458	12157706.430	EX CONDITIONS	TRIM/REMOVE
44406	TREE	52.6	NOT AVAILABLE	59.0	-6.4			3495180.475	12157739.880	EX CONDITIONS	TRIM/REMOVE
44414	TREE	58.2	NOT AVAILABLE	53.5	4.7			3495029.573	12157628.820	EX CONDITIONS	TRIM/REMOVE
44422	TREE	62.1	NOT AVAILABLE	51.6	10.5	69.2	-7.2	3494940.438	12157638.560	EX CONDITIONS	TRIM/REMOVE
44430	TREE	62.8	NOT AVAILABLE	53.5	9.3	72.5	-9.7	3494986.137	12157687.370	EX CONDITIONS	TRIM/REMOVE
44438	TREE	58.0	NOT AVAILABLE	46.1	11.9	59.9	-1.9	3494824.778	12157480.880	EX CONDITIONS	TRIM/REMOVE
44446	TREE	58.9	NOT AVAILABLE	47.5	11.4	62.4	-3.5	3494852.328	12157527.440	EX CONDITIONS	TRIM/REMOVE
44454	TREE	53.3	NOT AVAILABLE	45.6	7.7	59.2	-5.9	3494781.361	12157515.040	EX CONDITIONS	TRIM/REMOVE
44462	TREE	50.4	NOT AVAILABLE	44.3	6.1	56.9	-6.5	3494769.266	12157454.320	EX CONDITIONS	TRIM/REMOVE
44470	TREE	49.6	NOT AVAILABLE	49.9	-0.3			3494971.972	12157500.520	EX CONDITIONS	TRIM/REMOVE
44478	TREE	57.1	NOT AVAILABLE	57.4	-0.3			3495100.096	12157758.120	EX CONDITIONS	TRIM/REMOVE
44486	TREE	63.5	NOT AVAILABLE	58.5	5.0			3495103.831	12157815.070	EX CONDITIONS	TRIM/REMOVE
44494	TREE	63.3	NOT AVAILABLE	60.8	2.5			3495151.392	12157880.000	EX CONDITIONS	TRIM/REMOVE
44510	TREE	45.6	NOT AVAILABLE	55.5	-9.9			3495101.747	12157645.050	EX CONDITIONS	TRIM/REMOVE
44518	TREE	48.9	NOT AVAILABLE	52.2	-3.3			3495023.254	12157562.350	EX CONDITIONS	TRIM/REMOVE
44526	TREE	57.1	NOT AVAILABLE	50.1	7.0	66.8	-9.7	3494921.080	12157583.520	EX CONDITIONS	TRIM/REMOVE
44534	TREE	52.6	NOT AVAILABLE	40.1	12.5	49.8	2.8	3494652.745	12157374.050	EX CONDITIONS	TRIM/REMOVE
44542	TREE	51.1	NOT AVAILABLE	40.5	10.6	50.4	0.7	3494682.173	12157354.060	EX CONDITIONS	TRIM/REMOVE
44550	TREE	50.0	NOT AVAILABLE	39.3	10.7	48.4	1.6	3494653.987	12157323.360	EX CONDITIONS	TRIM/REMOVE
67522	TREE	54.9	NOT AVAILABLE	55.7	-0.8			3495073.007	12157694.250	EX CONDITIONS	TRIM/REMOVE

MISCELLANEOUS OBSTRUCTIONS

				FUTURE 34:1 PART 77 APPROACH		FUTURE 20:1 THRESHOLD SITING SURFACE					
PT#	OBJECT	OBJ. ELEV.	GROUND ELEV.	FUTURE PART 77 ELEV.	PENETRATION (FT.)	FUTURE TSS ELEV.	PENETRATION (FT.)	NORTHING	EASTING	TRIGGERING EVENT	DISPOSITION
44174	FENCE	33.7	NOT AVAILABLE	36.6	-2.9			3494606.960	12157234.040	EX CONDITIONS	NONE
67530	STREET_SIGN	25.9	NOT AVAILABLE	34.3	-8.4			3494588.370	12157129.510	EX CONDITIONS	NONE

NOTES:

1. ALL OBSTRUCTION SURVEY DATA FROM QUANTUM SPATIAL WAS COMPILED BY PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHY DATED 09-04-2017. SURVEY DATA FEATURE ACCURACY IS IN ACCORDANCE WITH REQUIREMENTS OF FAA AC 150/5300-18B.
2. DUE TO THE LARGE QUANTITY OF TREE OBSTRUCTION DATA AND FOR CLARITY PURPOSES ON THE PLAN SHEET, LARGE TREE AREAS WITH MULTIPLE PENETRATIONS HAVE BEEN GROUPED WITH THE HIGHEST PENETRATION OF THE TREE GROUP BEING SPOTLIGHTED IN THE PLAN/PROFILE VIEW. A DETAILED BREAKDOWN OF THE SURFACE OBJECTS AND PENETRATIONS ARE PROVIDED ON THE FOLLOWING DATA TABLES.
3. SOME GROUND ELEVATIONS ARE NOT INCLUDED AS THE LOCATION OF THE OBSTRUCTION IS BEYOND THE LIMIT OF THE GROUND TOPO ACQUIRED.
4. GRID BASED ON VIRGINIA STATE PLANE SOUTH ZONE COORDINATE SYSTEM AND NAD 1983. VERTICAL DATUM BASED ON NAVD 1988.
5. NEGATIVE PENETRATION VALUE REPRESENTS OBJECT CLEARANCE FROM SURFACE. POSITIVE PENETRATION VALUE REPRESENTS AMOUNT ABOVE THE SURFACE.

NO.	DATE	REVISION	BY	CK.	APPR.

DESIGNED BY RTL
DRAWN BY PDH
REVIEWED BY NSL
APPROVED BY .

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NORFOLK INTERNATIONAL AIRPORT

PROJECT NAME
AIRPORT LAYOUT PLAN

DRAFT

SHEET TITLE
FUTURE RUNWAY 23L APPROACH OBSTRUCTION TABLES

JOB NO. 33370
DATE 02/11/2020
FILE NAME ORF_ALP-5R-23L APPRCH OBSTR TABLES
REV. NO.
DWG. NO.

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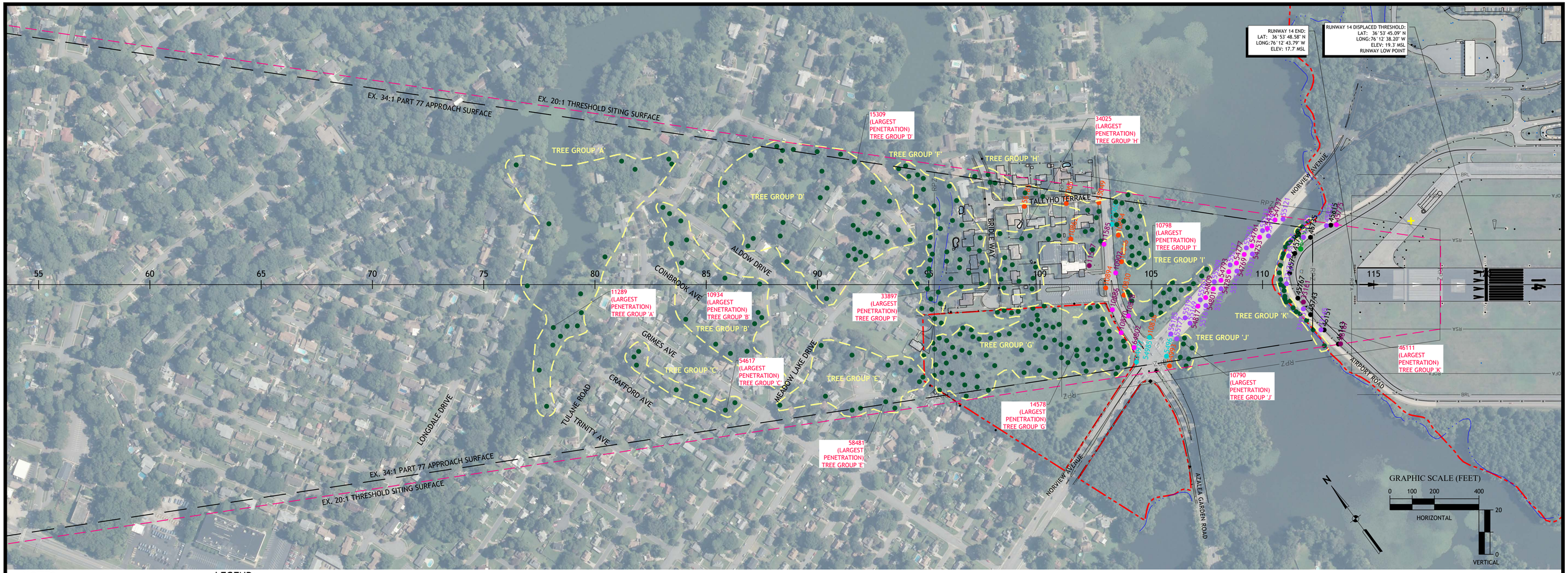
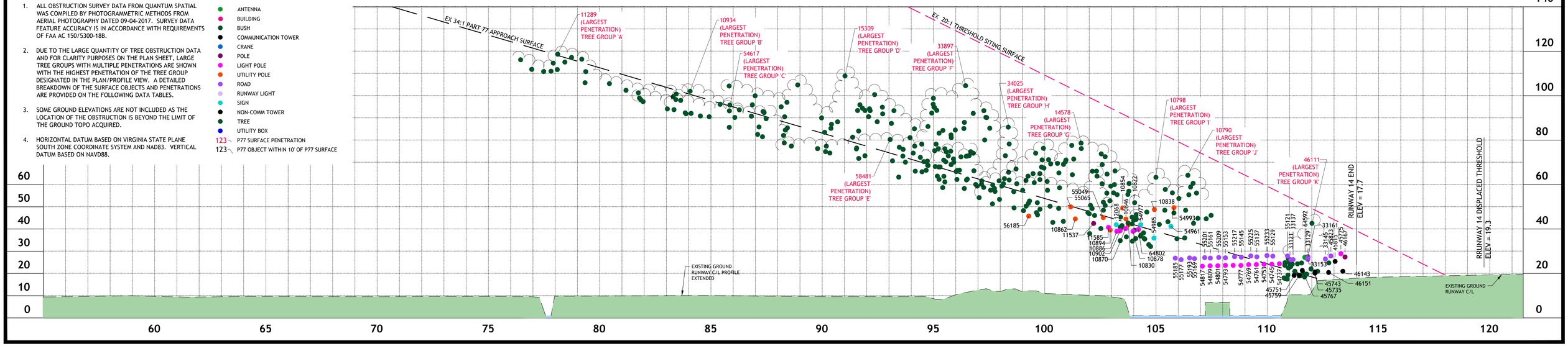


NOTES:

1. ALL OBSTRUCTION SURVEY DATA FROM QUANTUM SPATIAL WAS COMPILED BY PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHY DATED 09-04-2017. SURVEY DATA FEATURE ACCURACY IS IN ACCORDANCE WITH REQUIREMENTS OF FAA AC 150/5300-18B.
2. DUE TO THE LARGE QUANTITY OF TREE OBSTRUCTION DATA AND FOR CLARITY PURPOSES ON THE PLAN SHEET, LARGE TREE GROUPS WITH MULTIPLE PENETRATIONS ARE SHOWN WITH THE HIGHEST PENETRATION OF THE TREE GROUP DESIGNATED IN THE PLAN/PROFILE VIEW. A DETAILED BREAKDOWN OF THE SURFACE OBJECTS AND PENETRATIONS ARE PROVIDED ON THE FOLLOWING DATA TABLES.
3. SOME GROUND ELEVATIONS ARE NOT INCLUDED AS THE LOCATION OF THE OBSTRUCTION IS BEYOND THE LIMIT OF THE GROUND TOPO ACQUIRED.
4. HORIZONTAL DATUM BASED ON VIRGINIA STATE PLANE SOUTH ZONE COORDINATE SYSTEM AND NAD83. VERTICAL DATUM BASED ON NAVD88.

LEGEND:

- ANTENNA
- BUILDING
- BUSH
- COMMUNICATION TOWER
- CRANE
- POLE
- LIGHT POLE
- UTILITY POLE
- ROAD
- RUNWAY LIGHT
- SIGN
- NON-COMM TOWER
- TREE
- UTILITY BOX
- 123 P77 SURFACE PENETRATION
- 123 P77 OBJECT WITHIN 10' OF P77 SURFACE



NO	DATE	REVISION	BY	CK.	APPR.

DESIGNED BY RTL
DRAWN BY PDH
REVIEWED BY NSL
APPROVED BY

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NORFOLK INTERNATIONAL AIRPORT

PROJECT NAME: AIRPORT LAYOUT PLAN

DRAFT

SHEET TITLE: RUNWAY 14 APPROACH

JOB NO. 33370
DATE 02/11/2020
FILE NAME ORF_ALP-14 APPRCH
REV. NO.
DWG. NO.

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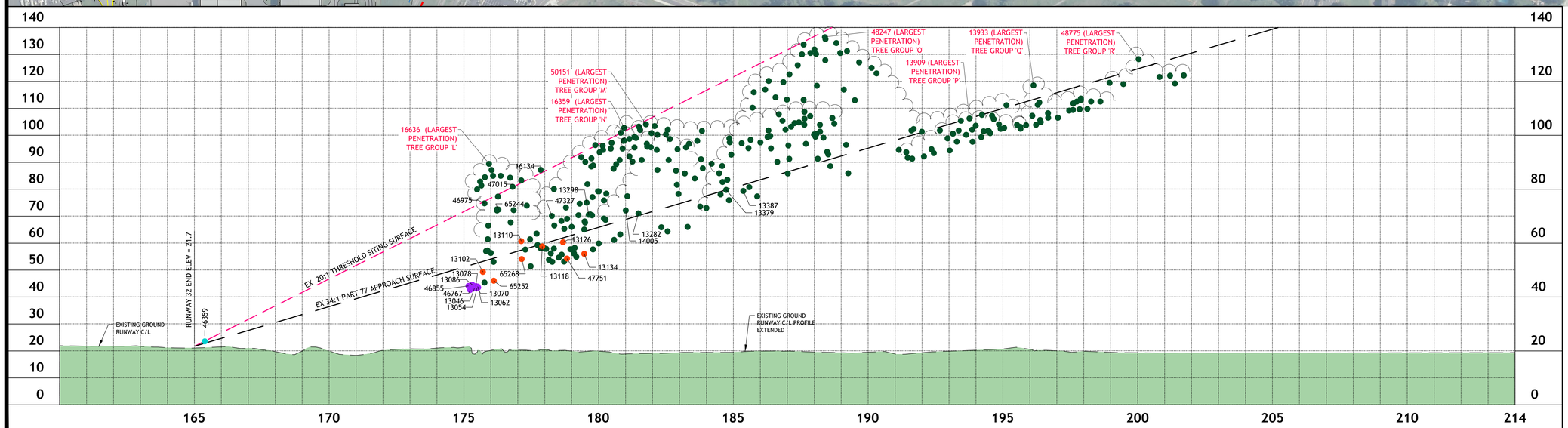

LEGEND:

- ANTENNA
- BUILDING
- BUSH
- COMMUNICATION TOWER
- CRANE
- POLE
- LIGHT POLE
- UTILITY POLE
- ROAD
- RUNWAY LIGHT
- SIGN
- NON-COMM TOWER
- TREE
- UTILITY BOX
- RAILROAD
- 123 P77 SURFACE PENETRATION
- 123 P77 OBJECT WITHIN 10 OF P77 SURFACE

N

GRAPHIC SCALE (FEET)

0 100 200 400

HORIZONTAL

20

0

VERTICAL

NOTES:

1. ALL OBSTRUCTION SURVEY DATA FROM QUANTUM SPATIAL WAS COMPILED BY PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHY DATED 09-04-2017. SURVEY DATA FEATURE ACCURACY IS IN ACCORDANCE WITH REQUIREMENTS OF FAA AC 150/5300-18B.
2. DUE TO THE LARGE QUANTITY OF TREE OBSTRUCTION DATA AND FOR CLARITY PURPOSES ON THE PLAN SHEET, LARGE TREE AREAS WITH MULTIPLE PENETRATIONS HAVE BEEN GROUPED WITH THE HIGHEST PENETRATION OF THE TREE GROUP BEING SPOTLIGHTED IN THE PLAN/PROFILE VIEW. A DETAILED BREAKDOWN OF THE SURFACE OBJECTS AND PENETRATIONS ARE PROVIDED ON THE FOLLOWING DATA TABLES.
3. SOME GROUND ELEVATIONS ARE NOT INCLUDED AS THE LOCATION OF THE OBSTRUCTION IS BEYOND THE LIMIT OF THE GROUND TOPO ACQUIRED.
4. GRID BASED ON VIRGINIA STATE PLANE SOUTH ZONE COORDINATE SYSTEM AND NAD 1983. VERTICAL DATUM BASED ON NAVD 1988.

NO	DATE	REVISION	BY	CK.	APPR.

DESIGNED BY RTL
DRAWN BY PDH
REVIEWED BY NSL
APPROVED BY .

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NORFOLK INTERNATIONAL AIRPORT

PROJECT NAME
AIRPORT LAYOUT PLAN

DRAFT

SHEET TITLE
RUNWAY 32 APPROACH

JOB NO. 33370
DATE 02/11/2020
FILE NAME ORF_ALP-32 APPRCH
REV. NO.
DWG. NO.

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TREE GROUP 'A' OBSTRUCTIONS

				EXISTING 34:1 PART 77 APPROACH		EXISTING 20:1 THRESHOLD SITING SURFACE					
PT#	OBJECT	OBJ. ELEV.	GROUND ELEV.	EXISTING PART 77 ELEV.	PENETRATION (FT.)	EXISTING TSS ELEV.	PENETRATION (FT.)	EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
11281	TREE	110.8	87.244	120.0	-9.1	221.5	-110.7	12148681.248	3495984.004	EXISTING CONDITIONS	TRIM/REMOVE
11289	TREE	118.7	85.976	118.1	0.6	218.4	-99.7	12148846.270	3496099.960	EXISTING CONDITIONS	TRIM/REMOVE
11305	TREE	105.8	83.523	114.5	-8.7	212.3	-106.4	12149035.229	3496148.705	EXISTING CONDITIONS	TRIM/REMOVE
11313	TREE	105.4	81.333	111.3	-5.8	206.8	-101.4	12149222.181	3496216.780	EXISTING CONDITIONS	TRIM/REMOVE
12204	TREE	111.9	88.316	121.5	-9.7	224.2	-112.4	12148864.157	3496320.282	EXISTING CONDITIONS	TRIM/REMOVE
12212	TREE	114.6	86.376	118.7	-4.1	219.4	-104.8	12149108.542	3496486.648	EXISTING CONDITIONS	TRIM/REMOVE
15405	TREE	100.7	75.33	102.4	-1.7	191.8	-91.1	12149712.108	3496373.115	EXISTING CONDITIONS	TRIM/REMOVE
35194	TREE	116.4	83.816	114.9	1.5	213.0	-96.6	12148937.534	3496041.670	EXISTING CONDITIONS	TRIM/REMOVE
52721	TREE	116.2	89.312	123.0	-6.8	226.7	-110.6	12149148.473	3496786.689	EXISTING CONDITIONS	TRIM/REMOVE
53257	TREE	111.0	86.578	119.0	-8.0	219.9	-108.9	12148611.004	3495833.565	EXISTING CONDITIONS	TRIM/REMOVE
53393	TREE	111.7	86.018	118.1	-6.4	218.5	-106.7	12148797.566	3496037.819	EXISTING CONDITIONS	TRIM/REMOVE
53409	TREE	115.1	85.336	117.2	-2.0	216.8	-101.7	12148848.644	3496049.463	EXISTING CONDITIONS	TRIM/REMOVE
53417	TREE	117.2	84.735	116.3	0.9	215.3	-98.1	12148899.651	3496067.765	EXISTING CONDITIONS	TRIM/REMOVE
53473	TREE	110.8	83.459	114.4	-3.6	212.1	-101.3	12148987.330	3496078.828	EXISTING CONDITIONS	TRIM/REMOVE
53673	TREE	98.9	78.634	107.3	-8.4	200.0	-101.1	12149565.330	3496452.509	EXISTING CONDITIONS	TRIM/REMOVE
53681	TREE	102.4	79.84	109.1	-6.6	203.1	-100.6	12149538.915	3496518.113	EXISTING CONDITIONS	TRIM/REMOVE
53897	TREE	99.5	75.597	102.8	-3.3	192.5	-92.9	12149714.730	3496399.024	EXISTING CONDITIONS	TRIM/REMOVE

TREE GROUP 'B' OBSTRUCTIONS

				EXISTING 34:1 PART 77 APPROACH		EXISTING 20:1 THRESHOLD SITING SURFACE					
PT#	OBJECT	OBJ. ELEV.	GROUND ELEV.	EXISTING PART 77 ELEV.	PENETRATION (FT.)	EXISTING TSS ELEV.	PENETRATION (FT.)	EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
10934	TREE	102.0	74.076	100.6	1.4	188.7	-86.7	12149346.141	3495775.092	EXISTING CONDITIONS	TRIM/REMOVE
10950	TREE	92.9	67.522	91.0	1.9	172.3	-79.5	12149481.669	3495407.888	EXISTING CONDITIONS	TRIM/REMOVE
12276	TREE	85.8	70.556	95.4	-9.6	179.9	-94.1	12149597.987	3495819.014	EXISTING CONDITIONS	TRIM/REMOVE
12332	TREE	91.9	74.444	101.1	-9.3	189.6	-97.7	12149482.701	3495989.804	EXISTING CONDITIONS	TRIM/REMOVE
33249	TREE	90.8	68.57	92.5	-1.7	174.9	-84.1	12149481.391	3495495.416	EXISTING CONDITIONS	TRIM/REMOVE
33257	TREE	96.1	71.383	96.6	-0.6	182.0	-85.9	12149387.486	3495604.904	EXISTING CONDITIONS	TRIM/REMOVE
33289	TREE	90.2	70.062	94.7	-4.5	178.6	-88.4	12149415.628	3495531.953	EXISTING CONDITIONS	TRIM/REMOVE
33345	TREE	94.0	76.125	103.6	-9.6	193.8	-99.7	12149564.074	3496240.374	EXISTING CONDITIONS	TRIM/REMOVE
33353	TREE	98.3	75.365	102.5	-4.2	191.9	-93.6	12149497.505	3496086.994	EXISTING CONDITIONS	TRIM/REMOVE
33361	TREE	92.0	73.994	100.5	-8.4	188.5	-96.4	12149562.291	3496059.267	EXISTING CONDITIONS	TRIM/REMOVE
33369	TREE	92.3	74.518	101.2	-9.0	189.8	-97.5	12149592.365	3496143.722	EXISTING CONDITIONS	TRIM/REMOVE
33377	TREE	93.7	75.529	102.7	-9.0	192.3	-98.6	12149571.213	3496200.059	EXISTING CONDITIONS	TRIM/REMOVE
33433	TREE	89.6	67.246	90.5	-0.9	171.6	-82.0	12149624.915	3495577.651	EXISTING CONDITIONS	TRIM/REMOVE
33441	TREE	85.9	67.886	91.5	-5.6	173.2	-87.3	12149582.686	3495574.499	EXISTING CONDITIONS	TRIM/REMOVE
33497	TREE	92.4	67.427	90.8	1.6	172.1	-79.7	12149707.888	3495704.601	EXISTING CONDITIONS	TRIM/REMOVE
54393	TREE	81.5	67.572	91.0	-9.5	172.4	-90.9	12149625.550	3495605.821	EXISTING CONDITIONS	TRIM/REMOVE
54425	TREE	82.1	65.683	88.2	-6.1	167.7	-85.6	12149515.519	3495299.271	EXISTING CONDITIONS	TRIM/REMOVE

TREE GROUP 'C' OBSTRUCTIONS

				EXISTING 34:1 PART 77 APPROACH		EXISTING 20:1 THRESHOLD SITING SURFACE					
PT#	OBJECT	OBJ. ELEV.	GROUND ELEV.	EXISTING PART 77 ELEV.	PENETRATION (FT.)	EXISTING TSS ELEV.	PENETRATION (FT.)	EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
33313	TREE	97.3	78.304	106.8	-9.5	199.2	-101.9	12149090.218	3495785.038	EXISTING CONDITIONS	TRIM/REMOVE
33321	TREE	98.1	78.504	107.1	-9.0	199.7	-101.6	12149045.417	3495741.462	EXISTING CONDITIONS	TRIM/REMOVE
33337	TREE	101.3	78.732	107.4	-6.1	200.3	-99.0	12149058.361	3495777.997	EXISTING CONDITIONS	TRIM/REMOVE
53577	TREE	97.9	74.929	101.8	-4.0	190.8	-92.9	12149122.773	3495545.749	EXISTING CONDITIONS	TRIM/REMOVE
54617	TREE	95.8	70.51	95.4	0.4	179.8	-84.0	12149245.578	3495340.574	EXISTING CONDITIONS	TRIM/REMOVE
54625	TREE	93.6	69.653	94.1	-0.5	177.6	-84.0	12149299.952	3495341.858	EXISTING CONDITIONS	TRIM/REMOVE
54641	TREE	90.5	72.362	98.1	-7.6	184.4	-93.9	12149197.244	3495430.809	EXISTING CONDITIONS	TRIM/REMOVE
54649	TREE	90.9	73.157	99.2	-8.4	186.4	-95.5	12149176.826	3495469.930	EXISTING CONDITIONS	TRIM/REMOVE

