

OFFICE OF STATE AID ROAD CONSTRUCTION			S.O.P. NO. SA I-3-21
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Subject: S.O.P. COUNTY ENGINEER - EMPLOYMENT, PRINCIPAL DUTIES AND COMPENSATION			Distribution A, B, C, D, E
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1. STATUTORY REQUIREMENT:

The State Aid Act (Section 65-9-13 and 65-9-15) requires that the Board employ a registered professional engineer to act as County Engineer for and on behalf of the County as a whole. Generally, he is responsible for carrying out all engineering functions - administrative and technical - as required for the planning, design, construction and maintenance of State Aid roads.

2. RELATIONSHIP WITH STATE AID ENGINEER:

Even though the County Engineer is an employee of the Board of Supervisors, he is required to comply with rules and regulations promulgated by the State Aid Engineer in the administration of the State Aid program.

3. EMPLOYMENT AND COMPENSATION:

The employment of and compensation to the County Engineer is governed by pertinent statutes as enacted and amended under the following background:

- 3.1. The State Aid Act as originally enacted in 1949 provided for the County Engineer to be compensated on a salary and expense basis, with each County employing him (not to exceed five (5) Counties) sharing in the salary and other expense payments according to a prearranged agreement.
 - 3.1.1. Under such an employment arrangement, the Boards would employ other technical assistants from time to time as they deemed necessary.
 - 3.1.2. To obtain a more feasible arrangement for employing and compensating County Engineers, the Legislature amended the law in 1958 to permit the employment of an engineer on a fee basis for furnishing complete engineering services in lieu of the salary and expense method.
 - 3.1.3. The law was further amended in 1970 to permit the engineering costs, including salary or fees of the County Engineer, to be paid from State Aid funds allocated to the respective Counties, with the method of payment to be approved by the State Aid Engineer under regulations promulgated by the State Aid Engineer.

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4. INTENT OF REGULATIONS:

It is the intent of these regulations to set out the basic engineering services required on State Aid projects; also, to describe the methods, procedures and limitations for paying for such services from State Aid funds.

5. UNIFORMITY OF AND EQUITABLE COMPENSATION FOR ENGINEERING SERVICES:

An acceptable and reasonable degree of uniformity in the quality of engineering services performed by the County Engineer together with equitable compensation for such services are both essential and necessary to achieve an effective administration of the engineering functions of the State Aid program.

6. ENGINEERING SERVICES DEFINED:

Engineering services are defined in the Contract Agreement which is included as a part of this Standard Operating Procedure.

7. BASIS OF PAYMENTS AND RATES OF COMPENSATION WHEN PAID FROM STATE AID FUNDS:

The basis of payments and rates of compensation will be as follows:

7.1. For County Engineer furnishing all engineering services on a fee basis, maximum reimbursement to the Board from State Aid funds will be as set out below:

7.1.1. Preliminary engineering will be limited to four and eight tenths percent (4.8%) of the construction cost of the project, based on the contract amount (bid items).

7.1.2. Construction engineering will be limited to seven and two tenths percent (7.2%) of the final construction cost of items based on the final estimate approved by the State Aid Engineer.

7.1.3. The total engineering cost will be limited to the sum total of preliminary and construction engineering, or twelve percent (12%) of the final construction cost of contract items, based on the final estimate approved by the State Aid Engineer.

7.1.4. In those cases where the Board furnishes the County Engineer (employed on a fee basis) with office facilities, an appropriate reduction, not to be less than one-half of one percent (0.5%), will be made in the reimbursement to the Board. This will limit the preliminary engineering to four and six tenths percent (4.6%) and the construction engineering to six and nine tenths percent (6.9%).

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7.2. For Engineering Personnel Employed By Boards On A Full-Time Salary Basis:

7.2.1. Boards employing County Engineers and other engineering personnel on a full-time salary basis will be reimbursed for the days such personnel devote to the individual projects at their regular salary rates, with the total cost of such engineering limited to eleven and one-half percent (11.5%) of the construction cost.

In these cases, the County Engineer will submit a list of the personnel and the salaries of each for approval by the State Aid Engineer prior to such payments.

The project diary for each project must show the name of each County employee, the number of hours worked and the number of miles traveled from the County Engineer's headquarters. The engineering estimates must be supported by time sheets, showing names, days worked and miles traveled.

7.3. Special Arrangements By Boards For Engineering Services:

Boards desiring to utilize salaried engineering personnel, supplemented by the services of a consulting firm on a fee basis, will enter into a special contract agreement with the State Aid Engineer, stipulating the services each group is to perform and the compensation to be made therefor.

The same principle of limitation of costs outlined in 7.2.1. above will be applied to this special type arrangement.

8. METHODS AND TIME OF PAYMENT FOR ENGINEERING SERVICES:

Payment for engineering services will not be made directly to the County Engineer, but will be made to the Board on a reimbursement basis, as provided for in the Contract Agreement and Rules and Regulations which are included as a part of this Standard Operating Procedure.

