

**ESCAMBIA COUNTY
FLORIDA**

INVITATION TO BIDDERS

**Bauer Road Paved Shoulders Project
Specification Number PD 17-18.044
FPID: 437085-1-58-01
Federal-Aid Project Number: 9044-034-C**

BIDS WILL BE RECEIVED UNTIL: 10:00 a.m., CDT, October 17, 2018

Office of Purchasing, Room 11.101
213 Palafox Place, Pensacola, FL 32502
Matt Langley Bell III Building
Post Office Box 1591
Pensacola, FL 32591-1591

A Mandatory Pre-Bid Conference will be held in the Office of Purchasing, Conference Room 11.407 on October 2, 2018 at 10:00 a.m. CDT. All Bidders must attend.

Board of County Commissioners

Jeff Bergosh, Chairman
Lumon J. May, Vice Chairman
Steven Barry
Grover C. Robinson IV
Douglas B. Underhill

**From:
Paul R. Nobles
Purchasing Manager**

Assistance:

Buzz Roggenbuck
Sr. Purchasing Coordinator
Office of Purchasing
2nd Floor, Matt Langley Bell, III Building
213 Palafox Place
Pensacola, FL 32502
Tel: (850) 595-4878
Email: abroggenbuck@myescambia.com

SPECIAL ACCOMMODATIONS:

Any person requiring special accommodations to attend or participate, pursuant to the Americans with Disabilities Act, should call the Office of Purchasing, (850) 595-4980 at least five (5) working days prior to the solicitation opening.

NOTICE

It is the specific legislative intent of the Board of County Commissioners that NO CONTRACT under this solicitation shall be formed between Escambia County and the awardee vendor until such time as the contract is executed by the last party to the transaction.

Escambia County Florida
Invitation to Bid
Bidder's Checklist
Bauer Road Paved Shoulders Project
Specification PD 17-18.044
FPID: 437085-1-58-01
Federal-Aid Project Number: 9044-034-C

How to Submit Your Bid

- Please review this document carefully. Offers that are accepted by the county are binding contracts. **Incomplete bids are not acceptable.** All documents and submittals shall be received by the office of purchasing on or before date and hour for specified for receipt. Late bids will be returned unopened.

* *Documents submitted with bids are to be on the forms provided in the invitation to bid and photocopies of other required documents.*

The Following Documents Shall Be Returned with Bid:

- Solicitation, Offer and Bid Form (With Original Signature)
- Bid Calculations Sheet
- Bid Surety (Bond, Check, Etc.)

The Following Documents Should Be Returned with Bid

- Lap Certification of Current Capacity (FDOT Form# 525-010-46)
- Certification Regarding Debarment, Suspension (FDOT Form # 375-030-32)
- Certification for Disclose of Lobbying Activities (FDOT Form# 375-030-33)
- Disclosure of Lobbying Activities (FDOT Form# 375-030-34)
- Non-Collusion Declaration and Compliance (FDOT Form# 575-060-13)
- Sworn Statement Pursuant to Section 287.133(3)(A), Florida Statutes, On Entity Crimes
- Drug-Free Workplace Form
- Information Sheet for Transactions and Conveyances Corporate Identification
- Certificate of Authority to Do Business from The State of Florida
- Occupational License
- Florida Department of Business and Professional Regulation – License(S), Certification(S) and/or Registration(S)

Before You Submit Your Bid, Have You:

- Placed your bid with all required submittal items in a sealed envelope clearly marked for specification number, Bauer Road Paved Shoulders Project, name of bidder, and due date and time of bid receipt?

The Following Submittals Are Required Upon Notice of Award:

- Certificate of Insurance
- Payment and Performance Bonds

How to Submit a No Bid

- If you do not wish to bid at this time, please remove the bidder solicitation, offer and bid form from the bid solicitation package and enter no bid in the "**Reason for No Bid**" block, your company's name, address, signature, and return the bidder solicitation, offer and bid form in a sealed envelope. This will ensure your company's active status in our bidder's list.

This form is for your convenience to assist in filling out your bid only.
Do Not Return with Your Bid

**Bauer Road Paved Shoulders Project
PD 17-18.044
FPID: 437085-1-58-01
Federal-Aid Project Number: 9044-034-C**

TABLE OF CONTENTS

**Forms marked with an (* Asterisk) must be returned with Offer.
Forms marked with a (** Double Asterisk) should be returned with Offer.**

	<u>Page</u>
Solicitation, Offer and Bid Form *	1
LAP Construction Contract Requirements	4
Certification Regarding E-Verify System	32
Sworn Statement Pursuant to Section (287.133) (3)(a), <u>Florida Statutes</u> , on Entity Crimes **	33
Drug Free Workplace Form **	35
Information Sheet for Transactions and Conveyances Corporation Identification **	36
List of General Terms and Conditions (Incorporated by Reference)	38
Special Terms and Conditions	40
Scope of Work / Standard Form Contract (Incorporated by Reference and revised as indicated within the solicitation)	41
Index of Documents (Incorporated by Reference and revised as indicated within the solicitation)	50

*****IMPORTANT NOTICE*****

The bid form for this solicitation is now located on the attached Excel spreadsheet: **“*Bid Form - Bauer Road Paved Shoulders Project*”**.

Bidders are required to complete the bid form on the spreadsheet and print it for signature.

The printed bid form must be submitted with an original signature or the bid will not be accepted.

The excel spreadsheet must be completed and submitted via electronic format (CD or flash drive).

**Bauer Road Dirt Shoulder Widening Project
PD 17-18.044 Bid Form**

Pay Item #	DESCRIPTION	UNITS	QUANTITY	UNIT PRICE	EXT.
1	Mobilization	LS	1		
2	Maintenance of Traffic (Includes Plan, Notification, Implementation, and VMB's - 7 days prior to construction)	LS	1		
3	Erosion Control (Includes implementation of SWPPP Plan, NPDES General Permit, NOI, NOT, monitoring, replacement, etc.)	LS	1		
4	Remove and Replace Inplace unsuitable material (if necessary) (Per Escambia County Specifications)	CY	1,500		
5	Clearing and Grubbing (includes all above grade and below grade improvements as indicated and as necessary to facilitate new construction.)	LS	1		
6	Establish Grade	SY	5,580		
7	3" Type SP 12.5 - Traffic Level B Asphalt	SY	4,185		
8	1.5" Type FC 9.5 - Traffic Level B Asphalt	SY	4,185		
9	8" Graded Aggregate Base	SY	3,717		
10	12" Stabilized Subgrade	SY	5,350		
11	Centipede Sod (Includes all necessary topsoil)	SY	1,860		
12	Sawcut Existing Asphalt	LF	6,277		
13	Remove Existing Asphalt (Typical Section)	SY	698		
14	Construct Curb Ramp (Approved Mat, Color included) FDOT Index 304	EA	2		
15	Relocate Existing Standard Mailbox	EA	25		
16	Remove existing concrete sidewalk	SY	91		
17	Relocate Traffic Signs	EA	2		
18	Signing and Pavement Marking (Includes Temporary Markings, Layout, Final Thermoplastic Markings, and 6" White Edgeline Striping)	LS	1		
19	4" Fiber Reinforced Concrete Driveway	SY	644		
20	6" Stabilized Subgrade for Driveways (For both Concrete and Asphalt Driveways)	SY	663		
21	1.5" Asphalt Driveway	SY	19		
				TOTAL PRICE =	

Bid Form Continued...
PD 17-18.044
Bauer Road Paved Shoulders Project

(TO BE FILLED IN)

CONTRACTOR REQUIREMENTS

Acknowledgment is hereby made of receipt of the following addenda issued during the bidding period:

Addendum No. _____ Date _____ Addendum No. _____ Date _____

Addendum No. _____ Date _____ Addendum No. _____ Date _____

(PLEASE TYPE INFORMATION BELOW)

SEAL IF BID IS BY CORPORATION

State of Florida Department of State
Certificate of Authority Document Number

Occupational License No. _____

Florida DBPR Contractor's License,
Certification and/or Registration No.

Type of Contractor's License, Certification
and/or Registration _____

Expiration Date: _____

County Permits/Fees required for this project:
Permit _____ Cost _____

Person to contact concerning this bid:

Phone _____

Email _____

Person to contact for emergency service:

Phone _____

Email _____

Attached to bid you shall find a bid bond, cashier's check or certified check (circle one that applies) in the amount of **(5%)** of bid.

The work shall be substantially completed within ninety **(90) calendar days** from the Notice to Proceed. The Bidder agrees to fully complete all work included above within **thirty (30) consecutive calendar days** from the date of Substantial Completion. **Liquidated damages of \$1,241.00 each day will be assessed for each day that completion of the project is delayed.** All work to be accomplished under this bid shall be the responsibility of Bidder and failure of subcontractors to perform shall not relieve Bidder of any liquidated damages. A Bid Bond in the amount of 5% of base bid is to be furnished by each Bidder. Bidder further acknowledges that all of the work outlined above may not be required at the discretion of Escambia County. The total will be subject to total funds available during the course of the work. However, it is the intent of Escambia County at this time to substantially complete the listed work.

Names and addresses of proposed Subcontractors to be utilized for work on this project:

- 1.
- 2.
- 3.
- 4.

LAP Documents

Insert PDF's after converting solicitation.

**LOCAL AGENCY PROGRAM
CONSTRUCTION
CONTRACT
REQUIREMENTS**

FOR

**BAUER ROAD PAVED
SHOULDER PROJECT**

FPID: 437085-1-58-01

Federal Project: 9044-034-C

TABLE OF CONTENTS

	<u>Page</u>
LAP CONSTRUCTION CONTRACT REQUIREMENTS	3
CERTIFICATION OF CURRENT CAPACITY (Checklist Item # 5)	3
CONTRACTOR PURCHASED EQUIPMENT FOR STATE OR LOCAL OWNERSHIP (Checklist Item # 8)	3
LOBBYING CERTIFICATION (Checklist Item #18).....	3
LOCAL / STATE HIRING PREFERENCE (Checklist Item # 19)	3
NON-COLLUSION PROVISION (Checklist Item # 21)	3
PUBLIC AGENCIES IN COMPETITION WITH THE PRIVATE SECTOR (Checklist Item # 30)	3
PUBLICLY OWNED EQUIPMENT (Checklist Item # 31).....	3
STATE (FLORIDA OR OTHER) PRODUCED MATERIALS (Checklist Item # 33)	3
STATE / LOCAL OWNED / FURNISHED / DESIGNATED MATERIALS (Checklist Item # 34)	3
SUSPENSION AND DEBARMENT (Checklist Item # 36).....	4
RECORDS RETENTION.....	4
ATTACHMENTS	5
DOT FORM # 525-010-46	?
EXHIBIT A: FHWA-1273	?
DOT FORM # 375-030-33	?
DOT FORM # 375-030-34	?
DOT FORM # 575-060-13	?
DOT FORM # 375-030-32	?
ETC. (IF NEEDED).....	?

CERTIFICATION OF CURRENT CAPACITY (Checklist Item # 5)

Contractor must certify they have the financial capacity to complete the project. Include FDOT Form # 525-010-46.

CONTRACTOR PURCHASED EQUIPMENT FOR STATE OR LOCAL OWNERSHIP (Checklist Item # 8)

The Contractor shall not purchase any equipment for state or local ownership.

LOBBYING CERTIFICATION (Checklist Item #18)

Include certification in bid documents using FDOT Form #375-030-33 and FDOT Form #375-030-34.

LOCAL / STATE HIRING PREFERENCE (Checklist Item # 19)

No local/state hiring preferences shall be used.

NON-COLLUSION PROVISION (Checklist Item # 21)

Include certification in the bid documents using FDOT Form # 575-060-13.

PUBLIC AGENCIES IN COMPETITION WITH THE PRIVATE SECTOR (Checklist Item # 30)

No public agency shall be permitted to bid in competition or to enter into subcontracts with private contractors.

PUBLICLY OWNED EQUIPMENT (Checklist Item # 31)

Publicly owned equipment shall not compete with privately owned equipment on this contract

STATE (FLORIDA OR OTHER) PRODUCED MATERIALS (Checklist Item # 33)

No materials produced by Florida state, or other state, forces shall be used.

STATE / LOCAL OWNED / FURNISHED / DESIGNATED MATERIALS (Checklist Item # 34)

All materials must be provided by the contractor.

SUSPENSION AND DEBARMENT (Checklist Item # 36)

The Local Agency or Owner shall ensure inclusion of Form # 375-030-32 (see Attachments) in the contract bid documents.

RECORDS RETENTION

All records should be maintained for a period of seven (7) years after the completion of this contract.

ATTACHMENTS

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
LAP CERTIFICATION OF CURRENT CAPACITY

CONFIDENTIAL

For bids to be received on _____
(Letting Date)

Fill in your FDOT Vendor Number
VF _____
(Only applicable to FDOT pre-qualified contractors)

CERTIFICATE

I hereby certify that the amount of any proposal submitted by this bidder for the above letting does not exceed the amount of the Firm's CURRENT CAPACITY (maximum capacity rating less total uncompleted work).

The total uncompleted work as shown on
the "Status of Contracts on Hand" report (page 2) \$ _____

I further certify that the "Status of Contracts on Hand" report (page 2) was prepared as follows:

1. If the letting is before the 25th day of the month, the certificate and report reflect the uncompleted work as of the 15th day of the month, last preceding the month of the letting.
2. If the letting is after the 25th day of the month, the certificate and report reflects the uncompleted work in progress as of the 15th day of the month of the letting.
3. All new contracts (and subcontracts) awarded earlier than five days before the letting date are included in the report and charged against our total rating.

I certify that the information above is correct.

Sworn to and subscribed this _____ day
of _____, 20 _____

NAME OF FIRM

By: _____

Title

STATUS OF CONTRACTS ON HAND

(Furnish complete information about all your contracts, whether prime or subcontracts; whether in progress or awarded, but not yet begun; and regardless of whom contracted with.)

1	2	3	4	5		6
PROJECTS OWNER, LOCATION AND DESCRIPTION	CONTRACT (OR SUBCONTRACT) AMOUNT	AMOUNT SUBLET TO OTHERS	BALANCE OF CONTRACT AMOUNT	UNCOMPLETED AMOUNT TO BE DONE BY YOU		
				AS PRIME CONTRACTOR	AS SUBCONTRACTOR	
NOTE: Columns 2 and 3 to show total contract (or subcontract) amounts. Column 4 to be difference between columns 2 and 3. Amount in columns 5 or 6 to be uncompleted portion of amount in column 4. All amounts to be shown to nearest \$100. The Contractor may consolidate and list as a single item all contracts which, individually, do not exceed 3% of total, and which, in the aggregate, amount to less than 20% of the total.			TOTALS	\$0.00	\$0.00	
			TOTAL UNCOMPLETED WORK ON HAND TO BE DONE BY YOU (TOTAL COLUMNS 5 AND 6)	\$0.00		

**REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS**

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar

with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions

of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program. Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-

Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly

rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;

(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is

evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.

2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this

covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS
PREFERENCE FOR APPALACHIAN DEVELOPMENT
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS
ROAD CONTRACTS**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

**CERTIFICATION FOR DISCLOSURE OF LOBBYING ACTIVITIES
ON FEDERAL-AID CONTRACTS
(Compliance with 49CFR, Section 20.100 (b))**

The prospective participant certifies, by signing this certification, that to the best of his or her knowledge and belief:

(1) No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities", in accordance with its instructions. (Standard Form-LLL can be obtained from the Florida Department of Transportation's Professional Services Administrator or Procurement Office.)

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The prospective participant also agrees by submitting his or her proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such subrecipients shall certify and disclose accordingly.

Name of Consultant:

By: _____ Date: _____ Authorized Signature

Title: _____

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
DISCLOSURE OF LOBBYING ACTIVITIES

375-030-34
 PROCUREMENT
 02/16

Is this form applicable to your firm?
 YES NO
 If *no*, then please complete section 4
 below for "Prime"

1. Type of Federal Action: a. contract b. grant c. cooperative agreement d. loan e. loan guarantee f. loan insurance	2. Status of Federal Action: a. bid/offer/application b. initial award c. post-award	3. Report Type: a. initial filing b. material change For Material Change Only: Year: _____ Quarter: _____ Date of last report: _____ (mm/dd/yyyy)
4. Name and Address of Reporting Entity: <input type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier _____, <i>if known</i> : _____ _____ _____ Congressional District, <i>if known</i> : 4c _____	5. If Reporting Entity in No. 4 is a Subawardee, Enter Name and Address of Prime: _____ _____ _____ Congressional District, <i>if known</i> : _____	
6. Federal Department/Agency: _____ _____	7. Federal Program Name/Description: _____ _____ CFDA Number, <i>if applicable</i> : _____	
8. Federal Action Number, if known: _____	9. Award Amount, if known: \$ _____	
10. a. Name and Address of Lobbying Registrant <i>(if individual, last name, first name, MI):</i> _____ _____ _____	b. Individuals Performing Services <i>(including address if different from No. 10a)</i> <i>(last name, first name, MI):</i> _____ _____ _____	
11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.	Signature: _____ Print Name: _____ Title: _____ Telephone No.: _____ Date (mm/dd/yyyy): _____	
Federal Use Only:	Authorized for Local Reproduction Standard Form LLL (Rev. 7-97)	

INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a covered Federal action. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.
2. Identify the status of the covered Federal action.
3. Identify the appropriate classification of this report. If this is a followup report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.
4. Enter the fullname, address, city, State and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
5. If the organization filing the report in item 4 checks "Subawardee," then enter the full name, address, city, State and zip code of the prime Federal recipient. Include Congressional District, if known.
6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organizational level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.
8. Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number; Invitation for Bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."
9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.
10. (a) Enter the full name, address, city, State and zip code of the lobbying registrant under the Lobbying Disclosure Act of 1995 engaged by the reporting entity identified in item 4 to influence the covered Federal action.

(b) Enter the full names of the individual(s) performing services, and include full address if different from 10 (a). Enter Last Name, First Name, and Middle Initial (MI).
11. The certifying official shall sign and date the form, print his/her name, title, and telephone number.

According to the Paperwork Reduction Act, as amended, no persons are required to respond to a collection of information unless it displays a valid OMB Control Number. The valid OMB control number for this information collection is OMB No. 0348-0046. Public reporting burden for this collection of information is estimated to average 10 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, DC 20503.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
**NON-COLLUSION DECLARATION AND
COMPLIANCE WITH 49 CFR §29.**

ITEM/SEGMENT NO.: _____
F.A.P. NO.: _____
MANAGING DISTRICT: _____
PARCEL NO.: _____
COUNTY OF: _____
BID LETTING OF: _____

I, _____, hereby
(NAME)
declare that I am _____ of _____
(TITLE) (FIRM)
of _____
(CITY AND STATE)

and that I am the person responsible within my firm for the final decision as to the price(s) and amount of this Bid on this State Project.

I further declare that:

1. The prices(s) and amount of this bid have been arrived at independently, without consultation, communication or agreement, for the purpose of restricting competition with any other contractor, bidder or potential bidder.
2. Neither the price(s) nor the amount of this bid have been disclosed to any other firm or person who is a bidder or potential bidder on this project, and will not be so disclosed prior to the bid opening.
3. No attempt has been made or will be made to solicit, cause or induce any other firm or person to refrain from bidding on this project, or to submit a bid higher than the bid of this firm, or any intentionally high or non-competitive bid or other form of complementary bid.
4. The bid of my firm is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary bid.
5. My firm has not offered or entered into a subcontract or agreement regarding the purchase of materials or services from any firm or person, or offered, promised or paid cash or anything of value to any firm or person, whether in connection with this or any other project, in consideration for an agreement or promise by any firm or person to refrain from bidding or to submit a complementary bid on this project.
6. My firm has not accepted or been promised any subcontract or agreement regarding the sale of materials or services to any firm or person, and has not been promised or paid cash or anything of value by any firm or person, whether in connection with this or any other project, in consideration for my firm's submitting a complementary bid, or agreeing to do so, on this project.
7. I have made a diligent inquiry of all members, officers, employees, and agents of my firm with responsibilities relating to the preparation, approval or submission of my firm's bid on this project and have been advised by each of them that he or she has not participated in any communication, consultation, discussion, agreement, collusion, act or other conduct inconsistent with any of the statements and representations made in this Declaration.
8. As required by Section 337.165, Florida Statutes, the firm has fully informed the Department of Transportation in writing of all convictions of the firm, its affiliates (as defined in Section 337.165(l)(a), Florida Statutes), and all directors, officers, and employees of the firm and its affiliates for violation of state or federal antitrust laws with respect to a public contract or for violation of any state or federal law involving fraud, bribery, collusion, conspiracy or material misrepresentation with respect to a public contract. This includes disclosure of the names of current employees of the firm or affiliates who were convicted of contract crimes while in the employ of another company.
9. I certify that, except as noted below, neither my firm nor any person associated therewith in the capacity of owner, partner, director, officer, principal, investigator, project director, manager, auditor, and/or position involving the administration of Federal funds:

(a) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions, as defined in 49 CFR §29.110(a), by any Federal department or agency;

(b) has within a three-year period preceding this certification been convicted of or had a civil judgment rendered against him or her for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a Federal, State or local government transaction or public contract; violation of Federal or State antitrust statutes; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property;

(c) is presently indicted for or otherwise criminally or civilly charged by a Federal, State or local governmental entity with commission of any of the offenses enumerated in paragraph 9(b) of this certification; and

(d) has within a three-year period preceding this certification had one or more Federal, State or local government public transactions terminated for cause or default.

10. I(We), certify that I(We), shall not knowingly enter into any transaction with any subcontractor, material supplier, or vendor who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this contract by any Federal Agency unless authorized by the Department.

Where I am unable to declare or certify as to any of the statements contained in the above stated paragraphs numbered (1) through (10), I have provided an explanation in the "Exceptions" portion below or by attached separate sheet.

EXCEPTIONS:

(Any exception listed above will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any exception noted, indicate to whom it applies, initiating agency and dates of agency action. Providing false information may result in criminal prosecution and/or administrative sanctions.)

I declare under penalty of perjury that the foregoing is true and correct.

CONTRACTOR: _____ (Seal)

BY: _____
NAME AND TITLE PRINTED

WITNESS: _____

BY: _____
SIGNATURE

WITNESS: _____

Executed on this _____ day of _____, _____

**FAILURE TO FULLY COMPLETE AND EXECUTE THIS DOCUMENT
MAY RESULT IN THE BID BEING DECLARED NONRESPONSIVE**

REQUIRED CONTRACT PROVISIONS

This certification applies to subcontractors, material suppliers, vendors and other lower tier participants.

- Appendix B of 49 CFR Part 29 -

Appendix B--Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transactions

Instructions for Certification

1. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to whom this proposal is submitted for assistance in obtaining a copy of those regulations.
5. The prospective lower tier participant agrees by submitting this proposal that it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
6. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transactions

- (1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- (2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION,
INELIGIBILITY AND VOLUNTARY EXCLUSION-
LOWER TIER COVERED TRANSACTIONS FOR FEDERAL AID CONTRACTS
(Compliance with 2 CFR Parts 180 and 1200)**

It is certified that neither the below identified firm nor its principals are presently suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department or agency.

Name of Consultant/Contractor: _____

By: _____

Date: _____

Title: _____

Instructions for Certification

Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

- a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.
- b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
- c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.
- d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).
- e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
- f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.
- g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.
- h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

DBE Utilization

The Department began its DBE race neutral program January 1, 2000. **Contract specific goals are not placed on Federal/State contracts;** however, the Department has an overall 10.65% DBE goal it must achieve. In order to assist contractors in determining their DBE commitment level, the Department has reviewed the estimates for this letting.

As you prepare your bid, please monitor potential or anticipated DBE utilization for contracts. When the low bidder executes the contract with the Department, information will be requested of the contractor's DBE participation for the project. While the utilization is not mandatory in order to be awarded the project, continuing utilization of DBE firms on contracts supports the success of Florida's DBE Program, and supports contractors' Equal Employment Opportunity and DBE Affirmative Action Programs.

Any project listed as 0% DBE availability does not mean that a DBE may not be used on that project. A 0% DBE availability may have been established due to any of the following reasons: limited identified subcontracting opportunities, minimal contract days, and/or small contract dollar amount. Contractors are encouraged to identify any opportunities to subcontract to DBE's.

Please contact the Equal Opportunity Office at (850) 414-4747 if you have any questions regarding this information. Forms may be downloaded at: www.dot.state.fl.us/proceduraldocuments/ .

DBE Reporting

If you are the prime contractor on a project, enter your DBE participation in the Equal Opportunity Compliance system prior to the pre-construction or pre-work conference for all federal and state funded projects. This **will not** become a mandatory part of the contract. It will assist the Department in tracking and reporting planned or estimated DBE utilization. During the contract, the prime contractor is required to report actual payments to DBE and MBE subcontractors through the web-based Equal Opportunity Compliance (EOC) system.

All DBE payments must be reported whether or not you initially planned to utilize the company. In order for our race neutral DBE Program to be successful, your cooperation is imperative. If you have any questions, please contact EOOHelp@dot.state.fl.us.

Bid Opportunity List

The Federal DBE Program requires States to maintain a database of all firms that are participating or attempting to participate on FDOT-assisted contracts. The list must include all firms that bid on prime contracts or bid or quote subcontracts on FDOT-assisted projects, including both **DBE's and non-DBEs**.

Please complete the Bidders Opportunity List through the Equal Opportunity Compliance system within 3 business days of submission of the bid or proposal for ALL subcontractors or sub-consultants who quoted to you for specific project for this letting. The web address to the Equal Opportunity Compliance system is:

<https://www3.dot.state.fl.us/EqualOpportunityCompliance/Account.aspx/Login?ReturnUrl=%2fEqualOpportunityCompliance%2f> .

DBE/AA Plans

Contractors bidding on FDOT contracts are to have an approved DBE Affirmative Action Plan (FDOT Form 275-030-11B) on file with the FDOT Equal Opportunity Office before execution of a contract. DBE/AA Plans must be received with the contractors bid or received by the Equal Opportunity Office prior to the award of the contract.

Plans are approved by the Equal Opportunity Office in accordance with Ch. 14-78, Florida Administrative Code. Plans that do not meet these mandatory requirements may not be approved. Approvals are for a (3) three year period and should be updated at anytime there is a change in the company's DBE Liaison Officer and/or President. Contractors may evidence adoption of the DBE/AA Policy and Plan and/or a change in the designated DBE Liaison officer as follows:

- Print the first page of the document on company stationery ("letterhead") that indicates the company's name, mailing address, phone number, etc.
- Print the company's name in the "____" space; next to "Date" print the month/day/year the policy is being signed; record the signature of the company's Chief Executive Officer, President or Chairperson in the space next to "by" and print the full first and last name and position title of the official signing the policy.
- Print the DBE Liaison's full name, email address, business mailing address and phone number the bottom of email.

E-mail the completed and signed DBE AA Plan to: **eeoforms@dot.state.fl.us**.

The Department will review the policy, update department records and issue a notification of approval or disapproval; a copy of the submitted plan will not be returned to the contractor.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
LAP CERTIFICATION OF CURRENT CAPACITY

CONFIDENTIAL

For bids to be received on _____
(Letting Date)

Fill in your FDOT Vendor Number VF _____ (Only applicable to FDOT pre-qualified contractors)
--

CERTIFICATE

I hereby certify that the amount of any proposal submitted by this bidder for the above letting does not exceed the amount of the Firm's CURRENT CAPACITY (maximum capacity rating less total uncompleted work).

The total uncompleted work as shown on
the "Status of Contracts on Hand" report (page 2) \$ _____

I further certify that the "Status of Contracts on Hand" report (page 2) was prepared as follows:

1. If the letting is before the 25th day of the month, the certificate and report reflect the uncompleted work as of the 15th day of the month, last preceding the month of the letting.
2. If the letting is after the 25th day of the month, the certificate and report reflects the uncompleted work in progress as of the 15th day of the month of the letting.
3. All new contracts (and subcontracts) awarded earlier than five days before the letting date are included in the report and charged against our total rating.

I certify that the information above is correct.

NAME OF FIRM

Sworn to and subscribed this _____ day
of _____, 20 _____

By: _____

Title

STATUS OF CONTRACTS ON HAND

(Furnish complete information about all your contracts, whether prime or subcontracts; whether in progress or awarded, but not yet begun; and regardless of whom contracted with.)

1	2	3	4	5		6
PROJECTS OWNER, LOCATION AND DESCRIPTION	CONTRACT (OR SUBCONTRACT) AMOUNT	AMOUNT SUBLET TO OTHERS	BALANCE OF CONTRACT AMOUNT	UNCOMPLETED AMOUNT TO BE DONE BY YOU		
				AS PRIME CONTRACTOR	AS SUBCONTRACTOR	
NOTE: Columns 2 and 3 to show total contract (or subcontract) amounts. Column 4 to be difference between columns 2 and 3. Amount in columns 5 or 6 to be uncompleted portion of amount in column 4. All amounts to be shown to nearest \$100. The Contractor may consolidate and list as a single item all contracts which, individually, do not exceed 3% of total, and which, in the aggregate, amount to less than 20% of the total.			TOTALS	\$0.00	\$0.00	
			TOTAL UNCOMPLETED WORK ON HAND TO BE DONE BY YOU (TOTAL COLUMNS 5 AND 6)	\$0.00		

Certification Regarding E-Verify System

Contractor hereby certifies compliance with the following:
Pursuant to State of Florida Executive Order No.: 11-116, Contractor shall utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by Contractor while performing work or providing services for Escambia County. Contractor shall also include in any related subcontracts a requirement that subcontractors performing work or providing services for Escambia County on its behalf utilize the E-Verify system to verify employment of all new employees hired by subcontractor.

CONTRACTOR:

Business Name

By: _____
Signature

Name: _____
Printed

Title: _____
Printed

Date: _____

**SWORN STATEMENT PURSUANT TO SECTION 287.133(3)(a),
FLORIDA STATUTES, ON ENTITY CRIMES**

1. This sworn statement is submitted to _____
(print name of the public entity)

by _____
(print individual's name and title)

for _____
(print name of entity submitting sworn statement)

whose business address is

and (if applicable) its Federal Employer Identification Number (FEIN) is:

(If the entity has no FEIN, include the Social Security Number of the Individual signing this sworn statement: _____)

2. I understand that a "public entity crime" as defined in Paragraph 287.133(1)(g), **Florida Statutes**, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or of the United States, including, but not limited to, any bid or contract for goods or services to be provided to any public entity or an agency or political subdivision or any other state or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.
3. I understand that "convicted" or "conviction" as defined in Paragraph 287.133(1)(b), **Florida Statutes**, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.
4. I understand that an "affiliate" as defined in Paragraph 287.133(1)(a), **Florida Statutes**, means:
- a. A predecessor or successor of a person convicted of a public entity crime; or
 - b. An entity under the control any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.

- c. I understand that a "person" as defined in Paragraph 287.133(1)(e), **Florida Statutes**, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into binding contract and which bids or applies to bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.
- d. Based on information and belief, the statement which I have marked below is true in relation to the entity submitting this sworn statement. **(indicate which statement applies.)**

_____ Neither the entity submitting this sworn statement, nor any of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, nor any affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

_____ The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

_____ The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989. However, there has been a subsequent proceeding before a Hearing Officer of the State of Florida, Division of Administrative Hearings and the Final Order entered by the Hearing Officer determined that it was not in the public interest to place the entity submitting this sworn statement on the convicted vendor list. **(attach a copy of the final order)**

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR THE PUBLIC ENTITY IDENTIFIED IN PARAGRAPH 1 (ONE) ABOVE IS FOR THAT PUBLIC ENTITY ONLY AND, THAT THIS FORM IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT I AM REQUIRED TO INFORM THE PUBLIC ENTITY PRIOR TO ENTERING INTO A CONTRACT IN EXCESS OF THE THRESHOLD AMOUNT PROVIDED IN SECTION 287.017, FLORIDA STATUTES FOR CATEGORY TWO OF ANY CHANGE IN THE INFORMATION CONTAINED IN THIS FORM.

(signature)

Sworn to and subscribed before me this _____ day of _____, 20_____

Personally known _____

OR produced identification _____ Notary Public - State of _____

_____ My commission expires _____

(Type of identification)

(Printed typed or stamped commissioned name of notary public)

DRUG-FREE WORKPLACE PROGRAM CERTIFICATION

In order to have a drug- free workplace program, a business shall:

(1) Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.

(2) Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.

(3) Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).

(4) In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than 5 days after such conviction.

(5) Impose a sanction on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community by, any employee who is so convicted.

(6) Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

Does the individual responding to this solicitation certify that their firm has implemented a drug-free workplace program as stated above?

YES

NO

NAME OF BUSINESS: _____

Offeror's Signature

Date

**Information Sheet
for Transactions and Conveyances
Corporation Identification**

The following information will be provided to the Escambia County Legal Department for incorporation in legal documents. It is, therefore, vital all information is accurate and complete. Please be certain all spelling, capitalization, etc. is exactly as registered with the state or federal government.

Is this a Florida Corporation (Please Circle One)
Yes or No

If not a Florida Corporation,

In what state was it created: _____

Name as spelled in that State: _____

What kind of corporation is it: "For Profit" or "Not for Profit"

Is it in good standing: Yes or No

**Authorized to transact business
in Florida:** Yes or No

State of Florida Department of State Certificate of Authority Document No.:

Does it use a registered fictitious name: Yes or No

Names of Officers:

President: _____	Secretary: _____
Vice President: _____	Treasurer: _____
Director: _____	Director: _____
Other: _____	Other: _____

Name of Corporation (As used in Florida):

(Spelled exactly as it is registered with the state or federal government)

Corporate Address:

Post Office Box: _____
City, State Zip: _____
Street Address: _____
City, State, Zip: _____

(Please provide post office box and street address for mail and/or express delivery; also for recorded instruments involving land)

(Please continue and complete page 2)

Federal Identification Number: _____
(For all instruments to be recorded, taxpayer's identification is needed)

Contact person for company: _____

E-mail: _____

Telephone Number: _____ Facsimile Number: _____

Name of individual who will sign the instrument on behalf of the company:

(Upon Certification of Award, Contract shall be signed by the President or Vice-President. Any other officer shall have permission to sign via a resolution approved by the Board of Directors on behalf of the company. Awarded contractor shall submit a copy of the resolution together with the executed contract to the Office of Purchasing)

(Spelled exactly as it would appear on the instrument)

Title of the individual named above who will sign on behalf of the company:

END

Verified by: _____ Date: _____

ESCAMBIA COUNTY, FLORIDA GENERAL TERMS and CONDITIONS

The following General Terms and Conditions are incorporated by reference and have the same legal effect as if printed in its entirety.

A full textual copy of these conditions may be obtained by visiting the Office of Purchasing Home Page (see Bid Information), by telephoning the Office of Purchasing at (850) 595-4980 or by Fax at (850)595-4806.

NOTE: Any and all Special Terms and Conditions and specifications referenced within the solicitation which varies from these General Terms and Conditions shall have precedence. Submission of the Bidder/Proposal Solicitation, Offer and Bid Form and Bid/Proposal Form(s) in accordance with these General Terms and Conditions and Special Terms and Conditions constitutes an offer from the offeror. If any or all parts of the offer are accepted by Escambia County Florida, an authorized representative of the county shall affix his signature hereto, and this shall then constitute a written agreement between parties. The conditions incorporated herein become a part of the written agreement between the parties.

Bid Information See Home Page URL: <https://myescambia.com/our-services/purchasing>
Click on **SOLICITATIONS**

1. **Sealed Solicitations**
2. **Execution of Solicitation**
3. **No Offer**
4. **Solicitation Opening**
5. **Prices, Terms and Payment**
 - 5.01 **Taxes**
 - 5.02 **Discounts**
 - 5.03 **Mistakes**
 - 5.04 **Condition and Packaging**
 - 5.05 **Safety Standards**
 - 5.06 **Invoicing and Payment**
 - 5.07 **Annual Appropriations**
6. **Additional Terms and Conditions**
7. **Manufacturers' Name and Approved Equivalent**
8. **Interpretations/Disputes**
9. **Conflict of Interest**
 - 9.01 **County Procedure on Acceptance of Gifts**
 - 9.02 **Contractors Required to Disclose any Gift Giving**
 - 9.03 **Gratuities**
10. **Awards**
11. **Nonconformance to Contract Conditions**
12. **Inspection, Acceptance and Title**
13. **Governmental Restrictions**
14. **Legal Requirements**
15. **Patents and Royalties**
16. **Price Adjustments**
17. **Cancellation**
18. **Abnormal Quantities**
19. **Advertising**
20. **Assignment**
21. **Liability**
22. **Facilities**
23. **Distribution of Certification of Contract**

ESCAMBIA COUNTY, FLORIDA GENERAL TERMS and CONDITIONS

The following General Terms and Conditions are incorporated by reference (continued).

24. **The Successful Bidder(s) must Provide**
25. **Addition/deletion of Items**
26. **Ordering Instructions**
27. **Public Records**
28. **Delivery**
29. **Samples**
30. **Additional Quantities**
31. **Service and Warranty**
32. **Default**
33. **Equal Employment Opportunity**
34. **Florida Preference**
35. **Contractor Personnel**
36. **Award**
37. **Uniform Commercial Code**
38. **Contractual Agreement**
39. **Payment Terms/Discounts**
40. **Improper Invoice; Resolution of Disputes**
41. **Public Entity Crimes**
42. **Suspended and Debarred Vendors**
43. **Drug-Free Workplace Form**
44. **Information Sheet for Transactions and Conveyances**
45. **Copies**
46. **License and Certifications** - For access to Certification/Registration Form for doing Business in Florida go to the Department of State, Division of Corporations, URL: <http://dos.myflorida.com/sunbiz/search/>
47. **Execution of Contract**
48. **Purchase Order**
49. **No Contingent Fees**
50. **Solicitation Expenses**
51. **On-Line Auction Services**

SPECIAL TERMS AND CONDITIONS

The Board of County Commissioners, Escambia County, Florida, invites your company to submit a sealed offer on the item(s) as listed in this solicitation request.

All terms and conditions below are a part of this request, and no offer will be accepted unless all these conditions have been complied with. The County reserves the right to waive informalities in any offer; to reject any or all offers, in whole or in part, and/or to accept the offer(s) that in its judgment is from the lowest and most responsible and responsive offeror(s).

Instructions to Offerors

1. **General Information**

All offers to be considered shall be in the possession of the Office of Purchasing prior to the time of the solicitation closing. Offers may be mailed to 213 Palafox Place, Room 11.101, Pensacola, Florida 32502 or delivered to the Office of Purchasing, 2nd floor, Room 11.101, Matt Langley Bell, III Bldg., 213 Palafox Place, Pensacola, Florida 32502, in a sealed envelope clearly marked:

Specification Number PD 17-18.044, Bauer Road Paved Shoulders Project, FPID: 437085-1-58-01, Federal-Aid Project Number: 9044-034-C, Name of Submitting Firm, Time and Date due.
Note: If you are using a courier service; Federal Express, Airborne, UPS, etc., you must mark airbill and envelope or box with Specification Number and Bauer Road Paved Shoulders Project.

Regardless of the method of delivery, each offeror shall be responsible for his offer(s) being delivered on time as the County assumes no responsibility for same. Offers offered or received after the time set for solicitation closing will be rejected and returned unopened to the offeror(s).

The following policy will apply to all methods of source selection:

Conduct of Participants

After the issuance of any solicitation, all bidders/proposers/protestors or individuals acting on their behalf are hereby prohibited from **lobbying** as defined herein or otherwise attempting to persuade or influence any elected County officials, their agents or employees or any member of the relevant selection committee at any time during the **blackout period** as defined herein; provided, however, nothing herein shall prohibit bidders/proposers/protestors or individuals acting on their behalf from communicating with the purchasing staff concerning a pending solicitation unless otherwise provided for in the solicitation or unless otherwise directed by the purchasing manager.

Definitions

Blackout period means the period between the time the bids/proposals for invitations for bid or the request for proposal, or qualifications, or information, or requests for letters of interest, or the invitation to negotiate, as applicable, are received at the Escambia County Office of Purchasing and the time the Board awards the contract and any resulting bid protest is resolved or the solicitation is otherwise canceled.

Lobbying means the attempt to influence the thinking of elected County officials, their agents or employees or any member of the relevant Selection Committee for or against a specific cause related to a pending solicitation for goods or services, in person, by mail, by facsimile, by telephone, by electronic mail, or by any other means of communication.

Sanctions

The Board may impose any one or more of the following sanctions on a nonemployee for violations of the policy set forth herein:

- (a) Rejection/disqualification of submittal
- (b) Termination of contracts; or
- (c) Suspension or debarment as provided in Sec. 46-102 of the Escambia County Code of Ordinances.

This policy is not intended to alter the procedure for Protested Solicitations and Awards as set forth in the Sec. 46-101 of the Escambia County Code of Ordinances.

Scope of Work

Description

Bauer Road Shoulder Widening project will primarily consist of the addition of a 5' paved shoulder on the east and west sides of Bauer Road from Gulf Beach Highway to the south approach of the existing bridge that was recently constructed for a length of approximately .5 miles. The project will also include the installation of curb cut ramps at Sorrento Road, shoulder grading and sodding for the length of the project, minor utility adjustments and modifications to existing side streets and driveways to tie into the newly constructed paved shoulder.

Related Documents

All roadway, sidewalk and drainage facility construction shall comply with the Escambia County Technical Specifications, latest edition, and all interim standards that apply to these specifications.

All water main and related construction shall be done in accordance with the latest edition of ECUA's Engineering Manual.

Licenses/Certifications:

General Contractors or Underground Utility License

FDOT Pre-Qualification Work Classes

Flexible Paving

Certifications:

Advanced Maintenance of Traffic Certification
Qualified Stormwater Management Inspector Certification

2. **Bid Surety**

Each offer shall be accompanied by a bid bond, cashier's check or certified check in the amount of **5%** of the total offer.

Checks or bonds are to be made payable to Escambia County, Florida. The amount of the bond or check is the amount of liquidated damages agreed upon should the offeror fail or refuse to enter into a contract with the County.

A County warrant in the amount of the bid check(s) of the successful offeror(s) will be returned immediately after the offeror and the County are mutually bound by contract as evidenced by signatures thereto by an authorized representative of both the offeror and the County, and/or the offeror accepts the purchase order by signing the solicitation, offer and bid form/acceptance copy of same and returning to the County Purchasing department. Any unsuccessful offeror(s) will have the amounts of his cashier's or certified check returned via county warrant promptly after award.

All offerors agree that any interest earned on any bid surety while in possession of the County, or its agents, shall be retained by the County.

3. **Performance and Payment Bonds**

The County **shall** require the successful offeror(s) to furnish **separate performance and payment bonds**, under pledge of adequate surety and covering up to **100% of the dollar value of award** on the forms provided by the County. Such bonds shall be issued by

sureties authorized to act as a surety by the State of Florida. Bonds of the successful offeror(s) shall be reviewed by the Office of Purchasing to assure compliance, then recorded in the Office of the Clerk of the Circuit Court Recording Office, 1st Floor, 223 Palafox Place, Pensacola, Florida, by the successful offeror at his expense before the contract is executed. The cost of recording is \$10.00 for the first page and \$8.50 for each additional page.

4. **Questions**

Questions may be directed Buzz Roggenbuck, Sr. Purchasing Coordinator. Phone: (850) 595-4878; e-mail: abroggenbuck@myescambia.com.

Last day for questions 5:00 p.m. CDT, October 5, 2018.

5. **Bid Forms**

This Solicitation contains a Solicitation, Offer and Bid Form which shall be submitted in a sealed envelope, in duplicate with Original signature in indelible ink signed in the proper spaces. Responses on vendor forms will not be accepted.

The Offerors Checklist included in this solicitation provides instructions to the offeror on the documentation to be submitted during the procurement process.

6. **Pre-Solicitation Conference**

A Mandatory Pre-Solicitation Conference will be held in the Office of Purchasing on October 2, 2018 at 10:00 a.m. CDT. **All Bidders are required to attend.**

7. **Liquidated Damages**

Should the awarded vendor fail to complete the required services or make delivery of the commodities or equipment within the time(s) specified in the contract, or within such additional time(s) as may be granted by Escambia County, the County will suffer damage, the amount of which is difficult, if not impossible to ascertain therefore, the vendor shall pay to the County, as liquidated damages, the sum of **\$1,241.00** for each calendar day of delay that actual completion extends beyond the time limit specified until such reasonable time as may be required for final completion of the work. Such sum is mutually agreed upon as a reasonable and proper amount of damages the County will sustain per diem by failure of the vendor to complete the services or make delivery within the specified time. The costs for liquidated damages shall not be construed as a penalty on the vendor.

8. **Safety Regulations**

Equipment shall meet all state and federal safety regulations for grounding of electrical equipment.

9. **Codes and Regulations**

The awarded vendor shall strictly comply with all federal, state and local building and safety codes.

10. **Payment**

Partial payments in the full amount for the value of items received and accepted may be requested by the submission of a properly executed **original** invoice, with supporting documents if required. Payment for accepted equipment/supplies/services will be accomplished by submission of an **original** invoice, in duplicate, to:

Clerk of the Circuit Court
Attention: Accounts Payable
221 Palafox Place
Pensacola, FL 32502

11. **Warranty**

Contractor shall obtain and assign to County all express warranties given to Contractor or any subcontractors by any material men supplying materials, equipment or fixtures to be incorporated into the Project. Contractor warrants to County that any materials and equipment furnished under the Contract Documents shall be new unless otherwise specified, and that all Work shall be of good quality, free from all defects and in conformance with the Contract Documents. Contractor further warrants to County that all materials and equipment furnished under the Contract Documents shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable manufacturers, fabricators, suppliers or processors except as otherwise provided for in the Contract Documents.

12. **Debris**

Awarded vendor shall be responsible for the prompt removal of all debris, which is a result of this contractual service.

13. **Protection of Property/Security**

The awarded vendor shall provide all barricades and take all necessary precautions to protect buildings and personnel.

All work shall be completed in every respect and accomplished in a professional manner and awarded vendor shall provide for removal of all debris from county property.

The awarded vendor shall at all times guard against damage or loss to property of Escambia County, or of other vendors or contractors, and shall be held responsible for replacing or repairing any such loss or damage.

The County may withhold payment or make such deductions as deemed necessary to insure reimbursement or replacement for loss or damage to property through negligence of the awarded offeror or his agent.

The awarded vendor shall at all times guard against injury to Escambia County employees. The vendor shall properly fence and secure the construction site(s) at all times, including evenings and weekends.

The awarded vendor must, at all times, comply with State of Florida and Occupational Safety and Health Administration (OSHA) safety regulations.

14. **Permits**

The county and/or its contracted consultant(s) have conducted a review of required permits and fees required to be purchased by the contractor from the county permitting agencies for this specific project and they are listed on the bid/proposal form(s) to the best of our knowledge.

15. **Term of Offer**

An offer shall constitute an irrevocable offer for a period of ninety (90) days from the solicitation opening date or until the date of award, whichever is earlier, without forfeiting bid bond or check. In the event that an award is not made by the county within ninety (90) days from the solicitation opening date, the offeror may withdraw his offer or provide a written extension of his offer.

16. **Award**

Award shall be made on an "all-or-none total" basis.

The offeror or contractor will be required to fully comply with all applicable federal, state, and local regulations. The offeror should carefully review these requirements which are detailed in this solicitation.

17. **Termination**

The purchase order or contract will be subject to immediate termination if either product or service does not comply with specifications as stated herein or fails to meet the county's performance standards. In the event that any of the provisions of the contract are violated by awarded vendor, Escambia County may serve written notice upon the awarded vendor of its intention to terminate the contract. Such notice is to state the reason(s) for such intention to terminate contract. The liability of the vendor for any and all such violation(s) shall not be affected by any such termination and his surety, if any, shall be forfeited.

18. **Termination (Services)**

The Contract Administrator shall notify the Office of Purchasing of unsatisfactory performance and/or deficiencies in service that remain unresolved or recurring. The Office of Purchasing shall notify the contractor, in writing, of such unresolved or recurring deficiencies within five (5) working days of notification by the Contract Administrator.

Upon the third such written notification of unsatisfactory performance and/or deficiencies to the contractor by the Office of Purchasing within a four (4) month period; or the sixth such notification within any contract term, shall result in issuance of written notice of immediate contract termination to the contractor by the Office of Purchasing. Such termination may also result in suspension or debarment of the contractor.

19. **Termination (Public Records Request)**

If the contractor refuses to allow public access to all documents, papers, letters, or other material subject to the provisions of Chapter 119, Florida Statutes, and made or received by the contractor in conjunction with this agreement then the county may, without prejudice to any right or remedy and after giving the contractor and his surety, if any, seven (7) days written notice, during which period contractor still fails to allow access, terminate the employment of the contractor and take possession of the site and of all materials, equipment, tools, construction equipment and machinery thereon, owned by the contractor, and may finish the project by whatever method it may deem expedient. In such case, the contractor shall not be entitled to receive any further payment until the project is finished. Reasonable terminal expenses incurred by the county may be deducted from any payments left owing the contractor (excluding monies owed the contractor for subcontract work.)

20. **As Specified**

All items delivered shall meet the specifications herein. Items delivered not as specified will be returned at no expense by Escambia County. The County may return, for full credit, any unused items received which fail to meet the County's performance standards.

Insurance Requirements

21. **Standard Insurance Requirements and Certificates**

This offer contains an extensive insurance requirement. Offerors are encouraged to review these requirements with their insurance agents before submitting offers.

It is not necessary to have this level of insurance in effect at the time of submitting the offer.

A letter from the offeror's insurance carrier will be required as evidence that the offeror will be able to obtain the levels of insurance as required by the contract and indicated on the Sample Certificate of Insurance should your firm be awarded the contract.

County Insurance Required

The contractor shall procure and maintain the following described insurance, except for coverages specifically waived by the County. Such policies shall be from insurers with a minimum financial size of VII according to the latest edition of the AM Best Rating Guide. An A or better Best Rating is "preferred"; however, other ratings if "Secure Best Ratings" may be considered. Such policies shall provide coverages for any or all claims which may arise out of, or result from, the services, work and operations carried out pursuant to and under the requirements of the contract documents, whether such services, work and operations be by the contractor, its employees, or by subcontractor(s), or anyone employed by or under the supervision of any of them, or for whose acts any of them may be legally liable.

The contractor shall require, and shall be responsible for assuring throughout the time the agreement is in effect, that any and all of its subcontractors obtain and maintain until the completion of that subcontractor's work, such of the insurance coverages described herein as are required by law to be provided on behalf of their employees and others.

The required insurance shall be obtained and written for not less than the limits of liability specified hereinafter, or as required by law, whichever is greater.

These insurance requirements shall not limit the liability of the contractor.

The County does not represent these types or amounts of insurance to be sufficient or adequate to protect the contractor's interests or liabilities, but are merely minimums.

Except for workers compensation and professional liability, the contractor's insurance policies shall be endorsed to name Escambia County as an additional insured to the extent of its interests arising from this agreement, contract or lease.

The contractor waives its right of recovery against the County, to the extent permitted by its insurance policies.

The contractor's deductibles/self-insured retentions shall be disclosed to the County and may be disapproved by the County. They shall be reduced or eliminated at the option of the County. The contractor is responsible for the amount of any deductible or self-insured retention.

Insurance required of the contractor or any other insurance of the contractor shall be considered primary, and insurance of the county, if any, shall be considered excess, as may be applicable to claims obligations which arise out of this agreement, contract or lease.

Workers Compensation Coverage

The contractor shall purchase and maintain workers compensation insurance for all workers compensation obligations imposed by state law and with employers liability limits of at least \$100,000 each accident and \$100,000 each employee/\$500,000 policy limit for disease, or a valid certificate of exemption issued by the state of Florida, or an affidavit in accordance with the provisions of Florida Workers Compensation law.

Contractor shall also purchase any other coverages required by law for the benefit of employees.

General, Automobile and Excess or Umbrella Liability Coverage

The contractor shall purchase and maintain coverage on forms no more restrictive than the latest editions of the commercial general liability and business auto policies of the insurance services office.

Minimum limits of \$1,000,000 per occurrence for all liability must be provided, with excess or umbrella insurance making up the difference, if any, between the policy limits of underlying policies (including employers liability required in the workers compensation coverage section) and the total amount of coverage required.

General Liability Coverage - Occurrence Form Required

Coverage A shall include bodily injury and property damage liability for premises, operations, products and completed operations, independent contractors, contractual liability covering this agreement, contract or lease, broad form property damage coverages, and property damage resulting from explosion, collapse or underground (x,c,u) exposures.

Coverage B shall include personal injury.

Coverage C, medical payments, is not required.

The contractor is required to continue to purchase products and completed operations coverage, at least to satisfy this agreement, contract or lease, for a minimum of three years beyond the County's acceptance of renovation or construction projects.

Business Auto Liability Coverage

Business auto liability coverage is to include bodily injury and property damage arising out of ownership, maintenance or use of any auto, including owned, nonowned and hired automobiles and employee nonownership use.

The General Liability and Business Auto Liability policies shall be endorsed to include Escambia County as an additional insured and provide for 30 day notification of cancellation.

Excess or Umbrella Liability Coverage (If utilized to achieve required policy limits)

Umbrella liability insurance is preferred, but an excess liability equivalent may be allowed. Whichever type of coverage is provided, it shall not be more restrictive than the underlying insurance policy coverages. Umbrella coverage shall drop down to provide coverage where the underlying limits are exhausted.

Evidence/Certificates of Insurance

Required insurance shall be documented in certificates of insurance. If and when required by the County, certificates of insurance shall be accompanied by documentation that is acceptable to the County establishing that the insurance agent and/or agency issuing the certificate of insurance has been duly authorized, in writing, to do so by and on behalf of each insurance company underwriting the insurance coverage(s) indicated on each certificate of insurance.

New certificates of insurance are to be provided to the County at least 30 days prior to coverage renewals. Failure of the contractor to provide the County with such renewal certificates may be considered justification for the County to terminate this agreement, contract or lease.

Certificates should contain the following additional information:

1. Indicate that Escambia County is an additional insured on the general and business auto liability policies.
2. Include a reference to the project and the Office of Purchasing number.
3. Disclose any self-insured retentions in excess of \$1,000.
4. Designate Escambia County as the certificate holder as follows:
Escambia County
Attention: Buzz Roggenbuck
Sr. Purchasing Coordinator
Office of Purchasing, Room 11.101
P.O. Box 1591
Pensacola, FL 32591-1591
Fax (850) 595-4806
5. Indicate that the County shall be notified at least 30 days in advance of cancellation.

Receipt of certificates or other documentation of insurance or policies or copies of policies by the county, or by any of its representatives, which indicate less coverage than required does not constitute a waiver of the contractor's obligation to fulfill the insurance requirements herein.

If requested by the County, the contractor shall furnish complete copies of the contractor's insurance policies, forms and endorsements, and/or such additional information with respect to its insurance as may be requested.

For commercial general liability coverage the contractor shall, at the option of the County, provide an indication of the amount of claims payments or reserves chargeable to the aggregate amount of liability coverage.

22. **Indemnification**

Contractor agrees to save harmless, indemnify, and defend County and Architect/Engineer and their, agents, officers and employees from any and all claims, losses, penalties, interest, demands, judgments, and costs of suit, including attorneys' fees and paralegals' fees, for any expense, damage or liability incurred by any of them, whether for personal injury, death, property damage, direct or consequential damages, or economic loss, including environmental impairment, arising directly or indirectly on account of or in connection with the Work done by Contractor under this Agreement or by any person, firm or corporation to whom any portion of the Work is subcontracted by Contractor or resulting from the use by Contractor, or by any one for whom Contractor is legally liable, of any materials, tools, machinery or other property of County. County and Contractor agree the first \$100.00 of the Contract Amount paid by County to Contractor shall be given as separate consideration for this indemnification, and any other indemnification of County by Contractor provided for within the Contract Documents, the sufficiency of such separate consideration being acknowledged by Contractor by Contractor's acceptance and execution of the Agreement. The Contractor's obligation shall not be limited by, or in any way to, any insurance coverage or by any provision in or exclusion or omission from any policy of insurance. The Contractor agrees to pay on behalf of Escambia County, as well as provide a legal defense for the County, both of which will be done only if and when requested by the County, for all claims made. Such payment on the behalf of the County shall be in addition to any and all other legal remedies available to the County and shall not be considered to be the County's exclusive remedy.

Index of Documents

Standard Construction Contract Documents

(Incorporated by reference and available by contacting the Office of Purchasing (850) 595-4980 or on-line at <https://www.myescambia.com/our-services/purchasing>, must have ADOBE Reader, on the left side, click Uniform Contract Format, scroll down to Forms, then click Form D – Paving and Drainage Projects to access the Standard Construction Contract Documents).

Agreement Declaration (Revised as indicated by asterisk)

- Section 1 *B. Four (4) sets of contract documents
- Section 2
- Section 3
- Section 4
- Section 5 *A. Substantially Complete in 90 calendar days
Fully Complete and ready for Final Inspection in 120
calendar days
- Section 6 *B. Liquidated Damages at **\$1,241.00** for each calendar day
- Section 7 *A. Public Works/Engineering Department
3363 West Park Place
Pensacola, FL 32505
Attn: Nick Chauvin
- Section 8
- Section 9
- Section 10
- Section 11
- Section 12
- Section 13

Exhibits (Revised as indicated by asterisk)

- A. General Terms and Conditions
 *4.4 Four (**4**) copies of each Application for Payment
- B Form of and Payment Bond
- C Insurance and Safety Requirements

EXHIBIT H

**Bauer Road Paved Shoulders Project
Specification Number PD 17-18.044
FPID: 437085-1-58-01
Federal-Aid Project Number: 9044-034-C**

TECHNICAL SPECIFICATIONS

Technical Specifications Package_7-11-18:

Escambia County Technical Specifications for Bauer Road Paved Shoulders Project;
FPID: 437085-1-58-01; Federal No: 9044-034-C



Board of County Commissioners • Escambia County, Florida

PUBLIC WORKS DEPARTMENT Engineering Division

Escambia County Technical Specifications for Bauer Road Paved Shoulders

**FPID: 437085-1-58-01
Federal No: 9044-034-C**

GENERAL EXCEPTIONS*: Any reference to FDOT *Standard Specifications for Road and Bridge Construction, Latest Edition, Division I General Requirements & Covenants* shall be excluded and not applicable to any specification referred herein or otherwise listed in this document.

Work shall comply with requirements of FDOT *Standard Specifications for Road and Bridge Construction*, latest edition, as modified herein.

**Note: The General Exception above does not apply when utilizing Federal Highway Administration (FHWA) funding.*

A handwritten signature in blue ink that reads "Joy D. Blackmon".

County Engineer
Joy D. Blackmon, P.E.

Effective Date: February 01, 2015
Revised : February 14, 2018

INDEX TO ESCAMBIA COUNTY TECHNICAL SPECIFICATIONS

Section	Title
01000	DEFINITIONS
01300	SUBMITTALS
02230	CLEARING & GRUBBING
02300	EARTHWORK
02320	UNDERDRAIN AND EXFILTRATION TRENCH
02340	RIPRAP
02400	GRADED AGGREGATE BASE
02410	RECYCLED CONCRETE AGGREGATE BASE (CRUSHED CONCRETE)
02440	SUPERPAVE ASPHALT BASE
02460	SAND CLAY BASE
02500	SUPERPAVE ASPHALT CONCRETE
02510	ASPHALT RUBBER MEMBRANE INTERLAYER (ARMI) HOT IN-
02580	PLACE RECLAIMED ASPHALT AND RESURFACING
02600	STORMWATER SYSTEM
02800	FENCING
02900	GRASSING
03300	PORTLAND CEMENT CONCRETE
03310	TIED CONCRETE BLOCK MATERIAL
03350	PERVIOUS CONCRETE PAVING
04000	TRAFFIC CONTROL SIGNS
04020	POST MOUNTED STREET NAME SIGNS
04030	SPAN MOUNTED SIGNS
04040	PAVEMENT MARKINGS
04060	MAINTENANCE OF TRAFFIC
04090	CONSTRUCTION OF TRAFFIC SIGNALS
REV	REVISIONS
LAP DIV 1	LAP DIVISION 1 SPECIFICATIONS (FHWA/FDOT PROJECTS ONLY
ATTACHMENT A	GEOTECHNICAL INVESTIGATIONS AND PERMITS

SECTION 01000 – DEFINITIONS

PART 1 - GENERAL

The following terms, when used in the Contract Documents, have the meaning described

Advertisement

The public announcement, as required by law, inviting bids for work to be performed or materials to be furnished, usually issued as “Notice to Contractors,” or “Notice to Bidders.”

Bidder

An individual, firm, or corporation submitting a proposal for the proposed work.

Bridge

A structure, including supports, erected over a depression or over an obstruction such as water, highway or railway, or for elevated roadway, for carrying traffic or other moving loads, and having a length, measured along the center of the roadway, of more than 20 feet between the inside faces of end supports. A multiple-span box culvert is considered a bridge, where the length between the extreme ends of the openings exceeds 20 feet.

Calendar day

Every day shown on the calendar, ending and beginning at midnight.

Contract

The term “Contract” means the entire and integrated agreement between the parties there under and supersedes all prior negotiations, representations, or agreements, either written or oral. The Contract Documents form the Contract between the County and the Contractor setting forth the obligations of the parties thereunder, including, but not limited to, the performance of the Work and the basis of payment.

Contract Documents

The term “Contract Documents” includes: Advertisement for Proposal, Proposal, Certification as to Publication and Notice of Advertisement for Proposal, Appointment of Agent by Nonresident Contractors, Noncollusion Affidavit, Warranty Concerning Solicitation of the Contract by Others, Resolution of Award of Contract, Executed Form of Contract, Performance Bond and Payment Bond, Specifications, plans (including revisions thereto issued during construction), Addenda, or other information mailed or otherwise transmitted to the prospective bidders prior to the receipt of bids, work orders and supplemental agreements, all of which are to be treated as one instrument whether or not set forth at length in the form of contract.

Contract Bond

The security furnished by the Contractor and the surety as a guaranty that the Contractor shall fulfill the terms of the Contract and pay all legal debts pertaining to the construction of the project.

Contract Letting

The date that the County opened the bid proposals.

Contract Time

The number of calendar days allowed for completion of the Contract work, including authorized time extensions.

Contractor

The individual, firm, joint venture, or company contracting with the County to perform the work.

Contractor's Engineer of Record

A Professional Engineer registered in the State of Florida, other than the Engineer of Record or his subcontracted consultant, who undertakes the design and drawing of components of the permanent structure as part of a redesign or Cost Savings Initiative Proposal, or for repair designs and details of the permanent work. The Contractor's Engineer of Record may also serve as the Specialty Engineer. The Contractor's Engineer of Record must be an employee of a pre-qualified firm. Any Corporation or Partnership offering engineering services must hold a Certificate of Authorization from the Florida Department of Business and Professional Regulation.

As an alternate to being an employee of a pre-qualified firm, the Contractor's Engineer of Record may be a pre-qualified Specialty Engineer. For items of the permanent work declared by the State Construction Office to be "major" or "structural", the work performed by a prequalified Specialty Engineer must be checked by another pre-qualified Specialty Engineer. An individual Engineer may become pre-qualified in the work groups listed in the Rules of the Department of Transportation, Chapter 14-75, if the requirements for the Professional Engineer are met for the individual work groups. Pre-qualified Specialty Engineers are listed on the State Construction Website. Pre-qualified Specialty Engineers will not be authorized to perform redesigns or Cost Savings Initiative Proposal designs of items fully detailed in the plans.

Controlling Work Items

The activity or work item on the critical path having the least amount of total float. The controlling item of work will also be referred to as a Critical Activity.

County

Escambia County Public Works Department

Culverts

Any structure not classified as a bridge that provides an opening under the roadway.

Delay

Any unanticipated event, action, force or factor which extends the Contractor's time of performance of any controlling work item under the Contract. The term "delay" is intended to cover all such events, actions, forces or factors, whether styled "delay", "disruption", "interference", "impedance", "hindrance", or otherwise, which are beyond the control of and not caused by the Contractor, or the Contractor's subcontractors, materialmen, suppliers or other agents. This term does not include "extra work".

Department
Escambia County.

Developmental Specification See definition for Specifications.

Engineer

The Professional Engineer, registered in the State of Florida, other than the Engineer of Record or his subcontracted consultant, acting as the project's Construction Engineering Inspection Manager. The Engineer may be County in-house staff or a consultant retained by the County

Engineer of Record

The Professional Engineer or Engineering Firm registered in the State of Florida that develops the criteria and concept for the project, performs the analysis, and is responsible for the preparation of the Plans and Specifications. The Engineer of Record may be County in-house staff or a consultant retained by the County.

