

PRESENTED TO:



IESALC | ILLUMINATING ENGINEERING SOCIETY of NORTH AMERICA
AVIATION LIGHTING COMMITTEE

Annual IES ALC Fall Conference 2010
Seaview Resort, Galloway, NJ | October 17-21, 2010

PANAMA CITY AIRPORT RELOCATION **CONSTRUCTION OF THE NEW NORTHWEST FLORIDA BEACHES INTERNATIONAL AIRPORT**



PRESENTED BY:



PBS&J
an Atkins company



FAITH ADAMS

FAITH ADAMS



PBS[®]
an Atkins company

AVCON

AGENDA

- AIRPORT RELOCATION
- CHALLENGES
- AIRFIELD LIGHTING & SIGNAGE
- NAVAIDS
- AIRFIELD LIGHTING VAULT
- L-890 ALCMS
- AIR TRAFFIC CONTROL TOWER (ATCT)
- CONCLUSION



AIRPORT RELOCATION



OLD AIRPORT (PFN)

RW 05/23

- 4,884-FEET X 150-FEET
- MIRL
- 4-BOX VASIs (5 & 23 APPROACHES)
- REILS

RW 14/32

- 6,308-FEET X 150-FEET
- HIRL
- 4-BOX VASI (32 APPROACH)
- REILS
- CATEGORY I ILS APPROACH
 - RW 14 ILS - GLIDESLOPE / LOCALIZER / MIDDLE MARKER
 - MALSR APPROACH LIGHTING SYSTEM



EXISTING 708 ACRE FACILITY



REASONS FOR RELOCATION

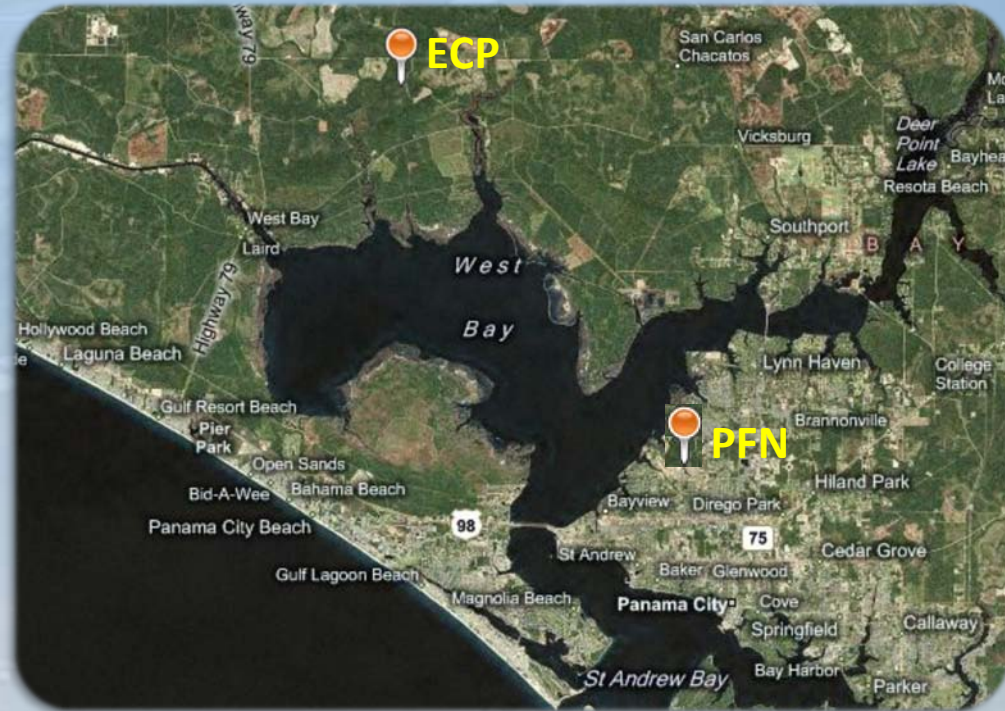
- SAFETY AREA CONCERNS
- RUNWAY LENGTHS NOT ADEQUATE FOR LARGER CARRIERS
- ANTICIPATED GROWTH IN THE REGION
- AIRSPACE CONFLICTS WITH TYNDALL AFB FOR MILITARY AIRCRAFT
- LIMITED LAND FOR AIRFIELD EXPANSION



NEW AIRPORT (ECP)

NORTHWEST FLORIDA BEACHES INTERNATIONAL AIRPORT (ECP)

- LOCATION: WEST BAY, FL
(WEST BAY COUNTY)
- COST: \$300+ MILLION
- TOTAL ACRES: 4,000
- DEVELOPED ACRES: 1,300
- LAND DONOR: THE ST. JOE COMPANY
- SALE OF FORMER AIRPORT PROPERTY FUNDED APPROXIMATELY 20% OF NEW AIRPORT
- GROUND BREAKING: NOVEMBER 2007
- OPENING DAY: MAY 23, 2010
- FIRST NEW COMMERCIAL / INTERNATIONAL AIRPORT BUILT AND COMMISSIONED IN THE UNITED STATES SINCE DENVER INTERNATIONAL IN 1994



NEW AIRPORT (ECP)

RW 16/34

- 10,000-FEET x 150-FEET
- RW 16 CAT I APPROACH
- HIRL
- TW EDGE LIGHTS (LED)
- JUNCTION CAN PLAZAS
- TDZ & CL LIGHTS
- ILS – GLIDELSOPE/LOCALIZER
- MALSR (RW 16 APPROACH)
- PAPIs (16 and 34 APPROACHES)
- REILS (RW 34 APPROACH)



NEW AIRPORT (ECP)

NEW AIRPORT (ECP)



JUNE 2008



PBS&
an Atkins company

AVCON

NEW AIRPORT (ECP)

NEW AIRPORT (ECP)



SEPTEMBER 2008



PBS&
an Atkins company

AVCON

NEW AIRPORT (ECP)

NEW AIRPORT (ECP)



NOVEMBER 2008



PBS&
an Atkins company

AVCON

NEW AIRPORT (ECP)

NEW AIRPORT (ECP)



JANUARY 2009



PBS&
an Atkins company

AVCON

NEW AIRPORT (ECP)

NEW AIRPORT (ECP)



MARCH 2010



PBS&
an Atkins company

AVCON

NEW AIRPORT (ECP)

NEW AIRPORT (ECP)



MAY 2010



PBS&
an Atkins company

AVCON

NEW AIRPORT (ECP)

NEW AIRPORT (ECP)



JUNE 2010



PBS&
an Atkins company

AVCON

NEW AIRPORT (ECP)

NEW AIRPORT (ECP)



OCTOBER 2010



PBS&
an Atkins company

AVCON

MULTIPLE BID PACKAGES

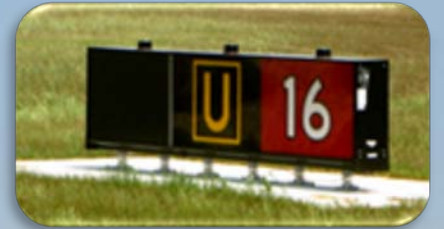
PAVING & LIGHTING PACKAGE

- **BASE BID – SITE PREPARATION & AIRFIELD LIGHTING FOR RW 16-34**
- BID ALT 1 – SITE PREPARATION FOR RW 3-21
- **BID ALT 2 – INSTALL CONCRETE PAVEMENT FOR RW 16-34**
- BID ALT 3 – INSTALL ASPHALT PAVEMENT FOR RW 16-34
- BID ALT 4 – INSTALL 25' PAVED SHOULDERS FOR RW 16-34
- BID ALT 5 – INSTALL CONCRETE PAVEMENT FOR RW 3-21
- BID ALT 6 – INSTALL ASPHALT PAVEMENT FOR RW 3-21 WITH STABILIZED BASE COURSE AND EDGE DRAINS
- **BID ALT 7 – INSTALL TDZ AND CL LIGHT CANS & CONDUIT FOR RW 16-34**
- **BID ALT 8 – INSTALL P-403 BITUMINOUS BASE COURSE IN FOR ALL BASE BID TAXIWAY AND APRON PAVEMENTS**
- BID ALT 9 – INSTALL P-403 BITUMINOUS BASE COURSE FOR THE RW 16-34 ASPHALT PAVEMENT SECTION
- BID ALT 10 – INSTALL P-403 BITUMINOUS BASE COURSE FOR ALL BID ALT 1 TW PAVEMENTS
- BID ALT 11 – INSTALL P-403 BITUMINOUS BASE COURSE FOR THE RW 3-21 ASPHALT PAVEMENT SECTION