SURFACE OBSTRUCTIONS

				EXISTING 34:1 PART 77 APPROACH		EXISTING 20:1 THRESHOLD SITING SURFACE					
PT#	OBJECT	OBJ. ELEV.	GROUND ELEV.	EXISTING PART 77 ELEV.	PENETRATION (FT.)	EXISTING TSS ELEV.	PENETRATION (FT.)	EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
10830	UTILITY POLE	41.9	34.691	42.7	-0.8	90.3	-48.4	12150991.816	3494688.151	EXISTING CONDITIONS	LIGHT/FLAG
10838	UTILITY POLE	48.8	32.352	39.2	9.5	84.5	-35.7	12150975.128	3494469.467	EXISTING CONDITIONS	LIGHT/FLAG
10846	UTILITY POLE	44.5	34.909	43.0	1.5	90.9	-46.3	12151072.868	3494815.518	EXISTING CONDITIONS	LIGHT/FLAG
10854	UTILITY POLE	49.5	35.198	43.4	6.0	91.6	-42.1	12151132.413	3494919.958	EXISTING CONDITIONS	LIGHT/FLAG
10862	UTILITY POLE	44.6	39.461	49.7	-5.1	102.2	-57.7	12150950.660	3495032.788	EXISTING CONDITIONS	LIGHT/FLAG
10870	LIGHT POLE	40.2	34.939	43.0	-2.9	90.9	-50.8	12150881.181	3494559.882	EXISTING CONDITIONS	LIGHT/FLAG
10878	LIGHT POLE	39.0	34.277	42.1	-3.1	89.3	-50.3	12150952.761	3494600.840	EXISTING CONDITIONS	LIGHT/FLAG
10886	LIGHT POLE	39.0	35.733	44.2	-5.2	92.9	-54.0	12150910.985	3494666.664	EXISTING CONDITIONS	LIGHT/FLAG
10894	UTILITY POLE	39.5	36.327	45.1	-5.5	94.4	-54.8	12150945.700	3494763.246	EXISTING CONDITIONS	LIGHT/FLAG
10902	LIGHT POLE	39.2	35.432	43.8	-4.6	92.2	-53.0	12151021.806	3494790.676	EXISTING CONDITIONS	LIGHT/FLAG
11537	FLAGPOLE	42.5	37.813	47.3	-4.8	98.1	-55.6	12150945.844	3494888.036	EXISTING CONDITIONS	LIGHT/FLAG
11585	LIGHT POLE	40.7	36.479	45.3	-4.6	94.8	-54.0	12151056.696	3494925.497	EXISTING CONDITIONS	LIGHT/FLAG
12068	UTILITY LINE	41.9	35.778	44.3	-2.3	93.0	-51.1	12151138.193	3494976.391	EXISTING CONDITIONS	LIGHT/FLAG
33121	ROAD	26.1	20.086	21.2	4.9	53.9	-27.7	12151608.802	3494294.074	EXISTING CONDITIONS	LIGHT/FLAG
33129	ROAD	27.2	18.55	18.9	8.3	50.0	-22.8	12151795.060	3494416.163	EXISTING CONDITIONS	LIGHT/FLAG
33137	ROAD	26.2	19.89	20.9	5.3	53.4	-27.1	12151691.191	3494388.638	EXISTING CONDITIONS	LIGHT/FLAG
33145	ROAD	26.5	17.736	17.7	8.8	46.1	-19.6	12151609.890	3494035.252	EXISTING CONDITIONS	LIGHT/FLAG
33153	ROAD	26.3	18.573	19.0	7.3	50.1	-23.8	12151602.119	3494158.212	EXISTING CONDITIONS	LIGHT/FLAG
33161	POLE	27.5	18.558	19.0	8.5	50.0	-22.6	12151621.109	3494182.508	EXISTING CONDITIONS	LIGHT/FLAG
45735	FENCE	20.1	17.925	18.0	2.1	48.5	-28.3	12151819.970	3494397.272	EXISTING CONDITIONS	LIGHT/FLAG
45743	FENCE	20.7	17.918	18.0	2.7	48.4	-27.7	12151613.036	3494117.996	EXISTING CONDITIONS	LIGHT/FLAG
45751	FENCE	19.1	19.795	20.8	-1.6	53.1	-34.0	12151649.005	3494323.829	EXISTING CONDITIONS	LIGHT/FLAG
45759	FENCE	19.2	19.334	20.1	-0.9	52.0	-32.8	12151720.268	3494381.176	EXISTING CONDITIONS	LIGHT/FLAG
45767	FENCE	21.4	19.059	19.7	1.7	51.3	-29.9	12151611.306	3494211.322	EXISTING CONDITIONS	LIGHT/FLAG
45775	LIGHT POLE	28.9	17.736	17.7	11.1	42.7	-13.8	12151947.411	3494373.223	EXISTING CONDITIONS	LIGHT/FLAG
45815	FENCE	25.4	17.736	17.7	7.7	43.9	-18.5	12151925.418	3494386.860	EXISTING CONDITIONS	LIGHT/FLAG
45823	ROAD	27.9	17.736	17.7	10.2	44.9	-17.0	12151908.886	3494396.775	EXISTING CONDITIONS	LIGHT/FLAG
46143	FENCE	21.0	17.736	17.7	3.3	42.2	-21.2	12151634.550	3493937.185	EXISTING CONDITIONS	LIGHT/FLAG
46151	FENCE	20.5	17.736	17.7	2.7	45.4	-24.9	12151620.930	3494026.321	EXISTING CONDITIONS	LIGHT/FLAG
46167	POLE	27.4	17.736	17.7	9.7	41.7	-14.3	12151643.212	3493932.059	EXISTING CONDITIONS	LIGHT/FLAG
54737	LIGHT POLE	24.4	21.117	22.8	1.6	56.4	-32.1	12151738.399	3494555.117	EXISTING CONDITIONS	LIGHT/FLAG
54745	LIGHT POLE	24.1	21.805	23.7	0.4	58.1	-34.0	12151687.871	3494544.741	EXISTING CONDITIONS	LIGHT/FLAG
54753	LIGHT POLE	24.1	22.5	24.7	-0.6	59.9	-35.7	12151636.709	3494534.130	EXISTING CONDITIONS	LIGHT/FLAG
54761	LIGHT POLE	24.0	23.19	25.8	-1.7	61.6	-37.6	12151585.809	3494523.489	EXISTING CONDITIONS	LIGHT/FLAG
54769	LIGHT POLE	24.0	23.883	26.8	-2.8	63.3	-39.3	12151534.943	3494513.078	EXISTING CONDITIONS	LIGHT/FLAG
54777	LIGHT POLE	23.6	24.58	27.8	-4.2	65.1	-41.4	12151483.908	3494502.816	EXISTING CONDITIONS	LIGHT/FLAG
54785	LIGHT POLE	23.6	25.272	28.8	-5.2	66.8	-43.1	12151432.917	3494492.153	EXISTING CONDITIONS	LIGHT/FLAG
54793	LIGHT POLE	23.6	25.969	29.8	-6.2	68.5	-44.9	12151381.872	3494481.930	EXISTING CONDITIONS	LIGHT/FLAG
54801	LIGHT POLE	23.5	26.656	30.9	-7.4	70.2	-46.8	12151331.206	3494471.295	EXISTING CONDITIONS	LIGHT/FLAG
54809	LIGHT POLE	23.4	27.347	31.9	-8.4	72.0	-48.5	12151280.330	3494460.688	EXISTING CONDITIONS	LIGHT/FLAG
54817	LIGHT POLE	23.2	28.039	32.9	-9.6	73.7	-50.4	12151229.395	3494450.203	EXISTING CONDITIONS	LIGHT/FLAG
54961	TRAFFIC LIGHT	41.2	30.866	37.1	4.1	80.8	-39.6	12150981.826	3494353.839	EXISTING CONDITIONS	LIGHT/FLAG
54977	TRAFFIC LIGHT	42.1	33.574	41.0	1.1	87.5	-45.4	12150857.336	3494413.325	EXISTING CONDITIONS	LIGHT/FLAG
54985	TRAFFIC LIGHT	35.9	32.393	39.3	-3.4	84.6	-48.7	12150971.015	3494467.360	EXISTING CONDITIONS	LIGHT/FLAG
54993	UTILITY POLE	49.6	30.604	36.8	12.9	80.1	-30.5	12150966.120	3494310.720	EXISTING CONDITIONS	LIGHT/FLAG
55049	UTILITY POLE	45.1	36.948	46.0	-0.8	96.0	-50.8	12151149.597	3495089.879	EXISTING CONDITIONS	LIGHT/FLAG
55065	UTILITY POLE	49.9	39.872	50.3	-0.3	103.3	-53.3	12151029.761	3495173.745	EXISTING CONDITIONS	LIGHT/FLAG
55121	ROAD	27.9	20.389	21.8	6.1	54.6	-26.7	12151769.656	3494536.143	EXISTING CONDITIONS	LIGHT/FLAG
55129	ROAD	27.8	21.711	23.6	4.2	57.9	-30.1	12151671.730	3494515.146	EXISTING CONDITIONS	LIGHT/FLAG
55137	ROAD	27.5	23.146	25.7	1.8	61.5	-34.0	12151565.737	3494492.719	EXISTING CONDITIONS	LIGHT/FLAG
55145	ROAD	27.3	24.541	27.7	-0.4	65.0	-37.6	12151463.840	3494472.542	EXISTING CONDITIONS	LIGHT/FLAG
55153	ROAD	27.0	25.967	29.8	-2.8	68.5	-41.5	12151359.250	3494451.265	EXISTING CONDITIONS	LIGHT/FLAG
55161	ROAD	26.9	27.325	31.8	-4.9	71.9	-45.0	12151259.492	3494430.823	EXISTING CONDITIONS	LIGHT/FLAG
55169	ROAD	26.7	28.749	33.9	-7.3	75.5	-48.8	12151155.199	3494409.762	EXISTING CONDITIONS	LIGHT/FLAG
55177	ROAD	26.2	29.95	35.7	-9.5	78.5	-52.2	12151064.997	3494389.022	EXISTING CONDITIONS	LIGHT/FLAG
55185	ROAD	26.9	30.476	36.5	-9.6	79.8	-52.9	12151056.977	3494422.359	EXISTING CONDITIONS	LIGHT/FLAG
55193	ROAD	27.0	29.19	34.6	-7.6	76.6	-49.6	12151151.953	3494442.369	EXISTING CONDITIONS	LIGHT/FLAG
55201	ROAD	27.1	27.831	32.6	-5.5	73.2	-46.1	12151254.705	3494466.794	EXISTING CONDITIONS	LIGHT/FLAG
55209	ROAD	27.2	26.57	30.7	-3.5	70.0	-42.8	12151353.682	3494494.347	EXISTING CONDITIONS	LIGHT/FLAG
55217	ROAD	27.5	25.151	28.6	-1.1	66.5	-39.0	12151455.949	3494513.025	EXISTING CONDITIONS	LIGHT/FLAG
55225	ROAD	27.9	23.694	26.5	1.4	62.9	-35.0	12151560.060	3494531.077	EXISTING CONDITIONS	LIGHT/FLAG
55233	ROAD	28.0	22.236	24.4	3.7	59.2	-31.2	12151664.847	3494549.944	EXISTING CONDITIONS	LIGHT/FLAG
56185	UTILITY POLE	45.8	43.642	55.8	-10.0	112.6	-66.8	12150870.664	3495275.687	EXISTING CONDITIONS	LIGHT/FLAG
64592	ANTENNA	27.3	18.81	19.3	7.9	50.7	-23.4	12151753.497	3494381.927	EXISTING CONDITIONS	LIGHT/FLAG
64802	LIGHT POLE	39.8	33.783	41.3	-1.5	88.0	-48.2	12150887.889	3494472.008	EXISTING CONDITIONS	LIGHT/FLAG

NOTES:

1. ALL OBSTRUCTION SURVEY DATA FROM QUANTUM SPATIAL WAS COMPILED BY PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHY DATED 09-04-2017. SURVEY DATA FEATURE ACCURACY IS IN ACCORDANCE WITH REQUIREMENTS OF FAA AC 150/5300-18B.
2. DUE TO THE LARGE QUANTITY OF TREE OBSTRUCTION DATA AND FOR CLARITY PURPOSES ON THE PLAN SHEET, LARGE TREE AREAS WITH MULTIPLE PENETRATIONS HAVE BEEN GROUPED WITH THE HIGHEST PENETRATION OF THE TREE GROUP BEING SPOTLIGHTED IN THE PLAN/PROFILE VIEW. A DETAILED BREAKDOWN OF THE SURFACE OBJECTS AND PENETRATIONS ARE PROVIDED ON THE FOLLOWING DATA TABLES.
3. SOME GROUND ELEVATIONS ARE NOT INCLUDED AS THE LOCATION OF THE OBSTRUCTION IS BEYOND THE LIMIT OF THE GROUND TOPO ACQUIRED.
4. GRID BASED ON VIRGINIA STATE PLANE SOUTH ZONE COORDINATE SYSTEM AND NAD 1983. VERTICAL DATUM BASED ON NAVD 1988.
5. NEGATIVE PENETRATION VALUE REPRESENTS OBJECT CLEARANCE FROM SURFACE. POSITIVE PENETRATION VALUE REPRESENTS AMOUNT ABOVE THE SURFACE.

NO	DATE	REVISION	BY	CK.	APPR.

DESIGNED BY RTL
DRAWN BY PDH
REVIEWED BY NSL
APPROVED BY ,

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NORFOLK INTERNATIONAL AIRPORT

PROJECT NAME
AIRPORT LAYOUT PLAN

DRAFT

SHEET TITLE
RUNWAY 14 APPROACH OBSTRUCTION 1

JOB NO. 33370
DATE 02/11/2020
FILE NAME ORF_ALP-14-32 APPRCH OBSTR TABLES
REV. NO.
DWG. NO.

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TREE GROUP 'F' OBSTRUCTIONS

				EXISTING 34:1 PART 77 APPROACH		EXISTING 20:1 THRESHOLD SITING SURFACE					
PT#	OBJECT	OBJ. ELEV.	GROUND ELEV.	EXISTING PART 77 ELEV.	PENETRATION (FT.)	EXISTING TSS ELEV.	PENETRATION (FT.)	EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
15285	TREE	86.1	52.705	69.2	17.0	135.3	-49.2	12150552.522	3495607.333	EXISTING CONDITIONS	TRIM/REMOVE
33761	TREE	94.9	52.167	68.4	26.5	134.0	-39.1	12150421.738	3495386.118	EXISTING CONDITIONS	TRIM/REMOVE
33769	TREE	93.4	51.909	68.0	25.4	133.4	-40.0	12150410.734	3495349.663	EXISTING CONDITIONS	TRIM/REMOVE
33777	TREE	94.7	52.116	68.3	26.4	133.9	-39.2	12150386.788	3495334.774	EXISTING CONDITIONS	TRIM/REMOVE
33785	TREE	98.8	52.217	68.5	30.4	134.2	-35.3	12150359.117	3495305.942	EXISTING CONDITIONS	TRIM/REMOVE
33793	TREE	96.1	52.234	68.5	27.6	134.2	-38.1	12150339.941	3495281.523	EXISTING CONDITIONS	TRIM/REMOVE
33801	TREE	92.2	52.364	68.7	23.5	134.5	-42.3	12150299.244	3495237.678	EXISTING CONDITIONS	TRIM/REMOVE
33809	TREE	78.2	53.263	70.0	8.2	136.7	-58.5	12150276.903	3495282.934	EXISTING CONDITIONS	TRIM/REMOVE
33817	TREE	66.0	53.842	70.8	-4.8	138.1	-72.1	12150286.023	3495343.826	EXISTING CONDITIONS	TRIM/REMOVE
33825	TREE	75.3	52.099	68.3	7.0	133.8	-58.5	12150447.756	3495415.392	EXISTING CONDITIONS	TRIM/REMOVE
33833	TREE	76.1	51.188	66.9	9.2	131.5	-55.4	12150508.064	3495420.204	EXISTING CONDITIONS	TRIM/REMOVE
33841	TREE	84.4	51.36	67.2	17.2	132.0	-47.6	12150540.359	3495478.152	EXISTING CONDITIONS	TRIM/REMOVE
33849	TREE	72.7	49.261	64.1	8.6	126.7	-54.0	12150594.658	3495375.230	EXISTING CONDITIONS	TRIM/REMOVE
33857	TREE	62.3	50.1	65.3	-3.0	128.8	-66.5	12150573.553	3495417.194	EXISTING CONDITIONS	TRIM/REMOVE
33865	TREE	81.1	50.608	66.1	15.0	130.1	-49.0	12150469.058	3495319.071	EXISTING CONDITIONS	TRIM/REMOVE
33873	TREE	82.3	50.628	66.1	16.2	130.2	-47.8	12150443.122	3495285.848	EXISTING CONDITIONS	TRIM/REMOVE
33881	TREE	88.0	49.428	64.4	23.6	127.2	-39.2	12150495.742	3495256.065	EXISTING CONDITIONS	TRIM/REMOVE
33889	TREE	85.2	49.475	64.4	20.8	127.3	-42.1	12150472.218	3495228.309	EXISTING CONDITIONS	TRIM/REMOVE
33897	TREE	104.5	49.323	64.2	40.3	127.0	-22.5	12150427.635	3495155.505	EXISTING CONDITIONS	TRIM/REMOVE
33905	TREE	92.0	48.631	63.2	28.8	125.2	-33.2	12150555.783	3495270.023	EXISTING CONDITIONS	TRIM/REMOVE
33913	TREE	93.3	47.679	61.8	31.5	122.8	-29.6	12150589.685	3495235.901	EXISTING CONDITIONS	TRIM/REMOVE
33921	TREE	80.1	47.607	61.7	18.4	122.6	-42.6	12150627.079	3495280.186	EXISTING CONDITIONS	TRIM/REMOVE
33929	TREE	90.1	47.429	61.4	28.7	122.2	-32.1	12150567.455	3495184.962	EXISTING CONDITIONS	TRIM/REMOVE
33937	TREE	85.3	47.149	61.0	24.3	121.5	-36.2	12150556.769	3495147.070	EXISTING CONDITIONS	TRIM/REMOVE
33945	TREE	90.3	47.493	61.5	28.7	122.4	-32.1	12150508.136	3495110.441	EXISTING CONDITIONS	TRIM/REMOVE
33953	TREE	83.1	51.704	67.7	15.4	132.8	-49.7	12150245.863	3495110.402	EXISTING CONDITIONS	TRIM/REMOVE
33961	TREE	78.2	51.974	68.1	10.1	133.5	-55.3	12150259.788	3495151.760	EXISTING CONDITIONS	TRIM/REMOVE
33969	TREE	66.4	52.863	69.4	-3.0	135.7	-69.3	12150227.091	3495182.361	EXISTING CONDITIONS	TRIM/REMOVE
33993	TREE	68.1	52.047	68.2	-0.1	133.7	-65.6	12150285.248	3495192.197	EXISTING CONDITIONS	TRIM/REMOVE
34001	TREE	58.6	51.376	67.2	-8.6	132.0	-73.3	12150330.018	3495196.231	EXISTING CONDITIONS	TRIM/REMOVE
34009	TREE	84.6	50.242	65.6	19.0	129.2	-44.7	12150411.354	3495210.682	EXISTING CONDITIONS	TRIM/REMOVE
34017	TREE	74.1	48.629	63.2	10.9	125.2	-51.0	12150491.845	3495183.782	EXISTING CONDITIONS	TRIM/REMOVE
34265	TREE	70.3	51.108	66.8	3.5	131.3	-61.1	12150257.900	3495076.632	EXISTING CONDITIONS	TRIM/REMOVE
58129	TREE	75.8	54.933	72.4	3.4	140.9	-65.0	12150518.192	3495747.943	EXISTING CONDITIONS	TRIM/REMOVE
58137	TREE	81.1	54.313	71.6	9.5	139.3	-58.2	12150550.647	3495739.686	EXISTING CONDITIONS	TRIM/REMOVE
58145	TREE	74.2	54.028	71.1	3.0	138.6	-64.5	12150534.234	3495693.713	EXISTING CONDITIONS	TRIM/REMOVE
58153	TREE	65.8	53.235	69.9	-4.2	136.6	-70.9	12150570.178	3495675.591	EXISTING CONDITIONS	TRIM/REMOVE
58161	TREE	68.6	52.723	69.2	-0.6	135.4	-66.7	12150581.463	3495647.862	EXISTING CONDITIONS	TRIM/REMOVE
58249	TREE	70.1	50.382	65.8	4.3	129.5	-59.4	12150654.143	3495549.400	EXISTING CONDITIONS	TRIM/REMOVE
58257	TREE	72.5	49.733	64.8	7.7	127.9	-55.4	12150641.719	3495478.211	EXISTING CONDITIONS	TRIM/REMOVE
58353	TREE	61.2	51.185	66.9	-5.7	131.5	-70.3	12150307.199	3495149.463	EXISTING CONDITIONS	TRIM/REMOVE
64728	TREE	72.2	53.385	70.2	2.1	137.0	-64.8	12150506.431	3495602.320	EXISTING CONDITIONS	TRIM/REMOVE
64736	TREE	76.1	51.764	67.8	8.4	133.0	-56.8	12150545.658	3495519.170	EXISTING CONDITIONS	TRIM/REMOVE

TREE GROUP 'D' OBSTRUCTIONS

				EXISTING 34:1 PART 77 APPROACH		EXISTING 20:1 THRESHOLD SITING SURFACE					
PT#	OBJECT	OBJ. ELEV.	GROUND ELEV.	EXISTING PART 77 ELEV.	PENETRATION (FT.)	EXISTING TSS ELEV.	PENETRATION (FT.)	EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
12348	TREE	93.2	70.55	95.4	-2.2	179.9	-86.7	12149790.161	3496077.297	EXISTING CONDITIONS	TRIM/REMOVE
15293	TREE	93.3	55.759	73.7	19.6	143.0	-49.7	12150398.309	3495655.808	EXISTING CONDITIONS	TRIM/REMOVE
15309	TREE	108.8	60.158	80.2	28.6	154.0	-45.1	12150347.609	3495956.511	EXISTING CONDITIONS	TRIM/REMOVE
15317	TREE	83.5	61.988	82.8	0.7	158.5	-75.0	12150157.571	3495854.011	EXISTING CONDITIONS	TRIM/REMOVE
15325	TREE	104.8	64.406	86.4	18.4	164.6	-59.7	12150189.642	3496100.019	EXISTING CONDITIONS	TRIM/REMOVE
15333	TREE	99.9	68.238	92.0	7.9	174.1	-74.2	12150020.295	3496193.350	EXISTING CONDITIONS	TRIM/REMOVE
33385	TREE	95.9	68.483	92.4	3.5	174.7	-78.8	12149767.201	3495873.070	EXISTING CONDITIONS	TRIM/REMOVE
33401	TREE	82.6	68.01	91.7	-9.1	173.5	-90.9	12149806.431	3495886.171	EXISTING CONDITIONS	TRIM/REMOVE
33481	TREE	77.3	64.982	87.2	-9.9	165.9	-88.6	12149865.492	3495711.786	EXISTING CONDITIONS	TRIM/REMOVE
33489	TREE	90.5	65.585	88.1	2.4	167.5	-77.0	12149910.360	3495822.748	EXISTING CONDITIONS	TRIM/REMOVE
33545	TREE	76.2	62.621	83.7	-7.6	160.1	-83.9	12149893.893	3495552.044	EXISTING CONDITIONS	TRIM/REMOVE
33561	TREE	85.3	61.423	82.0	3.3	157.1	-71.8	12149909.628	3495472.687	EXISTING CONDITIONS	TRIM/REMOVE
33569	TREE	88.2	60.825	81.1	7.1	155.6	-67.4	12149958.515	3495488.386	EXISTING CONDITIONS	TRIM/REMOVE
33633	TREE	100.5	57.495	76.2	24.2	147.3	-46.9	12150243.416	3495592.800	EXISTING CONDITIONS	TRIM/REMOVE
33649	TREE	93.3	57.901	76.8	16.4	148.3	-55.1	12150165.250	3495521.594	EXISTING CONDITIONS	TRIM/REMOVE
33657	TREE	93.3	58.367	77.5	15.8	149.5	-56.2	12150157.031	3495549.576	EXISTING CONDITIONS	TRIM/REMOVE
33665	TREE	84.1	58.935	78.3	5.7	150.9	-66.8	12150142.630	3495577.807	EXISTING CONDITIONS	TRIM/REMOVE
33673	TREE	95.9	58.82	78.2	17.7	150.6	-54.7	12150119.172	3495536.585	EXISTING CONDITIONS	TRIM/REMOVE
33689	TREE	81.3	59.471	79.1	2.2	152.2	-70.9	12150103.107	3495569.567	EXISTING CONDITIONS	TRIM/REMOVE
33697	TREE	94.1	57.958	76.9	17.2	148.5	-54.4	12150222.178	3495603.035	EXISTING CONDITIONS	TRIM/REMOVE
33705	TREE	87.5	55.988	74.0	13.5	143.5	-56.0	12150280.501	3495516.331	EXISTING CONDITIONS	TRIM/REMOVE
33713	TREE	94.8	56.799	75.2	19.6	145.6	-50.8	12150260.155	3495556.936	EXISTING CONDITIONS	TRIM/REMOVE
33721	TREE	93.3	59.025	78.5	14.8	151.1	-57.8	12150202.325	3495665.812	EXISTING CONDITIONS	TRIM/REMOVE
33729	TREE	94.3	58.593	77.8	16.5	150.1	-55.7	12150207.481	3495636.472	EXISTING CONDITIONS	TRIM/REMOVE
33737	TREE	91.8	56.774	75.2	16.7	145.5	-53.7	12150322.554	3495638.877	EXISTING CONDITIONS	TRIM/REMOVE
33745	TREE	72.8	54.961	72.5	0.3	140.9	-68.1	12150353.669	3495528.762	EXISTING CONDITIONS	TRIM/REMOVE
33753	TREE	85.1	53.92	71.0	14.1	138.4	-53.3	12150368.643	3495461.577	EXISTING CONDITIONS	TRIM/REMOVE
54089	TREE	104.3	70.569	95.4	8.9	179.9	-75.6	12149852.947	3496163.448	EXISTING CONDITIONS	TRIM/REMOVE
54161	TREE	95.0	65.893	88.6	6.4	168.3	-73.3	12150138.314	3496155.569	EXISTING CONDITIONS	TRIM/REMOVE
54169	TREE	97.0	65.377	87.8	9.2	167.0	-70.0	12150148.055	3496125.404	EXISTING CONDITIONS	TRIM/REMOVE
54177	TREE	84.5	65.526	88.0	-3.5	167.3	-82.8	12150113.418	3496091.303	EXISTING CONDITIONS	TRIM/REMOVE
57945	TREE	87.1	61.373	81.9	5.2	157.0	-69.9	12150207.901	3495870.235	EXISTING CONDITIONS	TRIM/REMOVE
57953	TREE	77.3	61.837	82.6	-5.3	158.1	-80.8	12150234.543	3495945.045	EXISTING CONDITIONS	TRIM/REMOVE
57961	TREE	90.0	62.263	83.3	6.7	159.2	-69.2	12150269.719	3496028.150	EXISTING CONDITIONS	TRIM/REMOVE
58057	TREE	71.8	58.923	78.3	-6.5	150.8	-79.1	12150377.054	3495892.507	EXISTING CONDITIONS	TRIM/REMOVE
64672	TREE	85.5	65.333	87.7	-2.2	166.8	-81.3	12149956.711	3495864.062	EXISTING CONDITIONS	TRIM/REMOVE
64696	TREE	90.5	58.039	77.0	13.5	148.7	-58.1	12150304.142	3495720.190	EXISTING CONDITIONS	TRIM/REMOVE
64704	TREE	88.3	57.263	75.9	12.4	146.7	-58.5	12150388.369	3495768.539	EXISTING CONDITIONS	TRIM/REMOVE