The Contractor shall not employ the Engineer of Record as the Contractor's Engineer of Record or as a Specialty Engineer.

Equipment

The machinery and equipment, together with the necessary supplies for upkeep and maintenance thereof, and all other tools and apparatus necessary for the construction and acceptable completion of the work.

Extra Work

Any "work" which is required by the Engineer to be performed and which is not otherwise covered or included in the project by the existing Contract Documents, whether it be in the nature of additional work, altered work, deleted work, work due to differing site conditions, or otherwise. This term does not include a "delay".

Highway, Street, or Road

A general term denoting a public way for purposes of vehicular travel, including the entire area within the right-of-way.

Holidays

Days designated by the Board of County Commissioners as holidays, which include, but are not limited to, New Year's Day, Martin Luther King's Birthday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and the following Friday, and Christmas Day.

Inspector

An authorized representative of the County, assigned to make official inspections of the materials furnished and of the work performed by the Contractor.

Laboratory

The testing laboratory used by the Contractor.

Major Item of Work

Any item of work having an original Contract value in excess of 5% of the original Contract amount.

Materials

Any substances to be incorporated in the work under the Contract.

Median

The portion of a divided highway or street separating the traveled ways for traffic moving in opposite directions.

Plans

The approved plans, including reproductions thereof, showing the location, character, dimensions, and details of the work.

Proposal (Bid, Bid Proposal)

The offer of a bidder, on the prescribed form, to perform the work and to furnish the labor and materials at the prices quoted.

Proposal Form

The official form or the expedite program generated bid item sheets on which the County requires formal bids to be prepared and submitted for the work.

Proposal Guaranty

The security furnished by the bidder as guaranty that the bidder will enter into the Contract for the work if the County accepts the proposal.

Right-of-Way

The land that the County has title to, or right of use, for the road and its structures and appurtenances, and for material pits furnished by the County.

Roadbed

The portion of the roadway occupied by the subgrade and shoulders.

Roadway

The portion of a highway within the limits of construction.

Section

A numbered prime division of these Specifications.

Special Provisions

See definition for Specifications.

Specialty Engineer

A Professional Engineer registered in the State of Florida, other than the Engineer of Record or his subcontracted consultant, who undertakes the design and drawing preparation of components, systems, or installation methods and equipment for specific temporary portions of the project work or for special items of the permanent works not fully detailed in the plans and required to be furnished by the Contractor such as but not limited to pot bearing designs, nonstandard expansion joints, MSE wall designs and

other specialty items. The Specialty Engineer may also provide designs and details for items of the permanent work declared by the State Construction Office to be “minor” or “non-structural”. The Specialty Engineer may be an employee or officer of the Contractor or a fabricator, an employee or officer of an entity providing components to a fabricator, or an independent consultant. For items of work not specifically covered by the Rules of the Department of Transportation, a Specialty Engineer is qualified if he has the following qualifications:

Registration as a Professional Engineer in the State of Florida.

The education and experience necessary to perform the submitted design as required by the Florida Department of Business and Professional Regulation.

Specifications

The directions, provisions, and requirements contained herein, together with all stipulations contained in the Contract Documents, setting out or relating to the method and manner of performing the work, or to the quantities and qualities of materials and labor to be furnished under the Contract.

Standard Specifications: “Standard Specifications for Road and Bridge Construction” a bound book, applicable to all FDOT Contracts containing adopted requirements, setting out or relating to the method or manner of performing work, or to the quantities and qualities of materials and labor.

Supplemental Specifications: Approved additions and revisions to the Standard Specifications, applicable to all Department Contracts.

Special Provisions: Specific clauses adopted by the Department that add to or revise the Standard Specifications or supplemental specifications, setting forth conditions varying from or additional to the Standard Specifications applicable to a specific project.

Technical Special Provisions: Specifications, of a technical nature, prepared, signed, and sealed by an Engineer registered in the State of Florida other than the State Specifications Engineer or his designee, that are made part of the Contract as an attachment to the Contract Documents.

Developmental Specification: A specification developed around a new process, procedure, or material.

Standard Specifications

See definition for Specifications.

State

State of Florida.

Subarticle

A headed and numbered subdivision of an Article of a Section of these Specifications.

Subgrade

The portion of the roadbed immediately below the base course or pavement, including

below the curb and gutter, valley gutter, shoulder and driveway pavement. The subgrade limits ordinarily include those portions of the roadbed shown in the plans to be constructed to a design bearing value or to be otherwise specially treated. Where no limits are shown in the plans, the subgrade section extends to a depth of 12 inches below the bottom of the base or pavement and outward to 6 inches beyond the base, pavement, or curb and gutter.

Substructure

All of that part of a bridge structure below the bridge seats, including the parapets, backwalls, and wingwalls of abutments.

Superintendent

The Contractor's authorized representative in responsible charge of the work.

Superstructure

The entire bridge structure above the substructure, including anchorage and anchor bolts, but excluding the parapets, backwalls, and wingwalls of abutments.

Supplemental Agreement

A written agreement between the Contractor and the County, and signed by the surety, modifying the Contract within the limitations set forth in these Specifications.

Supplemental Specifications See definition for Specifications.

Surety

The corporate body that is bound by the Contract Bond with and for the Contractor and responsible for the performance of the Contract and for payment of all legal debts pertaining thereto.

Technical Special Provisions See definition for Specifications.

Traveled Way

The portion of the roadway providing for the movement of vehicles, exclusive of shoulders and auxiliary lanes.

Unilateral Payment

A payment of money made to the Contractor by the Department pursuant to Section 337.11(12), Florida Statutes (2009), for sums the Department determines to be due to the Contractor for work performed on the project, and whereby the Contractor by acceptance of such payment does not waive any rights the Contractor may otherwise have against the Department for payment of any additional sums the Contractor claims are due for the work.

Work

All labor, materials and incidentals required to execute and complete the requirements of the Contract including superintendence, use of equipment and tools, and all services and responsibilities prescribed or implied.

Work Order

A written agreement between the Contractor and the County modifying the Contract within the limitations set forth in these Specifications. Funds for this agreement are drawn against the Initial Contingency Pay Item or a Contingency Supplemental Agreement.

Working Day

Any calendar day on which the Contractor works or is expected to work in accordance with the approved work progress schedule.

END OF SECTION 01000

SECTION 01300 - SUBMITTALS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

Drawings and General and Supplemental Provisions of the Contract, apply to this Section.

1.2 SUMMARY

A. This Section includes administrative and procedural requirements for submittals required for performance of the Work, including, but not limited to the following:

1. Submittal Procedures
2. Contractor's Construction Schedule
3. Daily Construction Reports
4. Shop Drawings
5. Product Data
6. Samples
7. Quality Assurance Submittals
8. Licenses
9. Pictures, Video of Pre-Construction Conditions

B. Administrative Submittals: Refer to other Sections and other Contract Documents for requirements for administrative submittals. Such submittals include, but are not limited to, the following:

1. Permits
2. Applications for Payment
3. Performance and Payment Bonds
4. Insurance Certificates
5. List of Subcontractors
6. Licenses

1.3 SUBMITTAL PROCEDURES

A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.

1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, inspections, and related activities that require sequential activity.
2. Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need

to review submittals concurrently for coordination. The County reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received.

3. Processing: To avoid the need to delay construction as a result of the time required to process submittals, allow sufficient time for submittal review, including time for re-submittals. Allow 2 weeks for initial review. Allow additional time if the County must delay processing to permit coordination with subsequent submittals.
 - a. If an intermediate submittal is necessary, process the same as the initial submittal.
 - b. Allow 2 weeks for reprocessing each submittal.
 - c. No extension of Contract Time will be authorized because of failure to transmit submittals to the County sufficiently in advance of the Work to permit processing.

B. Submittal Preparation: Place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.

1. Provide a space approximately 4 by 5 inches on the label or beside the title block on Shop Drawings to record the Contractor's review and approval markings and the action taken.
2. Include the following information on the label for processing and recording action taken.
 - a. Project Name.
 - b. Date.
 - c. Name and Address of the Engineer.
 - d. Name and Address of the Contractor.

C. Submittal Transmittal: Package each submittal appropriately for transmittal and handling. Four copies of each submittal (three hard copy and one digital) shall be transmitted. Transmit each submittal from the Contractor to the County, (copy Engineer) using a transmittal form. The County will not accept submittals received from sources other than the Contractor. Submittals must be approved by Contractor prior to review by County. On the transmittal, record relevant information and requests for data. On the form or on a separate sheet, record deviations from Contract Document requirements, including variations and limitations. Include Contractor's certification that the information complies with Contract Document requirements on each submittal.

1.4 CONSTRUCTION SCHEDULE/DOCUMENTATION

- A. Bar-Chart Schedule: Prepare a fully developed, horizontal bar-chart-type, contractor's construction schedule. Submit within 10 days of the issuance of the Notice to Proceed. The contractor shall submit an updated schedule at least once per month, showing any schedule changes. This may be requested up to three times per month by the County. Include dates of shop drawing submittals.
- B. Cost Correlation: At the head of the schedule, provide a cost correlation line, indicating planned and actual costs. On the line, show dollar volume of Work performed as of the dates used for preparation of payment requests.
- C. Pre-Construction Site Conditions Photos/Video: Contractor shall submit a DVD of photos and video of the site conditions prior to the performance of any work.
- D. Licenses: All required licenses to perform work shall be submitted prior to the commencement of construction.

1.5 DAILY CONSTRUCTION REPORTS

Prepare a daily construction report recording the following information concerning events at the site, and submit duplicate copies to the County at weekly intervals including, but not limited to:

1. Work performed.
2. Approximate count of personnel at the site.
3. Count and type of major equipment at the site.
4. High and low temperatures, general weather conditions, including daily rainfall amount from gauge installed on site jointly recorded by contractor and county representative.
5. Accidents and unusual events.
6. Meetings and significant decisions.
7. Stoppages, delays, shortages, and losses.
8. Emergency procedures.
9. Orders and requests of governing authorities.
10. Change Orders received, implemented.
11. Material Expenditures.

1.6 SHOP DRAWINGS

- A. Submit shop drawings for structures unless FDOT approved structures are used.
- B. Shop Drawings – Including, but not limited to the following information:

1. Dimensions.
2. Identification of products and materials included by sheet and detail number.
3. Compliance with specified standards.

1.7 PRODUCT DATA

Product Data - Include the following information:

1. Manufacturer's printed recommendations.
2. Compliance with trade association standards.
3. Compliance with recognized testing agency standards.
4. Application of testing agency labels and seals.

1.8 SAMPLES

Submit samples as specified in the technical specifications.

1.9 QUALITY CONTROL (QC) / QUALITY ASSURANCE (QA) SUBMITTALS

- A. Submit the QC Plan to the County for approval within 21 calendar days after the Notice to Proceed. The County will review the QC Plan and respond to the Contractor within 21 calendar days of receipt.

If at any time the Contractor is not in compliance with the approved QC Plan, or a part thereof, affected portions of the plan will be disapproved. The contractor shall cease work in the affected operation(s) and submit a revision to the County. If the QC Plan, or a part thereof, must be revised, submit the revision to the County. The County will review the revision and respond within seven calendar days of receipt.

Continue to work on operations that are still in compliance with the approved sections of the QC Plan.

- B. Certifications: Where other Sections of the Specifications require certification that a product, material, or installation complies with specified requirements, submit to the County a certification from the manufacturer certifying compliance with specified requirements.
- C. Inspection and Test Reports: Requirements for specific testing are included in the technical specifications.
1. Submit to the County: Two (2) copies (one hard copy and one digital) of the inspection and test reports from a qualified, independent, geotechnical engineering testing agency, under the direction of a Professional Engineer, licensed in the State of Florida.

2. All testing required by the specifications or the County shall be at the contractors expense.
3. No additional work within/upon the tested area shall proceed until submitted test results confirm compliance with specification requirements.
4. Areas where submitted test results indicate non-compliance shall be removed, replaced, and retested. Extents of area out of compliance shall be determined by testing at 25' increments, in each direction within the construction area, until passing results are achieved.
5. Variations from testing requirements and frequency of testing may be authorized by the County and will be documented in writing.

1.10 ENGINEER'S ACTION

Except for submittals for the record or information, where action and return is required, the County will review each submittal, mark to indicate action taken, return to contractor within the timeframe allotted herein. Compliance with specified characteristics is the Contractor's responsibility.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 01300

SECTION 02230 - CLEARING & GRUBBING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and General Provisions of the Contract, including General and Supplementary Conditions shall apply to this Section.
- B. Florida Department of Transportation, *Standard Specifications for Road and Bridge Construction, Section 110, Latest Edition.*
- C. Emerald Coast Utility Authority (ECUA) *Engineering Manual, Latest Edition.*

1.2 SUMMARY

- A. This Section includes, but is not limited to, the following:
 - 1. Protection of existing trees indicated to remain.
 - 2. Removal of trees and other vegetation.
 - 3. Clearing and grubbing.
 - 4. Removing above-grade improvements.
 - 5. Removing below-grade improvements.
- B. Extent of clearing & grubbing shall remain in County right-of-way, easements (temporary or permanent), or approved written work agreement areas, unless otherwise noted or instructed.

1.3 PROJECT CONDITIONS

Provide protection for all public land corners and monuments within the limits of construction. Any Monuments disturbed while performing the work will be replaced at the contractor's expense.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 SITE CLEARING

- A. General: Remove trees, shrubs, grass, and other vegetation, improvements, or obstructions, as required, to permit installation of new construction. Remove similar items elsewhere on site or premises as specifically indicated. Removal includes digging out and off-site disposal of stumps and roots.

Carefully and cleanly cut minor roots and branches of trees indicated to

remain in a manner where such roots and branches obstruct installation of new construction.

- B. Clearing and Grubbing: Clear site of trees, shrubs, and other vegetation, except for those indicated to remain.
 - 1. Completely remove all stumps within the roadway. Remove roots and other debris to a depth of 12" below the ground surface or finished grade, whichever is lower.
 - 2. Use only hand methods for grubbing inside drip line of trees Indicated to remain.
 - 3. Fill depressions caused by clearing and grubbing operations with satisfactory soil material, unless further excavation or earthwork is indicated in accordance with Section 2300.
- C. Removal of Improvements: Remove existing above grade and below grade improvements as indicated and as necessary to facilitate new construction, and other work as indicated.

3.2 DISPOSAL OF WASTE MATERIALS

- A. Burning: Burning is not permitted on County property. Requests to burn will be considered on a case by case basis. If approved, Contractor is to acquire permits and provide copies to the County.
- B. Removal from County Property: Remove waste materials and unsuitable or excess topsoil from County property, and dispose of off site in a legal manner.

PART 4 - MEASUREMENT/PAYMENT

4.1 METHOD OF MEASUREMENT

- A. Lump Sum Payment: When direct payment is provided in the Contract for the quantity to be paid for as the lump sum quantity cleared and grubbed, no additional measurements will be made.
- B. Payment By The Acre/Square Yard: For areas of Clearing and Grubbing that are designated to be paid for separately by the acre or square yard, the quantity to be paid for will be determined by measurement of the areas shown on the plans or authorized by the County to be cleared and grubbed, and acceptably completed.

4.2 BASIS OF PAYMENT

- A. General: Price and payment will be full compensation for all Clearing and Grubbing required for the roadway right-of-way and for lateral ditches, channel changes, or other outfall areas, and any other Clearing and Grubbing indicated, or required for the construction of the entire project, except for any areas designated to be paid for separately or to be specifically included in the costs of other work under the contract. Price and payment, either lump sum or by the acre/square yard will be full compensation for all the work specified in this Section, including all necessary hauling, furnishing equipment, equipment operation, furnishing any areas required for disposal of debris, leveling of terrain and the landscaping work of trimming, etc., as specified herein.
- B. Lump Sum Payment: Payment shall be made at the lump sum contract price for Clearing and Grubbing, lump sum.
- C. Payment: Payment shall be made at the per unit contract price for Clearing and Grubbing, per acre or square yard.

END OF SECTION 02230

SECTION 02300 - EARTHWORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.
- B. Florida Department of Transportation, *Standard Specifications for Road and Bridge Construction, Latest Edition*.

1.2 SUMMARY

- A. This Section includes preparing and grading for pavement, curb, subgrades, drainage features, and general site work.
- B. Related Sections: The following Sections contain requirements that relate to this Section.
 - 1. Section 2230 "Clearing & Grubbing" for clearing, grubbing, and tree protection.
 - 2. Section 2600 "Stormwater System" for installation of stormwater systems.

1.3 DEFINITIONS

- A. Excavation consists of the removal of material encountered to subgrade elevations and the reuse or disposal of materials removed.
- B. Subgrade: The uppermost surface of an excavation or the top surface of a fill or backfill immediately below subbase, base, drainage fill, or topsoil materials.
- C. Borrow: Soil material obtained off-site when sufficient approved soil material is not available from on-site excavations.
- D. Subbase Course: The layer placed between the subgrade and base course in a paving system.
- E. Base Course: The layer placed immediately beneath the surface pavement in a paving system.
- F. Unauthorized excavation consists of removing materials beyond indicated subgrade elevations or dimensions without direction by the County. Unauthorized excavation, as well as remedial work directed by the Engineer, shall be at the Contractor's expense.

- G. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below ground surface.
- H. Utilities include on-site above ground utilities, overhead utilities and underground utilities including: pipes, conduits, ducts, and cables, as well as related appurtenances and underground services within building lines.
- I. Unsuitable Material: Any material such as muck, wood, rock, peat, garbage, non-compactable soils in dry condition, and any other material that is considered by the County Engineer to be unsuitable.
- J. Topsoil: Topsoil is defined as the surface layer of soil found normally to a depth of at least 4 to 8 inches that typically contains organic materials. Satisfactory topsoil is reasonably free of roots, clay lumps, stones, other objects over 2 inches in diameter, and any other objectionable or deleterious material.

1.4 SUBMITTALS

- A. General: Submit the following in accordance with Section 1300, "Submittals."
- B. Product Data and Samples of the following:
 - 1. 1-lb representative samples of each proposed fill and backfill soil material from borrow sources as selected by the County.
 - 2. 12-by-12-inch sample of filter fabric.
 - 3. Representative samples of the proposed base and sub-base materials.
- C. Test Reports: In addition to test reports required under field quality control, submit the original directly to the County from the testing services, with a copy to the Contractor:
 - 1. Laboratory analysis as specified in 1.1 (Related Documents) of each soil material proposed for fill and backfill from borrow sources.
 - 2. One optimum moisture-maximum density curve for each soil material.
 - 3. Report of actual unconfined compressive strength and/or results of bearing tests of each stratum tested.

1.5 QUALITY CONTROL / QUALITY ASSURANCE

- A. Codes and Standards: Perform earthwork complying with all requirements of authorities having jurisdiction.
- B. Testing and Inspection Service: A qualified independent geotechnical engineering testing agency, under the direction of a Professional Engineer, licensed in the State of Florida to classify, perform soil tests, and provide inspection services for quality control. All proposed borrow soils will require the testing agency to verify that soils comply with specified requirements and to perform required field and laboratory testing. Contractor shall replace materials removed for testing purposes. Should any work or materials fail to meet the requirements set forth in the plans and specifications, contractor shall reimburse for additional and re-testing.

1.6 PROJECT CONDITIONS

- A. Site Information: Data in the subsurface investigation Report, if available, is used for the basis of the design and is available to the contractor for information only. Conditions are not intended as representations or warranties of accuracy or continuity between soil borings. The County will not be responsible for interpretations or conclusions drawn from this data by the Contractor.
- B. Existing Utilities: After location of utilities by the appropriate utility company, it is the Contractor's responsibility to protect all such utility lines, including service lines and appurtenances, and to replace at his own expense any that may be damaged by the Contractor's equipment or forces during construction of the Project.
 - 1. Provide a minimum of 48-hours notice to the County and receive written notice to proceed before interrupting any utility.
 - 2. The contractor is responsible for contacting all utility companies to verify locations of all existing utilities, utility-related obstructions, or utility relocations that he may encounter during construction.
 - 3. Adequate provision shall be made for the flow of existing sewers, drains, and water courses encountered during construction, and structures which may be disturbed shall be satisfactorily restored by the Contractor at his expense.
- C. Should uncharted, or incorrectly charted, piping or other utilities be encountered during the course of the work, consult the County immediately for directions. Cooperate with the County and utility companies in keeping respective services and facilities in operation.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

- A. General: Soils used as fill shall be clean sands, similar to existing site soil, with less than 5% passing the number 200 sieve when existing subgrade conditions are considered wet as per the County. Soils as described above with less than 15% passing the number 200 sieve and meeting the requirements of Section 902-6 of the FDOT Specifications may be used when existing subgrade conditions are considered dry as per the County. The sand shall have a maximum dry density of at least 100 pounds per cubic foot, according to the Standard Proctor compaction test, AASHTO T-99, ASTM D698. Provide approved borrow soil materials from off-site when sufficient satisfactory soil materials are not available from on-site excavations.

If the Contractor elects to import any materials, then he will do so only with the approval of the County and at his own expense, unless separate payments for such items are called for in these specifications. Provide laboratory certification that soils meet requirements of specifications.

- B. Sub-Base Material: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, or sand. The material shall be stabilized in accordance with FDOT Standard Specification Section 160-5.4. ASTM D 2940, with at least 95 percent passing a 1-1/2-inch sieve, and not more than 8 percent passing a No. 200 sieve.

PART 3 - EXECUTION

3.1 DEWATERING

- A. Prevent surface water and subsurface or groundwater from entering excavations, from ponding on sub-grades in work areas, and from flooding project site and surrounding area.
- B. Protect subgrades and foundation soils from softening and damage by rain or water accumulation.
- C. The Contractor shall prevent the accumulation of water in excavated areas, and shall remove, by pumping or other means, any water that accumulates in the excavation. The Contractor shall prevent the accumulation of water in both structural and trench excavations and shall remove, by well point system or by other means, water which accumulates. The Contractor shall provide, install and operate a suitable and satisfactory dewatering system, when needed to dry sub-grades or other work areas. The Contractor shall comply with the latest testing requirements as set forth by the applicable regulatory agency. At a minimum, the contractor shall test once prior to dewatering, once within

the first week of dewatering, and once every thirty (30) days while dewatering.

- D. Establish and maintain temporary drainage ditches and other diversions outside excavation limits to convey rainwater and water removed from excavations to collection or runoff areas. Do not use trench excavations as temporary drainage ditches. Discharged water shall be clean, not silt or sediment laden, prior to discharge to untreated system and/or waters of the State.

3.2 EXCAVATION

- A. Explosives: Not permitted.
- B. Strip topsoil and significant root systems to whatever depths encountered in a manner to prevent intermingling with underlying subsoil or other objectionable material. Remove heavy growths of grass from areas before stripping. Where existing trees are indicated to remain, leave existing topsoil in place within drip lines to prevent damage to root systems.

3.3 STABILITY OF EXCAVATIONS

- A. Comply with local codes, ordinances, and requirements of authorities having jurisdiction to maintain stable excavations.
- B. All excavation work shall conform to all applicable OSHA Publications, Latest Editions. The Contractor's method of providing protective support to prevent cave-ins shall conform to OSHA requirements. Slope excavations, shoring, and trench box usage in the field must be based on tabulated data and designed by the Contractor. The contractor is solely responsible for job site safety and shall not be compensated for required safety equipment/devices.

3.4 EXCAVATION FOR STRUCTURES

Excavate to indicated elevations and dimensions within a tolerance of plus or minus 0.10 foot. Extend excavations a sufficient distance from structures for placing and removing concrete formwork, maintaining a safe slope, installing services and other construction, and for inspections.

- A. Footings and Foundations: Excavate by hand to final grade just before placing concrete reinforcement. Trim bottoms to required lines and grades to leave solid base to receive other work.
- B. Pile Foundations: After piles have been installed, remove loose and displaced material. Excavate to final grade, leaving solid base to receive concrete pile caps.

- C. Excavation for Underground Tanks, Basins, and Mechanical or Electrical Appurtenances: Excavate to elevations and dimensions indicated within a tolerance of plus or minus 0.10 foot.

3.5 EXCAVATION FOR WALKS AND PAVEMENTS

Excavate surfaces under walks and pavements to indicated cross sections, elevations, and grades. Consider Dewatering and other sections as applicable.

3.6 EXCAVATION FOR STORMWATER SYSTEMS

Excavate and compact the backfill of trenches to the densities specified for embankment or subgrade, as applicable, and in accordance with the requirements of Section 2600. Consider Dewatering and other sections as applicable.

3.7 STORAGE OF SOIL MATERIALS

Stockpile excavated materials acceptable for backfill, fill soil, and topsoil materials, including acceptable borrow materials. Stockpile soil materials without intermixing. Stockpiles shall be placed, graded, and shaped to drain surface water and prevent erosion. Cover to prevent wind-blown dust and/or erosion. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.

3.8 BACKFILL

- A. Backfill excavations promptly, but not before completing the following:

1. Acceptance of construction below finish grade including, where applicable, filter fabric installation and gravel bedding.
2. Surveying locations of underground utilities for record documents.
3. Testing, inspecting, and approval of underground utilities.
4. Removal of trash and debris from excavation.
5. Removal of temporary shoring, bracing, and sheeting unless specified to remain.

- B. No backfill material shall be placed, spread or rolled during unfavorable weather conditions. When the work is interrupted by heavy rain, backfill operations shall not be resumed until the moisture content of the fill is as previously specified to achieve proper compaction.

3.9 FILL

- A. Preparation: Remove vegetation, topsoil, debris, wet and unsatisfactory soil materials, obstructions, and deleterious materials from ground surface prior to placing fills. Plow strip, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing surface. In order to insure proper bond and prevent slipping between the original ground and fill, the surface of the original ground shall be scarified to a depth of at least three inches. Each layer of fill material shall be compacted until the required density is achieved, and the density achieved should be verified in accordance with specifications using in-place density testing.
- B. When subgrade or existing ground surface is to receive fill and has a density less than that required for fill, break up ground surface to depth required, pulverize, moisture condition or aerate soil and re-compact to required density.
- C. Place fill material in layers to required elevations for each location listed below.
 - 1. Under grass, subbase or base material, use satisfactory excavated or borrow soil material.
 - 2. Under walks and pavements, curbs, steps, ramps, building slabs, footings and foundations use subbase and/or base material.

3.10 MOISTURE CONTROL

- A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill layer before compaction to within 2 percent of optimum moisture content.
- B. Do not place backfill or fill material on surfaces that contain excessive moisture.
- C. Remove and replace, or scarify and air-dry satisfactory soil material that is too wet to compact to specified density. Stockpile or spread and dry removed wet satisfactory soil material.

3.11 COMPACTION

- A. Place backfill and fill materials in layers or lifts not more than 12 inches in loose depth for material compacted by heavy compaction equipment, and not more than 8 inches in loose depth for material compacted by hand-operated tampers.
- B. Place backfill and fill materials evenly on all sides of structures to required elevations. Place backfill and fill uniformly along the full length of each structure.

- C. Percentage of Maximum Dry Density Requirements: Compact soil to not less than the following percentages of maximum dry density according to ASTM Modified Proctor):
 - 1. Under structures, building slabs, steps, and pavements, compact each layer of backfill or fill material at a minimum of 98% Modified Proctor of the material's maximum dry density.
 - 2. Under lawn or unpaved areas, compact each layer of backfill or fill material at 95% Modified Proctor maximum dry density.

3.12 GRADING

- A. General: Uniformly grade areas to a smooth surface, free from irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
 - 1. Provide a smooth transition between existing adjacent grades and new grades.
 - 2. Cut out soft spots, fill low spots, and trim high spots to conform to required surface tolerances.
- B. Site Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish subgrades to required elevations within the following tolerances:
 - 1. Lawn or Unpaved Areas: Plus or minus 0.10 foot.
 - 2. Walks: Plus or minus 0.10 foot.
 - 3. Pavements: Plus or minus ½ inch.

3.13 STABILIZED SUBGRADE

- A. For stabilized subgrade the type of materials, commercial or local, is at the Contractor's option and no separate payment for stabilizing materials will be made (other than as may be paid for as borrow).
- B. When stabilizing is designated as Type B, compliance with the bearing value requirements will be determined by the Limerock Bearing Ratio Method. Minimum LBR shall be 40.
- C. It is the Contractor's responsibility that the finished roadbed section meets the bearing value requirements, regardless of the quantity of stabilizing materials necessary to be added. Also, full payment will be made for any areas where the existing subgrade materials meet the design bearing value requirements without the addition of stabilizing additives, as well as areas where the Contractor may elect to place select high-bearing

materials from other sources, within the limits of the stabilizing.

- D. After the roadbed grading operations have been substantially completed, the Contractor shall make his own determination as to the quantity (if any) of stabilizing material, of the type selected by him, necessary for compliance with the bearing value requirements. The contractor shall notify the Engineer of the approximate quantity to be added, and the spreading and mixing-in of such quantity of materials shall meet the approval of the County as to uniformity and effectiveness.

3.14 FIELD QUALITY CONTROL

- A. Testing Agency Services: Allow testing agency to inspect and test each subgrade and each fill or backfill layer. Do not proceed until test results for previously completed work verify compliance with requirements.
 - 1. Perform field in-place density tests according to ASTM D 1556 (sand cone method), ASTM D 2167 (rubber balloon method), ASTM D 293 (drive cylinder method), or ASTM D 2922 (nuclear method), as applicable.
 - a. Field in-place density tests may also be performed by the nuclear method according to ASTM D 2922, provided that calibration curves are periodically checked and adjusted to correlate to tests performed using ASTM D 1556. With each density calibration check, check the calibration curves furnished with the speedy moisture meter according to ASTM D 3017.
 - b. When field in-place density tests are performed using nuclear methods, make calibration checks of both density and speedy moisture meter at beginning of work, on each different type of material encountered, and at intervals as directed by the Engineer.
 - 2. Paved Areas: Make at least one field density test of subgrade, base, and each compacted fill layer for every 300 linear feet of roadway or equivalent area, but in no case less than two tests. Tests shall be staggered to ensure representative sampling.
 - 3. Unpaved Areas: Make at least one field density test of each compacted fill layer or subgrade for every 1000 square yards of area, but in no case less than two tests.
 - 4. Other tests may be required at County's discretion.
- B. If, in the opinion of the County, based on testing service reports and

inspection or the Engineer's observations, subgrades, fills, or backfills are below specified density, scarify and moisten or aerate as needed, or remove and replace soil to the depth required, re-compact, and re-test until required density is obtained at no additional expense.

3.15 REPAIR & CORRECTIONS

- A. Protecting Graded Areas: Protect newly graded areas from traffic and erosion. Keep free of trash and debris. Repair and re-establish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or lose compaction due to subsequent construction operations or weather conditions. Scarify or remove and replace material to depth directed by the Engineer; reshape and re-compact at optimum moisture content to the required density.
- B. Settling: Where settling occurs, remove finished surfacing, backfill with additional approved material, compact, and reconstruct surfacing. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to the greatest extent possible.
- C. When traffic must cross open trenches, the contractor shall provide suitable bridge of graded aggregate base or temporary asphalt paving as directed by County at no additional expense. (See Section 4060 for additional requirements.)
- D. Erosion Control: The Contractor shall be responsible for the prevention of erosion from the site and for maintaining filled and graded surfaces for the duration of the project. This includes, but is not limited to, the erection of a silt fence and hay bale barricade as per Florida Stormwater Erosion and Sedimentation Control Inspector's Manual and/or as shown in the construction plans. The Contractor shall take whatever steps necessary to prevent erosion and sedimentation, and will be responsible for any damages which might occur to down-land properties as a result of run-off from the site during sitework construction at no additional cost. Provide erosion control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

3.16 DISPOSAL OF SURPLUS AND WASTE MATERIALS

Surplus excavated material becomes the property of the Contractor unless otherwise noted. Waste materials, including unsatisfactory soils, trash and debris shall be removed and legally disposed of, off the Owner's property.

3.17 CLEAN-UP AND FINAL INSPECTION

Before final inspection and acceptance the Contractor shall clean ditches, shape

shoulders and restore all disturbed areas, including street crossings, grass plots, re-grassing if necessary, to as good a condition as existed before work started.

PART 4 - MEASUREMENT/PAYMENT

4.1 METHOD OF MEASUREMENT

- A. Excavation: When payment for excavation is on a volumetric basis, the quantity to be paid for will be the volume, in cubic yards, calculated by the method of average end areas according to the survey and plans. If actual quantities vary in field, contractor shall communicate with Engineer and/or County to request additional payment. The measurement will include the net volume of material between the original ground surface and the surface of completed earthwork according to the survey and plans. If actual quantities vary in field, contractor shall communicate with the County to request additional payment. Excavation for swales and channels will be included in the total quantity for Excavation. Subsoil Excavation will be measured to the lines and grades indicated on the plans or as approved by the County. Backfill material shall either include normal excavation material from within project limits or borrow material supplied by the Contractor.
- B. Embankment: Quantities for Embankment will be calculated by the method of average end or square yard areas, and will include material placed above the original ground line, within the lines and grades indicated on the plans or as directed by the County.
- C. Calcium Chloride for Dust Control: The quantity to be paid for will be the weight, in tons, of calcium chloride authorized and acceptably spread on the road, within the limits specified by the County. The quantity will be determined from scales, certified freight bills, or other sources, the accuracy of which can be authenticated.

4.2 BASIS OF PAYMENT

- A. General: Prices and payments for the various work items included in this section will be full compensation for all work described herein, including excavating, dewatering, dredging, hauling, placing, and compacting. Separate pay items will be provided for all devices required to maintain control of erosion according to plans and NPDES permit. Additional devices shall be no additional cost.
- B. Excavation: Unit prices will be established for required cubic yard volumes of Regular Excavation, Subsoil Excavation, and Borrow Excavation as necessary. When subsoil excavation is required to a depth greater than plans and specifications require, and additional excavation is not due to unsuitable, a change order will be required to establish a new quantity utilizing the current unit price.

- C. Embankment: Payment shall be made at the unit contract price for Embankment, cubic yard or square yard, in place, according to plans.
- D. Calcium Chloride for Dust Control: Price and payment will be full compensation for all work and materials specified for this item, including specifically all required shaping and maintenance of the treated area and all water furnished and applied to the area.
- E. Dewatering: The contractor shall include the cost of dewatering in the unit price bid for the stormwater pipe if there is not a specific line item used in the contract.

END OF SECTION 02300

SECTION 02320 - UNDERDRAIN AND EXFILTRATION TRENCH

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawing and general provisions of Contract, including General and Supplementary Conditions and other Specification Sections, apply to work of this Section.
- B. Florida Department of Transportation, *Standard Specifications for Road and Bridge Construction, Section 440, and Design Standards, Latest Edition.*

1.2 DESCRIPTION OF WORK

This section shall cover the work of furnishing pipe for underdrain and exfiltration trenches, the type and size shown on the plans or in the proposal in accordance with the requirements of these specifications, and installing such pipe at the locations shown on the plans or designed by the County in substantial conformity with the established lines, trench widths, filter media, and grades. The work shall include furnishing and construction of such joints and connections to other pipes as may be required to complete the work, as shown on the plans or directed, together with the specified trench, filter media, and filter fabric materials. Filter media may be sand, gravel, gravel pack, and/or a combination thereof.

PART 2 - PRODUCTS

- A. Underdrain Pipe: Underdrain pipe shall conform to the requirements of Florida Department of Transportation Standard Specification 948-2, Latest Edition. The perforations shall meet the requirements for perforations as specified in AASHTO M294. Pipe shall be perforated polyethylene ADS N-12 or approved equal.
- B. Filter Aggregate shall be clean, washed gravel free of organic material and fines with minimum 33% percent voids. Aggregate shall be at least FDOT stone or equivalent.
- C. Filter Fabric shall be Terratex EP (Woven) or approved equal meeting the requirements of FDOT Specification Section 985.
- D. Filter sand shall be clean sand, free of organic materials and fines, with an effective grains size of 0.20 to 0.55 mm, uniformity coefficient of 1.5 to 4.0, a K value (recommended design permeability) not to exceed 2.5 ft/hr, and the contractor shall provide a grain-size analysis to the County for the project.

PART 3 - EXECUTION

3.1 STANDARD INSTALLATION:

- A. Trenches shall be excavated to the dimensions shown on the plans or as directed. A bedding layer of filter aggregate or filter sand of the size shown on the plans shall be placed in the bottom of the filter fabric lined trench for its full width and length and compacted as directed.
- B. Subdrainage pipe of the type and size specified shall be embedded firmly in the bedding material. All pipe sections shall be securely joined with the appropriate coupling fittings or bands as per manufacturer's specifications.
- C. After the pipe installation has been inspected and approved, the specified filter aggregate, gravel pack, and/or filter sand shall be placed as shown on the drawings and filter fabric wrapped around the filter media with a minimum overlap (as required) on top. Install wire mesh at opening/outfall. Care shall be taken not to displace the pipe.
- D. The Contractor shall take every precaution to prevent the entrance of soil and sediments into the filter bed during construction, which would sacrifice the integrity of the filter fabric and aggregate installed. Stormwater runoff and sedimentation controls to be provided so as to protect the underdrain or exfiltration trench system.
- E. Installation of the corrugated polyethylene pipe shall be in accordance with the ASTM D-2321 Latest Revision.
- F. Gravel packs shall be installed around the filter-drain underdrain pipe an average thickness of at least six inches from the underdrain pipe for all underdrain systems located within pond bottoms and pond banks. The minimum separation between the gravel pack and the top of the filter bed shall be two feet. A permeable filter fabric shall be wrapped around the gravel pack.
- G. Cleanouts or inspection boxes shall be installed, at minimum, every 400 feet or as specified by plan, at every directional change or bend, and at the beginning (upstream) and at the terminus (downstream) of the underdrain pipes or exfiltration trench systems.
- H. Cleanouts shall have vertical portions non-perforated, include water-tight caps, and shall incorporate fittings (wye fittings or elbow bends) that have an angle no less than 45 degrees.

PART 4 – MEASUREMENT/PAYMENT

4.1 METHOD OF MEASUREMENT

The quantities to be paid for will be the length, in feet, of underdrain, which include trench filter fabric, measured in place, along the centerline and gradient of the underdrain, completed and accepted. The quantities to be paid for will be the length, in feet, of outlet pipe measured in place, along the centerline and gradient of the outlet pipe, completed and accepted. The quantity of underdrain inspection boxes and cleanouts to be paid for will be the number completed and accepted. When payment for gravel or sand filter media is on a volumetric basis, the quantity to be paid for will be the volume, in cubic yards, calculated based upon the length, width, and depth of the underdrain or exfiltration trench dimensions, minus the pipe volume, as shown on the plans, unless the filter media is specified as a bid item included in the costs of the underdrain or exfiltration system.

4.2 BASIS OF PAYMENT

Prices and payment for this item shall include all labor, equipment and materials necessary to complete the work in accordance with the plans and specifications. Materials covered under this pay item include but are not limited to: pipe including fittings, filter fabric, filter media, filter sand, filter aggregate, cleanout structures and inspections boxes. Payment shall be made for the underdrain or exfiltration pipe based upon the length of pipe. Unit prices will be established for the number of cleanouts structures and inspection boxes, unless otherwise specified as a bid item included in the under underdrain or exfiltration trench system. Unit prices will also be established for required cubic yard volume of gravel or sand filter media based upon the length, width, and depth of the underdrain or exfiltration trench, minus the pipe volume, as shown on the plans, unless otherwise specified as a lump sum bid item included in the costs of the underdrain or exfiltration trench system. No additional payment will be made for filter media overages larger than the specified plan volume. No additional payment will be made for excavation of the trench or lining the trench with filter fabric. No additional payment will be made for underdrain pipe with a sock filter fabric.

END OF SECTION 02320

SECTION 02340 - RIPRAP

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Specification Sections, apply to work of this Section.
- B. Florida Department of Transportation, *Standard Specifications for Road and Bridge Construction, Section 530*, and *Design Standards 281, Latest Edition*.

1.2 DESCRIPTION OF WORK

This section shall cover the work of furnishing and constructing the Riprap which shall consist of a protective course of stone or other approved materials on embankment slopes, in channels, or other work as shown on the plans or directed, with or without a Filter Blanket, all in accordance with these Specifications and in conformity with the lines and grades noted in the plan details.

PART 2 - PRODUCTS

2.1 MATERIALS

Rubble\Stone Riprap shall comply with Florida Department of Transportation *Standard Specification 530-2.2*

- A. Banks and shore protection shall comply with Florida Department of Transportation *Standard Specification 530-2.2.1*.
- B. Ditch lining shall comply with Florida Department of Transportation *Standard Specification 530-2.2.2*.
- C. Broken stone and broken concrete shall comply with Florida Department of Transportation *Standard Specification 530-2.2.3*.
- D. Geotextile fabric shall comply with Florida Department of Transportation *Standard Specification 514* and Florida Department of Transportation *Design Standards 104* according to its application.
- E. Bedding stone shall comply with Florida Department of Transportation *Standard Specification 530-2.3*.
- F. Sand/Cement Riprap: Materials and placement shall comply with Florida Department of Transportation *Standard Specification 530-2.1*.

PART 3 - EXECUTION

3.1 EXECUTION

A. Construction Requirements:

General: All slopes to be treated with riprap shall be trimmed to the lines and grades indicated by the plans or directed, such that the plan grades are the top of the placed riprap, unless otherwise noted. Loose material shall be compacted by methods approved by the Engineer or removed.

Slopes which require a filter blanket under the riprap shall, in addition to the above, be prepared as noted below.

1. Placement of any riprap on a filter blanket shall be by such means that will not damage or destroy the blanket. Any damage to the blanket shall be repaired without additional compensation.
2. Unless directed otherwise by the Engineer or shown by plan details, all outer edges and the top of riprap where the riprap terminates shall be formed so that the surface of the riprap will be embedded and even with the surface of the ground and/or slope.
3. All riprap construction shall begin at the bottom of the slope and progress upward.
4. Filter Blanket: Unless otherwise specified by the plans or ordered in writing, a fabric blanket will not be allowed for soils with 85% by weight passing the No. 200 sieve (U.S. Std.)
5. The bedding stone shall be constructed in accordance with Florida Department of Transportation Specification 530-3.3.
6. Foundation Preparation: Areas on which filter fabrics are to be placed shall be uniformly trimmed and dressed to conform to cross-sections shown by the plans.

B. Plastic Filter Fabric (Geotextile):

Plastic filter fabric shall be placed in the manner and at the locations shown in the plans or as directed by the Engineer. At the time of installation, fabric shall be rejected if it has defects, rips, holes, flaws, deterioration or damage incurred during manufacturer, transportation or storage. The fabric shall be placed with the long dimension parallel to the centerline of the channel or shoreline unless otherwise directed by the Engineer, and shall be laid smooth and free of tension, stress, folds, wrinkles or creases. The strips shall be placed to provide a minimum

width of 24 inches of overlap for each joint with the upstream strip of fabric overlapping the downstream strip. Overlap joints and seams shall be measured as a single layer of cloth. Securing pins with washers shall be inserted through both strips of overlapped cloth as recommended by the manufacturer, but no greater than the following intervals along a line through the midpoint of the overlap.

<u>Pin Spacing</u>	<u>Slope</u>
2 ft.	Steeper than 3:1
3 ft.	3:1 to 4:1
5 ft.	Flatter than 4:1

The fabric shall be turned down and buried two feet at all exterior limits except where a stone-filled key is provided below natural ground.

Additional pins regardless of location shall be installed as necessary to prevent any slippage of the filter fabric. Overlaps in the fabric shall be placed so that any upstream strip of fabric will overlap the downstream strip. Should the Engineer direct that the fabric be placed with the long dimension perpendicular to the centerline of the channel or shoreline, the lower strip of fabric shall underlap the next higher strip. Each securing pin shall be pushed through the fabric until the washer bears against the fabric and secures it firmly to the foundation. The fabric shall be protected at all times during construction from contamination by surface runoff and any fabric so contaminated shall be removed and replaced with uncontaminated fabric. Any damage to the fabric during its installation or during placement of riprap shall be replaced by the Contractor. The work shall be scheduled so that the manufacturer's recommendation for UV exposure is not exceeded or 5 days does not expire between placement of the fabric and the covering of the fabric with riprap, whichever is less.

3.2 STONE AND CONCRETE RUBBLE RIPRAP

General: Unless otherwise shown by plan details or directed, stone or concrete shall not be placed on slopes steeper than the natural angle of repose of the riprap material.

Placement of stone or concrete may, unless otherwise noted hereinafter, be placed by methods and equipment suitable for the purpose of placing the riprap in accordance with the requirements for the class riprap involved without damaging any existing facility or construction material.

The stone or concrete shall be placed in such a manner as to produce a reasonably well graded mass of rock with the minimum practical percentage of voids. Stone or concrete shall be laid with close broken joints and resting on the embankment slope. The top of the riprap shall be constructed to the lines, grades and thickness shown by the plans or as directed. Riprap shall be placed

to its full course thickness in one operation and in such a manner as to avoid displacing or damaging the filter blanket material. The larger stone or concrete shall be well distributed and the entire mass of stone or concrete, in their final position, shall conform to a reasonable uniform gradation. The finished riprap shall be free from objectionable pockets of small stone or concrete and clusters of larger stone or concrete. Open joints shall be filled with spalls, or small stone or concrete in such manner that all stone or concrete are tightly wedged or keyed. Placing riprap by dumping into chutes or by other methods likely to cause segregation of sizes will not be permitted. The desired distribution of the various sizes of stone or concrete throughout the mass shall be obtained by selective loading of the material at the source, by controlled dumping of successive loads during final placing, or by other methods of placement which will produce the specified results. The individual pieces of stone or concrete in each horizontal course shall be laid so that they will not break away from embankment. Rearranging of individual stone or concrete by mechanical equipment, or by hand, will be required to the extent necessary to obtain a reasonably well graded distribution of stone or concrete as specified above.

3.3 SAND/CEMENT RIPRAP

- A. Placing: Immediately following mixing, the mixture shall be placed in the bags, tied (so that when laid in position, they will flatten out and give a thickness of not less than six inches) and placed flat on the area designed. Use only one type of bag per structure. Bags shall be layered and wedged against each other to form closed joints, with tied ends of sacks all laid in the same direction. Sacks ripped or torn in placing shall be removed and replaced with sound, unbroken sacks. When required to be placed under water, special care shall be taken to see that bags are closely jointed to give the same tight joints as required on dry slopes. After the riprap is placed, it shall be sprinkled with water as directed and kept damp for not less than three days. No sand/cement riprap shall be mixed in freezing weather.
- B. Grouting: Immediately after watering, all openings between sacks shall be filled with dry grout composed of one part Portland cement and five parts sand.
- C. Pinned/Staked Bags: Bags shall be pinned/staked when called for on drawings.

3.4 CLEAN UP

Before final inspection and acceptance, the Contractor shall remove all excess material from site and restore all disturbed areas to as good a condition as existed before work started.

3.5 MAINTENANCE

The Contractor shall maintain all riprap until the contract work is accepted, and shall replace, without additional compensation, any damaged or missing riprap.

PART 4 – MEASUREMENT/PAYMENT

4.1 METHOD OF MEASUREMENT

- A. Sand-Cement: The quantity to be paid for will be the volume, in cubic yards, of sand actually used in the sand cement mixture and grout, satisfactorily placed and accepted. If sand is proportioned by volume, the sand will be measured loose in an approved measure prior to mixing with cement. If sand cement is proportioned by weight, approved scales will be used for this purpose and the volume will be calculated using a standard conversion factor for sand of 85lbs. /cubic feet. No adjustment of batch weights to allow for varying moisture content of the sand will be made.
- B. Stone/Concrete Rubble and Bedding Stone: The quantities to be paid for will be, as per plans/bid schedule, and either by the weight in tons in surface dry natural state; by railroad scales, truck scales, or barge displacement, or by square yards (according to plan thickness.) The Contractor shall determine the weights as follows:
1. Railroad Weights: The Contractor shall weight railroad cars on railroad scales, before and after loading or before and after unloading. If weighed by other than the Engineer, a certified statement of weights will be required. Certificates of weight, furnished by the railroad company, will be accepted without further certification.
 2. Truck Weights: The Contractor shall weigh trucks on certified scales, loaded and empty, as prescribed above for railroad weights. The Contractor shall weigh trucks in presence of the Engineer, or furnish certificates of weights.
 3. Barge Displacement: The Engineer will measure each barge. The Contractor shall fit each barge with gauges graduated in tenths of a foot increment. The Contractor shall locate a gauge at each corner of the barge near the lower end of the rake. The Contractor shall furnish additional gauges amidships, if the Engineer deems necessary. The Engineer will review and check all computed weights. Weight certificates may be submitted.
 4. In Place Measurement: The Contractor shall measure surface area (in square yards) of area riprap has been placed.

4.2 BASIS OF PAYMENT

- A. Sand-Cement: Price and payment will be full compensation for all work specified in this Section, including all materials, labor, hauling, excavation, and backfill. The Contractor shall include the cost of dressing and shaping the existing fills (or subgrade) for placing riprap in the Contract unit price for Riprap (Sand-Cement.)
- B. Stone/Rubble: Price and payment will be full compensation for all work specified in this Section, including all materials, hauling, excavation, and backfill. The Contractor shall include the cost of dressing and shaping the existing fill (or subgrade) for placing riprap in the Contract unit price for Riprap (Stone/Rubble). As an exception to the above, concrete that is shown to be removed from the project site and subsequently disposed of by being crushed and used in the embankment as riprap will not be paid for under this section. Include the cost of such work order under Removal of Existing Structures.
- C. Bedding Stone: Price and payment will be full compensation for all work specified in this Section, including all materials and hauling. The Contractor shall include the cost of dressing and shaping the existing fills (or subgrade) for placing bedding stone in the Contract unit price for Riprap (Stone/Rubble).

END OF SECTION 02340

SECTION 02400 - GRADED AGGREGATE BASE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of contract, including General and Supplementary Conditions and other Specification Sections, apply to the work of this section.

1.2 DESCRIPTION OF WORK

This item shall consist of a base course of graded aggregate constructed on a subgrade prepared in accordance with the specifications and in conformity with the line, grades and typical cross-section as shown on the drawings.

PART 2 - PRODUCTS

2.1 MATERIALS

Use graded aggregate material which yields a satisfactory mixture meeting all the requirements of these Specifications after it has been crushed and processed as a part of the mining operations.

The Contractor may furnish the material in two sizes of such gradation that, when combined in a central mix plant pugmill, the resultant mixture meets the required specifications.

Use graded aggregate base material of uniform quality throughout, substantially free from organic matter, shale, lumps and clay balls, and having a Limerock Bearing Ratio value of not less than 98. Use material retained on the No.10 sieve composed of aggregate meeting the following requirements:

Soundness Loss, Sodium, Sulfate: AASHTO T 104.....15%

Percent Wear: AASHTO T 96 (Grading A)

Group 1 Aggregates..... 45%

Group 2 Aggregates..... 65%

Group 1 : This group of aggregates is composed of limestone, marble, or dolomite.

Group 2: This group of aggregates is composed of granite, gneiss, or quartzite.

Use graded aggregate base material meeting the following gradation:

Sieve Size	Percent by Weight Passing
2 inch	100
1 1/2 inch	95 to 100
3/4 inch	65 to 90
3/8 inch	45 to 75
No. 4	35 to 60

No. 10	25 to 45
No. 50	5 to 25
No. 200	0 to 10

For Group 1 aggregates, ensure that the fraction passing the No. 40 sieve has a Plasticity Index (AASHTO T 90) of not more than 4.0 and a Liquid Limit (AASHTO T 89) of not more than 25, and contains not more than 67% of the weight passing the No. 200 sieve.

For Group 2 aggregates, ensure that the material passing the No. 10 sieve has a sand equivalent (AASHTO T 176) value of not less than 28.

The Contractor may use graded aggregate of either Group 1 or Group 2, but only use one group on any Contract. (Graded aggregate may be referred to hereinafter as "aggregate".)

2.2 EQUIPMENT

The aggregate shall be spread by mechanical rock spreaders, equipped with a device which strikes off the aggregate uniformly to laying thickness, and capable of producing an even distribution of the aggregate. For crossovers, intersections and ramp areas; for roadway widths of 20 feet or less; for the main roadway area when forms are used and for any other areas where the use of a mechanical spreader is not practicable; spreading may be done by bulldozers or blade graders. All equipment for proper construction of this project shall be in first-class working condition.

PART 3 - EXECUTION

3.1 TRANSPORTING GRADED AGGREGATE

The graded aggregate shall be transported to the point where it is to be used, over aggregate previously placed if practical, and dumped on the end of the preceding spread. Hauling over the subgrade and dumping on the subgrade will be permitted when, in the County's opinion, these operations will not be detrimental to the subgrade.

3.2 SPREADING GRADED AGGREGATE

- A. Method of Spreading: The graded aggregate shall be spread uniformly. All segregated areas of fine or coarse aggregate shall be removed and replaced with properly graded aggregate.
- B. Number of Courses: When the specified compacted thickness of the base is greater than six inches, the base shall be constructed in two courses. The thickness of the first course shall be approximately one-half the total thickness of the finished base, or enough additional material added to bear the weight of the construction equipment without disturbing the

subgrade. When compacted thickness is six inches or less, graded aggregate shall be placed in one lift.

3.3 COMPACTING AND FINISHING BASE

- A. Single-Course Base: For single-course base, after the spreading is completed, the entire surface shall be scarified and then shaped so as to produce the required grade and cross-section, free of scabs and laminations, after compaction.
- B. Multiple-Course Base: For multiple-course base, the first course shall be cleaned of foreign material and bladed and brought to a surface cross-section approximately parallel to that of the finished base. Prior to the spreading of any material for the upper course, the density tests for the lower course shall be made, and the County shall have proof that the required compaction has been obtained. After the spreading of the material for the second course is completed, its surface shall be finished and shaped so as to produce the required grade and cross-section after compaction, and free of scabs and laminations.
- C. Moisture Content: When the material does not have the proper moisture content to ensure the required density, wetting or drying will be required. When water is added, it shall be uniformly mixed-in by disking to the full depth of the course which is being compacted. Water shall be added before beginning compaction operations. Wetting or drying operations shall involve manipulation, as a unit, of the entire width and depth of the course which is being compacted. This shall be performed utilizing the speedy moisture meter.

3.4 DENSITY REQUIREMENTS

As soon as proper conditions of moisture are attained, the material shall be compacted to a density of not less than 98% of the modified proctor maximum density as determined by AASHTO T-180 (Modified Proctor.)

3.5.1 TESTING SURFACE, PROTECTION, AND MAINTENANCE

- A. Density Tests: A minimum of at least one field density test on each course of compacted base shall be performed for every 500 square yards, or every 300 linear feet of road pavement, or as directed by the Engineer. Additional tests may be made if deemed necessary by the Engineer and/or County/CEI.
- B. During final compacting operations, if blading of any areas is necessary to obtain the true grade and cross-section, the compacting operations for such areas shall be completed prior to making the density tests on the finished base.

- C. Correction of Defects: Contamination of Base Material: If, at any time, the subgrade material should become mixed with the base course materials, the Contractor shall, without additional compensation, dig out and remove the mixture, reshape and compact the subgrade and replace the materials removed with clean base material, which shall be shaped and compacted as specified above.
- D. Cracks and Checks: If cracks or checks appear in the base, either before or after priming, which in the opinion of the County, would impair the structural efficiency of the base, the Contractor shall remove the cracks or checks by re-scarifying, reshaping, adding base material where necessary, and re-compacting, without additional compensation.
- E. Compaction of Widening Strips: Where base construction consists of widening strips and the trench width is not sufficient to permit use of standard base compaction equipment, compaction shall be accomplished by use of vibratory compactors, trench rollers, mechanical plate tampers, or other special equipment which will achieve the density requirements specified herein. When multiple-course base construction is required by the plans or specifications, the required compaction shall be achieved in each course prior to spreading material for the overlaying course.
- F. Testing Surface: The finished surface of the base course shall be checked from the required crown and ensure longitudinally a smooth, consistent surface for the placement of the asphalt course(s). All irregularities, greater than 1/4 inch per 15' straight edge test, shall be corrected, after which the entire area shall be re-compacted and tested as specified herein before. In the testing of the surface, the measurements will not be taken in small holes caused by individual pieces of rock having been pulled out by the grader.
- G. Priming and Maintaining:
- Priming: The prime coat shall be applied only when the base meets the specified density requirements and the moisture content in the top half of the base does not exceed 90% of the optimum moisture of the base material. At the time of priming, the base shall be firm, unyielding and in such condition that no undue distortion will occur. See FDOT Prime Coat Specification.
- Maintaining: The Contractor will be responsible for assuring that the true crown and template are maintained, with no rutting or other distortions, and that the base meets all the requirements, at the time the surface course is applied.
- H. Thickness Requirements:
- Measurements: Thickness of the base shall be measured at intervals in

such a manner that each test represents 500 square yards, or every 300 linear feet of road pavement, or as otherwise directed by the County. Measurements shall be taken at various points on the cross-section, through holes not less than three inches in diameter.

Areas Requiring Correction: Where the compacted base is deficient by more than ½ inch from the thickness called for in the plans, the Contractor shall correct such areas. The affected areas shall then be brought to the required state of compaction and to the required thickness and cross-section.

PART 4 - MEASUREMENT/PAYMENT

4.1 METHOD OF MEASUREMENT:

The quantity to be paid for will be the area, in square yards, completed and accepted.

4.2 BASIS OF PAYMENT:

Price and payment will be full compensation for all work specified in this section, including dust abatement, correcting all defective surfaces and deficient thickness, removing cracks and checks, the additional aggregate required for such crack elimination, and the prime coat.

END OF SECTION 02400

SECTION 02410 – RECYCLED CONCRETE AGGREGATE BASE
(CRUSHED CONCRETE)

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of contract, including General and Supplementary Conditions and other Specification Sections, apply to the work of this section.

1.2 The County recognizes the beneficial reuse of construction materials where said materials can be used in a manner that provides a construction product meeting specifications adopted by state and/or federal agencies. As such, the County shall allow, as noted below, the use of Recycled Concrete Aggregate (RCA) for the purpose of constructing an aggregate base course for the placement of an asphaltic concrete surface course in accordance with this section.

1.3 This section shall conform to section 2400 G.A.B. except as noted.

1.4 SPECIFIC CONSENT REQUIRED

Recycled Concrete Aggregate may only be used on projects with specific written consent of the County Engineer, or designee, subject to the conditions outlined herein. No such permission shall be given until the requirements of Items 2.1 through 3.1.A-D have been affirmatively addressed by the Engineer of Record for the project. Additionally, construction may not proceed until the requirements of Item 3.2.B have been addressed. Should construction commence more than six months after the date of the geotechnical report and/or roadway locations and/or elevations change, a geotechnical addendum shall be submitted confirming groundwater elevations. Should County staff observe differing construction or material conditions after approval; additional testing or re-evaluation of existing conditions for use may be required. RCA installations not in compliance with these specifications shall be subject to removal and replacement.

PART 2 - PRODUCTS

2.1 MATERIALS

The material requirements of Recycled Concrete Aggregate shall be in accordance with the Florida Department of Transportation Special Provisions Specification Section 204, "Graded Aggregate Base."

- A. Recycled Concrete Aggregate used shall not be required to comply with FDEP source approval requirements specified in FAC 62-701.730 or be qualified as a clean debris source under FDEP rules, as outlined in Florida Department of Transportation Special Provisions Specification Section 204-2.2, "Graded Aggregate Base." The aggregate supplied shall be

capable of meeting the requirements outlined in this item. NO material shall be used that has been obtained from potentially contaminated sources that may contain asbestos or other hazardous materials.

PART 3 - EXECUTION

3.1 SPECIFIC USE & LOCATION REQUIREMENTS

- A. The use of Recycled Concrete Aggregate shall be in accordance with the Florida Department of Transportation *Special Provisions Specification Section 204, "Graded Aggregate Base."* It should be noted RCA may not be used on FHWA funded projects.
- B. Unless the Engineer of Record can demonstrate that the grading plan provides a minimum vertical separation of 18 inches between the bottom of the base and the seasonal high water table provided in the geotechnical report, permanent groundwater control measures shall be incorporated in the roadway design (i.e. under drains with positive out falls, etc.). If the subsurface conditions encountered in the geotechnical study indicate the presence of, or the potential for, perched groundwater, the geotechnical engineer shall address the appropriate measures to remedy perched groundwater in the geotechnical report or addendum.
- C. The Engineer of Record shall as part of the original construction plans approved by the County or by addendum approved by the County provide construction details and specifications for the road section(s) to be used with RCA. The section shall include material types, thickness requirements, and compaction requirements for all materials required for the flexible pavement section. The plan and profiles shall detail groundwater levels (apparent or perched) and the use of under drains with positive out falls, where applicable/appropriate. Where under drains are required, they shall be detailed in cross section relative to the road section. The Engineer of Record shall also provide calculations which detail the calculated capacity of all components of the underdrain section, transmission pipes and receiving system.
- D. If, during the time period of construction, water is observed bleeding thru the pavement, new or additional permanent groundwater control measures to a positive, approved, out fall shall be installed. Such measures shall be submitted to the County for review and approval per Item C above.

3.2 TESTING & CERTIFICATION REQUIREMENTS

- A. The installation of Recycled Concrete Aggregate shall be in accordance with the Florida Department of Transportation *Special Provisions Specification Section 204, "Graded Aggregate Base."*

- B. Upon delivery of RCA to the project site, the contractor, NOT the supplier, shall provide to the County a report from an independent FDOT certified testing laboratory certifying that the material meets the gradation and Limerock Bearing Ratio requirements of Florida Department of Transportation *Special Provisions Specification Section 204, "Graded Aggregate Base."*
- C. During the course of construction, quality control samples of RCA delivered to the project site shall be selected under the supervision of the County, or its representative, for gradation testing. Sampling shall be at a minimum frequency of one sample for every 3,600 square yards of in-place base material.
- D. All testing shall be in accordance with Florida Department of Transportation *Special Provisions Specification Section 204, "Graded Aggregate Base,"* and/or the County requirements, whichever is more stringent.

PART 4 - MEASUREMENT/PAYMENT

4.1 METHOD OF MEASUREMENT:

The quantity to be paid for will be the area, in square yards, completed and accepted.

4.2 BASIS OF PAYMENT:

Price and payment will be full compensation for all work specified in this section, including dust abatement, correcting all defective surfaces and deficient thickness, removing cracks and checks, the additional aggregate required for such crack elimination, and the prime coat.

END OF SECTION 02410

SECTION 02440 – SUPERPAVE ASPHALT BASE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General and Supplementary Conditions and other Specifications sections, apply to work of this section.

1.2 SUBMITTALS

Submit certification of compliance with applicable specifications in accordance with *Section 01300, "Submittals"*.

1.3 ENVIRONMENTAL CONDITIONS

Construct bituminous courses when underlying course is dry, and when atmospheric temperature is 40°F and rising for courses 1½" or greater, and 45°F and rising for courses less than 1½".

1.4 CONSTRUCTION EQUIPMENT

- A. Spreading Equipment: Self-propelled electronically controlled type, unless other equipment is authorized. Spreading equipment shall be capable of spreading hot bituminous mixtures without tearing, shoving, or gouging and to produce a finished surface of specified grade and smoothness. The use of a spreader that leaves indented areas or other objectionable irregularities in the fresh laid mix during operations will not be permitted.
- B. Rolling Equipment: Self-propelled pneumatic-tired rollers supplemented by three-wheel and tandem type steel wheel rollers. The number, type and weight of rollers shall be sufficient to compact the mixture to the required density without detrimentally affecting the compacted material. All rollers shall be suitable for rolling hot-mix bituminous pavements and capable of reversing without backlash. Pneumatic-tired rollers shall be capable of being operated both forward and backward without turning on the mat, and without loosening the surface being rolled. Equip rollers with suitable devices and apparatus to keep the rolling surfaces wet and prevent adherence of bituminous mixture.

At the Contractor's option, vibratory rollers especially designed for bituminous concrete compaction may be used, provided rollers do not impair stability of pavement structure and any underlying layers. Repair depressions in pavement surfaces resulting from use of vibratory rollers at no cost to the Owner. Rollers shall be self-propelled, single or dual vibrating drums, and steel drive wheels, as applicable; equipped with variable amplitude and separate controls for energy and propulsion.

- C. Hand Tampers: Hand tampers shall weigh not less than 25 pounds and have a tamping face of not more than 50 square inches.
- D. Mechanical Hand Tampers: Commercial type, operated by pneumatic pressure or by internal combustion.

PART 2 - PRODUCTS

2.1 MATERIALS

All materials shall conform to the requirements of these Specifications for the pavement sections as shown on the drawings.

