# FDOT Quick Guide:

# Transforming our State Pre-Construction Process

February 2015



# Our mission

The department will provide a safe transportation system that ensures the mobility of people and goods, enhances economic prosperity and preserves the quality of our environment and communities.

## Our Vision

Serving the people of Florida by delivering a transportation system that is fatality and congestion free.

## Our Values

The fundamental principles which guide the behavior and actions of our employees and our organization.

## Integrity

"We always do what is right"

## Respect

"We value diversity, talent and ideas"

## Commitment

"We do what we say we are going to do"

## One FDOT

"We are one agency, one team"

## Trust

"We are open and fair"



## Transforming our state process

FDOT is working to streamline its project delivery and has created an improved process

# Goals of this effort

More efficiently advance projects through the preconstruction process...

- Simplify documentation requirements
- Reduce redundant or irrelevant work
- Overlap processes where possible
- Identify issues earlier through cross-functional review

... while maintaining a high standard of excellence

- Create transparent and standardized process
- Focus freed-up resources on critical issues
- Peer oversight through regular District team meetings
- Simplify review process to increase reviewer efficacy
- Meet and exceed legal and regulatory requirements
- Reduce stress and low morale that leads to errors

# Changing the way we work is critical

#### Change will lead to ...

- Quicker delivery of services to the public
- Fewer instances of rework due to changing conditions
- Lower risk from changing policy or procedure
- More hands-on coaching of junior staff
- Improved flexibility to handle unforeseen tasks or requests
- Greater satisfaction and predictability of work

## A message from Secretary Boxold



Florida Department of Transportation

RICK SCOTT GOVERNOR 605 Suwannee Street Tallahassee, FL 32399-0450 JIM BOXOLD SECRETARY

February 5, 2015

FDOT colleagues,

As you know, we have set out on a transformational change effort to meaningfully improve the way we work and to shorten the timeframe in which we can deliver our projects.

We see huge value for the public in the improvements we are making – we have estimated an opportunity to get roads and bridges built up to six years faster than we would have under the Federal Highway process, which means Florida families and businesses see more immediately the benefits of our investments.

State-Wide Acceleration and Transformation teams (SWAT teams) across the state have focused so far on a set of 11 projects that are already going through the improved state process – and because of their commitment to innovation, creative thinking, and problem solving, I am happy to say that in a few short months, the SWAT teams have already found ways to save 50-60% of time for these 11 projects. This is major progress, and I am proud of what we have done together so far.

Our work together to date is just the beginning of continued innovation in our processes – we want to keep getting better in delivering our mission, and you are critical to doing so.

We believe there's an opportunity to take our overall reduction in pre-construction project delivery times to 60-75%. To get there, we need all members of the FDOT team – Project Managers, SWAT Teams, Work Program, Planning, PD&E, Design, Construction, consultants, experts – to look for ways to streamline our processes and change the way we work. We also need to ensure we continue to nominate a meaningful number of new projects each year to be state funded.

I know that changing the way we work takes significant effort and can present difficulties, but I want you to know that your work is appreciated and valued by FDOT leadership and by the public, the true beneficiaries of our efforts.

The SWAT teams at each District and this Quick Guide are in place to support you and to make this transition to an improved state process easier. Please don't hesitate to reach out to the Central SWAT team for support, as well.

Thank you for your continued support of FDOT's important mission.

Jul

Secretary

www.dot.state.fl.us

This quick guide will support us in transforming the state pre-construction process through a focus on four critical elements:

#### Process Design

Define a streamlined process that is easy to use and adaptable

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## 2 Management infrastructure



Support change with appropriate systems, teams, and infrastructure

### Organization and Skills

Define clear roles and expectations and build necessary skills FDOT's public mission

## Culture

Build support for a new approach to the work

This guide will help you to succeed on all four dimensions as you lead an important transformation at FDOT

# This guide helps you answer key questions across all four dimensions:

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How will you help ensure we implement a better process?

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# Acronyms List

Acronym	Definition
COA	Federal Class of Action
EA	Environmental Assessment
EIS	Environmental Impact Statement
EMO	Environmental Management Office
EST	Environmental Screening Tool
ETDM	Efficient Transportation Decision Making
FHWA	Federal Highway Administration
ISD	Intermodal Systems Development
LDCA	Location Design Concept Acceptance
MPO	Metropolitan Planning Organization
NEPA	National Environmental Policy Act
NFE	Not Federally Eligible
NMSA	Non-Major State Action
NTP	Notice to Proceed
PD&E	Project Development and Environmental
PER	Preliminary Engineering Report
PM	Project Manager
ROW	Right of Way
SEIR	State Environmental Impact Report
SWAT Team	State-Wide Acceleration and Transformation Team
Type II CE	Type II Categorical Exclusion
USDOT	U.S. Department of Transportation



# Core principles of state process

How is the state process different from the Federal Highway process?

Principle Effect on state process		
Carefully and narrowly define work to be done	<ul> <li>Focused, tight scoping</li> <li>Cross-functional teams</li> <li>Use ETDM programming screen to scope</li> <li>Early consideration of specific project characteristics</li> </ul>	
Follow a structured	<ul> <li>Create an ambitious, yet realistic, target schedule unique to each project</li> <li>Use detailed schedules to effectively manage</li> </ul>	
realistic schedules	projects	
Eliminate unnecessary steps	<ul> <li>No Federal class of action determination</li> <li>Evaluate only needed alternatives, consideration of only one alternative is okay</li> </ul>	
Parallel – process the work whenever possible	<ul> <li>Start PD&amp;E and design together – no need to wait for LDCA</li> <li>Pull forward activities as much as possible to the time before Notice to Proceed so consultants and staff hit the ground running</li> </ul>	
Reduce duplicative work	<ul> <li>No PER; design analysis included in SEIR</li> </ul>	
Shorten waiting times	<ul> <li>FHWA is not lead agency</li> <li>Internal District reviews for documents</li> <li>Documents signed by District Secretary</li> <li>Fed. involvement only when permits required (though still never use 4(f))</li> </ul>	

What is the improved state process?

