

Internship ID# SM14PM01

NEW JERSEY DEPARTMENT OF TRANSPORTATION

INTERNSHIP OPPORTUNITY

Internship/Semester: Summer

Internship Type: Non-Credit

Intern Level: Undergraduate

Suggested Background and/or Knowledge:

Civil Engineering or Transportation Planning area of study or interest

Skills: Verbal & Written Communication, Conduct Research, Presentation skills

NJDOT Division/Unit/Program Area Offering the Internship:

Division of Project Management- Group A

Description of NJDOT Division/Unit/Program Area Offering the Internship:

The Division of Project Management-Group A is a division within the Capital Program Management. This group manages projects through various stages of project delivery from Project Screening through Construction.

Additionally, this group manages all the projects in the Lincoln Tunnel Access Program. These projects include the rehabilitation of the Pulaski Skyway, the construction of a new bridge to replace the existing Wittpenn Bridge and a new alignment for a 'New Road' in Hudson County.

Internship Location:

NJDOT Headquarters

1035 Parkway Avenue

Trenton, New Jersey

Internship Project Description:

The prospective intern will have an opportunity to work on various tasks involving all the projects in the program, including:

- Working closely with a Project Manager. Conduct various Concept Development/Preliminary Engineering tasks
- Minutes/Note taking or other assignments for the Traffic Mitigation Task Force
- Obtaining traffic data and conducting Traffic Projections for various roadways

Estimated Project Duration and Suggested Weekly Work Schedule:

3 months

We recommend at least 2 days per week. Duration will depend on the student's overall schedule.

Internship Learning Objectives/Marketable Skills:

After participating in an internship with the Division of Project Management- Group A the intern will be able to:

- Demonstrate an understanding of the NJDOT Project Delivery Process
- Given a set of traffic data, develop traffic projections for a particular roadway
- Demonstrate the ability to schedule and facilitate a meeting
- Identify various stakeholders involved in developing a roadway project and understand how public outreach is conducted
- Demonstrate how to develop a scope of work for a transportation project
- Read design plans
- Develop Presentations for various audiences

Intern will be trained in the following area(s):

Project Management is responsible for all aspects of capital projects including scope, schedule, budget, and quality through each of the phases of work including Concept Development (CD), Preliminary Engineering (PE), Final Design (FD), and Construction. As such, training for interns may include:

- Instruction on the project delivery network diagram for the CD, PE, & FD phases.
- Training in the scheduling software Primavera Project Planner
- Introduction to the project management database, PRS
- Attendance at design meetings between designers and various Departmental subject matter experts to resolve design related issues.
- Attendance at construction meetings with the NJDOT construction staff and contractor to resolve construction related issues.
- Field investigations during all phases of project development
- A review of procedures to develop and monitor project budgets
- A review of consultant invoice procedures
- A review of the procedures to determine the initial scope of a project
- A review of various technical studies such as Concept Development Report, Scope Statement, geotechnical reports, traffic engineering studies, technical environmental studies, etc...
- A review of plan sheet and specification submissions associated with the preliminary design and final design submission.
- Exposure to the Final Plan, Specification, and Estimate procedures associated with the advertisement and award of projects for construction.
- Exposure to various Public Outreach strategies and an understanding of the importance of Public Involvement in project development.

Due to the wide variety of tasks that Project Management is responsible for, training opportunities may vary depending upon the current phase of work for projects for which interns are exposed. The above list of training opportunities will be sufficient to guide interns in completing their assignments.