

PROJECT DELIVERY ACADEMY ENVIRONMENTAL CLEARANCE

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WHAT IS AN ENVIRONMENTAL CLEARANCE?

- ❑ In short it means the project has been reviewed under all applicable environmental requirements and is “cleared” for construction



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WHAT IS AN ENVIRONMENTAL CLEARANCE?

ADOT highways and the environment

- ❑ Natural – Air, land, water, trees, wildlife, habit, etc.
- ❑ Built – Buildings, bridges, roadways, etc.
- ❑ Human – Social, economic



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WHY WE NEED AN ENVIRONMENTAL CLEARANCE

Federal-aid Highway Program Requirements

- ❑ Federal Highway Administration (FHWA)
 - ❑ Federal Funding
 - ❑ Right-of-Way of Federal Lands
 - ❑ Permits
 - ❑ Change in Access on an Interstate Highway
- ❑ State and Local Requirements

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WHAT IS AN ENVIRONMENTAL CLEARANCE?

Environmental Requirements

- ❑ Law: United States Code (U.S.C.)
- ❑ Regulations: Code of Federal Regulations (CRF)
- ❑ FHWA Policy
- ❑ FHWA Formal Guidance
- ❑ ADOT Guidance

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WHAT IS AN ENVIRONMENTAL CLEARANCE?

- ❑ For federal-aid highway projects ‘environmental clearance’ is generally associated with one word; “NEPA”
 - National Environmental Policy Act of 1969
- ❑ NEPA requires the federal government (FHWA) to consider the environment in major federal “actions”
 - Demonstrated compliance needed for construction authorization
 - Federal funding for design and right-of-way

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NEPA Act – Environmental Review Law

NEPA Umbrella - Environmental Review



Title VI of Civil Rights Act of 1964

Executive Order 12898 (Environmental Justice)

23 USC Section 109 (Standards)

Clean Water Act (CWA)

Clean Air Act (CAA)

National Historic Preservation Act (NHPA)

Endangered Species Act (ESA)

US DOT Act – Section 4(f)

23 CFR 772 (Noise)

Comprehensive Environmental Response, Compensation and Liability Act (CERLA)

Safe Water Drinking Act (SWDA)

Public Hearing Requirements

Archaeological and Historic Preservation Act (AHPA)

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WHY WE HAVE SOME OF THESE LAWS



Interstate Era



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WHO PROVIDES THE ENVIRONMENTAL CLEARANCE?

Environmental Planning (Transportation Division)

- Environmental Planners
- Air Quality specialists
- Noise Technical Experts
- Archaeologists
- Biologists
- Hazardous Materials Specialists
- Water Resources

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Three Types of NEPA Approval (Class of Action)

- ❑ Environmental Impact Statement (EIS)
 - Impacts significant (*South Mountain*)

- ❑ Environmental Assessment (EA)
 - Significance of impacts not clearly known (big projects)

- ❑ Categorical Exclusion (CE)
 - Impacts not significant (*preservation – majority*)

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ENVIRONMENTAL IMPACT STATEMENT – New South Mountain Freeway



Many formal requirements such as alternatives and their impacts need to be studied

Can take several years and significant funds to complete an EIS

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ENVIRONMENTAL ASSESSMENT – US 93 Two Lanes to Four Lanes



Alternatives developed and screened and a Build and No Build evaluated

Can still take several years and significant funds to complete

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CATEGORICAL EXCLUSIONS

- ❑ FHWA has a list of actions which are normally categorically excluded from having to prepare an EA or EIS
 - *Types of projects are listed* CEs in the regulations
 - Match the project description to the description of the CE in the regulations
- ❑ Do not require formal steps needed for an EIS

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CATEGORICAL EXCLUSIONS



Highway
Expansion



Pathways



Bridges

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CATEGORICAL EXCLUSIONS

- ❑ CEs still need to consider “unusual circumstances” and other applicable environmental laws and regulations



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THE “OTHER” ENVIRONMENTAL LAWS

