DIVISION OF ENGINEERING

SPECIFICATIONS FOR

ELECTRICAL DISTRIBUTION

INSTALLATION AT CAMPGROUND

POTATO CREEK

STATE PARK

IN ST. JOSEPH COUNTY IN

PROJECT NO. E030283

SEPARATE PLANS INCLUDED

TABLE OF CONTENTS

A.	BIDDING AND CONTRACT REQUIREMENTS		
	Title Sheet		1 Page
	Table of Contents		1 Page
	PRE-BID DOCUMENTATION		
	DAPW 28	- Notice to Bidders	1 Page
	DAPW 30	- Instructions to Bidders	6 Pages
	Wage Determination (If required)		
	BID DOCUMENTATION		
	DAPW 12	- Contractor's Affidavit of Subcontractors Employed	1 Page
	DAPW 13	- Contractor's Bid Form	3 Pages
	DAPW 14	- Signature Affidavit	1 Page
	DAPW 15A	- Bid Bond	1 Page
	DAPW 26	- M/WBE Participation Plan	1 Page
	SUP 2	- M/WBE Good Faith Effort Work Sheet	1 Page
	DAPW 41	- Certificate of Corporate Resolution	1 Page
	DAPW 121	- Contractor's Non-Collusion Statement	1 Page
	PRE-CONTRACT DOCUMENTATION		
	DAPW 11	- Domestic Steel Affidavit	1 Page
	DAPW 15	- Contractor's Bond for Construction	1 Page
	DAPW 16	- Contractor's Certificate of Insurance	1 Page
	DAPW 150A	- Contractor's Employee Drug Testing	2 Pages
	CONTRACT DOCUMENTATION		
	DAPW 26	- General Conditions of the Contract	18 Pages
	DAPW 26 SUP 1	- M/WBE Participation Policy	6 Pages
	DAPW 33	- Standard Agreement for Construction Projects	17 Pages
B.	LIST OF DRAWINGS		
C.	SPECIFICATIONS		

INSTRUCTIONS TO BIDDERS

PROJECT ESTIMATED BY DEPARTMENT OF ADMINISTRATION, PUBLIC WORKS DIVISION TO BE BID AT ONE HUNDRED FIFTY THOUSAND DOLLARS ($150,000) AND ABOVE

01 GENERAL

A. This project is estimated by the Public Works Division, Indiana Department of Administration (the Owner), as stated in the Notice to Bidders, at One Hundred Fifty Thousand Dollars ($150,000) and above.

B. QUALIFICATION BY THE CERTIFICATION BOARD IS REQUIRED FOR THIS PROJECT PRIOR TO BID OPENING DATE. For information and procedure contact Executive Secretary, Certification Board, Indiana Department of Administration, 402 W. Washington St., Room W467, Indianapolis, Indiana 46204 or phone (317) 232-3005.

02 PROJECT NUMBER, DESCRIPTION AND LOCATION is as stated in the Notice to Bidders.

03 TITLE AND DEFINITIONS

Said building and/or land upon which it stands is the property of the State of Indiana. All references to the title owner of said property hereinafter will be by the term "State" and all references to the person, firm, or corporation awarded the contract for the project will be by the term "Contractor". All references to Designer shall refer to the consulting person or firm employed to contract with the Public Works Division, Indiana Department of Administration to provide architectural, engineering or other consulting services for the project, or to the Public Works Division. The preparation and issuance of contracts for this project are the responsibility of the Commissioner of the Indiana Department of Administration acting with approval of the Governor.

Contract: A written agreement between two or more parties enforceable by law.

Contractor: A person who has entered into or seeks to enter into a contract with Public Works Division.

Prime Contractor: A person or business which is primarily responsible for providing goods and service or performing a specific service, etc. under contract. A prime contractor can also be a Minority Business Enterprise.

Subcontractor: A person or a business who has a direct contract with a prime contractor who is under contract to provide goods and services or perform a specific service.

Joint Venture: An association of two or more businesses to carry out a single business enterprise for profit for which purpose they combine their property, capital, efforts, skills and knowledge.

Manufacturer: A supplier that produces goods from raw materials or substantially alters them before resale.

Minority or Women Business Enterprise (M/WBE): A business concern which is certified as at least fifty-one percent (51%) owned and controlled by a woman or women or, one or more of the individuals classified as a minority group which includes: African Americans, Hispanic Americans, Asian Americans, and other racial minorities.

Supplier: Any person or entity engaged to furnish goods, materials and/or equipment, but no on-site labor, is capable of furnishing such goods, materials and/or equipment either directly from its own stock or by ordering materials and/or equipment directly from a manufacturer, and is engaged to furnish such goods, materials and/or equipment directly to a prime contractor or one of its subcontractors.

04 PRE-BIDDING, BIDDING AND POST BIDDING REQUIREMENTS

A. The Director, Public Works Division will authorize the Designer to issue bidding documents, construction documents and addenda to bidders.

B. It is recommended that all Bidders visit the site prior to submitting bid, and become thoroughly familiar with the existing site conditions and work to be performed, as indicated in the bidding documents, construction documents and addenda. Extra compensation or extension of time will not be allowed for failure to examine the site prior to bidding.

C. During the bidding period, should questions arise as to the meaning of any part of the bidding documents, construction documents or addenda that may affect the Bidder, the Bidder shall contact the Designer and/or Public Works Division and submit a written request for clarification. The Designer and/or Public Works Division will make such clarification only by written Addendum that will be mailed to each document holder or may be obtained at the office of the Designer and/or Public Works Division. By submitting a bid, the Bidder acknowledges procurement of all Addenda. No written request for clarification will be accepted by the Designer and/or Public Works Division later than fourteen (14) calendar days prior to the scheduled bid date.

D. Bid as described in Contractor's Bid (DAPW 13) shall include Base Bid (in figures and in words) and Alternates as specified in Section entitled Alternates. In verifying bids, word amounts shall have precedence over figure amounts.

E. Alternate amount(s) shall be listed where indicated. Add Alternates are not to be included in the Base Bid Scope of Work. Deduct Alternates are to be included in the Base Bid Scope of Work. The bid form must be signed. Note that by signing the bid document, the Bidder is acknowledging the procurement of all addenda and is a certifying that the bid recognizes all items in all addenda.

F. A bid by a corporation shall be in the legal name of the corporation followed by the word "by" and the signature of the president. The secretary of the corporation shall sign indicating his/her authority to sign. A Certificate of Corporate Resolution (DAPW 41) is required with and as a part of the bid if anyone other than the president of the corporation is signing bid documents.

G. *The Form 96A-Questionnaire and Financial Statement is no longer required to be submitted.* The Director, Public Works Division reserves the right to request additional financial information or contractor experience as a basis for rejection of bid or award of contract.

H. Each Bidder must file with his bid a Non-Collusion Statement (DAPW-121) signed by the same authorized person(s) who signed the bid.

I. Each Bidder must file with his bid a completely filled in and executed Bid Bond (DAPW 15A) in accordance with IC 4-13.6-7-5. The bid bond penal sum shall be the minimum amount of five percent (5%) of the bid including all additive alternates.

J. Each Bidder must file with his bid a completed M/WBE Participation Plan and Good Faith Effort Work Sheet (DAPW 26SUP2). Refer to the Supplement to the General Conditions for M/WBE Participation Policy (DAPW 26SUP1) for specific requirements.

K. Each Bidder must file with his bid, the completed Contractor's Affidavit of Subcontractors Employed (DAPW 12) only if he proposes to perform any work with a subcontract amount of $150,000.00 or more.

L. Each bidder must file with his bid an Employee Drug Testing Plan (DAPW 150A) in accordance with IC 4-13-18 (P.L. 160-2006), or evidence that the contractor is subject to a collective bargaining agreement containing drug testing requirements that comply with IC 4-13-18.

M. Each Bidder must include his Federal ID number or Social Security number on page 1 of 3 of the Bid Form (DAPW 13). All required bid documents must contain original hand written signatures.

N. All documents required by statute, rule or these instructions to be included in the bid, must be submitted together in a single sealed envelope, plainly marked with the Name of Bidder, Project Identification, Project Number, Bid Time and Bid Date. Bids shall be rejected if all required documents are not in the single sealed envelope.

O. A Bidder with proper identification may withdraw his bid at any time prior to the scheduled time for receipt of the bids; however, no bid may be withdrawn without written consent of the Director, Public Works Division for a *period of sixty (60) days after the date of the bid opening*, or unless extended in accordance with IC 4-13.6-6-4. Bids received after the designated due time for any reason, shall be rejected and returned unopened to the Bidder. The Director, Public Works Division reserves the right to reject any or all bids.

P. Subcontractors whose work will equal or exceed One Hundred Fifty Thousand Dollars ($150,000.00) must attain a Certificate of Qualification by the Certification Board before commencing any work on this project. Note paragraph 01. (B) above.

Q. All Bidders (corporations) must be in good standing with the Indiana Secretary of State.

05 SIGNATURE AFFIDAVIT

A. A Signature Affidavit (DAPW-14) containing the Bidder's authorized signature(s), properly notarized, may be submitted as a signature supplement to all other bid documents, except the bid bond, including:

1. Contractor's Bid (DAPW 13)
2. Non-Collusion Statement (DAPW-121)
3. Contractor's Affidavit of Subs Employed (DAPW 12)
4. M/WBE Participation Plan and Good Faith Effort Work Sheet (DAPW 26 SUP 2)

B. All documents herein before required with the bid may be unsigned if the signature affidavit is submitted, except for the BID BOND. BIDDER MUST SIGN THE BID BOND.

NOTE: SIGNING THE SIGNATURE AFFIDAVIT OR BID FORM IS ACKNOWLEDGMENT OF PROCUREMENT OF ALL ADDENDA AND CERTIFICATION BY BIDDER THAT THE BID RECOGNIZES ALL ITEMS IN ALL ADDENDA.

06 WAGE DETERMINATION

As required by IC 5-16-7, as amended, if a minimum wage determination has been established for this project, any bids submitted must be based on the payment of all craftsmen, laborers, and mechanics in accordance with said determination. Prior to the beginning of work on the project, the successful Bidder to whom the contract is awarded must post on the job on State premises and file with the Public Works Division, a schedule of wages to be paid by him to all trades and mechanics on the project.

07 WORK BY CONTRACTOR

The Contractor shall perform a minimum of 20% of the value of work (measured in dollars of the total contract price) with his own forces, and not more than 80% of the value of work is to be subcontracted.

08 SUBSTITUTIONS

The materials, products, systems and equipment described in the bidding documents, construction documents and addenda establish a standard or required function, dimension, appearance and quality that shall also be met by any proposed substitution. No substitution by manufacturer, or trade name of product named, or of a quality specified will be considered unless written request for approval has been submitted by the Bidder and has been received by the Designer and/or Public Works Division at least fourteen (14) calendar days prior to the date for receipt of bids. Each such request shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitute including drawings, cuts, performance and test data and any other information necessary for an evaluation. A statement setting forth any changes in other materials, equipment or work that incorporation of the substitute would require shall be included. The burden of proof of the merit of the proposed substitute is upon the proposer. The Designer and/or Public Works Division decision of approval or disapproval of the proposed substitution shall be final. Products, materials or systems not specified or approved prior to bidding, shall not be accepted for use in this project. All such substitutions accepted shall be acknowledged by addendum. See paragraph. 04 (C).

09 NONDISCRIMINATION

Pursuant to IC 22-9-1-10, the Contractor and subcontractors, if any, shall not discriminate against any employee or applicant for employment, to be employed in the performance of this contract, with respect to his hire, tenure, terms, conditions or privileges of employment, or any matter directly or indirectly related to employment, because of his race, religion, color, sex, disability, national origin, or ancestry. Breach of this covenant may be regarded as a material breach of the contract. Pursuant to IC 5-16-6-1, the contractor agrees:

A. that in the hiring of employees for the performance of work under this contract or any subcontract hereunder, no contractor, or subcontractor, nor any person acting on behalf of such contractor or subcontractor shall, by reason of race, religion, color, sex, disability, national origin or ancestry, discriminate against any citizen of the State of Indiana who is qualified and available to perform the work to which the employment relates; and

B. that no contractor, subcontractor, nor any person on his behalf shall, in any manner, discriminate against or intimidate any employee hired for the performance of work under this contract on account of race, religion, color, sex, national origin or ancestry; and

C. that there may be deducted from the amount payable to the contractor by the State of Indiana or by any municipal corporation thereof, under this contract, a penalty of five dollars ($5.00) for each person for each calendar day during which such person was discriminated against or intimidated in violation of the provisions of the contract; and

D. that this contract may be canceled or terminated by the State of Indiana or by any municipal corporation thereof, and all money due or to become due hereunder may be forfeited, for a second or any subsequent violation of the terms or conditions of this section of the contract.

10 EMPLOYMENT ELIGIBILITY VERIFICATION

The Contractor affirms under the penalties of perjury that he/she/it does not knowingly employ an unauthorized alien.

The Contractor shall enroll in and verify the work eligibility status of all his/her/its newly hired employees through the E-Verify program as defined in IC 22-5-1.7-3. The Contractor is not required to participate should the E-Verify program cease to exist. Additionally, the Contractor is not required to participate if the Contractor is self-employed and does not employ any employees.

The Contractor shall not knowingly employ or contract with an unauthorized alien. The Contractor shall not retain an employee or contract with a person that the Contractor subsequently learns is an unauthorized alien.

The Contractor shall require his/her/its subcontractors, who perform work under this contract, to certify to the Contractor that the subcontractor does not knowingly employ or contract with an unauthorized alien and that the subcontractor has enrolled and is participating in the E-Verify program. The Contractor agrees to maintain this certification throughout the duration of the term of a contract with a subcontractor.

The State may terminate for default if the Contractor fails to cure a breach of this provision no later than thirty (30) days after being notified by the State.

11 NOTICE OF AWARD

A. Prior to execution of the Contract, in accordance with IC 4-13.6-5-2, the Director of Public Works may require additional submittals from Bidder/s to clarify contractor's experience and plans for performing the proposed work. Submittals which may be required include a critical path construction schedule which coordinates all significant tasks sequences and durations; schedule of values, and documentation of efforts to include minority and woman owned businesses in the proposed work. The Director may require Bidder/s to provide a comprehensive list of subcontractors and suppliers within 24 hours of receipt of bids.

B. Prior to execution of the Contract, the successful Bidder shall furnish a completed Domestic Steel Affidavit (DAPW-11) to Public Works Division, Indiana Department of Administration as part of the contract. The Domestic Steel Affidavit is included for Bidder's review but need not be submitted at the time of the bid opening. Definition of Steel Products:

"Steel products" means products rolled, formed, shaped, drawn, extruded, forged, cast, fabricated, or otherwise similarly processed, or processed by a combination of two (2) or more of such operations, from steel made in the United States by the open hearth, basic oxygen, electric furnace, Bessemer or other steel making process.

C. Prior to execution of the Contract, the successful Bidder shall furnish a completed Drug-Free Workplace Certification (DAPW 150) to Public Works Division, Department of Administration as part of the contract. The Drug-Free Workplace form is included for Bidder's review but need not be submitted at the time of the bid opening.

D. Prior to execution of the Contract, the successful Bidder shall furnish a completed Contractor's Bond for Construction (DAPW 15) (combined performance and payment bond) to Public Works Division, Department of Administration as part of the contract. The Bond form is included for Bidder's review but need not be submitted at the time of the bid opening.

E. Prior to execution of the Contract, the successful Bidder shall furnish a completed Contractor's Certificate of Insurance (DAPW 16) to Public Works Division, Department of Administration as part of the contract. The Insurance form is included for Bidder's review but need not be submitted at the time of the bid opening.

F. Prior to execution of the Contract, the State of Indiana will issue to the successful Bidder a letter stating that his bid was the lowest responsible and responsive bid and that the enclosed contract document is submitted to him for his consideration. If he finds it in accordance with the bid documents, it is to be returned to Public Works Division by certified mail or in person within ten (10) calendar days after receipt for further execution and with the caution that a contract will not exist until it is signed by all signatories required. Failure to execute the proper contract and furnish the ancillary documents shall constitute reason to surrender the bid bond.

G. Concurrent with execution of the Contract, the successful Bidder may be required to furnish executed copies of Contractor-Subcontractor agreements as required in Article 5 of the General Conditions.

12 SUMMARY

All required bid documents must contain original hand written signatures. Complete documents to be submitted with this bid:

A. The Bid Bond (DAPW-15A) must be signed by both the Bidder and Bonding Company. The Bonding Company must also attach a Power of Attorney. Bid bond information, may be on the Bonding Company's standard form.

B. The Contractor's Bid (DAPW-13)

Page 1: State the amount of the bid in figures and words.

Page 2: State the amount of the alternate(s), indicate add, deduct or no change (READ CAREFULLY).

Page 3: Authorized signature of the Company. If the signature affidavit is completed and submitted with the bid, this page must be submitted but need not be signed or notarized.

C. The Signature Affidavit (DAPW-14) must contain the completed authorized signatures properly notarized and submitted with the bid as a supplement.

This Signature Affidavit shall fulfill all of the signature requirements. NOTE: The Signature Affidavit does not apply to the Bid Bond (DAPW 15A). The Bid Bond document must be fully completed with all required signatures and submitted with the bid.

D. The Non-Collusion Statement (DAPW-121) must be signed by the same authorized person(s) who signed the bid documents. If the signature affidavit is completed and submitted with bid, this form shall be submitted, but need not be signed.

E. For corporations, if anyone other than the president of the corporation signs, a Certificate of Corporate Resolution (DAPW 41) giving signature authority for the signer must be included.

F. M/WBE Participation Plan and M/WBE Good Faith Effort Work Sheet (DAPW 26SUP2) must be completed and signed by the same authorized person who signed the bid documents.

G. The completed Contractor's Affidavit of Subcontractors Employed (DAPW-12) whose subcontract amount will be $150,000.00 or more.

H. The completed plan for Contractor's Employee Drug Testing Plan (or statement of collective bargaining agreement).

I. One copy only of the Bid Documents is required. Bidders may remove and use the Documents included in the project specifications or use reproductions of the Documents.

13 INDIVIDUAL BIDS SHALL BE REJECTED BY THE DIRECTOR, PUBLIC WORKS DIVISION FOR THE FOLLOWING REASONS (IC 4-13.6-5-2; IC 4-13.6-6-1; 25 IAC 2-6-5)

A. If the bid envelope is not sealed at the time of submission; if the envelope does not clearly identify the project number and description; if the name of the Bidder is not clearly indicated on the outside of the envelope and/or if the envelope is not date and time stamped by Public Works Division prior to the stated time for receipt of bids.

B. If the estimated base bid cost exceeds $150,000.00 and the bidding contractor is not certified by Public Works Certification Board to offer bids in one of the specified categories.

C. If the bidding contractor is under suspension by the Director of Public Works or by the Public Works Certification Board.

D. If the bidding contractor is a trust and does not identify all beneficiaries and empowered settlors of the trust.

14 INDIVIDUAL BIDS MAY BE REJECTED BY THE DIRECTOR, PUBLIC WORKS DIVISION FOR THE FOLLOWING REASONS (25 IAC 2-6-5)

A. If the Contractor's Bid (DAPW 13) Non-Collusion Statement (DAPW 121) and/or Bid Bond (DAPW 15A) are not signed and notarized as required by these instructions, or the Signature Affidavit (DAPW 14) and the Bid Bond (DAPW 15A) are not signed and notarized as allowed as an alternative.

B. If all required bid or alternate(s) amounts, or unit prices are not submitted with the bid when specifically called for by the specifications issued for the project.

C. When the Bidder adds any provision reserving the right to accept or reject the award, or if the Bidder adds conditions or alternates to his bid not requested (voluntary alternates), or if there are unauthorized additions or irregularities of any kind which tend to make the proposal incomplete, indefinite or ambiguous as to its meaning or amount.

D. When no bids received are under or within funds that can be appropriated, or within the Designer's estimate or when situations develop which make it impossible or not practical to proceed with the proposed work.

E. If, subsequent to the opening of the bids, facts exist which would disqualify the Bidder, or that such Bidder is not deemed by the Director, Public Works Division to be responsive or responsible.

F. If an out-of-state contractor is not registered with the Indiana Secretary of State or if any bidding contractor is not in good standing with the Secretary of State.

CONTRACTOR'S AFFIDAVIT OF SUBS EMPLOYED

Public Works Project Number: _____ Date: _____

Project Description: _____

Prime Contractor: _____

Form Submitted for Bid:_____Contract:_____ or Payment No.:_____

The following companies are subcontractors on this project for the amount indicated:

Subcontractor Name	Subcontract For	Subcontract Amount	Revised Amount	DAPW Certified Y/N	MBE WBE	On Site Y/N

_____being duly sworn upon oath, deposes and says that he is _____ of the firm of _____ and is familiar with the affidavit herewith and that these entries are complete and true.

STATE OF }
COUNTY OF } SS:

_____ personally appeared before me, a Notary Public, in and for said County and State, this___day of_____,20__, after being duly sworn upon his oath, says that the facts alleged in the foregoing affidavit are true.

_____
NOTARY PUBLIC - SIGNATURE

My Commission Expires: _____

_____
NOTARY PUBLIC PRINTED NAME

(SEAL)

STATE FORM
21243

DAPW 12
REV 7/01

GENERAL BID FOR PUBLIC WORKS

CONTRACTOR'S BID

For_____
(Insert class of work)

Project Number_____

Project Description (Title)_____

_____

_____

Date_____

To: Department of Administration, Public Works Division
Room W467
402 West Washington Street
Indianapolis, Indiana 46204

Pursuant to notices given, the undersigned proposes to furnish and install work in accordance with the construction documents prepared by:

_____
(Designer Name, Address, Telephone)

---

for the sum of_____
(State amount in words)

_____$_____
(State amount in figures)

If required add attachment for all unit prices called for in the Specifications.

_____ Federal I.D. Number or Social Security Number

Contractor's Email address_____
(Contract and Purchase Order will be sent to email address provided)

Bidder ID Number _____

(If you do not have an Indiana Department of Administration Bidder ID Number, please obtain one online at: http://www.in.gov/idoa/2464.htm)

ALTERNATE BIDS

Add Alternates Are Not to be included as part of the Base Bid Scope of Work.

Deduct Alternates are items of work that Are to be included in the Base Bid Scope of Work, and deducted from the project as described herein.

The work shall be as described in Section, ALTERNATES.

Bidder shall provide a response to each alternate specified. Response must indicate the amount to be ADDED to the base bid, DEDUCTED from the base bid, or that there is NO CHANGE.

Failure to respond to all alternates may cause the bid to be rejected.

BIDDER SHALL CHECK APPLICABLE BOX for each listed alternate.

Alternate No.___ ADD _____ DEDUCT _____ NO CHANGE _____ AMOUNT $_____

Alternate No.___ ADD _____ DEDUCT _____ NO CHANGE _____ AMOUNT $_____

Alternate No.___ ADD _____ DEDUCT _____ NO CHANGE _____ AMOUNT $_____

Alternate No.___ ADD _____ DEDUCT _____ NO CHANGE _____ AMOUNT $_____

Alternate No.___ ADD _____ DEDUCT _____ NO CHANGE _____ AMOUNT $_____

Alternate No.___ ADD _____ DEDUCT _____ NO CHANGE _____ AMOUNT $_____

Ethics Compliance. The Contractor and its agents shall abide by all ethical requirements that apply to persons who have a business relationship with the State, as set forth in Indiana Code § 4-2-6 et seq., the regulations promulgated there under, and Executive Order 04-08, dated April 27, 2004. If the Contractor is not familiar with these ethical requirements, the Contractor should refer any questions to the Indiana State Ethics Commission, or visit the Indiana State Ethics Commission website at <<<http://www.in.gov/ethics/>>>. If the Contractor or its agents violate any applicable ethical standards, the State may, in its sole discretion, terminate this contract immediately upon notice to the Contractor. In addition, the Contractor may be subject to penalties under Indiana Code § 4-2-6-12.

Pursuant to IC 22-9-1-10, the Contractor and subcontractors, if any, shall not discriminate against any employee or applicant for employment, to be employed in the performance of this contract, with respect to his hire, tenure, terms, conditions or privileges of employment, or any matter directly or indirectly related to employment, because of his race, religion, color, sex, disability, national origin, or ancestry. Breach of this covenant may be regarded as a material breach of the contract.

IN TESTIMONY WHEREOF, the Bidder (a sole proprietor) has hereunto set his hand this ___ day of_____, 20__.

_____
Proprietorship (Company Name)

(INDIVIDUAL)

_____
Bidder (Owner)

IN TESTIMONY WHEREOF, the Bidder (a partnership) has hereunto set their hands this ___ day of _____, 20__.

_____
Company Name

_____
Partner

_____
Partner

IN TESTIMONY WHEREOF, the Bidder (a corporation) has caused this proposal to be signed by its President or other authorized signatory and Secretary this _____ day of _____, 20__.

_____
Corporation Name

_____
By President or Other Authorized Signatory

_____
Secretary

If the bid is signed by other than the President, a Corporation Resolution designating other authorized signatory shall be submitted with this bid unless already on file with the Certification Board of the Public Works Division.

BY SIGNING THIS BID THE BIDDER ACKNOWLEDGES PROCUREMENT OF ALL ADDENDA AND CERTIFIES THAT THIS BID RECOGNIZES ALL ITEMS IN ALL ADDENDA.

SIGNATURE AFFIDAVIT

PROJECT NO:_____

STATE OF }
} SS:
COUNTY OF }

Before me, the undersigned notary public, appeared_____and being duly
(name of bidder)

sworn, on his oath says that he/she is_____
(president, general partner, owner)

of_____, bidder on Project No._____, and
(name of company)

Affirmed that:

1. This bid is submitted in good faith in the amount stated herein, and will be fulfilled according to the Contract Documents (contract, general and supplemental conditions, technical specification, drawings and addenda thereto), if his bid is accepted; and
2. The statements are true contained in the Non-Collusion Statement, and as applicable, the Contractor's Affidavit of Subs Employed, the M/WBE Participation Plan and the M/WBE Good Faith Effort Work Sheet.

By: _____
(Signature)

_____
(Printed name)

_____
(Printed or typed name of company)

(must be signed by principal of organization)

STATE OF }
} SS:
COUNTY OF }

_____ personally appeared before me, a Notary Public, in and for said County and State, this_____day of_____, 20_____, after being duly sworn upon his oath, says that the facts alleged in the foregoing affidavit are true.

My Commission Expires:

_____
NOTARY PUBLIC – SIGNATURE

_____

_____
NOTARY PUBLIC PRINTED NAME

(SEAL)

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we_____
(Contractor's Name and Address)

as Principal, hereinafter called the Principal, and the_____
(Bonding Company Name)

a corporation duly organized under the laws of the State of _____
as Surety, hereinafter called the Surety, are held and firmly bound unto Public Works Division/Department of Administration, State of Indiana, as Obligee, hereinafter called the Obligee,

in the sum of _____Dollars ($_____)
for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for: (insert State Project Number, Description and Location)

Project No. _____

Project Description: _____

Project Location: _____

NOW THEREFORE, if the Obligee shall accept the bid of the Principal and the Principal shall enter into a contract with the Obligee in accordance with the terms of such bid, and give such bond or bonds as may be specified in the bidding or contract documents with good and sufficient surety for the faithful performance of such contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such contract and give such bond or bonds, if the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

Signed and sealed this_____day of_____,20____.