Distric SWAT plannin meetin	State-funded t g g B ETDM programming screen	D Initial data coll analys District SWAT project	Procurement		PD&E F Design ROW and n acq	District secretary signs SEIR Const. letting / survey napping, uisition
		в	С	D	6	F
Step	<ul> <li>District SWAT planning meeting</li> </ul>	ETDM     Programming     Screen	District SWAT Project Kickoff	Initial Data Collection & Analysis	Procurement •	PD&E and Design
Timing	<ul> <li>Late summer before each new gaming cycle</li> </ul>	<ul> <li>Must be complete one year before PD&amp;E funding is programmed in work program</li> </ul>	One year ahead of PD&E / Design funding date in work program	Begins after  project kick off	4-6 months •	10-30 months – PD&E: 6- 14 months – Design: 10-18 months
Partici- pants	<ul> <li>SWAT team</li> <li>ISD / Planning</li> <li>Work program</li> <li>EMO</li> </ul>	ETDM     coordinator	SWAT Team PD&E and Design PMs ISD / Planning	PD&E and Design PMs •	PD&E and design PMs Procuremen t	PD&E and Design PMs
Activi- ties	<ul> <li>Discuss all projects to be gamed in upcoming cycle</li> <li>Decide core elements of purpose and need</li> <li>Use ETDM planning screen if possible</li> <li>Ensure alignment with MPO on project</li> <li>Decide State or Federal funded</li> <li>If state funded, decide NMSA vs. SEIR</li> </ul>	<ul> <li>SWAT team communicates list of state projects to ETDM coordinator</li> <li>Check state or federal funding box</li> <li>Conduct ETDM programming screen</li> <li>If state-funded, FHWA will not comment on project</li> </ul>	Scoping • Segmentation consideration High-level • schedule • Plan for tech • panel • Use ETDM programming screen to scope • SWAT project should closely	Environ- mental review Survey Geotech Traffic Long lead species surveys kick-offs resemble	Concurrent  and/or joint procurement	Overlap of PD&E and Design activities, working to get quickly to the preferred alternative 60% of Design done by end of PD&E
			the SWAT wor conducted in J 2015 on the in state projects	kshops anuary of itial set of		

#### What is the SWAT Team and when does it meet?



#### District SWAT Team is...

- Responsible for assisting PMs and Consultants in achieving time savings through the improved process
  - Meets twice (SWAT planning meeting, Project Kickoff) & then as needed
- Made up of functional experts who can ensure that project decisions get broad input and early buy-in
- Intended to enable regular communication across agency through Central-District SWAT overlap

See page 49 for a deeper description of the SWAT team, its current members, and its role

My notes on the state process	

### SWAT Planning meeting

What happens at the SWAT Planning meeting?

## Timing

- Occurs yearly
- In the late summer / early fall before gaming process begins
- Work program and ISD / Planning should have a list of potential projects that will be gamed

## Participants

- SWAT Team
- Work program
- ISD / Planning
- EMO



# Agenda

- Review all PD&E projects set to be gamed in the coming year
- Discuss core elements of purpose and need for each project
- Ensure alignment with MPO on projects
- Use information from ETDM planning screen, if possible
- Assign hypothetical Class of Action to each project (initial best guess at Class of Action)
- Decide a funding recommendation for each project: state v. federal
- For state funded projects, decide NMSA or SEIR

## Deliverables

- List of projects for gaming, sorted into state funded and federal funded
- Preliminary view on hypothetical Class of Action assigned to each project
- List of NMSA projects, which the SWAT team no longer discusses
- List of projects to put through ETDM

List of state funded projects is given to the Central SWAT Team so the projects are added to the dashboard

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During the SWAT planning meeting, the SWAT team recommends projects to be state funded

Work Program and EMO refine the list and assign the state funded projects a NFE (not federal eligible) group identifier



# A) SWAT Planning meeting

Some projects must always fall under FHWA's jurisdiction:

- On the Interstate
- Using or involving Interstate right-of-way (e.g., air rights, adjacent, etc.)
- Projects within and impacting federal lands such as National Parks or Forests, etc.
- Transportation Alternatives (TA) program
- Safety Program projects

If federal funds have been used on a prior phase of the current project, check with Central Office as to whether the project falls under FHWA's jurisdiction

Projects may still have to follow the federal NEPA process if a federal permit is required, though FHWA will not be the lead agency



1 Applies in the case of needing a federal permit. The lead agency for issuing the permit should be the lead agency for NEPA approvals. Since no federal dollars are used on PD&E, no USDOT federal action is triggered. Therefore USDOT/FHWA is not required to be involved in NEPA document review or approval. If the EMO determines that there is potential for significant schedule gains even within a NEPA document, these projects should be added to the "State-only eligible projects" list.

