# *Nantucket Memorial Airport Master Plan Update*

***Chapter 9– ALP Drawing Set***

**2015**

Prepared for:
**Nantucket Memorial Airport Commission**

**Prepared By**

**Jacobs Engineering**

In association with

**Robin Lee Monroe & Associates**

# Chapter 9 – ALP Drawing Set

## 9.0 Introduction

A complete Airport Layout Plan (ALP) drawing set was produced in conformance with FAA AC 150/5070-6B, *Airport Master Plans*, including Change 1. A total of 9 drawings constitute the full ALP set. The original set of ALP drawings was printed at 24"x36" size, with a smaller-sized set attached below.

The ALP drawings were prepared in AutoCAD Map (version 2014), and Geographic Information System (GIS) and other software were also used to incorporate and graphically display data from various sources. For example, GIS files from the State of Massachusetts, as well as aerial imagery acquired in September 2013, were incorporated into various drawings in the ALP set.

### 9.1 Airport Layout Plan Drawings

A brief description of the ALP drawings is presented below:

***Title Sheet (Drawing No. 1)*** – The title sheet includes the airport location maps, an index of drawings in the ALP set, as well as signature blocks.

***Existing Airport Layout Plan (Drawing No. 2)*** – This drawing was produced at a scale of 1" = 400', and was developed based on aerial mapping obtained in September 2013.

***Ultimate Airport Layout Plan (Drawing No. 3)*** – The Proposed ALP drawing depicts the existing *and future* airport facilities. The drawing was produced at a scale of 1" = 400 and graphically identifies the proposed airport facilities. It also includes pertinent imaginary surfaces such as the Runway Protection Zones (RPZ) and Runway Safety Areas (RSA), as well as airport and runway data tables.

***Terminal Area Plan (Drawing No. 4)*** – This is a drawing at a scale of 1" = 150' that presents a detailed layout of the future passenger terminal and aircraft parking apron area.

***Inner Portion of the Approach Surface Drawings (Drawing Nos. 5-8)*** – These drawings depict penetrations to the FAR Part 77 surface in both plan and profile views. The Approach Surface is shown to where the slope reaches 100-feet about the threshold elevation. The Threshold Siting surface is shown on these drawings as well. Ground profiles along the runway centerline and left/right of the centerline are shown as well.

***Airport Airspace Drawing (Drawing No. 9)*** – This drawing depicts the imaginary surfaces defined in FAR Part 77. It also graphically depicts penetrations to the imaginary surfaces, and their location in relation to Nantucket Memorial Airport. A number of sources of data were compiled to prepare this drawing, including aerial mapping collected in September 2013, 2013 Airport Master Plan data and U.S.G.S. quad sheets.

***Land Use Drawing(Drawing No. 10) –*** This drawing identifies the primary land use parcels, as well as the 2013 65 Day-Noise-Level surrounding Nantucket Memorial Airport, at a scale of 1"=800'.

***Airport Property Map (Drawing No. 11) -*** **This** identifies deed and ownership parcel information within Nantucket Memorial Airport's property at a scale of 1"=500'.

The ALP drawings are included in 11"x17" format on the following pages.

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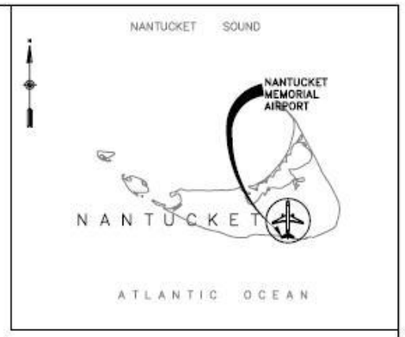
VICINITY MAP

# NANTUCKET MEMORIAL AIRPORT
# NANTUCKET, MASSACHUSETTS




LOCATION MAP

# MASTER PLAN UPDATE

## AIP No. 3-23-0005-56-2012

INDEX TO DRAWINGS

| REV. | DATE |
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1. TITLE SHEET
2. EXISTING AIRPORT LAYOUT PLAN
3. ULTIMATE AIRPORT LAYOUT PLAN
4. TERMINAL AREA PLAN
5. INNER PORTION OF THE APPROACH SURFACE - RUNWAY 15-33
6. INNER PORTION OF THE APPROACH SURFACE - RUNWAY 12-30
7. INNER PORTION OF THE APPROACH SURFACE - RUNWAY 06
8. INNER PORTION OF THE APPROACH SURFACE - RUNWAY 24
9. AIRPORT AIRSPACE DRAWING
10. LAND USE DRAWING
11. AIRPORT PROPERTY MAP

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
NEW ENGLAND REGIONAL HEADQUARTERS
AIRPORTS DIVISION - ANE 600

APPROVED: _____

DATE: _____

APPROVAL SUBJECT TO COMMENTS AND RECOMMENDATIONS LETTER

_____
CHAIRMAN, NANTUCKET MEMORIAL AIRPORT COMMISSION

DATE: _____

_____
EXECUTIVE DIRECTOR,
MASS DOT BUREAU OF TRANSPORTATION
SYSTEMS PLANNING

DATE: _____

CERTIFIES THAT ALL AIRPORT ELEMENTS SHOWN ON THIS ALP ARE IN ACCORDANCE WITH CRITERIA CONTAINED IN THE CURRENT EDITION OF THE FAA ADVISORY CIRCULAR 150/5300-13A, CHANGE 1.