CHALLENGES

CHALLENGES



CHALLENGES



CHALLENGES

CHALLENGES

- WATER & DRAINAGE



CHALLENGES

- COORDINATION
 - PARTNERING FIRMS / OFFICES
 - PARTNERING AGENCIES
 - MULTIPLE BID PACKAGES & ALTERNATIVES
 - PAVING AND LIGHTING PACKAGE
 - 11 BID ALTERNATIVES
 - NAVAIDS PACKAGE
 - UNCOMMUNICATED CHANGES



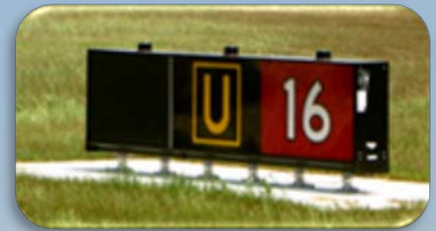
CHALLENGES

CHALLENGES?

- OPENING DAY CHALLENGES
 - ROADWAY SIGNAGE
 - PASSENGER PARKING
 - NOTAMS AND SWITCHOVER
 - PUBLISHED APPROACHES
 - SOUTHWEST AIRLINES
 - SCHEDULED AND TICKETED FLIGHTS

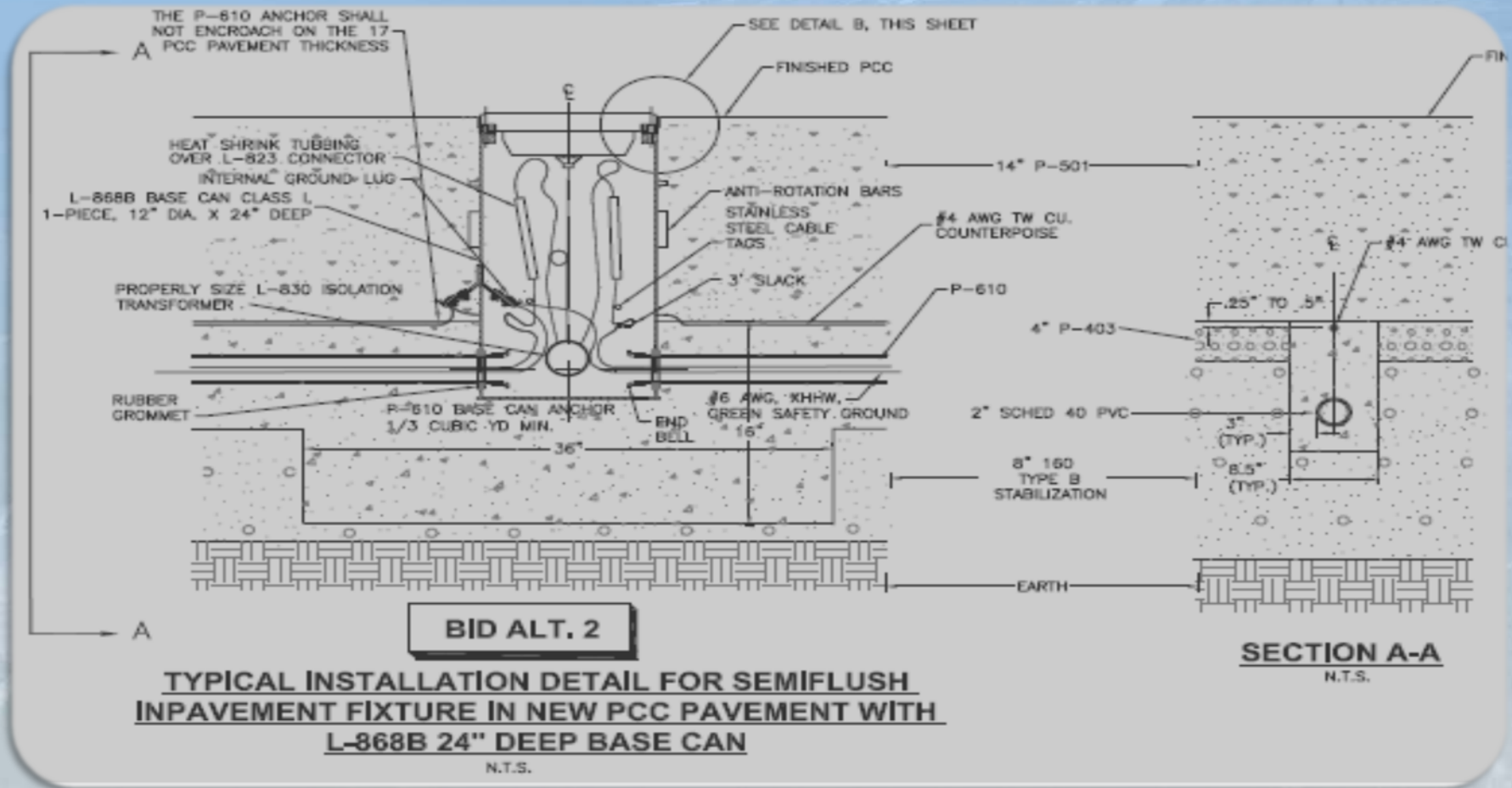


AIRFIELD LIGHTING & SIGNAGE



IN-PAVEMENT LIGHT DETAIL

IN-PAVEMENT LIGHT DETAIL



C/L LIGHT CAN INSTALLATION



PBSJ[®]
an Atkins company

AVCON

READY FOR PAVING

READY FOR PAVING

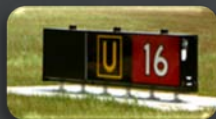


PBS&
an Atkins company

AVCON

CENTERLINE LIGHT CAN OPEN

CENTERLINE LIGHT CAN OPEN



PBSJ[®]
an Atkins company

AVCON

CENTERLINE LIGHT COMPLETE

CENTERLINE LIGHT COMPLETE



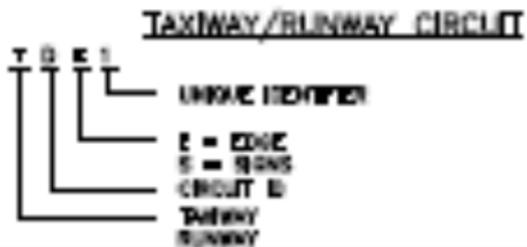
PBSJ[®]
an Atkins company

AVCON

TAXIWAY EDGE LIGHT (LED)

CIRCUIT DESIGNATIONS AND CALLOUTS

CIRCUIT DESIGNATIONS AND CALLOUTS



AIRFIELD SIGNAGE



JUNCTION CAN PLAZA



JUNCTION CAN PLAZA

JUNCTION CAN PLAZA



JUNCTION CAN PLAZA



JUNCTION CAN PLAZA

JUNCTION CAN PLAZAS MITIGATE THE HAZARDS OF MANHOLES:

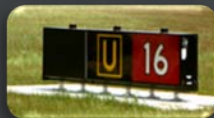
- CONFINED SPACE ENTRY
- ENTRAPMENT
- OXYGEN DEFICIENT ATMOSPHERE
- FLAMMABLE ATMOSPHERE
- ELECTROCUTION