- For most projects the other environmental laws under the “NEPA umbrella” are most likely to be the critical path in the preparation of CEs:
 - ❑ Section 4(f) – Parks, Historic Properties, Wildlife Refuges
 - ❑ Historic Preservation Act
 - ❑ Clean Water Act – Army Corps Individual Permit
 - ❑ Endangered Species Act – Biology

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CE Assignment and NEPA Assignment

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CE and NEPA “Assignment”

- ❑ Transfer of FHWA’s environmental responsibilities under NEPA and other environmental laws to ADOT
 - An assignment of legal responsibility vs. delegation of authority
 - No change to any existing environmental laws
- ❑ ADOT is “decision maker” in federal environmental review process
 - Agency consultation
 - Eliminates layer of environmental review

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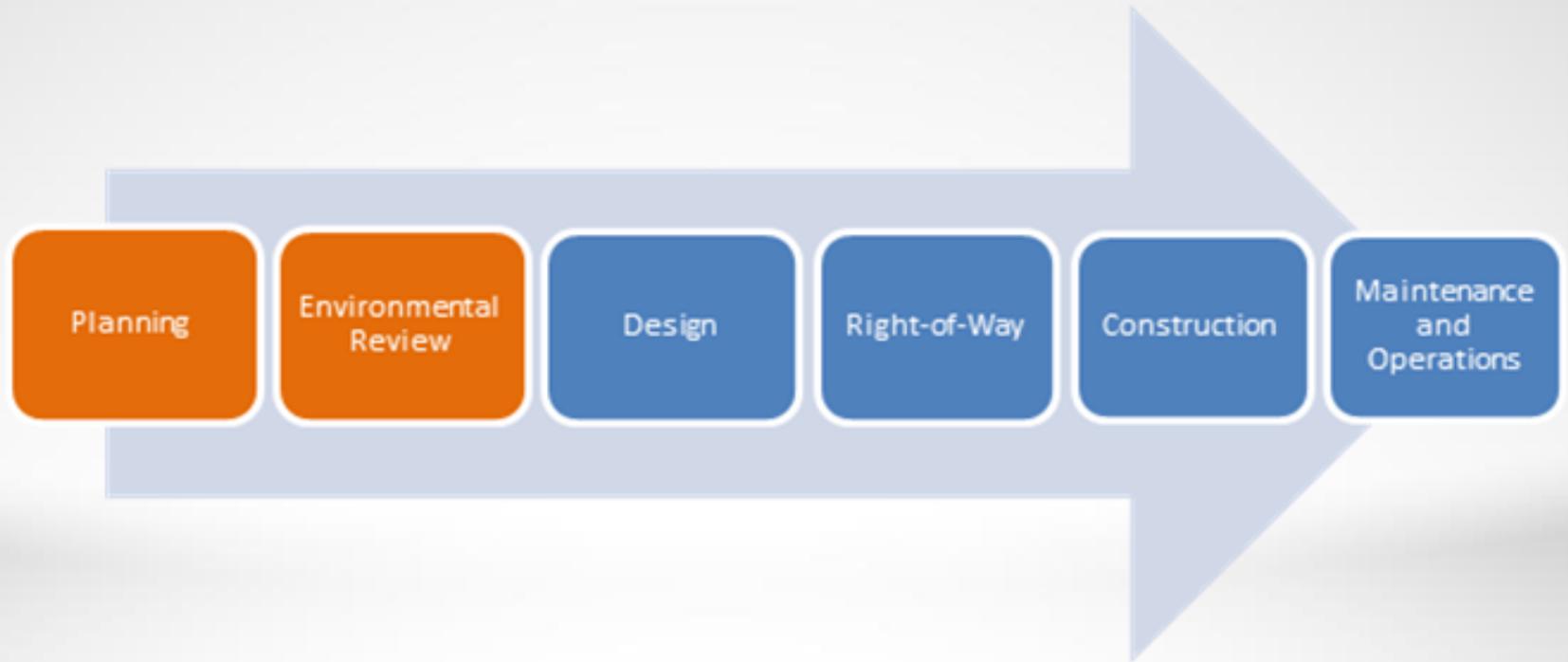
CE and NEPA “Assignment”

