DOT DESIGN PROCESS
INTEGRATED ENVIRONMENTAL REVIEW

How Environmental Permits/Commitments are administered by the Department

Environmental Summit
November 20, 2018
DOT Capital Program

• 87 - 106 Projects Administered per year
• 33% of projects that involve DEEP input.
Capital Plan Development

• Projects are Programmed/Initiated
  – Transportation Asset Management Plan
  – Public Transportation
    • Rail, Bus, Transit Districts
  – Highway & Bridge
    • Safety, System Preservation, Mobility Enhancements, Congestion Relief, and Criticality
  – Complete Streets – safe traffic for pedestrians, bikes, etc.
  – Locally Administered Projects

• Projects are Funded
  – Federal – Typically 80% Federal/20% State
  – State - Only
## Who is Responsible?

<table>
<thead>
<tr>
<th>BUREAU OF ENGINEERING &amp; CONSTRUCTION</th>
<th>BUREAU OF PUBLIC TRANSPORTATION</th>
<th>BUREAU OF POLICY &amp; PLANNING</th>
<th>BUREAU OF FINANCE &amp; ADMINISTRATION</th>
<th>BUREAU OF HIGHWAY OPERATIONS</th>
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<td>Lead Design Units</td>
<td>Lead Design Units</td>
<td>Environmental Planning</td>
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<td>Environmental Permit Coordination</td>
<td>Rail bridges</td>
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<td>Environmental Compliance</td>
<td>Railroads</td>
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<td>Hydraulics &amp; Drainage</td>
<td>Public Trans Facilities</td>
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<td>Bridge</td>
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<td>Construction</td>
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<td>Electrical</td>
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<td>Landscape</td>
</tr>
</tbody>
</table>
Bureau of Engineering & Construction

Bureau Chief
Mark Rolfe, PE

Engineering Administrator
Scott Hill, PE

Construction Administrator
Ravi Chandran, PE
DESIGN PHASE

Lead Design Unit

OEP
Independent – Permit Signatory

PERMIT DEVELOPMENT

EPC

Hydraulics & Drainage
Signatory – FM-MOU/FM General

Construction
Lead Design Units

- Develop Construction Plans & Specifications for State Administered Projects
  - Project Management
  - Design
  - Utility Coordination
  - Public Involvement
  - Rights-of-Way Coordination

- Complete Permit Plan Sets & Permit Applications
Environmental Planning (OEP)

- Water and Natural Resources Unit
  - Permit Application Development, Oversight & Review
  - Coordination with Regulatory Agencies
  - Wetland Delineations & Function and Values
  - Listed Species and Fisheries Coordination
  - Mitigation Development, Long term Monitoring and Stewardship

- Water and Noise Compliance Unit
  - Develop Environmental Specifications/Special Provisions
  - Plan Reviews for Constructability
  - Ensure Project Compliance during Construction
  - Plantings and Invasive Species Removal Oversight during Construction

- Environmental/Historic Documents Unit
  - NEPA/CEPA level of Documentation Determinations, Coordination and Oversight
  - Historic/Archaeological Investigations
  - Section 106 Compliance, Mitigation Development and Coordination
Environmental Permit Coordination (EPC)

- Liaison between Engineering and OEP
  - Coordination, Education, Support, Facilitation
    - Assist Engineers with understanding environmental requirements
    - Assist Planners with understanding engineering requirements
    - Develop standards
      - Permit Plan Sets
      - Specifications
      - Details
    - Tracking of design process
- Facilitate process improvements
Hydraulics & Drainage

- Management of Flood Management Certification
  - FM General – Department Projects
  - FM MOU – Municipal Projects
- Hydraulics design/review on all projects
  - Major culverts and bridge crossings
  - Storm drainage systems
  - Temporary Bypass facilities
- Bridge safety/evaluation
  - Bridge scour/stream stabilities studies
  - Scour countermeasures and channel protection
- Design of fish & animal passage
Construction

• Design Phase – Office of Construction
  – Constructability Review – Water Handling

• Construction Phase – District Construction
  – Oversight and Administration of projects
  – District Environmental Coordinators – Tracking of commitments and permit adherence
Environmental Compliance (OEC)

• Management of contaminated soil, groundwater, & hazardous materials on Department projects
• Investigation and remediation of Department legacy sites
• Facility compliance (Industrial Stormwater, SPCC, etc.)
• MS4 Compliance
What is the Process?