TREE GROUP 'E' OBSTRUCTIONS

				EXISTING 34:1 PART 77 APPROACH		EXISTING 20:1 THRESHOLD SITING SURFACE					
PT#	OBJECT	OBJ. ELEV.	GROUND ELEV.	EXISTING PART 77 ELEV.	PENETRATION (FT.)	EXISTING TSS ELEV.	PENETRATION (FT.)	EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
10926	TREE	74.8	61.909	82.7	-7.9	158.3	-83.5	12149764.529	3495318.043	EXISTING CONDITIONS	TRIM/REMOVE
14498	TREE	77.3	53.897	70.9	6.4	138.3	-61.0	12150018.903	3494988.708	EXISTING CONDITIONS	TRIM/REMOVE
33585	TREE	76.0	59.132	78.6	-2.6	151.4	-75.3	12149850.006	3495200.255	EXISTING CONDITIONS	TRIM/REMOVE
54433	TREE	78.7	65.617	88.1	-9.4	167.5	-88.8	12149455.278	3495212.543	EXISTING CONDITIONS	TRIM/REMOVE
54473	TREE	74.2	61.52	82.1	-7.9	157.3	-83.1	12149643.858	3495122.970	EXISTING CONDITIONS	TRIM/REMOVE
58465	TREE	76.4	59.114	78.6	-2.2	151.3	-74.9	12149703.052	3495000.856	EXISTING CONDITIONS	TRIM/REMOVE
58473	TREE	73.0	58.366	77.5	-4.5	149.4	-76.5	12149738.213	3494985.505	EXISTING CONDITIONS	TRIM/REMOVE
58481	TREE	80.3	56.099	74.2	6.1	143.8	-63.5	12149846.652	3494941.405	EXISTING CONDITIONS	TRIM/REMOVE
58489	TREE	76.8	55.278	73.1	3.7	141.7	-64.9	12149862.481	3494893.853	EXISTING CONDITIONS	TRIM/REMOVE
58497	TREE	63.4	55.33	73.0	-9.7	141.8	-78.5	12149908.531	3494960.254	EXISTING CONDITIONS	TRIM/REMOVE
58505	TREE	70.7	55.893	73.9	-3.2	143.3	-72.6	12149953.164	3495067.566	EXISTING CONDITIONS	TRIM/REMOVE
58865	TREE	70.6	52.756	69.2	1.3	135.4	-64.9	12150046.925	3494930.734	EXISTING CONDITIONS	TRIM/REMOVE
58873	TREE	70.3	53.071	69.7	0.6	136.2	-65.9	12150021.902	3494923.415	EXISTING CONDITIONS	TRIM/REMOVE
58881	TREE	70.1	54.73	72.1	-2.1	140.4	-70.3	12150006.207	3495041.453	EXISTING CONDITIONS	TRIM/REMOVE

NOTES:

1. ALL OBSTRUCTION SURVEY DATA FROM QUANTUM SPATIAL WAS COMPILED BY PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHY DATED 09-04-2017. SURVEY DATA FEATURE ACCURACY IS IN ACCORDANCE WITH REQUIREMENTS OF FAA AC 150/5300-18B.
2. DUE TO THE LARGE QUANTITY OF TREE OBSTRUCTION DATA AND FOR CLARITY PURPOSES ON THE PLAN SHEET, LARGE TREE AREAS WITH MULTIPLE PENETRATIONS HAVE BEEN GROUPED WITH THE HIGHEST PENETRATION OF THE TREE GROUP BEING SPOTLIGHTED IN THE PLAN/PROFILE VIEW. A DETAILED BREAKDOWN OF THE SURFACE OBJECTS AND PENETRATIONS ARE PROVIDED ON THE FOLLOWING DATA TABLES.
3. SOME GROUND ELEVATIONS ARE NOT INCLUDED AS THE LOCATION OF THE OBSTRUCTION IS BEYOND THE LIMIT OF THE GROUND TOPO ACQUIRED.
4. GRID BASED ON VIRGINIA STATE PLANE SOUTH ZONE COORDINATE SYSTEM AND NAD 1983. VERTICAL DATUM BASED ON NAVD 1988.
5. NEGATIVE PENETRATION VALUE REPRESENTS OBJECT CLEARANCE FROM SURFACE. POSITIVE PENETRATION VALUE REPRESENTS AMOUNT ABOVE THE SURFACE.

NO	DATE	REVISION	BY	CK.	APPR.

DESIGNED BY RTL
DRAWN BY PDH
REVIEWED BY NSL
APPROVED BY .

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NORFOLK INTERNATIONAL AIRPORT

PROJECT NAME
AIRPORT LAYOUT PLAN

DRAFT

SHEET TITLE
RUNWAY 14 APPROACH OBSTRUCTION 2

JOB NO. 33370
DATE 02/11/2020
FILE NAME ORF_ALP-14-32 APPRCH OBSTR TABLES
REV. NO.
DWG. NO.

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TREE GROUP 'G' OBSTRUCTIONS

				EXISTING 34:1 PART 77 APPROACH		EXISTING 20:1 THRESHOLD SITING SURFACE					
PT#	OBJECT	OBJ. ELEV.	GROUND ELEV.	EXISTING PART 77 ELEV.	PENETRATION (FT.)	EXISTING TSS ELEV.	PENETRATION (FT.)	EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
58849	TREE	67.9	51.737	67.7	0.2	132.9	-65.0	12150092.475	3494906.638	EXISTING CONDITIONS	TRIM/REMOVE
58857	TREE	63.7	51.273	67.1	-3.3	131.7	-68.0	12150071.839	3494839.916	EXISTING CONDITIONS	TRIM/REMOVE
58969	TREE	61.6	47.866	62.0	-0.4	123.2	-61.6	12150245.779	3494788.364	EXISTING CONDITIONS	TRIM/REMOVE
58977	TREE	59.8	46.884	60.6	-0.8	120.8	-60.9	12150247.513	3494708.327	EXISTING CONDITIONS	TRIM/REMOVE
58993	TREE	73.0	48.993	63.7	9.3	126.1	-53.0	12150176.976	3494790.276	EXISTING CONDITIONS	TRIM/REMOVE
59033	TREE	60.2	47.888	62.1	-1.9	123.3	-63.1	12150215.236	3494749.108	EXISTING CONDITIONS	TRIM/REMOVE
34121	TREE	59.3	46.065	59.4	-0.1	118.7	-59.4	12150489.590	3494965.686	EXISTING CONDITIONS	TRIM/REMOVE
34185	TREE	58.2	49.437	64.4	-6.1	127.1	-68.9	12150295.566	3494987.210	EXISTING CONDITIONS	TRIM/REMOVE
34209	TREE	66.3	50.091	65.3	1.0	128.8	-62.5	12150233.792	3494958.855	EXISTING CONDITIONS	TRIM/REMOVE
58833	TREE	74.8	51.062	66.8	8.0	131.2	-56.5	12150126.993	3494896.475	EXISTING CONDITIONS	TRIM/REMOVE
59001	TREE	66.4	49.872	65.0	1.4	128.2	-61.8	12150216.371	3494917.029	EXISTING CONDITIONS	TRIM/REMOVE
59009	TREE	65.8	50.168	65.4	0.4	129.0	-63.1	12150161.606	3494868.089	EXISTING CONDITIONS	TRIM/REMOVE

TREE GROUP 'H' OBSTRUCTIONS

				EXISTING 34:1 PART 77 APPROACH		EXISTING 20:1 THRESHOLD SITING SURFACE					
PT#	OBJECT	OBJ. ELEV.	GROUND ELEV.	EXISTING PART 77 ELEV.	PENETRATION (FT.)	EXISTING TSS ELEV.	PENETRATION (FT.)	EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
11505	TREE	45.1	33.958	41.6	3.5	88.5	-43.4	12151127.299	3494809.099	EXISTING CONDITIONS	TRIM/REMOVE
11513	TREE	42.4	34.353	42.2	0.2	89.5	-47.1	12151186.550	3494922.060	EXISTING CONDITIONS	TRIM/REMOVE
11553	TREE	63.8	37.51	46.8	17.0	97.4	-33.6	12151000.587	3494936.326	EXISTING CONDITIONS	TRIM/REMOVE
11561	TREE	50.6	36.78	45.8	4.9	95.5	-44.9	12151052.900	3494945.614	EXISTING CONDITIONS	TRIM/REMOVE
11569	TREE	66.0	37.557	46.9	19.1	97.5	-31.5	12151051.977	3495009.487	EXISTING CONDITIONS	TRIM/REMOVE
11577	TREE	37.9	38.169	47.8	-9.8	99.0	-61.0	12151022.871	3495021.605	EXISTING CONDITIONS	TRIM/REMOVE
11625	TREE	43.4	40.536	51.3	-7.8	104.9	-61.5	12150916.989	3495077.532	EXISTING CONDITIONS	TRIM/REMOVE
11633	TREE	43.0	41.485	52.7	-9.7	107.3	-64.3	12150869.761	3495093.546	EXISTING CONDITIONS	TRIM/REMOVE
34025	TREE	85.8	45.487	58.6	27.3	117.3	-31.5	12150577.605	3495035.771	EXISTING CONDITIONS	TRIM/REMOVE
34033	TREE	73.0	45.743	58.9	14.1	118.0	-45.0	12150590.774	3495074.933	EXISTING CONDITIONS	TRIM/REMOVE
34041	TREE	78.3	45.4	58.4	19.8	117.1	-38.8	12150630.754	3495100.039	EXISTING CONDITIONS	TRIM/REMOVE
34049	TREE	62.1	45.402	58.4	3.6	117.1	-55.0	12150662.564	3495143.027	EXISTING CONDITIONS	TRIM/REMOVE
34057	TREE	60.4	44.723	57.4	3.0	115.4	-55.0	12150670.738	3495097.103	EXISTING CONDITIONS	TRIM/REMOVE
34065	TREE	48.3	44.121	56.5	-8.3	113.8	-65.6	12150650.382	3495019.193	EXISTING CONDITIONS	TRIM/REMOVE
34073	TREE	62.2	42.64	54.4	7.9	110.2	-48.0	12150748.088	3495026.527	EXISTING CONDITIONS	TRIM/REMOVE
34081	TREE	47.4	42.951	54.8	-7.4	110.9	-63.6	12150677.103	3494957.036	EXISTING CONDITIONS	TRIM/REMOVE
34089	TREE	46.4	42.855	54.7	-8.3	110.7	-64.3	12150709.534	3494992.687	EXISTING CONDITIONS	TRIM/REMOVE
34097	TREE	62.7	45.831	59.1	3.6	118.1	-55.5	12150709.662	3495242.439	EXISTING CONDITIONS	TRIM/REMOVE
34449	TREE	60.8	43.149	55.1	5.7	111.5	-50.6	12150811.438	3495154.554	EXISTING CONDITIONS	TRIM/REMOVE
34457	TREE	50.3	43.882	56.2	-5.9	113.3	-63.0	12150774.642	3495166.497	EXISTING CONDITIONS	TRIM/REMOVE
55793	TREE	44.0	34.205	42.0	2.0	89.1	-45.1	12151098.610	3494791.188	EXISTING CONDITIONS	TRIM/REMOVE
55801	TREE	44.4	33.984	41.6	2.7	88.6	-44.2	12151149.534	3494841.223	EXISTING CONDITIONS	TRIM/REMOVE
55809	TREE	36.8	33.604	41.1	-4.3	87.6	-50.8	12151117.578	3494766.320	EXISTING CONDITIONS	TRIM/REMOVE
55817	TREE	33.0	32.859	40.0	-7.0	85.7	-52.8	12151165.029	3494767.781	EXISTING CONDITIONS	TRIM/REMOVE
55825	TREE	38.2	33.327	40.7	-2.4	86.9	-48.7	12151159.035	3494798.912	EXISTING CONDITIONS	TRIM/REMOVE
55833	TREE	32.1	32.695	39.7	-7.6	85.3	-53.2	12151210.529	3494815.268	EXISTING CONDITIONS	TRIM/REMOVE
55841	TREE	35.5	33.217	40.5	-5.0	86.6	-51.1	12151203.847	3494850.076	EXISTING CONDITIONS	TRIM/REMOVE
55849	TREE	37.3	33.543	41.0	-3.7	87.4	-50.2	12151219.494	3494898.484	EXISTING CONDITIONS	TRIM/REMOVE
55857	TREE	39.4	34.128	41.8	-2.4	88.9	-49.5	12151173.593	3494885.734	EXISTING CONDITIONS	TRIM/REMOVE
55865	TREE	45.3	35.397	43.7	1.6	92.1	-46.8	12151178.256	3494998.400	EXISTING CONDITIONS	TRIM/REMOVE
55873	TREE	40.6	35.333	43.6	-3.0	91.9	-51.3	12151155.522	3494962.405	EXISTING CONDITIONS	TRIM/REMOVE
55881	TREE	42.7	34.719	42.7	0.0	90.4	-47.7	12151188.996	3494956.011	EXISTING CONDITIONS	TRIM/REMOVE
55889	TREE	34.8	35.424	43.7	-9.0	92.1	-57.4	12151212.378	3495046.606	EXISTING CONDITIONS	TRIM/REMOVE
55897	TREE	34.5	34.334	42.3	-7.7	89.4	-54.9	12151275.177	3495039.757	EXISTING CONDITIONS	TRIM/REMOVE
55921	TREE	35.7	34.03	41.7	-6.0	88.7	-52.9	12151248.236	3494977.994	EXISTING CONDITIONS	TRIM/REMOVE
55929	TREE	35.7	33.27	40.6	-4.9	86.8	-51.0	12151260.837	3494931.269	EXISTING CONDITIONS	TRIM/REMOVE
55945	TREE	36.4	34.869	42.9	-6.5	90.7	-54.3	12151231.656	3495026.021	EXISTING CONDITIONS	TRIM/REMOVE
57153	TREE	52.1	36.936	46.0	6.1	95.9	-43.9	12151126.231	3495057.471	EXISTING CONDITIONS	TRIM/REMOVE
57161	TREE	40.2	37.167	46.3	-6.1	96.5	-56.3	12151100.285	3495041.822	EXISTING CONDITIONS	TRIM/REMOVE
57169	TREE	49.2	37.949	47.5	1.7	98.5	-49.3	12151089.055	3495092.294	EXISTING CONDITIONS	TRIM/REMOVE
57321	TREE	61.4	41.99	53.4	8.0	108.6	-47.2	12150963.465	3495262.133	EXISTING CONDITIONS	TRIM/REMOVE
57329	TREE	48.9	42.632	54.3	-5.5	110.1	-61.2	12150946.954	3495293.759	EXISTING CONDITIONS	TRIM/REMOVE
57337	TREE	52.6	43.575	55.7	-3.1	112.5	-59.9	12150909.604	3495322.468	EXISTING CONDITIONS	TRIM/REMOVE
57505	TREE	49.5	44.962	57.8	-8.3	115.9	-66.5	12150836.678	3495340.650	EXISTING CONDITIONS	TRIM/REMOVE
57537	TREE	58.3	46.726	60.4	-2.1	120.4	-62.1	12150811.166	3495454.226	EXISTING CONDITIONS	TRIM/REMOVE
57545	TREE	53.3	46.274	59.7	-6.4	119.2	-65.9	12150827.741	3495438.623	EXISTING CONDITIONS	TRIM/REMOVE
57553	TREE	51.3	46.906	60.7	-9.4	120.8	-69.5	12150824.656	3495487.507	EXISTING CONDITIONS	TRIM/REMOVE
58265	TREE	54.1	48.102	62.4	-8.3	123.8	-69.7	12150771.915	3495516.757	EXISTING CONDITIONS	TRIM/REMOVE

NOTES:

1. ALL OBSTRUCTION SURVEY DATA FROM QUANTUM SPATIAL WAS COMPILED BY PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHY DATED 09-04-2017. SURVEY DATA FEATURE ACCURACY IS IN ACCORDANCE WITH REQUIREMENTS OF FAA AC 150/5300-18B.
2. DUE TO THE LARGE QUANTITY OF TREE OBSTRUCTION DATA AND FOR CLARITY PURPOSES ON THE PLAN SHEET, LARGE TREE AREAS WITH MULTIPLE PENETRATIONS HAVE BEEN GROUPED WITH THE HIGHEST PENETRATION OF THE TREE GROUP BEING SPOTLIGHTED IN THE PLAN/PROFILE VIEW. A DETAILED BREAKDOWN OF THE SURFACE OBJECTS AND PENETRATIONS ARE PROVIDED ON THE FOLLOWING DATA TABLES.
3. SOME GROUND ELEVATIONS ARE NOT INCLUDED AS THE LOCATION OF THE OBSTRUCTION IS BEYOND THE LIMIT OF THE GROUND TOPO ACQUIRED.
4. GRID BASED ON VIRGINIA STATE PLANE SOUTH ZONE COORDINATE SYSTEM AND NAD 1983. VERTICAL DATUM BASED ON NAVD 1988.
5. NEGATIVE PENETRATION VALUE REPRESENTS OBJECT CLEARANCE FROM SURFACE. POSITIVE PENETRATION VALUE REPRESENTS AMOUNT ABOVE THE SURFACE.