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9. BOARD'S CONTRACT TO EMPLOY COUNTY ENGINEER:

9.1. Contract Model:

CONTRACT AGREEMENT

**COVERING PAYMENT FROM STATE AID FUNDS
FOR THE ENGINEERING SERVICES PERFORMED ON STATE AID PROJECTS**

WHEREAS, Section 65-9-15, Mississippi Code of 1972, Annotated, provides that engineering costs incurred on State Aid projects may be paid from State Aid funds under regulations promulgated by the State Aid Engineer, and

WHEREAS, the State Aid Engineer, on _____, 20____, promulgated Rules and Regulations that set out the basic elements of engineering services that are required on State Aid projects and established procedures governing the methods and limitations of payments for these services, and

WHEREAS, these Rules and Regulations provide that each Board of Supervisors enter into a Contract Agreement with its County Engineer employed on a fee basis, setting out the compensation to the County Engineer for engineering services on State Aid work, said Agreement to be approved by the State Aid Engineer.

NOW, THEREFORE, IT IS HEREBY AGREED by the _____ County Board of Supervisors and _____, County Engineer, that payment from State Aid funds for furnishing all preliminary engineering services on State Aid projects will be ____ percent (____%) of the construction cost and that payment for furnishing all construction engineering services on State Aid projects will be ____ percent (____%) of the construction cost, with the total engineering payments not to exceed ____ percent (____%) of the final construction cost.

IT IS AGREED by the County Engineer named herein that he will perform the engineering services in accordance with the State Aid Engineer's Rules and Regulations dated _____, 20____, a copy of which is attached hereto and made a part hereof. It is agreed by the State Aid Engineer that he will reimburse the Board at the rates of compensation set out herein, and the Board agrees to transmit said sums to the County Engineer upon receipt of same from the State Aid Engineer.

THIS AGREEMENT shall not void any valid contract the Board may have with its County Engineer, nor shall it be construed to prevent the Board from exercising its authority to employ a County Engineer, nor shall it be construed to authorize duplicate payment to the County Engineer.

THIS AGREEMENT shall remain in full force and effect until it has been completed in accordance with its terms and Rules and Regulations attached hereto, or until it is terminated as herein provided. It may be terminated

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by either party hereto upon giving written notice for a period of at least thirty days prior to the date the termination is to be effected.

WITNESS our signatures this the _____ day of _____, 20_____.

Board of Supervisors, _____ County

By: _____
Board President
(As authorized by the attached copy of Order of the Board dated _____)

County Engineer

Date

APPROVED:

State Aid Engineer

Date

ADDENDUM

TO ENGINEERING CONTRACT APPROVED BY STATE AID ENGINEER ON _____, 20_____, COVERING PAYMENT FROM STATE AID FUNDS FOR THE ENGINEERING SERVICES PERFORMED ON STATE AID PROJECTS

WHEREAS, SECTION 65-9-15, Mississippi Code of 1972, Annotated, provides engineering costs incurred on State Aid projects may be paid from State Aid funds, with the methods of payment to be approved by the State Aid Engineer, under regulations promulgated by the State Aid Engineer dated _____, 20_____, and

WHEREAS, Senate Bill No. 2364, 1994 Legislative Session, provides for partial payment of engineering costs from State Aid funds on projects partially funded with Federal funds prior to the approval for advertisement for bids, with the methods of payment to be approved by the State Aid Engineer under regulations promulgated by the State Aid Engineer, and

WHEREAS, the State Aid Engineer, on _____, 20_____, promulgated an Addendum to the Rules and Regulations dated _____, 20_____, that set out the basic elements of engineering services that are required on State Aid projects and established procedures governing the

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methods and limitations of payments for these services.

NOW, THEREFORE, IT IS HEREBY AGREED by _____, County Engineer, that engineering services will be performed in accordance with the State Aid Engineer's Rules and Regulations dated _____, 20_____, and Addendum dated _____, 20_____, a copy of which is attached hereto and made a part hereof.

IT IS FURTHER AGREED by the State Aid Engineer that he will reimburse the Board in accordance with Senate Bill No. 2364, 1994 Legislative Session, as set out in the Addendum to the Rules and Regulations dated _____, 20_____, and the Board agrees to transmit said sums to the County Engineer upon receipt of same from the State Aid Engineer.

IT IS ALSO AGREED by the Board of Supervisors that in the event that a project is canceled in which partial payment of engineering funds have been made prior to the advertisement for bids, the Board will promptly reimburse the State Aid fund in the amount of the partial payment.

WITNESS our signatures this the _____ day of _____, 20_____.

Board of Supervisors, _____ County

By: _____
Board President
(As authorized by the attached copy of Order of the Board dated _____)

County Engineer

Date

APPROVED:

State Aid Engineer

Date

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9.2. Rules and Regulations:

**OFFICE OF STATE AID ROAD CONSTRUCTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**RULES AND REGULATIONS
SETTING OUT THE PRINCIPAL AND NECESSARY ELEMENTS
OF ENGINEERING SERVICES ON STATE AID PROJECTS AND
GOVERNING THE PAYMENT FOR THESE ENGINEERING SERVICES
FROM STATE AID FUNDS**

Pursuant to the authority granted to and the responsibility imposed upon the State Aid Engineer by Section 65-9-15 of the Mississippi Code of 1972, Annotated, the following Rules and Regulations, setting out the principal and necessary elements of engineering services on State Aid projects and governing the payment for these services from State Aid funds, are hereby adopted. These Rules and Regulations supersede and rescind any other rules and regulations heretofore effected that may be in conflict with them.

I. INTENT OF REGULATIONS

It is the intent of these regulations to set out the basic engineering services required on State Aid projects; also, to describe the methods, procedures and limitations for paying for such services from State Aid funds. Further it provides for methods by which the State Aid Engineer may withhold funds if the services are not provided in a satisfactory manner.

