

**GEORGIA DOT RESEARCH PROJECT 13-14**

**FINAL REPORT**

**CONSTRUCTION ENGINEERING INSPECTION DIRECT  
COST SURVEY**



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GDOT Research Project No. RP 13-14

Construction Engineering Inspection Direct Cost Survey  
Final Report

CONSTRUCTION ENGINEERING INSPECTION DIRECT COST SURVEY

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Georgia Department of Transportation

In cooperation with

U.S. Department of Transportation  
Federal Highway Administration

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| <p>16. Abstract</p> <p>The objective of the study was to provide a rationale to GDOT for Direct Costs in terms of salary and wages charged by qualified independent contractors performing Construction Engineering Inspection (CEI) services in the State of Georgia. Major conclusions drawn from this study were:</p> <ol style="list-style-type: none"> <li>1. <i>Enlarge the Pool of Qualified Personnel</i> <ul style="list-style-type: none"> <li>• There is disconnect between the qualification required by the RFQ and actual requirements from practice: this disconnect deals with many issues including: Engineering vs. non engineering activities.</li> <li>• Current specification of experience required to perform various CEI tasks limits the focus of education to only Civil Engineering and Civil Engineering Technology majors while the job specification listed and or mentioned could be satisfactorily performed by numerous other program majors such as Construction Management, Architecture, etc.</li> </ul> <p>With the exception of Bridge Inspector, most field managers interviewed suggested that the only requirement, in order to qualify for the entry level position was to have “a High School Diploma and General Math Knowledge”. “On the job training” for the newcomers also resulted in improved performance in subsequent days or projects.</p> </li> <li>2. <i>Opening up the Competition: Entry to the Market</i> <ul style="list-style-type: none"> <li>• Selection Process that requires GDOT Experience in “evaluating Suitability and Past Performance” appears to be a major hurdle for the new contractors willing to participate in the prequalification process and bids for CEI Inspections.</li> </ul> </li> </ol> |   |                                  |

- Size of the organization requiring “comparable size and scope “acts as a barrier to the new entrants. This requirement discourages entry and competition from smaller organizations possessing appropriate qualifications and expertise.
- Opening up the competition for smaller size contractors is expected to increase competition and lower direct and overhead costs both. The study also recommends that DOT may like to offer training classes and assess the trained candidates in terms of training outcomes to assist in creating a larger pool of qualified personnel for CEI Projects in Georgia.

*3. Changing Method for Computing Costs incurred by Contracting Firms:*

- Most contracts are based on the daily rate of various personnel multiplied by the total duration of the project. After carrying out structured interviews with field managers involved it was discovered that DOT Personnel doing the same tasks will end up working either on one or more than one job at the same time or they perform another task simultaneously on the same job.

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## Executive Summary

The objective of the study was to provide a rationale to Georgia Department of Transportation (GDOT) for Direct Costs in terms of salary and wages charged by qualified independent contractors performing Construction Engineering Inspection (CEI) services in the State of Georgia. In order to rationalize and understand the direct cost rates of GDOT, nine positions were identified that are typically outsourced by GDOT. These positions include Bridge Inspector, Senior Inspector, ATMS Inspector, Inspector, Project Engineer, Resident Compliance Officer, Officer Engineer, Inspector Aid, and Contract Support Specialist/Secretary. For the nine positions identified, the median salary was obtained from a data base compiled by various employment services in the Atlanta Region. GDOT and Fulton County supplied a list of their approved Testing and Engineering firms that performs work on Civil and Building Construction Projects. The authors conducted phone interviews with all these firms to gather information on direct pay rate for each of the nine positions. In addition phone interviews were also conducted with Virginia DOT (VDOT), Tennessee DOT (TDOT), and Alabama DOT (ALDOT) to compare their position qualifications with GDOT positions.

The authors found that compared to Alabama DOT, GDOT pays a premium in all categories. These observations were consistent for District A, B, C and D. The authors did see a difference in pay when Virginia DOT was compared to GDOT. Compared to VDOT, GDOT pays a premium in most categories with the exception of Office Engineer and Contract Support Specialist where the VDOT rates are higher as compared to GDOT Districts A, B, C and D. When comparing TDOT to GDOT, GDOT pays a premium in all categories. This observation is consistent for Districts A, B, C, and D. Authors also discovered that GDOT was paying a premium rate as compared to the direct Pay Rates obtained from Salary Data from employment database. The authors also gathered data from Fulton County approved subcontractors through phone interviews and their comparisons with GDOT rates revealed that GDOT paid premium rates.

The authors recommend the following strategy to bring down the direct cost rates based on the findings of the Direct Cost study:

1. Increase the pool of CEI provided qualified personnel through the following:
  - a) Reducing the number of years of experience that is needed to perform the various tasks;
  - b) Hold DOT classes and administer a testing process; upon passing the test a candidate can be categorized as qualified to perform certain DOT tasks;
  - c) Open up the education requirement by including disciplines such as Construction Management and Architecture in addition to Civil Engineering and Civil Engineering Technology.

2. Increase competition by pre-qualifying smaller firms by re-visiting the size, complexity, and experience requirement.
3. Change the mode of contracting to include lump sum bids for non-engineering tasks.



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- Alabama Department of Transportation (ALDOT)
- Tennessee Department of Transportation (TDOT)
- Fulton County Approved Construction Inspection Vendors
  - Acme American, LLC
  - Accurate Engineering and Inspectors
  - Capital Engineering

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- DMD Engineering & Construction
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- Geo-Enviro Engineering
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## Introduction

Public agencies such as the Georgia Department of Transportation (GDOT) are continuously being asked to do more with less due to current resource challenges. One of the Department's major resource challenge has been, but is not the only one, to retain experienced construction and materials inspection personnel. The loss of experienced department personnel creates a void, which in turn impacts the quality of construction and materials inspections. Like many other states, to fill this void, GDOT began contracting out Construction Engineering Inspection (CEI) services to qualified independent contractors.

GDOT's annual Construction Work Program (CWP) totals approximately \$800 Million. Federal-Aid highway funding, administered through the Federal Highway Administration (FHWA), accounts for over half of the CWP (LET projects) revenue. FHWA requires GDOT abide by the 'Brooks Act' when procuring engineering and design services contracts that are directly related to a construction project and use Federal-Aid funding.

The Brooks Act requires agencies to promote open competition by advertising, ranking, selecting, and negotiating contracts based on demonstrated competence and qualifications for the type of engineering and design services being procured, and at a fair and reasonable price. Therefore, the Brooks Act requires the use of Qualification Based Selections (QBS) in lieu of low bid for services.

On November 30, 2005 the President signed into law the Transportation, Treasury, Housing and Urban Development, the Judiciary, the District of Columbia, and Independent Agencies Appropriations Act, 2006 (119 Stat. 2396; Public Law 109-115, HR 3058 ("the FY 2006 Appropriations Act")). Section 174 of this Act, amends 23 U.S.C. § 112(b)(2) relating to the award of engineering and design services (A&E) contracts that are directly related to a construction project and use Federal-Aid highway funding. This amendment strikes existing provisions of law and requires that these contracts shall be awarded in the same manner as a contract for architectural and engineering services. These contracts are negotiated under the "Brooks Act" provisions contained in chapter 11 of 40 U.S.C. In FY 2013, fifty percent of GDOT's construction inspection costs were attributed to independent contractors. GDOT currently spends thirty million (\$30M) annually for CEI services. CEI costs have risen by fifty percent over the last 8 years and GDOT anticipates this cost to continue to rise. How can GDOT reduce their CEI costs? In accordance with the Brooks Act, services must be procured through QBS (not lowest bid). Once a firm is selected, then costs are compared. The contract total consists of direct (salaries and wages) and indirect (overhead) costs. However, indirect costs are non-negotiable (see 23 CFR 172) and in order to negotiate direct costs, contracting agency must perform an assessment of the reasonableness of proposed direct salary rates and establish the

limitation in accordance with the reasonableness provisions of the Federal Acquisition Regulation (FAR) cost principle (as specified in 48 CFR 31.201-3 and 31.205-6(b)(2)).

### ***Relevant Clauses***

The *Relevant Clauses* related to direct and indirect costs are reproduced below, which provide the context of the study undertaken.

- *...discussion of the use of indirect cost rates other than as established through the cognizant approval process or when such rates are under dispute (as specified in 23 CFR 172.7(c))*

A contracting agency shall not request or start negotiations to obtain a lower indirect cost rate than was established by a cognizant approved audit (as specified in 23 U.S.C 112(b)(2)(C)-(D)). A lower indirect cost rate may be used only if offered/submitted voluntarily by a consulting firm as part of a cost proposal during contract negotiations. A consulting firm's offer of a lower indirect cost rate shall not be a condition or qualification to be considered for the work or contract award (as specified in 23 CFR 172.7(b)). (See Indirect Cost Rates and Audits Question & Answer No. 21)

5. When advertising for services, estimating and negotiating contract costs and terms, or administering a contract, may a contracting agency request/establish limitations of a consulting engineering firm's direct salaries and wages? (*Posted 7-20-11*)

State and local public agency recipients of Federal grants are required to apply the FAR cost principles to determine the allowable costs for personal services contracts with commercial, for-profit entities (as specified in 49 CFR 18.22(b)). Limitations or benchmarks on consulting firm direct salaries and wages may be acceptable only if a contracting agency has performed an assessment of the reasonableness of proposed direct salary rates and established the limitations in accordance with the reasonableness provisions of the FAR cost principles (as specified in 48 CFR 31.201-3 and 31.205-6(b)(2)). This assessment of reasonableness should include a variety of factors. In addition to the provisions specified in 48 CFR 31.201-3, in determining the reasonableness of compensation for particular employees or job classes of employees, a contracting agency must consider factors determined to be relevant by the contracting office. Factors that may be relevant include, but are not limited to, conformity with compensation practices of other firms: (i) of the same size; (ii) in the same industry; (iii) in the same geographic area; and (iv) engaged in similar non-government work under comparable circumstances. An assessment consistent with the FAR cost principles for determining the reasonableness of direct salary costs would permit contracting agencies to establish direct salary compensation limitations or benchmarks based upon the objective consideration of the

compensation factors discussed above. This assessment would be used to determine what is reasonable for the subject work to be performed based on the classification, experience, and responsibility of the employee performing the work, taking into consideration the factors identified above.

To ensure a fair and reasonable negotiation of costs, the consulting firm's actual direct salary rates or those established via this assessment for particular employees or classes of employees must be used in the negotiation and administration of the contract. If an assessment of reasonableness in accordance with the FAR has not been performed, contracting agencies must use and apply the consulting firm's actual direct salary rates in preparing or revising the independent cost estimate to be used in negotiating or administering contracts or contract amendments.

Limitations or benchmarks on direct salary rates which do not consider the factors prescribed in the FAR cost principles are contrary to qualifications based selection procedures (as specified in 23 U.S.C. 112(b) (2) (A), 40 U.S.C. 1104(a), and 23 CFR 172.5(a)(1)), which require fair and reasonable compensation considering the scope, complexity, professional nature, and value of the services to be rendered. Additionally, if limitations or benchmarks on direct salary rates are too low, their use is likely to limit the number of consulting firms and the qualifications of the firms which submit proposals to perform work on projects. Furthermore, as a consulting firm's indirect cost rate is applied to direct labor costs, any direct labor limitations or benchmarks not supported by the FAR cost principles have the effect of creating an administrative or de facto ceiling on the indirect cost rate, contrary to FAHP requirements (as specified in 23 U.S.C. 112(b) (2) (D) and 23 CFR 172.7(b)).

Therefore, a study was undertaken to determine the direct costs charged for CEI currently in the state of Georgia. As part of the study the prevailing direct costs of CEI in Georgia were also compared with CEI direct costs in Tennessee, Virginia and Alabama. The findings from this study will form the basis to negotiate the direct costs (salary and wages) only as the indirect (field) costs and fee are non-negotiable according to the current laws. The findings of this study are expected to empower the GDOT to optimize their budget allocations for CEI.

### **Objective**

The objective of the study was to provide a rationale to GDOT for Direct Costs in terms of salary and wages charged by qualified independent contractors performing CEI services in the State of Georgia.

## **Scope**

The study was expected to provide an informed basis for negotiating direct costs to Contractors who provide CEI services to GDOT. The current GDOT budget allocation is thirty million Dollars (\$30M) for 2013-14 fiscal years towards CEI services cost. It is important to note that the current study shall only provide a rationale for direct costs, and will have no effect on field overhead or fee charged by contractors for these services due to legal constraints cited in the relevant clauses (as specified in 23 CFR 172.7(c)). The comparison of direct costs in neighboring states will form the basis for negotiating direct costs with future CEI service providers.

## **Work Plan**

Since fee and overheads are non-negotiable in accordance with FHWA, the project team prepared a management strategy to reduce direct costs. The strategy included preparing a questionnaire survey which was distributed to contractors who provide construction engineering inspection and material engineering inspection services in Georgia. The team administered the questionnaire survey to smaller professional organizations that provide similar (CEI) inspection services in the private sector. Since private sector is also involved in developing roads and utilities, especially for large developments, there should be comparable job descriptions in private sector that the GDOT can benefit from. The GDOT and their respective counterparts in Virginia, Alabama, and Tennessee were also requested to provide direct cost data from contractors who are involved in providing CEI services. The project team compared the direct costs from existing GDOT contractors and similar data from the contractors of Alabama, Virginia, and Tennessee to generate their findings.

In addition to above, the project team also surveyed GDOT field managers on nine GDOT job qualifications used by each GDOT contractor. The objective was to determine the minimum qualification and experience required to perform the assigned tasks for the position satisfactorily. Following steps were carried out in this study:

1. Baseline information from GDOT: The authors collected qualifications for performing CEI services. Information was also collected from qualified Georgia contractors to establish a range of direct costs.
2. A Survey Instrument was prepared to collect Information from Contractors on (a) Field overheads excluding Head Office overheads, (b) Fee, and (c) Direct Costs: Salary and wages for CEI Inspections.
3. The Survey was administered to contractors performing CEI services in Georgia. Also collect similar information from Alabama, Virginia, and Tennessee for comparison purposes. Support from GDOT was solicited to establish contacts with neighboring

states for contractor qualifications and point of contact information of qualified contractors who perform CEI services in these states.

4. The survey results were analyzed for comparison with other states to determine if the direct cost were in range with Georgia.
5. A strategy was evolved to reduce the direct costs.

### **Methodology:**

In order to rationalize and understand the direct cost rates of GDOT the following tasks were carried out by the project team:

1. Nine positions were identified that are typically outsourced by GDOT to perform CEI duties. They were as follows: Bridge Inspector, Senior Inspector, ATMS Inspector, Inspector, Project Engineer, Resident Compliance officer, Office Engineer, Inspector Aid, and Contract Support Specialist/Secretary. Salary rates for each position were obtained from the existing GDOT contracts.
2. The median salary was obtained for those positions as identified by a data base compiled from various employment services in the Atlanta Region.
3. Fulton County supplied a list of their approved Testing and Engineering firms that perform work on their Civil and Building Construction Projects. Phone interviews were also conducted with many of these firms to seek the salary rates of those performing functions similar to the nine GDOT outsourced positions.
4. Virginia DOT, Tennessee DOT, Alabama DOT rates were compared with GDOT pay rates per hour for the corresponding positions. In addition qualification of personnel (nine positions) was also collected for comparison with GDOT, who perform CEI tasks in these states.
5. The GDOT RFQ (Appendix C) was reviewed. Then, feedback was sought from smaller testing firms interested in participating in future DOT CEI inspection contract.

Following tasks were undertaken to investigate the Statement of Qualification (SOQ) preparation strategy of GDOT contractors in the seven districts of Georgia:

1. Six Georgia contractors were contacted for structured interviews, who had submitted SOQ's in 2013 and 2014 on GDOT CEI projects. The team focused on Districts A, B, C, and D due to availability of rates for 2013 and 2014.

*The Formula which forms the Basis of Computations carried out in this study:*

- a. Total Contract = Fixed Fee + Total Labor Cost
- b. \*Fixed Fee = 10% of Total Labor Cost (\* Approximate value covers vehicle, laptop, and mobile phone costs.)
- c. Indirect Cost = Overhead Rate x Direct Cost
- d. Total Labor Cost = Direct Cost + Overhead Cost  
= Direct Cost + Overhead Rate x Direct Cost  
= Direct Cost (1+Overhead Rate)

Therefore Total Contract = Direct Cost (1+Overhead Rate) x 1.1

= Direct Cost x Multiplier

- e. Direct pay rate = (Total Contracted Direct Pay Rate)/(Multiplier)
- f. The Multiplier in here is = 1.1 X (1+Overhead Rate)

**Findings:**

The project team interviewed individuals to rationalize the direct cost rates. As per recommendation of GDOT nine positions from CEI services were identified to be investigated. Individuals were asked to identify job descriptions, actual job duties and direct costs related to each position. The results from the interviews and existing data were used to determine direct cost for each position.



**Table 1: Comparison of District Contracting Rates for 2013 and 2014**

| Contractor Billing Rates              |            |            |            |            |
|---------------------------------------|------------|------------|------------|------------|
|                                       | District A | District B | District C | District D |
| Overhead Rate                         | 124.35     | 68.49      | 138.5      | 76.28      |
| Bridge Inspector                      | 94.93      | 66.71      | 91.54      | 72.99      |
| Senior Inspector                      | 82.42      | 58.52      | 82.07      | 62.54      |
| ATMS Inspector                        | 83.49      | 66.41      | 93.23      | 74.87      |
| Inspector                             | 59.36      | 49.01      | 67.67      | 52.32      |
| Project Engineer                      | 94.93      | 77.25      | 105.59     | 83.3       |
| Resident Compliance Officer           | 60.61      | 55.43      | 76.05      | 58.29      |
| Officer Engineer                      | 72.05      | 55.43      | 76.05      | 58.29      |
| Inspector Aid                         | 44.08      | 36.26      | 54.43      | 39.29      |
| Contract Support Specialist/Secretary | 40.93      | 27.44      | 40.79      | 33.67      |

District A and C overhead rates are significantly higher than Districts B and D. Each position rate is higher for District A and C as compared to Districts B and D. Higher paid positions have a tendency of higher rate increase as compared to lower paid position. Rationalization of non-engineering and engineering tasks is recommended to bring the CEI cost down.

**Table 2: Computation for Direct Cost Rate for District A Based on the Formula**

| Overhead Rate 124.35                     |       |        |       |                     |                    |
|--|-------|--------|-------|---------------------|--------------------|
| Multiplier 2.46785                       |       |        |       |                     |                    |
| Contractor Billing Rate                  |       |        |       | Billable<br>\$/hour | Average<br>\$/hour |
| Contractor Position                      | Prime | Sub 1  | Sub 2 | AVERAGE             | DIRECT             |
| Bridge Inspector                         | 94.93 | 89.58  | 87.97 | 90.83               | 36.80              |
| Senior Inspector                         | 82.42 | 80.33  | 67.87 | 76.87               | 31.15              |
| ATMS Inspector                           | 83.49 | 91.23  | 75.48 | 83.40               | 33.79              |
| Inspector                                | 59.36 | 67.15  | 60.01 | 62.17               | 25.19              |
| Project Engineer                         | 94.93 | 103.28 | 99.33 | 99.18               | 40.19              |
| Resident<br>Compliance Officer           | 60.61 | N/A    | 58.44 | 59.53               | 24.12              |
| Officer Engineer                         | 72.05 | 74.38  | 66.39 | 70.94               | 28.75              |
| Inspector Aid                            | 44.08 | 47.4   | 42.54 | 43.31               | 17.55              |
| Contract Support<br>Specialist/Secretary | 40.93 | 39.83  | 27.49 | 36.08               | 14.62              |

**Computation for Direct Cost Rate for District A Based on the Formula**

The above computation was done to determine the GDOT average dollar per hour rates for District A. The rates in the shaded column has been used in the study to compare Direct Cost with Alabama, Tennessee, and Virginia. The Prime pricing was higher than at least one Sub with the exception of the Inspector and Project Engineer positions for District A. The billable dollars per hour is less than the Prime cost.

**Table 3: Computation for Direct Rate for District B Based on the Formula**

| Overhead Rate 68.49                      |       |       |       |                     |                    |
|--|-------|-------|-------|---------------------|--------------------|
| Multiplier 1.85339                       |       |       |       |                     |                    |
| Contractor Billing Rate                  |       |       |       | Billable<br>\$/hour | Average<br>\$/hour |
| Name:<br>Position in question            | Prime | Sub 1 | Sub 2 | AVERAGE             | DIRECT             |
| Bridge Inspector                         | 66.71 | N/A   | N/A   | \$66.71             | \$35.99            |
| Senior Inspector                         | 58.52 | 73.62 | 65.47 | \$65.87             | \$35.54            |
| ATMS Inspector                           | 66.41 | N/A   | N/A   | \$66.41             | \$35.83            |
| Inspector                                | 49.01 | 60.73 | N/A   | \$54.87             | \$29.61            |
| Project Engineer                         | 77.25 | N/A   | N/A   | \$77.25             | \$41.68            |
| Resident<br>Compliance Officer           | 55.43 | N/A   | N/A   | \$55.43             | \$29.91            |
| Officer Engineer                         | 55.43 | 69.42 | 53.01 | \$59.29             | \$31.99            |
| Inspector Aid                            | 36.26 | 44.73 | 40.05 | \$40.35             | \$21.77            |
| Contract Support<br>Specialist/Secretary | 27.44 | N/A   | N/A   | \$27.44             | \$14.81            |

**Computation for Direct Rate for District B Based on the Formula**

The above computation was done to determine the GDOT average dollar per hour rates for District B. The rates in the shaded column were used in the study to compare Direct Cost with Alabama, Tennessee, and Virginia. In District B the Prime was paid at a lower rate than Sub 1 and Sub 2 with the exception of the Office Engineer position. In the case of the Office Engineer the Prime was higher than Sub 2. The average billable dollars per hour is higher or at the same cost of the Prime category.

**Table 4: Computation for Direct Rate for District C Based on the Formula**

| Overhead Rate 138.5                      |        |       |       |                     |                    |
|--|--------|-------|-------|---------------------|--------------------|
| Multiplier 2.6235                        |        |       |       |                     |                    |
| Contractor Billing Rate                  |        |       |       | Billable<br>\$/hour | Average<br>\$/hour |
| Name:<br>Position in question            | Prime  | Sub 1 | Sub2  | AVERAGE             | DIRECT             |
| Bridge Inspector                         | 91.54  | 84.15 | N/A   | \$87.85             | \$33.48            |
| Senior Inspector                         | 82.07  | 70.51 | 76.92 | \$76.50             | \$29.16            |
| ATMS Inspector                           | 93.23  | 62.73 | N/A   | \$77.98             | \$29.72            |
| Inspector                                | 67.67  | 62.08 | 66.40 | \$65.38             | \$24.92            |
| Project Engineer                         | 105.59 | 95.41 | 95.24 | \$98.75             | \$37.64            |
| Resident<br>Compliance Officer           | 76.05  | N/A   | N/A   | \$76.05             | \$28.99            |
| Officer Engineer                         | 76.05  | N/A   | N/A   | \$76.05             | \$28.99            |
| Inspector Aid                            | 54.43  | 46.02 | 45.55 | \$48.67             | \$18.55            |
| Contract Support<br>Specialist/Secretary | 40.79  | N/A   | N/A   | \$40.79             | \$15.55            |

**Computation for Direct Rate for District C Based on the Formula**

The above computation was done to determine the GDOT average dollar per hour rates for District C. The rates in the shaded column were used in the study to compare Direct Cost with Alabama, Tennessee, and Virginia. In District C the positions for the Prime category were paid higher than the prices of Sub 1 and Sub 2. The average billable dollars per hour are either lower or the same cost as the Prime category.

**Table 5: Computation for Direct Rate for District D Based on the Formula**

| Overhead Rate 76.28                   |       |       |       |                  |                 |
|---------------------------------------|-------|-------|-------|------------------|-----------------|
| Multiplier 1.93908                    |       |       |       |                  |                 |
| Contractor Billing Rate               |       |       |       | Billable \$/hour | Average \$/hour |
| Name:                                 | Prime | Sub 1 | Sub2  | AVERAGE          | DIRECT          |
| Position in question                  |       |       |       |                  |                 |
| Bridge Inspector                      | 72.99 | N/A   | 85.11 | \$79.05          | \$40.77         |
| Senior Inspector                      | 62.54 | 78.50 | 74.08 | \$71.71          | \$36.98         |
| ATMS Inspector                        | 74.87 | N/A   | 85.11 | \$79.99          | \$41.25         |
| Inspector                             | 52.32 | 65.51 | 63.04 | \$60.29          | \$31.09         |
| Project Engineer                      | 83.30 | N/A   | 96.37 | \$89.84          | \$46.33         |
| Resident Compliance Officer           | 58.29 | N/A   | 63.04 | \$60.67          | \$31.29         |
| Officer Engineer                      | 58.29 | N/A   | 63.04 | \$60.67          | \$31.29         |
| Inspector Aid                         | 39.29 | 43.76 | 45.38 | \$42.81          | \$22.08         |
| Contract Support Specialist/Secretary | 33.67 | N/A   | 37.77 | \$35.72          | \$18.42         |

**Computation for Direct Rate for District D Based on the Formula**

The above computation was done to determine the GDOT average dollar per hour rates for District D. The rates in the shaded column were used in the study to compare Direct Cost with Alabama, Tennessee, and Virginia. In District D the Prime category prices were less than the Sub 1 and Sub 2 categories. Additionally the Average billable dollars per hour were higher than the Prime category.

**Table 6: GDOT Direct Cost Rates as Compared to Fulton County Approved SUBs**

| Name:<br>Position in question            | Fulton Co.<br>Direct<br>Rate | GDOT<br>Direct Cost<br>Rate<br>District A | GDOT<br>Direct Cost<br>Rate<br>District B | GDOT<br>Direct Cost<br>Rate<br>District C | GDOT<br>Direct Cost<br>Rate<br>District D |
|--|------------------------------|---|---|---|---|
| Bridge Inspector                         | \$25.96                      | \$36.80                                   | \$35.99                                   | \$33.48                                   | \$40.77                                   |
| Senior Inspector                         | \$31.73                      | \$31.15                                   | \$35.54                                   | \$29.16                                   | \$36.98                                   |
| ATMS Inspector                           | \$20.29                      | \$33.79                                   | \$35.83                                   | \$29.72                                   | \$41.25                                   |
| Inspector                                | \$21.27                      | \$25.19                                   | \$29.61                                   | \$24.92                                   | \$31.09                                   |
| Project Engineer                         | \$23.89                      | \$40.19                                   | \$41.68                                   | \$37.64                                   | \$46.33                                   |
| Resident<br>Compliance Officer           | \$18.75                      | \$16.08                                   | \$29.91                                   | \$28.99                                   | \$31.29                                   |
| Officer Engineer                         | \$20.67                      | \$28.75                                   | \$31.99                                   | \$28.99                                   | \$31.29                                   |
| Inspector Aid                            | \$15.00                      | \$18.10                                   | \$21.77                                   | \$18.55                                   | \$22.08                                   |
| Contract Support<br>Specialist/Secretary | \$24.52                      | \$14.62                                   | \$14.81                                   | \$15.55                                   | \$18.42                                   |

**GDOT Direct Cost Rates as Compared to Fulton County Approved Subs**

Fulton County direct rates were compared to GDOT Districts A, B, C and D. In most cases GDOT direct cost rates were higher than Fulton County. In the case of the Senior Inspector, Resident Compliance Officer and Contract Support Specialist/ Secretary, these positions have a higher rate in Fulton County than GDOT District A. However, the Senior Inspector and Resident Compliance Officer of GDOT District B have significantly higher direct cost than Fulton County. In GDOT the Contract Support Specialist/Secretary has the lowest direct cost rate. However in Fulton County it is the highest paid position survey, ranging from 66%-68% higher than GDOT rates.

**Table 7: GDOT Direct Cost Rates as Compared to Employment Database Salary Data**

| Name:<br>Position in question         | Database Direct Rate | GDOT Direct Cost Rate District A | GDOT Direct Cost Rate District B | GDOT Direct Cost Rate District C | GDOT Direct Cost Rate District D |
|---------------------------------------|----------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| Bridge Inspector                      | \$22.12              | \$36.80                          | \$35.99                          | \$33.48                          | \$40.77                          |
| Senior Inspector                      | \$36.54              | \$31.15                          | \$35.54                          | \$29.16                          | \$36.98                          |
| ATMS Inspector                        | \$15.00              | \$33.79                          | \$35.83                          | \$29.72                          | \$41.25                          |
| Inspector                             | \$14.42              | \$25.19                          | \$29.61                          | \$24.92                          | \$31.09                          |
| Project Engineer                      | \$23.80              | \$40.19                          | \$41.68                          | \$37.64                          | \$46.33                          |
| Resident Compliance Officer           | \$25.96              | \$16.08                          | \$29.91                          | \$28.99                          | \$31.29                          |
| Officer Engineer                      | \$25.96              | \$28.75                          | \$31.99                          | \$28.99                          | \$31.29                          |
| Inspector Aid                         | \$11.54              | \$18.10                          | \$21.77                          | \$18.55                          | \$22.08                          |
| Contract Support Specialist/Secretary | N/A                  | \$14.62                          | \$14.81                          | \$15.55                          | \$18.42                          |

**GDOT Direct Cost Rates as Compared to Employment Database Salary Data**

Employment salary database direct rates were compared to GDOT District A, B, C, and D. In most cases GDOT direct cost rates were higher than the database. In the case of the Senior Inspector and Resident Compliance Officer, these positions have a higher rate in the salary database than GDOT District A, B, C, and D. However, the Senior Inspector of GDOT District D has a slightly higher direct cost than Employment Database Salary Data.

**Table 8: GDOT Direct Cost Rates as Compared to ALDOT**

| Name:<br>Position in question            | ALDOT<br>Direct Cost<br>Rate | GDOT                              | GDOT                              | GDOT                              | GDOT                              |
|--|------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
|  |                              | Direct Cost<br>Rate<br>District A | Direct Cost<br>Rate<br>District B | Direct Cost<br>Rate<br>District C | Direct Cost<br>Rate<br>District D |
| Bridge Inspector                         | N/A                          | \$36.80                           | \$35.99                           | \$33.48                           | \$40.77                           |
| Senior Inspector                         | \$23.00                      | \$31.15                           | \$35.54                           | \$29.16                           | \$36.98                           |
| ATMS Inspector                           | N/A                          | \$33.79                           | \$35.83                           | \$29.72                           | \$41.25                           |
| Inspector                                | \$18.00                      | \$25.19                           | \$29.61                           | \$24.92                           | \$31.09                           |
| Project Engineer                         | \$35.50                      | \$40.19                           | \$41.68                           | \$37.64                           | \$46.33                           |
| Resident<br>Compliance Officer           | N/A                          | \$16.08                           | \$29.91                           | \$28.99                           | \$31.29                           |
| Officer Engineer                         | N/A                          | \$28.75                           | \$31.99                           | \$28.99                           | \$31.29                           |
| Inspector Aid                            | N/A                          | \$18.10                           | \$21.77                           | \$18.55                           | \$22.08                           |
| Contract Support<br>Specialist/Secretary | \$14.50                      | \$14.62                           | \$14.81                           | \$15.55                           | \$18.42                           |

**GDOT Direct Cost Rates as Compared to ALDOT**

The Alabama DOT Direct Cost were compared with Georgia DOT District A, B, C, and D Direct Cost rates. ALDOT is significantly lower than the Georgia DOT direct cost rates. The Project Engineer position had the highest rate for both ALDOT and GDOT. GDOT District A rate was 13% higher than ALDOT. For GDOT District B, the rate was 17% higher than ALDOT. GDOT District C was 6% higher and District D was 31% higher. The Contract Specialist / Secretary have the lowest direct cost. The largest difference in pay was between ALDOT and GDOT District D for the Inspector Position. ALDOT was 72% lower than GDOT District D.

In comparison to GDOT, ALDOT has two noticeable distinctions; employee professional development program and minimum education requirements. ALDOT is vested in providing professional development for engineering personnel. ALDOT has developed a fundamental professional development program specifically for transportation engineering personnel which is open to their consultants. Individuals also participate in a three month rotation that gives personnel experience in design, field work, materials and testing, and analysis. All of the programs that ALDOT offers to its employees and consultants for professional development in



the beginning and throughout the individual’s career sets it apart from GDOT. For several positions at ALDOT only a GED or high school diploma is required. However, the applicant must have experience and certifications depending on the position. This is true for non-engineering related positions.

**Table 9: GDOT Direct Cost Rates as Compared to VDOT**

| Name:<br>Position in question            | VDOT<br>Direct Cost<br>Rate | GDOT<br>Direct Cost<br>Rate<br>District A | GDOT<br>Direct Cost<br>Rate<br>District B | GDOT<br>Direct Cost<br>Rate<br>District C | GDOT<br>Direct Cost<br>Rate<br>District D |
|--|-----------------------------|---|---|---|---|
| Bridge Inspector                         | N/A                         | \$36.80                                   | \$35.99                                   | \$33.48                                   | \$40.77                                   |
| Senior Inspector                         | \$32.19                     | \$31.15                                   | \$35.54                                   | \$29.16                                   | \$36.98                                   |
| ATMS Inspector                           | N/A                         | \$33.79                                   | \$35.83                                   | \$29.72                                   | \$41.25                                   |
| Inspector                                | \$26.72                     | \$25.19                                   | \$29.61                                   | \$24.92                                   | \$31.09                                   |
| Project Engineer                         | \$26.58                     | \$40.19                                   | \$41.68                                   | \$37.64                                   | \$46.33                                   |
| Resident<br>Compliance Officer           | N/A                         | \$16.08                                   | \$29.91                                   | \$28.99                                   | \$31.29                                   |
| Officer Engineer                         | \$37.28                     | \$28.75                                   | \$31.99                                   | \$28.99                                   | \$31.29                                   |
| Inspector Aid                            | N/A                         | \$18.10                                   | \$21.77                                   | \$18.55                                   | \$22.08                                   |
| Contract Support<br>Specialist/Secretary | \$20.30                     | \$14.62                                   | \$14.81                                   | \$15.55                                   | \$18.42                                   |

**GDOT Direct Cost Rates as Compared to VDOT**

The Virginia DOT Direct Cost were compared with Georgia DOT District A, B, C, and D Direct Cost rates, which were slightly higher than GDOT. In District A the only position that pays more than VDOT is the Project Engineer Position. The Project Engineer Position pays 51%, 57%, 42%, and 74% lower than GDOT District A, B, C, and D respectively. VDOT Senior Inspector Position is 3% higher than GDOT District A and 9% higher than GDOT district C. VDOT Senior Inspector Position is 10% lower than GDOT District B and 15% lower than GDOT District D. The VDOT Office Engineer pays higher than GDOT Districts A, B, C, & D by 23%, 15%, 22% and 16% respectively.