## SWAT Planning meeting

EMO ranks projects based on environmental complexity and expected number of PD&E days saved using a SEIR process

Key findings from analysis of federalized projects

#### PD&E

- Primary driver of PD&E duration is class of action (COA)
- Other factors were not predictive of PD&E duration

#### Design

 Design duration is driven by individual project characteristics

#### EMO scoring methodology

#### Input

 Hypothetical COA determined during SWAT planning meeting

#### Output

Ranking of projects based on potential days saved

# Federal average duration vs. State aspiration, *months from Procurement start to Production*





### NMSA v. SEIR checklist

FDOT PROJECT EVALUATION FORM	Will the project require acquisition of significant amounts of right of way
EP 1: DOCUMENT PROJECT INFORMATION	Will the project require relocation of residents or businesses?
GENERAL INFORMATION:	
Project Name:	Are properties protected under Chapter 267, 5,3, adversely affected determined in consultation with the Florida Division of Historic Resources?
Project Limits:	
ETDM Number (If applicable):	Are there any known potential contamination sites which would impact rig of way, design, or construction activities, or other issues/resources? (S
Financial Management Number:	Part 2, Chapter 22 of the PD&E Manual for specifics on contamination impacts)
PROJECT DESCRIPTION:	In there a notantial for public controversy on the project?
a. Existing:	
b. Proposed Improvements:	Is a public hearing needed in accordance with Part 1, Chapter 11 of t PD&E Manual and 335.155(5)(b), E.S.?
EP 2: EVALUATION	IF ALL ANSWERS ARE NO: THE PROJECT IS A NON-MAJOR STATE ACTION (COMPLETE BLO
S NO	
	The project is not defined in Chapter 335, 155(5)(b) of the Florida Statutes as a majo transportation improvement (increasing the capacity of a facility through the addition of new lanes or providing new access to a limited or controlled access facility or construction of a facility in a new location) and based upon this project evaluation, i has been determined that the project is a Non-Major State Action. District Environmental Administrator or designee:
Will the project cause adverse impacts to air, noise, or water?	Date://
	END PROJECT EVALUATION
	This Form is the Environmental Document for a Non-Major State Action. Supporti documents are included in the project file. IF AN ANSWER FROM STEP 2 WAS YES AND THE PROJECT REQUIRES FURTHER ANALYS
Will the project cause impacts to floodplains in accordance with Part 2, Chapter 24 of the PD&E Manual?	CONTINUE WITH STEP 3 STEP 3: FURTHER ENVIRONMENTAL ANALYSIS AND PREPARATION OF A STATE
Will the project affect endangered or threatened species or their critical habitat or require a state species permit?	ENVIRONMENTAL IMPACT REPORT (SEIR) Details on filling out the following sections of a SEIR are in Section 10.2.1.2 of Part 1, Chapter 10 of the PD&E Manual.

- Consider this checklist
- Recommend NMSA v. SEIR
- For NMSA projects, accelerate so design can begin in a month at most

ETDM Programming Screen

How does ETDM fit into the state process?

**Process Design** 

### **Environmental Screening Tool (EST)**

To input the project into EST:

1) Select state or federal funding

2) Determine whether there is federal involvement

3) If federal funding is checked, you must justify the decision pending approval of Central Office (with the exception of checking the "on interstate" option)

SWAT Team communicates to ETDM Coordinator the projects that will go through the state process





#### What happens at the SWAT project kickoff?

## Timing

- Occurs one year before PD&E money is programmed
- Held for each specific project (meetings can be combined)

## Participants

- SWAT Team
- PD&E and Design PMs
- ISD / Planning

### Agenda

- Bring and discuss ETDM programming screen information
- Use SEIR checklist to scope the project, using experience of the group to guide early decisions
- Consider whether segmenting the project makes sense in order to expedite it (e.g. segment into a separate project a controversial piece of the project)
- Place project on matrix to estimate overall project duration
- Draft high-level project schedule
- Decide consultant contracting strategy
- Decide project management set up
- Write initial scope of services

## Deliverables

- High-level schedule for project
- Project management team structure
- Target number of months from start of procurement to construction letting
- Updated estimate on what Federal Class of Action would have been, for use in determining time saved
- Draft scope of services for consultant
- List of documents required
- Plan for tech panel

Tools to use
Project aerials / Google maps
SEIR checklist for scoping
Matrix for estimating duration
Example high-level schedules
Procurement options
Tech panel guidance
Project management options

C) SWAT Project Kick Off

How do we develop and refine the scope of a project?