II. ENGINEERING SERVICES DEFINED

It is not proposed to set out all of the detailed engineering functions required for State Aid projects; however, the principal and necessary elements of engineering services are described below. It is also required that each engineer maintain an office where he may be contacted or receive messages during normal working hours each day.

A. GENERAL ENGINEERING FUNCTIONS

General engineering functions such as the inspection of roads proposed as additions to the State Aid System; maintenance inspections; in depth inspections by State Aid and the Federal Highway Administration and audits by Mississippi Department of Transportation are not to be paid for directly, but are regarded as general responsibilities of the County Engineer employed to "act for and on behalf of the County as a whole," as required by the State Aid Law.

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B. PRELIMINARY ENGINEERING

Preliminary engineering is defined as all engineering work involved from the initiation of a project to the award of the contract of said project and shall include, but not be limited to, the following:

1. Preparation of construction programs for adoption by the Boards and submission of these adopted programs to the State Aid Engineer.
2. The development of detailed surveys, including property line data. Cross Sections are to be taken to assure accurate determination of earthwork quantities.

NOTE: Abstracting of properties, preparation of deeds, negotiations for and procurement of rights-of-way are integral parts of rights-of-way acquisition and rights-of-way costs and are not eligible to be paid from State Aid funds.

3. Make necessary field inspections, including a plan-in-hand inspection of proposed work, with a representative of the State Aid Engineer.
4. Development of detailed plans and designs. All plans will contain plan-profile sheets except plans for reseal projects, striping and signing projects and overlay projects, if plan-profile sheets are on file.
5. Preparation of specifications (special provisions and Notices to Bidders) for local conditions and special situations not covered in the Standard Specifications adopted by the State Aid Engineer.
6. Preparation of Preliminary Estimate of Construction Cost.
7. Coordinate the setting of advertisement and letting dates with the Board and the State Aid District Engineer after the project has been authorized for advertisement for bids by the State Aid Engineer.
8. Solicit bids and issue proposals and plans to prospective bidders.
9. Attend lettings and assist in the tabulation and evaluation of bids.
10. Process and submit contract documents to the State Aid Engineer for concurrence.

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C. CONSTRUCTION ENGINEERING

Construction engineering is defined as all engineering work involved from the contract stage through the preparation and submission of the final estimate and supporting documents to the State Aid Engineer and shall include, but not be limited to, the following:

1. Schedule and conduct preconstruction conferences with contractors and other appropriate parties.
2. Issue Notice to Proceed to the Contractor AFTER the State Aid Engineer has concurred in the award of the contract.
3. Set all stakes, including centerline stakes, rights-of-way stakes, slope stakes, grade stakes (blue tops), stakes for structures (location and grade), channel changes and any other stakes necessary to control the work.
4. Make sure all work is performed by the Prime Contractor and/or approved subcontractors. Prepare and issue construction change requests, supplemental agreements and other supporting documentation for any changes anticipated to plans in an orderly manner to allow for approval prior to accomplishing the work.
5. Construction inspection and other controls to insure that the work performed is in accordance with the plans and specifications, including the incorporation of tested materials in the construction.
6. Make and record depth or thickness measurements on all bases and subbases (such as sand clay topping, clay gravel, cement treated and mechanically stabilized bases). THESE ARE ENGINEERING FUNCTIONS AND NOT TESTING FUNCTIONS. Laboratories should record depth measurements when taking record samples, soil profile borings, etc...
7. Prompt preparation and submission of Contractors' monthly estimates.
8. Maintain a project diary as the official project record for each project, showing the Contractor's daily operations; also, the engineering personnel's daily activities by names, functions performed and hours worked.
9. Check and verify the quantities of all materials incorporated in the project.
10. Check Contractor's payrolls on Federal projects to see that Contractor is complying with the labor regulations.

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11. Coordinate material testing with testing personnel and maintain accurate test report files to insure all materials incorporated into a project are supported by proper test reports.
12. Prompt request for final inspection upon completion of work.
13. Prompt preparation and submission of the final estimate and supporting documents to the State Aid Engineer for approval and payment.

D. GENERAL RULES FOR PAYMENT OF ENGINEERING

The intent of Section 65-9-13, Mississippi Code of 1972, Annotated, is that a County must employ an able and competent Registered Professional Engineer to act for and on behalf of the county, in order to be eligible for State Aid funds.

When documented evidence indicates to the State Aid Engineer that poor or careless service is being afforded the county by their engineer, payment for engineering services will be withheld from the county until a meeting has been held with the County Engineer, Board of Supervisors and State Aid Engineer to discuss the problem and arrive at a disposition of the situation.

III. BASIS OF PAYMENTS AND RATES OF COMPENSATION

The basis of payments and rates of compensation will be as follows:

- A. For County Engineers furnishing all engineering services on a fee basis, reimbursement to the Board from State Aid funds will be as set out below:
 1. Preliminary engineering will be limited to forty percent of the agreed fee rate, based on the contract amount (bid items).
 2. Construction engineering will be limited to sixty percent of the agreed fee rate based on the total cost as shown by the final estimate approved by the State Aid Engineer.
 3. The total engineering cost will be limited to the sum total of preliminary and construction engineering, or 100% of the agreed fee rate of the final construction cost of contract items, based on the final estimate approved by the State Aid Engineer.
 4. In those cases where the Board furnishes the County Engineer (employed on a fee basis) with office facilities, an appropriate reduction, not to be less than one-half of one percent (0.5%), will be made in the reimbursement to the Board.