VDOT is similar to GDOT in that it requires its engineering positions to have a degree in civil engineering or other engineering related to highway design. Additionally, those consultants must have Professional Engineer (PE) license. Most of the engineering positions require a higher level of understanding of design, applicable codes and regulations, people management, program management and the ability to represent the state. VDOT engineering position qualifications require a higher level of independence than the other DOTs.

**Table 10: GDOT Direct Cost Rates as Compared to TDOT**

| Name:<br>Position in question            | TDOT<br>Direct Cost<br>Rate | GDOT<br>Direct Cost<br>Rate |            |            |            |
|--|-----------------------------|-----------------------------|------------|------------|------------|
|  |                             | District A                  | District B | District C | District D |
| Bridge Inspector                         | \$26.75                     | \$36.80                     | \$35.99    | \$33.48    | \$40.77    |
| Senior Inspector                         | \$29.94                     | \$31.15                     | \$35.54    | \$29.16    | \$36.98    |
| ATMS Inspector                           | N/A                         | \$33.79                     | \$35.83    | \$29.72    | \$41.25    |
| Inspector                                | \$25.26                     | \$25.19                     | \$29.61    | \$24.92    | \$31.09    |
| Project Engineer                         | \$34.07                     | \$40.19                     | \$41.68    | \$37.64    | \$46.33    |
| Resident<br>Compliance Officer           | N/A                         | \$16.08                     | \$29.91    | \$28.99    | \$31.29    |
| Officer Engineer                         | N/A                         | \$28.75                     | \$31.99    | \$28.99    | \$31.29    |
| Inspector Aid                            | \$12.90                     | \$18.10                     | \$21.77    | \$18.55    | \$22.08    |
| Contract Support<br>Specialist/Secretary | N/A                         | \$14.62                     | \$14.81    | \$15.55    | \$18.42    |

**GDOT Direct Cost Rates as Compared to TDOT**

The Tennessee DOT Direct Cost were compared with Georgia DOT District A, B, C, and D direct cost rates. TDOT direct rates are on average lower than GDOT Districts A, B, C, and D. The Project Engineer Position was the highest paid position across the board. The TDOT direct rate for that position was 18% lower than GDOT District A, 22% lower than GDOT District B, 12% lower than GDOT District C, and 36% lower than District D. The Inspector position direct rate was about the same between TDOT and GDOT District A. However, GDOT District D direct pay

rate was 18% higher. Additionally, District D on average had higher direct rates for their positions.

TDOT requires its engineer positions to fulfill the registration requirements determined by the Tennessee State Board of Architectural and Engineering Examiners. This requirement has specific qualifications concerning education and experience. Additionally, an examination is administered to determine the applicant's qualifications by the determining authority. This is drastically different from GDOT. TDOT positions that are non-engineering related require a list of competencies, knowledge, skills, and abilities (KSA's). Some of these positions require graduation from high school and experience. If an individual does not meet the experience requirements TDOT will substitute experience for course work credit received from an accredited college or university. For example, TDOT may substitute for the required experience on a month-for-month basis up to a maximum of one year (e.g., 45 quarter hours may substitute for the year of required experience).

## Procurement

As part of the Methodology approach (page 17), the GDOT RFQ (shown in Appendix C) was reviewed and a Qualitative survey was conducted with smaller testing firms interested in participating in future DOT CEI inspection contract. We received the following feedback as a hurdle in being able to compete in DOT CEI Inspection RFQ

- Selection Process that requires prior GDOT Experience in “evaluating Suitability and Past Performance” appears to be a major hurdle for the new contractors willing to participate in the prequalification process and bids for CEI Inspections.
- Size of the organization requiring “comparable size and scope “acts as a barrier to the new entrants. This requirement discourages entry and competition from smaller organizations possessing appropriate qualifications and expertise.

We believe that by opening up the competition for smaller size contractors is expected to increase competition and lower direct and overhead costs both. The study also recommends that DOT consider offering training classes and assess the trained candidates in terms of training outcomes to assist in creating a larger pool of qualified personnel for CEI Projects in Georgia.

## Conclusion:

Following is the summary of conclusions drawn from comparison of GDOT rates with others described above:

- While getting the multipliers for the various positions (see above table) it is obvious that a premium is paid on Bridge inspectors, ATMS Inspectors, Project Engineers, Inspector and Inspector Aid position.
- Compared to Alabama DOT, GDOT pays a premium in all categories. This observation is consistent in District A, B, C, and D.
- Compared to VA DOT, GDOT pays a premium in the most categories with the exception of Office Engineer and Contract Support Specialist where the Virginia DOT are higher as compared to GDOT District A, B, C, and D.
- Compared to Tennessee DOT, GDOT pays a premium in all categories. This observation is consistent in District A, B, C, and D.
- GDOT rates were higher when compared to the direct Pay Rates extracted from Salary Data from the employment database.
- GDOT rates were generally higher when compared to the rates of Fulton County Approved Subcontractors obtained through Phone Interviews.

The study suggest the following strategy to bring down the direct cost rates:

### 1. *Enlarge the Pool of Qualified Personnel*

- There is disconnect between the qualification required by the RFQ and actual requirements from practice: this disconnect deals with many issues including: Engineering vs. non engineering activities.
- Current specification of experience required to perform various CEI tasks limits the focus of education to only Civil Engineering and Civil Engineering Technology majors while the job specification listed and or mentioned could be satisfactorily performed by numerous other program majors such as Construction Management, Architecture, etc.
- With the exception of Bridge Inspector, most field managers interviewed suggested that the only requirement, in order to qualify for the entry level position was to have “a High School Diploma and General Math Knowledge”. “On the job training” for the newcomers also resulted in improved performance in subsequent days or projects.

### 2. *Opening up the Competition: Entry to the Market*

- Selection Process that requires GDOT Experience in “evaluating Suitability and Past Performance” appears to be a major hurdle for the new contractors willing to participate in the prequalification process and bids for CEI Inspections.
- Size of the organization requiring “comparable size and scope “acts as a barrier to the new entrants. This requirement discourages entry and competition from smaller organizations possessing appropriate qualifications and expertise.

- Opening up the competition for smaller size contractors is expected to increase competition and lower direct and overhead costs both. The study also recommends that DOT may like to offer training classes and assess the trained candidates in terms of training outcomes to assist in creating a larger pool of qualified personnel for CEI Projects in Georgia.

### 3. *Changing Method for Computing Costs incurred by Contracting Firms:*

- GDOT contracts are indefinite delivery/indefinite quantity (IDIQ). This is also commonly referred to within the Department as Master Contracts. This type of contract is used for services on an on-call basis when the exact time and/or exact quantities of the future delivery are not known at the time of the contract award. Such is the case with GDOT construction contracts which are completed at various times along with contracts being Let on a monthly basis. Also, CEI personnel may perform work on various projects within any given contract period. They are used as/when/where needed on any given day, at discretion of GDOT.

### **Recommendations:**

Most contracts are based on the daily rate of various personnel multiplied by the total duration of the project. While talking to various field manager it was found that DOT Personnel doing the same tasks will end up working either on more than one job at the same time or perform other tasks simultaneously on the same job.

The author's recommendation is to procure a Consultant to allocate hours needed for each task and Bid the job as a lump sum number to simulate the Private Sector methodology for contracting out similar services. In case, if the hours exceed the budgeted contract hours, then hourly rate will apply for additional hours. In accordance with federal regulations with a direct salary rate survey, direct salary can be negotiated.

Based on the conclusions, the study strongly recommends changes to the current GDOT procurement process. The procurement process needs to have a more effective utilization of CEI budget allocations. It was observed that a study needs to be under taken to bifurcate engineering and non-engineering task to apply a more cost effective procurement process for continuous performance on a non-engineering tasks. Additionally, the bifurcation study also needs to consider a re-write of the basic qualifications that are needed for CEI tasks especially for each position reviewed in this study.

The scope of the study for RP 13-14 was restricted to comparison of rates with other DOTs in the industry. In order to reduce the future cost for CEI the researchers proposed bifurcation of

engineering and non-engineering positions to apply different procurement processes and to open up the pool of occupants.

## **REFERENCES**

1. 23 U.S.C. 112 (b)(2)(C)-(D)
2. 23 CFR 172.7(b)
3. 49 CFR 18.22(b)
4. 48 CFR 31.201-3
5. 48 CFR 31.205-6 (b)(2)
6. 23 U.S.C. 112 (b)(2)(A)
7. 40 U.S.C. 1104 (a)
8. 23 CFR 172.5(a)(1)
9. [www.salary.com](http://www.salary.com) Last accessed May 20, 2014

## **APPENDICES**

Appendix A: Georgia Department of Transportation Personnel Survey  
(Electronic File Attached)

Appendix B: DOT Job Descriptions  
(Electronic File Attached)

Appendix C: Request for Qualification to provide CEI Services – District 6  
(Electronic File Attached)

**Appendix A**

**Georgia Department of Transportation Personnel Survey**

**Interview Transcript**

**Interviewed: Respondent 1**

**Date: March 19, 2014**

**Time: 2:50 pm**

**Attendees: Dr. Itr, Dr. Rodgers and Jestein Futrell**

Explained that this is a study with the purpose of determining the worthiness of the GDOT job descriptions. So that DOT can do outsourcing more efficiently.

1. Have you worked as a Project engineer, senior inspector, and bridge inspector? Worked in those roles but not under those names.

2. What is your current job description? District Construction Engineer – managing and overseeing construction work program for the district. In charge of construction administration and contract management and staffing for departments construction personnel in our district.

3. What is your level of education? College graduate – Bachelors of Civil Engineering Technology.
  
4. When did you start working for DOT? 1993
  
5. Was this the first position you had or was there a step system for this position? First job was as a Civil Engineer Technologist. Worked my way up from this position. Many steps to current position.
  
6. Are there any engineering calculations involved with the position? Yes at times – many of the calculations are done by subordinate employees or field level employees. He routinely runs calculation for independent analysis or verification. My specific - does not require a lot of specific engineering calculations.
  
7. What type of engineering calculations is a person expected to do? Depends on job title and their responsibilities. Entry and Inspector level positions are expected to basic level engineering calculations – figuring spread rate of asphalt, computations – earthwork (not done as much in the field anymore), routine surveying skills, along those lines.



**Bridge Inspector:**

8. Are there any engineering calculations involved with the position? Yes used on moderate to complex bridges. Does everything from determining beam deflections to verify camber and material side of bridge construction, concrete stuff like that.

9. Can this job be done with a high school diploma? Not without additional training and experience. Maybe be able to perform mathematical calculations, but specific concepts and reasons would require additional training beyond high school.

10. Would this be served better by getting someone from high school or with basic education not with civil engineer background and give them basic training and teach them about deflection and camber or would it better to have someone with an engineering degree? Minimum training experience of bridge inspector says minimum degree in civil engineering technology or civil engineering technology with related experience. The way I use that title in my district is we want to assign a bridge inspector to general roadway projects. It is more concentrated and has emphasis on bridge construction. From an engineering stand point bridges are critical structures. I would feel more comfortable with a person with an engineer related background as opposed to a high school graduate with some additional training. Not saying that there are instances where h.s. graduate with additional could perform equally as well. I would

like some that has years of experience or engineer degree or experience and degree. You need to possess engineer judgment to make decisions in the field independent of additional project management or engineering. You have to have some level of knowledge to make decisions.

11. Basically you oversee project that contractor is doing. You need to check these items. Is this something that needs to be a fulltime task? No – not always the case. Some projects yes. Typically on bridge project there is a lot of work that is not bridge work and we don't utilize. Bridge inspector will be there for bridge construction and to make independent decisions in the field. That is not to say. He won't be doing mundane tasks like inspecting pavement. Not need 100% of the time, there is always a chance that he could be preparing for something bridge related.

12. Does this job require individual to be a licensed Professional Engineer? NO

13. What are the specific problem solving skills needed for this position? In general make engineering decisions independently because there is not set of perfect plans. Field conditions can vary from plans. Decisions have to make. Yes. They need to be able to make changes and adapt to changes as they arise and have conflict resolution skills and negation skills. Along with engineering background to make negations and resolutions when problems arise in the field. Depending on the type of decision the inspector may need to make decisions without the engineer of record within the limits of their role. Any structural or contractual issues will be handled with the department and will be handled above his title. Person needs to know: What is my level of authority? And when do I need to bring in DOT personnel or engineer of record?

14. Do you know what the current market rate is for this position? I know what our task order agreed prices are – Master Task order (late 2012) bridge engineer for prime contractor \$89.99/billable hour ( includes vehicle, cell phone and other overhead) That is the billable rate to the firm. The firm pays individual a lower rate.

15. Is this position critical to public safety? Yes

16. Would you agree that this position cannot be performed by ungraduated of accredited university as an intern? They could perform the calculation and math but the way the title is utilized, it is independent and requires a level of experience that is described in job description. I would not let someone straight out of school or in school in a semiautonomous position for a bridge project

17. What type of training is needed for bridge inspector form GDOT? What GDOT training do they get as a bridge inspector? We offer annual bridge construction workshop that most both GDOT and CEI personnel are able to attend. They are fundamentals of engineering classes that involves bridge construction and concrete construction that are offered by consultant and GDOT as they progress up the line. The best training is experience. How many ever years of experience they bring to the table with them. Different CEI firms offer different training regiments within the individual firms

18. We teach at Southern Polytechnic State University. Would someone with construction management education and you give him basic training about what he needs? He understands basic structure but is not an engineer. He understands basic construction, deflection, camber, soil testing and various things. He needs a refresher and he need some basic training. If we take

this person can he achieve the task if he goes for a trainee for a year or 2. ? (Inaudible) if he were to come in as an inspector or inspector aid and work and get some experience with the training you are talking about, I think he would begin to approach the level of experience that we specify for this bridge inspector title. Like I said because it is a lot higher level than entry level we asked them to perform semi independently and independently at times directing lower level employees. I feel this person needs to have some real world experience on projects for this position.

19. I am coming from commercial side of construction. Whenever we do testing it is our responsibly to inform the owner of the testing company ahead of time. Before we perform any of the task. Basically we give them 24 hour notice that is in the agreement. They make the person available on the second day or whatever is the agreement and that task of inspections take 1 hour or 2 hour. The guy basically (Inaudible) what the guy figures while submitting the proposal to the owner. Correct me if I am wrong contractor is working for DOT building a bridge? He needs some to come do inspection. He gives notice to Inspection Company or engineering company. This engineering company will send the guy the second day. Is this a possible setup or does he have to be physically in a trailer available around the clock.----- From a material standpoint that may be possible to have someone test the concrete or someone to do a pre-pour inspection on steel or something like that. But if the task order was that specific – yes. But the way GDOT uses this title there is a lot more to it than line item specific for testing and certifying material meet requirement. The bridge inspector is there to ensure the materials are adequate and placement of materials is adequate, surrounding traffic control and erosion control is adequate. There is much more to bridge inspector. Primary focus is bridges

construction but on GDOT project whether it is roadway or combination there is much more involved than just bridge work. With other jobs people can be on call. Office of materials is just now starting to utilize CEI where they have testing field technicians where they will come out run soil testing or something like that. And that's more along the lines of what you are suggesting. The construction CEI is a supplement to GDOT personnel. They can physically cover all the work in busy times. The lower title inspectors and aids we utilize them where they may work a morning pouring sidewalk or whatever then will send them in the afternoon to take up asphalt tickets. So it all depends on their level of experience and how we utilize their title. The higher titles become broader project manager type scenario where they are overseeing more than one specific item.

**Senior Inspector/Engineer**

20. Any calculations involved in this position? Yes – very similar to bridge inspector. Not as many true engineering calculations, but a lot of mathematical. Calculating areas and volumes and that sort of thing. Spread rates along those lines.

21. Can this job be done with H.S. diploma? Yes it could be

22. Does this job require a college degree? No we utilize both college and high school grads with experience in that particular position

23. Does this position require P.E.? No.

24. What are three abilities essential to the position? Have ability to perform the plan reading and math and technical aspect. Be able to make sound decisions.

25. Can job be performed with 1-2 day training course with GDOT? Not as a senior inspector. There is so much involved. We utilize more than the construction aspect.

26. How much time of experience of on the job training? I don't know. According to description 6 years. I would say 4-6 years and that depends on the individual. Some individual more adapt to pick up stuff a lot quicker than some people that have been here 10 or 12 years.

27. If I am contractor and I want to get into DOT type work, I have to hire somebody who work with my competitors or someone who has worked with dot? Not necessarily we have utilized and employed - some people that have worked with contractors, and may not have been involved in road construction industry. Some people come from vertical construction or some other type of constriction that there experience would lend itself. They recognize construction practice in general. Not necessarily road way but general construction practices. Their years of experience may translate to an ability to pick up roadway construction. We don't necessarily look for someone that has worked in CEI in this title or retired DOT personnel. We look for someone that knows the concepts of construction, construction management. We will accept that. If they can translate their experience to transportation construction we consider that. It is not foreign to them. They understand the basic principles of construction. We look at that when we are evaluating potential individual for filling this positions.

28. Is this position critical to public safety? Yes

29. What is task order rate for this position? Senior Inspector \$73.95

30. Do you think this position can be performed by undergraduate from accredited university as an intern? Possibly. We would like this person to have some experience instead of just being an intern out of college.

31. What are the specific problem solving skills they need? Basic math and algebra,

32. What type of dot training is available for this position? Asphalt workshop, bridge workshop, traffic control training, erosion control training and certification. Provide utility coordination on construction project training. Basic fundamentals of engineering skills and development.

33. If you had unlimited budget would you rather see DOT employee in-house or consultant supporting DOT? It depends on the type of project and the particular individuals in question. There are highly qualified with great skillsets on both sides with public and private fence. We try to best fit the project. From a financial stand point to only use them when u need them (CEI). It probable make more sense to use CEI.

**Interviewed: Respondent 2**

**Date: March 19, 2014**

**Time: 3:30 pm**

**Attendees: Dr. Itr, Dr. Rodgers and Jestein Futrell**

1. What is your job description? I am the District Construction Engineer for the District . I oversee all the construction projects.
2. What is your level of education? I graduated with a four year degree.
3. When did you start working for DOT? 1998.
4. Was this the first position you had or was there a step system for this position? I started out as a CET. I went up through the ranks.

### **Inspector Role**

5. Are there any engineering calculations involved with the position? Some, basic math.
6. Can this job be done with a high school diploma? Yes.
7. Does this position this position require a college degree? No.
8. Does this job require individual to be a licensed Professional Engineer? No.
9. What are three abilities essential to the position? Read, understand and follow directions. Read plans, contracts, spec books, manuals and anything else you need to do your job.
10. Can job be performed with GDOT training course? Can you acquire the skills through GDOT training? You can but most of the stuff we do is specific to GDOT. It is a general overview in training. You are not going to really know what we are doing until you get out there with your feet to the fire.



11. Do you do most of the inspection in house or consultants? Right now we do it through consultants. Consultants are on as needed basis, based on contract.

12. Does job require specific problem solving skills? Yes – Read and understand what’s going on. At that point calculate or solve the problem with the knowledge, skills, and abilities that you have with other resources.

13. Is the position critical to public safety? Yes – all positions with GDOT are.

14. Can the position be performed by undergraduate of accredited college or as an intern from a college? Yes.

15. What type of GDOT training? Orientation. Gives what responsibilities are. I don’t know what happens after that.

16. Do you know the amount for hour for this position? Not of the top of my head. We have a high-low range. You come in as an ET at \$20,000. If you get a promotion you add 10% to that. This is for in-house. For contract that is negotiated. It is approximately \$30/hr. That includes their overhead and everything else.

**Atms- Signal Inspector:**

17. Are there engineering calculations that are needed to do this position? Not much calculations, but there is engineering in regards to how the system works.

18. Can job be done with high school diploma? It could, but that gets into the more technical. You would have to have a lot experience. Just as a straight high schooler coming into it, it would be very difficult for them to be able to do the job.

19. Would it be better to require a college degree? I don't know about a college degree but a technical degree would be great because they know how some aspects of the systems works.
20. With a degree (2 year) how long does he need to work to understand atms? If he is working in it day to day he is going to know within a few couple of months and will be able to retain. But if he is not working everyday it maybe a year or year and half for him to understand.
21. Would they need a P.E. for this position? No.
22. What are the 3 abilities needed for this position? Read, understand and follow directions. Those are the basic concepts for inspection work on GDOT.
23. Can this job be done with GDOT training? Yes, but need some training.
24. If you had your way would you have all in house or would you use contractors? If I had my way they would all be in-house.
25. What are the job required specific problem solving skills? They need to know the aspects of the atms system how a traffic signal works. You don't need to know all the details but you do need to know basic concepts. Like what is going on for fusion or splice or something like that.
26. Are the GDOT provided classes and testing sufficient training for promotion to this position? No, need field experience. It would work as a supplement but not just that as the only way of measure. Need physical field experience to learn different field aspects of it.
27. Is this position critical to public safety? Absolutely.

28. Can position be performed by undergraduate of accredited college or university as an intern? Yes they can.

29. What type of training does GDOT give for this position? I don't know what's offered specific for that position. We may come up with an in-house training every now and then. But as far as a routine class I don't know (that is construction related). There might be something in traffic safety department, but I am not aware of that now.

30. Who is over the traffic safety department now? District 1 – David Olsen. Atlanta-Ted Izhole? (last name was inaudible)

31. Do you know the rate for this position? It is a negotiated amount for contracts. It usually about \$30/hr, that is inclusive of overhead.

**Senior Inspector:**

32. Are there any engineering calculations involved with job? Yes

33. Can this position be done with a high school graduate? It would be very difficult. You would have to have working experience. This job would require steps to perform duties.

34. Does this job require a college degree? It can be done with experience. Most people with degree enter as Project Manager. You don't have to have a college degree to come in as a senior in

35. If you were hiring would you want a person with a high school degree with experience or college degree with experience? College degree with experience.

36. Does this require a PE? No.

37. What are the 3 abilities essential to this position? Read, understand and follow directions.
38. Can this job be performed with just training from GDOT? No you need experience to do this job. You need experience to be Senior Inspector.
39. Does this job require specific problem solving skills? Yes depends on what you are working on. PE does most of calculations but person needs to be familiar. Need to know basic engineering calculation.
40. Is this position critical to public safety? Yes.
41. Can this position be performed by an undergraduate student as an intern? It can but the person needs to have experience. Someone looking for an internship can be a general inspector as an intern. Senior inspector needs experience because of the amount of experience. Senior Inspector works as a project manager in some positions.
42. Rate for this position? High 20s or 30s for GDOT. Consultant - \$35/40 hr
43. Does GDOT have any training for this position? No nothing specific.
44. What does a worker get – gdot has a fleet of trucks. Cell phones are provided.
45. What type of inspections are done by your people?– asphalt, dirt, concrete, footing, bridge deck, beams. The spec book lists the wide range of inspections we cover. Refer to the 2013 spec book – new edition.

**Interviewed: Respondent 3**

**Date: March 19, 2014**

**Time: 2:20 pm**

**Attendees: Dr. Itr, Dr. Rodgers and Jestein Futrell**

1. What is your current job description: Area engineer - oversee maintenance and construction out of the District. Overlook maintenance and construction in counties on the state highway system.
2. What is your level of education? High school diploma.
3. When did you start working for the DOT? 1987
4. Was this your first position or a step position to here? Step position started at bottom worked up to the top through the testing and training program that the DOT offered. Came in as an ET.

**Inspector Position**

5. Are there any engineering calculations involved with this position? At times there are calculations. Mostly rely on designers for complex calculations. As far as Putting resurfacing estimates and refiguring and basic figuring we do.
6. Can this position be done with a high school diploma? Most definitely.

7. Past high school diploma how many years of experience is needed? –After high school a person would need 6 months to 1 year experience on DOT job.
8. Do you think this position requires a college degree? Does not require college degree.
9. Does this position require a PE? No.
10. What are the 3 essential abilities for this position? Reading and understanding specification, blueprints, standards, knowing what to look for in inspections work, basic math.
11. Can this job be performed with just a training course from DOT. Yes. After 3-6 months inspectors will be trained for positions with the classes that they have to go to get certified. Can come it as an aide.
12. Does the job require specific problem solving skills? No.
13. Does he need to know how to read blueprints? Right, to know what the contractor is actually building...to know curb and gutter, to know he is putting it in the right place.
14. Does he need to know these things before working with DOT or is this a part of the training in 6 months to a year? Training will probably come in 6 months to 1 year with that title. There is a lower title that they can come in as, aide. To come in as an inspector you expect them to know how to look and find stuff in a set of blue prints.
15. What is the current market rate for this position? I don't know ...probably \$12-15/hour.
16. Is this position critical to public safety? Yes.
17. Can this position be performed by an undergraduate or an intern of a university? Yes.

**Project Engineer Position:**

18. Should this person have a college degree? No degree, but need 3-5 years of experience in construction field. He would need a college degree or 3-5 years' experience.

19. Are there any engineering calculations involved with this position? Yes basic calculations like spread ratings, reading charts, etc. (Does this position do super elevation at this level?) No super elevation calculations – this is normally done by a PE.

20. Can this position be done with a high school degree with 3-5 years or a college degree? Even with a college degree they will need 6 months to 1 year experience.

21. Does this position require a PE? No.

22. What are the 3 essential abilities for this position? Plan reading, good judgment calling, basic calculation, and being able to do paperwork filing. One of the critical points is filing and paperwork - keeping accurate records.

23. Can this be done with GDOT training course? Yes.

24. When you say college educated, does it matter which degree they have? With training it is probably not real critical to have an engineer to be able to perform here. Some of the other engineering degrees would be good or, architect (being able to read plans), business degree (record keeping), there are several different fields you probably could pull from. Construction Management would be a good one.

25. Does the job require specific problem solving skills? Yes - running into utilities and knowing how to make a judgment call to adjust grades or drainage structures.

26. What is the current market rate for this position? \$22-32/hr.

27. What is the mix of people – in-house/outsourced? My staff is 50/50, in-house and outsourced.

28. If you had your choice would you rather use in-house or outsourced? Use in house because if you try to go outside you would need to be a retiree who knows the process and department. Because we work so much different than private sector.

29. Is this position critical to public safety? Yes.

30. Can this position be performed by an undergraduate or intern of accredited college? Yes, with proper training.

31. Does GDOT have any training for this position? DOT has a special program for in-house employees - 2 year training program if you are a graduate. Work in the field for 3 months. Go for 6 months and come back to work in the field. They send you through each one of the areas through design, traffic operation, maintenance, construction, bridge design, roadway design, etc. So they can see each part from start beginning. Hands on experience and come back to do some more hands on based what was learned from the designers – experienced senior designers. We don't offer that to consultant side. I think it would be a good thing to go through some (maybe not all) of it for the consultants – 3 month or 6 weeks fast track training for undergraduate consultants for those not specifically this field to get a grasp of it.



32. Is the person needed fulltime on project? Sometimes we take one project engineer and have him overseeing 2 projects with senior inspectors doing legwork. Project engineer will be making decisions. Takes care of paperwork, makes sure proper payments are being made. Projects have to be in close proximity in case a problem does arise.

**Interviewed: Respondent 4**

**Date: March 20, 2014**

**Time: 2:57 pm**

**Attendees: Dr. Itr, Dr. Rodgers and Jestein Futrell**

1. What is your current job description? District construction engineer. In charge of construction activities for several counties.
2. What is your level of education? Bachelor of Science Civil Engineering Technology.
3. When did you start working for the DOT? 1989.
4. Was this your first position or a step position to here? I came in as CET and worked up.
5. Are there any engineering calculations involved with this position? Yes - field measurements, measuring areas, quantities, geometric.
6. Can construction management or architect to do measures? Yes.

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7. Can this position be done with a high school diploma? Yes with experience - from 7-10 years.
8. Do you think this position requires a college degree? Requires college degree - yes and no. It depends on the experience level.
9. Does this position require a P.E.? No.
10. What are the 3 essential abilities for this position? Decision making, through knowledge of construction practices, read and interpret plans, read specifications.
11. What type of training does GDOT give for this position? Just GDOT training: no - need on job experience. Need experience of dealing with construction projects. Just can't come in off the street.
12. Are there any problem solving skills for this position? Yes.
13. What is the Market rate for this position? Based on \$40-45k.
14. Can this position be performed by an undergraduate or intern of accredited college? No, rather have someone that is a graduate.
15. Which do you prefer, outsourcing vs in house - 8-12 employees - 1 is outsourced.
16. Is this position critical to public safety? Yes all of them are.
17. What type of GDOT training is avail for this position? Through standard with what we departments offer for other employees - site manager. It is our new record keeping. CEI goes through same type training.

18. Is the person needed fulltime on project? Needed on fulltime basis.

**Interviewed: Respondent 5**

**Date: March 25, 2014**

**Time:**

**Attendees: Dr. Itr and Dr. Rodgers**

1. What is your current job description? Currently District Design Engineer
2. What is your level of education? Bachelors in Civil Engineering Technology.
3. When did you start working for the GDOT? 1997
4. Was this your first position or a step position to here? Came on as Civil Engineering Technologist. The current position to steps. The training rotation program was not developed at the time he came in.

**Resident Compliance Officer**

5. Are there any engineering calculations involved with this position? There are more accounting calculations than engineering calculations. The calculations deal with finding dd and construction amounts.
6. Can this position be done with a high school diploma? Possibly.
7. Do you think this position requires a college degree? It would be preferred.

8. Does this position require a P.E.? No
9. What are the 3 essential abilities for this position? Be willing to travel. Often times from district to district. Have great customer service skills. Be able to deal with different personalities.
10. This person acts more like an auditor for projects. Does one project at time.
11. Can this job be performed with a 1-2 training course from GDOT? No
12. Can this job be performed with any training course from GDOT? It can. It requires training and on the job training to understand how GDOT works. How are contract work, what to look for. Minimum training is needed to get them started. Will need experience.
13. What type of training does GDOT give for this position?
14. Does the job require specific problem skills? Possibly yes. The position does dd reviews, determines what is eligible. Yes, there are some problem solving skills involved.
15. This is a position that has been in-house in the past. Position would be filled with someone who has experience with the department.
16. Do you know the Market rate for this position? No.
17. Can this position be performed by an undergraduate or intern of accredited college? Possibly depending on their knowledge of GDOT department.
18. Is this position critical to public safety? No, based off of the job description.

19. What type of GDOT training is available for this position? There has been some in house training in the past for individuals exposed to items of contract management. Does not recall the name. Not sure of how often training is offered.

20. Is the person needed fulltime on project? Yes because the person watching over many contracts.

### **Office Engineer**

21. Are there any engineering calculations involved with this position? Yes, similar calculations to previous position because they are doing it at a project level. Unit calculations for project activities, hiding calculations, supports, contract document calculations. They are in-between a project manager and inspections staff. Job is like an assistant project manager.

22. Can this position be done with a high school diploma? Yes

23. Do you think this position requires a college degree? Higher education is preferred.

24. Does this position require a P.E.? No.

25. Is this in-house position? Yes and consultants can do this positions. Currently have 2 consultants.

26. Is this position fulltime? Yes.

27. What are the 3 essential abilities for this position? Organizational skills, track documents and submittals, project management skills or similar to that level.

28. Can this position be performed with GDOT training? Yes, but the person would need to have prior knowledge of GDOT management, GDOT construction. Needs exposure to how projects and documents are managed.

29. Does the job require specific problem solving skills? Yes. The OE runs into issues on occasion.

30. What is the Market rate for this position? No

31. Can this position be performed by an undergraduate or intern of accredited college? It couldn't be an intern because they would not have the experience or knowledge base.

32. Which do you prefer, outsourcing vs in house?

33. Is this position critical to public safety? No I wouldn't say so/

34. What type of GDOT training is avail for this position? I don't know pf anything specific. It is probable a series of different trainings that is available through GDOT. The job relies heavily on on-the-job training and previous experience.

**Interviewed: Respondent 6**

**Date: March 25, 2014**

**Time:**

**Attendees: Dr. Itr and Dr. Rodgers**

1. What is your current job description? District Construction Engineer for the District

2. What is your level of education? Bachelor's degree in Civil Engineering Technology.
3. When did you start working for the DOT? 1990.
4. Was this your first position or a step position to here? Step position. Came in as a CET.

**Inspector Aide**

5. Are there any engineering calculations involved with this position? Yes, not a high level. Spread rates, calculating tickets, and tonnages.
6. Can this position be done with a high school diploma? Yes.
7. Do you think this position requires a college degree? No.
8. Does this position require a P.E.? No.
9. What are the 3 essential abilities for this position? General knowledge of math. Ability to read and interpret plans and to learn that including contracts specs and everything. They need to have the ability to learn how to read and interpret. Can learn this on the job.
10. Can this be performed with a GDOT training course? Yes. There is some in-house training for inspectors. It's something the DOT started years ago. Take a course on basic stuff and there is a test involved. Originally created for inspectors.
11. Does this specific position require problem solving skills? No. The Aide picks up tickets, checks grades, etc. The (problem solving) issues are carried to supervisor.
12. What is the Market rate for this position? I don't know.

13. Can this position be performed by an undergraduate or intern of accredited college?

Yes.

14. Is this consultant or in-house position? This job is for consultant.

15. Is this position critical to public safety? I don't know...Anytime you're dealing with traveling project you have to make sure the public is safe.

16. Is the person needed fulltime on project? Yes. Are they needed on jobsite all day? You do, but it depends on what is going on.

### **Inspector**

17. Are there any engineering calculations involved with this position? Yes

18. Can this position be done with a high school diploma? Yes with experience. (Several years as an aide. Any type of highway construction experience.)

19. Do you think this position requires a college degree? No.

20. Does this position require a P.E.? No.

21. What are the 3 essential abilities for this position? Inspect various aspects of the project; asphalt, concrete, run concrete test, working on culverts (advanced) bridges. Need to be able to field measure items and understand how to pay for them.

22. Can this be performed with training from GDOT? It can. Should come with previous experience. There is some training for inspectors through GDOT. In the past ET would take these classes, pass the test and be promoted. No longer the process,



23. Are there any problem solving skills for this position? Yes.
24. What is the Market rate for this position? Don't know.
25. Can this position be performed by an undergraduate or intern of accredited college?  
Yes.
26. Is this position critical to public safety? Yes.
27. Is the person needed fulltime on project? Yes.