## SEIR Checklist – to use for scoping

STATE ENVIRONMENTAL IMPACT REPORT	During	g the SWAT	Team projec
1. ENVIRONMENTAL ANALYSIS	kick of	ff meeting, pa	articipants
*Topical Categories Substantial Impacts? **Basis for Decision	should	d use the SE	IR checklist
	to sco	pe the project	t and narro
	the nu	mber of issu	es to be
2. Economic [] [] [] [] 3. Land Use Changes [] [] [] []	consid	lered on the	project
4. Mobility [ ] [ ] [ ] [ ] [ ]	Conord		projoot
6. Relocation Potential [] [] [] []			
1. Historic Stes/Districts     []     []     []     []			
Accession Areas     []     []     []     []     []     []	💈 Using	the informati	on you hav
C. NATURAL 1. Wetlands and Other [] [] [] [] [] [] [] [] [] [] [] [] []	💈 during	j the SWAT te	eam project
Surface Waters 2. Aquatic Preserves [] [] [] [] [] []	💈 kick of	íf (e.g. ETDN	1
3. Water Quality [] [] [] [] []	💈 progra	amming scree	en, project
5. Wild and Scenic Rivers [ ] [ ] [ ] [ ] 6. Floodolains [ ] [ ] [ ] [ ] [ ]	💈 aerials	s, site visit de	escription),
7. Coastal Barrier Resources [ ] [ ] [ ] [ ] 8. Listed Species and Habitat [ ] [ ] [ ] [ ]	🕴 fill ou	t the checkli	st, working
10. Essential Fish Habitat [] [] [] []	💈 to ide	ntify areas t	hat are
D. PHYSICAL	🧯 clearl	v "no involv	ement," or
2. Air Quality [] [] [] [] [] []	🕴 not at	all present	, -
4. Contamination [] [] [] [] []			
6. Utilities and Railroads [] [] []	💈 "No ir	volvement"	issues
* Tonical Categories: Ver Substantial Impact: No No. Substantial Impact: Enhance	💈 shoul	d have a she	ort
Enhancement; Nolax = Issue absent, no involvement.	🗧 🗧 expla	nation for ho	w you know
**Basis of decision is documented in the referenced attachment(s).	🧯 an iss	ue isn't prese	ent and
2. ANTICIPATED PERMITS	🧯 theref	ore <b>should n</b>	ot be
Individual Dredge and Fill Permit- USACE Nationwide Permit- USACE	🧯 incluc	ded in the sc	ope of
Forige Permit-USCG     Forige Permit-USCG     Forige Permit-USCG     Forige Permit-USCG	servio	es for a cor	sultant
For guidance on ensuring sufficient information for permitting agencies is included see Section 10.2.1.2 of Part 1. Chanter 10 of the PD&F Manual	💈 Then 🤅	consider issu	les where
	💈 you ar	e confident t	here is " <b>no</b>
A COMPANY ANALYSIS	🕴 subst	antial impac	<b>t."</b> Either
	💈 write y	our reasonin	g on the
6. ADDOLVED FOD DUBLIC AVAILABILITY (BEFODE DUBLIC HEADING)	💈 check	list, or Include	e in the
	scope	of services t	hat
District Secretary or Designee Date	🧯 consu	Itants should	write a
The final SEIR reflects full consideration of the comments and responses resulting from the Public	🕴 brief d	description of	explaining
Hearing.	that re	esponse	
7. A Public Hearing was held on / /			
	💈 lf you	suspect "sul	ostantial
0. APPROVAL OF FINAL DUCUMENT (AFTER PUBLIC HEARING)	🧯 impac	t," you shou	ld include
District Secretary or Designee Date	💈 those	items in the	scope of
District Generating of Designed Date	💈 servic	es, asking c	consultants
	🧯 to wri	te on the ch	ecklist a
	<pre>/ refere</pre>	nce to supp	orting
	docur	nentation k	eeping in
	ind t	that the goal	is SFIR is t
	5 minut	natine goar	

have straight forward, easy to

read documents

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#### How do we create an aggressive schedule?

# Plot the project on this matrix in terms of its design and environmental features



SWAT Project Kick Off

How do we create an aggressive schedule?

Use the project's position on the matrix to estimate its duration Duration is months for Procurement, PD&E, and Design High end of range is for a project that needs ROW

High 18-30 months 24-40 months **Example project types Example project types**  Bridge crossing over New alignment with navigable waters substantial environmental Widening into new ROW concerns Environmental complexity Project in environmentally Widening near substantial and/or politically sensitive environmental resource area that requires new ROW Others Others 10-22 months 14-30 months Example project types Example project types Widening within existing New alignment with little operational ROW expected environmental Others impact Intersections or bridges in well developed areas Others Low High Low

#### Design ambiguity

- Use this matrix to generate an estimated length of time for the project
- The PM then works with schedulers to create a detailed project schedule within the time estimate
- Communicate to consultants the expectation for duration

Expected output

High-level schedule



#### **Time savings for 10 projects analyzed in District workshops** Procurement to Production duration, *years*



SWAT Project Kick Off

#### **SWAT Team Ideas**

During workshops with each SWAT Team in December and January 2015, many ideas surfaced for how to shorten the pre-construction process and were applied to specific projects, including:

- Look at only the alternatives that make sense to FDOT to save time on alternatives assessment
- Move traffic to beginning of PD&E to help evaluate new alignments
- Skip traffic step entirely and use LRTP expectations for projects without ambiguous traffic considerations
- Move survey and geotech before or during procurement to help eliminate alternatives and aid in permitting
- Once project team and Production Manager are comfortable that they have a recommended alternative, move forward with design and permitting while environmental finishes
- Permitting takes less time because design is further along
- Bring ROW survey forward in o design

Please see appendix to this section to see the improvement levers applied to each of the state projects programmed for this fiscal year, to use as a guide in creating your schedule



How do we contract for PD&E and Design together?

Dual procurement is a key component of the state process



### Options under the state process for procurement:

One contract for both PD&E and design, funded together

One firm



One firm with subcontractors



One contract for PD&E with option for design

If you see that the use of the Design option is not desirable, immediately begin Design procurement



#### Best practices:

- Add to contract performance measures for hitting targets
- Use a tech panel to tell potential consultants about scope and expected aggressive schedule (see next page)

## SWAT Project Kick Off

# How can we communicate our expectations around project scope and schedule to prospective consultants?

#### Example Tech Panel Agenda, from the Turnpike



V. Additional Information:

- a. Aggressive Project Schedule
- b. Request for additional Project Information:
  - i. Contact Stephanie Maldonado PHONE (407) 264-3171 EMAIL: <u>Stephanie.Maldonado@dot.state.fl.us</u>

VI. OPEN TO CONSULTANT

Use a tech panel before you have published your scope of services to present your high-level schedule and project scope to consultants and to set aggressive expectations for the project

Example project segmentation map provided during Tech Panel



#### What project management structures can we use?

#### **Options for project management structure**



## 1 Process Design Initial Data Collection & Analysis

Procurement

What activities should we be doing before we have a PD&E or Design consultant on board?