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B. FOR ENGINEERING PERSONNEL EMPLOYED BY BOARDS ON A FULL-TIME SALARY BASIS

Boards employing County Engineers and other engineering personnel on a full-time salary basis will be reimbursed for the days such personnel donates to the individual projects at their regular salary rates, with the total cost of such engineering reduced by one-half of one percent (0.5%) of the construction cost.

In these cases, the County Engineers will submit a list of the personnel and the salaries for each for approval by the State Aid Engineer prior to such payments.

The project diary for each project must show the name of each County employee, the number of hours worked and the number of miles traveled from the County Engineer's headquarters. The engineering estimates must be supported by time sheets, showing names, days worked and miles traveled.

C. OTHER SPECIAL ARRANGEMENTS BY BOARDS FOR ENGINEERING SERVICES

Occasionally the design of certain elements of a project may require the engineering expertise of individuals or firms specializing in that particular field. When such expertise is required, the County Engineer, with the approval of the Board and State Aid Engineer, may enter into a subcontract agreement with the firm or individual to provide the necessary services.

The same limitation of costs outlined above will be applied to this type of arrangement.

IV. METHODS AND TIME OF PAYMENT FOR ENGINEERING COSTS

Payment for engineering services will not be made directly to the County Engineer, but will be made to the Board on a reimbursement basis, as provided for in these regulations.

A. FOR PRELIMINARY ENGINEERING

The Board will be reimbursed for the cost of the preliminary engineering, as outlined in Section III above, after the contract for the project is awarded.

In case of a delay in the award of the contract due to rejection of bids and re-advertisement of the project for bids, seventy-five percent (75%) of the preliminary engineering based on the PS&E Assembly estimate may be reimbursed by the county, with the remaining twenty-five percent (25%) to be reimbursed after the contract award is made.

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If the project is partially funded with Federal funds, seventy-five (75%) of such preliminary costs may be reimbursed the county, based on the preliminary estimate when the PS&E Assembly (1/2 scale plans, documents and preliminary estimate) is approved by the State Aid Engineer. The Right-of-way Certificate and required Utility Agreements must be submitted prior to approval of the PS&E Assembly.

B. FOR CONSTRUCTION ENGINEERING

The County will be reimbursed for the construction engineering costs on the following basis:

1. One-fourth (1/4) of such construction engineering costs will be reimbursed to the County when the project is twenty-five percent (25%) complete.
2. An additional one-fourth (1/4) will be reimbursed to the County when the project is fifty percent (50%) complete.
3. An additional one-fourth (1/4) will be reimbursed to the County when the project is seventy-five percent (75%) complete.
4. The remaining one-fourth (1/4) will be reimbursed to the County when the final estimate and supporting documents are submitted, in proper form, to the State Aid Engineer.

V. ENGINEERING DOCUMENTS

All engineering documents, including survey notes, plans, tabulations of quantities, project diary and other project records, shall remain the property of the Board. A County Engineer who has prepared special designs, requiring above-normal work and cost, may retain the original drawings for said designs but shall furnish the Board and the State Aid Engineer, upon request, a copy of same for the project records.

VI. BOARD'S STATUTORY RIGHTS TO EMPLOY COUNTY ENGINEER

These Rules and Regulations are not intended to interfere with the authority of a Board of Supervisors to employ a County Engineer.

These Rules and Regulations are adopted this the ____ day of _____, 20____.

By: _____
State Aid Engineer

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**OFFICE OF STATE AID ROAD CONSTRUCTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**ADDENDUM TO RULES AND REGULATIONS DATED _____, 20____
SETTING OUT THE PRINCIPAL AND NECESSARY ELEMENTS
OF ENGINEERING SERVICES ON STATE AID PROJECTS AND GOVERNING
PAYMENT FOR THESE ENGINEERING SERVICES FROM STATE AID FUNDS**

Pursuant to the authority granted to and the responsibility imposed upon the State Aid Engineer by Senate Bill No. 2364, 1994 Legislative Session, the following Rules and Regulations, setting out the principal and necessary elements of engineering services on State Aid projects and governing the payment for these services from State Aid funds, are hereby set out as an addendum to the Rules and Regulations adopted _____, 20____.

This addendum is revision to Section IV, Paragraph A. only of the Rules and Regulations adopted _____, 20____.

SECTION IV. METHODS AND TIME OF PAYMENT FOR ENGINEERING COSTS

Payment for engineering services will not be made directly to the County Engineer, but will be made to the Board on a reimbursement basis, under the following schedule:

A. FOR PRELIMINARY ENGINEERING

The Board will be reimbursed for the cost of the preliminary engineering, as outlined in Section III of the Rules and Regulations dated _____, 20____, after the contract for the project is awarded, except for Federal projects. The schedule for reimbursement of preliminary engineering on Federal projects is as follows:

Seventy-five percent (75%) of such preliminary costs will be reimbursed to the County, based on the preliminary estimate, when the PS&E Assembly (½ scale plans, documents, preliminary estimate, right-of-way certificate and utility adjustment agreements) is approved by the STATE AID ENGINEER.

If the project for any reason is canceled after reimbursement of engineering payments to the Board are made, then the Board will be required to reimburse said payments prior to authorization of future projects.

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In case of a delay in the award of the contract due to rejection of bids and re-advertisement of the project for bids, seventy-five percent (75%) of the preliminary engineering based on the PS&E Assembly estimate will be reimbursed to the County, with the remaining twenty-five percent (25%) to be reimbursed after the contract award is made.