**Interviewed: Respondent 7**

**Date: March 25, 2014**

**Time:**

**Attendees: Dr. Itr and Dr. Rodgers**

1. What is your current job description? Area engineer for the District.
2. What is your level of education? Bachelors of Science of Civil Engineering.
3. When did you start working for the DOT? 2002.
4. Was this your first position or a step position to here? Started out as Transportation Engineer Associate. Then went to a Construction Project Engineer. The Assistant Area Engineer. The Area Engineer.

**Senior Inspector**

5. Are there any engineering calculations involved with this position? Yes, depending on what project they are on. Beam deflection calculations on bridges, bridge layout, survey data, general math, area and volume calculations for pavements, etc.
6. Can this position be done with a high school diploma? Yes with proper years of experience. (Construction and Inspection Field 4-5 years)
7. Do you think this position requires a college degree? No.
8. Does this position require a P.E.? No.
9. What are the 3 essential abilities for this position? Experience knowledge of the DOT specifications and contract requirements, ability to work independently with minimal supervision. Ability to work with others (employees and contractors) on the project.
10. Can this job be performed with a training course from GDOT? No would need to couple that with prior experience at a lower title. Or sometime of previous construction history work.
11. Problem Skills – Yes. Ability to foresee issues as their building it , problem solving as it relates to construction, making sure things get done right before they get messed up, foreseeing problems and working them out.
12. What is the Market rate for this position? Don't know.
13. Can this position be performed by an undergraduate or intern of accredited college? Yes with proper experience. So they can get there and get on the job training and be ok? Yes. GDOT has too many special rules and regulations that they need to know to do position.

14. Is this position critical to public safety? Yes, especially in regards to traffic control. In charge of state routes.

15. What type of GDOT training is avail for this position? Not directly related to position. There are several supporting courses that going along with that title

16. How many projects does a senior inspector oversee at one time? One major project. It is possible that the may look at something smaller on the side.

17. Is the person needed fulltime on project? Yes.

### **Inspector**

1. Are there any engineering calculations involved with this position? Yes, just generalized calculations with volumes and areas. Basic calculations.

2. Can this position be done with a high school diploma? Yes.

3. Do you think this position requires a college degree? No.

4. Does this position require a P.E.? No.

5. What are the 3 essential abilities for this position? Ability to perform calculations; volumes, areas, etc. The ability to read plans and specs. Ability to do tasks. Position has direct supervision.

6. Can this position be performed with GDOT training? There is no specific course, but yes, if coupled with specific courses such as; traffic control, asphalt training

7. Problem Skills – No. They would need problem skills in a higher up positions. Inspector is expected to be able to read the requirement of the construction and implement the specification in their inspection.
8. What is the Market rate for this position? I don't know.
9. Can this position be performed by an undergraduate or intern of accredited college?  
Yes.
10. Is this position critical to public safety? Yes all of the titles are.
11. Is the person needed fulltime on project? Yes.
12. What type of training does GDOT have for this position? Major ones; traffic control training, asphalt training, site manager system training class,

**Interviewed: Respondent 8**

**Date: March 25, 2014**

**Time: 3 pm**

**Attendees: Dr. Itr and Dr. Rodgers**

1. What is your current job description? Responsible for all aspects of construction and District Construction Engineer.
2. What is your level of education? BS Civil Engineering Technology
3. When did you start working for the DOT? 1995.

4. Was this your first position or a step position to here? I came in as a Civil Engineering Technologist. Then went to steps to get to this position.

**Senior Inspector**

5. Are there any engineering calculations involved with this position? There is basic math.

6. Can this position be done with a high school diploma? Yes.

7. Do you think this position requires a college degree? No.

8. Does this position require a P.E.? No.

9. What are the 3 essential abilities for this position? Fundamentals of math (formulas), read and interpret plan, ability to interpret the special occasion, ability to reason

10. Can this position be performed with GDOT training? Yes.

11. Does GDOT have training courses available for this job? Yes there is a program/course series for ET's they can take

12. Problem Skills – To a certain degree need to the ability to reason and solve problems based on their knowledge from the plans and specifications.

13. What is the Market rate for this position? External Maybe \$63/hr includes overhead. Internal – don't know.

14. Undergraduate or intern? Yes.

15. Is this position critical to public safety? Yes.

16. Is the person needed fulltime on project? It varies and depends on the project.

**ATMS Signal Inspector**

17. Are there any engineering calculations involved with this position? No, just basic math.
18. Can this position be done with a high school diploma? Yes.
19. Do you think this position requires a college degree? No.
20. Does this position require a P.E.? No.
21. What are the 3 essential abilities for this position? Fundamentals of math (formulas), read and interpret plan and specs, ability to interpret the special occasion, ability to reason.  
Takes a little bit more specialized training
22. GDOT training? Yes can be performed with specialized training from GDOT.
23. Does GDOT have the training available? Yes. It is done through our TMC office. May need external training as well.
24. Problem Skills – Yes.
25. What is the Market rate for this position? I don't know, I think it is the same in line with the senior inspector.
26. Is this position critical to public safety? Yes it could be.
27. Undergrad or Intern? Yes.
28. Is the person needed fulltime on project? It depends on the job.

**Inspector Aide**

29. Are there any engineering calculations involved with this position? No. It is probably the lowest on the pole. It is very entry level.
30. Can this position be done with a high school diploma? Yes.
31. Do you think this position requires a college degree? No.
32. Does this position require a P.E.? No.
33. What are the 3 essential abilities needed for this position? Compute, reason and comprehend. This almost like a training ground.
34. Be performed with GDOT Training? Yes.
35. Does GDOT have training for this position? Yes.
36. Problem Skills – No.
37. What is the Market rate for this position? Probably close to minimum wage.
38. Performed by undergraduate or intern? Yes.
39. Is this position critical to public safety? It could be. Because this deals with the general public. It deals with traffic control. They have to manage traffic or things that effect the traffic. So at any given point they are responsible to ensure the safety of the entire public while they are out there. So all the positions are critical to public safety to ensure the safety of the public.

40. Is the person needed fulltime on project? No, but this job probably does a lot of what we require at the very beginning stages. Pick up tickets, concrete pours, etc. So we may utilize them more than someone else. They are like a laborer.



**Alabama DOT**

**Engineering Training Orientation Program (ETOP)**

The ETOP is a series of work assignments rotation the entry level Civil Engineering Graduate (CEG) or Professional Civil Engineering Trainee (PCET) through various phases of highway Engineering.

Professional development is fundamental to producing top quality engineering personnel in ALDOT. This kind of development is achieved through many transportation engineering related work experiences. While working in areas such as highway location and construction surveying, road and bridge design, road and bridge construction, maintenance, materials and tests, an ALDOT employee can gain experience fundamentals to their professional development.

**Fundamentals of Engineering/Professional Engineering Program (FE/PE)**

The FE/PE Exam Review Course (study session) is a self-study course which lasts for eight (8) consecutive weeks. ALDOT provides the study materials (e.g. manuals, books, etc.). Each course participant is allowed one work day per week, eight hours a day, to study for the exam. ALDOT employees planning to take the FE/PE examinations have the opportunity to register twice a year for the FE/PE review course study sessions. The Spring and Fall sessions begin eight (8) weeks prior to examination. The maximum number of training hours is sixty-four (64) per course session. A practice test is administered halfway through the course to assist the participants with their preparation of the actual examination.

**EA Hands on Rotation**

One of ALDOT's requirements for a newly hired employee in the Engineering Assistant (EA) classification is that the employee will complete a Hands On Rotation within three (3) months on the job. The EA Hands On Rotation consist of a thirteen (13) day rotation through the following areas: four (4) days on a construction project, one (1) day in the location section, one (1) day in the design section, four (4) days in the Materials and Tests section, and three (3) days in Analysis and Planning. During the fiscal year 2004-2005, documentation indicates twenty-one (21) EAs completed the Hands On Rotation training activity.

**Professional Civil Engineer Trainee (PCET)**

This program is designed to provide on the job training for Civil Engineering students. Applicants must provide a current copy of their college transcript when submitting an application for employment with ALDOT

**Engineering Technician II (Bridge/Development Plans)**

Job Classification Number      CI2050-BDP

Job Description Date      07/25/2003

FLSA Status:      Exempt

Pay Grade A07

Nature of Work

The fundamental reason this classification exists is to perform reviews of commercial development plans for projects involving City right of ways, including new buildings and additions, using research of court records, plat books, City maps, and City and state specifications in order to ensure quality of workmanship and materials and that specifications are met. Performs inspections and ratings of approximately 110 City bridges using ladder, tape measure, paint, transit levels, planimeter and electronic surveying equipment, camera, and

## GDOT RP 13-14 Appendix B

Alabama Department of Transportation database and computer system in order to ensure bridge safety and conformity to local, state and federal guidelines. Employee is supervised by an Engineering Technician III. Distinguishing Characteristics: Positions in this classification are normally filled by advancement from the lower classification of Engineering Technician I, or when filled from the outside, required prior para-professional engineering experience in bridge inspections. Incumbents of this classification work within a framework of established procedures and are expected to perform all the duties assigned to the position with only occasional instructions or assistance. The Engineering Technician II is distinguished from the Engineering Technician III by the latter's increased complexity of assignments, decision-making responsibility and level of supervision received and exercised.

Reviews commercial construction plans involving City right of ways using research of court records, plat books, City maps and City and state specifications in order to assure compliance with engineering requirements.

### Essential Functions

ESSENTIAL FUNCTIONS: The following list was developed through a job analysis; however, it is not exhaustive and other duties may be required and assigned. A person with a disability which is covered by the ADA must be able to perform the essential functions of the job unaided or with the assistance of a reasonable accommodation. The list of essential functions is to be used as a starting point to determine essential functions for a specific position at a specific location at a specific time. The ADA was intended to be applied on a case-by-case basis with the understanding that one position may differ from another similar position. The performance of "non-essential functions" is not optional for employees not covered under the ADA.

ESSENTIAL FUNCTION: Reviews commercial construction plans involving City right of ways using research of court records, plat books, City maps and City and state specifications in order to assure compliance with engineering requirements.

Reviews site plans for all commercial projects involving City right of ways (ROW) including new buildings and additions to buildings to ensure proper drainage.

## GDOT RP 13-14 Appendix B

Checks curbs, gutters, storm sewers, drainage pipes on construction plans referred from the Building Department in order to ensure proper drainage.

Reviews Montgomery County Courthouse plat records to ensure information including title, location, flood zone information, and ROW is correct.

Reviews beautification, private and sign easements on plats and maintenance responsibility.

Ensures public easements have been improved or 100% performance bonds have been provided for pipe, culvert, concrete lined, and drainage improvements.

Checks all private easements noting ownership and maintenance responsibility.

Checks easements against construction plans noting if Hold Harmless agreement is necessary.

Reviews flood maps for flood prone areas in order to determine if an above flood elevation or a Hold Harmless agreement will be needed.

Ensures developer submits drainage calculations and fills out detention calculations summary sheet. Checks to ensure all paper work is completed accurately and that bond is redeemable, in cases where a bond is required, at a City of Montgomery location. Coordinates with the State of Alabama Department of Transportation (ALDOT) on projects involving state right of ways.

Obtains signature and forwards Hold Harmless agreement to City Clerk.

Performs measurements and certifies that the finished floor is two feet above the base flood elevation when structure is in flood plain. Maintains a copy of the elevation certificate.

Fills out a review/revision form on each development plan and sends a copy to developer.

Signs the revised plan form from applicant indicating that the revisions have been completed.

Fills out plat check list for each site to ensure procedures are being followed and revisions are being made.

Coordinates development plans with the state, county, engineers, contractors and architects.

Performs plan reviews for the Planning Commission.

Reviews plans with City departments including Traffic, Water Works, Fire Department and the Building Department.

Meets weekly with City departments to reach agreement and sign off on plans, and to hear complaints from contractors and general public.

Assists ALDOT and Alabama Department of Environmental Management (ADEM) with surveys.

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Maintains copies of storm water permits received from builders with lots of one acre or more.

Obtains letter of successful passing of pre-final inspection from Chief Engineering Inspector.

Participates in the final inspection and re-inspections of construction projects to ensure contractor's work meets established design, and City and contract specifications.

Enters data into state computer system.

ESSENTIAL FUNCTION: Inspects conditions of new and existing bridges to include checking physical condition of the deck, outer structure and substructure components, culverts and the condition of channel and channel protection using ladder, tape measure, spray paint, transit levels, planimeter and electronic surveying equipment, and camera following standard codes in order to detect and mark damage or wear, identify problem areas and to ensure structure conforms to safety regulations.

Rates bridges and enters data into State of Alabama database computer system.

Inspects approximately 110 City bridges once every two years, and more frequently for those with identified problems.

Inspects drainage systems under bridges to detect obstructions, excessive vegetation growth or erosion.

Prepares and maintains reports of findings, noting location and type of structure, defect and extent of damage.

Takes photos to document findings for visual record and state compliance.

Assigns condition ratings and submits to the State of Alabama Department of Transportation using the state database computer system.

Contacts the City maintenance department to make needed road or bridge repairs or fix any problems.

Marks problem area with spray paint or meets maintenance department employees at the site if a dangerous situation exists.

Attends two day ALDOT bridge inspection refresher course each year.

Attends ALDOT annual bridge review for ALDOT Divisions.

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Corrects any errors in using the system as needed.

Maintains records and materials in readiness for inspections from ALDOT.

Conducts site visit with railroad employees if rails run under a bridge.

Calculates annual cost estimates on replacing bridges using a computer calculator.

Estimates amount of daily traffic on bridges.

Resolves conflicts involving water works, gas companies, phone, cable lines, sanitation lines, etc.

Signs off on bridge reports.

Assists the public with requests associated with drainage problems; receives telephone calls, visits sites, offers advice or referrals.

### Knowledge, Skills and Abilities

Knowledge of the laws and regulations related to planning, development, bridge inspection, and construction projects.

Knowledge of engineering methods related to road and bridge maintenance and construction.

Knowledge of flood insurance regulations

Knowledge of the geography of the City of Montgomery.

General knowledge of survey methods and methodology.

Skills in the use of surveying instruments including transit levels, planimeter and electronic surveying equipment.

Reading skills to interpret technical manuals, construction plans, reports and textbooks.

Ability to communicate effectively with the public, co-workers, and state and federal agency employees by radio, telephone or in person.

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Ability to use a measuring tape to perform annual measurements of building cracks to check condition.

Ability to maintain complete and accurate files, records and reports.

Ability to read plans and compare flood maps to building plans in order to determine if property is in a flood prone area.

Ability to understand and follow written and oral instructions and to express thoughts clearly and concisely both orally and in writing.

Ability to administer rules and regulations in accordance with ALDOT, ADEM, Army Corps of Engineers and Federal Emergency Management Agency (FEMA).

Ability to deal with conflicts and remain calm.

Ability to write effectively in order to complete required forms, reports and documentation.

Ability to read and interpret engineering maps, plans, specifications to ensure compliance with City and state regulations

Ability to add, subtract, multiply, divide, calculate square footage in order to compute the amount of materials needed and to determine quantities for bridge repair and replacement.

Ability to establish and maintain effective working relationships with co-workers, supervisors and the general public.

Ability to use associated computers, surveying and drafting equipment.

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Ability to inspect roads, shoulders and slopes.

Physical ability to lift and use up to a 40-pound ladder.

Physical ability to climb in and out of close areas such as ditches or culverts.

Physical ability to work outdoors for extended periods of time in varying extremes of weather conditions.

### Minimum Qualifications

High school diploma or G.E.D. equivalence. Certified Bridge Inspector. Three years of engineering experience to include bridge inspection; or any equivalent combination of education, experience and training.

### Special Requirements

Must be certified as a Bridge Inspector by the State of Alabama according to the National Bridge Inspection Standards (NBIS). Ability to obtain and maintain a valid Alabama Driver's License and insurable driving record as needed to operate a City vehicle to travel to various work sites.

## **20425 Engineering Graduate**

This is professional engineering work associated with the planning, geodetic surveys, location, design, construction or maintenance of structures, roads or other engineering projects.

QUALIFICATIONS: Bachelor's degree from an accredited college or university in engineering or engineering technology.

## **20429 Professional Civil Engineer Trainee**



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This is introductory technical work for civil engineering college students in a work-study program designed to provide training and experience in civil engineering and to stimulate interest in the Alabama Department of Transportation.

QUALIFICATIONS: Enrollment at a regionally accredited four-year U.S. college or equivalent in a Civil Engineering curriculum;

OR

Enrollment in a pre-Engineering curriculum at a regionally accredited two or four-year U.S. college or equivalent; OR enrollment in college-level courses (i.e. Calculus, Analytic Geometry, Chemistry, Physics, Surveying, etc.) at a regionally accredited U.S. college or equivalent which are transferable to a Civil Engineering program at a regionally accredited four-year U.S. college or equivalent.

NOTE: *Please review announcement for additional requirements needed to qualify for this classification.*

### **Engineering, Science and Allied**

#### **20430 Civil Engineering Graduate**

This is introductory professional work in the field of civil engineering performing duties associated with the planning, location, design, or construction of roads, bridges, or structures in the field, office or lab of the Alabama Department of Transportation.

QUALIFICATIONS: Graduation from a regionally accredited college or university with a Bachelor's degree from an accredited college or university in Civil Engineering.

NOTE: College seniors who are in their first quarter or semester of their senior year may apply, be placed on the register, and be certified for appointment but cannot begin work until they receive their degree.

*Please review announcement for additional requirements needed to qualify for this classification.*

**20433 Professional Civil Engineer I**

This is advanced professional work in the field of civil engineering. Employees in this class perform a variety of complex engineering duties associated with the planning, geodetic surveys, location, design, construction or maintenance of roads, bridges, buildings, or other civil engineering projects.

QUALIFICATIONS: Possession of a Professional Engineer's License as issued by the Alabama Engineers and Land Surveyors Board of Registration and four years Civil Engineering experience.

NOTE: The Professional Engineer's License must be classified as "active" status to be qualified.

**20481 Transportation Technologist**

**Bridge Design Option (005)**

This is paraprofessional civil engineering work completing the detailing of moderately complex bridge plans.

QUALIFICATIONS: High School Diploma or GED and two years of experience in the Bridge Design area at the level of an Engineering Assistant, Senior or Engineering Assistant II/III.

OR

High school diploma or GED and three years of experience in any area of civil engineering at the level of an Engineering Assistant, Senior or Engineering Assistant II/III.

OR

Bachelor's degree from an accredited four-year college or university in Civil Engineering or Civil Engineering Technology.

**Engineering, Science and Allied**

**20481 Transportation Technologist**

**Materials and Test Option (006)**

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This is paraprofessional civil engineering work conducting various tests of highway construction materials in a lab or plant. **QUALIFICATIONS:** High school diploma or GED and two years of experience in the Materials and Tests area at the level of an Engineering Assistant, Senior or Engineering Assistant II/III.

OR

High School Diploma or GED and three years of experience in any area of civil engineering at the level of an Engineering Assistant, Senior or Engineering Assistant II/III.

OR

Bachelor's degree from an accredited four-year college or university in Civil Engineering or Civil Engineering Technology.

### **20481 Transportation Technologist**

#### **Design Option (007)**

This is paraprofessional civil engineering work serving as a roadway designer completing sheets of roadway plans or other closely related design duties.

**QUALIFICATIONS:** High School Diploma or GED and two years of experience in the Design area at the level of an Engineering Assistant, Senior or Engineering Assistant II/III.

OR

High school diploma or GED and three years of experience in any area of civil engineering at the level of an Engineering Assistant, Senior or Engineering Assistant II/III.

OR

Bachelor's degree from an accredited four-year college or university in Civil Engineering or Civil Engineering Technology or Geomatics.

### **Engineering, Science and Allied**

#### **20481 Transportation Technologist**

##### **Construction Option (438)**

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This is paraprofessional civil engineering work serving as an assistant construction project manager on major projects or construction project manager on simple to moderately complex highway construction jobs or other construction related assignments.

QUALIFICATIONS: High school diploma or GED and two years of experience in the Construction area at the level of an Engineering Assistant, Senior or Engineering Assistant II/III.

OR

High school diploma or GED and three years of experience in any area of civil engineering at the level of an Engineering Assistant, Senior or Engineering Assistant II/III.

OR

Bachelor's degree from an accredited four-year college or university in Civil Engineering or Civil Engineering Technology or Geomatics.

### **20481 Transportation Technologist**

#### **Analysis and Planning Option (439)**

This is paraprofessional civil engineering work performing duties such as supervising field personnel engaged in obtaining road and bridge inventory data, coordinating traffic control studies and surveys, serving as an assistant Chief Bridge Inspector, serving as a District Permit Officer, District Operations Engineer, or Survey Party Chief.

QUALIFICATIONS: High School Diploma or GED and two years of experience in the Analysis and Planning area at the level of an Engineering Assistant, Senior or Engineering Assistant II/III.

OR

High school diploma or GED and three years of experience in any area of civil engineering at the level of an Engineering Assistant, Senior of Engineering Assistant II/III.

OR

Bachelor's degree from and accredited four-year college or university in Civil Engineering or Civil Engineering Technology or Geomatics.

### **Engineering, Science and Allied**

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### **20483 Transportation Manager**

This is technical supervisory and administrative engineering work in the planning, location, construction, and maintenance of highways, bridges, and other structures or in the testing, inspection, and research of materials.

QUALIFICATIONS: High school diploma/GED and 12 years of civil engineering experience, 4 years of which must be at the Transportation Technologist, Sr. level.

OR

Bachelor's degree from an accredited college or university in Civil Engineering, or a related field and 4 years of experience at the Transportation Technologist, Sr. level.

### **20111 Engineering Assistant I**

This is entry-level (sub professional) work assisting on engineering projects and related activities in the field, office, or lab of the Alabama Department of Transportation.

QUALIFICATIONS: High school diploma or GED

### **20130 Structural Steel Inspector**

This is specialized technical work in inspecting and evaluating the fabrication of metal structural components to be used in construction work.

QUALIFICATIONS: High school diploma or GED plus one year of structural steel inspection experience.

NOTES: Possession of a Certified Welding Inspector (CWI) certificate or a Certified Associate Welding Inspector (CAWI) certificate is required.

Individuals who possess a CAWI certificate must obtain a CWI certificate during the probationary period. Appointment to this class will be made on a conditional basis. In order to remain in this class, an employee must maintain a valid CWI certificate. The employee must maintain a valid driver's license during employment.

*Please review announcement for additional requirements needed to qualify for this classification.*

**21130 Traffic Signal Technician**

This is technical electrical work in installing and maintaining highway traffic control devices.

QUALIFICATIONS: Completion of the 10th School Grade and two years of work experience performing electrical, electronics, and/or signal work.

OR

Completion of two years in a vocational, trade, or technical school in the electronics or electrical field.

NOTE: Certain positions may require a current Commercial Driver's License (CDL).

**PROJECT MANAGER:**

Minimum Qualifications:

Ten years of experience in construction inspection, surveying or highway materials testing and inspection or a Bachelor of Science degree in Civil Engineering or Registered Professional Engineer with five years of experience in construction inspection, surveying or highway materials testing and inspection. One or more of the following certifications may be required as approved by Division County Engineer/City Engineer/County Engineer.

Certified Asphalt Technician Level I – Field Tester

Certified Level II – Quality Management

Technician Certified Asphalt Roadway Technician

Work Zone Safety Certification

Certified Concrete Technician (ACI and ALDOT certification) Radiological Safety Course Certification

Qualified Credentialed Inspector (QCI)

Job Description:

This is administrative and technical work in Civil Engineering. Employees in said class shall act

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as the first contact between contractor and the CITY/COUNTY. The Project Manager shall be responsible for supervision of all employees assigned to said project. The Project Manager shall ensure that a project is built in accordance with project plans and specifications under which contract was awarded. The Project Manager shall report directly to City Engineer's/County Engineer's designated representative.

### **SENIOR INSPECTOR:**

Minimum Qualifications:

Eight years of experience in construction inspection, surveying or highway materials testing and inspection or a Bachelor of Science degree in Civil Engineering or Registered Professional Engineer with two years of experience in construction inspection, surveying or highway materials testing and inspection. One or more of the following certifications as necessary and approved by Division County Engineer/City Engineer/County Engineer. Inspectors who are to perform a specific task shall be certified in said field.

Certified Asphalt Technician Level I – Field Tester

Certified Level II – Quality Management Technician

Certified Concrete Technician (ACI and ALDOT Certification)

Certified Asphalt Roadway Technician

Work Zone Safety Certification

Radiological Safety Course

Certification Qualified Credentialed

Inspector (QCI) Job Description:

This is skilled sub-professional engineering work in the field or office. Employees in said class shall act as the Assistant Project Manager and be responsible for reviewing and directing inspection duties of all project inspectors. The Senior Inspector shall be capable of surveying and drafting, as they apply to documenting and inspection, of a construction project. The Senior Inspector shall report directly to Project Manager.

**LEVEL II INSPECTOR:**

Minimum Qualifications:

Five years of experience in construction inspection, surveying or highway materials testing and inspection or a Bachelor of Science degree in Civil Engineering with one year of experience in construction inspection, surveying or materials testing and inspection. One or more of the following certifications as necessary and approved by Division County Engineer/City Engineer/County Engineer. Inspectors who are to perform a specific task shall be certified in said field.

Certified Asphalt Technician Level I – Field Tester

Certified Concrete Technician (ACI and ALDOT Certification)

Certified Asphalt Roadway Technician

Work Zone Safety Certification

Radiological Safety Course

Certification Qualified Credentialed Inspector (QCI)

Job Description:

This is skilled sub-professional engineering work in the field or office. Employees in said class shall follow standard procedures in documenting construction projects and inspecting job activities to verify they are in compliance with project plans and specifications. The inspector shall be responsible for completing a daily report documenting labor and equipment used by contractor to include a description of work performed and any pertinent conversations with contractor. The inspector will assist with office work such as plotting cross-sections and computing earthwork quantities. The inspector shall report directly to Senior Inspector and/or Project Manager.

**LEVEL I INSPECTOR:**



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### Minimum Qualifications:

Some experience in construction inspection, surveying or highway materials testing and inspection is preferred. One or more of the following certifications as necessary and approved by Division County Engineer/City Engineer/County Engineer. Inspectors who are to perform a specific task shall be certified in that particular field.

Certified Asphalt Technician Level I – Field Tester

Certified Concrete Technician (ACI and ALDOT Certification) Certified Asphalt Roadway Technician

Work Zone Safety Certification

Radiological Safety Course Certification

Qualified Credentialed Inspector (QCI)

### Job Description:

This is sub-professional engineering work in the field or office. Employees in said class shall follow standard procedures in documenting construction projects and inspecting job activities to verify they are in compliance with project plans and specifications. The inspector shall be responsible for completing a daily report documenting labor and equipment used by contractor to include a description of work performed and any pertinent conversations with contractor. The inspector shall assist with office work such as plotting cross-sections and computing earthwork quantities. The inspector shall report directly to Senior Inspector and/or Project Manager.

### **ADMINISTRATIVE ASSISTANT**

### Minimum Qualifications:

A high school diploma or a GED certificate.

### Job Description:

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Employees in this class may perform a variety of clerical duties. These duties may include data entry, filing documents, sorting mail, typing documents, taking dictation, proofreading documents, making copies, greeting and directing the public, taking telephone messages, posting records, or making simple calculations.

### **PROFESSIONAL CIVIL ENGINEER**

Minimum Qualifications:

Must possess a Professional Engineer's License as issued by the Alabama State Board of Licensure for Professional Engineers and Land Surveyors and must have at least one year of professional civil engineering experience.

Qualified Credentialed Inspector (QCI)

Job Description:

This is advanced professional work in the field of civil engineering. Employees in said class perform a variety of complex engineering duties associated with planning, geodetic surveys, location, design, construction or maintenance of roads, bridges, buildings, or other civil engineering projects.

### **TARGET PERSON**

Minimum Qualifications:

Six months experience in surveying.

Job Description:

This is sub-professional work in the field or office. Employees in said class follow standard procedures in carrying out field or office assignments related to surveying for construction projects. Limited instrument use for construction and right-of-way stakeout, obtaining quantity

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cross-sections, spot checking location and elevation of different construction activities such as form work, setting of girders, pipe grades and blue top elevations as well as cutting line constitute the main activities.

### **INSTRUMENT PERSON**

Minimum Qualifications:

Two years of experience in surveying.

Job Description:

This is skilled sub-professional surveying work in the field or office. Employees in said class follow standard procedures in carrying out field or office assignments related to surveying for construction projects. Employees in said class may be in charge of checking of contractor's work, obtaining quantity cross-sections, and staking right-of-way. Said employee must be able to operate several types of surveying equipment. The ability to read/comprehend contract plans, take and reduce field notes and complete daily reports is essential. The position shall report directly to Field Supervisor or Project Manager.

### **FIELD SUPERVISOR**

Minimum Qualifications:

Four years experience in surveying with at least one year of experience as a construction

Survey party chief.

Job Description:

This is supervisory and technical surveying work in the field or office. Employees in said class are in charge of making daily work assignments, interpreting and reading construction plans, and directing surveying activities involved with checking contractor's work, obtaining quantity cross-sections, and staking right-of-way. Work is performed with considerable independence,

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but is reviewed for conformance with established policies, procedures, and applicable State laws. The ability to calculate horizontal and vertical positions as well as quantities for payment, communicate in writing and orally, and instruct personnel in the use of equipment is essential.

Said position shall report directly to Project Manager or Professional Land Surveyor

### **PROFESSIONAL LAND SURVEYOR**

Minimum Qualifications:

Must possess a Professional Land Surveyor's License as issued by the Alabama State Board of Licensure for Professional Engineers and Land Surveyors and have at least one year of experience as a Professional Land Surveyor.

Job Description:

This is supervisory professional surveying work in the field or office as required by Alabama State Law. Employees in said class shall insure compliance to standards of practice for surveying in the State of Alabama and conformance with established policies and procedures for surveys which involve the staking of right-of-way.

## TDOT Descriptions

### Consultant Evaluation Criteria

The evaluation criteria shall include, at a minimum, the following:

1. Ability and relevant expertise of the firm's personnel to be used in performing the service.
2. Past experience in the required disciplines with TDOT and/or other clients.
3. Qualification and availability of staff.
4. Demonstrated ability to meet schedules without compromising sound professional practices.
5. Evaluations on prior TDOT projects, if available.
6. Size of project and limited or unlimited prequalification status.
7. Amount of work under contract with TDOT, if applicable.
8. Whether the consultant can perform the work efficiently without compromising sound professional practices.
9. Other factors, including interviews and demonstrations, as approved by the applicable Chief

### Civil engineer manager 1:

#### Education and Experience:

Experience equivalent to three years of full-time work managing and/or supervising professional and technical civil engineering staff involved in the survey, design, or construction of a roadway, runway, or transportation structure and current registration in active status with the State of Tennessee as a professional engineer in either the civil engineering or structural engineering disciplines.

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Note: Education and experience requirements for registration as an engineer are determined by the Tennessee State Board of Architectural and Engineering Examiners.

### **Other Requirements:**

#### **Necessary Special Qualifications: Applicants for this class must:**

Possession of a current certificate of registration in active status as a professional engineer with the State of Tennessee in either the civil engineering or structural engineering disciplines is required at the time of appointment and must be maintained during employment in the Civil Engineering Manager 1 classification.

#### **Examination Method:**

Education and Experience, 100%, for Preferred Service positions. For Executive Service positions, Minimum Qualifications, Necessary Special Qualifications, and Examination Method are determined by the appointing authority.

#### **Job Overview:**

Under general supervision, is responsible for professional managerial work of considerable difficulty; and performs related work as required.

#### **Distinguishing Features:**

An employee in this class is responsible for managing a structural, runway, or roadway design staff for a region or a civil engineering section such as hydraulic design, special designs-traffic, geotechnical engineering, aeronautics, or bridge evaluation. An incumbent in this class will seal civil engineering plans, drawings, reports, and/or specifications and consequently will be required to maintain an active certificate of registration as a professional engineer with the State of Tennessee. This class differs from that of Transportation Project Specialist Supervisor 2 in that incumbents of the latter do not manage. This class differs from that of Civil Engineering Manager 2 in that an incumbent of the latter is responsible for managing a structural or roadway design staff for multiple regions or multiple civil engineering sections statewide (e.g.,

hydraulic engineering and structural steel, geotechnical engineering and materials control, special design-traffic and special design-roadway).

**Work Activities:**

**1. Drafting, Laying Out, and Specifying Technical Devices, Parts, and Equipment:**

- a. Manages the development of transportation related documents including but not limited to specifications, standard drawings, roadway plans, mitigation plans, structure design, circular letters, and standard operating procedures for internal and external business partners.
- b. Designs and graphically depicts the slab, abutments, beams, footings, and columns of a bridge in order to meet necessary structural requirements.
- c. Designs appropriate hydraulic systems that protect the environment.
- d. Designs all components according to department specifications, local, state and federal standards.
- e. Draws preliminary bridge plan in accordance with roadway plans and other engineering guidelines.
- f. Designs concept plans for safety and operational improvement options.

**2. Coordinating the Work and Activities of Others:**

- a. Coordinates with regional personnel concerning the statewide standardization of specifications, policies, and procedures.

**3. Identifying Objects, Actions, and Events:**

- a. Identifies errors, omissions, and potential conflicts on applications, contract documents, reports, and/or plans.
- b. Identifies compliance with federal and state laws, rules, regulations, policies and guidelines to ensure that department policies and procedures meet the most current standards.
- c. Identifies work tasks that deviate from established standard operating procedures to ensure that best practices are applied consistently.

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- d. Reads plans, contracts, standard drawings, guidelines, and schematics to identify quantities, materials, location, placement, features, specifications, and details to guide assigned work.
- e. Identifies work priorities to ensure the most important work is completed first based on work experience, supervisor guidance, and department, state, and federal laws, rules, regulations, and guidelines.
- f. Identifies new and innovative products, equipment, procedures, and processes to improve department operations.

### **4. Evaluating Information to Determine Compliance with Standards:**

- a. Evaluates documents including but not limited to final drawings, operation procedures, plans, materials, test results, labor, environmental reports and estimates submitted by staff, internal and/or external business partners for accuracy and to determine compliance with department, state, and federal laws, rules, regulations, guidelines, processes, and procedures.
- b. Verifies contractor's shop drawings for prefabricated components and contractor-designed bridges to ensure accuracy and to determine compliance with department, state, and federal laws, rules, regulations, guidelines, processes, and procedures.
- c. Evaluates the need for repairs to structures to recommend repairs to meet safety standards.
- d. Reviews work activities, products, and/or information completed or provided by internal and/or external business partners to ensure accuracy and compliance with standards.
- e. Evaluates proposed or new environmental, safety, and/or other related transportation regulations to determine department compliance.
- f. Evaluates current business practices for effectiveness and provide recommendations for modifications, additions, or improvement of specifications.
- g. Evaluates equipment, technology, and/or materials used to ensure compliance with standards.