# Data collection and analysis begins before procurement and continues through it

Over the course of the year before PD&E and Design money are programmed, run in parallel initial data collection and procurement, such that on the day of NTP, consultants are ready to go

Activities to pull forward include:

- Design survey
- Traffic model
- Traffic data collection
- Preliminary geotech
- Long lead species surveys, if the time of year is right such that doing the species survey now prevents waiting during PD&E
- Other potential technical studies or coordination as project characteristics allow (e.g. public outreach)

Use District-wide contracts, inhouse staff, or phase 21 / 22 money to advance these pieces of work

	Process Design 1			
	F PD&E and Design			
	How is the new SEIR document different? Documentation required New approach Impact			
Single purpose and need	<ul> <li>Create a single statement of purpose and need</li> <li>Is referenced in all later documents, never re-written</li> </ul>	<ul> <li>Discourages scope creep that occurs when each document author re-writes statement</li> <li>Encourages alignment with multiple disciplines throughout project team</li> <li>Saves time spent on re-writing/editing statement for each approval doc</li> </ul>		
Single natural resources evaluation (combines wetlands & species assessments)	<ul> <li>Create a Natural Resources Evaluation that combines the essential elements of multiple environmental reports into a single document</li> </ul>	<ul> <li>Captures efficiency of evaluating the same environmental area for multiple impacts simultaneously (e.g. reduces multiple site surveys into one)</li> <li>Facilitates inter-agency coordination by providing complete resources evaluation to each relevant agency</li> </ul>		
Combined engineering and environmental document	<ul> <li>Design detail is included with SEIR</li> <li>No separate PER</li> </ul>	<ul> <li>Saves ~1-2 months of FDOT review time associated with PER and reduces cost</li> </ul>		
	Doc •   •   Doc • [	ument review nternal environmental managers nternal design managers ument signature District Secretary		

Internal design managers
Document signature
District Secretary

#### Document signature

PD&E and Design

#### How is the new SEIR document different?

#### The new SEIR document is built using the same checklist that is used for scoping, and should be a concise, targeted document

1. ENVIRONMENTAL ANALYSIS	
"Topical Categories Substantial Impacts? "Basis for Decision Yes No Enhance Nolox.	To write the SEIR document,
A. SOCIAL and ECONOMIC	shocklist you used during the
2. Economic [] [] [] [] []	
4. Mobility     [] [] [] []      f. Asstellis Effects	SWAT Team Project Kick On
Aesthetic Effects     []	
B. CULTURAL	
Archaeological Sites     []     []     []     []     []     []     []     []     []     []	Items that were marked "no
	involvement" should not
1. Wetlands and Other     []     []     []     []     []	have supporting
2. Aquatic Preserves     []     []     []     []     []	documentation – you
4. Outstanding FL Waters [] [] [] [] []     5. Wild and Scenic Rivers [] [] [] []	should use the "basis for
6. Floodplains [] [] [] [] []	desision" line to evoluin your
Costal Barler Resolutes [] [] [] []     S. Listed Species and Habitat[] [] []	
	reasoning
D. PHYSICAL 1. Noise [] [] [] []	For items checked " <b>no</b>
2. Air Quality [] [] [] []	substantial impact" or
4. Contamination     []	"enhance" the checklist
O tilities and Railroads     []     []     []     []     []     []     []     []     []     []     []	should include a short
* Topical Categories: Yes = Substantial Impact; No = No Substantial Impact; Enhance =	
Enhancement; Nolny, = Issue absent, no involvement.	description of now you
**Basis of decision is documented in the referenced attachment(s).	Know that information,
2. ANTICIPATED PERMITS	providing backup
Individual Dredge and Fill Permit-USACE Nationwide Permit-USACE	documentation if necessary,
Bridge Permit- USCG     Environmental Resource Permit- (FDEP, or WMD)	e.g. "Coordinated with X
·	agency on Y date, response
For guidance on ensuring sufficient information for permitting agencies is included see Section 10.2.1.2 of Part 1, Chapter 10 of the PD&E Manual	was Z, and we will take ABC
3. ENGINEERING ANALYSIS	next steps. Please reference
4 COMMITMENTS	attachment"
5. EDOT SELECTED AL TERNATIVE	1 ( )
6. APPROVED FOR PUBLIC AVAILABILITY (BEFORE PUBLIC HEARING)	
	For items shooked
District Secretary or Designee Date	FOI Items checked
The final SEIR reflects full consideration of the comments and responses resulting from the Public	"substantial impact," the
Hearing.	checklist should reference
7. A Public Hearing was held on / /	the supporting
Date	documentation and
8. APPROVAL OF FINAL DOCUMENT (AFTER PUBLIC HEARING)	<b>i reports</b> , keeping in mind
	that the goal is SEIR is to
District Secretary or Designee Date	have straight forward. easv
	to read documents
	************************

F PD&E and Design

How is the new SEIR document different?

Some activities are only used in a federal process and will no longer be used on projects that use the state process

#### Activity codes never used in state process

- PCE (PROGRAM CATEG EXCLUSION)\*
- TYPE 2 CE (CATEG EXCLUSION)\*
- EA/FONSI (ENVIRON ASSESSMENT)\*
- EIS (ENVIRON IMPACT STATEMENT)\*
- UPDATE ETDM PROGRAMMING
- FHWA CONCUR M/NM STATEMENT
- PROGRAM PROJ W/FHWA
- SUBMIT DRAFT ENV DOCUMENTS
- FINAL ENV DOC TO FHWA
- FHWA REVIEW FIN ENV DOC
- LOC/DES (LDCA) APPROVAL
- FHWA AUTHORITY RECEIVED
- R/W MAPS TO FHWA
- FHWA CONCUR M/NM STATEMENT

We want to continue to improve and find ways to streamline this list

What other activities should no longer be a part of our state
## Appendix: Process Design

Example project schedules 1 Appendix: Process Design (D1) US 17/92 HINSON AVE FROM 10TH STREET TO 17TH STREET