By: _____
State Aid Engineer

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10. BOARD'S CONTRACT TO EMPLOY COUNTY ENGINEER:

10.1 Contract Model:

CONTRACT AGREEMENT

**COVERING PAYMENT FROM STATE AID FUNDS
FOR THE ENGINEERING SERVICES PERFORMED ON
LOCAL SYSTEM BRIDGE AND REHABILITATION (LSBP) PROJECTS**

WHEREAS, House Bill No. 1302, 1994 Legislative Session, provides that engineering costs incurred on LSBP projects may be paid from LSBP funds, with the methods of payment to be approved by the State Aid Engineer under regulations promulgated by the State Aid Engineer, and

WHEREAS, the State Aid Engineer, on _____, 20____, promulgated Rules and Regulations that set out the basic elements of engineering services that are required on LSBP projects and established procedures governing the methods and limitations of payments for these services, and

WHEREAS, these Rules and Regulations provide that each Board of Supervisors enter into a Contract Agreement with an engineer employed on a fee basis, setting out the compensation to the engineer for engineering services on LSBP work, said Agreement to be approved by the State Aid Engineer.

NOW, THEREFORE, IT IS HEREBY AGREED by the _____ County Board of Supervisors and _____, LSBP Engineer, that payment from LSBP funds for furnishing all preliminary engineering services on LSBP projects will be four percent (4%) of the construction cost and that payment for furnishing all construction engineering services on LSBP projects will be six percent (6%) of the construction cost, with the total engineering payments not to exceed ten percent (10%) of the final construction cost.

IT IS AGREED by the Engineer named herein that he will perform the engineering services in accordance with the State Aid Engineer's Rules and Regulations dated _____, 20____, a copy of which is attached hereto and made a part hereof. It is agreed by the State Aid Engineer that he will reimburse the Board at the rates of compensation set out herein, and the Board agrees to transmit said sums to the LSBP Engineer upon receipt of same from the State Aid Engineer.

THIS AGREEMENT shall not void any valid contract the Board may have with its County Engineer for State Aid projects nor shall it be construed to prevent the Board from exercising its authority to employ a County Engineer for State Aid projects, nor shall it be construed to authorize duplicate payment to the County Engineer or the LSBP Engineer.

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THIS AGREEMENT shall remain in full force and effect until it has been completed in accordance with its terms and the Rules and Regulations attached hereto, or until it is terminated as herein provided. It may be terminated by either party hereto upon giving written notice for a period of at least thirty days prior to the date the termination is to be effected.

WITNESS our signatures this the ____ day of _____, 20 ____.

Board of Supervisors, _____ County

By: _____
Board President
(As authorized by the attached copy of Order of the Board dated _____)

LSBP Engineer

Date

APPROVED:

State Aid Engineer

Date

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10.2. Rules and Regulations:

**OFFICE OF STATE AID ROAD CONSTRUCTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**RULES AND REGULATIONS
SETTING OUT THE PRINCIPAL AND NECESSARY ELEMENTS
OF ENGINEERING SERVICES ON LOCAL SYSTEM BRIDGE REPLACEMENT
AND REHABILITATION (LSBP) PROJECTS AND GOVERNING THE PAYMENT FOR
THESE ENGINEERING SERVICES FROM LSBP FUNDS**

Pursuant to the authority granted to and the responsibility imposed upon the State Aid Engineer by House Bill No. 1302, 1994 Legislative Session, the following Rules and Regulations, setting out the principal and necessary elements of engineering services on LSBP projects and governing the payment for these services from LSBP funds, are hereby adopted. These Rules and Regulations do not supersede nor rescind any other rules and regulations heretofore effected for State Aid projects.

I. INTENT OF REGULATIONS

It is the intent of these regulations to set out the basic engineering services required on LSBP projects; also, to describe the methods, procedures and limitations for paying for such services from LSBP funds. Further, it provides for methods by which the State Aid Engineer may withhold funds if the services are not provided in a satisfactory manner.

II. ENGINEERING SERVICES DEFINED

It is not proposed to set out all of the detailed engineering functions required for LSBP projects; however, the principal and necessary elements of engineering services are described below. It is also required that each engineer maintain an office where he may be contacted or receive messages during normal working hours each day.

A. GENERAL ENGINEERING FUNCTIONS

General engineering functions such as the inspection of existing bridges proposed as additions to the LSBP project; maintenance inspections; in-depth inspections by State Aid and audits by State Audit Department are not to be paid for directly, but are regarded as general responsibilities of the Engineer employed to perform engineering services in the LSBP Program.

B. PRELIMINARY ENGINEERING

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Preliminary engineering is defined as all engineering work involved from the initiation of a project to the award of the contract of said project and shall include, but not be limited to, the following:

1. Preparation of construction program (four-year plan) for adoption by the Boards and submission of these adopted programs to the State Aid Engineer.
2. The development of detailed surveys, including property line data. Cross sections are to be taken where excavation is to be computed on the basis of "in-place" measurement.

NOTE: Abstracting of properties, preparation of deeds, negotiations for and procurement of rights-of-way are integral parts of rights-of-way acquisition and rights-of-way costs and are not eligible to be paid from LSBP funds.