CERTIFICATION

(NAME OF SPONSOR) _____ NAME _____ DATE _____

PREPARED IN ACCORDANCE WITH FAA ADVISORY CIRCULARS:
150/5300-13A AIRPORT DESIGN CHANGE 1, FEBRUARY 26, 2014
150/5070-6B AIRPORT MASTER PLANS CHANGE 1, MAY 1, 2007

SEPTEMBER 2015

PREPARED BY:
JACOBS

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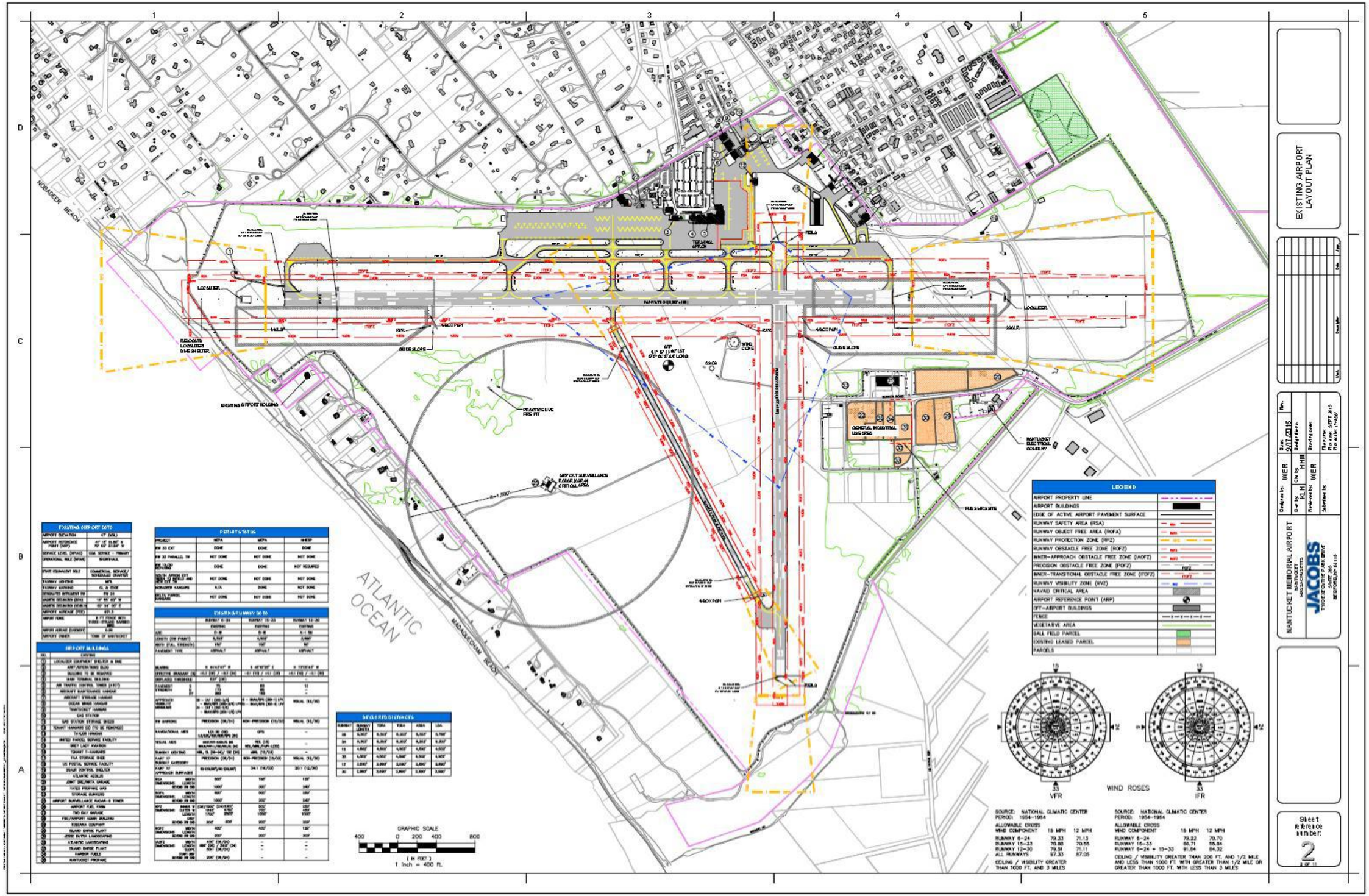


*Drawing not to scale

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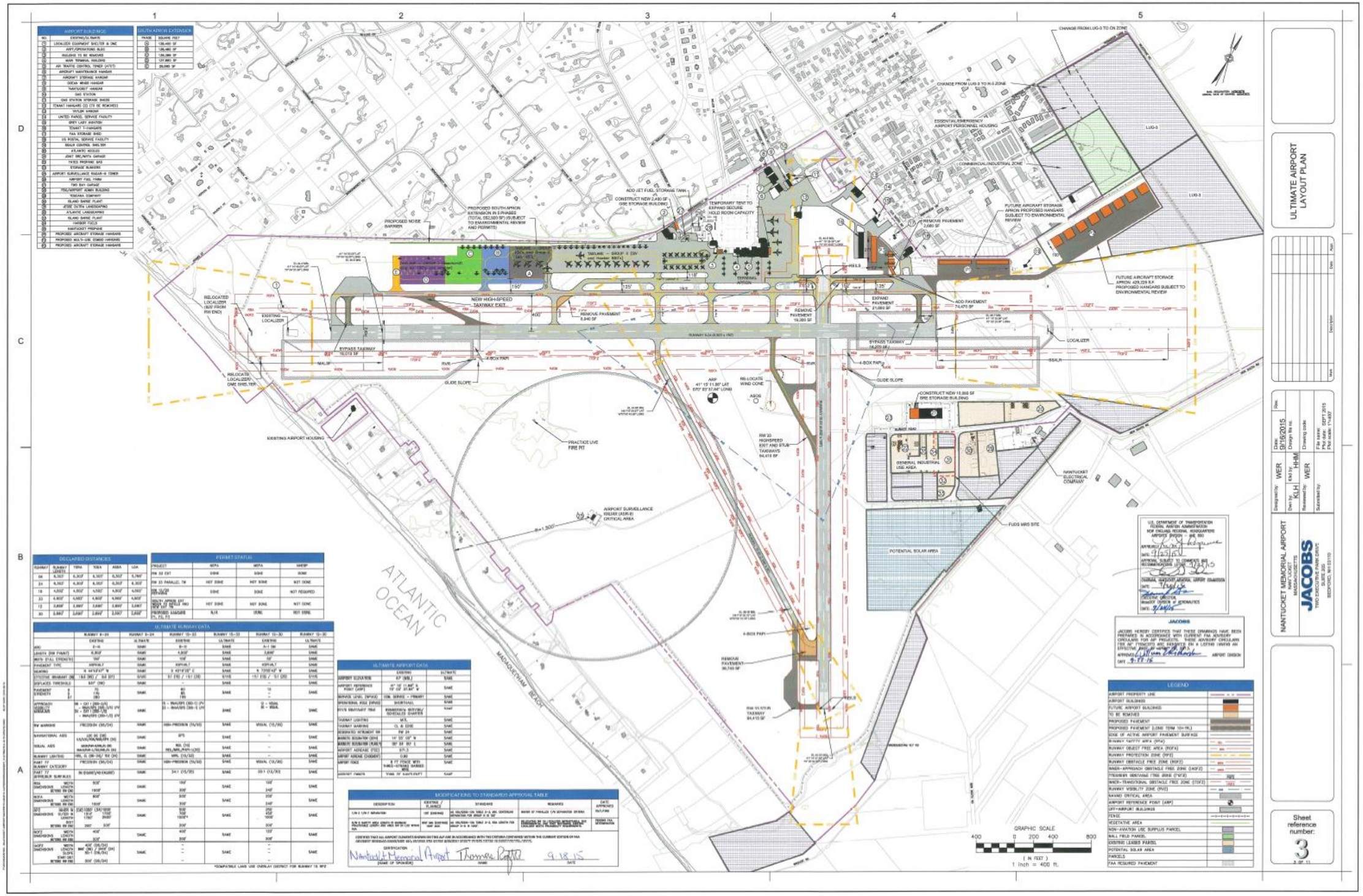