- h. Evaluates contractor and consultant information for pre-qualification.

**5. Analyzing Data or Information:**

- a. Analyzes relevant information to determine the appropriate engineering and/or environmental approach to resolve an issue, problem or task.
- b. Analyzes data, processes, policies, and procedures to document and/or develop recommendations for changes in operations and/or standards which affect the economy, efficiency and quality of department and division operations and services.
- c. Analyzes test results and/or reports against roadway information to identify trends and provide recommendations for asset management and/or improvement.
- d. Analyzes transportation related research by reviewing academic studies to implement department and division policies and procedures.

**6. Interpreting the Meaning of Information for Others:**

- a. Interprets a variety of engineering and environmental rules, regulations, policies, procedures, and documentation for internal and external business partners to facilitate understanding, enhance communications, and ensure compliance.
- b. Explains project specific procedures and regulations to staff, the general public, persons in other departments or divisions, or outside organizations and representatives as required.

**7. Resolving Conflicts and Negotiating with Others:**

- a. Resolves conflicts between internal business partners, external business partners, regulators and/or employees according to department, state, and federal laws, rules, regulations, guidelines, processes, and procedures.
- b. Resolves interpersonal conflicts between subordinates to ensure a respectful and productive work environment.
- c. Negotiates with internal and external business partners to develop a consistent deployment of policy, procedure, processes, and specifications.
- d. Negotiates consultant contracts, work orders, and/or estimates.

- e. Maintains a respectful and productive work environment to minimize disputes and facilitate performance.

**8. Guiding, Directing, and Motivating Subordinates:**

- a. Manages department programs to ensure compliance with department, state, and federal laws, rules, regulations, guidelines, processes, and procedures.
- b. Supervises the production of plans development, reports, applications, and contracts by review of staff submittals to provide approval or feedback as required.
- c. Supervises others in the implementation of department goals, objectives, and assigned tasks.
- d. Provides feedback during the performance evaluation cycle to address subordinate performance.

**9. Provide Consultation and Advice to Others:**

- a. Provides technical guidance to external or internal business partners to resolve problems with environmental, geotechnical and/or engineering concerns.
- b. Answers technical questions for subordinates, peers, consultants or contractors to clarify project information, engineering solutions, department, state, and federal laws, rules, regulations, guidelines, processes, and procedures.
- c. Notifies supervisory personnel of possible violations of department, state, and federal laws, rules, regulations, guidelines, policies, and procedures.

**10. Monitoring and Controlling Resources:**

- a. Monitors resources and/or costs to meet budgetary constraints.
- b. Monitors consultant contracts to ensure work orders and payments are within contract limits.

**11. Making Decisions and Solving Problems:**

- a. Makes complex decisions related to the management of division and program operations, activities, and performance.

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- b. Evaluates complex environmental, geotechnical, structural and other issues during project development and/or the construction phase to determine the most efficient solution.
- c. Determines the bridge location and length, clearances, reinforcing steel configuration, strength, size, and material of structural members, and other bridge parameters.
- d. Develops division policies and procedures in compliance with department, state, and federal laws, rules, and regulations to enhance consistency.
- e. Seals and/or approves standard civil engineering plans, drawings, reports and/or specifications.
- f. Analyzes available routes and approves optimal route for super load permit movements.
- g. Selects the most qualified consultant from the continuing contract list to perform services.
- h. Recommends the most qualified consultant to perform services.
- i. Analyzes and approve consultant proposals and/or manday estimates.
- j. Approves expense reports, time and attendance, training, and other related requests submitted by assigned subordinates to ensure compliance with department, state, and federal laws, rules, regulations, guidelines, processes, and procedures.

### **12. Getting Information:**

- a. Utilizes maps, computer software, plans and other documents to collect project information.
- b. Researches plans, policies, specifications, procedures, guidelines, rules, regulations, and laws related to transportation using physical and electronic

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sources to assist with conflict resolution, problem solving, training development and decision making.

- c. Collects information from staff regarding status updates, project schedules, and/or inspections to effectively make decisions, communicate to upper management, and/or prioritize work.
- d. Contacts the general public, subordinates, persons in other departments or divisions, representatives, and outside organizations, including producers and suppliers, for the purpose of furnishing or obtaining information.
- e. Participates in and/or supervises research, reviews, and studies to collect data for evaluation and decision making purposes.
- f. Attends management meetings and conferences/conference calls to gather information on federal, state, and local laws, policies, procedures, process updates, best practices, technologies and related matters.

### **13. Monitor Processes, Materials, or Surroundings:**

- a. Monitors outputs of staff to ensure quality of work and that deadlines are met.
- b. Monitors the costs and expenditures related to contracts, programs and processes to ensure compliance with department budgetary constraints, rules and regulations.
- c. Monitors compliance and continuity between teams, regions, and/or squads.
- d. Monitors workflow and resources to effectively and efficiently assess status of department and division programs and processes.
- e. Monitors work environment to identify safety hazards.
- f. Monitors subordinate performance, attendance, leave, time worked, schedules, travel and other information and ensure performance documents are completed timely and accurately.

### **14. Estimating the Quantifiable Characteristics of Products, Events, or Information:**

- a. Determines time, costs, resources, or materials necessary for projects, contracts, programs and other department activities.

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- b. Estimates sizes, distances, and/or quantities of materials, products, and/or equipment necessary for department and division operations.
- c. Calculates preliminary cost estimates of structures.

### **15. Judging the Qualities of Things, Services, or People:**

- a. Assesses subordinate's quality of work and informs, advises, and guides performance management and development.
- b. Assesses subordinate's performance and needs of the department to make decisions and recommend promotion, demotion, transfer, and retention.
- c. Assesses the quality of studies, proposals, analyses, and administrative actions to guide the decision making process.
- d. Assesses technological and/or equipment advances used to enhance performance, efficiency, safety, and quality.
- e. Assesses survey results for roadway, runway, mitigation, environmental features and/or structural elements to ensure the accuracy of the information.
- f. Completes and/or reviews consultant and contractor performance evaluations.

### **16. Processing Information:**

- a. Prepares a variety of detailed and/or complex reports to inform or recommend action in department and division operations.
- b. Models new and existing bridge structures to calculate design requirements and/or the allowable load capacity.
- c. Compiles data and performs necessary calculations to issue plans, contract addendums, and/or plans revisions.
- d. Calculates and/or assesses environmental impacts for permit type and mitigation to determine project characteristics.
- e. Prepares, audits, and maintains records, documents, and/or correspondence as required by department, state, and federal laws, rules, regulations, guidelines, processes, and procedures.
- f. Maintains and manages accurate and complete information to ensure costs and resources associated with work performed are allocated appropriately.

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- g. Processes contractor and consultant information for pre-qualification, evaluation, scoring, and selection.
- h. Compiles and/or reviews information necessary to create reports, documentation, and presentations for accuracy and completeness.
- i. Performs calculations related to time, labor, and costs to verify accuracy of reported work activities.
- j. Compiles, calculates, and/or reviews evaluation scores to achieve overall performance of consultant firms.

### **17. Thinking Creatively:**

- a. Implements creative engineering solutions to unique and/or complex problems.
- b. Develops process improvement suggestions to streamline workflow and improve process cycle times and accuracy.
- c. Leads and/or participates in brainstorming sessions and makes recommendations to improve technical specifications, department and division practices and processes.
- d. Develops spreadsheets, presentations, forms, letters, memos, logs, and other systems as required to facilitate efficient and effective operation of the program.

### **18. Developing Objectives and Strategies:**

- a. Assists in developing and implementing strategies and objectives for program areas to enhance performance and improve organizational efficiency.
- b. Assists in incorporating department objectives and goals into assigned programs.
- c. Develops job plans for subordinates to communicate responsibilities and expected outcomes of performance in their role.

### **19. Scheduling Work and Activities:**

- a. Establishes project completion dates and milestones.
- b. Schedules, coordinates, and/or establishes deadlines for staff, contractors, and consultants to ensure timely submission of required information.
- c. Prepares and/or maintains database and/or other tools to enhance project delivery schedule.

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- d. Schedules, coordinates and/or leads meetings with internal and external customers to ensure information is communicated.

### **20. Organizing, Planning, and Prioritizing Work:**

- a. Incorporates last minute and unscheduled tasks into current workload to ensure timely and accurate completion of work.
- b. Organizes and/or prioritizes personal workload, the workloads of subordinates, and/or resources to ensure timely and accurate completion of work.
- c. Delegates tasks to subordinates based on the competencies they possess to ensure work is completed efficiently, accurately, and timely.

### **21. Interacting With Computers:**

- a. Provides oversight of internal computer systems to ensure compliance with specifications, policies, and standard operating procedures.
- b. Uses design and analysis software to complete engineering related tasks.
- c. Uses office productivity software including but not limited to word processing programs, spreadsheet and database programs, presentation software, web-based email programs, instant-messaging programs, and search engines.
- d. Uses appropriate state and federal databases and/or software as required to manage information.

### **22. Documenting/Recording Information:**

- a. Documents and stores appropriate information in electronic databases and/or physical form as required ensuring accurate information is recorded.
- b. Documents the performance of subordinates to ensure accurate and unbiased performance evaluations.
- c. Documents information provided during meetings and training when serving as the sole agency representative to ensure accurate information is disseminated to others.

### **23. Communicating with Persons Outside Organization:**

- a. Testifies in hearings on behalf of the state related to the results of program and employee related incidents as required.

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- b. Drafts and/or reviews correspondence in response to public notices and proposed regulations.
- c. Contacts vendors, consultants, contractors, and other outside agencies to obtain/provide required information, correct errors, and/or for clarification purposes in accordance with department and division policies and procedures.
- d. Drafts and/or reviews correspondence in response to public complaints or inquiries.
- e. Presents technical information to small and large groups to disseminate information.
- f. Communicates requests for resources and services to external business partners through verbal and written communications to meet program objectives.
- g. Communicates with external business partners to facilitate outside events and programs in which the state/agency participates.
- h. Conducts and/or attends meetings with external business partners to gather project information and status updates and to disseminate information.
- i. Participates in peer exchange meetings with other State DOTs.

### **24. Training and Teaching Others:**

- a. Creates and conducts agency specific and specialized training for agency employees and external business partners to comply with department, state, and federal laws, rules, regulations, guidelines, processes, and procedures, facilitating change, and improving initiatives.
- b. Trains and mentors subordinates, peers and external business partners in the basic workflow and processes related to their tasks.
- c. Oversees training schedule and needs to improve skills, productivity, safety, and efficiency for subordinates.

### **25. Coaching and Developing Others:**

- a. Coaches direct reports and subordinate staff by providing feedback and information on workflow and chain of command, task prioritization, proper



documentation, use of systems and available functionality, and how to most effectively and efficiently perform their assigned tasks.

- b. Discusses performance with subordinates to identify and correct deficiencies and to reinforce strengths.
- c. Mentors direct reports and subordinate staff by providing feedback and information on organizational culture, policies and procedures.

**26. Communicating with Supervisors, Peers, or Subordinates:**

- a. Presents technical information to small and large groups to disseminate information.
- b. Maintains an open dialogue with internal business partners to ensure effective and efficient communications.
- c. Communicates work related information and expectations to peers and assigned subordinates to facilitate teamwork, assign tasks, and coordinate effort.
- d. Conducts periodic performance development meetings with subordinates to communicate and develop job plans and provide performance feedback and developmental guidance.
- e. Provides updates to upper management and other internal business partners on the status of projects and other assigned work.
- f. Communicates requests for resources and services to internal business partners through verbal and written communications to meet program objectives.
- g. Leads and/or participates in staff meetings as required to provide and gather status updates for assigned workload.
- h. Establishing and Maintaining Interpersonal Relationships:
- i. Networks with internal and external business partners to develop a productive working relationship.
- j. Maintains professional working relationships with peers, subordinates, and upper management to ensure smooth and effective team operations.

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- k. Acts as a liaison with internal and external business partners and other organizational representatives to ensure accurate and timely processing of information and deliverables.

### **27. Developing and Building Teams:**

- a. Models effective performance for co-workers and subordinates to provide a role model, encourage success in others, and enhance trust.
- b. Identifies motivational factors relevant to subordinates to enhance commitment and performance.
- c. Identifies developmental opportunities appropriate for subordinates to improve team development.
- d. Encourages subordinates to pursue career development opportunities as a means of improving team performance.

### **28. Performing Administrative Activities:**

- a. Prepares, reviews, and/or approves payment of contractors and/or consultants based on work completed.
- b. Approves subordinate time, leave requests, expense requests, and purchases to ensure proper payment.
- c. Responds to emails, phone calls, and other correspondence as required.
- d. Maintains program files and databases to ensure proper record keeping.
- e. Prepares and mails correspondence to internal and external business partners.
- f. Enters personal time and leave/overtime requests into the appropriate databases as required.

### **29. Staffing Organizational Units:**

- a. Conducts and/or participates in job interviews to select most qualified candidate.
- b. Identifies advancement opportunities for subordinates within assigned area.
- c. Updating and Using Relevant Knowledge:

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- d. Attends agency specific training as required to ensure compliance with department, state, and federal laws and guidelines.
- e. Participates in training and conferences as required to ensure continual learning, current knowledge of the field, and maintain required level of certification, including Professional Engineering License.
- f. Seeks out work related developmental opportunities for self and assigned subordinates to improve performance and team efficiency.
- g. Participates in national, regional, and local conferences as needed to gather and share knowledge between peers to improve department and division practices and processes.

### **Competencies:**

- a. Decision Quality
- b. Problem Solving
- c. Directing Others
- d. Process Management
- e. Conflict Management
- f. Drive for Results
- g. Comfort around Higher Management
- h. Written Communication
- i. Approachability
- j. Integrity and Trust

### **Knowledge:**

- a. Advance knowledge of streams, wetlands and species
- b. Advance knowledge of constructing and maintaining transportation infrastructure and facilities

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- c. Advance knowledge of designing transportation infrastructure and facilities
- d. Advance knowledge of engineering and technology
- e. Advance knowledge of contract administration
- f. Advance knowledge of relevant codes, regulations, and laws
- g. Advance knowledge of safety laws, rules, regulations and policies, and best practices
- h. Advance knowledge of mathematical formulas used in algebra, geometry, calculus, statistics, and graphing
- i. Advance knowledge of geological conditions, features, and descriptions
- j. Advance knowledge of mechanics of materials, statics, dynamics, hydraulics, and other physical principles
- k. Advance knowledge of production and processing of construction materials
- l. Advance knowledge of transportation systems
- m. Advance knowledge of administration and management principals
- n. Advanced knowledge of office software, record keeping, and form development
- o. Advance knowledge of presentation methods and classroom instruction

### **Skills:**

- a. Critical Thinking
- b. Intermediate application of formulas used in algebra, geometry, calculus, statistics, and graphing
- c. Effective oral communication to individuals and groups
- d. Effective written communication through letters, reports, memos, policies, and technical documents
- e. Reading comprehension of technical reports, laws, rules, policies and procedures
- f. Advanced application of scientific and engineering principles
- g. Coordination of processes and people
- h. Instructing individuals and/or groups on technical processes and procedures
- i. Advanced skill of negotiation
- j. Skill of complex problem solving

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- k. Operation and control of transportation related computer systems
- l. Skill in the application and use of office, databases, drafting, modeling, and analyzing software
- m. Quality control analysis of systems and/or processes
- n. Troubleshooting
- o. Judgment and decision making
- p. Management of material resources
- q. Time Management
- r. Active Learning
- s. Active Listening
- t. Management of financial resources
- u. Management of personnel resources
- v. Monitoring performance of internal and external staff

### **Abilities:**

- a. Deductive Reasoning
- b. Inductive Reasoning
- c. Mathematical Reasoning
- d. Memorization
- e. Oral Comprehension
- f. Oral Expression
- g. Problem Sensitivity
- h. Selective Attention
- i. Spatial Orientation
- j. Time Sharing
- k. Visualization
- l. Written Comprehension
- m. Written Expression
- n. Speech Clarity

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- o. Speech Recognition

### **Tools and Equipment Used:**

- a. Personal Computer
- b. Telephone
- c. Fax Machine
- d. Printer
- e. Material Sampling and Testing Equipment
- f. Navigational GPS
- g. Data Recording Equipment

### **Civil engineer manager 2:**

#### **Education and Experience:**

Experience equivalent to four years of full-time work managing and/or supervising professional and technical civil engineering staff involved in the survey, design, or construction of a roadway, runway, or transportation structure and current registration in active status with the State of Tennessee as a professional engineer in either the civil engineering or structural engineering disciplines.

Note: Education and experience requirements for registration as an engineer are determined by the Tennessee State Board of Architectural and Engineering Examiners.

#### **Other Requirements:**

#### **Necessary Special Qualifications: Applicants for this class must:**

Possession of a current certificate of registration in active status as a professional engineer with the State of Tennessee in either the civil engineering or structural engineering disciplines is

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required at the time of appointment and must be maintained during employment in the Civil Engineering Manager 2 classification.

### **Examination Method:**

Education and Experience, 100%, for Preferred Service positions.

### **Job Overview:**

Under general supervision, is responsible for professional managerial civil engineering work of considerable difficulty; and performs related work as required.

### **Distinguishing Features:**

An employee in this class is responsible for managing structural, roadway, or design staff for multiple regions or multiple civil engineering sections (e.g., hydraulic engineering and structural steel, geotechnical engineering and materials control, special design-traffic and special design-roadway). An incumbent in this class will seal civil engineering plans, drawings, reports, and/or specifications and consequently will be required to maintain an active certificate of registration as a professional engineer with the State of Tennessee. This class differs from the Civil Engineering Manager 1 in that an incumbent of the latter is responsible for managing a structural or roadway design staff for a region or a civil engineering section statewide such as hydraulic design, special designs-traffic, geotechnical engineering, aeronautics, or bridge evaluation. This class differs from Civil Engineering Director in that an incumbent of the latter is responsible for directing a civil engineering division and supervises incumbents of this class.

### **Work Activities:**

#### **1. Drafting, Laying Out, and Specifying Technical Devices, Parts, and Equipment:**

- a. Manages the development of transportation related documents including but not limited to specifications, standard drawings, roadway plans, mitigation

plans, structure design, circular letters, and standard operating procedures for internal and external business partners.

- b. Designs and graphically depicts the slab, abutments, beams, footings, and columns of a bridge in order to meet necessary structural requirements.
- c. Designs all components according to department specifications, local, state and federal standards.
- d. Designs concept plans for safety and operational improvement options.

**2. Resolving Conflicts and Negotiating with Others:**

- a. Resolves conflicts between internal business partners, external business partners, regulators and/or employees according to department, state, and federal laws, rules, regulations, guidelines, processes, and procedures.
- b. Resolves interpersonal conflicts between subordinates to ensure a respectful and productive work environment.
- c. Negotiates with internal and external business partners to develop a consistent deployment of policy, procedure, processes, and specifications.
- d. Maintains a respectful and productive work environment to minimize disputes and facilitate performance.
- e. Negotiates contractor claims and change orders.
- f. Negotiates consultant contracts, work orders, and/or estimates.
- g. Coordinating the Work and Activities of Others:
- h. Coordinates with regional personnel concerning the statewide standardization of specifications, policies, and procedures.

**3. Guiding, Directing, and Motivating Subordinates:**

- a. Supervises the production of plans development, reports, applications, and contracts by review of staff submittals to provide approval or feedback as required.



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- b. Manages department programs to ensure compliance with department, state, and federal laws, rules, regulations, guidelines, processes, and procedures.
- c. Provides feedback during the performance evaluation cycle to address subordinate performance.
- d. Supervises others in the implementation of department goals, objectives, and assigned tasks.

### **4. Provide Consultation and Advice to Others:**

- a. Provides technical guidance to external or internal business partners to resolve problems with environmental, geotechnical and/or engineering concerns.
- b. Answers technical questions for subordinates, peers, consultants or contractors to clarify project information, engineering solutions, department, state, and federal laws, rules, regulations, guidelines, processes, and procedures.
- c. Notifies supervisory personnel of possible violations of department, state, and federal laws, rules, regulations, guidelines, policies, and procedures.
- d. Monitor Processes, Materials, or Surroundings:
- e. Monitors the cost and expenditures related to contracts, programs and processes to ensure compliance with department budgetary constraints, rules and regulations.
- f. Monitors compliance and continuity between teams, regions, and/or squads.
- g. Monitors workflow and resources to effectively and efficiently assess status of department and division programs and processes.
- h. Monitors outputs of staff to ensure quality of work and completion of deadlines.
- i. Monitors subordinate performance, attendance, leave, time worked, schedules, travel and other information and ensures performance documents are completed timely and accurately.

### **5. Identifying Objects, Actions, and Events:**

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- a. Identifies compliance with federal and state laws, rules, regulations, policies and guidelines to ensure that department policies and procedures meet the current standards.
- b. Identifies errors, omissions, and potential conflicts on applications, contract documents, reports, and/or plans.
- c. Identifies work tasks that deviate from established standard operating procedures to ensure that best practices are applied consistently.
- d. Identifies work priorities based on work experience, supervisor guidance, and department, state, and federal laws, rules, regulations, and guidelines.
- e. Identifies new and innovative products, equipment, procedures, and processes to improve department operations.
- f. Reads plans, contracts, standard drawings, guidelines, and schematics to identify quantities, materials, location, placement, features, specifications, and details to guide assigned work.

### **6. Processing Information:**

- a. Models new and existing bridge structures to calculate design requirements and/or the allowable load capacity.
- b. Assesses environmental impacts for permit type and mitigation to determine project characteristics.
- c. Prepares a variety of detailed and/or complex reports to inform or recommend action in department and division operations.
- d. Prepares, audits, and maintains records, documents, and/or correspondence as required by department, state, and federal laws, rules, regulations, guidelines, processes, and procedures.
- e. Processes contractor and consultant information for pre-qualification, evaluation, scoring, and selection.
- f. Compiles data and performs necessary calculations to issue plans, contract addendums, and/or plans revisions.

- g. Maintains and manages accurate and complete information to ensure cost and resources associated with work performed are allocated appropriately.
- h. Compiles and/or reviews information necessary to create reports, documentation, and presentations for accuracy and completeness.
- i. Performs calculations related to time, labor, and cost to verify accuracy of reported work activities.
- j. Compiles, calculates, and/or reviews evaluation scores to achieve overall performance of consultant firms.

**7. Evaluating Information to Determine Compliance with Standards:**

- a. Evaluates documents including but not limited to final drawings, operation procedures, plans, materials, test results, labor, environmental reports and estimates submitted by staff, internal and/or external business partners for accuracy and to determine compliance with department, state, and federal laws, rules, regulations, guidelines, processes, and procedures.
- b. Evaluates proposed or new environmental, safety, and/or other related transportation regulations to determine department compliance.
- c. Verifies contractor shop drawings for prefabricated components and contractor-designed bridges to ensure accuracy and to determine compliance with department, state, and federal laws, rules, regulations, guidelines, processes, and procedures.
- d. Evaluates current business practices for effectiveness and provides recommendations for modifications, additions, or improvement of specifications.
- e. Reviews work activities, products, and/or information completed or provided by internal and/or external business partners to ensure accuracy and compliance with standards.
- f. Evaluates equipment, technology, and/or materials used to ensure compliance with standards.
- g. Evaluates contractor and consultant information for pre-qualification.

**8. Analyzing Data or Information:**

- a. Analyzes bids for mathematical and material unbalancing to determine contract award.
- b. Analyzes relevant information to determine the appropriate engineering and/or environmental approach to resolve an issue, problem or task.
- c. Analyzes contract change orders and claims.
- d. Analyzes data, processes, policies, and procedures to document and/or develop recommendations for changes in operations and/or standards which affect the economy, efficiency and/or quality of department and division operations and services.
- e. Analyzes test results and/or reports against roadway information to identify trends and provide recommendations for asset management and/or improvement.
- f. Analyzes transportation related research by reviewing academic studies to implement department and division policies and procedures.

**9. Making Decisions and Solving Problems:**

- a. Evaluates complex environmental, geotechnical, structural and other issues during project development and/or the construction phase to determine the most efficient solution.
- b. Develops division policies and procedures in compliance with department, state, and federal laws, rules, and regulations to enhance consistency.
- c. Makes complex decisions related to the management of division and program operations, activities, and performance.
- d. Determines the bridge location and length, clearances, reinforcing steel configuration, strength, size, and material of structural members, and other bridge parameters.
- e. Seals and/or approves standard civil engineering plans, drawings, reports and/or specifications.
- f. Approves and/or denies contract change orders.

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- g. Makes recommendations of the most qualified consultant to perform services to the Consultant Selection Committee following the request for proposal process.
- h. Approves and/or denies expense reports, time and attendance, training, and other related requests submitted by assigned subordinates to ensure compliance with department, state, and federal laws, rules, regulations, guidelines, processes, and procedures.
- i. Selects the most qualified consultant from the continuing contract list to perform services.
- j. Analyzes and approves consultant proposals and/or manday estimates.

### **10. Thinking Creatively:**

- a. Implements creative engineering solutions to unique and/or complex problems.
- b. Develops spreadsheets, databases, presentations, forms, letters, memos, logs, and other systems as required to facilitate efficient and effective operation of the program.
- c. Leads and/or participates in brainstorming sessions and makes recommendations to improve technical specifications, department and division practices and processes.
- d. Develops process improvement suggestions to streamline workflow and improve process cycle times and accuracy.

### **11. Interacting With Computers:**

- a. Uses design and analysis software to complete engineering related tasks.
- b. Provides oversight of internal computer systems to ensure compliance with specifications, policies, and standard operating procedures.
- c. Uses office productivity software including but not limited to word processing programs, spreadsheet and database programs, presentation software, web-based email programs, instant-messaging programs, and search engines.
- d. Uses appropriate state and federal databases and/or software as required managing information.

**12. Interpreting the Meaning of Information for Others:**

- a. Interprets a variety of engineering and environmental rules, regulations, policies, procedures, and documentation for internal and external business partners to facilitate understanding, enhance communications, and ensure compliance.
- b. Explains project specific procedures and regulations to staff, the general public, persons in other departments or divisions, or outside organizations and representatives as required.
- c. Monitoring and Controlling Resources:
- d. Monitors resources and cost to meet budgetary constraints.
- e. Monitors consultant contracts to ensure work orders and payments are within contract limits.
- f. Monitors project expenditures and compares to original contract.
- g. Manages the procurement, receipt, and payment of products, equipment, and/or services in compliance with all laws, rules, and regulations.

**13. Getting Information:**

- a. Researches plans, policies, specifications, procedures, guidelines, rules, regulations, and laws related to transportation using physical and electronic sources to assist with conflict resolution, problem solving, training development and decision making.
- b. Contacts the general public, subordinates, persons in other departments or divisions, representatives, and outside organizations, including producers and suppliers, for the purpose of furnishing or obtaining information.
- c. Utilizes maps, computer software, plans and other documents to collect project information.
- d. Collects information from staff regarding status updates, project schedules, and/or inspections to effectively make decisions, communicate to upper management, and/or prioritize work.

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- e. Attends management meetings and conferences/conference calls to gather information on federal, state, and local laws, policies, procedures, process updates, best practices, technologies and related matters.
- f. Participates in and/or supervises research, reviews, and studies to collect data for evaluation and decision making purposes.
- g. Estimating the Quantifiable Characteristics of Products, Events, or Information:
- h. Determines time, cost, resources, or materials necessary for projects, contracts, programs and other department activities.
- i. Estimates size, distance, and/or quantities of materials, products, and/or equipment necessary for department and division operations.
- j. Calculates preliminary cost estimates of structures.

### **14. Judging the Qualities of Things, Services, or People:**

- a. Assesses survey results for roadway, runway, mitigation, environmental features and/or structural elements to ensure the accuracy of the information.
- b. Assesses performance of subordinates and needs of the department to make decisions and recommendations including promotion, demotion, transfer, and retention.
- c. Assesses the quality of studies, proposals, analyses, and administrative actions to guide the decision making process.
- d. Assesses technological and/or equipment advances to enhance performance, efficiency, safety, and quality.
- e. Assesses subordinate work performance and informs, advises, and guides performance management and development.
- f. Completes and/or reviews consultant and contractor performance evaluations.

### **15. Developing Objectives and Strategies:**

- a. Assists in developing and implementing strategies and objectives for program areas to enhance performance and improve organizational efficiency.
- b. Assists to incorporate department objectives and goals into assigned programs.

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- c. Develops job plans for subordinates to communicate responsibilities and expected outcomes of performance.

### **16. Scheduling Work and Activities:**

- a. Schedules, coordinates, and/or establishes deadlines for staff, contractors, and consultants to ensure timely submission of required information.
- b. Establishes project completion dates and milestones.
- c. Prepares and/or maintains database and/or other tools to enhance project delivery schedule.
- d. Schedules, coordinates and/or leads meetings with internal and external customers to ensure information is communicated.
- e. Organizing, Planning, and Prioritizing Work:
- f. Incorporates last minute and unscheduled tasks into current workload to ensure timely and accurate completion of work.
- g. Organizes and prioritizes personal workload, the workloads of subordinates, and resources to ensure timely and accurate completion of work.
- h. Delegates tasks to subordinates based on the competencies they possess to ensure work is completed efficiently, accurately, and timely.
- i. Documenting/Recording Information:
- j. Documents the performance of subordinates to ensure accurate and unbiased performance evaluations.
- k. Documents and stores appropriate information in electronic databases and/or physical form as required ensuring that accurate information is recorded.
- l. Documents information provided during meetings and training to ensure accurate information is disseminated to others.
- m. Communicating with Supervisors, Peers, or Subordinates:
- n. Maintains an open dialogue with internal business partners to ensure effective and efficient communication.
- o. Communicates work related information and expectations to peers and subordinates to coordinate and facilitate teamwork, and assign tasks.



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- p. Conducts periodic performance development meetings with subordinates to communicate and develop job plans and provide performance feedback and developmental guidance.
- q. Presents and disseminates technical information to small and large groups.
- r. Provides updates to upper management and other internal business partners on the status of projects and other assigned work.
- s. Communicates requests for resources and services to internal business partners through verbal and written communication to meet program objectives.
- t. Leads and/or participates in staff meetings as required to provide and gather status updates for assigned workload.
- u. Communicating with Persons Outside Organization:
- v. Testifies in hearings on behalf of the state related to the results of program and employee related incidents as required.
- w. Drafts correspondence in response to public complaints or inquiries.
- x. Drafts correspondence in response to public notices and proposed regulations.
- y. Presents technical information to small and large groups to disseminate information.
- z. Communicates requests for resources and services to external business partners through verbal and written communications to meet program objectives.
- aa. Contacts vendors, consultants, contractors, and other outside agencies to obtain/provide required information, correct errors, and/or for clarification purposes in accordance with department and division policies and procedures.
- bb. Conducts and/or participates in meetings with external business partners to gather project information and status updates and to disseminate information.
- cc. Communicates with external business partners to facilitate outside events and programs in which the state/agency participates.
- dd. Participates in peer exchange meetings with other State DOTs.
- ee. Establishing and Maintaining Interpersonal Relationships:

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- ff. Maintains professional working relationships with peers, subordinates, and upper management to ensure smooth and effective team operations.
- gg. Networks with internal and external business partners to develop a productive working relationship.
- hh. Acts as a liaison with internal and external business partners and other organizational representatives to ensure accurate and timely processing of information and deliverables.

### **17. Developing and Building Teams:**

1. Models effective performance for co-workers and subordinates to provide a role model, encourage success in others, and enhance trust.
2. Identifies motivational factors relevant to subordinates to enhance commitment and performance.
3. Encourages subordinates to pursue career development opportunities as a means of improving team performance.
4. Identifies developmental opportunities appropriate for subordinates to improve team development.

### **18. Training and Teaching Others:**

- a. Creates and conducts agency specific and specialized training for agency employees and external business partners to comply with department, state, and federal laws, rules, regulations, guidelines, processes, and procedures, facilitating change, and improving initiatives.
- b. Trains and/or mentors subordinates, peers and external business partners in the basic workflow and processes related to their tasks.
- c. Oversees training schedule to improve skills, productivity, safety, and efficiency for subordinates.

### **19. Coaching and Developing Others:**

- a. Coaches direct reports and subordinate staff by providing feedback and information on workflow and chain of command, task prioritization, proper

documentation, use of systems and available functionality, and how to most effectively and efficiently perform their assigned tasks.

- b. Discusses performance with subordinates to identify and correct deficiencies and to reinforce strengths.
- c. Mentors direct reports and subordinate staff by providing feedback and information on organizational culture, policies and procedures.

**20. Staffing Organizational Units:**

- a. Conducts and/or participates in job interviews to select most qualified candidate.
- b. Identifies advancement opportunities for subordinates within assigned area.
- c. Performing Administrative Activities:
- d. Maintains program files and databases to ensure proper record keeping.
- e. Reviews, prepares and/or approves payment of contractors and/or consultants based on work completed.
- f. Responds to email, phone calls, and other correspondence as required.
- g. Prepares and mails correspondence to internal and external business partners.
- h. Enters personal time and leave/overtime requests into the appropriate databases as required.
- i. Approves and/or denies subordinate time, leave requests, expense requests, and purchases to ensure proper payment.

**21. Updating and Using Relevant Knowledge:**

- a. Participates in training and conferences as required to ensure continual learning, current knowledge of the field, and maintain required level of certification, including Professional Engineering License.
- b. Actively seeks out work related developmental opportunities for self and assigned subordinates to improve performance and team efficiency.

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- c. Attends agency specific training as required to ensure compliance with department, state, and federal laws and guidelines.
- d. Participates in national, regional, and local conferences as needed to gather and share knowledge between peers to improve department and division practices and processes.

