

# PROJECT DELIVERY ACADEMY

## MODULE 1

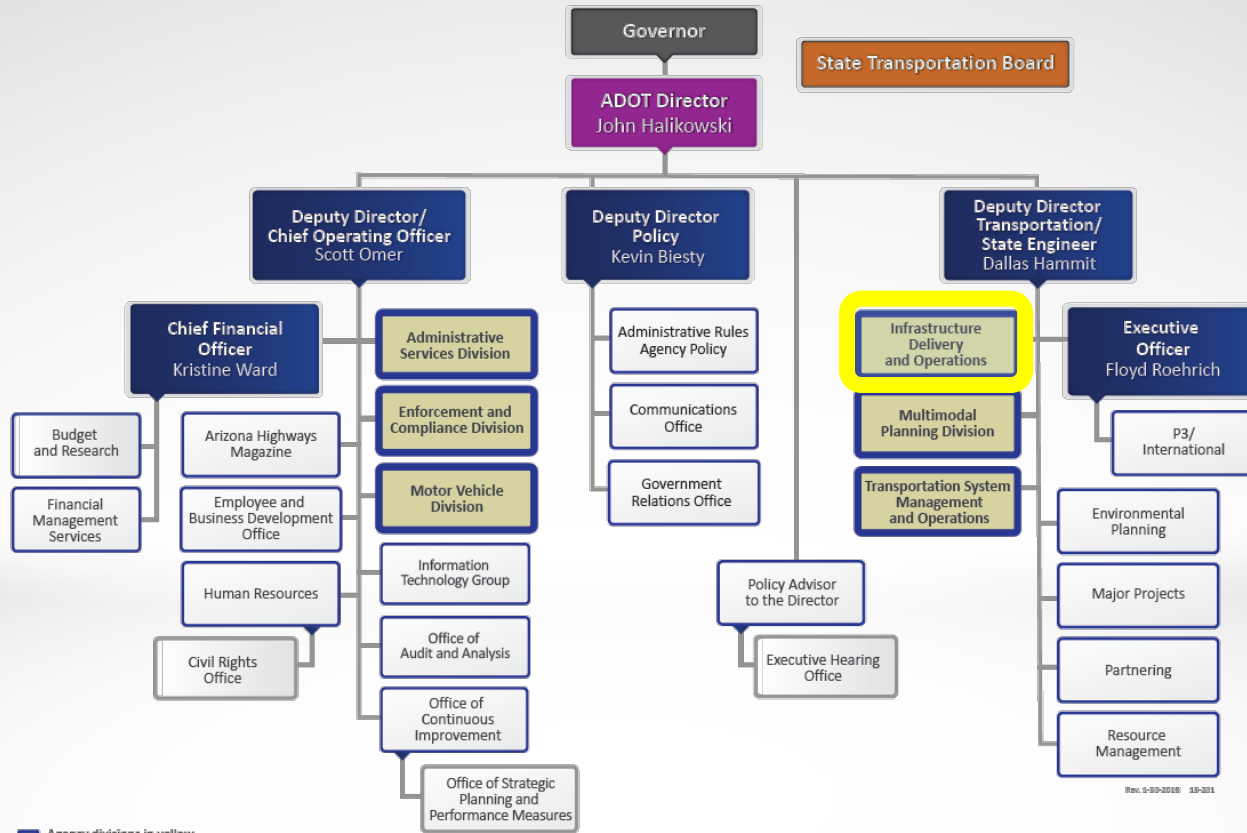
### ***PROJECT DEVELOPMENT – PROJECT INITIATION AND DESIGN***

**Jennifer Acuña, P.E.**  
**Senior Project Manager**  
**Project Management Group**

# OVERVIEW

- **PROJECT MANAGEMENT GROUP (PMG) OVERVIEW**
- **PROJECT DEVELOPMENT**
  - **PLANNING AND PROGRAMMING**
  - **DESIGN**
- **QUESTIONS??**