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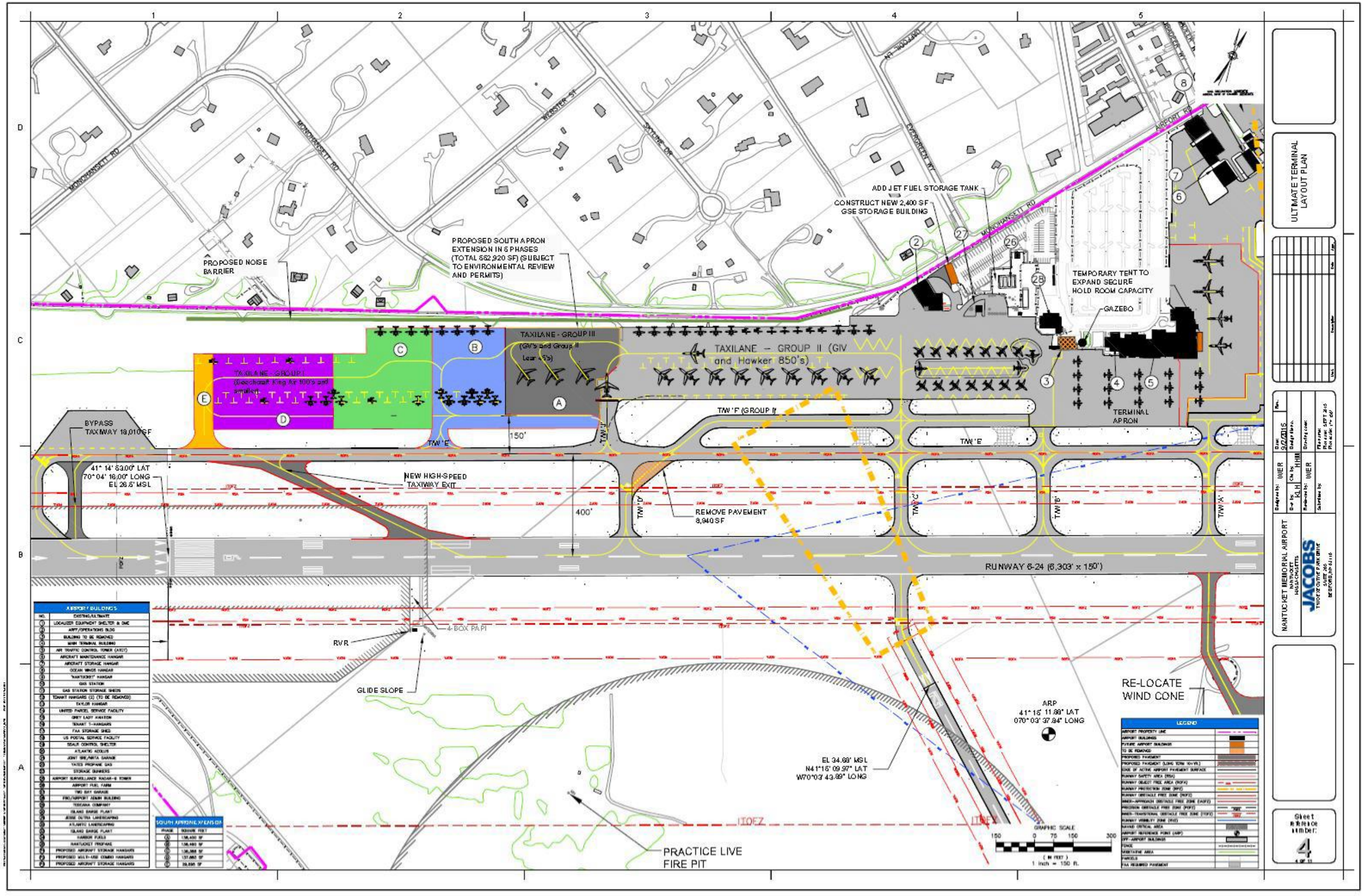