### **Competencies:**

- a. Decision Quality
- b. Problem Solving
- c. Directing Other
- d. Drive for Results
- e. Comfort around Higher Manager
- f. Organizational Agility
- g. Approachability
- h. Integrity and Trust
- i. Composure
- j. Negotiating

### **Knowledge:**

- a. Advance knowledge of streams, wetlands and species
- b. Advance knowledge of constructing and maintaining transportation infrastructure and facilities
- c. Advance knowledge of designing transportation infrastructure and facilities
- d. Advance knowledge of engineering and technology
- e. Advance knowledge of contract administration
- f. Advance knowledge of relevant codes, regulations, and laws
- g. Advance knowledge of safety laws, rules, regulations and policies, and best practices

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- h. Advance knowledge of mathematical formulas used in algebra, geometry, calculus, statistics, and graphing
- i. Advance knowledge of geological conditions, features, and descriptions
- j. Advance knowledge of mechanics of materials, statics, dynamics, hydraulics, and other physical principles
- k. Advance knowledge of production and processing of construction materials
- l. Advance knowledge of transportation systems
- m. Advance knowledge of administration and management principals
- n. Advanced knowledge of office software, record keeping, and form development
- o. Advance knowledge of presentation methods and classroom instruction
- p. Knowledge of personnel recruitment, selection and training

### **Skills:**

- a. Critical thinking
- b. Intermediate application of formulas used in algebra, geometry, calculus, statistics, and graphing
- c. Effective oral communication to individuals and groups
- d. Effective written communication through letters, reports, memos, policies, and technical documents
- e. Reading comprehension of technical reports, laws, rules, policies and procedures
- f. Advanced application of scientific and engineering principles
- g. Coordination of processes and people
- h. Instructing individuals and/or groups on technical processes and procedures
- i. Advanced skill of negotiation
- j. Skill of complex problem solving
- k. Operation and control of transportation related computer systems
- l. Skill in the application and use of office, databases, drafting, modeling, and analyzing software
- m. Quality control analysis of systems and/or processes

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- n. Troubleshooting
- o. Judgment and decision making
- p. Management of material resources
- q. Time management
- r. Active learning
- s. Active listening
- t. Management of financial resources
- u. Management of personnel resources
- v. Monitoring performance of internal and external staff

### **Abilities:**

- a. Deductive Reasoning
- b. Inductive Reasoning
- c. Mathematical Reasoning
- d. Oral Comprehension
- e. Oral Expression
- f. Problem Sensitivity
- g. Selective Attention
- h. Spatial Orientation
- i. Time Sharing
- j. Visualization
- k. Written Comprehension
- l. Written Expression
- m. Speech Clarity
- n. Speech Recognition

### **Tools and Equipment Used:**

- a. Personal Computer

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- b. Telephone
- c. Fax Machine
- d. Printer
- e. Material Sampling and Testing Equipment
- f. Vehicles
- g. Navigational GPS
- h. Digital Camera
- i. Data Recording Equipment

### **Transportation Aid 1:**

#### **Education and Experience:**

Education equivalent to graduation from a standard high school and experience equivalent to one year of traffic and/or transportation survey work.

#### **Substitution of Education for Experience:**

Course work credit received from an accredited college or university may substitute for the required experience on a month-for-month basis to a maximum of one year (e.g., 45 quarter hours may substitute for the year of required experience).

#### **Other Requirements:**

#### **Necessary Special Qualifications:**

A valid motor vehicle operator license may be required.

#### **Examination Method:**

Education and experience, 100%, for Career Service positions.

#### **Job Overview:**

Under general supervision, is responsible for transportation survey work of average difficulty; and performs related work as required.

#### **Distinguishing Features:**

An employee in this class is responsible for performing transportation survey work of average difficulty. This class differs from Transportation Assistant 1 in that an incumbent of the latter

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assists the employee in this class. This class differs from Transportation Aide 2 in that an incumbent of the latter is responsible for manual or machine traffic counts or leading survey crews in gathering data for the preparation of city and county maps.

### **Work Activities:**

1. Conducts traffic turning movement, classification count, truck weight and origin destination surveys; determines accurate roadway geometric measurements.

2. Assembles pertinent data prior to conducting field survey such as legislature acts describing county and city boundaries, topographical maps, aerial photographs and other data necessary to prepare city and county maps.

3. Determines locations of accidents by use of maps, photo log, and TRIMS database; codes various information onto traffic reports.

4. Prepares and maintains operating records and reports pertaining to surveys conducted.

5. Conducts surveys logging mileage and all roadway features.

6. May lead other employees in conducting transportation surveys.

### **Transportation Aide 2:**

#### **Education and Experience:**

Education equivalent to graduation from a standard high school and experience equivalent to three years of traffic and/or transportation survey work.

#### **Substitution of Education for Experience:**



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Course work credit received from an accredited college or university may substitute for the required experience on a month-for-month basis to a maximum of three years (e.g., 45 quarter hours may substitute for one year of the required experience).

### **Other Requirements:**

### **Necessary Special Qualifications:**

A valid motor vehicle operator license may be required.

### **Examination Method:**

Education and experience, 100%, for Career Service positions.

### **Job Overview:**

Under general supervision, is responsible for transportation survey work of considerable difficulty; and performs related work as required.

### **Distinguishing Features:**

An employee in this class is responsible for manual or machine traffic counts or leading survey crews in gathering data for the preparation of city and county maps. This class differs from Transportation Aide 1 in that an incumbent of the latter performs work of less scope and complexity. This class differs from that of Transportation Surveys Supv 1 in that an incumbent of the latter performs as a unit supervisor.

### **Work Activities:**

1. Supervises survey crews conducting traffic turning movement, classification count, and truck weight and origin destination surveys.
2. Supervises survey crews gathering pertinent data necessary for the preparation of city and county maps; verifies data gathered with city and county officials.
3. Conducts traffic volume counts for a geographic area; maintains traffic counters by repairing or replacing damaged parts.
4. Prepares and maintains operating records and reports pertaining to surveys conducted.
5. Schedules work to be conducted including the assigning of vehicles and the reviewing of time sheets and vehicle maintenance records.

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6. May conduct special inventory studies for submission to the Federal Highway Administration.

### **Transportation Assoc - Roadway:**

#### **Education and Experience:**

Education equivalent to graduation from a standard high school and five years of experience in one or a combination of the following areas: 1) professional geologic work; 2) photogrammetry work; or 3) leading staff involved in one of the following areas: highway/bridge inspection; drafting for transportation structures and/or roadways; cartography; topographical surveying; materials testing; the calculation of grades, profiles, or engineering computations; or right-of-way technical engineering.

#### **Substitution of College Education for Experience:**

Course work credit received from an accredited college or university with emphasis in civil engineering technology and/or surveying and mapping science may substitute for the required experience on a month-for-month basis to a maximum of four years (e.g., 45 quarter hours with at least nine in one or a combination of the above listed fields may substitute for one year of the required experience).

#### **Substitution of Registration as an Engineer-In-Training for Experience:**

Registration as an engineer-in-training with the State of Tennessee may substitute for one year of the required experience.

#### **Substitution of Vocational/Technical Education for Experience:**

Clock-hour credit received from an accredited vocational or technical school in drafting and/or surveying may substitute for the required experience on a month-for-month basis to a maximum of one year (e.g., 108 clock hours may substitute for one month of the required experience).

**Other Requirements:**

**Necessary Special Qualifications:**

A valid motor vehicle operator license may be required.

**Examination Method:**

Education and Experience, 100%, for Career Service positions.

**Job Overview:**

Under immediate supervision, is responsible for performing routine professional civil engineering and learns to perform non-routine professional civil engineering in the areas of roadway or runway design, or survey for the design of roadways or runways, and performs related work as required.

**Distinguishing Features:**

This is the entry level class in the Roadway Specialist series. An employee in this class performs routine professional engineering such as assisting in the design of a straight road or simple intersection. This class differs from Roadway Specialist 1 in that incumbents of the latter are performing non-routine professional civil engineering such as the design of a four way intersection or leading professional and technical staff on a roadway design project at an intermediate level. This class flexes to and differs from that of Roadway Specialist 2 in that an incumbent of the latter is responsible for performing routine professional civil engineering and learns to perform non-routine professional civil engineering in the areas of construction, inspection, or maintenance of a roadway, bridge, or other transportation structure; and performs related work as required.

\*An applicant appointed to this class will be reclassified to the Roadway Specialist 2 after successful completion of a mandatory two year training period; inadequate or marginal performance during the training period will result in automatic demotion or termination.

**Work Activities:**

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1. Assists in the preparation of a completed drawing of a roadway; compiles survey or design information from field books or other data sources; draws and revises working sketches that show drafters how to draw the detailed plan; enters alignments, grades, or other project parameters into a computer drafting system to prepare a detailed plan; calculates areas, distances, volumes, and other design parameters; compares drafter's drawing with original computations and specifications to detect and correct errors.
2. Assists design team to plan or design a roadway; checks traffic survey and other information for accuracy; computes horizontal and vertical dimensions of a project; checks final plans for accuracy; calculates amounts of work and materials necessary to complete the project; determines the location and computes size of the right-of-way necessary to ensure safe completion of the project; learns how to minimize the environmental impact of the project.
3. Surveys project site to compile maps that identify the location of features of the project site; measures or calculates, using standard equipment and procedures, the location of control points, baseline, existing characteristics of the land, and other components of the right-of-way and construction project; compiles detailed topographical and other maps of the project site using a computer drafting system.
4. Designs plans used by contractors to build roads, simple intersections, or other projects; verifies the computation of curves, distances, angles, elevations and other calculations made by surveyors; ensures that cross-sectional areas and volumes of proposed roadways are correct.
5. May assign work to technical staff and monitor their progress, train new employees, conduct performance evaluations, or handle other supervisory-related duties.

**Transportation Assoc - Bridge:**

**Education and Experience:**

Education equivalent to graduation from a standard high school and five years of transportation-related experience leading staff in one or a combination of the following areas: bridge inspection and/or maintenance; drafting for structures and/or roadway; cartography; photogrammetry work; topographical surveying; materials testing; the calculation of grades, profiles, or engineering computations; or right-of-way technical engineering.

**Substitution of College Education for Experience:**

Course work credit received from an accredited college or university with emphasis in civil engineering technology may substitute for the required experience on a month-for-month basis to a maximum of four years (e.g., 45 quarter hours with at least nine in one or a combination of the above listed fields may substitute for one year of the required experience).

**Substitution of Registration as an Engineer-In-Training for Experience:**

Registration as an engineer-in-training with the State of Tennessee may substitute for one year of the required experience.

**Substitution of Vocational/Technical Education for Experience:**

Clock-hour credit received from an accredited vocational or technical school in civil drafting may substitute for the required experience on a month-for-month basis to a maximum of one year (e.g., 108 clock hours may substitute for one month of the required experience).

**Other Requirements:**

**Necessary Special Qualifications:**

A valid motor vehicle operator license may be required.

**Examination Method:**

Education and Experience, 100%, for Career Service positions.

**Job Overview:**

Under immediate supervision, is responsible for performing routine professional civil engineering and learns to perform non-routine professional civil engineering in the areas of bridge, hydraulic, or transportation structure design; and performs related work as required.

**Distinguishing Features:**

This is the entry level class in the Structural Specialist series. An employee in this class performs routine professional engineering such as designing a straight bridge. This class differs from Structural Specialist 1 in that incumbents of the latter are performing non-routine professional civil engineering such as the design of a curved bridge or a split-level overpass or leading professional and technical staff on a structural design team. This class flexes to and differs from Structural Specialist 2 in that incumbents of the latter lead subordinate design engineers in performing structural or hydraulic designs and performs more advanced structural design work.

\*An applicant appointed to this flexibly staffed class will be reclassified to the Structural Specialist 2 class after successful completion of a mandatory two year training period; inadequate or marginal performance during the training period will result in automatic demotion or termination.

**Work Activities:**

1. Assists in the preparation of a completed drawing of a bridge or hydraulic structure; draws and revises working sketches that show drafters how to draw the detailed plan; enters alignments, grades, structural details, or other project parameters into a computer drafting system to prepare a detailed plan; calculates areas, distances, and volumes and other design parameters; compares drafter's drawing with original computations and specifications to detect and correct errors.
2. Assists design team to plan or design a bridge or hydraulic structure; checks traffic survey and other information for accuracy; computes horizontal and vertical dimensions of a project; checks final plans for accuracy; calculates

amounts of work and materials necessary to complete the project; learns how to minimize the environmental impact of the project.

3. Develops plans for basic structures such as a straight bridge over water; draws preliminary bridge plans in accordance with the roadway plan or other guidelines; determines the best deck and girder design to support the maximum combined weight of the concrete slab, girders, and vehicular traffic; determines the size, shape, and reinforcing steel needed for caps, support columns, and footings; determines if contractors' bids are reasonable; checks drawings of prefabricated components for accuracy and correctness; ensures proposed footing design does not exceed that which could be supported by the soil foundation.
4. Designs elements of hydraulic systems to protect roadways and their surrounding environment; selects and computes hydraulic equations with appropriate coefficients; calculates water surface elevations, bridge backwaters, water flow velocities, flooding extents, and the cost effectiveness of different hydraulic structure types; documents hydraulic and hydrologic studies.
5. May assign work to technical staff and monitor their progress, train new employees, conduct performance evaluations, or handle other supervisory-related duties.

**Transportation Tech :**

**Education and Experience:**

Education equivalent to completion of ninety quarter hours of course work at an accredited college or university with at least eighteen quarter hours in engineering and/or engineering technology and experience equivalent to one year of full-time work in one or a combination of

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the following: 1) drafting for maps, or for buildings, roadways, bridges or other structures; or 2) leading or participating as a work crew member in highways/bridges/materials inspection, or the calculation of volumes, quantities of materials, or other related engineering computations for construction projects; or 3) surveying to determine the boundaries, right-of-ways, or areas of land parcels.

### **Substitution of Experience for Education:**

Qualifying experience in one or a combination of the following areas may substitute for the required education to a maximum of two years: 1) surveying or participating as a survey crew member to determine boundaries, right-of-ways, or areas of land parcels; 2) construction for highways, bridges, buildings or related structures using transits, rods, or other survey instruments for site preparation, sub structural or structural alignment work; or 3) engineering assistance or higher level engineering experience including cartography, architecture, drafting, highway/bridge/materials inspection, right-of-way investigations, or the calculation of volumes, quantities of materials, or other engineering-related computations for construction projects (e.g., experience equivalent to one year of full-time work in one or a combination of the above fields may substitute for one year of the required education).

### **Substitution of College Education for Experience:**

Additional course work credit received from an accredited college or university with emphasis in civil engineering and/or civil engineering technology may substitute for the required experience on a month-for-month basis to a maximum of one year (e.g., an additional 45 quarter hours with at least nine quarter hours in one or a combination of the above listed fields may substitute for the year of required experience).

### **Substitution of Vocational Education for Experience:**

Clock-hour credit received from an accredited vocational or technical school in civil drafting may substitute for the required experience on a month-for-month basis to a maximum of one



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year (e.g., 108 clock hours in civil drafting may substitute for one month of the required experience).

### **Other Requirements:**

#### **Necessary Special Qualifications:**

A valid motor vehicle operator license may be required.

#### **Examination Method:**

Written test, 100%, for Career Service positions.

#### **Job Overview:**

Under general supervision, is responsible for technical civil engineering work of routine difficulty in the area of survey, construction, or inspection of a roadway, bridge, or other transportation structure; and performs related work as required.

#### **Distinguishing Features:**

An employee in this class performs technical civil engineering or lead work such as overseeing a survey or inspection crew, overseeing the construction records function in field office, performing title searches for right-of-way purposes, or performing engineering computations such as grades or profiles. This class differs from Transportation Assistant 2 in that incumbents of the latter are providing paraprofessional civil engineering assistance such as conducting materials or soils tests, operating survey equipment, performing geometric and algebraic calculations, or conducting simple bridge inspection. This class differs from Transportation Technician 2 in that incumbents of the latter are learning to perform routine professional civil engineering work such as planning and overseeing multiple crews on a construction or inspection project, performing bridge evaluations, testifying over right-of-way disputes, or performing routine design work such as designing a straight bridge or simple intersection.

#### **Work Activities:**

1. Leads a survey party in the field and in the recording of survey notes; interprets construction plans; calculates curve elevations, horizontal and vertical alignments and other mathematical manipulations; calibrates survey

instruments; identifies and assigns survey activity to crew; reviews survey information for completeness and accuracy.

2. Leads in inspections at rock and asphalt plants including checking moisture content of sand and stone, size of stone, quality and temperature of asphalt, and truck weight and condition; identifies materials to be sampled and field tested; may be responsible for records of quantities of materials leaving the plant.
3. Leads in traffic investigation work including traffic counts, checking traffic speed, and interviewing the traveling public; interprets raw data for use in highway needs studies.
4. Leads others in inspection of roads, structures, and materials, in construction, to ensure compliance with current standards; identifies type of structure and where to locate potential problem areas for inspection; reviews and verifies bridge plans; verifies probing of all scour locations; reviews inspection forms for accuracy.
5. Is responsible for the maintenance of a variety of records and reports in a construction records office including time expended records, quantities reports, and cost estimates.
6. Leads in drafting work including plotting profile and cross sections, drafting topography, property, and drainage maps.
7. Operates and utilizes a variety of tools and equipment including traffic counters, radar guns, metal detectors, drafting equipment, levels, transits, theodolite, and electronic distance measurers; may operate a pick-up truck or carryall in getting to and from the job.

**Transportation Planner:**

**Education and Experience:**

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Education equivalent to graduation from an accredited college or university with a bachelor's degree and experience equivalent to four years of full-time professional transportation planning work.

### **Substitution of Experience for Education:**

Qualifying professional community planning or professional and/or technical transportation related experience in 1) planning; 2) civil engineering; 3) airport management; 4) public transit; 5) traffic studies; 6) surveys; 7) mathematics; 8) drafting/cartography; or 9) photogrammetry may substitute for the required education to a maximum of four years (e.g., experience equivalent to one year of full-time work in one or a combination of the above listed fields may substitute for one year of the required education).

### **Substitution of Education for Experience:**

Graduate course work credit received from an accredited college or university in one or a combination of the following areas may substitute for the required experience on a month-for-month basis to a maximum of one year: (1) community development studies, including urban, regional, transportation or community planning, urban design, or land use management and reclamation; (2) civil engineering studies; (3) business or public administration studies, including public affairs, public policy, political science, or business management; (4) mathematics, including accounting, business math, applied math, or statistics; (5) geography; (6) sociology; (7) history; or (8) aviation studies including aeronautics administration or aviation management (e.g., 36 graduate quarter hours in one or a combination of the above listed fields may substitute for the year of required experience).

**OR**

### **Education and Experience:**

Graduation from an accredited college or university with a bachelor's degree in one or a combination of the following: transportation planning, urban planning, business administration,

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public administration, mathematics, accounting, business math, applied math, statistics, geography, sociology, history, aeronautics administration, or aviation management; and three years of full-time professional transportation planning work.

**OR**

### **Education and Experience:**

Graduation from an accredited college or university with a master's degree in one or a combination of the following: transportation planning, urban planning, business administration, public administration, mathematics, accounting, business math, applied math, statistics, geography, sociology, history, aeronautics administration, or aviation management; and two years of full-time professional transportation planning work.

### **Other Requirements:**

#### **Necessary Special Qualifications:**

None.

#### **Examination Method:**

Education and experience, 100%, for Career Service positions.

#### **Job Overview:**

Under general supervision, is responsible for professional transportation planning work of considerable difficulty and supervisory work of average difficulty; and performs related work as required.

### **Distinguishing Features:**

This is the supervisory level class in the transportation planning job-series. An employee in this class supervises a sub-unit within a transportation planning division and performs difficult transportation planning studies and analyses in any area of transportation planning, but normally is assigned to a specialty area, supervises other transportation planners in their work,

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and is responsible for the coordination of ongoing transportation projects. This class differs from that of Transportation Planner 3 in that an incumbent of the latter does not act as a sub-unit supervisor and is normally subordinate to an incumbent of this class. This class reports to and differs from that of Transportation Manager 1 in that an incumbent of the latter manages an organizational unit within a transportation planning division.

### **Work Activities:**

1. Assigns, trains, supervises and evaluates subordinate professional staff in the conduct of transportation planning relating to such work as: advance planning, current planning, public transit, waterway and rail transportation, systems planning, small urban area studies and other functional areas of work; makes recommendations on personnel actions such as employment, promotion, demotion, transfer, retention, and increases for exceptional performance.
2. Assembles and prepares necessary standard documents for programming projects with the Federal Highway Administration; monitors projects and use of funds during work on projects; coordinates all paperwork with the field necessary for the proper conduct and completion of projects.
3. Carries out, interprets, and enforces existing policy and methods and assists in the development of intra-unit policy and methods.
4. Personally performs especially difficult analyses and studies requiring special expertise and which may have significant impact on economies in proposed programs.
5. Performs personal contact and liaison duties with a variety of other individuals, agencies, governments and other entities in furnishing and obtaining information, explaining transportation planning matters, procedures, rules and regulations.

6. Supervises and participates in the preparation of important, detailed and complex records and reports.

**Transportation Specialist:**

**Education and Experience:**

Education equivalent to graduation from an accredited college or university with a bachelor's degree and experience equivalent to five years of full-time work in one or a combination of the following areas: (1) technical supervision of staff in a transportation-related area; or professional experience involved in the (2) supervision or administration of transportation regulatory programs or services; (3) civil engineering, architectural design, or construction operations (e.g., maintenance, materials testing, construction inspection); (4) analysis of environmental or historical impact data; (5) related community or transportation planning activities, including public transportation, aeronautics, railroads, or waterways; or (6) government land appraisals or land acquisitions for public usage. At least two of the required five years must be supervisory or higher experience in one or a combination of the following areas: (1) supervision or administration of transportation regulatory programs or services, including, but not limited to, highway maintenance administration; (2) professional transportation-related program experience including, but not limited to, planning, civil engineering, construction operations, aeronautics, public transportation, railroads, waterways, analysis of environmental or historical impact data, or government land appraisals or acquisitions for public usage; or (3) cartography or photogrammetry.

**Substitution of Education for Experience:**

Graduate course work credit received from an accredited college or university in one or a combination of the following areas may substitute for the required experience on a month-for-month basis to a maximum of one year, with no substitution for the required supervisory or

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higher experience: (1) community development studies, including urban and regional planning, transportation planning, urban design, or land use management and reclamation; (2) business or public administration studies, including public affairs, public policy, political science, or business management; (3) civil or architectural engineering studies; (4) architectural studies, including landscape architecture or environmental design; (5) environmental science; (6) related social science studies limited to economics, geography, sociology, or urban studies; (7) physical sciences, including chemistry, physics, or geology; or (8) mathematics (e.g., 36 graduate quarter hours in one or a combination of the above listed fields may substitute for one year of the required experience).

### **Substitution of Experience for Education:**

Qualifying technical or higher experience involved in a transportation-related area or professional experience in one or a combination of the following areas may substitute for the required education on a year for year basis to a maximum of four years: (1) supervision or administration of any transportation regulatory program or service; (2) civil engineering, architectural design, or construction operations; (3) analysis of environmental or historical impact data; (4) community or transportation planning activities; or (5) government land appraisals or land acquisitions for public usage (e.g., experience equivalent to one year of full-time work in one or a combination of the above listed fields may substitute for one year of the required education.)

### **Other Requirements:**

#### **Necessary Special Qualifications:**

None

### **Examination Method:**

Education and Experience, 100%, for Preferred Service positions.

### **Job Overview:**

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Under general supervision, is responsible for transportation supervisory work of considerable difficulty; and performs related work as required.

### **Distinguishing Features:**

An employee in this class is responsible for assisting with the management of multiple transportation subsections of planning, program development, or program operations and/or programs which require substantial coordination between divisions of the Department of Transportation and/or other State or Federal agencies. An employee in this class may be authorized to approve the expenditure of Federal and/or State funds. This class differs from Transportation Specialist 1 in that an incumbent of the latter coordinates the activities of a single transportation program. This class differs from Transportation Manager 1 in that an incumbent of the latter fully manages the activities of multiple transportation subsections.

### **Work Activities:**

#### **1. Interpreting the Meaning of Information for Others:**

- a. Interprets a variety of engineering, construction, environmental, and planning rules, regulations, policies, procedures, and documentation for internal and external business partners to facilitate understanding, enhance communications, and ensure compliance.
- b. Interprets program requirements, fiscal policies, and contractual language for internal and external business partners to facilitate understanding, enhance communications, and ensure compliance.
- c. Explains project specific procedures and regulations to the general public, persons in other departments or divisions, local governments, or outside organizations and representatives as required.
- d. Interprets plans specifications to property owners to facilitate understanding.

#### **2. Provide Consultation and Advice to Others:**



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- a. Provides technical guidance to external or internal business partners to resolve problems involving functional areas such as environment, planning, right of way, multimodal, programming, construction or research.
- b. Answers technical questions for subordinates, peers, consultants or contractors to clarify project information, solutions, departmental, state, and federal laws, rules, regulations, guidelines, processes, and procedures.
- c. Notifies supervisory personnel of possible violations of departmental, state, and federal laws, rules, regulations, guidelines, policies, and procedures.

### **3. Communicating with Persons Outside Organization:**

- a. Provides testimony in court as a representative of the department.
- b. Answers questions from the public or government officials on a variety of transportation related issues.
- c. Presents technical information on transportation issues to external business partners to disseminate information.
- d. Discusses project details, rules, regulations, and laws with external business partners.
- e. Coordinates with departmental representatives to draft correspondence in response to public complaints or inquiries.
- f. Conducts meetings with external business partners to gather project information and status updates and to disseminate information.
- g. Resolving Conflicts and Negotiating with Others:
- h. Investigates conflicts between business partners and agency employees according to departmental, state, and federal laws, rules, regulations, guidelines, processes, and procedures to resolve the issue.
- i. Investigates conflicts between external business partners according to departmental, state, and federal laws, rules, regulations, guidelines, processes, and procedures to resolve the issue.
- j. Resolves interpersonal conflicts between assigned subordinates to ensure a respectful and productive work environment.

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- k. Negotiates contractual agreements including cost and scope of work between the department and external business partners.
  - l. Maintains a respectful and productive work environment within the assigned work unit to minimize disputes and facilitate performance.
  - m. Drafting, Laying Out, and Specifying Technical Devices, Parts, and Equipment:
  - n. Designs or assists in the design of appropriate hydraulic systems that protect the environment.
  - o. Designs all components according to departmental specifications, local, state and federal standards.
  - p. Designs and/or graphically depicts plans including interchange layouts, roadway lines and grades, and other design parameters used in planning reports.
  - q. Designs concept plans for safety and operational improvement options.
  - r. Develops and/or arranges tables, drawings, general and specific notes, and other required information for plans.
- 4. Getting Information:**
- a. Researches any or all of the following: plans, public records, policies, specifications, scientific methods, procedures, guidelines, rules, regulations, and/or laws related to transportation using physical and electronic sources to assist with conflict resolution, problem solving, and/or decision making.
  - b. Contacts the general public, persons in other departments or divisions, elected officials, and outside organizations, including consultants, universities, and/or local governments, for the purpose of furnishing or obtaining information.
  - c. Collects information from internal and external business partners regarding status updates, project schedules, applications and/or contracts to effectively make decisions, communicate to upper management, and/or prioritize work.

## **5. Developing Objectives and Strategies:**

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- a. Develops job plans for assigned subordinates to communicate responsibilities and expected outcomes of performance in their role.
- b. Recommends strategies and objectives for assigned program areas to enhance performance and improve organizational efficiency.
- c. Incorporates departmental objectives and goals into assigned programs.

### **6. Guiding, Directing, and Motivating Subordinates:**

- a. Leads field crew to conduct environmental surveys according to departmental, state, and federal laws, rules, regulations, guidelines, processes, and procedures.
- b. Provides technical guidance to personnel regarding planning methods and program requirements.
- c. Assists regional or operational staff by providing technical guidance for a specialty area such as environment, planning, right of way, multimodal, programming, construction, or research.

### **7. Inspecting Equipment, Structures, or Material:**

- a. Conducts inspections of sites, structures, equipment, facilities, and materials to determine that the project is in compliance with specifications and/or regulations.

### **8. Processing Information:**

- a. Tabulates or compiles complete and accurate data through descriptive statistics, including plots, charts, graphs, and tables for reporting purposes.
- b. Conducts field surveys by taking measurements, performing calculations, and using appropriate equipment to determine presence, potential impacts, and quality of environmental resources.
- c. Tabulates environmental impacts for permit type and calculates mitigation fees as required.
- d. Processes bid packages for contract books.
- e. Reviews cost estimates and invoices for accuracy, completeness, and payment.
- f. Processes contractor and consultant information for pre-qualification, evaluation, scoring, and selection.

- g. Compiles and calculates evaluation scores to achieve overall performance of consultant firms, universities, and governmental agencies.

**9. Communicating with Supervisors, Peers, or Subordinates:**

- a. Communicates verbally with subordinates, upper management and other internal business partners to ensure accurate and timely receipt of instructions and work assignments.
- b. Presents technical information to small and large groups to disseminate information.
- c. Communicates through written format to send notifications of special events, changes, approvals, and deadlines to internal and external business partners to ensure timely and accurate receipt of information.
- d. Maintains an open dialogue with internal business partners to ensure effective and efficient communications.
- e. Communicates work related information to peers and assigned subordinates to facilitate teamwork, assign tasks, and coordinate effort.
- f. Conducts and/or attends meetings with assigned subordinates and other internal business partners to gather project information and status updates and to disseminate information.

**10. Making Decisions and Solving Problems:**

- a. Resolves issues with internal and external business partners to ensure projects meet departmental, local, state and federal rules, regulations, policies, and procedures.
- b. Recommends actions or solutions to transportation related problems.
- c. Reviews progress reports and other information to determine the effectiveness and status of transportation activities.
- d. Approves expense reports, time and attendance, training, and other related requests submitted by subordinates to ensure compliance with departmental, local, state and federal rules, regulations, policies, and procedures.

**11. Evaluating Information to Determine Compliance with Standards:**

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- a. Ensures transportation studies, reports, and projects are carried out in compliance with departmental, local, state and federal rules, regulations, policies, and procedures
- b. Reviews regional and local government project files to ensure compliance with departmental, local, state and federal rules, regulations, policies, and procedures
- c. Evaluates operations procedures, plans, test results, final drawings, labor, and estimates submitted by internal and external business partners for accuracy and to determine compliance with departmental, state, and federal laws, rules, regulations, guidelines, processes, and procedures.
- d. Evaluates new technologies, materials, or processes to determine best practices for departmental use.
- e. Evaluates business practices for effectiveness and provide recommendations for modifications, additions, or improvement of processes.

### **12. Judging the Qualities of Things, Services, or People:**

- a. Reviews reports, plans, and applications for completeness and accuracy to make recommendation for award, approval, change, or improvement.
- b. Assesses the quality of natural resources against reference features to determine impacts and mitigation needs.
- c. Assesses the performance of assigned subordinates for the performance evaluation process.
- d. Reviews and assesses contractor and consultant information for pre-qualification, evaluation, scoring, and selection.
- e. Reviews and assesses governmental agencies' information for pre-qualification, evaluation, scoring, and selection.

### **13. Monitor Processes, Materials, or Surroundings:**

- a. Monitors costs and expenditures related to contracts, programs, and processes to ensure compliance with budgetary constraints, rules, and regulations.

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- b. Monitors mitigation of natural resources to ensure compliance with regulatory permits.
- c. Monitors work activities related to the development of transportation projects to ensure quality and timely completion.
- d. Monitors schedules and deliverables to ensure deadlines are met.
- e. Identifying Objects, Actions, and Events:
- f. Identifies geotechnical, hydraulic, environmental, structural, property and community impacts, and/or other applicable information to assist with permitting, designing, and analyzing projects.
- g. Reads plans, contracts, standard drawings, guidelines, and schematics to identify quantities, materials, location, placement, features, specifications, and details to guide assigned work.
- h. Identifies errors, omissions, and potential conflicts on applications, contract documents, estimates, reports, and plans.
- i. Identifies significant trends in transportation data, research, policies, and/or funding to assist decision making.

### **14. Documenting/Recording Information:**

- a. Writes reports to document field inspections, laboratory tests, planning activities, and other necessary items to ensure accurate information is used in decision making.
- b. Documents the performance of assigned subordinates to ensure accurate and unbiased performance evaluations.
- c. Documents and stores appropriate information in electronic databases and/or physical form as required ensuring accurate information is recorded.
- d. Documents information provided during meetings and training to ensure accurate information is disseminated to others.
- e. Analyzing Data or Information:
- f. Analyzes test results, financial data, and reports to identify trends and provide recommendation for improvement.

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- g. Analyzes transportation and land use data using appropriate computer software to produce reports, maps, graphs, or charts.
- h. Establishing and Maintaining Interpersonal Relationships:
- i. Acts as a liaison with internal and external business partners and other organizational representatives to ensure accurate and timely processing of information and deliverables.
- j. Maintains professional working relationships with peers, with assigned subordinates, with upper management, and with external business partners to ensure smooth and effective team operations.
- k. Networks with internal and external business partners to ensure open dialogues exist and to facilitate coordination and unified effort.
- l. Scheduling Work and Activities:
- m. Schedules, coordinates, and assigns the work of subordinates, contractors, consultants and other business partners to accomplish workload and maintain the schedule.
- n. Schedules and coordinates meetings with internal and external business partners to ensure information is communicated.
- o. Schedules personal workload to ensure timely processing and account for current workload.

### **15. Organizing, Planning, and Prioritizing Work:**

- a. Coordinates transportation activities, including preparation of grant applications, grant contracts, progress reports, technical reports, and invoices.
- b. Incorporates last minute and unscheduled tasks into current workload to ensure timely and accurate completion of work.
- c. Organizes and prioritizes personal workload and/or the workloads of assigned subordinates using calendars, lists, and other facilitators to ensure timely and accurate completion of work.

### **16. Coaching and Developing Others:**

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- a. Mentors less experienced coworkers to facilitate development and job performance.
- b. Educates internal and external business partners on departmental, state, and federal laws, rules, regulations, guidelines, processes, and procedures process to facilitate accurate and timely submission of documentation.
- c. Mentors assigned subordinates by providing feedback and information on organizational culture, policies and procedures, workflow and chain of command, task prioritization, proper documentation, use of systems and available functionality, and how to most effectively and efficiently perform their assigned tasks.

### **17. Training and Teaching Others:**

- a. Creates and conducts agency specific and specialized training for agency employees and external business partners to comply with departmental, state, and federal laws, rules, regulations, guidelines, processes, and procedures, facilitating change, and improving initiatives.
- b. Trains and mentors assigned subordinates, peers and external business partners in the basic workflow and processes related to their tasks.
- c. Operating Vehicles, Mechanized Devices, or Equipment:
- d. Operates pick-up truck, SUV, van and other on road delivery and transport vehicles within safety and departmental guidelines as necessary.
- e. Interacting With Computers:
- f. Uses CADD software, modeling software, GIS software, and analyzing software to complete planning, environmental, and engineering related tasks.
- g. Operates administrative database to process financial and contractual transactions such as invoices, contract entry, and purchasing of goods.
- h. Uses appropriate database tracking software specific to the state and agency as required.



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- i. Uses office productivity software including but not limited to word processing programs, spreadsheet programs, presentation software, web-based email programs, instant-messaging programs, and search engines.
- j. Operates employee self-service database to maintain and view personal employment data.
- k. Uses digital camera and other data recording equipment to record information and transfer files to centralized storage locations.

