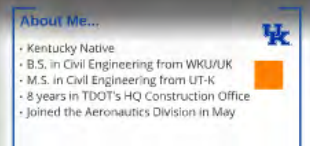
TDOT
Department of
Transportation

Engineering Update and ACIP Guidance

John-Paul Saalwaechter, P.E. - Civil Engineering Manager



About Me...

- Kentucky Native
- B.S. in Civil Engineering from WKU/UK
- M.S. in Civil Engineering from UT-K
- 8 years in TDOT's HQ Construction Office
- Joined the Aeronautics Division in May

What to Expect from Me

- Inquisitive,
- Data-driven,
- Objective and scientific,
- Fair and level-headed,
- Will seek to balance the needs and interest of the State as a whole

The Importance of Project Close Out

Upon physical completion of work, all close out requirements in the grant agreement must be performed in a timely manner.

Disbursement Reconciliation and Close Out. The Grantee shall submit any final invoice and a grant disbursement reconciliation report within sixty (60) days of the Grant Contract end date and in form and substance acceptable to the State.

Generally, the closeout process addresses these areas:

- Physical completion of work
- Administrative requirements for close out
- Financial requirements for closeout

Requirements vary based on scope of work.

ct Close Out

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work
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or closeout

Airport Capital Improvement Plans (ACIPs)

Re-think ACIPs

A shift from *Wishlist* to Needs-based approach

TN TDOT Department of Transportation

Purpose

Airport Capital Improvement Plans (ACIPs) are the primary planning tools for each airport for systematically identifying, prioritizing, and assigning funds to critical airport development and associated capital needs.

Guidelines

- Base your ACIP on your approved ALP.
- Well thought-out: realistic, reasonable, and locally funded.
- Prioritize (be strategic).
- Revenue producing projects will not be a priority if you have existing safety/preservation (e.g., pavement maintenance) concerns.
- 1st year projects must include the month/TAC meeting in which they will be requested.

Helpful Resources

- ALP
- Safety inspection reports,
- Pavement condition surveys,
- Airport master/system plans,
- Joint planning conferences,
- Airport master record data,
- Etc. to determine needs.

State Priority Ranking

1. Safety
2. Security
3. Pavement Preservation/Maintenance
4. Preservation of Infrastructure
5. Compliance with current FAA Standards
6. Planning
7. Increase Capacity/Modernization
8. Equipment
9. Landside Improvements
10. Revenue Producing

Process

Before ACIP Meeting:

1. Start by identifying all safety/security/preservation concerns and continue assessing needs based on priority rankings.
2. Draft your ACIP and discuss with Consultant and TAD staff.
3. Attend ACIP Meetings.

After ACIP Meeting:

4. Edit/revise your ACIP drafts based on information gained in ACIP meeting.
5. Conduct working sessions* to finalize ACIP and enter projects into BlackCat.

*including all stakeholders: Sponsor, TAD personnel, Consultant, etc.

Deliverable & Deadline

- A needs-based 5 year plan, or ACIP, of the potential planning and development projects, and equipment purchases.
- All ACIP projects entered into BlackCat by **12/01/2017**

Remember: Projects must be on ACIPs to get approved! ☑

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Safety

Project scopes including, but not limited to:

- Foreign Object Debris (FOD) Management,
- Reducing Runway Incursions,
- Runway Safety Area (RSA) improvement,
- Signs and Marking,
- Aircraft Rescue and Fire Fighting (ARFF),
- Obstruction Clearance, Land acq. &
- Wildlife Hazard Mitigation.

Figure 1. Number of reported wildlife strikes to civil aircraft and number of strikes with reported damage (top) and % of reported strikes indicating damage (bottom), 1990–2013 (see Table 1).

Security

Examples:

- Access Control Equipment,
- Passenger and baggage screening,
- Airfield security fencing or gates,
- Ramp lighting, &
- Airport security video cameras and equipment.

Pavement Preservation

Examples:

- Crack sealing, patching, and surface treatments.
- Major pavement rehabilitation

Infrastructure Preservation

Examples:

- Building Repairs
- Tower repainting
- Culvert/drainage repair

Compliance with FAA Standards

Examples:

- Runway-Taxiway Separation
- Reconstruct connector geometries
- Pavement gradients

Planning

Examples:

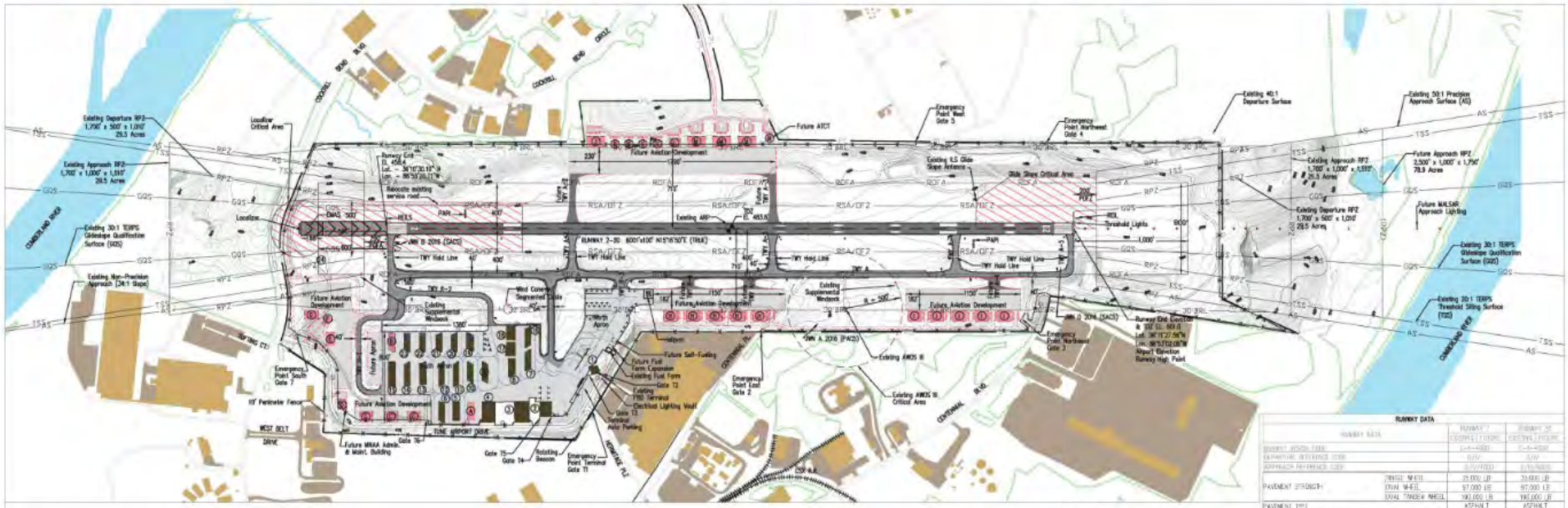
- Airport Layout Plan (ALP) update
- Exhibit "A" Update
- Surveys & studies

How is this process different now?

Needs-based approach...

- Project classification and priority ranking/ rating is secondary to determining the needs of the airport.
- Local match may be the limiting factor each year.
- Available references used to create an objective list of needs.