- **Survey**
- **Project Initiation**
  - 30% Preliminary Design
  - 60% Semi-final Design
  - 90% Final Design
  - FDP – Final Design Plans
  - Permit Development
- **Design Completion Date**
  - Advertise
- **Award**
- **Construction Notice To Proceed**

**Permitting Timeframe**
- Permit Determination/Began Fisheries Coordination
- Permit Goal: Permit Submittal
- OLD DOT – SUBMITTAL OF PERMITS HERE
- 6 weeks
- 4 weeks
- 8 weeks
- 6 weeks

**Project Design Timeframe**

Construction Begins
(Time of Year Restrictions)
Environmental Coordination & Permitting Process Map

**Preliminary Design Phase (Project Initiation/Preliminary Engineering to Design Approval)**

1. **Start**
2. **Refer to Planning Directive**
3. **Have PNDF Part 2 Meeting.**
4. **Complete 30% Plans, Specifications & Estimate (PS&E) package & submit to Department units for review.**
5. **Was PNDF Part 2 Completed?**
   - **Yes**
   - **No**
6. **Provide Additional Needed Information to OEP or Request to Complete PNDF Part 2.**
7. **Download the PNDF Form & Complete the header portion of the PNDF. Save the PNDF to the ProjectWise (PW) Project container in the Permit Development Folder. Submit to OEP & request to complete Part 1.**
8. **Define project scope/limits & develop preliminary design. Submit request to EPC Supervisor to set-up the PNDF Part 2 Meeting. Provide required attachments in the correspondence. *Refer to PNDF for list of required attachments.**
9. **Set-up PNDF Part 2 Meeting w/ OEP & PM via Outlook.**
10. **Are Review Comments Acceptable?**
    - **Yes**
    - **No**
11. **Generate & submit review comments to OEP.**
12. **Incorporate EPC recommendations into review comments & resubmit to EPC.**
13. **Submit review comments to PM.**
14. **Are Review Comments Acceptable?**
    - **Yes**
    - **No**
15. **Generate & Submit Review Comment Recommendations to OEP.**
16. **Notify OEP that review comments are acceptable.**
17. **Set-up PNDF Part 2 Meeting w/ OEP & PM via Outlook.**
18. **Generate & submit review comments & resubmit to EPC.**
19. **Incorporate EPC recommendations into review comments & resubmit to EPC.**
20. **Submit review comments to PM.**
21. **Are Review Comments Acceptable?**
    - **Yes**
    - **No**
22. **Generate & Submit Review Comment Recommendations to OEP.**
23. **Notify OEP that review comments are acceptable.**
24. **Set-up PNDF Part 2 Meeting w/ OEP & PM via Outlook.**
25. **Generate & submit review comments & resubmit to EPC.**
26. **Incorporate EPC recommendations into review comments & resubmit to EPC.**
27. **Submit review comments to PM.**
28. **Are Review Comments Acceptable?**
    - **Yes**
    - **No**
29. **Generate & Submit Review Comment Recommendations to OEP.**
30. **Notify OEP that review comments are acceptable.**
31. **Set-up PNDF Part 2 Meeting w/ OEP & PM via Outlook.**
32. **Generate & submit review comments & resubmit to EPC.**
33. **Incorporate EPC recommendations into review comments & resubmit to EPC.**
34. **Submit review comments to PM.**
35. **Are Review Comments Acceptable?**
    - **Yes**
    - **No**
36. **Generate & Submit Review Comment Recommendations to OEP.**
37. **Notify OEP that review comments are acceptable.**
38. **Start Permits/Resource Coordination**
39. **Complete 30% Plans, Specifications & Estimate (PS&E) package & submit to Department units for review.**
40. **Review 30% PS&E & generate comments. Submit to EPC for comment review.**
41. **Incorporate EPC recommendations into review comments & resubmit to EPC.**
42. **Submit review comments to PM.**
43. **Are Review Comments Acceptable?**
    - **Yes**
    - **No**
44. **Generate & Submit Review Comment Recommendations to OEP.**
45. **Notify OEP that review comments are acceptable.**
46. **Start Permitting**
47. **Review 60% PS&E & generate comments. Submit to EPC for comment review.**
48. **Incorporate EPC recommendations into review comments & resubmit to EPC.**
49. **Submit review comments to PM.**
50. **Are Review Comments Acceptable?**
    - **Yes**
    - **No**
51. **Generate & Submit Review Comment Recommendations to OEP.**
52. **Notify OEP that review comments are acceptable.**
53. **Start Permitting**
54. **Review 90% PS&E & generate comments. Submit to EPC for comment review.**
55. **Incorporate EPC recommendations into review comments & resubmit to EPC.**
56. **Submit review comments to PM.**
57. **Are Review Comments Acceptable?**
    - **Yes**
    - **No**
58. **Generate & Submit Review Comment Recommendations to OEP.**
59. **Notify OEP that review comments are acceptable.**