JUNCTION CAN PLAZA

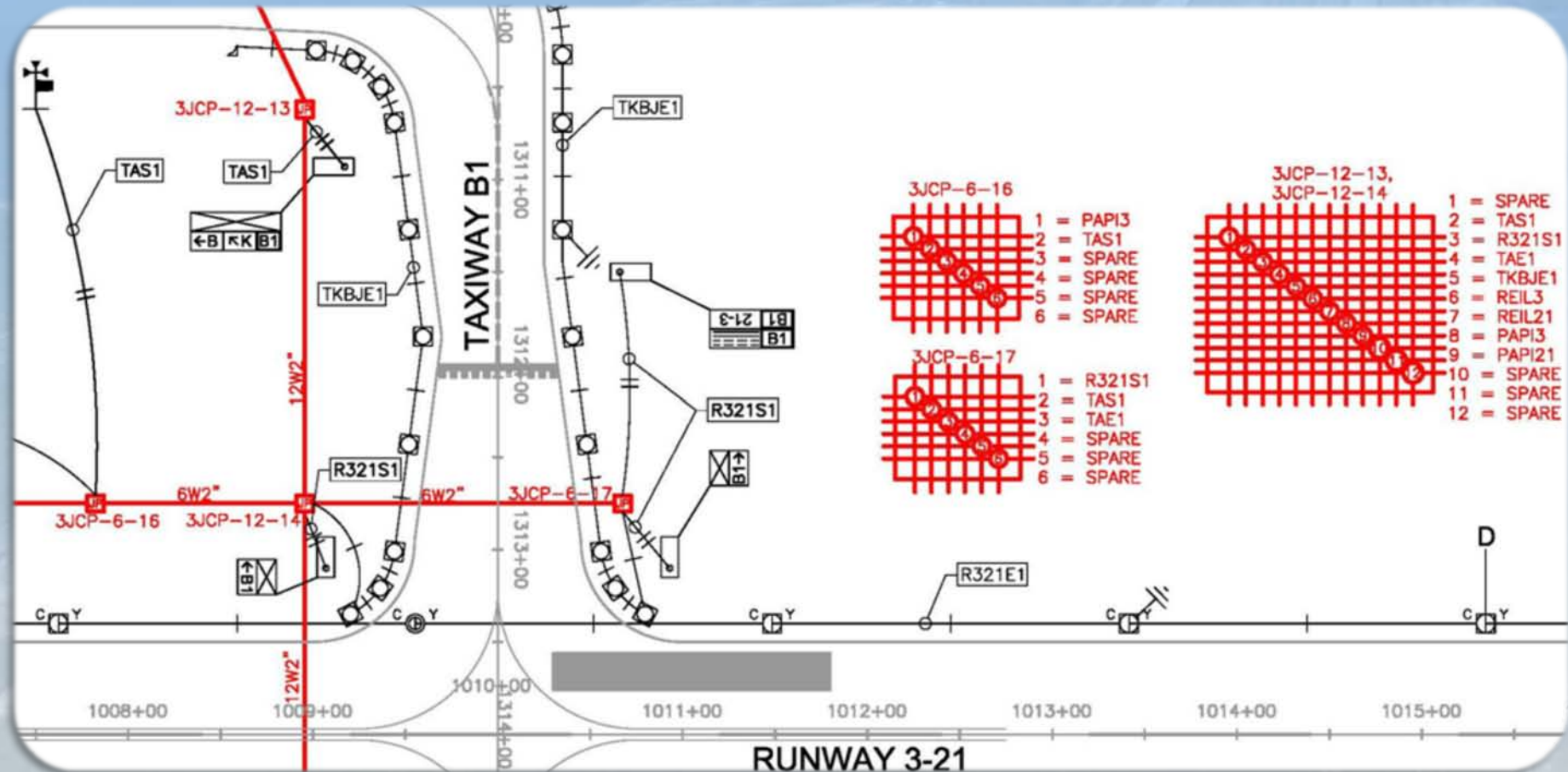
JUNCTION CAN PLAZAS PROVIDE ADDITIONAL CIRCUIT ISOLATION AND PROTECTION:

- A SHORT IN ONE CIRCUIT WILL NOT DAMAGE A SECOND CIRCUIT
- A SHORT IN ONE CIRCUIT WILL NOT ENERGIZE ANOTHER CIRCUIT



JUNCTION CAN PLAZA

JUNCTION CAN PLAZA



JUNCTION CAN PLAZA

JUNCTION CAN PLAZA



PBSJ[®]
an Atkins company

AVCON

JUNCTION CAN PLAZA

JUNCTION CAN PLAZA



PBS&
an Atkins company

AVCON

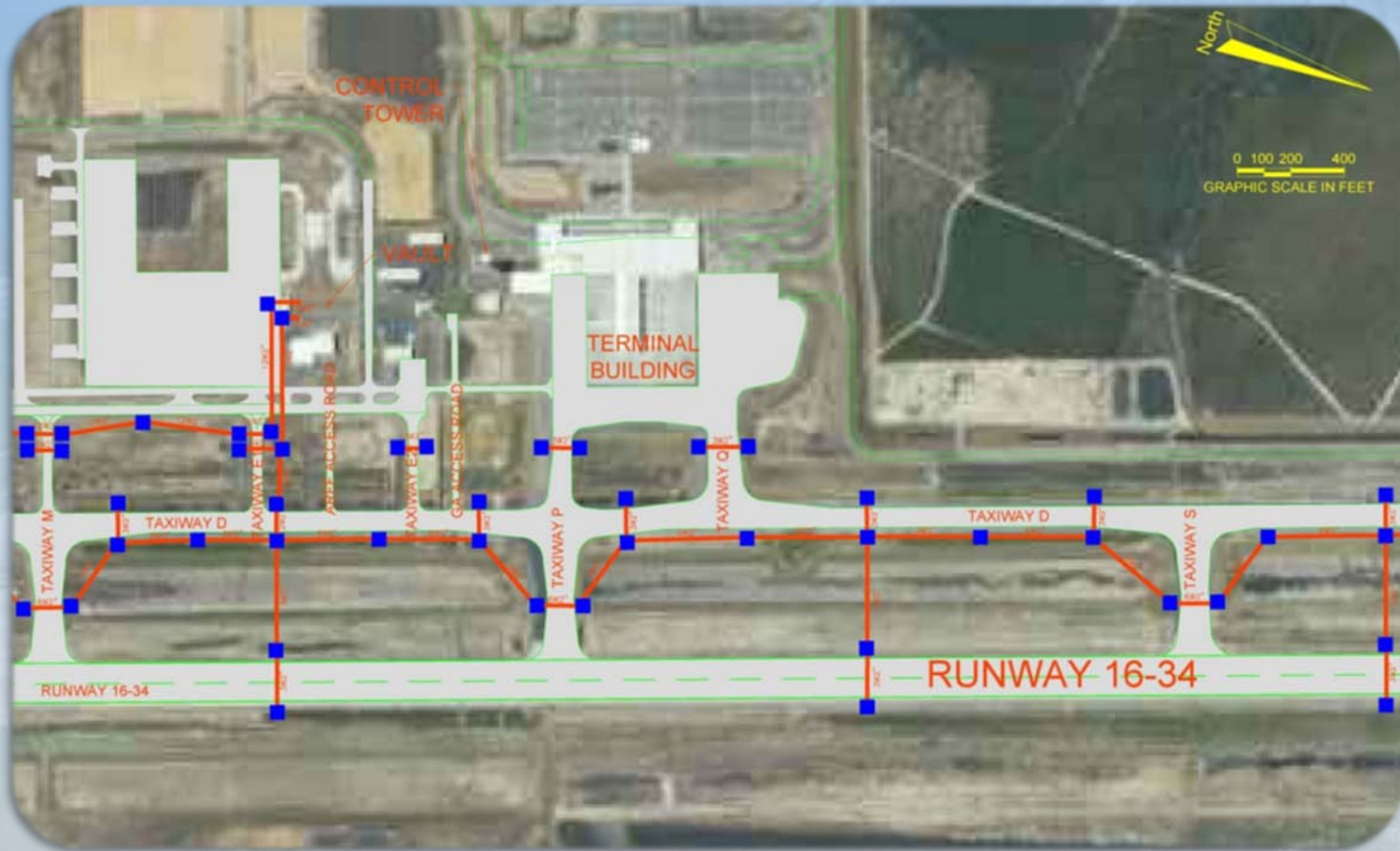
JUNCTION CAN PLAZA

CONDUIT TRENCH AND BACKFILL



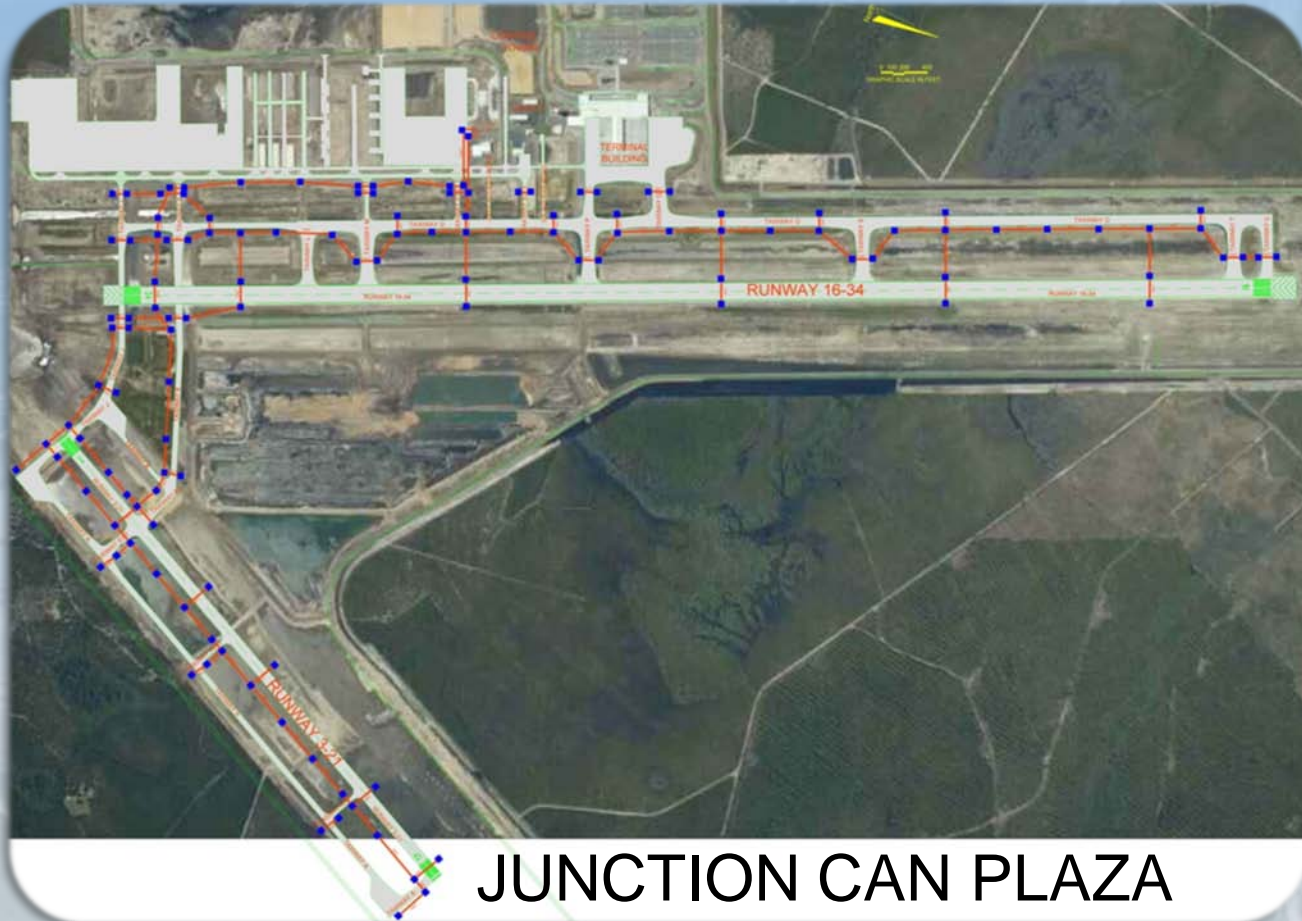
JUNCTION CAN PLAZA

JUNCTION CAN PLAZA



JUNCTION CAN PLAZA

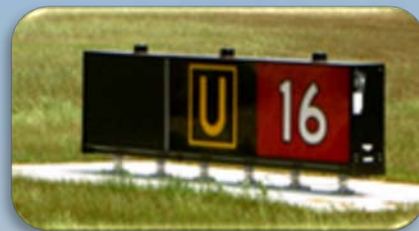
JUNCTION CAN PLAZA



JUNCTION CAN PLAZA



NAVAIDS



CATEGORY I ILS

NON-FED FACILITIES

- RUNWAY 16 GLIDE SLOPE
- RUNWAY 16 LOCALIZER
- RUNWAY 16 DME
- RUNWAY 16 MALSR
- RTR *
- AUTOMATED SURFACE OBSERVING SYSTEM (ASOS)



RUNWAY 16 LOCALIZER



RUNWAY 16 GLIDESLOPE



RUNWAY 16 MALSR



VISUAL APPROACH AIDS

- 4-BOX PAPI
 - RW 16 APPROACH
 - RW 34 APPROACH



- REIL
 - RW 34 APPROACH



RTR SITE

RTR SITE

Before



REMOTE
TRANSMITTER
RECEIVER
(RTR)



AUTOMATED
SURFACE
OBSERVING
SYSTEMS
(ASOS)



After



RTR SITE

RTR SITE

- NON-FED FACILITY
- SITE → EQUIPMENT
- ADDITIONAL FAA RACKS
- GENERATOR
- FREQUENCIES

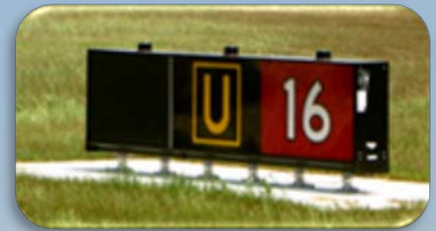


COORDINATION

- FEDERAL AVIATION ADMINISTRATION (FAA)
- US AIR FORCE (USAF) / TYNDALL AFB
- FEDERAL COMMUNICATIONS COMMISSION (FCC)
- NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION (NTIA)
 - OFFICE OF SPECTRUM MANAGEMENT (OSM)
 - INTERDEPARTMENT RADIO ADVISORY COMMITTEE (IRAC)
 - MILITARY ASSIGNMENT GROUP (MAG)



AIRFIELD LIGHTING VAULT



AIRFIELD LIGHTING VAULT

Vaults house the regulator and control equipment, emergency generator and power transfer switch, and other electrical equipment needed for operation of the airfield lighting system. The vault may be a separate building or structure, or an enclosure within a larger structure, as appropriate. Vaults must be of concrete or masonry construction meeting all building codes for the type of structure.