TREE GROUP 'G' OBSTRUCTIONS

				EXISTING 34:1 PART 77 APPROACH		EXISTING 20:1 THRESHOLD SITING SURFACE					
PT#	OBJECT	OBJ. ELEV.	GROUND ELEV.	EXISTING PART 77 ELEV.	PENETRATION (FT.)	EXISTING TSS ELEV.	PENETRATION (FT.)	EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
10910	TREE	46.8	38.205	47.8	-1.0	99.1	-52.3	12150778.333	3494695.301	EXISTING CONDITIONS	TRIM/REMOVE
10918	TREE	61.8	43.892	56.2	5.6	113.3	-51.5	12150475.304	3494764.188	EXISTING CONDITIONS	TRIM/REMOVE
14506	TREE	75.0	50.656	66.2	8.9	130.2	-55.2	12150168.952	3494918.955	EXISTING CONDITIONS	TRIM/REMOVE
14514	TREE	74.8	48.863	63.6	11.2	125.7	-51.0	12150152.243	3494746.010	EXISTING CONDITIONS	TRIM/REMOVE
14578	TREE	78.6	38.941	49.0	29.7	101.0	-22.4	12150674.281	3494616.953	EXISTING CONDITIONS	TRIM/REMOVE
14586	TREE	73.8	37.128	46.3	27.5	96.5	-22.7	12150722.533	3494529.852	EXISTING CONDITIONS	TRIM/REMOVE
14594	TREE	57.0	34.647	42.6	14.4	90.2	-33.2	12150856.648	3494502.370	EXISTING CONDITIONS	TRIM/REMOVE
33225	TREE	64.7	36.606	45.5	19.2	95.1	-30.4	12150851.558	3494659.823	EXISTING CONDITIONS	TRIM/REMOVE
33233	TREE	71.2	41.862	53.2	18.0	108.3	-37.1	12150675.114	3494863.028	EXISTING CONDITIONS	TRIM/REMOVE
33241	TREE	69.5	41.064	52.1	17.5	106.3	-36.8	12150650.225	3494762.615	EXISTING CONDITIONS	TRIM/REMOVE
34105	TREE	67.0	44.785	57.5	9.5	115.5	-48.6	12150539.334	3494925.291	EXISTING CONDITIONS	TRIM/REMOVE
34113	TREE	65.6	45.456	58.5	7.0	117.2	-51.7	12150518.983	3494954.202	EXISTING CONDITIONS	TRIM/REMOVE
34129	TREE	60.4	45.915	59.2	1.2	118.4	-58.0	12150435.004	3494879.597	EXISTING CONDITIONS	TRIM/REMOVE
34137	TREE	56.9	46.678	60.3	-3.4	120.2	-63.3	12150395.503	3494890.435	EXISTING CONDITIONS	TRIM/REMOVE
34145	TREE	56.8	44.993	57.8	-1.0	116.0	-59.2	12150475.117	3494856.268	EXISTING CONDITIONS	TRIM/REMOVE
34153	TREE	58.7	47.698	61.8	-3.1	122.8	-64.1	12150352.142	3494917.532	EXISTING CONDITIONS	TRIM/REMOVE
34161	TREE	59.3	48.269	62.6	-3.3	124.2	-64.9	12150335.233	3494942.706	EXISTING CONDITIONS	TRIM/REMOVE
34169	TREE	60.0	48.411	62.8	-2.8	124.6	-64.5	12150348.213	3494972.029	EXISTING CONDITIONS	TRIM/REMOVE
34177	TREE	62.4	49.168	64.0	-1.5	126.5	-64.0	12150322.679	3495001.143	EXISTING CONDITIONS	TRIM/REMOVE
34193	TREE	62.1	49.24	64.1	-2.0	126.6	-64.6	12150259.987	3494922.740	EXISTING CONDITIONS	TRIM/REMOVE
34201	TREE	66.2	48.573	63.1	3.1	125.0	-58.8	12150279.881	3494893.627	EXISTING CONDITIONS	TRIM/REMOVE
34217	TREE	72.9	50.873	66.5	6.4	130.7	-57.8	12150185.627	3494959.556	EXISTING CONDITIONS	TRIM/REMOVE
34225	TREE	71.0	51.286	67.1	3.9	131.8	-60.8	12150210.449	3495027.642	EXISTING CONDITIONS	TRIM/REMOVE
34233	TREE	63.8	51.86	67.9	-4.1	133.2	-69.4	12150174.265	3495027.093	EXISTING CONDITIONS	TRIM/REMOVE
34241	TREE	68.6	52.692	69.1	-0.6	135.3	-66.7	12150106.991	3495006.216	EXISTING CONDITIONS	TRIM/REMOVE
34249	TREE	62.4	51.705	67.7	-5.3	132.8	-70.4	12150164.235	3495000.554	EXISTING CONDITIONS	TRIM/REMOVE
34257	TREE	69.0	50.622	66.1	2.8	130.1	-61.2	12150230.640	3494999.158	EXISTING CONDITIONS	TRIM/REMOVE
34273	TREE	71.5	39.602	49.9	21.6	102.6	-31.2	12150678.983	3494678.734	EXISTING CONDITIONS	TRIM/REMOVE
34281	TREE	65.2	40.933	51.9	13.4	105.9	-40.7	12150620.851	3494712.056	EXISTING CONDITIONS	TRIM/REMOVE
34289	TREE	70.3	40.351	51.0	19.3	104.5	-34.2	12150632.156	3494678.449	EXISTING CONDITIONS	TRIM/REMOVE
34297	TREE	50.2	41.73	53.0	-2.8	107.9	-57.7	12150568.376	3494708.188	EXISTING CONDITIONS	TRIM/REMOVE
34305	TREE	57.4	41.957	53.4	4.1	108.5	-51.0	12150586.905	3494752.178	EXISTING CONDITIONS	TRIM/REMOVE
34313	TREE	64.9	42.645	54.4	10.5	110.2	-45.3	12150564.866	3494780.247	EXISTING CONDITIONS	TRIM/REMOVE
34321	TREE	76.3	42.326	53.9	22.4	109.4	-33.1	12150594.029	3494792.758	EXISTING CONDITIONS	TRIM/REMOVE
34329	TREE	71.1	42.439	54.1	17.0	109.7	-38.6	12150613.996	3494829.128	EXISTING CONDITIONS	TRIM/REMOVE
34337	TREE	67.9	42.498	54.2	13.7	109.8	-42.0	12150624.889	3494848.720	EXISTING CONDITIONS	TRIM/REMOVE
34345	TREE	51.9	42.874	54.7	-2.9	110.7	-58.9	12150627.933	3494884.410	EXISTING CONDITIONS	TRIM/REMOVE
34353	TREE	63.8	43.713	55.9	7.8	112.9	-49.1	12150547.338	3494846.191	EXISTING CONDITIONS	TRIM/REMOVE
34361	TREE	49.3	40.953	51.9	-2.6	106.0	-56.7	12150700.141	3494820.524	EXISTING CONDITIONS	TRIM/REMOVE
34369	TREE	69.1	40.524	51.3	17.8	104.9	-35.9	12150679.108	3494756.186	EXISTING CONDITIONS	TRIM/REMOVE
34377	TREE	69.3	41.673	53.0	16.4	107.8	-38.5	12150630.092	3494786.584	EXISTING CONDITIONS	TRIM/REMOVE
34385	TREE	74.1	43.022	54.9	19.2	111.2	-37.1	12150579.093	3494830.999	EXISTING CONDITIONS	TRIM/REMOVE
34393	TREE	72.6	36.778	45.8	26.8	95.6	-23.0	12150790.335	3494591.798	EXISTING CONDITIONS	TRIM/REMOVE
34401	TREE	69.0	37.04	46.1	22.8	96.2	-27.3	12150867.628	3494717.880	EXISTING CONDITIONS	TRIM/REMOVE
34409	TREE	77.6	39.78	50.2	27.5	103.1	-25.5	12150649.113	3494653.415	EXISTING CONDITIONS	TRIM/REMOVE
34417	TREE	56.3	36.023	44.6	11.6	93.7	-37.4	12150841.865	3494597.908	EXISTING CONDITIONS	TRIM/REMOVE
34425	TREE	56.2	36.627	45.5	10.6	95.2	-39.0	12150834.979	3494639.272	EXISTING CONDITIONS	TRIM/REMOVE
34433	TREE	46.1	37.728	47.1	-1.1	97.9	-51.8	12150835.743	3494732.633	EXISTING CONDITIONS	TRIM/REMOVE
34441	TREE	55.6	34.737	42.8	12.8	90.5	-34.9	12150866.837	3494523.622	EXISTING CONDITIONS	TRIM/REMOVE
56593	TREE	60.5	34.625	42.6	17.9	90.2	-29.7	12150809.363	3494436.886	EXISTING CONDITIONS	TRIM/REMOVE
56601	TREE	55.5	35.699	44.2	11.3	92.9	-37.4	12150780.044	3494487.454	EXISTING CONDITIONS	TRIM/REMOVE
56609	TREE	40.8	35.411	43.8	-3.0	92.1	-51.3	12150751.475	3494424.818	EXISTING CONDITIONS	TRIM/REMOVE
56617	TREE	41.5	35.262	43.5	-2.0	91.7	-50.2	12150774.999	3494443.973	EXISTING CONDITIONS	TRIM/REMOVE
56961	TREE	50.6	38.09	47.7	3.0	98.8	-48.2	12150651.810	3494515.280	EXISTING CONDITIONS	TRIM/REMOVE
56985	TREE	47.4	38.326	48.0	-0.6	99.4	-52.0	12150661.883	3494548.655	EXISTING CONDITIONS	TRIM/REMOVE
56993	TREE	66.0	37.922	47.4	18.6	98.4	-32.4	12150715.549	3494587.041	EXISTING CONDITIONS	TRIM/REMOVE
57001	TREE	60.4	37.055	46.2	14.2	96.3	-35.9	12150752.338	3494563.896	EXISTING CONDITIONS	TRIM/REMOVE
57009	TREE	66.1	35.893	44.5	21.7	93.4	-27.3	12150804.516	3494536.688	EXISTING CONDITIONS	TRIM/REMOVE
57017	TREE	59.3	36.27	45.0	14.3	94.3	-35.0	12150767.497	3494518.481	EXISTING CONDITIONS	TRIM/REMOVE
57025	TREE	52.7	36.356	45.1	7.5	94.5	-41.8	12150747.431	3494498.617	EXISTING CONDITIONS	TRIM/REMOVE
57033	TREE	76.2	38.92	48.9	27.3	100.9	-24.8	12150659.757	3494595.618	EXISTING CONDITIONS	TRIM/REMOVE
57041	TREE	71.0	40.3	50.9	20.1	104.4	-33.3	12150598.940	3494629.414	EXISTING CONDITIONS	TRIM/REMOVE
57049	TREE	64.4	39.725	50.1	14.3	102.9	-38.5	12150609.002	3494594.764	EXISTING CONDITIONS	TRIM/REMOVE
57057	TREE	58.6	40.876	51.8	6.8	105.8	-47.2	12150533.602	3494589.779	EXISTING CONDITIONS	TRIM/REMOVE
57065	TREE	67.4	42.278	53.8	13.6	109.3	-41.9	12150485.326	3494642.366	EXISTING CONDITIONS	TRIM/REMOVE
57073	TREE	64.9	43.258	55.3	9.6	111.7	-46.8	12150465.585	3494697.941	EXISTING CONDITIONS	TRIM/REMOVE
57081	TREE	51.6	43.672	55.9	-4.3	112.7	-61.1	12150423.718	3494676.238	EXISTING CONDITIONS	TRIM/REMOVE
57113	TREE	48.5	36.932	46.0	2.5	95.9	-47.4	12150798.441	3494615.607	EXISTING CONDITIONS	TRIM/REMOVE
57121	TREE	60.0	35.942	44.5	15.5	93.5	-33.5	12150823.915	3494566.952	EXISTING CONDITIONS	TRIM/REMOVE
57265	TREE	57.4	44.19	56.6	0.8	114.0	-56.6	12150566.684	3494912.295	EXISTING CONDITIONS	TRIM/REMOVE
58801	TREE	61.7	46.307	59.8	1.9	119.3	-57.7	12150336.648	3494780.023	EXISTING CONDITIONS	TRIM/REMOVE
58809	TREE	57.5	47.073	60.9	-3.4	121.2	-63.8	12150333.981	3494840.650	EXISTING CONDITIONS	TRIM/REMOVE
58817	TREE	72.8	49.174	64.0	8.9	126.5	-53.7	12150197.538	3494833.148	EXISTING CONDITIONS	TRIM/REMOVE
58825	TREE	71.5	50.417	65.8	5.7	129.6	-58.1	12150120.291	3494833.344	EXISTING CONDITIONS	TRIM/REMOVE
58841	TREE	67.9	51.61	67.6	0.4	132.6	-64.7	12150125.871	3494940.942	EXISTING CONDITIONS	TRIM/REMOVE

NO	DATE	REVISION	BY	CK.	APPR.

DESIGNED BY RTL
DRAWN BY PDH
REVIEWED BY NSL
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NORFOLK INTERNATIONAL AIRPORT

PROJECT NAME
AIRPORT LAYOUT PLAN

DRAFT

SHEET TITLE
RUNWAY 14 APPROACH OBSTRUCTION 3

JOB NO. 33370
DATE 02/11/2020
FILE NAME ORF_ALP-14-32 APPRCH OBSTR TABLES
REV. NO.
DWG. NO.

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TREE NON-GROUP OBSTRUCTIONS

				EXISTING 34:1 PART 77 APPROACH		EXISTING 20:1 THRESHOLD SITING SURFACE					
PT#	OBJECT	OBJ. ELEV.	GROUND ELEV.	EXISTING PART 77 ELEV.	PENETRATION (FT.)	EXISTING TSS ELEV.	PENETRATION (FT.)	EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
11593	TREE	40.9	39.941	50.4	-9.5	103.4	-62.5	12150834.772	3494916.982	EXISTING CONDITIONS	TRIM/REMOVE
55977	TREE	30.4	29.952	35.8	-5.4	78.5	-48.0	12151431.618	3494882.947	EXISTING CONDITIONS	TRIM/REMOVE
56001	TREE	31.3	29.122	34.6	-3.3	76.4	-45.1	12151462.027	3494854.260	EXISTING CONDITIONS	TRIM/REMOVE
57425	TREE	38.1	38.042	47.7	-9.6	98.7	-60.6	12151135.713	3495162.966	EXISTING CONDITIONS	TRIM/REMOVE

TREE GROUP 'I' OBSTRUCTIONS

				EXISTING 34:1 PART 77 APPROACH		EXISTING 20:1 THRESHOLD SITING SURFACE					
PT#	OBJECT	OBJ. ELEV.	GROUND ELEV.	EXISTING PART 77 ELEV.	PENETRATION (FT.)	EXISTING TSS ELEV.	PENETRATION (FT.)	EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
10798	TREE	63.3	32.213	39.1	24.2	84.2	-20.9	12151038.992	3494543.800	EXISTING CONDITIONS	TRIM/REMOVE
10806	TREE	48.4	29.548	35.1	13.3	77.5	-29.1	12151212.046	3494553.348	EXISTING CONDITIONS	TRIM/REMOVE
10814	TREE	46.1	27.255	31.8	14.4	71.8	-25.7	12151360.074	3494560.425	EXISTING CONDITIONS	TRIM/REMOVE
10822	TREE	51.9	34.128	41.9	10.0	88.9	-37.1	12151014.035	3494670.786	EXISTING CONDITIONS	TRIM/REMOVE
33209	TREE	56.3	30.733	36.9	19.4	80.5	-24.2	12151130.474	3494542.889	EXISTING CONDITIONS	TRIM/REMOVE
33217	TREE	44.8	28.446	33.5	11.3	74.8	-29.9	12151273.582	3494543.833	EXISTING CONDITIONS	TRIM/REMOVE
55697	TREE	47.6	33.033	40.2	7.4	86.2	-38.6	12150996.720	3494555.678	EXISTING CONDITIONS	TRIM/REMOVE
55705	TREE	57.8	31.372	37.8	20.0	82.1	-24.3	12151077.390	3494525.020	EXISTING CONDITIONS	TRIM/REMOVE
55713	TREE	42.1	31.907	38.6	3.5	83.4	-41.3	12151085.161	3494580.296	EXISTING CONDITIONS	TRIM/REMOVE
55721	TREE	48.4	31.416	37.9	10.6	82.2	-33.7	12151094.548	3494551.774	EXISTING CONDITIONS	TRIM/REMOVE
55729	TREE	47.2	30.598	36.7	10.6	80.1	-32.9	12151171.469	3494586.763	EXISTING CONDITIONS	TRIM/REMOVE
55737	TREE	43.3	31.135	37.4	5.8	81.5	-38.2	12151140.691	3494590.383	EXISTING CONDITIONS	TRIM/REMOVE
55745	TREE	53.7	30.153	36.0	17.7	79.0	-25.3	12151163.086	3494538.204	EXISTING CONDITIONS	TRIM/REMOVE
55753	TREE	35.6	30.325	36.3	-0.6	79.4	-43.8	12151200.536	3494603.036	EXISTING CONDITIONS	TRIM/REMOVE
55761	TREE	44.6	27.696	32.4	12.2	72.9	-28.3	12151324.223	3494549.132	EXISTING CONDITIONS	TRIM/REMOVE
55769	TREE	42.6	28.834	34.1	8.5	75.7	-33.1	12151244.340	3494536.982	EXISTING CONDITIONS	TRIM/REMOVE
55777	TREE	46.5	33.976	41.6	4.9	88.5	-42.0	12151004.892	3494645.730	EXISTING CONDITIONS	TRIM/REMOVE
55785	TREE	45.3	34.361	42.2	3.1	89.5	-44.2	12151013.565	3494689.747	EXISTING CONDITIONS	TRIM/REMOVE

TREE GROUP 'J' OBSTRUCTIONS

				EXISTING 34:1 PART 77 APPROACH		EXISTING 20:1 THRESHOLD SITING SURFACE					
PT#	OBJECT	OBJ. ELEV.	GROUND ELEV.	EXISTING PART 77 ELEV.	PENETRATION (FT.)	EXISTING TSS ELEV.	PENETRATION (FT.)	EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
10790	TREE	64.2	29.344	34.8	29.3	77.0	-12.9	12151075.552	3494352.442	EXISTING CONDITIONS	TRIM/REMOVE
55569	TREE	55.4	29.257	34.7	20.7	76.8	-21.4	12151094.913	3494371.229	EXISTING CONDITIONS	TRIM/REMOVE
55577	TREE	56.2	28.568	33.7	22.5	75.1	-18.9	12151095.918	3494314.741	EXISTING CONDITIONS	TRIM/REMOVE
55585	TREE	60.6	28.875	34.1	26.4	75.9	-15.3	12151054.590	3494284.851	EXISTING CONDITIONS	TRIM/REMOVE
55593	TREE	58.9	29.099	34.6	24.3	76.4	-17.5	12151026.805	3494266.222	EXISTING CONDITIONS	TRIM/REMOVE
64937	TREE	36.0	29.629	35.2	0.8	77.7	-41.7	12151028.635	3494313.110	EXISTING CONDITIONS	TRIM/REMOVE

TREE GROUP 'K' OBSTRUCTIONS

				EXISTING 34:1 PART 77 APPROACH		EXISTING 20:1 THRESHOLD SITING SURFACE					
PT#	OBJECT	OBJ. ELEV.	GROUND ELEV.	EXISTING PART 77 ELEV.	PENETRATION (FT.)	EXISTING TSS ELEV.	PENETRATION (FT.)	EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
10029	TREE	21.0	17.736	17.7	3.2	47.9	-26.9	12151581.740	3494056.241	EXISTING CONDITIONS	TRIM/REMOVE
10037	TREE	22.0	18.276	18.5	3.5	49.3	-27.3	12151583.412	3494108.115	EXISTING CONDITIONS	TRIM/REMOVE
10045	TREE	24.3	19.491	20.3	4.0	52.4	-28.0	12151568.146	3494189.484	EXISTING CONDITIONS	TRIM/REMOVE
10053	TREE	23.1	20.105	21.2	1.9	53.9	-30.8	12151559.217	3494228.949	EXISTING CONDITIONS	TRIM/REMOVE
10061	TREE	26.3	20.23	21.4	4.9	54.2	-27.9	12151562.806	3494244.271	EXISTING CONDITIONS	TRIM/REMOVE
10069	TREE	24.8	20.229	21.4	3.4	54.2	-29.4	12151569.358	3494252.991	EXISTING CONDITIONS	TRIM/REMOVE
10077	TREE	26.6	20.322	21.5	5.1	54.4	-27.8	12151592.535	3494291.987	EXISTING CONDITIONS	TRIM/REMOVE
10085	TREE	23.7	20.628	22.0	1.7	55.2	-31.5	12151584.822	3494307.234	EXISTING CONDITIONS	TRIM/REMOVE
10093	TREE	24.9	20.614	22.0	2.9	55.2	-30.3	12151598.636	3494324.736	EXISTING CONDITIONS	TRIM/REMOVE
10101	TREE	23.3	20.166	21.3	2.0	54.0	-30.8	12151704.558	3494429.750	EXISTING CONDITIONS	TRIM/REMOVE
10109	TREE	24.2	19.954	21.0	3.2	53.5	-29.3	12151722.047	3494435.561	EXISTING CONDITIONS	TRIM/REMOVE
46111	TREE	42.6	18.189	18.6	24.0	49.2	-6.6	12151853.203	3494464.141	EXISTING CONDITIONS	TRIM/REMOVE
46231	TREE	24.7	17.736	17.7	7.0	45.4	-20.6	12151579.231	3493968.414	EXISTING CONDITIONS	TRIM/REMOVE
55265	TREE	24.7	19.126	19.8	4.9	51.5	-26.7	12151788.659	3494455.788	EXISTING CONDITIONS	TRIM/REMOVE
55273	TREE	19.7	18.659	19.1	0.6	50.3	-30.6	12151818.516	3494456.884	EXISTING CONDITIONS	TRIM/REMOVE
55281	TREE	22.4	20.298	21.5	0.9	54.4	-31.9	12151581.700	3494275.355	EXISTING CONDITIONS	TRIM/REMOVE
55289	TREE	19.0	19.209	19.9	-0.9	51.7	-32.6	12151568.826	3494166.722	EXISTING CONDITIONS	TRIM/REMOVE
55297	TREE	18.4	18.857	19.4	-1.0	50.8	-32.4	12151578.128	3494149.739	EXISTING CONDITIONS	TRIM/REMOVE
55305	BUSH	21.0	19.729	20.7	0.3	53.0	-32.0	12151577.052	3494221.371	EXISTING CONDITIONS	TRIM/REMOVE
55313	BUSH	18.0	20.721	22.1	-4.1	55.4	-37.4	12151612.598	3494352.516	EXISTING CONDITIONS	TRIM/REMOVE
55321	BUSH	17.8	20.621	22.0	-4.2	55.2	-37.4	12151636.494	3494376.275	EXISTING CONDITIONS	TRIM/REMOVE
55329	BUSH	17.5	20.42	21.7	-4.2	54.7	-37.2	12151664.686	3494397.424	EXISTING CONDITIONS	TRIM/REMOVE
55337	BUSH	19.3	20.355	21.6	-2.3	54.5	-35.3	12151678.353	3494410.345	EXISTING CONDITIONS	TRIM/REMOVE
55345	BUSH	20.2	19.692	20.6	-0.4	52.9	-32.6	12151736.735	3494433.361	EXISTING CONDITIONS	TRIM/REMOVE
55353	BUSH	18.9	19.328	20.1	-1.2	51.9	-33.1	12151763.468	3494438.859	EXISTING CONDITIONS	TRIM/REMOVE
55361	BUSH	20.5	19.007	19.6	0.8	51.2	-30.7	12151784.141	3494439.727	EXISTING CONDITIONS	TRIM/REMOVE

NOTES:

1. ALL OBSTRUCTION SURVEY DATA FROM QUANTUM SPATIAL WAS COMPILED BY PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHY DATED 09-04-2017. SURVEY DATA FEATURE ACCURACY IS IN ACCORDANCE WITH REQUIREMENTS OF FAA AC 150/5300-18B.
2. DUE TO THE LARGE QUANTITY OF TREE OBSTRUCTION DATA AND FOR CLARITY PURPOSES ON THE PLAN SHEET, LARGE TREE AREAS WITH MULTIPLE PENETRATIONS HAVE BEEN GROUPED WITH THE HIGHEST PENETRATION OF THE TREE GROUP BEING SPOTLIGHTED IN THE PLAN/PROFILE VIEW. A DETAILED BREAKDOWN OF THE SURFACE OBJECTS AND PENETRATIONS ARE PROVIDED ON THE FOLLOWING DATA TABLES.
3. SOME GROUND ELEVATIONS ARE NOT INCLUDED AS THE LOCATION OF THE OBSTRUCTION IS BEYOND THE LIMIT OF THE GROUND TOPO ACQUIRED.
4. GRID BASED ON VIRGINIA STATE PLANE SOUTH ZONE COORDINATE SYSTEM AND NAD 1983. VERTICAL DATUM BASED ON NAVD 1988.
5. NEGATIVE PENETRATION VALUE REPRESENTS OBJECT CLEARANCE FROM SURFACE. POSITIVE PENETRATION VALUE REPRESENTS AMOUNT ABOVE THE SURFACE.

NO	DATE	REVISION	BY	CK.	APPR.

DESIGNED BY RTL
DRAWN BY PDH
REVIEWED BY NSL
APPROVED BY .

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NORFOLK INTERNATIONAL AIRPORT

PROJECT NAME
AIRPORT LAYOUT PLAN

DRAFT

SHEET TITLE
RUNWAY 14 APPROACH OBSTRUCTION 4

JOB NO. 33370
DATE 02/11/2020
FILE NAME ORF_ALP-14-32 APPRCH OBSTR TABLES
REV. NO.
DWG. NO.