PART 3 - EXECUTION

3.1 TRANSPORTATION OF BITUMINOUS MIXTURES

Deliver mixture to the area to be paved in such a manner that the temperature, at the time of dumping into the spreader, shall be not less than 285°F or greater than 345°F or that temperature required to obtain the specified compaction. Reject any load that has become wet prior to placing or falls outside of the above temperature ranges.

3.2 PLACING

Provide line and grade stakes as necessary for control. Place grade stakes in lanes parallel to centerline of area to be paved, and suitably spaced for string lines. Place and compact bituminous courses in such thicknesses as to achieve density and smoothness requirements. Maximum lift of bituminous base course shall not exceed 3 inches. Prior to laying the base course, clean underlying course of foreign and objectionable matter with power blowers, power brooms, or hand brooms in places inaccessible to power equipment, and inspect for compaction and smoothness requirements. The range of temperatures of the mixtures at the time of spreading shall be between 285°F and 345°F. Reject bituminous mixture having a temperature outside these limits when dumped into the hopper of the spreader. Adjust mechanical spreader and regulate speed so that the surface of the course is smooth, and when compacted conforms to depth, cross sections, grades and contours indicated. When irregularities of surface or deficiency in depth is more than specified tolerances, remove defective work and replace with new material. Whenever possible, place the mixture in strips not less than 10 feet wide. Overlap rolling to previously placed strip and extend to overlap first strip. Place mixture as continuously as possible. Shovelers and rakers shall follow spreading equipment, adding hot mixture and raking as required to produce a course that, when completed, shall conform to requirements specified. In areas where the use of machine spreading is impractical, mixture may be spread by hand. Distribute mixture into place from dump boards by means of hot shovels and spread with hot rakes in a uniformly

loose layer of such thickness that, when completed, it conforms to required grade and thickness. Do not dump loads any faster than they can be handled by shovelers and rakers. Paint contact surfaces of previously constructed curbs, manholes, and similar structures with a thin coat of emulsion or other approved bituminous material prior to placing the bituminous mixture.

3.3 COMPACTION OF MIXTURE

A. Affect compaction by rolling. Begin rolling as soon after placing as the mixture will bear the roller without undue displacement. Delays in rolling freshly spread mixture will not be tolerated. Start rolling longitudinally at extreme sides of lanes and proceed toward center of pavement, overlapping on successive strips by at least one-half the width of rear wheel of roller. Alternate trips of roller shall be slightly different lengths. Affect initial longitudinal rolling by the use of steel roller. Make tests for conformity with specified crown, grade and smoothness immediately after initial compression. Before continuing rolling, correct any variations by removing or adding materials, then roll course using pneumatic-tired rollers or tandem rollers, while mixture is hot and in condition suitable for proper compaction. Speed of rollers shall not exceed 3 miles per hour and at all times be slow enough to avoid displacement of hot mixture. Correct any displacement of mixture at once by use of rakes and apply fresh mixture or remove mixture as required. Continue rolling until all roller marks are eliminated. During rolling, moisten rollers to prevent adhesion of mixture to rolling surfaces, but do not permit an excess of water. Provide sufficient rollers for each spreading machine in operation on the job and to handle plant output. In places not accessible to rollers, compact mixture with hot pneumatic or manual hand tampers. Skin patching of an area that has been rolled is not permitted. Remove any mixture that becomes mixed with foreign material or is defective, replace with fresh mixture, and compact to density of surrounding area. Roller shall not pass over unprotected edge until asphalt has cooled to at least 120°F. Contractor shall provide workmen who are capable of performing work incidental to correction of pavement irregularities. After final rolling, permit no traffic of any kind on the pavement until the surface temperature has cooled to at least 120°F. Surface temperature shall be measured with surface thermometers or other satisfactory methods.

B. Testing Base Course:

1. Density: Within the entire limits of the width and depth of the base, obtain a minimum density in all areas of the roadway of 98% of modified Proctor maximum density as determined by AASHTO FM 1-T 180, Method D. Compact the base of any LOT of shoulder pavement to not less than 95% of the modified Proctor maximum density as determined by FM 1-T 180, Method D. Additional tests and cores may be required at the County's discretion.

2. Thickness: Measure thickness throughout the placement of any and all courses. In addition, perform periodic check on the yield during the placement of any and all courses. The maximum allowable deficiency at any point shall not be more than 1/4 inch less than the indicated thickness for the course. The average thickness of the course shall not be less than the indicated thickness. Where the deficiency is more than the specified tolerances, the contractor shall correct each such representative area or areas by removing the pavement in question and replacing with new pavement.
3. Smoothness: Straightedge the compacted surface of the course, utilizing a 15' rolling straightedge, as deemed necessary by the County. Apply a rolling straightedge parallel with the centerline of the road and a non-rolling straightedge at right angles to the centerline of the road after final rolling. Unevenness of the course shall not vary more than plus or minus 3/16 inch in 15 feet. Correct any portion of the pavement showing irregularities greater than that specified.
4. Thicknesses and Density Requirements: The thickness and density shall be checked at intervals not to exceed one per 300 linear feet of roadway, but in any case, should not be less than three tests. Tests shall be staggered to ensure representative sampling.

PART 4 – MEASUREMENT/PAYMENT

4.1 METHOD OF MEASUREMENT

ASPHALT BASE COURSE:

The quantity to be paid for will be the area, in square yards, of asphalt base course after adjustment to the equivalent area of specified thickness.

4.2 BASIS OF PAYMENT

ASPHALT BASE COURSE:

Prices and payments will be full compensation for all work specified in this Section.

END OF SECTION 02440

SECTION 02460 - SAND-CLAY BASE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions apply to this Section.
- B. Florida Department of Transportation, *Standard Specifications for Road and Bridge Construction* (FDOT 2000 Specs), *Sections 240 and 912, Latest Edition.*

1.2 DESCRIPTION OF WORK

This item shall consist of a base course composed of sand-clay mixtures constructed on a subgrade prepared in accordance with the specifications and in conformity with the line and grades shown on the drawings.

1.3 USE

Sand-clay base may only be used on projects with specific written consent from the County Engineer, or designee, subject to the conditions outlined herein.

Graded aggregate base shall be utilized in unsuitable soils, moisture sensitive areas, where groundwater fluctuates to within two feet of average grade, adjacent to wetlands/surface waters where the subgrade soils have a low permeability, and for roadways that will be dedicated to the County for maintenance.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. All materials shall be secured from sources approved by the County and shall be furnished by the Contractor.
- B. Sand-Clay shall consist of natural or artificial mixtures of clay or soil binder and gravel, sand or other aggregates. The materials shall be free from organic matter and trash and shall not contain any aggregate particles that will not pass a one-inch (1") sieve. It shall be uniform and shall not contain lumps or aggregate in sufficient quantity to prevent securing a smooth surface free from pits or pockets.
- C. The material passing the 10-mesh sieve shall meet the following requirements:
 - 1. Clay (material smaller than 0.005mm) 8-21%

- | | | |
|----|--------------------------------------|-------|
| 2. | Silt (material from 0.05 to 0.005mm) | 0-10% |
| 3. | Combined Clay and Silt | 8-25% |
- D. It shall have a plasticity index of not more than 6 and have a liquid limit of not more than 25. The material shall have the minimum limerock bearing ratio (LBR) of 75.

PART 3 - EXECUTION

3.1 PLACING AND MIXING MATERIALS

- A. Sand-Clay Base; minimum 6-inch compacted thickness. At least 98 percent of the modified proctor maximum dry density must be achieved throughout the full material thickness. The proposed sand-clay base material must be checked by a registered geotechnical engineer or by using hydrometer testing to determine clay content.
- B. The material may be dumped directly on the subgrade, but shall be uniformly distributed. The loose thickness will be checked continuously by the Contractor to insure that the finished base course will have the thickness and shape required by the typical section.

3.2 COMPACTING AND FINISHING SAND-CLAY BASE

- A. General: After spreading is completed, the base shall be compacted with water being added as required, until the required density has been obtained.
- B. Density Requirements: As soon as the proper condition of moisture is attained, the material shall be compacted to a density not less than 98 percent of maximum density as determined by modified proctor test ASTM 1557.
- C. Finishing: Upon completion of the initial compaction, the entire surface shall be scarified and then shaped to exact crown and cross-section. The base shall be re-watered, if needed, before final compaction. Final compaction shall be done with any type compacting equipment, in conjunction with traffic rollers, which will obtain the required density. Compaction shall continue until the required density has been obtained and until free water disappears from the surface.
- D. Correction of Defects: If at any time, the sub-grade material should become mixed with the base course material, the Contractor shall, without additional compensation, dig out and remove the mixture, reshape and compact the sub-grade and replace the materials removed with base material, which shall be watered, if needed, and rolled until the

required density is obtained.

- E. Priming: Allow base to cure until moisture does not exceed 90 percent of optimum moisture content for the base course material. Priming shall meet the requirements of Section 300 of FDOT *Standard Specifications, Latest Edition*.

3.3 TESTING SURFACE, PROTECTION AND MAINTENANCE

- A. Testing Surfaces: The finished surface of the base course shall be true to the grades shown on drawings. All irregularities greater than 3/8-inch shall be corrected by scarifying and removing or adding base material as may be required, after which the entire area shall be re-compacted to meet the specified density requirements.
- B. Thickness of Base: A three-eighths inch (3/8") under tolerance in the base will be allowed. All areas where the thickness of the completed base is less than the thickness required after such tolerance shall be corrected by scarifying, adding base material and re-compacting.
- C. Protection, Priming and Maintaining: The base shall be kept well drained at all times. Wherever ruts or low spots are found, the areas affected shall be brought to grade and, if necessary, shall be kept moist until the prime coat is applied, so as to prevent dusting and raveling.
- D. Thicknesses and Density Requirements: The thickness and density shall be checked at intervals not to exceed one per 300 linear feet of roadway. In no case shall less than three tests be performed. Tests shall be staggered to ensure representative sampling.
- E. Paved Areas: Make at least one field density test of each compacted fill layer (subgrade, base, etcetera) for every 300 linear feet of roadway or equivalent area, but in no case less than three tests. Tests shall be staggered to ensure representative sampling.

PART 4 – MEASUREMENT/PAYMENT

4.1 METHOD OF MEASUREMENT

Sand-clay Base to be paid for will be the plan quantity, in square yards.

4.2 BASIS OF PAYMENT

Price and Payment will be full compensation for all work specified in this Section, including all materials; all clearing and grubbing of material pits; all stripping of overburden from the pits, if required; all hauling of material, application of prime and all incidentals necessary to complete the work.

END OF SECTION 02460

SECTION 02500 – SUPERPAVE ASPHALT CONCRETE

PART 1 - GENERAL

1.1 GENERAL

- A. Construct a Type SP Asphalt pavement for local agencies using the type of mixture specified in the Contract, or when offered as alternates, as approved.
- B. For this Section only, all references to the Department shall mean the County. All references to the Engineer shall mean the Engineer of Record, designated Engineer of Escambia County and/or CEI.
- C. The County will accept the work based on one of the following methods as described in Part 5: 1) Certification, 2) Certification and process control testing by the Contractor, 3) acceptance testing by the County, or 4) other method(s) as determined by the Contract.

1.2 LAYER THICKNESSES

- A. Use only fine graded Type SP asphalt mixes. Fine graded mixes are defined as having a gradation that passes above the restricted zone when plotted on an FHWA 0.45 Power Gradation Chart.
- B. FINE MIXES: The allowable structural layer thicknesses for fine Type SP Asphalt Concrete mixtures are as follows:

Type SP 9.5	1-1 ½ inches
Type SP 12.5	1 ½ - 2 ½ inches
Type SP 19.0	2-3 inches

In addition to the minimum and maximum thickness requirements, the following restrictions are placed on fine mixes when used as a structural course:

Type SP 9.5 - Limited to the final (top) structural layer, one layer only

Type SP 12.5 - May not be used in the first layer of courses over 3 1/2 inches thick, nor in the first layer of courses over 2 3/4 inches thick on limited access facilities.

The thickness of the new pavement may be checked by core samples, as determined by the Engineer. The Contractor shall be required to correct any deficiency either by replacing the full thickness; or overlaying the area as directed by the Engineer. County inspection shall be performed and all base failures shall be corrected prior to asphalt installation.

Type SP 19.0 - May not be used in the final (top) structural layer.

C. ADDITIONAL REQUIREMENTS: The following requirements also apply to fine Type SP Asphalt Concrete mixtures:

1. A minimum 1 1/2 inch initial lift is required over an Asphalt Rubber Membrane Interlayer (ARMI).
2. When construction includes the paving of adjacent shoulders (5 feet wide or less), the layer thickness for the upper pavement layer and shoulder shall be the same and paved in a single pass, unless shown differently in the plans.
3. Use the minimum and maximum layer thicknesses as specified in 1.2 B above unless shown differently in the plans. On variable thickness overbuild layers, the minimum allowable thickness may be reduced by 1/2 inch, and the maximum allowable thickness may be increased 1/2 inch, unless shown differently in the plans.

PART 2 - PRODUCTS

2.1 GENERAL REQUIREMENTS

Meet the material requirements specified in F DOT Standard Specifications Division III. Specific references are as follows:

Superpave PG Asphalt Binder or Recycling Agent – Sections 916-1, 916-2
 Coarse Aggregate, Stone, Slag or Crushed Gravel – Section 901
 Fine Aggregate – Section 902

Aggregates utilized on Escambia County projects must be in accordance with FDOT Qualified Products List

2.2 GRADATION REQUIREMENTS

Combine the coarse and fine aggregate in proportions that will produce an asphalt mixture meeting all of the requirements defined in this Specification and conform to the gradation requirements at design as defined in Table 1 below. Aggregates from various sources may be combined.

Table 1 Aggregate Gradation Control Points (Gradation Design Ranges)						
Sieve Size	Type SP Asphalt Mixture (Percent Passing)					
	SP 9.5		SP 12.5		SP 19.0	
	Min.	Max.	Min.	Max.	Min.	Max.
1 inch	-	-	-	-	100	-

3/4 inch	-	-	100	-	90	100
1/2 inch	100	-	90	100	-	90
3/8 inch	90	100	-	90	-	-
No. 4	-	90	-	-	-	-
No. 8	32	67	28	58	23	49
No. 200	2	10	2	10	2	8
For additional information, refer to AASHTO M-323-04, Table 3						

2.3 RESTRICTED ZONE

The gradation identified in 2.2 shall pass above the restricted zone specified in Table 2 below.

Table 2 Aggregate Gradation Restricted Zone (Design Only)						
Sieve Size within Restricted Zone	Boundaries of Restricted Zone Type SP Asphalt Mixture (Percent Passing)					
	SP 9.5		SP 12.5		SP 19.0	
	Min.	Max.	Min.	Max.	Min.	Max.
No. 4	-	-	-	-	-	-
No. 8	47.2	47.2	39.1	39.1	34.6	34.6
No. 16	31.6	37.6	25.6	31.6	22.3	28.3
No. 30	23.5	27.5	19.1	23.1	16.7	20.7
For additional information, refer to AASHTO M-323-04, Table 4						

2.4 AGGREGATE CONSENSUS PROPERTIES

A. Meet the following consensus properties at design for the aggregate blend:

1. Coarse Aggregate Angularity: When tested in accordance with ASTM D 5821, meet the coarse aggregate angularity requirement defined in Table 3 below.

Table 3 Coarse Aggregate Angularity Criteria (Minimum Percent Fractured Faces)				
	Depth of Top of Pavement Layer From Surface			
	≤4 inches		>4 inches	
	1 or More Fractured Faces (%)	2 or More Fractured Faces (%)	1 or More Fractured Faces (%)	2 or More Fractured Faces (%)
	85	80	60	-
For additional information, refer to AASHTO M-323-04, Table 5				

2. Fine Aggregate Angularity: When tested in accordance with AASHTO T -304, meet the fine aggregate angularity requirement defined in Table 4 below.

Table 4 Fine Aggregate Angularity Criteria		
	Depth of Top of Pavement Layer From Surface	
	≤4 inches	>4 inches
	Minimum Uncompacted Void Content (%)	Minimum Uncompacted Void Content (%)
	45	40

For additional information, refer to AASHTO M-323-04, Table 5

3. Flat and Elongated Particles: When tested in accordance with ASTM D 4791, use a ratio of maximum to minimum dimensions of 5:1 and do not exceed 10% as the maximum amount of flat and elongated particles.

2.5 USE OF RECLAIMED (MILLED) ASPHALT PAVEMENT

- A. General Requirements: Reclaimed Asphalt Pavement (RAP) may be used as a component material of the asphalt mixture subject to the following:
 1. The Contractor assumes responsibility for the design of asphalt mixes which incorporate RAP as a component material.
 2. For design purposes, the Contractor assumes responsibility for establishing accurate specific gravity values for the RAP material. This may be accomplished by one of the following methods:
 - a. Calculation of the bulk specific gravity value based upon the effective specific gravity of the RAP, determined on the basis of the asphalt binder content and maximum specific gravity. The Engineer and/or Engineer of Record will approve the estimated asphalt binder absorption value used in the calculation.
 - b. Testing of the extracted aggregate obtained through a vacuum extraction or ignition oven extraction.
 3. The amount of RAP material used in the mix is not to exceed 50% by weight of total aggregate.
 4. Use a grizzly or grid over the RAP cold bin, in-line roller crusher, screen, or other suitable means to prevent oversized RAP material from showing up in the completed recycled mixture.

If oversized RAP material appears in the completed recycled mix, take the appropriate corrective action immediately. If the appropriate corrective actions are not taken immediately, plant operations should be stopped.

5. Provide stockpiled RAP material that is reasonably consistent in characteristics and contains no aggregate particles that are soft or conglomerates of fines.
 6. Provide RAP, having minimum average asphalt content of 4.0% by weight of total mix. The Engineer may sample the stockpile to verify that this requirement is met.
- B. Binder for Mixes with RAP: Select the appropriate binder based on the table below. The Engineer and/or Engineer of Record reserves the right to change binder type and grade at design based on the characteristics of the RAP binder, and reserves the right to make changes during production. Maintain the viscosity of the recycled mixture within the range of 4,000 to 12,000 poises. Obtain a sample of the mixture for the Engineer within the first 1,000 tons and at a frequency of approximately one per 4,000 tons of mix.

Binder Grade for Mixes Containing RAP	
% RAP	Asphalt Binder Grade
<20	PG 67-22
20-29	PG 64-22
≥ 30	Recycling Agent

Note: When a PG 76-22 Asphalt Binder is called for in the Contract, limit the amount of RAP material used in the mix to a maximum of 15%.

PART 3 - GENERAL COMPOSITION OF MIXTURE

3.1 GENERAL

Compose the asphalt mixture using a combination of aggregate (coarse, fine or mixtures thereof), mineral filler, if required, and asphalt binder material. Size, grade and combine the aggregate fractions to meet the grading and physical properties of the approved mix design. Aggregates from various sources may be combined.

3.2 MIX DESIGN

- A. Design the Type SP asphalt mixture in accordance with AASHTO PP-28, except as noted herein, to meet the requirements of this Specification. Use only previously approved designs. Prior to the production of any Type SP asphalt mixture, submit the proposed mix design with supporting

test data indicating compliance with all Type SP asphalt mix design criteria.

The Engineer and/or Engineer of Record will consider any marked variations from original test data for a mix design or any evidence of inadequate field performance of a mix design as sufficient evidence that the properties of the mix design have changed, and the Engineer and/or Engineer of Record will no longer allow the use of the mix design.

1. Grading Requirements: Meet Gradation Design Ranges in PART 2.
2. Gyrotory Compaction: Compact the design mixture in accordance with AASHTO TP-4. Use the number of gyrations as defined in the table below.

Type SP Design Gyrotory Compactive Effort			
	N _{initial}	N _{design}	N _{maximum}
SP Mixes	7	75	115

3. Volumetric Criteria: Use an air void content of the mixture at design of 4.0% at the design number of gyrations (N_{design}). Meet the requirements of the table below.

Mixture Densification Criteria			
	% G _{mm}		
	N _{initial}	N _{design}	N _{maximum}
SP Mixes	≥ 89.0	96.0	≤ 98.0

4. VMA Criteria: Meet the requirements of the table below for Voids in the Mineral Aggregate (VMA) of the mixture at the design number of gyrations.

VMA Criteria	
Type Mix	Minimum VMA (%)
SP 9.5	15.0
SP 12.5	14.0
SP 19.0	13.0

5. VFA Criteria: Meet the requirements of the table below for voids filled with asphalt (VFA) of the mixture at the design number of gyrations.

VFA Criteria	
	Design VFA (%)
SP Mixes	65 - 75

6. Dust Proportion: Use an effective dust-to-binder ratio as defined in FDOT Section 334-3.2.5.
7. Moisture Susceptibility: Provide a mixture (4 inch specimens) having a retained tensile strength ratio of at least 0.80 and a minimum tensile strength (dry and unconditioned) of 100 psi.
8. Additional Information: In addition to the requirements listed above, provide the following information with each proposed mix design submitted for use:
 - a. The design number of gyrations (N_{design}).
 - b. The source and description of the materials to be used.
 - c. The FDOT source number product code of the aggregate components furnished from an FDOT approved source.
 - d. The gradation and proportions of the raw materials as intended to be combined in the paving mixture. The gradation of the component materials shall be representative of the material at the time of use. Compensate for any change in aggregate gradation in handling and processing as necessary.
 - e. A single percentage of the combined mineral aggregate passing each specified sieve. Degradation of the aggregate due to processing (particularly -No. 200 [-75 μm]) should be accounted for and identified for the applicable sieves.
 - f. The bulk specific gravity value for each individual aggregate (and RAP) component as identified in the FDOT aggregate control program.
 - g. A single percentage of asphalt binder by weight of total mix intended to be incorporated in the completed mixture, shown to the nearest 0.1%.
 - h. A target temperature at which the mixture is to be discharged from the plant and a target roadway temperature (per 30-6.3). Do not exceed a target temperature of 340°F for modified asphalts and 315°F for unmodified asphalts.
 - i. Evidence that the completed mixture conforms to all specified physical requirements.
 - j. The name, seal, and/or certification of the Mix Designer.

3.3 REVISION OF MIX DESIGN

During production, the Contractor may request a target value revision to a mix design, subject to: (1) the target change falls within the limits defined in the table below, (2) appropriate data exists demonstrating that the mix complies with production air voids specification criteria, and (3) the mixture gradation meets the basic gradation requirements defined in 2.2 and 2.3.

Limits for Potential Adjustments to Mix Design Target Values	
Characteristic	Limit from Original Mix Design
No. 8 sieve and Coarser	± 5.0%
No. 16 sieve	± 4.0%
No. 30 sieve	± 4.0%
No. 50 sieve	± 3.0%
No. 100 sieve	± 3.0%
No. 200 sieve	± 1.0%
Asphalt Binder Content (1)	± 0.3%

(1) Reductions to the asphalt binder content will not be permitted if the VMA during production is lower than 1.0% below the design criteria.

Submit all requests for revisions to mix designs, along with supporting documentation, to the Engineer. In order to expedite the revision process, the request for revision or discussions on the possibility of a revision may be made verbally, but must be followed up by a written request. The initial mix design will remain in effect until a change is authorized by the Engineer and/or Engineer of Record. In no case may the effective date of the revision be established earlier than the date of the first communication between the Contractor and the Engineer regarding the revision.

A new design mix will be required for any substitution of an aggregate product with a different aggregate code, unless approved by the Engineer and/or Engineer of Record.

3.4 PAVING EQUIPMENT

A. Mechanical Spreading and Screeding Equipment:

1. General: Provide mechanical spreading and screeding equipment of an approved type that is self-propelled and can be steered. Equip it with a receiving and distribution hopper and a mechanical screed. Use a mechanical screed capable of adjustment to regulate the depth of material spread and to produce the desired cross-section.
2. Automatic Screed Control: For all asphalt courses, placed with mechanical spreading and finishing equipment, equip the paving

machine with automatic longitudinal screed controls of either the skid type, traveling stringline type, or non-contact averaging ski type. Ensure that the length of the skid, traveling stringline, or non-contact averaging ski is at least 25 feet. On the final layer of base, overbuild, structural, and friction courses, use the joint matcher in lieu of the skid, traveling stringline, or non-contact averaging ski on all passes after the initial pass. Furnish a paving machine equipped with electronic transverse screed controls when required by the Contract Documents.

3. Inflation of Tires: When using paving machines equipped with pneumatic tires, the Engineer may require that the tires be ballasted.
4. Screed Width: Provide paving machines on full width lanes that have a screed width greater than 8 feet. Does not use extendable screed strike-off devices that do not provide preliminary compaction of the mat in place of fixed screed extensions. The Contractor may use a strike-off device on irregular areas that would normally be done by hand and on shoulders 4 feet or less in width. When using the strike-off device on shoulders in lieu of an adjustable screed extension, the Contractor must demonstrate the ability to obtain an acceptable texture, density, and thickness. When using an extendable screed device to extend the screed's width on the full width lane or shoulder by 24 inches or greater, an auger extension, paddle, or kicker device is required unless the Contractor provides written documentation from the manufacturer that these are not necessary.
5. Motor Graders: Provide two motor graders for spreading widening courses with prior approval from the Engineer only. Use motor graders that are rated at not less than 6 tons and are self-propelled and power-controlled. Mount them on smooth tread or rib-type tires (no lug types allowed) with a wheel base of at least 15 feet. Equip the front motor grader with a spreader box capable of spreading the mix at the required rate.
6. Rollers:
 - a. Steel-Wheeled Rollers: Provide compaction equipment capable of meeting the density requirements described in these Specifications. Provide a tandem steel-wheeled roller weighing a minimum of 8 tons for seal rolling, and for the final rolling, use a separate roller with a minimum weight of 8 tons. Variations from these requirements shall be approved by the Engineer.

- b. Traffic Rollers: Provide compaction equipment capable of meeting the density requirements described in these specifications. Provide a self-propelled, pneumatic-tired traffic roller equipped with at least seven smooth-tread, low pressure tires, equipped with pads or scrapers on each tire. Maintain the tire pressure between 50 and 55 psi or as specified by the manufacturer. Use rollers with a minimum weight of 6 tons. Do not use wobble-wheeled rollers. Variations from these requirements shall be approved by the Engineer.
 - c. Prevention of Adhesion: Do not allow the mixture to adhere to the wheels of any rollers. Do not use fuel oil or other petroleum distillates to prevent adhesion. Do not use any method which results in water being sprinkled directly onto the mixture.
- 7. Trucks: Transport the mix in trucks of tight construction, which prevents the loss of material and the excessive loss of heat. Provide each truck with a tarpaulin or other waterproof cover mounted in such a manner that it can cover the entire load when required. When in place, overlap the waterproof cover on all sides so that it can be tied down.
 - 8. Coring Equipment: Furnish a suitable saw or drill for obtaining the required density cores.
 - 9. Hand Tools: Provide the necessary hand tools such as rakes, shovels, etc., and a suitable means for keeping them clean.

PART 4 - CONTRACTOR'S PROCESS CONTROL

4.1 GENERAL

- A. Personnel: Provide qualified personnel (certified technician) for sampling, testing (by certified lab), and/or sign-off by P.E., and inspection of materials and construction activities. Ensure that qualifications are maintained during the course of sampling, testing and inspection.

Construction operations that require a qualified technician must not begin until the Department verifies that the technician is on the CTQP (Construction Training Qualification Program) list of qualified technicians. The CTQP lists are subject to satisfactory results from periodic Independent Assurance evaluations.

- B. Calibration of the Gyratory Compactor: Calibrate the Gyratory Compactor in accordance with the manufacturer's recommendations prior to

producing the mixture for any project. Check the height calibration, the speed of rotation; ram pressure and angle of gyration.

- C. Plant Testing Requirements: During the initial production of a mix design, test mix to ensure proper performance and provide results to the department.
- D. Roadway Testing Requirements: Areas that demonstrate concerns of the mix design quality or poor/improper compaction efforts may be subject to additional coring and testing as seen fit by the Engineer.
- E. Extraction Gradation Analysis: Sample the asphalt mixture at the plant and perform extraction test prior to asphalt being delivered to project. The percent asphalt binder content of the mixture will be determined in accordance with FM 5-563 (ignition oven). The gradation of the extracted mixture will be determined in accordance with FM 1-T 030. All test results will be shown to the nearest 0.01. All calculations will be carried to the nearest 0.001 and rounded to the nearest 0.01. All results shall be provided to the department prior to placement of asphalt on any project.

Run an extraction gradation analysis on the mixture at a minimum frequency of once per 1,000 tons or a maximum of four consecutive days of paving, whichever comes first.

The target gradation and asphalt content will be as shown on the mix design. Any changes in target will require a change in the mix design.

If the percentage of asphalt binder deviates from the optimum asphalt binder content by more than 0.55%, or the percentage passing any sieve falls outside the limits in the table below, immediately resample the mix and test to validate the previous test result, and if needed, make the necessary correction. If the results for two consecutive tests deviate from the optimum asphalt binder content by more than 0.55%, or exceed the limits in the table for any sieve, notify the Engineer and take immediate steps to identify and correct the problem, then resample the mix. If the results from this test deviate from the optimum asphalt binder content by more than 0.55%, or exceed the limits in the table for any sieve, stop plant operations until the problem has been corrected.

Tolerances for Quality Control Tests (Extraction Gradation Analysis)	
Size	Percent Passing
1 inch	7.0
3/4 inch	7.0
1/2 inch	7.0
3/8 inch	7.0
No. 4	7.0
No. 8	5.5
No. 16	5.0
No. 30	4.5
No. 50	4.5
No. 100	3.0
No. 200	2.0

- F. Volumetric Control: During production of the mix, monitor the volumetric properties of the Type SP asphalt mix with a Type SP Gyratory Compactor to determine the air voids, VMA, VFA, and dust-to-effective asphalt binder ratio (dust proportion) at N_{design} .

Take appropriate corrective actions in order to maintain an air void content at N_{design} between 3.0 and 5.0% during production. When the air void content at N_{design} drops below 2.5 or exceeds 5.5%, stop plant operations until the appropriate corrective actions are made and the problem is resolved to the satisfaction of the Engineer and/or Engineer of Record. Evaluate any failing material in accordance with Part 6.

Determine the volumetric properties of the mixture at a minimum frequency of once per production day when the daily production is less than 1,000 tons. If the daily production exceeds 1,000 tons, monitor the volumetric properties two times per production day.

During normal production, volumetric properties of the mixture will not be required on days when mix production is less than 100 tons. However, when mix production is less than 100 tons per day on successive days, run the test when the accumulative tonnage on such days exceeds 100 tons.

Testing required for volumetric property determination includes AASHTO TP-4, FM 1-T 209, FM 5-563 and FM 1-T 030. Prior to testing samples in accordance with AASHTO TP-4 and FM 1-T 209, condition the test-sized sample for one hour at the compaction temperature in a covered container.

- G. Plant Calibration: At or before the start of mix production, perform an extraction gradation analysis of the mix to verify calibration of the plant.

The sample tested at the start of any project may be utilized for this requirement.

- H. Process Control of In-Place Compaction: Develop and implement a method to control the compaction of the pavement and ensure its compliance with the minimum specified density requirements. The department may require the use of a nuclear gauge to test areas suspected of not having proper compaction. Other density measuring devices may be used in lieu of the nuclear density gauge, provided that it is demonstrated to the satisfaction of the Engineer and/or Engineer of Record that the device can accurately measure the relative level of density in the pavement on a consistent basis.

PART 5 - ACCEPTANCE OF THE MIXTURE

5.1 GENERAL

The asphalt mixture will be accepted based on one of the following methods as determined by the Engineer and/or Contract Documents:

1. Certification by the Contractor
2. Certification and Process Control Testing by the Contractor
3. Acceptance testing by the Engineer
4. Other method(s) as determined by the Contract

5.2 CERTIFICATION BY THE CONTRACTOR

Submit a Notarized Certification of Specification Compliance letter on company letterhead to the Engineer that all material produced and placed on the project was in substantial compliance with these specifications.

5.3 CERTIFICATION AND PROCESS CONTROL TESTING BY THE CONTRACTOR

Submit a Notarized Certification of Specification Compliance letter on company letterhead to the Engineer that all material produced and placed on the project was in substantial compliance with these specifications, along with supporting test data documenting all process control testing. Utilize an Independent Laboratory as approved by the Engineer for the Process Control testing.

5.4 ACCEPTANCE TESTING BY THE ENGINEER

- A. Acceptance at the Plant:

1. The asphalt mixture will be accepted, with respect to gradation and asphalt binder content, based on the results from the start up test. However, any load or loads of mixture which, in the opinion of the Engineer and/or Engineer of Record, are unacceptable for reasons of excessive segregation, aggregates improperly coated, or of excessively high or low temperature will be rejected for use in the work.
2. Acceptance Procedures: Control all operations in the handling, preparation, and production of the asphalt mix so that the percent asphalt binder content and the percents passing the No. 8 and No. 200 sieves will meet the targets from the mix design within the tolerances shown in the table below.

Tolerances for Acceptance Tests	
Characteristic	Tolerance*
Asphalt Binder Content	±0.55%
Passing No. 8 Sieve	±5.50%
Passing No. 200 Sieve	±2.00%
*Tolerances for sample size of n=1.	

Calculations for the acceptance test results for asphalt binder content and gradation (percentages passing the No. 8 and No. 200 sieves) will be shown to the nearest 0.01. Calculations for arithmetic averages will be carried to the 0.001 and rounded to the nearest 0.01.

Payment will be based on the acceptance of the project by the Engineer.

B. Acceptance of the Roadway:

1. Density Control: The in-place density of any questionable section of a course of asphalt mix will be evaluated by the use of a nuclear gauge and/or by the testing of 6 inch diameter roadway cores.

The Engineer will not perform density testing on leveling courses, open-graded friction courses, or any course which does not show signs of poor /improper compaction efforts. In addition, density testing will not be performed on the following areas when they are less than 1,000 feet in length: crossovers, intersections, turning lanes, acceleration lanes or deceleration lanes. Compact these courses (with the exception of open-graded friction courses) in accordance with the appropriate rolling procedure as specified in these specifications or as approved by the Engineer.

2. Acceptance: The completed pavement will be accepted with respect to overall ride, overall appearance, and overall yield as determined by the Engineer or Engineer of Record.

Areas of question may be tested with a nuclear gauge or by the testing of the density of the cores, as determined by the engineer.

3. Additional Density Requirement: On shoulders with a width of 5 feet or less, compact the pavement in accordance with the rolling procedure (equipment and pattern) as specified herein or as approved by the Engineer. Stop the production of the mix if the rolling procedure deviates from the approved procedure.
4. Surface Tolerance: The asphalt mixture will be accepted on the roadway with respect to surface tolerance by the use of a 15 ft rolling straight edge. The department will determine if the use of a straight edge test is warranted. Unevenness of the course shall not vary more than plus or minus 3/16 inch in 15 feet.

5.5 ADDITIONAL TESTS

The Department reserves the right to run any test at any time for informational purposes and for determining the effectiveness of the Contractor's quality control.

PART 6 - DISPOSITION OF FAILING MATERIAL

Any material that is represented by failing test results will be evaluated to determine if removal and replacement is necessary. Remove and replace any material, if required, at no cost to the Department. The evaluation will be conducted by the Engineer and/or Engineer of Record. If so directed, obtain an engineering analysis, as directed by the Engineer, by the independent laboratory (as approved by the Engineer) to determine if the material can (a) remain in place, for this case the appropriate pay factor will be applied, or (b) be removed and replaced at no cost to the Department. The analysis will be a signed and sealed report by a Professional Engineer licensed in the State of Florida.

PART 7 – MEASUREMENT/PAYMENT

7.1 METHOD OF MEASUREMENT

For the work specified under this Section the quantity to be paid for will be the in-place measurement of the area in square yards unless otherwise stated in the project plan details.

The bid price for the asphalt mix will include the cost of the liquid asphalt or the asphalt recycling agent. There will be no separate payment or unit price adjustment for the asphalt binder material in the asphalt mix.

7.2 BASIS OF PAYMENT

Price and payment will be full compensation for all the work specified under this section.

END OF SECTION 02500

SECTION 02510 – ASPHALT RUBBER MEMBRANE INTERLAYER
(ARMI) CRACK RELIEF

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawing and general provisions of Contract, including General and Supplementary Conditions and other Specification Sections, apply to work of this Section.
- B. Florida Department of Transportation, *Standard Specifications for Road and Bridge Construction, Section 440, and Design Standards, Latest Edition.*

1.2 DESCRIPTION OF WORK

- A. Construct an asphalt rubber membrane interlayer composed of a separate application of asphalt rubber binder covered with a single application of aggregate.

PART 2 - MATERIALS

- A. Asphalt Rubber Binder: Use ARB-20, or approved equal, meeting the requirements of FDOT *Standard Specification Section 336.*
- B. Cover Material: Use Size No. 6 stone, slag, or gravel meeting the requirements of FDOT *Standard Specification Section 901.*

PART 3 - EQUIPMENT

- A. Power Broom: Provide a power broom, for cleaning the existing pavement, capable of removing all loose material from the surface.
- B. Spreading Equipment: Provide a self-propelled aggregate spreader that can be adjusted to accurately apply the cover material at the specified rate and that spreads the material uniformly.
- C. Rollers: Provide self-propelled, pneumatic-tired traffic type rollers equipped with at least 7 smooth tread, low-pressure tires, and capable of carrying a gross load of at least 8 tons. Maintain a minimum tire inflation pressure of 90 psi, or as specified by the manufacturer, such that the air pressure in no two tires varies more than 5 psi. Load the traffic roller as directed by the Engineer.
- D. Mixing Equipment: Use mixing equipment for asphalt rubber binder designed for that purpose and capable of producing and maintaining a

homogeneous mixture of rubber and asphalt cement at the specified temperature.

- E. Pressure Distributor: Use a pressure type distributor to apply asphalt rubber binder capable of maintaining a homogeneous mixture of rubber and asphalt cement at the specified temperature and consistently apply the material in a uniform manner.

PART 4 - CONTRACTOR'S QUALITY CONTROL (QC) PLAN

Provide the necessary quality control of the asphalt rubber binder and construction in accordance with the Contract requirements. Provide in the QC Plan procedures for monitoring and controlling of rate of application. If the rate of application varies by more than 5% from the rate set by the County, in accordance with 4.6 herein, immediately make all corrections necessary to bring the spread rate into the acceptable range. The County may take additional measurements at any time. The County will randomly check the Contractor's measurement to verify the spread rate.

PART 5 - PREPARATION OF ASPHALT RUBBER BINDER

Combine the materials as rapidly as possible for such a time and at such a temperature that the consistency of the binder approaches that of a semi-fluid material. Use the time and temperature for blending of the asphalt rubber binder as specified in FDOT Standard Specifications Table 336-1. The manufacturer must ensure the material has reached application consistency. If not, the manufacturer will determine if an extender oil or diluents is needed. After reaching the proper consistency, proceed with application immediately. Never hold the mixture at temperatures over 350°F for more than six hours after reaching that temperature.

PART 6 - CONSTRUCTION PROCEDURE

- A. Preparation of Surface: Prior to application of the asphalt rubber binder, clean the existing pavement as specified in FDOT Standard Specifications 300-5.
- B. Application of Asphalt Rubber Binder: Apply the asphalt rubber binder only under the following conditions:
 - 1. The air temperature is above 50°F and rising.
 - 2. The pavement is absolutely dry.
 - 3. The wind conditions are such that cooling of the asphalt rubber binder will not be so rapid as to prevent good bonding of the aggregate.

Uniformly apply the asphalt rubber binder, at the rate of 0.6 to 0.8 gal/yd² or as directed by the manufacturer. Use an application rate based on the unit weight as shown in FDOT Standard Specifications, Table 336-1. For conversions to standard 60°F, refer to FDOT Standard Specifications 300-9. Determine the rate of application after each application operation.

- C. Application of Cover Material: Immediately after application of the asphalt rubber binder, uniformly spread the cover material at a rate of 0.26 and 0.33 ft³/yd² or as directed by the County. Determine the application rate at the beginning of each day's production, and as needed to control the operation, a minimum of twice per day. Maintain an application rate such that the pavement is covered uniformly with aggregate, and is one aggregate layer thick. For the cover material, use aggregate that is reasonably free of any adherent coatings and that does not contain excessive moisture. Immediately after the application of cover material, check the surface to ensure a uniform distribution of cover material and a smooth surface.

Do not separate the application of the asphalt rubber binder and the application of the cover material by more than 300 feet, unless approved by the County.

- D. Rolling: In order to ensure maximum embedment of the aggregate, cover the entire width of the mat immediately by traffic rollers. For the first coverage, provide a minimum of three traffic rollers in order to accomplish simultaneous rolling in echelon of the entire width of the spread.

After initial rolling, immediately correct all portions of the completed surface that the County deem are defective (not properly covered by aggregates, fat spots, excessive free aggregate, etc.)

Following the first coverage, make additional coverages with traffic rollers as directed by the County.

- E. Traffic Control: For the normal sequence of construction operations, place the first course of asphalt concrete overlay over the membrane prior to opening to traffic.

PART 7 - UNACCEPTABLE ASPHALT RUBBER MEMBRANE INTERLAYER

If the asphalt rubber membrane interlayer is unacceptable due to incorrect blending, application rate, or not meeting the requirements of this Section, or damaged prior to placement of the asphalt concrete layer, remove and replace it as directed by the County, at no additional cost to the County. Do not apply excessive amounts of asphalt rubber binder.

PART 8 - PLACEMENT OF ASPHALT CONCRETE OVERLAY

Ensure that the thickness and temperature of the initial layer of asphalt concrete placed on top of the asphalt rubber membrane interlayer are such that the overlay bonds to the interlayer and the underlying layer without voids or excessive binder. Core the asphalt overlay as directed by the County to evaluate the binder and aggregate spread rates, as well as the effectiveness of the asphalt concrete overlay in producing a well-bonded interlayer.

PART 9 – MEASUREMENT/PAYMENT

9.1 METHOD OF MEASUREMENT

- A. Asphalt Rubber Membrane Interlayer: The quantity to be paid for will be plan quantity, in square yards, completed and accepted.
- B. Bituminous Material (Asphalt Rubber Binder-Interlayer): The quantity will be the volume, in gallons, determined as provided in FDOT Standard Specifications 300-8.

9.2 BASIS OF PAYMENT

- A. Asphalt Rubber Membrane Interlayer: Price and payment will be full compensation for all work specified in this Section, including furnishing cover materials, handling, spreading, rolling, bituminous material, and other incidental work necessary to complete this item.
- B. Bituminous Material (Asphalt Rubber Binder-Interlayer): Payment will be included in the price of the asphalt rubber membrane interlayer and will be full compensation for furnishing asphalt cement, ground tire rubber, blending and handling.
- C. Payment Items: Payment will be made determined by the square yards of in-place product accepted.

END OF SECTION 02510

SECTION 02580 – HOT IN-PLACE RECLAIMED ASPHALT AND RESURFACING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the contract, including general and supplementary conditions and other specification sections, apply to work of this section.
- B. Florida Department of Transportation, *Standard Specifications for Road and Bridge Construction Section 327, Latest Edition.*

1.2 DESCRIPTION OF WORK

This work consists of rehabilitating the surface layer of the existing asphalt roadway to a depth of one inch and placing a layer of new Hot Mix Asphalt Concrete (HMAC) material over the rehabilitated surface. This will be accomplished with a specially designed machine in a simultaneous process of heating, scarifying, applying an asphalt rejuvenating agent (emulsifier), thoroughly re-mixing and reshaping the existing surface, and application of the final overlay. The overlay of the new HMAC placed over the rejuvenated layer of existing asphalt, shall be in compliance with the lines, grades, thickness and typical cross section established by the County.

The machine that heats, scarifies, rejuvenates, and remixes must also lay the recycled asphalt material, as well as lay the new HMAC material. The County will provide the list of streets and surface selected for this application. Additional pre-heaters may be required to achieve the specified depth, as directed by the County.

PART 2 - MATERIALS

- A. Asphalt Recycling Agent (Emulsifier): The County will approve the asphalt-recycling agent. The recycling agent used to restore the plasticity of the existing asphaltic pavement shall be an emulsified agent. The recycling agent shall meet the requirements of ECR 1 or equal. A manufacturer's certification shall be submitted to the County for the recycling agent.
- B. Hot Mix Asphaltic Concrete (HMAC): The delivery of the new HMAC will be coordinated with the HMAC supplier by the selected recycling contractor.

PART 3 - JOB CONDITIONS

- A. Weather limitation for this work shall be a minimum of 50° F and rising.

- B. Prior to the repaving operation, the pavement shall be cleaned so as to be reasonably free from sand, dirt and other deleterious substances that would affect the quality of the recycled mix. No separate payment shall be made for this requirement.
- C. Existing manholes, water valves boxes, junction boxes, etc. that do not conform to the finished pavement grades shall be adjusted to finish grade.
- D. The Contractor shall be responsible for protecting the areas adjacent to the work from damage. (Heat, etc.)

PART 4 - EQUIPMENT

- A. All tools, equipment, and machinery shall be maintained in satisfactory working condition and shall be subject to the approval of the County Engineer.
- B. Repaving Machine: The machine shall be an approved, self-contained, self propelled, automated unit that heats, scarifies (or mills), automatically applies recycling agent at a uniform rate, thoroughly mixes, redistributes and levels the existing asphalt to the specified depth, and lays the new HMA material overlay. The new HMA must be laid within 30 seconds after the scarification begins to ensure a hot monolithic bond with the recycled asphalt pavement. The machine shall also be capable of reworking the material around manholes and other obstacles; the machine shall be capable of adding and mixing the recycling agent evenly and shall be equipped with a leveling blade and screed for re-grading of the existing asphaltic concrete surface.
- C. Pre-heater: This unit shall be hooded to prevent damage to adjacent property, including trees shrubs and landscaping. The heating hood shall be capable of heating the pavement surface to a minimum temperature of 225 degrees F, not to exceed 325 degrees F. This will allow for scarification to the required depth without breaking the aggregate particles or charring the pavement surface.
- D. Scarifying and Milling units shall be automatically controlled units in order to control the depth of penetration and to clear utility manholes and other obstructions. The depth of scarification shall be directed by the County. Note: Scarifying depth may vary in range from 3/4 of one inch to 1 1/2 inches.
- E. Recycling Agent Applicator: This system shall be automatically controlled; the recycling agent must be applied to the scarified material at a uniform rate. The application rate shall be synchronized with the machine's forward speed to maintain a tolerance within $\pm 5\%$ of the specified rate.
- F. Receiving hopper and Conveying System: The machine shall consist of a

hopper and conveyor system to collect and transport the new H MAC to the finishing unit without segregation of the new material.

- G. Recycling Unit: The machine shall consist of a system that mixes and redistributes and levels the scarified material over the width being processed to produce a uniform cross-section of recycled material. The recycling screed shall be heated and have crown control, and be capable of redistributing the recycled material to the desired longitudinal grade and transverse cross section.
- H. Finishing unit: The machine shall have an automatic controlled screed to produce a surface conforming to the surface thickness as required by the County. The thickness of the surface course lift shall not exceed 2 inches. This unit shall be capable of a plying the new H MAC to a uniform longitudinal profile and cross slope of 1/4 inch per foot. The finishing screed must be heated and capable of electronically controlling the cross slope, and applying the new H MAC to produce a uniform surface and texture.
- I. Rollers: Rolling equipment shall be of sufficient type and weight to compact the new H MAC and the recycled material to the required density as specified in Section 2500. Sufficient numbers of rollers (2 minimum) shall be furnished to keep up with the operation. All rolling should be completed before the temperature of the new H MAC drops below 190 F.

PART 5 - TRAFFIC CONTROL

- A. Pavement markings shall conform to the requirements of *Section 04040*.
- B. Maintenance of Traffic: Suitable methods shall be used by the contractor to protect the new asphalt surface from all types of vehicular traffic without damage. Opening to traffic does not constitute acceptance of work. Conform to requirements of *Section 04060*.
- C. The Contractor will maintain at least one-way traffic and shall provide effective Traffic Control at all times. Two-Lane traffic shall be maintained wherever possible.
- D. No interruption of access to property shall be made unless prior arrangements acceptable to the occupant or owner of the affected property have been made and approved by the County.
- E. Submit a Traffic Control Plan for approval in accordance with *Section 04060*.

PART 6 - EXECUTION

- A. Notify the County at least 48 hours prior to commencement of any paving operation.
- B. The heating unit shall produce sufficient heat to soften the pavement uniformly without burning or charring the existing asphalt pavement.
- C. The process shall produce a welded, longitudinal joint, the standing edge of the ajoining asphalt pavement shall be fully heated to a width of t least 2 inches beyond the width to be scarified and recycled.
- D. Immediately following heating of the pavement, the existing surface shall be scarified (milled) to the specified depth. The machine shall have the capability of maintaining a recycled mat with a minimum temperature of 190°F and a maximum temperature of 2 25°F throughout the repaving operation.
- E. Due to the varying locations and properties of the existing asphalt pavement, the following adjustments may be made, if directed by the County.
 - 1. Depth of scarification may be varied to correct existing cross slopes and grades.
 - 2. Application rate for the recycling agent may be adjusted as necessary to maintain a uniform mixture.
 - 3. Spot leveling may be necessary.
 - 4. Variable Message Boards may be required. No additional compensation will be made for these traffic control devices after contract is awarded.

F. CLEANUP

The Contractor will keep the work site free from accumulations of waste material, rubbish and debris from the Contractor's performance of the scope of work resulting from the use of all tools, construction equipment, and machinery, and surplus materials, and will leave the site clean and ready for use. The Contractor will restore to their original condition those portions of the work site, such as staging and stockpile areas, not designed for alteration as contained in the Contract Documents. This will include returning the area to the proper grade and slope, as well as replacing sod, if so required by the County.

PART 7 - QUALITY CONTROL

The County has the option of testing to ensure the surface is in compliance with thickness, smoothness, etc. and meets requirements of the specifications as directed by the County and as outlined in *Section 2500*.

Contractor will assign a Quality Control (QC) Supervisor to the project. The QC Supervisor will work in conjunction with the County.

PART 8 - MEASUREMENT/PAYMENT

8.1 METHOD OF MEASUREMENT

- A. The accepted quantities of asphalt pavement surface recycled will be measured and paid by the square yard. Pay item, Hot In-Place Recycling, Square Yard.
- B. Asphalt recycling agent will be measured by the gallon, used in place, as determined by the County and the Contractor Supervisor. Pay item, Emulsifier, Gallon.
- C. New HMAC will be measured by the tons used in place. Pay item, HMAC, Tons.

8.2 BASIS OF PAYMENT

- A. Price and payment will be full compensation for all work specified in this Section.
- B. No separate payment for traffic control will be made.
- C. Spot leveling will be paid for by the measured square yards under the unit price for Hot-In-Place Recycling.

END OF SECTION 02580

SECTION 02600 - STORMWATER SYSTEM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Specification Sections, specifically 2300, 3300, and Florida Department of Transportation *Design Standards*, apply to this Section.
- B. Florida Department of Transportation, *Standard Specifications for Road and Bridge Construction, Sections 425, 430 and 530, Latest Edition*.

1.2 SUMMARY

This Section includes stormwater system piping and appurtenances. All labor, material, equipment, appurtenances, services, and other work or costs necessary to construct the facilities and place them into operation shall be furnished by the Contractor.

1.3 SUBMITTALS

- A. General: Submit the following in accordance with Conditions of Contract.
- B. Shop drawings for drainage pipe, pre-cast concrete storm drainage manholes and catch basins, including frames, covers, and grates.
- C. Shop drawings for cast-in-place concrete or field-erected masonry storm drainage manholes and catch basins, including frames and covers.

1.4 QUALITY ASSURANCE

- A. Environmental Compliance: Comply with applicable portions of local, state, and federal environmental agency regulations pertaining to stormwater systems impacts.
- B. Utility Compliance: Comply with local utility regulations and standards pertaining to relocation, clearances, etc. related to installation of stormwater systems.
- C. Quality control to adhere to QA/QL Plan.

1.5 PROJECT CONDITIONS

Site Information: Perform site inspection, research public utility records, and verify existing utility locations. Verify that stormwater system piping may be installed in compliance with design plans and referenced standards. Locate existing stormwater system piping and structures that are out of service and

closed as per 3.8 this section.

1.6 SEQUENCING AND SCHEDULING

- A. Notify the County Inspector assigned to the subdivision or Project Coordinator assigned to project prior to pouring backfilling or form work.
- B. Coordinate connection to existing private and public drainage system with Owner and/or County.
- C. Coordinate with adjacent utilities work.

PART 2 - PRODUCTS

2.1 MATERIALS

2.1.1 PIPE

Meet the following requirements of *FDOT Specifications, Latest Edition*:

Reinforced Concrete Pipe	Section 449
Round Rubber Gaskets	Section 942
Corrugated Steel Pipe & Pipe Arch	Section 943
Corrugated Aluminum Pipe & Pipe Arch	Section 945
Corrugated Polyethylene Pipe	Section 948
Polyvinyl Chloride (PVC)	Section 948

2.1.2 MANHOLES

- A. Precast Concrete Manholes: Per FDOT Standard Specification 425-5 and ASTM C 478, precast reinforced concrete, of depth indicated with provision for rubber gasket joints.
- B. Cast-in-Place Manholes: Per FDOT Standard Specification 425 Cast reinforced concrete of dimensions and with appurtenances indicated.
- C. Manhole Frames and Covers: Construct Per FDOT Standard Specification 42 5-3.2 and FDOT Design Standards. All units shall bear the lettering "STORM SEWER" cast into cover. All proposed substitutes must have equal or greater opening sizes and weights.

2.1.3 INLETS

- A. Precast Concrete Catch Basins Inlets: Construct per FDOT Standard Specification 425-5.
- B. Cast-in-Place Inlets: Construct per FDOT Standard Specification 425 to dimensions and with appurtenances indicated.

1. Bottom, Walls, and Top: Reinforced concrete.
 2. Channel and Bench: Concrete.
- C. Inlet Frames and Grates: Per FDOT Standard Specification 425-3.2 & FDOT Design Standards. All units shall bear the lettering "STORM SEWER" cast into cover.

2.1.4 END TREATMENT

General: Head wall, apron, and mitered ends, per FDOT Standard Specification 430-4.6.

2.2 CONCRETE AND REINFORCEMENT

- A. Concrete: Portland cement mix, 3,000 psi; shall be in accordance with Section 03300.
1. Cement: ASTM C 150, Type II.
 2. Fine Aggregate: ASTM C 33, sand.
 3. Coarse Aggregate: ASTM C 33, crushed gravel.
 4. Water: Potable.
- B. Reinforcement: Steel conforming to the following:
1. Fabric: ASTM A 185, welded wire fabric, plain.
 2. Reinforcement Bars: ASTM A 615, Grade 60, deformed.
- C. Forms:
1. Form Materials: Plywood, metal, metal-framed plywood, or other acceptable panel-type materials to provide full-depth, continuous, straight, smooth exposed surfaces without distortion or defects. Material shall be of size and strength to resist movement during concrete placement and to retain horizontal and vertical alignment until removal.
 2. Form Release Agent: Provide commercial formulation form-release agent with a maximum of 350 mg/l volatile organic compounds (VOCs) that will not bond with, stain, or adversely affect concrete surfaces and will not impair subsequent treatments of concrete surfaces. Release agent to be within allowable volatile limits according to applicable local, state and federal codes.

2.3 MASONRY

Materials for accessories shall be per FDOT Standard Specification 949. Mortar shall be one part Portland cement and three parts masonry sand to which shall

be added lime putty in the amount of 50% of the volume of cement. Special commercial mortar mixes may be used if approved by the Engineer. All masonry materials shall conform to the latest applicable ASTM specifications. Set all masonry units in full beds of mortar, with full joints and strike all joints flush. Masonry reinforcements shall be galvanized Dur-O-Wal, or approved equal, and shall be installed at every other bed joint. Hollow block shall be poured solid with re-bar as designed.

2.4 CURING MATERIALS

Conform to FDOT Standard Specification 520-8.

2.5 BEDDING STONE

Subbase or base materials shall meet requirements of FDOT Standard Specification 530-2.3.

PART 3 - EXECUTION

3.1 EXCAVATIONS FOR MANHOLES, INLETS, AND PIPE

Excavation shall be sufficient enough to leave at least 12 inches in the clear between their outer surfaces and the embankment. Excavation for all structures shall be made to the dimensions and elevations indicated on the drawings. Where the excavation is made below the indicated elevations, the excavation shall be restored to the proper elevation with compacted suitable material without extra compensation.

3.2 PREPARATION OF FOUNDATION FOR BURIED STORMWATER SYSTEMS

- A. Grade trench bottom to provide a smooth, firm, stable, and rock-free foundation, throughout the length of the pipe.
- B. Remove unstable, soft, and unsuitable materials at the surface upon which pipes are to be laid, and backfill with bedding stone per FDOT Standard Specification 530-2.3 to indicated level.
- C. Shape bottom of trench to fit bottom of pipe. Fill unevenness with tamped sand backfill. Dig bell holes at each pipe joint to relieve the bells of all loads and to ensure continuous bearing of the pipe barrel on the foundation.

3.3 PIPE INSTALLATION

- A. Drawings (plans and details) indicate the general location and arrangement of the underground stormwater system piping. Location and arrangement of piping layout takes into account many design considerations. Install the piping as indicated, to the extent practical.

Deviations shall be approved by the County.

- B. Install piping beginning at low point of systems, true to grades and alignment indicated with unbroken continuity of invert. Place bell ends of piping facing upstream. When installing gaskets, seals, sleeves, and couplings, follow manufacturer's recommendations for use of lubricants, cements, and other installation requirements. Maintain swab or drag in line and pull past each joint as it is completed.

The pipe shall be carefully examined for defects and the inside cleaned. After placing pipe in the ditch, the ends shall be wiped free from all dirt, sand and foreign material. All pipe and joints shall be made, handled, and installed in strict accordance with the manufacturer's recommendations and instructions. Install pipe in accordance with FDOT Standard Specification 430.

- C. Install piping pitched down in direction of flow, at minimum slope per plans and in accordance with manufacturer's recommendations, specifications, and design plans.
- D. Boring: Install pipe under streets or other obstructions that cannot be disturbed, by boring, jacking, or a combination of both. These methods of installation are not allowed for newly paved roadways. Utility conduit should be installed prior to paving.
- E. All RCP joints shall be sock/filter wrapped prior to backfilling unless a manufacturer recommended coupling is used.
- F. Field repairs of pipeline shall be in strict accordance with manufacturer's recommendations and specifications.
- G. Only conventional concrete pipe shall be allowed under dedicated County roads.
- H. Pipe Cover: Cover shall be a minimum of 12", unless approved by the County.
- I. Pipe Size: Minimum Pipe size shall be 18" diameter or equivalent, unless approved by the County.

3.4 MANHOLES

- A. General: Install manholes complete with accessories as indicated. Form continuous concrete or split pipe section channel and benches between inlets and outlet. Set tops of frames and covers flush with finish surface where manholes occur in pavements. Elsewhere, set tops 3 inches above finished grade, unless otherwise indicated.

- B. Place precast concrete manhole sections as indicated, and install in accordance with ASTM C 891.
- C. Construct cast-in-place manholes as indicated.
- D. Provide rubber joint gasket complying with ASTM C443 at joints of sections; or apply bituminous mastic coating at joints of sections.

3.5 INLETS

- A. Construct inlets to sizes and shapes indicated per FDOT Standard Specification 425-6, or as modified in the plans.
- B. Set frames and grates to elevations indicated.
- C. Inlet throat openings larger than 7" in height must be equipped with horizontal trash bar(s). Trash bar(s) shall be 1" diameter galvanized rod installed in the center of the opening, or evenly spaced if more than one is used.

3.6 OUTFALL STRUCTURES

- A. Pipe systems shall be utilized for primary out fall of retention/detention areas.
- B. Weirs and flumes will not be acceptable for use as primary pond outfall structures or to primarily route stormwater to retention/detention areas at the end of down-gradient roadways.

3.7 END TREATMENT

Construct End Treatment per FDOT Standard Specification 430-4.6.

3.8 STORMWATER SYSTEM BACKFILL

Place and compact backfill material in accordance with Section 02300 and FDOT Specification 125-8.

3.9 CLOSING OUT-OF-SERVICE STORMWATER SYSTEMS

- A. Out-of-Service Piping: Close open ends of out of service underground piping that is indicated to remain in place. Provide sufficiently strong closures to withstand hydrostatic or earth pressure that may result after pipe ends have been closed and grout filled with non-shrink grout.
 - 1. Close open ends of concrete pipe or structures with not less than 8-inch-thick brick masonry bulkheads and grout fill.

2. Close open ends of other piping with plastic plugs, or other acceptable methods suitable for size and type of material being closed. Wood plugs are not acceptable.
- B. Out-of-Service Structures: Remove structure and close open ends of the remaining piping or remove top of structure down to not less than 3 feet below final grade; fill structure with stone, rubble, gravel, compacted dirt, or flowable fill to within 1 foot of top of structure remaining, and fill with concrete.

3.10 FIELD QUALITY CONTROL

- A. Refer to Section 03300 for Concrete Testing and 02300 for Earthwork Testing.
- B. Cleaning: Interior of piping and structures shall be cleared of dirt and other superfluous material as work progresses. Maintain swab or drag in piping and pull past each joint as it is completed.
1. In large, accessible piping, brushes and brooms may be used for cleaning.
 2. Place plugs in ends of uncompleted pipe at end of day or whenever work stops.
 3. Flush piping between manholes, to remove collected debris.
- C. Interior Inspection: Inspect piping to determine whether line displacement or other damage has occurred.
1. Make inspections after pipe between manholes has been installed, cleaned and approximately 2 feet of backfill is in place, and again at completion of project. Each section of pipe between structures is to show from either end on examination, a full circle of light. Each appurtenance to the system shall be of the specified size and form, to be neatly and substantially constructed, with the top set permanently to exact position and grade.
 2. If inspection indicates poor alignment, debris, displaced pipe, infiltration, or other defects, correct such defects and re-inspect. All repairs shown necessary by the inspections are to be made, broken, cracked, or punctured pipe replaced, all deposits removed and the pipe left true to line and grade as herein specified, or shown on the plans, entirely clean and free from abnormalities and ready for use at no additional expense to the County.
 3. All stormwater pipes will be subject to video camera inspection by County staff.

- D. Trench Backfill Around and Above Pipe:
1. In each compacted backfill layer, perform density test as specified in Section 02300.
 2. Other tests may be required at County's discretion.
- E. Clean Up: Before final inspection and acceptance, the Contractor shall clean ditches, shape shoulders and restore all disturbed areas, including street crossings, grass plots, to as good as condition as existed before work started. All trenches shall be leveled and loose material removed from pavement gutters, sidewalks, pipelines, and inlet sediment traps, employing hand labor, if necessary.
- F. Pipe Inspection: The County may elect for the contractor to perform pipe inspection according to the following.

For pipes installed under the roadway, inspection is to be conducted when backfill reaches 3 feet above the pipe crown or upon completion of placement of the stabilized subgrade. For pipe installed within fills, including embankments confined by walls, inspection is to be conducted when compacted embankment reaches 3 feet above the pipe crown or the finished earthwork grade as specified in the Plans. Prior to conducting the inspection, submit to the Engineer a video recording schedule for videoing, dewater installed pipe, and remove all silt, debris and obstructions. Submit pipe videoing and reports to the County for review prior to the continuation of paving.

For pipe 48 inches or less in diameter, submit to the Engineer a video DVD. For all pipe types, provide a Pipe Observation Summary Report for each pipe run that includes:

1. Actual recorded length and width measurements of all cracks within the pipe.
2. Actual recorded separation measurement of all rigid pipe joints.
3. Detailed written observations of leaks, debris, or other damage or defects.

For flexible pipe types, submit a Pipe Quality Report for each pipe run that includes:

1. Representative diameter of the pipe.
2. Pipe deformation/deflections measurements with the 5% deflection limit clearly delineated.

Reports submitted in electronic media are preferred. The Engineer may waive this requirement for side drains and cross drains which are short enough to inspect from each end of the pipe.

- G. Video Report: Provide a high-quality DVD in a MPEG2 format video with a standard resolution of 720 x 480. Use a camera with lighting suitable to allow a clear picture of the entire periphery of the pipe. Center the camera in the pipe both vertically and horizontally and be able to pan and tilt to a 90 degree angle with the axis of the pipe and rotating 360 degrees. Use equipment to move the camera through the pipe that will not obstruct the camera's view or interfere with proper documentation of the pipe's condition.