OLD PFN VAULT



PBSJ
an Atkins company

AVCON

OLD PFN VAULT



NEW ECP VAULT



PBS&
an Atkins company

AVCON

NEW ECP VAULT

NEW ECP VAULT



PBSJ[®]
an Atkins company

AVCON

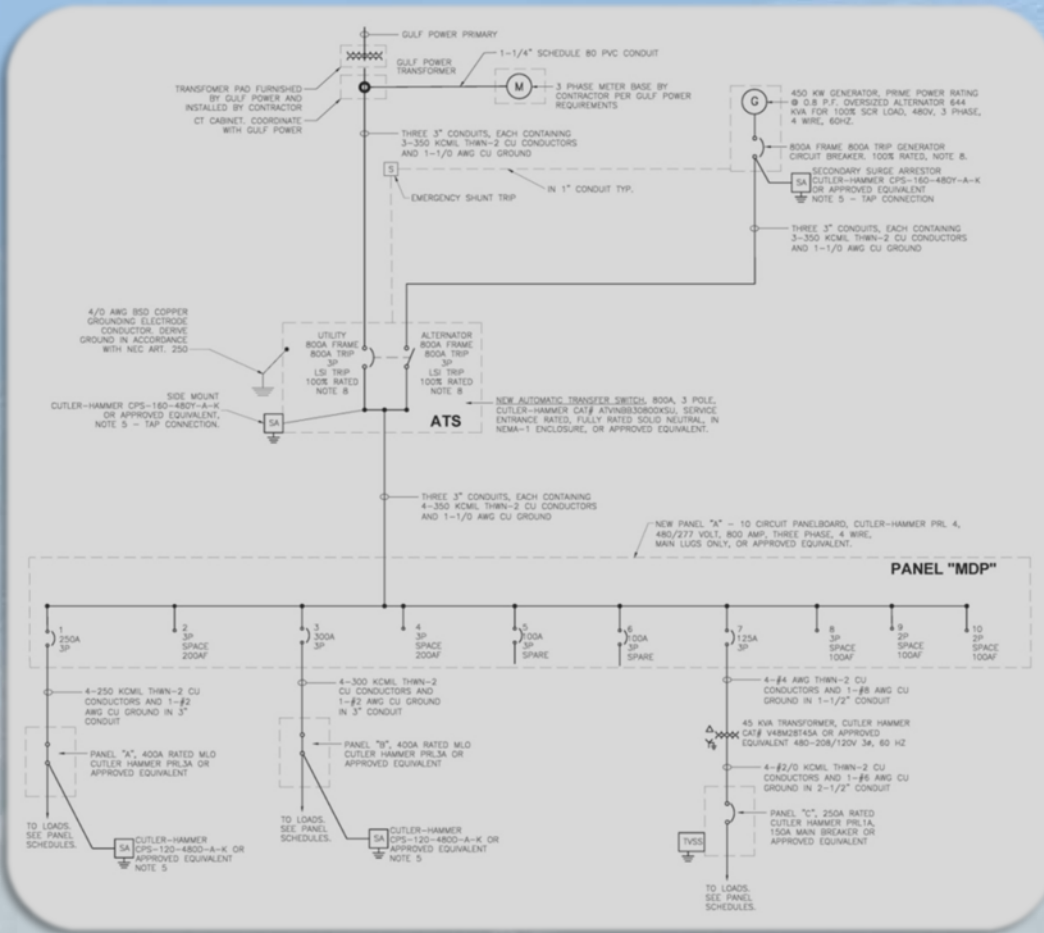
NEW ECP VAULT



PBS&
an Atkins company

AVCON

NEW ECP VAULT



NORTHWEST FLORIDA
BEACHES INTERNATIONAL
AIRPORT

ONE-LINE DIAGRAM



NEW ECP VAULT

- UTILITY – 800 AMP, 480Y/277 VOLT, THREE PHASE, 4-WIRE ELECTRICAL SERVICE
- ATS – 800 AMP, 480Y/277 VOLT, THREE PHASE, 4-WIRE. ATS INCORPORATES UTILITY MAIN CB
- MDP – 800 AMP, 480Y/277 VOLT, THREE PHASE, 4-WIRE ELECTRICAL SERVICE
- PANEL A AND PANEL B POWER THE CCRs



NEW ECP VAULT



PBS&J
an Atkins company

AVCON

NEW ECP VAULT

- GENERATOR – 450 KW, 644 KVA DIESEL , 480Y/277 VOLT, THREE PHASE, 4-WIRE PRIME MOVER
- EQUIPPED WITH 2,000 GALLON DIESEL TANK
 - GENERATOR WILL OPERATE @
 - FULL LOAD FOR 60 HOURS AT 33 GALLONS/HOUR
 - HALF LOAD FOR 95 HOURS AT 21 GALLONS/HOUR



NEW ECP VAULT



PBS&
an Atkins company

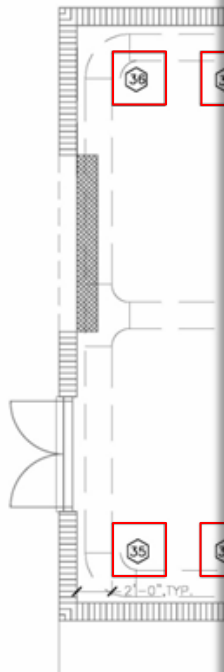
AVCON

NEW ECP VAULT

13

Panel "A"

Panel "B"



PBS&
an Atkins company

AVCON

NEW ECP VAULT



PBS&
an Atkins company

AVCON

L-890 ALCMS



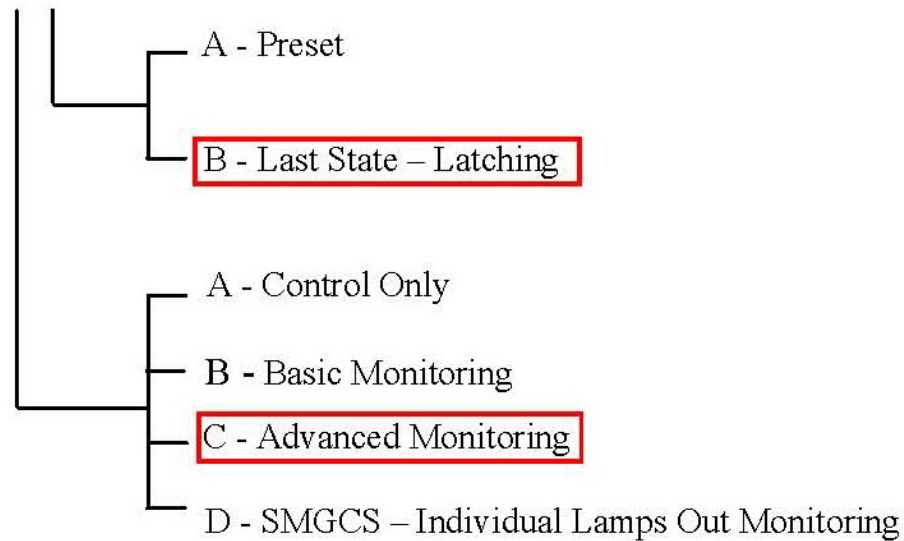
L-890 ALCMS

1.2.1 Type.

The following types of systems are covered by this specification:

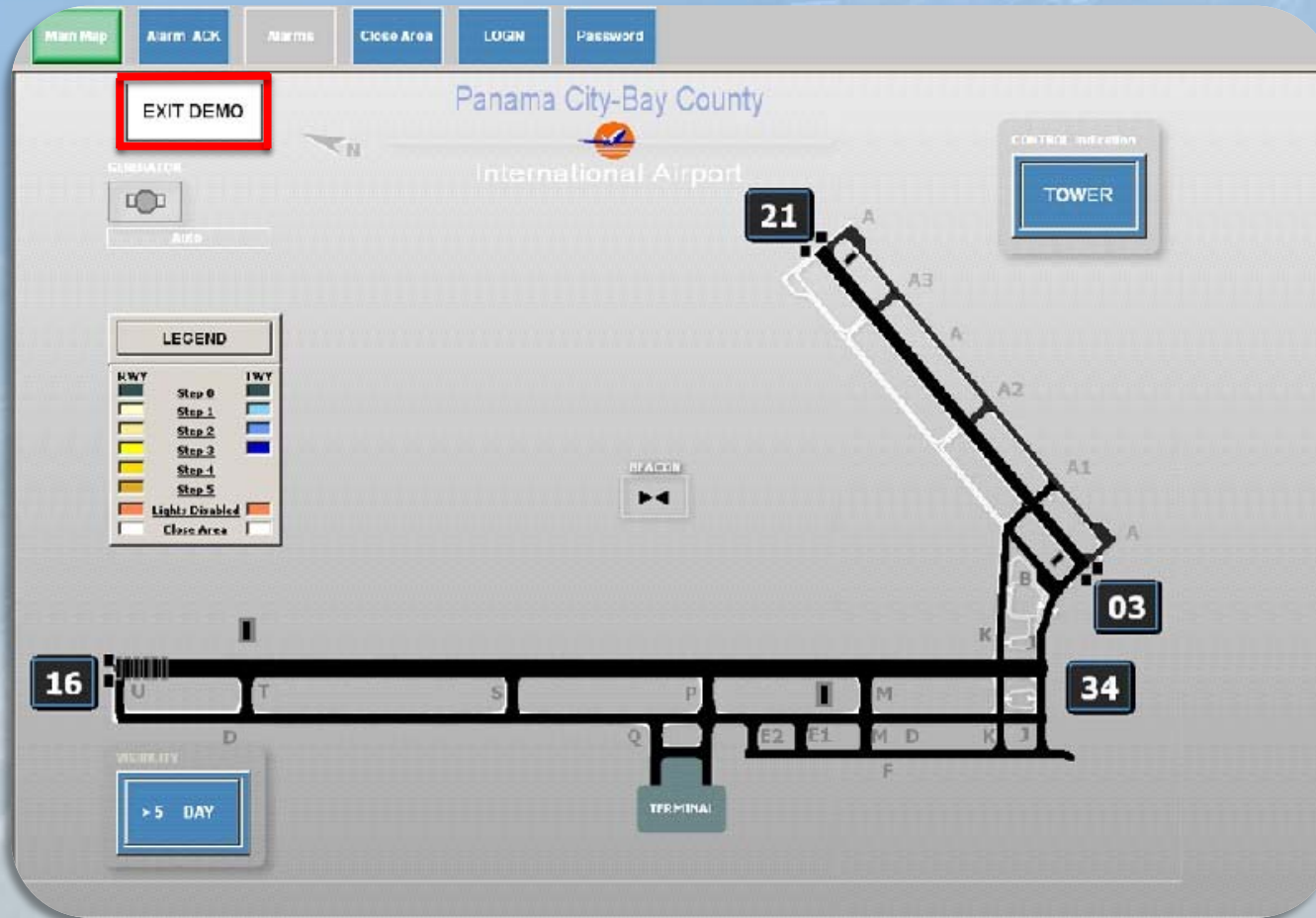
Table 1. ALCMS Classification Types

L-890 X Y

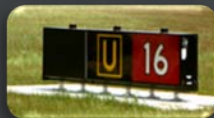


L-890 ALCMS

L-890 ALCMS



DEMONSTRATION
PROGRAM



L-890 ALCMS

L-890 ALCMS



FACTORY
ACCEPTANCE TEST
(FAT)



PBS&
an Atkins company

AVCON

L-890 ALCMS

L-890 ALCMS



FACTORY ACCEPTANCE
TEST
(FAT)

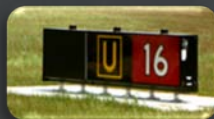


PBS&
an Atkins company

AVCON

L-890 ALCMS

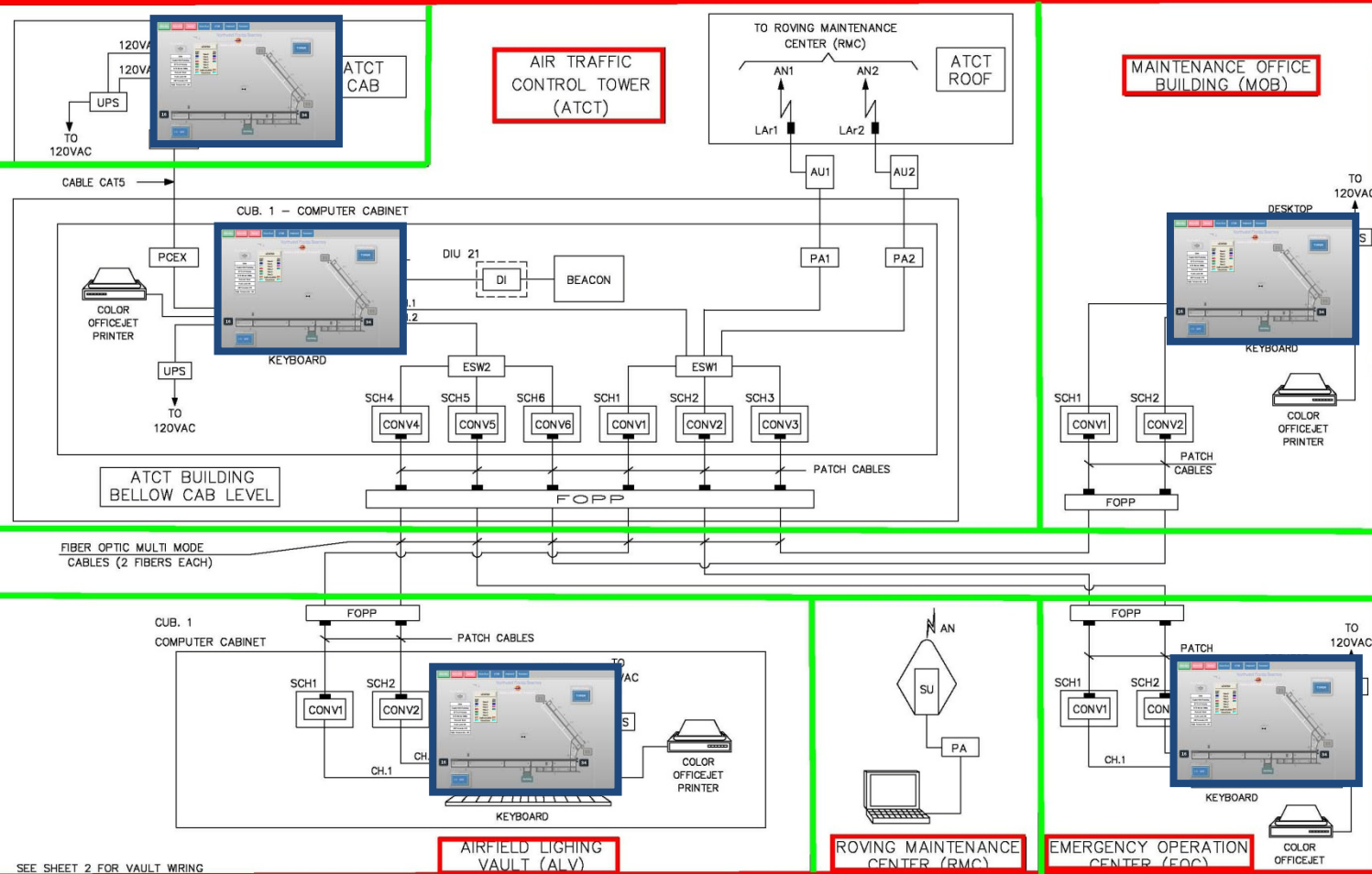
L-890 ALCMS



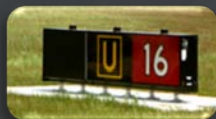
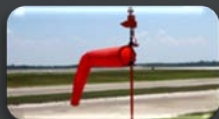
PBS&
an Atkins company