_____ _____
(Witness) (Principal)

By: _____
(Title)

_____
(Surety)

_____ _____
Witness) (Attorney-in-fact)

I. MINORITY AND WOMEN'S BUSINESS ENTERPRISES PARTICIPATION PLAN

A Respondent is expected to submit in each response a Minority and Women's Business Enterprises Participation Plan in accordance with IC 4-13-16.5 and 25 IAC 5. The Plan must show that there are, participating in the proposed contract, Minority Business Enterprises (MBE) and Women Business Enterprises (WBE) listed in the Minority and Women's Business Enterprises Division (MWBD) directory of certified firms. Respondents must indicate the name of the MBE and WBE with which it will work, the contact name and phone number at the firm(s), the service supplied by the firm(s), the specific dollar amount from this contract that will be directed toward each firm, and the approximate date these products and/or services will be utilized. If participation is met through use of vendors who supply products and/or services, the Respondent must also indicate the vendor's tax ID number as well as provide a description of products and/or services provided to the Respondent that are directly related to this proposal and the cost of direct supplies for this proposal. All prime contractors, including MBE and WBE prime contractors, must meet the contract goals through use of subcontractors. MBE and WBE prime contractors will get no credit toward the contract goal for the use of its own workforce. The State does not accept national plans.

Failure to meet these requirements will affect the evaluation of your Proposal. The Department reserves the right to verify all information included in the Plan.

Respondents are encouraged to contact and work with MWBD to design a plan to meet established goals. MWBD's website address is www.IN.gov/idoa/minority/ and contains a complete list of all the Department's certified MBE's and WBE's.

Minority & Women's Business Enterprises Participation
Letter of Commitment

A signed letter(s), on company letterhead, from the MBE and/or WBE must accompany the Plan. This letter(s) shall state and will serve as acknowledgement from the MBE and/or WBE of its amount of participation, the scope of products and/or services, and approximate date these products and/or services will be utilized.

By submission of the Proposal, the Respondent acknowledges and agrees to be bound by the regulatory processes involving the State's M/WBE Program. Questions involving the regulations governing the Plan should be directed to MWBD's Compliance Unit at 317/232-3061

MBE/WBE PARTICIPATION PLAN

RFP # / Bid # / Quote # _____ DUE DATE_____

(Circle One)

RFP / BID / QUOTE NAME _____

(Circle One)

RESPONDENT _____

ADDRESS _____

CITY/STATE/ZIP _____

PHONE ( ) _____

The following MBE and/or WBE's listed in the MWBD directory will be participating in the contract:

MBE/WBE	P HONE	COMPANY NAME	SCOPE OF PRODUCTS/SERVICES	UTILIZATION DATE	AMOUNT

***If additional room is necessary, indicate here_____. Please attach a separate page.**

THIS DOCUMENT MUST BE INCLUDED IN YOUR RESPONSE

Indiana Department of Administration
Public Works and State Office Building Commission
GOOD FAITH EFFORTS WORKSHEET

BIDDER _____ BID/PROJECT NUMBER _____

CONTRACT GOALS **7% MBE** **5% WBE**

List the M/WBEs contacted and complete the following information for each. Copies of all communications to and from each vendor should be maintained.

Company Name and Address	MBE	WBE	Type of Contact	Date of Contact	Date Response Due	Goods Or Services Requested	Result (Include Price Quote)

Indicate **Good Faith Efforts** made to utilize MWBEs. Check and explain all that apply or should be considered. Please provide evidence of the efforts that you want to be considered. A complete description of each criteria may be found in the **Indiana Department of Administration Public Works and State Office Building Commission MWBE Participation Policy.**

MBE and WBE Barrier Assistance	Describe
Advertisement	Describe
Agency Assistance	Describe
Other Criteria	Describe

CERTIFICATE OF CORPORATE RESOLUTION

I,_____, do hereby certify that I am the Secretary
Type Name
of_____, a corporation duly organized and existing under and by virtue of the Laws of the State of Indiana;

I further certify that a regular/special meeting of the members of the Board of Directors of said corporation, duly called held and convened in conformity with the Charter and By Laws of said corporation, on the_____day of_____, 20_____, a quorum being present and voting thereon, the following resolution was duly adopted, to-wit:

I further certify that the foregoing resolution is a full, true, and complete copy as the same appears on record in the Minute Record Book of said corporation of which I am the legal custodian; that the same has not been altered, amended or repealed and is now in full force and effect.

In Witness Whereof, I have hereunto set my hand for said corporation this_____day of_____, 20_____.

By:_____
(Signature)

(must be signed by principal of organization)

STATE OF }
} SS:
COUNTY OF }

personally appeared before me, a Notary Public, in and for said County and State, this day of_____, 20_____, after being duly sworn upon his oath, says that the facts alleged in the foregoing affidavit are true.

My Commission Expires:

_____
NOTARY PUBLIC - SIGNATURE

_____

(SEAL)

_____
NOTARY PUBLIC PRINTED NAME

DAPW 41
Rev. 2/13

NON-COLLUSION STATEMENT

This is to affirm under the threat of perjury, that the undersigned, or his or her representative, agent, member, or officer of the contracting party, has not, nor has any other member, employee, representative, agent or officer of the firm, company, corporation or partnership represented by him or her, directly or indirectly, entered into or offered to enter into any combination, collusion or agreement to receive or pay, and that he or she has not received or paid any sum of money or other consideration for the execution of the annexed contract other than that which appears upon the face of the contract.

_____

Signature

_____

Printed Name

_____

Title

_____

Company

DOMESTIC STEEL AFFIDAVIT

STATE OF }
} SS:
COUNTY OF }

PROJECT NO:_____

I hereby swear, under penalties of perjury, that the steel products furnished for this project shall conform to the following Indiana Code Definitions and contract provisions:

IC 5-16-8-1 Definitions:

"Steel products" means products rolled, formed, shaped, drawn, extruded, forged, cast, fabricated, or otherwise similarly processed, or processed by a combination of two (2) or more of such operations, from steel made in the United States by the open hearth, basic oxygen, electric furnace, Bessemer or other steel making process.

"United States" refers to the United States of America. The term includes all territory, continental or insular, subject to the jurisdiction of the United States.

IC 5-16-8-2 Public agency contract provisions; rules for determining reasonable pricing.

Sec. 2. (a) Each public agency shall require that every contract for the construction, reconstruction, alteration, repair, improvement or maintenance of public works contain a provision that, if any steel or foundry products are to be used or supplied in the performance of the contract or subcontract, only steel or foundry made in the United States shall be used or supplied in the performance of the contract or any of the subcontracts unless the head of the public agency determines, in writing, that the cost of steel or foundry products is deemed to be unreasonable.

_____
(Signature)

_____
(Printed name)

_____ _____
(Attest) (Printed or typed name of company)
(Vice President/Secretary/Treasurer)

STATE OF }
} SS:
COUNTY OF }

_____ personally appeared before me, a Notary Public, in and for said County and State, this____day of_____,20___, after being duly sworn upon his oath, says that the facts alleged in the foregoing affidavit are true.

My Commission Expires: _____
NOTARY PUBLIC - SIGNATURE

_____ _____
NOTARY PUBLIC PRINTED NAME

(SEAL)

STATE FORM
12125R3

DAPW 11
Rev. 10/14

CONTRACTOR'S BOND FOR CONSTRUCTION

KNOW ALL MEN BY THESE PRESENT, that _____
(Contractor)

_____ of _____
(Address) (City, State)

as principal and _____
(Bonding Company)

_____
(Address) (City, State) (Zip Code)

as surety, are firmly bound unto the State of Indiana in the penal sum of $_____ Dollars, for the payment of which, well and truly to be made, we bind ourselves, jointly and severally, and our joint and several heirs, executors, administrators and assigns, firmly by these present, this _____ day of , 20_____.

THE CONDITIONS OF THE ABOVE OBLIGATION ARE SURE, THAT, WHEREAS the State of Indiana acting by and through the Commissioner, Department of Administration, has entered into a certain written contract dated _____ of _____

_____
(Project Number and Description)

_____ situated in _____
Indiana, in accordance with the construction documents approved and adopted by said Commissioner, Department of Administration, which are made a part of this bond.

NOW THEREFORE, if the said _____
(Contractor)
_____, shall well and faithfully do and perform the same in all respects according to the plans and specifications adopted by said Commissioner, Department of Administration, and according to the time, terms and conditions specified in said contract and incurred by him or any subcontractor in the prosecution of said work, including labor, service and materials furnished, then this obligation shall be void; otherwise to remain in full force, virtue and effect. This bond shall adhere to the requirements of IC 4-13.6-7-6 and IC 4-13.6-7-7.

IN WITNESS WHEREOF, we hereunto set our hands and seals this _____ day

of _____ , 20_____.

By: _____ (Seal)
(Contractor)

By: _____ (Seal)
(Bonding Company)

By: _____
(Attorney-in-fact)

CONTRACTOR'S CERTIFICATE OF INSURANCE

This certifies to the addressee shown below that the following described policies, subject to their terms, conditions, and exclusions, have been issued to:

NAME AND ADDRESS OF INSURED: _____

COVERING (show State project number, name and location) _____

ADDRESSEE: **PUBLIC WORKS DIVISION/DEPARTMENT OF ADMINISTRATION** DATE: _____

TYPE OF INSURANCE	POLICY NUMBER	EFFECTIVE DATE	EXPIRATION DATE	LIMITS	
1. General Liability a. Bodily Injury Including Personal Injury				Each Person - Premises and Operations Each Person – Elevators Each Person – Independent Contractor Each Person - Products Completed Including Operations Each Person – Contractual Each Occurrence - Aggregate - Products Completed Including Operations	$ $ $ $ $ $ $
b. Property Damage				Each Occurrence – Premises and Operations Each Occurrence – Elevators Each Occurrence – Independent Contractor Each Occurrence – Products Completed Including Operations Each Occurrence – Contractual Aggregate - Aggregate - Operations Protective Products and Contractual	$ $ $ $ $ $ $
2. Automobile Liability a. Bodily Injury b. Property Damage				Each Person Each Occurrence Each Accident	$ $ $
3. Excess Liability Umbrella					$
4. a. Workmen's Compensation b. Employer's Liability				Statutory Workmen's Compensation One Accident And Aggregate Disease	$ $
5. Builder's Risk					$

	YES	NO
UNDER GENERAL LIABILITY POLICY OR POLICIES		
1. Does Property Damage Liability Insurance shown include coverage for **XC** and **U** hazards?	_____	_____
2. Is Occurrence Basis Coverage provided under Property Damage Liability?	_____	_____
3, Is Broad Form Property Damage Coverage provided for this Project?	_____	_____
4. Is Personal Injury Coverage included?	_____	_____
5. Is coverage provided for Contractual Liability (including indemnification provision) assumed by insured?	_____	_____
UNDER AUTOMOBILE LIABILITY POLICY OR POLICIES	_____	_____
1. Does coverage shown above apply to non-owned and hired automobiles?	_____	_____
2. Is Occurrence Basis Coverage provided under Property Damage Liability?	_____	_____

In the event of cancellation, fifteen (15) days written notice shall be given to the party to whom this certificate is addressed.

_____
NAME OF INSURANCE COMPANY

_____
ADDRESS

_____
SIGNATURE OF AUTHORIZED REPRESENTATIVE

CONTRACTOR'S EMPLOYEE DRUG TESTING

IC 4-13-18 IS ADDED TO THE INDIANA CODE AS A NEW CHAPTER TO READ AS FOLLOWS [EFFECTIVE JULY 1, 2006]:

Chapter 18. Drug Testing of Employees of Public Works Contractors

Sec. 1. This chapter applies only to a public works contract awarded after June 30, 2006.

Sec. 2. As used in this chapter, "bid" includes a quotation.

Sec. 3. (a) As used in this chapter, "contractor" refers to a person who:
(1) submits a bid to do work under a public works contract; or
(2) does any work under a public works contract.
(b) The term includes a subcontractor of a contractor.

Sec. 4. As used in this chapter, "public works contract" refers to:
(1) a public works contract covered by IC 4-13.6;
(2) a public works contract covered by IC 5-16 and entered into by a state agency; or
(3) a state highway contract covered by IC 8-23-9;
when the estimated cost of the public works project is one hundred fifty thousand dollars ($150,000) or more.

Sec. 5. (a) A solicitation for a public works contract must require each contractor that submits a bid for the work to submit with the bid a written plan for a program to test the contractor's employees for drugs.
(b) A public works contract may not be awarded to a contractor whose bid does not include a written plan for an employee drug testing program that complies with this chapter.
(c) A contractor that is subject to a collective bargaining agreement shall be treated as having an employee drug testing program that complies with this chapter if the collective bargaining agreement establishes an employee drug testing program that includes the following:
(1) The program provides for the random testing of the contractor's employees.
(2) The program contains a five (5) drug panel that tests for the substances identified in section 6(a)(3) of this chapter.
(3) The program imposes disciplinary measures on an employee who fails a drug test. The disciplinary measures must include at a minimum, all the following:
(A) The employee is subject to suspension or immediate termination.
(B) The employee is not eligible for reinstatement until the employee tests negative on a five (5) drug panel test certified by a medical review officer.
(C) The employee is subject to unscheduled sporadic testing for at least one (1) year after reinstatement.
(D) The employee successfully completes a rehabilitation program recommended by a substance abuse professional if the employee fails more than one (1) drug test.
A copy of the relevant part of the collective bargaining agreement constitutes a written plan under this section.

Sec. 6. (a) A contractor's employee drug testing program must satisfy all of the following:
(1) Each of the contractor's employees must be subject to a drug test at least one (1) time each year.
(2) Subject to subdivision (1), the contractor's employees must be tested randomly. At least two

percent (2%) of the contractor's employees must be randomly selected each month for testing.

(3) The program must contain at least a five (5) drug panel that tests for the following:

(A) Amphetamines.

(B) Cocaine.

(C) Opiates (2000 ng/ml).

(D) PCP.

(E) THC.

(4) The program must impose progressive discipline on an employee who fails a drug test. The discipline must have at least the following progression:

(A) After the first positive test, an employee must be:

(i) suspended from work for thirty (30) days;

(ii) directed to a program of treatment or rehabilitation; and

(iii) subject to unannounced drug testing for one (1) year, beginning the day the employee returns to work.

(B) After a second positive test, an employee must be:

(i) suspended from work for ninety (90) days;

(ii) directed to a program of treatment or rehabilitation; and

(iii) subject to unannounced drug testing for one (1) year, beginning the day the employee returns to work.

(C) After a third or subsequent positive test, an employee must be:

(i) suspended from work for one (1) year;

(ii) directed to a program of treatment or rehabilitation; and

(iii) subject to unannounced drug testing for one (1) year, beginning the day the employee returns to work.

The program may require dismissal of the employee after any positive drug test or other discipline more severe than is described in this subdivision.

(b) An employer complies with the requirement of subsection (a) to direct an employee to a program of treatment or rehabilitation if the employer does either of the following:

(1) Advises the employee of any program of treatment or rehabilitation covered by insurance provided by the employer.

(2) If the employer does not provide insurance that covers drug treatment or rehabilitation programs, the employer advises the employee of agencies known to the employer that provide drug treatment or rehabilitation programs.

Sec. 7. (a) The public works contract must provide for the following:

(1) That the contractor implement the employee drug testing program described in the contractor's plan.

(2) Cancellation of the contract by the agency awarding the contract if the contractor:

(A) fails to implement its employee drug testing program during the term of the contract;

(B) fails to provide information regarding implementation of the contractor's employee drug testing program at the request of the agency; or

(C) provides to the agency false information regarding the contractor's employee drug testing program.

(b) The provisions of the public works contract relating to cancellation of the contract by the agency awarding the contract apply to cancellation of the public works contract under this section.

TABLE OF CONTENTS
STATE OF INDIANA - GENERAL CONDITIONS

1. CONTRACT DOCUMENTS

- 1.1 Definitions
- 1.2 Intent and Interpretations
- 1.3 Copies

2. DESIGNER

- 2.1 Definition
- 2.2 Administration of the Contract

3. OWNER

- 3.1 Definition
- 3.2 Information and Service
- 3.3 Owners Site Representative

4. CONTRACTOR

- 4.1 Definition
- 4.2 Review of Documents
- 4.3 Supervision and Procedures
- 4.4 Labor and Materials
- 4.5 Warrantee and Guarantee
- 4.6 Permits, Fees and Notices
- 4.7 Cash Allowances
- 4.8 Superintendent
- 4.9 Contractor's Responsibility
- 4.10 Progress and Schedule
- 4.11 Record Documents at the Site
- 4.12 Shop Drawings and Samples
- 4.13 Use of Premises
- 4.14 Cutting and Patching
- 4.15 Cleaning Up

5. SUBCONTRACTORS

- 5.1 Definition
- 5.2 Award of Subcontracts
- 5.3 Subcontractor Relations

6. SEPARATE CONTRACTS

- 6.1 Owner's Right to Award Separate Contracts
- 6.2 Mutual Responsibility of Contractors

7. MISCELLANEOUS PROVISIONS

- 7.1 Delinquent Taxes
- 7.2 Choice of Law
- 7.3 Assignment
- 7.4 Written Notice
- 7.5 Claims for Damages
- 7.6 Performance and Payment Bond
- 7.7 Owners Right to Carry out the Work
- 7.10 Certificate of Qualification
- 7.11 Appropriation
- 7.12 Wage Determination
- 7.13 Out-of-State Contractors
- 7.14 Material Delivery
- 7.15 Weather
- 7.16 Fire Hazards
- 7.17 Dismissal

8. TIME

- 8.1 Definitions
- 8.2 Progress and Completion
- 8.3 Delays and Extensions of Time

9. PAYMENTS AND COMPLETION

- 9.1 Contract Sum
- 9.2 Schedule of Values
- 9.3 Progress Payments
- 9.4 Certificates for Payment
- 9.5 Payments Withheld
- 9.6 Failure of Payment
- 9.7 Substantial Completion and Final Payment

10. PROTECTION OF PERSON AND PROPERTY

- 10.1 Safety Precautions and Programs
- 10.2 Safety of Persons and Property
- 10.3 Emergencies

11. INSURANCE

- 11.1 General Requirements for Insurance
- 11.2 Property Insurance
- 11.3 Liability Insurance

12. CHANGES IN THE WORK

- 12.1 Change Orders
- 12.2 Claims for Additional Cost or Time
- 12.3 Minor Changes
- 12.4 Field Orders

13. EXAMINATION AND CORRECTION OF WORK

- 13.1 Examination of Work
- 13.2 Correction Before Substantial Completion
- 13.3 Correction After Substantial Completion

14. TERMINATION OF THE CONTRACT

- 14.1 Termination by the Contractor
- 14.2 Termination by the Owner

STATE OF INDIANA

GENERAL CONDITIONS

ARTICLE 1 CONTRACT DOCUMENTS

1.1 Definitions

1.1.1 The Contract Documents

The Contract Documents consist of the Agreement, the Instructions to Bidders, the Contractor's Proposal (Bid), the Conditions of the Contract (General and Supplementary), Drawings, Specifications, and Addenda issued prior to bidding, Change Orders, any written interpretation issued as a field order by the Designer pursuant to Article 1.2, and all field orders for minor changes in the Work by the Designer pursuant to Article 12.3.

1.1.2 The Contract

The Contract Documents form the Contract for construction. The Contract represents the entire and integrated agreement between the parties hereto and supersedes all prior negotiations, representations, or agreements, either written or oral.

1.1.3 The Work

All labor, material, equipment, systems and services necessary to produce the result called for in the Contract Documents.

1.1.4 The Project

The Project is the total construction designed by the Designer of which the Work performed under the Contract Documents may be the whole or a part.

1.2 Execution, Correlation, Intent and Interpretations

1.2.1 The Contract Documents shall be signed by the Owner and the Contractor. The signature process may be done electronically at the discretion of the Owner.

1.2.2 By executing the Contract the Contractor represents that he has visited the site and correlated his observations with the requirements of the Contract Documents, and has no major question pertaining thereto.

1.2.3 The Contract Documents are complementary, and what is called for by any one shall be as binding as if called for by all. The intention of the Documents is to include all labor, equipment, supervision and materials, for the proper execution and completion of the Work, and also to include those things that may be reasonably inferable from the Contract Documents as being necessary to produce the intended results. Words that have a well-known technical or trade meaning are used herein, in accordance with such recognized meaning.

1.2.4 Written interpretations necessary for the proper execution of the Work, in the form of drawings or otherwise will be issued with reasonable promptness by the Designer. Such interpretations shall be consistent with and reasonably inferable from the Contract Documents, and may be issued by field order subject to Owner's approval.

1.3 Copies Furnished and Ownership

1.3.1 The Contractor will be furnished 5 copies of drawings and specifications and any other information necessary for the execution of the Work.

1.3.2 All drawings, specifications, and copies thereof furnished by the Designer are his property. They are not to be used on any other Project, and, with the exception of one Contract set for each party to the Contract, are to be returned on request to the Designer at the completion of the Work.

ARTICLE 2 DESIGNER

2.1 Definition

2.1.1. The Designer is the person or organization identified as Designer of the Project, and is referred to throughout the Contract Documents as if singular in number and masculine in gender. The terms Designer, Engineer, Architect, (and in certain projects State Engineer, State Architect, or Director, Public Works Division), shall mean the Designer or his authorized representative.

2.2 Administration of the Contract

2.2.1 The Designer will provide general administration of the Contract, including the functions hereinafter described.

2.2.2 Unless stated otherwise, the Designer shall be the Owner's representative during the construction phase. He shall have authority to act on behalf of the Owner only to the extent expressly provided in the Contract Documents or otherwise in writing, which will be shown to the Contractor. The Designer will advise and consult with the Owner and all of the Owner's instructions to the Contractor shall be issued through the Designer.

2.2.3 The Designer shall have access to the Work at all times wherever it is in storage, preparation and progress. The Contractor shall provide facilities for such access so that the Designer and Owner's Site Representative may perform their functions under the Contract Documents.

2.2.4 The Designer will make no less than weekly visits to the site when work is in progress to familiarize himself generally with the progress and quality of the Work and to determine in general if the Work is proceeding in accordance with the Contract Documents. He will not be required to make exhaustive or continuous on-site inspection to check the quality or quantity of the Work. On the basis of his on-site observations as Designer, he will keep the Owner informed of the progress of the Work, and will endeavor to guard the Owner against defects and deficiencies in the Work of the Contractor.

2.2.5 Based on such observation and the Contractor's applications for payment, the Designer will determine the amount owed to the Contractor and will issue Certificates for Payment in such amounts.

2.2.6 The Designer will be, in the first instance, the interpreter of the requirements of the Contract Documents and the judge of the performance thereunder. He will promptly render such interpretations as he may deem necessary for the proper execution or progress of the Work.

2.2.7 All interpretations and decisions of the Designer will be consistent with the intent of the Contract Documents. He will exercise his best efforts to insure faithful performance by the Contractor.

2.2.8 Claims, disputes and other matters in question relating to the execution or progress of the Work or interpretation of the Contract Documents shall be referred initially to the Designer for decision and be subject to written appeal within fifteen (15) days by the Contractor. The Designer shall submit his decision promptly in writing to the Director, Public Works Division, who shall have full authority to render the final and binding decision.

2.2.9 The Designer will have responsibility to recommend to the Owner the rejection of work that does not conform to the Contract Documents. Whenever the Designer considers it necessary or advisable, he shall recommend to the Owner the stoppage of the Work or any portion thereof, and to recommend special examination or testing of the Work (whether or not fabricated, installed, or completed).

2.2.10 The Designer will review and approve or take other appropriate action upon the Contractor's submittals such as shop drawings, product data and samples, but only for conformance with the design concept of the Work and with the information given in the Contract Documents. Such action shall be taken with reasonable promptness so as to cause no delay. The Designer's approval of a specific item shall not indicate approval of all assembly of which the item is a component.

2.2.11 The Designer will prepare change orders in accordance with Article 12.

2.2.12 The Designer will conduct reviews to determine the dates of Substantial Completion and Final Completion, will receive and forward to the Owner for the Owner's review written warranties and related documents required by the Contract and assembled by the Contractor, and will issue a final Certificate for Payment upon compliance with the requirements of Article 9.7.

2.2.13 The Designer, together with representatives from the Contractor and the Owner will conduct a review of the Work nine (9) months after the date of substantial completion to determine any work not in compliance with the Contract Documents at that time. A list of items to be corrected or completed will be forwarded to the Contractor for corrective action prior to the expiration of the one year warranty period.

2.2.14 The duties, responsibilities and limitations of authority of the Designer as the Owner's representative during construction as set forth in Articles 1 through 14 of these General Conditions shall not be modified or extended without written consent of the Owner.

2.2.15 The Designer will not be responsible for the acts or omissions of the Contractor, Subcontractor, or any of their superintendents, supervisory staffs, agents or employees, or any other persons performing any of the Work.

2.2.16 In case of the termination of the employment of the Designer, the Owner shall appoint a Designer against whom the Contractor makes no reasonable objections, whose status under the Contract shall be that of Designer.

ARTICLE 3 OWNER

3.1 Definition

3.1.1 The Owner is the State of Indiana, represented by the Commissioner; Department of Administration acting through the Director, Public Works Division and the Director's designated project manager.

3.2 Information and Service Required of the Owner

3.2.1 The Owner will furnish, through the Designer, surveys, describing known physical characteristics, legal limits and utility locations for the property on which the Project is to be erected, if in the Owner's possession.

3.2.2. Information or services under the Owner's control shall be furnished by the Owner with promptness to avoid delay in the orderly progress of the Work.

3.2.3 The Owner shall issue all instructions to the Contractor through the Designer unless specified elsewhere in these documents.

3.2.4 If the Contractor fails to correct defective work as required by Article 13 or persistently fails to carry out the Work in accordance with the Contract Documents, the Owner, by a written order may order the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of the Owner to stop the Work shall not give rise to any duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity, except to the extent required by Article 6.1.

3.3 Owner's Site Representative

3.3.1 Notwithstanding the obligations of the Designer as Owner's representative during construction, the Owner may employ an on-site representative to observe the progress of the Work.

3.3.2 The Owner's Site Representative shall function as an observer only. He shall report his findings to the Designer for review and any required further action. The Owner's Site Representative is not authorized to make changes in the Work or to interpret the Contract Documents.

3.3.3 The Owner's Site Representative shall have at all times access to the Work wherever it is in storage, preparation and progress. He may attend meetings at the site and he may review and approve the Contractor payment requests.

ARTICLE 4 CONTRACTOR

4.1 Definition

4.1.1 The Contractor is the person or organization identified as such in the Agreement. He is referred to throughout the Contract Documents as if singular in number and masculine in gender. The term Contractor means the Contractor or his authorized representative.

4.2 Review of Contract Documents

4.2.1 The Contractor shall carefully study and compare the Contract Documents and shall at once report to the Designer and the Owner any error, inconsistency or omission he may discover. The Contractor shall perform no portion of the Work at any time without Contract Documents or, where required, approved shop drawings, product data or samples for such portion of the Work.

4.3 Supervision and Construction Procedures

4.3.1 The Contractor shall supervise and direct the Work, using his best skill and attention. He shall be solely responsible for the quality of the Work and for all construction techniques, sequences, and procedures, and for coordinating all portions of the Work.

4.3.2 The Contractor shall not be relieved from his obligations to perform the Work in accordance with the Contract Documents either by the activities or duties of the Designer in administration of the Contract, or by inspections, tests or approvals required or performed under Paragraph 7.9 by persons other than the Contractor.

4.4 Labor and Materials

4.4.1 Unless otherwise specified in Division 1, the Contractor shall provide and pay for all labor, material, equipment, tools, construction equipment, machinery, transportation, and other facilities and services necessary for the proper execution of the Work.

4.4.2 Unless otherwise specified in Division 1, the Contractor shall provide and pay for all electric current, water, heat, and telephone services and shall maintain necessary discipline to prevent waste.

4.4.3 If any item of work shall be the subject of a jurisdictional dispute as to the craft to be used for said work, the Contractor shall aid in such inter-craft resolution and if arbitrated, abide by the decision, holding the Owner free of involvement in the dispute, and if time is lost by the dispute, extra work days will only be considered through the provisions of Article 12.2. He will do whatever he can to eliminate any embarrassment to the Owner caused by picketing, etc.