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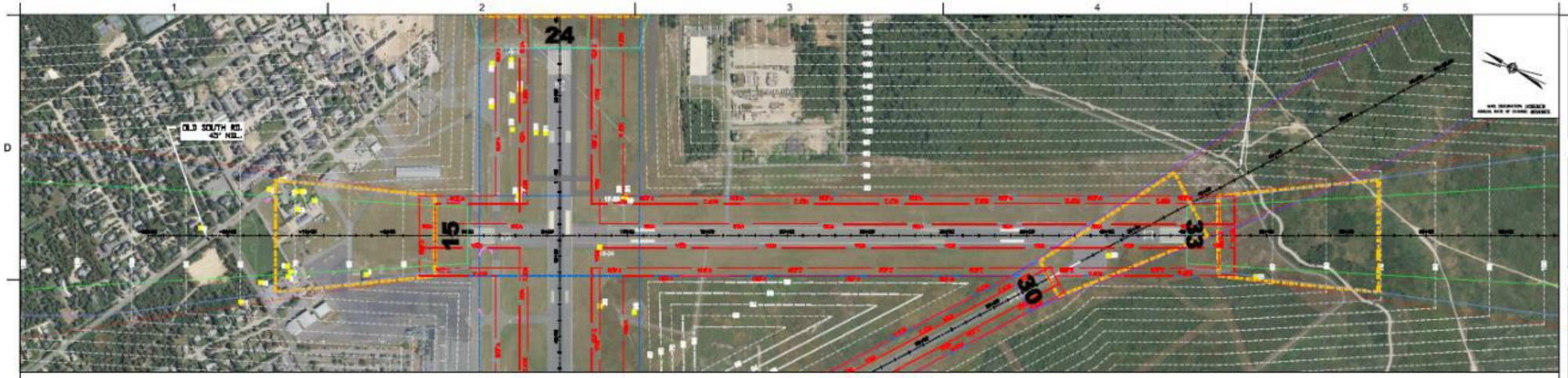


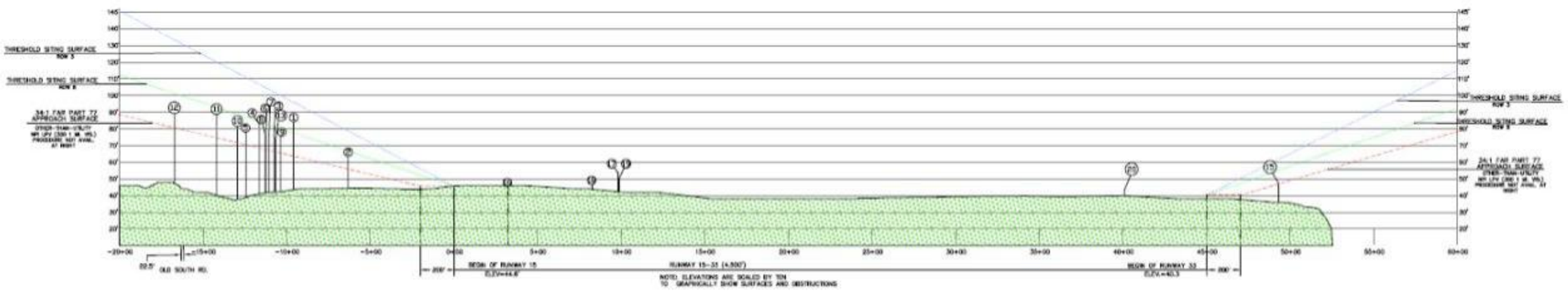


| ID | SURFACE | OBJECT | ELEVATION (MSL) | SURFACE HEIGHT (MSL) | PENETRATION AMOUNT |
|---|---|---|---|---|---|
| 1 | RW 15 Approach | Building | 75.40 | 66.90 | 8.51 |
| 2 | RW 15 Approach | Building | 63.53 | 57.29 | 6.24 |
| 3 | RW 15 Approach | Utility Pole | 74.98 | 70.26 | 4.72 |
| 4 | RW 15 Approach | Utility Pole | 83.05 | 72.89 | 10.16 |
| 5 | RW 15 Approach | Utility Pole | 78.05 | 75.23 | 2.82 |
| 6 | RW 15 Approach | Tree | 80.06 | 71.73 | 8.33 |
| 7 | RW 15 Approach | Tree | 76.49 | 71.20 | 5.28 |
| 8 | RW 15 Approach | Tree | 77.39 | 71.84 | 5.55 |
| 9 | RW 15 Approach | Tree | 75.69 | 69.14 | 6.56 |
| 10 | RW 15 Approach | Tree | 81.58 | 76.75 | 4.83 |
| 11 | RW 15 Approach | Tree | 88.72 | 80.40 | 8.32 |
| 12 | RW 15 Approach | Tree | 89.35 | 87.78 | 1.56 |
| 13 | RW 15 Approach | Building | 73.78 | 70.00 | 3.78 |
| 14 | RW 24 Approach | Tree | 110.93 | 110.24 | 0.68 |
| 15 | RW 33 Approach | Tree | 47.57 | 47.11 | 0.46 |
| 16 | 15-33 Primary | Ground | 45.32 | 44.14 | 1.18 |
| 17 | 15-33 Primary | Glideslope | 53.68 | 43.57 | 10.10 |
| 18 | 15-33 Primary | Ground | 46.63 | 43.70 | 2.92 |
| 19 | 15-33 Primary | Glideslope Shelter | 50.10 | 43.56 | 6.54 |
| 20 | 15-33 Primary | Light | 43.79 | 40.93 | 2.86 |

NOTES:
(1) AERIAL IMAGERY AND OBSTRUCTIONS COMPILED BY THE SANBORN MAPPING CO. INC. ON SEPT. 7, 2013;
(2) COORDINATE SYSTEM NAD 83 STATE PLANE FT. MA ISLAND;
(3) AIRPORT ELEVATION IS 47' MSL (MEAN SEA LEVEL).

GRAPHIC SCALE
200 0 150 300 600
( IN FEET )
1 inch = 300 ft.

