PROJECT DELIVERY ACADEMY

INITIATING / SCOPING A PROJECT

Derek B. Boland, P.E.
Project Management Group

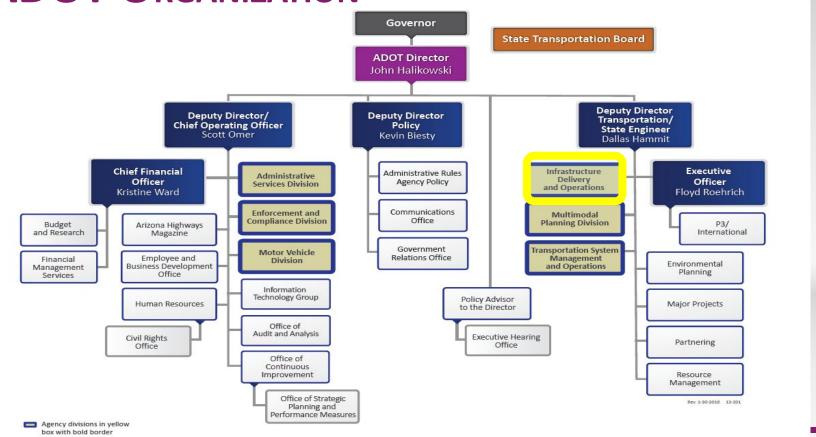


OVERVIEW

- Project Management Group (PMG) Overview
 - · Who we are
 - · What we do
- PROJECT DEVELOPMENT
 - PLANNING AND PROGRAMMING
 - Design Process Overview
- QUESTIONS??