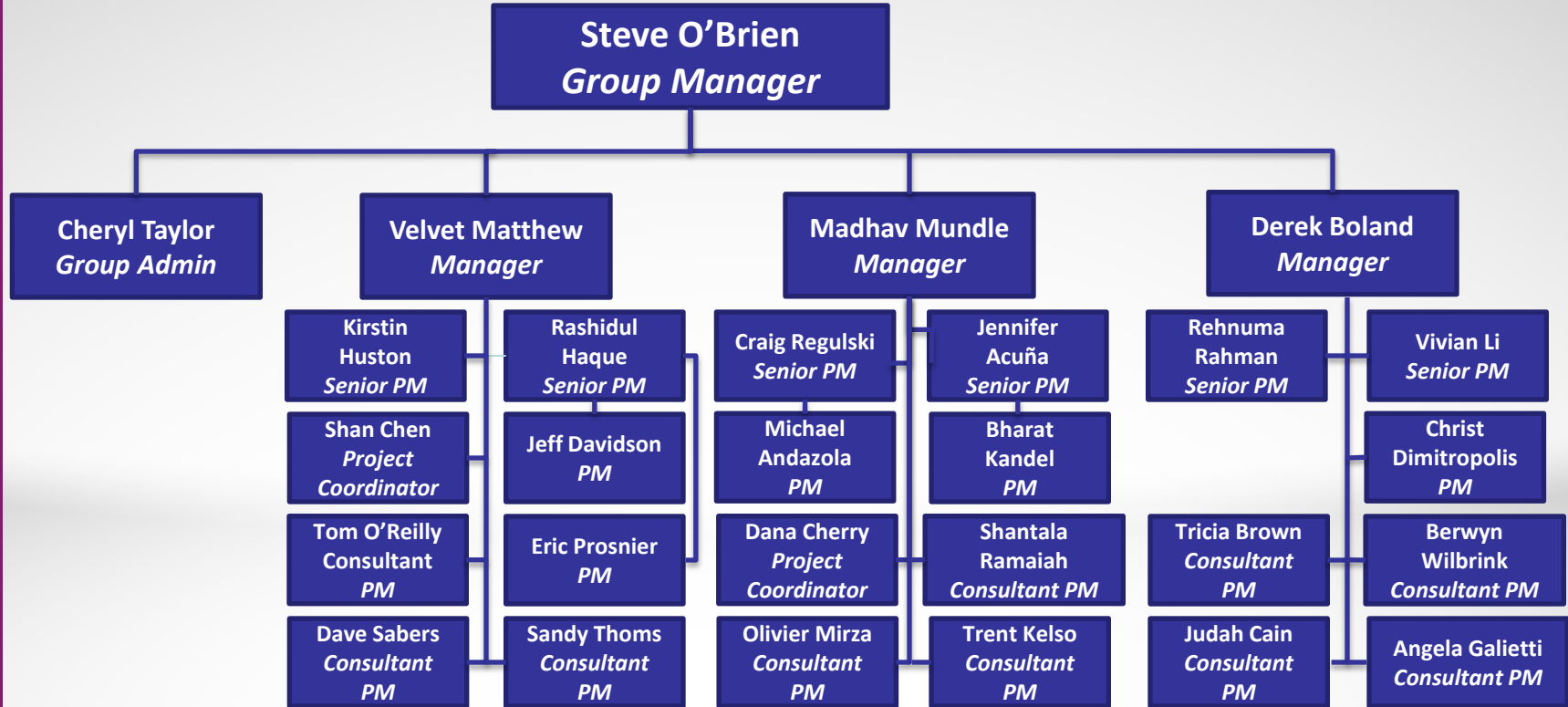
# ADOT ORGANIZATION



Rev. 5-09-2025 13-201

Agency divisions in yellow  
with bold border

# PROJECT MANAGEMENT GROUP OVERVIEW



# PROJECT MANAGEMENT GROUP OVERVIEW

- RESPONSIBLE FOR LEADING THE DEVELOPMENT OF ALL PROJECTS TO BE ADVERTISED FOR CONSTRUCTION BY ADOT C&S
- PERFORMANCE GOAL TO ADVERTISE A WELL DISTRIBUTED NUMBER OF PROJECTS EACH QUARTER (20-30-30-20)
  - FHWA & ADOT WORKLOAD
    - BEGINNING & END OF FY (BOTH STATE & FEDERAL)
- 119 STATE & LOCAL PROJECTS IN FY22

# PROJECT DEVELOPMENT

## Planning & Programming

### WHERE DO STATE PROJECTS COME FROM?

ADOT's Transportation Improvement Plan (TIP):

(STIP, 5-year plan, the Program)

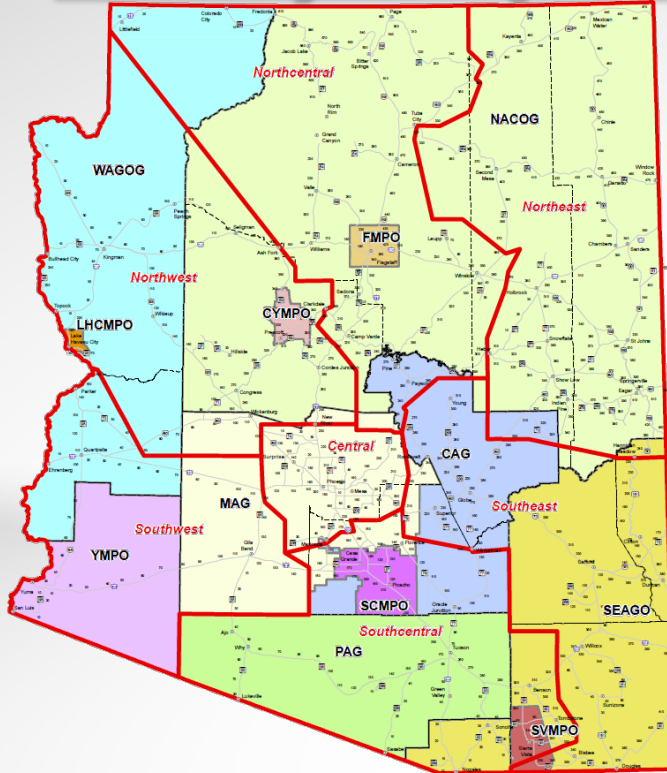
### WHERE DO LOCAL PROJECTS COME FROM?

COG & MPO TIP (Transportation Improvement Plan)



# PROJECT DEVELOPMENT

## Planning & Programming



## WHERE DO LOCAL PROJECTS COME FROM?

COGs & MPOs TIPs (Transportation Improvement Plan)

# PROJECT DEVELOPMENT

## Planning & Programming

WHAT DOES THE PM KNOW ABOUT THE SCOPE OF A PROJECT?

Information available is minimal...