3. Make necessary field inspections, including a plan-in-hand inspection of proposed work, with a representative of the State Aid Engineer.
4. Development of detailed plans and designs. All plans will contain title sheet, recap of quantities sheet, roadway cross section sheet with details, bridge layout sheet, traffic control plan and plan-profile sheet.
5. Preparation of specifications (special provisions and Notices to Bidders) for local conditions and special situations not covered in the Standard Specifications adopted by the State Aid Engineer.
6. Preparation of Preliminary Estimate of Construction Cost.
7. Coordinate the setting of advertisement and letting dates with the Board and the State Aid District Engineer after the project has been authorized for advertisement for bids by the State Aid Engineer.
8. Solicit bids and issue proposals and plans to prospective bidders.
9. Attend lettings and assist in the tabulation and evaluation of bids.
10. Process and submit contract documents to the State Aid Engineer for concurrence.

C. CONSTRUCTION ENGINEERING

Construction engineering is defined as all engineering work involved from the contract stage through the preparation and submission of the final estimate and supporting documents to the State Aid Engineer and shall include, but not be limited to, the following:

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1. Schedule and conduct preconstruction conferences with contractors and other appropriate parties.
2. Issue Notice to Proceed to the Contractor AFTER the State Aid Engineer has concurred in the award of the contract.
3. Set all stakes, including centerline stakes, rights-of-way stakes, slope stakes, grade stakes (blue tops), stakes for structures (location and grade), channel changes and any other stakes necessary to control the work.
4. Make sure all work is performed by the Prime Contractor and/or approved subcontractors. Prepare and issue construction change requests, supplemental agreements and other supporting documentation for any changes anticipated to plans in an orderly manner to allow for approval prior to accomplishing the work.
5. Construction inspection and other controls to insure that the work performed is in accordance with the plans and specifications, including the incorporation of tested materials in the construction.
6. Prompt preparation and submission of Contractors' monthly estimates.
7. Maintain a project diary as the official project record for each project, showing the Contractor's daily operations; also, the engineering personnel's daily activities by names, functions performed and hours worked.
8. Check and verify the quantities of all materials incorporated in the project.
9. Coordinate material testing with testing personnel and maintain accurate test report files to insure all materials incorporated into a project are supported by proper test reports.
10. Prompt request for final inspection upon completion of work.
11. Prompt preparation and submission of the final estimate and supporting documents to the State Aid Engineer for approval and payment.

D. GENERAL RULES FOR PAYMENT OF ENGINEERING

The intent of House Bill No. 1302, 1994 Legislative Session, is that a County must employ an able and competent Registered Professional Engineer to provide all required engineering in the Local System Bridge Replacement and Rehabilitation Program.

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When documented evidence indicates to the State Aid Engineer that poor or careless service is being afforded the county by their LSBP engineer, payment for engineering services will be withheld from the county until the Board of Supervisors arrives at a disposition of the matter. If the matter is not promptly resolved to the satisfaction of the State Aid Engineer, then authorization for future projects under the LSBP Program will be withheld until the matter is resolved.

III. BASIS OF PAYMENTS AND RATES OF COMPENSATION

The basis of payments and rates of compensation will be as follows:

- A. For LSBP Engineers furnishing all engineering services on a fee basis, reimbursement to the Board from LSBP funds will be as set out below:
1. Preliminary engineering will be limited to forty percent of the agreed fee rate, based on the contract amount (bid items).
 2. Construction engineering will be limited to sixty percent of the agreed fee rate (10% max) based on the total cost as shown by the final estimate approved by the State Aid Engineer.
 3. The total engineering cost will be limited to the sum total of preliminary and construction engineering, or 100% of the agreed fee rate (10% max) of the final construction cost of contract items, based on the final estimate approved by the State Aid Engineer.
- B. FOR ENGINEERING PERSONNEL EMPLOYED BY BOARDS ON A FULL-TIME SALARY BASIS

Boards employing LSBP Engineers and other engineering personnel on a full-time salary basis will be reimbursed for the days such personnel donates to the individual projects at their regular salary rates, with the total cost of such engineering not to exceed ten percent (10%) of the construction costs.

In these cases, the LSBP Engineers will submit a list of the personnel and the salaries for each for approval by the State Aid Engineer prior to such payments.

The project diary for each project must show the name of each County employee, the number of hours worked and the number of miles traveled from the LSBP Engineer's headquarters. The engineering estimates must be supported by time sheets, showing names, days worked and miles traveled.

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C. OTHER SPECIAL ARRANGEMENTS BY BOARDS FOR ENGINEERING SERVICES

Boards desiring to utilize salaried engineering personnel, supplemented by the services of a consulting firm on a fee basis, will enter into a special contract agreement with the State Aid Engineer, stipulating the services each group is to perform and the compensation to be made therefor.

The same principle of limitation of costs outlined above will be applied to this special type arrangement.

IV. METHODS AND TIME OF PAYMENT FOR ENGINEERING COSTS

Payment for engineering services will not be made directly to the LSBP Engineer, but will be made to the Board on a reimbursement basis, as provided for in these regulations.

A. FOR PRELIMINARY ENGINEERING

The Board will be reimbursed for the cost of the preliminary engineering, as outlined in Section III above, after the contract for the project is awarded.

In case of a delay in the award of the contract due to rejection of bids and re-advertisement of the project for bids, seventy-five percent (75%) of the preliminary engineering based on the PS&E Assembly estimate may be reimbursed by the county, with the remaining twenty-five percent (25%) to be reimbursed after the contract award is made.