INNER PORTION OF THE APPROACH SURFACE RW 15-33

NANTUCKET MEMORIAL AIRPORT
JACOBS

Sheet reference number: 5

*Drawing not to scale

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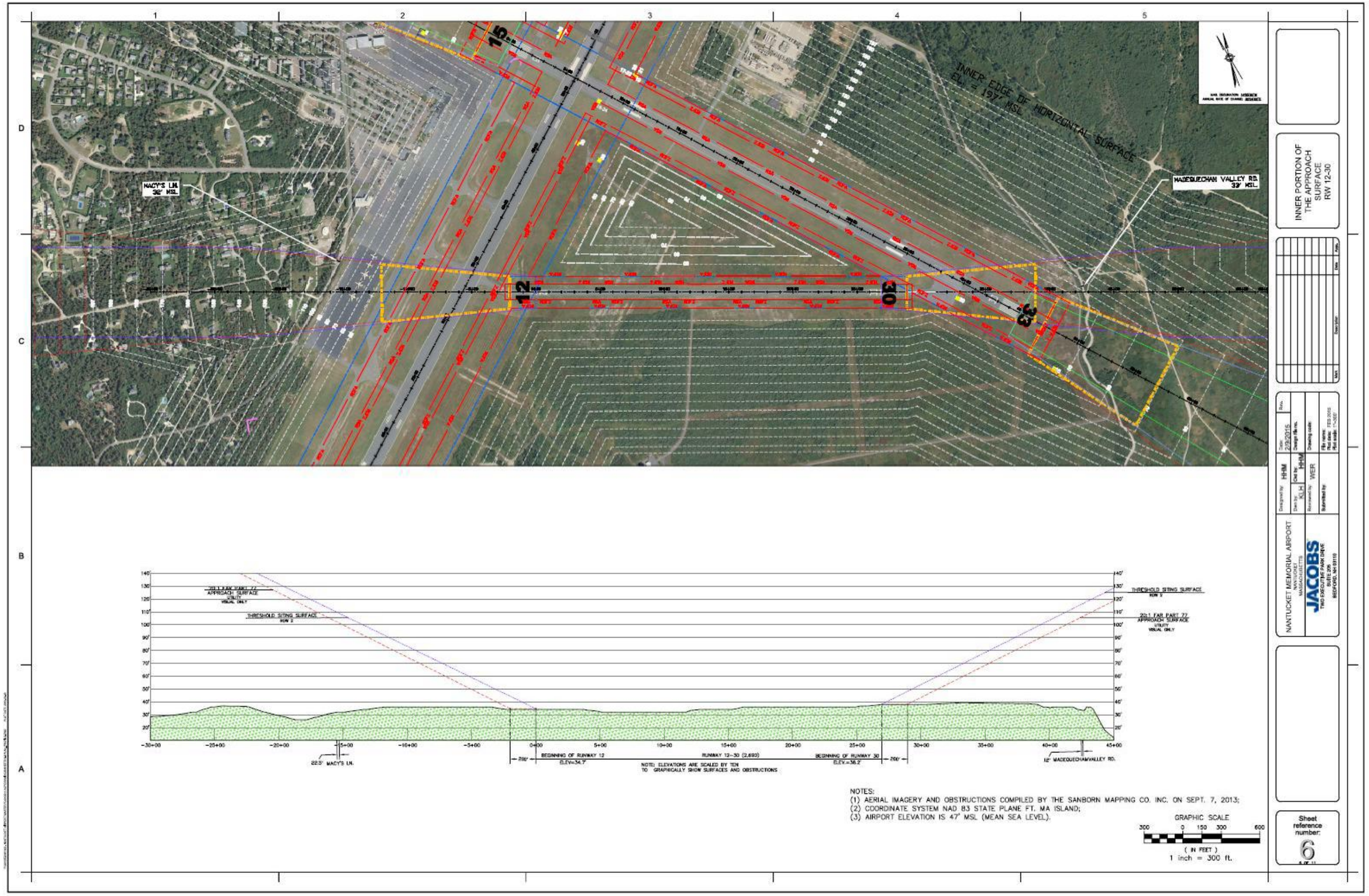