ADOT ORGANIZATION



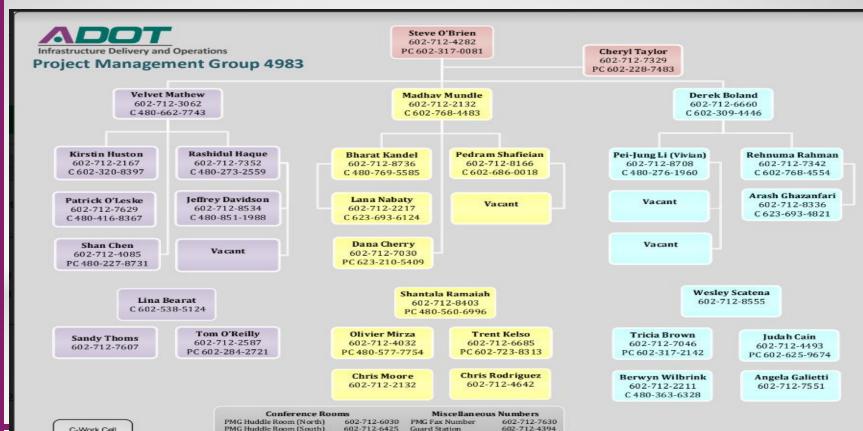


PROJECT MANAGEMENT GROUP

Arizona Room

Roadway Room

Gecko Room



Capitol Police / DPS

Facilities Help Desk

602-712-4310 Support Desk (Heat #) 602-712-7249

602-542-4580

05/27/2022

602-712-7888

602-712-2458

WebEx Only

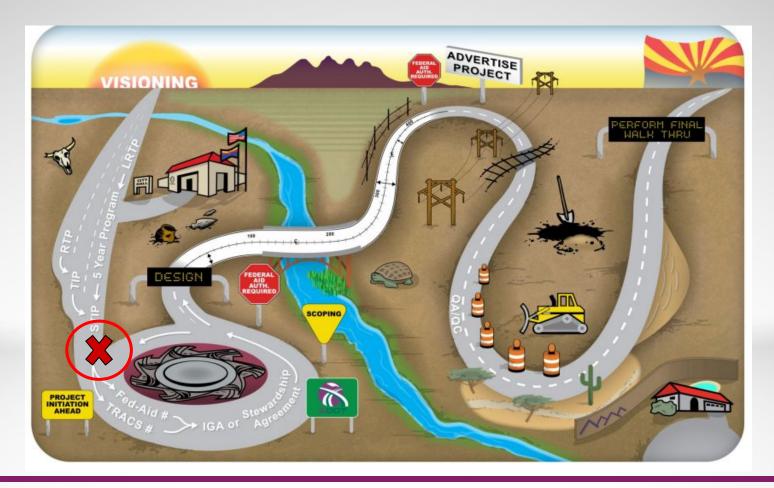
C-Work Cell PC-Personal Cell

PROJECT MANAGEMENT GROUP OVERVIEW

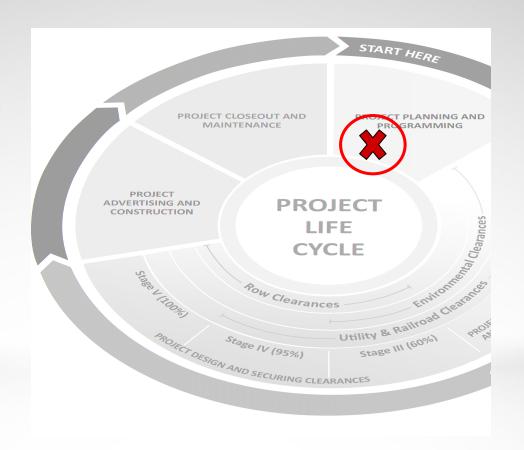
 Responsible for leading the development of all projects to be advertised for construction by ADOT C&S

- Performance goal to advertise a well distributed number of projects each quarter (20-30-30-20)
- 110 State & Local Projects in FY22











Planning & Programming

WHERE DO STATE PROJECTS COME

FROM?

ADOT's Transportation Improvement

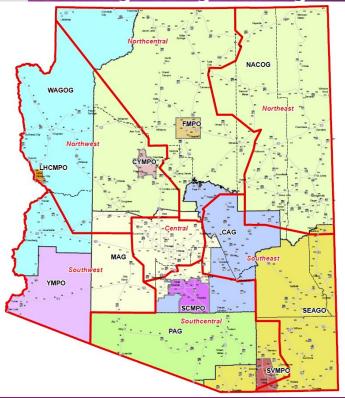
Plan (TIP):

(STIP, 5-year plan, the Program)





Planning & Programming



WHERE DO LOCAL PROJECTS COME

FROM?

COGs & MPOs TIPs

(Transportation Improvement Plan)



Planning & Programming

WHAT DO WE KNOW ABOUT THE PROJECT?

What resources are available? Time, Funding, People

Who local / District contacts are there?

What is the purpose & need for the project?

Knowns vs Unknowns (Manage Risks)



Planning & Programming

ADOT ID Lead Agency Project Type

101684 ADOT Road - Rehabilitation MPO/TIP Contact

Air Quality Exempt

MAG 21-00 Jennifer Acuna 602-712-8336

Local ID ADOT Number TCM

F034501D, 01C

\$21,400,000 Total Cost County Maricopa Construction 2023 start

Project Name Route

W of Salome Rd - W of Tonopah Project Limits

I 10 from Salome Rd to Tonopah Rd milepost 90 to 100 (10 mile)

Pavement Rehabilitation Description

| Phase | Fund Source | | Prior | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | Future | Total |
|--------|-------------|--------------------|-------|-----------|--------|--------------|--------|--------|--------|--------------|
| DESIGN | NHPP | | 6970 | \$377,360 | - | | | ** | | \$377,360 |
| DESIGN | State Match | | - | \$22,640 | - | - | | 2-0 | 7-3 | \$22,640 |
| | | Total DESIGN | | \$400,000 | - | - | #3 | +3 | - | \$400,000 |
| CON | NHPP | | | 175 | - | \$19,811,400 | | +00 | 10.00 | \$19,811,400 |
| CON | State Match | | - | 12 | - | \$1,188,600 | - | - 4 | F-31 | \$1,188,600 |
| | | Total Construction | | - | - | \$21,000,000 | = 3 | 70 | - | \$21,000,000 |
| 33 | | Total Programmed | - | \$400,000 | - | \$21,000,000 | - | - | | \$21,400,000 |



| | | Version | History | | |
|--------|--------------------|-----------------|-------------------|------------------|-----------------|
| TIP De | ocument | MPO Approval | State Approval | FHWA Approval | FTA Approval |
| 21-00 | Adoption 2021-2025 | Pending | Pending | Pending | N/A |

Current Change Reason

SCHEDULE / FUNDING / SCOPE - New Project



Planning & Programming

ADOT ID Lead Agency Route

101684 ADOT Road - Rehabilitation W of Salome Rd - W of Tonopah

MPO/TIP Contact Air Quality Exempt

MAG 21-00 Sonifer A una 602-712-8336

Local ID ADOT Number TCM

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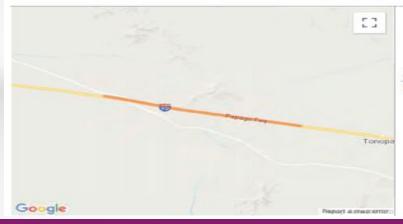
Total Cost County Construction