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TREE GROUP 'O' OBSTRUCTIONS

				EXISTING 34:1 PART 77 APPROACH		EXISTING 20:1 THRESHOLD SITING SURFACE					
PT#	OBJECT	OBJ. ELEV.	GROUND ELEV.	EXISTING PART 77 ELEV.	PENETRATION (FT.)	EXISTING TSS ELEV.	PENETRATION (FT.)	EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
13426	TREE	127.9	68.542	90.6	37.3	138.7	-11	12157588.815	3489375.462	EXISTING CONDITIONS	TRIM/REMOVE
13434	TREE	104.8	66.588	87.7	17.1	133.8	-29	12157599.443	3489553.660	EXISTING CONDITIONS	TRIM/REMOVE
13442	TREE	95.1	64.511	84.7	10.5	128.6	-33	12157444.809	3489519.595	EXISTING CONDITIONS	TRIM/REMOVE
13450	TREE	83.5	61.273	79.9	3.6	120.5	-37	12157316.102	3489617.803	EXISTING CONDITIONS	TRIM/REMOVE
13466	TREE	91.3	67.983	89.8	1.5	137.3	-46	12157712.246	3489588.528	EXISTING CONDITIONS	TRIM/REMOVE
13474	TREE	96.5	70.091	92.9	3.6	142.5	-46	12157789.047	3489515.214	EXISTING CONDITIONS	TRIM/REMOVE
13869	TREE	102.3	75.098	100.2	2.1	155.0	-53	12157862.622	3489194.321	EXISTING CONDITIONS	TRIM/REMOVE
13877	TREE	97.6	79.47	106.6	-9.0	165.9	-68	12158039.013	3489065.234	EXISTING CONDITIONS	TRIM/REMOVE
16583	TREE	133.7	66.936	88.3	45.4	134.7	-1	12157485.049	3489370.415	EXISTING CONDITIONS	TRIM/REMOVE
16591	TREE	116.9	69.917	92.6	24.3	142.1	-25	12157634.510	3489321.676	EXISTING CONDITIONS	TRIM/REMOVE
16599	TREE	98.9	61.424	80.1	18.7	120.9	-22	12157264.027	3489535.050	EXISTING CONDITIONS	TRIM/REMOVE
16607	TREE	101.8	64.325	84.4	17.4	128.4	-27	12157317.578	3489363.870	EXISTING CONDITIONS	TRIM/REMOVE
34601	TREE	135.7	68.558	90.6	45.1	138.8	-3	12157483.815	3489232.704	EXISTING CONDITIONS	TRIM/REMOVE
34915	TREE	106.4	69.069	91.4	15.0	140.0	-34	12157660.253	3489427.441	EXISTING CONDITIONS	TRIM/REMOVE
34923	TREE	113.1	66.936	88.2	24.9	134.7	-22	12157548.766	3489456.217	EXISTING CONDITIONS	TRIM/REMOVE
35246	TREE	111.2	81.984	110.3	0.8	172.2	-61	12157969.643	3488760.925	EXISTING CONDITIONS	TRIM/REMOVE
35254	TREE	107.6	80.166	107.7	-0.1	167.7	-60	12157991.966	3488943.470	EXISTING CONDITIONS	TRIM/REMOVE
35262	TREE	101.3	75.708	101.1	0.2	156.5	-55	12157765.790	3489012.744	EXISTING CONDITIONS	TRIM/REMOVE
35278	TREE	105.4	78.605	105.4	0.1	163.8	-58	12157867.973	3488907.437	EXISTING CONDITIONS	TRIM/REMOVE
47999	TREE	73.0	59.72	77.6	-4.6	116.6	-44	12157239.149	3489644.475	EXISTING CONDITIONS	TRIM/REMOVE
48007	TREE	88.6	60.889	79.3	9.3	119.5	-31	12157268.238	3489585.577	EXISTING CONDITIONS	TRIM/REMOVE
48015	TREE	92.8	61.564	80.3	12.5	121.2	-28	12157295.684	3489565.915	EXISTING CONDITIONS	TRIM/REMOVE
48023	TREE	116.0	63.235	82.8	33.2	125.5	-9	12157363.026	3489516.490	EXISTING CONDITIONS	TRIM/REMOVE
48031	TREE	95.2	62.845	82.2	13.0	124.4	-29	12157380.370	3489572.523	EXISTING CONDITIONS	TRIM/REMOVE
48039	TREE	120.2	64.34	84.4	35.8	128.2	-8	12157397.137	3489469.749	EXISTING CONDITIONS	TRIM/REMOVE
48159	TREE	130.1	66.813	88.1	42.0	134.4	-4	12157434.612	3489312.817	EXISTING CONDITIONS	TRIM/REMOVE
48167	TREE	110.3	63.146	82.7	27.6	125.2	-15	12157306.791	3489448.223	EXISTING CONDITIONS	TRIM/REMOVE
48175	TREE	97.4	61.454	80.2	17.3	121.1	-24	12157225.411	3489480.483	EXISTING CONDITIONS	TRIM/REMOVE
48183	TREE	96.2	65.804	86.6	9.7	131.8	-36	12157526.103	3489520.589	EXISTING CONDITIONS	TRIM/REMOVE
48191	TREE	107.1	67.42	88.9	18.2	135.9	-29	12157619.394	3489510.720	EXISTING CONDITIONS	TRIM/REMOVE
48199	TREE	100.5	67.89	89.6	10.9	137.0	-37	12157654.516	3489518.612	EXISTING CONDITIONS	TRIM/REMOVE
48207	TREE	101.4	68.154	90.0	11.4	137.7	-36	12157626.428	3489458.629	EXISTING CONDITIONS	TRIM/REMOVE
48215	TREE	118.4	67.92	89.7	28.7	137.2	-19	12157582.877	3489419.647	EXISTING CONDITIONS	TRIM/REMOVE
48223	TREE	130.2	67.855	89.6	40.6	137.0	-7	12157532.436	3489357.112	EXISTING CONDITIONS	TRIM/REMOVE
48231	TREE	130.5	69.652	92.2	38.3	141.5	-11	12157585.880	3489278.388	EXISTING CONDITIONS	TRIM/REMOVE
48239	TREE	113.0	70.738	93.8	19.2	144.2	-31	12157678.018	3489311.440	EXISTING CONDITIONS	TRIM/REMOVE
48247	TREE	136.4	68.515	90.6	45.8	138.7	-2	12157520.180	3489285.298	EXISTING CONDITIONS	TRIM/REMOVE
48255	TREE	130.5	67.441	89.0	41.5	136.1	-6	12157436.893	3489263.225	EXISTING CONDITIONS	TRIM/REMOVE
48263	TREE	131.9	67.737	89.4	42.4	136.7	-5	12157482.114	3489299.275	EXISTING CONDITIONS	TRIM/REMOVE
48271	TREE	126.0	66.499	87.6	38.4	133.6	-8	12157498.138	3489424.639	EXISTING CONDITIONS	TRIM/REMOVE
48279	TREE	122.6	65.883	86.7	35.9	132.1	-9	12157481.013	3489453.293	EXISTING CONDITIONS	TRIM/REMOVE
48287	TREE	119.7	65.432	86.0	33.7	131.0	-11	12157415.290	3489402.635	EXISTING CONDITIONS	TRIM/REMOVE
48295	TREE	117.0	64.08	84.0	32.9	127.6	-11	12157350.399	3489428.581	EXISTING CONDITIONS	TRIM/REMOVE
48303	TREE	113.3	65.695	86.4	26.8	131.7	-18	12157376.680	3489328.513	EXISTING CONDITIONS	TRIM/REMOVE
48311	TREE	114.1	64.847	85.2	28.9	129.5	-15	12157363.654	3489382.114	EXISTING CONDITIONS	TRIM/REMOVE
48359	TREE	134.3	69.365	91.8	42.4	140.9	-7	12157508.817	3489198.674	EXISTING CONDITIONS	TRIM/REMOVE
48367	TREE	131.3	70.155	93.0	38.3	142.8	-12	12157568.823	3489213.220	EXISTING CONDITIONS	TRIM/REMOVE
48375	TREE	127.1	71.058	94.3	32.8	145.0	-18	12157591.106	3489167.478	EXISTING CONDITIONS	TRIM/REMOVE
48447	TREE	125.0	71.981	95.7	29.4	147.3	-22	12157628.921	3489141.054	EXISTING CONDITIONS	TRIM/REMOVE
48455	TREE	123.0	72.349	96.2	26.8	148.3	-25	12157618.377	3489095.943	EXISTING CONDITIONS	TRIM/REMOVE
48607	TREE	97.7	78.3	104.9	-7.3	163.1	-65	12157825.374	3488875.613	EXISTING CONDITIONS	TRIM/REMOVE
48615	TREE	98.9	77.615	103.9	-5.1	161.3	-62	12157841.132	3488954.284	EXISTING CONDITIONS	TRIM/REMOVE
48639	TREE	100.2	78.997	105.9	-5.8	164.7	-65	12157913.911	3488936.397	EXISTING CONDITIONS	TRIM/REMOVE
48647	TREE	107.3	80.921	108.8	-1.5	169.6	-62	12158004.545	3488897.119	EXISTING CONDITIONS	TRIM/REMOVE
48655	TREE	99.3	80.118	107.6	-8.3	167.5	-68	12157934.954	3488870.744	EXISTING CONDITIONS	TRIM/REMOVE
48663	TREE	100.8	80.783	108.6	-7.8	169.3	-68	12157918.165	3488792.370	EXISTING CONDITIONS	TRIM/REMOVE
48679	TREE	103.9	82.767	111.5	-7.6	174.1	-70	12158015.266	3488756.694	EXISTING CONDITIONS	TRIM/REMOVE
49279	TREE	101.8	74.936	100.0	1.8	154.6	-53	12157804.218	3489129.262	EXISTING CONDITIONS	TRIM/REMOVE
49287	TREE	94.6	74.003	98.6	-4.0	152.3	-58	12157781.143	3489176.450	EXISTING CONDITIONS	TRIM/REMOVE
49311	TREE	91.7	74.66	99.6	-7.9	153.9	-62	12157830.524	3489187.847	EXISTING CONDITIONS	TRIM/REMOVE
49335	TREE	94.8	76.423	102.2	-7.3	158.3	-63	12157925.015	3489167.241	EXISTING CONDITIONS	TRIM/REMOVE
49351	TREE	93.4	76.598	102.4	-9.0	158.7	-65	12157912.158	3489135.252	EXISTING CONDITIONS	TRIM/REMOVE
49367	TREE	101.7	80.621	108.3	-6.7	168.8	-67	12158080.643	3489024.732	EXISTING CONDITIONS	TRIM/REMOVE
49375	TREE	103.6	79.704	107.0	-3.4	166.5	-63	12158007.414	3489003.028	EXISTING CONDITIONS	TRIM/REMOVE
49391	TREE	102.8	81.819	110.1	-7.3	171.8	-69	12158068.063	3488907.343	EXISTING CONDITIONS	TRIM/REMOVE
49431	TREE	101.4	80.698	108.4	-7.0	169.0	-68	12158041.354	3488965.347	EXISTING CONDITIONS	TRIM/REMOVE
49439	TREE	104.1	81.429	109.5	-5.4	170.8	-67	12157963.965	3488799.853	EXISTING CONDITIONS	TRIM/REMOVE
49447	TREE	102.4	81.554	109.7	-7.3	171.1	-69	12158084.117	3488951.135	EXISTING CONDITIONS	TRIM/REMOVE

SURFACE OBSTRUCTIONS

				EXISTING 34:1 PART 77 APPROACH		EXISTING 20:1 THRESHOLD SITING SURFACE					
PT#	OBJECT	OBJ. ELEV.	GROUND ELEV.	EXISTING PART 77 ELEV.	PENETRATION (FT.)	EXISTING TSS ELEV.	PENETRATION (FT.)	EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
13046	RAILROAD	43.2	42.505	52.3	-9.0	190.6	-147.3	12156603.811	3490232.679	EXISTING CONDITIONS	LIGHT/FLAG
13054	RAILROAD	43.3	42.7	52.6	-9.3	139.4	-96.1	12156674.174	3490311.063	EXISTING CONDITIONS	LIGHT/FLAG
13062	RAILROAD	43.5	42.784	52.7	-9.1	84.9	-41.4	12156744.832	3490399.193	EXISTING CONDITIONS	LIGHT/FLAG
13070	RAILROAD	43.9	42.748	52.6	-8.7	67.8	-23.9	12156804.316	3490482.260	EXISTING CONDITIONS	LIGHT/FLAG
13078	RAILROAD	44.1	42.606	52.4	-8.4	53.3	-9.2	12156858.045	3490566.595	EXISTING CONDITIONS	LIGHT/FLAG
13086	RAILROAD	44.6	42.349	52.1	-7.5	38.0	6.5	12156909.996	3490658.060	EXISTING CONDITIONS	LIGHT/FLAG
13102	UTILITY POLE	49.3	43.134	53.2	-3.9	36.6	12.7	12156951.407	3490647.987	EXISTING CONDITIONS	LIGHT/FLAG
13110	UTILITY POLE	60.7	45.985	57.4	3.3	176.6	-115.9	12156758.531	3490149.127	EXISTING CONDITIONS	LIGHT/FLAG
13118	UTILITY POLE	58.8	47.537	59.7	-0.9	87.0	-28.2	12156923.506	3490241.167	EXISTING CONDITIONS	LIGHT/FLAG
13126	UTILITY POLE	60.3	49.081	62.0	-1.6	67.3	-7.0	12157090.350	3490336.386	EXISTING CONDITIONS	LIGHT/FLAG
13134	UTILITY POLE	56.0	50.655	64.3	-8.2	41.8	14.3	12157266.125	3490441.027	EXISTING CONDITIONS	LIGHT/FLAG
46359	SIGN	23.5	22.495	22.9	0.7	21.7	1.8	12156100.239	3491232.706	EXISTING CONDITIONS	LIGHT/FLAG
46767	RAILROAD	42.6	42.189	51.8	-9.2	249.2	-206.5	12156519.484	3490145.588	EXISTING CONDITIONS	LIGHT/FLAG
46855	RAILROAD	44.1	42.064	51.6	-7.5	24.1	20.1	12156955.043	3490742.641	EXISTING CONDITIONS	LIGHT/FLAG
47751	UTILITY POLE	54.3	49.377	62.4	-8.1	245.2	-190.9	12156789.715	3489906.612	EXISTING CONDITIONS	LIGHT/FLAG
65252	UTILITY POLE	46.1	43.941	54.4	-8.3	61.0	-14.9	12156885.948	3490492.165	EXISTING CONDITIONS	LIGHT/FLAG
65268	UTILITY POLE	54.1	46.015	57.4	-3.4	198.0	-143.9	12156728.047	3490105.546	EXISTING CONDITIONS	LIGHT/FLAG

TREE GROUP 'L' OBSTRUCTIONS

				EXISTING 34:1 PART 77 APPROACH		EXISTING 20:1 THRESHOLD SITING SURFACE					
PT#	OBJECT	OBJ. ELEV.	GROUND ELEV.	EXISTING PART 77 ELEV.	PENETRATION (FT.)	EXISTING TSS ELEV.	PENETRATION (FT.)	EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
13226	TREE	56.4	43.721	54.1	2.3	76.7	-20	12156877.179	3490498.835	EXISTING CONDITIONS	TRIM/REMOVE
13234	TREE	57.0	43.368	53.6	3.5	75.8	-19	12156913.188	3490576.902	EXISTING CONDITIONS	TRIM/REMOVE
13242	TREE	84.3	45.151	56.2	28.1	80.3	4	12156837.360	3490325.230	EXISTING CONDITIONS	TRIM/REMOVE
13250	TREE	84.5	43.283	53.5	31.0	75.6	9	12156651.554	3490231.671	EXISTING CONDITIONS	TRIM/REMOVE
16636	TREE	89.4	43.587	53.9	35.5	76.4	13	12156596.444	3490131.965	EXISTING CONDITIONS	TRIM/REMOVE
34739	TREE	83.3	45.982	57.4	25.9	82.4	1	12156837.405	3490255.603	EXISTING CONDITIONS	TRIM/REMOVE
34747	TREE	72.5	44.17	54.8	17.7	77.8	-5	12156759.423	3490302.602	EXISTING CONDITIONS	TRIM/REMOVE
34755	TREE	66.5	43.533	53.8	12.7	76.2	-10	12156763.979	3490362.147	EXISTING CONDITIONS	TRIM/REMOVE
34763	TREE	61.4	43.498	53.8	7.7	76.1	-15	12156800.015	3490413.603	EXISTING CONDITIONS	TRIM/REMOVE
34771	TREE	77.3	44.254	54.9	22.4	78.0	-1	12156721.703	3490244.761	EXISTING CONDITIONS	TRIM/REMOVE
34779	TREE	85.0	44.454	55.2	29.8	78.6	6	12156687.469	3490181.855	EXISTING CONDITIONS	TRIM/REMOVE
34787	TREE	81.4	43.021	53.1	28.3	75.0	6	12156608.895	3490196.243	EXISTING CONDITIONS	TRIM/REMOVE
34795	TREE	79.9	42.704	52.6	27.3	74.3	6	12156552.699	3490147.121	EXISTING CONDITIONS	TRIM/REMOVE
34803	TREE	72.2	45.417	56.6	15.7	80.9	-9	12156775.412	3490219.553	EXISTING CONDITIONS	TRIM/REMOVE
47223	TREE	57.2	43.474	53.7	3.5	76.0	-19	12156896.601	3490545.686	EXISTING CONDITIONS	TRIM/REMOVE
47231	TREE	53.0	43.928	54.4	-1.3	77.2	-24	12156843.419	3490436.002	EXISTING CONDITIONS	TRIM/REMOVE
47239	TREE	72.1	44.184	54.8	17.4	77.9	-6	12156802.058	3490358.833	EXISTING CONDITIONS	TRIM/REMOVE
47247	TREE	67.7	45.191	56.2	11.4	80.4	-13	12156793.816	3490263.268	EXISTING CONDITIONS	TRIM/REMOVE
47255	TREE	73.9	46.393	58.0	15.9	83.4	-9	12156894.808	3490298.430	EXISTING CONDITIONS	TRIM/REMOVE
47263	TREE	87.1	43.78	54.2	32.9	76.9	10	12156629.938	3490160.892	EXISTING CONDITIONS	TRIM/REMOVE
47271	TREE	85.0	43.885	54.3	30.6	77.1	8	12156664.704	3490198.885	EXISTING CONDITIONS	TRIM/REMOVE
47279	TREE	82.8	42.932	52.9	29.9	74.8	8	12156581.861	3490167.255	EXISTING CONDITIONS	TRIM/REMOVE
47295	TREE	45.4	43.256	53.4	-8.0	75.5	-30	12156817.882	3490457.967	EXISTING CONDITIONS	TRIM/REMOVE
65260	TREE	61.4	46.636	58.4	3.0	83.9	-23	12156878.913	3490256.685	EXISTING CONDITIONS	TRIM/REMOVE

TREE GROUP 'N' OBSTRUCTIONS

				EXISTING 34:1 PART 77 APPROACH		EXISTING 20:1 THRESHOLD SITING SURFACE					
PT#	OBJECT	OBJ. ELEV.	GROUND ELEV.	EXISTING PART 77 ELEV.	PENETRATION (FT.)	EXISTING TSS ELEV.	PENETRATION (FT.)	EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
16359	TREE	102.8	53.612	68.6	34.1	101.6	1	12156937.329	3489750.228	EXISTING CONDITIONS	TRIM/REMOVE
16367	TREE	95.5	58.208	75.4	20.1	112.9	-17	12157152.107	3489654.021	EXISTING CONDITIONS	TRIM/REMOVE
47527	TREE	90.8	54.919	70.6	20.3	104.7	-14	12156997.827	3489722.105	EXISTING CONDITIONS	TRIM/REMOVE
47535	TREE	69.1	52.114	66.4	2.7	97.7	-29	12156890.613	3489812.978	EXISTING CONDITIONS	TRIM/REMOVE
47743	TREE	77.4	53.852	69.0	8.4	102.0	-25	12156977.518	3489784.224	EXISTING CONDITIONS	TRIM/REMOVE
47911	TREE	66.0	58.323	75.5	-9.5	113.2	-47	12157113.879	3489592.913	EXISTING CONDITIONS	TRIM/REMOVE
47919	TREE	86.9	57.469	74.3	12.6	111.0	-24	12157137.415	3489696.219	EXISTING CONDITIONS	TRIM/REMOVE
47927	TREE	65.9	56.376	72.7	-6.8	108.2	-42	12157076.635	3489706.058	EXISTING CONDITIONS	TRIM/REMOVE
47983	TREE	63.2	53.326	68.2	-4.9	100.6	-37	12156985.962	3489839.728	EXISTING CONDITIONS	TRIM/REMOVE
47991	TREE	61.2	52.871	67.5	-6.3	99.5	-38	12156960.803	3489844.044	EXISTING CONDITIONS	TRIM/REMOVE

NOTES:

1. ALL OBSTRUCTION SURVEY DATA FROM QUANTUM SPATIAL WAS COMPILED BY PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHY DATED 09-04-2017. SURVEY DATA FEATURE ACCURACY IS IN ACCORDANCE WITH REQUIREMENTS OF FAA AC 150/5300-18B.
2. DUE TO THE LARGE QUANTITY OF TREE OBSTRUCTION DATA AND FOR CLARITY PURPOSES ON THE PLAN SHEET, LARGE TREE AREAS WITH MULTIPLE PENETRATIONS HAVE BEEN GROUPED WITH THE HIGHEST PENETRATION OF THE TREE GROUP BEING SPOTLIGHTED IN THE PLAN/PROFILE VIEW. A DETAILED BREAKDOWN OF THE SURFACE OBJECTS AND PENETRATIONS ARE PROVIDED ON THE FOLLOWING DATA TABLES.
3. SOME GROUND ELEVATIONS ARE NOT INCLUDED AS THE LOCATION OF THE OBSTRUCTION IS BEYOND THE LIMIT OF THE GROUND TOPO ACQUIRED.
4. GRID BASED ON VIRGINIA STATE PLANE SOUTH ZONE COORDINATE SYSTEM AND NAD 1983. VERTICAL DATUM BASED ON NAVD 1988.
5. NEGATIVE PENETRATION VALUE REPRESENTS OBJECT CLEARANCE FROM SURFACE. POSITIVE PENETRATION VALUE REPRESENTS AMOUNT ABOVE THE SURFACE.

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NO	DATE	REVISION	BY	CK.	APPR.

DESIGNED BY RTL
DRAWN BY PDH
REVIEWED BY NSL
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NORFOLK INTERNATIONAL AIRPORT

PROJECT NAME
AIRPORT LAYOUT PLAN

DRAFT

SHEET TITLE
RUNWAY 32 APPROACH OBSTRUCTIONS 1

JOB NO. 33370
DATE 02/11/2020
FILE NAME ORF_ALP-14-32 APPRCH OBSTR TABLES
REV. NO.
DWG. NO.

TREE GROUP 'M' OBSTRUCTIONS

				EXISTING 34:1 PART 77 APPROACH		EXISTING 20:1 THRESHOLD SITING SURFACE					
PT#	OBJECT	OBJ. ELEV.	GROUND ELEV.	EXISTING PART 77 ELEV.	PENETRATION (FT.)	EXISTING TSS ELEV.	PENETRATION (FT.)	EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
13339	TREE	54.7	48.771	61.5	-6.8	89.3	-35	12157136.401	3490424.331	EXISTING CONDITIONS	TRIM/REMOVE
13347	TREE	53.1	49.163	62.1	-8.9	90.2	-37	12157152.262	3490412.866	EXISTING CONDITIONS	TRIM/REMOVE
13355	TREE	56.2	49.899	63.2	-7.0	92.1	-36	12157216.783	3490438.059	EXISTING CONDITIONS	TRIM/REMOVE
13363	TREE	54.9	50.067	63.4	-8.5	92.5	-38	12157237.556	3490451.868	EXISTING CONDITIONS	TRIM/REMOVE
13981	TREE	80.0	48.407	61.0	19.1	88.4	-8	12156935.752	3490184.650	EXISTING CONDITIONS	TRIM/REMOVE
13989	TREE	81.9	50.889	64.6	17.2	94.6	-13	12157010.998	3490077.826	EXISTING CONDITIONS	TRIM/REMOVE
13997	TREE	63.5	47.118	59.1	4.4	85.1	-22	12156778.769	3490081.332	EXISTING CONDITIONS	TRIM/REMOVE
14005	TREE	72.1	53.736	68.8	3.3	101.7	-30	12157171.978	3490055.852	EXISTING CONDITIONS	TRIM/REMOVE
14013	TREE	91.9	50.438	64.0	27.9	93.5	-2	12157185.003	3490349.996	EXISTING CONDITIONS	TRIM/REMOVE
14021	TREE	95.5	54.387	69.8	25.7	103.4	-8	12157279.762	3490146.425	EXISTING CONDITIONS	TRIM/REMOVE
14029	TREE	100.9	53.363	68.3	32.6	100.8	0	12157359.256	3490339.384	EXISTING CONDITIONS	TRIM/REMOVE
14037	TREE	103.4	55.879	72.0	31.5	107.1	-4	12157418.612	3490208.301	EXISTING CONDITIONS	TRIM/REMOVE
14045	TREE	101.6	59.391	77.1	24.5	115.9	-14	12157548.456	3490088.620	EXISTING CONDITIONS	TRIM/REMOVE
14053	TREE	107.8	65.095	85.5	22.3	130.1	-22	12157800.107	3489949.097	EXISTING CONDITIONS	TRIM/REMOVE
14061	TREE	75.9	61.398	80.1	-4.1	120.8	-45	12157695.470	3490118.285	EXISTING CONDITIONS	TRIM/REMOVE
14069	TREE	104.3	69.213	91.6	12.8	140.4	-36	12158016.195	3489894.772	EXISTING CONDITIONS	TRIM/REMOVE
14077	TREE	92.9	68.761	90.9	2.0	139.2	-46	12157876.287	3489744.239	EXISTING CONDITIONS	TRIM/REMOVE
14085	TREE	85.8	65.762	86.5	-0.7	131.7	-46	12157708.730	3489770.120	EXISTING CONDITIONS	TRIM/REMOVE
16054	TREE	91.1	59.318	77.0	14.1	115.6	-25	12157689.779	3490285.037	EXISTING CONDITIONS	TRIM/REMOVE
16062	TREE	103.2	54.71	70.3	33.0	104.2	-1	12157521.449	3490444.854	EXISTING CONDITIONS	TRIM/REMOVE
34611	TREE	100.3	67.714	89.4	11.0	136.6	-36	12158008.094	3490009.579	EXISTING CONDITIONS	TRIM/REMOVE
34619	TREE	99.4	64.258	84.3	15.1	128.0	-29	12157846.584	3490081.866	EXISTING CONDITIONS	TRIM/REMOVE
34627	TREE	108.7	66.996	88.3	20.4	134.8	-26	12157875.549	3489891.248	EXISTING CONDITIONS	TRIM/REMOVE
34635	TREE	79.2	51.739	65.9	13.3	96.7	-18	12157129.151	3490165.693	EXISTING CONDITIONS	TRIM/REMOVE
34643	TREE	73.2	49.302	62.3	10.9	90.6	-17	12157018.301	3490220.785	EXISTING CONDITIONS	TRIM/REMOVE
34651	TREE	69.0	49.384	62.4	6.6	90.8	-22	12156936.738	3490104.078	EXISTING CONDITIONS	TRIM/REMOVE
34659	TREE	78.4	52.293	66.7	11.7	98.1	-20	12157088.101	3490063.916	EXISTING CONDITIONS	TRIM/REMOVE
34667	TREE	74.6	50.315	63.8	10.9	93.2	-19	12157023.136	3490142.323	EXISTING CONDITIONS	TRIM/REMOVE
34675	TREE	65.0	50.654	64.3	0.8	94.0	-29	12157099.906	3490217.333	EXISTING CONDITIONS	TRIM/REMOVE
34683	TREE	89.3	53.03	67.8	21.5	100.0	-11	12157256.389	3490228.726	EXISTING CONDITIONS	TRIM/REMOVE
34691	TREE	91.4	51.188	65.1	26.4	95.4	-4	12157276.233	3490410.012	EXISTING CONDITIONS	TRIM/REMOVE
34699	TREE	100.3	56.717	73.2	27.1	109.2	-9	12157504.414	3490253.530	EXISTING CONDITIONS	TRIM/REMOVE
34707	TREE	94.8	57.578	74.5	20.3	111.3	-17	12157429.312	3490080.178	EXISTING CONDITIONS	TRIM/REMOVE
34715	TREE	97.9	59.041	76.6	21.3	115.0	-17	12157604.638	3490193.579	EXISTING CONDITIONS	TRIM/REMOVE
34723	TREE	57.7	49.634	62.8	-5.0	91.4	-34	12157092.355	3490292.707	EXISTING CONDITIONS	TRIM/REMOVE
34731	TREE	58.1	47.423	59.5	-1.4	85.9	-28	12156860.654	3490166.033	EXISTING CONDITIONS	TRIM/REMOVE
34811	TREE	102.0	54.804	70.4	31.6	104.4	-2	12157447.048	3490336.780	EXISTING CONDITIONS	TRIM/REMOVE
35202	TREE	106.2	67.003	88.3	17.8	134.8	-29	12157814.452	3489808.432	EXISTING CONDITIONS	TRIM/REMOVE
35210	TREE	103.9	66.989	88.3	15.6	134.8	-31	12157920.789	3489952.806	EXISTING CONDITIONS	TRIM/REMOVE
35218	TREE	90.1	64.982	85.3	4.8	129.8	-40	12157722.654	3489854.295	EXISTING CONDITIONS	TRIM/REMOVE
47215	TREE	68.0	50.684	64.3	3.7	94.1	-26	12157318.278	3490508.881	EXISTING CONDITIONS	TRIM/REMOVE
47303	TREE	57.6	46.283	57.8	-0.2	83.0	-25	12156749.013	3490111.295	EXISTING CONDITIONS	TRIM/REMOVE
47311	TREE	59.3	47.194	59.2	0.1	85.3	-26	12156806.020	3490111.688	EXISTING CONDITIONS	TRIM/REMOVE
47319	TREE	58.0	48.401	61.0	-3.0	88.3	-30	12156824.940	3490035.926	EXISTING CONDITIONS	TRIM/REMOVE
49575	TREE	65.3	49.176	62.1	3.2	90.3	-25	12156915.974	3490093.535	EXISTING CONDITIONS	TRIM/REMOVE
49583	TREE	56.2	48.172	60.6	-4.4	87.8	-32	12156877.874	3490126.472	EXISTING CONDITIONS	TRIM/REMOVE
49591	TREE	55.7	48.983	61.8	-6.1	89.8	-34	12156888.897	3490073.243	EXISTING CONDITIONS	TRIM/REMOVE
49599	TREE	53.8	48.033	60.4	-6.6	87.4	-34	12156842.561	3490090.540	EXISTING CONDITIONS	TRIM/REMOVE
49607	TREE	51.4	46.68	58.4	-7.0	84.0	-33	12156792.919	3490137.135	EXISTING CONDITIONS	TRIM/REMOVE
49631	TREE	57.9	47.833	60.1	-2.2	86.9	-29	12156893.326	3490175.682	EXISTING CONDITIONS	TRIM/REMOVE
49639	TREE	58.2	47.658	59.9	-1.6	86.5	-28	12156907.007	3490208.794	EXISTING CONDITIONS	TRIM/REMOVE
49647	TREE	68.2	48.963	61.8	6.4	89.8	-22	12156948.107	3490154.648	EXISTING CONDITIONS	TRIM/REMOVE
49655	TREE	66.5	48.431	61.0	5.5	88.4	-22	12156953.866	3490207.023	EXISTING CONDITIONS	TRIM/REMOVE
49663	TREE	53.1	48.282	60.8	-7.7	88.0	-35	12156970.241	3490241.645	EXISTING CONDITIONS	TRIM/REMOVE
49679	TREE	67.6	50.717	64.4	3.2	94.1	-27	12157076.973	3490181.117	EXISTING CONDITIONS	TRIM/REMOVE
49687	TREE	66.0	49.722	62.9	3.1	91.7	-26	12157012.634	3490177.948	EXISTING CONDITIONS	TRIM/REMOVE
49695	TREE	58.2	49.946	63.2	-5.0	92.2	-34	12157062.710	3490226.595	EXISTING CONDITIONS	TRIM/REMOVE
49703	TREE	70.4	50.224	63.6	6.7	92.9	-23	12156967.334	3490074.801	EXISTING CONDITIONS	TRIM/REMOVE
49711	TREE	75.0	50.838	64.6	10.5	94.5	-19	12156986.867	3490049.633	EXISTING CONDITIONS	TRIM/REMOVE
49719	TREE	77.1	51.268	65.2	11.9	95.5	-18	12157016.413	3490053.372	EXISTING CONDITIONS	TRIM/REMOVE
49727	TREE	79.2	51.678	65.8	13.4	96.6	-17	12157045.929	3490058.699	EXISTING CONDITIONS	TRIM/REMOVE
49735	TREE	75.8	52.119	66.4	9.4	97.7	-22	12157105.235	3490101.619	EXISTING CONDITIONS	TRIM/REMOVE
49743	TREE	70.3	51.232	65.1	5.2	95.4	-25	12157063.871	3490120.320	EXISTING CONDITIONS	TRIM/REMOVE
49751	TREE	90.2	54.234	69.6	20.7	103.0	-13	12157309.154	3490198.880	EXISTING CONDITIONS	TRIM/REMOVE
49759	TREE	95.8	55.329	71.2	24.6	105.7	-10	12157326.366	3490130.199	EXISTING CONDITIONS	TRIM/REMOVE
49767	TREE	96.8	55.301	71.1	25.7	105.6	-9	12157355.495	3490171.763	EXISTING CONDITIONS	TRIM/REMOVE
49775	TREE	94.6	56.04	72.2	22.4	107.5	-13	12157387.947	3490153.513	EXISTING CONDITIONS	TRIM/REMOVE
49783	TREE	68.6	52.238	66.6	2.0	97.9	-29	12157198.181	3490216.797	EXISTING CONDITIONS	TRIM/REMOVE
49807	TREE	59.9	51.733	65.9	-6.0	96.7	-37	12157158.457	3490205.671	EXISTING CONDITIONS	TRIM/REMOVE
49815	TREE	88.8	51.32	65.3	23.5	95.7	-7	12157209.811	3490309.430	EXISTING CONDITIONS	TRIM/REMOVE
49823	TREE	70.7	51.092	64.9	5.8	95.1	-24	12157175.344	3490282.193	EXISTING CONDITIONS	TRIM/REMOVE
49831	TREE	90.1	50.733	64.4	25.7	94.2	-4	12157238.520	3490397.314	EXISTING CONDITIONS	TRIM/REMOVE
49839	TREE	88.4	51.181	65.1	23.4	95.3	-7	12157233.953	3490353.598	EXISTING CONDITIONS	TRIM/REMOVE
49847	TREE	94.6	52.055	66.4	28.2	97.5	-3	12157280.688	3490343.258	EXISTING CONDITIONS	TRIM/REMOVE
49855	TREE	96.4	51.48	65.5	30.9	96.1	0	12157278.091	3490388.017	EXISTING CONDITIONS	TRIM/REMOVE
49863	TREE	96.1	52.023	66.3	29.8	97.5	-1	12157380.996	3490481.065	EXISTING CONDITIONS	TRIM/REMOVE
49871	TREE	93.7	51.798	66.0	27.7	96.9	-3	12157335.383	3490438.475	EXISTING CONDITIONS	TRIM/REMOVE