The video image shall be clear, focused, and relatively free from roll, static, or other image distortion qualities that would prevent the reviewer from evaluating the condition of the pipe. The video will include identification before each section of pipe filmed. The identification will include the project number, the structure number corresponding to the structure number in the Plans for the project, size of pipe, the date and time, and indicate which pipe is being filmed if multiple pipes are connected to the structure. Notes should be taken during the video recording process. Submit these notes along with the video.

Move the camera through the pipe at a speed not greater than 30 feet per minute. Mark the video with the distance down the pipe. The distance shall have an accuracy of one foot per 100 feet. Film the entire circumference at each joint. Stop the camera and pan when necessary to document and measure defects. Position the camera head perpendicular to all defects requiring measurement by the video micrometer.

- H. Reinspection: At any time after reviewing the submitted pipe inspection reports, the Engineer may direct additional inspections. If no defects are observed during the reinspection, the County will pay for the cost of the reinspections. If defects are observed, the reinspection and all work performed to correct the defects will be done at no cost to the County. Acceptance of all replacements or repairs will be based on video documentation of the completed work prior to Final Completion.

PART 4 - MEASUREMENT/PAYMENT

4.1 METHOD OF MEASUREMENT

The quantities to be paid for will be (1) the number of inlets, manholes, end walls, mitered end sections, flared end sections, junction boxes, and yard drains, including fittings and appurtenances, completed and accepted; (2) length of pipe to the nearest foot of type specified; and (3) the number of structures of these types (including also valve boxes and monument boxes) satisfactorily adjusted.

4.2 BASIS OF PAYMENT

Price and payment will be full compensation for finishing all materials and completing all work described herein or shown in the plans, including all clearing and grubbing outside the limits of clearing and grubbing as shown in the plans, all excavation except the volume included in the measurement designated to be paid for under the items for the grading work on the project, all backfilling around the structures, the disposal of surplus material, and the furnishing and placing of all the gratings, frames, covers, and any other necessary fittings.

If the County elects for the contractor to perform pipe inspection, payment shall be made under a separate line item and be based upon linear foot of pipe videoing. No additional payment will be made for cleaning new stormwater pipe systems.

END OF SECTION 02600

SECTION 02800 - FENCING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.
- B. Florida Department of Transportation, *Standard Specifications for Road and Bridge Construction, Section 550* and Florida Department of Transportation *Design Standards Index 800, Latest Editions*

1.2 SUMMARY

- A. This Section includes, but is not limited to, the following:
 - 1. Chain link fence
 - 2. Farm Fence
 - 3. Wood privacy fence
- B. Where existing fences are to be relocated, but existing materials are deteriorated or damaged, fencing shall be replaced in kind or as specified by the County.

1.3 PROJECT CONDITIONS

- A. Traffic: Conduct fencing operations to ensure minimum interference with roads, streets, walks, and other adjacent occupied or used facilities and to minimize disturbance of the activities of adjacent property owners. Do not close or obstruct streets, walks, or other occupied or used facilities without prior approval.
- B. Security: Do not leave any fence unfinished or incomplete which might allow the escape of livestock or household pets, access to a private/public pool or pond, etc without temporary measures in place during construction.

1.4 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Deliver material in manufacturer's original packaging with all tags and labels intact and legible.
- B. Handle and store material in such a manner as to avoid damage.

PART 2 - PRODUCTS

2.1 CHAIN LINK FENCING:

Chain link fence shall meet the requirements of FDOT *Design Standards Index 802*.

2.2 GATES

- A. Swing Gates: Per FDOT Design Standards Index 802, as modified herein, construct of 1.625" o.d. steel pipe galvanized in accord with ASTM A-53 and weighing 2.27 pounds per lineal foot. Provide gates more than 8 feet wide with either intermediate members or diagonal truss rods. Provide gates less than 8 feet wide with truss rods or intermediate braces. Arrange latches for padlocking to provide accessibility from both sides of the gate. Where a double swing gate is called out, Construct Concrete Anchor rod Base 8" in diameter and 4" deep flush with top of ground. Opening in base for rod shall accommodate standard size in accordance with manufacturer and shall be PVC or galvanized steel pipe.
- B. Slide Gates: shall be constructed per FDOT Design Standards Index 803.

2.3 ACCESSORIES

Post Tops: pressed steel, or malleable iron. Where top rail is used, provide post tops to permit passage of top rail.

2.4 FARM FENCING

Farm Fencing shall meet the requirements of FDOT Design Standards Index 801.

2.5 WOOD PRIVACY FENCE

- A. Where existing fences are to be relocated, but existing materials are deteriorated or damaged, fencing shall be replaced in kind or as specified by the County.
- B. Shall be constructed as per industry standard with proper clearance below fence so as not to impede stormwater flow.

PART 3 - EXECUTION

3.1 CHAIN LINK FENCING

Chain link fence shall meet the requirements of FDOT Design Standards Index 802.

- A. Drill holes for post footings in firm, undisturbed or compacted soil.
- B. Place concrete around posts in a continuous pour, tamp for

consolidation. Check each post for vertical and top alignment.

- C. Set Keepers, stops, sleeves and other accessories into concrete as required.
- D. Topping of the fence with barbed wire shall not be included unless specifically shown on the plans.

3.2 INSTALLATION

- A. Brace Assemblies: install braces so posts are plumb when diagonal rod is under proper tension.
- B. Tension Wire: install tension wires before stretching fabric and tie to each post with ties or clips.
- C. Fabric: pull fabric taut 2 inches above grade level and tie to posts, rails, and tension wires. Attach fabric to terminal or gateposts by a stretcher bar and clip to other framework so that fabric remains in tension after pulling force is released.
- D. Hinge gates to swing through 180 degrees from closed to open.

3.3 FARM FENCING

- A. General installation shall be in accordance with FDOT Design Standards Index 801, as modified herein.
- B. Fence shall be installed with wire side to the private property side.
- C. Topping of the fence with barbed wire shall not be included unless existing farm fence includes barbed wire topping.

3.4 WOOD PRIVACY FENCING:

Shall be constructed as per industry standard with proper clearance below fence so as not to impede stormwater flow.

PART 4 - MEASUREMENT/PAYMENT

4.1 METHOD OF MEASUREMENT

A. GENERAL

The quantities to be paid for will be either the number of gates, the length of each type of fence, the number of corner post assemblies, constructed and accepted for the length of each type of fence with all other items necessary for construction as incidental. In addition, extra payment will be

made, for additional lengths of post approved by the County.

B. MEASUREMENT OF FENCE LENGTH

The length of fence to be paid for will be measured along the bottom of the fabric, out-to-out of end posts, in the completed and accepted fence. Measurement for Resetting Fence will be the actual length of existing fence reset, including gates when applicable.

C. CORNER POST ASSEMBLIES, PULL, AND END POST ASSEMBLIES

The number of corner post assemblies and of pull and end post assemblies to be paid for will be the number of such post assemblies constructed and accepted.

4.2 BASIS OF PAYMENT

A. BASIC ITEMS OF FENCING

The contract unit price will be full compensation for all work and materials necessary for the complete installation, including line posts, but not including the corner, end, and pull posts and the assemblies thereof.

B. ITEMS OF POST ASSEMBLIES

The Contract unit prices for the items of Corner Post Assemblies and Pull and End Post Assemblies will include the posts and the complete assemblies therewith for each such item. Approach posts and brace posts will be considered as part of the assembly of the corner, end, or pull post serves as a brace in more than one horizontal line.

C. PAYMENT RATES FOR EXTRA-LENGTH POSTS

For any length of posts in excess of the standard length for each particular type of post, approved by the Engineer as provided above, payment will be made for each foot in excess of the standard length at the percentage of the Contract unit price per foot for the item of Fencing, as shown in the following schedule:

Total Post Length	Steel and Aluminum Posts	Recycled Plastic & Timber Posts
Standard up to 14'	50%	60%
Between 14' – 20'	60%	80%
Over 20' *	*	*

*When the length of post exceeds 20 feet, the work of finishing and installing such posts and the costs incidental thereto will be paid for as unforeseeable through a change order.

The standard length of steel, recycled plastic and aluminum posts will be the required length as indicated in the plans for each type and case. The above provisions for extra length payment will apply to end, corner and pull posts.

The payment for additional length of post will include the cost of additional concrete to extend concrete bases, as applicable.

D. GATE PAYMENT

The quantities to be paid for will be full compensation for all labor, materials, posts and associated hardware for the complete installation of the type gate specified in the plans, and accepted by the County.

END OF SECTION 02800

SECTION 02900 - GRASSING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Specifications Sections apply to this Section.
- B. Florida Department of Transportation, *Standard Specifications for Road and Bridge Construction*, Section 570 and Section 981, *Latest Edition*

1.2 SUMMARY

Extent of grassing work is as specified or shown on the construction plans. Sodded areas disturbed during construction shall be re-sodded to match existing. Areas disturbed beyond specified construction area shall be sodded, at no additional expense, either to match existing or as per County direction.

1.3 SUBMITTALS

See paragraph 1.9 A *Quality Control/Quality Assurance Submittals*, Section 1300.

1.4 DELIVERY AND STORAGE

- A. General: Seed, fertilizer, sod and other grassing materials shall be stored under cover and protected from damage which would make them unacceptable for use.
- B. Seed: All seed shall be labeled in accordance with U.S. Department of Agriculture Rules and Regulations under the Federal Seed Act in effect on the date of invitation for bids. All seed shall be furnished in sealed standard containers, unless exception is granted in writing. Seed, which has become wet, moldy, or otherwise damaged in transit or in storage, shall not be used.
- C. Fertilizer: Fertilizer shall be delivered to the site in the original, unopened containers, each bearing the manufacturer's guaranteed analysis. Any fertilizer, which becomes caked or otherwise damaged, making it unsuitable for use, shall not be used.
- D. Sod: Do not use sod which has been cut (stripped) for more than 48 hours. Stack all sod that is not planted 24 hours after cutting and maintain proper moist condition.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Lime: Lime shall be ground limestone (Dolomite) containing not less than 85 percent of total carbonates, and shall be ground to such a fineness that 50-percent will pass a 100-mesh sieve and 90-percent will pass a 20-mesh sieve.
- B. Fertilizer: Apply fertilizer at the following rates:
 10-10-10 1000 lbs/acre=0.2 lbs/sq yd
 13-13-13 770 lbs/acre=0.16 lbs/sq yd
- C. Seed: Apply seed at the rate as specified:

GRASS SEEDING RATES (Lbs/Ac)								
TYPE OF SEED	ZONE I				ZONE II			
	COASTAL*		INLAND		COASTAL*		INLAND	
	Mar.- Nov.	Nov.- Mar.	Mar.- Nov.	Nov.- Mar.	Mar.- Nov.	Nov.- Mar.	Mar.- Nov.	Nov.- Mar.
PERMANENT GRASSES								
Unhulled Bermuda**		90		20		90		20
Hulled Bermuda**	60		15		60		15	
Bahia (Argentine or Pensacola)			180	180			180	180
QUICK GROWING GRASS								
Annual Rye Grass		90		90		90		90
TOTAL POUNDS PER ACRE	60	180	195	290	60	180	195	290
* Locations where salt sensitive plants may be adversely affected by high concentrations of salt in soils, water, or air. This may include seaside locations, low-lying areas subjected to periodic saltwater inundation from storms or high tides, or where salt intrusion into groundwater supply has occurred.								
** Bermuda shall not be used in areas adjacent to existing or proposed landscaping.								
NOTE: All seeding shall be performed meeting the requirements of Section 570 of the Standard Specifications								

Activities such as clearing, grading, and excavating that will disturb one or more acres of land require coverage under the Generic Permit for Stormwater Discharge from Large and Small Construction Activities from the Florida Department of Environmental Protection, and implementation

of appropriate pollution prevention measures to minimize erosion and sedimentation. Please refer to the National Pollutant Discharge Elimination System (NPDES) Permit.

- E. Mulch: The mulch material shall be dry straw or hay, consisting of oat, rye, or wheat straw, or of pangola, peanut, coastal Bermuda or Bahia grass, hay or compost; and shall be free from noxious weeds and plants. Any plant officially listed, as being noxious or undesirable by any Federal Agency, any agency of the State of Florida or any local jurisdiction in which the project is being constructed shall not be used. Furnish to the engineer, prior to incorporation onto the project, a certification from the Florida Department of Agriculture and Consumer Services, Division of Plant Industry, stating that the Mulch materials are free of noxious weeds. Any such noxious plant or plant part found to be delivered shall be removed by the Contractor at his expense. Only undeteriorated mulch, which can readily be cut into the soil, shall be used. The "air-dry" weight (as defined by the Technical Association of the Pulp and Paper Industry, for wood cellulose) shall be marked on each package by the producer. Apply mulch at a rate of 2 ton/acre or 1 lb/sq yd.

- E. Sod: All sod shall be healthy Centipede Sod unless otherwise required. Sod shall be strongly rooted, free of weeds and undesirable grasses and capable of providing vigorous growth and development when planted. Sod shall match existing species where restoration is required as a result of the Contractor's work.

PART 3 - EXECUTION

3.1 REQUIREMENTS

All areas disturbed by the Contractor's operations, shall be grassed, unless otherwise noted.

3.2 PLANTING SEED

- A. Grading: Areas to be grassed shall be graded to remove depressions, undulations, and irregularities in the surface before grassing. Adhere to grades as shown on plans.

- B. Tillage: The area to be grassed shall be thoroughly tilled to a depth of four inches using a plow and disc harrow or rotary tilling machinery until a suitable bed has been prepared and no clods or clumps remain larger than 1½ inches in diameter. Remove sticks, roots, and rubbish.

- C. Applying Lime: The pH of the soil shall be determined. If the pH is below 5.0, sufficient lime shall be added to provide a pH between 5.5 and 6.5. The lime shall be thoroughly incorporated into the top three to four inches

of the soil. Lime and fertilizer may be applied in one operation.

- D. Applying Fertilizer: Fertilizer shall be applied in accordance with the rates specified in Part 2, and shall be thoroughly incorporated into the top three to four inches of soil before sod is installed. FDOT Section 982.
- E. Seed and Mulch: Apply in accordance with the rates specified in Part 2.
- F. Maintenance: Maintenance shall begin immediately following the last operation of grassing and continue until final acceptance. Maintenance shall include watering, mowing, replanting, and all other work necessary to produce a uniform stand of grass, all at the contractor's expense.

3.3 PLACING SOD

- A. Use Centipede sod (*Eremochloa ophiuroides*) unless otherwise required. The sod shall have a thick mat of roots (minimum 2") with enough adhering soil to assure growth. Apply sod within 48 hours of stripping. Protect sod against drying and breaking of rolled strips.
- B. Placement: Prepare the ground by loosening the soil. Place sod perpendicular to the slope. Place sod on the prepared soil to form a solid mass with tightly fitted joints. Ensure the butt ends and sides of sod strips do not overlap. The seam should have a flush tight transition from new to existing sod with no overlap. Stagger strips to avoid a continuous downhill seam. Tamp or roll lightly to ensure contact with subgrade. Tamp the outer edges of the sodded area to produce a smooth contour. Work sifted soil into minor cracks between pieces of sod; remove excess to avoid smothering of adjacent grass. Water sod thoroughly with a fine spray immediately after planting.
- C. Pinning: All sod placed on a slope steeper than 3:1 shall be pinned, at the top of the sod, at a rate listed in the table below:

Sod Size	Pins Required
Square Sod	2 pins per sod square
Mini Roll	3 pins per roll
Standard Rolls	1 pin per linear foot

- C. Watering: Keep sod continuously moist to a depth below the root zone for three weeks after placement. If there is no water available to the site, the Contractor shall provide the water. Do not water in excess of 1" (one inch) per square yard per week for establishment.
- D. Clean-Up: All excess soil, excess grass materials, stones, pallets and other waste shall be removed from the site daily and not allowed to accumulate. All paved areas shall be kept clean at all times.

- E. Maintenance: Maintain sod by watering, fertilizing, weeding, mowing, trimming and other operations such as rolling, re-grading, and re-planting as required to establish a lawn free of eroded or bare areas and acceptable to the County. Where inspected work and materials do not comply with requirements, replace rejected work and continue maintenance until re-inspected by County and found to be acceptable. Remove rejected materials promptly from the project site. FDOT Section 570-4.

PART 4 - MEASUREMENT/PAYMENT

4.1 METHOD OF MEASUREMENT

The quantities to be paid for will be for the following items, completed and accepted: square yards of seeding, square yards of seeding and mulching, and square yards of sodding.

4.2 BASIS OF PAYMENT

Prices and payments will be full compensation for all work and materials specified in this Section.

END OF SECTION 02900

SECTION 03300 – PORTLAND CEMENT CONCRETE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and General Provisions of the Contract, including General and Supplementary Conditions and other Specification Sections, apply to this Section.
- B. Florida Department of Transportation (FDOT), *FDOT Material's Manual, Chapter 9.2, Volume II, FDOT Standard Specifications for Road and Bridge Construction, Section 346, 347, 350, 400, 522, & 925, Latest Edition.*

1.2 SUMMARY

This Section includes concrete work for the following:

1. Roadways
2. Parking lots
3. Curbs and gutters
4. Walkways
5. Pads
6. Flumes
7. Curb Ramps
8. Cast in Place Structures

1.3 SUBMITTALS

- A. Product data for proprietary materials and items, including reinforcement and forming accessories, admixtures, joint systems, curing compounds, dry-shake finish materials, and others if requested by the County.
- B. Design mixes for each class of concrete. Include revised mix proportions when characteristics of materials, project conditions, weather, test results, or other circumstances warrant adjustments.
- C. Material certificates in lieu of material laboratory test reports when permitted by the County. Material certificates shall be signed by manufacturer and Contractor certifying that each material item complies with or exceeds requirements. Provide certification from admixture manufacturers that chloride content complies with requirements.

1.4 PROJECT CONDITIONS

- A. Traffic Control: Comply with requirements of Escambia County Specification, Section 04060, "Maintenance of Traffic."

- B. Utilize flagmen, barricades, warning signs and warning lights as required, as shown on plans, or as directed by the County.

PART 2 - PRODUCTS

2.1 GENERAL REQUIREMENTS

- A. Concrete shall conform to requirements of FDOT Standard Specification, Sections 346, 347, & 522 for curbs, gutters, sidewalks, structures and miscellaneous concrete.
- B. Concrete for pavement shall conform to requirements of FDOT Standard Specification, Section 350.
- C. Curb Ramps shall conform to FDOT Design Standards Index 304.

2.2 REINFORCING MATERIALS

- A. Reinforcing Bars and Tie Bars: ASTM A 615, Grade 60, deformed.
- B. Welded Steel Wire Fabric: ASTM A 185.
 - 1. Furnish in flat sheets, not rolls.
- C. Deformed-Steel Welded Wire Fabric: ASTM A 497.
- D. Fabricated Bar Mats: Welded or clip-assembled steel bar mats, ASTM A184. Use ASTM A615, Grade 60 steel bars, unless otherwise indicated.
- E. Joint Dowel Bars: Plain steel bars, ASTM A615, Grade 60. Cut bars true to length with ends square and free of burrs.
- F. Hook Bolts: ASTM A307, Grade A bolts, internally and externally threaded. Design hook bolt joint assembly to hold coupling against pavement form and in position during concreting operations, and to permit removal without damage to concrete or hook bolt.
- G. Supports for Reinforcement: Chairs, spacers, dowel bar supports and other devices for spacing, supporting, and fastening reinforcing bars, welded wire fabric, and dowels in place. Use wire bar-type supports complying with CRSI specifications. Use supports with sand plates or horizontal runners where base material will not support chair legs.

2.3 CONCRETE MATERIALS

- A. Portland Cement: Type I, Type IP, Type IS, Type IP (MS), Type II, or Type III.

1. Use one brand of cement throughout Project.
 2. All concrete shall develop a 28-day compressive strength of 3000 psi for non-structural (NS). If any concrete should fail to meet the strength requirement the structure shall be removed as necessary to remove the defective concrete and shall then be rebuilt at the Contractor's expense.
- B. Fly Ash: ASTM C618, Class C or Class F.
- C. Normal-Weight Aggregates: ASTM C33, Class 4, and as follows. Provide aggregates from a single source.
1. Maximum Aggregate Size: 1-1/2 inches.
 2. Do not use fine or coarse aggregates that contain substances that cause spalling.
 3. Local aggregates not complying with ASTM C33 that have been shown to produce concrete of adequate strength and durability by special tests or actual service may be used when acceptable to Engineer.
- D. Water: Potable.
- E. Fiber Reinforcement: Synthetic fibers engineered and designed for secondary reinforcement of concrete slabs, complying with ASTM C1116, Type III.

2.4 ADMIXTURES

- A. Provide concrete admixtures that contain not more than 0.01 percent chloride ions.
- B. Air-Entraining Admixture: ASTM C260, certified by manufacturer to be compatible with other required admixtures.
- C. Water-Reducing Admixture: ASTM C494, Type A.
- D. High-Range Water-Reducing Admixture: ASTM C494, Type F or Type G.
- E. Water-Reducing and Accelerating Admixture: ASTM C494, Type E.
- F. Water-Reducing and Retarding Admixture: ASTM C494, Type D.

2.5 CONCRETE MIX

- A. Prepare design mixes for each type and strength of normal-weight concrete

per FDOT Standard Specification, Section 346-6.2 and FDOT Material's Manual, Chapter 9. 2, Volume II. Use a qualified independent testing laboratory for preparing and reporting proposed mix designs. Do not use the Owner's field quality-control testing laboratory as the independent testing laboratory.

- B. Fiber Reinforcement: Add to mix at rate of 1.5 lb per cu. yd., unless manufacturer recommends otherwise.
- C. Adjustment to Concrete Mixes: Mix design adjustments may be requested by Contractor when characteristics of materials, project conditions, weather, test results, or other circumstances warrant.

2.6 CONCRETE MIXING

Ready-Mixed Concrete: Comply with requirements of FDOT Standard Specification, Section 346-7 and FDOT Material's Manual, Chapter 9.2, Volume II.

PART 3 - EXECUTION

3.1 SURFACE PREPARATION FOR CONCRETE PAVEMENT

- A. Proof-roll prepared base or subgrade surface to check for unstable areas and verify need for additional compaction. Do not begin concrete work until such conditions have been corrected and are ready to receive paving.
- B. Remove loose material from compacted subbase surface immediately before placing concrete.

3.2 EDGE FORMS AND SCREED CONSTRUCTION

- A. Set, brace, and secure edge forms, bulkheads, and intermediate screed guides to required lines, grades, and elevations. Install sufficient forms to allow continuous progress of work and so that forms can remain in place at least 24 hours after concrete placement.
- B. Check completed formwork and screeds for grade and alignment to following tolerances:
 - 1. Top of Forms: Not more than 1/8 inch in 10 feet.
 - 2. Vertical Face on Longitudinal Axis: Not more than 1/4 inch in 10 feet.
- C. Clean forms after each use and coat with form release agent as required ensuring separation from concrete without damage.

3.3 PLACING REINFORCEMENT

- A. General: Comply with Concrete Reinforcing Steel Institute's recommended practice for "Placing Reinforcing Bars" for placing and supporting reinforcement. Comply with FDOT Standard Specification, Section 350-7.
- B. Clean reinforcement of loose rust and mill scale, earth, ice, or other bond-reducing materials.
- C. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position during concrete placement. Secure reinforcement against displacement by formwork, construction, or concrete placement operations. Locate and support reinforcing by metal chairs, runners, bolsters, spacers and hangers, as required. Set wire ties so ends are directed into concrete, not toward exposed concrete surfaces. Maintain minimum cover to reinforcement.
- D. Install welded wire fabric in lengths as long as practicable. Lap adjoining pieces at least one full mesh and lace splices with wire. Offset laps of adjoining widths to prevent continuous laps in either direction. Use of chairs is required. Welded wire fabric shall not be "pulled" to center of slab.
- E. Install fabricated bar mats in lengths as long as practicable. Handle units to keep them flat and free of distortions. Straighten bends, kinks, and other irregularities or replace units as required before placement. Set mats for a minimum 2-inch overlap to adjacent mats.

3.4 JOINTS

- A. General: Construct control (contraction) joints, construction, and isolation joints true to line with faces perpendicular to surface plane of concrete. Construct transverse joints at right angles to the centerline, unless indicated otherwise. When joining existing paving, place transverse joints to align with previously placed joints, unless indicated otherwise.
- B. Control (Contraction) Joints: Control joints are grooved, formed, or sawed into sidewalks, driveways and concrete pavements so that cracking will occur in these joints randomly. If not specified on drawings, intervals shall be not greater than 10 feet or less than 5 feet. Construct control joints for a depth equal to at least 1/4 of the concrete thickness, as follows:
 - 1. Tooled Joints: Form contraction joints in fresh concrete by grooving and finishing each edge of joint with a radiused jointer tool.
 - 2. Sawed Joints: Form contraction joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch-wide joints into hardened concrete when cutting action will not tear, abrade, spawl or otherwise damage surface and before development of

random contraction cracks.

3. Inserts: Form contraction joints by inserting premolded plastic, hardboard, or fiberboard strips into fresh concrete until top surface of strip is flush with paving surface. Radius each joint edge with a jointer tool. Carefully remove strips or caps of two-piece assemblies after concrete has hardened. Clean groove of loose debris.
- C. Construction Joints: Set construction joints at side and end terminations of paving and at locations where paving operations are stopped for more than ½ hour, unless paving terminates at isolation joints.
1. Provide preformed galvanized steel or plastic keyway-section forms or bulkhead forms with keys, unless indicated otherwise. Embed keys at least 1-1/2 inches into concrete.
 2. Continue reinforcement across construction joints unless indicated otherwise.
- D. Expansion Joints: Form expansion joints of preformed joint filler strips abutting concrete curbs, catch basins, manholes, inlets, structures, walks, other fixed objects, and where indicated.
1. Locate expansion joints at intervals of 30 feet, unless indicated otherwise or directed by County.
 2. Extend joint fillers full width and depth of joint, not less than ½ inch or more than 1 inch below finished surface where joint sealant is indicated. Place top of joint filler flush with finished concrete surface when no joint sealant is required.
 3. Furnish joint fillers in one-piece lengths for full width being placed wherever possible. Where more than one length is required, lace or clip joint filler sections together.
 4. Protect top edge of joint filler during concrete placement with a metal, plastic, or other temporary preformed cap. Remove protective cap after concrete has been placed on both sides of joint.
- E. Filler and Sealants: Submit specifications to Engineer for approval.
- F. Install dowel bars and support assemblies at joints where indicated. Lubricate or asphalt-coat one half of dowel length to prevent concrete bonding to one side of joint.

3.5 CONCRETE PLACEMENT

- A. Comply with requirements of FDOT Standard Specification, Sections 350-8

and 400-7 for placing concrete.

- B. Deposit and spread concrete in a continuous operation between transverse joints. Do not push or drag concrete into place or use vibrators to move concrete into place. No concrete will be placed on concrete which has hardened sufficiently to cause the formation of seams or planes of weakness. Deposit concrete as nearly as practical to its final location to avoid segregation. When concrete placing is interrupted for more than ½ hour, place a construction joint.
- C. Use a bonding agent at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.
- D. Consolidate concrete by mechanical vibrating equipment supplemented by hand-spading, rodding, floating, or tamping. Use equipment and procedures to consolidate concrete complying with FDOT Standard Specification, Section 350-9.
- E. Screed paved surfaces with a straightedge and strike off. Use bull floats or darbies to form a smooth surface plane before excess moisture or bleed water appears on the surface. Do not further disturb concrete surfaces prior to beginning finishing operations.
- F. Place concrete in two operations; strike off initial pour for entire width of placement and to the required depth below finish surface. Lay welded wire fabric or fabricated bar mats immediately in final position. Place top layer of concrete, strike off, and screed. Remove and replace portions of bottom layer of concrete that have been placed more than 15 minutes without being covered by top layer or use bonding agent if acceptable to County.
- G. Curbs and Gutters: Shall be constructed in accordance with FDOT Specs. When automatic machine placement is used for curb and gutter placement, submit revised mix design and laboratory test results that meet or exceed requirements. Produce curbs and gutters to required cross section, lines, grades, finish, and jointing as specified for formed concrete. If results are not acceptable, remove and replace with formed concrete.
- H. Slip-Form Pavers: When automatic machine placement is used for paving, submit revised mix design and laboratory test results that meet or exceed requirements. Produce paving to required thickness, lines, grades, finish, and jointing as required for formed paving. Compact subgrade of sufficient width to prevent displacement of paver machine during operations.
- I. When adjoining pavement lanes are placed in separate pours, do not operate equipment on concrete until pavement has attained 85 percent of its 28-day compressive strength, or sufficient strength to carry loads without damage or injury. Maturity Method Testing, as outlined in FDOT Standard Specification, Section 353-10.2, should be used to determine

concrete strength.

- J. Cold-Weather Placement: Comply with provisions of FDOT Standard Specification, Sections 346-7.4 and 400-7.1.1. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.
- K. Hot-Weather Placement: Place concrete complying with FDOT Standard Specification, Sections 346-7.5 and 400-7.1.2, and as specified when hot weather conditions exist.

3.6 CONCRETE FINISHING

- A. Float Finish: Begin floating when bleed-water sheen has disappeared and the concrete surface has stiffened sufficiently to permit operations. Float surface with power-driven floats or by hand-floating if area is small or inaccessible to power units. Finish surfaces to true planes within a tolerance of 1/8 inch in 10 feet as determined by a 10-foot-long straight-edge placed anywhere on the surface in any direction. Cut down high spots and fill low spots. Refloat surface immediately to a uniform granular texture.
 - 1. Medium-to-Fine-Textured Broom Finish: Draw a soft bristle broom across concrete surface perpendicular to line of traffic to provide a uniform fine line texture finish.
 - 2. Tine Finishes: Apply to curb cut ramps and other areas as noted on the drawings. Finish shall be applied by an approved hand method and shall consist of transverse grooves which are 0.03 to 0.12 inch in width and 0.10 to 0.15 inch in depth, spaced at approximately 1/2 inch center to center.
- B. Final Tooling: Tool edges of paving, gutters, curbs, and joints formed in fresh concrete with a jointing tool to the following radius. Repeat tooling of edges and joints after applying surface finishes. Eliminate tool marks on concrete surfaces. Radius: 1/2 inch.

3.7 CONCRETE PROTECTION AND CURING

General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with the recommendations of FDOT Standard Specification, Sections 350-11 and 925.

3.8 QUALITY CONTROL TESTING

- A. A qualified, accredited testing and inspection laboratory, under the direction of a Professional Engineer, licensed in the State of Florida, shall sample materials, perform tests, and submit test reports during concrete placement as follows:

1. Sampling Fresh Concrete: ASTM C172, except modified for slump to comply with ASTM C94. All concrete should be sampled by ACI certified technicians.
 - a. Slump: ASTM C143; one test at point of placement for each compressive-strength test but no less than one test for each day's pour of each type of concrete. Additional tests will be required when concrete consistency changes.
 - b. Air Content: ASTM C231, pressure method; one test for each compressive-strength test but no less than one test for each day's pour of each type of air-entrained concrete.
 - c. Concrete Temperature: ASTM C1064; one test hourly when air temperature is 40 deg F (4 deg C) and below and when 80 deg F (27 deg C) and above, and one test for each set of compressive-strength specimens.
 - d. Compression Test Specimens: ASTM C31; one set of four standard cylinders for each compressive- strength test, unless directed otherwise. Mold and store cylinders for laboratory-cured test specimens except when field-cured test specimens are required.
 - e. Compressive-Strength Tests: ASTM C39; one set for each day's pour of each concrete class, plus one set for each additional 50 cu. y d. Test one specimen at 7 days, two specimens at 28 days, and retain one specimen in reserve for earlier or later testing if required. Class I Concrete NS compression test specimens cylinders are not required, except as directed by County.
 - f. Contractor shall repair the area to the satisfaction of the Engineer where material was removed for testing purposes. Should any work or materials fail to meet the requirements set forth in the plans and specifications, contractor shall pay for retesting of same.
 2. Basis for acceptance of concrete will be per FDOT Standard Specification, Sections 346-8 through 346-11.
- B. Test results will be reported in writing to the County, within 24 hours of testing. Reports of compressive strength tests shall contain the Project identification name and number, date and location of concrete placement, name of concrete testing laboratory, concrete type and class, design compressive strength at 28 days, concrete mix proportions and materials, compressive breaking strength, and type of break for both 7-day and 28-day tests.

- C. Nondestructive Testing: Non-destructive test methods may be used with approval of the Engineer, but shall not be used as the sole basis for acceptance or rejection.
- D. Additional Tests: The testing laboratory will make additional tests of the concrete when test results indicate slump, air entrainment, concrete strengths, or other requirements have not been met, as directed by Engineer. Testing laboratory may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C 42, or by other methods as directed.

3.9 REPAIRS AND PROTECTION

- A. Remove and replace concrete work that is broken, damaged, or defective, or does not meet the requirements of this Section.
- B. Drill test cores where directed by the County when necessary to determine magnitude of cracks or defective areas. Fill drilled core holes in satisfactory concrete areas with Portland cement concrete bonded to paving with epoxy adhesive.
- C. Protect concrete from damage. Exclude traffic from concrete pavement for at least 14 days after placement. When construction traffic is permitted, maintain concrete as clean as possible by removing surface stains and spillage of materials as they occur.
- D. Maintain concrete work free of stains, discoloration, dirt, and other foreign material. Sweep concrete paving not more than 2 days prior to date scheduled for Substantial Completion inspections.

PART 4 - MEASUREMENT/PAYMENT

4.1 METHOD OF MEASUREMENT

The quantities to be paid for will be the plan quantity, in square yards, of Plain Cement Concrete Pavement, Reinforced Cement Concrete Pavement, square yards of sidewalk, and linear feet of curb and/or gutter.

4.2 JOINTS AND CRACKS

The Contractor shall include the cost for Cleaning and Sealing Joints in the cost of the newly constructed pavement for: (1) transverse and longitudinal joint construction for new pavement; and (2) abutting joints between existing pavement and new pavement.

For replacing joint seals and sealing random cracks in existing Portland cement concrete pavement, the quantity to be paid for will be as specified below:

- A. The length of pavement joint that has been satisfactorily cleaned and sealed in existing Portland cement concrete pavement, as determined by field measurement along the joints, will be paid for at the Contract unit price per foot for Cleaning and Resealing Joints.
- B. The length of random cracks in existing Portland cement concrete pavement that have been satisfactorily cut, cleaned, and sealed, as determined by field measurement along the joints, will be paid for at the Contract unit price per foot for Cleaning and Sealing Random Cracks.

4.3 BASIS OF PAYMENT

Prices and payment will be full compensation for all work specified in this Section, including any preparation of the subgrade not included in the work to be paid for under another Contract item; all transverse and longitudinal joint construction, including tie-bars and dowel bars; the furnishing of test specimens; repair of core holes; and all incidentals necessary to complete the work.

END OF SECTION 03300

SECTION 03310 – TIED CONCRETE BLOCK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and General Provisions of the Contract, including General and Supplementary Conditions and other Specification Sections, apply to this Section.

1.2 SCOPE OF WORK

- A. Scope of Work The Contractor shall furnish all labor, materials, equipment, and incidentals required and perform all operations in connection with the installation of tied concrete erosion control mats in accordance with the lines, grades, design and dimensions shown on the Contract Drawings and as specified herein.

1.3 SUBMITTALS

- A. The Contractor shall submit to the Engineer all manufacturer's performance research results and calculations in support of the tied concrete block mat system. Calculations and shop drawings shall be provided by the manufacturer for the means and methods necessary to place the mats in accordance with PART 2.A and in accordance with the plans. The shop drawings shall indicate the size and location of mats and placement along with providing the details and how the mats are tied together and are to be moved.
- B. The Contractor shall furnish to the Engineer all manufacturers' specifications, literature, shop drawings for the installation of the mats, and any recommendations, if applicable, that are specifically related to this project.

PART 2 – PRODUCTS

2.1 PROJECTS

- A. General Tied concrete block mats shall be manufactured or field fabricated from individual concrete blocks tied together with a high strength geogrid.

Each block shall be tapered, beveled and interlocked. Each block shall incorporate interlocking surfaces or connections that prevent lateral displacement of the blocks within the mats when they are lifted for placement.

- B. Tied Concrete Block Mat

- 1. Scope: This specification covers concrete blocks for erosion control

mats used for stabilizing channels.

2. Materials Cementitious Materials - Materials shall conform to the following applicable ASTM specifications:
 - a. Portland Cements -Specification C 150, for Portland Cement.
 - b. Blended Cements -Specification C 595, for Blended Hydraulic Cements.
 - c. Hydrated Lime Types -Specification C 207, for Hydrated Lime Types.
 - d. Pozzolans -Specification C 618, for Fly Ash and Raw or Calcined Natural Pozzolans for use in Portland Cement Concrete.

Aggregates shall conform to the following ASTM specifications, except that grading requirements shall not necessarily apply:
Normal Weight -Specification C 33, for Concrete Aggregates.

3. Physical Requirements Durability. The manufacturer shall satisfy the purchaser by proven field performance that the concrete units have adequate durability even if they are to be subjected to a freeze-thaw environment.

TABLE 1. PHYSICAL REQUIREMENTS			
Compressive Strength Net Area Min. psi (mPa)		Water Absorption Max., lb/ft ³ (kg/m ³)	
Avg. of 3 units	Individual Unit	Avg. of 3 units	Individual Unit
4,000 (27.6)	3,500 (24.)	10 (160)	12 (192)

4. Visual Inspection: All units shall be sound and free of defects that would interfere with the proper placing of the unit or impair the strength or permanence of the construction. Surface cracks incidental to the usual methods of manufacture, or surface chipping resulting from customary methods of handling in shipment and delivery, shall not be deemed grounds for rejection.
5. Sampling and Testing: The purchaser or his authorized representative shall inspect the units upon delivery. Units missing more than 4 blocks per 80 square feet section shall be deemed grounds for rejection.
6. The tied concrete block mats shall have one or more of the following nominal characteristics: Minimum open area of 10%

The tied concrete block mat shall exhibit resistance to mild concentrations of acids, alkalis, and solvents.

Polypropylene Geogrid Revetment mat shall be constructed of high tenacity, low elongating, and continuous filament polypropylene fibers.

Interlocking geogrid shall have the following physical characteristics:

Mass/Unit Area: ASTM D-5261 7.0 oz/yd² 240 g/m²

Aperture Size: Measured 1.6 x 1.6 inch 40 x 40 mm

Wide Width Tensile Strength:

Machine Direction (MD) ASTM D-6637 2,055 lb/ft 30 kN/m Cross

Machine Direction (CMD) ASTM D-6637 2,055 lb/ft 30 kN/m

Elongation at Break: ASTM D-6637 6% 6%

Tensile Strength @ 2% :

Machine Direction (MD) ASTM D-6637 822 lb/ft 12 kN/m

Cross Machine Direction (CMD) ASTM D-6637 822 lb/ft 12 kN/m

Tensile Strength @ 5% :

Machine Direction (MD) ASTM D-6637 1,640 lb/ft 24 kN/m Cross

Machine Direction (CMD) ASTM D-6637 1,640 lb/ft 24 kN/m

Tensile Modulus @ 2%:

Machine Direction (MD) ASTM D-6637 41,100 lb/ft 600 kN/m Cross

Machine Direction (CMD) ASTM D-6637 41,100 lb/ft 600 kN/m

Tensile Modulus @ 5%:

Machine Direction (MD) ASTM D-6637 32,900 lb/ft 480 kN/m Cross

Machine Direction (CMD) ASTM D-6637 32,900 lb/ft 480 kN/m

NOTE: Polypropylene geogrid shall be determined by the manufacturer.

Tied concrete block mats are packaged in rolls. These are packaged with high strength lifting straps for moving material into place with an excavator.

PART 3 – CONSTRUCTION

- A. Prior to placing the tied concrete block mats, prepare the sub grade as detailed on the plans. All subgrade surfaces prepared for placement of mats shall be smooth and free of all rocks, stones, sticks, roots, other protrusions, or debris of any kind.
- B. The prepared surface shall provide a firm unyielding foundation for the mats with no sharp or abrupt changes or breaks in the grade.
- C. Apply seed directly to the prepared soil prior to installation of the Tied Concrete Block Mat. Use seed per project specifications.
- D. Install mats to the line and grade shown on the plans and according to the manufacturer's installation guidelines.
- E. The manufacturer will provide technical assistance during the slope preparation and installation of the tied concrete block mats as needed.
- C. Clean forms after each use and coat with form release agent as required ensuring separation from concrete without damage.

PART 4 - MEASUREMENT/PAYMENT

4.1 METHOD OF MEASUREMENT

The completed work as described shall be measured and paid for at the contract unit price per square yard.

4.2 BASIS OF PAYMENT

Prices and payment for Tied Concrete Block Material will be full compensation for all work (including but not limited to labor, equipment, and materials) specified in this Section, including any preparation of the Subgrade not included in the work to be paid for under another Contract item, and all incidentals necessary to complete the work.

END OF SECTION 03310

SECTION 03350 – PERVIOUS CONCRETE PAVING

PART 1 - GENERAL

1.1 SCOPE OF WORK

- A. The work to be completed under this contract includes the furnishing of all labor, materials and equipment necessary for the construction of the dual-use system in accordance with the plans and these specifications.

1.2 REFERENCES

- A. Environmental Protection Agency (EPA)
 - 1. Green Infrastructure - Statement of Intent
- B. National Institute of Building Sciences (NIBS)
 - 1. Federal Green Construction Guide for Specifiers
- C. American Concrete Institute (ACI)
 - 1. ACI 305 "Hot Weather Concreting"
 - 2. ACI 306 "Cold Weather Concreting"
 - 3. ACI Flatwork Finisher Certification Program
 - 4. ACI Field Technician Certification Program
- D. American Society for Testing and Materials
 - 1. ASTM C33 "Specification for Concrete Aggregates"
 - 2. ASTM C94 "Specification for Ready-Mixed Concrete"
 - 3. ASTM C150 "Specification for Portland Cement"
 - 4. ASTM C494 "Specification for Chemical Admixtures for Concrete"
 - 5. ASTM C595 "Specification for Blended Hydraulic Cements"
 - 6. ASTM D3385 "Test Method for Infiltration Rate of Soils Using Double-Ring Infiltrometer"
- E. National Ready Mixed Concrete Association (NRMCA)
 - 1. Pervious Concrete Contractor Certification Manual

1.3 QUALITY ASSURANCE

- A. Prior to the award of contract, the proposed contractor must submit evidence of having the appropriate tools, and experience, to accomplish the work. Experience will be based on at least one person, in charge of the crew, being NRMCA Certified as a Pervious Concrete "Craftsman",

plus two crew members being Certified by the NRMCA as Pervious Concrete Technicians.

1.4 SPECIAL EQUIPMENT

- A. Contractor must show evidence of having the specialized equipment required for the installation of Pervious Concrete Pavements. Pervious Concrete is finished and jointed using three classes of specialized rollers. These rollers consist of form-to-form, steel-pipe rollers which are 8-inches to 12-inches in diameter, and smaller cross-rollers, with tapered edges. A special flanged-roller is used to place control joints in the pervious concrete before the pavement is covered to moist-cure.
- B. Project may require the use of vibratory screeds. These screeds must provide an adjustment for the frequency of vibration.
- C. Project may require the use of a power-sprayer with a "fogging-nozzle" attachment.

1.5 SUBMITTALS

- A. All submittals shall be approved prior to construction.
- B. Plans shall be submitted to the County Engineer's Representative, by the Contractor indicating:
 - 1. Proposed Start Date, sequence of construction, and time of completion, for the scope of work.
 - 2. Proposed locations for all construction-joints, and control joints, in the pavement.
 - 3. Sections and Details showing depths, and types of materials, for all locations in the scope of work.
- C. A one-square-foot section of the proposed filter fabric shall be submitted to the County Engineer's Representative. Information regarding the properties of the material, manufacturer, suggested method of placement and guarantees shall also be submitted with the fabric.
- D. A one-quarter-cubic-foot sample of the proposed washed, crushed-stone/gravel-fill for the infiltration basin (pavement base) shall be submitted to the County Engineer's Representative.
- E. A Mix-Design, showing the weights of all materials, for the proposed pervious concrete pavement shall be submitted to the County Engineer's Representative. It shall be the Contractor's responsibility to become familiar with the properties, and workability, of the proposed mix-design.
- F. Evidence of qualifications of the Contractor, as per the "Quality Assurance" section shall be submitted to the County Engineer's Representative.

1.6 TEST PANELS

A test panel shall be constructed by the Contractor, and approved by the County Engineer's Representative. The test panel shall become the "standard" by which the Contractor's work is judged for completion of work and payment schedules.

- A. The test panel shall be constructed in accordance with the plans and specifications, and shall be a minimum of 225 square-feet. Construction of the test panel shall be accomplished by the same crew, equipment and materials as submitted for approval. The depth of all materials shall be the same as shown on the plans.
- B. The cost of constructing, and removing (if necessary), the test panel shall be included in the contract bid.

PART 2 - MATERIALS

- 2.1 Filter Fabric: The filter fabric shall be a non-woven geotextile fabric suitable for the application, and installed as per the manufacturer's directions.
- 2.2 Infiltration Basin Gravel-Fill: The Infiltration Basin shall be filled with clean (washed) gravel or crushed stone. The stone material shall be a single-size, and have a diameter of from 3/4-inch to 2-inches, and shall comply with ASTM C33. The total depth of the gravel-fill shall be indicated on the plans.
- 2.3 Pervious Concrete: The permeable pavement section shall consist of portland-cement based pervious concrete. Pervious concrete has no ACI or ASTM Specifications. It is therefore recommended that the guidelines for Ready-Mixed Concrete, ASTM C94, be used as a general guideline for the manufacturing and delivery of the pervious concrete. It is the responsibility of the Contractor to work with the local Ready-Mix suppliers to finalize a mix-design that will be acceptable for this project. If the mix-design is new to the local supplier, then at least three trial-batches shall be made before the decision is made to use that particular mix design. Both the Contractor, and the Supplier, must agree on any particular mix design before it is submitted to the County Engineer's Representative.

PART 3 - EXECUTION

- 3.1 Subgrade: The subgrade is defined as the native soil, or finished grade, of any cut-and-fill operation that may be required to bring the soil elevation to proper grade. The top of subgrade is also the bottom of the clean-gravel. The final grade of the top of subgrade shall be flat (no slope), and at the proper elevation to allow for the thickness of the layer of gravel and the pervious concrete pavement. Final compaction of the subgrade shall take into effect the type of soil and permeability requirements, and requirements for pavement support. Compaction should be uniform, and not greater than 95%
- 3.2 Filter Fabric: The filter fabric shall be placed on top of the final grade by the Contractor following the Manufacturer's directions.
- 3.3 Infiltration Basin Gravel-Fill: The placement of the gravel should be done to

minimize destruction of the filter fabric, and over-compaction of the subgrade. Compaction of the gravel is unnecessary.

- 3.4 Pervious Concrete: The Pervious Concrete, including any formwork requirements, placement, jointing and curing, shall be done in accordance with the NRMCA "Pervious Concrete Contractor Certification" guidelines. It is the responsibility of the Contractor to become familiar with the NRMCA document to gain the knowledge required to properly place and finish pervious concrete pavements. The inclusion of the requirements, as set forth in the NRMCA document, becomes an integral part of these specifications.
- 3.5 Testing: The testing requirements for pervious concrete are generally for permeability and durability. Testing of the fresh pervious concrete is a visual test. The Contractor must have the basic knowledge of what constitutes a proper mix by a visual inspection when the material arrives on the jobsite. Traditional tests for fresh concrete, such as slump and air content, and making cylinders & beams for strength tests are not required for pervious concrete.
- 3.6 Maintenance: Maintenance of the paving during construction is the Contractor's responsibility. The pervious concrete pavement should be checked periodically for buildup of trash and debris. Trash and debris should be removed from the pavement by hard-vacuum systems as required. The pavement should be pressure-washed with the residue being removed by wet-vacuuming within seven (7) days of requesting final acceptance by the County Engineer.

END OF SECTION 03350

SECTION 04000 - TRAFFIC CONTROL SIGNS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and General Provisions of the Contract, including General and Supplementary Conditions and other Specifications Sections, apply to work of this section.
- B. Unless otherwise specified on the work orders, plan sheets, or in other sections of this contract, all materials and work shall conform to the applicable requirements in the following document:
 - 1. USDOT, Federal Highway Administration, *Manual on Uniform Traffic Control Devices for Streets and Highways, Latest Edition.*
 - 2. USDOT, Federal Highway Administration, *Standard Alphabets for Highway Signs and Pavement Markings, Latest Edition.*
 - 3. Florida Department of Transportation, *Design Standards for Design, Construction, Maintenance and Utility Operations on the State Highway System, Latest Edition.*
 - 4. Florida Department of Transportation, *Standard Specifications for Road and Bridge Construction, section 700, Latest Edition.*

1.2 DESCRIPTION OF WORK

The work under this section includes the fabrication and installation of standard and special traffic control signs (warning, regulatory, and guide). The Contractor shall furnish all labor, materials, tools, supplies, equipment, and machinery necessary to fully complete the work shown in the plans and in these specifications.

PART 2 - PRODUCTS

2.1 MATERIALS

All materials shall be new and of good quality unless otherwise specified. The Contractor, at his own expense and if requested by the County, shall furnish samples of material and/or shall certify that the material meets all FDOT requirements. All material or work that has been rejected shall be remedied by the Contractor at his own expense and without delay. If the Contractor fails to promptly remove and/or dispose of rejected material and replace the same, the County may remove and replace the same and deduct the cost of the work from the contract amount.

If the Contractor chooses to use material other than specified herein, a sample of the material with supporting manufacturer's literature and specifications must be submitted to the County for prior approval.

PART 3 - EXECUTION

3.1 UTILITY SPOTS

All street name signs shall be fabricated and installed in accordance with the plans and related documents. Contractor shall contact Sunshine State One Call of Florida (811 or 800-432-4770) at least 48 hours prior to digging or driving posts.

3.2 SIGN INSTALLATION

- A. Signs shall be placed at the locations illustrated and/or specified in the plans or related documents. The soil around the post shall be solidly tamped so that the sign will stand vertically.
- B. If a sign cannot be placed where indicated due to a conflict, the Contractor shall immediately notify the County for an alternate location.
- C. The date when each sign is installed shall be marked in permanent ink on the rear side of each sign.

PART 4 - MEASUREMENT/PAYMENT

4.1 METHOD OF MEASUREMENT

The quantity to be paid for will be plan quantity, unless otherwise provided.

4.2 BASIS OF PAYMENT

Price and payment will constitute full compensation for all work specified in this section. Payment for all items relating to traffic control signs will be included in the lump sum Maintenance of Traffic pay item.

END OF SECTION 04000

SECTION 04020 - POST MOUNTED STREET NAME SIGNS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and General Provisions of the Contract, including General and Supplementary Conditions and other Specifications Sections, apply to work of this section.
- B. Unless otherwise specified on the plan sheets or in other sections of this contract, all materials and work shall conform to the applicable requirements in the following document:
 - 1. USDOT, Federal Highway Administration *Manual on Uniform Traffic Control Devices for Streets and Highways, Latest Edition.*
 - 2. USDOT, Federal Highway Administration *Standard Alphabets for Highway Signs and Pavement Markings, Latest Edition.*
 - 3. Florida Department of Transportation, *Standard Specifications for Road and Bridge Construction, Section 700, Latest Edition.*
 - 4. FDOT *Design Standards for design, Construction, Maintenance, and utility operations on the State Highway System, Latest Edition.*
 - 5. Escambia County *Standard Details for Street Name Signs, Latest Edition.*

1.2 DESCRIPTION OF WORK

The work under this section includes the fabrication and installation of post mounted street name signs as shown or noted on plans. The Contractor shall furnish all labor, materials, tools, supplies, equipment, and machinery necessary to fully complete the work shown in the work order and in these specifications.

PART 2 - PRODUCTS

2.1 MATERIALS

All materials shall be new and of good quality unless otherwise specified. The Contractor, at his own expense, shall, if requested by the County, furnish samples of material and/or shall certify that the material meets all FDOT requirements. All material or work that has been rejected shall be remedied by the Contractor at his own expense and without delay. If the Contractor fails to promptly remove and/or dispose of rejected material and replace the same, the County may remove and replace the same and deduct the cost of the work from the contract amount.

If the Contractor chooses to use material other than specified herein, a sample of the material with supporting manufacturer's literature and specifications must be submitted to the County Contract Administrator for prior approval.

Sign-blades reflective sheeting and posts shall conform to the details for street name signs.

PART 3 - EXECUTION

3.1 UTILITY SPOTS

All street name signs shall be fabricated and installed in accordance with the plans and related documents. Contractor shall contact Sunshine State One Call of Florida (811 or 800-432-4770) at least 48 hours prior to digging or driving posts.

3.2 SIGN LAYOUT AND LEGEND

Letter shape and width of stroke shall comply with FHWA & MUTCD standards. For street name signs, lettering, border and blade dimensions shall be consistent with the County's standard detail for street name signs.

3.3 SIGN INSTALLATION

- A. Signs shall be placed at the typical locations shown in the plans. The soil around the post shall be solidly tamped so that the sign will stand vertically.
- B. If a sign cannot be placed where indicated due to a conflict, the Contractor shall immediately notify the County for an alternate location.
- C. The Contractor shall submit a *Fabricate, Install, and Removal Daily Report Sheet* (Exhibit D) of each sign installation placed for inspection by the County. Contractor shall repair or replace signs deemed unacceptable by the County, at no expense to the County.

3.4 REMOVAL OF SIGNS AND MARKERS

- A. Existing metal street name signs and painted concrete street name markers specified for removal shall be removed from the site, delivered, and unloaded, as directed by the County.
- B. Holes created by the removal of the signs and markers shall be filled with clean soil, which shall be firmly hand tamped to match the level of the surrounding ground.

PART 4 – MEASUREMENT/PAYMENT

4.1 METHOD OF MEASUREMENT

The quantities to be paid for will be:

1. The number and type of street name sign assemblies plus the number and type of auxiliary signs of each designated class complete.
2. The number of existing metal street name signs and concrete markers removed, relocated, modified, and placed on specified supports, of each designated class of assembly complete.
3. The number of each existing sign panel removed, complete.

4.2 BASIS OF PAYMENT

Price and payment will be full compensation for furnishing and installation of all materials necessary to complete the signs in accordance with the details shown in the plans; including sign panels complete with sheeting, painting, and message; sign posts and supports, footings, excavation, etc.; and all other work specified in this Section, including all incidentals necessary for the complete item.

END OF SECTION 04020

SECTION 04030 – SPAN MOUNTED STREET NAME SIGNS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and General Provisions of the Contract, including General and Supplementary Conditions and other Specifications Sections, apply to work of this section.
- B. Unless otherwise specified on the plan sheets or in other sections of this contract, all materials and work shall conform to the applicable requirements in the following document.
 - 1. USDOT, Federal Highway Administration *Manual on Uniform Traffic Control Devices for Streets and Highways, Latest Edition.*
 - 2. USDOT, Federal Highway Administration *Standard Alphabets for Highway Signs and Pavement Markings, Latest Edition.*
 - 3. Florida Department of Transportation, *Standard Specifications for Road and Bridge Construction, Section 700, Latest Edition.*
 - 4. FDOT *Design Standards for Design, Construction, Maintenance, and Utility Operations on the State Highway System, Latest Edition.*

1.2 DESCRIPTION OF WORK

The work under this section includes the fabrication of span mounted signs. The Contractor shall furnish all labor, materials, tools, supplies, equipment, and machinery necessary to fully complete the work shown in the work order and in these specifications.

PART 2 – PRODUCTS

2.1 MATERIALS

All materials shall be new and of good quality unless otherwise specified. The Contractor, at his own expense and if requested by the County Contract, shall furnish samples of material and/or shall certify that the material meets all FDOT requirements except as defined herein. All material or work that has been rejected shall be remedied by the Contractor at his own expense and without delay. If the Contractor fails to promptly remove and/or dispose of rejected material, the County may remove and replace the same and deduct the cost of the work from the contract amount.

If the Contractor chooses to use material other than specified herein, a sample of the material with supporting manufacturer's literature and specifications must be submitted to the County for prior approval.

2.2 SIGN BLADES

1. 0.125 gauge, 5052-H38 domestic aluminum alloy, 18" in height by various lengths.
2. 0.50' radius rounded corners free of sharp edges.
3. Color and corrosion resistance per Alodine 1200 F treatment or approved equivalent.

2.3 SIGN FACING

The sign facing and legend may be fabricated by any of the following methods and materials:

- A. Green retro-reflectivity ink silk-screened onto white Diamond grade material.
- B. Green electronic cuttable prismatic sheeting film over white Diamond grade material.

PART 3 – EXECUTION

3.1 GENERAL

All street name signs shall be fabricated in accordance with the plans and related documents.

3.2 SIGN LAYOUT & LEGEND

Letter shape and width of stroke shall comply with FHWA & MUTCD standards except as modified below for street names:

A. SIGN LAYOUT

1. Left and right margins shall be at least 2 inches.
2. Border width shall be 1" with 2" radius at all corners.
3. Arrows shall be 4" in height and 8" in length and placed 2" above the lower border.
4. Prefixes and suffixes shall be placed 3" below the upper border.

5. Sign lengths shall be in 6" increments as determined by the legend. Minimum length shall be 48 inches.

B. LETTERS

1. Letters shall be FHWA Series "C", upper and lower case. However, Clearview font should be available upon request.
2. Street Names: Initial letters shall be 12" upper case and subsequent letters shall be 9" lower case. Names shall be centered between the upper and lower borders.
3. Prefixes and suffixes: Initial letters shall be 4" upper case and subsequent letters shall be 3" lower case.
4. Suffixes "nd", "rd", "st", and "th" associated with numbered street names shall be 4" in height and positioned in the upper portion of the primary street name field.

3.3 SIGN INSTALLATION

- A. Signs shall be placed at the typical locations shown in the plans.
- B. If a sign cannot be placed where indicated on the plans due to a conflict, the Contractor shall immediately notify the County for an alternate location.

3.4 REMOVAL OF SIGNS

Existing metal street name signs specified for removal shall be removed from the site, delivered, and unloaded, as directed by the Engineer.

PART 4 – MEASUREMENT/PAYMENT

4.1 METHOD OF MEASUREMENT

The quantities to be paid for will be the number of square- feet of overhead signs span wire mounted, complete.

4.2 BASIS OF PAYMENT

Price and payment will be full compensation for furnishing and installation of all materials necessary to complete the signs in accordance with the details shown in the plans; including sign panels complete with sheeting, painting, and message; and all other work specified in this Section, including all incidentals necessary for the complete item.

END OF SECTION 04030

SECTION 04040 – PAVEMENT MARKINGS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and General Provisions of the Contract, including General and Supplementary Conditions and other Specifications Sections, apply to work of this section.
- B. Unless otherwise specified on the plan sheets or in other sections of this contract, all materials and work shall conform to the applicable requirements in the following documents:
 - 1. Florida Department of Transportation *Roadway and Traffic Design Standards*, Indices 17344 through 17359, *Latest Edition*.
 - 2. Florida Department of Transportation *Standard Specifications for Road and Bridge Construction*, Sections 701, 705, 706, 710, 711, 970, 971, and 993, *Latest Edition*.
 - 3. USDOT, Federal Highway Administration *Manual on Uniform Traffic Control Devices for Streets and Highways*, *Latest Edition*.

1.2 DESCRIPTION OF WORK

The work under this section includes the installation and removal of temporary and permanent pavement markings, textured pavement, reflective markers, galvanized posts, flex posts, delineators, wheel stops, and audible and vibratory pavement markings. The Contractor shall furnish all labor, materials, tools, supplies, equipment, and machinery necessary to fully complete the work shown in the plans and in these specifications. Pavement marking notes on plan sheets shall take precedence over and modify conflicting Technical Specifications.

PART 2 – PRODUCTS

2.1 MATERIALS

All materials shall be new and of good quality unless otherwise specified. The Contractor, at his own expense and if requested by the County, shall furnish samples of material and/or shall certify that the material meets all FDOT requirements. All material or work that has been rejected shall be remedied by the Contractor at his own expense and without delay. If the Contractor fails to promptly remove and/or dispose of rejected material and replace the same, the County may remove and replace the same and deduct the cost of the work from the contract amount.

2.2 TEMPORARY PAVEMENT MARKINGS

Materials for temporary pavement marking shall meet all requirements of FDOT Specs, Section 710, *Latest Edition*.

2.3 PERMANENT PAVEMENT MARKINGS

Materials for permanent pavement markings shall meet all requirements of FDOT Specs, Section 711, *Latest Edition*.

2.4 REFLECTIVE PAVEMENT MARKERS

Materials for reflective pavement markers shall meet all requirements of FDOT Specifications, Sections 706, *Latest Edition*.

2.5 OBJECT MARKERS AND DELINEATORS

Materials for object markers shall meet all requirements of FDOT Specifications, Sections 705, *Latest Edition*.

2.6 AUDIBLE AND VIBRATORY PAVEMENT MARKINGS

Materials for audible and vibratory pavement markings shall meet all requirements of FDOT Specifications, Sections 701, *Latest Edition*.

PART 3 – EXECUTION

3.1 GENERAL

All pavement markings shall be applied in accordance with FDOT requirements.

3.2 TEMPORARY PAVEMENT MARKINGS

Temporary pavement markings shall be installed at the end of each day on new pavement surfaces and shall be maintained until permanent markings are installed.

3.3 PERMANENT PAVEMENT MARKINGS

Permanent pavement markings, including painted stripes, thermoplastic stripes, and reflective pavement markers, shall be installed as shown in the plans. Materials and installation shall conform to applicable standards in the documents referenced in Section 1.1. Installation of permanent markings on all final asphaltic concrete surfaces shall not be accomplished prior to 14 calendar days, nor later than 30 calendar days, after placement of the final surfaces.

3.4 RETROREFLECTIVITY

The Contractor shall, within thirty days of completion, furnish retroreflectivity

readings certifying the materials meet all FDOT requirements as per Part I, 1.1.B.2, Sections 710 and 711.

PART 4 – MEASUREMENT/PAYMENT

4.1 METHOD OF MEASUREMENT

The engineer or project manager may specify a lump sum or measurement of quantities.

The quantities to be paid for under this Section will be the length in feet or gross mile of Skip Traffic Stripes, the length in feet or gross mile of Solid Traffic Stripes, the number of directional arrows and pavement messages, painted, the area in square feet or of Reflective Paint (Island Nose), and the area in square feet or the length in feet to Remove Existing Markings. Measurement will be taken as the distance from the beginning of the first painted stripe to the end of the last painted stripe with proper deductions made for unpainted intervals will not be included in pay quantity.

4.2 BASIS OF PAYMENT

Prices and payment will be full compensation for all work specified in this Section, including, all cleaning and preparing of surfaces, furnishing all materials, application, curing and protection of all items, protection of traffic, furnishing of all tools, machines and equipment, and all incidentals necessary to complete the work. Final payment will be withheld until all deficiencies are corrected.

END OF SECTION - 04040

SECTION 04060 - MAINTENANCE OF TRAFFIC

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Specifications Sections, apply to work of this section.
- B. Unless otherwise specified on the plan sheets or in other sections of the specifications, all materials and work shall conform to the applicable requirements in the following documents:
 - 1. *Florida Department of Transportation Design Standards, Latest Edition.*
 - 2. *Florida Department of Transportation Standard Specifications for Road and Bridge Construction, Section 102, Latest Edition.*
 - 3. USDOT, Federal Highway Administration *Manual on Uniform Traffic Control Devices for Streets and Highways, Latest Edition, Part 6 Temporary Traffic Controls.*
 - 4. *FDOT Minimum Specifications for Traffic control and Devices, Latest Edition.*

1.2 SUMMARY OF WORK

The work under this section includes the maintenance of traffic within the limits of the project for the duration of construction.

PART 2 – PRODUCTS - Not Used.

PART 3 - EXECUTION

3.1 RESPONSIBILITIES OF CONTRACTOR

- A. Control and maintain traffic and provide for the safety of the work area in accordance with Maintenance of Traffic (MOT) Plan included in the contract documents. Contractor shall comply with all aspects of said plan. Conduct operations in a manner that will not interrupt pedestrian and vehicle traffic except as approved by the County Engineer/Traffic Division. Confine the work area to the smallest area practical to allow the maximum use of the street and sidewalk and to reduce any hazard to vehicles and pedestrians to a minimum.
- B. Maintain access to properties that adjoin the work. Contact property owners

and assure that access is coordinated prior to commencing work that may block access.