4.4.4. The Contractor shall at all times enforce strict discipline and good order among his employees, and shall not employ on the Work any unfit person or any one employee unskilled in the Work assigned to him or unqualified as a tradesman in the trade involved.

4.5 Warranty and Guarantee

4.5.1 The Contractor warrants and guarantees that all materials and equipment incorporated in the Project shall be new unless otherwise specified, and all work will be of the highest quality, free from faults and defects, and in strict conformance with the Contract Documents for a period of one year from the date of substantial completion. All work not so conforming to the Contract Documents may be considered defective. If required by the Designer, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment. The warranties and guarantees provided in this Article and elsewhere in the Contract Documents shall be in addition to and not in limitation of any other warranty or guarantee or remedy called for the Contract Documents or otherwise prescribed by law. The Contractor, together with the Designer and representatives from the Owner, shall review the Work nine (9) months after the date of substantial completion to determine any work not in compliance with the Contract Documents. The Contractor shall correct such non-complying work prior to the expiration of the one year warranty.

4.6 Permits, Fees and Notices

4.6.1 The Contract shall secure and pay for all permits, fees and licenses necessary for the execution of the Work.

4.6.2 The Contractor and Subcontractors must submit an "Exemption Certificate for Construction Contractors" (Form ST-105) to each supplier in order to obtain exemption from the Indiana Gross Tax (i.e., sales and use tax).

4.6.3 The Contractor shall give all notices and comply with all laws, ordinances, rules, regulations, and orders of any public authority bearing on the conduct of the Work. If he observes that any of the Contract Documents are at variance therewith in any respect, he shall promptly notify the Designer in writing, and any necessary changes shall be adjusted by change order. If he performs any work knowing it to be contrary to such laws, ordinances, rules and regulations, and without such notice to the Designer, he shall bear all cost arising from such non-conformance.

4.7 Cash Allowances

4.7.1 The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. These allowances cover the net cost of the materials and equipment delivered and unloaded at the site which cost shall be determined by the Owner through proper procedures for receiving quotes or bids as required by law. The Contractor's handling costs on the site, labor, installation costs, overhead, profit, and other expenses shall be included in the Contract sum and not in the allowance. The Contractor shall cause the Work required by these allowances to be performed by such persons as the Designer may direct, but he will not be required to employ persons against whom he has a reasonable objection. If the net cost above, when determined, is more than or less than the allowance, the Contract Sum will be adjusted accordingly by change order.

4.8 Superintendent

4.8.1 The Contractor shall keep on the Project, during the entire contract time, a competent superintendent and necessary assistants, all satisfactory to the Designer and the superintendent shall not be changed, except with the consent of the Owner, unless the superintendent proves to be unsatisfactory to the Contractor and ceases to be in his employ. The superintendent shall represent the Contractor and shall have full authority to act on his behalf. All communications given the superintendent shall be as binding as if given by the Contractor. Important communications shall be confirmed in writing.

4.9 Responsibility for Those Performing the Work

4.9.1 The Contractor shall be responsible for the quality of the Work, for acts and omissions of all the Subcontractors, their superintendents, their supervisory staffs, agents, or employees and of all other persons performing any of the Work under a Contract with the Contractor.

4.10 Progress Schedule

4.10.1 Unless otherwise indicated in Division 1, the Contractor, immediately after being awarded the Contract, shall prepare and submit for the Designer's approval a progress schedule for the Work in relation to the entire Project. This schedule in bar graph form, or other form approved by the Owner, shall indicate the dates for the starting and completion of the various stages of construction, and in addition, will state the contractual completion date. The contract completion date, based on the construction period stated in the notice to bidders, shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by change order. A more detailed schedule may be required elsewhere in the documents.

4.11 Record Documents at the Site

4.11.1 The Contractor shall maintain for the Owner as part of the Contract one record copy of all drawings, specifications, addenda, shop drawings, change orders and other modifications at the site in good order, and marked to record all changes made during construction. These shall be available to the Designer and the Owner's Site Representative at all times while Work is in progress. All changes made during construction shall be recorded monthly and reviewed by the Designer before approval of each partial progress payment. The record documents shall be submitted to the Designer prior to the Contractor's final payment.

4.12 Shop Drawings and Samples

4.12.1 Shop drawings are all drawings, diagrams, illustrations, schedules, brochures, and other data, which are prepared by the Contractor, or any Subcontractor, manufacturer, supplier, or distributor, and which illustrate the Work.

4.12.2 The Contractor shall submit all shop drawings and samples required by the Contract or by the Designer in a timely manner, allowing sufficient time for the Designer's review so as not to cause any delay in the Work or in work by any other Contractor.

4.12.3 At the time of such submission, the Contractor shall furnish or verify all field measurements, field construction criteria, materials, catalog numbers, and the like and shall individually check, coordinate and stamp with his approval each submission, and shall in writing call the Designer's attention to any deviations in the shop drawings or samples from the requirements of the Contract Documents.

4.12.4 The Designer will check and approve, with reasonable promptness so as to cause no delay, these shop drawings and samples only for conformance with the design concept of the Project, and with the information given in the Contract Documents. The Designer's approval of a separate item will not indicate approval of the assembly in which the item functions.

4.12.5 The Designer's approval of shop drawings or samples shall not relieve the Contractor of responsibility for any deviation from the requirements of the Contract Documents unless the Contractor has in writing called the Designer's attention to such deviation at the time of submission and the Designer has given written approval to the specific deviation, nor shall this relieve the Contractor from errors or omissions in the shop drawings or samples.

4.12.6 No work requiring a shop drawing or sample submission shall be commenced until the submission has been approved by the Designer. All such work shall be in accordance with approved shop drawings and samples.

4.13 Use of Premises

4.13.1 The Contractor shall confine operations at the site to areas permitted by law, ordinances, permits and the Contract Documents, and shall not unreasonably encumber the premises with any materials or equipment.

4.14 Cutting and Patching

4.14.1 The Contractor shall do all cutting, fitting or patching of his work that may be required to make its several parts come together properly and shall not endanger any work by cutting, excavating, or otherwise altering the Work or any part of it. Costs caused by defective or ill-timed work shall be borne by the party responsible therefore.

4.15 Cleaning Up

4.15.1 The Contractor shall at all times keep the premises free from accumulation of waste materials or rubbish caused by his operations. At the completion of the Work, he shall remove all waste material and rubbish from and about the building as well as all his tools, scaffolding and surplus materials. Contractor shall clean all glass surfaces, lights and fixtures, ceilings, walls and shall leave the Work dusted, swept and wet mopped clean, unless more exactly specified.

4.15.2 In case of dispute the Owner may remove the rubbish and charge the cost to the several Contractors as the Designer shall determine to be just.

ARTICLE 5 SUBCONTRACTORS

5.1 Definition

5.1.1 A Subcontractor is a person or entity who has a direct Contract with the Contractor to perform any of the Work at the site. The term Subcontractor is referred to throughout the Contract Documents as if singular in number and masculine in gender and means a Subcontractor or his authorized representative. The term Subcontractor does not include any separate Contractor or his Subcontractors.

5.2 Award of Subcontracts and Other Contracts for Portions of the Work

5.2.1 Unless otherwise required by the Contract, the Contractor shall furnish to the Owner, with his bid on the prescribed form, the names of all persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for each of the principal portions of the Work with an installed value of $150,000.00 or more. The Designer will promptly reply to the Contractor in writing stating whether or not the Owner or the Designer, after due investigation, has reasonable objection to any such proposed person or entity. Failure of the Owner or Designer to reply within fourteen (14) days shall constitute notice of no reasonable objection.

5.2.2 The Contractor shall not subcontract with any such proposed person or entity to which the Owner or the Designer has made reasonable objection. The Contractor shall not be required to subcontract with anyone to whom he has a reasonable objection.

5.2.4 If the Owner or the Designer has reasonable objection to any such proposed person or entity, the Contractor shall submit a substitute to whom the Owner or the Designer has no reasonable objection.

5.2.5 The Contractor shall make no substitution of any Subcontractor, person or entity previously selected, if the Owner or Designer makes reasonable objection to such substitution.

5.2.3 The Contractor and his subcontractors shall employ only licensed plumbers and shall provide to the Owner the names and license numbers of all plumbers engaged in the Work. The Contractor shall submit this documentation with any monthly progress payment request that includes plumbing labor.

5.3 Subcontractual Relations

5.3.1 By an appropriate written agreement, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by the terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities which the Contractor, by these Documents, assumes toward the Owner. Said agreement shall preserve and protect the rights of the Owner under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor the benefit of all rights, remedies and redress against the Contractor that the Contractor, by these Documents, has against the Owner. Provisions of Article 9 for progress payments, retainage and payment for stored material shall be incorporated without modification in all Contractor-Subcontractor agreements. The Contractor shall require each Subcontractor to enter into similar agreements with his Sub-subcontractors. Prior to execution of the Contractor-Subcontractor agreement, the Contractor shall provide all Subcontractors a complete copy of all proposed Contract Documents for the Project to which the Subcontractor will be bound by this Paragraph 5.3. Each Subcontractor shall similarly make available to his Sub-Subcontractors copies of such Documents. Executed copies of all agreements shall remain on file with the Contractor and be available for review by the Owner at the Owner's discretion.

ARTICLE 6 SEPARATE CONTRACTS

6.1 Owner's Right to Let Separate Contracts

6.1.1 The Owner reserves the right to let other contracts in connection with other portions of the Project under these or similar General Conditions.

6.1.2 When separate contracts are awarded for different portions of the Project, "the Contractor" in the Contract Documents in each case shall be the Contractor who signs each separate contract with the Owner.

6.1.3 When separate contracts are awarded for portions of the Project, the General Construction Contractor shall be responsible for the overall coordination of all separate contracts for the Project.

6.2 Mutual Responsibility of Contractors

6.2.1 The Contractor shall afford each other Contractor reasonable opportunity for the introduction and storage of their materials and equipment and the execution of their work, and each shall properly connect and coordinate his work with all others as coordinated by the General Contractor.

6.2.2 If any part of the Contractor's work depends on proper execution or results upon the work of any other separate Contractor, the Contractor shall inspect and promptly report to the Designer any discrepancies or defects that shall cause his work to fail or be non-conforming. Failure of the Contractor to so inspect and report shall constitute an acceptance of the other Contractor's work as fit and proper for the reception of his work.

6.2.3 Should the Contractor cause damage to any separate Contractor on the Project, the General Contractor agrees, upon due notice, to settle with such other Contractor by agreement, if at all possible without involving the Owner. The Owner will be involved only after evidence is presented that sureties cannot settle the problem.

6.2.4 Any costs caused by defective or ill-timed work shall be borne by the party responsible.

ARTICLE 7 MISCELLANEOUS PROVISIONS

7.1 Delinquent State Taxes (IC. 4-13-2-14.5). The Public Works Division may allow the Department of State Revenue access to the name of each person who is either:

(1) Bidding on a Contract to be awarded under this chapter; or
(2) A Contractor or Subcontractor under this chapter.

If the Public Works Division is notified by the Department of State Revenue that a bidder is on the most recent tax warrant list, a Contract may not be awarded to that bidder until the bidder provides a statement from the Department of State Revenue that the Bidder's delinquent tax liability has been satisfied. The Department of State Revenue may notify:

(1) The Department of Administration; and
(2) The Auditor of State;

that a Contractor or Subcontractor under this chapter is on the most recent tax warrant list, including the amount owed in delinquent taxes. The Auditor of State shall deduct from the Contractor's or Subcontractor's payment the amount owed in delinquent taxes. The Auditor of State shall remit this amount to the Department of State Revenue and pay the remaining balance to the Contractor or Subcontractor.

7.2 Choice of Law

7.2.1 The Contract shall be governed by the laws of the State of Indiana.

7.3 Assignment

7.3.1 The Contractor shall not assign the Contract or sublet it as a whole without the written consent of the Owner, nor shall the Contractor assign any monies due or to become due to him hereunder, without the previous written consent of the Owner.

7.4 Written Notice

7.4.1 Written notice shall be deemed to have been duly served if delivered in person to the individual or member of the firm or to an officer of the corporation for whom it was intended, or sent by registered or certified mail to the last business address known to him who gives the notice.

7.5 Claims for Damages

7.5.1 Should either party to the Contract suffer injury or damage to person or property because of any act or omission of the other party or any of his employees, agents or others for whose acts he is legally liable, claim shall be made in writing to such other party within seven (7) days of the first observance of such injury or damage.

7.6 Performance Bond and Labor and Material Payment Bond

7.6.1 For projects advertised with an estimated base bid amount of One Hundred Fifty Thousand Dollars ($150,000) or more, the Contractor shall furnish and pay for an approved one hundred percent (100%) combination performance and payment bond (Contractor's Bond for Construction, Public Works Division Form DAPW 15). This bond shall adhere to the requirements of IC. 4-13.6-7-6 and IC. 4-13.6-7-7 as amended and shall cover the faithful performance of the Contract and the payment of all obligations arising thereunder, including reimbursement for any stored materials paid for but returned to materialmen, with such sureties as the Owner may approve. The combination bond shall remain in effect throughout the entire construction period and in addition for a period of one year from the date of final acceptance. The Contractor shall deliver the required bonds to the Owner prior to execution of the Contract by the Owner unless authorized to the contrary in writing by the Owner. All bonds must be issued by bonding companies, which are licensed and approved by the Indiana Insurance Commission.

7.7 Owner's Right to Carry Out the Work

7.7.1 If the Contractor should default or neglect to carry out the Work properly or fail to perform any provision of the Contract, the Owner may, after giving seven (7) days written notice to the Contractor, without prejudice to any other remedy it may have, make good such deficiencies. In such case, an appropriate change order shall be issued deducting the cost thereof including the cost of the Designer's additional service made necessary by such default, neglect or failure of the Contractor, from the payments then or thereafter due the Contractor, provided, however, that the Designer shall approve both such action and the amount charged to the Contractor. If such payments due to the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the Owner.

7.8 Royalties and Patents

7.8.1 The Contractor shall pay all royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and shall save the Owner harmless from liability of any nature or find including costs and expenses for or on account of any patented or unpatented invention, process, article or appliance manufactured or used in the performance of this Contract, including its use by the Owner.

7.9 Tests & Substitution of Materials

7.9.1 If the Contract Documents, laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction require any work to be inspected, tested, or approved, the Contractor will give the Designer timely notice of its readiness and of the date fixed for such inspection, testing, or approval so that the Designer may observe the same. The Contractor shall bear all cost of such inspections, tests, and approvals unless otherwise provided.

7.9.2 If, after the commencement of the Work, the Designer, with approval of the Owner in writing, determines that the Work requires special inspection, testing, or approval for which subparagraph 7.9.1 does not provide, he will, upon written authorization from the Owner, order such special inspection, testing or approval. If such special inspection or test reveals a failure of the Work to fulfill the requirements of the Contract Documents, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction, the Contractor shall bear all costs thereof; otherwise the Owner shall bear such costs. An appropriate change order shall be issued.

7.9.3 Required certificates of inspection, testing or approval shall be secured by the Contractor and promptly delivered by him to the Designer.

7.9.4 Observations by the Designer of the inspections, tests, or approvals required by Article 7 will be promptly made, and where practicable at the source of supply at no additional cost to the Owner.

7.9.5 Neither the observations of the Designer in his administration of the Contract, nor inspections, tests or approvals by persons other than the Contractor shall relieve the Contractor from his obligations to perform the Work in accordance with the Contract Documents.

7.9.6 All building construction and work, alterations, repairs, plumbing, mechanical, and electrical installations and appliances connected therewith, shall comply with the Rules and Regulations of the Department of Fire and Building Services, State Board of Health, local ordinances, Rules for Licensure of Building Trades, and other statutory provisions pertaining to this class of work; such rules and regulations and local ordinances to be considered as a part of these specifications.

7.9.7 Where in these specifications, one or more certain materials, trade names, or articles of certain manufacture are mentioned, it is done for the express purpose of establishing a basis of durability and efficiency and not for the purpose of limiting competition. Approval of other acceptable products for those specified may be obtained by requesting to the Designer no later than fourteen (14) days in advance of bid date with all documentation required for the Designer to evaluate any approval. If approval is granted, the subject product will be added by addendum.

7.9.8 Should there be a reason for change of materials after award of the Contract, the following criteria shall apply:

a. Original material no longer manufactured,
b. Delivery not possible within time specified for job, and/or
c. Unavailability due to causes beyond the control of the Contractor.

7.9.9 After agreement by the Designer and the Owner that a change is necessary, the Contractor shall present a request for substitution to the Designer. The burden of proof of the merit of the proposed substitute is upon the proposing party. The decision of the Designer and the Owner regarding the substitution shall be final.

7.10 Certificate of Qualification

7.10.1 In accordance with IC. 4-13.6-4 as amended, all Contractors and Subcontractors performing work for the State of Indiana on projects estimated to be in excess of one hundred fifty thousand dollars ($150,000.00), must hold a valid Certificate of Qualification issued by the Public Works Certification Board. The Instructions to Bidders define the procedure for certification and bidding.

7.10.2 The Contractor must perform at least twenty (20) percent of the total Contract Sum of the Work with his own forces. The Contractor shall submit copies of his payroll records, if requested by the Owner, showing the hours, rates and total costs for all personnel on his payroll detailed to the degree to ensure compliance with this paragraph and any Wage Determination provisions.

7.11 Appropriation

7.11.1 The Contract specifically limits payments to be made in accordance with appropriations made and funds made available under laws of the State of Indiana.

7.12 Wage Determination

7.12.1 If a "Common Wage Determination" is included in the Contract Documents, it shall be used as the minimum wage and benefits to be paid for the trades indicated.

7.12.2 Contractor shall submit a schedule of hourly wages to be paid to each employee (including those of his subcontractors) engaged in work on the site. This submittal shall be on Contractor's letterhead stationery, shall follow the format of the "Common Wage Determination" for this project, and shall be signed by the Contractor and notarized. A copy of this submittal shall be conspicuously posted at the site.

7.12.3 Said rates shall in no case be less than those set out in the "Common Wage Determination" for this Project, as required by IC 5-16-7, as amended, a copy of which is herein bound or is on file with the Owner.

7.12.4 The Contractor shall provide (and require each Subcontractor to provide) weekly payroll records listing employees engaged in work on the site for the week and the hourly rates for base pay and benefits paid to each employee listed. The payroll record form shall include a statement by the Contractor/Subcontractor certifying the accuracy and completeness of the information provided. Payroll records shall be maintained by the Contractor during the course of the Work until the end of the required warranty period.

7.13 Out-of-State Contractors

7.13.1 Proof of payment by Out-of-State Contractors of Indiana Gross Income Tax, as provided in IC. 6-2.1-5-1.1 (b) and 6-2.1-5-1.1 (a) (d) as amended shall be submitted before final payment will be approved.

7.13.2 Out-of-State Corporations must be authorized to do business in the State, IC. Title 23 prior to submitting bids. Forms may be obtained by contacting the Secretary of State, State of Indiana, Indianapolis, Indiana.

7.14 Material Delivery

7.14.1 Shipments of material to be used by the Contractor or any Subcontractor under this Contract should be delivered to the job site only during the regular working hours of the Contractor or Subcontractor. If a delivery is made during other than the normal working hours of the Contractor or Subcontractor, his authorized agent must be on duty to receive such material. No employee of the Owner is authorized to receive any shipments designated for the Contractor or Subcontractor.

7.15 Weather

7.15.1 The Contractor shall at all times provide protection against weather, rain, wind, storms, frost or heat, so as to maintain all work, materials, apparatus and fixtures free from injury or damage. At the end of the day's work, all new work likely to be damaged shall be covered.

7.15.2 During cold weather, the Contractor shall protect all work from damage. If low temperature makes it impossible to continue operations safely, in spite of cold weather precaution, the Contractor shall cease work and shall so notify the Owner and Designer.

7.15.3 Any work damaged by failure to provide protection above required, shall be removed and replaced with new work at the Contractor's expense.

7.15.4 The Contractor shall provide and maintain on the premises, where directed, watertight storage shed (or sheds) for storage of all materials, which might be damaged by exposure to weather.

7.16 Fire Hazards

7.16.1 Wherever and whenever any burning, welding, cutting or soldering operation is in progress, or equipment is in use, or any work involving a fire hazard, is performed, the Contractor responsible for such operation shall have at all times acceptable fire extinguisher or protection within five (5) feet of the operation.

7.17 Dismissal

7.17.1 Any foreman or workman employed by the Contractor or by any Subcontractor who, in the opinion of the Director, Public Works Division and/or the Designer, does not perform his work in a proper and skillful manner, or is disrespectful, intemperate, disorderly, intoxicated or otherwise objectionable shall at the written request of either of the above, be forthwith discharged by the Contractor or Subcontractor employing such foreman or workman and he shall not be employed again on any portion of the Work without the written consent of the Director of the Division of Public Works and the Designer. Should the Contractor fail to furnish suitable and sufficient machinery, equipment or personnel for the proper prosecution of the Work, the Owner or Designer may withhold all payments that are or may become due, or may suspend the Work until such orders are upheld.

ARTICLE 8 TIME

8.1 Definitions

8.1.1 Unless otherwise provided, the Contract Time is the period of time allotted in the Contract Documents for Substantial Completion of the Work as defined herein, including authorized adjustments thereto.

8.1.2 The date of commencement of the Work is the date established in a notice to proceed. If there is no notice to proceed, it shall be the date of the Governor's signature on the Owner-Contractor Agreement or such other date as may be established therein.

8.1.3 The Date of Substantial Completion of the Work, or designated portion thereof, is the date certified by the Director, Public Works Division when construction is sufficiently complete, in accordance with the Contract Documents, so the Owner may occupy or utilize the Work, or designated portion thereof, for the use for which it is intended.

8.1.4 The term day as used in the Contract Documents shall mean calendar day unless otherwise specifically designated.

8.2 Progress and Completion

8.2.1 All time limits stated in the Documents are of the essence of the Contract.

8.2.2 The Contractor shall begin the Work on the date of commencement as defined herein. He shall carry the Work forward expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.

8.2.3 The Owner fully expects the Contractor to employ any and all means necessary to complete the Work within the Contract Time. Conduct of the Owner's affairs, such as unforeseen site conditions or delay in processing change orders, shall not be viewed as justification for delaying the Project unless the Owner can be shown to have breached the Contract. Contractor must employ all reasonable means to execute the Project in a timely manner and in conformance with the Contract Documents even if the Contractor or Designer seeks legal remedy against the Owner for claim of damage.

8.3 Delays and Extensions of Time

8.3.1 If the Contractor is delayed at any time in the progress of the Work by any act or neglect of the Owner or the Designer, or by any employee of either, or by any separate Contractor employed by the Owner, or by changes ordered in the Work, or by labor disputes, fire, unusual delay in transportation, adverse weather conditions not reasonable to anticipate, unavoidable casualties, or any causes beyond the Contractor's control, or by delay authorized by the Owner pending arbitration, or by any other cause which the Designer determines may justify the delay, then the Contract Time shall be extended by a Change Order for such reasonable time as the Designer may determine.

8.3.2 Claims for extension of time shall be made in writing to the Designer. In case of a continuing delay only one claim is necessary. The Contractor shall provide an estimate of the probable effect of such delay on the progress of the Work.

8.3.3 If no agreement is made stating the dates upon which interpretations as provided in Article 2.2 shall be furnished, then no claim for delay shall be allowed on account of failure to furnish such interpretations until fifteen days after written request is made for them, and not unless such claim is reasonable.

8.3.4 This Paragraph 8.3 does not exclude the recovery of damages for delay by either party under other provisions of the Contract Documents.

ARTICLE 9 PAYMENTS AND COMPLETION

9.1 Contract Sum

9.1.1 The Contract Sum is the total amount payable by the Owner for the performance of the Work under the Contract Documents.

9.2 Schedule of Values

9.2.1 Before the first application for payment, the Contractor shall submit to the Owner a schedule of various parts of the Work, including quantities if required by the Owner, aggregating the total Contract Sum, divided so as to facilitate payments to Subcontractors in accordance with Article 5.3, made out in such form as the Owner and the Contractor may agree upon, and supported by such data to substantiate its correctness as the Owner may require. Each item in the Schedule of Values shall include its proper share of overhead, profit, and other general charges. This schedule, when approved by the Owner, shall be used as a basis for the Contractor's Applications for Progress and Final Payments.

9.3 Progress Payments

9.3.1 Completed work: The Contractor shall submit to the Designer an itemized Application for Payment, supported by such data substantiating the Contractor's right to payment as the Designer may direct. The Owner shall make payments on account of the Contract, upon issuance of Certificates of Payment certified by the Designer and the Owner's Representative, for labor and materials incorporated into the Work at the rate of ninety four (94%) percent of such value until fifty (50%) percent of the value of the Work is completed. After that fifty (50%) percent, no further retainage will be deducted. The Director, Public Works Division has the option to require that three (3%) percent of the value of the Work be retained throughout the duration of the entire Contract. The retainage schedule shall be determined prior to award of Contract. Retainage may be paid with final payment at the discretion of the Director, Public Works Division, but shall not be paid in any event until a minimum of sixty one (61) days after all work is completed.

9.3.2 Materials Stored: Payments may be made on account for materials or equipment not incorporated in the Work, but delivered and suitably stored at the site. With written approval of the Owner, materials may be stored at another location other than the Work site if properly identified as the property of the Owner and properly protected. Storage of material at the place of business of the vendor is not acceptable (25 IAC 2-9-2). Such payments shall be conditional upon the submission by the Contractor of one of the following: 1) receipts marked by the supplier as paid; 2) supplier's final waiver of lien listing specific materials involved; 3) invoice with copy of canceled check showing payment; or 4) such other evidence of payment as the Owner may require in lieu thereof to establish ownership of all items except those listed as miscellaneous materials below. For the aggregate of miscellaneous stored materials for which payment is requested and above proof of payment is not available, a complete list will be provided along with the affidavit of payment. Upon certification by the Owner's representative that the listed materials are suitably stored, payment can be made. Miscellaneous materials are defined as pipe, fittings, wire, conduit, etc., normally stored as stock items in Contractor's warehouse. For materials stored other than at the construction site applicable insurance and transportation to the site shall be provided by the Contractor.

9.3.3 As stored materials are incorporated into the Work, the value shall be removed from the total value of stored materials requested in successive payments. Proof of ownership through one of the above methods will be required for additional materials. When, in the judgment of the Owner, retainage for completed work is not sufficient in relation to excessive amounts requested for stored materials or equipment, the Owner may elect to place the retainage for such materials or equipment in escrow. This retainage shall apply as a credit toward retainage due to be held for completed work on future payments.

9.3.4 The Contractor warrants that title to all work, materials and equipment covered by an Application for Payment will pass to the Owner either by incorporation in the construction or upon the receipt by the Contractor of payment, whichever occurs first, free and clear of all liens, claims, security interest or encumbrances, hereinafter referred to in this Article 9 as "liens"; and that no Work, materials or equipment covered by an Application for Payment will have been acquired by the Contractor, or by any other person performing work at the site or furnishing materials and equipment for the Project, subject to an agreement under which an interest therein or an encumbrance thereon is retained by the seller or otherwise imposed by the Contractor or such other person.

9.3.5 The Contractor shall accompany each application for payment request with a certification that he paid to all Subcontractors (fabricators) within ten (10) days of receipt of payment that pro rata amount of funds he has received from the Owner for the value of work or services (fabricated materials or equipment) performed by the Subcontractor (supplied by fabricator) contained in previous progress payments. The Contractor's inclusion of a value of subcontract work in his progress pay estimate is prima facie evidence of acceptance of work having such a value; therefore, if the Owner receives a certification from a Subcontractor that he has not been paid such amounts as were included in the Contractor's partial billing and subsequently paid to the Contractor by the Owner, then the Owner will hold all subsequent partial payment requests until satisfactory evidence is received from the Subcontractor that he has been paid such amounts presented to the Owner by the Contractor, paid to the Contractor by the Owner, and not distributed by the Contractor to the Subcontractor. The making of an incorrect certification of either partial payment or final payment may be considered by the Owner to be a breach of contract, and it may exercise all of its prerogatives set out in the Contract in addition to the remedies for falsifying an affidavit. Such an action could result in a suspension of qualification with the State Certification Board for a period of up to two (2) years.