\$21,400,000 Maricopa 2023 start

Project Type Project Name Project Limits Description

I 10 from Salome Rd to Tonopah Rd milepost 90 to 100 (10 mile) Pavement Rehabilitation

| Phase | Fund Source | | Prior | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | Future | Total |
|--------|-------------|--------------------|-------|-----------|--------|--------------|--------|-----------------|--------|--------------|
| DESIGN | NHPP | 1 | 6970 | \$377,360 | | - | | ** | 1200 | \$377,360 |
| DESIGN | State Match | | | \$22,640 | - | - | | 2-9 | 7-5 | \$22,640 |
| | | Total DESIGN | | \$400,000 | - | | #3 | 9 23 | - | \$400,000 |
| CON | NHPP | | | - | - | \$19,811,400 | - | | 1070 | \$19,811,400 |
| CON | State Match | | - | | - | \$1,188,600 | - | 2-3 | | \$1,188,600 |
| | | Total Construction | | - | 1+1 | \$21,000,000 | 180 | +0 | - | \$21,000,000 |
| | | Total Programmed | - | \$400,000 | - | \$21,000,000 | / - | - | | \$21,400,000 |



Version History

| TIP D | ocument | MPO Approval | State Approval | FHWA Approval | FTA Approval |
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Current Change Reason

SCHEDULE / FUNDING / SCOPE - New Project

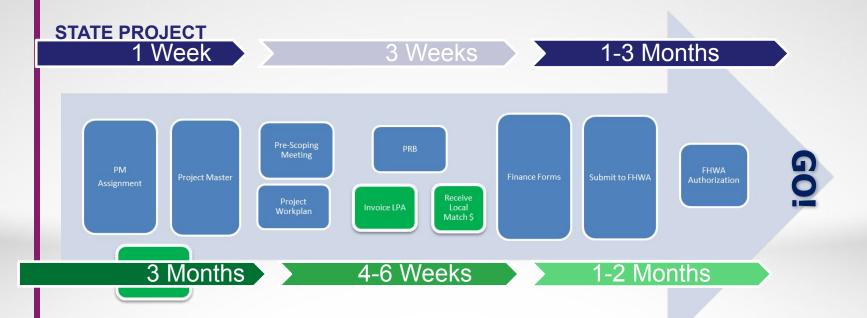


Project Management





Project Set Up – Funding Authorization

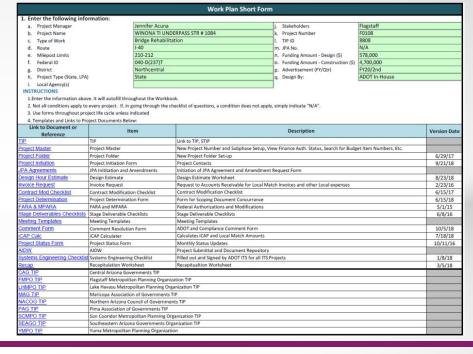


LOCAL PROJECT



Scope, Schedule, & Budget

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





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 |

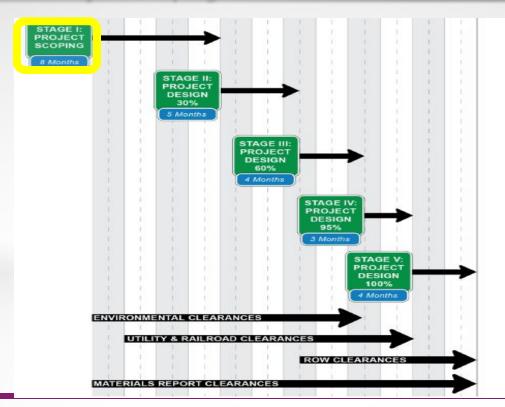
Consultant (70% of ALL PROJECTS)

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

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



Stage I & Project Scoping





Stage I & Project Scoping

WHAT IS DONE DURING STAGE I/SCOPING?

- Kick-Off Meeting and <u>Site Visit</u>
- Gather project information including:
 - Survey & mapping
 - Stakeholder interests/concerns
 - Record drawings, etc.
- Prepare and Finalize scoping document

- Current site characteristics
- Potential project footprint
- Major project components
- > Potential design alternatives

- Environmental resource clearance requirements
- ROW clearance needs
- Utility and railroad coordination requirements
- Landownership
- Geotechnical investigation needs
- Hydrologic conditions
- Cost estimates



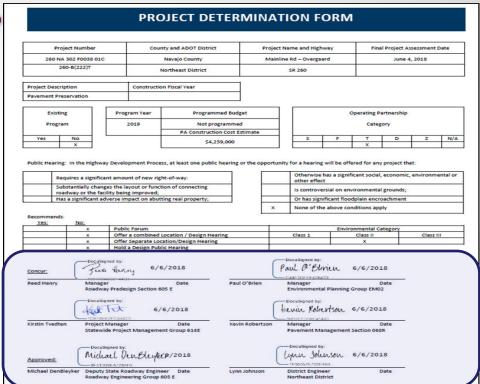
Stage I & Project Scoping

WHAT IS A SCOPING DOCUMENT?