- C. Furnish all labor, materials, tools, supplies, equipment, and machinery needed to fully comply with the specifications described on the plan sheets and in this Section. At all times, the Contractor shall use workers and traffic control devices necessary to comply with all applicable provisions contained in the reference documents listed in Section 1.1.
- D. The Contractor shall notify the agencies and media listed below in writing, 48 hours in advance, of any work within the road right-of-way that may interfere with vehicle and/or pedestrian traffic.
 - 1. WCOA Radio – Tel: 478-6011; Fax: 478-3971
 - 2. Pensacola News Journal Tel: 435-8500; Fax: 435-8633; Email: news@pensacolanewsjournal.com
 - 3. Escambia County Emergency Management Tel: 471-6315; Fax: 471-6322; Email: bob_boschen@co.escambia.fl.us
 - 4. Escambia County Engineering Tel: 595-3440
 - 5. Escambia County Sheriff Tel: 436-9630; Fax: 436-9128; Email: traffic@escambiaso.com
 - 6. Florida Highway Patrol Tel: 484-5000; Fax: 393-3405; Email: stevepreston@flhsmv.gov
 - 7. Escambia County School District Tel: 469-5591; Fax: 469-5661; Email: transportation@escambia.k12.fl.us and rdoss@escambia.k12.fl.us
 - 8. Escambia County Administration Tel: 595-4900; Fax: 595-4908; Email: Cheryl_Lively@co.escambia.fl.us
 - 9. Escambia County Area Transit Tel: 595-3228; Fax: 595-3222; Email: Ted_Woolcock@co.escambia.fl.us

3.2 PENALTIES AND SUSPENSION OF WORK

The County may verbally direct the Contractor to immediately suspend work if appearance of violation of safety regulations is found. In such an event, Contractor shall immediately stop work and secure any potential hazards from the public until the potential violation is confirmed and/or corrected to satisfaction of the County. Law enforcement officers may be called to assist the County in suspending work if the Contractor is not responsive. Suspension of work for violation of safety

or additional payment.

PART 4 - MEASUREMENT/PAYMENT

4.1 METHOD OF MEASUREMENT

- A. Maintenance of Traffic: Where the plans require the use of trucks and truck mounted impact attenuators, these items will not be paid for separately but shall be included in the cost of Maintenance of Traffic. Only use those attenuators that have been tested by a facility approved by the Engineer and certified as meeting the requirements as specified in NCHRP 350 and that have been properly maintained.
- B. Law Enforcement Services: The quantity to be paid for will be at the Contract unit price per hour for the actual number of officers on the project site. Payment will be made only for those off-duty law enforcement officers specified in the MOT and authorized by the County.
- C. When the plans show more than one detour facility is included in the proposal, payment will be made under Maintenance of Traffic.
- D. Materials for Driveway Maintenance: The quantity to be paid for will be, in square yards, of all materials authorized by the County, acceptably placed and maintained for driveway maintenance. The quantity will be determined by in place measurement.

4.2 BASIS OF PAYMENT

- A. MAINTENANCE OF TRAFFIC (GENERAL WORK): Price and payment will be full compensation for all work and costs specified under this Section except as may be specifically covered for payment under other items.
- B. LAW ENFORCEMENT: Prices and payment will be considered full compensation for the services of the off-duty law enforcement officer, including a marked law enforcement vehicle and all other direct and indirect costs.
- C. SPECIAL DETOURS: Price and payment will be full compensation for providing all detour facilities shown on the plans and all costs incurred in carrying out all requirements of this Section for general maintenance of traffic within the limits of the detour, as shown on the plans.

END OF SECTION 04060

SECTION 04090 – CONSTRUCTION OF TRAFFIC SIGNALS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Unless otherwise specified by the County, or in other sections of this specification, all work shall conform with the applicable requirements in the following documents:
1. Florida Department of Transportation, *Design Standards for Design, Construction, Maintenance and Utility Operations on the State Highway System, Latest Edition.*
 2. FDOT, *Standard Specifications for Road and Bridge Construction, Latest Edition.*
 3. FDOT, *Minimum Specifications for Traffic Control Signals and Devices, Latest Edition.*
 4. United States Department of Transportation (USDOT), Federal Highway Administration, *Manual on Uniform Traffic Control Devices for Streets and Highways, Millennium Edition.*
 5. *National Electric Code*, including latest revisions.

1.2 DESCRIPTION OF WORK

The work under this section involves the installation and modification of traffic signal equipment. Work will be initiated through the issuance of Work Orders that will identify a specific scope and location.

PART 2 - PRODUCTS

2.1 CONTRACTOR-FURNISHED PARTS AND EQUIPMENT

- A. The Contractor shall furnish all transportation, plant, labor, materials, safety signs, supplies, equipment, and other facilities and things necessary to fully complete the work described in this specification.
- B. The requirements and procedure described in Sections 603-2, 603-3, 603-5, 603-6, 603-7, and 603-8 of the FDOT *Standard Specifications for Road and Bridge Construction, Latest Edition* shall apply.

2.2 COUNTY-FURNISHED EQUIPMENT INSTALLED BY CONTRACTOR

Where the plans include installation of County-furnished equipment, the County will turn over such equipment to the Contractor when the construction progress allows or as designated in the plans. The County will bear the costs of correcting any defects in the equipment found by the Contractor. The Contractor will maintain the equipment in proper operational condition after pick-up at no cost to the County until either final acceptance or the equipment is returned to the County.

2.3 REMOVED PARTS AND EQUIPMENT

- A. Equipment that is removed and suitable for reuse shall be delivered to the County as indicated on the construction plans. Such equipment shall be tagged as to the location from which it was removed.
- B. Parts and equipment that are removed and not suitable for reuse, but have salvage value, shall be delivered to the Road Department facility, 601 North Hwy 297A, Cantonment.
- C. Parts and equipment that are removed, not suitable for reuse, and without salvage value, shall be properly disposed by the Contractor, at his expense.

PART 3 - EXECUTION

3.1 QUALIFICATIONS

- A. The Contractor shall have a sufficient amount of prior satisfactory experience in the construction of all traffic signal components including closed-loop systems and video detection systems.
- B. All persons operating and maintaining signal equipment shall be fully trained and qualified. The Contractor shall have all work performed under the direct, on-site, supervision of a person certified at the "Traffic Signal, Level II" level, or higher, by the International Municipal Signal Association (I.M.S.A.). The Contractor shall furnish a copy of the certificate issued by the I.M.S.A. for each technician to the Contract Manager before execution of the contract.

3.2 OPERATIONS

- A. The Contractor shall replace entire sidewalk slabs and driveway slabs, at the Contractor's expense, if they are damaged.
- B. All public land corners and monuments encountered shall be protected by the Contractor. Corners and monuments which conflict with the work and in danger of disturbance shall be properly referenced by a Florida registered surveyor prior to beginning work at the site. The Contractor

shall assume all costs associated with restoration of corners and monuments.

- C. The Contractor shall coordinate and perform service transfers and adjustments with Gulf Power Company.
- D. The Contractor shall remove all surplus materials from the right-of-way within 24 hours.

3.3 REPORTS

- A. The Contractor shall test each new ground rod and ground rod assembly in accordance with FDOT standards. Record test results and certify accuracy on a Traffic Signal Resistance Data Sheet (re: Appendix "A"). Furnish the original certified data sheet to the Contract Manager.
- B. Contractor shall test each new loop assembly in accordance with FDOT standards. Record test results and certify accuracy on a Traffic Signal Resistance Data Sheet (re: Appendix "A"). Furnish the original certified data sheet to the Contract Manager.

3.4 COMPLETION TIME

The Contractor shall complete work according to the schedule specified in the Work Order. Typically, completion time will be specified according to the representative schedule provided below.

- A. Construct school zone flashing beacon assembly (pedestal-mount): complete within 60 days.
- B. Construct new multi-phase traffic signal: Order equipment from vendors within 10 business days from date of Work Order. Complete installation within 30 days upon receipt of all equipment from vendors.
- C. Install signal head and/or cable to create a left-turn phase: complete within 30 days.
- D. Install new controller assembly: Order equipment from vendor within 5 business days from date of Work Order. Complete installation within 30 days upon receipt from vendor.
- E. Install pedestrian detector station with or without signals: complete within 30 days.
- F. Install new loop assembly: complete within 10 business days.

3.5 INSPECTION AND ACCEPTANCE OF WORK

Acceptance procedures described in Sections 611-2, 611-3, and 611-4 of the *FDOT Standard Specifications for Road and Bridge Construction, Latest Edition*, shall apply unless otherwise specified in the Work Order.

PART 4 - MEASUREMENT/PAYMENT

4.1 METHOD OF MEASUREMENT

Measurement and payment of all items will be made in accordance with the current Construction and Response Maintenance Contract on file with the Escambia County Office of Purchasing.

END OF SECTION 04090

Appendix "A"

TRAFFIC SIGNAL RESISTANCE MEASUREMENTS DATA SHEET

Intersection: _____

LOOP ASSEMBLY RESISTANCE

Loop Location/No. Resistance Series Resistance Insulation Resistance

1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

GROUND ROD RESISTANCE

Rod Location

1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

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Signature of Contractor's Representative
 IMSA Level II-Certified Technician

Date

LAP DIVISION 1 SPECIFICATIONS.

(REV 9-1-17) (1-18)

Construction Checklist Specifications
from
Department of Transportation
Standard Specifications for Road and Bridge Construction

The following excerpts from the Standard Specifications and Special Provisions are provided for use in LAP Specifications as needed in accordance with the Local Agency Program Checklist for Construction Contracts (Phase 58) – Federal and State Requirements (525-070-44)

FROM SECTION 1 – DEFINITIONS AND TERMS:

Department Name Escambia County Public Works

Engineer Escambia County Public Works

Contractor’s Engineer of Record.

A Professional Engineer registered in the State of Florida, other than the Engineer of Record or his subcontracted consultant, who undertakes the design and drawing of components of the permanent structure as part of a redesign or Cost Savings Initiative Proposal, or for repair designs and details of the permanent work. The Contractor’s Engineer of Record may also serve as the Specialty Engineer.

The Contractor’s Engineer of Record must be an employee of a pre-qualified firm. The firm shall be pre-qualified in accordance with the Rules of the Department of Transportation, Chapter 14-75. Any Corporation or Partnership offering engineering services must hold a Certificate of Authorization from the Florida Department of Business and Professional Regulation.

As an alternate to being an employee of a pre-qualified firm, the Contractor’s Engineer of Record may be a pre-qualified Specialty Engineer. For items of the permanent work declared by the State Construction Office to be ”major” or “structural”, the work performed by a pre-qualified Specialty Engineer must be checked by another pre-qualified Specialty Engineer. An individual Engineer may become pre-qualified in the work groups listed in the Rules of the Department of Transportation, Chapter 14-75, if the requirements for the Professional Engineer are met for the individual work groups. Pre-qualified Specialty Engineers are listed on the State Construction Website. Pre-qualified Specialty Engineers will not be authorized to perform redesigns or Cost Savings Initiative Proposal designs of items fully detailed in the plans.

Specialty Engineer.

A Professional Engineer registered in the State of Florida, other than the Engineer of Record or his subcontracted consultant, who undertakes the design and drawing preparation of components, systems, or installation methods and equipment for specific temporary portions of the project work or for special items of the permanent works not fully detailed in the plans and required to be furnished by the Contractor. The Specialty Engineer may also provide designs and details, repair designs and details, or perform Engineering Analyses for items of the permanent work declared by the State Construction Office to be “minor” or “non-structural”.

For items of work not specifically covered by the Rules of the Department of Transportation, a Specialty Engineer is qualified if he has the following qualifications:

- (1) Registration as a Professional Engineer in the State of Florida.
- (2) The education and experience necessary to perform the submitted design as required by the Florida Department of Business and Professional Regulation.

FROM SECTION 4 (ALTERATION OF WORK).

4-3 Alteration of Plans or of Character of Work.

4-3.1 General: The Engineer reserves the right to make, at any time prior to or during the progress of the work, such increases or decreases in quantities, whether a significant change or not, and such alterations in the details of construction, whether a substantial change or not, including but not limited to alterations in the grade or alignment of the road or structure or both, as may be found necessary or desirable by the Engineer. Such increases, decreases or alterations shall not constitute a breach of Contract, shall not invalidate the Contract, nor release the Surety from any liability arising out of this Contract or the Surety bond. The Contractor agrees to perform the work, as altered, the same as if it had been a part of the original Contract.

The term "significant change" applies only when:

1. The Engineer determines that the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction, or

2. A major item of work, as defined in 1-3, is increased in excess of 125% or decreased below 75% of the original Contract quantity. The Department will apply any price adjustment for an increase in quantity only to that portion in excess of 125% of the original Contract item quantity in accordance with 4-3.2 below. In the case of a decrease below 75% the Department will only apply a price adjustment for the additional costs that are a direct result of the reduction in quantity.

In (1) above, the determination by the Engineer shall be conclusive. If the determination is challenged by the Contractor in any proceeding, the Contractor must establish by clear and convincing proof that the determination by the Engineer was without any reasonable basis.

4-3.2 Increase, Decrease or Alteration in the Work: The Engineer reserves the right to make alterations in the character of the work which involve a substantial change in the nature of the design or in the type of construction or which materially increases or decreases the cost or time of performance. Such alteration shall not constitute a breach of Contract, shall not invalidate the Contract or release the Surety.

Notwithstanding that the Contractor shall have no formal right whatsoever to any extra compensation or time extension deemed due by the Contractor for any cause unless and until the Contractor follows the procedures set forth in 5-12.2 for preservation, presentation and resolution of the claim, the Contractor may at any time, after having otherwise timely submitted a notice of intent to claim or preliminary time extension request pursuant to 5-12.2 and 8-7.3.2, submit to the Department a request for equitable adjustment of compensation or time or other dispute resolution proposal. The Contractor shall in any request for equitable adjustment of compensation, time, or other dispute resolution proposal certify under oath and in writing, in accordance with the formalities required by Florida law, that the request is made in good faith, that any supportive data submitted is accurate and complete to the Contractor's best knowledge and belief, and that the amount of the request accurately reflects what the Contractor in good faith believes to be the Department's responsibility. Such certification must be made by an officer or director of the Contractor with the authority to bind the Contractor. Any such certified statements of entitlement and costs shall be subject to the audit provisions set forth in 5-12.14. While the submittal or review of a duly certified request for equitable adjustment shall neither create, modify, nor activate any legal rights or obligations as to the Contractor or the Department, the Department will review the content of any duly certified request for equitable

adjustment or other dispute resolution proposal, with any further action or inaction by the Department thereafter being in its sole discretion. Any request for equitable adjustment that fails to fully comply with the certification requirements will not be reviewed by the Department.

The monetary compensation provided for below constitutes full and complete payment for such additional work and the Contractor shall have no right to any additional monetary compensation for any direct or indirect costs or profit for any such additional work beyond that expressly provided below. The Contractor shall be entitled to a time extension only to the extent that the performance of any portion of the additional work is a controlling work item and the performance of such controlling work item actually extends completion of the project due to no fault of the Contractor. All time related costs for actual performance of such additional work are included in the compensation already provided below and any time extension entitlement hereunder will be without additional monetary compensation. The Contractor shall have no right to any monetary compensation or damages whatsoever for any direct or indirect delay to a controlling work item arising out of or in any way related to the circumstances leading up to or resulting from additional work (but not relating to the actual performance of the additional work, which is paid for as otherwise provided herein), except only as provided for under 5-12.6.2.1.

4-3.2.1 Allowable Costs for Extra Work: The Engineer may direct in writing that extra work be done and, at the Engineer’s sole discretion, the Contractor will be paid pursuant to an agreed Supplemental Agreement or in the following manner:

1. Labor and Burden: The Contractor will receive payment for actual costs of direct labor and burden for the additional or unforeseen work. Labor includes foremen actually engaged in the work; and will not include project supervisory personnel nor necessary on-site clerical staff, except when the additional or unforeseen work is a controlling work item and the performance of such controlling work item actually extends completion of the project due to no fault of the Contractor. Compensation for project supervisory personnel, but in no case higher than a Project Manager’s position, shall only be for the pro-rata time such supervisory personnel spent on the contract. In no case shall an officer or director of the Company, nor those persons who own more than 1% of the Company, be considered as project supervisory personnel, direct labor or foremen hereunder.

Payment for burden shall be limited solely to the following:

Table 4-3.2.1	
Item	Rate
FICA	Rate established by Law
FUTA/SUTA	Rate established by Law
Medical Insurance	Actual
Holidays, Sick & Vacation benefits	Actual
Retirement benefits	Actual
Workers Compensation	Rates based on the National Council on Compensation Insurance basic rate tables adjusted by Contractor’s actual experience modification factor in effect at the time of the additional work or unforeseen work.
Per Diem	Actual but not to exceed State of Florida’s rate
Insurance*	Actual

Table 4-3.2.1	
Item	Rate
*Compensation for Insurance is limited solely to General Liability Coverage and does not include any other insurance coverage (such as, but not limited to, Umbrella Coverage, Automobile Insurance, etc.).	

At the Pre-construction conference, certify to the Engineer the following:

- a. A listing of on-site clerical staff, supervisory personnel and their pro-rated time assigned to the contract,
- b. Actual Rate for items listed in Table 4-3.2.1,
- c. Existence of employee benefit plan for Holiday, Sick and Vacation benefits and a Retirement Plan, and,
- d. Payment of Per Diem is a company practice for instances when compensation for Per Diem is requested.

Such certification must be made by an officer or director of the Contractor with authority to bind the Contractor. Timely certification is a condition precedent to any right of the Contractor to recover compensations for such costs, and failure to timely submit the certification will constitute a full, complete, absolute and irrevocable waiver by the Contractor of any right to recover such costs. Any subsequent changes shall be certified to the Engineer as part of the cost proposal or seven calendar days in advance of performing such extra work.

2. Materials and Supplies: For materials accepted by the Engineer and used on the project, the Contractor will receive the actual cost of such materials incorporated into the work, including Contractor paid transportation charges (exclusive of equipment as hereinafter set forth). For supplies reasonably needed for performing the work, the Contractor will receive the actual cost of such supplies.

3. Equipment: For any machinery or special equipment (other than small tools), including fuel and lubricant, the Contractor will receive 100% of the "Rental Rate Blue Book" for the actual time that such equipment is in operation on the work, and 50% of the "Rental Rate Blue Book" for the time the equipment is directed to standby and remain on the project site, to be calculated as indicated below. The equipment rates will be based on the latest edition (as of the date the work to be performed begins) of the "Rental Rate Blue Book for Construction Equipment" or the "Rental Rate Blue Book for Older Construction Equipment," whichever is applicable, as published by Machinery Information Division of PRIMEDIA Information, Inc. (version current at the time of bid), using all instructions and adjustments contained therein and as modified below. On all projects, the Engineer will adjust the rates using regional adjustments and Rate Adjustment Tables according to the instructions in the Blue Book.

Allowable Equipment Rates will be established as set out below:

- a. Allowable Hourly Equipment Rate = $\frac{\text{Monthly Rate}}{176} \times \text{Adjustment Factors} \times 100\%$.
- b. Allowable Hourly Operating Cost = $\text{Hourly Operating Cost} \times 100\%$.
- c. Allowable Rate Per Hour = $\text{Allowable Hourly Equipment Rate} + \text{Allowable Hourly Operating Cost}$.
- d. Standby Rate = $\text{Allowable Hourly Equipment Rate} \times 50\%$.

The Monthly Rate is The Basic Machine Rate Plus Any Attachments. Standby rates will apply when equipment is not in operation and is directed by the Engineer to standby at the project site when needed again to complete work and the cost of moving the equipment will exceed the accumulated standby cost. Standby rates will not apply on any day the equipment operates for eight or more hours. Standby payment will be limited to only that number of hours which, when added to the operating time for that day equals eight hours. Standby payment will not be made on days that are not normally considered work days on the project.

The Department will allow for the cost of transporting the equipment to and from the location at which it will be used. If the equipment requires assembly or disassembly for transport, the Department will pay for the time to perform this work at the rate for standby equipment.

Equipment may include vehicles utilized only by Labor, as defined above.

4. Indirect Costs, Expenses, and Profit: Compensation for all indirect costs, expenses, and profit of the Contractor, including but not limited to overhead of any kind, whether jobsite, field office, division office, regional office, home office, or otherwise, is expressly limited to the greater of either (a) or (b) below:

a. Solely a mark-up of 17.5% on the payments in (1) through (3), above.

1. Bond: The Contractor will receive compensation for any premium for acquiring a bond for such additional or unforeseen work at the original Contract bond rate paid by the Contractor. No compensation for bond premium will be allowed for additional or unforeseen work paid by the Department via initial contingency pay item.

2. The Contractor will be allowed a markup of 10% on the first \$50,000 and a markup of 5% on any amount over \$50,000 on any subcontract directly related to the additional or unforeseen work. Any such subcontractor mark-up will be allowed only by the prime Contractor and a first tier subcontractor, and the Contractor must elect the markup for any eligible first tier subcontractor to do so.

b. Solely the formula set forth below and only as applied solely as to such number of calendar days of entitlement that are in excess of ten cumulative calendar days as defined below.

$$D = \frac{A \times C}{B}$$

Where A = Original Contract Amount

B = Original Contract Time

C = 8%

D = Average Overhead Per Day

Cumulative Calendar Days is defined as the combined total number of calendar days granted as time extensions due to either extra work, excluding overruns to existing contract items, that extend the duration of the project or delay of a controlling work item caused solely by the Department, or the combined total number of calendar days for which

a claim of entitlement to a time extension due to delay of a controlling work item caused solely by the Department is otherwise ultimately determined to be in favor of the Contractor.

No compensation, whatsoever, will be paid to the Contractor for any jobsite overhead and other indirect impacts when the total number of calendar days granted for time extension due to delay of a controlling work item caused solely by the Department is, or the total number of calendar days for which entitlement to a time extension due to delay of a controlling work item caused solely by the Department is otherwise ultimately determined in favor of the Contractor to be, equal to or less than ten calendar days and the Contractor also fully assumes all monetary risk of any and all partial or single calendar day delay periods, due to delay of a controlling work item caused solely by the Department, that when combined together are equal to or less than ten calendar days and regardless of whether monetary compensation is otherwise provided for hereunder for one or more calendar days of time extension entitlement for each calendar day exceeding ten calendar days. All calculations under this provision shall exclude weather days, Holidays, and Special Events.

Further, for (a) and (b) above, in the event there are concurrent delays to one or more controlling work items, one or more being caused by the Department and one or more being caused by the Contractor, the Contractor shall be entitled to a time extension for each day that a controlling work item is delayed by the Department but shall have no right to nor receive any monetary compensation for any indirect costs for any days of concurrent delay.

4-3.2.2 Subcontracted Work: Compensation for the additional or unforeseen work performed by a subcontractor shall be limited solely to that provided for in 4-3.2.1 (1), (2), (3) and (4)(a). In addition, the Contractor compensation is expressly limited to the greater of the total provided in either 4-3.2.1(4)(a) or (4)(b), except that the Average Overhead Per-Day calculation is as follows:

$$Ds = \frac{As \times C}{B}$$

Where As = Original Contract Amount minus Original Subcontract amounts(s)*

B = Original Contract Time

C = 8%

Ds = Average Overhead Per-Day

* deduct Original Subcontract Amount(s) of subcontractor(s) performing the work

The subcontractor may receive compensation for any premium for acquiring a bond for the additional or unforeseen work; provided, however, that such payment for additional subcontractor bond will only be paid upon presentment to the Department of clear and convincing proof that the subcontractor has actually submitted and paid for separate bond premiums for such additional or unforeseen work in such amount and that the subcontractor was required by the Contractor to acquire a bond.

The Contractor shall require the subcontractor to submit a certification, in accordance with 4-3.2.1 (1), as part of the cost proposal and submit such to the Engineer. Such certification must be made by an officer or director of the subcontractor with authority to bind

the subcontractor. Timely certification is a condition precedent to any right of the Contractor to recover compensation for such subcontractor costs, and failure to timely submit the certification will constitute a full, complete, absolute and irrevocable waiver by the Contractor of any right to recover such subcontractor costs.

4-3.3 No Waiver of Contract: Changes made by the Engineer will not be considered to waive any of the provisions of the Contract, nor may the Contractor make any claim for loss of anticipated profits because of the changes, or by reason of any variation between the approximate quantities and the quantities of work actually performed. All work shall be performed as directed by the Engineer and in accordance with the Contract Documents.

4-3.4 Conditions Requiring a Supplemental Agreement or Unilateral Payment: A Supplemental Agreement or Unilateral Payment will be used to clarify the Plans and Specifications of the Contract; to provide for unforeseen work, grade changes, or alterations in the Plans which could not reasonably have been contemplated or foreseen in the original Plans and Specifications; to change the limits of construction to meet field conditions; to provide a safe and functional connection to an existing pavement; to settle documented Contract claims; to make the project functionally operational in accordance with the intent of the original Contract and subsequent amendments thereto.

A Supplemental Agreement or Unilateral Payment may be used to expand the physical limits of the project only to the extent necessary to make the project functionally operational in accordance with the intent of the original Contract. The cost of any such agreement extending the physical limits of the project shall not exceed \$100,000 or 10% of the original Contract price, whichever is greater.

Perform no work to be covered by a Supplemental Agreement or Unilateral Payment before written authorization is received from the Engineer. The Engineer's written authorization will set forth sufficient work information to allow the work to begin. The work activities, terms and conditions will be reduced to written Supplemental Agreement or Unilateral Payment form promptly thereafter. No payment will be made on a Supplemental Agreement or Unilateral Payment prior to the Department's approval of the document.

4-3.5 Extra Work: Extra work authorized in writing by the Engineer will be paid in accordance with the formula in 4-3.2. Such payment will be the full extent of all monetary compensation entitlement due to the Contractor for such extra work. Any entitlement to a time extension due to extra work will be limited solely to that provided for in 4-3.2 for additional work.

4-3.6 Connections to Existing Pavement, Drives and Walks: Generally adhere to the limits of construction at the beginning and end of the project as detailed in the Plans. However, if the Engineer determines that it is necessary to extend the construction in order to make suitable connections to existing pavement, the Engineer will authorize such a change in writing.

For necessary connections to existing walks and drives that are not indicated in the Plans, the Engineer will submit direction regarding the proper connections in accordance with the Design Standards.

4-3.7 Differing Site Conditions: During the progress of the work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the Contract, or if unknown physical conditions of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the Contract are encountered at the site, the party discovering such conditions shall promptly notify

the other party in writing of the specific differing conditions before the Contractor disturbs the conditions or performs the affected work.

Upon receipt of written notification of differing site conditions from the Contractor, the Engineer will investigate the conditions, and if it is determined that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any work under the Contract, an adjustment will be made, excluding loss of anticipated profits, and the Contract will be modified in writing accordingly. The Engineer will notify the Contractor whether or not an adjustment of the Contract is warranted.

The Engineer will not allow a Contract adjustment for a differing site condition unless the Contractor has submitted the required written notice.

The Engineer will not allow a Contract adjustment under this clause for any effects caused to any other Department or non-Department projects on which the Contractor may be working.

4-3.8 Changes Affecting Utilities: The Contractor shall be responsible for identifying and assessing any potential impacts to a utility that may be caused by the changes proposed by the Contractor, and the Contractor shall at the time of making the request for a change notify the Department in writing of any such potential impacts to utilities.

Department approval of a Contractor proposed change does not relieve the Contractor of sole responsibility for all utility impacts, costs, delays or damages, whether direct or indirect, resulting from Contractor initiated changes in the design or construction activities from those in the original Contract Specifications, Design Plans (including Traffic Control Plans) or other Contract Documents and which effect a change in utility work different from that shown in the Utility Plans, joint project agreements or utility relocation schedules.

4-3.9 Cost Savings Initiative Proposal:

4-3.9.1 Intent and Objective:

1. This Subarticle applies to any cost reduction proposal (hereinafter referred to as a Proposal) that the Contractor initiates and develops for the purpose of refining the Contract to increase cost effectiveness or significantly improve the quality of the end result. A mandatory Cost Savings Initiative Workshop will be held prior to Contract Time beginning for the Contractor and Department to discuss potential Proposals. This Subarticle does not, however, apply to any such proposal unless the Contractor identifies it at the time of its submission to the Department as a proposal submitted pursuant to this Subarticle.

2. The Department will consider Proposals that would result in net savings to the Department by providing a decrease in the cost of the Contract. Proposals must result in savings without impairing essential functions and characteristics such as safety, service, life, reliability, economy of operation, ease of maintenance, aesthetics and necessary standard design features. However, nothing herein prohibits the Contractor from submitting Proposals when the required functions and characteristics can be combined, reduced or eliminated because they are nonessential or excessive. The Department will not recognize the Contractor's correction of plan errors that result in a cost reduction, as a Proposal.

3. The Department reserves the right to reject at its discretion any Proposal submitted that proposes a change in the design of the pavement system or that would require additional right-of-way. Pending the Department's execution of a formal supplemental agreement implementing an approved Proposal, the Contractor shall remain obligated to perform the work in accordance with the terms of the existing Contract. The Department may grant time extensions to allow for the time required to develop and review a Proposal.

4. For potential Proposals not discussed at the Cost Savings Initiative Workshop, a mandatory concept meeting will be held for the Contractor and Department to discuss the potential Proposal prior to development of the Proposal.

4-3.9.2 Subcontractors: The Department encourages the Contractor to include the provisions of this Subarticle in Contracts with subcontractors and to encourage submission of Proposals from subcontractors. However, it is not mandatory to submit Proposals to the Department or to accept or transmit subcontractor proposed Proposals to the Department.

4-3.9.3 Data Requirements: As a minimum, submit the following information with each Proposal:

1. a description of the difference between the existing Contract requirement, including any time extension request, and the proposed change, and the comparative advantages and disadvantages.

2. separate detailed cost estimates for both the existing Contract requirement and the proposed change. Break down the cost estimates by pay item numbers indicating quantity increases or decreases and deleted pay items. Identify additional proposed work not covered by pay items within the Contract, by using pay item numbers in the Basis of Estimates Manual. In preparing the estimates, include overhead, profit, and bond within pay items in the Contract. Separate pay item(s) for the cost of overhead, profit, and bond will not be allowed.

3. an itemization of the changes, deletions or additions to plan details, plan sheets, design standards and Specifications that are required to implement the Proposal if the Department adopts it. Submit preliminary plan drawings sufficient to describe the proposed changes.

4. engineering or other analysis in sufficient detail to identify and describe specific features of the Contract that must be changed if the Department accepts the Proposal with a proposal as to how these changes can be accomplished and an assessment of their effect on other project elements. The Department may require that engineering analyses be performed by a prequalified consultant in the applicable class of work. Support all design changes that result from the Proposal with drawings and computations signed and sealed by the Contractor's Engineer of Record. Written documentation or drawings will be submitted clearly delineating the responsibility of the Contractor's Engineer of Record.

5. the date by which the Department must approve the Proposal to obtain the total estimated cost reduction during the remainder of the Contract, noting any effect on the Contract completion time or delivery schedule.

6. a revised project schedule that would be followed upon approval of the Proposal. This schedule would include submittal dates and review time for the Department and Peer reviews.

4-3.9.4 Processing Procedures: Submit Proposals to the Engineer or his duly authorized representative. The Department will process Proposals expeditiously; however, the Department is not liable for any delay in acting upon a Proposal submitted pursuant to this Subarticle. The Contractor may withdraw, in whole or in part, a Proposal not accepted by the Department within the period specified in the Proposal. The Department is not liable for any Proposal development cost in the case where the Department rejects or the Contractor withdraws a Proposal.

The Engineer is the sole judge of the acceptability of a Proposal and of the estimated net savings in construction costs from the adoption of all or any part of such proposal.

In determining the estimated net savings, the Department reserves the right to disregard the Contract bid prices if, in the judgment of the Engineer, such prices do not represent a fair measure of the value of work to be performed or to be deleted.

Prior to approval, the Engineer may modify a Proposal, with the concurrence of the Contractor, to make it acceptable. If any modification increases or decreases the net savings resulting from the Proposal, the Department will determine the Contractor's fair share upon the basis of the Proposal as modified and upon the final quantities. The Department will compute the net savings by subtracting the revised total cost of all bid items affected by the Proposal from the total cost of the same bid items as represented in the original Contract.

Prior to approval of the Proposal that initiates the supplemental agreement, submit acceptable Contract-quality plan sheets revised to show all details consistent with the Proposal design.

4-3.9.5 Computations for Change in Contract Cost of Performance: If the Proposal is adopted, the Contractor's share of the net savings as defined hereinafter represents full compensation to the Contractor for the Proposal.

The Department will not include its costs to process and implement a Proposal in the estimate. However, the Department reserves the right, where it deems such action appropriate, to require the Contractor to pay the Department's cost of investigating and implementing a Proposal as a condition of considering such proposal. When the Department imposes such a condition, the Contractor shall accept this condition in writing, authorizing the Department to deduct amounts payable to the Department from any monies due or that may become due to the Contractor under the Contract.

4-3.9.6 Conditions of Acceptance for Major Design Modifications of Category 2 Bridges: A Proposal that proposes major design modifications of a category 2 bridge, as determined by the Engineer, shall have the following conditions of acceptance:

All bridge Plans relating to the Proposal shall undergo an independent peer review conducted by a single independent engineering firm referred to for the purposes of this article as the Independent Review Engineer who is not the originator of the Proposal design, and is pre-qualified by the Department in accordance with Rule 14-75, Florida Administrative Code. The independent peer review is intended to be a comprehensive, thorough verification of the original work, giving assurance that the design is in compliance with all Department requirements. The Independent Review Engineer's comments, along with the resolution of each comment, shall be submitted to the Department. The Independent Review Engineer shall sign and seal the submittal cover letter stating that all comments have been adequately addressed and the design is in compliance with the Department requirements. If there are any unresolved comments the Independent Review Engineer shall specifically list all unresolved issues in the signed and sealed cover letter.

The Contractor shall designate a primary engineer responsible for the Proposal design and as such will be designated as the Contractor's Engineer of Record for the Proposal design. The Department reserves the right to require the Contractor's Engineer of Record to assume responsibility for design of the entire structure.

New designs and independent peer reviews shall be in compliance with all applicable Department, FHWA and AASHTO criteria requirements including bridge load ratings.

4-3.9.7 Sharing Arrangements: If the Department approves a Proposal, the Contractor shall receive 50% of the net reduction in the cost of performance of the Contract as

determined by the final negotiated agreement between the Contractor and the Department. The net reduction will be determined by subtracting from the savings of the construction costs the reasonable documented engineering costs incurred by the contractor to design and develop a Proposal. The reasonable documented engineering costs will be paid by the Department. Engineering costs will be based on the consultant's certified invoice and may include the costs of the Independent Review Engineer in 4-3.9.6. The total engineering costs to be subtracted from the savings to determine the net reduction will be limited to 25% of the construction savings and shall not include any markup by the Contractor or the costs for engineering services performed by the Contractor.

4-3.9.8 Notice of Intellectual Property Interests and Department's Future Rights to a Proposal:

4-3.9.8.1 Notice of Intellectual Property Interests: The Contractor's Proposal submittal shall identify with specificity any and all forms of intellectual property rights that either the Contractor or any officer, shareholder, employee, consultant, or affiliate, of the Contractor, or any other entity who contributed in any measure to the substance of the Contractor's Proposal development, have or may have that are in whole or in part implicated in the Proposal. Such required intellectual property rights notice includes, but is not limited to, disclosure of any issued patents, copyrights, or licenses; pending patent, copyright or license applications; and any intellectual property rights that though not yet issued, applied for or intended to be pursued, could nevertheless otherwise be subsequently the subject of patent, copyright or license protection by the Contractor or others in the future. This notice requirement does not extend to intellectual property rights as to stand-alone or integral components of the Proposal that are already on the Department's Approved Product List (APL) or Design Standard Indexes, or are otherwise generally known in the industry as being subject to patent or copyright protection.

4-3.9.8.2 Department's Future Rights to a Proposal: Notwithstanding 7-3 nor any other provision of the Standard Specifications, upon acceptance of a Proposal, the Contractor hereby grants to the Department and its contractors (such grant being expressly limited solely to any and all existing or future Department construction projects and any other Department projects that are partially or wholly funded by or for the Department) a royalty-free and perpetual license under all forms of intellectual property rights to manufacture, to use, to design, to construct, to disclose, to reproduce, to prepare and fully utilize derivative works, to distribute, display and publish, in whole or in part, and to permit others to do any of the above, and to otherwise in any manner and for any purpose whatsoever do anything reasonably necessary to fully utilize any and all aspects of such Proposal on any and all existing and future construction projects and any other Department projects.

Contractor shall hold harmless, indemnify and defend the Department and its contractors and others in privity therewith from and against any and all claims, liabilities, other obligations or losses, and reasonable expenses related thereto (including reasonable attorneys' fees), which are incurred or are suffered by any breach of the foregoing grants, and regardless of whether such intellectual property rights were or were not disclosed by the Contractor pursuant to 4-3.9.8.1, unless the Department has by express written exception in the Proposal acceptance process specifically released the Contractor from such obligation to hold harmless, indemnify and defend as to one or more disclosed intellectual property rights.

FROM SECTION 5 – CONTROL OF THE WORK (CLAIMS).

5-12 Claims by Contractor.

5-12.1 General: When the Contractor deems that extra compensation or a time extension is due beyond that agreed to by the Engineer, whether due to delay, additional work, altered work, differing site conditions, breach of Contract, or for any other cause, the Contractor shall follow the procedures set forth herein for preservation, presentation and resolution of the claim.

Submission of timely notice of intent to file a claim, preliminary time extension request, time extension request, and the certified written claim, together with full and complete claim documentation, are each a condition precedent to the Contractor bringing any circuit court, arbitration, or other formal claims resolution proceeding against the Department for the items and for the sums or time set forth in the Contractor's certified written claim. The failure to provide such notice of intent, preliminary time extension request, time extension request, certified written claim and full and complete claim documentation within the time required shall constitute a full, complete, absolute and irrevocable waiver by the Contractor of any right to additional compensation or a time extension for such claim.

5-12.2 Notice of Claim:

5-12.2.1 Claims For Extra Work: Where the Contractor deems that additional compensation or a time extension is due for work or materials not expressly provided for in the Contract or which is by written directive expressly ordered by the Engineer pursuant to 4-3, the Contractor shall submit written notification to the Engineer of the intention to make a claim for additional compensation before beginning the work on which the claim is based, and if seeking a time extension, the Contractor shall also submit a preliminary request for time extension pursuant to 8-7.3.2 within ten calendar days after commencement of a delay and a request for Contract Time extension pursuant to 8-7.3.2 within thirty calendar days after the elimination of the delay. If such written notification is not submitted and the Engineer is not afforded the opportunity for keeping strict account of actual labor, material, equipment, and time, the Contractor waives the claim for additional compensation or a time extension. Such notice by the Contractor, and the fact that the Engineer has kept account of the labor, materials and equipment, and time, shall not in any way be construed as establishing the validity of the claim or method for computing any compensation or time extension for such claim. On projects with an original Contract amount of \$3,000,000 or less within 90 calendar days after final acceptance of the project in accordance with 5-11, and on projects with an original Contract amount greater than \$3,000,000 within 180 calendar days after final acceptance of the project in accordance with 5-11, the Contractor shall submit full and complete claim documentation as described in 5-12.3 and duly certified pursuant to 5-12.9. However, for any claim or part of a claim that pertains solely to final estimate quantities disputes the Contractor shall submit full and complete claim documentation as described in 5-12.3 and duly certified pursuant to 5-12.9, as to such final estimate claim dispute issues, within 90 or 180 calendar days, respectively, of the Contractor's receipt of the Department's final estimate.

If the Contractor fails to submit a certificate of claim as described in 5-12.9, the Department will so notify the Contractor in writing. The Contractor shall have ten calendar days from receipt of the notice to resubmit the claim documentation, without change, with a certificate of claim as described in 5-12.9, without regard to whether the resubmission is within the applicable 90 or 180 calendar day deadline for submission of full and complete claim documentation. Failure by the Contractor to comply with the ten calendar day notice shall constitute a waiver of the claim.

5-12.2.2 Claims For Delay: Where the Contractor deems that additional compensation or a time extension is due on account of delay, differing site conditions, breach of Contract, or any other cause other than for work or materials not expressly provided for in the Contract (Extra Work) or which is by written directive of the Engineer expressly ordered by the Engineer pursuant to 4-3, the Contractor shall submit a written notice of intent to the Engineer within ten days after commencement of a delay to a controlling work item expressly notifying the Engineer that the Contractor intends to seek additional compensation, and if seeking a time extension, the Contractor shall also submit a preliminary request for time extension pursuant to 8-7.3.2 within ten calendar days after commencement of a delay to a controlling work item, as to such delay and providing a reasonably complete description as to the cause and nature of the delay and the possible impacts to the Contractor's work by such delay, and a request for Contract Time extension pursuant to 8-7.3.2 within thirty calendar days after the elimination of the delay. On projects with an original Contract amount of \$3,000,000 or less within 90 calendar days after final acceptance of the project in accordance with 5-11, and on projects with an original Contract amount greater than \$3,000,000 within 180 calendar days after final acceptance of the project in accordance with 5-11, the Contractor shall submit full and complete documentation as described in 5-12.3 and duly certified pursuant to 5-12.9.

If the Contractor fails to submit a certificate of claim as described in 5-12.9, the Department will so notify the Contractor in writing. The Contractor shall have ten calendar days from receipt of the notice to resubmit the claim documentation, without change, with a certificate of claim as described in 5-12.9, without regard to whether the resubmission is within the applicable 90 or 180 calendar day deadline for submission of full and complete claim documentation. Failure by the Contractor to comply with the ten calendar day notice shall constitute a waiver of the claim.

There shall be no Contractor entitlement to any monetary compensation or time extension for any delays or delay impacts, whatsoever, that are not to a controlling work item, and then as to any such delay to a controlling work item entitlement to any monetary compensation or time extension shall only be to the extent such is otherwise provided for expressly under 4-3 or 5-12, except that in the instance of delay to a non-controlling item of work the Contractor may be compensated for the direct costs of idle labor or equipment only, at the rates set forth in 4-3.2.1(1) and (3), and then only to the extent the Contractor could not reasonably mitigate such idleness.

5-12.3 Content of Written Claim: As a condition precedent to the Contractor being entitled to additional compensation or a time extension under the Contract, for any claim, the Contractor shall submit a certified written claim to the Department which will include for each individual claim, at a minimum, the following information:

1. A detailed factual statement of the claim providing all necessary dates, locations, and items of work affected and included in each claim;
2. The date or dates on which actions resulting in the claim occurred or conditions resulting in the claim became evident;
3. Identification of all pertinent documents and the substance of any material oral communications relating to such claim and the name of the persons making such material oral communications;
4. Identification of the provisions of the Contract which support the claim and a statement of the reasons why such provisions support the claim, or alternatively, the provisions of the Contract which allegedly have been breached and the actions constituting such breach;

5. A detailed compilation of the amount of additional compensation sought and a breakdown of the amount sought as follows:

- a. documented additional job site labor expenses;
- b. documented additional cost of materials and supplies;
- c. a list of additional equipment costs claimed, including each piece of equipment and the rental rate claimed for each;
- d. any other additional direct costs or damages and the documents in support thereof;
- e. any additional indirect costs or damages and all documentation in support thereof.

6. A detailed compilation of the specific dates and the exact number of calendar days sought for a time extension, the basis for entitlement to time for each day, all documentation of the delay, and a breakout of the number of days claimed for each identified event, circumstance or occurrence.

Further, the Contractor shall be prohibited from amending either the bases of entitlement or the amount of any compensation or time stated for any and all issues claimed in the Contractor's written claim submitted hereunder, and any circuit court, arbitration, or other formal claims resolution proceeding shall be limited solely to the bases of entitlement and the amount of any compensation or time stated for any and all issues claimed in the Contractor's written claim submitted hereunder. This shall not, however, preclude a Contractor from withdrawing or reducing any of the bases of entitlement and the amount of any compensation or time stated for any and all issues claimed in the Contractor's written claim submitted hereunder at any time.

5-12.4 Action on Claim: The Engineer will respond in writing on projects with an original Contract amount of \$3,000,000 or less within 90 calendar days of receipt of a complete claim submitted by a Contractor in compliance with 5-12.3, and on projects with an original Contract amount greater than \$3,000,000 within 120 calendar days of receipt of a complete claim submitted by a Contractor in compliance with 5-12.3. Failure by the Engineer to respond to a claim in writing within 90 or 120 days, respectively, after receipt of a complete claim submitted by the Contractor in compliance with 5-12.3 constitutes a denial of the claim by the Engineer. If the Engineer finds the claim or any part thereof to be valid, such partial or whole claim will be allowed and paid for to the extent deemed valid and any time extension granted, if applicable, as provided in the Contract. No circuit court or arbitration proceedings on any claim, or a part thereof, may be filed until after final acceptance per 5-11 of all Contract work by the Department or denial hereunder, whichever occurs last.

5-12.5 Pre-Settlement and Pre-Judgment Interest: Entitlement to any pre-settlement or pre-judgment interest on any claim amount determined to be valid subsequent to the Department's receipt of a certified written claim in full compliance with 5-12.3, whether determined by a settlement or a final ruling in formal proceedings, the Department shall pay to the Contractor simple interest calculated at the Prime Rate (as reported by the Wall Street Journal as the base rate on corporate loans posted by at least 75% of the nations 30 largest banks) as of the 60th calendar day following the Department's receipt of a certified written claim in full compliance with 5-12.3, such interest to accrue beginning 60 calendar days following the Department's receipt of a certified written claim in full compliance with 5-12.3 and ending on the date of final settlement or formal ruling.

5-12.6 Compensation for Extra Work or Delay:

5-12.6.1 Compensation for Extra Work: Notwithstanding anything to the contrary contained in the Contract Documents, the Contractor shall not be entitled to any compensation beyond that provided for in 4-3.2.

5-12.6.2 Compensation for Delay: Notwithstanding anything to the contrary contained in the Contract Documents, the additional compensation set forth in 5-12.6.2.1 shall be the Contractor's sole monetary remedy for any delay other than to perform extra work caused by the Department unless the delay shall have been caused by acts constituting willful or intentional interference by the Department with the Contractor's performance of the work and then only where such acts continue after Contractor's written notice to the Department of such interference. The parties anticipate that delays may be caused by or arise from any number of events during the term of the Contract, including, but not limited to, work performed, work deleted, supplemental agreements, work orders, disruptions, differing site conditions, utility conflicts, design changes or defects, time extensions, extra work, right-of-way issues, permitting issues, actions of suppliers, subcontractors or other contractors, actions by third parties, suspensions of work by the Engineer pursuant to 8-6.1, shop drawing approval process delays, expansion of the physical limits of the project to make it functional, weather, weekends, holidays, special events, suspension of Contract Time, or other events, forces or factors sometimes experienced in construction work. Such delays or events and their potential impacts on the performance by the Contractor are specifically contemplated and acknowledged by the parties in entering into this Contract, and shall not be deemed to constitute willful or intentional interference with the Contractor's performance of the work without clear and convincing proof that they were the result of a deliberate act, without reasonable and good-faith basis, and specifically intended to disrupt the Contractor's performance.

5-12.6.2.1 Compensation for Direct Costs, Indirect Costs, Expenses, and Profit thereon, of or from Delay: For any delay claim, the Contractor shall be entitled to monetary compensation for the actual idle labor and equipment, and indirect costs, expenses, and profit thereon, as provided for in 4-3.2.1(4) and solely for costs incurred beyond what reasonable mitigation thereof the Contractor could have undertaken.

5-12.7 Mandatory Claim Records: After submitting to the Engineer a notice of intent to file a claim for extra work or delay, the Contractor must keep daily records of all labor, material and equipment costs incurred for operations affected by the extra work or delay. These daily records must identify each operation affected by the extra work or delay and the specific locations where work is affected by the extra work or delay, as nearly as possible. The Engineer may also keep records of all labor, material and equipment used on the operations affected by the extra work or delay. The Contractor shall, once a notice of intent to claim has been timely filed, and not less than weekly thereafter as long as appropriate, submit the Contractor's daily records to the Engineer and be likewise entitled to receive the Department's daily records. The daily records to be submitted hereunder shall be done at no cost to the recipient.

5-12.8 Claims For Acceleration: The Department shall have no liability for any constructive acceleration of the work, nor shall the Contractor have any right to make any claim for constructive acceleration nor include the same as an element of any claim the Contractor may otherwise submit under this Contract. If the Engineer gives express written direction for the Contractor to accelerate its efforts, such written direction will set forth the prices and other pertinent information and will be reduced to a written Contract Document promptly. No payment will be made on a Supplemental Agreement for acceleration prior to the Department's approval of the documents.

5-12.9 Certificate of Claim: When submitting any claim, the Contractor shall certify under oath and in writing, in accordance with the formalities required by Florida law, that the claim is made in good faith, that the supportive data are accurate and complete to the Contractor's best knowledge and belief, and that the amount of the claim accurately reflects what the Contractor in good faith believes to be the Department's liability. Such certification must be made by an officer or director of the Contractor with the authority to bind the Contractor.

5-12.10 Non-Recoverable Items: The parties agree that for any claim the Department will not have liability for the following items of damages or expense:

1. Loss of profit, incentives or bonuses;
2. Any claim for other than extra work or delay;
3. Consequential damages, including, but not limited to, loss of bonding capacity, loss of bidding opportunities, loss of credit standing, cost of financing, interest paid, loss of other work or insolvency;
4. Acceleration costs and expenses, except where the Department has expressly and specifically directed the Contractor in writing "to accelerate at the Department's expense"; nor
5. Attorney fees, claims preparation expenses and costs of litigation.

5-12.11 Exclusive Remedies: Notwithstanding any other provision of this Contract, the parties agree that the Department shall have no liability to the Contractor for expenses, costs, or items of damages other than those which are specifically identified as payable under 5-12. In the event any legal action for additional compensation, whether on account of delay, acceleration, breach of contract, or otherwise, the Contractor agrees that the Department's liability will be limited to those items which are specifically identified as payable in 5-12.

5-12.12 Settlement Discussions: The content of any discussions or meetings held between the Department and the Contractor to settle or resolve any claims submitted by the Contractor against the Department shall be inadmissible in any legal, equitable, arbitration or administrative proceedings brought by the Contractor against the Department for payment of such claim. Dispute Resolution Board, State Arbitration Board and Claim Review Committee proceedings are not settlement discussions, for purposes of this provision.

5-12.13 Personal Liability of Public Officials: In carrying out any of the provisions of the Contract or in exercising any power or authority granted to the Secretary of Transportation, Engineer or any of their respective employees or agents, there shall be no liability on behalf of any employee, officer or official of the Department for which such individual is responsible, either personally or as officials or representatives of the Department. It is understood that in all such matters such individuals act solely as agents and representatives of the Department.

5-12.14 Auditing of Claims: All claims filed against the Department shall be subject to audit at any time following the filing of the claim, whether or not such claim is part of a suit pending in the Courts of this State. The audit may be performed, at the Department's sole discretion, by employees of the Department or by any independent auditor appointed by the Department, or both. The audit may begin after ten days written notice to the Contractor, subcontractor, or supplier. The Contractor, subcontractor, or supplier shall make a good faith effort to cooperate with the auditors. As a condition precedent to recovery on any claim, the Contractor, subcontractor, or supplier must retain sufficient records, and provide full and reasonable access to such records, to allow the Department's auditors to verify the claim and failure to retain sufficient records of the claim or failure to provide full and reasonable access to such records shall constitute a waiver of that portion of such claim that cannot be verified and

shall bar recovery thereunder. Further, and in addition to such audit access, upon the Contractor submitting a written claim, the Department shall have the right to request and receive, and the Contractor shall have the affirmative obligation to submit to the Department any and all documents in the possession of the Contractor or its subcontractors, materialmen or suppliers as may be deemed relevant by the Department in its review of the basis, validity or value of the Contractor's claim.

Without limiting the generality of the foregoing, the Contractor shall upon written request of the Department make available to the Department's auditors, or upon the Department's written request, submit at the Department's expense, any or all of the following documents:

1. Daily time sheets and foreman's daily reports and diaries;
2. Insurance, welfare and benefits records;
3. Payroll register;
4. Earnings records;
5. Payroll tax return;
6. Material invoices, purchase orders, and all material and supply acquisition contracts;
7. Material cost distribution worksheet;
8. Equipment records (list of company owned, rented or other equipment used);
9. Vendor rental agreements and subcontractor invoices;
10. Subcontractor payment certificates;
11. Canceled checks for the project, including, payroll and vendors;
12. Job cost report;
13. Job payroll ledger;
14. General ledger, general journal, (if used) and all subsidiary ledgers and journals together with all supporting documentation pertinent to entries made in these ledgers and journals;
15. Cash disbursements journal;
16. Financial statements for all years reflecting the operations on this project;
17. Income tax returns for all years reflecting the operations on this project;
18. All documents which reflect the Contractor's actual profit and overhead during the years this Contract was being performed and for each of the five years prior to the commencement of this Contract;
19. All documents related to the preparation of the Contractor's bid including the final calculations on which the bid was based;
20. All documents which relate to each and every claim together with all documents which support the amount of damages as to each claim;
21. Worksheets used to prepare the claim establishing the cost components for items of the claim including, but not limited to, labor, benefits and insurance, materials, equipment, subcontractors, and all documents that establish which time periods and individuals were involved, and the hours and rates for such individuals.

FROM SECTION 6 – CONTROL OF MATERIALS (CONVICT LABOR AND BUY AMERICA).

6-5 Products and Source of Supply.

6-5.1 Source of Supply–Convict Labor (Federal-Aid Contracts Only): Do not use materials that were produced after July 1, 1991, by convict labor for Federal-aid highway construction projects unless the prison facility has been producing convict-made materials for Federal-aid highway construction projects before July 1, 1987.

Use materials that were produced prior to July 2, 1991, by convicts on Federal-aid highway construction projects free from the restrictions placed on the use of these materials by 23 U.S.C. 114. The Department will limit the use of materials produced by convict labor for use in Federal-aid highway construction projects to:

1. Materials produced by convicts on parole, supervised release, or probation from a prison or,
2. Materials produced in a qualified prison facility.

The amount of such materials produced for Federal-aid highway construction during any 12-month period shall not exceed the amount produced in such facility for use in such construction during the 12-month period ending July 1, 1987.

6-5.2 Source of Supply–Steel: Use steel and iron manufactured in the United States, in accordance with the Buy America provisions of 23 CFR 635.410, as amended. Ensure that all manufacturing processes for this material occur in the United States. As used in this specification, a manufacturing process is any process that modifies the chemical content, physical shape or size, or final finish of a product, beginning with the initial melting and continuing through the final shaping and coating. If a steel or iron product is taken outside the United States for any manufacturing process, it becomes foreign source material. When using steel or iron materials as a component of any manufactured product (e.g., concrete pipe, prestressed beams, corrugated steel pipe, etc.), these same provisions apply. Foreign steel and iron may be used when the total actual cost of such foreign materials does not exceed 0.1% of the total Contract amount or \$2,500, whichever is greater. These requirements are applicable to all steel and iron materials incorporated into the finished work, but are not applicable to steel and iron items that the Contractor uses but does not incorporate into the finished work. Submit a certification from the manufacturer of steel or iron, or any product containing steel or iron, stating that all steel or iron furnished or incorporated into the furnished product was produced and manufactured in the United States or a statement that the product was produced within the United States except for minimal quantities of foreign steel and iron valued at \$ (actual cost). Submit each such certification to the Engineer prior to incorporating the material or product into the project. Prior to the use of foreign steel or iron materials on a project, submit invoices to document the actual cost of such material, and obtain the Engineer’s written approval prior to incorporating the material into the project

FROM SECTION 7 – LEGAL REQUIREMENTS AND RESPONSIBILITIES TO THE PUBLIC (FHWA 1273, WAGE RATES, E-VERIFY, TITLE VI, DBE, AND ON-THE-JOB TRAINING).

Compliance with FHWA 1273: The FHWA-1273 Electronic version, dated May 1, 2012 is posted on the Department's website at the following URL address <http://www.fdot.gov/programmanagement/Implemented/URLinSpecs/Files/FHWA1273.pdf> . Take responsibility to obtain this information and comply with all requirements posted on this website up through five calendar days before the opening of bids.

Comply with the provisions contained in FHWA-1273.

If the Department's website cannot be accessed, contact the Department's Specifications Office Web Coordinator at (850) 414-4101.

7-1.4 Compliance with Federal Endangered Species Act and other Wildlife

Regulations: The Federal Endangered Species Act requires that the Department investigate the potential impact to a threatened or endangered species prior to initiating an activity performed in conjunction with a highway construction project. If the Department's investigation determines that there is a potential impact to a protected, threatened or an endangered species, the Department will conduct an evaluation to determine what measures may be necessary to mitigate such impact. When mitigation measures and/or special conditions are necessary, these measures and conditions will be addressed in the Contract Documents or in permits as identified in 7-2.1.

In addition, in cases where certain protected, threatened or endangered species are found or appear within close proximity to the project boundaries, the Department has established guidelines that will apply when interaction with certain species occurs, absent of any special mitigation measures or permit conditions otherwise identified for the project.

These guidelines are posted at the following URL address:

<http://www.fdot.gov/programmanagement/Implemented/URLinSpecs/files/endangeredwildlifeguidelines.pdf> .

Take responsibility to obtain this information and take all actions and precautions necessary to comply with the conditions of these guidelines during all project activities.

Prior to establishing any off-project activity in conjunction with a project, notify the Engineer of the proposed activity. Covered activities include but are not necessarily limited to borrow pits, concrete or asphalt plant sites, disposal sites, field offices, and material or equipment storage sites. Include in the notification the Financial Project ID, a description of the activity, the location of the site by township, range, section, county, and city, a site location map including the access route, the name of the property owner, and a person to contact to arrange a site inspection. Submit this notification at least 30 days in advance of planned commencement of the off-site activity, to allow for the Department to conduct an investigation without delaying job progress.

Do not perform any off-project activity without obtaining written clearance from the Engineer. In the event the Department's investigation determines a potential impact to a protected, threatened or endangered species and mitigation measures or permits are necessary, coordinate with the appropriate resource agencies for clearance, obtain permits and perform mitigation measures as necessary. Immediately notify the Engineer in writing of the results of this coordination with the appropriate resource agencies. Additional compensation or time will not be allowed for permitting or mitigation, associated with Contractor initiated off-project activities.

7-1.8 Compliance with Section 4(f) of the USDOT Act: Section 4(f) of the USDOT Act prohibits the U. S. Secretary of Transportation from approving a project which requires the use

of publicly owned land of a public park, recreation area or a wildlife and waterfowl refuge, or of any historic site of national, state, or local significance unless there is no prudent or feasible alternative to using that land and the program or project includes all possible planning to minimize the harm to the site resulting from the use.

Before undertaking any off-project activity associated with any federally assisted undertaking, ensure that the proposed site does not represent a public park, recreation area, wildlife or waterfowl refuge, or a historic site (according to the results of the Cultural Resources Survey discussed in 120-6.2). If such a site is proposed, notify the Engineer and provide a description of the proposed off-site activity, the Financial Project ID, the location of the site by township, range, section, a county or city map showing the site location, including the access route and the name of the property. It is the Contractor’s responsibility to submit justification for use of Section 4(f) property that is sufficient for the Florida Department of Transportation and the Federal Highway Administration to make a Section 4(f) determination. Submit this notification sufficiently in advance of planned commencement of the off-site activity to allow a reasonable time for the Engineer to conduct an investigation without delaying job progress. Do not begin any off-project activity without obtaining written clearance from the Engineer.

7-16 Wage Rates for Federal-Aid Projects.

For this Contract, payment of predetermined minimum wages applies.

The U.S. Department of Labor (USDOL) Wage Rates applicable to this Contract are listed in table below, as modified up through ten days prior to the opening of bids.

Wage Rate Decision Number	Associated Work
FL208	HIGHWAY

Obtain the applicable General Decision(s) (Wage Tables) through the Department’s Office of Construction website and ensure that employees receive the minimum compensation applicable. Review the General Decisions for all classifications necessary to complete the project. Request additional classifications through the Engineer’s office when needed.

For guidance on the requirements for the payment of wages and benefits and the submittal of certified payrolls, and for general guidance and examples of multiple wage rates when assigned to a Contract, refer to the Department’s Office of Construction website. Questions regarding wage rates and the applicability of wage tables should be submitted in accordance with 2-4.

Contact the Department’s Prevailing Wage Rate Coordinator at (850) 414-4688 if the Department’s website cannot be accessed or there are questions.

7-24 Disadvantaged Business Enterprise Program.

~~**7-24.1 Disadvantaged Business Enterprise Affirmative Action Plan:** Prior to award of the Contract, have an approved Disadvantaged Business Enterprise (DBE) Affirmative Action Program Plan filed with the Equal Opportunity Office. Update and resubmit the plan every three years. No Contract will be awarded until the Department approves the Plan. The DBE Affirmative Action Program Plan is incorporated into and made a part of the Contract.~~

7-24.2 Required Contract and Subcontract DBE Assurance Language: In accordance with 49 CFR 26.13 (b), the Contract FDOT signs with the Contractor (and each subcontract the prime contractor signs with a subcontractor) must include the following assurance: “The Contractor, sub-recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted Contracts. Failure by the Contractor to carry out these requirements is a material breach of this Contract, which may result in the termination of this Contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to,

1. Withholding monthly progress payments;
2. Assessing sanctions;
3. Liquidated damages; and/or
4. Disqualifying the Contractor from future bidding as non-responsible.”

~~**7-24.3 Plan Requirements:** Include the following in the DBE Affirmative Action Program Plan:~~

~~1. A policy statement, signed by an authorized representative (president, chief executive officer, or chairman of the contractor), expressing a commitment to use DBEs in all aspects of contracting to the maximum extent feasible, outlining the various levels of responsibility, and stating the objectives of the program. Circulate the policy statement throughout the Contractor’s organization.~~

~~2. The designation of a Liaison Officer within the Contractor’s organization, as well as support staff, necessary and proper to administer the program, and a description of the authority, responsibility, and duties of the Liaison Officer and support staff. The Liaison Officer and staff are responsible for developing, managing, and implementing the program on a day-to-day basis for carrying out technical assistance activities for DBEs and for disseminating information on available business opportunities so that DBEs are provided an equitable opportunity to participate in Contracts let by the Department.~~

~~3. Utilization of techniques to facilitate DBE participation in contracting activities which include, but are not limited to:~~

~~a. Soliciting price quotations and arranging a time for the review of Plans, quantities, specifications, and delivery schedules, and for the preparation and presentation of quotations.~~

~~b. Providing assistance to DBEs in overcoming barriers such as the inability to obtain bonding, financing, or technical assistance.~~

~~c. Carrying out information and communication programs or workshops on contracting procedures and specific contracting opportunities in a timely manner, with such programs being bilingual where appropriate.~~

~~d. Encouraging eligible DBEs to apply for certification with the Department.~~

~~e. Contacting Minority Contractor Associations and city and county agencies with programs for disadvantaged individuals for assistance in recruiting and encouraging eligible DBE contractors to apply for certification with the Department.~~

7-24.4 DBE Records and Reports: Submit the following through the Equal Opportunity Compliance System:

1. DBE Commitments - at or before the Pre-Construction Conference.
2. Report monthly, through the Equal Opportunity Compliance System on the

Department's Website, actual payments (including retainage) made to DBEs for work performed with their own workforce and equipment in the area in which they are certified. Report payments made to all DBE and Minority Business Enterprise (MBE) subcontractors and DBE and MBE construction material and major suppliers.

The Equal Opportunity Office will provide instructions on accessing this system. Develop a record keeping system to monitor DBE affirmative action efforts which include the following:

1. the procedures adopted to comply with these Specifications;
 2. the number of subordinated Contracts on Department projects awarded to DBEs;
 3. the dollar value of the Contracts awarded to DBEs;
 4. the percentage of the dollar value of all subordinated Contracts awarded to DBEs as a percentage of the total Contract amount;
 5. a description of the general categories of Contracts awarded to DBEs;
- and
6. the specific efforts employed to identify and award Contracts to DBEs.

Upon request, provide the records to the Department for review.

Maintain all such records for a period of five years following acceptance of final payment and have them available for inspection by the Department and the Federal Highway Administration.

7-24.5 Counting DBE Participation and Commercially Useful Functions:

49 CFR Part 26.55 specifies when DBE credit shall be awarded for work performed by a DBE. DBE credit can only be awarded for work actually performed by DBEs themselves for the types of work for which they are certified. When reporting DBE Commitments, only include the dollars that a DBE is expected to earn for work they perform with their own workforce and equipment. Update DBE Commitments to reflect changes to the initial amount that was previously reported or to add DBEs not initially reported.