- CE Assignment
 - “326 MOU” signed January 3, 2018
 - All “listed” CEs (preservation/modernization projects)
- NEPA Assignment
 - “327 MOU” signed April 16, 2019
 - EAs, EISs and “unlisted” CEs (expansion projects)

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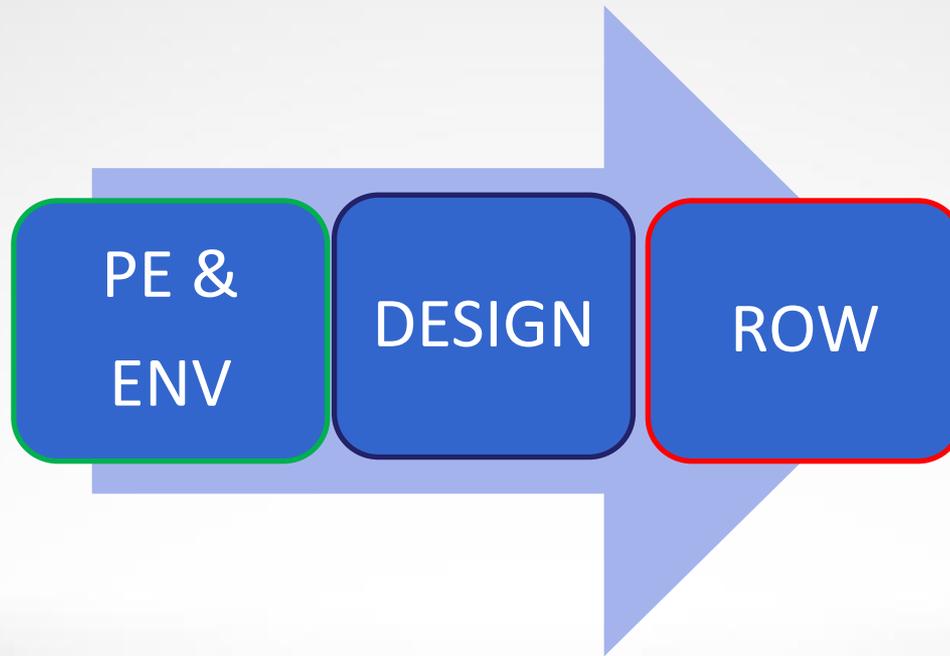
*Integrated Project Development
Process*

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➤ Typical Life of a Large Project

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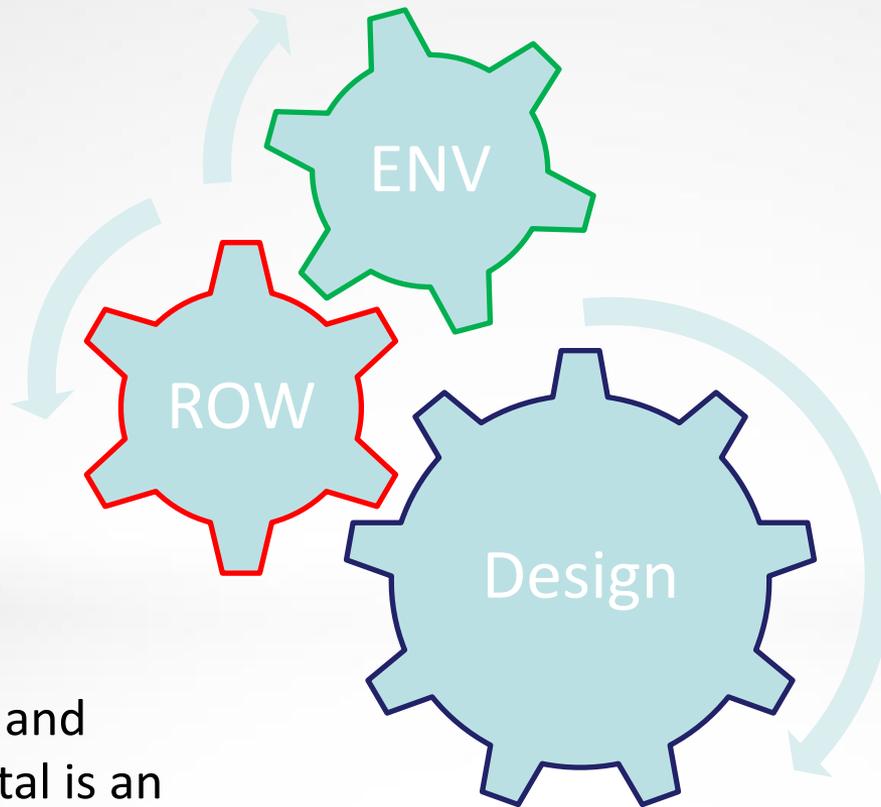
- EA/EIS – level projects: NEPA required before Final Design and ROW
 - Preliminary Engineering & Environmental
- FHWA requirements: NEPA before Final Design and ROW