9.4 Certificates for Payment

9.4.1 When the Contractor has made application for payment as above, the Designer will issue a Certificate of Payment to the Owner for such amount as he determines to be properly due, or state in writing his reasons for withholding a certificate as provided in Articles 9.5.1.

9.4.2 The issuance of a Certificate for Payment will constitute a representation by the Designer to the Owner, based on the Designer's observations at the site as provided in Article 2.2.4 and the data comprising the Application for Payment, that the Work has progressed to the point indicated, and that, to the best of his knowledge, information and belief, the quality of work is in accordance with the Contract Documents subject to an evaluation of the Work as a functioning whole upon substantial completion, to the results of any subsequent tests called for in the Contract documents, to minor deviations correctable prior to the next certificate for payment and to any specific qualifications stated in his certificate, and that the Contractor is entitled to payment in the amount certified.

9.4.3 The Designer's final Certificate for Payment will constitute a further representation that the conditions precedent to the Contractor's being entitled to final payment as set forth in Article 9.7 have been fulfilled. However, by issuing a Certificate, the Designer shall not thereby be deemed to represent that he has made any examination to ascertain how or for what purpose the Contractor has used the monies paid on account of the Contract Sum.

9.4.4 The Owner shall make payment as soon as the fiscal procedure of the State can process same after receipt from the Designer of the Certificate for Payment. The fiscal procedure by the State can include, but not be limited to, review by the Owner's using agency, verification of the Certificate by the Owner's Site Representative, review for accuracy of form and calculation by the Owner's accountant, review by the Owner's project management and execution by the Director, Public Works Division and others.

9.4.5 No certificate for a progress payment or progress payment for partial or entire occupancy of the Project by the Owner shall constitute an acceptance of work not in accordance with the Contract Documents.

9.4.6 Pursuant to IC. 4-13.6-7-2 all Contract awards of One Million Dollars ($1,000,000) or above, if elected by the Contractor, an escrow agent will be selected by the State with whom the retainage funds for this Contract will be deposited and held until receipt of notice from the Director, Public Works Division (Escrow Form DAPW 32A) and from all other necessary parties as specified in and in accordance with the procedures and provisions of said Act.

9.5 Payments Withheld

9.5.1 The Designer (or Owner) will not approve an application in whole or in part, if in his opinion, he is unable to make representations to the Owner as provided in Article 9.4. The Designer (or Owner) will not approve Application for Payment or, because of subsequent inspections, may nullify the whole or any part of the Certificate for Payment previously issued to such extent as may be necessary in his opinion to protect the Owner from loss because of:

A. defective work not remedied,
B. claim filed or reasonable evidence indicating probable filing of claims,
C. failure of the Contractor to make payments properly to Subcontractors or for materials, equipment or labor,
D. reasonable doubt that the Contract can be completed for the unpaid balance,
E. damage to another Contractor,
F. reasonable indication that the Owner may be damaged by delay in receiving use of the Work as scheduled, or,
G. unsatisfactory prosecution of the Work by the Contractor.

9.5.2 When the above grounds are removed, payment shall be processed for amounts withheld.

9.6 Failure of Payment

9.6.1 If the Designer should fail to issue any Certificate for Payment, through no fault of the Contractor, or if the Owner should fail to pay the Contractor in a reasonable time considering the fiscal procedures of the State for processing same after receipt from the Designer the amount certified by the Designer, then the Contractor may, after seven (7) additional days, give written notice to the Owner and Designer, that work will stop until payment of the amount owing has been received.

9.7 Substantial Completion and Final Payment

9.7.1 When advised by the Contractor that the Work or a designated portion thereof is substantially complete, the Designer; the Director, Public Works Division, and the Contractor shall determine jointly by inspection that the Work is substantially complete. If they determine that the Work is substantially complete, the Contractor shall then prepare a Certificate of Substantial Completion with an accompanying list of incomplete items of work (punch list), and submit it to the Designer for his signature and subsequent forwarding for approval by the Director, Public Works Division. The Certificate shall fix the date of Substantial Completion and shall state the responsibilities of the Owner and the Contractor for maintenance, heat, utilities and insurance.

9.7.2 Upon approval of the above, and notice that the Work is ready for final acceptance, the Designer, the Contractor and Owner will promptly make final review, and when they find the Work acceptable under the Contract and the Contract fully performed, the Contractor shall promptly submit the final Certificate for Payment with all other required documents, showing that the Work has been completed in accordance with the terms and conditions of the Contract, and that the entire balance in said final certificate, is due and payable.

9.7.3 Neither the final payment nor any part of the retained percentage shall become due until the Contractor shall submit to the Designer releases or waivers of all liens arising out of the Contract; an affidavit that the releases and waivers include all the labor, materials, and equipment for which a lien could be filed and that all payrolls, material bills, and other indebtedness connected with the Work for which the Owner or its property might in any way be responsible have been paid or otherwise satisfied; and such other data establishing payment or satisfaction of all such obligations as the Owner may require. If any such lien or claim remains unpaid, the Contractor shall refund to the Owner all monies that the latter may be compelled to pay in discharging such lien or claim, including all costs.

9.7.4 If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor, and the Designer so confirms, the Owner shall, upon certification by the Designer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted, or such portion as may be available from funds not already released to an escrow agent pursuant to IC 4-13.6-7. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

9.7.5 The making of final payment shall constitute a waiver of all claims by the Owner except those arising from:

A. unsettled liens,
B. faulty work appearing after Substantial Completion,
C. failure of the Work to comply with the requirements of the Contract Documents,
D. terms of any special guarantees required by the Contract Documents.

9.7.6 If upon Substantial Completion of the Work there are any remaining uncompleted minor items, the Owner shall withhold, until those items are completed, an amount equal to two hundred percent (200%) of the value of each item as determined by the Designer or Owner.

9.7.7 The acceptance of final payment shall constitute a waiver of all claims by the Contractor, except those previously made in writing and still unsettled and covered by other agreed arrangements.

ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

10.1 Safety Precautions and Programs

10.1.1 The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work.

10.2 Safety of Person and Property

10.2.1 The Contractor shall take all necessary precautions for the safety of, and will provide all necessary protection to prevent damage, injury, or loss to:

A. all employees on the Project and all other persons who may be affected thereby,
B. all the Work and all materials and equipment to be incorporated therein, whether in storage on or off the site, and,
c. other property at the site or adjacent thereto, including trees, shrubs, lawns, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

10.2.2 The Contractor shall comply with all applicable laws, ordinances, rules, regulations and orders of any public authority having jurisdiction for the safety of persons or property or to protect them from damage, injury, or loss. He shall erect and maintain, as required by the conditions and progress of the Work, all necessary safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations, and notifying owners and users of adjacent utilities.

10.2.3 All damage or loss to all property specified herein caused directly or indirectly, in whole or in part, by the Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable, shall be remedied by the Contractor, except damage or loss attributable solely to faulty Contract Documents or to the acts or omissions of the Owner, or Designer or their employees, or for those whose acts either of them may be liable.

10.2.4 The Contractor shall designate a responsible member of his organization on the Work whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent, unless otherwise designated in writing by the Contractor to the Owner and the Designer.

10.2.5 When the use or storage of explosives or other hazardous materials or equipment is necessary for the prosecution of the Work, the Contractor shall carry on such activities under the supervision of properly qualified personnel.

10.2.6 The Contractor shall not overload, or permit any part of the Work to be loaded so as to endanger its safety.

10.2.7 All excavations creating a trench of five (5) or more feet in depth shall strictly adhere to the shoring and other safety requirements called for and described under Indiana OSHA Regulation 29 C.F.R. 1926, Subpart "P", for trench safety systems.

10.3 Emergencies

10.3.1 In an emergency affecting the safety of persons or property, the Contractor shall act, at his discretion, to prevent threatened damage, injury or loss. Any additional compensation or extension of time claimed by the Contractor because of emergency work shall be determined as provided for in Article 12, Changes in the Work, and he shall notify the Owner of such a decision within seven (7) days of the event giving rise to such claim.

ARTICLE 11 INSURANCE

11.1 General Requirements for Insurance

11.1.1 The Contractor will be required to furnish to the Owner, evidence that he has complied with all items of insurance listed herein. All insurance policies/certificates shall be on file with the Owner prior to release of the signed Contract and commencement of work.

11.1.2 The Contractor shall purchase and maintain, with a company or companies licensed to do business in Indiana, such insurance as will protect him from claims set forth below, arising out of or resulting from the Contractor's operations under the Contract, whether such operations be by the Contractor or by any Subcontractor or by anyone directly or indirectly employed by any of them:

A. claims under Workmen's Compensation Acts and other employee benefit acts;
B. claims for damages because of bodily injury, personal injury, occupational sickness or disease, or death of his employees;
C. claims for damages because of bodily injury, personal injury, sickness, disease or death of any person other than his employees;
D. claims for damages to tangible property, including loss of use thereof.

11.1.3 This insurance shall be written for not less than any limits of liability specified herein, or required by law, whichever is greater. Policies or certificates of insurance, acceptable to the Owner, shall be filed with the Owner prior to execution of the Contract. These Certificates shall contain a provision that coverages afforded under the policies will be for the life of the Work.

11.1.4 Policies (certificates) shall show name and complete address of the Company, expiration date or dates, and policy number or numbers. Policies shall not be canceled until at least thirty (30) days prior written notice has been given to the Owner and acknowledged by the Owner in writing.

11.2 Property Insurance

11.2.1 The Contractor shall furnish and maintain, at the Contractor's expense, Fire, Extended Coverage, Vandalism, and Malicious Mischief Insurance (Builder's Risk), in the sum of 100% of the Contract amount. Builder's Risk insurance shall cover the structure on/in which the Work of this Contract is to be done including items of labor and material connected therewith, whether in or adjacent to the structure insured; material in place or to be used as part of the permanent construction, including surplus materials; shanties, protective fences, bridges, or temporary structures; miscellaneous materials and supplies incident to the Work; scaffolding, staging, towers, forms, and equipment, if included in the cost of the Work. This insurance need not cover any tools owned by mechanics, or any tools, equipment, scaffolding, staging, towers, and forms owned or rented by the Contractor, the capital value of which is not included in the cost of the Work.

11.2.3 Any loss under this Article 11.2 is to be adjusted with the Owner, and made payable to the Owner as trustee for the insured, as their interests may appear.

11.3 Liability Insurance

11.3.1 The Contractor and their subcontractors (if any) shall secure and keep in force during the term of this Contract the following insurance coverages (if applicable) covering the Contractor for any and all claims of any nature which may in any manner arise out of or result from Contractor's performance under this Contract:

A. Commercial general liability, including contractual coverage, and products or completed operations coverage (if applicable), with minimum liability limits not less than $700,000 per person and $5,000,000 per occurrence unless additional coverage is required by the State. The State is to be named as an additional insured on a primary, non-contributory basis for any liability arising directly or indirectly under or in connection with this Contract.

B. Automobile liability for owned, non-owned and hired autos with minimum liability limits of $700,000 per person and $5,000,000 per occurrence. The State is to be named as an additional insured on a primary, non-contributory basis.

C. The Contractor shall provide proof of such insurance coverage by tendering to the undersigned State representative a certificate of insurance prior to the commencement of this Contract and proof of workers' compensation coverage meeting all statutory requirements of IC §22-3-2. In addition, proof of an "all states endorsement" covering claims occurring outside the State is required if any of the services provided under this Contract involve work outside of Indiana.

D. The Contractor's insurance coverage must meet the following additional requirements:

1. The insurer must have a certificate of authority or other appropriate authorization to operate in the state in which the policy was issued.

2. Any deductible or self-insured retention amount or other similar obligation under the insurance policies shall be the sole obligation of the Contractor.

3. The State will be defended, indemnified and held harmless to the full extent of any coverage actually secured by the Contractor in excess of the minimum requirements set forth above. The duty to indemnify the State under this Contract shall not be limited by the insurance required in this Contract.

4. The insurance required in this Contract, through a policy or endorsement(s), shall include a provision that the policy and endorsements may not be canceled or modified without thirty (30) days' prior written notice to the undersigned State agency.

5. The Contractor waives and agrees to require their insurer to waive their rights of subrogation against the State of Indiana.

E. Failure to provide insurance as required in this Contract may be deemed a material breach of contract entitling the State to immediately terminate this Contract. The Contractor shall furnish a certificate of insurance and all endorsements to the State before the commencement of this Contract.

F. Boiler and Machinery Explosion Insurance shall be required when the Work includes boiler, other pressure vessels or steam piping installation or repair.

ARTICLE 12 CHANGES IN THE WORK

12.1 Change Orders

12.1.1 The Owner, without invalidating the Contract, may order changes in the Work consisting of additions, deletions, or modifications, with the Contract Sum and the Contract Time being adjusted accordingly. All such changes in the Work shall be authorized by Change Order, and shall be executed under the applicable conditions of the Contract Documents.

12.1.2 A Change Order is a written order to the Contractor compiled and reviewed by the Designer, prepared by the Owner and then signed by the Owner and the Contractor. The order is issued after the execution of the Contract authorizing a change in the Work, and documenting any adjustment in the Contract Sum and/or the Contract Time. The Contract Sum may be changed only by change order.

12.1.3 The value of any work involved in a change in the Work shall be determined in one or more of the following ways, in order of priority listed:

A. by mutual acceptance of a lump sum. For all amounts over $500, the Contractor shall provide a complete listing of quantities and unit prices of materials, hours of labor with cost per hour, and separate agreed percentages for any overhead and profit. The maximum aggregate increase for overhead and profit (including all home office and field office overhead) for any Subcontractor or for the Contractor performing his own work is fifteen (15%) percent; the maximum increase for a Contractor on work performed by a Subcontractor is five (5%) percent. If the cost of performance and payment bond(s) is shown as a separate line item in the Contractor's schedule of values for the project, then an increase will be permitted to provide for the additional cost of the bond(s). If the cost of the bond(s) is not indicated on the Contractor's schedule of values for the Project, any increase in cost for bond(s) shall be included in the Contractor's allowed overhead. For listings under $500, list lump sum for each item, or,
B. by unit prices named in the Contract or subsequently agreed upon, or,
C. by cost plus a mutually acceptable fixed or percentage fee.

12.1.4 Should conditions be encountered below the surface of the ground that are:

A. at variance with the conditions indicated by the Contract Documents, and
B. different than could be expected after a reasonable viewing of the site by the bidders, and
C. not evident from available soil samples,

then the Contract sum may be equitably adjusted by Change Order upon claim by Contractor made within a reasonable time after the first observance of the conditions.

12.1.5 If the Contractor claims that a written interpretation issued pursuant to Article 1.2 or a written order for a minor change issued pursuant to Article 12.3 involves additional cost or time, the Contractor shall make such claim as provided in Article 12.2.

12.2 Claims for Additional Cost or Time

12.2.1 If the Contractor wishes to make a claim under the provisions of the Contract Documents for an increase in the Contract Sum or an extension in the Contract Time, he shall give the Designer written notice thereof within fifteen (15) days after the occurrence of the event giving rise to such claim. This notice shall be given by the Contractor and authority received in writing from the Owner before proceeding to execute the Work, except in an emergency endangering life or property. No such claim shall be valid unless so made. Any approved change in the Contract Sum or Contract Time resulting from such claim shall be incorporated in a Change Order, initiated by the Designer and executed by the Owner. If the Designer does not initiate or the Owner execute a Change Order within a reasonable time in response to the request, such lack of action shall be construed as prima facie evidence of rejection of the request. For the purpose of this section "reasonable time" is expected not to exceed 30 days after receipt by the Owner.

12.3 Minor Changes in the Work

12.3.1 The Designer shall have authority, with Owner's approval, to order minor changes in the Work not involving an increase in the Contract Sum or an extension of the Contract Time and not inconsistent with the intent of the Contract Documents. Such change may be affected by written field order, with copy transmitted to the Owner. Such minor changes need not be approved in writing by the Owner; however, the Owner may provide written approval of any substitution of significant materials or equipment.

12.4 Field Orders

12.4.1 The Designer may issue written field orders, which interpret the Contract Documents in accordance with Article 1.2.4 without change in Contract Sum or Contract Time. The Contractor shall carry out such field orders promptly. The Designer shall transmit copies of field orders to the Owner.

ARTICLE 13 EXAMINATION AND CORRECTION OF WORK

13.1 Examination of Work

13.1.1 If any portion of the Work should be covered contrary to the request of the Designer or to requirements specifically expressed in the Contract Documents, it must, if required in writing by the Designer, be uncovered for his observation and shall be replaced at the Contractor's expense.

13.1.2 Examination of questioned work may be ordered by the Designer with the approval of the Owner, and if so ordered the Work must be uncovered by the Contractor. If such work were found in accordance with the Contract Documents, the cost of re-examination and replacement shall, by appropriate change order, be charged to the Owner. If such work be found not in accordance with the Contract Documents, the Contractor shall pay such costs, unless it is found that the defect in the Work was caused by a separate Contractor employed as provided in Article 6 and in that event, the separate Contractor shall pay such costs.

13.2 Correction of Work before Substantial Completion

13.2.1 The Contractor shall promptly remove from the site all work rejected by the Designer as failing to conform to the Contract Documents, whether or not incorporated in the Project, and the Contractor shall promptly replace and re-execute his own work in accordance with the Contract Documents and without cost to the Owner and shall bear the cost of repair to or replacement of all work of separate Contractors destroyed or damaged by such removal or replacement.

13.2.2 If the Contractor does not remove such rejected work within a reasonable time, fixed by written notice from the Designer, the Owner may remove and store the material at the expense of the Contractor. If the Contractor does not agree to pay or credit the Contract with the cost of such removal within ten days thereafter, the Owner may acquire a lien upon such property and materials. If proceeds of lien foreclosure do not cover all costs, which the Owner has then borne, the difference shall be deducted from the amount to be paid to the Contractor.

13.3 Correction of Work after Substantial Completion

13.3.1 The Contractor shall correct all faults and deficiencies in the Work which appear within one year of the date of substantial completion or such longer period of time as may be prescribed by the terms of any special guarantees called for by the Contract Documents, and he shall pay for all damage to other work caused thereby. The Contractor shall remove all defective work where necessary.

13.3.2 If the Contractor does not correct such faulty or defective work and remove defective work where necessary, within a reasonable time fixed by the Designer in writing, the Owner may do the corrective work and remove the defective work, as described in Article 13.2 above.

13.3.3 All costs attributable to correcting and removing faulty or defective work shall be borne by the Contractor.

13.3.4 The obligations of the Contractor under this Article 13.3 shall be in addition to and not a limitation of any obligations imposed upon him by special guarantees called for by the Contract Documents or otherwise prescribed by law.

ARTICLE 14 TERMINATION OF THE CONTRACT

14.1 Termination by the Contractor

14.1.1 If the Work is stopped for a period of thirty days under an order of any court or other public authority through no act of fault of the Contractor or of anyone employed by the Contractor, or if the Work should be stopped for a period of thirty days by the Contractor for the Designer's failure to issue a Certificate for payment as provided in Article 9.6, or for the Owner's failure to make payment thereon as provided in said Article, then the Contractor may, upon seven days' written notice to the Owner and the Designer, terminate the Contract and recover from the Owner, in satisfaction of all claims of the Contractor, payment for all work executed, except those items involved in Designer's failure to issue Certificate, or Owner's failure to make payment.

14.2 Termination by the Owner

14.2.1 If the Contractor should be adjudged bankrupt, or if he should make a general assignment for the benefit of his creditors, or if a receiver should be appointed on account of his insolvency, or if he should persistently or repeatedly refuse or should fail, except in cases for which extension of time is provided, to supply enough properly skilled workmen or proper materials, or if he should fail to make prompt payment to Subcontractors for materials or labor, or persistently disregard laws, ordinances, rules, regulations or orders of any public authority or otherwise be guilty of a substantial violation of a provision of the Contract Documents, then the Owner, upon certification by the Designer that sufficient cause exists to justify such action, may without prejudice to any right or remedy against the Contractor or his surety and after giving the Contractor and his surety seven days written notice, terminate the employment of the Contractor and take possession of the site and of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor and finish the Work by whatever method the Owner deems expedient. In such case the Contractor shall not be entitled to receive any further payment until the Work is completed, and an accounting made as set out below.

14.2.2 If the unpaid balance of the Contract sum exceeds the cost of finishing the Work, including compensation for the Designer's additional services such excess shall be paid to the Contractor. If such cost exceeds such unpaid balance, the Contractor shall pay the difference to the Owner. The Designer shall certify the cost incurred by the Owner as herein provided.

END

Indiana Department of Administration
M/WBE Participation Policy for Construction Projects

I. Introduction

The Indiana Department of Administration ("IDOA") in its commitment to Minority and Women participation in the state's procurement and contracting process, will require MBE and WBE participation or a best-efforts waiver as a specification in bids for construction services $150,000 and over with subcontracting opportunities effective January 1, 2006. *See* Indiana Code 5-22-7, 5-22-7-2, 5-22-7-4.

II. Definitions

"Application for MBE and WBE Program Waiver" means documents submitted by Bidder for relief from contract goal after demonstrating all reasonable good faith efforts were made by the Bidder for the purpose of fulfilling the contract goal. The Application for MBE and WBE Program Waiver may be submitted prior to the bid due date or included in the bid package response.

"Certification" means verification by the Indiana Department of Administration, Minority and Women's Business Enterprises Division ("MWBED") or an organization accepted by MWBED with respect to the authenticity of a minority or women owned business enterprise.

"Commercially useful function" Determination that an enterprise performs a commercially useful function will be made based on the following considerations:

(1) An MBE or a WBE 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 MBE or WBE 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. To determine whether an MBE or a WBE is performing a commercially useful function, one must evaluate the following:

(A) The amount of work subcontracted.

(B) Industry practices.

(C) Whether the amount the enterprise is to be paid under the contract is commensurate with the work it is actually performing.

(D) The credit claimed for its performance of the work.

(E) Other relevant factors.

(2) An MBE or a WBE 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 MBE or WBE participation. In determining whether an MBE or a WBE is such an extra participant, one must examine similar transactions, particularly those in which MBEs or WBEs do not participate.

(3) In the case of construction contracts, if:

(A) an MBE or a WBE does not perform or exercise responsibility for at least the agency's requisite percent of the total cost of its contract with its own workforce; or

(B) the MBE or WBE 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;

it is presumed that the enterprise is not performing a commercially useful function.

"Letter of Commitment" means a letter obtained from the MBE and WBE's by the Bidders. The Letter of Commitment is a signed letter(s), on company letterhead, from the minority and/or women certified business. It must be produced no later than 24 hours after the bid due date and time. This letter(s) shall state and will serve as acknowledgement from the minority and/or women certified business of their level of participation in this solicitation, the dollar amount of the commitment, the scope of service or product to be provided and the anticipated dates of utilization.

"Minority and Women Business Enterprises Division (MWBED)" means the Division which acts on behalf of the state to actively promote, monitor, and enforce the MBE AND WBE program. The final authority on all matters pertaining to the maintenance and administration of the MBE AND WBE program and compliance thereto.

"Minority/Woman Business Enterprise (MBE and WBE)" means an individual, partnership, corporation, limited liability company, or joint venture of any kind that is at least fifty-one percent (51%) owned and controlled by one (1) or more persons who are United States citizens and a member(s) of a minority group. The MBE and WBE must meet the eligibility requirements of 25 IAC 5.

"Participation Plan" means the IDOA prescribed document that sets forth the MBE and WBE subcontractors that will perform work under the contract.

III. Minority and Women Business Enterprise Certification

MBE and WBEs must be listed on the IDOA directory of certified firms at the time the bid is submitted to be eligible to meet the contract goals. The bidder should verify that a firm is certified before the bid is submitted.

Questions regarding Certification should be addressed to the following:

Indiana Department of Administration
Minority and Women's Business Enterprises Division
402 West Washington Street, Room W469
Indianapolis, IN 46204
(317) 232-3061
www.buyindiana.in.gov
mwbe@idoa.in.gov

IV. Bidding Process

IDOA will review projects for viable subcontracting opportunities. All projects will be governed by this policy unless otherwise stated.

A representative from MWBED will attend most pre-bid meetings to discuss and answer questions related to the MBE and WBE participation requirement. The MWBED will be available to assist Bidders in locating MBE and WBE firms to engage in the contract.

The 2007-2008 Contract Goals for construction projects are 7% for MBE's and 5% for WBE's.

Effective January 1, 2006, the following procedures will be implemented in the acceptance and evaluation of responsive and responsible bids.

Bidders must produce a Participation Plan on the approved form listing the utilization of MBE and WBE subcontractors who will be providing a commercially useful function on the project. Letter of Commitment from MBE and WBE firms they plan to engage in the contract if successful on the bid

Per 25 IAC 5-6-2(d), all prime contractors, including MBE and WBE prime contractors, must meet the sub-contracting goals through use of businesses found in the IDOA directory of certified firms. MBE and WBE prime contractors will get no credit toward the contract goal for the use of their own workforce.

If the bidder can not achieve the Contract Goals established for the bid package, the bidder shall submit a Waiver Application on the form supplied by MWBED. Bidders may submit waiver applications to MWBED up to two business days in advance of the bid due date to obtain advance approval of the waiver, or the application may be submitted without advance approval with the bid package. Bidders who submit a Participation Plan that will achieve the Contract Goals are not required to submit a Waiver Application.

If a partial waiver is being requested, a Participation Plan listing the MBE and WBE certified firms that will be used to satisfy the portion of the goal that will be met, must be included. Partial waivers may be requested using the waiver application process discussed above. A faxed copy of the Letter of Commitment for each MBE and WBE firm that is listed in the Participation Plan must be provided by the Low Bidder to the appropriate department no later than 24 hours after the bid due date and time. The original letter(s) must be provided upon receipt.

MWBED will review Applications for MBE and WBE Program Waivers and make a determination as to the bidder's responsiveness and good faith efforts. Evidence of efforts should be included with the waiver form. Any combination of the following criteria may be utilized in determining whether good faith efforts have been made:

A. Notice to MBE and WBEs. Whether and when the bidder provided written notice, by mail, hand delivery, facsimile or electronic transmission to all qualified MBE and WBEs that perform the type of work to be subcontracted and advising the MBE and WBEs:

   1. of the subject work the bidder intends to subcontract;

   2. that their interest in Subcontracts is being solicited;

   3. how to obtain information for the review and inspection of Contract plans and specifications; and

   4. how to bid on the subcontracting opportunities and deadlines.

B. Economically Feasible Subcontract. Whether the bidder selected economically feasible portions of the work to be performed by an MBE and WBE, including, when appropriate, breaking Subcontracts into smaller pieces or combining elements of work into economically feasible units. The ability of the bidder to perform the work with its own forces will not excuse the bidder from making positive efforts to meet the MBE and WBE goals.

C. Consideration of all MBE and WBE Quotations. Whether the bidder considered all quotations received from MBE and WBEs and, for those quotations not accepted, an explanation of why the MBE and WBE will not be used during the course of the Project. Receipt of a lower quotation from a non-MBE and WBE will not, in itself, excuse bidder's failure to meet the MBE and WBE goals. Price alone does not constitute an acceptable basis for rejecting MBE and WBE subcontractor bids unless the bidder can demonstrate that a reasonable price was not obtained from an MBE and WBE.