...THAT IS THE IMPORTANCE OF A PROJECT MANAGER



# PROJECT DEVELOPMENT

## Planning & Programming

<i>ADOT ID</i>	101684	<i>MPO/TIP</i>	MAG 21-00	<i>Local ID</i>		<i>Total Cost</i>	\$21,400,000
<i>Lead Agency</i>	ADOT	<i>Contact</i>	Jennifer Acuna 602-712-8336	<i>ADOT Number</i>	F034501D, 01C	<i>County</i>	Maricopa
<i>Project Type</i>	Road - Rehabilitation	<i>Air Quality</i>	Exempt	<i>TCM</i>		<i>Construction</i>	2023 start
<i>Project Name</i>	W of Salome Rd - W of Tonopah						
<i>Route</i>	I 10						
<i>Project Limits</i>	I 10 from Salome Rd to Tonopah Rd milepost 90 to 100 (10 mile)						
<i>Description</i>	Pavement Rehabilitation						

Phase	Fund Source	Prior	FY2021	FY2022	FY2023	FY2024	FY2025	Future	Total
DESIGN	NHPP	-	\$377,360	-	-	-	-	-	\$377,360
DESIGN	State Match	-	\$22,640	-	-	-	-	-	\$22,640
	<i>Total DESIGN</i>	-	\$400,000	-	-	-	-	-	\$400,000
CON	NHPP	-	-	-	\$19,811,400	-	-	-	\$19,811,400
CON	State Match	-	-	-	\$1,188,600	-	-	-	\$1,188,600
	<i>Total Construction</i>	-	-	-	\$21,000,000	-	-	-	\$21,000,000
	<i>Total Programmed</i>	-	\$400,000	-	\$21,000,000	-	-	-	\$21,400,000



### Version History

<i>TIP Document</i>	<i>MPO Approval</i>	<i>State Approval</i>	<i>FHWA Approval</i>	<i>FTA Approval</i>
21-00 Adoption 2021-2025	Pending	Pending	Pending	N/A

### Current Change Reason

SCHEDULE / FUNDING / SCOPE - New Project

# PROJECT DEVELOPMENT

## Planning & Programming

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<i>Current Change Reason</i>
SCHEDULE / FUNDING / SCOPE - New Project