Appendix: Process Design 1 2 SR 200 @ Crawford Road Interchange





1 Appendix: Process Design
D2 SR-100 Grade Separation over CSX Railroad





Appendix: Process Design 1 3 SR 75 FROM S OF SR 30A 15TH STREET TO SR 20





## 



				Critical Path	Non-critical
FM# 436870-1	2015	2016	2017	2018	2019
ETDM, Preliminary survey, traffic geotech & environmental		Non- critical Activity			
Procurement	6	months	NTP		
PD&E		8 months			
1 <sup>st</sup> Workshop			$\diamond$		
Public Hearing			$\diamond$	<b>N</b> 1	
Design			60%	after 609	ical %
Pond Siting		6 months		-	
ROW Mapping		4 m	onths	I	
ROW		24	months		
Acquisition			I I		

1 Duration only includes Procurement to end of ROW acquisition, not including work moved prior to procurement Appendix: Process Design 1 SR 501 FROM MICHIGAN AVENUE TO INDUSTRY ROAD





## 1 Appendix: Process Design NE 203 ST & NE 215 ST INTERSECTION IMPROVMTS BTWN US-1 & W. DIXIE HWY PD&E



			Critical Path	— Non-critical
FM# 433511-1	2015	2016	2017	2018
PD&E	•	19 months		
Geotech Environmental	Non- critical activity			
Design Procurement				
Design	6 months 🔫	•	Non-critic	cal a
Alternatives Workshop	$\diamond$ <sup>30</sup>	% 60%		
Public Hearing		>		
ROW Mapping			4-6 months	
ROW			24 month	าร

Appendix: Process Design 1 SR 90/SW 8 STREET AT SR 973/SW 87 AVENUE



				Critical Path	— Non-critica
FM# 433627-1	2015	2016	2017	2018	2019
PD&E		14 m	nonths		
Survey Traffic Geotech Environmental	Non- critic activi	al ity			
Design Procurement	6	months			
Design to 15%	-				
Design to 60%	10 mo	nths	-	Non-critical	after 60%
Alternatives Workshop	Sep 2	015	60%		
Public Hearing		$\diamond$			
ROW Mapping		- i		6 months	
ROW				24 mor	oths

# 1 Appendix: Process Design $\overrightarrow{D7}$ SR-52 EXT. FROM E OF MCKENDREE RD TO E OF US-301





Appendix: Process Design 1



Critical Path — Non-critical



1 Duration only includes design through the Design Build RFP writing, given this is a Design Build project

2



## What teams will ensure a lasting transformation of the way we work?

#### State-Wide Acceleration and Transformation (SWAT) teams

#### Central SWAT team: Support the Districts

- Collect expertise and best practices across Districts
- Identify and deploy tools and programs to encourage continuous improvement
- Monitor progress of implementation
- Work with District SWAT Teams to facilitate state-wide training
- Communicate agency-wide about the state process

#### District SWAT team : Support the Projects

- Hold SWAT planning meeting and project kick-off to focus the project scope and schedule
- Drive improvement through structured problem solving
- Push District innovations state-wide through Central SWAT
- Communicate process changes to PMs and Consultants

#### **Performance Management**

- Executive Team to review projects at regular executive workshop
- Dashboard of state-funded projects included in standard Performance Report
- District secretaries help ensure sufficient funding for state projects
- Utilize current reporting lines and structures to minimize bureaucracy



### FDOT SWAT Teams

#### SWAT Team Organization Chart (as of Feb. 2015)

H P Ju R Robin Rhinesn	lenry Pinzon atrick Muench oseph Chinelly onald Bell nith	Turnpike Paul Satchfield	D1 Marlon Bizerra	Bernie Masing Bill Hartmann Gwen Pipkin Steve Walls Joe Lauk	lelson Bedenbaugh
Karen Demeria Kirk Bogen Frank Chupka Waddah Farah	D7 Richard Moss	CENTRAL TI • Marjorie Kin • District SW/ • Ken Morefie	EAM rby (lead) AT Leads eld	D2 Bill Henderson	Stephen Browning Kathy Thomas Will Watts Jim Knight
Craig James Aileen Boucle Dat Huynh Alejandro Casals Linda Glass Johnse	D6 Teresita Alvarez	<ul> <li>Kendra She</li> <li>Xavier Paga</li> <li>Bob Crim</li> <li>Paul Hiers</li> </ul>	ffield an	D3 Scott Golden	Regina Battles Joy Swanson April Williams Brandon Bruner Jason Crenshaw
	Bill Walsh Steve Friedel Jeff Cicerello Amy Sirmans Steve Smith Beata Stys-Pala	Brian Stanger	Steve Braun	John Ol Ann Broady Scott Peter Richard You Leslie Wethe	son vell son ing rell

#### Process

#### **CENTRAL SWAT MEETINGS:**

Meet at least quarterly to:

- Escalate major issues that require intervention
- Share insights that benefit the entire agency
- Track time savings across Districts and celebrate successful project completions
- Plan state-wide communications

#### **District SWAT MEETINGS:**

Meet at key milestones in project & regular huddles

- See process section pg. XX for list of Milestone Workshops & sample agendas
- Regular short-meetings to update progress, flag issues and reallocate resources where needed
- Provide training to project managers and consultants on process improvements

#### **Team Composition**

Team rosters are set at the discretion of the District secretary, with members rotated in or out to ensure the SWAT has an appropriate representation of crossfunctional expertise

#### Key Positions represented on SWAT

- Work Program manager
- EMO Manager
- District Design Engineer
- Environmental Administrator
- Project Development Engineer
- Optional: representatives from ROW, procurement or construction