Airport Layout Plan



MODIFICATION OF DESIGN STANDARDS					
NO.	STANDARD MATRIX	FAA STANDARD	EXISTING CONDITION	PROPOSED ALTER.	FAA APPROVAL
NONE REQUIRED					

2016 PACS & SACS					
Designation	Latitude	Longitude	Elevation	Ellipsoidal Height	Description
MNA A	N36°07'21.56"(NAD83)	W086°40'52.08"(NAD83)	183.0ft	155.63ft	PACS/SACS
MNA B	N36°07'30.19"(NAD83)	W086°39'20.21"(NAD83)	455.6ft	428.23ft	PACS/SACS
MNA D	N36°07'04.67"(NAD83)	W086°40'58.65"(NAD83)	459.0ft	431.63ft	SACS

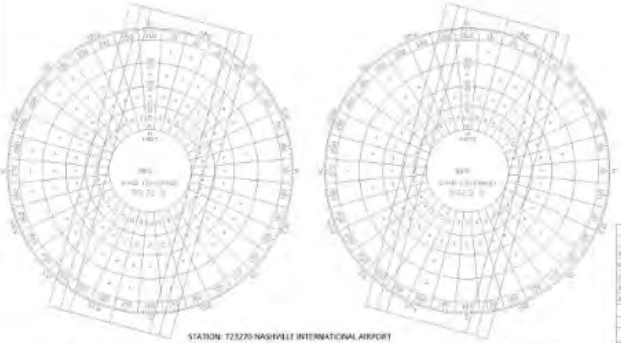
LEGEND		
DESCRIPTION	EXISTING	ULTIMATE
RUNWAY CENTERLINE		
RUNWAY SAFETY AREA (RSA)	RSA	
RUNWAY OBJECT FREE AREA (ROFA)	ROFA	
RUNWAY PROTECTION ZONE (RPZ)	RPZ	RPZ
TAXIWAY OBJECT FREE AREA (TOFA)	TOFA	TOFA
RUNWAY PROTECTION ZONE (RPZ)	27.9%	
AIRPORT PROPERTY LINE		
TAXIWAY CENTERLINE		
T-PADS (OLD LOGO)		
VOR		
Runway/Taxiway Light		
Windcone		
VOR/TACAN		
Rotating Beacon		
Airport Obstruction Chart		
Hold Position Marking		
Hold Position Marking		
Airport Markings		
Shoulder Markings		
Building or Structure Number		
Airport Property Line / Easements		
Other Property Lines		
ROFA Obstacle Qualification Surface		
Fence		
Tree Line		
Snow Removal		
Ground Equipment Surface		
Surface Elevation		
Flag Symbols		
Electronic Telephone Box		
Survey Monument		
Drive		

DECLARED DISTANCES - EXISTING & FUTURE				
RUNWAY	TORA	TODA	ASDA	LDA
RUNWAY 2	8,001'	8,001'	8,001'	8,001'
RUNWAY 20	8,001'	8,001'	8,001'	8,001'

RUNWAY DATA			
RUNWAY DATA		RUNWAY 2 (EXISTING / FUTURE)	RUNWAY 20 (EXISTING / FUTURE)
RUNWAY DESIGN CODE		D-IV-4000	D-IV-4000
AIRNAVIGATION REFERENCE CODE		B/IV	B/IV
APPROACH REFERENCE CODE		B/IV/VISIB	B/IV/VISIB
PAVEMENT STRENGTH	SINGLE WHEEL	75,000 LB	75,000 LB
	DUAL WHEEL	97,000 LB	97,000 LB
	DUAL TANDEM WHEEL	190,000 LB	190,000 LB
PAVEMENT TYPE		ASPHALT	ASPHALT
PAVEMENT STRENGTH BY PCN		23/F/A/X/T	23/F/A/X/T
EFFECTIVE GRADIENT		0.70%	-0.70%
S - WIND COVERAGE	10.5 KNOTS	5.5.24%	92.39%
	13.0 KNOTS	94.05%	92.91%
	16.0 KNOTS	94.60%	93.41%
RUNWAY LENGTH		8,001'	8,001'
RUNWAY WIDTH		150'	150'
RSA WIDTH		500'	N/A
RSA LENGTH		986'	N/A
DISPLACED THRESHOLD		N/A	N/A
DISPLACED THRESHOLD ELEVATION		N/A	N/A
RUNWAY SAFETY AREA (RSA)	BEYOND RUNWAY END	1000'	1000'
	WIDTH	400' X	400' X
RUNWAY END COORDINATES		36-10-30.1836N	36-11-27.5660N
		086-55-20.7037W	086-52-52.0458W
RUNWAY END ELEVATION (MSL)		458.6'	501.0'
RUNWAY DISPLAY		MIR	MIR
DEPARTURE RUNWAY PROTECTION ZONE (DPZ)	INNER WIDTH	500'	500'
	OUTER WIDTH	1,510'	1,010'
	LENGTH	1,700'	1,700'
APPROACH RUNWAY PROTECTION ZONE (RPZ)	INNER WIDTH	1,000'	1,000'
	OUTER WIDTH	1,510'	1,751'
	LENGTH	1,700'	1,700' 2,500'
RUNWAY MARKING		NON-PRECISION	PRECISION
FAR PART 77 APPROACH CATEGORY		NA-1	NA-1 / 4D-1
FAR PART 77 APPROACH TYPE		C-NP	PIR
DIFFERENCE VISIBILITY MINIMUMS		3/4 MILE	3/4 MILE / 1/2 MILE
TYPE OF NAVIGATIONAL AIDS(S) ELIGIBLE FOR APPROACH		VOR	VOR
RUNWAY HIGH POINT ELEV		458'	501'
RUNWAY OBJECT FREE AREA (ROFA)	BEYOND RUNWAY END	300'	300'
	WIDTH	800'	800'
RUNWAY OBJECT FREE ZONE (ROFZ)	BEYOND RUNWAY END	200'	200'
	WIDTH	400'	400'
THRESHOLD SITING SURFACE		20:1	20:1 - 34:1
RECOMMENDED APPROACH SLOPE		34'	34' (PPI), 50'
VISUAL APPROACH AIDS		PAPI - 4L, MSL	PAPI - 4L, MSL
STEEP CONE ZONE (SEE NOTE)		MSL'S	MSL'S
TAXIWAY & TAXILANE WIDTH		40'	40'
TAXIWAY & TAXILANE SAFETY AREA (TSA)		79'	79'
TAXIWAY & TAXILANE OBJECT FREE AREA (TOFA)		131'	131'
TAXIWAY CENTER GROUP (TCG)		3	3
TAXIWAY EDGE SAFETY MARGIN (TESM)		10'	10'
TAXIWAY JOGTAIL		81'	81'
TAXIWAY AND TAXILANE SEPARATION		323'	323'
RECOMMENDED EMERGENCY MEDICINES & EMAS			
AIC 150/5345-55 A CHANGE 1 - SEE B-5 - FOOTNOTE 13			

ALL WEATHER WIND ROSE		
CROSSWIND COMPONENT	RUNWAY 2-20	
10.5 KNOTS (12MPH)	96.10%	
13 KNOTS (15MPH)	98.05	
16 KNOTS (18MPH)	98.60	

IFR WIND ROSE		
CROSSWIND COMPONENT	RUNWAY 2-20	
10.5 KNOTS (12MPH)	96.10	
13 KNOTS (15MPH)	98.05	
16 KNOTS (18MPH)	98.60	



STATION: 723270 NASHVILLE INTERNATIONAL AIRPORT
SOURCE: NOAA-NCDC
PERIOD: 2006-2016
ALL WEATHER OBSERVATIONS: 127,748
IFR OBSERVATIONS: 11,060
NOTE: ONE FULL YEAR OF WIND DATA AT BNA WAS UNAVAILABLE, BNA DATA UTILIZED

HORIZONTAL DATUM: NAD83
VERTICAL DATUM: NAVD88

AIRPORT DATA		
	EXISTING	FUTURE
AIRPORT REFERENCE CODE (ARC)	D-IV	D-IV
MEAN MAX. TEMP OF HOTTEST MONTH	88.2	N/A
AIRPORT ELEVATION (MSL)	599.0	599.0
AIRPORT TERMINAL NAVAIDS		
AIRPORT REFERENCE POINT (ARP)		
MISCELLANEOUS FACILITIES		
CRITICAL AIRCRAFT		
APPROACH SERVICE LEVEL		

Ellipsoid Height	Description
121.352	PACS/CBN
109.562	SACS/CBN
129.812	SACS

HORIZONTAL DATUM: NAD83
VERTICAL DATUM: NAVD88

AIRPORT DATA

	EXISTING	FUTURE
	C-II	C-II
H	89.3	N/A
	501.0'	501.0'
	BEACON, GPS, ILS	
	36-10-58.8786N	36-10-58.8786N
	086-33-11.3832W	086-33-11.3832W
	TAXIWAY LIGHTING, AWOS, WIND CONE	TAXIWAY LIGHTING, AWOS, WIND CONE