**Type of Work:** Pavement Rehabilitation

**Location:** Location (I-10) MP 90, 10 Miles of Improvement

**Schedule:** Design FY21| Construction FY23

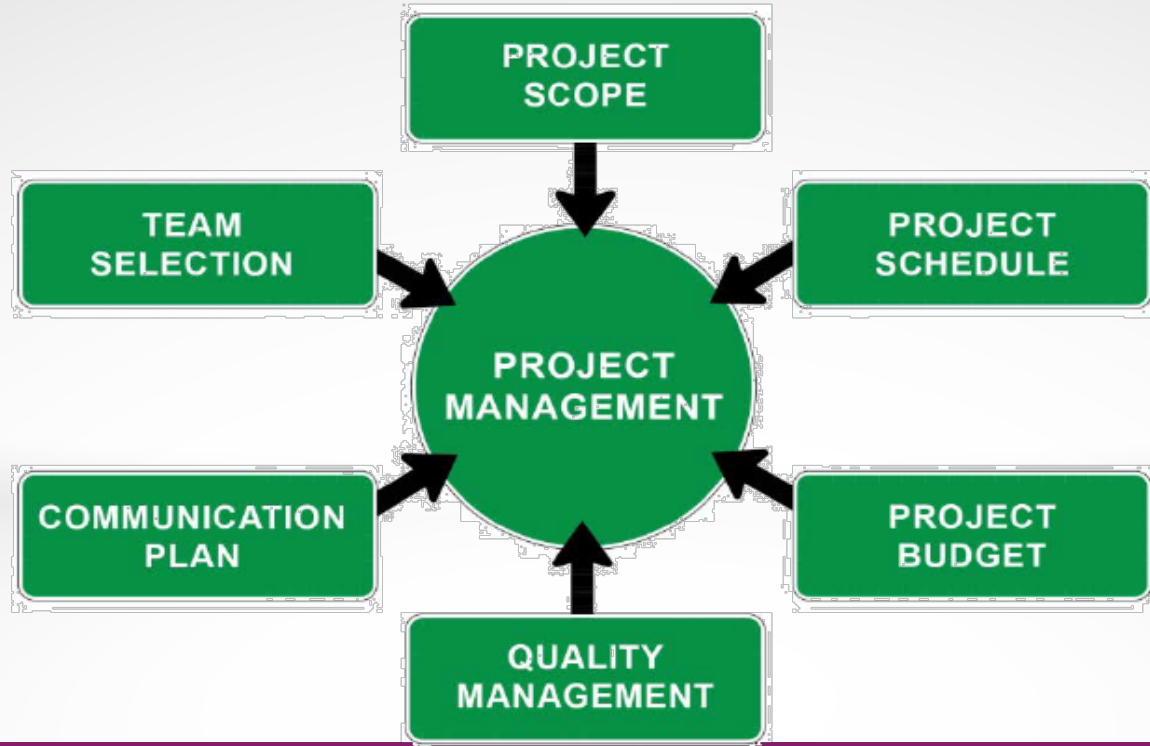
**Budget:** Design: \$400,000

Construction: \$21,000,000

**Funding:** NH (Federal National Highway Funds)  
NHPP (National Highway Performance Program)

# PROJECT DEVELOPMENT

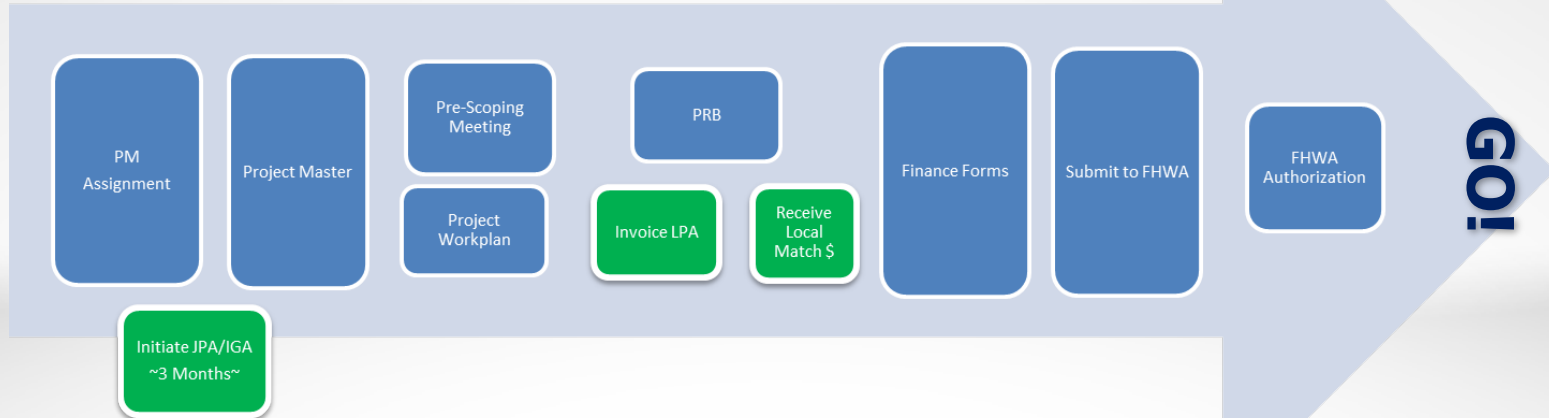
## Project Management



# PROJECT DEVELOPMENT

## Project Set Up – Funding Authorization

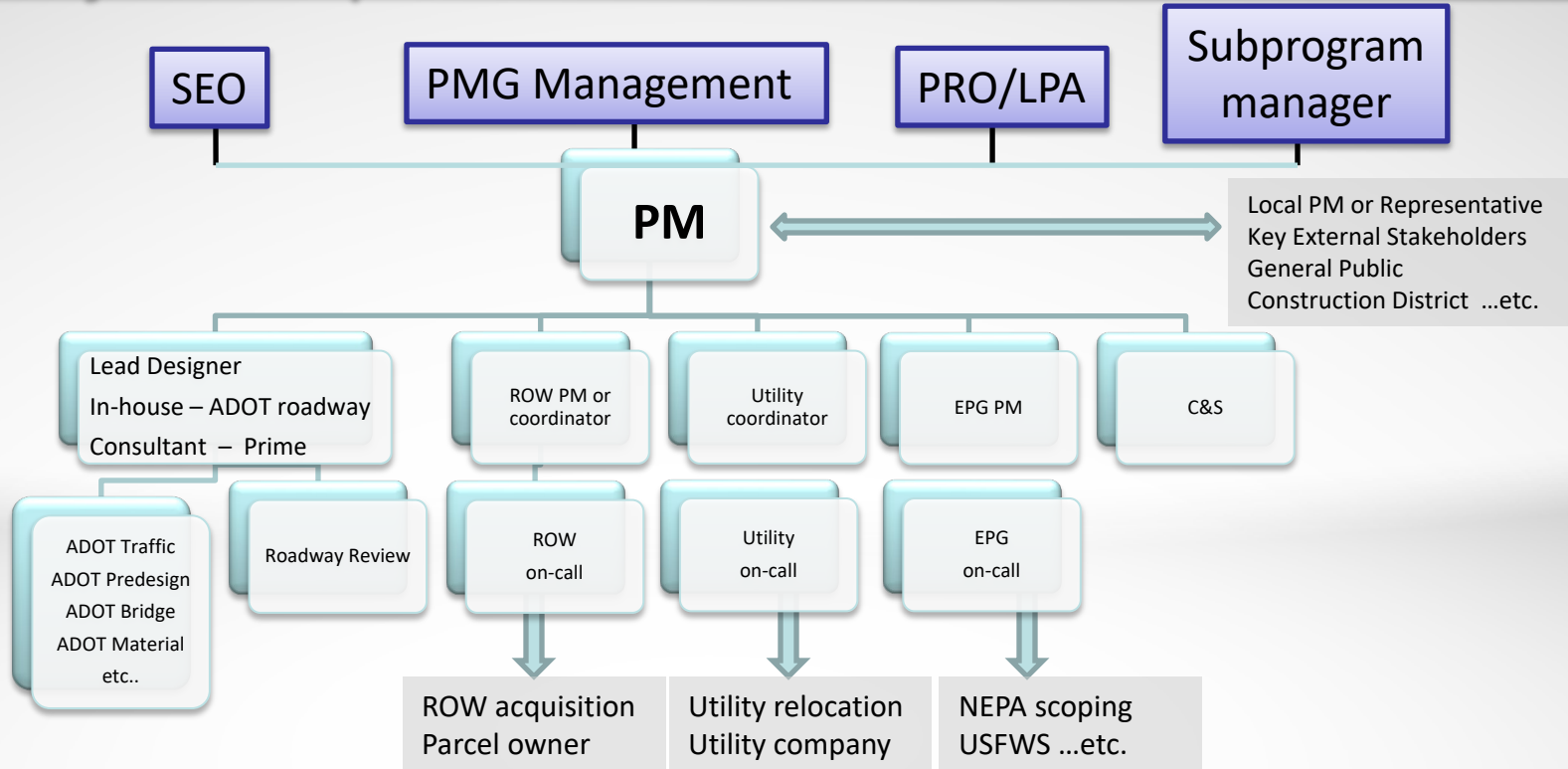
### STATE PROJECT



### LOCAL PROJECT

# PROJECT DEVELOPMENT

## Project Setup - Team Establishment



# PROJECT DEVELOPMENT

## Scope, Schedule, & Budget

### PROJECT WORK PLAN WORKBOOK

THIS IS OUR PROJECT FOUNDATION

- Defines
  - Team
  - Communication Protocol
  - Design Criteria
  - Project Schedule/Budget
  - Project Risks/Risk Register
  - Project Quality Plan