AVCON

L-890 ALCMS

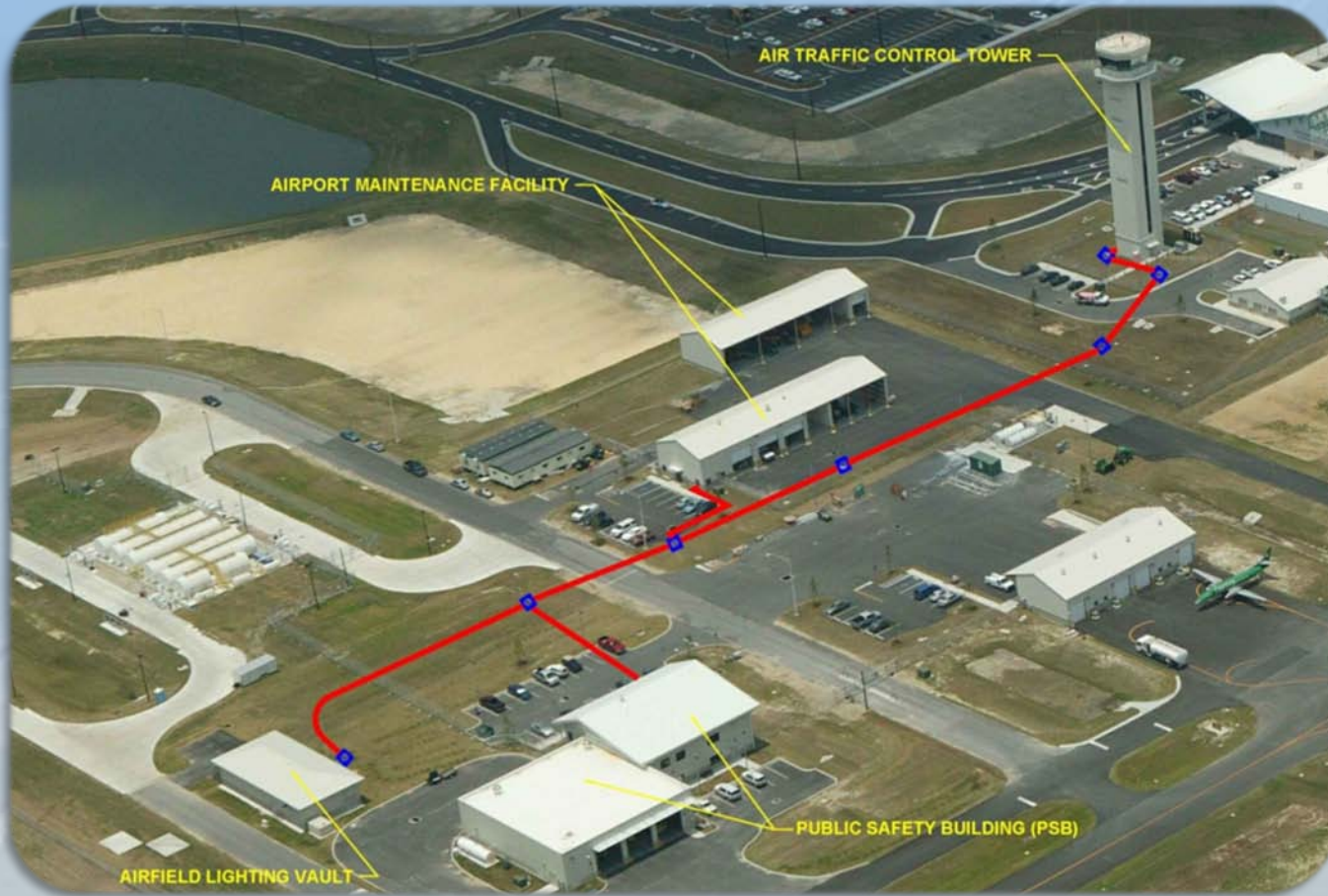


ALCMS
ONE-LINE



L-890 ALCMS

L-890 ALCMS



ALCMS FIBER
OPTIC CABLE



PBSJ
an Atkins company

AVCON

L-890 ALCMS

L-890 ALCMS



U.S. DEPARTMENT OF
TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
Air Traffic Organization Policy

ORDER
JO 7410.65T
Effective Date:
February 11,
2010

Subject: Air Traffic Control

Includes: Change 1 dated 8/26/2010

Home Page

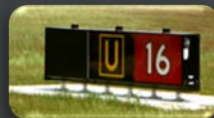
Cover - [Change 1](#)
Cover - [Basic](#)
Explanation of Changes - [Change 1](#)
Explanation of Changes - [Basic](#)
[Chapter 1. General](#)
[Chapter 2. General Control](#)
[Chapter 3. Airport Traffic Control: Terminal](#)
[Chapter 4. IFR](#)
[Chapter 5. Radar](#)
[Chapter 6. Nonradar](#)
[Chapter 7. Visual](#)
[Chapter 8. Offshore/Oceanic Procedures](#)
[Chapter 9. Special Flights](#)
[Chapter 10. Emergencies](#)
[Chapter 11. Traffic Management Procedures](#)
[Chapter 12. Canadian Airspace Procedures](#)
[Chapter 13. Decision Support Tools](#)
[Appendices](#)
[Pilot/Controller Glossary](#)
[Index](#)
[Briefing Guide - Basic](#)
[Briefing Guide - Change 1](#)

[Return to Air Traffic Publications Library](#)

[Return to Order Home Page](#)

[Return to Table of Contents](#)