TREE GROUP 'M' OBSTRUCTIONS

				EXISTING 34:1 PART 77 APPROACH		EXISTING 20:1 THRESHOLD SITING SURFACE					
PT#	OBJECT	OBJ. ELEV.	GROUND ELEV.	EXISTING PART 77 ELEV.	PENETRATION (FT.)	EXISTING TSS ELEV.	PENETRATION (FT.)	EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
49879	TREE	95.0	52.624	67.2	27.8	99.0	-4	12157356.138	3490397.153	EXISTING CONDITIONS	TRIM/REMOVE
49887	TREE	97.9	53.571	68.6	29.3	101.3	-3	12157413.236	3490394.634	EXISTING CONDITIONS	TRIM/REMOVE
49895	TREE	95.0	53.5	68.5	26.6	101.3	-6	12157483.235	3490494.867	EXISTING CONDITIONS	TRIM/REMOVE
49903	TREE	98.0	53.604	68.6	29.4	101.4	-3	12157447.139	3490437.500	EXISTING CONDITIONS	TRIM/REMOVE
49911	TREE	97.2	52.69	67.3	29.9	99.1	-2	12157398.900	3490449.217	EXISTING CONDITIONS	TRIM/REMOVE
49919	TREE	87.6	52.831	67.5	20.1	99.7	-12	12157460.707	3490520.596	EXISTING CONDITIONS	TRIM/REMOVE
49927	TREE	99.5	54.385	69.8	29.7	103.4	-4	12157462.923	3490393.283	EXISTING CONDITIONS	TRIM/REMOVE
49935	TREE	100.2	56.082	72.3	27.9	107.6	-7	12157516.371	3490322.890	EXISTING CONDITIONS	TRIM/REMOVE
49943	TREE	90.8	56.922	73.5	17.3	109.7	-19	12157561.843	3490313.694	EXISTING CONDITIONS	TRIM/REMOVE
49951	TREE	78.2	57.649	74.6	3.7	111.4	-33	12157616.455	3490326.297	EXISTING CONDITIONS	TRIM/REMOVE
49959	TREE	102.1	56.854	73.4	28.7	109.5	-7	12157475.727	3490203.408	EXISTING CONDITIONS	TRIM/REMOVE
49967	TREE	100.8	55.645	71.6	29.2	106.5	-6	12157441.810	3490259.110	EXISTING CONDITIONS	TRIM/REMOVE
49975	TREE	99.0	54.492	69.9	29.1	103.6	-5	12157399.841	3490299.339	EXISTING CONDITIONS	TRIM/REMOVE
49983	TREE	90.8	53.284	68.2	22.7	100.6	-10	12157312.990	3490283.660	EXISTING CONDITIONS	TRIM/REMOVE
49991	TREE	92.2	54.01	69.2	22.9	102.4	-10	12157339.598	3490258.601	EXISTING CONDITIONS	TRIM/REMOVE
49999	TREE	98.6	57.015	73.7	25.0	109.9	-11	12157449.238	3490154.284	EXISTING CONDITIONS	TRIM/REMOVE
50007	TREE	96.8	58.428	75.7	21.1	113.4	-17	12157531.129	3490146.038	EXISTING CONDITIONS	TRIM/REMOVE
50015	TREE	84.0	58.859	76.3	7.7	114.5	-30	12157649.790	3490269.694	EXISTING CONDITIONS	TRIM/REMOVE
50023	TREE	85.9	60.666	79.0	6.9	119.0	-33	12157608.651	3490062.718	EXISTING CONDITIONS	TRIM/REMOVE
50031	TREE	82.7	60.918	79.4	3.3	119.6	-37	12157651.730	3490099.583	EXISTING CONDITIONS	TRIM/REMOVE
50039	TREE	80.8	62.901	82.3	-1.5	124.6	-44	12157728.641	3490036.864	EXISTING CONDITIONS	TRIM/REMOVE
50071	TREE	89.4	60.105	78.2	11.3	117.6	-28	12157720.126	3490259.881	EXISTING CONDITIONS	TRIM/REMOVE
50079	TREE	87.8	59.449	77.2	10.5	116.1	-28	12157747.357	3490351.559	EXISTING CONDITIONS	TRIM/REMOVE
50087	TREE	98.3	62.996	82.4	15.9	124.8	-27	12157863.866	3490211.009	EXISTING CONDITIONS	TRIM/REMOVE
50095	TREE	97.1	62.335	81.5	15.6	123.2	-26	12157830.006	3490220.817	EXISTING CONDITIONS	TRIM/REMOVE
50103	TREE	97.4	63.728	83.5	13.8	126.7	-29	12157784.224	3490042.397	EXISTING CONDITIONS	TRIM/REMOVE
50119	TREE	85.8	58.118	75.3	10.6	112.9	-27	12157701.312	3490401.200	EXISTING CONDITIONS	TRIM/REMOVE
50143	TREE	87.2	56.084	72.3	14.9	107.6	-20	12157587.648	3490418.758	EXISTING CONDITIONS	TRIM/REMOVE
50151	TREE	104.1	55.238	71.0	33.0	105.5	-1	12157482.238	3490347.750	EXISTING CONDITIONS	TRIM/REMOVE
50159	TREE	95.6	55.599	71.6	24.0	106.4	-11	12157520.099	3490368.485	EXISTING CONDITIONS	TRIM/REMOVE
50167	TREE	98.7	54.008	69.2	29.4	102.4	-4	12157363.532	3490290.997	EXISTING CONDITIONS	TRIM/REMOVE
50335	TREE	78.1	60.773	79.2	-1.1	119.3	-41	12157806.062	3490319.626	EXISTING CONDITIONS	TRIM/REMOVE
50359	TREE	77.3	63.489	83.1	-5.8	126.0	-49	12157791.731	3490072.487	EXISTING CONDITIONS	TRIM/REMOVE
50367	TREE	105.4	65.368	85.9	19.5	130.8	-25	12157856.156	3490001.730	EXISTING CONDITIONS	TRIM/REMOVE
50375	TREE	91.3	65.87	86.7	4.6	132.0	-41	12157917.007	3490041.539	EXISTING CONDITIONS	TRIM/REMOVE
50383	TREE	88.6	68.916	91.1	-2.6	139.6	-51	12158063.288	3489983.043	EXISTING CONDITIONS	TRIM/REMOVE
50391	TREE	85.9	70.243	93.1	-7.1	142.9	-57	12158084.633	3489900.564	EXISTING CONDITIONS	TRIM/REMOVE
50399	TREE	103.9	68.145	90.0	13.9	137.7	-34	12157949.227	3489894.150	EXISTING CONDITIONS	TRIM/REMOVE
50407	TREE	93.8	68.679	90.8	3.1	139.0	-45	12157943.987	3489842.265	EXISTING CONDITIONS	TRIM/REMOVE
50415	TREE	104.5	66.262	87.2	17.3	133.0	-28	12157868.716	3489943.642	EXISTING CONDITIONS	TRIM/REMOVE
50423	TREE	99.7	64.458	84.6	15.1	128.5	-29	12157764.483	3489954.557	EXISTING CONDITIONS	TRIM/REMOVE
50431	TREE	102.1	65.594	86.3	15.9	131.3	-29	12157779.013	3489878.864	EXISTING CONDITIONS	TRIM/REMOVE
50439	TREE	103.2	66.009	86.9	16.3	132.4	-29	12157760.368	3489818.970	EXISTING CONDITIONS	TRIM/REMOVE
50447	TREE	96.8	67.103	88.5	8.4	135.1	-38	12157771.334	3489741.960	EXISTING CONDITIONS	TRIM/REMOVE
50455	TREE	99.5	67.816	89.5	10.0	136.9	-37	12157877.155	3489824.653	EXISTING CONDITIONS	TRIM/REMOVE
50487	TREE	99.1	68.407	90.4	8.7	138.3	-39	12158014.897	3489960.590	EXISTING CONDITIONS	TRIM/REMOVE
65180	TREE	73.6	59.264	76.9	-3.4	115.5	-42	12157505.201	3490041.008	EXISTING CONDITIONS	TRIM/REMOVE
65188	TREE	81.7	57.534	74.4	7.3	111.2	-30	12157564.124	3490265.466	EXISTING CONDITIONS	TRIM/REMOVE
65196	TREE	64.4	56.838	73.4	-9.0	109.4	-45	12157593.399	3490363.235	EXISTING CONDITIONS	TRIM/REMOVE
65236	TREE	57.7	51.305	65.2	-7.6	95.6	-38	12157377.324	3490536.285	EXISTING CONDITIONS	TRIM/REMOVE

NOTES:

1. ALL OBSTRUCTION SURVEY DATA FROM QUANTUM SPATIAL WAS COMPILED BY PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHY DATED 09-04-2017. SURVEY DATA FEATURE ACCURACY IS IN ACCORDANCE WITH REQUIREMENTS OF FAA AC 150/5300-18B.
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4. GRID BASED ON VIRGINIA STATE PLANE SOUTH ZONE COORDINATE SYSTEM AND NAD 1983. VERTICAL DATUM BASED ON NAVD 1988.
5. NEGATIVE PENETRATION VALUE REPRESENTS OBJECT CLEARANCE FROM SURFACE. POSITIVE PENETRATION VALUE REPRESENTS AMOUNT ABOVE THE SURFACE.

NO	DATE	REVISION	BY	CK.	APPR.

DESIGNED BY RTL
DRAWN BY PDH
REVIEWED BY NSL
APPROVED BY .

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NORFOLK INTERNATIONAL AIRPORT

PROJECT NAME
AIRPORT LAYOUT PLAN

DRAFT

SHEET TITLE
RUNWAY 32 APPROACH OBSTRUCTION 2

JOB NO. 33370
DATE 02/11/2020
FILE NAME ORF_ALP-14-32 APPRCH OBSTR TABLES
REV. NO.
DWG. NO.

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TREE NON-GROUP OBSTRUCTIONS

				EXISTING 34:1 PART 77 APPROACH		EXISTING 20:1 THRESHOLD SITING SURFACE					
PT#	OBJECT	OBJ. ELEV.	GROUND ELEV.	EXISTING PART 77 ELEV.	PENETRATION (FT.)	EXISTING TSS ELEV.	PENETRATION (FT.)	EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
13282	TREE	71.0	54.683	70.2	0.8	104.0	-33	12157137.714	3489930.297	EXISTING CONDITIONS	TRIM/REMOVE
13298	TREE	70.5	50.987	64.8	5.8	94.8	-24	12156939.229	3489972.986	EXISTING CONDITIONS	TRIM/REMOVE
13379	TREE	79.7	61.188	79.8	0.0	120.3	-41	12157393.042	3489728.546	EXISTING CONDITIONS	TRIM/REMOVE
13387	TREE	79.4	62.461	81.6	-2.3	123.5	-44	12157453.962	3489703.848	EXISTING CONDITIONS	TRIM/REMOVE
16134	TREE	87.2	47.416	59.5	27.6	86.3	1	12157230.166	3490664.300	EXISTING CONDITIONS	TRIM/REMOVE
46975	TREE	74.8	43.255	53.4	21.4	75.8	-1	12157040.075	3490757.261	EXISTING CONDITIONS	TRIM/REMOVE
47015	TREE	80.9	45.34	56.5	24.4	81.0	0	12157128.250	3490701.116	EXISTING CONDITIONS	TRIM/REMOVE
47327	TREE	70.1	48.252	60.7	9.3	88.1	-18	12156751.407	3489949.374	EXISTING CONDITIONS	TRIM/REMOVE
65244	TREE	72.4	44.283	54.9	17.5	78.4	-6	12157081.909	3490727.363	EXISTING CONDITIONS	TRIM/REMOVE

TREE GROUP 'P' OBSTRUCTIONS

				EXISTING 34:1 PART 77 APPROACH		EXISTING 20:1 THRESHOLD SITING SURFACE					
PT#	OBJECT	OBJ. ELEV.	GROUND ELEV.	EXISTING PART 77 ELEV.	PENETRATION (FT.)	EXISTING TSS ELEV.	PENETRATION (FT.)	EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
13901	TREE	93.7	74.558	99.4	-5.7	153.7	-60	12158048.254	3489489.660	EXISTING CONDITIONS	TRIM/REMOVE
13909	TREE	106.3	79.243	106.3	-0.1	165.4	-59	12158210.634	3489315.373	EXISTING CONDITIONS	TRIM/REMOVE
13957	TREE	106.0	81.042	109.0	-2.9	169.9	-64	12158471.739	3489516.130	EXISTING CONDITIONS	TRIM/REMOVE
13965	TREE	94.4	77.777	104.2	-9.8	161.7	-67	12158292.877	3489549.104	EXISTING CONDITIONS	TRIM/REMOVE
34883	TREE	102.1	79.441	106.6	-4.5	165.9	-64	12158390.272	3489540.705	EXISTING CONDITIONS	TRIM/REMOVE
34891	TREE	100.6	78.018	104.5	-3.9	162.3	-62	12158129.472	3489308.799	EXISTING CONDITIONS	TRIM/REMOVE
34899	TREE	101.8	77.048	103.1	-1.3	159.9	-58	12158133.803	3489395.993	EXISTING CONDITIONS	TRIM/REMOVE
50519	TREE	91.3	74.994	100.1	-8.7	154.7	-63	12158041.340	3489443.733	EXISTING CONDITIONS	TRIM/REMOVE
50527	TREE	92.2	75.864	101.3	-9.2	156.9	-65	12158089.349	3489435.416	EXISTING CONDITIONS	TRIM/REMOVE
50535	TREE	101.8	78.442	105.1	-3.4	163.4	-62	12158164.444	3489320.351	EXISTING CONDITIONS	TRIM/REMOVE
50719	TREE	101.5	80.291	107.9	-6.4	168.0	-66	12158434.809	3489529.378	EXISTING CONDITIONS	TRIM/REMOVE
50743	TREE	103.8	83.45	112.5	-8.7	175.9	-72	12158541.608	3489408.301	EXISTING CONDITIONS	TRIM/REMOVE

TREE GROUP 'Q' OBSTRUCTIONS

				EXISTING 34:1 PART 77 APPROACH		EXISTING 20:1 THRESHOLD SITING SURFACE					
PT#	OBJECT	OBJ. ELEV.	GROUND ELEV.	EXISTING PART 77 ELEV.	PENETRATION (FT.)	EXISTING TSS ELEV.	PENETRATION (FT.)	EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
13933	TREE	118.6	83.994	113.3	5.2	177.2	-59	12158620.109	3489468.327	EXISTING CONDITIONS	TRIM/REMOVE
14133	TREE	112.5	87.206	118.0	-5.5	185.2	-73	12158802.509	3489444.656	EXISTING CONDITIONS	TRIM/REMOVE
34875	TREE	104.9	84.532	114.1	-9.2	178.6	-74	12158575.829	3489363.619	EXISTING CONDITIONS	TRIM/REMOVE
35226	TREE	111.8	86.949	117.6	-5.8	184.6	-73	12158912.113	3489613.813	EXISTING CONDITIONS	TRIM/REMOVE
35234	TREE	113.6	87.508	118.5	-4.8	186.0	-72	12158876.158	3489518.467	EXISTING CONDITIONS	TRIM/REMOVE
50743	TREE	103.8	83.45	112.5	-8.7	175.9	-72	12158541.608	3489408.301	EXISTING CONDITIONS	TRIM/REMOVE
50751	TREE	103.2	83.02	111.9	-8.7	174.8	-72	12158589.393	3489508.711	EXISTING CONDITIONS	TRIM/REMOVE
50767	TREE	103.9	84.179	113.6	-9.7	177.7	-74	12158581.015	3489400.183	EXISTING CONDITIONS	TRIM/REMOVE
50775	TREE	106.5	85.081	114.9	-8.4	179.9	-73	12158635.639	3489398.081	EXISTING CONDITIONS	TRIM/REMOVE
50791	TREE	112.2	84.426	113.9	-1.8	178.3	-66	12158674.873	3489505.893	EXISTING CONDITIONS	TRIM/REMOVE
50799	TREE	111.3	84.306	113.8	-2.4	178.0	-67	12158692.732	3489539.970	EXISTING CONDITIONS	TRIM/REMOVE
50863	TREE	109.7	87.422	118.3	-8.7	185.8	-76	12158773.550	3489387.495	EXISTING CONDITIONS	TRIM/REMOVE
50895	TREE	109.4	86.923	117.6	-8.2	184.5	-75	12158822.375	3489495.101	EXISTING CONDITIONS	TRIM/REMOVE
50903	TREE	109.8	87.991	119.2	-9.4	187.2	-77	12158855.828	3489450.574	EXISTING CONDITIONS	TRIM/REMOVE
50919	TREE	112.5	88.962	120.6	-8.1	189.6	-77	12158945.378	3489489.779	EXISTING CONDITIONS	TRIM/REMOVE
50927	TREE	112.5	88.271	119.6	-7.1	187.9	-75	12158916.358	3489508.587	EXISTING CONDITIONS	TRIM/REMOVE
50935	TREE	113.1	87.519	118.5	-5.3	186.0	-73	12158898.846	3489548.122	EXISTING CONDITIONS	TRIM/REMOVE
50943	TREE	109.2	86.648	117.2	-8.0	183.8	-75	12158867.474	3489578.893	EXISTING CONDITIONS	TRIM/REMOVE
50951	TREE	106.5	85.81	116.0	-9.4	181.7	-75	12158835.560	3489606.227	EXISTING CONDITIONS	TRIM/REMOVE
50959	TREE	108.2	85.068	114.9	-6.7	179.9	-72	12158809.868	3489633.885	EXISTING CONDITIONS	TRIM/REMOVE
51055	TREE	105.7	84.487	114.0	-8.3	178.4	-73	12158771.031	3489630.304	EXISTING CONDITIONS	TRIM/REMOVE
51071	TREE	107.3	83.902	113.2	-5.9	177.0	-70	12158700.537	3489584.436	EXISTING CONDITIONS	TRIM/REMOVE
51111	TREE	102.5	83.033	111.9	-9.4	174.9	-72	12158794.857	3489784.320	EXISTING CONDITIONS	TRIM/REMOVE

TREE GROUP 'R' OBSTRUCTIONS

				EXISTING 34:1 PART 77 APPROACH		EXISTING 20:1 THRESHOLD SITING SURFACE					
PT#	OBJECT	OBJ. ELEV.	GROUND ELEV.	EXISTING PART 77 ELEV.	PENETRATION (FT.)	EXISTING TSS ELEV.	PENETRATION (FT.)	EASTING	NORTHING	TRIGGERING EVENT	DISPOSITION
48767	TREE	119.5	89.642	121.6	-2.1	191.3	-72	12158315.281	3488584.133	EXISTING CONDITIONS	TRIM/REMOVE
48775	TREE	128.3	91.797	124.8	3.5	196.7	-68	12158401.042	3488518.925	EXISTING CONDITIONS	TRIM/REMOVE
48799	TREE	119.0	90.662	123.1	-4.1	193.9	-75	12158347.227	3488541.625	EXISTING CONDITIONS	TRIM/REMOVE
48815	TREE	119.3	94.494	128.7	-9.5	203.4	-84	12158518.269	3488450.557	EXISTING CONDITIONS	TRIM/REMOVE
48823	TREE	122.3	95.148	129.7	-7.4	205.1	-83	12158522.087	3488400.893	EXISTING CONDITIONS	TRIM/REMOVE
48831	TREE	121.7	93.347	127.0	-5.4	200.6	-79	12158451.000	3488456.214	EXISTING CONDITIONS	TRIM/REMOVE
48839	TREE	122.1	94.13	128.2	-6.1	202.5	-80	12158463.774	3488407.707	EXISTING CONDITIONS	TRIM/REMOVE

NOTES:

1. ALL OBSTRUCTION SURVEY DATA FROM QUANTUM SPATIAL WAS COMPILED BY PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHY DATED 09-04-2017. SURVEY DATA FEATURE ACCURACY IS IN ACCORDANCE WITH REQUIREMENTS OF FAA AC 150/5300-18B.
2. DUE TO THE LARGE QUANTITY OF TREE OBSTRUCTION DATA AND FOR CLARITY PURPOSES ON THE PLAN SHEET, LARGE TREE AREAS WITH MULTIPLE PENETRATIONS HAVE BEEN GROUPED WITH THE HIGHEST PENETRATION OF THE TREE GROUP BEING SPOTLIGHTED IN THE PLAN/PROFILE VIEW. A DETAILED BREAKDOWN OF THE SURFACE OBJECTS AND PENETRATIONS ARE PROVIDED ON THE FOLLOWING DATA TABLES.
3. SOME GROUND ELEVATIONS ARE NOT INCLUDED AS THE LOCATION OF THE OBSTRUCTION IS BEYOND THE LIMIT OF THE GROUND TOPO ACQUIRED.
4. GRID BASED ON VIRGINIA STATE PLANE SOUTH ZONE COORDINATE SYSTEM AND NAD 1983. VERTICAL DATUM BASED ON NAVD 1988.
5. NEGATIVE PENETRATION VALUE REPRESENTS OBJECT CLEARANCE FROM SURFACE. POSITIVE PENETRATION VALUE REPRESENTS AMOUNT ABOVE THE SURFACE.