When a DBE participates in a contract, the value of the work is determined in accordance with 49 CFR Part 26.55, for example:

1. The Department will count only the value of the work performed by the DBE toward DBE goals. The entire amount of the contract that is performed by the DBE's own forces (including the cost of supplies, equipment and materials obtained by the DBE for the contract work) will be counted as DBE credit.

2. The Department will count the entire amount of fees or commissions charged by the DBE firm for providing a bona fide service, such as professional, technical, consultant, or managerial services or for providing bonds or insurance specifically required for the performance of a Department-assisted contract, toward DBE goals, provided that the Department determines the fees to be reasonable and not excessive as compared with fees customarily followed for similar services.

3. When the DBE subcontracts part of the work of its contract to another firm, the Department will count the value of the subcontracted work only if the DBE's subcontractor is itself a DBE. Work that a DBE subcontracts to a non-DBE firm does not count toward DBE goals.

4. When a DBE performs as a participant in a joint venture, the Department will count the portion of the dollar value of the contract equal to the distinct, clearly defined portion of the work the DBE performs with its own forces toward DBE goals.

5. The Contractors shall ensure that only expenditures to DBEs that perform a commercially useful function (CUF) in the work of a contract may be counted toward the voluntary DBE goal.

6. A DBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself.

7. Contractors wishing to use joint checks involving DBE credit must provide written notice to the District Contract Compliance Office prior to issuance of the joint check. The Contractor must also provide a copy of the notice to the DBE subcontractor and maintain a copy with the project records.

8. To determine whether a DBE is performing a commercially useful function, the Department will evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing and the DBE credit claimed for its performance of the work, and other relevant factors.

9. A DBE does not perform a commercially useful function if its role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of DBE participation.

10. If a DBE does not perform or exercise responsibility for at least 30% of the total cost of its contract with its own workforce, or if the DBE subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work involved, the DBE has not performed a commercially useful function.

7-24.6 Prompt Payments: Meet the requirements of 9-5 for payments to all DBE subcontractors.

7-25 On-The-Job Training Requirements.

As part of the Contractor's equal employment opportunity affirmative action program, training shall be provided as follows:

The Contractor shall provide On-The-Job Training aimed at developing full journeymen in the type of trade or job classification involved in the work. In the event the Contractor subcontracts a portion of the contract work, it shall determine how many, if any, of the trainees are to be trained by the subcontractor provided, that the Contractor shall retain the primary responsibility for meeting the training requirements imposed by this Section. Ensure that, when feasible, 25% of trainees in each occupation are in their first year of training. The Contractor shall incorporate the requirements of this Section into such subcontract.

The number of trainees will be estimated on the number of calendar days of the contract, the dollar value, and the scope of work to be performed. The trainee goal will be finalized at a Post-Preconstruction Trainee Evaluation Meeting and the goal will be distributed among the work classifications based on the following criteria:

1. Determine the number of trainees on Federal Aid Contract:
 - a. No trainees will be required for contracts with a Contract Time allowance of less than 275 calendar days.

b. If the Contract Time allowance is 275 calendar days or more, the number of trainees shall be established in accordance with the following chart:

Estimated Contract Amount	Trainees Required
\$2,000,000 or less	0
Over \$2,000,000 to \$4,000,000	2
Over \$4,000,000 to \$6,000,000	3
Over \$6,000,000 to \$12,000,000	5
Over \$12,000,000 to \$18,000,000	7
Over \$18,000,000 to \$24,000,000	9
Over \$24,000,000 to \$31,000,000	12
Over \$31,000,000 to \$37,000,000	13
Over \$37,000,000 to \$43,000,000	14
Over \$43,000,000 to \$49,000,000	15
Over \$49,000,000 to \$55,000,000	16
Over \$55,000,000 to \$62,000,000	17
Over \$62,000,000 to \$68,000,000	18
Over \$68,000,000 to \$74,000,000	19
Over \$74,000,000 to \$81,000,000	20
Over \$81,000,000 to \$87,000,000	21
Over \$87,000,000 to \$93,000,000	22
Over \$93,000,000 to \$99,000,000	23
Over \$99,000,000 to \$105,000,000	24
Over \$105,000,000 to \$112,000,000	25
Over \$112,000,000 to \$118,000,000	26
Over \$118,000,000 to \$124,000,000	27
Over \$124,000,000 to \$130,000,000	28
Over \$130,000,000 to *	
*One additional trainee per \$6,000,000 of estimated Construction Contract amount over \$130,000,000	

Further, if the Contractor or subcontractor requests to utilize banked trainees as discussed later in this Section, a Banking Certificate will be validated at this meeting allowing credit to the Contractor for previously banked trainees. Banked credits of prime Contractors working as Subcontractors may be accepted for credit. The Contractor’s Project Manager, the Construction Project Engineer and the Department’s District Contract Compliance Manager will attend this meeting. Within ten days after the Post-Preconstruction Training Evaluation Meeting, the Contractor shall submit to the Department for approval an On-The-Job Training Schedule indicating the number of trainees to be trained in each selected classification and the portion of the Contract Time during which training of each trainee is to take place. This schedule may be subject to change if any of the following occur:

1. When a start date on the approved On-The-Job Training Schedule has been missed by 14 or more days;
2. When there is a change in previously approved classifications;
3. When replacement trainees are added due to voluntary or involuntary termination

The revised schedule will be resubmitted to and approved by the Department's District Contract Compliance Manager.

The following criteria will be used in determining whether or not the Contractor has complied with this Section as it relates to the number of trainees to be trained:

1. Credit will be allowed for each trainee that is both enrolled and satisfactorily completes training on this Contract. Credit for trainees, over the established number for this Contract, will be carried in a "bank" for the Contractor and credit will be allowed for those surplus trainees in subsequent, applicable projects. A "banked" trainee is described as an employee who has been trained on a project, over and above the established goal, and for which the Contractor desires to preserve credit for utilization on a subsequent project.

2. Credit will be allowed for each trainee that has been previously enrolled in the Department's approved training program on another contract and continues training in the same job classification and completes their training on a different contract.

3. Credit will be allowed for each trainee who, due to the amount of work available in their classification, is given the greatest practical amount of training on the contract regardless of whether or not the trainee completes training.

4. Credit will be allowed for any training position indicated in the approved On-The-Job Training Schedule, if the Contractor can demonstrate that made a good faith effort to provide training in that classification was made.

5. No credit will be allowed for a trainee whose employment by the Contractor is involuntarily terminated unless the Contractor can clearly demonstrate good cause for this action.

Training and upgrading of minorities, women and economically disadvantaged persons toward journeyman status is a primary objective of this Section. Accordingly, the Contractor shall make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent such persons are available within a reasonable area of recruitment. If a non-minority male is enrolled into the On-The-Job Training Program, the On-The-Job Training Notification of Personnel Action Form notifying the District Contract Compliance Manager of such action shall be accompanied by a disadvantaged certification or a justification for such action acceptable to the Department's District Contract Compliance Manager. The Contractor will be given an opportunity and will be responsible for demonstrating the steps that it has taken in pursuance thereof, prior to a determination as to whether the Contractor is in compliance with this Section. This training is not intended, and shall not be used, to discriminate against any applicant for training, whether a minority, woman or disadvantaged person.

No employee shall be employed as a trainee in any classification in which they have successfully completed a training course leading to journeyman status, or have been employed as a journeyman. The Contractor may satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used, the Contractor's records should document the findings in each case.

The minimum length and type of training for each classification will be as established at the Post-Preconstruction Trainee Evaluation Meeting and approved by the Department. Graduation to journeyman status will be based upon satisfactory completion of a Proficiency Demonstration set up at the completion of training and established for the specific training classification, completion of the minimum hours in a training classification range, and the employer's satisfaction that the trainee does meet journeyman status in the classification of

training. Upon reaching journeyman status, the following documentation must be forwarded to the District Contract Compliance Office:

1. Trainee Enrollment and Personnel Action Form
2. Proficiency Demonstration Verification Form indicating completion of each standard established for the classification signed by representatives of both the Contractor and the Department.

The Department and the Contractor shall establish a program that is tied to the scope of the work in the project and the length of operations providing it is reasonably calculated to meet the equal employment opportunity obligations of the Contractor and to qualify the average trainee for journeyman status in the classifications concerned, by at least, the minimum hours prescribed for a training classification. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved but not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal Aid highway construction contract. Approval or acceptance of a training schedule shall be obtained from the Department prior to commencing work on the classifications covered by the program.

A voluntary On-The-Job Training Program is available to a Contractor which has been awarded a state funded project. Through this program, the Contractor will have the option to train employees on state funded projects for "banked credit" as discussed previously in this provision, to be utilized on subsequent Federal Aid Projects where training is required. Those Contractors availing themselves of this opportunity to train personnel on state funded projects and bank trainee hours for credit shall comply with all training criteria set forth in this Section for Federal Aid Projects; voluntary banking may be denied by the Department if staff is not available to monitor compliance with the training criteria.

It is the intention of these provisions that training is to be provided in the construction crafts rather than clerk-typists or secretarial type positions. Training is permissible in lower level management positions such as office engineers, estimators, etc., where the training is oriented toward construction applications. Training in the laborer classifications, except Common/General Laborer, may be permitted provided that significant and meaningful training is provided and approved by the District Contract Compliance Office.

When approved in advance by the District Contract Compliance Manager, credit will be given for training of persons in excess of the number specified herein under the current contract or a Contractor will be allowed to bank trainees who have successfully completed a training program and may apply those trainees to a training requirement in subsequent project(s) upon approval of the Department's District Contract Compliance Manager. This credit will be given even though the Contractor may receive training program funds from other sources, provided such other source do not specifically prohibit the Contractor from receiving other form of compensation. Offsite training is permissible as long as the training is an integral part of an approved training program and does not compromise a significant part of the overall training. Credit for offsite training indicated above may only be made to the Contractor when it does one or more of the following and the trainees are concurrently employed on a Federal Aid Project:

1. Contributes to the cost of the training,
2. Provides the instruction to the trainee,
3. Pays the trainee's wages during the offsite training period.

The Contractor shall compensate the trainee at no less than the laborer rate established in the Contract at the onset of training. The compensation rate will be increased to the journeyman's wage upon graduation from the training program for the remainder of the time the trainee works in the classification in which they were trained.

The Contractor shall furnish the trainee a copy of the program they will follow in providing the training. The Contractor shall provide each trainee with a certification showing the type and length of training satisfactorily completed. The Contractor shall enroll a trainee in one training classification at a time to completion before the trainee can be enrolled in another classification on the same project.

The Contractor shall maintain records to document the actual hours each trainee is engaged in training on work being performed as a part of this Contract.

The Contractor shall submit to the District Contract Compliance Manager a copy of an On-The-Job Training Notification of Personnel Action form no later than seven days after the effective date of the action when the following actions occur: a trainee is transferred on the project, transferred from the project to continue training on another contract, completes training, is upgraded to journeyman status or voluntary terminates or is involuntary terminated from the project.

The Contractor shall furnish to the District Contract Compliance Manager a copy of a Monthly Time Report for each trainee. The Monthly Time Report for each month shall be submitted no later than the tenth day of the subsequent month. The Monthly Time Report shall indicate the phases and sub-phases of the number of hours devoted to each proficiency.

Highway or Bridge Carpenter Helper, Mechanic Helper, Rodman/Chainman, and Timekeeper classifications will not be approved for the On-The-Job Training Program.

The number of trainees may be distributed among the work classifications on the basis of the Contractor's needs and the availability of journeymen in the various classifications within a reasonable area of recruitment.

The Contractor will have fulfilled the responsibilities of this Specification when acceptable training has been provided to the trainee as specified above.

7-26 Cargo Preference Act – Use of United States-Flag Vessels.

Pursuant to Title 46 CFR 381, the Contractor agrees

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this Contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph 1 of this Article to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

3. To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this Contract.

7-29 E-Verify.

The Contractor shall utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the Contractor during the term of the Contract and shall expressly require any subcontractors performing work or providing services pursuant to the Contract to likewise utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the subcontractor during the Contract term.

7-31 Title VI Assurance – DOT 1050.2A, Appendix A and Appendix E.

7-31.1 Appendix A: During the performance of this Contract, the Contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "Contractor") agrees as follows:

1. Compliance with Regulations: The Contractor shall comply with the Regulations relative to nondiscrimination in Federally-assisted programs of the US Department of Transportation (hereinafter, "USDOT") Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this Contract.

2. Nondiscrimination: The Contractor, with regard to the work performed by it during the Contract, shall not discriminate on the basis of race, color, national origin or sex in the selection and retention of sub-contractors, including procurements of materials and leases of equipment. The Contractor shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when the Contract covers a program set forth in Appendix B of the Regulations.

3. Solicitations for subcontractors, including procurements of materials and equipment: In all solicitations either by competitive bidding or negotiation made by the Contractor for work to be performed under subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the Contractor of the Contractor's obligations under this contract and the Regulations relative to nondiscrimination on the basis of race, color, national origin, or sex.

4. Information and Reports: The Contractor shall provide all information and reports required by the Regulations or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information and its facilities as may be determined by the Florida Department of Transportation or the Federal Highway Administration, Federal Transit Administration, Federal Aviation Administration, and Federal Motor Carrier Safety Administration to be pertinent to ascertain compliance with such Regulations, order and instructions. Where any information required of a Contractor is in the exclusive possession of another who fails or refuses to furnish this information the Contractor shall so certify to the Florida Department of Transportation, or the Federal Highway Administration, Federal Transit Administration, Federal Aviation Administration, or Federal Motor Carrier Safety Administration as appropriate, and shall set forth what efforts it has made to obtain the information.

5. Sanctions for Noncompliance: In the event of the Contractor's noncompliance with the nondiscrimination provisions of this Contract, the Florida Department of Transportation shall impose such Contract sanctions as it or the Federal Highway Administration, Federal Transit Administration, Federal Aviation Administration, or Federal Motor Carrier Safety Administration may determine to be appropriate, including, but not limited to:

a. withholding of payments to the Contractor under the Contract until the Contractor complies, or
b. cancellation, termination or suspension of the Contract, in whole or in part.

6. Incorporation of Provisions: The Contractor shall include the provisions of this appendix in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto. The Contractor shall take such action with respect to any subcontract or procurement as the Florida Department of Transportation or the Federal Highway Administration, Federal Transit Administration, Federal Aviation Administration, or Federal Motor Carrier Safety Administration may direct as a means of enforcing such provisions including sanctions for noncompliance, provided, however, that, in the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the Contractor may request the Florida Department of Transportation to enter into such litigation to protect the interests of the Florida Department of Transportation, and, in addition, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

7-31.2 Appendix E: During the performance of this Contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “Contractor” agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

1. Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21;
2. The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired of Federal or Federal-aid programs and projects);
3. Federal-Aid Highway Act of 1973, (23 U.S.C § 324 et seq.), (prohibits discrimination on the basis of sex);
4. Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
5. The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
6. Airport and Airway Improvement Act of 1982, (49 U.S.C. 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color national origins or sex);
7. The Civil Rights Restoration Act of 1987 (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
8. Titles II and III of the Americans with Disabilities Act, which prohibits discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 – 12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;

FROM SECTION 8 (SUBLETTING, CONTRACT TIME EXTENSIONS, AND LIQUIDATED DAMAGES).

8-1 Subletting or Assigning of Contracts.

Do not, sell, transfer, assign or otherwise dispose of the Contract or Contracts or any portion thereof, or of the right, title, or interest therein, without written consent of the Department. If the Contractor chooses to sublet any portion of the Contract, the Contractor must provide a written request to sublet work on the Certification of Sublet Work form developed by the Department for this purpose. With the Engineer's acceptance of the request, the Contractor may sublet a portion of the work, but shall perform with its own organization work amounting to not less than 40% of the total Contract amount. The Certification of Sublet Work request will be deemed acceptable by the Department, for purposes of the Department's consent, unless the Engineer notifies the Contractor within 5 business days of receipt of the Certification of Sublet Work that the Department is not consenting to the requested subletting.

Include in the total Contract amount the cost of materials and manufactured component products, and their transportation to the project site. For the purpose of meeting this requirement the Department will not consider off-site commercial production of materials and manufactured component products that the Contractor purchases, or their transportation to the project, as subcontracted work.

If the Contractor sublets a part of a Contract item, the Department will use only the sublet proportional cost in determining the percentage of subcontracted normal work.

Execute all agreements to sublet work in writing and include all pertinent provisions and requirements of the Contract. All other agreements must be in writing and reference all applicable Contract provisions. Upon request, furnish the Department with a copy of the subcontract and agreement. The subletting of work does not relieve the Contractor or the surety of their respective liabilities under the Contract.

The Department recognizes a subcontractor only in the capacity of an employee or agent of the Contractor, and the Engineer may require the Contractor to remove the subcontractor as in the case of an employee.

8-7.3.2 Contract Time Extensions: The Department may grant an extension of Contract Time when a controlling item of work is delayed by factors not reasonably anticipated or foreseeable at the time of bid. The Department may allow such extension of time only for delays occurring during the Contract Time period or authorized extensions of the Contract Time period. When failure by the Department to fulfill an obligation under the Contract results in delays to the controlling items of work, the Department will consider such delays as a basis for granting a time extension to the Contract.

Whenever the Engineer suspends the Contractor's operations, as provided in 8-6, for reasons other than the fault of the Contractor, the Engineer will grant a time extension for any delay to a controlling item of work due to such suspension. The Department will not grant time extensions to the Contract for delays due to the fault or negligence of the Contractor.

The Department does not include an allowance for delays caused by the effects of inclement weather or suspension of Contractor's operations as defined in 8-6.4, in establishing Contract Time. The Engineer will continually monitor the effects of weather and, when found justified, grant time extensions on either a bimonthly or monthly basis. The Engineer

will not require the Contractor to submit a request for additional time due to the effects of weather.

The Department will grant time extensions, on a day for day basis, for delays caused by the effects of rains or other inclement weather conditions, related adverse soil conditions or suspension of operations as defined in 8-6.4 that prevent the Contractor from productively performing controlling items of work resulting in:

1. The Contractor being unable to work at least 50% of the normal work day on pre-determined controlling work items; or
2. The Contractor must make major repairs to work damaged by weather, provided that the damage is not attributable to the Contractor's failure to perform or neglect; and provided that the Contractor was unable to work at least 50% of the normal workday on pre-determined controlling work items.

No additional compensation will be made for delays caused by the effects of inclement weather.

The Department will consider the delays in delivery of materials or component equipment that affect progress on a controlling item of work as a basis for granting a time extension if such delays are beyond the control of the Contractor or supplier. Such delays may include an area-wide shortage, an industry-wide strike, or a natural disaster that affects all feasible sources of supply. In such cases, the Contractor shall furnish substantiating letters from a representative number of manufacturers of such materials or equipment clearly confirming that the delays in delivery were the result of an area-wide shortage, an industry-wide strike, etc. No additional compensation will be made for delays caused by delivery of materials or component equipment.

The Department will not consider requests for time extension due to delay in the delivery of custom manufactured equipment such as traffic signal equipment, highway lighting equipment, etc., unless the Contractor furnishes documentation that he placed the order for such equipment in a timely manner, the delay was caused by factors beyond the manufacturer's control, and the lack of such equipment caused a delay in progress on a controlling item of work. No additional compensation will be paid for delays caused by delivery of custom manufactured equipment.

The Department will consider the affect of utility relocation and adjustment work on job progress as the basis for granting a time extension only if all the following criteria are met:

1. Delays are the result of either utility work that was not detailed in the Plans, or utility work that was detailed in the Plans but was not accomplished in reasonably close accordance with the schedule included in the Contract Documents.
2. Utility work actually affected progress toward completion of controlling work items.
3. The Contractor took all reasonable measures to minimize the effect of utility work on job progress, including cooperative scheduling of the Contractor's operations with the scheduled utility work at the preconstruction conference and providing adequate advance notification to utility companies as to the dates to coordinate their operations with the Contractor's operations to avoid delays.

As a condition precedent to an extension of Contract Time the Contractor must submit to the Engineer:

A preliminary request for an extension of Contract Time must be made in writing to the Engineer within ten calendar days after the commencement of a delay to a controlling item of work. If the Contractor fails to submit this required preliminary request for an extension of Contract Time, the Contractor fully, completely, absolutely and irrevocably waives any entitlement to an extension of Contract Time for that delay. In the case of a continuing delay only a single preliminary request for an extension of Contract Time will be required. Each such preliminary request for an extension of Contract Time shall include as a minimum the commencement date of the delay, the cause of the delay, and the controlling item of work affected by the delay.

Furthermore, the Contractor must submit to the Engineer a request for a Contract Time extension in writing within 30 days after the elimination of the delay to the controlling item of work identified in the preliminary request for an extension of Contract Time. Each request for a Contract Time extension shall include as a minimum all documentation that the Contractor wishes the Department to consider related to the delay, and the exact number of days requested to be added to Contract Time. If the Contractor contends that the delay is compensable, then the Contractor shall also be required to submit with the request for a Contract Time extension a detailed cost analysis of the requested additional compensation. If the Contractor fails to submit this required request for a Contract Time extension, with or without a detailed cost analysis, depriving the Engineer of the timely opportunity to verify the delay and the costs of the delay, the Contractor waives any entitlement to an extension of Contract Time or additional compensation for the delay.

Upon timely receipt of the preliminary request of Contract Time from the Contractor, the Engineer will investigate the conditions, and if it is determined that a controlling item of work is being delayed for reasons beyond the control of the Contractor the Engineer will take appropriate action to mitigate the delay and the costs of the delay. Upon timely receipt of the request for a Contract Time extension the Engineer will further investigate the conditions, and if it is determined that there was an increase in the time or the cost of performance of the controlling item of work beyond the control of the Contractor, then an adjustment of Contract Time will be made, and a monetary adjustment will be made, excluding loss of anticipated profits, and the Contract will be modified in writing accordingly.

The existence of an accepted schedule, including any required update(s), as stated in 8-3.2, is a condition precedent to the Contractor having any right to the granting of an extension of Contract Time or any monetary compensation arising out of any delay. Contractor failure to have an accepted schedule, including any required update(s), for the period of potential impact, or in the event the currently accepted schedule and applicable updates do not accurately reflect the actual status of the project or fail to accurately show the true controlling or non-controlling work activities for the period of potential impact, will result in any entitlement determination as to time or money for such period of potential impact being limited solely to the Department's analysis and identification of the actual controlling or non-controlling work activities. Further, in such instances, the Department's determination as to entitlement as to either time or compensability will be final, unless the Contractor can prove by clear and convincing evidence to a Disputes Review Board that the Department's determination was without any reasonable factual basis.

8-10 Liquidated Damages for Failure to Complete the Work.

8-10.2 Amount of Liquidated Damages: Applicable liquidated damages are the amounts established in the following schedule:

Original Contract Amount	Daily Charge Per Calendar Day
\$50,000 and under.....	\$956
Over \$50,000 but less than \$250,000.....	\$964
\$250,000 but less than \$500,000.....	\$1,241
\$500,000 but less than \$2,500,000.....	\$1,665
\$2,500,000 but less than \$5,000,000.....	\$2,712
\$5,000,000 but less than \$10,000,000.....	\$3,447
\$10,000,000 but less than \$15,000,000.....	\$4,866
\$15,000,000 but less than \$20,000,000.....	\$5,818
\$20,000,000 and over.....	\$9,198 plus 0.00005 of any amount over \$20 million (Round to nearest whole dollar)

FROM SECTION 9 (PARTIAL PAYMENTS).

9-5 Partial Payments.

9-5.1 General: The Engineer will make partial payments on monthly estimates based on the amount of work that the Contractor completes during the month (including delivery of certain materials, as specified herein below). The Engineer will make approximate monthly payments, and the Department will correct all partial estimates and payments in the subsequent estimates and in the final estimate and payment.

The Department will base the amount of such payments on the total value of the work that the Contractor has performed to the date of the estimate, based on the quantities completed and the Contract prices, less payments previously made and less any retainage withheld.

Retainage will not be withheld until the percent of Contract Time used exceeds 75%. From that time forward, the Department will withhold retainage of 10% of the amount due on the current estimate as retainage when the percent of Contract Time used exceeds the percent of Contract amount earned by more than 15%.

Contract amount is defined as the original Contract amount adjusted by approved supplemental agreements.

Retainage will be determined for each job on multiple job Contracts. The Department will not accept Securities, Certificates of Deposit or letters of credit as a replacement for retainage. Amounts withheld will not be released until payment of the final estimate.

9-5.2 Unsatisfactory Payment Record: In accordance with Sections 255.05 and 337.16 of the Florida Statutes, and the rules of the Department, the Department may disqualify the Contractor from bidding on future Department contracts if the Contractor’s payment record in connection with contract work becomes unsatisfactory.

9-5.3 Withholding Payment:

9-5.3.1 Withholding Payment for Defective Work: If the Department discovers any defective work or material prior to the final acceptance, or if the Department has a reasonable doubt as to the integrity of any part of the completed work prior to final acceptance,

then the Department will not allow payment for such defective or questioned work until the Contractor has remedied the defect and removed any causes of doubt.

9-5.3.2 Withholding Payment for Failure to Comply: The Department will withhold progress payments from the Contractor if he fails to comply with any or all of the following within 60 days after beginning work:

1. comply with and submit required paperwork relating to prevailing wage rate provisions, Equal Employment Opportunity, On-The-Job Training, and Affirmative Action;
2. comply with the requirement to all necessary information, including actual payments to DBEs, all other subcontractors and major suppliers, through the Internet based Equal Opportunity Reporting System;
3. comply with or make a good faith effort to ensure employment opportunity for minorities and females in accordance with the required contract provisions for Federal Aid Construction Contracts, and
4. comply with or make a good faith effort to meet On-The-Job Training goals.

The Department will withhold progress payments until the Contractor has satisfied the above conditions.

9-5.4 Release of Retainage After Acceptance: When the Contractor has furnished the Department with all submittals required by the Contract, such as invoices, EEO reports, materials certifications, certification of materials procured, etc., (excluding Contractor's letter of acceptance of final amount due and Form 21-A release) and the Engineer has determined that the measurement and computation of pay quantities is correct, the Department may reduce the retainage to \$1,000 plus any amount that the Department elects to deduct for defective work as provided in 9-5.3.

The Department will not allow a semifinal estimate under the provisions of the above paragraphs unless the time elapsing between (1) acceptance of the project and receipt of all test reports, invoices, etc., and (2) submission of the final estimate to the Contractor for acceptance, exceeds or is expected to exceed ten days.

The Department may deduct from payment estimates any sums that the Contractor owes to the Department on any account. Where more than one project or job (separate job number) is included in the Contract, the Department will distribute the reduced retainage as provided in the first paragraph of this Subarticle to each separate project or job in the ratio that the Contract value of the work for the particular job bears to the total Contract amount.

9-5.5 Partial Payments for Delivery of Certain Materials:

9-5.5.1 General: The Department will allow partial payments for new materials that will be permanently incorporated into the project and are stockpiled in approved locations in the project vicinity. Stockpile materials so that they will not be damaged by the elements and in a manner that identifies the project on which they are to be used.

The following conditions apply to all payments for stockpiled materials:

1. There must be reasonable assurance that the stockpiled material will be incorporated into the specific project on which partial payment is made.
2. The stockpiled material must be approved as meeting applicable specifications.
3. The total quantity for which partial payment is made shall not exceed the estimated total quantity required to complete the project.

4. The Contractor shall furnish the Engineer with copies of certified invoices to document the value of the materials received. The amount of the partial payment will be determined from invoices for the material up to the unit price in the Contract.

5. Delivery charges for materials delivered to the jobsite will be included in partial payments if properly documented.

6. Partial payments will not be made for materials which were stockpiled prior to award of the Contract for a project.

9-5.5.2 Partial Payment Amounts: The following partial payment restrictions apply:

1. Partial payments less than \$5,000 for any one month will not be processed.

2. Partial payments for structural steel and precast prestressed items will not exceed 85% of the bid price for the item. Partial payments for all other items will not exceed 75% of the bid price of the item in which the material is to be used.

3. Partial payment will not be made for aggregate and base course material received after paving or base construction operations begin except when a construction sequence designated by the Department requires suspension of paving and base construction after the initial paving operations, partial payments will be reinstated until the paving and base construction resumes.

9-5.5.3 Off Site Storage: If the conditions of 9-5.5.1 are satisfied, partial payments will be allowed for materials stockpiled in approved in-state locations. Additionally, partial payments for materials stockpiled in approved out-of-state locations will be allowed if the conditions of 9-5.5.1 and the following conditions are met:

1. Furnish the Department a Materials Bond stating the supplier guarantees to furnish the material described in the Contract to the Contractor and Department. Under this bond, the Obligor shall be the material supplier and the Obligees shall be the Contractor and the Florida Department of Transportation. The bond shall be in the full dollar amount of the bid price for the materials described in the contract.

2. The following clauses must be added to the construction Contract between the Contractor and the supplier of the stockpiled materials:

“Notwithstanding anything to the contrary, <supplier> will be liable to the Contractor and the Florida Department of Transportation should <supplier> default in the performance of this agreement.”

“Notwithstanding anything to the contrary, this agreement, and the performance bond issued pursuant to this agreement, does not alter, modify, or otherwise change the Contractor’s obligation to furnish the materials described in this agreement to the Florida Department of Transportation.”

3. The agreement between the Contractor and the supplier of the stockpiled materials must include provisions that the supplier will store the materials and that such materials are the property of the Contractor.

9-5.6 Certification of Payment to Subcontractors: The term “subcontractor,” as used herein, includes persons or firms furnishing materials or equipment incorporated into the work or stockpiled for which the Department has made partial payment and firms working under equipment-rental agreements. The Contractor is required to pay all subcontractors for satisfactory performance of their Contracts before the Department will make a further progress (partial) payment. The Contractor shall also return all retainage withheld to the subcontractors

within 30 days after the subcontractor's work is satisfactorily complete, as determined by the Department. Prior to receipt of any progress (partial) payment, the prime contractor shall certify that all subcontractors having an interest in the Contract were paid for satisfactory performance of their Contracts and that the retainage is returned to subcontractors within 30 days after satisfactory completion of the subcontractor's work. Provide this certification in the form designated by the Department.

Within 30 days of the Contractor's receipt of the final progress payment or any other payments thereafter, except the final payment, the Contractor shall pay all subcontractors and suppliers having an interest in the Contract for all work completed and materials furnished. The Department will honor an exception to the above when the Contractor demonstrates good cause for not making any required payment and furnishes written notification of any such good cause to both the Department and the affected subcontractors or suppliers within said 30 day period.

The Contractor shall indemnify and provide defense for the Department when called upon to do so for all claims or suits against the Department, by third parties, pertaining to Contractor payment or performance issues arising out of the Contract. It is expressly understood that the monetary limitation on the extent of the indemnification shall be the approved Contract amount, which shall be the original Contract amount as may be increased by subsequent Supplemental Agreements.

**THIS COMPLETES
THIS
SPECIFICATIONS
PACKAGE**

ATTACHMENT A

GEOTECHNICAL INVESTIGATIONS & PERMITS

GEOTECHNICAL ENGINEERING REPORT



Bauer Road Improvements Escambia County, Florida

PREPARED FOR:
SIGMA Consulting Group, Inc.
3298 Summit Boulevard, Suite 32
Pensacola, Florida 32503

NOVA Project Number: 8216171

December 30, 2016



PROFESSIONAL | PRACTICAL | PROVEN



December 30, 2016

SIGMA Consulting Group, Inc.
3298 Summit Boulevard, Suite 32
Pensacola, Florida 32503

Attention: Mr. Jason Lashley, P.E.

Subject: Report of Subsurface Exploration and Geotechnical Engineering Services
BAUER ROAD IMPROVEMENTS
Escambia County, Florida
NOVA Project Number 8216171

Dear Mr. Lashley,

NOVA Engineering and Environmental LLC (NOVA) has completed the authorized Geotechnical Engineering Report for the planned improvements to Bauer Road in southwest Escambia County, Florida. The work was performed in general accordance with NOVA Proposal Number 016-20165563, dated September 9, 2016. This report briefly discusses our understanding of the project at the time of the subsurface exploration, describes the geotechnical consulting services provided by NOVA, and presents our findings, conclusions, and recommendations.

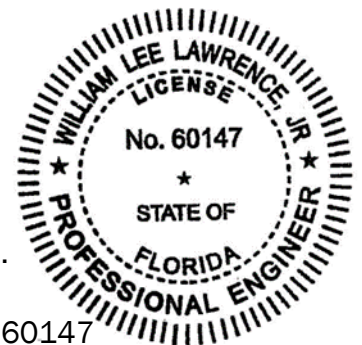
We appreciate your selection of NOVA and the opportunity to be of service on this project. If you have any questions, or if we may be of further assistance, please do not hesitate to contact us.

Sincerely,

NOVA ENGINEERING AND ENVIRONMENTAL LLC

Jesse A. James E.I.
Staff Engineer
Florida Certificate No. 1100019359

William L. Lawrence, P.E.
Branch Manager
Florida Registration No. 60147



Copies Submitted: via electronic mail service

TABLE OF CONTENTS

1.0	SUMMARY	1
1.1	GENERAL	1
1.2	SITE PREPARATION	1
1.3	GROUNDWATER CONTROL	2
1.4	PAVEMENTS.....	2
2.0	INTRODUCTION	3
2.1	PROJECT INFORMATION.....	3
2.2	SCOPE OF WORK	3
3.0	SITE DESCRIPTION	5
3.1	LOCATION AND LEGAL DESCRIPTION	5
3.2	SUBJECT PROPERTY AND VICINITY GENERAL CHARACTERISTICS.....	5
3.3	CURRENT USE OF THE PROPERTY.....	5
4.0	FIELD EXPLORATION	6
4.1	LABORATORY TESTING.....	6
5.0	SUBSURFACE CONDITIONS	8
5.1	GEOLOGY	8
5.2	SOIL CONDITIONS.....	8
5.3	GROUNDWATER CONDITIONS	9
6.0	CONCLUSIONS AND RECOMMENDATIONS	10
6.1	SITE PREPARATION	10
6.2	FILL PLACEMENT	10
6.3	GROUNDWATER CONTROL	12
6.4	PAVEMENTS.....	12
7.0	CONSTRUCTION OBSERVATIONS	14
7.1	SUBGRADE	14
7.2	PAVEMENTS.....	14

APPENDICES

- Appendix A – Figures and Maps
- Appendix B – Subsurface Data
- Appendix C – Laboratory Data
- Appendix D – Qualifications of Recommendations

1.0 SUMMARY

A brief summary of pertinent findings, conclusions, and recommendations are presented below. This information should not be utilized in design or construction without reading the report in its entirety and paying particular attention to the recommendations presented in the text and Appendix.

1.1 GENERAL

The proposed improvements are proposed for the existing Bauer Road alignment extending from Sorrento Road south approximately 1.3 miles to Gulf Beach Highway. NOVA understands that the project will consist of the resurfacing and widening of the existing 2-lane roadway to accommodate 10- to 12-foot drive lanes with shoulders wide enough to accommodate a bike path for the entire length of the project.

Our field exploration at the subject site included performing eighteen (18) auger borings drilled to depths ranging from about 1½ feet to 5 feet below existing grade (BEG) along the grassed shoulders of the exiting pavement section. Drilling, testing and sampling operations were performed in general accordance with ASTM designations and other industry standards.

Beneath a thin layer of topsoil, the borings generally encountered fine-grained silty sand and sand with silt (USCS classifications of SM and SP-SM, respectively) to depths of 2 feet to 3 feet BEG, underlain by fine-grained sands and sands with silt and traces of organics (SP, SP-SM) to the maximum depth explored of about 5 feet BEG. We note that auger refusal was encountered in three (3) of the borings (B-6, B-7 and B-8) at depths ranging between about 1¼ feet to 1¾ feet BEG due to the presence of a geotextile material.

The Test Boring Records as well as a summary of laboratory soil testing results are provided in the attached Appendix.

1.2 SITE PREPARATION

Prior to proceeding with construction, all vegetation, root systems, and any other deleterious non-soil materials should be stripped from beneath and extending to a clear distance of 3 feet outside the proposed lane expansion and/or shoulder/bike path alignments. NOVA suggests any existing utility locations should be reviewed to assess their impact on the proposed construction and relocated as appropriate.

After clearing and stripping, a NOVA geotechnical engineer should carefully evaluate the proposed pavement expansion alignments to determine if any soft/yielding areas are present. The exposed subgrade soils should be compacted to a minimum soil density of at least 95 percent of the maximum dry density as determined by the Modified Proctor test method (ASTM D-1557). Any unstable materials observed during the evaluation and compaction operations should be undercut and replaced with structural fill or stabilized in-place by scarifying and re-densifying.

1.3 GROUNDWATER CONTROL

A stabilized groundwater table was encountered in the test borings at depths ranging between about 2 feet to 4 feet BEG at the time of the exploration. Groundwater is not expected to significantly impact the installation of the expanded pavement sections, but could be a factor if the planned improvements to this segment of Bauer Road will also include new subsurface utilities.

1.4 PAVEMENTS

We understand that a flexible (asphalt) pavement section is desired for the roadway lane expansion and shoulders planned for this project. Based on the results of our test borings, the subsurface conditions encountered are generally adaptable for providing adequate support of a flexible pavement section.

2.0 INTRODUCTION

2.1 PROJECT INFORMATION

Our understanding of the proposed development is based on recent conversations and email exchanges with the client, review of supporting conceptual drawings provided by the client; review of aerial photography of the site via internet-based GIS software; and our experience with similar geotechnical conditions in the near vicinity to this project site.

2.1.1 Site Plans and Documents

We were furnished with the following plans and documents:

- Document: Response to Discussion Questions for Bauer Road Paved Shoulders
Prepared by: SIGMA Consulting Group, Inc.
Dated: Not Dated

2.1.2 Proposed Construction

NOVA understands that the existing roadway alignment is to be resurfaced and widened to accommodate 10- to 12-foot drive lanes with shoulders wide enough to accommodate a bike path for the entire length of the project.

2.1.3 Site Grading

Finalized grading details were not available from the design team at the time of the issuance of this report; we have therefore assumed that finished site grades for the proposed roadway expansion and shoulders/bike lanes will closely match the existing roadway alignment.

2.2 SCOPE OF WORK

SIGMA Consulting Group, Inc., engaged NOVA to provide geotechnical engineering consulting services for the proposed **Bauer Road Improvements** project. This report briefly discusses our understanding of the project, describes our exploratory procedures, and presents our findings, conclusions, and recommendations.

The primary objective of this study was to perform a geotechnical exploration within the areas of the proposed construction and to assess the site's subsurface conditions as they pertain to the presence of organic materials, loose or otherwise unsuitable soils, and groundwater.

The authorized geotechnical engineering services included a site reconnaissance, eighteen (18) soil test borings and sampling, laboratory testing, engineering evaluation of the field and laboratory data, and the preparation of this report. These services were provided in general accordance with industry standards.

The assessment of site environmental conditions, including the presence of wetlands or detection of pollutants in the soil, rock or groundwater, laboratory testing of samples, or a site-specific seismic study was beyond the scope of this geotechnical study. If requested, NOVA can provide these services.

3.0 SITE DESCRIPTION

3.1 LOCATION AND LEGAL DESCRIPTION

The project extends along the existing Bauer Road alignment from Sorrento Road south approximately 1.3 miles to Gulf Beach Highway. A Site Location Map is included in Appendix A.

3.2 SUBJECT PROPERTY AND VICINITY GENERAL CHARACTERISTICS

Bauer Road extending along the alignment of study is generally surrounded by undeveloped property except for a self-storage facility that is located on the east side of Bauer Road in the northern segment of the project limits, and residential developments that are located on both sides of Bauer Road in the southern segment of the project limits (nearby to Gulf Beach Highway).

3.3 CURRENT USE OF THE PROPERTY

At the time of our field exploration, both sides of the road along the alignment of study included shallow ditches for drainage, paved entrances for commercial lots, and other typical right-of-way structures.

4.0 FIELD EXPLORATION

Boring locations were established in the field by NOVA personnel using the provided site plan, and by estimating/taping distances and angles from existing site landmarks. Consequently, referenced boring locations and elevations should be considered approximate. The approximate locations are shown in Appendix A. If increased accuracy is desired by the client, NOVA recommends that the boring locations and elevations be surveyed.

Our field exploration was conducted on December 21, 2016 and included:

- Eighteen (18), 5-foot deep auger borings along both shoulders of the existing roadway, for the roadway segments extending between Station 32+50 to 41+00, Station 50+00 to 62+50, and Station 69+00 to 73+50.

Soil Test Borings: The soil test borings were performed utilizing a 3-inch soil sampler in accordance with ASTM designations and industry standards. Representative portions of the soil samples, obtained from the sampler, were placed in sealed containers and transported to our laboratory for further evaluation and laboratory testing.

Test Boring Records in Appendix B present the soil conditions encountered in the borings. These records represent our interpretation of the subsurface conditions based on the field exploration data, visual examination of the recovered samples, laboratory test data, and generally accepted geotechnical engineering practices. The stratification lines and depth designations represent approximate boundaries between various subsurface strata. Actual transitions between materials may be gradual.

The groundwater levels reported on the Test Boring Records represent measurements made at the completion of each soil test boring. The soil test borings were subsequently backfilled with the soil cuttings for safety concerns.

4.1 LABORATORY TESTING

A laboratory testing program was conducted to characterize materials which exist at the site using the recovered samples. Selected test data are presented on the Test Boring Records attached in the Appendix. The specific tests are briefly described below.

It should be noted that all soil samples will be properly disposed of 30 days following the submittal of this NOVA subsurface exploration report unless you request otherwise

4.1.1 Soil Classification

Soil classification provides a general guide to the engineering properties of various soil types and enable the engineer to apply past experience to current problems. In our explorations, samples obtained during drilling operations are observed in our laboratory and visually classified by an engineer. The soils are classified according to consistency, color and texture. These classification descriptions are included on our Test Boring Records. The classification system discussed above is primarily qualitative; laboratory testing is generally performed for detailed soil classification. Using the test results, the soils were classified using the Unified Soil Classification System. This classification system and the in-place physical soil properties provide an index for estimating the soil's behavior. The soil classification and physical properties obtained are presented in this report.

4.1.2 Moisture Content

The moisture content is the ratio expressed as a percentage of the weight of water in a given mass of soil to the weight of the solid particles and was conducted in general accordance with ASTM D-2216.

4.1.3 Percent Fines

The percent fines is defined as the percentage of the total dry soil mass which passes a #200 sieve. This test was conducted in general accordance with ASTM D-1140.

4.1.4 Limerock Bearing Ratio

Two samples were obtained of the dominant subsurface soils for testing in accordance with FM-5-515 – Florida Test Method for Limerock Bearing Ratio. This test method is intended for the determination of the bearing value of soils when they are compacted in the laboratory at moistures varying from the dry to wet side of optimum moisture using a 10-pound (4.54 kg) rammer dropped from a height of 18 inches (457 mm). The test is useful for evaluating limerock and other soils used for base, stabilized subgrade, and subgrade or embankment material encountered in Florida.

5.0 SUBSURFACE CONDITIONS

5.1 GEOLOGY

The site is located in the Gulf Coastal Plain within the Escambia County (Florida) area. According to the United States Geological Survey, the site is generally underlain by undifferentiated sediments deposited during the Quaternary and Tertiary periods (Coastal Alluvial, Low Terrace deposits, and the Citronelle Formation). The soils included in these deposits in this region are primarily siliciclastic sediments deposited in response to the renewed uplift and erosion in the Appalachian highlands to the north and sea-level fluctuations. The extent and type of deposit is influenced by numerous factors, including mineral composition of the parent rock and meteorological events.

Coastal Alluvial deposits (Holocene) in Escambia County primarily consist of varicolored siliciclastics, and organics. The siliciclastics are varicolored, fine to coarse quartz sand containing clay lenses and gravel in places. Gravel composed of quartz and chert pebbles and assorted metamorphic and igneous rock fragments is found in streams near the Piedmont. In areas of the Valley and Ridge province the gravel is composed of angular to subrounded chert, quartz, and quartzite pebbles. Coastal deposits include fine to medium quartz sand with shell fragments and accessory heavy minerals along Gulf beaches, and fine to medium quartz sand, silt, clay, peat, and mud in the Mississippi Sound, Little Lagoon, bays, lakes, streams, and estuaries. Organics occur in the subsurface profile as plant debris, roots, disseminated organic matrix and beds of peat.

The Citronelle Formation (Pleistocene/Pliocene) in Escambia County is exposed at the surface in many areas and typically includes; moderate-reddish-brown deeply weathered fine to very coarse quartz sand and varicolored typically mottled lenticular beds of clay and clayey gravel. Limonite pebbles and lenses of limonite cemented sand occur locally in weathered exposures. Gravel is composed of chert and quartz pebbles.

5.2 SOIL CONDITIONS

The following paragraph provides a generalized description of the subsurface profiles and soil conditions encountered in the borings conducted during this study. The Test Boring Records in the Appendix should be reviewed to provide detailed descriptions of the conditions encountered at each boring location. Conditions may vary at other locations and times.

Beneath a thin layer of topsoil, the borings generally encountered fine-grained silty sand and sand with silt (USCS classifications of SM and SP-SM, respectively) to depths of 2 feet to 3 feet BEG, underlain by fine-grained sands and sands with silt and traces of organics (SP, SP-SM) to a depth of 5 feet BEG.

5.3 GROUNDWATER CONDITIONS

5.3.1 General

Groundwater in the Escambia County, Florida area typically occurs as an unconfined aquifer condition. Recharge is provided by the infiltration of rainfall and surface water through the soil overburden. More permeable zones in the soil matrix can affect groundwater conditions. The groundwater table is expected to be a subdued replica of the original surface topography. Based on a review of topographic maps and our visual site observations, we anticipate the groundwater flow at the Subject Property to be generally towards the west.

Groundwater levels vary with changes in season and rainfall, construction activity, surface water runoff and other site-specific factors. Groundwater levels in the Escambia County area are typically lowest in the late fall to winter and highest in the early spring to mid-summer with annual groundwater fluctuations by seasonal rainfall; consequently, the water table may vary at times.

5.3.2 Soil Test Boring Groundwater Conditions

A stabilized groundwater table was encountered in the test borings at depths varying between roughly 2 feet to 4 feet BEG along the alignment of study at the time of our field exploration, which occurred during a period of relatively normal to slightly above normal seasonal rainfall, and shortly following several significant rain events.

Based on comparisons of current annual monthly rainfall data to historical rainfall data extending back 50+ years in time, we estimate that the normal permanent seasonal high groundwater (SHGW) table for this site will occur approximately 1 foot above the groundwater depths measured in the test borings, during the wet season.

6.0 CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations are based on our understanding of the proposed construction, our site observations, our evaluation and interpretation of the field and laboratory data obtained during this exploration, our experience with similar subsurface conditions, and generally accepted geotechnical engineering principles and practices.

Subsurface conditions in unexplored locations or at other times may vary from those encountered at the specific boring locations. If such variations are noted during construction, or if project plans are changed, we request the opportunity to review the changes and amend our recommendations, if necessary.

As previously noted, boring locations were established by estimating distances and angles from existing site landmarks. If increased accuracy is desired by the client, we recommend that the boring locations and elevations be surveyed.

6.1 SITE PREPARATION

Prior to proceeding with construction, all vegetation, root systems, and other deleterious non-soil materials should be stripped from beneath and extending to a clear distance of 3 feet outside the proposed paved lane expansion and/or shoulder alignments. NOVA suggests any existing utility locations should be reviewed to assess their impact on the proposed construction and relocated as appropriate.

After clearing and stripping, a NOVA geotechnical engineer should carefully evaluate the proposed pavement expansion alignments to determine if any soft/yielding areas are present. The exposed subgrade soils should be compacted to a minimum soil density of at least 95 percent of the maximum dry density as determined by the Modified Proctor test method (ASTM D-1557). Any unstable materials observed during the evaluation and compaction operations should be undercut and replaced with structural fill or stabilized in-place by scarifying and re-densifying.

6.2 FILL PLACEMENT

Fill materials should be relatively clean sands with less than 12 percent fines (material passing the No. 200 sieve), and free of non-soil materials and rock fragments larger than 3 inches in diameter. Soils with fines contents between 13 and 25 percent may also be used as fill soils for this project, but we note that strict moisture control would be required at the time of placement for these moisture-sensitive soils.

Based on visual examination, the existing surficial soils encountered during this exploration are generally suitable for re-use as structural fill soils, provided they are at or near their optimum moisture content at the time of re-use. The majority of the on-site near surface soils can be categorized as SP-SM to SM, or slightly silty to silty fine-grained sands based on the Unified Soil Classification System (USCS). Prior to construction, bulk samples of the proposed fill materials should be laboratory tested to confirm their suitability.

Organic and/or debris-laden material is not suitable for re-use as structural fill. Topsoil, mulch, and similar organic materials can be wasted in architectural areas. Debris-laden materials should be excavated, transported, and disposed of off-site in accordance with appropriate solid waste rules and regulations.

6.2.1 Soil Compaction

Fill should be placed in thin, horizontal loose lifts (maximum 12-inch) and compacted to a minimum soil density of at least 95 percent of the Modified Proctor maximum dry density (ASTM D-1557). The upper 12 inches of soil beneath pavements should be compacted to at least 98 percent of the Modified Proctor maximum dry density. In confined areas, such as utility trenches, portable compaction equipment and thinner loose fill lifts (3 to 4 inches) may be necessary.

Fill materials used in structural areas should have a target maximum dry density of 95 pcf or greater. If lighter weight fill materials are used, the NOVA geotechnical engineer should be consulted to assess the impact on design recommendations.

Soil moisture content should be maintained within 2 percent of the optimum moisture content. We recommend that the grading contractor have equipment on site during earthwork for both drying and wetting fill soils. Soils excavated from below the water table will likely require significant efforts to adjust the moisture contents prior to reuse as fill.

A NOVA soils technician, who can assess suitability of materials used, and uniformity and appropriateness of compaction efforts, should observe all filling and subgrade preparation. Field tests, using thin-wall tube, nuclear or sand cone testing methods (ASTM D-2937, D-6938, or D-1556 respectively) should also be performed. When filling in small areas, at least one test per day per area should be required.

6.3 GROUNDWATER CONTROL

A stabilized groundwater table was encountered in the test borings at depths varying between about 2 feet to 4 feet BEG at the time of our field exploration. Depending on the area of the site under consideration, groundwater levels have differing implications for design and construction. The extent and nature of any dewatering required during construction will be dependent on the actual groundwater conditions prevalent at the time of construction and the effectiveness of construction drainage to prevent run-off into open excavations.

Based on our understanding of the proposed construction, groundwater should not adversely impact installation of expanded pavement sections along the alignment of study, but could be an issue with respect to the installation of subsurface utilities in lower-lying areas, if applicable to this improvements project.

As previously noted, groundwater levels are subject to seasonal, climatic and other variations and may be different at other times and locations.

6.4 PAVEMENTS

Based on conversations with the design team, we understand that the shoulder widening of Bauer Road is to include 1½ inches asphaltic surface course (FDOT SuperPave –FC 9.5), underlain by 2 inches of asphaltic base course (FDOT SuperPave – FC 12.5) and a FDOT Base Group 6 base material. Based on the results of our field exploration, it is our professional opinion that the subgrade conditions encountered at the auger boring locations are adaptable for providing adequate subgrade support of this pavement section.

We recommend that the Base Group 6 material consist of 8 inches of an FDOT Graded Aggregate Base (GAB) course with a minimum LBR value of 100 (this base type is recommended due to the historical tendency of this region to flood during the wet season), installed over 12 inches of a Stabilized Subgrade course with a minimum Limerock Bearing Ratio (LBR) value of 40, placed in general accordance with this report and FDOT requirements.

Based on the results of our field exploration, the proposed pavement section for the shoulder widening portion of this project is suitable for its intended use. We note that the native slightly silty to silty sands (SP-SM, SM) soils generally encountered throughout the alignment within the upper 2 feet of the soil horizon are expected to meet the LBR requirement of 40 for the Stabilized Subgrade course, based on the results of two (2) LBR tests performed on bulk samples of these materials.

All asphalt material and paving operations should meet applicable specifications of the Asphalt Institute and FDOT requirements. A NOVA technician should observe placement and perform density testing of the base course material and asphalt.

7.0 CONSTRUCTION OBSERVATIONS

7.1 SUBGRADE

Once site grading is completed, the subgrade may be exposed to adverse construction activities and weather conditions. The subgrade should be well-drained to prevent the accumulation of water. If the exposed subgrade becomes saturated or frozen, the NOVA geotechnical engineer should be consulted.

A final subgrade evaluation should be performed by the NOVA geotechnical engineer immediately prior to pavements or slab-on-grade placement. If practical, proofrolling may be used to re-densify the surface and to detect any soil, which has become excessively wet or otherwise loosened.

7.2 PAVEMENTS

The recommended pavement sections should utilize materials and be constructed in accordance with applicable FDOT specifications. Also, NOVA should be retained during construction to confirm subgrade conditions are as anticipated and that the construction process is as required by the contract documents

APPENDIX A

Figures and Maps



APPROXIMATE SITE LOCATION

© 2016 Google

Google Earth

Base map provided by Google Earth

Scale: Not To Scale
Date Drawn: December 20, 2016
Drawn By: J. James
Checked By: W. Lawrence



140-A Lurton Street
Pensacola, Florida 32505
850.607.7782 ♦ 850.249.6683

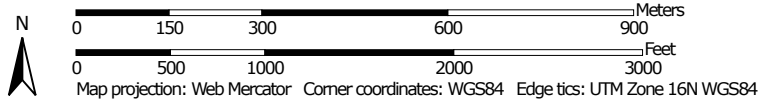
PROJECT LOCATION MAP
Bauer Road Improvements
 Pensacola, Escambia County, Florida
 NOVA Project Number 8216171

Soil Map—Escambia County, Florida
(8216171 Bauer Road Improvements)




Warning: Soil Map may not be valid at this scale.

Map Scale: 1:12,200 if printed on A portrait (8.5" x 11") sheet.





MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Escambia County, Florida
Survey Area Data: Version 14, Sep 23, 2016

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Data not available.

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Escambia County, Florida (FL033)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
4	Pickney sand	0.6	1.0%
5	Croatan and Pickney soils, depressional	23.7	37.7%
9	Leon sand, 0 to 2 percent slopes	6.8	10.9%
11	Hurricane sand, 0 to 5 percent slopes	10.7	17.0%
14	Allanton-Pottsburg complex	5.2	8.3%
15	Resota sand, 0 to 5 percent slopes	15.8	25.2%
Totals for Area of Interest		62.9	100.0%


APPENDIX B

Subsurface Data



Base maps provided by *SIGMA Consulting Group, Inc.*

LEGEND

 B-x = 5-ft. Auger Boring

 LBR Sample Location

Scale: Not To Scale
 Date Drawn: December 29, 2016
 Drawn By: J. James
 Checked By: W. Lawrence




140-A Lurton Street
 Pensacola, Florida 32505
 850.607.7782 ♦ 850.249.6683

BORING LOCATION PLAN
 Bauer Road Improvements
 Pensacola, Escambia County, Florida
 NOVA Project Number 8216171



Base maps provided by *SIGMA Consulting Group, Inc.*

LEGEND

 B-x = 5-ft. Auger Boring

 LBR Sample Location

Scale: Not To Scale
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 B-x = 5-ft. Auger Boring

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Base maps provided by *SIGMA Consulting Group, Inc.*

LEGEND

 B-x = 5-ft. Auger Boring

 LBR Sample Location






Scale: Not To Scale
 Date Drawn: December 29, 2016
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BORING LOCATION PLAN
 Bauer Road Improvements
 Pensacola, Escambia County, Florida
 NOVA Project Number 8216171

SYMBOLS AND ABBREVIATIONS

<u>SYMBOL</u>	<u>DESCRIPTION</u>
N-Value	No. of Blows of a 140-lb. Weight Falling 30 Inches Required to Drive a Standard Spoon 1 Foot
WOR	Weight of Drill Rods
WOH	Weight of Drill Rods and Hammer
	Sample from Auger Cuttings
	Standard Penetration Test Sample
	Thin-wall Shelby Tube Sample (Undisturbed Sampler Used)
% REC	Percent Core Recovery from Rock Core Drilling
RQD	Rock Quality Designation
	Stabilized Groundwater Level
	Seasonal High Groundwater Level (also referred to as the W.S.W.T.)
NE	Not Encountered
GNE	Groundwater Not Encountered
BT	Boring Terminated
-200 (%)	Fines Content or % Passing No. 200 Sieve
MC (%)	Moisture Content
LL	Liquid Limit (Atterberg Limits Test)
PI	Plasticity Index (Atterberg Limits Test)
K	Coefficient of Permeability
Org. Cont.	Organic Content
G.S. Elevation	Ground Surface Elevation

UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS		GROUP SYMBOLS	TYPICAL NAMES	
COARSE-GRAINED SOILS More than 50% retained on the No. 200 sieve*	GRAVELS 50% or more of coarse fraction retained on No. 4 sieve	CLEAN GRAVELS	GW Well-graded gravels and gravel-sand mixtures, little or no fines	
			GP Poorly graded gravels and gravel-sand mixtures, little or no fines	
		GRAVELS WITH FINES	GM	Silty gravels and gravel-sand-silt mixtures
			GC	Clayey gravels and gravel-sand-clay mixtures
	SANDS More than 50% of coarse fraction passes No. 4 sieve	CLEAN SANDS 5% or less passing No. 200 sieve	SW**	Well-graded sands and gravelly sands, little or no fines
			SP**	Poorly graded sands and gravelly sands, little or no fines
SANDS with 12% or more passing No. 200 sieve		SM**	Silty sands, sand-silt mixtures	
		SC**	Clayey sands, sand-clay mixtures	
FINE-GRAINED SOILS 50% or more passes the No. 200 sieve*	SILTS AND CLAYS Liquid limit 50% or less	ML	Inorganic silts, very fine sands, rock flour, silty or clayey fine sands	
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, lean clays	
		OL	Organic silts and organic silty clays of low plasticity	
	SILTS AND CLAYS Liquid limit greater than 50%	MH	Inorganic silts, micaceous or diamicaceous fine sands or silts, elastic silts	
		CH	Inorganic clays or clays of high plasticity, fat clays	
		OH	Organic clays of medium to high plasticity	
		PT	Peat, muck and other highly organic soils	

*Based on the material passing the 3-inch (75 mm) sieve

** Use dual symbol (such as SP-SM and SP-SC) for soils with more than 5% but less than 12% passing the No. 200 sieve

RELATIVE DENSITY

(Sands and Gravels)

Very loose – Less than 4 Blow/Foot
 Loose – 4 to 10 Blows/Foot
 Medium Dense – 11 to 30 Blows/Foot
 Dense – 31 to 50 Blows/Foot
 Very Dense – More than 50 Blows/Foot

CONSISTENCY

(Sils and Clays)

Very Soft – Less than 2 Blows/Foot
 Soft – 2 to 4 Blows/Foot
 Medium Stiff – 5 to 8 Blows/Foot
 Stiff – 9 to 15 Blows/Foot
 Very Stiff – 16 to 30 Blows/Foot
 Hard – More than 30 Blows/Foot

RELATIVE HARDNESS

(Limestone)

Soft – 100 Blows for more than 2 Inches
 Hard – 100 Blows for less than 2 Inches

MODIFIERS

These modifiers Provide Our Estimate of the Amount of Minor Constituents (Silt or Clay Size Particles) in the Soil Sample

Trace – 5% or less
 With Silt or With Clay – 6% to 11%
 Silty or Clayey – 12% to 30%
 Very Silty or Very Clayey – 31% to 50%

These Modifiers Provide Our Estimate of the Amount of Organic Components in the Soil Sample

Trace – Less than 3%
 Few – 3% to 4%
 Some – 5% to 8%
 Many – Greater than 8%

These Modifiers Provide Our Estimate of the Amount of Other Components (Shell, Gravel, Etc.) in the Soil Sample

Trace – 5% or less
 Few – 6% to 12%
 Some – 13% to 30%
 Many – 31% to 50%



TEST BORING RECORD B-1

PROJECT: Bauer Road Improvements PROJECT NO.: 8216171
 CLIENT: SIGMA Consulting Group
 PROJECT LOCATION: Escambia County, Florida
 LOCATION: Per Boring Location Plan ELEVATION: Existing Grade
 DRILLER: J. James LOGGED BY: J. James
 DRILLING METHOD: Hand Auger DATE: December 21, 2016
 DEPTH TO - WATER> INITIAL: 3 ft. AFTER 24 HOURS: CAVING> C.

This information pertains only to this boring and should not be interpreted as being indicative of the site.

Depth (feet)	Elevation (ft-MSL)	Description	Graphic	Groundwater	Sample Type	N-Value	■ %<#200 ● BLOW COUNT ▲ NATURAL MOISTURE PLASTIC LIMIT LIQUID LIMIT 10 20 30 40 50 70 90													
0		Brown Fine-Grained SAND with Silt (SP-SM)																		
1																				
2		Dark-Brown/Gray Fine-Grained SAND with Silt and trace organics (SP-SM)																		
3																				
4																				
5		Boring Terminated at 5 ft.																		
6																				
7																				



**TEST BORING
RECORD
B-2**

PROJECT: Bauer Road Improvements PROJECT NO.: 8216171
 CLIENT: SIGMA Consulting Group
 PROJECT LOCATION: Escambia County, Florida
 LOCATION: Per Boring Location Plan ELEVATION: Existing Grade
 DRILLER: J. James LOGGED BY: J. James
 DRILLING METHOD: Hand Auger DATE: December 21, 2016
 DEPTH TO - WATER> INITIAL: 3 ft. AFTER 24 HOURS: CAVING> C.

This information pertains only to this boring and should not be interpreted as being indicative of the site.

Depth (feet)	Elevation (ft-MSL)	Description	Graphic	Groundwater	Sample Type	N-Value	■ %<#200 ● BLOW COUNT ▲ NATURAL MOISTURE PLASTIC LIMIT LIQUID LIMIT 10 20 30 40 50 70 90													
0		TOPSOIL (approx. 8 in.)																		
1		Orange/Tan Fine-Grained SAND with Silt (SP SM)																		
2		Tan Fine-Grained SAND (SP)																		
3		Dark-Brown/Gray Fine-Grained SAND with Silt, and trace organics consisting of wood and leaves (SP-SM)		☼			■											▲		
4																				
5		Boring Terminated at 5 ft.																		
6																				
7																				

Refusal due to roots.



**TEST BORING
RECORD
B-3**

PROJECT: Bauer Road Improvements PROJECT NO.: 8216171
 CLIENT: SIGMA Consulting Group
 PROJECT LOCATION: Escambia County, Florida
 LOCATION: Per Boring Location Plan ELEVATION: Existing Grade
 DRILLER: J. James LOGGED BY: J. James
 DRILLING METHOD: Hand Auger DATE: December 21, 2016
 DEPTH TO - WATER> INITIAL: 2 ft. AFTER 24 HOURS: CAVING> .C.

This information pertains only to this boring and should not be interpreted as being indicative of the site.

Depth (feet)	Elevation (ft-MSL)	Description	Graphic	Groundwater	Sample Type	N-Value	■ %<#200 ● BLOW COUNT ▲ NATURAL MOISTURE PLASTIC LIMIT LIQUID LIMIT 10 20 30 40 50 70 90													
0		Dark-Brown/Tan Fine-Grained SAND with Silt (SP-SM)																		
1																				
2		Dark-Brown/Gray Fine-Grained SAND with Silt and trace organics consisting of wood and leaves (SP-SM)																		
3		Boring Terminated at 2.5 ft.																		
4																				
5																				
6																				
7																				



**TEST BORING
RECORD
B-4**

PROJECT: Bauer Road Improvements PROJECT NO.: 8216171
 CLIENT: SIGMA Consulting Group
 PROJECT LOCATION: Escambia County, Florida
 LOCATION: Per Boring Location Plan ELEVATION: Existing Grade
 DRILLER: J. James LOGGED BY: J. James
 DRILLING METHOD: Hand Auger DATE: December 21, 2016
 DEPTH TO - WATER> INITIAL: 2 ft. AFTER 24 HOURS: CAVING> C.

This information pertains only to this boring and should not be interpreted as being indicative of the site.

Depth (feet)	Elevation (ft-MSL)	Description	Graphic	Groundwater	Sample Type	N-Value	■ %<#200 ● BLOW COUNT ▲ NATURAL MOISTURE PLASTIC LIMIT LIQUID LIMIT 10 20 30 40 50 70 90													
0		Dark-Brown Fine-Grained SAND with Silt (SP-SM)																		
1		Orange/Tan Fine-Grained SAND with Silt (SP SM)																		
2		Dark-Brown/Gray Fine-Grained SAND with Silt, and some trace organics consisting of wood and leaves (SP-SM)																		
3		Boring Terminated at 2.5 ft.																		
4																				
5																				
6																				
7																				

Redusal due to roots.