LEGEND

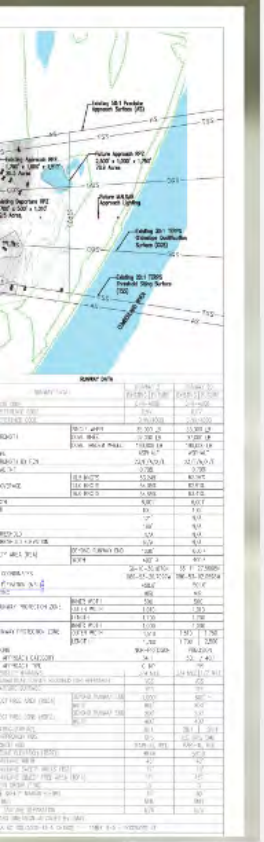
DESCRIPTION	EXISTING	ULTIMATE
RUNWAY CENTERLINE		
RUNWAY SAFETY AREA (RSA)	RSA	
RUNWAY OBJECT FREE AREA (ROFA)	ROFA	
RUNWAY PROTECTION ZONE (RPZ)	RPZ	(RPZ)
TAXIWAY OBJECT FREE ZONE (TOFA)	TOFA	(TOFA)
BUILDING RESTRICTION LINE (BRL)	30' BRL	
LOCALIZER/GLIDESLOPE CRITICAL AREA		
AWOS CRITICAL AREA		
THRESHOLD LIGHTS		
REILS		
PAPI		
Runway/Taxiway Light		
Windsock		
MALSAR		
Rotating Beacon		
Airport Reference Point		
Paved Runway Surface		
Paved Taxiway Surface		
Paved Apron Surface		
Roads		
On Airport Parking		
Off Airport Parking		
Airport Buildings		
Other Buildings		
Building Identification Number	①	Ⓐ
Airport Property Line / Easements	P.L.	
Other Property Lines		
TERPS Glideslope Qualification Surface	GQS	
Railroad		
Fence	x	
Tree Line		
Water/Wetland		
Ground Elevations Contours		
Surface Elevation	X 300.0	
Elev. Hydrants		

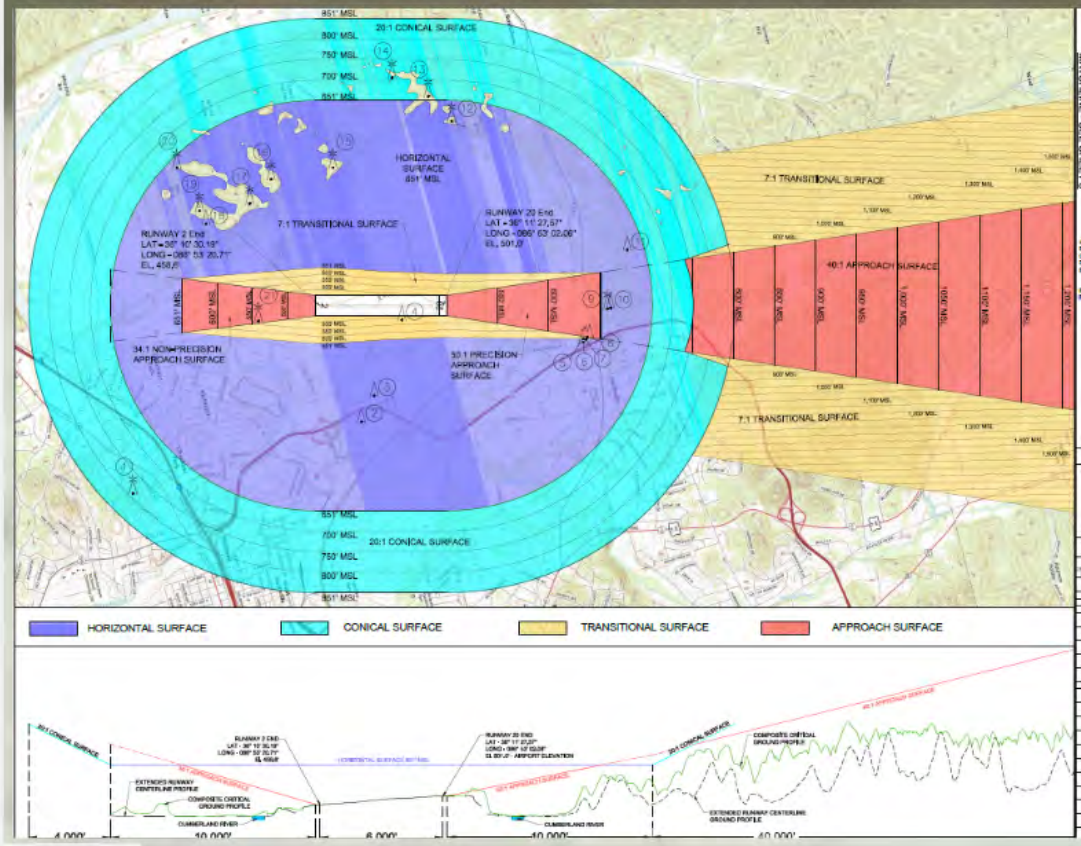
DECLARED DISTANCES – EXISTING & FUTURE

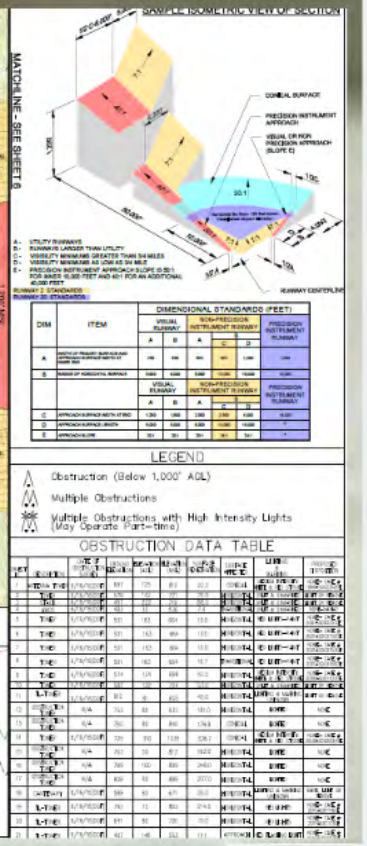
RUNWAY	TORA	TODA	ASDA	LDA
RUNWAY 2	6,001'	6,001'	6,001'	6,001'
RUNWAY 20	6,001'	6,001'	6,001'	6,001'

#	EXISTING CONDITIONS	
1	EXISTING FACILITY NAME	TOP EL. (AMSL)
2	FBO TERMINAL BUILDING	492'
3	CORPORATE HANGAR	502'
4	CORPORATE HANGAR	514'
5	CORPORATE HANGAR	508'
6	BOX HANGAR	498'
7	T-HANGAR	496'
8	T-HANGAR	489'
9	T-HANGAR	494'
10	T-HANGAR	493'
11	T-HANGAR	493'
12	T-HANGAR	491'
13	T-HANGAR	492'
14	T-HANGAR	493'
15	T-HANGAR	490'
16	T-HANGAR	493'
17	T-HANGAR	488'
18	BOX HANGAR	502'
19	BOX HANGAR	500'
20	T-HANGAR	492'
21	T-HANGAR	488'
22	T-HANGAR	491'
23	T-HANGAR	487'
24	T-HANGAR	483'
25	LOCALIZER BUILDING	459'
	GLIDE SLOPE BUILDING	497'
A	ULTIMATE FACILITIES	
B	BOX HANGAR	499'
C	T-HANGAR	490'
D	CORPORATE HANGAR	505'
E	MWAA ADMIN. & MAINT. BLDG.	502'
F	CORPORATE HANGAR	490'
G	FBO TERMINAL BUILDING	480'
H	CORPORATE HANGAR	486'
I	CORPORATE HANGAR	498'