D. MBE and WBE Barrier Assistance. Whether the bidder provided assistance to interested MBE and WBE firms: in reviewing the Contract plans and specifications or addressing other barriers to subcontracting.

E. Advertisement. Whether the bidder advertised to search for prospective MBE and WBEs to participate in the Contract.

F. Agency Assistance. Whether the bidder contacted any of the following agencies for the purpose of locating prospective MBE and WBEs:

1. Indiana Department of Administration
Minority and Women's Business Enterprises Division
402 West Washington Street, Room W469
Indianapolis, IN 46204
(317) 232-3061
mwbe@idoa.in.gov

2. Indiana Business Diversity Council, Inc.
2126 North Meridian Street
Indianapolis, IN 46202
(317) 921-2678
mdhouse@inbdc.org

G. Research Participation Areas. Whether the bidder made efforts to research other possible areas of participation including supplying, shipping, engineering and any other role that may contribute to the production and delivery of the products or services needed to fulfill the Contract.

H. Response Time. The time the bidder allowed for a meaningful response to its solicitations.

I. Documentation of Statements from MBE and WBEs. Any documentation or statements received from MBE and WBEs who have been listed as having been contacted by the bidder.

J. Availability of MBE and WBEs. The availability of MBE and WBEs to perform the work and the availability, or lack of availability, of MBE and WBEs in the location where the work is to be performed.

K. Other Criteria. Any other criteria deemed appropriate by MWBED.

This list is not intended to be exclusive or exhaustive. The bidder may also submit documentation of other types of efforts that they have taken which reflect the quality, quantity and intensity of those efforts.

When evaluating Waiver Applications, MWBED reserves the right to verify that any information supplied on the Participation Plan and Wavier Application is accurate. By the submittal of a bid, the bidder acknowledges the right of MWBED to ensure compliance with the Participation Program and thereby agrees to provide, upon request, earnest, diligent and prompt cooperation in MWBED's verification process.

In cases where MWBED concludes the bidder's Participation Plan and the Waiver Application is deficient through no fault of the bidder, the bidder may be instructed to submit a modified Participation Plan within five (5) working days from the date of such notice. Failure to submit the modified Participation Plan within the specified period of time, may result in the bid being considered non-responsive and may be rejected.

In cases where MWBED concludes that the Participation Plan and Waiver Application is deficient or in cases where MWBED has determined that the bidder has not cooperated with its efforts to verify the submitted documentation, a bid may be considered non-responsive and may be rejected.

If the established Contract Goals are not achieved but the Waiver Application is granted, the bid will be considered responsive. If the established Contract Goals are not achieved and the Waiver Application is denied, a bid may be considered non-responsive and may be rejected.

Failure to provide the Participation Plan and/or a Waiver Application accounting for the total participation goal set for the project will result in the bid being considered non-responsive and the bid may be rejected.

By submission of a bid, a bidder thereby acknowledges and agrees to be bound by the regulatory process set forth in 25 IAC 5.

A bidder who knowingly or intentionally misrepresents the truth about either the status of a firm that is being proposed as an MBE and WBE or who misrepresents the level of the nature of the amount to be subcontracted to the MBE and WBE may suffer penalties pursuant to Indiana Code 5-16-6.5-5.

A Contractor who knowingly or intentionally misrepresents the truth about his/her status as an MBE and WBE or who misrepresents the level or the nature of the amount subcontracted to his/her firm may suffer penalties pursuant to Indiana Code 35-44-2-1.

V. Compliance

Contractors shall contract with all MBE and WBE firms listed on the Participation Plan. The subcontract or purchase order shall be for an amount that is equal to, or greater than, the total dollar amount listed on the form.

Contractors shall notify MWBED immediately if any firm listed on the Participation Plan refuses to enter into a subcontract or fails to perform according to the requirements of the subcontract.

The Contractor's proposed MBE and WBE Contract Goals will become incorporated into and a requirement of the Contract. Contractors shall not substitute, replace or terminate any MBE and WBE firm without prior written authorization from MWBED and the Owner.

Contractors shall cooperate and participate in compliance reviews as determined necessary by MWBED. Contractors shall provide all necessary documentation to show proof of compliance with the requirements as requested by MWBED.

VI. Non Compliance

A bid governed by this policy that does not meet the participation goals or does not receive an approved waiver will NOT be considered.

After the bid is awarded and if it is determined by MWBED that the Contractor is not in compliance with this Participation Program, MWBED will notify the Contractor within ten (10) days after the initial compliance review or the site visit and identify the deficiencies found and the required corrective action that should be taken to remedy the deficiencies within a specific time period.

If a Contractor is found non-compliant, the Contractor must submit, in writing, a specific commitment, in writing, to correct the deficiencies. The commitment must include the precise action to be taken and the date for completion.

If MWBED determines the Contractor has failed to comply with the provisions of this Participation Program, Contractor's Utilization Statement or 25 IAC 5, IDOA may impose any or all of the following sanctions:

a. Withholding payment on the Contract until such time that satisfactory corrective measures are made.

b. Adjustment to payments due or the permanent withholding of retainages of the Contract.

c. Suspension or termination of the specific Contract in which the deficiency is known to exist. In the event this sanction is employed, the Contractor will be held liable for any consequential damages arising from the suspension or termination of the Contract, including damages caused as a result of the delay or from increased prices incurred in securing the performance of the balance of the work by other Contractors.

d. Recommendation to the certification board to revoke the contractor's certification status with the Public Works Division of IDOA. This recommendation may result in the suspension or revocation of the contractor's ability to perform on future state contracts for a period no longer than thirty-six (36) months.

e. Continued non-compliance may be deemed a material breach of the agreement between MWBED and Contractor, whereupon MWBED shall have all the rights and remedies available to it under the Contract or at law.

f. Suspension, revocation, or denial of the MBE or WBE certification and eligibility to participate in the MBE or WBE program for a period of not more than thirty-six (36) months.

VII. Forms and Attachments

Minority Participation Plan
Good Faith Efforts Worksheet

STATE OF INDIANA'S
STANDARD CONTRACT FOR PUBLIC WORKS CONSTRUCTION PROJECT
(for projects estimated more than $150,000)
WORKS PROJECTNUMBER XXXXX
[INSERT] PROJECT DESCRIPTION
[INSERT] INSTITUTION/DEPARTMENT

THIS IS A PUBLIC WORKS CONSTRUCTION CONTRACT ("Contract"), entered into by and between the Indiana Department of Administration's Public Works Division ("State") and **XXXXXXXXXX** ("Contractor"), executed pursuant to the terms and conditions set forth herein and is governed by Indiana Code 4-13.6, *et seq*.

1. Definitions. The following definition applies throughout this Contract:

For purposes of the State's Public Works Project Number **XXXXX** ("Project"), the term "Contract Documents" shall mean and include the following: this Contract and the Project Bid Package, which includes the Contractor's Application for Pre-Qualification, the Public Work's Solicitation for Quotation (DAPW 30), Bid Documentation, Pre-Contract Document, General Conditions (DAPW 26), Supplementary Conditions, Instructions to Bidders, Drawings, Specifications, and Addenda issued by the State in connection with the Project and prior to the submission of the Contractor's Proposal.

Subject to Section 39, *Order of Precedence, Incorporation by Reference*, of this Contract, Contract Documents shall also consist of the Contractor's Proposal and Response, as well as any other documentation submitted by it in response to the Project (hereinafter collectively referred to as "Contractor's Proposal").

Additionally, Contract Documents shall include any subsequent amendments, change orders and any written interpretations issued as field orders by the Designer pursuant to General Conditions, Article 1.2 (DAPW 26) and all field orders for minor changes by the Designer pursuant to General Conditions, Article 12.3 (DAPW 26). Change orders and amendments shall be executed in the manner authorized by Section 35, *Merger and Modification*, of this Contract.

When applicable, Contract Documents shall include the Performance Bond and/or the Labor and Materials Payment Bond, as required by IC 4-13.6-7-6 and IC 4-13.6-7-7, and fully described and captured in the General Conditions (DAPW 26).

The Contract Documents are specifically and collectively incorporated herein by reference.

2. Duties of Contractor. The Contractor shall furnish all labor and materials, perform all of the work, and otherwise fulfill all of its obligations in conformance with the Contract Documents. These duties are described and captured in the Contract Documents. The Contractor agrees that not less than twenty percent (20%) of the work, measured in dollar volume, will be performed by its own forces. Any subcontractor employed for any part of this Contract awarded in excess of One Hundred Fifty Thousand Dollars ($150,000.00) shall be qualified with the State of Indiana's Public Works Division Certification Board and shall have a valid Certificate of Qualification in the prime classification of work for this Contract.

3. Consideration. All payments provided herein are subject to appropriations made and funds allocated as provided by laws of the State of Indiana. The State shall pay the Contractor for performance of this Contract in current funds as follows:

BASE BID:	**$XXXXXX.00**
ALTERNATE(S):	
TOTAL CONTRACT PRICE:	**$XXXXXX.00**

4. Term. The work to be performed under this Contract shall commence within ten (10) days of the last signatory to this Contract. The work shall be completed within **XXX** calendar days.

5. Conflict of Interest. As used in this section:

"Immediate family" means the spouse, partner, housemate or the unemancipated children of an individual, as defined by 42 Indiana Administrative Code 1-3-13.
"Interested party," means:

1. The individual executing this Contract;
2. An individual who has an ownership interest of three percent (3%) or more of the Contractor, if the Contractor is not an individual; or
3. Any member of the immediate family of an individual specified under Subdivision 1 or 2.

"State" means the Indiana Department of Administration.
"State employee" means a state employee, a special state appointee or a state officer, as defined by IC 4-2-6-1(a)(9), (a)(18) and (a)(19), respectively.

A. The Contractor covenants that it neither has, nor will it have, a direct or indirect financial interest by way of an interested party in any other contract connected or associated with this Contract. The Contractor further represents and warrants that no state employee, who is an interested party of the Contractor as sole proprietor, or who serves as an officer, director, trustee, partner or employee of the Contractor as a legal business entity, participated in any decision or vote of any kind in the award of this Contract. As such and by the execution of this Contract, the Contractor represents and warrants that the result of this Contract does not and will not create a conflict of interest under IC 4-2-6-9 or IC 4-2-6-10.5.

B. The State may cancel this Contract, without recourse by the Contractor, if an interested party is a state employee and a violation of IC 4-2-6-9 or IC 4-2-6-10.5 has occurred.

C. The State will not exercise its right of cancellation under Section B above, if the Contractor provides the State an opinion from the State Ethics Commission indicating that the existence of this Contract and the employment by the State of the interested party does not violate any statute or rule relating to ethical conduct of state employees. The State may take action, including cancellation of this Contract, consistent with an opinion of the State Ethics Commission obtained under this Section.

D. The Contractor has an affirmative obligation under this Contract to disclose to the State when an interested party is or becomes a state employee. The obligation under this section extends only to those facts that the Contractor knows or reasonably should know.

6. Licensing Standards. The Contractor and its employees and subcontractors shall comply with all applicable licensing standards, certification standards, accrediting standards and any other laws, rules or regulations governing services to be provided by the Contractor pursuant to this Contract. The State shall not be required to pay the Contractor for any services performed when the Contractor, its employees or subcontractors are not in compliance with such applicable standards, laws, rules or regulations. If

licensure, certification or accreditation expires or is revoked, or if disciplinary action is taken against the applicable licensure, certification or accreditation, the Contractor shall notify the State immediately and the State, at its option, may immediately terminate this Contract.

7. Escrow Agreement. Contemporaneously with the execution of this Contract, the parties may provide for the escrow of retained portions of payments to the Contractor by entering into a separate Escrow Agreement, pursuant to IC 4-13.6-7, with an escrow agent described in IC 4-13.6-7-2(b). Should the Contractor elect to escrow retainage, the Escrow Agreement will become a part of this contract as if fully contained herein.

8. Contractor's Certification. The Contractor certifies that it has been pre-qualified by the State of Indiana's Public Works Division Certification Board to perform the work and furnish the services required by this Project. The Contractor further certifies that all information and documentation submitted by it in its Application for Prequalification Certification, the Contractor's Proposal and submitted in response to the Project, is true, accurate and complete as of the date of this Contract's effectiveness. The Contractor shall immediately notify the State of any material change to such information. The Contractor shall immediately notify the State if, during the course of performance of this Contract, it or any of its principals are proposed for debarment or ineligibility, or become debarred or declared ineligible, from entering into contracts with the federal government or any department, agency or political subdivision of the State.

9. Contractor Employee Drug Testing. Pursuant to IC 4-13-18, the Contractor shall implement the employee drug testing program submitted as part of its Contractor's Proposal. The State may cancel this Contract if it determines that the Contractor:

A. Has failed to implement its employee drug testing program during the term of this Contract;

B. Has failed to provide information regarding implementation of the Contractor's employee drug testing program at the request of the State; or

C. Has provided to the State false information regarding the Contractor's employee drug testing program.

10. Access to Records. The Contractor and its subcontractors, if any, shall maintain all books, documents, papers, accounting records, and other evidence pertaining to all costs incurred under this Contract. They shall make such materials available at their respective offices at all reasonable times during this Contract, and for three (3) years from the date of final payment under this Contract, for inspection by the State or its authorized designees. Copies shall be furnished at no cost to the State if requested.

11. Assignment; Successors. The Contractor binds its successors and assignees to all the terms and conditions of this Contract. The Contractor shall not assign or subcontract the whole or any part of this Contract without the State's prior written consent. The Contractor may assign its right to receive payments to such third parties as the Contractor may desire without the prior written consent of the State, provided that the Contractor gives written notice (including evidence of such assignment) to the State thirty (30) days in advance of any payment so assigned. The assignment shall cover all unpaid amounts under this Contract and shall not be made to more than one party.

12. Assignment of Antitrust Claims. As part of the consideration for the award of this Contract, the Contractor assigns to the State all right, title and interest in and to any claims the Contractor now has, or

may acquire, under state or federal antitrust laws relating to the products or services which are the subject of this Contract.

13. Audits. The Contractor acknowledges that it may be required to submit to an audit of funds paid through this Contract. Any such audit shall be conducted in accordance with IC §5-11-1, *et seq.*, and audit guidelines specified by the State.

The State considers the Contractor to be a "vendor" for purposes of this Contract. However, if required by applicable provisions of the Office of Management and Budget Circular A-133 (Audits of States, Local Governments, and Non-Profit Organizations), following the expiration of this Contract the Contractor shall arrange for a financial and compliance audit of funds provided by the State pursuant to this Contract. Such audit is to be conducted by an independent public or certified public accountant (or as applicable, the Indiana State Board of Accounts), and performed in accordance with Indiana State Board of Accounts publication entitled "Uniform Compliance Guidelines for Examination of Entities Receiving Financial Assistance from Governmental Sources," and applicable provisions of the Office of Management and Budget Circulars A-133 (Audits of States, Local Governments, and Non-Profit Organizations). The Contractor is responsible for ensuring that the audit and any management letters are completed and forwarded to the State in accordance with the terms of this Contract. Audits conducted pursuant to this paragraph must be submitted no later than nine (9) months following the close of the Contractor's fiscal year. The Contractor agrees to provide the Indiana State Board of Accounts and the State an original of all financial and compliance audits. The audit shall be an audit of the actual entity, or distinct portion thereof that is the Contractor, and not of a parent, member, or subsidiary corporation of the Contractor, except to the extent such an expanded audit may be determined by the Indiana State Board of Accounts or the State to be in the best interests of the State. The audit shall include a statement from the Auditor that the Auditor has reviewed this Contract and that the Contractor is not out of compliance with the financial aspects of this Contract.

14. Authority to Bind Contractor. The signatory for the Contractor represents that he/she has been duly authorized to execute this Contract on behalf of the Contractor and has obtained all necessary or applicable approvals to make this Contract fully binding upon the Contractor when his/her signature is affixed, and accepted by the State.

15. Changes in Work. The Contractor shall not commence any additional work or change the scope of the work until authorized in writing by the State. The Contractor shall make no claim for additional compensation in the absence of a prior written approval and amendment executed by all signatories hereto. This Contract may only be amended, supplemented or modified by a written document executed in the same manner as this Contract.

16. Compliance with Laws.

A. The Contractor shall comply with all applicable federal, state, and local laws, rules, regulations, and ordinances, and all provisions required thereby to be included herein are hereby incorporated by reference. The enactment or modification of any applicable state or federal statute or the promulgation of rules or regulations thereunder after execution of this Contract shall be reviewed by the State and the Contractor to determine whether the provisions of this Contract require formal modification.

B. The Contractor and its agents shall abide by all ethical requirements that apply to persons who have a business relationship with the State as set forth in IC §4-2-6, *et seq.*, IC §4-2-7, *et seq.*, the regulations promulgated thereunder, and Executive Order 04-08, dated April 27, 2004. If the Contractor is not familiar with these ethical requirements, the

Contractor should refer any questions to the Indiana State Ethics Commission, or visit the Inspector General's website at http://www.in.gov/ig/. If the Contractor or its agents violate any applicable ethical standards, the State may, in its sole discretion, terminate this Contract immediately upon notice to the Contractor. In addition, the Contractor may be subject to penalties under IC §§4-2-6, 4-2-7, 35-44-1-3, and under any other applicable laws.

C. The Contractor certifies by entering into this Contract that neither it nor its principal(s) is presently in arrears in payment of taxes, permit fees or other statutory, regulatory or judicially required payments to the State of Indiana. The Contractor agrees that any payments currently due to the State of Indiana may be withheld from payments due to the Contractor. Additionally, further work or payments may be withheld, delayed, or denied and/or this Contract suspended until the Contractor is current in its payments and has submitted proof of such payment to the State.

D. The Contractor warrants that it has no current, pending or outstanding criminal, civil, or enforcement actions initiated by the State, and agrees that it will immediately notify the State of any such actions. During the term of such actions, the Contractor agrees that the State may delay, withhold, or deny work under any supplement, amendment, change order or other contractual device issued pursuant to this Contract.

E. If a valid dispute exists as to the Contractor's liability or guilt in any action initiated by the State or its agencies, and the State decides to delay, withhold, or deny work to the Contractor, the Contractor may request that it be allowed to continue, or receive work, without delay. The Contractor must submit, in writing, a request for review to the Indiana Department of Administration (IDOA) following the procedures for disputes outlined herein. A determination by IDOA shall be binding on the parties. Any payments that the State may delay, withhold, deny, or apply under this section shall not be subject to penalty or interest, except as permitted by IC §5-17-5.

F. The Contractor warrants that the Contractor and its subcontractors, if any, shall obtain and maintain all required permits, licenses, registrations, and approvals, and shall comply with all health, safety, and environmental statutes, rules, or regulations in the performance of work activities for the State. Failure to do so may be deemed a material breach of this Contract and grounds for immediate termination and denial of further work with the State.

G. The Contractor affirms that, if it is an entity described in IC Title 23, it is properly registered and owes no outstanding reports to the Indiana Secretary of State.

H. As required by IC §5-22-3-7:

(1) The Contractor and any principals of the Contractor certify that:

(A) The Contractor, except for de minimis and nonsystematic violations, has not violated the terms of:

(i) IC §24-4.7 [Telephone Solicitation Of Consumers];
(ii) IC §24-5-12 [Telephone Solicitations]; or
(iii) IC §24-5-14 [Regulation of Automatic Dialing Machines];

in the previous three hundred sixty-five (365) days, even if IC §24-4.7 is preempted by federal law; and

(B) The Contractor will not violate the terms of IC §24-4.7 for the duration of the Contract, even if IC §24-4.7 is preempted by federal law.

(2) The Contractor and any principals of the Contractor certify that an affiliate or principal of the Contractor and any agent acting on behalf of the Contractor or on behalf of an affiliate or principal of the Contractor, except for de minimis and nonsystematic violations,

(A) Has not violated the terms of IC §24-4.7 in the previous three hundred sixty-five (365) days, even if IC §24-4.7 is preempted by federal law; and

(B) Will not violate the terms of IC §24-4.7 for the duration of the Contract, even if IC §24-4.7 is preempted by federal law.

I. As required by IC §5-22-16.5, the Contractor certifies that the Contractor is not engaged in investment activities in Iran. Providing false certification may result in the consequences listed in IC §5-22-16.5-14 including termination of this Contract, denial of future state contracts, as well as an imposition of a civil penalty.

17. Condition of Payment. All services provided by the Contractor under this Contract must be performed to the State's reasonable satisfaction, as determined at the discretion of the undersigned State representative and in accordance with all applicable federal, state, local laws, ordinances, rules and regulations. The State shall not be required to pay for work found to be unsatisfactory, inconsistent with this Contract or performed in violation of and federal, state or local statute, ordinance, rule or regulation.

18. Confidentiality of State Information. The Contractor understands and agrees that data, materials, and information disclosed to the Contractor may contain confidential and protected information. The Contractor covenants that data, material, and information gathered, based upon or disclosed to the Contractor for the purpose of this Contract will not be disclosed to or discussed with third parties without the prior written consent of the State.

The parties acknowledge that the services to be performed by Contractor for the State under this Contract may require or allow access to data, materials, and information containing Social Security numbers maintained by the State in its computer system or other records. In addition to the covenant made above in this section and pursuant to 10 IAC 5-3-1(4), the Contractor and the State agree to comply with the provisions of IC §4-1-10 and IC §4-1-11. If any Social Security number(s) is/are disclosed by Contractor, Contractor agrees to pay the cost of the notice of disclosure of a breach of the security of the system in addition to any other claims and expenses for which it is liable under the terms of this Contract.

19. Continuity of Services.

A. The Contractor recognizes that the service(s) to be performed under this Contract are vital to the State and must be continued without interruption and that, upon Contract expiration, a successor, either the State or another contractor, may continue them. The Contractor agrees to:

1. Furnish phase-in training; and

2. Exercise its best efforts and cooperation to effect an orderly and efficient transition to a successor.

B. The Contractor shall, upon the State's written notice:

1. Furnish phase-in, phase-out services for up to sixty (60) days after this Contract expires; and
2. Negotiate in good faith a plan with a successor to determine the nature and extent of phase-in, phase-out services required. The plan shall specify a training program and a date for transferring responsibilities for each division of work described in the plan, and shall be subject to the State's approval. The Contractor shall provide sufficient experienced personnel during the phase-in, phase-out period to ensure that the services called for by this Contract are maintained at the required level of proficiency.

C. The Contractor shall allow as many personnel as practicable to remain on the job to help the successor maintain the continuity and consistency of the services required by this Contract. The Contractor also shall disclose necessary personnel records and allow the successor to conduct on-site interviews with these employees. If selected employees are agreeable to the change, the Contractor shall release them at a mutually agreeable date and negotiate transfer of their earned fringe benefits to the successor.

D. The Contractor shall be reimbursed for all reasonable phase-in, phase-out costs (i.e., costs incurred within the agreed period after contract expiration that result from phase-in, phase-out operations).

20. Debarment and Suspension.

A. The Contractor certifies by entering into this Contract that neither it nor its principals nor any of its subcontractors are presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from entering into this Contract by any federal agency or by any department, agency or political subdivision of the State of Indiana. The term "principal" for purposes of this Contract means an officer, director, owner, partner, key employee or other person with primary management or supervisory responsibilities, or a person who has a critical influence on or substantive control over the operations of the Contractor.

B. The Contractor certifies that it has verified the state and federal suspension and debarment status for all subcontractors receiving funds under this Contract and shall be solely responsible for any recoupment, penalties or costs that might arise from use of a suspended or debarred subcontractor. The Contractor shall immediately notify the State if any subcontractor becomes debarred or suspended, and shall, at the State's request, take all steps required by the State to terminate its contractual relationship with the subcontractor for work to be performed under this Contract.

21. Default by State. If the State, sixty (60) days after receipt of written notice, fails to correct or cure any material breach of this Contract, the Contractor may cancel and terminate this Contract and institute measures to collect monies due up to and including the date of termination.

22. Disputes.

A. Should any disputes arise with respect to this Contract, the Contractor and the State agree to act immediately to resolve such disputes. Time is of the essence in the resolution of disputes.

B. The Contractor agrees that, the existence of a dispute notwithstanding, it will continue without delay to carry out all of its responsibilities under this Contract that are not affected by the dispute. Should the Contractor fail to continue to perform its responsibilities regarding all non-disputed work, without delay, any additional costs incurred by the State or the Contractor as a result of such failure to proceed shall be borne by the Contractor, and the Contractor shall make no claim against the State for such costs.

C. If a party to the Contract is not satisfied with the progress toward resolving a dispute, the party must notify in writing the other party of this dissatisfaction. Upon written notice, the parties have ten (10) working days, unless the parties mutually agree to extend this period, following the notification to resolve the dispute. If the dispute is not resolved within ten (10) working days, a dissatisfied party shall submit the dispute in writing according to the following procedure:

> The parties agree to resolve such matters through submission in writing of their dispute to the Commissioner of the Indiana Department of Administration. The Commissioner shall reduce a decision to writing and mail or otherwise furnish a copy thereof to the Contractor and the State within ten (10) working days after presentation of such dispute for action. The presentation may include a period of negotiations, clarifications, and mediation sessions and will not terminate until the Commissioner or one of the parties concludes that the presentation period is over. The Commissioner's decision shall be final and conclusive administrative decision unless either party mails or otherwise furnishes to the Commissioner, within ten (10) working days after receipt of the Commissioner's decision, a written appeal. Within ten (10) working days of receipt by the Commissioner of a written request for appeal, the decision may be reconsidered. If no reconsideration is provided within ten (10) working days, the parties may mutually agree to submit the dispute to arbitration or mediation for a determination. If a party is not satisfied with the Commissioner's ultimate decision, the dissatisfied party may submit the dispute to an Indiana court of competent jurisdiction.

D. The State may withhold payments on disputed items pending resolution of the dispute. The unintentional nonpayment by the State to the Contractor of one or more invoices not in dispute in accordance with the terms of this Contract will not be cause for the Contractor to terminate this Contract, and the Contractor may bring suit to collect these amounts without following the disputes procedure contained herein.

23. Drug-Free Workplace Certification. As required by Executive Order No. 90-5 dated April 12, 1990, issued by the Governor of Indiana, the Contractor hereby covenants and agrees to make a good faith effort to provide and maintain a drug-free workplace. The Contractor will give written notice to the State within ten (10) days after receiving actual notice that the Contractor, or an employee of the

Contractor in the State of Indiana, has been convicted of a criminal drug violation occurring in the workplace. False certification or violation of this certification may result in sanctions including, but not limited to, suspension of contract payments, termination of this Contract and/or debarment of contracting opportunities with the State for up to three (3) years.

In addition to the provisions of the above paragraph, if the total amount set forth in this Contract is in excess of $25,000.00, the Contractor certifies and agrees that it will provide a drug-free workplace by:

A. Publishing and providing to all of its employees a statement notifying them that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the Contractor's workplace, and specifying the actions that will be taken against employees for violations of such prohibition;

B. Establishing a drug-free awareness program to inform its employees of (1) the dangers of drug abuse in the workplace; (2) the Contractor's policy of maintaining a drug-free workplace; (3) any available drug counseling, rehabilitation and employee assistance programs; and (4) the penalties that may be imposed upon an employee for drug abuse violations occurring in the workplace;

C. Notifying all employees in the statement required by subparagraph (A) above that as a condition of continued employment, the employee will (1) abide by the terms of the statement; and (2) notify the Contractor of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such conviction;

D. Notifying the State in writing within ten (10) days after receiving notice from an employee under subdivision (C)(2) above, or otherwise receiving actual notice of such conviction;

E. Within thirty (30) days after receiving notice under subdivision (C)(2) above of a conviction, imposing the following sanctions or remedial measures on any employee who is convicted of drug abuse violations occurring in the workplace: (1) taking appropriate personnel action against the employee, up to and including termination; or (2) requiring such employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a federal, state or local health, law enforcement, or other appropriate agency; and

F. Making a good faith effort to maintain a drug-free workplace through the implementation of subparagraphs (A) through (E) above.