B. FOR CONSTRUCTION ENGINEERING

The County will be reimbursed for the construction engineering costs on the following basis:

1. One-fourth (1/4) of such construction engineering costs will be reimbursed to the County when the project is twenty-five percent (25%) complete.
2. An additional one-fourth (1/4) will be reimbursed to the County when the project is fifty percent (50%) complete.
3. An additional one-fourth (1/4) will be reimbursed to the County when the project is seventy-five percent (75%) complete.
4. The remaining one-fourth (1/4) will be reimbursed to the County when the final estimate and supporting documents are submitted, in proper form, to the State Aid Engineer.

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V. ENGINEERING DOCUMENTS

All engineering documents, including survey notes, plans, tabulations of quantities, project diary and other project records, shall remain the property of the Board. A LSBP Engineer who has prepared special designs, requiring above-normal work and cost, may retain the original drawings for said designs but shall furnish the Board and the State Aid Engineer, upon request, a copy of same for the project records.

VI. BOARD'S STATUTORY RIGHTS TO EMPLOY LSBP ENGINEER

These Rules and Regulations are not intended to interfere with the authority of a Board of Supervisors to employ a LSBP Engineer.

These Rules and Regulations are adopted this the ____ day of _____, 20____.

By: _____
State Aid Engineer

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11. BOARD'S CONTRACT TO EMPLOY TESTING ENGINEER:

11.1 Contact Model:

CONTRACT AGREEMENT

**COVERING PAYMENT FROM STATE AID FUNDS FOR
SAMPLING AND TESTING SERVICES PERFORMED ON STATE AID PROJECTS**

WHEREAS, Section 65-9-15, Mississippi Code of 1972, provides that engineering costs incurred on State Aid projects may be paid from State Aid funds, with the method of payment to be approved by the State Aid Engineer, under regulations promulgated by the State Aid Engineer, and

WHEREAS, the State Aid Engineer, on _____, 20____, promulgated Rules, Regulations and Procedures that set out the basic elements of sampling and testing of highway materials that are required on State Aid projects and established procedures governing the methods and limitations of payment for this service, and

WHEREAS, these attached Rules, Regulations and Procedures provide that each Board may enter into a Contract Agreement with the County/LSBP Engineer setting out the compensation per test, for labor and for mileage allowed for testing services on State Aid projects, said Agreement to be approved by the State Aid Engineer.

NOW, THEREFORE, IT IS HEREBY AGREED by the _____ County Board of Supervisors and _____, County/LSBP Engineer, that payment from State Aid funds for furnishing the authorized testing services on State Aid projects will be made to the County/LSBP Engineer by the Office of State Aid Road Construction upon approval of the statements submitted for testing services, labor and mileage for each project by the County/LSBP Engineer or approved testing laboratory (see State Aid Web Site), and

IT IS AGREED by the County/LSBP Engineer named herein that all testing services will be in accordance with the State Aid Engineer's Rules, Regulations and Procedures dated _____, 20____, a copy of which is attached hereto and made a part hereof. It is agreed that the State Aid Engineer will reimburse the County/LSBP Engineer at the rates of compensation set out in its latest revised schedule of testing charges, and the Board agrees to allow the use of State Aid funds for testing services.

THIS AGREEMENT shall not void any other valid contract that the Board may have with its County/LSBP Engineer, not shall it be construed to authorize duplicate payments to the County/LSBP Engineer for engineering services.

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THIS AGREEMENT shall remain in effect until it has been completed in accordance with the Rules, Regulations and Procedures attached hereto or until it is terminated by either party giving written notice at least thirty (30) days prior to the date that termination is to be effective.

WITNESS our signatures this the _____ day of _____, 20____.

Board of Supervisors, _____ County

By: _____
Board President

(As authorized by the attached copy of Order of the Board dated _____)

County/LSBP Engineer

Date

APPROVED:

State Aid Engineer

Date

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11.2 Rules, Regulations and Procedures:

**OFFICE OF STATE AID ROAD CONSTRUCTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**GENERAL RULES, REGULATIONS AND PROCEDURES
GOVERNING THE PERFORMANCE OF CERTAIN STATE AID
TESTING FUNCTIONS BY APPROVED TESTING LABORATORIES
AND PROVIDING FOR COMPENSATION THEREFOR**

I. GENERAL

The purpose of these Rules, Regulations and Procedures is to establish guidelines and procedures for the training of approved Testing Laboratory Technicians to perform certain basic testing functions on State Aid projects and to provide for compensation therefor.

The objectives in this proposal are primarily twofold, namely: (1) to reduce the cost of testing; and (2) to better correlate and control the construction operations, particularly as related to embankment, subbase and base construction. In addition to these objectives, there is an advantage in having some testing expertise at the County level which can be available to Counties for work other than State Aid. The County/LSBP Engineer shall use an approved testing laboratory as listed on the latest edition of approved laboratories by the Office of State Aid Road Construction. The County/LSBP Engineer may use the Mississippi Department of Transportation (MDOT) testing facilities in lieu of an approved testing laboratory.

II. TRAINING AND CERTIFICATION OF APPROVED TESTING LABORATORY TECHNICIANS

The training of approved Testing Laboratory Technicians will be accomplished with the cooperation and assistance of the Testing Laboratory's Testing Engineer, Assistant Testing Engineer or a qualified Laboratory Testing Technician. This training can be in the nature of "on-the-job" training in the laboratory and field.

After the training process, each technician will be required to perform actual tests at the Mississippi Department of Transportation Laboratory in Jackson, Mississippi. Upon a satisfactory performance of these tests, the State Materials Engineer will certify as to each technician's qualifications to perform specific testing functions.