**Final Design Phase (Design Approval to FDP)**

1. **Final Design Plan Submission (FDP)**
2. **Review 60% PS&E & generate comments. Submit to EPC for comment review.**
3. **Incorporate EPC recommendations into review comments & resubmit to EPC.**
4. **Submit review comments to PM.**
5. **Are Review Comments Acceptable?**
    - **Yes**
    - **No**
6. **Generate & Submit Review Comment Recommendations to OEP.**
7. **Notify OEP that review comments are acceptable.**
8. **Develop Final PS&E Package & Submit to Support Units for Review.**
9. **Review 90% PS&E & generate comments. Submit to EPC for comment review.**
10. **Incorporate EPC recommendations into review comments & resubmit to EPC.**
11. **Submit review comments to PM.**
12. **Are Review Comments Acceptable?**
    - **Yes**
    - **No**
13. **Generate & Submit Review Comment Recommendations to OEP.**
14. **Notify OEP that review comments are acceptable.**
15. **Develop Semi-Final PS&E Package & Submit to Support Units for Review.**
16. **Review 30% PS&E & generate comments. Submit to EPC for comment review.**
17. **Incorporate EPC recommendations into review comments & resubmit to EPC.**
18. **Submit review comments to PM.**
19. **Are Review Comments Acceptable?**
    - **Yes**
    - **No**
20. **Generate & Submit Review Comment Recommendations to OEP.**
21. **Notify OEP that review comments are acceptable.**
22. **Develop Semi-Final PS&E Package & Submit to Support Units for Review.**
23. **Review 60% PS&E & generate comments. Submit to EPC for comment review.**
24. **Incorporate EPC recommendations into review comments & resubmit to EPC.**
25. **Submit review comments to PM.**
26. **Are Review Comments Acceptable?**
    - **Yes**
    - **No**
27. **Generate & Submit Review Comment Recommendations to OEP.**
28. **Notify OEP that review comments are acceptable.**
29. **Develop Semi-Final PS&E Package & Submit to Support Units for Review.**
30. **Review 90% PS&E & generate comments. Submit to EPC for comment review.**
31. **Incorporate EPC recommendations into review comments & resubmit to EPC.**
32. **Submit review comments to PM.**
33. **Are Review Comments Acceptable?**
    - **Yes**
    - **No**
34. **Generate & Submit Review Comment Recommendations to OEP.**
35. **Notify OEP that review comments are acceptable.**

**Office of Environmental Planning (OEP) - Water & Noise Natural Resources**

**Environmental Permit Coordination Unit (EPC)**

**Who Contributed to this Process Map**

**How to Read a Process Map**

**Initiate Correspondence to Fix/Update the Process Map**

*Disclaimer: Process maps are intended for guidance. Task duration estimates and procedure may vary based on project. Project managers may vary from mapped procedures on an as-needed basis.*