24. Employment Eligibility Verification. As required by IC §22-5-1.7, the Contractor swears or affirms under the penalties of perjury that:

A. The Contractor does not knowingly employ an unauthorized alien.

B. The Contractor shall enroll in and verify the work eligibility status of all his/her/its newly hired employees through the E-Verify program as defined in IC §22-5-1.7-3. The Contractor is not required to participate should the E-Verify program cease to exist. Additionally, the Contractor is not required to participate if the Contractor is self-employed and does not employ any employees.

C. The Contractor shall not knowingly employ or contract with an unauthorized alien. The Contractor shall not retain an employee or contract with a person that the Contractor subsequently learns is an unauthorized alien.

D. The Contractor shall require his/her/its subcontractors who perform work under this Contract to certify to the Contractor that the subcontractor does not knowingly employ or contract with an unauthorized alien and that the subcontractor has enrolled and is participating in the E-Verify program. The Contractor agrees to maintain this certification throughout the duration of the term of a contract with a subcontractor.

The State may terminate for default if the Contractor fails to cure a breach of this provision no later than thirty (30) days after being notified by the State.

25. Employment Option. If the State determines that it would be in the State's best interest to hire an employee of the Contractor, the Contractor will release the selected employee from any non-competition agreements that may be in effect. This release will be at no cost to the State or the employee.

26. Force Majeure. In the event that either party is unable to perform any of its obligations under this Contract or to enjoy any of its benefits because of natural disaster or decrees of governmental bodies not the fault of the affected party (hereinafter referred to as a "Force Majeure Event"), the party who has been so affected shall immediately give notice to the other party and shall do everything possible to resume performance. Upon receipt of such notice, all obligations under this Contract shall be immediately suspended. If the period of nonperformance exceeds thirty (30) days from the receipt of notice of the Force Majeure Event, the party whose ability to perform has not been so affected may, by giving written notice, terminate this Contract.

27. Funding Cancellation. When the Director of the State Budget Agency makes a written determination that funds are not appropriated or otherwise available to support continuation of performance of this Contract, this Contract shall be canceled. A determination by the Director of State Budget Agency that funds are not appropriated or otherwise available to support continuation of performance shall be final and conclusive.

28. Governing Law. This Contract shall be governed, construed, and enforced in accordance with the laws of the State of Indiana, without regard to its conflict of laws rules. Suit, if any, must be brought in the State of Indiana.

29. HIPAA Compliance. If this Contract involves services, activities or products subject to the Health Insurance Portability and Accountability Act of 1996 (HIPAA), the Contractor covenants that it will appropriately safeguard Protected Health Information (defined in 45 CFR 160.103), and agrees that it is subject to, and shall comply with, the provisions of 45 CFR 164 Subpart E regarding use and disclosure of Protected Health Information.

30. Indemnification. The Contractor agrees to indemnify, defend, and hold harmless the State, its agents, officials, and employees from all claims and suits including court costs, attorney's fees, and other expenses caused by any act or omission of the Contractor and/or its subcontractors, if any, in the performance of this Contract. The State shall not provide such indemnification to the Contractor.

31. Independent Contractor; Workers' Compensation Insurance. The Contractor is performing as an independent entity under this Contract. No part of this Contract shall be construed to represent the creation of an employment, agency, partnership or joint venture agreement between the parties. Neither party will assume liability for any injury (including death) to any persons, or damage to any property,

arising out of the acts or omissions of the agents, employees or subcontractors of the other party. The Contractor shall provide all necessary unemployment and workers' compensation insurance for the Contractor's employees, and shall provide the State with a Certificate of Insurance evidencing such coverage prior to starting work under this Contract.

32. Information Technology Enterprise Architecture Requirements. If the Contractor provides any information technology related products or services to the State, the Contractor shall comply with all IOT standards, policies and guidelines, which are online at http://iot.in.gov/architecture/. The Contractor specifically agrees that all hardware, software and services provided to or purchased by the State shall be compatible with the principles and goals contained in the electronic and information technology accessibility standards adopted under Section 508 of the Federal Rehabilitation Act of 1973 (29 U.S.C. 794d) and IC §4-13.1-3. Any deviation from these architecture requirements must be approved in writing by IOT in advance. The State may terminate this Contract for default if the Contractor fails to cure a breach of this provision within a reasonable time.

33. Insurance

A. The Contractor and their subcontractors (if any) shall secure and keep in force during the term of this Contract the following insurance coverages (if applicable) covering the Contractor for any and all claims of any nature which may in any manner arise out of or result from Contractor's performance under this Contract:

1. Commercial general liability, including contractual coverage, and products or completed operations coverage (if applicable), with minimum liability limits not less than $700,000 per person and $5,000,000 per occurrence unless additional coverage is required by the State. The State is to be named as an additional insured on a primary, non-contributory basis for any liability arising directly or indirectly under or in connection with this Contract.

2. Automobile liability for owned, non-owned and hired autos with minimum liability limits of $700,000 per person and $5,000,000 per occurrence. The State is to be named as an additional insured on a primary, non-contributory basis.

3. The Contractor shall secure the appropriate Surety or Fidelity Bond(s) as required by the state department served or by applicable statute.

4. The Contractor shall provide proof of such insurance coverage by tendering to the undersigned State representative a certificate of insurance prior to the commencement of this Contract and proof of workers' compensation coverage meeting all statutory requirements of IC §22-3-2. In addition, proof of an "all states endorsement" covering claims occurring outside the State is required if any of the services provided under this Contract involve work outside of Indiana.

B. The Contractor's insurance coverage must meet the following additional requirements:

1. The insurer must have a certificate of authority or other appropriate authorization to operate in the state in which the policy was issued.

2. Any deductible or self-insured retention amount or other similar obligation under the insurance policies shall be the sole obligation of the Contractor.

3. The State will be defended, indemnified and held harmless to the full extent of any coverage actually secured by the Contractor in excess of the minimum requirements set forth above. The duty to indemnify the State under this Contract shall not be limited by the insurance required in this Contract.

4. The insurance required in this Contract, through a policy or endorsement(s), shall include a provision that the policy and endorsements may not be canceled or modified without thirty (30) days' prior written notice to the undersigned State agency.

5. The Contractor waives and agrees to require their insurer to waive their rights of subrogation against the State of Indiana.

C. Failure to provide insurance as required in this Contract may be deemed a material breach of contract entitling the State to immediately terminate this Contract. The Contractor shall furnish a certificate of insurance and all endorsements to the State before the commencement of this Contract.

34. Key Person(s).

A. If both parties have designated that certain individual(s) are essential to the services offered, the parties agree that should such individual(s) leave their employment during the term of this Contract for whatever reason, the State shall have the right to terminate this Contract upon thirty (30) days' prior written notice.

B. In the event that the Contractor is an individual, that individual shall be considered a key person and, as such, essential to this Contract. Substitution of another for the Contractor shall not be permitted without express written consent of the State.

Nothing in Sections A and B, above shall be construed to prevent the Contractor from using the services of others to perform tasks ancillary to those tasks which directly require the expertise of the key person. Examples of such ancillary tasks include secretarial, clerical, and common labor duties. The Contractor shall, at all times, remain responsible for the performance of all necessary tasks, whether performed by a key person or others.

Key person(s) to this Contract is/are: N/A

35. Merger & Modification. This Contract constitutes the entire agreement between the parties. No understandings, agreements, or representations, oral or written, not specified within this Contract will be valid provisions of this Contract. This Contract may not be modified, supplemented, or amended, except by written agreement signed by all necessary parties.

36. Minority and Women's Business Enterprises Compliance. Award of this Contract was based, in part, on the Minority and/or Women's Business Enterprise ("MBE" and/or "WBE") participation plan. The following certified MBE or WBE subcontractors will be participating in this Contract:

MBE/WBE	PHONE	COMPANY NAME	SCOPE OF PRODUCTS and/or SERVICES	UTILIZATION DATE	PERCENT

Terms for participation are as provided in the Contractor's Proposal to the State's request for participation, which are described and captured in the Contract Documents.

A copy of each subcontractor agreement must be submitted to IDOA's MBE/WBE Division within thirty (30) days of the effective date of this Contract. Failure to provide a copy of any subcontractor agreement will be deemed a violation of the rules governing MBE/WBE procurement, and may result in sanctions allowable under 25 IAC 5-7-8. Failure to provide any subcontractor agreement may also be considered a material breach of this Contract. The Contractor must obtain approval from IDOA's MBE/WBE Division before changing the participation plan submitted in connection with this Contract.

The Contractor shall report payments made to MBE/WBE Division subcontractors under this Contract on a monthly basis. Monthly reports shall be made using the online audit tool, commonly referred to as "Pay Audit." MBE/WBE Division subcontractor payments shall also be reported to the Division as reasonably requested and in a format to be determined by Division.

37. Nondiscrimination. Pursuant to the Indiana Civil Rights Law, specifically including IC §22-9-1-10, and in keeping with the purposes of the federal Civil Rights Act of 1964, the Age Discrimination in Employment Act, and the Americans with Disabilities Act, the Contractor covenants that it shall not discriminate against any employee or applicant for employment relating to this Contract with respect to the hire, tenure, terms, conditions or privileges of employment or any matter directly or indirectly related to employment, because of the employee's or applicant's race, color, national origin, religion, sex, age, disability, ancestry, status as a veteran, or any other characteristic protected by federal, state, or local law ("Protected Characteristics"). Contractor certifies compliance with applicable federal laws, regulations, and executive orders prohibiting discrimination based on the Protected Characteristics in the provision of services. Breach of this paragraph may be regarded as a material breach of this Contract, but nothing in this paragraph shall be construed to imply or establish an employment relationship between the State and any applicant or employee of the Contractor or any subcontractor.

The State is a recipient of federal funds, and therefore, where applicable, Contractor and any subcontractors shall comply with requisite affirmative action requirements, including reporting, pursuant to 41 CFR Chapter 60, as amended, and Section 202 of Executive Order 11246.

38. Notice to Parties. Whenever any notice, statement or other communication is required under this Contract, it shall be sent to the following addresses, unless otherwise specifically advised.

A. Notices to the State shall be sent to:
Public Works Divisions, Director
Indiana Department of Administration
402 W Washington St Room W467
Indianapolis, IN 46204

B. Notices to the Contractor shall be sent to:
[INSERT CONTRACTOR NAME]
[INSERT CONTRACTOR ADDRESS]

C. As required by IC 4-13-2-14.8, payments to the Contractor shall be made via electronic funds transfer in accordance with instructions filed by the Contractor with the Indiana Auditor of State.

39. Order of Precedence; Incorporation by Reference. Any inconsistency or ambiguity in this Contract shall be resolved by giving precedence in the following order: (1) this Contract, (2) the Project Bid Package, (3) attachments prepared by the State; (4) Contractor's Proposal; and (5) attachments prepared by the Contractor. All of the foregoing are incorporated fully by reference. All attachments, and all documents referred to in this paragraph are hereby incorporated fully by reference.

40. Ownership of Documents and Materials. All documents, records, programs, data, film, tape, articles, memoranda, and other materials not developed or licensed by the Contractor prior to execution of this Contract, but specifically developed under this Contract shall be considered "work for hire" and the Contractor transfers any ownership claim to the State and all such materials will be the property of the State. Use of these materials, other than related to contract performance by the Contractor, without the prior written consent of the State, is prohibited. During the performance of this Contract, the Contractor shall be responsible for any loss of or damage to these materials developed for or supplied by the State and used to develop or assist in the services provided while the materials are in the possession of the Contractor. Any loss or damage thereto shall be restored at the Contractor's expense. The Contractor shall provide the State full, immediate, and unrestricted access to the work product during the term of this Contract.

41. Payments.

A. All payments shall be made 35 days in arrears in conformance with State fiscal policies and procedures and, as required by IC §4-13-2-14.8, by electronic funds transfer to the financial institution designated by the Contractor in writing unless a specific waiver has been obtained from the Indiana Auditor of State. No payments will be made in advance of receipt of the goods or services that are the subject of this Contract except as permitted by IC §4-13-2-20.

B. The State Budget Agency and the Contractor acknowledge that Contractor is being paid in advance for the maintenance of equipment and / or software. Pursuant to IC §4-13-2-20(b)(14), Contractor agrees that if it fails to perform the maintenance required under this Contract, upon receipt of written notice from the State, it shall promptly refund the consideration paid, pro-rated through the date of non-performance.

42. Penalties/Interest/Attorney's Fees. The State will in good faith perform its required obligations hereunder and does not agree to pay any penalties, liquidated damages, interest or attorney's fees, except as permitted by Indiana law, in part, IC §5-17-5, IC §34-54-8, IC §34-13-1 and IC § 34-52-2-3.

Notwithstanding the provisions contained in IC §5-17-5, any liability resulting from the State's failure to make prompt payment shall be based solely on the amount of funding originating from the State and shall not be based on funding from federal or other sources.

43. Progress Reports. The Contractor shall submit progress reports to the State upon request. The report shall be oral, unless the State, upon receipt of the oral report, should deem it necessary to have it in written form. The progress reports shall serve the purpose of assuring the State that work is progressing in line with the schedule, and that completion can be reasonably assured on the scheduled date.

44. Public Record. The Contractor acknowledges that the State will not treat this Contract as containing confidential information, and will post this Contract on its website as required by Executive Order 05-07. Use by the public of the information contained in this Contract shall not be considered an act of the State.

45. Renewal Option. This Contract may be renewed under the same terms and conditions, subject to the approval of the Commissioner of the Department of Administration and the State Budget Director in compliance with IC §5-22-17-4. The term of the renewed contract may not be longer than the term of the original contract.

46. Severability. The invalidity of any section, subsection, clause or provision of this Contract shall not affect the validity of the remaining sections, subsections, clauses or provisions of this Contract.

47. Substantial Performance. This Contract shall be deemed to be substantially performed only when fully performed according to its terms and conditions and any written amendments or supplements.

48. Taxes. The State is exempt from most state and local taxes and many federal taxes. The State will not be responsible for any taxes levied on the Contractor as a result of this Contract.

49. Termination for Convenience. This Contract may be terminated, in whole or in part, by the State, which shall include and is not limited to the Indiana Department of Administration and the State Budget Agency whenever, for any reason, the State determines that such termination is in its best interest. Termination of services shall be effected by delivery to the Contractor of a Termination Notice at least thirty (30) days prior to the termination effective date, specifying the extent to which performance of services under such termination becomes effective. The Contractor shall be compensated for services properly rendered prior to the effective date of termination. The State will not be liable for services performed after the effective date of termination. The Contractor shall be compensated for services herein provided but in no case shall total payment made to the Contractor exceed the original contract price or shall any price increase be allowed on individual line items if canceled only in part prior to the original termination date. For the purposes of this paragraph, the parties stipulate and agree that the Indiana Department of Administration shall be deemed to be a party to this agreement with authority to terminate the same for convenience when such termination is determined by the Commissioner of IDOA to be in the best interests of the State.

50. Termination for Default.

A. With the provision of thirty (30) days notice to the Contractor, the State may terminate this Contract in whole or in part if the Contractor fails to:

1. Correct or cure any breach of this Contract; the time to correct or cure the breach may be extended beyond thirty (30) days if the State determines progress is being made and the extension is agreed to by the parties;
2. Deliver the supplies or perform the services within the time specified in this Contract or any extension;
3. Make progress so as to endanger performance of this Contract; or
4. Perform any of the other provisions of this Contract.

B. If the State terminates this Contract in whole or in part, it may acquire, under the terms and in the manner the State considers appropriate, supplies or services similar to those terminated, and the Contractor will be liable to the State for any excess costs for those supplies or services. However, the Contractor shall continue the work not terminated.

C. The State shall pay the contract price for completed supplies delivered and services accepted. The Contractor and the State shall agree on the amount of payment for manufacturing materials delivered and accepted and for the protection and preservation of the property. Failure to agree will be a dispute under the Disputes clause. The State may withhold from these amounts any sum the State determines to be necessary to protect the State against loss because of outstanding liens or claims of former lien holders.

D. The rights and remedies of the State in this clause are in addition to any other rights and remedies provided by law or equity or under this Contract.

51. Travel. No expenses for travel will be reimbursed unless specifically permitted under the scope of services or consideration provisions. Expenditures made by the Contractor for travel will be reimbursed at the current rate paid by the State and in accordance with the State Travel Policies and Procedures as specified in the current Financial Management Circular. Out-of-state travel requests must be reviewed by the State for availability of funds and for appropriateness per Circular guidelines.

52. Indiana Veteran's Business Enterprise Compliance. Award of this Contract was based, in part, on the Indiana Veteran's Business Enterprise ("IVBE") participation plan. The following IVBE subcontractors will be participating in this Contract:

VBE	PHONE	COMPANY NAME	SCOPE OF PRODUCTS and/or SERVICES	UTILIZATION	DATE	PERCENT

N/A

A copy of each subcontractor agreement must be submitted to IDOA within thirty (30) days of the effective date of this Contract. Failure to provide any subcontractor agreement may also be considered a material breach of this Contract. The Contractor must obtain approval from IDOA's MBE/WBE Division before changing the participation plan submitted in connection with this Contract.

The Contractor shall report payments made to IVBE subcontractors under this Contract on a monthly basis. Monthly reports shall be made using the online audit tool, commonly referred to as "Pay Audit." IVBE subcontractor payments shall also be reported to IDOA as reasonably requested and in a format to be determined by IDOA.

53. Waiver of Rights. No right conferred on either party under this Contract shall be deemed waived, and no breach of this Contract excused, unless such waiver is in writing and signed by the party claimed to have waived such right. Neither the State's review, approval or acceptance of, nor payment for, the services required under this Contract shall be construed to operate as a waiver of any rights under this Contract or of any cause of action arising out of the performance of this Contract, and the Contractor shall be and remain liable to the State in accordance with applicable law for all damages to the State caused by the Contractor's negligent performance of any of the services furnished under this Contract.

54. Work Standards. The Contractor shall execute its responsibilities by following and applying at all times the highest professional and technical guidelines and standards. If the State becomes dissatisfied with the work product of or the working relationship with those individuals assigned to work on this Contract, the State may request in writing the replacement of any or all such individuals, and the Contractor shall grant such request.

Non-Collusion and Acceptance

The undersigned attests, subject to the penalties for perjury, that the undersigned is the Contractor, or that the undersigned is the properly authorized representative, agent, member or officer of the Contractor. Further, to the undersigned's knowledge, neither the undersigned nor any other member, employee, representative, agent or officer of the Contractor, directly or indirectly, has entered into or been offered any sum of money or other consideration for the execution of this Contract other than that which appears upon the face hereof.

IN WITNESS WHEREOF, the Contractor and the State have, through their duly authorized representatives, entered into this Contract for Public Works Project Number **XXXXX**. The parties, having read and understood the foregoing terms of this Contract, do by their respective signatures dated below agree to the terms thereof.

XXXXXXXXXX
[Contractor]

By: _____
Printed Name: _____
Title: _____

Date: _____

Department of Administration
Public Works Division

By: _____
Director, DAPW
For IDOA Commissioner if less than $1,000,000

Date: _____

Approved by:
Department of Administration

By: _____
Jessica Robertson, Commissioner

Date: _____

Approved by:
State Budget Agency

By: _____
Brian E. Bailey, Director

Date: _____

Approved as to Form and Legality:
Form approval has been granted by the Office of the Attorney General pursuant to IC 4-13-2-14.3(e) on September 10, 2014. FA 14-56

This Instrument was prepared by: **[INSERT NAME]** on **XX/XX/XXXX**

Legal counsel: _____ (initials)

DIVISION OF ENGINEERING

SPECIFICATIONS FOR

ELECTRICAL DISTRIBUTION

INSTALLATION AT CAMPGROUND

POTATO CREEK

STATE PARK

IN ST. JOSEPH COUNTY IN

PROJECT NO. E030283

SEPARATE PLANS INCLUDED

SPECIFICATIONS FOR
CAMPGROUND ELECTRICAL REHAB
AT POTATO CREEK STATE PARK
ST JOSEPH COUNTY, INDIANA
PROJECT NO. E030283

TABLE OF CONTENTS

SOLICITATION FOR QUOTATION
INSTRUCTIONS FOR QUOTATION
GENERAL CONDITIONS
BID/CONTRACT
TAXPAYER ID NUMBER & CERTIFICATION
SUPPLEMENTAL PRICES

SECTION 01010 – GENERAL REQUIREMENTS
SECTION 01020 – ALLOWANCES
SECTION 01340 – SHOP DRAWINGS, PRODUCT DATA AND, SAMPLES
SECTION 01720 -- PROJECT RECORD DOCUMENTS
SECTION 01732 – SELECTIVE DEMOLITION
SECTION 02221 – TRENCHING & BACKFILLING
SECTION 16010 -- BASIC ELECTRICAL METHODS
SECTION 16111 – CONDUIT
SECTION 16120 – WIRE & CABLE
SECTION 16145 – CAMPSITE PANELS
SECTION 16160 – PANELBOARDS
SECTION 15311 --TRANSFORMERS
SECTION 16450 -- GROUNDING
SECTION 16940 – FIELD TEST METHODS

PLANS:
T-1 TITLE SHEET
E-1 SITE DEMOLITION PLAN
E-2 SITE INSTALLATION PLAN
E-3 PANEL DETAILS
E-4 FIXTURE SCHEDULES

SECTION 01010

GENERAL REQUIREMENTS

PART I - GENERAL

1.01 DESCRIPTION

A. This project consists of furnishing all labor, materials and associated equipment necessary to complete the following work:

1. The installation of new underground copper conductors, (2) new transformers, (2) new distribution panels with breakers, and new 50 amp campsite power pedestals for (57) sites with (2) spares.
2. The installation of new underground copper conductors from the transformers to the distribution panels.
3. The connection to the new distribution panel "A", to the comfort station shown on the plans included herein.
4. The installation of new conductors, circuit breakers, and connectors to provide power to any and all existing circuits providing power to existing loads that may be abandoned by the installation of new distribution panels.
5. The installation of new underground and riser conduit for installation of primary conductors by the utility.

B. The project is located at Potato Creek State Park, St. Joseph County, Indiana.

C. The Contractor shall perform all work required to complete the project in accordance with the contract documents.

1.02 BID:

A. The Base Bid shall include all work and requirements indicated by the Bidding Documents.
   1. The Contractor shall not be allowed extra compensation by reason of any matter or thing concerning which the Contractor could have fully informed himself prior to bidding. No verbal agreement, understanding or conversation with an agent or employee of the Owner, either before or after the execution of this contract, shall affect or modify the terms or obligations herein contained.
   2. The Contractor shall not be allowed extra compensation for requirements imposed by the utility providing power. Such costs shall be considered part of the Bid.

1.03 COMMENCEMENT AND COMPLETION OF WORK:

A. The Contractor shall commence work within 30 days after the date of the execution of the Contract not withstanding that work or interruption of the campground service as it now stands shall be coordinated with the Site Manager during the period between Memorial Day and Labor Day. Construction dangers and work on holidays and weekends will not be allowed.

B. All work required by the Contract Documents shall be completed within 90 calendar days after the commencement of the work.

C. This project, or portion thereof, will not be ready for substantial completion review until test and performance evaluations are completed, all items are installed, proper paint is dry, and area is clear of construction rubbish and debris.

1.04 REMEDIATION ALLOWANCE

Section 01020, Allowances, if included with this specification, contains information which will

directly affect the amount of the contractors bid. The amount of any such allowances must be added to the contractor's determined cost for performing the work, and included in the bid price for the project. **If any portion of the allowance is not used during the project, that portion will revert to the owner and will not be included in the contractor's final payment.**

1.05 SUBMISSION OF POST-BID INFORMATION: Submit the following information within ten days of receipt of Notice to Proceed.

A. Designation of the work to be performed by the Contractor with his own forces.

B. A list of Subcontractors.

C. A list of manufacturers and suppliers.

D. Designation of location of disposal site for all project debris and excavated material. If the location is anything other than a certified landfill, the submittal shall include a map (United States Geological Survey topographic map preferred) showing the location. This submittal must be received at least 10 days prior to the beginning of the disposal at said site.

E. Designation of the source of any fill material for the project. If the source is anything other than a pre-existing borrow pit, the submittal shall include a map (United States Geological Survey topographic map preferred) showing the location. This submittal must be received at least 21 days prior to any excavation occurring at the fill material site.

1.06 WORKING HOURS:

A. Contractor shall perform all construction activity on Monday thru Friday, excluding state holidays, between the hours of 7:30 a.m. and 5:00 p.m., unless previous arrangements are made with the Owner.

B. All work performed at other times shall be only by approval from the Owner, confirmed in writing, and shall not constitute a change in the contract amount.

1.07 EXISTING SITE CONDITIONS:

A. Data on the drawings pertaining to present conditions, dimensions, type of construction, obstructions on or near site, location of utilities, etc. have been obtained from sources believed reliable, but accuracy of such data is not guaranteed and is furnished solely for accommodation of the Contractor.

B. The Contractor shall, prior to excavating, verify the location of all buried utilities, including buried power lines.

1.08 CONSTRUCTION AND STORAGE AREA:

A. The Contractor shall confine the construction operations and storage of materials within an area approved by the Designer.

B. The Contractor shall, prior to excavating, verify the location of all buried utilities, including buried power lines.

1.09 PROTECTION OF FACILITIES AND PREMISES:

A. The Contractor shall be responsible for the protection of all existing facilities during the entire period of construction. Any damage to the existing facilities caused by the Contractor shall be repaired by the Contractor at his expense and in a manner approved by the Designer.

B. The Contractor shall confine his construction operations and storage of materials within an area approved by the Designer.

C. The Contractor shall, at all times, keep the premises free from accumulation of waste materials or rubbish caused by his employees or work. At the completion of the work, he shall remove all accumulated rubbish, tools and surplus materials from and about the job site, and shall leave the premises in a neat, clean and orderly condition.

A. Debris and rubbish from the construction operations shall not be dumped on the Owner's property but shall be removed from the site by the Contractor.

B. The Contractor shall, at his expense, be responsible to repair any and all damage to the property's roads and drainage structures caused by his equipment and/or personnel.

1.10 CODE REQUIREMENTS AND MANUFACTURER'S INSTRUCTIONS:

A. In case of conflicts between State and Local codes and regulations, State codes and regulations shall prevail. All required permits for compliance with building codes, health regulations, historic preservation, floodway construction, or state highway crossings have already been obtained by the owner.

B. If the Contractor observes that any of the contract documents are at variance with the printed installation instructions of any manufacturer in any respect, he shall promptly notify the Designer in writing.

C. If the Contractor performs any work contrary to such State Building Rules and Regulations, ordinances or manufacturer's printed instructions without notice to the Designer, the Contractor shall bear the cost arising from such non-conformance.

1.11 PRE-SERVICE/PRE-CONSTRUCTION MEETING:

A. The Contractor and his sub-contractor (if any) shall attend a pre-service/pre-construction meeting with an Inspector from Indiana Department of Natural Resources and the Property Representative. The date for this meeting shall be scheduled by the Inspector within 10 days after the contract is finalized.

1.12 SUBSTITUTIONS:

A. Substitutions shall be made in accordance with the requirements of Article 8 of the General Conditions.

1.13 ROADWAY PROTECTION:

A. The Contractor shall, at his expense, be responsible to repair any and all damage to the property's roads and drainage structures caused by his equipment and/or personnel.

B. The ingress and egress to the project site shall be approved by the Designer.

1.14 ARCHEOLOGICAL AND HISTORICAL ARTIFACTS:

A. If any objects are uncovered during construction which could possibly be of archeological or historical importance, this shall be immediately reported to the Owner. Work at that spot shall not proceed further until the Owner has evaluated the object and the area where it was found and approved continuation of the work.