**TEST BORING
RECORD
B-5**

PROJECT: Bauer Road Improvements PROJECT NO.: 8216171
 CLIENT: SIGMA Consulting Group
 PROJECT LOCATION: Escambia County, Florida
 LOCATION: Per Boring Location Plan ELEVATION: Existing Grade
 DRILLER: J. James LOGGED BY: J. James
 DRILLING METHOD: Hand Auger DATE: December 21, 2016
 DEPTH TO - WATER> INITIAL: 2.5 ft. AFTER 24 HOURS: CAVING> C.

This information pertains only to this boring and should not be interpreted as being indicative of the site.

Depth (feet)	Elevation (ft-MSL)	Description	Graphic	Groundwater	Sample Type	N-Value	■ %<#200 ● BLOW COUNT ▲ NATURAL MOISTURE PLASTIC LIMIT LIQUID LIMIT 10 20 30 40 50 70 90									
0		Dark-Brown/Gray Fine-Grained SAND with Silt and organic staining (SP-SM)														
1																
2																
3																
4																
5		Boring Terminated at 5 ft.														
6																
7																



**TEST BORING
RECORD
B-6**

PROJECT: Bauer Road Improvements PROJECT NO.: 8216171
 CLIENT: SIGMA Consulting Group
 PROJECT LOCATION: Escambia County, Florida
 LOCATION: Per Boring Location Plan ELEVATION: Existing Grade
 DRILLER: J. James LOGGED BY: J. James
 DRILLING METHOD: Hand Auger DATE: December 21, 2016
 DEPTH TO - WATER> INITIAL: ∇ GNE AFTER 24 HOURS: ∇ CAVING> C.

This information pertains only to this boring and should not be interpreted as being indicative of the site.

Depth (feet)	Elevation (ft-MSL)	Description	Graphic	Groundwater	Sample Type	N-Value	■ %<#200 ● BLOW COUNT ▲ NATURAL MOISTURE PLASTIC LIMIT LIQUID LIMIT 10 20 30 40 50 70 90	
0		TOPSOIL (approx. 2 in.)						
		Orange Fine-Grained Silty SAND (SM)						
1								
2		Auger Refusal at 1.75 ft.						
3								
4								
5								
6								
7								

Encountered Geotextile at termination depth



**TEST BORING
RECORD
B-7**

PROJECT: Bauer Road Improvements PROJECT NO.: 8216171
 CLIENT: SIGMA Consulting Group
 PROJECT LOCATION: Escambia County, Florida
 LOCATION: Per Boring Location Plan ELEVATION: Existing Grade
 DRILLER: J. James LOGGED BY: J. James
 DRILLING METHOD: Hand Auger DATE: December 21, 2016
 DEPTH TO - WATER> INITIAL: ∇ GNE AFTER 24 HOURS: ∇ CAVING> .C.

This information pertains only to this boring and should not be interpreted as being indicative of the site.

Depth (feet)	Elevation (ft-MSL)	Description	Graphic	Groundwater	Sample Type	N-Value	■ %<#200 ● BLOW COUNT ▲ NATURAL MOISTURE PLASTIC LIMIT LIQUID LIMIT 10 20 30 40 50 70 90													
0		TOPSOIL (approx. 2 in.)																		
		Orange Fine-Grained Silty SAND (SM)																		
1																				
2		Auger Refusal at 1.75 ft.																		
3																				
4																				
5																				
6																				
7																				

Encountered Geotextile at termination depth



**TEST BORING
RECORD
B-8**

PROJECT: Bauer Road Improvements PROJECT NO.: 8216171
 CLIENT: SIGMA Consulting Group
 PROJECT LOCATION: Escambia County, Florida
 LOCATION: Per Boring Location Plan ELEVATION: Existing Grade
 DRILLER: J. James LOGGED BY: J. James
 DRILLING METHOD: Hand Auger DATE: December 21, 2016
 DEPTH TO - WATER> INITIAL: ☒ GNE AFTER 24 HOURS: ☒ CAVING> C.

This information pertains only to this boring and should not be interpreted as being indicative of the site.

Depth (feet)	Elevation (ft-MSL)	Description	Graphic	Groundwater	Sample Type	N-Value	■ %<#200 ● BLOW COUNT ▲ NATURAL MOISTURE PLASTIC LIMIT LIQUID LIMIT 10 20 30 40 50 70 90													
0																				
		Brown Fine-Grained SAND (SP)																		
		Orange Fine-Grained SAND with Silt (SP- SM)																		
1																				
		Auger Refusal at 1.25 ft.																		
2																				
3																				
4																				
5																				
6																				
7																				

Encountered Geotextile at termination depth



**TEST BORING
RECORD
B-9**

PROJECT: Bauer Road Improvements PROJECT NO.: 8216171
 CLIENT: SIGMA Consulting Group
 PROJECT LOCATION: Escambia County, Florida
 LOCATION: Per Boring Location Plan ELEVATION: Existing Grade
 DRILLER: J. James LOGGED BY: J. James
 DRILLING METHOD: Hand Auger DATE: December 21, 2016
 DEPTH TO - WATER> INITIAL: 2 ft. AFTER 24 HOURS: CAVING> C. 3

This information pertains only to this boring and should not be interpreted as being indicative of the site.

Depth (feet)	Elevation (ft-MSL)	Description	Graphic	Groundwater	Sample Type	N-Value	■ %<#200 ● BLOW COUNT ▲ NATURAL MOISTURE PLASTIC LIMIT LIQUID LIMIT 10 20 30 40 50 70 90													
0		Red/Orange Fine-Grained SAND with Silt (SP-SM) Tan Fine-Grained SAND with Silt (SP-SM)																		
1																				
2		Dark-Brown/Gray Fine-Grained Silty SAND with some organics consisting of wood and leaves (SM)																		
3		Boring Terminated at 3 ft.																		
4																				
5																				
6																				
7																				



**TEST BORING
RECORD
B-10**

PROJECT: Bauer Road Improvements PROJECT NO.: 8216171
 CLIENT: SIGMA Consulting Group
 PROJECT LOCATION: Escambia County, Florida
 LOCATION: Per Boring Location Plan ELEVATION: Existing Grade
 DRILLER: J. James LOGGED BY: J. James
 DRILLING METHOD: Hand Auger DATE: December 21, 2016
 DEPTH TO - WATER> INITIAL: 2.5 ft. AFTER 24 HOURS: CAVING> C. 4

This information pertains only to this boring and should not be interpreted as being indicative of the site.

Depth (feet)	Elevation (ft-MSL)	Description	Graphic	Groundwater	Sample Type	N-Value	■ %<#200 ● BLOW COUNT ▲ NATURAL MOISTURE PLASTIC LIMIT LIQUID LIMIT 10 20 30 40 50 70 90													
0		TOPSOIL (approx. 4 in.)																		
		Orange/Tan Fine-Grained Silty SAND (SM)																		
1																				
2		Dark-Brown/Gray Fine-Grained SAND with Silt, and some organics consisting of wood and leaves (SP-SM)																		
3																				
4		Boring Terminated at 4 ft.																		
5																				
6																				
7																				



**TEST BORING
RECORD
B-11**

PROJECT: Bauer Road Improvements PROJECT NO.: 8216171
 CLIENT: SIGMA Consulting Group
 PROJECT LOCATION: Escambia County, Florida
 LOCATION: Per Boring Location Plan ELEVATION: Existing Grade
 DRILLER: J. James LOGGED BY: J. James
 DRILLING METHOD: Hand Auger DATE: December 21, 2016
 DEPTH TO - WATER> INITIAL: 2 ft. AFTER 24 HOURS: CAVING> C. 2.5

This information pertains only to this boring and should not be interpreted as being indicative of the site.

Depth (feet)	Elevation (ft-MSL)	Description	Graphic	Groundwater	Sample Type	N-Value	■ %<#200 ● BLOW COUNT ▲ NATURAL MOISTURE PLASTIC LIMIT LIQUID LIMIT 10 20 30 40 50 70 90													
0		TOPSOIL (approx. 4 in.)																		
		Tan Fine-Grained SAND with Silt (SP SM)																		
1																				
2		Dark-Brown/Gray Fine-Grained SAND with Silt, and some organics consisting of wood and leaves (SP-SM)		▽																
3		Boring Terminated at 2.5 ft.		C																
4																				
5																				
6																				
7																				



**TEST BORING
RECORD
B-12**

PROJECT: Bauer Road Improvements PROJECT NO.: 8216171
 CLIENT: SIGMA Consulting Group
 PROJECT LOCATION: Escambia County, Florida
 LOCATION: Per Boring Location Plan ELEVATION: Existing Grade
 DRILLER: J. James LOGGED BY: J. James
 DRILLING METHOD: Hand Auger DATE: December 21, 2016
 DEPTH TO - WATER> INITIAL: 2.5 ft. AFTER 24 HOURS: CAVING> C.

This information pertains only to this boring and should not be interpreted as being indicative of the site.

Depth (feet)	Elevation (ft-MSL)	Description	Graphic	Groundwater	Sample Type	N-Value	■ %<#200 ● BLOW COUNT ▲ NATURAL MOISTURE PLASTIC LIMIT LIQUID LIMIT 10 20 30 40 50 70 90													
0		TOPSOIL (approx. 4 in.)																		
1		Tan Fine-Grained SAND with Silt (SP-SM)																		
2		Dark-Brown/Gray Fine-Grained SAND with Silt, and some organics consisting of wood (SP-SM)																		
3		Auger Refusal at 3 ft.																		
4																				
5																				
6																				
7																				



**TEST BORING
RECORD
B-13**

PROJECT: Bauer Road Improvements PROJECT NO.: 8216171
 CLIENT: SIGMA Consulting Group
 PROJECT LOCATION: Escambia County, Florida
 LOCATION: Per Boring Location Plan ELEVATION: Existing Grade
 DRILLER: J. James LOGGED BY: J. James
 DRILLING METHOD: Hand Auger DATE: December 21, 2016
 DEPTH TO - WATER> INITIAL: 3 ft. AFTER 24 HOURS: CAVING> C.

This information pertains only to this boring and should not be interpreted as being indicative of the site.

Depth (feet)	Elevation (ft-MSL)	Description	Graphic	Groundwater	Sample Type	N-Value	■ %<#200 ● BLOW COUNT ▲ NATURAL MOISTURE PLASTIC LIMIT LIQUID LIMIT 10 20 30 40 50 70 90													
0		TOPSOIL (approx. 4 in.)																		
		Orange/Tan Fine-Grained SAND with Silt (SP-SM)																		
1																				
		Light-Brown/Grey Fine-Grained SAND (SP)																		
2																				
3																				
4																				
5		Boring Terminated at 5 ft.																		
6																				
7																				



**TEST BORING
RECORD
B-14**

PROJECT: Bauer Road Improvements PROJECT NO.: 8216171
 CLIENT: SIGMA Consulting Group
 PROJECT LOCATION: Escambia County, Florida
 LOCATION: Per Boring Location Plan ELEVATION: Existing Grade
 DRILLER: J. James LOGGED BY: J. James
 DRILLING METHOD: Hand Auger DATE: December 21, 2016
 DEPTH TO - WATER> INITIAL: 3.5 ft. AFTER 24 HOURS: CAVING> C.

This information pertains only to this boring and should not be interpreted as being indicative of the site.

Depth (feet)	Elevation (ft-MSL)	Description	Graphic	Groundwater	Sample Type	N-Value	■ %<#200 ● BLOW COUNT ▲ NATURAL MOISTURE PLASTIC LIMIT LIQUID LIMIT 10 20 30 40 50 70 90	
0		TOPSOIL (approx. 4 in.)						
		Orange/Tan Fine-Grained SAND with Silt (SP-SM)					■	▲
1								
2								
3		Light-Brown/Grey Fine-Grained SAND (SP)						
4								
5		Boring Terminated at 5 ft.						
6								
7								



**TEST BORING
RECORD
B-15**

PROJECT: Bauer Road Improvements PROJECT NO.: 8216171
 CLIENT: SIGMA Consulting Group
 PROJECT LOCATION: Escambia County, Florida
 LOCATION: Per Boring Location Plan ELEVATION: Existing Grade
 DRILLER: J. James LOGGED BY: J. James
 DRILLING METHOD: Hand Auger DATE: December 21, 2016
 DEPTH TO - WATER> INITIAL: 4 ft. AFTER 24 HOURS: CAVING> C.

This information pertains only to this boring and should not be interpreted as being indicative of the site.

Depth (feet)	Elevation (ft-MSL)	Description	Graphic	Groundwater	Sample Type	N-Value	■ %<#200 ● BLOW COUNT ▲ NATURAL MOISTURE PLASTIC LIMIT LIQUID LIMIT 10 20 30 40 50 70 90													
0		Brown/Orange Fine-Grained SAND with Silt (SP-SM)	[Pattern]																	
		Grey/Brown Fine-Grained SAND (SP)	[Pattern]																	
1																				
		Tan Fine-Grained SAND (SP)	[Pattern]																	
2																				
		Off-White Fine-Grained SAND (SP)	[Pattern]																	
3																				
4																				
		Boring Terminated at 5 ft.																		
5																				
6																				
7																				



**TEST BORING
RECORD
B-16**

PROJECT: Bauer Road Improvements PROJECT NO.: 8216171
 CLIENT: SIGMA Consulting Group
 PROJECT LOCATION: Escambia County, Florida
 LOCATION: Per Boring Location Plan ELEVATION: Existing Grade
 DRILLER: J. James LOGGED BY: J. James
 DRILLING METHOD: Hand Auger DATE: December 21, 2016
 DEPTH TO - WATER> INITIAL: 4 ft. AFTER 24 HOURS: CAVING> C.

This information pertains only to this boring and should not be interpreted as being indicative of the site.

Depth (feet)	Elevation (ft-MSL)	Description	Graphic	Groundwater	Sample Type	N-Value	■ %<#200 ● BLOW COUNT ▲ NATURAL MOISTURE PLASTIC LIMIT LIQUID LIMIT 10 20 30 40 50 70 90													
0		TOPSOIL (approx. 6 in.)																		
		Orange Fine-Grained SAND with Silt (SP-SM)																		
1		Gray Fine-Grained SAND (SP)																		
2																				
3		Grey/Tan Fine-Grained SAND (SP)																		
4																				
5		Boring Terminated at 5 ft.																		
6																				
7																				



**TEST BORING
RECORD
B-17**

PROJECT: Bauer Road Improvements PROJECT NO.: 8216171
 CLIENT: SIGMA Consulting Group
 PROJECT LOCATION: Escambia County, Florida
 LOCATION: Per Boring Location Plan ELEVATION: Existing Grade
 DRILLER: J. James LOGGED BY: J. James
 DRILLING METHOD: Hand Auger DATE: December 21, 2016
 DEPTH TO - WATER> INITIAL: 4 ft. AFTER 24 HOURS: CAVING> C.

This information pertains only to this boring and should not be interpreted as being indicative of the site.

Depth (feet)	Elevation (ft-MSL)	Description	Graphic	Groundwater	Sample Type	N-Value	■ %<#200 ● BLOW COUNT ▲ NATURAL MOISTURE PLASTIC LIMIT LIQUID LIMIT 10 20 30 40 50 70 90													
0		TOPSOIL (approx. 6 in.)																		
1		Orange Fine-Grained Silty SAND (SM)																		
2		Gray Fine-Grained SAND (SP)																		
3																				
4		Grey/Tan Fine-Grained SAND (SP)																		
5		Boring Terminated at 5 ft.																		
6																				
7																				



**TEST BORING
RECORD
B-18**

PROJECT: Bauer Road Improvements PROJECT NO.: 8216171
 CLIENT: SIGMA Consulting Group
 PROJECT LOCATION: Escambia County, Florida
 LOCATION: Per Boring Location Plan ELEVATION: Existing Grade
 DRILLER: J. James LOGGED BY: J. James
 DRILLING METHOD: Hand Auger DATE: December 21, 2016
 DEPTH TO - WATER> INITIAL: 4 ft. AFTER 24 HOURS: CAVING> C.

This information pertains only to this boring and should not be interpreted as being indicative of the site.

Depth (feet)	Elevation (ft-MSL)	Description	Graphic	Groundwater	Sample Type	N-Value	■ %<#200 ● BLOW COUNT ▲ NATURAL MOISTURE PLASTIC LIMIT LIQUID LIMIT 10 20 30 40 50 70 90													
0		TOPSOIL (approx. 3 in.)																		
		Brown/Orange Fine-Grained SAND with Silt (SP SM)																		
1																				
2																				
3		Gray Fine-Grained SAND (SP)																		
4																				
5		Boring Terminated at 5 ft.																		
6																				
7																				

APPENDIX C

Laboratory Data

SUMMARY OF CLASSIFICATION & INDEX TESTING

Bauer Road Improvements
Escambia County, Florida
NOVA Project No. 8216171

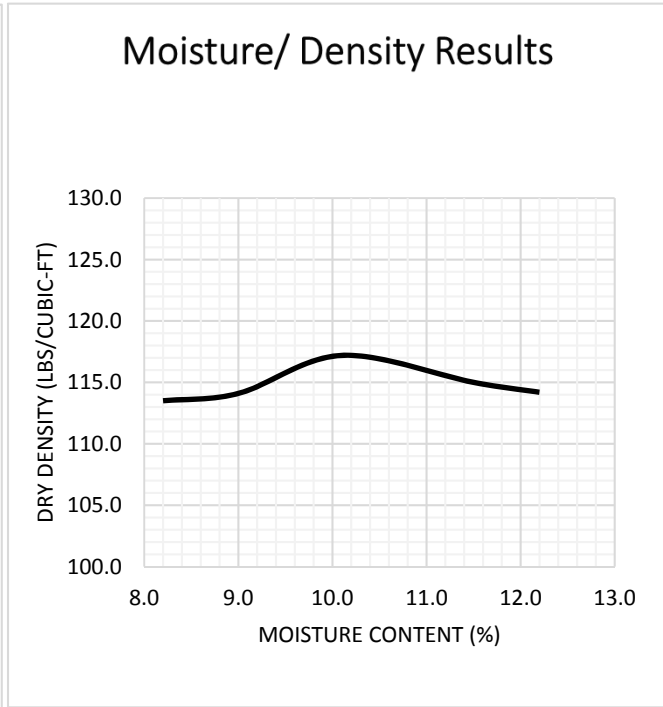
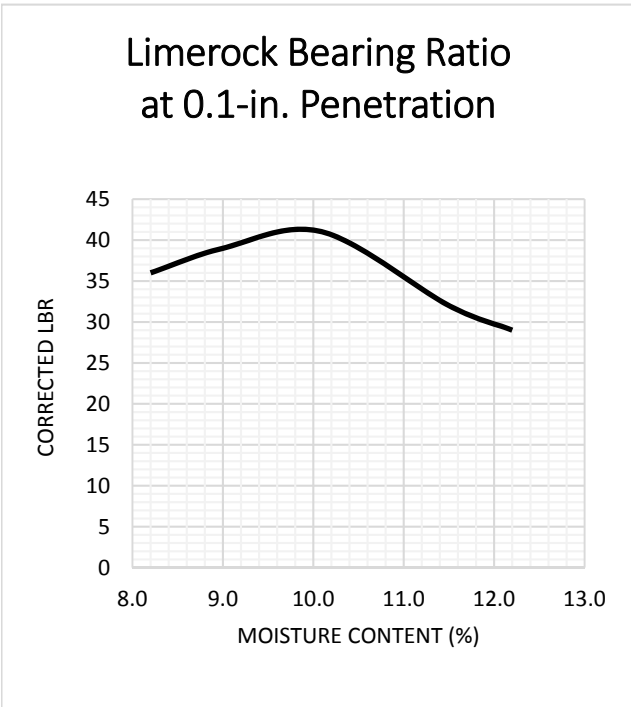
SUMMARY OF CLASSIFICATION AND INDEX TESTING					
Boring	Depth	Natural Moisture (%)	Percent Fines (%>#200)	Percent Organics (%)	USCS Soil Classification
B-1	2'-5'	14	5	2	SP-SM
B-2	3'-5'	41	6	18	SP-SM
B-6	0-1 ½'	10	12	---	SP-SM
B-9	1 ½'-3'	13	19	24	SM
B-10	0-2'	13	19	---	SM
B-14	0-3'	17	10	---	SP-SM
B-17	0-1 ½'	14	14	---	SM
LBR-1	---	11	17	---	SM
LBR-2	---	12	11	---	SP-SM

Report of Limerock Bearing Ratio

FM 5-515



Project Number 8216171
Project Name Bauer Road Improvements
Material Description Brown Fine-Grained Silty SAND (SM)
Sample Number LBR-1
Date Tested 12/29/2016



Mold #	1	2	3	4	5
Dry Density (pcf)	113.5	114.1	117.2	115.0	114.2
Moisture Content (%)	8.2	9.0	10.1	11.5	12.2
LBR Value	36	39	41	32	29

Percent Passing 3/4" Sieve	100.0%
Percent Passing #4 Sieve	100.0%
Percent Passing #200 Sieve	16.7%
Maximum Density	117.1
Optimum Moisture	10.1%
Estimated LBR	41

Test Remarks:
 Compacted using ASTM
 D1557/T180 (Modified Proctor
 Method)

NOVA Technician: J. James

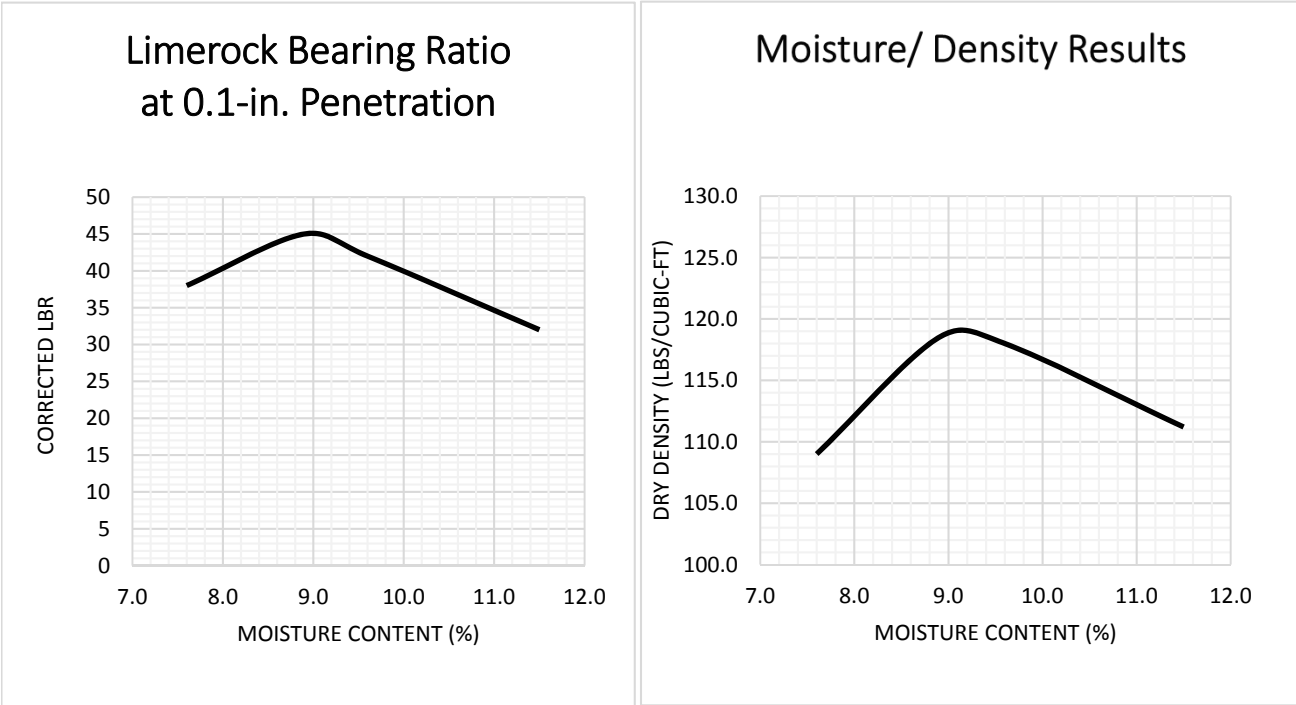
Reviewed By: W. Lawrence

Report of Limerock Bearing Ratio

FM 5-515



Project Number 8216171
Project Name Bauer Road Improvements
Material Description Brown/Orange Fine-Grained SAND with Silt (SP-SM)
Sample Number LBR-2
Date Tested 12/29/2016



Mold #	1	2	3	4	
Dry Density (pcf)	109.0	118.5	118.0	111.2	
Moisture Content (%)	7.6	8.9	9.6	11.5	
LBR Value	38	45	42	32	

Percent Passing 3/4" Sieve	100.0%
Percent Passing #4 Sieve	100.0%
Percent Passing #200 Sieve	10.9%
Maximum Density	118.7
Optimum Moisture	9.1%
Estimated LBR	45

Test Remarks:
 Compacted using ASTM
 D1557/T180 (Modified Proctor
 Method)

NOVA Technician: J. James

Reviewed By: W. Lawrence

APPENDIX D

Qualifications of Recommendations

QUALIFICATIONS OF RECOMMENDATIONS

The findings, conclusions and recommendations presented in this report represent our professional opinions concerning subsurface conditions at the site. The opinions presented are relative to the dates of our site work and should not be relied on to represent conditions at later dates or at locations not explored. The opinions included herein are based on information provided to us, the data obtained at specific locations during the study, and our previous experience. If additional information becomes available which might impact our geotechnical opinions, it will be necessary for NOVA to review the information, re-assess the potential concerns, and re-evaluate our conclusions and recommendations.

Regardless of the thoroughness of a geotechnical exploration, there is the possibility that conditions between borings may differ from those encountered at specific boring locations, that conditions are not as anticipated by the designers and/or the contractors, or that either natural events or the construction process has altered the subsurface conditions. These variations are an inherent risk associated with subsurface conditions in this region and the approximate methods used to obtain the data. These variations may not be apparent until construction.

The professional opinions presented in this report are not final. Field observations and foundation installation monitoring by the geotechnical engineer, as well as soil density testing and other quality assurance functions associated with site earthwork and foundation construction, are an extension of this report. Therefore, NOVA should be retained by the owner to observe all earthwork and foundation construction to confirm that the conditions anticipated in this study actually exist, and to finalize or amend our conclusions and recommendations. NOVA is not responsible or liable for the conclusions and recommendations presented in this report if NOVA does not perform these observation and testing services.

This report is intended for the sole use of **SIGMA Consulting Group, Inc.** only. The scope of work performed during this study was developed for purposes specifically intended **SIGMA Consulting Group, Inc.** only, and may not satisfy other users' requirements. Use of this report or the findings, conclusions or recommendations by others will be at the sole risk of the user. NOVA is not responsible or liable for the interpretation by others of the data in this report, nor their conclusions, recommendations or opinions.

Our professional services have been performed, our findings obtained, our conclusions derived and our recommendations prepared in accordance with generally accepted geotechnical engineering principles and practices in the State of Florida. This warranty is in lieu of all other statements or warranties, either expressed or implied.

Important Information about This

Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical-engineering study conducted for a civil engineer may not fulfill the needs of a constructor — a construction contractor — or even another civil engineer. Because each geotechnical-engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client. No one except you should rely on this geotechnical-engineering report without first conferring with the geotechnical engineer who prepared it. *And no one — not even you — should apply this report for any purpose or project except the one originally contemplated.*

Read the Full Report

Serious problems have occurred because those relying on a geotechnical-engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

Geotechnical Engineers Base Each Report on a Unique Set of Project-Specific Factors

Geotechnical engineers consider many unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk-management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical-engineering report that was:

- not prepared for you;
- not prepared for your project;
- not prepared for the specific site explored; or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical-engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light-industrial plant to a refrigerated warehouse;
- the elevation, configuration, location, orientation, or weight of the proposed structure;
- the composition of the design team; or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes—even minor ones—and request an

assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

Subsurface Conditions Can Change

A geotechnical-engineering report is based on conditions that existed at the time the geotechnical engineer performed the study. *Do not rely on a geotechnical-engineering report whose adequacy may have been affected by:* the passage of time; man-made events, such as construction on or adjacent to the site; or natural events, such as floods, droughts, earthquakes, or groundwater fluctuations. *Contact the geotechnical engineer before applying this report to determine if it is still reliable.* A minor amount of additional testing or analysis could prevent major problems.

Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ — sometimes significantly — from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide geotechnical-construction observation is the most effective method of managing the risks associated with unanticipated conditions.

A Report's Recommendations Are Not Final

Do not overrely on the confirmation-dependent recommendations included in your report. *Confirmation-dependent recommendations are not final*, because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations *only* by observing actual subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's confirmation-dependent recommendations if that engineer does not perform the geotechnical-construction observation required to confirm the recommendations' applicability.*

A Geotechnical-Engineering Report Is Subject to Misinterpretation

Other design-team members' misinterpretation of geotechnical-engineering reports has resulted in costly

problems. Confront that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Constructors can also misinterpret a geotechnical-engineering report. Confront that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing geotechnical construction observation.

Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical-engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

Give Constructors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make constructors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give constructors the complete geotechnical-engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise constructors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure constructors have sufficient time* to perform additional study. Only then might you be in a position to give constructors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

Read Responsibility Provisions Closely

Some clients, design professionals, and constructors fail to recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help

others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Environmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform an *environmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical-engineering report does not usually relate any environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own environmental information, ask your geotechnical consultant for risk-management guidance. *Do not rely on an environmental report prepared for someone else.*

Obtain Professional Assistance To Deal with Mold

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the *express purpose* of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold-prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, many mold-prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical-engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; *none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention. Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.*

Rely, on Your GBC-Member Geotechnical Engineer for Additional Assistance

Membership in the Geotechnical Business Council of the Geoprofessional Business Association exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project. Confer with your GBC-Member geotechnical engineer for more information.



8811 Colesville Road/Suite G106, Silver Spring, MD 20910

Telephone: 301/565-2733 Facsimile: 301/589-2017

e-mail: info@geoprofessional.org www.geoprofessional.org

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ATTACHMENT B

ENVIRONMENTAL PERMITS

BAUER ROAD SHOULDER WIDENING

FPID: 437085-1-58-01

FEDERAL NO.: 9044-034-C

ENVIRONMENTAL PERMITTING NARRATIVE

The Bauer Road Shoulder Widening project will not involve any work within wetland areas regulated by the ACOE or the State of Florida per the wetlands delineation provided by our environmental subconsultant. The project is also eligible for stormwater exemption under the NFWFMD Rule 62-330.051(4)(c).



Brett J. Cyphers
Executive Director

Northwest Florida Water Management District

Carr Building, Suite 225, 3800 Commonwealth Blvd., MS LS225
Tallahassee, Florida 32399

Phone: (850) 921-2986 • Fax: (850) 921-3082

January 10, 2017

Jason L Lashley
Sigma Consulting Group
3298 Summit Blvd, Suite 32
Pensacola, FL 32503

Re: Bauer Road Shoulder Widening
Application # PDEX-033-17760-1
(Please reference the above number on all correspondence)

Dear Jason L Lashley:

The Northwest Florida Water Management District (District) received your application on January 05, 2017 requesting an exemption verification for the referenced project.

Based on the information provided, the District has determined that the project is eligible for an exemption under 62-330.051(4)(c). Therefore, the project will not need a District permit pursuant to rule reference.

This exemption verification only applies to the requirements of the District and does not relieve you of meeting the permit requirements of other agencies. Please contact Ken Greenwood at (850) 921-2986, Ron Potts at (850) 921-2986 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "MBateman". The signature is stylized and somewhat cursive.

Michael Bateman
P.E., Chief, Bureau of Environmental Resource Permitting

cc: Joy Blackmon
Escambia County Engineering
3363 West Park Place
Pensacola, FL 32505

GEORGE ROBERTS
Chair
Panama City

JERRY PATE
Vice Chair
Pensacola

JOHN W. ALTER
Secretary-Treasurer
Malone

GUS ANDREWS
DeFuniak Springs

JON COSTELLO
Tallahassee

MARC DUNBAR
Tallahassee

TED EVERETT
Chipley

NICK PATRONIS
Panama City Beach

BO SPRING
Port St. Joe

EXHIBIT I

**Bauer Road Paved Shoulders Project
Specification Number PD 17-18.044
FPID: 437085-1-58-01
Federal-Aid Project Number: 9044-034-C**

DRAWINGS & PLANS

2018-03-07_Bidding Plans:

Plans proposed for Bauer Road Paved Shoulders

**CONSTRUCTION CONTRACT
DOCUMENTS**

FOR

**AGREEMENT BETWEEN
THE BOARD OF COUNTY COMMISSIONERS OF
ESCAMBIA COUNTY, FLORIDA**

AND

FORM D (MODIFIED): Road/Drainage

CONSTRUCTION CONTRACT DOCUMENTS
FORM D

TABLE OF CONTENTS

Agreement Declarations		PAGE
Sec. 1	Contract Documents	1
Sec. 2	Scope of Work	1
Sec. 3	Contract Amount	1
Sec. 4	Bonds	2
Sec. 5	Contract Time and Liquidated Damages	2
Sec. 6	Exhibits Incorporated	3
Sec. 7	Notices	3
Sec. 8	Modification	4
Sec. 9	Successors and Assigns	4
Sec. 10	Governing Law	4
Sec. 11	No Waiver	4
Sec. 12	Entire Agreement	4
Sec. 13	Severability	4

Exhibits	PAGE
Exhibit A/General Terms and Conditions	6
1. Intent of Contract Documents	6
2. Investigation and Utilities	6
3. Schedule	7
4. Progress Payments	7
5. Payments Withheld	8
6. Final Payment	9
7. Submittals and Substitutions	9
8. Daily Reports, As-Builts and Meetings	10
9. Contract Time and Time Extensions	11
10. Changes in the Work	12
11. Claims and Disputes	13
12. Other Work	14
13. Indemnification and Insurance	14
14. Compliance with Laws	16
15. Cleanup and Protections	17
16. Assignment	17
17. Permits, Licenses and Taxes	17
18. Termination for Default	17
19. Termination for Convenience and Right of Suspension	19

Exhibits	PAGE	
20.	Completion	19
21.	Warranty	20
22.	Project Layout and Control	20
23.	Tests and Inspections	21
23.	Defective Work	22
24.	Supervision and Superintendents	23
25.	Protection of Work	23
26.	Emergencies	23
27.	Use of Premises	24
28.	Safety	24
29.	Project Meetings	25
Exhibit B/	Performance and Payment Bond	26
	Performance Bond	26
	Payment Bond	29
Exhibit C/	Insurance and Safety	32
Exhibit D/	Release and Affidavit	42
Exhibit E/	Form of Contract Application for Payment	44
Exhibit F/	Construction Change Order	45
Exhibit G/	Payment Adjustment – Bituminous Materials	
Exhibit H/	Working Drawings / Plans prepared by Engineer and Identified as Follows:	
	[Description/Sheet No./Date]	
Exhibit I/	Technical Specifications [Description/Date]	
Exhibit J/	Supplemental Terms and Conditions	
Exhibit K/	Federal Documents	
Exhibit L/	Solicitation Documents Index	

**AGREEMENT BETWEEN ESCAMBIA COUNTY, FLORIDA AND
FOR ROAD/DRAINAGE
CONSTRUCTION CONTRACT DOCUMENTS.**

THE BOARD OF COUNTY COMMISSIONERS OF ESCAMBIA COUNTY, FLORIDA, ("County"), hereby contracts with _____, to perform all work ("Work") in connection with _____ ("Project"), as detailed in the attached Plans and Specifications and other Contract Documents hereafter specified.

SECTION 1. CONTRACT DOCUMENTS

- A. For the purpose of this Agreement, the "**Contract Documents**" shall mean this Agreement, including Amendments, the Exhibits described in Section 6, Change Orders, Work Directive Changes, Field Orders, and the Solicitation Documents, including addenda. These Contract Documents are incorporated by reference and made a part of this Agreement. A copy of all Contract Documents shall be maintained by Contractor at the Project site at all times during the performance of the Work. The Contract Documents listed above represent the entire and integrated agreement between the parties hereto, and supersede prior negotiations, representations, or agreements, either written or oral.
- B. Concerning the Contract Documents, the order of precedence shall be as follows: 1) the Agreement, including Amendments; 2) the Exhibits described in Section 6; 3) Change Orders; 4) Work Directive Changes; 5) Field Orders; and 6) the Solicitation Documents, including addenda. In case of any inconsistency or conflict among the provisions of the Agreement, including any amendments, and any other terms and conditions of any documents comprising the remaining Contract Documents, the provisions of the Agreement and any amendments shall control. In case of any inconsistency or conflict among the provisions of Exhibit A, General Terms and Conditions, and Exhibit H, Technical Specifications, the provisions of the Technical Specifications shall control.
- C. County shall furnish to the Contractor up to four (4) sets of the Contract Documents for execution of the Work. Additional copies of the Contract Documents are available at the cost of reproduction.
- D. **This is a Federal-Aid Project that shall be funded, in whole or in part, with federal funding. By executing this Agreement, Contractor agrees to comply with the Federal Aid Construction Contract requirements set forth in Form FHWA 1273, attached hereto as Exhibit K, and all applicable procedures, guidelines, manuals, standards and directives provided in the FDOT Local Agency Program Manual. The Contractor further agrees to include these requirements in all sub-contracts.**

SECTION 2. SCOPE OF WORK

Contractor agrees to furnish and pay for all management, supervision, financing, labor, materials, tools, fuel, supplies, utilities, equipment and services of every kind and type necessary to diligently, timely, and fully perform and complete in a good workmanlike manner the Work required by the Contract Documents.

SECTION 3. CONTRACT AMOUNT

For satisfactory completion of the Work the County agrees to pay the Contractor the following amount (herein "Contract Amount"), in accordance with the terms of this Agreement:

[DESCRIBE CONTRACT AMOUNT]

SECTION 4. BONDS

- A.** Contractor shall provide at his expense Performance and Payment Bonds, in the form prescribed in Exhibit B, in the amount of 100% of the Contract Amount. The Performance and Payment Bonds shall be underwritten by a surety authorized to do business in the State of Florida and otherwise acceptable to County; provided; however, the surety shall be rated as "A-" (excellent) or better as to general policy holders rating and Class V or higher rating as to financial size category and the amount required shall not exceed 5% of the reported policy holders surplus, all as reported in the most current Best Key Rating Guide, published by A.M. Best Company, Inc. of 75 Fulton Street, New York, New York 10038.
- B.** If the surety for any bond furnished by Contractor is declared bankrupt, becomes insolvent, its right to do business is terminated in the State of Florida, or it ceases to meet the requirements imposed by the Contract Document, the Contractor shall, within five (5) calendar days thereafter, substitute another bond and surety, both of which shall be subject to the County's approval. Failure by Contractor to maintain its bonds in full force and effect at all times, including the warranty period, shall be grounds for termination of this Contract.
- C.** As per Florida Statutes, Section 255.05, the Contractor shall be required to execute and record the Performance and Payment bonds. The bonds must state the name and principal business address of both the Principal and the Surety and a description of the project sufficient to identify it. (The filing costs are \$10.00 for the first page and \$8.50 for each remaining page).

SECTION 5. CONTRACT TIME AND LIQUIDATED DAMAGES.

- A.** Time is of the essence in the performance of the Work under this Agreement. Contractor shall commence the Work within ten (10) calendar days from the Commencement Date, established in the Notice to Proceed. No Work shall be performed at the Project site prior to the Commencement Date. Contractor shall provide 48 hours notice prior to beginning the Work. The Work shall be substantially completed within ninety (90) calendar days from the Commencement Date. The Work shall be fully completed and deemed ready by the County for final completion within thirty (30) calendar days from the Substantial Completion Date. The Contract Time shall be the time period from the Commencement Date to the date of final completion totaling one hundred twenty (120) calendar days (herein "Contract Time"). No work under this contract shall commence until certificates of insurance have been received and acknowledged by the Purchasing Manager.
- B.** County and Contractor recognize that, since time is of the essence for this Agreement, the County will suffer financial loss if the Work is not substantially completed within the time specified. Should Contractor fail to substantially complete the Work within the time period noted above, County shall be entitled to assess, as liquidated damages, but not as a penalty, **\$1,241.00** for each calendar day thereafter until substantial completion is achieved. The Project shall be deemed to be substantially completed by the County on the date that the County's Architect certifies in writing that the construction of the project, or specified part thereof, is sufficiently completed in accordance with the Contract Documents, so that the Project or specified part can be utilized for the purposes for which it is intended. Along with such certification, the Architect shall compile a "punch list" of any remaining exceptions that do not adversely affect the use of the Project. Completion of these items will be required prior to final payment.
- C.** Contractor hereby expressly waives and relinquishes any right which it may have to seek to characterize the above noted liquidated damages as a penalty, which the parties agree represents a fair and reasonable estimate of the County's actual damages at the time of contracting if Contractor fails to substantially complete the Work in accordance with the progress schedule.
- D.** When any period of time is referenced to by days herein, it shall be computed to exclude the first day and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day shall

be omitted from the computation, and the last day shall become the next succeeding day which is not a Saturday, Sunday or legal holiday.

SECTION 6. EXHIBITS INCORPORATED

The following documents are expressly agreed to be incorporated by reference and made a part of this Agreement.

- Exhibit A: General Terms and Conditions
- Exhibit B: Form of Performance and Payment Bonds
- Exhibit C: Insurance and Safety Requirements
- Exhibit D: Form of Release and Affidavit
- Exhibit E: Form of Contractor Application for Payment
- Exhibit F: Form of Change Order
- Exhibit G: Payment Adjustment - Bituminous Material
- Exhibit H: Technical Specifications
- Exhibit I: Plans & Standard Details prepared by or for County and Identified as follows:
TITLE SHEET NO. DATE
- Exhibit K: Federal Documents (if applicable)
- Exhibit L: Solicitation Documents Index

SECTION 7. NOTICES

- A. All notices required or made pursuant to this Agreement by the Contractor to the County shall be in writing. All correspondence with the County should be addressed as follows:

Attention: _____

- B. All correspondence with the Contractor will be addressed to the following:

**[INSERT NAME, ADDRESS AND
NAME OF PERSON WITH HIS OR HER TITLE TO
WHO'S ATTENTION THE NOTICE SHOULD BE SENT]**

- C. Either party may change its above noted address by giving written notice to the other party in accordance with the requirements of this Section.

SECTION 8. MODIFICATION

No modification or change to the Agreement shall be valid or binding upon the parties unless in writing and executed by the party or parties intended to be bound by it.

SECTION 9. SUCCESSORS AND ASSIGNS

Subject to other provisions hereof, the Agreement shall be binding upon and shall inure to the benefit of the successors and assigns of the parties to the Agreement.

SECTION 10. GOVERNING LAW

The Agreement shall be interpreted under and its performance governed by the laws of the State of Florida and the parties agree that venue shall be in Escambia County, Florida for any matter which is the subject of this Contract.

SECTION 11. NO WAIVER

The failure of the County to enforce at any time or for any period of time any one or more of the provisions of the Agreement shall not be construed to be and shall not be a waiver of any such provision or provisions or of its right thereafter to enforce each and every such provision.

SECTION 12. ENTIRE AGREEMENT

Each of the parties hereto agrees and represents that the Agreement comprises the full and entire agreement between the parties affecting the Work contemplated, and no other agreement or understanding of any nature concerning the same has been entered into or will be recognized, and that all negotiations, acts, work performed, or payments made prior to the execution hereof shall be deemed merged in, integrated and superseded by the Agreement.

SECTION 13. SEVERABILITY

Should any provision of the Agreement be determined by a court to be unenforceable, such a determination shall not affect the validity or enforceability of any other section or part thereof.

SECTION 14. PUBLIC RECORDS.

The Contractor acknowledges that this Agreement and any related financial records, audits, reports, plans correspondence, and other documents may be subject to disclosure to members of the public pursuant to Chapter 119, Florida Statutes. Contractor shall maintain all such public records and, upon request, provide a copy of the requested records or allow the records to be inspected within a reasonable time. Contractor shall also ensure that any public records that are exempt or exempt and confidential from disclosure are not disclosed except as authorized by law. Upon the expiration or termination of the Agreement, Contractor agrees to maintain all public records for a minimum period of five (5) fiscal years in accordance with the applicable records retention schedules established by the Florida Department of State. In the event the Contractor fails to abide by the provisions of Chapter 119, Florida Statutes, the County may, without prejudice to any other right or remedy and after giving the Contractor and surety, if any, seven days written notice, during which period the Contractor still fails to allow access to such documents, terminate the contract. In such case, the Contractor shall not be entitled to receive any further payment. Reasonable terminal expenses incurred by the County may be deducted from any payments left owing the Contractor (excluding monies owed the Contractor for subcontractor work).

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT:

**Escambia County
Office of the County Administrator
221 Palafox Place, Suite 420
Pensacola, Florida 32502
(850) 595-4947**

IN WITNESS WHEREOF, the parties hereto have made and executed this Agreement on the respective dates under each signature: the parties hereto have made and executed this Agreement on the respective dates under each signature: Escambia County, Florida through its Board of County Commissioners, signing by its County Administrator, duly authorized to execute this Agreement, and _____ signing by and through its President, duly authorized to execute same.

COUNTY:

Escambia County, Florida, a political subdivision of the State of Florida acting by and through its duly authorized Board of County Commissioners.

Witness: _____

By: _____

County Administrator

Witness: _____

Date: _____

CONTRACTOR:

_____, a _____ Corporation, authorized to do business in the State of Florida.

ATTEST: Corporate Secretary

By: _____

By: _____
Secretary

Its: President

(Corporate Seal)

Date: _____

BCC Approved: _____

EXHIBIT A
GENERAL TERMS AND CONDITIONS

Section 1. INTENT OF CONTRACT DOCUMENTS

- 1.1. It is the intent of the Contract Documents to describe a functionally complete project (or portion thereof) to be constructed in accordance with the Contract Documents. Any work, materials or equipment that may reasonably be inferred from the Contract Documents, as being required to produce the intended result shall be supplied whether or not specifically called for. When words, which have a well-known technical or trade meaning, are used to describe work, materials or equipment, such words shall be interpreted in accordance with that meaning. Reference to standard specifications, manuals or codes of any technical society, organization or association or to the laws or regulations of any governmental authority having jurisdiction over the Project, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code, law or regulation in effect at the time the Work is performed, except as may be otherwise specifically stated herein.
- 1.2. If, during the performance of the Work, Contractor discovers a conflict, error or discrepancy in the Contract Document, Contractor immediately shall report same to County and before proceeding with the Work affected thereby shall obtain an interpretation or clarification from the County. Contractor shall take field measurements and verify field conditions and shall carefully compare such field measurements and conditions and other information known to Contractor with the Contract Documents before commencing any portion of the Work.
- 1.3. Drawings are intended to show general arrangements, design and extent of Work and are not intended to serve as shop drawings. Specifications are separated into divisions for convenience of reference only and shall not be interpreted as establishing divisions for the Work, trades, subcontracts, or extent of any part of the Work. In the event of a discrepancy between or among the drawings, specifications of other Contract Document provisions, Contractor shall be required to comply with the provision which is the more restrictive or stringent requirement upon the Contractor, as determined by the County. Unless otherwise specifically mentioned, all anchors, bolts, screws, fittings, fillers, hardware, accessories, trim and other parts required in connection with any portion of the Work to make a complete, serviceable, finished and first quality installation shall be furnished and installed as part of the Work, whether or not called for by the Contract Documents.
- 1.4. "Engineer", where referenced on the drawings or in the specifications or in other related documents, shall mean the Escambia County Engineer or the designated representative thereof.

Section 2. INVESTIGATION AND UTILITIES

- 2.1. Contractor shall have the sole responsibility of satisfying itself concerning the nature and location of the Work and the general and local conditions, and particularly, but without limitation, with respect to the following: those affecting transportation, access, disposal, handling and storage of materials; availability and quality of labor; water and electric power; availability and condition of roads; work area; living facilities; climatic conditions and seasons; physical conditions at the work-site and the Project area as a whole; topography and ground surface conditions; nature and quality of the surface materials to be encountered; subsurface conditions; equipment and facilities needed preliminary to and during performance of the Work; and all other costs associated with such performance. The failure of Contractor to acquaint itself with any applicable conditions shall not relieve Contractor from any of its responsibilities to perform under the Contract Documents, nor shall it be considered the basis for any claim for additional time or compensation.

- 2.2.** Contractor shall locate all existing roadways, railways, drainage facilities and utility services above, upon, or under the Project site, said roadways, railways, drainage facilities and utilities being referred to in this Section 2 as the "Utilities". Contractor shall contact the owners of all Utilities to determine the necessity for relocating or temporarily interrupting any Utilities during the construction of the Project. Contractor shall schedule and coordinate its Work around any such relocation or temporary service interruption. Where Utilities block construction, Contractor shall aggressively pursue relocation by the Utility owners. Contractor shall immediately notify the County of any delays due to Utilities blockage and document all attempts to resolve such blockage. Contractor shall be responsible for properly shoring, supporting and protecting all Utilities at all times during the course of the Work.

Section 3. SCHEDULE

- 3.1.** The Contractor, within ten (10) calendar days after receipt of the Notice of Award, shall prepare and submit to County, for review and approval, a progress schedule for the Project (herein "Progress Schedule"). The Progress schedule may be provided in an electronic format. The Progress Schedule shall relate to all Work required by the Contract Documents and shall provide for expeditious and practicable execution of the Work within the Contract Time. The Progress Schedule shall indicate the dates for starting and completing the various stages of the Work and shall include dates of Shop Drawing Submittals.
- 3.2.** The Progress Schedule shall be updated monthly by the Contractor. All monthly updates to the Progress Schedule shall be subject to the County's review and approval. Contractor shall submit the updates to the Progress Schedule with its Applications for Payment noted below. The County's review and approval of the submitted Progress Schedule updates shall be a condition precedent to the County's obligation to pay Contractor.

Section 4. PROGRESS PAYMENTS

- 4.1.** Prior to submitting its first Application for Payment, Contractor shall submit to County, for its review and approval, a schedule of values based upon the Contract Price, listing the major elements of the Work and the dollar value for each element. After its approval by the County, this schedule of values shall be used as the basis for the Contractor's Applications for Payment. This schedule shall be updated and submitted along with a completed and notarized copy of the Application for Payment form attached to the Agreement as Exhibit E.
- 4.2.** Prior to submitting its first Monthly Application for Payment, Contractor shall submit to County a complete list of all its proposed subcontractors and material men, showing the work and materials involved. The first Application for Payment shall be submitted no earlier than thirty (30) days after Commencement Date.
- 4.3.** If payment is requested on the basis of materials and equipment not incorporated into the Project, but delivered and suitably stored at the site or at another location agreed to by the County in writing, the Application for Payment will subdivide the work into component parts in sufficient detail to serve as the basis for a progress payment and shall also be accompanied by a bill of sale, invoice or other documentation warranting that upon payment by County, the County shall receive the materials and equipment free and clear of all liens, charges, security interests and encumbrances, together with evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect County's interest therein, all of which shall be subject to the County's prior written approval.
- 4.4.** Contractor shall submit _____ (___) copies of its applications for Payment to the County on or about the 25th day of each month for work performed during that month. Contractor shall submit no more than one application for payment each month. Within ten (10) calendar days after receipt of each Application for Payment, the County shall either: (1) indicate approval of the requested payment;

(2) indicate approval of only a portion of the requested payment, stating in writing the reasons therefore; or (3) return the Application for Payment to the Contractor indicating, in writing, the reason for refusing to approve payment. In the event of a total or partial denial of the Application for Payment, the Contractor may make the necessary corrections and resubmit the Application for Payment for reconsideration within ten (10) calendar days of receiving notice of refusal.

If re-submittal of the Application for Payment is refused, in whole or in part, the Contractor may submit a written request to the County Administrator for an administrative decision within two (2) business days of receiving notice of refusal. Upon receiving a timely request, an administrative decision shall be rendered within ten (10) calendar days with written notification provided to the Contractor.

If the administrative decision is disputed, the Contractor may submit a written request to the County Administrator for an administrative hearing before the Dispute Resolution Committee (DRC) within two (2) business days of receiving said decision. A hearing shall be scheduled within ten (10) business days from the date the request is received, and the Contractor will receive written notice of the hearing date. The DRC may, within its discretion, render a final decision at the hearing or may elect to mail a written decision within a period not to exceed ten (10) calendar days from the hearing date. The DRC's written decision shall be considered administratively final.

The County shall, within twenty (20) business days after County approval of an Application for Payment, pay the Contractor the amounts so approved. Provided, however, in no event shall the County be obligated to pay an amount greater than that portion of the Application for Payment approved by the County.

- 4.5** County shall retain ten percent (10%) of the gross amount of each monthly payment request or ten percent (10%) of the portion thereof approved by the County for payment whichever is less. The retained sum shall be accumulated and not released to Contractor until final payment is due. Any interim interest on such sums shall accrue to County.

Due to circumstances beyond the Contractor's control and at the County's sole discretion, a percentage of the amount retained from the gross amount of each monthly payment may be reduced prior to final completion of the Project and said percentage released to the Contractor upon receiving a certificate of substantial completion and approval from the Architect/Engineer. Release of any portion or percentage of sums retained prior to final completion of the Project shall in no way imply approval or acceptance of Contractor's work.

- 4.6** Monthly payments to Contractor shall in no way imply approval or acceptance of Contractor's work.
- 4.7** Each Application for Payment shall be accompanied by Release and Affidavit, in the form attached as Exhibit D, showing that all materials, labor, equipment and other bills associated with that portion of the Work payment is being requested or have been paid in full. The County shall not be required to make payment until and unless these affidavits are furnished by Contractor.
- 4.8** Applications for Payment will not be approved unless all submittals required by the Contract documents, up to that point, are provided and "As-Built" record documents are maintained as required by Section 8.2.

Section 5. PAYMENTS WITHHELD

- 5.1.** The County may decline to approve any Application for Payment, or portions thereof, because of subsequently discovered evidence or subsequent inspections. The County may nullify the whole or any part of any approval for payment previously issued and County may withhold any payments otherwise due Contractor under this Agreement or any other agreement between County and Contractor, to such extent as may be necessary in the County's opinion to protect it from loss because of: (a) defective Work not remedied; (b) third party claims filed or reasonable evidence

indicating probable filing of such claims; (c) failure of Contractor to make payment properly to subcontractors or for labor, materials or equipment; (d) reasonable doubt that the Work can be completed for the unpaid balance of the Contract Amount; (e) reasonable indication that the Work will not be completed within the Contract Time; (f) unsatisfactory prosecution of the Work by the Contractor; or (g) any other material breach of the Contract Documents. If these conditions are not remedied or removed, County may, after three (3) days written notice, rectify the same at Contractor's expense. County also may offset against any sums due Contractor the amount of any liquidated or unliquidated obligations of Contractor to County, whether relating to or arising out of this Agreement or any other agreement between Contractor and County.

Section 6. FINAL PAYMENT

- 6.1.** County shall make final payment to Contractor within forty- five (45) calendar days after the Work is finally inspected and accepted by County in accordance with Section 20.1 herein, provided that Contractor first, and as an explicit condition precedent to the accrual of Contractor's right to final payment, shall have furnished County with a properly executed and notarized copy of the Release and Affidavit attached as Exhibit D, as well as, a duly executed copy of the Surety's consent to final payment and such other documentation that may be required by the Contract Documents or the County.
- 6.2.** Contractor's acceptance of final payment shall constitute a full waiver of any and all claims by Contractor against County arising out of this Agreement or otherwise relating to the Project, except those previously made in writing and identified by Contractor as unsettled at the time of the final Application for Payment. Neither the acceptance of the Work nor payment by County shall be deemed to be a waiver of County's right to enforce any obligations of Contractor hereunder or to the recovery of damages for defective Work not discovered by the County at the time of final inspection.

Section 7. SUBMITTALS AND SUBSTITUTIONS

- 7.1.** Contractor shall carefully examine the Contract Documents for all requirements for approval of materials to be submitted such as shop drawings, data, test results, schedules and samples. When submitted for the Engineer's review, Shop Drawings shall bear the Contractor's certification that the Contractor has reviewed, checked, and approved the Shop Drawings and that they are in conformance with the requirements of the Contract Documents. Contractor shall submit all such materials at its own expense and in such form as required by the Contract Documents in sufficient time to prevent any delay in the delivery of such materials and the installation thereof.
- 7.2.** Prior to submitting its first Application for Payment, Contractor shall provide to County a DVD or video tape in VHS format showing the pre-existing conditions located within the limits of construction.
- 7.3.** Whenever materials or equipment are specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular supplier, the naming of the item is intended to establish the type, function and quality required. Unless the name is followed by words indicating that no substitution is permitted, materials or equipment of other suppliers may be accepted by County if sufficient information is submitted by Contractor to allow the County to determine that the material or equipment proposed is equivalent or equal to that named. Requests for review of substitute items of material and equipment will not be accepted by County from anyone other than Contractor and all such requests must be submitted by Contractor to County within thirty (30) calendar days after Notice to Proceed is received by Contractor.
- 7.4.** If Contractor wishes to furnish or use a substitute item of material or equipment, Contractor shall make application to the County for acceptance thereof, certifying that the proposed substitute shall perform adequately the functions and achieve the results called for by the general design, be similar

and of equal substance to that specified and be suited to the same use as that specified. The application shall state that the evaluation and acceptance of the proposed substitute will not prejudice Contractor's achievement of substantial completion on time, whether or not acceptance of the substitute for use in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with County for the Project) to adapt the design to the proposed substitute and whether or not incorporation or use by the substitute in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute from that specified will be identified in the application and available maintenance, repair and replacement service shall be indicated. The application also shall contain an itemized estimate of all costs that will result directly or indirectly from acceptance of such substitute, including costs for redesign and claims of other contractors affected by the resulting change, all of which shall be considered by the County in evaluating the proposed substitute. The County may require Contractor to furnish at Contractor's expense additional data about the proposed substitute.

- 7.5.** If a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, sequence, technique or procedure of construction acceptable to the County, if Contractor submits sufficient information to allow the County to determine that the substitute proposed is equivalent to that indicated or required by the Contract Documents. The procedures for submission to and review by the County shall be the same as those provided herein for substitute materials and equipment.
- 7.6.** The County shall be allowed a reasonable time within which to evaluate each proposed substitute. The County shall be the sole judge of acceptability, and no substitute will be ordered, installed or utilized without the County's prior written acceptance, which shall be evidenced by either a Change Order or an approved Shop Drawing. The County may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.

Section 8. DAILY REPORTS, AS-BUILTS, AND MEETINGS

- 8.1.** Unless waived in writing by County, Contractor shall complete and submit, along with its Application for Payment, to the County on a monthly basis a daily log of the Contractor's work for the preceding month in a format approved by the County. The daily log shall document all activities of Contractor at the Project site including, but not limited to, the following:
- 8.1.1.** Weather conditions showing the high and low temperatures during work hours, the amount of precipitation received on the Project site, and any other weather conditions which adversely affect the Work;
 - 8.1.2.** Soil conditions which adversely affect the Work;
 - 8.1.3.** The hours of operation by Contractor's personnel and subcontractor's personnel;
 - 8.1.4.** The number of Contractor's and subcontractor's personnel present and working at the Project site, by subcontract and trade;
 - 8.1.5.** All equipment present at the Project site, description of equipment use and designation of time equipment was used (specifically indicating any down time);
 - 8.1.6.** Description of Work being performed at the Project site;
 - 8.1.7.** Any unusual or special occurrences at the Project site;
 - 8.1.8.** Materials received at the Project site

The daily log shall not constitute nor take the place of any notice required to be given by Contractor to County pursuant to the Contract Documents.

- 8.2.** Contractor shall maintain in a safe place at the Project site one record copy of the Contract Documents, as well as all shop drawings and other Contractor submittals and all written interpretations and clarifications issued by the County, in good order and annotated to show all changes made during construction. The annotated drawings shall be continuously updated by the Contractor throughout the prosecution of the Work to accurately reflect all field changes that are made to adapt the Work to field conditions, changes resulting from Change Orders, Work Directive Changes and Field Orders, and all concealed and buried installations of piping, conduit and utility services. All buried and concealed items, both inside and outside the Project site, shall be accurately located on the annotated drawings as to depth and in relationship to not less than two (2) permanent features (e.g. interior or exterior wall faces). The annotated drawings shall be clean and all changes, corrections and dimensions shall be given in a neat and legible manner in a contrasting color. The "As-Built" record documents, together with all approved samples and a counterpart of all approved shop drawings shall be available to County for reference. Upon completion of the Work, and as a condition precedent to Contractor's entitlement to final payment, these "As-Built" record documents, samples and shop drawings shall be delivered to County by Contractor.
- 8.3.** Contractor shall keep all records and supporting documentation which concern or relate to the Work hereunder for a minimum of five (5) years from the date of termination of this Agreement or the date the Project is completed, whichever is later. County, or any duly authorized agents or representatives of County, shall have the right to audit, inspect and copy all such records and documentation as often as they deem necessary during the period of this Agreement and during the five (5) year period noted above; provided, however, such activity shall be conducted only during normal business hours.

Section 9. CONTRACT TIME AND TIME EXTENSIONS

- 9.1.** Contractor shall diligently pursue the completion of the Work and coordinate the Work being done on the Project by its subcontractors and material men, as well as coordinating its Work with all work of others at the Project Site, so that its Work or the work of others shall not be delayed or impaired by any act or omission of Contractor. Contractor shall be solely responsible for all construction means, methods, techniques, sequences, and procedures, as well as coordination of all portions of the Work under the Contract Documents.
- 9.2.** Should Contractor be obstructed or delayed in the prosecution of or completion of the Work as a result of unforeseeable causes beyond the control of Contractor, and not due to its fault or neglect, including but not restricted to acts of God or of the public enemy, acts of government, fires, floods, epidemics, quarantine regulations, strikes or lockouts, Contractor shall notify the County in writing within forty-eight (48) hours after the commencement of such delay. Written supporting data with specific details of Contractor operations, which were delayed, shall be submitted to the County within fifteen (15) calendar days after the occurrence of the delay, unless the County grants additional time in writing for such submittals, or else the Contractor shall be deemed to have waived any right which Contractor may have had to request a time extension.
- 9.3.** No interruption, interference, inefficiency, suspension or delay in the commencement or progress of the Work from any cause whatever, including those for which County may be responsible, in whole or in part, shall relieve Contractor of his duty to perform or give rise to any right to damages or additional compensation from County. Contractor expressly acknowledges and agrees that it shall receive no damages for delay. Contractor's sole remedy, if any, against County will be the right to seek an extension to the Contract Time; provided, however, the granting of any such time extension shall not be a condition precedent to the aforementioned "No Damages For Delay" provision. This paragraph shall expressly apply to claims for early completion, as well as to claims

based on late completion.

9.4. Requests for delays due to adverse weather conditions shall meet all of the following conditions:

9.4.1. Contractor notified the County in writing within forty-eight (48) hours of the delay.

9.4.2. The weather was unusual as documented by supporting data.

9.4.3. The weather did have an adverse impact on the contractor's schedule (critical path only).

9.4.4. The Contractor and inspector's daily logs corroborate the adverse impact. Where a conflict exists between the weather data and the daily reports, the daily reports will take precedence.

Section 10. CHANGES IN THE WORK

10.1. County shall have the right at any time during the progress of the Work to increase or decrease the Work. Promptly after being notified of a change, Contractor shall submit an itemized estimate of any cost and/or time increases or savings it foresees as a result of the change. Except in an emergency endangering life or property, or as expressly set forth herein, no addition or changes to the Work shall be made except upon written order of County, and County shall not be liable to the Contractor for any increased compensation without such written order. No officer, employee or agent of County is authorized to direct any extra or changed work orally.

10.2. A Construction Change Order, in the form attached as Exhibit F to this Agreement, shall be issued and executed promptly after an agreement is reached between Contractor and County concerning the requested changes. Contractor shall promptly perform changes authorized by duly executed Change Orders. The Contract Amount shall be adjusted in the Change Order in the manner as County and Contractor shall mutually agree.

10.3. If County and Contractor are unable to agree on a Change Order for the requested change, Contractor shall, nevertheless, promptly perform the change as directed by County in a written Work Directive Change. In that event, the Contract Amount and Contract Time shall be adjusted as directed by County. If Contractor disagrees with the County's adjustment determination, Contractor must make a claim pursuant to Section 11 of these General Conditions or else be deemed to have waived any claim on this matter it might otherwise have had.