Work Plan Short Form			
1. Enter the following information:			
a. Project Manager	Jennifer Acuna	j. Stakeholders	Flagstaff
b. Project Name	WINONA TI UNDERPASS STR # 1084	k. Project Number	F0108
c. Type of Work	Bridge Rehabilitation	l. TIP ID	8808
d. Route	I-40	m. JPA No.	N/A
e. Milepost Limits	210-212	n. Funding Amount - Design (\$)	578,000
f. Federal ID	040-D(237)T	o. Funding Amount - Construction (\$)	4,700,000
g. District	Northcentral	p. Advertisement (FY/Qtr)	FY20/2nd
h. Project Type (State, LPA)	State	q. Design By:	ADOT In-House
i. Local Agency(s)			
INSTRUCTIONS			
1. Enter the information above. It will autofill throughout the Workbook.			
2. Not all conditions apply to every project. If, in going through the checklist of questions, a condition does not apply, simply indicate "N/A".			
3. Use forms throughout project life cycle unless indicated			
4. Templates and Links to Project Documents Below:			
Link to Document or Reference	Item	Description	Version Date
<a href="#">TIP</a>	TIP	Link to TIP, STIP	
<a href="#">Project Master</a>	Project Master	New Project Number and Subphase Setup, View Finance Auth. Status, Search for Budget Item Numbers, Etc.	
<a href="#">Project Folder</a>	Project Folder	New Project Folder Set-up	6/29/17
<a href="#">Project Initiation</a>	Project Initiation Form	Project Contacts	9/21/18
<a href="#">JPA Agreements</a>	JPA Initiation and Amendments	Initiation of JPA Agreement and Amendment Request Form	
<a href="#">Design Hour Estimate</a>	Design Estimate	Design Estimate Worksheet	8/23/18
<a href="#">Invoice Request</a>	Invoice Request	Request to Accounts Receivable for Local Match Invoices and other Local expenses	2/23/16
<a href="#">Contract Mod Checklist</a>	Contract Modification Checklist	Contract Modification Checklist	6/15/17
<a href="#">Project Determination</a>	Project Determination Form	Form for Scoping Document Concurrence	6/15/18
<a href="#">FARA &amp; MPARA</a>	FARA and MPARA	Federal Authorizations and Modifications	5/1/15
<a href="#">Stage Deliverables Checklists</a>	Stage Deliverable Checklists	Stage Deliverable Checklists	6/8/16
<a href="#">Meeting Templates</a>	Meeting Templates	Meeting Templates	
<a href="#">Comment Form</a>	Comment Resolution Form	ADOT and Compliance Comment Form	10/5/18
<a href="#">ICAP Calc</a>	ICAP Calculator	Calculates ICAP and Local Match Amounts	7/18/18
<a href="#">Project Status Form</a>	Project Status Form	Monthly Status Updates	10/11/16
<a href="#">AIDW</a>	AIDW	Project Submittal and Document Repository	
<a href="#">Systems Engineering Checklist</a>	Systems Engineering Checklist	Filled out and Signed by ADOT ITS for all ITS Projects	1/8/18
<a href="#">Recap</a>	Recapitulation Worksheet	Recapitulation Worksheet	3/5/18
<a href="#">CAG TIP</a>	Central Arizona Governments TIP		
<a href="#">FMPO TIP</a>	Flagstaff Metropolitan Planning Organization TIP		
<a href="#">LHMPPO TIP</a>	Lake Havasu Metropolitan Planning Organization TIP		
<a href="#">MAG TIP</a>	Maricopa Association of Governments TIP		
<a href="#">NACOG TIP</a>	Northern Arizona Council of Governments TIP		
<a href="#">PAG TIP</a>	Pima Association of Governments TIP		
<a href="#">SCMPO TIP</a>	Sun Corridor Metropolitan Planning Organization TIP		
<a href="#">SEAGO TIP</a>	Southeastern Arizona Governments Organization TIP		
<a href="#">YMPPO TIP</a>	Yuma Metropolitan Planning Organization		

# PROJECT DEVELOPMENT

## Designer Assignment

### WHO WILL DESIGN THE PROJECT?

#### ADOT (30% OF PROJECTS – NO LOCAL PROJECTS)

ADOT PM is the facilitator between the technical groups

ADOT technical teams perform design services, ADOT team members are assigned from the following disciplines:

Pre-Design	Roadside	Traffic	Geotech	Right of Way
Roadway	Drainage	Contracts & Specs	HSIP	Environmental
Pavement	Survey	Bridge	TSMO	Utility/RR