### **18. Performing Administrative Activities:**

- a. Initiates payment of contractors, grantees, consultants, vendors, or other entities as required.
- b. Maintains project documentation in compliance with departmental, state, and federal laws, rules, regulations, guidelines, processes, and procedures.
- c. Prepares and delivers correspondence to internal and external business partners.
- d. Approves subordinate time, leave requests, expense reports, and purchases to ensure proper payment.
- e. Reviews inventory supply to determine purchasing need of necessary field and office equipment.
- f. Estimating the Quantifiable Characteristics of Products, Events, or Information:
- g. Coordinates the development of preliminary cost estimates for transportation project development as required.
- h. Estimates work hours to establish and comply with project schedule and staffing requirements.
- i. Estimates sizes and distances of environmental features in proximity to transportation projects.
- j. Estimates costs related to conferences, meetings, training, and other special events.
- k. Thinking Creatively:

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- l. Develops spreadsheets, presentations, forms, form letters, publications, memos, database queries, logs, and other systems as required to facilitate accurate data gathering, tracking, training, efficiency and dissemination.
- m. Develops process improvement suggestions to streamline workflow and improve work process and accuracy.
- n. Recommends creative solutions to unique problems as they arise.
- o. Participates in brainstorming sessions to develop process streamlining initiatives and improve business practices.

### **19. Updating and Using Relevant Knowledge:**

- a. Reviews current departmental, state, and federal information sources to identify relevant changes in policies, procedures, rules, regulations, and best practices to ensure they and/or their assigned subordinates are knowledgeable on the latest systems.
- b. Completes required training events to learn new procedures, ensure continual learning, maintain current knowledge of the field, and increase job proficiency.
- c. Maintains required level of certifications.
- d. Seeks out work related developmental opportunities for self and/or assigned subordinates to improve performance and team efficiency.
- e. Coordinating the Work and Activities of Others:
- f. Coordinates workload with internal and external business partners as required to facilitate timely and accurate task completion.
- g. Assigns work to subordinates and monitors their progress.
- h. Coordinates meetings, events, and other special projects as required to ensure availability, attendance, and coverage.
- i. Developing and Building Teams:
- j. Models effective performance for co-workers and assigned subordinates to provide a role model, encourage success in others, and enhance trust.
- k. Encourages assigned subordinates to pursue career development opportunities as a means of improving team performance.

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- l. Identifies developmental opportunities appropriate for assigned subordinates to improve team development.
- m. Monitoring and Controlling Resources:
- n. Monitors program expenditures and recommends fiscal adjustments as needed.
- o. Monitors project expenditures and compares to original contract and/or construction cost estimate.
- p. Monitors training budgets to approve training requests for subordinate staff.
- q. Handling and Moving Objects:
- r. Operates basic sampling equipment and hand tools for environmental surveys and inspections.
- s. Handles delicate field equipment as required to ensure its safety and proper use.
- t. Performing General Physical Activities:
- u. Walks, crawls, and/or hikes through project sites possibly including rough terrain and obstacles to facilitate task completion in a variety of environmental conditions.
- v. Lifts job related documents, equipment and materials to complete assigned tasks in a variety of environmental conditions.
- w. Controlling Machines and Processes:
- x. Uses basic sampling equipment and hand tools for environmental surveys and inspections.
- y. Uses office equipment including but not limited to copier, fax machine, phone, and scanner.
- z. Repairing and Maintaining Mechanical Equipment:
  - aa. Performs routine maintenance, calibrations, adjustments and necessary repair of various survey and testing equipment.
  - bb. Repairing and Maintaining Electronic Equipment:
  - cc. Performs routine maintenance, calibrations, adjustments and necessary repair of various survey and testing equipment.
  - dd. Staffing Organizational Units:

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ee. Participates in interviews and recruiting efforts for new job candidates.

### **Competencies:**

- a. Functional/Technical Competencies
- b. Problem Solving
- c. Technical Learning
- d. Organizing
- e. Conflict Management
- f. Presentation Skills
- g. Written Communications
- h. Customer Focus
- i. Interpersonal Savvy
- j. Negotiating

### **Knowledge:**

- a. Advanced knowledge of methods used in building and constructing transportation infrastructures and facilities
- b. Advanced knowledge of materials, specifications, and equipment used in building and constructing transportation infrastructures and facilities
- c. Advanced knowledge of transportation infrastructure and systems
- d. Advanced knowledge of state and federal funding administration
- e. Intermediate knowledge of administration and management of people, processes, and programs
- f. Intermediate knowledge of flora and fauna, wetlands, and streams
- g. Intermediate knowledge of office productivity software and office procedures
- h. Intermediate knowledge of customer and personal service
- i. Intermediate knowledge of transportation design principles and concepts

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- j. Intermediate knowledge of transportation engineering and technology principles and concepts
- k. Intermediate knowledge of land features and their interrelationships between flora and fauna, wetlands, and streams
- l. Intermediate knowledge of federal, state, and local laws and regulations related to transportation programs and funding
- m. Intermediate knowledge of divisional and departmental regulations, policies, and procedures
- n. Intermediate knowledge of algebra, geometry, graphing, and statistics
- o. Intermediate knowledge of mathematical principles used in transportation projects
- p. Intermediate knowledge of safety laws, rules, regulations, policies, and best practices related to transportation
- q. Basic knowledge of chemistry as it relates to flora and fauna, wetlands, and streams

### **Skills:**

- a. Intermediate skill in the application of algebra, geometry, graphing, and statistics
- b. Intermediate skill in the application of accounting and estimating principles and practices
- c. Active learning skills
- d. Active listening skills
- e. Critical thinking skills
- f. Skill in monitoring internal and external processes, procedures, and policies
- g. Skill in monitoring subordinate performance
- h. Skill in monitoring grants and contracts for compliance with terms, conditions, and budgetary constraints
- i. Reading comprehension of technical reports, legal documents, applications, laws, rules, policies, and procedures
- j. Skill in using scientific rules and methods to solve problems
- k. Effective oral communication skills

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- l. Effective written communication skills
- m. Skill in the coordination of processes, people, and programs
- n. Negotiation skills
- o. Service orientation skills
- p. Complex problem solving skills
- q. Judgment and decision making skills
- r. Management of financial resources
- s. Management of personnel resources
- t. Time management skills

### **Abilities:**

- a. Category Flexibility
- b. Deductive Reasoning
- c. Inductive Reasoning
- d. Mathematical Reasoning
- e. Oral Comprehension
- f. Oral Expression
- g. Originality
- h. Problem Sensitivity
- i. Spatial Orientation
- j. Visualization
- k. Written Comprehension
- l. Written Expression

### **Tools and Equipment Used:**

- a. Personal Computer
- b. Telephone
- c. Fax Machine
- d. Printer

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- e. Material Sampling and Testing Equipment
- f. Various Hand Tools
- g. Vehicles
- h. Navigational GPS
- i. Digital Camera
- j. Data Recording Equipment

### **Bridge Inspector**

We are seeking an experienced professional to manage the daily maintenance and repair operations and emergency repairs to bridges and other structures throughout the Fredericksburg District. Responsibilities include assessment of preventive maintenance and repair/rehabilitation needs and priorities, development of detailed project plans, defining both in-house and contract staffing requirements, and setting schedules and budgets. Manage changes to project plans, provide project coordination, and analyze cost overruns to determine mitigation measures. Oversee the regional bridge maintenance contracts, plans and schedules to ensure contractor's compliance with contract terms and conditions. Assess the cost effectiveness of work performed under contract and resolve discrepancies with contractors. Develop and manage the District Bridge Maintenance budget to ensure effective utilization of funds. Develop emergency bridge plans and activities, including expense forecasts, and provide direction to ensure completion of work within required time frames and cost limits. Ensure compliance with VDOT, state and federal rules and regulations for all maintenance and repair activities. Oversee safety programs, hiring, training, staff performance, discipline, employee dispute resolution and compliance with related policies and practices.

In addition to a rewarding work experience, VDOT offers core benefits including competitive health and life insurance programs, pre-tax spending accounts, and leave programs. Employees participate in a state retirement plan with options for tax-deferred retirement savings including employer matching. Employees are eligible for participation in a Short and Long Term Disability Program. Miscellaneous benefits include paid holidays, training and tuition assistance programs, wellness programs, etc.

The Virginia Department of Transportation (VDOT) is an Equal Opportunity Employer by both policy and practice. Applicants are considered for all positions without regard to race, sex, color, national origin, religion, age, veteran status, political affiliation, genetics, or against otherwise qualified persons with disabilities. It is the intent of VDOT's employment and



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personnel practices to conform to all applicable federal, state and local laws and regulations regarding non-discrimination. View details & knowledge, skills, & abilities for applicant evaluation at local VEC or <http://www.vdot.jobs>. TDD 1-800-828-1120.

### Minimum Qualifications

Experience in bridge maintenance, repair, rehabilitation and construction techniques, methods, equipment, and materials. Knowledge of deterioration characteristics of bridge materials and ability to diagnose causes of deterioration and damage to structures. Knowledge of bridge design standards and specifications and the ability to read and interpret bridge plans. Knowledge of contract development and management. Ability to provide administrative, technical and supervisory direction and training to administrative and skilled trades staff. Ability to develop and monitor budgets, analyze expenses and recommend corrective actions. Skill and ability to communicate and interact effectively with internal and external customers, including other functional areas, technical professionals, contractors and the general public. Skill in the use of PC's and web-based applications including MS Office Word, Excel, and financial and project management software.

### Preferred Qualifications

Progressively responsible supervisory experience in the construction and maintenance, repair and replacement of highway structures and bridges. Considerable knowledge and experience with bridge element conditions, inspection techniques and engineering principles that impact various types of repair and rehabilitation. Experience managing field operations, budgets, project development, contracts and human resources policies and activities. Knowledge of Virginia procurement laws and regulations; VDOT and federal regulations and specifications related to structures and bridge construction; and environmental, OSHA and other regulations. BSCE or equivalent experience and training including courses in management, surveying, principles of hydraulics and drainage management, soil mechanics, in-service bridge inspection, erosion and sediment control, and/or highway design and construction. PE preferred.

### Special Requirements

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Valid Driver's License. Fingerprint based background check, references, work history, and DMV records check will be conducted. Statement of Economic Interests required for entry into the position and annually thereafter. Safety shoes required in the performance of job duties. All employees are required to work in emergency situations, to include weekends, holidays, and after normal business hours; assignments may vary based on business needs.

### **Senior Inspector**

### **Inspector**

### **Project Engineer1**

Provide effective delivery of the District's transportation program with an emphasis on assisting local governments with project development and project initiation in the Statewide Transportation Improvement Program (STIP), Constrained Long-Range Plan (CLRP), Transportation Improvement Program (TIP), Six-Year Improvement Plan (SYIP) or equivalent and Secondary Six-Year Improvement Plan (SSYIP). Frames issues, sets priorities, allocates resources and coordinates cross-cutting issues to address local jurisdictions' interests. Exercise sound engineering judgment in the operation of a large scale, public service agency with an emphasis on the balance of cost and risk. The position will represent interests of the assigned jurisdictions as well as represent VDOT's interest to the assigned jurisdictions with regard to VDOT planning, preliminary engineering, construction, maintenance and operational process. Coordination of the Counties Secondary Six-Year Plan as well as the coordination of funding for the Interstate and Primary roadway systems. Coordinate with Counties, funding and finance sections and others on applications for state and federal funding programs.

Facilitate VDOT managed project delivery in Arlington & Fairfax Counties between VDOT project delivery team and the Counties to resolve technical, procedural, funding, political issues, etc. related to project delivery. Serve as VDOT representative and spokesperson during the design phase to build consensus for delivery of VDOT managed projects.

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Serve as spokesperson for VDOT managed projects during design development phase public involvement and point of contact for citizen inquiries for VDOT managed projects. Assist during public involvement events, briefings, working groups, etc. for transportation initiatives, studies or special assignments.

In addition to a rewarding work experience, VDOT offers core benefits including competitive health and life insurance programs, pre-tax spending accounts, and leave programs. Employees participate in a state retirement plan with options for tax-deferred retirement savings including employer matching. Employees are eligible for participation in a Short and Long Term Disability Program. Miscellaneous benefits include paid holidays, training and tuition assistance programs, wellness programs, etc.

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### Minimum Qualifications

Considerable knowledge of public policy, local politics and business practices as related to transportation issues. Knowledge of administrative, managerial, supervisory principles/practices, human resource principles/processes, interpreting and applying federal/state highway policy procedures, laws, rules regulations and guidelines (Code of Virginia) and working knowledge of engineering principles, practices and applications. Knowledge of transportation laws, regulations and policies and procedures related to maintenance management and work zone operations. Knowledge of the principles and practices of transportation project management and transportation project engineering. Knowledge of the transportation project development and delivery process, and associated

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regulatory, finance and legal constraints. Leadership skills; excellent communication skills; and project management skills. Ability to understand and apply advanced engineering and/or planning principles and practices to a variety of transportation engineering/construction projects and planning design programs. Communicate effectively to both individuals and groups. Graduation from a college or university with a degree in civil engineering or other engineering related to highway design. PE license. Ability to represent the agency to internal and external individuals and groups.

### Preferred Qualifications

Progressively responsible experience in program management and supervision of professional and technical staff in the application of advanced and complex engineering principles and practices.

### Special Requirements

Valid operator's license. Fingerprint based background check, references, work history, PE License, and DMV driving records will be verified. Selected applicant must complete a Statement of Economic Interest (SOEI) form. All employees may be required to work unscheduled and/or scheduled overtime including nights and weekends during emergency operations.

### **Project Engineer 2:**

VDOT's Northern Virginia Construction Program is seeking an experienced and detail oriented individual to assist in coordinating and overseeing roadway, structure and bridge, and maintenance construction projects of moderate to considerable complexity while promoting open communications, partnering and responsive project level construction management to obtain on-time, on-budget projects with high quality and safety. The Inspector Senior independently plans, coordinates, inspects and/or oversees project inspection activities to ensure contractor compliance through review, interpretation and enforcement of plans and contract documents and efficient, timely inspection of contractor's work. Coordinates all inspection activities and assigns and oversees other inspectors to assure that all phases of the work have adequate inspection and that all work meets required specifications. Advises contractors of non-compliance items and necessary actions to correct violations. Reviews and

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maintains project documentation and ensures that it accurately details construction progress, activities, and materials, and EEO/DBE/CR, environmental, and safety compliance. Ensures accurate and timely recording and computation of all daily pay quantities. Prepares and submits project inspection reports and input on contractor performance in a timely manner. Interacts with the general public, contractors, and other internal and external parties to respond to inquiries and resolve field issues. Monitors inspector performance on a daily basis, identifies individual inspector training needs and provides on-site technical training for inspection staff. May act as a specialist and advisor to other inspectors on certain phases of the work. Performs the full range of inspection duties as needed to insure all work is inspected. Work schedule varies according to job assignments and/or contractors schedule, to include significant night work, weekends, and holidays.

In addition to a rewarding work experience, VDOT offers core benefits including competitive health and life insurance programs, pre-tax spending accounts, and leave programs. Employees participate in a state retirement plan with options for tax-deferred retirement savings including employer matching. Employees are eligible for participation in a Short and Long Term Disability Program. Miscellaneous benefits include paid holidays, training and tuition assistance programs, wellness programs, etc.

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### Minimum Qualifications

Experience inspecting a variety of roadway, structure and bridge, and/or maintenance construction projects. Experience reading, interpreting, analyzing, and communicating

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roadway, structure and bridge, and/or maintenance construction plans, construction contract terms, special provisions, specifications and other project management documents. Experience operating field engineering and testing equipment. Experience in verifying, preparing, and maintaining project documentation. Experience applying knowledge of environmental, safety and Federal and State labor regulations and requirements related to transportation construction projects. Skill in applying mathematical formulas and engineering principles to measure, calculate, verify and reconcile pay quantities and to estimate field adjustments. Skill in overseeing multiple projects and in determining sound recommendations. Ability to resolve routine issues at field level. Ability to communicate effectively verbally and in writing with internal and external customers. Experience training and providing technical guidance to other inspectors. Skill in MS Office including Word and Excel. Current certifications or ability to obtain within 12 months of hire or at the earliest date classes are offered. Valid Drivers' License required with ability to obtain CDL within 6 months of hire.

### Preferred Qualifications

Thorough knowledge and considerable experience in roadway, structure and bridge, and/or maintenance construction techniques, procedures, methods, equipment, and materials; Road and Bridge Specification and Standards; state and federal labor regulations, MUTCD, WAPM, environmental requirements, and other rules and regulations related to highway construction projects. Considerable experience with roadway, structure and bridge, and/or maintenance construction techniques, practices and equipment; inspection and testing procedures; materials testing; acceptance procedures. Thorough knowledge of construction contracts and schedules, specifications and special provisions with demonstrated ability to interpret and communicate contract and construction plan requirements to contractors and others. Experience coordinating and overseeing multiple project inspection activities and preparing a variety of reports and project updates for management. Experience and skill in negotiating solutions and resolving contract issues. Experience and skill in communicating effectively verbally and in writing with citizens, contractors, elected officials, and other internal and external customers. Experience with project management software, Microsoft Word and Excel. Possession of current required certifications acceptable to VDOT. High school graduate with

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additional training or course work in road/bridge construction, civil engineering, project management or materials or an equivalent combination of education, training and experience demonstrating ability to perform the job duties. Current possession of a valid CDL.

### Special Requirements

Safety shoes and other safety gear are required in the performance of duties. Must have or obtain the required certifications within 12 months (or earliest date classes/test are offered) and to maintain those certifications thereafter, include: Asphalt Field, ACI/HCC Field, Soils and Aggregate Field Compaction, Nuclear Safety, Pavement Marking and Guardrail Installation, Work Zone Protection, and DCR Erosion and Sediment Control Inspection. May be required to operate or work in the vicinity of devices containing radioactive materials and emitting low levels of ionizing radiation. Position requires unrestricted mobility, including, at times, unrestricted mobility in irregular terrain; working at heights and in confined spaces, making visual observations; the ability to stand for long periods of time; the ability to work in a variety of environments affected by, but not limited to, such elements as dust, vapors, heat, and moisture; and the ability to lift 50 lbs. Valid Drivers' License required at time of hire. Must obtain a Commercial Drivers' License within 6 months of hire if not in possession of CDL at time of hire and maintain it thereafter. Federal Pre-Employment Physical with Drug Screen will be required. Fingerprint based background check, references, work history, and DMV records check will be required. Statement of Economic Interests required at time of hire and annually thereafter. Work schedule varies according to job assignments and/or contractors schedule, to include significant night work, weekends, and holidays. All employees are required to work in emergency situations, to include weekends, holidays, and outside normal work hours; assignments may vary based on business needs.

Inspector Aide

Office Engineer

### **Resident Compliance Officer**

- Identify involved/impacted parties.

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- Identify key documents, records and information relative to the dispute.
- Identify specific action requested by constituent.
- Identify options to resolve the dispute.
- Assist all parties in the evaluation of dispute resolution options.

### **ATMS Signal Inspector**

VDOT is seeking a Professional Engineer to support the Southwestern Regional Operations group. The selected candidate will coordinate and provide support for all workgroups within the Southwestern Region which includes Bristol, Lynchburg and Salem Districts. The position is located at the Transportation Operations Center in Salem. This position supports the Traffic Engineering workgroups in the areas of traffic signal design, specialty traffic control devices, work zone design, safety plans, traffic impact and capacity analyses, specialty guardrail applications, GIS/Tableau data applications, contract administration and project management. The position works closely with senior traffic engineers, designers, consultants, and other VDOT staff to develop traffic signal and specialty traffic control device plans, perform project management, perform reviews for plan submittals, use ArcGIS/Tableau to perform data analysis tasks, develop and review traffic impact analysis and develop safety reports in the Districts as noted above and provide support for other workgroups in Regional Operations.

In addition to a rewarding work experience, VDOT offers core benefits including competitive health and life insurance programs, pre-tax spending accounts, and leave programs. Employees participate in a state retirement plan with options for tax-deferred retirement savings including employer matching.

Also, the State funds a Short and Long Term Disability Program. Miscellaneous benefits include paid holidays, training and tuition assistance programs, wellness programs, etc.



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TDD 1-800-828-1120.

### Minimum Qualifications

Demonstrated knowledge of transportation and traffic engineering principles/practices, laws, standards, rules/regulations. Thorough knowledge of Civil Engineering principles and practices particularly traffic engineering principles and practices. The ability to apply knowledge to complete projects and other tasks; must be analytical, highly motivated, aware of skill levels, customer focused, and action oriented with a drive for achieving results, innovating and managing projects effectively. Demonstrates the ability to make quality and timely decisions; take initiative, prioritize and organize multiple demands in a continuously changing environment; and meet established deadlines. Ability to anticipate problems, provide solutions, follow instructions, learn quickly, and collaborate with teammates. Ability to read and interpret site plans, traffic engineering design plans and highway construction plans. Ability to exercise independent judgment in reaching a solution. Ability to communicate effectively both orally and in writing across a diverse geographical region.

High school diploma as a minimum with significant experience in traffic engineering or a BS Civil Engineering (or related field) with 0-3 years of experience with an EIT designation or eligibility to obtain EIT within 6 months of employment. Statement of Economic Interest (SOEI) required.

Valid Driver's License Required.

### Preferred Qualifications

EIT certification preferred or the ability to obtain within 6 months of employment.

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Demonstrated ability and work experience in designing traffic signals and specialty traffic control devices, performing capacity analyses, coordinating with subject matter experts to resolve challenges, analyzing safety data to develop improvement strategies, review and analysis of detailed engineering and/or crash analysis or corridor traffic safety studies.

Experience managing a large workload in an engineering environment and working with local governments, elected officials, citizens and engineering consultants.



# **Georgia Department of Transportation**

## **Request for Qualifications**

**To Provide**

**Construction Engineering and Inspection (CEI) Services – District 6**

**RFQ-484-072213**

**Qualifications Due: July 22, 2013**

**Georgia Department of Transportation  
One Georgia Center  
600 West Peachtree Street, NW  
Atlanta, Georgia 30308**

# REQUEST FOR QUALIFICATIONS

RFQ 484-072213

## Construction Engineering and Inspection (CEI) Services – District 6

### I. General Project Information

#### A. Overview

The Georgia Department of Transportation (GDOT) is soliciting Statements of Qualifications (SOQ) from qualified firm(s) or organization(s) to provide Consultant Services for Construction Engineering and Inspection (CEI) Service for District 6.

This Request for Qualifications (RFQ) seeks to identify potential providers for the Scope of Services listed in Exhibit I. Firms that respond to this RFQ, and are determined by GDOT to be sufficiently qualified, may be deemed eligible, and invited to offer proposals and/or possibly present and/or interview for these services. All respondents to this RFQ are subject to instructions communicated in this document, and are cautioned to completely review the entire RFQ and follow instructions carefully. GDOT reserves the right to reject any or all Statements of Qualifications or Consultant Plan Proposals, and to waive technicalities and informalities at the discretion of GDOT.

#### B. **IMPORTANT- A RESTRICTION OF COMMUNICATION IS IN EFFECT FOR THIS PROJECT.**

From the advertisement date of this solicitation until successful respondents are selected and the award is made official and announced, firms are not allowed to communicate about this solicitation or scope with any staff of GDOT including the Commissioner and GDOT Board Members, except for the submission of questions as instructed in the RFQ, or with the contact designated in **RFQ Section VIII.E.**, or as provided by any existing work agreement(s). For violation of this provision, GDOT reserves the right to reject the submittal of the offending respondent.

#### C. **The Georgia Department of Transportation Board has adopted a 12% overall annual goal for DBE participation on all federally funded projects. This goal is not to be considered as a fixed quota, set aside or preference. The DBE goal can be met by prime contracting, sub-contracting, joint-venture or mentor/protégé relationship.**

Georgia Department of Transportation will monitor and assess each consultant services submittals for their DBE participation and/or good faith effort in promoting equity and opportunity in accordance with the State of Georgia, Department of Transportation Disadvantage Business Program Plan.

For more information on the GDOT DBE Program please contact:

Georgia Department of Transportation  
Equal Opportunity Division  
One Georgia Center, 7<sup>th</sup> Floor  
600 West Peachtree Street, NW  
Atlanta, Georgia 30308  
Phone: (404) 631-1972

#### D. Scope of Services

Under the terms of the resulting Agreements, the selected consultants will provide Construction Engineering and Inspection (CEI) Services, for the GDOT District identified. The anticipated scope of work is included in **Exhibit I**.

#### E. Contract Term and Type

GDOT anticipates one (1) On-Call Indefinite Delivery, Indefinite Quantity (IDIQ) contract to be awarded to one (1) firm, for contract area identified in Exhibit I. GDOT anticipates that the Contract Type will be paid via Firm Fixed Price and/or Cost Plus Fixed Fee methodology. As an On-Call (IDIQ) contract, it is the Department's intention that the Agreement will remain in effect for up to a maximum of three (3) years. The Department will only consider an extension beyond three (3) years in the event that a specific task order will not be completed

within the original term of the Agreement, if determined to be in the Department's best interests. The Department will monitor task orders closely and will seek to only assign task orders which can be completed within the term of the Agreement.

#### F. Contract Amount

The On-Call, Indefinite Delivery Indefinite Quantity contract will have a minimum of \$(25,000.00) and a maximum of \$15,500,000.00. The Department will only consider increasing the maximum amount in the event that services are needed while the successor contract is being procured, however; the Department will seek to ensure that the successor contract is in place to prevent such need.

## II. Selection Method

#### A. Method of Communication

All general communication of relevant information regarding this solicitation will be made via the Georgia Procurement Registry (GPR) under RFQ-484-072213. All firms are responsible for checking the GPR on a regular basis for updates, clarifications, and announcements. GDOT reserves the right to communicate via electronic-mail with the primary contact listed in the Statements of Qualifications. Other specific communications will be made as indicated in the remainder of this RFQ.

#### B. Phase I - Selection of Finalists

Based on the Statements of Qualifications submitted in response to this RFQ, the Selection Committee will review the **Experience and Qualifications** and **Resources and Workload Capacity** listed in **Section IV. Selection Criteria for Phase I** and identify and rank three (3) to five (5) firms identified as the most qualified for the contract. The Department will evaluate all submittals deemed responsive and each evaluator will assign points using the criteria identified in **Section IV**. For each evaluator, the points assigned to each criteria will be totaled and a rank will be determined. The rankings of all evaluators will be totaled for each submittal evaluated in order to determine the sum of the individual rankings. The three (3) to five (5) firms shortlisted will be determined by using the sum of individual rankings and identifying where the natural separation in the rankings occur to determine the most qualified firms.

All firms must meet the minimum requirements as listed in **Section IV.A.** below.

#### C. Finalist Notification for Phase II

Firms selected and shortlisted as finalists will receive notification and final instructions from GDOT regarding the **Phase II - Suitability** response.

#### D. Phase II - Finalists Response on Suitability and Past Performance

GDOT will request a written proposal of the three (3) to five (5) finalist firms for the contract. GDOT reserves the right to request a presentation/interview on any project/contract as determined in its best interests. Each finalist firm shall be notified in writing and informed of the proposal due date. Any additional detailed proposal instructions and requirements, up to and including a presentation and/or interview, beyond that provided in **Section V. Selection Criteria for Phase II**, for the finalists will be provided in the Finalist Notification. All members of the Selection Committee will review the written proposal (and will attend the presentation/interview if so chosen). **Firms shall not address any questions, prior to the award announcement, to anyone other than the designated contact.**

#### E. Final Selection

Final selection will be determined by carrying the scores from **Phase I** forward for each Finalist and by evaluating the **Suitability** and **Past Performance** criteria for **Phase II**. For each evaluator, the points assigned to each criterion will be totaled and a rank will be determined. The rankings of all evaluators will be totaled for each finalist in order to determine the sum of the individual rankings. The finalists will be ranked in descending order of recommendation using the sum of individual rankings from the Selection Committee members. Should a tie exist

for the highest ranking firm on the contract, and qualifications appear to be equal, the Selection Committee shall defer to the sum of the individual points and the award shall be made to the finalist with the highest sum.

Negotiations will then be initiated with the top-ranked firm to finalize the terms and conditions of the contract, including the fees to be paid. In the event a satisfactory agreement cannot be reached with the highest-ranking firm, GDOT will formally terminate the negotiations in writing and possibly enter into negotiations with the second highest-ranking firm, and so on in turn until a mutual agreement is established and GDOT awards a contract. The final form of the contract shall be developed by GDOT.

### III. Schedule of Events

The following Schedule of Events represents GDOT's best estimate of the Schedule that will be followed. All times indicated are prevailing times in Atlanta, Georgia. GDOT reserves the right to adjust the Schedule as GDOT deems necessary.

| PHASE I  | DATE      | TIME    |
|--|-----------|---------|
| a. GDOT issues public advertisement of <b>RFQ -484- 072213</b>                               | 6/20/2013 | -----   |
| b. Deadline for submission of written questions and requests for clarification               | 6/28/2013 | 2:00 PM |
| c. Deadline for submission of Statements of Qualifications                                   | 7/22/2013 | 2:00 PM |
| d. GDOT completes evaluation and issues notification and other information to finalist firms | TBD       |         |
| PHASE II   |           |         |
| e. Deadline for submission of written questions from finalists                               | TBD       | 2:00 PM |
| f. Phase II Response of Finalist firms due   | TBD       | TBA     |

### IV. Selection Criteria for Phase I - Criteria for Evaluation of Statements of Qualifications

#### A. Minimum Requirements

Presented teams must be prequalified in the indicated Area Class(es) in order to be evaluated. Required proof of prequalification shall be submitted as indicated in **Section VI.C.4.** below. All Submittals will be pre-screened to verify that the Prime consultant has the required Area Class(es) and that the overall team has the required Area Class(es).

Consideration shall also be given to certain criteria to allow the Department to analyze risks in determining if any Firm should be ineligible for award. The criteria which shall be considered include basic company information, firm's personnel resources, office locations, litigation history, potential conflicts of interest, and financial information. Any firm which responds in any potentially concerning manner regarding litigation history, potential conflicts of interest, and financial information must provide additional information as directed herein for consideration by GDOT Legal, Accounting, and/or Audit staff to determine if Firm is eligible for award.

**B. Experience and Qualifications – 50%**

The Selection Committee will evaluate all firms on their Experience and Qualifications, which shall account for a total of fifty (50%) percent of the total evaluation. **The following criteria for scoring Phase I of the evaluation will be utilized to determine which firms are shortlisted:**

- |            |  |
|------------|--|
| 25% Factor | Project Manager education, registration, relevant engineering experience, relevant project management experience, experience in utilizing GDOT specific processes, manuals, or guidance, and workload. |
| 20% Factor | Key Team Leaders' education, registration, relevant technical experience, and relevant experience in utilizing GDOT specific processes, manuals, or guidance.  |
| 5% Factor  | Prime Consultant's experience for the previous five (5) years in delivering projects of similar complexity, size, scope, and function.   |

**C. Resources and Workload Capacity – 15%**

The Selection Committee will evaluate all firms on their Resources availability and Workload Capacity which shall account for a total of fifteen (15%) percent of the total evaluation. **The following criteria for scoring the Resources and Workload Capacity will be utilized to determine which firms are shortlisted:**

- Resources dedicated to delivering contract
- Workload capacity of Key Team Leaders

**V. Selection Criteria for Phase II - Criteria for Evaluation of Suitability and Past Performance****A. Suitability – 25%**

The Selection Committee will evaluate the shortlisted firms (Finalists) on their Suitability, which shall account for a total of twenty-five (25%) percent. The Selection Committee shall utilize the following additional criteria for scoring Phase II of the evaluation to determine the highest ranked/most qualified (**NOTE: Scores from Phase I will be carried forward and combined with the scores from the Phase II to determine the final ranking of Finalists**):

1. Special or unique qualifications for delivering the scope of work.
2. Management of funds and appropriate staff types and levels.
3. Detailed plan for addressing a reduction in force if necessitated by a reduced construction work plan.
4. Firm's recruitment and retention plan.
5. Types of reviews firm will conduct to ensure firm is in compliance with scope of services.
6. Proposed quality control/quality assurance and training procedures.
7. Special or enhanced capabilities (such as the ability of the Firm to perform or gather a team to perform any special or enhanced capabilities required to carry out and manage the complete scope of the contract).
8. The ability to gather resources in the contract area and knowledge of the contract area.

**B. Past Performance – 10%**

The Selection Committee may consider information provided via references provided for relevant projects and performance evaluations on GDOT projects. The Selection Committee will consider all factors in their totality and score from 0 to 10 when arriving at a final score for the Past Performance.

**VI. Instructions for Content and Preparation of Statements of Qualifications – Phase I Response**

**The Statements of Qualifications must be submitted in accordance with the instructions provided in Section VIII, must be categorized and numbered as outlined below, and must be responsive to all requested information:**

**A. Administrative Requirements**

**This is general information and will not be scored but may be used to determine eligibility for selection.**

1. Cover page for the overall submittal which must list the RFQ#, RFQ Title, and proposing firm's full legal name.
2. Complete the Certification Form (*Exhibit "II" enclosed with RFQ*), and provide a notarized original within the firm's Statement of Qualifications. This is to be submitted for the Prime **ONLY**.
3. Complete the Georgia Security and Immigration Compliance Act Affidavit form (*Exhibit "III" enclosed with RFQ*), and provide a notarized original within the firm's Statement of Qualifications. This is to be submitted for the Prime **ONLY**.
4. Signed cover page of any Addenda issued for the Prime **ONLY**.

