

**Internship ID#:** SM14TSM

**NEW JERSEY DEPARTMENT OF TRANSPORTATION**

**INTERNSHIP OPPORTUNITY**

**Internship/Semester:** Summer

**Internship Type:** Non-Credit

**Intern Level:** Undergraduate

**Suggested Background and/or Knowledge:** Engineering-Transportation

**NJDOT Division/Unit/Program Area Offering the Internship:** Transportation Systems Management/ Mobility & Systems Engineering/ Mobility Management-North

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

Mobility and Systems Engineering's focus is optimizing safe and efficient travel via the collection & analysis of traffic data for the development, integration, utilization, and maintenance of intelligent technology; as well as providing professional guidance in traffic mitigation for necessary lane changes/closures on NJ State highways.

**Internship Location:**

670 River Drive  
Elmwood Park, NJ

**Internship Project Description:** Assist Traffic and Intelligent Transportation System (ITS) Engineers with lane closures, plan review, ITS scoping and repair

**Estimated Project Duration and Suggested Weekly Work Schedule:**

3 months  
Three days per week

**Internship Learning Objectives/Marketable Skills:** Develop skills in Engineering, Intelligent Transportation Systems, Highway Safety, and Data Resources.

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

**Closed Circuit TV**

The intern will be introduced to CC TV functions, programming camera directional views, how to maintain camera databases and how to research new technologies.

**Variable Message Signs**

The intern will learn how to check variable message sign (VMS) functions through manufacturer's diagnostics prepare work orders and research new technologies.

### **Plan and Specifications Review**

The intern will learn how to review design documents and construction plans and how to make comments on traffic flow, signing and intelligent transportation systems.

### **Lane Closure Schedule Development**

Intern will learn how to develop lane closure hours by analyzing the roadway and reviewing traffic counts and applying Mobility & Systems Engineering Standards.

### **Office Work Programs**

The intern will receive training in using the State Straight Line Diagram, The State Video log System, the Traffic Counts system and various technical ITS software.

### **Office Work Material for Assignments**

The intern will be introduced to and use the MUTCD and Highway Capacity Manual

The intern will be shown how to read and understand the queuing analysis spreadsheet.

The intern will be shown how to read and understand Timing Directives.

The intern will be shown how to read and understand the Traffic Signal Signing and Pavement Marking Plans.

The intern will be shown how to read and understand the Traffic Signal Electrical Plans.

### **Field Work Training**

The intern will learn how to set up safety for a proper taper and work zone.

The intern will learn how to perform initial troubleshooting on cameras, VMS and communications equipment.

The intern will learn about portable camera and VMS operation and placement.

The intern will learn how to conduct a field investigation.

Through these functions the intern will develop computer and databases skills, learn to read and interpret plans and get experience in various traffic engineering functions