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

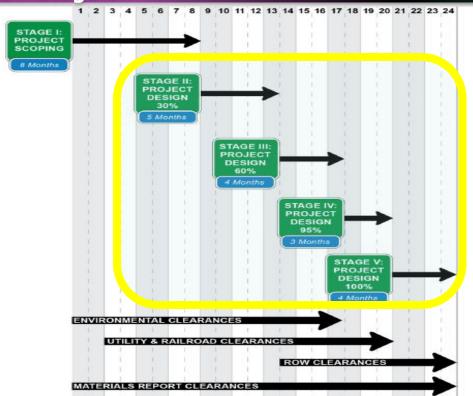
Concurring Signatures from:

Pre-Design Project Management Deputy State Engineer Environmental
Subprogram Manager
District Engineer





Stage II – Stage V





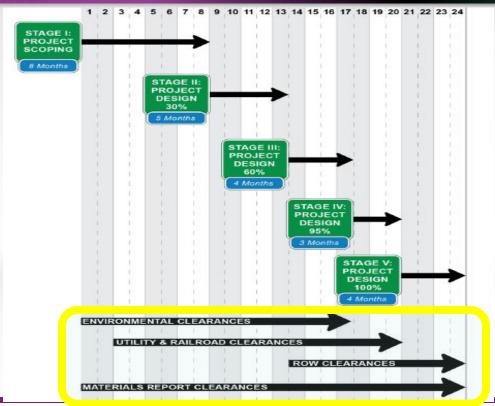
Change Approval Process

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 most Tuesdays at 9:00 am
 - *Priority planning advisory committee (PPAC) meets once a month
 - State Transportation board meets once a month



Clearances





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)





Utility Clearance



STEP 2. COORDINATE WITH UTILITIES DURING 30% PLANS (STAGE II) STEP 3.
IDENTIFY
POSSIBLE
UTILITY
CONFLICTS

STEP 4.

COORDINATE WITH
UTILITIES DURING 60%
PLANS (STAGE III) AND
DRAFT SPECIAL
PROVISIONS



STEP 5.
RESOLVE UTILITY
CONFLICTS AND
FINALIZE UTILITY
REPORT

STEP 6.
UPDATE
UTILITY
SPECIAL
PROVISIONS
AND DRAFT
CLEARANCE
LETTER

STEP 7.
COORDINATE
WITH UTILITIES
DURING 95%
PLANS (STAGE IV)

STEP 8.
FINALIZE
UTILITY
SPECIAL
PROVISIONS
AND UTILITY
CLEARANCE
LETTER

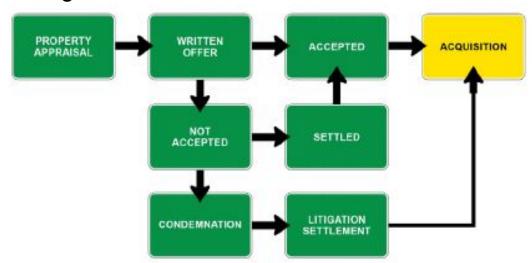
OBTAIN UTILITY CLEARANCE





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:







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



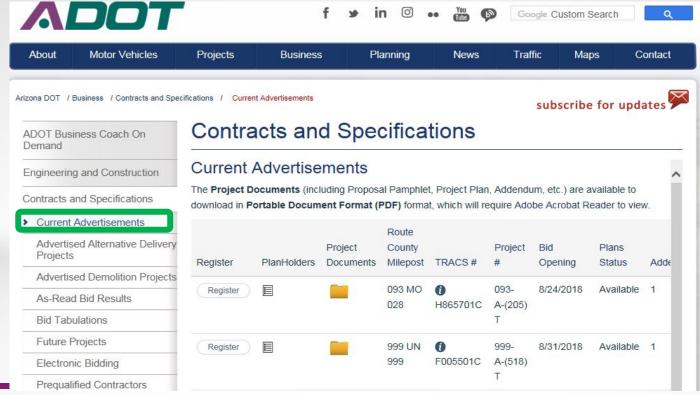
Advertisement for Construction

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!



Advertisement for Construction





PROJECT DELIVERY ACADEMY MODULE 1

Project Development – Initiation and Design

QUESTIONS?

COMMENTS?

PMG@azdot.gov