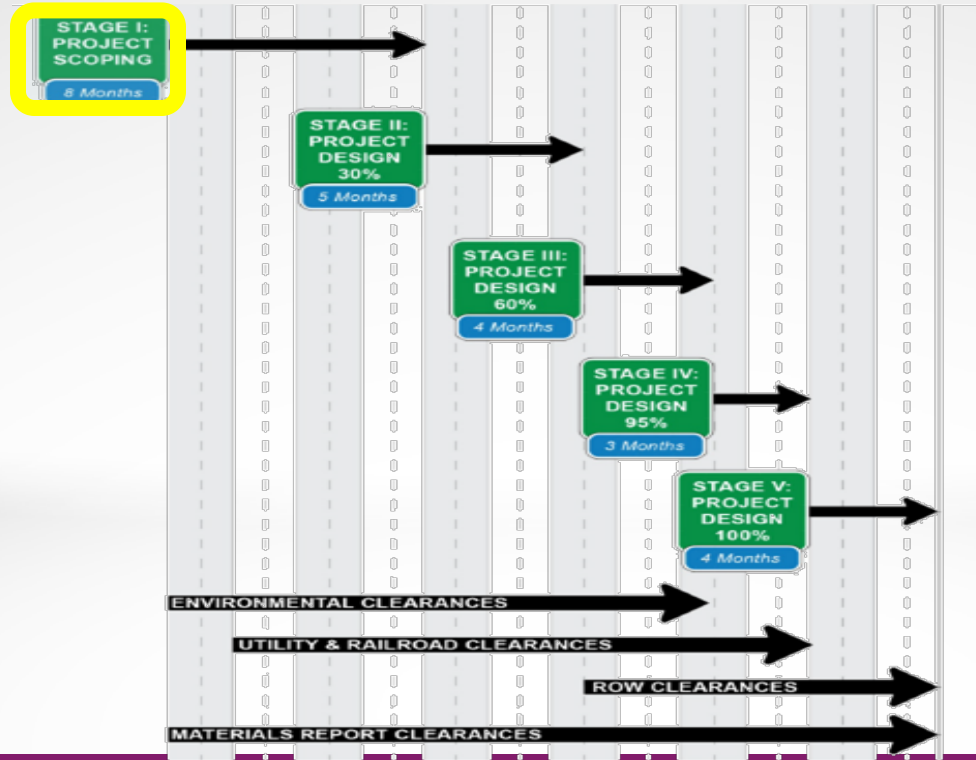
#### Consultant (70% OF ALL PROJECTS)

Prime Consultant performs all design disciplines and clearance documentation- internal staff or Subconsultants

- Need to use subconsultants to meet Disadvantaged Business Enterprise (DBE) Goal

# PROJECT DEVELOPMENT

## Stage I & Project Scoping





# PROJECT DEVELOPMENT

## Stage I & Project Scoping

### WHAT IS DONE DURING STAGE I/SCOPING?

- Kick-Off Meeting and Site Visit
- Gather project information including:
  - Survey & mapping
  - Stakeholder interests/concerns
  - Record drawings, etc.
- Recommend an approach which best fits the needs of the project and the consensus of the stakeholders.
- Prepare and Finalize scoping document

# PROJECT DEVELOPMENT

## Stage I & Project Scoping

### WHAT IS A SCOPING DOCUMENT?

- Feasibility Studies
- Design Concept Reports
- Project Assessments
- Scoping Letters

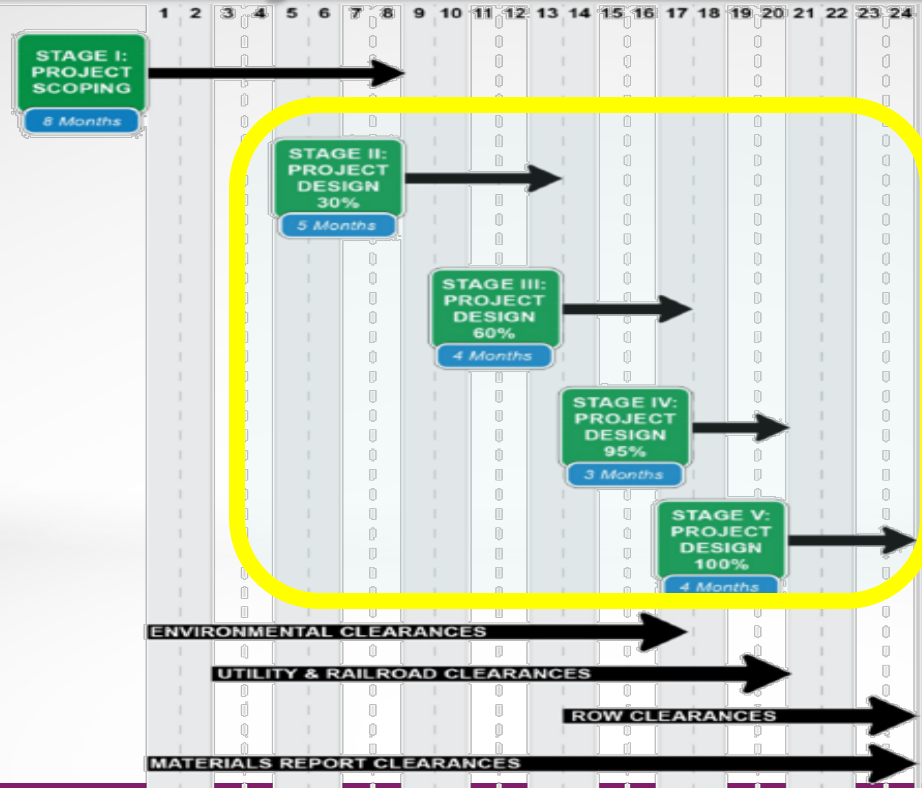
Concurring Signatures from:

<b>Pre-Design</b>	<b>Environmental</b>
<b>Project Management</b>	<b>Subprogram Manager</b>
<b>Deputy State Engineer</b>	<b>District Engineer</b>