B. If any construction time is lost due to such objects being found, an equal number of calendar days will be added to the project completion time given in the specifications.

1.15 SALVAGE RIGHTS:

A. Unless stated otherwise in these specifications or on the plans, all equipment and materials removed as part of this project and not being reused shall become the property of the Contractor and removed from the site.

B. All locks and locksets in any area to be demolished or removed from the facility shall remain the property of the Owner. Contractor shall carefully remove all locks and locksets from their current location and turn them over to the owner.

1.16 SITE ACCESS PRIOR TO BIDDING:

A. Bidders may obtain access to the construction site, for on site inspection prior to bidding, by making arrangements with the following Department of Natural Resources Personnel.

Contact: Mr. Jim Webb
25601 St. Rd. #4
North Liberty IN 46554-0908
Telephone No: 574-656-8186

1.17 CONFINED SPACE ENTRY:

A. Written permit is required prior to entry into areas meeting the OSHA definition of a "permit required confined space". Areas meeting this definition and which are known or presumed to require access for this project are as follows:

B. Non-listing of a confined space requiring access does not relieve the Contractor of responsibility for obtaining a permit if required by OSHA Regulations.

C. Confined space definition (all of the following):

1. Is large enough and so configured that an employee can bodily enter and perform

assigned work.

2. Has limited or restricted means for entry or exit.
3. Is not designed for continuous occupancy.

D. Permit required confined space (any of the following):

1. Contains or has the potential to contain a hazardous atmosphere.
2. Contains a material that has the potential for engulfing an entrant.
3. Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross section.
4. Contains any other recognized serious safety or health hazard.

E. Contractor to provide copy of "confined space entry" plan and permit proposed to be used at the preconstruction meeting. It will be the Contractor's responsibility to abide by all requirements of OSHA.

F. Contractor shall provide for rescue services during work in permit required confined spaces.

G. Contractor to provide copy of issued permits at the beginning of each days work to the Property Manager.

END OF SECTION

SECTION 01020

ALLOWANCES

PART 1 - GENERAL:

1.01 REMEDIATION ALLOWANCE

A. Contractor shall include an allowance of $8,000.00 in the Base Bid for remediation of unforeseen constraints.
B. Such constraints may include but are not necessarily limited to unforeseen subsurface conditions particular to this construction site; improperly recorded or unrecorded physical properties and conditions at the site; obstruction of or delays to reasonable work sequences by the Property, or the Owner; uncommon adverse weather or site conditions; and conflict within or omissions from the Contract Documents.

C. All remediation work shall be proposed to and authorized by the Director of Public Works Division prior to execution, jointly documented by Contractor and Designer, and recorded in Contractorəs as-builts and Designerəs project record documents.

D. If any portion of the allowance is not used during the project, that portion will revert to the owner and will not be included in the contractor's final payment.

1.02 PRIMARY POWER ALLOWANCE:

A. Contractor shall include an allowance of $**2,000.00** in the Base Bid for providing primary underground electrical service to new location Panel "B" under this contract. This project includes installing new (existing) transformers at locations Panels "A" and Panel "B.
B. Indiana Michigan Power will furnish all labor, materials and equipment necessary to complete the following utility work:
   1. Purchasing and installing new 7200/120-240 volt oil cooled pad-mount transformer for Panel "B".
   2. Installing primary cable in conduit to new transformer to be installed at Panel "B". All primary cable will be buried a minimum of 48" below finished grade.
   3. Terminating all cables at new (existing) transformer and newly installed transformer.
   4. Terminating all existing secondary 120/240 volt cables within the pad-mount transformers.

C. The contractor will be responsible for the following**:**
   1. Installing conduit for the primary cable.
   2. Future backfilling of all excavations.
   3. Locating all buried facilities within the scope of this proposal.
   4. Repairing all damaged landscaping and driveway crossings.

D. This allowance is only for the amount to be paid to the electric utility for bringing primary power to the property, providing the transformers, and installation of same.
E. The transformer shall be pad mounted and the service conductors buried underground.
F. Any portion of the allowance not used for this purpose on this contract will revert to the owner and will not be included in the contractor's final payment.
G. The costs associated with the installation of the secondary voltage service entrance conductors are not part of this allowance.

END OF SECTION
01020-1

SECTION 01340

SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

1.01 RELATED REQUIREMENTS SPECIFIED ELSEWHERE:

A. General Conditions
B. Section 01010 – General Requirements
C. Section 01720 - Project Record Documents

1.02 SHOP DRAWING, PRODUCT DATA & SAMPLE SUBMITTAL REQUIRED:

A. Items listed for submittal are intended to be a minimum. Non-listing of an item does not relieve the Contractor of the responsibility to verify compliance with the specifications of all products and equipment. Contractor is encouraged to submit shop drawings, product data or samples on all such items prior to their use.

B. Shop drawings, product data or samples shall be submitted for the following items:

1. Section 16010 – Name Plate
2. Section 16111 – Conduit
3. Section 16120 – Wire and Cable
4. Section 16145 – Campsite Pedestals
5. Section 16160 – Panel-boards
6. Section 16450 – Grounding Test Results
7. Section 16940 – "Megger" Test Results

1.03 SHOP DRAWINGS:

A. Shop drawings shall:
1. Be prepared by a qualified detailer;
2. Identify details by reference to sheet and detail numbers shown on Contract Drawings and/or section number of the Specifications; and
3. Be accompanied by installation instructions and all manufacturer's warranties that are required in the specifications.

B. The cost for all shop drawing submissions shall be deemed included in the Contractor's Bid Price.

1.04 PROJECT DATA:

A. If the Contractor uses the manufacturer's standard schematic drawings, it shall:
1. Modify drawings to delete information which is not applicable to work; and
2. Supplement standard information to provide additional information applicable to work.

END OF SECTION

SECTION 01720

PROJECT RECORD DOCUMENTS

1.01 GENERAL: Related requirements specified elsewhere:

A. General Conditions.
B. Shop drawings, project data.

1.02 MAINTENANCE OF DOCUMENTS:

A. Contractor shall maintain at the job site one copy of the project drawings and specifications, including all addenda, shop drawings and change orders, and shall make said documents available for inspection by the Owner.

B. Maintain and submit to the Designer a set of the project drawings showing all changes made during the course of the work and any differences between the existing facilities encountered and that shown on the drawings. These drawings must be submitted before the final payment.

1.03 OPERATION AND MAINTENANCE MANUAL:

A. Submit to the Designer 3 copies of an "Operation and Maintenance Manual" for all architectural specialties and mechanical and electrical equipment. The manual shall contain the following information in addition to shop drawings.

1. Index of contents of manual and reference to use and location of item.
2. Complete operation data and maintenance instructions.
3. Parts lists and diagrams with component part numbers.
4. Sequence of operation for all control systems.
5. Wiring Diagrams.
6. Names and addresses of local distributors.
7. Warranty and bonds.

B. Contractor shall perform all maintenance and retain all responsibility for required maintenance prior to submittal of the "Operation and Maintenance Manuals" to the Designer.

END OF SECTION

SECTION 01732 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:
   1. Demolition and removal of selected site elements.
   2. Salvage of existing items to be reused or recycled.

1.2 DEFINITIONS

A. Remove: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.

B. Remove and Salvage: Detach items from existing construction and deliver them to Owner.

C. Remove and Reinstall: Detach items from existing construction, prepare them for reuse, and reinstall them where indicated.

D. Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.3 QUALITY ASSURANCE

A. Demolition Firm Qualifications: An experienced firm that has specialized in demolition work similar in material and extent to that indicated for this Project.

B. Predemolition Conference: Conduct conference at **Project site**.

1.4 PROJECT CONDITIONS

A. Owner will occupy portions of campgrounds immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.

B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.

1. Before selective demolition, Owner will remove the following items:

a. A selective number of circuit breakers and receptacles.

b. A selective number of pedestal assemblies.

C. Notify Engineer of discrepancies between existing conditions and Drawings before proceeding with selective demolition.

D. Hazardous Materials: It is unknown whether hazardous materials will be encountered in the Work.

1. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Owner. Owner will remove hazardous materials under a separate contract.

E. Storage or sale of removed items or materials on-site is not permitted.

F. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.

1. Maintain fire-protection facilities in service during selective demolition operations.

1.5 WARRANTY

A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials so as not to void existing warranties.

B. Roadways: Repair any damage to roadways and/or campsite pads to original conditions.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that utilities have been disconnected and capped.

B. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.

C. Inventory and record the condition of items to be removed and reinstalled and items to be removed and salvaged.

D. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Owner.

E. Survey of Existing Conditions: Record existing conditions by use of **preconstruction photographs**.

F. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

A. Existing Services/Systems: Maintain services/systems indicated to remain and protect them against damage during selective demolition operations.

B. Service/System Requirements: Locate, identify, disconnect, and seal or cap off indicated utility services and mechanical/electrical systems serving areas to be selectively demolished.

1. Arrange to shut off indicated utilities with utility companies.
2. If services/systems are required to be removed, relocated, or abandoned, before proceeding with selective demolition provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to the buildings.

3.3 PREPARATION

A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.

C. Temporary Shoring: Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.

3.4 DISPOSAL OF DEMOLISHED MATERIALS

A. General: Except for items or materials indicated to be **recycled,** reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.

B. Burning: Do not burn demolished materials.

C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

3.5 CLEANING

A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 01732

SECTION 02221

TRENCHING AND BACKFILLING

PART I - GENERAL

1.01 Description

A. This work includes excavation, trenching and backfilling for all electrical and related items.

1.02 Care of Existing Structures and Property

A. All existing structures, utilities and property in the proximity of any excavation shall be supported and protected from damage by the Contractor during construction.

B. When other utilities, such as sewer, gas, water, or other pipes or conduits cross the excavation, the Contractor shall support said pipes and conduits without damage to them and without interrupting service. The manner of support such pipes, etc. shall be subject to review by the Designer.

C. All property shall be thoroughly cleaned of all surplus materials, earth and rubbish placed thereon by the Contractor.

D. Any damage to structures, utilities and property resulting from the Contractor's work shall be promptly repaired by the Contractor. The quality of repair work shall meet the approval of the Designer.

1.03 Existing Underground Structures

A. The Plans show the location of utilities based upon the best available information; however, the Designer does not accept any responsibility for the accuracy of this information nor does he guarantee that all utilities within the work area are shown.

B. The Contractor shall notify the Designer, the Institution and the utility companies at least seventy-two (72) hours prior to the start of construction.

1. The utility companies are to locate existing underground utilities and structures within the site limits.

2. The Contractor, prior to the start of construction, shall verify the location of existing underground utilities and structures within the site limits. It is the responsibility of the Contractor to make all exploratory investigation necessary

to verify or locate the utility pipes, wires, structures and appurtenances of others. The Contractor shall notify the Designer of any conflicts between the location of existing underground utilities or structures. Any conflicts found shall be recorded by the Contractor as directed by the Designer.

Part II - Products

Not Used.

Part III - Execution

3.01 General Trenching

A. Unless otherwise directed or permitted, not more than one hundred feet (100') of any trench shall be open at any time.

B. During excavation, material satisfactory for backfilling shall be stockpiled at a safe distance from the banks of the trench to avoid overloading and to prevent cave-ins. Adequate drainage shall be provided by means of ditches, dikes, or other approved methods. Stockpiles shall be protected from contamination with unsatisfactory excavated material. If the Contractor fails to protect the stockpiles and the material becomes unsatisfactory, such material shall be removed and replaced with satisfactory on-site or imported material at no additional cost.

C. Trench excavation may be accomplished either manually or with mechanical trenching equipment. The blades of road patrols or graders shall not be used to excavate the trenches. The depth of trenches shall be a minimum of 2'-0" to allow minimum cable depth of 2'-0". The bottoms of trenches shall be smooth and free from all aggregate larger than ½". Bracing and sheathing shall be provided as necessary. If the excavation is below the required level, the excess excavated area shall be refilled with suitable backfill. The accumulation of water shall be prevented by the use of pumps. When rocks or other granular material which might damage the cable are encountered, the excavation shall be at least 27 inches and backfilled with a 3-inch layer of sand or earth containing no particles that would be retained on a 1/4" sieve.

D. All suitable materials removed from the trench shall be used in refilling cable and conduit trenches. Backfill for trenches shall be placed in layers not to exceed 6 inches, loose measurement. The first lay shall be sand or earth containing no particles that would be retained on a 1/4" sieve. The second layer shall contain no particles that would be retained on a 1" sieve. Subsequent layers shall contain no particles that would be retained on a 3" sieve. The second layer and each subsequent layer shall be compacted with pneumatic hand tamps to the satisfaction of the

Designer to prevent any future settlement of the backfilled area. Finish grading of earthwork shall be accomplished in a satisfactory manner. Materials authorized to be wasted shall be disposed of as approved.

E. Dust conditions shall be kept to a minimum by the use of water. Salt or calcium chloride shall not be permitted.

3.03 Rock Excavation

A. If encountered, the Contractor shall excavate rock as required for cable and conduit installation. He shall dispose of the excavated material, and shall furnish suitable materials for backfill in place of the excavated rock. The cost of excavation and backfill shall be included in the contract bid amount.

B. Rock in trenches shall be excavated at a minimum of 6" below the cable depth of 2'-0", after it has been laid. Before the cable is laid, the trench shall be backfilled to the correct sub-grade with thoroughly compacted sand.

3.04 Removing Material

A. The Contractor shall remove all surplus material, re-grade and leave the site clear, free and in good order all roadways and sidewalks affected by the construction of the work. He shall maintain the surface over the trenches in good condition promptly fill all depressions during the warranty period.

B. Surplus or unsatisfactory excavated materials shall be properly disposed of off the site.

C. Excavated rock shall be disposed of off the site.

3.05 Seeding

A. Seed mixture shall be classified as Seed Mixture "RU" in accordance with INDOT section 621.05(a).

B. Fertilizer shall be standard commercial fertilizer with an analysis of 12-12-12. Order in formula shall be 1) Total Nitrogen; 2) Available phosphoric acid; 3) Walter soluble potash.

C. Mulch for seeding shall be reasonably free from primary noxious seeds.

D. Installation

1. All areas to be seeded and transition areas will be raked and leveled to a smooth and uniform grade matching original ground elevation. Loosen soil to a depth of one to two inches below finish grade.

2. Install mulched seeding at a rate of 150 pounds per acre.

3. Install seeding in areas inaccessible to mechanical equipment, and small areas with a hand operated cyclone seeder and cover by hand raking to a depth of 1/4 inch.

4. Water seeded areas with a fine spray to a minimum penetration of 1 inch.

5. Fertilizer shall be applied in accordance with INDOT Section 621.04.

6. Mulch shall be applied to seeded areas at a rate to give a uniform blanket covering of 1/4 inch thick.

7. The Contractor shall not destroy empty seed and fertilizer containers without permission of the Engineer, but shall retain them for inspection by the Engineer to verify quantities of the materials.

END OF SECTION

SECTION 16010

BASIC ELECTRICAL REQUIREMENTS

PART 1 - GENERAL

1.01 SCOPE:

A. The Contractor shall furnish all supervision, labor, equipment, materials, tools and supplies to install electrical distribution panels, disconnect switches, pedestals and all U.G. conduit and conductors for a complete installation as shown on the Drawings and as specified herein. The work includes, but is not limited to the following:

1. All Demolition and removal of existing equipment.
2. Trenching and backfilling for installation of new U.G. conductors.
3. Concrete work as shown.
4. Installation of electrical distribution panels, disconnect switches, power panel outlets and U.G. conduits and conductors.
5. Installation of pads, bases and anchors; and all platforms and supporting stands for electrical equipment.
6. Repair and return to original condition any existing facilities damaged in the process of completing this work.

Determine required location, arrangement and quantities of equipment and materials from Drawings. The Drawings are generally diagrammatic and indicate the general design and arrangement of the proposed work. The Contractor shall familiarize himself with the Drawings and shall be responsible for the final locations of his particular equipment to suit field conditions encountered and to avoid interference's, without extra cost to the Owner. The Designer reserves the right to make minor changes in equipment location prior to roughing-in of the electrical work without any additional cost to the Owner.

1.02 GENERAL:

A. The approximate location of existing utilities and other obstacles that might interfere with this work are shown on the Drawings. The locations are shown to the best of the Owner's knowledge and it shall be the contractor's responsibility to determine the exact locations and plan the work accordingly.

B. Certain portions of the work hereinafter described might necessarily be done by the utility company furnishing the power of the property affected. Any costs, whatsoever, that might be charged by the Utility Company for their work and/or materials shall be paid by the Contractor and the cost(s) shall be included as a part of this contract.

C. It is recommended that the successful low bidder notify the affected utility company that this work shall begin upon the bidder's receipt of the contract so that scheduling can be made accordingly.

D. Some of the installation to be performed by the Contractor will require moving machinery and/or inventory out of the way to make room to work. The property personnel will be responsible for providing clearance.

1.03 CODES AND STANDARDS:

A. All electrical work installed under this contract shall conform to current codes and standards listed here and all applicable requirements of Federal, State and Local Authorities having jurisdiction, including the latest OSHA requirements.

B. All installations shall conform to all requirements of the following:

1. Indiana Electrical Code - NFPA Electrical Code - NEC (latest edition in effect at time of awarding contracts). Certify in writing, after completion of all punch list items, that all systems and workmanship conform to the named edition of the National Electrical Code.
2. Indiana Fire Prevention Code - International Fire Code - IFC
3. Indiana State Construction Industry Safety Code.
4. All Laws, Ordinances, Rules and Regulations in effect in/or by the State of Indiana and as required by Indiana Administrative Building Council and Local Authority having jurisdiction.
5. Respective utility providing electric and communication service.

C. Certain portions of the work as shown on the drawings and hereinafter specified shall exceed NEC minimum requirements however, all other work, materials and methods shall be no less than NEC minimums. Anything less than the NEC requirements and these specifications shall be rejected work.

D. Standards:

1. Underwriter's Laboratories, Inc. Labeling shall be provided where specified for specific items.
2. All materials shall be manufactured and tested in accordance with latest editions of U.L., NEMA, ANSI, ASA, AIEE and IPCIA Standards.
3. Owner's Requirements and Regulations, pertaining to safety, fire, conduct, parking, sanitary conditions, smoking, etc. shall be strictly adhered to by Contractor and his employees and sub-Contractors on the job.

1.04 WORKMANSHIP:

A. All materials and equipment shall be installed in accordance with the manufacturer's recommendations, as approved by the Engineer to conform with the Contract Documents.

B. The finished product shall be complete and functional. Where the term "Provide" is used in these Specifications, it shall mean to furnish, install and connect, unless otherwise stated.

C. All work under this section shall be performed by or under the direction of a licensed electrician.

1.05 PRODUCT STORAGE:

A. Conduit, fittings and boxes shall be stored on job site in such manner as to prevent damage and keep dirt and foreign matter from getting into product.

B. Equipment, apparatus, accessories and instruments shall be stored on job site, in original cartons or otherwise protected, in such a manner as to prevent weather damage or breakage, with openings covered to keep out dirt and foreign matter.

C. Wire and cable shall be stored on job site; in factory cartons or on spools, protected in such a manner as to prevent weather, heat or mechanical damage.

1.06 SUBMITTALS:

A. Submit shop drawings for all equipment specified in conformance with Section 01340. The submittal must include a written statement of exceptions and deviations from these specifications.

B. Shop drawings shall include complete data including physical dimensions and other information required for installation, performance capabilities and limitations, equipment wiring diagrams complete with sequence of operation, and schedules indicating locations when more than one type of an item is to be used. All shop drawings must be certified as being correct for the proposed work.

C. Shop drawings, brochures or catalog cuts showing more than one size or model shall be marked to indicate the size or model proposed for the particular application.

D. Prior to submittal, shop drawings shall be coordinated with the work of all other trades.

E. Shop drawings shall be identified as to the specific equipment for which the shop drawings relates. Identification shall be by reference to equipment designations as shown on the Drawings or by reference to the appropriate Article of the Specifications in which the equipment is specified.

1.07 INSTRUCTION MANUALS:

A. Three sets of Instruction Manuals shall be furnished to the Designer prior to acceptance with each set to include the following:

1. Manufacturer□s parts list identified with the make, model and serial number of the equipment furnished.

2. Schematic control, and wiring diagrams identifying the location and function of all system components and controls.

3. Installation, operation, lubrication and maintenance instructions.

4. Manufacturer□s recommended spare parts list.

5. Test data and performance curves where applicable.

1.08 WORK VERIFICATION AND FIELD MEASUREMENTS:

A. All dimensions and clearances affecting the installation of work shall be verified in the field in relation to established datum, to building openings and to the work of other trades.

B. Location of all equipment and systems shall be coordinated to preclude interferences with other construction.

C. Should interferences occur which will necessitate deviations from layout or dimensions shown on the Drawings, the Designer shall be notified and any changes approved before proceeding with the work.

1.09 RECORD DRAWINGS:

A. A record shall be kept of all deviations in location or elevation of any underground or concealed installation from that shown on the Contract Drawings. Records shall consist of marked shop or Contract Drawings and shall be submitted to the Designer at any time upon request during or after completion of construction. No such deviations from the Contract Drawings or approved shop drawings shall be made without prior approval by the Designer.

1.10 ACCESSIBILITY:

A. All work shall be installed so as to be accessible for operation, maintenance and repair with particular attention given to locating valves, controls and equipment requiring periodic lubrication, cleaning, adjusting or servicing of any kind. Access panels shall be provided when work is built in or concealed.

PART 2 - PRODUCTS

2.01 MATERIALS AND EQUIPMENT:

A. All materials shall be new unless use of an existing item is indicated on Drawings or permitted in writing by Designer, best grade of each representative type. All conductors, raceways, devices, etc. shall be, as a minimum, of service class and capacity suitable for location and load for which they will be used. All materials shall be of domestic manufacture and shall comply with Codes and Standards as described herein.

B. Materials and equipment shall be furnished as specified in this Section and shall be in strict accordance with applicable ANSI, NBS, ASTM, NESC, NEMA, IEEE, IPCEA, UL, NEC, OSHA and NFPA standards. Manufacturer's products referred to in this Division shall establish minimum requirements for materials and equipment furnished for this installation.

PART 3 - EXECUTION

3.01 FASTENING TO BUILDING STRUCTURES:

A. The methods of attaching or fastening equipment or equipment supports or hangers to the building structure shall be subject to approval by the Designer at all times. Submit shop drawings or samples for approval before proceeding with the work.

B. Cutting, burning, drilling, welding or the use of explosive driven fasteners on building structures shall require prior approval by the Designer for each type of application unless specifically shown on the Drawings.

3.02 MISCELLANEOUS WORK:

A. Excavation and backfilling for electrical work shall be the responsibility of the Electrical Contractor and shall meet the requirements of Section 02221: Site work.

B. The Electrical Contractor shall provide all pads, bases and anchors required to complete the electrical work.

C. The Electrical Contractor shall provide all platforms and supporting stands for electrical equipment required to complete his work.

3.03 SERVICE TIE CONNECTIONS:

A. Contractor shall check and verify all voltage and phasing of service tie connections at switchboards.

B. Phasing to be maintained shall be A.B.C. top to bottom, east to west and north to south in all cases.

3.04 ELECTRICAL CONNECTIONS TO EQUIPMENT:

A. All equipment shall be wired complete in each detail, including all interlocks, safety switches, control devices, starters and disconnects.

B. Drawings include equipment anticipated to be furnished; however, in case other makes, etc., are furnished than shown, the furnished equipment shall be wired completely as required at no additional cost to the Owner. Any additional shall be borne by the Contractor furnishing the equipment.

C. All connections and wiring diagrams where shown on the Contract Documents are for bidding purposes only and the Electrical Contractor shall obtain final wiring diagrams from the Contractor furnishing the equipment. Diagrams as supplied shall be specifically for this Project.

D. Conduits and wires where shown on the Contract Documents are for bidding purposes. Electrical Contractor shall verify all wire sizes, number of wires required, and supply the proper number to each piece of equipment before installation.

3.05 NAMEPLATES:

A. All equipment shall have factory applied permanent nameplates indicating the manufacturer's name, model and serial numbers, voltage, current, phase and any other data necessary to conform with specified requirements.

B. In addition to the factory applied nameplate, the Contractor shall furnish and install identification plates on the exterior of all panels. For Example: Panel A Identification plates shall be laminated phenolic engraving stock a minimum of 1/16 - inch thick, white background black letters. Letters shall be no smaller than 2 inches tall. Identification plates shall be attached with drive pins or rivets.

3.06 PAINTING AND FINISHING:

A. All purchased equipment shall have a factory applied standard finish of the manufacturer's standard color unless otherwise specified.

B. Equipment which will be subject to abnormal conditions of high temperature, corrosive environment, etc., shall have finishes and/or protective coatings suitable for the service as noted on the Drawings and/or in the Specifications.

C. Finishes which are marred during shipping, handling or installation shall be touched up to match the original finish. Finish shall be satisfactory to the Designer or the unit shall be completely repainted.

D. Field fabricated bare iron or steel items required in installation of work under this Division shall have rough or shape edges removed, be thoroughly cleaned of dirt, rust, weld slag, grease or oil and be painted with one coat of Red Oxide primer and two coats of Exterior Enamel. Color shall be selected by the Designer.

E. All exposed galvanized surfaces, supports, panels, conduits, etc. shall be thoroughly cleaned of dirt and oil and be given a vinyl wash primer, then one coat of zinc dust primer and one coat of exterior enamel. Color as selected by the Designer.

3.07 IDENTIFICATION:

A. Underground-Type Plastic Line Markers: Manufacturers standard permanent, bright-colored, continuous-printed plastic tape, intended for direct-burial service; not less than 3" wise x 4 mils thick. Provide red tape with black printing reading: CAUTION ELECTRIC LINE BURIED BELOW.

B. Manufacturers:

1. Seton Name Plate Corp.

2. Allen Systems, Inc.

3. Emed Co., Inc.

4. Linetec, Inc.

END OF SECTION

SECTION 16111

CONDUIT

PART 1 - GENERAL

1.01 DESCRIPTION:

A. The work required under this Section includes, but is not limited to, the provision, fabrication and installation of all conduit shown on the drawings and specified herein.

B. This Section covers all conduit wire-way, junction boxes, outlet boxes and miscellaneous items to be used on the various portions of the contract. The Electrical Contractor shall meet the requirements of these Specifications wherever applicable.

1.02 CONTRACT REQUIREMENTS:

A. All electrical work for all voltages shall be installed in a continuous conduit system unless specifically indicated otherwise on the Contract Documents.

B. All conduits not used by this Contract shall have a #12 TW aluminum pull wire installed and securely tied off at each end for future pull wire.

1.03 SUBMITTALS:

Submit shop drawings and product data for the products of this Section in accordance with Section 01340.

PART 2 - PRODUCTS

2.01 RIGID GALVANIZED CONDUIT:

A. The conduit shall be rigid heavy wall full weight mild steel and shall have uniform sherardized coating or hot dipped galvanized on the outside, and on the inside of the conduit including threads. The exterior surface shall be of standard weight and quality to afford maximum protection against corrosion.

B. Elbows, bends and similar offsets shall be made of full weight materials and shall be treated, coated and threaded the same as conduit. All threads on conduit couplings and fittings shall be full depth and clean cut.

C. All conduit shall be 3/4" trade size or larger and shall be one of the following makes: National Electric Products Company, Youngstown Sheet and Tube Company; Republic Steel; Allied, or approved equal.

D. Couplings, unions and fittings: electrogalvanized steel, standard, threaded. Factory manufactured 90° elbows shall be used for 1 1/4" trade size and larger. Fitting Manufacturers: Appleton, T&B, Efcor, or approved equal.

E. Expansion fittings: use O-Z Electrical Manufacturing Company Type EX with Type BJ bonding jumper, or equal, for runs spanning expansion joints.