NO	DATE	REVISION	BY	CK	APPR

DESIGNED BY RTL
DRAWN BY PDH
REVIEWED BY NSL
APPROVED BY .

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NORFOLK INTERNATIONAL AIRPORT

PROJECT NAME
AIRPORT LAYOUT PLAN

DRAFT

SHEET TITLE
RUNWAY 32 APPROACH OBSTRUCTION 3

JOB NO. 33370
DATE 02/11/2020
FILE NAME ORF_ALP-14-32 APPRCH OBSTR TABLES
REV. NO.
DWG. NO.

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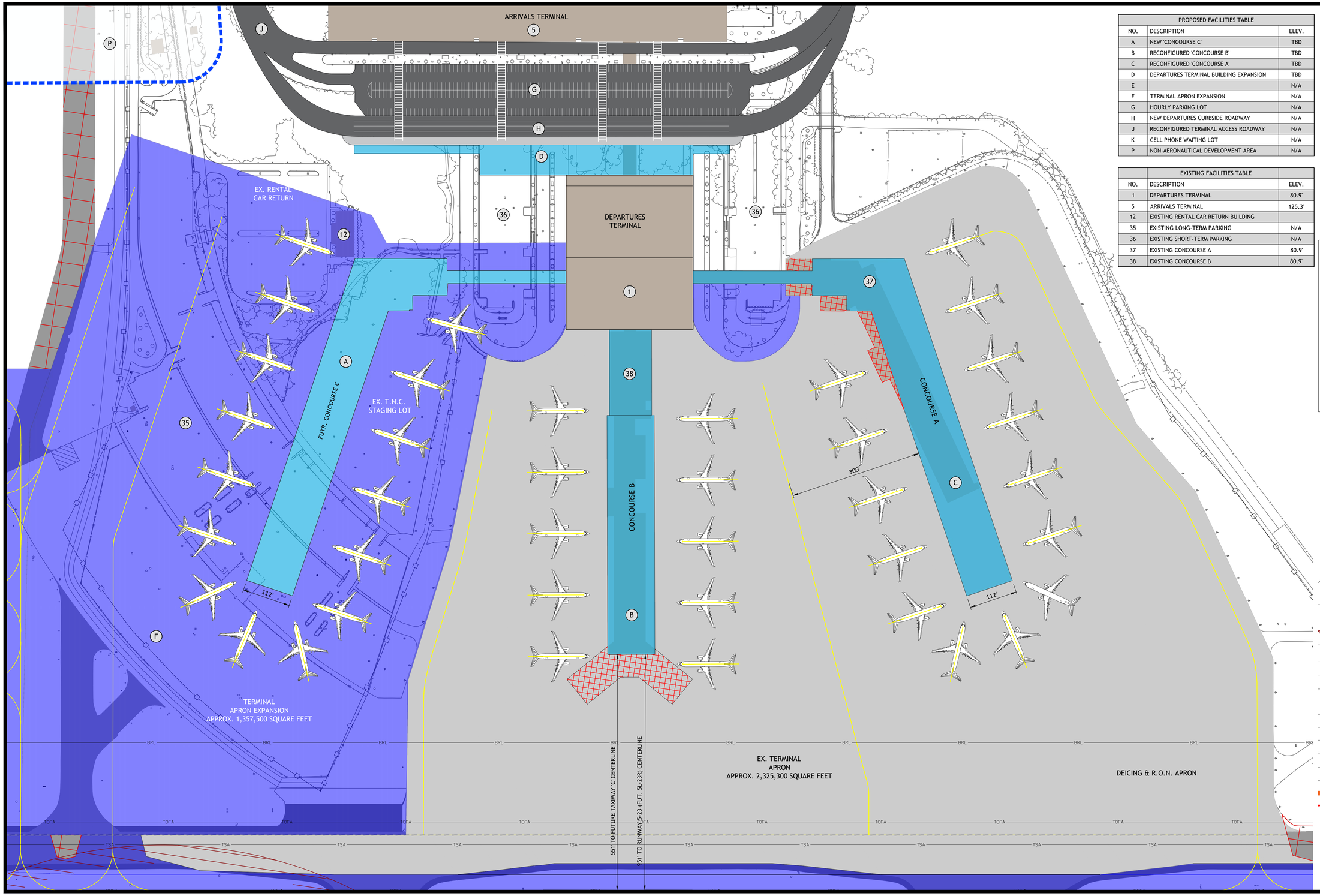

PROPOSED FACILITIES TABLE		
NO.	DESCRIPTION	ELEV.
A	NEW 'CONCOURSE C'	TBD
B	RECONFIGURED 'CONCOURSE B'	TBD
C	RECONFIGURED 'CONCOURSE A'	TBD
D	DEPARTURES TERMINAL BUILDING EXPANSION	TBD
E		N/A
F	TERMINAL APRON EXPANSION	N/A
G	HOURLY PARKING LOT	N/A
H	NEW DEPARTURES CURBSIDE ROADWAY	N/A
J	RECONFIGURED TERMINAL ACCESS ROADWAY	N/A
K	CELL PHONE WAITING LOT	N/A
P	NON-AERONAUTICAL DEVELOPMENT AREA	N/A

EXISTING FACILITIES TABLE		
NO.	DESCRIPTION	ELEV.
1	DEPARTURES TERMINAL	80.9'
5	ARRIVALS TERMINAL	125.3'
12	EXISTING RENTAL CAR RETURN BUILDING	
35	EXISTING LONG-TERM PARKING	N/A
36	EXISTING SHORT-TERM PARKING	N/A
37	EXISTING CONCOURSE A	80.9'
38	EXISTING CONCOURSE B	80.9'

MAGNETIC DECLINATION 10° 55' W ± 0° 21' - CHANGING BY 0° 1' W ANNUALLY (NOAA, OCTOBER 2018)

GRAPHIC SCALE (FEET)

0 50 100 200

FAA APPROVAL STAMP

- EX. BUILDING
- EX. RUNWAY PAVEMENT
- EX. RUNWAY SHOULDER PAVEMENT
- EX. TAXIWAY PAVEMENT
- EX. APRON PAVEMENT
- FUTURE AIRFIELD PAVEMENT
- FUTURE LANDSIDE PAVEMENT
- FUTURE BUILDING
- PAVEMENT REMOVAL
- BUILDING DEMOLITION
- FUTURE DEVELOPMENT AREA
- ELEVATION CONTOUR
- ELEV 200.0 EXISTING GROUND SPOT ELEVATION
- AIRPORT FENCE (8' to 10' Chain-link w/1' Wire)
- WATER/DETENTION AREAS
- NAVAID CRITICAL AREA
- RPZ RUNWAY APPROACH PROTECTION ZONE (RPZ)
- RSA RUNWAY SAFETY AREA (RSA)
- ROFA RUNWAY OBJECT FREE AREA (ROFA)
- RUNWAY OBSTACLE FREE ZONE (ROFZ)
- PRECISION OBSTACLE FREE ZONE (POFZ)
- BRL 35' BUILDING RESTRICTION LINE (BRL)
- RUNWAY VISIBILITY ZONE (RVZ)
- TSA EX. TAXIWAY SAFETY AREA (TSA)
- TOFA EX. TAXIWAY OBJECT FREE AREA (TOFA)
- TSA FUT. TAXIWAY SAFETY AREA (TSA)
- TOFA FUT. TAXIWAY OBJECT FREE AREA (TOFA)
- FUT. DRAINAGE INFRASTRUCTURE
- EX. AIRPORT PROPERTY LINE
- WIND CONE
- 1 FACILITY DESIGNATION

NO	DATE	REVISION	BY	CK.	APPR.

DESIGNED BY RTL
DRAWN BY PDH
REVIEWED BY NSL
APPROVED BY .

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NORFOLK INTERNATIONAL AIRPORT

PROJECT NAME
AIRPORT LAYOUT PLAN

DRAFT

SHEET TITLE
PASSENGER TERMINAL AREA PLAN

JOB NO. 33370
DATE 02/11/2020
FILE NAME ORF_ALP-TERMINAL
REV. NO.
DWG. NO.

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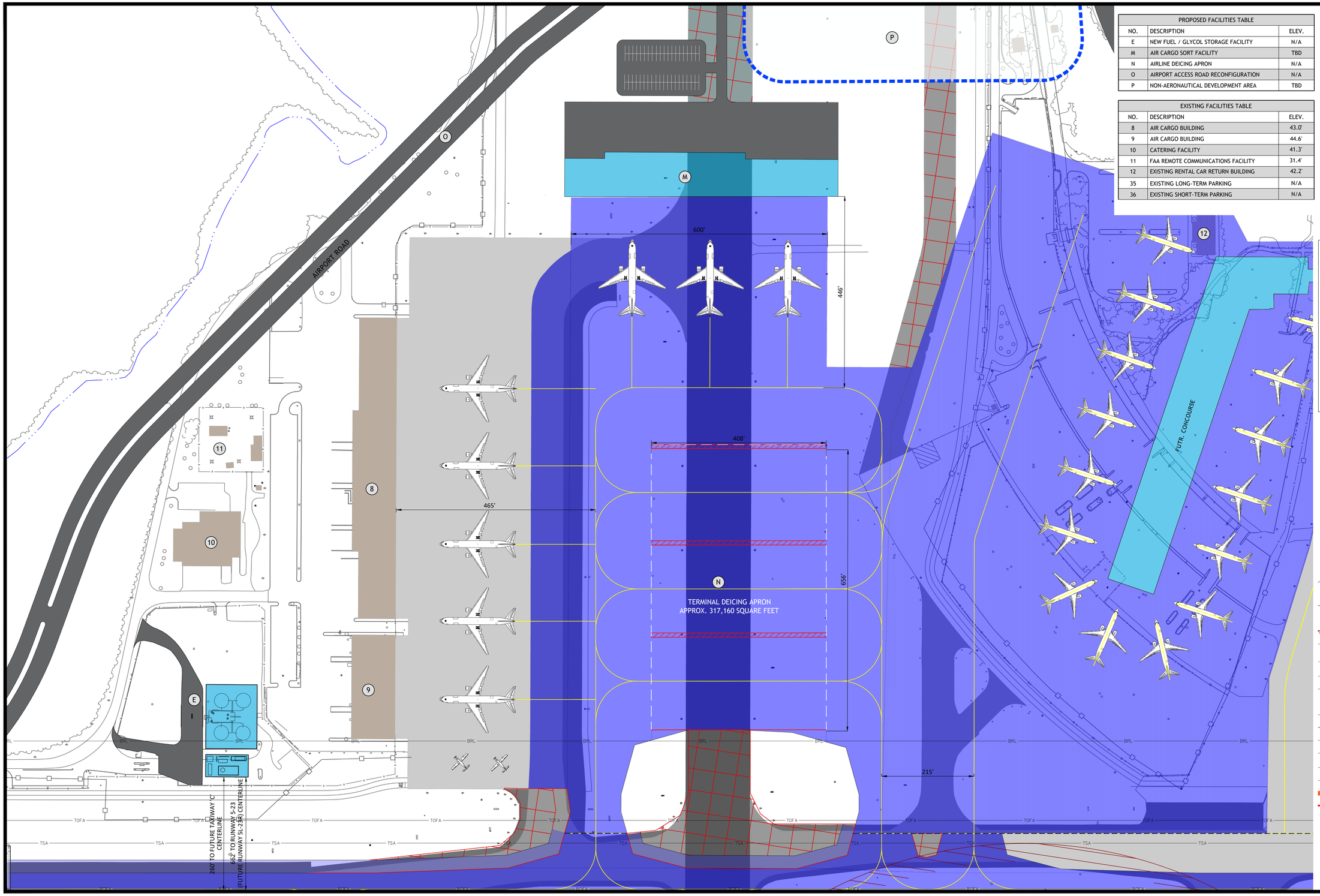

PROPOSED FACILITIES TABLE		
NO.	DESCRIPTION	ELEV.
E	NEW FUEL / GLYCOL STORAGE FACILITY	N/A
M	AIR CARGO SORT FACILITY	TBD
N	AIRLINE DEICING APRON	N/A
O	AIRPORT ACCESS ROAD RECONFIGURATION	N/A
P	NON-AERONAUTICAL DEVELOPMENT AREA	TBD

EXISTING FACILITIES TABLE		
NO.	DESCRIPTION	ELEV.
8	AIR CARGO BUILDING	43.0'
9	AIR CARGO BUILDING	44.6'
10	CATERING FACILITY	41.3'
11	FAA REMOTE COMMUNICATIONS FACILITY	31.4'
12	EXISTING RENTAL CAR RETURN BUILDING	42.2'
35	EXISTING LONG-TERM PARKING	N/A
36	EXISTING SHORT-TERM PARKING	N/A

MAGNETIC DECLINATION 10° 55' W
± 0° 21' - CHANGING BY 0° 1' W
ANNUALLY
(NOAA, OCTOBER 2018)

GRAPHIC SCALE (FEET)
0 50 100 200

FAA APPROVAL STAMP

- EX. BUILDING
- EX. RUNWAY PAVEMENT
- EX. RUNWAY SHOULDER PAVEMENT
- EX. TAXIWAY PAVEMENT
- EX. APRON PAVEMENT
- FUTURE AIRFIELD PAVEMENT
- FUTURE LANDSIDE PAVEMENT
- FUTURE BUILDING
- PAVEMENT REMOVAL
- BUILDING DEMOLITION
- FUTURE DEVELOPMENT AREA
- ELEVATION CONTOUR
- EXISTING GROUND SPOT ELEVATION
- AIRPORT FENCE (8' to 10' Chain-link w/1' Wire)
- WATER/DETENTION AREAS
- NAVAID CRITICAL AREA
- RUNWAY APPROACH PROTECTION ZONE (RPZ)
- RUNWAY SAFETY AREA (RSA)
- RUNWAY OBJECT FREE AREA (ROFA)
- RUNWAY OBSTACLE FREE ZONE (ROFZ)
- PRECISION OBSTACLE FREE ZONE (POFZ)
- 35' BUILDING RESTRICTION LINE (BRL)
- RUNWAY VISIBILITY ZONE (RVZ)
- EX. TAXIWAY SAFETY AREA (TSA)
- EX. TAXIWAY OBJECT FREE AREA (TOFA)
- FUT. TAXIWAY SAFETY AREA (TSA)
- FUT. TAXIWAY OBJECT FREE AREA (TOFA)
- FUT. DRAINAGE INFRASTRUCTURE
- EX. AIRPORT PROPERTY LINE
- WIND CONE
- FACILITY DESIGNATION

NO	DATE	REVISION	BY	CK.	APPR.

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APPROVED BY .

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NORFOLK INTERNATIONAL AIRPORT

PROJECT NAME
AIRPORT LAYOUT PLAN

DRAFT

SHEET TITLE
CARGO AREA PLAN

JOB NO. 33370
DATE 02/11/2020
FILE NAME ORF_ALP-TERMINAL
REV. NO.
DWG. NO.

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FUTURE RUNWAY 5R-23L

FUTURE PARALLEL TAXIWAY (TDG 4)

EXISTING GENERAL AVIATION APRON
APPROX. 155,000 SQFT.

FUTURE GENERAL AVIATION APRON EXPANSION
APPROX. 336,250 SQFT.

FUTURE AERONAUTICAL DEVELOPMENT AREA

FUTURE AERONAUTICAL DEVELOPMENT AREA

FUTURE AERONAUTICAL DEVELOPMENT AREA

FUTURE AERONAUTICAL DEVELOPMENT AREA

MILLER STORE ROAD

MAGNETIC DECLINATION 10° 55' W
± 0° 21' - CHANGING BY 0° 1' W
ANNUALLY
(NOAA, OCTOBER 2018)

GRAPHIC SCALE (FEET)
0 50 100 200

FAA APPROVAL STAMP

EXISTING FACILITIES TABLE		
NO.	DESCRIPTION	ELEV.
13	FAA SUPPORT BUILDING	41.1'
14	FAA AIR TRAFFIC CONTROL TOWER (ATCT)	151.7'
17	GROUND RUN-UP ENCLOSURE (GRE)	N/A
20	G.A. TERMINAL & HANGAR FACILITY C-1	51.0'
21	HANGAR C-2	55.7'
23	T-HANGAR BLDG. #1	35.4'
24	T-HANGAR BLDG. #2	37.0'
25	T-HANGAR BLDG. #3 (TO BE DEMOLISHED)	36.3'
26	AIRCRAFT MAINTENANCE HANGAR	61.7'
30	HANGAR C-5	42.9'
31	HANGAR C-3	54.0'
32	HANGAR C-4	55.1'
33	FBO MAINTENANCE SHOP	44.5'
43	G.A. CUSTOMS AND BORDER PATROL FACILITY	-

PROPOSED FACILITIES TABLE		
NO.	DESCRIPTION	ELEV.
Q	±30,000 SQFT. HANGAR	TBD
R	±22,500 SQFT. HANGAR	TBD
S	REBUILT ±15,750 T-HANGAR	TBD
T	REBUILT ±19,000 SQFT. T-HANGAR	TBD
U	PROPOSED CORPORATE HANGARS & APRON	TBD
V	RECONFIGURED TAXIWAY/RUNWAY ACCESS	N/A

- EX. BUILDING
- EX. RUNWAY PAVEMENT
- EX. RUNWAY SHOULDER PAVEMENT
- EX. TAXIWAY PAVEMENT
- EX. APRON PAVEMENT
- FUTURE AIRFIELD PAVEMENT
- FUTURE LANDSIDE PAVEMENT
- FUTURE BUILDING
- PAVEMENT REMOVAL
- BUILDING DEMOLITION
- FUTURE DEVELOPMENT AREA
- 160 — ELEVATION CONTOUR
- ELEV 200.0 — EXISTING GROUND SPOT ELEVATION
- AIRPORT FENCE (8' to 10' Chain-link w/1' Wire)
- WATER/DETENTION AREAS
- NAVAID CRITICAL AREA
- RPZ — RUNWAY APPROACH PROTECTION ZONE (RPZ)
- RSA — RUNWAY SAFETY AREA (RSA)
- ROFA — RUNWAY OBJECT FREE AREA (ROFA)
- RUNWAY OBSTACLE FREE ZONE (ROFZ)
- PRECISION OBSTACLE FREE ZONE (POFZ)
- BRL — 35' BUILDING RESTRICTION LINE (BRL)
- RUNWAY VISIBILITY ZONE (RVZ)
- TSA — EX. TAXIWAY SAFETY AREA (TSA)
- TOFA — EX. TAXIWAY OBJECT FREE AREA (TOFA)
- TSA — FUT. TAXIWAY SAFETY AREA (TSA)
- TOFA — FUT. TAXIWAY OBJECT FREE AREA (TOFA)
- FUT. DRAINAGE INFRASTRUCTURE
- EX. AIRPORT PROPERTY LINE
- WIND CONE
- (1) FACILITY DESIGNATION

NO	DATE	REVISION	BY	CK.	APPR.

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NORFOLK INTERNATIONAL AIRPORT

PROJECT NAME
AIRPORT LAYOUT PLAN

DRAFT

SHEET TITLE
GENERAL AVIATION AREA PLAN

JOB NO. 33370
DATE 02/11/2020
FILE NAME ORF_ALP-TERMINAL
REV. NO.
DWG. NO. 32of 26

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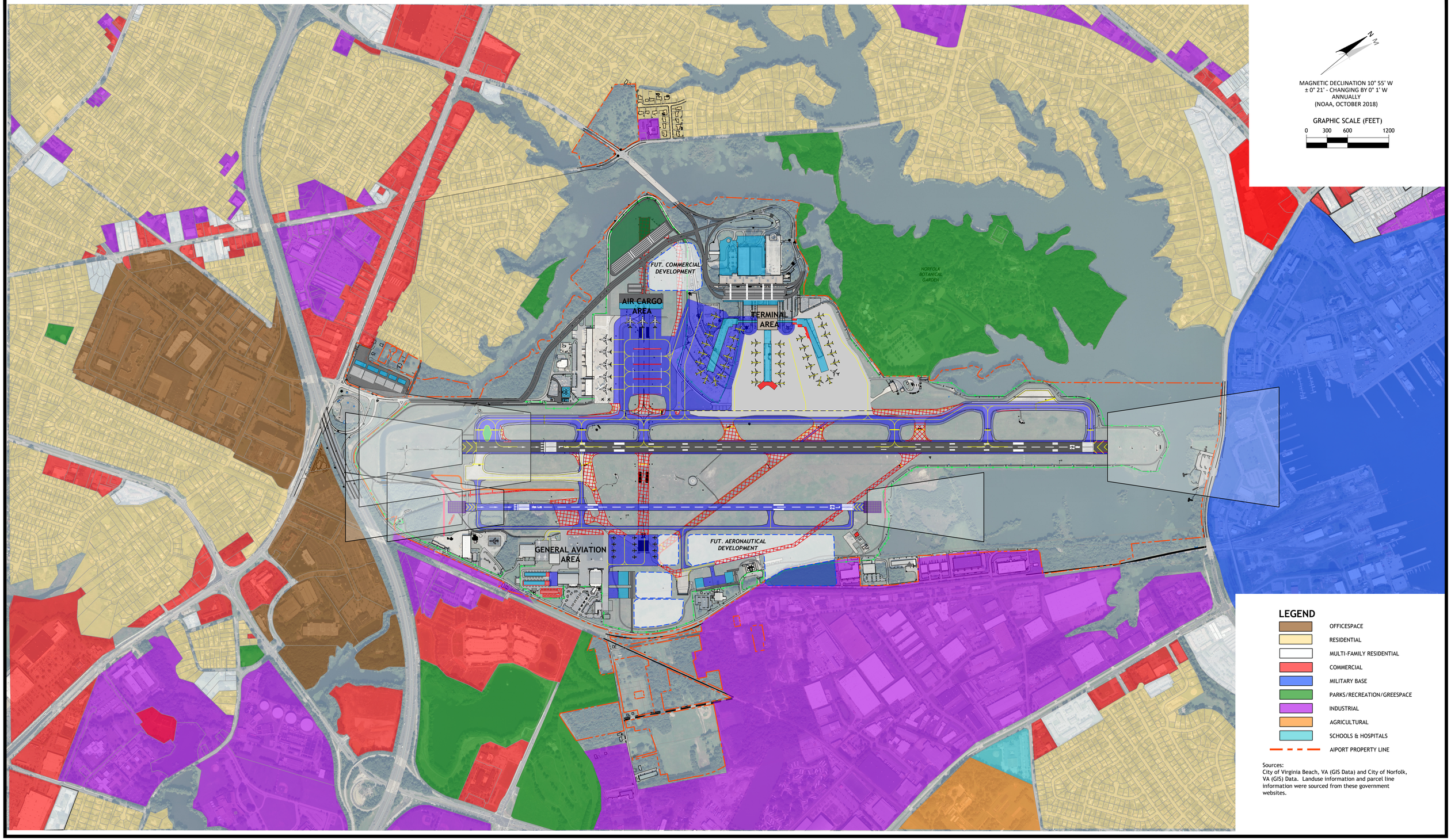

Sources:
City of Virginia Beach, VA (GIS Data) and City of Norfolk, VA (GIS) Data. Landuse information and parcel line information were sourced from these government websites.

NO	DATE	REVISION	BY	CK.	APPR.

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APPROVED BY .