Airport Layout Plan - Part 77 Airspace







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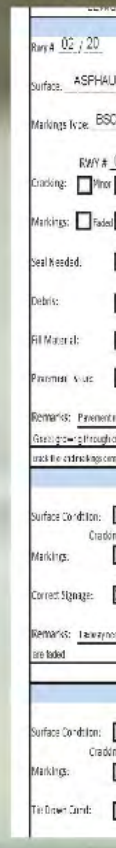

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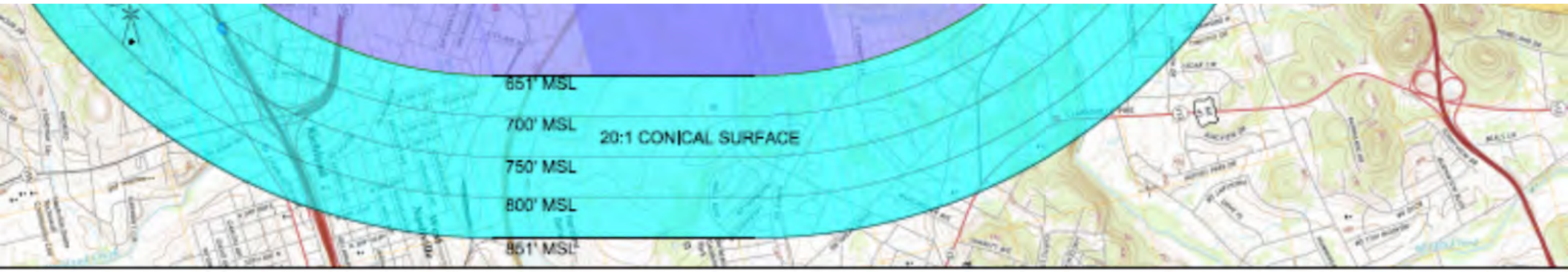
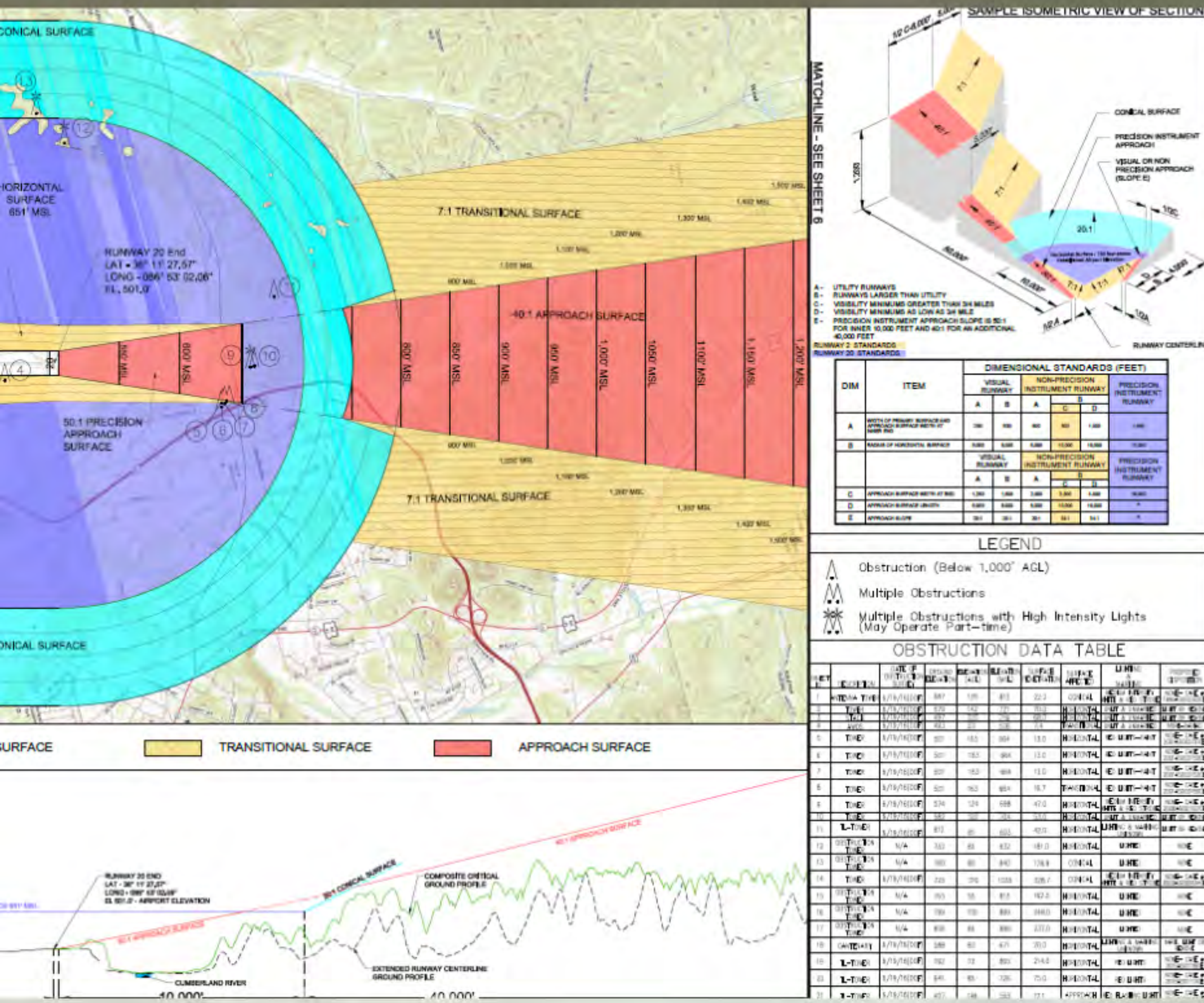


HORIZONTAL SURFACE | CONICAL SURFACE | TRANSITIONAL SURFACE | APPR



RUNWAY

Rwy # 02 / 20 Length: 4,001 Width: 75

Surface: ASPHAULT Condition: ☐ Good ☐ Fair ☒ Poor

Markings Type: BSC - F Condition: ☐ Good ☐ Fair ☒ Poor

RWY # 02		RWY # 20	
Cracking:	☐ Minor ☒ Extensive	Cracking:	☐ Minor ☒ Extensive
Markings:	☐ Faded ☒ Peeling	Markings:	☐ Faded ☒ Peeling
Seal Needed:	☒	Seal Needed:	☒
Debris:	☒	Debris:	☒
Fill Material:	☒	Fill Material:	☒
Pavement Issue:	☒	Pavement Issue:	☒

Remarks: Pavement needs seal coat and crack filling to prevent future damage. Grass growing through cracks in runway pavement. Debris on runway from previous crack filler and markings coming loose creating a FOD hazard. Fill needed adjacent to RW pavement.

TAXIWAYS

Surface Condition: ☐ Good ☒ Fair ☐ Poor

Cracking: ☒ Minor ☐ Extensive

Markings: ☐ Good ☒ Fair ☐ Poor ☒ Faded ☐ Peeling

Correct Signage: ☒ Yes ☐ No

Remarks: Taxiway needs seal coat and crack fill to prevent further damage. Markings are faded.