### How will performance be tracked?

### Performance Management process is facilitated by:

- District secretaries
- Production directors
- Central SWAT team members

### Process

- Builds on FDOT's existing reporting structure
- Secretaries review the dashboard during the executive workshop as part of broader performance management
- Leadership celebrates District-level successes
- Communicate regularly with the Districts to set expectations and discuss performance

## Key questions to cover during performance management meeting

Are projects on track to achieve estimated durations?
 Have SWAT teams been meeting regularly to scope and schedule projects, and develop process improvements?
 Have SWAT teams recommended new projects for state-funding in the latest gaming cycle?
 Do current projects have sufficient funding in the required years to achieve their target durations?
 Do projects consistently use best practices such as dual-

procurement, process overlap and early data collection

## The dashboard will allow the Performance Management team to track the progress and needs of state projects

### Performance Dashboard (as of Feb. 2015)

				Estimated ye bencl	ars saved to hmark	Actual yea bencl	rs saved to hmark	Legend for	r judging dur love Aspiration	ations		Note: Benchmark durations are calculated a time between Project Avertisement (PSM
			State process vs. Federal benchmark	5	6	1	0	5% - 20%	% above Aspira	tion	20	200) to Production (PSM 204)
			State process vs. Aspiration	2	5	)	0	No Aspr	iation Yet	n i	5.0	
			Margarea District SWAT leads	Mayone	Marjone			Majora				
	Proj	ect Trac	ker			-	4					
Status .T	Distric	ct Item #	Item Description	Estimated COA	Project likely requires new ROW	Federal Benchmark (months)	State Aspiration (months)	Estimated Duration (months)	Actual Duration (months)	Estimated Production Date (PSM 204)	Actual Production Date (PSM 204)	District Notes (optional)
Current	1	431351-1	US 17/92 HINSON AVE FROM SR 17 (10TH STREET) TO 17TH STREET (SWITCH TO STATE FUNDS)	EIS	Yes	139	52	63		Apr-20		Weak purpose & need. May not progress past feasability study
Current	2	434552-1	SR 9B US 1 to SR 9B split Add lanes and Reconstruct	Type II CE		82	24					
Current	2	435821-1	SR 200 @ Crawford Road Interchange (new)	EIS	Yes	139	52	- 55		Jul-19		Timeline determined by developer's construction schedule. Grant from Econ Day, Office

					Legend for		orthorne .			
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j		Proje	ct Tracl	ker
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l	Current	1	431351-1	US 17/92 HINSON AVE FROM SR 17 (10TH STREET) TO 17TH STREET (SWITCH TO STATE FUNDS)
j	Current	2	434552-1	SR 9B US 1 to SR 9B split Add lanes and Reconstruct
ļ	Current	2	435821-1	SR 200 @ Crawford Road Interchange (new)

When a project is programmed as state-funded ...

The **District name**, **FM#** and **project description** are added on a new row in the dashboard If PD&E is programmed for the current fiscal year, or the project is on-going,

**Then** Project status is moved from "Pending" to "Current"



Estimated COA	Project likely requires new ROW	Federal Benchmark <i>(months</i> )	State Aspiration (months)
EIS	Yes	139	52
Type II CE		82	24
EIS	Yes	139	52

F

#### At the SWAT project kickoff,

- Team must estimate COA as if the project were federalized
- Team must indicate if new ROW acquisition is required

#### Information is given to Central SWAT

- Used to determine the Federal and State Aspirational benchmark
- Durations are calculated from Project Advertisement (PSM200) to Production (PSM 204)