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Environmental considerations need to happen throughout the PDP from the planning process through Design and ROW

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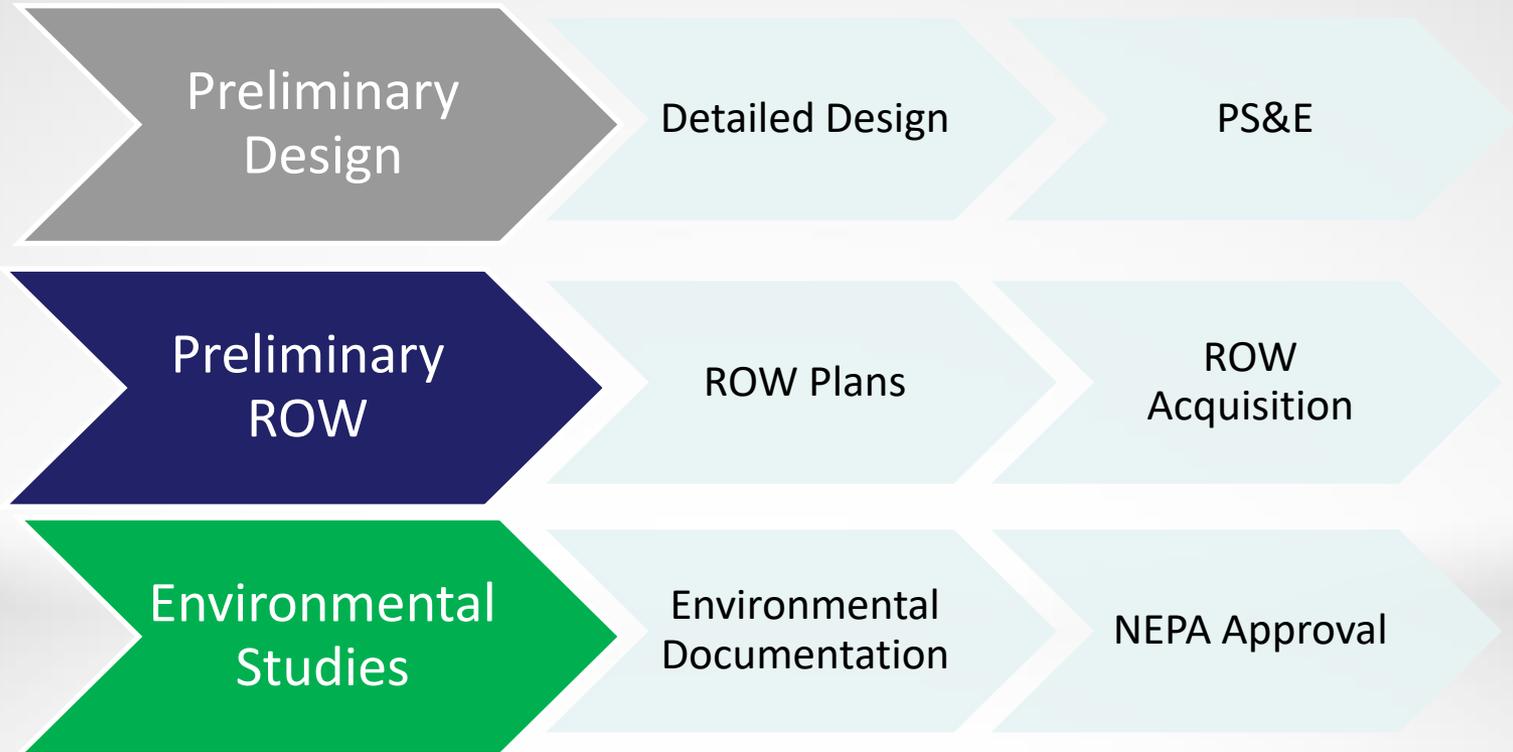