APRON/RAMP

Surface Condition: ☐ Good ☒ Fair ☐ Poor

Cracking: ☒ Minor ☐ Extensive

Markings: ☐ Good ☒ Fair ☐ Poor ☐ Faded ☐ Peeling

Tie Down Cond: ☐ Good ☒ Fair ☐ Poor

Rwy End: 02

Category: A(NP)

Approach Slope Viola
☐ 20:1 ☐ 34:1

Remarks:

Rwy Lighting:

Treshold Lights Corre

Rotating Beacon Ope

Lighting Control:

Windcone:

Segmented Circle:

Hangars:

Security:

Fire Extinguishers:

At fuel farm:

Emergency Shutoff pro

Fence: 6 ft tall

Mowing of airport:

Terminal Building Cond

Title VI Poster locate

Emergency Preparedness

Inspection Report

RUNWAY

Rwy # 02 / 20 Length: 4,001 Width: 75

Surface: ASPHAULT Condition: ☐ Good ☐ Fair ☒ Poor

Markings Type: BSC - F Condition: ☐ Good ☐ Fair ☒ Poor

	RWY # 02	RWY # 20
Cracking:	☐ Minor ☒ Extensive	☐ Minor ☒ Extensive
Markings:	☐ Faded ☒ Peeling	☐ Faded ☒ Peeling
Seal Needed:	☒	☒
Debris:	☒	☒
Fill Material:	☒	☒
Pavement Issue:	☒	☒

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Markings: ☐ Good ☒ Fair ☐ Poor

☐ Faded ☐ Peeling

Tie Down Cond: ☐ Good ☒ Fair ☐ Poor

PART 77

Rwy End: 02	Rwy End: 20
Category: A(NP)	Category: A(V)
Approach Slope Violation: ☐ 20:1 ☐ 34:1 ☐ None	Approach Slope Violation: ☐ 20:1 ☐ 34:1 ☐ None

Remarks:

LIGHTING

Rwy Lighting: ☐ LIRL ☒ MIRL ☐ HIRL ☐ None

Threshold Lights Correct: ☒ Yes ☐ No ☐ NSTD

Rotating Beacon Operational: ☒ Yes ☐ No ☐ None

☒ Paint ☒ Repair

Lighting Control: ☐ Pilot ☐ Photocell ☐ Manual

NAVAIDS

Windcone: ☒ Yes ☐ No ☐ Lighted

☐ Replace ☐ Repair Support

Segmented Circle: ☐ Yes ☒ No

☐ Paint ☐ Repair

INFRASTRUCTURE

Hangars: ☒ Good ☐ Fair ☐ Poor

☐ Paint ☐ Repair

Security: ☒ Gate ☐ Cameras ☐ None

Fire Extinguishers: ☒ Yes ☐ No

At fuel farm ☒ Yes ☐ No

Emergency Shutoff properly located ☐ Yes ☐ No

Fence: 6 ft tall ☐ All ☒ Partial

Mowing of airport: ☒ Good ☐ Poor

Terminal Building Condition ☒ Good ☐ Poor

Title VI Poster located ☒ Yes ☐ No

Emergency Preparedness Manual ☒ Yes ☐ No

SECTION ONE VIOLATIONS, STATE REQUIRED CORRECTIONS:

Large hole located adjacent to RW in RSA approximately halfway down runway 20 on left side. Hole is approximately 2ft x 1ft x 1.5ft and growing. The pavement is starting to sag and collapse at the edge of the runway due to continued erosion and growth of the hole. It appears to be related to drainage which runs under the runway from the right side and is beginning to create a similar problem on the right side adjacent to the pavement.

SECTION TWO VIOLATIONS, STATE RECOMMENDED CORRECTIONS: Recommend approach study and tree trimming on RW 2 for potential obstructions.

Pavement needs seal coat and crack filling to prevent future damage. Grass growing through cracks in runway pavement and markings. Debris on runway from previous crack filler and markings coming loose creating a FOD hazard. Fill needed adjacent to RW pavement in addition to hole mentioned above.

Bulbs were out on VASI on RW 20.

Mush corrosion noted on Fuel Farm. Recommend maintenance to restore and prevent further deterioration.

Beacon support needs painting.

Attached License Type: ☐ License ☑ Conditional

Tennessee Code Annotated (subparagraph 42-2-211 Licensing of Airports) notes that "it is unlawful for any municipality, or officer, or employee or any person to operate an airport without an appropriate license for such, as may be duly required by rule or regulations issued pursuant to this subsection."

Furthermore, rules and regulations of the Tennessee Department of Transportation regarding the licensing of airports note that communities must apply for and hold a current public airport license when any commercial aeronautical activities are conducted on the airport.

Inspector: [redacted] Date: 8/9/2017

Surface: ASPHAULT Condition: ☐ Good ☐ Fair ☒ Poor

Markings Type: BSC - F Condition: ☐ Good ☐ Fair ☒ Poor

Category: A(NP)

Approach Slope Violation:

☐ 20:1 ☐ 34:1 ☐ None

RWY # 02		Rwy # 20	
Cracking:	☐ Minor ☒ Extensive	Cracking:	☐ Minor ☒ Extensive
Markings:	☐ Faded ☒ Peeling	Markings:	☐ Faded ☒ Peeling
Seal Needed:	☒	Seal Needed:	☒
Debris:	☒	Debris:	☒
Fill Material:	☒	Fill Material:	☒
Pavement Issue:	☒	Pavement Issue:	☒

Remarks: Pavement needs seal coat and crack filling to prevent future damage.

Grass growing through cracks in runway pavement. Debris on runway from previous crack filler and markings coming loose creating a FOD hazard. Fill needed adjacent to RW pavement.

Remarks:

LIG

Rwy Lighting:

Treshold Lights Correct:

Rotating Beacon Operational:

Lighting Control:

NA

Windcone:

TAXIWAYS

Remarks: Pavement needs seal coat and crack filling to prevent future damage.

Grass growing through cracks in runway pavement. Debris on runway from previous crack filler and markings coming loose creating a FOD hazard. Fill needed adjacent to RW pavement.

TAXIWAYS

Surface Condtiion: ☐ Good ☒ Fair ☐ Poor

Cracking: ☒ Minor ☐ Extensive

Markings: ☐ Good ☒ Fair ☐ Poor

☒ Faded ☐ Peeling

Correct Signage: ☒ Yes ☐ No

Remarks: Taxiway needs seal coat and crack fill to prevent further damage. Markings are faded.

APRON/RAMP

Surface Condtiion: ☐ Good ☒ Fair ☐ Poor

Lighting Control:

Windcone:

Segmented Circle:

Hangars:

Security:

Fire Extinguishers:

At fuel farm

Emergency Shutoff

Fence: 6 ft. tall

20

☐ Minor ☒ Extensive

☐ Faded ☒ Peeling

☒

☒

☒

☒

ue:

ent future damage.

n runway from previous

led adjacent to RW pavement.

Remarks:

LIGHTING

Rwy Lighting: ☐ LIRL ☒ MIRL ☐ HIRL ☐ None

Treshold Lights Correct: ☒ Yes ☐ No ☐ NSTD

Rotating Beacon Operational: ☒ Yes ☐ No ☐ None

☒ Paint ☒ Repair

Lighting Control: ☐ Pilot ☐ Photocell ☐ Manual

NAVAIDS

Windcone: ☒ Yes ☐ No ☐ Lighted

☐ Replace ☐ Repair Support

Segmented Circle: ☐ Yes ☒ No

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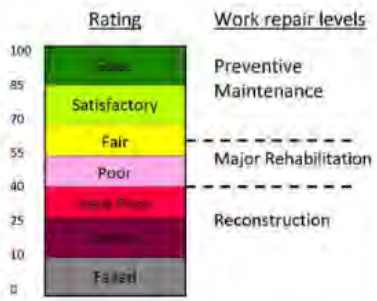
Rating
Work repair levels
100
85
70
55
40
25
10
0
Good
Satisfactory
Fair
Poor
Very Poor
Serious
Failed
Preventive Maintenance
Major Rehabilitation
Reconstruction

Capital Improvement Program

The table below provides a summary of the projected funds needed to perform major rehabilitation on all pavement sections forecasted to fall below the MSL within the next 5 years. The PCI of one apron section is programmed for repair while it is slightly above the apron MSL of 55. If no action is taken, the overall PCI is projected to drop from 83 to 76 by 2019.

Project Year	Calendar Year	Amount
Year 1	2015	-
Year 2	2016	-
Year 3	2017	-
Year 4	2018	$235,321
Year 5	2019	-
	5-Year Total	**$235,321**



Maintenance

Based on the pavement distress types documented during the survey, an analysis of potential maintenance projects identified minimal patching needs and approximately 760 linear feet of crack sealing and crack repair needs, at an estimated total cost of approximately $1,400. The decision matrix and unit costs upon which these estimates are based is described in section 3 of this report.

Ongoing development of capital improvement projects may address some of these maintenance needs. To help budgeting and prevent duplication of effort, all pavement features recommended for maintenance should be compared to planned improvements prior to finalizing a maintenance program strategy.