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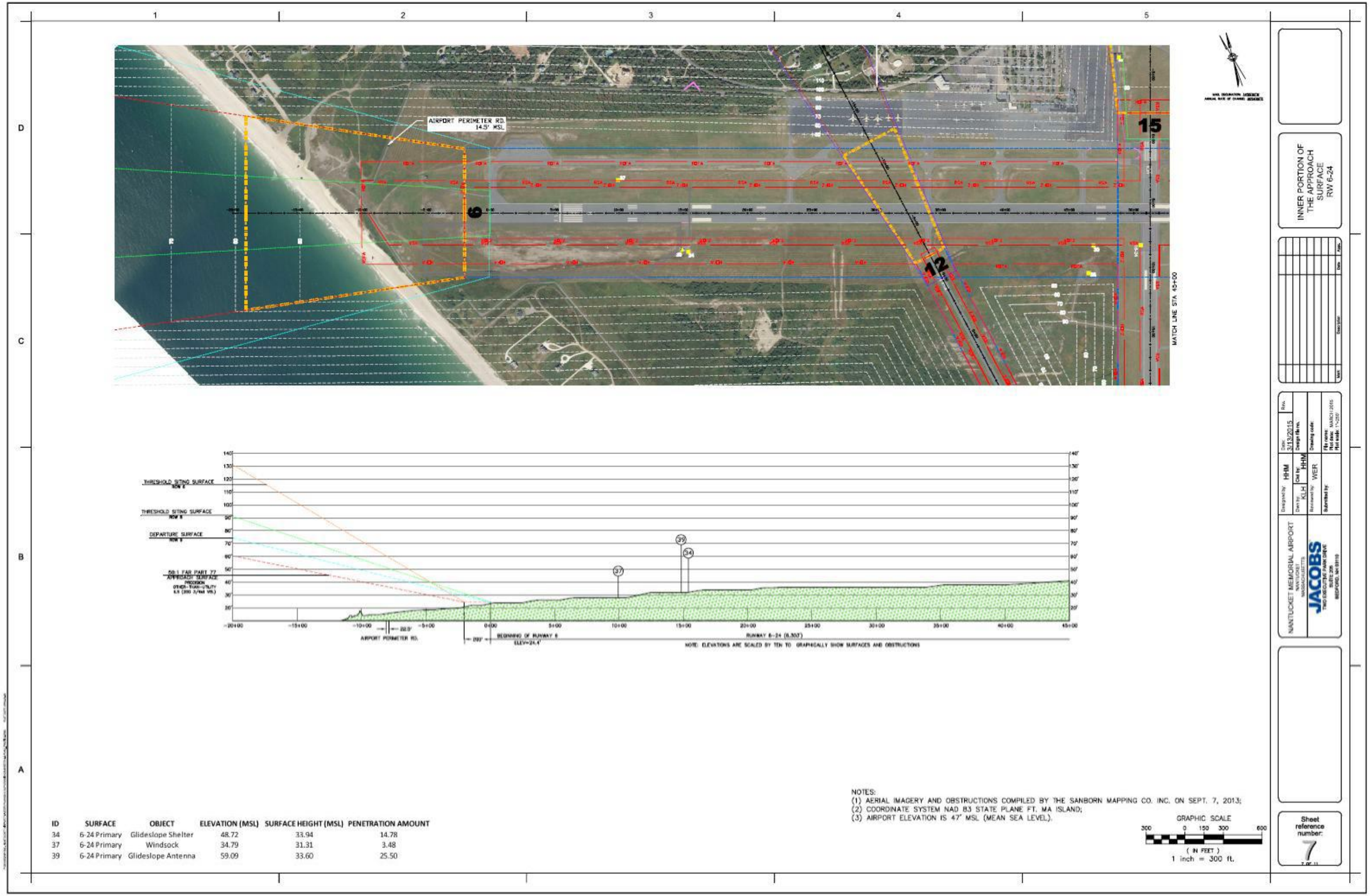


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GRAPHIC SCALE
300 0 150 300 600
( IN FEET )
1 inch = 300 ft.

| ID | SURFACE | OBJECT | ELEVATION (MSL) | SURFACE HEIGHT (MSL) | PENETRATION AMOUNT |
|---|---|---|---|---|---|
| 34 | 6-24 Primary | Glideslope Shelter | 48.72 | 33.94 | 14.78 |
| 37 | 6-24 Primary | Windsock | 34.79 | 31.31 | 3.48 |
| 39 | 6-24 Primary | Glideslope Antenna | 59.09 | 33.60 | 25.50 |

*Drawing not to scale

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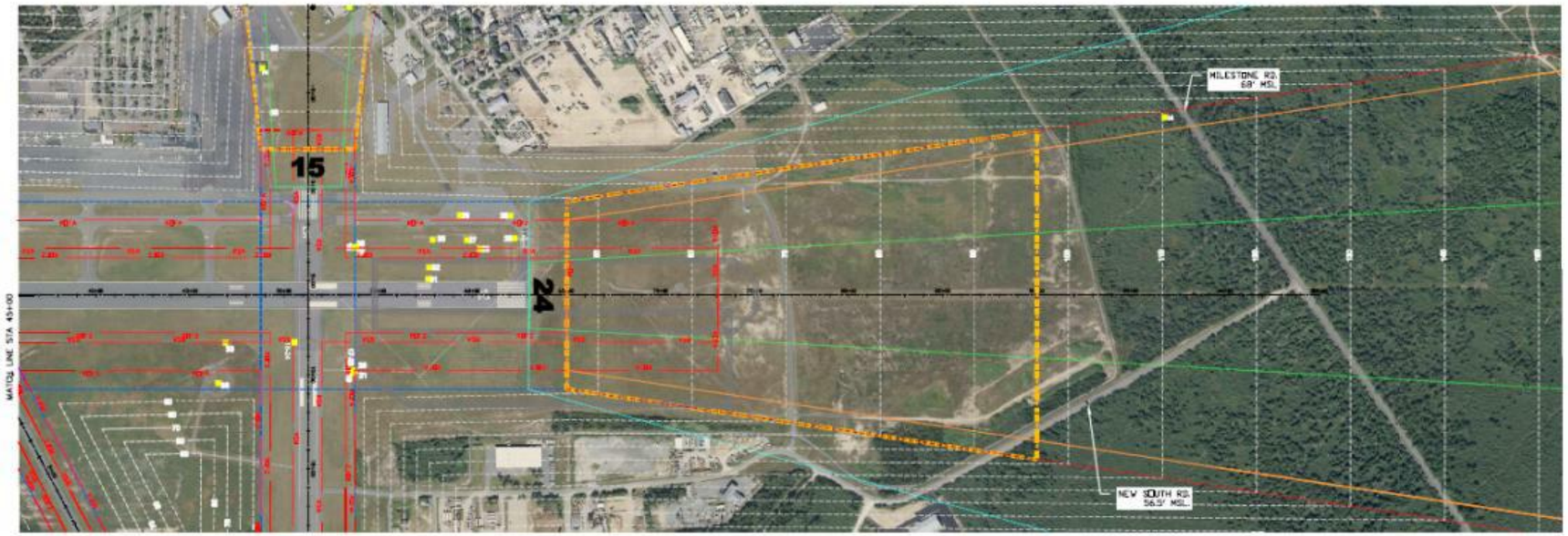