Think holistically of how Environmental, Design and ROW all interrelate

When one moves they all move

Engineering and Environmental is an integrated process

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The reality for “non-major” (CE) projects is that the PDP typically looks more like this with a parallel tracks of development

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COORDINATION

- Communicate changes quickly
- 100% footprint for ENV & ROW at 60% Design
- Identify ROW and (TCEs) early in Design
- Identify scope such as geotechnical work early
- Get funding in place quickly for additional work added to the project

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SCHEDULE

- ❑ Complexity of project
 - CE – 3 to 12 months
 - EA – 1 to 3 years
 - EIS – 3 to 5+ years
- ❑ Regulation review timelines and coordination with of other agencies
- ❑ Re-evaluations: Changes in project scope or limits requiring technical updates and consultations

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Environmental & Design

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FIELD REVIEWS



General type of work identified from planning and programming

Identify issues that can influence the environmental clearance

Finalize scope of work and confirm anticipated level of environmental review

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INTEGRATED DESIGN



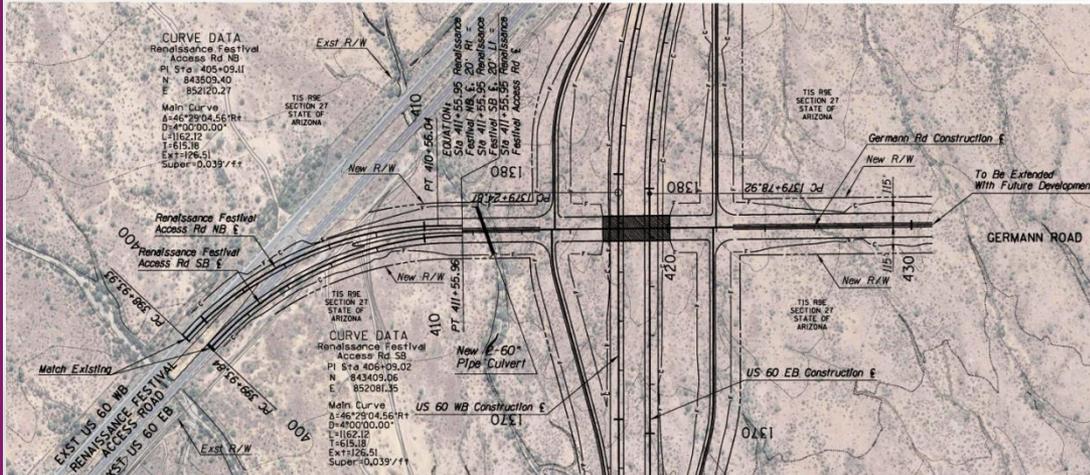
Project Description and type of work - “footprint” defined

Land owners and right-of-way needs

Environmental surveys – biological, archaeological, historic properties, hazardous materials, noise, etc.