Specific recommendations to help prioritize airfield maintenance are found in chapter 3 of this report. The table below summarizes the identified maintenance needs.

Work Item	Quantity	Unit	Cost
Crack Sealing – AC	761	L.F.	$1,308
Patching – AC Shallow	14	S.F.	$72
Total:			**$1,380**

AC = asphalt concrete; PCC = portland cement concrete; S.F. = square feet; L.F. = linear feet

[1]Surface treatment quantities and costs are typically underestimated by PAVER because they are only applied to areas of medium- and high-severity weathering/raveling

Capital Improvement Program

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Airport Master Record

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

AIRPORT MASTER RECORD

PRINT DATE: 8/31/2017
AFD EFF 08/17/2017
FORM APPROVED OMB 2120-0015

> 1 ASSOC CITY: 4 STATE: TN LOC ID: FAA SITE NR: 23122.1*A
> 2 AIRPORT NAME: 5 COUNT TN
3 CBD TO AIRPORT (NM): 6 REGION/ADO: ASO/MEM 7 SECT AERO CHT: ST LOUIS

GENERAL

10 OWNERSHIP: PUBLIC
> 11 OWNER:
> 12 ADDRESS:

> 13 PHONE NR:
> 14 MANAGER:
> 15 ADDRESS:

> 16 PHONE NR:
> 17 ATTENDANCE SCHEDULE:
ALL ALL ALL

18 AIRPORT USE: PUBLIC
19 ARPT LAT: 36-10-58.8786N ESTIMATED
20 ARPT LONG: 086-53-11.3832W
21 ARPT ELEV: 501.0 SURVEYED
22 ACREAGE: 374
> 23 RIGHT TRAFFIC: 20
> 24 NON-COMM LANDING: NO

25 NPIAS/FED AGREEMENTS: NGY
> 26 FAR 139 INDEX:

SERVICES

> 70 FUEL: 100LL A+

> 71 AIRFRAME RPRS: MAJOR
> 72 PWR PLANT RPRS: MAJOR
> 73 BOTTLE OXYGEN: HIGH
> 74 BULK OXYGEN: LOW
75 TSNT STORAGE: HGR TIE
76 OTHER SERVICES:
AVNCS, CHTR, INSTR, RNTL, SALES

BASED AIRCRAFT

90 SINGLE ENG.	111
91 MULTI ENG:	24
92 JET:	11
TOTAL:	146
93 HELICOPTERS:	10
94 GLIDERS:	0
95 MILITARY:	0
96 ULTRA-LIGHT	0

FACILITIES

> 80 ARPT BCN: CG
> 81 ARPT LGT SKED: SS-SR
BCN LGT SKED: SS-SR
> 82 UNICOM: 122.700
> 83 WIND INDICATOR: YES-L
84 SEGMENTED CIRCLE: YES
85 CONTROL TWR: NO
86 FSS: NASHVILLE
87 FSS ON ARPT: NO

88 FSS PHONE NR:
89 TOLL FREE NR: 1-800-WX-BRIEF

OPERATIONS

100 AIR CARRIER:	0
102 AIR TAXI:	24,345
103 G A LOCAL:	28,025
104 G A ITNRNT:	33,160
105 MILITARY:	420
TOTAL:	85,950
OPERATIONS FOR 12 MONTHS ENDING:	03/31/2017

RUNWAY DATA

> 30 RUNWAY IDENT:	02/20			
> 31 LENGTH:	6,001			
> 32 WIDTH:	100			
> 33 SURF TYPE-COND:	ASPH-G			
> 34 SURF TREATMENT				
35 GROSS WT: S	35.0			
36 (IN THSDS) D	69.0			
37 2D				
38 2D/2D2				
> 39 PCN:				
LIGHTING/APCH AIDS				
> 40 EDGE INTENSITY:	MED			
> 42 RWY MARK TYPE-COND:	MR - G / PIR - G	- / -	- / -	- / -
> 43 VGSI	P4L / P4L	/	/	/
44 THR CROSSING HGT.:	40 / 40	/	/	/
45 VISUAL GLIDE ANGLE:	3.00 / 3.00	/	/	/
> 46 CNTRLN-TDZ:	- / -	- / -	- / -	- / -
> 47 RVR-RVV:	- / -	- / -	- / -	- / -
> 48 REIL:	Y / Y	/	/	/
> 49 APCH LIGHTS:	/	/	/	/
OBSTRUCTION DATA				
50 FAR 77 CATEGORY	C / PIR	/	/	/
> 51 DISPLACED THR:	/	/	/	/
> 52 CTLG OBSTN:	TREE /	/	/	/
> 53 OBSTN MARKED/LGTD:	/	/	/	/
> 54 HGT ABOVE RWY END:	49 / 36	/	/	/
> 55 DIST FROM RWY END:	2,142 / 1,383	/	/	/
> 56 CNTRLN OFFSET:	109 / 381	/	/	/
57 OBSTN CLNC SLOPE:	39:1 / 33:1	/	/	/
58 CLOSE IN OBSTN:	N / N	/	/	/
DECLARED DISTANCES				
> 60 TAKE OFF RUN AVBL (TORA):	6,001 / 6,001	/	/	/
> 61 TAKE OFF DIST AVBL (TODA):	6,001 / 6,001	/	/	/
> 62 ACLT STOP DIST AVBL (ASDA):	6,001 / 6,001	/	/	/
> 63 LNDG DIST AVBL (LDA):	6,001 / 6,001	/	/	/

(>) ARPT MGR PLEASE ADVISE FSS IN ITEM 86 WHEN CHANGES OCCUR TO ITEMS PRECEDED BY >

> 110 REMARKS

A 016 MANAGER CELL.
A 076 HELO & FIXED WING.
A 110-001 DEER INVOF ARPT.
A 110-003 FREQ BLEEDOVER OCCURS ON ALL FREQS 1.75 NM NORTH OF RY 02/20.
A 110-004 BIRD ACTIVITY INVOF ARPT.
A 110-005 RY 20 PREFERRED CALM WIND RY.
A 110-007 FOR CD CTC BNA APCH ON 124.55. IF UNA CALL 615-695-4522.