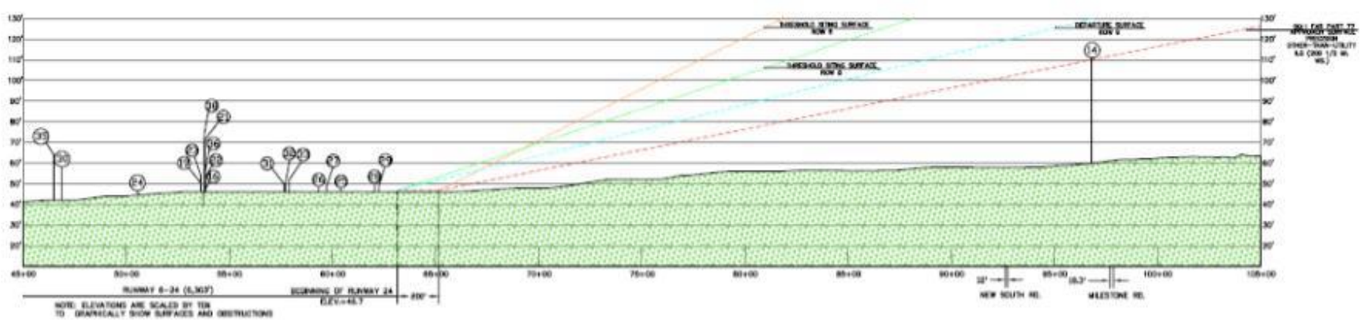


| ID | SURFACE | OBJECT | ELEVATION (MSL) | SURFACE HEIGHT (MSL) | PENETRATION AMOUNT |
|---|---|---|---|---|---|
| 10 | 20:1 Approach | Tree | 100.83 | 100.34 | 0.49 |
| 21 | 6-24 Primary | Ground | 71.19 | 46.30 | 24.89 |
| 22 | 6-24 Primary | Ground | 55.25 | 46.30 | 8.95 |
| 23 | 6-24 Primary | Building | 53.68 | 46.29 | 7.39 |
| 24 | 6-24 Primary | Ground | 46.83 | 44.73 | 1.88 |
| 25 | 6-24 Primary | V-ATTL-PRNT-MSC | 46.67 | 45.86 | 1.16 |
| 26 | 6-24 Primary | Ground | 46.89 | 45.87 | 1.02 |
| 27 | 6-24 Primary | Ground | 46.85 | 45.93 | 1.09 |
| 28 | 6-24 Primary | Ground | 50.37 | 46.84 | 3.54 |
| 29 | 6-24 Primary | Ground | 49.18 | 46.83 | 2.34 |
| 30 | 6-24 Primary | V-ALPD-AIDS-PRNT-MISC | 58.10 | 42.65 | 15.46 |
| 31 | 6-24 Primary | V-ALPD-AIDS-PRNT-MISC | 49.84 | 47.01 | 2.83 |
| 32 | 6-24 Primary | V-ALPD-AIDS-PRNT-MISC | 48.71 | 47.01 | 1.71 |
| 33 | 6-24 Primary | V-ALPD-AIDS-PRNT-MISC | 51.91 | 47.00 | 4.91 |
| 34 | 6-24 Primary | V-ALPD-AIDS-PRNT-MISC | 48.72 | 33.94 | 14.78 |
| 35 | 6-24 Primary | Windsock | 65.93 | 42.56 | 23.37 |
| 36 | 6-24 Primary | Windsock | 55.51 | 44.30 | 9.21 |
| 38 | 6-24 Primary | Glideslope Antenna | 75.58 | 46.30 | 27.28 |

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(3) AIRPORT ELEVATION IS 47' MSL (MEAN SEA LEVEL).

GRAPHIC SCALE
300 0 150 300 600
( IN FEET )
1 inch = 300 ft.

INNER PORTION OF THE APPROACH SURFACE RW 6-24

NANTUCKET MEMORIAL AIRPORT
NANTUCKET
NANTUCKET COUNTY
MASSACHUSETTS

JACOBS
TWO CONCOURSE PARKWAY, SUITE 800
ATLANTA, GEORGIA 30328

Designed by: HHM
Drawn by: KLH
Reviewed by: WER
Submitted by:
Date: 3/13/2015
Design file no.:
Drawing scale:
File name:
Plot date: MARCH 2015
Plot scale: 1=300

