

Tier 1 Checklist

Construction & Maintenance

- General Construction Practices
- Plan Reading
- Maintenance Activities
- Roadway Construction Activities
- Bridge Construction Activities
- Miscellaneous Construction Activities

GENERAL CONSTRUCTION PRACTICES

| | | |
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| Can identify and differentiate between required and existing ROW and easements. | Property Boundaries | <i>Enter Completion Date or List/Tally to Track Progress</i> |
| | Watch: SC DOT " What is Right of Way? " | |
| | Read: GDOT Design Policy Manual (Section 3.5.3 Right of Way (R/W) and Limit of Access (L/A) Line Descriptions) | |
| | Read: GDOT Design Policy Manual (Section 3.8.3 Special Types of Right-of-Way) | |
| | Identify required ROW and/or easements on 3 plan sets. | |
| Understands roadway terminology and can identify different parts of the road profile and location within the Right-of-way (ROW). | Roadway Terminology | |
| | Review: GDOT Design Policy Manual (Cross section figures in Chapter 6 [pages 170-177]) | |

EDP | Construction & Maintenance Tier 1 Checklist

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| Understands general construction practices. | Site Preparation and Management | |
| | Read: How Highways Are Designed And Built (Environment [pg 15], Horizontal Alignment [pg 22], Vertical Alignment [pg 38], Coordination of Horizontal and Vertical Alignment [pg 47]) | |
| | Watch: DE DOT Section 201 - Clearing and Grubbing - Description & Construction | |
| | Watch: How to Install a Sediment Fence | |
| | Review: GDOT Environmentally Sensitive Area (ESA) Drawing Examples | |
| | Read: Understanding "Cut and Fill" in Construction Earthwork | |
| | Watch: How Highways Are Designed and Built | |
| | With a mentor or manager, discuss the following construction practices and how to identify them on plan sheets (where applicable): <ul style="list-style-type: none"> • Clearing and Grubbing • Cut and Fill • Orange Barrier Fence (OBF) | |
| Understands bridge and culvert terminology and can locate and identify different parts of a bridge or culvert on a diagram | Bridge and Culvert Terminology | |
| | Review: 9-12-2024 Introduction to BMU Final Presentation (“Intro to Bridge Components”, slides 4-6) | |
| | Review: Common bridge terms and definitions (“ Bridge Terms and Def ”.pdf) | |
| | Watch: Every Bridge Style Explained In 14 Minutes (0:00 – 2:38) | |
| | Review: AZ DOT Parts of a Bridge Structure | |
| | Review: MO DOT Common Bridge Terms | |
| | Review: NC DOT Culvert Identification Field Guide | |
| | <i>Optional: Review GDOT Bridge and Structures Policy Manual (Terms in chapter headings and sub-headings for Chapters 3 and 4)</i> | |

PLAN READING

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| Understands the general organization of construction plan pages and construction symbology. | Plan Reading Basics | |
| | Complete GDOT Plan Reading Course | |
| | <i>Alternative: Watch: Symbols and Abbreviations on Highway Design Plans and Georgia DOT ROW Plan Reading</i> | |
| | Read: Basic Highway Plan Reading (Chapter 1: Beginning to Read Plans, Chapter 6: Stationing, Symbols, and Abbreviations, Appendix A: Definitions, Appendix B: Abbreviations) | |
| | Read: GDOT Plan Presentation Guide (Section 60.004) | |
| | Identify required ROW and/or easements on 3 plan sets. | |
| Understands which plan series are relevant to ecology and their respective content. | Ecology Relevant Plans | |
| | Read: GDOT Plan Presentation Guide <ul style="list-style-type: none"> • Chapter 2, Section 1 – Cover Drawing • Chapter 2, Section 4 – General Notes • Chapter 2, Section 5 – Typical Sections • Chapter 2, Section 13 – Mainline • Chapter 2, Section 20 – Staging | |
| | With a mentor or manager, discuss what content can be found on each of the following plan sheets: Cover sheet, 4-, 13-, and 20-series. | |
| Understands how ecology resources are drawn on plans. | Ecology Resources on Plans | |
| | Review 5 different 13-series plan sets to assess that the following ecology resources are shown correctly on the plans, as applicable. Compare the Environmentally Sensitive Areas (ESAs) in the Ecology Resource Survey or Assessment of Effects report figures to those shown on the plan sheets. <ul style="list-style-type: none"> • Buffers • Streams • Wetlands • Open Waters • Non-Buffered State Waters • Buffered State Waters • Protected Species ESAs (Plants) | |