111 INSPECTOR: (S) 112 LAST INSP: 04/28/2017 113 LAST INFO REQ: 08/13/1996

FAA FORM 5010-1 (3/96) SUPERSEDES PREVIOUS EDITION

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38	2D/2D2	
> 39 PCN:		
LIGHTING/APCH AIDS		
> 40 EDGE INTENSITY:	MED	
> 42 RWY MARK TYPE-COND:	NPI - G / PIR - G	- / -
> 43 VGSI:	P4L / P4L	/
44 THR COSSING HGT.:	40 / 40	/
45 VISUAL GLIDE ANGLE:	3.00 / 3.00	/
> 46 CNTRLN-TDZ:	- / -	- / -
> 47 RVR-RVV:	- / -	- / -
> 48 REIL:	Y / Y	/
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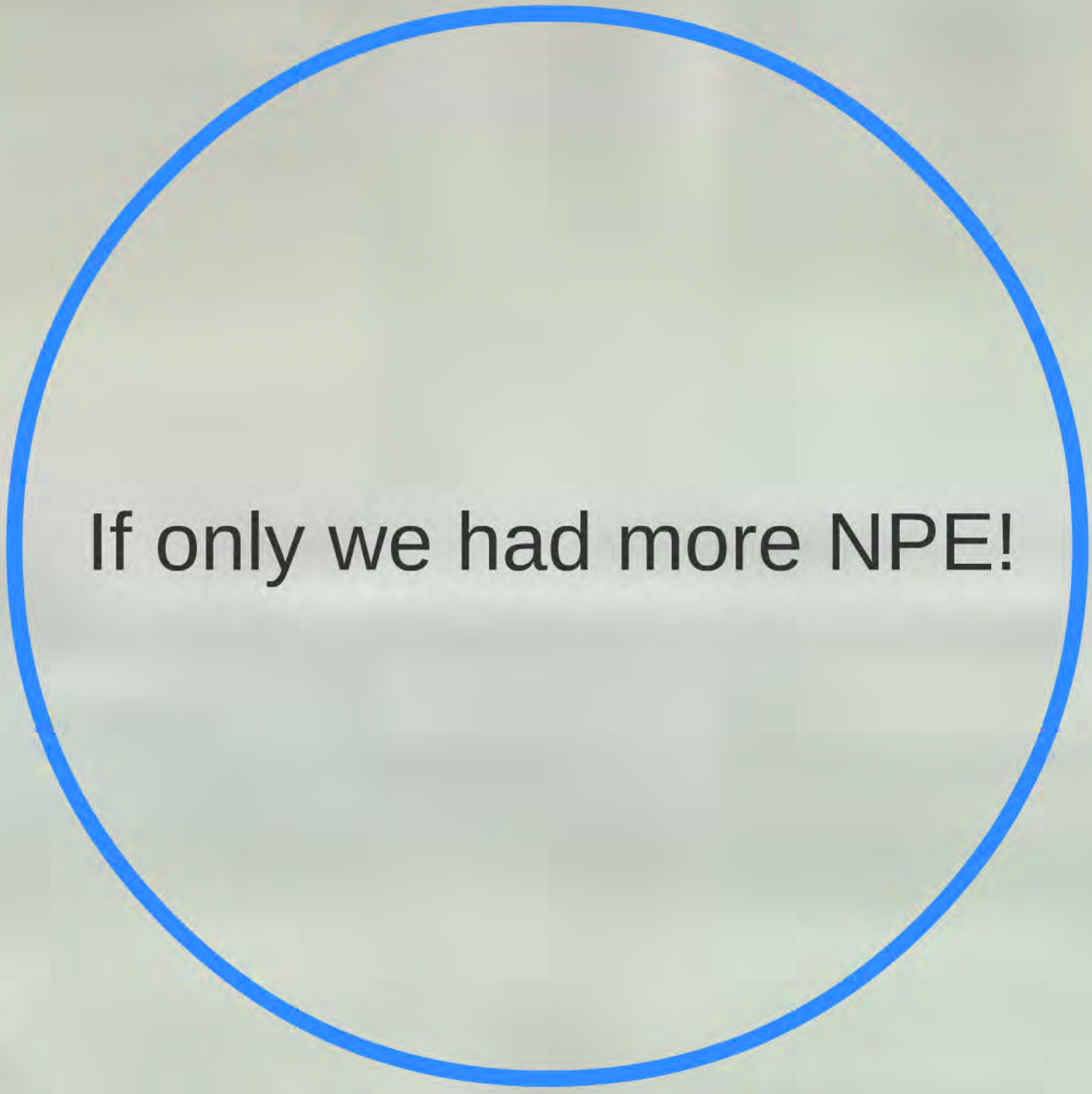
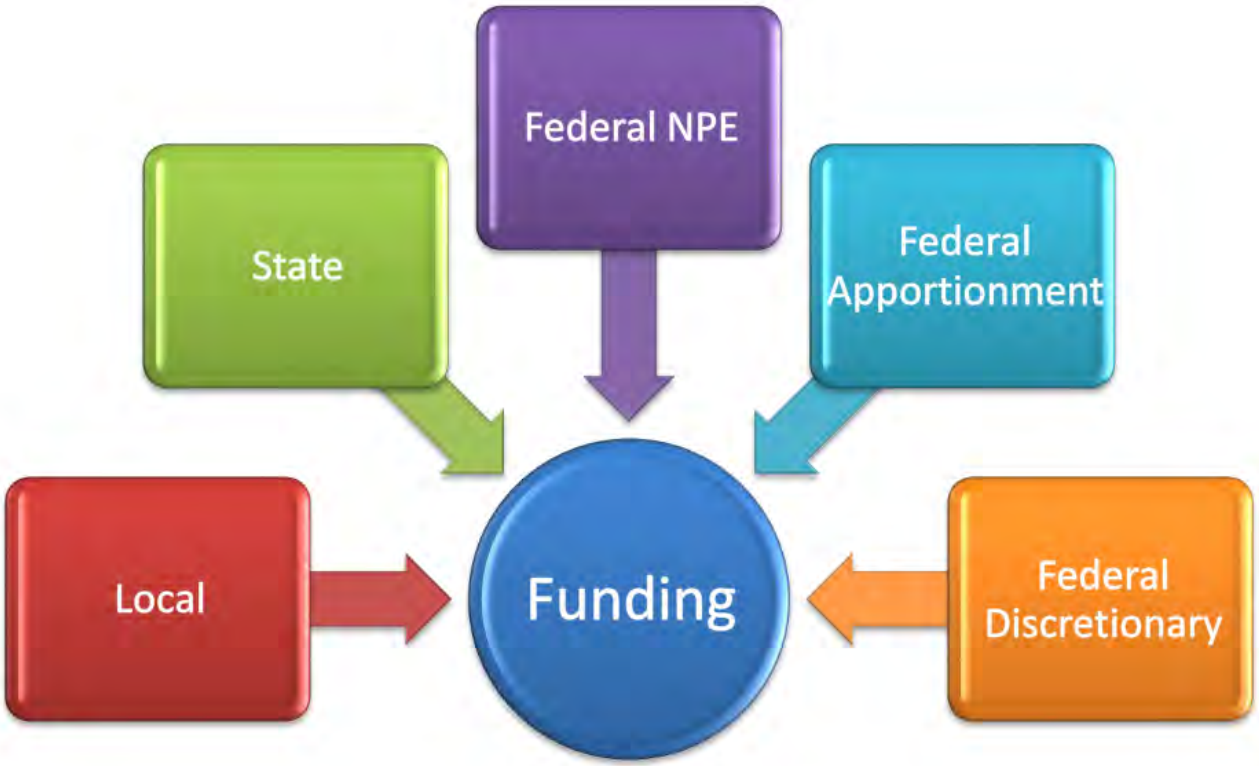
Other References

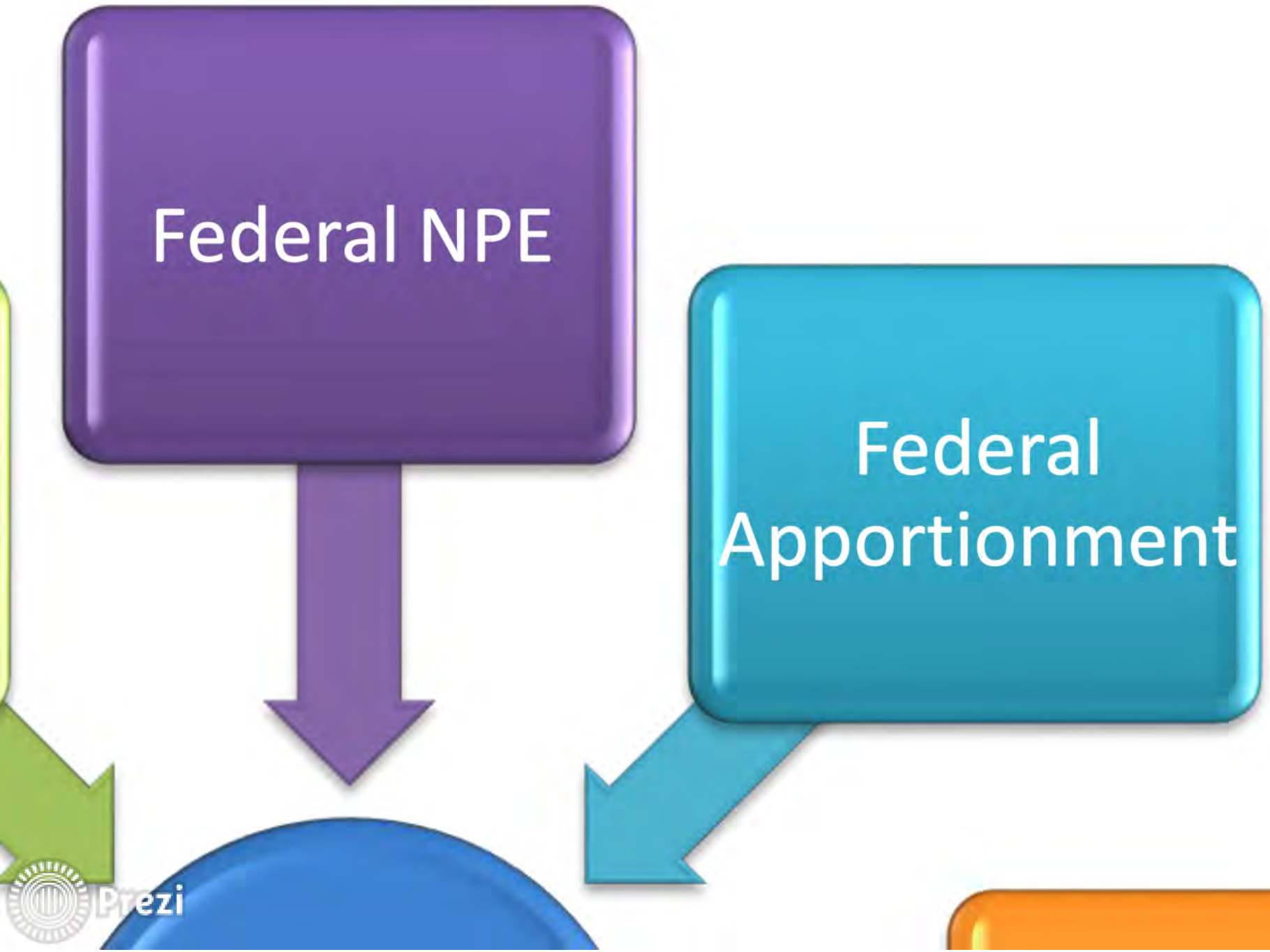
Documentation of need for additional capacity/equipment/improvements