PROJECT DETERMINATION FORM							
Project Number 260 NA 302 F0035 01C 260-B(222)T		County and ADOT District Navajo County Northeast District		Project Name and Highway Mainline Rd -- Overgaard SR 260		Final Project Assessment Date June 4, 2018	
Project Description Pavement Preservation				Construction Fiscal Year			
Existing Program Yes No X		Program Year 2019		Programmed Budget Not programmed PA Construction Cost Estimate \$4,259,000		Operating Partnership Category S F T D Z N/A X	
Public Hearing: In the Highway Development Process, at least one public hearing or the opportunity for a hearing will be offered for any project that:							
Requires a significant amount of new right-of-way: Substantially changes the layout or function of connecting roadway or the facility being improved; Has a significant adverse impact on abutting real property;				Otherwise has a significant social, economic, environmental or other effect Is controversial on environmental grounds; Or has significant floodplain encroachment X None of the above conditions apply			
Recommendations:							
Yes: No:		Public Forum		Environmental Category			
X		Offer a combined Location / Design Hearing		Class I		Class II	
X		Offer Separate Location/Design Hearing		X		Class III	
X		Hold a Design Public Hearing					
Concur:				DocuSigned by:			
Reed Henry 6/6/2018 Manager Roadway Predesign Section 605 E				Paul O'Brien 6/6/2018 Manager Environmental Planning Group EM02			
DocuSigned by:				DocuSigned by:			
Kirstin Tvedten 6/6/2018 Project Manager Statewide Project Management Group 614E				Kevin Robertson 6/6/2018 Manager Pavement Management Section 068R			
Approved:				DocuSigned by:			
Michael DenBleyker 6/6/2018 Deputy State Roadway Engineer Roadway Engineering Group 605 E				Lynn Johnson 6/6/2018 District Engineer Northeast District			

# PROJECT DEVELOPMENT

## Stage II – Stage V



# PROJECT DEVELOPMENT

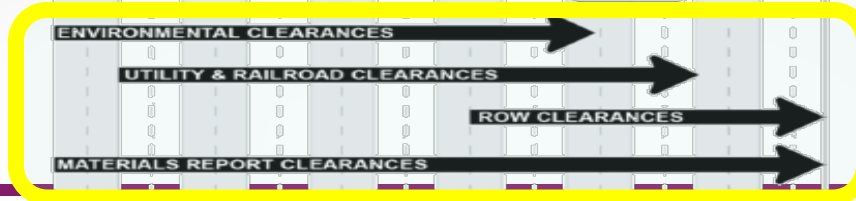
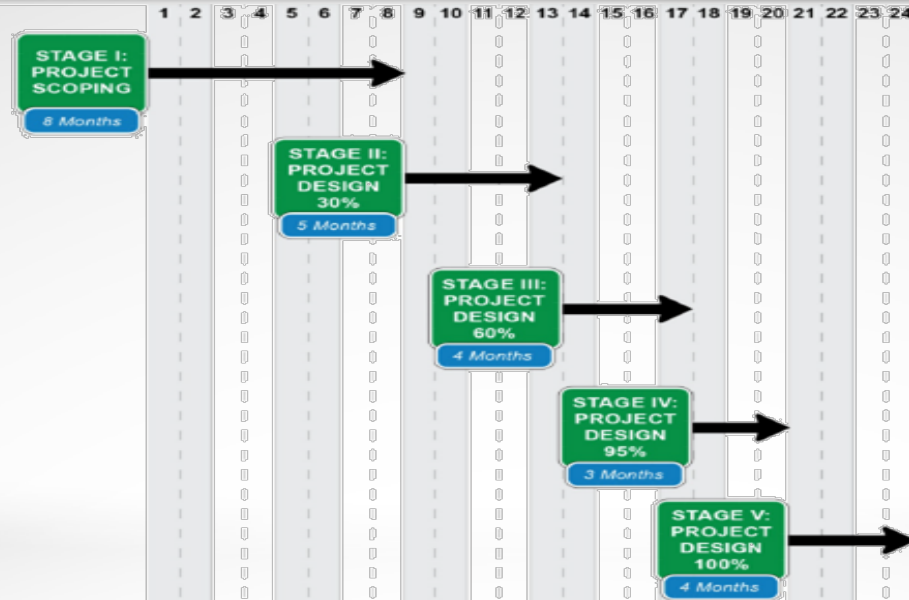
## Change Approval Process

### HOW ARE PROJECT CHANGES APPROVED AND DOCUMENTED?

- Changes in project scope, schedule, or budget require formal approval from ADOT boards/committees
  - 3 tiered process –
    - Project review board (PRB) – meets every Tuesday at 9:00 am
    - Priority planning advisory committee (PPAC) – meets once a month
    - State Transportation board – meets once a month