*The CTDOT Environmental Permit Coordination Unit (EPC) should be copied in all relevant OEP correspondence. Refer to the OEP-EPC Distribution List.*
Microsoft Project

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Project Initiation to 30%

**Office/Unit** | **Responsibility**
--- | ---
Lead Design Unit | Develop project scope
OEP | • Environmental Review Form  
• Permit Needs Determination Form (PNDF)
OEC | Task 100 – Hazardous Materials Screening
EPC | Facilitation of PNDF
H&D | Development of Hydraulic Model
## 30% to 60%

<table>
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<th>Office/Unit</th>
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| Lead Design Unit | • Develop design alternatives  
                   • Develop Permit Plan Set/Permits                                    |
| OEP         | • Review/Provide comments on design alternatives  
                   • Determine necessary permits                                          |
| EPC         | • Facilitation of determination of necessary permits  
                   • Facilitate communication between engineers and planning               |
| H&D         | Finalize Drainage Report                                                      |
| Construction| Review/Provide constructability comments                                      |
60% to 90%

<table>
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<tr>
<th>Office/Unit</th>
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| Lead Design Unit | • Address comments  
|               | • Draft Permits                                                              |
| OEP          | • Review & Comment on Draft Permits -> Submit Permits  
|             | • Review design for consistency with draft permits                           |
| OEC          | • Initiate site investigation for soil disturbance  
|             | • Initiate hazmat field inspection                                             |
| EPC          | • Facilitate incorporation of comments  
|             | • Identify/Initiate overall process improvements                             |
| H&D          | Hydraulics Approval and FMC/FM-MOU Signature                                  |
| Construction | Review/Provide constructability comments                                       |
90% to Advertise

Close coordination with DEEP/ACOE Staff on timeframe of approvals. Contracts are not awarded without a permit.
Permitting Agency Coordination

- DEEP/DOT Quarterly Meetings
- Group of Eight – semi-weekly meetings
  - Internal Monthly
  - With DEEP Monthly
- Interagency Review Meetings - Monthly
  - Designers
  - DEEP
  - ACOE
  - EPA
- Monthly Internal Permit Priority Meetings
How are permits/commitments administered in the field?
CONSTRUCTION PHASE

- Contract Amin
- District Environmental Coordinators

OEP
- Compliance with Permits
- Env. Special Provisions
- Plantings and Invasive Species coordination

PERMIT COMMITMENT ADMINISTRATION

Lead Design Unit
- Submittal Review
- RFI

Environmental Compliance
- Field oversight – Remediation/soil reuse
- Disposal tracking
Construction

• Permits transmitted to Contractor
• Pre-Construction Meeting
  – Establish Commitments
  – Separate Environmental Coordination Meeting
• Field Oversight
  – Construction Engineer
  – District Environmental Coordinator
  – OEP – Water/Noise Compliance
  – Environmental Compliance Task-Based Consultant Inspector
• Progress Meetings
<table>
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<th>Presenter/Coordinator</th>
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<tbody>
<tr>
<td>Fisheries Enhancements – Fish Ladder Success</td>
<td>Amanda Saul, OEP Water/Natural Resources</td>
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</table>
| Wildlife Enhancements - Commodore Hull Bridge Falcons | • Chris Samorajczyk, OEP Water/Natural Resources  
|                                                    | • Brian Hess, DEEP Wildlife Diversity                      |
| Impact Avoidance Techniques – Charter Oak Greenway | Mike Lashua, State Highway Design                          |
| Greenways / Community Involvement - Cheshire Heritage Trail | Vitalij Staroverov, State Highway Design                  |
| One project - multiple considerations - CT FASTRAK | • Amie Maines, Environmental Compliance  
|                                                    | • Kevin Carifa, OEP Water/Noise Unit                       |
| Q- Bridge - DOT District & DEEP Environmental Collaboration | • Heather Falzano, DOT District Environmental Coordinator  
|                                                    | • Beverly Flowers, DEEP Land & Water Resources             |