- Pictures and documentation of day-to-day operations or special events.
- Letters of support
- Waiting lists



Funding Options and Flexibility




Federal NPE
Federal Apportionment

Present ACIP needs that are supported with local funding

+

existing NPE balance (if any remains)

&

We (TAD) will try to fund any remaining gaps

Don't delay projects based on NPE balance!

$7,500 = $150,000

1,900% Rate of Return*

*assuming a 1 year period

Local Investment		Capital Improvements
$7,500.00	=	$150,000.00
$10,000.00	=	$200,000.00
$15,000.00	=	$300,000.00
$25,000.00	=	$500,000.00
$35,000.00	=	$700,000.00
$45,000.00	=	$900,000.00
$50,000.00	=	$1,000,000.00

Sustainability

Revenue producing projects will be considered once higher priority needs have been addressed.

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Requesting Projects

Large projects should be split into phases

- Planning, design, construction, etc.
- Scoping grants may be needed on complex projects (check with your Project Manager)

Required with each request:

- Scope - detailed w/ pictures/sketches
- Schedule - key milestones
- Costs - including basis/assumptions

2018 TAC Schedule - Tentative

Early February
Early April
Early June
Early September
Early November

Discretionary Projects List

2018 M01 Memphis - Gen. DeWitt Spain
Rehabilitate Runway 17/35 Pavement and Relocate Parallel Taxiway

2018 GCY Greeneville - Greeneville-Greene Co. Muni
Rehabilitate Runway 05/23, Parallel Taxiway & Apron Pavements

2019 NQA Millington - Millington Regional Jetport
Rehabilitate Runway 04/22 Pavement

2020 MKL Jackson - McKellar-Sipes Regional
Rehabilitate Runway 02/20 Pavement

2021 GKT Sevierville - Gatlinburg-Pigeon Forge
Relocation of Runway 10/28 Pavement

2022 SNH Savannah - Savannah Hardin County
Rehabilitate Runway 01/19

Next Steps

#1) Edit/revise

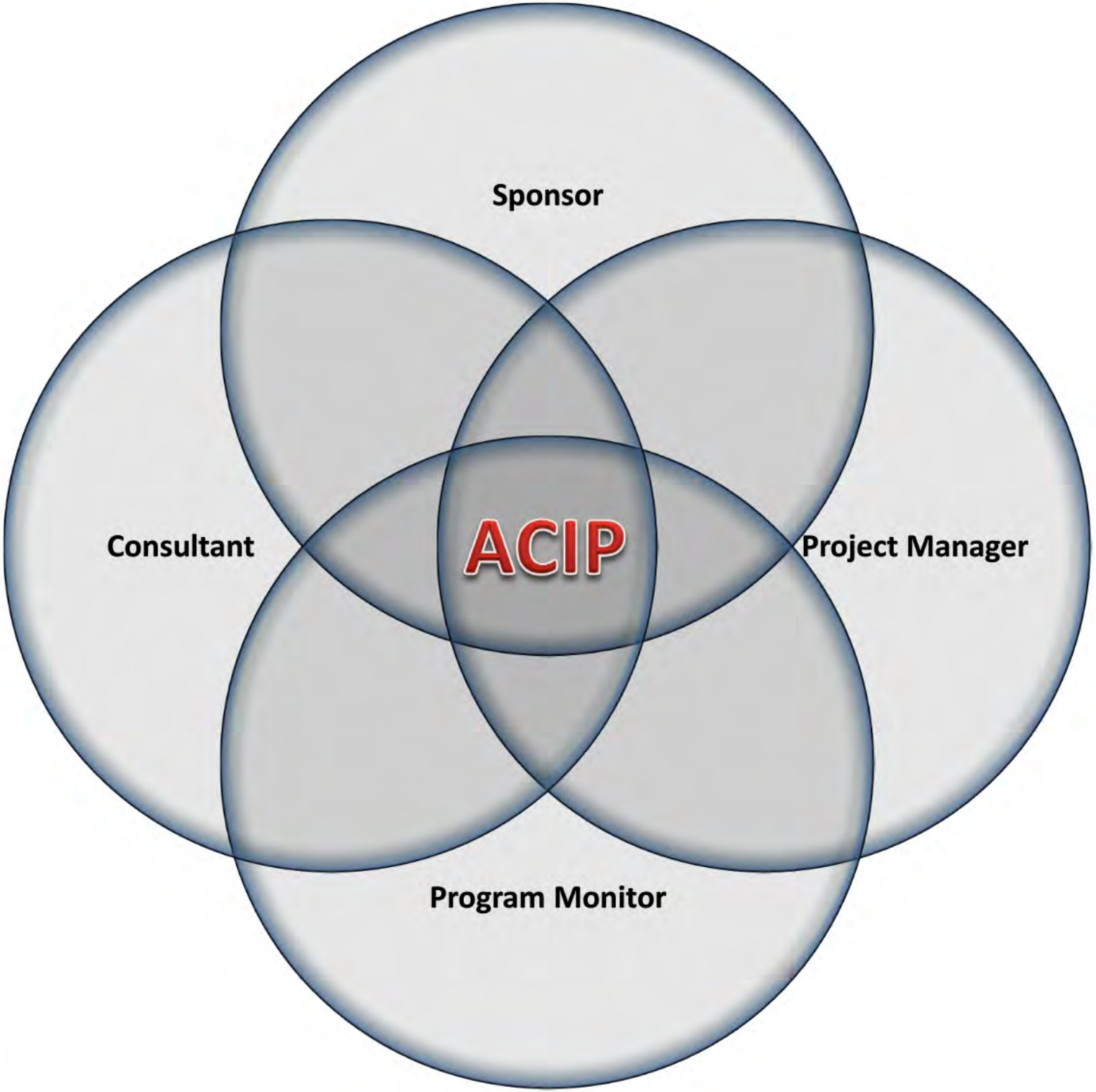
- Edit/revise your ACIP drafts based on the information presented today.

#2) Working Sessions

- Coordinate with your Project Manager/Program Monitor/Consultant, and any other critical stakeholders, to conduct working sessions to finalize ACIP and enter projects into BlackCat.

#3) Complete your ACIP by 12/01/2017.

#4) Commit to the plan and schedule created, especially for year 1.


Sponsor
Consultant
ACIP
Project Manager
Program Monitor