# PROJECT DEVELOPMENT

## Clearances



# PROJECT DEVELOPMENT

## Environmental Clearance

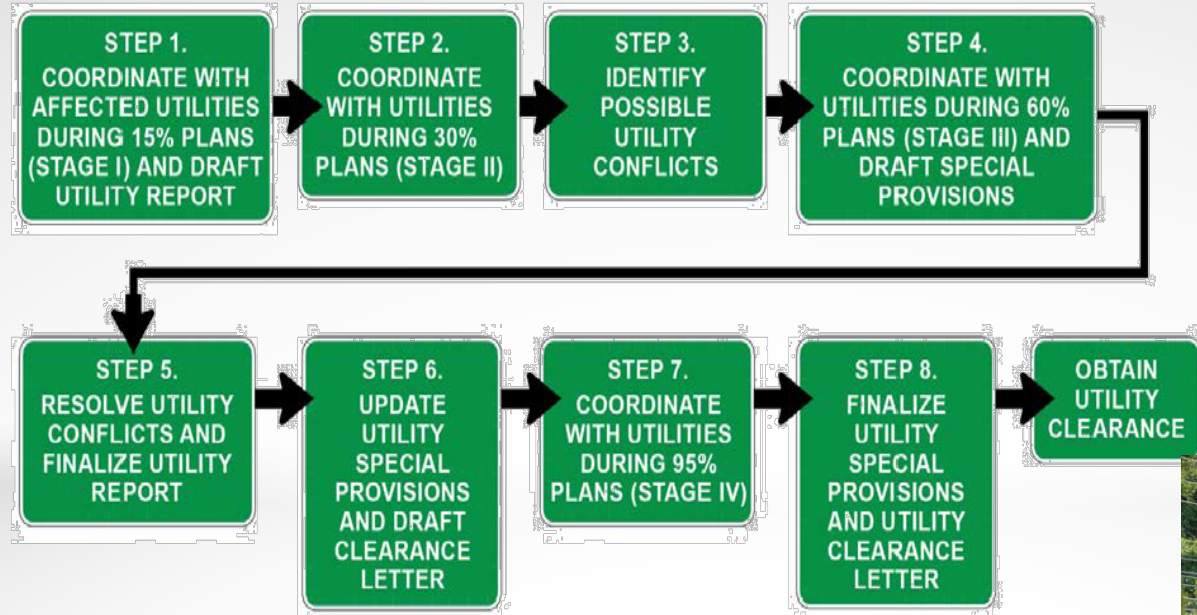
- National Environmental Policy Act (NEPA)
- Clean Water Act (CWA)
- Clean Air Act
- Endangered Species Act
- Migratory Bird Act
- Section 106 of the National Historic Preservation Act (NHPA)
- Section 4(f) of the U.S. Department of Transportation Act
- Procedures for Abatement of Highway Traffic Noise and Construction Noise
- Resource Conservation and Recovery Act (RCRA = Hazmat)





# PROJECT DEVELOPMENT

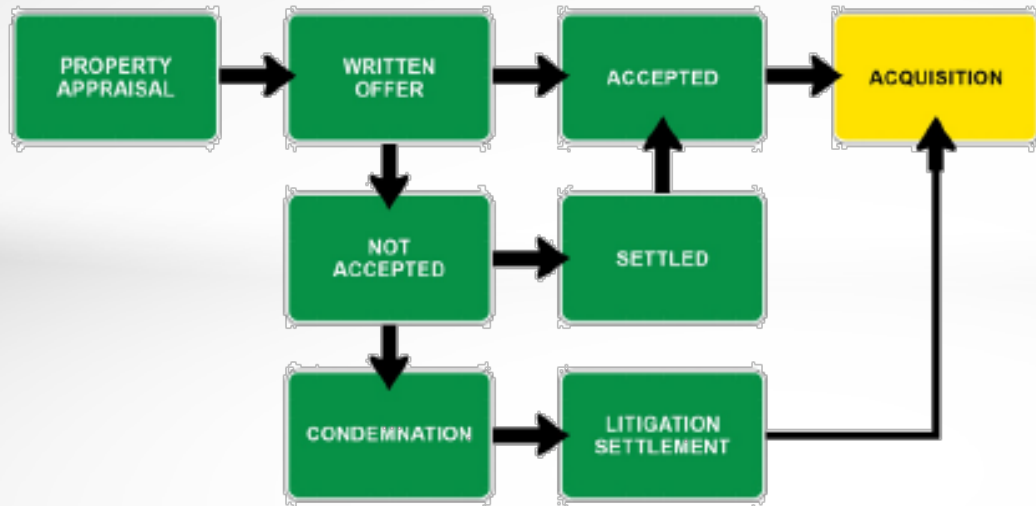
## Utility Clearance



# PROJECT DEVELOPMENT

## Right of Way Clearance

- R/W Clearance process starts as soon as ADOT R/W is notified that R/W is needed.
- New ROW can take 6 months or much, much longer:





# PROJECT DEVELOPMENT

## Bid Ready

### WHEN IS THE PROJECT BID READY?

- All Clearances have been obtained
- All Review comments have been addressed
- Contracts & Specifications has reviewed and approved specifications and engineer's estimate
- Plans, Specs, & Estimate complete and sealed

# PROJECT DEVELOPMENT

## Advertisement for Construction

### WHEN WILL THE PROJECT ADVERTISE?

- C&S submits Federal Authorization Request to FMS
- FMS submits to FHWA
- 2 to 3 weeks later – FHWA gives Federal Authorization
- C&S Advertises!

# PROJECT DEVELOPMENT

## Advertisement for Construction



Google Custom Search



About

Motor Vehicles

Projects

Business

Planning

News

Traffic

Maps

Contact

Arizona DOT / Business / Contracts and Specifications / Current Advertisements

subscribe for updates



ADOT Business Coach On Demand

Engineering and Construction

Contracts and Specifications

Current Advertisements

Advertised Alternative Delivery Projects

Advertised Demolition Projects

As-Read Bid Results

Bid Tabulations

Future Projects

Electronic Bidding

Prequalified Contractors

## Contracts and Specifications

### Current Advertisements

The **Project Documents** (including Proposal Pamphlet, Project Plan, Addendum, etc.) are available to download in **Portable Document Format (PDF)** format, which will require Adobe Acrobat Reader to view.

Register	PlanHolders	Project Documents	Route County Milepost	TRACS #	Project #	Bid Opening	Plans Status	Add
<a href="#">Register</a>			093 MO 028	H865701C	093-A-(205) T	8/24/2018	Available	1
<a href="#">Register</a>			999 UN 999	F005501C	999-A-(518) T	8/31/2018	Available	1






# PROJECT DELIVERY ACADEMY MODULE 2(A)

## Project Development – Initiation and Design

### QUESTIONS???

### COMMENTS???

-  PMG@azdot.gov
- Jennifer Acuña, P.E.  
Senior Project Manager  
ADOT Project Management Group
-  [JAcuna@azdot.gov](mailto:JAcuna@azdot.gov)  602-712-8336