**B. Minimum Requirements - Limited to two pages maximum (excluding any additional information provided to determine suitability for selection as called for in Sections VI.B.3.a. through VI.B.3.f.)**

**This is general information for the Prime ONLY and will not be scored but may be used to determine eligibility for selection.**

1. Provide basic company information:
  - a. Company name.
  - b. Company address.
  - c. Name and all contact information (telephone number(s) and e-mail address) of primary proposing contact (this will be the individual with whom the Department will direct all communications).
  - d. Company website (if available).
  - e. If the firm has multiple offices, the qualification statement shall include information about the parent company and branch office separately.
  - f. Identify and provide addresses for the offices located in the State of Georgia and the number and disciplines of staff members employed in each office.
  - g. Provide form of ownership, including state of residency or incorporation, and number of years in business. Is the Offeror a sole proprietorship, partnership, corporation, limited liability Corporation, or other structure?
2. Firms included on the current Federal list of firms suspended or debarred are not eligible for selection. Provide a statement that your Firm is not on the current Federal list of firms which are suspended or debarred – this information will be verified.
3. Firms which have any litigation, conflicts of interest, or financial information which may hinder their ability to perform or complete the project may be considered ineligible for selection. Firms should provide information specific to these areas as follows:
  - a. Has the firm or any affiliates been involved in any arbitration, litigation, mediation, dispute review board or other dispute resolution proceeding with a client, business partner, or government agency in the last ten years involving an amount in excess of \$500,000 related to performance on public infrastructure projects? If yes, provide any information which the Department should consider to determine if your firm is suitable for selection.
  - b. Are there any pending regulatory inquiries that could impact your ability to provide services if you are the selected consultant? If yes, provide any information which the Department should consider to determine if your firm is suitable for selection.
  - c. Are any team members/principals currently under indictment for any reason related to actions on public infrastructure projects? If yes, provide any information which the Department should consider to determine if your firm is suitable for selection.
  - d. Provide a Statement of Disclosure, which will allow GDOT to evaluate possible conflicts of interest. Respondents must provide, in their own format, a statement of all potential legal or otherwise significant conflict of interest possibly created by the respondents being considered in the selection process or by the respondent's involvement in the project. Respondents should provide information as to the nature of relationship(s) with parties in such potential conflict.



- e. List the submitting firm’s annual average revenue for the past five (5) years. If you feel that any trends in the revenue may be concerning, provide any information which the Department should consider to determine if your firm is suitable for selection.
- f. Has the firm ever been removed from a contract or failed to complete a contract as assigned due to cause or default? If yes, provide any information which the Department should consider to determine if your firm is suitable for selection.

**C. Experience and Qualifications**

**It is required to submit the information below in the manner prescribed in Sections VIII.A.3. through VIII.A.4. and Sections VIII.B.3. through VIII.B.4.**

1. Provide information pertaining to the project manager including but not limited to:
  - a. Education.
  - b. Registration (if necessary and applicable.)
  - c. Relevant construction engineering or inspection experience.
  - d. Relevant project management experience for projects of similar complexity, size, scope, and function (no more than five (5) projects).
  - e. Any relevant experience utilizing GDOT specific processes, manuals, or guidance ( Standard Specifications, Construction Manual, Bridges Manual, Environmental Procedures Manual, etc.)
  - f. Provide a list of ALL projects on which the proposed project manager is currently committed, to enable the Department to ascertain the project manager’s availability. Utilize a table similar to the following format with a minimum of all criteria indicated to provide the requested information:

| Project Manager | PI/Project # for GDOT Projects/Name of Customer for Non-GDOT Projects | Role of PM on Project | Project Description | Current Phase of Project | Current Status of Project |
|-----------------|---|-----------------------|---------------------|--------------------------|---------------------------|
|                 |   |                       |                     |                          |                           |
|                 |   |                       |                     |                          |                           |
|                 |   |                       |                     |                          |                           |

**This information is limited to two pages maximum (excluding the table).**

2. Provide experience of Key Team Leaders (defined as those individuals who oversee project areas determined as particularly important to the Project) (refer to the Project Description in Exhibit I, specifically Section 7 for the list of Key Team Leaders for the Project). For each Key Team Leader identified provide:
  - a. Education.
  - b. Registration (if necessary and applicable.)
  - c. Relevant construction engineering or inspection experience in the applicable resource area (on no more than three (3) of the most relevant projects).
  - d. Any relevant experience utilizing GDOT specific processes, manuals, or guidance (Standard Specifications, Construction Manual, Bridges Manual, Environmental Procedures Manual, etc.) which are specific to the key resource area.

**This information is limited to one page maximum for each Key Team Leader. Respondents are also allowed one page to provide information regarding additional areas identified as important to the contract, to discuss how the key areas will integrate and work together on the contract, or to discuss any information which is pertinent to these areas. Respondents submitting more than one page for each Key Team Leader identified or more than the one additional page allowed, will be subject to disqualification.**

3. Provide information on the prime’s experience and ability in delivering effective services for projects of similar complexity, size, scope, and function for the previous five (5) years. Describe no more than five (5) projects, in order of most relevant to least relevant, which demonstrate the firm’s capabilities to provide services for GDOT. For each project, the following information should be provided:

- a. Client name, project location and dates during which services were performed.
- b. Clear description of overall project and services performed by your firm.
- c. Exact duration of project services provided by your firm, and overall project budget.
- d. Any experience utilizing GDOT specific processes, manuals, or guidance (Standard Specifications, Construction Manual, Bridges Manual, Environmental Procedures Manual, etc.)
- e. Client(s) current contact information including contact names and telephone numbers.
- f. Involvement of any of the Key Team Leaders on the projects.

**This information is limited to two pages maximum.**

- 4. Area Classes - Prime Consultants are defined as the firm submitting the Statement of Qualifications and the firm with whom GDOT will contract. The Team is defined as the Prime Consultant and their subconsultants, who are considered team members. Prime Consultants and their subconsultant team members must meet the Area Class requirements listed in Exhibit I for the project. In regards to the required Area Classes, respondents should submit a summary form (example provided in **Exhibit IV**) which details the required area classes for the Prime Consultant and all subconsultants or joint-venture of consultants on the team listed in the Statement of Qualifications. The area classes listed on the summary form must meet all required area classes or the team will be disqualified. **Additionally, respondents should submit the Notice of Professional Consultant Qualifications (for the Prime Consultant and all sub-consultants for each project) issued by GDOT and attach after the Area Class summary form.**

**This information is limited to the one page for the Area Class table and the required Notice of Professional Consultant Qualifications.**

**D. Resources/Workload Capacity**

**This information is limited to one page of text, excluding the table.**

- 1. Provide information regarding the overall resources dedicated to delivering the contract, including:
  - a. Organizational chart which identifies the Prime, Project Manager, Key Team Leaders, support personnel, and reporting structure.
  - b. Identify and discuss the primary office which will be responsible for handling the contract and the number and types of staff within the office and how this office could benefit the contract and promote efficiency.
- 2. Provide a table similar to the below, with a minimum of all criteria indicated, which identifies ALL projects the Key Team Leaders (refer to **Exhibit I**, specifically **Section 7** for the list of Key Team Leaders) are committed on to enable the Department to ascertain the available capacity.

| Key Team Leader | PI/Project # for GDOT Projects/Name of Customer for Non-GDOT Projects | Role of Key Team Leader on Project | Project Description | Current Phase of Project | Current Status of Project |
|-----------------|---|------------------------------------|---------------------|--------------------------|---------------------------|
|                 |   |                                    |                     |                          |                           |
|                 |   |                                    |                     |                          |                           |
|                 |   |                                    |                     |                          |                           |

**VII. Instructions for Preparing Suitability and Past Performance Response – Phase II Response**

The following information will only be requested of the shortlisted firms. The Selection Committee will evaluate the shortlisted firms using the information provided as requested below (NOTE: Scores from Phase I will be carried forward to Phase II):

**A. Suitability**

**This information will be limited to a maximum of three (3) pages.**

Furnish information that may serve to differentiate your firm from other firms and evidence of the firm's fit to the contract and/or needs of GDOT, including:

1. Evidence of the firm's fit to the contract and/or needs of GDOT, and special or unique qualifications for the contract.
2. How your team will manage the funds in each task order specific to the appropriate staffing types and levels through the completion date.
3. Firm's detailed plan for addressing a reduction in force if necessitated by a reduced construction work program.
4. Type of reviews firm will conduct to make certain that firm is in compliance with scope of services (including documentation, training, processes, and frequency of reviews).
5. Firm's quality control, quality assurance, and training procedures.
6. Firm's recruitment and retention plan.
7. Any special or enhanced capabilities offered by the firm that may be particularly suitable for this contract (such as the ability of the firm to perform or gather a team to perform any special or enhanced capabilities necessary to carry out the complete scope of the contract.)
8. Firm's ability to gather resources in vicinity to the contract area.
9. Knowledge of the contract area which may uniquely benefit the firm and contract.

#### **B. Past Performance**

**No additional information should be submitted to fulfill this requirement. Information from the relevant projects listed as well as information on file with the Department will be used to fulfill this requirement.**

Past performance may be evaluated through the checking of project references for the proposed project manager as well as the firm. The Department will check these references at random. For this reason, attention should be paid to the references provided to ensure that the contact information provided is accurate and the individual references are reachable. Other past performance information which may be utilized includes GDOT consultant performance ratings.

### **VIII. Instructions for Submittal for Phase I - Statements of Qualifications**

There are three submittals required. Submittal #1 is a master submittal containing one (1) copy of all required submittals. Submittal #2 will contain multiple copies of certain sections which will be distributed to the evaluation committee members. It is important to note that the sections of Submittal #2 are stapled as required and the overall Submittal #2 is bound using a binder clip or other similar fashion which allows the individually stapled sections to be removed and distributed easily. Submittal #3 is an electronic version of Submittal #1 which allow for GDOT to maintain the files electronically. See **Attachment 1** for a summary of how the submittals should be prepared. Submittals are as follows:

#### **A. Submittal #1**

Respondents should prepare One (1) complete original with one copy of all requested information. Submittal #1 should be stapled or bound together and organized in the following manner:

##### **1. Administrative Requirements**

Provide one cover page for the overall submittal. No letter is required or desired. The cover page should list the RFQ number and title, as well as have the proposing firm's full legal name.

- a. Attach the completed and notarized Certification Form (*Exhibit "II" enclosed with RFQ*) for the Prime **ONLY**.
- b. Attach the completed and notarized Georgia Security and Immigration Compliance Act Affidavit form (*Exhibit "III" enclosed with RFQ*) for the Prime **ONLY**.
- c. Attach any signed Addendum(s) as issued. All Addenda should be acknowledged by the Prime **ONLY** by signing and including the first page.

## 2. Minimum Requirements

One (1) original of the following Minimum Requirements should be provided (Limited to two pages excluding any additional information - Any additional pages should be included directly after the first or second page (if utilized) of the Minimum Requirements Section):

- a. Provide Basic Company Information.
- b. Provide statement that Firm is not on the current Federal list of suspended or debarred firms.
- c. Provide information regarding litigation, conflicts of interest and financial stability (NOTE: If you answer yes or provide information on conflicts of interest or financial information which may be viewed as concerning, provide any information which the Department should consider to determine if your firm is suitable for selection – these pages will not count toward the maximum page limit but should be kept to a minimum):
  - 1) Statement on arbitration, litigation, mediation, dispute review board or other dispute resolution proceeding occurring during the last ten years involving an amount in excess of \$500,000 related to performance on public infrastructure projects.
  - 2) Statement on any pending regulatory inquiries that could impact your ability to provide services if you are the selected consultant.
  - 3) Statement on whether there any team members/principals currently under indictment.
  - 4) Statement of Disclosure, which will allow GDOT to evaluate possible conflicts of interest.
  - 5) List the submitting firm's annual average revenue for the past five (5) years.
  - 6) Statement on whether the firm has ever been removed from a contract or failed to complete a contract as assigned due to cause or default.

## 3. Experience and Qualifications

One (1) original of the Experience and Qualifications should be provided for the contract:

- a. **For the Experience and Qualifications, provide a cover page (cover page must list the RFQ # and title) for the specific contract along with the below required information.**
- b. Project Manager – This information is limited to two pages excluding the Project Manager availability table. Attach the table detailing project manager availability directly behind the Project Manager pages.
- c. Experience of Key Team Leaders – This information is limited to a maximum of one page for each Key Team Leader. Respondents are also allowed one page to provide information regarding additional areas identified as important to the project, to discuss how the key areas will integrate and work together on the projects, or to discuss any information which is pertinent to these areas. Respondents submitting more than one page for each Key Team Leader identified or more than the one additional page allowed, will be subject to disqualification.
- d. Prime's experience in delivering projects of similar complexity, size, scope, and function. This information is limited to a maximum of two pages.
- e. Provide the summary page (**see Exhibit IV**) of the team members which meet the required area classes. **Additionally, attach the Notice of Professional Consultant Qualifications for the Prime Consultant and all proposed sub-consultants. These should be attached after the summary page and must be specific to the contract.**

## 4. Resources and Workload Capacity

One (1) original of the Resources/Workload Capacity should be provided for the contract. This information is limited to the organization chart, one page of text, and the table:

- a. Provide organization chart.
- b. Discuss the primary office which will be responsible for handling the contract and the number and types of staff within the office and how this office could benefit the contract and promote efficiency.
- c. Provide table which identifies the current GDOT projects the Key Team Leaders are committed on to enable the Department to ascertain the available capacity.

## B. Submittal #2

Respondents should prepare One (1) copy with all requested information, which will include additional copies of certain sections as directed below. This submittal should be either bound together utilizing a binder clip or other manner which allows for it to be easily separated to be distributed to the evaluation committee and organized in the following manner:

### 1. Administrative Requirements

#### Not Required for Submittal #2

### 2. Minimum Requirements

Three (3) copies of the following Minimum Requirements should be provided and each copy should be grouped together and stapled individually in the upper left hand corner (Limited to two pages excluding any additional information - **For the Minimum Requirements, provide a cover page (cover page must list the RFQ # and title) for the specific contract along with the below required information.** Any additional pages should be included directly after the first or second page (if utilized) of the Minimum Requirements Section):

- a. Provide Basic Company Information.
- b. Provide statement that Firm is not on the current Federal list of suspended or debarred firms.
- c. Provide information regarding litigation, conflicts of interest and financial stability (NOTE: If you answer yes or provide information on conflicts of interest or financial information which may be viewed as concerning, provide any information which the Department should consider to determine if your firm is suitable for selection – these pages will not count toward the maximum page limit but should be kept to a minimum):
  - 1) Statement on arbitration, litigation, mediation, dispute review board or other dispute resolution proceeding occurring during the last ten years involving an amount in excess of \$500,000 related to performance on public infrastructure projects.
  - 2) Statement on any pending regulatory inquiries that could impact your ability to provide services if you are the selected consultant.
  - 3) Statement on whether there are any team members/principals currently under indictment.
  - 4) Statement of Disclosure, which will allow GDOT to evaluate possible conflicts of interest.
  - 5) List the submitting firm's annual average revenue for the past five (5) years.
  - 6) Statement on whether the firm has ever been removed from a contract or failed to complete a contract as assigned due to cause or default.

### 3. Experience and Qualifications

Five (5) copies of the Experience and Qualifications should be provided and each copy should be grouped together and stapled individually in the upper left hand corner.

- a. **For the Experience and Qualifications, provide a cover page (cover page must list the RFQ # and title) for the specific contract along with the below required information.**
- b. Project Manager – This information is limited to two pages excluding the Project Manager availability table. Attach the table detailing project manager availability directly behind the Project Manager pages.
- c. Experience of Key Team Leaders – This information is limited to a maximum of one page for each Key Team Leader. Respondents are also allowed one page to provide information regarding additional areas identified as important to the project, to discuss how the key areas will integrate and work together on the projects, or to discuss any information which is pertinent to these areas. Respondents submitting more than one page for each Key Team Leader identified or more than the one additional page allowed, will be subject to disqualification.
- d. Prime's experience in delivering contracts of similar complexity, size, scope, and function. This information is limited to a maximum of two pages.
- e. Provide the summary page (**see Exhibit IV**) of the team members which meet the required area classes. This must be specific to the contract. **Do not attach the Notice of Professional Consultant Qualifications for Submittal #2. Include only the summary page.**

#### 4. Resources and Workload Capacity

Five (5) copies of the Resources/Workload Capacity should be provided for the contract. This information is limited to the organization chart, one page of text, and the two tables:

- a. Provide organization chart.
- b. Discuss the primary office which will be responsible for handling the contract and the number and types of staff within the office and how this office could benefit the contract and promote efficiency.
- c. Provide table which identifies the current GDOT projects the Key Team Leaders are committed on to enable the Department to ascertain the available capacity.

#### C. Submittal #3

One complete copy must be provided via CD as a single .pdf file. The file name of the document on the CD should be the RFQ number and the Consultant Name (**RFQ 484-072213 – Consultant Name**). This submittal should be organized exactly as Submittal #1.

- D. Submittals must be typed on standard (8½" x 11") paper. The pages of the qualification submittals will be counted by section and therefore, numbering is not required. Responses are limited to the page counts indicated in each section and should be double-sided using a minimum of size 11 font. Each Statement of Qualifications shall be prepared simply and economically as indicated above. Fancy bindings, colored displays, and promotional materials are not desired. Emphasis must be on completeness, relevance, and clarity of content.

**NOTE:** Additional pages other than what has been specified above in each section **should not be included**.

Submittals must be sealed in an opaque envelope or box, and reference **RFQ 484- 072213 and the words "STATEMENT OF QUALIFICATIONS"** must be clearly indicated on the outside of all of the envelopes or boxes. Statements of Qualifications **must be physically received by GDOT** prior to the deadline indicated in the Schedule of Events (*Section III of RFQ*) at the exact address below:

Georgia Department of Transportation (GDOT)  
Attention: Melissa Hannah  
Transportation Services Procurement  
One Georgia Center, 19<sup>th</sup> Floor  
600 West Peachtree Street, NW  
Atlanta, Georgia 30308

**No submittals will be accepted after the time and date set for receipt.**

Statements of Qualifications submitted via facsimile or e-mail will be rejected. All expenses for preparing and submitting responses are the sole cost of the party submitting the response. GDOT is not obligated to any party to reimburse such expenses. All submittals upon receipt become the property of GDOT. Labeling information provided in submittals "proprietary" or "confidential", or any other designation of restricted use will not protect the information from public view. Subject to the provisions of the Open Records Act, the details of the proposal documents will remain confidential until final award.

GDOT reserves the right, in its sole discretion, to waive any technicalities associated with this submittal if deemed in the best interest of the State.

#### E. Questions and Requests for Clarification

Questions about any aspect of the RFQ, or the project, shall be submitted in writing via e-mail to: **Melissa Hannah, e-mail: [mehannah@dot.ga.gov](mailto:mehannah@dot.ga.gov)**. The deadlines for submission of questions relating to the RFQ are the times and dates shown in the (**Schedule of Events- Section III**). From the issue date of this solicitation until a successful proposer is selected and the award is made official and announced, respondents are subject to the Restriction of Communication in **Section I.B**.

## **IX. Instructions for Submittal for Phase II - Suitability and Past Performance Response**

**THESE INSTRUCTIONS ARE INTENDED SOLELY FOR THOSE FIRMS IDENTIFIED AND NOTIFIED AS FINALISTS. Final Instructions will be provided to the Finalists in the notification.**

There are three submittals required. Submittal #1 is a master submittal containing one (1) copy of all required submittals for the contract. Submittal #2 will contain multiple copies of certain sections which will be distributed to the evaluation committee members. It is important to note that the sections of Submittal #2 are stapled as required and the overall Submittal #2 is bound using a binder clip or other similar fashion which allows the individually stapled sections to be removed and distributed easily. Submittal #3 is an electronic version of Submittal #1 which allow for GDOT to maintain the files electronically. Submittals are as follows:

### **A. Submittal #1**

Respondents should prepare one (1) complete original with one copy of all requested information. Submittal #1 should be stapled or bound together and organized in the following manner:

1. Provide one cover page for the overall submittal. No letter is required or desired. The cover page should list the RFQ number and title and should display it as a response to Phase II, as well as have the proposing firm's full legal name.
2. Furnish information that may serve to differentiate your firm from other firms and evidence of the firm's fit to the contract and/or needs of GDOT, including:
  - a. Evidence of the firm's fit to the contract and/or needs of GDOT, and special or unique qualifications for the contract.
  - b. How your team will manage the funds in each task order specific to the appropriate staffing types and levels through the completion date.
  - c. Firm's detailed plan for addressing a reduction in force if necessitated by a reduced construction work program.
  - d. Type of reviews firm will conduct to make certain that firm is in compliance with scope of services (including documentation, training, processes, and frequency of reviews).
  - e. Firm's quality control, quality assurance, and training procedures.
  - f. Firm's recruitment and retention plan.
  - g. Any special or enhanced capabilities offered by the firm that may be particularly suitable for this contract (such as the ability of the firm to perform or gather a team to perform any special or enhanced capabilities necessary to provide ancillary services required to carry out the complete scope of the contract.)
  - h. Firm's ability to gather resources in vicinity to the contract area.
  - i. Knowledge of the contract area which may uniquely benefit the firm and contract.

**This information will be limited to a maximum of three (3) pages.**

### **B. Submittal #2**

Respondents should prepare Five (5) copies with all requested information. Submittal #2 should be either bound together utilizing a binder clip or in other manner which allows for it to be easily separated to be distributed to the evaluation committee and organized in the following manner:

1. Provide one cover page for the overall submittal. No letter is required or desired. The cover page should list the RFQ number and title and should display it as a response to Phase II, as well as have the proposing firm's full legal name.
2. Furnish information that may serve to differentiate your firm from other firms and evidence of the firm's fit to the contract and/or needs of GDOT, including:
  - a. Evidence of the firm's fit to the contract and/or needs of GDOT, and special or unique qualifications for the contract.

- b. How your team will manage the funds in each task order specific to the appropriate staffing types and levels through the completion date.
- c. Firm's detailed plan for addressing a reduction in force if necessitated by a reduced construction work program.
- d. Type of reviews firm will conduct to make certain that firm is in compliance with scope of services (including documentation, training, processes, and frequency of reviews).
- e. Firm's quality control, quality assurance, and training procedures.
- f. Firm's recruitment and retention plan.
- g. Any special or enhanced capabilities offered by the firm that may be particularly suitable for this contract (such as the ability of the firm to perform or gather a team to perform any special or enhanced capabilities necessary to provide ancillary services required to carry out the complete scope of the contract.)
- h. Firm's ability to gather resources in vicinity to the contract area.
- i. Knowledge of the contract area which may uniquely benefit the firm and contract.

### C. Submittal #3

One complete copy must be provided via CD as a single .pdf file. The file name of the document on the CD should be the RFQ number and Phase II Response, and the Consultant Name (**RFQ 484- 072213 – Consultant Name**). This submittal should be organized exactly as Submittal #1.

- D. Submittals must be typed on standard (8½" x 11") paper. The pages of the qualification submittals must be numbered. Responses are limited to the page counts indicated in each section and should be double-sided using a minimum of size 11 font. Each Statement of Qualifications shall be prepared simply and economically as indicated above. Fancy bindings, colored displays, and promotional materials are not desired. Emphasis must be on completeness, relevance, and clarity of content.

**NOTE:** Additional pages other than what has been specified above in each section **should not be included**.

Submittals must be sealed in an opaque envelope or box, and reference **RFQ 484- 072213 and the words "PHASE II RESPONSE"** must be clearly indicated on the outside of all of the envelopes or boxes. Statements of Qualifications **must be physically received by GDOT** prior to the deadline indicated in the Notice to Finalists at the exact address below:

Georgia Department of Transportation (GDOT)  
Attention: Melissa Hannah  
Transportation Services Procurement  
One Georgia Center, 19<sup>th</sup> Floor  
600 West Peachtree Street, NW  
Atlanta, Georgia 30308

**No submittals will be accepted after the time and date set for receipt.**

Responses submitted via facsimile or e-mail will be rejected. All expenses for preparing and submitting responses are the sole cost of the party submitting the response. GDOT is not obligated to any party to reimburse such expenses. All submittals upon receipt become the property of GDOT. Labeling information provided in submittals "proprietary" or "confidential", or any other designation of restricted use will not protect the information from public view. Subject to the provisions of the Open Records Act, the details of the proposal documents will remain confidential until final award.

GDOT reserves the right, in its sole discretion, to waive any technicalities associated with this submittal if deemed in the best interest of the State.

### E. Questions and Requests for Clarification

Questions about any aspect of the Phase II Response for Finalists, shall be submitted in writing via e-mail to: **Melissa Hannah, e-mail: [mehannah@dot.ga.gov](mailto:mehannah@dot.ga.gov) or as directed in the Notice to Finalists, if different.** The deadlines for submission of questions relating to the Phase II Response will be identified in the Notice to Finalists. From the issue date of this solicitation until a successful proposer is selected and the award is made official and announced, respondents are subject to the Restriction of Communication in **Section I.B.**



## X. **GDOT Terms and Conditions**

### A. **Statement of Agreement**

With the submission of a SOQ, the respondent agrees that he/she has carefully examined the Request for Qualifications, and agrees that it is the respondent's responsibility to request clarification on any issues in any section of the Request for Qualifications with which the respondent disagrees or needs clarified. The respondent also understands that failure to mention these items during the question period or in the SOQ will be interpreted to mean that the respondent is in full agreement with the terms, conditions, specifications and requirements in the therein. With submission of a SOQ, the respondent hereby certifies: (a) that this SOQ is genuine and is not made in the interest or on behalf of any undisclosed person, firm, or corporation; (b) that respondent has not directly or indirectly included or solicited any other respondent to put in a false or insincere SOQ; (c) that respondent has not solicited or induced any person, firm, or corporation to refrain from sending a SOQ.

### B. **Joint-Venture Proposals**

GDOT does not generally desire to enter into "joint-venture" agreements with multiple firms.

In the event two or more firms desire to "joint-venture", it is strongly recommended that one incorporated firm propose and maintain status as the Program Management firm with the remaining firms participating as major firms. Any joint-venture, proposed and established as a separate business entity, should have its own set of books and supporting documentation sufficient for an audit trail. Transactions should be recorded consistent with the joint-venture agreement, and care must be taken to ensure that the joint-venture bears its equitable share of the costs. Therefore, "unpopulated joint-ventures" would not have an adequate accounting system suitable for cost reimbursement contracts.

However more traditional "populated joint-ventures" are welcomed. A populated joint-venture is where an alliance is brought to life by infusing it with working capital, employees, and control systems. The alliance implements all necessary business systems, including payroll processing, purchasing, property control, etc. The alliance will develop its own indirect rate structure and calculates its own indirect cost rates, based on the direct and indirect costs it incurs.

### C. **Non-Discrimination and DBE Requirements**

The Georgia Department of Transportation in accordance with Title VI of the Civil Rights Act of 1964 and 78 Stat. 252, 42 USC 2000d--42 and Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office of the Secretary, part 21, Nondiscrimination in federally assisted programs of the Department of Transportation issued pursuant to such Act, hereby notifies all proposers that it will affirmatively ensure that any contract entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, sex, or national origin in consideration for an award.

**The Georgia Department of Transportation Board has adopted a 12% overall annual goal for DBE participation on all federally funded projects. This goal is not to be considered as a fixed quota, set aside or preference. The DBE goal can be met by prime contracting, sub-contracting, joint-venture or mentor/protégé relationship.**

Georgia Department of Transportation will monitor and assess each consultant services submittals for their DBE participation and/or good faith effort in promoting equity and opportunity in accordance with the state of Georgia, Department of Transportation Disadvantage Business Program Plan.

For more information on the GDOT DBE Program please contact:

Georgia Department of Transportation  
Equal Opportunity Division  
One Georgia Center, 7<sup>th</sup> Floor  
600 West Peachtree Street, NW  
Atlanta, Georgia 30308

**D. Audit and Accounting System Requirements**

GDOT reserves the right to reject any proposal with firms that do not meet the following requirements:

1. Firm(s) should have an accounting system in place to meet requirements of 48 CFR Part 31 and, in the case of non-profit organizations, OMB Circular A-122.
2. Any firm that currently has an aggregate contract amount exceeding \$250,000 should have submitted their yearly CPA overhead audit.
3. Firm(s) should have no significant outstanding deficient audit findings from previous contracts with GDOT that have not been resolved.
4. The prime is responsible for being reasonably assured that all sub-consultant(s) presented as a part of the proposed team are similarly in compliance with the above requirements.

**E. Submittal Costs and Confidentiality**

All expenses for preparing and submitting responses are the sole cost of the respondent submitting the response. The Department is not obligated to any respondent to reimburse such expenses. All submittals upon receipt become the property of the Department. Labeling information provided in submittals as "proprietary" or "confidential", or any other designation of restricted use will not protect the information from public view. Subject to the provisions of the Open Records Act, the details of the proposal documents will remain confidential until a final award.

**F. Award Conditions**

This request is not an offer to contract or a solicitation of bids. This request and any proposal submitted in response, regardless of whether the proposal is determined to be the best proposal, is not binding upon the Department and does not obligate the Department to procure or contract for any services. Neither the Department nor any respondent submitting a response will be bound unless and until a written contract mutually accepted by both parties is negotiated as to its terms and conditions and is signed by the Department and a respondent containing such terms and conditions as are negotiated between those parties. The Department reserves the right to waive non-compliance with any requirements of this Request for Qualifications and to reject any or all proposals submitted in responses. Upon review of responses, the Department will determine the respondent(s) proposal that in the sole judgment of the Department is in the best interest of the Department (if any is so determined), with respect to the evaluation criteria stated herein. The Department then intends to conduct negotiations with such respondent(s) to determine if an acceptable contract may be reached.

**G. Debriefings**

Debriefings may be allowed at the discretion of GDOT. Post-Award debriefings may be requested by a principal of the respondent, but will not be conducted until after the contract has been awarded. If a respondent is notified of non-selection at any time during the procurement process, a Pre-Award Debriefing may be requested.

**H. Right to Cancel or Change RFQ**

GDOT reserves the right to cancel any and all Request for Qualifications where it is determined to be in the best interest of the Department to do so. GDOT reserves the right to increase, reduce, add or delete any item in this solicitation as deemed necessary.

It is the responsibility of all firms interested in submitting Statement of Qualifications (SOQs) for this advertisement to routinely check the posting on the Georgia Procurement Registry for any revisions to this RFQ.

**I. Substitutions, Alternates, Exceptions, and Extensions**

No substitutions or alternates will be accepted for this solicitation. Any respondent submitting substitutions or alternates will be considered non-responsive and will not be considered for award.

**J. GDOT Code of Conduct Pertaining to Conflict of Interest in the Award and Administration of Contracts**

Pursuant to GDOT Policy 3A-17, any GDOT employee who leaves the employment of the Department and subsequently becomes employed with a consultant firm and whose duties while employed with the Department included the direct involvement with the negotiation, administration, or management of a contract in which the firm is either the primary consultant or a subconsultant **SHALL NOT** be authorized to work on that contract as an employee of that firm for a period of one (1) year after their employment ends.

Additionally, on July 1<sup>st</sup> of each year, any consultant firm that is under contract with the Department as a prime or sub consultant shall provide to the Department's Chief Procurement Officer (CPO) a current list of all former Department employees employed by the firm and a document that certifies the responsibilities of those employees as it relates to the current contracts with the Department. This certification document shall attest to the fact that over the last year no former Department employee that is employed by their firm has worked on a contract between the Department and their firm where that employee, when employed by the Department, had direct involvement with the selection, award and/or administration of the consultant contract. Any consultant firm entering into a contract with the Department for the first time as a prime or sub consultant shall provide the initial required list of former Department employees and certification prior to the contract effective date. If the Department's CPO determines at any point during a contract that an actual conflict exists as it relates to the above paragraph, then the CPO shall have the authority to issue a stop work order on that contract.

**EXHIBIT I**

## Project/Contract

1. Project Number(s): N/A
2. PI Number(s): N/A
3. County(ies):

Construction Engineering and Inspection services shall be performed on projects located in Bartow, Carroll, Catoosa, Chattooga, Cherokee, Dade, Fannin, Floyd, Gilmer, Gordon, Haralson, Murray, Paulding, Pickens, Polk, Walker and Whitfield Counties.

4. Description:

Construction Engineering and Inspection (CEI) Services for District 6.

5. Required Area Classes:

Prime Consultants are defined as the firm submitting the Statement of Qualifications and the firm with whom GDOT will contract. The Team is defined as the Prime Consultant and their subconsultants, who are considered team members. The Prime Consultant and Team members must be prequalified in the Area Class identified below in Section 5. Respondents should submit a summary form (example provided in **Exhibit IV**) which details the required area class for the Prime Consultant and all subconsultants or joint-venture of consultants on the team listed in the Statement of Qualifications. The area class listed on the summary form must meet the required area class or the team will be disqualified. The Prequalification Expiration Date must be current by the deadline stated for this RFQ.

The **Prime Consultant and Subconsultants MUST** be prequalified by GDOT in the area classes listed below:

| Number | Area Class                               |
|--------|--|
| 8.01   | Construction Engineering and Supervision |

6. Scope:

The Consultant shall provide Construction Engineering and Inspection (CEI) services which are required for contract administration, inspection, and materials sampling and testing for the construction projects assigned to the counties listed above in GDOT District 6. Some of the projects may require night and weekend inspection. The projects types may include widening and reconstruction, rehabilitation of asphalt and concrete pavement, bridge replacement, and resurfacing.

The selected firm may provide an estimated (thirty-two) 32 total Project Engineers, Senior Inspectors, Office Engineers, Bridge Inspectors, Inspectors, and Inspector Aids who will be assigned to and work under the direct supervision of Department Project Engineers. Each Consultant shall provide the names and resumes of principals and key personnel as well as detailed resumes of the Project Engineer, 3 Senior Inspectors, and 3 Inspectors who will perform the work. Personnel information should include professional registrations (type, number, and state(s) where registered, construction engineering and inspection, traffic control, and erosion control experience on highway and bridge construction projects, and GDOT or other State Highway Agency experience. Failure to meet this requirement will be considered "nonresponsive" and the entire submittal will be rejected. Resumes in numbers greater than required will not be considered in the evaluation. The Minimum Experience and Training Requirements for each classification are provided in the Personnel Qualifications section of this advertisement.

**A. GENERAL**

1. The services under the resulting contract shall consist of performing to the satisfaction of the Department all those construction engineering services necessary or incidental to accomplish the contract consistent with applicable professional standards.
2. It shall be the responsibility of the Consultant to monitor and inspect the Construction Contract such that the project is constructed in reasonable conformity with the plans, specifications, and special provisions for the Construction Contract.

3. The Consultant shall furnish all services and labor necessary to conduct and complete the services to accomplish the resulting contract, and shall furnish all materials, equipment, laptops, supplies and incidentals other than those designated in writing as to be furnished by the Department necessary to perform the services, and check or test them prior to use under this contract. Concrete testing equipment will continue to be furnished by the Department as well as SiteManager software.
4. All services shall be performed in accordance with the established standard procedures and practices of the Department. Prior to furnishing any services, the Consultant shall be familiar with those Departmental standard procedures and practices as set forth in The Source and associated documents and with informal procedures and practices including the computer based record keeping system for construction contract administration used by the Department.
5. The Consultant's principal contact with the Department shall be through the District Construction Engineer.
6. Since the services under the contract are to be paid in whole or in part with federal or state funds, the services shall comply with all applicable federal and state laws and regulations.
7. The Federal Highway Authority (FHWA) may participate in all conferences and reviews.
8. At the request of the Department, the Consultant during the progress of the services shall furnish information or data relating to the services under the contract as may be required by the Department to enable it to carry out or to proceed with related phases of the project not covered by this contract, or which may be necessary to enable the Department to furnish information to the Consultant upon which to proceed with further services.
9. Compliance with all of the foregoing shall be within the purview of the contract and shall not constitute a basis for additional or extra compensation.