### Performance Dashboard cont.

#### State & Federal benchmark durations

~~~~~		,,,,,,,,,,,,,,,,,,,,,,	*****************
Estimated	Federal Benchmark	State Benchmark	Adder for new ROW
Class of Action	(months)	(months)	(months)
Prog CE	47	18	12
Type II CE	82	24	12
EA	121	30	12
EIS	127	40	12



Estimated Duration (months)	Actual Duration (months)	Estimated Production Date (PSM 204)	Actual Production Date (PSM 204)	District Notes (optional)
63		Apr-20		Weak purpose & need. May not progress past feasability study
55		Jul-19		Timeline determined by developer's construction

#### At the SWAT project kickoff,

- Team must estimate project-specific duration
- Additional notes can be used to explain gap to benchmark

## When a project goes to production (100% Design)

- Production date is used to calculate actual project duration
- Actual project duration is compared against estimated duration



#### The summary bar provides

 Comparison of <u>estimated</u> and <u>actual</u> savings relative to <u>federal</u> and <u>state</u> aspiration benchmarks

## Colors are used to indicate degree of deviation from state aspiration

- If project is no more than 5% above the benchmark, it signals green
- If a project is more than 20% above the benchmark it signals red

#### IMPORTANT

Districts and PMs are responsible for ensuring that funding is programmed correctly for them to meet their schedules They should use the notes section to highlight to leadership if they are having trouble putting funding to the needed year SWAT teams will need to develop a roadmap of specific goals and responsibilities in order to fulfill their core mission



3



## What are the critical roles within the state process and what is needed for each role to succeed?

#### SWAT Team

- Current members are responsible for coaching junior staff with the goal of developing future SWAT members
- SWAT members may serve multiple terms to maintain continuity
- SWAT teams may consider rotating team leads every couple of years in order to share workload and avoid stagnation

#### PM

- PMs should move from seeing their role as contract managers to becoming true project managers, responsible for understanding and delivering the project
- Successful PMs will create an aggressive yet realistic project schedule and deliver against it
- Project managers should lean on SWAT teams to ensure they have sufficient expertise and support for their projects
- PMs are also responsible for ensuring that accurate and timely information is provided to the SWAT teams

#### FDOT leadership

- Leadership will ensure that Districts are fully informed about the resources and expectations for the improved state process
- Leadership will hold Districts accountable to meeting the expectations set forward for state funded projects

#### Describing the ideal SWAT member

PROCESS	I understand the impact of my team's work
PROBLEM SOLVING	I am engaged in finding fact-based solutions to
	problems
PERFORMANCE	I ensure root causes for performance gaps are
	uncovered
PARTNERING	I look for and implement new ideas from other
	districts
PURPOSE	I have communicated a clear vision and goals to
	my team
PEOPLE	I provide structure feedback and coaching to junior
	staff

### What tools can be used to ensure projects are on track?

## Huddles

- Huddles are highly efficient and focused meetings that help teams establish a rhythm of information sharing and problem solving
- Meetings should be no longer than 30 minutes in order to make frequent meetings sustainable and productive for attendees
- SWAT teams would use huddles to quickly update all members on the current status of a project, highlight key issues and delegate responsibilities
- The next page has an example of a sample huddle agenda

## Visual management

- Team visual management boards make information sharing easy, ensuring that all team members have ready access to project information
- SWAT teams should design their own boards to suit their team's needs
- Good boards are hand-made and easy to modify and update

## Example Visual Management Board



## Typical team huddle agenda and timing

			Responsibility	Time, min.
A.	U	pdate visual management board		
	1.	Project timeline update	SWATLead	2
	2.	Funds spent to date	Work Program	2
	3.	Permits issued or outstanding	Project Manager	2
	4.	Reports completed or outstanding	Project Manager	2
	5.	Major milestones met	SWATLead	2
B.	Fl	ag issues on issue board		
	1.	Remove resolved issues the board	SWAT Lead	2
	2.	Progress update on outstanding issues	SWATLead	5
	3.	Add new flagged issues to issue board	SWATLead	3
C.	Re	eallocate resources as needed		
	1.	Assign a resolution lead to new issues	SWAT Lead	5
	2.	Add capacity where required	SWATLead	5

Do this	Not this
Collaborative discussion with active participation by all staff	Monologue by team leader with little interaction
Joint issue identification and problem-solving planning Positive spirit: Focus on what can be achieved	Judgmental apportionment of blame for things that went wrong Critical or defensive attitudes
Challenging the accepted norms: "How can we do it better?" Delegating responsibility for achievement to the right people	Compliance or acceptance of the norm Micromanagement
Focus on the areas showing the biggest gaps to goals	Plod through the board, commenting on every indicator

## Use this page for notes on other tools discussed during the training

Signage:	

## Suggestion Box & Town hall:

## Newsletter:

## Awards & Recognition:

SWAT teams help the organization understand how the state process is working

Core questions SWAT members should keep in mind

State projects	Do projects have funding necessary to overlap PD&E and Design?
	Are Districts doing ETDM at the right time?
	Are Districts doing dual procurement for PD&E and Design?
	Is analysis being started in the year before PD&E?
Project Teams	Are consultants working within the guidelines of the improved state process?
	Are PMs being trained?
Skills and training	What core skills gaps do we see?
	What type of training might be beneficial?

What other perceived or actual Support policy clarifications are needed? What could Central Office do to support the process?

from Central

Office

## SWAT team reporting tool

Process Design		
	Best practices:	
	Challenges:	
Management	infrastructure	
Ū.	Best practices:	
	Challenges:	
Organization and Skills		
Organization	and Skills	
Organization	and Skills Best practices:	
Organization	and Skills Best practices: Challenges:	
Organization	and Skills Best practices: Challenges:	
Organization	and Skills Best practices: Best practices: Best Practices: Best Best Best Best Best Best Best Best	
Organization Culture	and Skills Best practices: Best practices: Challenges: Challenges:	

**Recommended policy changes:** 

### What other resources are available?

## Project management handbook

http://www.dot.state.fl.us/projectmanagementoffice/PMHandbook/

## PD&E manual

http://www.dot.state.fl.us/emo/pubs/pdeman/pdeman1.shtm

### Plans Preparation Manual

http://www.dot.state.fl.us/rddesign/PPMManual/PPM.shtm

### Articles

How to Change a Culture: Lessons from NUMMI

- John Shook

#### Books



## Culture



## 4 Culture

### What is our aspiration for FDOT's culture?

#### From:

To:

#### **OWN**

Our timeline is set by the work program funding

Each expert is responsible for their part of a project

People outside of FDOT control our process

We engage work program to set and refine timelines iteratively

We are collectively responsible for the overall success of a project

We control our process and actively remove roadblocks

**))** 

#### **OPERATE**

Many projects on the shelf give us flexibility to adapt to new situations and needs

I manage a contract for a consultant and ensure the consultant meets its targets

Completing work faster will require me to skip important steps and reduce quality

Completing projects quickly gives us flexibility to adapt to new situations and needs

I manage delivery of a project and ensure the project is successful

There is an opportunity for me to reduce waste in my work so that work is faster and easier

#### **OBSERVE**

When things go wrong we find out who is responsible, and work on the quick fix

We might not hit our target, so we should create a buffer to protect ourselves We must address the root cause of the problem and not focus on assigning blame

Setting authentic targets and raising issues is essential to improving the long-term



#### The vicious cycle of self-preservation

Employee

forecast

Boss

Expects work will require X days but forecast X+2 days to protect against uncertainty

Buffer must **continually increase** over time; **real expectations** are no longer communicated Forecast is usually long by 2 days, so mentally removes 2 days from forecast

Forecast is usually long by 4 days, so mentally removes 4 days from forecast Increases forecast to X + 4 days to maintain uncertainty buffer

Feels that boss is

discounting the



How will you help ensure we implement a better process?

		At the next SWAT meeting, I will
	Within the next month, I will	
On Monday, I will		

Notes