

LEARNING GUIDE

WEDNESDAY, OCTOBER 7, 2026

MODULE 4 - PROJECT DESIGN AND SECURING CLEARANCES

Learning Guide:

ROADWAY ENGINEERING

- Roadway Engineering supports and delivers ADOTs Roadway projects. Their group looks at the project needs and objectives, existing conditions, safety considerations, risk factors, budget, schedule and design parameters when analyzing a project.
- There are numerous sections within the Roadway Engineering Group, including Survey, Standards, Pavement Design, Pre-Design, Roadside Development and Drainage.

TRAFFIC ENGINEERING

- Traffic Engineering comprises Traffic Design Section, Traffic Standards and Administration.
- Traffic Engineering oversees pavement markings, signing, signals, studies, work zone traffic control and highway lighting on our state roadways.

BRIDGE GROUP

- Bridge Group's function is to scope bridge preservation projects, design plans in-house and review consultant design plans, provide construction support, develop and update bridge guidelines, oversee standards and specs.
- Bridge Group also houses the Geotechnical Design Section and Geotechnical Operations.

ENVIRONMENTAL PLANNING

- An environmental clearance means the project has been reviewed under all applicable environmental requirements and is "cleared" for construction.
- For federal-aid projects, environmental clearance is generally associated with the National Environmental Policy Act of 1969 (NEPA).
- Environmental Planning within ADOT consists of Environmental Planners, Air Quality experts, Noise Technical Experts, Archaeologists, Biologists, Hazardous Materials Specialists and Water Resources.

RIGHT-OF-WAY (ROW) GROUP

- <https://www.youtube.com/watch?v=Uz-gb4K5mCw>
- ROW acquisition is a time consuming process. Plan accordingly.
- Without a NEPA clearance, ROW cannot initiate negotiations for property acquisitions or submit to government agencies to begin their submittal process.
- Eminent Domain – Government can take private property and convert it into public use with compensation.

UTILITY AND RAILROAD (URR) ENGINEERING

- URR is responsible for clearing the ROW of utility conflicts in advance of highway construction projects.
- A URR clearance is required prior to any project advertisement.
- Utilities are electric power, gas/oil lines, telecom/cable TV, water, sanitary sewer, reclaimed water and the railroad. The railroad is considered a utility.