MAINTENANCE ACTIVITIES

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| Understands the different types of work typically associated with roadway and bridge maintenance. | Maintenance Guides | |
| | Read: Joint Coordination Procedures (JCP) Standard Operation Procedure (SOP) for Programmatic Determinations for Listed Species | |
| | Review: GDOT Bridge Maintenance Projects 2025.09.17 Presentation | |
| | Watch: Pavement Structure Repair Techniques: Shoulder Maintenance | |
| | Watch: Full-Depth Repair of Jointed Concrete Pavement | |
| | <i>Optional: Review GDOT BMU Bridge Repair Manual</i> | |

ROADWAY CONSTRUCTION ACTIVITIES

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| Understands different types of work required on roadway projects and can identify them on plans. | Work Types | |
| | Watch: NHTSA Making a Community Safer for Pedestrians | |
| | Watch: Hungary Road Sidewalk Construction | |
| | Watch: NC DOT Guardrail Installation | |
| | Watch: Fruitville Roundabout Construction | |
| | Review: GDOT Design Policy Manual (Chapter 6, Chapter 7.2, Chapter 8.5.1) | |
| | With a mentor or manager, discuss different types of work required on roadway construction projects, and what each look like on plans including: <ul style="list-style-type: none"> • Milling, leveling, resurfacing vs full depth replacement, striping, rumble strips • Lane construction – widening, auxiliary/passing/turn lanes, new location road construction • Shoulder paving, building • Cable barriers & guardrail • Pedestrian/bicycle facilities - sidewalks, curb and gutter, ADA ramps/curb cuts | |

BRIDGE CONSTRUCTION ACTIVITIES

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| Understands the different types of work required on bridge construction projects and can identify them on plans. | Bridge Construction Work Types | |
| | Watch: Montana DOT Billings Bypass Yellowstone River Bridge | |
| | Watch: TxDOT Rip-Rap for Scour Countermeasures | |
| | Read: Bridge Guidance Related to Environmental Consultation & Permitting (Chapter 1 [Sections 1.1-1.3], Chapter 2, Chapter 3) | |
| | Watch: What are Cofferdams and How are They Used? | |
| | Watch: Underwater pier pieces blasted as part of Bayway Bridge project Note how blasting is used as a demolition method, and consider how use of explosives may impact aquatic resources and potentially harm aquatic wildlife. | |
| | Watch: Four Holes Bridge Replacement Underway – Consider why driven piles are not counted as an impact by the USACE, but how the same activity may impact protected species. | |
| | Watch: Drilling Shafts for Bridge Construction | |
| | Watch: Wasena Bridge Replacement Project | |
| | Watch: Use Silt Curtains to Protect Our Waterways | |
| | With a mentor or manager, discuss different types of work required on bridge construction projects including: <ul style="list-style-type: none"> • Temporary construction access <ul style="list-style-type: none"> ○ Debris containment structure ○ Sheet piles ○ Rock jetty & bulkheads ○ Temporary work bridge ○ Barge ○ Cofferdams ○ Temporary haul road ○ Turbidity curtains • Construction of bridge supports <ul style="list-style-type: none"> ○ Pile types ○ Pile installation methods • Bridge removal/demolition methods • Riprap placement | |

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| Understands the most recent Section 20 practices (with assistance). | Section 20 Guides | |
| | Review: Bridge Construction and Demolition Access Ecology Toolkit (Appendix Bridge Construction and Demolition Access) | |

MISCELLANEOUS CONSTRUCTION ACTIVITIES

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| Understands different types of work required on common Intelligent Transportation Systems (ITS) projects. | ITS Project Guides | |
| | Watch: Horizontal Directional Drilling | |
| | Watch: Open Cut Trenching | |
| | Watch: Jack and Bore Method | |
| | Review: ITS Guidance For PAWs (Table 1 [“Project activities and design elements that are commonly used in ITS Projects”] and Table 2 [“Common ITS Project Acronyms”]) | |
| Review: GDOT ITS Design Manual (Section 1.2 [“Definition of Terms”]) | | |