F. Paint field cuts and repair damaged protective coating with red lead or zinc chromate.

G. Corrosive atmospheres: use plastic jacketed conduit and fittings, Republic Steel "Kekoran", Plastic Applicators "korkap," or equal. Repair damaged protective coating in accordance with manufacturer's instructions.

H. Direct buried: apply two coats of bituminous base paint after assembly of conduits and fittings.

2.02 HWPVC CONDUIT:

A. The conduit may be HWPVC (Schedule 80) as shown on the plans.

PART 3 - EXECUTION

3.01 CONDUIT INSTALLATION:

A. General: install in accordance with requirements of NEC and recognized standards of good practice.

B. Location: approximately as shown on Drawings, actual routing subject to approval.

C. Embedded conduit:
1. General: set before pouring of concrete begins. Route in as direct a line and with as long bends as possible.
2. Structural concrete slabs: minimum conduit size 1" except as directed.

D. Joints: make with approved couplings and unions to provide electrically continuous and moisture-tight system.

E. Expansion joints: use expansions fitting and bonding jumpers wherever conduit spans building expansion joints.

F. Drainage: avoid pockets in conduit runs as much as possible; provide suitable fittings at low spots in exposed conduit where pocket cannot be avoided. Weep holes not permitted.

G. Bends: not more than equivalent of four 90° bends between pulling points.

No reduction in cross-sectional area.

No bend radius less than radius of standard elbow.

H. Field cuts and threads:
1. Cut ends of conduit with hand or power saw and ream to remove burrs and sharp edges. Do not use wheel cutter.
2. Threads cut on job shall have same effective length, thread dimensions, and taper as factory cut threads.
3. Carefully remove burrs from threads and paint conduit threads as specified.
4. Apply coat of protective paint as specified to conduits where protective coating is damaged.

I. Concealing: conceal conduits as shown on the Drawings.

J. Exposed: run exposed conduits parallel with, or at right angles to, lines of buildings. Exposed conduit not permitted on exterior of building, unless otherwise shown on the Drawings or described herein.

K. Conduit ends:
1. Cap spare conduits.
2. Open conduit ends terminating in panels or enclosures where exposed to entrance of foreign material: plug space around cables with commercial duct sealing compound.
3. Cap conduit ends during construction to prevent entrance of foreign material

L. Cleaning: clean and swab inside by mechanical means to remove all foreign materials and moisture before wires or cables are installed.

M. Conduit connections at panels and boxes: double locknuts and insulating bushings.

3.02 UNDERGROUND CONDUIT INSTALLATION:

A. Install all underground conduits on undisturbed or fully compacted earth.

B. As completed conduit runs are installed, rod and draw through test mandrel. Plug conduit after testing to prevent entry of foreign material.

C. Conduit shall be pushed beneath roadways. No open cutting of roadways will be accepted. Conduit shall extend the width of the road plus 5' -0" on each side.

D. Bushings shall be installed on ends of conduits.

END OF SECTION

16111-4

SECTION 16120

WIRE AND CABLE
600 VOLT OR LESS

PART 1 - GENERAL

1.01 DESCRIPTION:

A. The work required under this Section includes, but is not limited to, furnishing and installing all power and control wire and cable shown on the drawings and specified herein.

1.02 RELATED WORK SPECIFIED ELSEWHERE:

A. Basic Electrical Requirements - Section 16010

1.03 SUBMITTALS:

A. Submit shop drawings for all products to be used on this project.

PART 2 - PRODUCTS

2.01 CONDUCTORS:

A. Material: Conductors shall be soft drawn Lake Copper. Conductivity of wire shall be not less than 98%.

B. Stranding: Conductors shall be solid for No. 12 thru No. 10 AWG; Class B stranding for No. 8 AWG and larger. Stranded conductor shall be used where conductor is subject to flexing while in service.

C. Minimum Sizes: Conductors shall be minimum No. 12 AWG for power and lighting wiring and minimum No. 14 AWG for control wiring; unless otherwise shown on the Drawings or specified herein.

D. Standards: All conductors shall be no less than NEC requirements in regards to sizes, insulations and types. All conductors shall be copper material not greater than 2 years age; comply with the latest specifications of NFPA, and shall have U.L. label clearly affixed per U.L. standards. The use of salvaged conductors from other jobs is expressly prohibited.

E. IDENTIFICATION:

1. Identify grounded conductor: in accordance with NEC Article 200-6.
2. Multi-wire branch circuits and grounded conductor: Identify in accordance with NEC Article 210-5.

3. Other circuits:
   a. Color code wire size No. 10 and smaller, as follows:

		208/120V	480/277
1.	Phase A	Black	Brown
2.	Phase B	Red	Orange
3.	Phase C	Blue	Yellow
4.	Neutral	White	White
5.	Ground	Green	Green

   b. Cables larger than No. 6 shall have each phase labeled using Brady labels, or colored tape.

   c. Tag each spare wire.

F. INSULATION:

1. Above ground, in conduit: 600-volt, NEC type THW, RHH, RHW, TWN, or THWN/THHN. Rated at 75°C for dry & wet locations.
2. Below ground, in conduit: 600-volt, NEC type RHW.
3. Direct burial shall be type USE, rated at 75°C for dry and wet locations.
4. Insulation of connections:
   a. Three layers 3/4" wise 3M Company "Scotch No. 33" "Scotch No. 88", or equal, electrical type, half lapped.
   b. Use filler compound, "Scotchfil", or equal, at sharp edges to provide smooth surface before taping.

G. Manufacturers: Anoconda, Crescent, General Cable, General Electric, Hatfield, Okonite, Paranite, Rome Cable Company, Simplex, Triangle or equal. All conductors of a given type shall be a product of the same manufacturer, furnished in unbroken containers marked with date of production.

2.02 CABLE LUGS AND TAPS:

A. For conductor sizes No. 8 or smaller: compression type. Thomas & Betts Stakon; Burndy Hydent; Buchanan Pressure; or equal.

B. For conductors larger than No. 8: compression type. Thomas & Betts Lugit; Burndy Quiklug; Penn Union Ez; or equal.

C. Underground splices and taps shall be insulated using pre-manufactured splicing kits similar to "Scotch cast" 85 Series as manufactured by the Electro Products Division/3M.

2.03 PULLING CABLES:

1. Steel Conduit: Nylon or steel.

2. PVC conduit: Nylon.

PART 3 - EXECUTION

3.01 INSTALLATION:

A. Run all wires of the same circuit in the same conduit.

B. No wire shall be pulled until conduit installation is complete, clean and dry.

C. Do not pull thermoplastic wire at temperatures lower than 33° F.

D. Use pull-in compound (Wire-Lube, Y-Er-Ease, or equal) to facilitate pulling of wire. Grease or oils not permitted.

E. Splice and connect wires only in readily accessible boxes. Number of splices must be held to an absolute minimum.

F. Outdoor conduit runs shall be at least 24" below finished grade.

G. Train and lace wiring inside equipment and panelboard with plastic wrap for a neat appearance.

H. Make all spare wires in cabinets or panelboards of adequate length for connections. Terminate with insulating tape and tag.

I. Underground direct burial wire and cable shall be installed in galvanized steel rigid conduit where entering buildings, rising up poles, or in other exposed locations and where crossing paved areas. Provide proper bushings on conduit.

J. Bending radii: not less than permitted by IPCEA.

K. Supports in vertical runs: as prescribed by NEC.

3.02 MARKING:

A. Main and feeder cables shall be tagged in all pull boxes, wireways and wiring gutters of the panels. Tags shall identify wire or cable number and/or equipment served as shown on the drawings. Tags shall be metal or of flame and resistive adhesive material.

3.03 WIRE CONNECTIONS AND DEVICES:

A. Thoroughly clean wires with oxidation inhibiting compound before installing lugs and connectors so that joint will carry full capacity of conductors without perceptible temperature rise. Use lugs or connectors of sufficient size to enclose all strands of the conductors.

3.04 PULLING CABLES:

A. Insert nylon pulling cables with carbon dioxide, composed air or vacuum. Use inert pulling compounds free of ingredients harmful to insulation. Use pulling grips. Do not use grease or oil.

3.05 INSULATION TESTS:

A. Test and record insulation resistance of all circuits. Megger readings must be taken before energizing a circuit. When the insulation resistance tests less than 5,000,000 ohm, the Contractor shall investigate causes and take remedial action to prevent damage to circuits. The megger test set shall have voltage rating as indicated below.

1.	125 to 1000V insulation	500V test set
2.	1001 to 7500V insulation	1000V test set
3.	Above 7500V insulation	2500V test set

B. All reports shall be certified and submitted to the Designer as shop drawings.

END OF SECTION

SECTION 16145

POWER OUTLET PANELS

PART 1 - GENERAL

1.01 DESCRIPTION:

A. The work required under this Section includes, but is not limited to, furnishing and installing of all power outlet panels shown on the drawings and required herein.

1.02 SUBMITTALS:

A. Submit shop drawings and maintenance data for all equipment specified in this Section.

PART 2 - PRODUCTS

2.01 POWER OUTLET PANEL:

A. Power outlet panel shall be unit specifically designed and manufactured for recreational vehicle parks. Unit shall have all copper conductor interiors.

B. Unit shall be of all metal construction and shall be pedestal mounted. Pedestal shall be constructed of not less than 14-gauge steel. Pedestal and panel shall be phosphate treated and finished with baked enamel. Unit shall be raintight when in use.

C. Mains shall be rated at not less than 100 amps. Main lugs shall be provided for loop feed wiring and shall accept copper conductors from #6 to 250 KCMIL. Ground lugs shall accept #10 thru #2 copper conductors.

D. Units shall be equipped with one 20 amp, 1 pole GFCI circuit breaker connected to one Duplex 20 amp receptacle NEMA 5-20R, one 30 amp, 1 pole circuit breaker connected to one single 30 amp receptacle NEMA 5-30R both 125 volt, 2 wire with grounding ANSI C73 13-1972 and, one 50 amp, 2 pole circuit breaker connected to one single 50 amp receptacle NEMA 14-50R 125/250 volt, 3 wire with grounding ANSI C73.12-1972. A 20 Amp GFCI receptacle is not an acceptable substitute for the GFCI circuit breaker required.

E. The trip point for the GFCI circuit breaker shall be set at. Not less than 4 ma. nor more than 6 ma.

F. Provide an auxiliary stabilizer foot for the pedestal.

G. Panel door shall be equipped for padlock.

H. All conductors inside unit shall be made from soft drawn lake copper.

I. Type 2 unit shall be Square D Model PAK75PG-Cu; Midwest Electric Products, Inc. Model UO75GP6-Cu, Milbank Catalog No. HP-UPO4-75CGB-SP3, or approved equal.

PART 3 - EXECUTION

3.01 INSTALLATION:

A. Panels and pedestals shall be installed in complete accordance with manufacturer=s installation instructions and as shown on the drawings.

B. Perform operational testing in accordance with the specifications. Verify ground connection and polarity of all receptacles.

C. Phase conductors supply power to the 120volt pedestal outlets shall be connected in alternating sequence from one pedestal to the next on each branch circuit. In other words for example; 120volt receptacles on circuit A-1, shall be wired as follows: Site 105 & 107 – Red wire, Sites 106,108 – black wire.

D. Identify each campsite pedestal with the campsite number by installing an identification label on the front side of the front cover. Use 2" black lettering w/silver reflective vinyl background by Hillman or Ky-Ko. Protect the numbers by installing a ¼" Lexan 4"x7" clear U.V. resistant shield. Secure to lid using (4) pop rivets, one at each corner. Seal top of the shield using a clear RTV caulk.

END OF SECTION

16145-2

SECTION 16160

PANELBOARDS

PART 1 - GENERAL

1.01 DESCRIPTION:

A. The work required under this Section includes, but is not limited to, the furnishing and installing of all panelboards shown on the drawings and specified herein.

1.02 RELATED WORK SPECIFIED ELSEWHERE:

A. SECTION 16010 - Basic Electrical Requirements

B. SECTION 16120 - Wire and Cables

PART 2 - PRODUCTS

2.01 CONSTRUCTION:

A. Where indicated on the Drawings, provide a deadfront panelboard incorporating switching and protective devices of the number, rating and type noted herein or shown on the Drawings.

B. Cabinet shall be NEMA 3R rated, for surface mounting, constructed of heavy gauge steel in accordance with UL standard 50 for cabinets.

C. All panelboards shall be rated for the intended voltage and shall be in accordance with the Underwriter's Laboratories, Inc. A "S□tandard for Panelboard's " and Standard for Cabinets and Boxes and shall be so labeled where procedures exist.

D. All panelboards shall comply with NEMA Standards for Panelboards and National Electric Code.

E. All interiors shall be completely factory assembled with switching and protective devices, wire connectors, etc. All wire connectors, except screw terminals, shall be of the anti-turn solderless type and all shall be suitable for copper wire of the sizes indicated. Interiors shall be so designed that switching and protective devices can be replace without disturbing adjacent units and without removing the main bus connectors and shall be so designed that circuits may be changed without machining, drilling or tapping.

F. A nameplate shall be provided listing panel type and rating.

G. Bus bars for the mains shall be of copper size in accordance with Underwriters□ Laboratories standards. Unless otherwise noted, full size neutral bars shall be included. Bus bar taps for panels with single pole branches shall be arranged for sequence phasing of branch circuit devices.

H. The short circuit rating of the assembled panelboard shall be in accordance with U.L. Inc. Standards and their test verification.

I. All panelboards shall be fitted with an equipment ground bar.

J. Boxes shall be made from unpainted galvanized code gauge steel having multiple knockouts except where noted. Boxes shall be of sufficient size to provide a minimum gutter space of 4" on all sides.

K. Hinged doors covering all switching device handles shall be included in all panel trims.

L. Doors in panelboard trims shall conform to the following:
   1. In making switching device handles accessible, doors shall not uncover any live parts.
   2. Doors shall have flush-type cylinder lock and catch, except that doors over 48" in height shall have auxiliary fasteners at top and bottom of door in addition to flush-type cylinder lock and catch. Door hinges shall be concealed. All locks shall be keyed alike. A directory frame and card having a transparent cover shall be furnished on each door.
   3. The trims shall be fabricated from code gauge sheet steel.

M. All exterior and interior steel surfaces of the panelboard trims shall be properly cleaned and finished with ANSI-61 paint over a rust-inhibiting phosphatized coating.

N. New 1200 Amp panel shall be Square D "I-Line" style; Type "HCR-U", Catalog No. HCR548612U interior with Type 3R box Cat. No.HC4486, including 1200 amp main breaker with back-feed main lug kit, solid neutral assembly HCWM12SN, and equipment ground bar kit PK32DGTA. Branch breakers shall be Square D, "K" Frame Type KA.

2.02 PANELBOARD DIRECTORY:

A. Provide each panel with a typewritten circuit directory filled in completely listing equipment served and campsite numbers.

PART 3 - EXECUTION

3.01 INSTALLATION:

A. Support panel cabinets independently with no weight bearing on conduits.

B. Install panelboards so top breaker is not higher than 6'-0" above the floor or finish grade. All panels same height. Adjacent panel cabinets shall be same size and mounted in horizontal alignment.

C. Protect panelboards and cabinets during construction to prevent damage and entry of dirt, paint, etc., Inspect and remove any debris, scrap wire, etc. from the cabinet interior before installing fronts.

D. Distribute and arrange conductors neatly in the wiring gutters. Contractor shall maintain the largest practical bending radius of conductors.

E. Connect ground electrode conductor to the equipment grounding terminal bar. Verify that the ground bar is securely bonded to the panelboard cabinet and that it is not connected to the neutral bar except at □service equipment□ as permitted in the latest revision of NEC Article 250.

3.02 BALANCING ELECTRICAL LOAD:

Care shall be exercised in connecting various electrical loads to panelboards in order to arrive at a reasonable balance between loads on each phase at each panelboard. It shall be the responsibility of the Electrical Contractor to make tests and adjust loads at each panelboard to result in a reasonably balanced load condition, satisfactory to the Designer.

END OF SECTION

SECTION 16311

DISTRIBUTION TRANSFORMER
(PAD MOUNTED)

PART 1 - GENERAL

1.01 DESCRIPTION:

A. The work required by this section includes but is not limited to the furnishing and installation of the pad mounted transformer.

B. Transformer shall be pad mounted of low silhouette design.

PART 2 - PRODUCTS

2.01 RATINGS

A. Frequency: 60 hz.

B. KVA: 250 KVA

C. Impedance: In accordance with ANSI Standards.

D. Primary Voltage: 12740Y/7,200 volts Single Phase.

E. Primary Basic Impulse Level: 95 kv.

F. Secondary Voltage: 120/240 volts, (30KV Basic Impulse Level) single phase.

G. Temperature Rise: 65°C above a 30° C average ambient with a maximum ambient not to exceed 40°C.

H. Coolant: New insulating oil or high fire-point, non-propagating dielectric coolant. (Non-PCB).

I. Primary and secondary winding shall be copper.

2.02 CONSTRUCTION

A. The transformer shall comply with the latest applicable standards of the National Electrical Manufacturers Association (NEMA) and the American National Standards Institute (ANSI).

B. The transformer shall be self-cooled, tamper resistant and weather protected for mounting on a pad. There shall be no exposed screws, bolts or other fastening devices which are externally removable.

C. The transformer shall be of the sealed tank construction of sufficient strength to withstand a pressure of 7 psi. without permanent distortion. The cover shall be bolted on and the fastenings tamper resistant. The transformer shall remain effectively sealed for a top oil temperature range of 50°C to 106°C. When required, corrugate cooling panels or radiators shall be provided on the back and sides of the tanks. Lifting eyes and jacking pads shall be provided.

D. A tap changing mechanism shall be provided for accurate voltage adjustment without opening the transformer tank. The tap changing mechanism shall be provided for accurate voltage adjustment without opening the transformer tank. The tap changing mechanism shall be externally operated and shall be for de-energized operation only.

E. The high and low voltage compartments shall be located side-by-side separated by a steel barrier. When facing the transformer the low voltage compartment shall be on the right. Terminal compartments shall be full height, air filled with individual doors. The high voltage door shall not be accessible until the low voltage door has been opened. The low voltage door shall have a flip cover with provisions for a single padlock.

2.03 HIGH VOLTAGE TERMINATIONS AND EQUIPMENT

A. The high voltage terminations and equipment shall be dead front and conform to ANSI C57.12.26 requirements. Provide one piece integrated bushings for use with elbow terminators and parking stands for mounting accessory equipment. Well shall be externally clamped.

B. The terminations and equipment shall be four hole spade arranged for loop thru feed.

2.04 HIGH VOLTAGE PROTECTIVE EQUIPMENT

A. Provide Bay-O-Net type oil immersed fuses.

2.05 LOW VOLTAGE TERMINATIONS AND EQUIPMENT

A. The low voltage bushings shall be molded epoxy and provided with blade type spade terminals with NEMA standard hole spacing arranged for vertical take-off. The low voltage neutral shall be an insulated bushing grounded to the transformer tank by a removable grounding strap.

2.06 ACCESSORIES

A. Nameplate in low voltage compartment.

B. ½-inch drain plug.

C. ½-inch filling plug.

D. Surge Arresters: Distribution class, one for each primary phase; complying with IEEE C62.11 and NEMA LA 1. Transformers shall have **three arresters for loop-feed** circuits fully shielded for dead-front construction.

2.07 TEST

A. Routine tests shall be made on transformer as defined in "American National Standard Requirements, Terminology and Test Code for Distribution, Power and Regulating Transformers" and in "Parts Test Code" of NEMA Publication TR1-1962 or latest revisions thereof. Manufacturer shall certify transformer has passed all quality control and routine test.

B. Submit test data per Section 01340, Shop Drawings.

C. Inspection: Owner shall have the right to inspect at the factory, at any time during manufacture and assembly, all equipment and materials covered by these specifications and to be present during any tests made on the equipment.

2.08 MANUFACTURERS

A. Manufacturers acceptable contingent upon product's compliance with the specifications.

1. RTE
2. ASEA Brown Boveri
3. Square D
4. Westinghouse
5. Solomon

PART 3 - EXECUTION

3.01 FOUNDATION

A. Contractor shall provide fiberglass ground sleeve as required for complete installation of transformer. Fiberglass ground sleeve shall be of heavy-duty reinforced fiberglass construction using fire-retardant resin with gel-coated exterior for superior weather ability.

B. Fiberglass ground sleeve shall come predrilled for transformer supplied.

C. Transformer shall be leveled and anchored to fiberglass ground sleeve.

D. Fiberglass ground sleeve shall be suitable to support weight of transformer without settlement. Ground sleeve shall be manufactured by Nordic or approved equal.

3.02 LIFTING, JACKING AND SLIDING

A. Transformers shall be lifted only by hooks furnished with and fastened permanently to the transformer shell.

B. Transformer shall be jacked only by main support base.

C. Sliding of transformer shall be only in direction of tank center axis front to back or side to side.

D. Contractor shall not use any method that results in damaging impact to transformer. Care shall be taken to prevent damage to tank and core.

3.03 STARTUP

A. Contractor shall provide manufacturer's Engineer for period of one week for startup service.

1. All connection and methods of installation shall be thoroughly checked, approved and logged.
2. All field test required to determine condition of transformer and readiness for service shall be performed.
3. Engineer shall certify in writing that transformer is correctly installed and ready for service.

3.04 WARRANTY

A. The Contractor shall warrant the equipment under this section free from defects in workmanship and materials for a period of one year from date transformer is first energized at site. Such warranty shall cover any defect or malfunction of transformer except those caused by vandalism, or acts of God.

B. Such warranty shall include cost of removal from site and reinstallation after repairs, freight to and from repair facility up to ten percent (10%) of the cost of the transformer.

END OF SECTION

SECTION 16450

GROUNDING

PART 1 - GENERAL

1.01 DESCRIPTION:

A. The work required under this Section includes, but is not limited to, furnishing and installing all materials and equipment required to ground, motors, motor starters, and conduit systems in accordance with NEC requirements and the drawings included herein.

1.02 SUBMITTALS:

A. Submit product data for the products specified in this section.

1.03 RELATED WORK SPECIFIED ELSEWHERE:

A. Basic Electrical Requirements - Section 16010

PART 2 - PRODUCTS

2.01 GENERAL REQUIREMENTS:

A. Grounding electrodes shall be copperclad steel with a minimum diameter of 5/8" minimum length of 10'-0"; Blackburn Cat. No. W5810 or approved equal.
B. Grounding electrode conductors shall be bare copper as required by the NEC. Minimum size shall be #3 for in-ground network, or as indicated on the Drawings.
C. Ground rod clamps shall be heavy duty such as Blackburn Cat. No. GG58H or GG58, or approved equal.
D. Ground rods shall have threaded ends to receive couplings, impact heads or drive points. Couplings, impact heads and drive points shall be provided as required.

PART 3 - EXECUTION

3.01 INSTALLATION:

A. All installations shall be made in strict accordance with NFPA-70, National Electrical Code, latest edition in effect except where more stringent requirements are specified herein.

B. Each receptacle, light fixture, motor frame, equipment cabinet, etc. shall be provided with a bonded green-insulated ground wire connection to the associated rigid metal conduit system. Grounding clips furnished with wiring device mounting screws will not be considered as an adequate permanent ground method.

C. All service entrance, panel feeder, motor control center feeder, transformer feeder conduits and other electrical equipment, shall be furnished with grounding bushings inside respective equipment cabinets. All grounding bushings within an enclosure shall be connected with a #8 AWG bare copper conductor and bonded to the equipment ground bus.

D. At all locations where non-metallic conduits are installed, provide with the normal circuit or

feeder conductors a separate green-insulated grounding conductor sized in accordance with the National Electric Code.

E. Flexible conduit shall not be permitted as a grounding conductor. Provide a separate green-insulated grounding conductor, size as required, from the solid metal conduit system to the item being grounded.

F. Grounding connections shall be in accessible locations permitting future inspection, testing and maintenance and shall be made using threaded mechanical lugs or fittings.

G. Use driving studs or other suitable means when driving ground rods to prevent damage to threaded ends of sectional rods. Head of ground rod to be minimum of 1'-0" below grade.

H. No connections shall be covered before inspection by the Designer.

3.02 TESTING:

A. The Contractor shall perform the following tests:

1. D.C. resistance-to-earth measurement shall be made with all grounding electrode conductors temporarily jointed in the service entrance equipment enclosure before the conductors are connected to the equipment ground bus. Maximum D.C. resistance allowable shall be 5 ohms. The "three terminal" test method of measurement shall be used utilizing equipment and instructions by James G. Biddle Company, Associated Research or equal.
2. D. C. Resistance tests shall be performed to measure resistance between grounding conductors systems and grounded (neutral) conductor systems. Measurements shall be taken between the ground and neutral pin contacts on standard 120 volt receptacles or between neutral conductors and equipment cabinets. Maximum D.C. resistance shall be 2 ohms. Standard digital ohmeters having a scale graduated in tenths of an ohm shall be used. Perform tests at a minimum of three (3) branch circuit locations for each electrical panel installed.
3. D. C. Resistance measurements between grounding conductor systems and grounded (neutral) conductor systems shall be taken between the ground and neutral pin contacts on standard 120 volt receptacles or performed with the bonding jumper between ground and neutral bus in the service entrance equipment removed. Standard meggar test equipment shall be used.
4. All tests shall be performed before connection of the grounding system to its associated electrical equipment and after distribution and branch circuit wiring systems are installed, and before electrical systems are energized.
5. Ground system test shall be performed and test reports shall be certified. Furnish Test Reports to the Designer as Shop Drawings.

END OF SECTION

16450-2

SECTION 16940

FIELD TESTS AND ADJUSTMENTS

PART 1 - GENERAL

1.01 All electric systems shall be tested by the Contractor prior to placing in service. Test reports shall be typewritten, listing equipment used, person or persons performing the tests, date tested, circuits tested, and results of tests.

PART 2 - PRODUCTS

Not Used.

PART 3 - EXECUTION

3.01 Insulation resistance tests, general:

A. Perform insulation resistance tests on equipment and cables listed herein.

B. Test Equipment: furnished by Contractor, equal to "Megger" as manufactured by James G. Biddle Company.

C. Resistance measures: Line-to-ground.

D. Disconnect all solid state equipment before making cable tests. Contractor responsible for damage to any such equipment caused by cable tests.

3.02 Insulation resistance tests, cable: test all 600-volt class power, control, and lighting circuits at 500-volt rating of "Megger" for one-minute duration to assure compliance with NEC Section 110-20.

A. Make tests after replacement of cable with terminations made but before connection to equipment.

B. Minimum acceptable values of insulation resistance shall be as recommended by cable manufacturer.

3.03 insulation resistance tests, equipment: minimum acceptable values of insulation resistance, in mehohms, as shown in parentheses.

A. Motors, 115-volt (1); test at 500-volt rating of "Megger".

B. Lighting transformers (1); test at 500-volt rating of "Megger".

3.04 Voltage level test:

A. When performed; after all equipment is installed, ready for operation.

B. Contractor shall measure voltage at 2 points in the system as directed.

C. Load conditions: no-load and full-load, insofar as practicable.

D. Test Report: required, as specified under paragraph 1.01.

3.05 Continuity Test: test all receptacle and control circuits to determin continuity of wiring and connections. Submit connections as required.

3.06 Phase relationship:

A. Check connections to all equipment for proper phase relationship. Determine motor rotation. Correct connections as required.

B. Disconnect, prior to check, any divice which could be damaged by application of voltage of reversed phase sequence.

C. Test report: writen statement that this check has been made.

3.07 Correction of defects:

A. If tests disclose any unsatisfactory workmanship, wiring or equipment furnished under this Contract, Contractor shall repair or replace, at his expense, such defects in an approved manner.

B. If any wiring or equipment is damaged by tests, Contractor shall repair or replace, at his expense, such wiring or equipment in an approved manner.

END OF SECTION