It is mandatory that the testing procedures adopted by MDOT be followed since MDOT's Central Laboratory must take "Record Samples" on many Federal projects.

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In addition to the certification of these technicians, the MDOT Materials Engineer will also certify as to whether the testing laboratory is properly equipped to perform the work proposed.

III. DEFINED QUALIFICATIONS OF TESTING PERSONNEL

- A. Testing Engineer: A Testing Engineer must be a registered professional engineer, trained in the field of testing materials and familiar with MDOT testing procedures and AASHTO testing requirements.
- B. Assistant Testing Engineer: An Assistant Testing Engineer must be a graduate engineer from an accredited college of engineering, trained and experienced in materials testing and familiar with MDOT testing procedures and AASHTO testing requirements.
- C. Laboratory Technician: A qualified technician must be a person trained in the field of sampling, testing and reporting of soils, aggregates and other materials normally used in highway construction. He must also be familiar with MDOT testing procedures and AASHTO testing requirements.

IV. RESPONSIBILITIES OF COUNTY/LSBP ENGINEER AND APPROVED TESTING LABORATORY PERSONNEL

- A. The testing laboratory personnel performing the tests shall be under the direct supervision of the County/LSBP Engineer who will be responsible for the sampling, testing, inspection and reporting procedures of the laboratory.
- B. Approved testing personnel working under the supervision of the County/LSBP Engineer shall be fully qualified to sample, test and report the results according to approved procedures.

V. RECORDS AND REPORTS TO BE KEPT

- A. The laboratory personnel, under the direction of the County/LSBP Engineer, will maintain complete records of material tested. One (1) copy of test reports must be submitted to the Office of State Aid Road Construction for its project record files and one (1) copy must be submitted to the contractor.
- B. The County/LSBP Engineer will maintain a project record test report file for all pretested material received on the project and one (1) copy of the test report received from a commercial source is to be submitted to the Office of State Aid Road Construction and one (1) copy to the contractor.
- C. Test report forms for each testing procedure or function performed by the approved laboratory

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personnel will be similar to MDOT testing forms and shall be complete with all pertinent information required.

- D. For material items requiring specialized equipment and testing and which were not pretested and reported by the manufacturer, the County/LSBP Engineer will submit a sample to the MDOT Testing Laboratory for verification with specifications.

VI. PAYMENT TO COUNTY/LSBP ENGINEER

Subject to the approval of the Board, the County/LSBP Engineer (except salaried full-time County/LSBP) will be compensated out of the testing fund on the basis of unit prices for the various testing items to be performed. No payment will be made until test reports on the testing items performed are received in the Office of State Aid Road Construction.

No duplication of payments will be made. As an illustration, if a technician does work other than testing operations (such as inspection work), the County/LSBP Engineer will be reimbursed for only the time such employee actually devotes to testing operations. The time that he devotes to inspection work would be considered a part of the engineering fee. The project diary must clearly show a breakdown of time where an employee is assigned both engineering and testing functions.

Reimbursement for full-time salaried county engineering personnel will be made on the basis of actual time devoted to testing functions.

VII. IMPLEMENTATION

- A. Board Action: Before payment of State Aid funds for testing is authorized by the State Aid Engineer, the Board of Supervisors and County/LSBP Engineer must execute a Contract Agreement wherein the Board agrees to allow the use of their State Aid funds for this service.
- B. Testing Laboratory Action: Before being approved by the State Aid Engineer to perform testing on State Aid projects, the testing laboratory must demonstrate that it has proper equipment and personnel to perform the requested testing functions. Equipment will be certified by personnel from the MDOT Testing Laboratory as will be the ability of the laboratory's personnel to perform the required tests.
- C. State Aid Action: Upon receipt of the requirements stated in A. and B. above, the State Aid Engineer will approve the Contract Agreement referred to in A. above. The Rules, Regulations and

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Procedures may be amended and/or supplemented from time to time as the State Aid Engineer deems necessary.

Adopted on the _____ day of _____, 20____, under authority of Section 65-9-15, Mississippi Code of 1972.

By: _____
State Aid Engineer

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ORDER OF BOARD OF SUPERVISORS

_____ COUNTY, MISSISSIPPI

WHEREAS, General Rules, Regulations and Procedures Governing the Performance of Certain State Aid Testing Functions required on State Aid projects provide for the entering into an agreement with the County/LSBP Engineer for these services, and further that the County/LSBP Engineer is paid for these services by the Office of State Aid Road Construction, and

WHEREAS, it is deemed in the best interest of the Board of Supervisors of _____ County to enter into such agreement.

IT IS HEREBY RESOLVED that the President of the Board be authorized to execute a Contract Agreement Covering Payment from State Aid Funds for Sampling and Testing Services furnished by the County/LSBP Engineer on State Aid projects, and further that the State Aid Engineer be furnished a certified copy of the foregoing order.

This the _____ day of _____, 20_____.

President, Board of Supervisors

STATE OF MISSISSIPPI
COUNTY OF _____

This is to certify that the foregoing is a true and correct copy of an order passed by the Board of Supervisors of _____ County, Mississippi, entered into the minutes of the said Board of Supervisors, Minute Book No. _____, Page No. _____, same having been adopted at a meeting of said Board of Supervisors on the _____ day of _____, 20_____.

Clerk, Board of Supervisors

_____ County, Mississippi