Sheet reference number: 8

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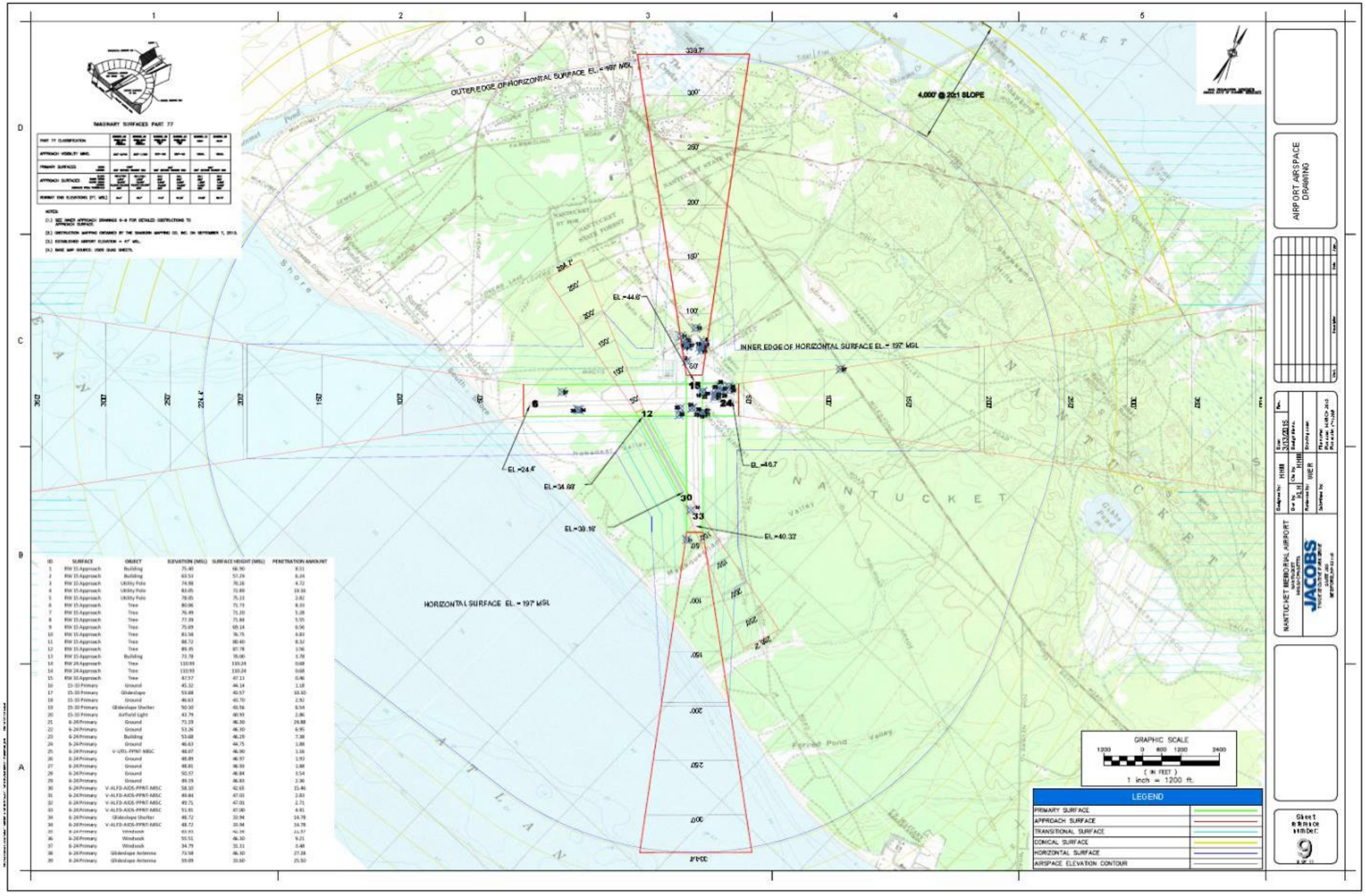


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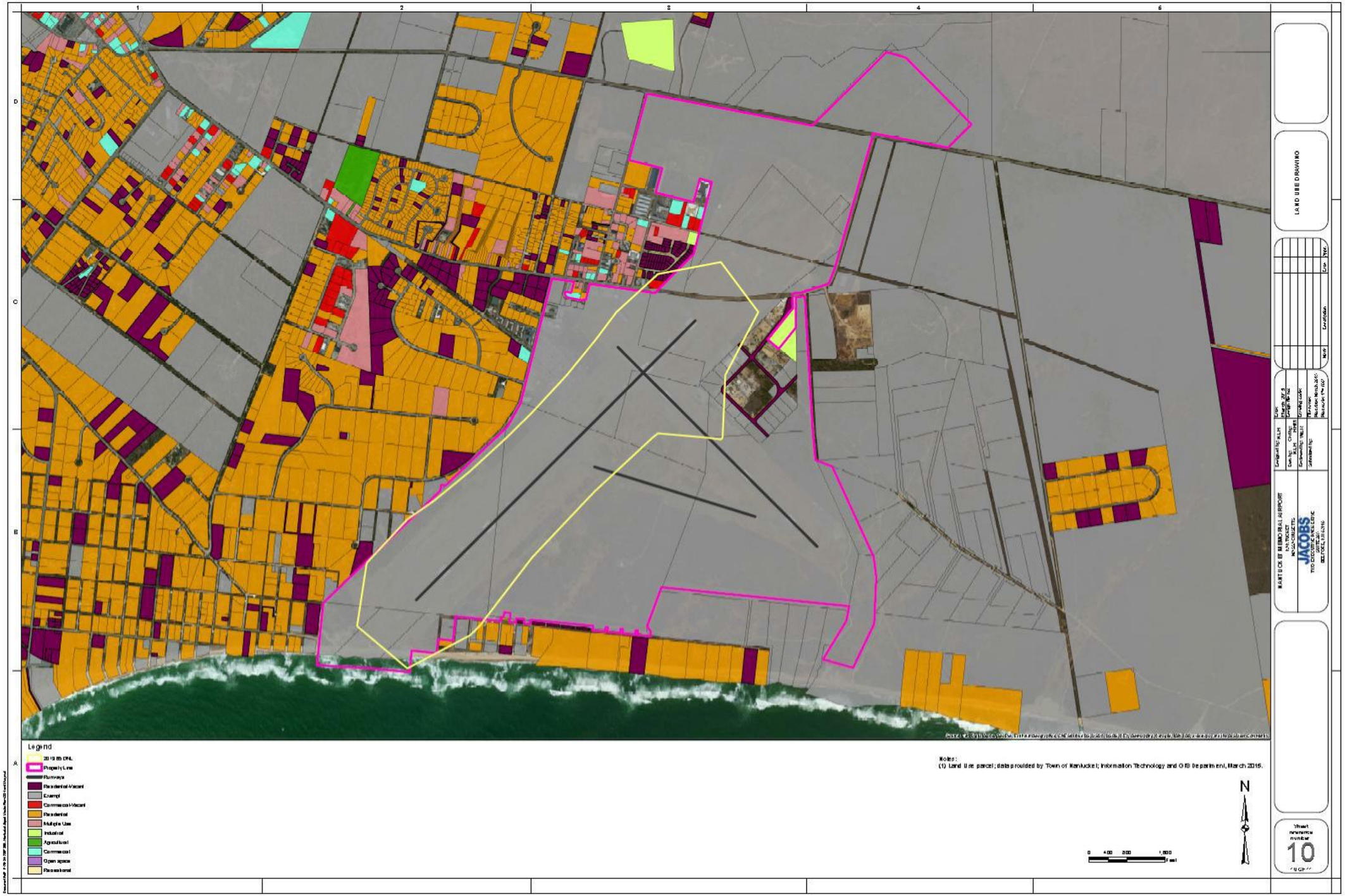


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