10.4. In the event a requested change results in an increase to the Contract Amount, the amount of the increase shall be limited to the Contractor's reasonable direct labor and material costs and reasonable actual equipment costs as a result of the change (including allowance for labor burden costs) plus a maximum ten percent (10%) markup for all overhead and profit. In the event such change Work is performed by a Subcontractor, a maximum ten percent (10%) markup for all overhead and profit for all Subcontractors' and sub-subcontractors' direct labor and material costs and actual equipment costs shall be permitted, with a maximum five percent (5%) markup thereon by the Contractor for all of its overhead and profit, for a total maximum markup of fifteen percent (15%). All compensation due Contractor and any Subcontractor or sub-subcontractor for field and home office overhead is included in the markups noted above.

10.5. County shall have the right to conduct an audit of Contractor's books and records to verify the accuracy of the Contractor's claim with respect to Contractor's costs associated with any Change Order.

10.6. The County shall have authority to order minor changes in the Work not involving an adjustment to the Contract Amount and not inconsistent with the intent of the Contract Documents. Such changes may be affected by Field Order or by other written order. Such changes shall be binding on the

Contractor.

Section 11. CLAIMS AND DISPUTES

- 11.1.** A Claim is a demand or assertion by one of the parties seeking an adjustment or interpretation of the terms of the Contract Documents, payment of money, extension of time or other relief with respect to the terms of the Contract Documents. The term "Claim" also includes other disputes and matters in question between County and Contractor arising out of or relating to the Contract Documents. The responsibility to substantiate a Claim shall rest with the party making the Claim.
- 11.2.** Claims by the Contractor shall be made in writing to the County within forty-eight (48) hours after the first day of the event giving rise to such Claim or else the Contractor shall be deemed to have waived the Claim. Written supporting data shall be submitted to the County within fifteen (15) calendar days after the occurrence of the event, unless the County grants additional time in writing, or else the Contractor shall be deemed to have waived the Claim. All claims shall be priced in accordance with the provisions of Subsection 10.4.
- 11.3.** The Contractor shall proceed diligently with its performance as directed by the County, regardless of any pending Claim, action, suit or administrative proceeding, unless otherwise agreed to by the County in writing. County shall continue to make payments in accordance with the Contract Documents pending Claim.

Section 12. OTHER WORK

- 12.1.** County may perform other work related to the Project at the site by County's own forces, have other work performed by utility owners or let other direct contracts. If the fact that such other work is to be performed is not noted in the Contract Documents, notice thereof will be given to Contractor. If Contractor believes that such performance will involve additional expense to Contractor or require additional time, Contractor shall send written notice of that fact with specific details of anticipated costs and delays to County within forty-eight (48) hours of being notified of the other work. Written supporting data of actual need for additional time or additional expense, shall be submitted to the County within fifteen (15) calendar days after completion of other work, unless the County grants additional time in writing, or else the Contractor shall be deemed to have waived any right which Contractor may have had to request a time extension or adjustment to the Contract Amount.
- 12.2.** Contractor shall afford each utility owner and other contractor (or County, if County is performing the additional work with County's employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such work and shall properly connect and coordinate its Work with theirs. Contractor shall do all cutting, fitting and patching of the Work that may be required to make its several parts come together properly and integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating or otherwise altering their work and will only cut or alter their work with the written consent of the County and the others whose work will be affected.
- 12.3.** If any part of Contractor's Work depends for proper execution or results upon the work of any other contractor or utility owner (or County), Contractor shall inspect and promptly report to County in writing any delays, defects or deficiencies in such work that render it unavailable or unsuitable for such proper execution and results. Contractor's failure to report will constitute an acceptance of the other work as fit and proper for integration with Contractor's Work.

Section 13. INDEMNIFICATION AND INSURANCE

- 13.1** Contractor shall pay on behalf of or indemnify and hold harmless County and its agents, officers and employees from and against all liabilities, damages, losses, and costs, including attorney's and paralegal fees, incurred by County to the extent caused by the negligence, recklessness, or

intentional wrongful misconduct of Contractor or by any person, firm or corporation to whom any portion of the Work is subcontracted by Contractor or resulting from the use by Contractor, or by anyone for whom Contractor is legally liable, of any materials, tools, machinery or other property of County. Contractor's obligation as provided herein shall be limited to its proportionate share of liability to the extent caused by the negligence, recklessness or intentional wrongful misconduct of Contractor or by any person, firm or corporation to whom any portion of the Work is subcontracted by Contractor, and Contractor shall not be required to pay on behalf of or indemnify and hold harmless County where County's negligence, recklessness, or intentional wrongful misconduct is determined by a court of competent jurisdiction to be the sole cause of its liabilities, damages, losses and costs, including attorney's fees and paralegal fees.

County and Contractor agree one percent (1%) of the Contract Amount paid by County to Contractor shall be given as separate consideration for this indemnification, and any other indemnification of County by Contractor provided for within the Contract Documents, the sufficiency of such separate consideration being acknowledged by Contractor by Contractor's acceptance and execution of the Agreement.

Contractor agrees that such indemnification by Contractor relating to any matter which is the subject of this Agreement shall extend throughout the term of this Agreement and any applicable statutes of limitations thereafter. Contractor's obligation to indemnify shall not be limited by, or in any way to, any insurance coverage or by any provision in or exclusion or omission from any policy of insurance.

- 13.2** Contractor shall obtain and carry, at all times during its performance under the Contract Documents, insurance of the types and in the amounts set forth in Exhibit C to the Agreement. All insurance policies shall be from responsible companies duly authorized to do business in the State of Florida and/or responsible risk retention group insurance companies, which are registered with the State of Florida. All commercial insurance carriers providing the Contractor with required insurance shall be a minimum financial size category of VII according to the AM Best Rating Guide, latest edition. An A or better Best Rating is "preferred"; however, other ratings if "Secure Best Ratings" may be considered. Within ten (10) calendar days after Notice of Award is received by Contractor and prior to the commencement of work, Contractor shall provide County with properly executed Certificates of Insurance to evidence Contractor's compliance with the insurance requirements of the Contract Documents. Said Certificates of Insurance shall be on forms approved by County, such as "Acord Form 25". The Certificates of Insurance shall be personally, manually signed by the authorized representatives of the insurance company/companies shown on the Certificates of Insurance, with proof that they are authorized representatives thereof. Certificates of Insurance shall be mailed to Escambia County in care of: Purchasing Manager, Purchasing Division, P.O. Box 1591, Pensacola, Florida 32597-1591. In addition, certified, true and exact copies of all insurance policies required hereunder shall be provided to County, on a timely basis, when requested by County.
- 13.3** The Certificates of Insurance and required insurance policies shall contain provisions that thirty (30) days prior written notice by registered or certified mail shall be given County of any cancellation, intent not to renew, or reduction in the policies or coverages, except in the application of the aggregate limits provisions. In the event of a reduction in the aggregate limit of any policy, Contractor shall immediately take steps to have the aggregate limit reinstated to the full extent permitted under such policy.
- 13.4** All insurance coverages of the Contractor shall be primary to any insurance or self-insurance program carried by the County applicable to this Project. The acceptance by County of any Certificate of Insurance does not constitute approval or agreement by the County that the insurance requirements have been satisfied or that the insurance policy shown on the Certificate of Insurance is in compliance with the requirements of the Contract Documents. No work shall commence at the Project site unless and until the required Certificates of Insurance are received by the County.

- 13.5** Contractor shall require each of its subcontractors to procure and maintain, until the completion of the subcontractor's work, insurance of the types and to the limits specified in Exhibit C, unless such insurance requirements for the subcontractor is expressly waived in writing by the County. All liability insurance policies, other than professional liability, worker's compensation and employer's liability policies, obtained by Contractor to meet the requirements of the Contract Documents shall name Escambia County as an additional insured and shall contain Severability of Interest provisions. Escambia County shall also be designated as certificate holder with the address of P. O. Box 1591, Pensacola, Florida 32597-1591. If any insurance provided pursuant to the Contract Documents expires prior to the completion of the Work, renewal Certificates of Insurance and, if requested by County, certified, true copies of the renewal policies shall be furnished by Contractor within thirty (30) days prior to the date of expiration.
- 13.6** All liability policies shall be underwritten on the "occurrence" basis, unless otherwise approved in writing by the County Division of Risk Management. "Claims made" policies, if approved by the Risk Manager, and subsequent insurance certificates shall provide a "retro-date" which shall include the effective date of the contract. "Claims-made" renewals or carrier and policy replacements shall reflect the original "retro-date."
- 13.7** Should at any time the Contractor not maintain the insurance coverages required herein, the County may terminate the Agreement or at its sole discretion shall be authorized to purchase such coverages and charge the Contractor for such coverages purchased. The County shall be under no obligation to purchase such insurance, nor shall it be responsible for the coverages purchased or the insurance company or companies used. The decision of the County to purchase such insurance coverages shall in no way be construed to be a waiver of any of its rights under the Contract Documents.
- 13.8** Contractor shall submit to County a copy of all accident reports arising out of any injuries to its employees or those of any firm or individual to whom it may have subcontracted a portion of the Work, or any personal injuries or property damages arising or alleged to have arisen on account of any work by Contractor under the Contract Documents.
- 13.9** Duty to Provide Legal Defense. Contractor shall pay for and provide a legal defense for the County, which shall include attorneys' fees and costs, both of which will be done only if and when requested by the County, for all liabilities, damages, losses, and costs as described in paragraph 13.1 above. Such payment on the behalf of the County shall be in addition to any and all other legal remedies available to the County and shall not be considered to be the County's exclusive remedy.

Section 14. COMPLIANCE WITH LAWS

- 14.1** Contractor agrees to comply, at its own expense, with all federal, state and local laws, codes, statutes, ordinances, rules, regulations and requirements applicable to the Project, including but not limited to those dealing with taxation, worker's compensation, equal employment and safety. If Contractor observes that the Contract Documents are at variance therewith, it shall promptly notify County in writing. Compliance with the above laws shall include but is not limited to: (1) the Occupational Safety and Health Act, 29 CFR 1910 and 1926, respectively, General Industry Standards and Construction Industry Standards, including regulations regarding Trenching and Shoring; (2) the Florida Workers' Compensation Law, Chapter 440, Florida Statutes; (3) Rules 38F and 38I, Florida Administrative Code; and (4) Section 102, Standard Specifications for Road and Bridge Construction, Florida Department of Transportation.
- 14.2** **EMPLOYMENT ELIGIBILITY VERIFICATION (E-VERIFY):** In accordance with State of Florida, Office of the Governor, Executive Order 11-116 (superseding Executive Order 11-02; Verification of Employment Status), in the event performance of this Agreement is or will be funded using state or federal funds, the CONTRACTOR must comply with the Employment Eligibility Verification Program ("E-Verify Program") developed by the federal government to verify the eligibility of individuals to work in the United States and 48 CFR 52.222-54 (as amended) is incorporated herein

by reference. If applicable, in accordance with Subpart 22.18 of the Federal Acquisition Register, the CONTRACTOR must (1) enroll in the E-Verify Program, (2) use E-Verify to verify the employment eligibility of all new hires working in the United States, except if the CONTRACTOR is a state or local government, the CONTRACTOR may choose to verify only new hires assigned to the Agreement; (3) use E-Verify to verify the employment eligibility of all employees assigned to the Agreement; and (4) include these requirement in certain subcontracts, such as construction. Information on registration for and use of the E-Verify Program can be obtained via the internet at the Department of Homeland Security Web site: <http://www.dhs.gov/E-Verify>.

Section 15. CLEANUP AND PROTECTIONS

- 15.1.** Contractor agrees to keep the Project site clean at all times of debris, rubbish and waste materials arising out of the Work. At the completion of the Work, Contractor shall remove all debris, rubbish and waste materials from and about the Project site, as well as all tools, appliances, construction equipment and machinery and surface materials, and shall leave the Project site clean and ready for occupancy by County. Non-compliance with directives of this section may serve as a basis of rejection of Application for Payment.
- 15.2.** Any existing surface or subsurface improvements, including, but not limited to, pavements, curbs, sidewalks, pipes, utilities, footings, structures, trees and shrubbery, not indicated in the Contract Documents to be removed or altered, shall be protected by Contractor from damage during the prosecution of the Work. Any such improvements so damaged shall be restored by Contractor to the condition equal to that existing at the time of Contractor's commencement of the Work.

Section 16. ASSIGNMENT

- 16.1.** Contractor shall not assign this Agreement or any part thereof, without the prior consent in writing of County. If Contractor does, with approval, assign this Agreement or any part thereof, it shall require that its assignee be bound to it and to assume toward Contractor all of the obligations and responsibilities that Contractor has assumed toward County.

Section 17. PERMITS, LICENSES AND TAXES

- 17.1.** Except as noted in paragraph 17.2 below, all permits and licenses necessary for the prosecution of the Work shall be procured and paid for by Contractor. All permits or fees, including but not limited to, all license fees, permit fees, impact fees or inspection fees payable by Contractor to County have been disclosed to Contractor in the bidding documents or other request for proposal at the time the Project was let for bid. If Contractor performs any Work without obtaining, or contrary to, such permits or licenses, Contractor shall bear all costs arising there from. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work.
- 17.2.** Permits required for the Work from FDOT, FDEP, the Army Corps of Engineers, and any archeological permitting agency will be paid for and obtained by the County.
- 17.3.** Contractor shall pay all sales, consumer, use and other similar taxes associated with the Work or portions thereof, which are applicable during the performance of the Work.

Section 18. TERMINATION FOR DEFAULT

- 18.1.** Contractor shall be considered in material default of the Agreement and such default shall be considered cause for County to terminate the Agreement, in whole or in part, as further set forth in this Section, if Contractor: (1) fails to begin the Work under the Contract Documents within the time specified herein; or (2) fails to properly and timely perform the Work as directed by the County or as provided for in the approved Progress Schedule; or (3) performs the Work unsuitably or neglects or refuses to remove materials or to correct or replace such Work as may be rejected as

unacceptable or unsuitable; or (4) discontinues the prosecution of the Work; or (5) fails to resume Work which has been suspended within a reasonable time after being notified to do so; or (6) becomes insolvent or is declared bankrupt, or commits any act of bankruptcy; or (7) allows any final judgment to stand against it unsatisfied for more than ten (10) days; or (8) makes an assignment for the benefit of creditors; or (9) fails to obey any applicable codes, laws, ordinances, rules or regulations with respect to the Work; or (10) materially breaches any other provision of the Contract Documents.

- 18.2.** County shall notify Contractor in writing of Contractor's default(s). If County determines that Contractor has not remedied and cured the default(s) within seven (7) calendar days following receipt by Contractor of said written notice, then County, at its option, without releasing or waiving its rights and remedies against the Contractor's sureties and without prejudice to any other right or remedy it may be entitled to hereunder or by law, may terminate Contractor's right to proceed under the Agreement, in whole or in part, and take possession of all or any portion of the Work and any materials, tools, equipment, and appliances of Contractor, take assignments of any of Contractor's subcontracts and purchase orders, and complete all or any portion of Contractor's Work by whatever means, method or agency which County, in its sole discretion, may choose.
- 18.3.** If County deems any of the foregoing remedies necessary, Contractor agrees that it shall not be entitled to receive any further payments hereunder until after the Project is completed. All monies expended and all of the costs, losses, damages and extra expenses, including all management, administrative and other overhead and other direct and indirect expenses (including attorneys' fees) or damages incurred by County incident to such completion, shall be deducted from the Contract Amount, and if such expenditures exceed the unpaid balance of the Contract Amount, Contractor agrees to pay promptly to County on demand the full amount of such excess, including costs of collection, attorney's fees (including appeals) and interest thereon at the maximum legal rate of interest until paid. If the unpaid balance of the Contract Amount exceeds all such costs, expenditures and damages incurred by the County to complete the Work, such excess shall be paid to the Contractor. The amount to be paid to the Contractor or County, as the case may be, and this obligation for payment shall survive termination of the Agreement.
- 18.4.** The liability of Contractor hereunder shall extend to and include the full amount of any and all sums paid, expenses and losses incurred, damages sustained, and obligations assumed by County in good faith under the belief that such payments or assumptions were necessary or required, in completing the Work and providing labor, materials, equipment, supplies, and other items therefore or re-letting the Work, in settlement, discharge or compromise of any claims, demands, suits, and judgments pertaining to or arising out of the Work hereunder.
- 18.5.** If, after notice of termination of Contractor's right to proceed pursuant to this Section, it is determined for any reason that Contractor was not in default, or that its default was excusable, or that County is not entitled to the remedies against Contractor provided herein, then Contractor's remedies against County shall be the same as and limited to those afforded Contractor below under Subsection 19.1, Termination for Convenience.
- 18.6.** If the Contractor refuses to allow public access to all documents, papers, letters, or other material subject to the provisions of Chapter 119, Florida Statutes, and made or received by the Contractor in conjunction with this Agreement then the County may, without prejudice to any right or remedy and after giving the Contractor and his surety, if any, seven (7) days written notice, during which period Contractor still fails to allow access, terminate the employment of the Contractor and take possession of the site and of all materials, equipment, tools, construction equipment and machinery thereon, owned by the Contractor, and may finish the project by whatever method it may deem expedient. In such case, the Contractor shall not be entitled to receive any further payment until the Project is finished. Reasonable terminal expenses incurred by the County may be deducted from any payments left owing the Contractor (excluding monies owed the Contractor for subcontract work).

Section 19. TERMINATION FOR CONVENIENCE AND RIGHT OF SUSPENSION

- 19.1.** County shall have the right to terminate this Agreement without cause upon seven (7) calendar days written notice to Contractor. In the event of such termination for convenience, Contractor's recovery against County shall be limited to that portion of the Contract Amount earned through the date of termination, together with any retainage withheld and reasonable termination expenses incurred, but Contractor shall not be entitled to any other or further recovery against County, including, but not limited to, damages or any anticipated profit on portions of the Work not performed.
- 19.2.** County shall have the right to suspend all or any portions of the Work upon giving Contractor two (2) calendar days' prior written notice of such suspension. If all or any portion of the Work is so suspended, Contractor's sole and exclusive remedy shall be to seek an extension of time to its schedule in accordance with the procedures set forth in the Contract Documents. In no event shall the Contractor be entitled to any additional compensation or damages. Provided, however, if the ordered suspension exceeds three (3) months, the Contractor shall have the right to terminate the Agreement with respect to that portion of the Work which is subject to the ordered suspension.

Section 20. COMPLETION

- 20.1.** Upon receipt of written notice, the County will ascertain whether the work or designated portions thereof are ready for the Engineer's substantial completion inspection. From the Engineer's list of incomplete or unsatisfactory items, a schedule for the County's review will be prepared for their completion indicating such completion dates. The County will issue a Certificate of Substantial Completion when the work on the punch list has been accomplished.
- 20.2.** Upon receipt of written notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the County shall promptly make such inspection and, if it finds the work acceptable and fully performed under the Contract Documents, shall promptly issue a Certificate of Final Completion and Recommendation for Payment, stating that, on the basis of observations and inspections, the Work has been completed in accordance with the terms and conditions of the Contract Documents and that the entire balance found to be due the Contractor is due and payable. The final payment shall not become due and payable until Contractor submits: (1) the Release and Affidavit in the form attached as Exhibit D, (2) consent of surety to final payment, (3) if required by County, other data establishing payment or satisfaction of all obligations, such as receipts, releases and waivers of liens, arising out of the Contract Documents, to the extent and in such form as may be designated by County, and (4) a published copy of the Notice of Completion as provided for in this section. County reserves the right to inspect the Work and make an independent determination as to the Work's acceptability. Unless and until the County is completely satisfied, the final payment shall not become due and payable.

- 20.3.** After the Work is ready for final inspection and acceptance by the County, a legal advertisement must be published by the Contractor in a local newspaper of a general countywide circulation at least thirty (30) days before final payment shall be made. Example of such publication is as follows:

Legal Notice of Completion

Notice is hereby given that the undersigned Contractor has completed and has ready for acceptance by the Board of County Commissioners of Escambia County, Florida, the following construction project:

(Project Name and Address)

(Legal Name and Address - entity of the Contractor)

Subcontractors, material men, and other persons having payment claims against the Contractor relating to this project should govern themselves accordingly.

Section 21. WARRANTY

- 21.1.** Contractor shall obtain and assign to County all express warranties given to Contractor or any subcontractors by any material men supplying materials, equipment or fixtures to be incorporated into the Project. Contractor warrants to County that any materials and equipment furnished under the Contract Documents shall be new unless otherwise specified, and that all Work shall be of good quality, free from all defects and in conformance with the Contract Documents. Contractor further warrants to County that all materials and equipment furnished under the Contract Documents shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable manufacturers, fabricators, suppliers or processors except as otherwise provided for in the Contract Documents. If, within two (2) years after substantial completion and acceptance, any Work is found to be defective or not in conformance with the Contract Documents, Contractor shall correct it promptly after receipt of written notice from County. Contractor shall also be responsible for and pay for replacement or repair of adjacent materials or Work, which may be damaged as a result of such replacement or repair. These warranties are in addition to those implied warranties to which County is entitled as a matter of law. The Performance Bond shall remain in full force and effect throughout the two (2) year Warranty Period.

Section 22. PROJECT LAYOUT AND CONTROL

- 22.1.** Engineer will provide survey control, referencing beginning and ending stations, P.C.'s, P.T.'s and intermediate stations at 500 foot intervals. Staking is to be set along control line (base line or centerline of right-of-way, as indicated on plans) or at an offset determined by the Engineer. Bench Marks will be provided at intervals no greater than 1000 feet. The Engineer at the Contractor's expense shall replace any of these points, which are disturbed or destroyed by the Contractor.
- 22.2.** Contractor shall employ a competent Engineer or Land Surveyor licensed in the State of Florida familiar with construction control procedures to lay out all other parts of the work, and to establish all points, grades and levels necessary to locate the work. The Contractor shall be held responsible for all mistakes that may be caused by his incorrect layout and grade spotting work, or caused by the loss or disturbance of the Engineer's layout work.
- 22.3.** Should the Contractor in the course of the work find that the points, grades, and levels which are shown upon the Drawings are not conformable to the physical conditions of the locality at the proposed work or structure, he shall immediately inform the Engineer of the discrepancy between the actual physical conditions of the locality of the proposed work, and the points, grades and levels

which are shown on the Drawings. No claim shall be made by the Contractor against the Owner for compensation or damage by reasons for failure of the Engineer to represent upon said Drawings, points, grades and levels conformable to the actual physical conditions of the locality of the proposed work.

Section 23. TESTS AND INSPECTIONS

- 23.1.** County, its respective representatives, agents and employees, and any governmental agencies with jurisdiction over the Project shall have access at all times to the Work, whether the Work is being performed on or off of the Project site, for their observation, inspection and testing. Contractor shall provide proper, safe conditions for such access. Contractor shall provide County with timely notice of readiness of the Work for all required inspections, tests or approvals.
- 23.2.** If the Contract Documents or any codes, laws, ordinances, rules or regulations of any public authority having jurisdiction over the Project requires any portion of the Work to be specifically inspected, tested or approved, Contractor shall assume full responsibility therefore, pay all costs in connection therewith and furnish County the required certificates of inspection, testing or approval. All inspections, tests or approvals shall be performed in a manner and by organizations acceptable to the County.
- 23.3.** If any Work that is to be inspected, tested or approved is covered without written concurrence from the County, such work must, if requested by County, be uncovered for observation. Such uncovering shall be at Contractor's expense unless Contractor has given County timely notice of Contractor's intention to cover the same and County has not acted with reasonable promptness to respond to such notice. If any Work is covered contrary to written directions from County, such Work must, if requested by County, be uncovered for County's observation and be replaced at Contractor's sole expense.
- 23.4.** Neither observations by the County nor inspections, tests or approvals by others shall relieve Contractor from Contractor's obligations to perform the Work in accordance with the Contract Documents.
- 23.5.** Prior to payment for any Work for which testing is specified, Contractor shall provide the County a copy of reasonably acceptable test results relating to such work as required by the technical specifications of the solicitation.

Section 24. DEFECTIVE WORK

- 24.1.** Work not conforming to the requirements of the Contract Documents shall be deemed defective Work. If required by County, Contractor shall as directed, either correct all defective Work, whether or not fabricated, installed or completed, or, if the defective Work has been rejected by County, remove it from the site and replace it with acceptable Work. Contractor shall bear all direct, indirect and consequential costs of such correction or removal (including, but not limited to fees and charges of engineers, architects, attorneys and other professionals) made necessary thereby, and shall hold County harmless for same.
- 24.2.** If the County considers it necessary or advisable that covered Work be observed by County or inspected or tested by others, Contractor, at County's request, shall uncover, expose or otherwise make available for observation, inspection or tests as County may require, that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is defective, Contractor shall bear all direct, indirect and consequential costs of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction (including, but not limited to, fees and charges of engineers, architects, attorneys and other professionals), and County shall be entitled to an appropriate decrease in the Contract Amount. If, however, such Work is not found to be defective, Contractor shall be allowed an increase in the Contract Amount

and/or an extension of the Contract Time, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction.

- 24.3.** If any portion of the Work is defective, or Contractor fails to supply sufficient skilled workers with suitable materials or equipment, or fails to finish or perform the Work in such a way that the completed Work will conform to the Contract Documents, County may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of County to stop the Work shall not give rise to any duty on the part of County to exercise this right for the benefit of Contractor or any other party.
- 24.4.** Should the County determine, at its sole opinion, it is in the County's best interest to accept defective Work, the County may do so. Contractor shall bear all direct, indirect and consequential costs attributable to the County's evaluation of and determination to accept defective Work. If such determination is rendered prior to final payment, a Change Order shall be executed evidencing such acceptance of such defective Work, incorporating the necessary revisions in the Contract Documents and reflecting an appropriate decrease in the Contract Amount. If the County accepts such defective Work after final payment, Contractor at the discretion of the County shall promptly pay County an appropriate amount to adequately compensate County for its acceptance of the defective Work or shall increase in the Work's warranty period beyond two (2) years.
- 24.5.** If Contractor fails, within a reasonable time after the written notice from County, to correct defective Work or to remove and replace rejected defective Work as required by County, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any of the provisions of the Contract Documents, County may, after seven (7) days' written notice to Contractor, correct and remedy any such deficiency. To the extent necessary to complete corrective and remedial action, County may exclude Contractor from any or all of the Project site, take possession of all or any part of the Work, and suspend Contractor's services related thereto, take possessions of Contractor's tools, appliances, construction equipment and machinery at the Project site and incorporate in the Work all materials and equipment stored at the Project site or for which County has paid Contractor but which are stored elsewhere. Contractor shall allow County, and their respective representatives, agents, and employees such access to the Project site as may be necessary to enable County to exercise the rights and remedies under this Subsection. All direct, indirect and consequential costs of County in exercising such rights and remedies shall be charged against Contractor, and a Change Order shall be issued, incorporating the necessary revisions to the Contract Documents, including an appropriate decrease to the Contract Amount. Such direct, indirect and consequential costs shall include, but not be limited to, fees and charges of engineers, architects, attorneys and other professionals, all court and arbitration costs and all costs of repair and replacement of work or others destroyed or damaged by correction, removal or replacement of Contractor's defective Work. Contractor shall not be allowed an extension of the Contract Time because of any delay in performance of the Work attributable to the exercise by County of County's rights and remedies hereunder.

Section 25. SUPERVISION AND SUPERINTENDENTS

- 25.1.** Contractor shall supervise and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be responsible to see that the finished Work complies accurately with the Contract Documents. Contractor shall keep on the Work at all times during its progress a competent resident superintendent acceptable to the County, who shall not be replaced without prior written notice to County except under extraordinary circumstances. The resident superintendent shall possess Florida Department of Transportation approved training and certifications applicable to the Work, including but not limited to National Pollutant Discharge Elimination System (NPDES) Stormwater Management and Maintenance of Traffic Control Devices. The superintendent shall be Contractor's representative at the Project site and shall have authority to act on behalf of Contractor. All communications given to the superintendent shall be

as binding as if given to the Contractor. County shall have the right to direct Contractor to remove and replace its Project superintendent, with or without cause.

Section 26. PROTECTION OF WORK

- 26.1.** Contractor shall fully protect the Work from loss or damage and shall bear the cost of any such loss or damage until final payment has been made. If Contractor, or any one for whom Contractor is legally liable, is responsible for any loss or damage to the Work, or other work or materials of County or County's separate contractors, Contractor shall be charged with the same, and any monies necessary to replace such loss or damage shall be deducted from any amounts due Contractor.
- 26.2.** Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

Section 27. EMERGENCIES

- 27.1.** In the event of an emergency affecting the safety or protection of persons or the Work or property at the Project site or adjacent thereto, Contractor, without special instruction or authorization from County is obligated to act to prevent threatened damage, injury or loss. Contractor shall give County written notice within forty-eight (48) hours after the occurrence of the emergency, if Contractor believes that any significant changes in the Work or variations from the Contract Document have been caused thereby. If the County determines that a change in the Contract Documents is required because of the action taken in response to an emergency, a Change Order shall be issued to document the consequences of the changes or variations. If Contractor fails to provide the forty-eight (48) hour written notice noted above, the Contractor shall be deemed to have waived any right it otherwise may have had to seek an adjustment to the Contract Amount or an extension to the Contract Time.

Section 28. USE OF PREMISES

- 28.1.** Contractor shall confine all construction equipment, the storage of materials and equipment and the operations of workers to the Project site and land and areas identified in and permitted by the Contract Documents and other lands and areas permitted by law, rights of way, permits and easements, and shall not unreasonably encumber the Project site with construction equipment or other material or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or any land or areas contiguous thereto, resulting from the performance of the Work.
- 28.2.** Contractor shall provide and maintain in a neat, sanitary condition such accommodation for the use of his employees as may be necessary to comply with the regulations of the State Board of Health or other bodies having jurisdiction. He shall commit no public nuisance.

Section 29. SAFETY

- 29.1.** The Contractor shall designate in writing the individual responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. The Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
- 29.1.1.** All employees of the Work and other persons and/or organizations who may be affected thereby;
- 29.1.2.** All the Work and materials and equipment to be incorporated therein, whether in storage

on or off the Project site; and

- 29.1.3.** Other property on Project site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and any underground structures or improvements not designated for removal, relocation or replacement in the contract documents.
- 29.2.** The Contractor shall comply with all applicable codes, laws, ordinances, rules and regulations of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss. The Contractor shall erect and maintain all necessary safeguards for such safety and protection. The Contractor shall notify owners of adjacent property and of underground structures and improvements and utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation or replacement of their property. Contractor's duties and responsibilities for the safety and protection of the Work shall continue until such time as the Work is completed and final acceptance of same by County has occurred.
- 29.3** The Contractor shall designate a responsible representative at the Project site whose duty shall be the prevention of accidents. This person shall be Contractor's superintendent unless otherwise designated in writing by the Contractor to the County.
- 29.4** The Contractor shall adhere at all times to the minimum safety guidelines for construction and renovation projects as set out in **Exhibit C** of this Agreement.

Section 30. PROJECT MEETINGS

Prior to the commencement of Work, the Contractor shall attend a pre-construction conference with the County to discuss the Progress Schedule, procedures for handling shop drawings and other submittals, and for processing Applications for Payment, and to establish a working understanding among the parties as to the Work. During the prosecution of the Work, the Contractor shall attend any and all meetings convened by the County with respect to the Project, when directed to do so by County. Contractor shall have its subcontractors and suppliers attend all such meetings (including the pre-construction conference) as may be directed by the County.

The Surety, for value received, hereby stipulates and agrees that no changes, extensions of time, alterations or additions to the terms of the Contract or other work to be performed hereunder, or the specifications referred to therein shall in anywise affect its obligation under this bond, and it does hereby waive notice of any such changes, extensions of time, alterations or additions to the terms of the Contract or to work or to the specifications.

This instrument shall be construed in all respects as a common law bond.

In no event will the Surety be liable in the aggregate to Obligees for more than the penalty sum of this Performance Bond, regardless of the number of suits that may be filed by Obligees.

IN WITNESS WHEREOF, the above parties have executed this instrument this ____ day of _____, 20____, the name and corporate seal of each corporate party being hereto affixed and these premises duly signed by its undersigned representative, pursuant to authority of its governing body.

Signed, sealed and delivered
in the presence of:

PRINCIPAL:

By: _____
Name: _____
Its: _____

Witnesses as to Principal

STATE OF _____
COUNTY OF _____

The foregoing instrument was acknowledged before me this ____ day of _____, 20____, by _____, as _____ of _____, a _____ corporation, on behalf of the corporation. He/she is personally known to me **OR** has produced _____ as identification and did (did not) take an oath.

My Commission Expires:

(Signature)
Name: _____
(Legibly Printed)

(AFFIX OFFICIAL SEAL)

Notary Public, State of _____
Serial No., If Any: _____

ATTEST:

Witness

Witness

Witnesses

SURETY: _____
(Printed Name)

(Business Address)

(Authorized Signature)

(Printed Name)
OR

As Attorney In Fact (Attach Power)

(Business Address)

(Printed Name)

(Telephone Number)

STATE OF _____
COUNTY OF _____

The foregoing instrument was acknowledged before me this ____ day of _____, 20____ by _____, as _____ of _____ as Surety, on behalf of Surety. He/she is personally known to me OR has produced _____ as identification and did (did not) take an oath.

My Commission Expires:

(Signature)

Name: _____

(Legibly Printed)

Notary Public, State of _____

Serial No., If Any: _____

(AFFIX OFFICIAL SEAL)

BOND NO. _____

PAYMENT BOND

BY THIS BOND, We, _____

(Insert name, address and phone number of contractor)

_____ (hereinafter called the "Principal")

and _____ (hereinafter called the "Surety"),

(Insert name)

located at _____, a surety insurer

(Insert address and phone number)

chartered and existing under the laws of the State of _____ and authorized to do business

in the State of Florida, are held and firmly bound unto the Board of County Commissioners for Escambia

County, Florida, 221 Palafox Place, Pensacola, Florida 32597-1591, (850) 595-4900, (hereinafter called

the "County") in the sum of _____ (\$ _____) for

payment of which we bind ourselves, our heirs, our personal representatives, our successors and our assignees, jointly and severally.

WHEREAS, Principal and County have reached a mutual agreement relating to Contract No. _____

(hereinafter referred to as the "Contract") as of _____ (the bid award date for projects thereto)

for _____ the _____ purpose _____ of

(Insert name of project, including legal description, street address of property and general description of improvement.)

said Contract being made a part of this Bond by this reference.

NOW, THEREFORE, THE CONDITION OF THIS BOND IS THAT IF THE PRINCIPAL:

1. Performs the contract dated _____, _____, between Principal and County for construction of _____, the contract being made a part of this bond by reference, at the times and in the manner prescribed in the contract; and
2. Promptly makes payments to all claimants, as defined in Section 255.05(1), Florida Statutes, supplying Principal with labor, materials, or supplies, used directly or indirectly by Principal in the prosecution of the work provided for in the contract; and

3. Pays County all loses, damages, expenses, costs, and attorney's fees, including appellate proceedings, that the County sustains because of a default by Principal under the contract; and
4. Performs the guarantee of all work and materials furnished under the contract for the time specified in the contract, then this bond is void; otherwise it remains in full force.

Any action instituted by a claimant under this bond for payment must be in accordance with the notice and time limitation provisions in Section 255.05(2), Florida Statutes.

BE IT FURTHER KNOWN:

1. Any changes in or under the Contract and compliance or noncompliance with any formalities connected with the said Contract or alterations which may be made in the terms of the said Contract, or in the work to be done under it, or the giving by the County of any extension of time for the performance of the said Contract, or any other forbearance on the part of the County or Principal to the other, shall not in any way release the Principal and the Surety, or either of them, their heirs, personal representatives, successors or assigns from liability hereunder, notice to the Surety of any such changes, alterations, extensions or forbearance being hereby waived.
2. Certain claimants seeking the protection of this Bond must timely comply with the strict requirements set forth in Section 255.05, Florida Statutes, and as otherwise provided by law.
3. As concerns payment for labor, materials and supplies, as affects certain claimants, no legal action shall be instituted against the Principal or Surety on this Bond after one (1) year from the performance of labor or the completion of delivery of the materials or supplies as is specifically mandated pursuant to Section 255.05, Florida Statutes.

THIS BOND DATED THE _____ DAY OF _____, 20____ (the date of issue by the Surety or by the Surety's agent and the date of such agents power-of-attorney).

Signed, sealed and delivered
in the presence of:

PRINCIPAL:

By: _____
Name: _____
Its: _____

Witnesses as to Principal

STATE OF _____
COUNTY OF _____

The foregoing instrument was acknowledged before me this _____ day of _____, 20____, by _____, as _____, of _____

_____, a _____ corporation, on behalf of the corporation.
He/she is personally known to me **OR** has produced _____ as identification and
did (did not) take an oath.

My Commission Expires: _____

(Signature)

Name: _____

(Legibly Printed)

(AFFIX OFFICIAL SEAL)

Notary Public, State of _____

Serial No., If Any: _____

ATTEST:

SURETY: _____

(Printed Name)

Witness

(Business Address)

(Authorized Signature)

Witness

(Printed Name)

OR

As Attorney In Fact (Attach Power)

Witnesses

(Business Address)

(Printed Name)

(Telephone Number)

STATE OF _____

COUNTY OF _____

The foregoing instrument was acknowledged before me this ____ day of _____, 20____, by _____, as _____ of _____ as Surety, on behalf of Surety. He/she is personally known to me **OR** has produced _____ as identification and did (did not) take an oath.

My Commission Expires:

(Signature)

Name: _____

(Legibly Printed)

(AFFIX OFFICIAL SEAL)

Notary Public, State of _____

Serial No., If Any: _____

SAMPLE

EXHIBIT C
INSURANCE AND SAFETY

INSURANCE - BASIC COVERAGES REQUIRED

The Contractor shall procure and maintain the following described insurance, except for coverages specifically waived by the County. Such policies shall be from insurers with a minimum financial size of VII according to the latest edition of the AM Best Rating Guide. An A or better Best Rating is "preferred"; however, other ratings if "Secure Best Ratings" may be considered. Such on policies shall provide coverages for any or all claims which may arise out of, or result from, the services, work and operations carried out pursuant to and under the requirements of the Contract Documents, whether such services, work and operations be by the Contractor, its employees, or by subcontractor(s), or anyone employed by or under the supervision of any of them, or for whose acts any of them may be legally liable.

The Contractor shall require, and shall be responsible for assuring throughout the time the Agreement is in effect, that any and all of its subcontractors obtain and maintain until the completion of that subcontractor's work, such of the insurance coverages described herein as are required by law to be provided on behalf of their employees and others.

The required insurance shall be obtained and written for not less than the limits of liability specified hereinafter, or as required by law, whichever is greater.

These insurance requirements shall not limit the liability of the Contractor. The County does not represent these types or amounts of insurance to be sufficient or adequate to protect the Contractor's interests or liabilities, but are merely minimums.

Except for workers compensation and professional liability, the Contractor's insurance policies shall be endorsed to name Escambia County as an additional insured to the extent of its interests arising from this agreement, contract or lease.

The Contractor waives its right of recovery against the County, to the extent permitted by its insurance policies.

The Contractor's deductibles/self-insured retentions shall be disclosed to the County and may be disapproved by the County. They shall be reduced or eliminated at the option of the County. The Contractor is responsible for the amount of any deductible or self-insured retention.

Insurance required of the Contractor or any other insurance of the Contractor shall be considered primary, and insurance of the County, if any, shall be considered excess, as may be applicable to claims obligations, which arise out of this agreement, contract or lease.

Workers Compensation Coverage

The Contractor shall purchase and maintain workers compensation insurance for all workers compensation obligations imposed by state law and with employers liability limits of at least \$100,000 each accident and \$100,000 each employee/\$500,000 policy limit for disease, or a valid certificate of exemption issued by the state of Florida, or an affidavit in accordance with the provisions of Florida Workers Compensation law.

Contractor shall also purchase any other coverages required by law for the benefit of employees.

General, Automobile And Excess Or Umbrella Liability Coverage

The Contractor shall purchase and maintain coverage on forms no more restrictive than the latest editions of the Commercial General Liability and Business Auto policies of the Insurance Services Office.

Minimum limits of \$1,000,000 per occurrence for all liability must be provided, with excess or umbrella insurance making up the difference, if any, between the policy limits of underlying policies (including employers liability required in the Workers Compensation Coverage section) and the total amount of coverage required.

General Liability Coverage - Occurrence Form Required

Coverage A shall include bodily injury and property damage liability for premises, operations, products and completed operations, independent contractors, contractual liability covering this agreement, contract or lease, broad form property damage coverages, and property damage resulting from explosion, collapse or underground (x,c,u) exposures.

Coverage B shall include personal injury.

Coverage C, medical payments, is not required.

The Contractor is required to continue to purchase products and completed operations coverage, at least to satisfy this agreement, contract or lease, for a minimum of three years beyond the County's acceptance of renovation or construction projects.

Business Auto Liability Coverage

Business Auto Liability coverage is to include bodily injury and property damage arising out of ownership, maintenance or use of any auto, including owned, non-owned and hired automobiles and employee non-ownership use.

Excess or Umbrella Liability Coverage

Umbrella Liability insurance is preferred, but an Excess Liability equivalent may be allowed. Whichever type of coverage is provided, it shall not be more restrictive than the underlying insurance policy coverages. Umbrella coverage shall drop down to provide coverage where the underlying limits are exhausted.

Evidence/Certificates of Insurance

Required insurance shall be documented in Certificates of Insurance. If and when required by the County, Certificates of Insurance shall be accompanied by documentation that is acceptable to the County establishing that the insurance agent and/or agency issuing the Certificate of Insurance has been duly authorized, in writing, to do so by and on behalf of each insurance company underwriting the insurance coverages(s) indicated on each Certificate of Insurance.

New Certificates of Insurance are to be provided to the County at least 30 days prior to coverage renewals. Failure of the Contractor to provide the County with such renewal certificates may be considered justification for the County to terminate this agreement, contract or lease.

Certificates should contain the following additional information.

1. Indicate that Escambia County is an additional insured on the general and business auto liability policies.
2. Include a reference to the project and the Office of Purchasing number.

3. Disclose any self-insured retentions in excess of \$1,000.
4. Designate Escambia County as the certificate holder as follows:
Escambia County
Attention: _____
Office of Purchasing
P.O. Box 1591
Pensacola, FL 32597-1591
Fax (850) 595-4806
5. Indicate that the County shall be notified at least 30 days in advance of cancellation.

Receipt of certificates or other documentation of insurance or policies or copies of policies by the County, or by any of its representatives, which indicate less coverage than required does not constitute a waiver of the Contractor's obligation to fulfill the insurance requirements herein.

If requested by the County, the Contractor shall furnish complete copies of the Contractor's insurance policies, forms and endorsements, and/or such additional information with respect to its insurance as may be requested.

For Commercial General Liability coverage the Contractor shall, at the option of the County, provide an indication of the amount of claims payments or reserves chargeable to the aggregate amount of liability coverage.

ENDORSEMENTS/ADDITIONAL INSURANCE

If checked below, the County requires the following endorsements or additional types of insurance.

- TERMINATION/ADVERSE CHANGE ENDORSEMENT**
All of Contractor's policies, except for professional liability and workers compensation insurance, are to be endorsed, and the Contractor's Certificate(s) of Insurance shall state, that the County shall be notified at least 30 days in advance of cancellation, non-renewal or adverse change.
- PROPERTY COVERAGE FOR LEASES**
The Contractor shall procure and maintain for the life of the lease, all risk/special perils (including sinkhole) property insurance (or its equivalent) to cover loss resulting from damage to or destruction of the building and personal property/contents. The policy shall cover 100% replacement cost, and shall include an agreed value endorsement to waive coinsurance.

Coverage shall also include continued full payment of rents to the County for up to one year after damage or destruction of the property
- COMMERCIAL GENERAL LIABILITY COVERAGE PROJECT AGGREGATE**
Because the Commercial General Liability form of coverage includes an annual aggregate limitation on the amount of insurance provided, a separate project aggregate limit of \$_____ is required by the County for this agreement or contract.
- LIQUOR LIABILITY**
In anticipation of alcohol being served, the Contractor shall provide evidence of coverage for liquor liability in an amount equal to the general/umbrella/excess liability coverage. If the general liability insurance covers liquor liability (e.g. host or other coverage), the

Contractor's agent or insurer should provide written documentation to confirm that coverage already applies to this agreement, contract or lease. If needed coverage is not included in the general/umbrella/excess liability policy(ies), the policy(ies) must be endorsed to extend coverage for liquor liability, or a separate policy must be purchased to provide liquor liability coverage in the amount required.

OWNERS PROTECTIVE LIABILITY COVERAGE

For renovation or construction contracts the Contractor shall provide for the County an owners protective liability insurance policy (preferably through the Contractor's insurer) in the name of the County.

This is redundant coverage if the County is named as an additional insured in the Contractor's Commercial General Liability insurance policy. However, this separate policy may be the only source of coverage if the Contractor's liability coverage limit is used up by other claims.

BUILDERS RISK COVERAGE

Builders Risk insurance is to be purchased to cover subject property for all risks of loss, subject to a waiver of coinsurance, and covering off-site storage, transit and installation risks as indicated in the Installation Floater and Motor Truck Cargo insurance described hereafter, if such coverages are not separately provided.

The Builders Risk insurance is to be endorsed to cover the interests of all parties, including the County and all contractors and subcontractors. The insurance is to be endorsed to grant permission to occupy.

INSTALLATION FLOATER COVERAGE

Installation Floater insurance is to be purchased when Builder's Risk insurance is inappropriate, or when Builder's Risk insurance will not respond, to cover damage or destruction to renovations, repairs or equipment being installed or otherwise being handled or stored by the Contractor, including off-site storage, transit and installation. The amount of coverage should be adequate to provide full replacement value of the property, repairs, additions or equipment being installed, otherwise being handled or stored on or off premises. All risks coverage is preferred.

MOTOR TRUCK CARGO COVERAGE

If the Installation Floater insurance does not provide transportation coverage, separate Motor Truck Cargo or Transportation insurance is to be provided for materials or equipment transported in the Contractor's or other vehicles from place of receipt to building sites or other storage sites. All risks coverage is preferred.

CONTRACTOR'S EQUIPMENT COVERAGE

Contractor's Equipment insurance is to be purchased to cover loss of equipment and machinery utilized in the performance of work by the Contractor. All risks coverage is preferred.

FIDELITY/DISHONESTY COVERAGE - FOR EMPLOYER

Fidelity/Dishonesty insurance is to be purchased to cover dishonest acts of the Contractor's employees, including but not limited to theft of vehicles, materials, supplies, equipment, tools, etc., especially property necessary to work performed.

FIDELITY/DISHONESTY/LIABILITY COVERAGE - FOR COUNTY

Fidelity/Dishonesty/Liability insurance is to be purchased or extended to cover dishonest acts of the Contractor's employees resulting in loss to the County.

GARAGE LIABILITY COVERAGE

Garage Liability insurance is to be purchased to cover the Other Party and its employees for its garage and related operations while in the care, custody and control of the County's vehicles.

GARAGEKEEPERS COVERAGE (LEGAL LIABILITY FORM)

Garagekeepers Liability insurance is to be purchased to cover the Other Party's liability for damage or other loss, including comprehensive and collision risks, to the County's vehicles while in the care, custody and control of the Other Party. This form of coverage responds only when the Other Party is legally liable for the loss.

GARAGEKEEPERS COVERAGE (DIRECT-EXCESS FORM)

Garagekeepers Liability insurance is to be purchased to cover damage or other loss, including comprehensive and collision risks, to the County's vehicles while in the care, custody and control of the Other Party. This form of coverage responds on a legal liability basis, and also without regard to legal liability on an excess basis over any other collectible insurance.

WATERCRAFT LIABILITY COVERAGE

Because the Contractor's provision of services involves utilization of watercraft, watercraft liability coverage must be provided to include bodily injury and property damage arising out of ownership, maintenance or use of any watercraft, including owned, non-owned and hired.

Coverage may be provided in the form of an endorsement to the general liability policy, or in the form of a separate policy covering Watercraft Liability or Protection and Indemnity.

UNITED STATES LONGSHOREMEN AND HARBORWORKERS ACT COVERAGE

The Workers Compensation policy is to be endorsed to include United States Longshoremen and Harborworkers Act Coverage for exposures, which may arise from this agreement or contract.

JONES ACT COVERAGE

The Workers Compensation policy is to be endorsed to include Jones Act Coverage for exposures, which may arise from this agreement or contract.

AIRCRAFT LIABILITY COVERAGE

Because the Contractor's provision of services involves utilization of aircraft, aircraft liability coverage must be provided to include bodily injury and property damage arising out of ownership, maintenance or use of any aircraft, including owned, non-owned and hired.

The minimum limits of coverage shall be \$____,000,000 per occurrence, Combined Single

Limit for Bodily Injury (including passenger liability) and Property Damage.

☐ **POLLUTION/ENVIRONMENTAL IMPAIRMENT LIABILITY COVERAGE**

Pollution/environmental impairment liability insurance is to be purchased to cover pollution and/or environmental impairment, which may arise from this agreement or contract.

☐ **PROFESSIONAL LIABILITY/MALPRACTICE/ERRORS OR OMISSIONS INSURANCE**

Contractor shall purchase and maintain Professional Liability or malpractice or errors or omissions insurance coverage with a minimum limit of \$1,000,000, except where the estimated construction contract price for the project described in the Agreement is greater than \$5 Million dollars, the minimum limit of professional liability coverage shall be equal to 25% of the estimated construction contract price for the project. Said coverage shall be continuously maintained and in effect for a period of not less than **five (5) years** from the effective date of this Agreement. The policy limit of liability shall not include legal fees and other defense costs. If a claims made form of coverage is provided, the retroactive date of coverage shall be no later than the effective date of this Agreement and shall not be advanced.

If at any time during the aforementioned policy period there should be a cancellation, non-renewal, or lapse in coverage, professional liability coverage shall be extended for the remainder of the five year period with a supplemental extended reporting period (SERP) endorsement to take effect upon expiration of the policy period referenced above. The limits of liability applicable to the SERP coverage shall be equal to the limits of liability applicable to the policy referenced above and to which the endorsement attaches.

MINIMUM PROJECT SAFETY REQUIREMENTS

The following safety requirements represent the minimum condition, which shall be met by all Contractors and subcontractors performing work for Escambia County: Reported or observed violations of Federal and State laws and regulations, or County ordinances shall be brought to the attention of the County project manager and County's Department of Safety and Risk Services and shall be immediately corrected by the Contractor. Additionally, the County may order work to be stopped if conditions exist that present immediate danger to persons or property. The Contractor acknowledges that any such stoppage will not shift responsibility for any damages from the Contractor to the County. Failure to comply with required safety procedures shall result in the suspension of the Work of the Contractor until such time as his operations are brought into compliance. Items which are not corrected or that are disputed by the Contractor may be referred by the County's Department of Safety and Risk Services for inspection or interpretation. The Contractor shall take reasonable precautions for work place safety and shall provide reasonable protection to prevent damage, injury, or loss to employees on the work site and to other persons who may be affected by the Work.

- (1) Prior to the commencement of the project, the Contractor and all subcontractors shall provide to the County a written copy of their respective safety and health plans for review as part of the pre-submittal bid package.
- (2) The Contractor shall establish and maintain an access control system at the work site, including a daily sign-in log, for all visitors, including County and regulatory personnel. Prior to commencement of construction, the project manager may designate specific individuals for routine access so that their duties are not impeded. All visitors that are not pre-approved for admittance shall be escorted through the project by either a Contractor representative or by the project manager or designee.
- (3) The Contractor shall provide all necessary safety equipment for County staff, employees, and visitors to enter the work site. This equipment may include hard hats, hearing protection, safety glasses, or any other safety items deemed necessary by the Contractor or required by State or Federal safety regulations.
- (4) Construction vehicles on the work site shall always be operated in a safe manner. The Contractor shall take appropriate action to ensure the safety of County staff, visitors, and the general public while operating work vehicles at a "controlled" construction site. Where conditions warrant, or at the request of the County, temporary barriers shall also be established for these traffic areas.
- (5) The Contractor shall prominently mark the work site and ensure its security. Site security shall include appropriate fencing, barricades, warning tape, covered walkways and warning signs. In no instance shall a work site be accessible, without obvious warning, to County staff, visitors, or the general public. At a minimum, the project site shall be posted with the appropriate trespass warning signs as specified in Section 810.09(2)(d), Florida Statutes: THIS AREA IS A DESIGNATED CONSTRUCTION SITE; ANYONE TRESPASSING ON THIS PROPERTY SHALL, UPON CONVICTION, BE GUILTY OF A FELONY; "A DANGER, CONSTRUCTION SITE. AUTHORIZED PERSONNEL ONLY," and other general safety warning signs, i.e., "HARD HAT AREA," as are deemed necessary by the Contractor and project manager.

- (6) In the event barricading of a work site is not feasible, alternative measures may be used upon prior approval by the County safety Office. Alternative measures may include, but are not limited to, working during “off ‘hours such as nights, weekends, or holidays, or the providing of temporary accommodations for building occupants (to be prearranged, if necessary, at the discretion of the County).
- (7) The Contractor shall ensure compliance with all fire safety codes at the work site, especially as to egress, during the construction phase of an occupied facility. In no instance, (except where impractical and with the prior approval of the County’s Department of Safety and Risk Services and the appropriate life safety code inspector), shall the life safety code components of an occupied facility be reduced or otherwise compromised.

A set of these construction plans, with a signature of approval by the appropriate life safety code inspector, shall be kept at each construction site and available for routine inspection. The Contractor shall communicate with each subcontractor and County’s Department of Safety and Risk Services as to scheduling of events that may pose hazards or inconveniences to building occupants. The Contractor shall also ensure that appropriate scheduling information is also conveyed to the project manager.

- When a project alters a building’s fire protection compartment features, such as fire barriers, smoke barriers, or corridor walls, exits must provide free and unobstructed egress. Employees shall receive notice if any alternative exits have been designated. Buildings or areas under construction must maintain escape egress for construction workers at all times. These means of egress shall be inspected daily by the Contractor.
 - When a project affects fire alarms, fire detection, or fire suppression systems, of a building that is occupied, the Contractor must ensure that such systems are not functionally impaired. Any temporary systems, which are installed, must be inspected and tested monthly by the Contractor. Employees must be notified when such temporary systems are in place.
 - When any sources of ignition are present, such as welding torches, smoking by all persons shall be prohibited on any construction site and in any County facility.
- (8) Noise, dust, and the use of chemical products may create inside health hazards at the work site to building occupants requiring that the Contractor to adhere to the following guidelines at a minimum:
- (a) The Contractor shall initiate construction and engineering safety controls to minimize exposure of dusts, noise, and chemical odors to building occupants. These controls may involve the construction or use of temporary walls, plastic barriers, mechanical ventilation, elimination of make-up air returns from work areas, pressurizing occupied areas, or a combination of several methods. The Contractor shall coordinate all such engineering efforts with the project manager, and these control measures shall require prior approval by the County’s Department of Safety and Risk Services. In cases where these efforts may not be

feasible, alternative work schedules on evenings and weekends may be instituted as a part of this process.

- (b) Material Safety Data Sheets (MSDS) shall be provided to the County's Department of Safety and Risk Services for all hazardous substances used on the project or brought on the job site. These products include, but are not limited to, paints, solvents, roofing compounds, and cleaning compounds.
 - (c) Appropriate precautions shall be taken to prevent occupant exposure to hazardous respirable dusts, contaminants, and fumes from welding, cutting, or drilling of concrete and masonry, or the operation of internal combustion engines. The Contractor shall also determine whether respirable crystalline silica, which is a potential carcinogen contained in many building products, is present at the work site. Control of dusts from these types of products and operations shall be an essential safety requirement for the Contractor.
 - (d) The Contractor should be aware of other buildings adjacent to his work areas and shall be prepared to take necessary actions to prevent the spread of dusts and fumes to those facilities.
- (9) The Contractor shall ensure that all emergency notifications, including those for fires and medical needs, shall be promptly made by dialing County 911 dispatchers. The Caller should state the exact location of the work site emergency, the nature of the emergency, and specifically indicate if medical or fire services are needed.
- (10) The Contractor agrees and understands that all County construction/renovation sites shall be subject to periodic inspection by life safety code inspectors, Florida Department of Labor and Employment Security, Division of Safety, Occupational Safety and Health Administration, Florida Department of Environmental Protection, Environmental Protection Agency, and other Federal, State, or County regulatory agencies.
- (11) The Contractor shall provide adequate refuse containers for the disposal of construction debris. Refuse shall not be allowed to accumulate on the project site grounds, and the Contractor shall ensure that these containers are subsequently emptied on a regular basis.
- (12) Water runoff and soil erosion from the project site shall be controlled by the Contractor pursuant to the regulations of the Florida Department of Environmental Protection.
- (13) Water-based paint and stain products shall be used by the Contractor in the place of solvent-based products where the application so permits. Use of organic solvent-based products shall be used only where absolutely necessary and with the prior approval of the project manager. Lead-containing paints shall not be normally used or specified for any application. If the use of lead-containing paint is essential for a specific application, prior written approval from the County's Department of Safety and Risk Services shall be obtained before their use.

- (14) The use of any products containing toxic metals, especially those regulated by Resource Conservation and Recovery Act (RCRA), (i.e. lead, chromium, barium, silver, arsenic, cadmium, mercury, selenium), on the work site shall be avoided. Prior written approval for use of these metals shall be obtained by the Contractor from the County's Department of Safety and Risk Services.
- (15) The use of any radioactive materials by the Contractor on project sites shall require pre-approval. Copies of appropriate certifications, licenses, testing, and inspection records shall be provided by the Contractor to the project manager and County's Department of Safety and Risk Services for review.
- (16) The County contracts out the identification and abatement of asbestos containing building materials. Asbestos abatement can only be performed by state licensed asbestos abatement contractors. General contractors, therefore, shall not be authorized to remove or disturb any asbestos containing materials. Although efforts are made to identify or remove such asbestos containing materials prior to renovations, the possibility exists that asbestos materials may be encountered at a work site. If so, Contractors who encounter such materials shall immediately stop work and notify the project manager and the County's Department of Safety and Risk Services.
- (17) The above-cited guidelines represent minimum expectations and actions, which shall be taken by Contractors while under contract for County construction and renovation projects. These guidelines are not all inclusive and will be revised as necessary. In the event these guidelines conflict with other contract documents, the most stringent application shall apply. Any questions or disputes should be brought to the immediate attention of the project manager and County's Department of Safety and Risk Services.

EXHIBIT D
RELEASE AND AFFIDAVIT

COUNTY OF ESCAMBIA
STATE OF FLORIDA

Before me, the undersigned authority, personally appeared _____, who after being duly sworn, deposes and says:

- (1) In accordance with the Contract Documents and in consideration of \$_____ paid, _____ ("Contractor") releases and waives for itself and its subcontractors, material men, successors and assigns, all claims demands, costs and expenses, whether in contract or in tort, against the Board of County Commissioners of Escambia County, Florida, ("County") relating in any way to the performance of the Agreement between Contractor and County dated _____, 20____, for the period from _____ to _____.
- (2) Contractor certifies for itself and its subcontractors, material men, successors and assigns, that all charges for labor, materials, supplies, lands, licenses and other expenses for which County might be sued or for which a lien or a demand against any payment bond might be filed, have been fully satisfied and paid.
- (3) Contractor agrees to indemnify, defend and save harmless County from all demands or suits, actions, claims of liens or other charges filed or asserted against the County arising out of the performance by Contractor of the Work covered by this Release and Affidavit.
- (4) This Release and Affidavit is given in connection with Contractor's (monthly/final) Application for Payment No. _____.

CONTRACTOR:

By: _____

Its: _____ President

Date: _____

Witnesses

[Corporate Seal]

**STATE OF FLORIDA
COUNTY OF ESCAMBIA**

The foregoing instrument was acknowledged before me this ____ day of _____, 20__, by _____, as _____ of _____, a _____ corporation, on behalf of the corporation. He/she is personally known to me **OR** has produced _____ as identification and did (did not) take an oath.

My _____ Commission _____ Expires: _____

—

(Signature)

Name: _____

(Legibly Printed)

(AFFIX OFFICIAL SEAL)

Notary Public, State of _____

Serial No., If Any: _____

EXHIBIT E
FORM OF CONTRACT APPLICATION FOR PAYMENT

- AIA DOCUMENT #G702, 1992 EDITION
- AIA DOCUMENT #G703, 1992 EDITION

SAMPLE

EXHIBIT F
CONSTRUCTION CHANGE ORDER

Change Order Number _____ Contract Number _____ PD _____
Date: _____ Dated _____

To: _____

Project Name: _____

You hereby are authorized and directed to make the following changes in accordance with terms and conditions of the Agreement:

Describe changes here;

	Dollars	Time in Calendar Days
Original Contract Amount	\$ _____	_____
Sum of Previous Changes	\$ _____	_____
This Change Order	\$ _____	_____

Adjusted Agreement Amount	\$ _____	_____

The contract substantial completion date will be **increased/decreased** by ___ calendar days due to this Change Order. The new contract substantial completion date is _____. Your acceptance of this Change Order shall constitute a modification to our Agreement and will be performed subject to all the same terms and conditions in our Agreement indicated above, as fully as if the same were repeated in this acceptance.

The adjustment, if any, to this Agreement shall constitute a full and final settlement of any and all claims arising out of or related to the change set forth herein, including claims for impact and delay cost.

The Contract Administrator has directed the Contractor to increase the penal sum of the existing Performance and Payment Bonds or to obtain additional bonds on the basis of a \$25,000.00 or greater value Change Order.

Check if applicable and provide written confirmation from the bonding company/agent (attorney-

in-fact) that the amount of the Performance and Payment bonds have been adjusted to 100% of the new contract amount.

Accepted: _____, 20__

By: _____

Contractor

By: _____

Engineer

By: _____

Owner

SAMPLE

EXHIBIT G
PAYMENT ADJUSTMENT - BITUMINOUS MATERIALS

1. The bid unit price for Bituminous Material will be adjusted to reflect changes, both increases and decreases, in the Asphalt Index price of bituminous material from that in effect during the month in which bids were received for this contract. The Contractor will not be given the option to reject this cost adjustment of Bituminous Materials. This adjustment will be made in accordance with the following criteria:
 - 1.1. Price adjustments will apply only to the price of bituminous material F. O. B. manufacturer's asphalt terminal and will not reflect variations in the cost of transportation from the terminal to the job site.
 - 1.2. Price adjustments will be made for all bituminous material incorporated into asphalt pavement whether paid for under a separate bid item or under other items, which include the cost of bituminous material.
 - 1.3. Price adjustments will not be made until the semi-final or final payment is made on the contract. The bid unit price for bituminous material will be used in preparing monthly progress payments.
 - 1.4. No price adjustment reflecting any further increases in the cost of bituminous material will be made for any month after expiration of the allowable contract time, including any extensions that may be granted.
 - 1.5. The adjusted unit price shall be calculated for the month during which the material was incorporated into the project in accordance with the following formula:

Pa ' PbX(I_d-I_b) where:
Pa ' Adjusted unit price for Bituminous Material. (To be calculated separately for each month during which bituminous material is used and will reflect an increased or decreased price.)
Pb ' Bid unit price for Bituminous Material.
I_d ' Asphalt Price Index during the month in which the material is incorporated into the project.
I_b ' Asphalt Price Index during the month in which bids were received for this contract.
 - 1.6. The County will determine the Asphalt Price Index for each month. The Index shall be determined by averaging quotations in effect on the first day of the month at all terminals, which could reasonably be expected to furnish bituminous material to projects in the State of Florida.
 - 1.7. A price adjustment will be made only when the current Asphalt Price Index varies by 5% or more from the Index that was applicable when bids were received or 5% or more from when the last previous adjustment was made.

The Asphalt Price Index to be used by the County will be that used by the Florida Department of Transportation, as available from them after the 15th of each month.

Exhibit K

Local Agency Program Construction Contract Requirements for Bauer Road Paved Shoulders
Project

FPID: 437085-1-58-01

Federal Project: 9044-034-C

- LAP CERTIFICATION OF CURRENT CAPACITY (FDOT Form# 525-010-46)
- CERTIFICATION REGARDING DEBARMENT, SUSPENSION. (FDOT Form # 375-030-32)
- CERTIFICATION FOR DISCLOSE OF LOBBYING ACTIVITIES (FDOT Form# 375-030-33)
- DISCLOSURE OF LOBBYING ACTIVITIES (FDOT Form# 375-030-34)
- NON-COLLUSION DECLARATION AND COMPLIANCE (FDOT Form# 575-060-13)