ALCMS TOUCH SCREEN IN ATCT CAB

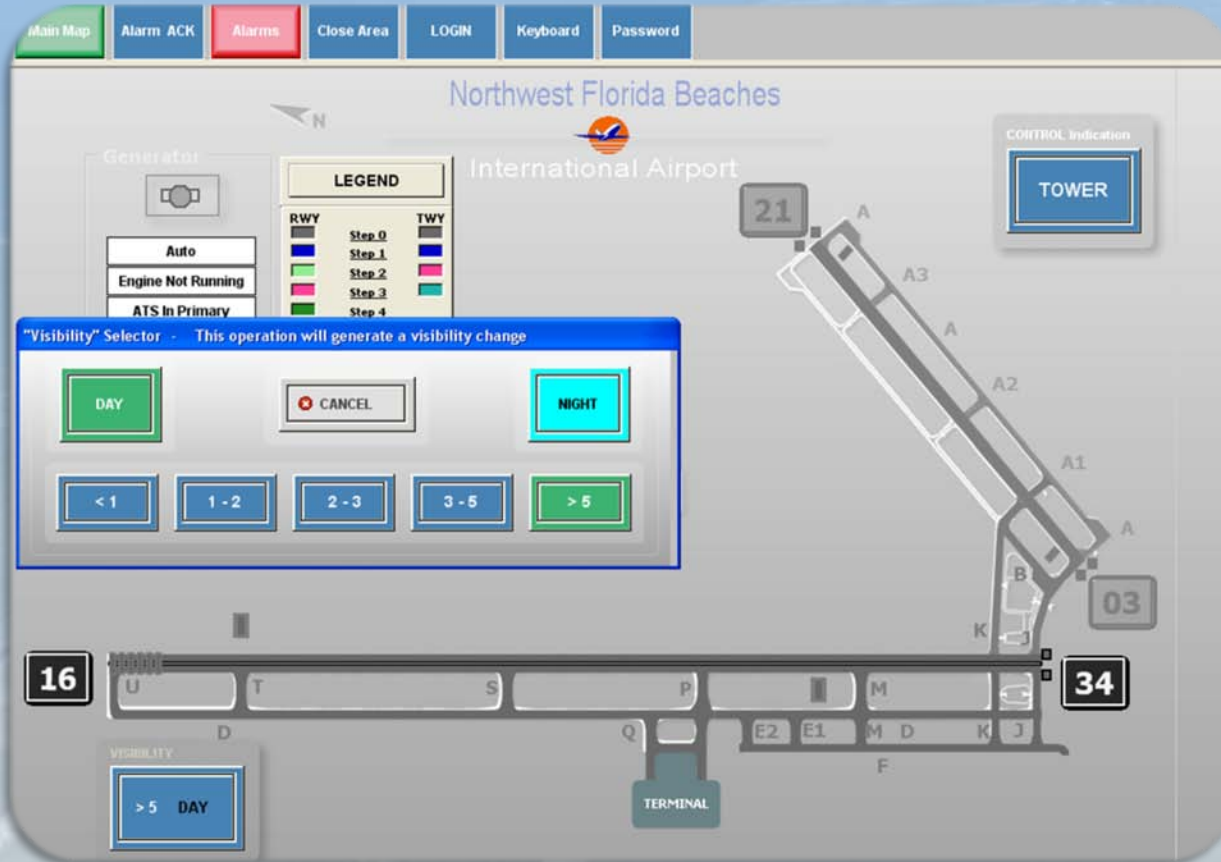


PBS
an Atkins company

AVCON

L-890 ALCMS

L-890 ALCMS

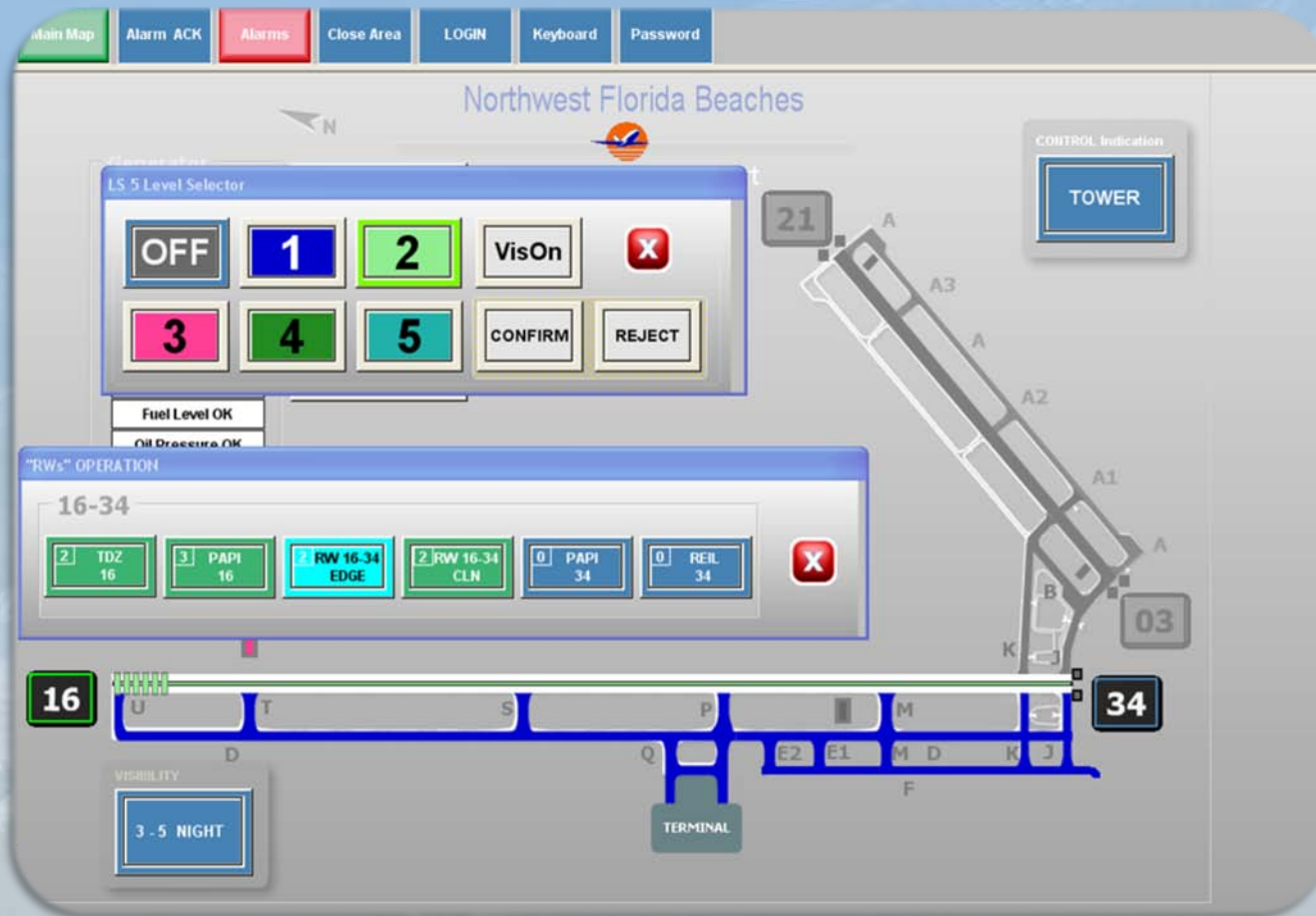


PRESET PAGE



L-890 ALCMS

L-890 ALCMS



MANUAL
SETTINGS



L-890 ALCMS

L-890 ALCMS

Main Map Alarm ACK Alarms Close Area LOGIN Keyboard Password

File View Options Help

Pass

(08:49:46 05/26/10) CCR TDE2 : Brightness Inconsistency Alarm: 0 instead of 3

PanamaCityBayCounty
Elements
Events Types
Events in Elements
Events

Count	<input type="checkbox"/>	A...	Alarm Type	Time	E...	P...	Site	System name	BE ID	Description
2	<input type="checkbox"/>	ALARM	08:49:46 05/26/10	0	VAU...	CCR TDE2	825	Brightness Inconsistency Alarm: 0 instead of 3		
3	<input type="checkbox"/>	ALARM	08:49:46 05/26/10	0	VAU...	CCR TDE1	642	Brightness Inconsistency Alarm: 0 instead of 3		
4	<input type="checkbox"/>	ALARM	08:49:46 05/26/10	0	VAU...	CCR R16P1	1008	Brightness Inconsistency Alarm: 0 instead of 4		
5	<input type="checkbox"/>	ALARM	08:49:46 05/26/10	0	VAU...	CCR R34E1	270	Brightness Inconsistency Alarm: 0 instead of 5		
6	<input type="checkbox"/>	ALARM	08:49:46 05/26/10	0	VAU...	CCR R16E1	209	Brightness Inconsistency Alarm: 0 instead of 5		
7	<input type="checkbox"/>	ALARM	08:49:46 05/26/10	0	VAU...	CCR R16TDZ	6431	Brightness Inconsistency Alarm: 0 instead of 5		
8	<input type="checkbox"/>	ALARM	08:49:46 05/26/10	0	VAU...	CCR R1634CL	6297	Brightness Inconsistency Alarm: 0 instead of 5		
9	<input type="checkbox"/>	ALARM	08:34:28 05/26/10	0	TO...	TOWER	16	No communication to VAULT		

ALARM PAGE



L-890 ALCMS

L-890 ALCMS

Active	Alarm Type	Expire Time	Priority	Description	Time	System name
<input type="checkbox"/>	WARNING	0	0	CCR RGL in local Position	11:42:10 01/10/06	CCR RGL
<input type="checkbox"/>	WARNING	0	0	Loss of input power to CCR RGL	11:42:21 01/10/06	CCR RGL

EVENT LOG



ATCT



EQUIPMENT ROOM

- (LACK OF) COORDINATION
- REDUCED FOOTPRINT
- BATHROOM
- WALL THICKNESS
- OSHA
- RACK DISTRIBUTION
 - ALCMS / ASOS – 3RD FLOOR
 - BUEC – RTR SHELTER



CONCLUSION



ECP OPEN FOR SERVICE

ЕСЬ ОЪЕН ЕОВ 2ЕБАІСЕ



PBSJ
an Atkins company

AVCON

SPECIAL THANKS

Thank you for your help putting this presentation together:

- Faith Adams – PBS&J
- Brandon Hiers – AVCON, INC.
- Gilbert Ortiz – AVCON, INC.
- Jim Kosko – Consolidated Electrical Contractors & Engineers
- Mike Parker – RVA, INC.
- Steven Lokin – AVCON, INC.



QUESTIONS?