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NORFOLK INTERNATIONAL AIRPORT

PROJECT NAME
AIRPORT LAYOUT PLAN

DRAFT

SHEET TITLE
LAND USE MAP

JOB NO. 33370
DATE 02/11/2020
FILE NAME ORF_ALP-LAND USE MAP
REV. NO.
DWG. NO.
33of 26

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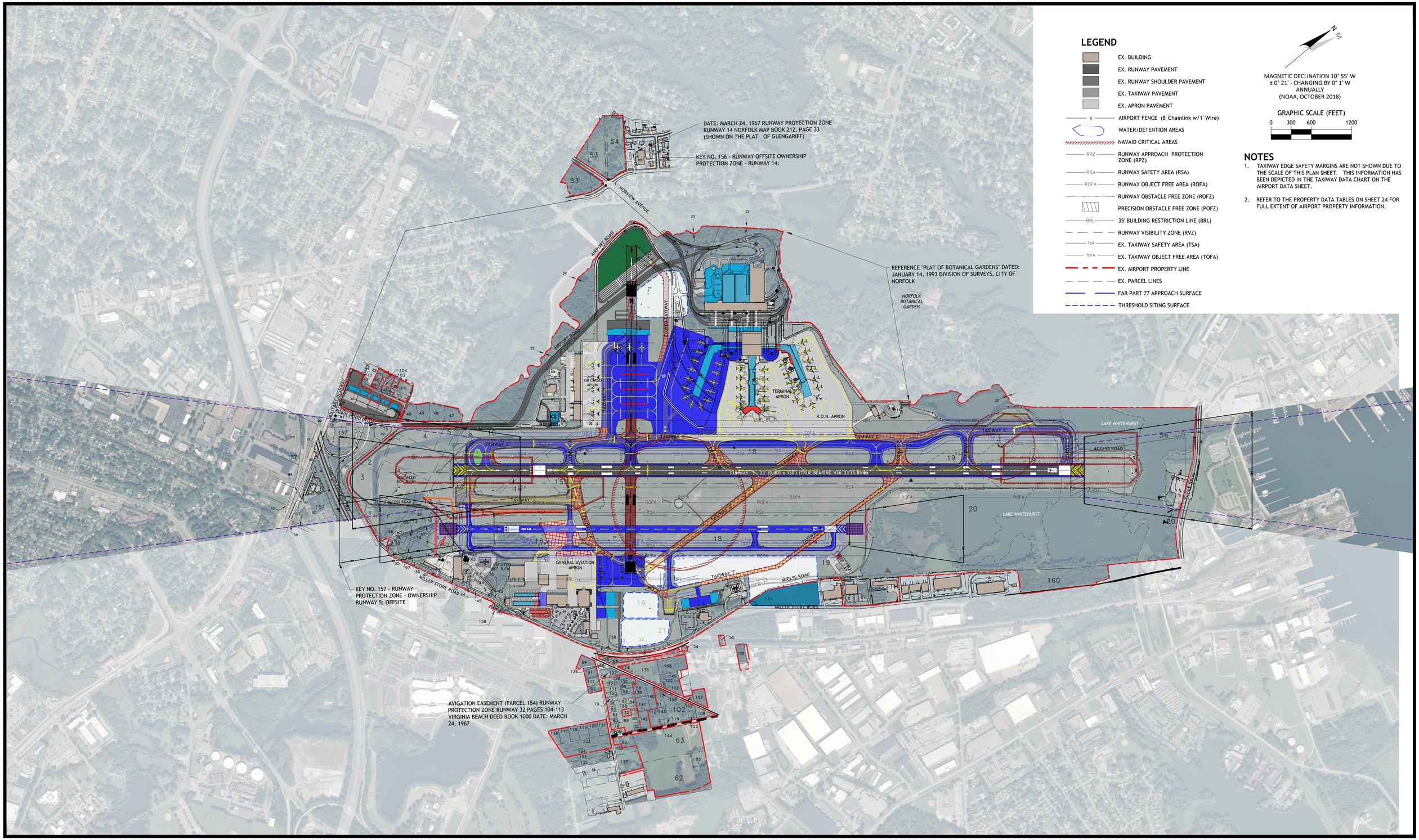

LEGEND

- EX. BUILDING
- EX. RUNWAY PAVEMENT
- EX. RUNWAY SHOULDER PAVEMENT
- EX. TAXIWAY PAVEMENT
- EX. APRON PAVEMENT
- AIRPORT FENCE (8' Chainlink w/1' Wire)
- WATER/DETENTION AREAS
- NAVAID CRITICAL AREAS
- RPZ — RUNWAY APPROACH PROTECTION ZONE (RPZ)
- RSA — RUNWAY SAFETY AREA (RSA)
- ROFA — RUNWAY OBJECT FREE AREA (ROFA)
- RUNWAY OBSTACLE FREE ZONE (ROFZ)
- PRECISION OBSTACLE FREE ZONE (POFZ)
- BRL — 35' BUILDING RESTRICTION LINE (BRL)
- RUNWAY VISIBILITY ZONE (RVZ)
- TSA — EX. TAXIWAY SAFETY AREA (TSA)
- TOFA — EX. TAXIWAY OBJECT FREE AREA (TOFA)
- EX. AIRPORT PROPERTY LINE
- EX. PARCEL LINES
- FAR PART 77 APPROACH SURFACE
- THRESHOLD SITING SURFACE

MAGNETIC DECLINATION 10° 55' W ± 0° 21' - CHANGING BY 0° 1' W ANNUALLY (NOAA, OCTOBER 2018)

GRAPHIC SCALE (FEET)

0 300 600 1200

NOTES

1. TAXIWAY EDGE SAFETY MARGINS ARE NOT SHOWN DUE TO THE SCALE OF THIS PLAN SHEET. THIS INFORMATION HAS BEEN DEPICTED IN THE TAXIWAY DATA CHART ON THE AIRPORT DATA SHEET.
2. REFER TO THE PROPERTY DATA TABLES ON SHEET 24 FOR FULL EXTENT OF AIRPORT PROPERTY INFORMATION.

NO	DATE	REVISION	BY	CK.	APPR.

DESIGNED BY RTL
DRAWN BY PDH
REVIEWED BY NSL
APPROVED BY .

CHA Consulting, Inc.
III Winners Circle
Albany, New York 12205
(518)-453-4500
www.chaconsulting.com

NORFOLK INTERNATIONAL AIRPORT

PROJECT NAME
AIRPORT LAYOUT PLAN

DRAFT

SHEET TITLE
AIRPORT PROPERTY INVENTORY MAP

JOB NO. 33370
DATE 02/11/2020
FILE NAME ORF_ALP-PROPERTY INVENTORY MAP
REV. NO.
DWG. NO.

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KEY	CITY DEED NUMBER	RECORDED			DEED DATE	PLAT	ACREAGE	GRANTOR	FAA GRANT
		WHERE	D.B.	PAGE					
01	3900	N	772	418	06-02-58			Luke McLaurin	NA
02	3921	N	775	230	05-27-58			Harrison Parker	NA
03	1336	C	598	526	04-04-31	20 65		Felix L. Denny et ux	NA
04	3923/3984	N	775	415	07-11-58			Sophie Johnson (Wilson Hunter Est.)	NA
05	3917	N	774	187	06-17-58			Johnnie Hunter	NA
06	3929/3985	N	776	356	07-25-58	3862		Louis B. Fine and William A. Lacey	NA
07	3933	N	777	245	08-16-58	2 48		Armistead Johnson Est.	NA
08	632	VB	68	451	01-13-1899	168 29		E. M. Baum	NA
09	633	VB	68	451	05-18-1899			E. M. Baum	NA
10	1358	VB	166	202	12-01-31	67 133		Oliver J. Edgerton et ux	NA
11		VB	68	520	07-08-1899			E. M. Baxter	NA
12	649	VB	108	15	10-09-19	6 121		Armistead Johnson	NA
13	1720	VB	208	353	06-30-41	6 121		Kate Rogers et als	NA
14		VB	209	554	01-24-41			E. W. Baxter	NA
15		N	1186	431	02-27-71			Jeremiah Green et als	NA
16	2027	VB	224a	225	10-18-44	27 A-2		Mary Baxter Sanderson et als	NA
17	638	VB	67	569	02-05-1898			Edwin Phillips	NA
18	1128/653	VB	110	273	08-01-18			Norfolk County Water Co.	NA
19	3022	VB	291	267	08-29-51			N.Y.P.&N. Railroad	NA
20	4726	N	960	21	09-05-63	20 58		Penndel Company	NA
21	5432	N/VB	1090/1016	263/396	07-24-67			Penndel Company	NA
22	OWNED BY	PENNDEL COMPANY -		EASEMENT GRANTED BY DEED OF 1966					NA
23	2370	VB	250	564	03-21-46			United States of America	NA
24	4073	VB	807	421	07-14-59			Nora Elliott et als	NA
25	3544	VB	372	360	08-20-54			Conrad G Hagert	NA
26	3543	VB	372	358	08-20-54			John Nimmo	NA
27	4915	VB	886	188	11-27-54			Owned by City (Amy Parker et als)	NA
28	4969	VB	908	71	06-25-65			Owned by City (Nancy Riddick)	NA
29	4969	VB	908	71	06-25-65			Owned by City (Melvin Moore)	NA
30	4849	VB	849	653	06-15-64			Owned by City (Ella Elliott)	NA
31	4968	VB	896	503	11-24-64			Owned by City (C. S. Hines et ux)	NA
32	4916	VB	880	101	11-16-64			Owned by City (Joseph Daly et als)	NA
32	4917	VB	884	386	12-21-64			Owned by City (Fay Hunt et als)	NA
33	4969	VB	908	71	06-25-65	7 pt. 1 36		Owned by City (Delsine Thomas)	NA
34	4866	VB	872	749	11-03-64			Owned by City (John A Brown et ux)	NA
34	4969	VB	908	71	06-25-65			Owned by City (Novella Joyner)	NA
34	4969	VB	908	71	06-25-65			Owned by City (Charlie Cross)	NA
35	985	VB	148	151	10-20-27	3 37		Home Assn. of Norfolk Inc	NA
36	1210	VB	151	371	06-10-28			C. D. Emmons et ux	NA
37	950	VB	135	320	03-20-26			Leolin J. Jarvis	NA
38	5254	N	1038	426	10-27-65			Winston H. Irwin, Sp. Comm.	NA
39	NOT USED								
40	1211	VB	151	243	04-21-28			A. W. Cornick et ux	NA
41	6566	N	1681	897	05-02-83	3 37&38	.0115	Edna M Kiracofe	NA
42	2929	N	1437	651	01-03-78	3 37&38	.0115	John Nevin and Lula Rebecca Wimer	NA
43	4117	N	823	216	12-01-59			Catherine D. Hess	NA
44	5048	N	1039	618	10-28-65			Winston H. Irwin, Sp. Comm.	NA
45	5014	N	1032	40	09-20-65			Richard M. Smith, Sp Comm.	NA
46	5095	N	1044	412	01-05-66			Anna Murphy et als	NA
47	4650	N	1287	593	05-28-74	28 56		William P. Oberndorfer et als	05
48	5000	N	1489	176	04-30-79	28 56		James H. Knight et als	05
49	4766	N	1397	203	01-10-77	28 56	7.700	James H. Knight et als	05
50	1228	N	1384	681	02-09-77	30 74		Beatrice B. McLaurin	05
51	2596	N	1389	527	03-21-77	13 87		Fannie McLaurin	05
52	NOT USED								
53	2454	N	1389	119	01-03-77	11 60	9.173	Hazel Dorson Bridgers	05
54	4704	N	1397	13	05-16-77		5.574	Warren L. and Sandra R. Richardson	05
55	16134	VB	1793	387	06-15-78		.266	Neil and Johnetta R. Foreman	NA
56	620	VB	51	184	04-02-1873	7 11		Capt. James Cornick et als	NA
57	3530	VB	2092	182	02-06-81	3 184	.428	Audrey Parker McLean and Amy Parker Washington	14
58	28948	VB	2070	168	11-25-80	7 72	.131	John N Dalton, Governor of VA Echeator	14
59	15491	VB	2026	606	07-10-80		.193	Inez Harold and Allen Joyner	NA
60	14294	VB	2022	444	06-30-80	50 49	1.000	James A Bridgers	NA
61	10462	VB	2009	340	05-09-80	55 15	1.000	John T. Elliott, Jr.	14
62	1120	VB	1979	532	12-27-79	81 54	11.060	William T. And Willie Mae Roberts	14
63	35070	VB	1969	590	11-30-79	55 15	9.184	Lyttleton P. and Viola E. Roberts	14
64	18434	VB	2254	'773	04-11-83	3 184&185	.806	Audry Parker McLean and Amy Parker Washington	NA
65	18549	N	1785	750	11-09-84	18 8	.470	Joseph C. and Ruth G. Mariner	04
66	20772	N	1794	380	12-27-84	18 8	.659	Patrica Ann and Emma E. Jennings	04
67	20771	N	1794	374	12-27-84	23 71	.223	Emma E. Jennings	04
68	1323	N	1799	482	01-25-85	19 56	.492	Elijah and Lucy L. Boyd	04
69	3327	VB	1806	707	02-25-85	19 56	.492	Robert Lee and Edith Gilliam	04
70	010522	N	1830	157	06-27-85	18 8	.188	Patrica Ann and Emma E. Jennings	04
71	010521	N	1830	155	06-27-85	23 71		Patrica Ann and Emma E. Jennings	04
72	021565	N	1869	298	09-26-85	23 71		Ola Gurley Barron et als	04

KEY	CITY DEED NUMBER	RECORDED			DEED DATE	PLAT	ACREAGE	GRANTOR	FAA GRANT
		WHERE	D.B.	PAGE					
87	39723	VB	2631	1866	05-15-87	453 531	.323	Ruth H. Hunt	06
88	37658	VB	2629	0481	05-07-87	453 531	.323	Gracie E. Nimmo	06
89	41989	VB	2699	0483	12-21-87	453 531	.968	A. E. Harold, Sr. and Jr.	10
90	47291	VB	2705	1979	01-25-88	636 240	.221	Clarence N. and Ressie J. Harold	06
91	56405	VB	2717	794	03-18-88	110 335	.637	City of Norfolk	NA
92	5917	N	1401	165	06-21-77	20 48	.670	Joseph R and Dorothy B. Wolfinger	NA
93	5439	N	1538	418	05-27-80	22 42	.374	Philip V. and Elizabeth H. Fail	NA
94	5144	N	1537	490	05-01-80	22 42	1.028	Edward V. and Elinor K. Power et als	NA
95	1120	VB	1143	529	12-27-79	81 54	1.000	William T. and Willie Mae Roberts	NA
96	18110	N	2050	20	09-29-87		4.560	U. S. Navy (Quit Claim)	NA
97		N	1798	966	01-23-85		4.683	City of Norfolk Street Closures	NA
98		N	1801	573	02-05-85	18 8		City of Norfolk Street Closures	NA
99	6385	N	2181	171	05-01-89	2902 321	.195	Century Pauline and Eugene E. Dent	06
100	1146/8745	VB	2923/2932	457/1157	07-06-90	55 15	.560	Ethel Harold	16
101	7728	VB	2931	474	08-09-90	453 531	.290	Georgia H. Shelton	16
102	9902	VB	2927	1159	07-27-90	55 15	4.192	Larry D. and Carolyn A. Wood	NA
103	18088	N	2371	520	12-18-91	19 56	.186	William H. and Patti A. Vancik	21
104	18745	N	2374	299	12-30-91	19 56	.209	Thomas L. and Melodie J. Baker	21
105	0078582	VB	3097	0401	06-05-92	WITH DEED	19.025	The Jonathan Corporation (Easement RW 23)	21
106	0000258	VB	3103	0530	06-29-92	91 39	0.691	Abbie T. Moore, Gwendolyn M. Moore & Dollie M. Gray	NA
107	0000257	VB	3103	0521	06-29-92	91 39	0.923	Abbie T. Moore, Gwendolyn M. Moore & Dollie M. Gray	NA
108	0014491	VB	3121	0680	07-24-92	9 33	2.193	Eight Commerce Properties (Nations Bank)	21
109	0014491	VB	3121	0680	07-24-92	55 15	1.373	Eight Commerce Properties (Nations Bank)	NA
110	0020715	VB	3129	1755	09-23-92	55 15	0.144	Meloney E. Willie et als	21
111	0015505	VB	3122	2191	09-01-92	104 04	0.425	Howard J. and Betty J. Murrell	21
112	0009065	VB	3114	1964	07-30-92	55 15	1.000	City of Virginia Beach - Chancery No. 91-1448	NA
113	14987 19563	N	2436 2455	0216 0803	10-01-92 12-15-92	18 8	0.230	Oliver Holloway	27
114	0025383	VB	3136	1071	10-08-92	55 15	0.254	Philip J. Infantino, Special Commissioner	21
115	ORDINANCE 37,047	N			11-10-92	46 30		City of Norfolk, Street Closure	NA
116	0059031	VB	3182	1687	02-12-93	7 46	0.644	George W. Elliott	27
117	0070435	VB	3197	1833	03-30-93	7 46	0.699	Mabel Rosetta Elliott	27
118	0070435	VB	3197	1833	03-30-93	7 46	0.699	Mabel Rosetta Elliott	27
119	0064586	VB	3489	2100	04-13-95	7 46	0.699	Carlesta E. Henderson	27
120	0070435	VB	3197	1833	03-30-93	7 46	0.699	Mabel Rosetta Elliott	27
121	0023881	VB	3438	1172	09-22-94	7 46	0.699	Beatrice Jones & Thelma Herbert	21
122	0069955	VB	3197	0250	03-30-93	9 33	0.124	David & Virginia Joyner	21
123	0023880	VB	3438	1167	09-22-94	7 46	2.332	Beatrice Jones & Thelma Herbert et al	21
124	0018100	VB	3262	1188	08-27-93	7 46	1.324	Mabel R. Anthony & Kinchen Anthony	21
125	0049380	VB	3470	1834	01-26-95	55 15	0.294	Dorothy Wood	NA
126								Fred E. Cross, Sr.	
127								Charles W. E. Harold	
128	0049817	VB	3471	1179	01-13-95	636 240	0.672	John & Cordelia Harold (Estate)	19
129	NA	VB	2596	817	02-12-87	2596 823	0.366	William Thomas Harold, Sr. (Estate)	
130	0093749	VB	4246	1179	05-23-00	991 689	0.366	Heirs of Daniel Elliott	41
131	NA	VB	2596	817	02-12-87	2596 824	0.432	William Thomas Harold, Sr. (Estate)	
132								Leavy & Mildred Harold	
133								Jeremiah Harold, Jr.	
134								Lucy E. Nichols	
135								Clarence M. & Naomi C. Morgan, Jr.	
136								Owned by City (Viola Roberts)	
137								Owned by City (Nettie Virginia & John Marshall Hawkins)	
138								Robert Brooks	
139								Archie Elliott Estate	
73	021565	N	1869	298	09-26-85	23 71	.892	Ola Gurley Barron et als	04
74	021565	N	1869	298	09-26-85	26 7		Ola Gurley Barron et als	04
75	021565	N	1869	298	09-26-85	23 71		Ola Gurley Barron et als	04
76	8823	N	1645	333	08-16-82	23 71	.205	Emma E. Gurley	NA
77	8348	N	1687	224	06-15-83	19 56	.205	J. H. Robertson	NA
78	63837	VB	2466	731	12-19-85	453 532	.294	Charlie W. Harold	04
79	48099	VB	2528	1231	07-30-86	2528 1231	.730	Doris H. Spence	05
80	39728	VB	2606	1420	03-12-87	453 531	.285	James Linwood Harold	06
81	39724	VB	2631	1870	05-15-87	453 531	.280	Georgia H. and Joseph H. Shelton	06
82	39725	VB	2631	1874	05-15-87	453 531	.280	Delores H. Spence	06
83	37656	VB	2629	0473	05-07-87	453 531	.285	Eloise H. Harold	06
84	37657	VB	2629	0477	05-07-87	453 531	.287	Mary H. Williams	06
85	37655	VB	2629	0469	05-07-87	453 531	.287	Vanessa H. DeLoatch	06
86	34171	VB	2624	1030	04-27-87	453 531	.285	Andrew E. and Alma A. Harold	06
140								Bertie Barns Estate	
141								Adella Harold	
142								Owned by City (Margaret E. Conquest)	
143	033935	VB	3557	0785	11-07-95	55 15	0.215	Thomas Willie Estate	21
144	0070054	VB	3497	1180	05-15-95	1814 650	0.144	Vivian Willie	21
145		VB	3376	1549	10-22-2013	9 33	1.216	Florence C. Morris & Ruth C. Lewis	
146								Wayne McLeskey	
147								Ola L. Barron	

KEY	CITY DEED NUMBER	RECORDED			DEED DATE	PLAT	ACREAGE	GRANTOR	FAA GRANT
		WHERE	D.B.	PAGE					
148	110003396	N			02-18-2011	19 56	0.211	Claude Edwards	
149								Edward J. Harris	
150	070036241	N	2352	616	09-24-2007	26 7	NA	Lester E. Garris	NA
151	6961	N	1295	293	05-31-74	NA	NA	U.S. Navy- Little Creek (Easement R/W 23)	NA
152	18266	VB	2670	932	08/31/87	NA	33.5	Canonie Atlantic- (Easement R/W 23)	08
153	13520	N	1703	782	07/27/83	39 29	1.47	U.S. Coast Guard (Easement R/W 23)	NA
154	NA	VB	1000	104	03/26/67	NA	NA	Burton Station Area (Easements R/W 32)	NA
155	AVIGATION EASEMENT - SEE FOLLOWING LISTING							Glengariff Area (Easements R/W 14)	NA
A	9225	N	986	602	07-29-64	20 99	NA	Charles E. Ryan et als	NA
B	1023	N	1006	188	12-31-64	17 74	NA	Louis M. Oden, Jr. et als	NA
C	6100	N	1145	281	07-31-69	17 74	NA	Fred Guichard et als	NA
D	29	N	1155	362	12-01-69	21 33	NA	Christ Phylonis et als	NA
E	254	N	1156	58	12-01-69	17 74	NA	Alonzo L. & Mary T. Cherry	NA
F	915	N	1157	589	12-01-69	17 74	NA	Llewellyn & Hazel W. Shane	NA
G	615	N	1157	36	12-01-69	17 74	NA	Francis T. & Gloria S. Fotusky	NA
H	9535	N	1154	442	12-01-69	21 33	NA	Rufus P. & Dorothy P. Frazier	NA
I	1144	N	1158	311	12-08-69	17 74	NA	Dare G. Ingram	NA
156	R/W 14 PROTECTION ZONE -				OFFSITE OWNERS				
J	13863	N	1474	550	12-29-78	NA	NA	Frank E. Spicer et al	NA
K	8043	N	2704	522	06-01-95	NA	NA	Wayne E. Kelly et al	NA
L	12249	N	886	199	12-22-61	NA	NA	Francis T. Fotuskey et al	NA
M	17970	N	1717	372	11-28-83	NA	NA	Dorothy P. Miles et al	NA
N	018818	N	2654	59	10-26-94	NA	NA	Llewelyn Shane Jr. et al	NA
O	9458	N	2499	658	06-08-93	NA	NA	Dare G. Ingram	NA
P	3154	N	2683	299	03-02-95	NA	NA	David H. Hillis et al	NA
Q	12470	N	2348	506	08-30-91	NA	NA	Richard A. McGuffin	NA
R	1748	N	1800	684	02-01-85	NA	NA	Don A. McManus et al	NA
S	4269	N	1486	953	04-12-79	NA	NA	Lawrence D. Roberts et al	NA
156	R/W 14 PROTECTION ZONE -				OFFSITE OWNERS cont'd				
T	N/A	N	R/S	DC	11-03-92	NA	NA	Marjorie B. Garwood	NA
U	010553	N	1830	251	06-28-85	NA	NA	Lawrence E. Bobbitt et al	NA
V	22949	N	2562	453	12-21-93	NA	NA	Helen L. Sewell Trs et als	NA
W	N/A	N	NA	NA	NA	NA	NA	Thomas A. Sheets et al	NA
X	17019	N	2444	814	11-05-92	NA	NA	Curtis L. Kerstetter	NA
Y	14074	N	1564	575	12-19-80	NA	NA	George B. Howe	NA
Z	N/A	N	326	89W	03-14-89	NA	NA	Jasper L. Taylor	NA
AA	5244	N	976	372	05-13-64	20 99	NA	Glengariff Baptist Church	NA
-	11280	N	1072	636	12-20-66	NA	NA	Glengariff Baptist Church	NA
157	R/W 5 PROTECTION ZONE -				OFFSITE OWNERS				
BB	Various	N	Various	Various	NA	NA	NA	Almeda Associates	NA
CC	N/A	N	NA	NA	08-20-92	SUBD/O	NA	Ernest L. Hudson	NA
DD	N/A	N	NA	NA	NA	NA	NA	City of Norfolk	NA
EE	N/A	N	NA	NA	01-96	NA	NA	Industrial Development Authority- MBF Inc. Lessee	NA
FF	N/A	N	NA	NA	NA	NA	NA	INTERSTATE 64 - Commonwealth of Virginia	NA
GG	N/A	N	NA	NA	NA	NA	NA	Norfolk Southern Railway Company	NA
HH	13648	N	2287	385	10-03-90	NA	NA	AEW NO. 39 Corporation	NA
158	16957	N	2840	826	10-10-96	50 54	NA	Louis B. Fine Family Limited Partnership	NA
159	0093750	VB	4246	1789	05-23-00	78 110	0.172	John T. Elliott Jr. (Martha Elliott)	41
160	VB	Instr. #20020719003952 (3 Pages)			07-19-02	277 39	9.140	Lifenet	NA
161	VB	Instr. #200812220014355520			12-22-08	PENDING	7.996	Malibu Wilmington, Inc.	56

NOTE: AIRPORT PROPERTY CONVEYED TO NORFOLK AIRPORT AUTHORITY BY CITY OF NORFOLK BY QUITCLAIM DEED DATED DECEMBER 20, 1999 RECORDED IN CLERK'S OFFICE OF CIRCUIT COURT OF NORFOLK, INSTRUMENT #990035912 AND DEED OF CORRECTION DATED JANUARY 19, 2000 RECORDED CLERK'S OFFICE INSTRUMENT #000001435.

LEGEND

N - CITY OF NORFOLK

VB - CITY OF VIRGINIA BEACH

142 - PROPERTY OWNED BY CITY

NORFOLK AIRPORT AUTHORITY LAND ACQUISITION -
EASEMENTS NORFOLK INTERNATIONAL AIRPORT
Clear Zone Runway 32
Virginia Beach Deed Book 1000 Pages 104-113 March 24, 1967
Clear Zone Runway 14 Norfolk Map Book 212 Page 33
Department of Navy (Little Creek)
Norfolk Deed Book 1295 M. B. 28 Pg. 95-3 May 31, 1974
U. S. Coast Guard (Little Creek)
Norfolk Deed Book 13520 M. B. 39 Pg. 29 July 27, 1985
Canonie Atlantic Co. (Little Creek)
Virginia Beach Deed Book 18266 M. B. 2670 Pgs. 932-937
August 31, 1987

NO	DATE	REVISION	BY	CK.	APPR.

DESIGNED BY RTL
DRAWN BY PDH
REVIEWED BY NSL
APPROVED BY .

CHA Consulting, Inc.
III Winners Circle
Albany, New York 12205
(518)-453-4500
www.chaconsulting.com

NORFOLK INTERNATIONAL AIRPORT

PROJECT NAME
AIRPORT LAYOUT PLAN

DRAFT

SHEET TITLE
PROPERTY DATA TABLES

JOB NO. 33370
DATE 02/11/2020
FILE NAME ORF_ALP-PROPERTY INVENTORY MAP
REV. NO.
DWG. NO. 35of 26

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