#### **B. CONTROL AND AUTHORITY**

1. The Consultant's representative shall be designated by the Consultant to serve as field supervisor of all Consultant personnel and services performed under the contract, to act as Liaison Project Manager between the Consultant and the District Construction Engineer. The Consultant's representative shall report to and be directly accountable to the District Construction Engineer. It is not anticipated that these responsibilities will require a full time employee availability.
2. The Consultant's representative shall coordinate with the Department as to the project staffing needs and inspector assignments such as visits to the Department Area Engineers regarding deployment of staff and other matters and review project records prepared by the Consultant to assure services conform to the Department criteria.
3. In the event of a controversy, the Consultant's representative shall first confer with the District Construction Engineer. In the event the Consultant representatives and District Construction Engineers cannot agree, the District Construction Engineer will promptly contact the Area Engineer of the Department or his or her delegate who will determine the necessary course of action.
4. Project engineering duties shall be performed by the Department unless the task order specifies that the Consultant is to serve as Project Engineer.
5. Titles above Senior Inspectors shall be requested in writing and approved by the State Construction Engineer.

#### **C. SERVICES TO BE PERFORMED BY THE CONSULTANT**

The Consultant agrees to:

1. Observe the Contractor's work to determine the progress and quality of work, identify discrepancies, report significant discrepancies to the Department, and direct the Contractor to correct such observed discrepancies.

2. Attend conference(s) required to carry out the contract.
3. Become familiar with the standard construction practices of the Department, the construction plans and contract(s) for the project, and the Contractor's proposed schedule of operations prior to beginning field services under the contract.
4. Assign a sufficient number of technically qualified and experienced personnel to the project to perform the services required under the contract, in a timely manner to avoid delay to the Contractor.
5. Notify the Area Engineer immediately of any unanticipated project conditions.
6. Withdraw any personnel or halt any services no longer required, at the request of the Department, or within a reasonable time after the lack of need becomes apparent to the Consultant.
7. Perform consultant field operations in accordance with the Department regulations and accepted safety practices.
8. Provide for Consultant personnel transportation equipped with appropriate safety equipment, communication devices, hard hat, high visibility vests, and incidentals as are needed to accomplish the services required under the contract.
9. Act as Inspector as provided in the Specifications, Special Provisions, and The Source of the State of Georgia Department of Transportation.
10. Sample materials, concrete and asphalt, to be incorporated in the work, and reject Contractor's work and materials not meeting the Specifications, Special Provisions, or the Source of the State of Georgia Department of Transportation.
11. Make certain that test report records or certificates of compliance have been received, prior to the incorporation of materials in the work, for materials tested off the project site.
12. Keep daily diaries, logs and records consistent with Department practice as are needed for a record of the Contractor's progress including Project Engineer's diary and Inspectors' diaries.
13. Measure and compute quantities of all materials incorporated in the work and items of work completed, and maintain an item record account.
14. Prepare and submit, such periodic, intermediate and final reports and records as may be required by the Department and as are applicable to the project, which may include:
  - a. Weekly progress reports.
  - b. Weekly statement of working days.
  - c. Notice of change in construction status.
  - d. Report of field inspection of material.
  - e. Test report record.
  - f. Contractor pay estimates.
  - g. Pile driving data.
  - h. Piling record.
  - i. Final certification of materials.
  - j. Explanation of quantity variation.
  - k. Statement of contract time.
  - l. Intermediate and final estimates.
  - m. Contractor evaluation form.
  - n. Other records and reports as required for the individual project by the Area Engineer.
15. Review Contractor submittals of records and reports required by the Department as applicable to the project which may include:
  - a. Weekly payroll.
  - b. Statement of wage compliance.

- c. Requests for partial and final payment.
  - d. Other reports and records as required for the individual project by the Area Engineer.
16. Collect, properly label or identify, and deliver to the Department all original diaries, logs, notebooks, accounts, records, reports and other documents prepared by the Consultant in the performance of the contract, upon completion or termination of the contract.
  17. Return, upon completion or termination of the contract, all specifications, manuals, guides, written instructions, construction contracts and plans, unused forms and record keeping books, and other documents and materials furnished by the Department. The Consultant may be responsible for replacing lost documents or materials at a fair and reasonable price.
  18. Prepare and deliver one copy of the "as-built" or "record" plan to the Department as defined in the State of Georgia Department of Transportation Construction and Materials Manual.

#### **D. JOB DESCRIPTIONS AND QUALIFICATIONS:**

The following are job descriptions and qualifications for titles that may be used in the contract:

1. Project Engineer - This is advanced level technical work in functional areas of project administration and management. Employees, under limited supervision, independently manage construction activities on large complex projects (phases) such as complex bridge, urban, or interstate reconstruction projects. Employees inspect and supervise lower level inspectors performing routine to moderately complex inspections of roadway and structure construction processes and materials to assure compliance with the construction contract and other applicable guidelines. Work includes monitoring traffic control and erosion control on the project. Work also includes monitoring construction costs; negotiating prices for contract modifications with contractors; writing or supervising the preparation of reports and correspondence; and working and communicating with contractors, supervisors, subordinates, local officials, media and the general public.

Knowledge, Skills and Abilities: Thorough knowledge of specifications and standards, acceptable construction practices, materials, methods and equipment used in highway construction and engineering. Thorough knowledge of mathematical functions, including algebraic, geometric, and trigonometric calculations related to highway/transportation engineering. Ability to read and comprehend construction plans and all other documents associated with the project. Must be licensed to operate motor vehicles in accordance with Georgia Law.

Minimum Training and Experience Requirements: Graduation from a university with a degree in Civil Engineering or from a four-year college with a degree in Civil Engineering Technology and five (5) years of progressive transportation technician experience; graduation from a two-year technical college with a degree in Civil Engineering Technology and seven (7) years of progressive transportation technician experience; or graduation from high school and ten (10) years of progressive transportation technician experience as an employee or consultant for a State Highway Agency; or an equivalent combination of training and directly related experience.

2. Bridge Inspector - This is advanced level technical work supporting engineers in functional areas of bridge and roadway construction inspection; materials sampling, inspection and testing. Employees support engineers in management of construction activities on large complex bridge projects. Work usually involves a significant amount of decision making and use of judgment, and may include providing work directions to others.

Employees may function as lead project inspectors conducting independent complex inspections themselves, and supervising lower level inspectors performing routine to moderately complex inspections of bridge and roadway construction processes and materials to assure compliance with the construction contract. Employees may perform contract administrative duties such as field measurements of pay items as well as other Department required documentation. Work may include other duties and responsibilities as assigned.

Knowledge, Skills and Abilities: Thorough knowledge of specifications and standards, acceptable construction practices, materials, methods and equipment used in bridge/highway construction and

engineering. Thorough knowledge of mathematical functions, including algebraic, geometric, and trigonometric calculations related to bridge/highway/transportation engineering. Ability to read and comprehend bridge plans, Bridge Foundation Investigation reports, Contractor's layouts, and all other documents associated with the project. Ability to read, comprehend, and produce test pile and driving pile data. Shall be licensed to operate motor vehicles in accordance with Georgia Law.

Minimum Training and Experience Requirements: Graduation from a university with a degree in Civil Engineering or from a four-year college with a degree in Civil Engineering Technology and five years of progressive transportation technician experience and construction experience on at least 4 complex bridges; graduation from a two-year technical college with a degree in Civil Engineering Technology and seven years of progressive transportation technician experience and construction experience on at least 6 complex bridges; or graduation from high school and ten years of progressive transportation technician experience as an employee or consultant for a State Highway Agency and construction experience on at least 9 complex bridges; or an equivalent combination of training and directly related experience.

3. ATMS/Signal Inspector - This is advanced level technical work supporting engineers in functional areas of roadway construction inspection; materials sampling, inspection and testing. Employees support engineers in management of construction activities on ATMS, traffic signal, and ramp metering projects. Work usually involves a significant amount of decision making and use of judgment, and may include providing work directions to others.

Employees may function as lead project inspectors conducting independent complex inspections themselves, and supervising lower level inspectors performing routine to moderately complex inspections of roadway construction including ATMS, traffic signal, and ramp metering processes and materials to assure compliance with the construction contract. Employees may perform contract administrative duties such as field measurements of pay items as well as other Department required documentation. Work may include other duties and responsibilities as assigned.

Knowledge, Skills and Abilities: Thorough knowledge of specifications and standards, acceptable construction practices, materials, methods and equipment used in highway construction and engineering. Thorough knowledge of mathematical functions, including algebraic, geometric, and trigonometric calculations related to highway/transportation engineering. Ability to read and comprehend traffic signal plans and specifications, ATMS plans and specifications, and all other documents associated with the project.

Minimum Training and Experience Requirements: Graduation from a university with a degree in Civil Engineering or from a four-year college with a degree in Civil Engineering Technology and five years of progressive transportation technician experience and construction experience on at least 3 ATMS/traffic signal type projects; graduation from a two-year technical college with a degree in Civil Engineering Technology and seven years of progressive transportation technician experience and construction experience on at least 5 ATMS/traffic signal type projects; or graduation from high school and ten years of progressive transportation technician experience as an employee or consultant for a State Highway Agency and construction experience on at least 8 ATMS/traffic signal type projects; or an equivalent combination of training and directly related experience.

4. Office Engineer - A High School diploma or equivalent and four (4) years of road & bridge construction engineering inspection experience having performed/assisted in project related duties (i.e., reviewing and processing progress and final construction reports, EEO compliance, processing Construction Contract modifications, etc.) or have Civil Engineering Technology degree. Should exercise independent judgment in planning work details and making technical decisions related to the office aspects of the project. Should be familiar with the Department's Procedures including the Construction Manual covering the project related duties as stated above and be proficient in the computer programs necessary to perform these duties.
5. Senior Inspector - This is advanced level technical work supporting engineers in functional areas of structure and roadway construction inspection; materials sampling, inspection and testing. Work usually involves a fairly wide range of decision making and use of judgment, and would normally include providing work direction to others.

Employees may function as lead project inspectors conducting independent complex inspections themselves, and supervising lower level inspectors performing routine to moderately complex inspections of roadway and



structure construction processes and materials to assure compliance with the construction contract. Employees may perform contract administrative duties such as field measurements of pay items as well as other Department required documentation. Work may include other duties and responsibilities as assigned.

Knowledge, Skills and Abilities: Thorough knowledge of materials, methods and equipment used in highway construction. Considerable knowledge of mathematical functions, including algebra, geometry, and trigonometry. Skill in the use of office equipment such as calculators and computers. Ability to read, interpret and explain such things as construction plans, contract provisions, specifications, and inspection procedures; ability to take notes and prepare or review reports; good communicative ability; and supervisory ability to coordinate the activities of lower level employees and instruct them in proper work methods. Shall be licensed to operate motor vehicles in accordance with Georgia Law.

Minimum Training and Experience Requirements: Graduation from a university with a degree in Civil Engineering or from a four-year college with a degree in Civil Engineering Technology and three years of progressive transportation technician experience; graduation from a two-year technical college with a degree in Civil Engineering Technology and six years of progressive transportation technician experience; or graduation from high school and eight years of progressive transportation technician experience as an employee or consultant for a State Highway Agency; or an equivalent combination of training and directly related experience.

6. CEI Resident Compliance Officer - Graduation from an accredited high school and two years of experience in monitoring federal and or state compliance on a construction project. Should have prior experience in both State funded and Federal Aid funded construction projects and knowledge of EEO laws and/or GDOT's DBE and OJT programs. Duties include, but are not limited to:
  - a. Review, monitor, evaluate and act upon documentation required for Construction Contract compliance, and maintain the appropriate files thereof. Typical areas of compliance responsibility include DBE compliance of the prime contractor and subcontractor, Payroll verification and discrepancy resolution, Commercial Useful Form (CUF) review and approval, and Monthly/Quarterly DBE Participation Reports review and approval.
  - b. Assist Construction Project Engineer with DBE related documentation and correspondence as requested including performing labor interviews; Ensure that all DBE related documents and correspondence are accurate and up to date; attend compliance reviews and furnish the complete project files for review; and assist the District Contracts Manager/Associate as requested.
7. Inspector - This is advanced journey level technical work supporting higher level technicians and engineers in functional areas such as construction inspection and surveying; scheduling and status; roadway design; traffic signal equipment; traffic signalization and geometrics; materials sampling; inspection and testing. Work usually involves a significant amount of decision making and use of judgment, and may include providing work directions to others.

Employees may perform independent complex inspections of roadways and structure construction processes and materials to assure compliance with the construction contract. Employees may perform moderately complex inspections; or supervise other inspectors conducting routine and standardized inspections. Work may include inspecting asphalt and concrete for acceptable materials and mix; pavement for proper spreading, rolling, depth, alignment and compaction; roadways and structures for conformance to plans, and specifications; structural materials and members; placement of culverts; structural operations such as foundation excavation; placement of piling, reinforcing and structural steel, concrete and backfill; and traffic control and erosion control devices. Employees may also perform the more complex variety of calculations and computations. Employees may perform contract documentation duties, which may include field measurements of pay items as well as other Department required documentation. Work may include other duties and responsibilities as assigned.

Knowledge, Skills and Abilities: Considerable knowledge of materials, methods, and equipment used in highway construction; and considerable knowledge of mathematical functions including geometry and trigonometry. Drafting skill and skill in the use of office equipment such as calculators and computers. Ability to read, interpret, and explain such things as construction plans, contract provisions, specifications, and inspection procedures; ability to take notes and prepare or review reports; good communicative ability;

and ability to instruct other employees in proper work methods. Shall be licensed to operate motor vehicles in accordance with Georgia Law.

Minimum Training and Experience Requirements: Graduation from a university with a degree in Civil Engineering or from a four-year college with a degree in Civil Engineering Technology; graduation from a two-year technical college with a degree in Civil Engineering Technology and three years of progressive transportation technical experience; or graduation from high school and six years of progressive transportation technician experience as an employee or consultant for a State Highway Agency; or an equivalent combination of training and directly related experience.

8. Inspector Aid - This is beginning level technical work supporting higher level technicians and engineers on assignments relating to highway and bridge construction inspection. Employees perform a range of routine and standardized work which may include duties such as manual or electronic calculations and computations. Employees will perform independent routine and standardized inspections of construction processes and materials to assure compliance with the construction contract. Employees may inspect truck load tickets for roadway aggregate base course, borrow material and asphaltic concrete at project field sites. Employees may perform a variety of simple materials sampling, inspection and/or testing. Employees may perform contract administrative duties, which may include field measurements of pay item quantities as well as other Department required documentation. Work is generally performed under technical and administrative supervision, and may include other duties and responsibilities as assigned.

Knowledge, Skills and Abilities: Some knowledge of surveying, highway construction or design. General knowledge of mathematical functions. Skill in the use of office equipment such as calculators. Ability to read and interpret such things as construction plans, contract provisions, and inspection procedures; and good communications ability. Shall be licensed to operate motor vehicles in accordance with Georgia Law.

Minimum Training and Experience Requirements: Graduation from high school. One year transportation experience; or equivalent combination of training and directly related experience is desired.

9. Contract Support Specialist/Secretary - High school graduate or equivalent plus three years of secretarial and/or clerical experience including two years experience in office management. Ability to type at a rate of 35 correct, words per minute. Experienced in the use of standard word processing software. Should exercise independent initiative to help relieve the construction personnel of clerical detail. Work under the general supervision of the Area Engineer and staff.

7. Related Key Team Leaders:

- A. Project Engineer (Total of 1)
- B. Bridge Inspector (Total of 1)
- C. Senior Inspector (Total of 3)
- D. Inspector (Total of 3)

**EXHIBIT II**  
**CERTIFICATION FORM**

I, \_\_\_\_\_, being duly sworn, state that I am \_\_\_\_\_ (title) of \_\_\_\_\_ (firm) and hereby duly certify that I have read and understand the information presented in the attached proposal and any enclosure and exhibits thereto.

I further certify that to the best of my knowledge the information given in response to the Request for Qualifications is full, complete and truthful.

I further certify that the submitting firm and any principal employee of the submitting firm has not, in the immediately preceding five (5) years, been convicted of any crime of moral turpitude or any felony offense, nor has had their professional license suspended, revoked or been subjected to disciplinary proceedings.

I further certify that the submitting firm has not, in the immediately preceding five (5) years, been suspended or debarred from contracting with any federal, state or local government agency, and further, that the submitting firm is not now under consideration for suspension or debarment from any such agency.

I further certify that the submitting firm has not in the immediately preceding five (5) years been defaulted in any federal, state or local government agency contract and further, that the submitting firm is not now under any notice of intent to default on any such contract.

I further certify that in regards to Audit and Accounting System Requirements, that the submitting firm:

- I. Has an accounting system in place to meet requirements of 48 CFR Part 31 and, in the case of non-profit organizations, OMB Circular A-122.
- II. Has submitted its yearly Certified Public Accountant overhead audit if it currently has an aggregate contract amount exceeding \$250,000.
- III. Has no significant outstanding deficient audit findings from previous contracts with GDOT that have not been resolved.
- IV. Is responsible for being reasonably assured that all sub-consultant(s) presented as a part of the proposed team are similarly in compliance with the above requirements.

I acknowledge, agree and authorize, and certify that the proposer acknowledges, agrees and authorizes, that GDOT may, by means that either deems appropriate, determine the accuracy and truth of the information provided by the proposer and that the GDOT may contact any individual or entity named in the Statement of Qualifications for the purpose of verifying the information supplied therein.

I acknowledge and agree that all of the information contained in the Statement of Qualifications is submitted for the express purpose of inducing the GDOT to award a contract.

*A material false statement or omission made in conjunction with this proposal is sufficient cause for suspension or debarment from further contracts, or denial or rescission of any contract entered into based upon this proposal thereby precluding the firm from doing business with, or performing work for, the State of Georgia. In addition, such false statement or omission may subject the person and entity making the proposal to criminal prosecution under the laws of the State of Georgia of the United States, including but not limited to O.C.G.A. §16-10-20, 18 U.S.C. §§1001 or 1341.*

Sworn and subscribed before me

This \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires: \_\_\_\_\_

\_\_\_\_\_  
NOTARY SEAL

EXHIBIT III

GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT AFFIDAVIT

Solicitation No. : RFQ-484-072213

Solicitation Name: Construction Engineering and Inspection Services for District 6

Respondent's Name: \_\_\_\_\_

STATE OF GEORGIA  
CONSULTANT AFFIDAVIT

By executing this affidavit, the undersigned Consultant verifies its compliance with O.C.G.A. §13-10-91, stating affirmatively that the individual, firm, or corporation which is contracting with the Georgia Department of Transportation has registered with, is authorized to participate in, and is participating in the federal work authorization program commonly known as E-Verify,\* in accordance with the applicable provisions and deadlines established in O.C.G.A. 13-10-91.

The undersigned Consultant further agrees that it will continue to use the federal work authorization program throughout the contract period and, should it employ or contract with any subconsultant(s) in connection with the physical performance of services pursuant to this contract with the Georgia Department of Transportation, Consultant will secure from such subconsultant(s) similar verification of compliance with O.C.G.A. § 13-10-91 on the Subconsultant Affidavit provided in Rule 300-10-01-.08 or a substantially similar form. Consultant further agrees to maintain records of such compliance and provide a copy of each such verification to the Georgia Department of Transportation at the time the subconsultant(s) is retained to perform such service.

\_\_\_\_\_  
EEV / E-Verify™ User Identification Number

\_\_\_\_\_  
Date of Authorization

\_\_\_\_\_  
BY: Authorized Officer or Agent  
(Contractor Name)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Title of Authorized Officer or Agent of Consultant

\_\_\_\_\_  
Printed Name of Authorized Officer or Agent

SUBSCRIBED AND SWORN  
BEFORE ME ON THIS THE

\_\_\_\_ DAY OF \_\_\_\_\_, 201\_\_

[NOTARY SEAL]

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

\*or any subsequent replacement operated by the United States Department of Homeland Security or any equivalent federal work authorization program operated by the United States Department of Homeland Security to verify information of newly hired employees, pursuant to the Immigration Reform and Control Act of 1986 (IRCA), P.L. 99-603.

**EXHIBIT IV**  
**Area Class Summary Example**

Respondents should complete a table similar to the below and indicate by placing an "X" in the appropriate column indicating the firm which meets each required area class for each specific project with particular emphasis on the area classes which the Prime must hold as well as the subconsultants. The below table is a full listing of all area classes. Since no single advertisement would require every area class, Respondents should delete all the area classes which are not applicable to the project they are pursuing and only include the ones applicable. Particular attention should be paid to the date that consultants certificate expires.

| Area Class # | Area Class Description  | Prime Consultant Name | Sub-Consultant #1 Name | Sub-Consultant #2 Name | Sub-Consultant #3 Name | Sub-Consultant #4 Name | Sub-Consultant #5 Name | Sub-Consultant #6 Name |
|--------------|---|-----------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
|              | <b>DBE – Yes/No -&gt;</b>   |                       |                        |                        |                        |                        |                        |                        |
|              | <b>Prequalification Expiration Date</b>                             |                       |                        |                        |                        |                        |                        |                        |
| 1.01         | Statewide Systems Planning  |                       |                        |                        |                        |                        |                        |                        |
| 1.02         | Urban Area and Regional Transportation Planning                     |                       |                        |                        |                        |                        |                        |                        |
| 1.03         | Aviation Systems Planning   |                       |                        |                        |                        |                        |                        |                        |
| 1.04         | Mass and Rapid Transportation Planning                              |                       |                        |                        |                        |                        |                        |                        |
| 1.05         | Alternate Systems Planning  |                       |                        |                        |                        |                        |                        |                        |
| 1.06(a)      | NEPA  |                       |                        |                        |                        |                        |                        |                        |
| 1.06(b)      | History   |                       |                        |                        |                        |                        |                        |                        |
| 1.06(c)      | Air Quality   |                       |                        |                        |                        |                        |                        |                        |
| 1.06(d)      | Noise   |                       |                        |                        |                        |                        |                        |                        |
| 1.06(e)      | Ecology   |                       |                        |                        |                        |                        |                        |                        |
| 1.06(f)      | Archaeology   |                       |                        |                        |                        |                        |                        |                        |
| 1.06(g)      | Freshwater Aquatic Surveys  |                       |                        |                        |                        |                        |                        |                        |
| 1.07         | Attitude, Opinion, and Community Value Studies (Public Involvement) |                       |                        |                        |                        |                        |                        |                        |
| 1.08         | Airport Master Planning (AMP)                                       |                       |                        |                        |                        |                        |                        |                        |
| 1.09         | Location Studies  |                       |                        |                        |                        |                        |                        |                        |
| 1.10         | Traffic Analysis  |                       |                        |                        |                        |                        |                        |                        |
| 1.11         | Traffic and Toll Revenue Studies                                    |                       |                        |                        |                        |                        |                        |                        |
| 1.12         | Major Investment Studies  |                       |                        |                        |                        |                        |                        |                        |
| 1.13         | Non-Motorized transportation Planning                               |                       |                        |                        |                        |                        |                        |                        |
| 2.01         | Mass Transit Program (Systems Management)                           |                       |                        |                        |                        |                        |                        |                        |
| 2.02         | Mass Transit Feasibility and Technical Studies                      |                       |                        |                        |                        |                        |                        |                        |
| 2.03         | Mass Transit Vehicle and Propulsion System                          |                       |                        |                        |                        |                        |                        |                        |
| 2.04         | Mass Transit Controls, Communication and Information Systems        |                       |                        |                        |                        |                        |                        |                        |
| 2.05         | Mass Transit Architectural Engineering                              |                       |                        |                        |                        |                        |                        |                        |
| 2.06         | Mass Transit Unique Structures                                      |                       |                        |                        |                        |                        |                        |                        |
| 2.07         | Mass Transit Electrical and Mechanical System                       |                       |                        |                        |                        |                        |                        |                        |
| 2.08         | Mass Transit Operations Management and Support Services             |                       |                        |                        |                        |                        |                        |                        |
| 2.09         | Airport Design (AD)   |                       |                        |                        |                        |                        |                        |                        |
| 2.10         | Mass Transit Program (Systems Marketing)                            |                       |                        |                        |                        |                        |                        |                        |
| 3.01         | Two-Lane or Multi-lane Rural Roadway Design                         |                       |                        |                        |                        |                        |                        |                        |
| 3.02         | Two-Lane or Multi-lane urban Roadway Design                         |                       |                        |                        |                        |                        |                        |                        |
| 3.03         | Multi-Lane Urban Roadway Widening and Reconstruction                |                       |                        |                        |                        |                        |                        |                        |
| 3.04         | Multi-lane Rural Interstate Limited Access Design                   |                       |                        |                        |                        |                        |                        |                        |
| 3.05         | Multi-lane Urban Interstate Limited Access Design                   |                       |                        |                        |                        |                        |                        |                        |
| 3.06         | Traffic Operations Studies  |                       |                        |                        |                        |                        |                        |                        |
| 3.07         | Traffic Operations Design   |                       |                        |                        |                        |                        |                        |                        |
| 3.08         | Landscape Architecture Design                                       |                       |                        |                        |                        |                        |                        |                        |
| 3.09         | Traffic Control Systems Analysis, Design and Implementation         |                       |                        |                        |                        |                        |                        |                        |

|         |   |  |  |  |  |  |  |  |
|---------|---|--|--|--|--|--|--|--|
| 3.10    | Utility Coordination                                  |  |  |  |  |  |  |  |
| 3.11    | Architecture  |  |  |  |  |  |  |  |
| 3.12    | Hydraulic and Hydrological Studies (Roadway)          |  |  |  |  |  |  |  |
| 3.13    | Facilities for Bicycles and Pedestrians               |  |  |  |  |  |  |  |
| 3.14    | Historic Rehabilitation                               |  |  |  |  |  |  |  |
| 3.15    | Highway and Outdoor Lighting                          |  |  |  |  |  |  |  |
| 3.16    | Value Engineering (VE)                                |  |  |  |  |  |  |  |
| 3.17    | Toll Facilities Infrastructure Design                 |  |  |  |  |  |  |  |
| 4.01    | Minor Bridge Design                                   |  |  |  |  |  |  |  |
| 4.02    | Major Bridge Design                                   |  |  |  |  |  |  |  |
| 4.04    | Hydraulic and Hydrological Studies (Bridges)          |  |  |  |  |  |  |  |
| 4.05    | Bridge Inspection                                     |  |  |  |  |  |  |  |
| 5.01    | Land Surveying  |  |  |  |  |  |  |  |
| 5.02    | Engineering Surveying                                 |  |  |  |  |  |  |  |
| 5.03    | Geodetic Surveying                                    |  |  |  |  |  |  |  |
| 5.04    | Aerial Photography                                    |  |  |  |  |  |  |  |
| 5.05    | Photogrammetry  |  |  |  |  |  |  |  |
| 5.06    | Topographic Remote Sensing                            |  |  |  |  |  |  |  |
| 5.07    | Cartography   |  |  |  |  |  |  |  |
| 5.08    | Overhead/Subsurface Utility Engineering (SUE)         |  |  |  |  |  |  |  |
| 6.01(a) | Soil Survey Studies                                   |  |  |  |  |  |  |  |
| 6.01(b) | Geological and Geophysical Studies                    |  |  |  |  |  |  |  |
| 6.02    | Bridge Foundation Studies                             |  |  |  |  |  |  |  |
| 6.03    | Hydraulic and Hydrologic Studies (Soils & Foundation) |  |  |  |  |  |  |  |
| 6.04(a) | Laboratory Testing of Roadway Construction Materials  |  |  |  |  |  |  |  |
| 6.04(b) | Field Testing of Roadway Construction Materials       |  |  |  |  |  |  |  |
| 6.05    | Hazardous Waste Site Assessment Studies               |  |  |  |  |  |  |  |
| 8.01    | Construction Engineering and Supervision              |  |  |  |  |  |  |  |
| 9.01    | Erosion, Sedimentation, and Pollution Control Plan    |  |  |  |  |  |  |  |
| 9.02    | Rainfall and Runoff Reporting                         |  |  |  |  |  |  |  |
| 9.03    | Field Inspection for Erosion Control                  |  |  |  |  |  |  |  |

**ATTACHMENT 1**

**Submittal Formats for GDOT Engineering Contracts**

**I. Submittal #1**

**# of Pages Allowed**

**A. Administrative Requirements**

- 1. Cover Page for Overall Submittal– List RFQ #, RFQ title, and proposing firm’s full legal name -> 1
- 2. Notarized Certification Form (Exhibit II) for Prime -> 1
- 3. Notarized Georgia Security and Immigration Compliance Act Affidavit (Exhibit III) -> 1
- 4. Signed Cover Page of any Addenda Issued -> 1 (each addenda)

**B. Minimum Requirements**

- 1. Basic Company Information
  - 2. Statement on suspension or debarment
  - 3. Arbitration, litigation, mediation, dispute review, etc.
  - 4. Pending regulatory inquiries
  - 5. Team members/principles under indictment
  - 6. Conflicts of Interest
  - 7. Revenue
  - 8. Failure to complete/removal from contracts
  - 9. Additional pages, if required, due to any “yes” answer to a through f. (should be kept to minimum) -> Excluded
- 2

**C. Experience and Qualifications**

- 1. Project Manager Experience
  - a. Education
  - b. Registration
  - c. Relevant construction engineering or inspection experience
  - d. Relevant project management experience
  - e. Relevant experience using GDOT specific processes, etc.
  - f. Table detailing Project Manager Availability -> Excluded

2
- 2. Key Team Leader Experience
  - a. Education
  - b. Registration
  - c. Relevant experience in applicable resource area
  - d. Relevant experience using GDOT specific processes, etc.
  - e. Additional Page for Discussion on key resources -> 1

1 (each)
- 3. Prime’s Experience
  - a. Client information
  - b. Description of overall project and services performed
  - c. Duration of project services
  - d. Relevant experience using GDOT specific processes, etc.
  - e. Clients current contact information
  - f. Involvement of Key Team Leads on the projects listed

2
- 4. Area Class Table and Notice of Professional Consultant Qualifications for Prime and Sub-Consultants -> Excluded

**D. Resources/Workload Capacity**

- 1. Overall Resources dedicated to project
  - a. Organization chart -> Excluded
  - b. Primary office to handle contract and staff description of office and benefits of office -> 1
- 2. Key Team Leaders Resource commitment table -> Excluded

1  
Cover  
Page  
For  
Overall  
Submittal  
the  
project

**Submittal #1 should be one complete copy of Section A through D above, with cover sheet. Pages should be printed front and back to conserve paper and all should be bound as one submittal using staples or binder clips, or other efficient, low cost method. Submittal #3 should be an exact duplicate of Submittal #1 but in electronic format on a CD.**

**ATTACHMENT 1**

**II. Submittal #2**

**# of Pages Allowed**

|   |  |   |             |          |
|---|--|---|-------------|----------|
| 1<br>C<br>o<br>v<br>e<br>r<br><br>P<br>a<br>g<br>e<br><br>F<br>o<br>r<br><br>O<br>v<br>e<br>r<br>a<br>l<br>l<br><br>S<br>u<br>b<br>m<br>i<br>t<br>t<br>a<br>l | Three copies, cover page for each copy, printed front and back, stapled individually and all copies grouped/bound together with binder clip or rubber band | A. Administrative Requirements – Not Applicable for Submittal #2                                      |             |          |
|   |  | B. Minimum Requirements   |             |          |
|   |  | 1. Basic Company Information  |             |          |
|   |  | 2. Statement on suspension or debarment   |             |          |
|   |  | 3. Arbitration, litigation, mediation, dispute review, etc.   |             |          |
|   |  | 4. Pending regulatory inquiries   |             |          |
|   |  | 5. Team members/principles under indictment   |             | 2        |
|   |  | 6. Conflicts of Interest  |             |          |
|   |  | 7. Revenue  |             |          |
|   |  | 8. Failure to complete/removal from contracts   |             |          |
|   |  | 9. Additional pages, if required, due to any "yes" answer to a through f. (should be kept to minimum) | ->          | Excluded |
|   |  | C. Experience and Qualifications  |             |          |
|   |  | 1. Project Manager Experience   |             |          |
|   |  | a. Education  |             |          |
|   |  | b. Registration   |             | 2        |
|   |  | c. Relevant construction engineering or inspection experience   |             |          |
|   |  | d. Relevant project management experience   |             |          |
|   |  | e. Relevant experience using GDOT specific processes, etc.  |             |          |
|   |  | f. Table detailing Project Manager Availability   | ->          | Excluded |
|   |  | 2. Key Team Leader Experience   |             |          |
|   | a. Education   |   | 1 (each)    |          |
|   | b. Registration  |   |             |          |
|   | c. Relevant experience in applicable resource area   |   |             |          |
|   | d. Relevant experience using GDOT specific processes, etc.   |   |             |          |
|   | e. Additional Page for Discussion on key resources   | ->  | 1           |          |
|   | 3. Prime's Experience  |   |             |          |
|   | a. Client information  |   |             |          |
|   | b. Description of overall project and services performed   |   | 2           |          |
|   | c. Duration of project services  |   |             |          |
|   | d. Relevant experience using GDOT specific processes, etc.   |   |             |          |
|   | e. Clients current contact information   |   |             |          |
|   | f. Involvement of Key Team Leaders on the projects listed  |   |             |          |
|   | 4. Area Class Table (Notice of Professional Consultant Qualifications NOT Required for Submittal #2.)  | ->  | Excluded    |          |
|   | D. Resources/Workload Capacity   |   |             |          |
|   | 1. Overall Resources dedicated to project  |   |             |          |
|   | a. Organization chart  |   | -> Excluded |          |
|   | b. Primary office to handle contract and staff description of office and benefits of office  |   | -> 1        |          |
|   | 2. Key Team Leaders commitment table   |   | -> Excluded |          |

Submittal #2 should be three complete copies of Section B above (Minimum Requirements). Each copy should include a cover page, should be printed front and back, and stapled individually. All three copies should be grouped/bound together with a binder clip or rubber band. Submittal #2 should also include five complete copies of Section C and D above (Experience and Qualifications and Resources/Workload Capacity). Each copy should include a cover page, should be printed front and back, and stapled individually. All five copies should be grouped/bound together with a binder clip or rubber band. The entire submittal should have one cover page and be bound together with rubber band or binder clip (if thin enough) or other low cost method which allows for easy separation of all copies which will be distributed to the selection committee members.