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INTEGRATED DESIGN



Use environmental constraints as a guide in designing a project

Identifying areas that need to be avoided or will require mitigation if impacted

Conduct scoping and agency consultations

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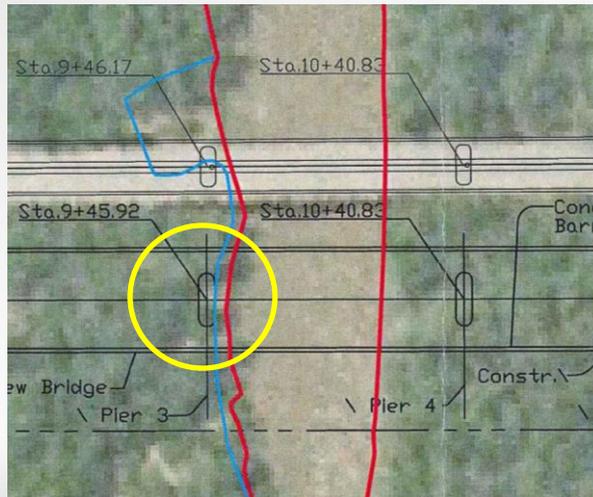
ENVIRONMENTAL CONSTRAINTS

- ***Avoid, Minimize, Mitigate*** – Integral with the project development process
- Avoid - Environmental Resources (Design)
 - Compromise (not at the expense of safety)
- Minimize - Impacts (Design)
- Mitigate - Compensation for unavoidable impacts



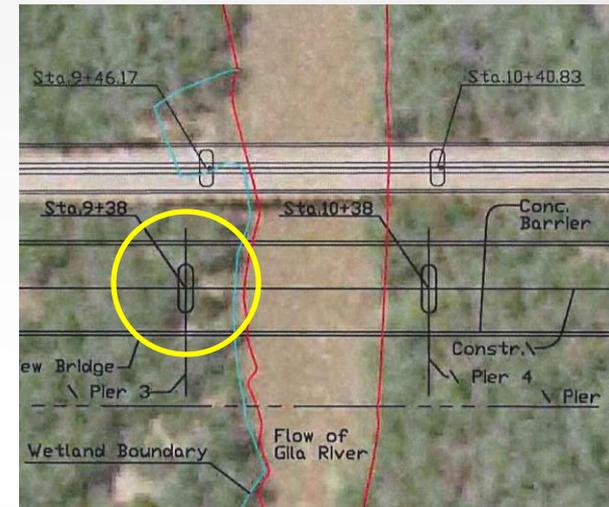
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DESIGN AND PERMITTING



Preliminary design impacted a wetland (bridge piers)

Section 404 Individual Permit



Bridge piers relocated

Impact to wetlands avoided –
permitting simplified

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PUBLIC INVOLVEMENT



NEPA requirements

Typically scaled to the size of the project

Many forms of public involvement

Public Hearing required for large projects taking large amounts of Right-of-Way

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DESIGN INTO CONSTRUCTION



Constructability,
site access,
environmental
footprint, and
permitting

What is the access
plan?

What level of
permitting?

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DESIGN INTO CONSTRUCTION



Environmental
Commitments

Identified during project
development and
implemented in
construction

Avoidance areas may
need to be delineated

May need a monitor
during construction

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DESIGN INTO CONSTRUCTION



Mitigation during construction – lead paint containment



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DESIGN INTO CONSTRUCTION



Known data recovery (archaeology) needs to be integrated with construction phasing

Data recovery prior to construction

Field work prior to construction but analysis and reporting take longer to complete

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DESIGN INTO CONSTRUCTION



“Avoid, Minimize and Mitigate” can be on a large scale

I-10 Deck Park Tunnel :

- ✓ Placed in tunnel
- ✓ Avoided historic structures
- ✓ Park on top
- ✓ Sound Walls
- ✓ Landscaping

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CHANGES DURING CONSTRUCTION



Changes in construction may require Re-Evaluation

Temporary Access Road (green road) for rock cutting not included in the original clearance

Additional environmental work needs to be cleared by ADOT

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Questions?

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